

**TECHNICAL MANUAL**

**AVIATION UNIT AND  
AVIATION INTERMEDIATE  
TROUBLESHOOTING MANUAL  
CH-47D HELICOPTER**

This copy is a reprint which includes current  
pages from Changes 1 through 10,

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**HEADQUARTERS, DEPARTMENT OF THE ARMY**

**10 MAY 1983**

Aviation Unit and Aviation Intermediate  
Troubleshooting Manual

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 15 July 2000

CH-47D HELICOPTER

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8-2.1 through 8-2.10  
8-29 and 8-30  
-----  
8-31 and 8-32  
blank/8-34  
-----  
8-37 and 8-38  
-----  
8-41 and 8-42  
8-42.1/(8-42.2 blank)  
8-43 and 8-44  
-----  
8-45 and 8-46  
blank/8-48  
-----  
8-49 through 8-52  
-----  
8-55 and 8-56  
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8-59/(8-60 blank)  
8-61 and 8-62  
-----  
8-63 through 8-68  
-----  
8-69 through 8-71/(8-72 blank)  
-----  
8-73 and 8-74  
8-74.1/(8-74.2 blank)  
blank/8-76  
-----  
8-77 and 8-78  
8-81 through 8-84  
-----  
8-85 and 8-86  
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8-101 and 8-102  
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8-103 and 8-104  
-----  
8-105 and 8-106

Insert pages

A through C/(D blank)  
i through iii/(iv blank)  
8-2.1 through 8-2.10.2  
8-29 and 8-30  
8-30.1/(8-30.2 blank)  
8-31 and 8-32  
blank/8-34  
8-36.1 and 8-36.2  
8-37 and 8-38  
8-40.1 and 8-40.2  
8-41 and 8-42  
8-42.1 through 8-42.3/(8-42.4 blank)  
8-43 and 8-44  
8-44.1 and 8-44.2  
8-45 and 8-46  
blank/8-48  
8-48.1 through 8-48.3/(8-48.4 blank)  
8-49 through 8-52  
8-54.1 through 8-54.3/(8-54.4 blank)  
8-55 and 8-56  
8-58.1 and 8-58.2  
8-59 and 8-60  
8-61 and 8-62  
8-62.1/(8-62.2 blank)  
8-63 through 8-68  
8-68.1 and 8-68.2  
8-69 through 8-72  
8-72.1/(8-72.2 blank)  
8-73 and 8-74  
8-74.1 through 8-74.3/(8-74.4 blank)  
blank/8-76  
8-76.1/(8-76.2 blank)  
8-77 and 8-78  
8-81 through 8-84  
8-84.1 and 8-84.2  
8-85 and 8-86  
8-86.1 and 8-86.2  
8-87 through 8-98  
8-101 and 8-102  
8-102.1 and 8-102.2  
8-103 and 8-104  
8-104.1 and 8-104.2  
8-105 and 8-106

Remove pages

-----  
8-107 through 8-110  
-----  
8-111 and 8-112  
-----  
8-115 and 8-116  
-----  
8-119 and 8-120  
8-120.1 through 8-120.5/(8-120.6 blank)  
8-127 through 8-133/(8-134 blank)  
8-151 through 8-154  
8-159 through 8-164  
8-171 and 8-172  
blank/8-174  
8-177 and 8-178  
8-191 and 8-192  
blank/8-194  
8-197 and 8-198  
8-215 through 8-218  
8-221 through 8-224  
8-233 and 8-234  
-----  
8-235 and 8-236  
-----  
8-237 and 8-238  
8-241 and 8-242  
-----  
blank/8-246 through 8-252  
8-259 and 8-260  
8-263 and 8-264  
8-265 through 8-270  
8-273 through 8-294  
8-294.1 and 8-294.2  
8-347 and 8-352  
blank/8-356 through 8-358  
blank/8-362  
9-2.1 and 9-2.2  
-----  
9-2.5 through 9-2.8  
-----  
9-2.11 and 9-2.12  
9-2.15/(9-2.16 blank)  
9-2.17 and 9-2.18  
9-3 through 9-6  
9-6.1 and 9-6.2  
9-9 through 9-16  
-----  
9-17 and 9-18  
blank/9-20 through 9-34

Insert pages

8-106.1 and 8-106.2  
8-107 through 8-110  
8-110.1 and 8-110.2  
8-111 and 8-112  
8-114.1 through 8-114.3/(8-114.4 blank)  
8-115 and 8-116  
8-118.1 through 8-118.3/(8-118.4 blank)  
8-119 and 8-120  
8-120.1 through 8-120.5/(8-120.6 blank)  
8-127 through 8-133/(8-134 blank)  
8-151 through 8-154  
8-159 through 8-164  
8-171 and 8-172  
blank/8-174  
8-177 and 8-178  
8-191 and 8-192  
blank/8-194  
8-197 and 8-198  
8-215 through 8-218  
8-221 through 8-224  
8-233 and 8-234  
8-234.1 and 8-234.2  
8-235 and 8-236  
8-236.1 and 8-236.2  
8-237 and 8-238  
8-241 and 8-242  
8-244.1 and 8-244.2  
8-245 through 8-252  
8-259 and 8-260  
8-263 and 8-264  
8-265 through 8-270  
8-273 through 8-294  
8-294.1 and 8-294.2  
8-347 through 8-352  
blank/8-356 through 8-358  
blank/8-362  
9-2.1 and 9-2.2  
9-2.2.1/(9-2.2.2 blank)  
9-2.5 through 9-2.8  
9-2.8.1/(9-2.8.2 blank)  
9-2.11 and 9-2.12  
9-2.15 and 9-2.16  
9-2.17 through 9-2.19/(9-2.20 blank)  
9-3 through 9-6  
9-6.1 through 9-6.6  
9-9 through 9-16  
9-16.1 and 9-16.2  
9-17 and 9-18  
blank/9-20 through 9-34



**Remove pages**

blank/9-46 through 9-50  
9-55 through 9-62  
9-65 through 9-72  
9-72.1 through 9-72.4  
9-73 through 9-98  
blank/9-98.2 and 9-98.3/(9-98.4 blank)  
9-109 through 9-114  
9-117 through 9-120  
9-123 through 9-138  
9-167 through 9-174  
9-177 and 9-178  
9-178.1 through 9-178.7/(9-178.8 blank)  
9-179 through 9-182  
9-184.1 and 9-184.2  
9-185/(9-186 blank)  
9-186.1 through 9-186.4  
9-186.7/(9-186.8 blank)  
9-187 through 9-190  
blank/9-192 through 9-194  
9-197 and 9-198  
9-198.1 through 9-198.4  
9-198.7/(9-198.8 blank)  
9-199 through 9-204  
9-207 and 9-208  
9-211 and 9-212  
9-212.1 through 9-212.7/(9-212.8 blank)  
9-321 and 9-322  
9-322.1/(9-322.2 blank)  
9-323 through 9-338  
-----  
9-339 and 9-340  
9-340.1/(9-340.2 blank)  
9-359 through 9-362  
Index-1 through Index-9/(10 blank)

**Insert pages**

blank/9-46 through 9-50  
9-55 through 9-62  
9-65 through 9-72  
9-72.1 through 9-72.4  
9-73 through 9-98  
blank/9-98.2 and 9-98.3/(9-98.4 blank)  
9-109 through 9-114  
9-117 through 9-120  
9-123 through 9-138  
9-167 through 9-174  
9-177 and 9-178  
9-178.1 through 9-178.8  
9-179 through 9-182  
9-184.1 and 9-184.2  
9-185/(9-186 blank)  
9-186.1 through 9-186.4  
9-186.7/(9-186.8 blank)  
9-187 through 9-190  
blank/9-192 through 9-194  
9-197 and 9-198  
9-198.1 through 9-198.4  
9-198.7/(9-198.8 blank)  
9-199 through 9-204  
9-207 and 9-208  
9-211 and 9-212  
9-212.1 through 9-212.7/(9-212.8 blank)  
9-321 and 9-322  
9-322.1 and 9-322.2  
9-323 through 9-338  
9-338.1/(9-338.2 blank)  
9-339 and 9-340  
9-340.1 and 9-340.2  
9-359 through 9-362  
Index-1 through Index-9/(10 blank)

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CH-47D HELICOPTER'

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vii and viii  
Index 5 and Index 6

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i through iii/(iv blank)  
8-311 and 8-312  
Blank/8-314 through 8-316  
9-99 through 9-104  
-----  
9-105 and 9-106  
9-178.1 through 9-178.4  
9-178.7/(9-178.8 blank)  
9-198.1 through 9-198.4  
9-198.7/(9-198.8 blank)

Insert pages

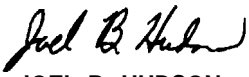
i through iii/(iv blank)  
8-311 and 8-312  
Blank/8-314 through 8-316  
9-99 through 9-104  
9-104.1 and 9-104.2  
9-105 and 9-106  
9-178.1 through 9-178.4  
9-178.7/(9-178.8 blank)  
9-198.1 through 9-198.4  
9-198.7/(9-198.8 blank)

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CH-47 HELICOPTER

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vii and viii	vii and viii
1-15 and 1-16	1-15 and 1-16
Index-3 and Index-4	Index-3 and Index-4
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CH-47D HELICOPTER

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iii/(iv blank)	iii/i blank
vii and viii	vii and viii
8-3 and 84	83 and 84
-.-.--	8-4.1 / (8-4.2 blank)
96.1 and 96.2	96.1 and 9-6.2
9-59 thru 9-62	9-59 thru 962
-.--	9-62.1 / (962.2 blank)
9-226.1 and 9-226.2	9-226.1 and 9226.2
9226.3 / (9226.4 blank)	
blank / 9-228.8 thru 9228.10	blank / 9-228.8 thru 9-228.10
9-228.13 thru 9-228.19 / (9-228.20 blank)	9-228.13 thru 9-228.20
Index-1 thru Index-8	Index-1 thru Index-9 / (Index-10 blank)

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CH-47 HELICOPTER

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i and ii	i and ii
9-2.1 and 9-2.2	9-2.1 and 9-2.2
9-6.1 and 9-6.2	9-6.1 and 9-6.2
----	9-226.1 and 9-226.2
9-227 and 9-228	9-227 and 9-228
----	9-375 through 9-382
Index-5 and Index-6	Index-5 and Index-6
2028's and Envelopes	2028's and Envelopes

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Troubleshooting Manual

CH-47 HELICOPTER

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8-87 and 8-88

8-87 and 8-88

8-103 through 8-106

8-103 through 8-106


8-123 and 8-124

8-123 and 8-124

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CH-47 HELICOPTER

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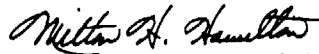
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Remove pages	Insert pages
vii/(viii blank)	vii and viii
8-2.5 through 8-2.8	8-2.5 through 8-2.8
8-101 through 8-104	8-101 through 8-104
8-149 and 8-150	8-149 and 8-150
8-157 and 8-158	8-157 and 8-158
8-181 and 8-182	8-181 and 8-182
8-231 and 8-232	8-231 and 8-232
8-262	8-262
9-53 and 9-54	9-53 and 9-54
9-61 and 9-62	9-61 and 9-62
9-177 and 9-178	9-177 and 9-178
9-197 and 9-198	9-197 and 9-198
9-227 and 9-228	9-227 and 9-228
9-321 and 9-322	9-321 and 9-322
9-322.1/(9-322.2 blank)	9-322.1/(9-322.2 blank)

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Troubleshooting Manual

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CH-47D HELICOPTER

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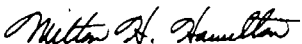
1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

Remove pages	Insert pages
8-263 and 8-264	8-263 and 8-264
8-291 through 8-294	8-291 through 8-294
- - - -	9-184.1 and 9-184.2
9-185 and 9-186	9-185/(9-186 blank)
9-186.3 through 9-186.7/ (9-186.8 blank)	9-186.3 through 9-186.7/ (9-186.8 blank)

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Troubleshooting Manual

CH-47D HELICOPTER

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Remove pages

8-149 and 8-150  
8-215 and 8-216  
8-262 through 8-264  
8-264.1 and 8-264.2  
9-2.7 and 9-2.8  
9-11 and 9-12

Insert pages

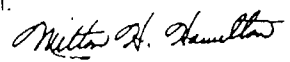
8-149 and 8-150  
8-215 and 8-216  
8-262 through 8-264  
8-264.1 and 8-264.2  
9-2.7 and 9-2.8  
9-11 and 9-12

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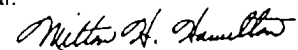
1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

Remove pages	Insert pages
vii and viii	vii/viii
8-2.1 and 8-2.2	8-2.1 and 8-2.2
8-45 through 8-52	8-45 through 8-52
8-55 and 8-56	8-55 and 8-56
8-103 through 8-108	8-103 through 8-108
8-113 and 8-114	8-113 and 8-114
8-117 through 8-119/8-120	8-117 through 8-120
-----	8-120.1 through 8-120.5/8-120.6
8-157 and 8-158	8-157 and 8-158
8-275 and 8-276	8-275 and 8-276
9-2.1 and 9-2.2	9-2.1 and 9-2.2
9-11 through 9-14	9-11 through 9-14
9-52.1/9-52.2	9-52.1 and 9-52.2
9-369 and 9-370	9-369 and 9-370

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WASHINGTON, D.C., 5 July 1991

Aviation Unit and Aviation Intermediate  
Troubleshooting Manual

CH-47D HELICOPTER

TM 55-1520-240-T-2, 10 May 1983, is changed as follows:

1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

Remove pages

Insert pages

i and ii

i and ii

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*Chief of Staff*

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WASHINGTON, D.C., 19 OCTOBER 1990

AVIATION UNIT AND AVIATION INTERMEDIATE  
TROUBLESHOOTING MANUAL

CH-47D HELICOPTER

TM 55-1520-240-T-2, 10 May 1983, is changed as follows:

1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

Remove pages	Insert pages
vii and viii	vii and viii
8-2.1 and 8-2.2	8-2.1 and 8-2.2
8-31 and 8-32	8-31 and 8-32
8-41/8-42	8-41 and 8-42
- - - -	8-42.1/8-42.2
8-57 and 8-58	8-57 and 8-58
8-153 and 8-154	8-153 and 8-154
8-215 and 8-216	8-215 and 8-216
8-264.1 and 8-264.2	8-264.1 and 8-264.2
8-275 and 8-276	8-275 and 8-276
8-319 and 8-320	8-319 and 8-320
8-323 and 8-324	8-323 and 8-324
8-327 through 8-330	8-327 through 8-330
9-55 and 9-56	9-55 and 9-56
9-227 and 9-228	9-227 and 9-228
9-228.5 and 9-228.6	9-228.5 and 9-228.6
9-228.9 and 9-228.10	9-228.9 and 9-228.10
9-327 and 9-328	9-327 and 9-328
2028's and Envelopes	2028's and Envelopes

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Aviation Unit and Aviation Intermediate  
Troubleshooting Manual

CH-47D HELICOPTER

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1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

Remove pages	Insert pages
v through viii	v through viii
8-2.7 and 8-2.8	8-2.7 and 8-2.8
8-149 through 8-152	8-149 through 8-152
8-157 and 8-158	8-157 and 8-158
8-262	8-262
8-265 and 8-266	8-265 and 8-266
8-269 and 8-270	8-269 and 8-270
8-273 and 8-274	8-273 and 8-274
8-275 through 8-284	8-275 through 8-284
9-2.11 and 9-2.12	9-2.11 and 9-2.12
9-5 and 9-6	9-5 and 9-6
9-6.1 and 9-6.2	9-6.1 and 9-6.2
9-13 and 9-14	9-13 and 9-14
9-63 and 9-64	9-63 and 9-64
9-69 and 9-70	9-69 and 9-70
9-97 and 9-98	9-97 and 9-98
9-283 and 9-284	9-283 and 9-284
9-339 and 9-340	9-339 and 9-340
9-349/9-350	9-349/9-350

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TROUBLESHOOTING MANUAL

CH-47D HELICOPTER

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Remove pages	Insert pages
vii/viii	vii and viii
8-3 and 8-4	8-3 and 8-4
8-9 through 8-18	8-9 through 8-18
8-39 and 8-40	8-39 and 8-40
8-87 and 8-88	8-87 and 8-88
8-95 through 8-98	8-95 through 8-98
8-113 and 8-114	8-113 and 8-114
8-117 and 8-118	8-117 and 8-118
8-145 and 8-146	8-145 and 8-146
8-183 through 8-186	8-183 through 8-186
8-189 and 8-190	8-189 and 8-190
8-195 and 8-196	8-185 and 8-196
8-199 and 8-200	8-199 and 8-200
8-229 and 8-230	8-229 and 8-230
8-239 and 8-240	8-239 and 8-240
8-243 and 8-244	8-243 and 8-244
8-247 through 8-256	8-247 through 8-256
8-275 and 8-276	8-276 and 8-276
8-289 through 8-292	8-289 through 8-292
8-315 and 8-316	8-315 and 8-316
8-343 and 8-344	8-343 and 8-344
8-349 through 8-354	8-349 through 8-354
8-359 and 8-360	8-359 and 8-360
9-17 and 9-18	9-17 and 9-18
9-57 and 9-58	9-57 and 9-58
9-65 and 9-66	9-65 and 9-66
9-72.3 and 9-72.4	9-72.3 and 9-72.4
9-77 and 9-78	9-77 and 9-78
9-83 through 9-86	9-83 through 9-86
9-91 through 9-98/9-98.1	9-91 through 9-98
9-115 and 9-116	9-115 and 9-116
9-277 and 9-278/9-279	9-277 and 9-278/9-279
9-295 through 9-302	9-295 through 9-302

Remove pages

9-303 and 9-304  
9-313 through 9-318  
Index 1 through Index 8

Insert pages

9-303 and 9-304  
9-313 through 9-318  
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Aviation Unit and Aviation Intermediate  
Troubleshooting Manual

CH-47D HELICOPTER

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Remove pages

vii/viii  
8-7 through 8-10  
8-21 and 8-22  
8-35 and 8-36  
8-57 and 8-58  
8-83 and 8-84  
8-91 and 8-92  
8-111 through 8-114  
8-117 and 8-118  
8-131 and 8-132  
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8-163 and 8-164  
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8-171 and 8-172  
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8-181 and 8-182  
8-207 through 8-210  
8-239 and 8-240  
8-267 through 8-280  
8-283 through 8-286  
8-293 and 8-294  
8-303 and 8-304  
8-353 and 8-354  
8-357 through 8-360  
8-363/8-364  
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9-49 and 9-50  
9-55 and 9-56  
9-63 and 9-64  
9-71 and 9-72  
9-107 and 9-108  
9-195 and 9-196  
9-287 and 9-288  
9-309 and 9-310  
9-319/9-320  
9-337 and 9-338  
9-343 and 9-344

Insert pages

vii/viii  
8-7 through 8-10  
8-21 and 8-22  
8-35 and 8-36  
8-57 and 8-58  
8-83 and 8-84  
8-91 and 8-92  
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8-131 and 8-132  
8-157 through 8-160  
8-163 and 8-164  
8-167 and 8-168  
8-171 and 8-172  
8-177 and 8-178  
8-181 and 8-182  
8-207 through 8-210  
8-239 and 8-240  
8-267 through 8-280  
8-283 through 8-286  
8-293 and 8-294  
8-303 and 8-304  
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8-363/8-364  
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9-27 and 9-28  
9-49 and 9-50  
9-55 and 9-56  
9-63 and 9-64  
9-71 and 9-72  
9-107 and 9-108  
9-195 and 9-196  
9-287 and 9-288  
9-309 and 9-310  
9-319/9-320  
9-337 and 9-338  
9-343 and 9-344

Remove pages

9-355 and 9-356  
9-363/9-364

Insert pages

9-355 and 9-356  
9-363/9-364

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Aviation Unit and Aviation Intermediate  
Troubleshooting Manual

CH-47D HELICOPTER

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Remove pages

vii/viii  
8-319 through 8-326  
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Index 5 and Index 6

Insert pages

vii/viii  
8-319 through 8-326  
8-332.1/8-332.2  
Index 5 and Index 6

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Aviation Unit and Aviation Intermediate  
Troubleshooting Manual

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Remove pages	Insert pages
i through iii/iv v and vi ---	i through iii/iv v and vi vii/viii
8-2.1 through 8-2.6 8-2.9 and 8-2.10 ---	8-2.1 through 8-2.6 8-2.9 and 8-2.10 8-2.13/8-2.14
8-3 and 8-4 8-31 and 8-32 8-73 and 8-74 ---	8-3 and 8-4 8-31 and 8-32 8-73 and 8-74 8-74.1/8-74.2
8-85 through 8-88 8-93 and 8-94 8-99/8-100 8-104 8-135 and 8-136 8-141 through 8-144 8-154 8-218 8-263 and 8-264 ---	8-85 through 8-88 8-93 and 8-94 8-99/8-100 8-103/8-104 8-135 and 8-136 8-141 through 8-144 8-153 and 8-154 8-217 and 8-218 8-263 and 8-264 8-264.1 through 8-264.4
8-289 through 8-292 8-319 and 8-320 8-333 through 8-336 ---	8-289 through 8-292 8-319 and 8-320 8-333 through 8-336 8-336.1 and 8-336.2
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9-2.1 through 9-2.4 ---	9-2.1 through 9-2.4 9-2.4.1/9-2.4.2
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9-21 and 9-22 9-27 and 9-28 9-31 and 9-32	9-21 and 9-22 9-27 and 9-28 9-31 and 9-32

Remove pages

9-35 through 9-38  
9-41 through 9-44  
9-47 and 9-48  
9-51 and 9-52  
9-57 through 9-62  
9-65 and 9-66  
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9-75 through 9-78  
9-81 through 9-86  
9-89 through 9-94  
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9-99 through 9-108  
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9-109 and 9-110  
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9-128 through 9-132  
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9-146 through 9-149/9-150  
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9-151 through 9-157/9-158  
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9-179 through 9-185/9-186  
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9-187 through 9-190  
9-192 through 9-194  
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9-199 through 9-202  
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9-207 and 9-208  
9-211/9-212  
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9-213 through 9-216  
9-218  
9-223 and 9-224  
9-227/9-228  
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Insert pages

9-35 through 9-38  
9-41 through 9-44  
9-47 and 9-48  
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9-57 through 9-62  
9-65 and 9-66  
9-69 and 9-70  
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9-81 through 9-86  
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9-150.1 and 9-150.2/9-150.3  
9-150.4 through 9-150.14  
9-151 through 9-158  
9-167 through 9-170/9-171  
9-172 through 9-174  
9-177 and 9-178  
9-178.1 through 9-178.7/9-178.8  
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9-186.1 through 9-186.7/9-186.8  
9-187 through 9-190/9-191  
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9-197 and 9-198  
9-198.1 through 9-198.7/9-198.8  
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9-212.1 through 9-212.7/9-212.8  
9-213 through 9-216/9-217  
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9-227 and 9-228  
9-228.1 through 9-228.6/9-228.7  
9-228.8 through 9-228.19/  
9-228.20

Remove pages

9-229 through 9-238  
9-240 through 9-245/9-246  
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9-247 through 9-250  
9-252 through 9-258  
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9-259 through 9-262  
9-263 and 9-264  
9-265 and 9-266  
9-269 and 9-270  
9-272 through 9-275/9-276  
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9-277 and 9-278  
9-280 through 9-284  
9-301/9-302  
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9-321 and 9-322  
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9-323 through 9-328  
9-340.1/9-340.2  
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Insert pages

9-229 through 9-238  
9-240 through 9-246  
9-246.1 through 9-246.10/  
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9-269 and 9-270/9-271  
9-272 through 9-276  
9-276.1 and 9-276.2/9-276.3  
9-276.4 through 9-276.9/  
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9-277 and 9-278/9-279  
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9-302.1/9-302.2  
9-321 and 9-322  
9-322.1/9-322.2  
9-323 through 9-328  
9-340.1/9-340.2  
9-365 through 9-373/9-374

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WASHINGTON, DC., 19 April 1985

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Aviation Unit and Aviation Intermediate  
Troubleshooting Manual

CH-47D HELICOPTER

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8-31 and 8-32	8-31 and 8-32
8-35 and 8-36	8-35 and 8-36
8-39 and 8-40	8-39 and 8-40
8-53 and 8-54	8-53 and 8-54
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8-97 through 8-99/8-100	8-97 through 8-99/8-100
8-105 through 8-108	8-105 through 8-108
8-113 and 8-114	8-113 and 8-114
8-117 and 8-118	8-117 and 8-118
8-131 and 8-132	8-131 and 8-132
8-135 and 8-136	8-135 and 8-136
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8-149 through 8-152	8-149 through 8-152
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8-199 and 8-200	8-199 and 8-200
8-207 and 8-208	8-207 and 8-208
8-213 through 8-216	8-213 through 8-216
8-223 and 8-224	8-223 and 8-224
8-226	8-225 and 8-226
8-229 through 8-234	8-229 through 8-234
8-251 through 8-256	8-251 through 8-256
8-259 and 8-260	8-259 and 8-260
8-263 and 8-264	8-263 and 8-264
8-266	8-265 and 8-266
8-267 through 8-272	8-267 through 8-272
8-293/8-294	8-293 and 8-294
	8-294.1 through 8-294.3/8-294.4
8-295 and 8-296	8-295 and 8-296
8-333 and 8-334	8-333 and 8-334
8-339 through 8-341/8-342	8-339 through 8-341/8-342
9-2.1 and 9-2.2	9-2.1 and 9-2.2
9-2.5 and 9-2.6	9-2.5 and 9-2.6
9-2.17 and 9-2.18	9-2.17 and 9-2.18
9-3 through 9-6	9-3 through 9-6

Remove pages	Insert pages
9-9 through 9-14	9-9 through 9-14
9-21 and 9-22	9-21 and 9-22
9-27 and 9-28	9-27 and 9-28
9-31 and 9-32	9-31 and 9-32
9-34	9-33 and 9-34
9-51/9-52	9-51 and 9-52
	9-52.1/9-52.2
9-53 and 9-54	9-53 and 9-54
9-59 through 9-62	9-59 through 9-62
9-65 through 9-72	9-65 through 9-72
	9-72.1 through 9-72.4
9-74	9-73 and 9-74
9-77 and 9-78	9-77 and 9-78
9-85 and 9-86	9-85 and 9-86
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9-131 and 9-132	9-131 and 9-132
9-137 and 9-138	9-137 and 9-138
9-151 and 9-152	9-151 and 9-152
9-155 through 9-157/9-158	9-155 through 9-157/9-158
9-213 and 9-214	9-213 and 9-214
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9-225 and 9-226	9-225 and 9-226
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9-241 and 9-242	9-241 and 9-242
9-247 and 9-248	9-247 and 9-248
9-259 and 9-260	9-259 and 9-260
9-264	9-263 and 9-264
9-265 through 9-268	9-265 through 9-268
9-273 and 9-274	9-273 and 9-274
9-321 and 9-322	9-321 and 9-322
9-325 and 9-326	9-325 and 9-326
9-331 through 9-334	9-331 through 9-334
9-337 through 9-340	9-337 through 9-340
	9-340.1/9-340.2

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*General, United States Army*  
*Chief of Staff*

Official:

DONALD J. DELANDRO  
*Brigadier General, United States Army*  
*The Adjutant General*

DISTRIBUTION:  
To be distributed in accordance with DA Form 12-31, Organizational Maintenance requirements for CH-47D aircraft.

WARNING AND FIRST AID DATA.

Warnings, cautions, and notes emphasize Important critical instructions. They are defined as follows:

WARNING

An operating procedure or practice which, if not correctly followed, will result in personnel injury or loss of life.

CAUTION

An operating procedure or practice which, if not strictly observed, will result in damage or destruction of equipment.

NOTE

An operating procedure or condition which it is essential to highlight.

Personnel performing instructions involving operations, procedures, materials, and practices which are included or implied in this technical manual shall observe the following instructions. Disregard of these warnings and precautionary information can cause serious injury or death. Refer to FM 21-11 for first aid data to treat injuries resulting from working on the helicopter.

**Dangerous Static Charges.** Ground the helicopter during parking, fueling, or defueling.

**Dangerous Voltages Exit in the Electronic Equipment.** Be careful when working on the 150- and 300-volt dc circuits and on the ac generator 115- and 200 volt ac outputs.

**Dangerous Voltage may Exit at Antenna Terminals.** Be careful when working near the antenna or the antenna terminals. Radio-frequency (rf) high voltages exist at these points when transmitters are operating. Contact with radiating antennas can cause serious rf burns.

**Poisonous Carbon Monoxide Fumes.** Toxic carbon monoxide fumes may be present inside the helicopter whenever the apu or engines are operating with the cargo ramp open. Ventilate the cockpit.

**Dangerous Fuel Handling.** Incorrect fuel handling causes fire hazards. Ground the helicopter when fueling or defueling.

**Corrosive Battery Electrolyte (Potassium Hydroxide).** Wear rubber gloves, apron, and face shield when handling leaking batteries. If potassium hydroxide is spilled on clothing, or other material wash immediately with clean water. If personnal contact is made, immediately start flushing the affected area with clean water. Continue washing until medical assistance arrives,

**Acids and Alkalines.** Do not add water to acids. A violent action will result. Acids should be added to water in small quantities. Ruststripper is an alkaline solution. Avoid contact with the skin. Wear protective clothing. Wash thoroughly after using.

**Solvent and Cleaning Solutions.** These materials are generally toxic and many (toluene. benzene, xylene, methyl-ethyl-ketone, perchlorethylene, naphtha, trichloroethylene) are highly flammable. Work in a well ventilated area away from open flames. Avoid inhaling fumes and prolonged contact with the skin. Wear protective clothing and goggles. Wash thoroughly after using.

**Windshield Repellant.** Do not let windshield rain repellant contact open flame. Deadly hydrogen fluoride gas could be generated. Wash hands with soap and water after handling repellant.

**Antiseize Compounds.** Some antiseize compounds are irritants. Avoid inhaling fumes and contact with the skin. Wear protective clothing. Wash thoroughly after using.

**Paints, Varnishes, Dopes, Thinners, Lubricants, and Fuels.** These materials are generally highly flammable and may be irritants. Work in a well ventilated area away from open flames. Avoid inhaling fumes and prolonged contact with the skin. Wash thoroughly after using.

**Epoxy Resins, Cements, and Adhesives.** These materials may contain toxic or irritating substances They may also be flammable. Work in a well ventilated area away from open flames. Wear protective clothing. Avoid contact with the skin. Wash thoroughly after using.

**Radiation Hazard.** Some instruments contain radioactive material. (See TB 55-1500-314-25.) Do not try to disassemble these instruments. They present no radiation hazard unless seal is broken. If you think seal is broken, do not remove instrument from aircraft until you consult Base Radioactive Protection Officer (AR 40-15). Use a beta-gamma radiac meter AN/PDR-27 or equivalent to determine if instrument contains radioactive material (radium).

**Fin Extinguishing Agents.** Avoid repeated or prolonged exposure to high concentration of bromochloromethane (CB) or decomposition products. CB is a narcotic agent of moderate intensity but prolonged duration. It is less toxic than carbon tetrachloride, methylbromide, or products of combustion, Take normal precautions while using bromochloromethane. Use oxygen masks when available.

Monobromotrifluoromethane (CF<sub>3</sub> Br) is highly volatile but is not easily detected by its odor. Although nontoxic, it is about the same as other freons and carbon dioxide, causing danger to personnel primarily by reduction of oxygen available for proper breathing. Do not allow the liquid to come into contact with your skin. It may cause frostbite or low temperature burns.

**Noise.** Sound pressure levels in this aircraft during some operating conditions exceed the Surgeon General's hearing conservation criteria, as defined in TB MED 251. Hearing protection devices, such as the aviator helmet or ear plugs. are required to be worn by all personnel in and around the aircraft during its operation.

**FOD.** Make sure area is clear of foreign objects before closing access doors, panels, and fairings. If the area is not cleared, damage to components and systems could result in personal injury or death.

**Hydraulic Pressures.** High pressures used in testing hydraulic components can cause line rupture or component failure. Only qualified personnel shall operate, service and maintain hydraulic test equipment. Use heavy plastic shielding, 1/2-inch thickness or more, when applying pressures over 250 psi, to prevent injury to personnel.

**Compressed Air.** Do not use more than 30 psi compressed air for cleaning purposes. Debris trajected under pressure can cause injury to eyes. Use source of compressed air under 30 psi and eye protection to prevent injury to personnel.

**Flare Dispenser.** Remove all power from helicopter before installing loaded payload module on dispenser assembly. Keep hands and face away from end of payload module during installation. Flares can accidentally fire, sometimes from stray voltage, resulting in injury or death,

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Aviation Unit and Aviation Intermediate  
Troubleshooting Manual  
CH-47D HELICOPTER

REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, U.S. Army Aviation and Missile Command, ATTN: AMSAM-MMC-LS-LP, Redstone Arsenal, AL 35898-5230. A reply will be furnished to you. You may also send your comments electronically to our e-mail address: ls-lp@redstone.army.mil or by fax 205-842-6546/DSN 788-6546. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028.

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HOW TO USE THIS MANUAL (TM 55-1520-240-T)

This manual has 17 Chapters that have instructions for troubleshooting 72 CH-47 Helicopter Systems.

- Chapter 1 has:
- The Complete List of Troubleshooting Symptoms you will find in this manual. This list outlines each chapter by system and symptom.
  - ▶ Complete wiring for 300 Series Connectors and Receptacles, Terminal Boards, and Ground Devices.

Chapters 2 thru 17 have sets of troubleshooting instructions that include:

- A Chapter outline of all systems and symptoms found in the beginning of each Chapter.
- Connector part numbers and pin patterns for each connector and receptacle in systems contained in chapter. Also included are relay termination views and ground termination types and location.
- System Schematics and/or Wiring Diagrams.
- Visual Checks with locator figures and step by step procedures.
- Operational Checks with locator figures and step by step procedures.
- Fault Isolation Procedures with locator figures and troubleshooting logic for specific system faults.

HOW TO FIND WHAT YOU NEED

Maintenance—Refer to TM 55-1520-240-23.

Troubleshooting—Use the index in Chapter 1 or in the beginning of each chapter. This is where you will find the system troubleshooting procedures (visual checks, operational checks and fault isolation procedures).

- The troubleshooting procedures are listed under the name of the system that the component or system belongs to.
2. Each system has a number:

**Example:**

System No.	System
9-15	Cabin and Ramp Lights

3. Each item in your set of troubleshooting instructions has a task number. The system number is prefixed to each of the item task numbers.

**Example:**

System No.	System Symptom	Task No.
9-15	Cabin and Ramp Lights	
	Wiring Diagram	9-15.1
	Visual Check	9-15.2
	Operational Check	9-15.3
	Cabin and Ramp Circuit Breaker Does not Stay Closed	9-15.4

TASK PREPARATION

Each Troubleshooting procedure begins with INITIAL SETUP information. Read it carefully before starting. It tells you what you need and what you have to know before you begin the job.

1. Applicable Configurations. Tells you what configurations or effectivity the task applies to.
2. Tools. If any tools from your tool kit are needed, just the kit is listed. Tools needed that are not in the kit are called for by name. Special ground support tools, containers, and test equipment are listed by tool number (Txx). Find these items in TM 55-1520-240-23.
3. Materials. Materials needed are listed by expendable number (EXX). Find these items in TM 55-1520-240-23.
4. Parts. New parts required, such as gaskets, packings, and washers, are listed by name only. If parts are not needed, you will not see this heading.
5. Personnel Required. Each MOS needed to do the task is listed. When more than one of any MOS is needed, the number is shown in parentheses.
6. References. Lists references such as TM 55-1520-240-23. These references will provide where information can be found when you need to repair or replace a part or component. When more than one reference is listed, the Fault Isolation Procedure blocks will contain a refer to statement for all references other than TM 55-1520-240-23.
7. Equipment Condition. Procedures which must be done before starting the task are listed and task or TM number is given. Tasks that are not indented under a TM manual can be found in this manual. Refer to the TM manual listed above the indented tasks.
8. General Safety Instructions. These are safety precautions that must be observed throughout task. Warnings include basic first aid instructions.
9. Locator Figure. The area of the helicopter where the task will be performed is shown, with components to be worked on called out.

TASK PERFORMANCE

1. Visual Checks are performed to determine if the cause of the system fault is visually apparent.
2. Operational Checks are performed step by step on the system to determine the system fault. Continue the operational check TASK until the symptom is confirmed in the RESULT column.
3. Fault Isolation Procedures are performed to identify the specific trouble in the system. Start with the first block. Read it through and answer the question. The questions will always have a YES or NO answer, If you answer the question YES, follow the direction of the YES arrow to the next block. If you answer the question NO, follow the direction of the NO arrow to the next block. Continue troubleshooting until the symptom cause is identified.
4. Use the integrated schematic during troubleshooting for a view of system component connections and system interfaces.
5. Use the wiring diagram when the troubleshooting instructions require wire tests to isolate the symptom cause.

- 6. Before starting, read the entire task. Familiarize yourself with the entire procedure before beginning the task,
- 7. As you read, pay attention to **WARNINGS, CAUTIONS,** and **NOTES.**
- 8. **When the word INSPECT** is in your procedures, an inspector must ok the completed step(s).
- 9. Major steps and key words are printed in **boldface** for experienced repairers.
- 10. A glossary is on page 1-87. It lists the abbreviations, special words and terms used in this manual and gives their meaning.
- 11. When a special tool is used or a common tool is used in an unusual way, the use of the tool will be shown.
- 12. When a block states, "Repair or replace wire as required.", refer to TM 55-1500-323-24 for recommended maintenance practices.
- 13. Voltages specified in blocks are nominal values unless a range is given. These nominal values and their acceptable ranges are as follows:

Nominal voltage	Range
28 VDC	24 to 30
26 VAC	24 to 28
24 VDC (Battery)	20 to 24
5 VAC	4 to 6
115 VAC	110 to 120

- 14 In the event of the necessity to add or replace electrical wiring, the colors of wire received from supply may not be the same as the original wire colors. Use wire numbers only for identification of wires. Tag or identify wires by proper number when disconnecting or replacing.

AIRCRAFT MODIFICATION (ECP/MWO) RETROFIT INFORMATION

Throughout this manual, black squares containing white numerals are used to distinguish information relating to helicopters modified by an MWO or ECP. Refer to Helicopter Configuration Legend on the following pages for specific modification and effectivities relating to each numeral. A list of delivered helicopters serial numbers is included with the legend.

Information pertaining only to unmodified helicopters is identified by the appropriate effectivity symbol preceded by WITHOUT. For example, WITHOUT 4 indicates that the information that follows is applicable only to helicopters **not** modified by ECP DO 18. Information pertaining only to helicopters that have been modified by ECP DO 18 is preceded by WITH. . All information not preceded by an effectivity symbol is common to all helicopters.

The following helicopter Designation Legend pages are solely for user convenience. They have no official status.

DELIVERED HELICOPTER SERIAL NUMBERS

81-23382	82-23762	83-24102	84-24152	85-24322
through	through	through	through	through
81-23389	82-23780	83-24125	84-24187	85-24336

HELICOPTER CONFIGURATION LEGEND				
CODE	ECP/MWO NO.	TITLE	EFFECTIVITY	
			PRODUCTION (Serial Number)	RETROFIT
1	ECP DO063R1	Improved Synch Shaft Vibration Mount	84-24108 and on	Attrition
2	ECP DO10R2C1	Fuel Cell Manifold Control Bracket	82-23389 and on	Attrition
3	ECP DO08	Rotor Hub Protective Cover En- largement	85-24322 and on	Attrition
4	ECP DO18R2	Composite Fuel Pods	84-24162 and on	Attrition
5	ECP DO06	Removable Support Structure Py- lon Hyd. Module	81-23385 and on	By Kit all D
6	ECP DO37R2	Shorter 114C1014 Yaw Connecting Link	85-24322 and on	Attrition
7	ECP DO34	Pilot and Co-Pilot Seat Armor	81-23386 and on	Attrition
8	ECP DO42	Redesign Link Assy for Increased Parked Blade Loads	83-24105 and on	Attrition
9	ECP DO48C1	Flare Dispenser Blanket Mod and Stowage Provision	83-24107 and on	None
10	ECP DO61R	Floor Former/Fuselage Bilge Paint  (Special paint for 14 aircraft)	83-24107 and on (Interior) 83-24105 thru 83- 24118 (Exterior)	None
11	ECP DO65	Second Source 114PS494 Fuel Shutoff Valve (Motorized)	82-23776 and on	Attrition
12	ECP DO71	2-Inch Dia. Fuel Breakaway Fittings	83-24110 and on	Attrition
13	ECP DO74C1	Install Steel Control Rods Aft Pylon	83-24103 and on	81-23381 thru 83- 24102 by Tech Bulletin
14	ECP DO15C2	Install Bubble Windows	85-24322 and on	Attrition
15	ECP DO51C1	Rainshield Redesign	84-24158 and on	Attrition
16	ECP DO75	Heater Modification	85-24322 and on	Attrition
17	ECP DO27R1C1	Night Vision Goggles (NVG)	85-24322 and on	MWO
18	ECP DO36R1	Improved N1 System	85-24322 and on	Attrition
19	ECP DO69R4	Ferry Fuel Provisions	85-24322 and on	MWO
20	ECP DO64R1	Aft Pylon Work Platform Redesign	85-24322 and on	Attrition
21	ECP DO29C1	ILCA Actuator and Manifold Seal Change	85-24322 and on	Attrition
22	ECP DO60R1	Ramp Skin and Ramp End Former	85-24322 and on	Attrition
23	ECP DO01R1	Improved N2 Control Box	84-24156 and on	Attrition
24	ECP DO56R2	Redesign Droop Stop Arm to In- crease Clearance With Shroud; Modify Spring Limiter	85-24322 and on	Contractor Kit
25	ECP DO81R2	Ground Contact Annunciator	87-0669 and on	MWO

HELICOPTER CONFIGURATION LEGEND (Continued)				
CODE	ECP/MWO NC	TITLE	EFFECTIVITY	
			PRODUCTION (Serial Number)	RETROFIT
26	ECP D118C1	Improved Heat Resistance of Flight Control System Bellcranks and Connecting Rods	85-24353 and on	MWO
27	ECP DO54R1	Combining Transmission Support Fitting Redesign	84-24154 and on	Attrition
28	ECP D126C1	Accumulator, APU/Flight Control Modules	86-1635 and on	Attrition
29	ECP DO85C1	Reduced Length Servo-Cylinder Safety Blocks	GSE	MWO
30	ECP 712R7	Portable Calculator and Hardware for Vibrex	OBSOLETE	-----
31	ECP D108	Aft Transmission Torque Reactor Improvement	GSE	MWO
32	ECP D111	Deletion of KY-28 Secure Voice Control Panel	87-0069 and on	AVSCOM MSG.
33	ECP D133	UH60/CH47D Common ESU	86-1650 and on	MWO
34	ECP D122	Change Droop Stop Shroud From Installed to Flyaway Equipment	85-24361 and on	N/A
35	ECP DO16R1	Single Handle Cargo Hook Release System	88-0079 and on	MWO
36	ECP D113	Hook Release Button Ring Guard on Cyclic Grip	88-0085 and on	MWO
37	ECP D115	Transmission end Engine Chip Bum-Off System	89-0139 and on	MWO
38	ECP D154R1 (Phase 1)	Installation of Stainless Steel Flight Control Connecting Links	88-0091 and on	MWO
39	ECP DO69R4	Ramp Extension/Center Skid Pad Modification for Compatibility With HICHS	90-0180 and on	Attrition
40	ECP D121R2	Fine Mesh Inlet Screen	88-0095 and on	Retrofit
41	ECP D105R1	Shotpeen Horizontal Hinge Pins	88-0107 and on	MWO
42	ECP 0135	Improved Rotor Blade Grounding Strap	88-0103 and on	MWO
43	ECP DO89	Delete Engine Anti-Ice System	87-0077 and on	MWO
44	ECP D101	Engine Oil Pressure Transmitter Vibration Absorber	90-0180 and on	MWO
45	ECP DO92R1	Elastomeric Lag Damper and Pitch Link Bearings	90-0180 and on	MWO
46	ECP D114C2	Upper and Middle Drive Scissors Positive Locking Bolts	90-0180 and on	MWO
47	ECP DO95R1	Airframe Structural Improvements	90-0180 and on	Attrition
48	ECP D173	Combining Transmission Sync Shaft Shielding Baffle	88-0099 and on	MWO
49	ECP D131R1	Transmission Drip Pan Material Change	90-0214 and on	Attrition

HELICOPTER CONFIGURATION LEGEND (Continued)

EFFECTIVITY				
CODE	ECP/MWO NO.	TITLE	PRODUCTION (Serial Number)	RETROFIT
50	ECP D145R1C1	Bolt/Bushing Assembly Improve- ments	90-0180 and on	MWO 1-1520-240-50-37
51	ECP D157R1	One Piece Engine Drive Shaft	90-0180 and on	MWO 55-1520-240-50-43
52	ECP D190R1	Improved Clamshell Door Latch	92-0282 and on	MWO 1-1520-240-50-62
53	ECP D164	Incorporation of Dome Light positive Locking Lever Switch	91-0252 and on	MWO 55-1520-240-50-50
54	ECP D154R1 (Phase 2)	Control System Hardening and Smoke Containment	81-23381 thru 89-0177	MWO 1-1520-240-50-40
55	ECP D185R1	Separate Fuel Control Relay Box Ground Connections	90-0202 and on	MWO 1-1520-240-50-58
56	ECP D183	Helicopter Internal Cargo Handling System (HICHS)	81-23381 thru 91-02277	MWO 1-1520-240-50-59
57	ECP D175	Engine Aft Mount Adjustable Link	81-23381 thru 92-0302	MWO 1-1520-240-50-60
58	ECP 0145R2	Improved Bolt/Bushing Connection	N/A	MWO 1-1520-240-50-69
59	ECP D19BA1	Polyurethane Paint for CH-47D Aircraft	_____	Attrition
60	ECP A098	Heads Up Display System (HUD) AN/AVS-7	81-23381 thru 91-0271	MWO 1-1520-240-50-56
61	ECP A0027	Global Positioning System (GPS) AN/ASN-149CV)1	81-23381 thru 92-0302	MWO 1-1520-240-50-68
62	ECP AEEMH-03009	Altitude Voice Warning System Radar Altimeter, AN/APN-209(V)	81-23381 thru 93-0934	MWO 1-1520-240-50-61
63	ECP 0200 (Phase 2)	Replace Lower Pitch Link Elastomeric Bearing	90-0180 and on	MWO 1-1520-240-50-64 and MWO 1-1520-240-50-63

HELICOPTER CONFIGURATION LEGEND (Continued)

EFFECTIVITY				
CODE	ECP/MWO NO.	TITLE	PRODUCTION (Serial Number)	RETROFIT
64	ECP D194R1	Stainless Steel-Bellcranks in Combining Transmission Area	81-23381 and on	MWO 1-1520-240-50-65
65	ECP D16SR1	Cockpit Remote Emergency Ramp Extension System	81-23381, thru 92-0309	MWO 1-1520-240-50-48
66	ECP D199	Non-Metallic Spline Adapters for Combining Transmission Cooling Fan Drive Shaft	76-18479 and 81-23381 thru 93-0094	MWO 1-1520-240-50-67
67	ECP D214R1	Aft Position Lights Switch	(Draft)	_____
68	ECP D216	Pressure Refueling Vacuum Relief Valve	(Draft)	_____
69	ECP D215	NVG Bezel	(Draft)	_____
70	ECP 13210111	Easily Replaceable Cabin Escape Hatch	78-18479 and 81-23381 thru 93-00934	TB 1-1520-240-30-02
71	ECP END HO30015	Installation of AN/ASN-128B Doppler GPS Navigation System	76-18479 and on	MWO 1-1520-240-50-73
73	ECP EJCHOO7016	Installation of AN/ARC-220 and TSEC/KY-100 HF Liaison Facility	81-23381 thru 93-00934	MWO 1-1520-240-50-74



# CHAPTER 8

## INSTRUMENT SYSTEMS TROUBLESHOOTING

CHAPTER 8  
INSTRUMENT SYSTEM TROUBLESHOOTING  
CHAPTER OVERVIEW

Chapter 8 contains procedures for Instrument System troubleshooting. Each system and failure symptom is listed below. Included in this chapter are locations and views of all electrical connectors, receptacles, relays, and ground connections for the Instrument System.

Refer to TM 55-1520-240-23 for required maintenance procedures.

SYSTEM	PARA
PITOT STATIC SYSTEM	8-1
GAS PRODUCER TACHOMETER SYSTEM	8-2
ENGINE OIL PRESSURE INDICATING SYSTEM	8-3
ENGINE OIL TEMPERATURE INDICATING SYSTEM	8-4
PTIT SYSTEM	8-5
TORQUE INDICATING SYSTEM	8-6
HYDRAULIC PRESSURE INDICATING SYSTEM	8-7
HYDRAULIC OIL TEMPERATURE INDICATING SYSTEM	8-8

SYSTEM	PARA
TRANSMISSION OIL PRESSURE INDICATING AND WARNING SYSTEM	8-9
TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM	8-10
FUEL QUANTITY INDICATING SYSTEM	8-11
CRUISE GUIDE INDICATING SYSTEM	8-12
TURN AND SLIP INDICATORS	8-13
MAINTENANCE PANEL POWER DISTRIBUTION	8-14
ROTOR TACHOMETER	8-15
ENGINE FUEL FLOW INDICATING SYSTEM	8-16

FAILURE SYMPTOM LIST

PITOT STATIC SYSTEM

SYMPTOM	TASK
AIMS ALT CIRCUIT BREAKER WILL NOT STAY CLOSED	8-1.4
NO HEAT FELT ON LEFT OR RIGHT PITOT TUBE, PITOT SWITCH AT ON	8-1.4
NO HEAT FELT ON LOWER RIGHT OR LOWER LEFT SIDESLIP PORTS	8-1.4
NO. 1 GAS PRODUCER TACHOMETER READS 0 PERCENT RPM WHEN NO. 1 ENGINE IS MOTORED	8-2.3
NO. 2 GAS PRODUCER TACHOMETER READS 0 PERCENT RPM WHEN NO. 2 ENGINE IS MOTORED	8-2.3

SYMPTOM	TASK
NO HEAT FELT ON UPPER RIGHT OR UPPER LEFT SIDESLIP PORTS	8-1.4
NO. 1 OR NO. 2 PITOT SYSTEM LEAKS	8-1.4
NO. 1 OR NO. 2 SIDESLIP SYSTEM LEAKS	8-1.4
PILOT OR COPILOT ALTIMETER VIBRATOR DOES NOT OPERATE	8-1.4

GAS PRODUCER TACHOMETER SYSTEM

NO. 1 ENGINE GAS PRODUCER TACHOMETER READING FLUCTUATES OR IS ERRATIC	8-2.3
NO. 2 ENGINE GAS PRODUCER TACHOMETER READING FLUCTUATES OR IS ERRATIC	8-2.3

SYMPTOM	TASK
PITOT HEAT CIRCUIT BREAKER WILL NOT STAY CLOSED	8-1.4
PITOT STATIC SYSTEM LEAKS	8-1.4
YAW PORT HEAT CIRCUIT BREAKER WILL NOT STAY CLOSED	8-1.4

FAILURE SYMPTOM LIST

ENGINE OIL PRESSURE INDICATING SYSTEM

SYMPTOM	TASK
ENGINE OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED	8-3.3
ENGINE OIL PRESSURE INDICATOR DOES NOT INDICATE 0	8-3.3

SYMPTOM	TASK
ENGINE OIL TEMP CIRCUIT BREAKER DOES NOT STAY CLOSED	8-4.3

SYMPTOM	TASK
NO. 1 ENGINE EMERGENCY POWER TIMER DOES NOT OPERATE WHEN NO. 1 ENGINE PTIT INDICATION IS 890°C TO 910°C (WITHOUT 74)	8-5.3
NO. 1 ENGINE PTIT INDICATOR DOES NOT INDICATE IN GREEN BAND (WITHOUT 74)	8-5.3
NO. 1 ENGINE PTIT INDICATOR DOES NOT INDICATE IN GREEN BAND (WITH 74)	8-5.5.1
NO. 1 OR NO. 2 ENGINE EMERGENCY POWER FLAG INDICATOR REMAINS BLACK WHEN NO. 1 OR NO. 2 ENGINE PTIT INDICATION IS 890°C TO 910°C (WITHOUT 74)	8-5.3

SYMPTOM	TASK
NO. 1 OR NO. 2 ENGINE TORQUE DC CIRCUIT BREAKERS WILL NOT STAY CLOSED (WITHOUT 74)	8-6.3
NO. 1 OR NO. 2 ENGINE TORQUE DC CIRCUIT BREAKERS WILL NOT STAY CLOSED (WITH 74)	8-6.3.1
NO. 1 OR NO. 2 ENGINE TORQUE AC CIRCUIT BREAKER WILL NOT STAY CLOSED	8-6.3 or 8-6.3.1
NO. 1 POINTER ON PILOT'S OR COPILOT'S INDICATOR DOES NOT INDICATE TORQUE (WITHOUT 74)	8-6.3

SYMPTOM	TASK
NO. 1 ENGINE OIL PRESS INDICATOR DOES NOT INDICATE 20 PSI MINIMUM OR POINTER FLUCTUATES MORE THAN 5 PSI	8-3.3

ENGINE OIL TEMPERATURE INDICATING SYSTEM

SYMPTOM	TASK
NO. 1 ENGINE OIL TEMPERATURE INDICATOR INDICATION IS NOT WITHIN 10°C OF FAT INDICATOR	8-4.3

PTIT AND EMERGENCY POWER INDICATING SYSTEM

SYMPTOM	TASK
NO. 1 OR NO. 2 ENGINE EMERGENCY POWER FLAG INDICATOR WILL NOT RESET TO BLACK, FLAG RESET SWITCH AT RESET (WITHOUT 74)	8-5.3
NO. 1 OR NO. 2 ENGINE EMERGENCY POWER LIGHTS WILL NOT COME ON WHEN PRESSED TO TEST (WITHOUT 74)	8-5.3
NO. 2 ENGINE EMERGENCY POWER TIMER DOES NOT OPERATE WHEN NO. 2 ENGINE PTIT INDICATION IS 890°C TO 910°C (WITHOUT 74)	8-5.3
NO. 2 ENGINE PTIT INDICATOR DOES NOT INDICATE IN GREEN BAND (WITHOUT 74)	8-5.3

TORQUE INDICATING SYSTEM

SYMPTOM	TASK
NO. 1 POINTER ON PILOT'S OR COPILOT'S INDICATOR DOES NOT INDICATE TORQUE (WITH 74 )	8-6.3.1
NO. 1 POINTER ON PILOTS OR COPILOTS INDICATOR DOES NOT INDICATE PROPER TORQUE USING TORQUE SIGNAL SIMULATOR (WITHOUT 74)	8-6.3
NO. 1 POINTER ON PILOTS AND COPILOTS INDICATOR OPERATES ERRATICALLY	8-6.3 or 8-6.3.1
NO. 2 POINTER ON PILOT'S OR COPILOT'S INDICATOR DOES NOT INDICATE TORQUE (WITHOUT 74)	8-6.3

SYMPTOM	TASK
NO. 2 ENGINE OIL PRESS INDICATOR DOES NOT INDICATE 20 PSI MINIMUM OR POINTER FLUCTUATES MORE THAN 5 PSI	8-3.3

SYMPTOM	TASK
NO. 2 ENGINE OIL TEMPERATURE INDICATOR INDICATION IS NOT WITHIN 10°C OF FAT INDICATOR	8-4.3

SYMPTOM	TASK
NO. 2 ENGINE PTIT INDICATOR DOES NOT INDICATE IN GREEN BAND (WITH 74)	8-5.6.1
PILOT'S AND COPILOT'S EMERGENCY POWER LIGHTS DO NOT COME ON WHEN NO. 1 OR NO. 2 ENGINE PTIT INDICATION IS 890°C TO 910°C (WITHOUT 74)	8-5.3
PILOT'S AND COPILOT'S EMERGENCY POWER LIGHTS ON, ROTOR AT 100 PERCENT ROTOR RPM, BOTH ENGINES OPERATING (WITHOUT 74 )	8-5.3

SYMPTOM	TASK
NO. 2 POINTER ON PILOT'S OR COPILOT'S INDICATOR DOES NOT INDICATE TORQUE (WITH 74)	8-6.3.1
NO. 2 POINTER ON PILOTS OR COPILOTS INDICATOR DOES NOT INDICATE PROPER TORQUE USING TORQUE SIGNAL SIMULATOR (WITHOUT 74)	8-6.3
NO. 2 POINTER ON PILOTS OR COPILOTS INDICATOR OPERATES ERRATICALLY	8-6.3 or 8-6.3.1

HYDRAULIC PRESSURE INDICATING SYSTEM

SYMPTOM	TASK
HYDRAULICS PRESS IND CIRCUIT BREAKER DOES NOT STAY CLOSED	8-7.3
NO. 1 FLT CONT HYDRAULICS PRESSURE INDICATOR DOES NOT INDICATE 2500 TO 3500 PSI OR POINTER FLUCTUATES MORE THAN 50 PSI	8-7.3

SYMPTOM	TASK
HYDRAULIC FLUID TEMP CIRCUIT BREAKER DOES NOT STAY CLOSED	8-8.3
NO. 1 FLT CONT HYDRAULIC TEMPERATURE INDICATOR POINTER DOES NOT MOVE UP SCALE OR EXCEEDS 120°C (PEGS)	8-8.3

SYMPTOM	TASK
FWD, COMB, AFT, AFT SHAFT, LEFT, OR RIGHT TRANSMISSION MAIN OIL PRESS LIGHT DOES NOT COME ON WHEN PRESSED	8-9.3
FWD, COMB, AFT, AFT SHAFT, LEFT, RIGHT, OR AFT TRANSMISSION MAIN OIL PRESS LIGHT IS OUT	8-9.3
FWD, COMB, AFT SHAFT, LEFT, OR RIGHT TRANSMISSION-MAIN OIL PRESS LIGHT STILL ON WHEN ITS PRESSURE SWITCH DISCONNECTED	8-9.3
FWD, COMB, OR AFT TRANSMISSION AUX OIL PRESS LIGHT DOES NOT COME ON WHEN PRESSED	8-9.3
FWD, COMB, OR AFT TRANSMISSION AUX OIL PRESS LIGHT IS OUT	8-9.3

SYMPTOM	TASK
ENG XMSN HOT CAPSULE LIT	8-10.3
NO. 1 OR NO. 2 ENG XMSN HOT CAPSULE DOES NOT COME ON DURING TEST	8-10.3
TRANSMISSION OVERTEMP INDICATORS DO NOT RESET	8-10.3
XMSN OIL HOT CAPSULE LIT	8-10.3
XMSN OIL HOT CAPSULE LIT OR AFT TRANSMISSION OVERTEMP INDICATOR IS BLACK DURING TEST	8-10.3
XMSN OIL HOT CAPSULE LIT OR COMB TRANSMISSION OVERTEMP INDICATOR IS BLACK DURING TEST	8-10.3

SYMPTOM	TASK
NO. 2 FLT CONT HYDRAULICS PRESSURE INDICATOR DOES NOT INDICATE 2500 TO 3500 PSI OR POINTER FLUCTUATES MORE THAN 50 PSI	8-7.3

HYDRAULIC OIL TEMPERATURE INDICATING SYSTEM

SYMPTOM	TASK
NO. 2 FLT CONT HYDRAULICS TEMPERATURE INDICATOR POINTER DOES NOT MOVE UP SCALE OR EXCEEDS 120°C (PEGS)	8-8.3

TRANSMISSION OIL PRESSURE INDICATING AND WARNING SYSTEM

SYMPTOM	TASK
FWD, COMB, OR AFT TRANSMISSION AUX OIL PRESS LIGHT IS STILL ON WHEN IT'S PRESSURE SWITCH IS DISCONNECTED	8-9.3
XMSN AUX OIL PRESS CAPSULE DOES NOT COME ON DURING TEST	8-9.3
XMSN AUX OIL PRESS CAPSULE NOT LIT	8-9.3
XMSN AUX OIL PRESS CAPSULE ON WHEN ALL PRESSURE SWITCHES ARE DISCONNECTED	8-9.3
XMSN OIL PRESS CAPSULE DOES NOT COME ON DURING TEST	8-9.3
XMSN OIL PRESS CAPSULE NOT LIT	8-9.3

TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM

SYMPTOM	TASK
XMSN OIL HOT CAPSULE LIT OR FWD TRANSMISSION OVERTEMP INDICATOR IS BLACK DURING TEST	8-10.3
XMSN OIL HOT CAPSULE OR LEFT TRANSMISSION OVERTEMP INDICATOR IS BLACK DURING TEST	8-10.3
XMSN OIL HOT CAPSULE LIT OR RIGHT TRANSMISSION OVERTEMP INDICATOR IS BLACK DURING TEST	8-10.3
XMSN OIL TEMP CIRCUIT BREAKER WILL NOT STAY CLOSED	8-10.3

SYMPTOM	TASK
UTILITY HYDRAULICS PRESSURE INDICATOR DOES NOT INDICATE 2500 TO 3500 PSI OR POINTER FLUCTUATES MORE THAN 50 PSI	8-7.3

SYMPTOM	TASK
UTILITY HYDRAULICS TEMPERATURE INDICATOR POINTER DOES NOT MOVE UP SCALE OR EXCEEDS 120°C (PEGS)	8-8.3

SYMPTOM	TASK
XMSN OIL PRESS CAPSULE STILL ON WHEN ALL MAIN OIL PRESS SWITCHES ARE DISCONNECTED	8-9.3
XMSN OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED	8-9.3
XMSN OIL PRESS INDICATOR DOES NOT READ IN NORMAL RANGE FOR ONE XMSN OIL PRESS SWITCH POSITION	8-9.3
XMSN OIL PRESS INDICATOR DOES NOT READ IN NORMAL RANGE WHEN XMSN OIL PRESS SWITCH IS AT SCAN	8-9.3

SYMPTOM	TASK
XMSN TEMP INDICATOR POINTER DOES NOT INDICATE AMBIENT TEMPERATURE AT SCAN	8-10.3
XMSN TEMP INDICATOR POINTER DOES NOT MOVE BELOW -70°C DURING TEST	8-10.3
XMSN TEMP INDICATOR DOES NOT READ AMBIENT TEMPERATURE AT SELECTED SWITCH POSITION	8-10.3

FUEL QUANTITY INDICATING SYSTEM

SYMPTOM	TASK
FUEL QUANTITY AC CIRCUIT BREAKER WILL NOT STAY CLOSED	8-11.3
FUEL QUANTITY DC CIRCUIT BREAKER WILL NOT STAY CLOSED	8-11.3
FUEL QUANTITY INDICATOR DIGITAL READOUT DOES NOT SHOW TOTAL FUEL QUANTITY WHEN FUEL QUANTITY SELECT SWITCH IS SET TO TOTAL	8-11.3
FUEL QUANTITY INDICATOR POINTER SPINS CONTINUOUSLY WHEN FUEL QUANTITY SELECT SWITCH IS SET TO ANY POSITION	8-11.3
FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO L AFT	8-11.3
FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO L FWD	8-11.3

SYMPTOM	TASK
CRUISE GUIDE CIRCUIT BREAKER DOES NOT STAY CLOSED	8-12.3

SYMPTOM	TASK
TURN AND SLIP CIRCUIT BREAKER DOES NOT STAY CLOSED	8-13.3

SYMPTOM	TASK
FILTER CHANGE AND PUMP CHANGE LIGHTS DO NOT COME ON WHEN PRESSED	8-14.3
HYDRAULICS MAINT PNL CIRCUIT BREAKER WILL NOT STAY CLOSED	8-14.3

SYMPTOM	TASK
FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO L MAIN	8-11.3
FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO R AFT	8-11.3
FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO R FWD	8-11.3
FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO R MAIN	8-11.3
L FUEL LOW (WITHOUT 74), L FUEL LVL (WITH 74) WARNING CAPSULE DOES NOT COME ON WHEN L MAIN TANK FUEL LEVEL IS BELOW 320 TO 420 POUNDS	8-11.3
L FUEL LOW (WITHOUT 74), L FUEL LVL (WITH 74) WARNING CAPSULE ON WHEN L MAIN FUEL TANK IS FULL	8-11.3

CRUISE GUIDE INDICATING SYSTEM

SYMPTOM	TASK
CRUISE GUIDE INDICATOR POINTER NOT IN TEST BAND WITH CGI TEST SWITCH AT AFT	8-12.3

TURN AND SUP INDICATORS

SYMPTOM	TASK
TURN AND SLIP INDICATOR POINTER DOES NOT MOVE IN DIRECTION OF TURN	8-13.3

MAINTENANCE PANEL POWER DISTRIBUTION

SYMPTOM	TASK
HYDRAULICS MAINT PNL LTS CIRCUIT BREAKER WILL NOT STAY CLOSED	8-14.3
INDICATORS DO NOT TURN BLACK AND WHITE WITH GND TEST SWITCH AT TEST	8-14.3

SYMPTOM	TASK
REFUEL PANEL FUEL QUANTITY INDICATOR DOES NOT INDICATE FUEL LEVEL AT ANY SWITCH POSITION	8-11.3
REFUEL PANEL FUEL QUANTITY INDICATOR INDICATES FUEL LEVEL FOR ALL BUT ONE SWITCH POSITION	8-11.3
R FUEL LOW (WITHOUT 74), R FUEL LVL (WITH 74) WARNING CAPSULE DOES NOT COME ON WHEN R MAIN TANK FUEL LEVEL IS BELOW 320 TO 420 POUNDS	8-11.3
R FUEL LOW (WITHOUT 74), R FUEL LVL (WITH 74) WARNING CAPSULE ON WHEN R MAIN FUEL TANK IS FULL	8-11.3

SYMPTOM	TASK
CRUISE GUIDE INDICATOR POINTER NOT IN TEST BAND WITH CGI TEST SWITCH AT FWD	8-12.3

SYMPTOM	TASK
INDICATORS WILL NOT TURN ALL BLACK WITH GND TEST SWITCH AT RESET	8-14.3
MAINTENANCE PANEL UTILITY LIGHT WILL NOT COME ON	8-14.3

ROTOR TACHOMETER

SYMPTOM	TASK
COPILOTS ROTOR TACHOMETER DOES NOT INDICATE 98 TO 101 PERCENT WHEN ROTOR TACH CIRCUIT BREAKER OPEN	8-15.3
COPILOT'S ROTOR TACHOMETER DOES NOT READ 98 TO 101 PERCENT	8-15.3

SYMPTOM	TASK
ENGINE NO. 1 FUEL FLOW CIRCUIT BREAKER WILL NOT STAY CLOSED	8-16.3
ENGINE NO. 2 FUEL FLOW CIRCUIT BREAKER WILL NOT STAY CLOSED	8-16.3

SYMPTOM	TASK
PILOTS OR COPILOT'S ROTOR TACHOMETER DOES NOT INDICATE 98 TO 101 PERCENT WHEN BATT SWITCH SET TO OFF	8-15.3

FUEL FLOW

SYMPTOM	TASK
FUEL FLOW INDICATOR NO. 1 DOES NOT INDICATE FUEL FLOW	8-16.3
FUEL FLOW INDICATOR NO. 1 POINTER DOES NOT INDICATE APPROXIMATE FUEL FLOW	8-16.3

SYMPTOM	TASK
PILOT'S ROTOR TACHOMETER DOES NOT INDICATE 98 TO 101 PERCENT WHEN ROTOR TACH CIRCUIT BREAKER OPEN	8-15.3
PILOT'S ROTOR TACHOMETER DOES NOT READ 98 TO 101 PERCENT	8-15.3
ROTOR TACH CIRCUIT BREAKER WILL NOT STAY CLOSED	8-15.3

SYMPTOM	TASK
FUEL FLOW INDICATOR NO. 2 POINTER DOES NOT INDICATE APPROXIMATE FUEL FLOW	8-16.3
FUEL FLOW INDICATOR NO. 2 POINTER DOES NOT INDICATE FUEL FLOW	8-16.3

INSTRUMENT SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST

REF DESIG	PART NUMBER	TYPE	MATE WITH/LOCATION	STATION LOCATION			REF DESIG	PART NUMBER	TYPE	MATE WITH/LOCATION	STATION LOCATION		
				FS	WL	BL					FS	WL	BL
GD001		150	CONSOLE, FWD CTR INSTR PNL				TB 5						
GD002		151	CENTER INSTRUMENT PANEL				036P1	MS3476W10-6S	15	PLT INSTR PNL, CRUISE GUIDE IND			
GD004		150	CONSOLE, FWD CTR INSTR PNL				036P3	M83723-95A1212N	31	PYLON, CRUISE GUIDE SIG PROC - J1	582	120	5R
GD009		150	CONSOLE, FWD CTR INSTR PNL				036P4	M83723-95A12127	31	PYLON, CRUISE GUIDE SIG PROC - J2	582	120	5R
GD016		150	CONSOLE, FWD CTR INSTR PNL				036P5	M83723-95A1212N	31	FWD XMSN AREA, CRUISE GUIDE - J1	120	65	12L
GD017		150	CONSOLE, FWD CTR INSTR PNL				041P4	M83723-95A10058	30	FWD XMSN AREA, NO. 1 HYD PRESS	125	70	0
GD019		151	CONSOLE, FWD CTR INSTR PNL				041P5	M83723-95A10058	30	PYLON, NO. 2 HYD PRESS	534	97	15R
GD020		151	CONSOLE, FWD CTR INSTR PNL				041P6	M83723-95A10058	30	AFT CROWN, UTILITY HYD PRESS	534	45	15L
GD023		151		492	50	20R	043P1	MS3476W12-3S	16	NO. 1 ENG XMSN TRANSDUCER			
GD024		151		477	30	52L	043P2	MS3476W12-3S	16	NO. 2 ENG XMSN TRANSDUCER			
GD027		150	CONSOLE, FWD CTR INSTR PNL (WITH 74 )				043P3	MS3476W12-3S	16	COMB XMSN TRANSDUCER			
GD028		150	CONSOLE, FWD CTR INSTR PNL (WITH 74 )				043P4	MS3476W12-3S	16	AFT XMSN TRANSDUCER			
GD030		151	CONSOLE, FWD INSTR PNL				043P5	MS3476W12-3S	16	FWD XMSN TRANSDUCER			
GD031		151	CONSOLE, FWD CTR INSTR PNL				043P6	MS3476W14-15S	19	XMSN OIL PRESS INDICATOR			
GD036		151	COCKPIT OVHD	61	40	10L	043P7	MS3476W14-19S	21	OIL PRESS SELECTOR SWITCH			
GD037		151	COCKPIT OVHD	61	40	10L	043P8	MS83723-95A0803N	29	FWD XMSN MAIN PRESS SWITCH			
GD040		150	CONSOLE, FWD CTR INSTR PNL				043P9	MS93723-95A08036	29	COMB MAIN PRESS SWITCH			
GD056		151	AFT LH CABIN	474	50	50L	043P10	MS83723-95A0803N	29	AFT XMSN MAIN PRESS SWITCH			
GD058		151	AFT LH CABIN	490	35	50L	043P11	MS83723-95A08037	29	AFT ROTOR SHAFT PRESS SWITCH			
GD066		151	PYLON	590	122	12L	043P12	MS83723-95A08036	29	NO. 1 ENG XMSN LOW PRESS SWITCH			
GD068		151	PYLON	590	122	12L	043P13	MS83723-95A08036	29	NO. 2 ENG XMSN LOW PRESS SWITCH			
GD077		151	PYLON	594	110	2L	043P14	MS83723-95A08036	29	FWD XMSN AUX PRESS SWITCH			
GD080		151	PYLON	534	75	0	043P15	MS83723-95A08037	29	COMB AUX PRESS SWITCH			
GD103		151	AFT CROWN	594	60	20R	043P16	MS83723-95A08036	29	AFT XMSN AUX PRESS SWITCH			
GD110		151	AFT RH CABIN	492	20	55R	051P1	PT06CE8-4S	13	CPLT INSTR PNL TORQUE IND (WITHOUT 74 )			
GD135		151	AFT CROWN	528	45	20L	051P1	D38999-26WB35SN	317	CPLT INSTR PNL TORQUE IND (WITH 74 )			
GD138		151	CENTER INSTRUMENT PANEL				051P2	PT06CE8-4S	13	PLT INSTR PNL TORQUE IND (WITHOUT 74 )			
GD152		151	LH CABIN	230	-10	50L	051P2	D38999-26WB35SN	317	PLT INSTR PNL TORQUE IND (WITH 74 )			
GD157		151	RH CABIN	230	-20	50R	051P3	MS3476W12-10S	17	CPLT INSTR PNL TORQUE IND (WITHOUT 74 )			
GD188		151	RHAFT	518	10	50R	051P3	D38999-26WC98PN	316	J2 - NO. 1 ENG TORQUE SIGNAL PROCESSOR			
GD203		151	RH AFT	518	10	50R				(WITH 74 )			
GD219		151	CONSOLE, FWD CTR INSTR PNL				051P4	MS3476W12-10S	17	PLT INSTR PNL TORQUE IND (WITHOUT 74 )			
GD324		151	LH AFT	594	50	24L	051P4	D38999-26WC98PN	316	J2 - NO. 2 ENG TORQUE SIGNAL PROCESSOR			
GD400		151	AFT LH CABIN (WITH 74 )							(WITH 74 )			
GD401		151	AFT RH CABIN (WITH 74 )	492	20	55R	051P5	PT06CE8-4S	13	NOSE COMPT, NO. 1 TRQ PWR SUPPLY (WITHOUT 74 )	22	-5	20L
GD406		151	AFT LH CABIN (WITH 74 )	490	35	50L							
TB 1			PILOTS INSTR PNL				051P5	D38999-26WB99SN	325	J1 - NO. 1 ENG TORQUE SIGNAL PROCESSOR			
TB 2			COPLOT'S INSTR PNL							(WITH 74 )			
TB 5			CONSOLE, FWD CTR INSTR PNL				051P6	PT06CE8-4S	13	NOSE COMPT, NO. 2 TRQ PWR SUPPLY (WITHOUT 74 )	22	-5	20R
TB 8			CONSOLE, FWD CTR INSTR PNL										
TB 36			COCKPIT, OVHD PNL- RH				051P6	D38999-26WB99SN	325	J1 - NO. 2 ENG TORQUE SIGNAL PROCESSOR			
TB 37			COCKPIT, OVHD PNL- LH							(WITH 74 )			
TB 55			FWD CABIN OVHD	120	42	28L	052P1	MS3456W14S-2S	48	CTR INSTR PNL NO. 1 ENG OIL TEMP IND (WITH-			
TB 56			FWD CABIN OVHD	120	42	28R				OUT 74 )			
THE FOLLOWING TB'S ARE LOCATED IN MAINTENANCE PANEL, 146A3510				30	50R		052P1	MS3456W14S-2S	48	CTR INSTR PNL NO. 1 ENG OIL TEMP IND (WITH			
TB 2										74 )			
TB 3							052P2	MS3456W14S-2S	48	CTR INSTR PNL, NO. 2 ENG OIL TEMP IND (WITH-			
TB 4										OUT 74 )			

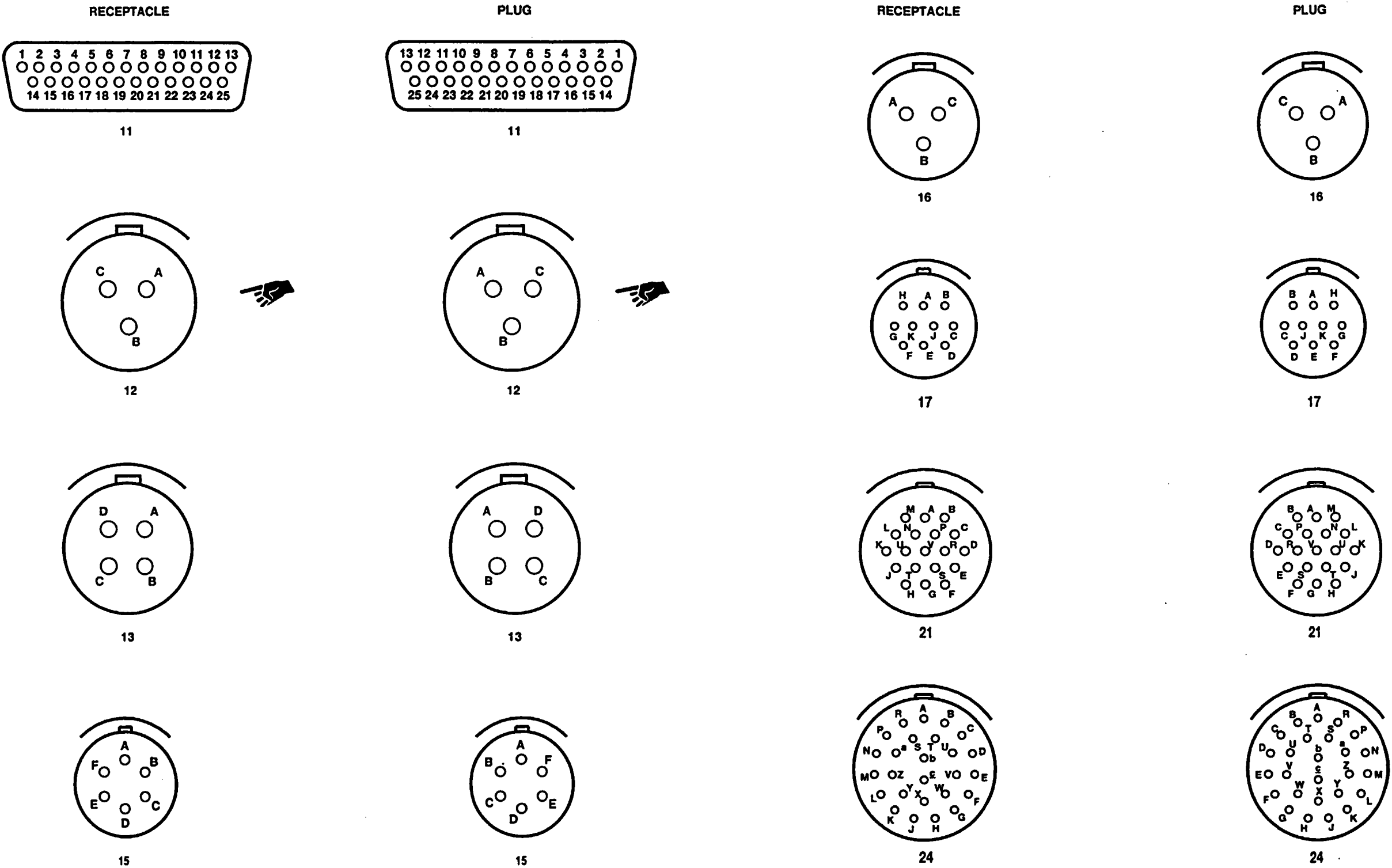
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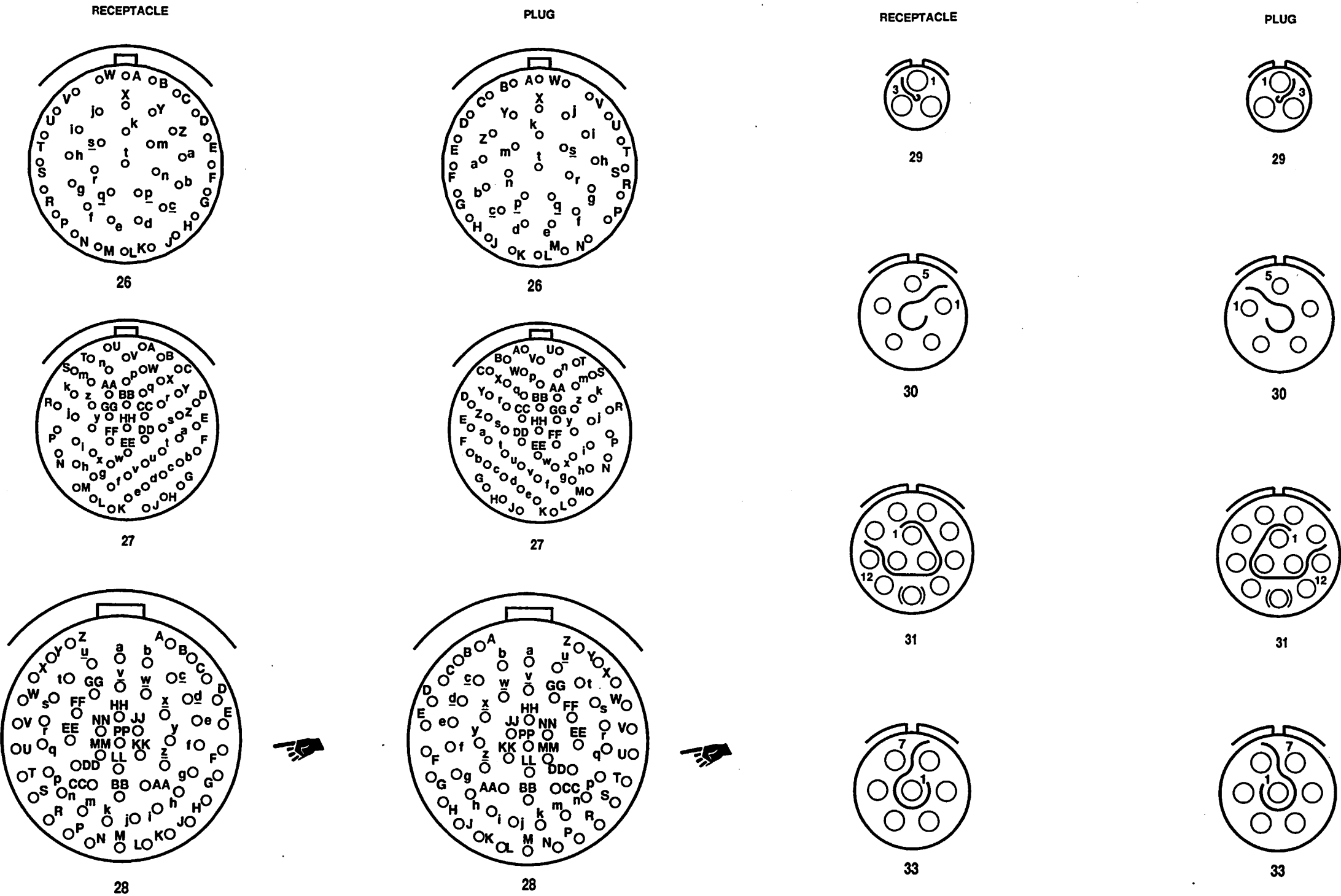
INSTRUMENT SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)

REF DESIG	PART NUMBER	TYPE	MATE WITH/LOCATION	STATION LOCATION			REF DESIG	PART NUMBER	TYPE	MATE WITH/LOCATION	STATION LOCATION		
				FS	WL	BL					FS	WL	BL
300J42	M83723-74A2255N	42	ELECTRONICS COMPARTMENT (WITHOUT 74)	105	40	20L	300J55	M83723-73W2255N	27	ELECTRONICS COMPARTMENT (WITH 74)	105	40	20L
300J42	M83723-74W2255N	27	ELECTRONICS COMPARTMENT (WITH 74)	105	40	20L	300P55	M83723-76A2255N	42	ELECTRONICS COMPARTMENT (WITHOUT 74)	105	40	20L
300P42	M83723-75A2255N	42	ELECTRONICS COMPARTMENT (WITH OUT 74)	105	40	20L	300P55	M83723-76W2255N	27	ELECTRONICS COMPARTMENT (WITH 74)	105	40	20L
300P42	M83723-75W2255N	27	ELECTRONICS COMPARTMENT (WITH 74)	105	40	20L	300J56	M83723-73A2255N	42	HEATER COMPARTMENT	105	40	25R
300J43	M83723-74A2255N	42	HEATER COMPARTMENT (WITHOUT 74)	105	40	30R	300P56	M83723-76A2255N	42	HEATER COMPARTMENT	105	40	25R
300J43	M83723-74W2255N	27	HEATER COMPARTMENT (WITH 74)	105	40	30R	300J58	M83723-73A22558	42	CONSOLE-UNDERFLOOR DISCONNECT	85	-20	
300P43	M83723-75A2255N	42	HEATER COMPARTMENT (WITHOUT 74)	105	40	30R	300P58	M83723-76A22558	42	CONSOLE-UNDERFLOOR DISCONNECT	85	-20	
300P43	M83723-75W2255N	27	HEATER COMPARTMENT (WITH 74)	105	40	30R	300J61	M83723-73A24619	43	CONSOLE-UNDERFLOOR DISCONNECT (WITHOUT 74)	85	-20	
300J44	M83723-74A2461N	43	PYLON WL 72, DISC	528	72	18L	300J61	M83723-73W24619	28	CONSOLE-UNDERFLOOR DISCONNECT (WITH 74)	85	-20	
300P44	M83723-75A2461N	43	PYLON WL 72, DISC	528	72	18L							
300J45	M83723-73A2461N	43	HEATER COMPARTMENT	105	40	30R	300P61	M83723-76A 24619	43	CONSOLE-UNDERFLOOR DISCONNECT (WITHOUT 74)	85	-20	
300P45	M83723-76A2461N	43	HEATER COMPARTMENT	105	40	30R							
300J47	M83723-74A2461N	43	HEATER COMPARTMENT	105	40	30R	300P61	M83723-76W24619	28	CONSOLE-UNDERFLOOR DISCONNECT (WITH 74)	85	-20	
300P47	M83723-75A2461N	43	HEATER COMPARTMENT	105	40	30R							
300J48	M83723-74A2461N	43	ELECTRONICS COMPARTMENT	105	40	20L	300J62	M83723-73A2028N	39	CONSOLE-UNDERFLOOR DISCONNECT	85	-20	
300P48	M83723-75A2461N	43	ELECTRONICS COMPARTMENT	105	40	20L	300P62	M83723-76A2028N	39	CONSOLE-UNDERFLOOR DISCONNECT	85	-20	
300J50	M83723-73A2461N	43	ELECTRONICS COMPARTMENT-OVHD	120	40	20L	300J63	M83723-73A2232N	41	CONSOLE-UNDERFLOOR DISCONNECT	85	-20	
300P50	M83723-76A2461N	43	ELECTRONICS COMPARTMENT-OVHD	120	40	20L	300P63	M83723-76A2232N	41	CONSOLE-UNDERFLOOR DISCONNECT	85	-20	
300J51	M83723-74A2461N	43	AFT CROWN-OVHD	460	45	20R	300J74	D38999-24KH53SN	302	NO. 2 ENG DISC PAN RCPT (WITH 74)	590	40	50R
300P51	M83723-75A2461 N	43	AFT CROWN-OVHD	460	45	20R	300J75	D38999-24KH53SN	302	NO. 1 ENG DISC PAN RCPT (WITH 74)	590	40	50L
300J53	M83723-74A2255N	42	AFT CROWN-OVHD	460	45	20R	300J77	D38999-24KH53SA	302	NO. 1 ENG DISC PAN RCPT (WITH 74)	590	40	50L
300P53	M83723-75A2255N	42	AFT CROWN-OVHD	460	45	20R	300J78	D38999-24KA98SN	12	NO. 2 ENG DISC PAN RCPT (WITH 74)	590	40	50R
300J54	M83723-74A2461N	43	AFT CROWN-OVHD	460	50	20L	300J80	D38999-24KD18SN	401	NO. 1 ENG DISC PAN RCPT (WITH 74)	590	40	50L
300P54	M83723-75A2461N	43	AFT CROWN-OVHD	460	50	20L	300J81	D38999-24KD18SN	401	NO. 2 ENG DISC PAN RCPT (WITH 74)	590	40	50R
300J55	M83723-73A2255N	42	ELECTRONICS COMPARTMENT (WITHOUT 74)	105	40	20L							

INSTRUMENT SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)



INSTRUMENT SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)



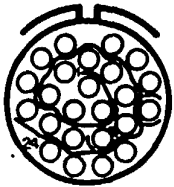
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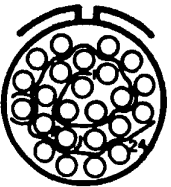
INSTRUMENT SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)

RECEPTACLE



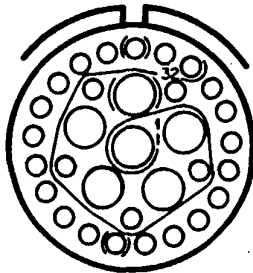
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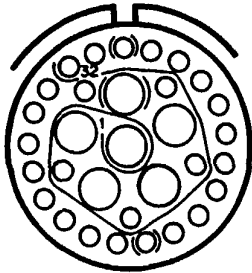
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RECEPTACLE



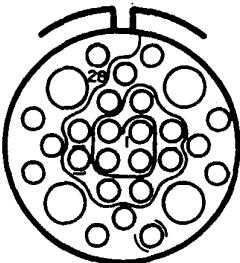
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PLUG



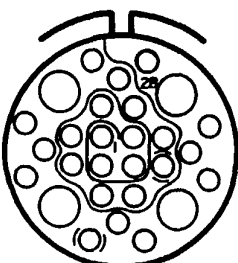
41

RECEPTACLE



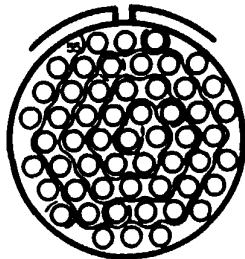
39

PLUG



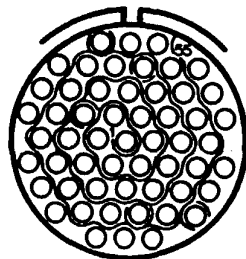
39

RECEPTACLE



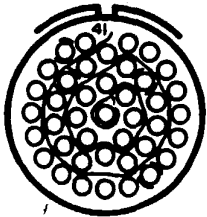
42

PLUG



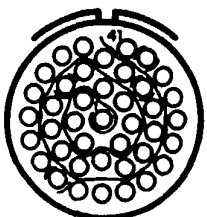
42

RECEPTACLE



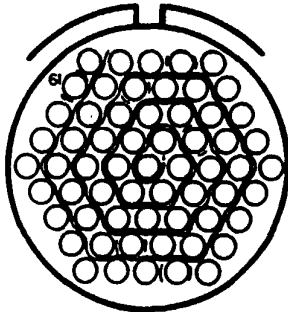
40

PLUG



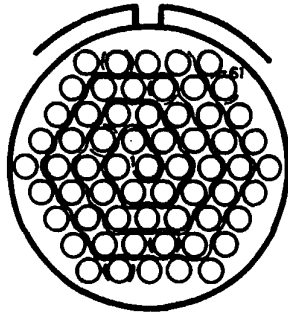
40

RECEPTACLE



43

PLUG



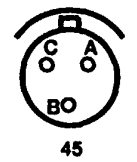
43

90 x 48

10248

INSTRUMENT SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)

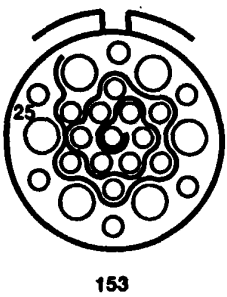
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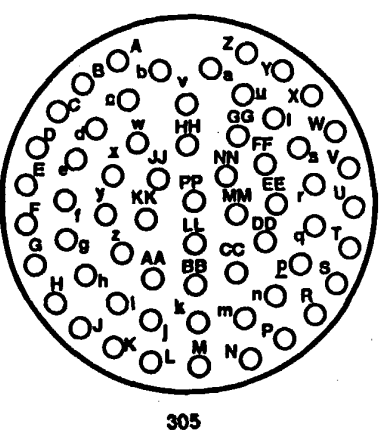
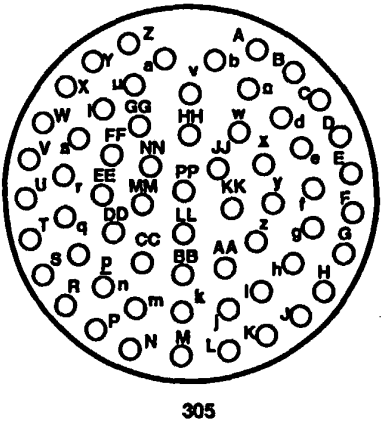
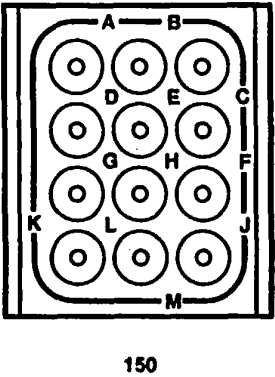
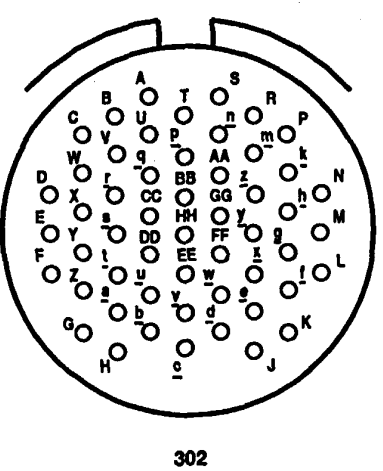
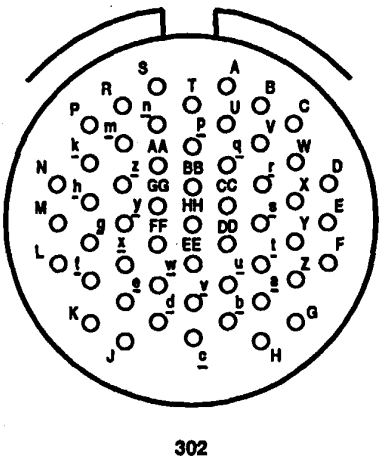
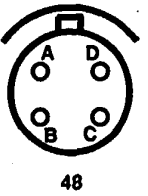
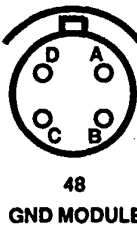
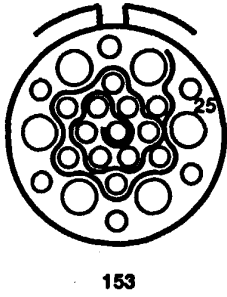
PLUG



RECEPTACLE



PLUG



A72185

GO TO NEXT PAGE

Change 19 8-2.10.1

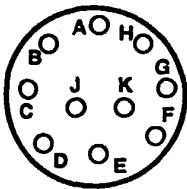
INSTRUMENT SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)

RECEPTACLE

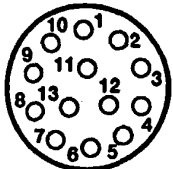


316

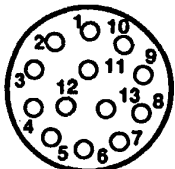
PLUG



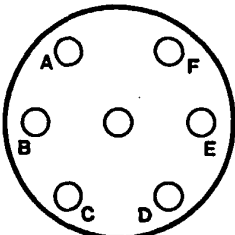
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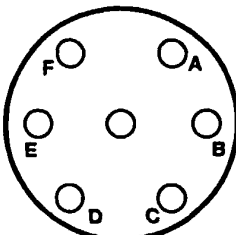
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317



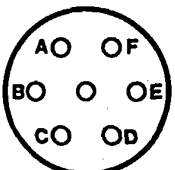
325



325



401



401

A72184

END OF TASK

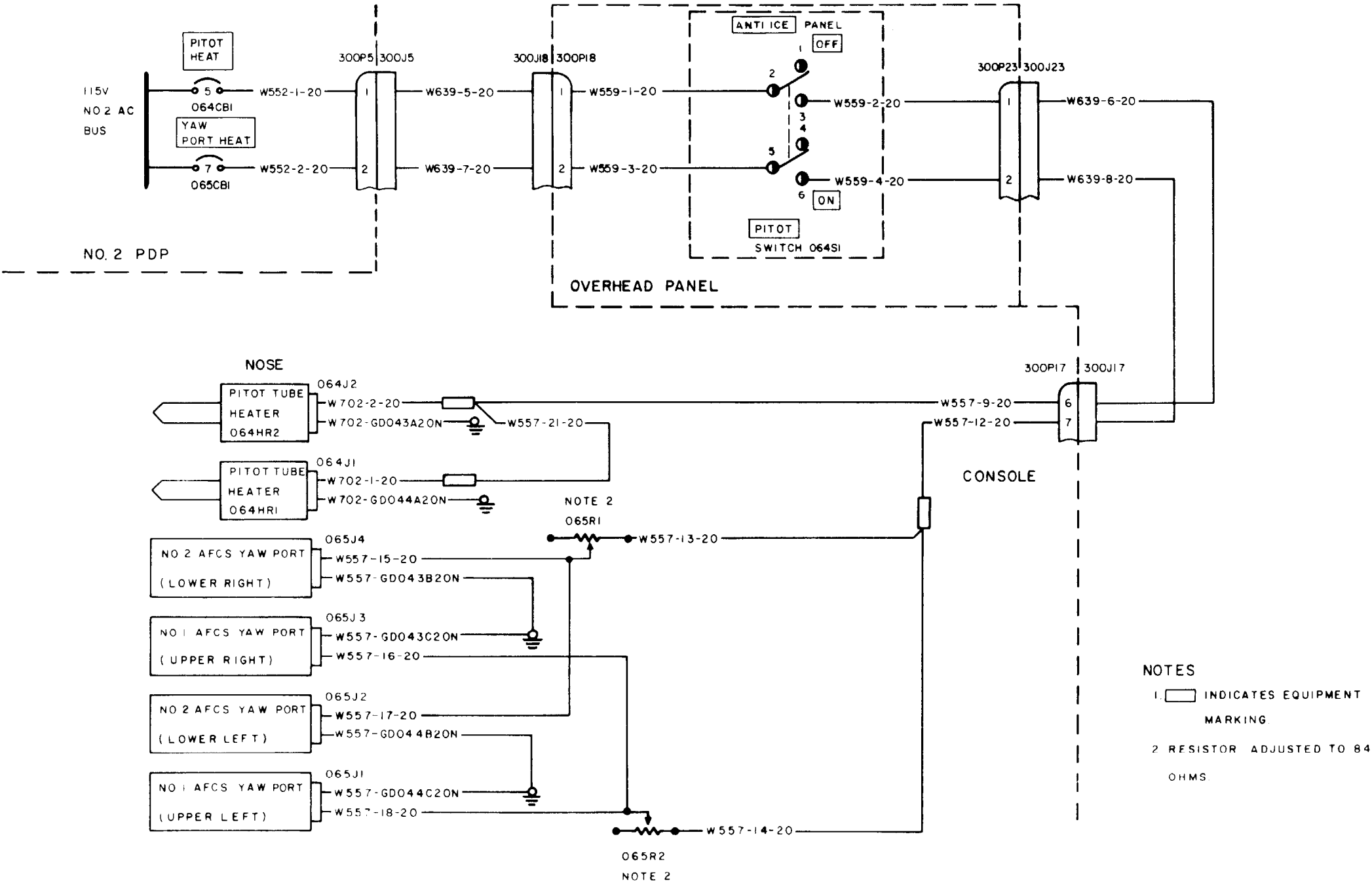
## 8 - 1 P I T O T   S T A T I C   S Y S T E M

8-1 PITOT STATIC SYSTEM

8-1.1 PITOT TUBE AND YAW PORT HEATERS  
WIRING DIAGRAM

8-1

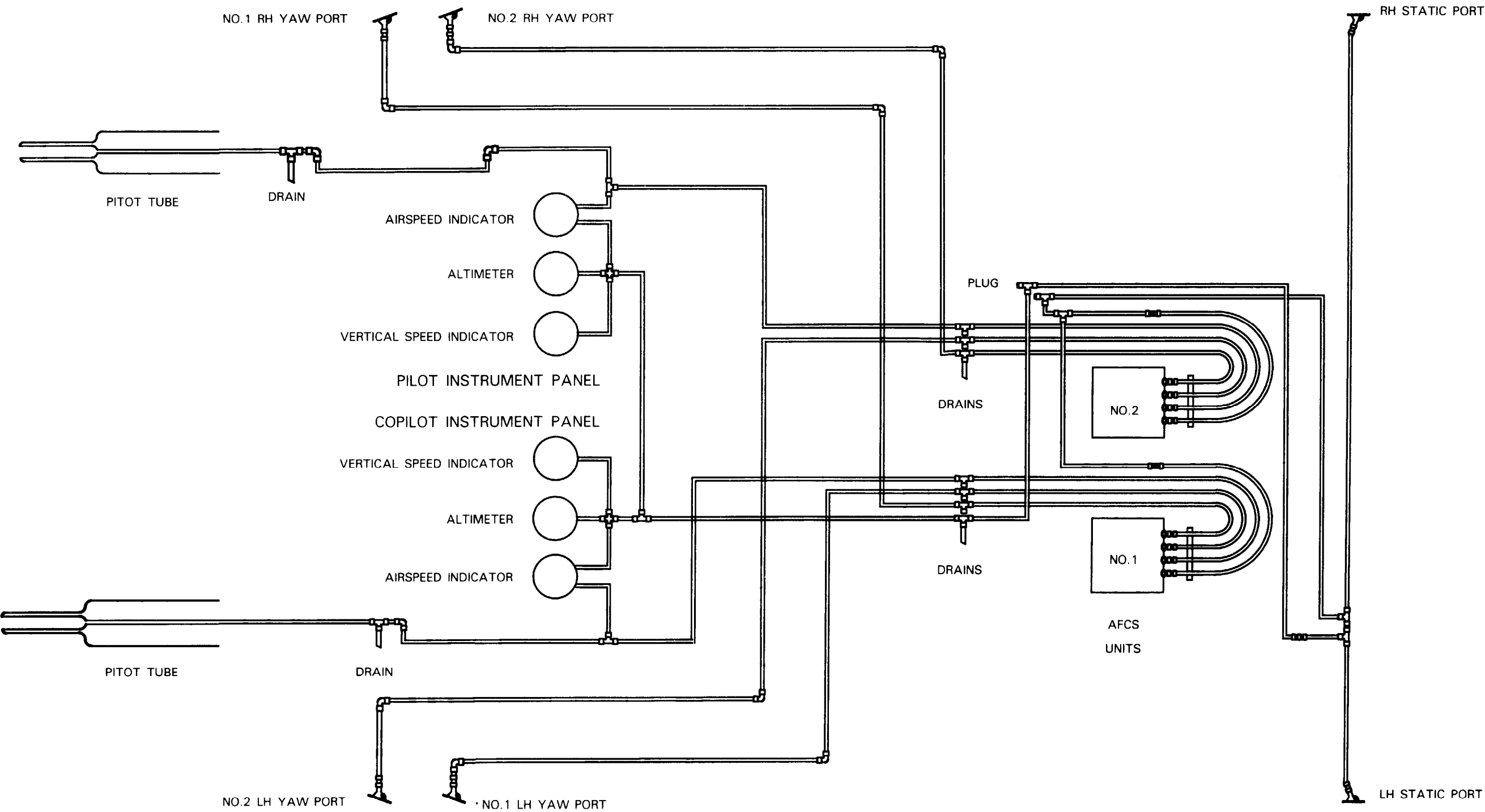
8-1.1



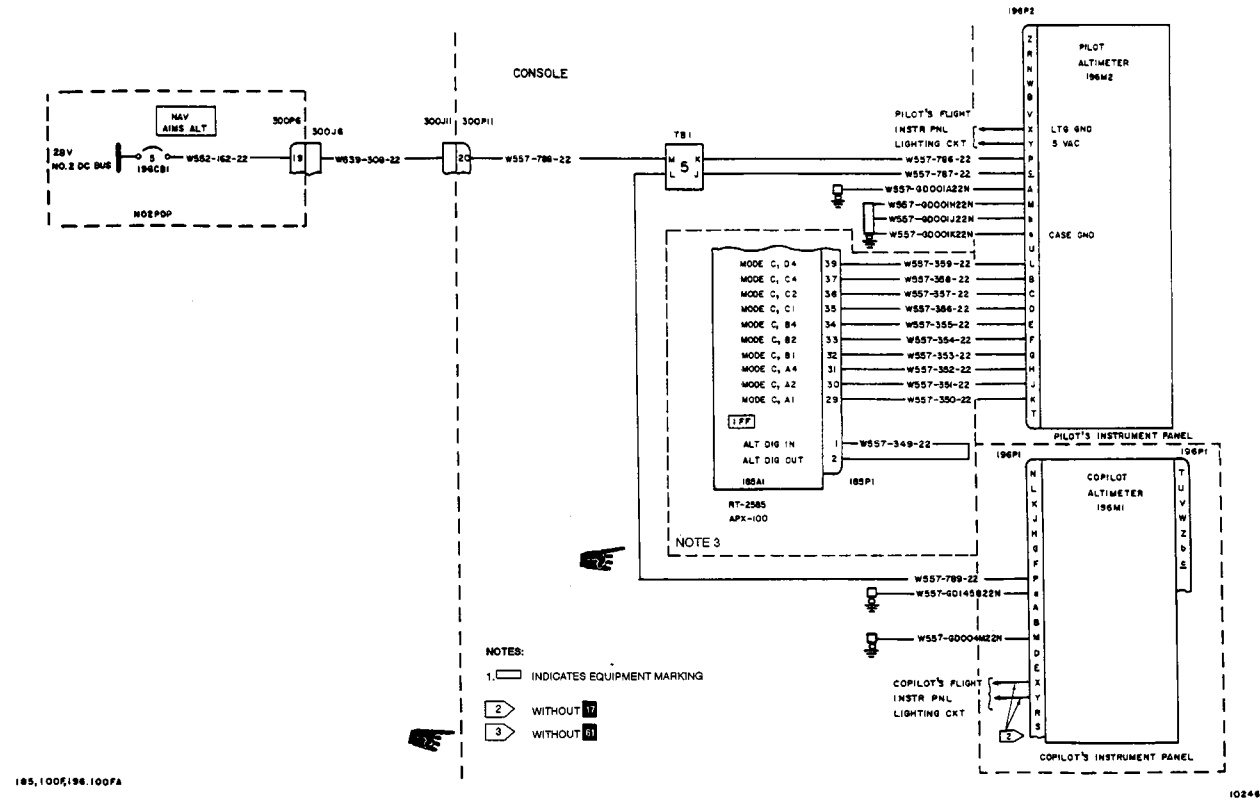


8-1.1.1 PITOT TUBE, YAW AND STATIC PORT TUBING SCHEMATIC

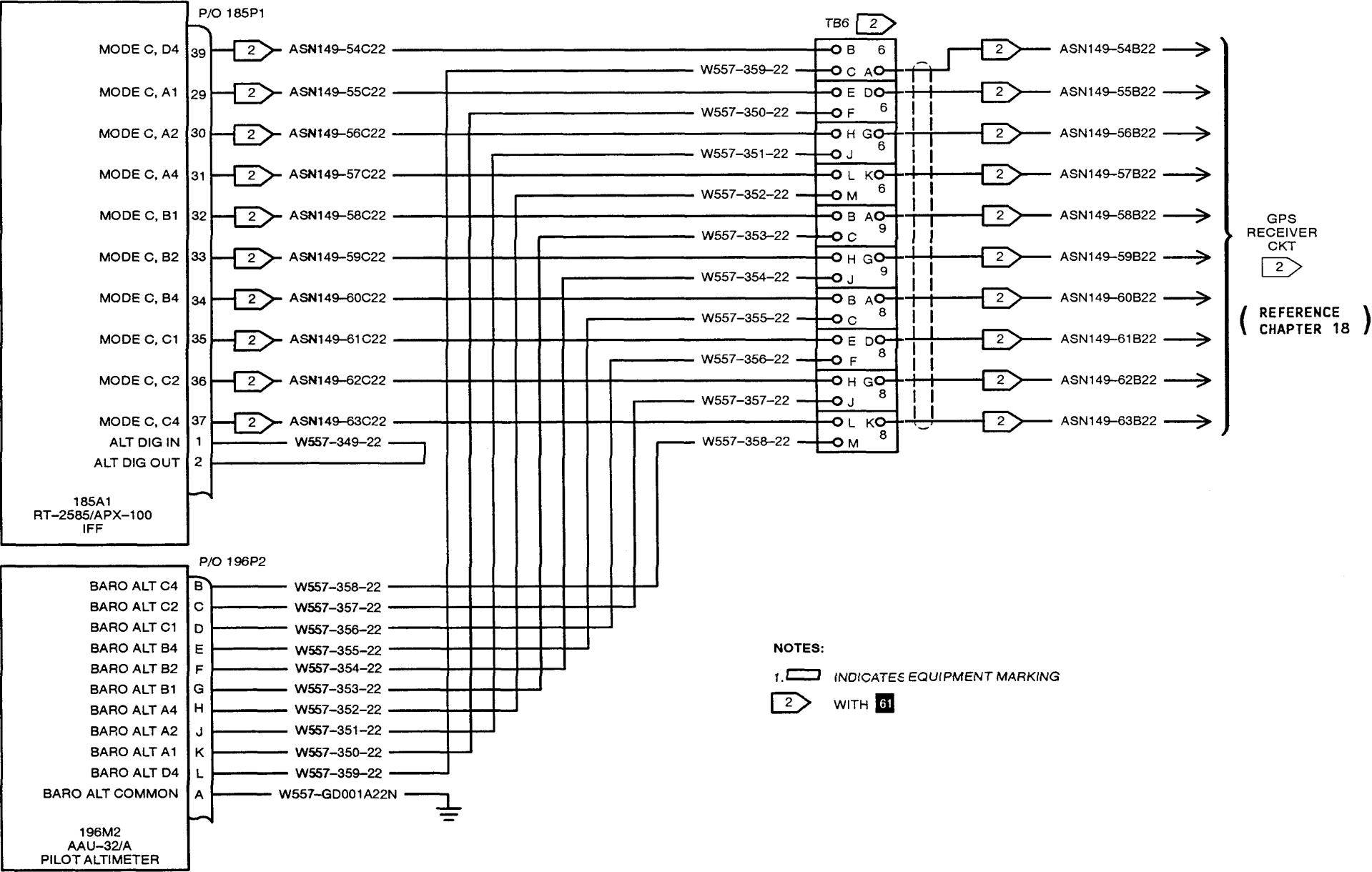
8-1.1.1



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Change 15 83



8-1.3 PITOT STATIC SYSTEM VISUAL CHECK

INITIAL SETUP  
Applicable Configurations:  
All

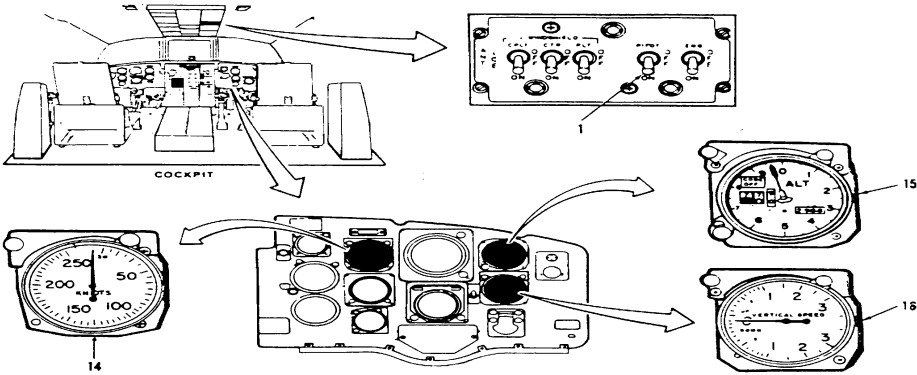
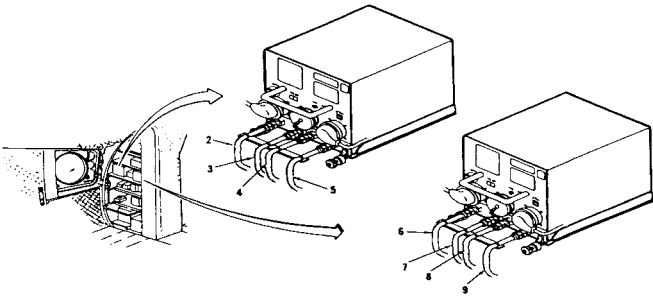
References:  
TM 55-1520.240-23

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

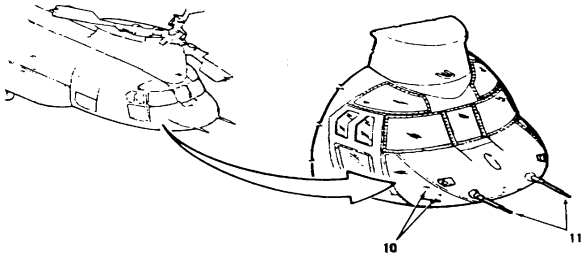
Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician

Equipment Condition.  
TM 55-1520-240-23  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Electronic Compartment Acoustic  
Blanket Removed



PILOT'S INSTRUMENT PANEL SHOW  
COPILOT'S INSTRUMENT PANEL SAME



RIGHT YAW PORTS SHOWN  
LEFT YAW PORTS SAME

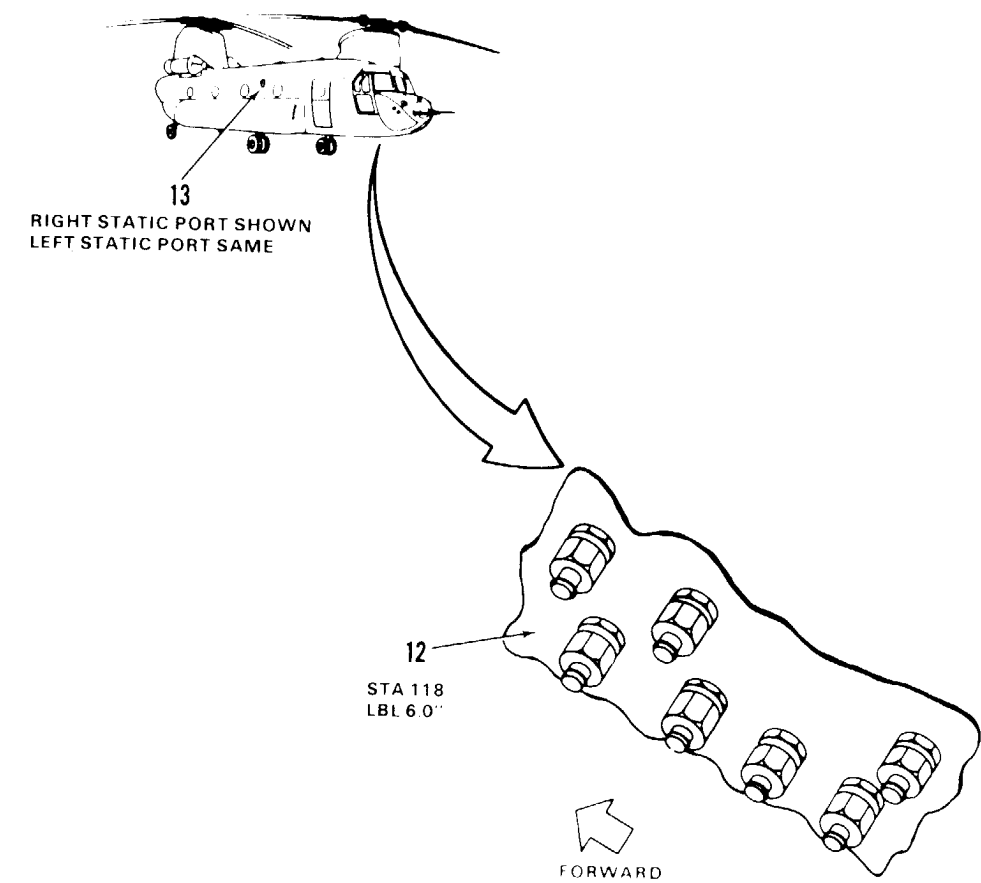
8-1.3 PITOT STATIC SYSTEM VISUAL CHECK (Continued)

8-1.3

TASK	RESULT
1. Check PITOT switch (1).	If switch (1) is loose or damaged, tighten or replace as required.
2. Check NO. 1 AFCS computer static (2), pitot (3), left (4), and right (5) sideslip line and fittings.	If lines are kinked or damaged, straighten or replace them as required. If fittings are loose or damaged, tighten or replace them as required.
3. Check NO. 2 AFCS computer static (6), pitot (7), left (8), and right (9) sideslip lines and fittings.	If lines are kinked or damaged, straighten or replace them as required. If fittings are loose or damaged, tighten or replace them as required.
4. Check left and right yaw ports (10).	If holes in ports (10) are clogged or ports are damaged, clean ports or replace them as required.
5. Check left and right pitot masts (11).	If either pitot mast (11) is loose or damaged, tighten or replace it as required.
6. Check pitot static system drains (12).	If drains (12) are loose or damaged, tighten or replace them as required.
7. Check static ports (13).	If holes in ports (13) are clogged, or ports are damaged, clean parts or replace them as required.
8. Check pilot's and copilot's airspeed indicators (14).	If either Indicator (14) is loose or damaged tighten or replace it as required
9. Check pilot's and copilot's altimeters (15).	If either altimeter (15) is loose or damaged, tighten or replace it as required.
10. Check pilot's and copilot's vertical speed indicators (16).	If either indicator (16) is loose or damaged tighten or replace it as required.

FOLLOW-ON MAINTENANCE

None



END OF TASK

8-1.4 PITOT STATIC SYSTEM OPERATIONAL CHECK

INITIAL SETUP

Applicable Configurations:  
All

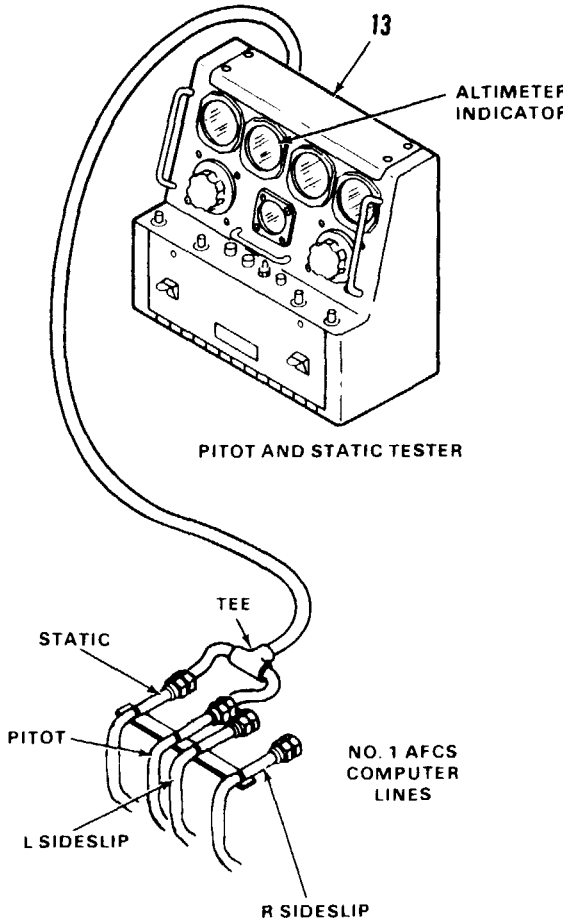
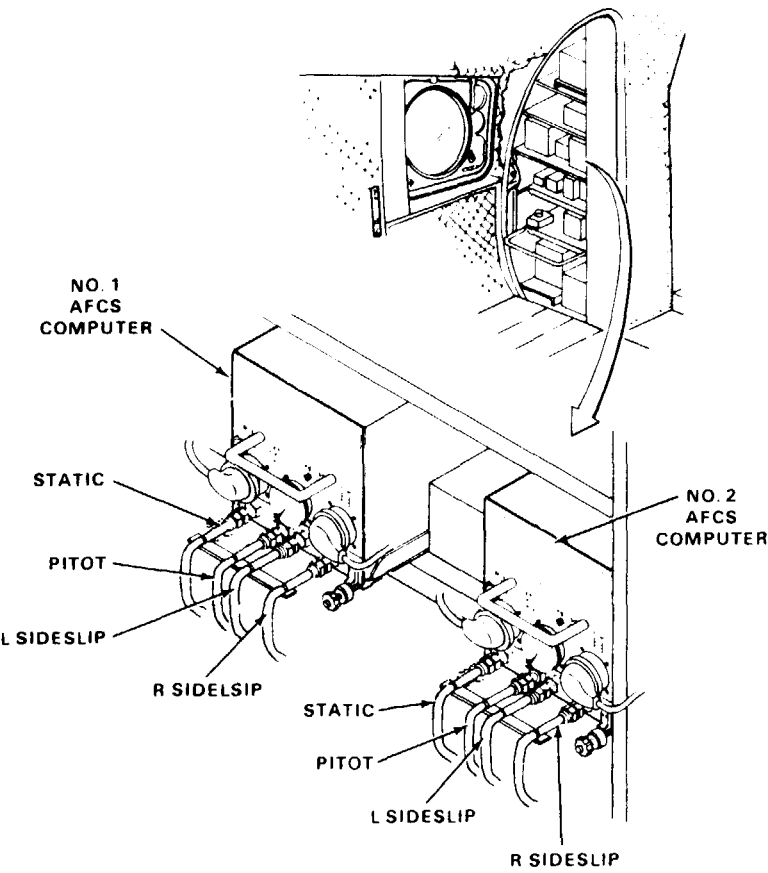
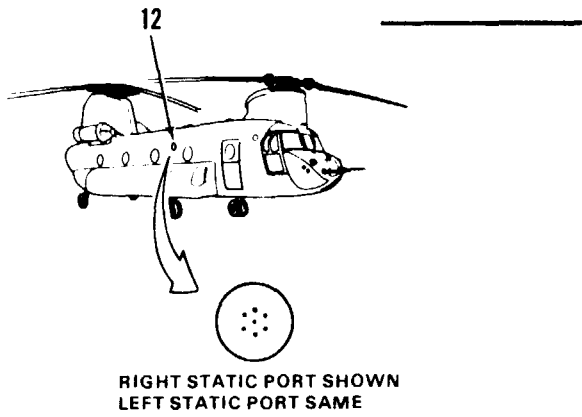
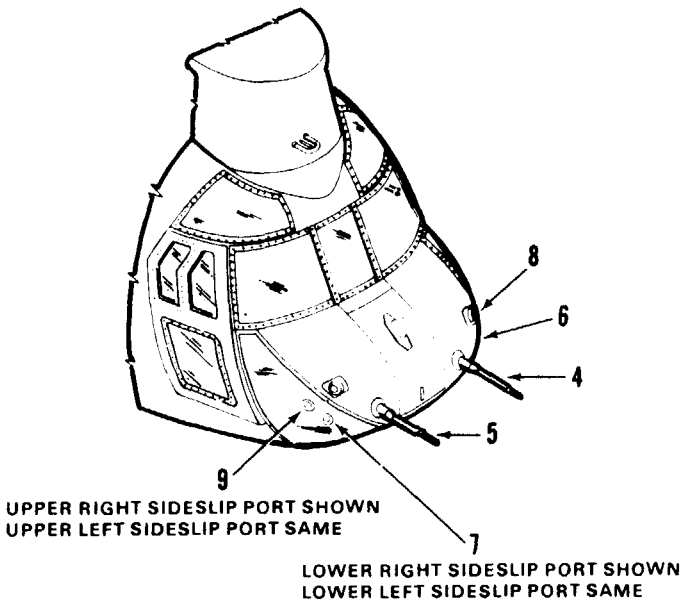
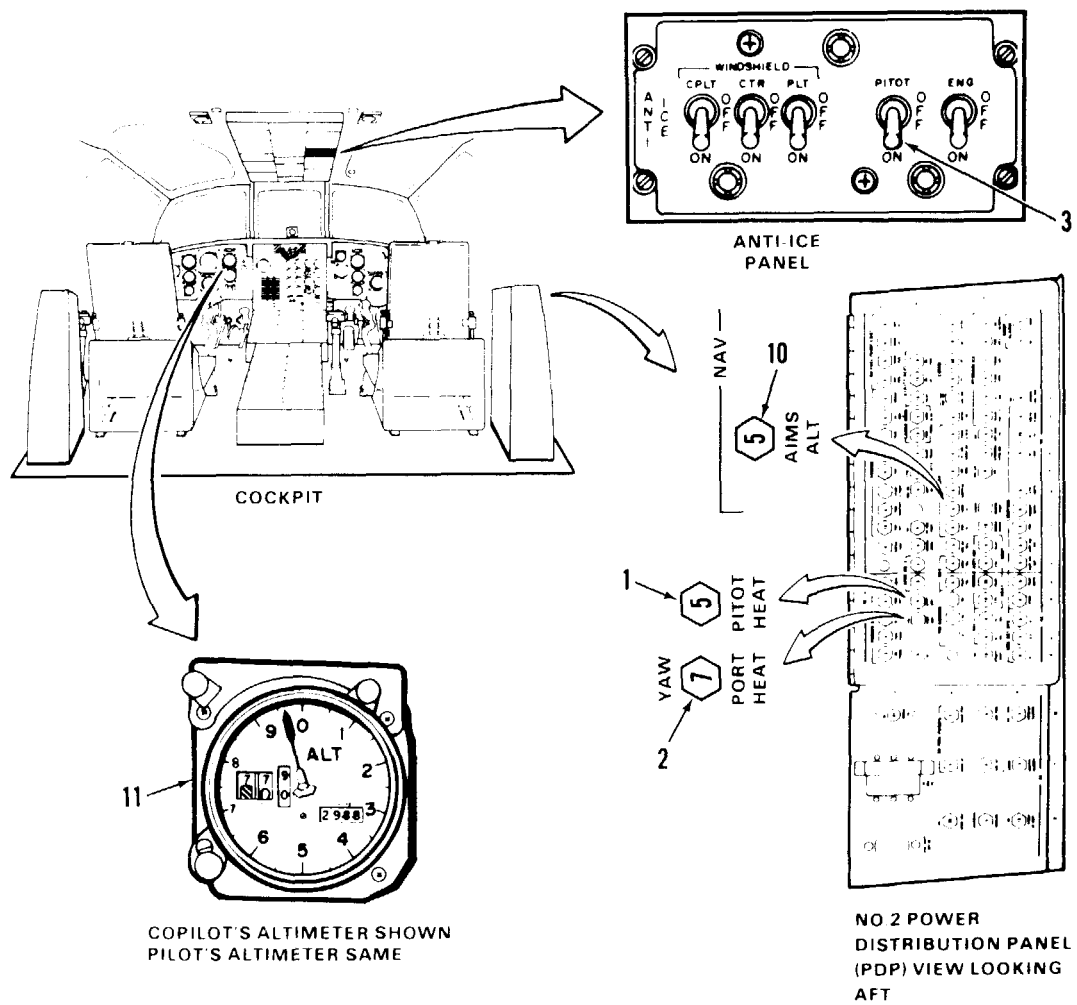
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Pitot and Static Systems Tester  
NSN 4920-00-475-7161  
Workstand

Materials:  
Barrier Material (E80)  
Masking Tape (E388)

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23  
TM 55-4920-231-14

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Visual Check of Pitot Static  
System Performed (Task 8-1.3)



8-1.4 PITOT STATIC SYSTEM OPERATIONAL CHECK (Continued)

8 - 1 - 4

TASK	RESULT
<b>PITOT MAST AND SIDESLIP PORTS HEATER CHECK</b>	
1. Check that PITOT HEAT circuit breaker (1) is closed.	If circuit breaker (1) is open, close it. If it opens again go to task 8-1.5.
2. Check that YAW PORT HEAT circuit breaker (2) is closed.	If circuit breaker (2) is open, close it. If it opens again go to task 8-1.6.
3. Set PITOT switch (3) to ON.	Hold hand close to left and right pitot tubes (4 and 5) but do not touch them and feel for heat. If heat is not present go to task 8-1.7.
<div>WARNING</div> <p>The pitot tube and sideslip ports get very hot and can burn personnel when heaters are on.</p> <div>CAUTION</div> <p>Do not leave heaters on for more than 5 minutes. Ground operation shortens their service life.</p>	Hold hand close to lower left and lower right sideslip ports (6 and 7) but do not touch them and feel for heat. If heat is not felt go to task 8-1.8.
	Hold hand close to upper left and upper right sideslip ports (8 and 9) but do not touch them and feel for heat. If heat is not felt, go to task 8-1.9.
4. Set PITOT switch (3) to OFF.	
<b>ALTIMETER VIBRATOR CHECK</b>	
5. Check that NAV AIMS ALT circuit breaker (10) is closed.	If circuit breaker (10) is open, close it if it opens again, go to task 8-1.10.
6. Check pilot's and copilot's altimeters (11).	Place ear close to altimeters (11) and listen for a vibration if vibration can not be heard, go to task 8-1.11.
<b>PITOT/STATIC SYSTEM CHECK</b>	
<div>CAUTION</div> <p>Do not put tape directly over holes in static ports or pitot tube drain holes. Adhesive on tape will clog holes.</p>	

TASK	RESULT
7 Cover holes in static ports (12). Use barrier material (E67). Secure material with masking tape (E337). Cap the right and left pitot masts (4 and 5). Seal drain holes in each pitot mast using barrier material and masking tape.	
8. At NO. 1 AFCS computer, disconnect pitot and static tubing compression sleeve fittings and connect pitot and static lines to tester (13).	
9. At NO. 2 AFCS computer, disconnect pitot and static tubing compression sleeve fittings and connect lines together.	
<div>CAUTION</div> <p>Do not apply pressure to static line. Damage to altimeters can result.</p>	
10. Adjust vacuum at a rate less than <u>3,000 feet per minute</u> until tester (13) altimeter reads <u>20,000 feet</u> . Shut off vacuum pressure.	Tester (13) altimeter reading shall not decrease more than <u>2,000 feet in 5 minutes</u> . If it does, go to task 8-1.12.
<b>NOTE</b> <p>Altimeter reading must be corrected for tester leak rate. Refer to TM 55-4920-231-14.</p>	
11. Disconnect tester (13). At both AFCS computers disconnect pitot and static lines from test circuit and connect them to their respective AFCS computers.	

GO TO NEXT PAGE

TASK	RESULT
------	--------

PITOT SYSTEM CHECK

CAUTION

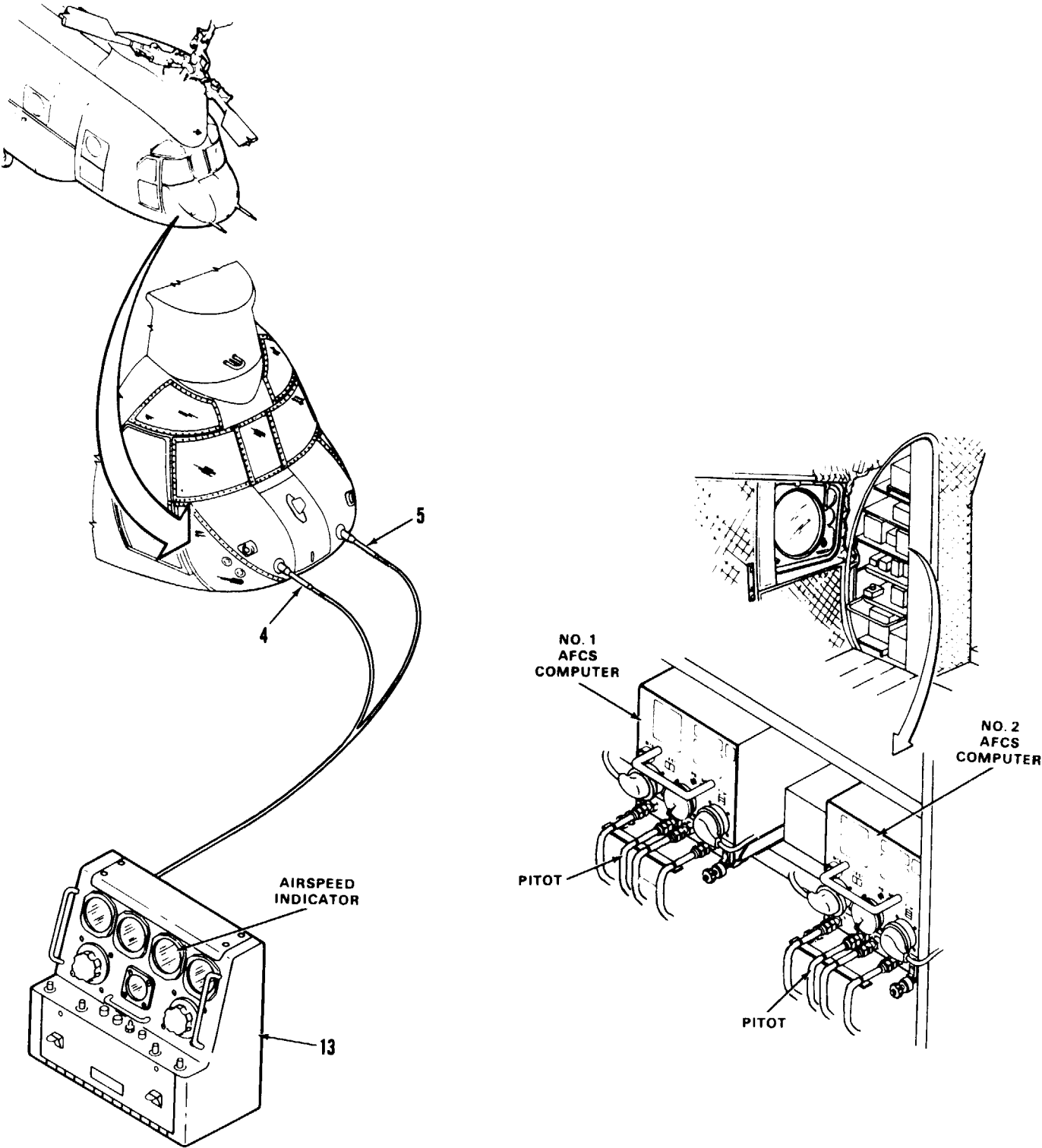
Do not apply vacuum to pitot lines. Damage to airspeed indicators can result.

12. At both AFCS computers disconnect and cap off both pitot tube compression sleeve fittings.
13. Connect tester (13) to both pitot masts (4 and 5) and adjust pressure for an airspeed indication of 150 knots on tester airspeed indicator. Shut off pressure.

Airspeed shall not decrease more than 10 knots in 5 minutes. If it does leak, go to task 8-1.13.

NOTE

- Airspeed must be corrected for tester leak rate. Refer to TM 55-4920-231-14.
- If PITOT system does not leak and there is a log book entry indicating a pitot leak, check AFCS computer in suspected system and replace AFCS computer.
14. Disconnect tester (13) from both pitot masts (4 and 5). Remove caps and connect compression sleeve fittings to their respective AFCS computers.



45 x 54

D145-11481-SP1



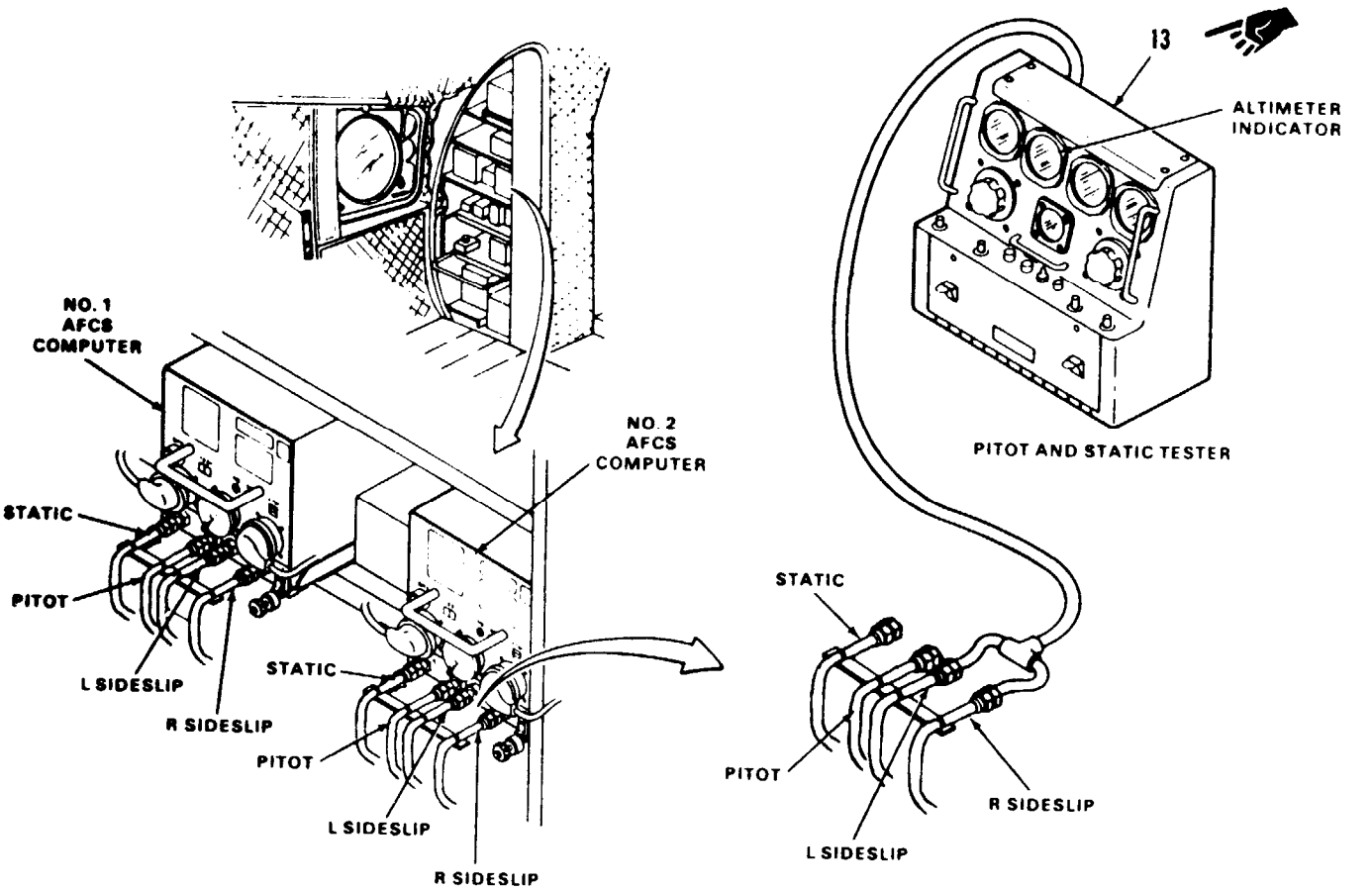
8-1.4 PITOT STATIC SYSTEM OPERATIONAL CHECK (Continued)

8-1.4

TASK	RESULT
<b>SIDESLIP LEAK TEST</b>	
15. Cover holes in sideslip ports (6, 7, 8, and 9). Use barrier material (C67) and secure with masking tape (C337).	
16. Disconnect NO. 1 AFCS left and right sideslip tubes from computer. Connect to vacuum port on tester (13).	
17. Adjust vacuum at a rate less than <u>3,000 feet per minute</u> until tester (13) altimeter reads <u>20,000 feet</u> .	Shut off vacuum pressure. Tester (13) altimeter readings shall not decrease more than <u>2,000 feet in 5 minutes</u> . If it does, go to task 8-1.14.
18. Remove tester (13) from NO. 1 AFCS left and right sideslip tubes and connect to their respective fittings on NO. 1 AFCS computer.	
19. Disconnect NO. 2 AFCS left and right sideslip tubes from computer. Connect to vacuum port on tester.	
20. Adjust vacuum at a rate less than <u>3,000 feet per minute</u> until tester (13) altimeter reads <u>20,000 feet</u> .	Shut off vacuum pressure. Tester (13) altimeter readings shall not decrease more than <u>2,000 feet in 5 minutes</u> . If it does, go to task 8-1.14.
21. Remove tester (13) from NO. 2 AFCS left and right sideslip tubes and connect to their respective fittings on NO. 2 AFCS computer.	
22. Remove tape and barrier material from all four sideslip ports	

FOLLOW-ON MAINTENANCE:

- TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Electronic Compartment Acoustic Blanket Installed



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

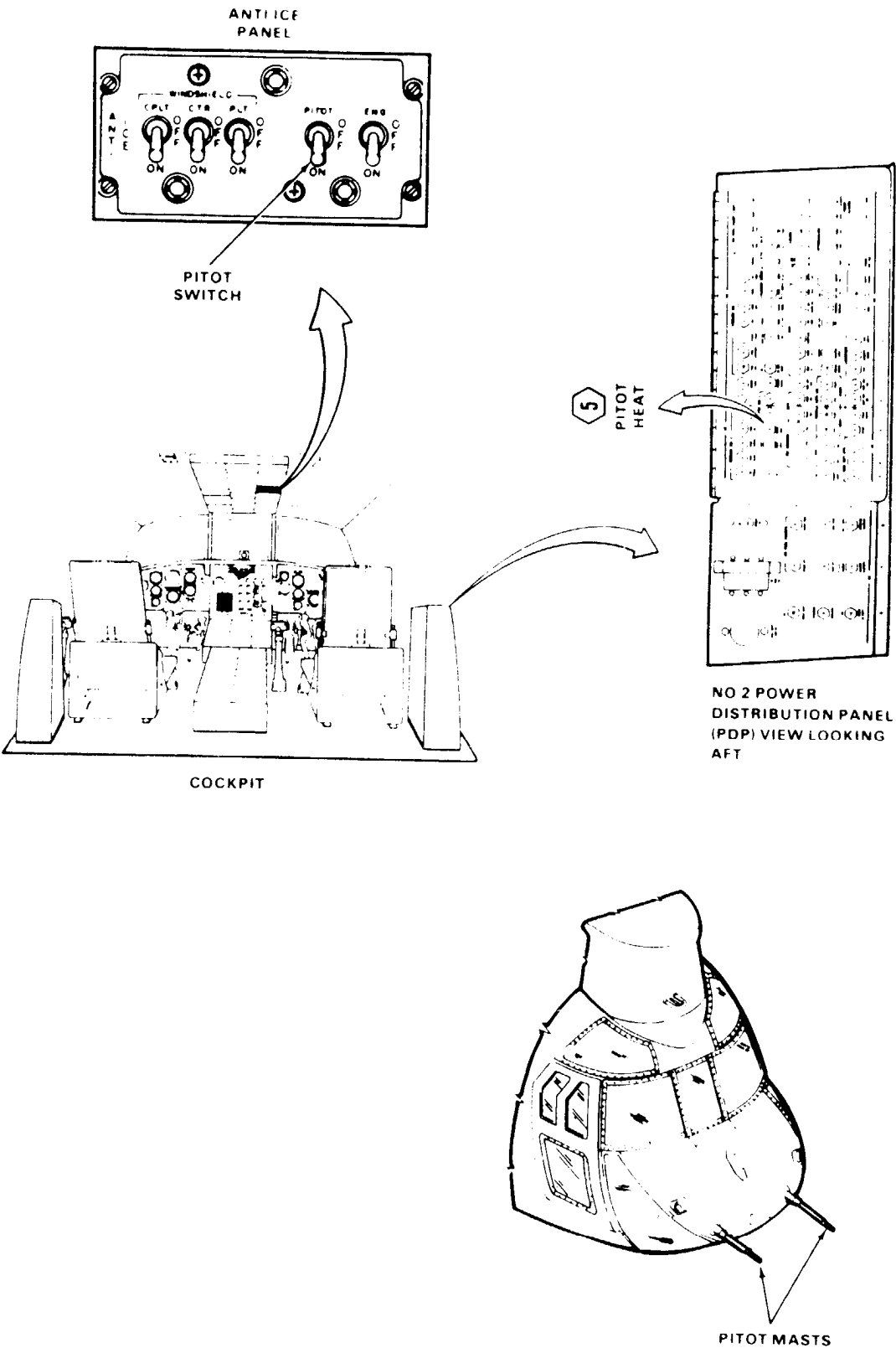
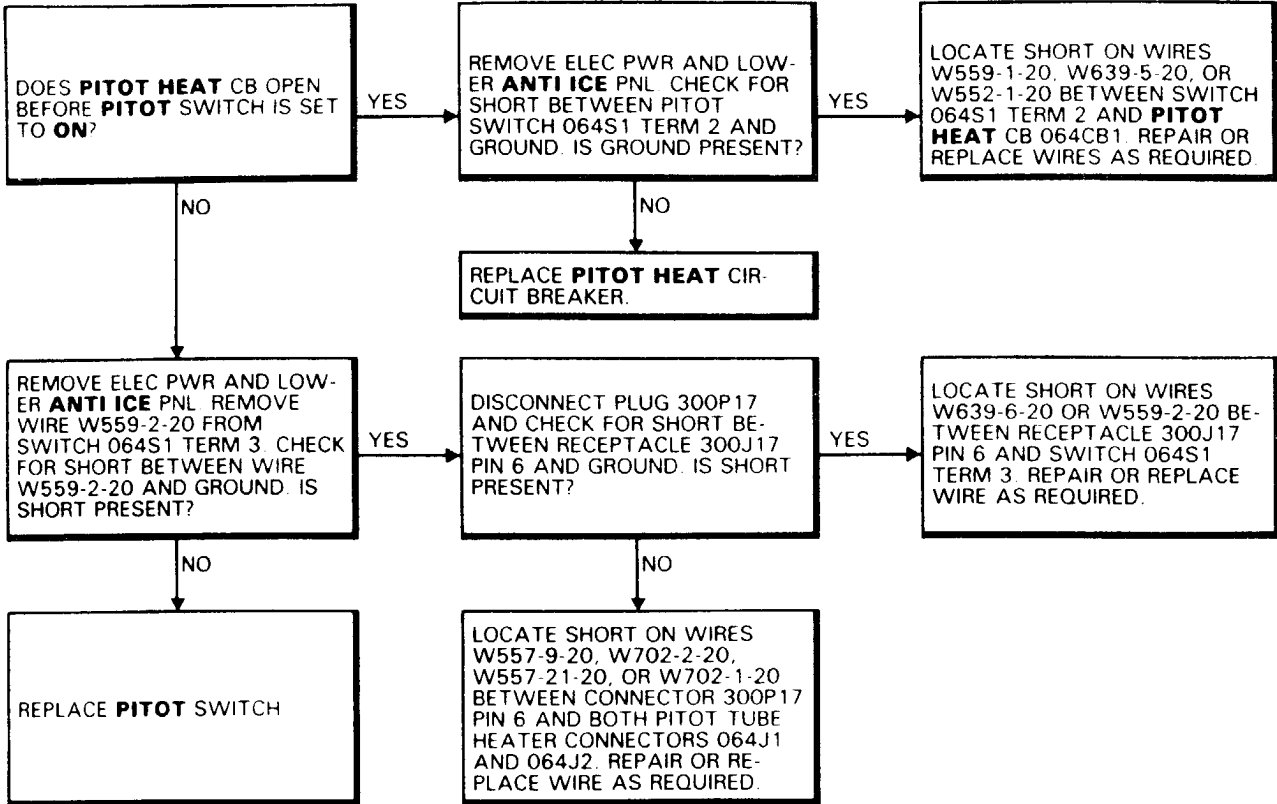
Materials:

None

Personnel Required:  
Aircraft Electrician (2)

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

DOES **YAW PORT HEAT** CB  
OPEN BEFORE **PITOT** SWITCH  
IS SET TO **ON**?

YES

REMOVE ELEC PWR AND LOW-  
ER **ANTI ICE** PNL. CHECK FOR  
SHORT BETWEEN **PITOT**  
SWITCH 064S1 TERM 5 AND  
GROUND. IS GROUND PRESENT?

YES

LOCATE SHORT ON WIRES  
W559-3-20, W639-7-20, OR  
W555-2-20 BETWEEN SWITCH  
064S1 TERM 5 AND **YAW**  
**PORT HEAT** CB 065CB1. RE-  
PAIR OR REPLACE WIRES AS  
REQUIRED

NO

REPLACE **YAW PORT HEAT**  
CIRCUIT BREAKER.

REMOVE ELEC PWR AND LOW-  
ER **ANTI ICE** PNL. REMOVE  
WIRE W559-4-20 FROM  
SWITCH 064S1 TERM 6. CHECK  
FOR SHORT BETWEEN WIRE  
W559-4-20 AND GROUND. IS  
SHORT PRESENT?

YES

DISCONNECT PLUG 300P17  
AND CHECK FOR SHORT BE-  
TWEEN RECEPTACLE 300J17  
PIN 7 AND GROUND. IS SHORT  
PRESENT?

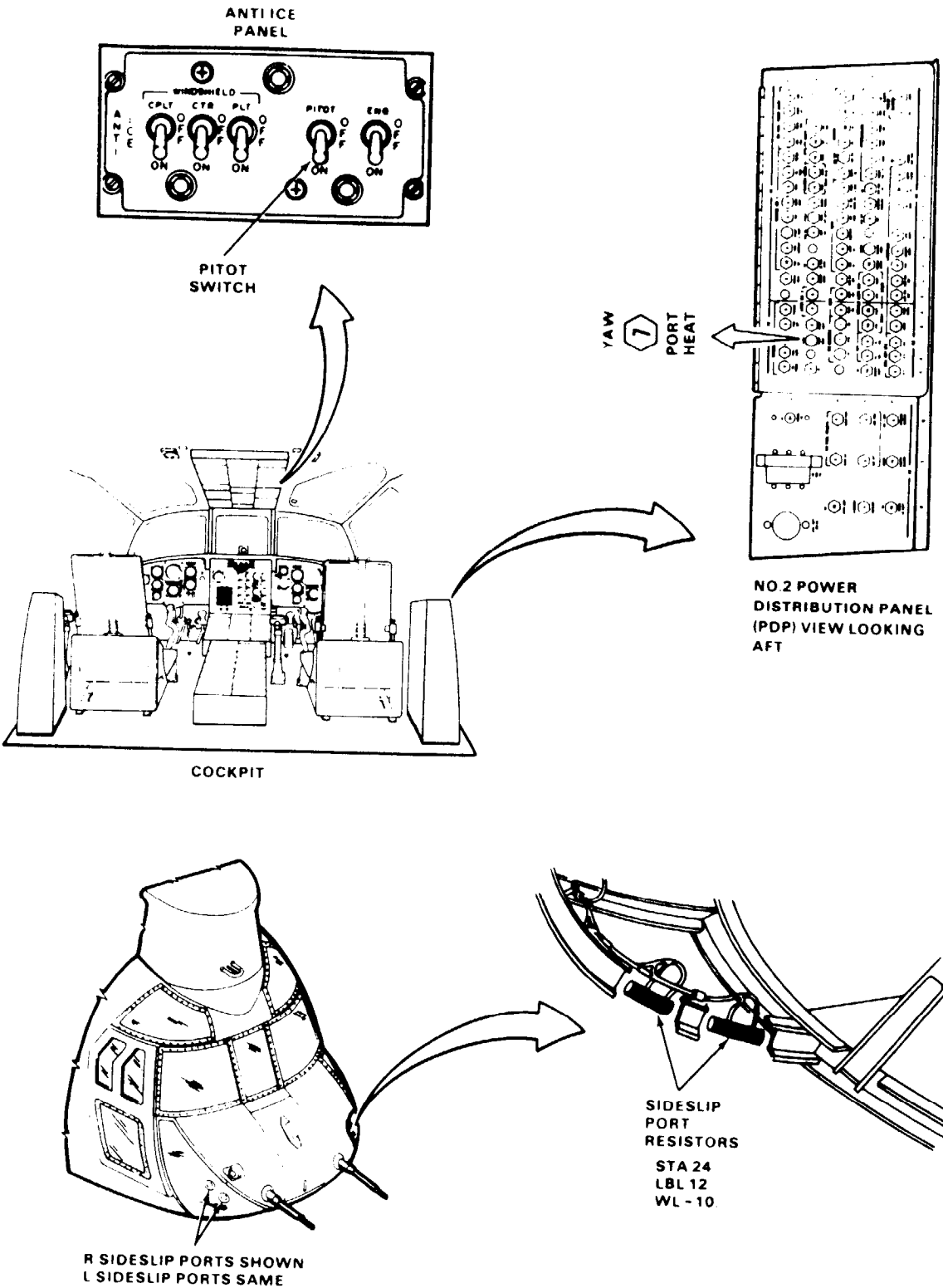
YES

LOCATE SHORT ON WIRES  
W639-8-20 OR W559-4-20 BE-  
TWEEN RECEPTACLE 300J17  
PIN 7 AND SWITCH 064S1  
TERM 6. REPAIR OR REPLACE  
WIRE AS REQUIRED.

NO

REPLACE **PITOT** SWITCH.

LOCATE SHORT ON WIRES  
W557-12-20, W557-13-20, OR  
W557-14-20 BETWEEN CON-  
NECTOR 300P17 AND RESIS-  
TORS 065R1 AND 065R2.  
REPAIR OR REPLACE WIRE AS  
REQUIRED.



8-1.7 NO HEAT FELT ON LEFT OR RIGHT PITOT TUBE,  
PITOT SWITCH AT ON

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

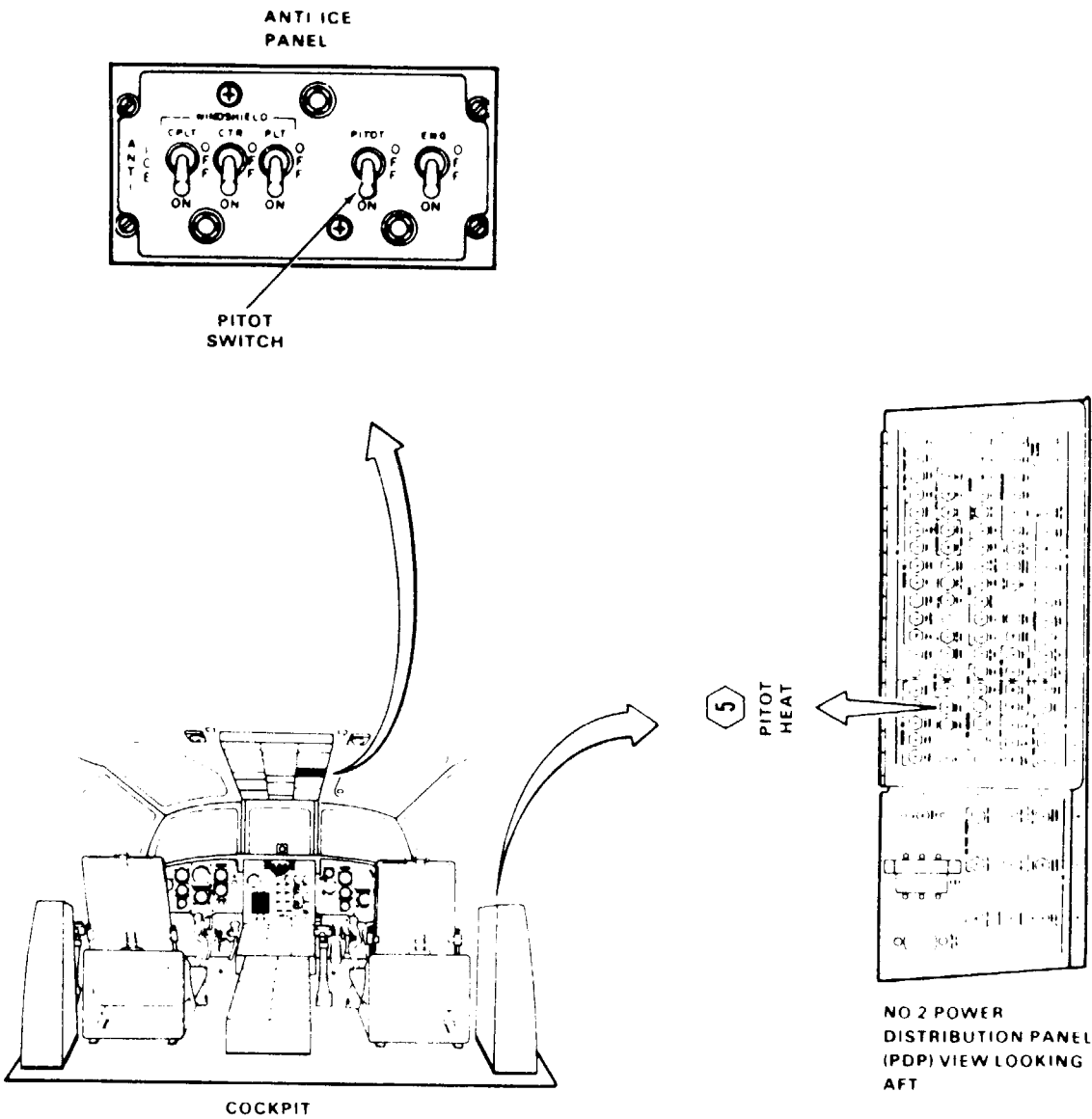
Tools:  
Electrical Repairer's Tool Kit.  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

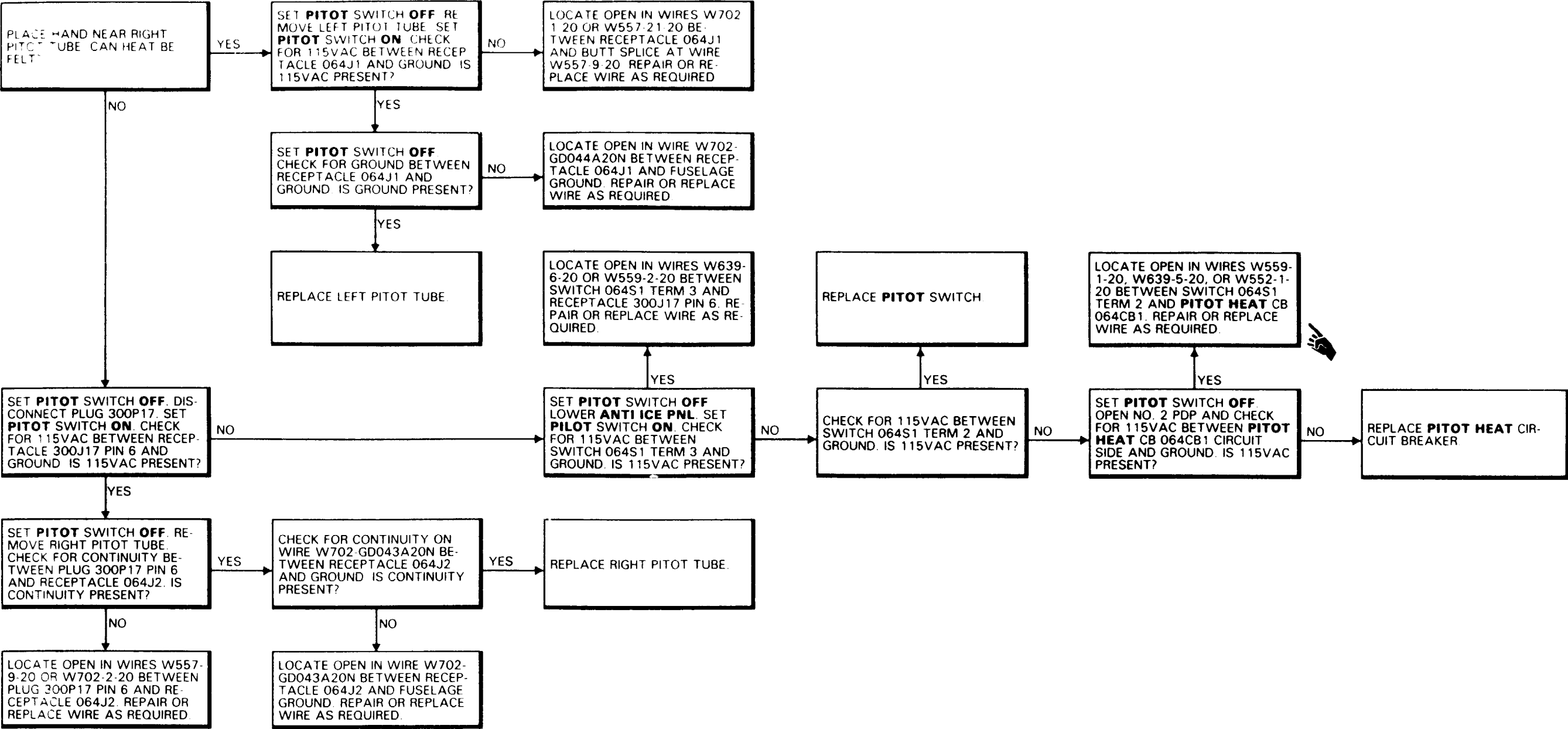
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



8-1.7 NO HEAT FELT ON LEFT OR RIGHT PITOT TUBE, PITOT SWITCH AT ON (Continued)

8-1.7



8-1.8 NO HEAT FELT ON LOWER RIGHT OR LOWER LEFT SIDESLIP PORTS

FAULT ISOLATION PROCEDURE

NITIAL SETUP

Applicable Configurations:  
All

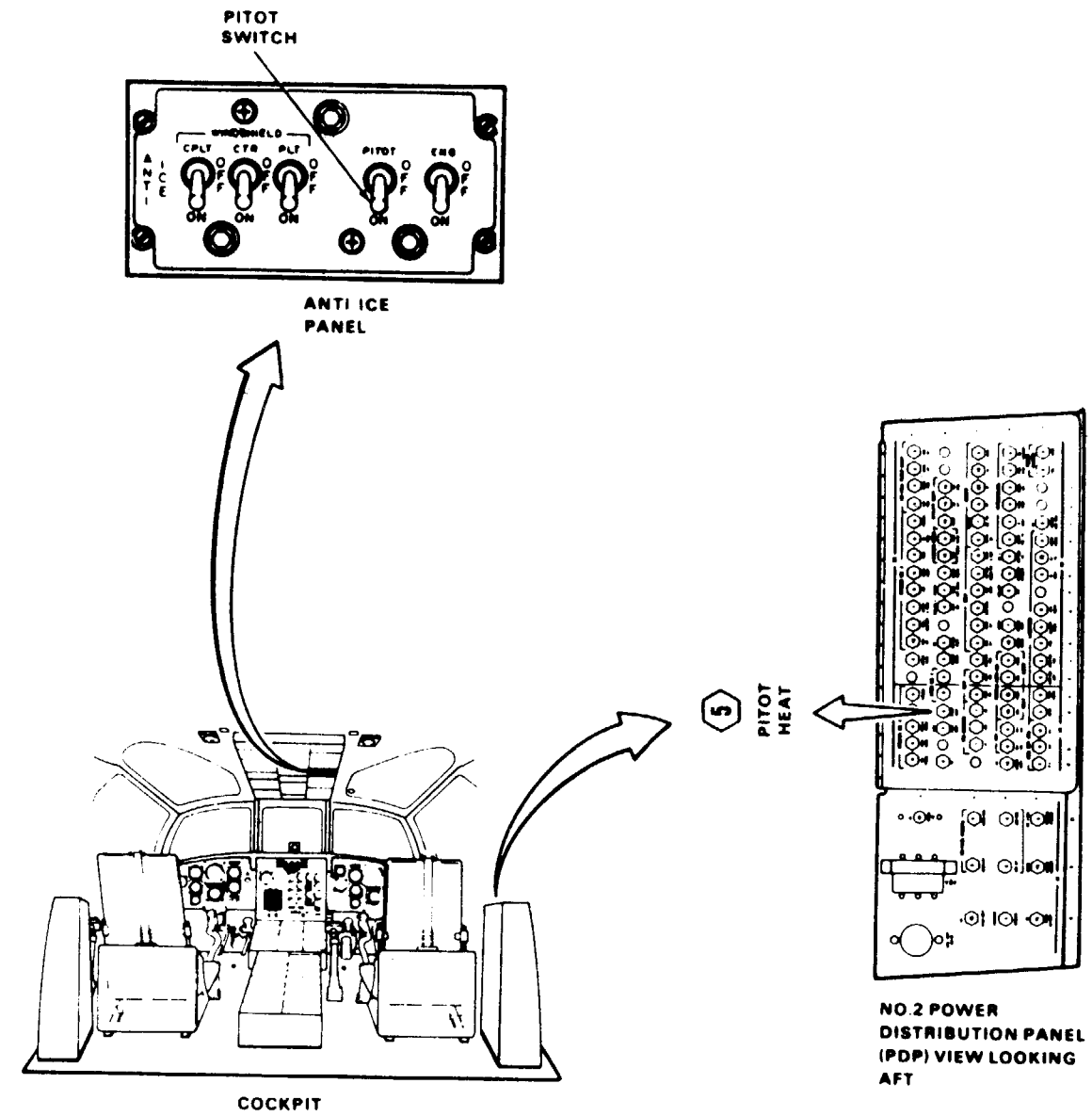
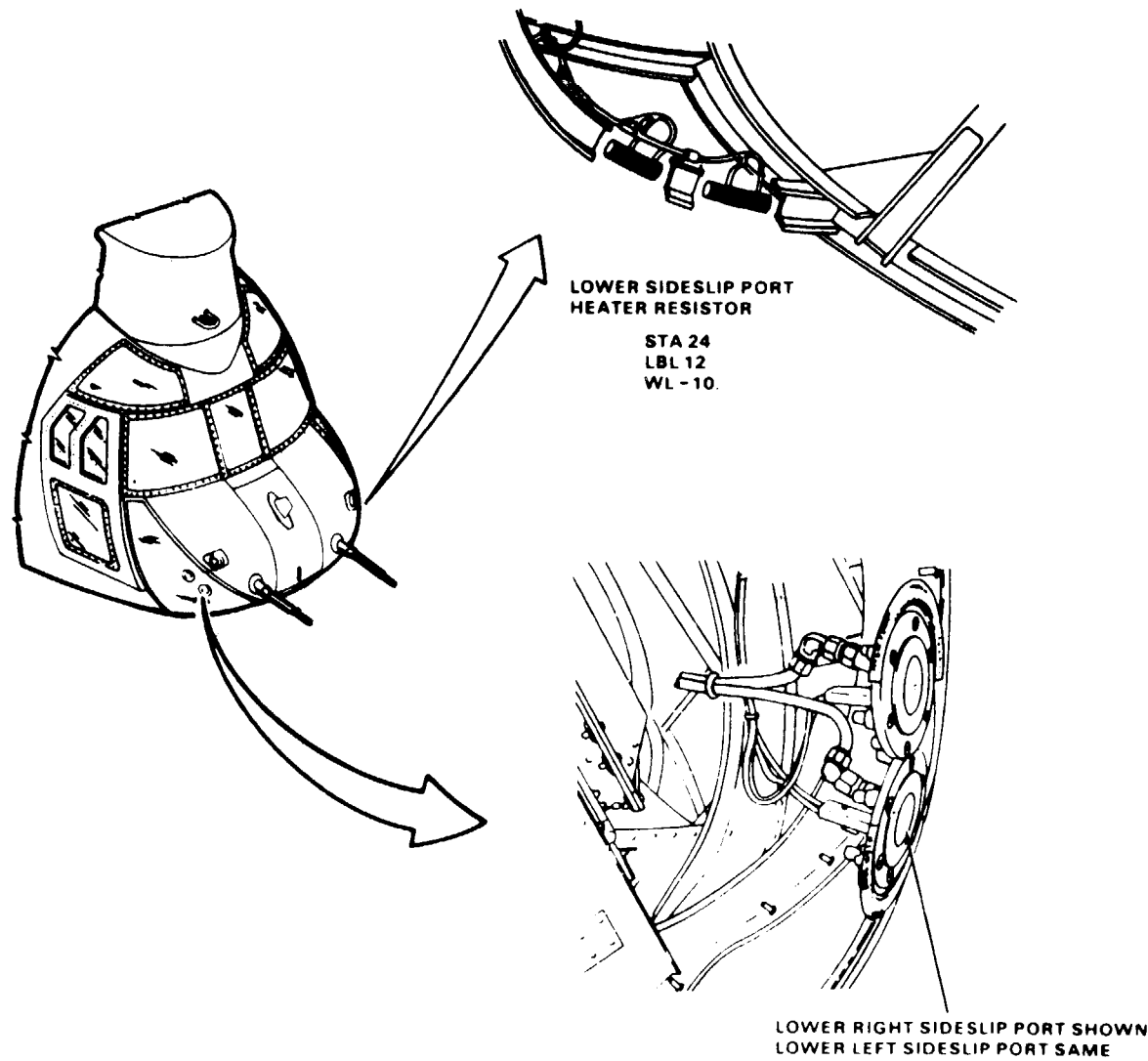
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Requirad:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

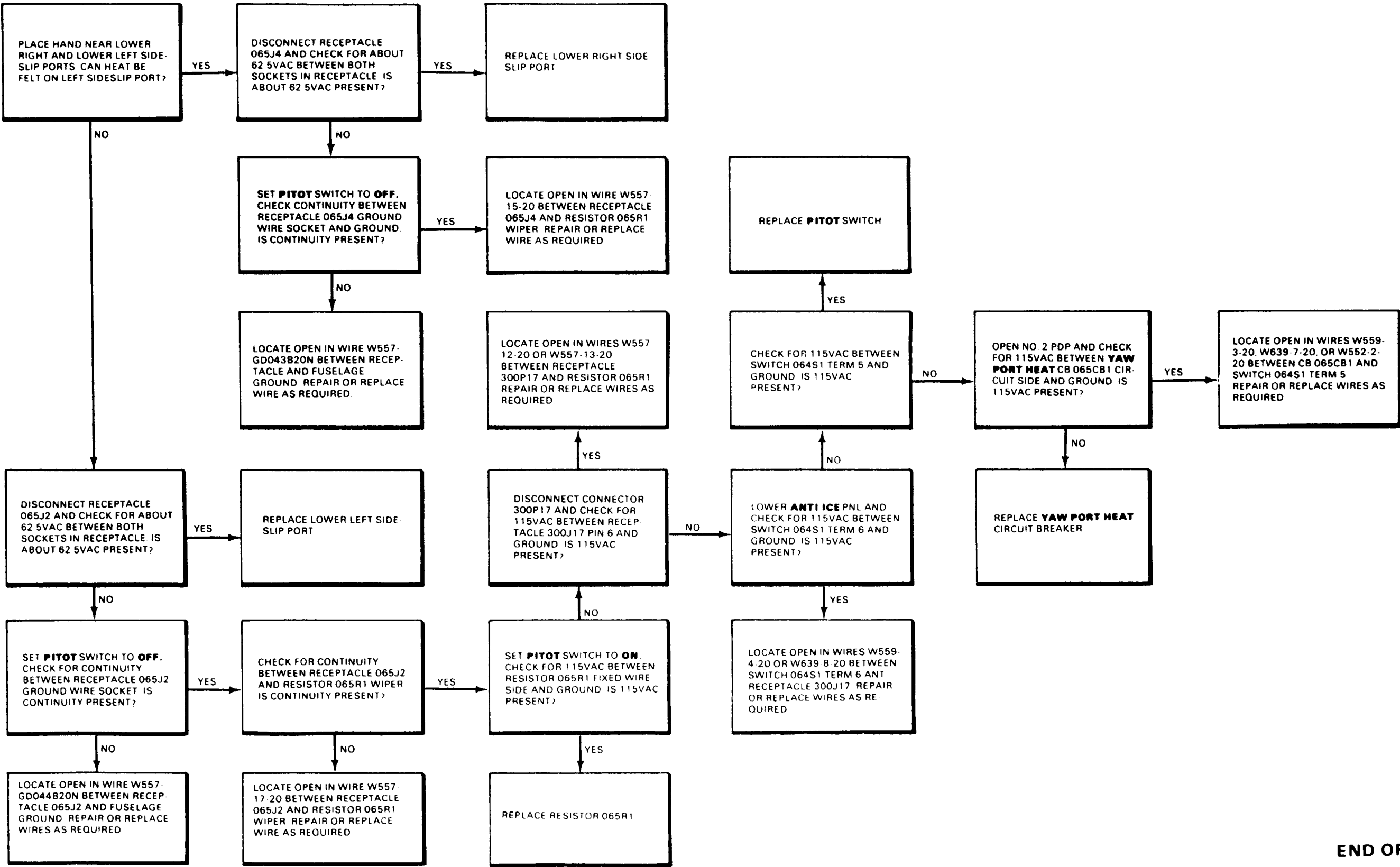
References  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Nose Access Door Open



8-1.8 NO HEAT FELT ON LOWER RIGHT OR LOWER  
LEFT SIDESLIP PORTS (Continued)

8-1.8



END OF TASK

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

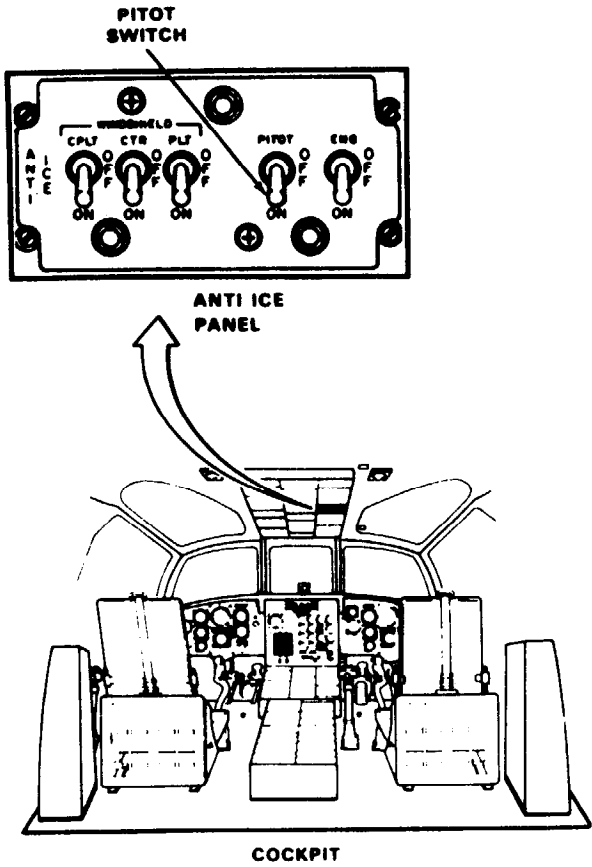
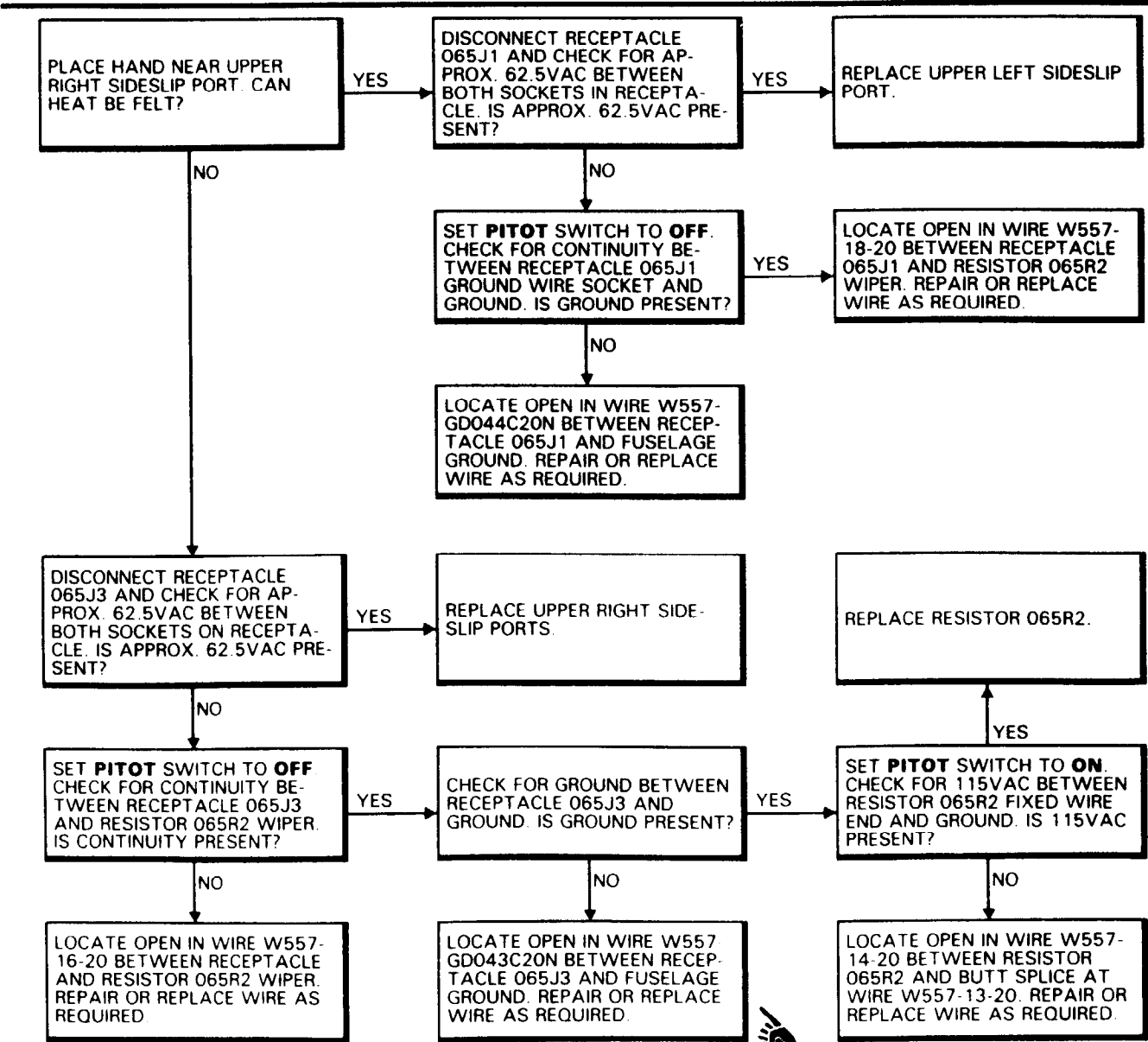
References:

TM 55-1520-240-23

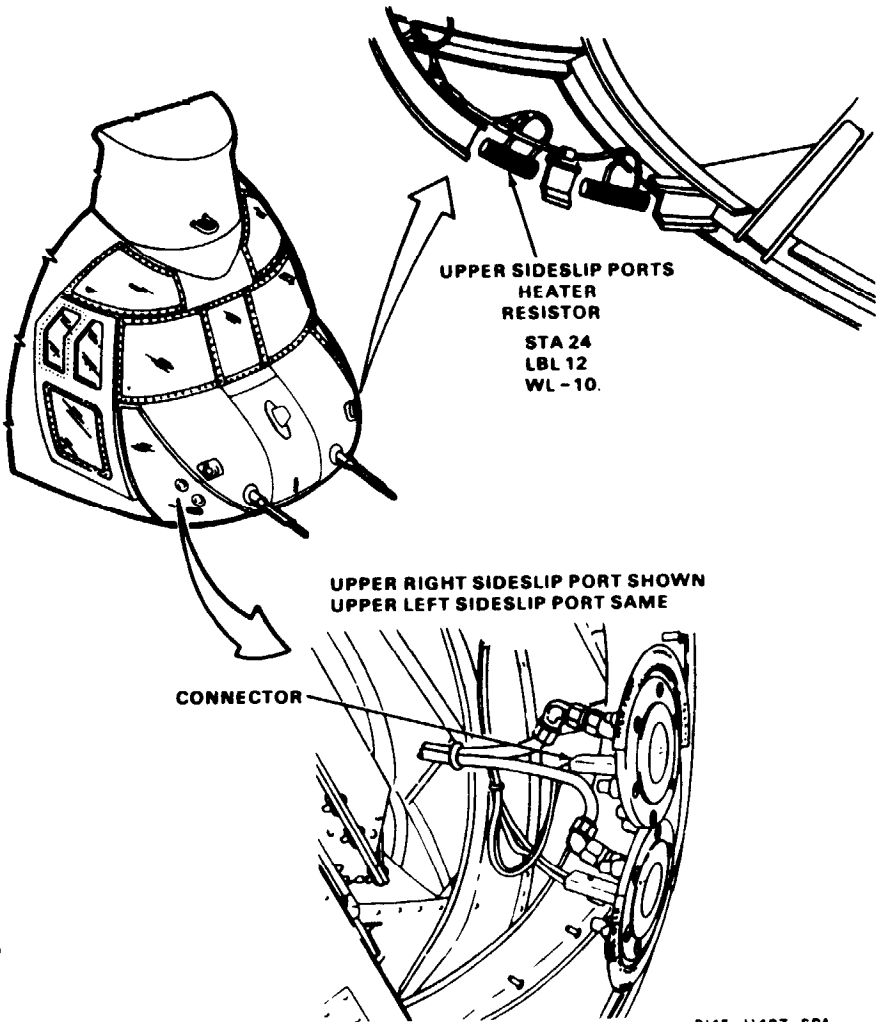
Equipment Condition:

TM 55-1520-240-23:

Battery Connected  
Electrical Power On  
Hydraulic Power On  
Nose Access Door Open



45X54



D145-11487-SPA



8-1.10 AIMS ALT CIRCUIT BREAKER WILL NOT STAY CLOSED

8-1.10

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Is:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

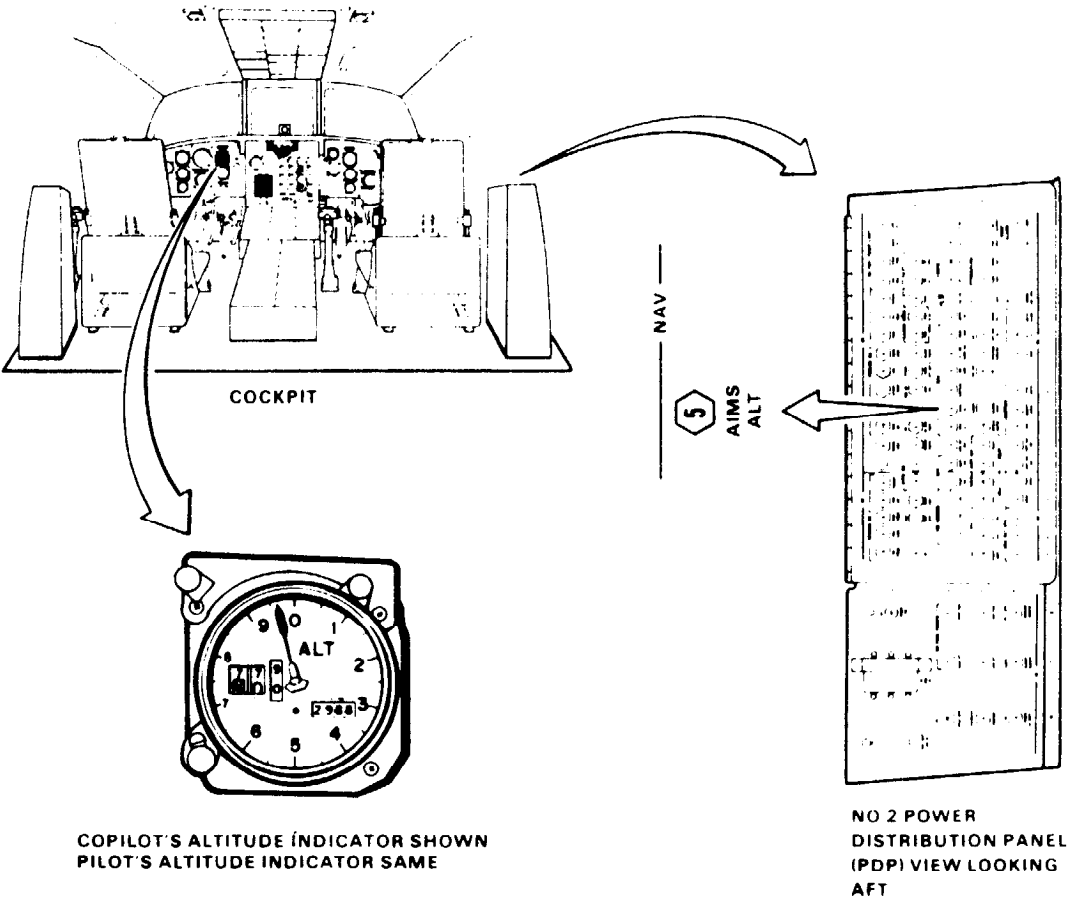
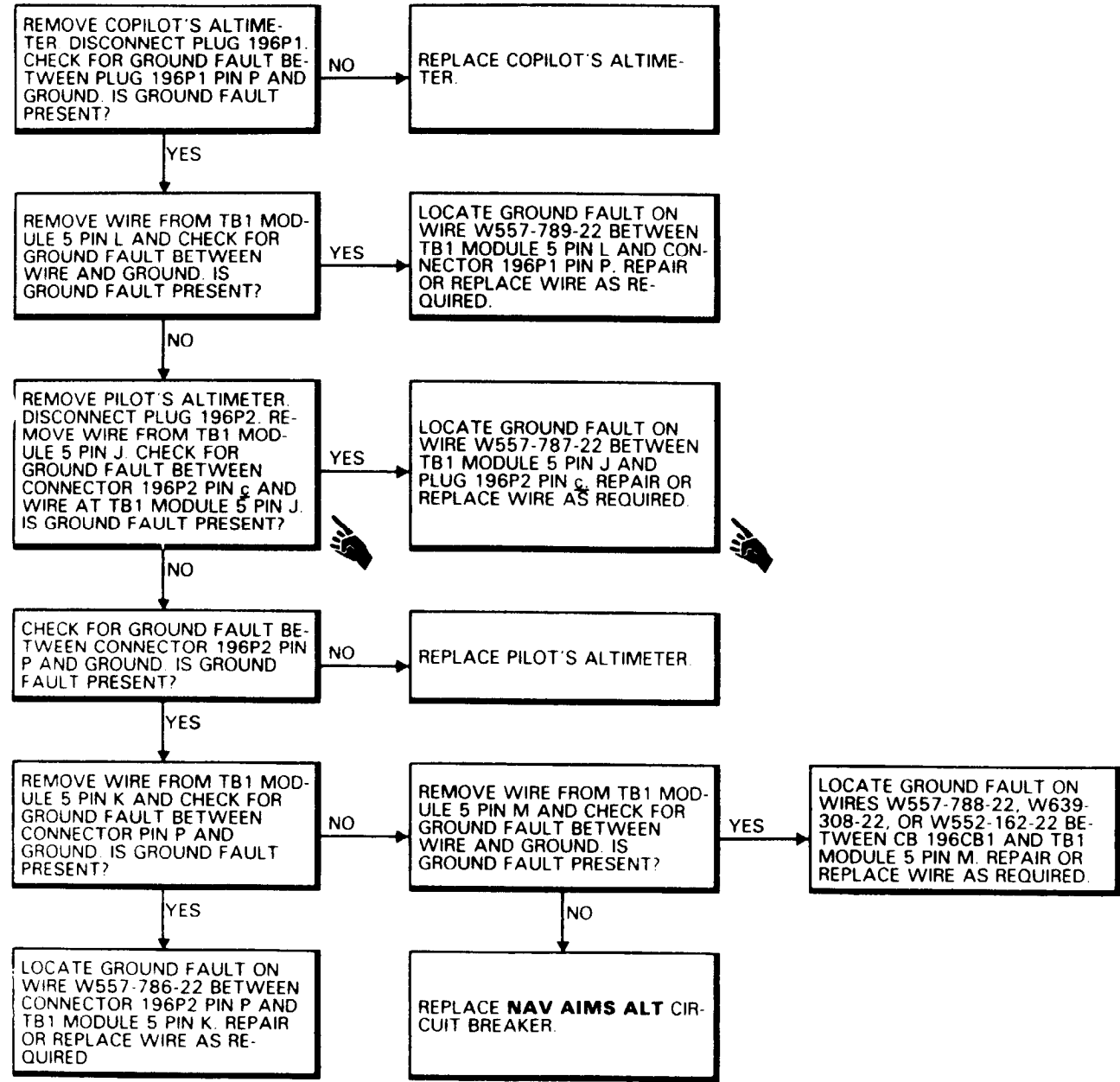
Equipment Condition:

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off



43 x 54

0145-11488-SPA

8-1.11 PILOT'S OR COPILOT'S ALTIMETER VIBRATOR DOES NOT OPERATE

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

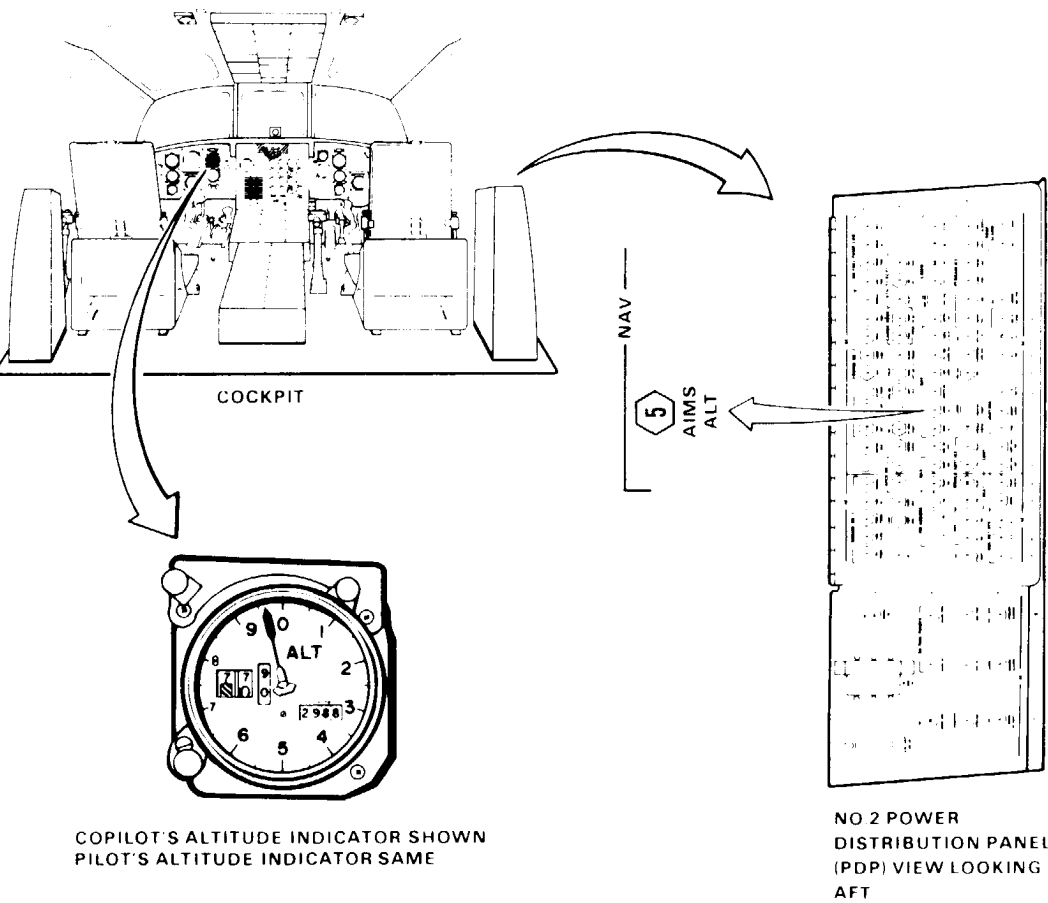
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

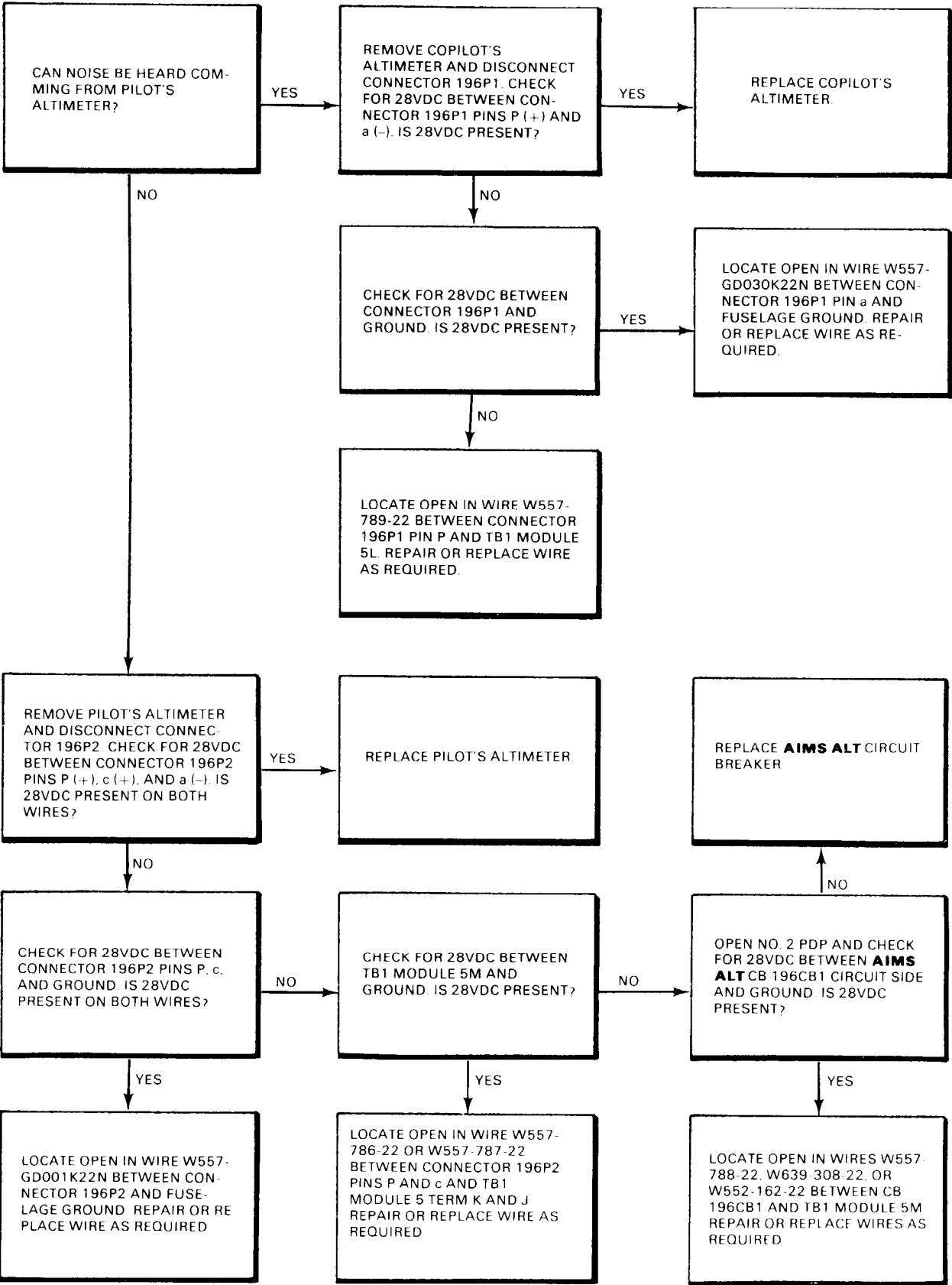
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



D145 11489 SPA

8-1.11



END OF TASK

8-1.12 PITOT STATIC SYSTEM LEAKS

8-1.12

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Pitot Static System Tester,  
NSN 4920-00-475-7161  
Workstand

Materials:

Barrier Material (E80)  
Masking Tape (E388)

Personnel Required:

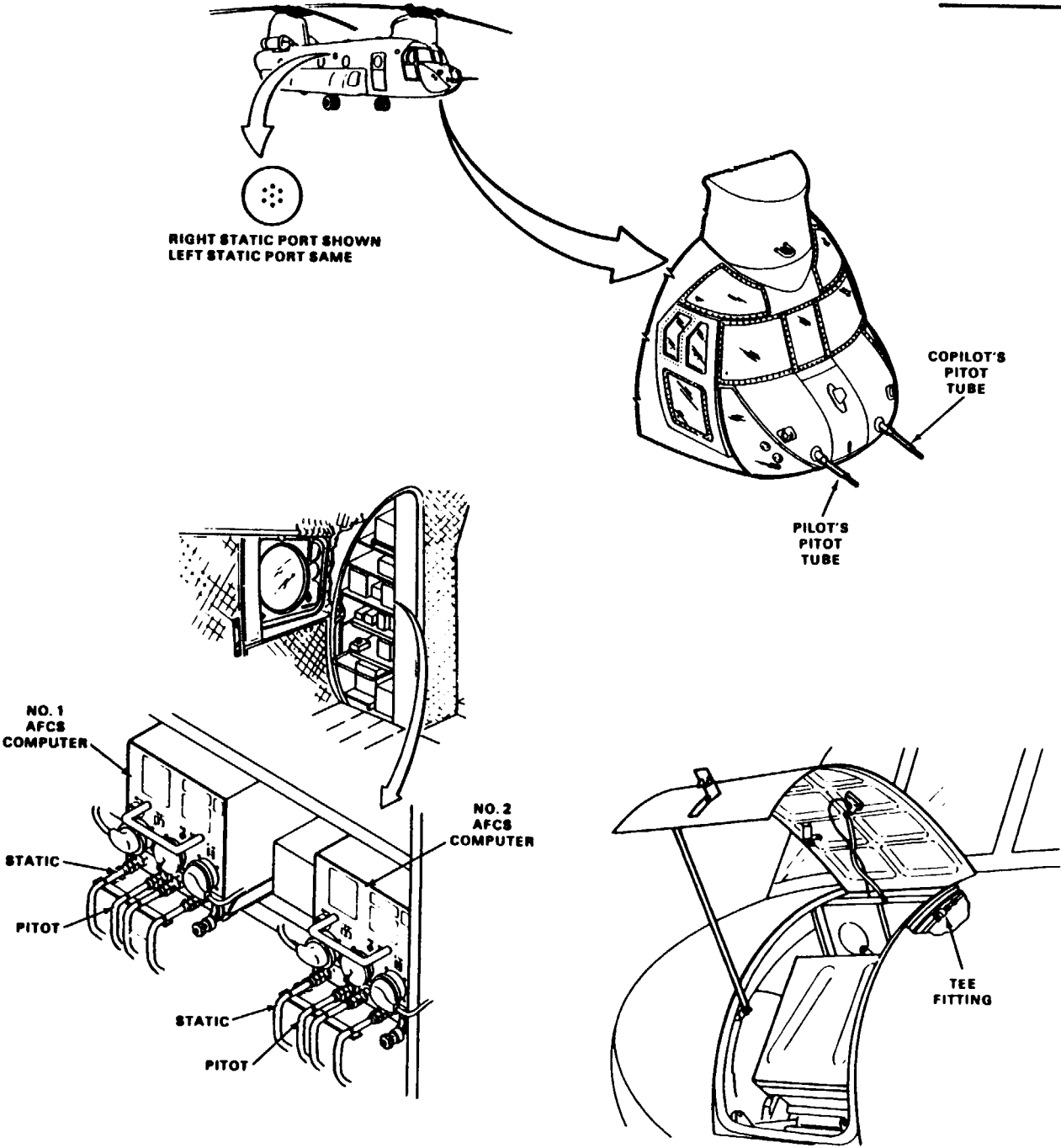
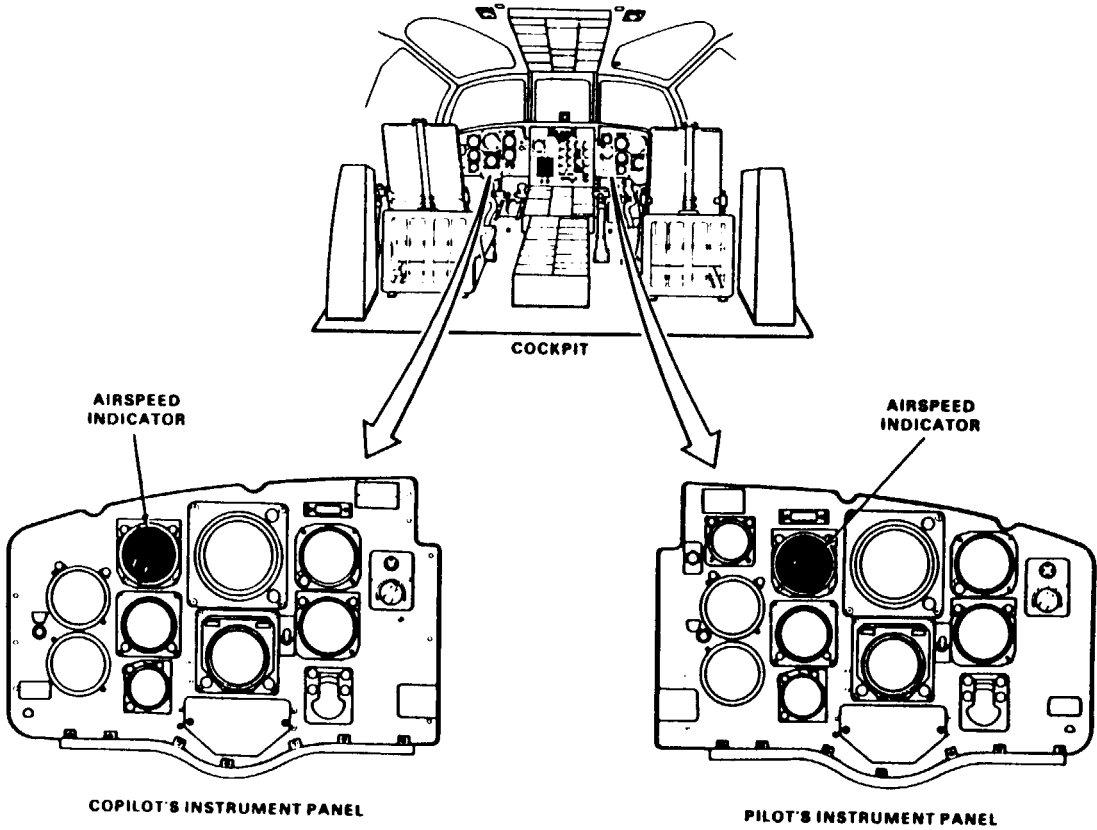
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:

TM 55-1520-240-23  
TM 55-4920-231-14

Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Nose Access Door Open  
Electronic Compartment Acoustic  
Blanket Removed



90X54

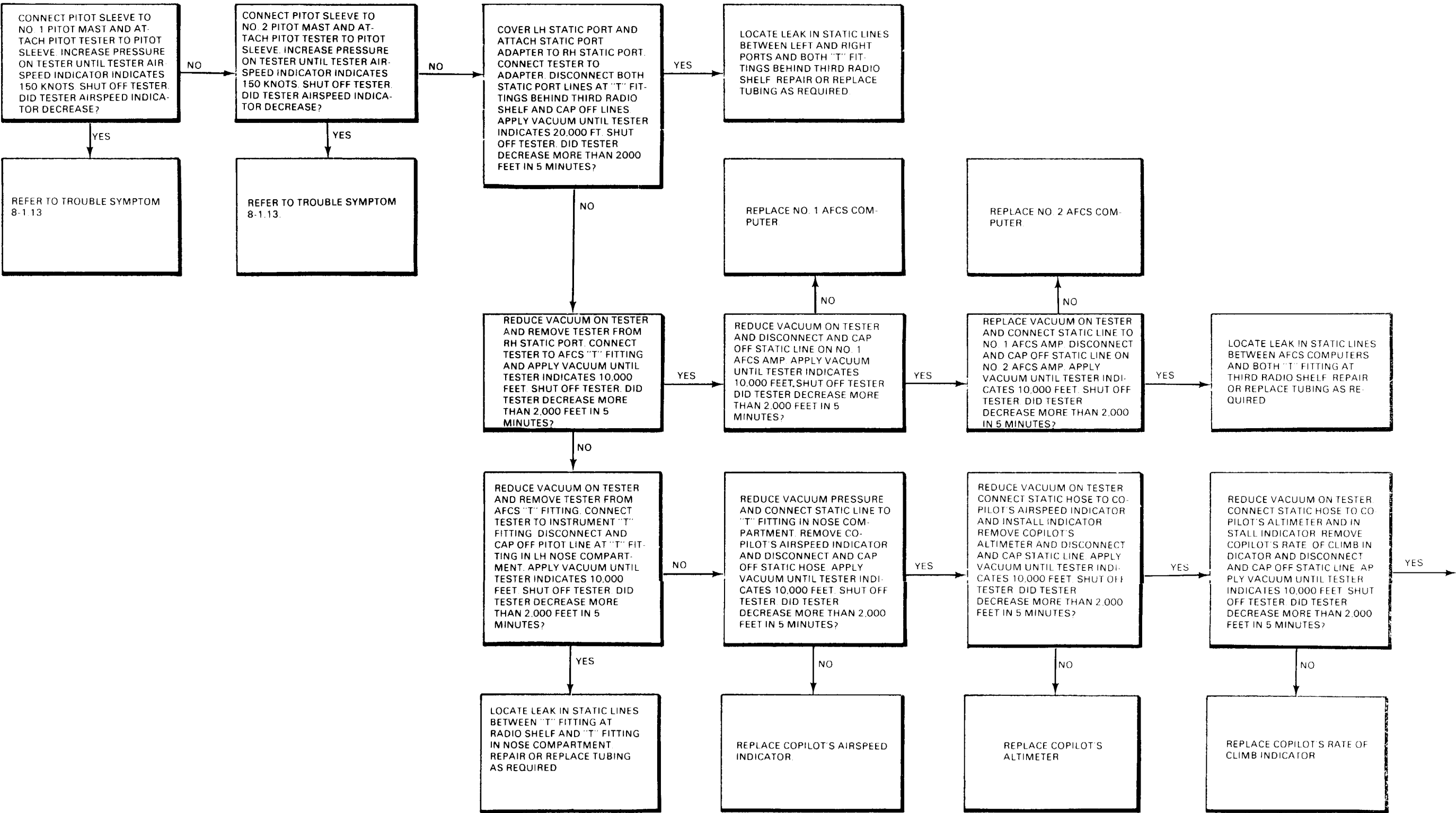
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DI45-11490-SPA

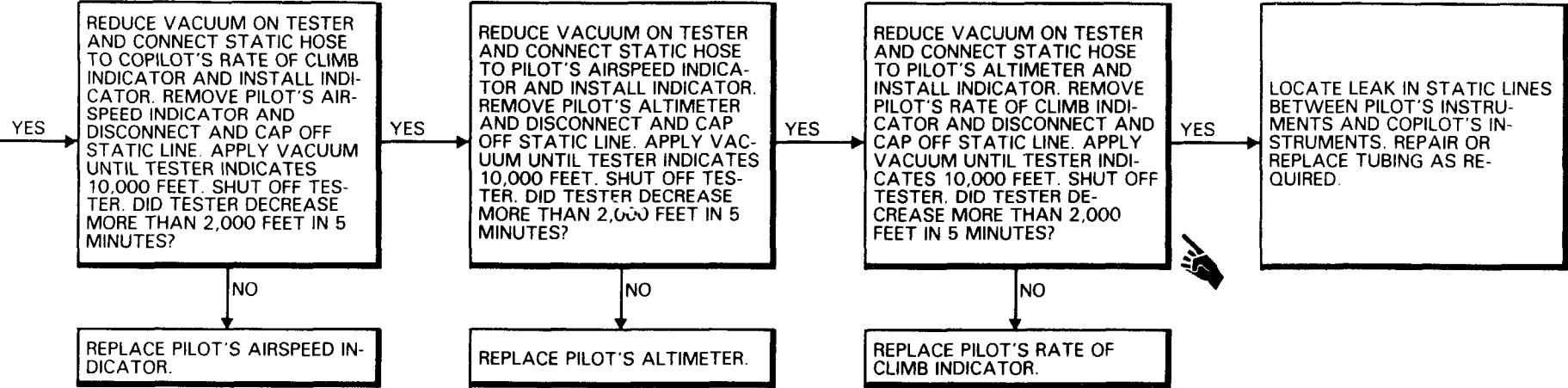
GO TO NEXT PAGE

8-1.12 PITOT STATIC SYSTEM LEAKS (Continued)

8-1.12

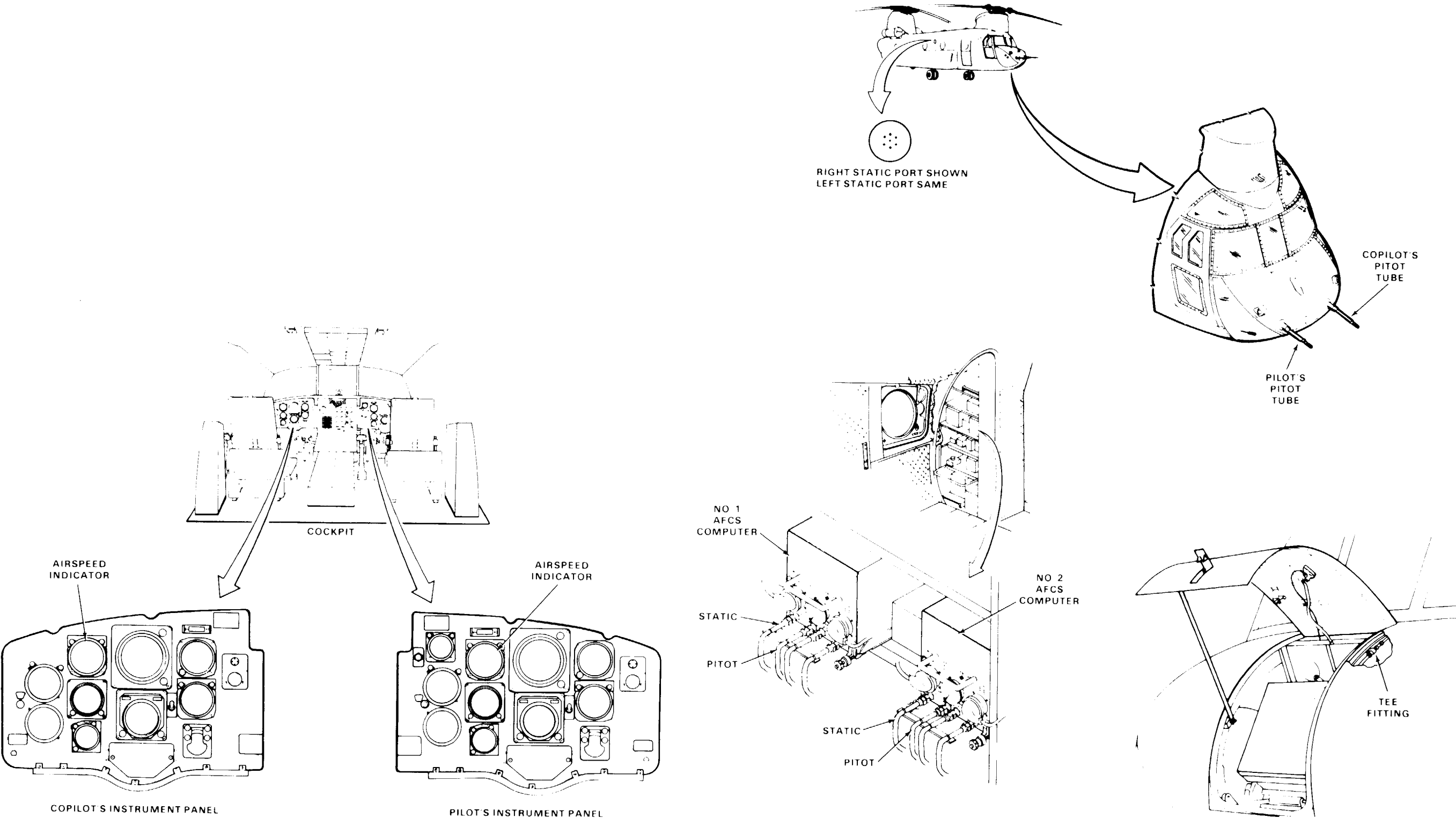


GO TO NEXT PAGE



8-1.12 PITOT STATIC SYSTEM LEAKS (Continued)

8-1.12



END OF TASK

8-1.13 NO. 1 OR NO. 2 PITOT SYSTEM LEAKS

8-1.13

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Pitot Static System Tester,  
NSN 4920-00-475-7161

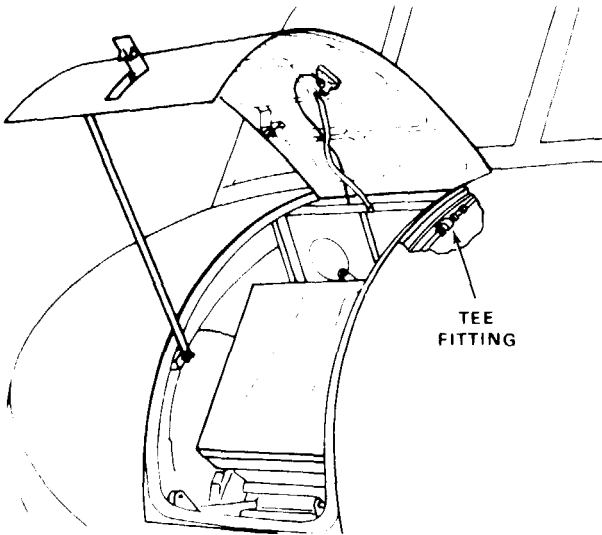
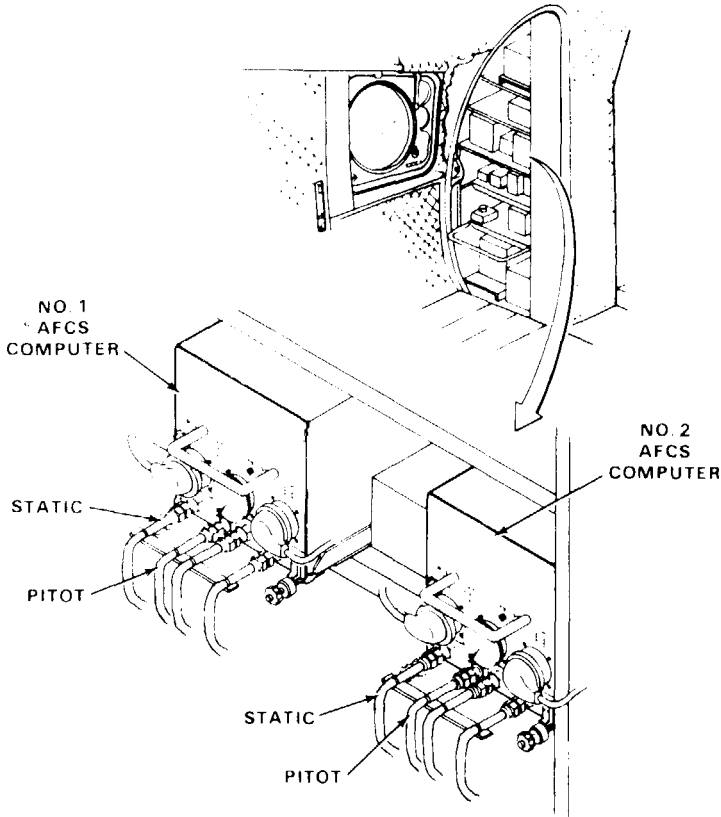
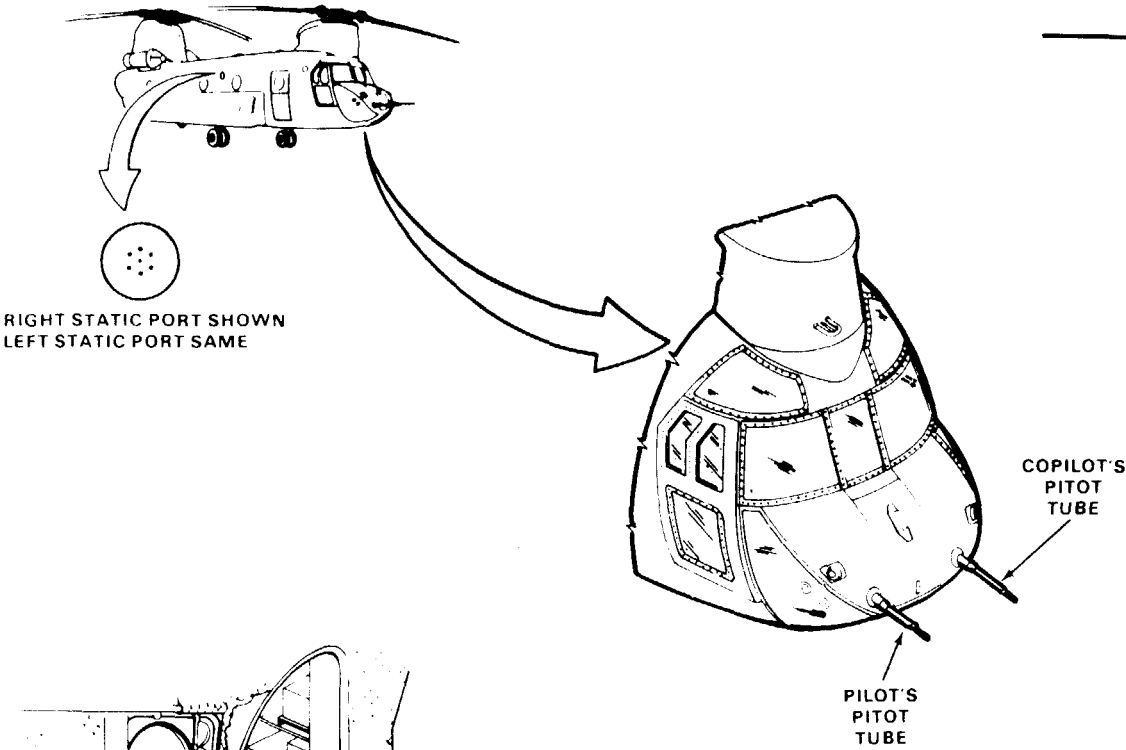
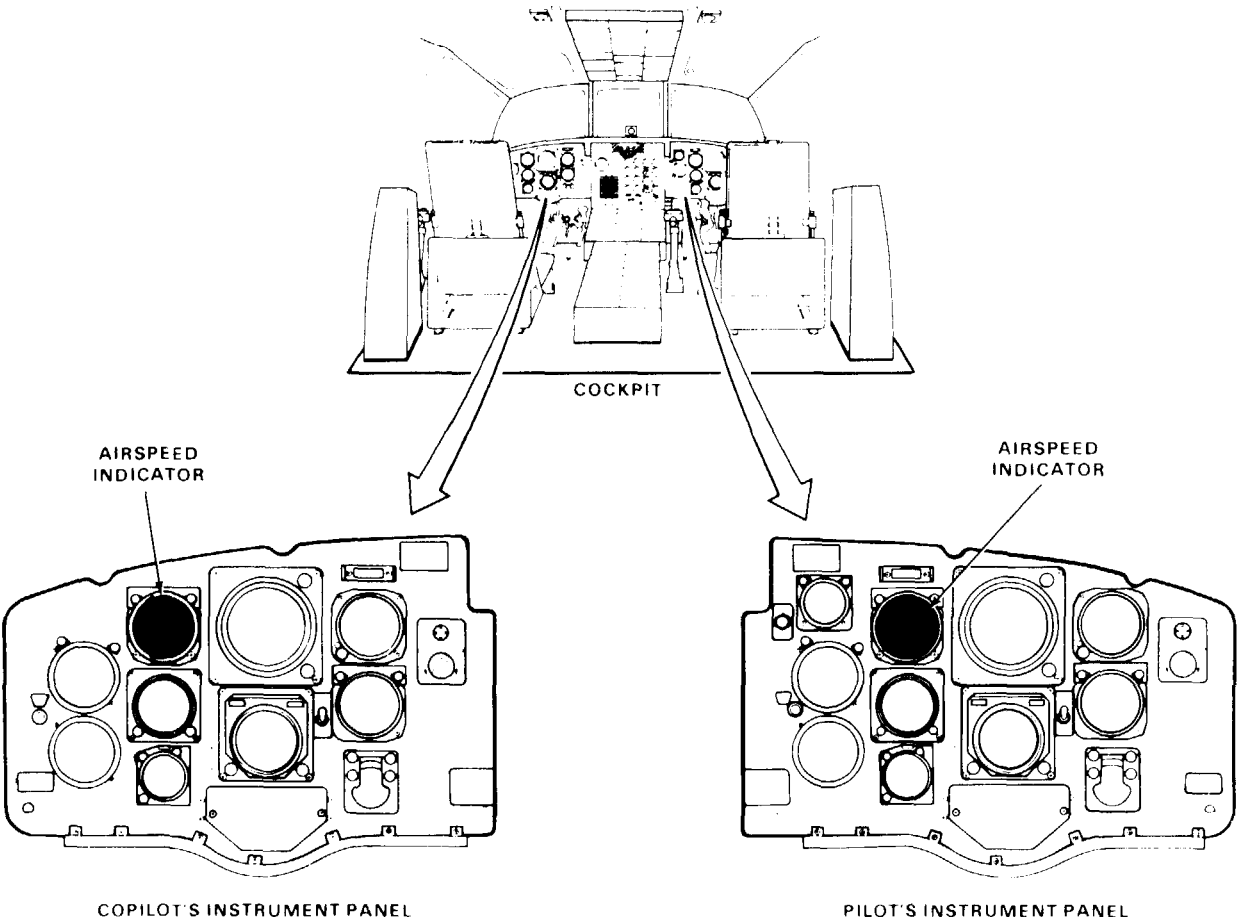
Materials:

None

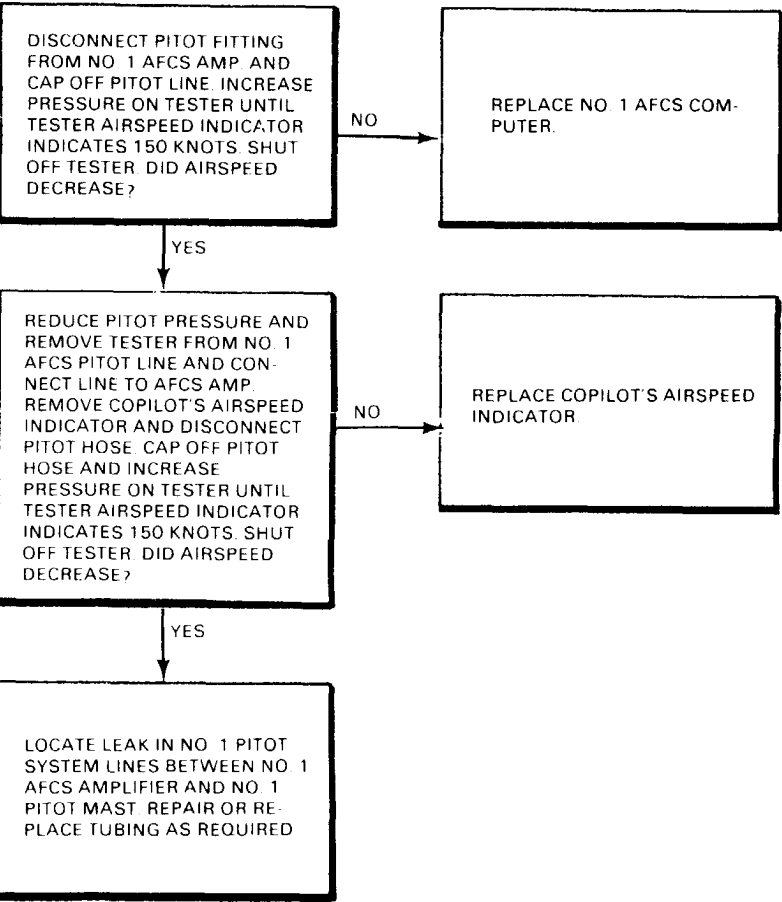
Personnel Required:  
68F10 Aircraft Electrician

References:  
TM 55-1520-240-23  
TM 55-4920-231-14

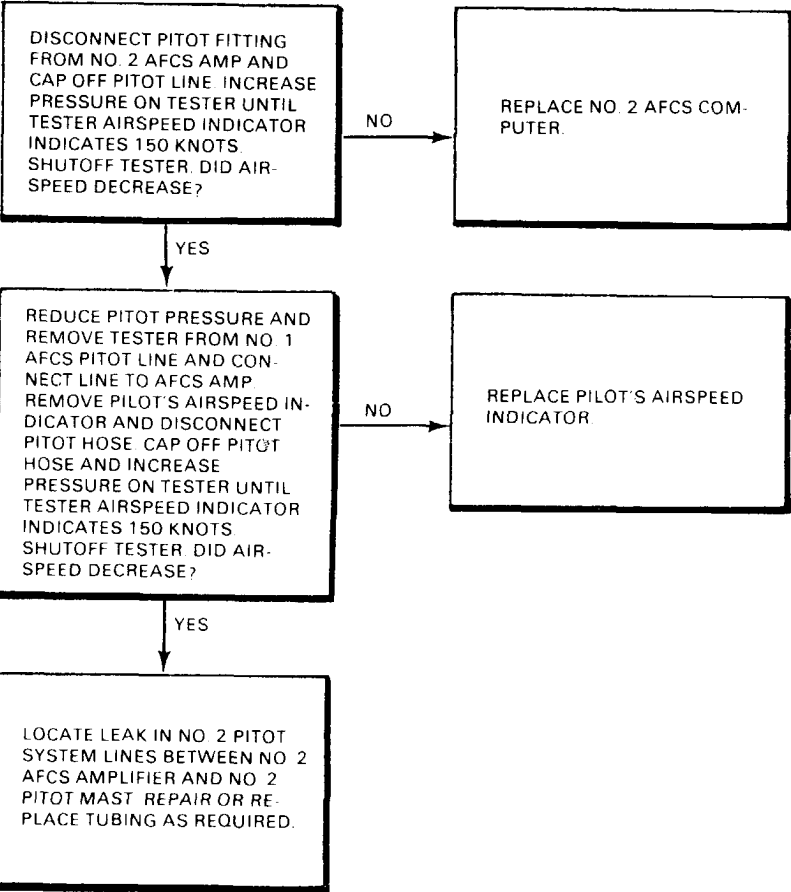
Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Electronic Compartment Acoustic  
Blanket Removed



NO. 1 PITOT SYSTEM LEAKS



NO. 2 PITOT SYSTEM LEAKS





8-1.14 NO. 1 OR NO. 2 SIDESLIP SYSTEM LEAKS

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configuration:  
All

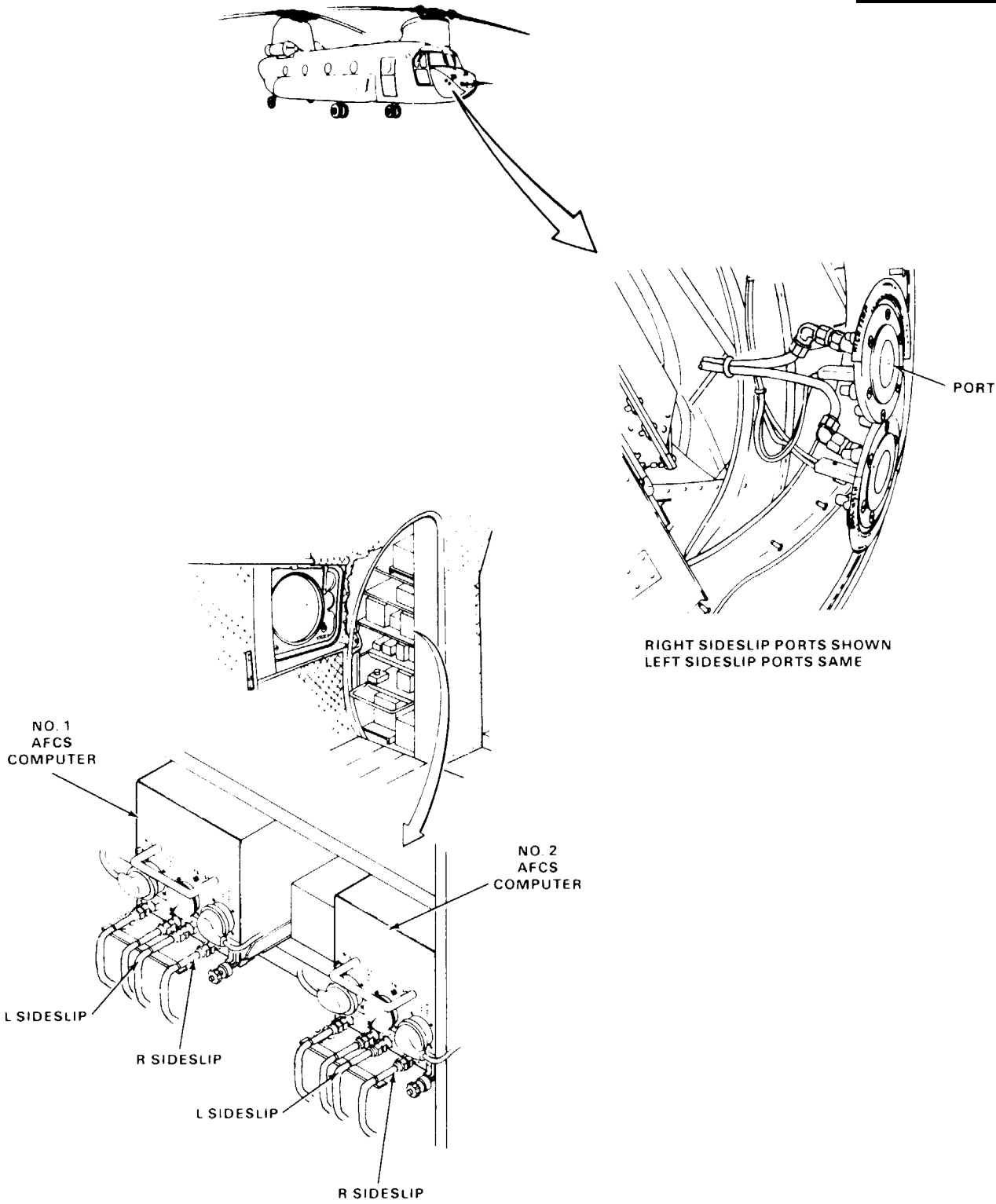
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Pltot Static System Tester,  
NSN 4920-00-475-7161  
Workstand

Materials:  
Barrier Material (E80)  
Masking Tape (E388)

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23  
TM 55-4920-231-14

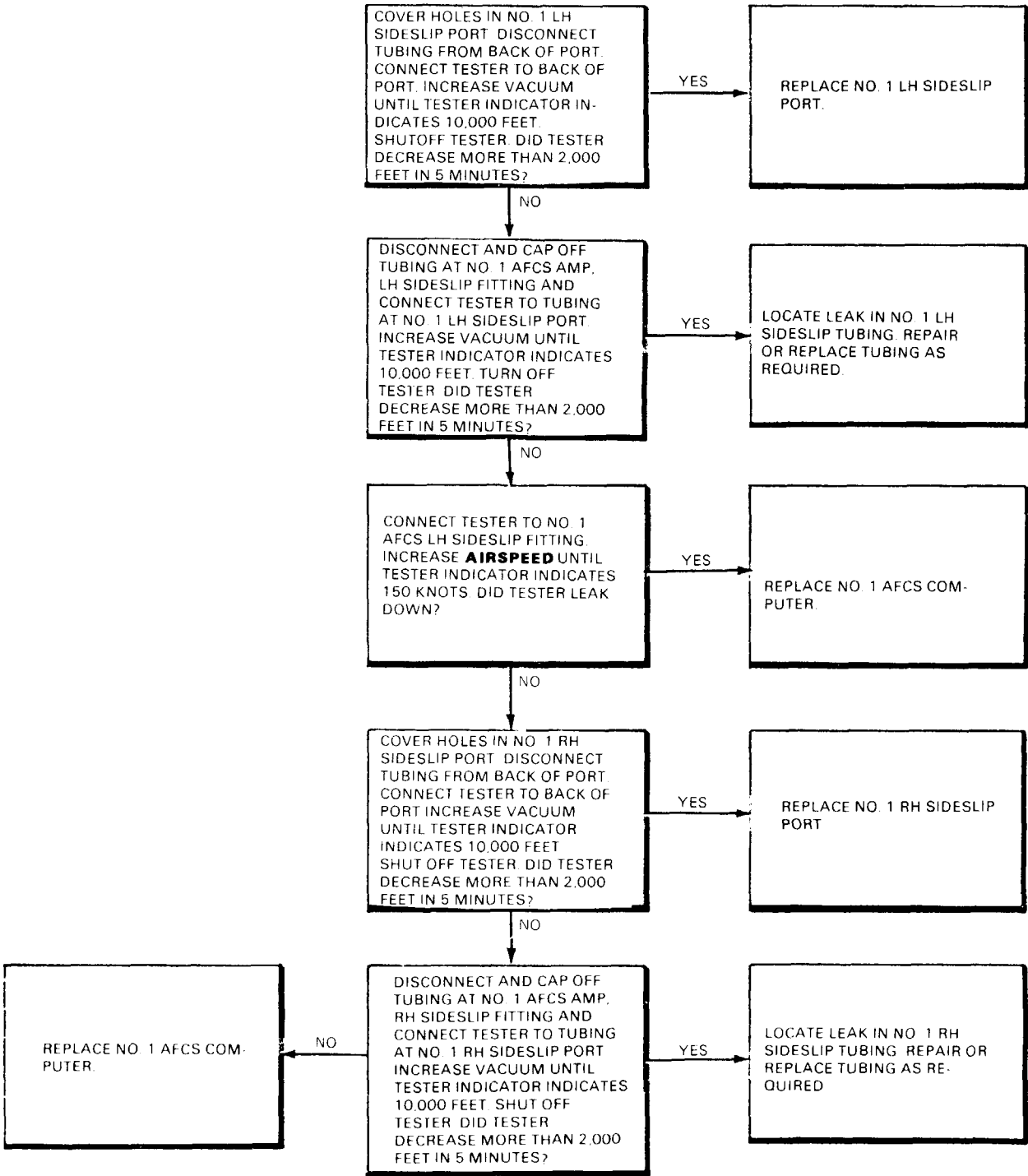
Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Nose Access Door Open  
Electronic Compartment Acoustic  
Blanket Removed



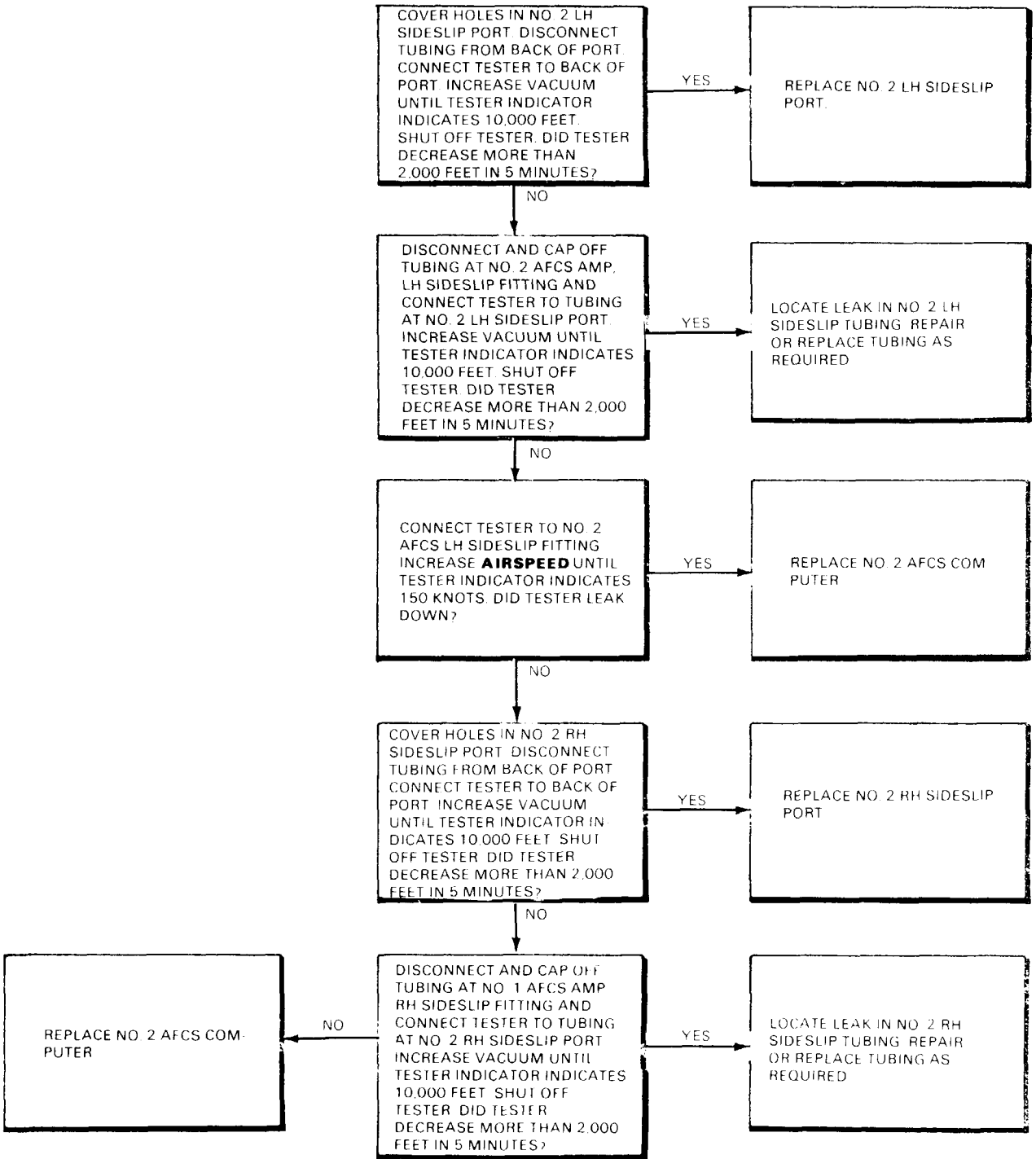
8-1.14 NO. 1 OR NO. 2 SIDESLIP SYSTEM LEAKS (Continued)

8-1.14

NO. 1 SIDESLIP SYSTEM LEAKS



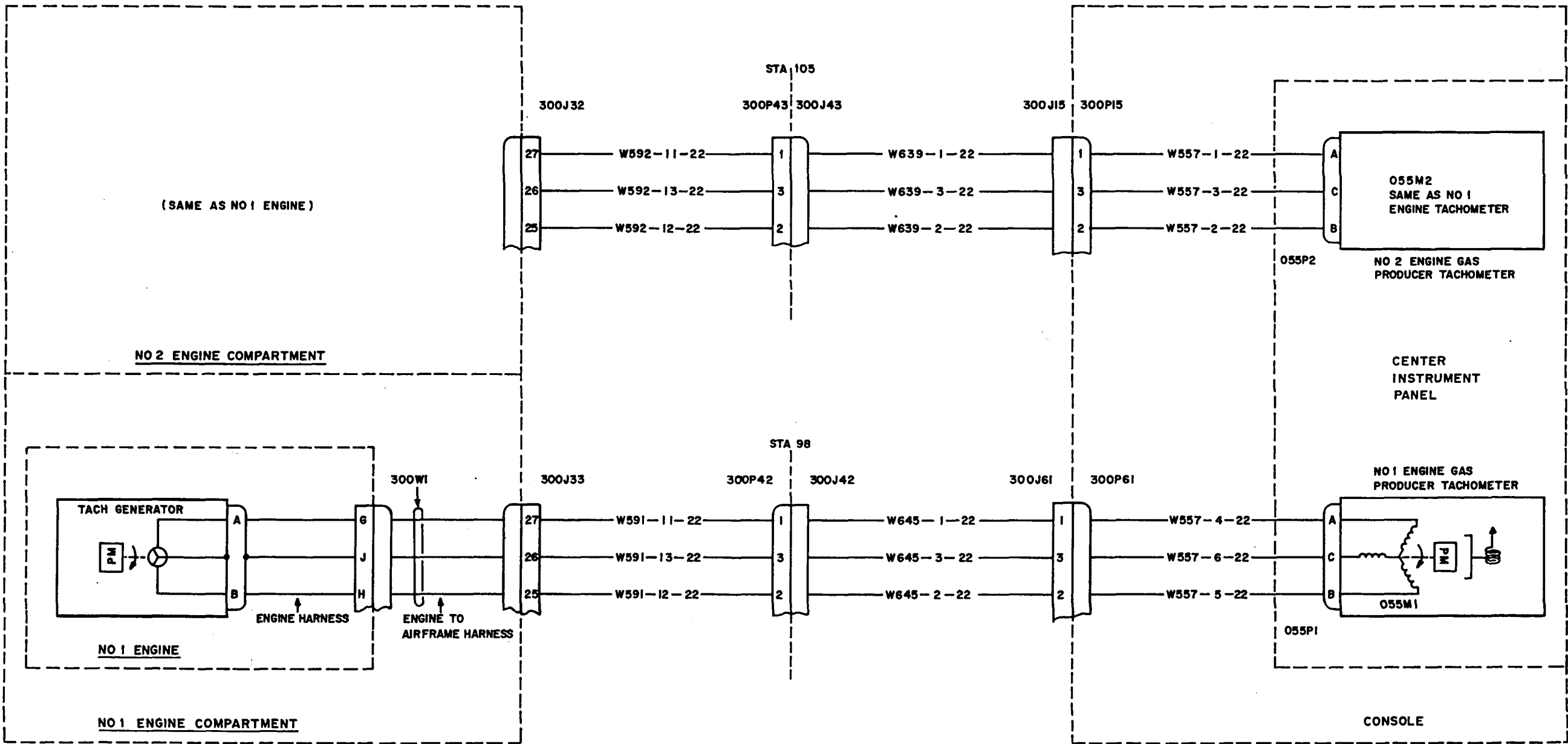
NO. 2 SIDESLIP SYSTEM LEAKS



END OF TASK

8-2 GAS PRODUCER TACHOMETER SYSTEM

 WITHOUT 74



055.100

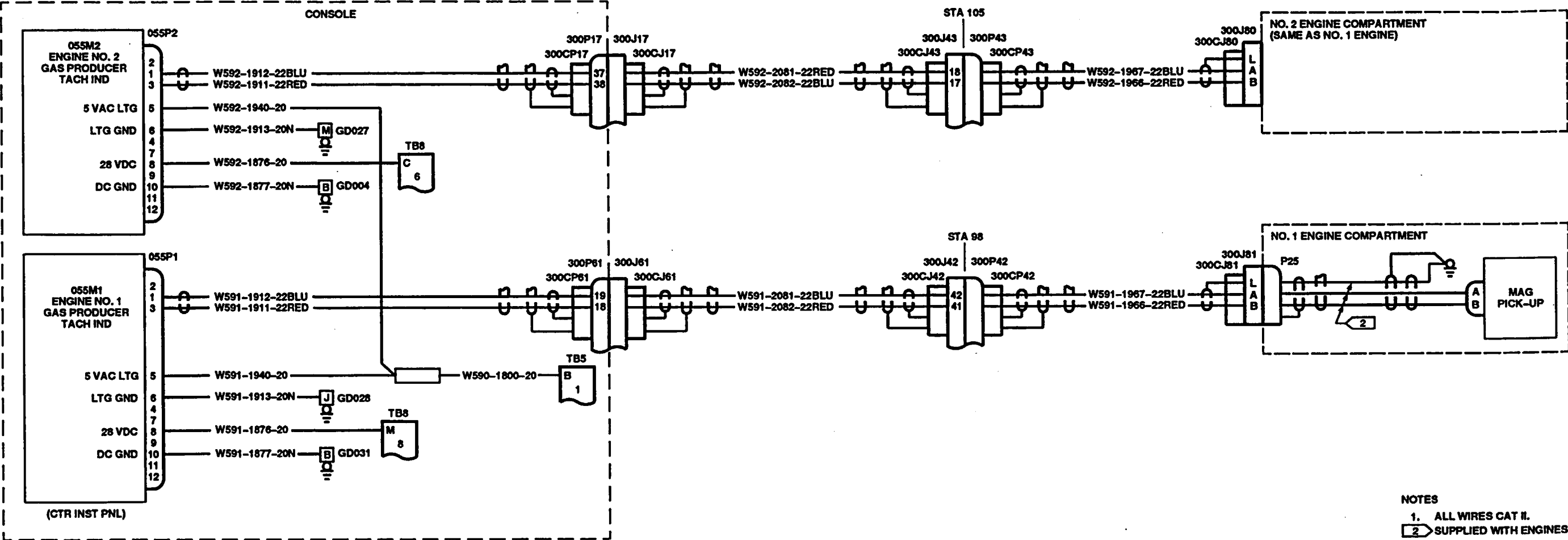
90x54

DI45-7921-SPA

8-2.1.1 GAS PRODUCER TACHOMETER SYSTEM WIRING DIAGRAM

8-2.1.1

WITH 74



A67627

INITIAL SETUP

**Applicable Configurations:**  
All

**Tools**  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692  
NSN 5180-00-323-4692  
Electrical Repairer's Tool Kit,

**Materials**  
None

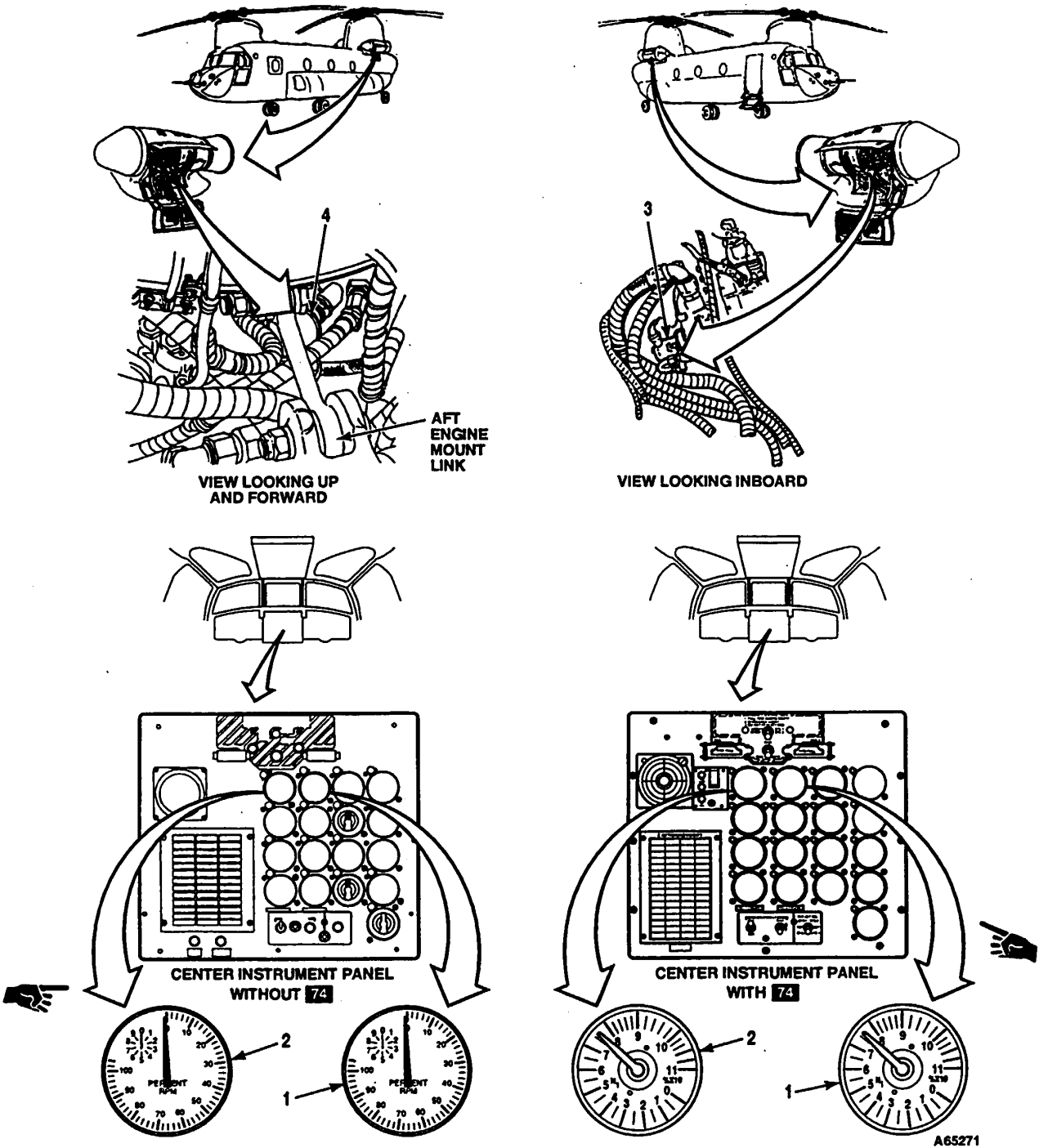
**Personnel Required:**  
Medium Helicopter Repairer  
Aircraft Electrician

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
No. 1 and No. 2 Engine Upper and Lower Access  
Covers Open  
No. 1 and No. 2 Engine Work Platforms Open

TASK	RESULT
1. Check NO. 1 ENGINE gas producer tachometer (1).	If tachometer (1) is loose or damaged, tighten it or replace it.
2. Check NO. 2 ENGINE gas producer tachometer (2).	If tachometer (2) is loose or damaged, tighten it or replace it.
3. Check No. 2 engine gas producer generator (3).	If tachometer generator (3) is loose or damaged, tighten or replace it as required. If electrical connector or harness to tachometer generator is damaged, replace it.
4. Check No. 1 engine gas producer generator (4).	If tachometer generator (4) is loose or damaged, tighten or replace it as required. If electrical connector or harness to tachometer generator is damaged, replace it.

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
No. 1 and No. 2 engine upper and lower access covers closed.  
No. 1 and No. 2 engine work platforms dosed.



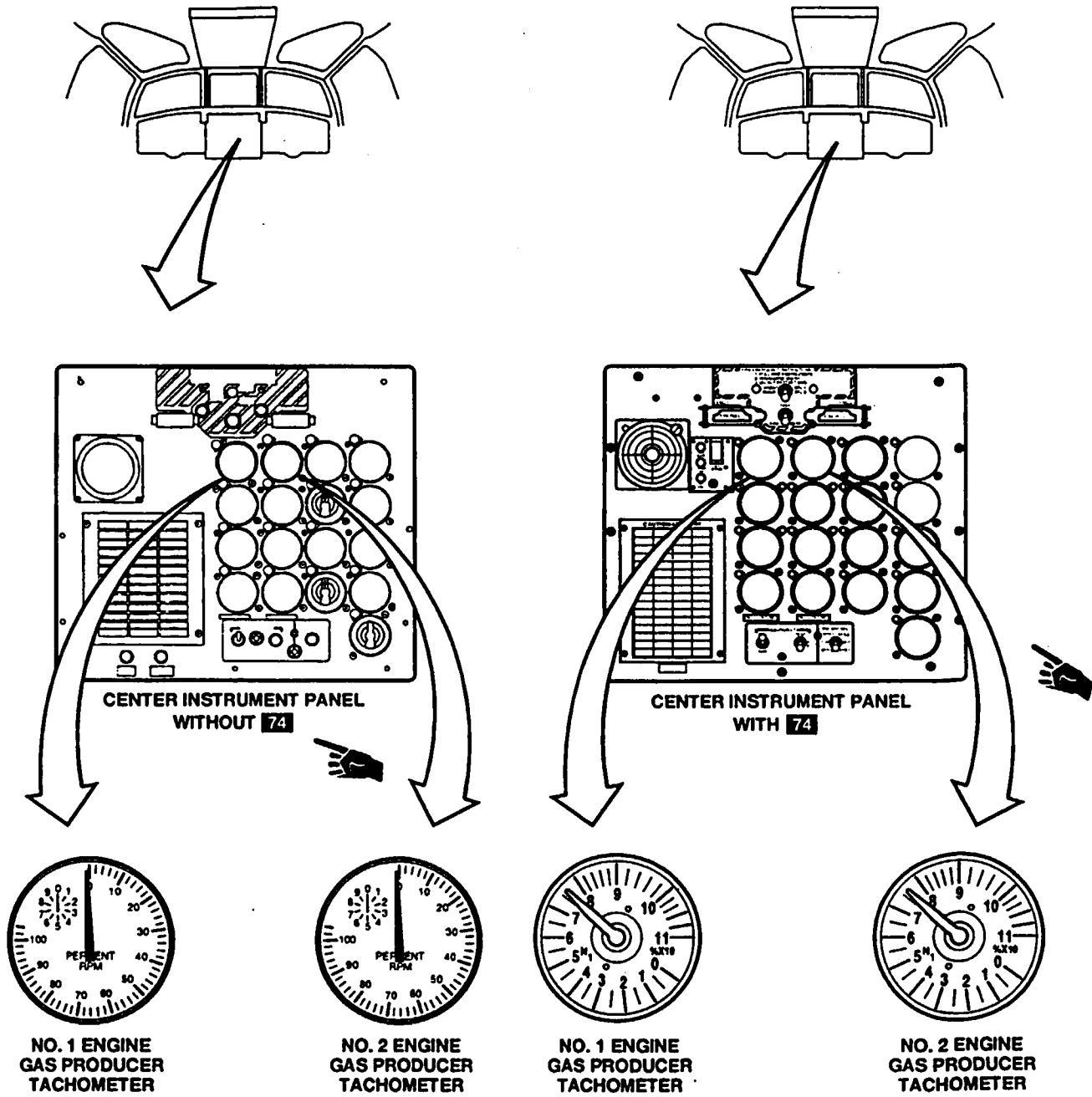
8-2.3 GAS PRODUCER TACHOMETER SYSTEM OPERATIONAL CHECK

8-2.3

INITIAL SETUP	References:
Applicable Configurations:	TM 55-1520-240-10
All	TM 55-1520-240-23
Tools:	Equipment Condition:
None	TM 55-1520-240-23:
Materials:	Battery Connected
None	Electrical Power On
Personnel Required:	Hydraulic Power On
Rotary Wing Aviator	Visual Check of Gas Producer Tachometer System
Aircraft Electrician	Performed (Task 8-2.2)

TASK	RESULT
1. Have pilot motor <b>NO. 1 ENGINE.</b>	(Without <b>74</b> ) No. 1 gas producer tachometer shall indicate more than 10 percent. If it does not, but is accompanied by the sounds of a normal engine start, go to task 8-2.4. If tachometer fluctuates or is erratic, go to task 8-2.6. If the start attempt is not accompanied by the sound of a normal engine start, go to task 4-4.11.  (With <b>74</b> ) No. 1 gas producer tachometer shall indicate a nominal reading between 10 and 15 percent. If it does not, go to task 8-2.4.1. If tachometer reading fluctuates or is erratic, go to task 8-2.6.1.
2. Have pilot motor <b>NO. 2 ENGINE.</b>	(Without <b>74</b> ) No. 2 gas producer tachometer shall indicate more than 10 percent. If it does not, but is accompanied by the sounds of a normal engine start, go to task 8-2.5. If tachometer fluctuates or is erratic, go to task 8-2.7. If the start attempt is not accompanied by the sound of a normal engine start, go to task 4-4.15.  (With <b>74</b> ) No. 2 gas producer tachometer shall indicate a nominal reading between 10 and 15 percent. If it does not, go to task 8-2.5.1. If tachometer reading fluctuates or is erratic, go to task 8-2.7.1.

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Engines shut down.  
Hydraulic power off.  
Electrical power off.  
Battery disconnected.



A65272

END OF TASK

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

Electrical Repair Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

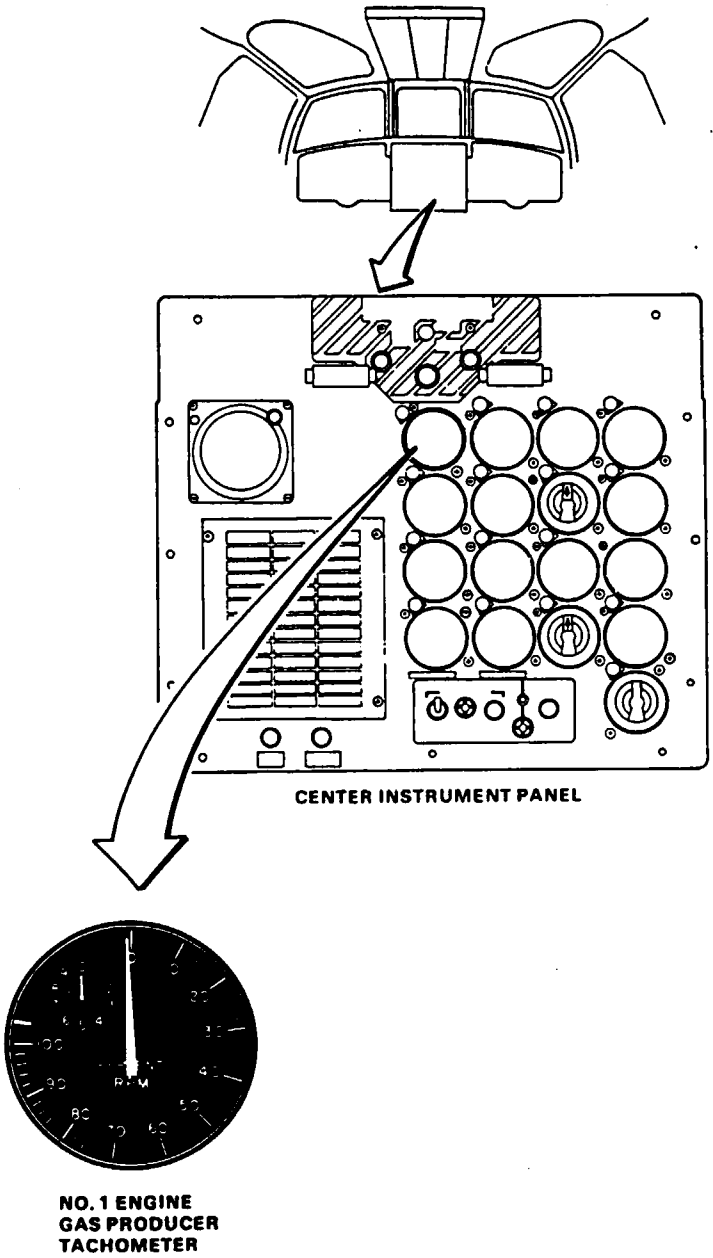
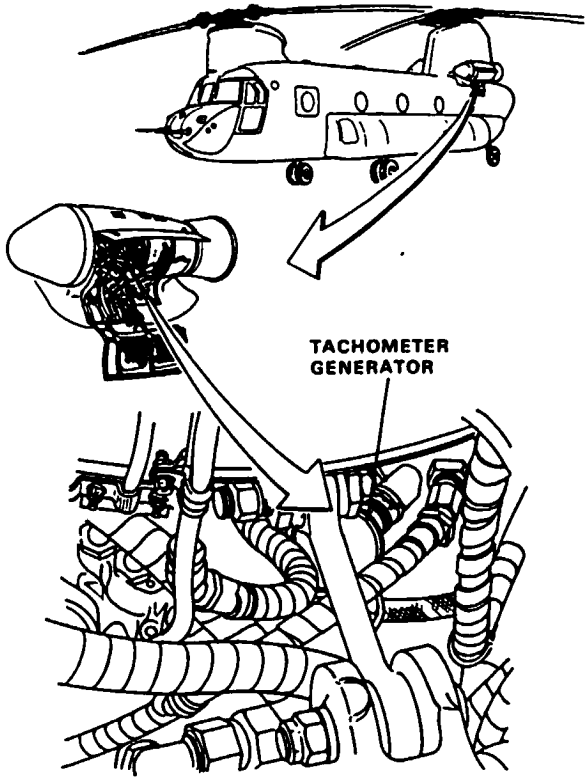
Aircraft Electrician

References:

TM 55-1520240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

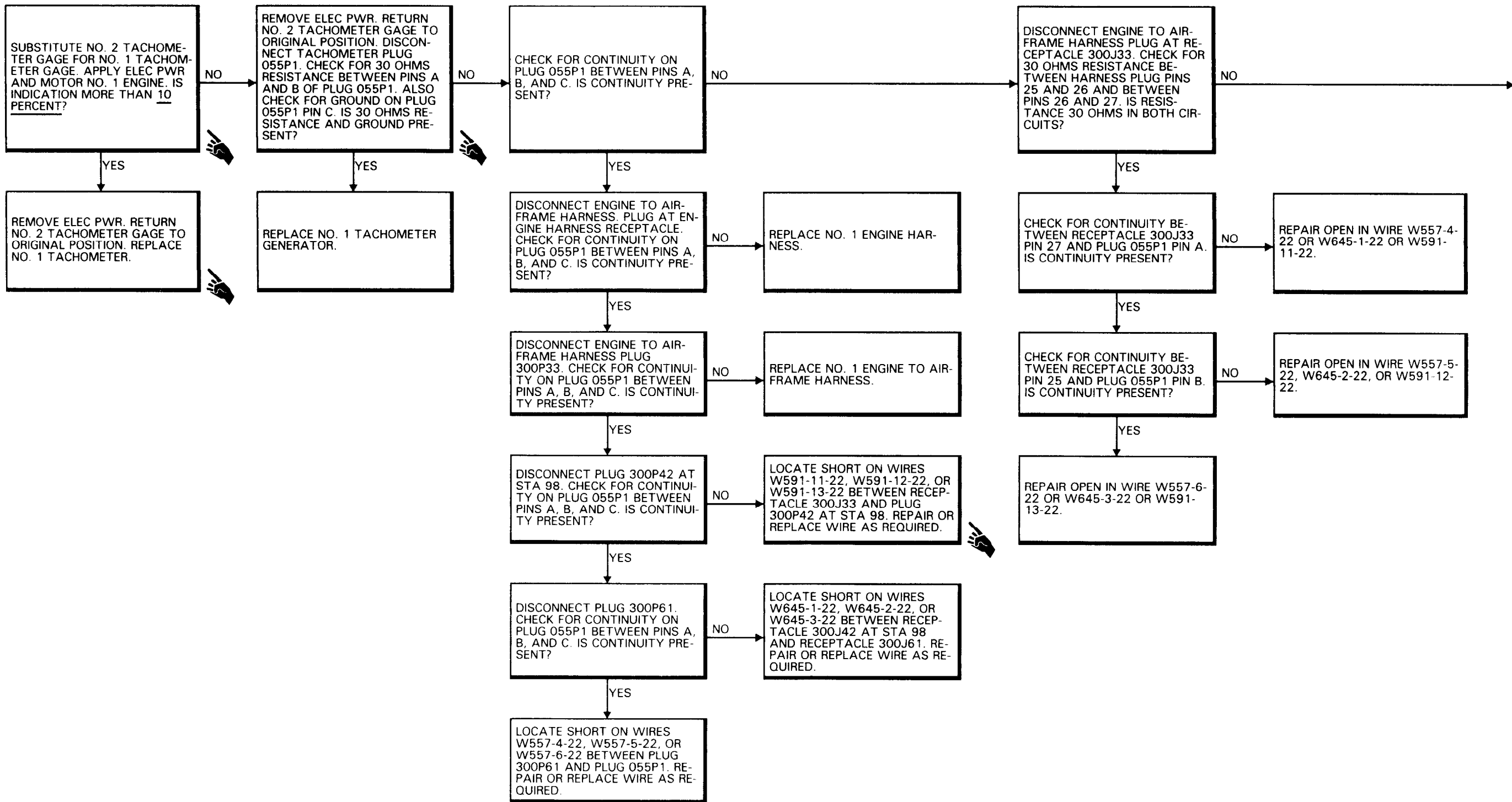




8-2.4 NO. 1 GAS PRODUCER TACHOMETER READS 0 PERCENT RPM WHEN NO. 1 ENGINE IS MOTORED

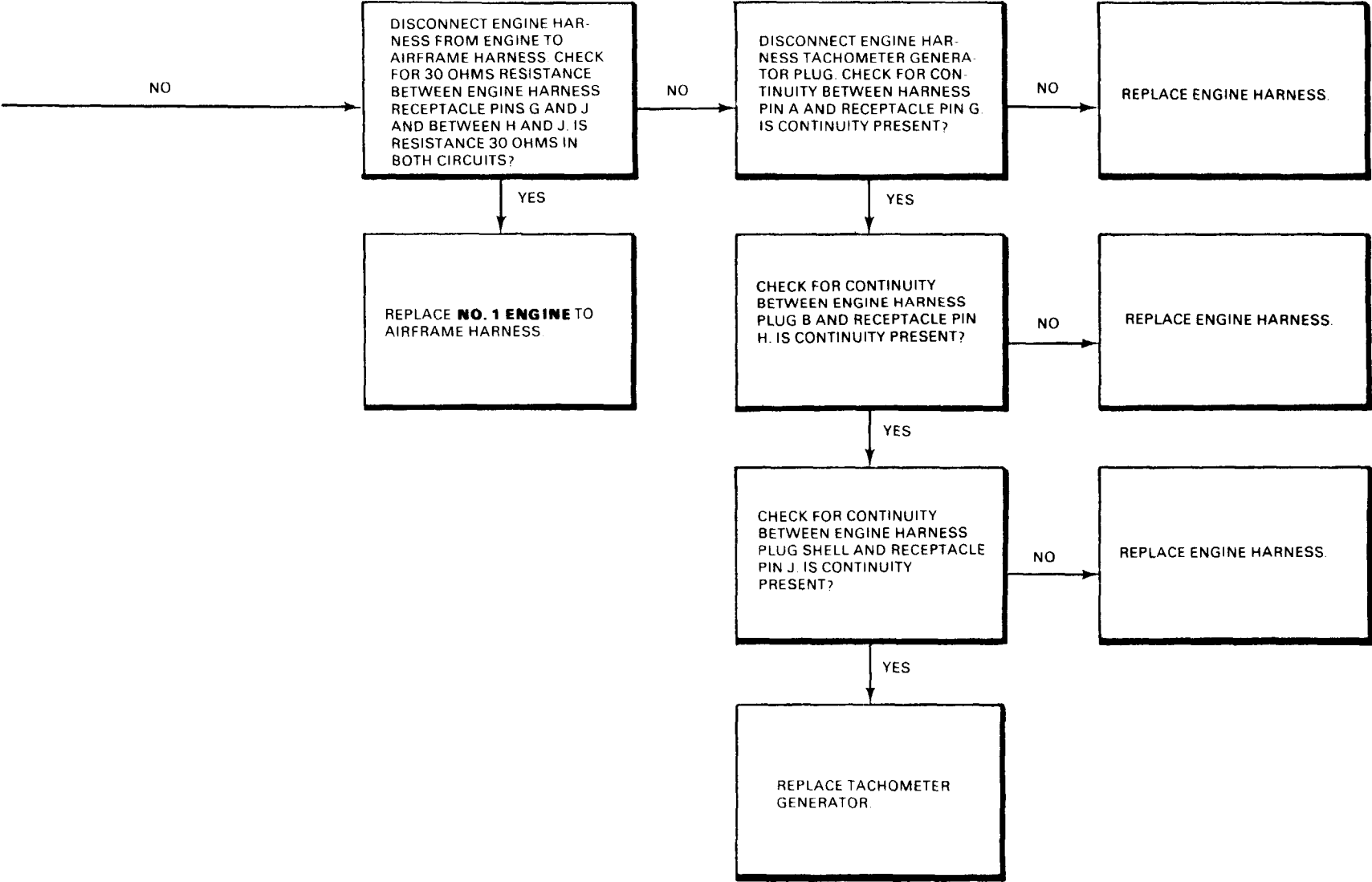
8-2.4

(Continued)

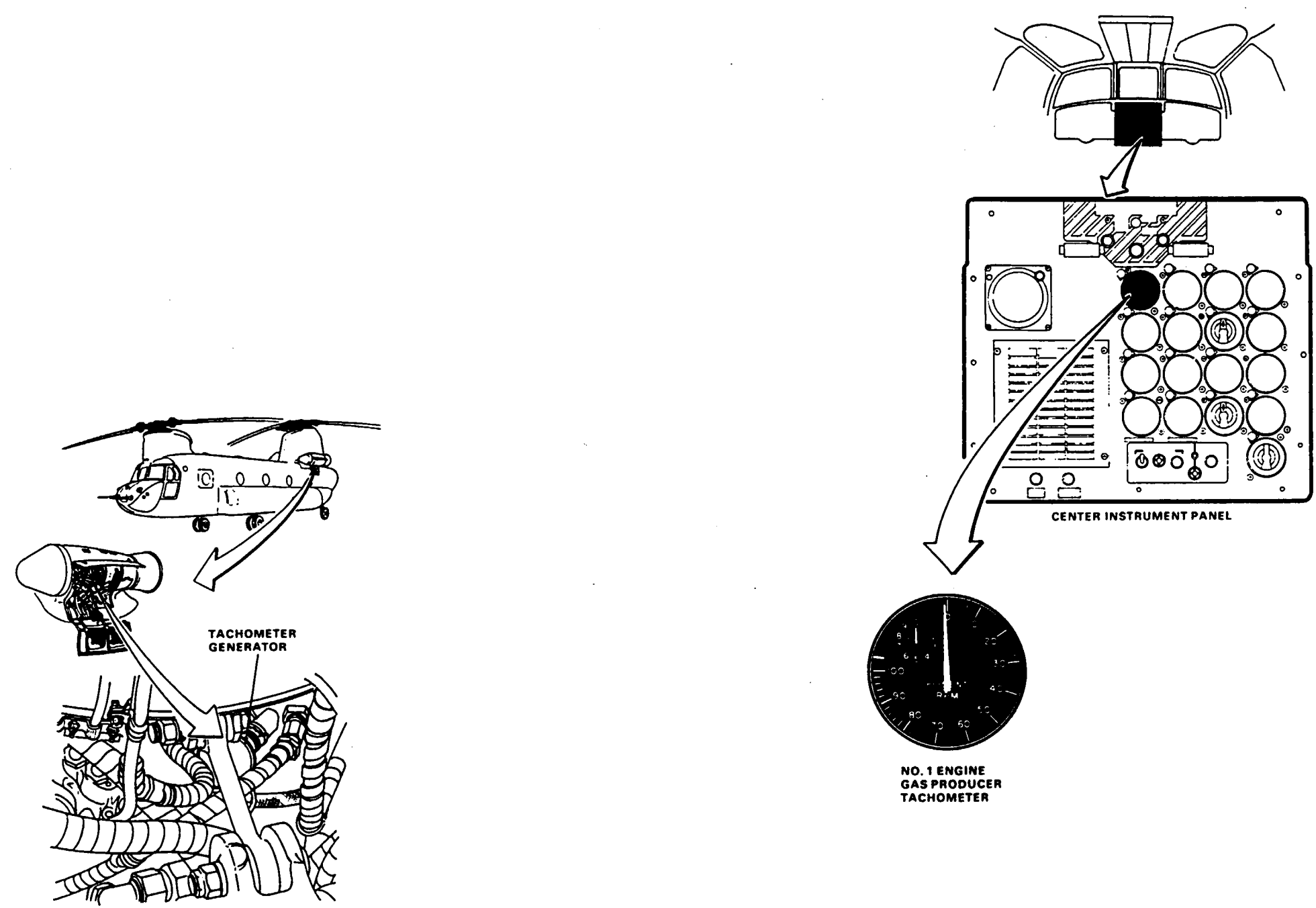


8-2.4 NO. 1 GAS PRODUCER TACHOMETER READS 0 PERCENT  
RPM WHEN NO. 1 ENGINE IS MOTORED (Continued)

8-2.4



GO TO NEXT PAGE



8-2.4.1 NO. 1 GAS PRODUCER TACHOMETER READS 0 PERCENT RPM WHEN NO. 1 ENGINE IS MOTORED

8-2.4.1

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 74

Tools:

Electrical Repair Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23:

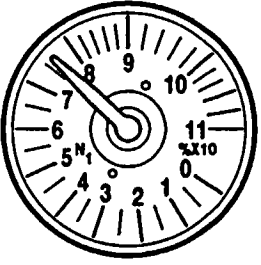
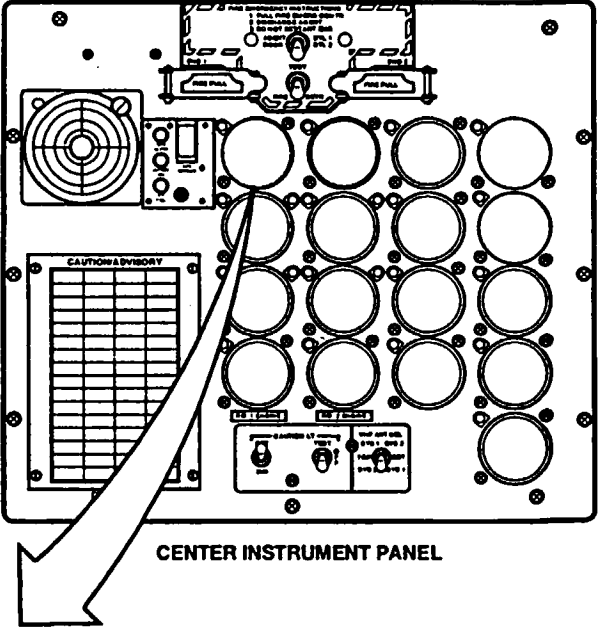
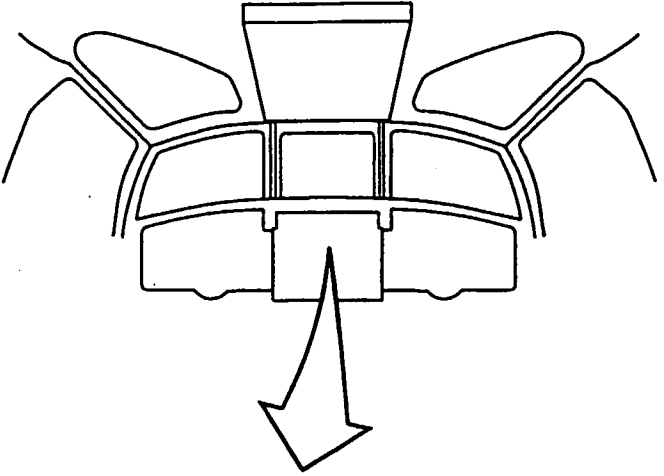
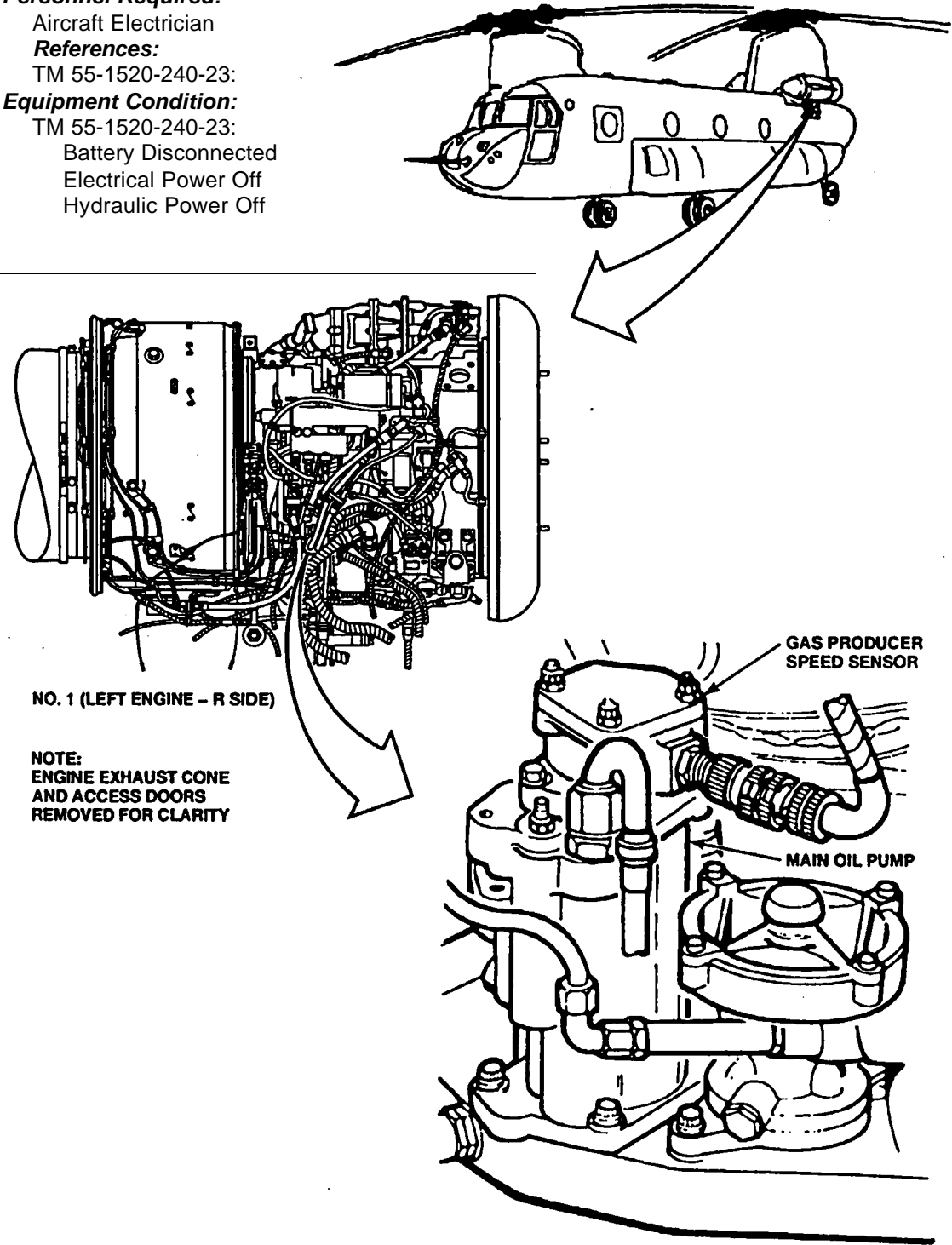
Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off

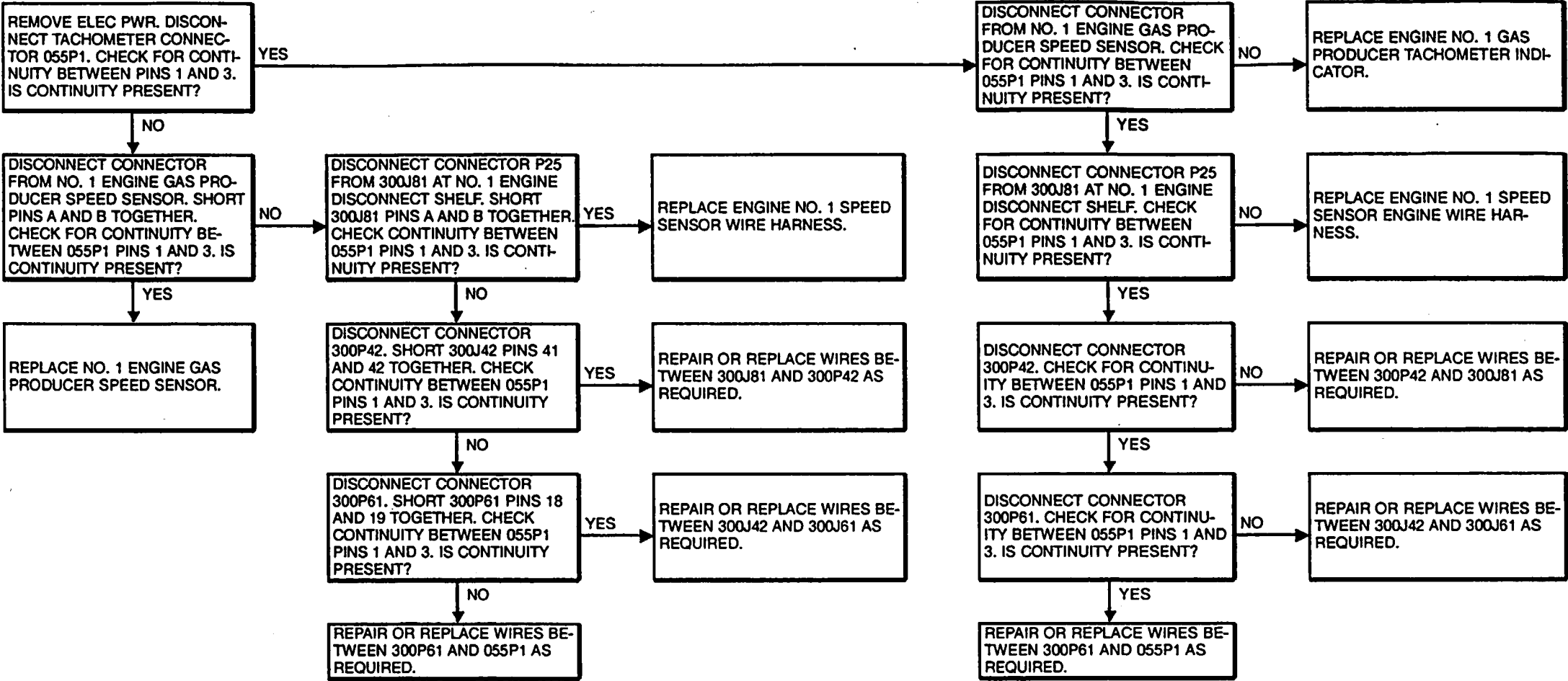
Hydraulic Power Off



NO. 1 ENGINE  
GAS PRODUCER  
TACHOMETER

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END OF TASK

FAULT ISOLATION PROCEDURE

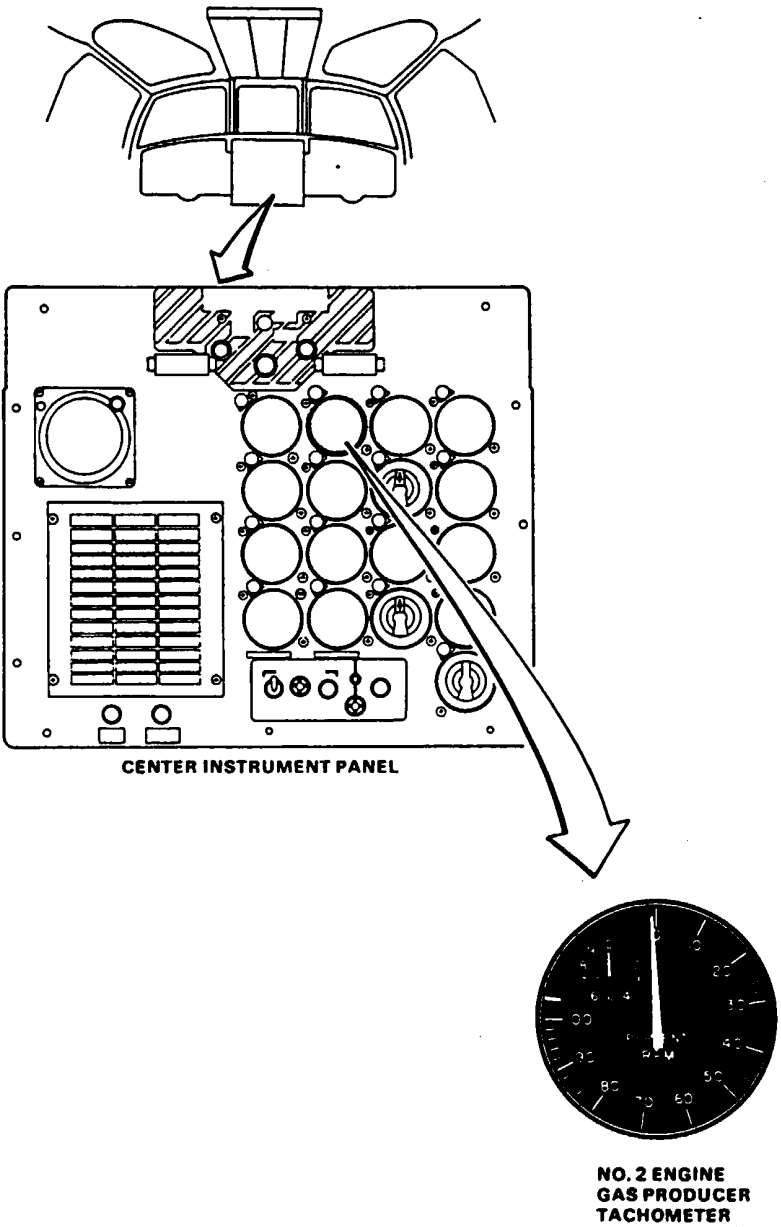
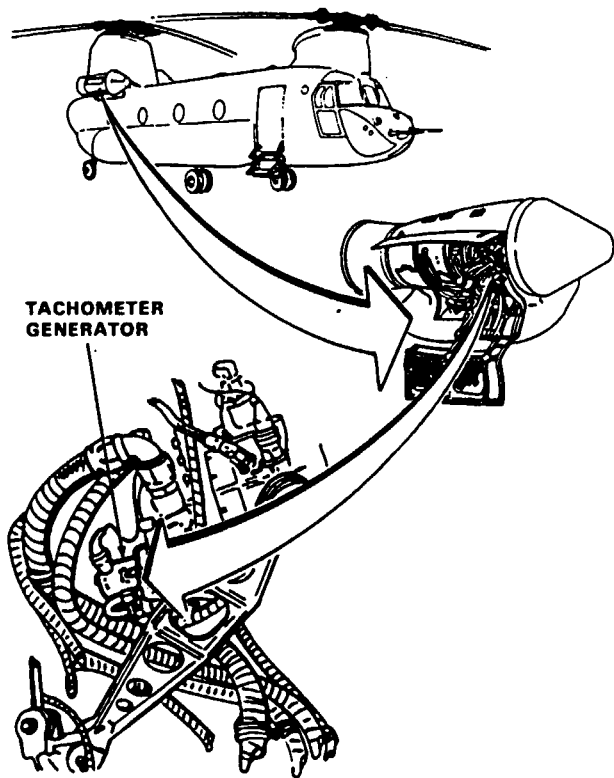
INITIAL SETUP

**Applicable Configurations:**  
Without 74

**Tools**  
Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

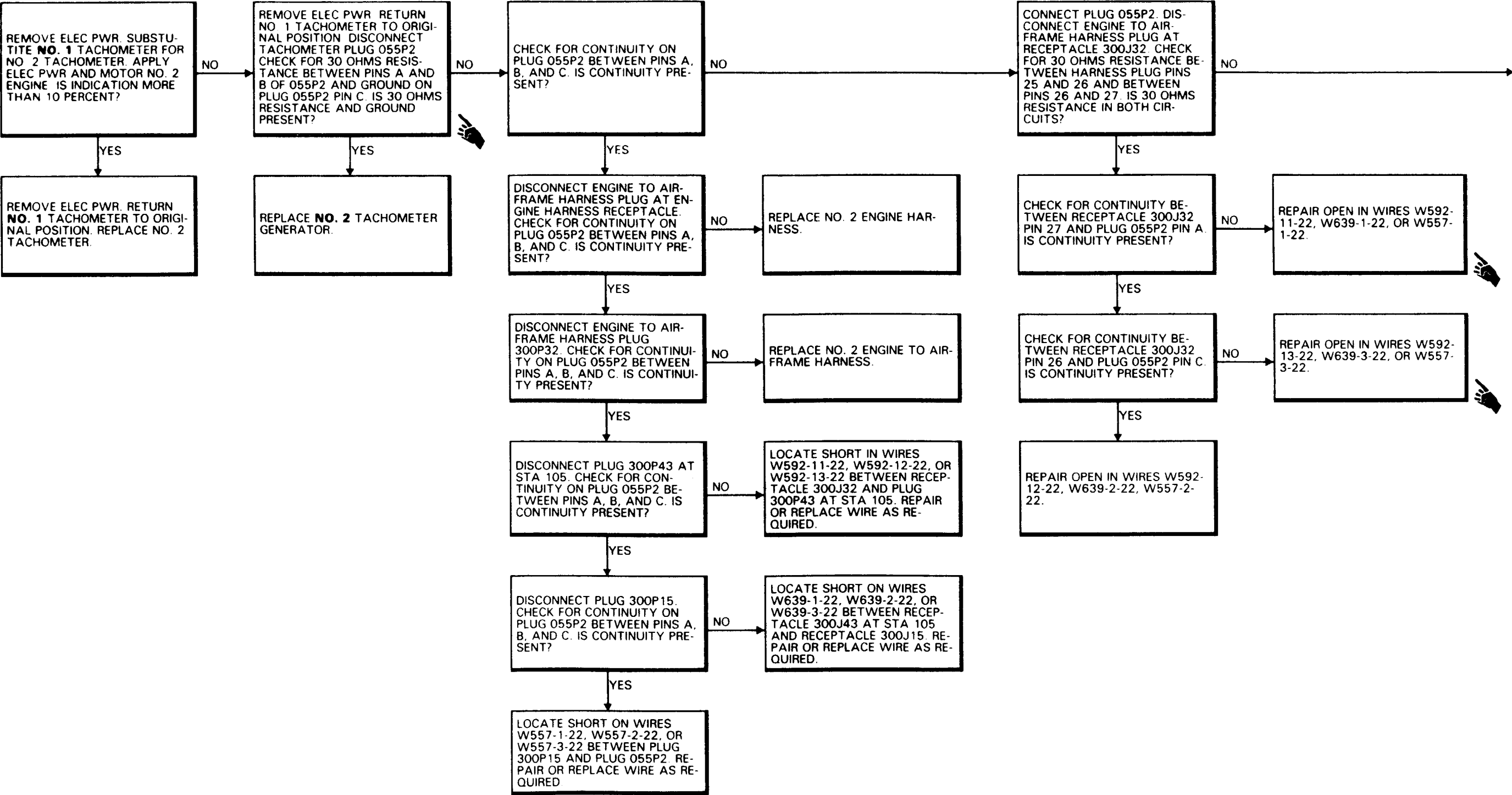
**Materials:**  
None I

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power Off  
Hydraulic Power Off



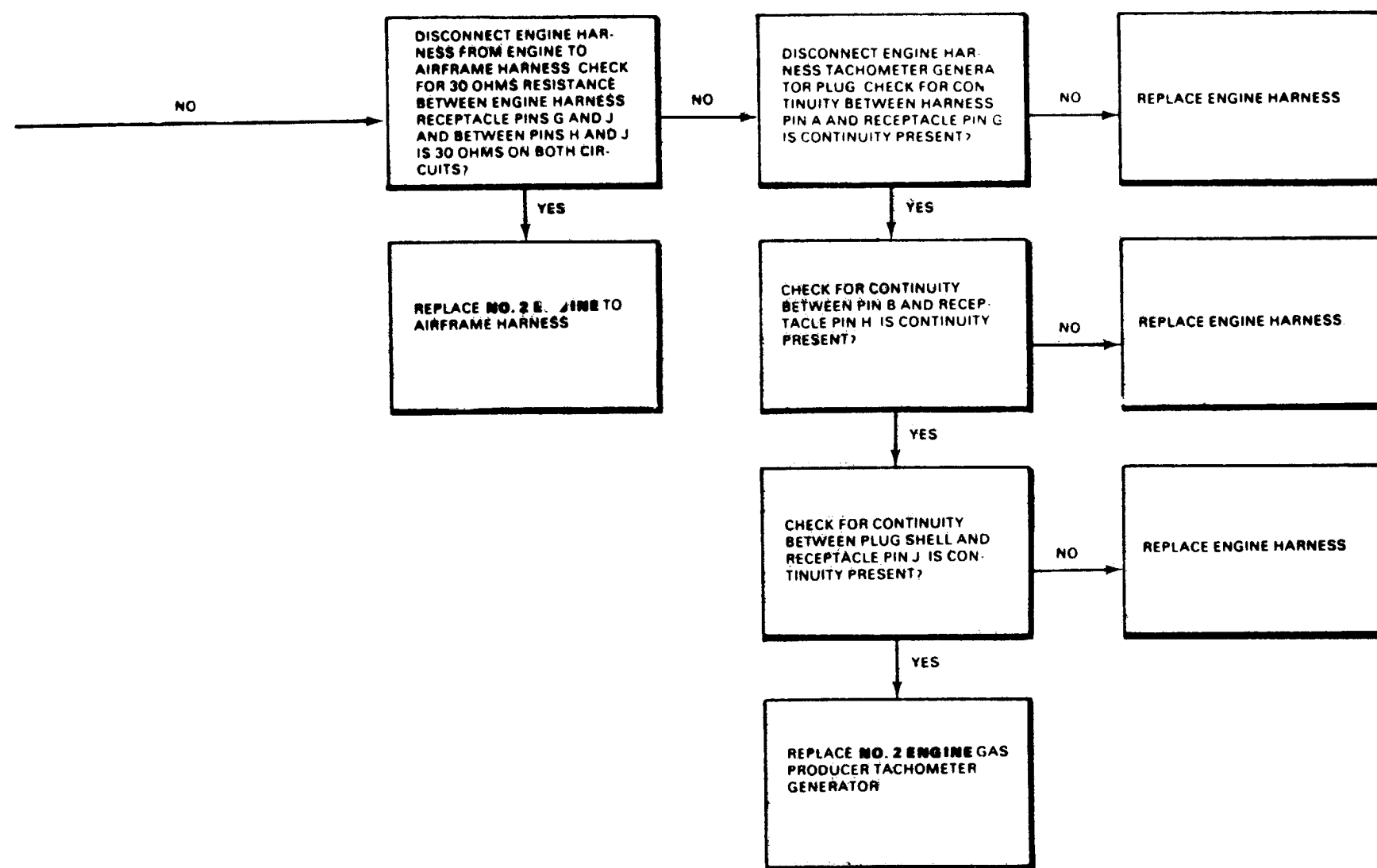
8-2.5 NO. 2 GAS PRODUCER TACHOMETER READS 0 PERCENT RPM WHEN NO. 2 ENGINE IS MOTORED

8-2.5

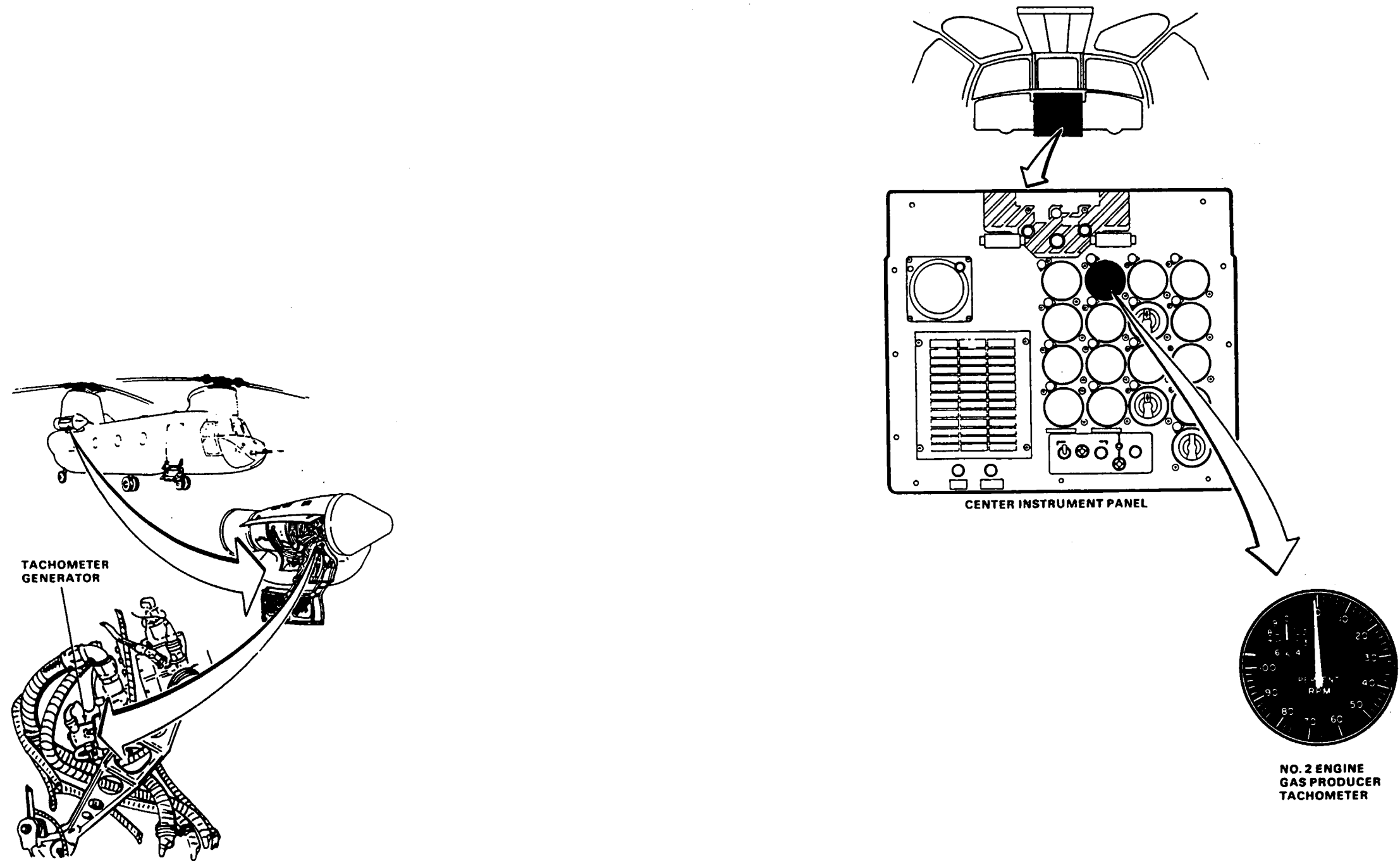


8-2.5 NO. GAS PRODUCER TACHOMETER READS 0 PERCENT  
RPM WHEN NO. 2 ENGINE IS MOTORED (Continued)

8-2 -







FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 74

Tools

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

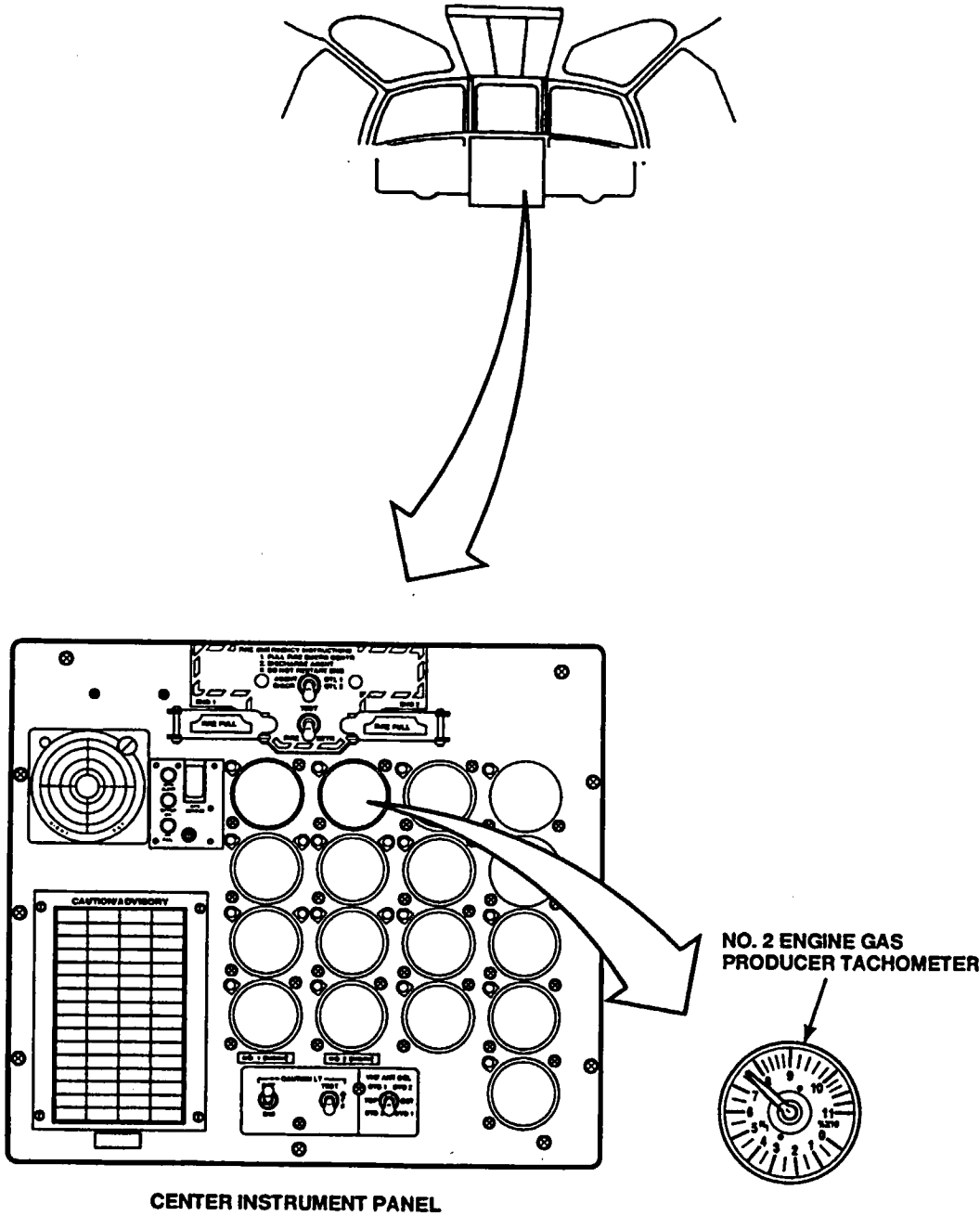
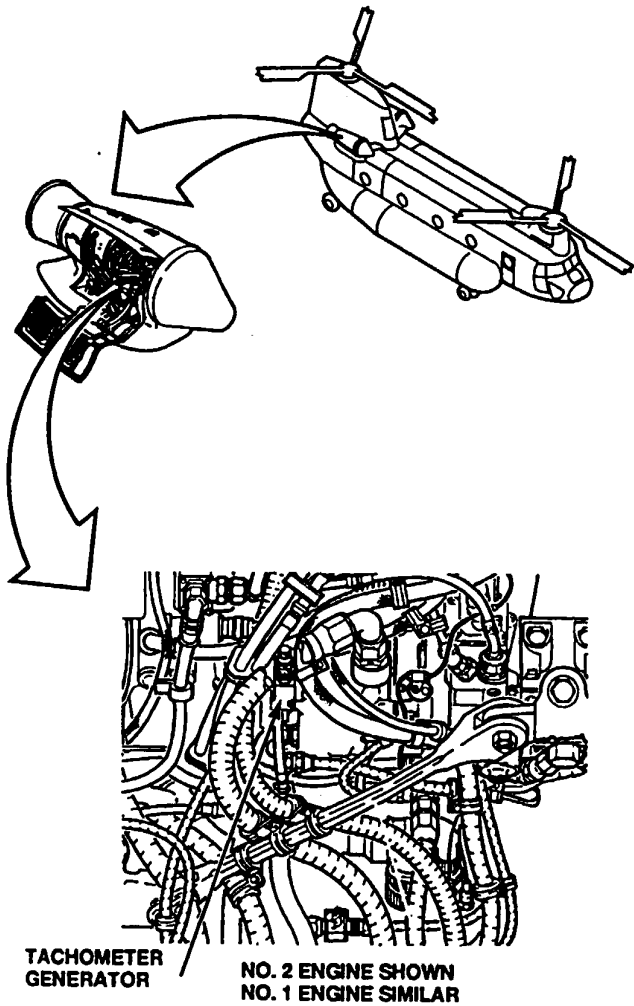
Equipment Condition:

TM 55-1520-240-23:

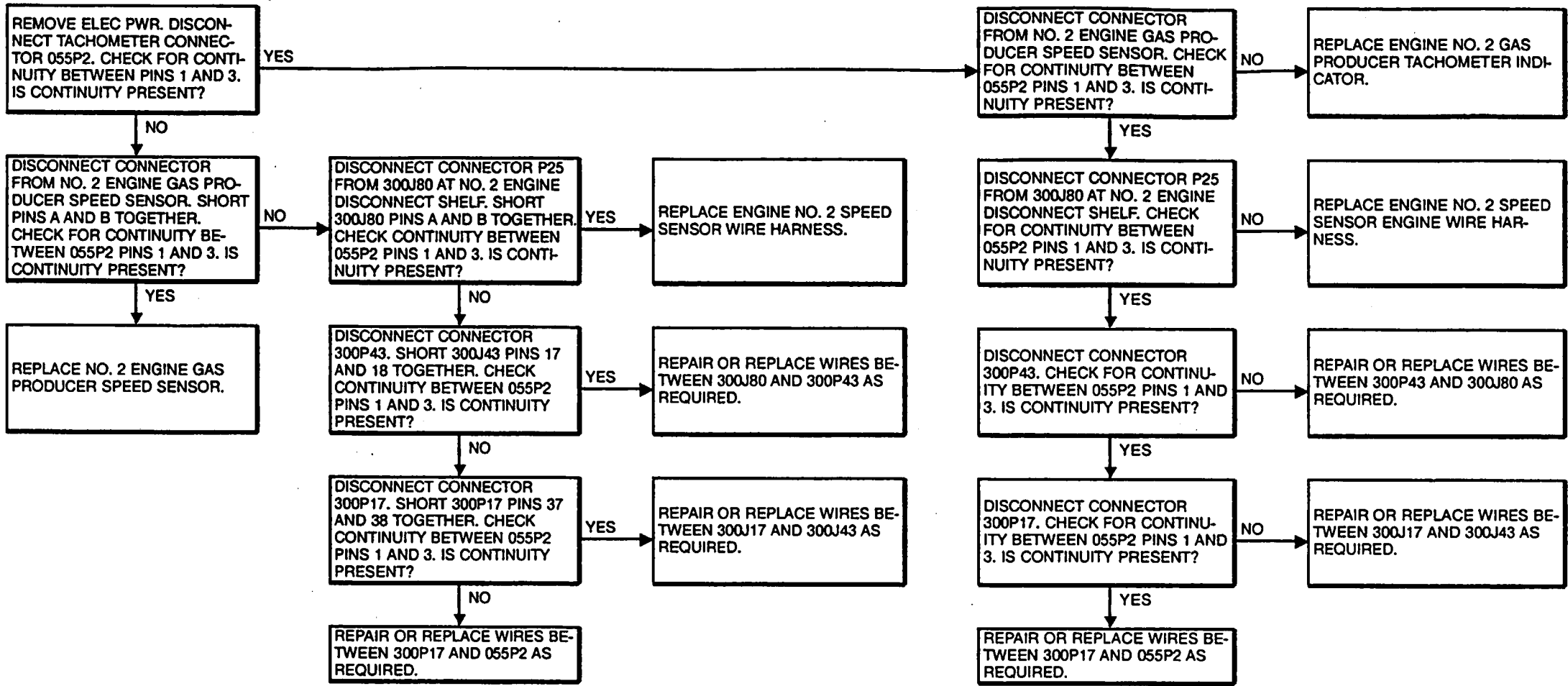
Battery Connected

Electrical Power Off

Hydraulic Power Off



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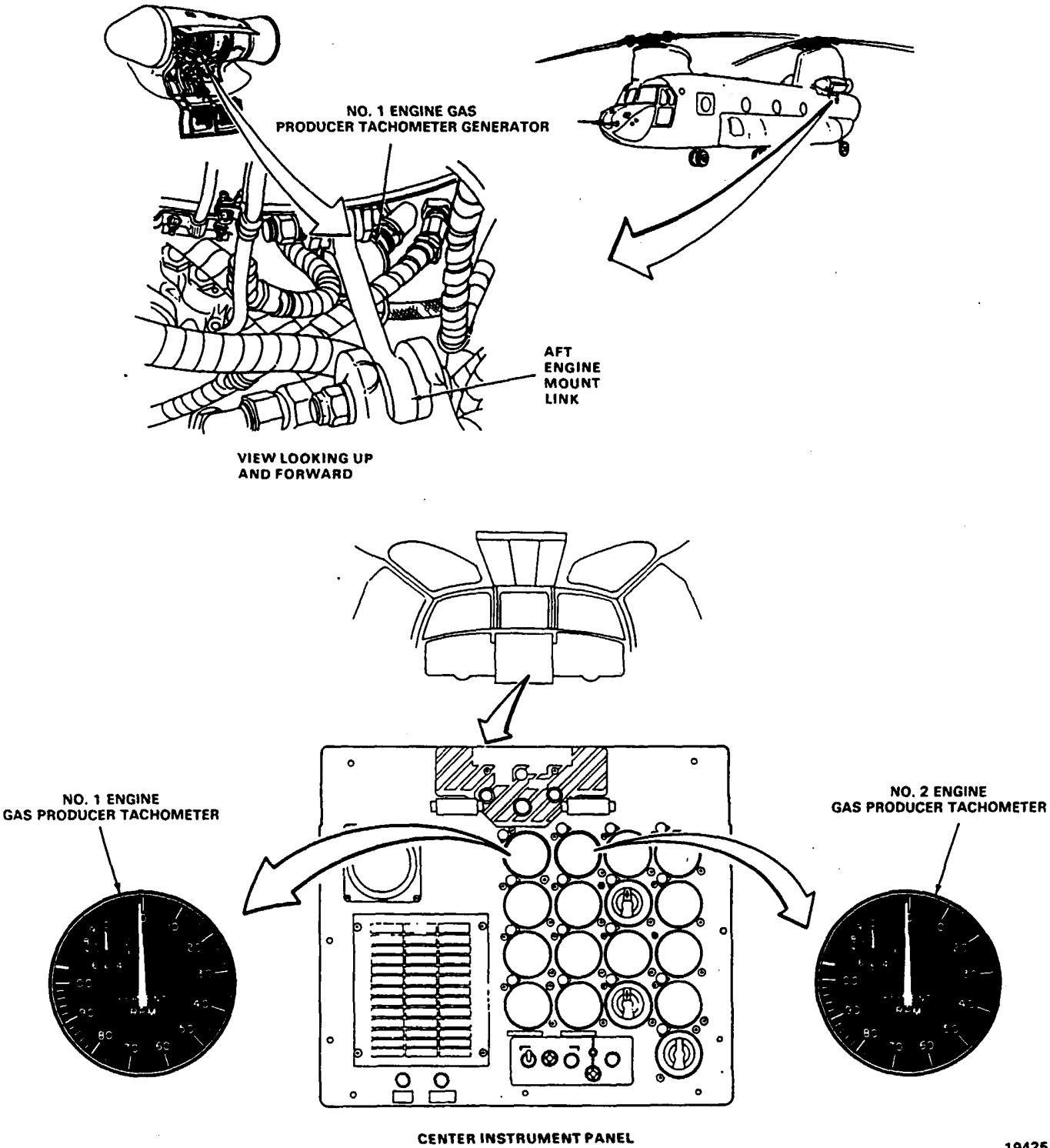
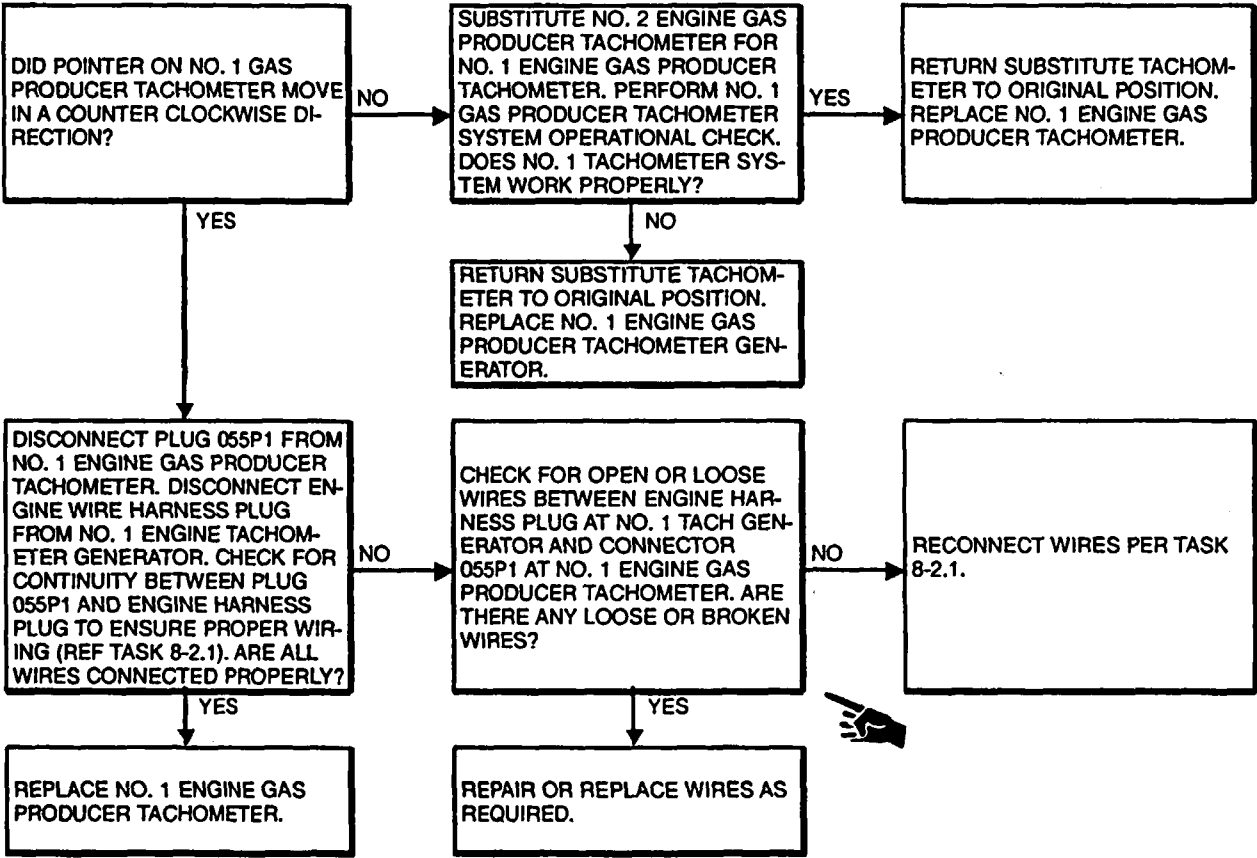
8-2.6 NO. 1 ENGINE GAS PRODUCER TACHOMETER READING FLUCTUATES OR IS ERRATIC

8-2.6

FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
Without 74  
**Tools:**  
Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter  
**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power Off  
Hydraulic Power Off



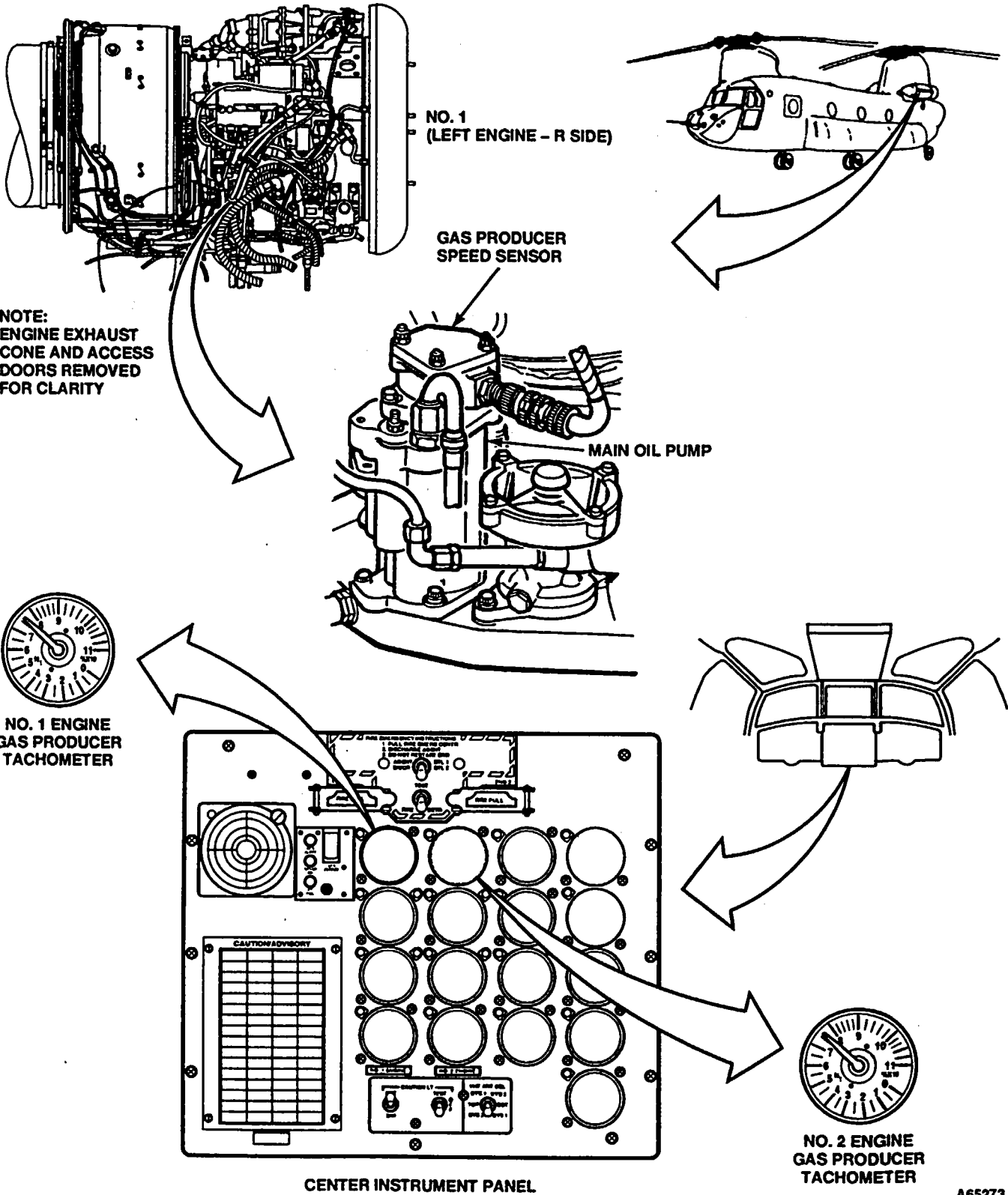
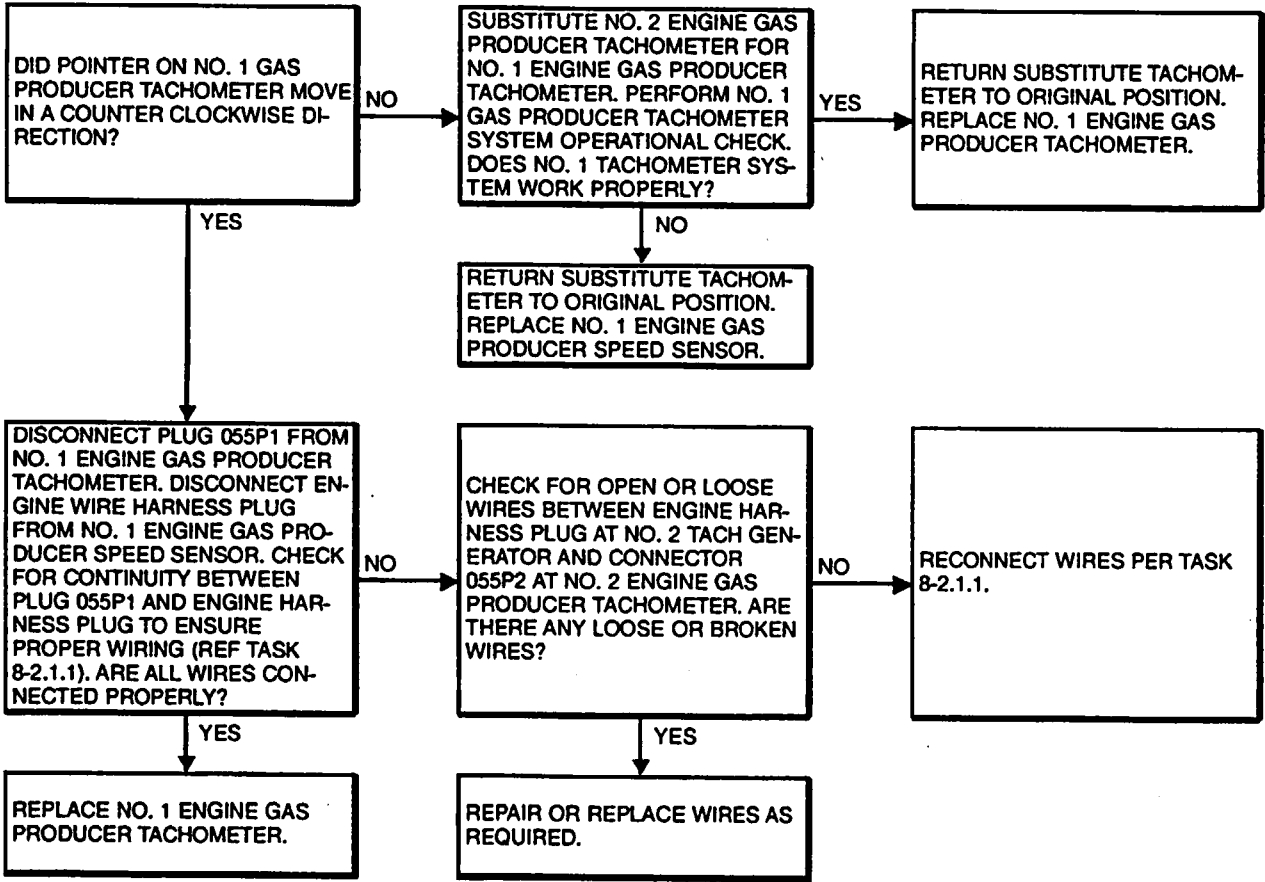
8-2.6.1 NO. 1 ENGINE GAS PRODUCER TACHOMETER READING FLUCTUATES OR IS ERRATIC

8-2.6.1

FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
With 74  
**Tools:**  
Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter  
**Materials:**  
None

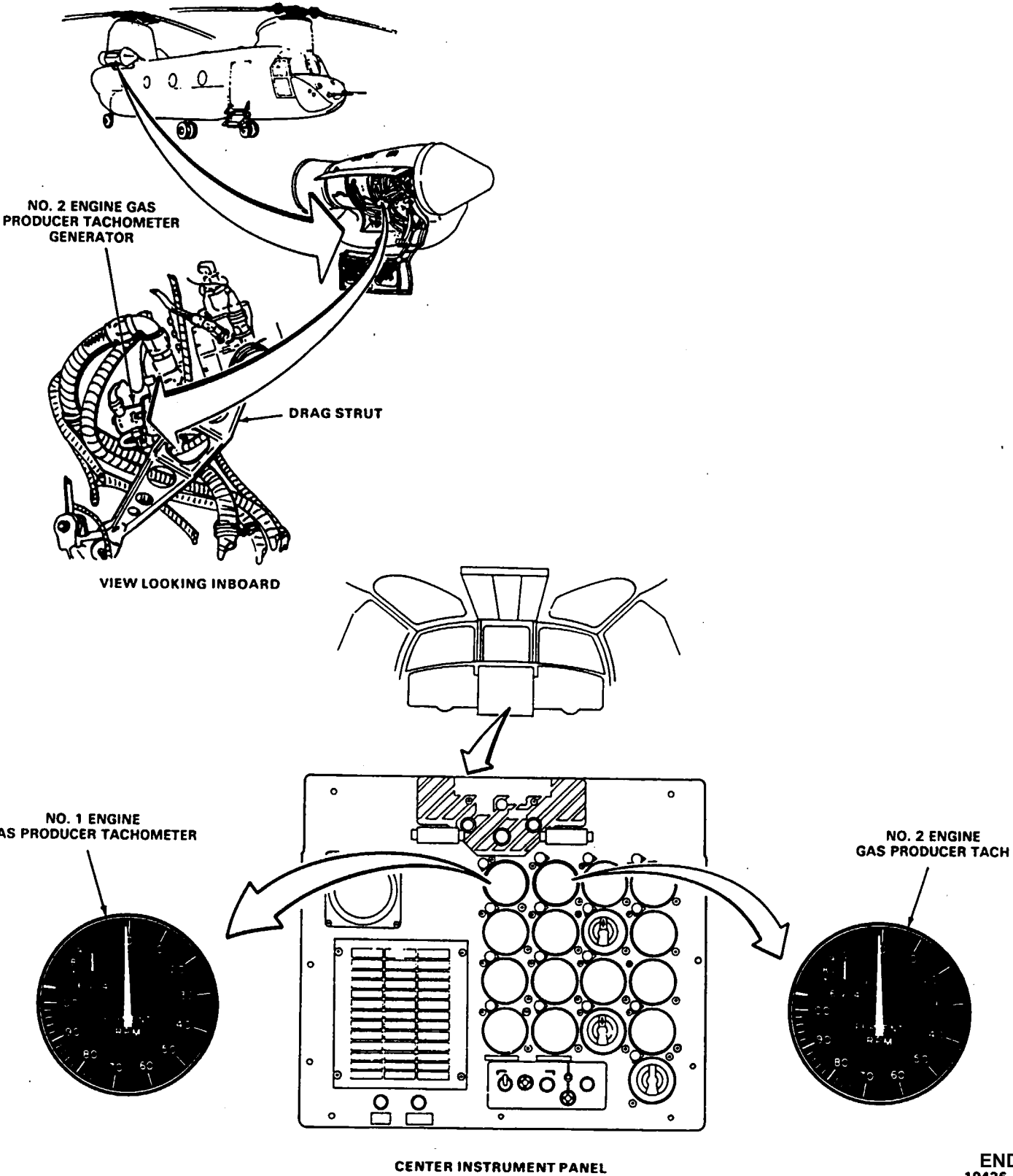
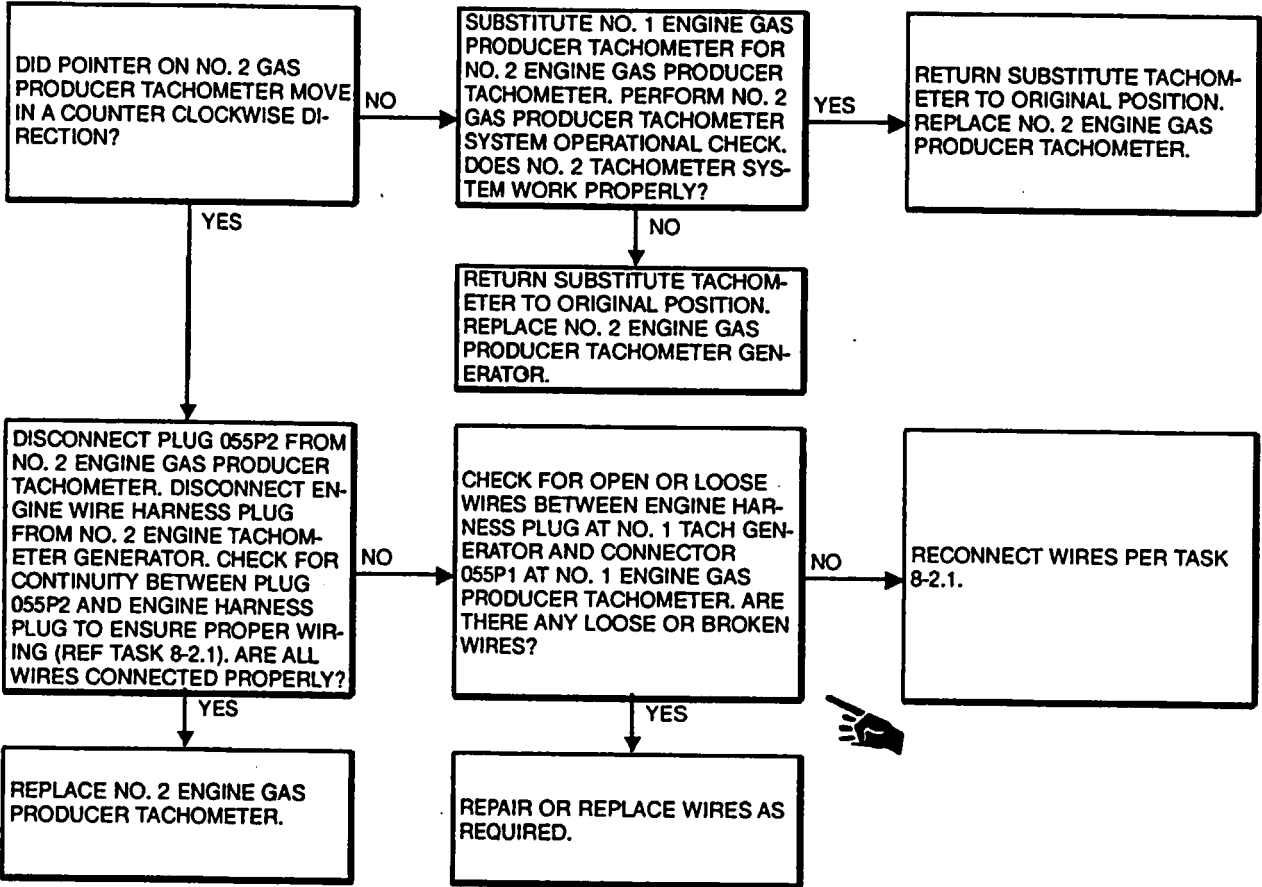
**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power Off  
Hydraulic Power Off



FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
Without 74  
**Tools:**  
Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter  
**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power Off  
Hydraulic Power Off



8-2.7.1 NO. 2 ENGINE GAS PRODUCER TACHOMETER READING FLUCTUATES OR IS ERRATIC

8-2.7.1

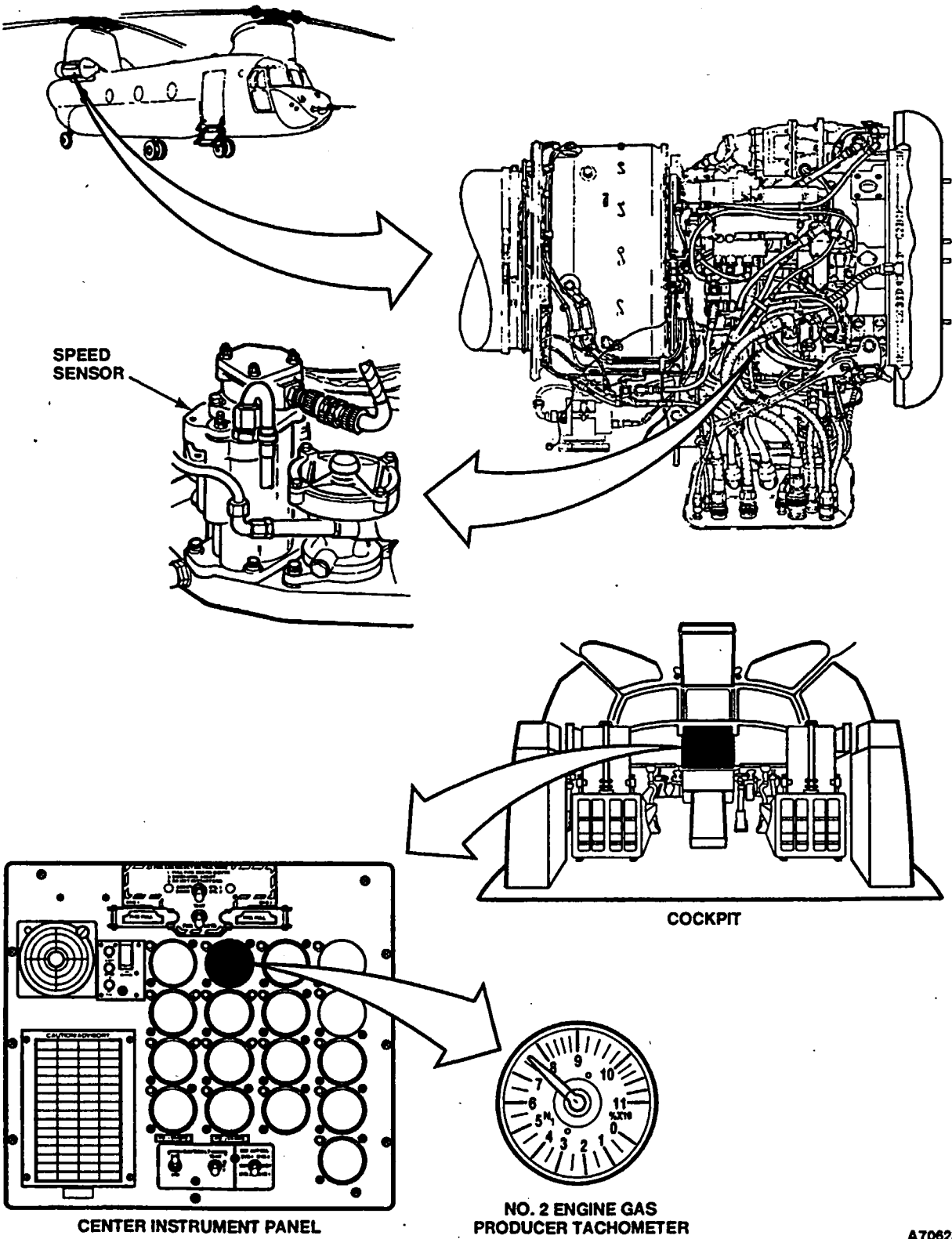
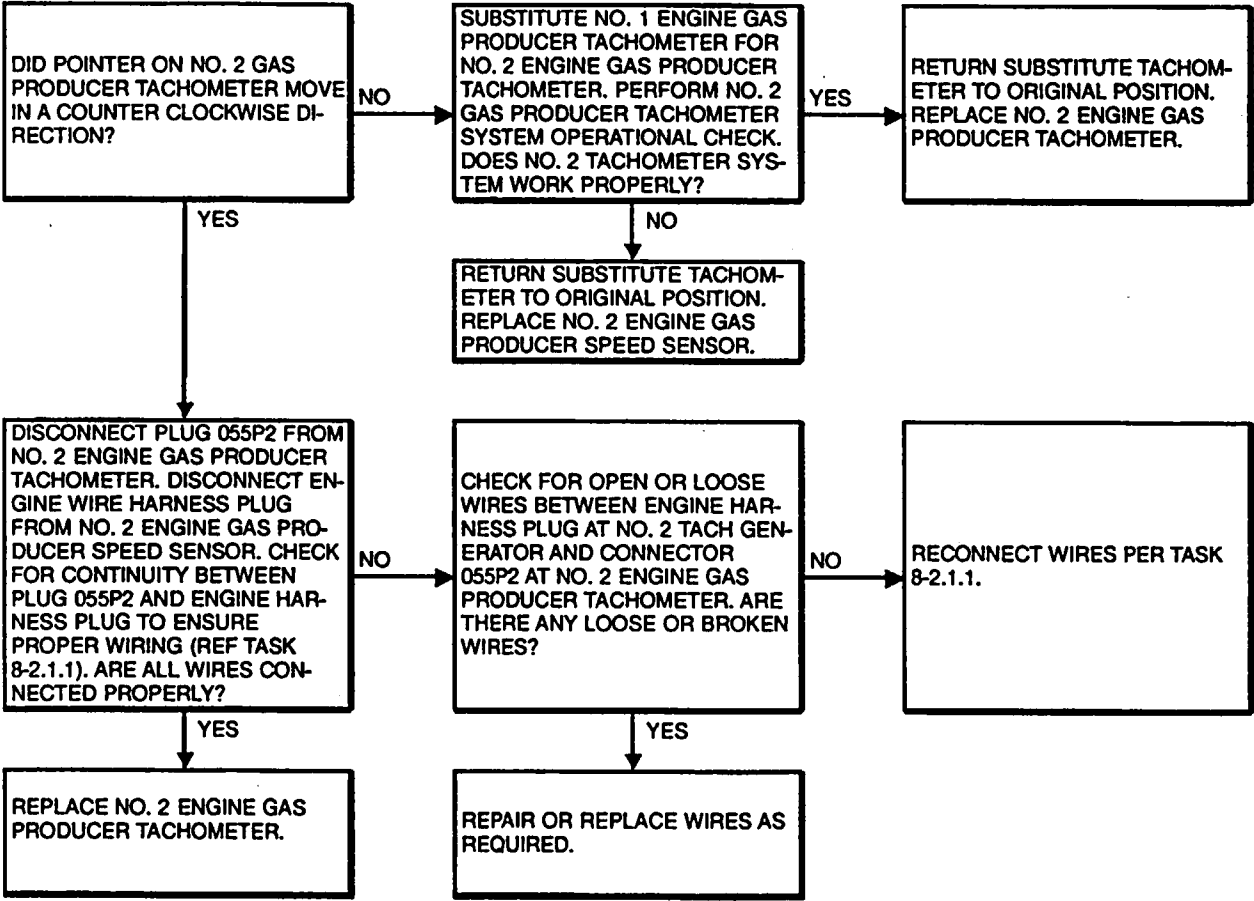
FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
With 74

**Tools:**  
Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power Off  
Hydraulic Power Off







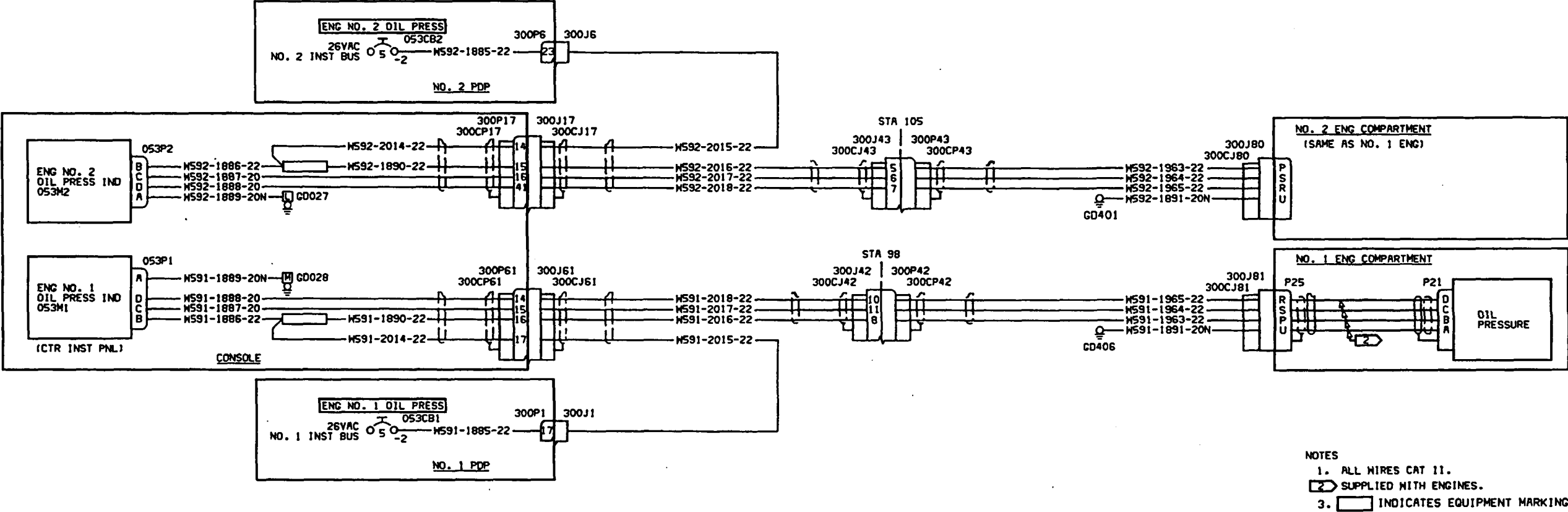
8-3 ENGINE OIL PRESSURE INDICATING SYSTEM



8-3.1.1 ENGINE OIL PRESSURE INDICATING SYSTEM WIRING DIAGRAM

8-3.1.1

WITH 74



A72182

END OF TASK

Change 19 8-44.1

8-3.2ENGINE OIL PRESSURE INDICATING SYSTEM VISUAL CHECK

8-3.2

INITIAL SETUP

**Applicable Configurations:**  
All

**Tools:**  
Aircraft Mechanic Tool Kit,  
NSN 5180-00-323-4692

**Materials:**  
None

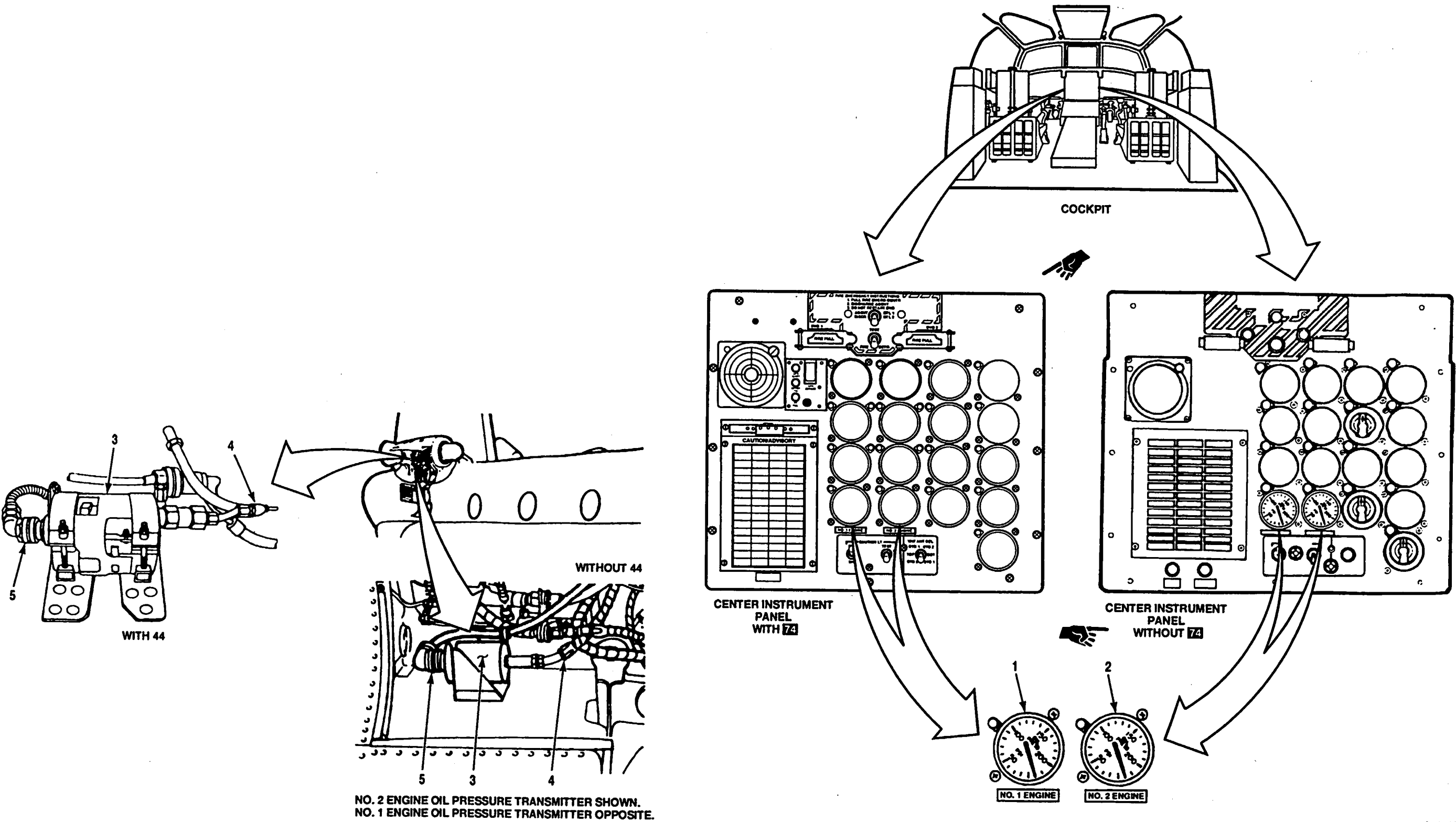
**Personnel Required:**  
Medium Helicopter Repairer

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Upper and Lower Engine Access Doors Open  
Engine Work Platforms Open

TASK	RESULT
1. Check NO. 1 ENGINE OIL PRESS indicator (1).	If indicator (1) is damaged, replace it.
2. Check NO. 2 ENGINE OIL PRESS Indicator (2).	If indicator (2) is damaged, replace it.
<b>CHECK NO. 2 ENGINE INSTALLATION</b>	
3. Check No. 2 engine oil pressure transmitter (3).	If transmitter (3) is loose or damaged, tighten or replace it.  If oil is leaking from transmitter, tighten connection if loose or replace it as required. If oil line (4) is leaking oil or is damaged, tighten or replace it. If connector (5) or wiring is damaged, replace harness.
<b>CHECK NO. 1 ENGINE INSTALLATION</b>	
4. Check No. 1 engine oil pressure transmitter (3).	If transmitter (3) is loose or damaged, tighten or replace it. If oil is leaking from transmitter, tighten connection if loose or replace transmitter. If oil line (4) is leaking oil or is damaged, tighten or replace it as required. If connector (5) or wiring is damaged, replace harness.

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Close upper and lower engine access doors.  
Close engine work platforms.



A65393

8-3.3 ENGINE OIL PRESSURE INDICATING SYSTEM OPERATIONAL CHECK

8-3.3

INITIAL SETUP

Applicable Configurations:

All

Tools:

None

Materials:

None

Personnel Required:

Rotary Wing Aviator (2)  
Medium Helicopter Repairer

References: -

TM 55-1520-240-10  
TM 55-1520-240-23

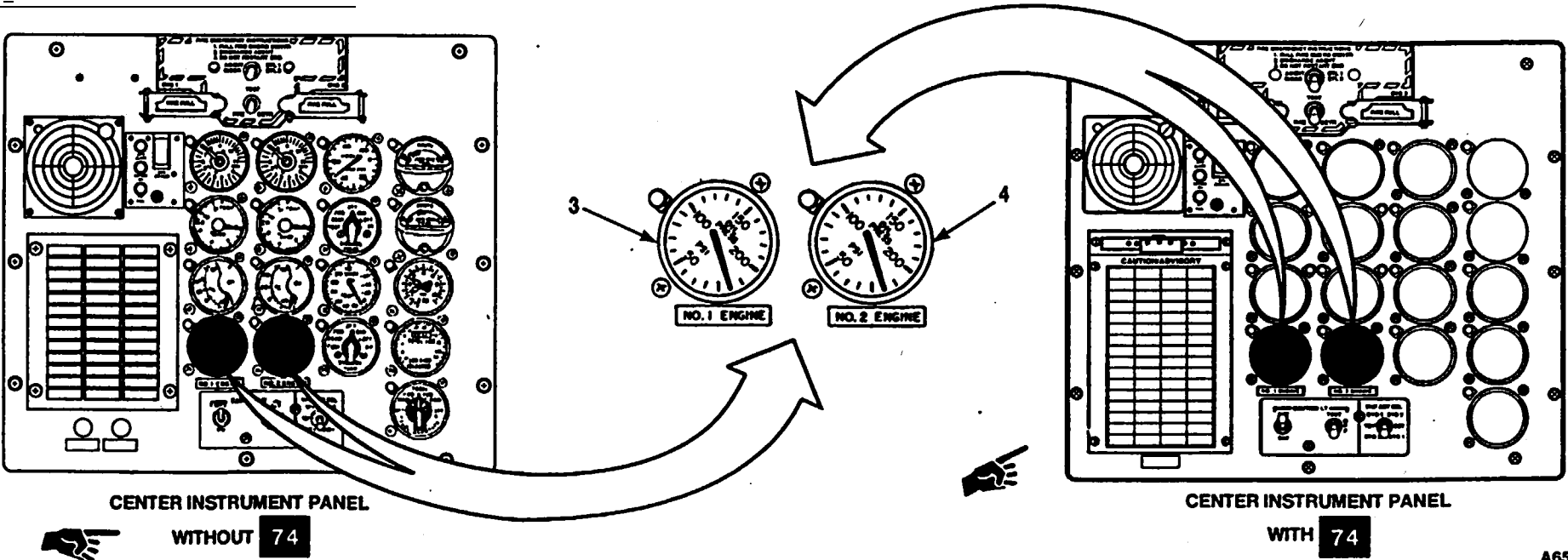
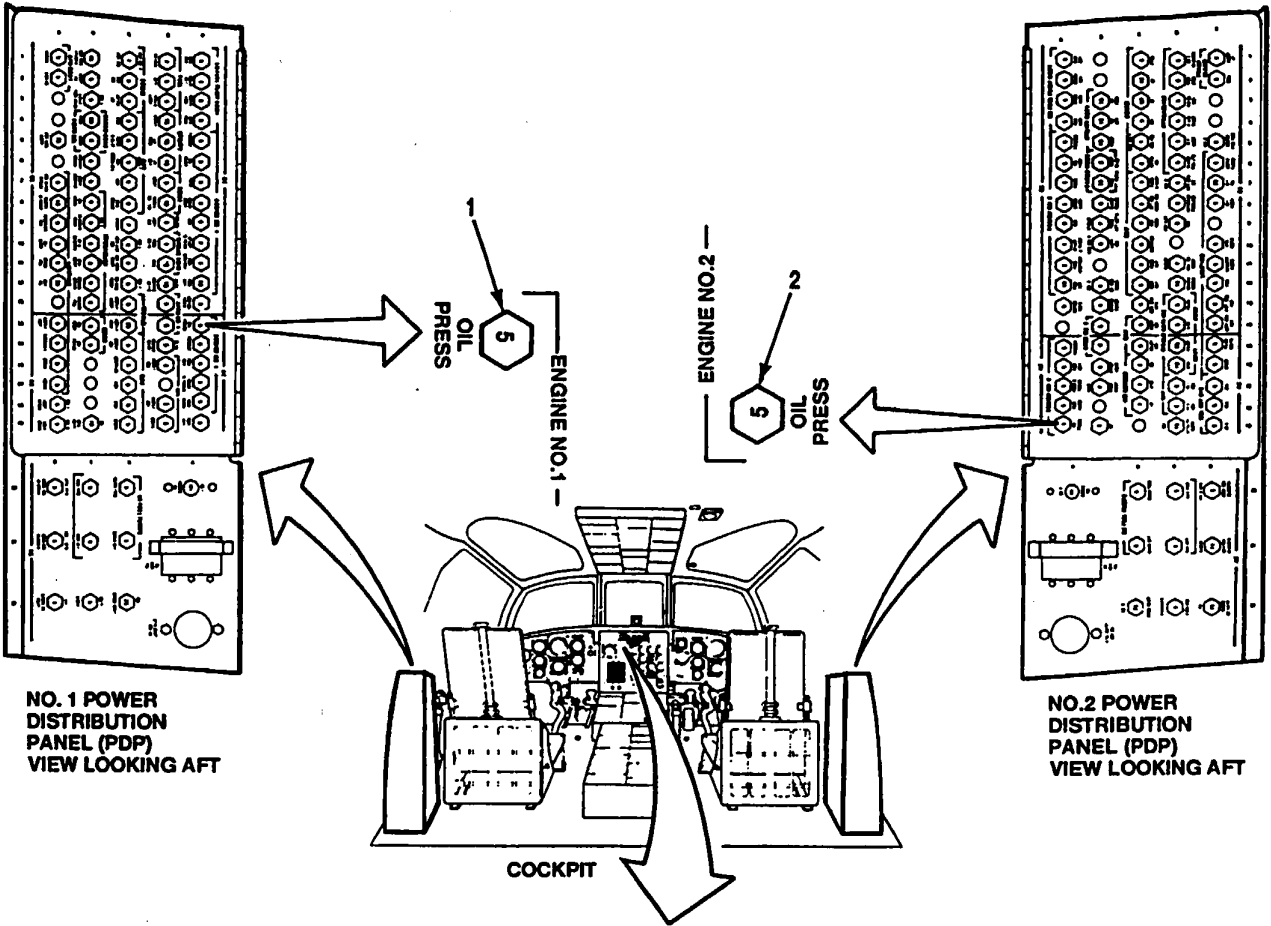
Equipment Condition:

TM 55-1520-240-23:  
B-Battery Connected  
Electrical Power On  
Hydraulic Power On  
Engine Oil Pressure Indicating System Visual Check  
Performed (Task 8-3.2)

TASK	RESULT
1. Check that <b>ENGINE NO. 1 OIL PRESS</b> circuit breaker (1) is closed.	If OIL PRESS circuit breaker (1) is open, close it. If it opens again, go to task 8-3.4 or 8-3.4.1.
2. Check that <b>ENGINE NO. 2 OIL PRESS</b> circuit breaker (2) is closed.	If OIL PRESS circuit breaker (2) is open, close it If it opens again, go to task 8-3.4 or 8-3.4.1.
3. Check that <b>NO. 1 ENGINE OIL PRESS AND NO. 2 ENGINE OIL PRESS</b> Indicators (3 and 4) indicate 0.	If either indicator (3 or 4) does not indicate 0, go to task 8-3.5.
<b>CHECK NO. 1 ENGINE SYSTEM</b>	
4. Have pilot operate No. 1 engine to <b>GROUND IDLE</b> . Check <b>NO. 1 ENGINE OIL PRESS</b> indicator (3).	Indicator (3) shall indicate <u>20 psi</u> minimum with pointer fluctuations less than <u>5 psi</u> . If indication is below <u>20 psi</u> or is fluctuating more than <u>5 psi</u> , go to task 8-3.6 or 8-3.6.1. Indicator (3) shall indicate 0.
5. Have pilot stop No. 1 engine.	
<b>CHECK NO. 2 ENGINE SYSTEM</b>	
6. Have pilot operate No. 2 engine to <b>GROUND IDLE</b> . Check <b>NO. 2 ENGINE OIL PRESS</b> indicator (4).	Indicator (4) shall indicate <u>20 psi</u> minimum with pointer fluctuations less than <u>5 psi</u> . If indication is below <u>20 psi</u> or is fluctuating more than <u>5 psi</u> go to task 8-3.7 or 8-3.7.1. Indicator (4) shall indicate 0.
7. Have pilot stop No. 2 engine.	

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Electrical power off.  
Hydraulic power off.  
Battery disconnected.



A65390

END OF TASK

8-3.4 ENGINE OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED

8-3.4

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

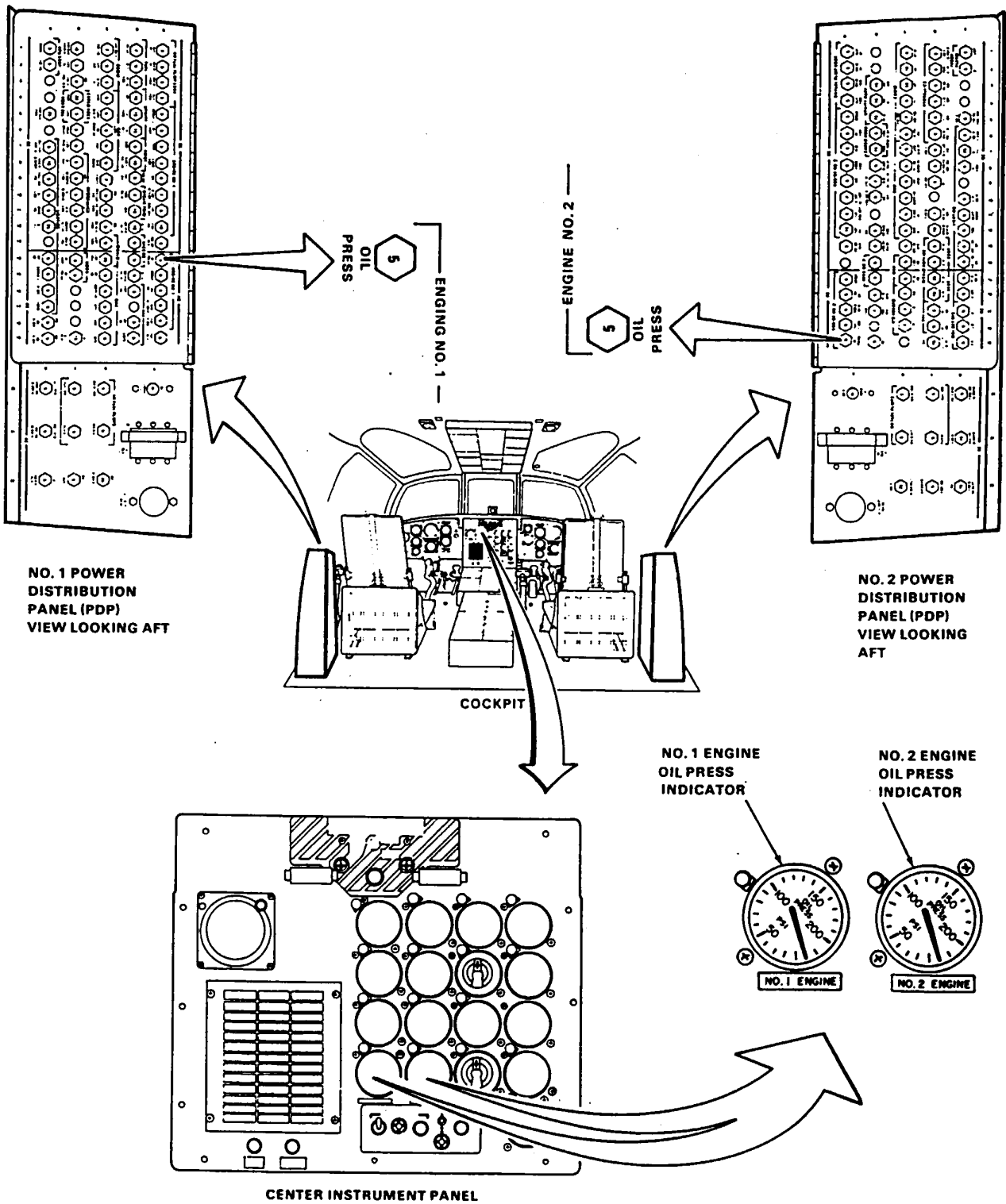
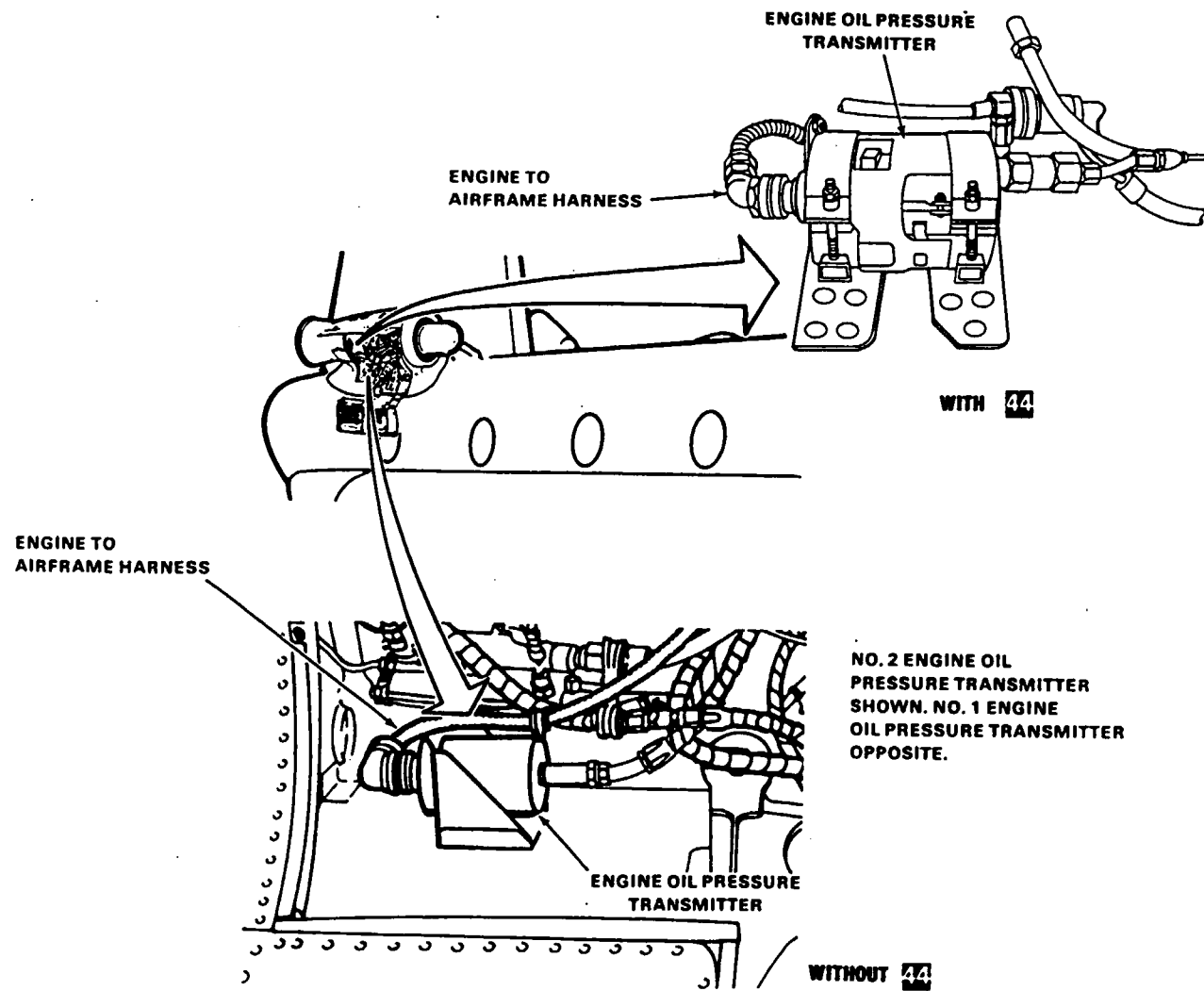
Aircraft Electrician

References:

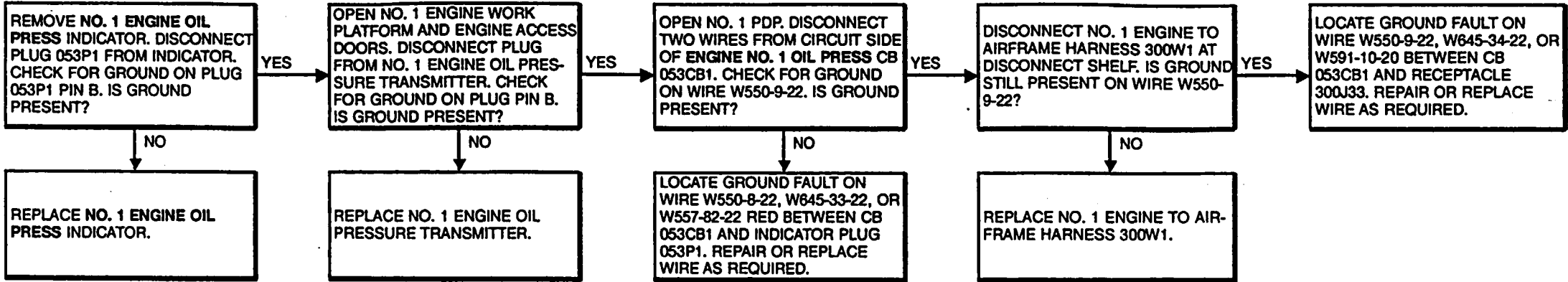
TM 55-1520-240-23

Equipment Condition:

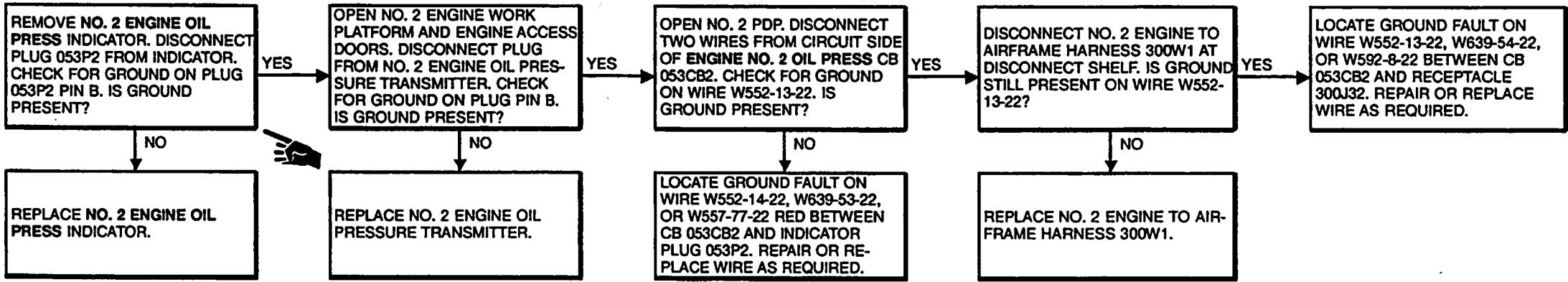
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



ENGINE NO. 1 OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED



ENGINE NO. 2 OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED





8-3.4.1 ENGINE OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED

8-3.4.1

INITIAL SETUP

Applicable Configurations:

With 74

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

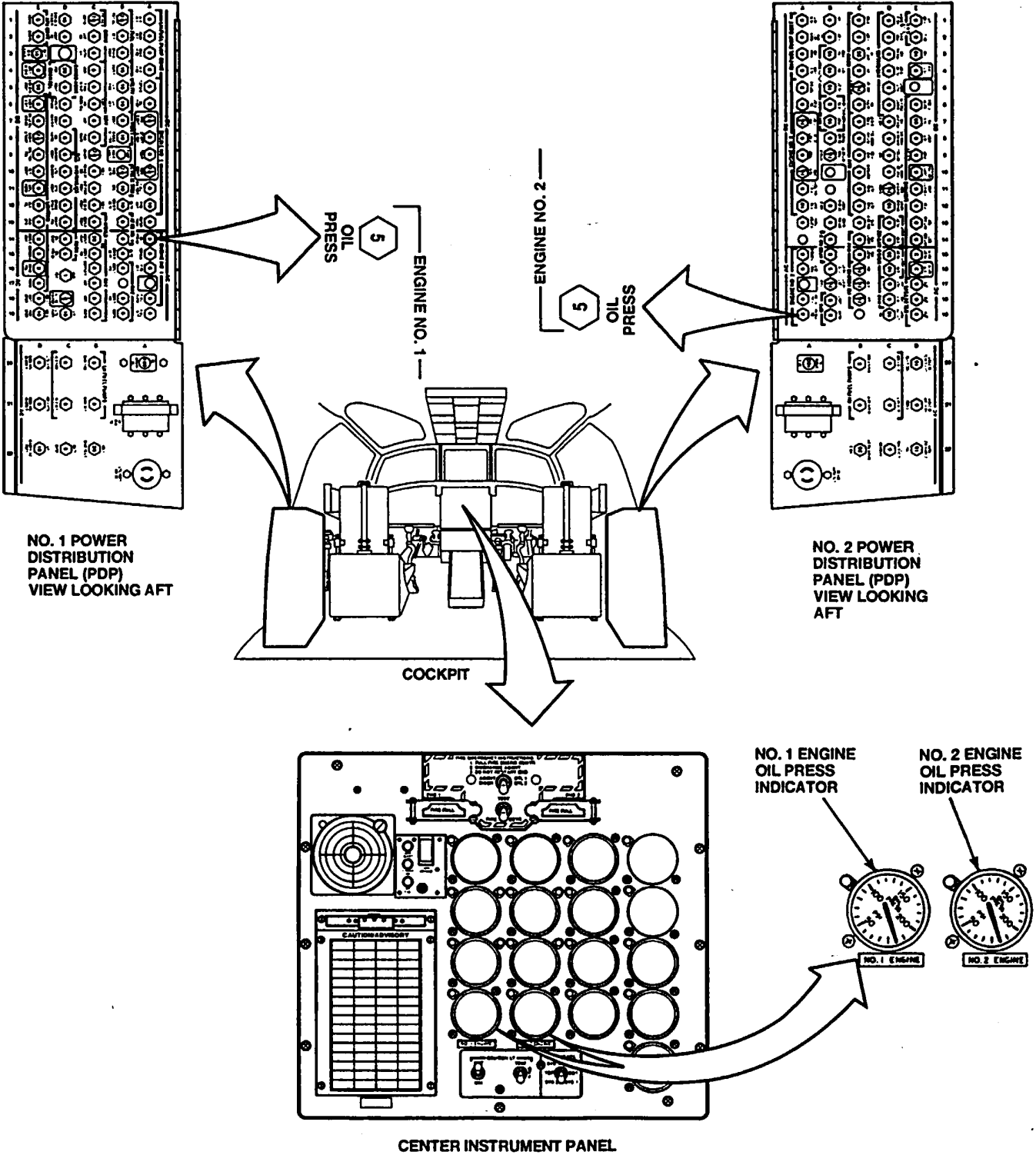
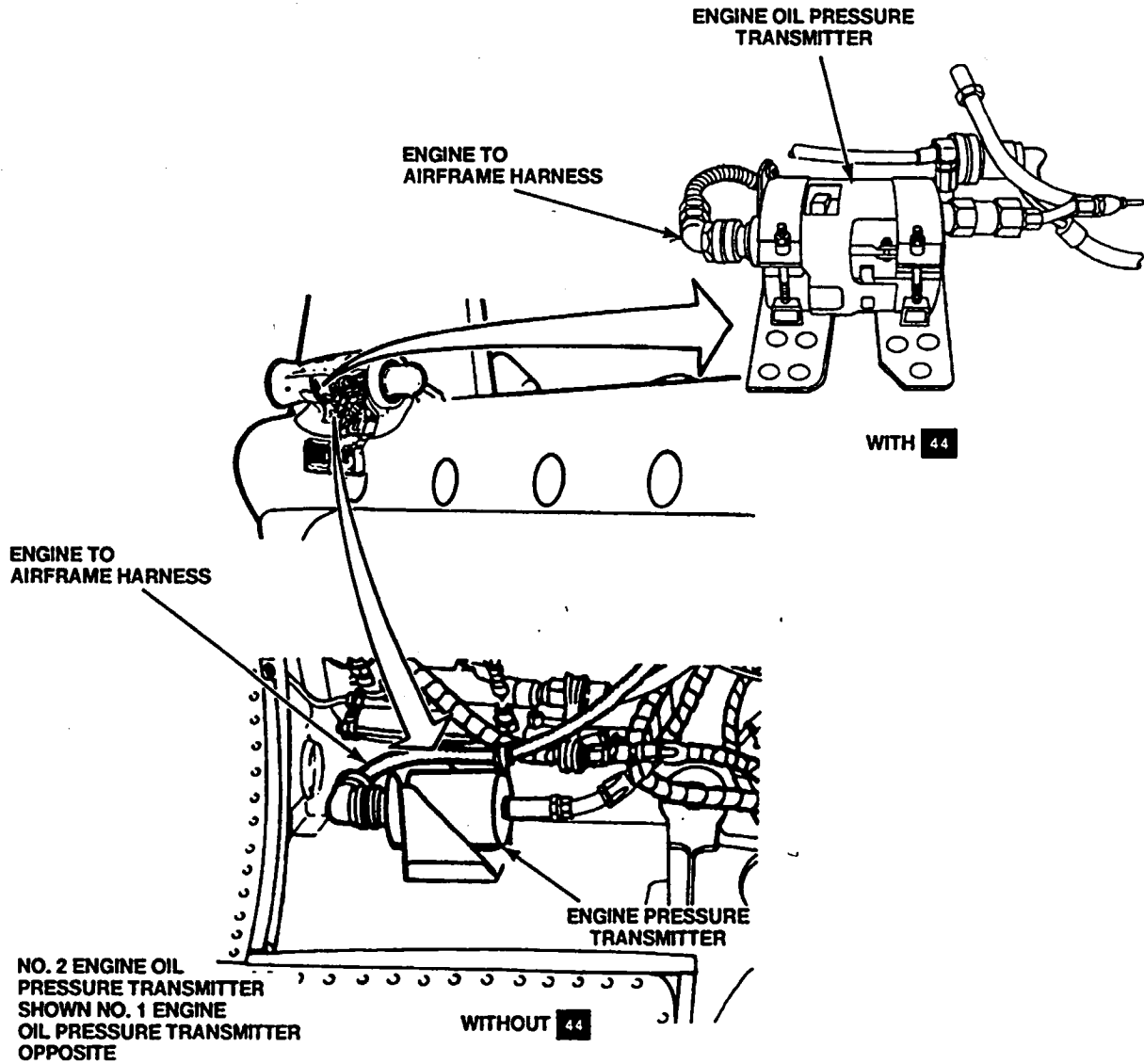
Aircraft Electrician

References:

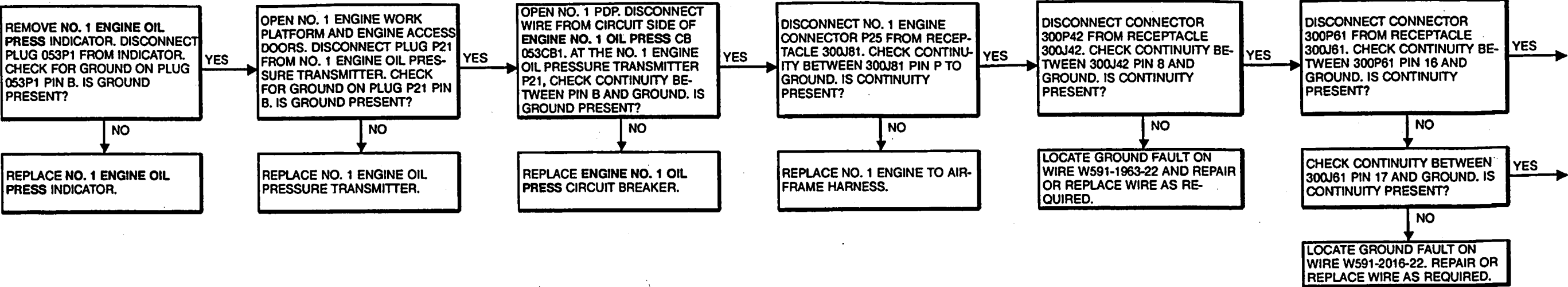
TM 55-1520-240-23

Equipment Condition:

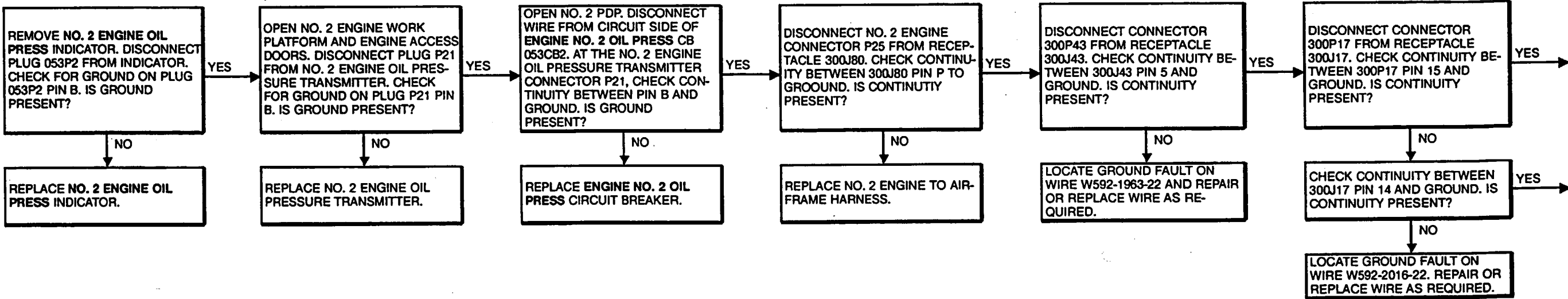
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



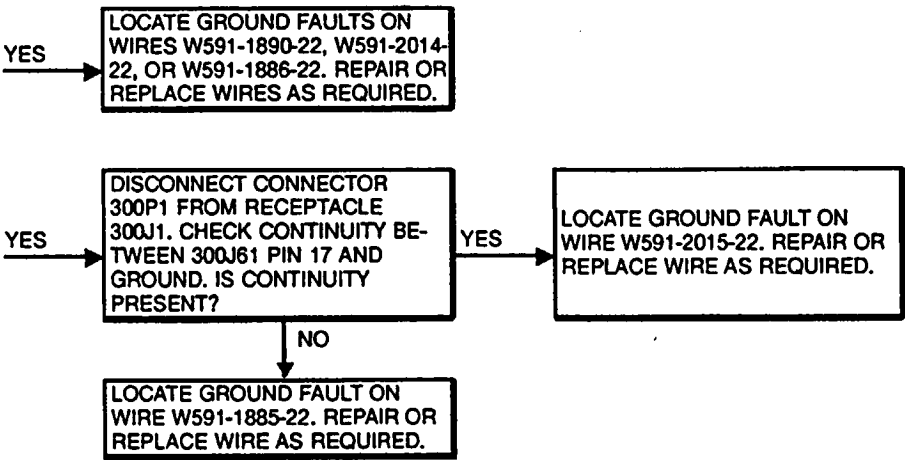
ENGINE NO. 1 OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED



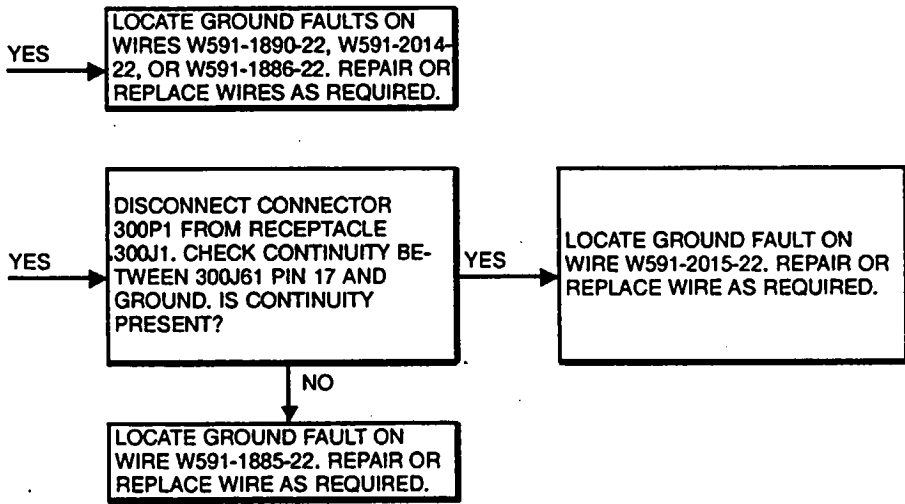
ENGINE NO. 2 OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED



ENGINE NO. 1 OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED (Cont'd)



ENGINE NO. 2 OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED (Cont'd)



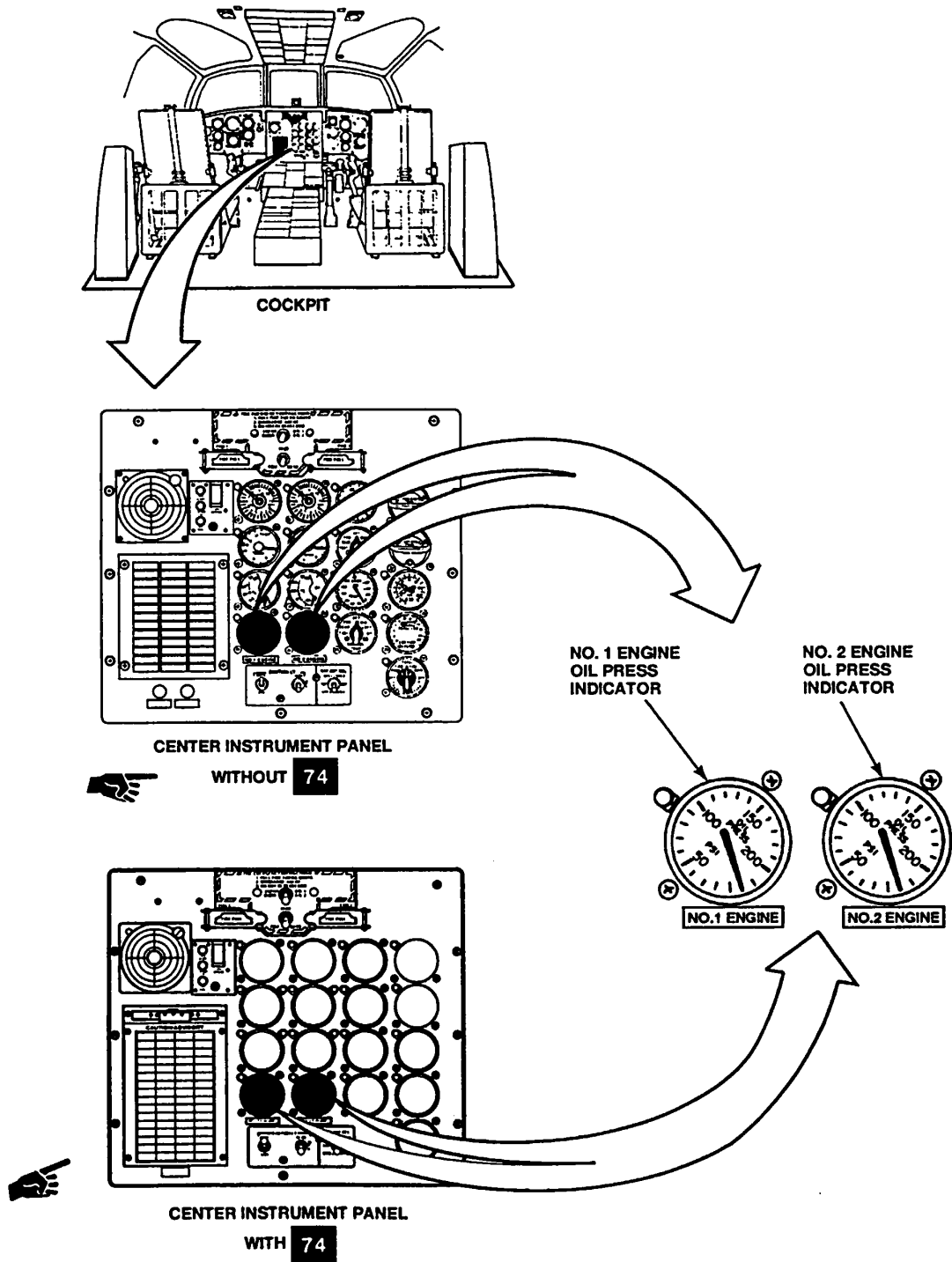
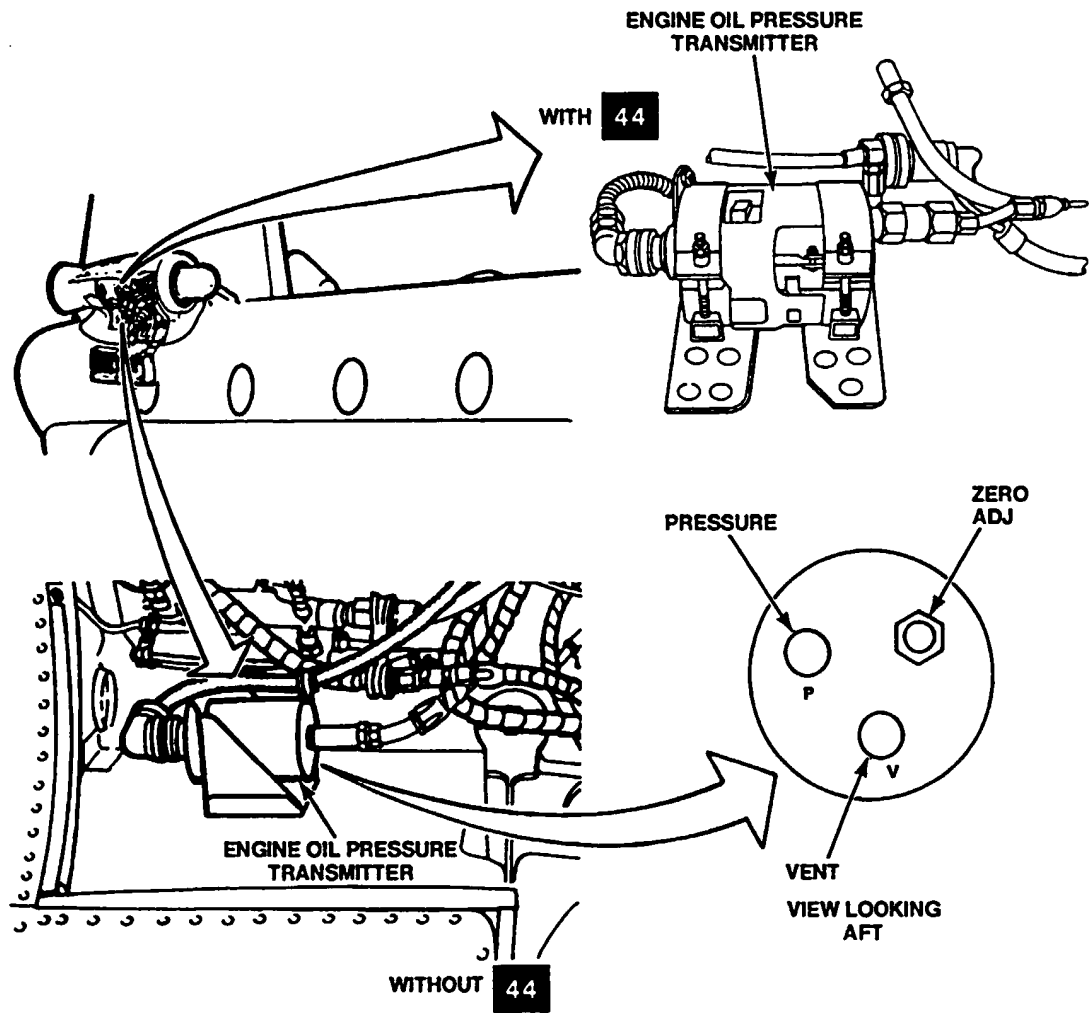
8-3.5 ENGINE OIL PRESSURE INDICATOR DOES NOT INDICATE 0

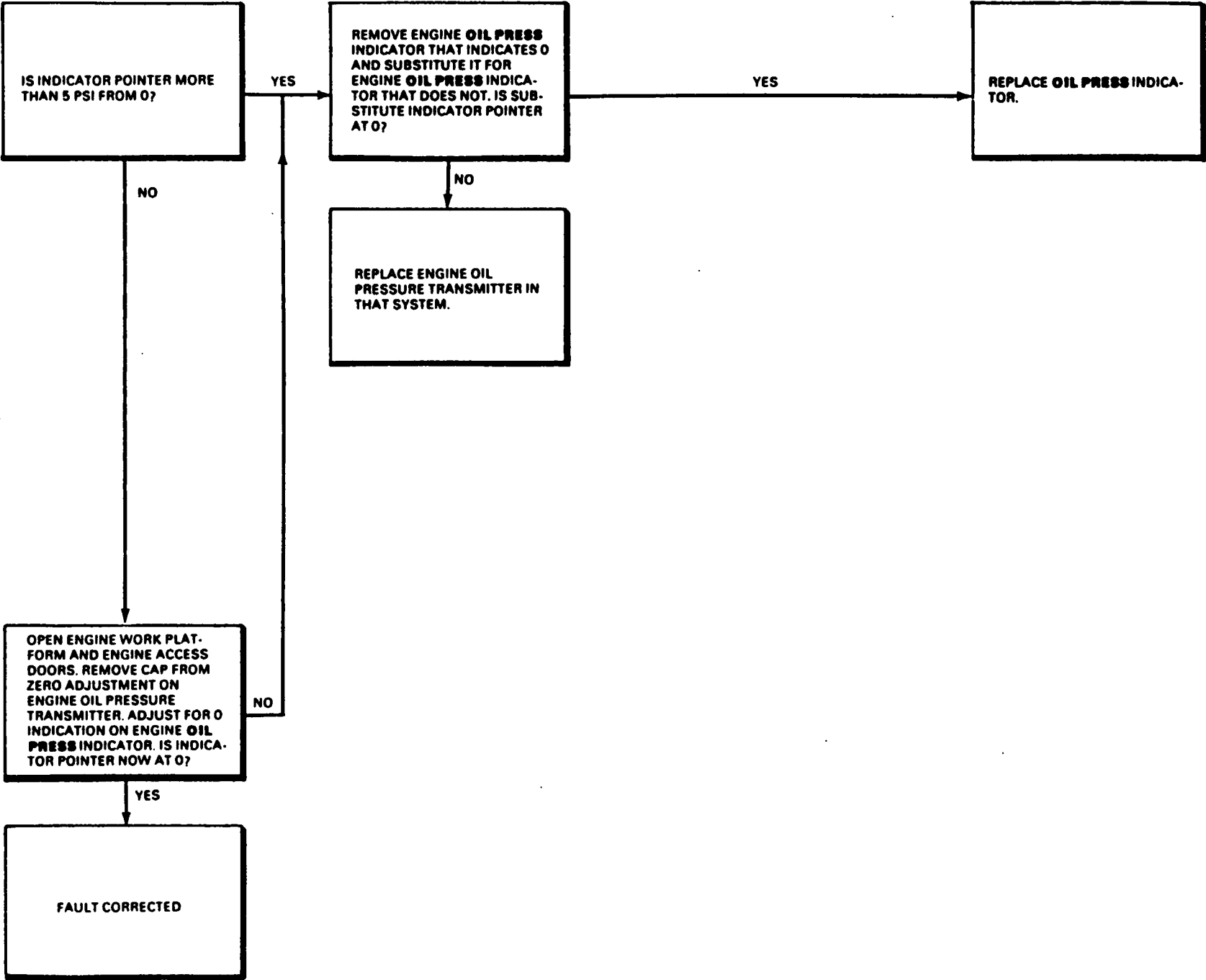
8-3.5

FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
All  
**Tools:**  
Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician (2)  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





8-3.6 NO. 1 ENGINE OIL PRESS INDICATOR DOES NOT INDICATE 20 PSI MINIMUM OR POINTER FLUCTUATES MORE THAN 5 PSI

8-3.6

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915
- Multimeter
- Synchro Test Set,  
NSN 4920-00-556-8108
- Direct Reading Pressure Gage, 0 to 200 Psi

Materials:

None

Personnel Required:

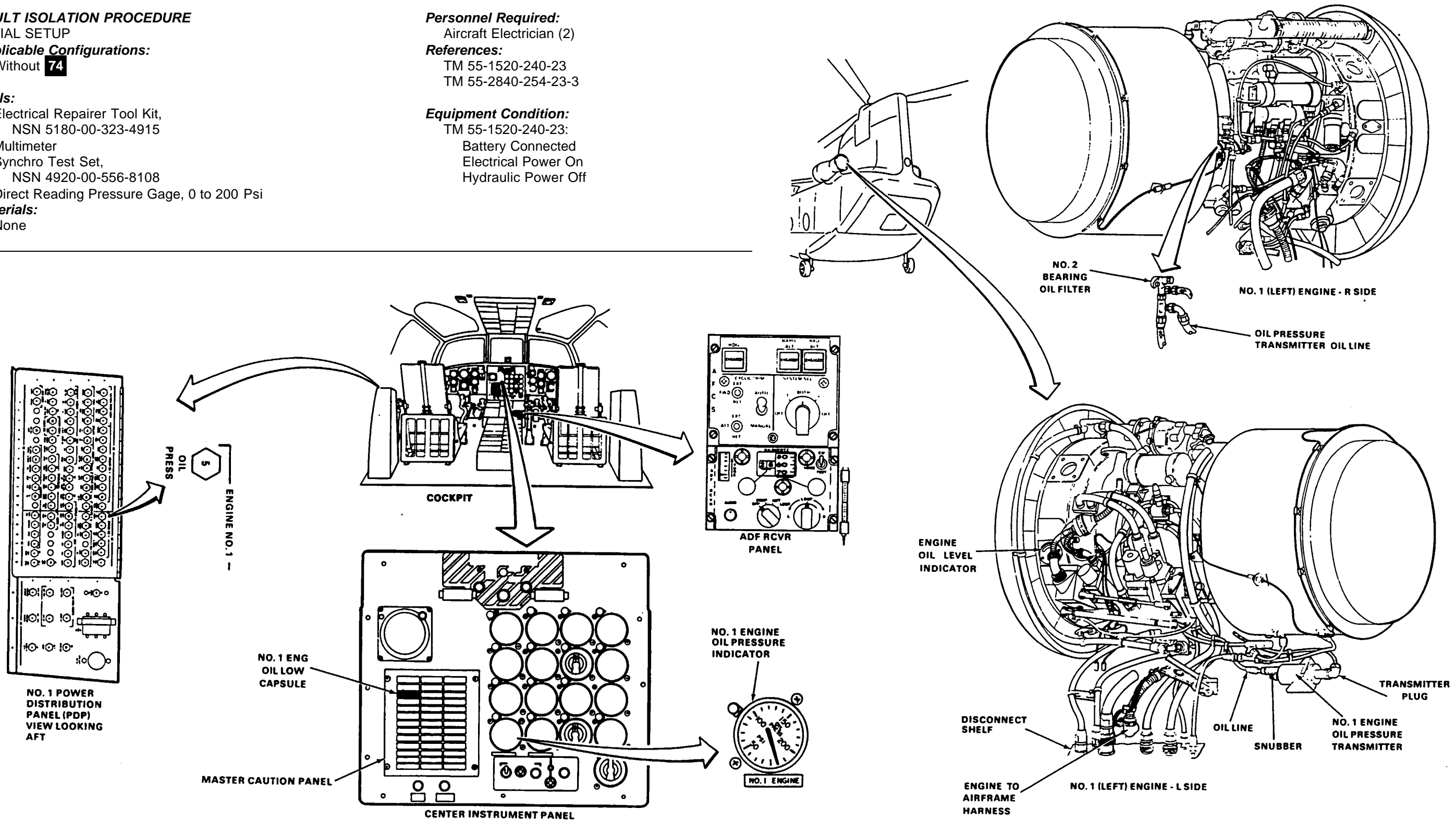
Aircraft Electrician (2)

References:

- TM 55-1520-240-23
- TM 55-2840-254-23-3

Equipment Condition:

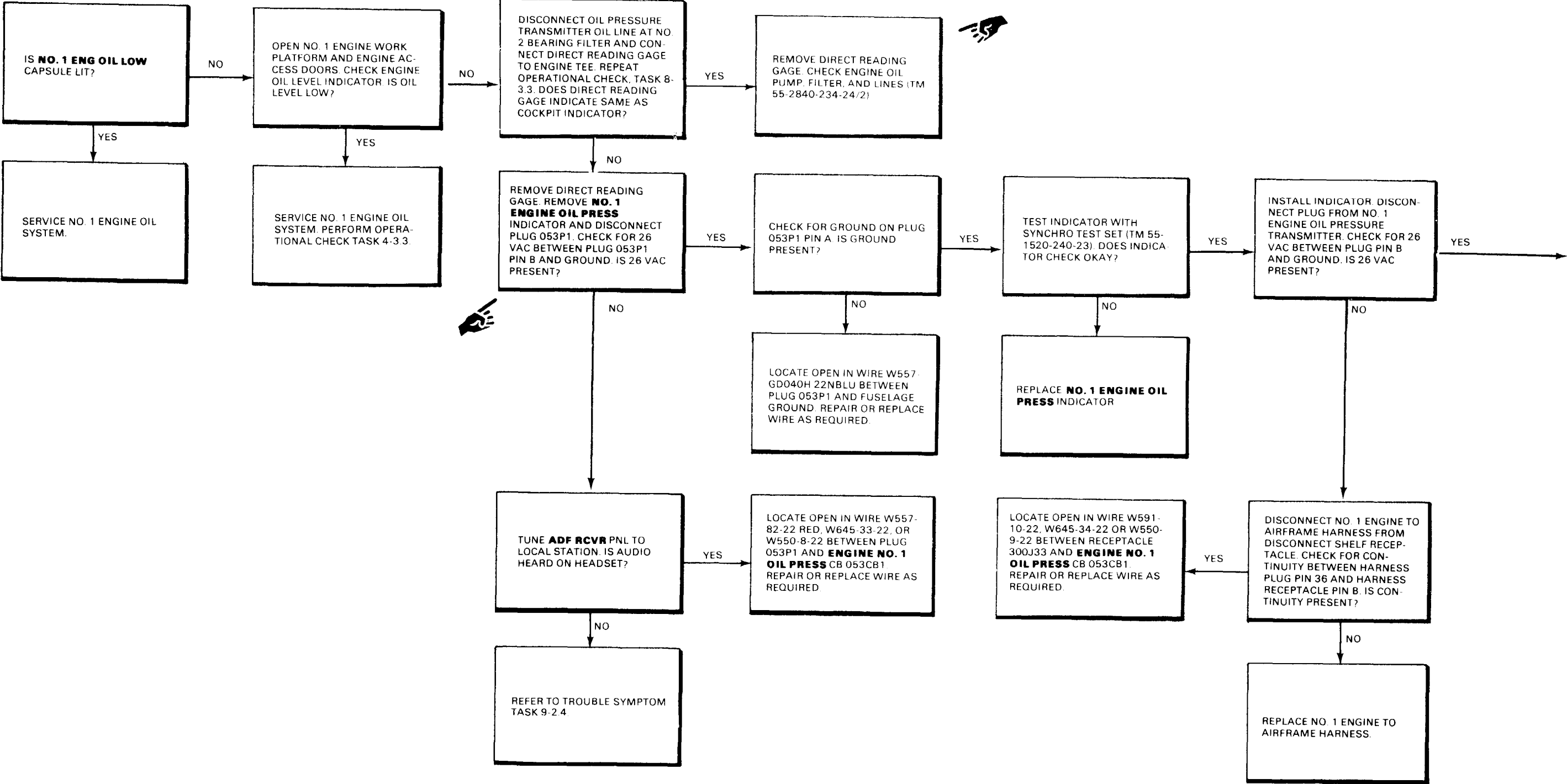
- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off



D145 - 6523 - SPA

8-3.6 NO. 1 ENGINE OIL PRESS INDICATOR DOES NOT INDICATE 20 PSI MINIMUM OR POINTER FLUCTUATES MORE THAN 5 PSI (Continued)

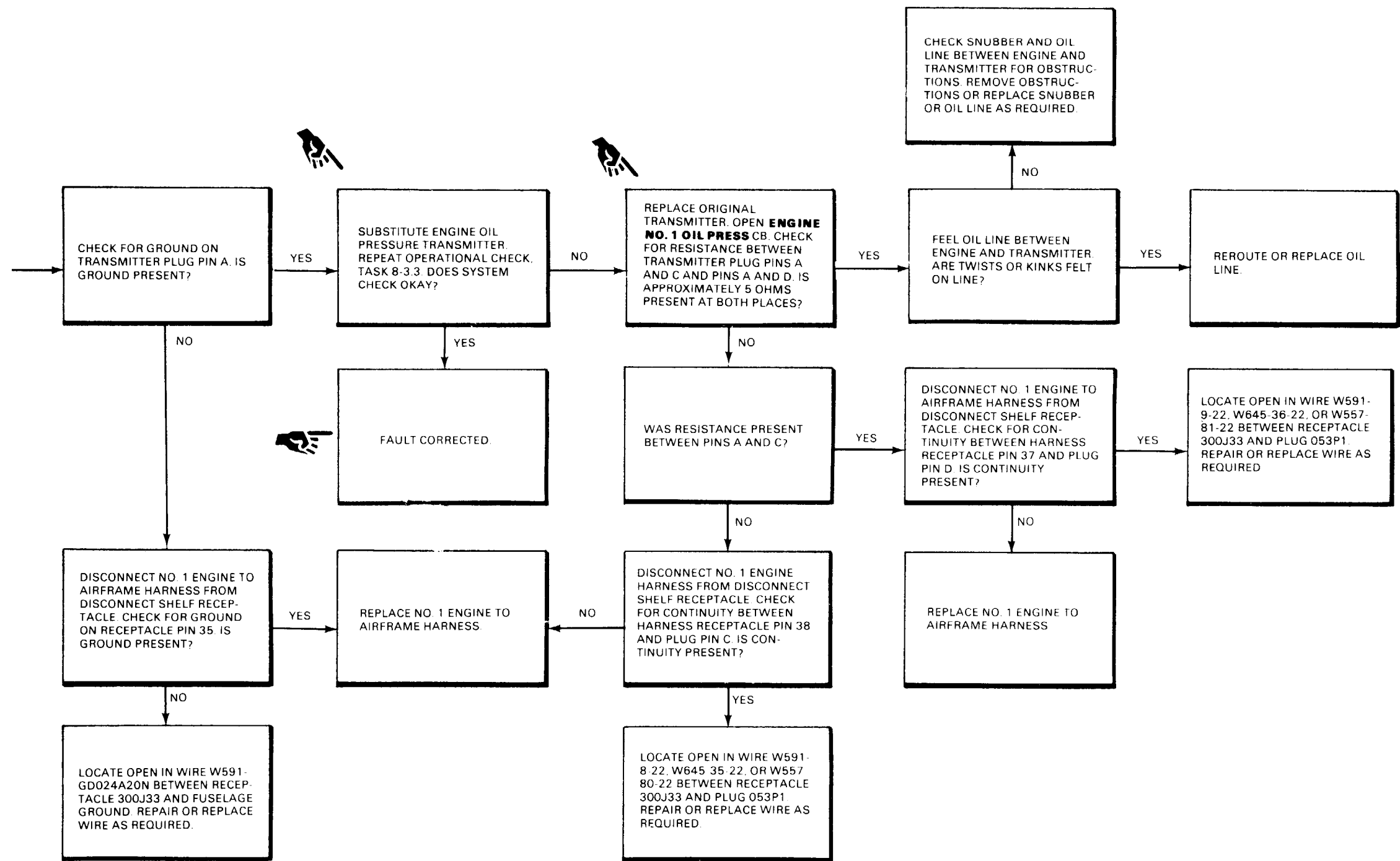
8-3.6



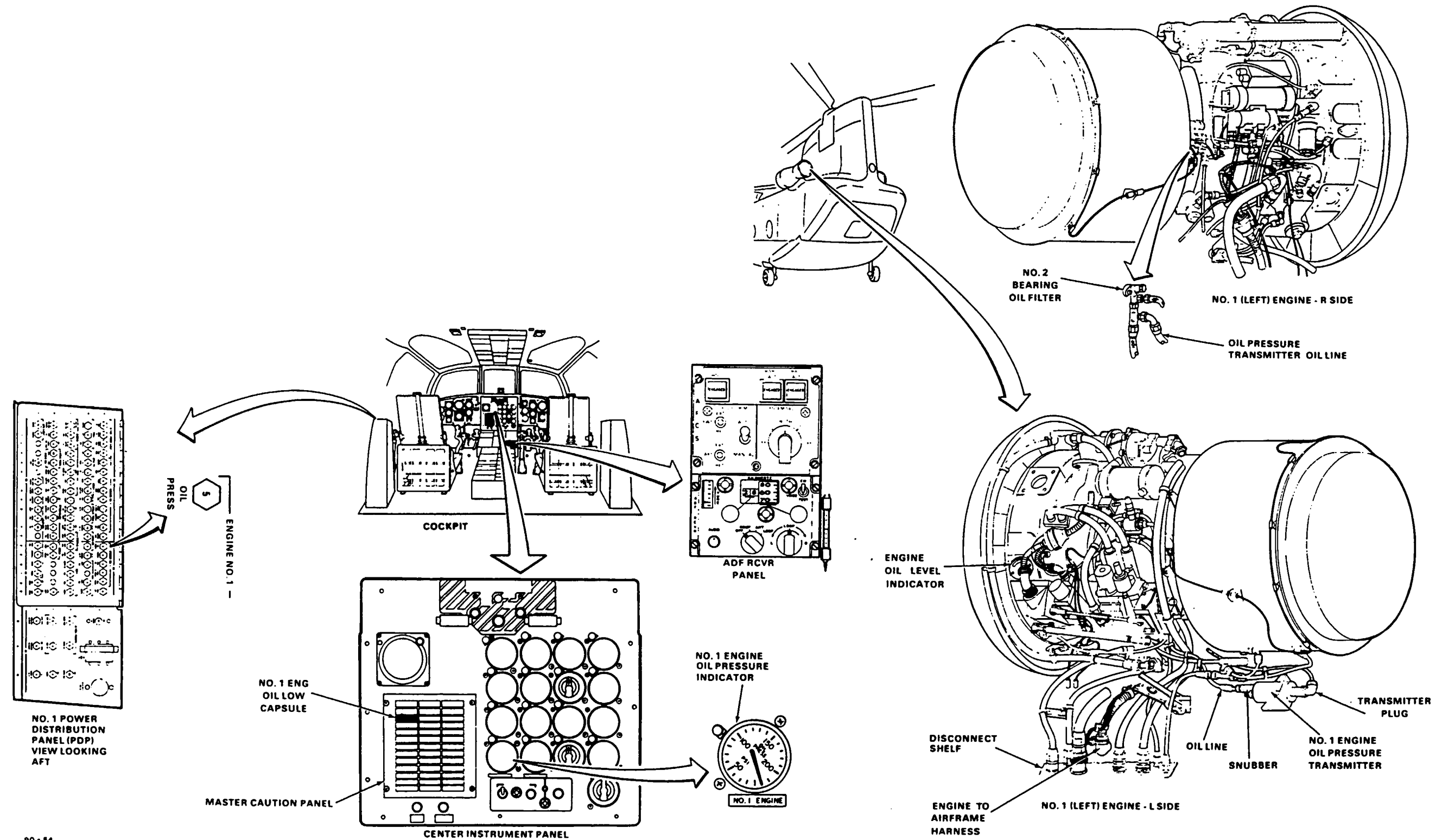
GO TO NEXT PAGE

8-3.6 NO. 1 ENGINE OIL PRESS INDICATOR DOES NOT  
INDICATE 20 PSI MINIMUM OR POINTER FLUCTUATES  
MORE THAN 5 PSI (Continued)

8-3.6







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8-3.6.1 NO. 1 ENGINE OIL PRESS INDICATOR DOES NOT INDICATE 20 PSI MINIMUM OR POINTER FLUCTUATES MORE THAN 5 PSI

8-3.6.1

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 74

Tools:

Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter  
Synchro Test Set,  
NSN 4920-00-556-8108  
Direct Reading Pressure Gage, 0 to 200 Psi

Materials:

None

Personnel Required:

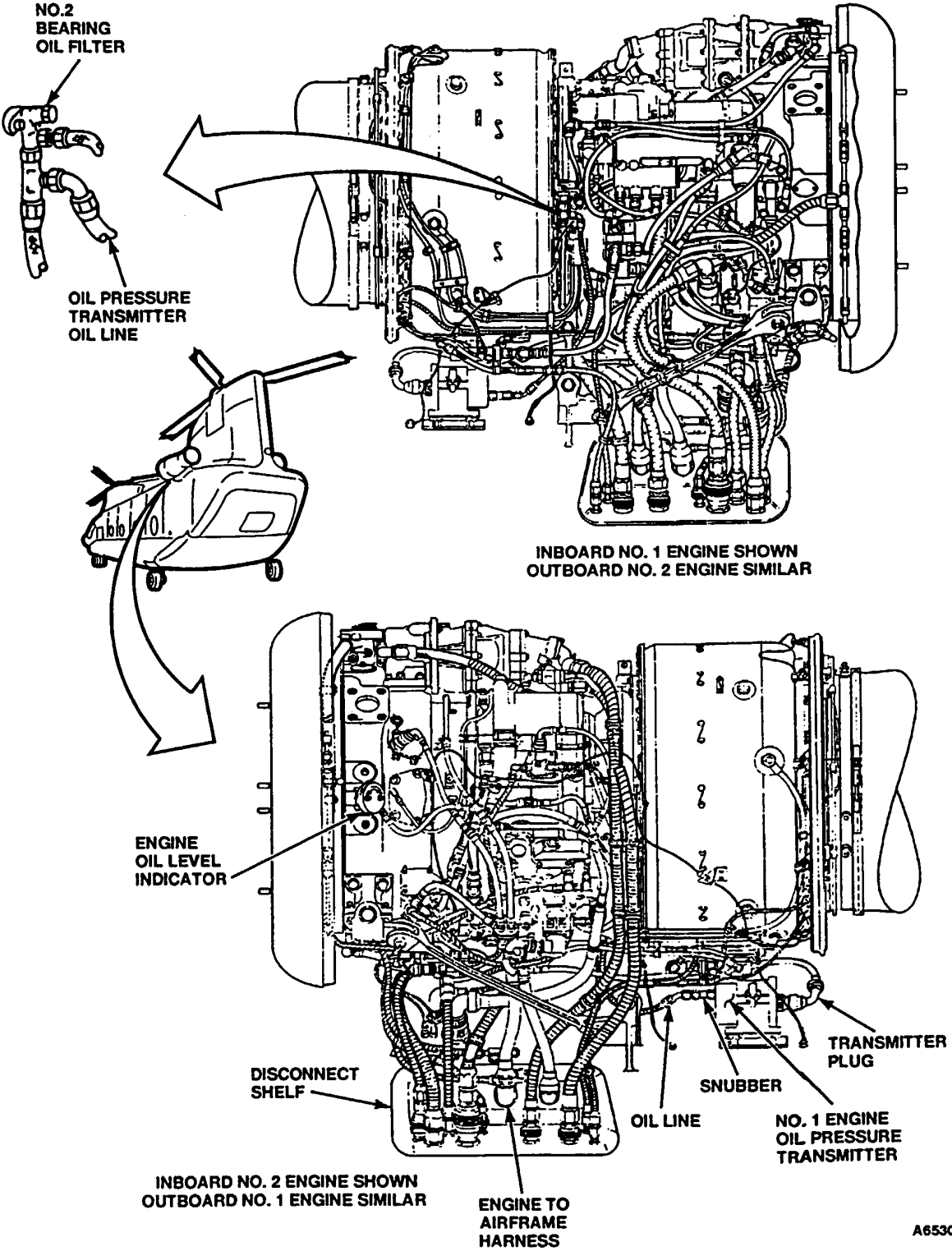
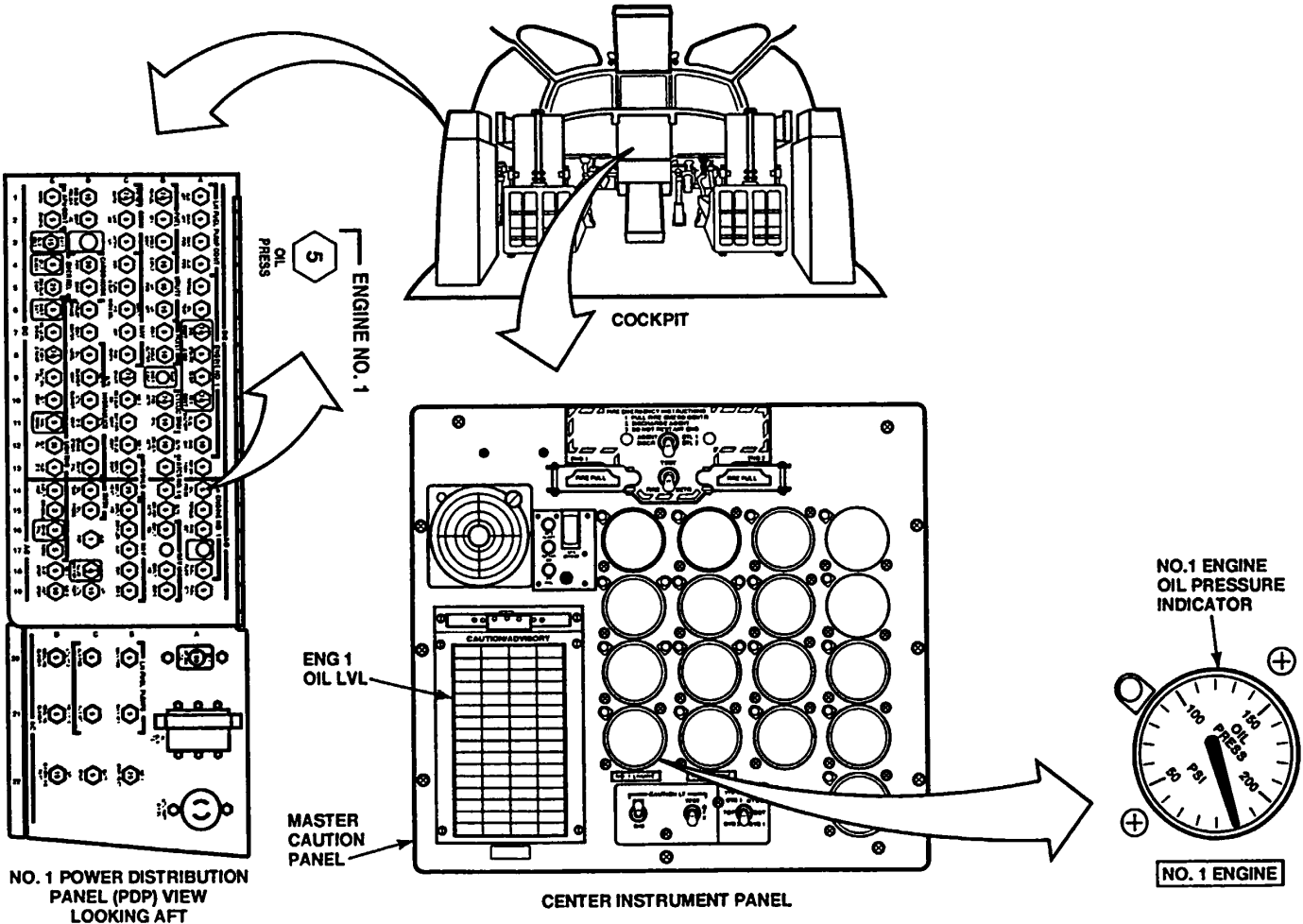
Aircraft Electrician  
Medium Helicopter Repairer

References:

TM 55-1520-240-23  
TM 1-2840-265-23

Equipment Condition:

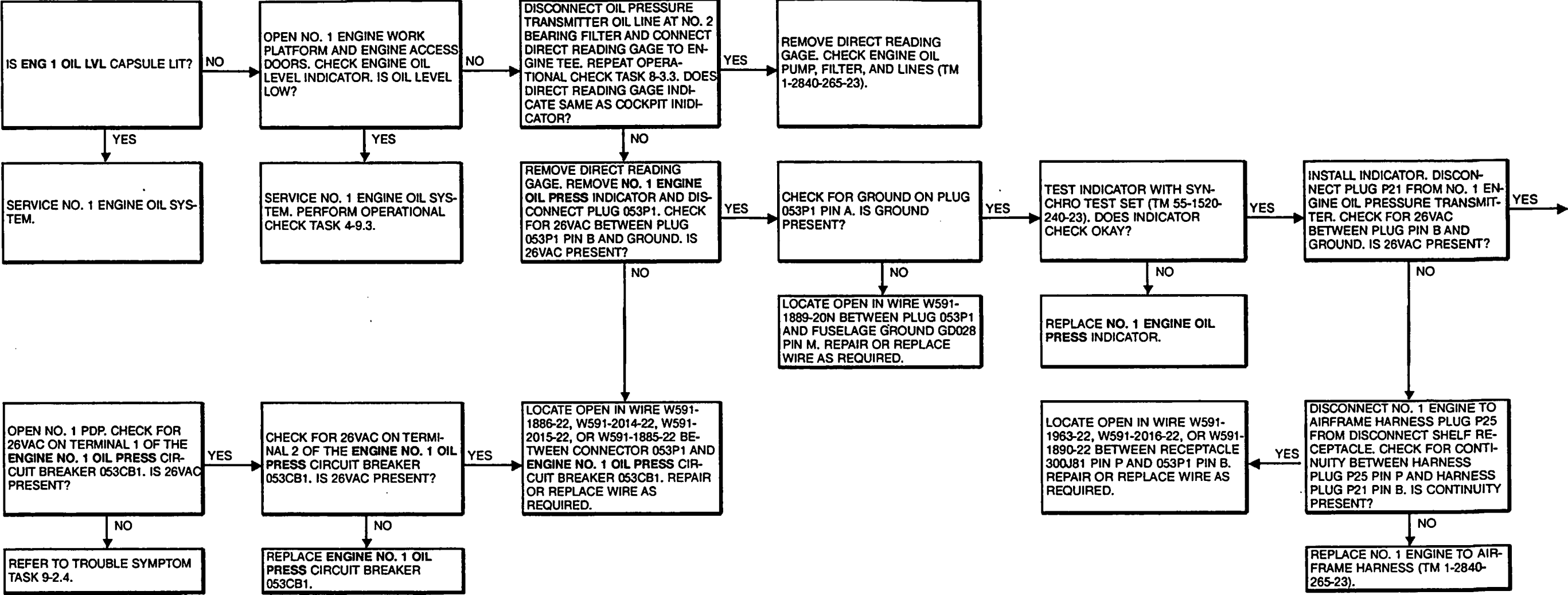
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

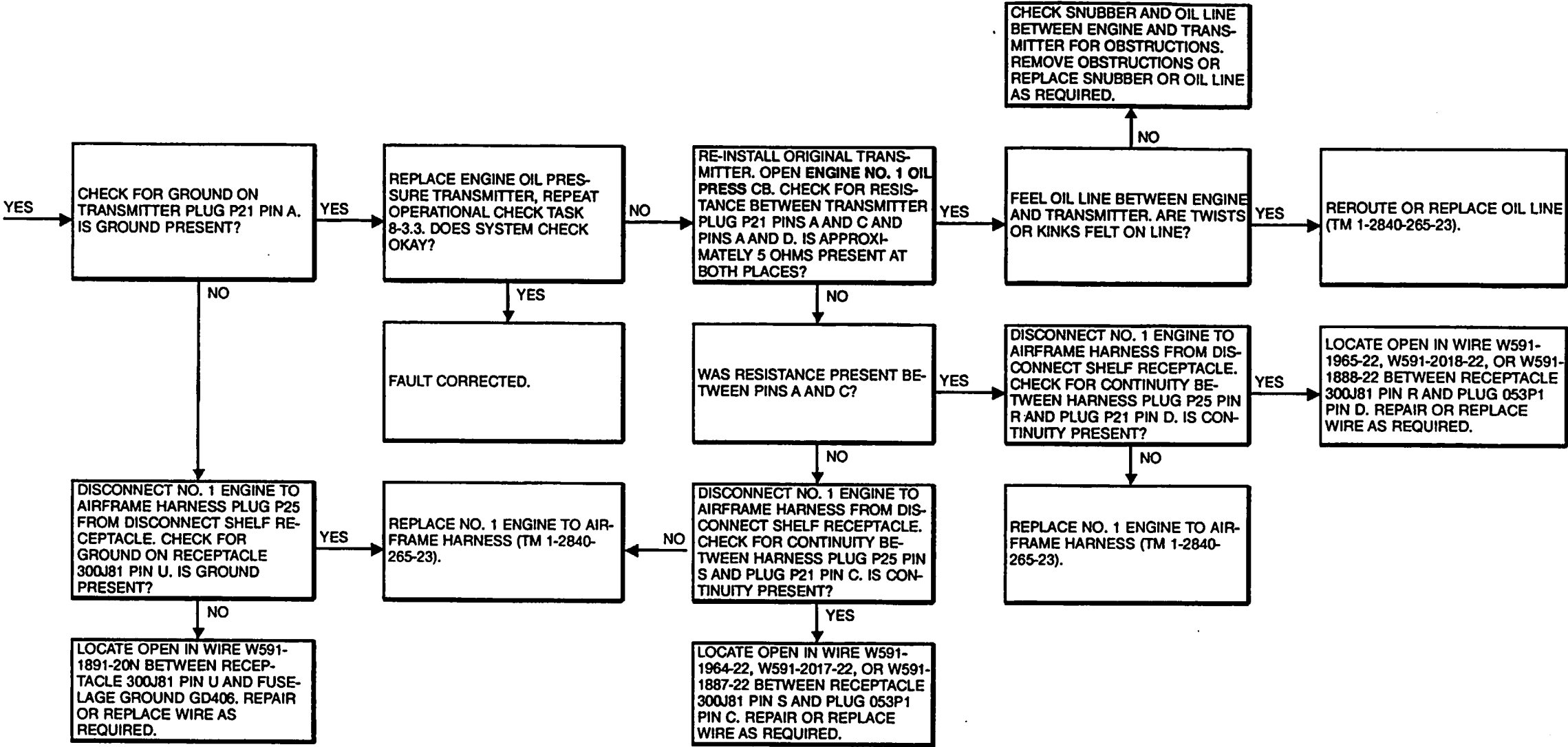


A65308

8-3.6.1 NO. 1 ENGINE OIL PRESS INDICATOR DOES NOT INDICATE 20 PSI MINIMUM OR POINTER FLUCTUATES MORE THAN 5 PSI (Continued)

8-3.6.1





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915
- Multimeter
- Synchro Test Set,  
NSN 4920-0D-556-8108
- Direct Reading Pressure Gage, 0 to 200 Psi

Materials:

None

Personnel Required:

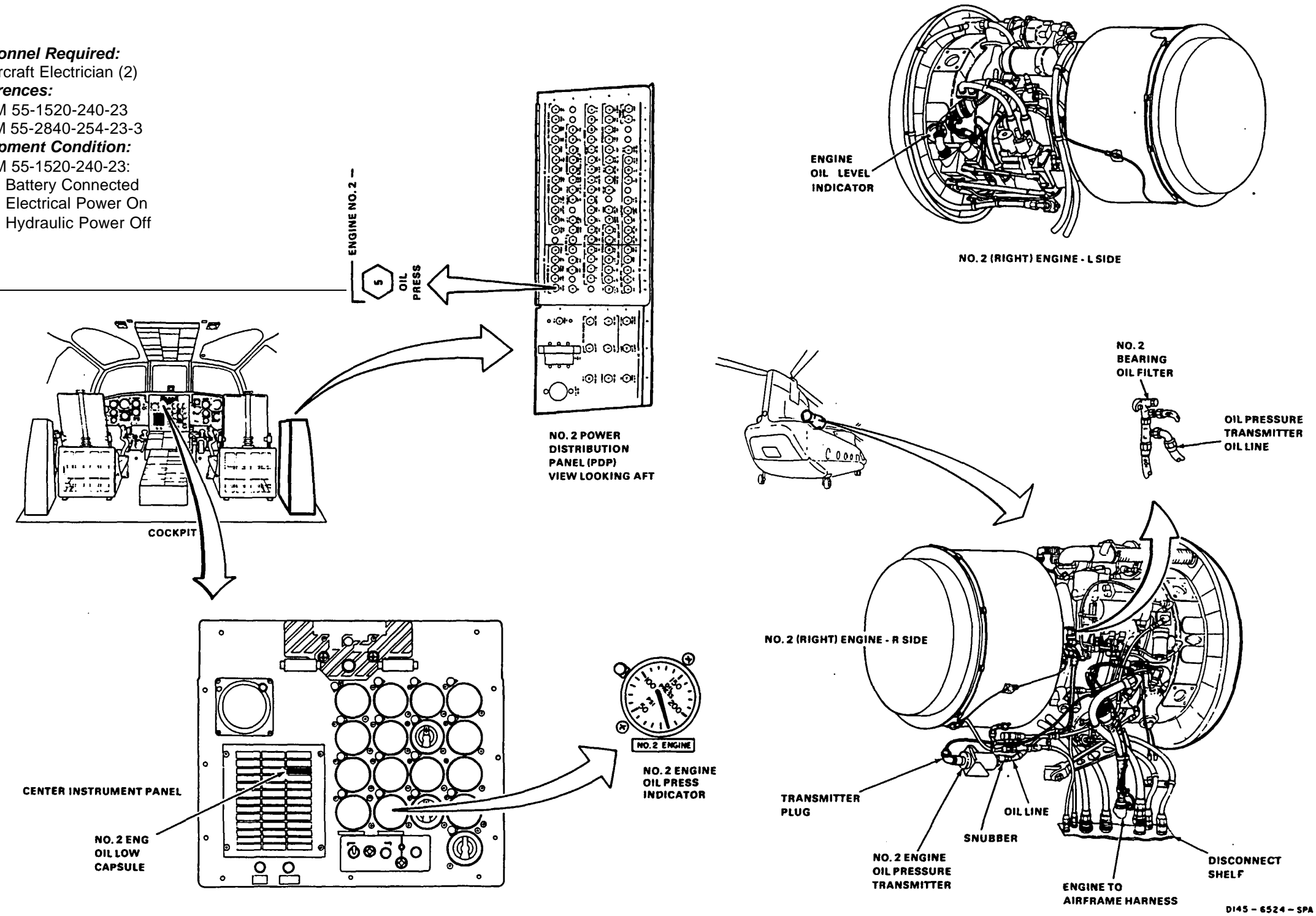
Aircraft Electrician (2)

References:

- TM 55-1520-240-23
- TM 55-2840-254-23-3

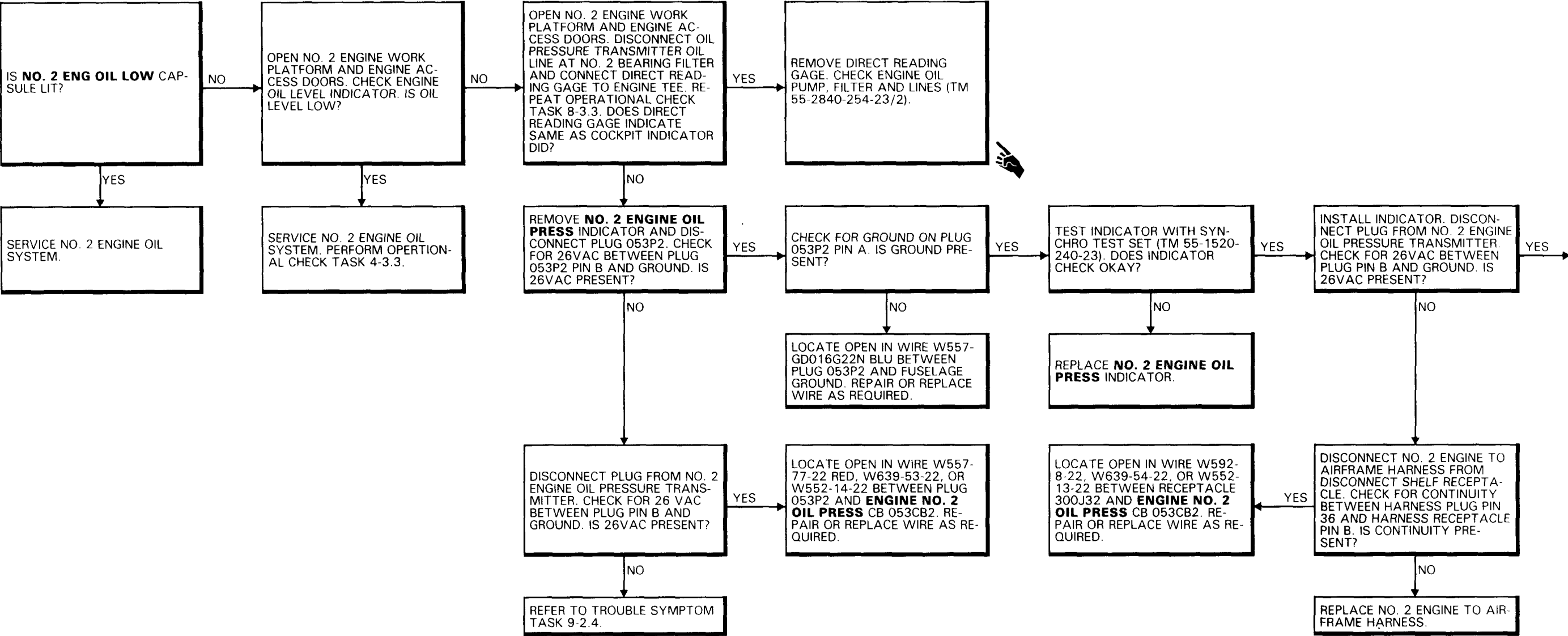
Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off

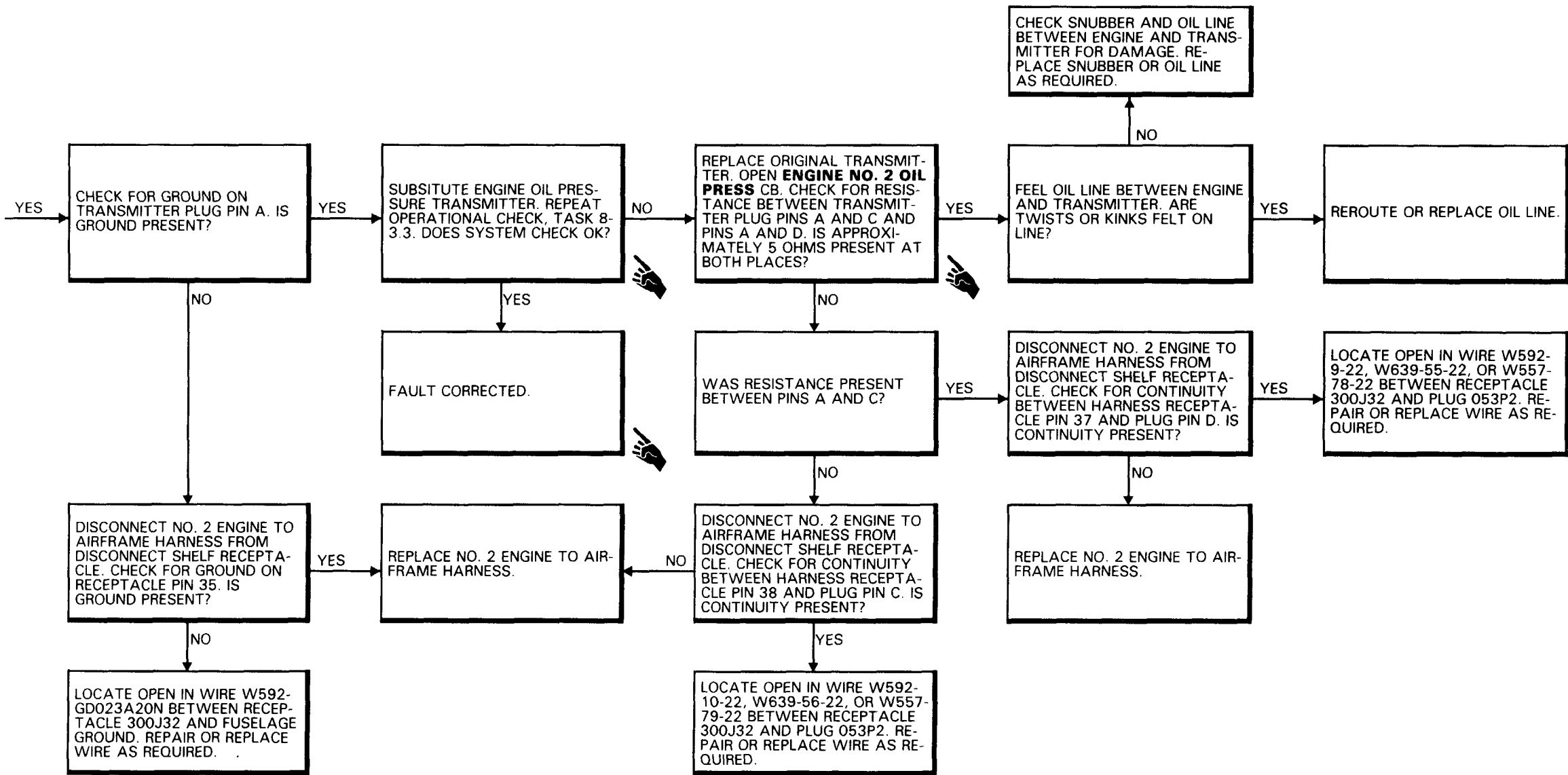


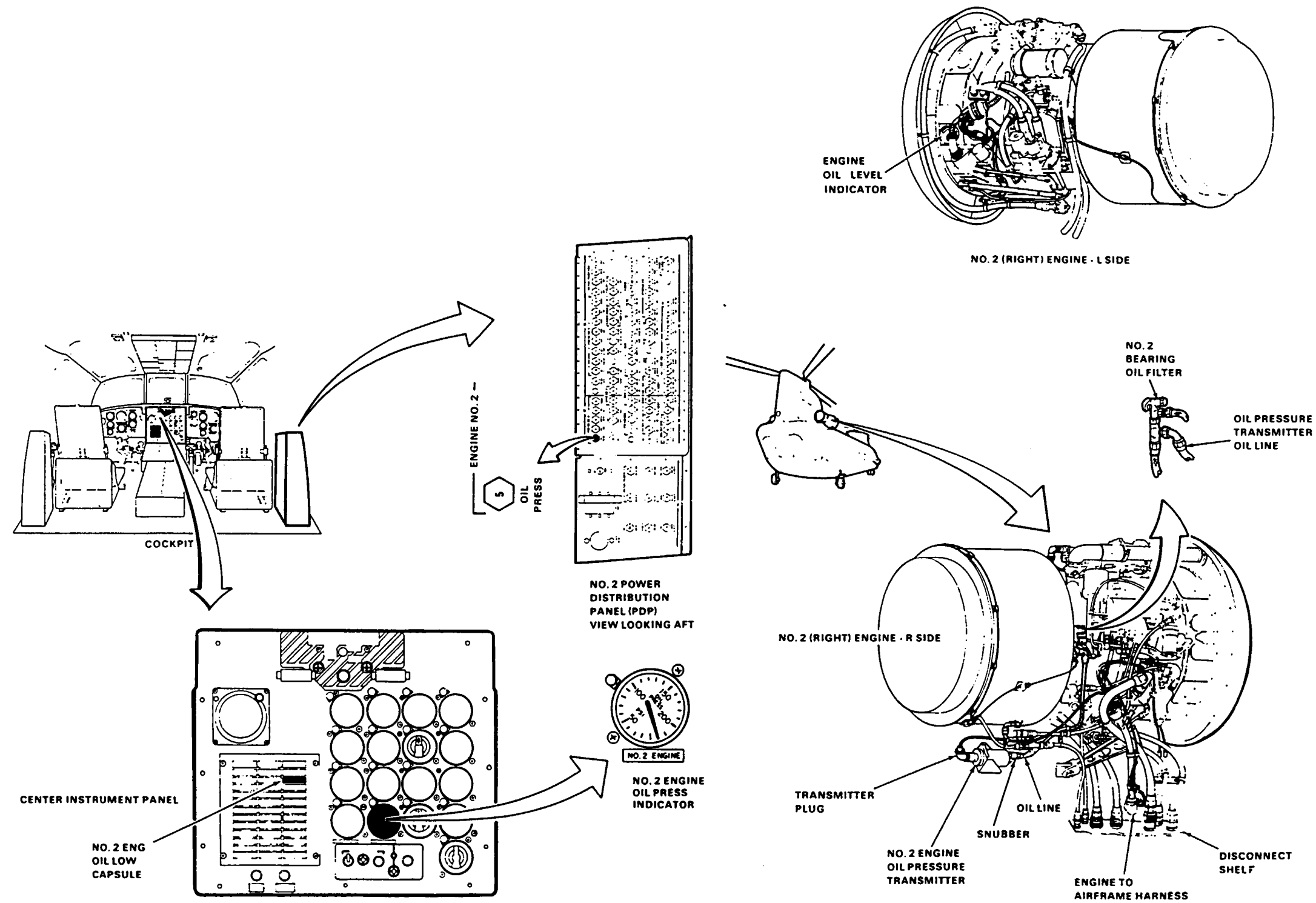
8-3.7 NO. 2 ENGINE OIL PRESS INDICATOR DOES NOT INDICATE 20 PSI MINIMUM OR POINTER  
FLUCTUATES MORE THAN 5 PSI (Continued)

8-3.7



8-3.7 NO. 2 ENGINE OIL PRESS INDICATOR DOES NOT INDICATE 20 PSI MINIMUM OR POINTER  
FLUCTUATES MORE THAN 5 PSI (Continued)





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8-3.7.1 NO. 2 ENGINE OIL PRESS INDICATOR DOES NOT INDICATE 20 PSI MINIMUM OR POINTER FLUCTUATES MORE THAN 5 PSI

8-3.7.1

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 74

Tools:

- Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692
- Powerplant Repairer's Tool Kit,  
NSN 5180-00-323-4944
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter
- Synchro Test Set,  
NSN 4920-00-556-8108
- Direct Reading Pressure Gage, 0 to 200 Psi

Materials:

None

Personnel Required:

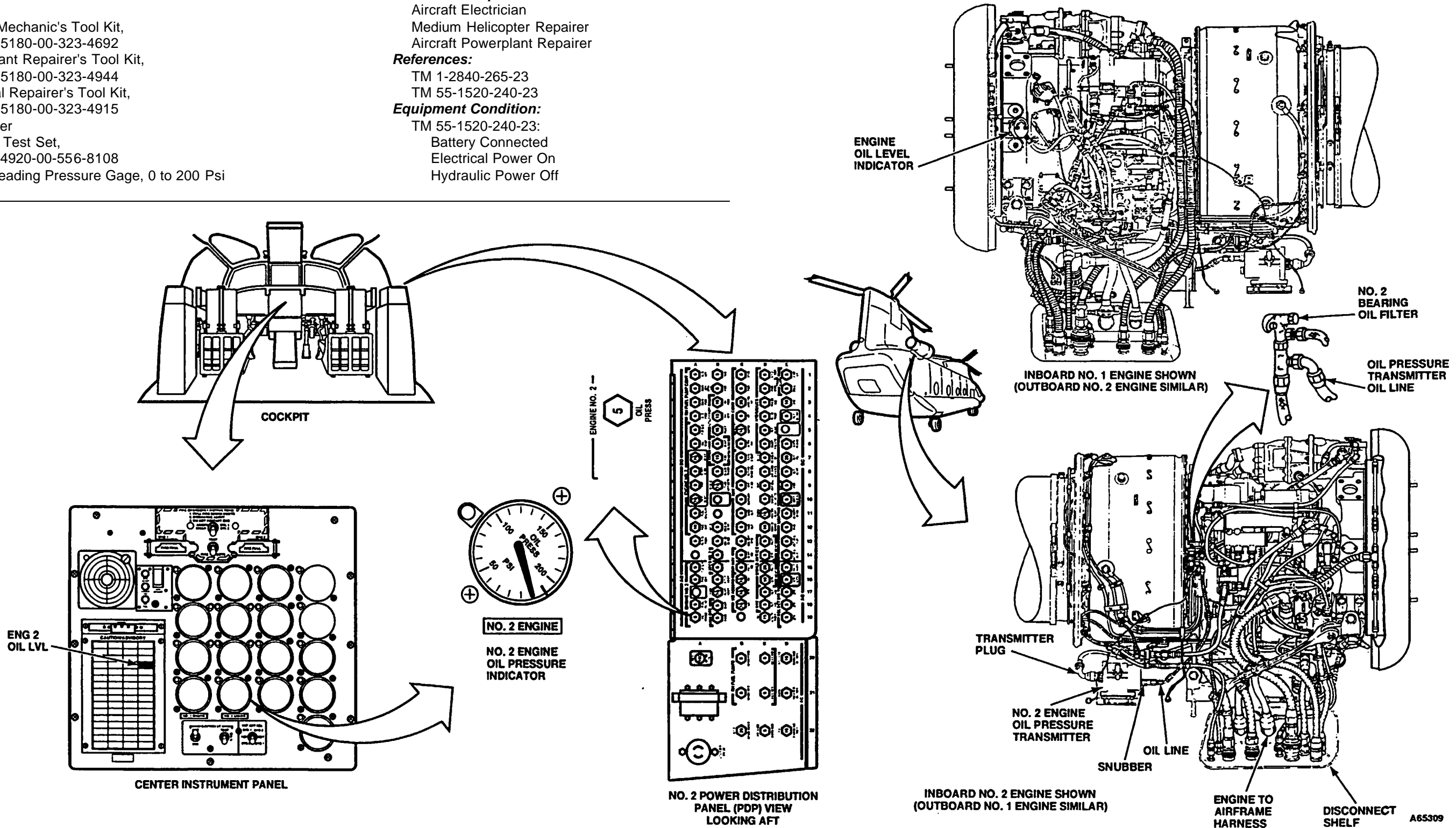
- Aircraft Electrician
- Medium Helicopter Repairer
- Aircraft Powerplant Repairer

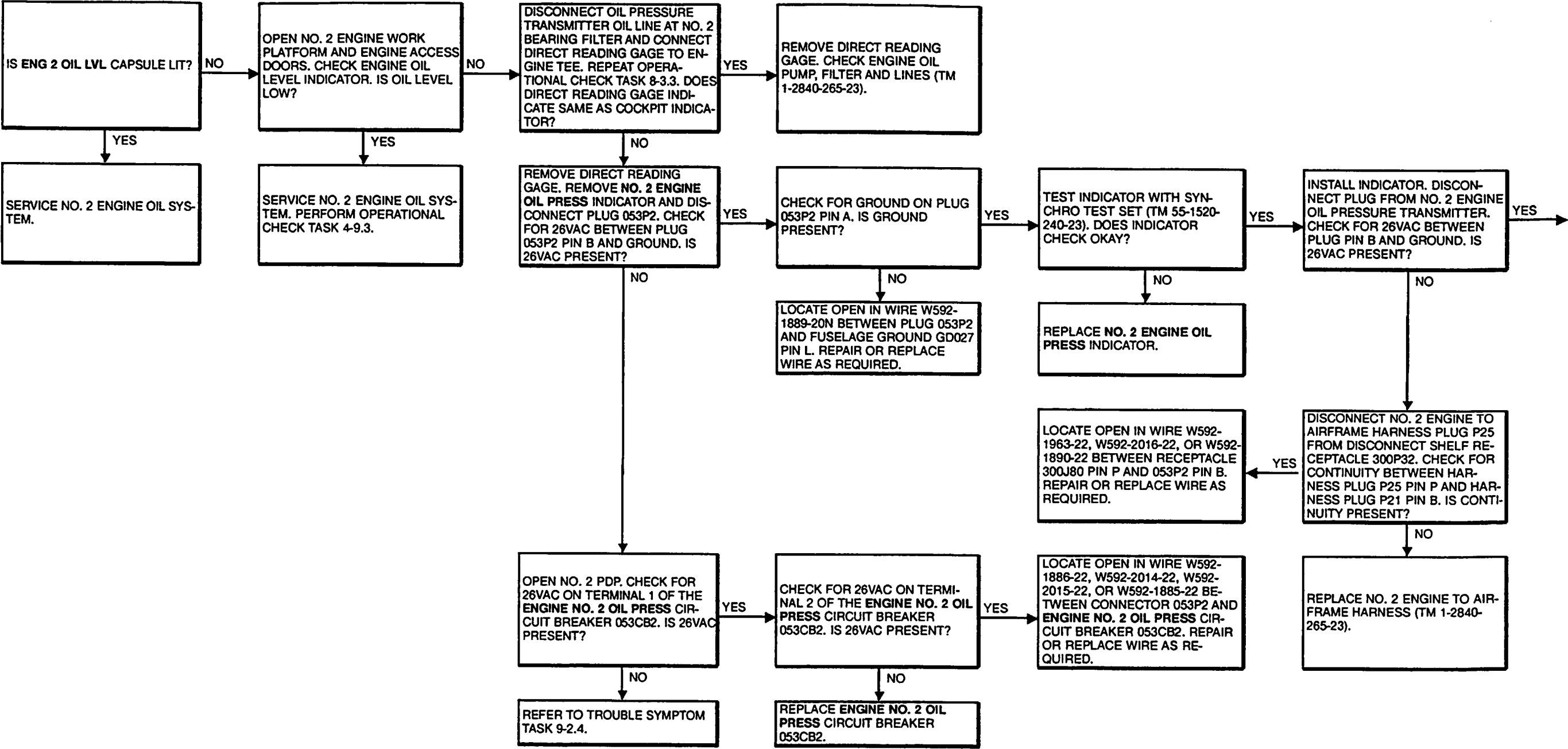
References:

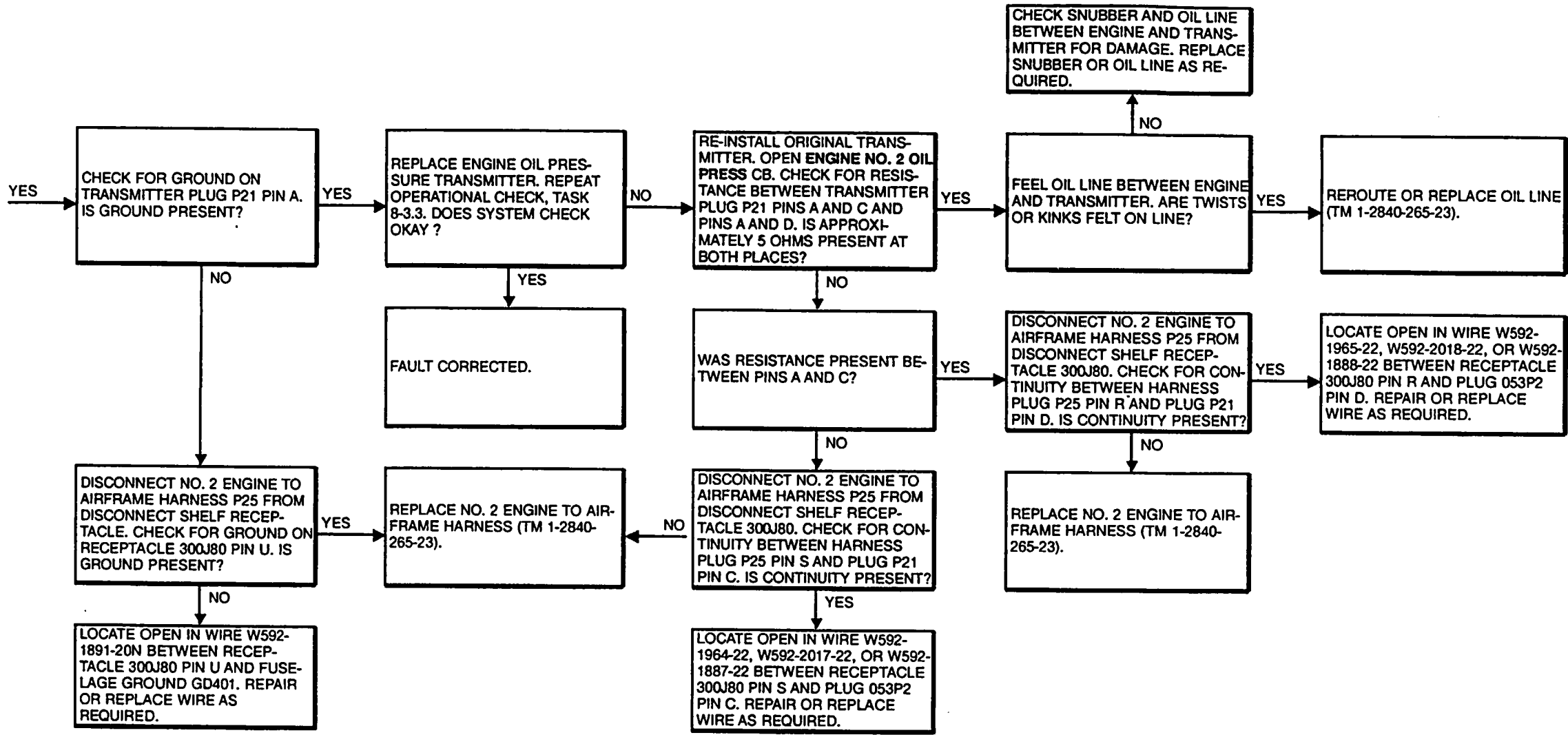
- TM 1-2840-265-23
- TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off



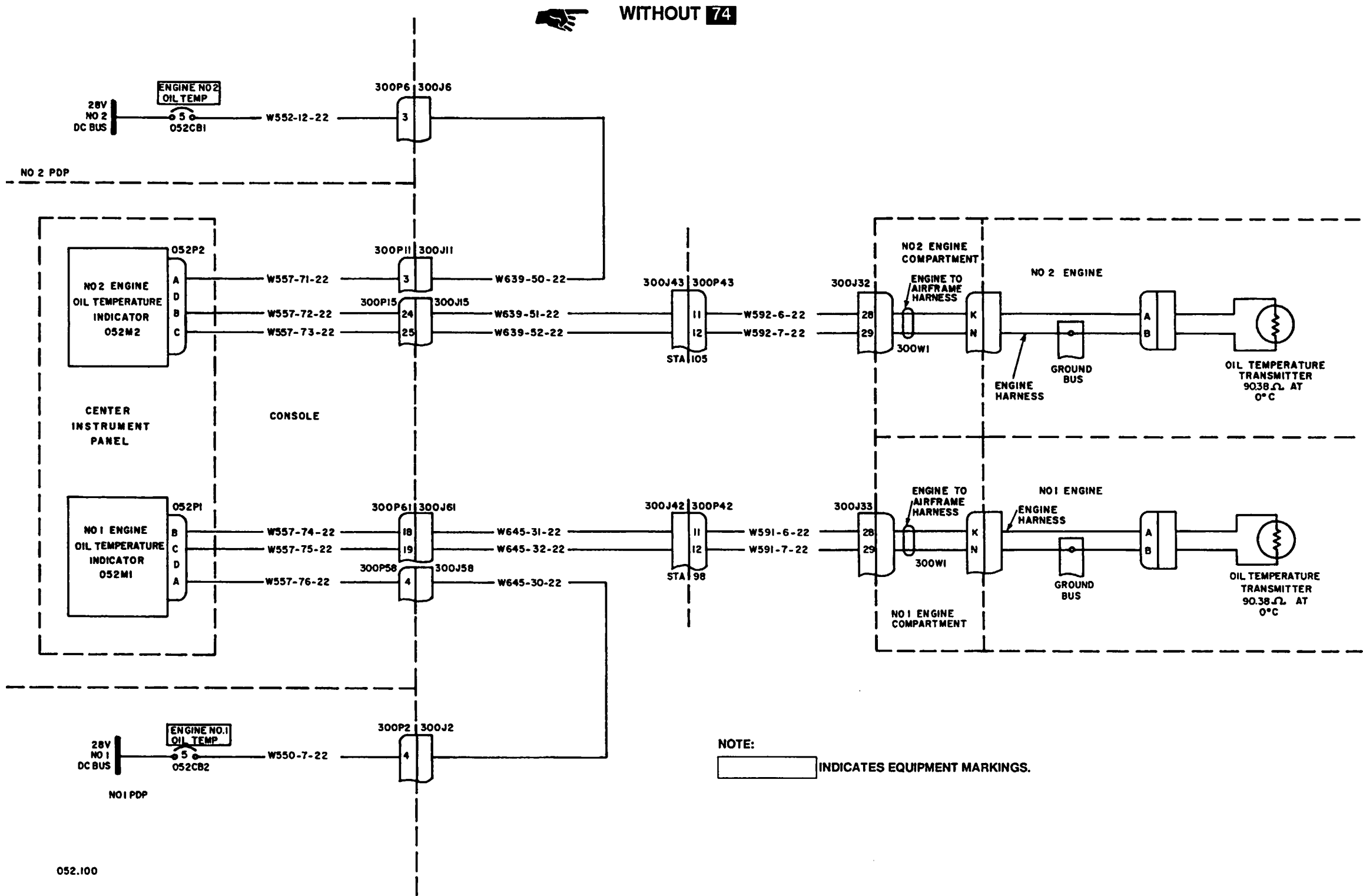




8-4 ENGINE OIL TEMPERATURE INDICATING SYSTEM

8-4.1 ENGINE OIL TEMPERATURE INDICATING SYSTEM WIRING DIAGRAM

8-4.1



052.100

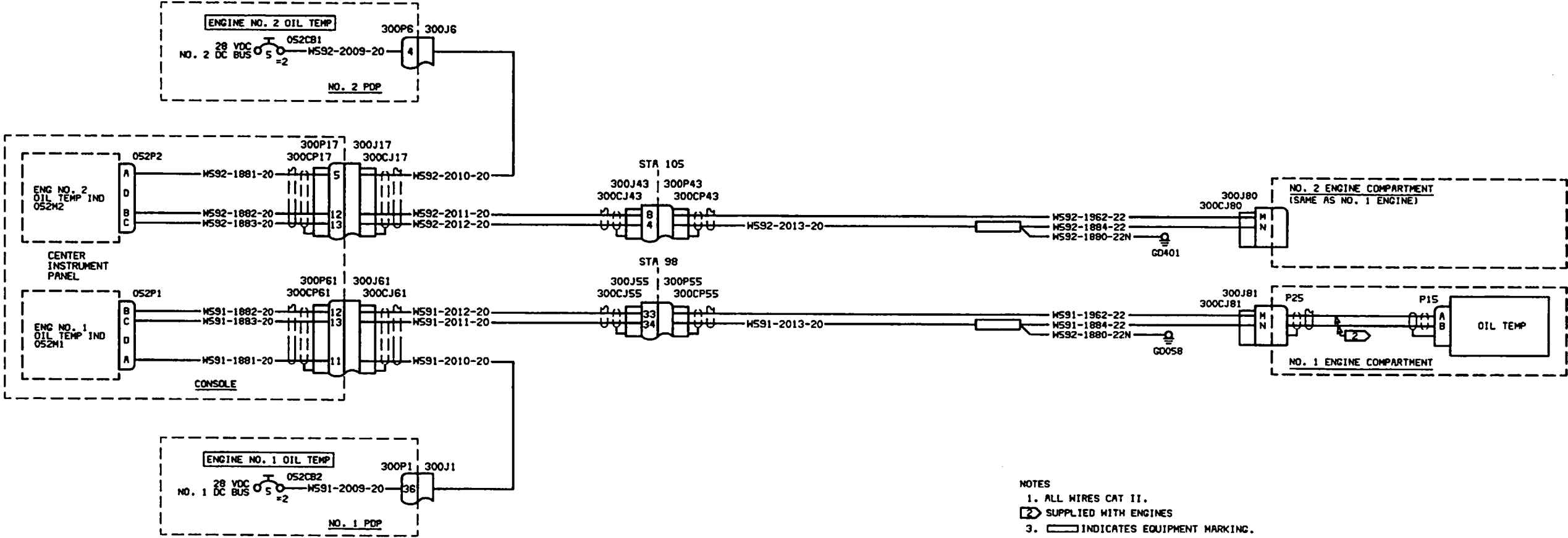
A78312

END OF TASK

8-4.1.1 ENGINE OIL TEMPERATURE INDICATING SYSTEM WIRING DIAGRAM

8-4.1.1

WITH 74



A65315

END OF TASK

8-4.2 ENGINE OIL TEMPERATURE INDICATING SYSTEM VISUAL CHECK

8-4.2

INITIAL SETUP

Applicable Configurations

- All
- Tools:**
- Aircraft Mechanic's Tool Kit, NSN 5180-00-323-4692

Materials:

- None
- Personnel Required:**
- Medium Helicopter Repairer

References

TM 55-1520-240-23

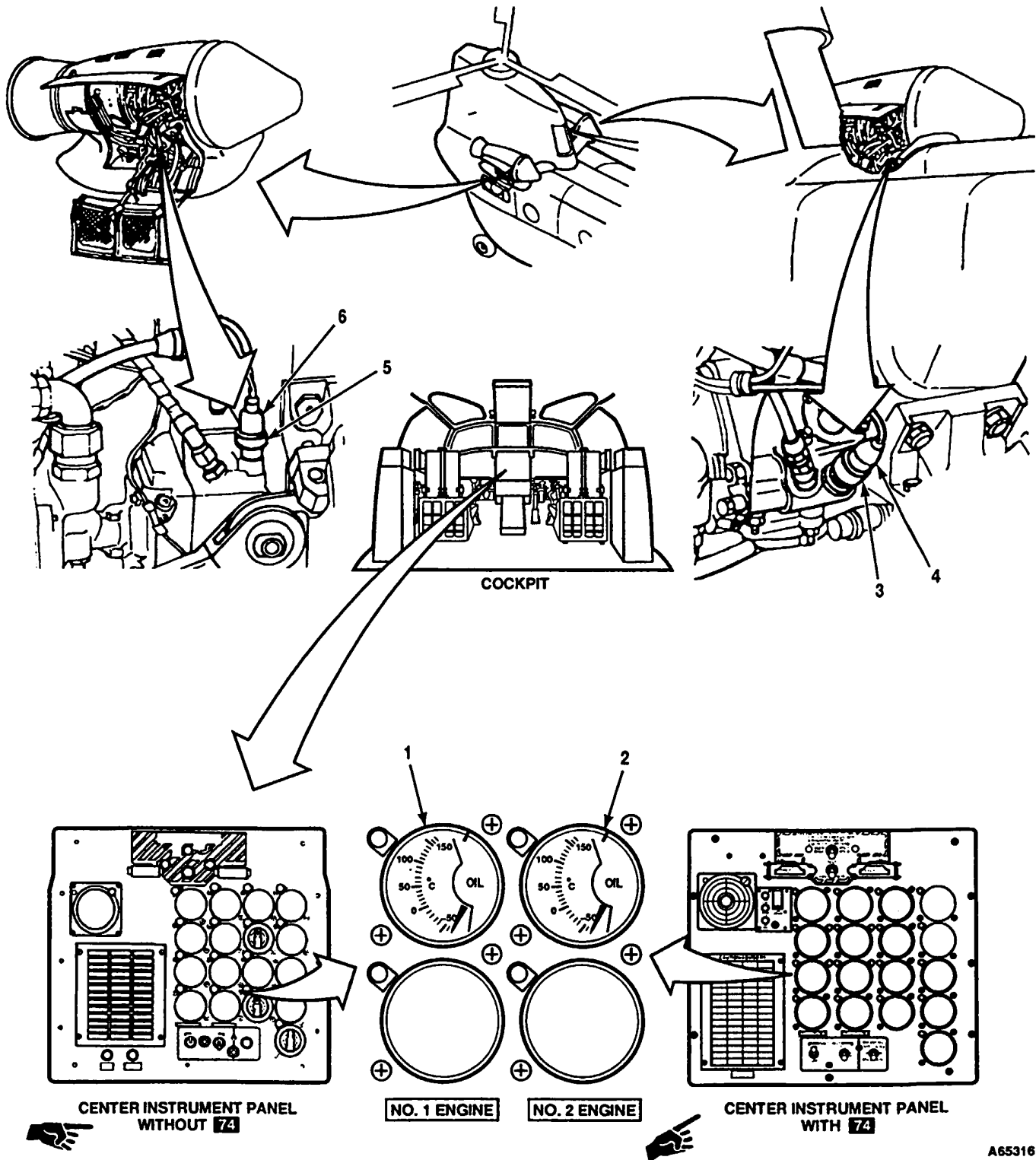
Equipment Condition:

- TM 55-1520-240-23:
- Battery Disconnected
  - Electrical Power Off
  - Hydraulic Power Off
  - Upper and Lower Engine Access Doors Open
  - Engine Work Platform Open

TASK	RESULT
1. Check NO. 1 ENGINE OIL temperature indicator (1). 2. Check NO. 2 ENGINE OIL temperature indicator (2). CHECK NO. 1 ENGINE INSTALLATION 3. Check No. 1 engine oil temperature transmitter (3).	If indicator (1) is damaged, replace it. If indicator (2) is damaged, replace it.  If transmitter (3) is loose or damaged, tighten or replace it as required. If connector (4) or wiring to connector is damaged, repair or replace it as required.
CHECK NO. 2 ENGINE INSTALLATION 4. Check No. 2 engine oil temperature transmitter (5).	If transmitter (5) is loose or damaged, tighten or replace it as required. If connector (6) or wiring to connector is damaged, repair or replace it as required.

FOLLOW-ON MAINTENANCE:

- TM 55-1520-240-23:
- Close upper and lower engine access doors.
  - Close engine work platform.



A65316

8-4.3 ENGINE OIL TEMPERATURE INDICATING SYSTEM OPERATIONAL CHECK

8-4.3

INITIAL SETUP

Applicable Configurations

All  
Tools:  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692

Materials:

None  
Personnel Required:  
Medium Helicopter Repairer (2)

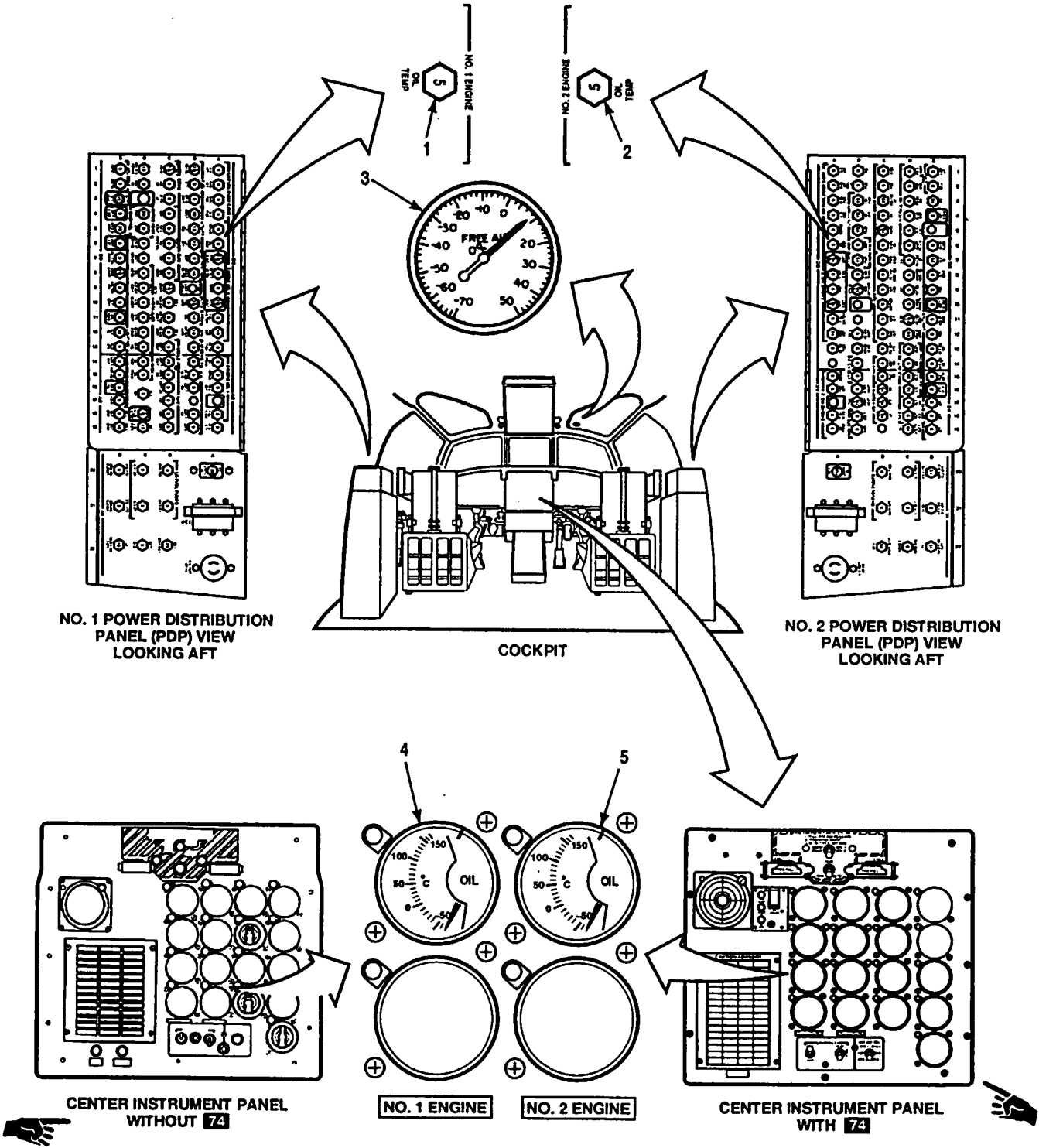
References:

TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Engine Oil Temperature Indicating System  
Visual  
Check Performed (Task 8-4.2)

TASK	RESULT
<b>NOTE</b> Check of engine oil temperature indicating system should be performed only on cool engines.	
1. Check that ENGINE NO. 1 OIL TEMP circuit breaker (1) is closed.	If OIL TEMP circuit breaker (1) is open, close it. If it opens again, go to task 8-4.4.
2. Check that ENGINE NO. 2 OIL TEMP circuit breaker (2) is closed.	If OIL TEMP circuit breaker (2) is open, close it. If it opens again, go to task 8-4.4.
<b>CHECK NO. 1 ENGINE SYSTEM</b>	
3. Check temperature indications on free air temperature indicator (3) and NO. 1 ENGINE OIL temperature indicator (4).	Temperature indications shall be within 10°C. If not go to task 8-4.5 or 8-4.5.1. If a fluctuating pointer trouble symptom can not be verified, go to task 8-4.5 or 8-4.5.1.
<b>CHECK NO. 2 ENGINE SYSTEM</b>	
4. Check temperature indications on free air temperature indicator (3) and NO. 2 ENGINE OIL temperature indicator (5).	Temperature indications shall be within 10°C. If not, go to task 8-4.6 or 8-4.6.1. If a fluctuating pointer trouble symptom can not be verified, go to task 8-4.6 or 8-4.6.1.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Battery disconnected.  
Electrical power off.



A65317



8-4.4 ENGINE OIL TEMP CIRCUIT BREAKER DOES NOT STAY CLOSED

8-4.4

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

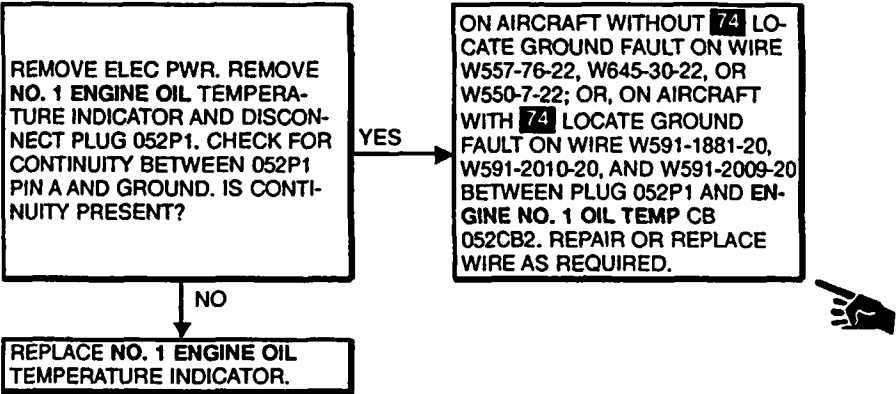
References:

TM 55-1520-240-23

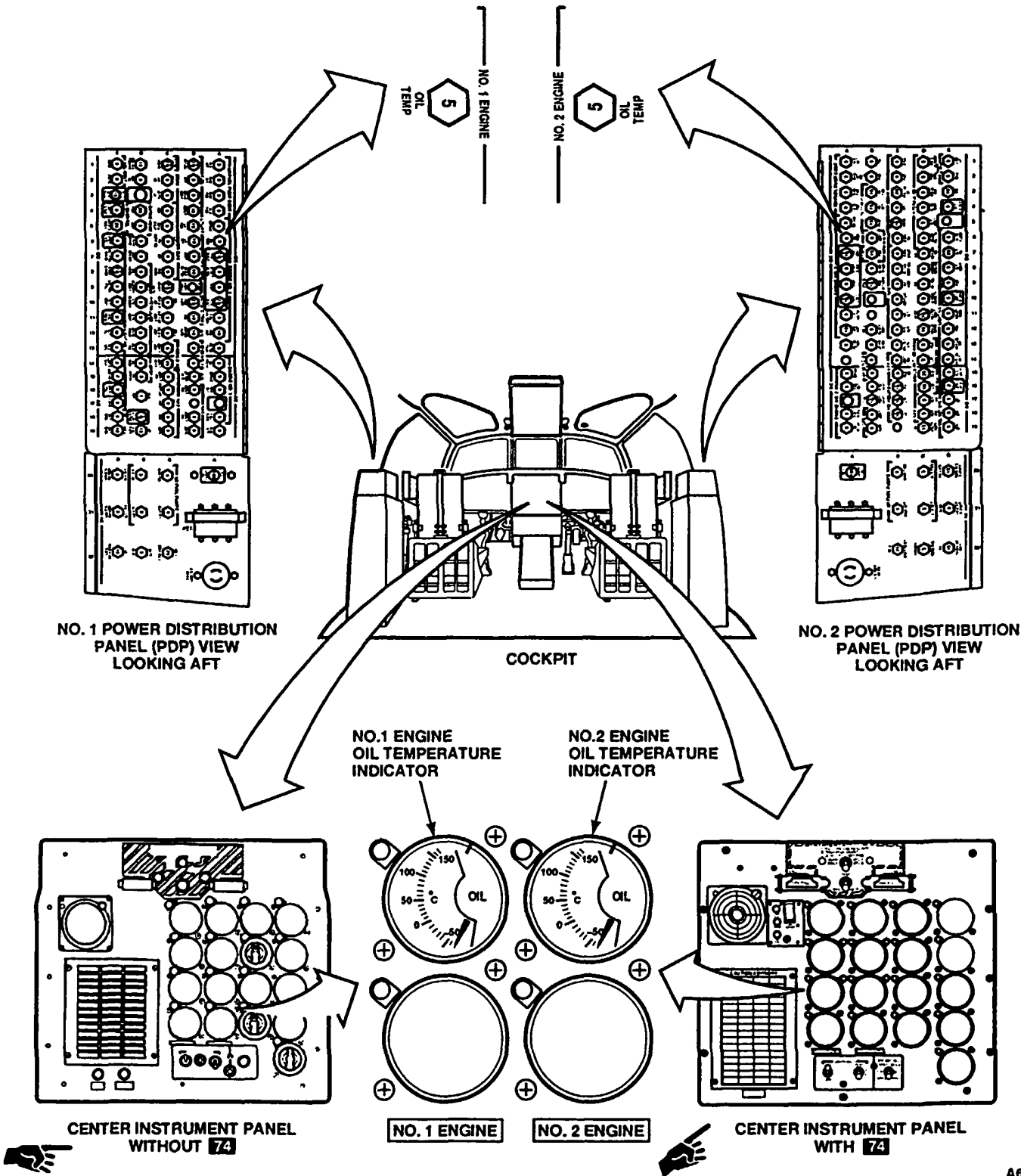
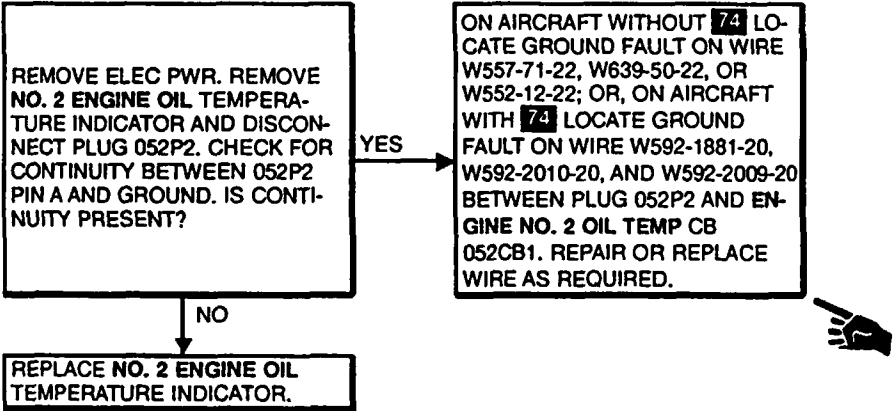
Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

ENGINE NO. 1 OIL TEMP CIRCUIT BREAKER DOES NOT STAY CLOSED



ENGINE NO. 2 OIL TEMP CIRCUIT BREAKER DOES NOT STAY CLOSED



A65318

FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations**  
Without 74

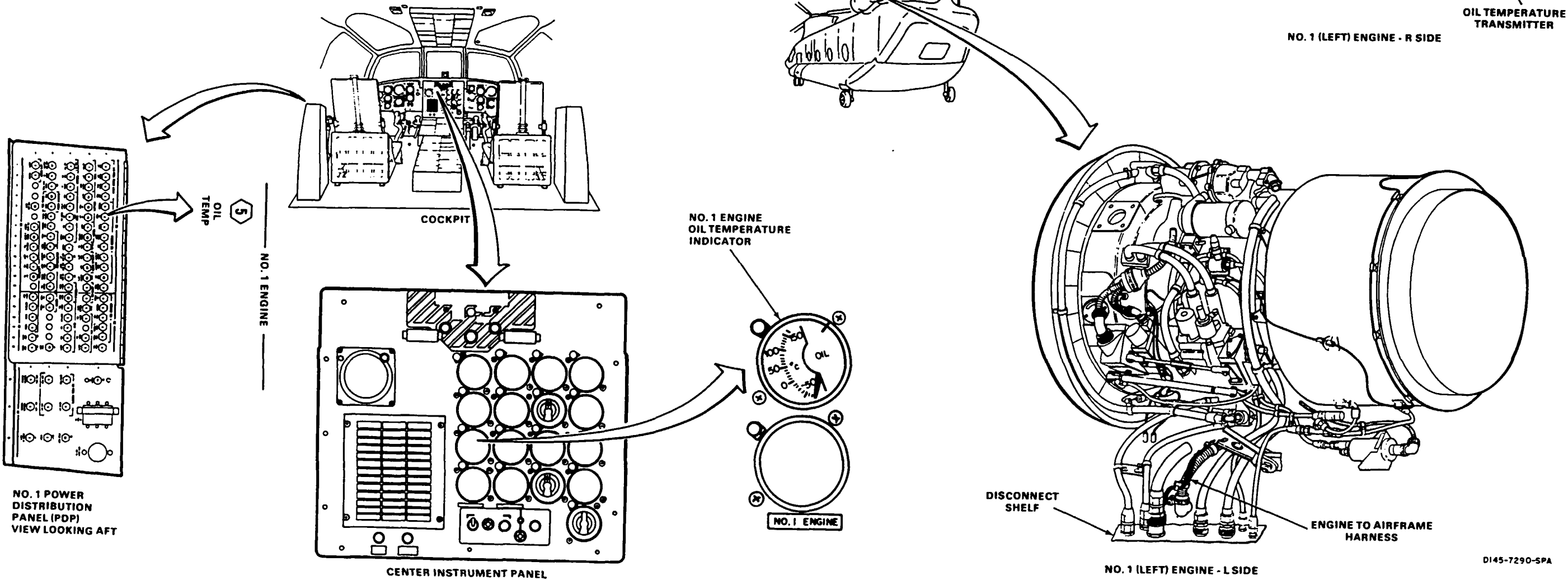
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692  
Multimeter

**Materials**  
None

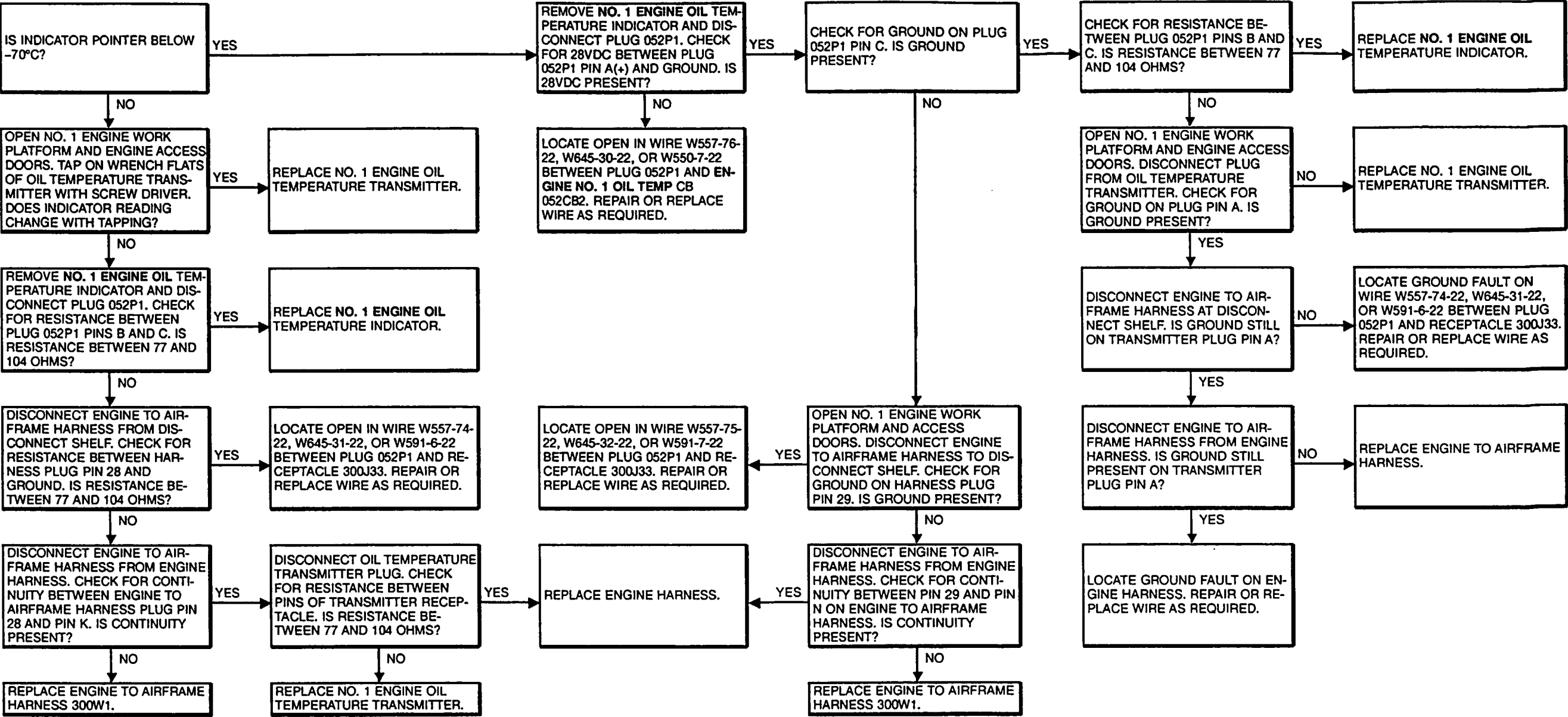
**Personnel Required:**  
Medium Helicopter Repairer  
Aircraft Electrician

**References**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



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8-4.5.1 NO. 1 ENGINE OIL TEMPERATURE INDICATOR INDICATION IS NOT WITHIN 10°C OF FAT INDICATOR

8-4.5.1

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

With 74

Tools.:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Aircraft Mechanic's Tool Kit,  
NSN 5180-00-3234692
- Aircraft Powerplant Repairer's Tool Kit,  
NSN 5180-00-323-4944
- Multimeter

Materials:

None

Personnel Required:

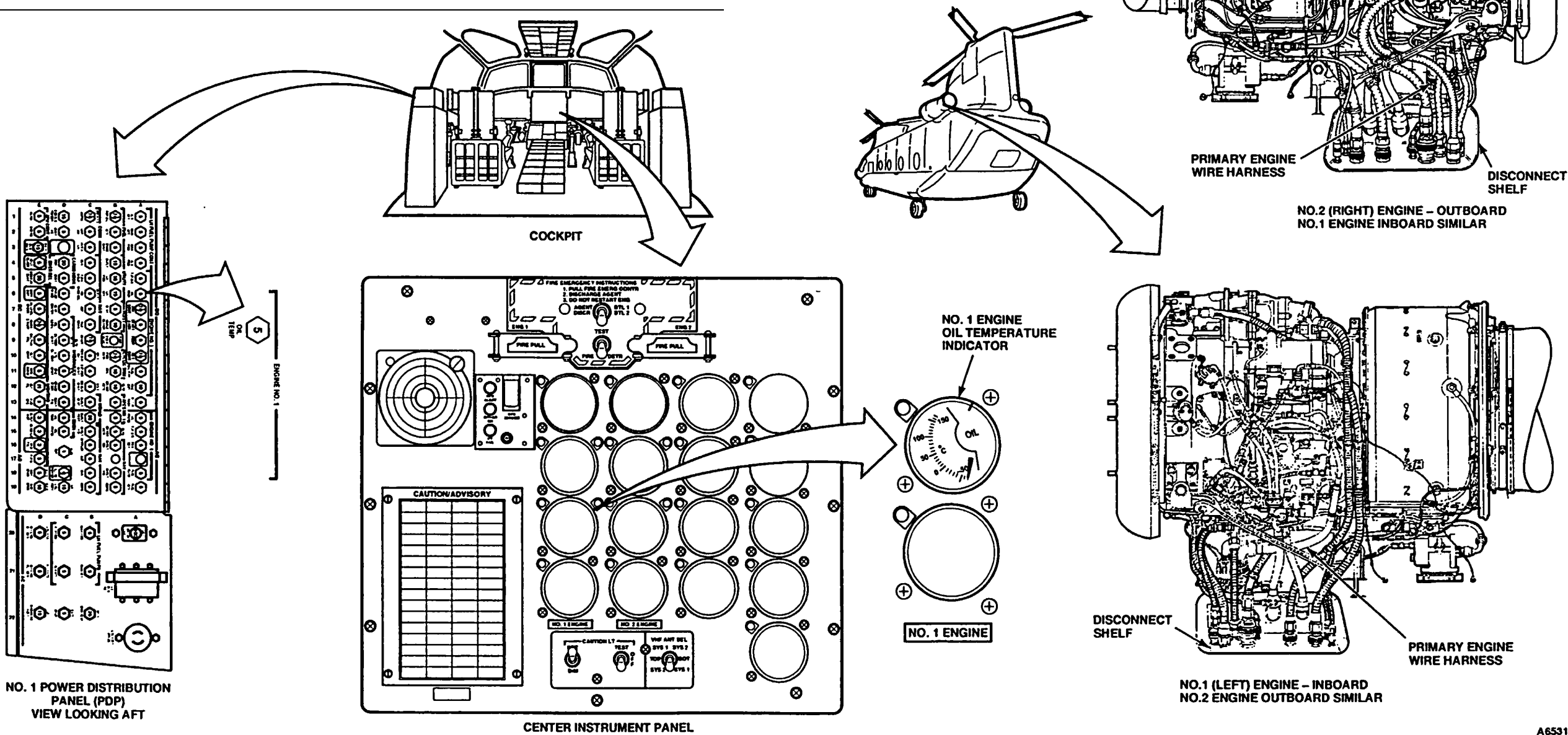
- Medium Helicopter Repairer
- Aircraft Electrician
- Aircraft Powerplant Repairer

References

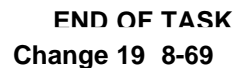
- TM 1-2840-265-23
- TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off



### 8-4.5.1



FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
Without 74

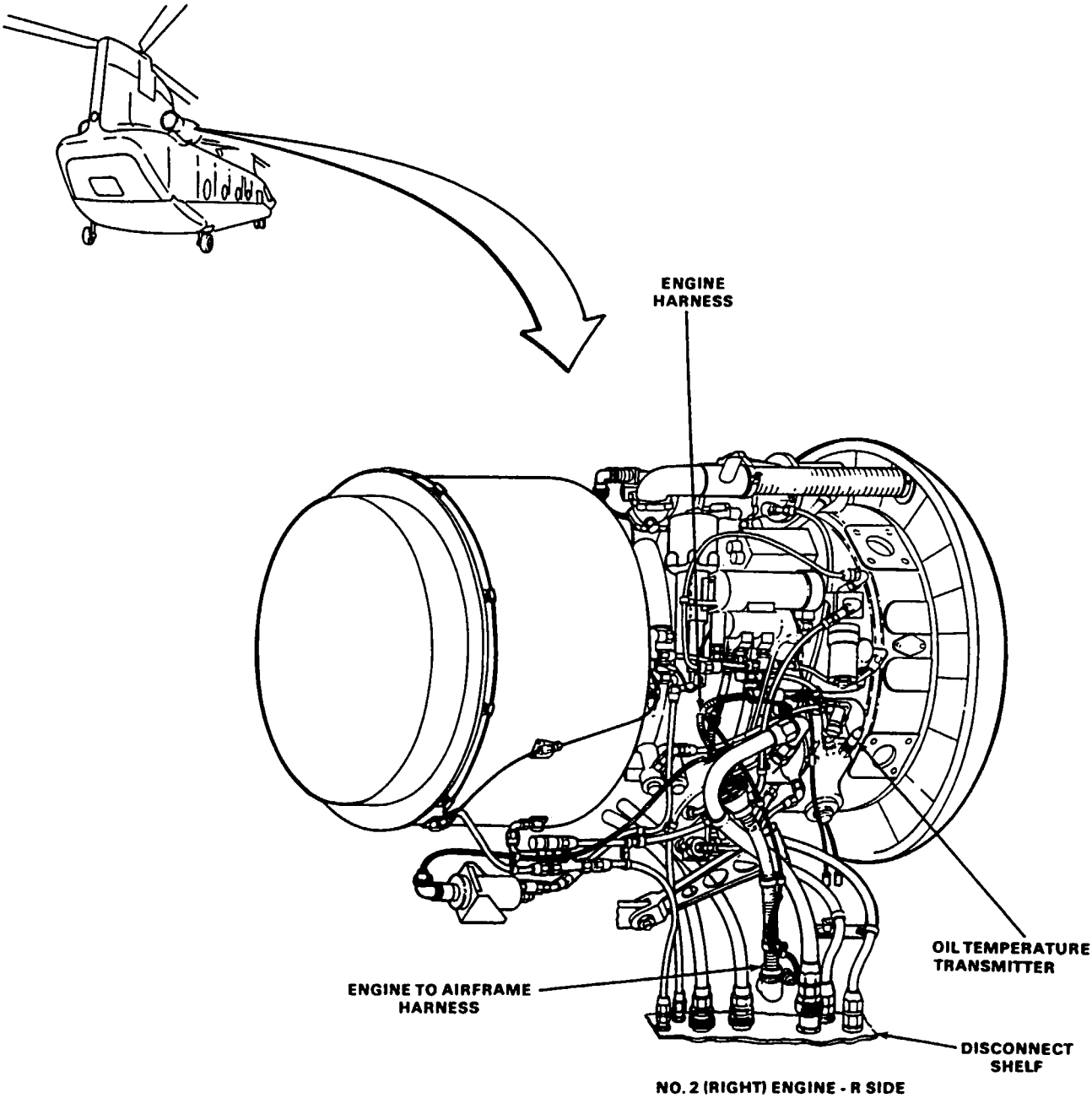
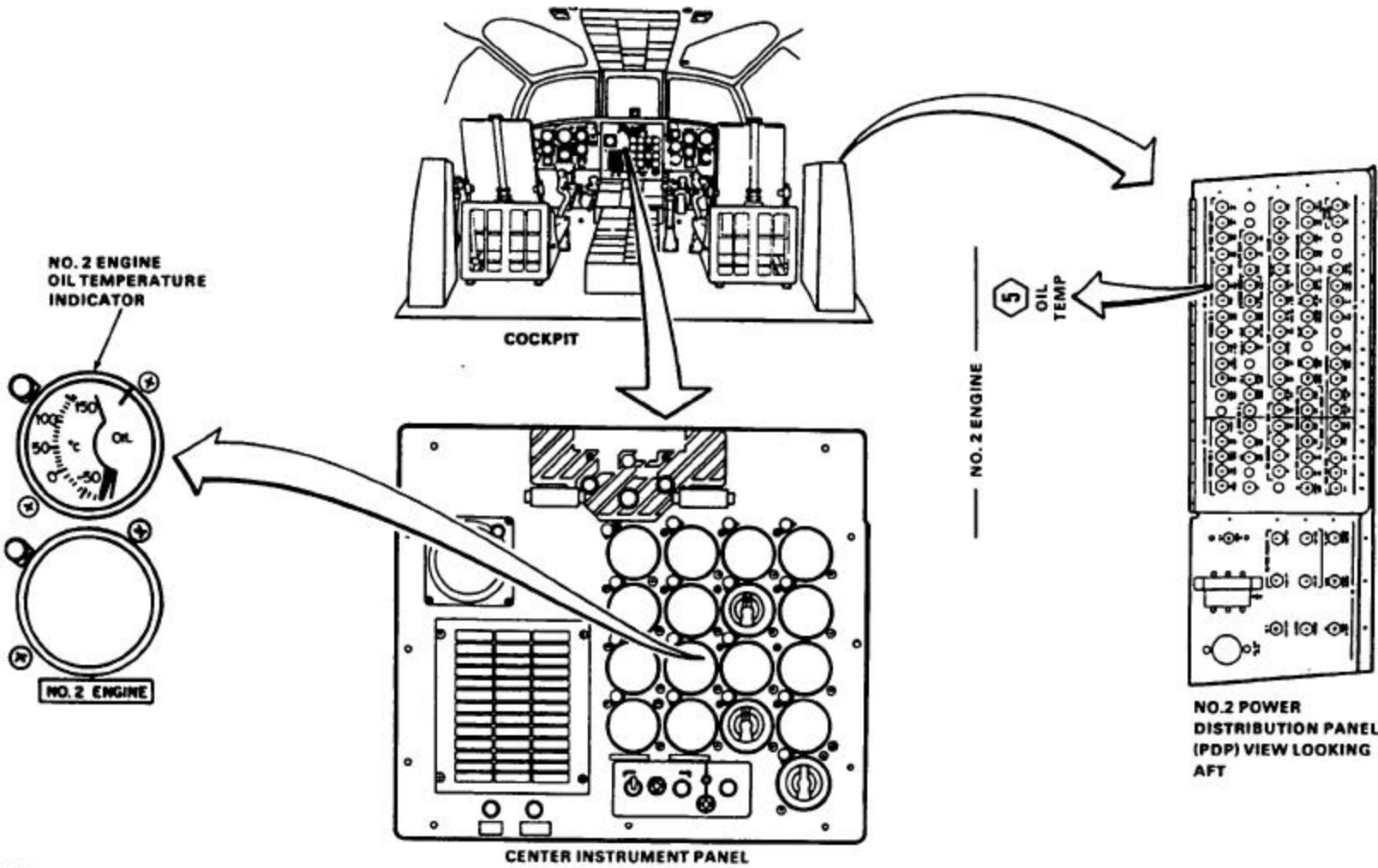
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692  
Multimeter

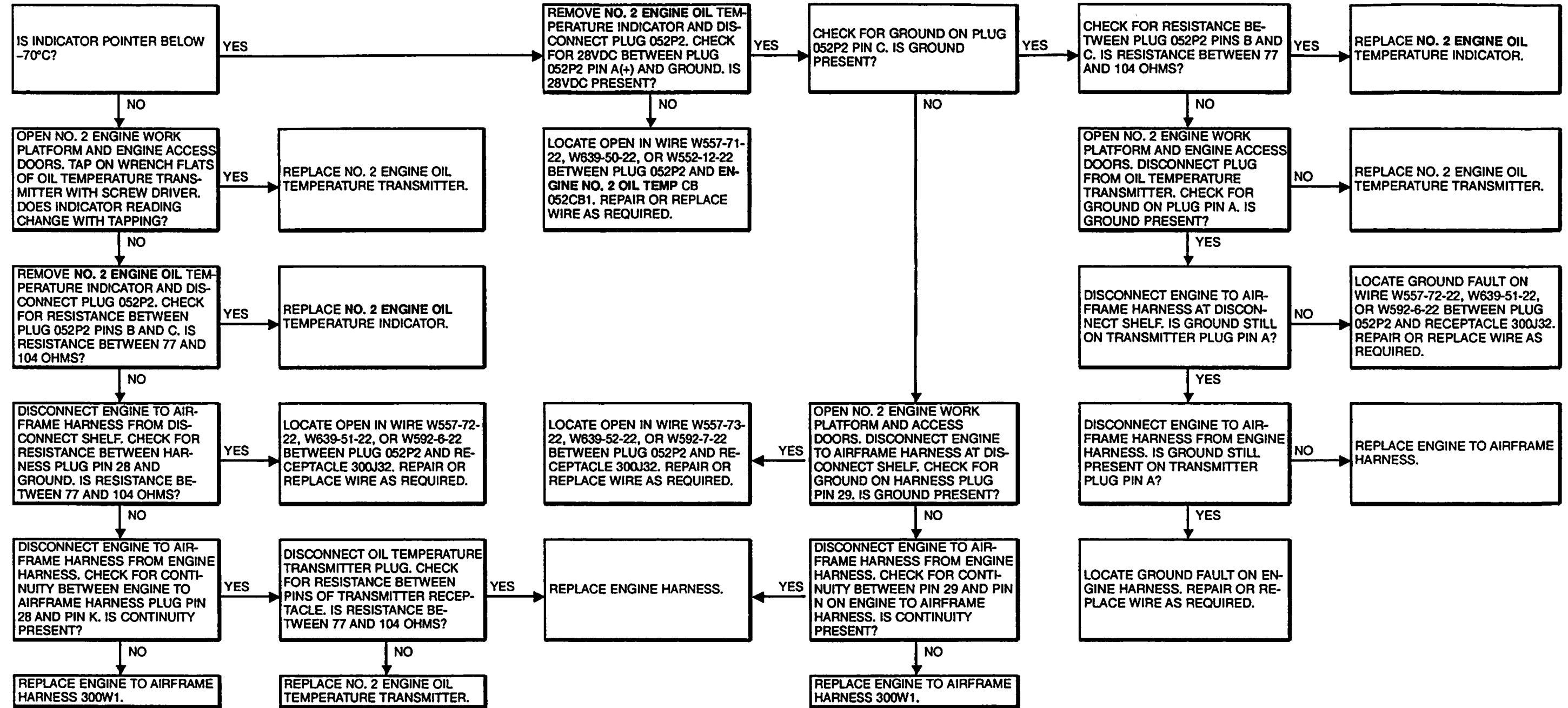
**Materials:**  
None

**Personnel Required:**  
Medium Helicopter Repairer  
Aircraft Electrician

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





8-4.6.1 NO. 2 ENGINE OIL TEMPERATURE INDICATOR INDICATION IS NOT WITHIN 10°C OF FAT INDICATOR

8-4.6.1

FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
With 74

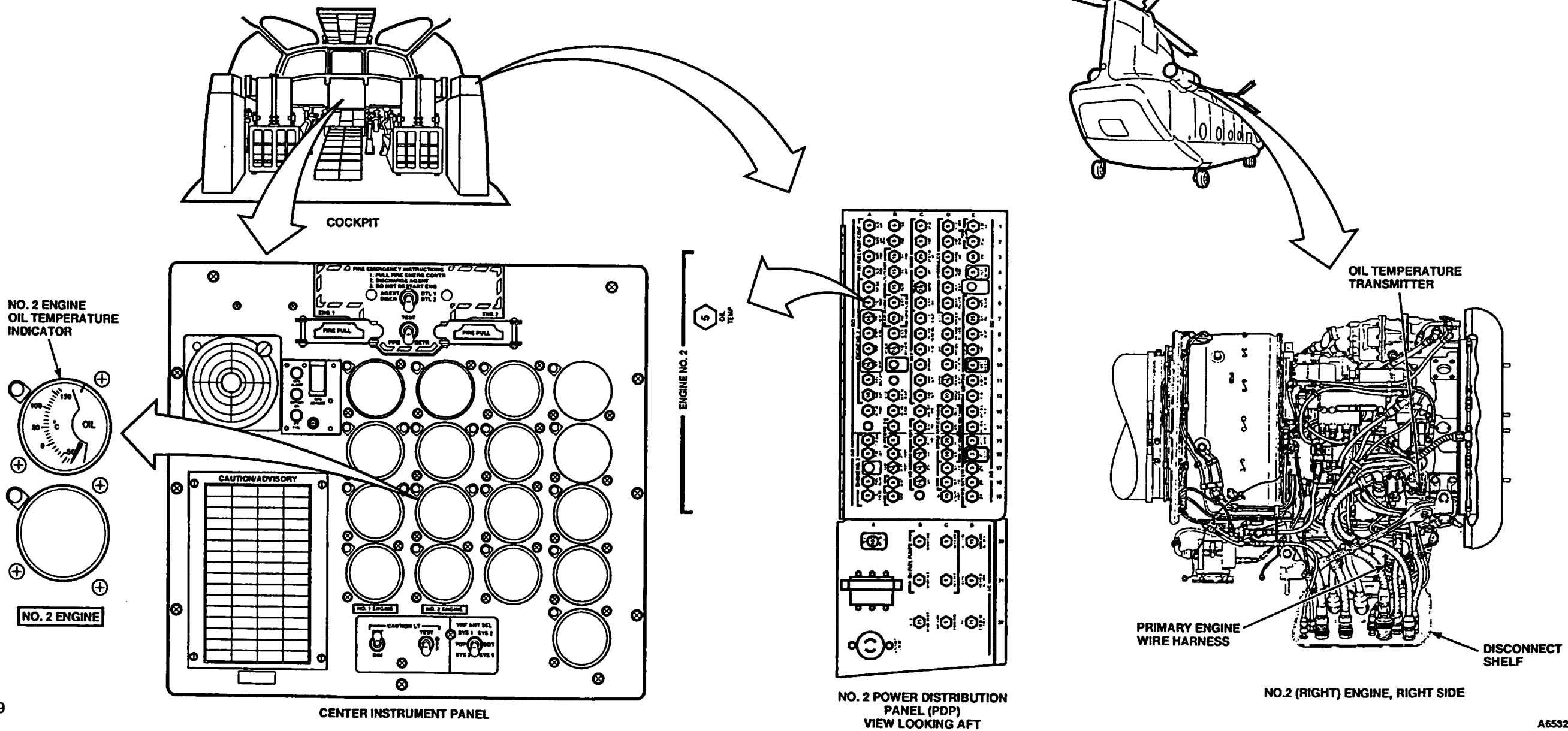
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692  
Aircraft Powerplant Repairer's Tool Kit,  
NSN 5180-00-323-4944  
Multimeter

**Materials:**  
None

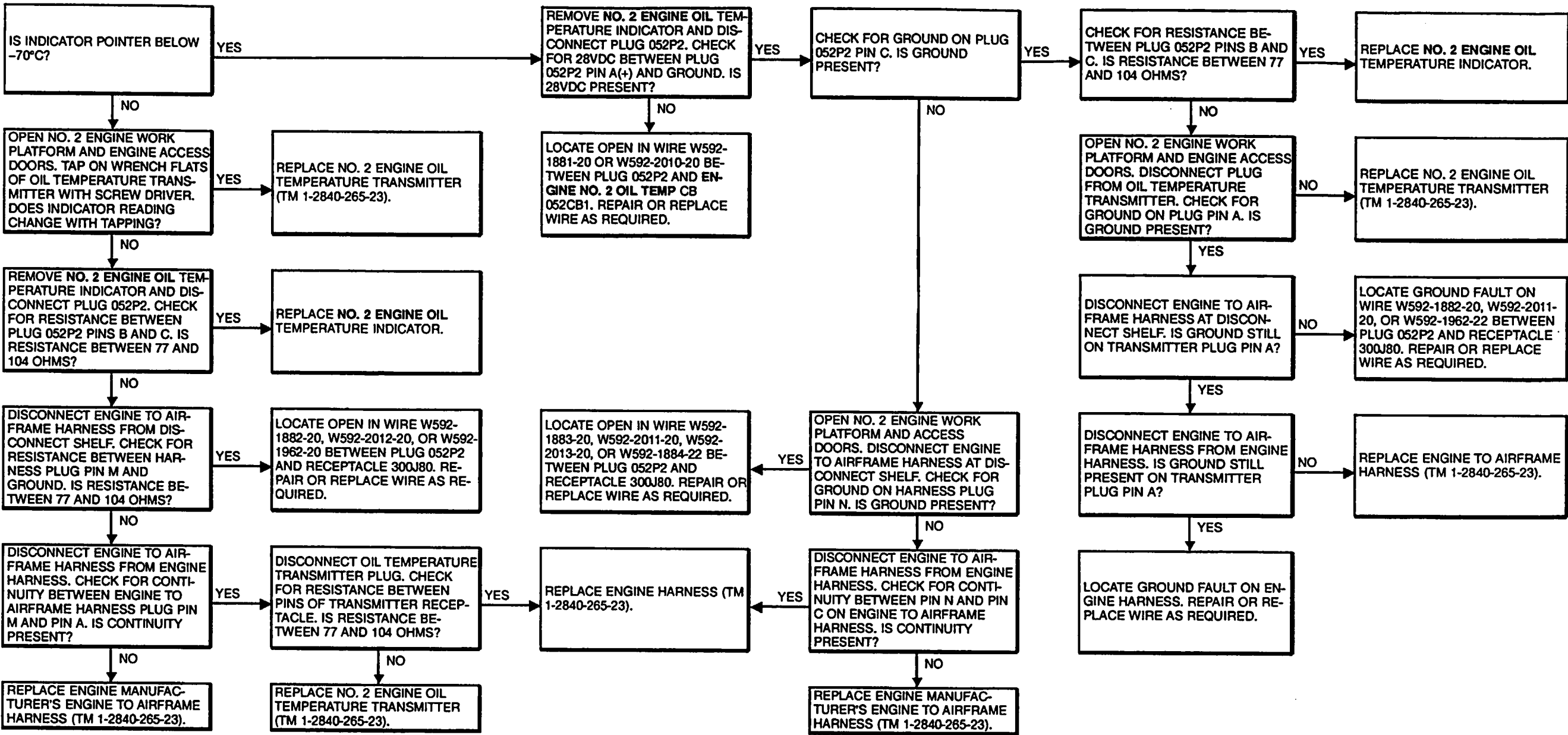
**Personnel Required:**  
Medium Helicopter Repairer  
Aircraft Electrician  
Aircraft Powerplant Repairer

**References:**  
TM 1-2840-265-23  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-24023:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



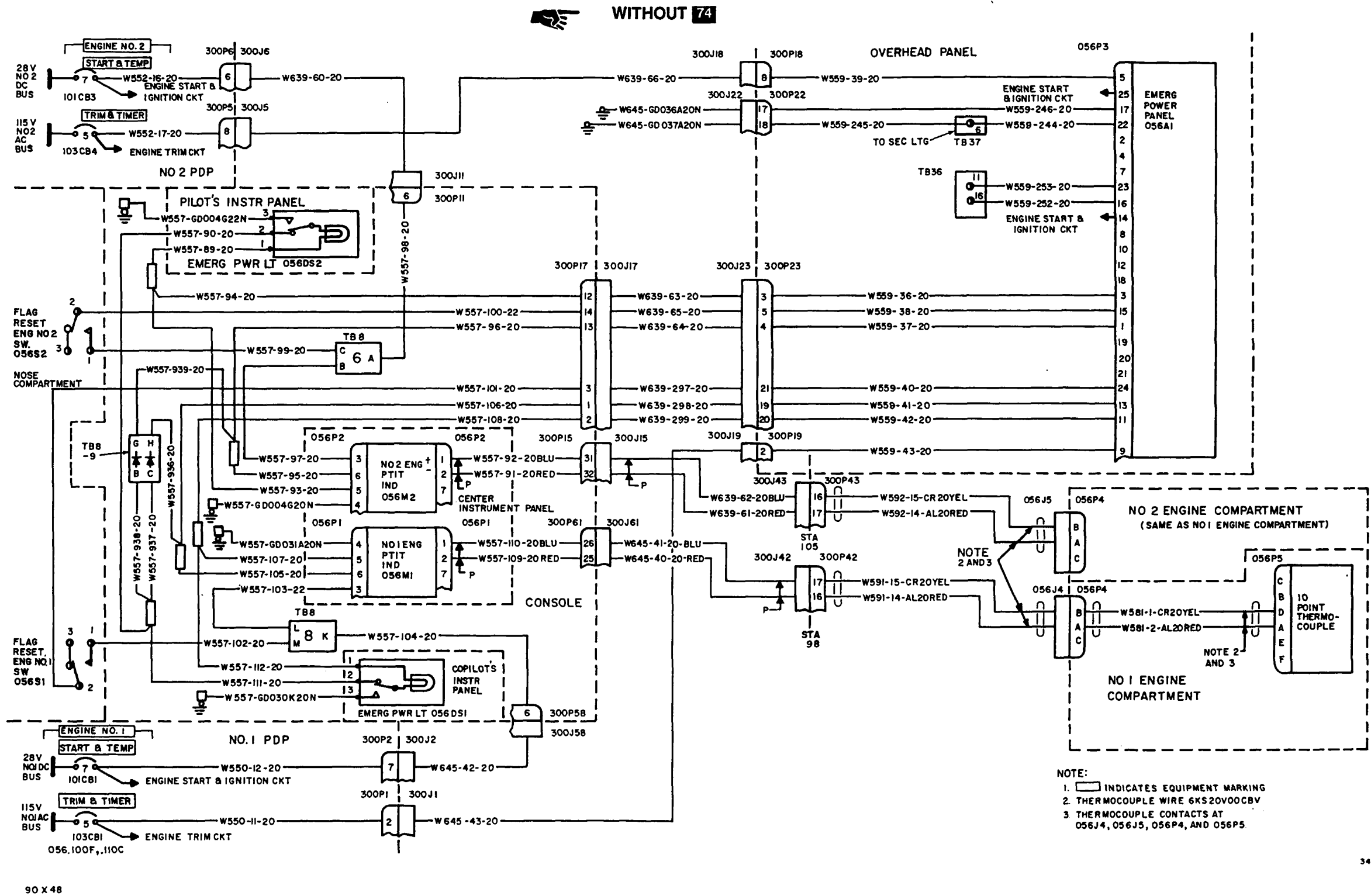




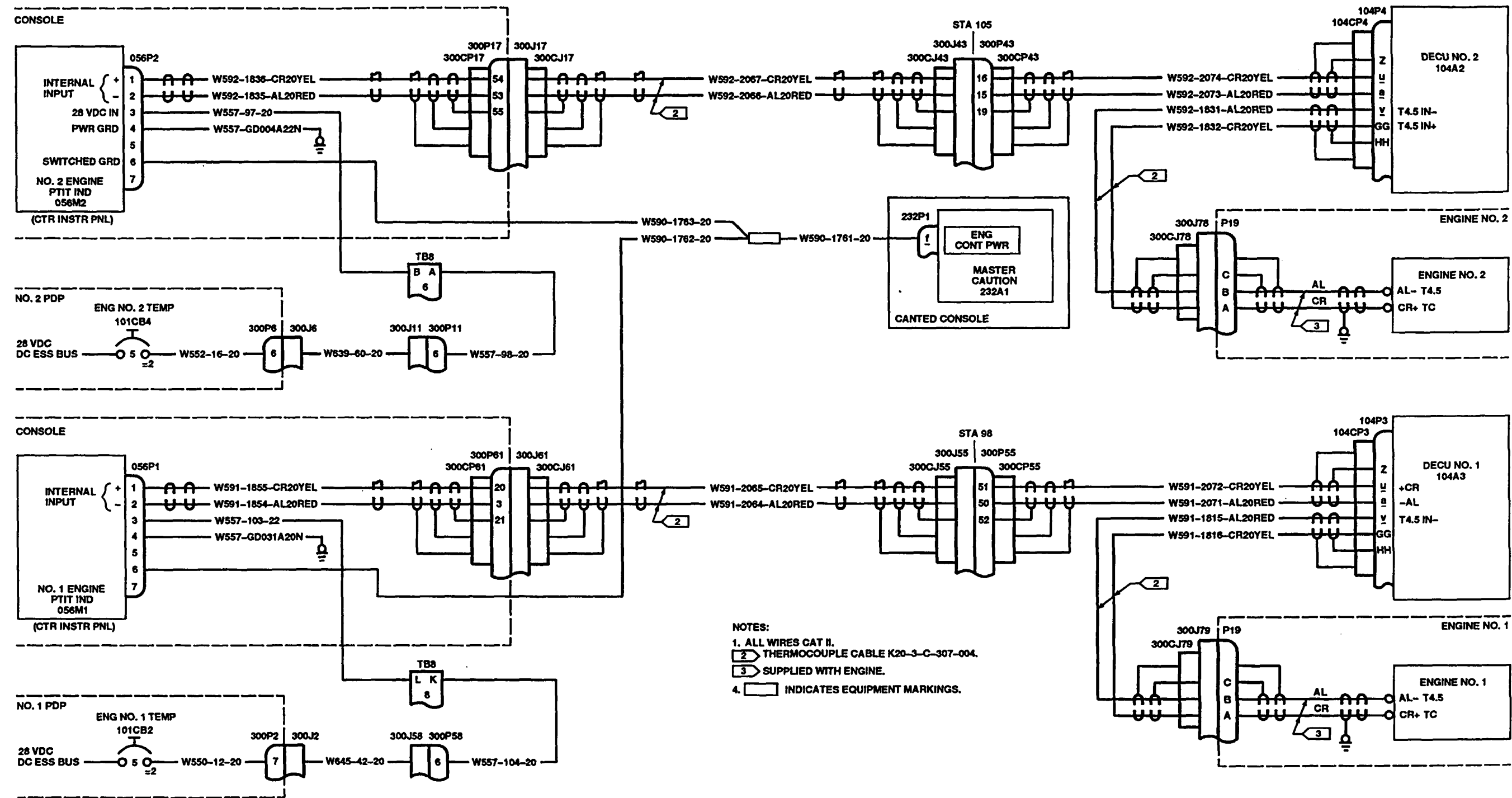
END OF TASK

Change 19 8-72.1/ (8-72.2 blank)

8-5 POWER TURBINE INLET TEMPERATURE SYSTEM

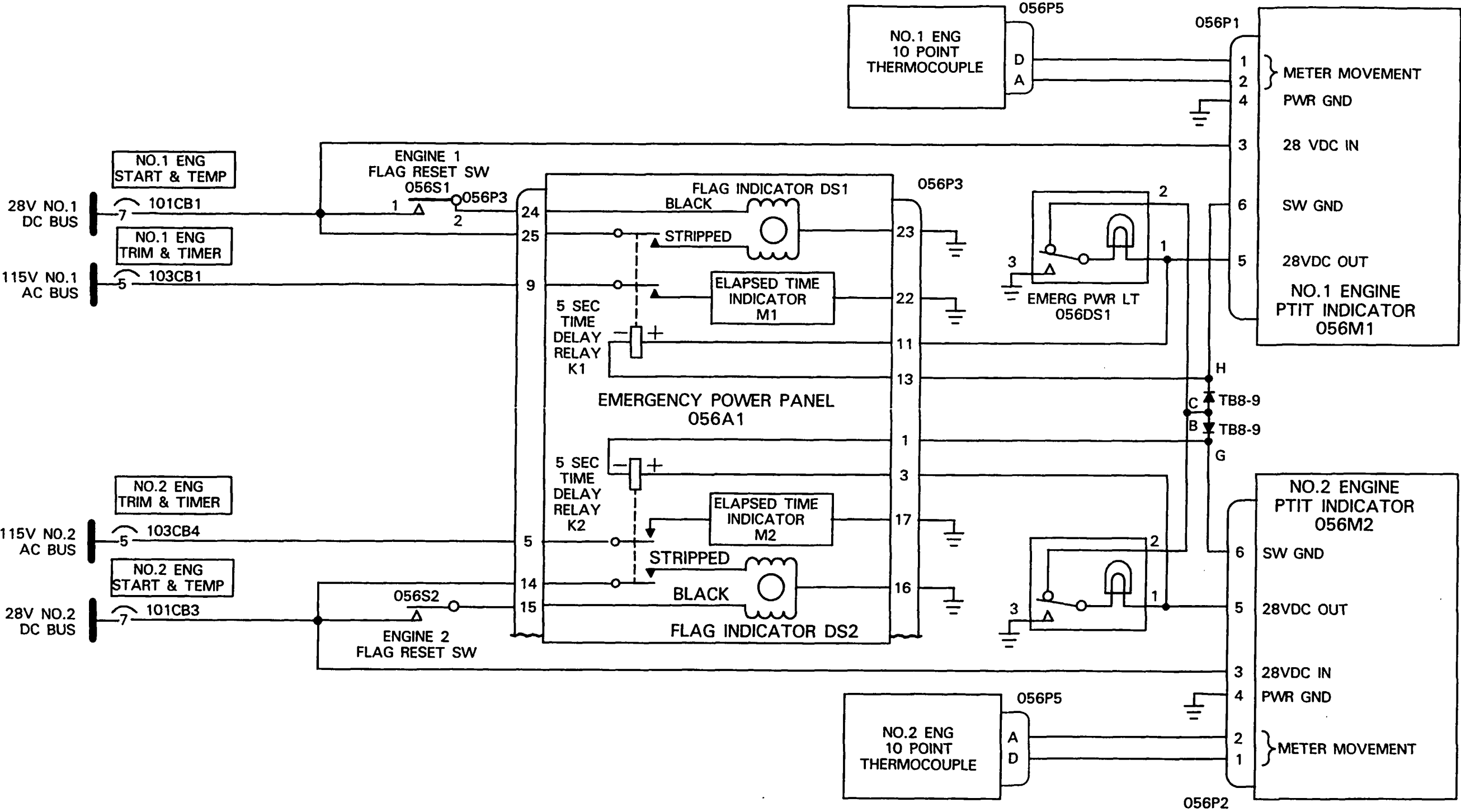


WITH 74

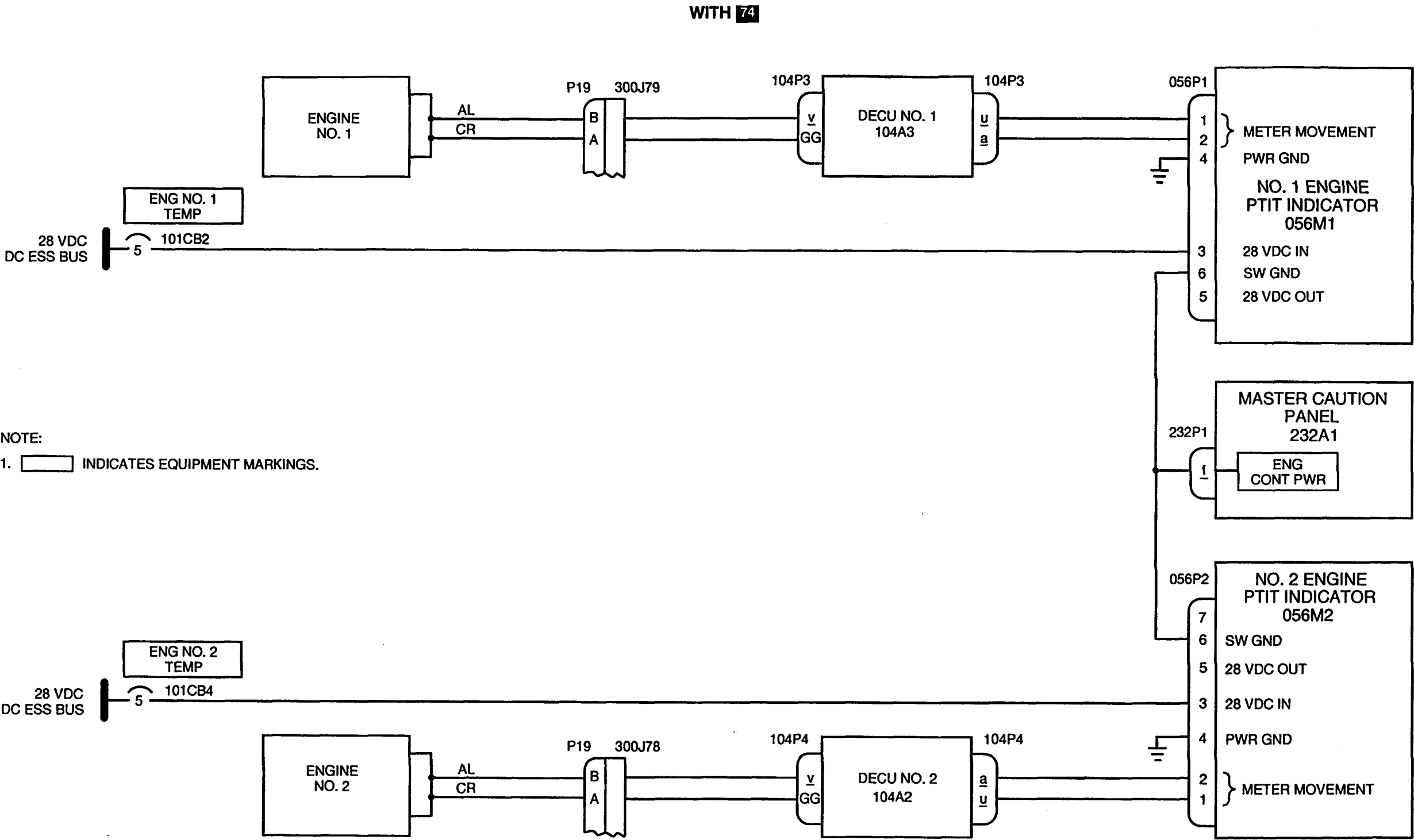


A65472

WITHOUT 74



A8942



A65487

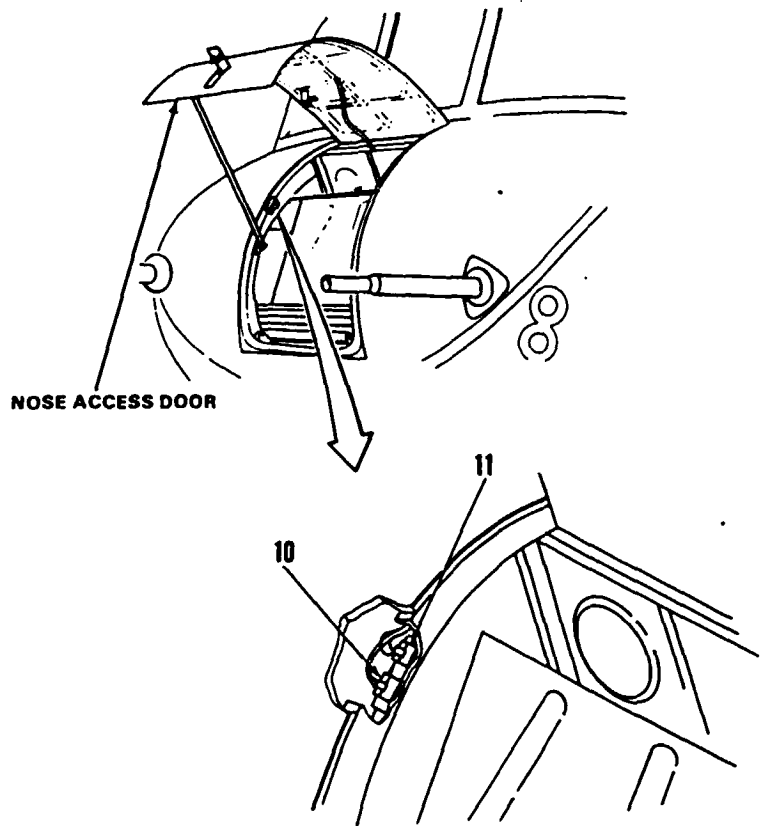


8-5.2 POWER TURBINE INLET TEMPERATURE SYSTEM VISUAL CHECK

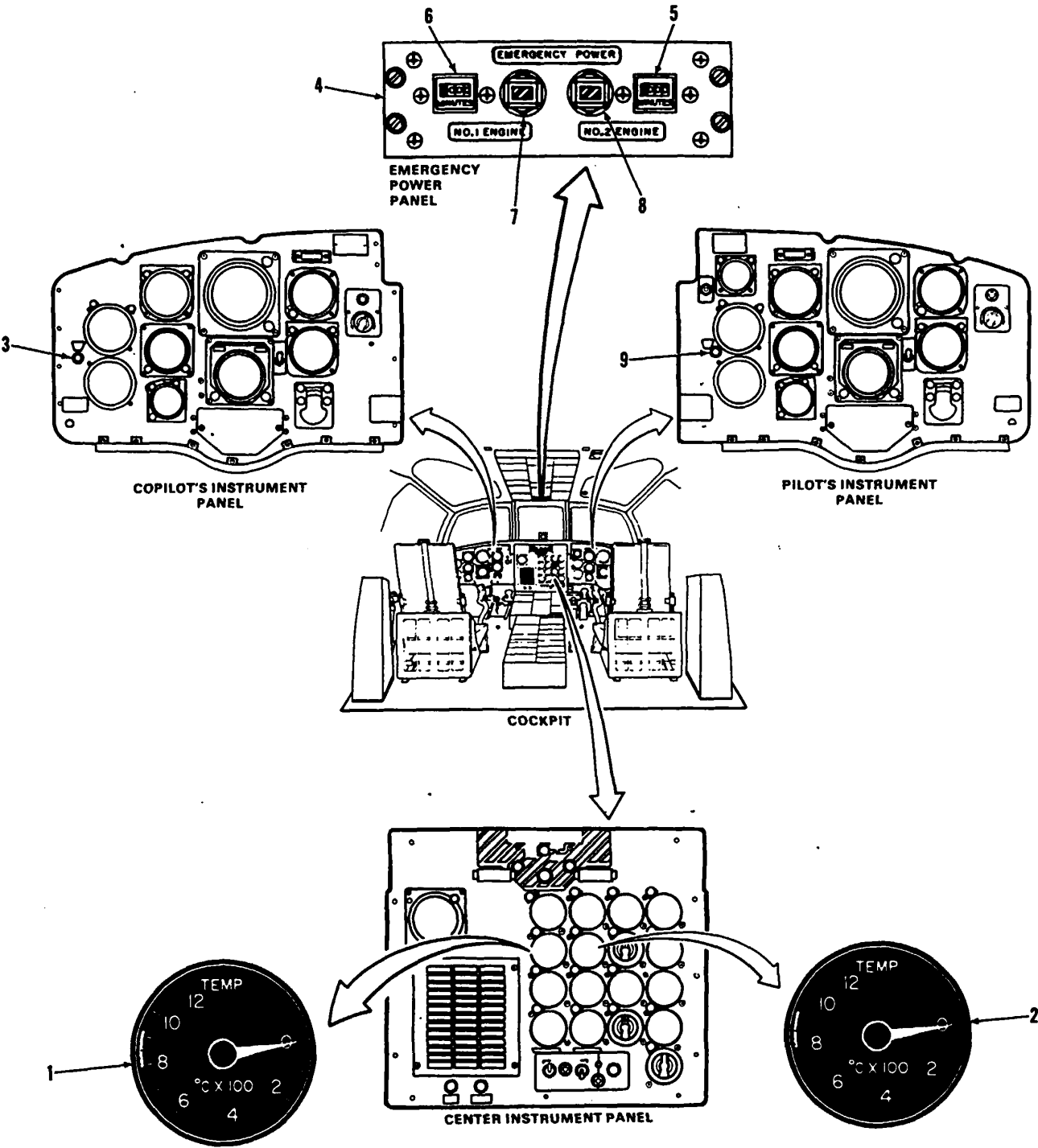
8-5.2

INITIAL SETUP  
**Applicable Configurations:**  
Without 74  
**Tools:**  
None  
**Materials:**  
None  
**Personnel Required:**  
Aircraft Electrician

**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Nose Access Door Open



90 x 54



DM5-11140-SPA



TASK	RESULT
1. Check NO. 1 PTIT indicator (1).	If indicator (1) is loose or damaged, tighten or replace it as required.
2. Check NO. 2 PTIT Indicator (2).	If indicator (2) is loose or damaged, tighten or replace it as required.
3. Check copilot EMERG PWR light (3).	If light (3) is loose or damaged, tighten or replace it as required.
4. Check EMERGENCY POWER panel (4).	If timers (5 and 6) are loose or damaged, tighten or replace them as required. If latch indicators (7 and 8) are loose or damaged, tighten or replace them as required.
5. Check pilot EMERG PWR light (9).	If light (9) is loose or damaged, tighten or replace it as required.
6. Check ENG NO. 1 and ENG NO. 2 FLAG RESET switches (10 and 11).	If switches (10 and 11) are loose or damaged, tighten or replace them as required.

FOLLOW-ON MAINTENANCE:  
None

INITIAL SETUP

Applicable Configurations:

With 74

Tools:  
None

Materials:  
None

Personnel Required:  
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

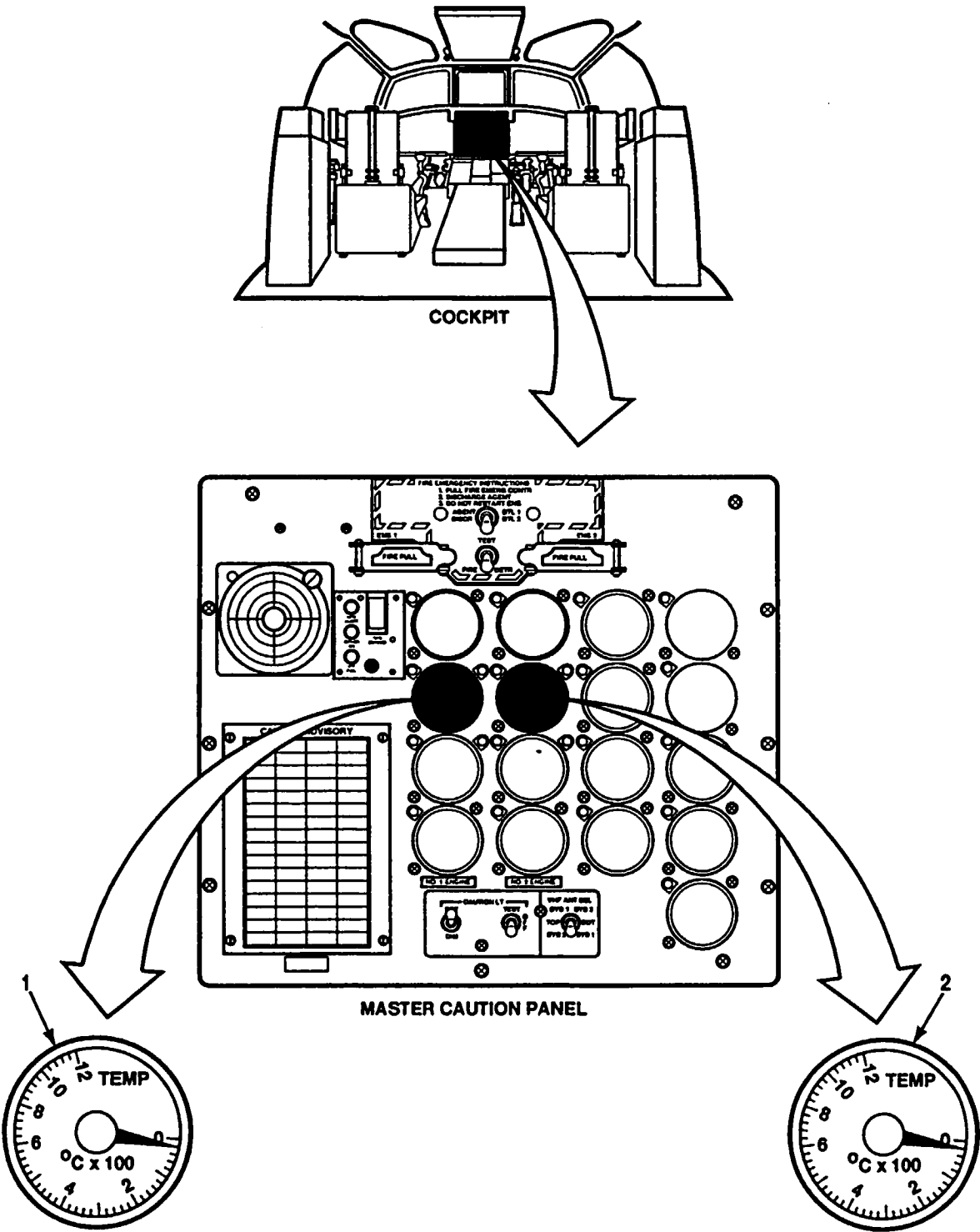
Electrical Power Off

Hydraulic Power Off

TASK	RESULT
1. Check NO. 1 PTIT indicator (1).	If indicator (1) is loose or damaged, tighten or replace it as required.
2. Check NO. 2 PTIT Indicator (2).	If indicator (2) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:

None



A65473

INITIAL SETUP

Applicable Configurations:  
Without 74

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Exhaust Gas Temperature Tester BH112HB-53,  
NSN 4920-00-372-4593
- T140 Test Harness

Materials:  
None

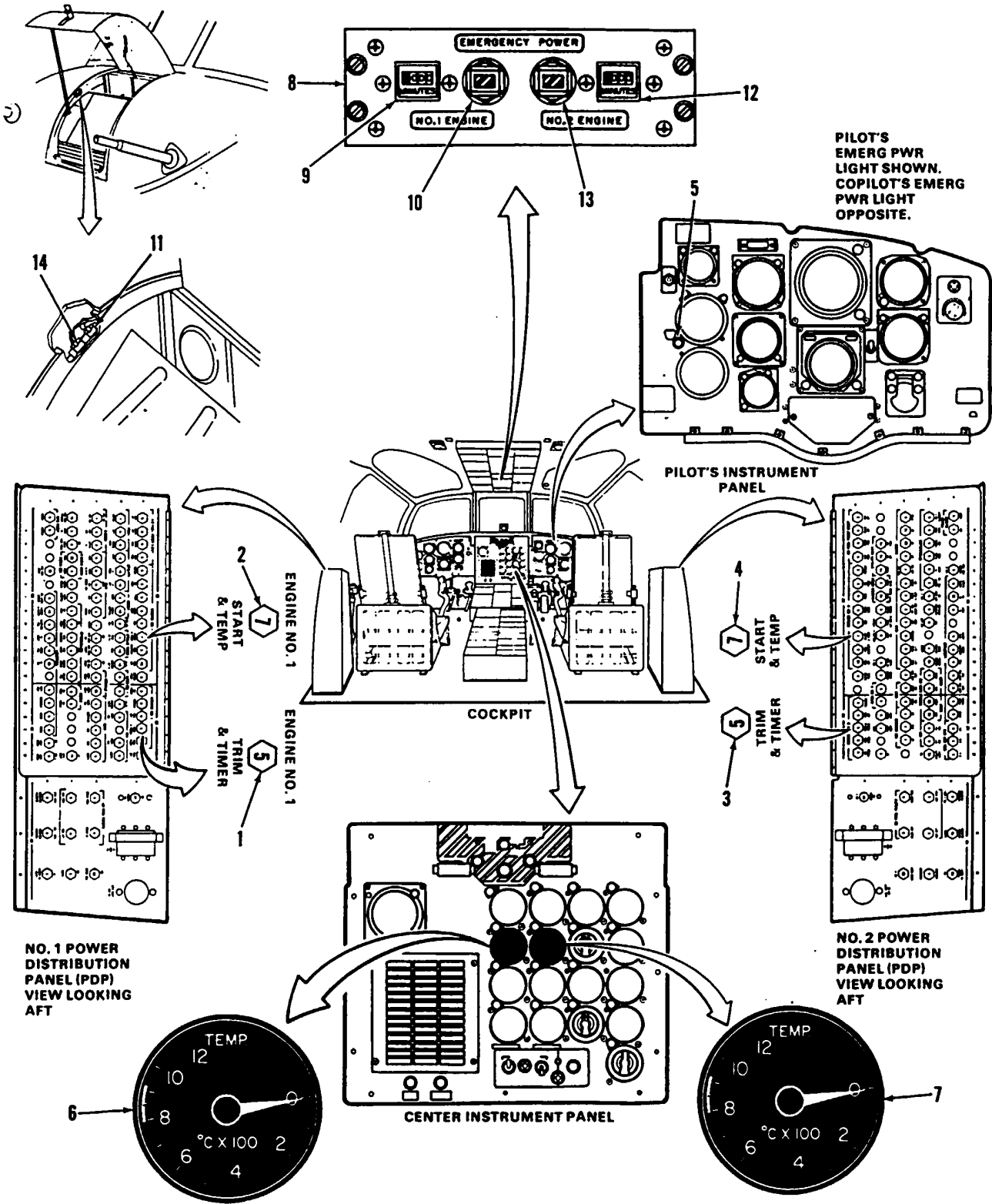
Personnel Required:  
Aircraft Electrician (2)  
Rotary-Wing Aviator

References:

- TM 55-1520-240-10
- TM 55-1520-240-23
- TM 55-4920-401-13

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power On
- No. 1 Engine Work Platform Open
- No. 1 Engine Lower Access Door Open
- No. 2 Engine Work Platform Open
- No. 2 Engine Lower Access Door Open
- Visual Check of Power Turbine Inlet Temperature and Emergency Power Indicating System Performed (Task 8-5.2)



8-5.3 POWER TURBINE INLET TEMPERATURE SYSTEM  
OPERATIONAL CHECK AND EMERGENCY POWER  
INDICATING SYSTEM TEST (Continued)

8-5.3

TASK	RESULT
<b>CHECK PTIT INDICATING SYSTEM</b>	
1. Check that ENGINE NO. 1 TRIM & TIMER circuit breaker (1) is closed.	If circuit breaker (1) is open, close it. If it opens again, go to Task 4-6.3.
2. Check that ENGINE NO. 1 START & TEMP circuit breaker (2) is closed.	If circuit breaker (2) is open, close it. If it opens again, go to Task 4-4.4.
3. Check that ENGINE NO. 2 TRIM & TIMER circuit breaker (3) is closed.	If circuit breaker (3) is open close it. If it opens again, go to Task 4-6.3.
4. Check that ENGINE NO. 2 START & TEMP circuit breaker (4) is closed.	If circuit breaker (4) is open, close it. If it opens again, go to Task 4-4.4.
5. Momentarily press copilot's EM ERG PWR light (5).	Light (5) shall come on If not, go to Task 8-5.4.
6. Momentarily press pilot's EM ERG PWR light (5).	Light (5) shall come on. If not, go to Task 8-5.4.
7. Have pilot start engines and stabilize rotors at 100% rotor rpm.	
8. Check NO. 1 ENGINE PTIT indicator (6).	Indicator (6) shall read in green band. If not go to Task 8-5.5.
9. Check NO. 2 ENGINE PTIT indicator (7).	Indicator (7) shall read in green band. If not go to Task 8-5.6

TEST EMERGENCY POWER INDICATING SYSTEM

**WARNING**

Do not reset striped flag unless proper log entry was made and any required engine inspection is completed. Striped flag indicates engine was operating in an overtemp condition and a log book entry must be made prior to next flight.

**NOTE**

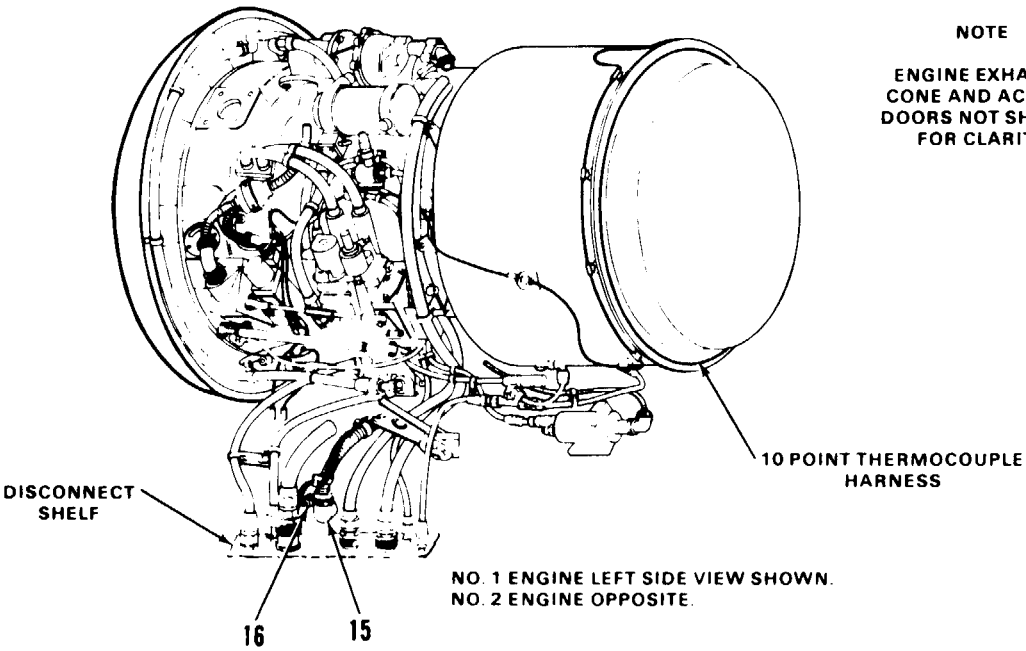
The timer records total minutes of engine overtemperature This information is used to schedule engine maintenance action.

TASK	RESULT
10. Check pilot's and copilot's EM ERG PWR lights (5).	Both lights (5) shall be out. If not, go to Task 8-5.7.
11. Check EMERGENCY POWER panel (8).	NO. 1 and NO. 2 ENGINE timers (9 and 12) shall not be operating. If either timer is operating, replace EMERGENCY POWER panel.  NO. 1 and NO. 2 ENGINE flag indicators (10 and 13) shall be black. If not, reset NO. 1 or NO. 2 ENG FLAG RESET switches (11 and 14). If indicators do not reset to black, go to Task 8-5.8.
12. Have pilot shut down both engines	
<div>CAUTION</div> <p>The following procedure simulates engine overtemperature to check out indicator and timer circuits. The timer will operate, therefore, follow procedures closely to avoid excessive time being added to engine overtemperature time.</p>	
13. Disconnect plug (15) at NO. 1 ENGINE disconnect shelf. Connect cable from tester into receptacle (16) with test harness T140. Have helper observe NO. 1 ENGINE PTIT indicator (6). Increase millivolt output from tester until PTIT indication is 820°C. Check EMERGENCY POWER panel (9).	NO 1 ENGINE timer (9) shall not be operating. If it is, replace NO. 1 ENGINE PTIT indicator.  NO 1 ENGINE flag indicator (10) shall be black. If it is striped, replace NO 1 ENGINE PTIT Indicator (6)

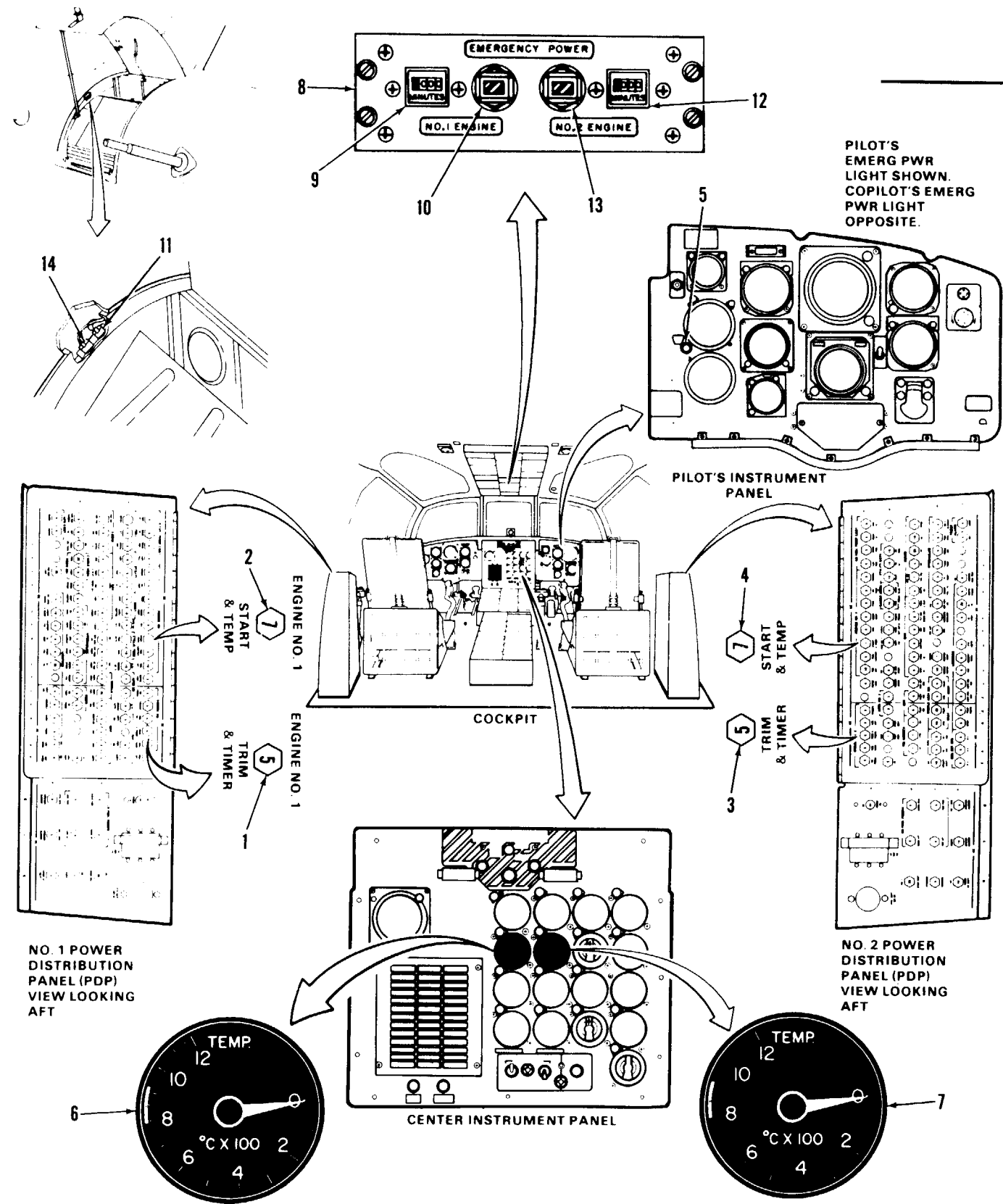
GO TO NEXT PAGE

8-5.3 POWER TURBINE INLET TEMPERATURE SYSTEM  
OPERATIONAL CHECK AND EMERGENCY POWER  
INDICATING SYSTEM TEST (Continued)

8-5.3



NOTE  
ENGINE EXHAUST  
CONE AND ACCESS  
DOORS NOT SHOWN  
FOR CLARITY



TASK	RESULT	TASK	RESULT
<div>CAUTION</div> <div>The following procedure simulates engine overtemperature to check out indicator and timer circuits. The timer will operate, therefore, follow procedures closely to avoid excessive time being added to engine overtemperature time.</div>			
14. Have helper observe NO. 1 ENGINE PTIT indicator (6). Increase millivolt output from tester until <b>NO. 1 ENGINE</b> timer (9) starts to operate.	<p>Pilot's and copilot's EMERG PWR lights (5) shall be out. If not, replace NO. 1 ENGINE PTIT indicator (6).</p> <p>NO. 1 ENGINE timer (9) shall operate when PTIT indication is between <u>890°C and 910°C</u>. If not, go to Task 8-5.9.</p> <p>NO. 1 ENGINE flag indicator (10) shall be striped. If not, go to Task 8-5.10.</p> <p>Pilot's and copilot's EMERG PWR lights (5) shall be on. If not, go to Task 8-5.1.1.</p>	18. Have helper observe <b>NO. 2 ENGINE</b> PTIT indicator (6). Increase millivolt output from tester until NO. 2 ENGINE timer (12) starts to operate.	<p>Pilot's and copilot's EMERG PWR lights (5) shall be out. If not, replace NO. 1 ENGINE PTIT indicator (6).</p> <p>Pilot's and copilot's EMERG PWR lights (5) shall be out. If not, replace NO. 1 ENGINE PTIT indicator (6).</p> <p>NO. 2 ENGINE timer (12) shall operate when PTIT indication is between <u>890°C and 910°C</u>. If not, go to Task 8-5.12.</p>
15. Immediately reduce tester output until NO. 1 ENGINE PTIT indication is between <u>800°C</u> and <u>820°C</u> .	<p>NO. 2 ENGINE timer (12) shall stop. If it does not, replace NO. 2 ENGINE PTIT indicator.</p> <p>NO. 1 ENGINE flag indicator (10) shall remain striped. If not, replace NO. 1 ENGINE PTIT indicator.</p> <p>Pilot's and copilot's EMERG PWR lights (5) shall be out. If not, replace NO. 1 ENGINE PTIT indicator.</p>	19. Immediately reduce tester output until NO. 2 ENGINE PTIT indication is between <u>800°C</u> and <u>820°C</u> .	<p>NO. 2 ENGINE timer (12) shall stop. If it does not, replace NO. 2 ENGINE PTIT indicator.</p> <p>NO. 2 ENGINE flag indicator (13) shall remain striped. If not, replace NO. 2 ENGINE PTIT indicator.</p> <p>Pilot's and copilot's EMERG PWR lights (5) shall be out. If not, replace NO. 2 ENGINE PTIT indicator.</p>
16. Disconnect test harness from plug (15). Connect plug (15) to receptacle (16).		20. Disconnect test harness from plug (15). Connect plug (15) to receptacle (16).	
17. Disconnect plug (15) at NO. 2 ENGINE disconnect shelf. Connect cable from tester into receptacle (1 6) with test harness T140. Have helper observe NO. 2 ENGINE PTIT indicator (6). Increase millivolt output from tester until PTIT indication is 8200C. Check EMERG POWER panel (9).	<p>NO. 2 ENGINE timer (12) shall not be operating. If it is, replace NO. 2 ENGINE PTIT indicator.</p> <p>NO. 2 ENGINE flag indicator (13) shall be black. If it is striped, replace NO. 2 ENGINE PTIT indicator.</p>	21. <b>Reset NO. 1 and NO. 2 ENGINE FLAG RESET switches (11 and 14).</b>	
		<div>FOLLOW-ON MAINTENANCE</div> <div>TM 55-1520-240-23:</div> <div>Battery Disconnected</div> <div>Electrical Power Off</div> <div>Hydraulic Power Off</div> <div>Close No. 1 Engine Work Platform</div> <div>Close No. 1 Engine Lower Access Door</div> <div>Close No. 2 Engine Work Platform</div> <div>Close No. 2 Engine Lower Access Panel</div>	

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

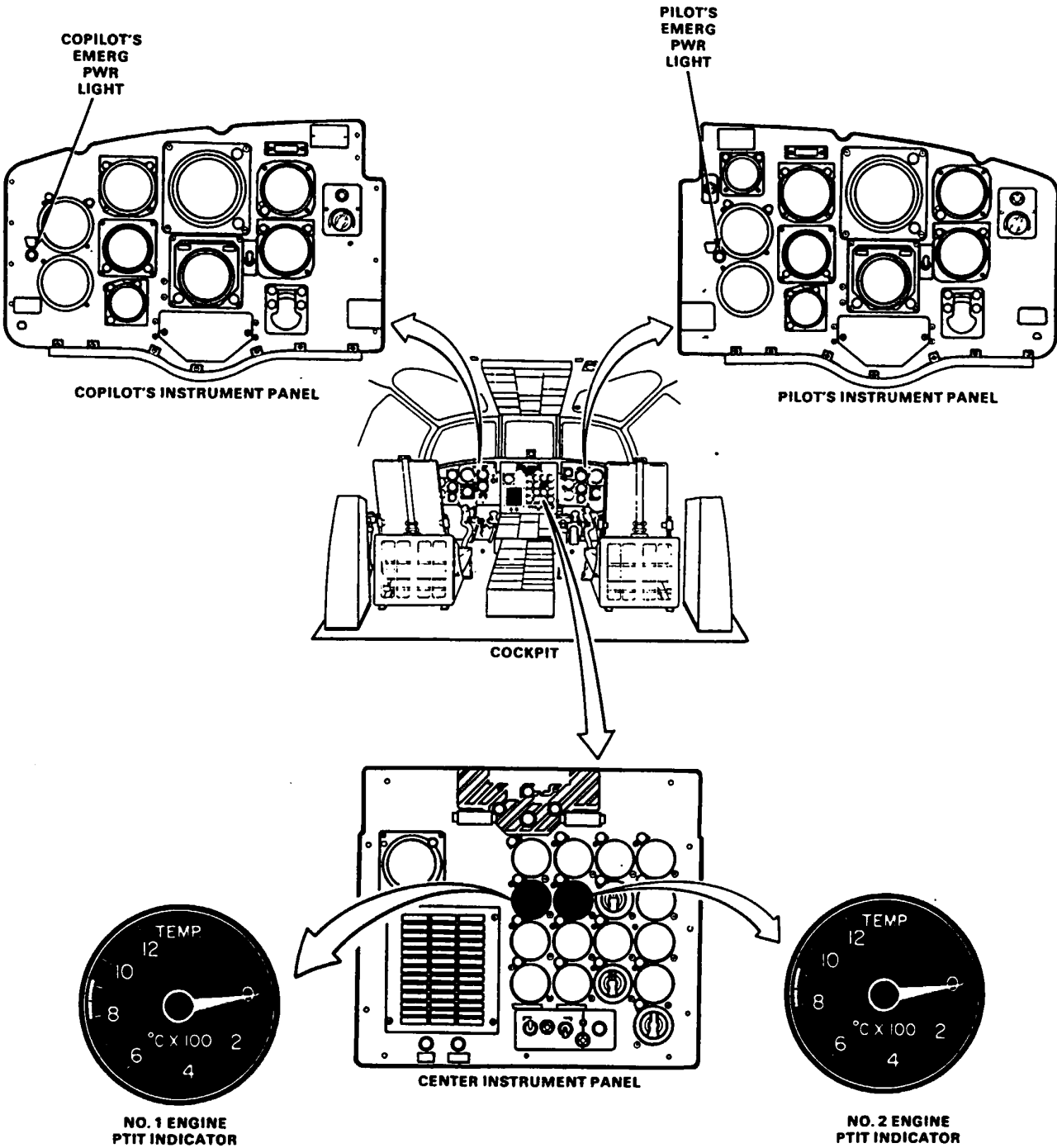
Aircraft Electrician

References:

TM 55-1520-240-23

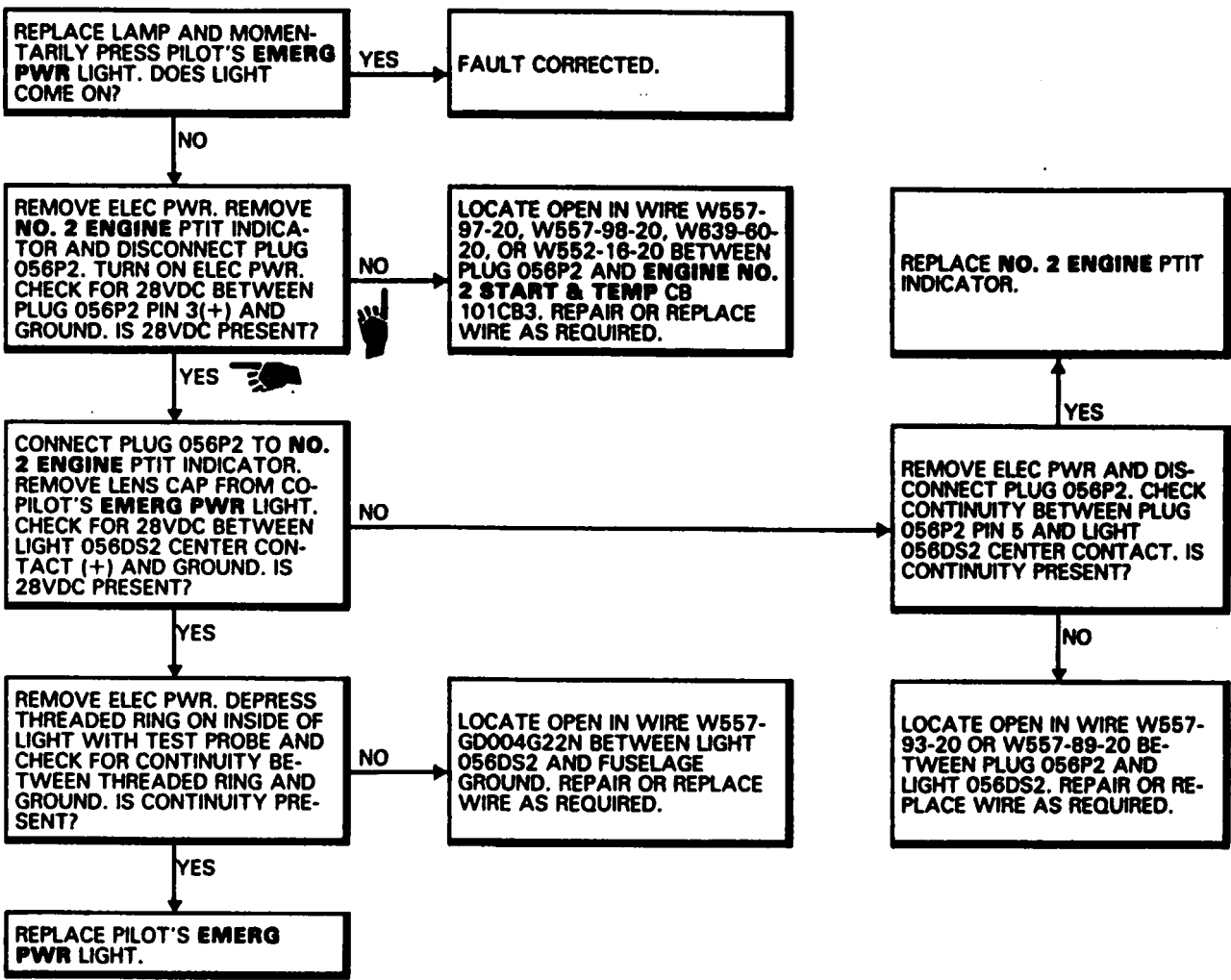
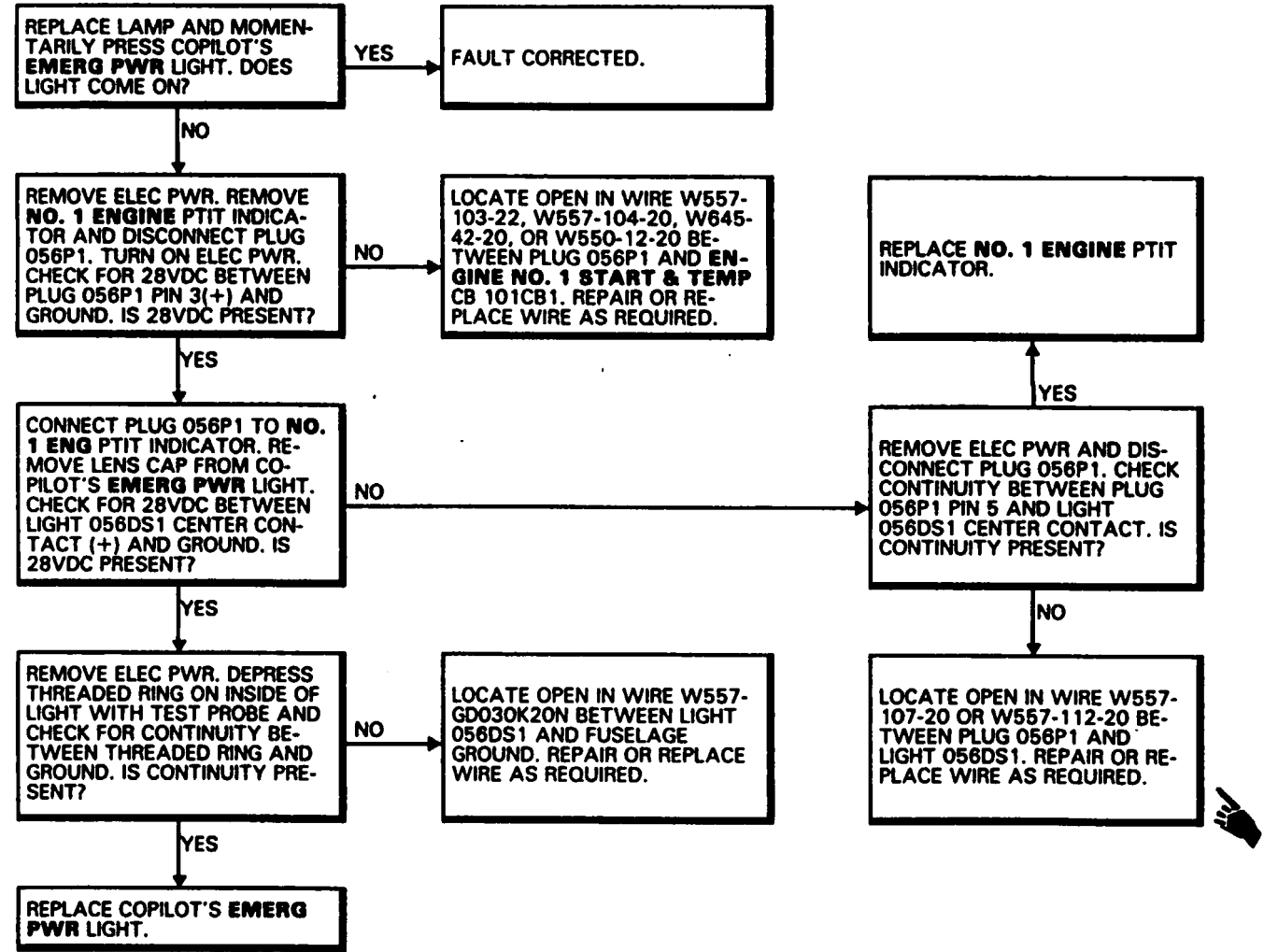
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On



NO. 1 ENGINE EMERGENCY POWER LIGHT WILL NOT COME ON WHEN PRESSED TO TEST

NO. 2 ENGINE EMERGENCY POWER LIGHT WILL NOT COME ON WHEN PRESSED TO TEST





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Aircraft Powerplant Repairer's Tool Kit  
NSN 5180-00-323-4944

Materials:

None

Personnel Required:

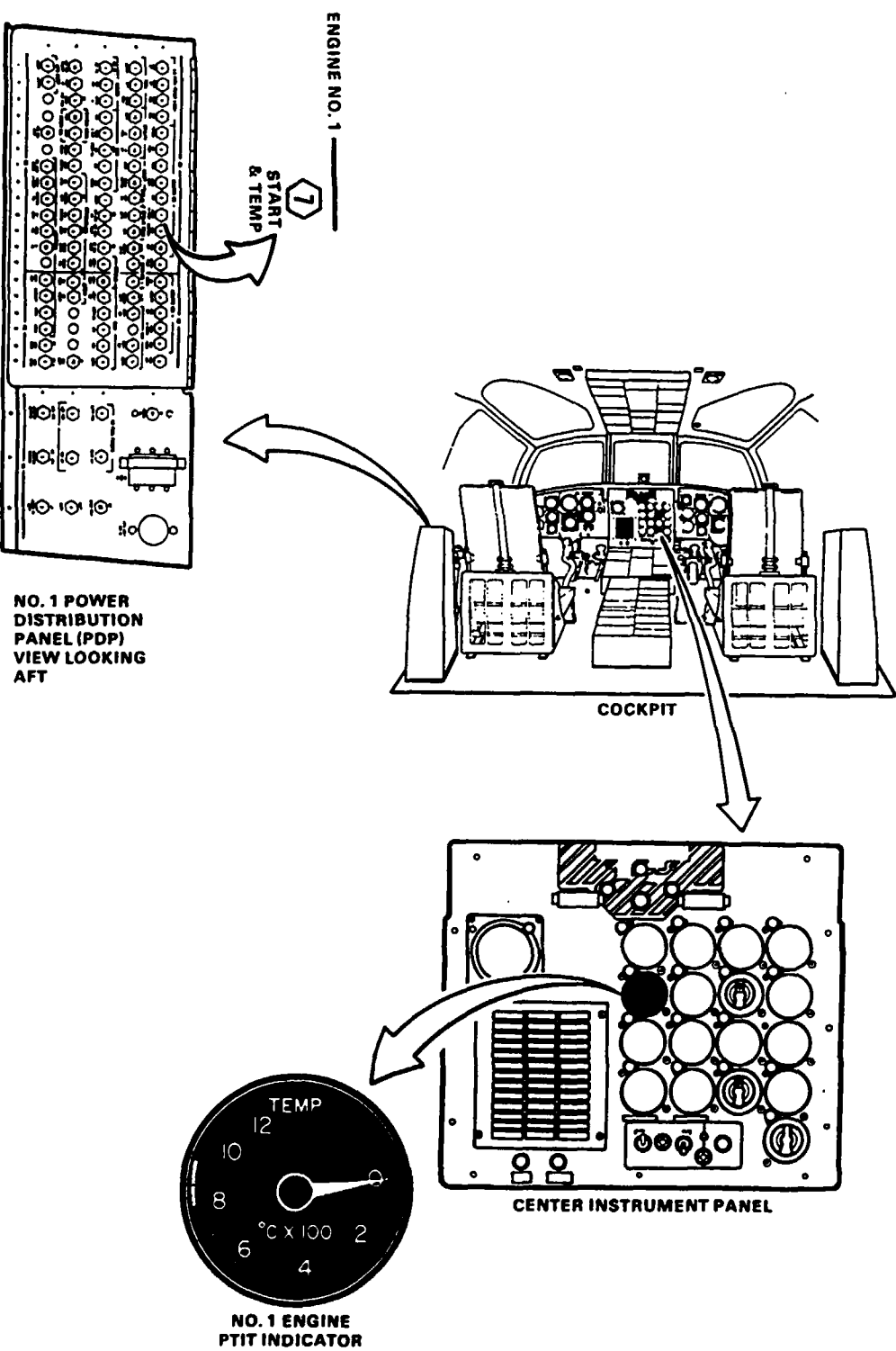
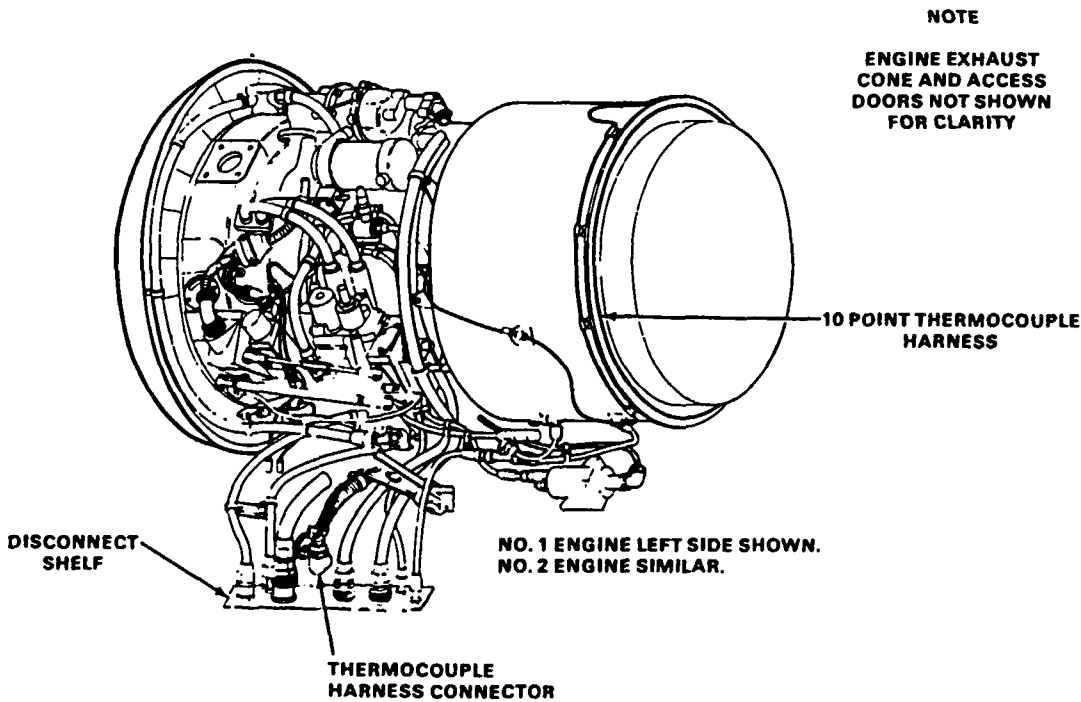
- Aircraft Electrician
- Aircraft Powerplant Repairer

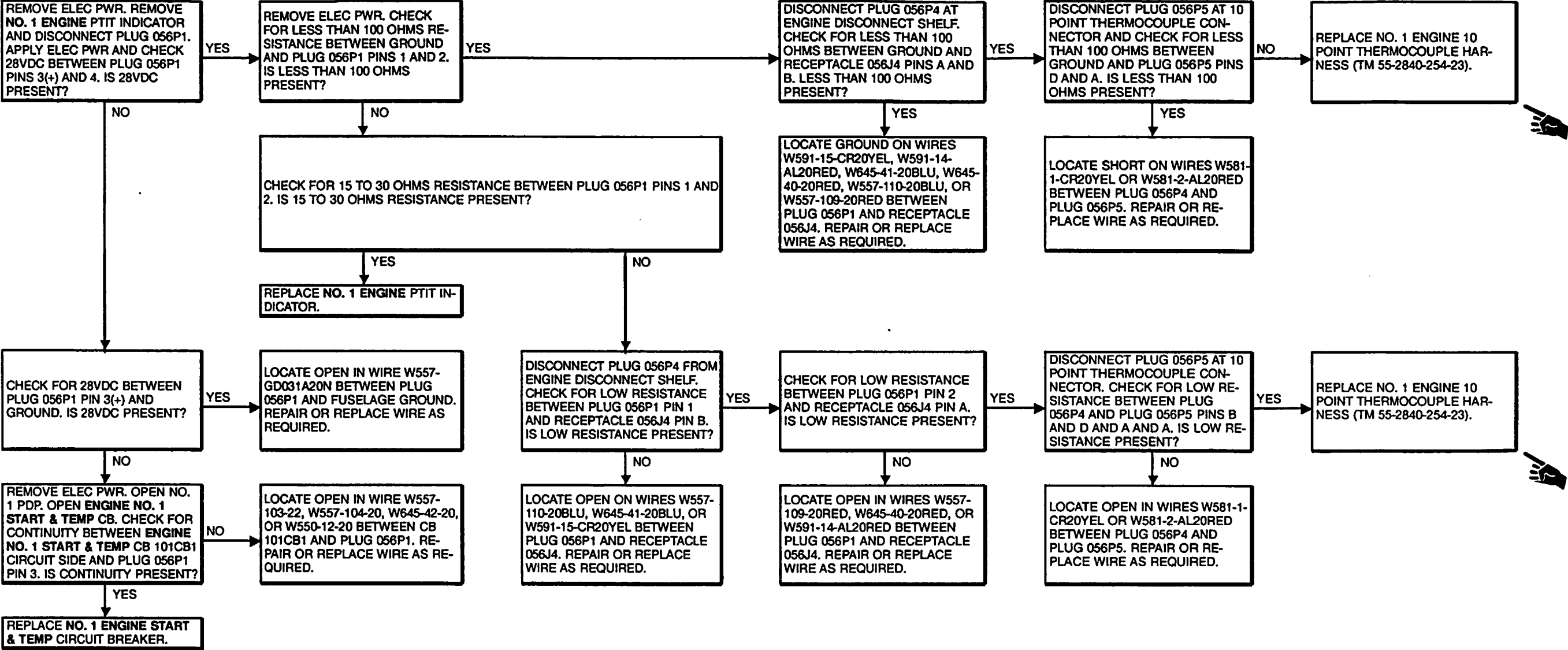
References:

- TM 55-1520-240-23
- TM 55-2840-254-23

Equipment Condition:

- TM 55-1520-240-23:
  - Battery Connected
  - Electrical Power On
  - Hydraulic Power On
  - No. 1 Engine Work Platform Open
  - No. 1 Engine Upper and Lower Access Covers Open





**FAULT ISOLATION PROCEDURE**

**INITIAL SETUP**

**Applicable Configurations:**

With 74

**Tools:**

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

**Materials:**

None

**Personnel Required:**

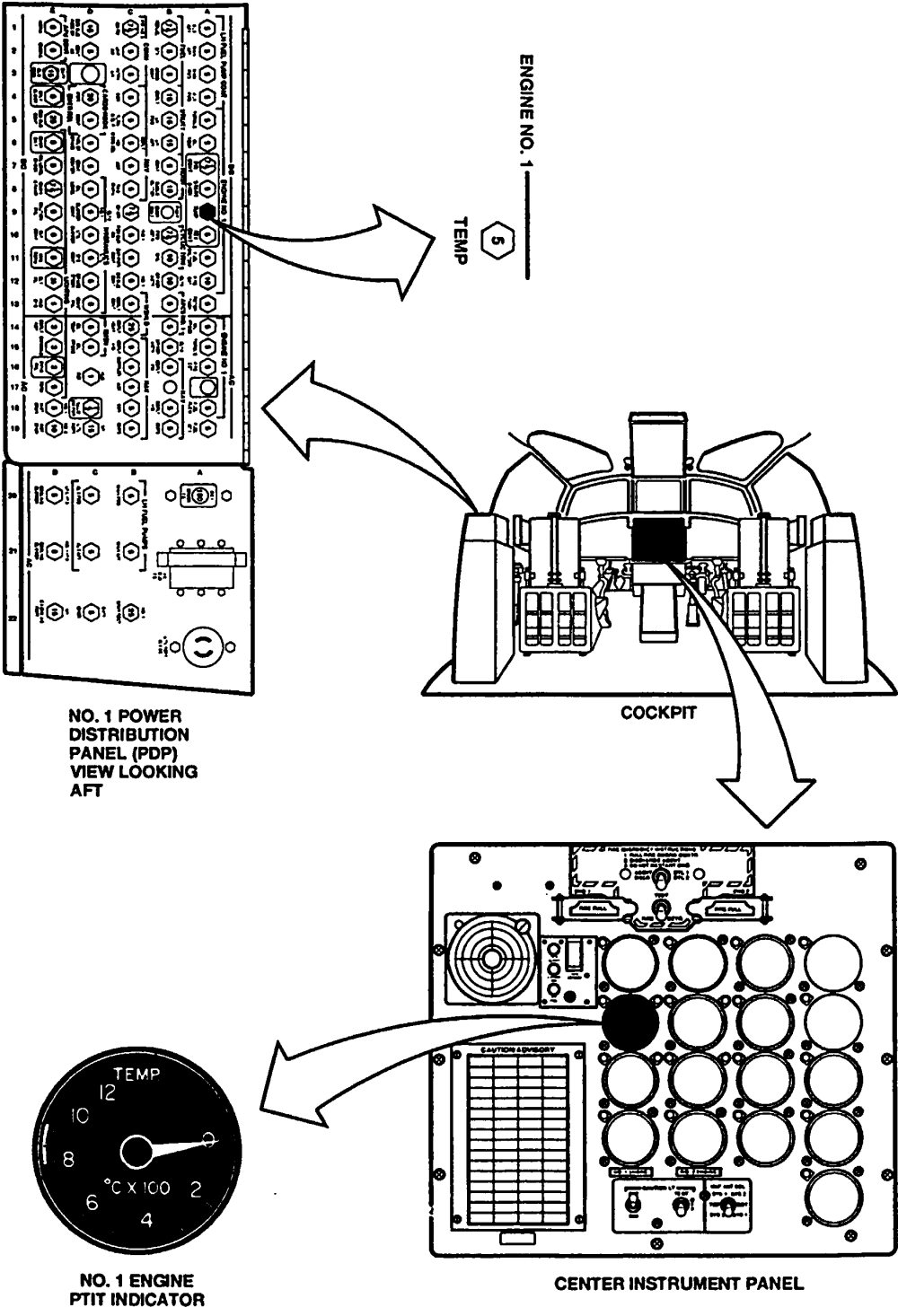
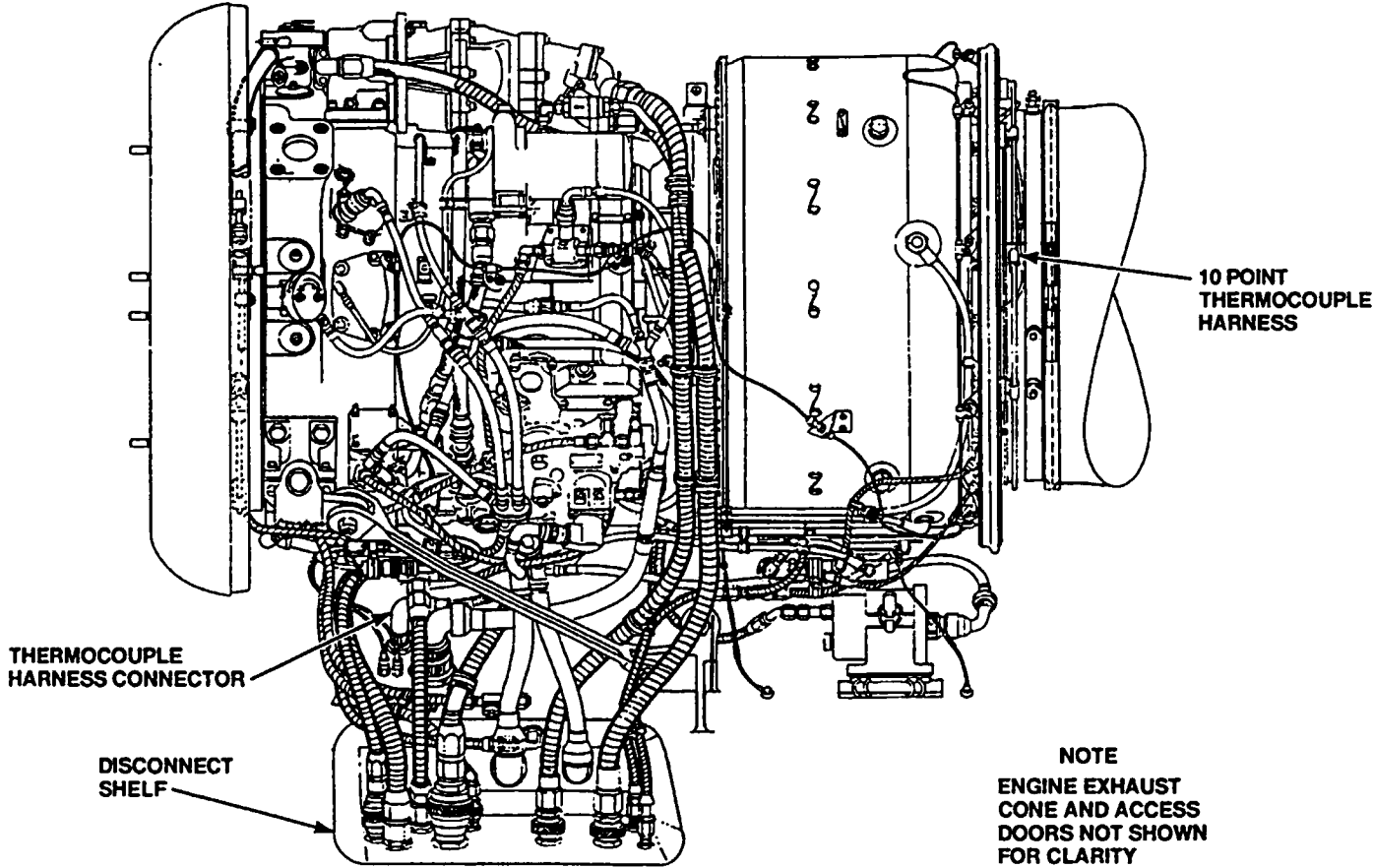
Aircraft Electrician (2)

**References:**

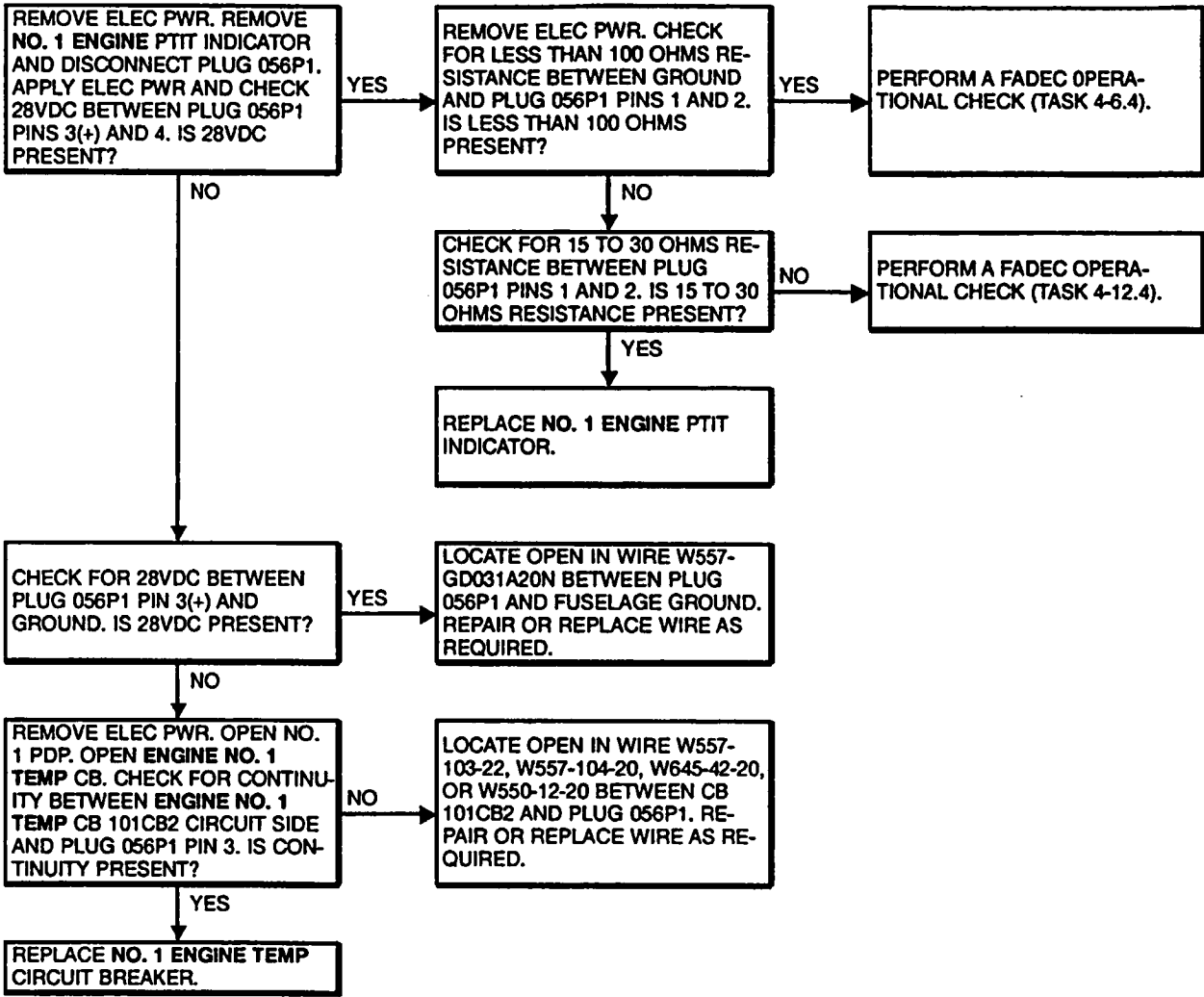
TM 55-1520-240-23

**Equipment Condition:**

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power On
- No. 1 Engine Work Platform Open
- No. 1 Engine Upper and Lower Access Covers Open



A65489



END OF TASK

8-5.6 NO. 2 ENGINE PTIT INDICATOR DOES NOT INDICATE IN GREEN BAND

8-5.6

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

Without 74

Tools

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials

None

Personnel Required:

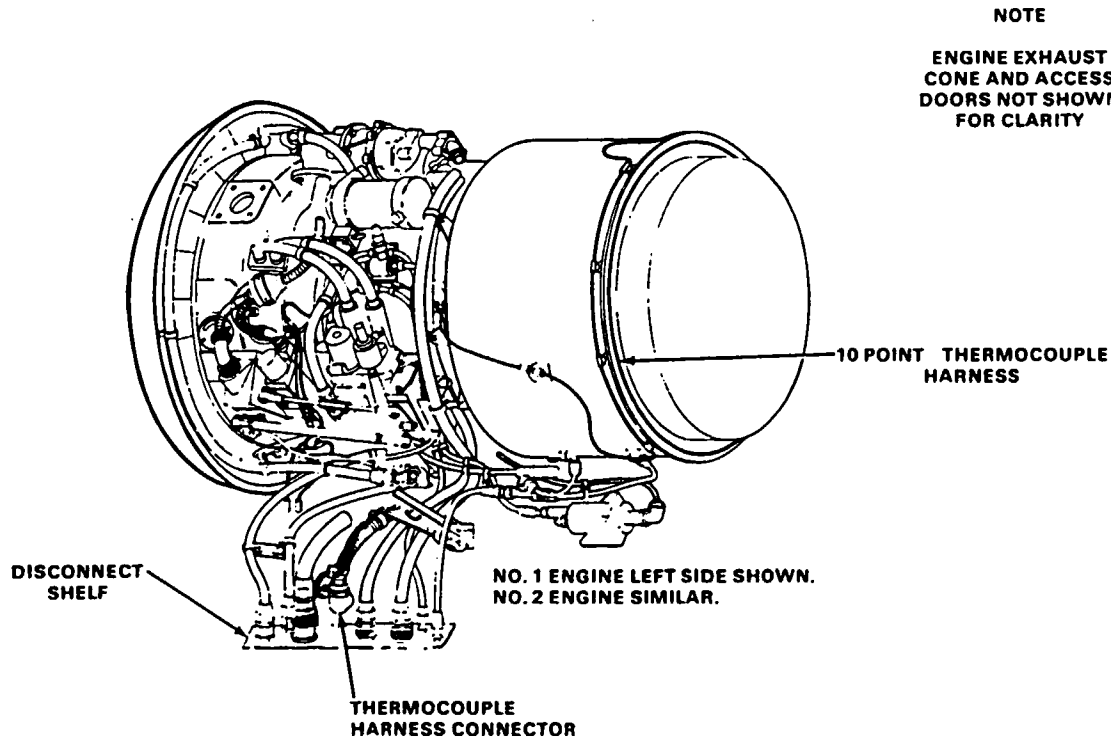
Aircraft Electrician (2)

Personnel Required:

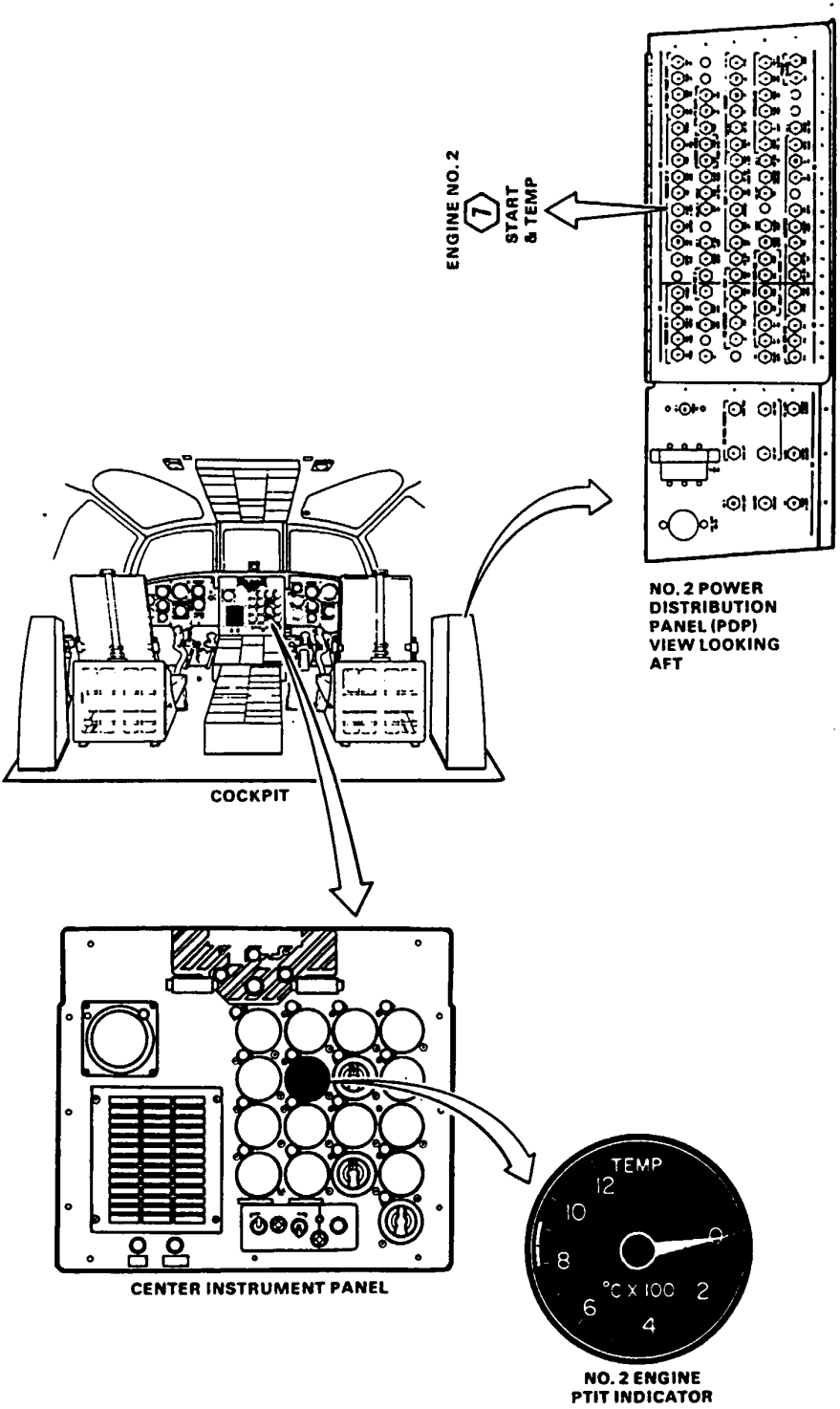
TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On  
No. 2 Engine Work Platform Open  
No. 2 Engine Upper and Lower Access Doors  
Open

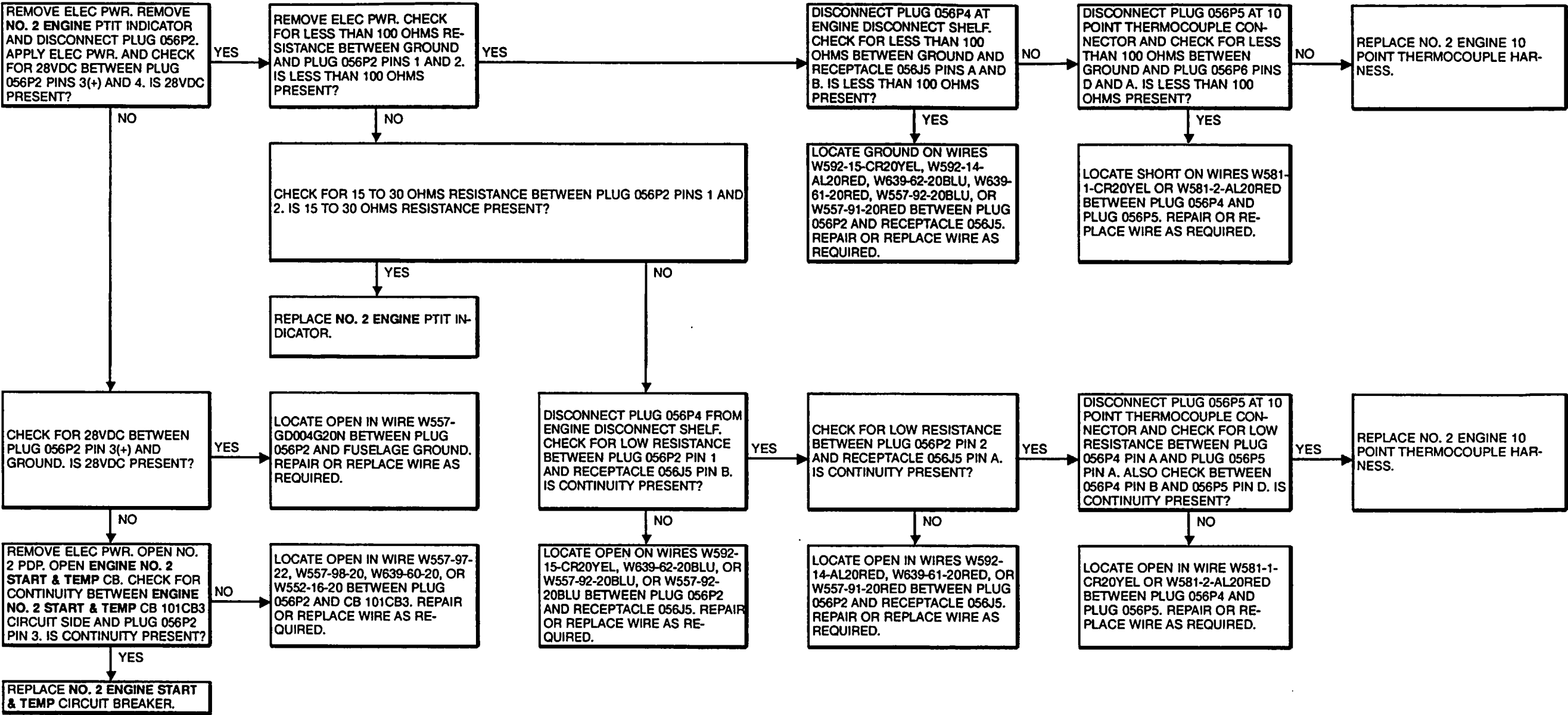


90x54



D145-11143-SPA

GO TO NEXT PAGE



END OF TASK

8-5.6.1 NO. 2 ENGINE PTIT INDICATOR DOES NOT INDICATE IN GREEN BAND

8-5.6.1

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

With 74

Tools

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials

None

Personnel Required:

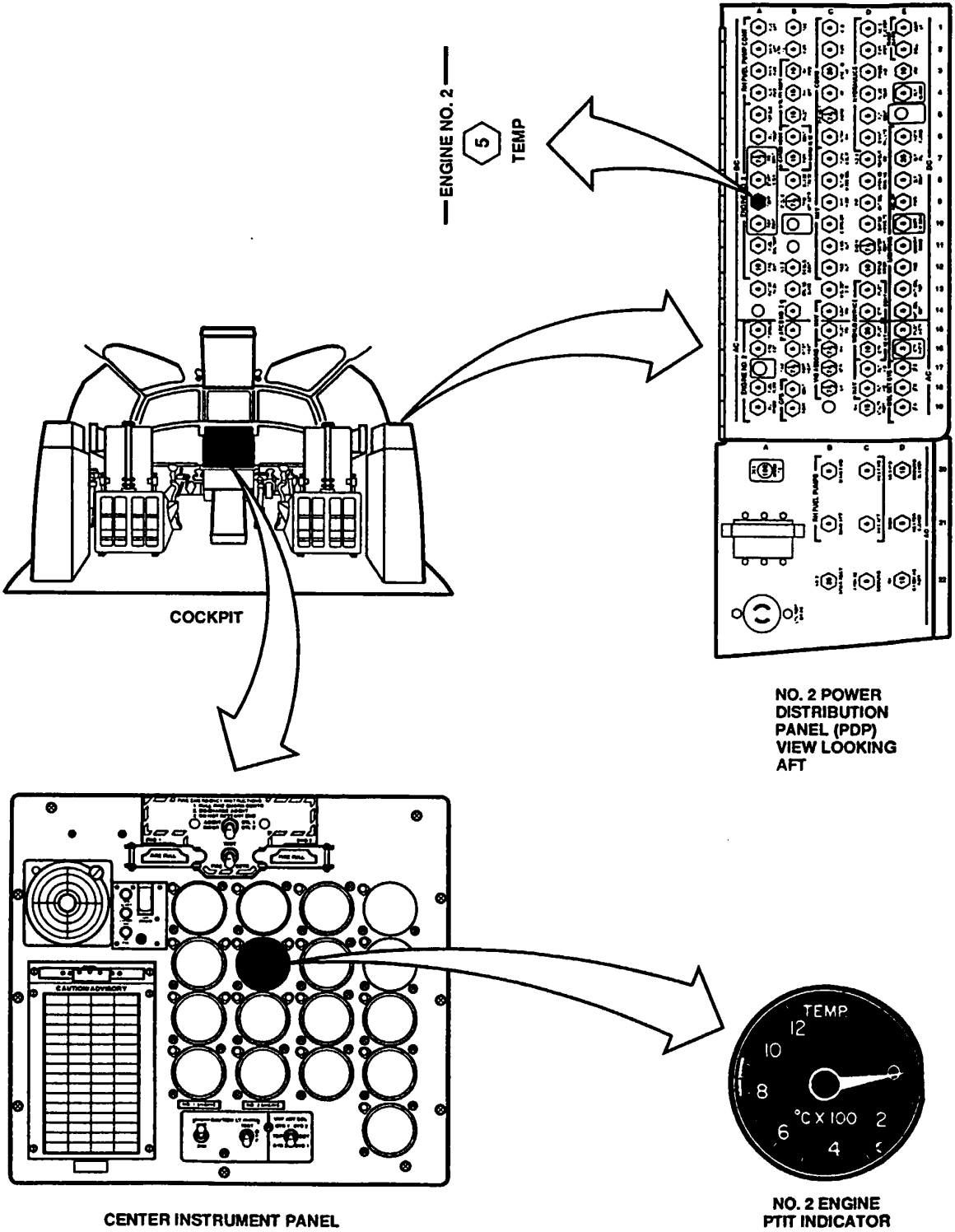
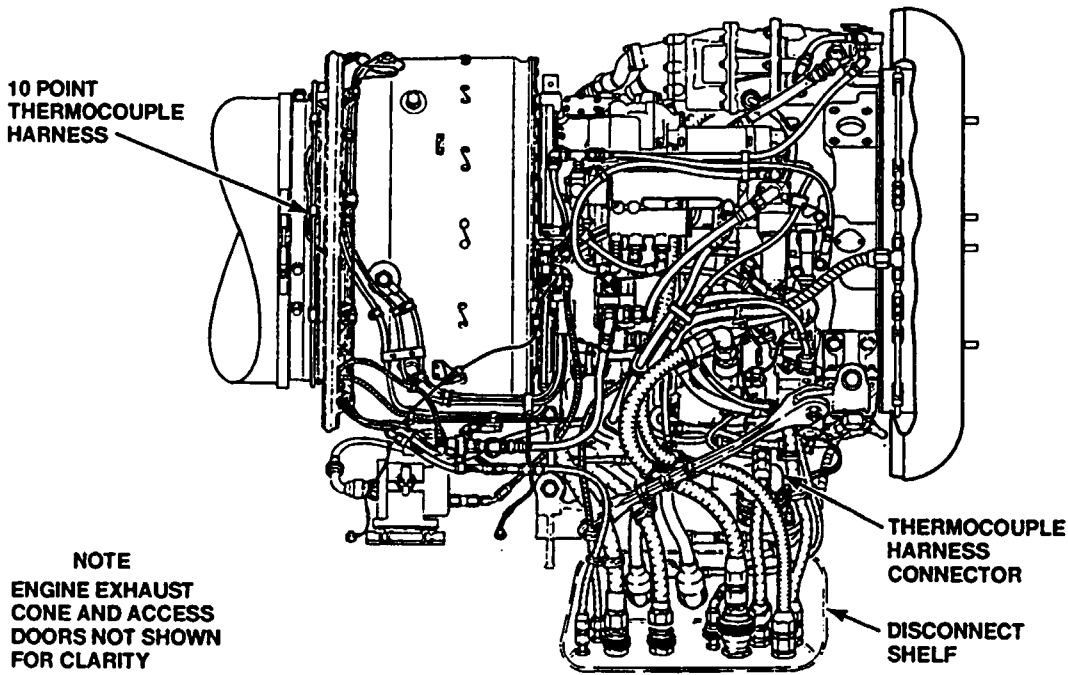
Aircraft Electrician (2)

Personnel Required:

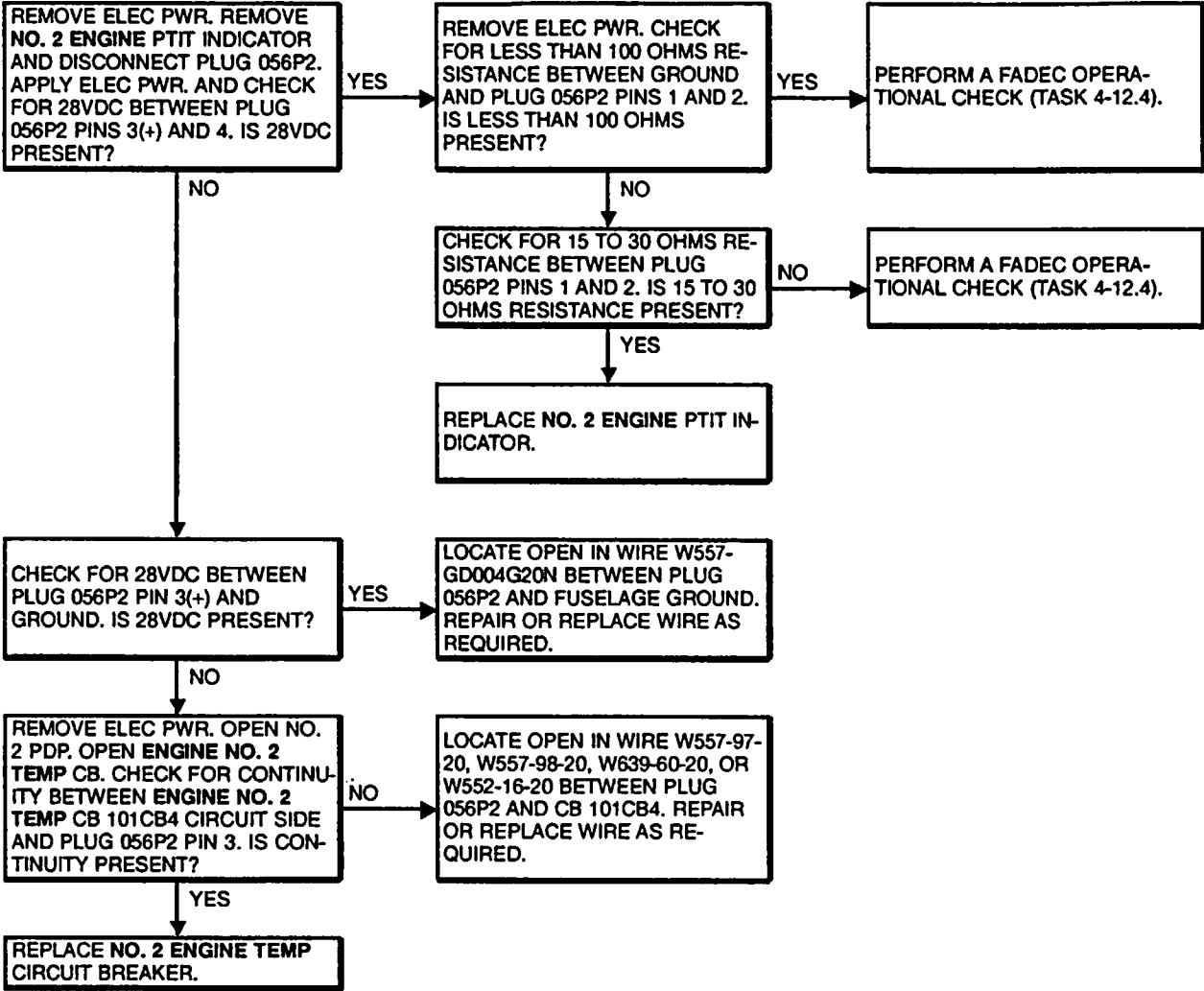
TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power On
- No. 2 Engine Work Platform Open
- No. 2 Engine Upper and Lower Access Doors Open



A65488



END OF TASK



8-5.7 PILOT'S AND COPILOT'S EMERGENCY POWER LIGHTS ON, ROTORS AT 100 PERCENT ROTOR RPM, BOTH ENGINES OPERATING

8-5.7

FAULT ISOLATION PROCEDURE

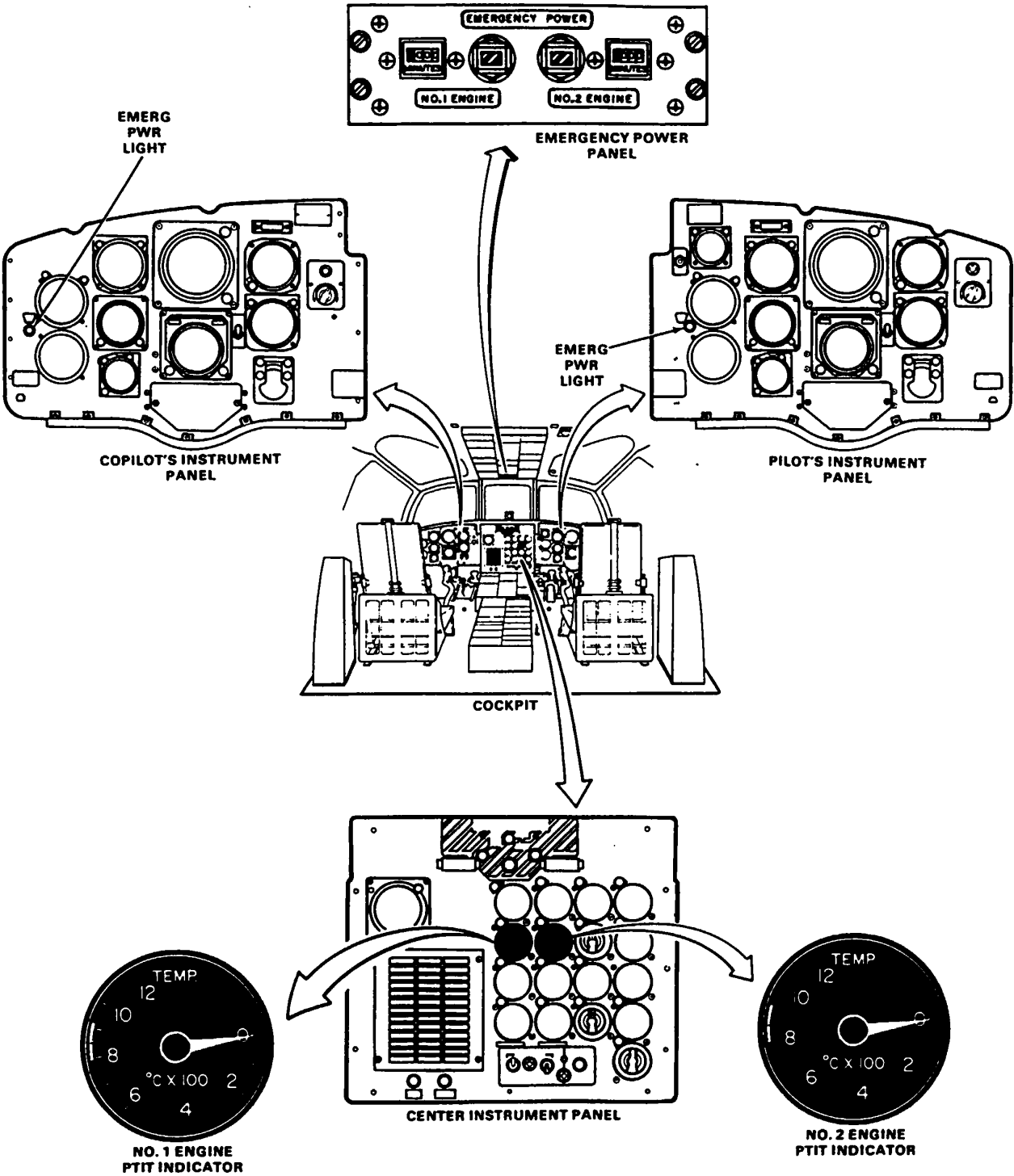
INITIAL SETUP

Applicable Configurations:  
Without 74

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

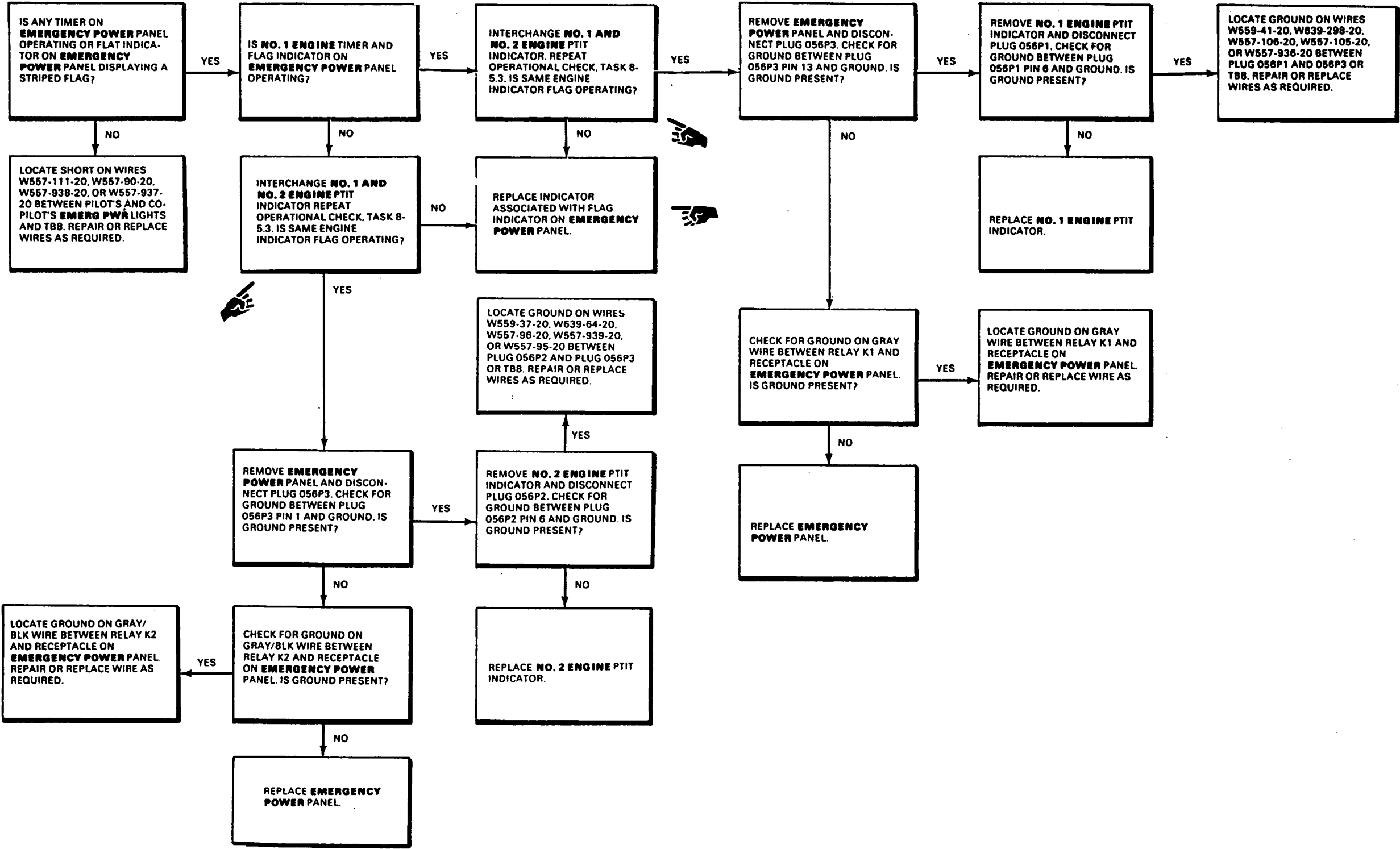
Materials:  
None

Personnel Required:  
Aircraft Electrician  
References:  
TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



45 X54

D145-11142-SPA



**FAULT ISOLATION PROCEDURE**

**INITIAL SETUP**

**Applicable Configurations**

Without 74

**Tools**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials**

None

**Personnel Required:**

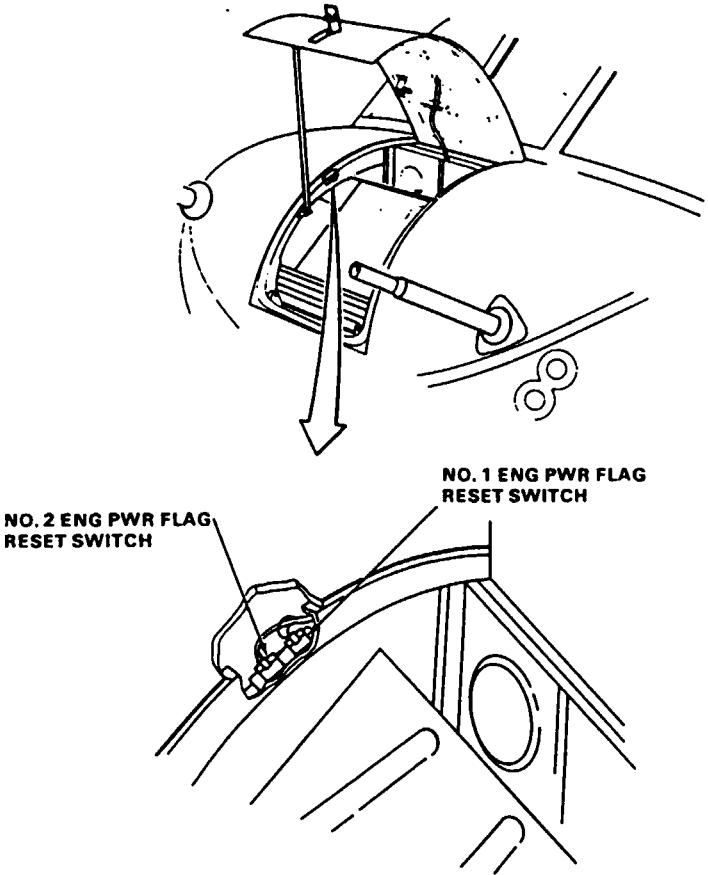
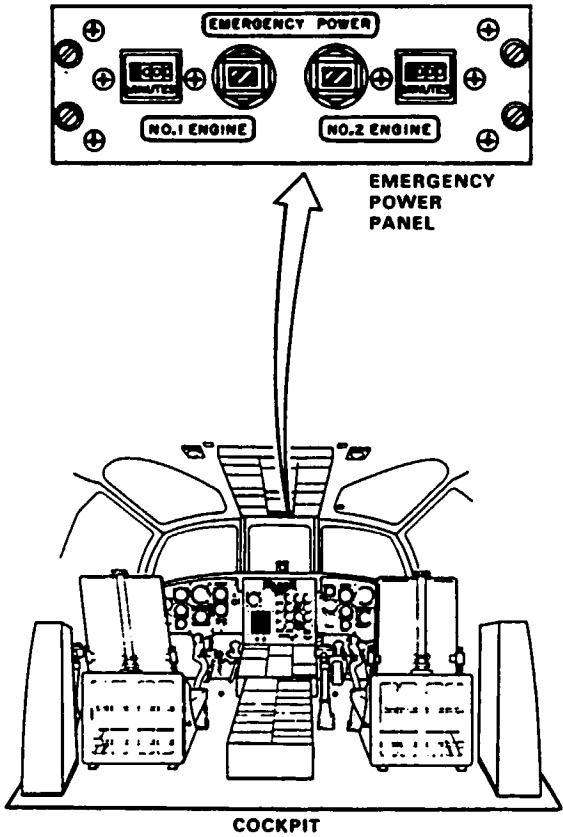
Aircraft Electrician (2)

**References**

TM 55-1520-240-23

**Equipment Condition:**

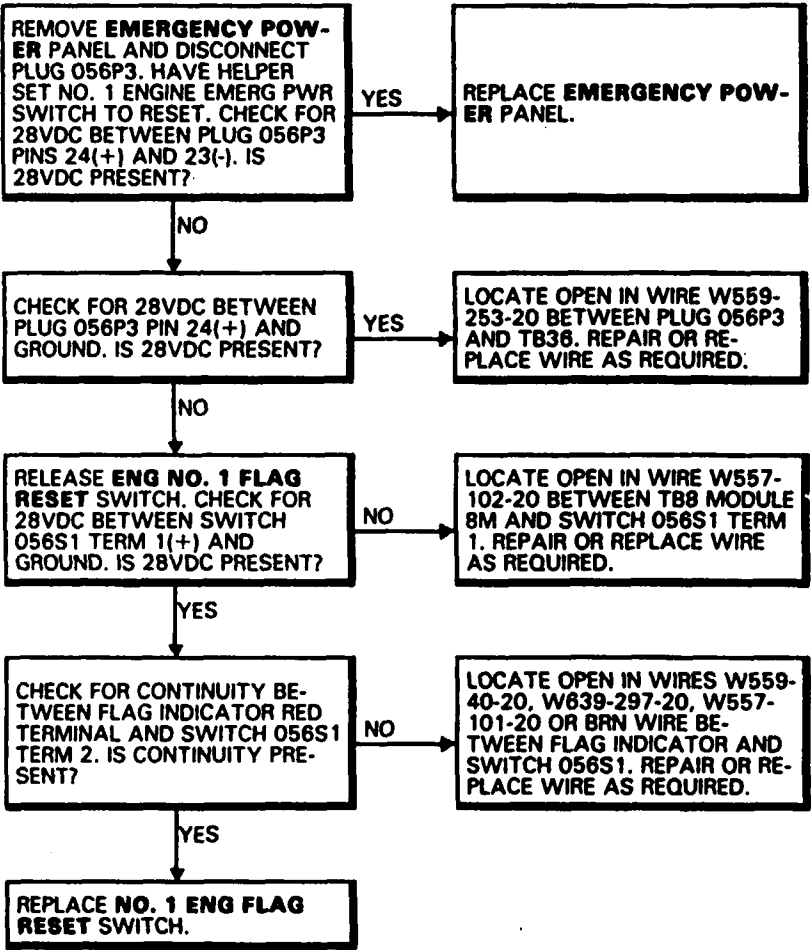
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On  
Nose Access Door Open



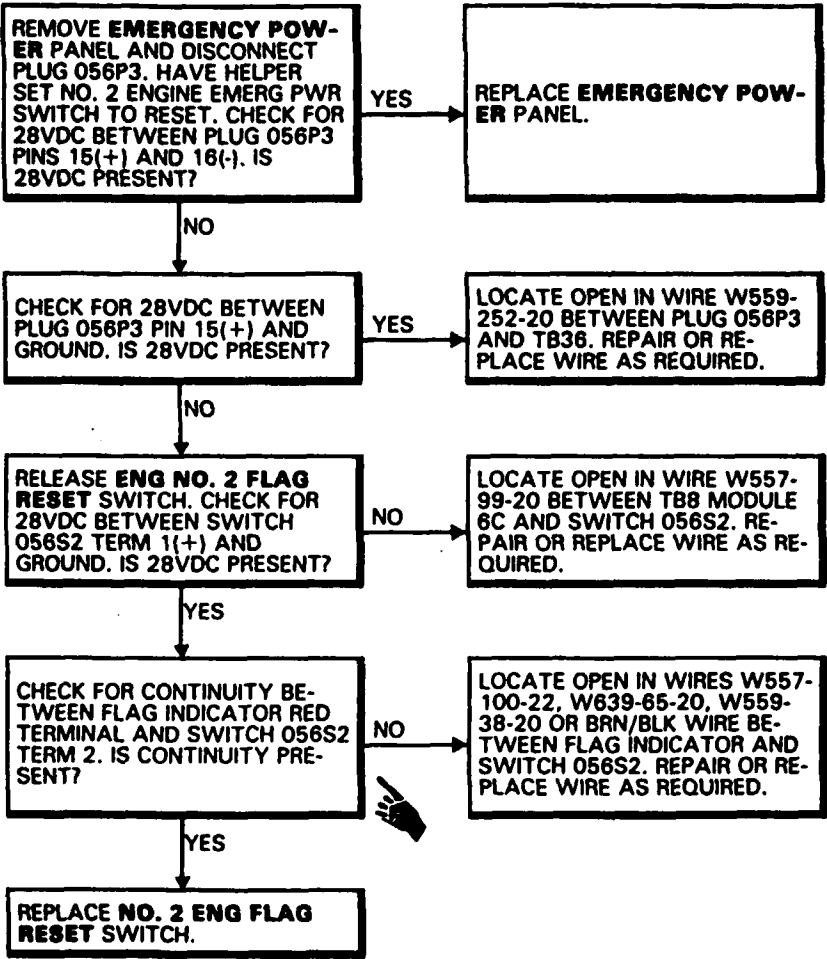
8-5.8 NO. 1 OR NO. 2 ENGINE EMERGENCY POWER FLAG INDICATOR WILL NOT RESET TO BLACK, FLAG RESET SWITCH AT RESET (Continued)

8-5.8

NO. 1 ENGINE EMERGENCY POWER FLAG INDICATOR WILL NOT RESET TO BLACK, ENGINE NO. 1 FLAG RESET SWITCH AT RESET



NO. 2 ENGINE EMERGENCY POWER INDICATOR WILL NOT RESET TO BLACK, ENGINE NO. 1 FLAG RESET SWITCH AT RESET



END OF TASK

Change 4 8-91

8-5.9 NO. 1 ENGINE EMERGENCY POWER TIMER DOES NOT OPERATE WHEN NO. 1 ENGINE PTIT INDICATION IS 890°C TO 910°C

8-5.9

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

Without 74

Tools

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter
- Exhaust Gas Temperature Tester,  
Model BH112JB-53  
NSN 4920-00-372-4593

Materials

None

Personnel Required:

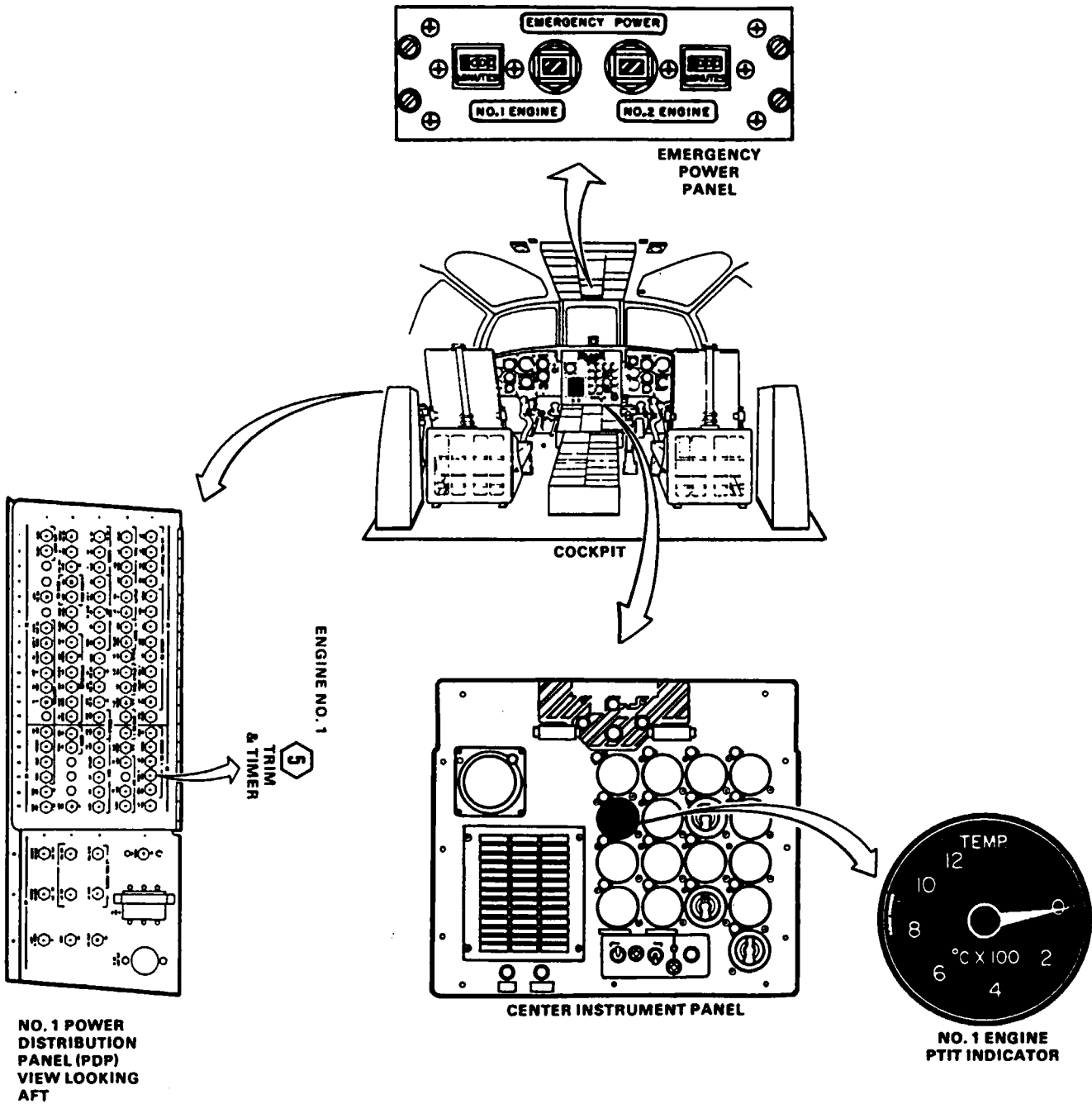
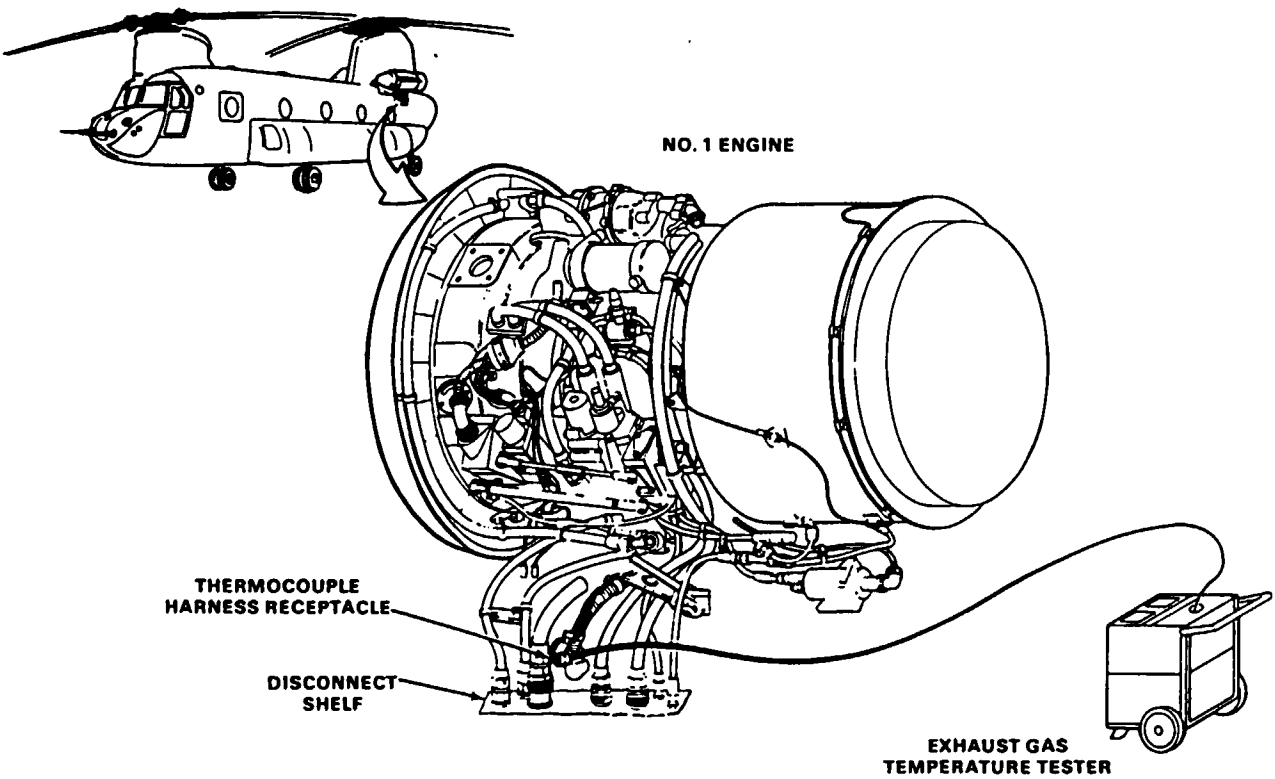
Aircraft Electrician

References

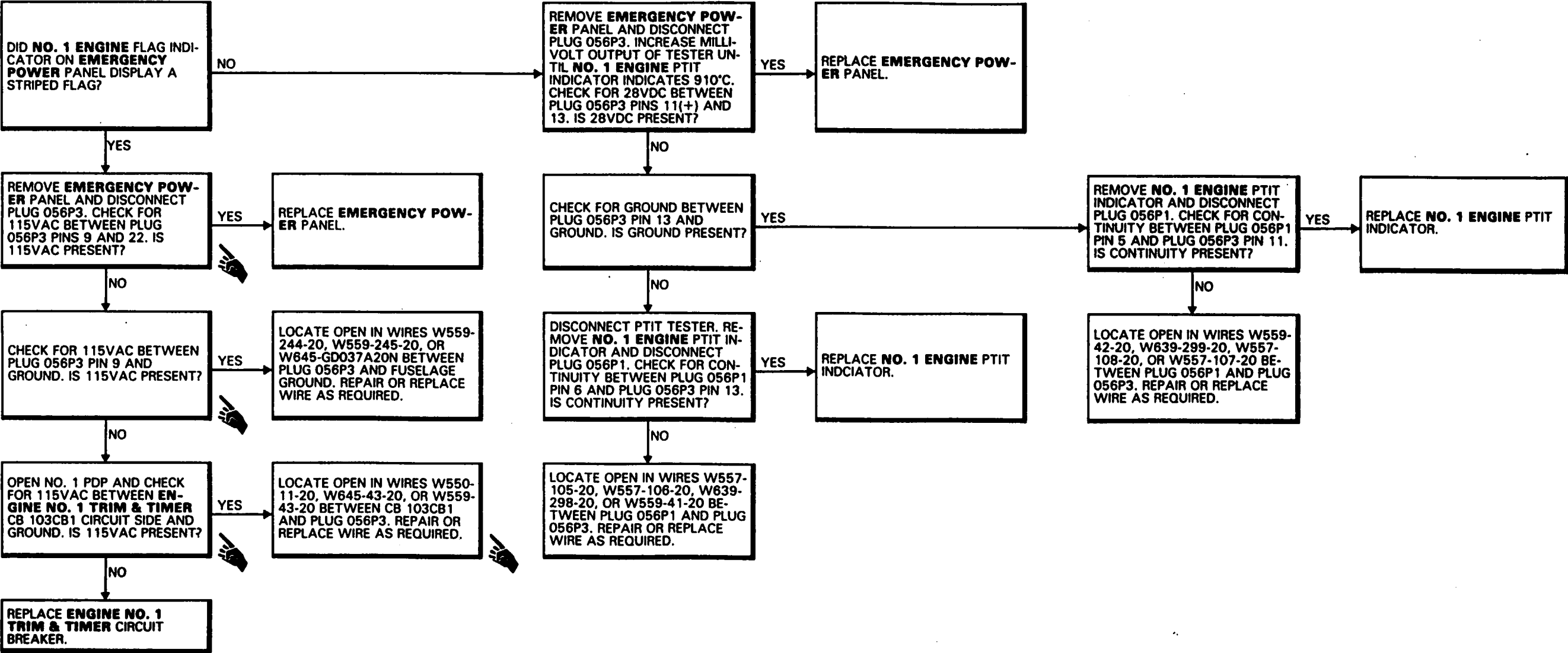
- TM 55-1520-240-23
- TM 55-4920-401-13&P

Equipment Condition:

- TM 55-1520-240-23:
  - Battery Connected
  - Electrical Power On
  - No. 1 Engine Work Platform Opened
  - No. 1 Engine Lower Access Panel Opened
  - Exhaust Temperature Tester Installed



90X54



8-5.10 NO. 1 OR NO. 2 ENGINE EMERGENCY POWER FLAG INDICATOR REMAINS BLACK WHEN NO. 1 OR NO. 2 ENGINE PTIT INDICATION IS 890°C TO 910°C

8-5.10

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
Without 74

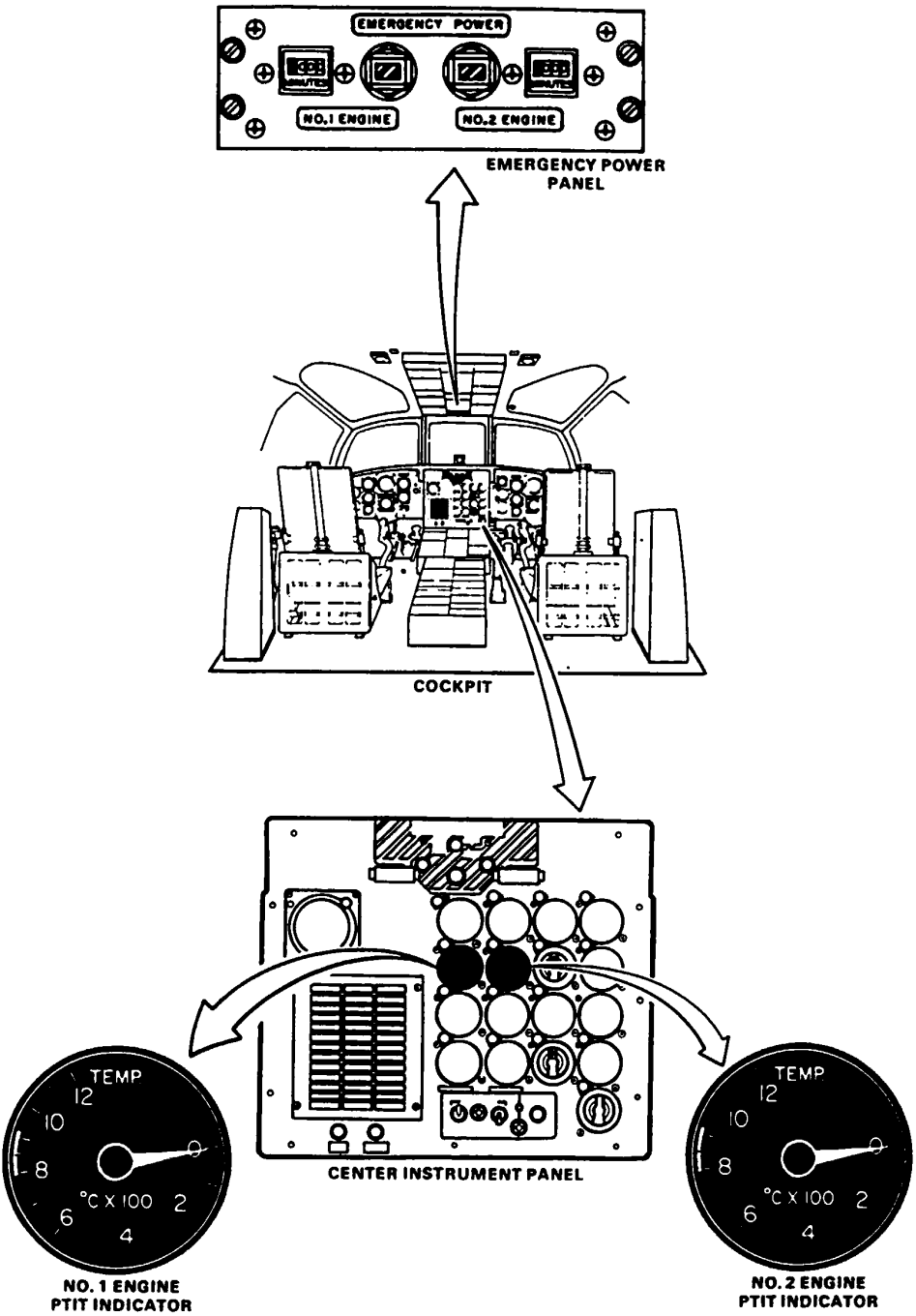
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

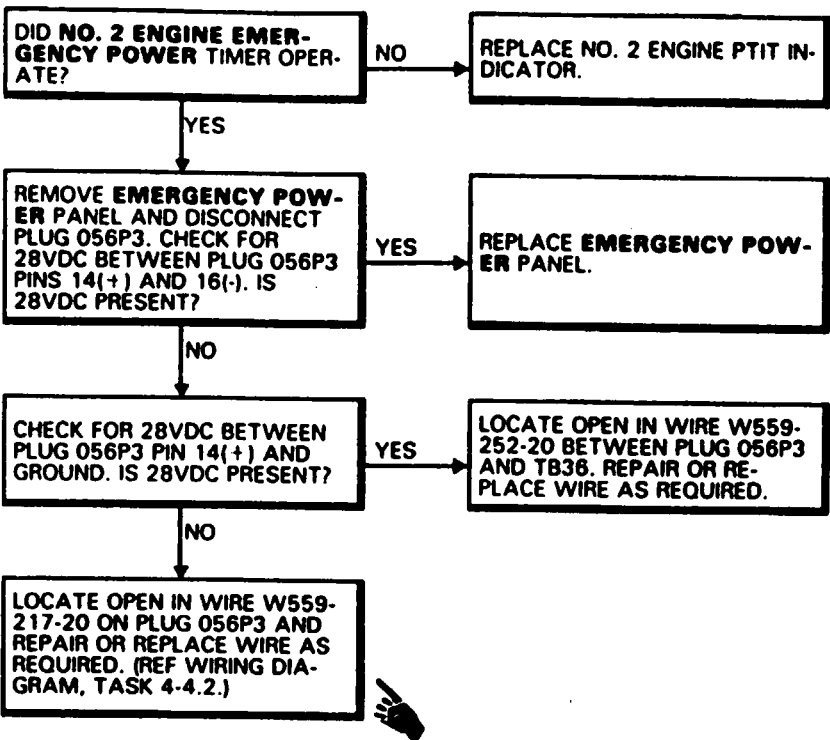
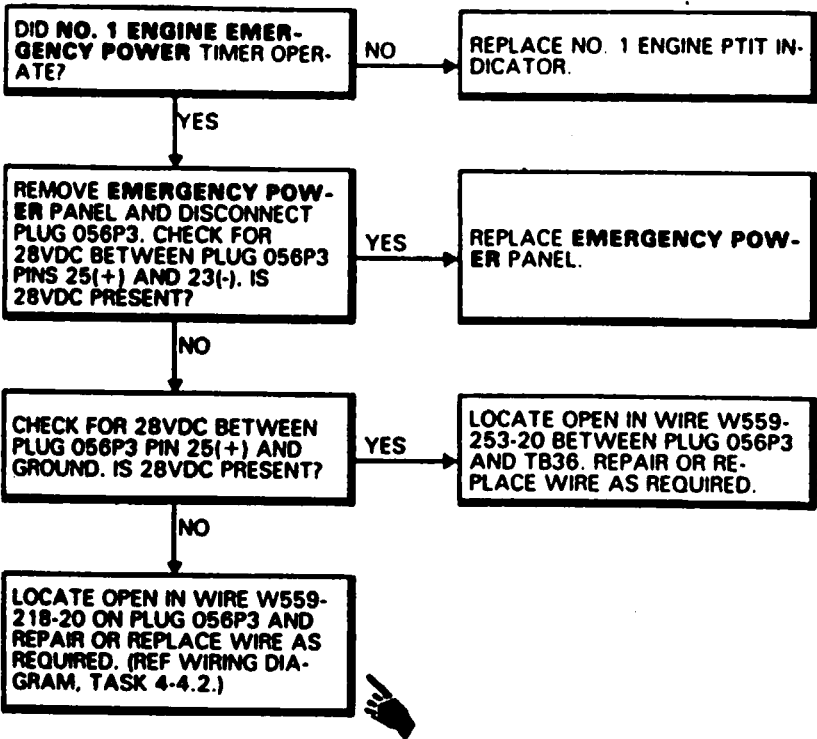
Materials:  
None

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On







FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

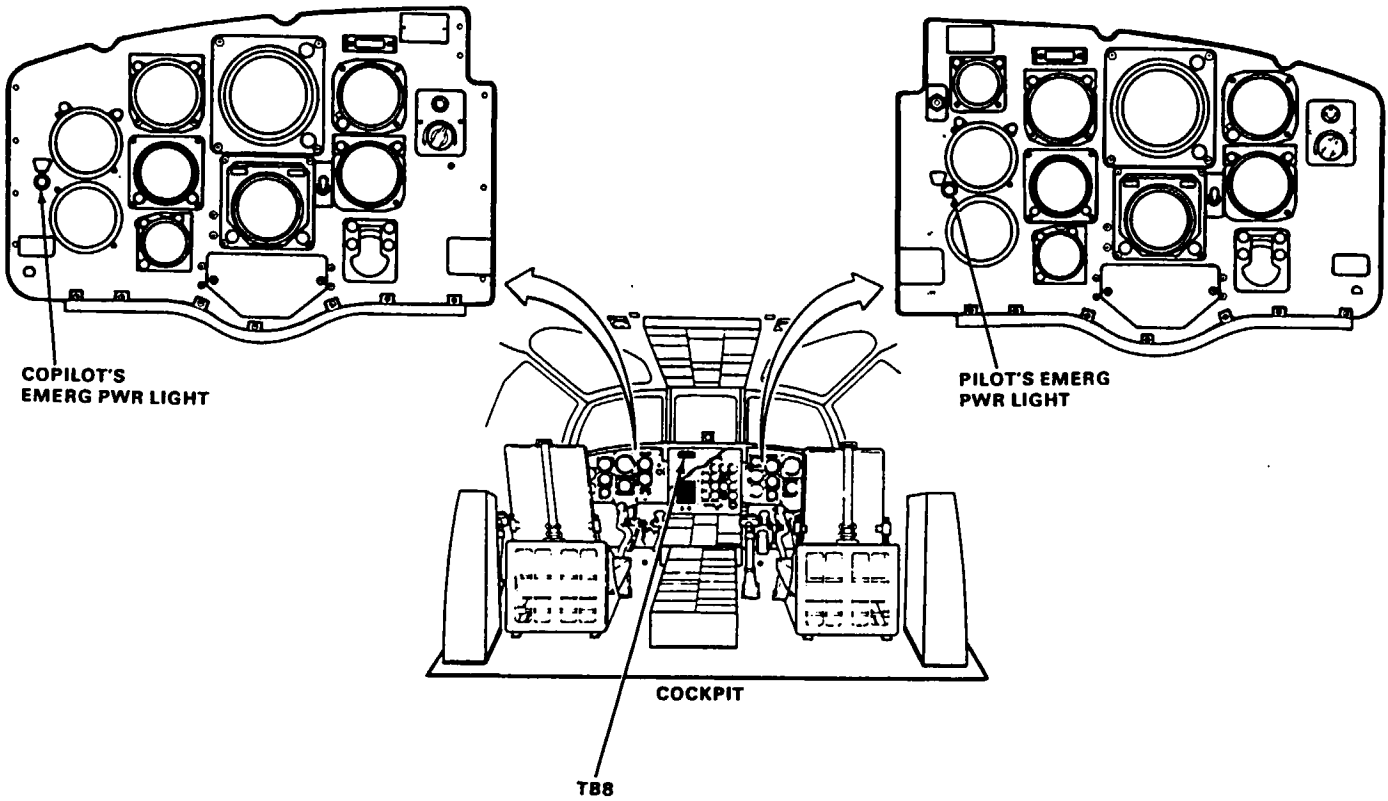
References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

- Battery Connected
- Electrical Power On
- Hydraulic Power On



45X54

D145-11137-SPA

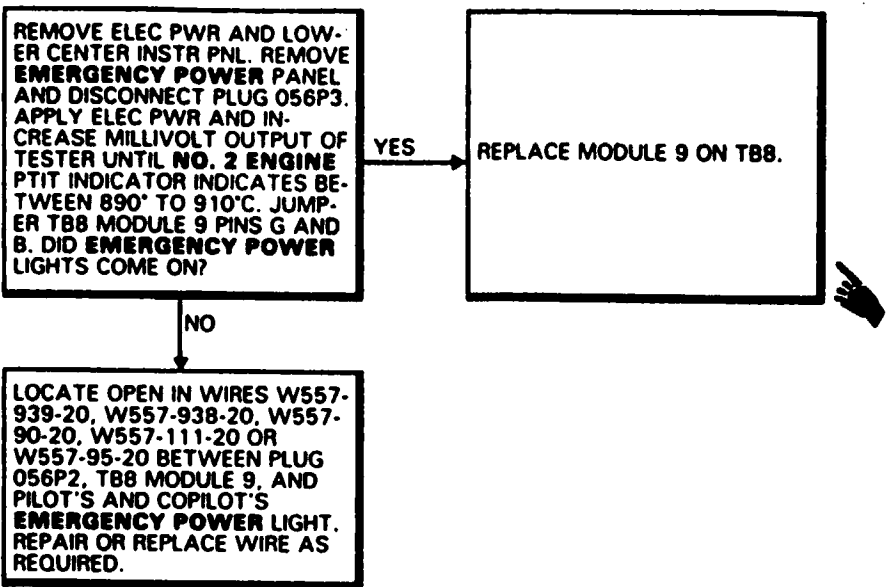
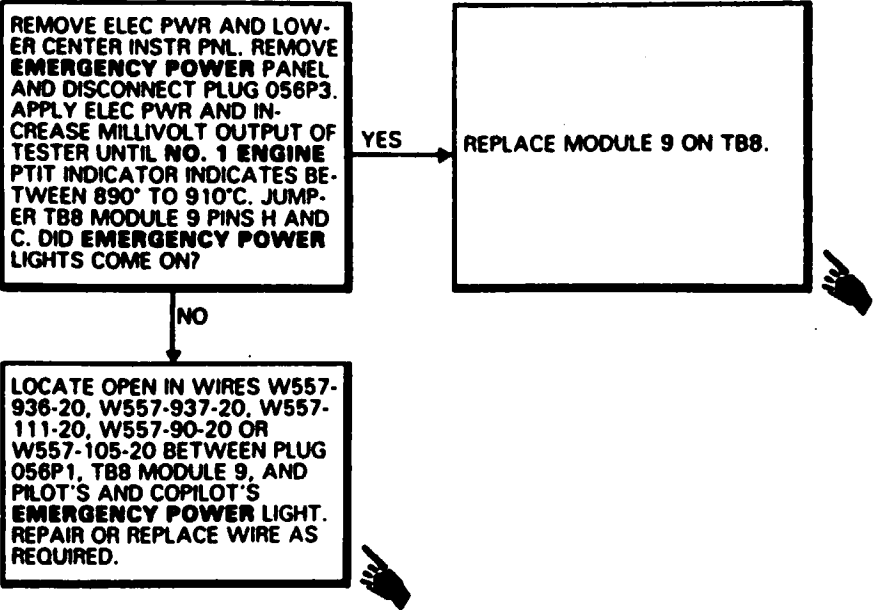
GO TO NEXT PAGE

8-5.11 PILOT'S AND COPILOT'S EMERGENCY POWER LIGHTS DO NOT COME ON WHEN NO. 1 OR NO. 2  
ENGINE PTIT INDICATION IS 890°C TO 910°C (Continued)

8-5.11

PILOT'S AND COPILOT'S EMERGENCY POWER LIGHTS DO NOT COME ON WHEN  
NO. 1 ENGINE PTIT INDICATION IS 890°C TO 910°C

PILOTS' AND COPILOT'S EMERGENCY POWER LIGHTS DO NOT COME ON WHEN  
NO. 2 ENGINE PTIT INDICATION IS 890°C TO 910°C



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter
- Exhaust Gas Temperature Tester,  
Model BH112JB-53,  
NSN 4920-00-372-4593

Materials:

None

Personnel Required:

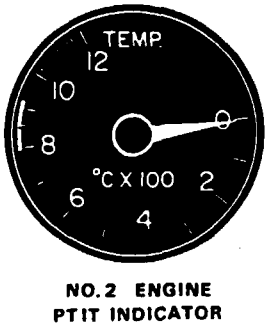
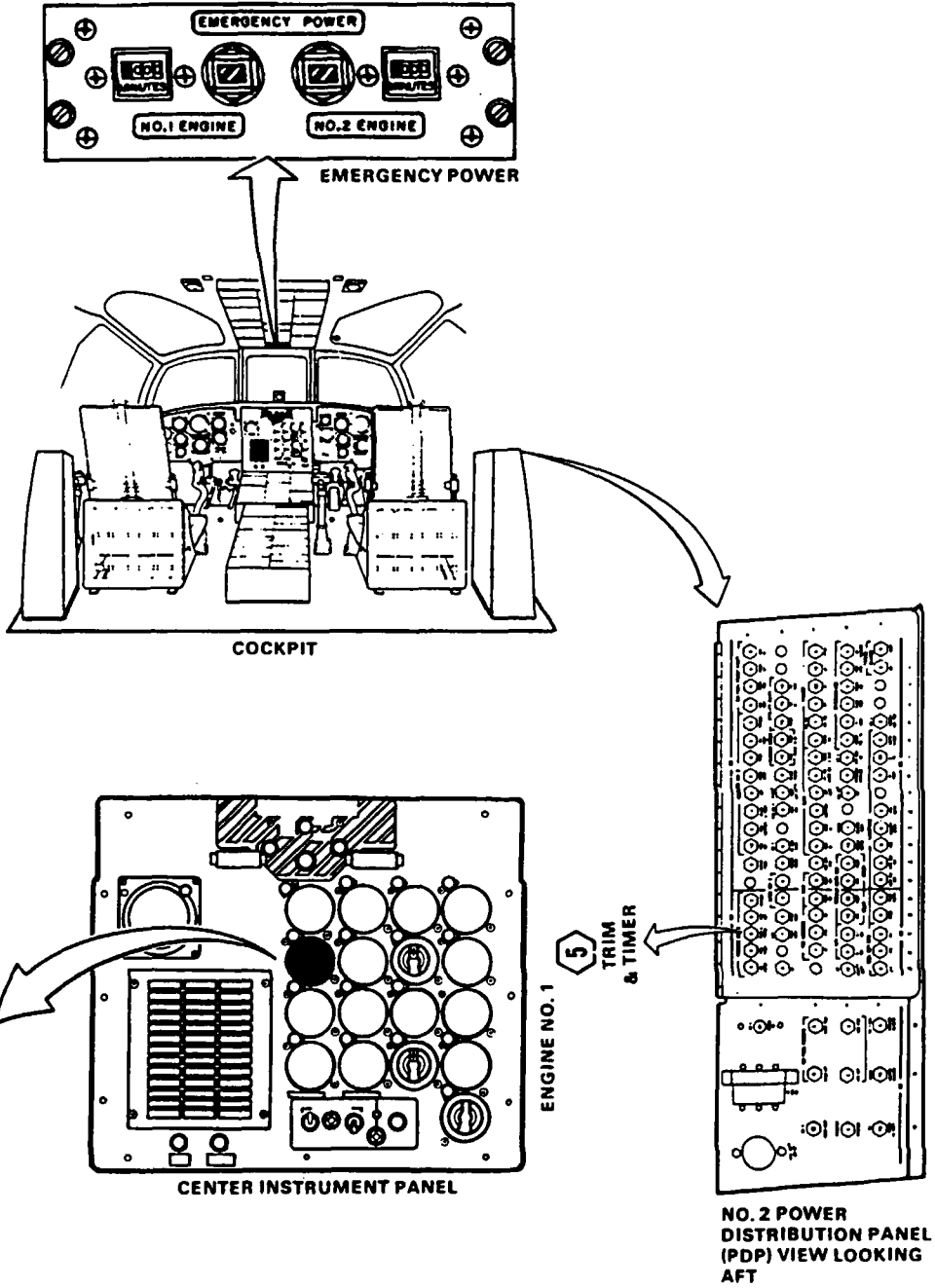
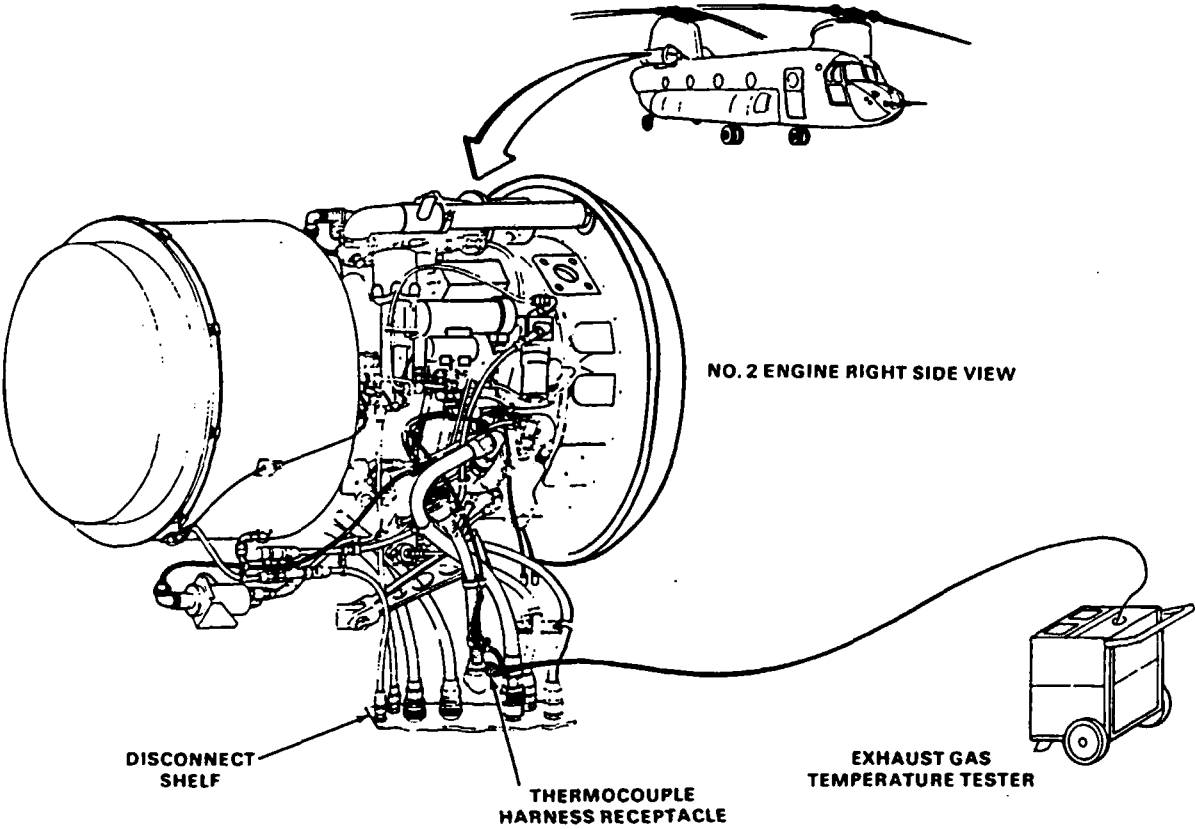
Aircraft Electrician

References:

- TM 55-1520-240-23
- TM 55-4920-401-13&P

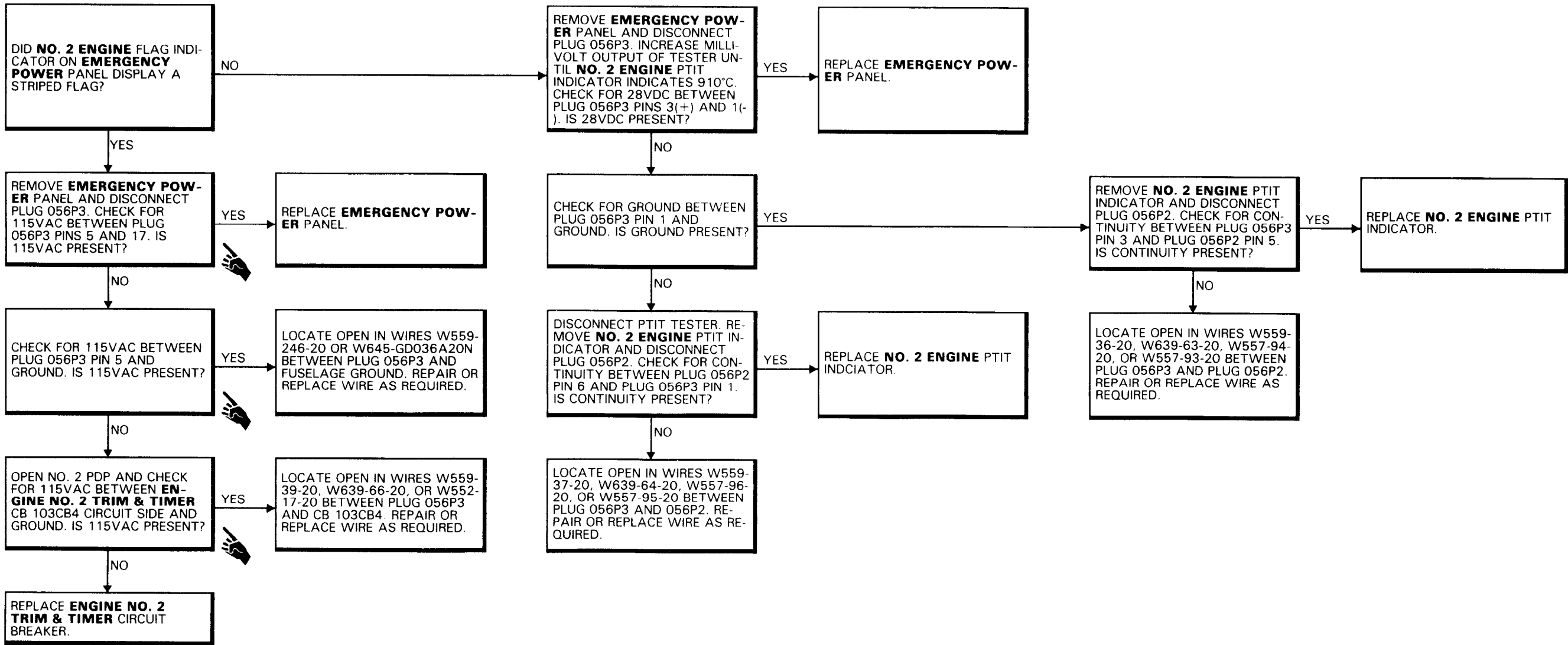
Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power Off
- Hydraulic Power Off
- No. 2 Engine Work Platform Open
- No. 2 Engine Lower Access Panel Opened
- Exhaust Gas Temperature Tester Installed



8-5.12 NO. 2 ENGINE EMERGENCY POWER TIMER DOES NOT OPERATE WHEN NO. 2 ENGINE PTIT INDICATION IS 890°C TO 910°C (Continued)

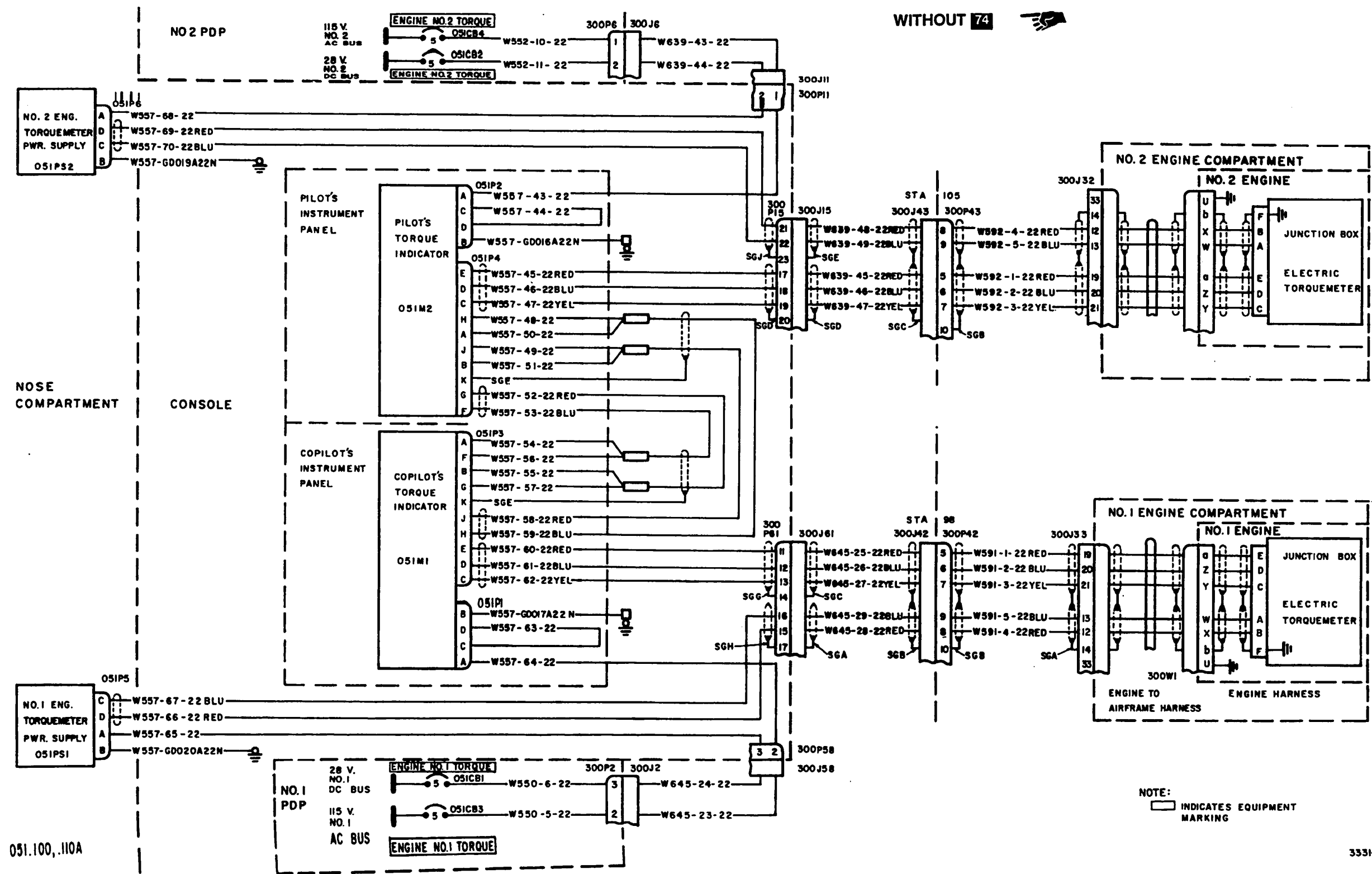
8-5.12

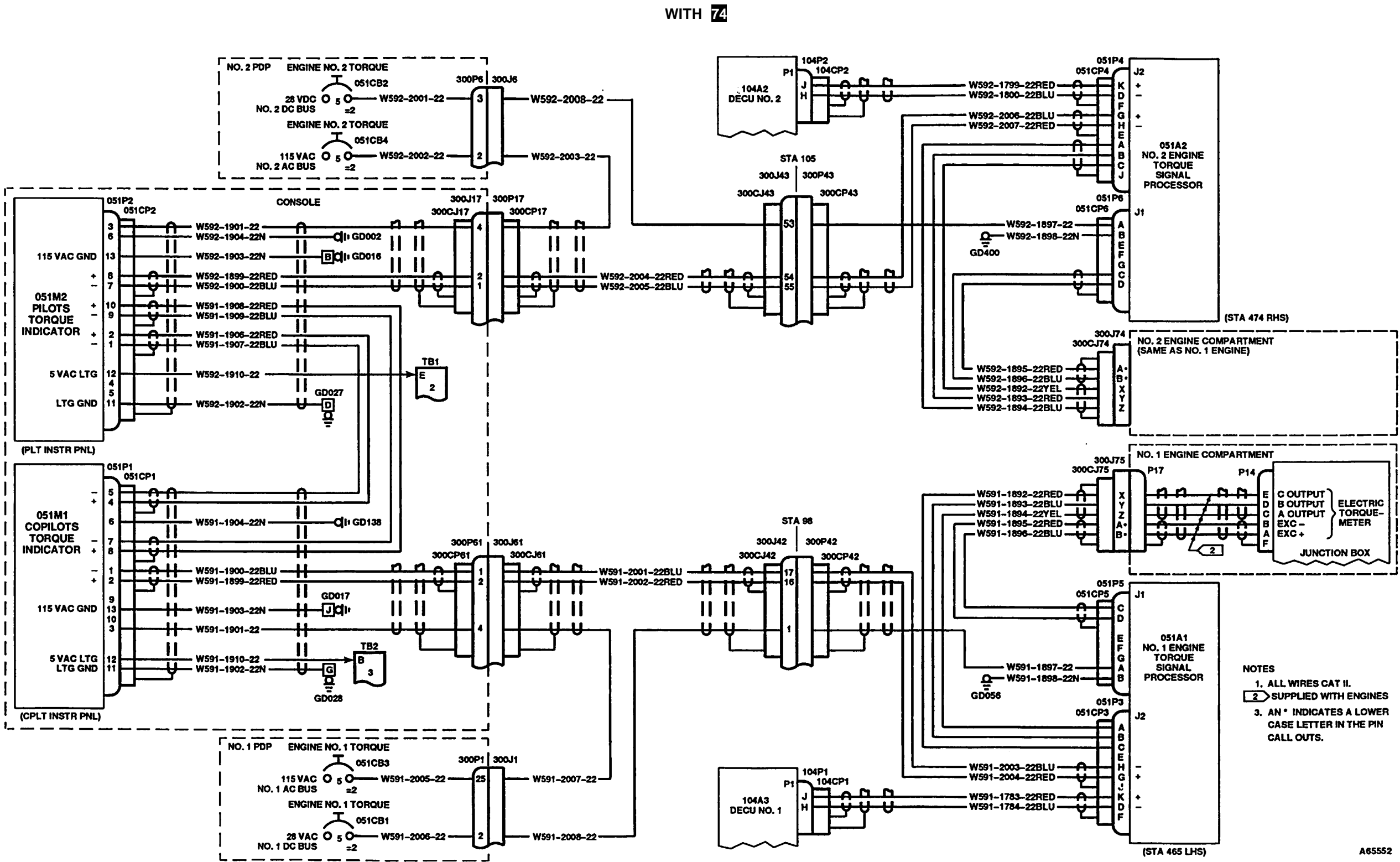


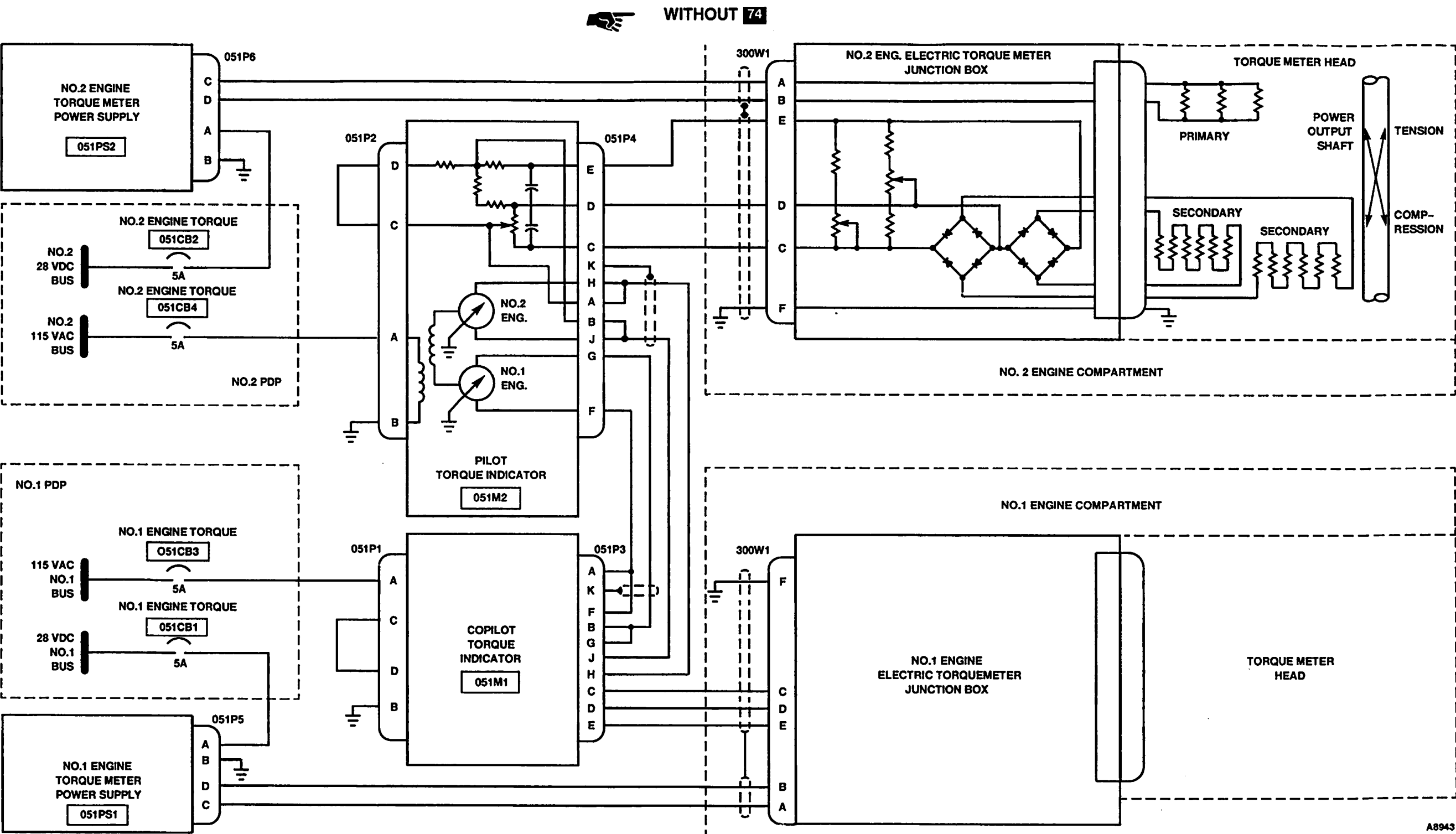
8-6 TORQUE INDICATING  
SYSTEM

8-6.1 TORQUE INDICATING SYSTEM WIRING DIAGRAM

8-6.1

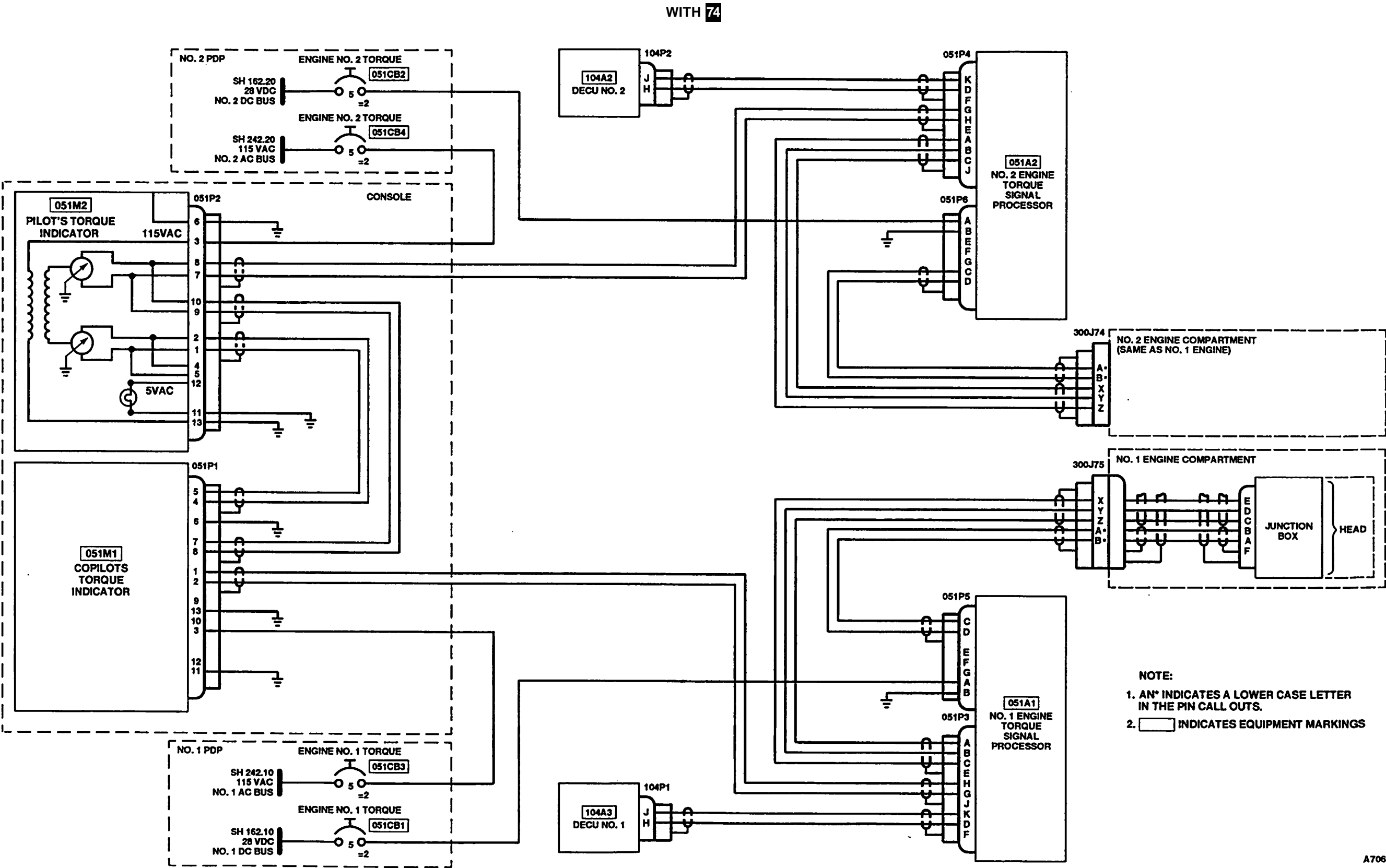






END OF TASK





A70629

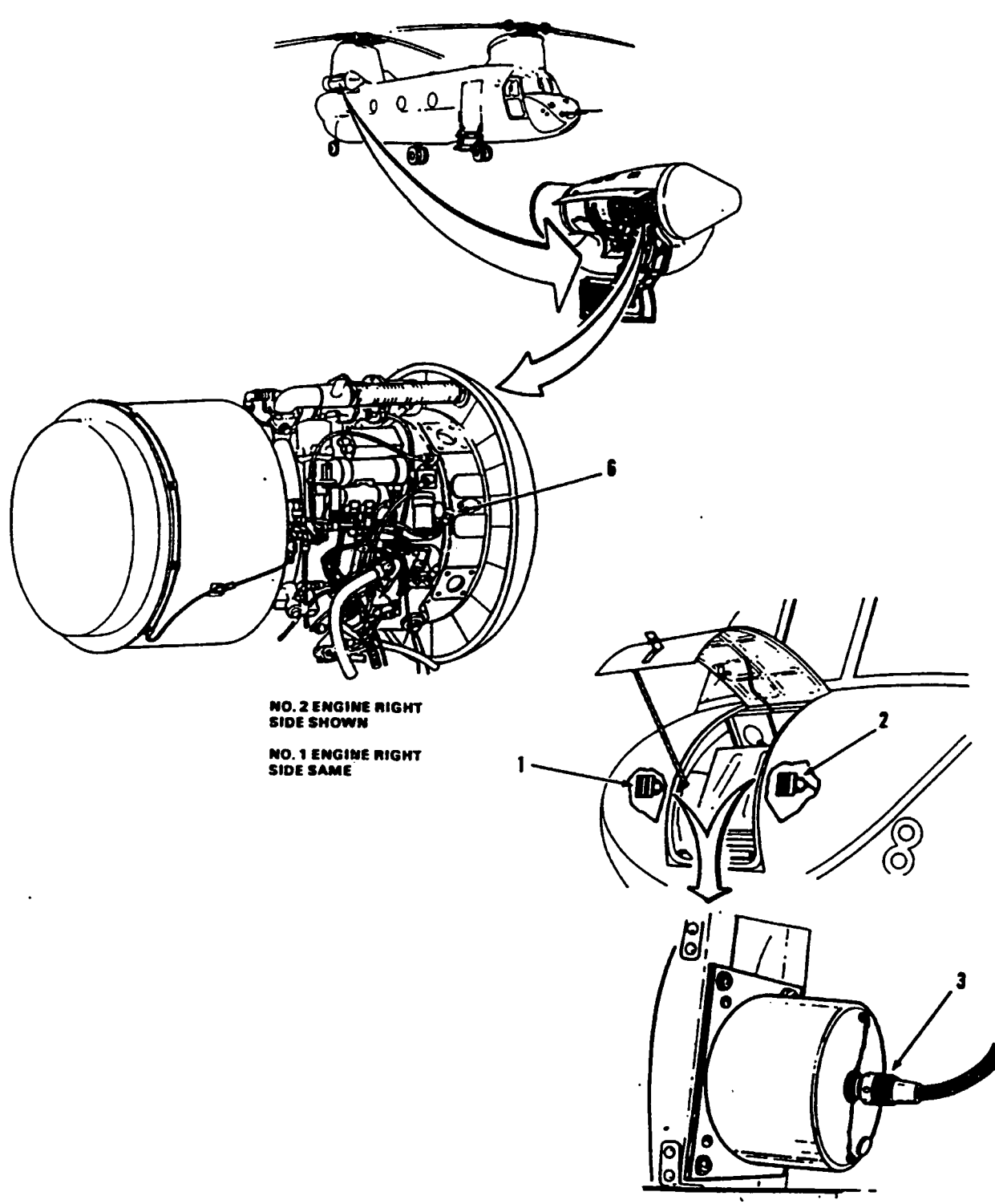
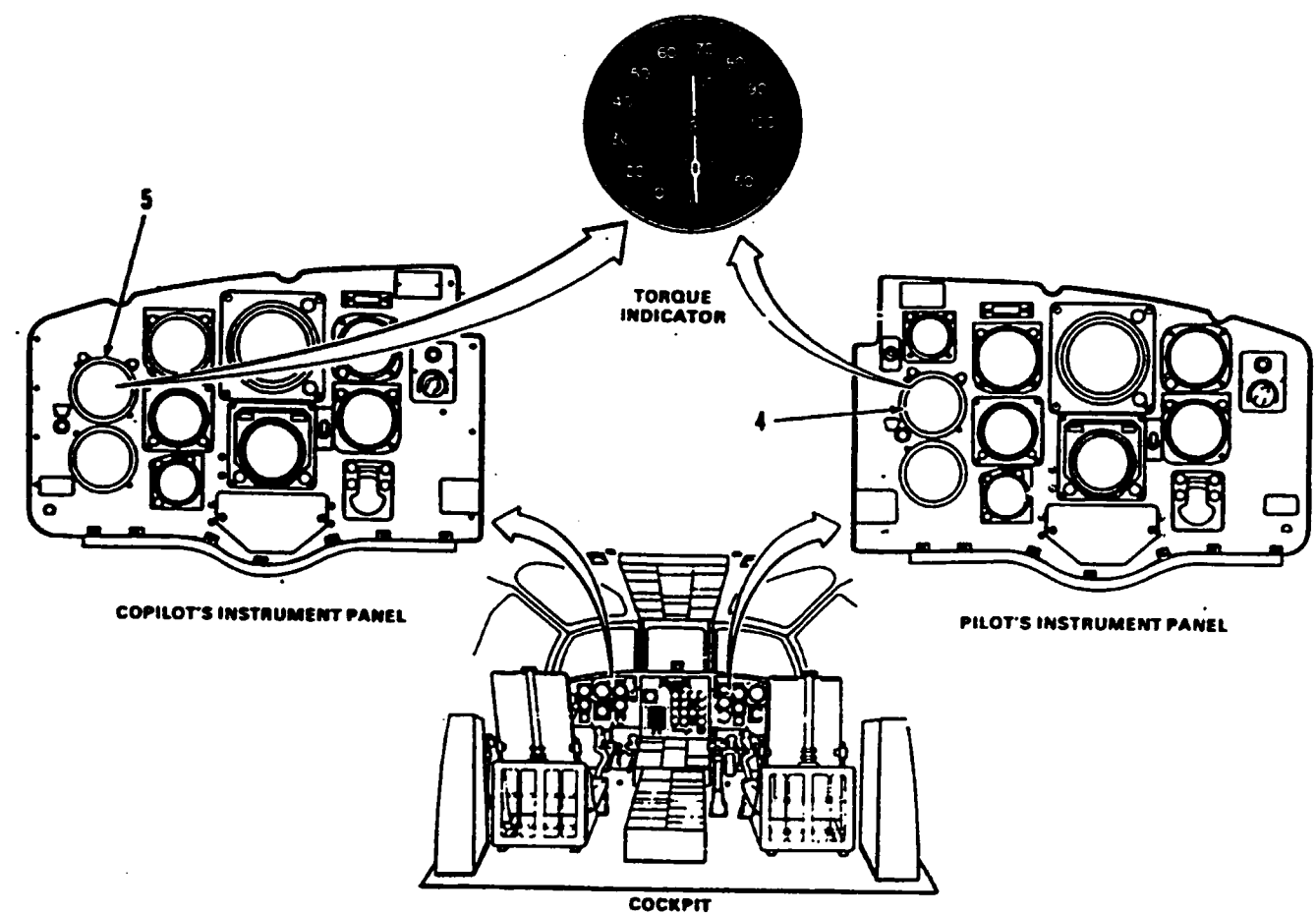
8-6.2 TORQUE INDICATING SYSTEM VISUAL CHECK

8-6.2

INITIAL SETUP  
**Applicable Configurations**  
Without 74  
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician  
**References**  
TM 55-1520-240-23  
TM 55-2840-254-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Nose Access Door Open  
No. 1 Engine Work Platform Open  
No. 1 Engine Upper and Lower Access Doors Open  
No. 2 Engine Work Platform Open  
No. 2 Engine Upper and Lower Access Doors Open



D145-11219-3PA

TASK	RESULT
1. Check pilot torquemeter power supply (1).	If torquemeter power supply (1) is loose or damaged, tighten or replace it as required. If connector (3) is loose or damaged, or wiring to connector (3) is damaged, tighten or replace connector or repair or replace wire as required.
2. Check copilot torquemeter power supply (2).	If torquemeter power supply (2) is loose or damaged, tighten or replace it as required. If connector (3) is loose or damaged, tighten or replace it as required. If wires to connector (3) are damaged, repair or replace them as required.
3. Check pilot torquemeter indicator (4).	Tighten or replace torquemeter indicator (4) and/or its connector if loose or damaged.
4. Check copilot torquemeter Indicator (5).	Tighten or replace torquemeter indicator (5) and/or its connector if loose or damaged.
5. Check No. 1 engine torquemeter junction box (6).	If No. 1 engine torquemeter junction box is loose or damaged, tighten or replace it as required. If connector to junction box is loose or damaged, tighten or replace it as required. If wires to junction box (6) connector are damaged, repair or replace them as required. If oil or moisture is present, refer to TM 55-2840-254-23, task 9-2.
6. Check No. 2 engine torquemeter junction box (6).	If No. 2 engine torquemeter junction box is loose or damaged, tighten or replace it as required. If connector to junction box is loose or damaged, tighten or replace it as required. If wires to junction box (6) connector are damaged, repair or replace them as required. If oil or moisture is present, refer to TM 55-2840-254-23, task 9-2.

- FOLLOW-ON MAINTENANCE:
- TM 55-1520-240-23:
- Nose access door closed.
  - No. 1 engine work platform closed.
  - No. 1 engine upper and lower access door closed.
  - No. 2 engine work platform closed.
  - No. 2 engine upper and lower access door closed.

8-6.2.1 TORQUE INDICATING SYSTEM VISUAL CHECK

8-6.2.1

- INITIAL SETUP

**Applicable Configurations:**

With 74

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

**Materials:**

None

**Personnel Required:**

Aircraft Electrician

**References:**

TM 1-2840-265-23
- TM 55-1520-240-23

**Equipment Condition:**

TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off

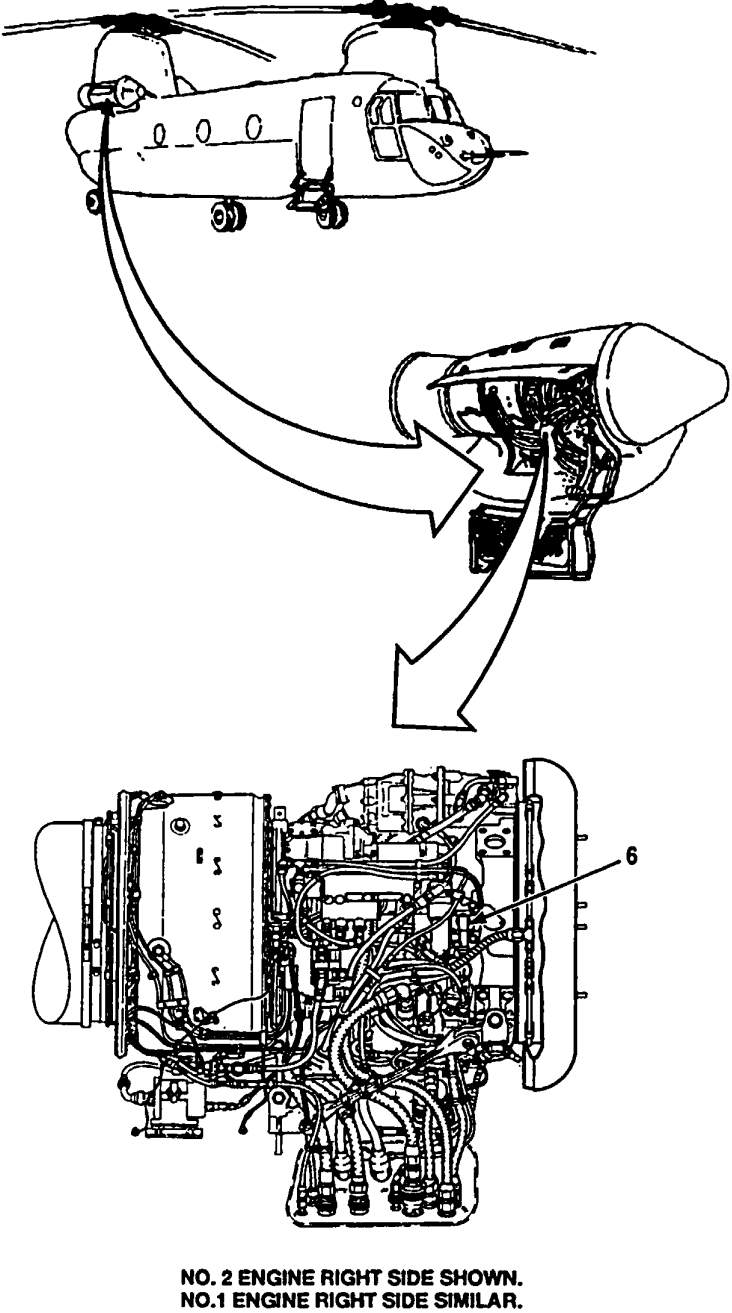
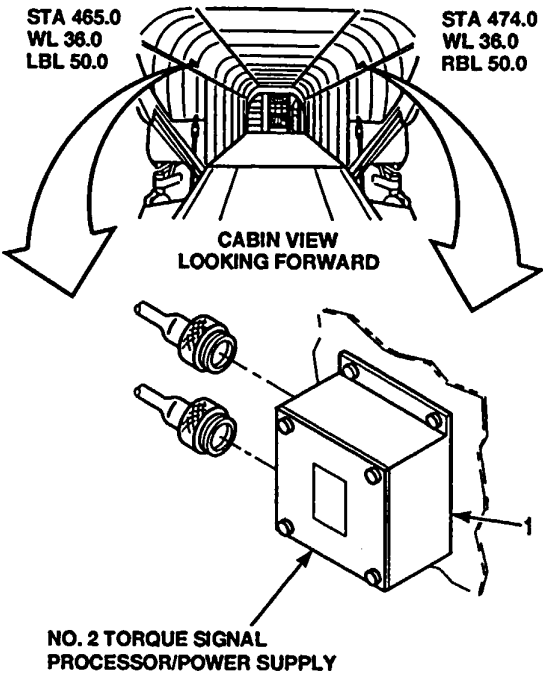
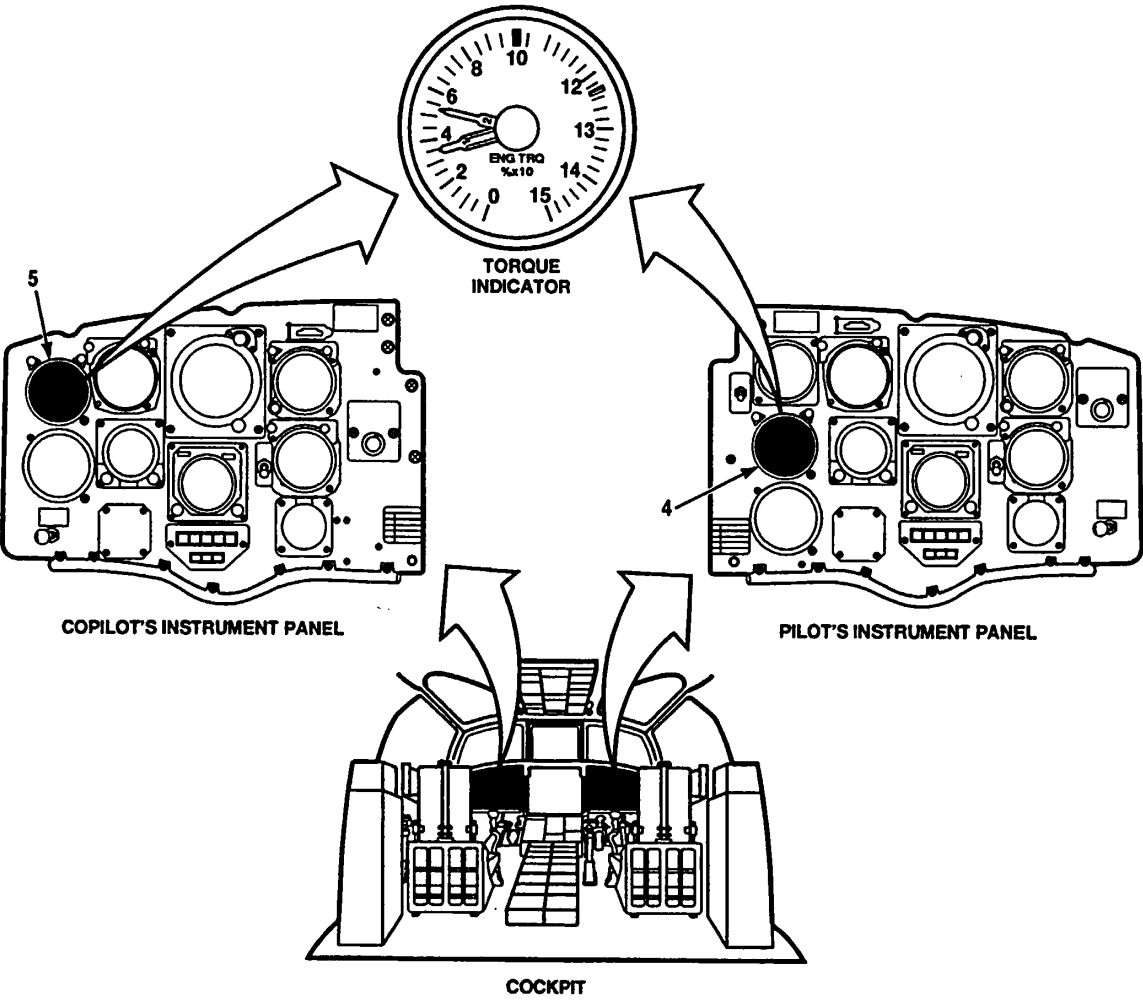
Hydraulic Power Off

No. 1 Engine Work Platform Open

No. 1 Engine Upper and Lower Access Doors Open

No. 2 Engine Work Platform Open

No. 2 Engine Upper and Lower Access Doors Open



TASK	RESULT
1. Check No. 1 engine torque signal processor/power supply (1).	If No. 1 engine torque signal processor/power supply (1) is loose or damaged, tighten or replace it as required. If connectors (3) are loose or damaged, tighten or replace as required. If wires to connectors (3) are damaged, repair or replace them as required.
2. Check No. 2 engine torque signal processor/power supply (2).	If No. 2 engine torque signal processor/power supply (2) is loose or damaged, tighten or replace it as required. If connectors (3) are loose or damaged, tighten or replace as required. If wires to connectors (3) are damaged, repair or replace them as required.
3. Check pilot torquemeter indicator (4).	Tighten or replace torquemeter indicator (4) and/or its connector if loose or damaged.
4. Check copilot torquemeter indicator (5).	Tighten or replace torquemeter indicator (5) and/or its connector if loose or damaged.
5. Check No. 1 engine torquemeter junction box (6).	If No. 1 engine torquemeter junction box (6) is loose or damaged, tighten or replace it as required. If connector to junction box is loose or damaged, tighten or replace it as required. If wires to junction box (6) connector are damaged, repair or replace them as required (TM 1-2840-26523).
6. Check No. 2 engine torquemeter junction box (6).	If No. 2 engine torquemeter junction box (6) is loose or damaged, tighten or replace it as required. If connector to junction box is loose or damaged, tighten or replace it as required. If wires to junction box (6) connector are damaged, repair or replace them as required (TM 1-2840-26523).
FOLLOW-ON MAINTENANCE: TM 55-1520-240-23: No. 1 engine work platform closed. No. 1 engine upper and lower access door closed. No. 2 engine work platform closed. No. 2 engine upper and lower access door closed.	

8-6.3 TORQUE INDICATING SYSTEM OPERATIONAL CHECK

8-6.3

INITIAL SETUP

**Applicable Configurations:**  
Without 74

**Tools:**

- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915
- Engine Torque Signal Simulator Test Set,  
LTCT 24137-03 (If Available)

**Materials:**

None

**Personnel Required:**

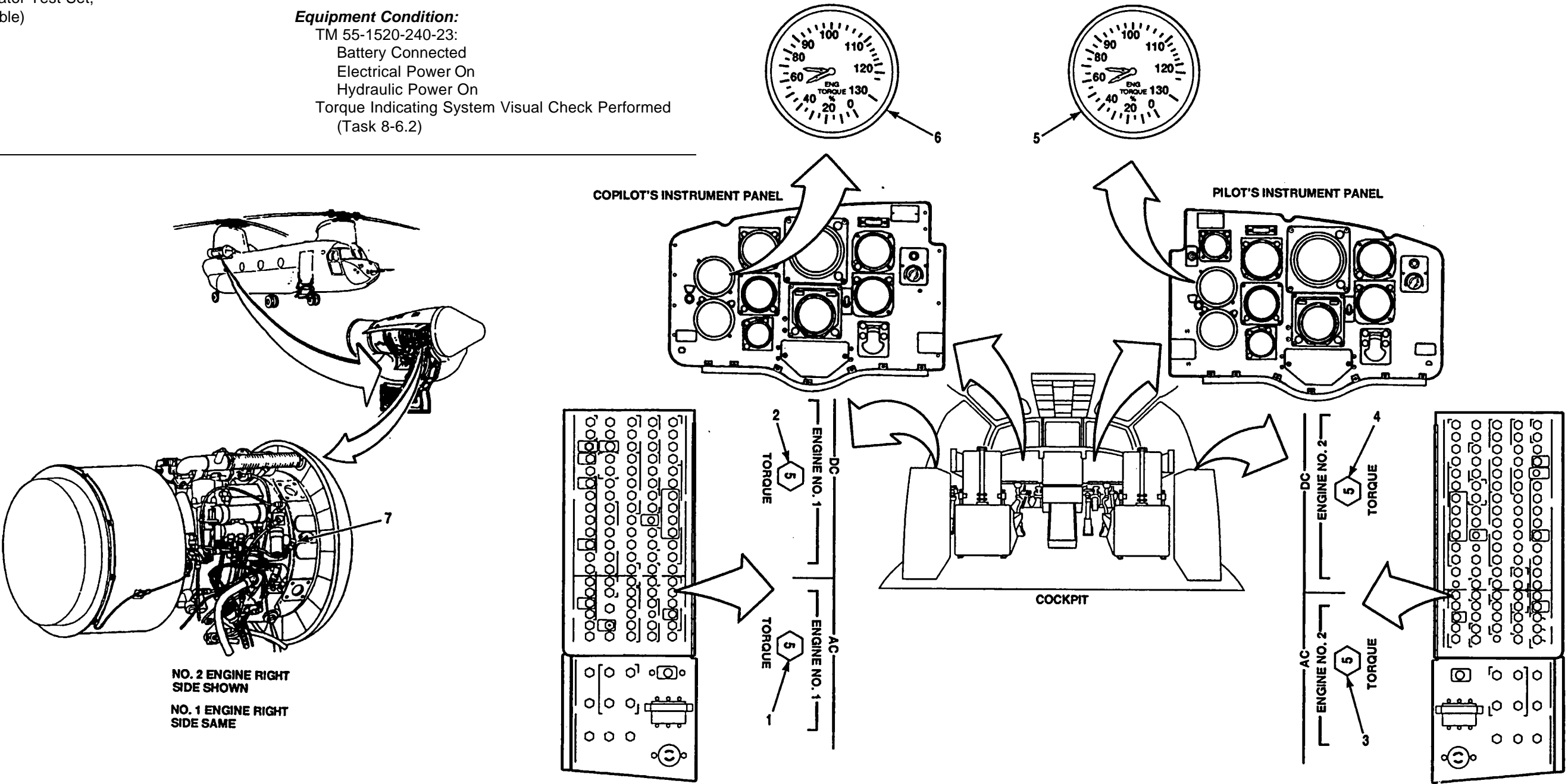
- Aircraft Electrician (2)
- Rotary Wing Aviator (2)

**References:**

- TM 55-1520-240-MTF
- TM 55-1520-240-10
- TM 55-1520-240-23
- TM 55-2840-254-23
- Engine Torque Signal Simulator Test Set Operating  
Manual, Lycoming document 5855A

**Equipment Condition:**

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power On
- Torque Indicating System Visual Check Performed  
(Task 8-6.2)



D145-11220

GO TO NEXT PAGE

8-6.3TORQUE INDICATING SYSTEM OPERATIONAL CHECK (Continued)

8-6.3

TASK	RESULT	TASK	RESULT
<div>1. Check that <b>ENGINE NO. 1 AC TORQUE circuit breaker (1)</b> is closed.</div> <div>2. Check that <b>ENGINE NO. 1 DC TORQUE circuit breaker (2)</b> is closed.</div> <div>3. Check that <b>ENGINE NO. 2 AC TORQUE circuit breaker (3)</b> is closed.</div> <div>4. Check that <b>ENGINE NO. 2 DC TORQUE circuit breaker (4)</b> is closed.</div> <div>5. Check <b>No. 2 pointer on pilot (5) and copilot (6) torque indicators.</b></div> <div><div>NOTE</div><div>If pointer is spinning, have helper manually turn rotor blades until spinning stops. If spinning continues after one revolution of the blades, go to next step.</div></div>	<div>If <b>ENGINE NO. 1 AC TORQUE</b> circuit breaker (1) is open, close it. If it opens again, go to task 8-6.4.</div> <div>If <b>ENGINE NO. 1 DC TORQUE</b> circuit breaker (2) is open, close it. If it opens again, go to task 8-6.5.</div> <div>If <b>ENGINE NO. 2 AC TORQUE</b> circuit breaker (3) is open, close it. If it opens again, go to task 8-6.4.</div> <div>If <b>ENGINE NO. 2 DC TORQUE</b> circuit breaker (4) is open, close it. If it opens again, go to task 8-6.5.</div> <div>No. 2 pointer on both torque indicators (5 and 6) shall be below 10%. If not, adjust torque indicator to zero. (Ref TM 55-1520-240-23.)</div>	<div>13. Check <b>No. 1 and No. 2 pointers on pilot and copilot torque indicators (5 and 6).</b></div>	<div>No. 1 pointer on both torque indicators (5 and 6) shall indicate required torque. If not, go to task 8-6.6.</div> <div>If No. 1 pointer on both torque indicators (5 and 6) rotates clockwise or counterclockwise continuously, replace No. 1 engine torquemeter kit (junction box, output shaft, and head assembly). Ref TM 55-2840-254-23.</div> <div>If No. 1 pointer on both torque indicators (5 and 6) operates erratically, go to task 8-6.10 if Lycoming On Wing Comparator LTCT 28295-01 is available. If it is not, go to task 8-6.6.</div> <div>No. 2 pointer on both torque indicators (5 and 6) shall indicate required torque, if not, go to task 8-6.7.</div> <div>If No. 2 pointer on both torque indicators (5 and 6) rotates continuously, replace No. 2 engine torquemeter kit (junction box, output shaft and head assembly). Ref TM 55-2840-254-23.</div> <div>If No. 2 pointer on both torque indicators (5 and 6) operates erratically, go to task 8-6.11 if Lycoming On Wing Comparator LTCT 28295-01 is available. If it is not, go to task 8-6.7.</div>
<div>6. Check No. 1 pointer on pilot (5) and copilot (6) torque indicators.</div> <div><div>NOTE</div><div>If pointer is spinning, have helper manually turn rotor blades until spinning stops. If spinning continues after one revolution of blades, go to next step.</div></div> <div><div>NOTE</div><div>If torque signal simulator LTCT 24137-03 is not available, do not perform steps 7 thru 10. Go to step 11.</div></div>	<div>No. 1 pointer on both torque indicators (5 and 6) shall be below 10%. If not, adjust torque indicator to zero. (Ref TM 55-1520-240-23.)</div>	<div>14. Have pilot shut down both engines.</div>	
<div>7. Install torque signal simulator LTCT 24137-03 on <b>No. 1 engine.</b> Reference operating manual 5855A.</div> <div>8. Check <b>No. 1 engine torque indication using torque signal simulator LTCT 24137-03.</b> Reference operating manual 5855A.</div> <div>9. Install torque signal simulator LTCT 24137-03 on <b>No. 2 engine.</b> Reference operating manual 5855A.</div> <div>10. Check <b>No. 2 engine torque indication using torque signal simulator LTCT 24137-03.</b> Reference operating manual 5855A.</div> <div>11. Have pilot <b>start both engines and stabilize rotors at ground idle.</b></div> <div>12. Have pilot perform <b>TORQUE DIFFERENTIAL CHECK.</b> (Ref TM 55-1520-240-MTF.)</div>	<div>No. 1 pointer on pilots and copilots torque indicators (5 and 6) shall read ± 2% of simulator selector switch value. If it does not, go to task 8-6.8.</div> <div>No. 2 pointer on pilots and copilots torque indicators (5 and 6) shall read ± 2% of simulator selector switch value. If it does not, go to task 8-6.9.</div>	<div>FOLLOW-ON MAINTENANCE:</div> <div>TM 55-1520-240-23:</div> <div>Battery disconnected.</div> <div>Electrical power off.</div> <div>Hydraulic power off.</div>	

8-6.3.1 TORQUE INDICATING SYSTEM OPERATIONAL CHECK

8-6.3.1

INITIAL SETUP

Applicable Configurations:

With 74

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Electric Torquemeter Flight Line Test Set,  
LTCT 29089-01/-03

Materials:

None

Personnel Required:

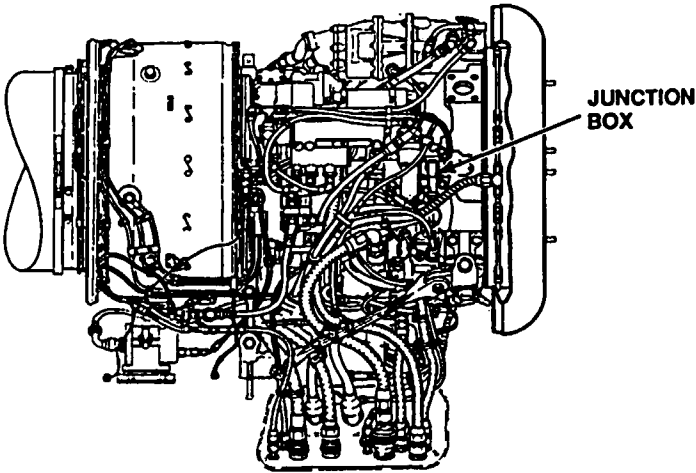
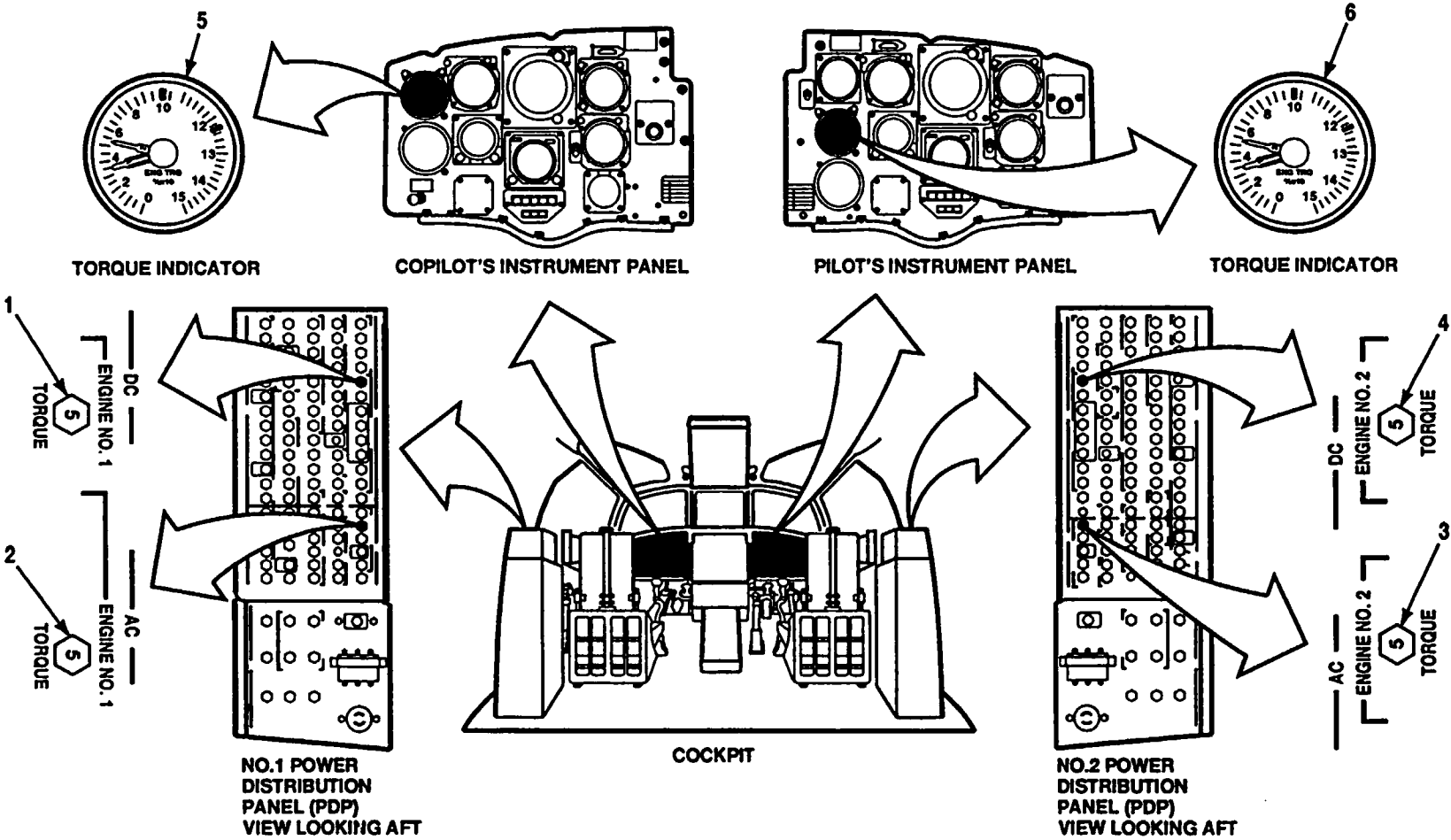
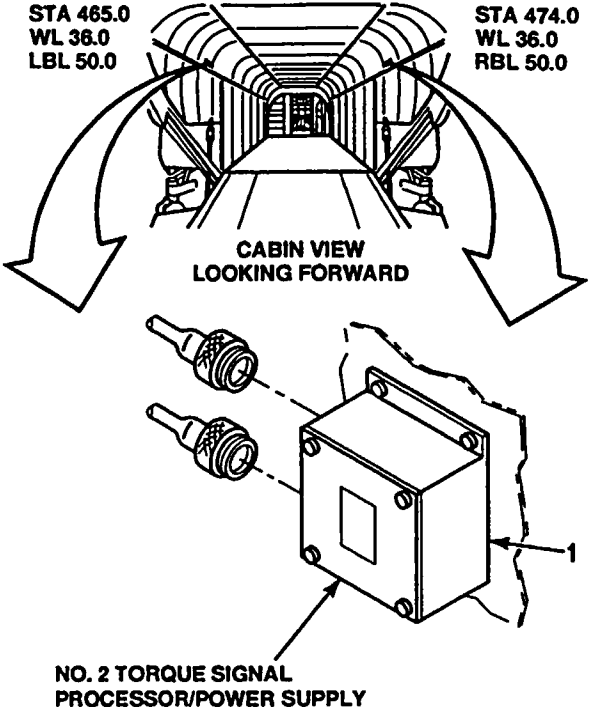
Aircraft Electrician (2)

References:

TM 1-2840-265-23  
TM 55-1520-240-10  
TM 55-1520-240-23  
Electric Torquemeter Flight Line Test Set Operating  
Manual, Allied Signal SE-876-01-1006

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On  
Torque Indicating System Visual Check Performed  
(Task 8-6.2.1)



A65556



8-6.3.1 TORQUE INDICATING SYSTEM OPERATIONAL CHECK (Continued)

8-6.3.1

TASK	RESULT
1. Check that ENGINE NO. 1 AC TORQUE circuit breaker (2) is closed.	If ENGINE NO. 1 AC TORQUE circuit breaker (2) is open, close it. If it opens again, go to task 8-6.4.
2. Check that ENGINE NO. 1 DC TORQUE circuit breaker (1) is closed.	If ENGINE NO. 1 DC TORQUE circuit breaker (1) is open, close it. If it opens again, go to task 8-6.5.1.
3. Check that ENGINE NO. 2 AC TORQUE circuit breaker (3) is closed.	If ENGINE NO. 2 AC TORQUE circuit breaker (3) is open, close it. If it opens again, go to task 8-6.4.
4. Check that ENGINE NO. 2 DC TORQUE circuit breaker (4) is closed.	If ENGINE NO. 2 DC TORQUE circuit breaker (4) is open, close it. If it opens again, go to task 8-6.5.1.
5. Check No. 2 pointer on pilot (5) and copilot (6) torque Indicators.	No. 2 pointer on both torque indicators (5 and 6) shall be below 10%. If not, adjust torque indicator to zero. (Ref TM 55-1520-240-23.)
NOTE If pointer is spinning, have helper manually turn rotor blades until spinning stops. If spinning continues after one revolution of the blades, go to next step.	
6. Check No. 1 pointer on pilot (5) and copilot (6) torque indicators.	No. 1 pointer on both torque indicators (5 and 6) shall be below 10%. If not, adjust torque indicator to zero. (Ref TM 55-1520-240-23.)
NOTE If pointer is spinning, have helper manually turn rotor blades until spinning stops. If spinning continues after one revolution of blades, go to next step.	
7. Install electric torquemeter flight line test set on the aircraft. Reference operating manual SE-876-01-1006.	Continue the tests or replace LRUs, depending upon the results of the AIRCRAFT SYSTEM TEST. Reference operating manual SE-876-01-1006.
8. Perform an AIRCRAFT SYSTEM TEST. Reference operating manual SE-876-01-1006.	
9. After completion of test(s), remove electric flight line test set from the aircraft. Reference operating manual SE-876-01-1006.	

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Battery disconnected.  
Electrical power off.  
Hydraulic power off.

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

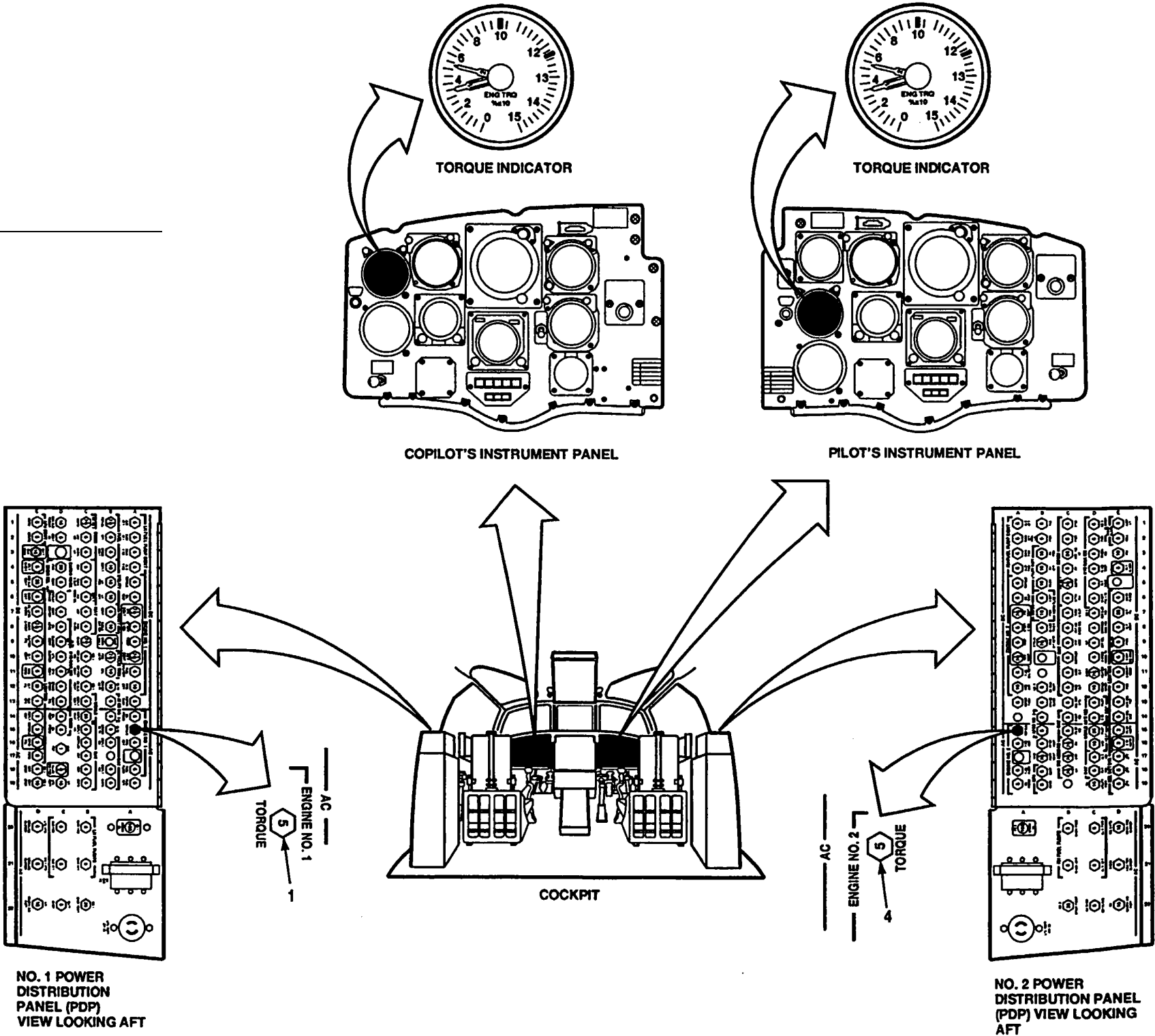
Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

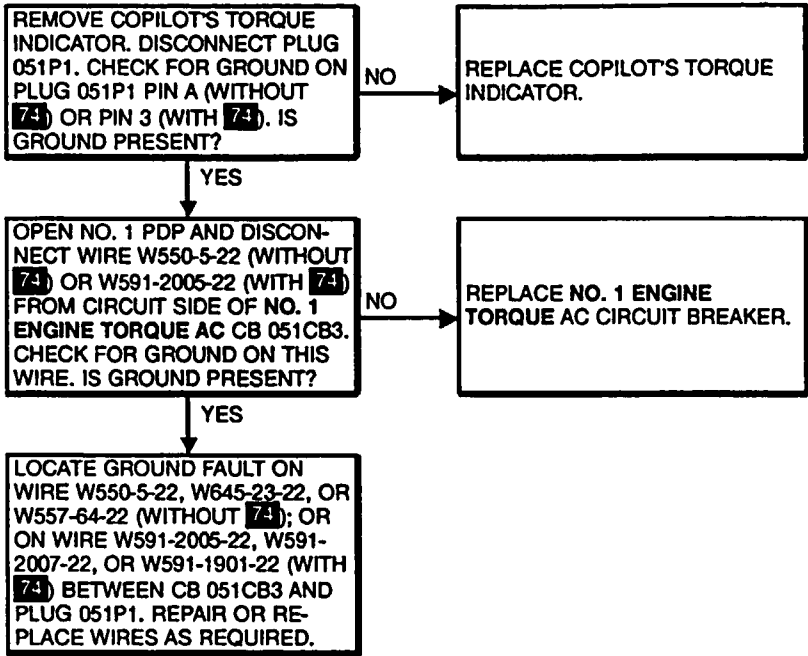
Electrical Power Off

Hydraulic Power Off

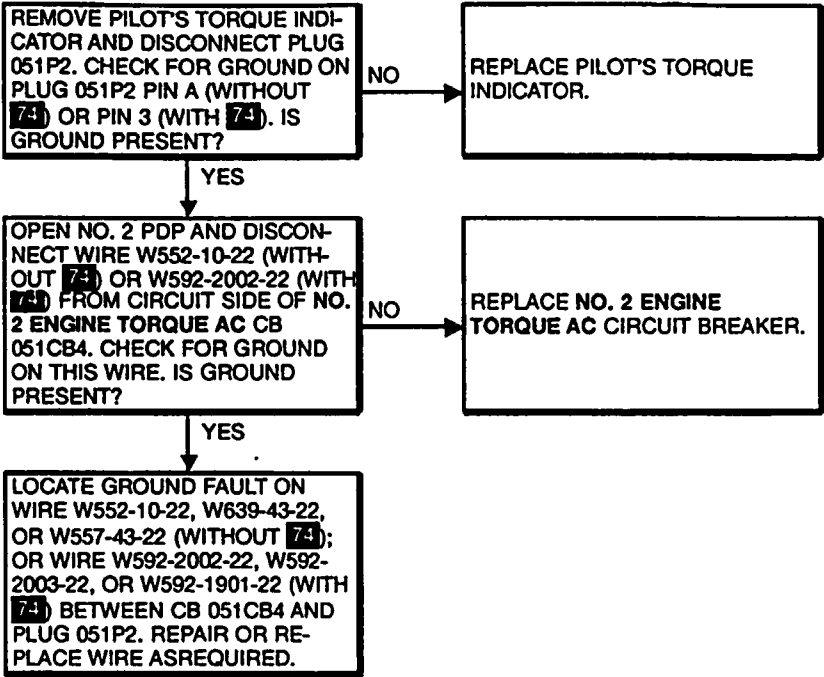


A65553

NO. 1 ENGINE TORQUE AC CIRCUIT BREAKER WILL NOT STAY CLOSED



NO. 2 ENGINE TORQUE AC CIRCUIT BREAKER WILL NOT STAY CLOSED



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Workstand

Materials:

None

Personnel Required:

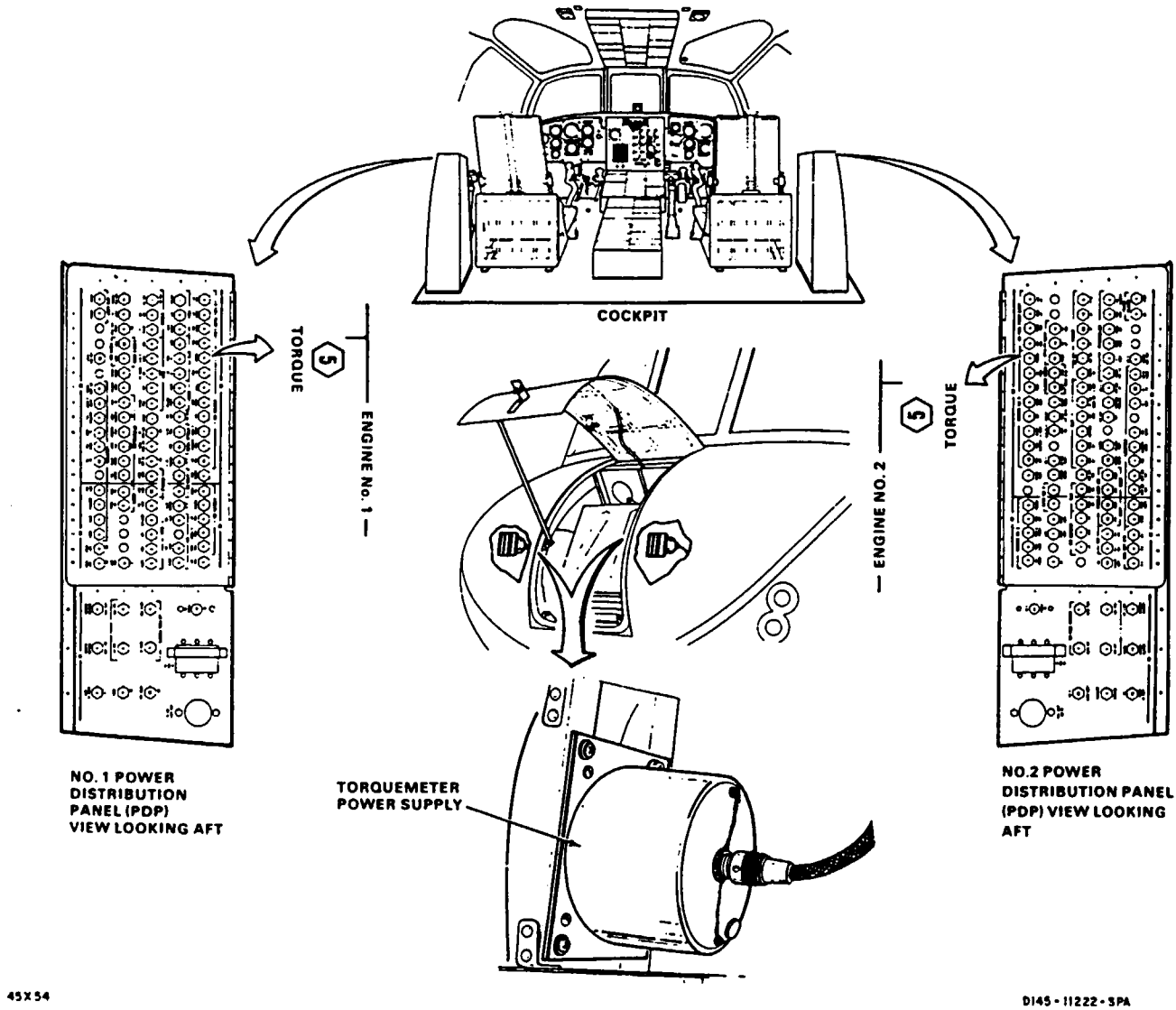
Aircraft Electrician

References:

TM 55-1520-240-23:

Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Nose Access Door Open

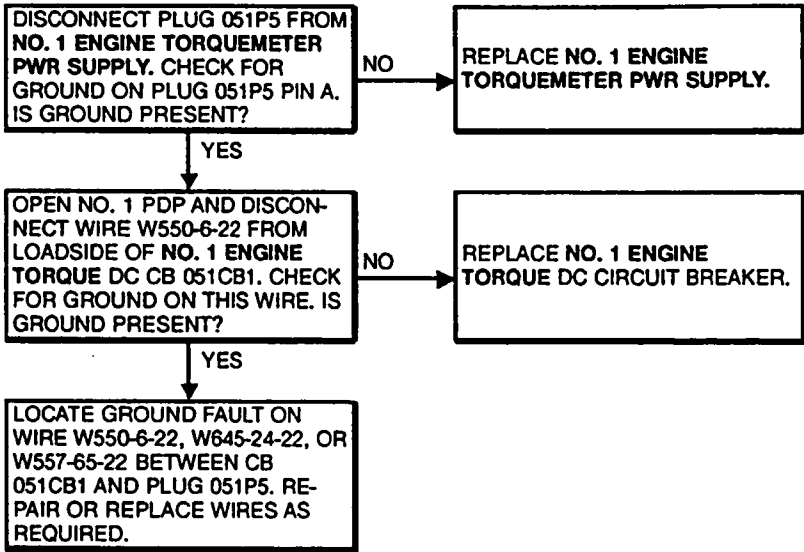


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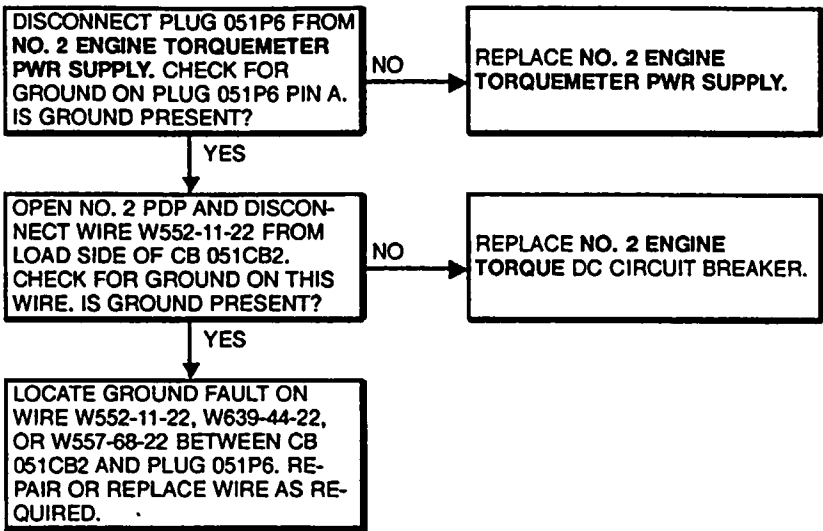
D145 - 11222 - SPA

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NO. 1 ENGINE TORQUE DC CIRCUIT BREAKER WILL NOT STAY CLOSED



NO. 2 ENGINE TORQUE DC CIRCUIT BREAKER WILL NOT STAY CLOSED



8-6.5.1 NO. 1 OR NO. 2 ENGINE TORQUE DC CIRCUIT BREAKERS WILL NOT STAY CLOSED

8-6.5.1

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 74

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23:

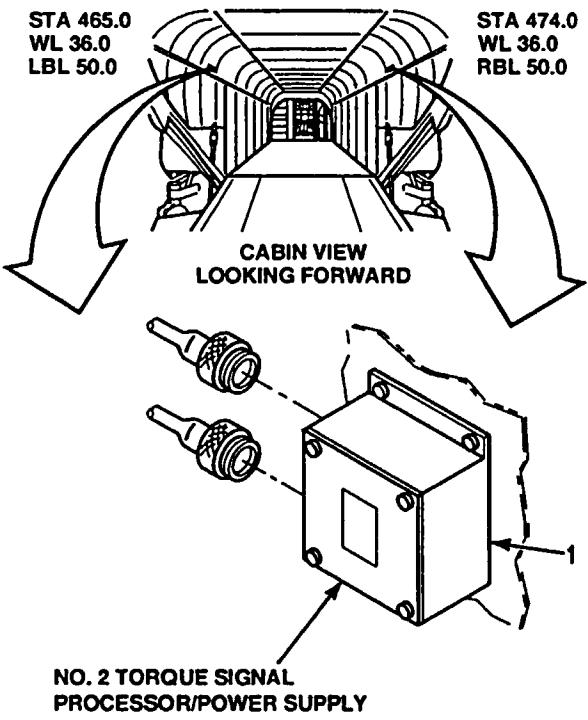
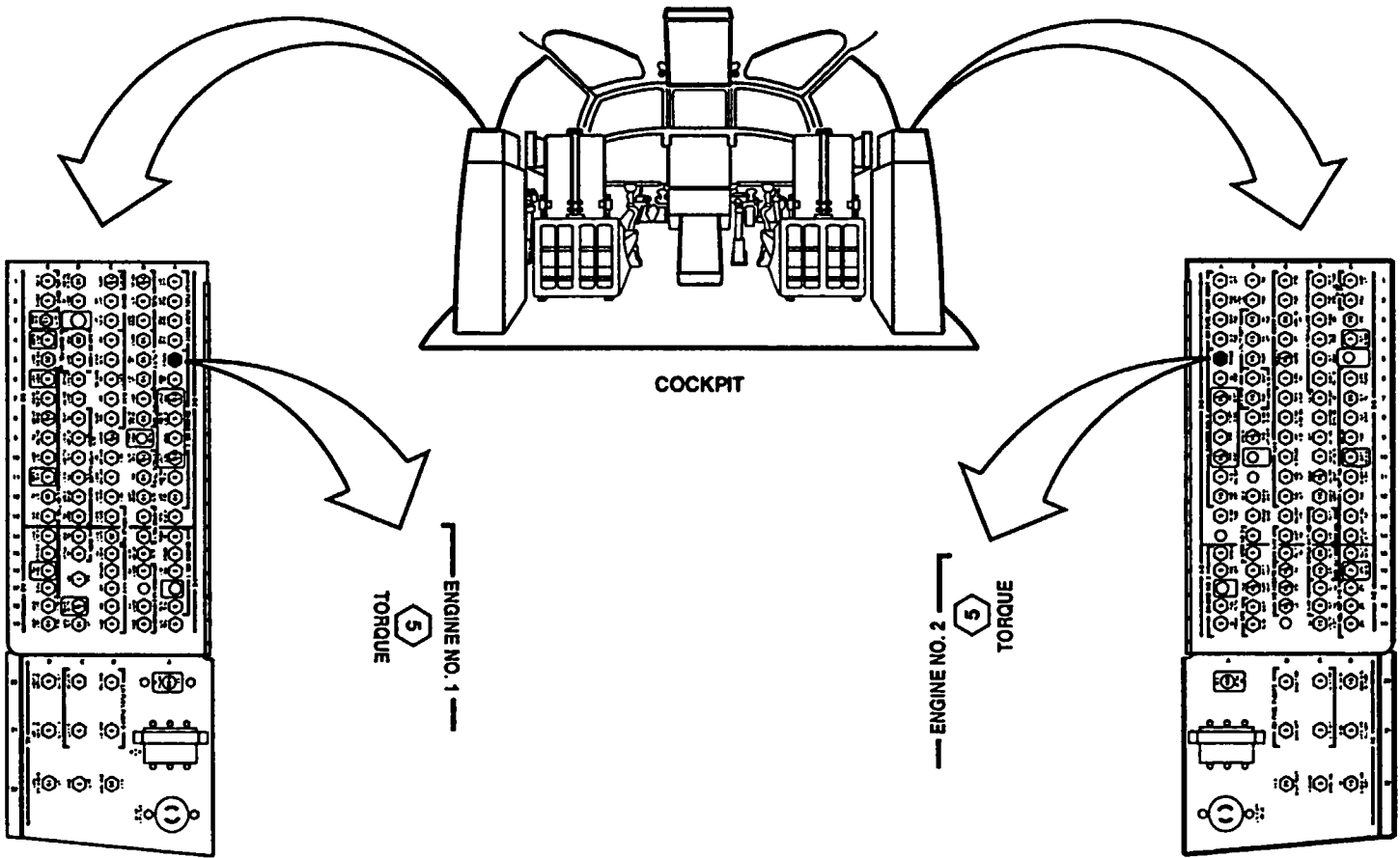
Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off

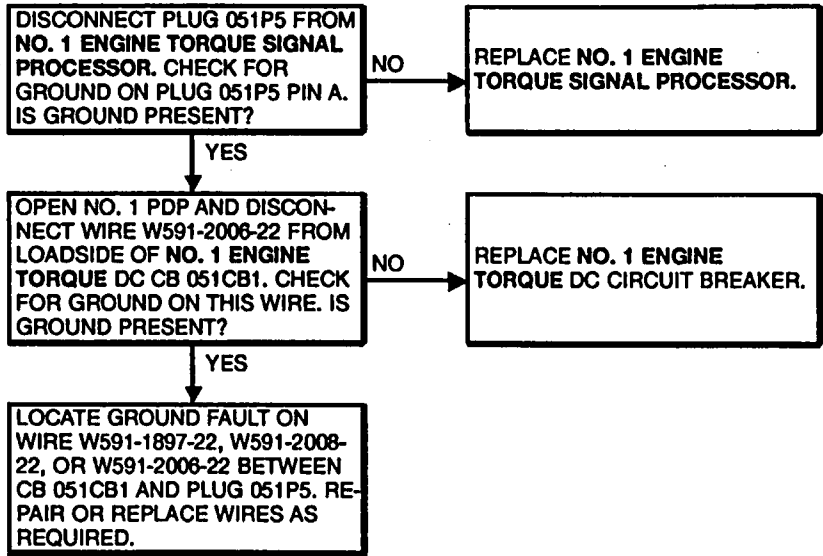
Hydraulic Power Off



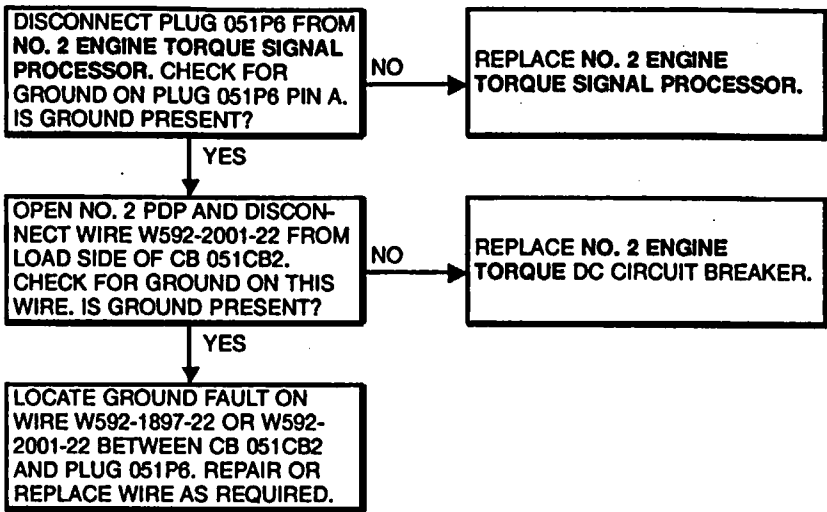
A65555

GO TO NEXT PAGE

NO. 1 ENGINE TORQUE DC CIRCUIT BREAKER WILL NOT STAY CLOSED



NO. 2 ENGINE TORQUE DC CIRCUIT BREAKER WILL NOT STAY CLOSED



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

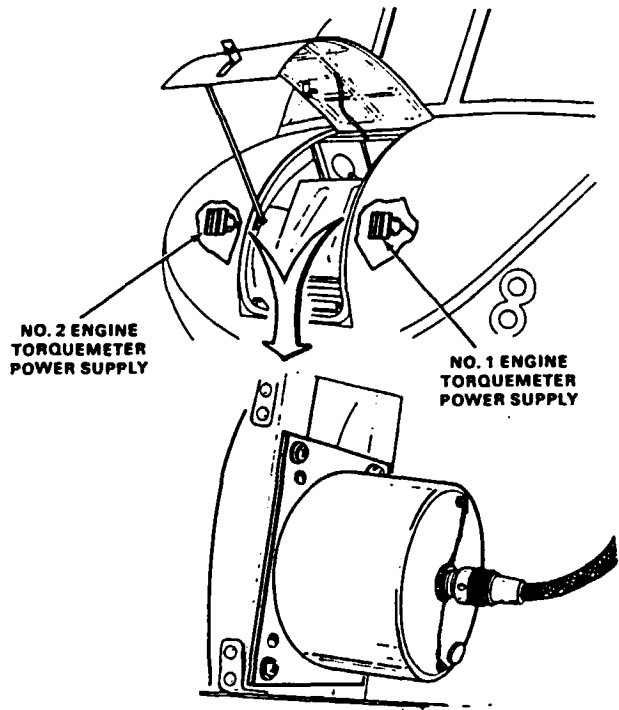
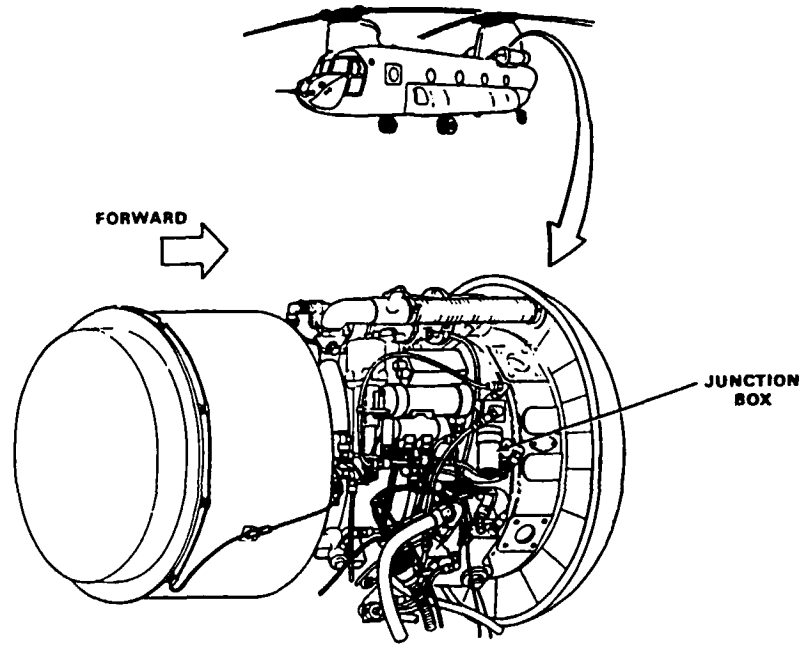
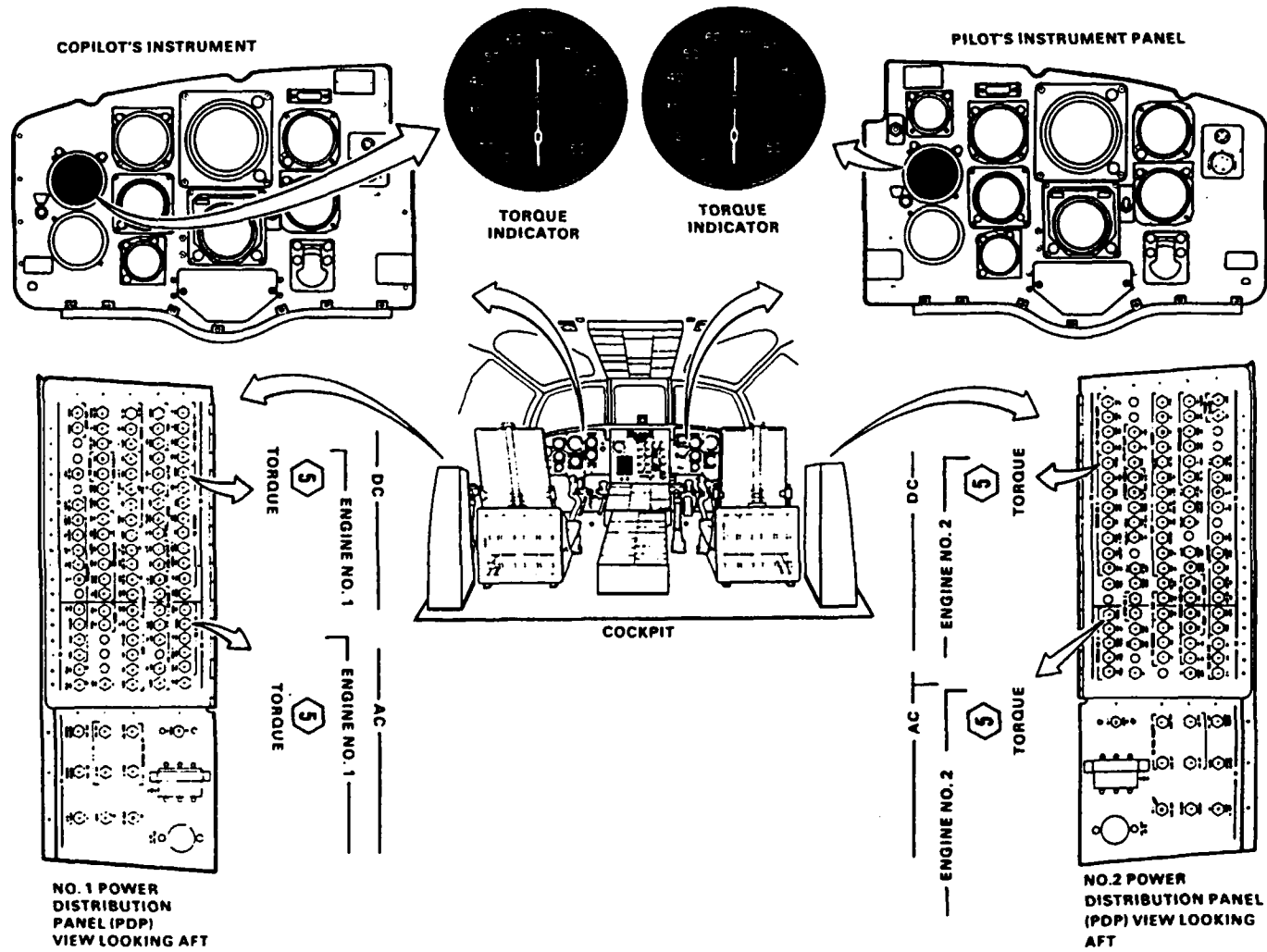
Aircraft Electrician (2)  
Rotary Wing Aviator (2)

References:

TM 55-1520-240-23  
TM 55-1520-240-10

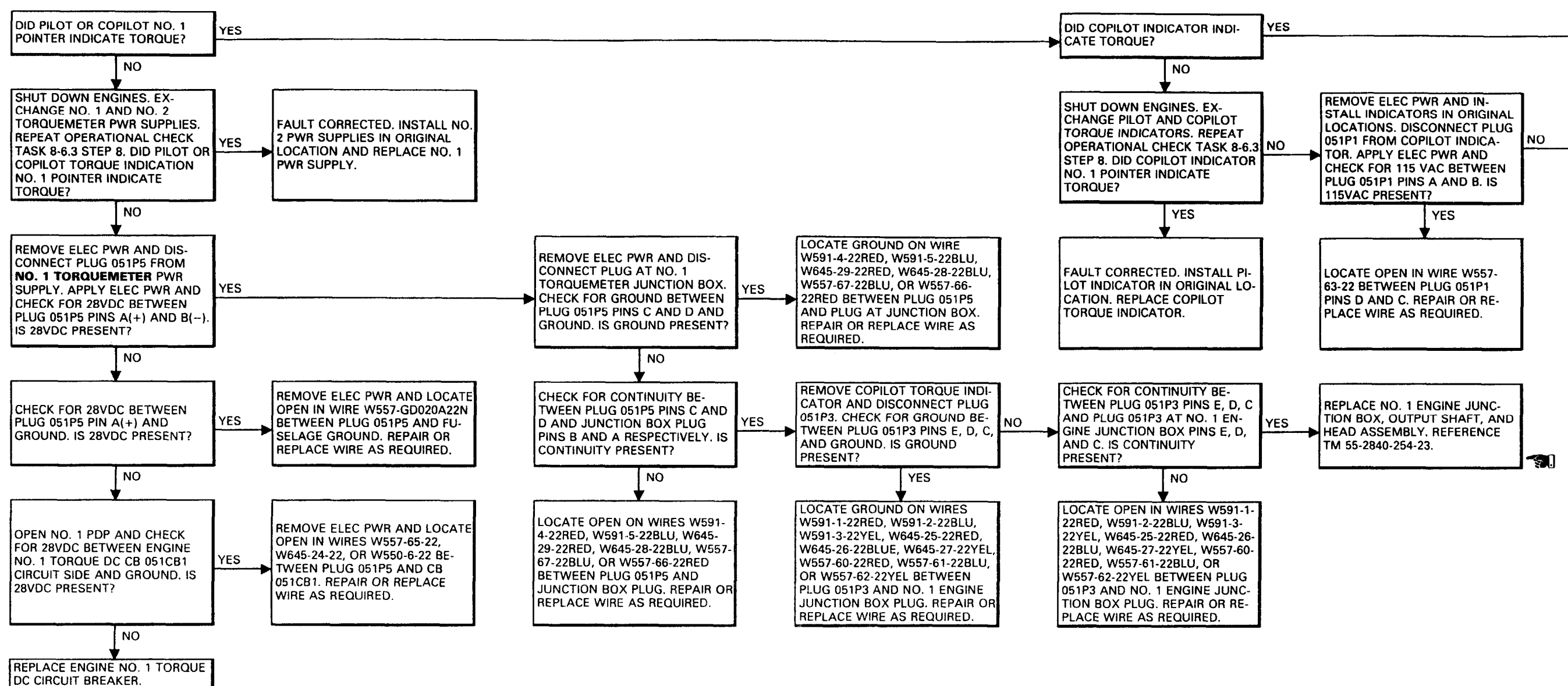
Equipment Condition:

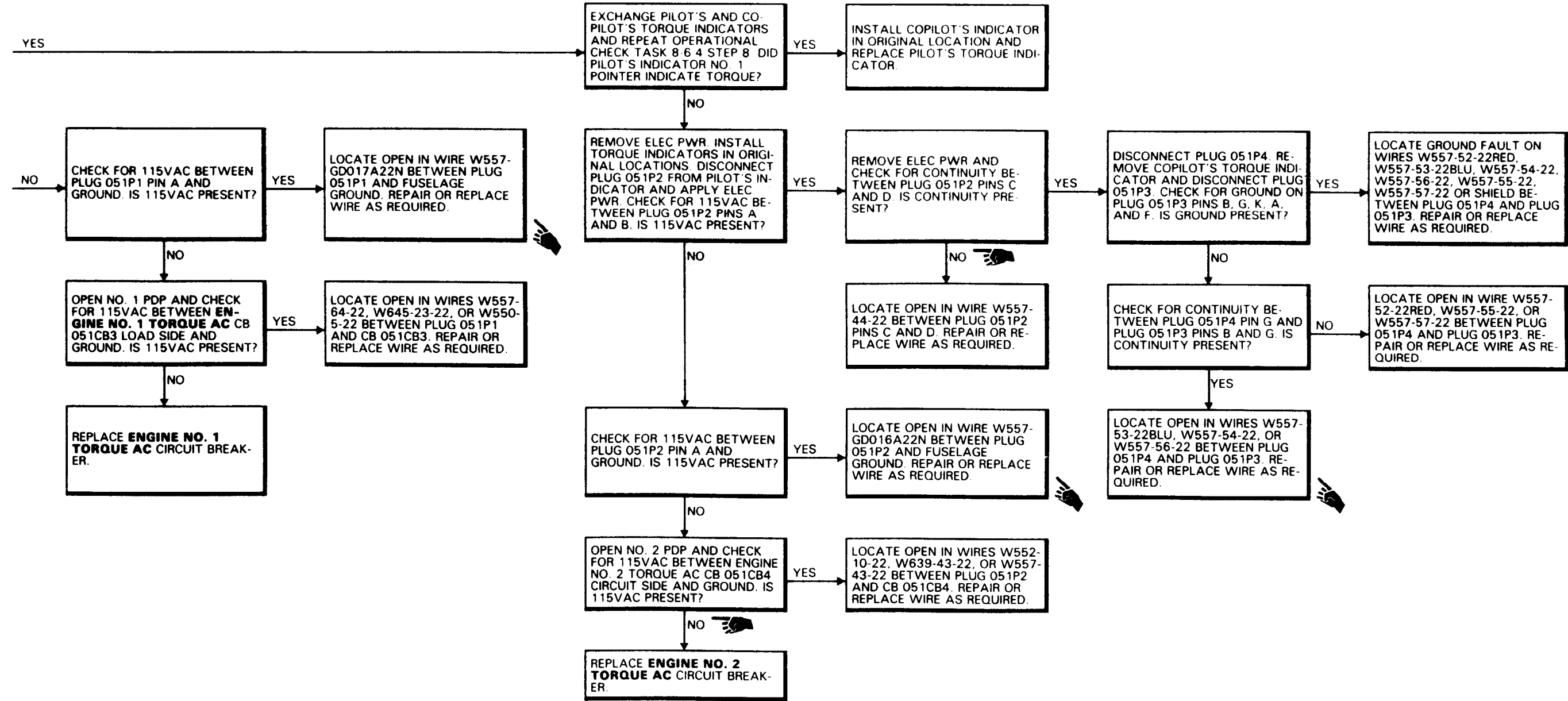
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On  
Nose Access Door Open  
No. 1 Engine Work Platform Open  
No. 1 Engine Upper and Lower Access Covers  
Open  
No. 2 Engine Work Platform Open  
No. 2 Engine Upper and Lower Access Doors  
Open

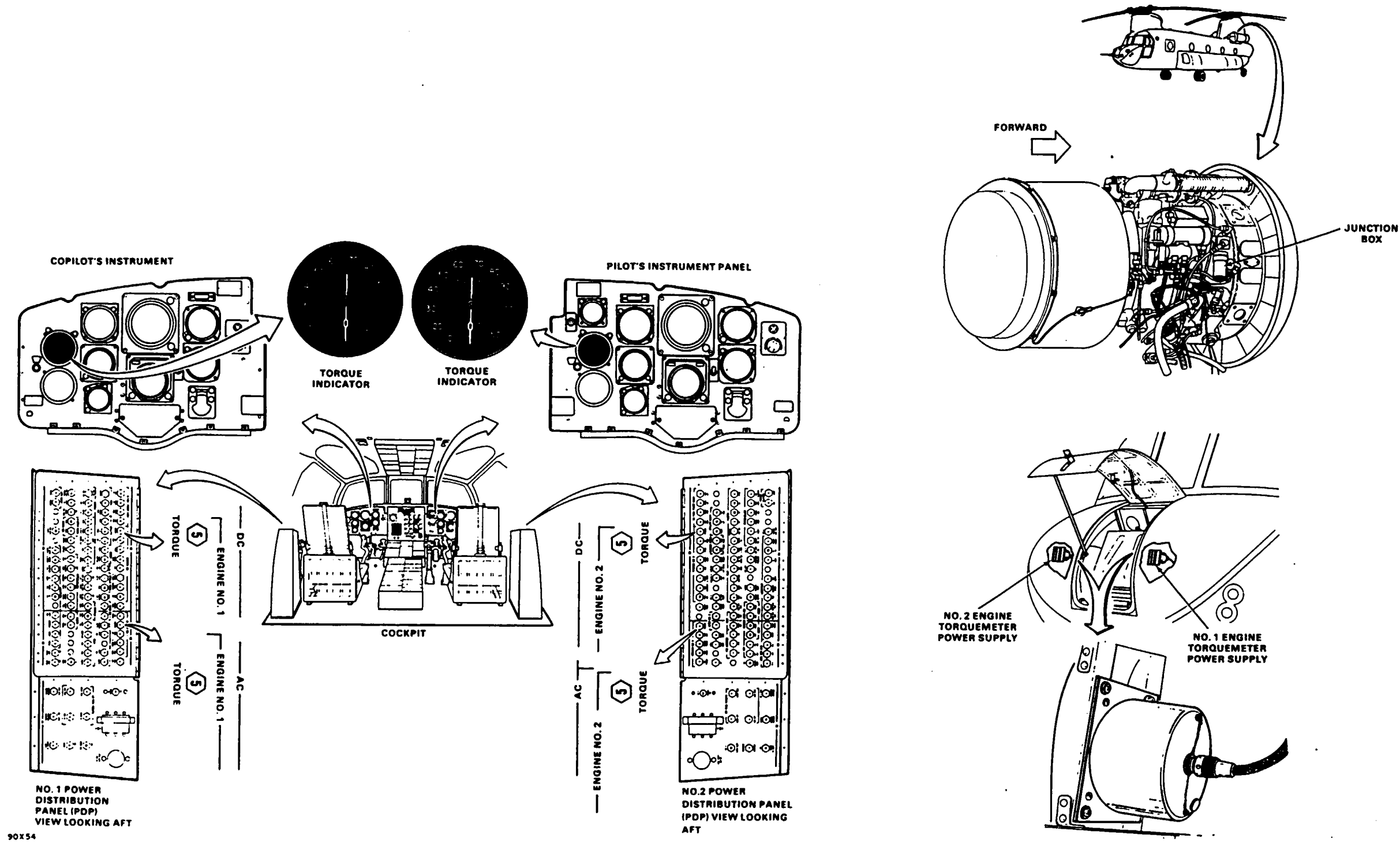


D145-11223-SPA









D145-11224-SPA

8-6.6.1 NO. 1 POINTER ON PILOT'S OR COPILOT'S INDICATOR DOES NOT INDICATE TORQUE

8-6.6.1

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 74

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

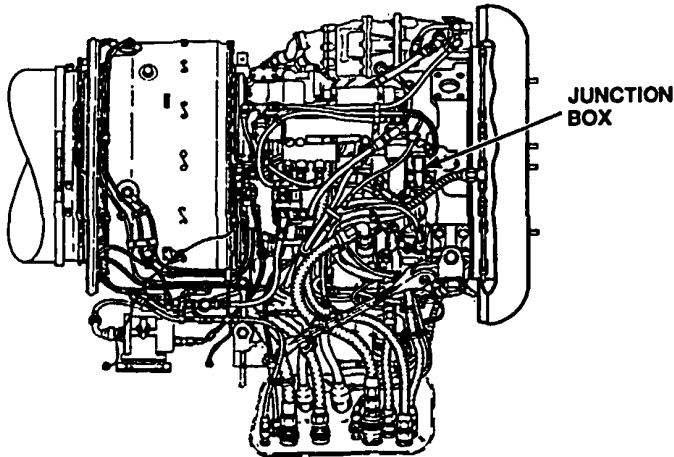
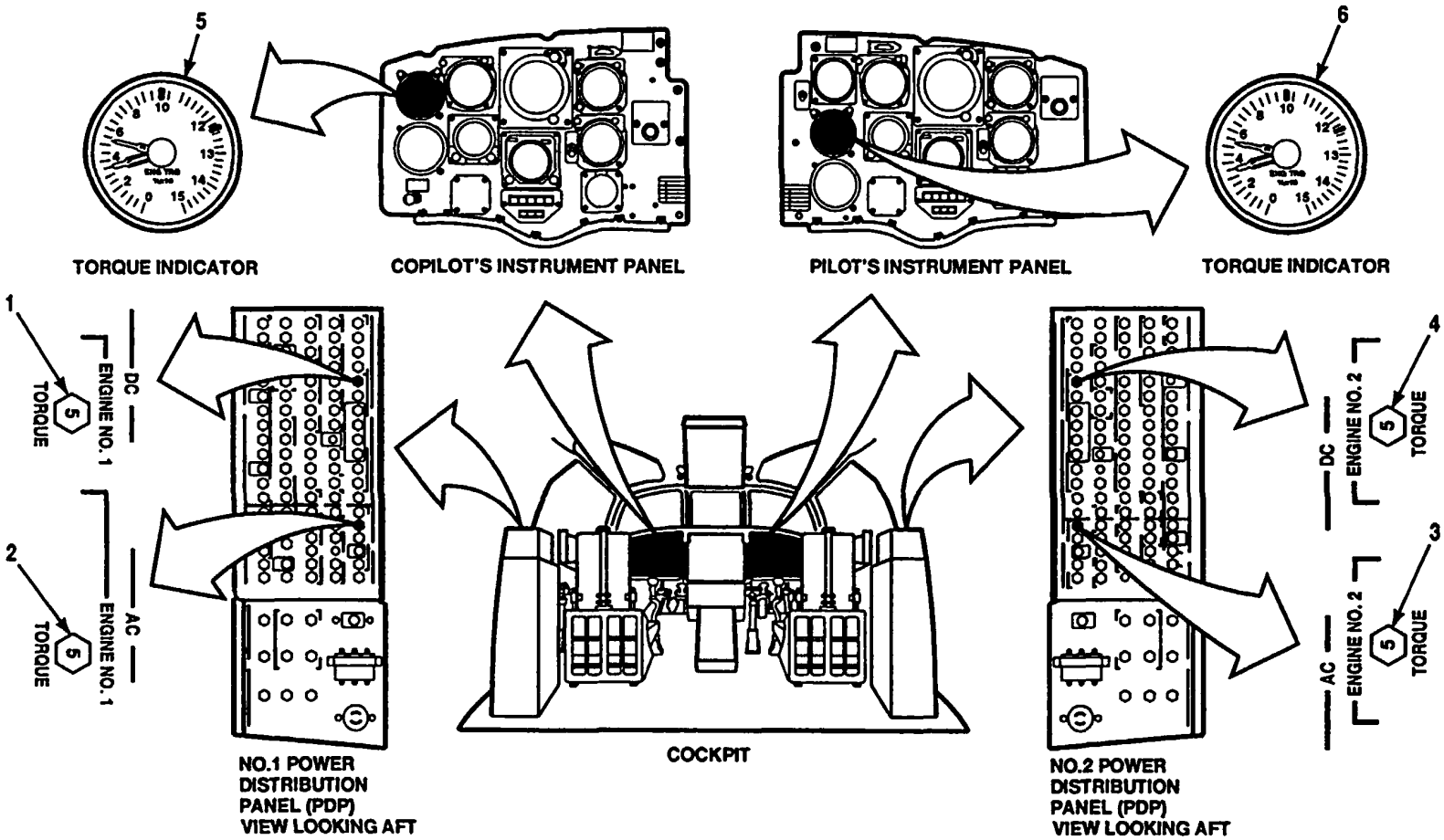
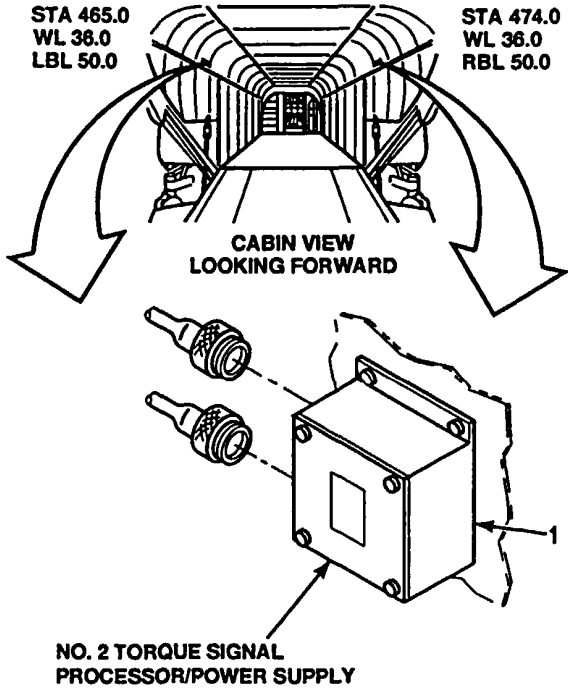
Aircraft Electrician (2)  
Rotary Wing Aviator (2)

References:

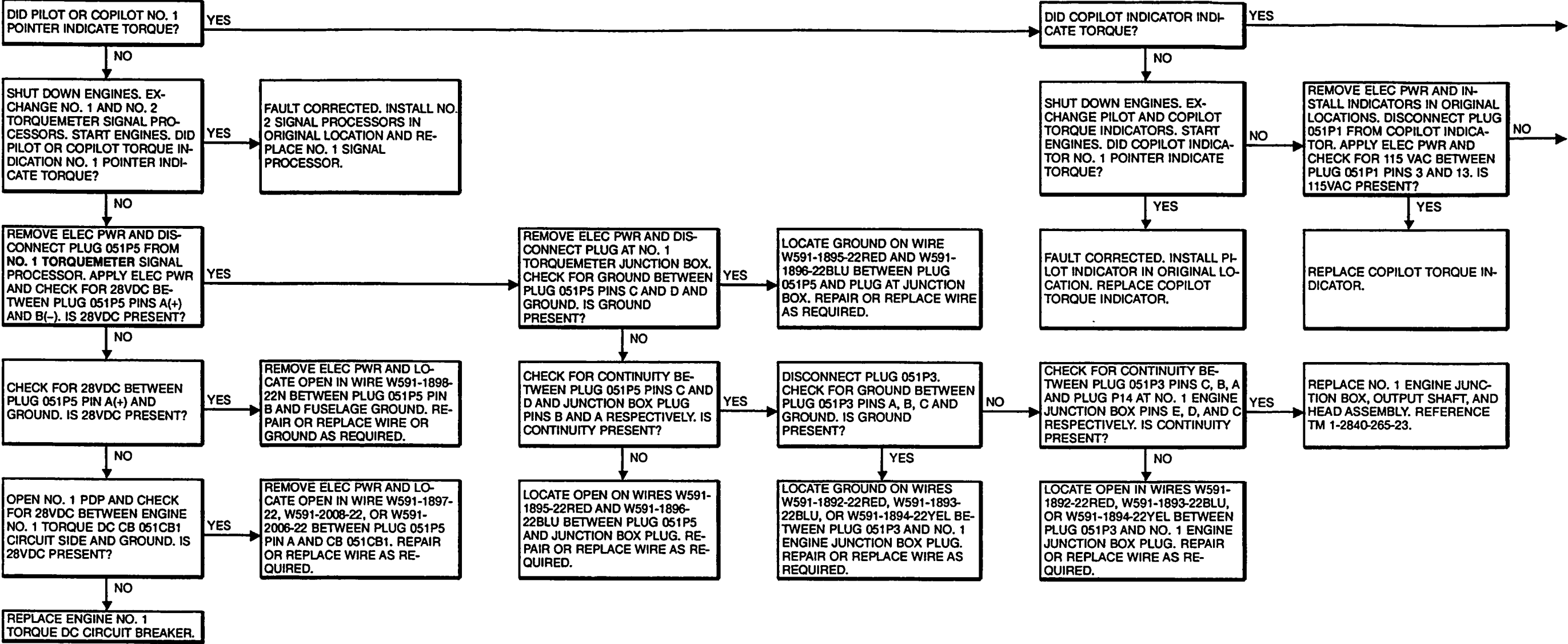
TM 1-2840-265-23  
TM 55-1520-240-10  
TM 55-1520-240-23

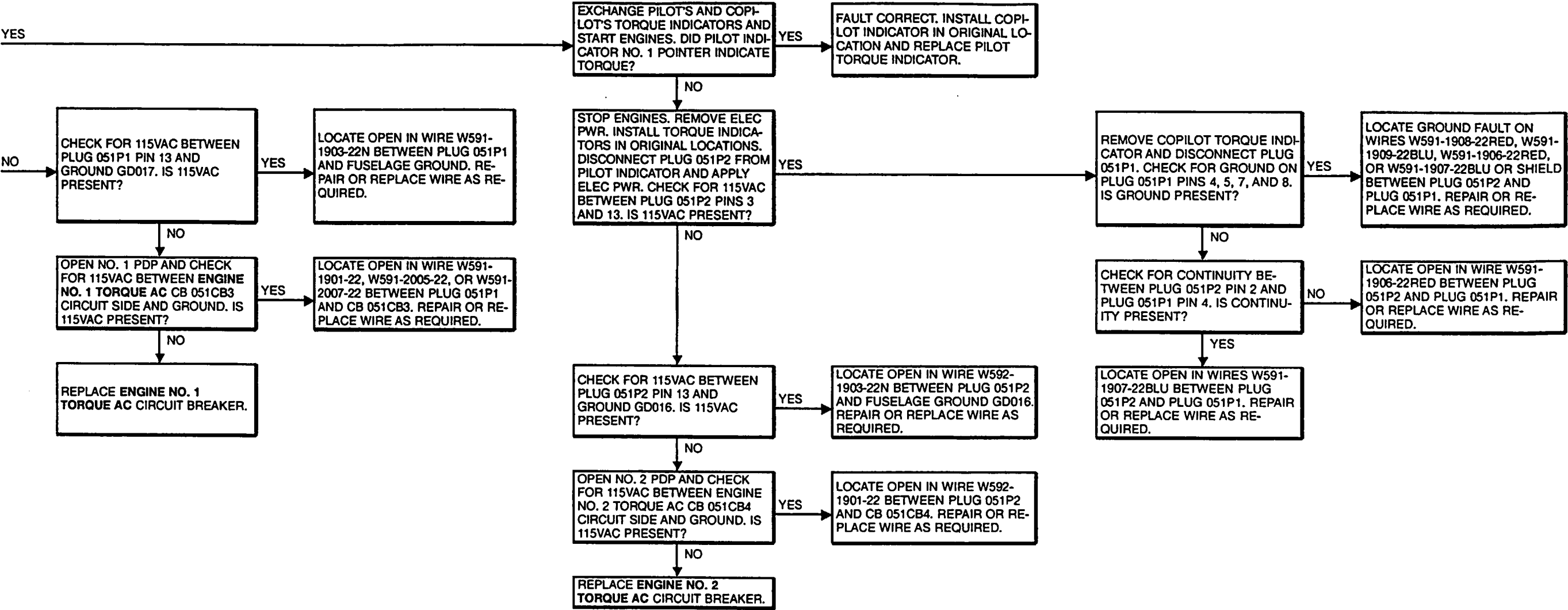
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On  
No. 1 Engine Work Platform Open  
No. 1 Engine Upper and Lower Access Covers  
Open  
No. 2 Engine Work Platform Open  
No. 2 Engine Upper and Lower Access Doors  
Open



A65556





8-6.7 NO. 2 POINTER ON PILOT'S OR COPILOT'S INDICATOR DOES NOT INDICATE TORQUE

8-6.7

FAULT ISOLATION PROCEDURE

INITIAL SETUP

TM 55-1520-240-23

Applicable Configurations:

- Without 74
- Tools:
  - Electrical Repairer's Tool Kit,
  - NSN 5180-00-323-4915

Materials:

None

Personnel Required:

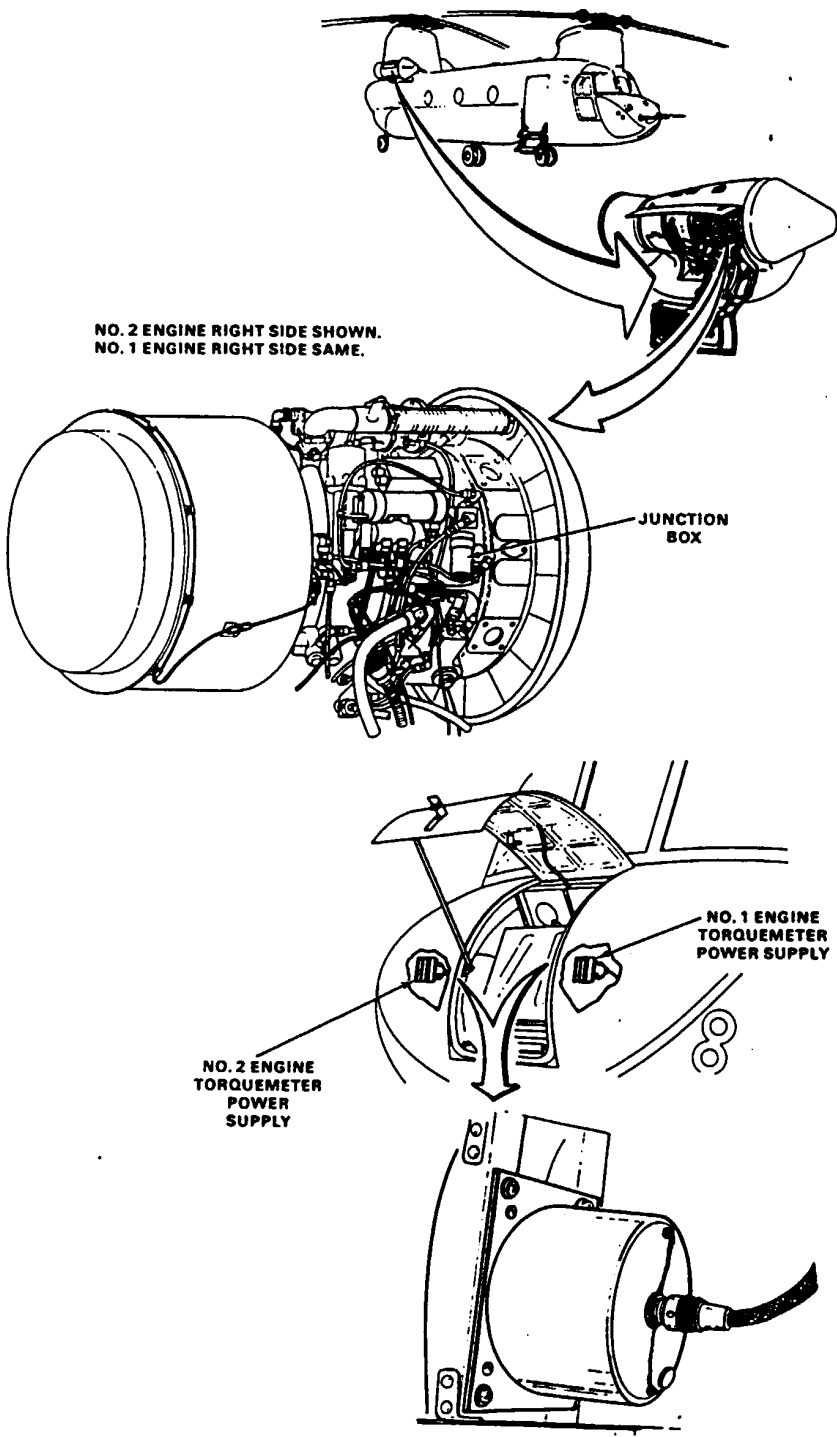
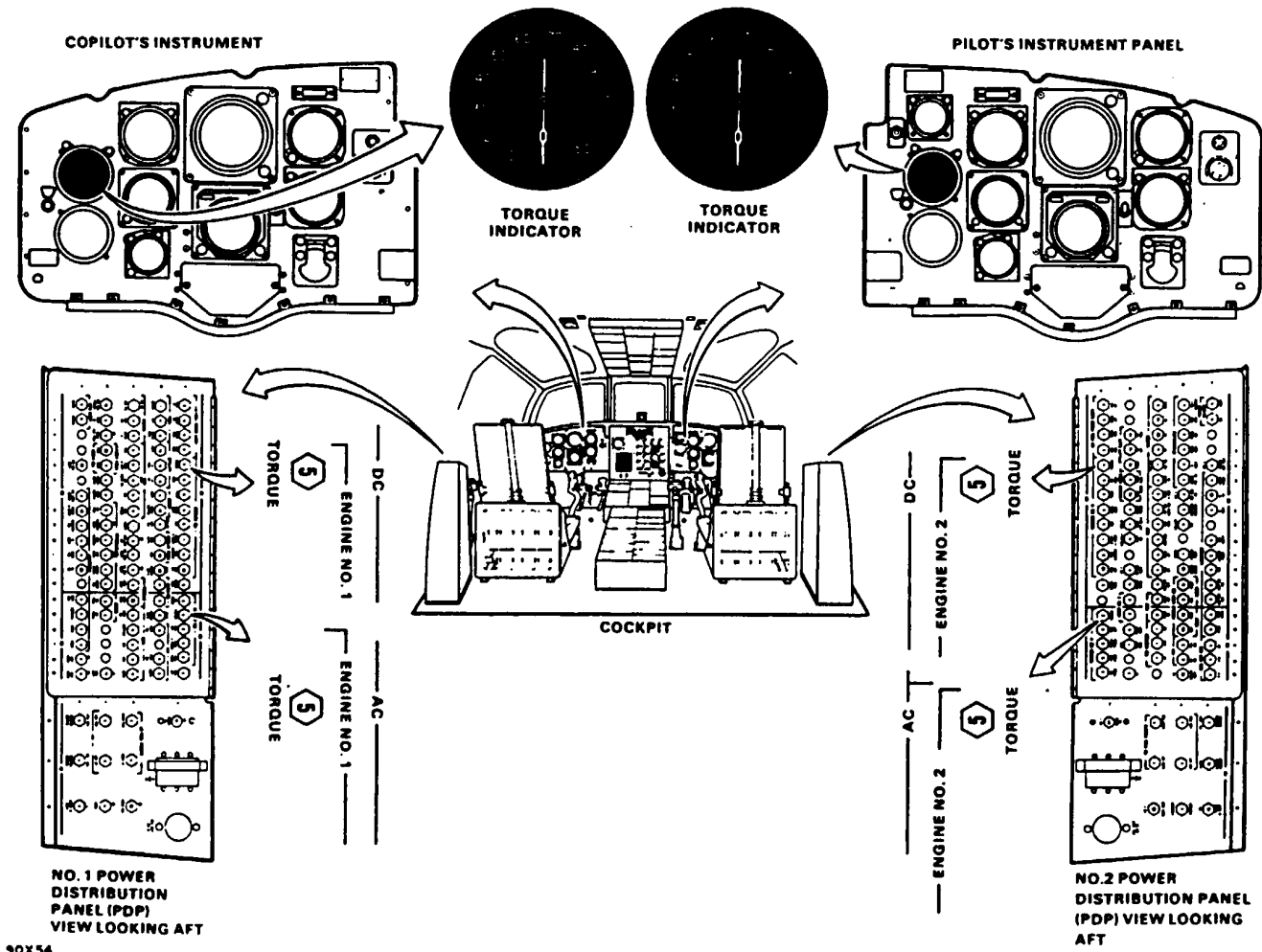
- Aircraft Electrician (2)
- Rotary Wing Aviator (2)

References:

TM 55-1520-240-10

Equipment Condition:

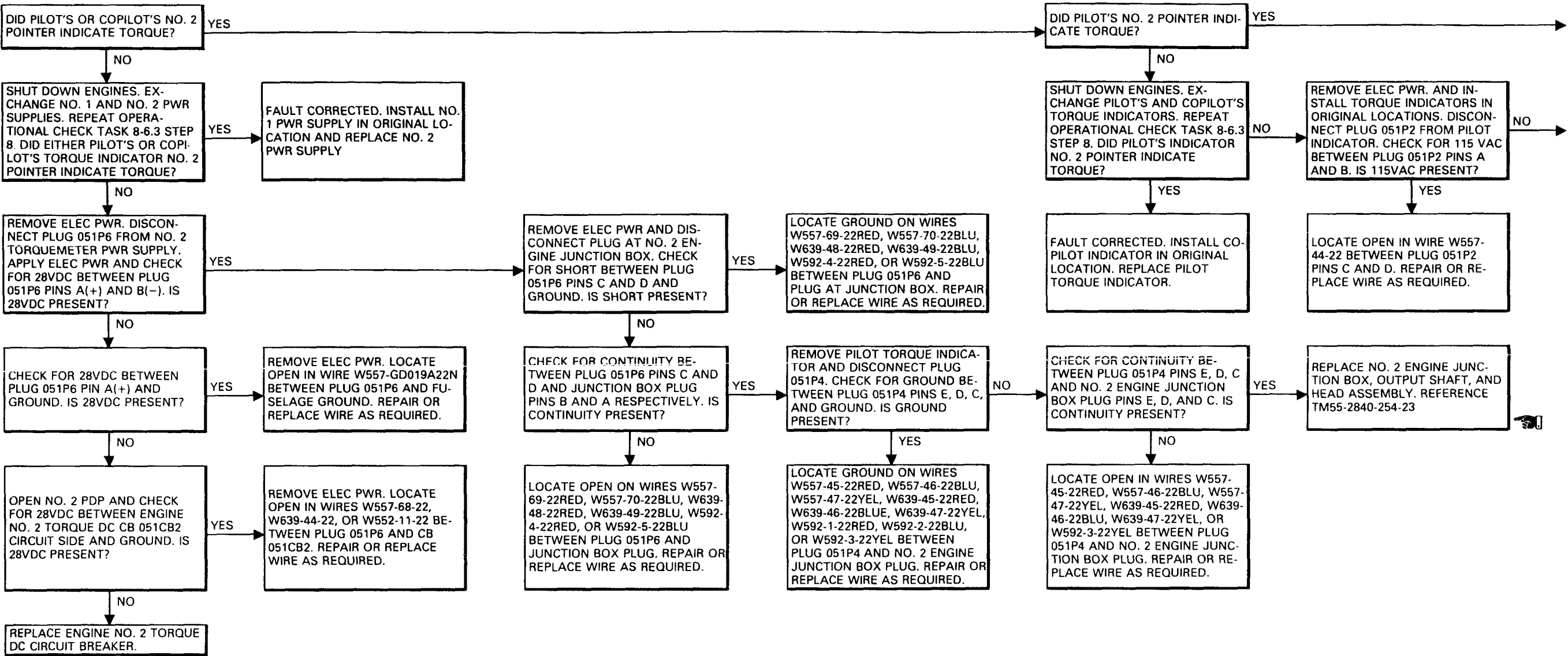
- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power On
- Nose Access Door Open
- No. 1 Engine Work Platform Open
- No. 1 Engine Upper and Lower Access Covers Open
- No. 2 Engine Work Platform Open
- No. 2 Engine Upper and Lower Access Doors



0145-11225-SPA

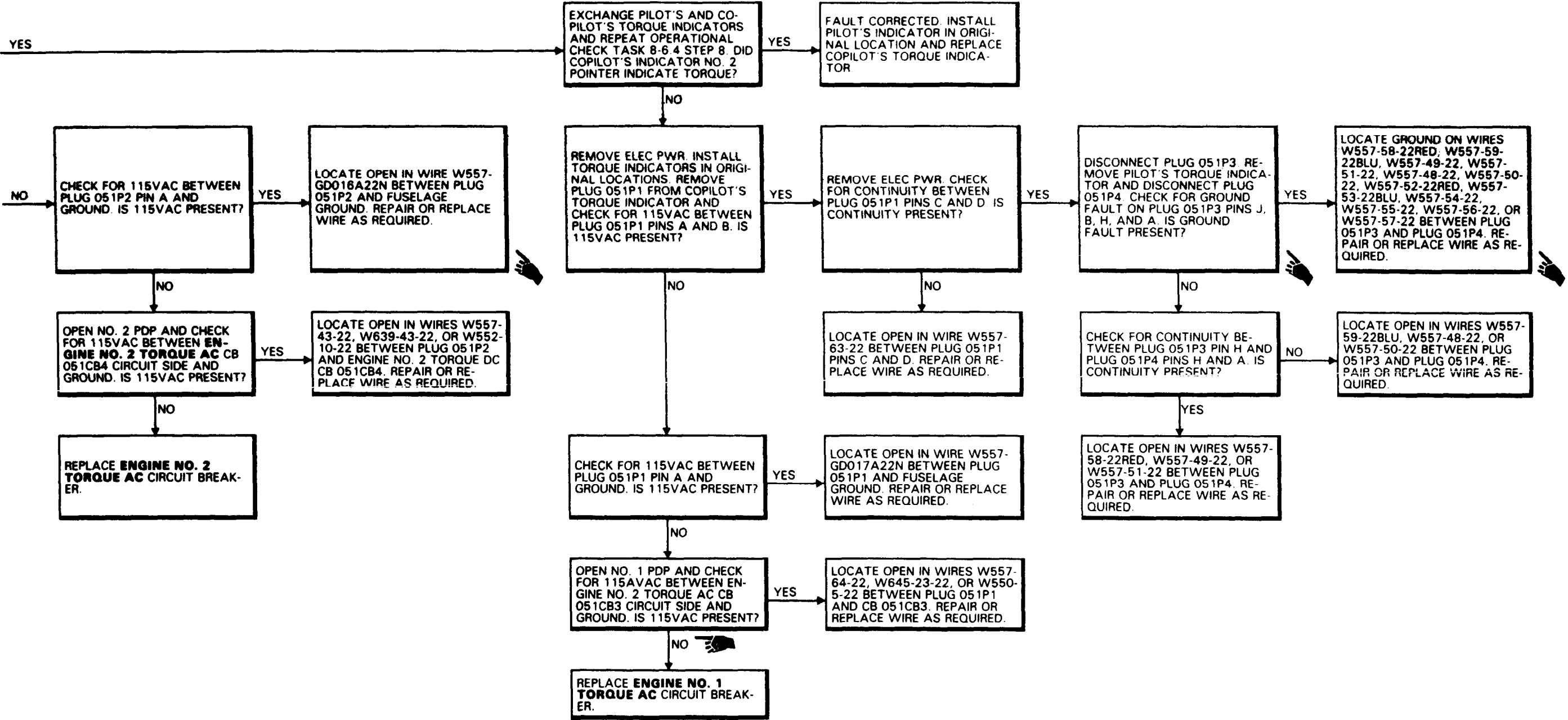
8-6.7 NO. 2 POINTER ON PILOT'S OR COPILOT'S INDICATOR DOES NOT INDICATE TORQUE (Continued)

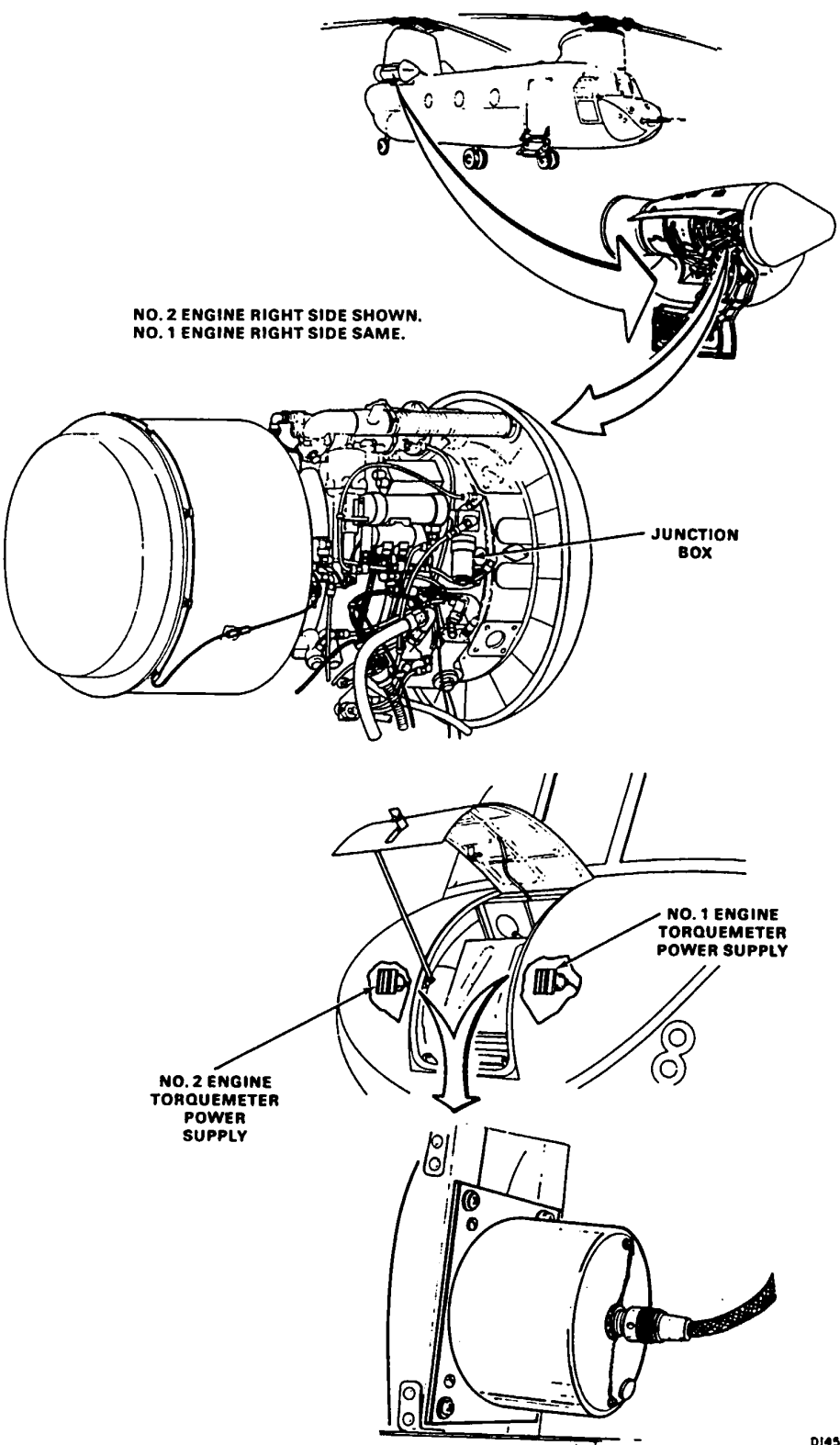
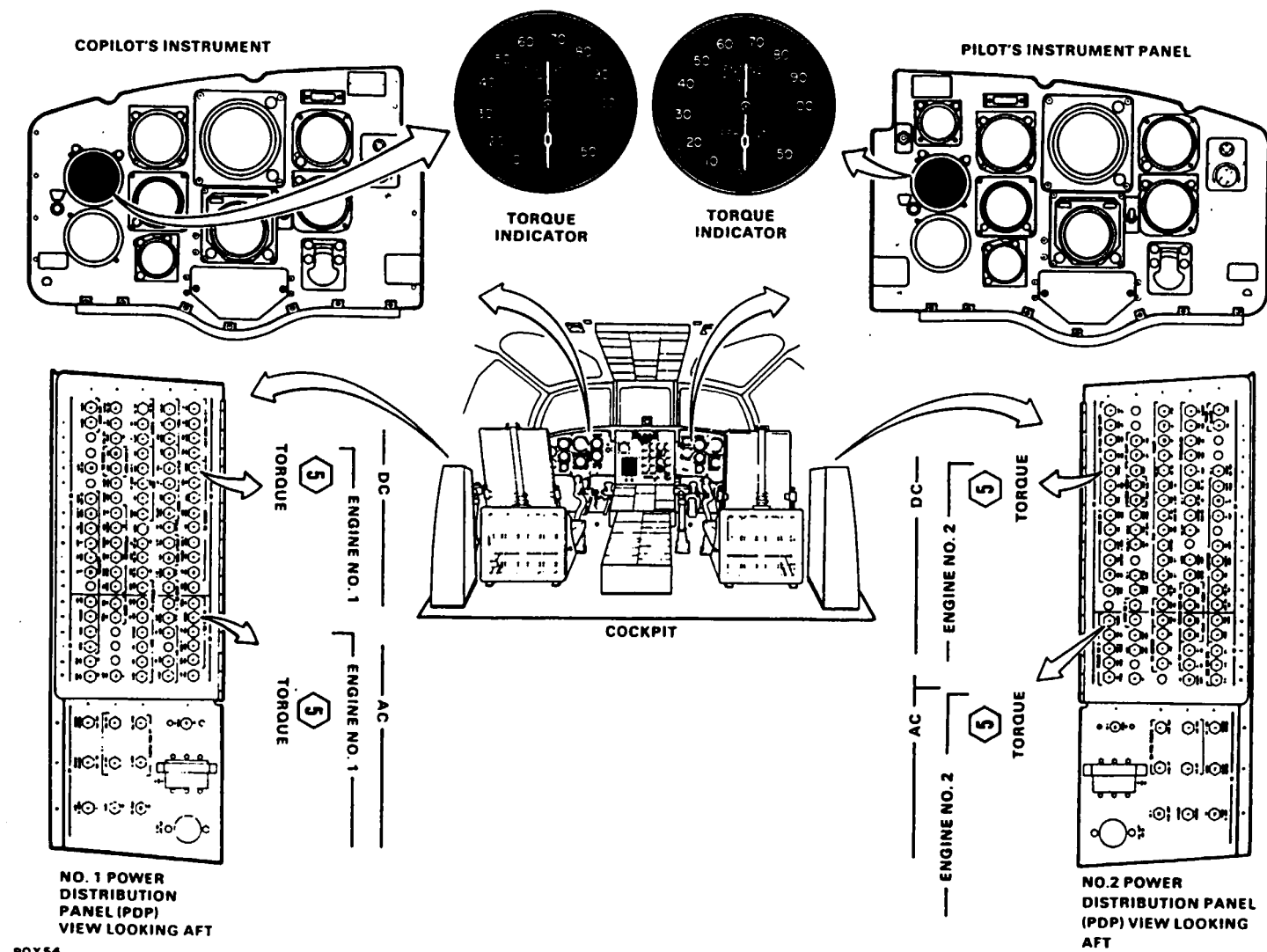
8-6.7





8-6.7 NO. 2 POINTER ON PILOT'S OR COPILOT'S INDICATOR DOES NOT INDICATE TORQUE (Continued)





D145-11226-SPA

8-6.7.1 NO. 2 POINTER ON PILOT'S OR COPILOT'S INDICATOR DOES NOT INDICATE TORQUE

8-6.7.1

FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
With 74

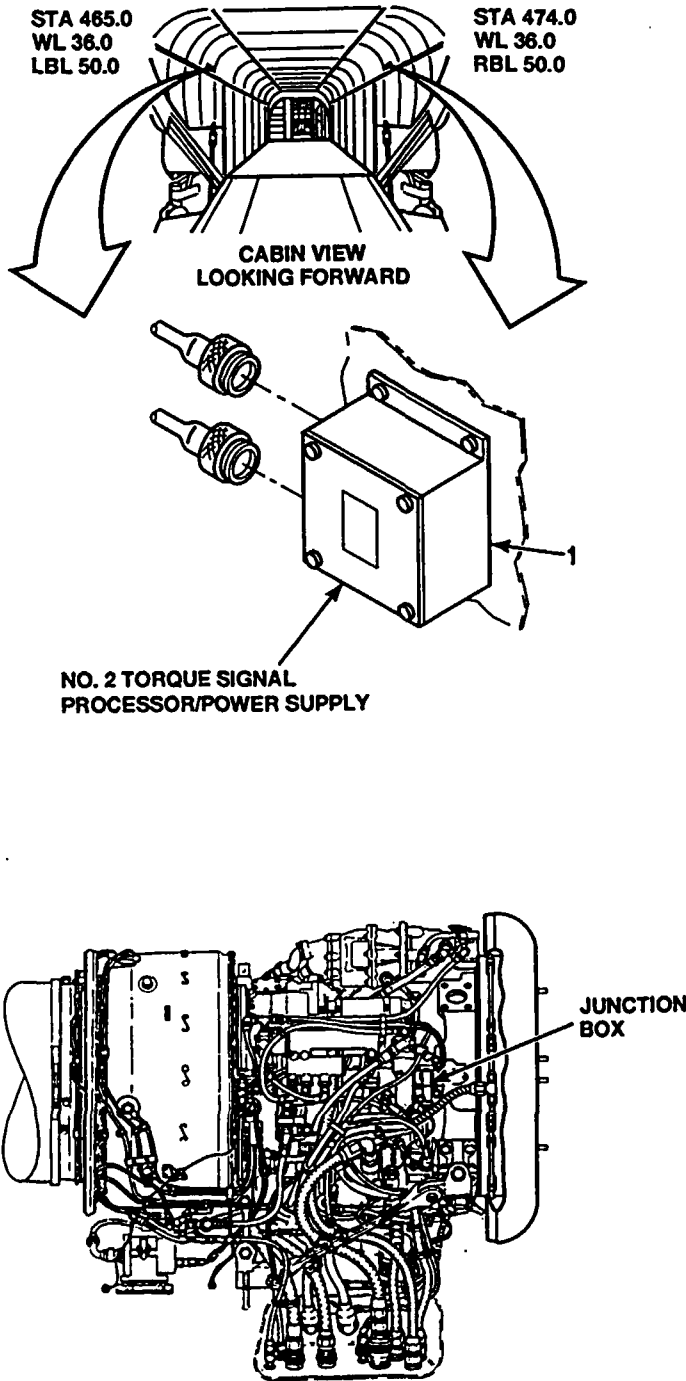
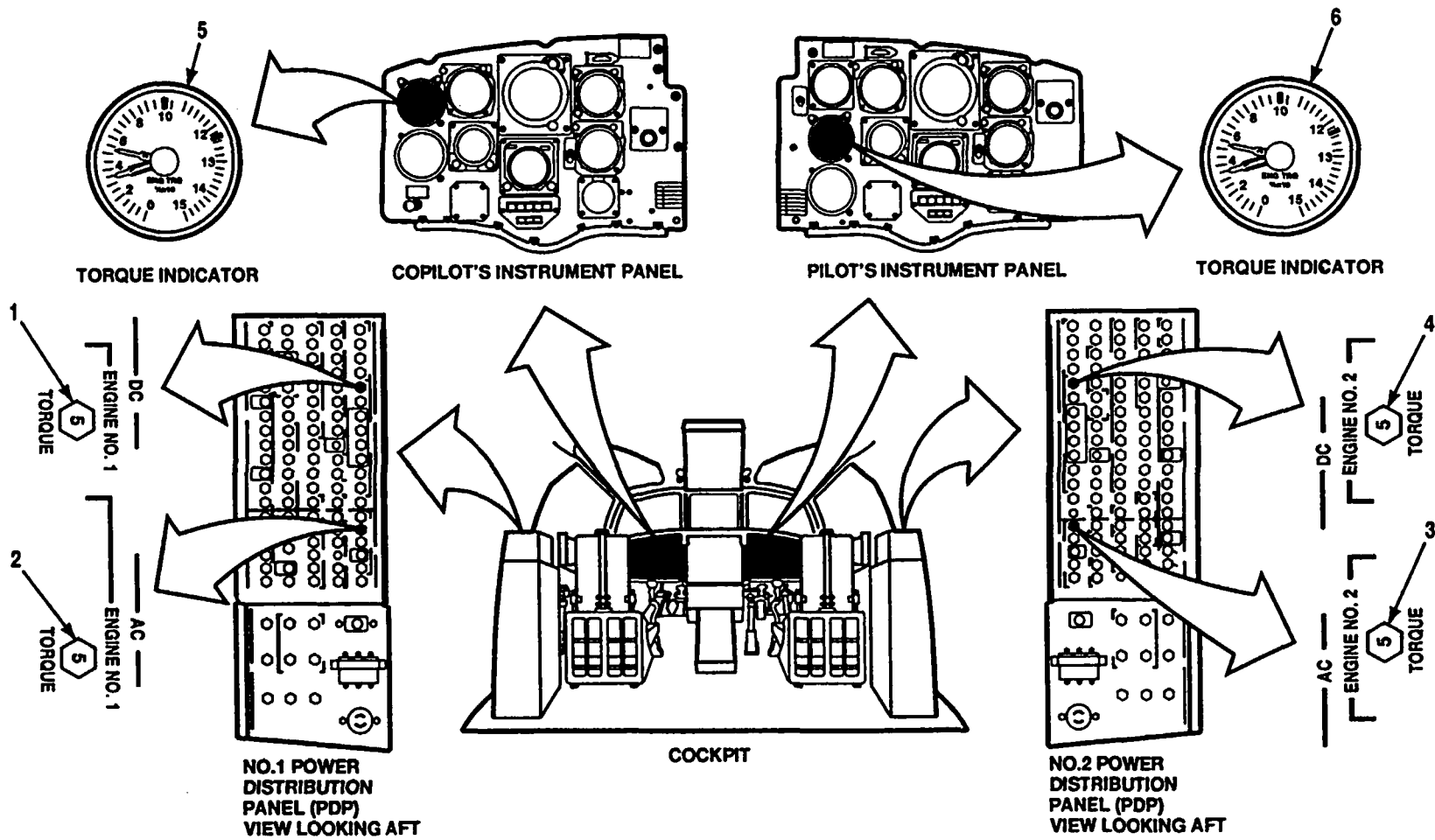
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

**Materials,:**  
None

**Personnel Required:**  
Open  
Aircraft Electrician (2)  
Rotary Wing Aviator (2)

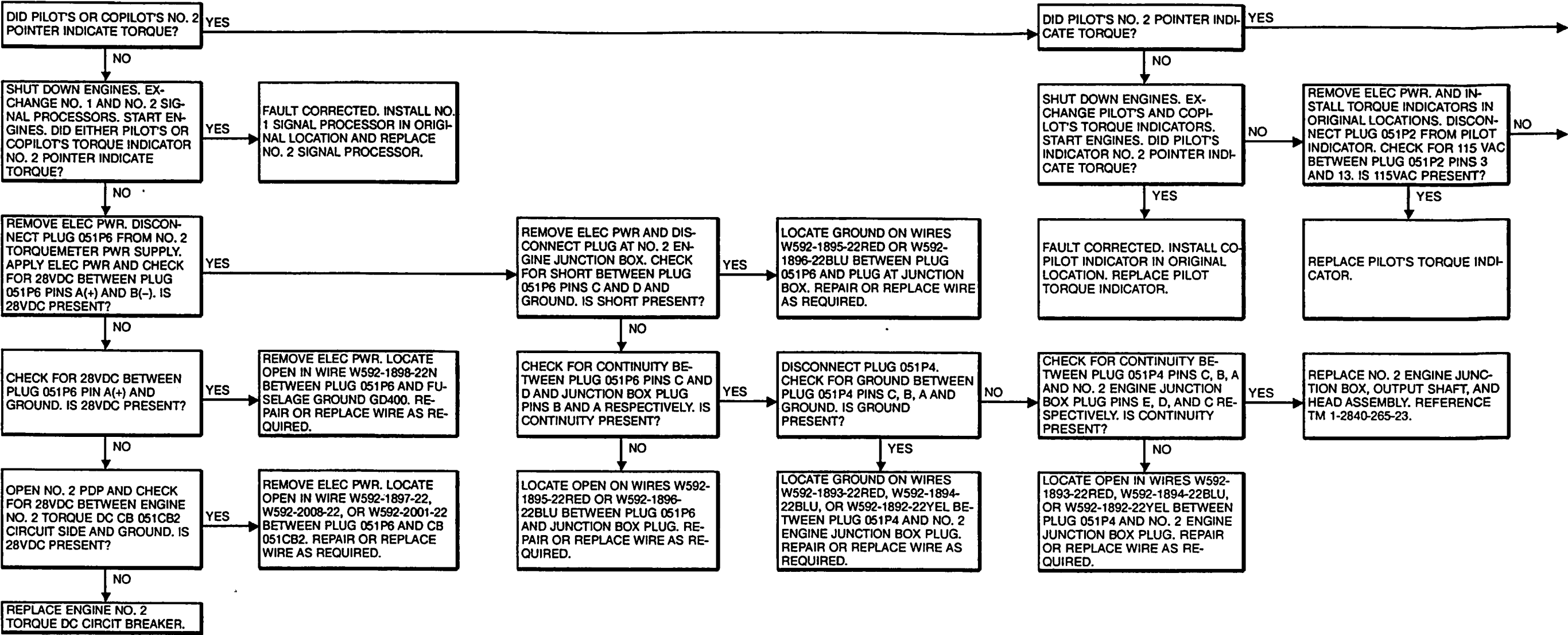
**References:**  
TM 1-2840-265-23  
TM 55-1520-240-10  
TM 55-1520-240-23

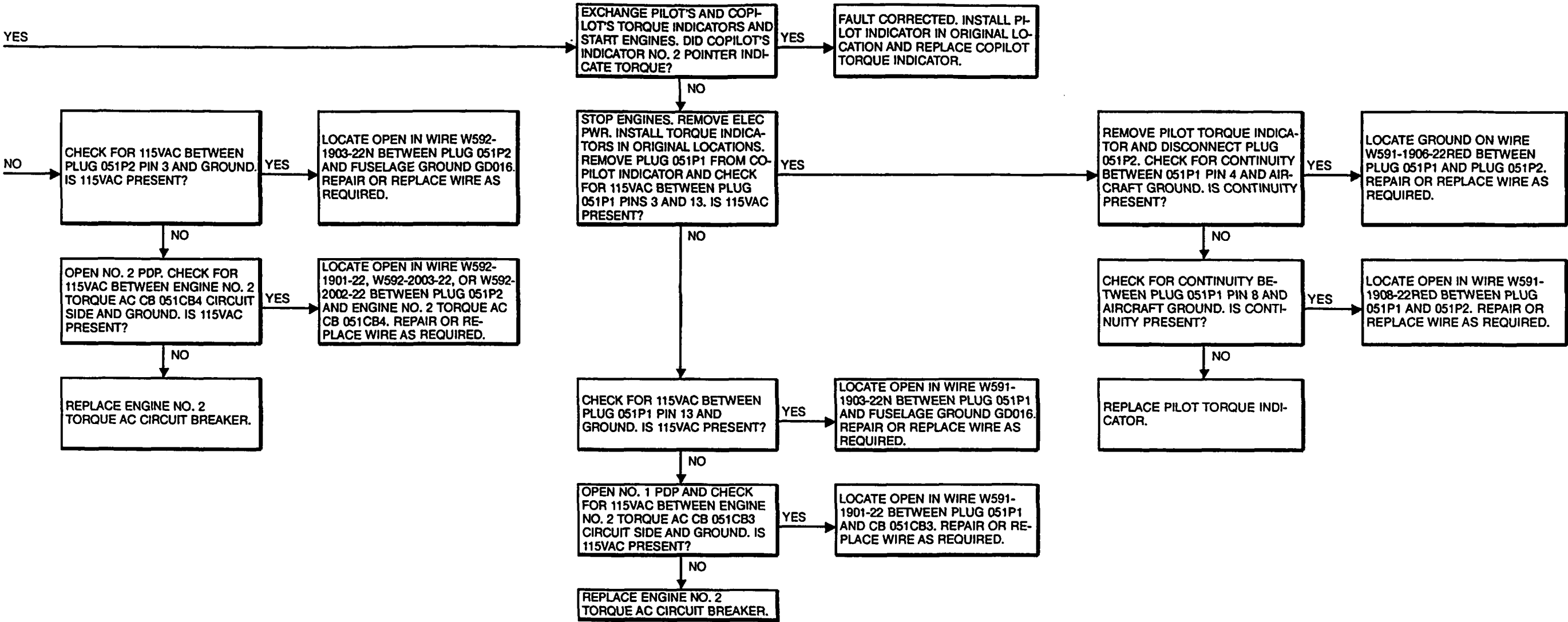
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On  
Hydraulic Power On  
No. 1 Engine Work Platform Open  
No. 1 Engine Upper and Lower Access Covers  
Open  
No. 2 Engine Work Platform Open  
No. 2 Engine Upper and Lower Access Doors



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GO TO NEXT PAGE





FAULT ISOLATION PROCEDURE

INITIAL SETUP

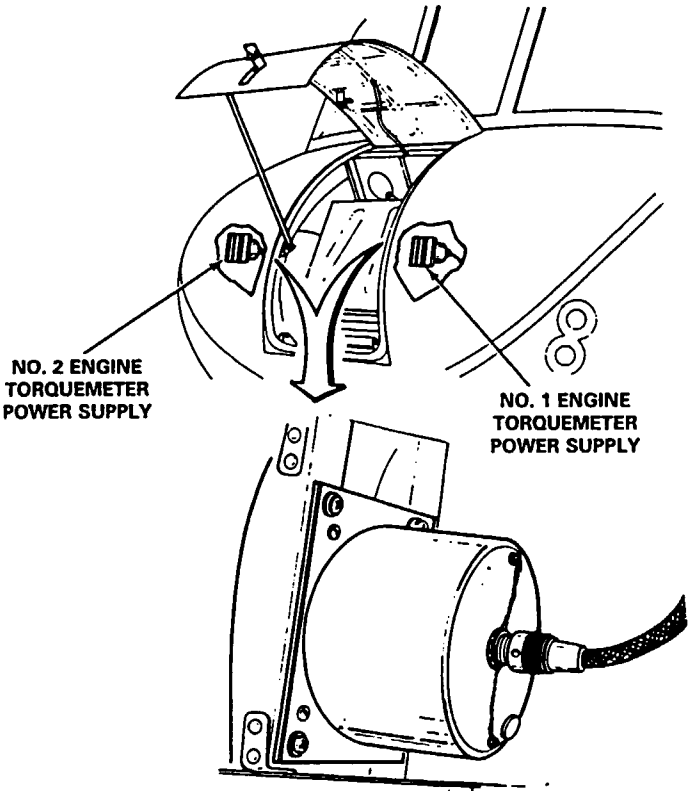
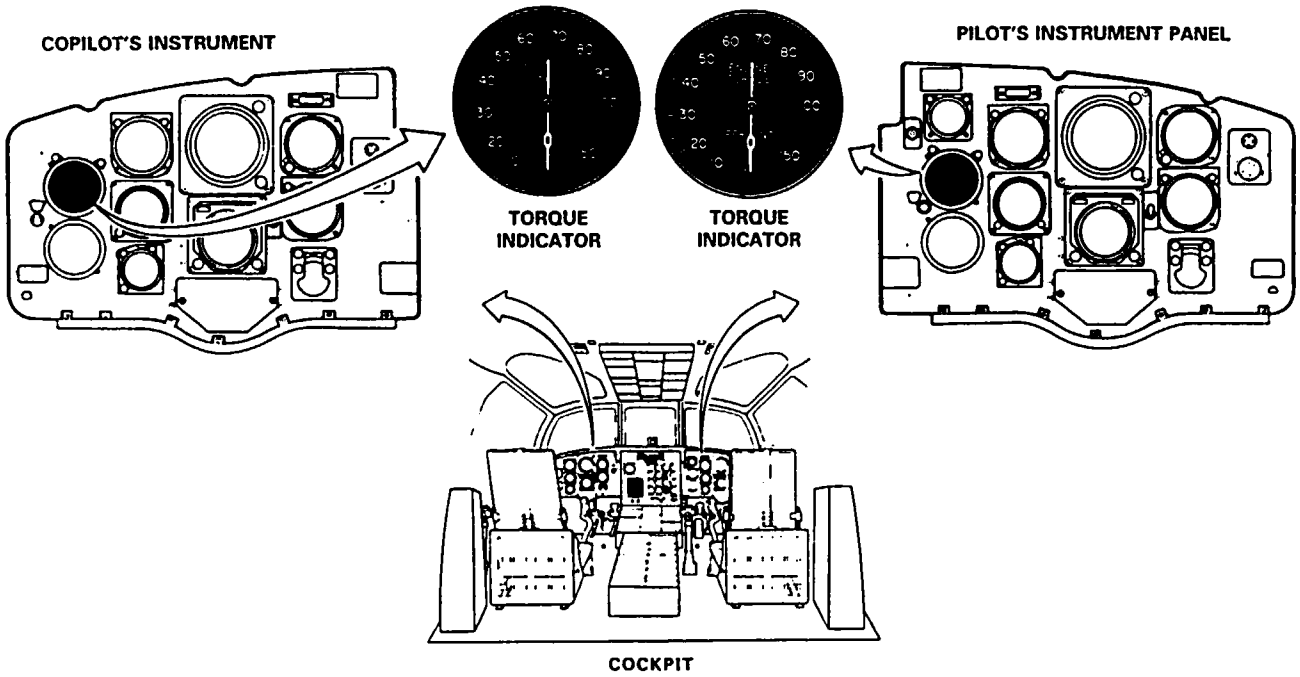
Applicable Configurations:  
Without 74

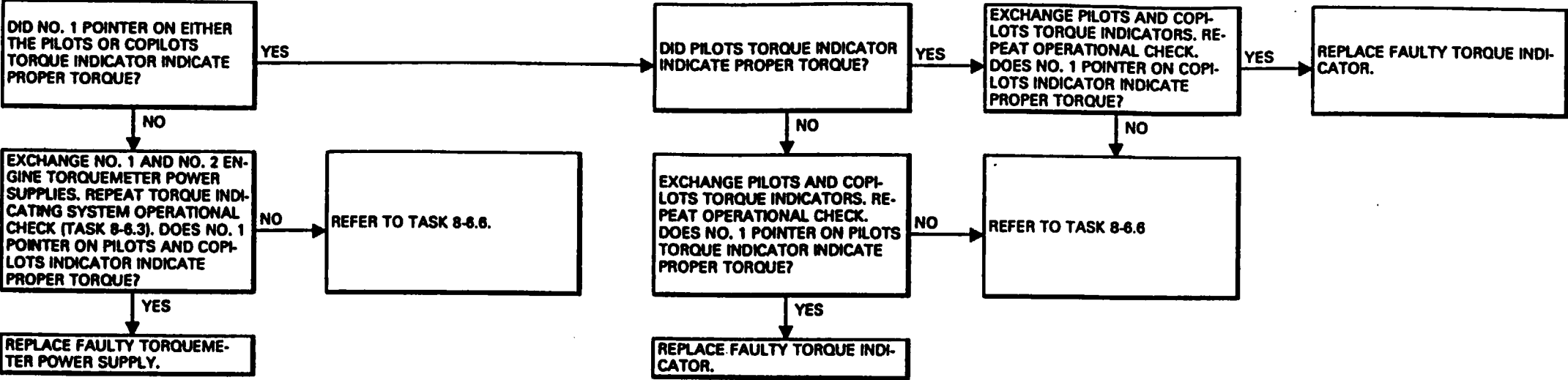
Tools:  
Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915

Materials:  
None

Personnel Required:  
Aircraft Electrician (2)

References:  
TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-24023:  
Battery Connected  
Electrical Power On  
Hydraulic Power On





8-6.9 NO. 2 POINTER ON PILOTS OR COPILOTS TORQUE INDICATOR DOES NOT INDICATE PROPER TORQUE USING TORQUE SIGNAL SIMULATOR

8-6.9

FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
With 74

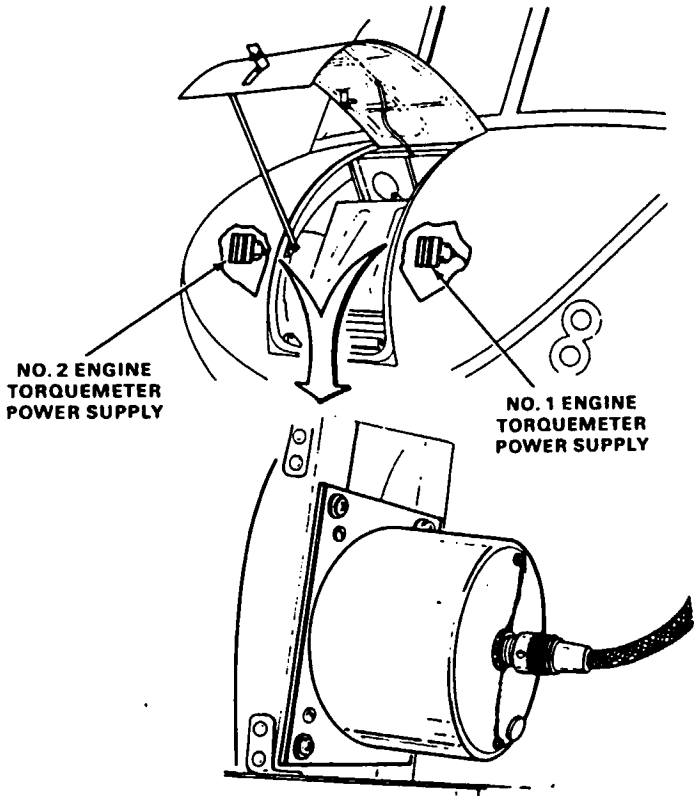
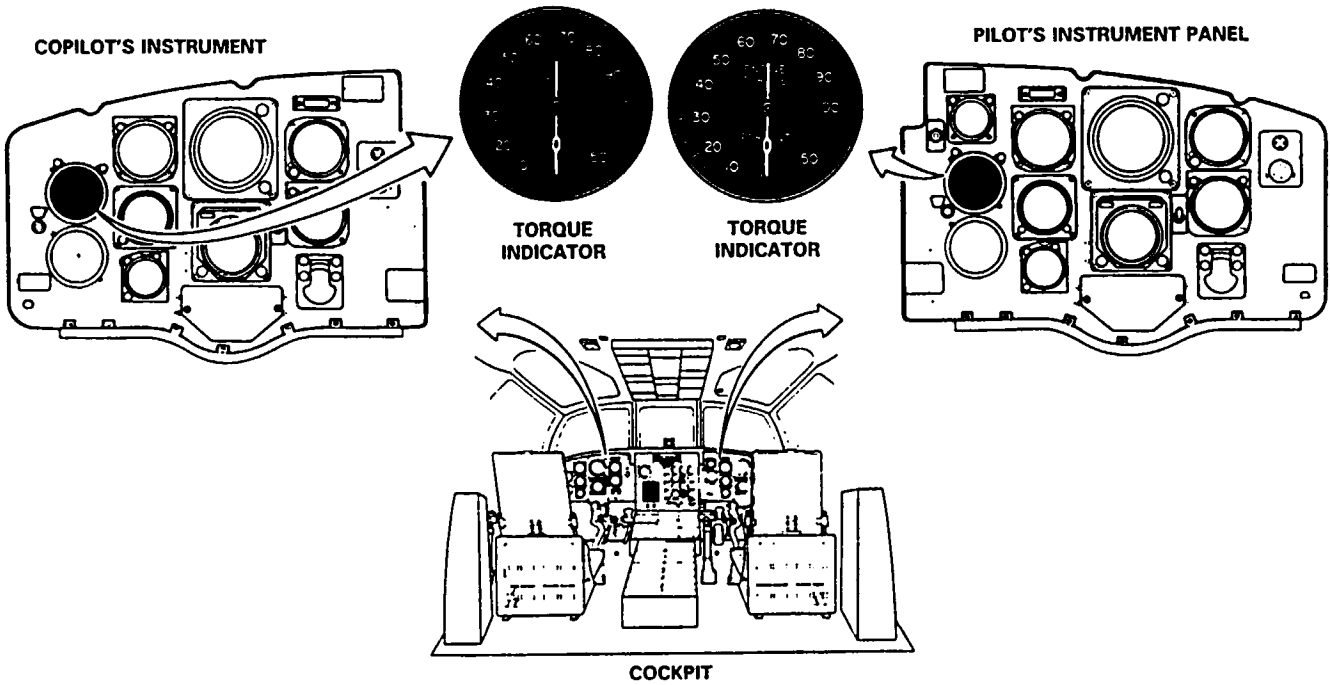
**Tools:**  
Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915

**Materials:**  
None

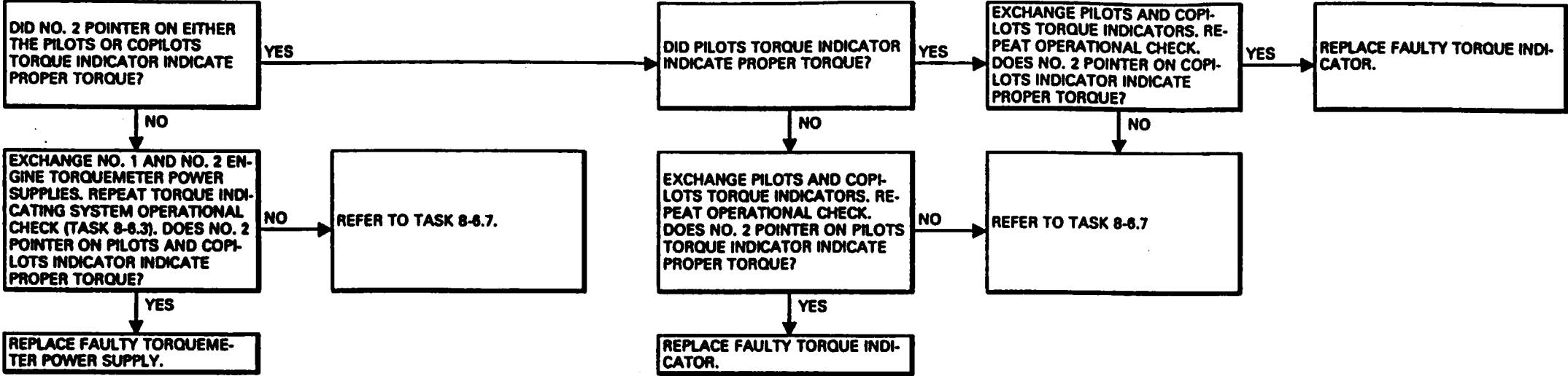
**Personnel Required:**  
Aircraft Electrician (2)

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-152024023:  
Battery Connected  
Electrical Power On  
Hydraulic Power On







8-6.10 NO. 1 POINTER ON PILOTS AND COPILOTS TORQUE INDICATOR OPERATES ERRATICALLY

8-6.10

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- Tools:
- All
  - Aircraft Powerplant Repairer's Tool Kit, NSN 5180-00-323-4944
  - Electrical Repairer's Tool Kit, NSN 5180-00-3234915
  - On Wing Torque Comparator Test Set LTCT 28295-01 (Without 74)
  - Electric Torquemeter Flight Line Test Set LTCT 29089-01/-03 (With 74)

Materials:

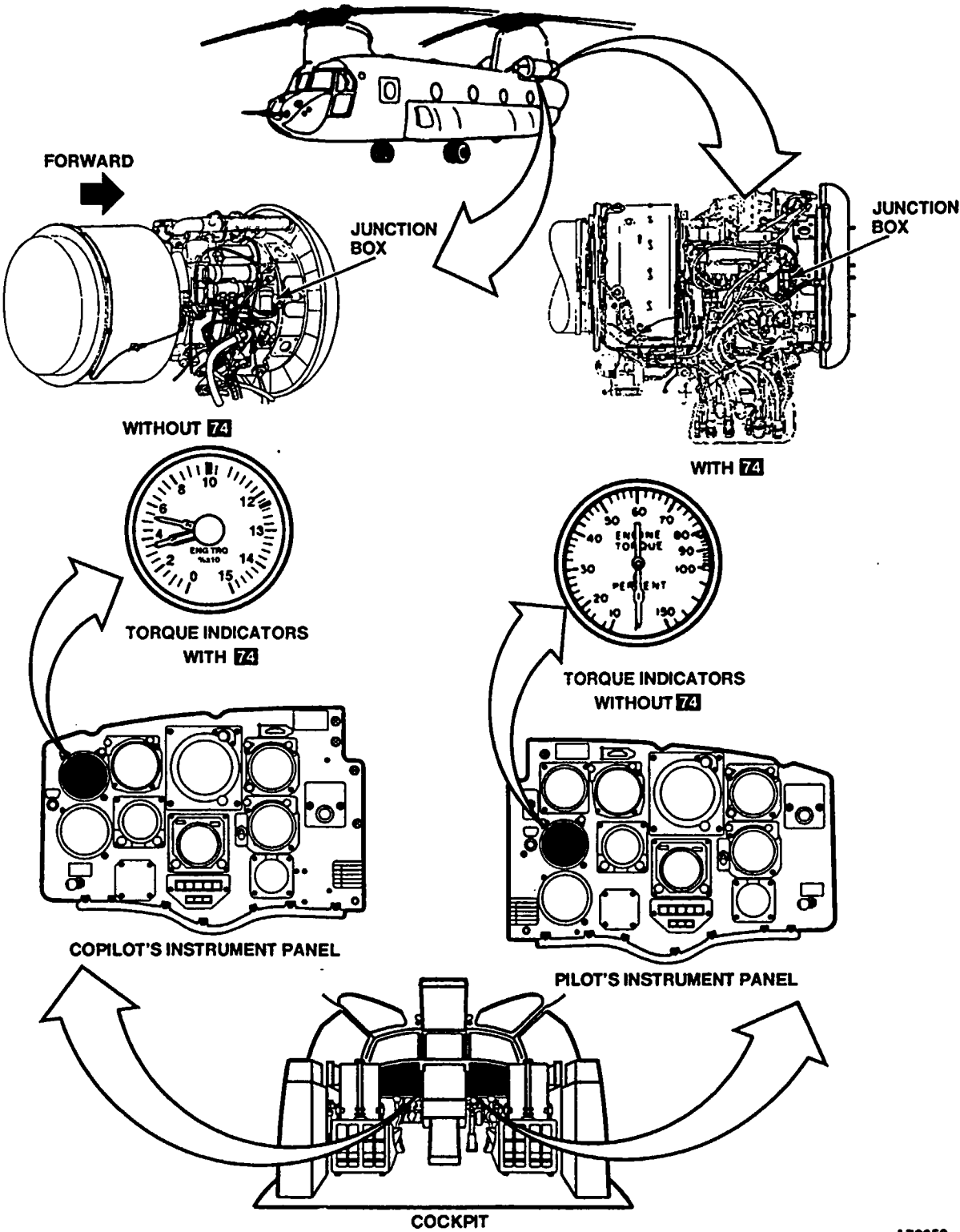
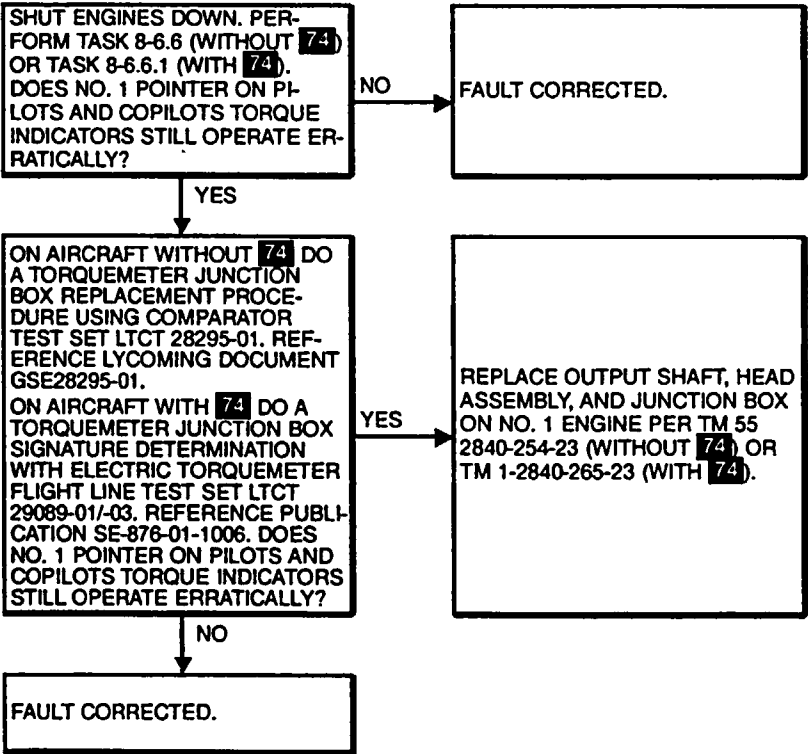
- None
- Personnel Required:
- Aircraft Electrician
  - Aircraft Powerplant Repairer

References:

- TM 55-1520-240-23
- TM 55-2840-254-23 (Without 74)
- TM 1-2840-265-23 (With 74)
- On Wing Torque Comparator Test Set Manual, Lycoming Document GSE28295-01 (Without 74)
- Electric Torquemeter Flight Line Test Set Manual, SE-876-01-1006 (With 74)

Equipment Condition:

- TM 55-1520-240-23:
- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off
- Nose Access Door Open



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Aircraft Powerplant Repairer's Tool Kit,  
NSN 5180-00-323-4944
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- On Wing Torque Comparator Test Set LTCT 28295-01  
(Without 74)
- Electric Torquemeter Flight Line Test Set  
LTCT 29089-01/-03 (With 74)

Materials:

None

Personnel Required:

Aircraft Electrician

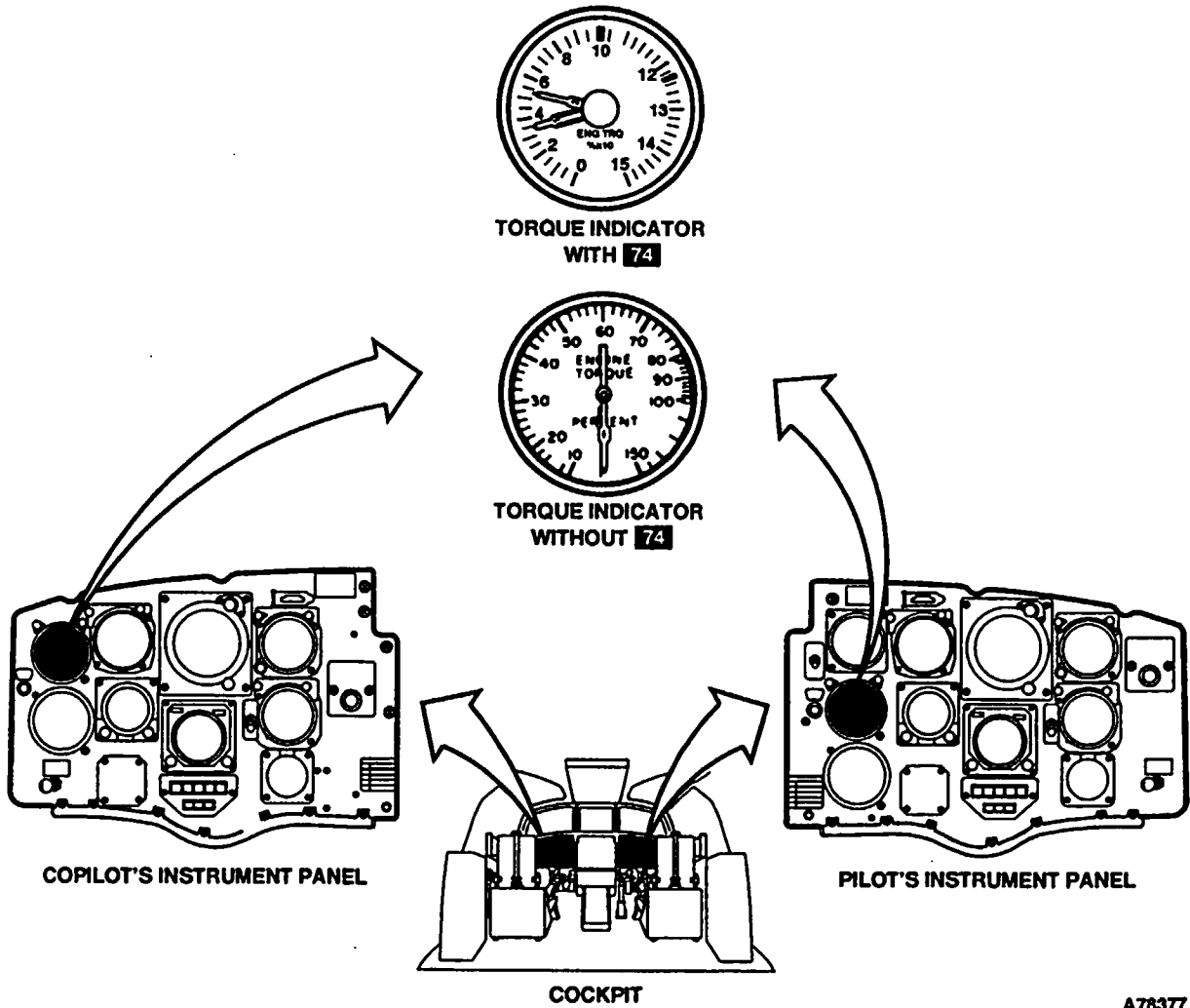
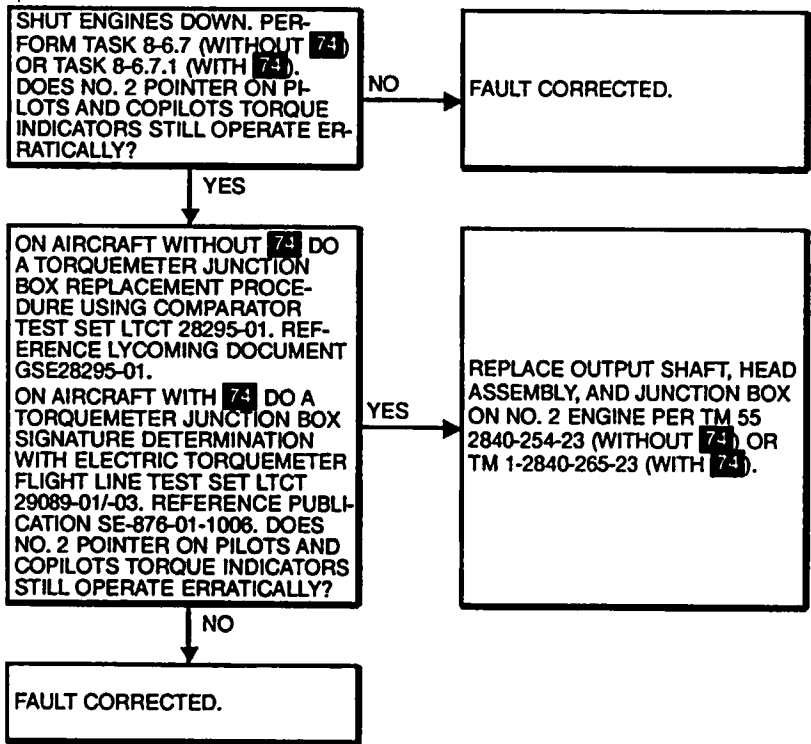
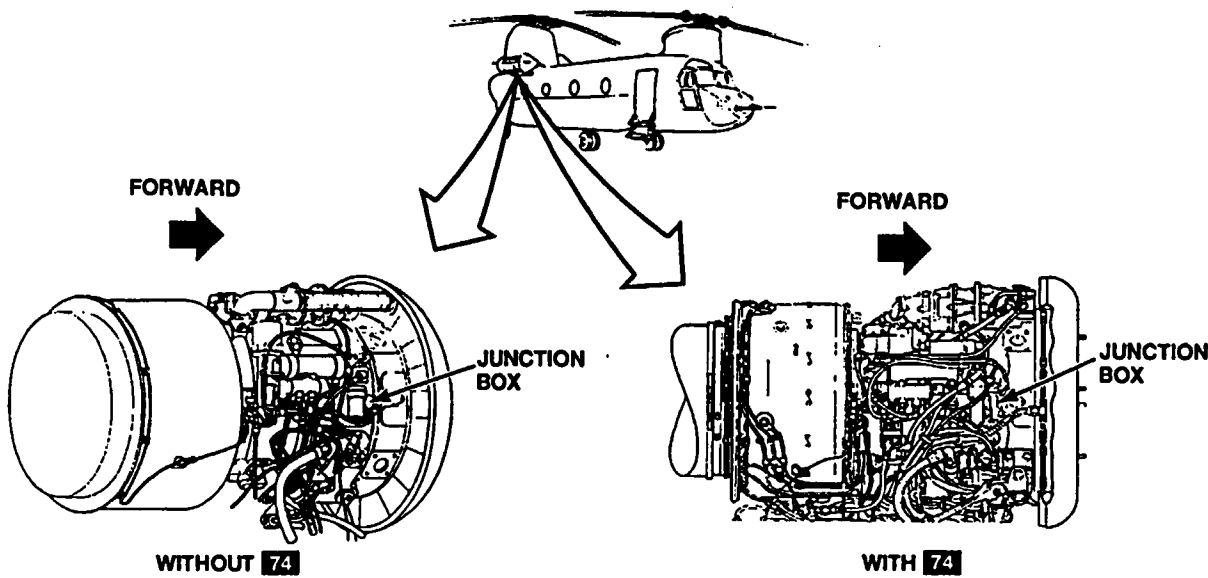
Aircraft Powerplant Repairer

References:

- TM 55-1520-240-23
- TM 55-2840-254-23 (Without 74)
- TM 1-2840-265-23 (With 74)
- On Wing Torque Comparator Test Set Manual,  
Lycoming Document GSE28295-01 (Without 74)
- Electric Torquemeter Flight Line Test Set Manual,  
SE-876-1-1006 (With 74)

Equipment Condition:

- TM 55-1520-240-23:
- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off
- Nose Access Door Open



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END OF TASK

Change 19 8-120.5/(8-120.6 blank)

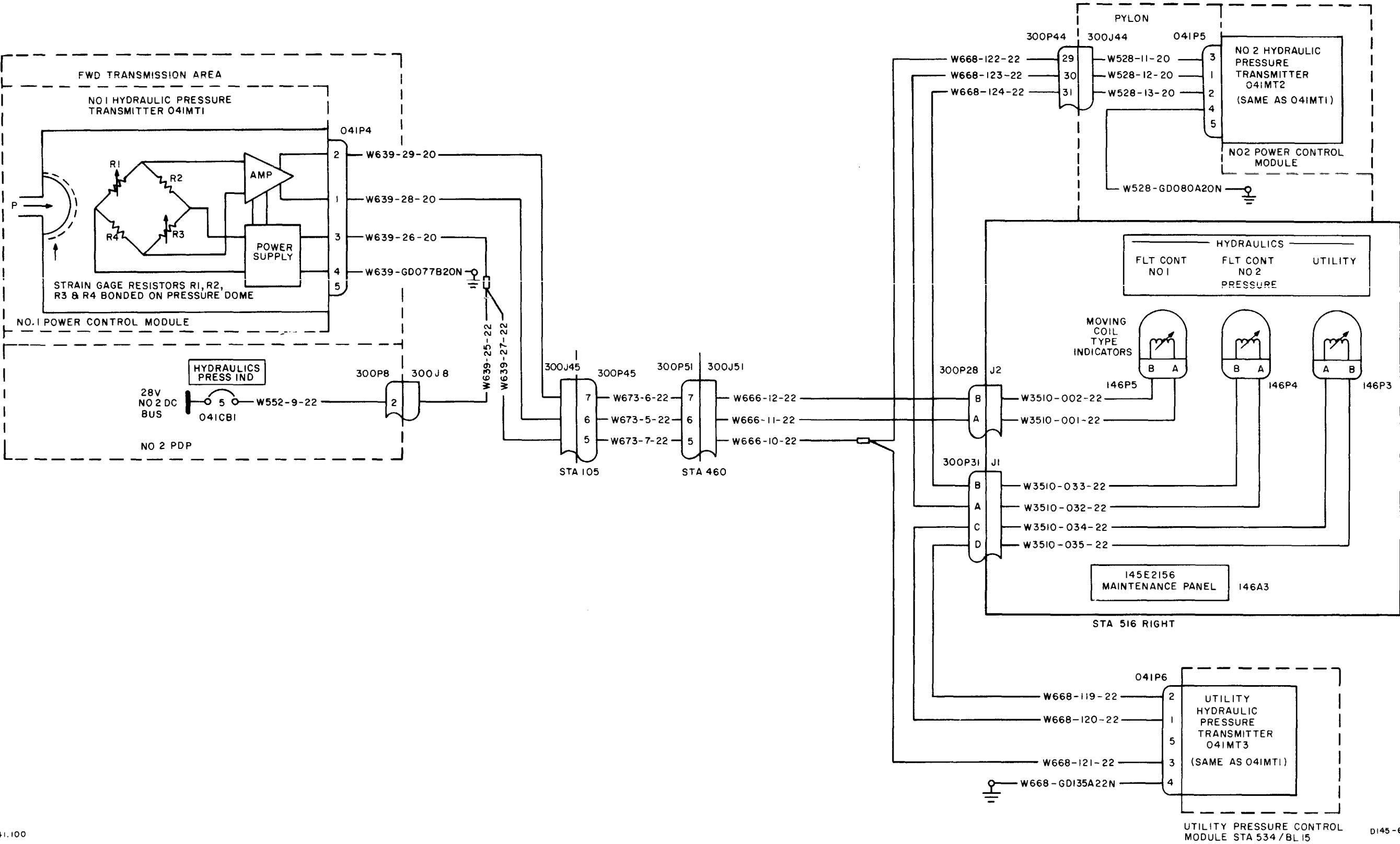
## 8 - 7   H Y D R A U L I C   P R E S S U R E   I N D I C A T I N G   S Y S T E M

8-7 HYDRAULIC PRESSURE INDICATING SYSTEM

8-7

8-7.1 HYDRAULIC PRESSURE INDICATING SYSTEM WIRING DIAGRAM

8-7.1



8-7.2 HYDRAULIC PRESSURE INDICATING SYSTEM VISUAL CHECK

8-7.2

INITIAL SETUP

**Applicable Configurations:**  
All

**Tools:**  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692

**Materials:**  
None

**Personnel Required:**  
67U10 Medium Helicopter Repairer

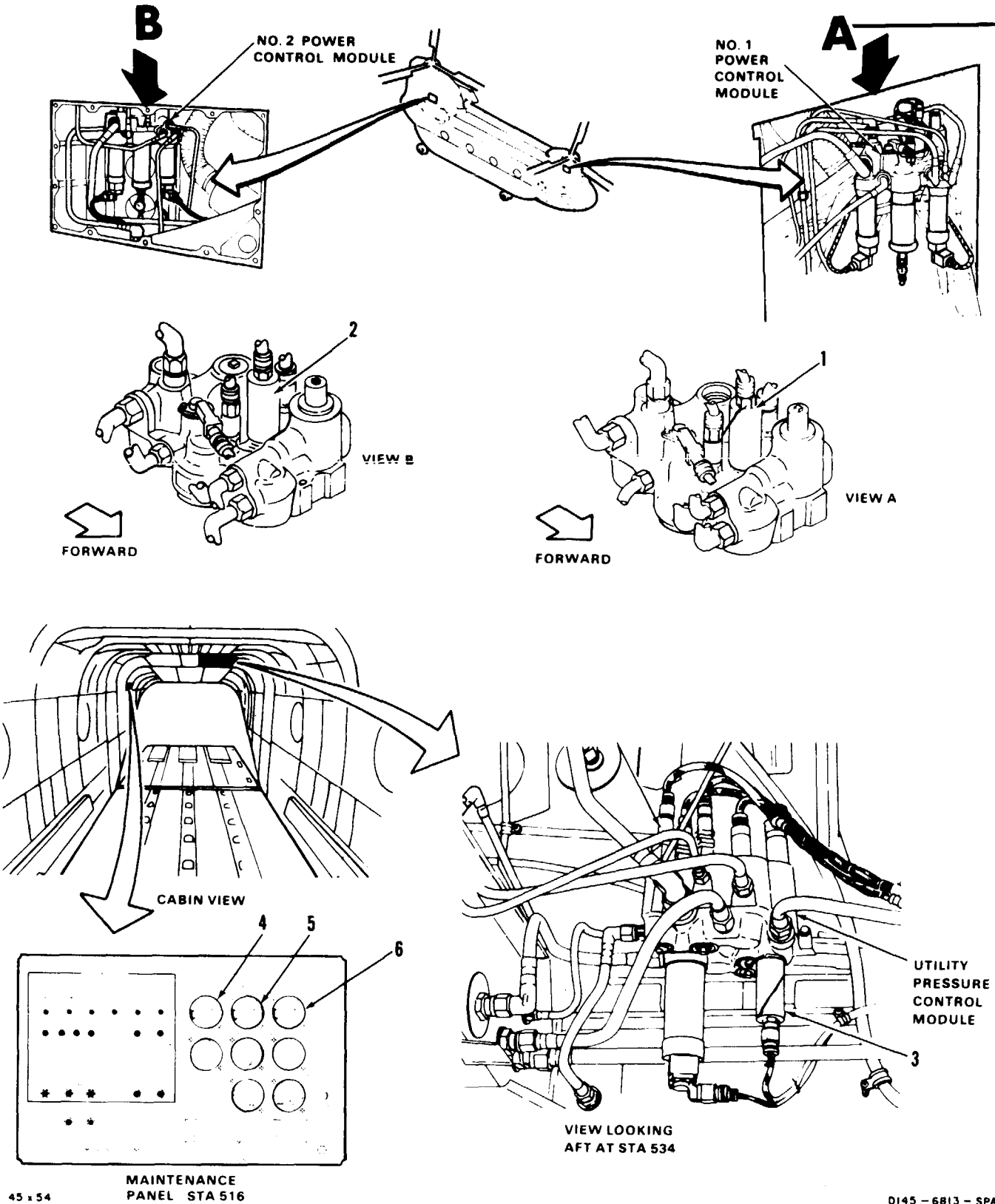
**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Right Forward Work Platform Open  
Pylon Right Access Door Open  
Cargo Ramp Open and Level (Task 7-3.4)

TASK	RESULT
1. Check No. 1 hydraulic pressure transmitter (1).	If transmitter (1) is loose or damaged, tighten or replace it as required. If wiring or connector to transmitter is damaged, repair or replace it as required.
2. Check No. 2 hydraulic pressure transmitter (2).	If transmitter (2) is loose or damaged, tighten or replace it as required. If wiring or connector to transmitter is damaged, repair or replace it as required.
3. Check utility hydraulic pressure transmitter (3).	If transmitter (3) is loose or damaged, tighten or replace it as required. If wiring or connector to transmitter is damaged, repair or replace it as required.
4. Check HYDRAULICS PRESSURE indicators (4, 5, and 6).	If any indicator (4, 5, of 6) is loose or damaged, tighten or replace it.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Right forward work platform closed.  
Pylon right access door closed.



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END OF TASK

INITIAL SETUP

Applicable Configurations:

All  
Tools:  
None

Materials:  
None

Personnel Required:

Medium Helicopter Repairer

References:

TM 55-1520-240-23

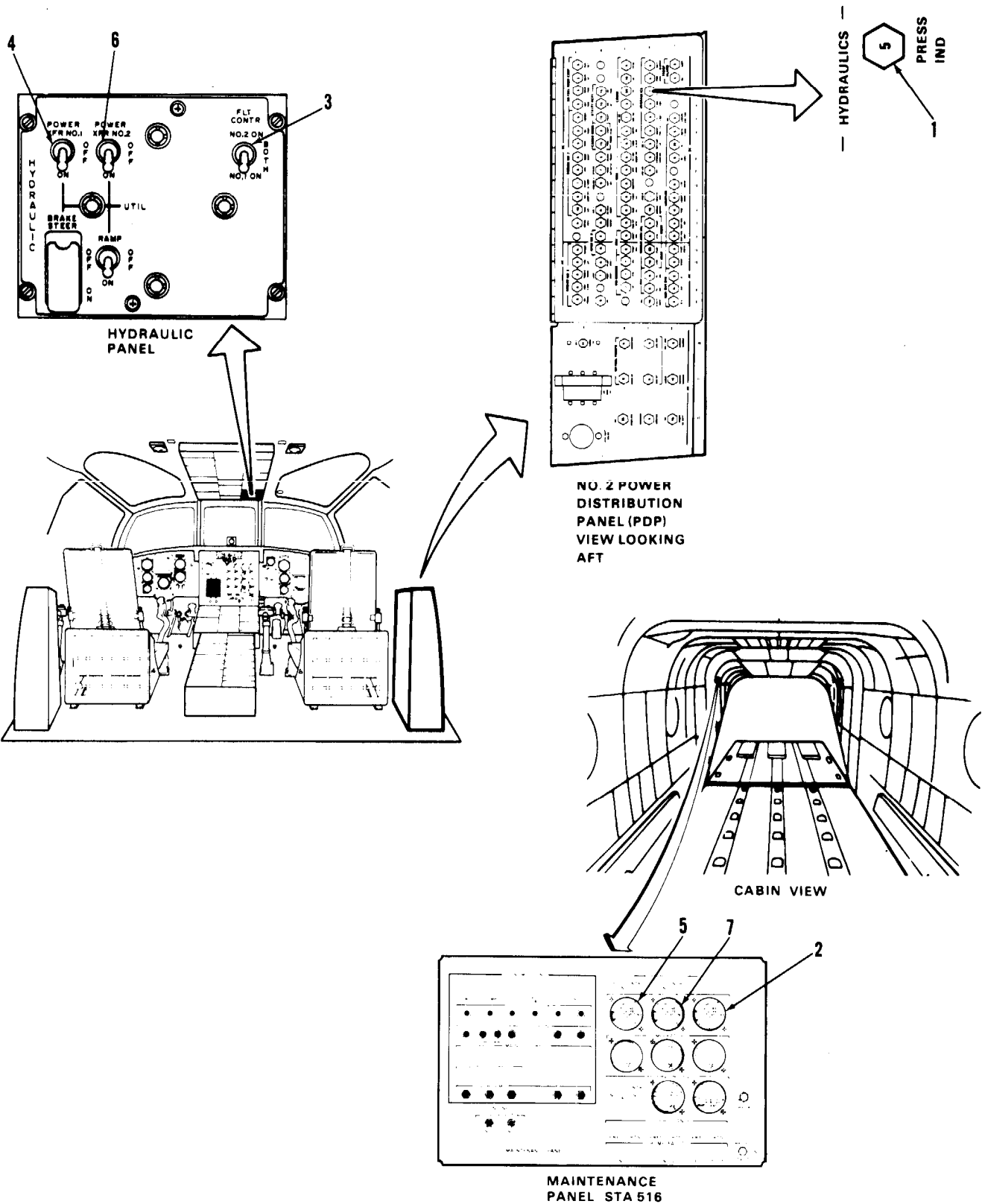
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On  
Hydraulic Pressure Indicating System Visual Check  
Performed (Task 8-7.2)

TASK	RESULT
1. Check that HYDRAULICS PRESS IND circuit breaker (1) is <b>closed</b> .	If circuit breaker (1) is open, close it. If it opens again, go to task 8-7.4.
2. Check UTILITY HYDRAULICS PRESSURE indicator (2).	Indicator (2) shall indicate <u>2500 to 3500 psi</u> and pointer shall not fluctuate more than <u>100 psi</u> . If indicator does not indicate <u>2500 to 3500 psi</u> or if pointer fluctuates more than <u>100 psi</u> , go to task 8-7.5.
3. Check that FLT CONTR switch (3) is at BOTH.	If it is not, set switch (3) to BOTH.
4. Set POWER XFR No. 1 switch (4) to ON. Check HYDRAULICS FLT CONT NO. 1 PRES-SURE indicator (5).	Indicator (5) shall indicate <u>2500 to 3200 psi</u> and pointer shall not fluctuate more than <u>100 psi</u> . If indicator does not indicate <u>2500 to 3200 psi</u> or if pointer fluctuates more than <u>100psi</u> , go to task 8-7.6.
5. Set POWER XFR No. 1 switch (4) to OFF.	
6. Set POWER XFR No. 2 switch (6) to ON.	Indicator (7) shall indicate <u>2500 to 3200 psi</u> and pointer shall not fluctuate more than <u>100psi</u> . If indicator does not indicate <u>2500 to 3200 psi</u> or if pointer fluctuates more than <u>100 psi</u> , go to task 8-7.7.
7. Set POWER XFR No. 2 switch (6) to OFF.	

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off







8-7.4 HYDRAULICS PRESS IND CIRCUIT BREAKER DOES NOT STAY CLOSED

8-7.4

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

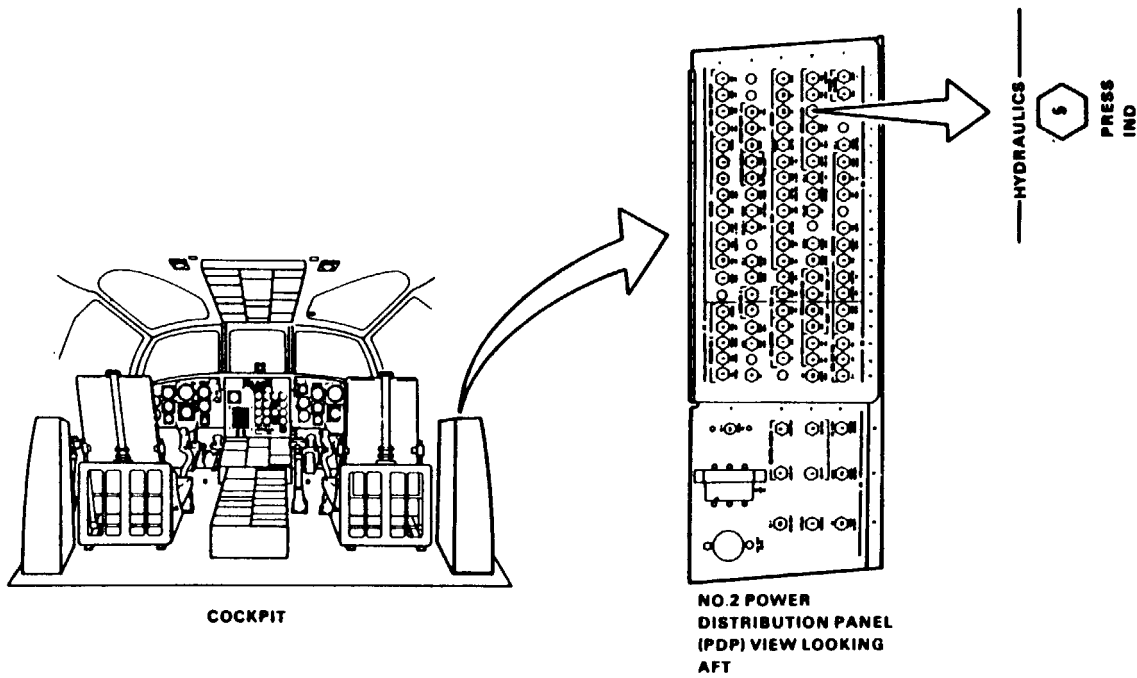
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

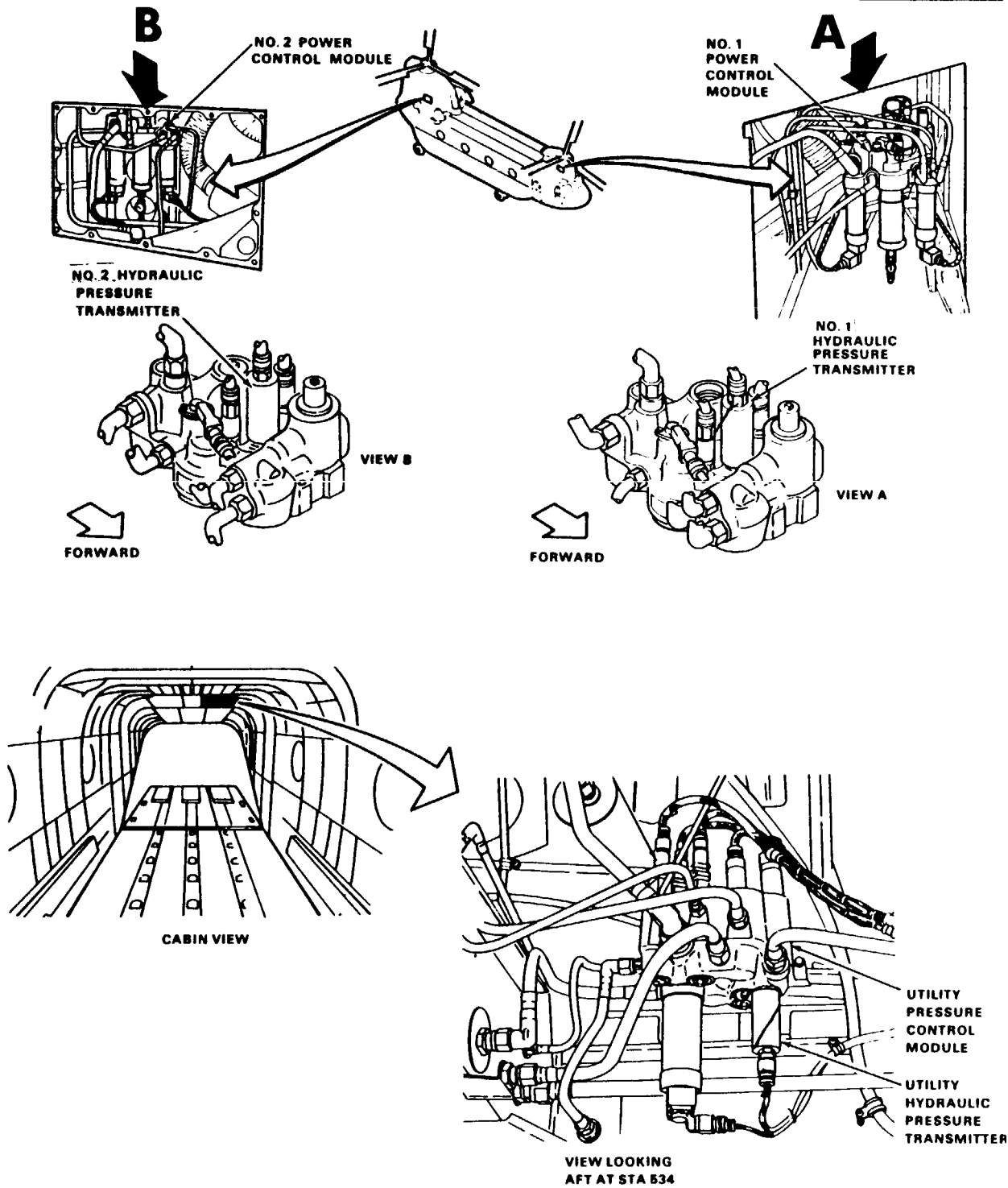
Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-120-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

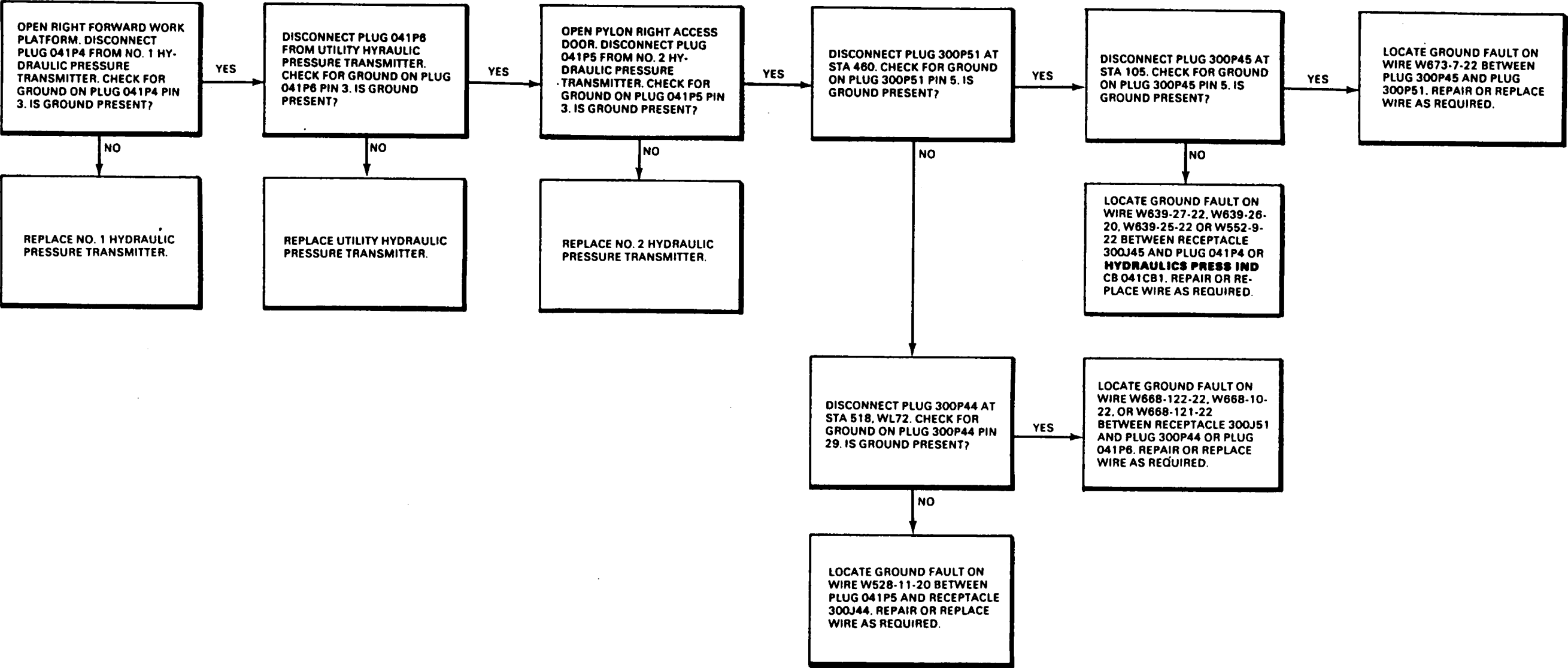


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GO TO NEXT PAGE



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-0b-323-4915
- Multimeter

Materials:

None

Personnel Required:

- Medium Helicopter Repairer
- Aircraft Electrician

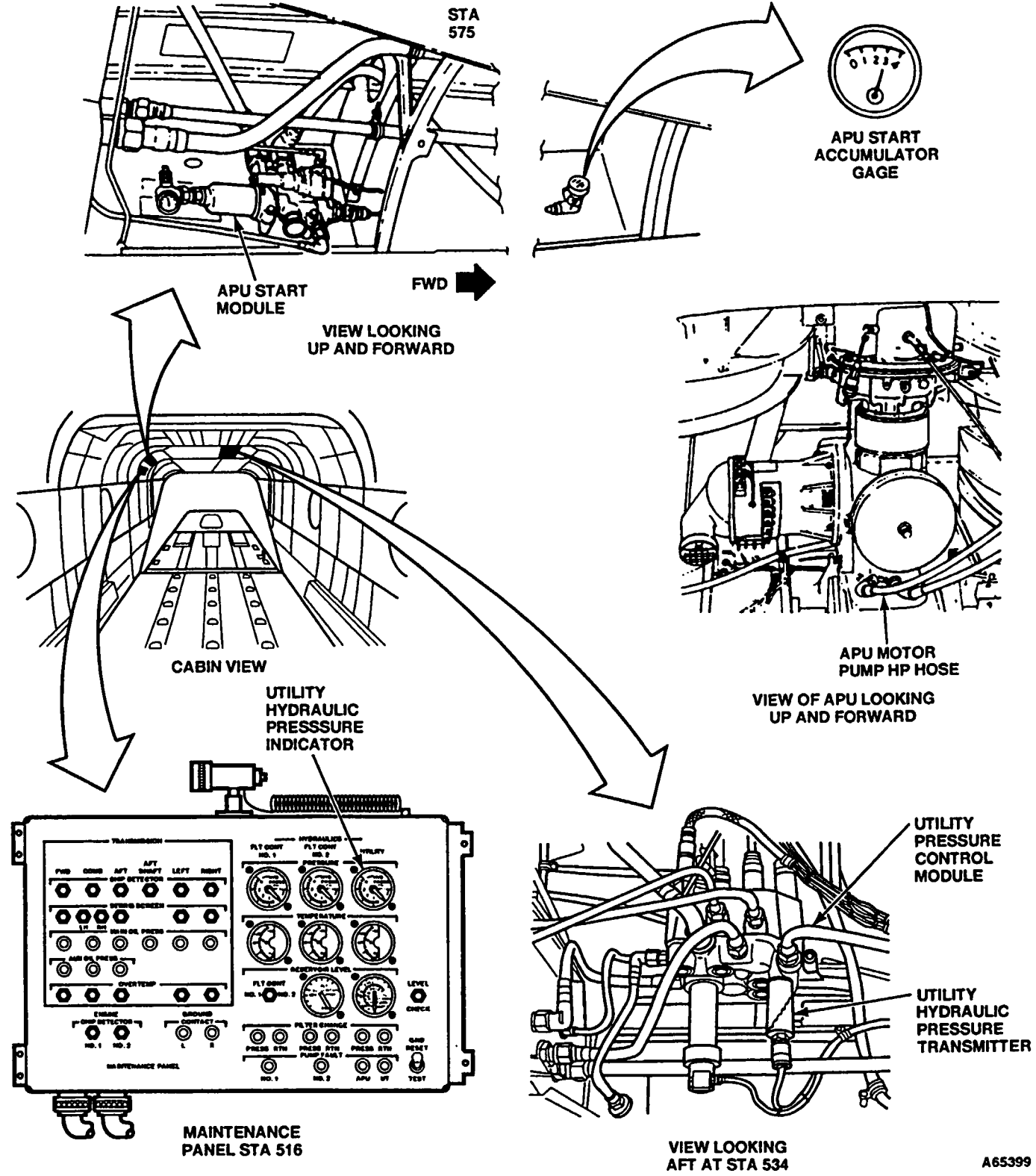
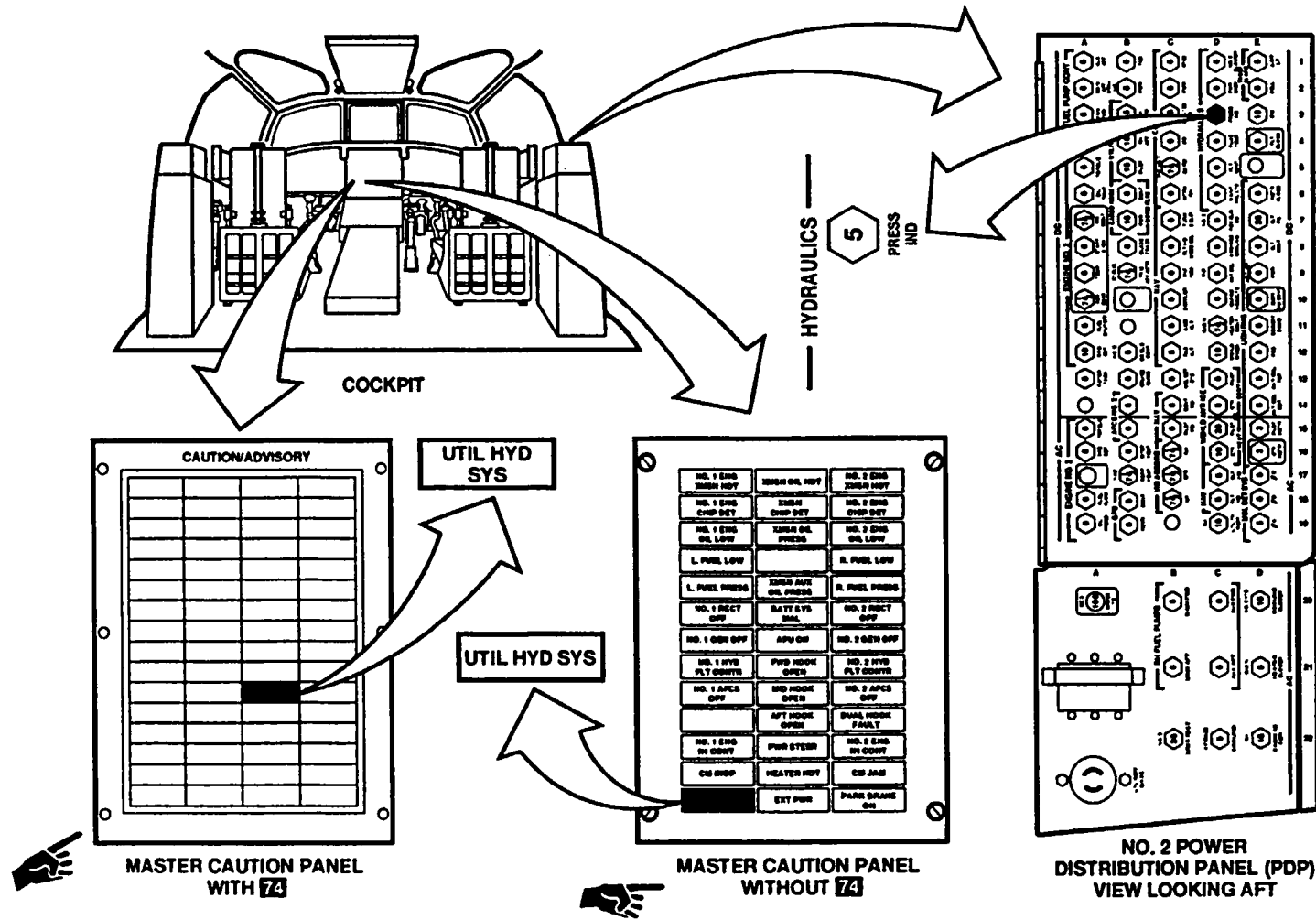
References:

TM 55-1520-240-23

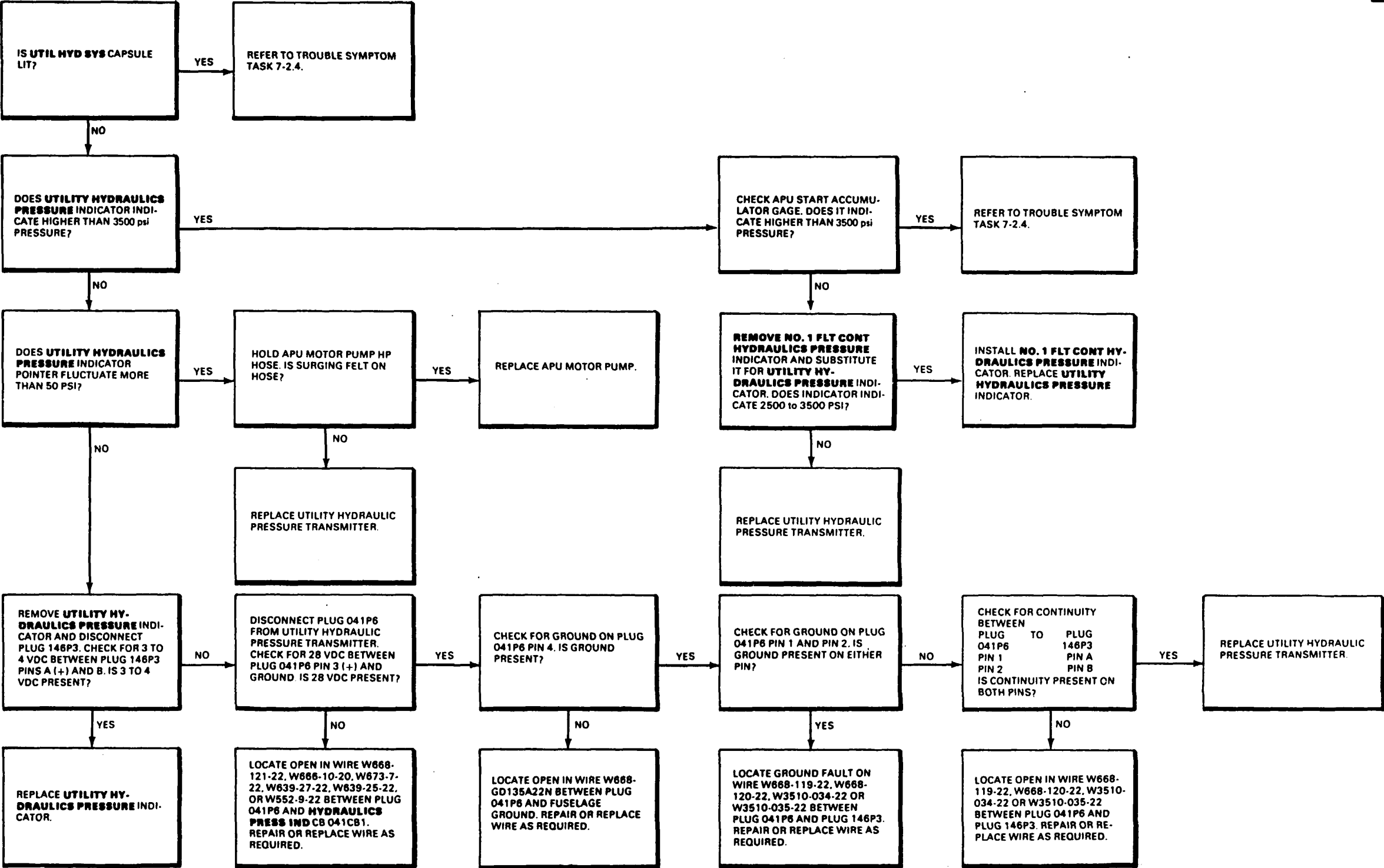
Equipment Condition:

TM 55-1520-240-23:

- Battery Connected
- Electrical Power On
- Hydraulic Power On



8-7.5 UTILITY HYDRAULIC PRESSURE INDICATOR DOES NOT INDICATE 2500 TO 3500 PSI OR POINTER FLUCTUATES MORE THAN 50 PSI (Continued)



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

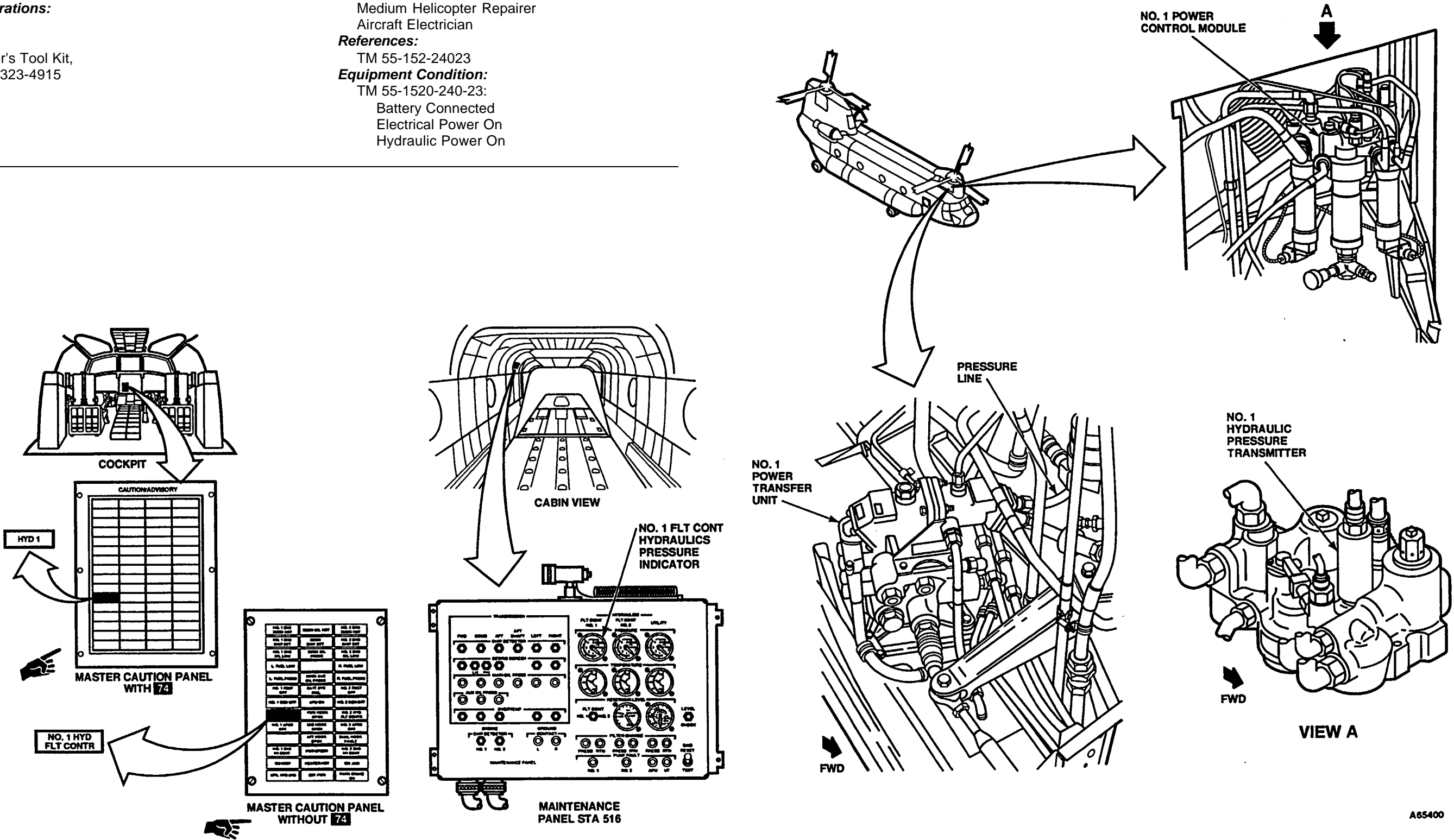
Medium Helicopter Repairer  
Aircraft Electrician

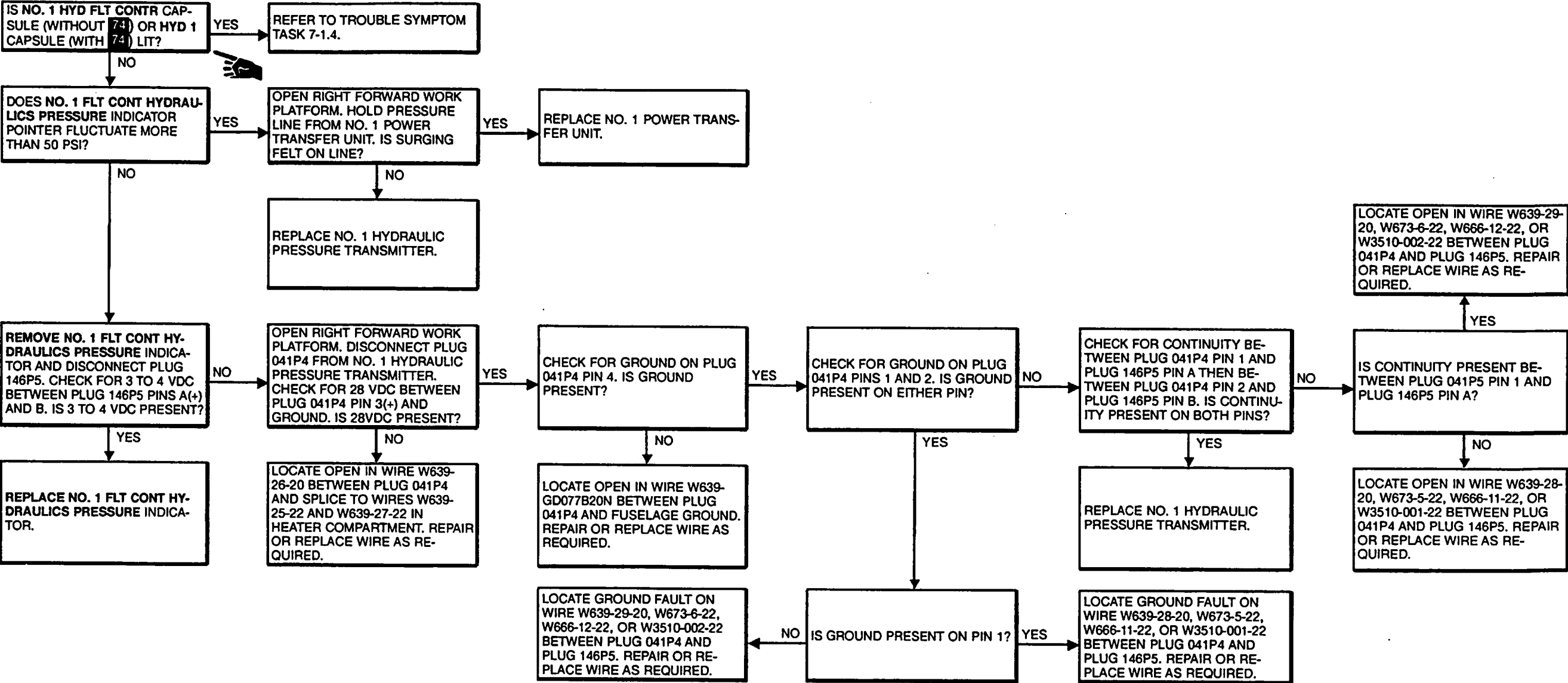
References:

TM 55-152-24023

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

- Medium Helicopter Repairer
- Aircraft Electrician

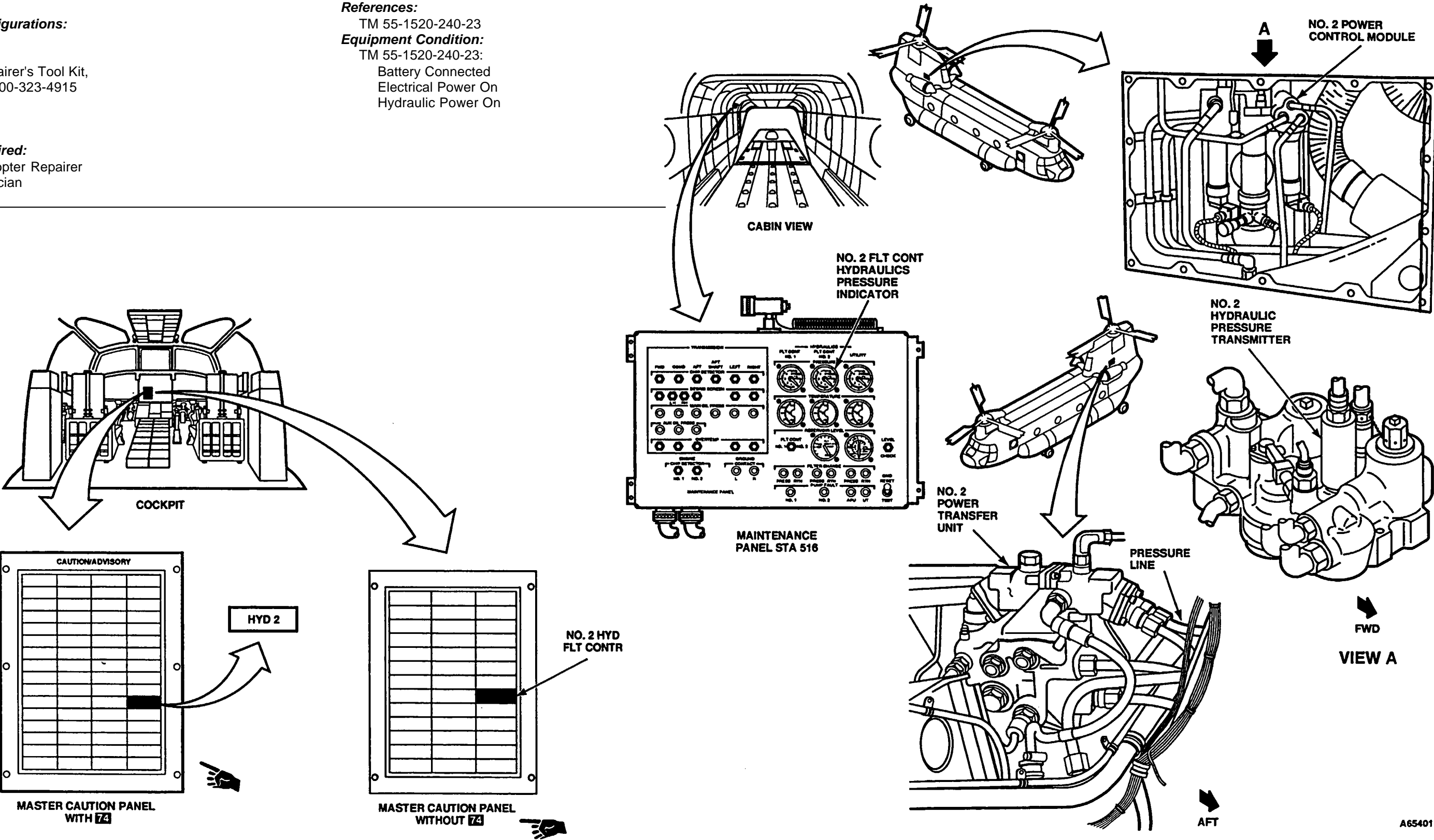
References:

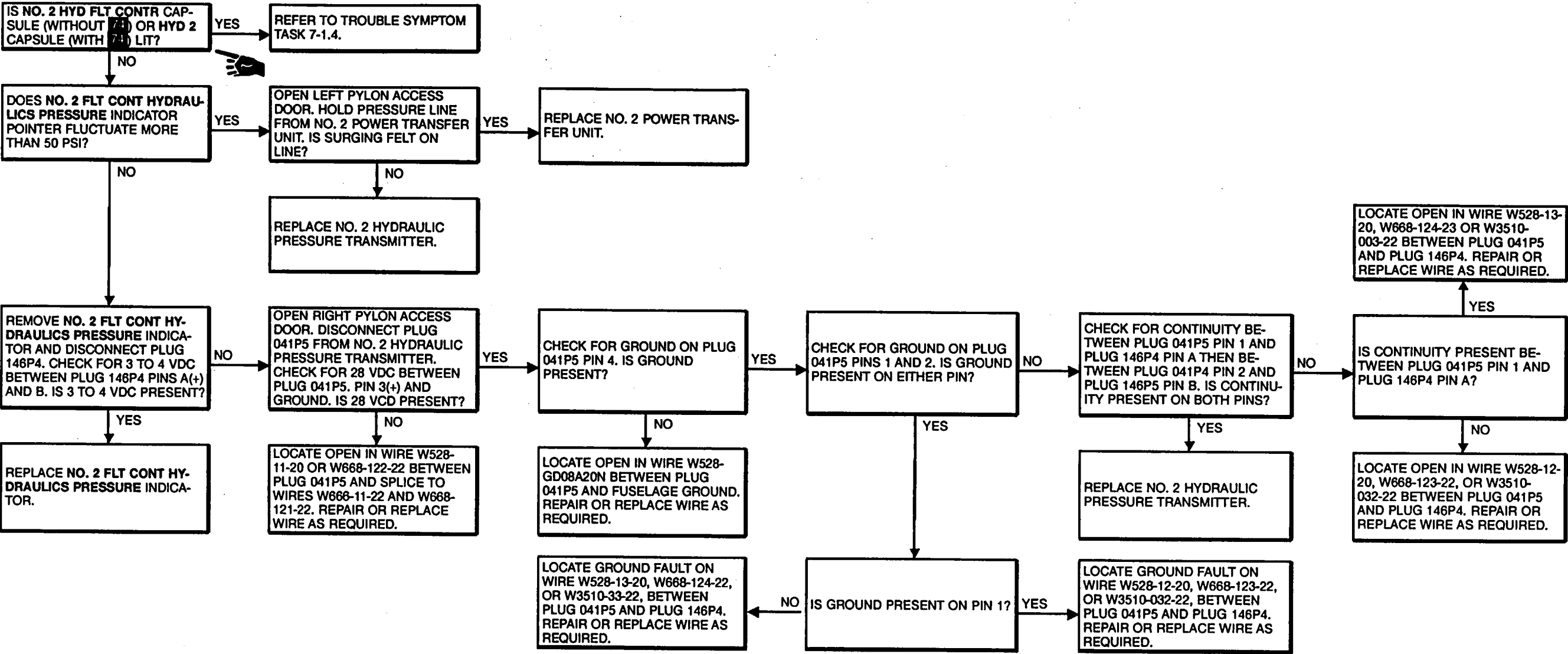
TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

- Battery Connected
- Electrical Power On
- Hydraulic Power On





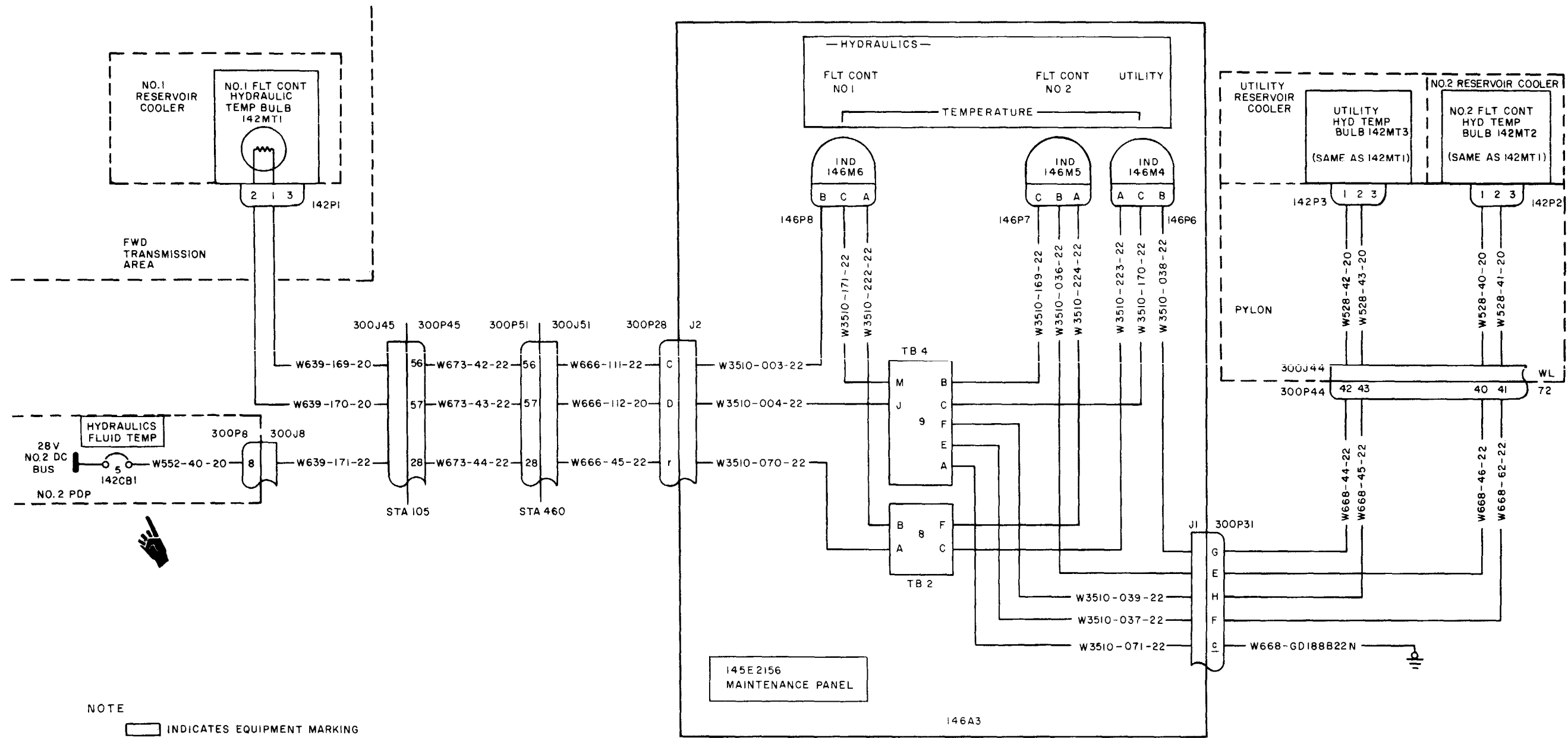




8 - 8    H Y D R A U L I C    O I L    T E M P E R A T U R E  
          I N D I C A T I N G    S Y S T E M

8-8 HYDRAULIC OIL TEMPERATURE INDICATING SYSTEM

8-8.1 HYDRAULIC OIL TEMPERATURE INDICATING SYSTEM WIRING DIAGRAM



8-8.2 HYDRAULIC OIL TEMPERATURE INDICATING SYSTEM  
VISUAL CHECK

8-8.2

INITIAL SETUP

**Applicable Configurations:**  
All

**Tools:**  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692

**Materials:**  
None

**Personnel Required:**  
67U10 Medium Helicopter Repairer

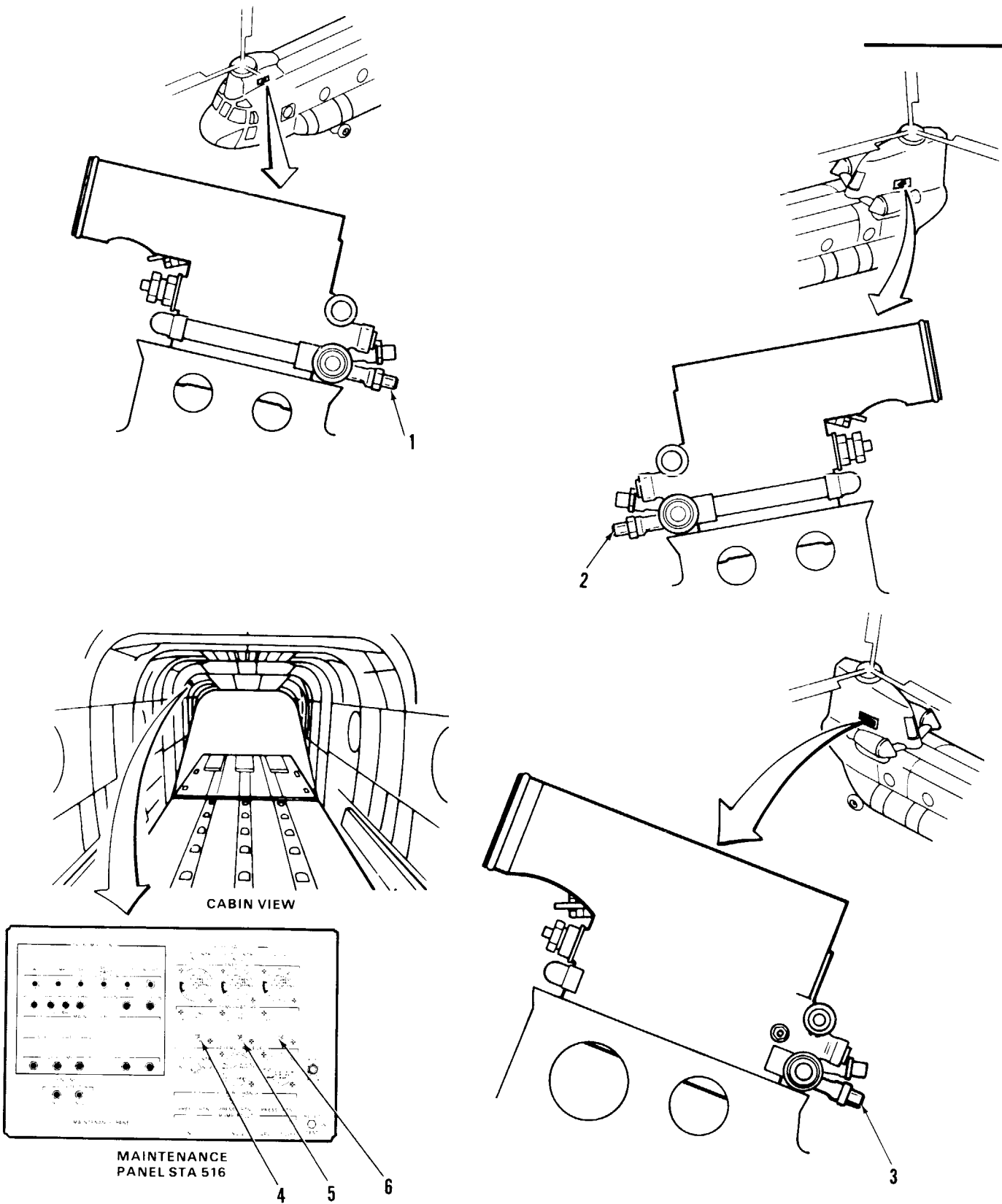
**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Right Forward Work Platform  
Open  
Pylon Left and Right Access Panels  
Open

TASK	RESULT
1. Check No. 1 hydraulic oil temperature transmitter (1).	If transmitter (1) is loose or damaged, tighten or replace it as required. If wiring or connector to transmitter is damaged, repair or replace it as required.
2. Check No. 2 hydraulic oil temperature transmitter (2).	If transmitter (2) is loose or damaged, tighten or replace it as required. If wiring or connector to transmitter is damaged, repair or replace it as required.
3. Check utility hydraulic oil temperature transmitter (3).	If transmitter (3) is loose or damaged, tighten or replace it as required. If wiring or connector to transmitter is damaged, repair or replace it as required.
4. Check HYDRAULICS TEMPERATURE indicators (4, 5, and 6).	If any indicator (4, 5, 6) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Close Right Forward Work Platform  
Close Left and Right Access Panels



45x54

D145-7292-SPA  
END OF TASK

8-8.3 HYDRAULIC OIL TEMPERATURE INDICATING SYSTEM  
OPERATIONAL CHECK

INITIAL SETUP

Applicable Configurations:  
All

Tools:  
None

Materials:  
None

Personnel Required:  
67U10 Medium Helicopter Repairer  
67U20 Medium Helicopter Repairer

References:  
TM 55-1520-240-23

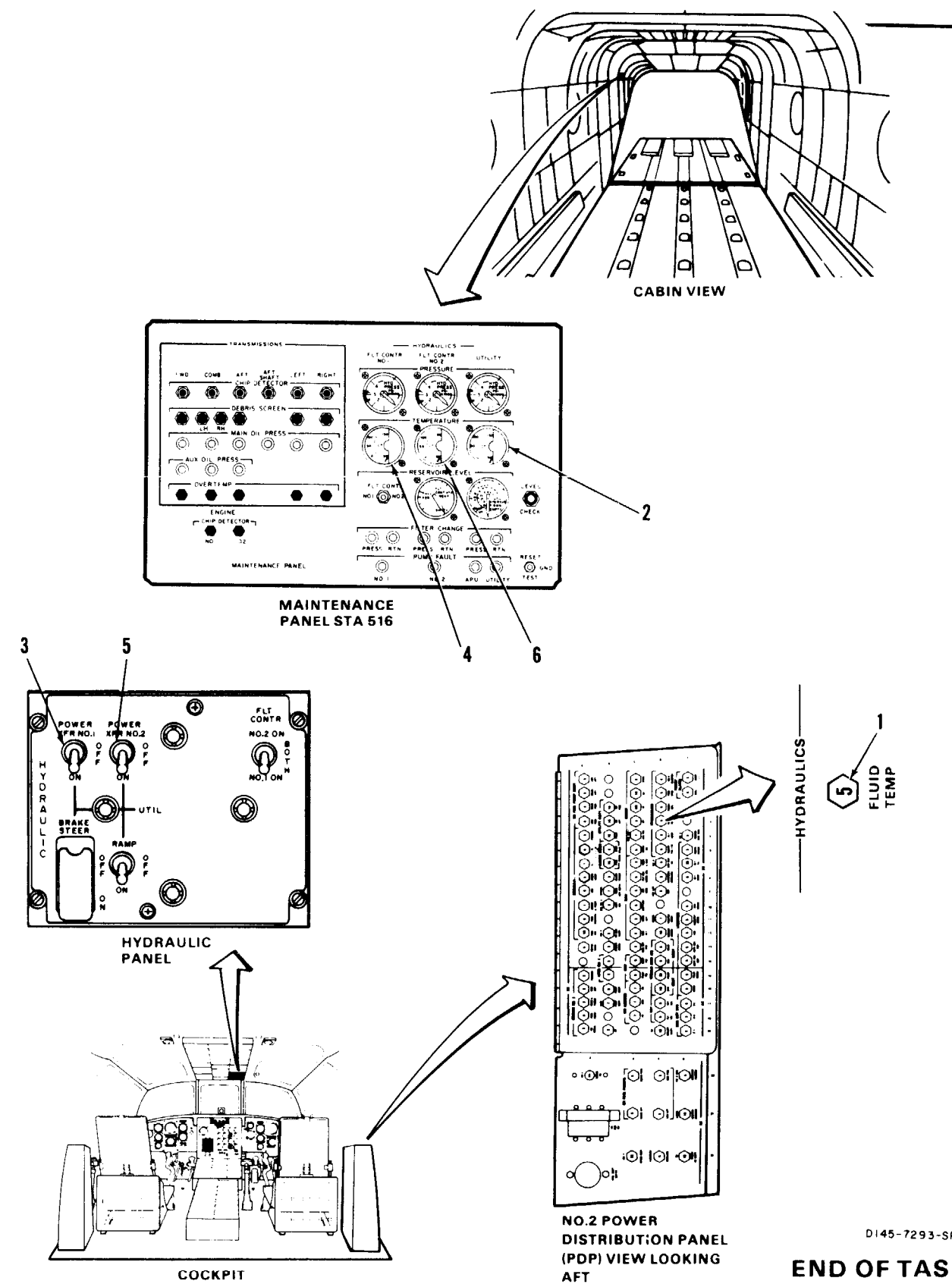
Equipment Conditions:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On  
Hydraulic Oil Temperature Indicating System  
Visual Check Performed (Task 8-8.2)

TASK	RESULT
1. Check that HYDRAULICS FLUID TEMP circuit breaker (1) is closed.	If circuit breaker (1) is open, close it. If it opens again, go to task 8-8.4.
2. Check UTILITY HYDRAULICS TEMPERATURE indicator (2).	Pointer on indicator (2) shall move upscale as fluid temperature increases. Temperature indication shall not exceed <u>120°C</u> . If indicator pointer does not move upscale or pointer exceeds <u>120°C</u> , go to task 8-8.5.
3. Set POWER XFR NO. 1 switch (3) to ON. Check NO. 1 FLT CONT HYDRAULICS temperature indicator (4).	Pointer on indicator (4) shall move upscale as fluid temperature increases. Temperature indication shall not exceed <u>120°C</u> . If indicator pointer does not move upscale or pointer exceeds <u>120°C</u> , go to task 8-8.6.
4. Set POWER XFR NO. 1 switch (3) to OFF.	
5. Set POWER XFR NO. 2 switch (5) to ON. Check NO. 2 FLT CONT HYDRAULICS TEMPERATURE indicator (6).	Pointer on indicator (6) shall move upscale as fluid temperature increases. Temperature indication shall not exceed <u>120°C</u> . If indicator pointer does not move upscale or pointer exceeds <u>120°C</u> , go to task 8-8.7.
6. Set POWER XFR NO. 2 switch (5) to OFF.	

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

8-8.3



D145-7293-SPA

END OF TASK



8-8.4 HYDRAULIC FLUID TEMP CIRCUIT BREAKER DOES NOT STAY CLOSED

8-8.4

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

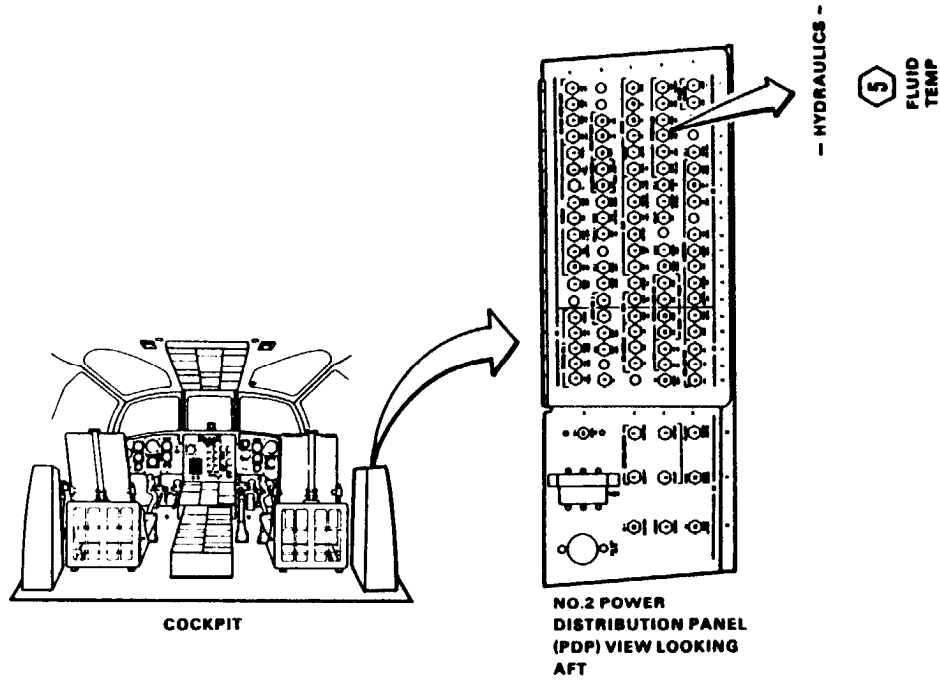
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

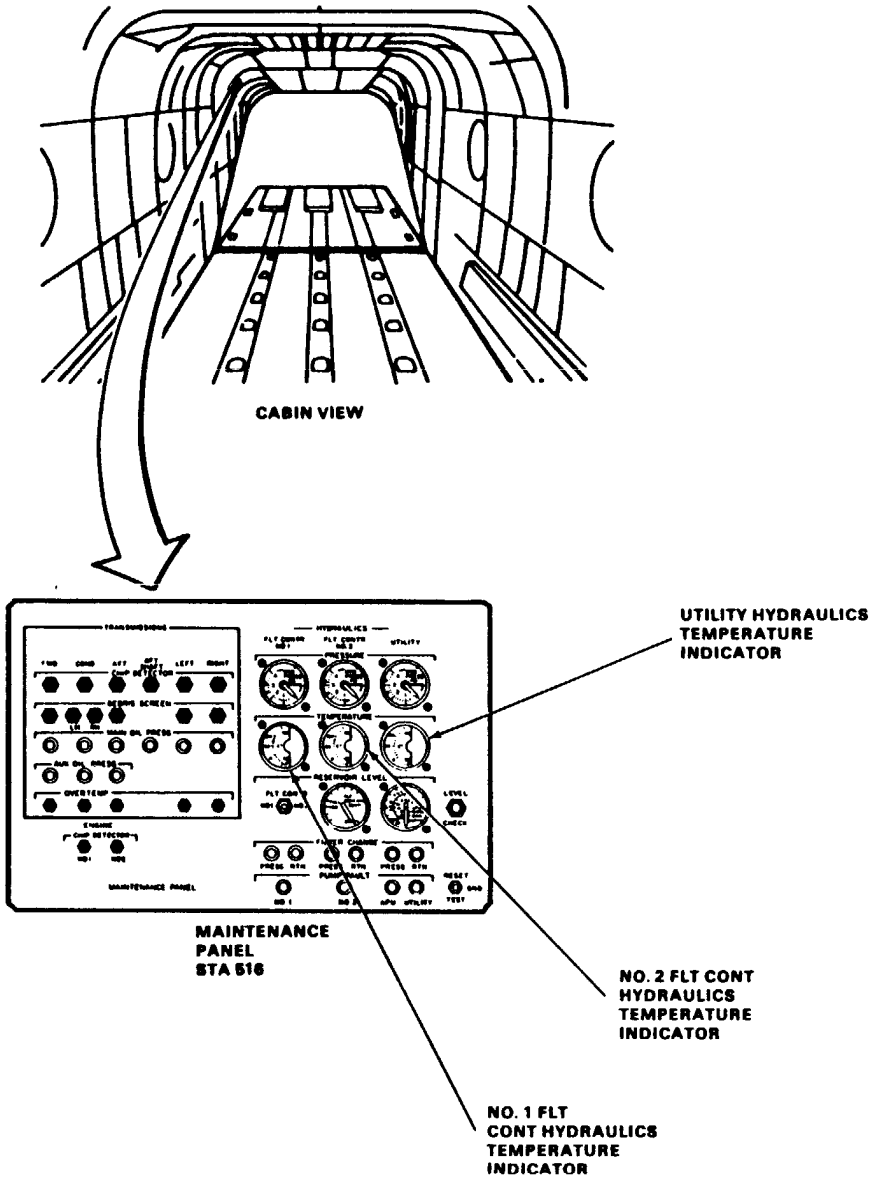
Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



90.54



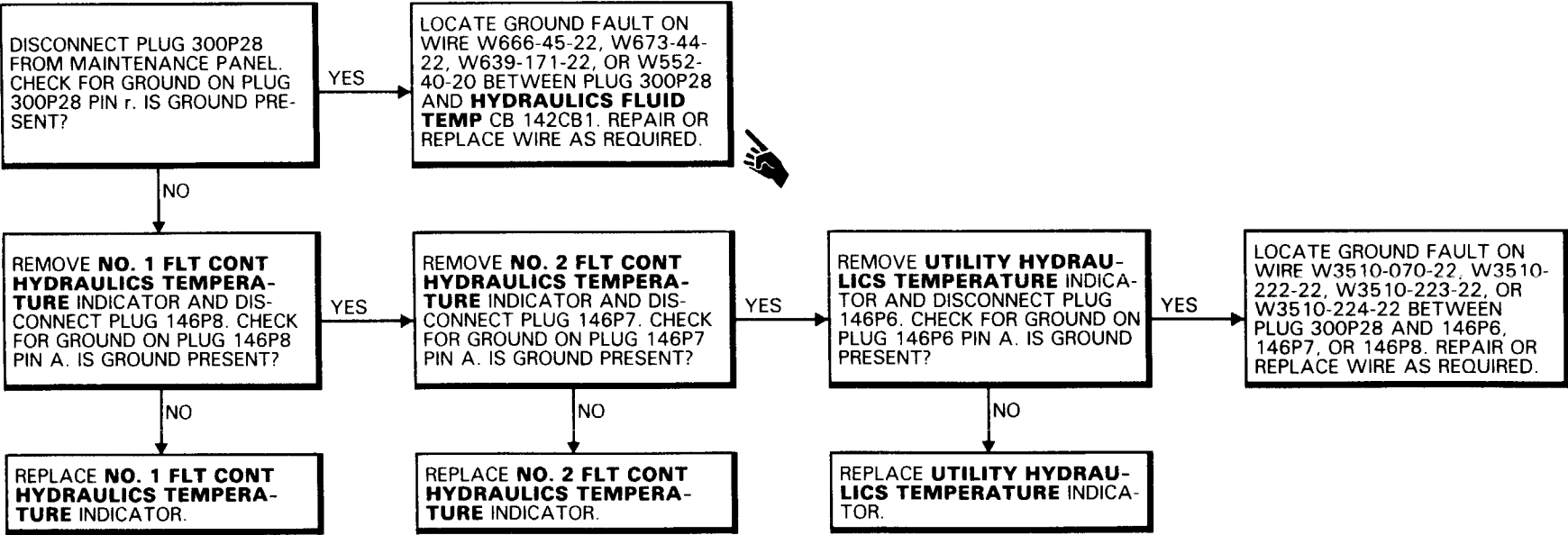
0145-7294-SPA

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8-8.4 HYDRAULIC FLUID TEMP CIRCUIT BREAKER DOES NOT STAY CLOSED (Continued)

8-8.4





8-8.5 UTILITY HYDRAULICS TEMPERATURE INDICATOR POINTER  
DOES NOT MOVE UPSCALE OR EXCEEDS 120°C (PEGS)

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

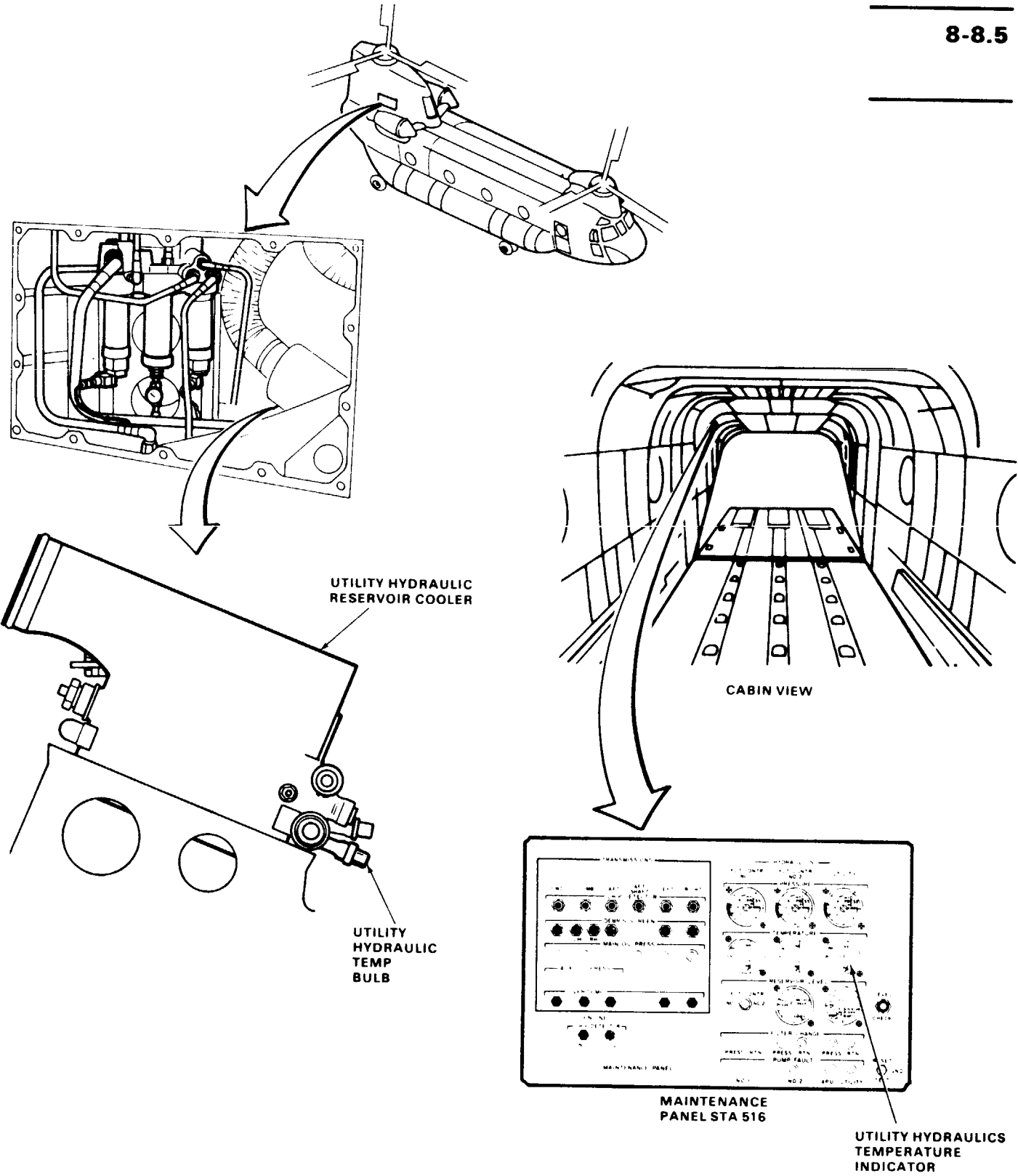
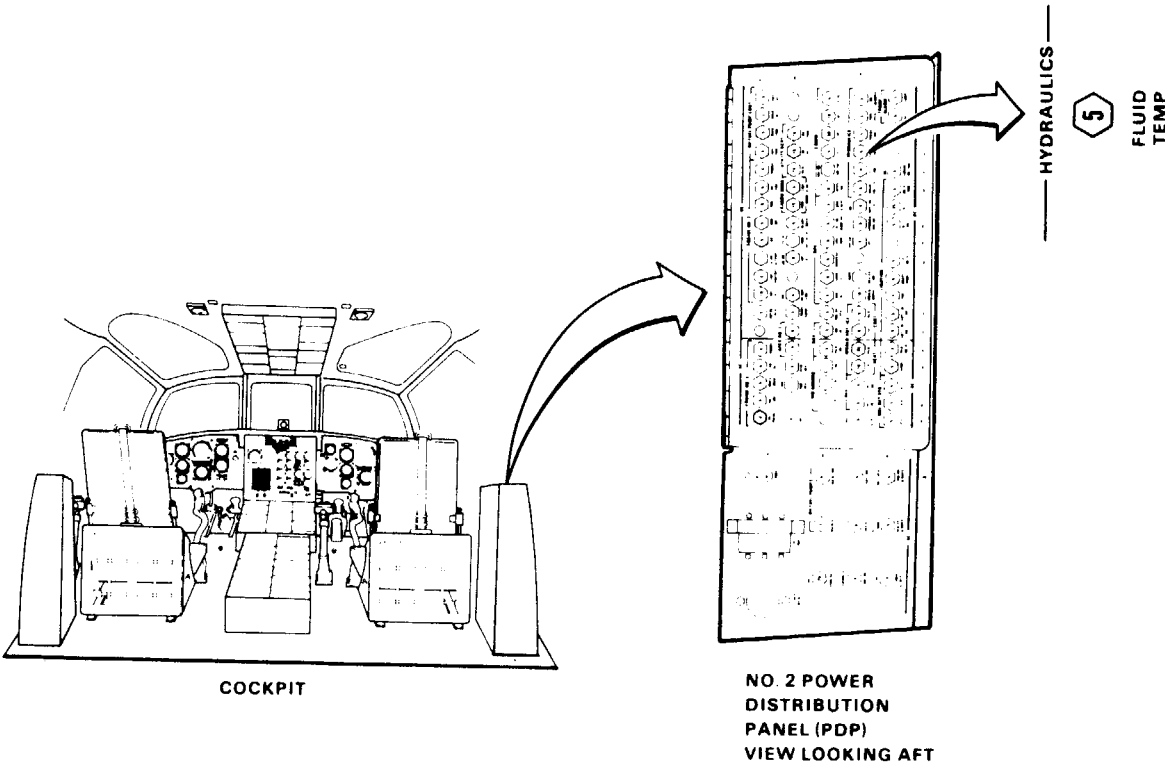
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
Jumper Wire, 12 Inches

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

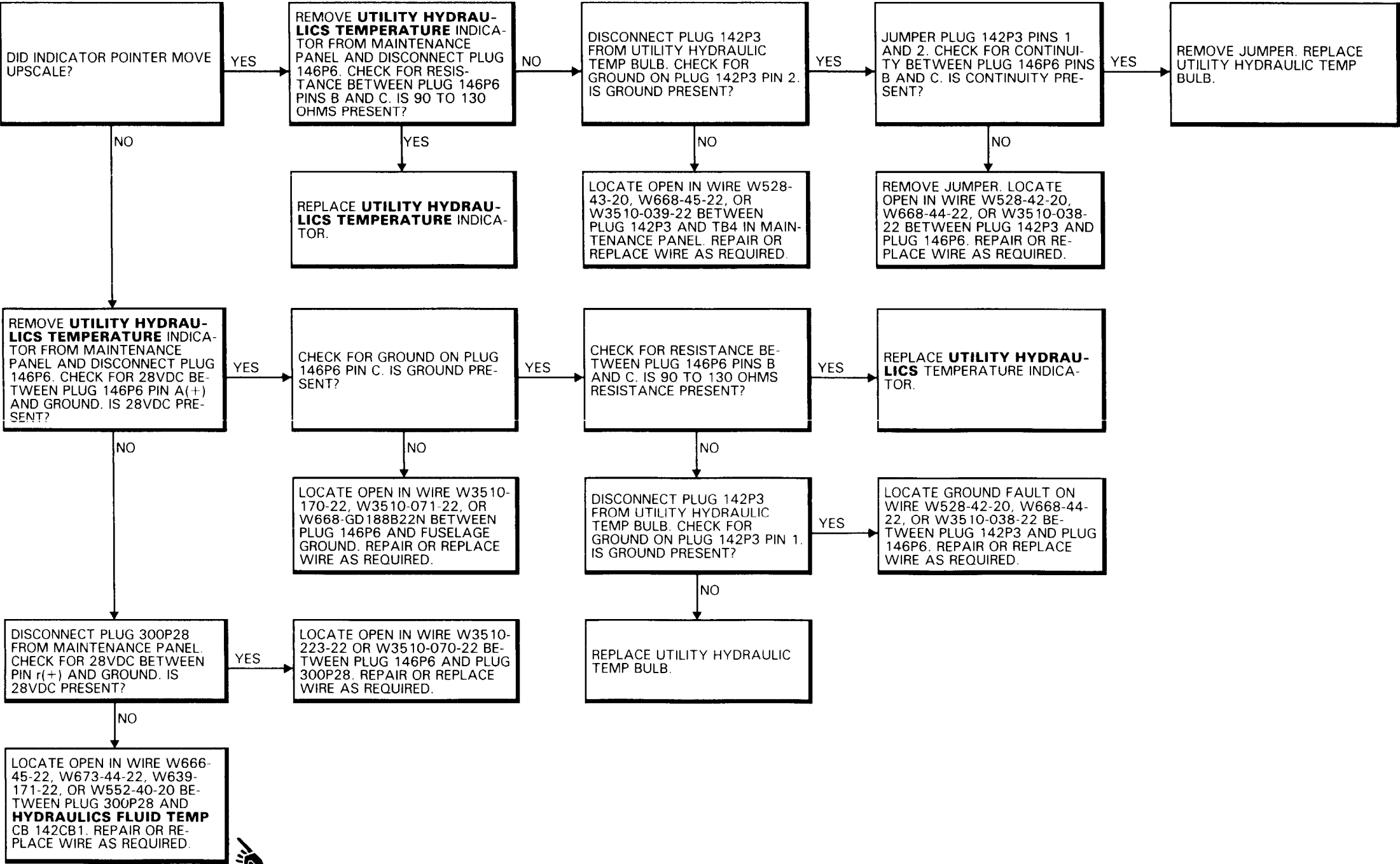
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulics Power Off



8-8.5 UTILITY HYDRAULICS TEMPERATURE INDICATOR POINTER DOES NOT MOVE UPSCALE OR EXCEEDS 120°C (PEGS) (Continued)

8-8.5



8-8.6 NO. 1 FLT CONT HYDRAULIC TEMPERATURE INDICATOR POINTER DOES NOT MOVE UPSCALE OR EXCEEDS 120°C (PEGS)

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

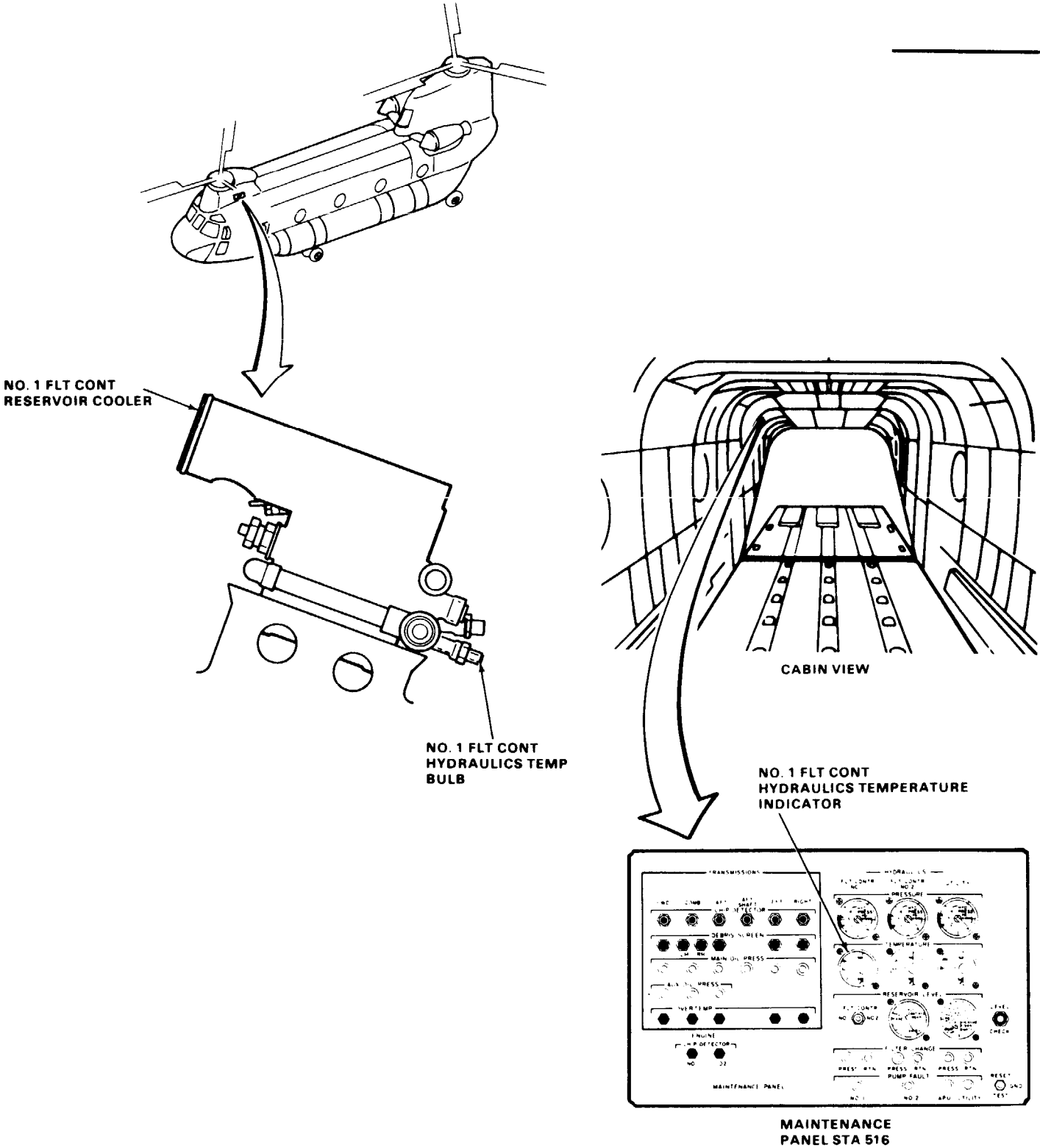
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
Jumper Wire, 12 Inches

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

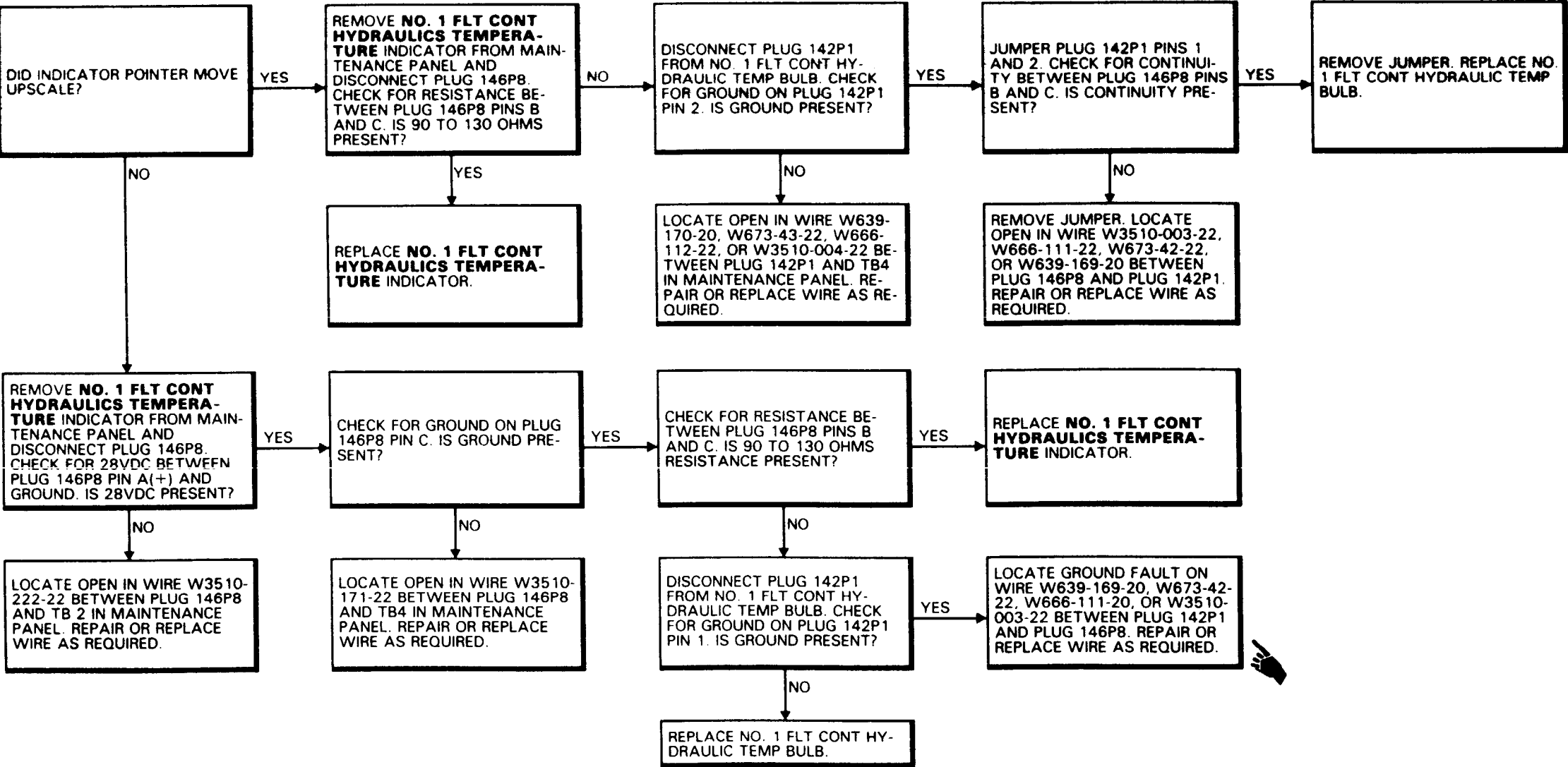
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulics Power Off



8-8.6 NO. 1 FLT CONT HYDRAULIC TEMPERATURE INDICATOR POINTER DOES NOT MOVE UPSCALE OR EXCEEDS 120°C (PEGS) (Continued)

8-8.6



8-8.7 NO. 2 FLT CONT HYDRAULICS TEMPERATURE INDICATOR POINTER DOES NOT MOVE UPSCALE OR EXCEEDS 120°C (PEGS)

8-8.7

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

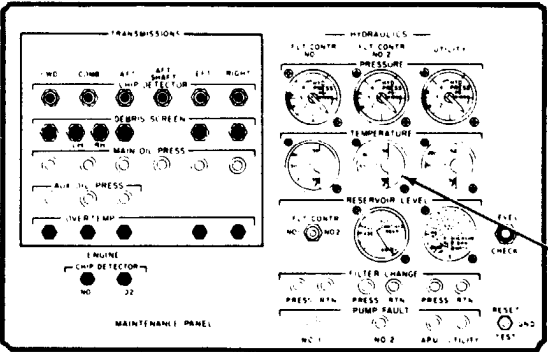
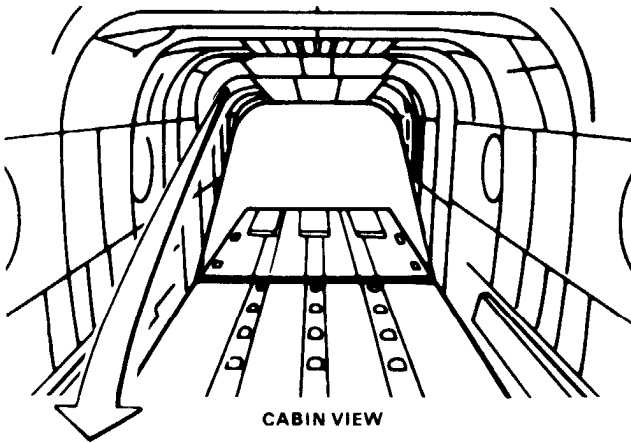
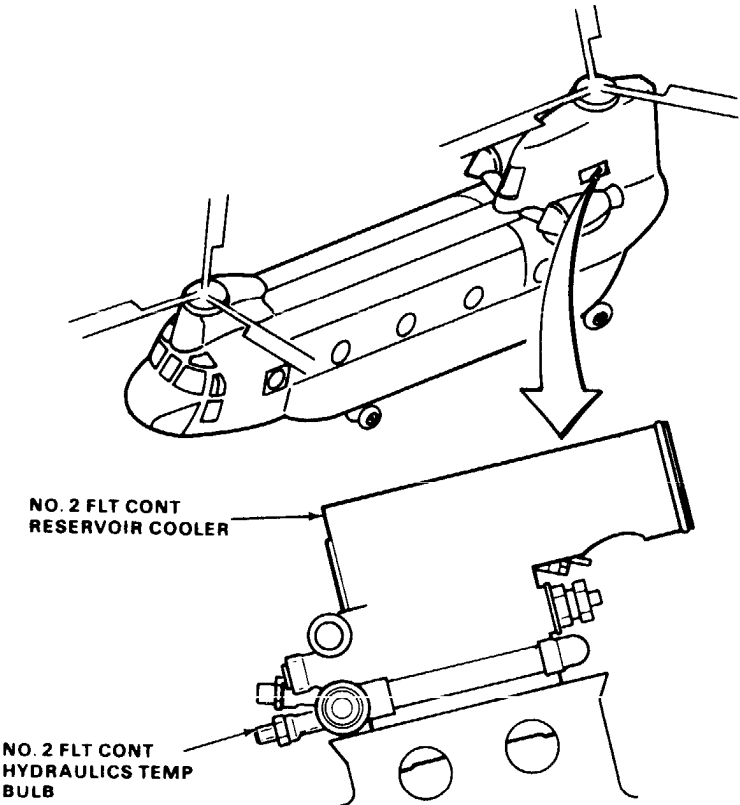
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
Jumper Wire, 12 Inches

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



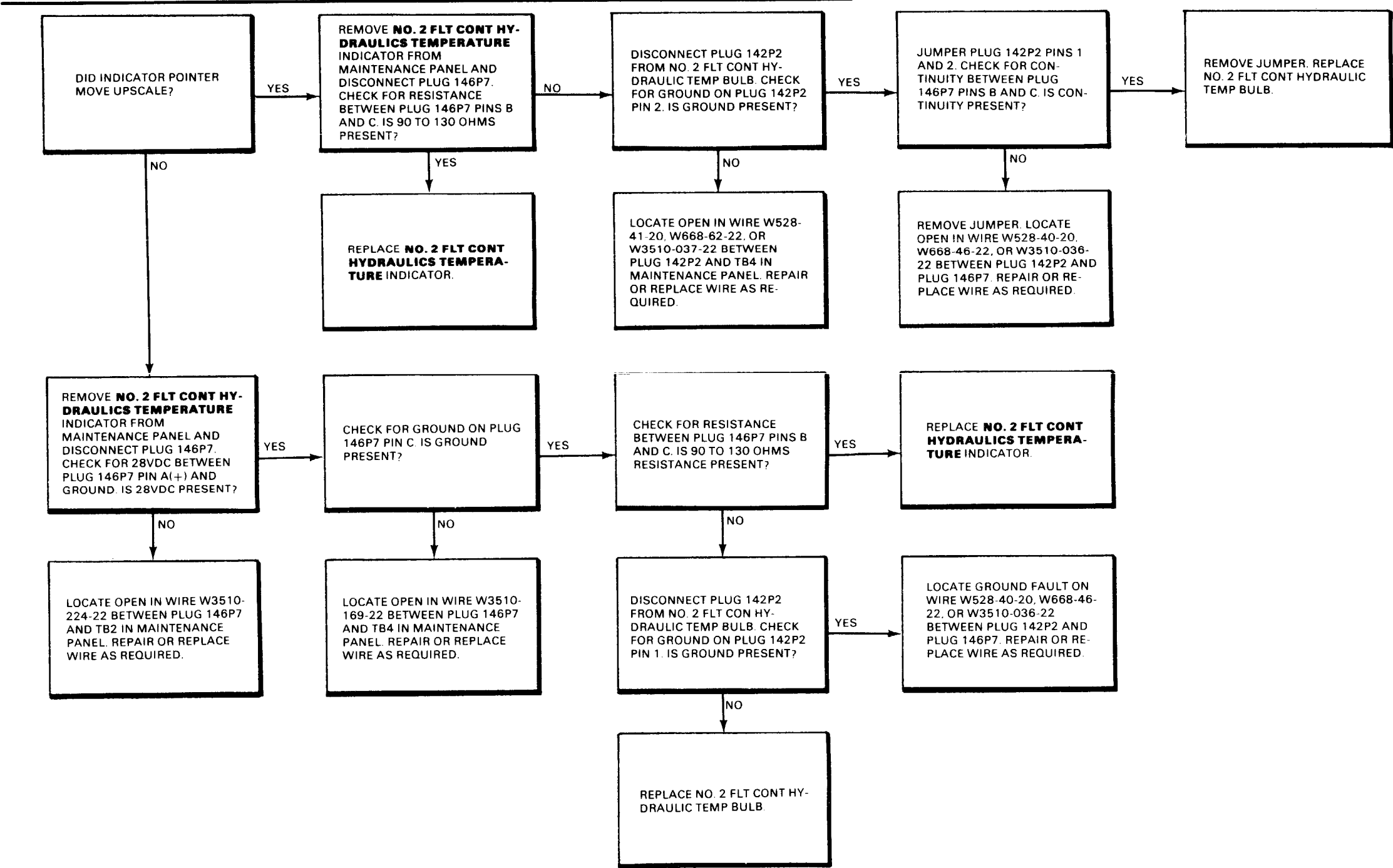
MAINTENANCE  
PANEL STA 516

NO. 2 FLT CONT  
HYDRAULICS TEMPERATURE  
INDICATOR

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8-8.7 NO. 2 FLT CONT HYDRAULICS TEMPERATURE INDICATOR POINTER DOES NOT MOVE UPSCALE OR EXCEEDS 120°C (PEGS) (Continued)

8-8.7

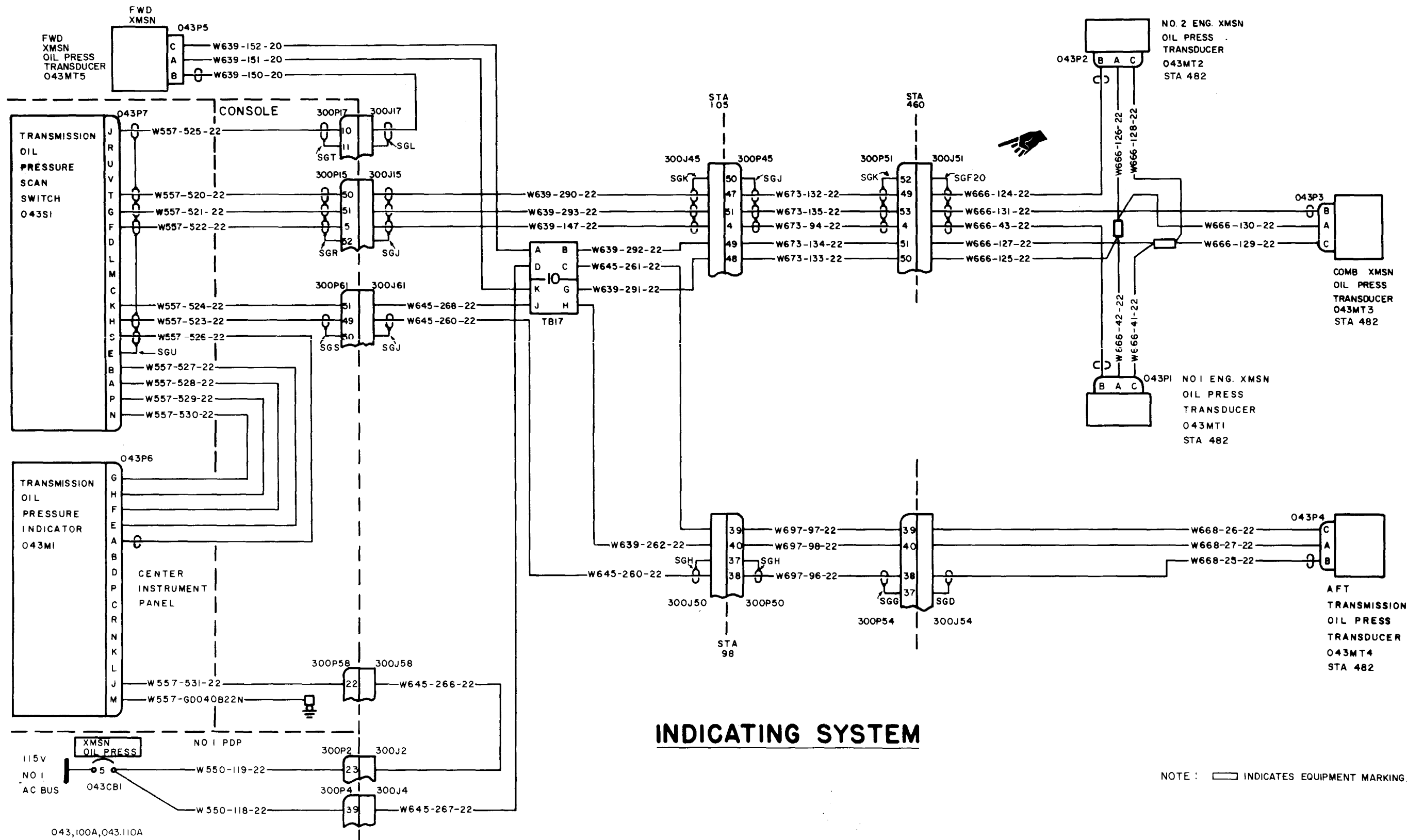


END OF TASK



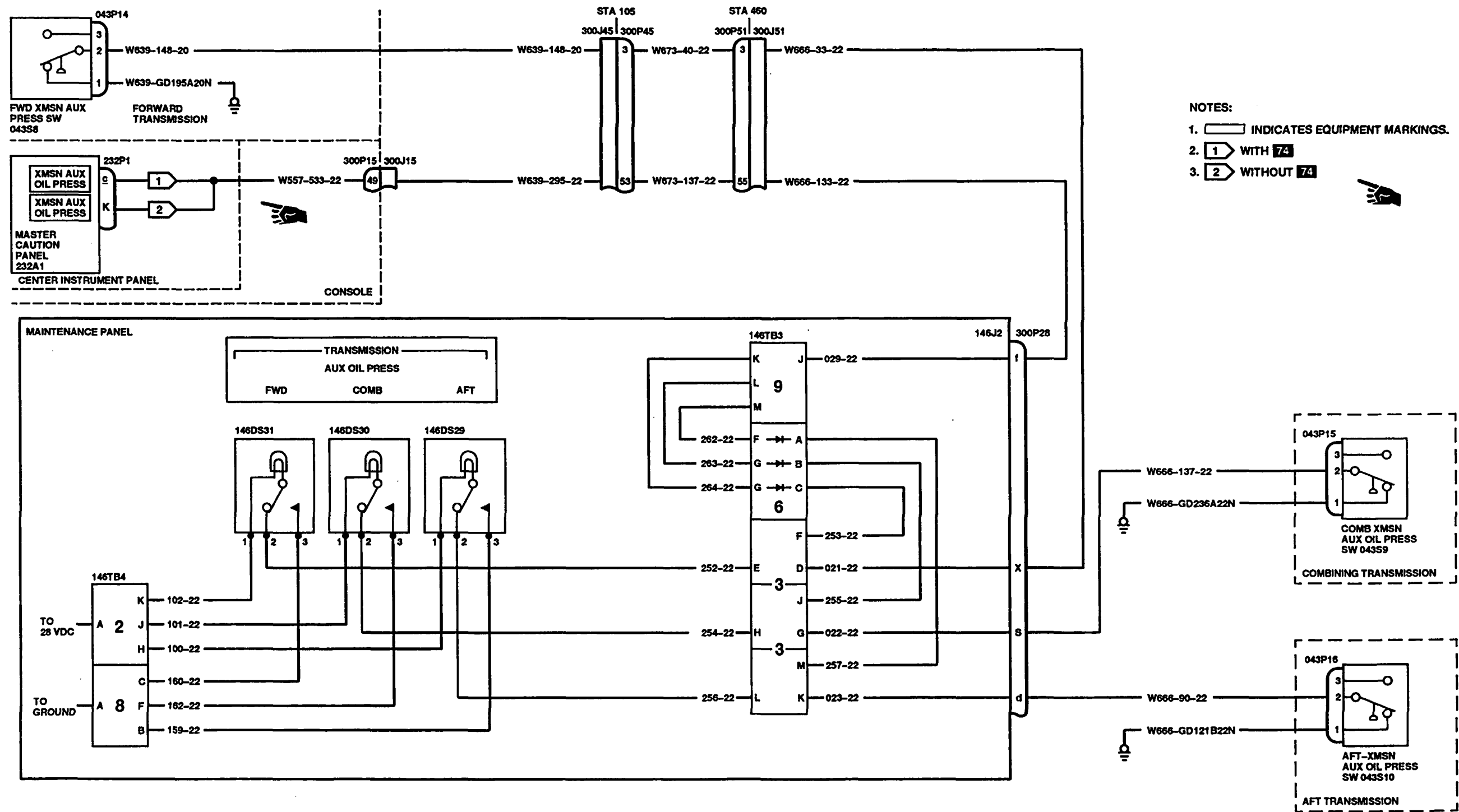
**8 - 9   T R A N S M I S S I O N   O I L   P R E S S U R E  
I N D I C A T I N G   A N D   W A R N I N G  
S Y S T E M**





INDICATING SYSTEM

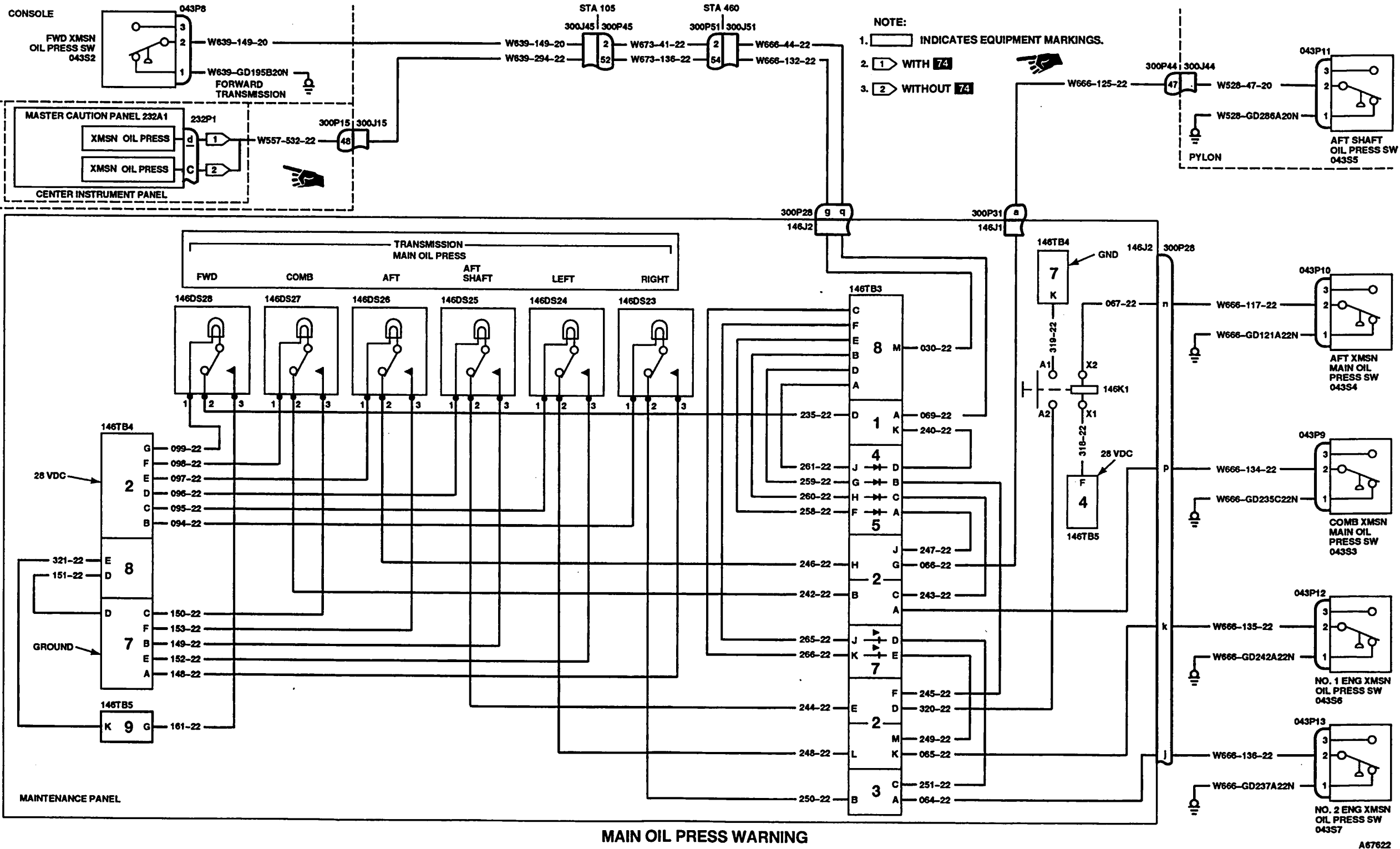
NOTE : [ ] INDICATES EQUIPMENT MARKING.

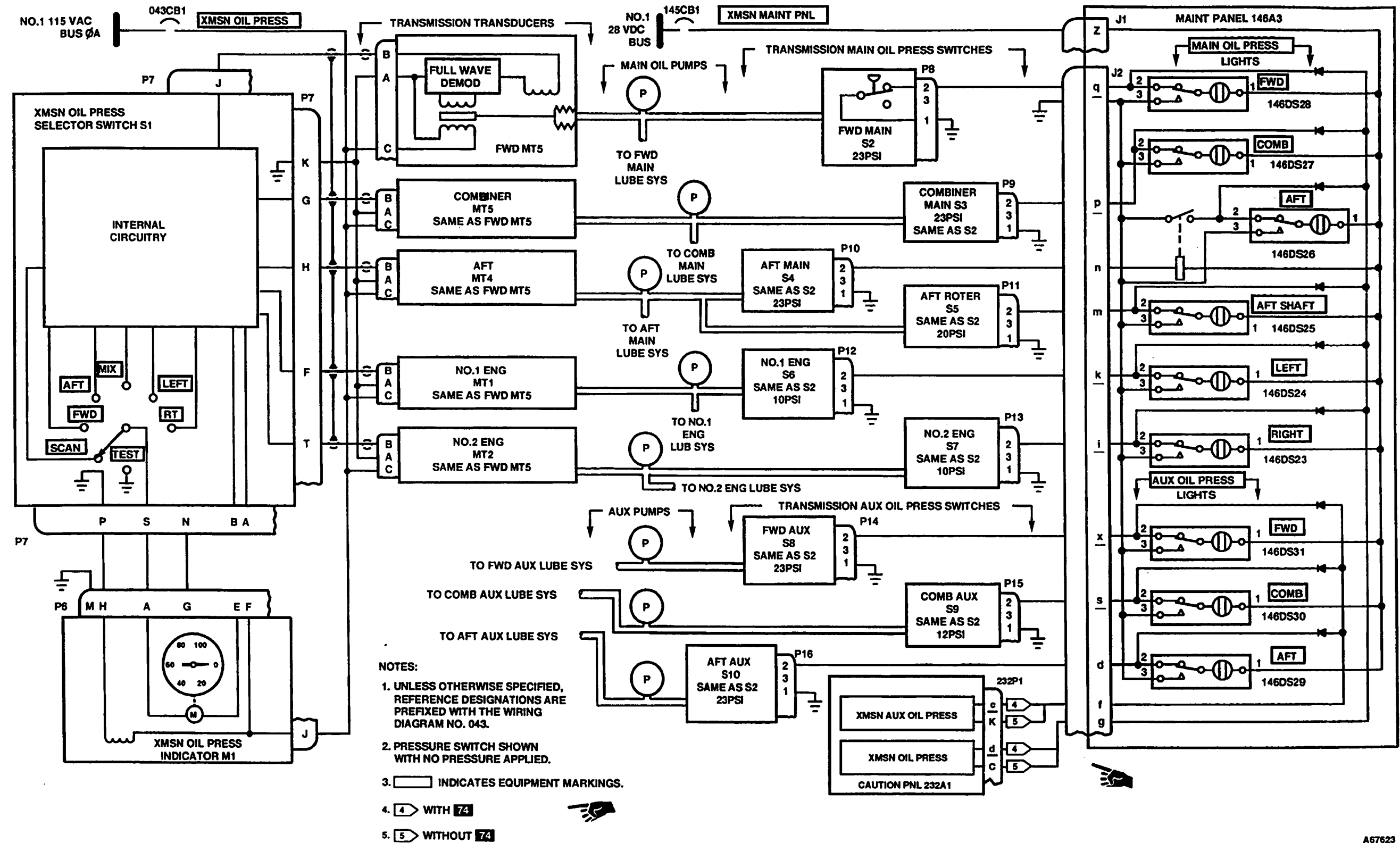


- NOTES:
- INDICATES EQUIPMENT MARKINGS.
  - 1 WITH 74
  - 2 WITHOUT 74

AUX OIL PRESS WARNING

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8-9.2 TRANSMISSION OIL PRESSURE INDICATING AND WARNING  
SYSTEM VISUAL CHECK

8-9.2

INITIAL SETUP

Applicable Configurations

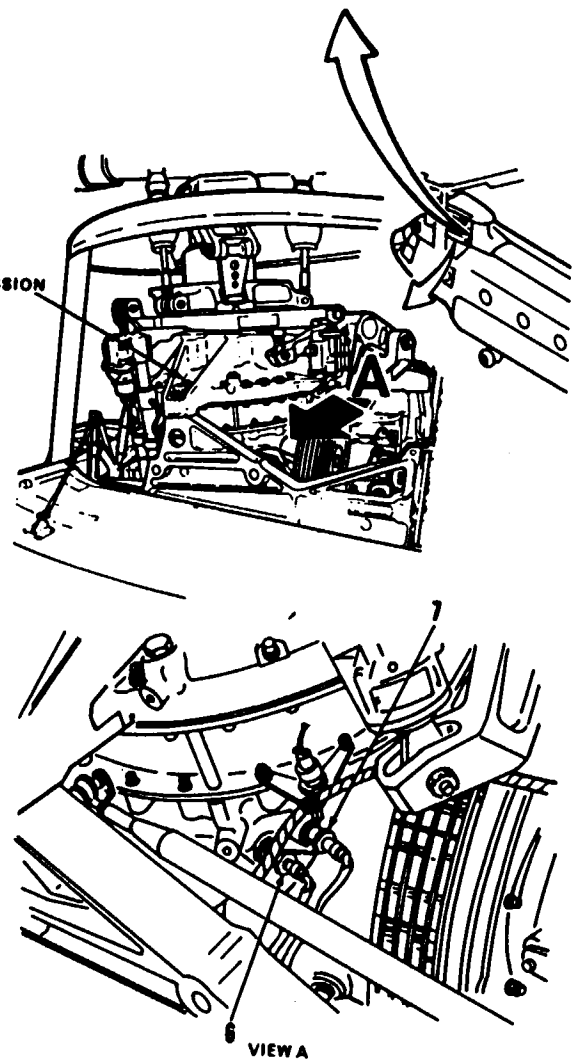
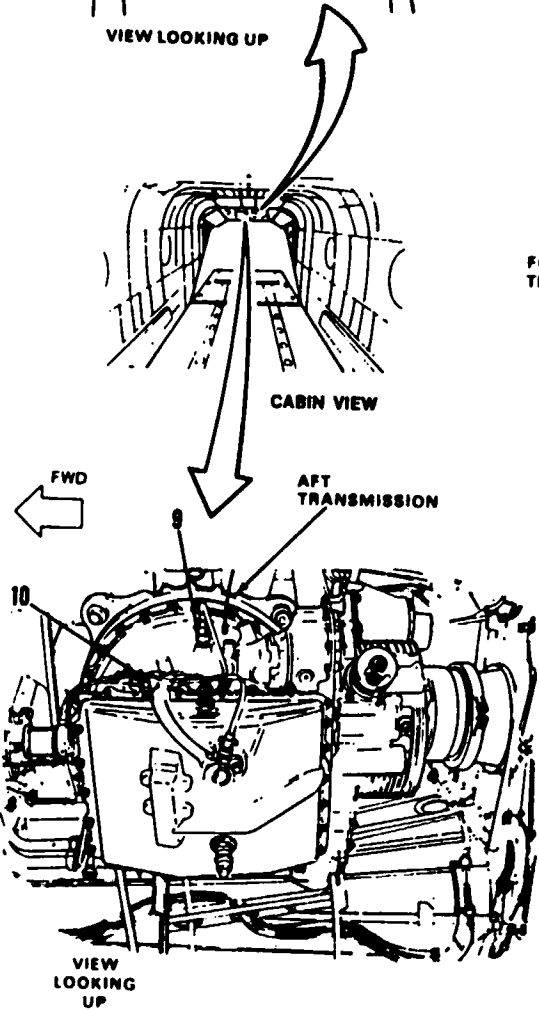
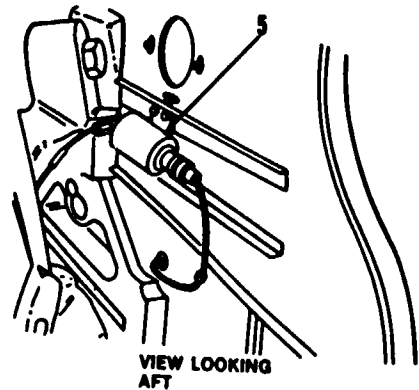
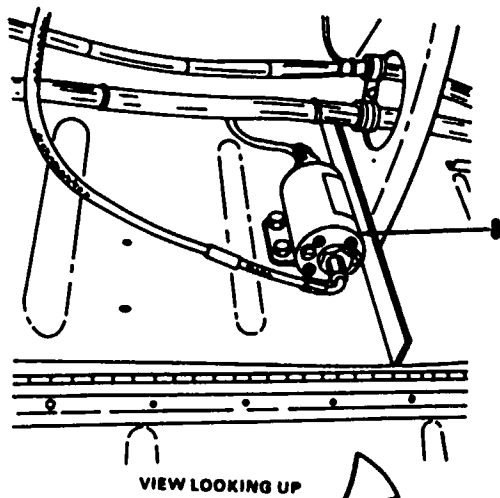
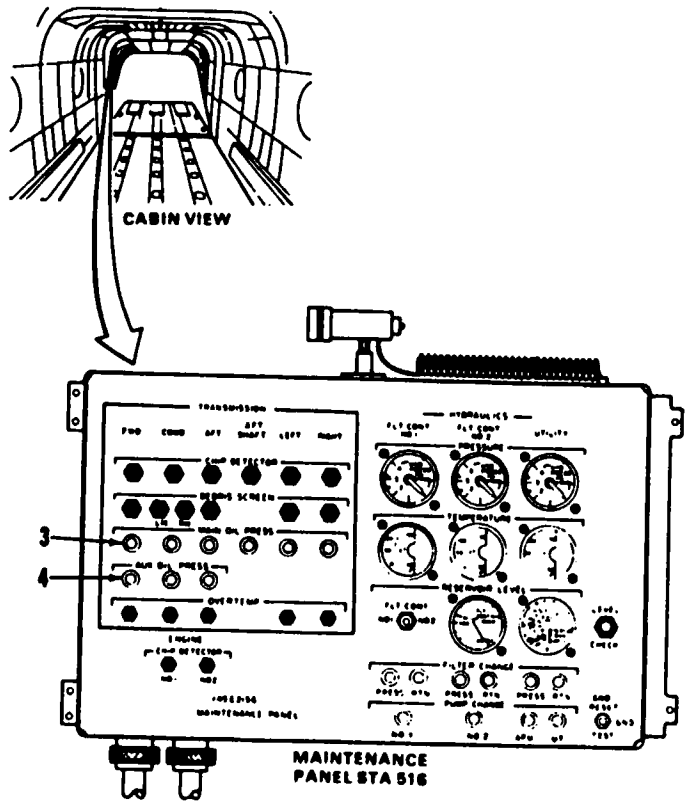
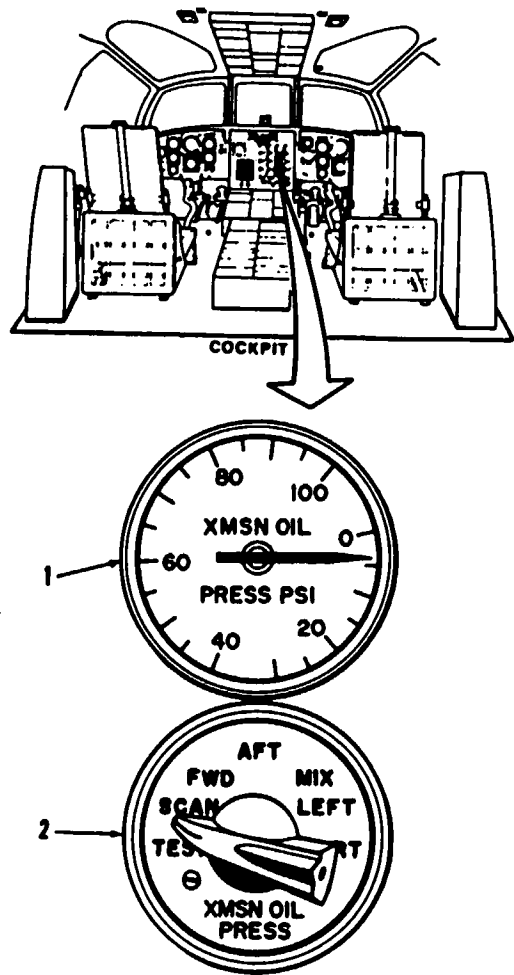
All  
Tools:  
Aircraft Mechanic's Tool Kit.  
NSN 5180-00-323-4692

Materials:  
None

Personnel Required:  
67U10 Medium Helicopter Repairer

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Left and Right Forward Work  
Platforms Open  
Aft Transmission Baffles Open  
Pylon Hinged Fairing Open  
Pylon Cover Fairing Open  
Cargo Ramp Open and Level  
(Task 7-3.3)



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8-9.2 TRANSMISSION OIL PRESSURE INDICATING AND WARNING  
SYSTEM VISUAL CHECK (Continued)

8 - 9 . 2

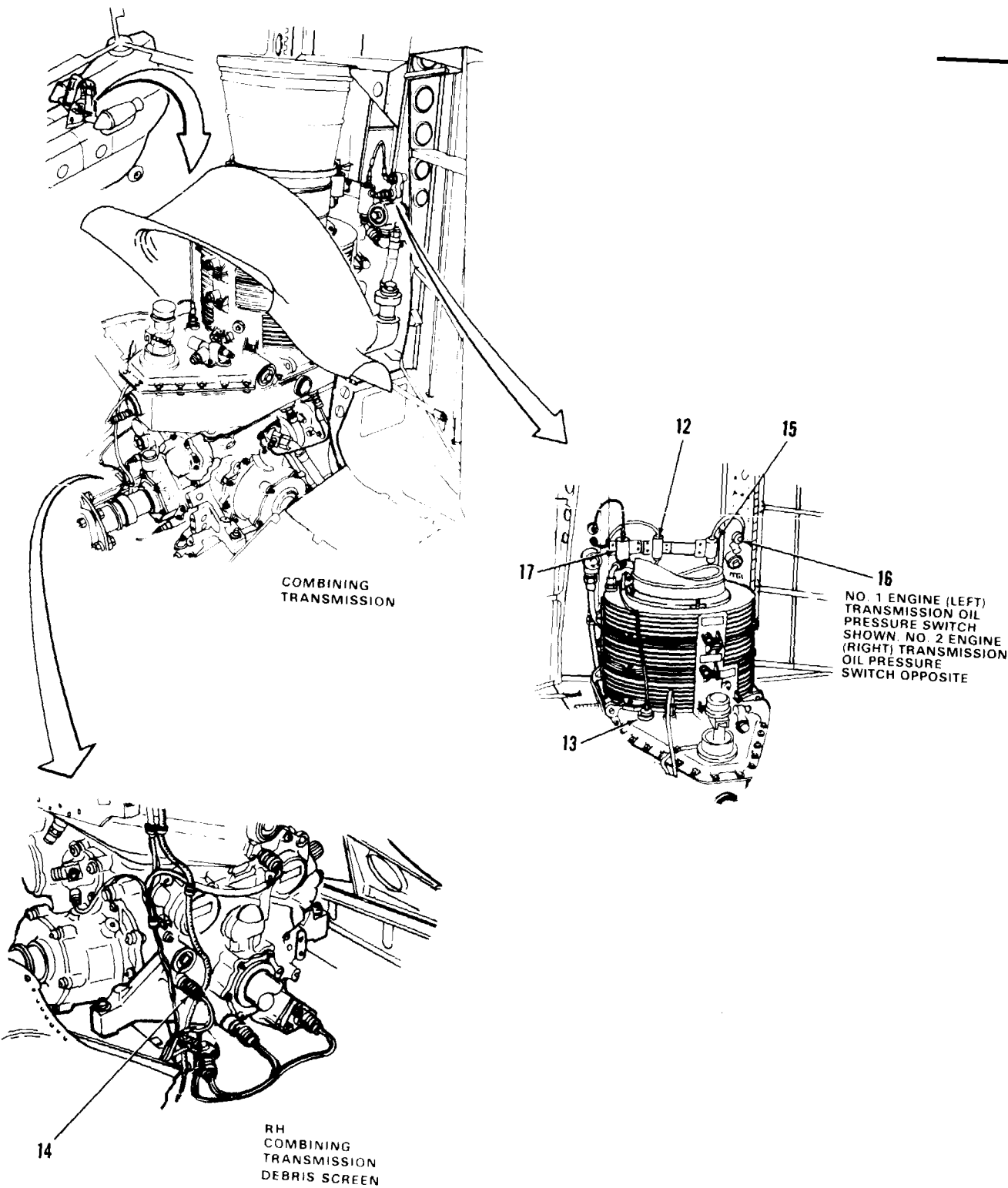
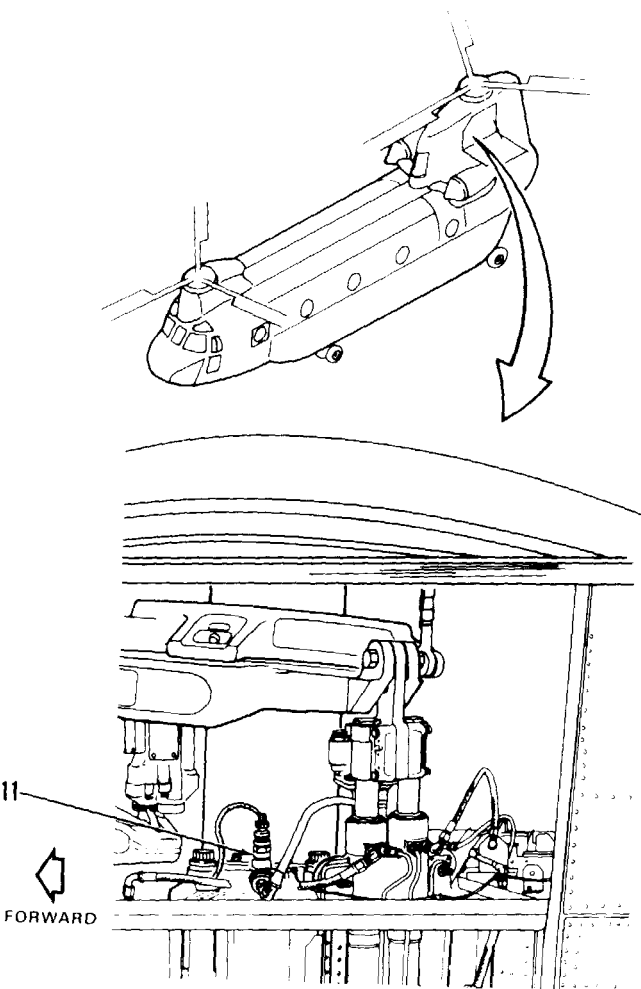
TASK	RESULT
1. Check XMSN OIL Press indicator (1).	If indicator (1) is loose or damaged, tighten or replace it as required.
2. Check XMSN OIL Press switch (2).	If switch (2) is loose or damaged, tighten or replace it as required.
3. Check six MAIN OIL PRESS Lights (3) and three AUX PRESS Lights (4).	If any light (3) or (4) is damaged, replace it.
CHECK FORWARD TRANSMISSION OIL PRESSURE INDICATING AND WARNING SYSTEM INSTALLATION	
4. Check pressure transducer (5).	If transducer (5) is damaged, replace it. If wiring or electrical connector to transducer is damaged, repair or replace it as required. If hose to transducer is loose or damaged, tighten or replace it as required.
5. Check main oil pressure switch (6).	If switch (6) is damaged, replace it. If wiring or electrical connector to switch is damaged, repair or replace it as required.
6. Check auxiliary oil pressure switch (7).	If switch (7) is damaged, replace it. If wiring or electrical connector to switch is damaged, repair or replace it as required.

TASK	RESULT
CHECK AFT TRANSMISSION OIL PRESSURE INDICATING AND WARNING SYSTEM INSTALLATION	
7. Check pressure transducer (8).	If transducer (8) is damaged, replace it. If wiring or electrical connector to transducer is damaged, repair or replace it as required. If hose to transducer is loose or damaged, tighten or replace it as required.
8. Check main oil pressure switch (9).	If switch (9) is damaged, replace it. If wiring or electrical connector to switch is damaged, repair or replace it as required.
9. Check auxiliary oil pressure switch (10).	If switch (10) is damaged, replace it. If wiring or electrical connector to switch is damaged, repair or replace it as required.

GO TO NEXT PAGE

8-9.2 TRANSMISSION OIL PRESSURE INDICATING AND WARNING  
SYSTEM VISUAL CHECK (Continued)

8-9.2



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8-9.2 TRANSMISSION OIL PRESSURE INDICATING AND WARNING  
SYSTEM VISUAL CHECK (Continued)

8 - 9 . 2

TASK	RESULT
CHECK AFT ROTOR SHAFT WARNING SYSTEM INSTALLATION	
10. Check oil pressure switch (11).	If switch (11) is damaged, replace it. If wiring or electrical connector to switch is damaged, repair or replace it as required.
CHECK COMBINING TRANSMISSION OIL PRESSURE indicating AND WARNING SYSTEM INSTALLATION	
11. Check pressure transducer (12).	If transducer (12) is damaged, replace it, if wiring or electrical connector to transducer is damaged, repair or replace it as required. If hose to transducer is loose or damaged, repair or replace it as required.
12. Check main oil pressure switch (13)	If switch (13) is damaged, replace it. If wiring or electrical connector to switch is damaged, repair or replace it as required.
13. Check auxiliary oil pressure switch (14).	If switch (14) is damaged, replace it. If wiring or electrical connector to switch is damaged, repair or replace it as required.
CHECK NO. 1 (LEFT) ENGINE TRANSMISSION OIL PRESSURE indicating AND WARNING SYSTEM INSTALLATION	
14. Check pressure transducer (15).	If transducer (15) is damaged, replace it. If wiring or electrical connector to transducer is damaged, repair or replace it as required. If hose to transducer is loose or damaged, repair or replace it as required.

TASK	RESULT
15. Check oil pressure switch (16).	If switch (16) is damaged, replace it. If wiring or electrical connector to switch is damaged, repair or replace it as required.
CHECK NO. 2 (RIGHT) ENGINE TRANSMISSION OIL PRESSURE INDICATING AND WARNING SYSTEM INSTALLATION	
16. Check pressure transducer (17).	If transducer (17) is damaged, replace it. If wiring or electrical connector to transducer is damaged, repair or replace it as required. If hose to transducer is loose or damaged, repair or replace it as required.
17. Check oil pressure switch (16).	If switch (16) is damaged, replace it. If wiring or electrical connector to switch is damaged, repair or replace it as required.
FOLLOW-ON MAINTENANCE:	
None	

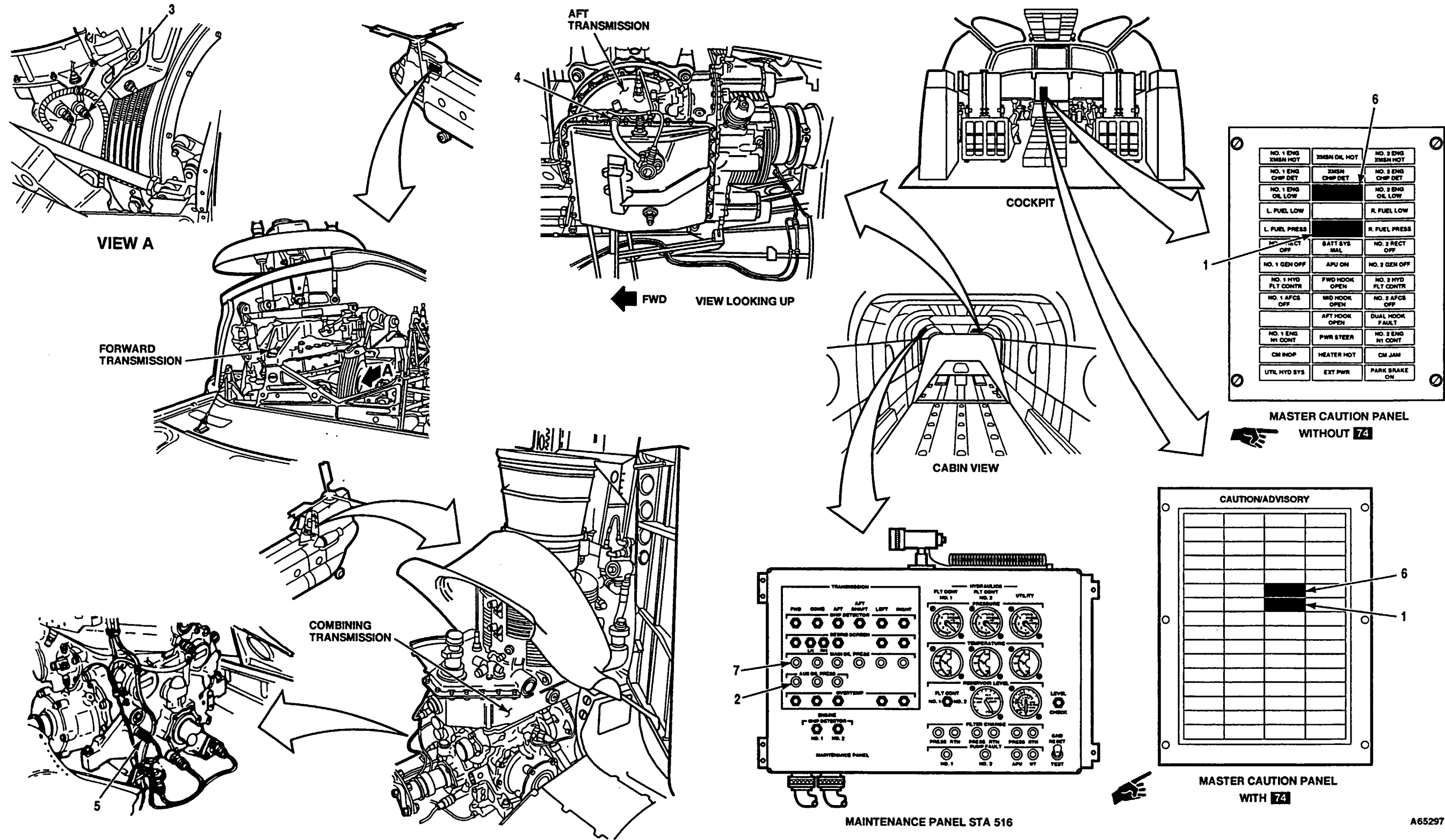
END OF TASK



INITIAL SETUP	<b>References:</b>
<b>Applicable Configurations:</b>	TM 55-1520-240-10
All	TM 55-1520-240-23
<b>Tools:</b>	<b>Equipment Condition:</b>
None	TM 55-1520-240-23:
<b>Materials:</b>	Battery Connected
None	Electrical Power On
<b>Personnel Required:</b>	Hydraulic Power Off
Aircraft Electrician (2)	Visual Check of Transmission Oil Pressure
Rotary Wing Aviator (2)	Indicating and Warning System Performed

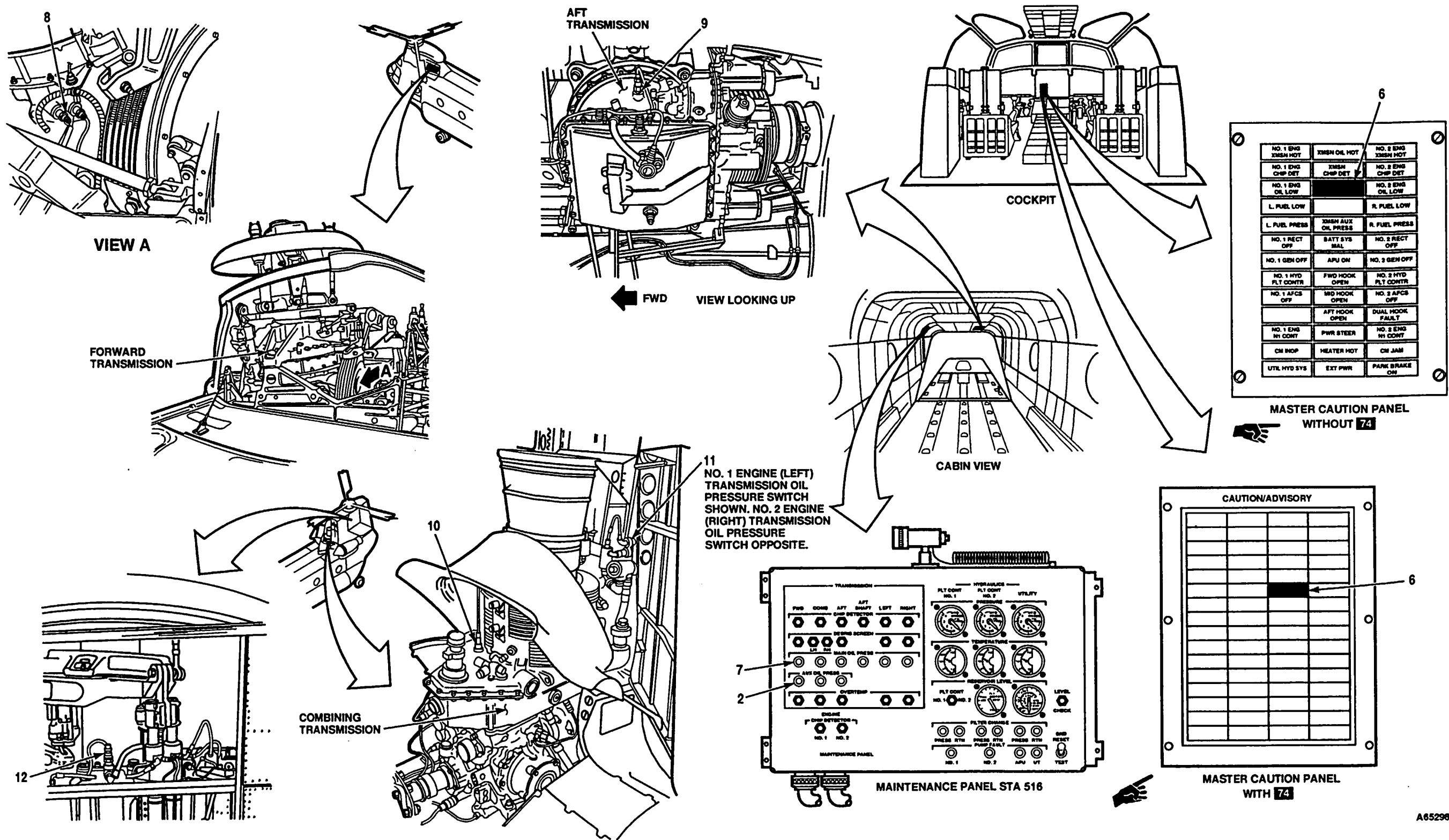
TASK	RESULT
<b>CHECK TRANSMISSION AUXILIARY OIL PRESSURE WARNING SYSTEM</b>	
1. Check that XMSN AUX OIL PRESS capsule (1) is lit.	If capsule (1) is not lit, go to task 8-9.4.
2. Check that three TRANSMISSION AUX OIL PRESS lights (2) are lit.	If any light (2) is not on, go to task 8-9.5.
3. Disconnect plug from forward transmission auxiliary oil pressure switch (3).	FWD TRANSMISSION AUX OIL PRESS light (2) shall go out, If it is still on, go to task 8-9.6.
4. Disconnect plug from aft transmission auxiliary oil pressure switch (4).	AFT TRANSMISSION AUX OIL light (2) shall go out. If it is still on, go to task 8-9.6.
5. Disconnect plug from combining transmission auxiliary oil pressure switch (5).	COMB TRANSMISSION AUX OIL PRESS light (2) shall go out. If it is still on, go to task 8-9.6. XMSN AUX OIL PRESS capsule (1) shall go out. If it is still on, go to task 8-9.7.

TASK	RESULT
6. Short pin 2 in forward transmission auxiliary oil pressure switch (3) plug to ground with a wire.	XMSN AUX OIL PRESS capsule (1) shall come on. FWD TRANSMISSION AUX OIL PRESS light (2) shall come on. If capsule (1) does not come on, go to task 8-9.8.
7. Remove wire.	Capsule (1) and light (2) shall go out.
8. Short pin 2 in aft transmission auxiliary oil pressure switch (4) plug to ground with a wire.	XMSN AUX OIL PRESS capsule (1) shall come on. AFT TRANSMISSION AUX OIL PRESS light (2) shall come on. If capsule (1) does not come on, go to task 8-9.8.
9. Remove wire.	Capsule (1) and light (2) shall go out.
10. Short pin 2 in combining transmission auxiliary oil pressure switch (5) plug to ground with a wire.	XMSN AUX OIL PRESS capsule (1) shall come on. COMB TRANSMISSION AUX OIL PRESS light (2) shall come on. If capsule (1) does not come on, go to task 8-9.8.
11. Remove wire.	Capsule (1) and light (2) shall go out.
12. Press and release each TRANSMISSION AUX OIL PRESS light (2).	Each light (2) shall come on when pressed. If it does not, go to task 8-9.9.
13. Connect plugs to combining transmission, aft transmission, and forward transmission auxiliary oil pressure switches (5, 4, and 3).	XMSN AUX OIL PRESS capsule (1) shall come on. FWD, COMB, and AFT TRANSMISSION AUX OIL PRESS lights (2) shall come one.
<b>CHECK TRANSMISSION MAIN OIL PRESSURE WARNING SYSTEM</b>	
14. Check that XMSN OIL PRESS capsule (6) is lit.	If capsule (6) is not lit, go to task 8-9.10.
<b>NOTE</b> <b>AFT TRANSMISSION MAIN OIL PRESS light may take 5 to 7 seconds to come on.</b>	
15. Check that six TRANSMISSION MAIN OIL PRESS lights (7) are lit.	If any light is not on, go to task 8-9.11.



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TASK		RESULT	TASK RESULT		
16.	Disconnect plug from forward transmission main oil pressure switch (8).	FWD TRANSMISSION MAIN OIL PRESS light (7) shall go out. If it is still on, go to task 8-9.12.	30.	Short pin 2 in aft transmission main oil pressure switch (9) plug to ground with a wire.	XMSN OIL PRESS capsule (6) shall come on. AFT TRANSMISSION MAIN OIL PRESS light (7) shall come on. If capsule (6) does not come on, go to task 8-9.14.
17.	Disconnect plug from aft transmission main oil pressure switch (9).	AFT TRANSMISSION MAIN OIL PRESS light (7) shall go out. If it is still on, go to task 8-9.12.	31.	Remove wire.	Capsule (6) and light (7) shall go out.
18.	Disconnect plug from combining transmission main oil pressure switch (10).	COMB TRANSMISSION MAIN OIL PRESS light (7) shall go out. If it is still on, go to task 8-9.12.	32.	Short pin 2 in forward transmission main oil pressure switch (8) plug to ground with a wire.	XMSN OIL PRESS capsule (6) shall come on. FWD TRANSMISSION MAIN OIL PRESS light (7) shall come on. If capsule (6) does not come on, go to task 8-9.14.
19.	Disconnect plug from No. 1 (left) engine transmission oil pressure switch (11).	LEFT TRANSMISSION MAIN OIL PRESS light (7) shall go out. If it is still on, go to task 8-9.12.	33.	Remove wire.	Capsule (6) and light (7) shall go out.
20.	Disconnect plug from No. 2 (right) engine transmission oil pressure switch (11).	RIGHT TRANSMISSION MAIN OIL PRESS light (7) shall go out. If it is still on, go to task 8-9.12.	34.	Press and release each TRANSMISSION MAIN OIL PRESS light (7).	Each light (7) shall come on when pressed. If it does not, go to task 8-9.15.
21.	Disconnect plug from aft shaft oil pressure switch (12).	AFT SHAFT MAIN OIL PRESS light (7) shall go out. If it is still on, go to task 8-9.12. XMSN oil press capsule (6) shall go out. If it is still on, go to task 8-9.13.	35.	Connect plugs to forward, aft, combining, No. 1 (left) and No. 2 (right) engine transmission pressure switches (8, 9, 10, and 11) and aft shaft pressure switch (12).	XMSN OIL PRESS capsule (6) shall come on. FWD, COMB, AFT, LEFT, RIGHT, and AFT SHAFT TRANSMISSION MAIN OIL PRESS lights (7) shall come on.
22.	Short pin 2 in aft shaft oil pressure switch (12) plug to ground with a wire.	XMSN OIL PRESS capsule (6) shall come on. AFT SHAFT MAIN OIL PRESS light (7) shall come on. If capsule (6) does not come on, go to task 8-9.14.			
23.	Remove wire.	Capsule (6) and light (7) shall go out.			
24.	Short pin 2 in No. 2 engine (right) transmission oil pressure switch (11) plug to ground with a wire.	XMSN OIL PRESS capsule (6) shall come on. RIGHT TRANSMISSION MAIN OIL PRESS light (7) shall come on. If capsule (6) does not come on, go to task 8-9.14.			
25.	Remove wire.	Capsule (6) and light (7) shall go out.			
26.	Short pin 2 in No. 1 engine (left) transmission oil pressure switch (11) plug to ground with a wire.	XMSN OIL PRESS capsule (6) shall come on. LEFT TRANSMISSION MAIN OIL PRESS light (7) shall come on. If capsule (6) does not come on, go to task 8-9.14.			
27.	Remove wire.	Capsule (6) and light (7) shall go out.			
28.	Short pin 2 in combining transmission main oil pressure switch (10) plug to ground with a wire.	XMSN OIL PRESS capsule (6) shall come on. COMB TRANSMISSION MAIN OIL PRESS light (7) shall come on. If capsule (6) does not come on, go to task 8-9.14.			
29.	Remove wire.	Capsule (6) and light (7) shall go out.			

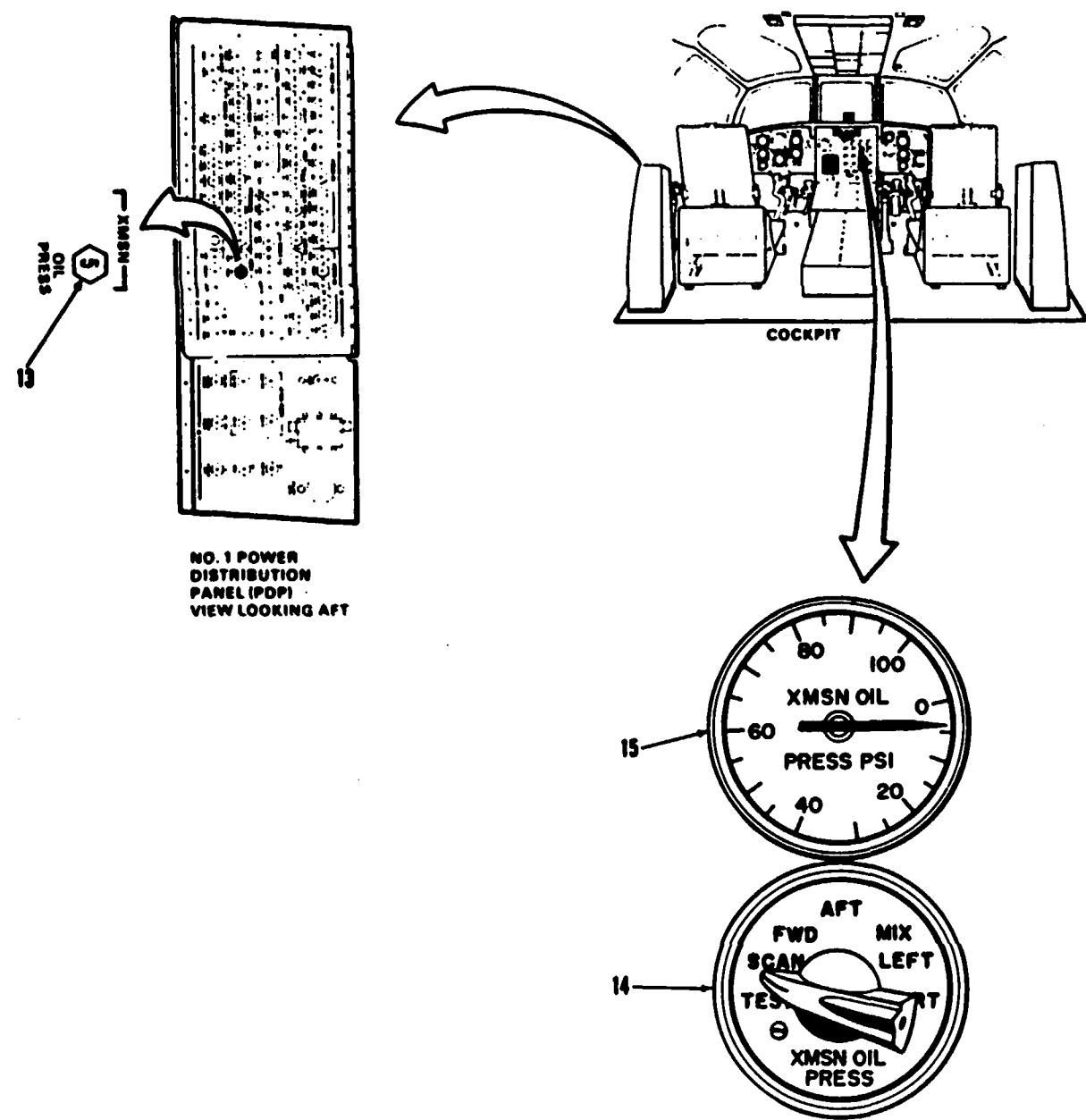


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8-9.3 TRANSMISSION OIL PRESSURE INDICATING AND WARNING SYSTEM OPERATIONAL CHECK (Continued)

8-9.3

TASK	RESULT	TASK	RESULT
CHECK TRANSMISSION OIL PRESSURE INDICATING SYSTEM			
36.	Close left and right forward work platforms.	FOLLOW-ON MAINTENANCE:  Have pilot shutdown engines.  TM 55-1520-240-23 Electrical Power Off Battery Disconnected Hydraulic Power Off	
37.	Close pylon lower fairing and hinted fairing.		
38.	Close aft transmission baffles.		
39.	Check that XMSN OIL PRESS circuit breaker (13) is closed.		
40.	Check that XMSN OIL PRESS switch (14) is set to SCAN.		
41.	Have pilot start engines and stabilize rpm at 100 percent Check XMSN OIL PRESS indicator (15). Record Indication.		
42.	Set and hold knob on XMSN OIL PRESS switch (14) to TEST.		
43.	Release knob on XMSN OIL PRESS switch (14).		
44.	Turn knob on XMSN OIL PRESS switch (14) to FWD, AFT, MIX, LEFT, then RT positron. Record indication on XMSN OIL PRESS indicator (15) for each switch position.		
45.	Compare indications recorded in step 41 and step 44.		
46.	Turn knob on XMSN OIL PRESS switch (14) to SCAN.		



8-9.4 XMSN AUX OIL PRESS CAPSULE NOT LIT

8-9.4

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

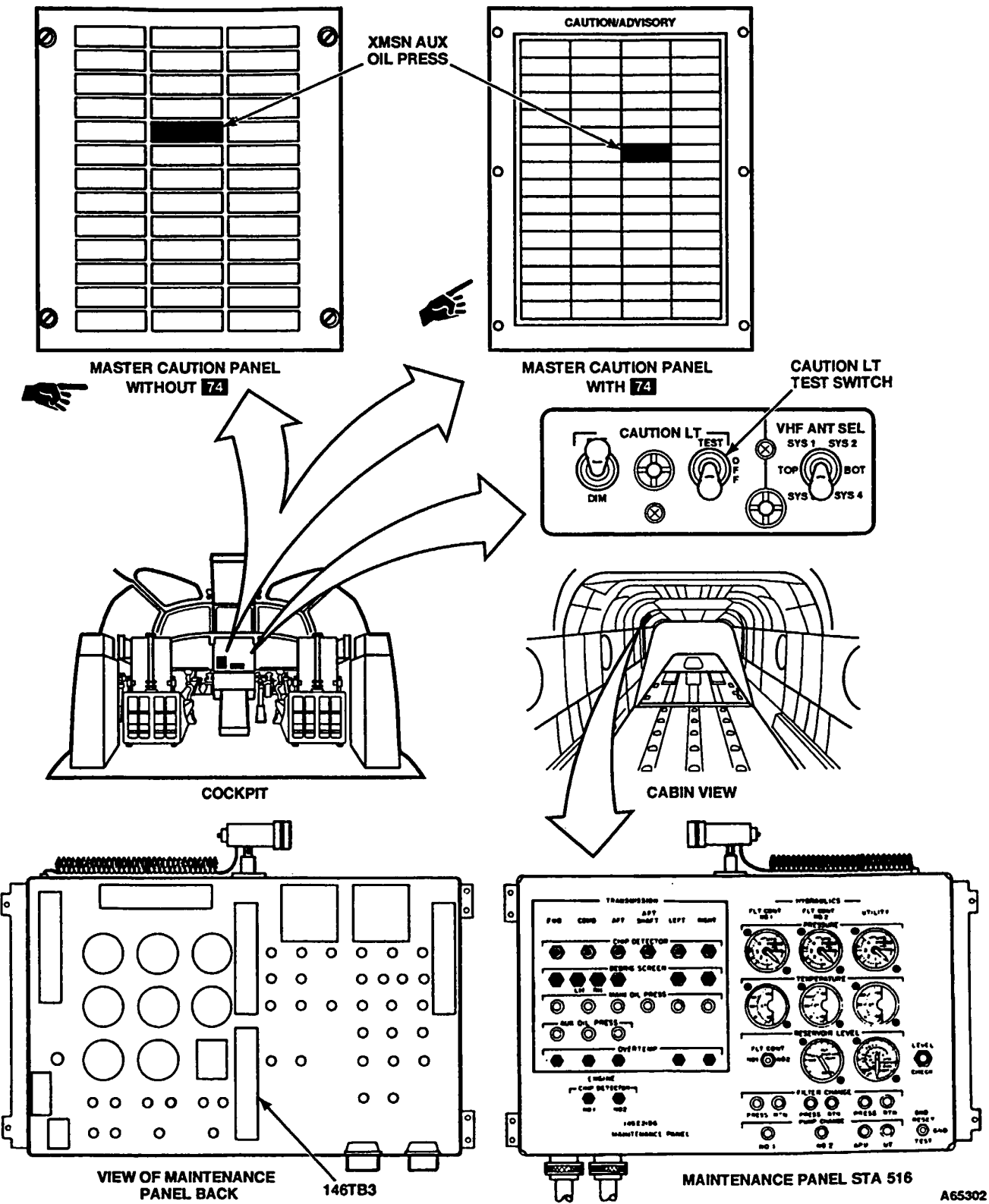
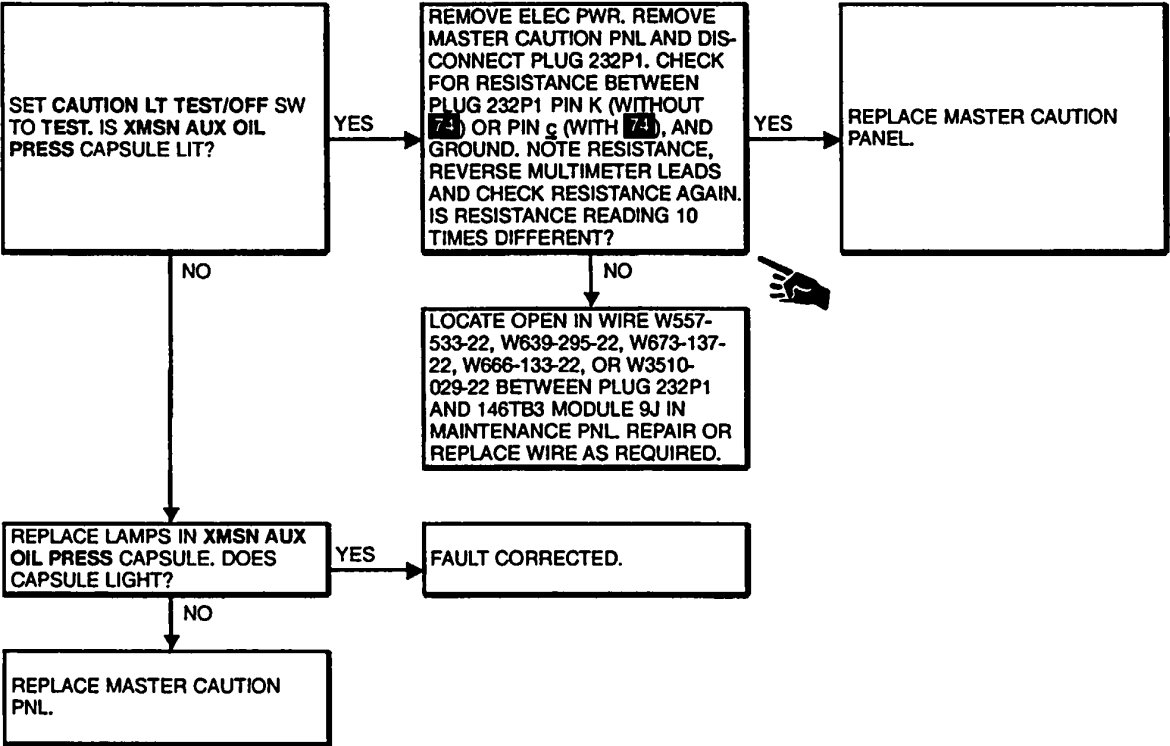
Aircraft Electrician

References:

TM 55-1520240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off







8-9.5 FWD, COMB, OR AFT TRANSMISSION AUX OIL PRESS LIGHT IS OUT

8-9.5

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

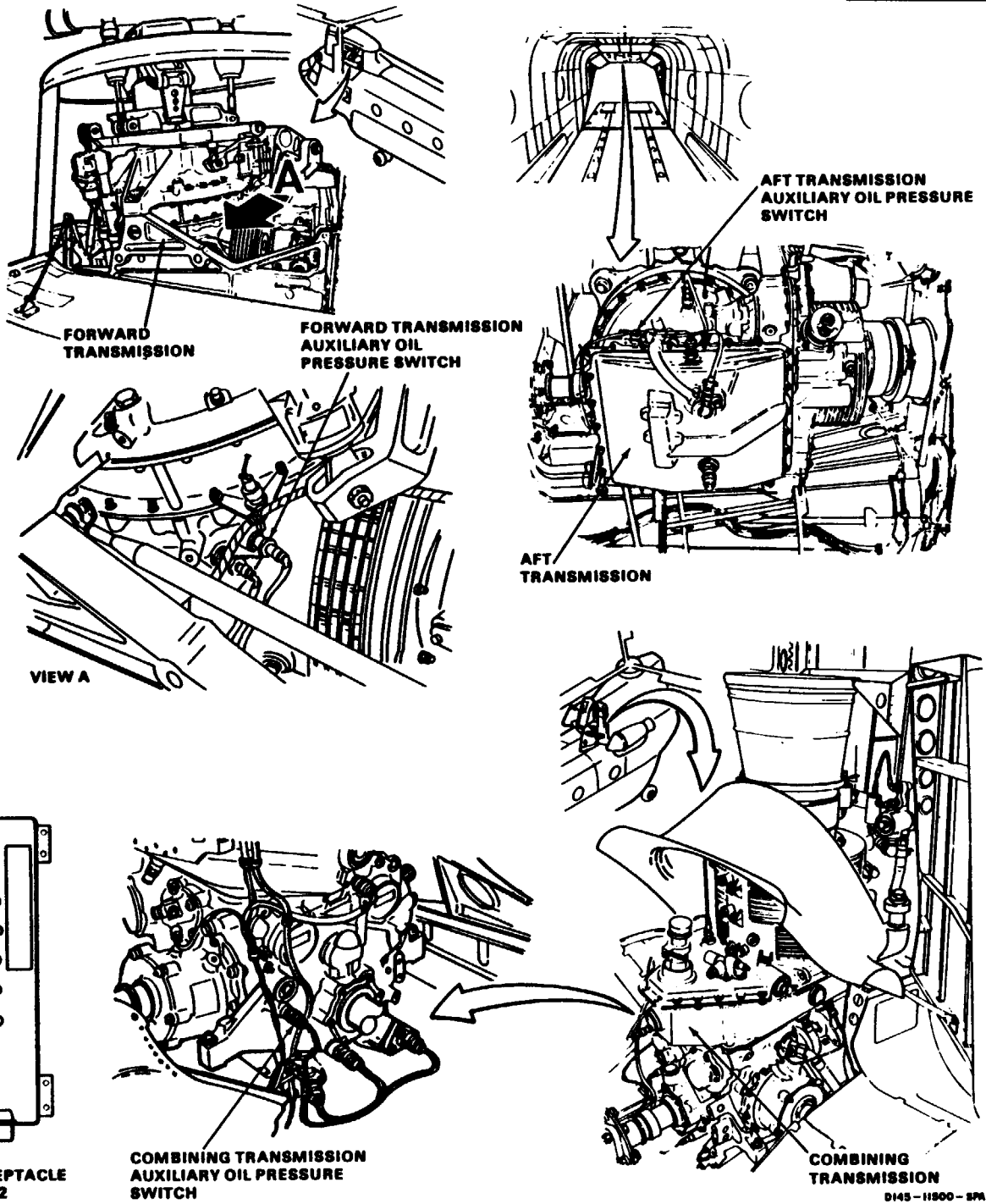
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
66F20 Aircraft Electrician

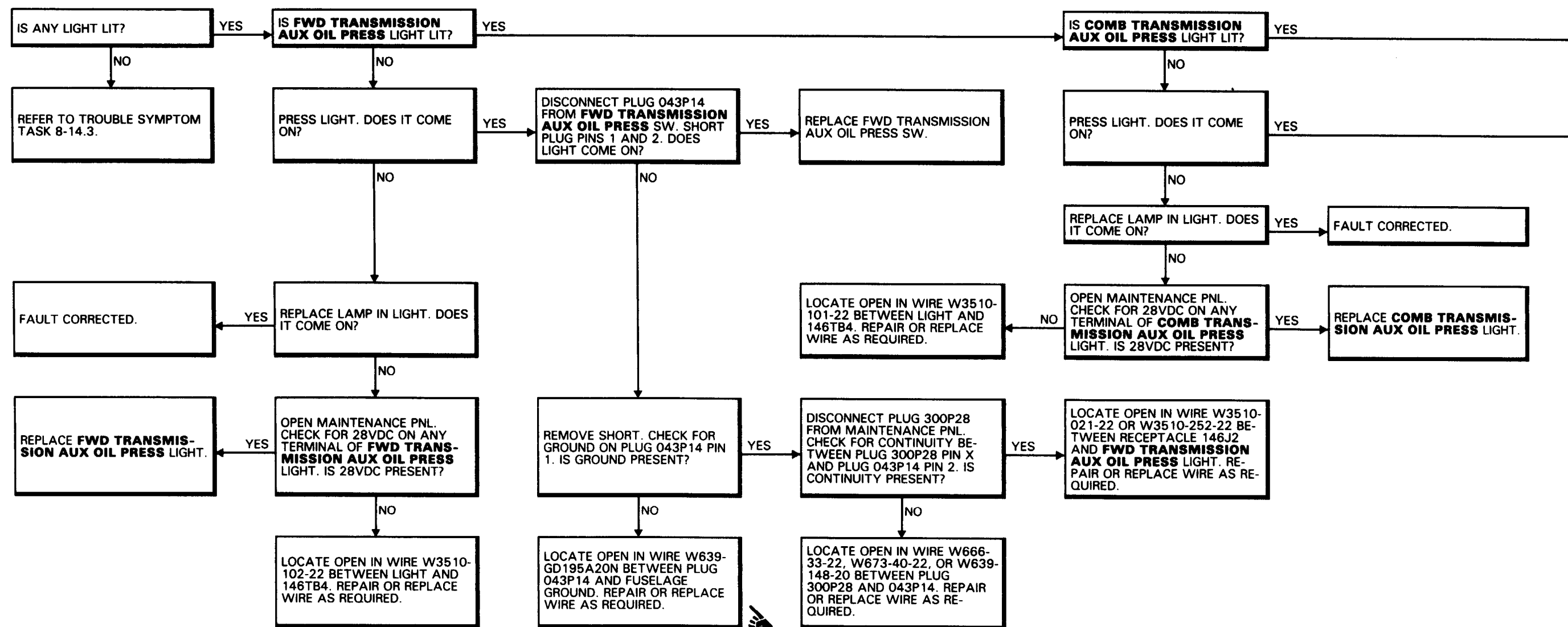
References:  
TM 55-1520-240-23

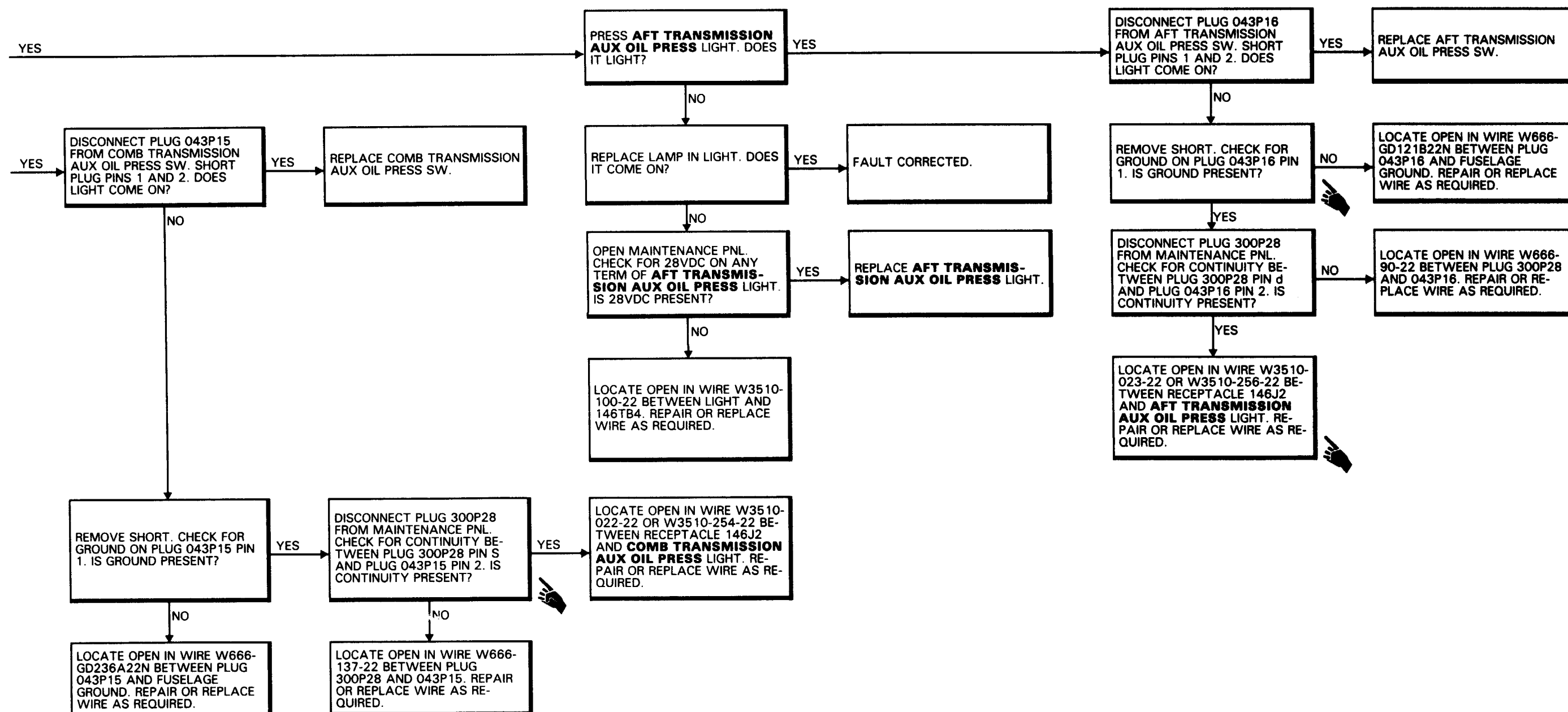
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



## 8-9.5 FWD, COMB, OR AFT TRANSMISSION AUX OIL PRESS LIGHT IS OUT (Continued)

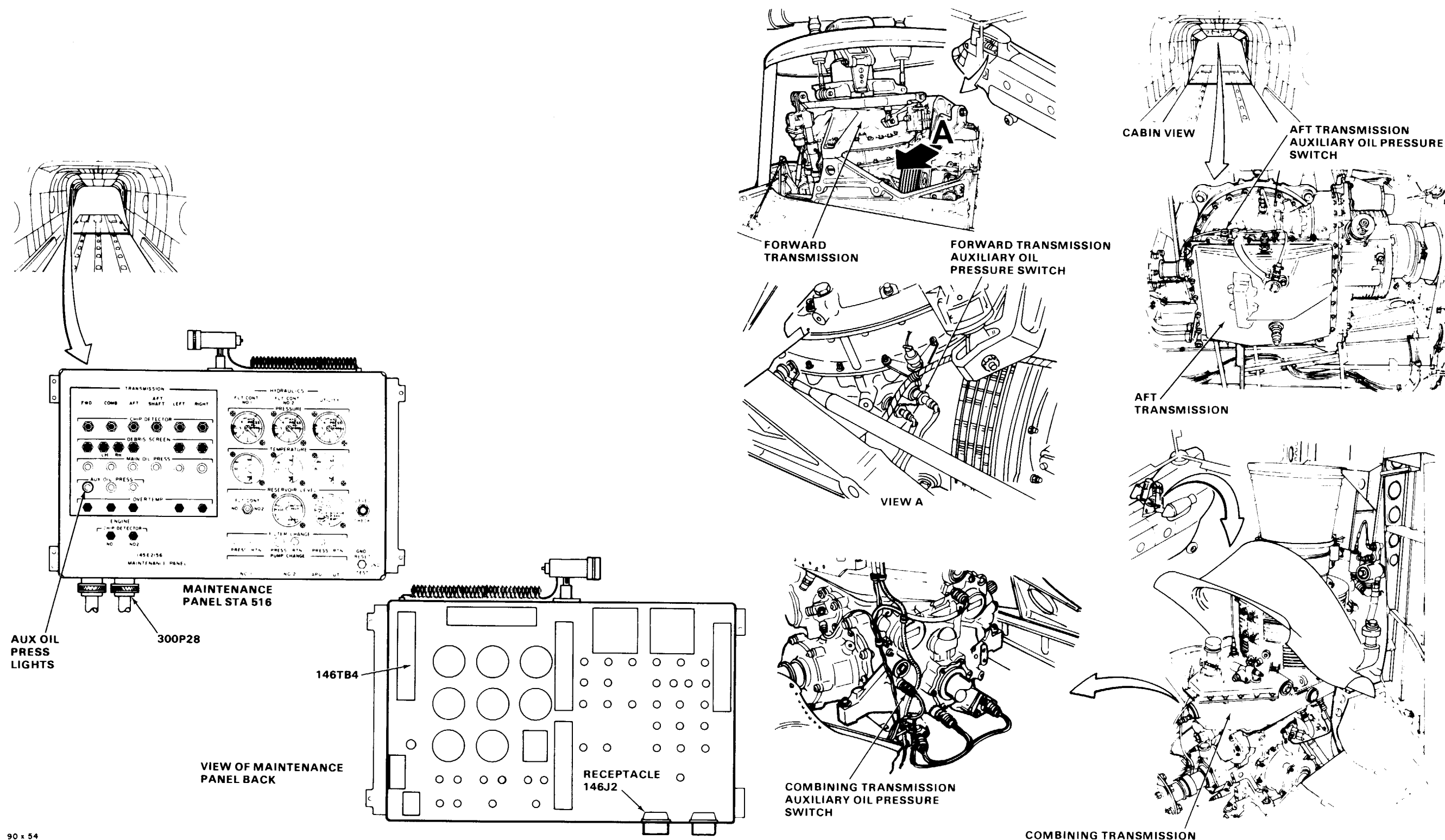
8-9.5





8-9.5 FWD, COMB, OR AFT TRANSMISSION AUX OIL PRESS LIGHT IS OUT  
(Continued)

8-9.5



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D145-11501-SPA

END OF TASK

8-9.6 FWD, COMB, OR AFT TRANSMISSION AUX OIL PRESS LIGHT STILL ON WHEN ITS PRESSURE SWITCH IS DISCONNECTED

8-9.6

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

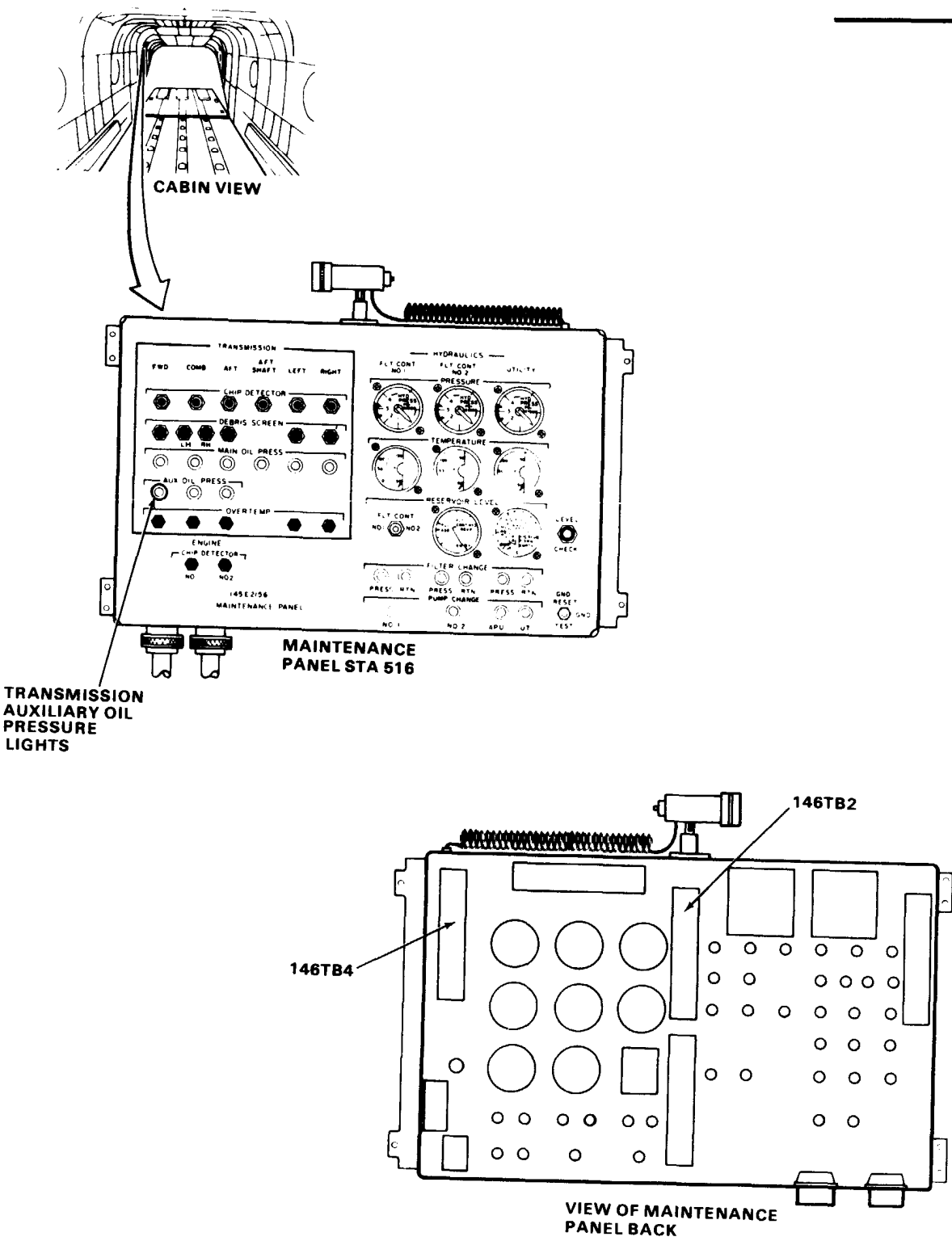
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

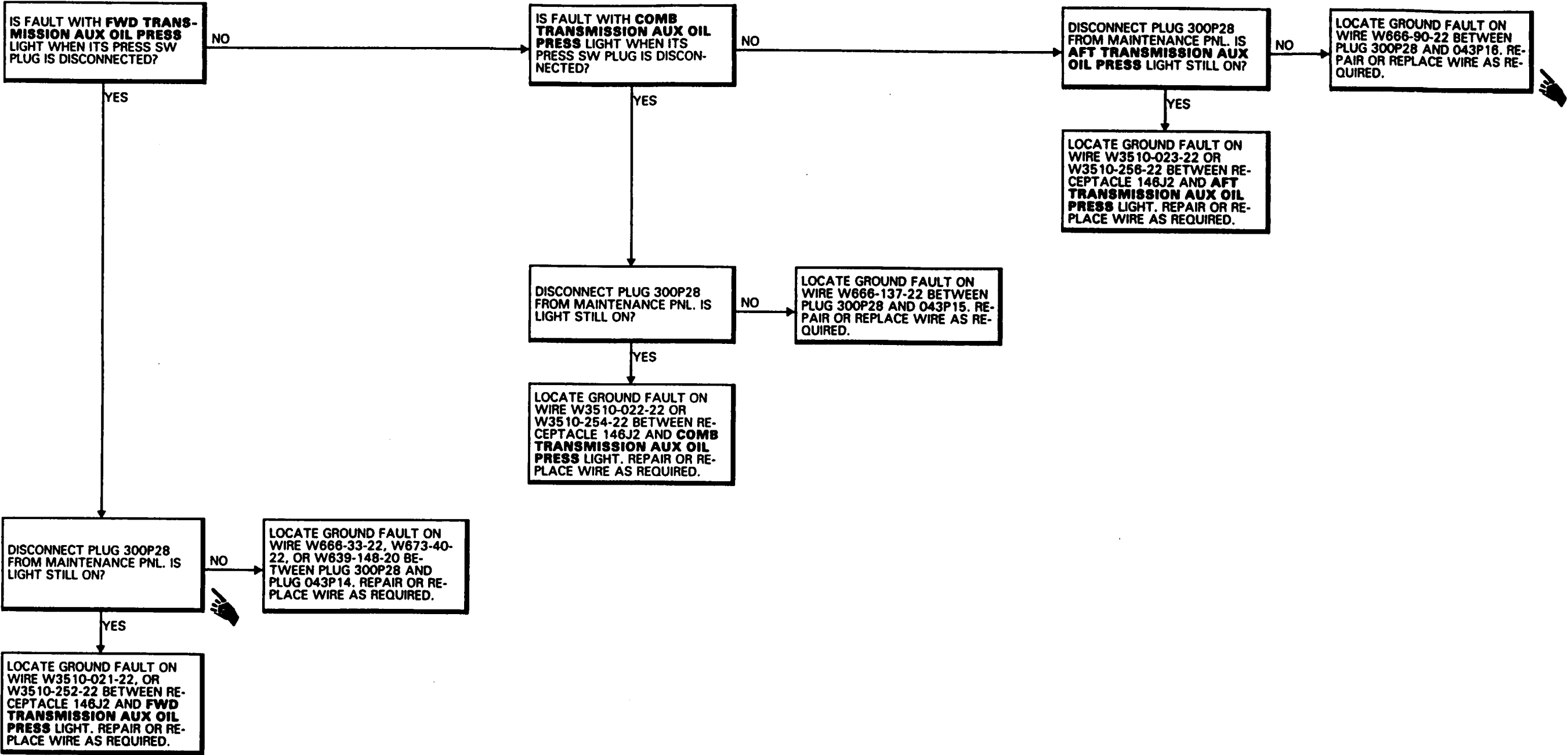
Equipment Condition:  
TM 55-1520-240-23  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



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D145-11502-SPA

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8-9.7 XMSN AUX OIL PRESS CAPSULE ON WHEN ALL PRESSURE SWITCHES ARE DISCONNECTED

8-9.7

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer Tool Kit, NSN 5180-00-323-4915

- Multimeter

Materials:

- None

Personnel Required:

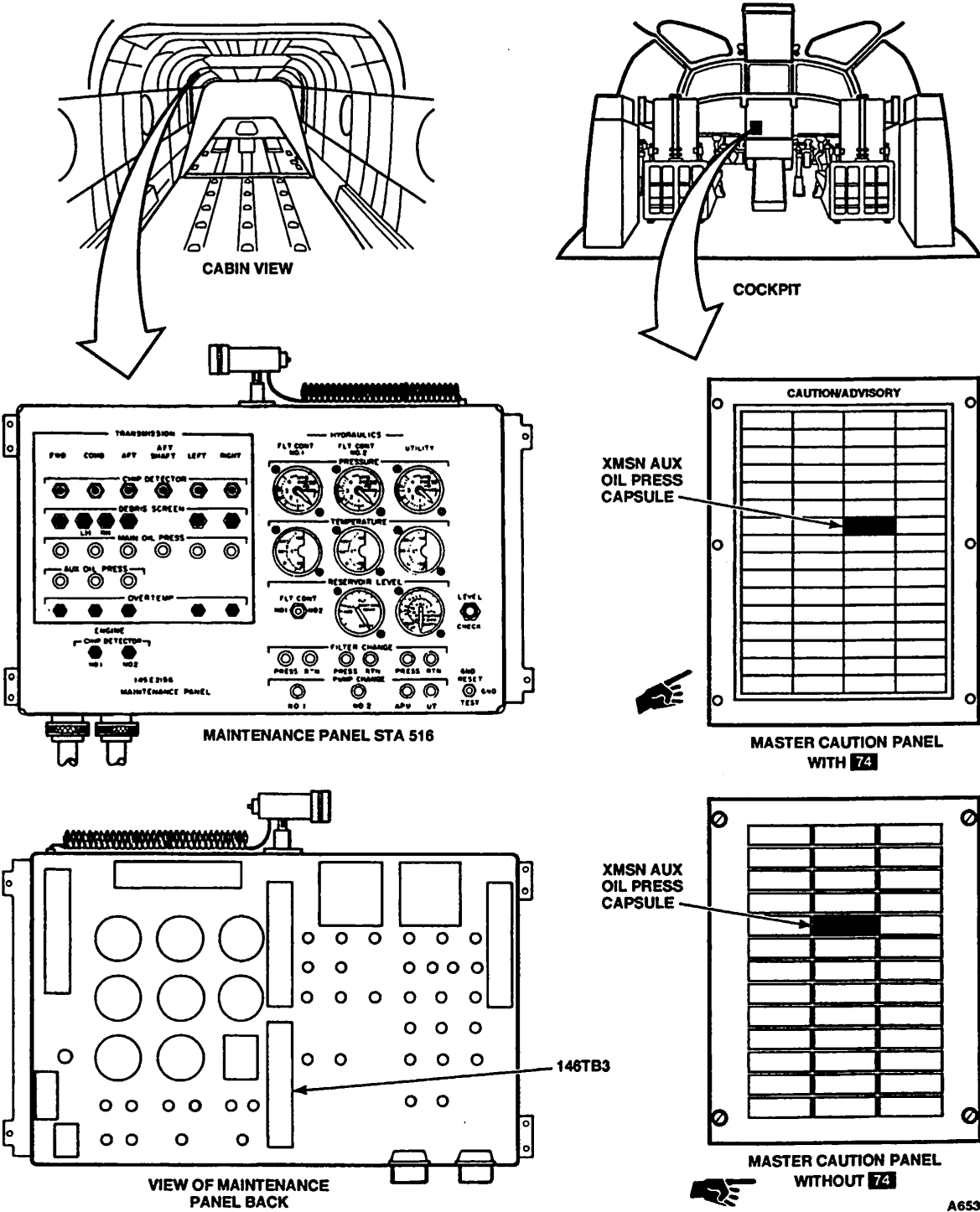
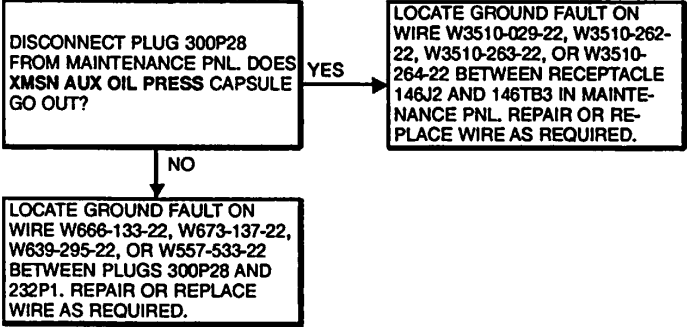
- Aircraft Electrician

References:

- TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



END OF TASK





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
  - Multimeter

Materials:

- None

Personnel Required:

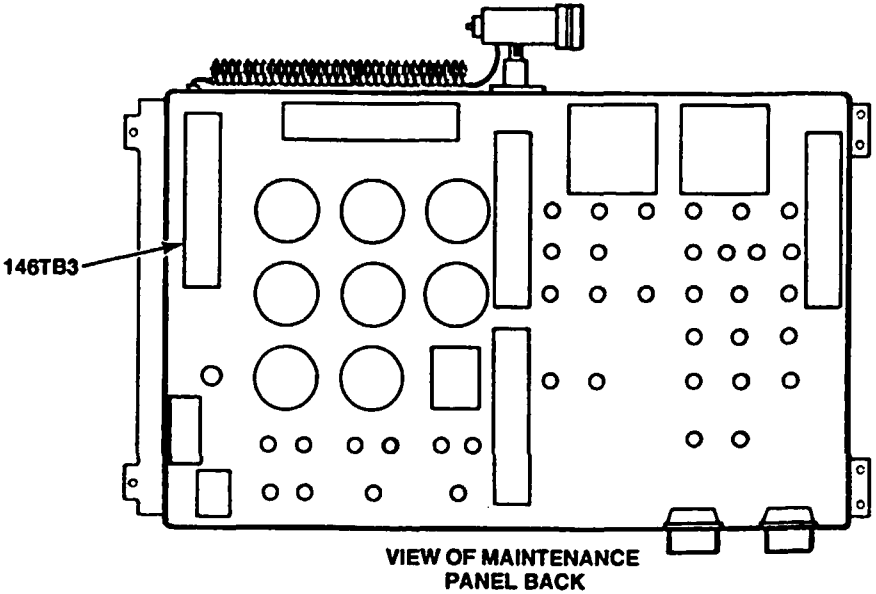
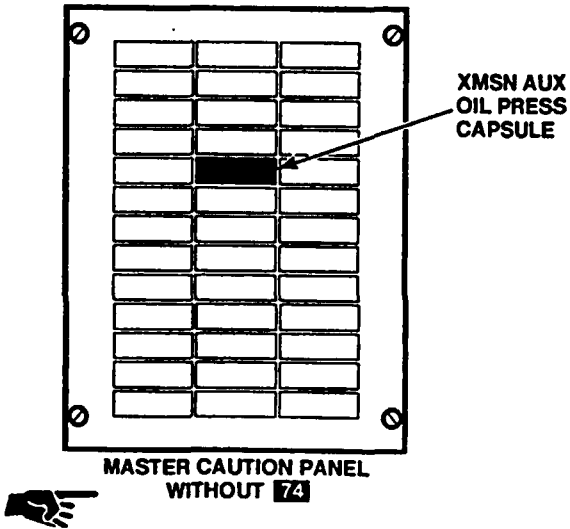
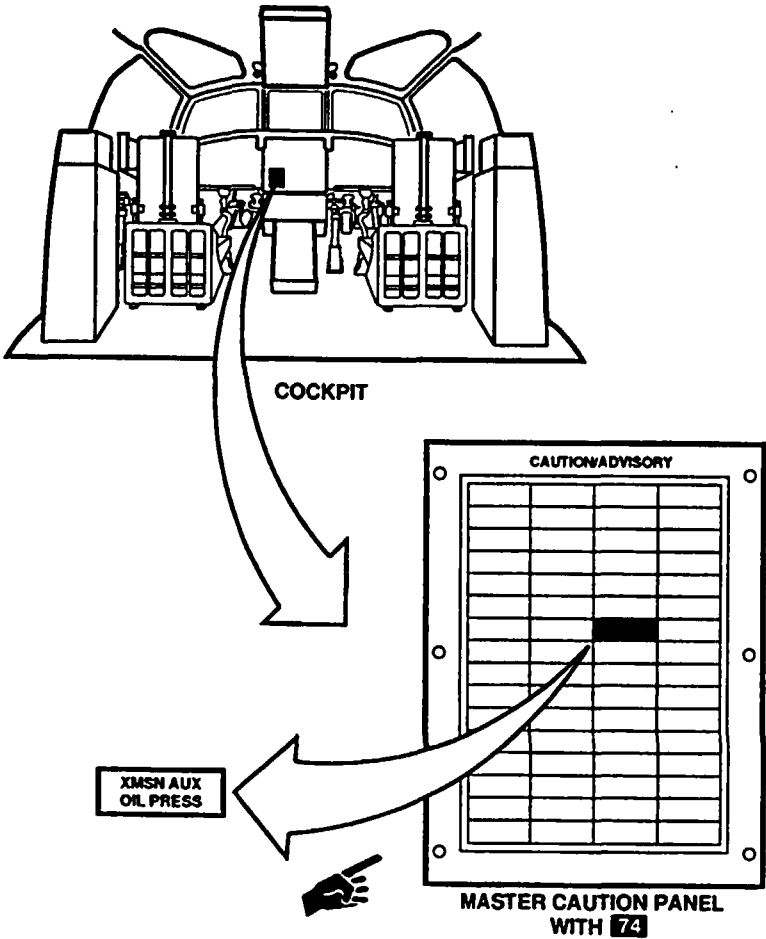
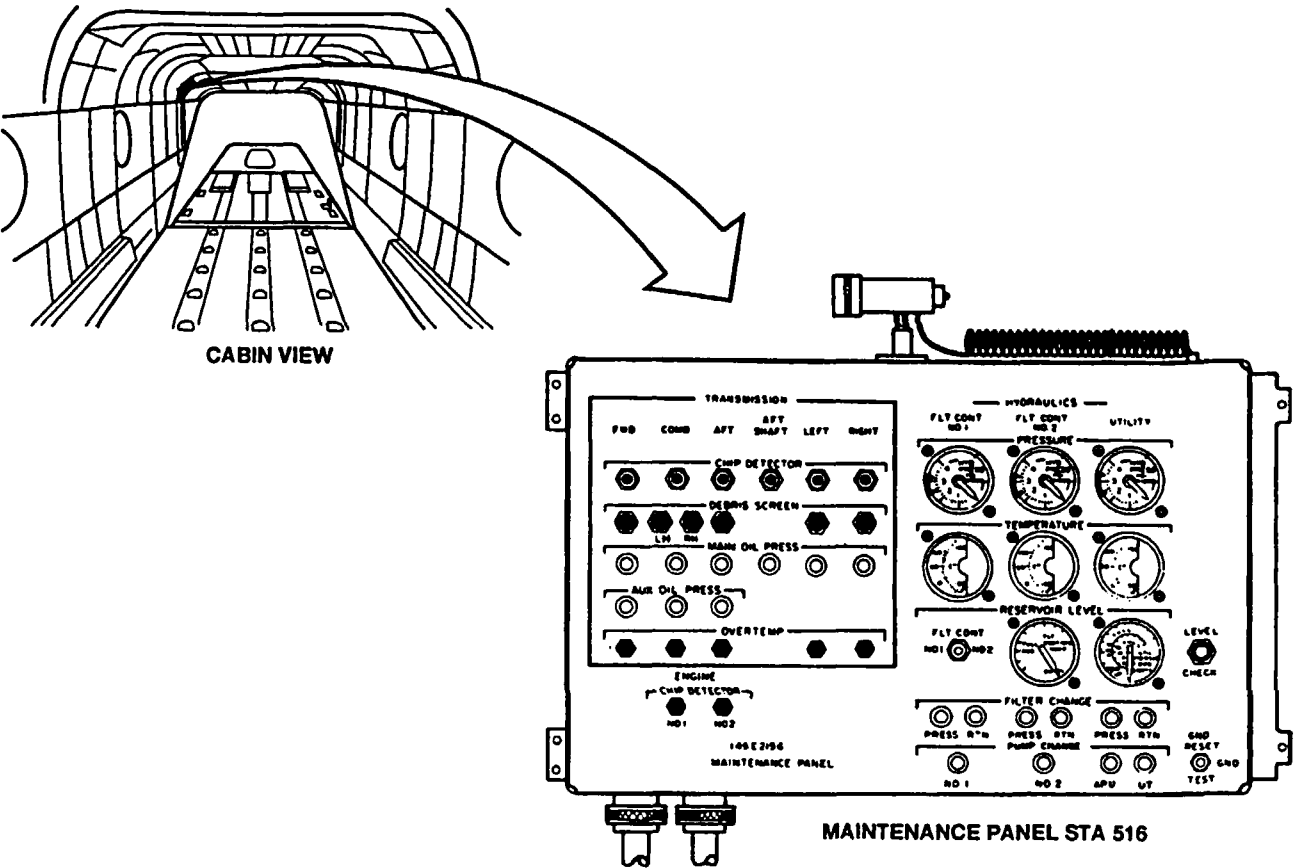
- Aircraft Electrician

References:

- TM 55-1520-240-23

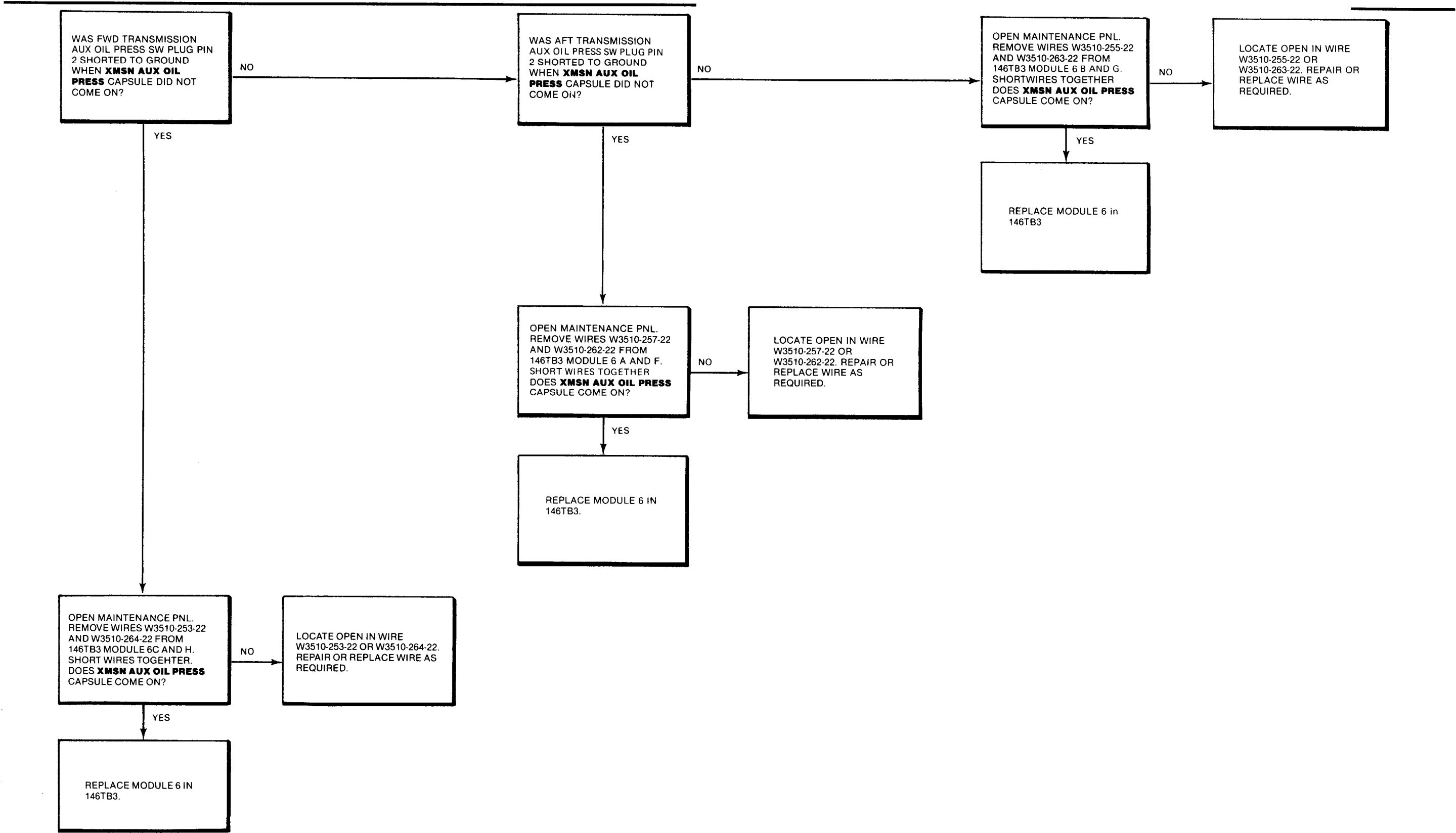
Equipment Condition:

- TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



8-9.8 XMSN AUX OIL PRESS CAPSULE DOES NOT COME ON DURING TEST  
(Continued)

8-9.8



END OF TASK

8-9.9 FWD, COMB, OR AFT TRANSMISSION AUX OIL PRESS LIGHT DOES NOT COME ON WHEN PRESSED

8-9.9

FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Personnel Required**  
68F20 Aircraft Electrician

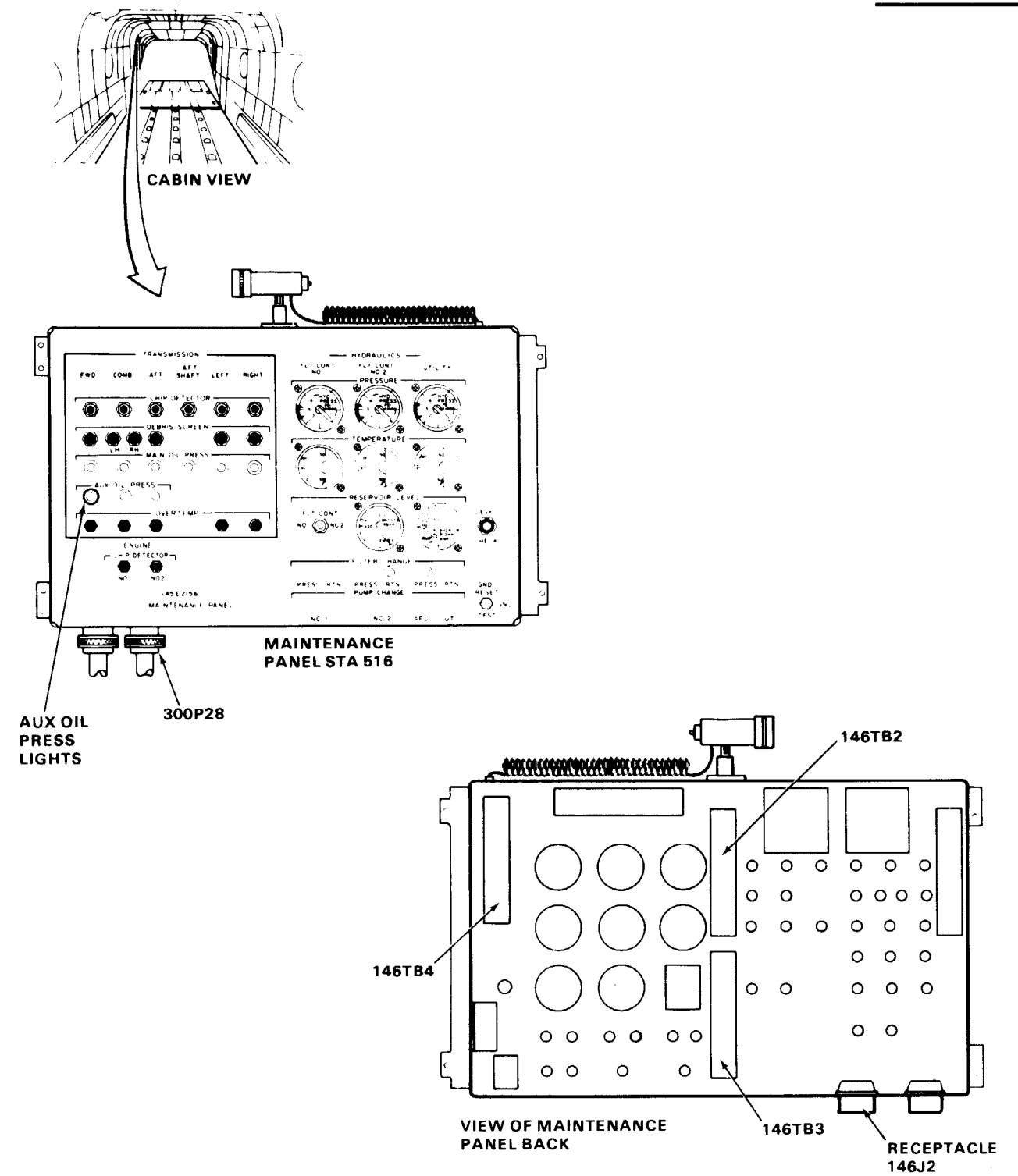
**Applicable Configurations:**  
All

**References:**  
TM 55-1520-240-23

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

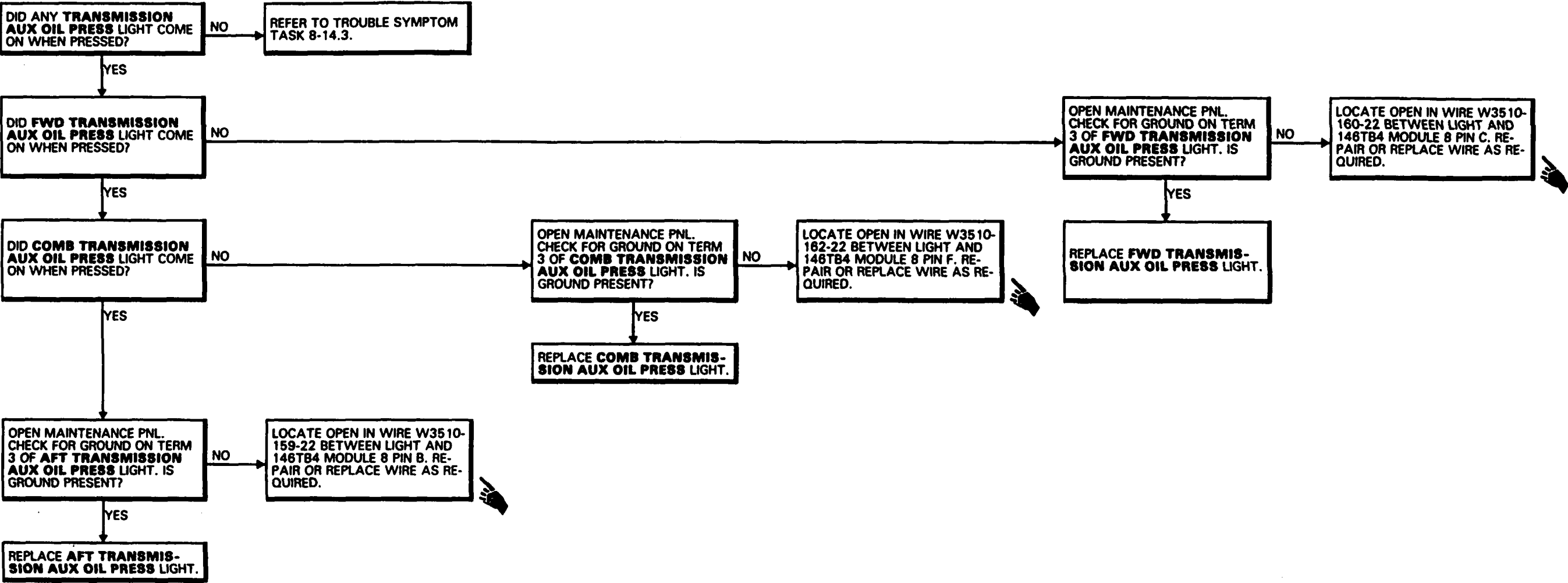
**Materials:**  
None



GO TO NEXT PAGE

8-9.9 FWD, COMB, OR AFT TRANSMISSION AUX OIL PRESS LIGHT DOES NOT COME ON WHEN PRESSED  
(Continued)

8-9.9



8-9.10 XMSN OIL PRESS CAPSULE NOT LIT

8-9.10

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer's Tool Kit, NSN 518000-323-4915
  - Multimeter
- Materials:
- None

Personnel Required

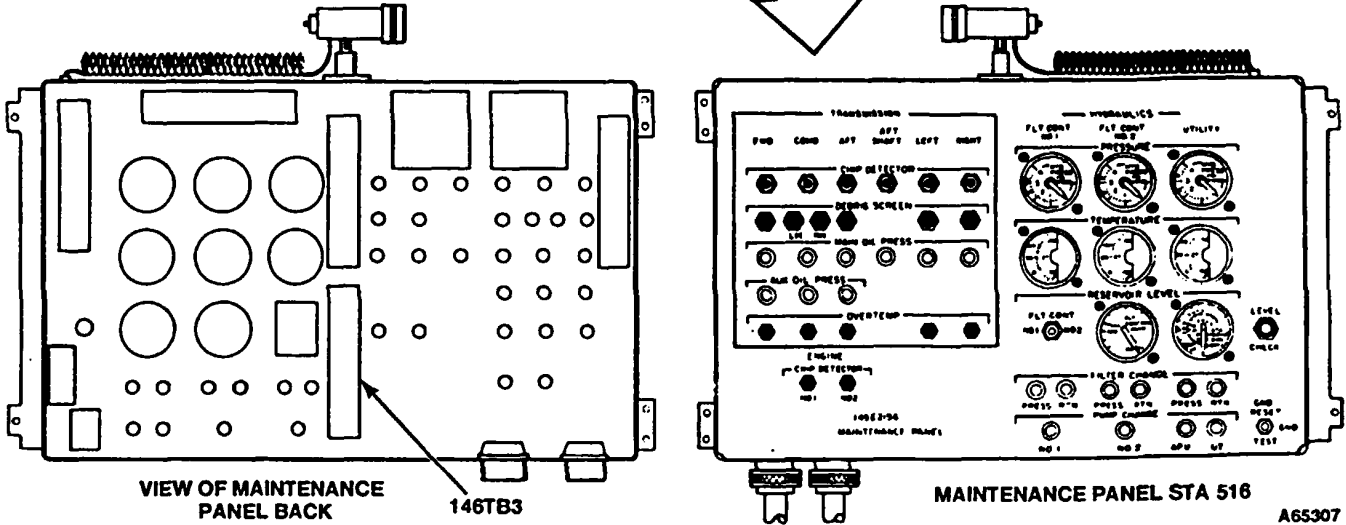
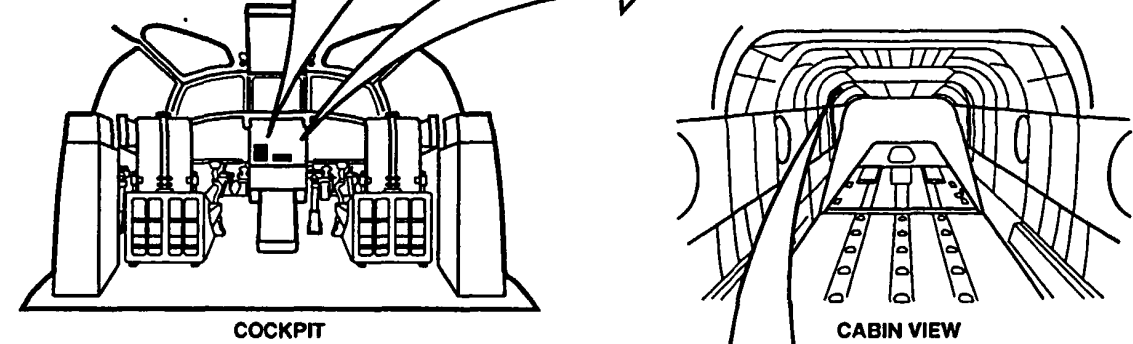
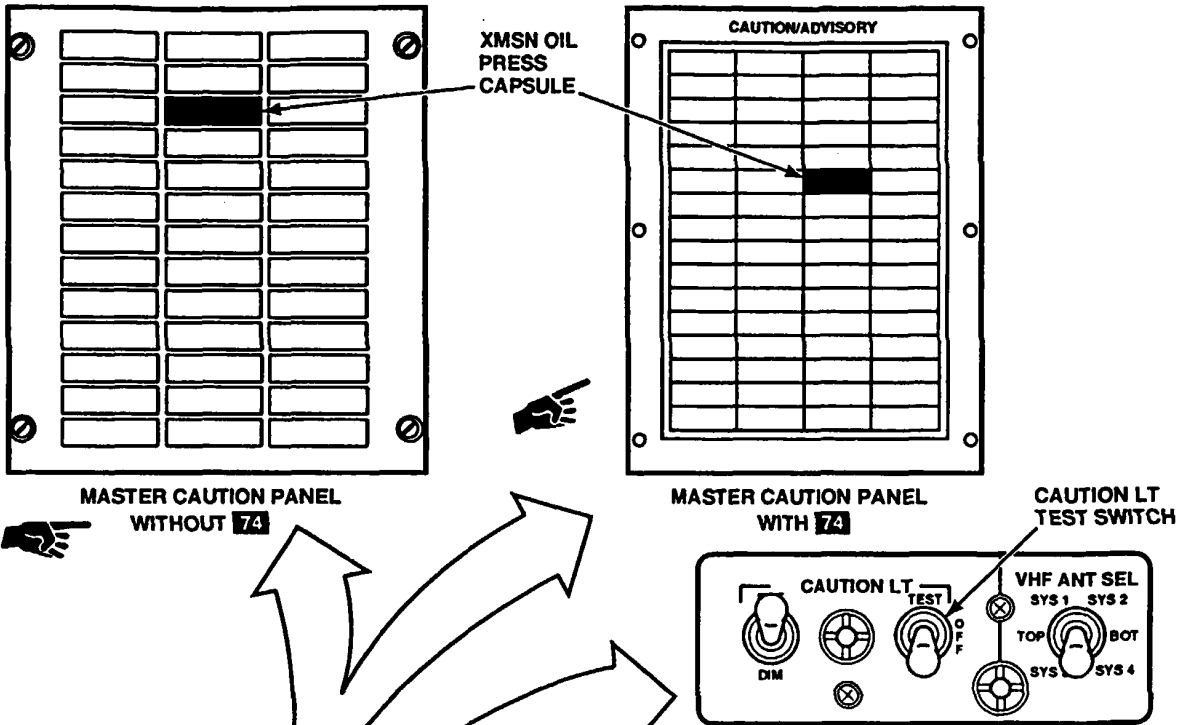
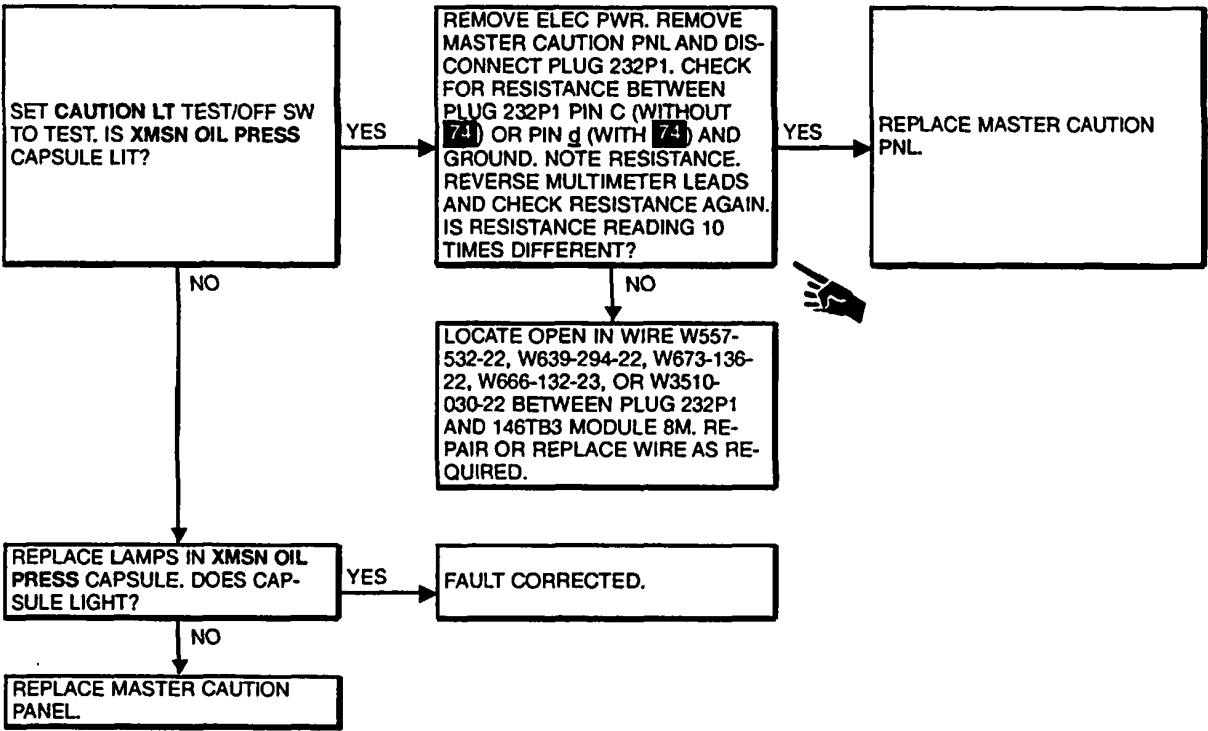
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off





8-9.11 FWD, COMB, AFT SHAFT, LEFT, RIGHT, OR AFT TRANSMISSION  
MAIN OIL PRESS LIGHT IS OUT

8-9.11

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Personnel Required  
68F20 Aircraft Electrician

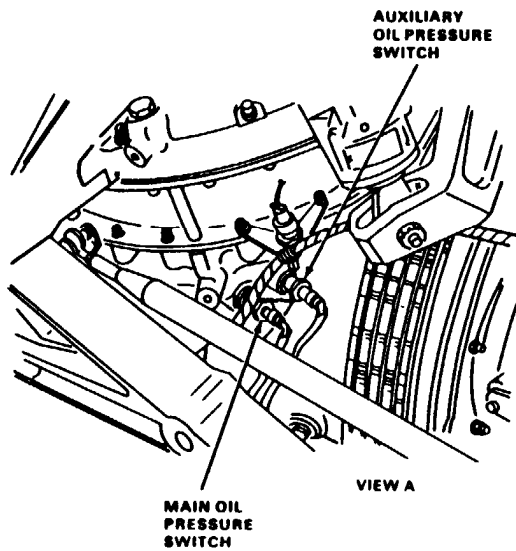
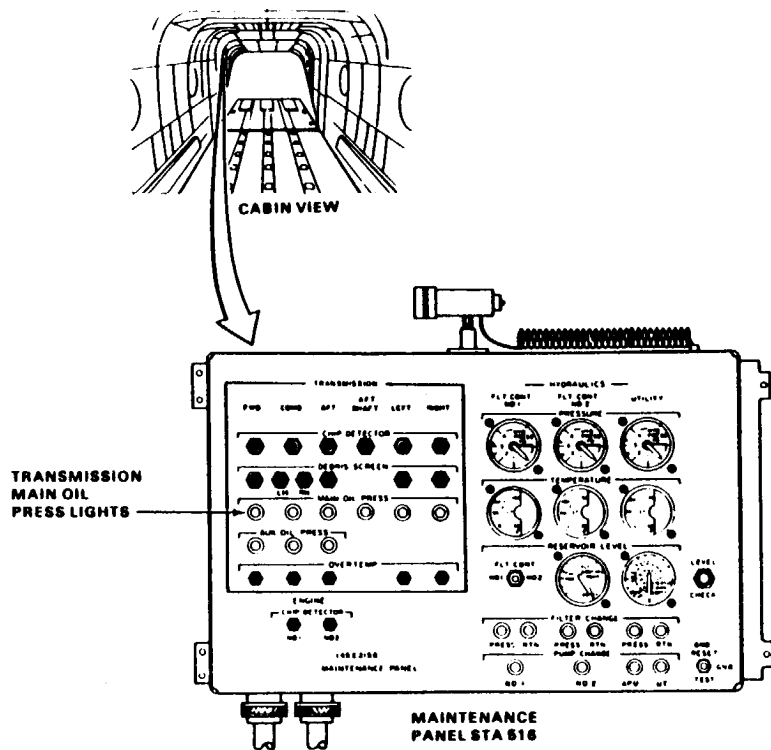
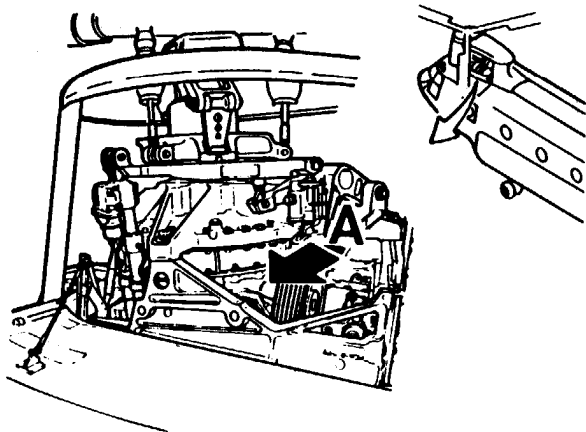
Applicable Configurations:  
All

References:  
TM 55-1520-240-23

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

Materials:  
None



90X54

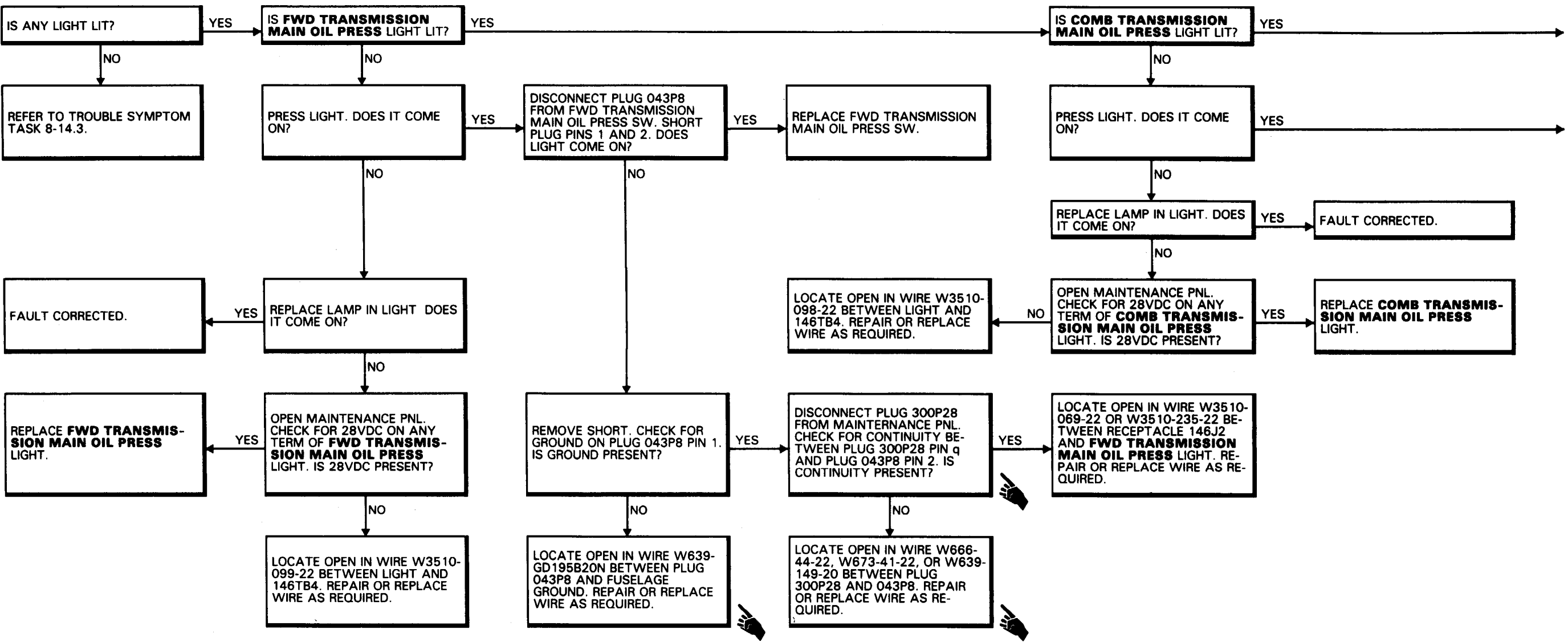
DI45-11507-SPA

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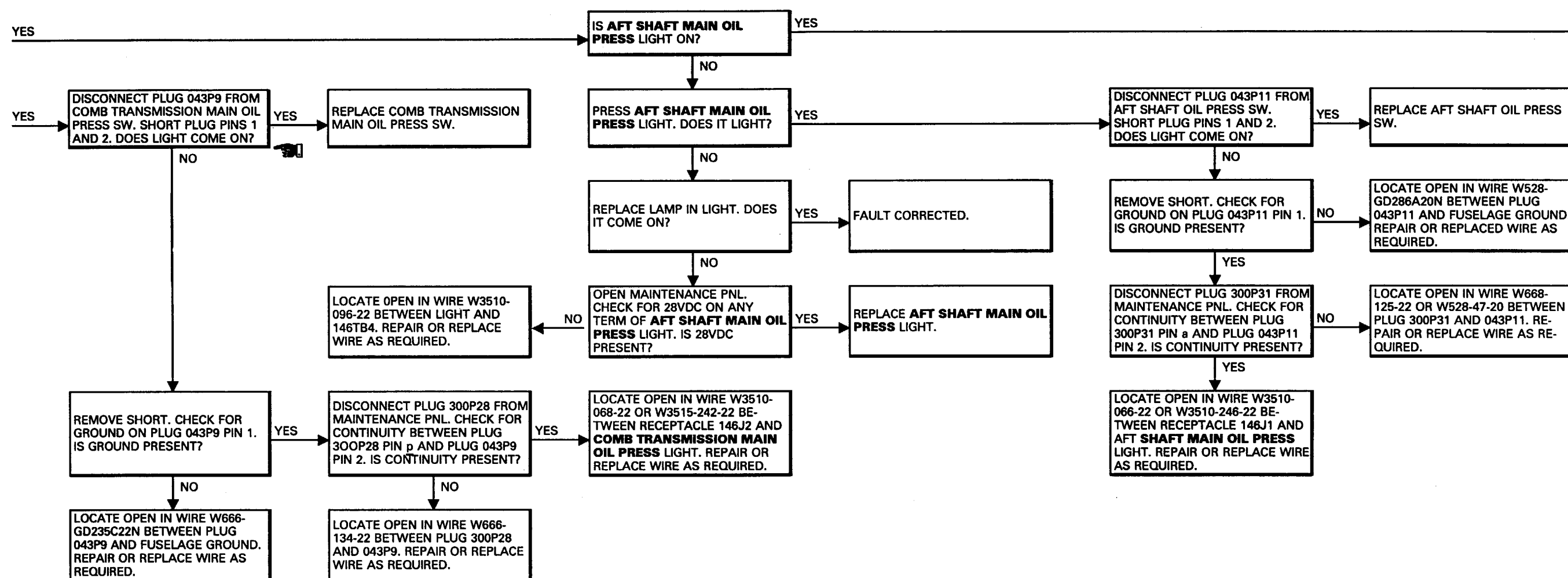
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8-9.11 FWD, COMB, AFT SHAFT, LEFT, RIGHT, OR AFT TRANSMISSION MAIN OIL PRESS LIGHT IS OUT  
(Continued)

8-9.11

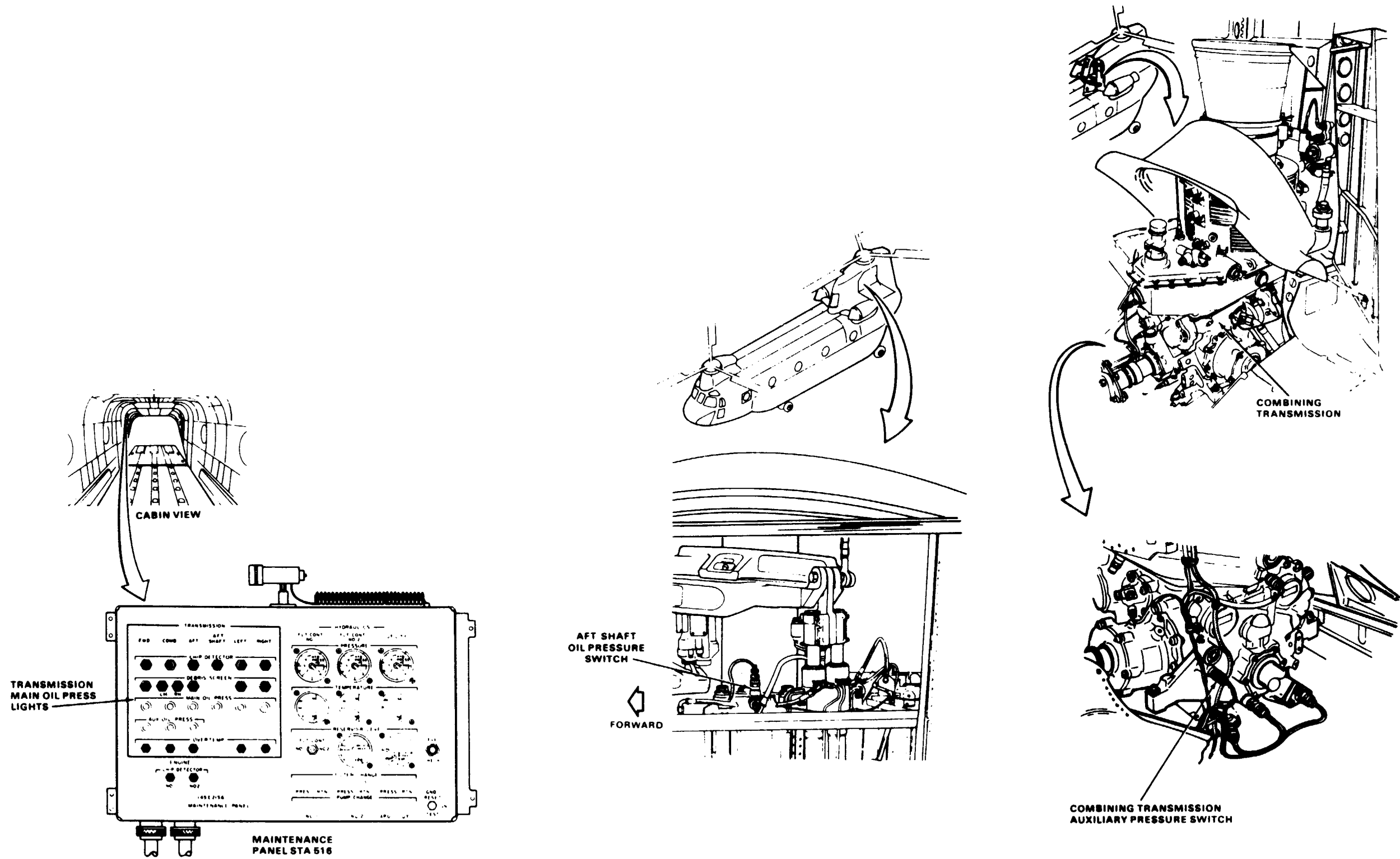






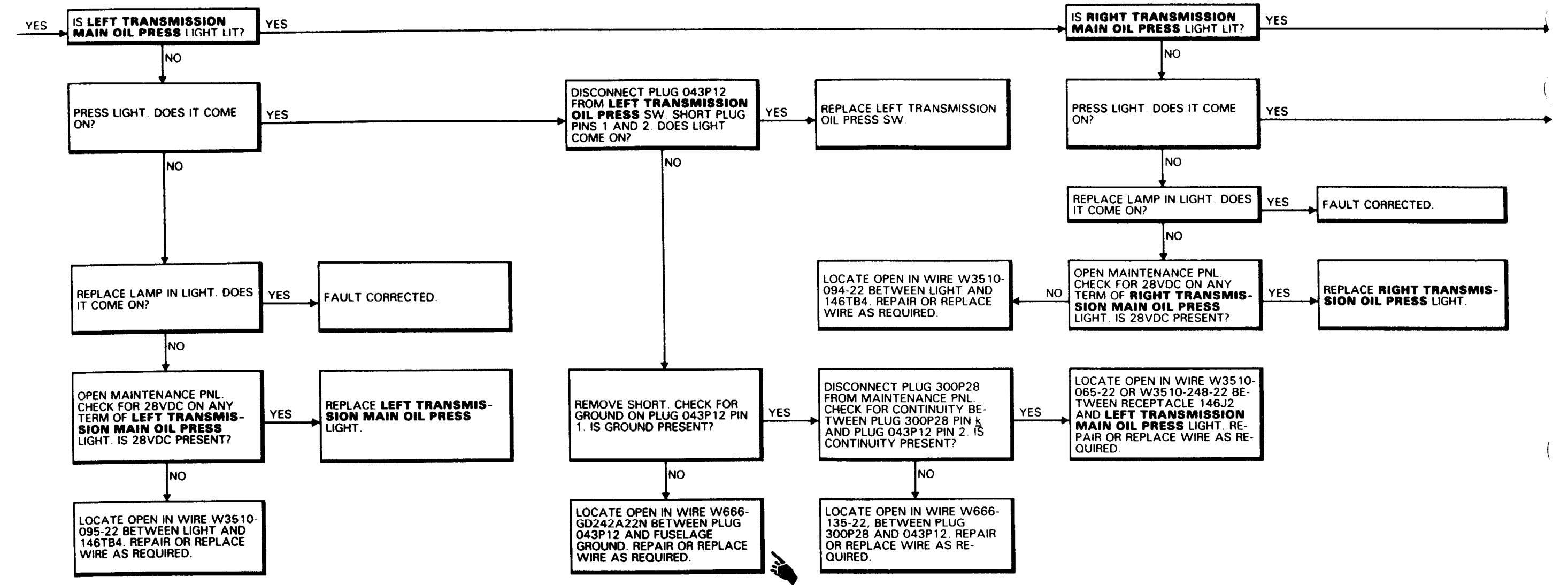
8-9.11 FWD, COMB, AFT, SHAFT, LEFT, RIGHT OR AFT TRANSMISSION  
MAIN OIL PRESS LIGHT IS OUT (Continued)

8-9.11



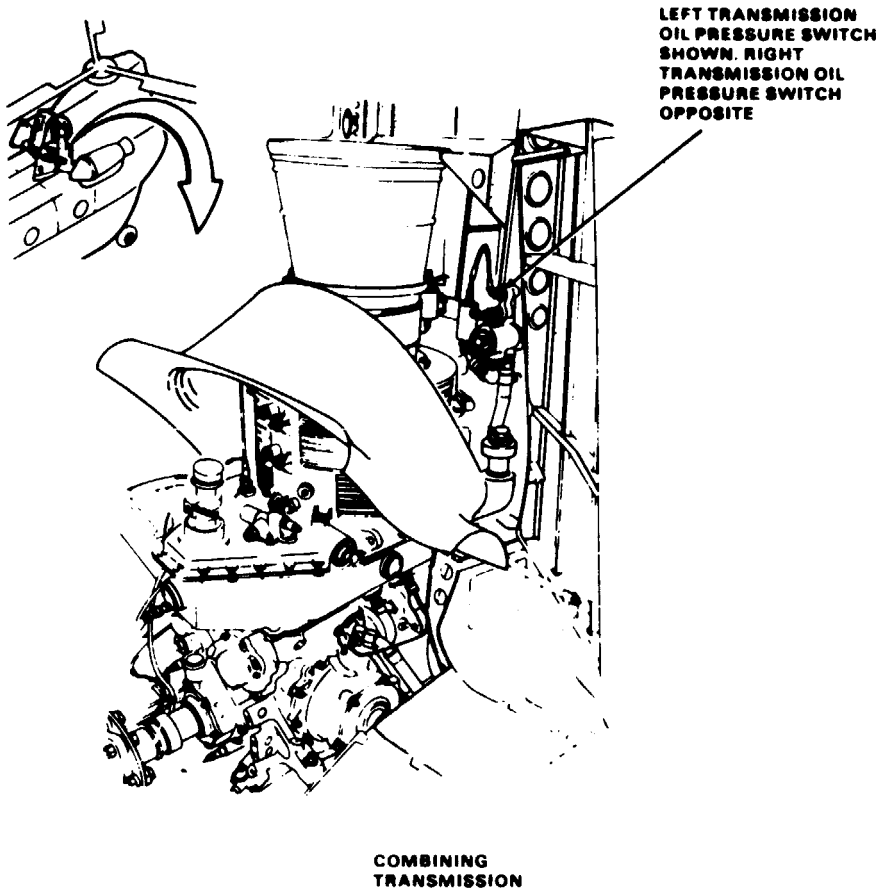
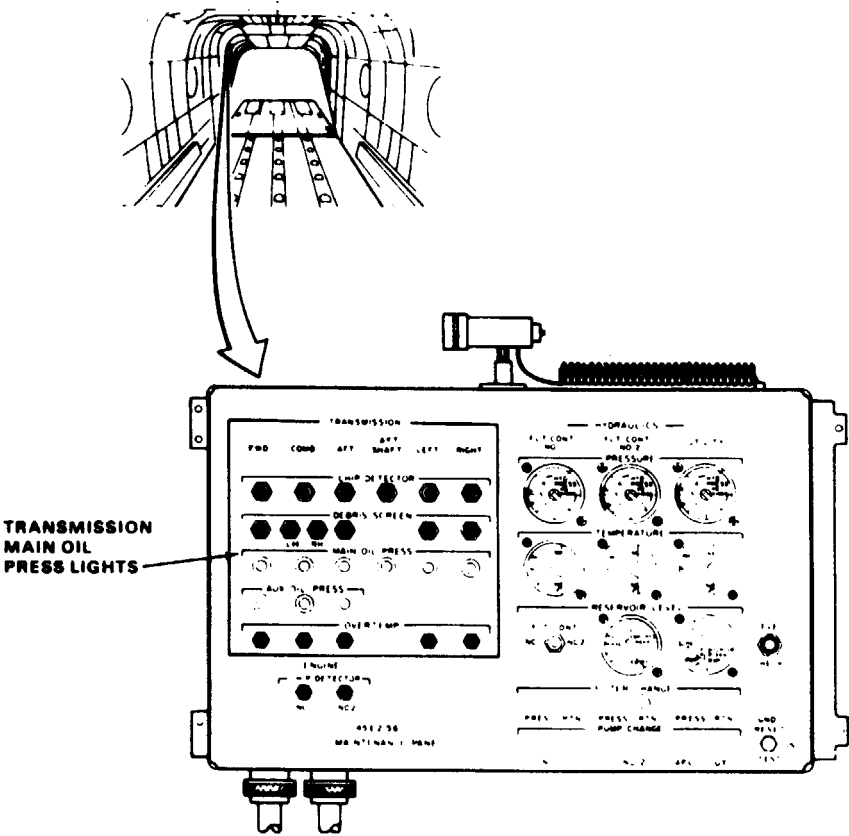
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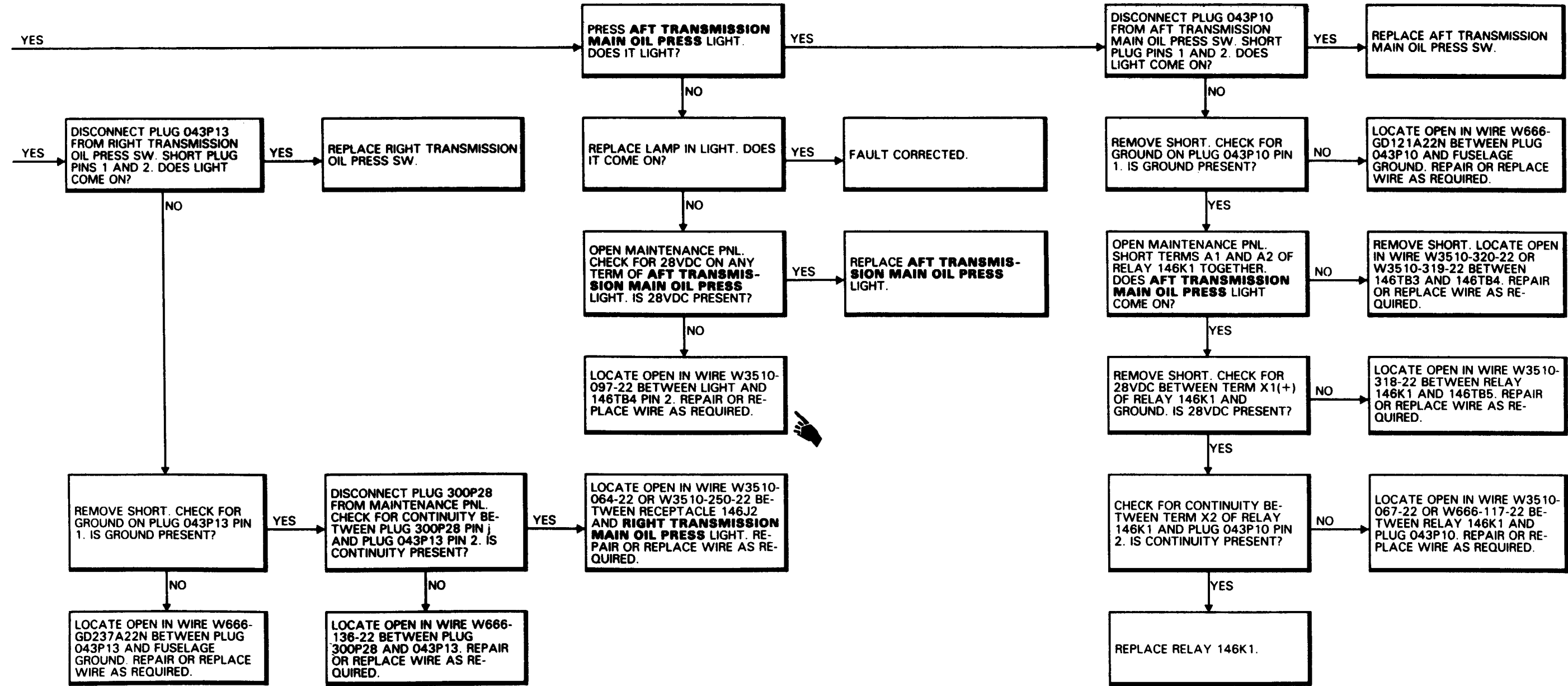
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8-9.11 FWD, COMB, AFT SHAFT, LEFT, RIGHT, OR AFT TRANSMISSION  
MAIN OIL PRESS LIGHT IS OUT (Continued)

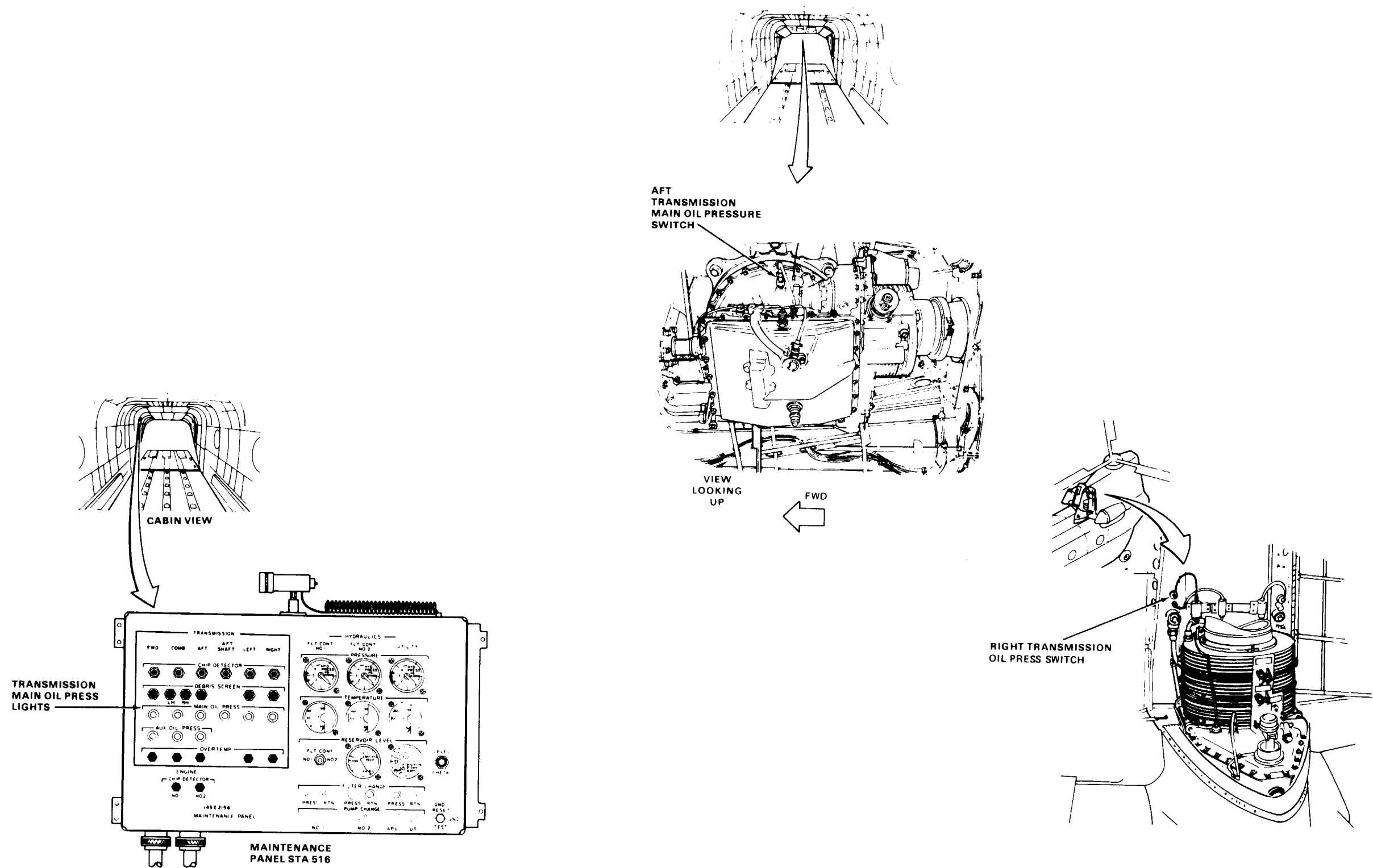
8-9.11





8-9.11 FWD, COMB, AFT SHAFT, LEFT, RIGHT, OR AFT TRANSMISSION  
MAIN OIL PRESS LIGHT IS OUT (Continued)

8-9.11



90X54

DI45-11510-SPA

END OF TASK

8-9.12 FWD, COMB, AFT, AFT SHAFT, LEFT, OR RIGHT TRANSMISSION  
MAIN OIL PRESS LIGHT STILL ON WHEN ITS PRESSURE SWITCH  
DISCONNECTED

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

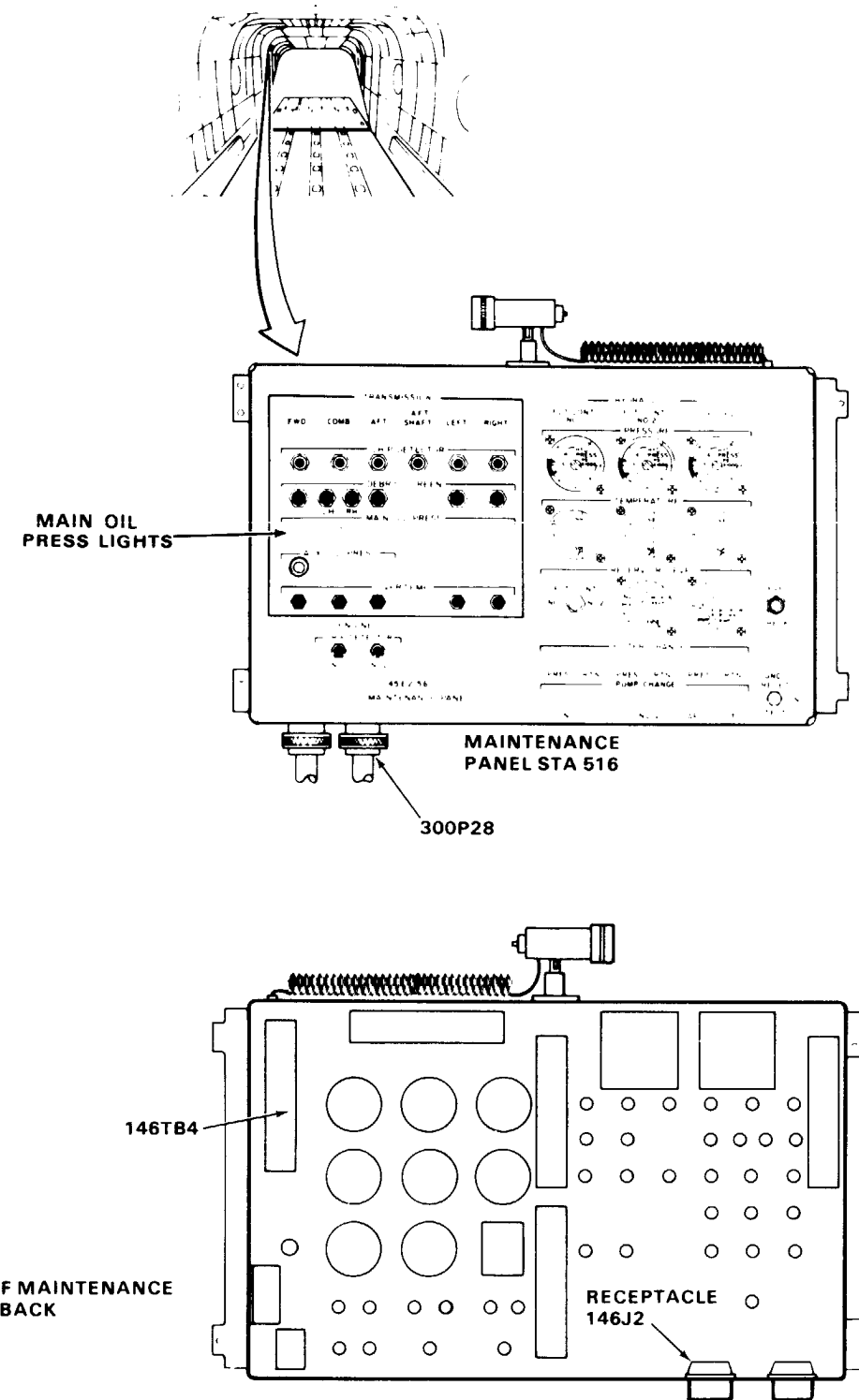
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

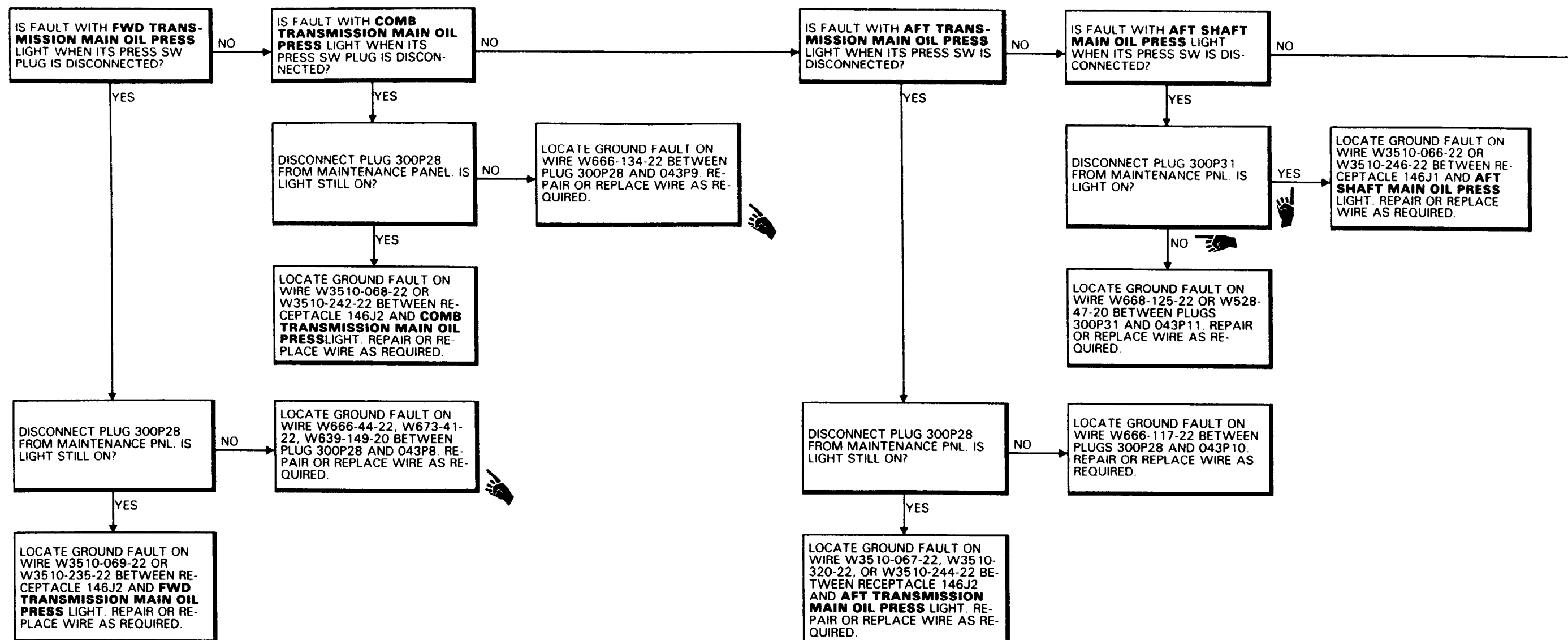
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

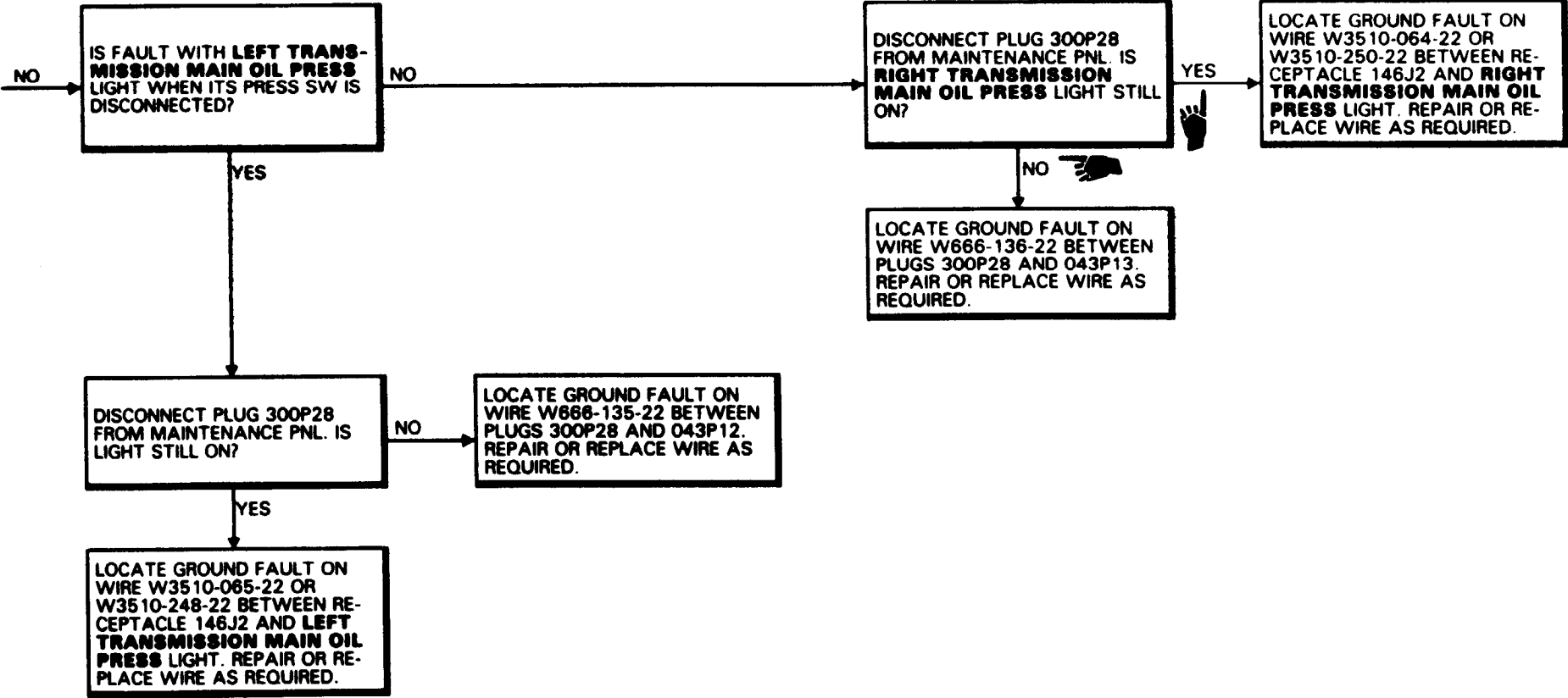


8-9. 12 FWD, COMB, AFT, AFT SHAFT, LEFT, OR RIGHT TRANSMISSION MAIN OIL PRESS LIGHT STILL ON WHEN ITS PRESSURE SWITCH DISCONNECTED (Continued)

8-9.12

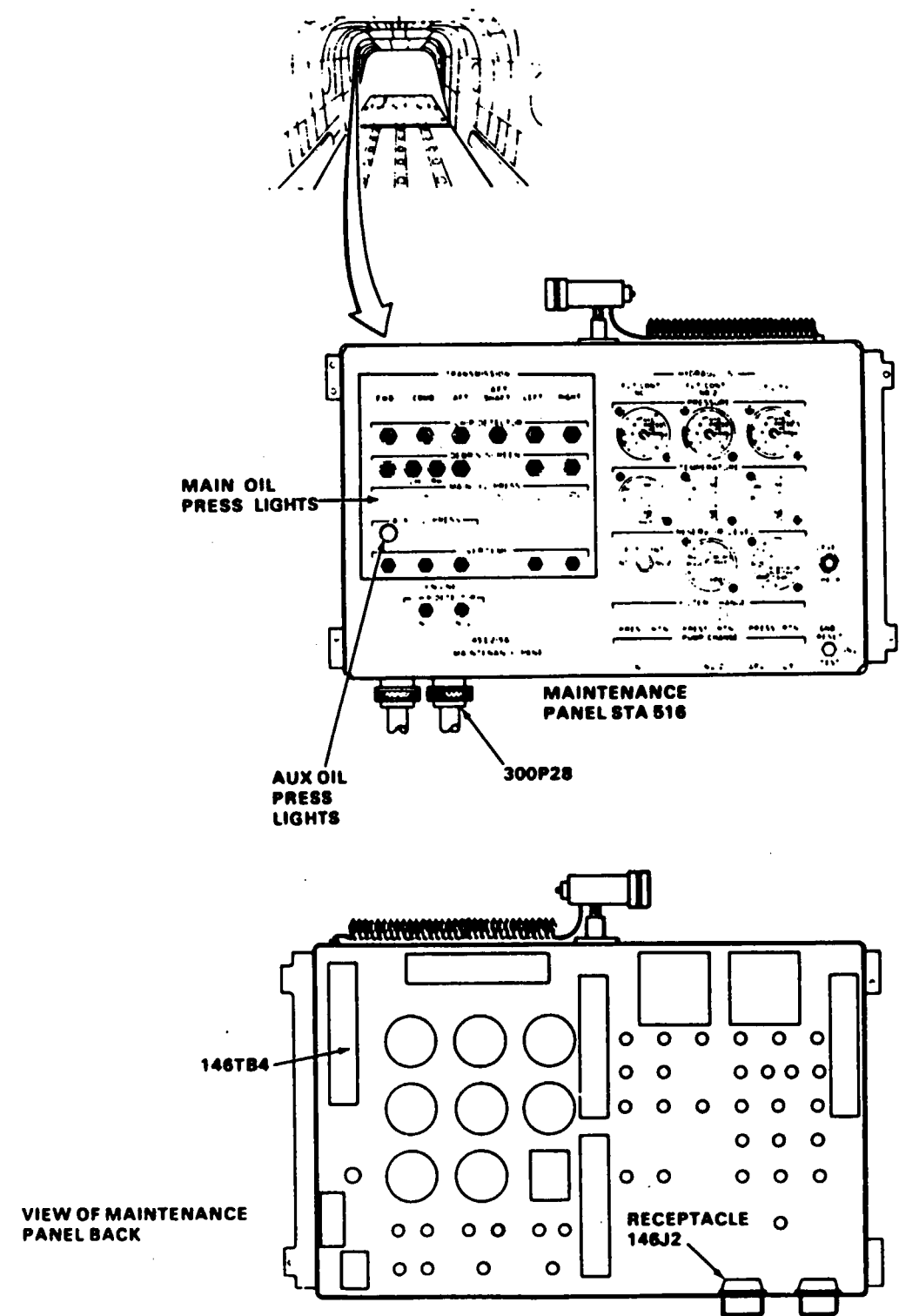






8-9.12 FWD, COMB, AFT, AFT SHAFT, LEFT OR RIGHT TRANSMISSION  
MAIN OIL PRESS LIGHT STILL ON WHEN ITS PRESSURE SWITCH  
DISCONNECTED (Continued)

8-9.12



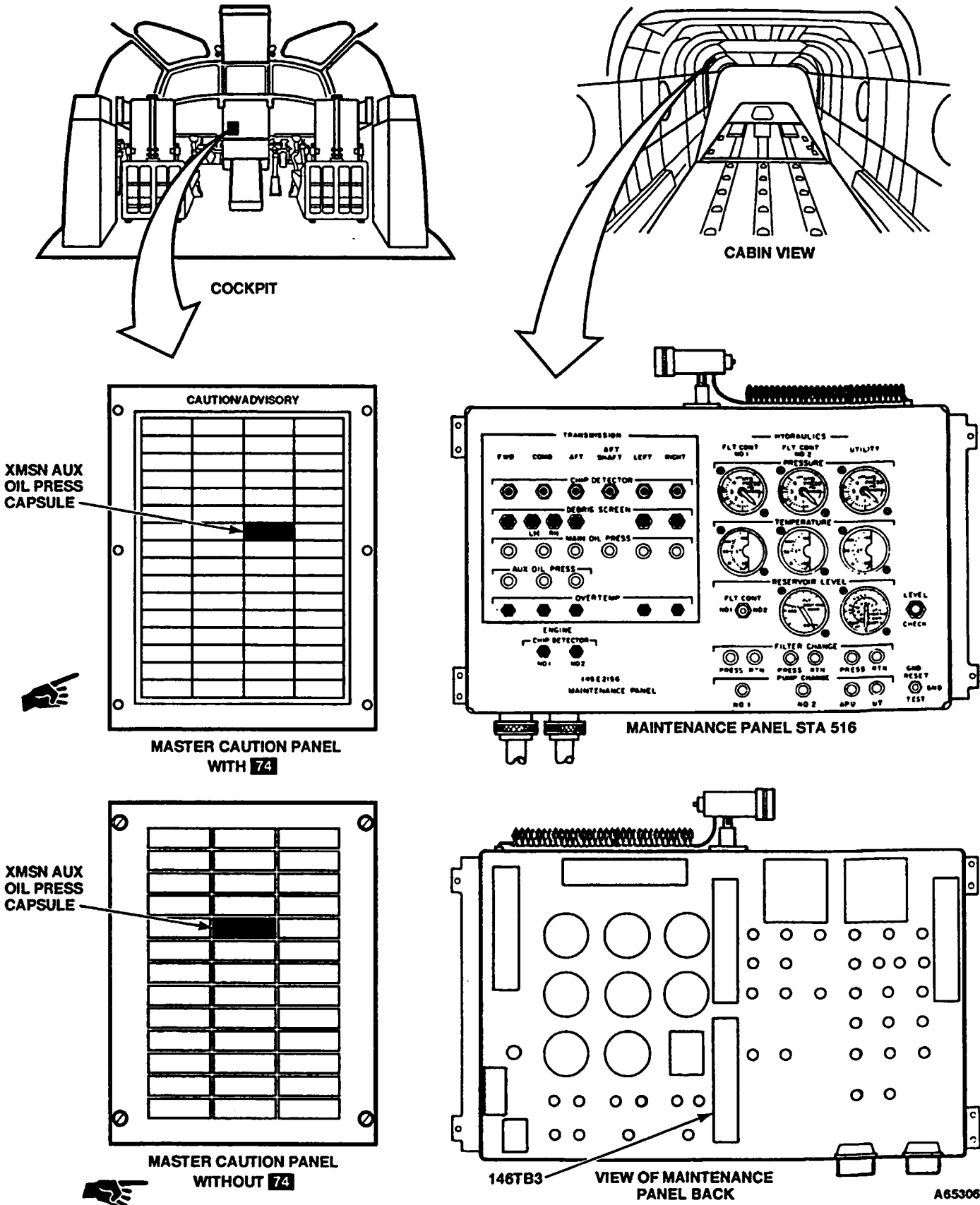
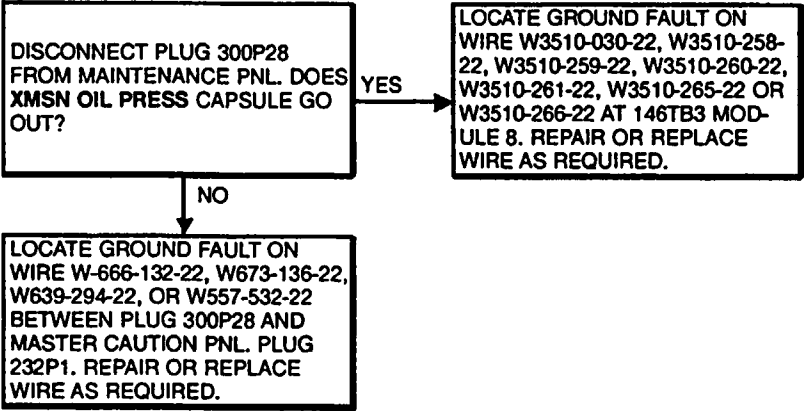
8-9.13 XMSN OIL PRESS CAPSULE STILL ON WHEN ALL MAIN OIL PRESS SWITCHES ARE DISCONNECTED

8-9.13

FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
All  
**Tools:**  
Electrical Repairer's Tool Kit  
NSN 5180-00-323-4915  
Multimeter  
**Materials**  
None

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

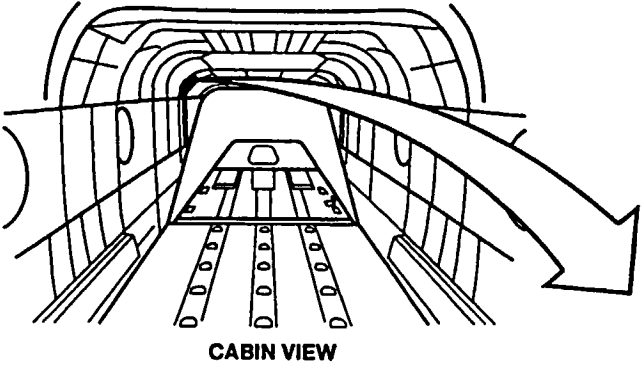
Equipment Condition:

TM 55-1520-240-23:

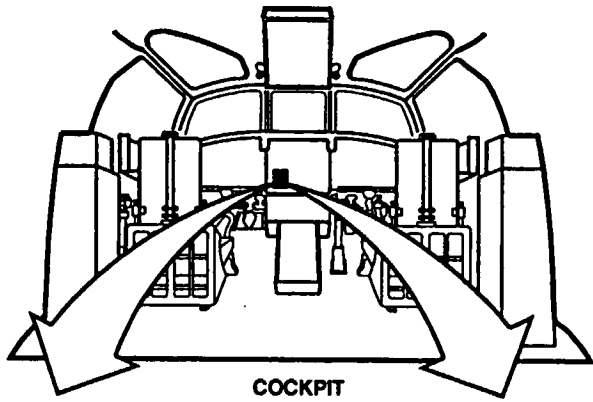
Battery Connected

Electrical Power On

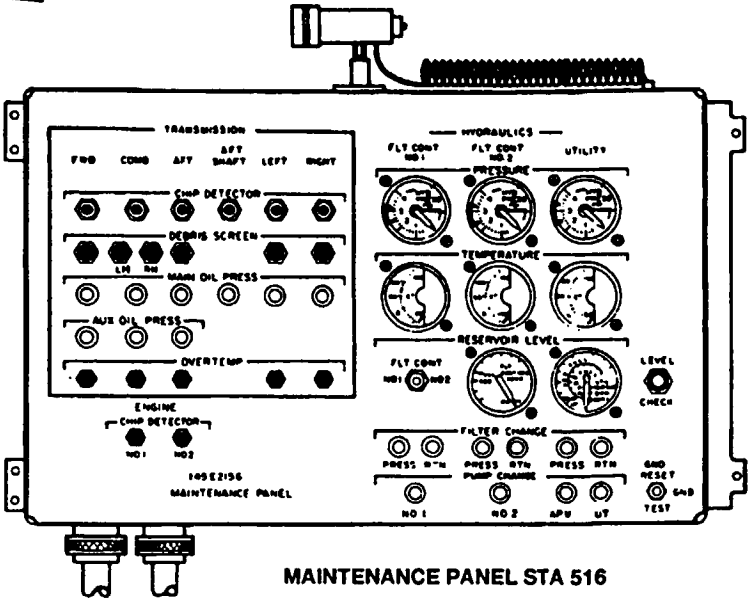
Hydraulic Power Off



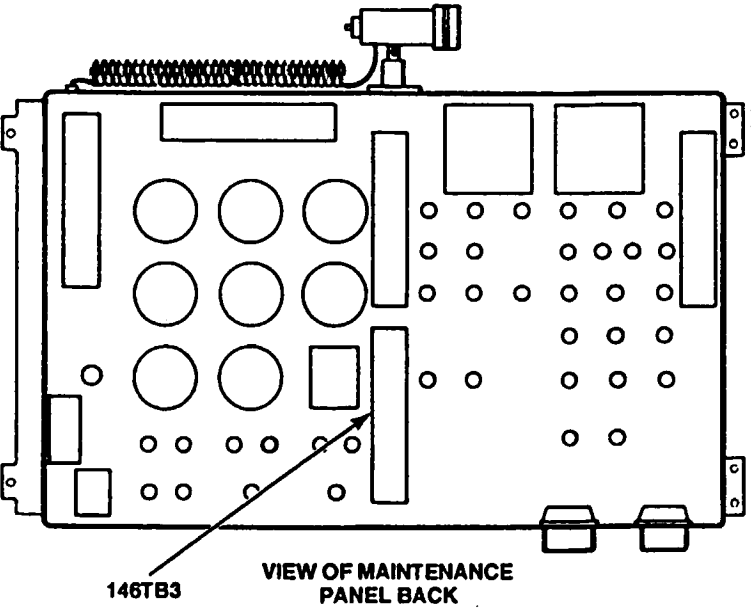
CABIN VIEW



COCKPIT



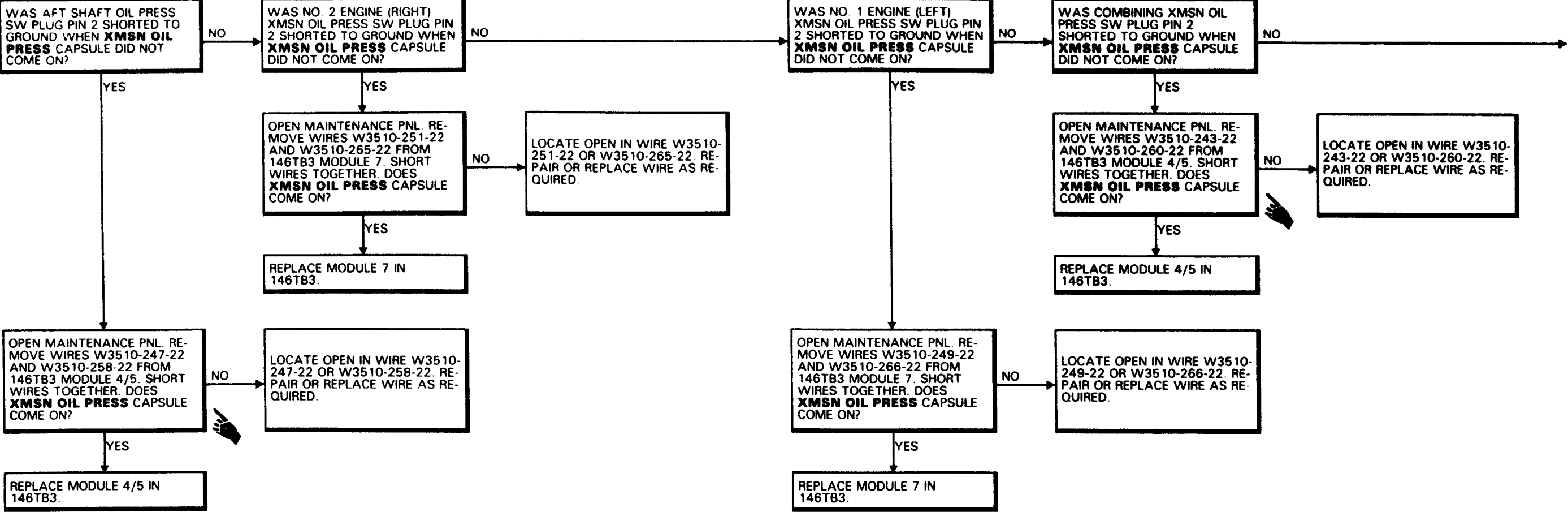
MAINTENANCE PANEL STA 516

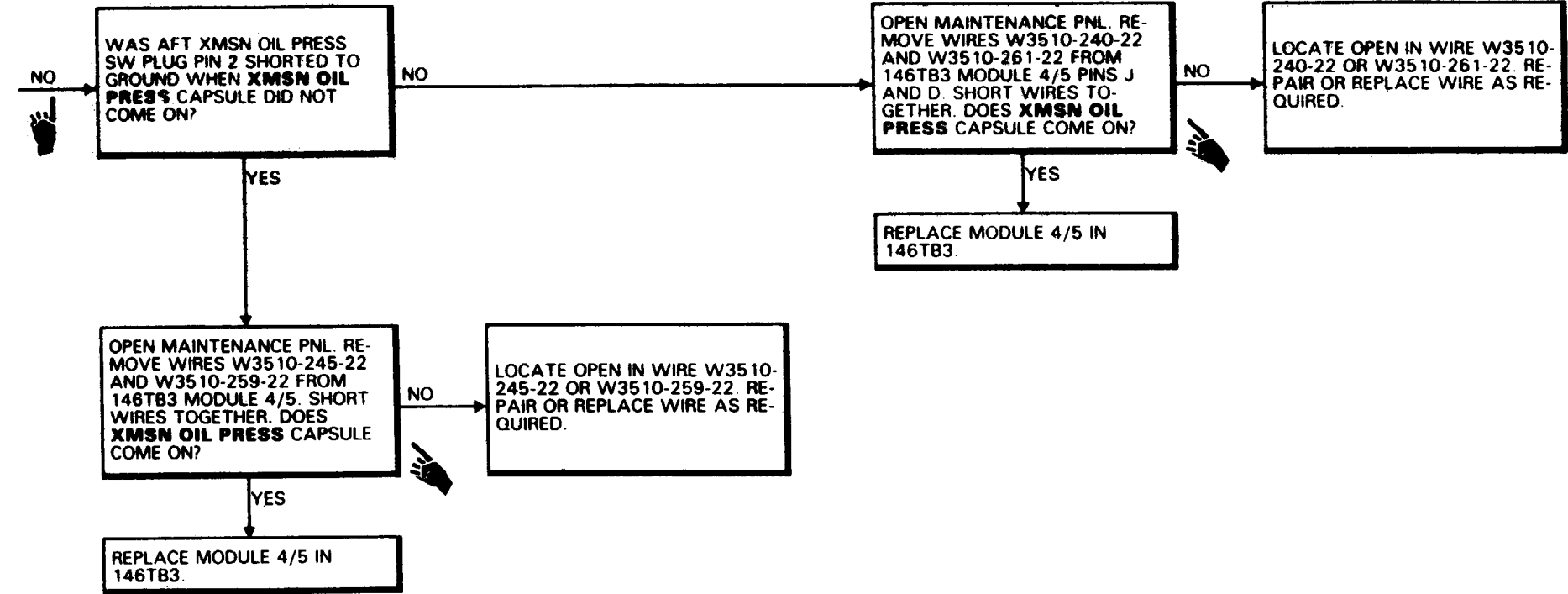


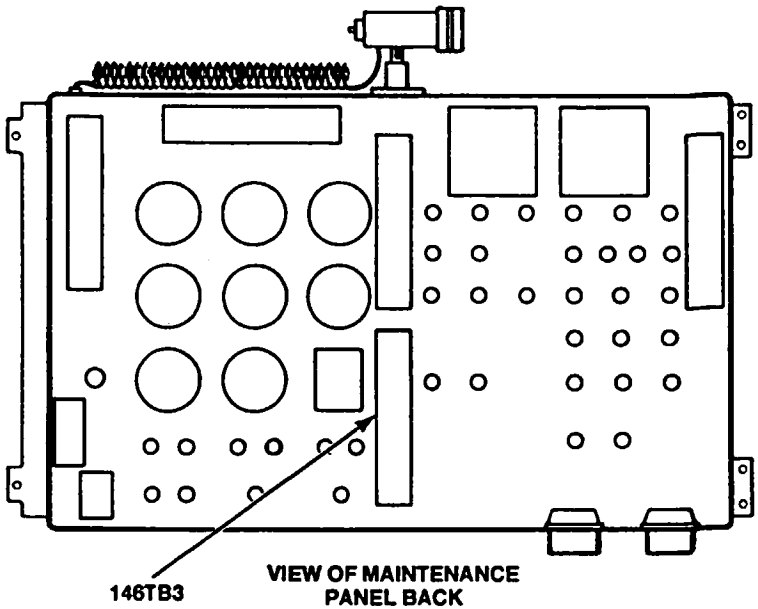
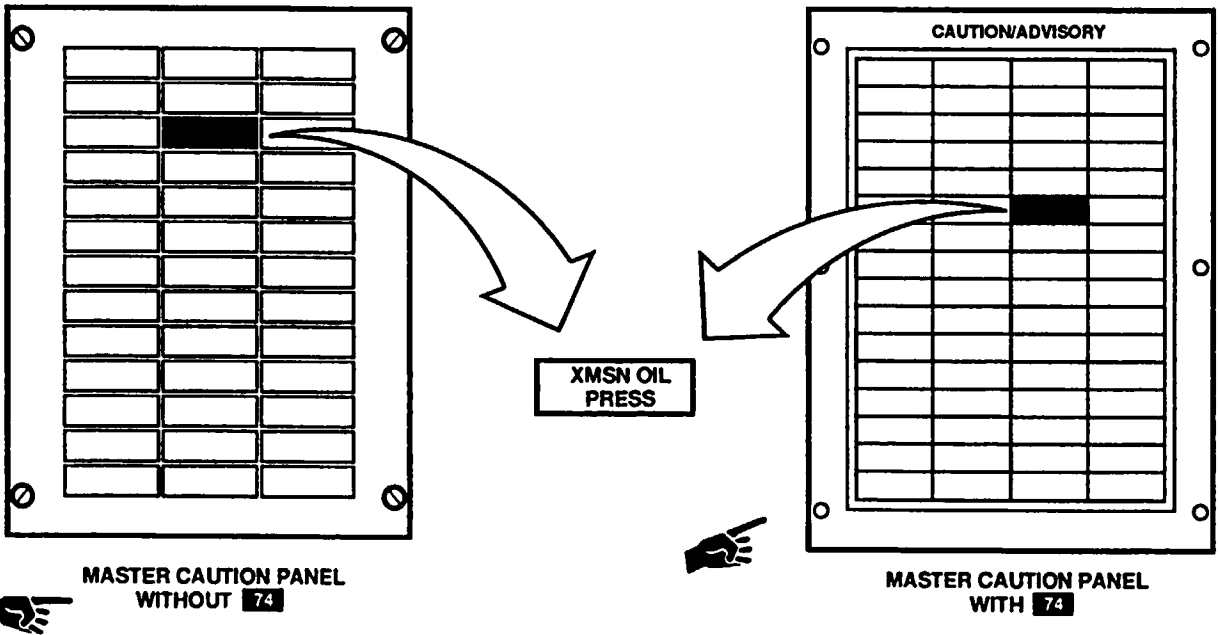
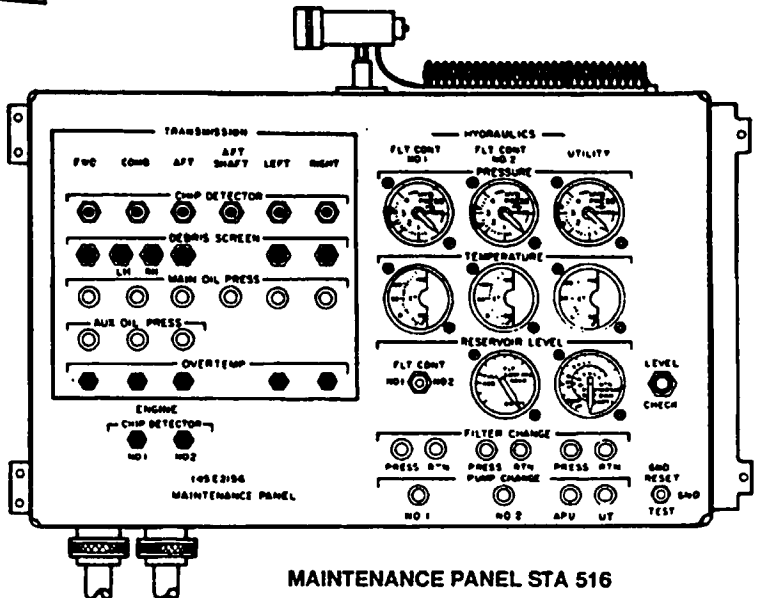
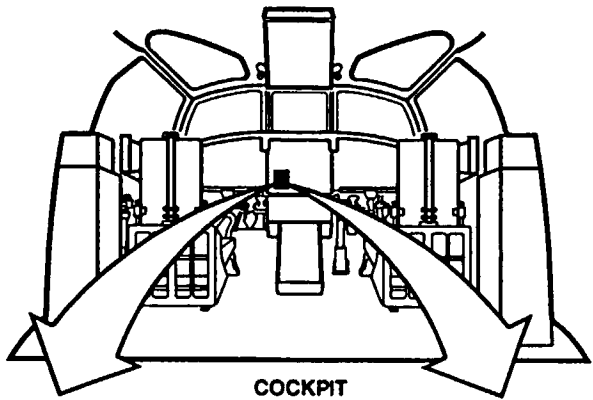
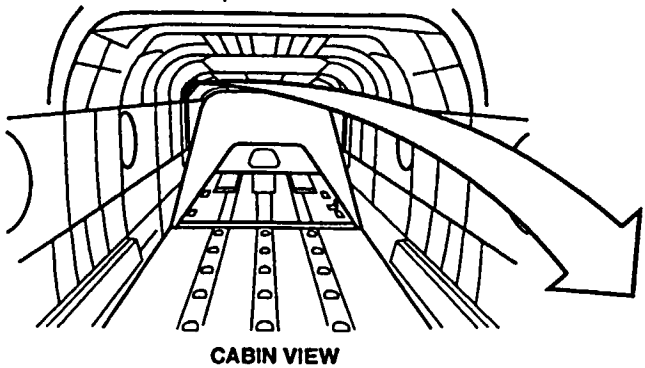
146TB3 VIEW OF MAINTENANCE PANEL BACK

A65300

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A65300



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
  - Multimeter

Materials:

- None

Personnel Required:

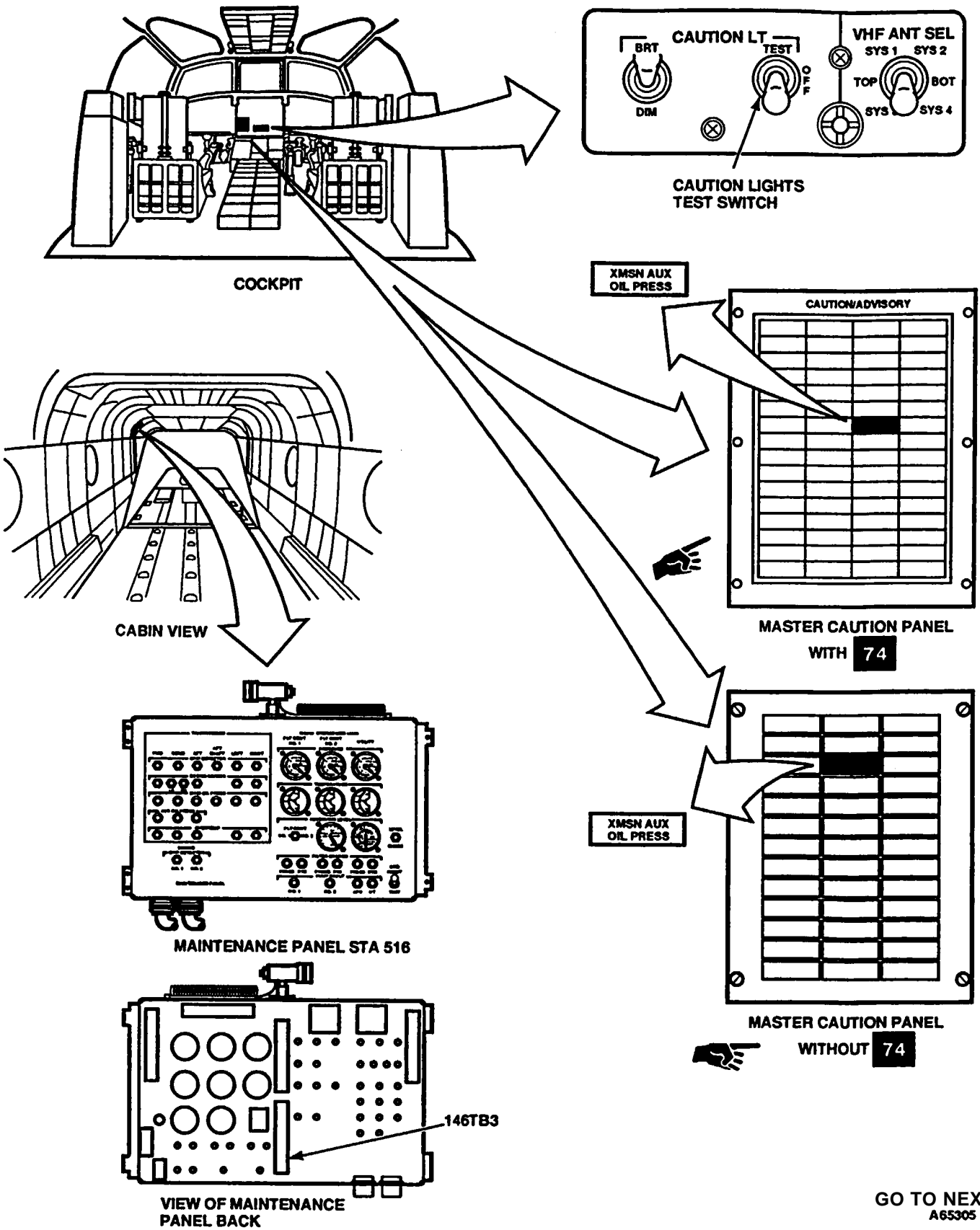
- Aircraft Electrician

References:

- TM 55-1520-240-23

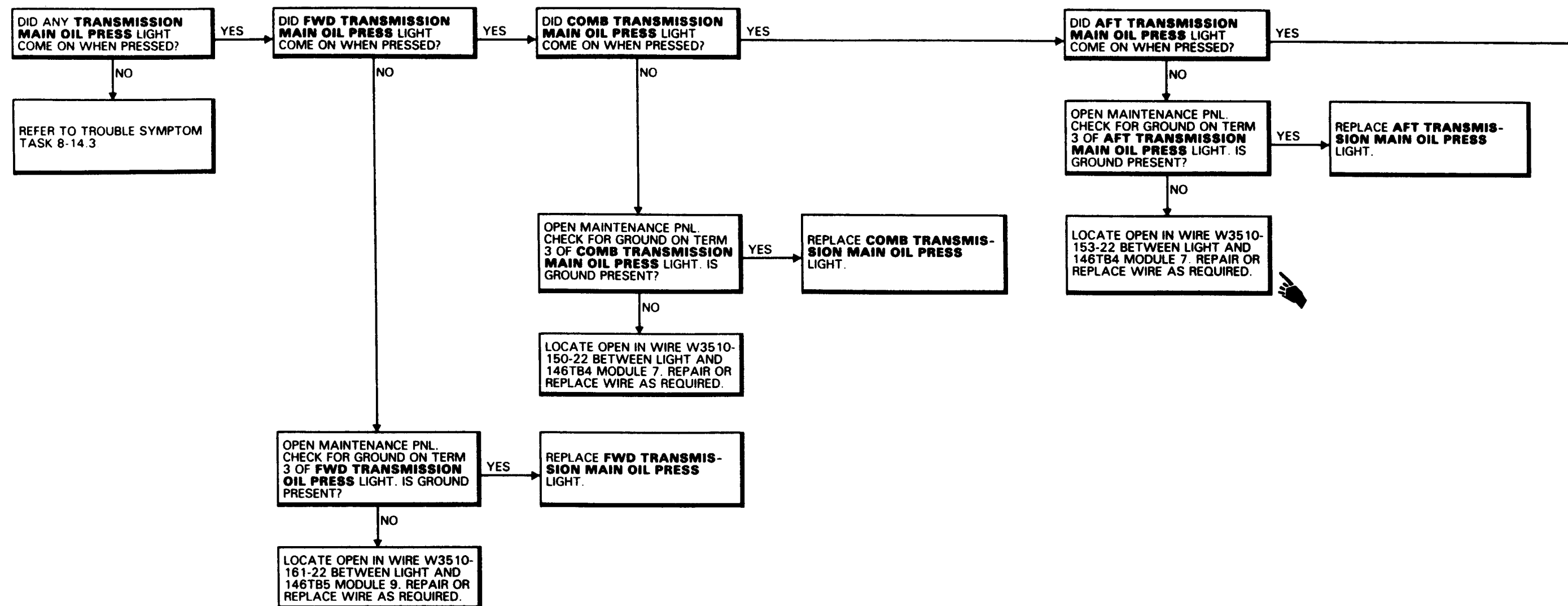
Equipment Condition:

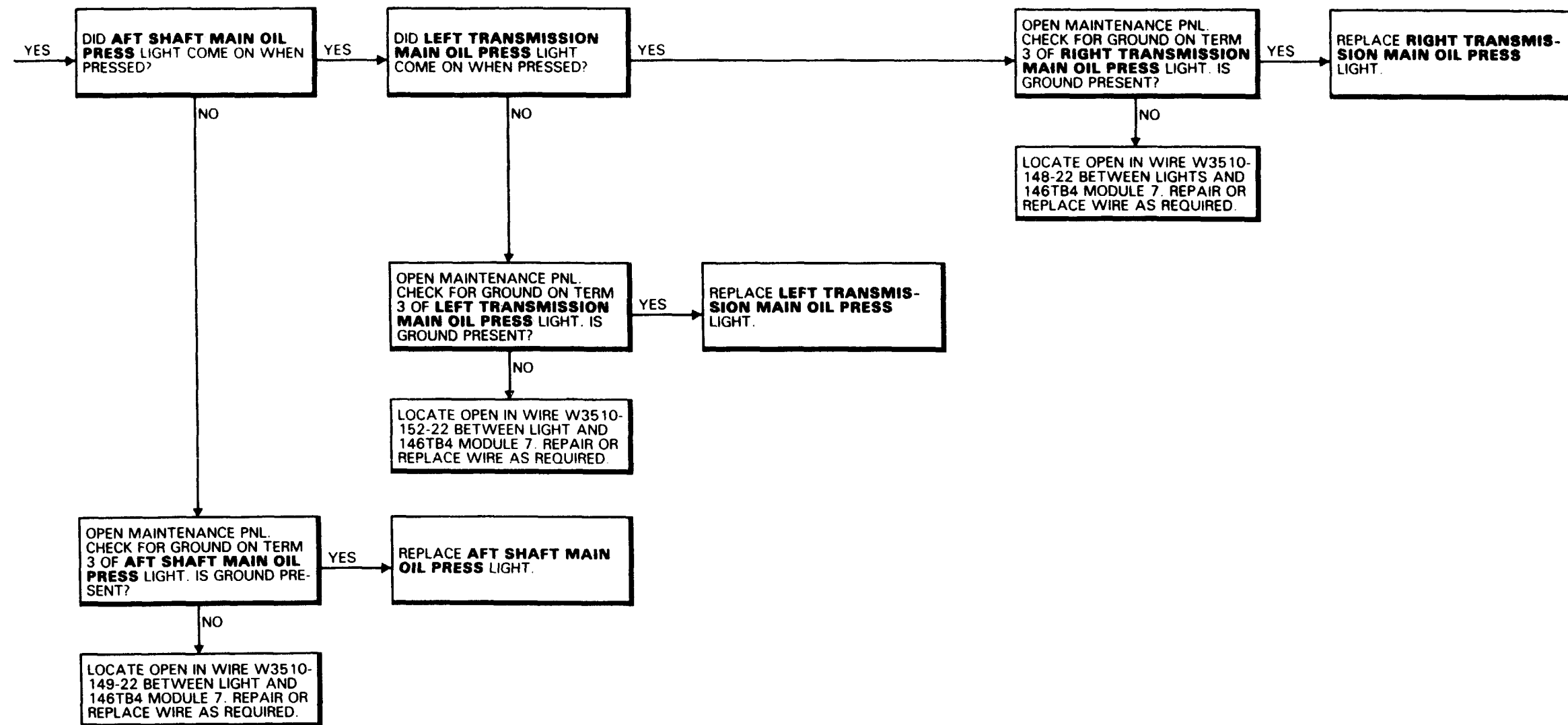
- TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



## 8-9.15 FWD, COMB, AFT, AFT SHAFT, LEFT, OR RIGHT TRANSMISSION MAIN OIL PRESS LIGHT DOES NOT COME ON WHEN PRESSED (Continued)

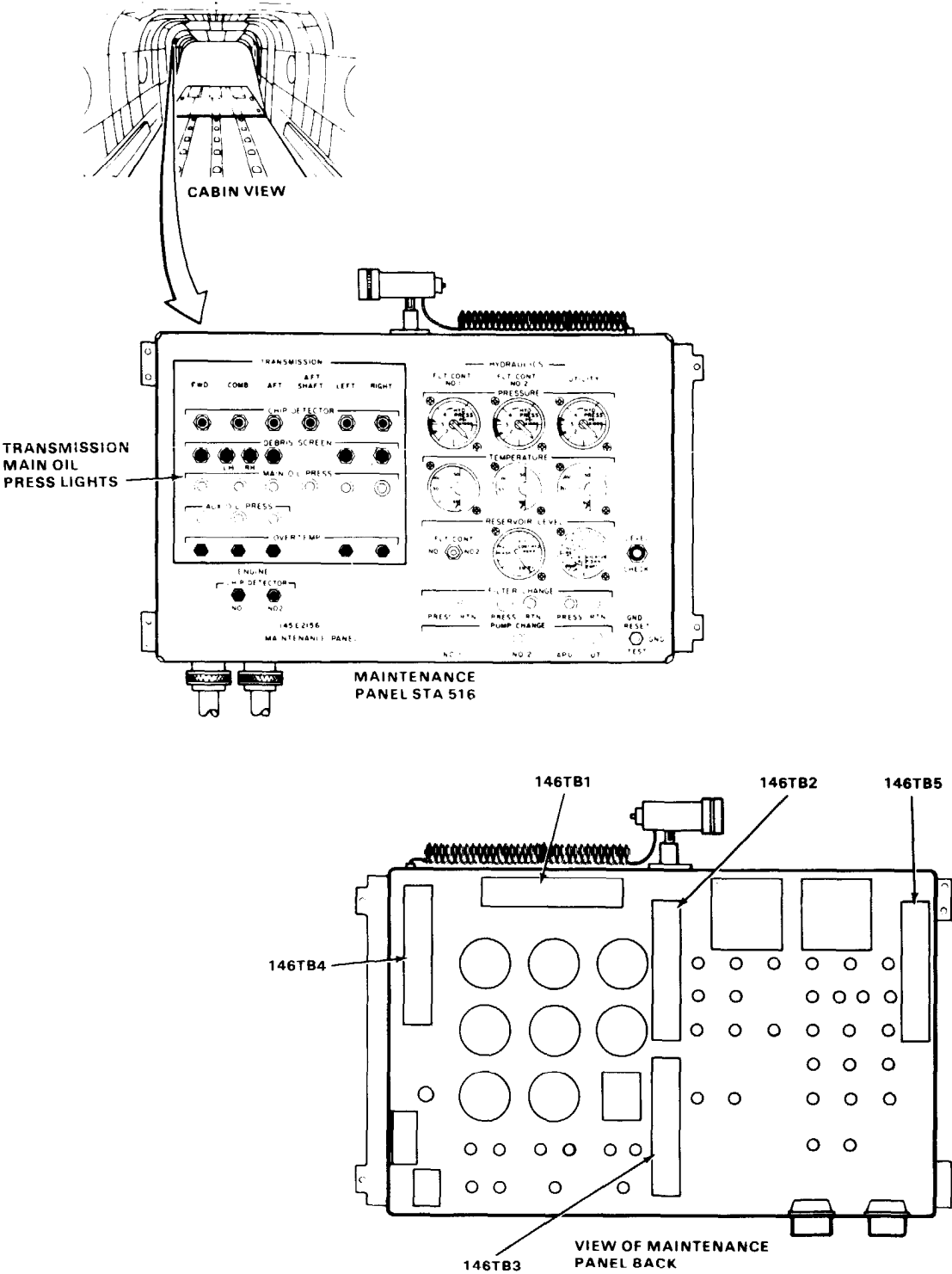
8-9.15





8-9.15 FWD, COMB, AFT, AFT SHAFT, LEFT, OR RIGHT TRANSMISSION  
MAIN OIL PRESS LIGHT DOES NOT COME ON WHEN PRESSED  
(Continued)

8-9.15



8-9.16 XMSN OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED

8-9.16

FAULT ISOLATION PROCEDURE

INITIAL SETUP

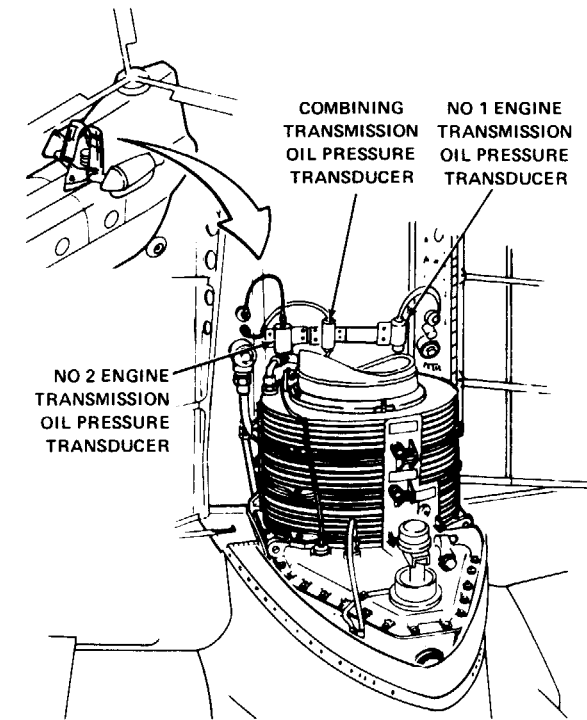
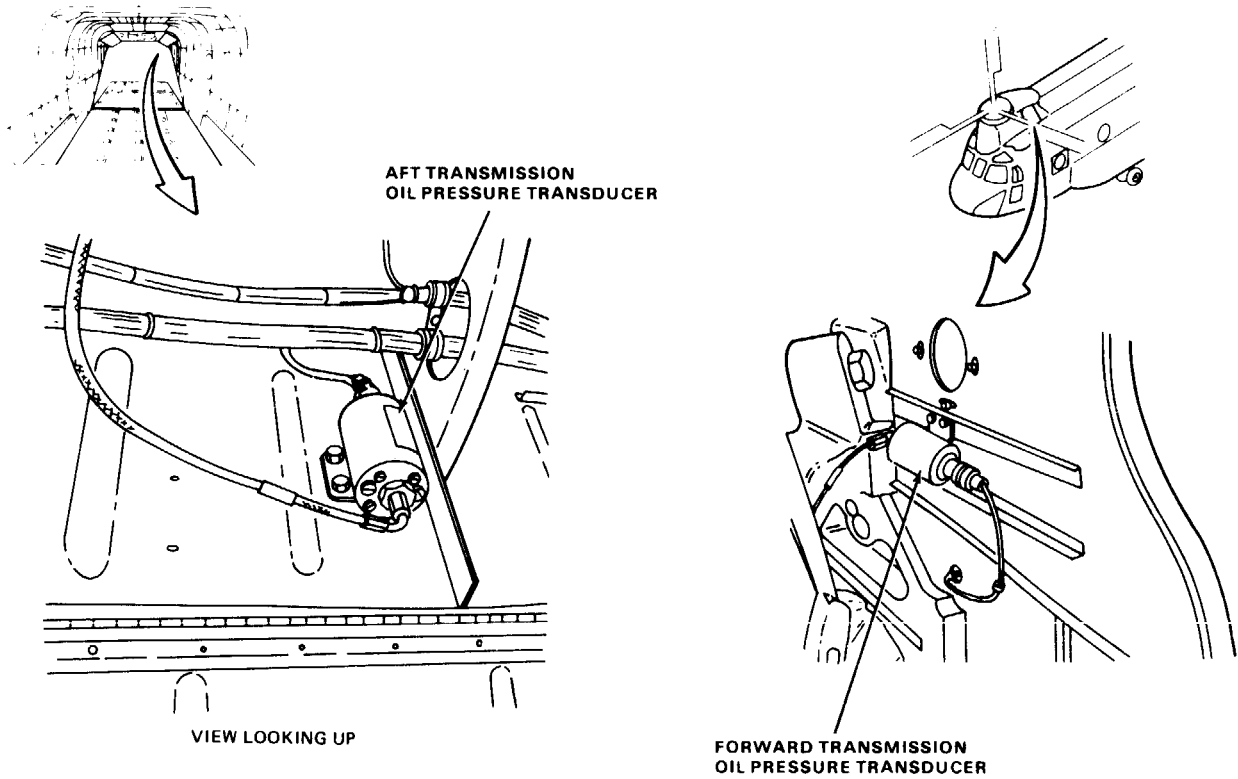
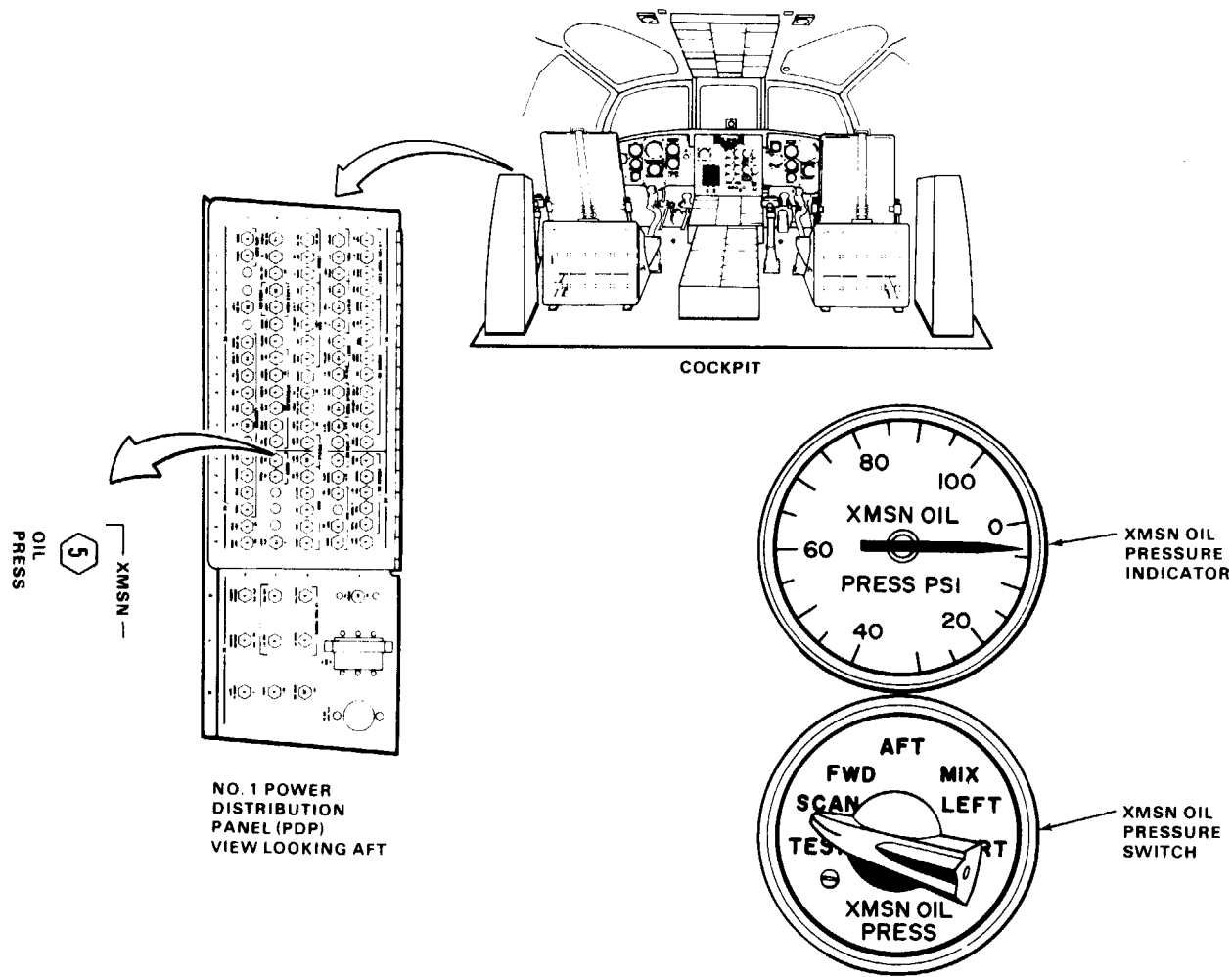
Applicable Configurations:  
All

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials  
None

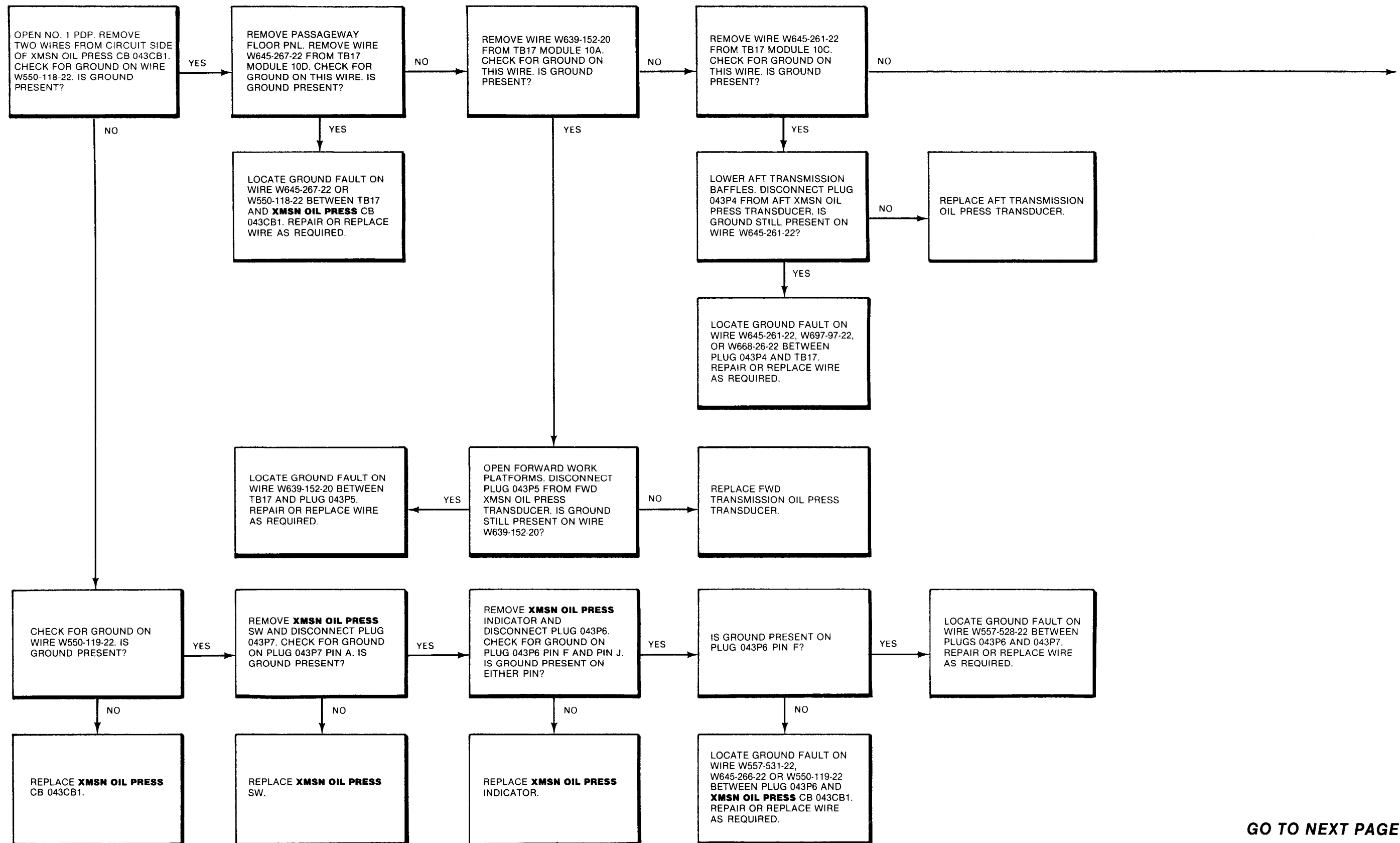
Personnel Required:  
68F20 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



# 8-9.16 XMSN OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED (Continued)

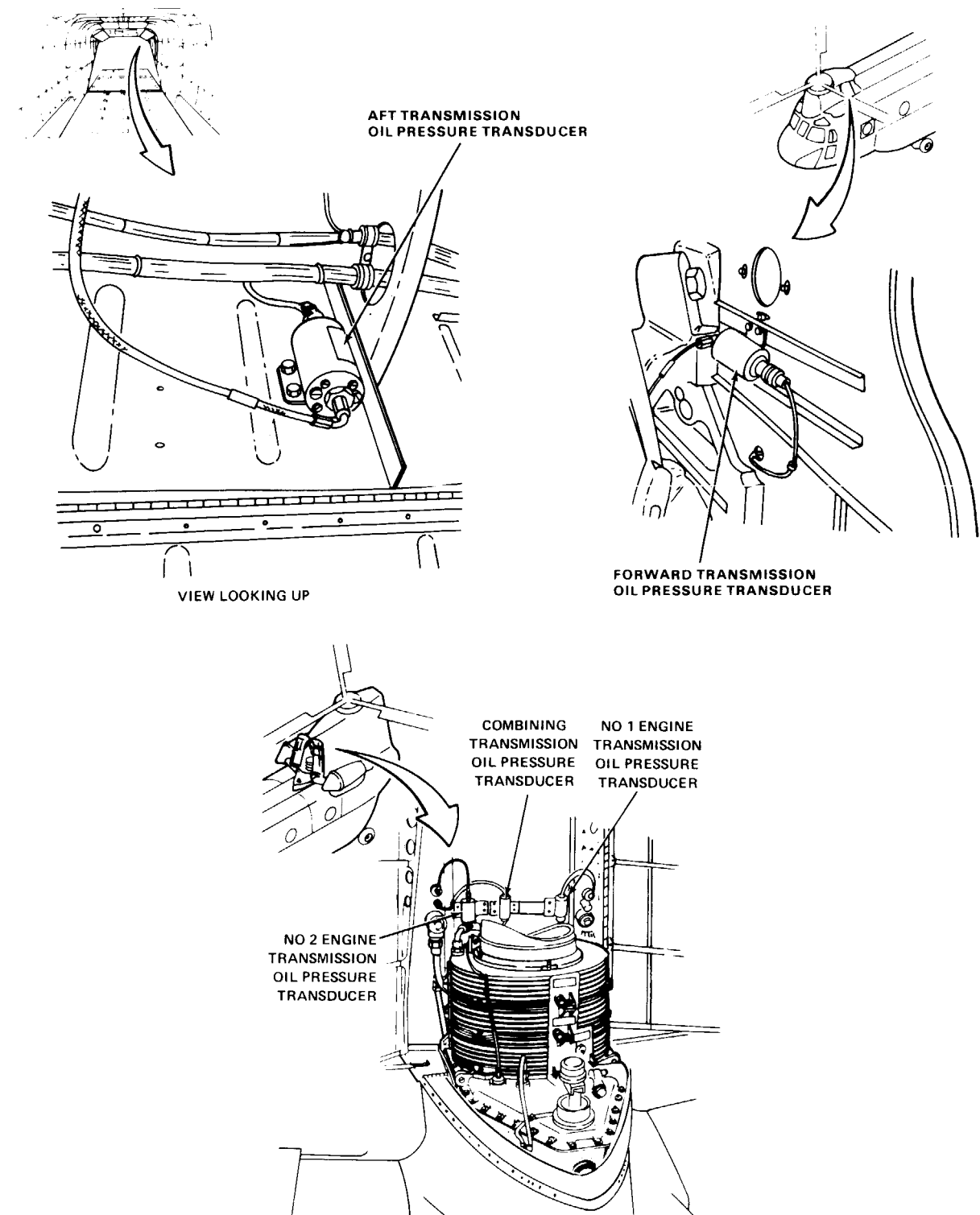
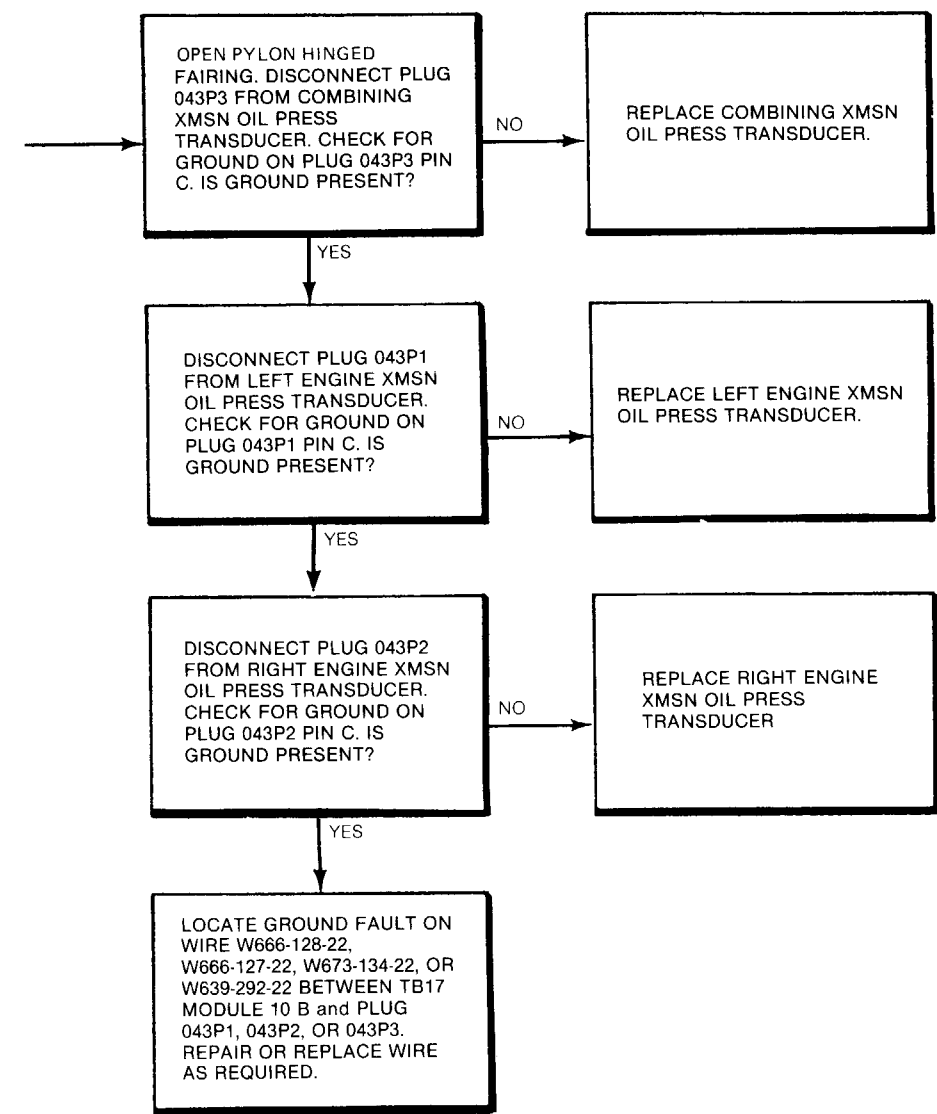
8-9.16



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8-9.16 XMSN OIL PRESS CIRCUIT BREAKER DOES NOT STAY CLOSED  
(Continued)

8-9.16







8-9.17 XMSN OIL PRESS INDICATOR DOES NOT READ IN NORMAL RANGE  
WHEN XMSN OIL PRESS SWITCH IS AT SCAN

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

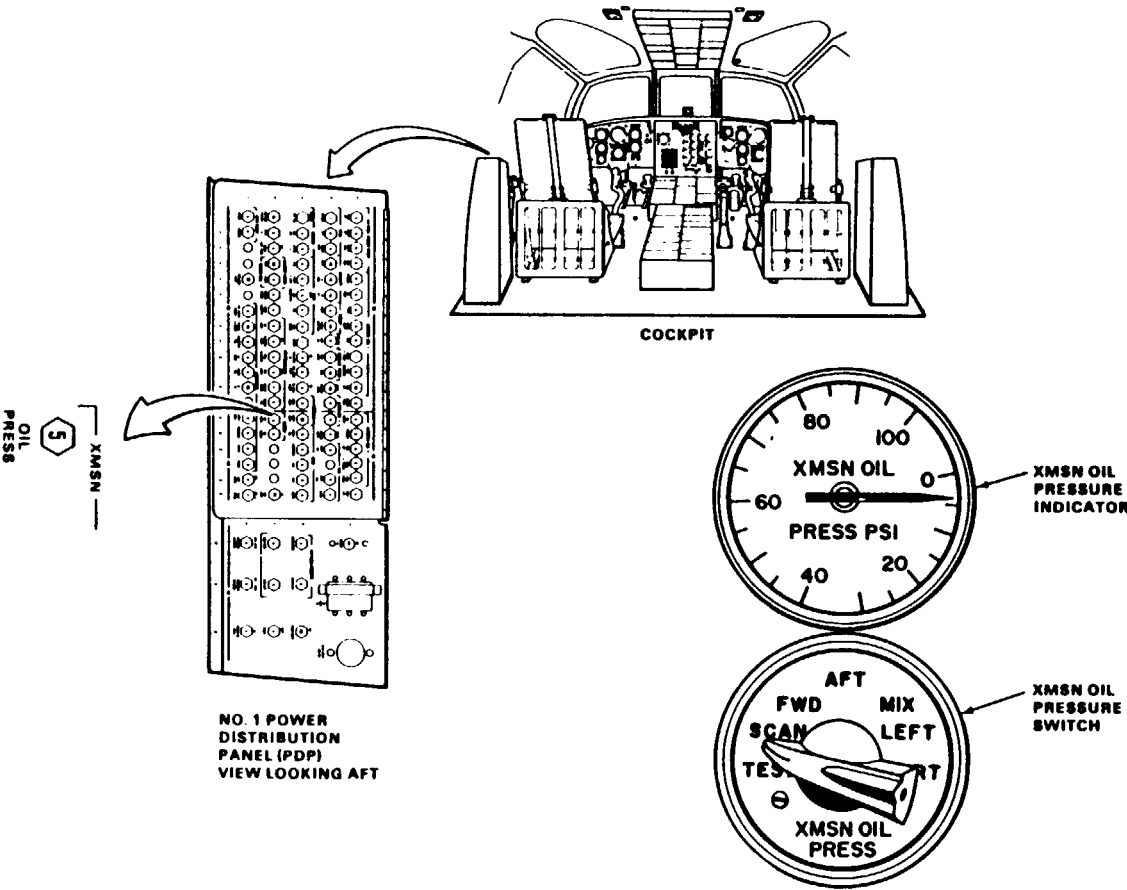
Tools:  
Electrical Repairers Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials  
None

Personnel Required:  
68F20 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



45 X 54

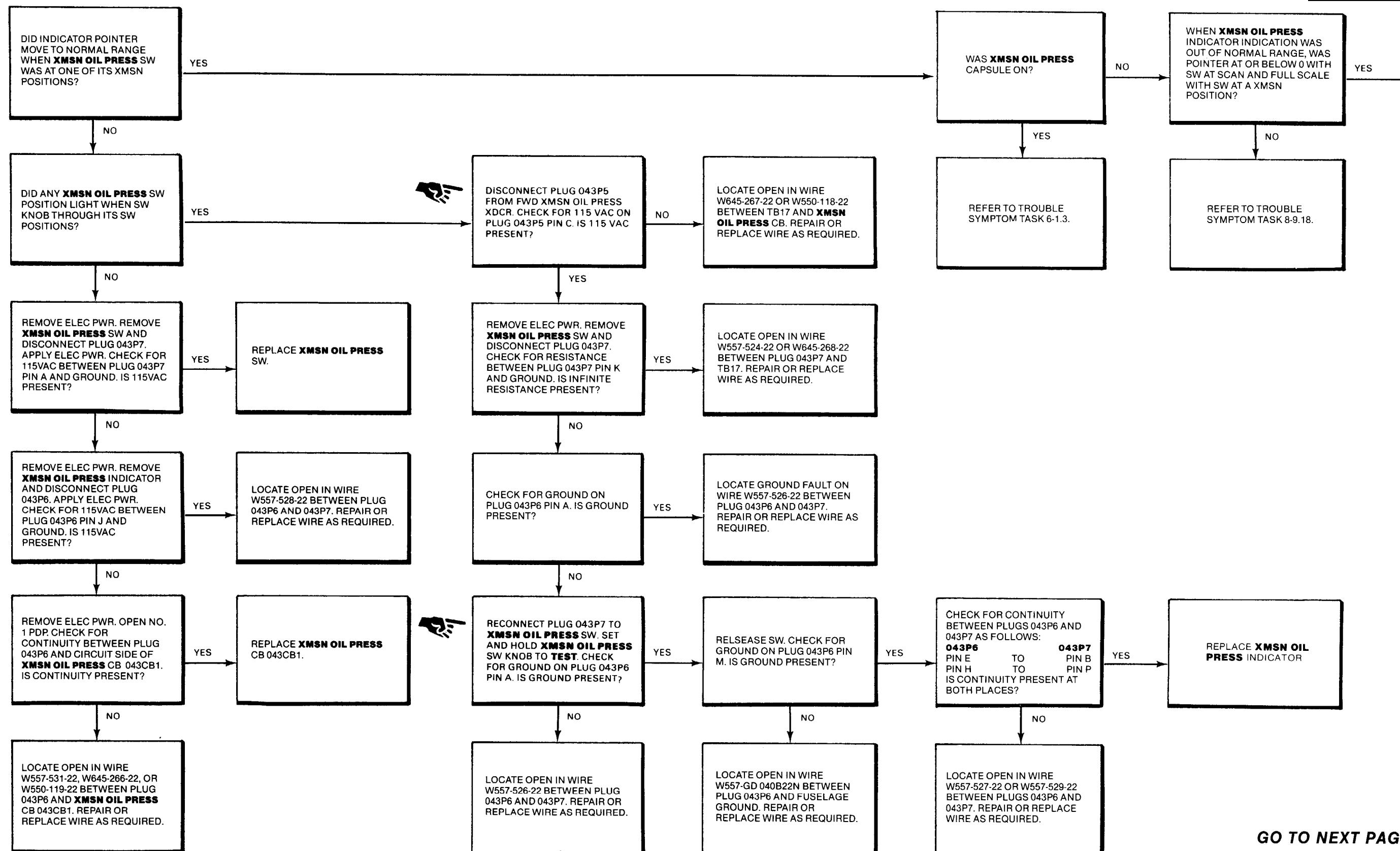
D145-11520-SPA

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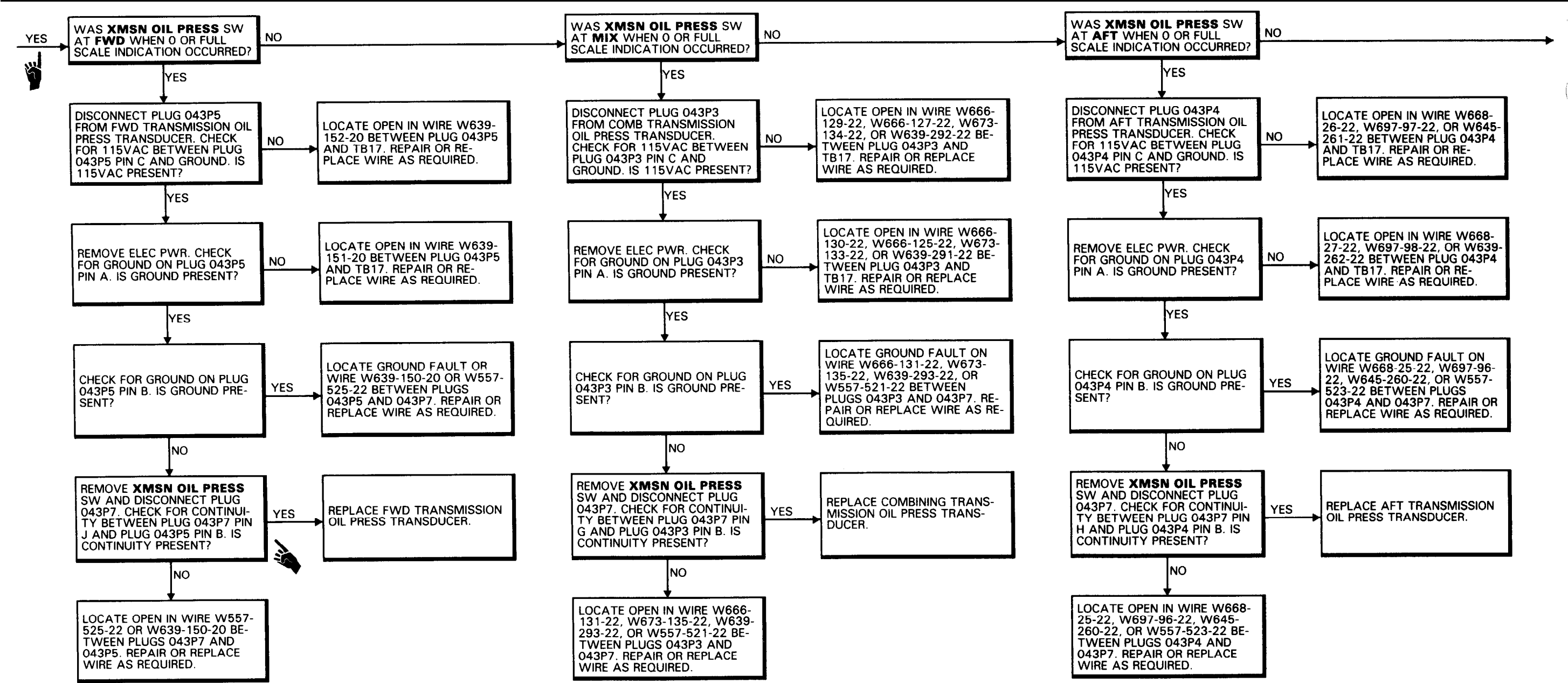
GO TO NEXT PAGE

# 8-9.17 XMSN OIL PRESS INDICATOR DOES NOT READ IN NORMAL RANGE WHEN XMSN OIL PRESS SWITCH IS AT SCAN (Continued)

8-9.17

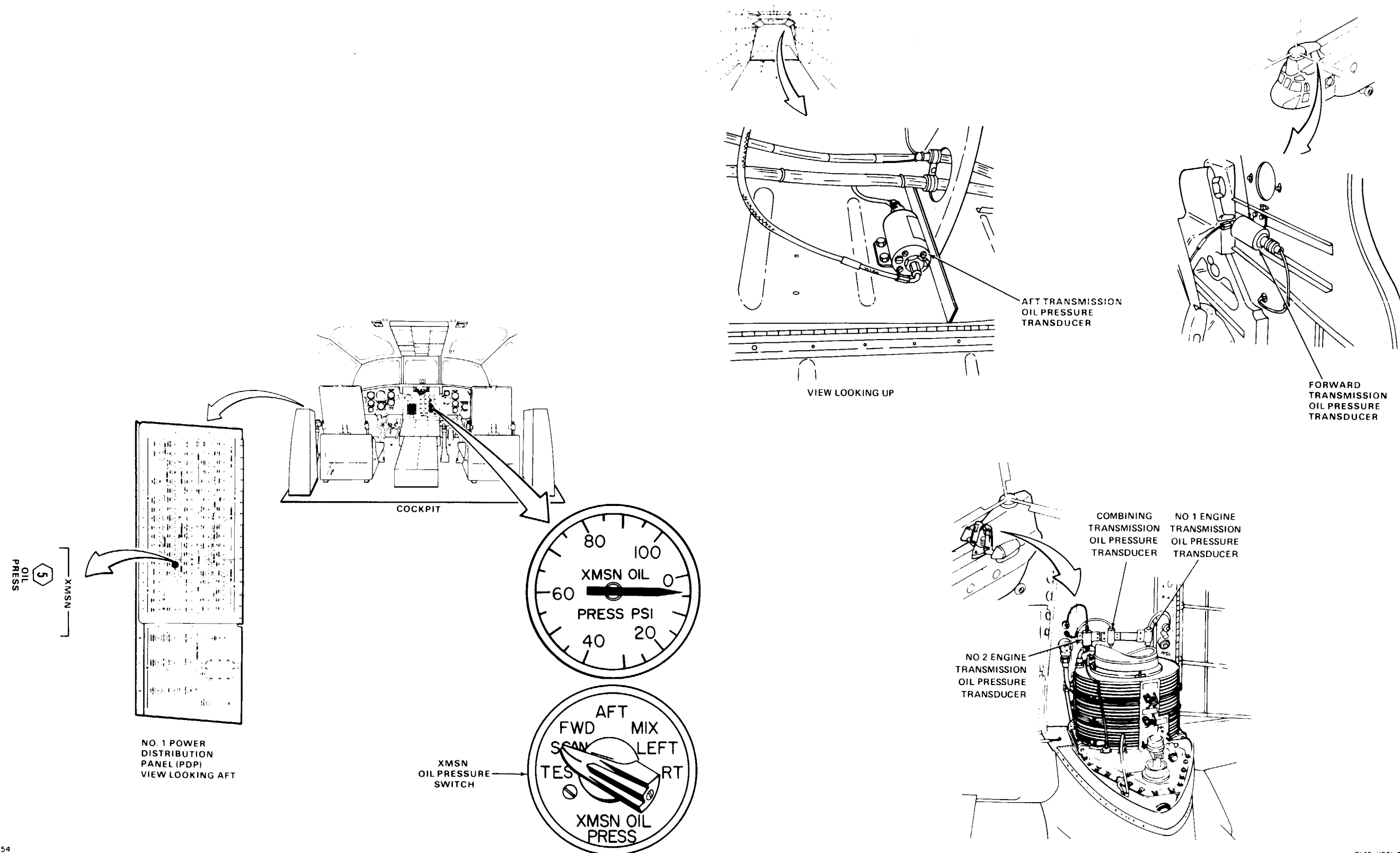


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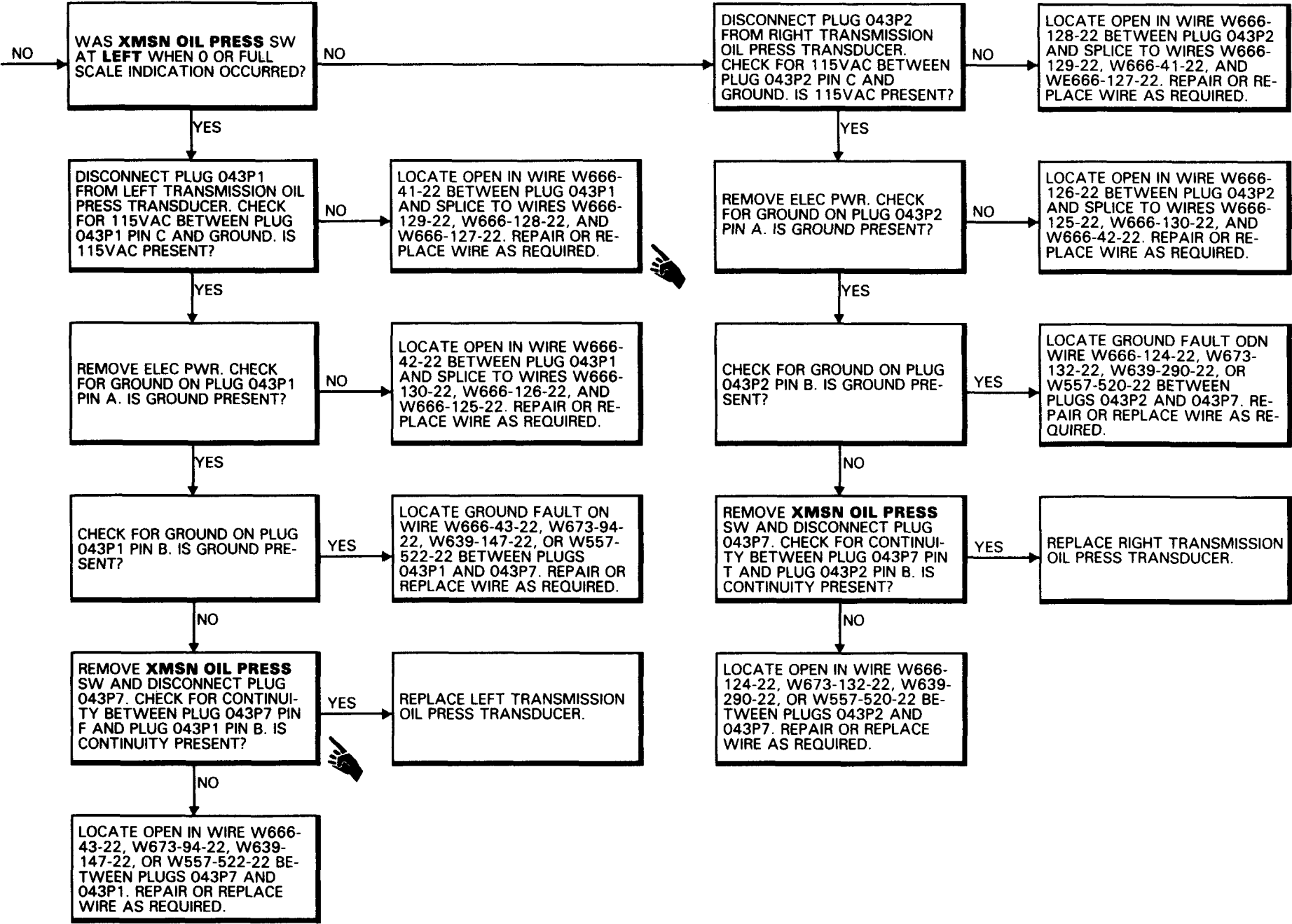


8-9.17 XMSN OIL PRESS INDICATOR DOES NOT READ IN NORMAL RANGE  
WHEN XMSN OIL PRESS SWITCH IS AT SCAN (Continued)

8-9.17

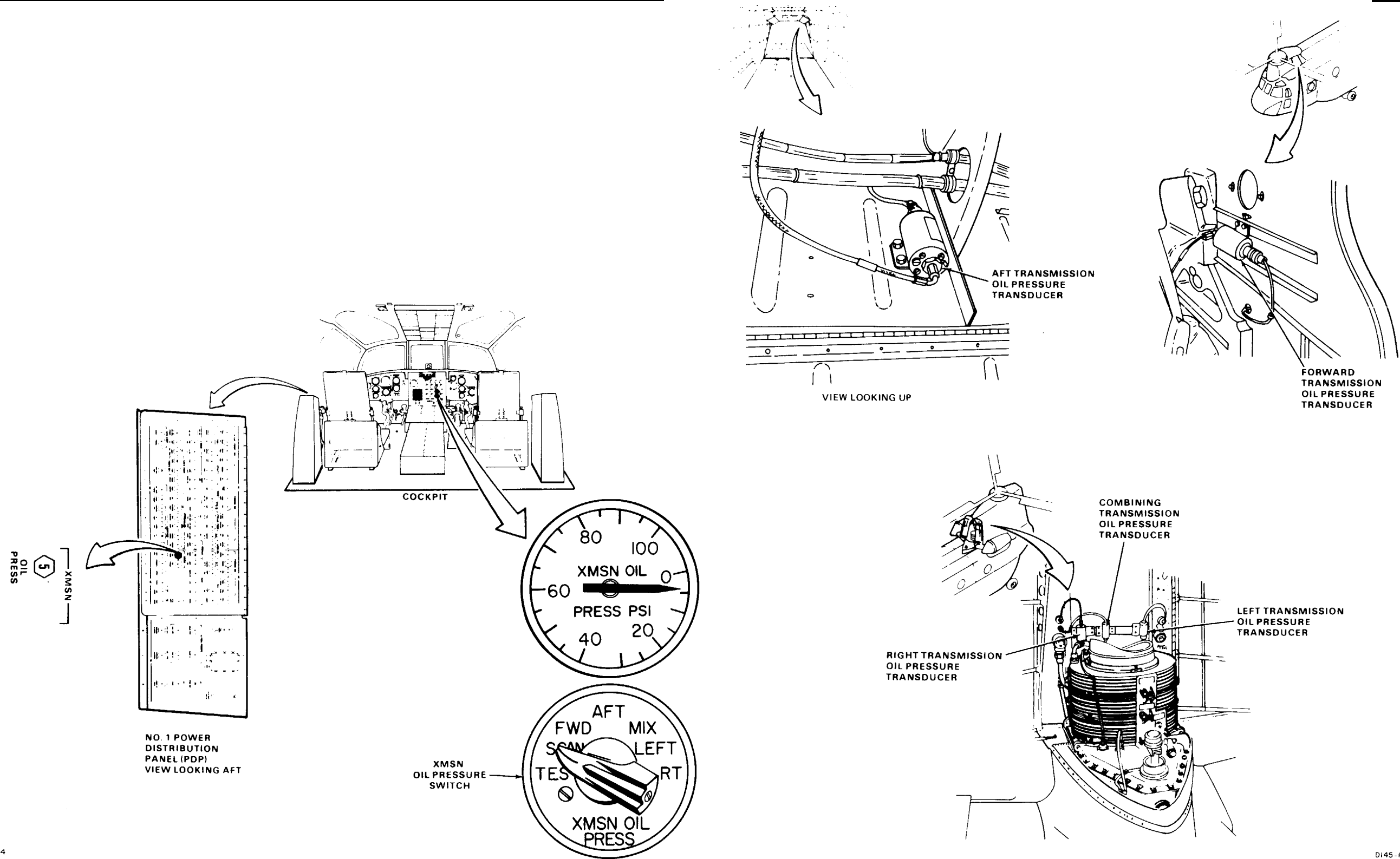


8-9.17 XMSN OIL PRESS INDICATOR DOES NOT READ IN NORMAL RANGE WHEN XMSN OIL PRESS SWITCH IS AT SCAN (Continued)



8-9.17 XMSN OIL PRESS INDICATOR DOES NOT READ IN NORMAL RANGE  
WHEN XMSN OIL PRESS SWITCH IS AT SCAN (Continued)

8-9.17



8-9.18 XMSN OIL PRESS INDICATOR DOES NOT READ IN NORMAL RANGE  
FOR ONE XMSN OIL PRESS SWITCH POSITION

8-9.18

FAULT ISOLATION PROCEDURE

INITIAL SETUP

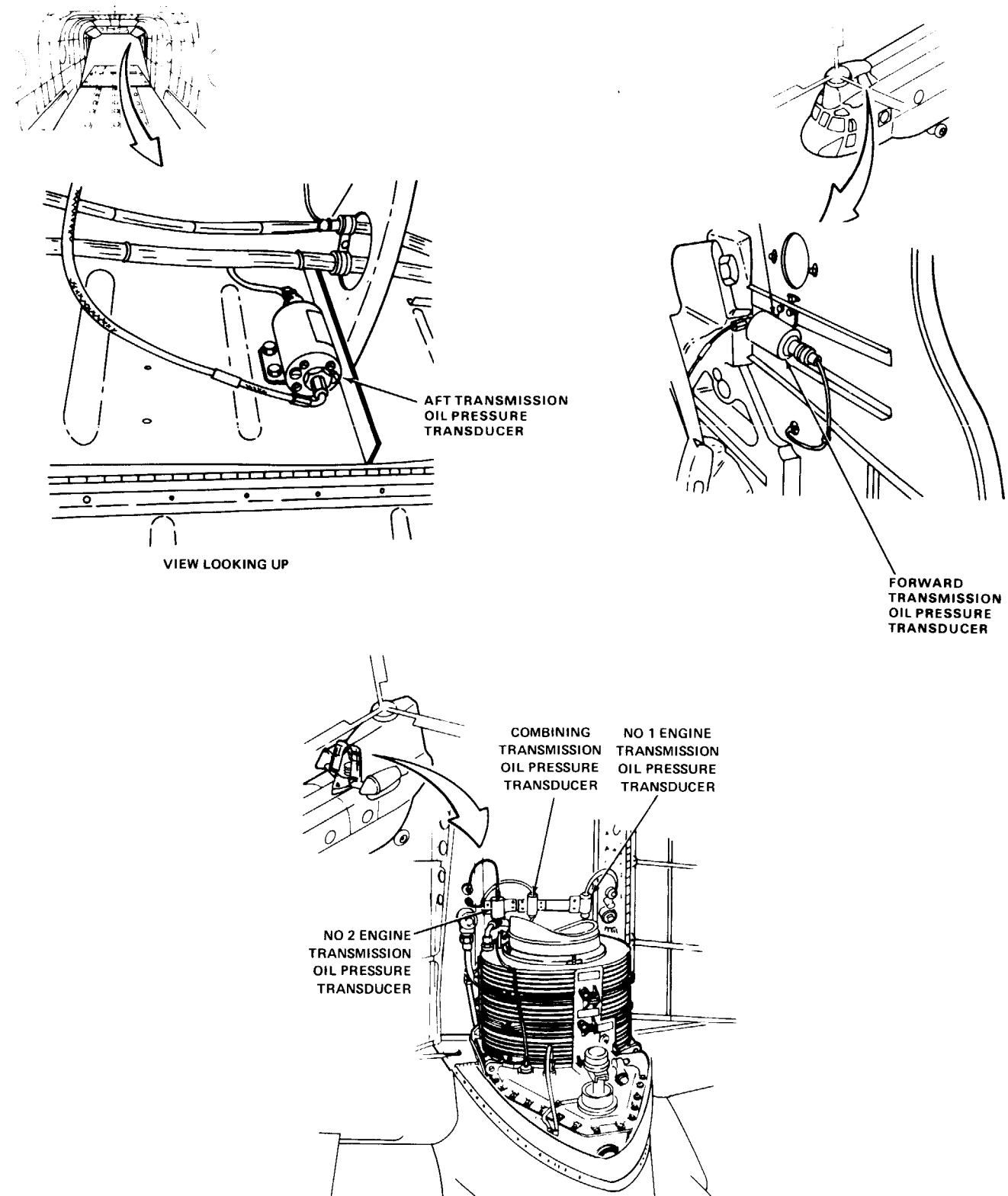
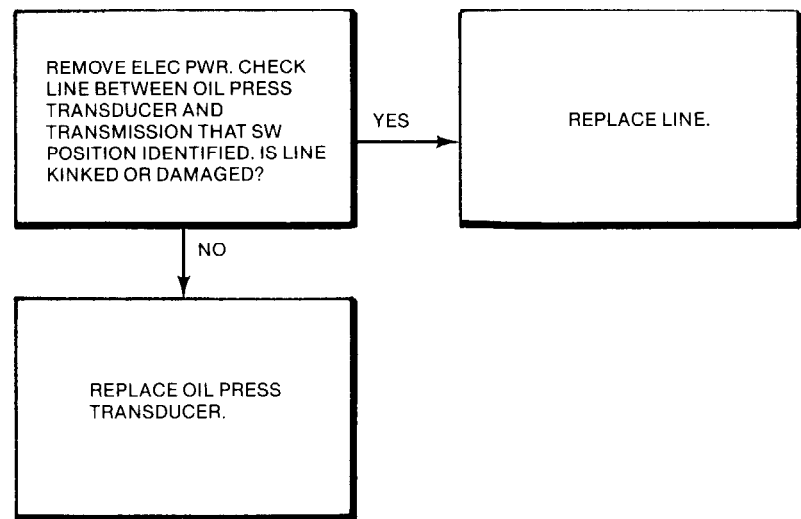
**Personnel Required:**  
67020 Medium Helicopter Repairer

**Applicable Configurations:**  
All

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4692  
Multimeter

**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

**Materials**  
None



**8 - 1 0   T R A N S M I S S I O N   O I L   T E M P E R A T U R E  
I N D I C A T I N G   A N D   W A R N I N G   S Y S T E M**

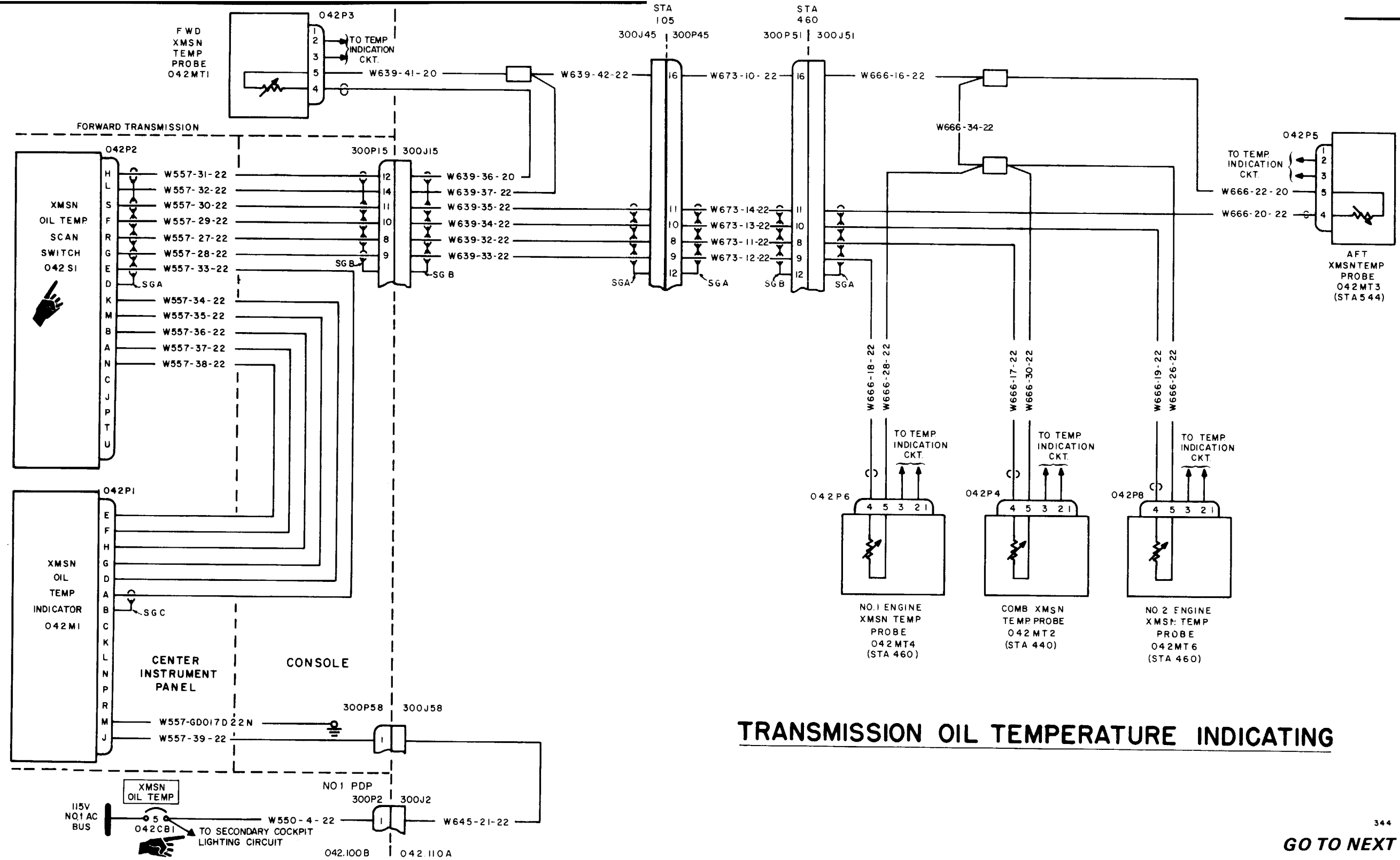


8-10 TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM

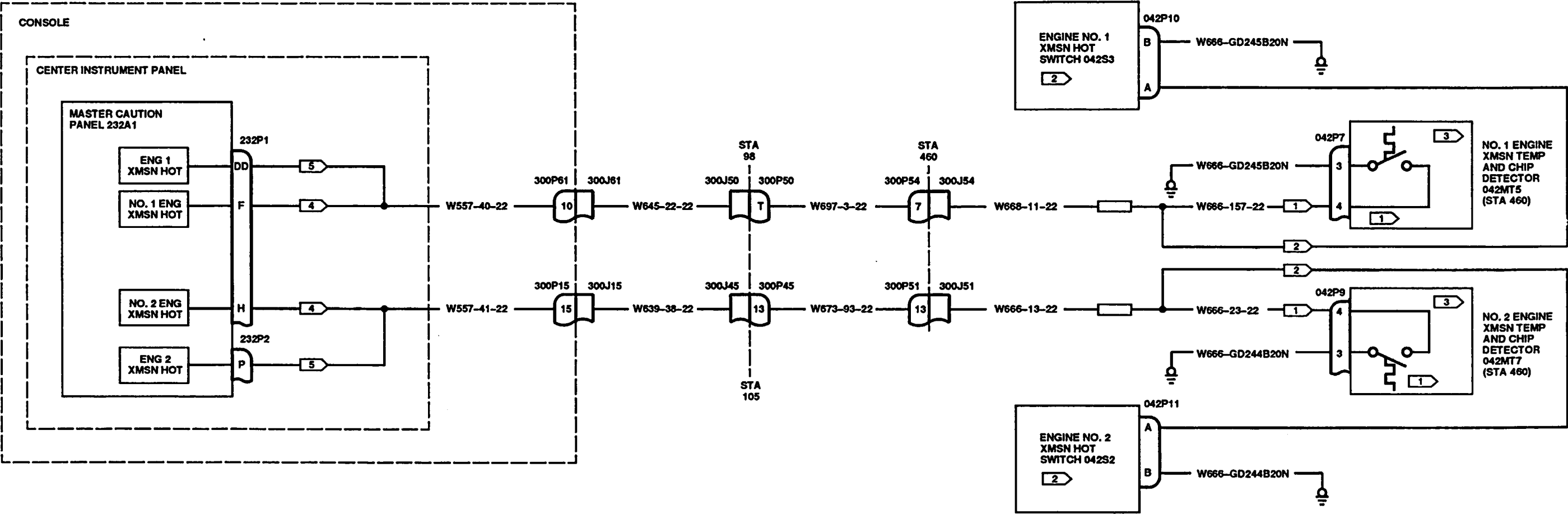
8-10

8-10.1 TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM WIRING DIAGRAM

8-10.1



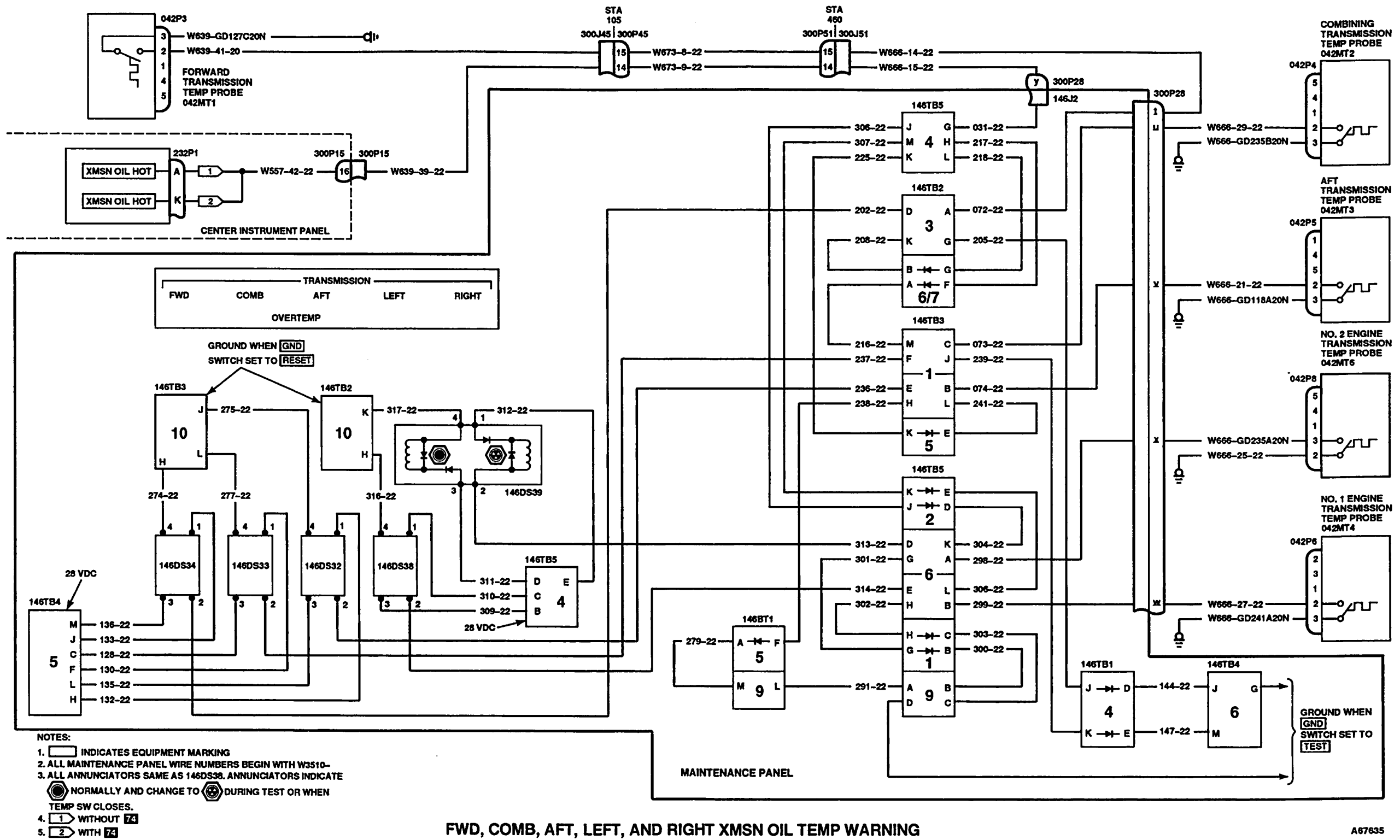
TRANSMISSION OIL TEMPERATURE INDICATING



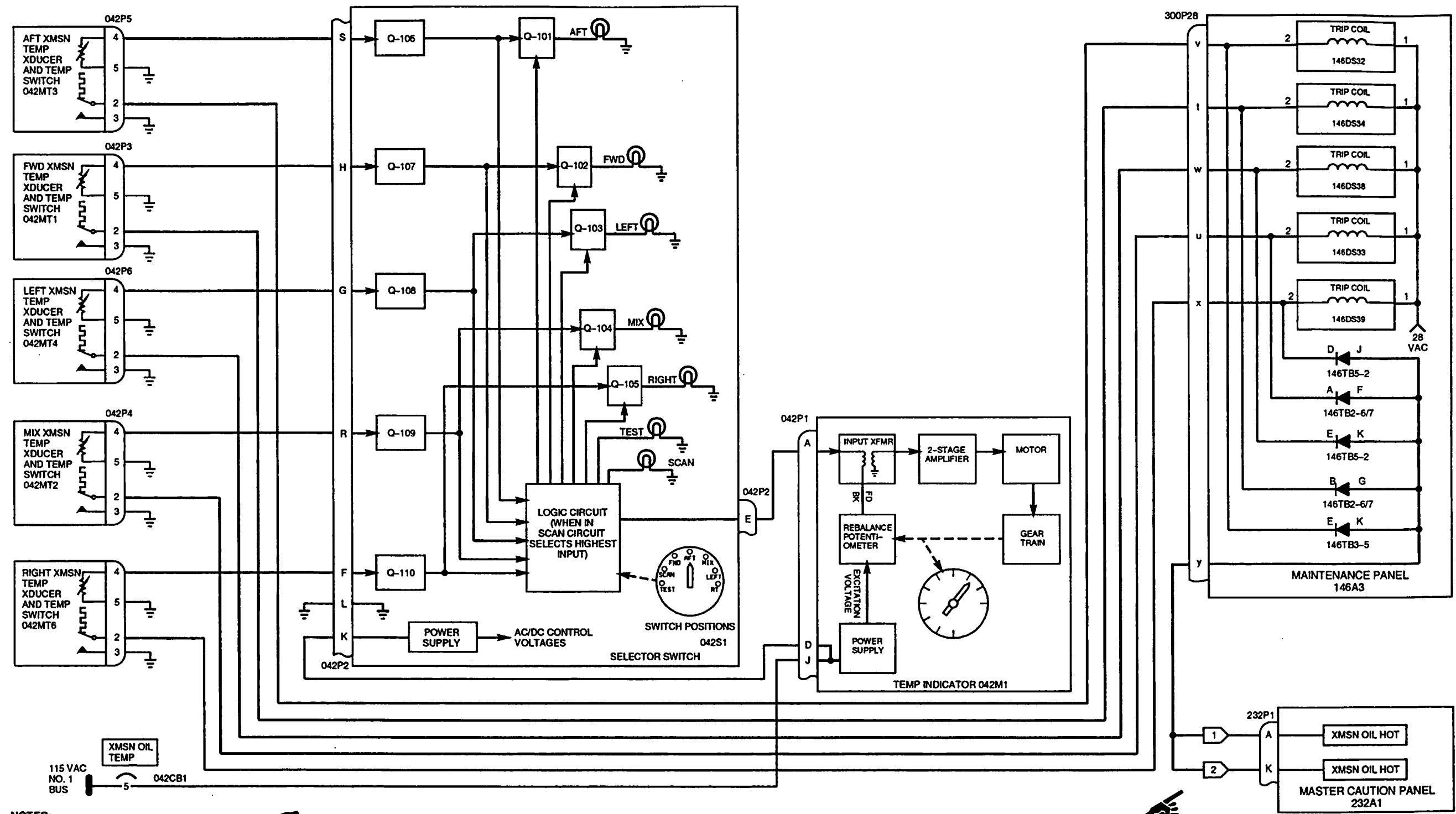
- NOTES:
- 1 WITHOUT 37
  - 2 WITH 37
  - 3 FOR LOCATION OF PINS 1 AND 2 SEE TASK 6-2.1
  - 4 WITHOUT 74
  - 5 WITH 74
  - 6 INDICATES EQUIPMENT MARKINGS

ENGINE TRANSMISSION OIL  
TEMPERATURE WARNING

A67640



A67635



A67636

INITIAL SETUP

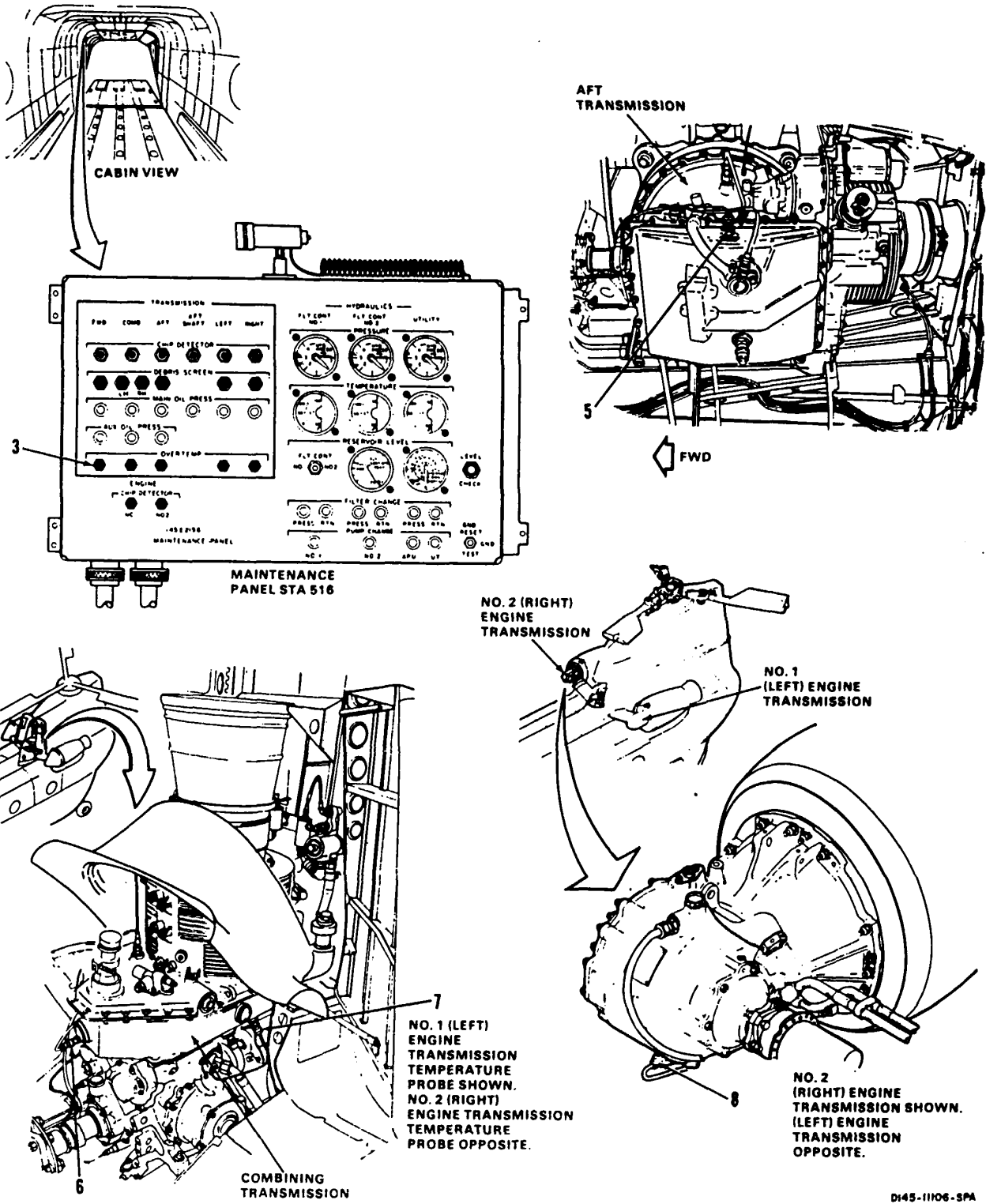
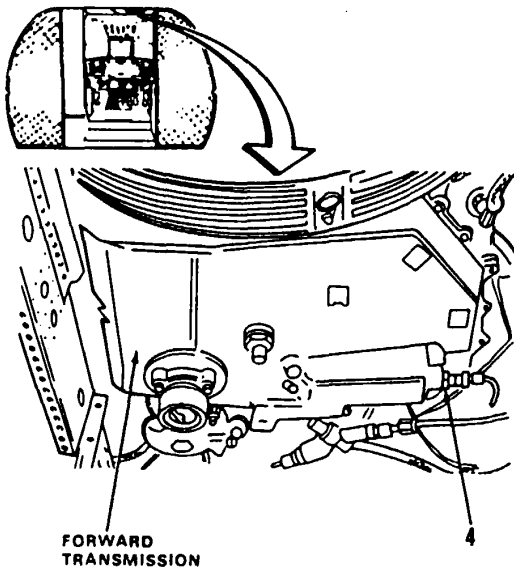
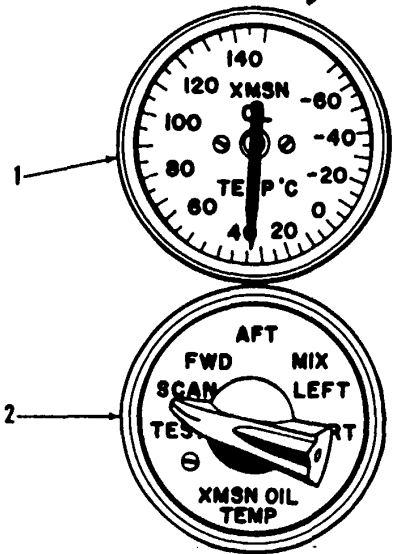
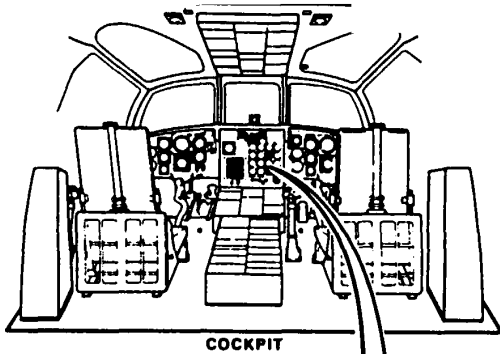
Applicable Configurations:  
All

Tools:  
Aircraft Mechanic's Tool Kit.  
NSN 5180-00-323-4692

Materials:  
None

Personnel Required:  
67U10 Medium Helicopter Repairer

- References:  
TM 55-1520-240-23
- Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Left and Right Forward work Platform Open  
Forward Drip Pan Removed  
Aft Transmission Baffles Open  
Pylon Hinged Fairing Open  
Pylon Lower Fairing Open  
Engine Air Inlet Screen Removed  
Engine Transmission Fairing Removed  
Cargo Ramp Open and Level (Task 7-3.3)



DI45-11106-SPA

8-10.2 TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM VISUAL CHECK (Continued)

8-10.2

TASK	RESULT
1. Check TRANSMISSION TEMP indicator (1).	If indicator (1) is loose or damaged, tighten or replace it as required.
2. Check TRANSMISSION TEMP switch (2).	If switch (2) is loose or damaged, tighten or replace it as required.
3. Check five OVERTEMP indicators (3).	If any indicator (3) is loose or damaged, tighten or replace it as required.
<b>CHECK FORWARD TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM INSTALLATION</b>	
4. Check temperature probe (4).	If probe (4) is damaged, replace it. If wiring or electrical connector to probe is damaged, repair or replace as required.
<b>CHECK AFT TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM INSTALLATION</b>	
5. Check temperature probe (5).	If probe (5) is damaged, replace it. If wiring or electrical connector to probe is damaged, repair or replace it as required.
<b>CHECK COMBINING TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM INSTALLATION</b>	
6. Check temperature probe (6).	If probe (6) is damaged, replace it. If wiring or electrical connector to probe is damaged, repair or replace it as required.
<b>CHECK NO. 1 (LEFT) ENGINE TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM INSTALLATION</b>	
7. Check temperature probe (7).	If probe (7) is damaged, replace it. If wiring or electrical connector to probe is damaged, repair or replace it as required.
8. Check temperature and chip detector (8).	If detector (8) is damaged, replace it. If wiring or electrical connector to detector is damaged, repair or replace it as required.

TASK	RESULT
<b>CHECK NO. 2 (RIGHT) ENGINE TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM INSTALLATION</b>	
9. Check temperature probe (7).	If probe (7) is damaged, replace it. If wiring or electrical connector to probe is damaged, repair or replace it as required.
10. Check temperature and chip detector (8).	If detector (8) is damaged, replace it. If wiring or electrical connector to detector is damaged, repair or replace it as required.

FOLLOW-ON MAINTENANCE:

None

END OF TASK

8-10.3 TRANSMISSION OIL TEMPERATURE INDICATING AND WARNING SYSTEM OPERATIONAL CHECK

INITIAL SETUP

Applicable Configurations:  
All

References:  
TM 55-1520-240-23

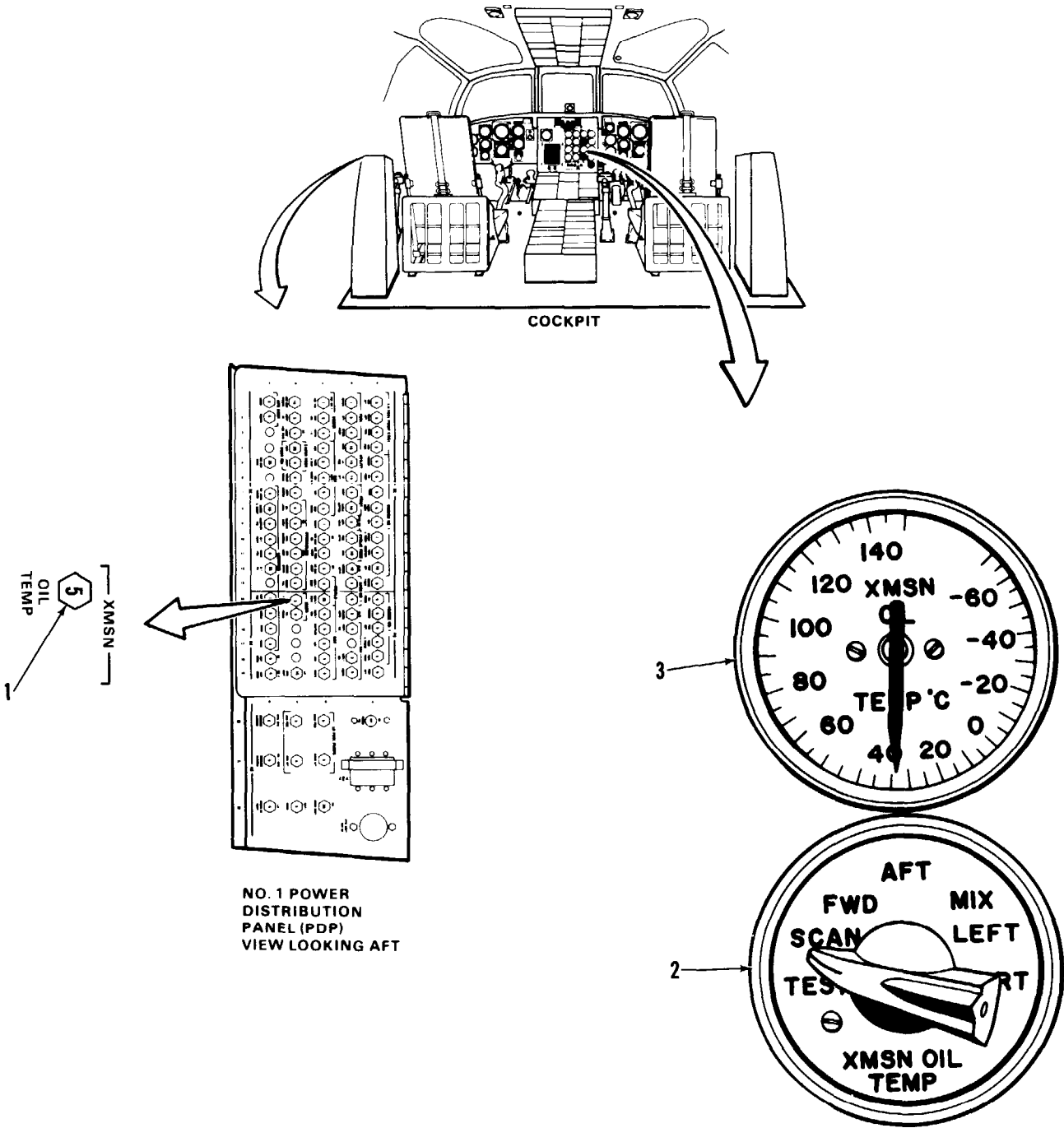
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Visual Check of Transmission Oil Temperature  
Indicating and Warning System Performed  
(Task 8-10.2)

Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

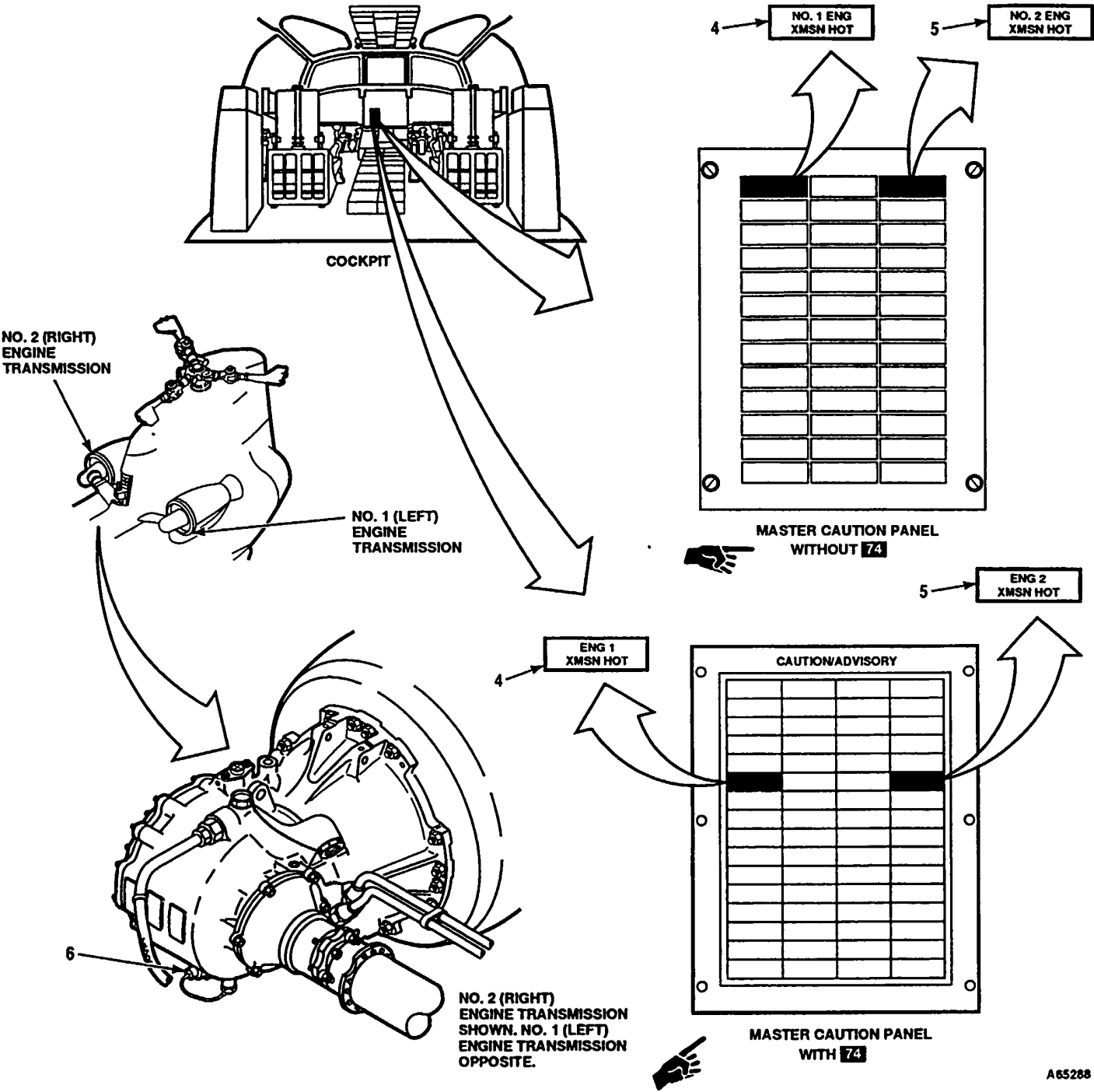
TASK	RESULT
<b>CHECK TRANSMISSION OIL TEMPERATURE INDICATING SYSTEM</b>	
1. Check that XMSN OIL TEMP circuit breaker (1) is closed.	If circuit breaker (1) is open, close it. If it opens again, go to Task 8-10.4.
2. Set and hold XMSN OIL TEMP switch (2) to TEST.	Pointer on XMSN TEMP indicator (3) shall indicate below -70°C (-94°F). Switch (2) TEST position shall light. If pointer does not move below -70°C point, go to Task 8-10.5. If pointer moves below -70°C point but switch TEST position does not light, replace switch.
3. Release XMSN OIL TEMP switch (2).	Switch (2) shall return to SCAN position. SCAN position shall light. Indicator pointer shall move up scale and display a temperature near ambient temperature.
4. Record indication on XMSN TEMP indicator (3).	If switch does not return to SCAN, or SCAN position does not light, replace switch. If indicator pointer does not indicate near ambient temperature, go to Task 8-10.6.



TASK	RESULT
5. Turn XMSN OIL TEMP switch (2) to FWD, AFT, MIX, LEFT, then RT position. Record indication on XMSN TEMP indicator (3) for each switch position.	Each switch position shall light when selected. If not, replace XMSN OIL TEMP switch (2). Each indicator (3) indication shall be near ambient temperature. If not, go to Task 8-10.7.
6. Compare highest indication recorded in step 5 with indication recorded in step 4.	The difference in indications shall not exceed 5 percent. If it does, replace XMSN OIL TEMP switch (3).
7. Turn XMSN OIL TEMP switch (2) to SCAN.	Switch position that recorded highest indication in step 5 shall light. If it does not, replace switch (3).

CHECK TRANSMISSION OIL TEMPERATURE WARNING SYSTEM

8. Without 74 check NO. 1 ENG XMSN HOT and NO. 2 ENG XMSN HOT capsules (4 and 5). With 74 check ENG 1 XMSN HOT and ENG 2 XMSN HOT capsules (4 and 5).	If capsule (4 or 5) is lit, go to Task 8-10.8. If capsule (4 or 5) is lit, go to Task 8-10.8.
9. Disconnect plug from No. 1 (left) engine transmission temperature and chip detector (6). Short pins 3 and 4 with a wire.	NO. 1 ENG XMSN HOT (Without 74) ENG 1 XMSN HOT (With 74) capsule (4) shall come on. If it does not, go to Task 8-10.9.
10. Remove wire. Connect plug to temperature and chip detector (6).	Capsule (4) shall go out.
11. Disconnect plug from No. 2 (right) engine transmission temperature and chip detector (6). Short pins 3 and 4 with a wire.	NO. 2 ENG XMSN HOT (Without 74) ENG 2 XMSN HOT (With 74) capsule (5) shall come on. If it does not, go to Task 8-10.9.
12. Remove wire. Connect plug to temperature and chip detector (6).	Capsule (5) shall go out.



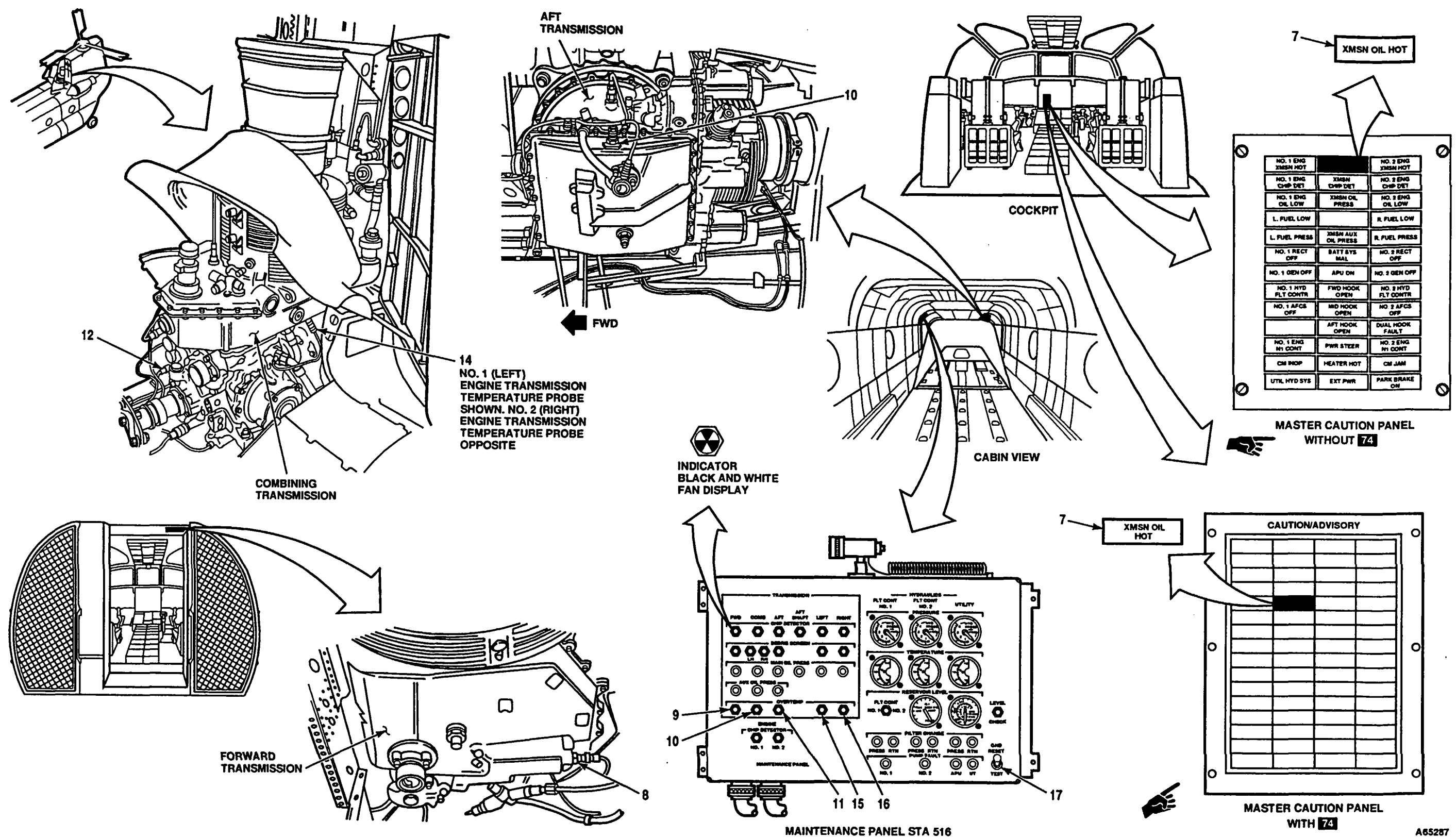


TASK	RESULT
13. Check XMSN OIL HOT capsule (7).	If capsule (7) is lit, go to Task 8-10.10.
14. Disconnect plug from forward transmission temperature probe (8). Short plug pins 2 and 3 with a wire.	XMSN OIL HOT capsule (7) shall come on. FORWARD TRANSMISSION OVERTEMP indicator (9) shall turn to a black-and-white fan display. If capsule (7) does not come on or annunciator (9) stays black, go to Task 8-10.11.
15. Remove wire and connect plug to probe (8)	Capsule (7) shall go out. Indicator (9) shall stay black and white.
16. Disconnect plug from aft transmission temperature probe (10). Short plug pins 2 and 3 with a wire.	XMSN OIL HOT capsule (7) shall come on. AFT TRANSMISSION OVERTEMP indicator (11) shall turn to a black-and-white fan display. If capsule (7) does not come on or indicator (11) stays black, go to Task 8-10.12.
17. Remove wire and connect plug to probe (10).	Capsule (7) shall go out. Indicator (11) shall stay black and white.
18. Disconnect plug from combining transmission temperature probe (12). Short plug pins 2 and 3 with a wire.	XMSN OIL HOT capsule (7) shall come on. COMB TRANSMISSION OVERTEMP indicator (13) shall turn to a black-and-white fan display. If capsule (7) does not come on or indicator (13) stays black, go to Task 8-10.13.
19. Remove wire and connect plug to probe (12).	Capsule (7) shall go out. Indicator (13) shall stay black and white.
20. Disconnect plug from No. 1 (left) engine transmission temperature probe (14). Short plug pins 2 and 3 with a wire.	XMSN OIL HOT capsule (7) shall come on. LEFT TRANSMISSION OVERTEMP indicator (15) shall turn to a black-and-white fan display. If capsule (7) does not come on or indicator (15) stays black, go to Task 8-10.14.
21. Remove wire and connect plug to probe (14).	Capsule (7) shall go out. Indicator (15) shall stay black and white.
22. Disconnect plug from No. 2 (right) engine transmission temperature probe (14). Short plug pins 2 and 3 with a wire.	XMSN OIL HOT capsule (7) shall come on. RIGHT TRANSMISSION OVERTEMP indicator (16) shall turn to a black-and-white fan display. If capsule (7) does not come on or indicator (16) stays black, go to Task 8-10.15.
23. Remove wire and connect plug to probe (14).	Capsule (7) shall go out. Indicator (16) shall stay black and white.

TASK	RESULT
24. Set GND switch (17) to RESET then to GND.	Indicators (9, 11, 13, 15, and 16) shall turn all black. If any indicators are still black and white, go to Task 8-10.16.

FOLLOW-ON MAINTENANCE:

- TM 55-1520-240-23
- Electrical Power Off
- Battery Disconnected
- Forward Drip Pan Installed
- Left and Right Forward Work Platforms Closed
- Aft Transmission Baffles Closed
- Pylon Hinged Fairing Closed
- Pylon Lower Fairing Closed
- Engine Transmission Fairing Installed
- Engine Air Inlet Screens Installed



8-10.4 XMSN OIL TEMP CIRCUIT BREAKER WILL NOT STAY CLOSED

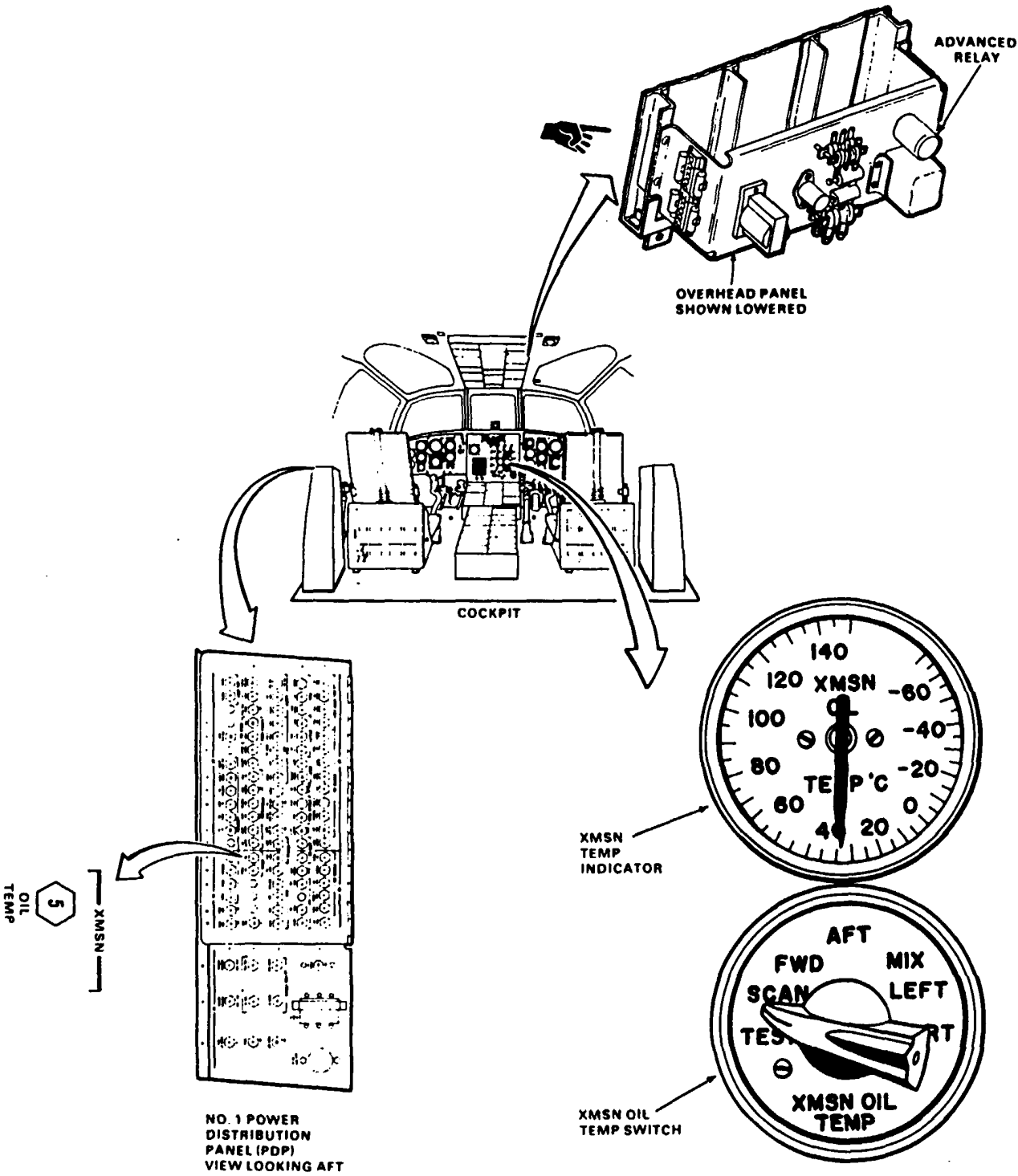
FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

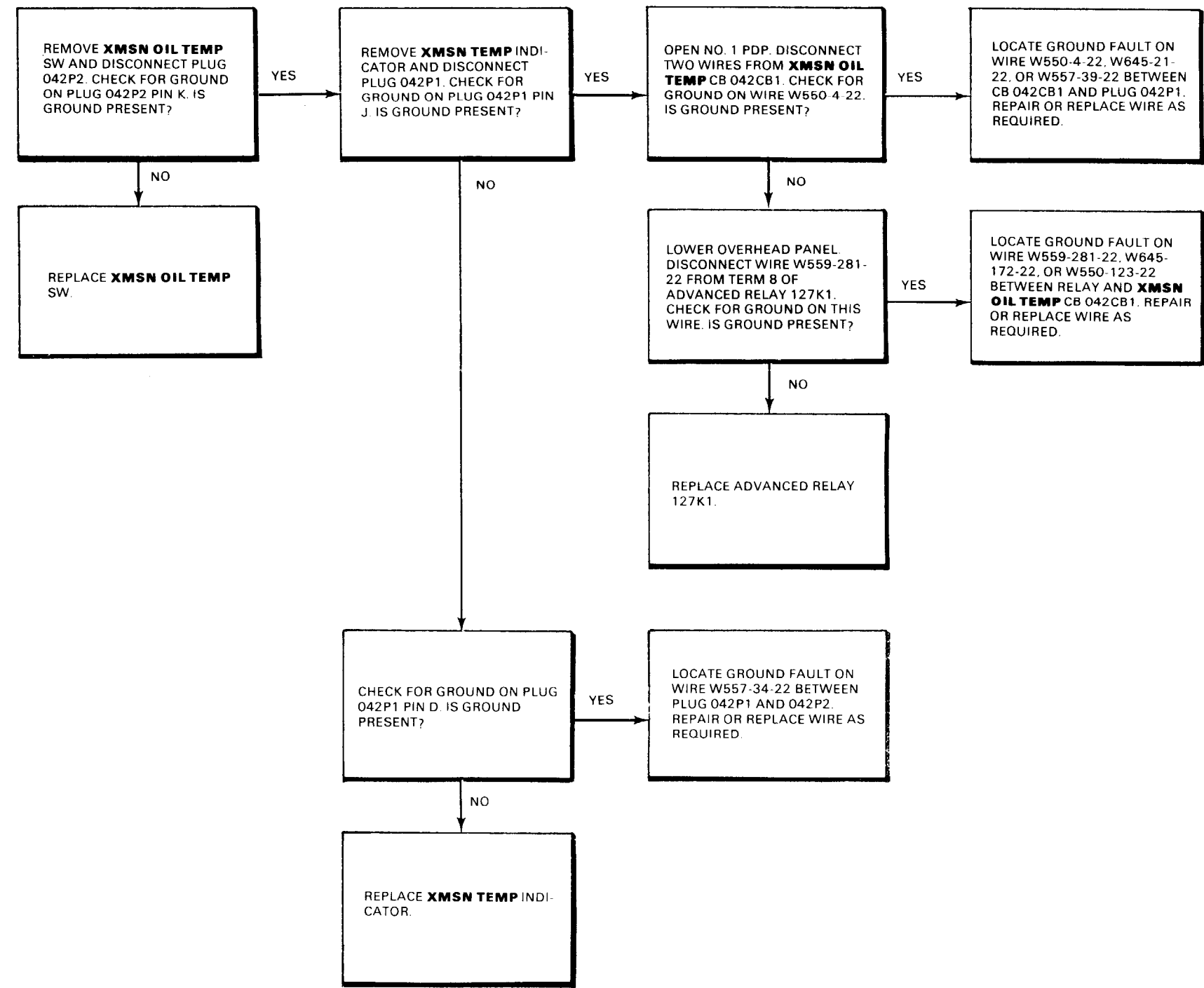
- All
- Tools:
- Electrical Repairer's Tool Kit, NSN 5180-00-323-4915
  - Multimeter
- Materials:
- None

- Personnel Required:
- Aircraft Electrician
- References:
- TM 55-1520-240-23
- Equipment Condition:
- TM 55-1520-240-23:
  - Battery Disconnected
  - Electrical Power Off
  - Hydraulic Power Off



8-10.4 XMSN OIL TEMP CIRCUIT BREAKER WILL NOT  
STAY CLOSED (Continued)

8-10.4



END OF TASK

8-10.5 XMSN TEMP INDICATOR POINTER DOES NOT MOVE  
BELOW -70°C DURING TEST

8-10.5

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

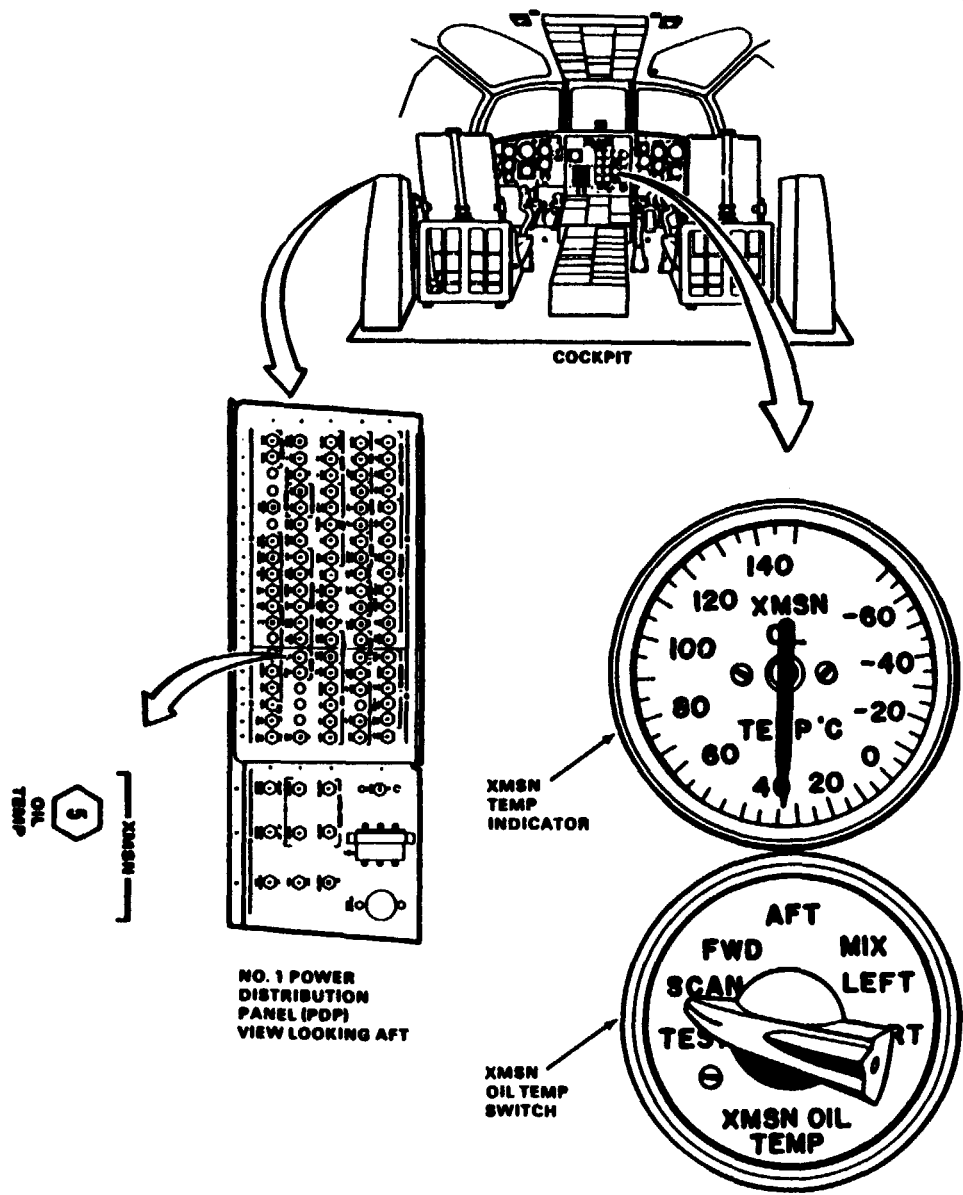
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

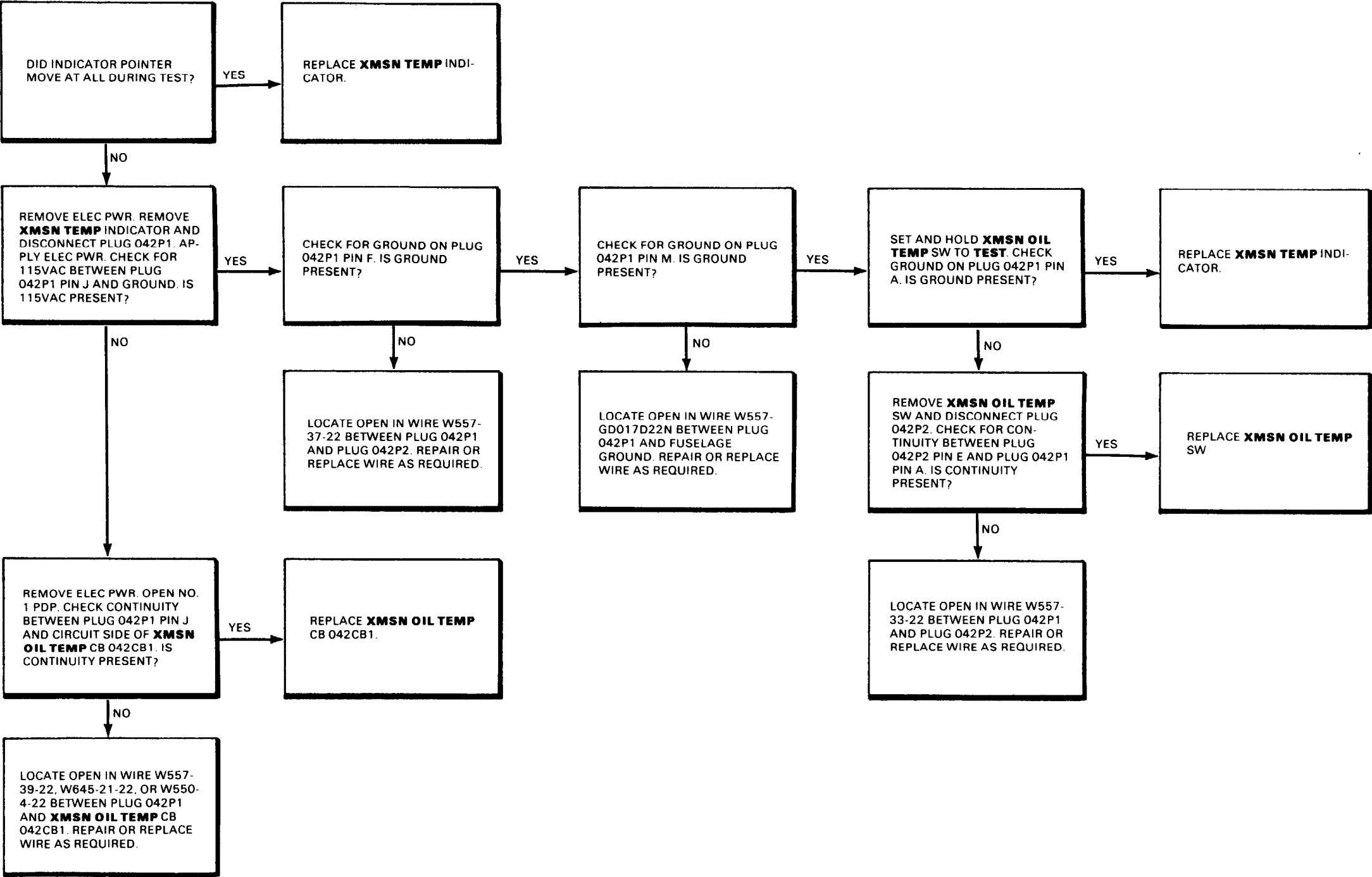
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



GO TO NEXT PAGE

8-10.5 XMSN TEMP INDICATOR POINTER DOES NOT MOVE  
BELOW -70° DURING TEST (Continued)

8-10.5



END OF TASK

8-10.6 XMSN TEMP INDICATOR POINTER DOES NOT INDICATE  
AMBIENT TEMPERATURE AT SCAN

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

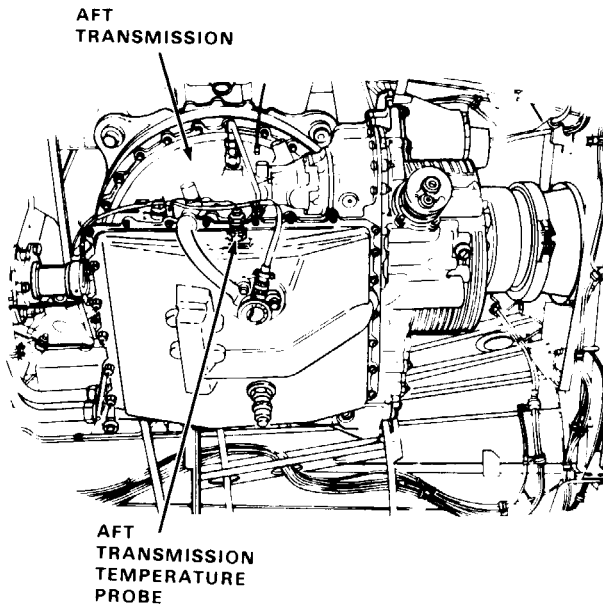
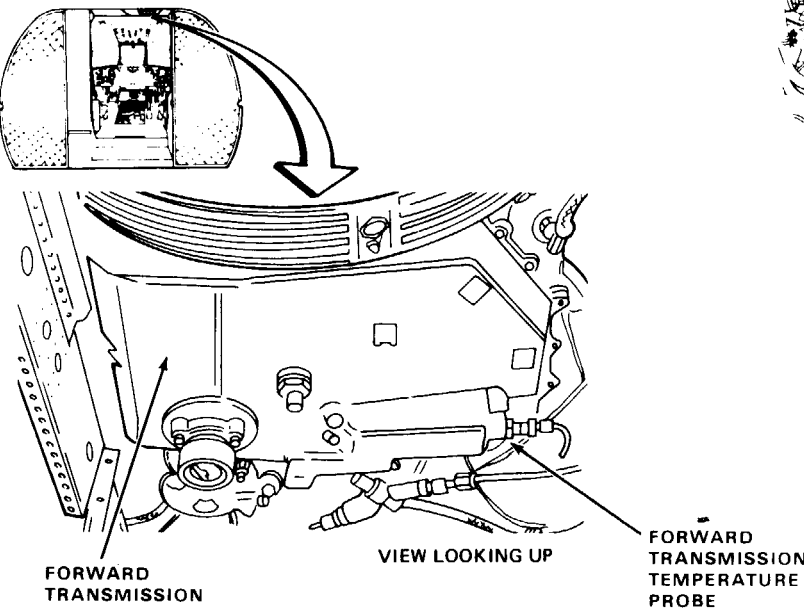
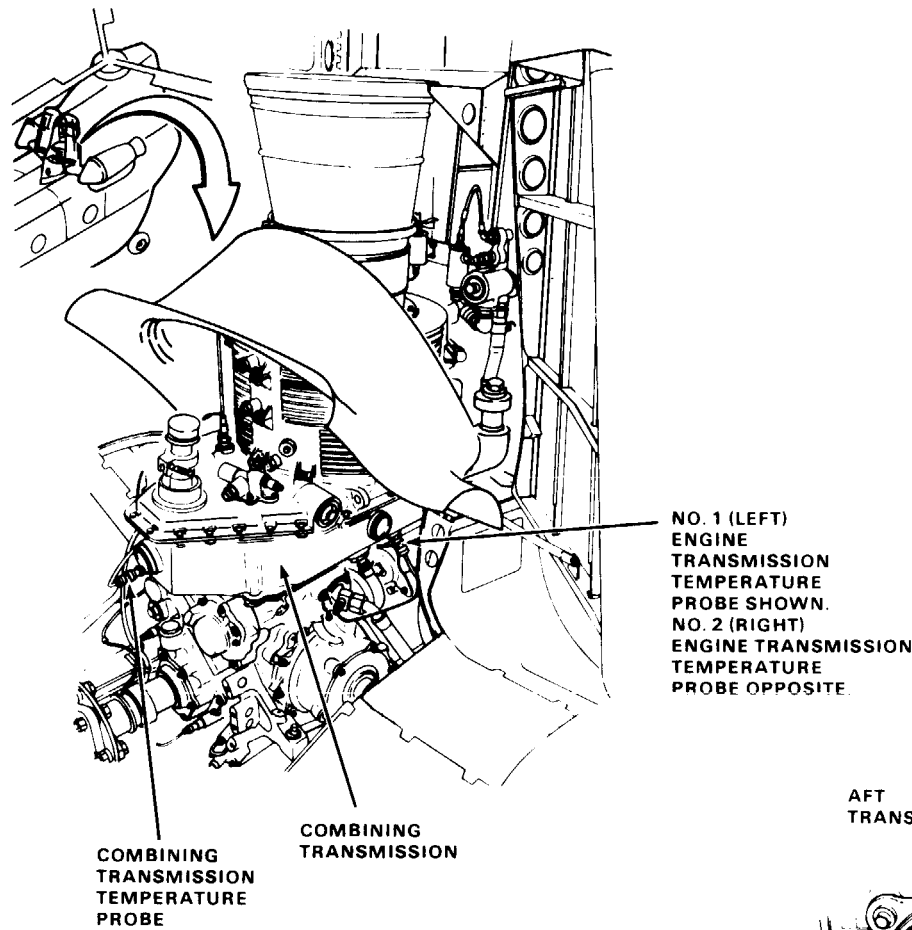
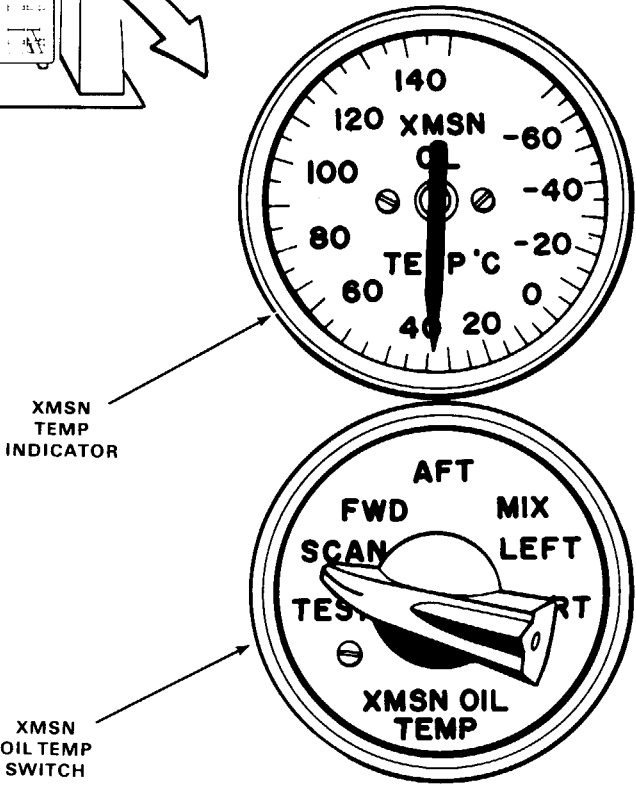
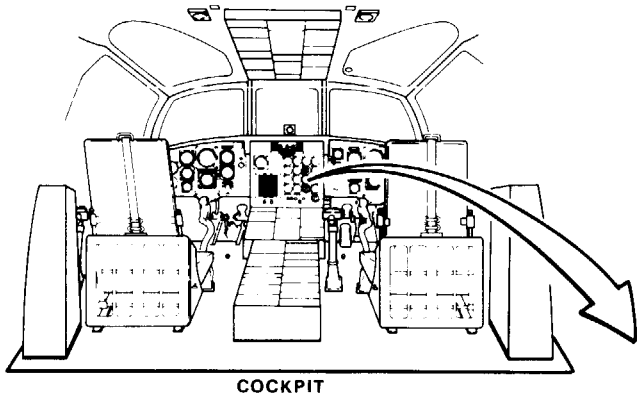
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

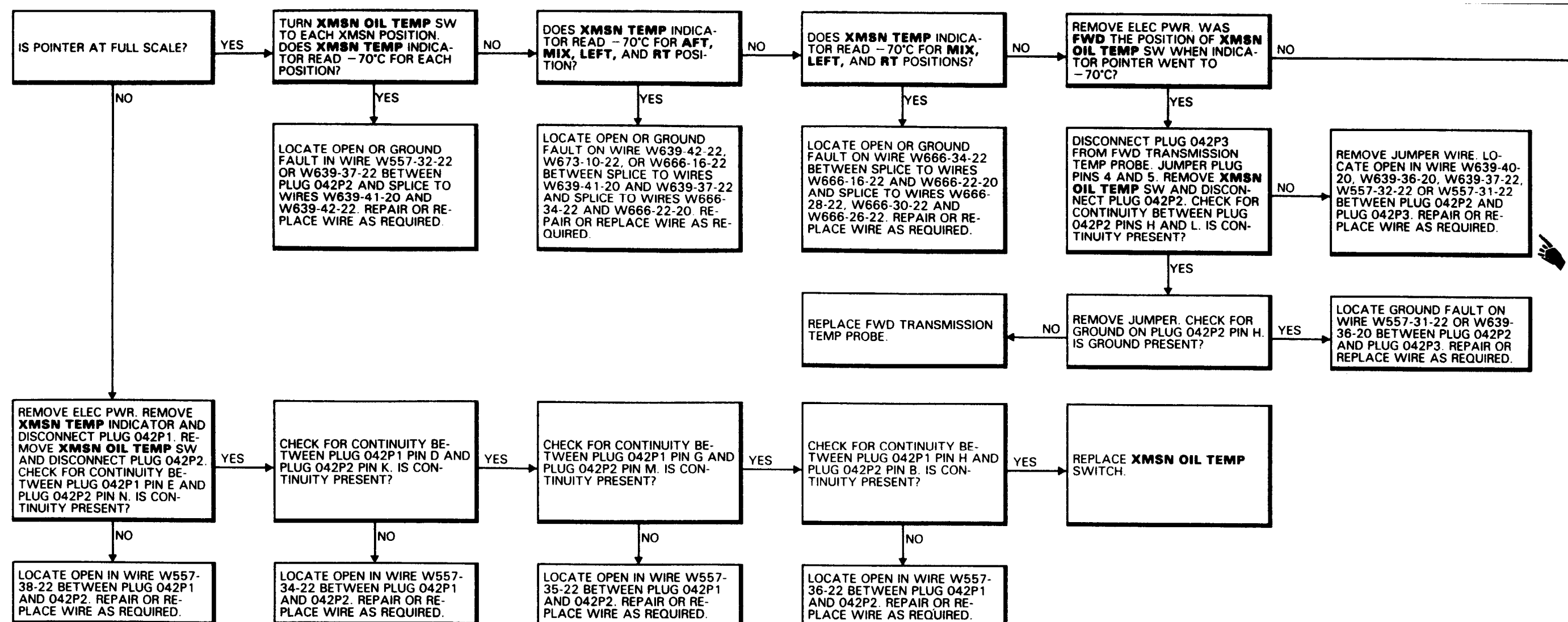
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



# 8-10.6 XMSN TEMP INDICATOR POINTER DOES NOT INDICATE AMBIENT TEMPERATURE AT SCAN (Continued)

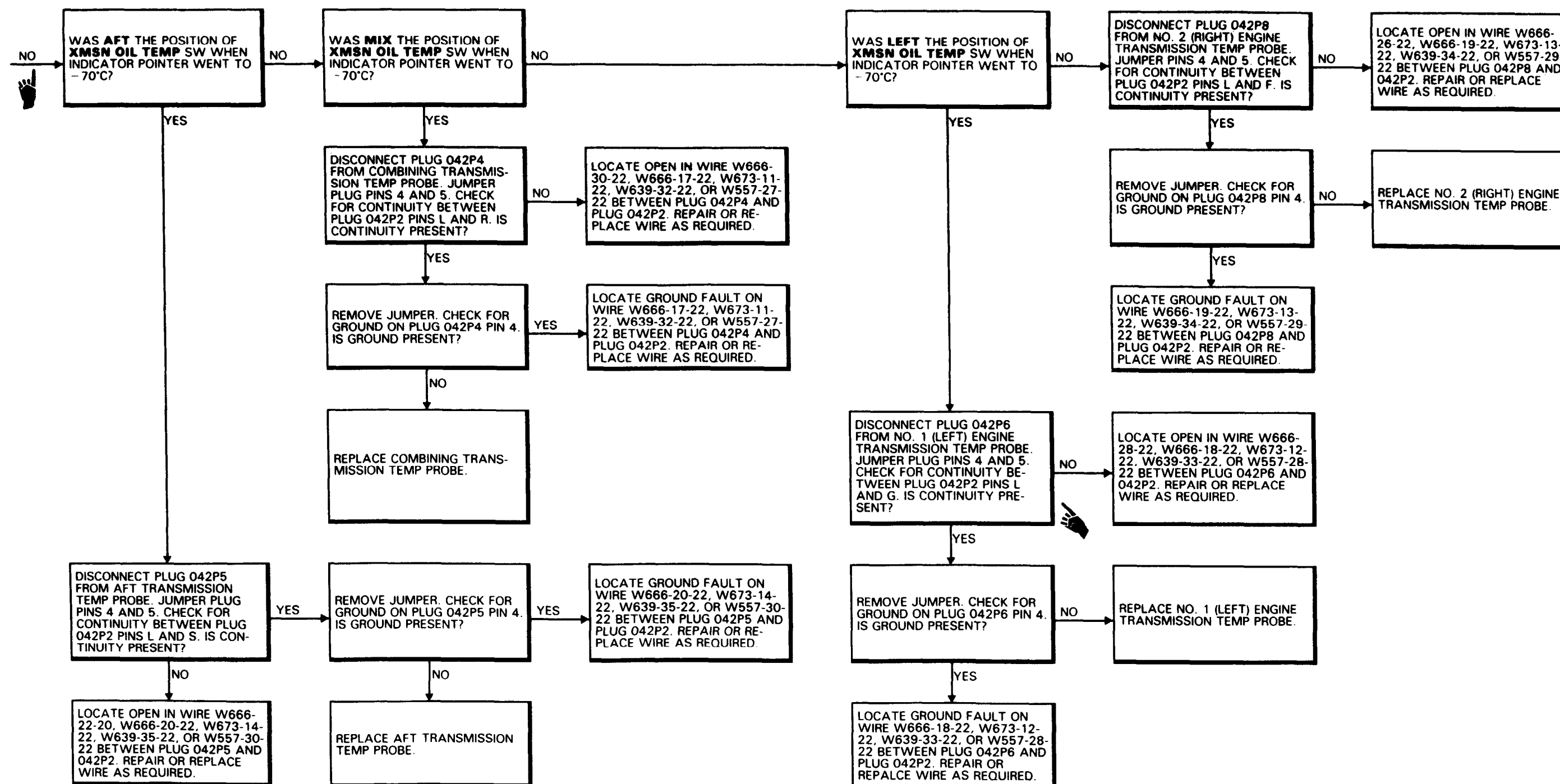
8-10.6





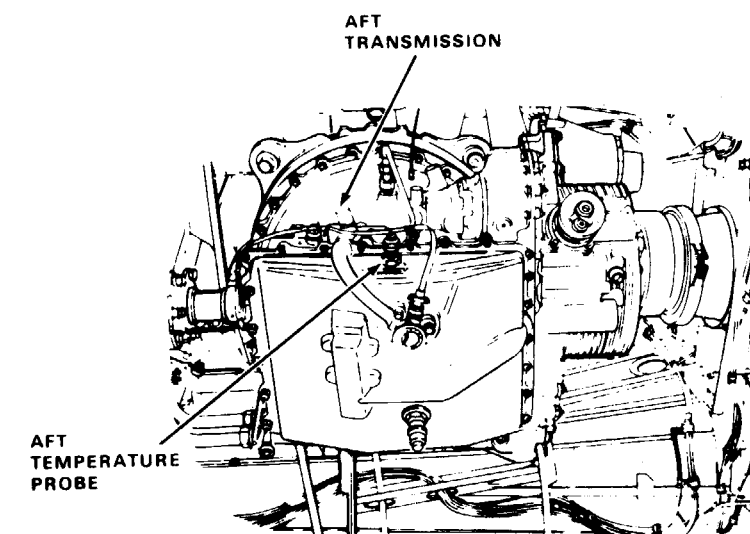
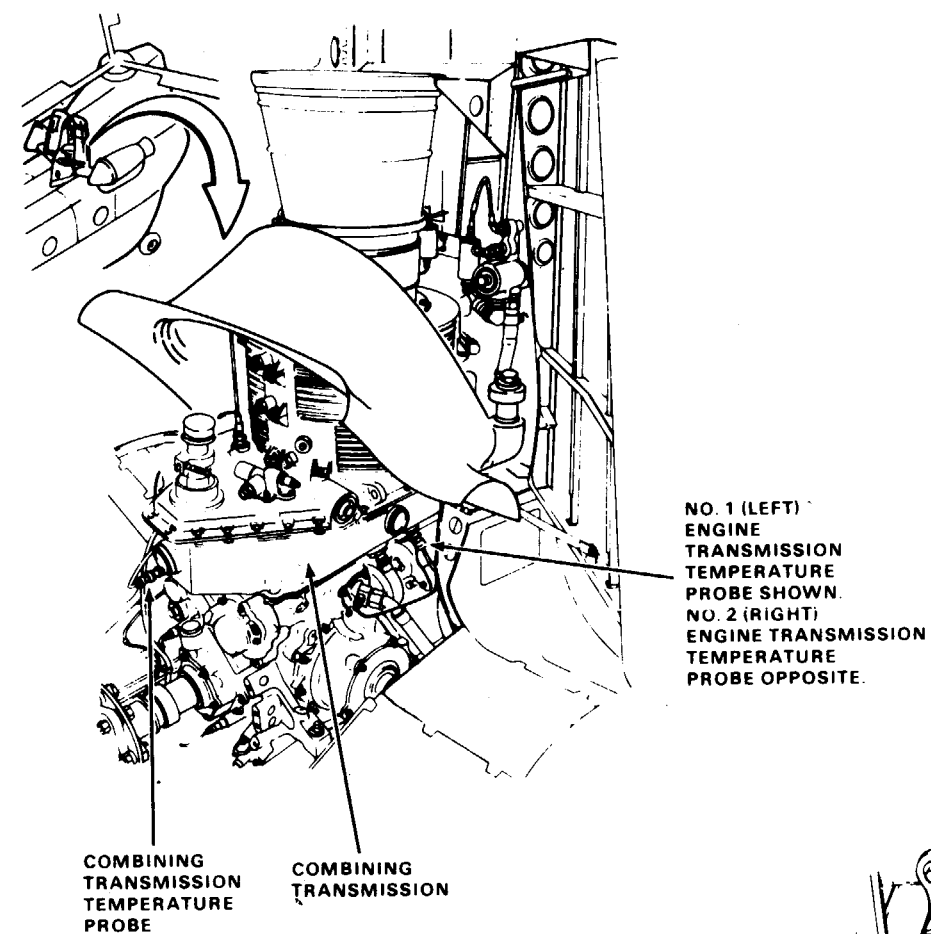
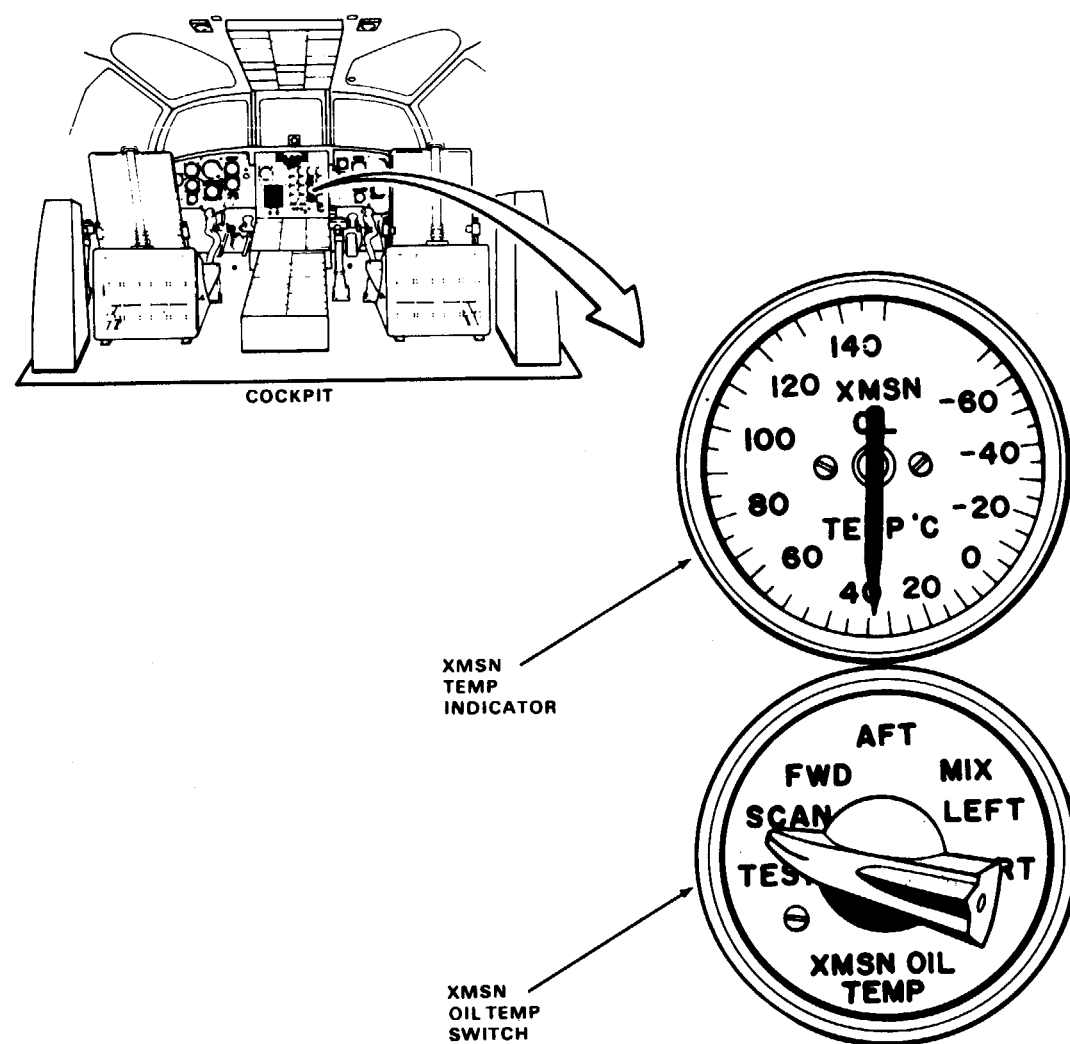
# 8-10.6 XMSN TEMP INDICATOR POINTER DOES NOT INDICATE AMBIENT TEMPERATURE AT SCAN (Continued)

8-10.6



8-10.6 XMSN TEMP INDICATOR POINTER DOES NOT INDICATE  
AMBIENT TEMPERATURE AT SCAN (Continued)

8-10.6



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

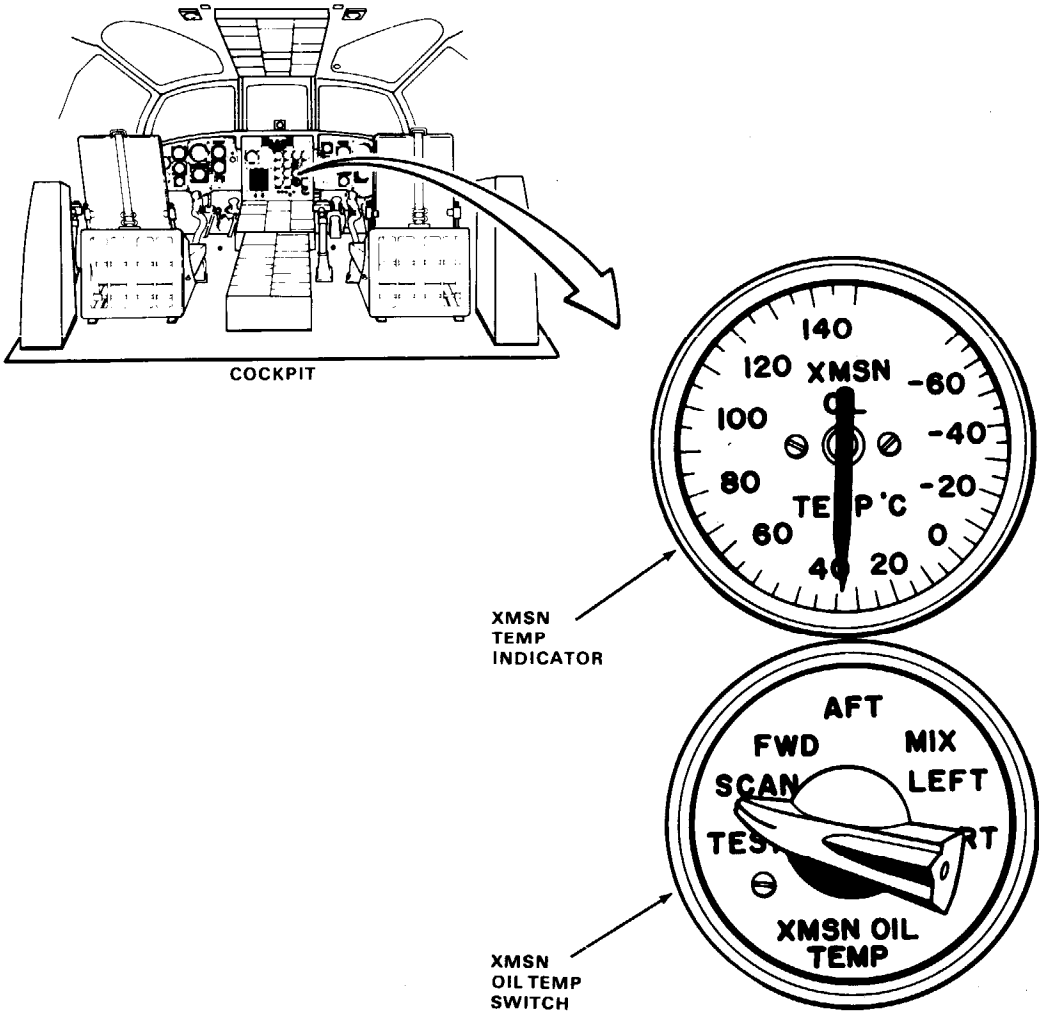
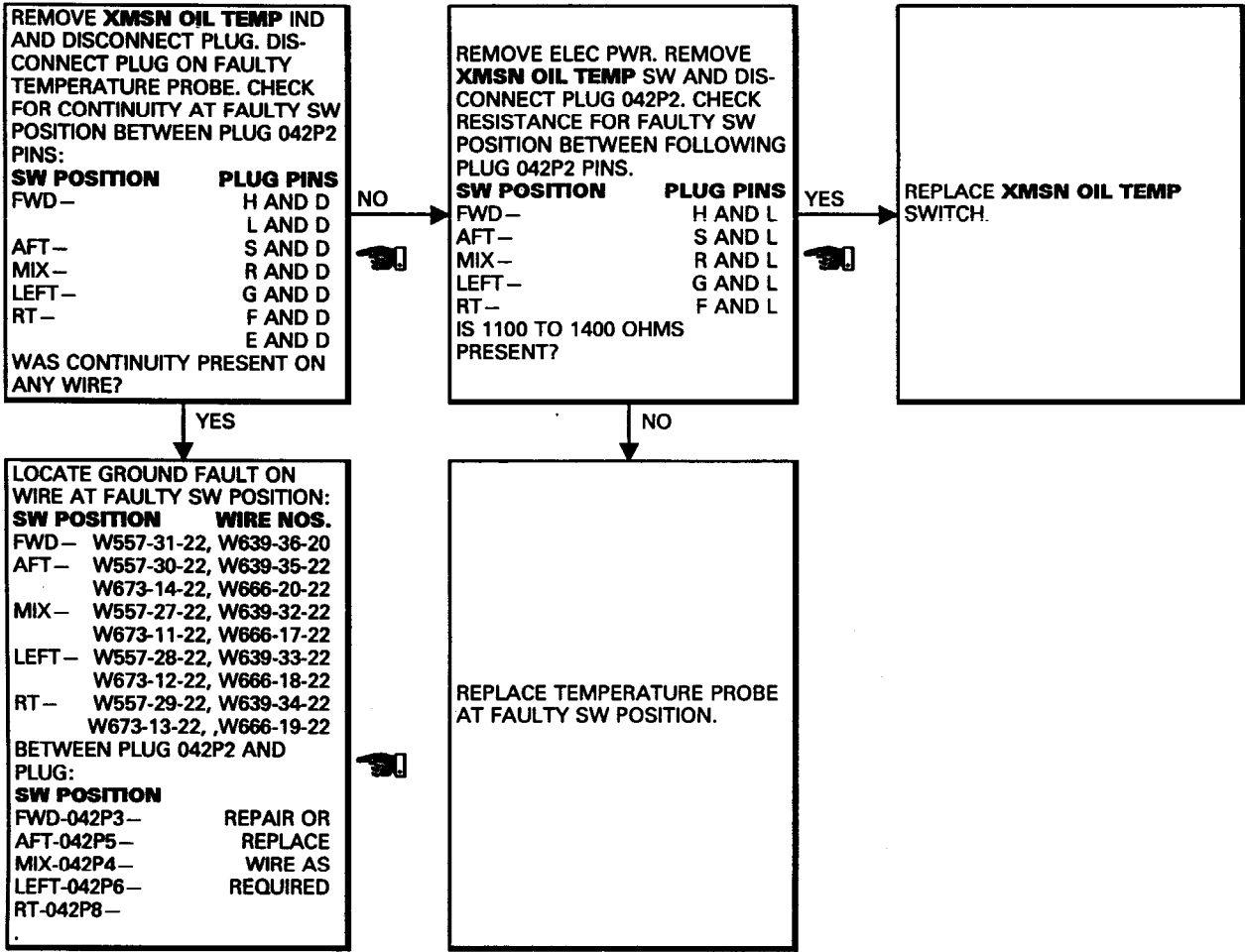
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

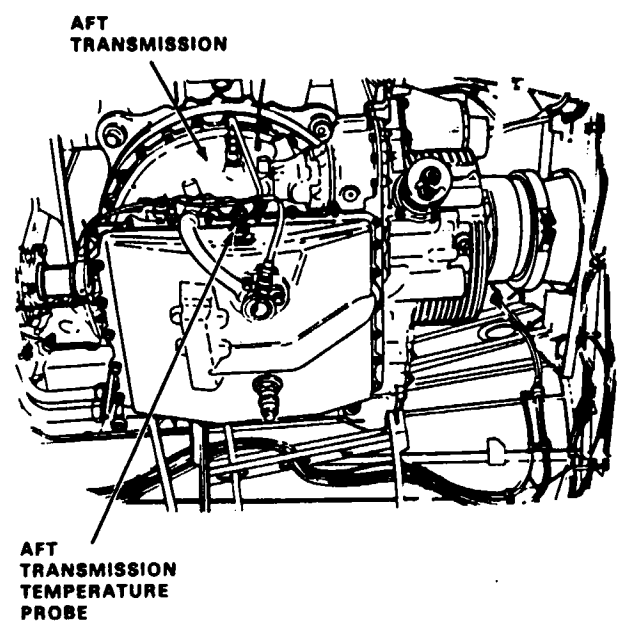
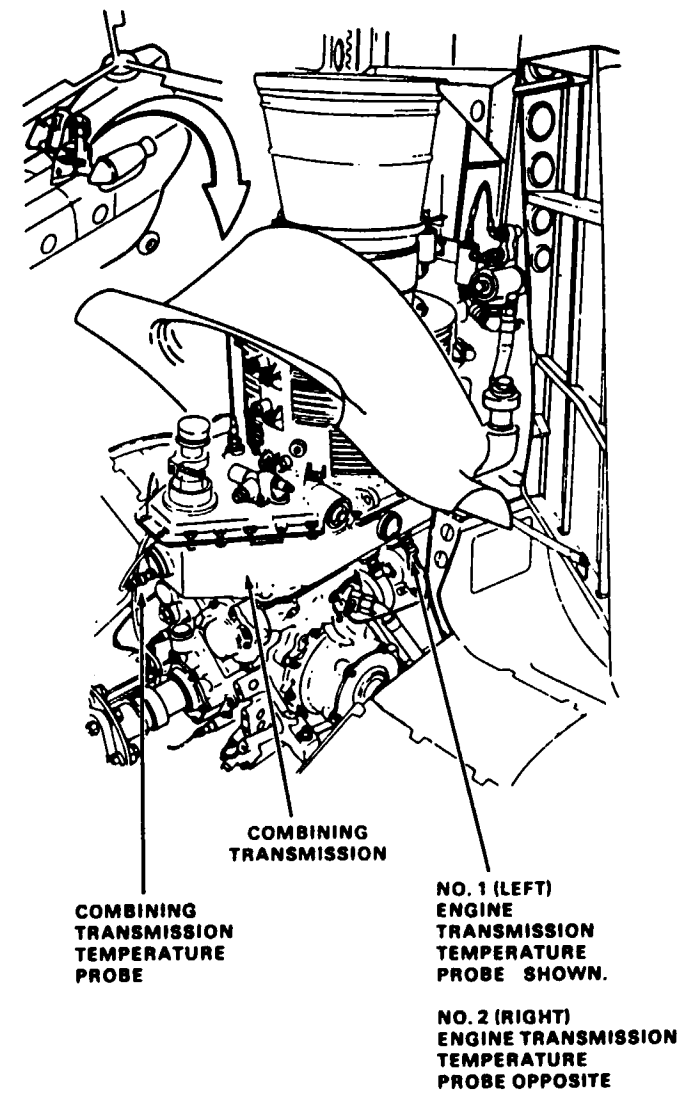
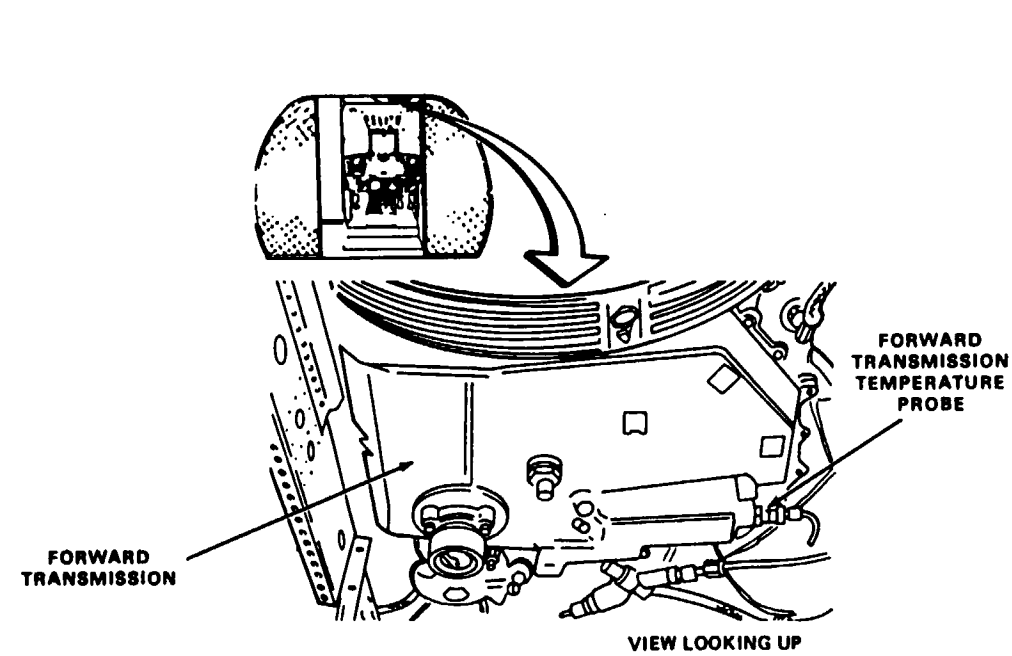
Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



DI45-11114-SPA



**FAULT ISOLATION PROCEDURE**

**INITIAL SETUP**

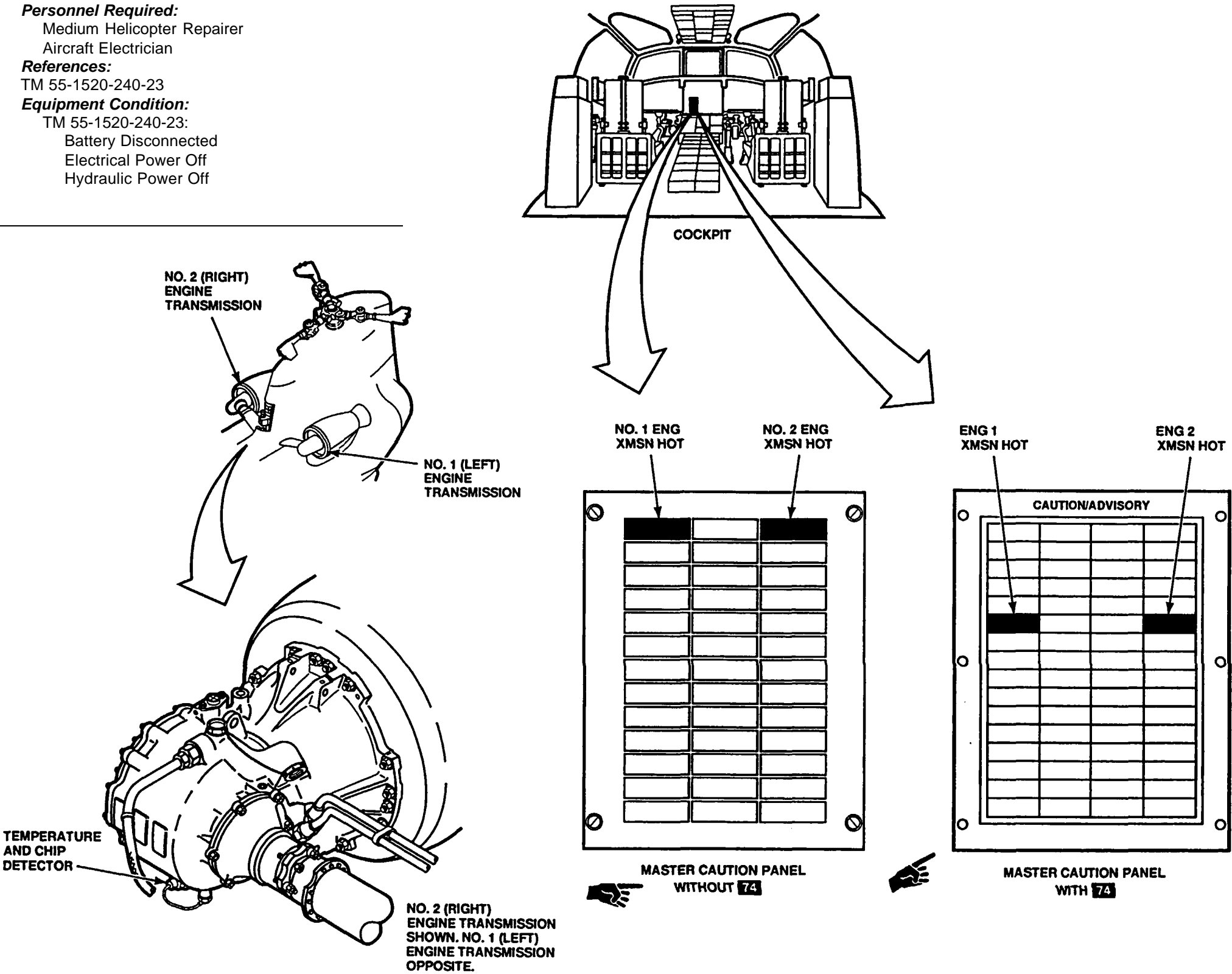
**Applicable Configurations:**

- All
- Tools:**
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
  - Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692
  - Multimeter

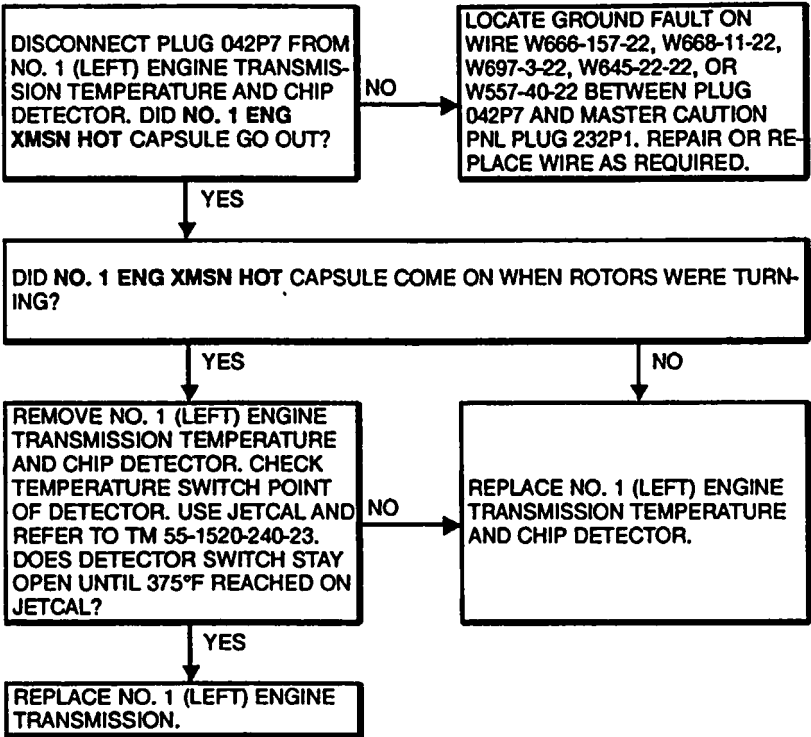
**Materials:**

None

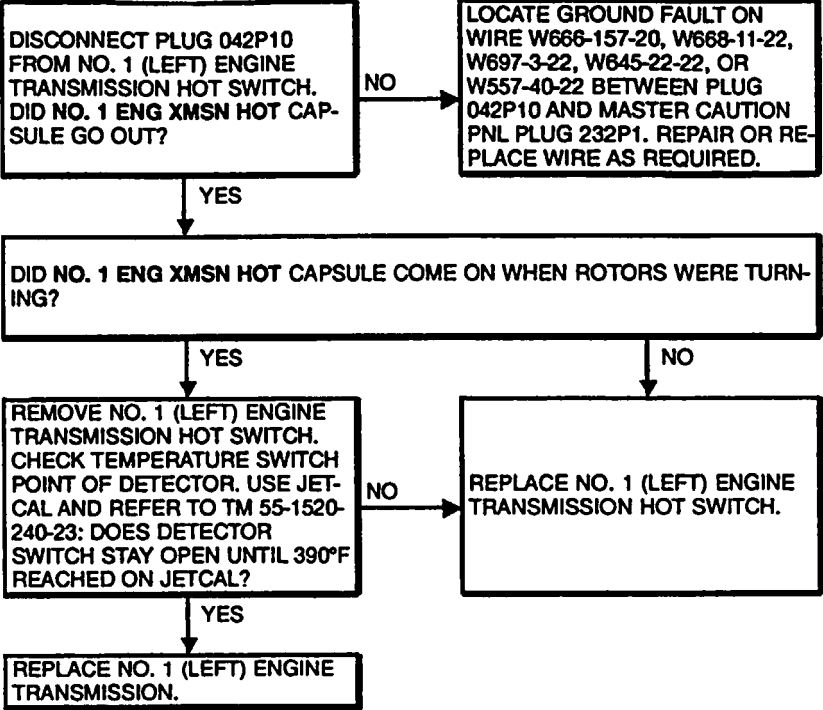
- Personnel Required:**
- Medium Helicopter Repairer
  - Aircraft Electrician
- References:**
- TM 55-1520-240-23
- Equipment Condition:**
- TM 55-1520-240-23:
  - Battery Disconnected
  - Electrical Power Off
  - Hydraulic Power Off



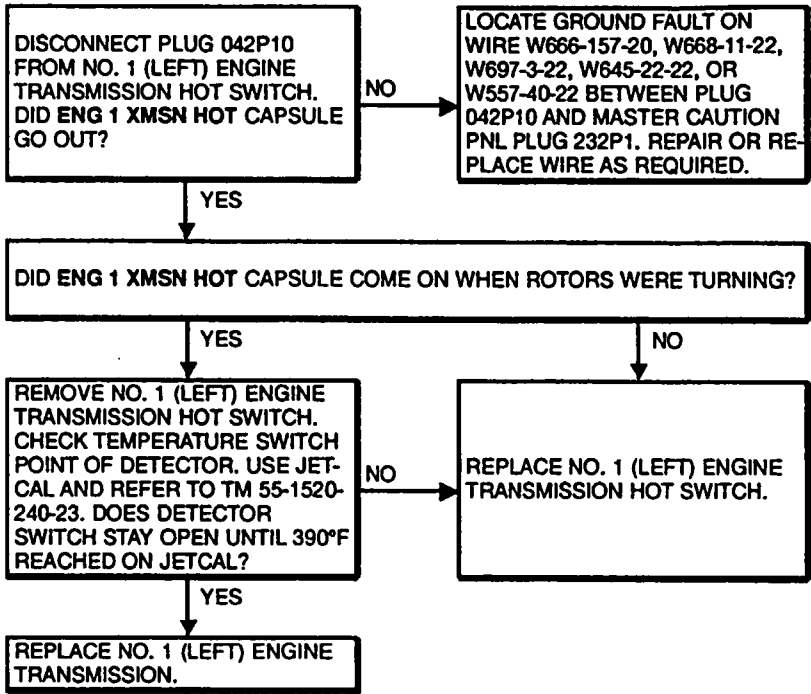
■ NO. 1 ENG XMSN HOT CAPSULE LIT (WITHOUT 37) (WITHOUT 74)



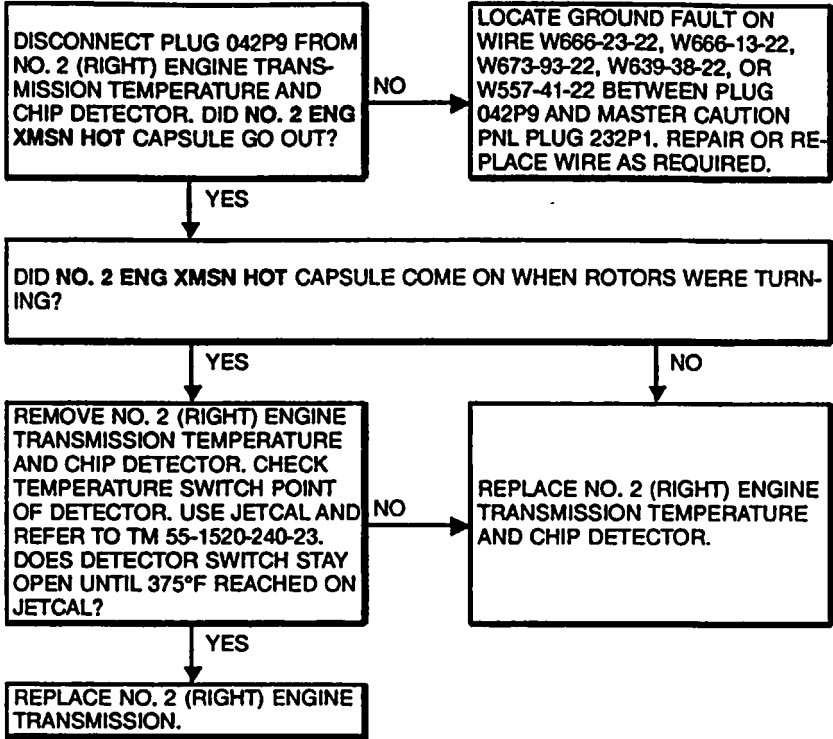
■ NO. 1 ENG XMSN HOT CAPSULE LIT (WITH 37) (WITHOUT 74)



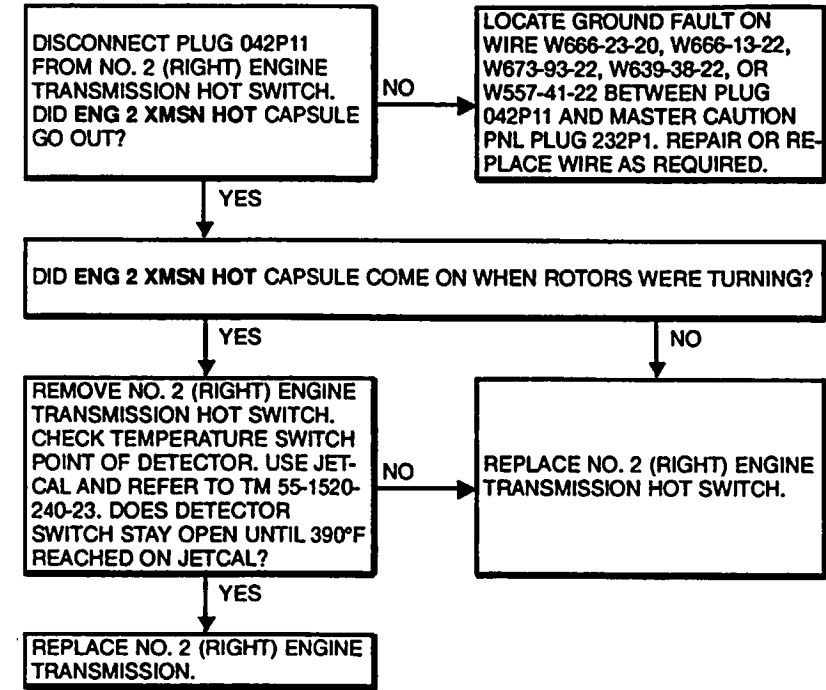
ENG 1 XMSN HOT CAPSULE LIT (WITH 37) (WITH 74)



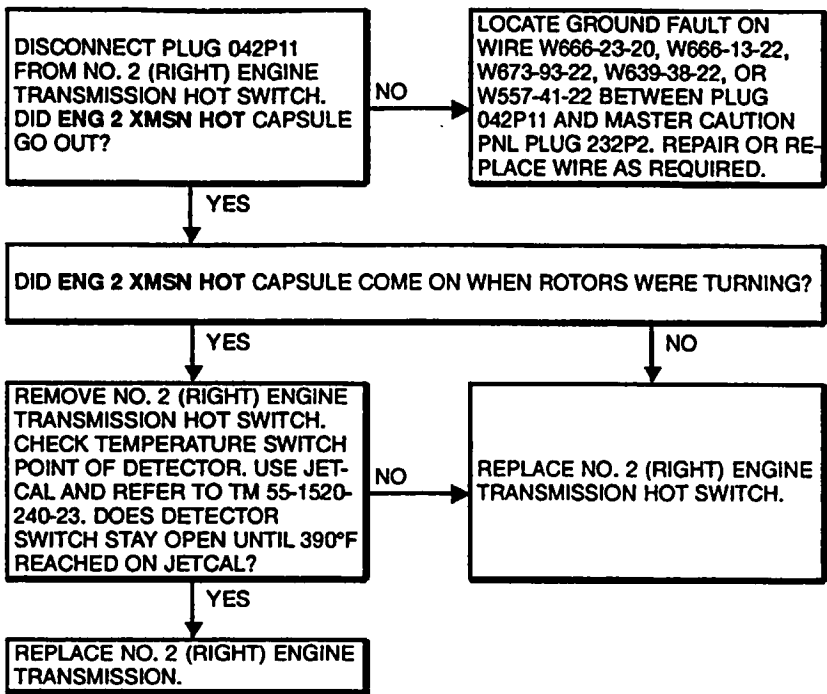
NO. 2 ENG XMSN HOT CAPSULE LIT (WITHOUT 37) (WITHOUT 74)



■ NO. 2 ENG XMSN HOT CAPSULE LIT (WITH 37 ) (WITHOUT 74 )



■ ENG 2 XMSN HOT CAPSULE LIT (WITH 37 ) (WITH 74 )





8-10.9 NO. 1 OR NO. 2 ENG XMSN HOT (WITHOUT 74), ENG 1 OR ENG 2 XMSN HOT (WITH 74) CAPSULE DOES NOT COME ON DURING TEST

8-10.9

FAULT ISOLATION PROCEDURE

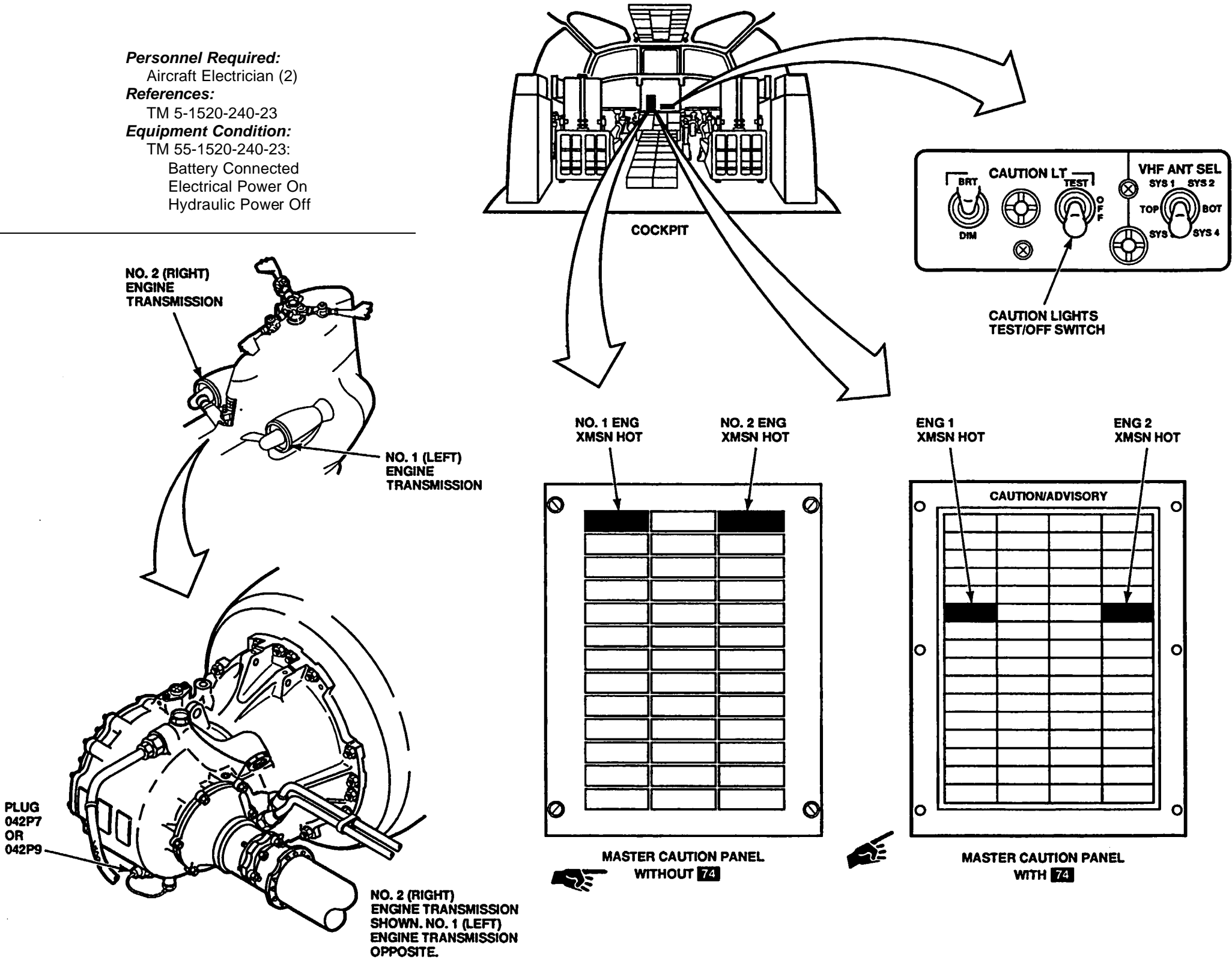
INITIAL SETUP

Applicable Configurations:

- Tools:
- Electrical Repairer's Tool Kit, NSN 5180-00323-4915
  - Multimeter

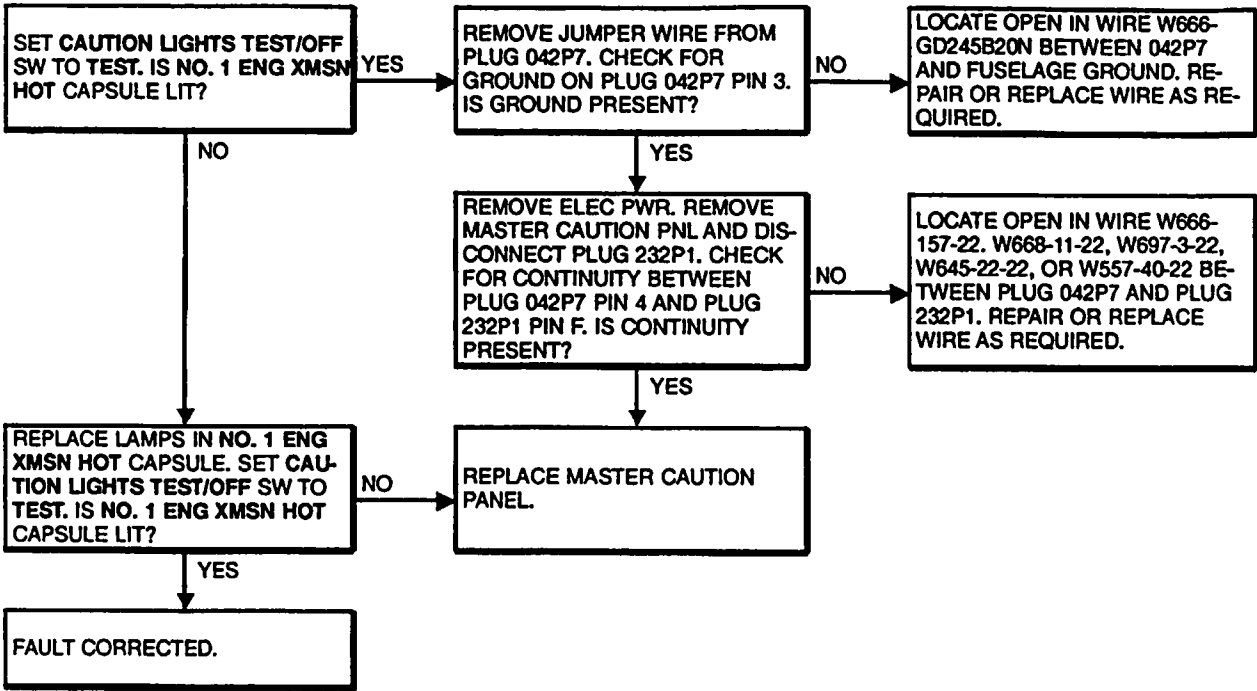
- Materials:
- None

- Personnel Required:
- Aircraft Electrician (2)
- References:
- TM 5-1520-240-23
- Equipment Condition:
- TM 55-1520-240-23:
  - Battery Connected
  - Electrical Power On
  - Hydraulic Power Off

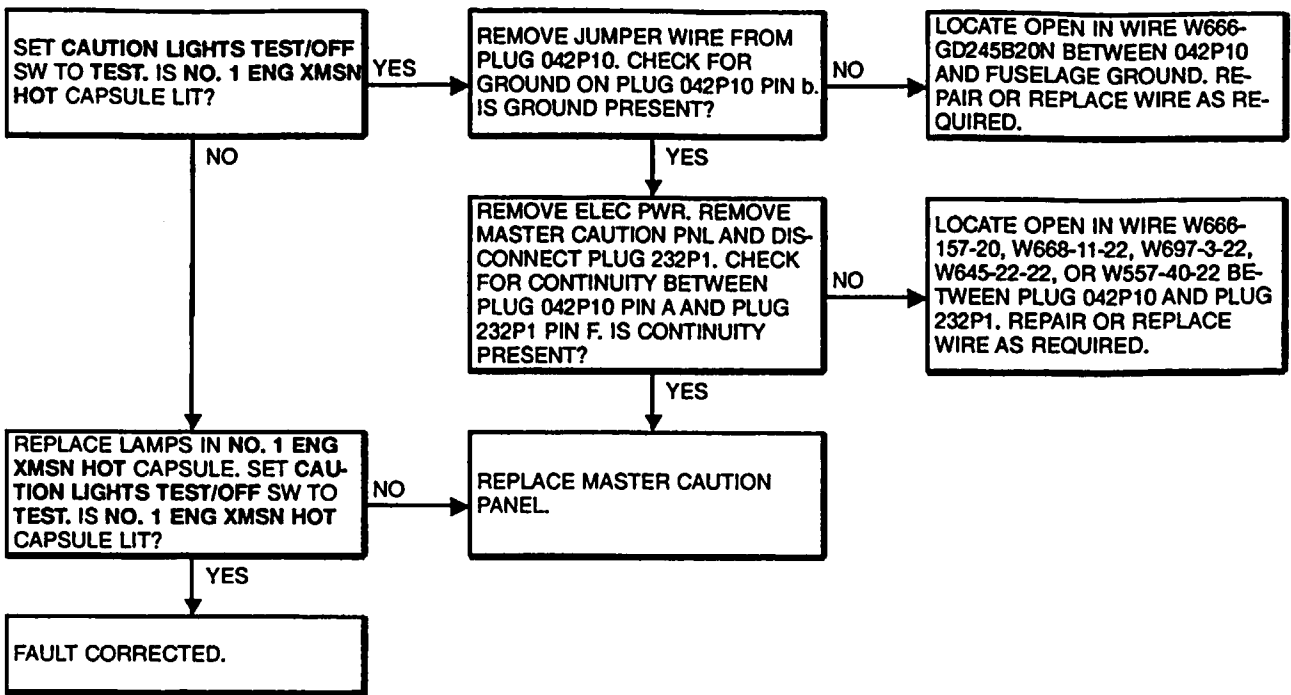


A65289

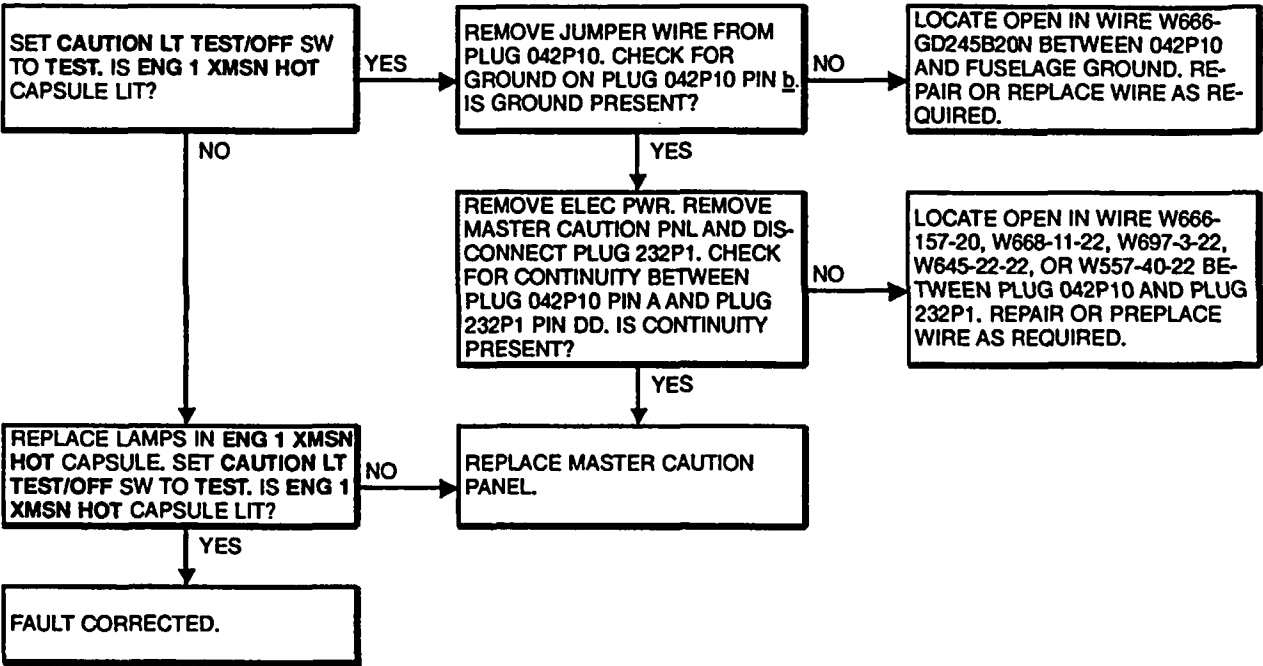
NO. 1 ENG XMSN HOT CAPSULE DOES NOT COME ON DURING TEST (WITHOUT 37 ) (WITHOUT 74 )



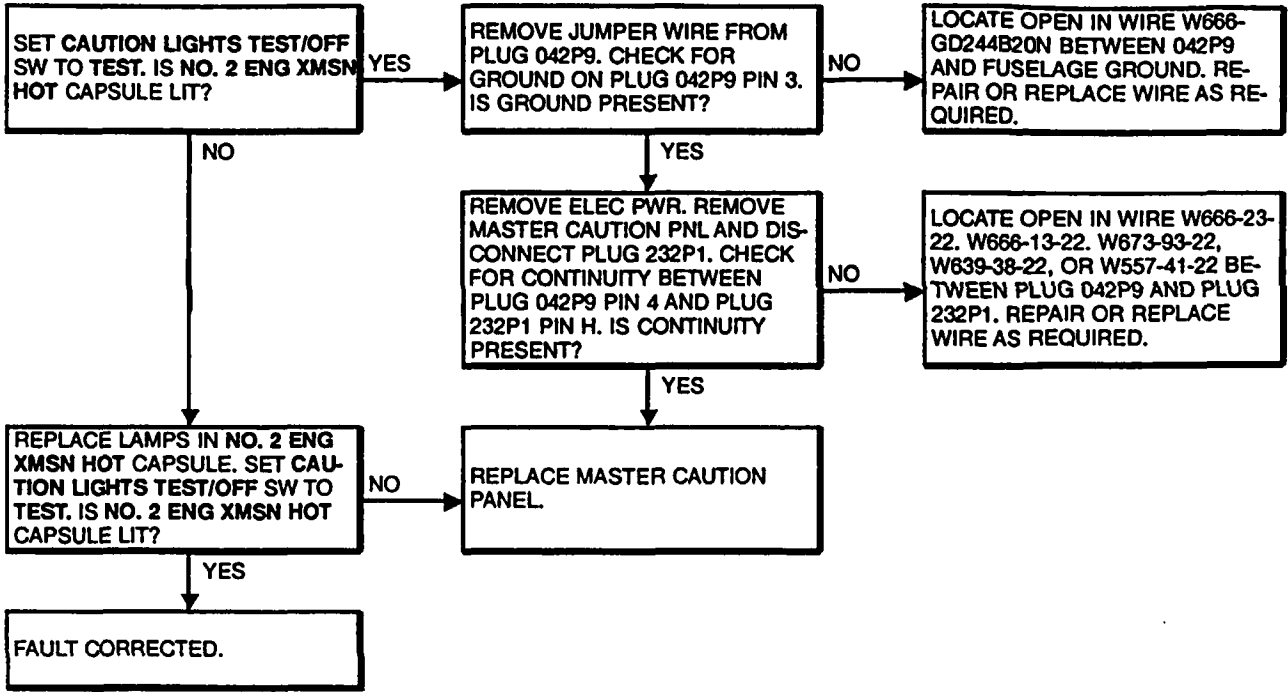
NO. 1 ENG XMSN HOT CAPSULE DOES NOT COME ON DURING TEST (WITH 37 ) (WITHOUT 74 )



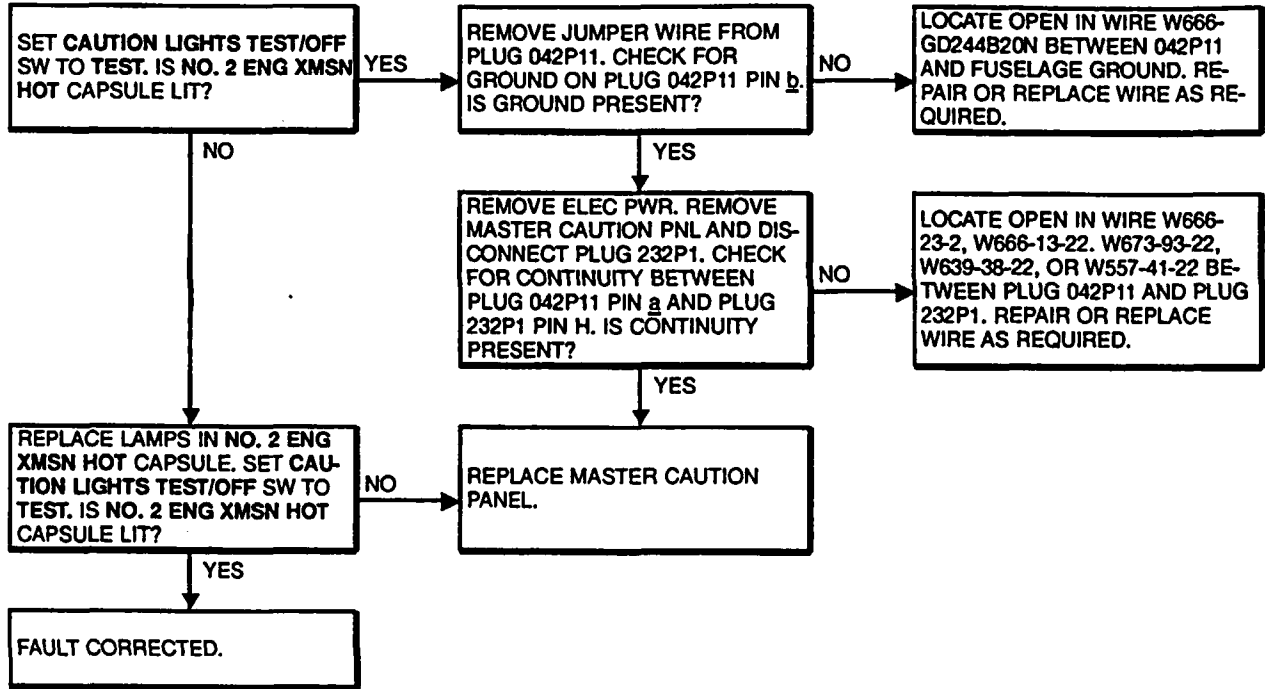
ENG 1 XMSN HOT CAPSULE DOES NOT COME ON DURING TEST (WITH 37 ) (WITH 74 )



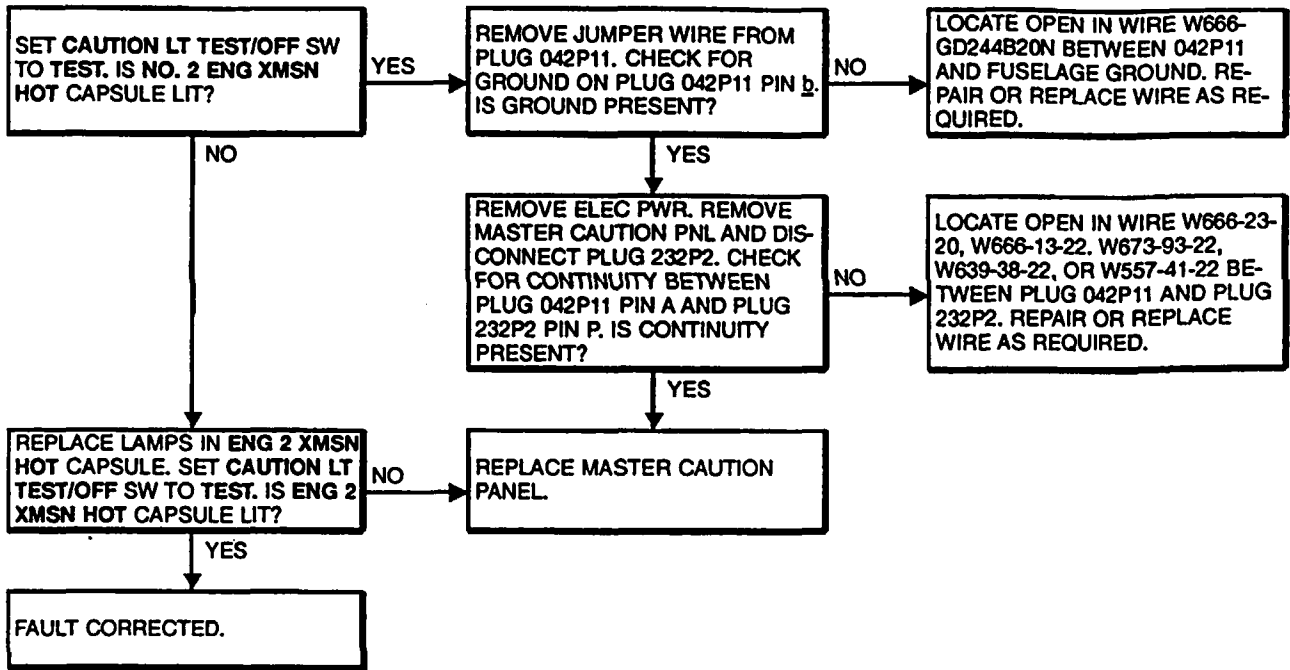
NO. 2 ENG XMSN HOT CAPSULE DOES NOT COME ON DURING TEST (WITHOUT 37 ) (WITHOUT 74 )



NO. 2 ENG XMSN HOT CAPSULE DOES NOT COME ON DURING TEST (WITH 37 ) (WITHOUT 74 )



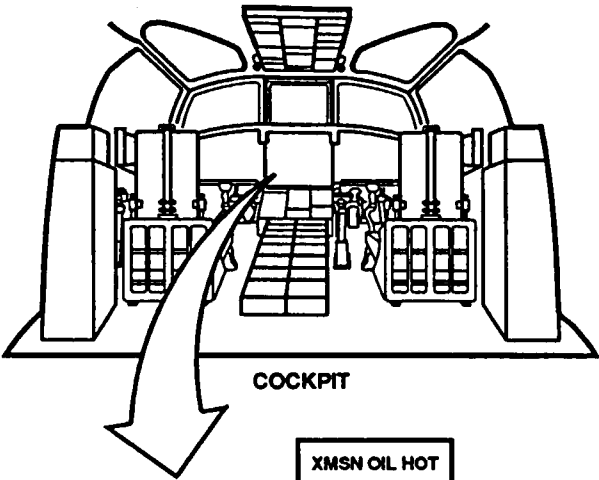
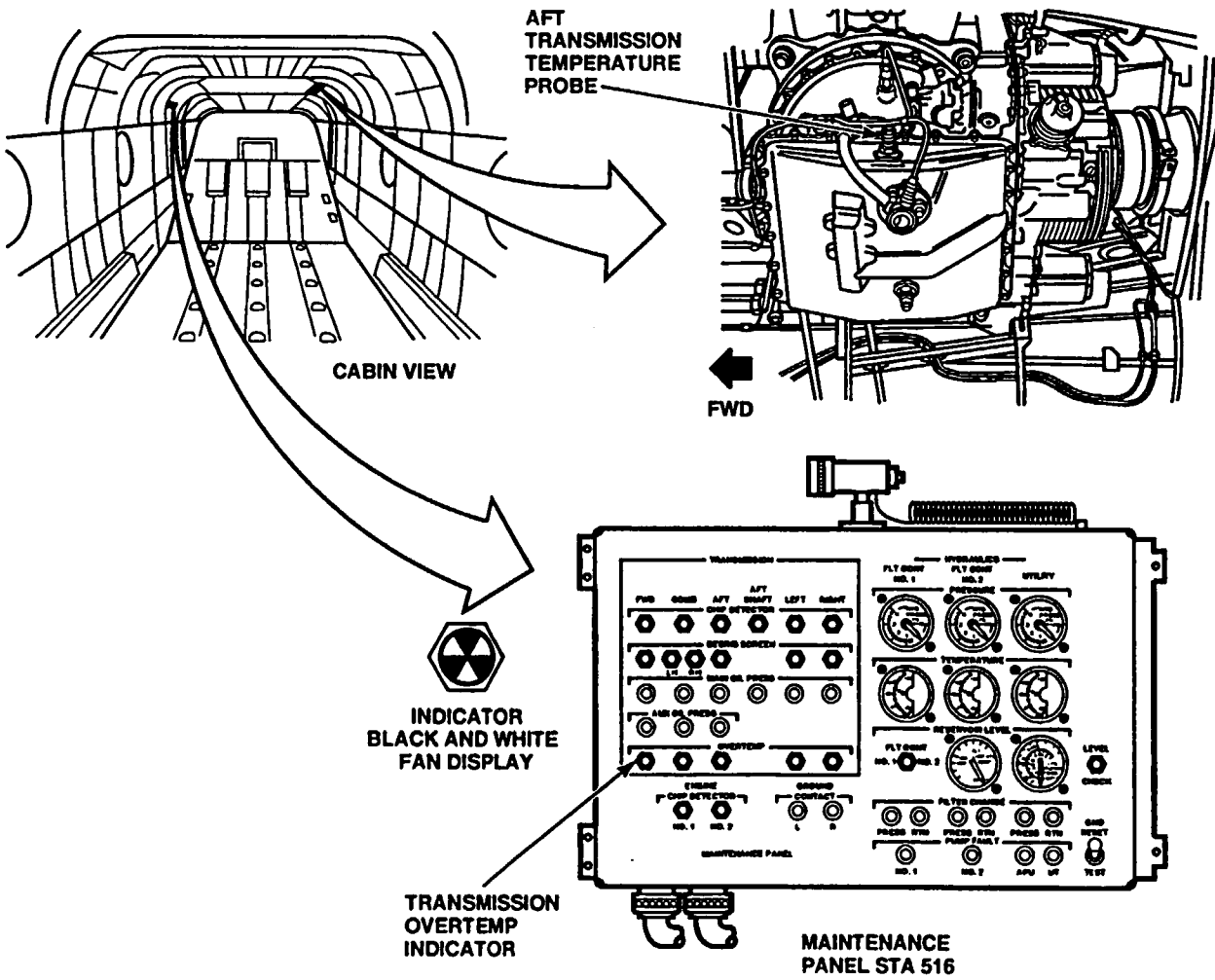
ENG 2 XMSN HOT CAPSULE DOES NOT COME ON DURING TEST (WITH 37 ) (WITH 74 )



FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
All  
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter  
**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

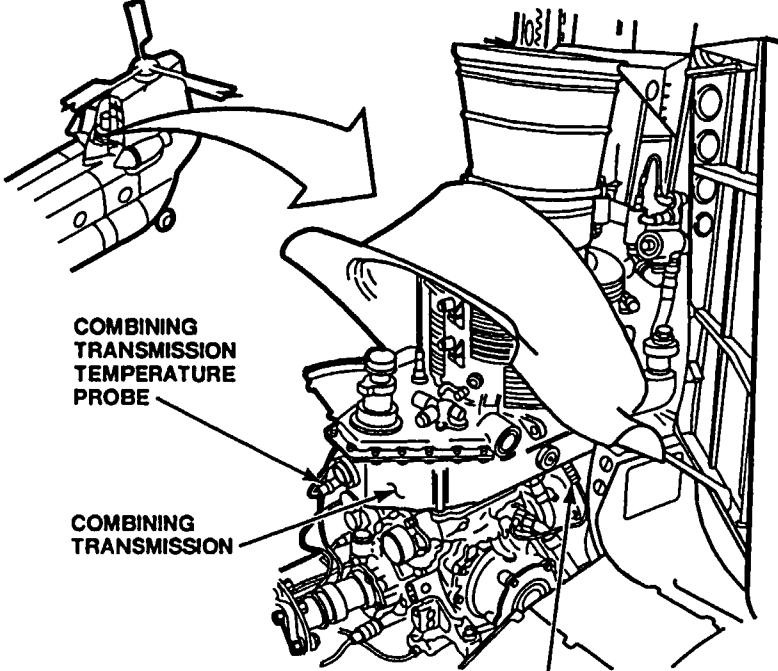


NO. 1 ENG	NO. 2 ENG
NO. 1 ENG	NO. 2 ENG
NO. 1 ENG	NO. 2 ENG
NO. 1 ENG	NO. 2 ENG
L. FUEL LOW	R. FUEL LOW
L. FUEL PRESS	R. FUEL PRESS
NO. 1 RECT	NO. 2 RECT
NO. 1 GEN OFF	NO. 2 GEN OFF
NO. 1 HYD	NO. 2 HYD
NO. 1 APCB	NO. 2 APCB
NO. 1 ENG	NO. 2 ENG
ONE SHIP	HEATER HOT
HYD HYD SYS	EXT FUEL
	FUEL BALANCE

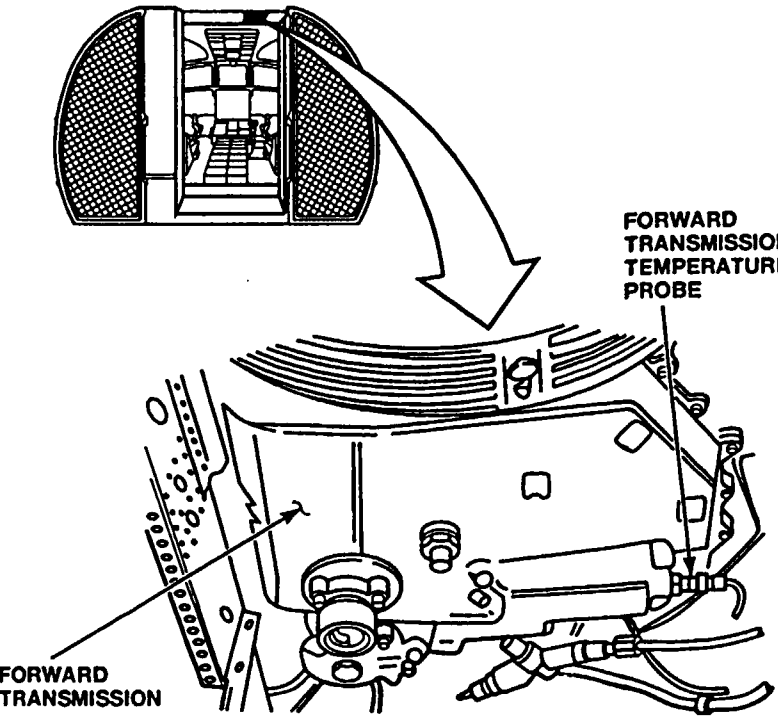
MASTER CAUTION PANEL WITHOUT 74

NO. 1 ENG	NO. 2 ENG
NO. 1 ENG	NO. 2 ENG
NO. 1 ENG	NO. 2 ENG
NO. 1 ENG	NO. 2 ENG
L. FUEL LOW	R. FUEL LOW
L. FUEL PRESS	R. FUEL PRESS
NO. 1 RECT	NO. 2 RECT
NO. 1 GEN OFF	NO. 2 GEN OFF
NO. 1 HYD	NO. 2 HYD
NO. 1 APCB	NO. 2 APCB
NO. 1 ENG	NO. 2 ENG
ONE SHIP	HEATER HOT
HYD HYD SYS	EXT FUEL
	FUEL BALANCE

MASTER CAUTION PANEL WITH 74

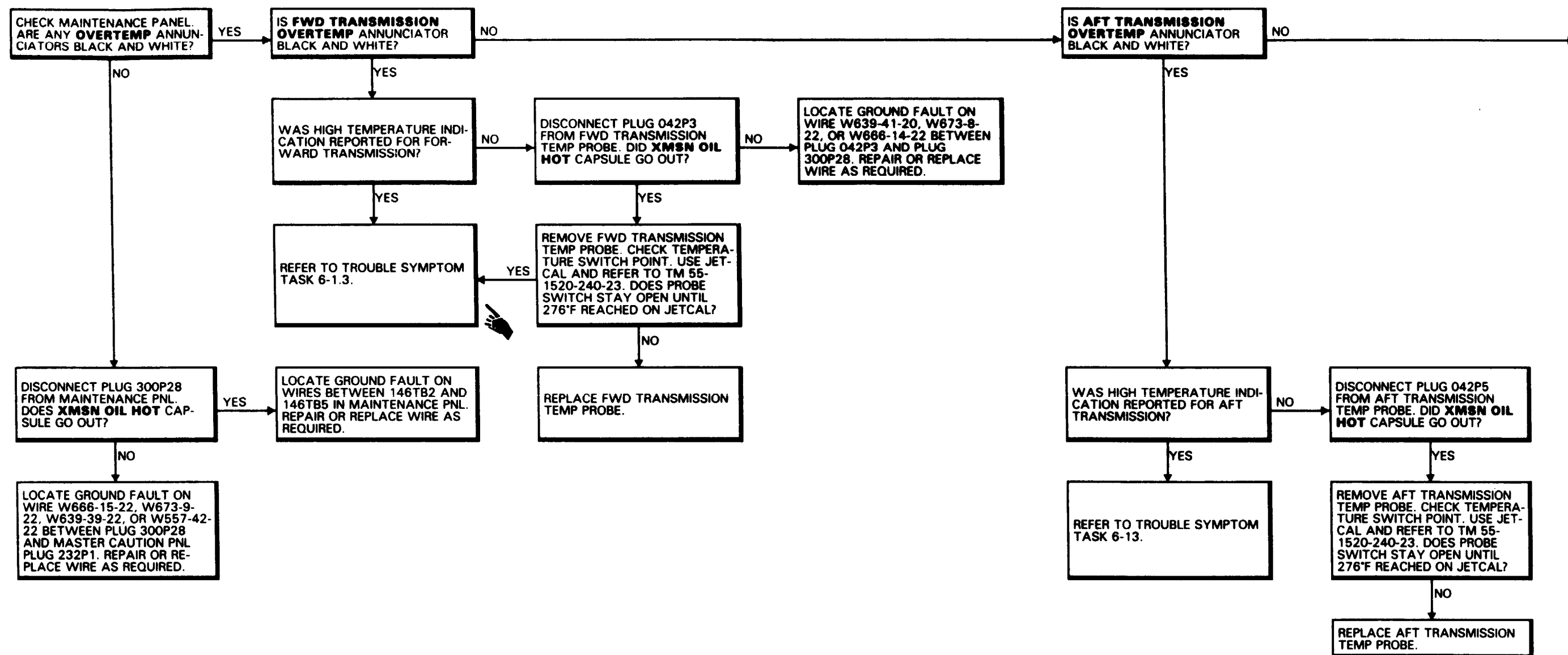


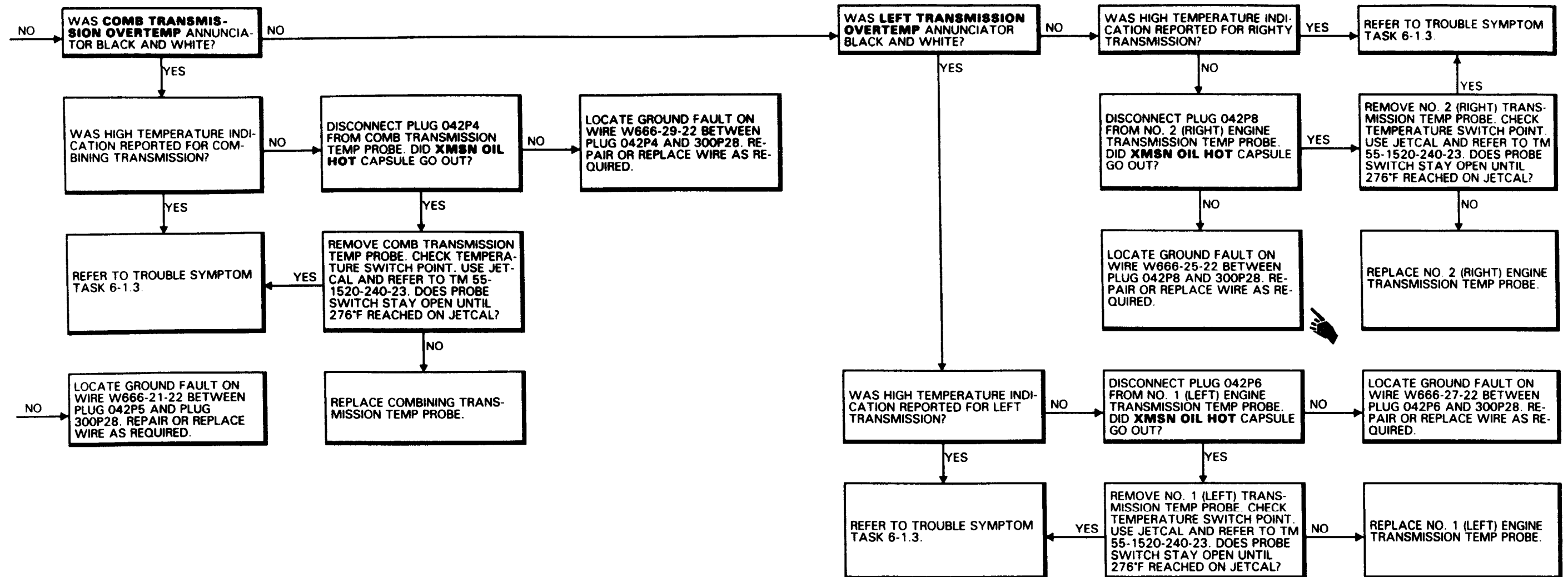
NO. 1 (LEFT) ENGINE TRANSMISSION TEMPERATURE PROBE SHOWN  
NO. 2 (RIGHT) ENGINE TRANSMISSION TEMPERATURE PROBE OPPOSITE

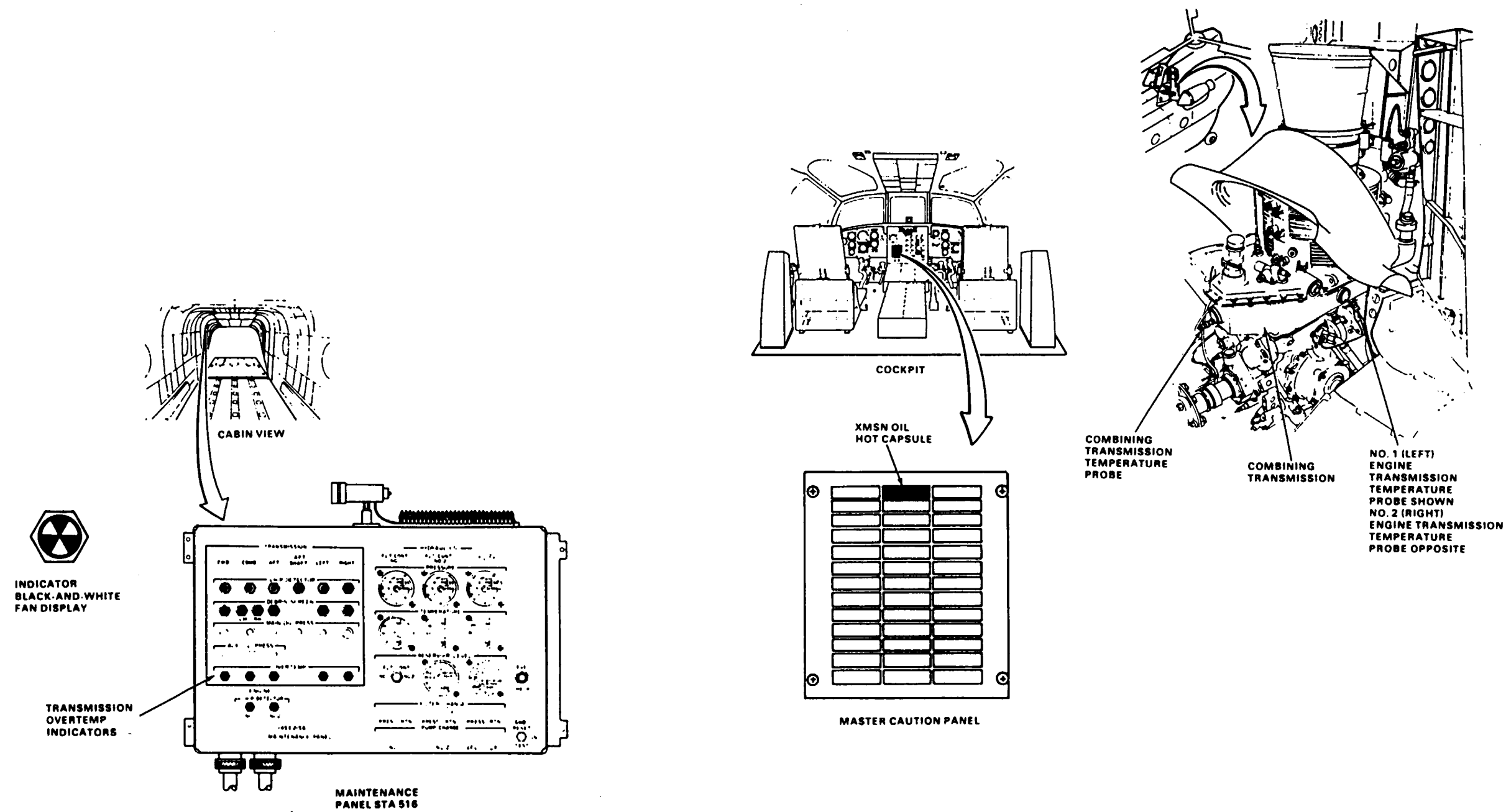


## 8-10.10 XMSN OIL HOT CAPSULE LIT (Continued)

8-10.10









FAULT ISOLATION PROCEDURE

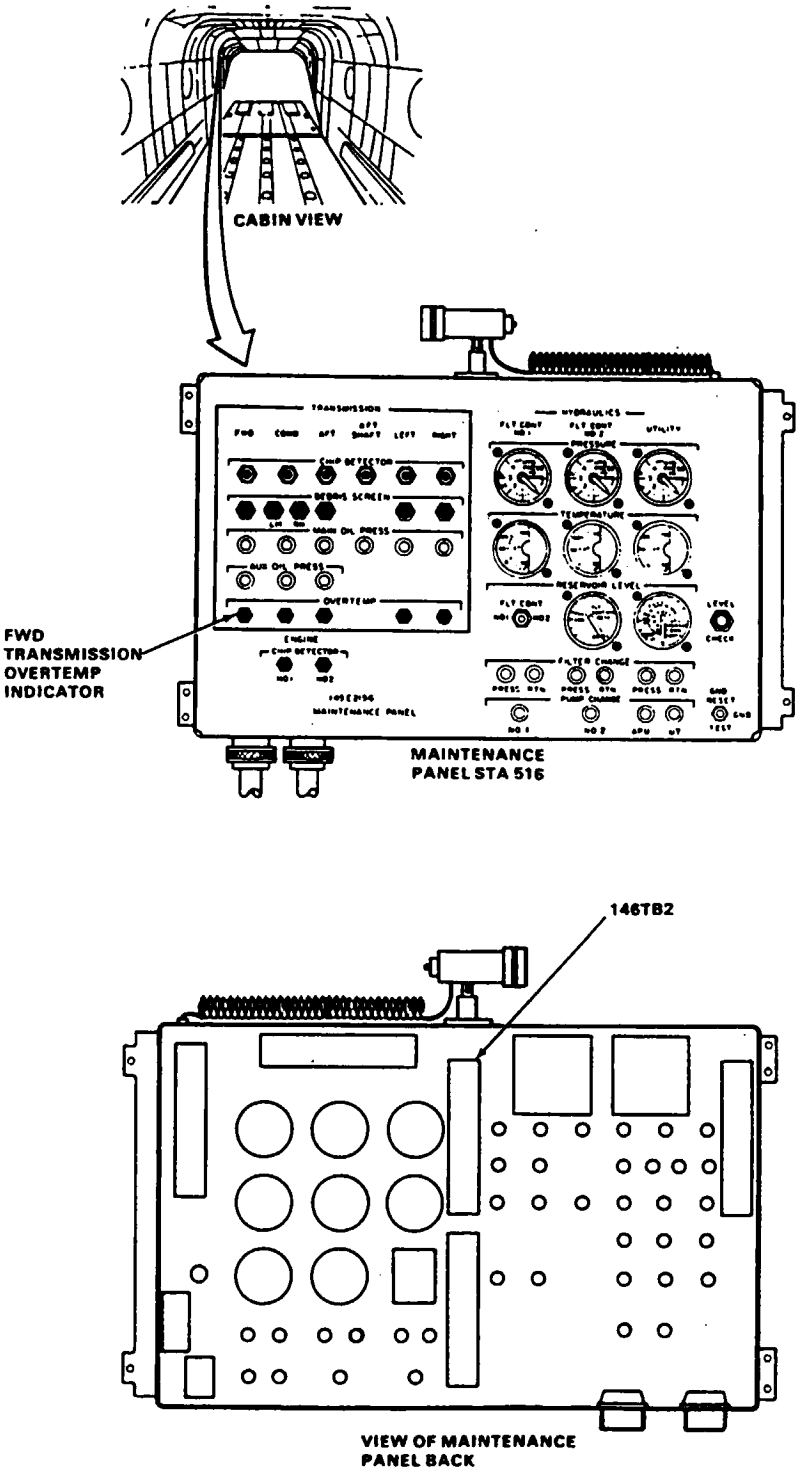
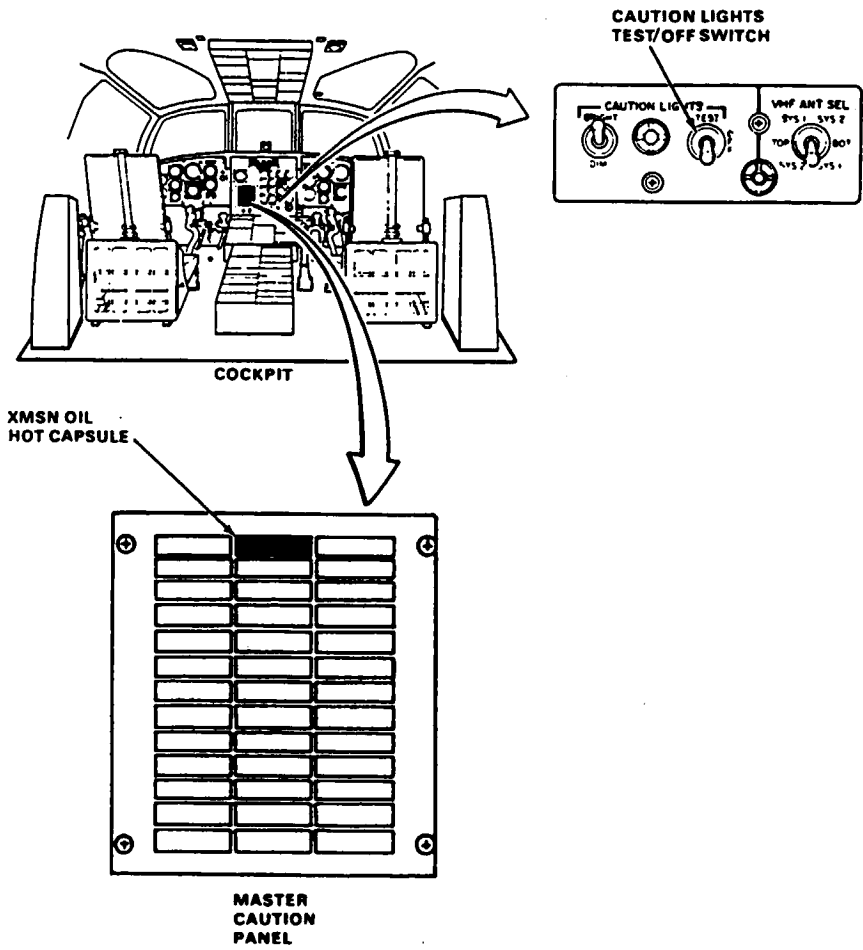
INITIAL SETUP

Applicable Configurations:  
Without 74

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician  
References:  
TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

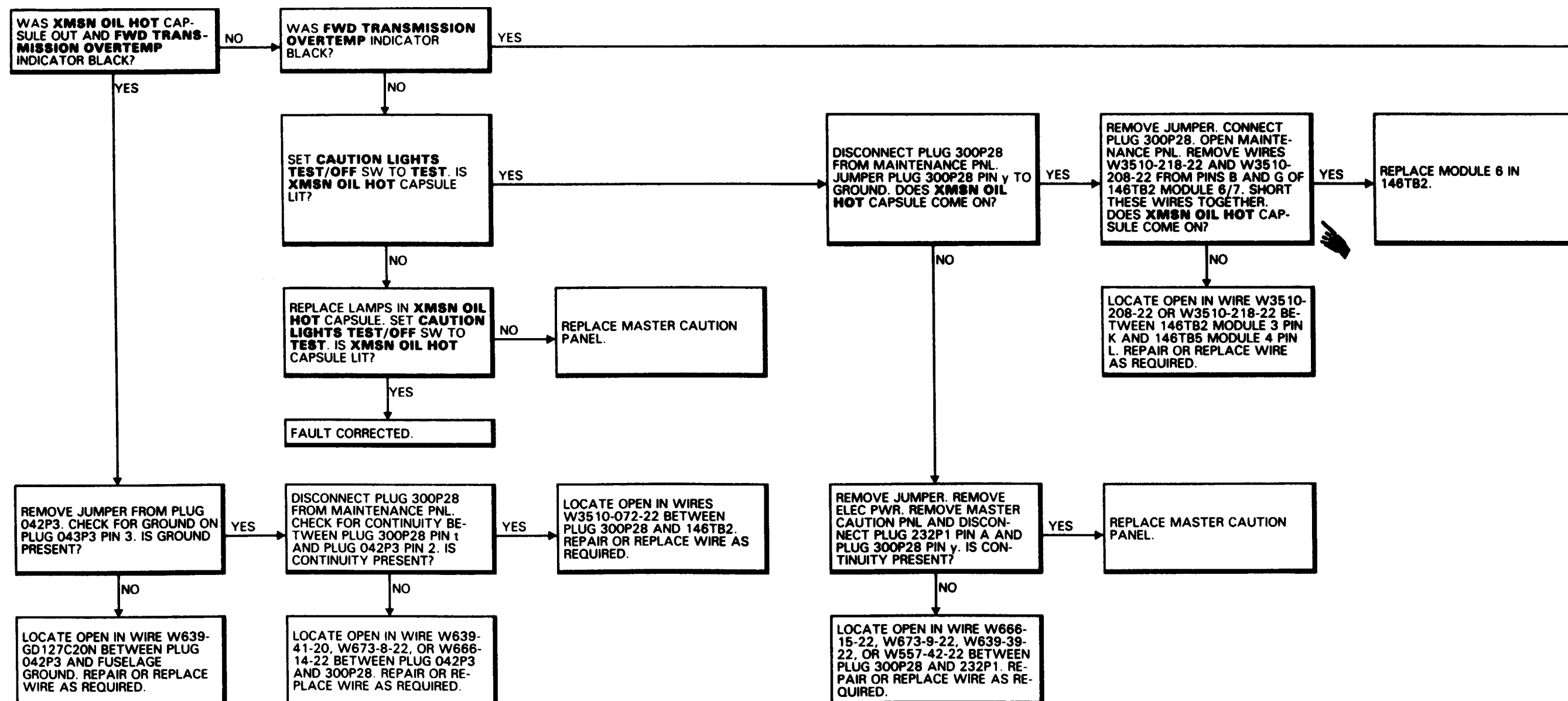


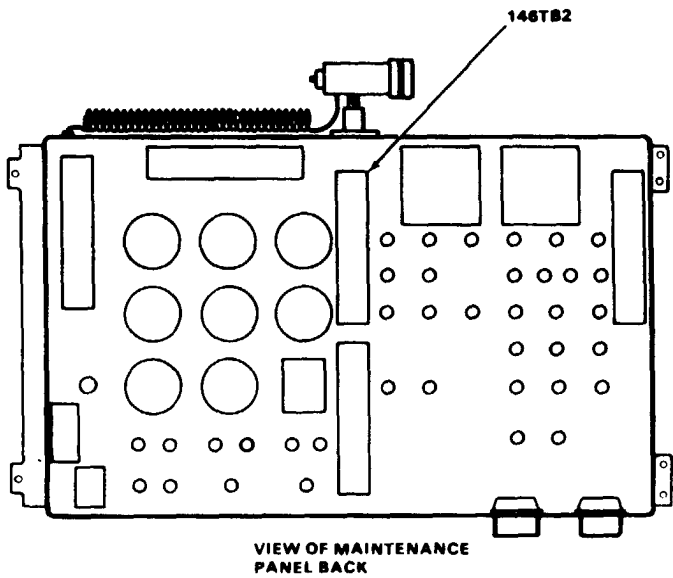
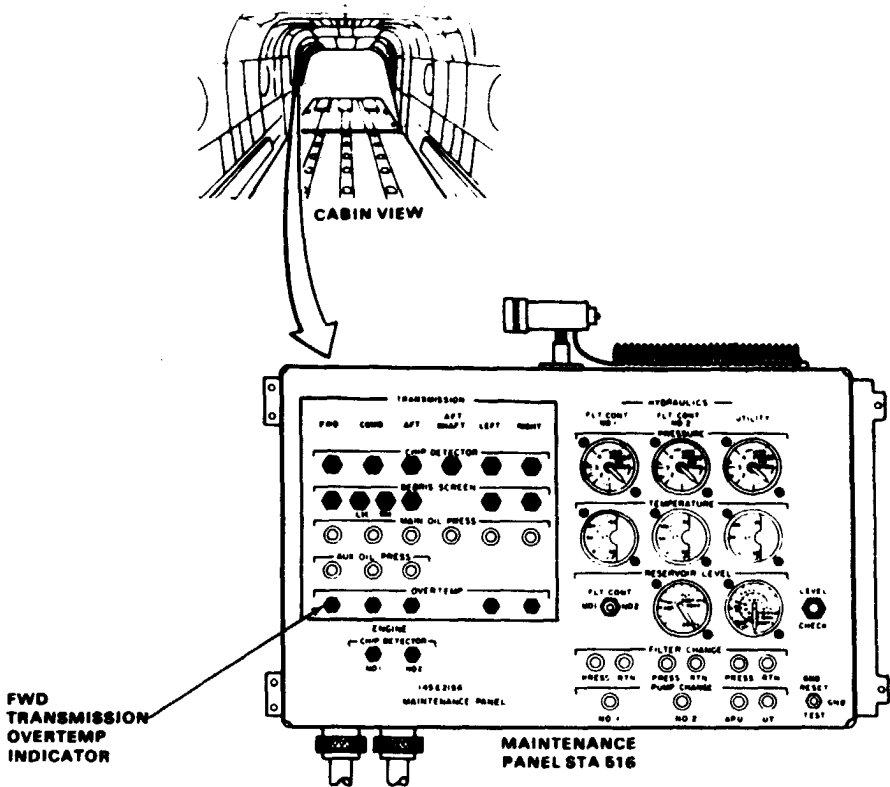
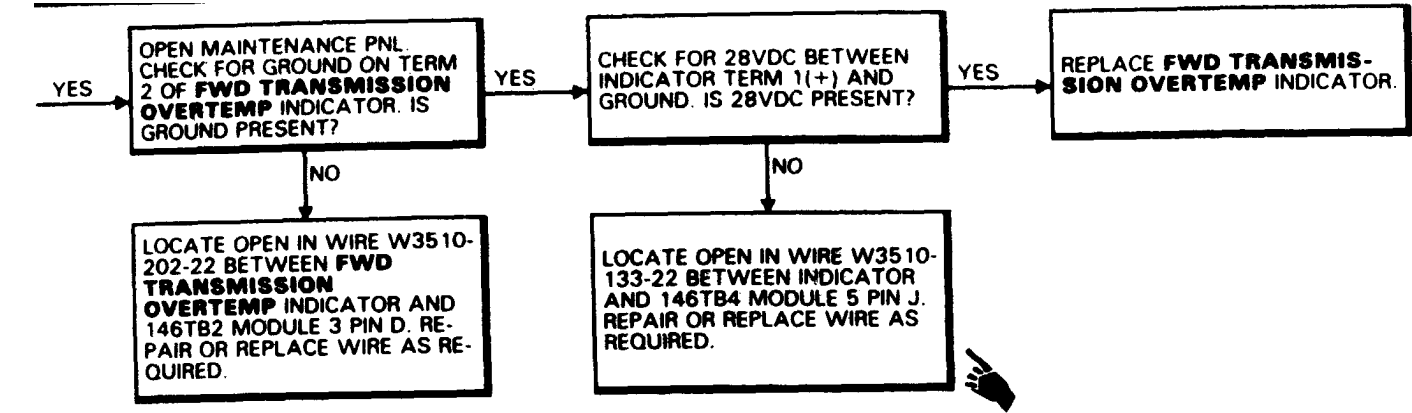
90x54

D145 - 11120 - SPA

## 8-10.11 XMSN OIL HOT CAPSULE LIT OR FWD TRANSMISSION OVERTEMP INDICATOR IS BLACK DURING TEST (Continued)

8-10.11

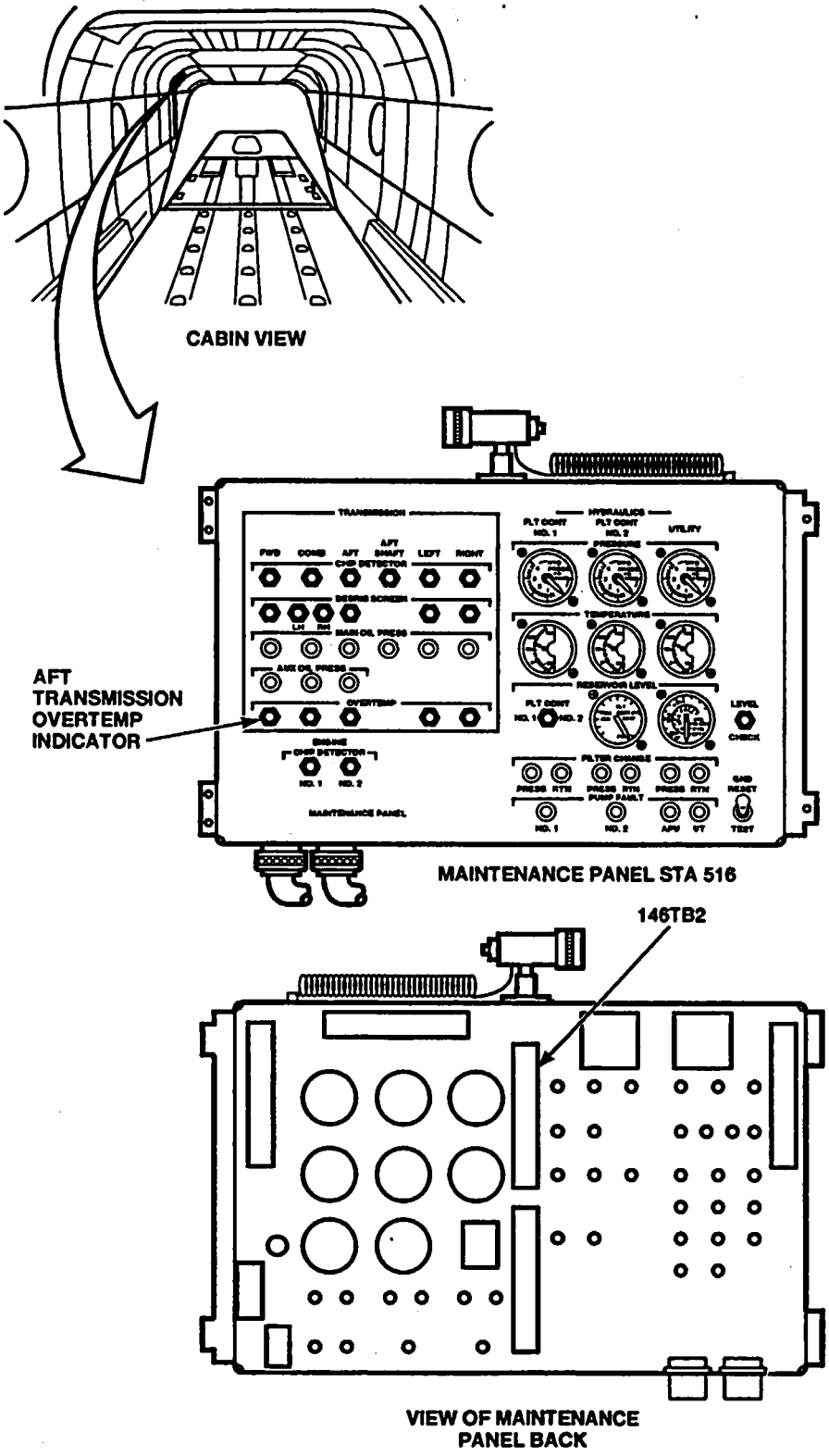
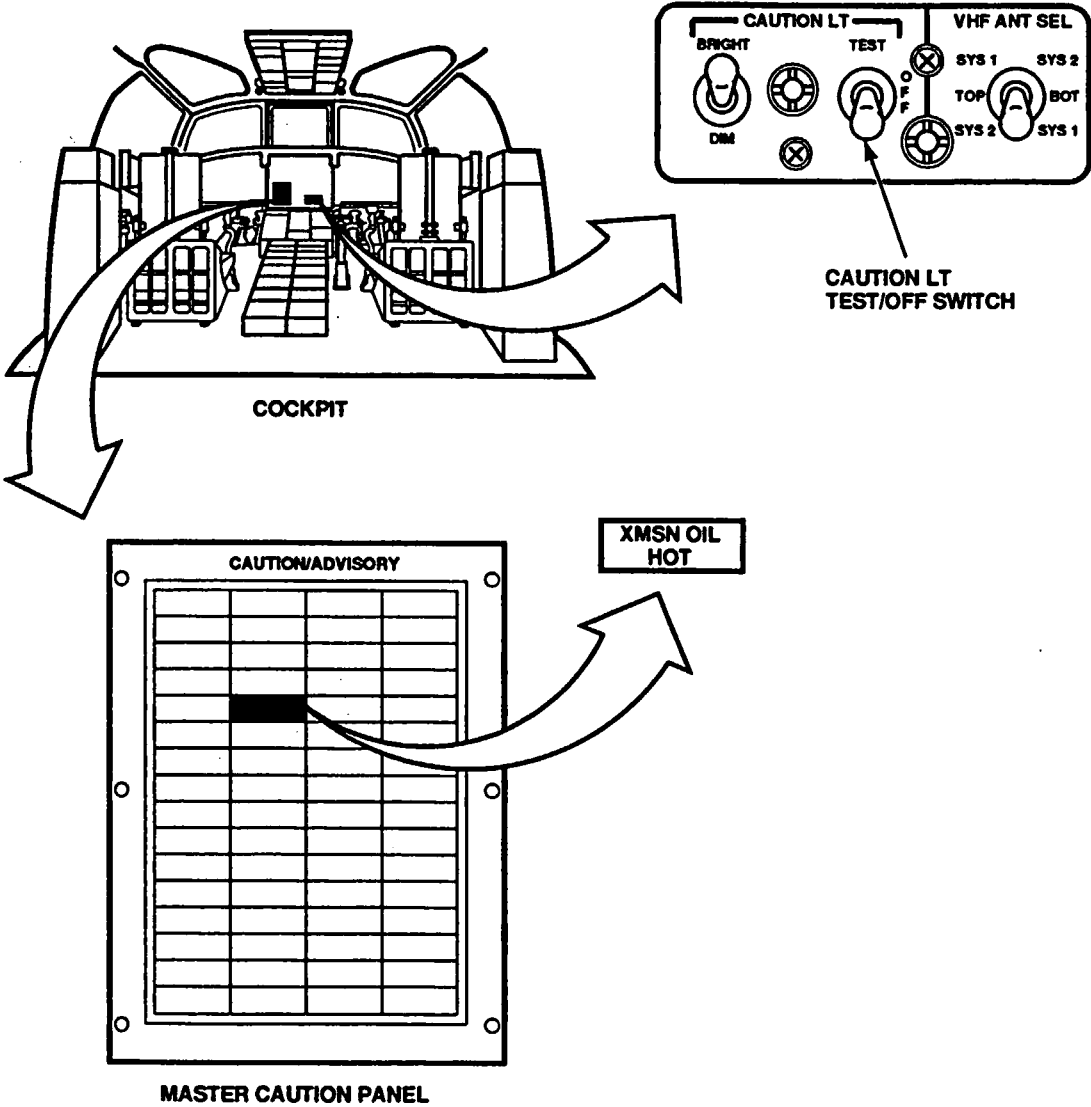


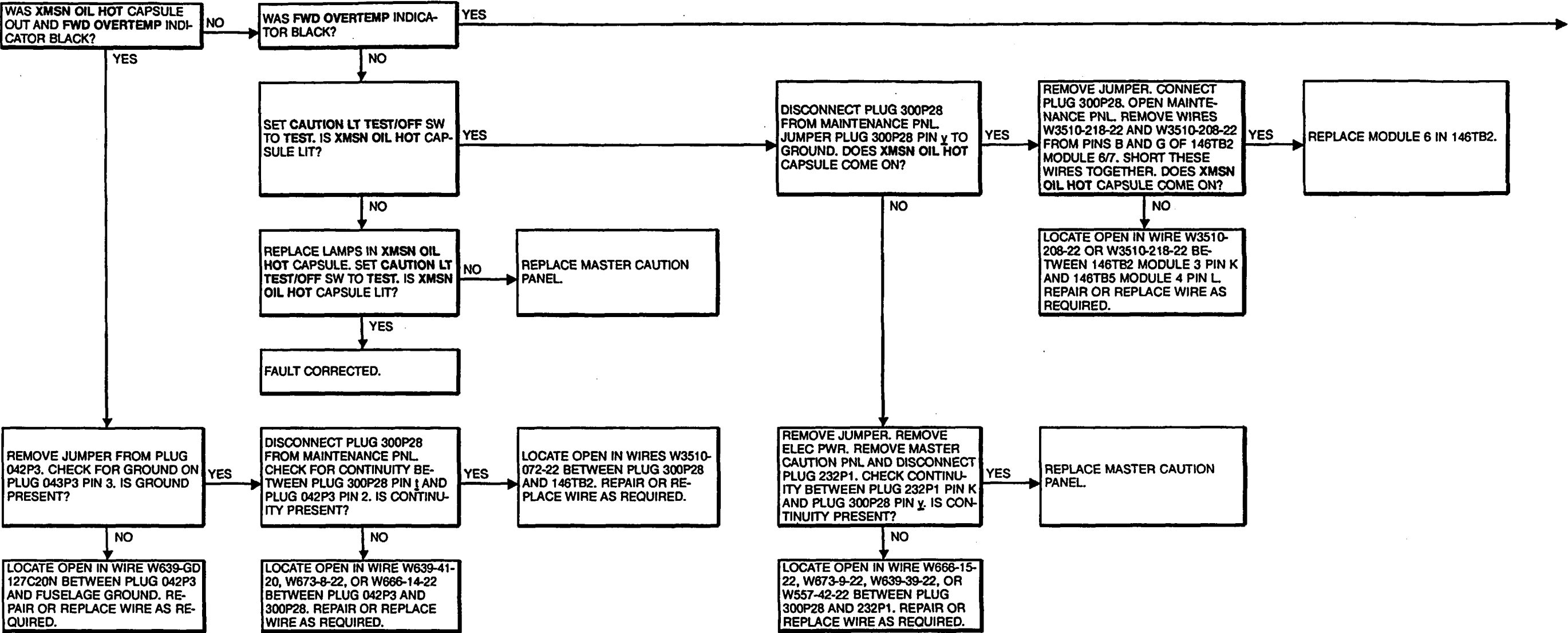


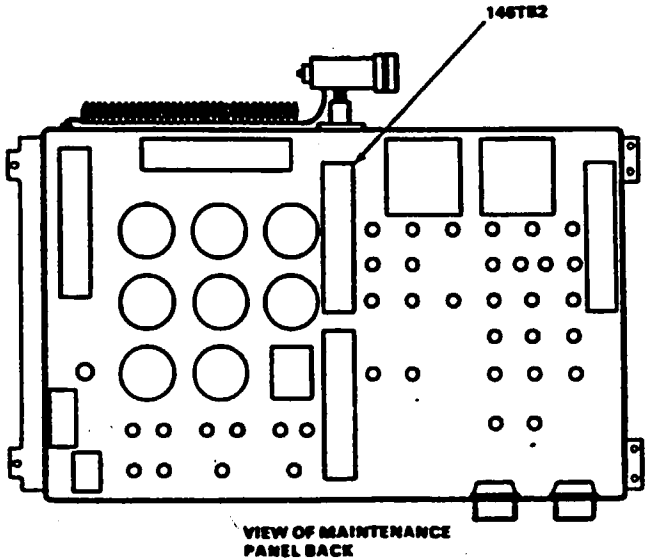
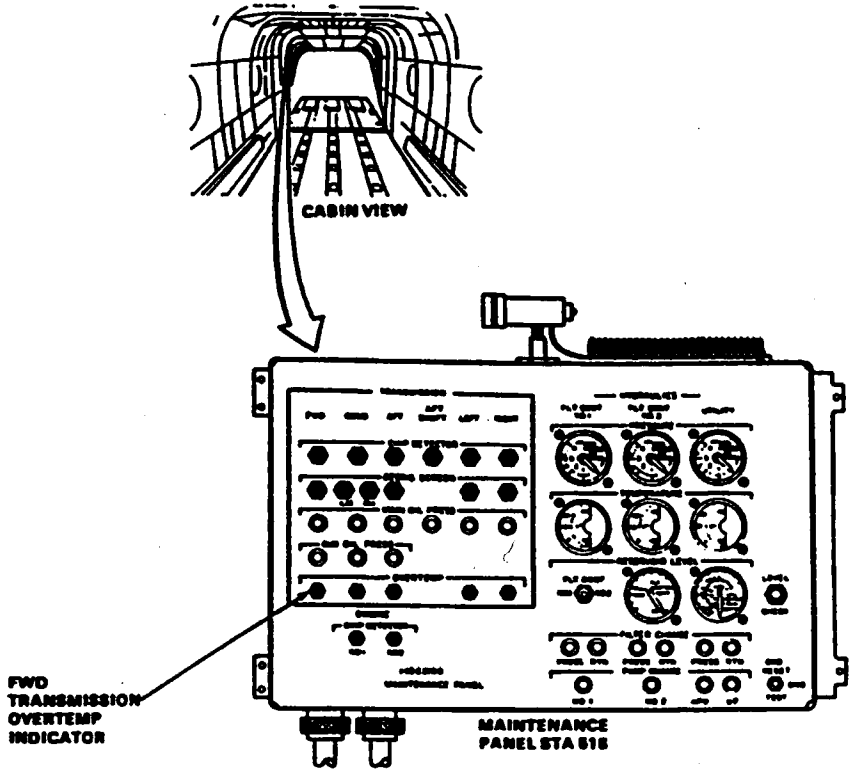
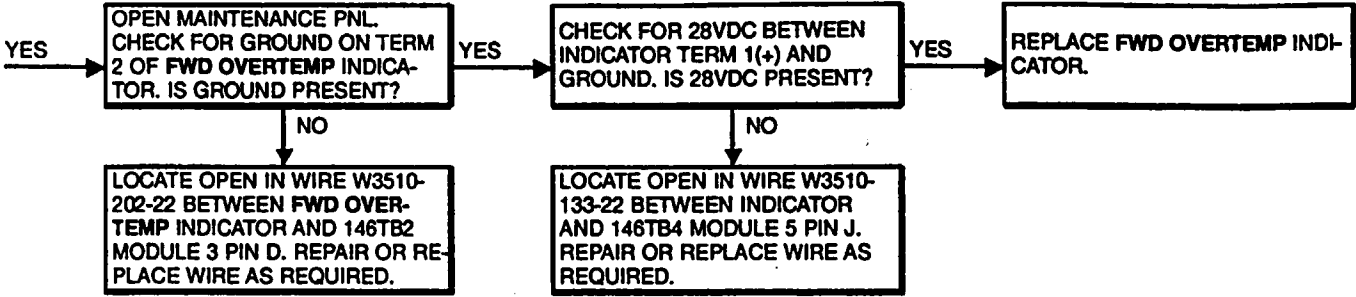
FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
With 74  
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-3234915  
Multimeter  
**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off







FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer's Tool Kit, NSN 5180-00-323-4915
  - Multimeter

Materials:

None

Personnel Required:

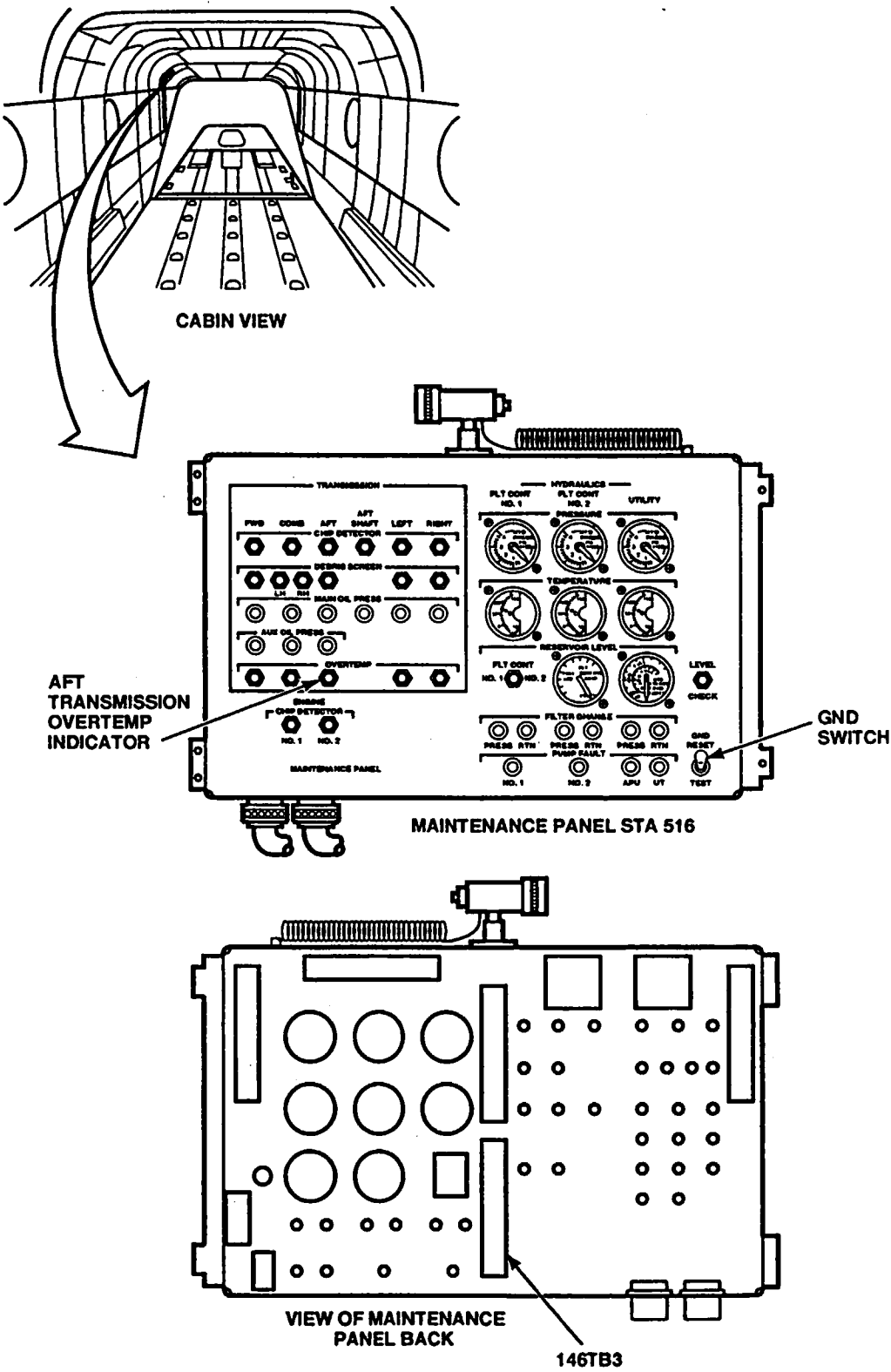
Aircraft Electrician

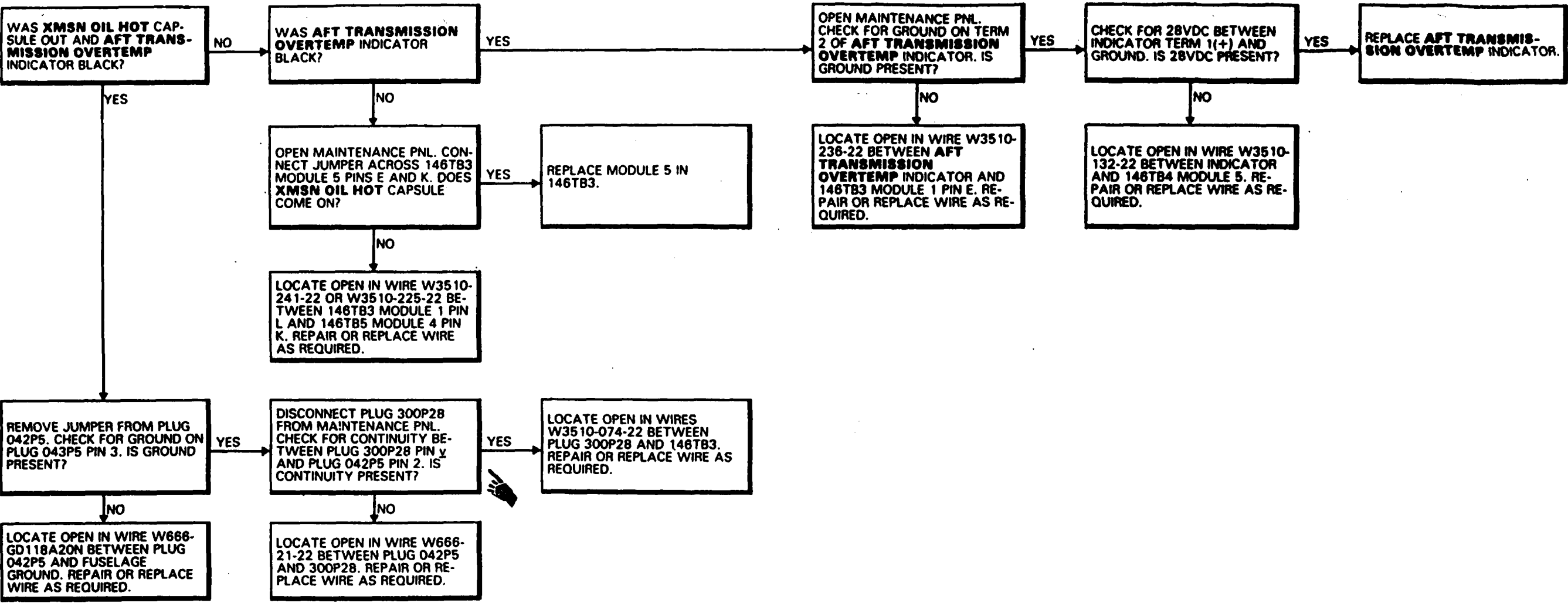
References:

TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
  - Electrical Power On
  - Hydraulic Power Off







FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer's Tool Kit, NSN 5180-00-3234915
  - Multimeter

Materials:

- None

Personnel Required:

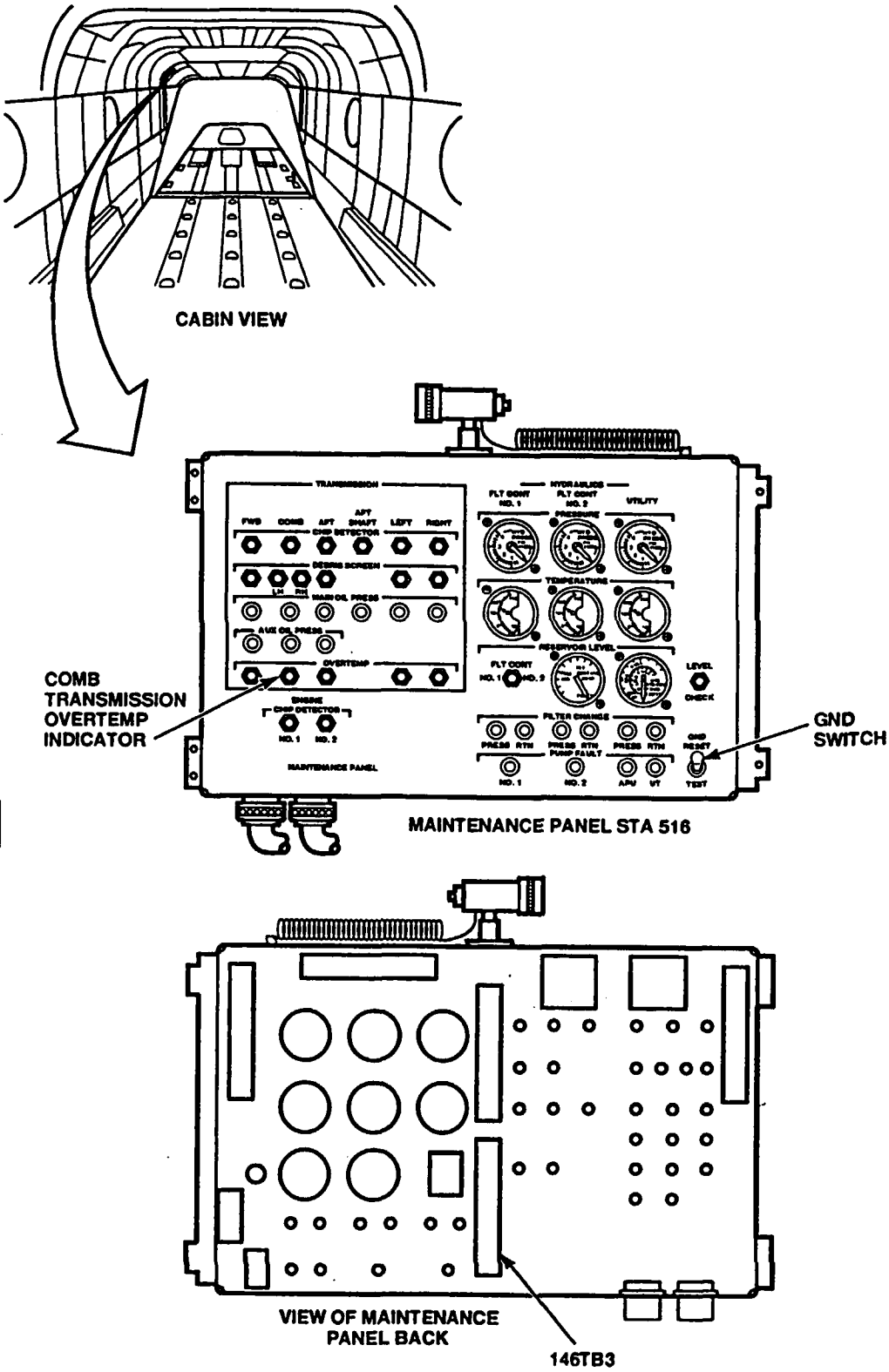
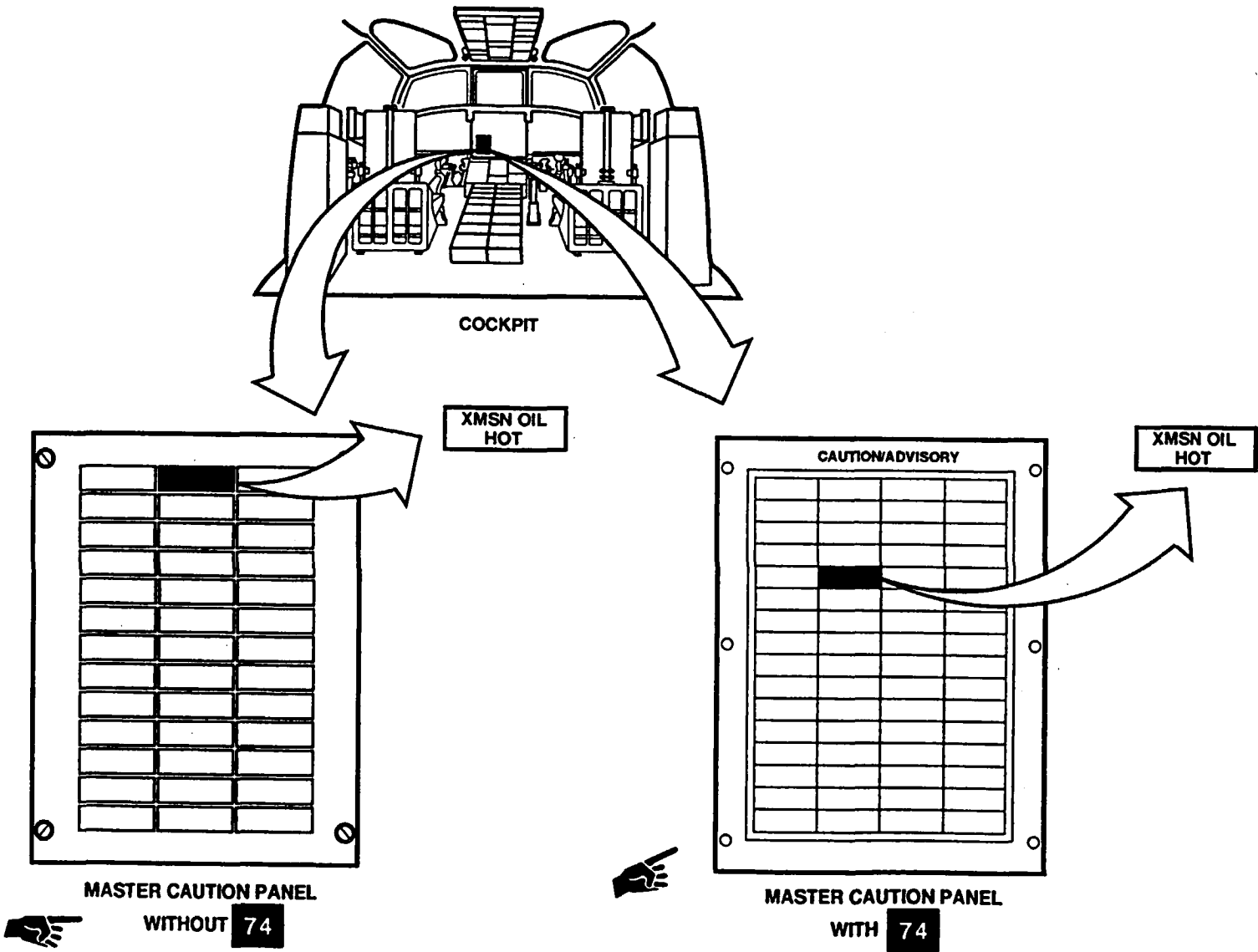
- Aircraft Electrician

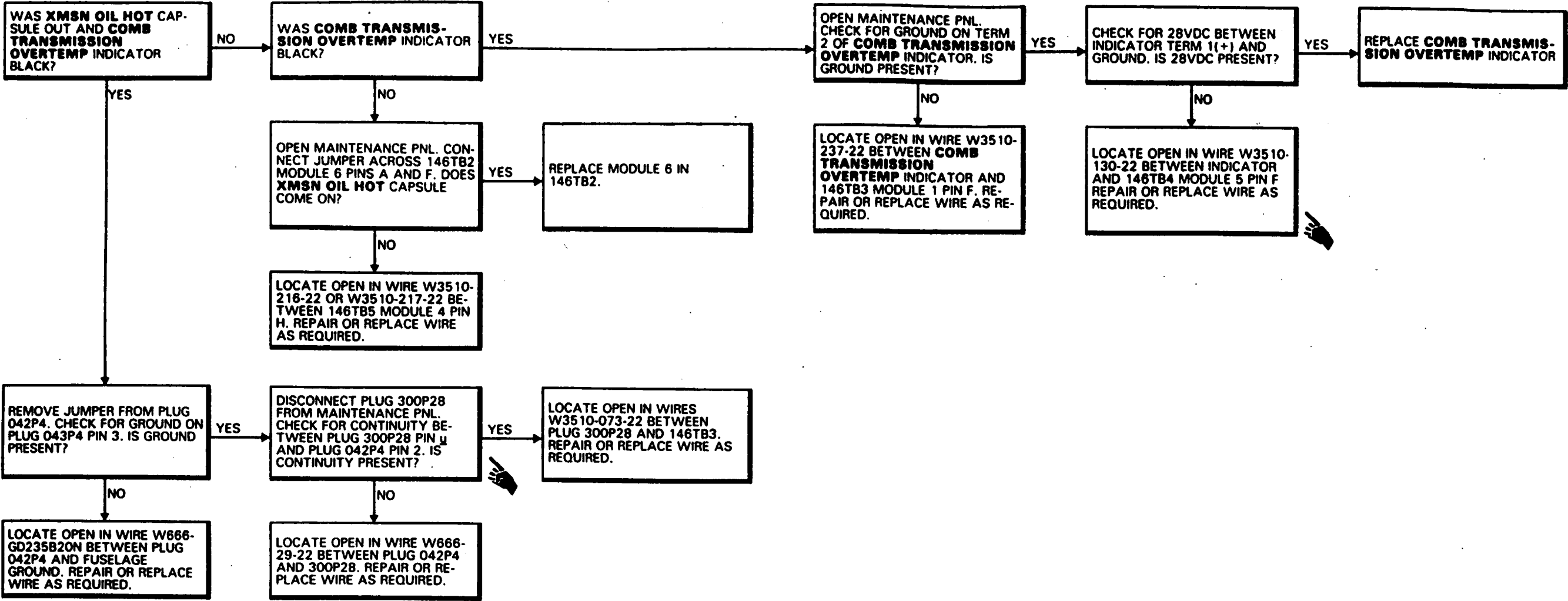
References:

- TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer's Tool Kit, NSN 5180-00-323-4915
  - Multimeter

Materials:

None

Personnel Required:

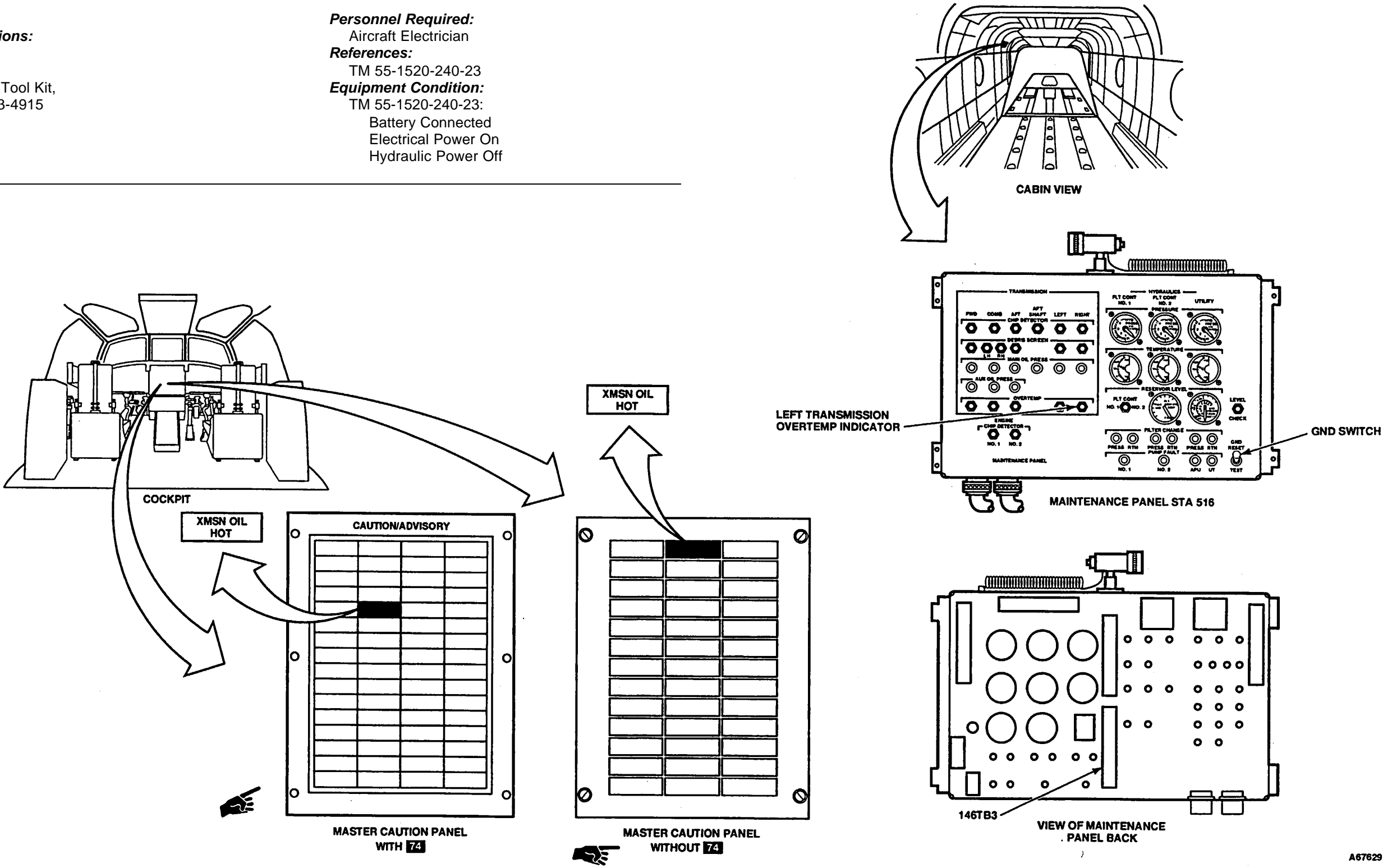
Aircraft Electrician

References:

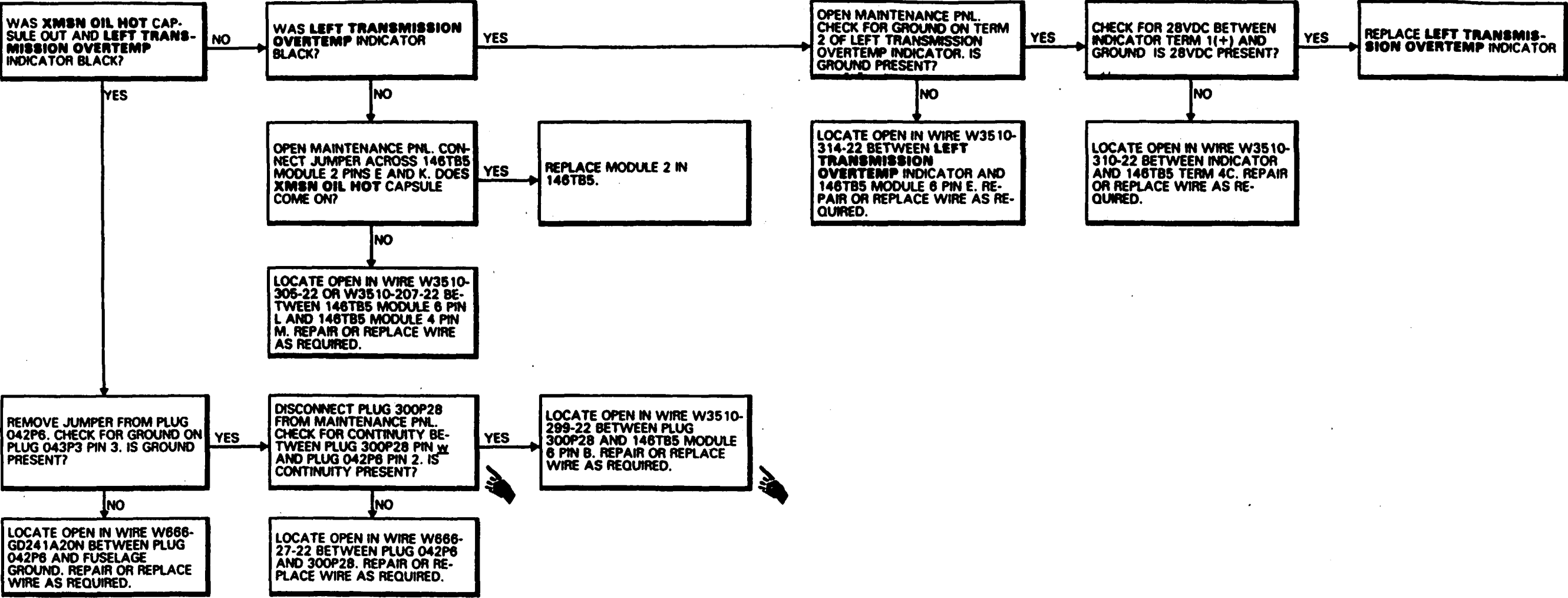
TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off



A67629



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- Tools:
- All
  - Electrical Repairer's Tool Kit, NSN 5180-00-3234915
  - Multimeter

Materials:

- None

Personnel Required:

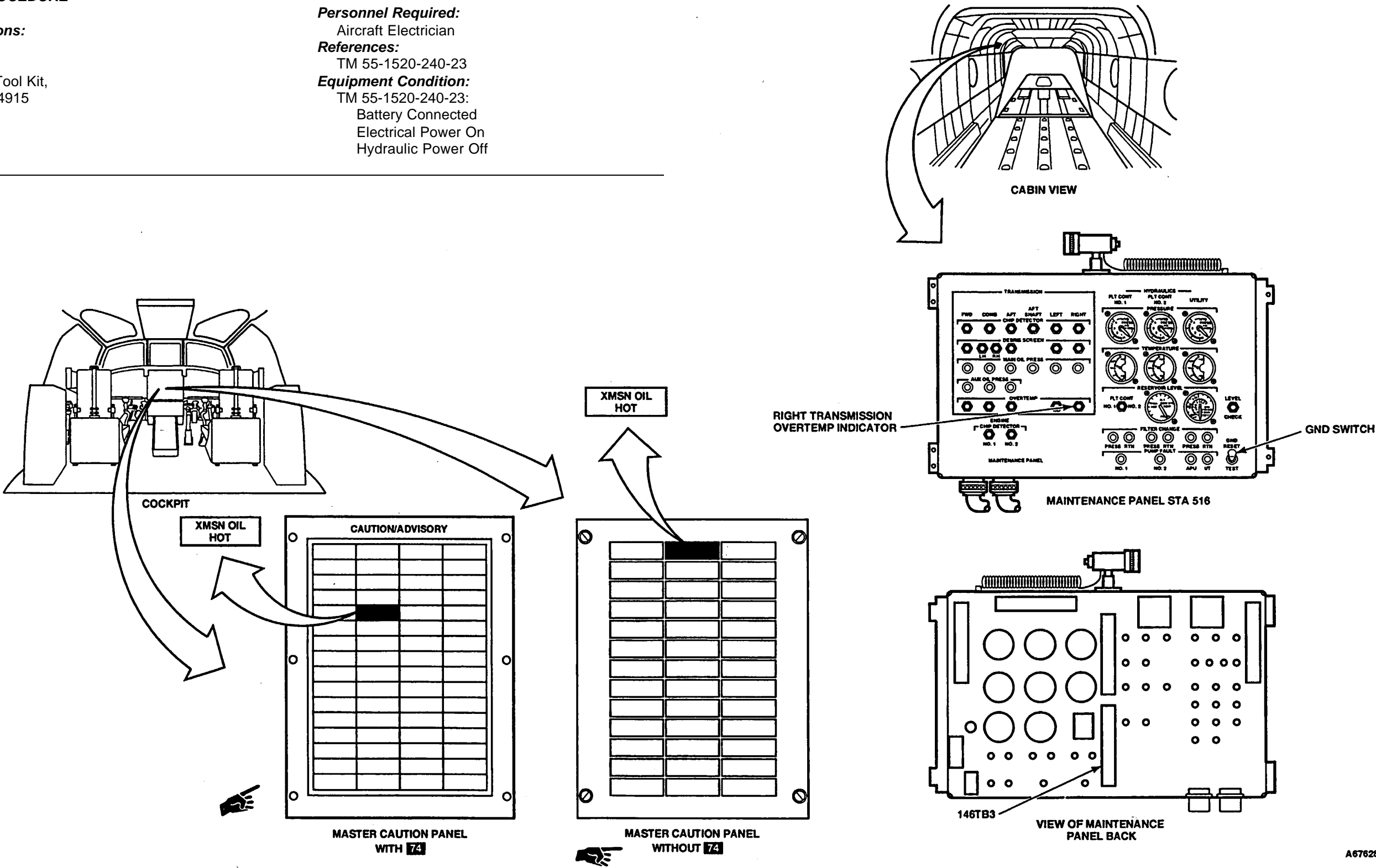
- Aircraft Electrician

References:

- TM 55-1520-240-23

Equipment Condition:

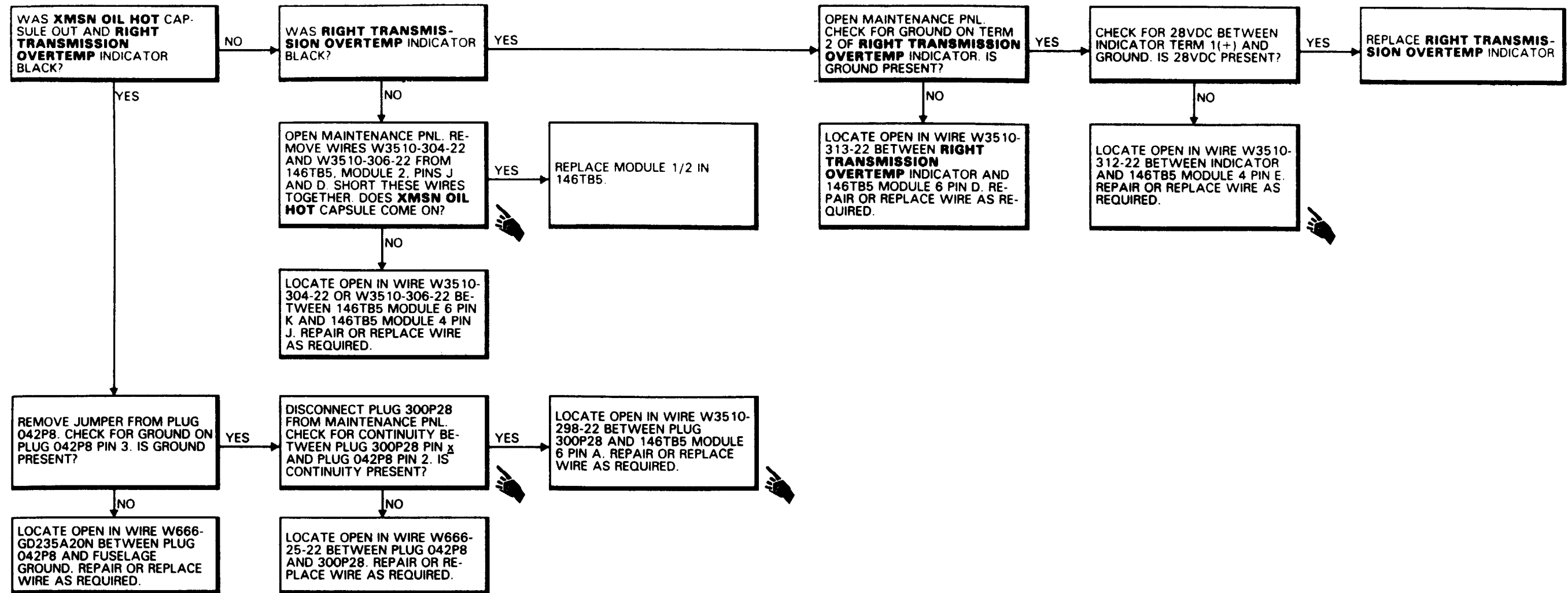
- TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



A67628

8-10.15 XMSN OIL HOT CAPSULE LIT OR RIGHT TRANSMISSION OVERTEMP INDICATOR IS BLACK DURING TEST (Continued)

8-10.15



8-10.16 TRANSMISSION OVERTEMP INDICATORS DO NOT RESET

8-10.16

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

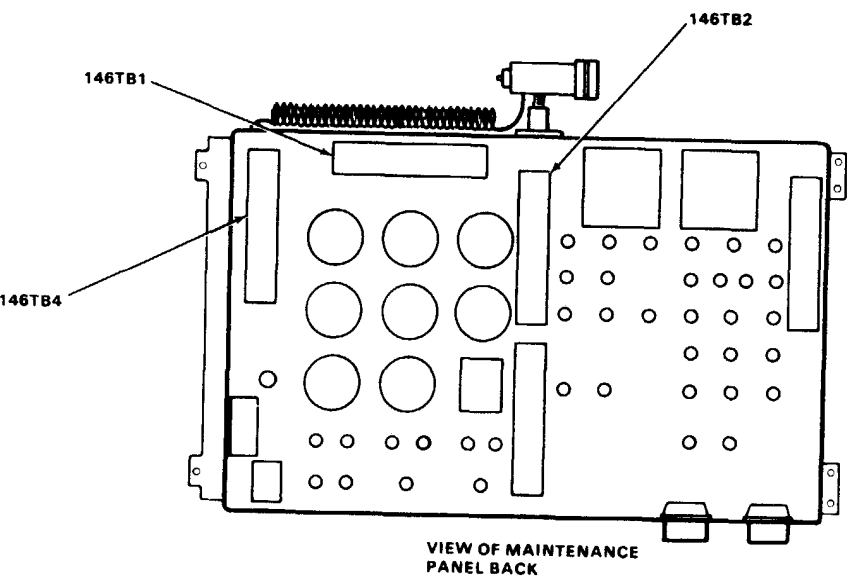
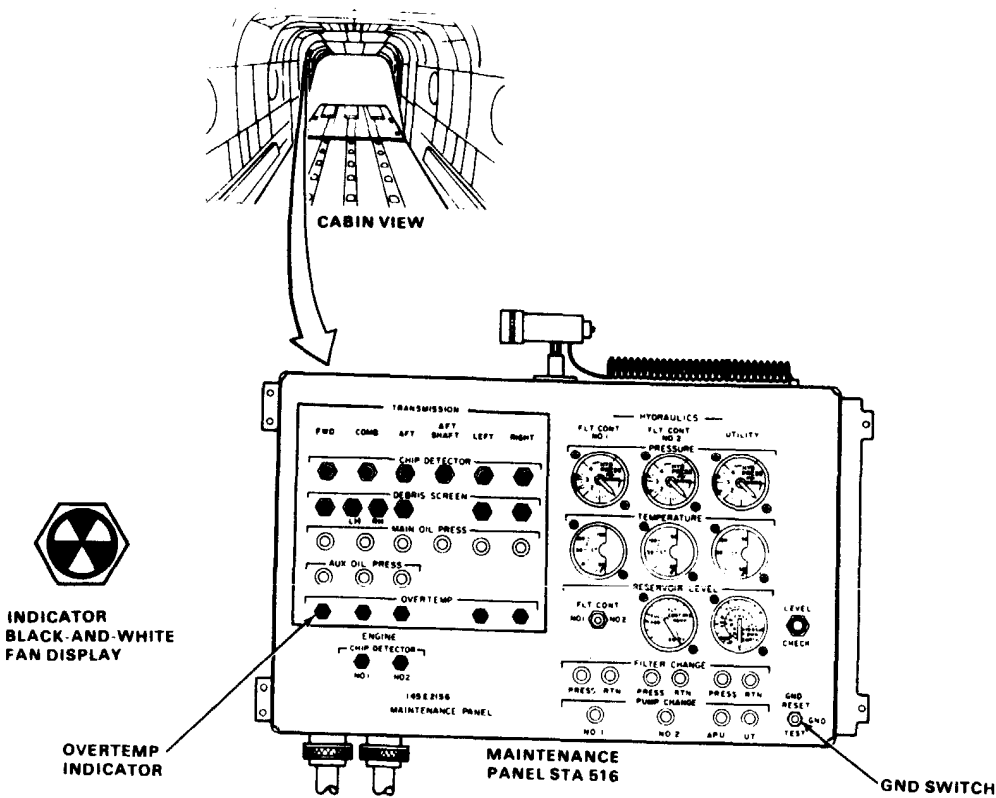
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



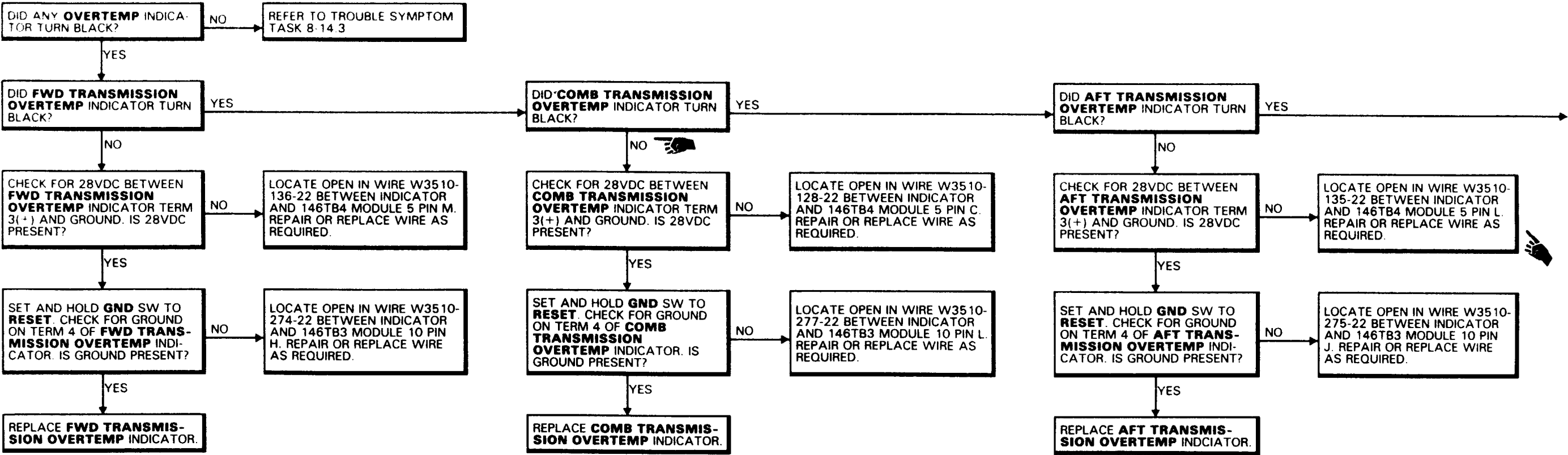
45x54

DI45-11126-SPA

GO TO NEXT PAGE

8-10.16 TRANSMISSION OVERTEMP INDICATORS DO NOT RESET (Continued)

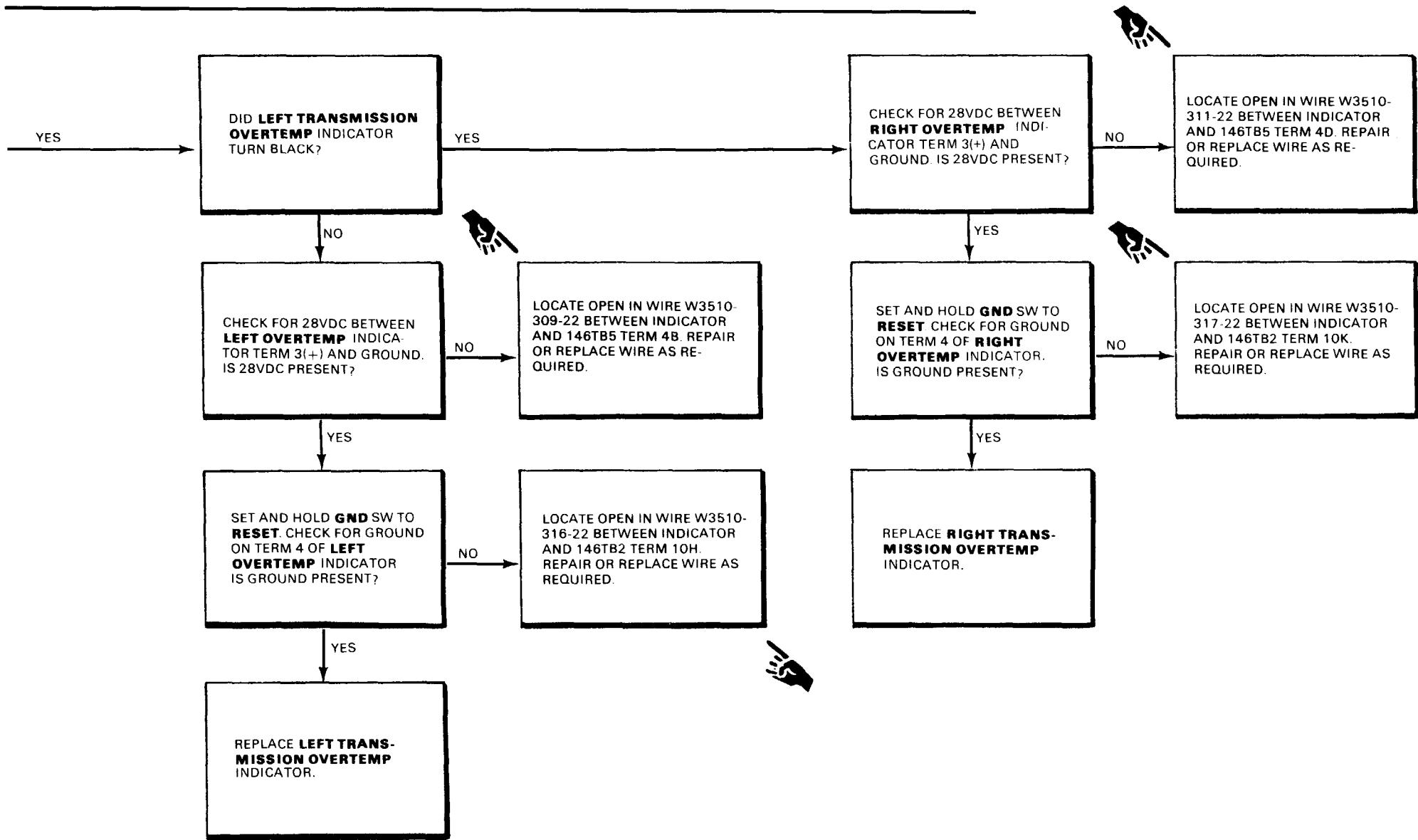
8-10.16





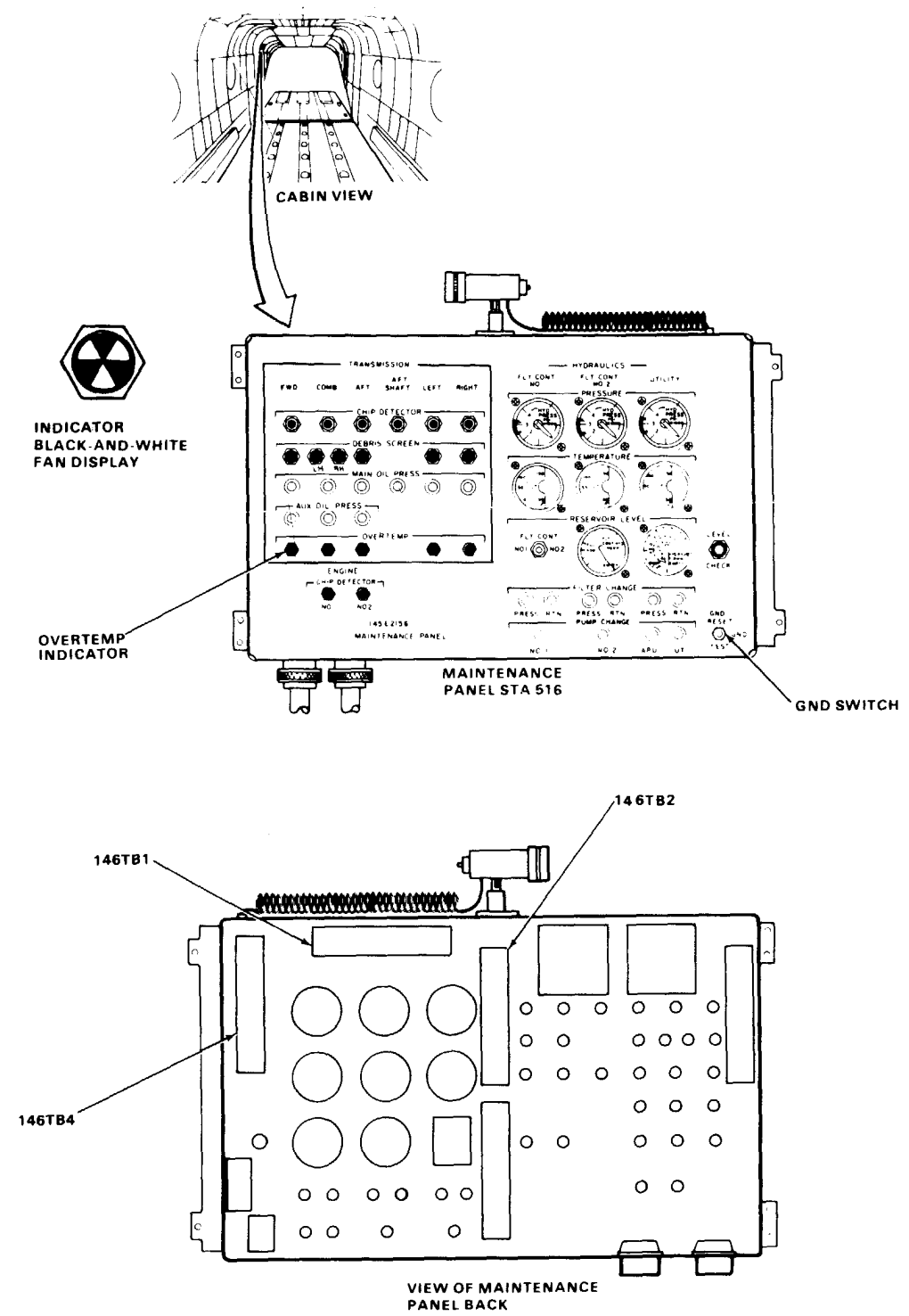
8-10.16 TRANSMISSION OVERTEMP INDICATORS DO NOT  
RESET (Continued)

8-10.16



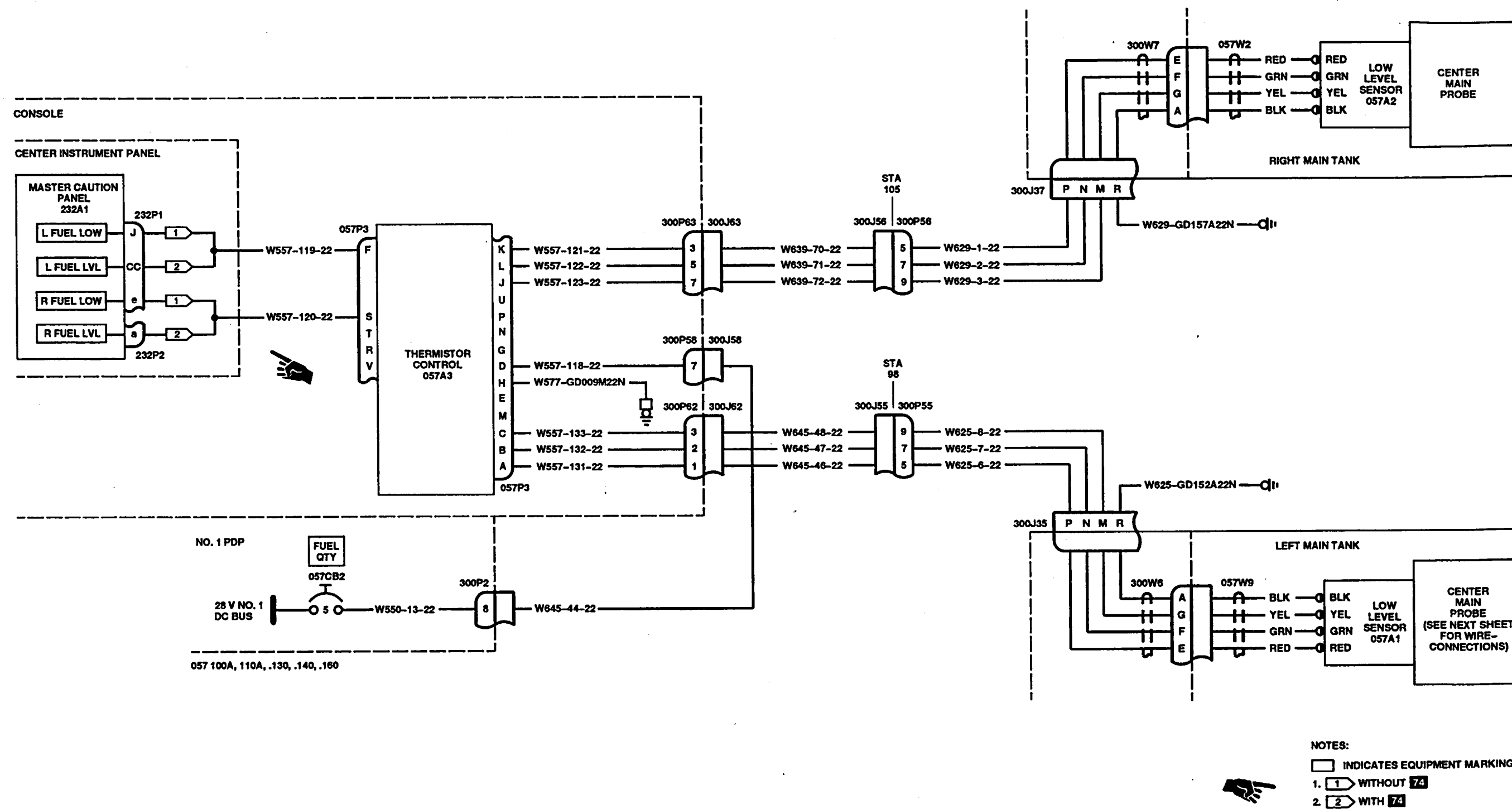
GO TO NEXT PAGE

8-10.16 TRANSMISSION OVERTEMP INDICATORS DO NOT  
RESET (Continued)





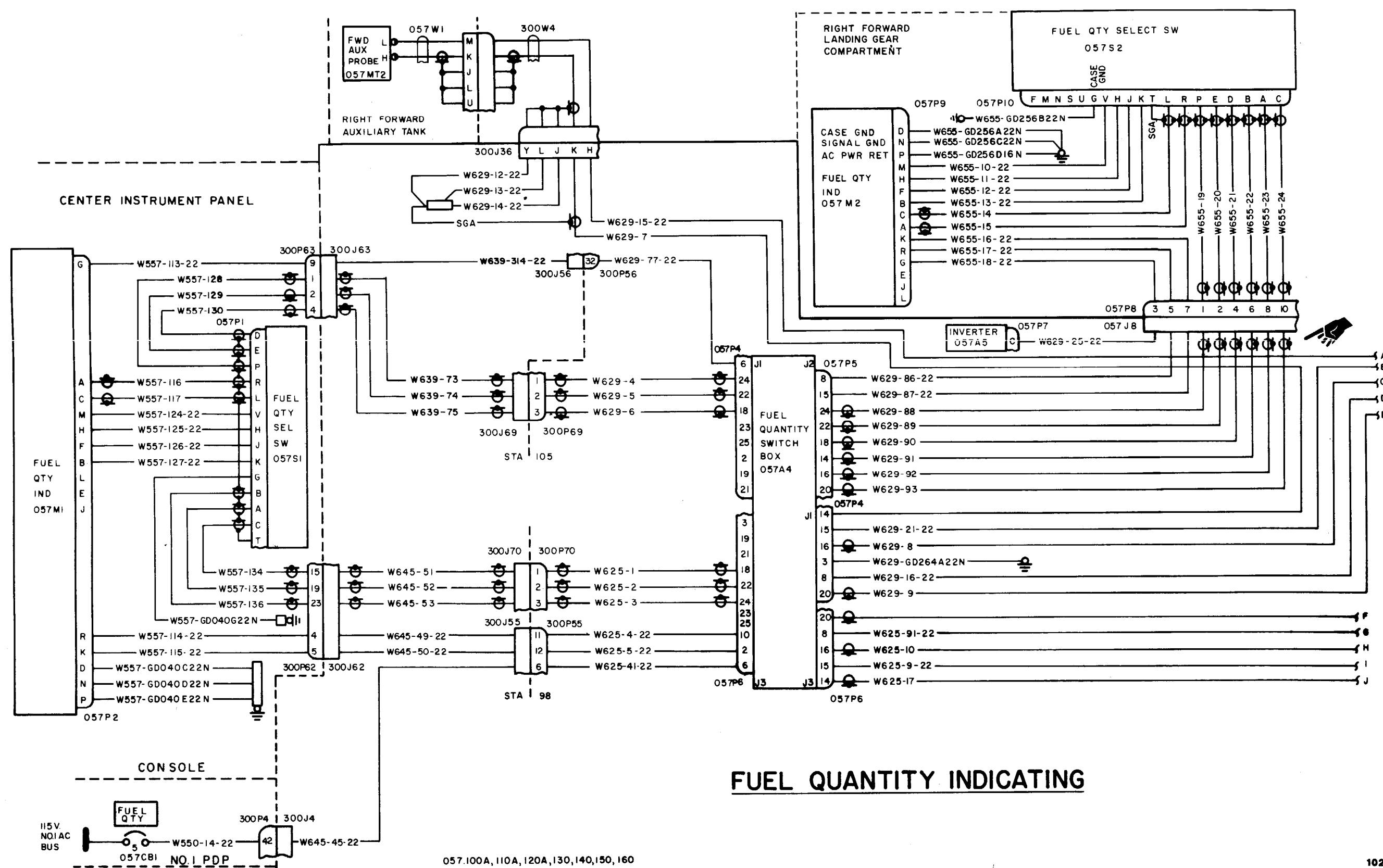
8-11 FUEL QUANTITY INDICATING SYSTEM



**A67659**

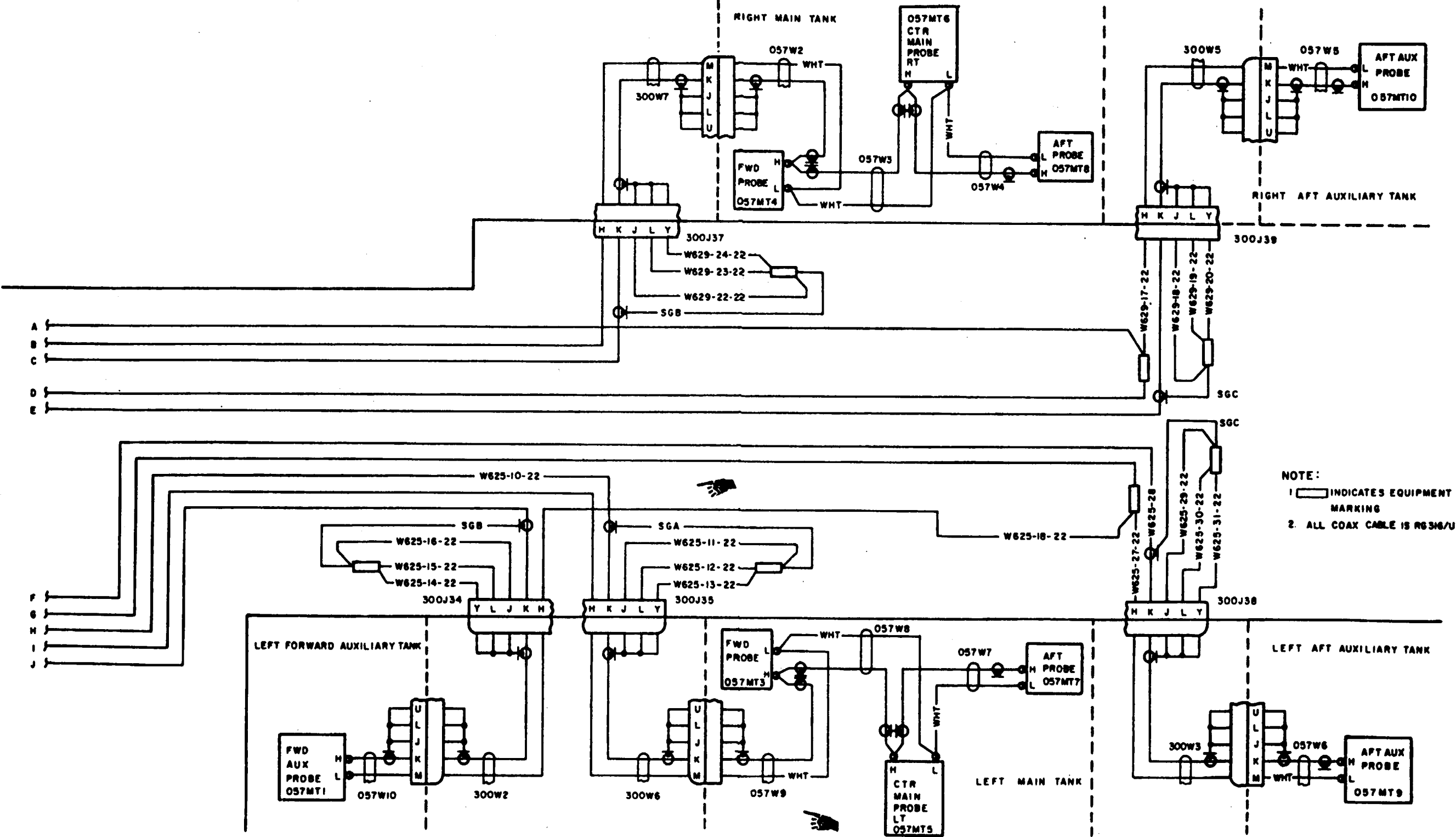
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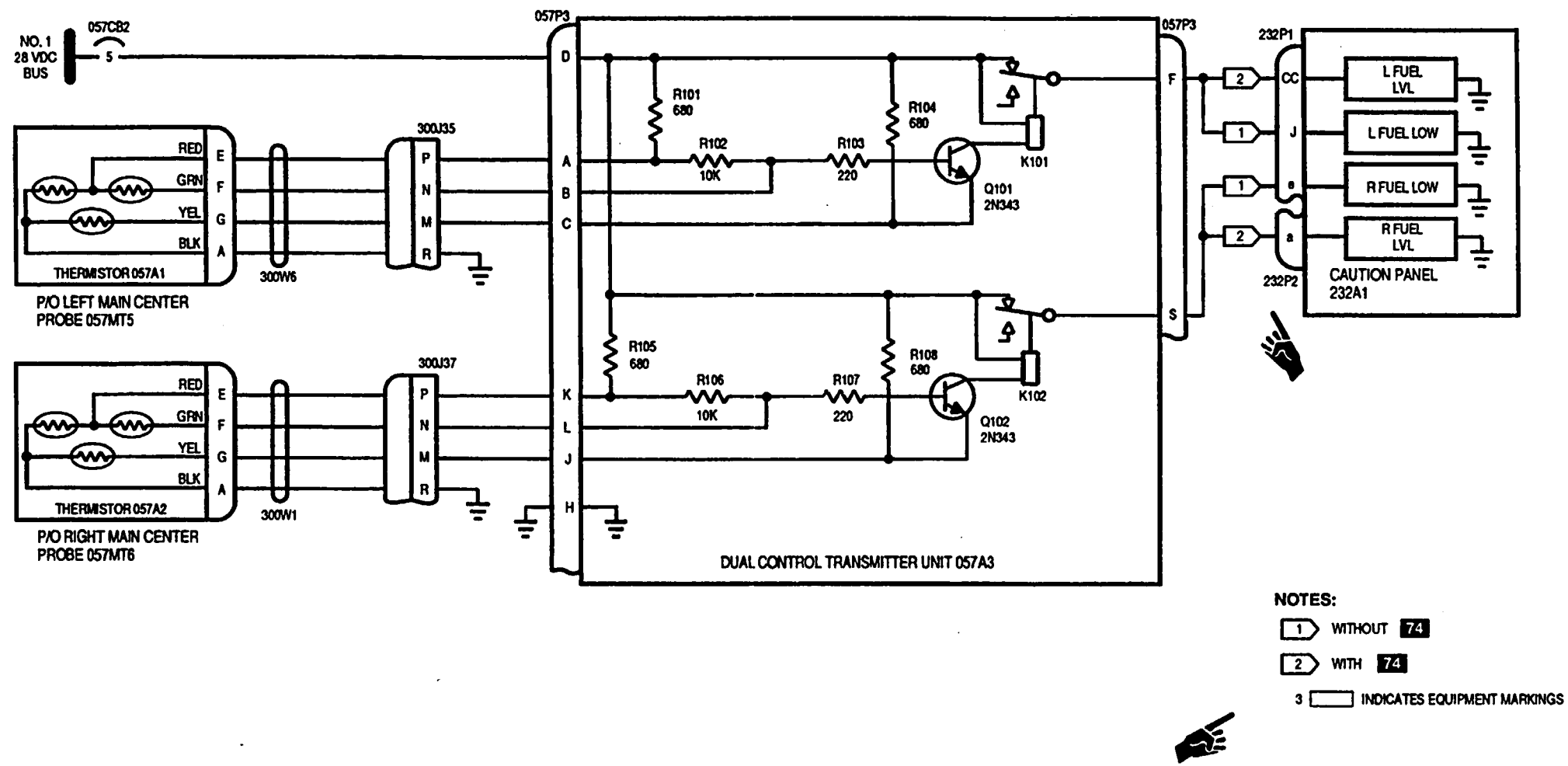
10250

GO TO NEXT PAGE



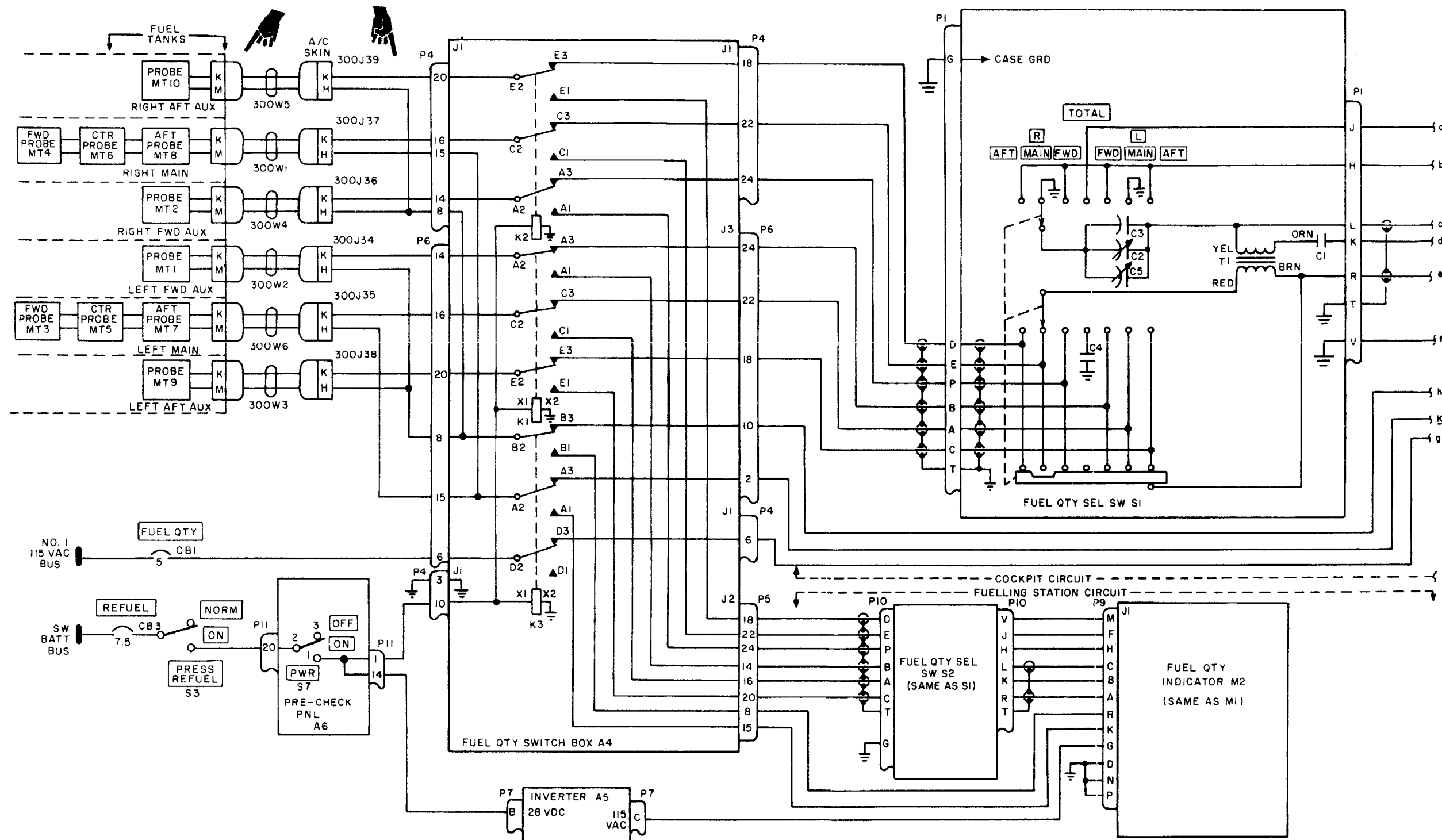
D145-9647-SPA ②

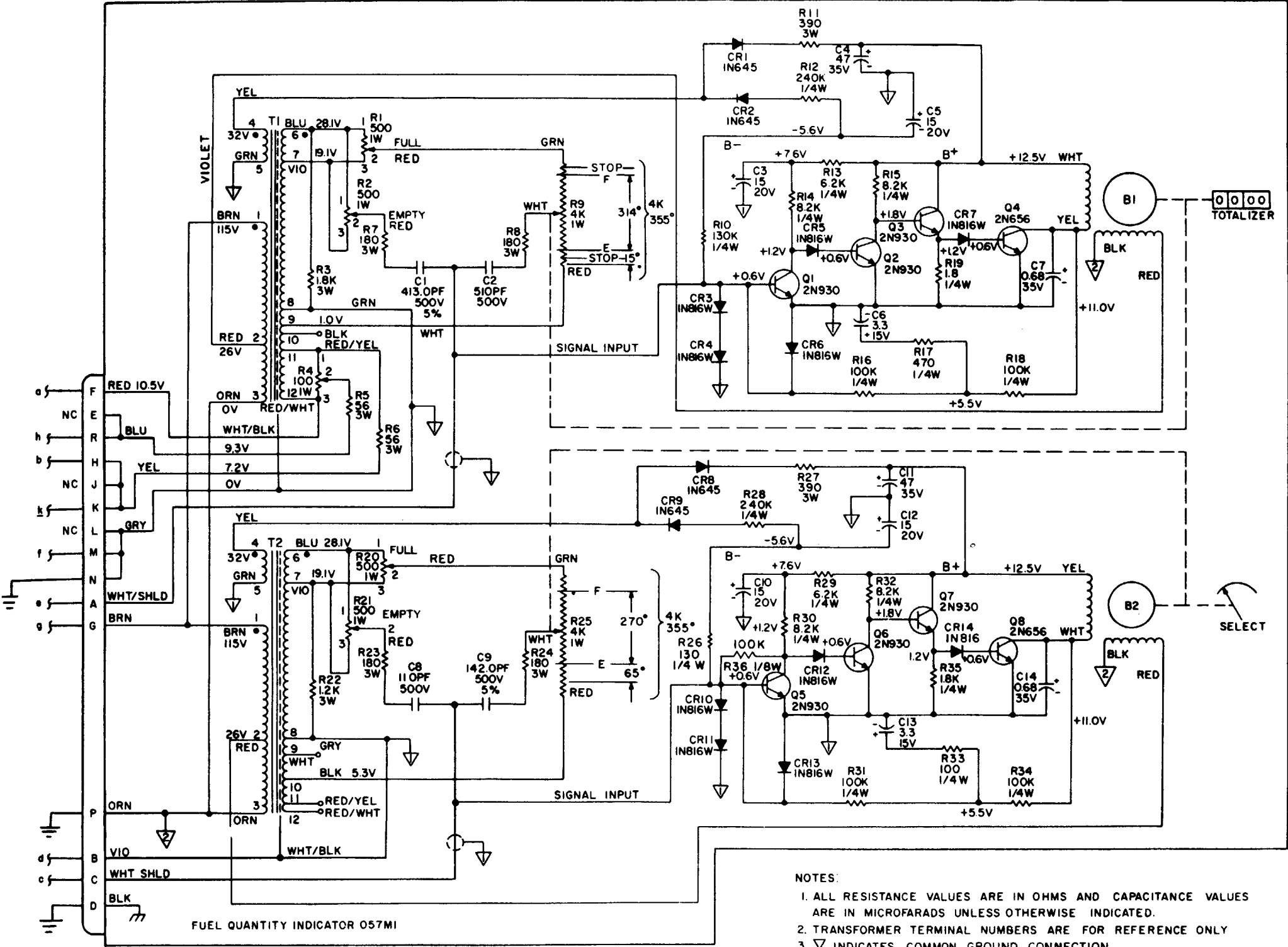




8-11.1.1 FUEL QUANTITY INDICATING SYSTEM SCHEMATIC DIAGRAM (Continued)

8-11.1.1





9375



INITIAL SETUP

Applicable Configurations:  
All

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

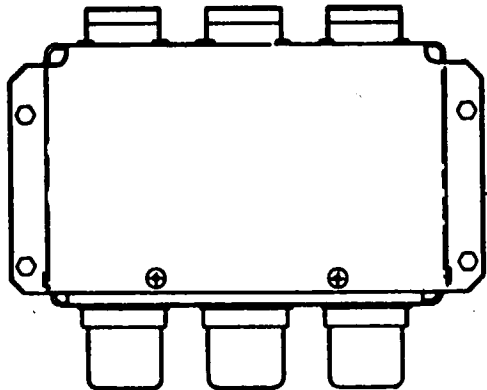
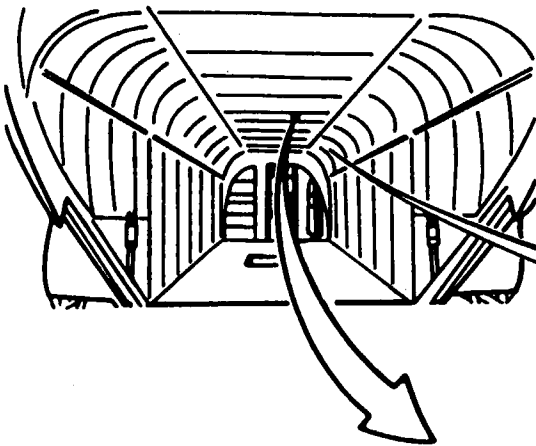
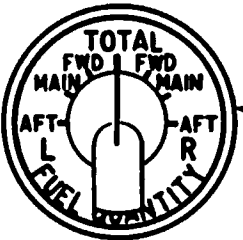
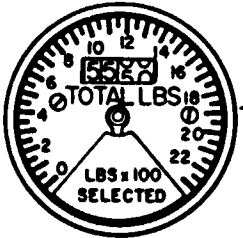
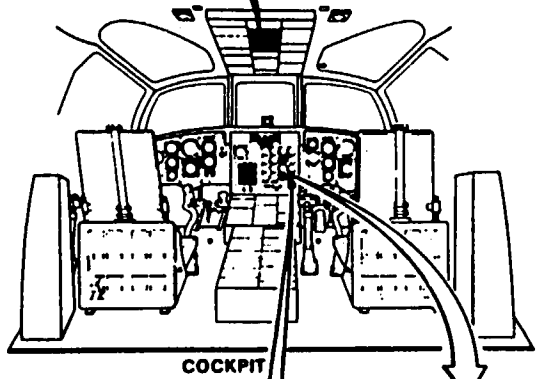
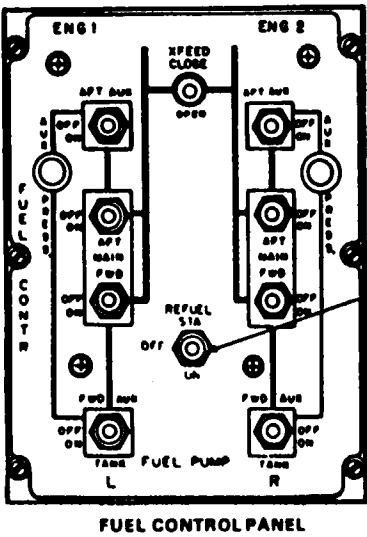
Materials:  
None

Personnel Required:  
Aircraft Electrician

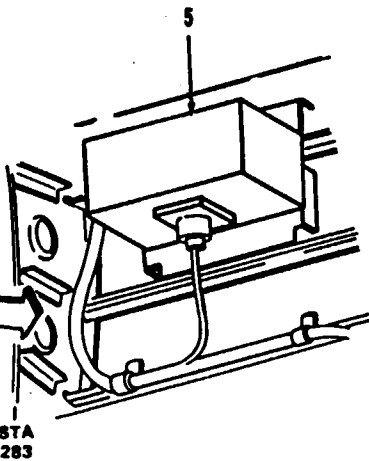
References:  
TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Forward Right Landing Gear Access Panel Open

TASK	RESULT
1. Check fuel quantity indicator (1).	If indicator (1) is loose or damaged, tighten or re- place it as required.
2. Check FUEL QUANTITY select switch (2).	If switch (2) is loose or damaged, tighten or replace it as required.
3. Check REFUEL STATION switch (3).	If switch (3) is loose or damaged, tighten or replace it as required.
4. Check fuel quantity switch box (4).	If switch box (4) is loose or damaged, repair or re- place it as required. If plugs to switch box are loose, tighten them. If wires to plugs are frayed or cracked, repair or replace as required.
5. Check inverter (5).	If inverter (5) is loose or damaged, tighten or replace it as required.
6. Check fuel quantity indicator (6).	If indicator (6) is loose or damaged, tighten or re- place it as required.
7. Check fuel quantity selector switch (7).	If switch (7) is loose or damaged, tighten or replace it as required.

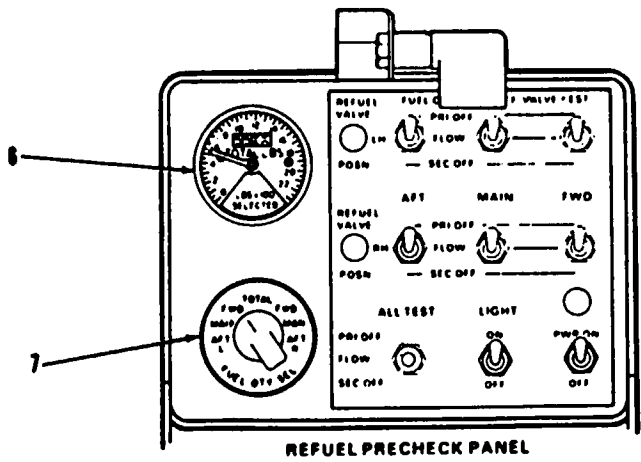
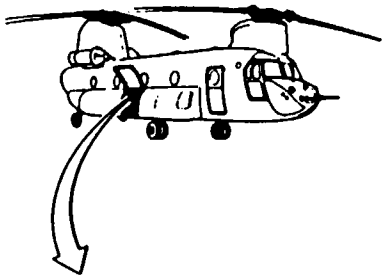
FOLLOW-ON MAINTENANCE:  
None



STA 232.0  
RBL 5.00



STA 283



INITIAL SETUP

**Applicable Configurations:**  
All

**Tools:**  
Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915

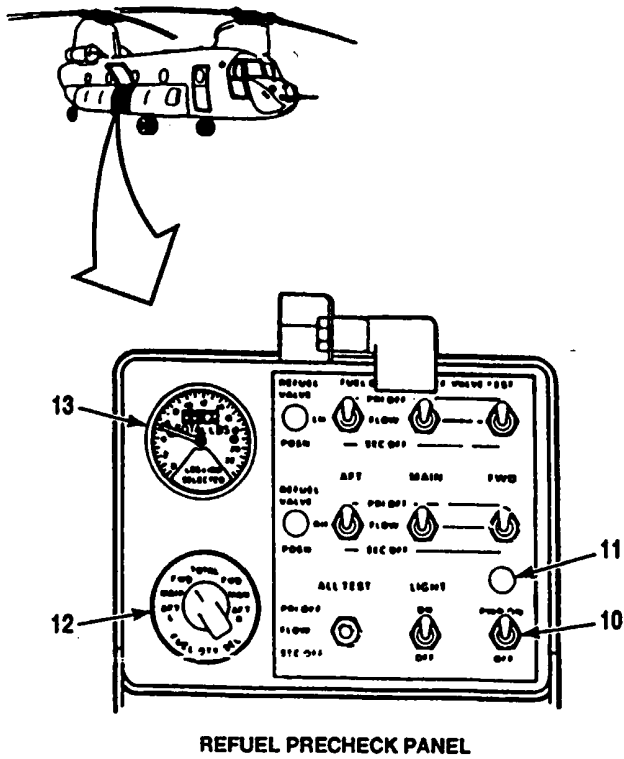
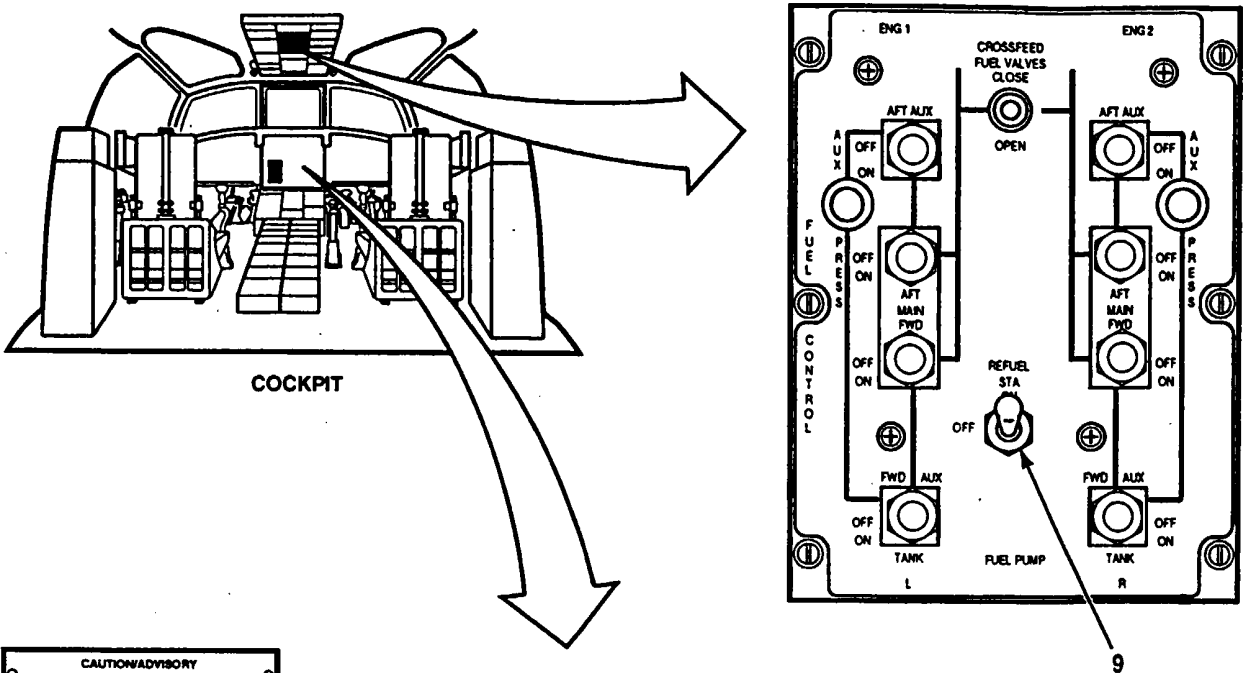
**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician

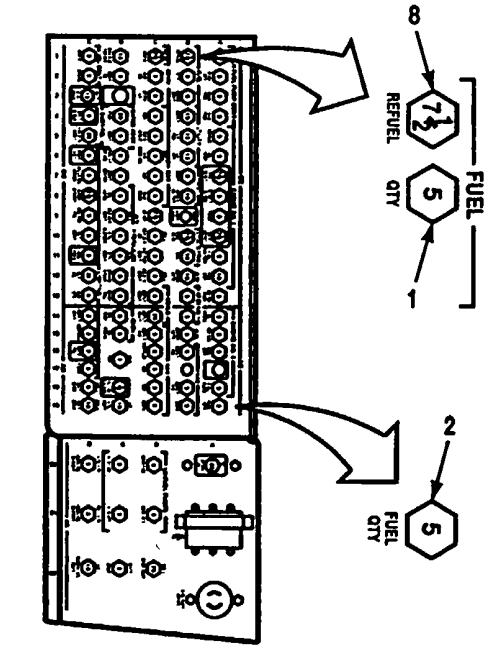
**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Fuel Quantity Indicating System Visual Check  
Performed (Task 8-11.2)  
All Fuel Tanks Serviced to FULL Using Gravity  
Refueling Method

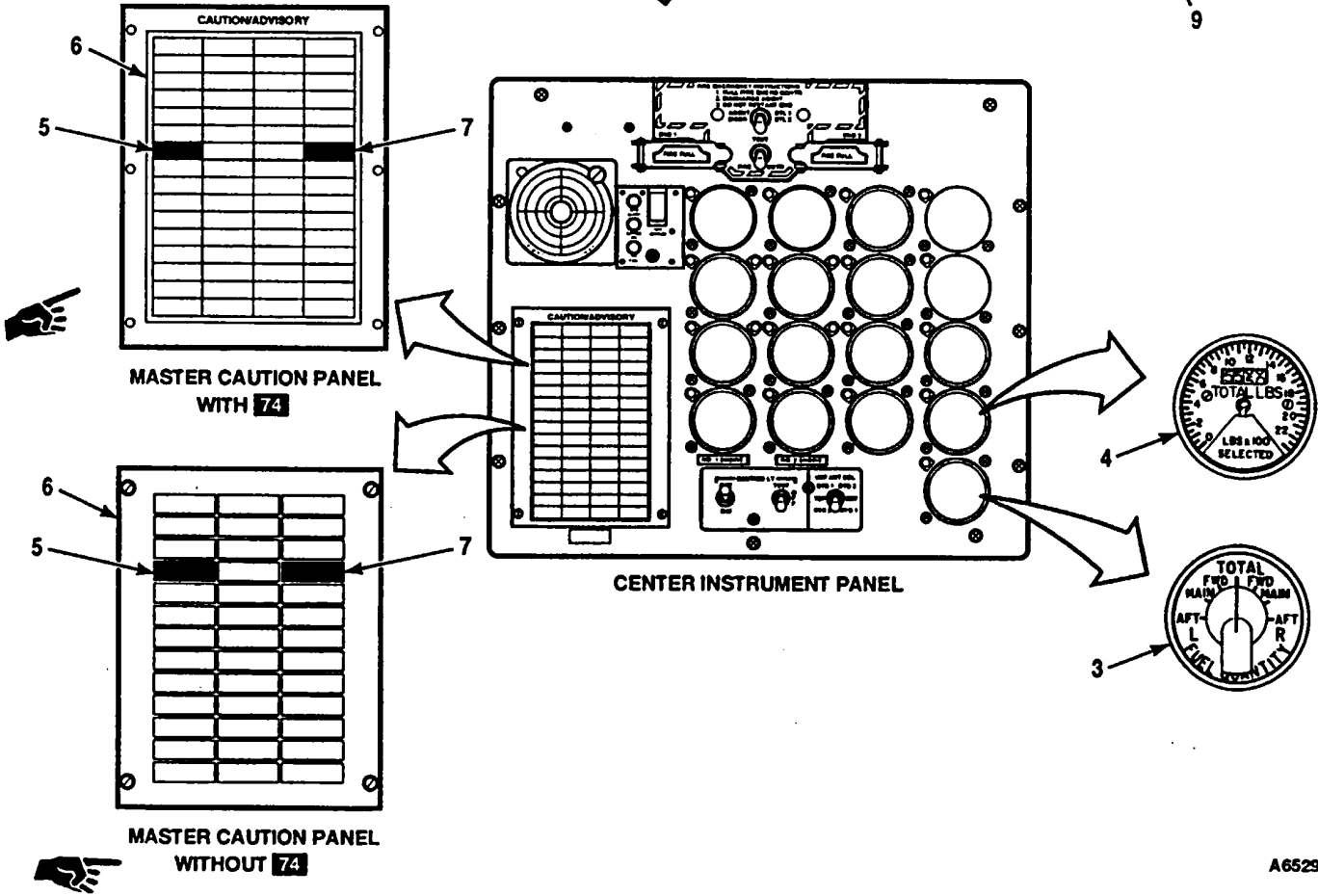
**NOTE**  
Do not use single point refueling for this  
check. Fuel quantity by single point refuel-  
ing will vary due to different refueling pres-  
sures and rates of flow.



REFUEL PRECHECK PANEL



NO. 1 POWER  
DISTRIBUTION PANEL (PDP)  
VIEW LOOKING AFT



MASTER CAUTION PANEL  
WITHOUT 74

CENTER INSTRUMENT PANEL

TASK	RESULT
1. Check that FUEL QTY DC circuit breaker (1) is closed.	If circuit breaker (1) is open, dose it. If it opens again, go to task 8-11.4.
2. Check that FUEL QTY AC circuit breaker (2) is closed.	If circuit breaker (2) is open, dose it. If it opens again, go to task 8-11.5.
3. Set fuel quantity selector switch (3) to L MAIN.	Fuel quantity indicator (4) shall read amount shown in Table 8-11.1. If indicator does not indicate amount shown in Table 8-11.1, go to task 8-11.6. If indicator pointer spins in either direction, go to task 8-11.7.
4. Set fuel quantity selector switch (3) to L FWD.	Fuel quantity indicator (4) shall read amount shown in Table 8-11.1. If not, go to task 8-11.8.
5. Set fuel quantity selector switch (3) to L AFT.	Fuel quantity indicator (4) shall read amount shown in Table 8-11.1. If not, go to task 8-11.9.
6. Set main quantity selector switch (3) R MAIN.	Fuel quantity indicator (4) shall read amount shown in Table 8-11.1. If not, go to task 8-11.10.
7. Set fuel quantity selector switch (3) to R FWD.	Fuel quantity indicator (4) shall read amount shown in Table 8-11.1. If not, go to task 8-11.11.
8. Set fuel quantity selector switch (3) to R AFT.	Fuel quantity indicator (4) shall read amount shown in Table 8-11.1. If not, go to task 8-11.12.
9. Set fuel quantity selector switch (3) to TOTAL.	Fuel quantity indicator (4) digital readout shall indicate amount shown in Table 8-11.1. If not, go to task 8-11.13.
10. If <b>L FUEL LOW (Without 74)</b> L FUEL LVL (With 74) warning capsule (5) on master caution panel (6) is on, go to task 8-11.14.	
11. If <b>R FUEL LOW (Without 74)</b> R FUEL LVL (With 74) warning capsule (7) on master caution panel (6) is on, go to task 8-11.15.	
12. To check low fuel warning on left main fuel tank, drain tank until fuel level is below <u>320</u> to <u>420 pounds</u> .	If L FUEL LOW (Without If) L FUEL LVL (With 74) warning capsule (5) on master caution panel (6) does not come on, go to task 8-11.16.
13. To check low fuel warning on right main fuel tank, drain tank until fuel level is below <u>320</u> to <u>420 pounds</u> .	If R FUEL LOW (Without 74) R FUEL LVL (With 74) warning capsule (7) on master caution panel (6) does not come on, go to task 8-11.17.

TASK	RESULT
<b>CHECK FUEL QUANTITY AT REFUEL PRECHECK PANEL</b>	
14. Check that FUEL REFUEL circuit breaker (8) is dosed.	If circuit breaker (8) is open, dose it. If it opens again, go to task 10-3.5.
15. Set REFUEL STATION switch (9) to ON.	
16. Set PWR switch (10) to ON.	Light (11) shall come on. If light (11) does not come on, go to task 10-3.8.
17. Turn fuel quantity selector switch (12) to each position. Record fuel quantity reading on fuel quantity indicator (13) for each switch position.	Fuel quantity indicator (13) shall read amount for each switch position shown in Table 8-11.1. If indicator does not read any amount for all switch positions, go to task 8-11.18. If indicator reads amount for all but one position, go to task 8-11.19.
18. Set PWR switch (10) to OFF.	
19. Set REFUEL STATION switch (9) to OFF.	

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Battery disconnected.  
Electrical power off.  
Hydraulic power off.  
Forward right landing gear access panel closed.

TABLE 8-11.1.

SWITCH POSITION	INDICATOR READING FOR FUEL TYPE		
	JP-4 SP GR 6.5 lb	JP-5 SP GR 6.8 lb	JP-8 SP GR 6.7 lb
L MAIN	1650 to 2150 lbs	1650 to 2150 lbs	1650 to 2150 lbs
L FWD	700 to 1000 lbs	700 to 1000 lbs	700 to 1000 lbs
L AFT	700 to 1000 lbs	700 to 1000 lbs	700 to 1000 lbs
R MAIN	1650 to 2150 lbs	1650 to 2150 lbs	1650 to 2150 lbs
R FWD	700 to 1000 lbs	700 to 1000 lbs	700 to 1000 lbs
R AFT	700 to 1000 lbs	700 to 1000 lbs	700 to 1000 lbs
TOTAL	6282 to 7082 lbs	6581 to 7409 lbs	6474 to 7300 lbs



FAULT ISOLATION PROCEDURE  
INITIAL SETUP

Applicable Configurations:

- All
- Tools:**
- Electrical Repairer's Tool Kit.  
NSN 5180-00-323-4915
  - Multimeter

- Materials:**
- None

Personnel Required:

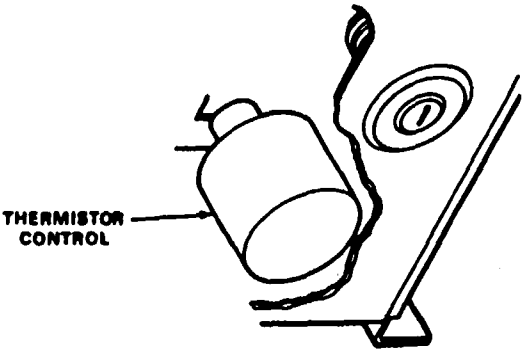
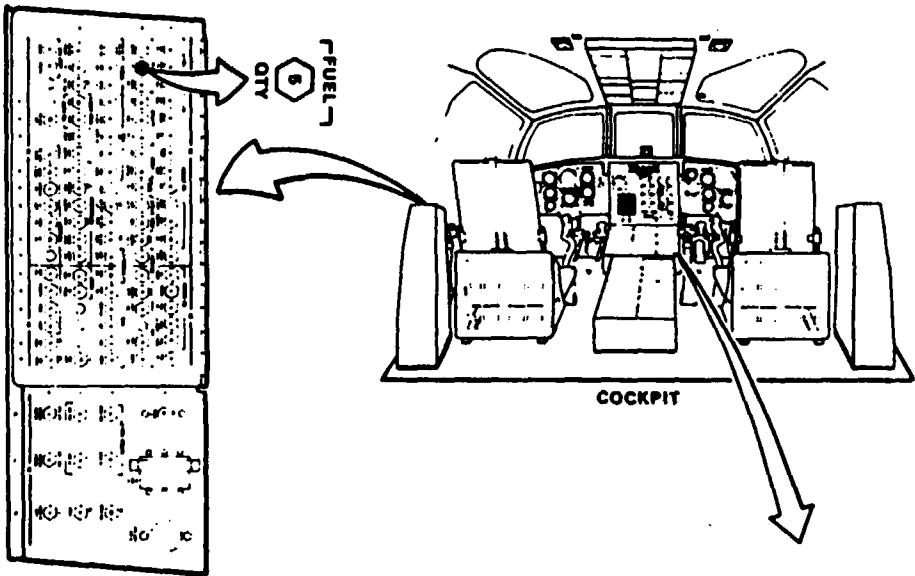
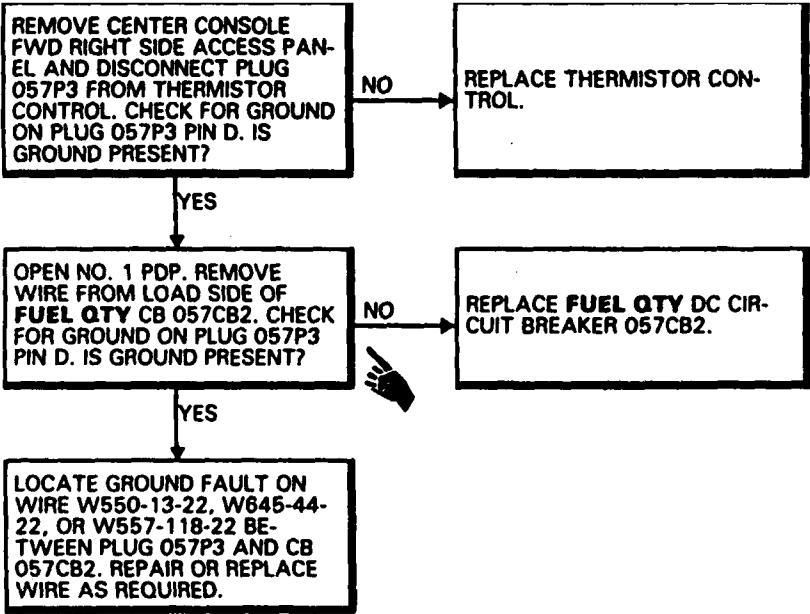
Aircraft Electrician (2)

References:

TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off



FAULT ISOLATION PROCEDURE  
INITIAL SETUP

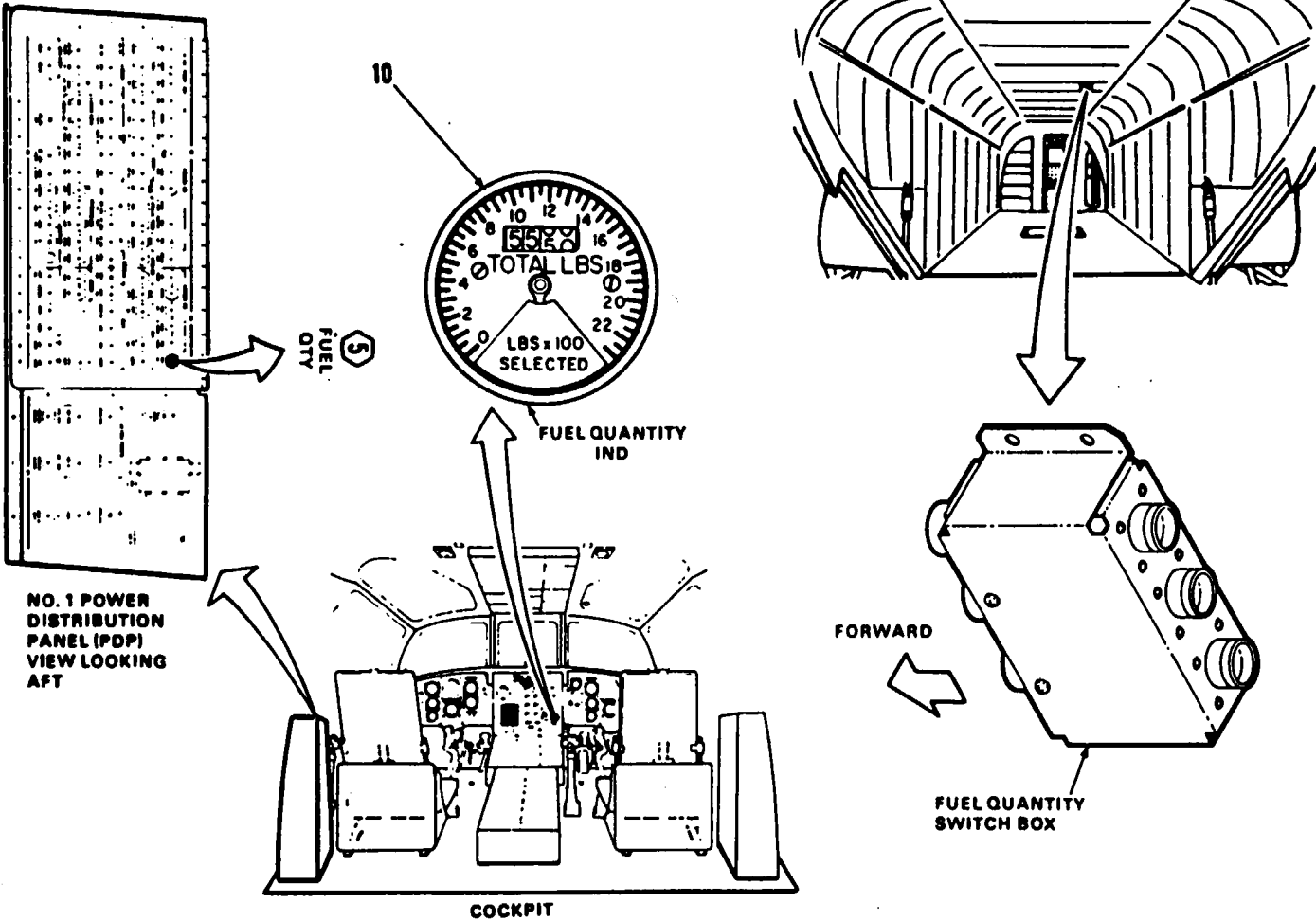
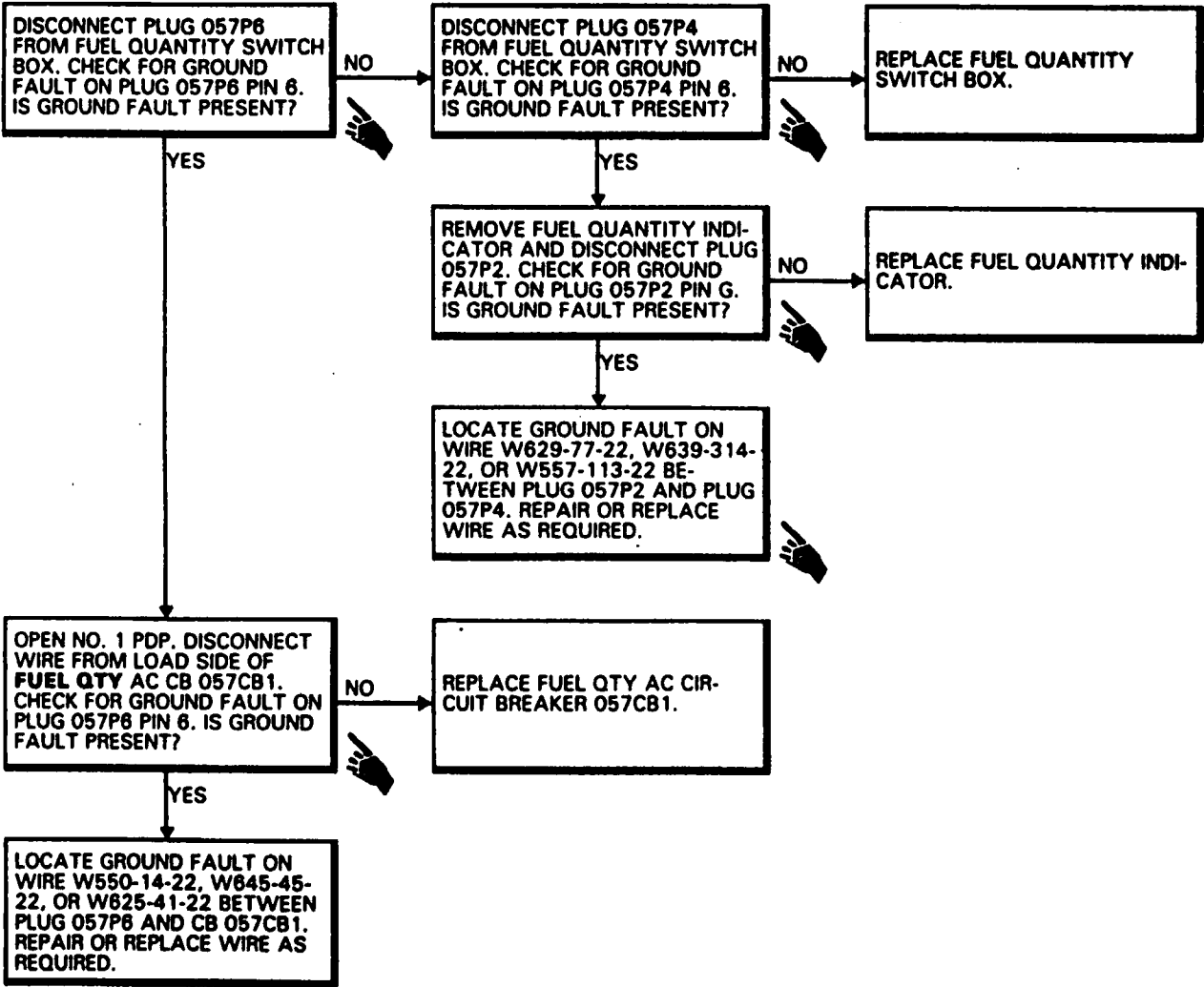
Applicable Configurations:

- All  
Tools:  
Electrical Repairer's Tool Kit.  
NSN 5180-00-323-4915  
Multimeter

- Materials:  
None

Personnel Required:  
Aircraft Electrician (2)

References:  
TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

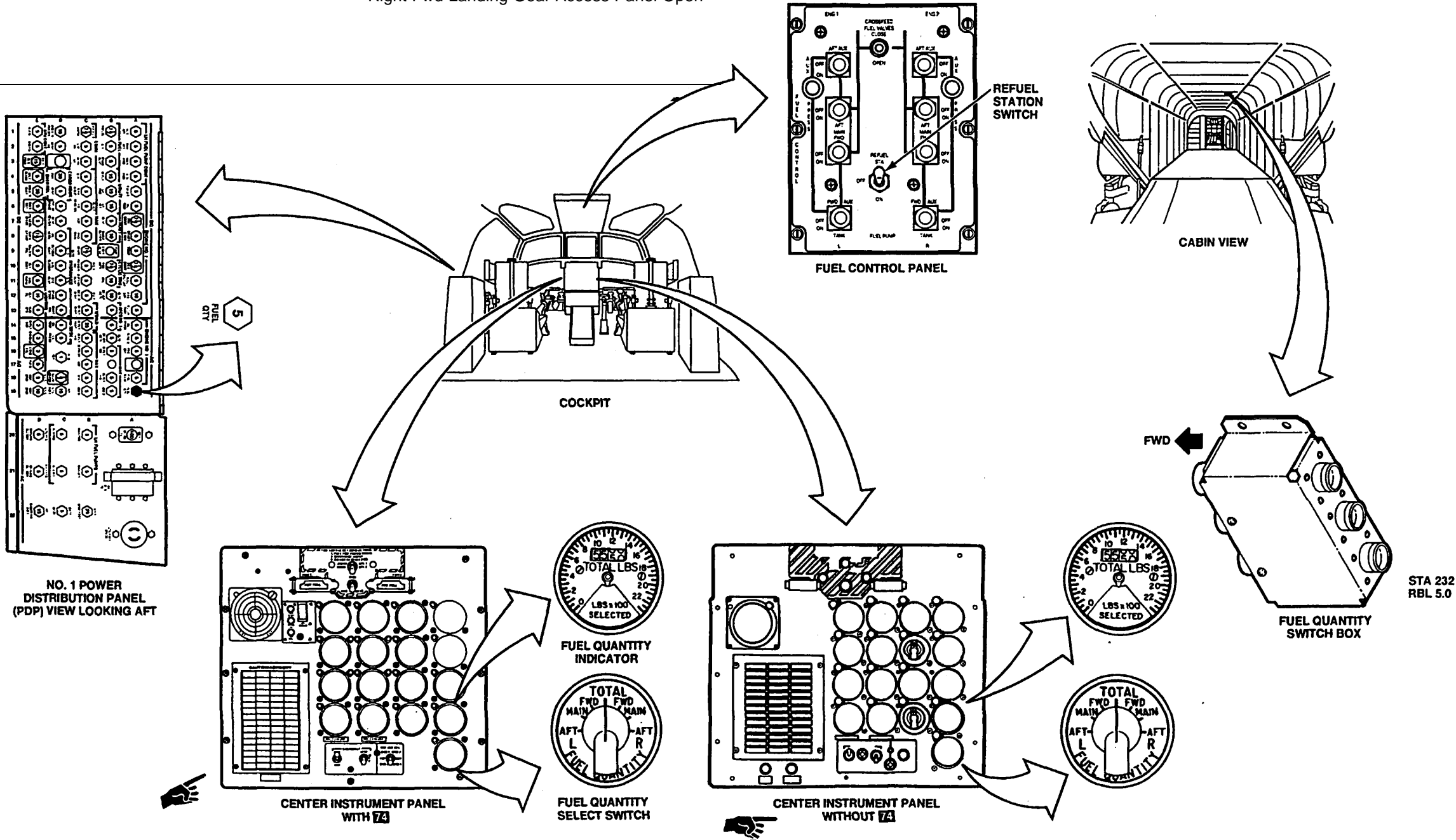
- All
- Tools:**
- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915
  - Multimeter

Materials:

- None
- Personnel Required:**
- Aircraft Electrician (2)

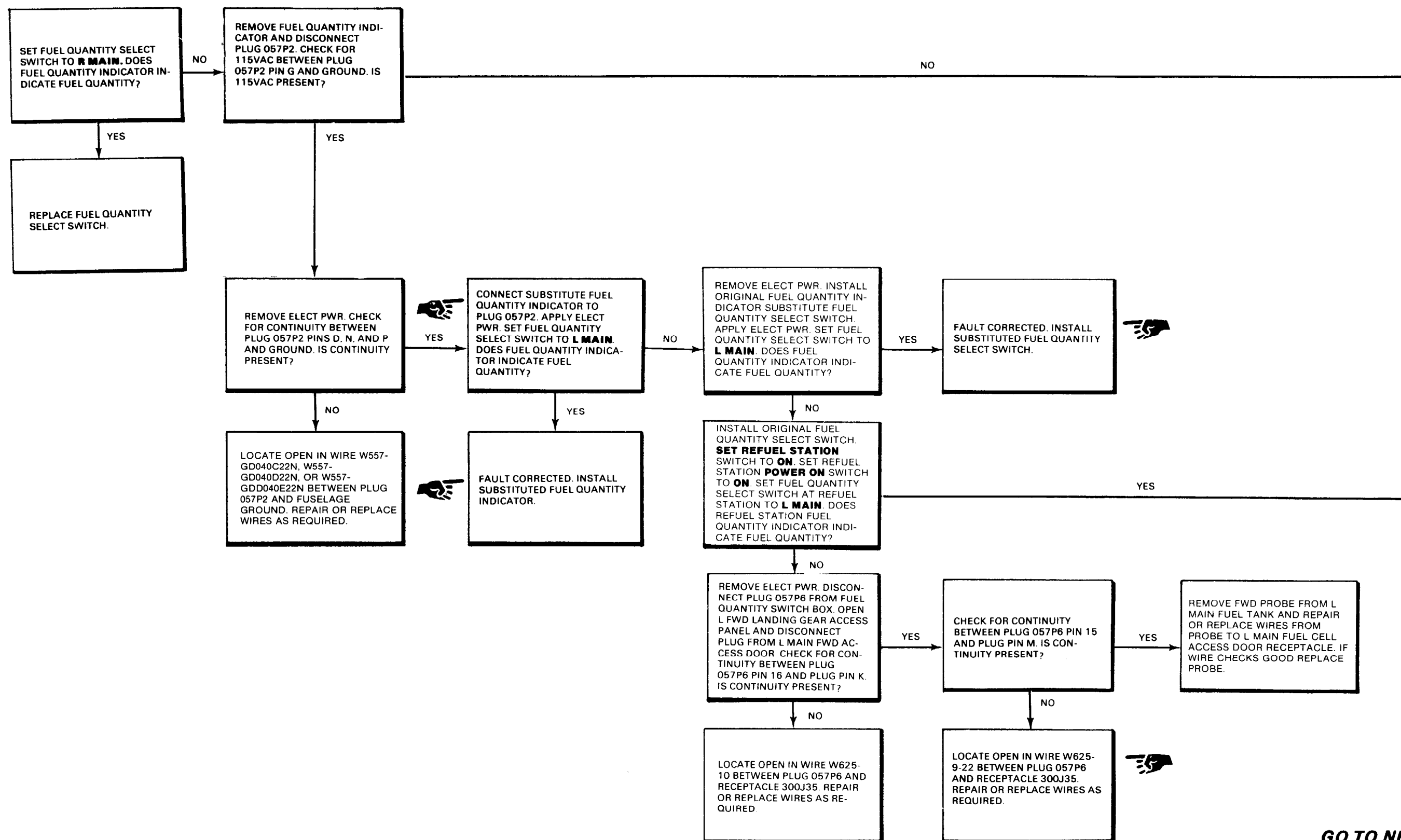
References:

- TM 55-1520-240-23
- Equipment Condition:**
- TM 55-1520-240-23:
  - Battery Connected
  - Electrical Power On
  - Hydraulic Power Off
  - Right Fwd Landing Gear Access Panel Open



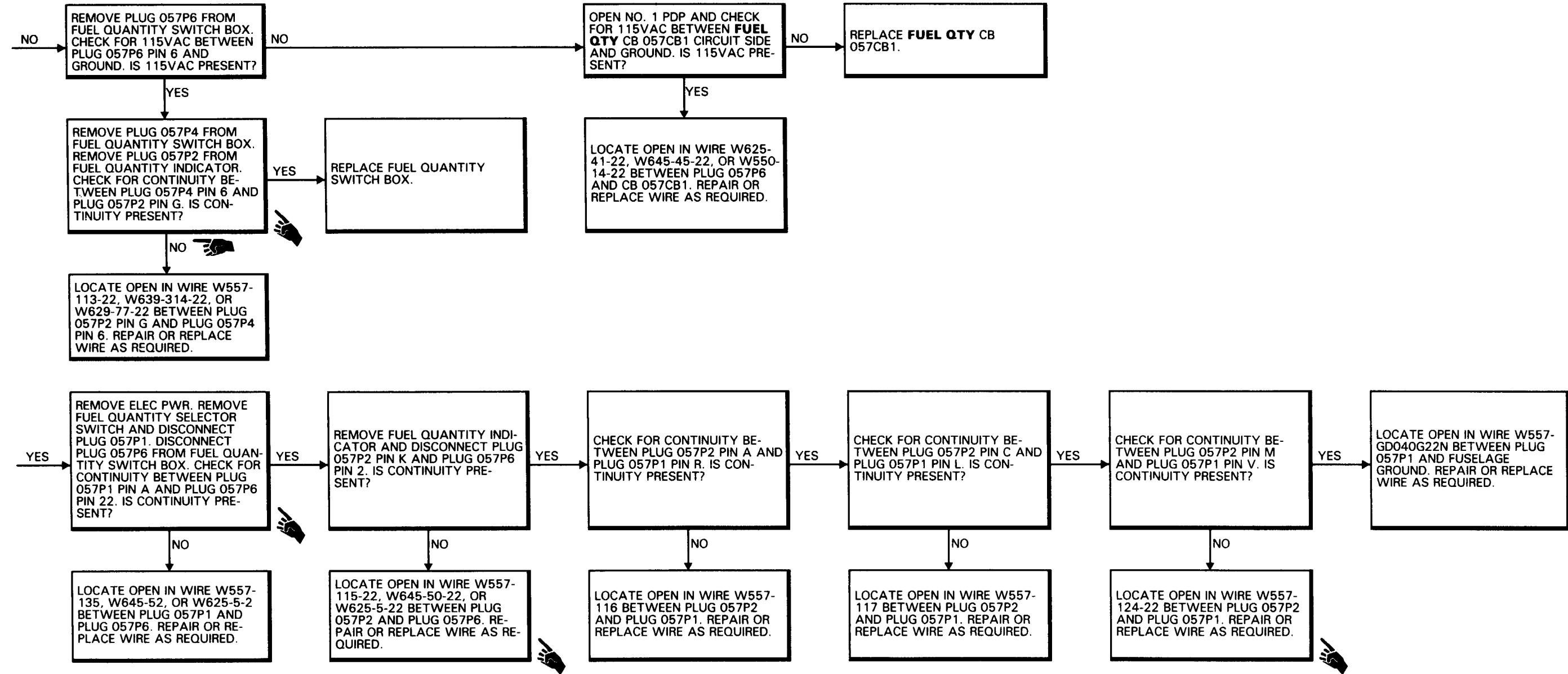
# 8-11.6 FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO L MAIN (Continued)

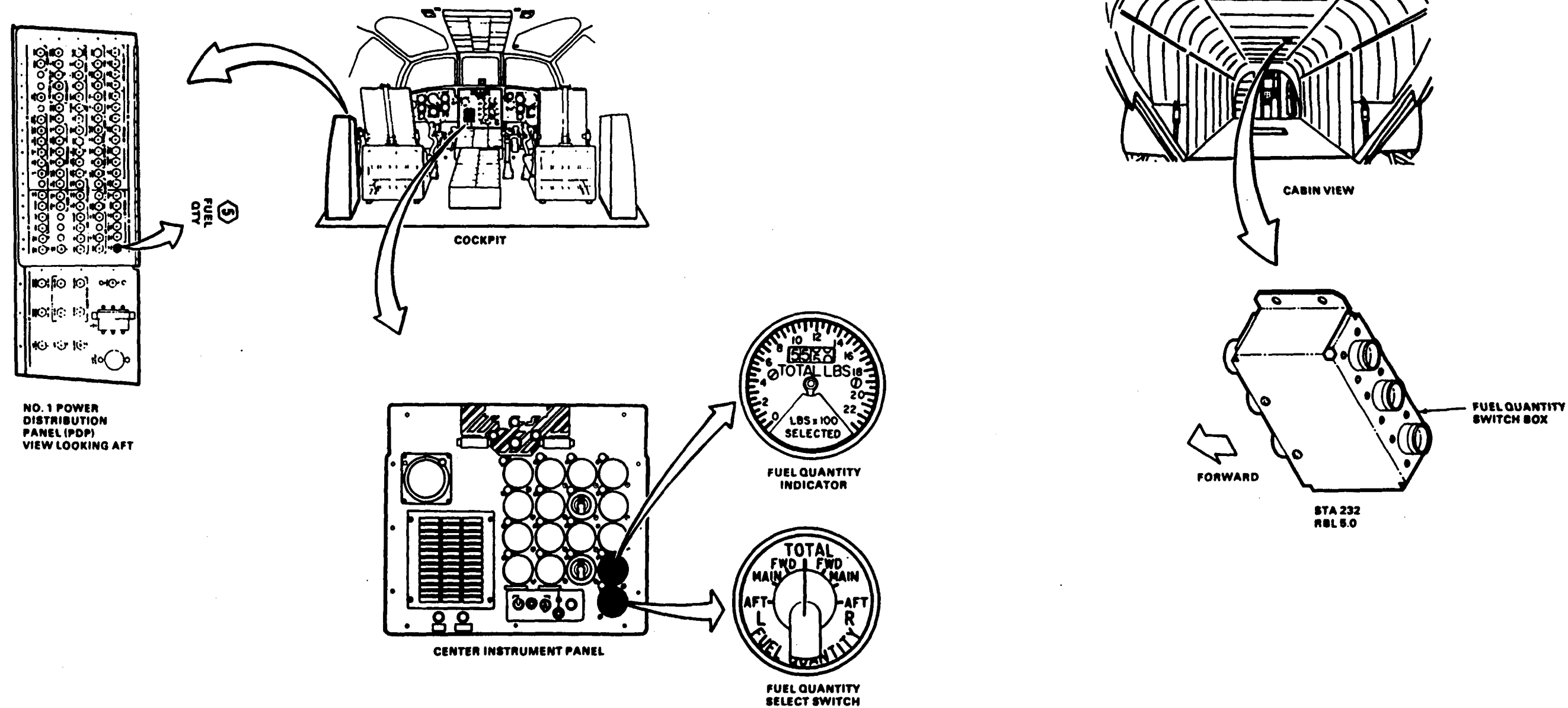
8-11.6



GO TO NEXT PAGE

8-11.6 FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO L MAIN  
(Continued)





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:**
- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915
  - Multimeter

Materials:

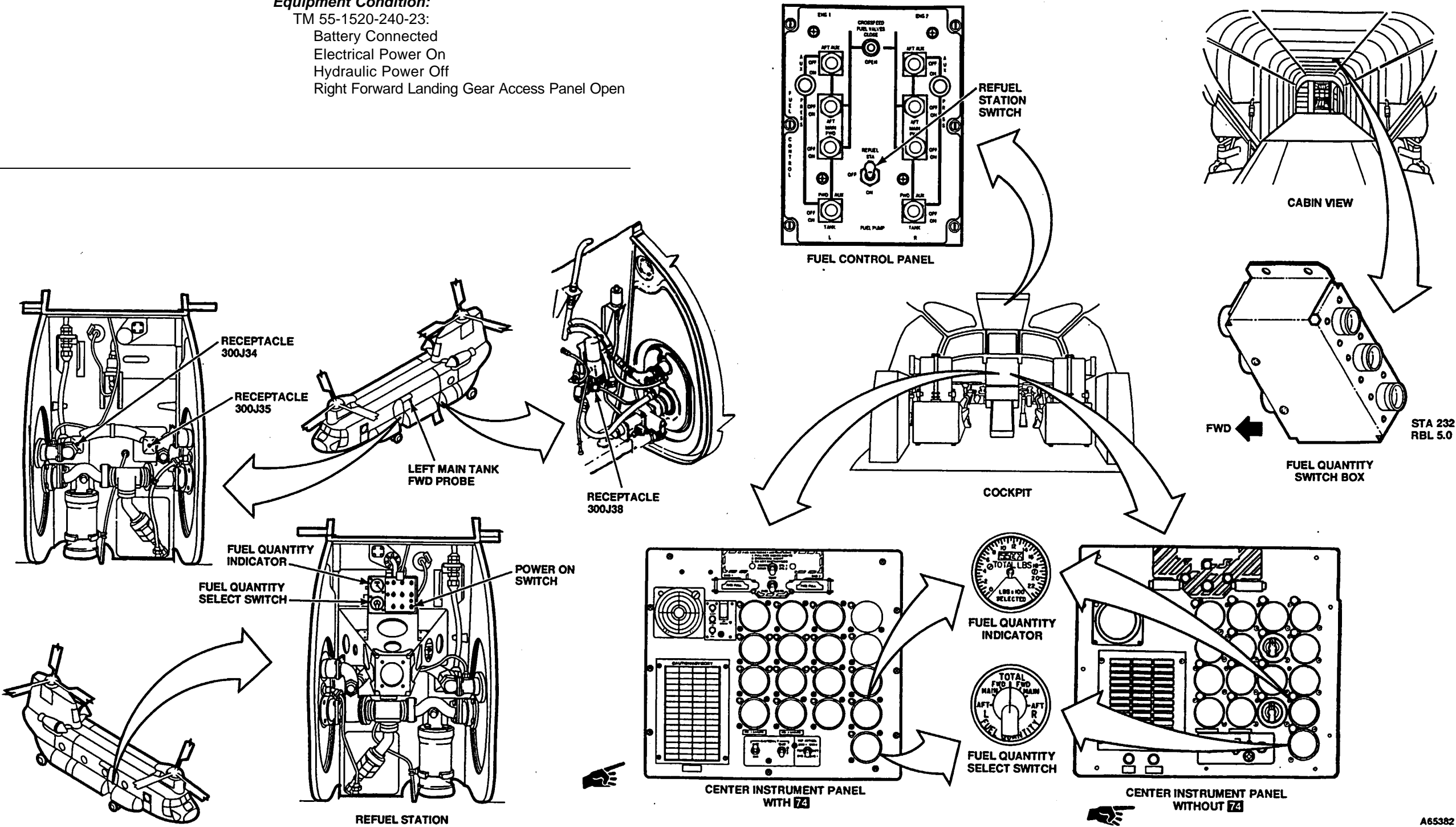
- None
- Personnel Required:**
- Aircraft Electrician (2)

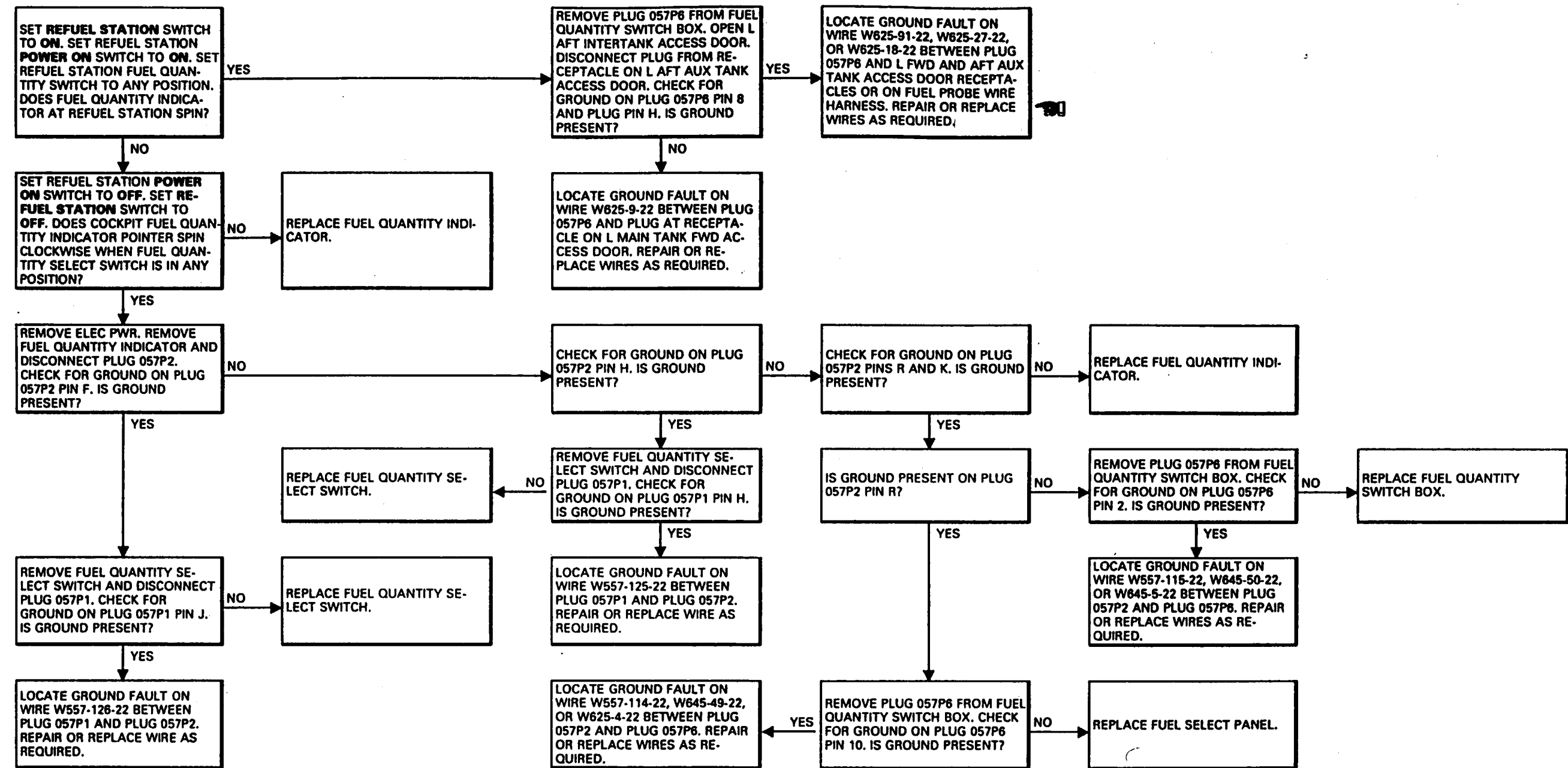
References:

TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
  - Electrical Power On
  - Hydraulic Power Off
  - Right Forward Landing Gear Access Panel Open







8-11.8 FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO L FWD

8-11.8

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915
  - Multimeter

Materials:

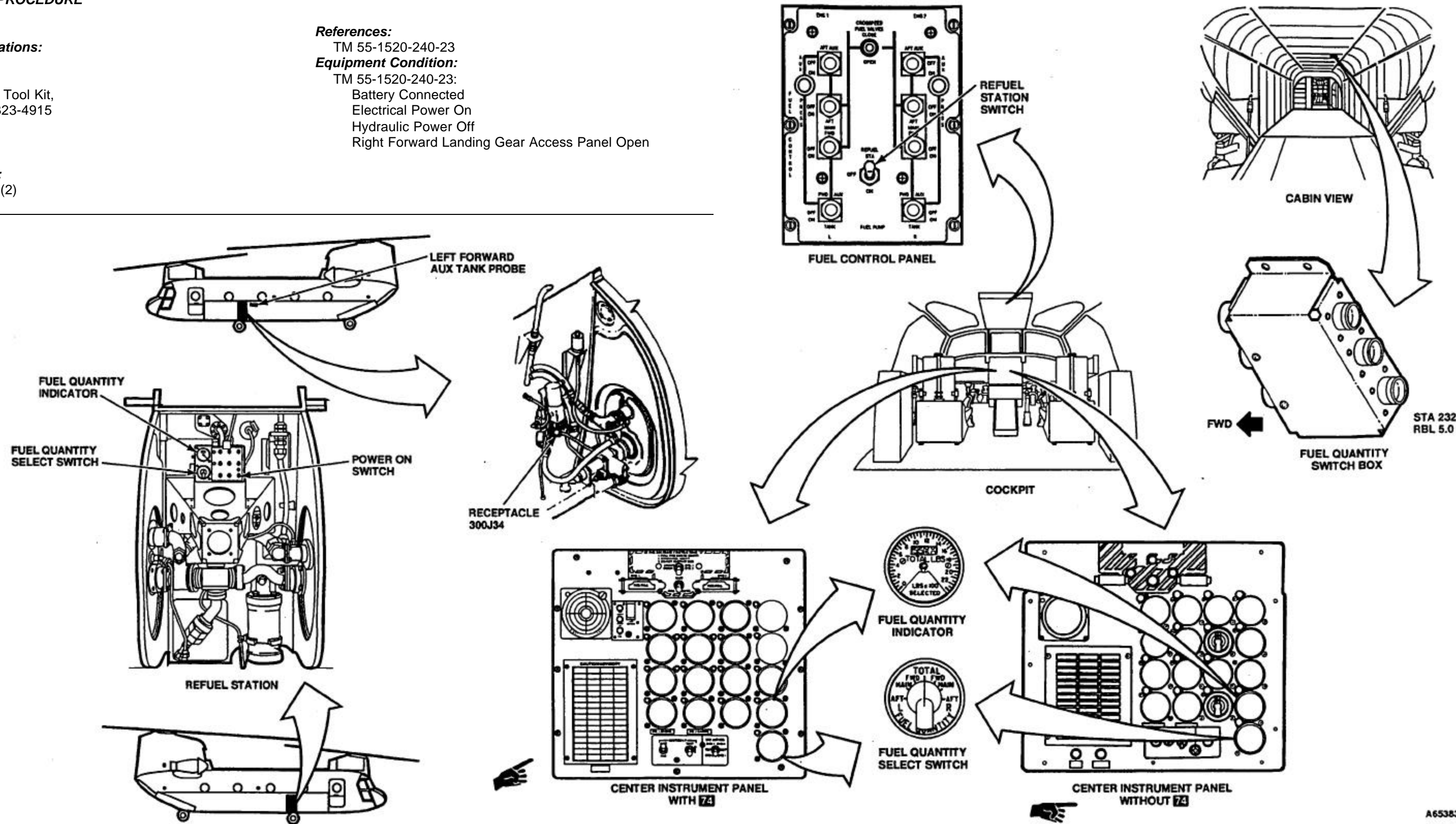
- None
- Personnel Required:
- Aircraft Electrician (2)

References:

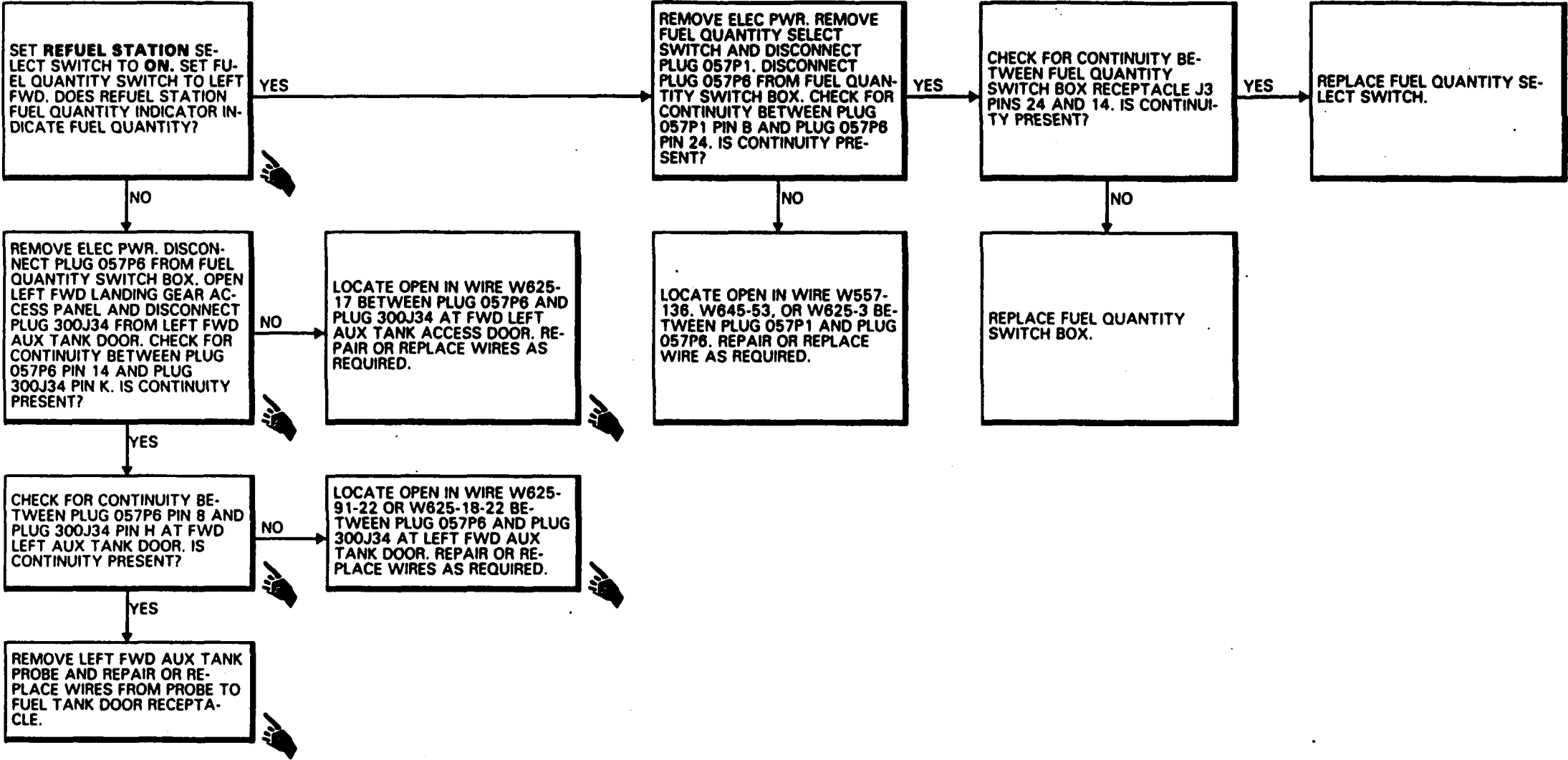
TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
  - Electrical Power On
  - Hydraulic Power Off
  - Right Forward Landing Gear Access Panel Open



A65383



8-11.9 FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO L AFT

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

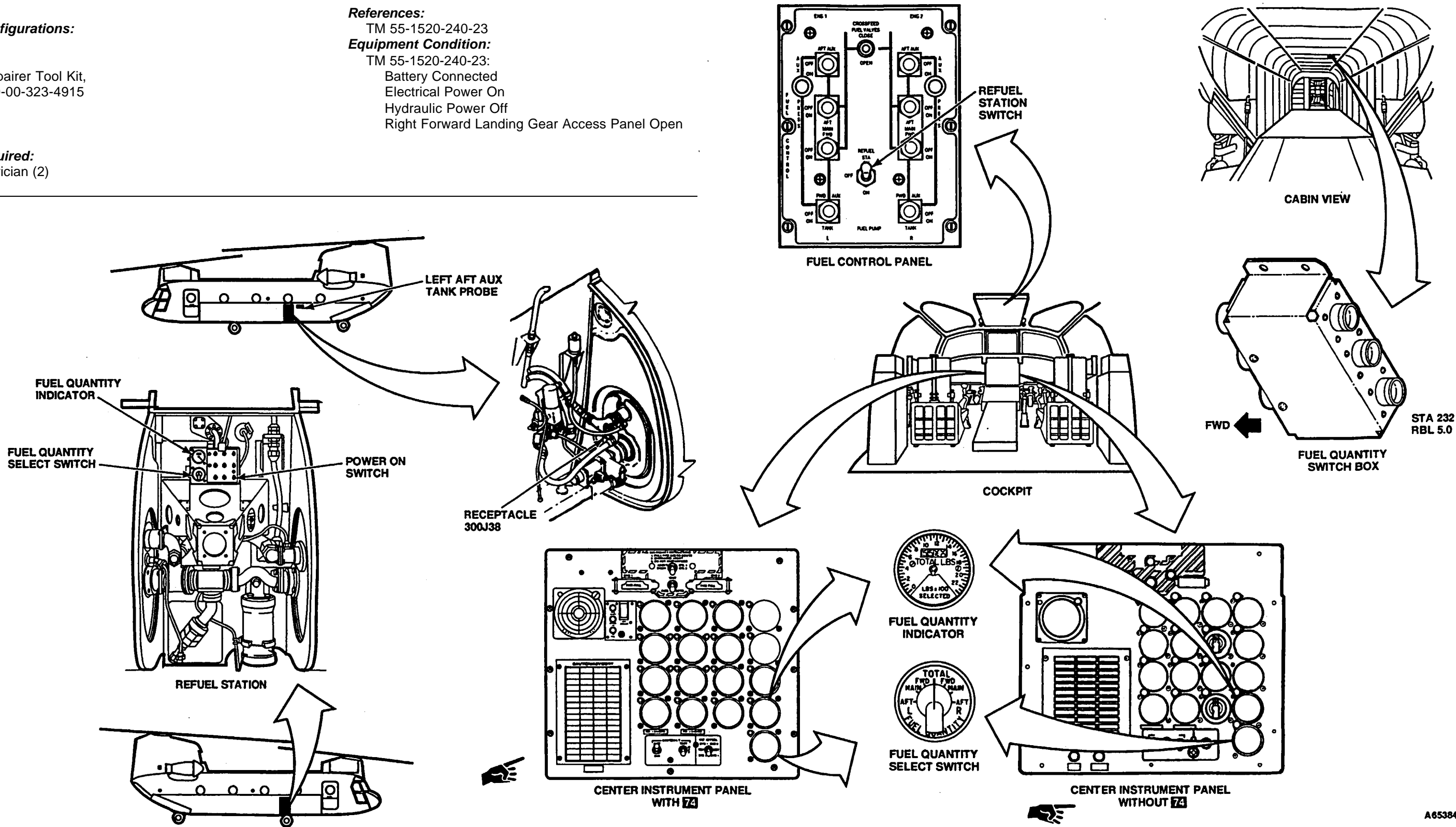
Aircraft Electrician (2)

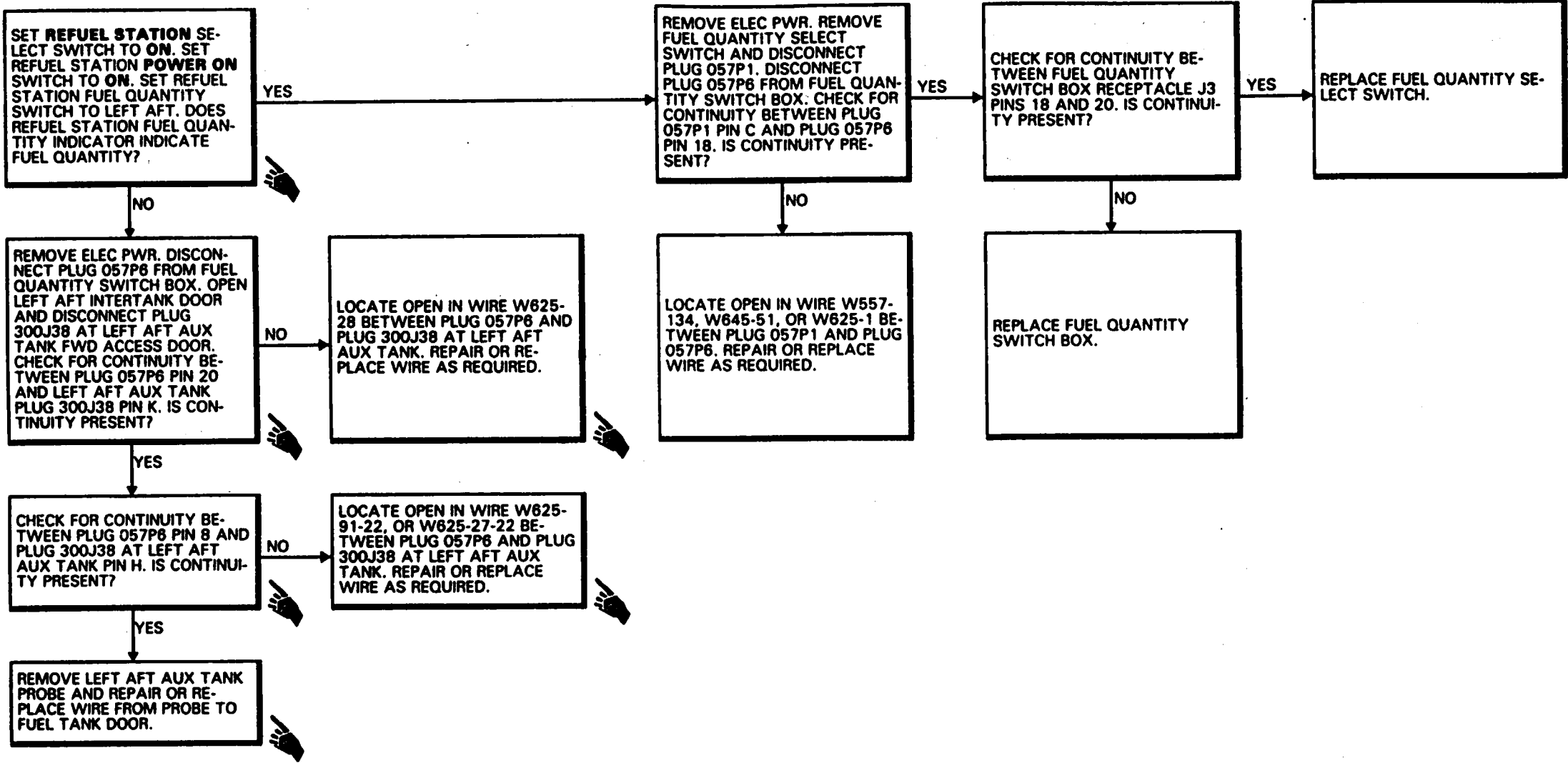
References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Right Forward Landing Gear Access Panel Open





8-11.10 NO FUEL QUANTITY INDICATION WHEN FUEL QUANTITY SELECT SWITCH IS SET TO R MAIN

8-11.10

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915

Materials:

- None

Personnel Required:

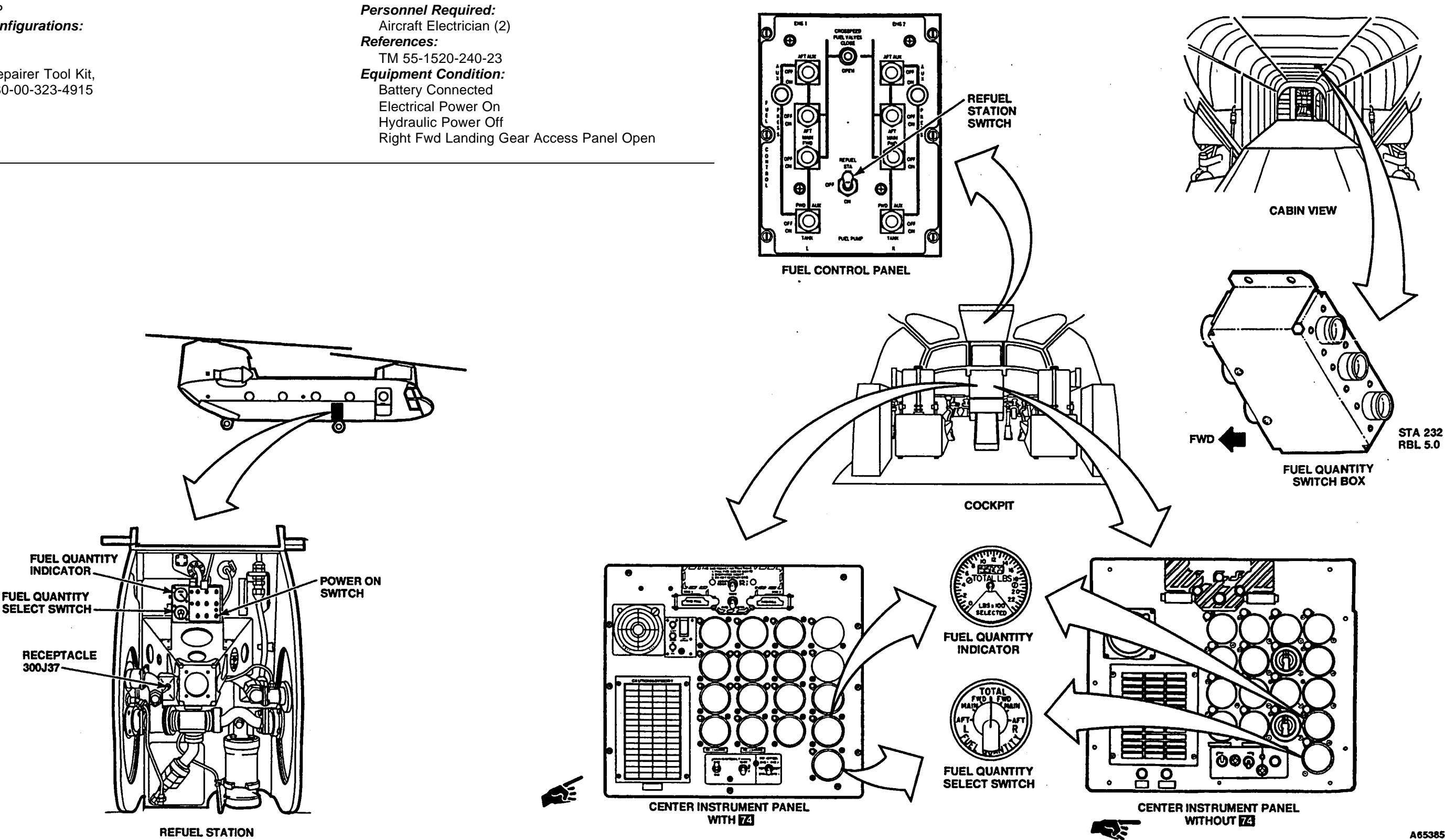
- Aircraft Electrician (2)

References:

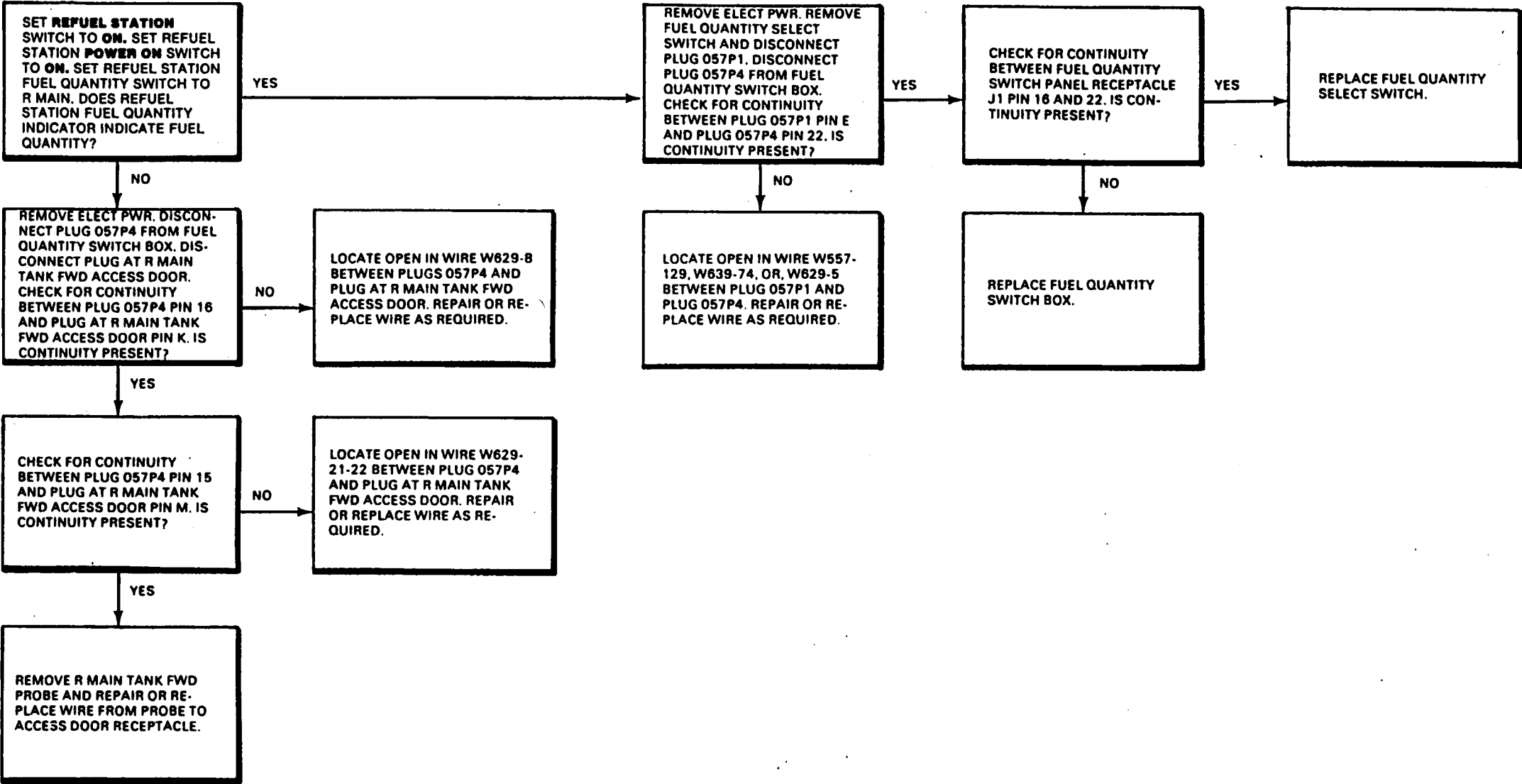
- TM 55-1520-240-23

Equipment Condition:

- Battery Connected
- Electrical Power On
- Hydraulic Power Off
- Right Fwd Landing Gear Access Panel Open



8-11.10 FUEL QUANTITY INDICATION WHEN FUEL QUANTITY SELECT SWITCH IS SET TO R MAIN (Continued)



8-11.11 NO FUEL QUANTITY INDICATION WHEN FUEL QUANTITY SELECT SWITCH IS SET TO R FWD

8-11.11

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

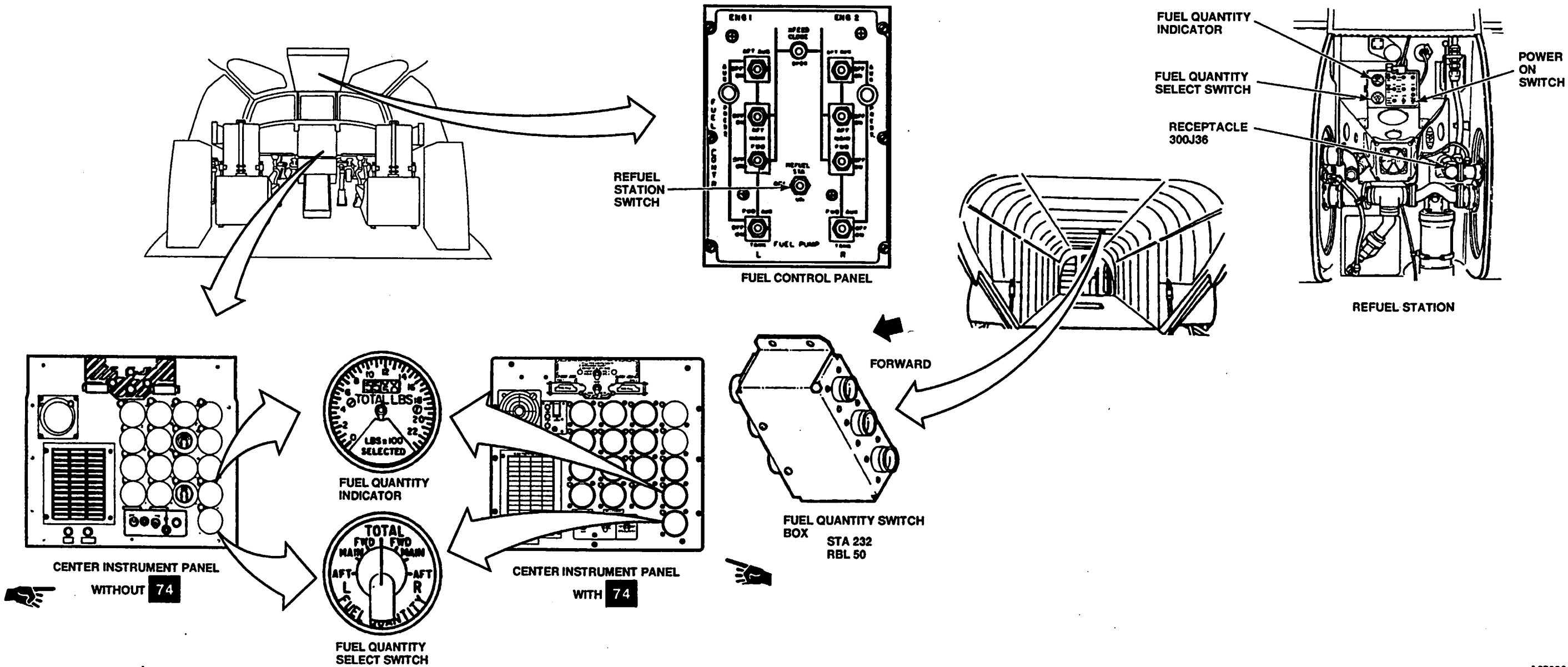
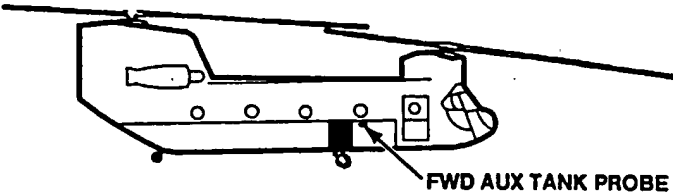
Aircraft Electrician (2)

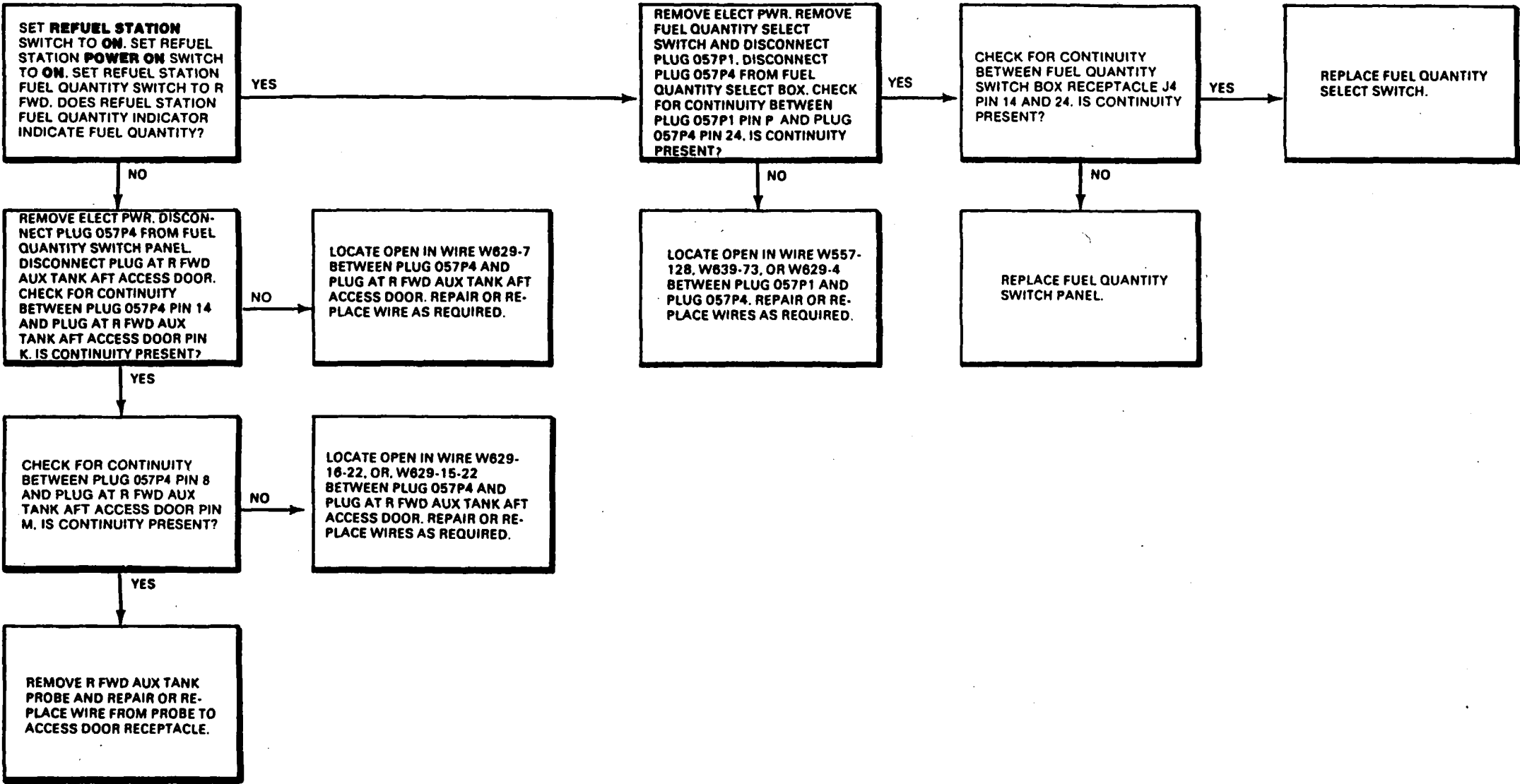
References:

TM 55-1520-240-23

Equipment Condition:

- Battery Connected
- Electrical Power On
- Hydraulic Power Off
- Right Forward Landing Gear Access Panel Open







8-11.12 FUEL QUANTITY INDICATION WRONG WHEN FUEL QUANTITY SELECT SWITCH IS SET TO RIGHT AFT

8-11.12

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

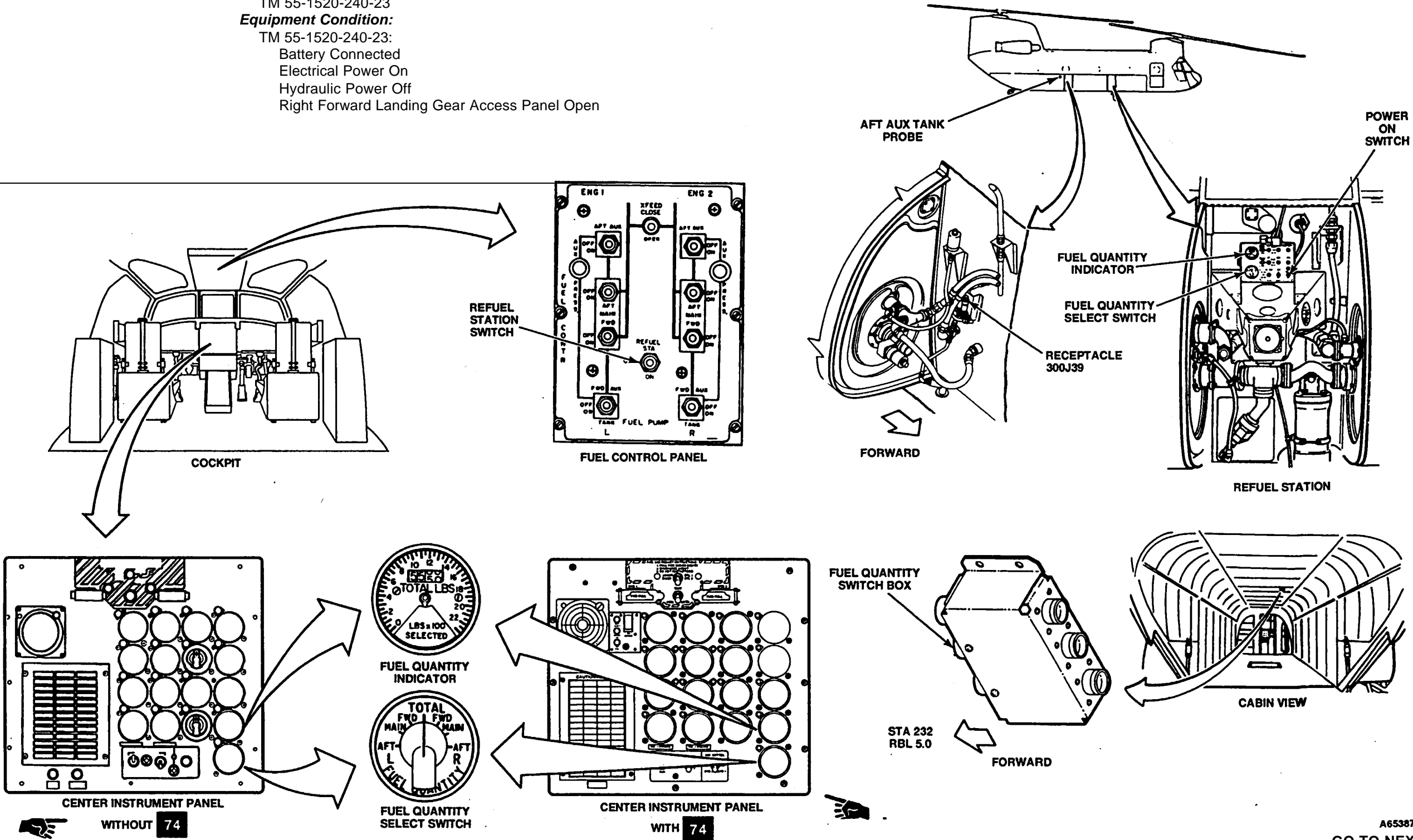
- All
- Tools:
- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915
  - Multimeter

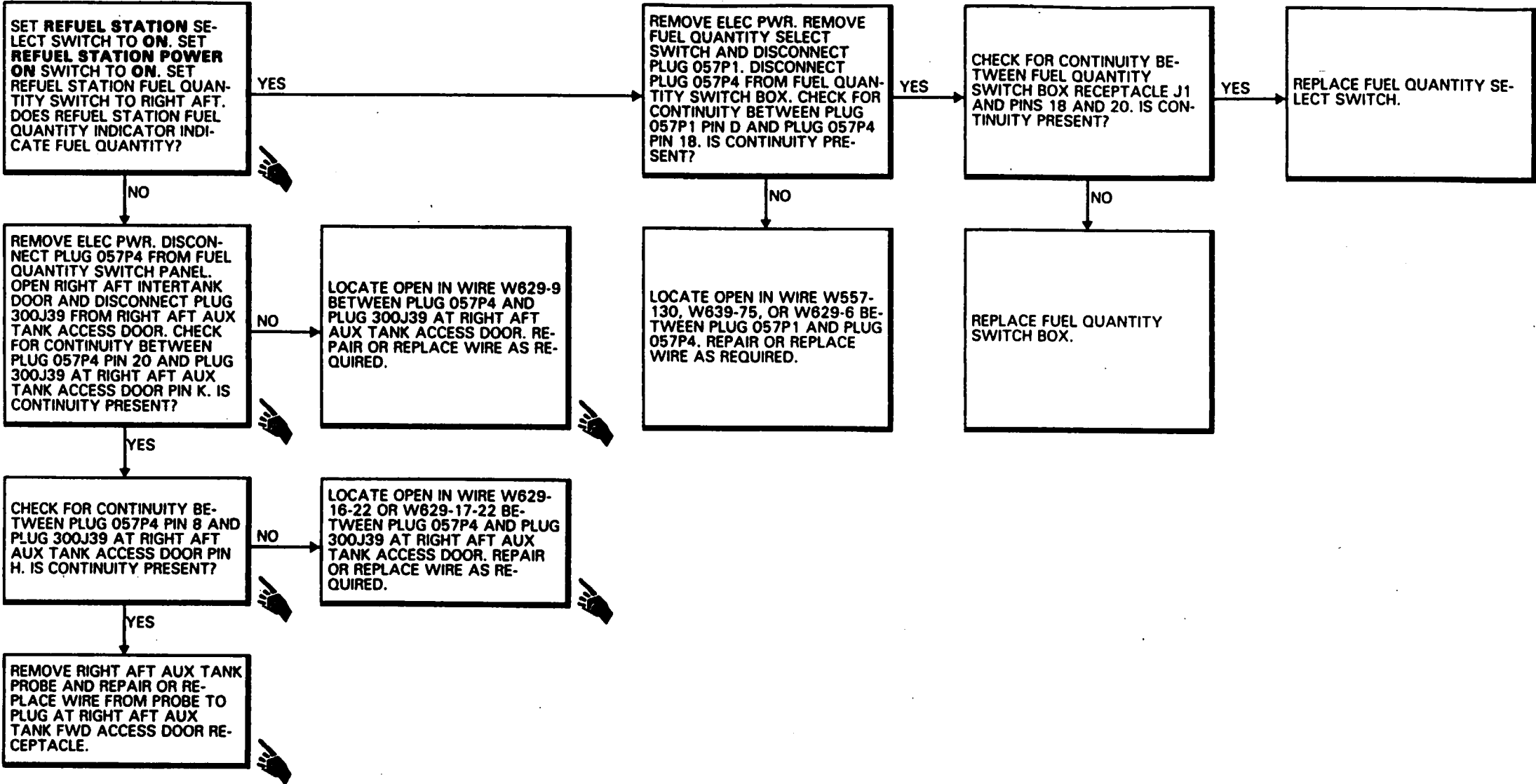
Materials

- None
- Personnel Required:
- Aircraft Electrician (2)

References:

- TM 55-1520-240-23
- Equipment Condition:
- TM 55-1520-240-23:
  - Battery Connected
  - Electrical Power On
  - Hydraulic Power Off
  - Right Forward Landing Gear Access Panel Open





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

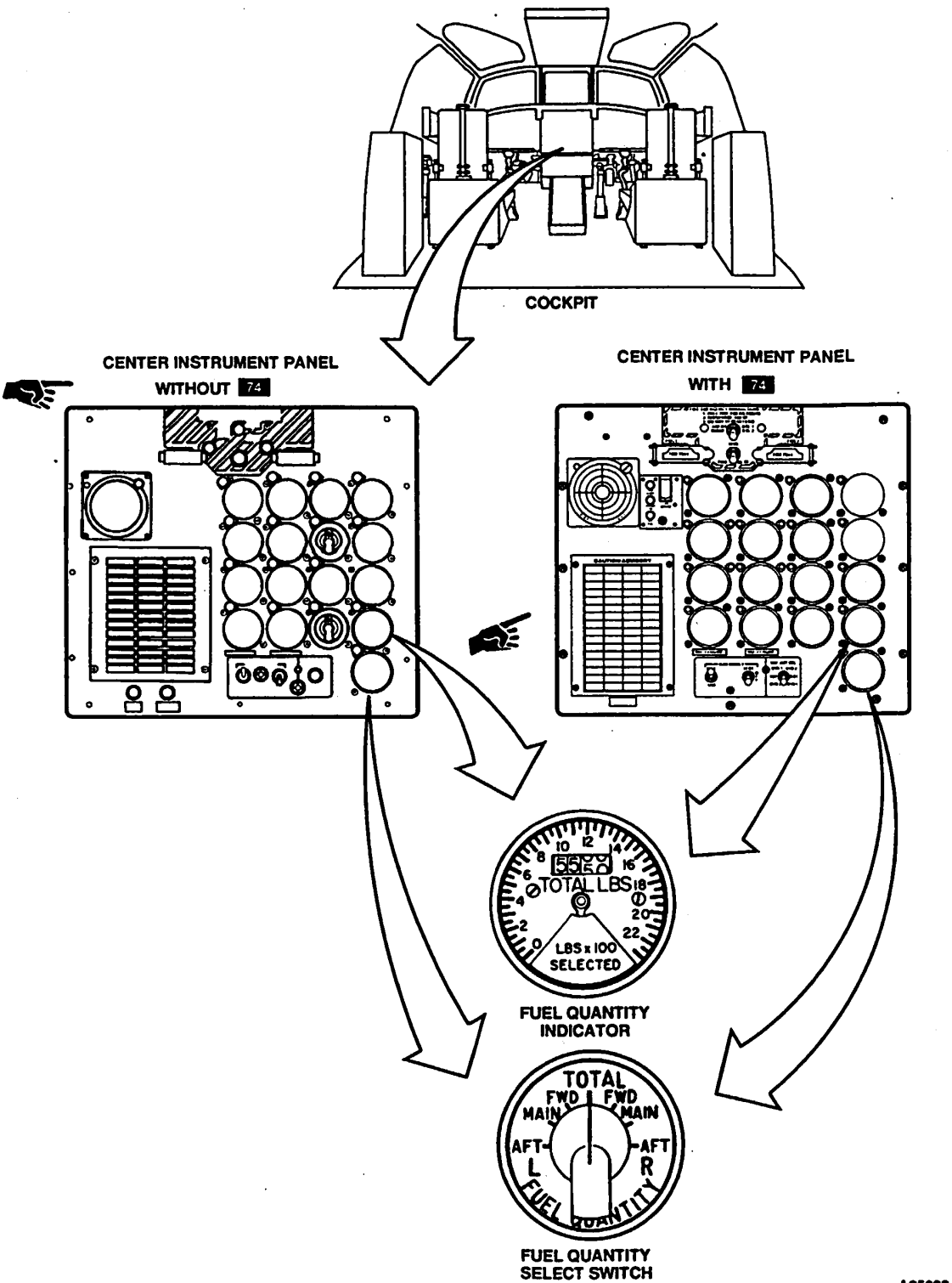
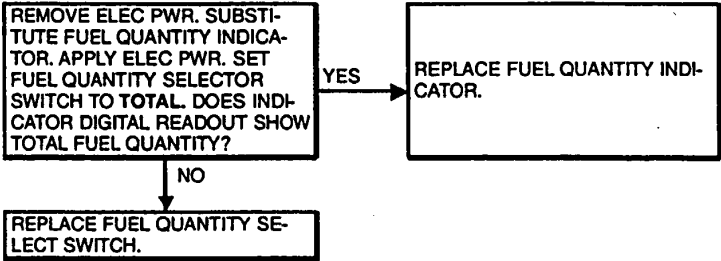
TM 55-1520-240-23

Equipment Condition:

Battery Connected

Electrical Power On

Hydraulic Power Off



A65388

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

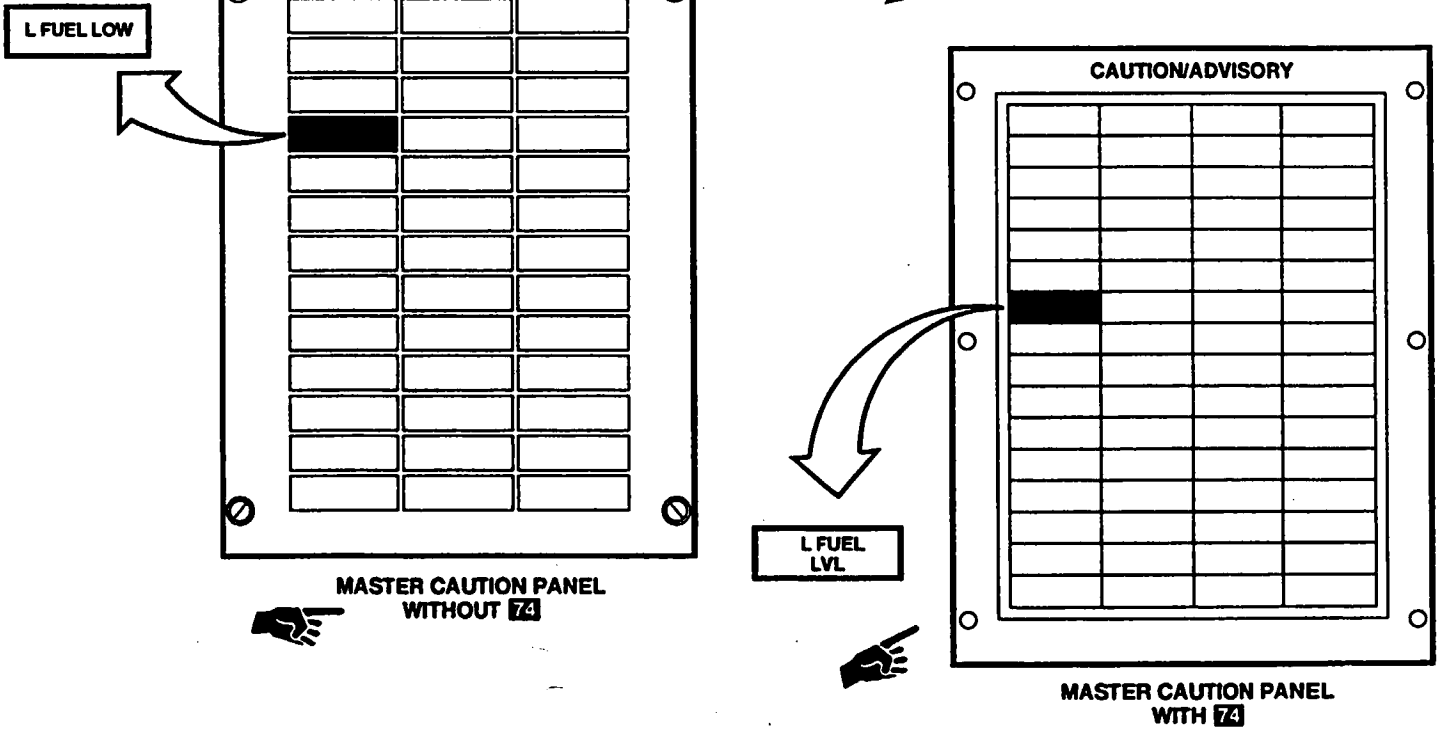
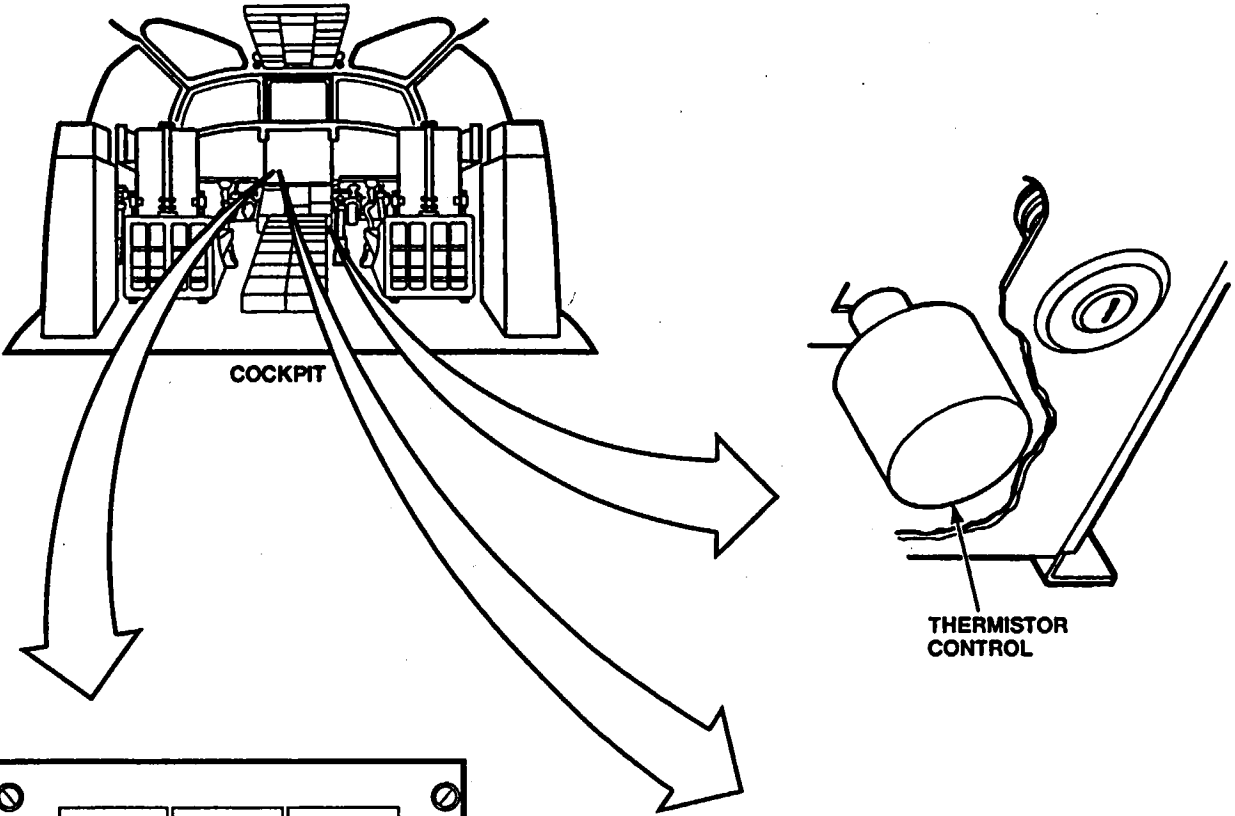
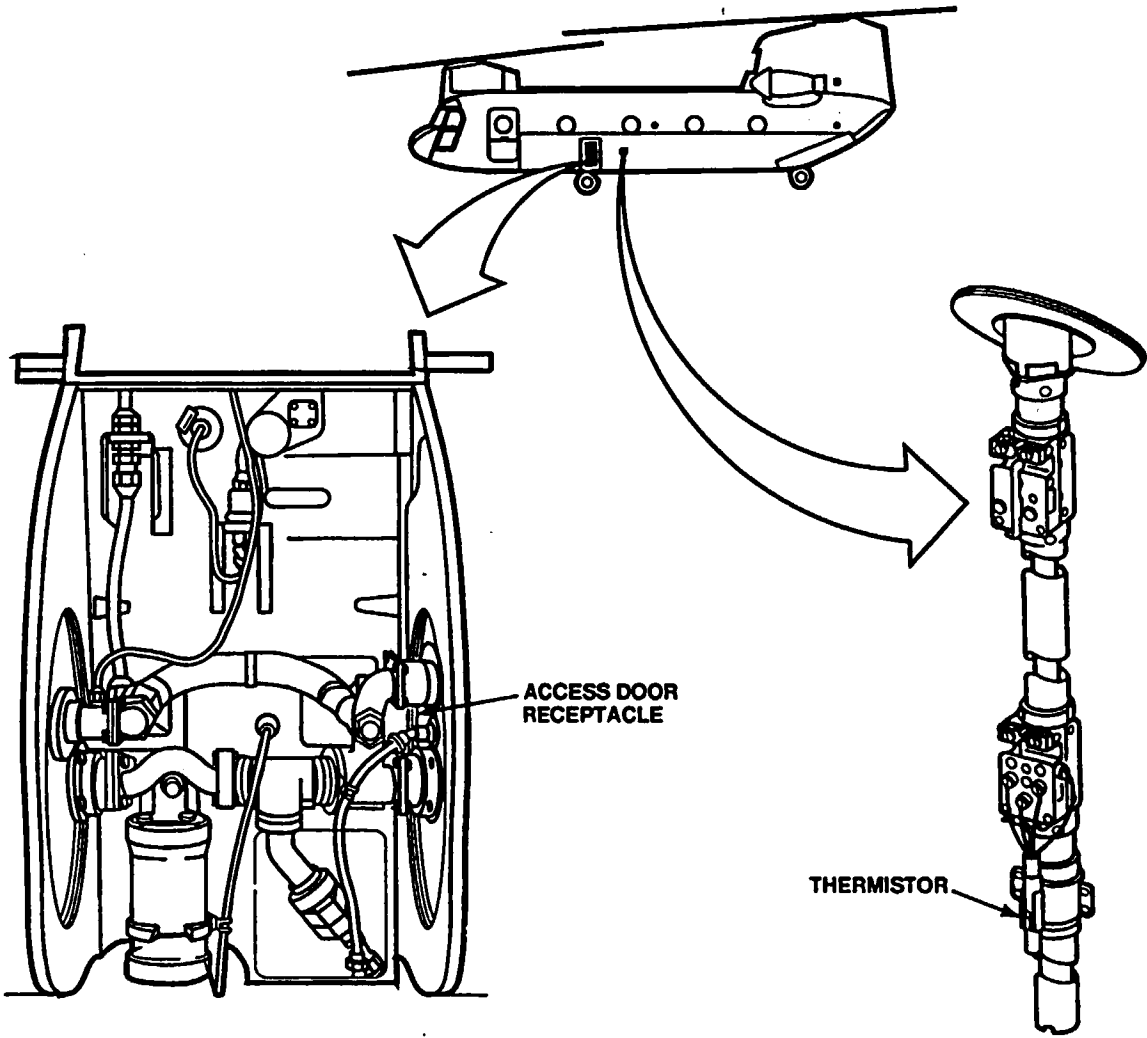
Equipment Condition:

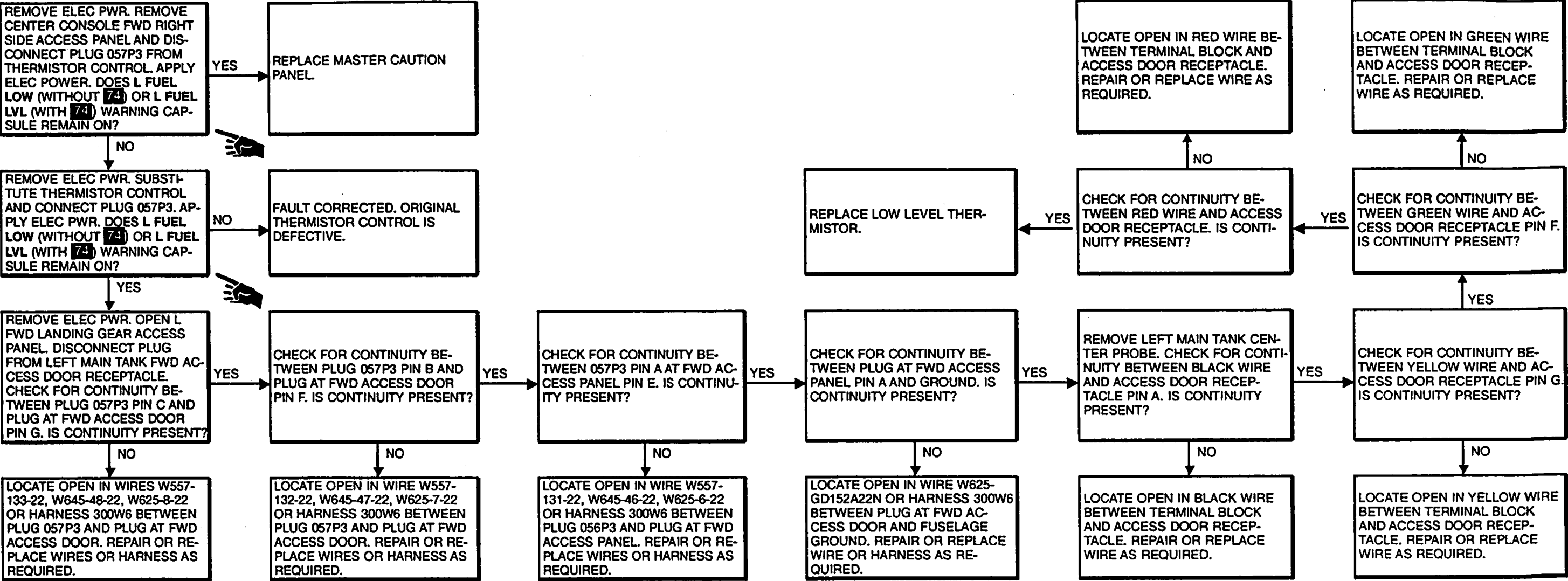
TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

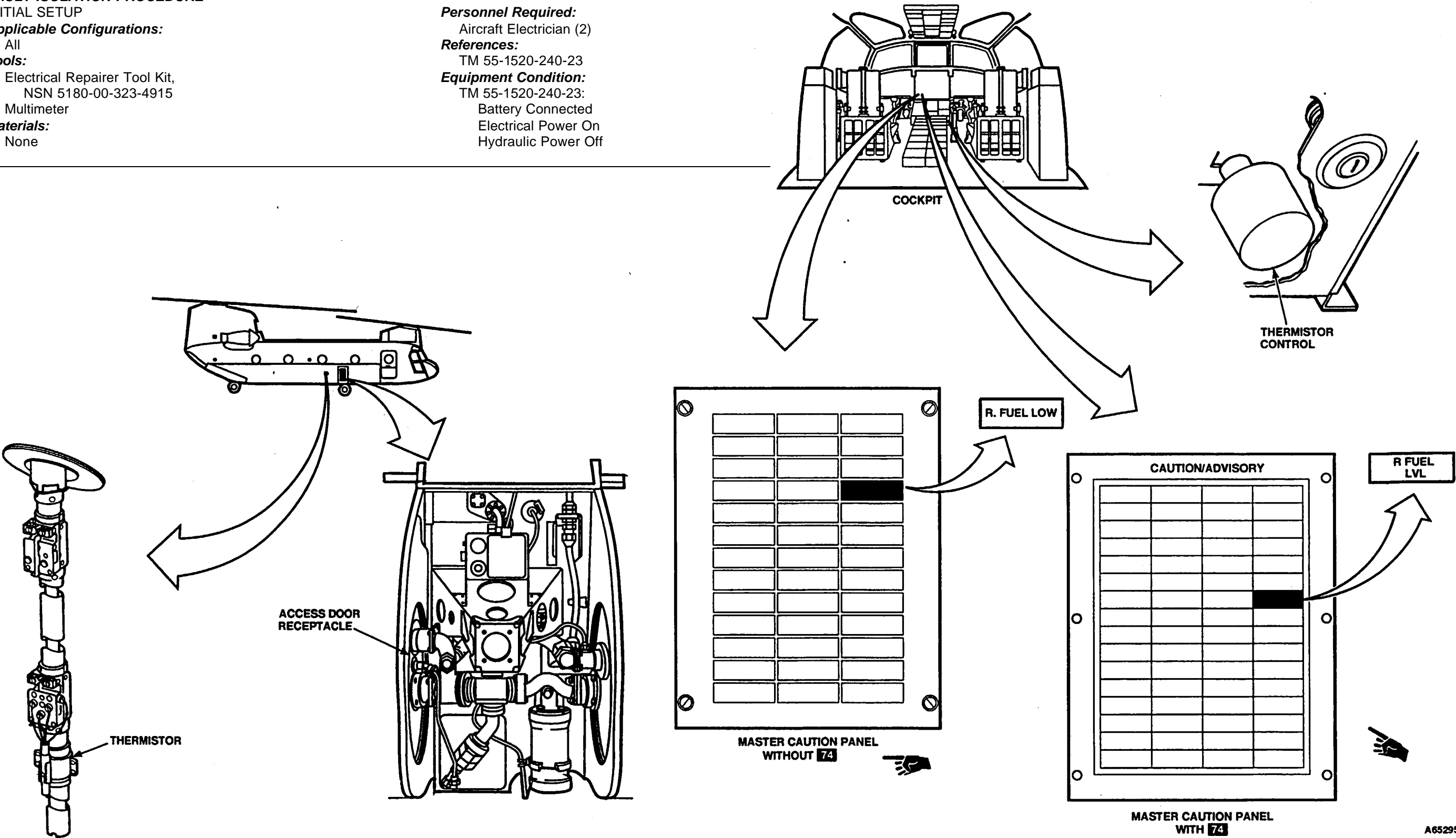
Aircraft Electrician (2)

References:

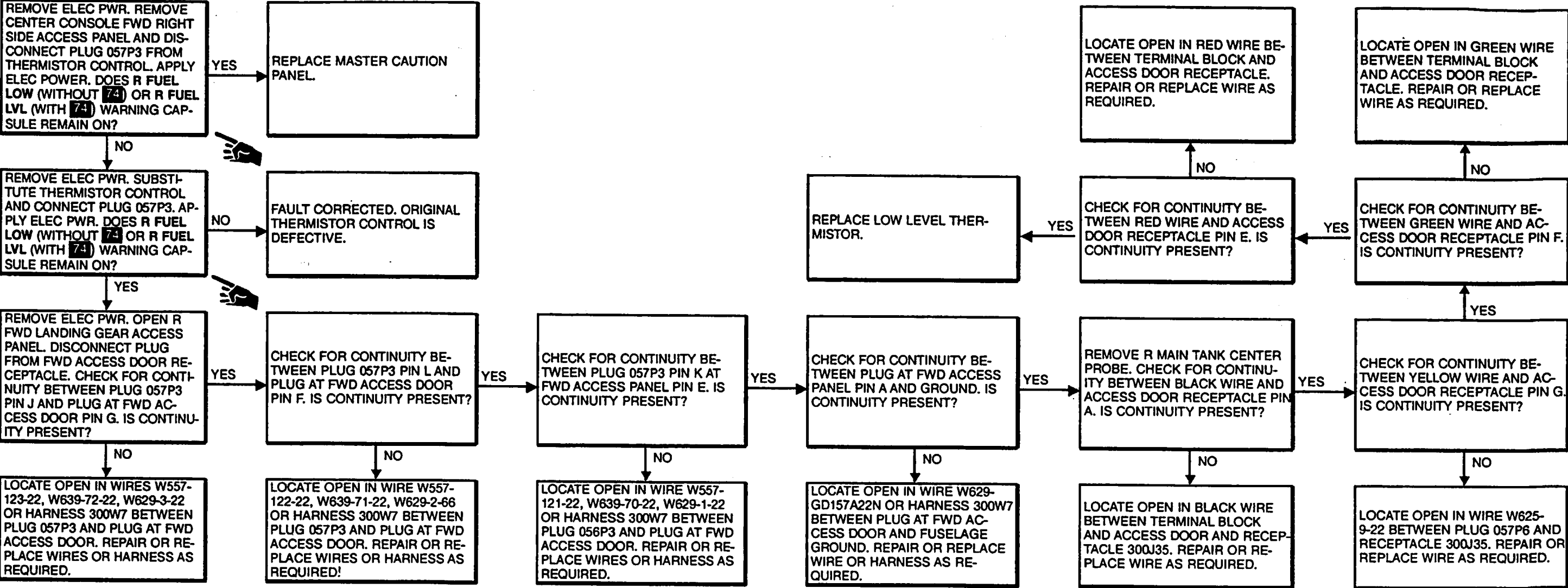
TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



A65295



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

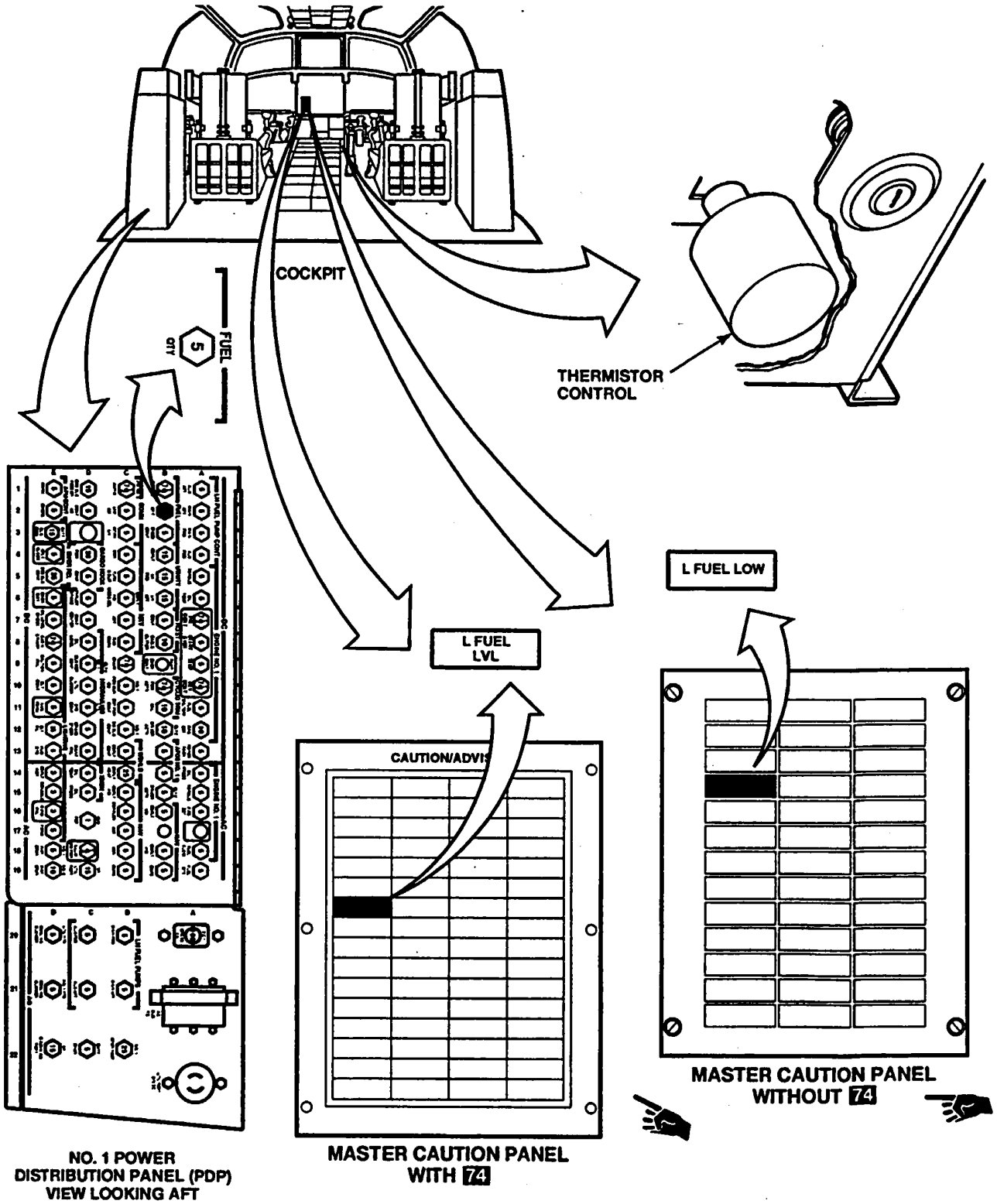
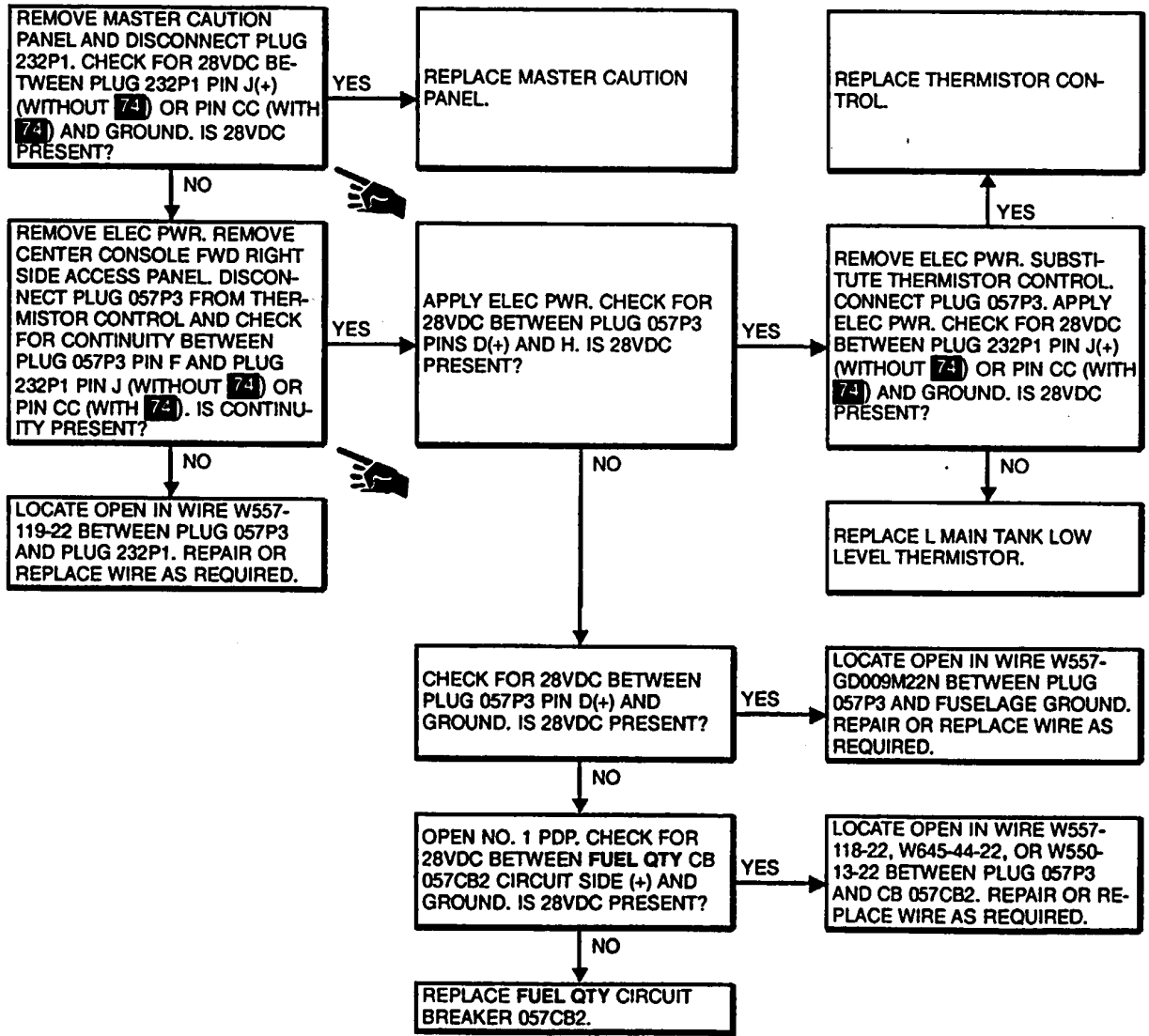
Equipment Condition:

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off





8-11.17 R FUEL LOW (WITHOUT 74), R FUEL LVL (WITH 74), WARNING CAPSULE DOES NOT COME ON WHEN RIGHT MAIN TANK FUEL LEVEL IS BELOW 320 TO 420 POUNDS

8-11.17

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23:

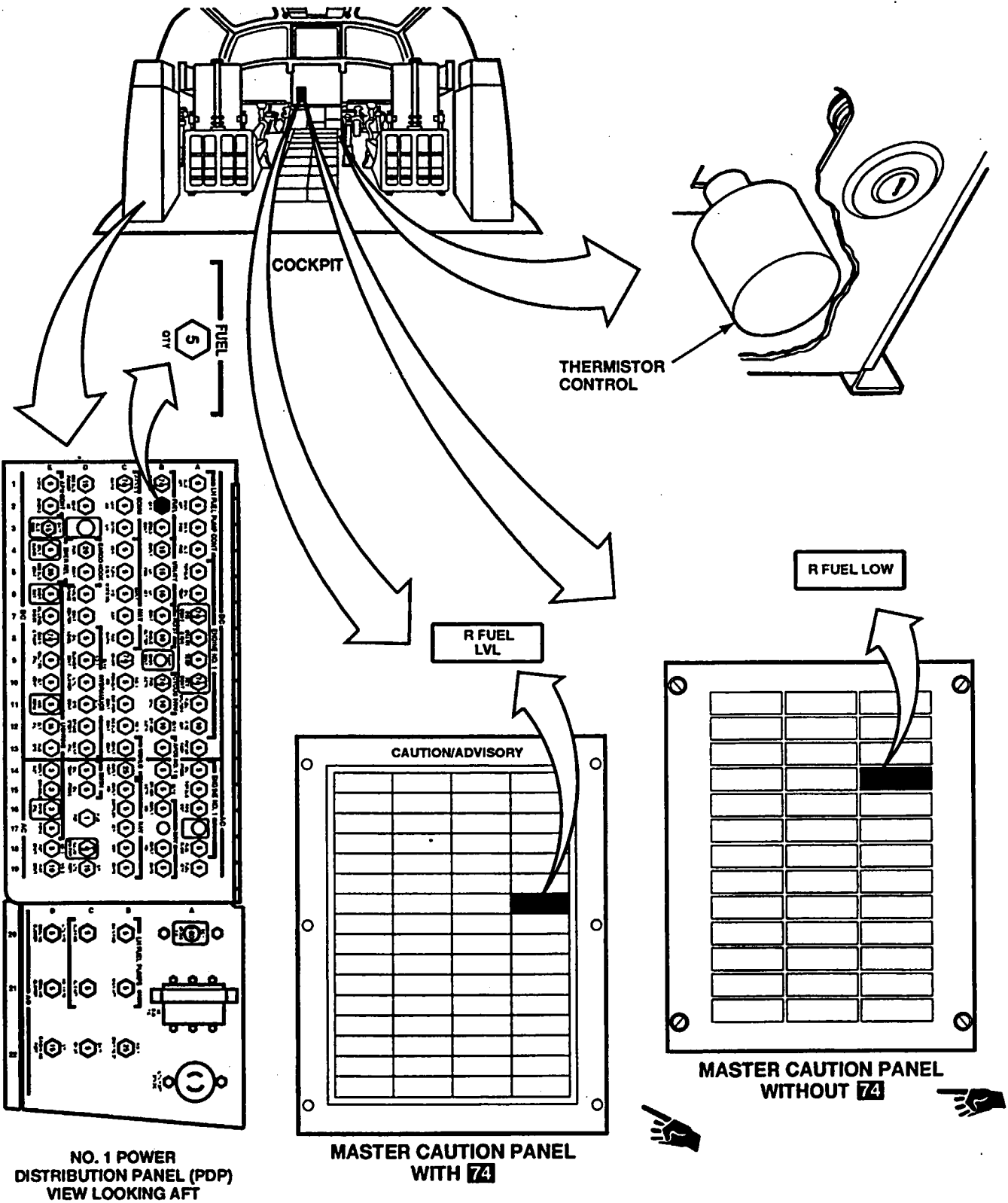
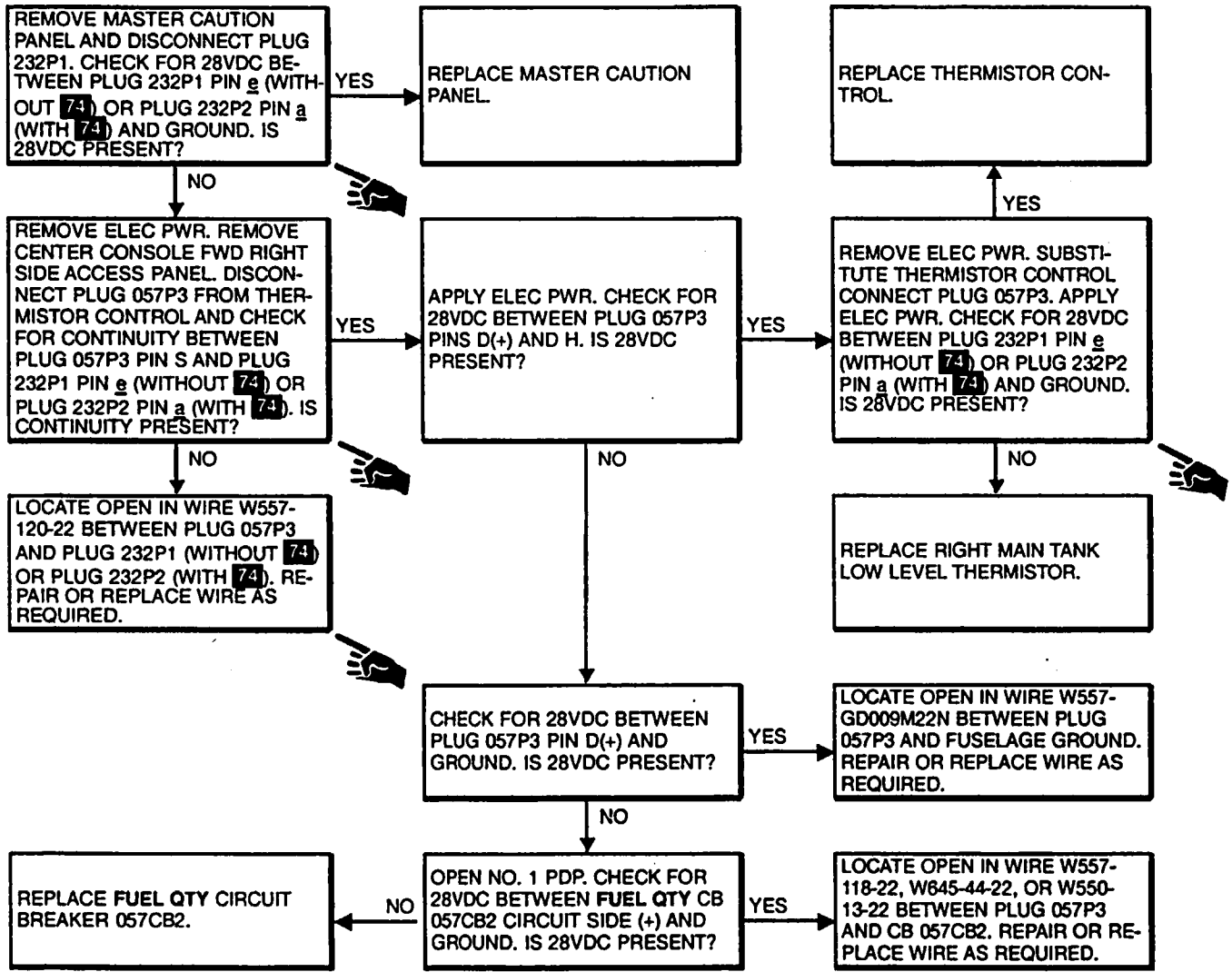
Equipment Condition:

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off



A65296

END OF TASK  
Change 19 8-293

8-11.18 REFUEL PANEL FUEL QUANTITY INDICATOR DOES NOT INDICATE FUEL LEVEL AT ANY SWITCH POSITION

8-11.18

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

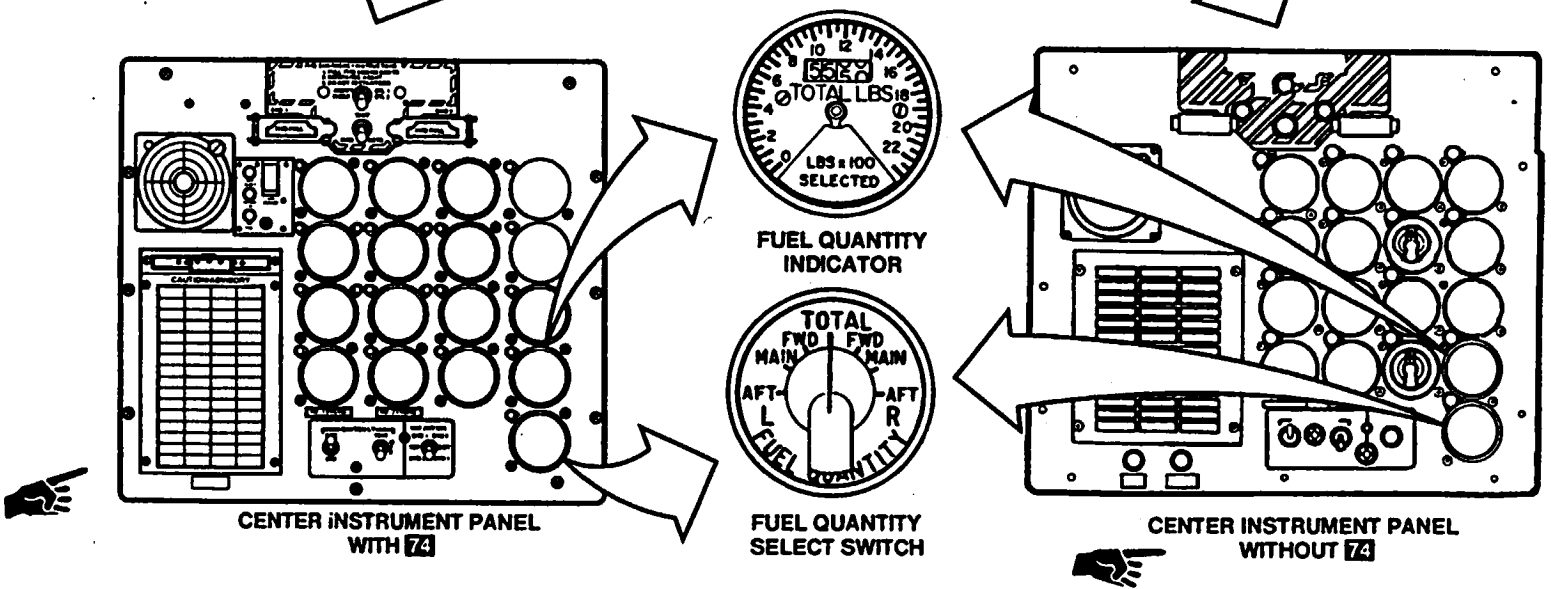
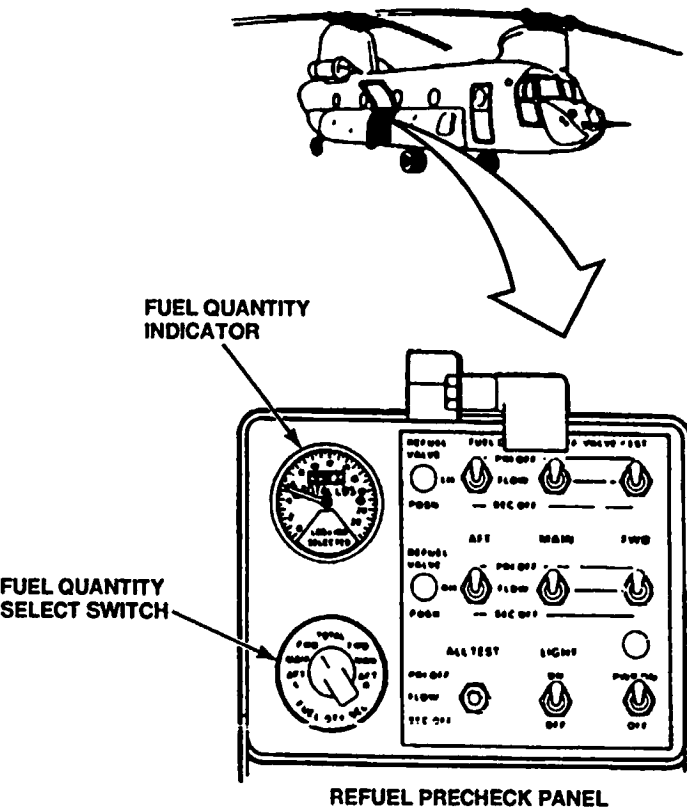
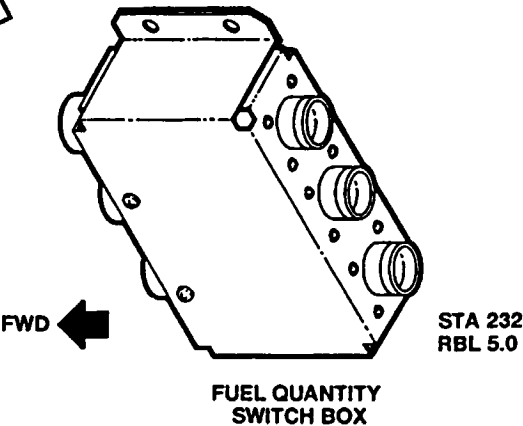
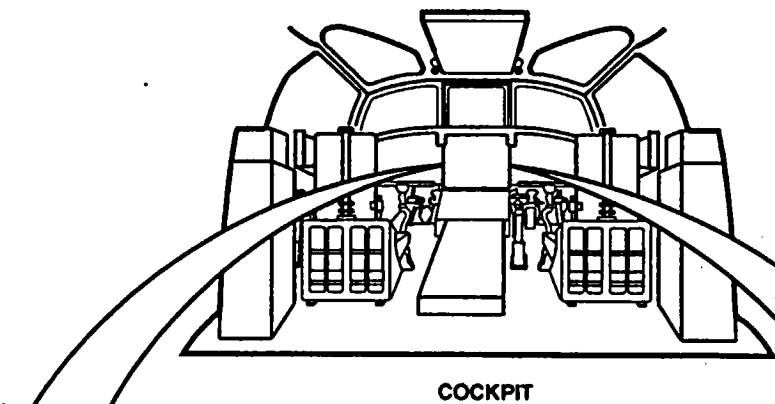
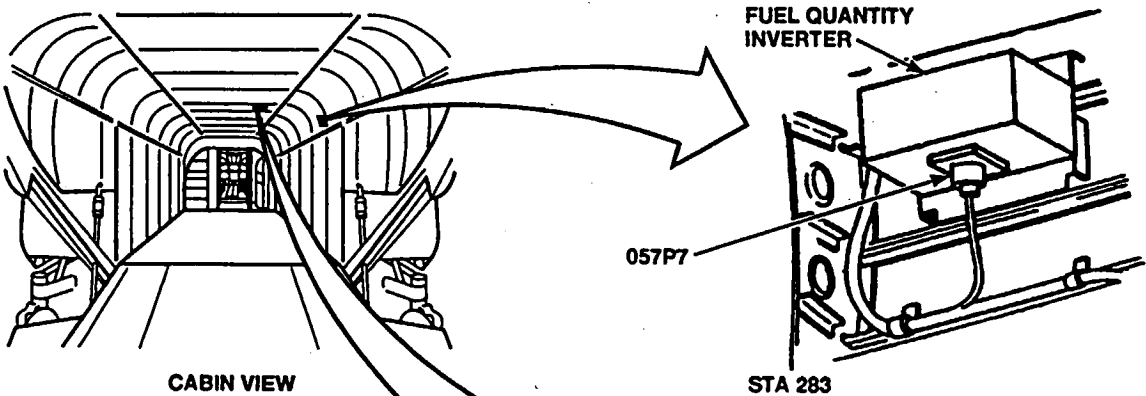
Aircraft Electrician

References:

TM 55-1520-240-23

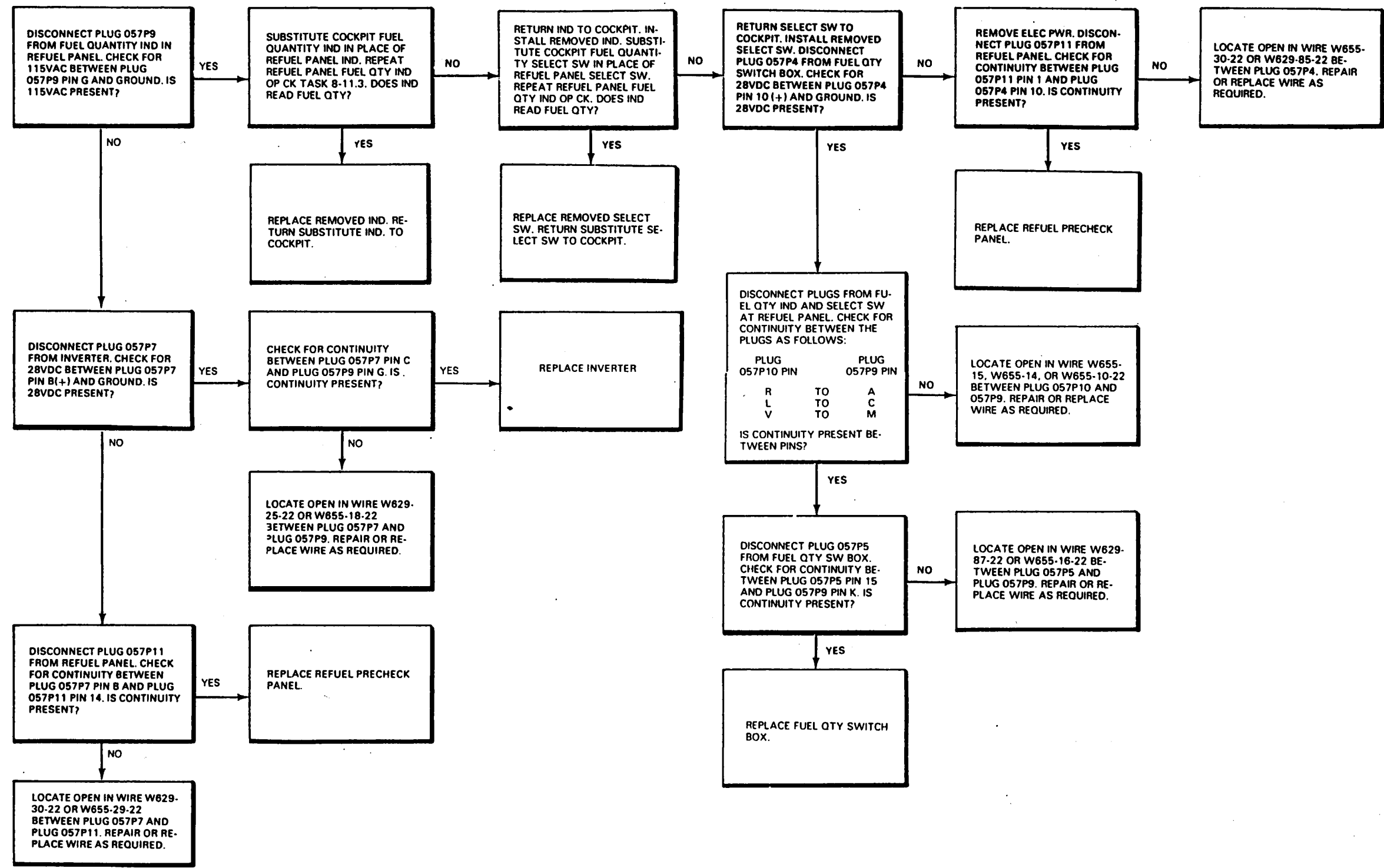
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



8-11.18 REFUEL PANEL FUEL QUANTITY INDICATOR DOES NOT INDICATE FUEL LEVEL AT ANY SWITCH POSITION (Continued)

8-11.18



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer Tool Kit,  
NSN 5180-003234915
  - Multimeter

Materials:

- None

Personnel Required:

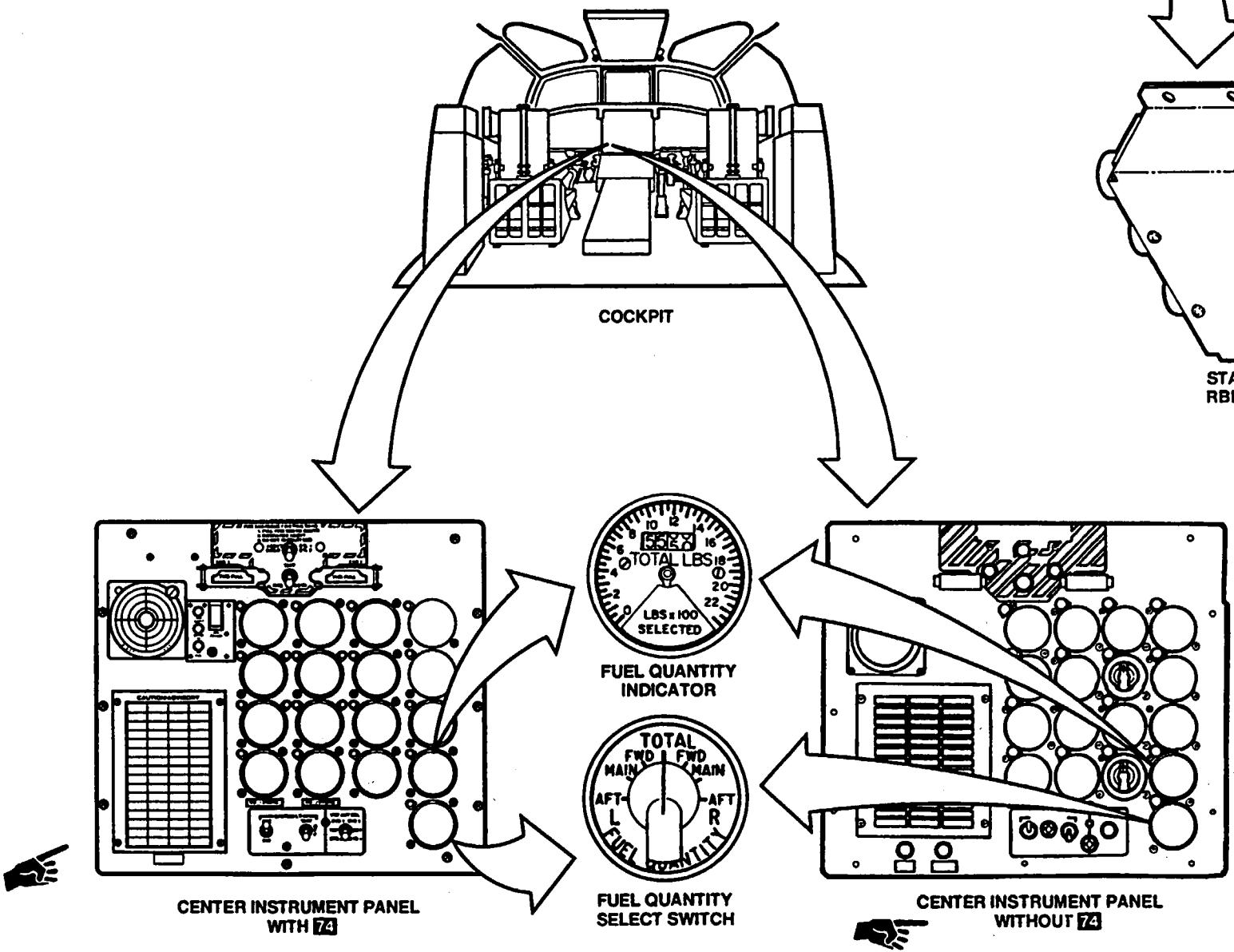
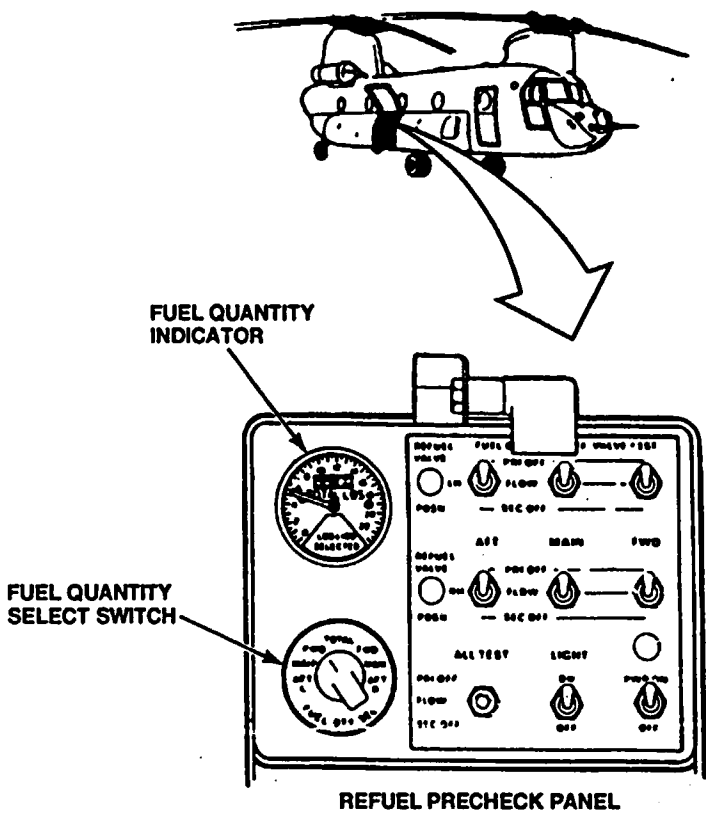
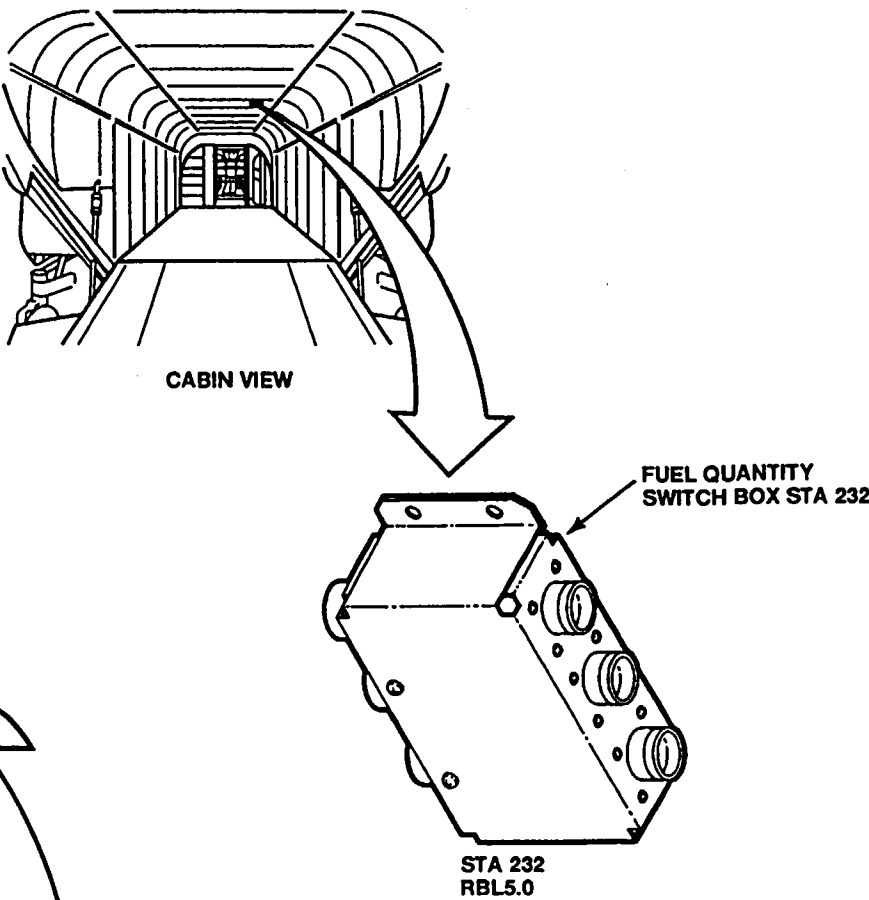
Aircraft Electrician

References:

TM 55-1520-240-23

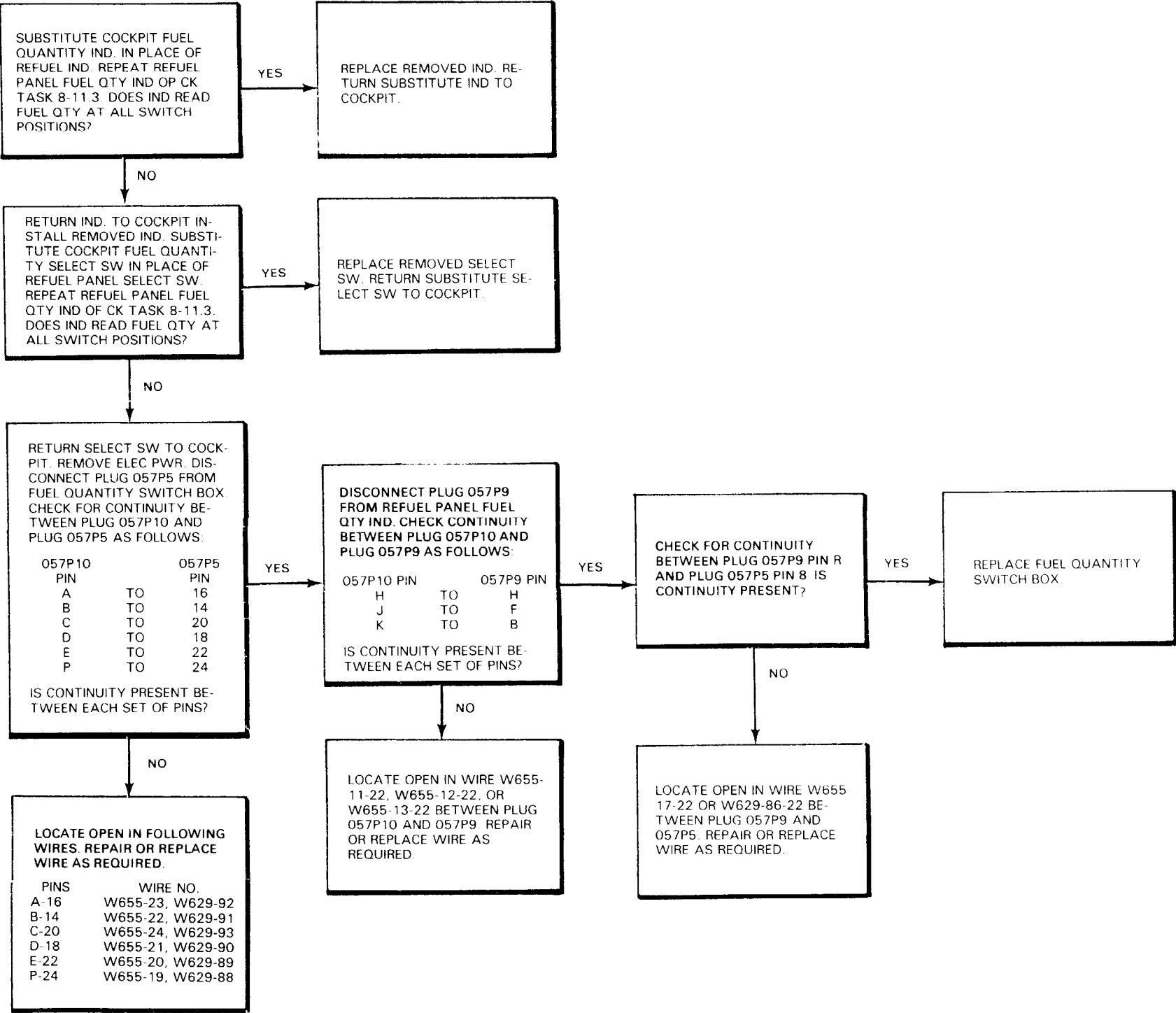
Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
  - Electrical Power On
  - Hydraulic Power Off



8-11.19 REFUEL PANEL FUEL QUANTITY INDICATOR INDICATES FUEL LEVEL FOR ALL BUT ONE SWITCH POSITION (Continued)

8-11.19



GO TO NEXT PAGE



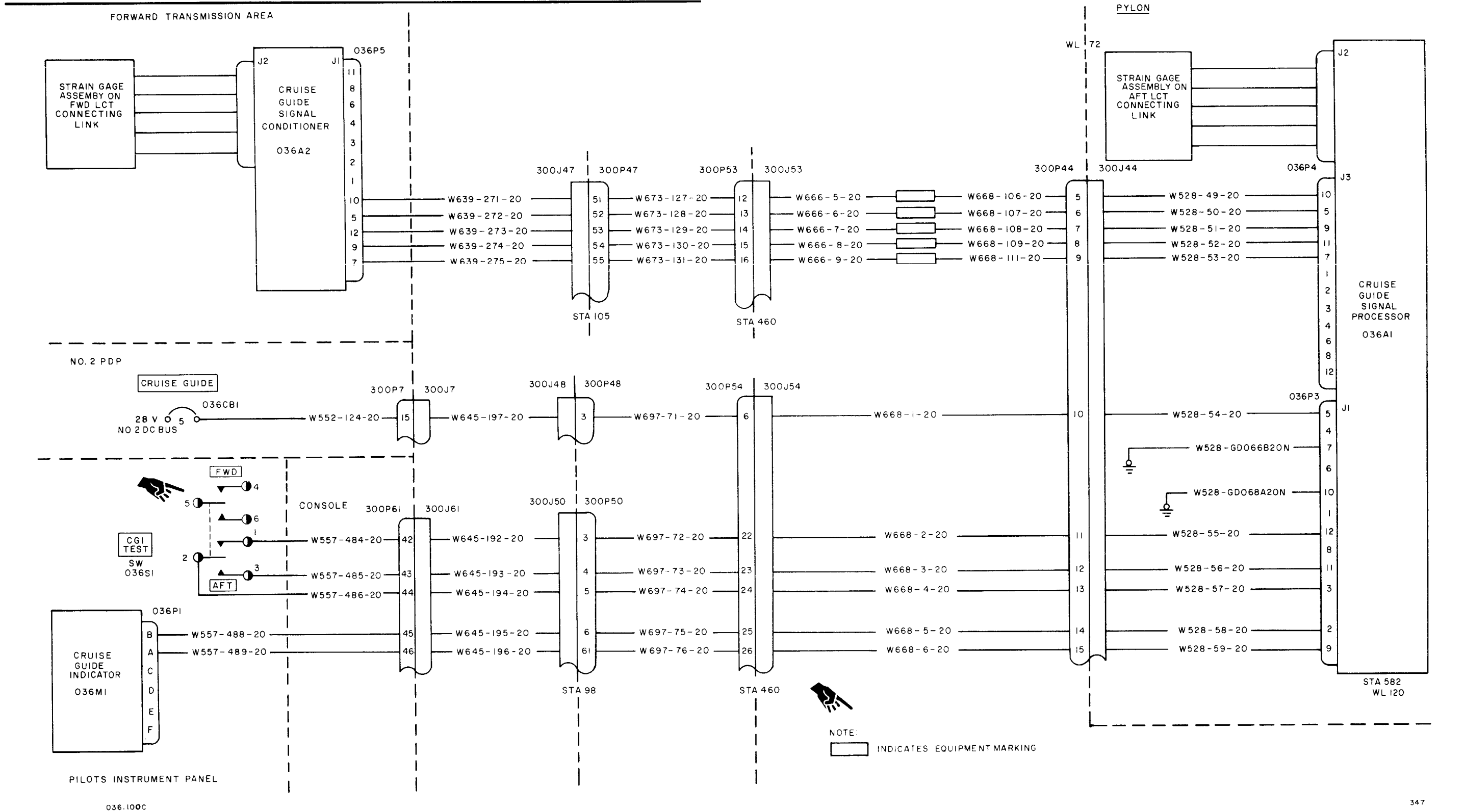
## 8 - 1 2 C R U I S E G U I D E I N D I C A T I N G S Y S T E M

8-12 CRUISE GUIDE INDICATING SYSTEM

8-12

8-12.1 CRUISE GUIDE INDICATING SYSTEM WIRING  
DIAGRAM

8-12.1







8-12.2 CRUISE GUIDE INDICATING SYSTEM VISUAL CHECK

INITIAL SETUP

**Applicable Configurations:**  
All

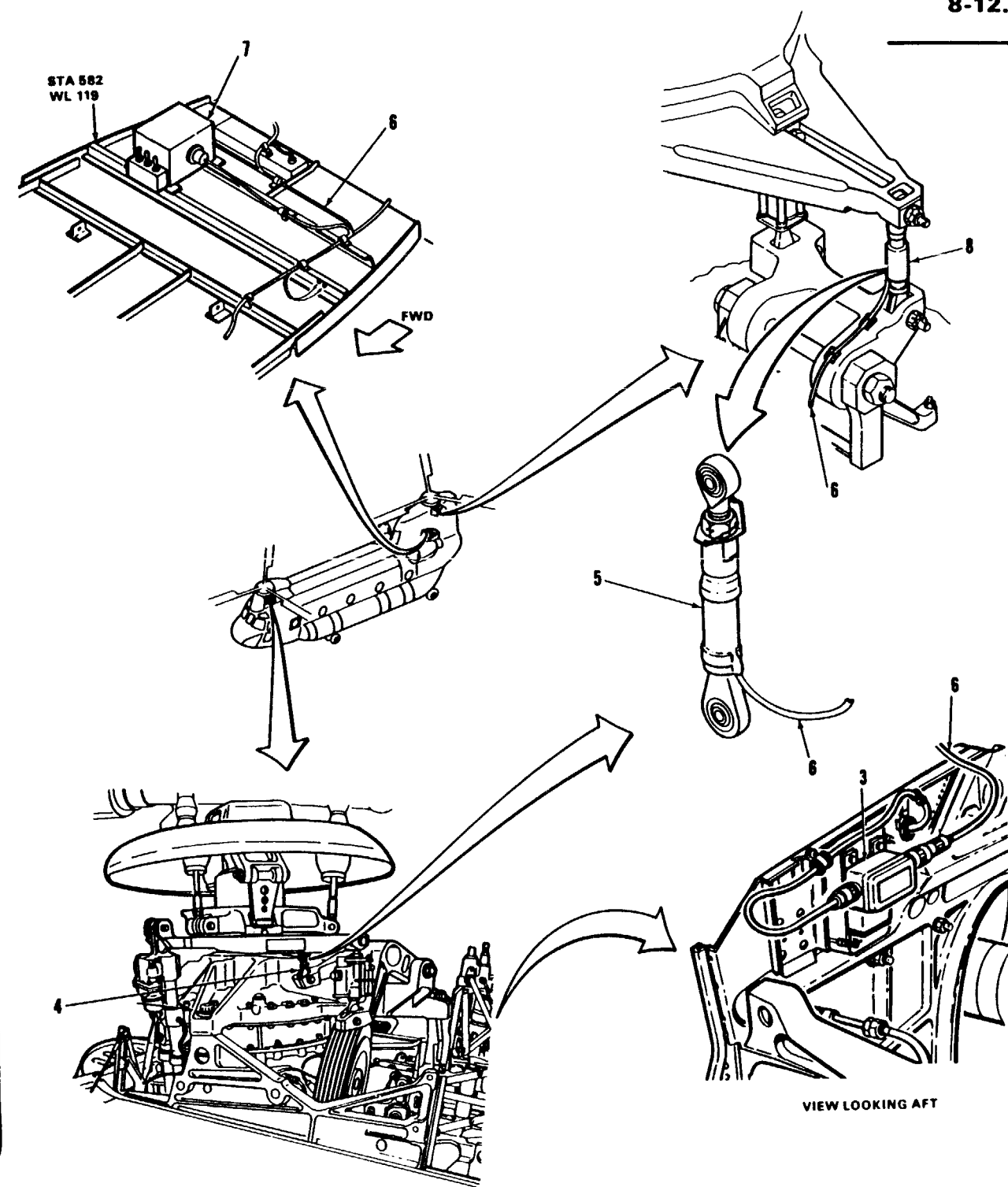
**Tools:**  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692

**Materials:**  
None

**Personnel Required:**  
67U10 Medium Helicopter Repairer

**References:**  
TM 55-1520-240-23

**Equipment Condition**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Right Forward Work Platform Open  
Pylon Left and Right Work  
Platform Open



8-12.2

8-12.2 CRUISE GUIDE INDICATING SYSTEM VISUAL CHECK  
(Continued)

8-12.2

TASK	RESULT
1. Check CGI TEST switch (1).	If switch (1) is loose or damaged, tighten or re- place it as required.
2. Check cruise guide indicator (2).	If indicator (2) is damaged, replace it.
3. Check signal conditioner (3).	If conditioner (3) is loose or damaged, tighten or replace it as required. If wiring or connector to conditioner is damaged, repair or replace as re- quired.
4. Check forward longitudinal cyclic trim connecting link (4).	If boot (5) or wire harness (6) is damaged, replace link (4).
5. Check signal processor (7).	If processor (7) is loose or damaged, tighten or re- place it as required. If wiring or connector to processor is damaged repair or replace it as re- quired.
6. Check aft longitudinal cyclic trim con- netting link (8).	If boot (5) or wire harness (6) is damaged, replace link (8).

FOLLOW-ON MAINTENANCE:

- TM 55-1520-240-23:
- Close pylon left work platform
- Close left and right forward work platform

END OF TASK

8-12.3 CRUISE GUIDE INDICATING SYSTEM OPERATIONAL CHECK

INITIAL SETUP

**Applicable Configurations:**  
All

**References:**  
TM 55-1520-240-23

**Tools:**  
Stopwatch

**Equipment Condition:**  
TM 55-1520-240-23:

**Materials:**  
None

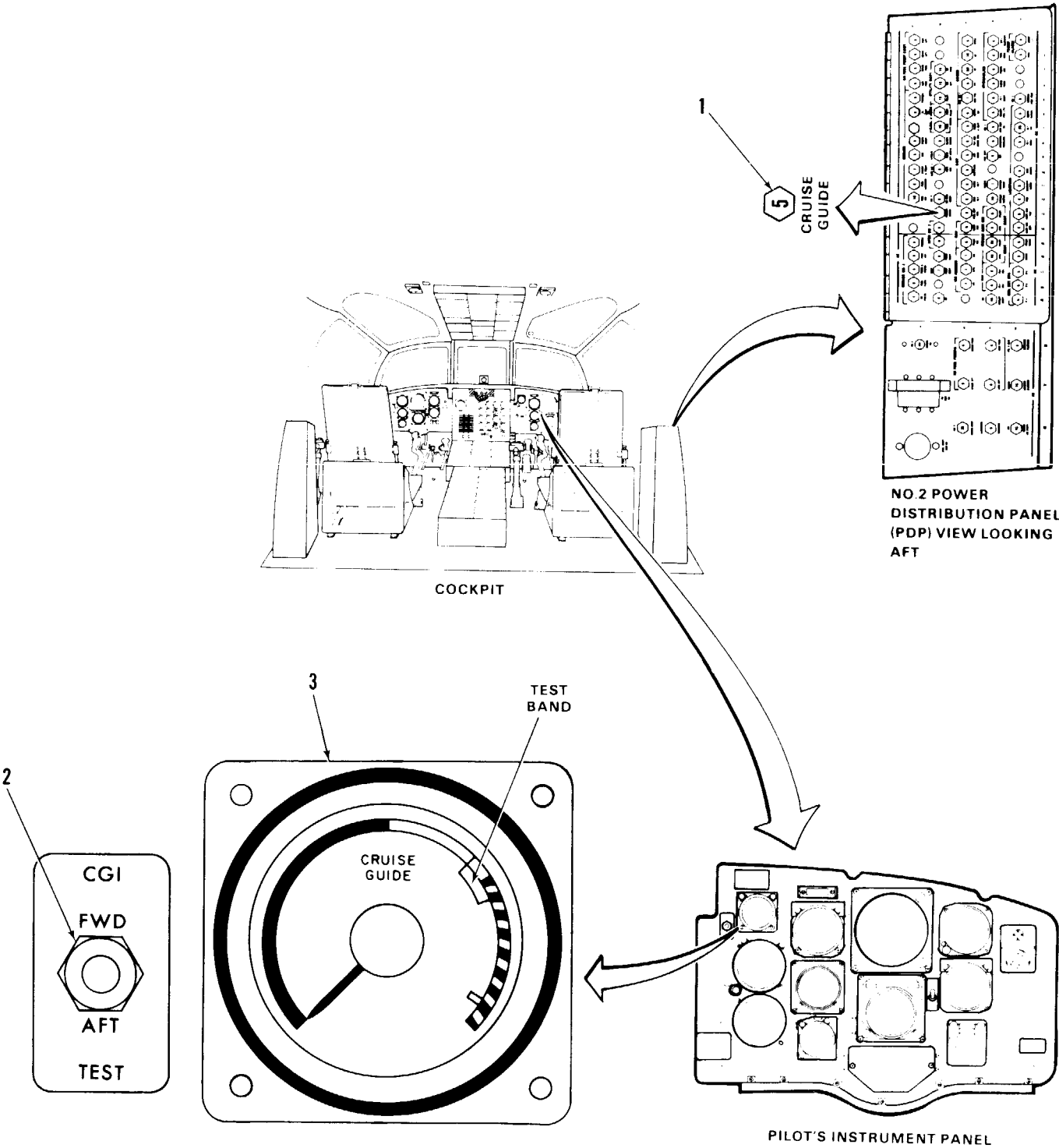
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Cruise Guide Indicating System  
Visual Check Performed (Task 8-12.2)

**Personnel Required:**  
68F20 Aircraft Electrician

TASK	RESULT
1. Check that <b>CRUISE GUIDE</b> circuit breaker (1) is closed.	If circuit breaker (1) is open, close it. If it opens again go to task 8-12.4
2. Set and hold <b>CGI TEST</b> switch (2) to <b>AFT</b> .	Pointer on Indicator (3) shall move to test band within <u>8 seconds</u> . If pointer is not in test band, go to task 8-12.5.
3. Release <b>CGI TEST</b> switch (2).	Pointer on indicator (3) shall move down scale. If it does not, replace switch (2).
4. Set and hold <b>CGI TEST</b> switch (2) to <b>FWD</b> .	Pointer on Indicator (3) shall move to test band within <u>8 seconds</u> . If pointer is not in test band, go to task 8-12.6.
5. Release <b>CGI TEST</b> switch (2).	Pointer on indicator (3) shall move down scale. If it does not, replace switch (2).

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off



8-12.4 CRUISE GUIDE CIRCUIT BREAKER DOES NOT STAY CLOSED

8-12.4

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

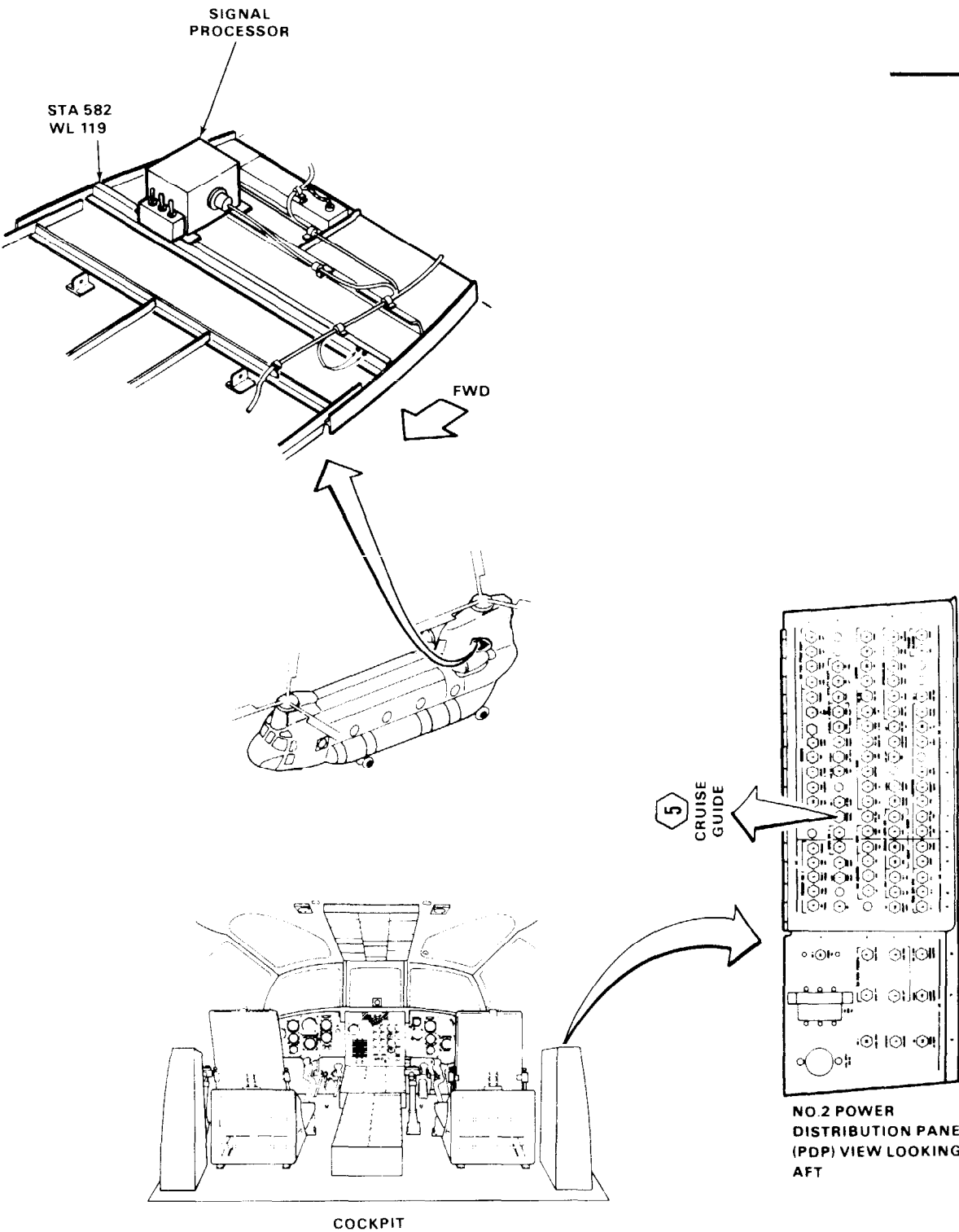
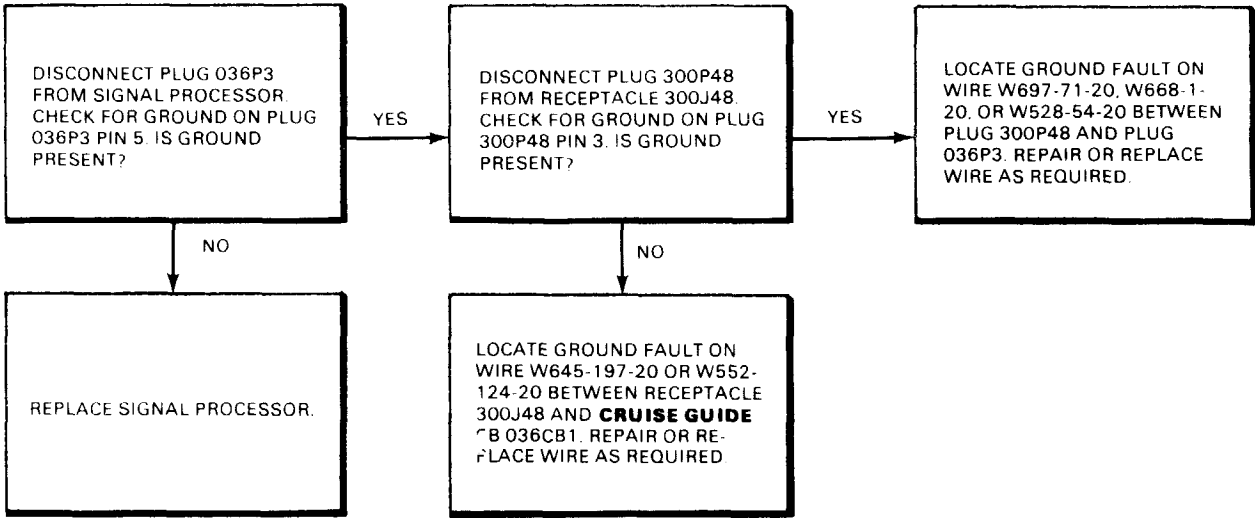
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Pylon Left Work Platform  
Open



8-12.5 CRUISE GUIDE INDICATOR POINTER NOT IN TEST BAND  
WITH CGI TEST SWITCH AT AFT

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

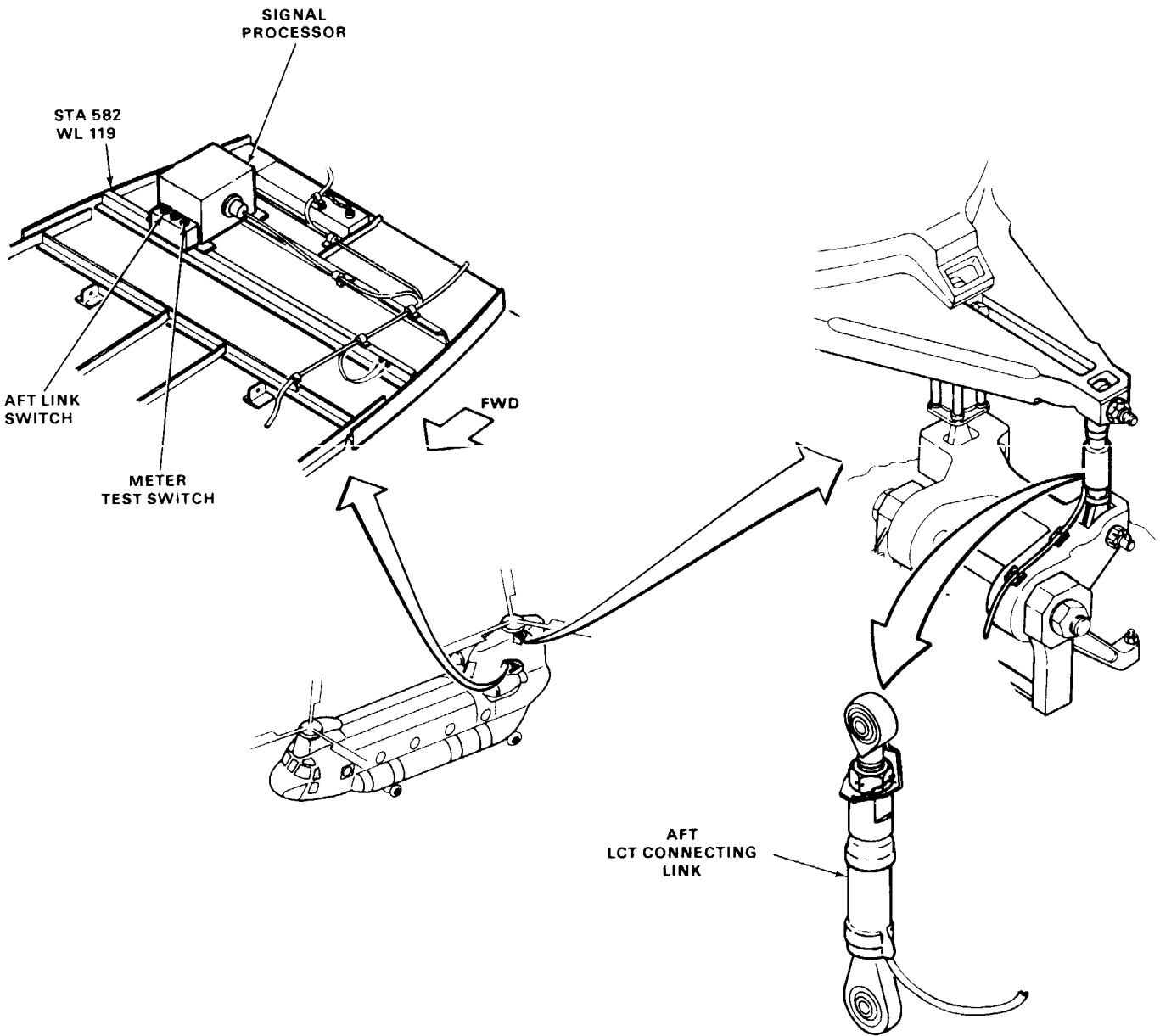
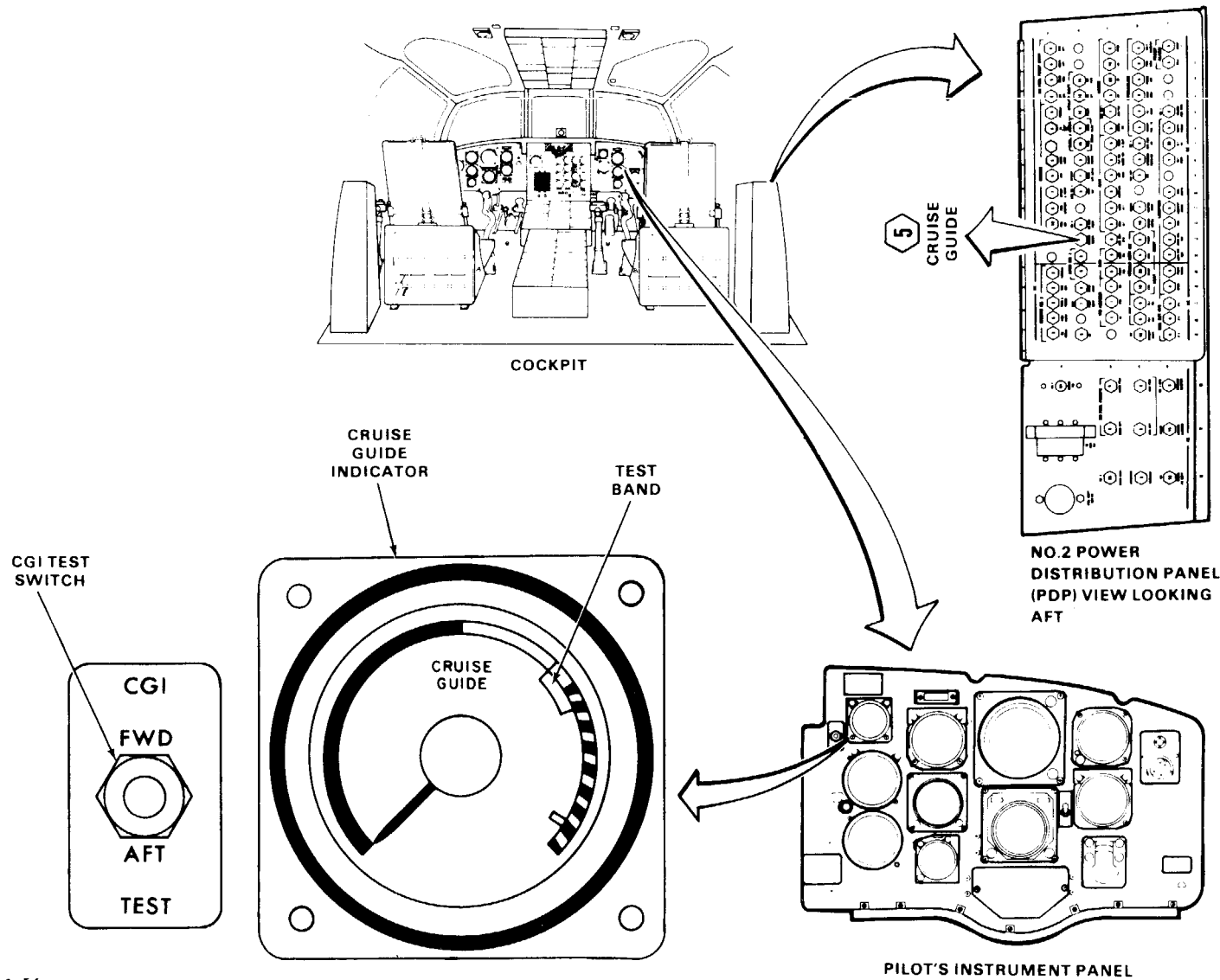
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:

TM 55-1520-240-23

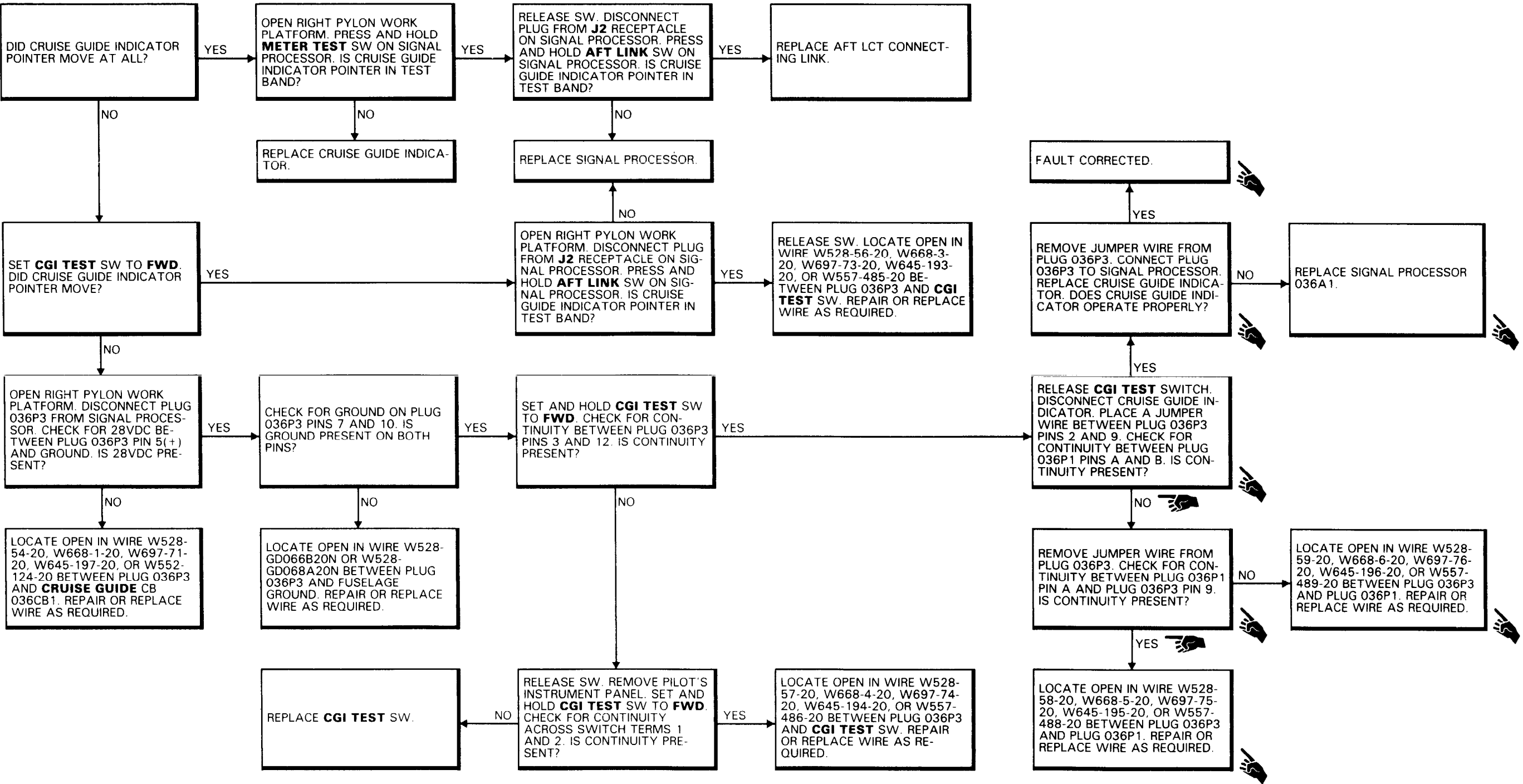
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



8-12.5 CRUISE GUIDE INDICATOR POINTER NOT IN TEST BAND WITH CGI TEST SWITCH AT AFT  
(Continued)

8-12.5



### 8-12.6 CRUISE GUIDE INDICATOR POINTER NOT IN TEST BAND WITH CGI TEST SWITCH AT FWD

## FAULT ISOLATION PROCEDURE

## INITIAL SETUP

**Applicable Configurations:**

All

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

### ***Personnel Required***

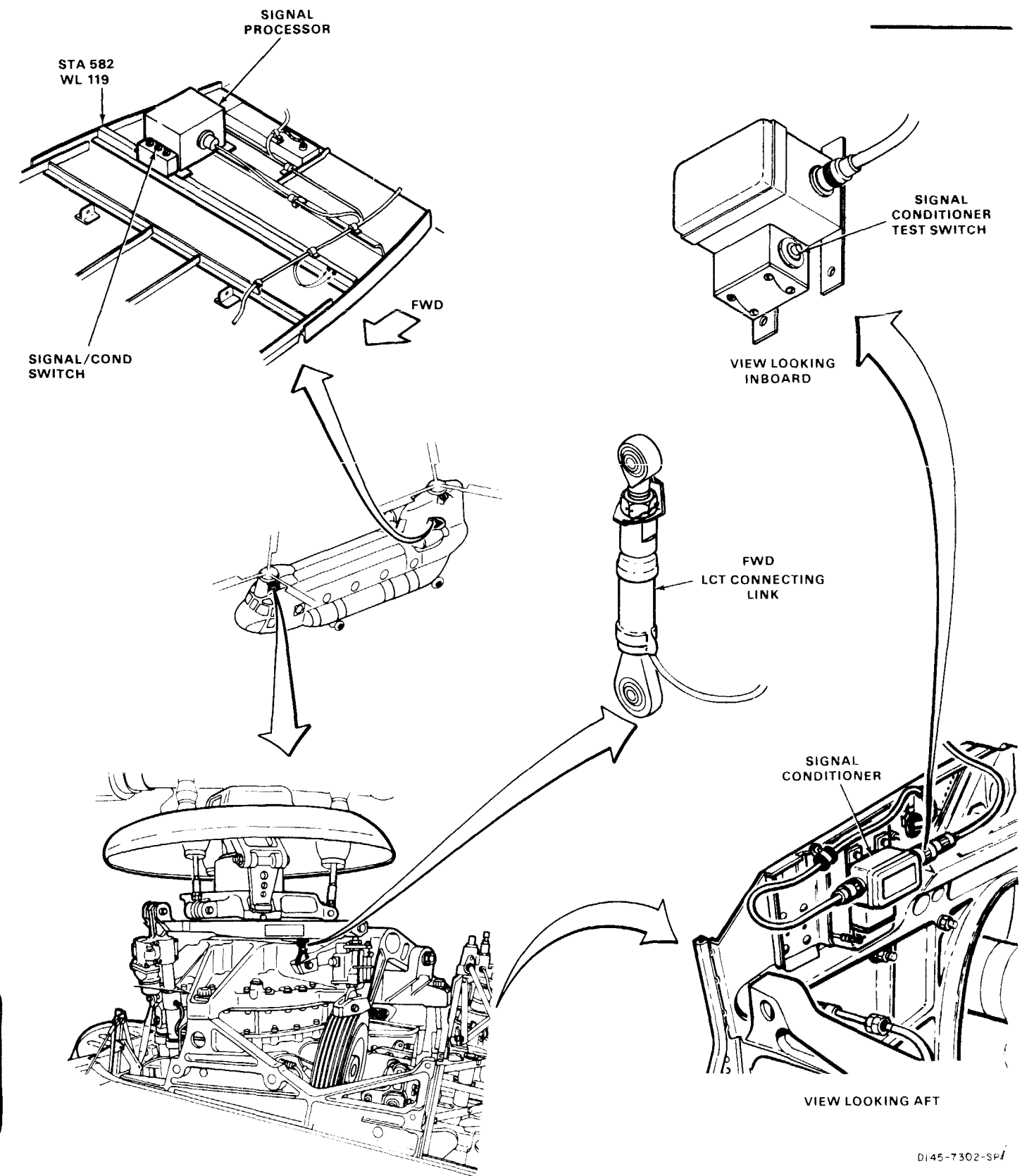
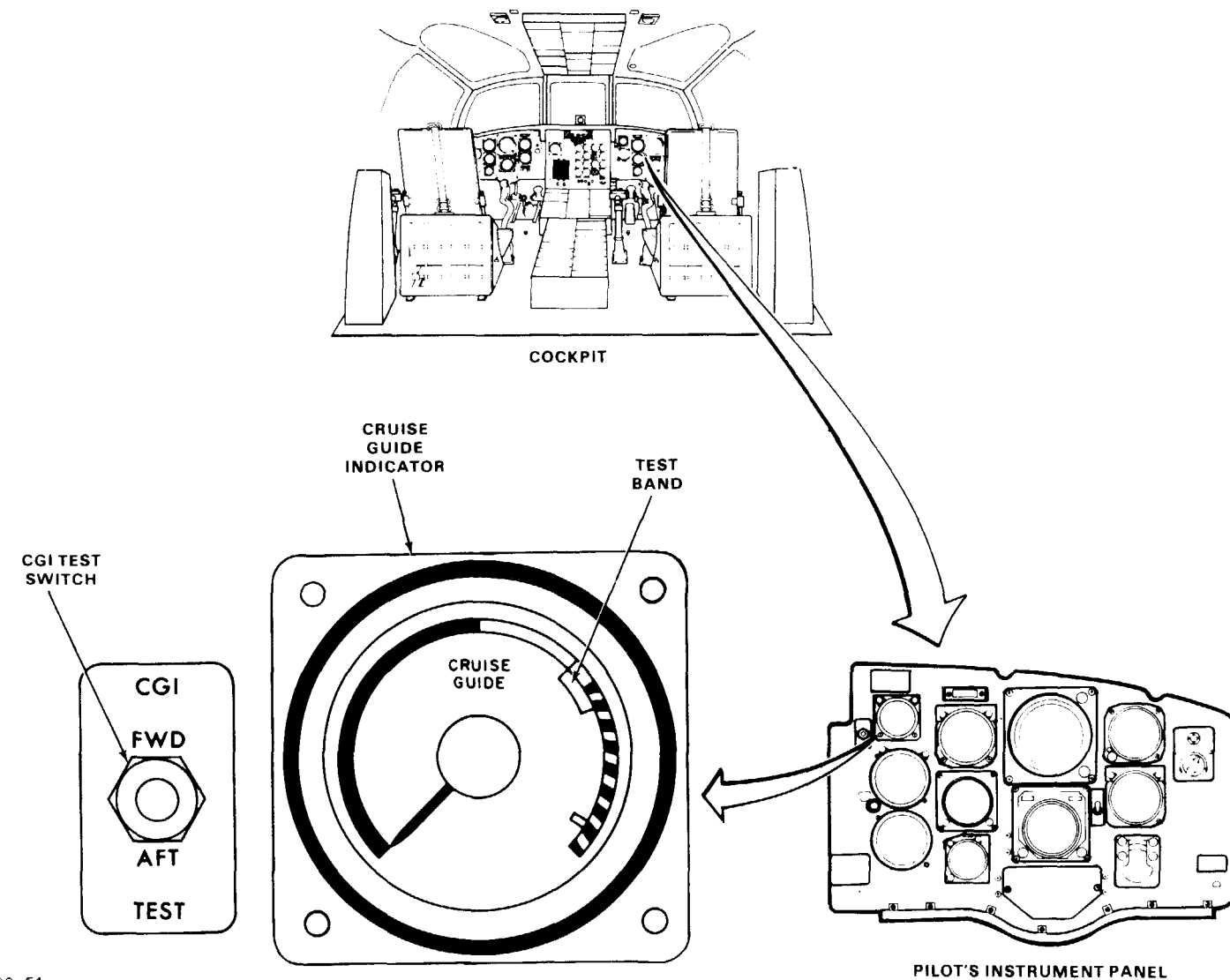
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

### References:

TM 55-1520-240-23

### Equipment Condition

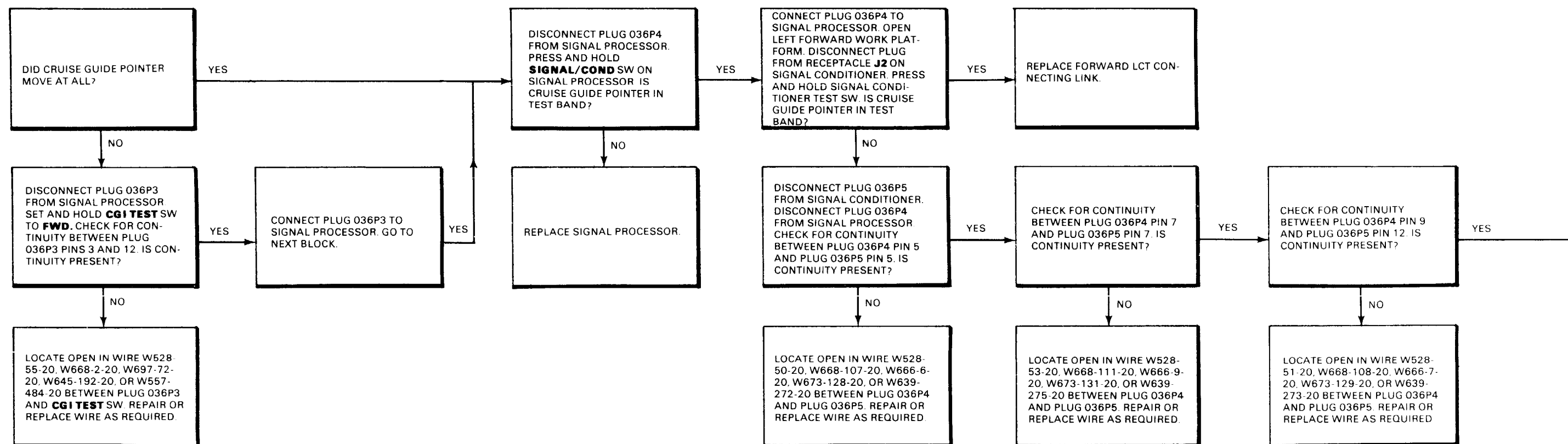
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power off  
Left Pylon Work Platform  
Opened





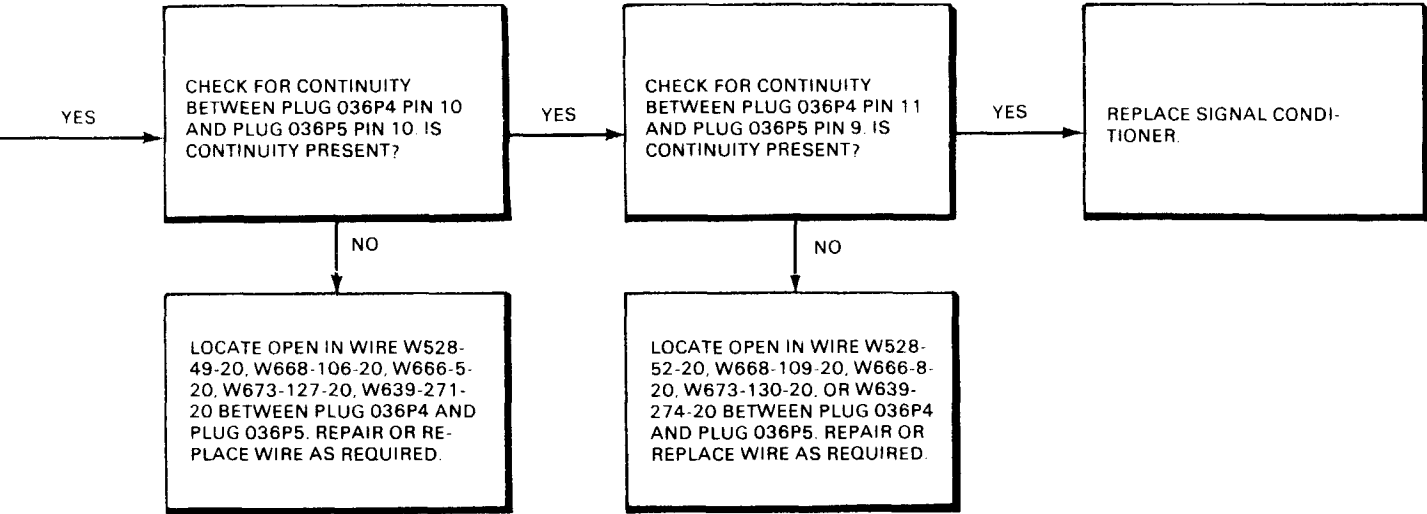
# 8-12.6 CRUISE GUIDE INDICATOR POINTER NOT IN TEST BAND WITH CGI TEST SWITCH AT FWD (Continued)

8-12.6



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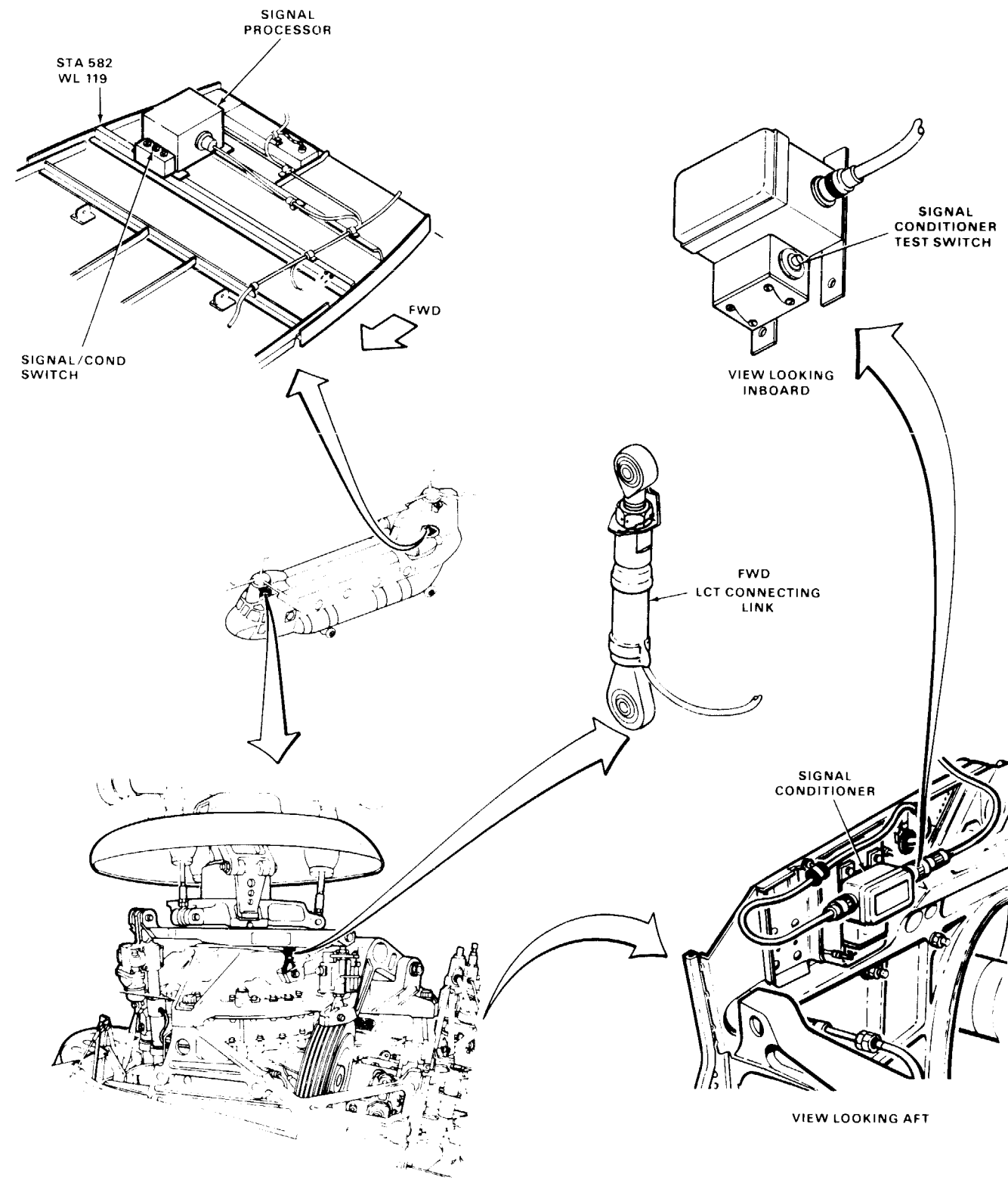
8-12.6 CRUISE GUIDE INDICATOR POINTER NOT IN TEST BAND  
WITH CGI TEST SWITCH AT FWD (Continued)



GO TO NEXT PAGE

8-12.6 CRUISE GUIDE INDICATOR POINTER NOT IN TEST BAN  
WITH CGI TEST SWITCH AT FWD (Continued)

8-12.6



45 x 54

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END OF TASK

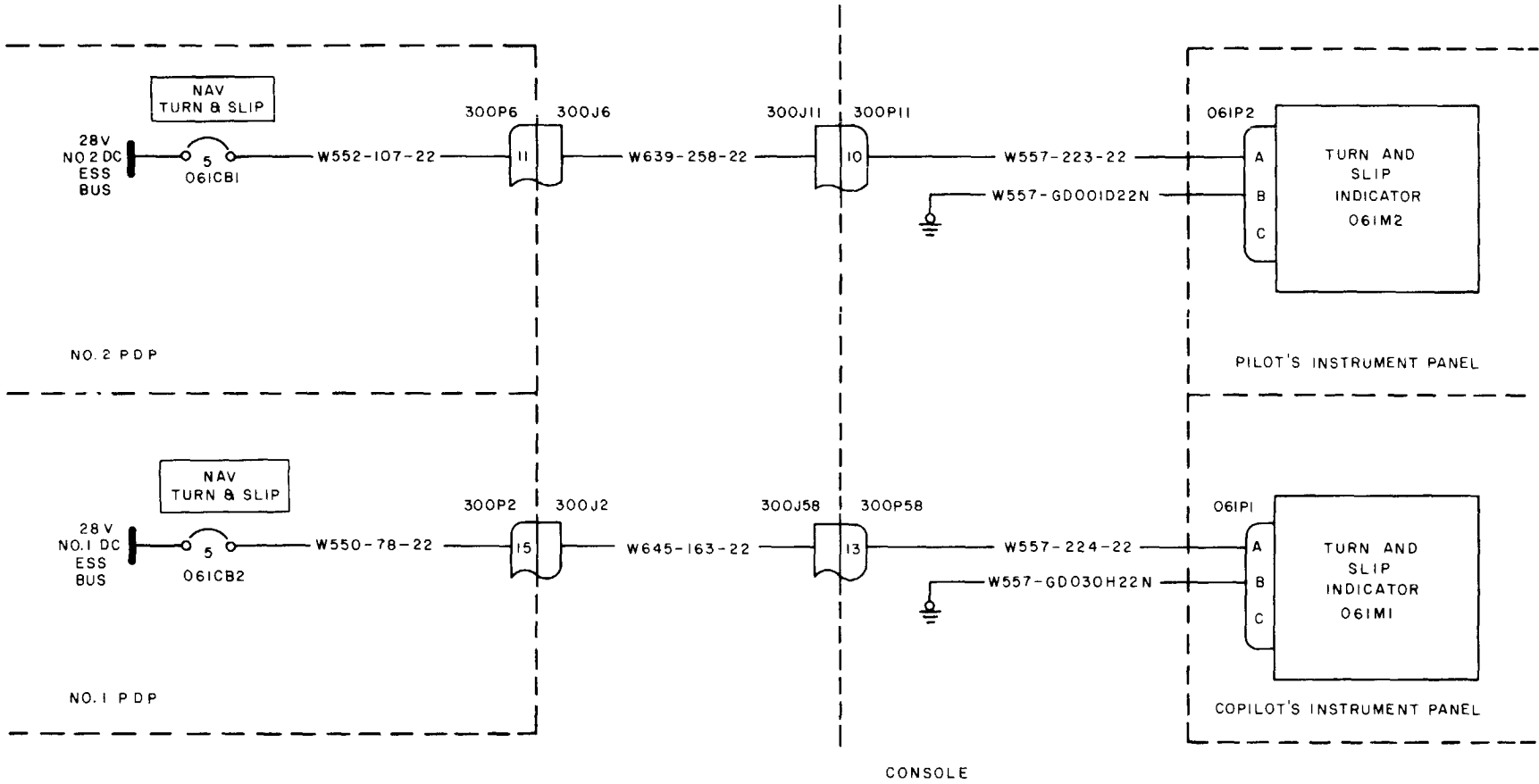
8-307/(8-308 blank)



## 8 - 1 3   T U R N   A N D   S L I P   I N D I C A T O R S

8-13 TURN AND SLIP INDICATORS

8-13.1 TURN AND SLIP INDICATORS WIRING DIAGRAM



INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00323-4915

Materials:

None

Personnel Required

Aircraft Electrician

References:

TM 55-1520-240-23

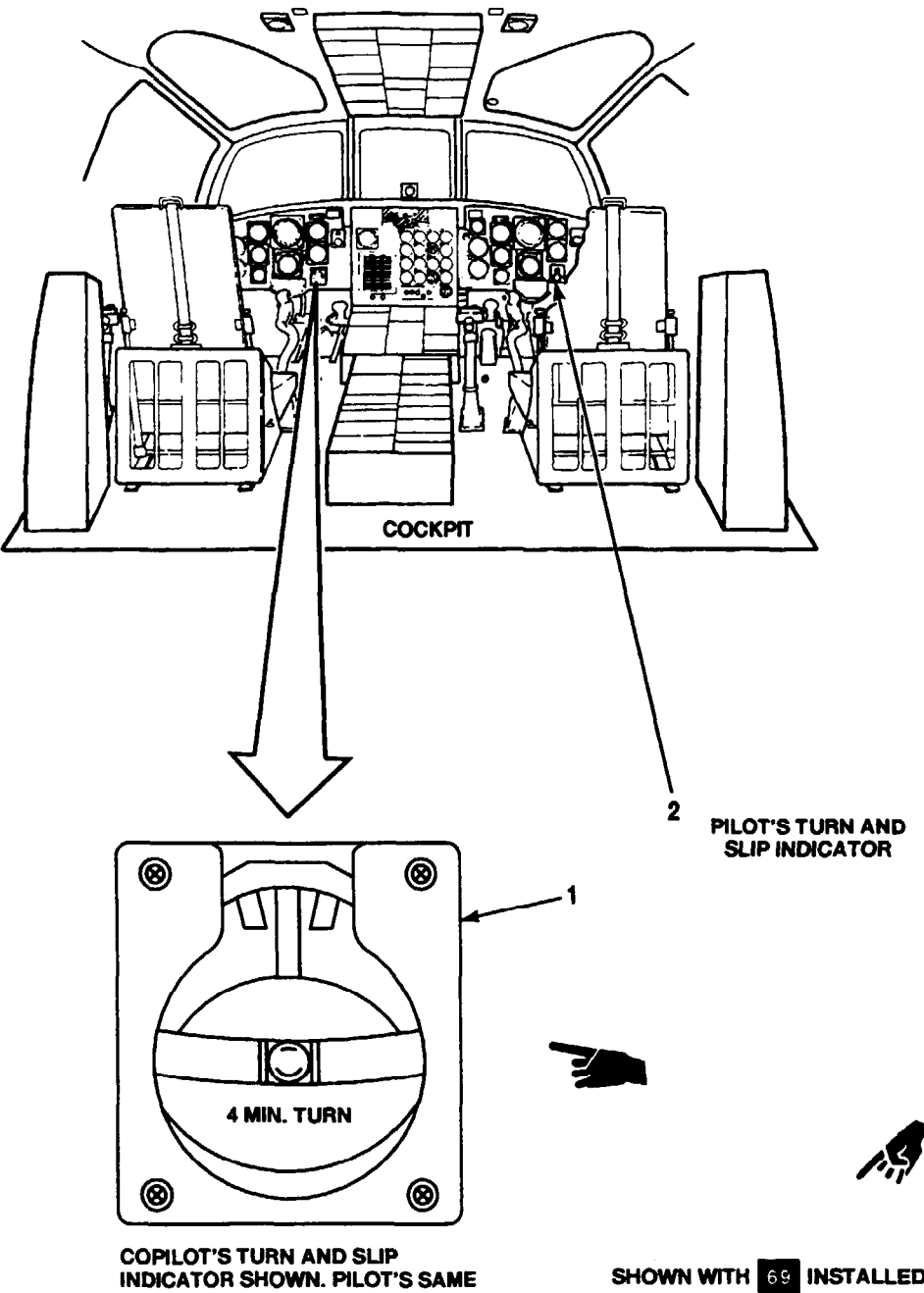
Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check copilot's turn and slip indicator (1).	If indicator (1) is loose or damaged, tighten or replace it as required.
2. Check pilot's turn and slip indicator (2).	If indicator (2) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:

None



INITIAL SETUP

Applicable Configurations:

- All
- Tools:

Inclinometer
- Materials:

None
- Personnel Required:

Aircraft Electrician
- References:

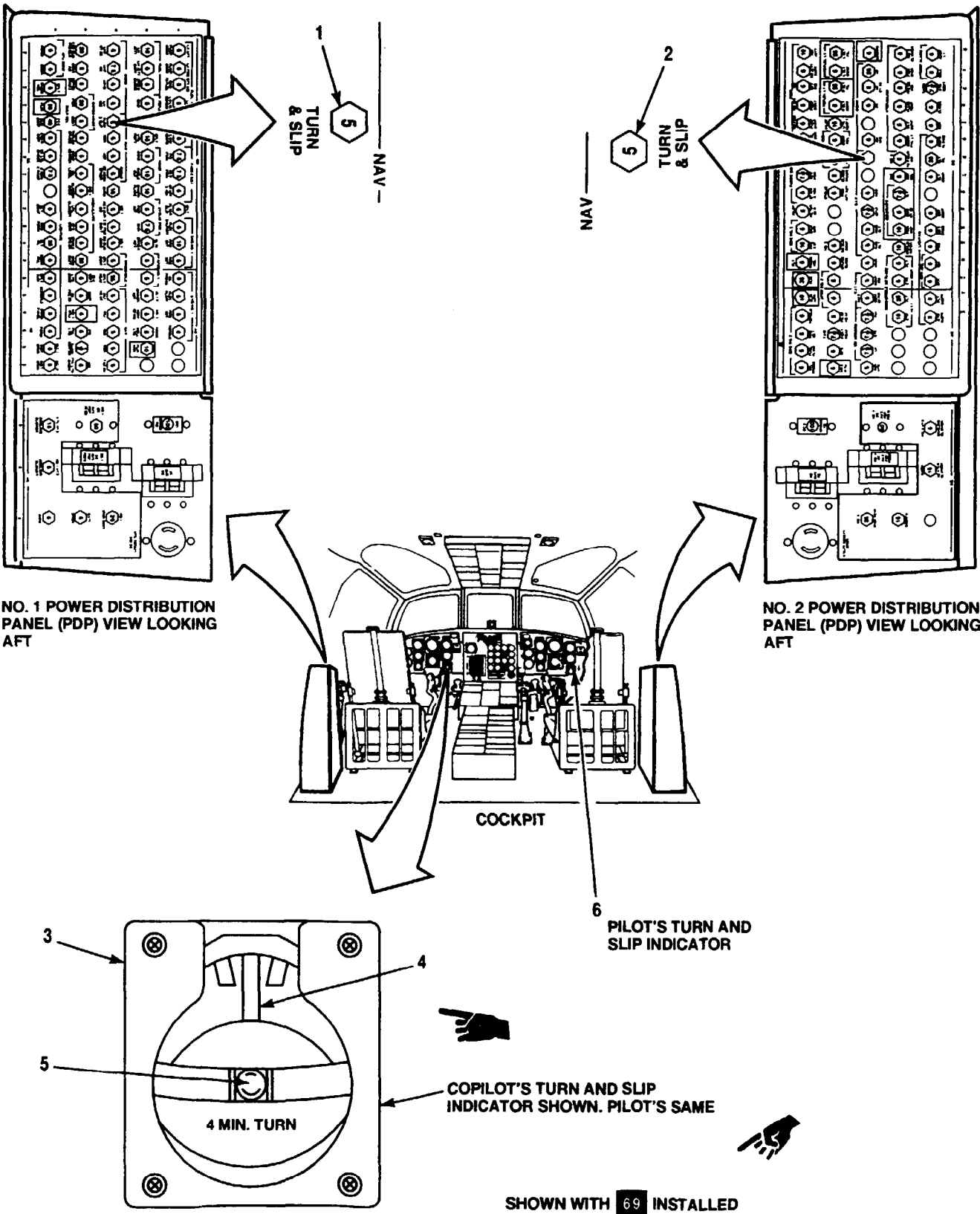
TM 55-1520-240-23
- Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Visual Check of Turn and Slip Indicators Performed  
(Task 8-13.2)

TASK	RESULT
1. Check that NAV TURN & SLIP circuit breaker (1) is closed.	If circuit breaker (1) is open, close it. If it opens again, go to task 8-13.4.
2. Check that NAV TURN & SLIP CIRCUIT BREAKER (2) is closed.	If circuit breaker (2) is open, close it. If it opens again, go task 8-13.4.
3. Check copilot's turn and slip indicator (3).	If pointer (4) is not centered, replace indicator (3). If ball (5) is not centered, use inclinometer to verify ball position. If ball position does not agree with inclinometer, replace indicator.
4. Repeat step 3 for pilot's turn and slip indicator (6).	Then, go to step 5.
5. On next flight, have pilots check operation of their turn and slip indicators.	Pointer (4) on indicators (3 and 6) shall move in direction of turn, If it does not, go to task 8-13.5.

FOLLOW-ON MAINTENANCE:

- TM 55-1520-240-23:
- Battery disconnected.
- Electrical power off.



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FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- Tools:
- All
  - Electrical Repairer's Tool Kit, NSN 5180-00-323-4915
  - Multimeter

Materials:

- None

Personnel Required:

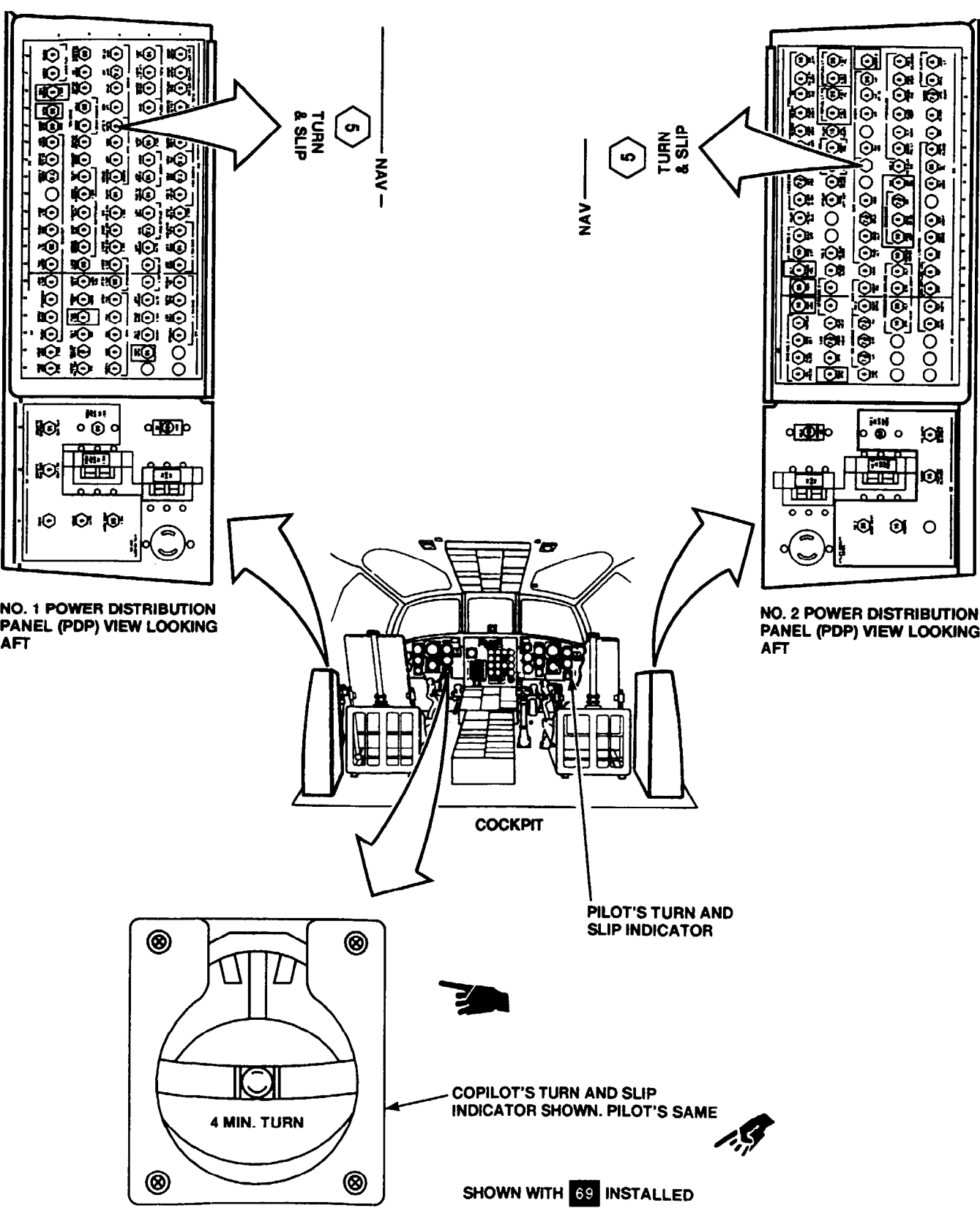
- Aircraft Electrician

References:

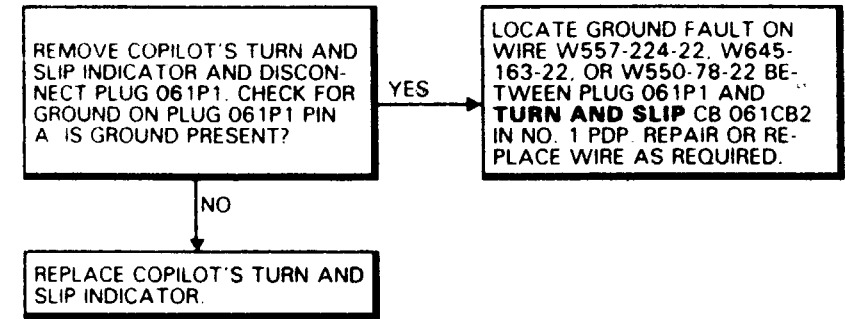
- TM 55-1520-240-23

Equipment Condition:

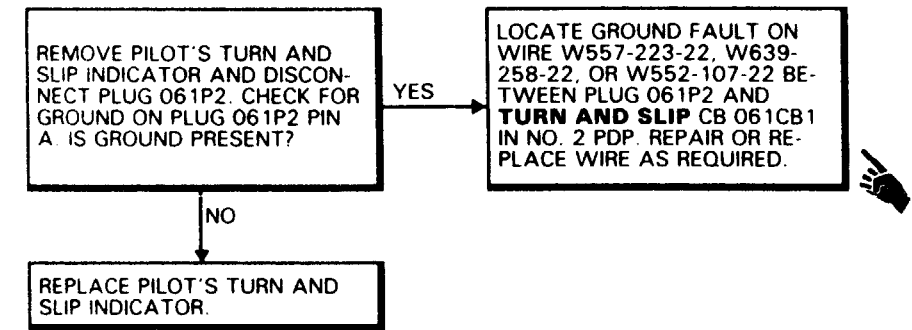
- TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



URN AND SLIP CIRCUIT BREAKER (NO. 1 PDP) DOES NOT STAY CLOSED



TURN AND SLIP CIRCUIT BREAKER (NO. 2 PDP) DOES NOT STAY CLOSED



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Electrical Repairer's Tool Kit,
- NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

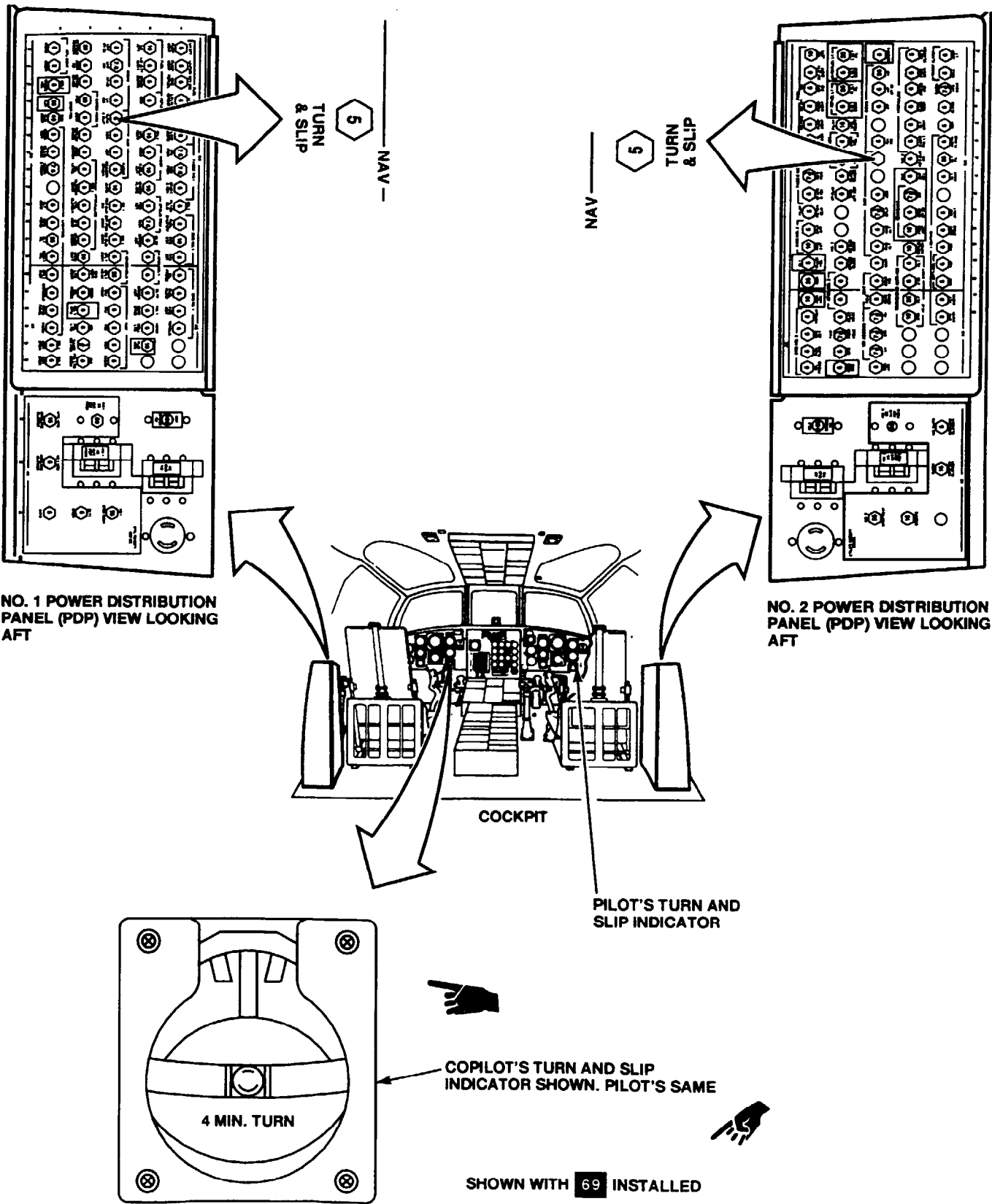
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

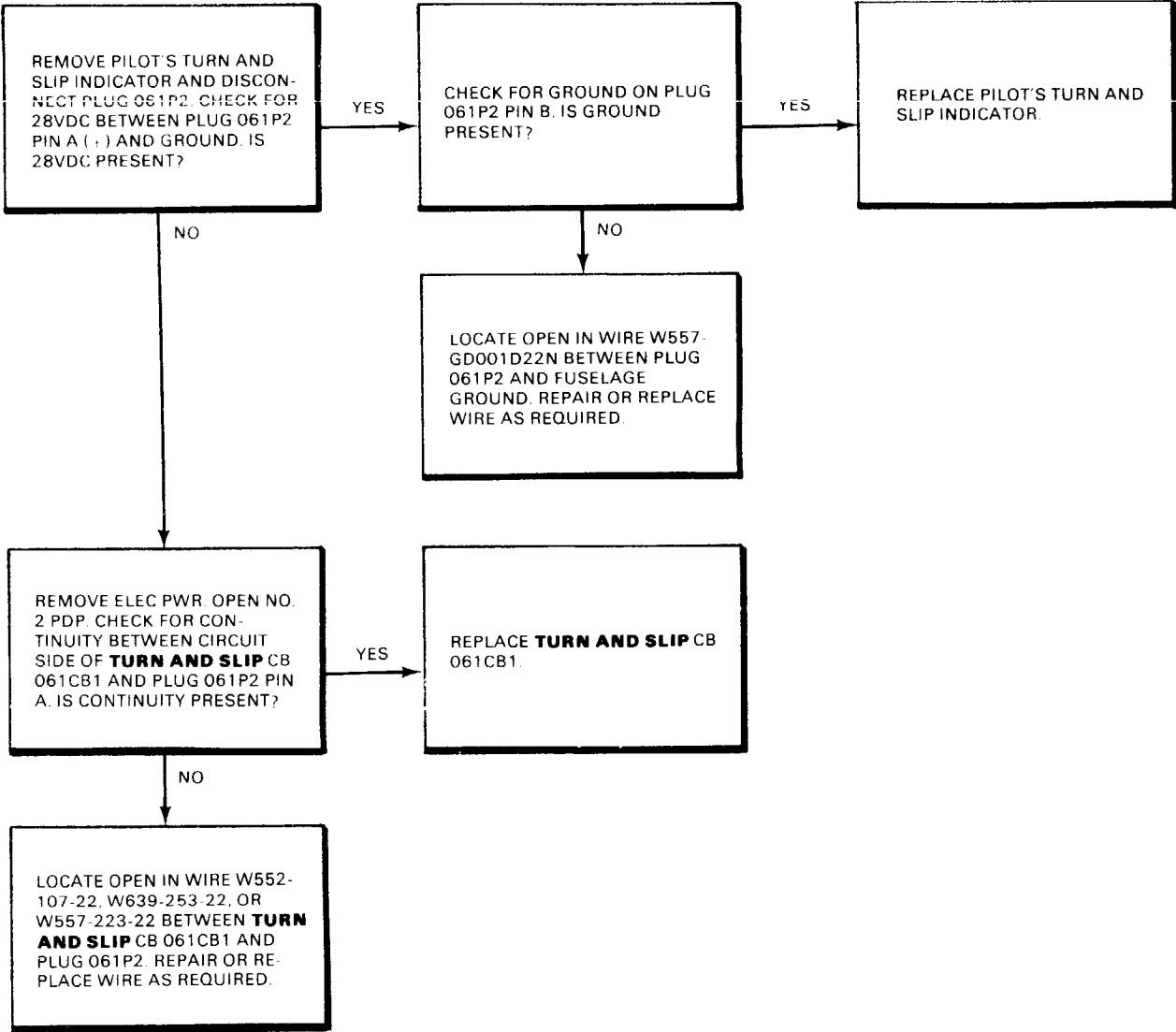
- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off



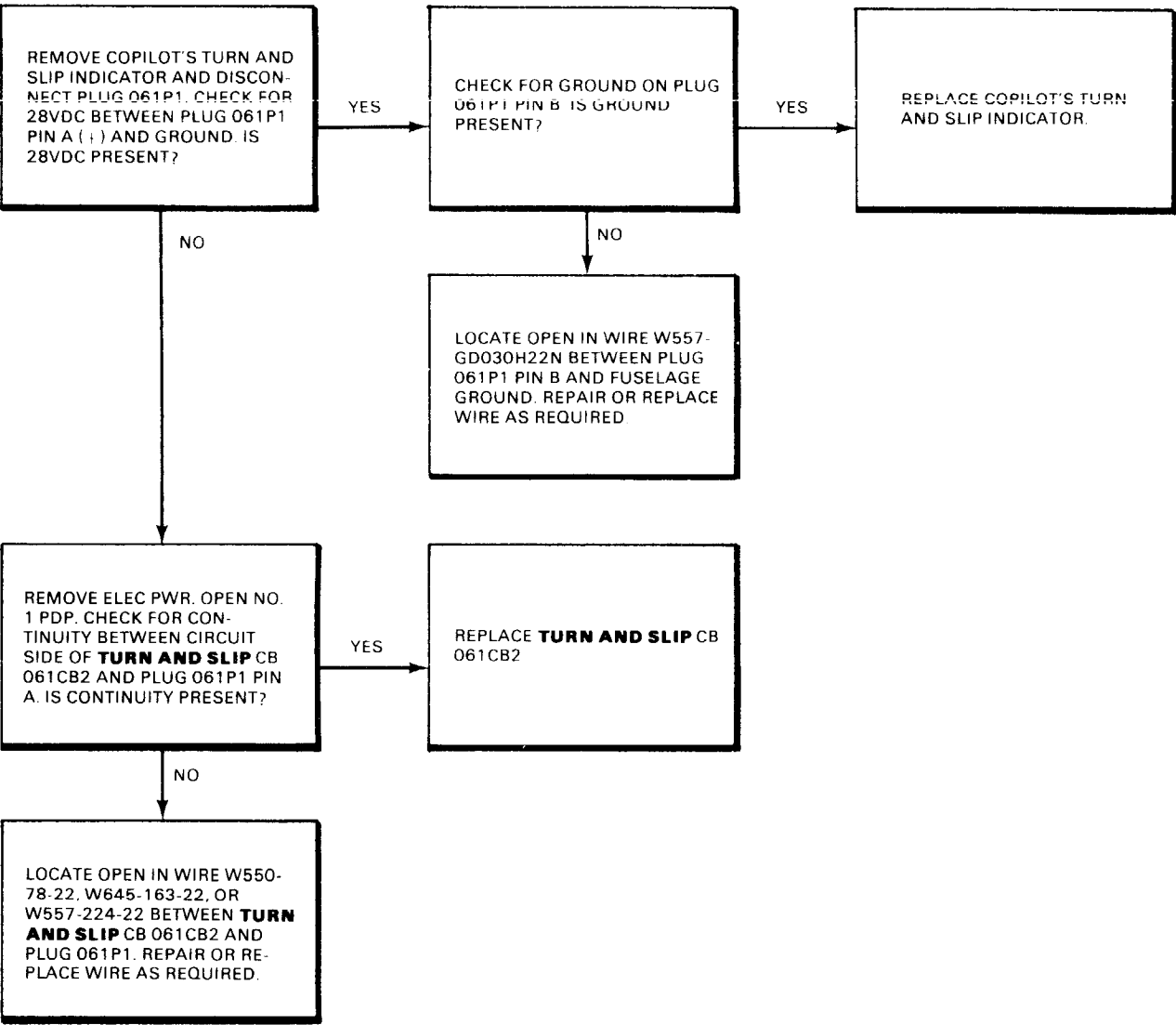
8-13.5 TURN AND SLIP INDICATOR POINTER DOES NOT MOVE IN DIRECTION OF TURN (Continued)

8-13.5

PILOT'S TURN AND SLIP INDICATOR POINTER DOES NOT MOVE IN DIRECTION OF TURN



COPILOT'S TURN AND SLIP INDICATOR POINTER DOES NOT MOVE IN DIRECTION OF TURN

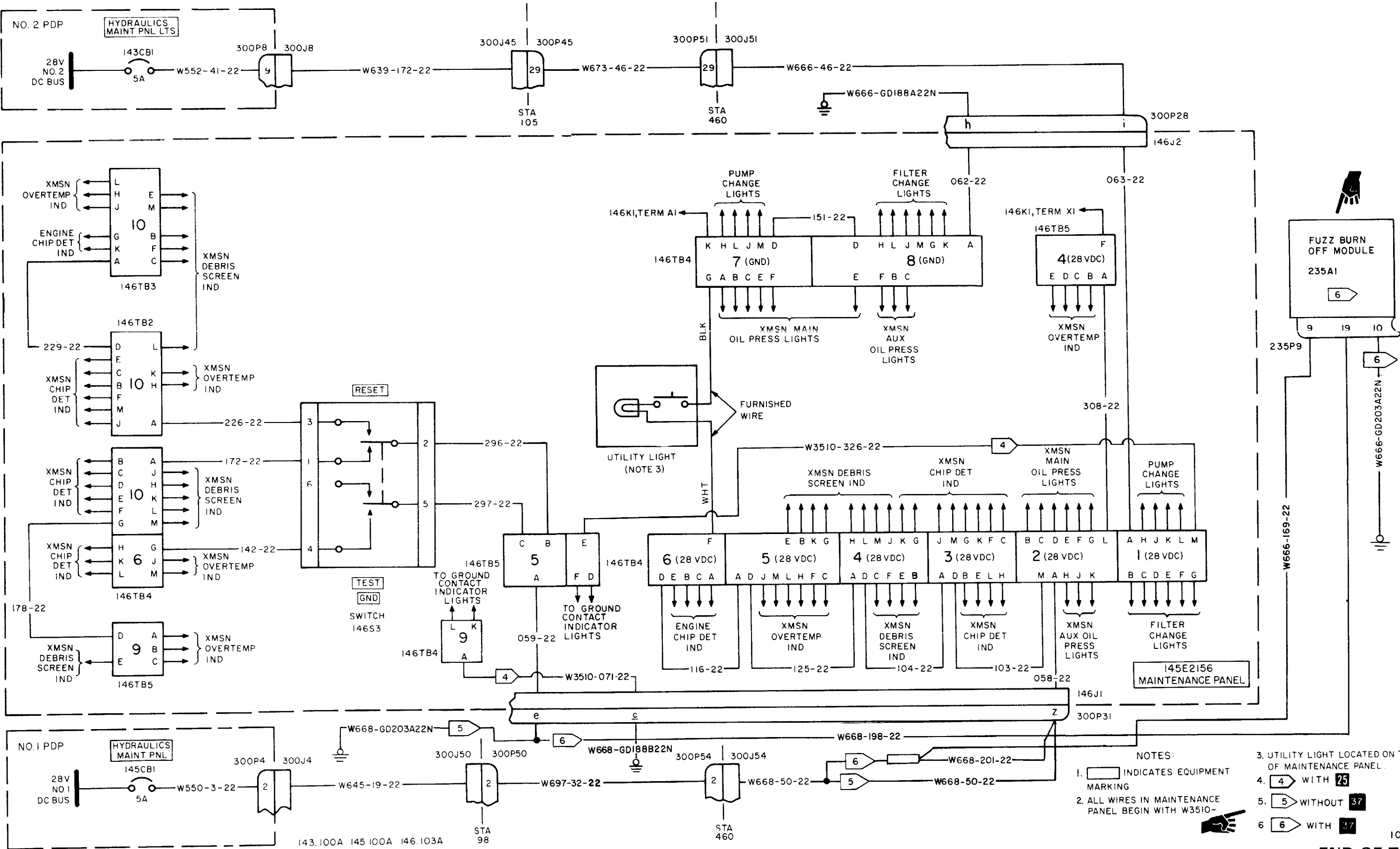




## 8-14 MAINTENANCE PANEL POWER DISTRIBUTION

8-14 MAINTENANCE PANEL POWER DISTRIBUTION

8-14.1 MAINTENANCE PANEL POWER DISTRIBUTION WIRING DIAGRAM





8-14.2 MAINTENANCE PANEL POWER DISTRIBUTION VISUAL CHECK

8-14.2

INITIAL SETUP

Applicable Configurations:  
All

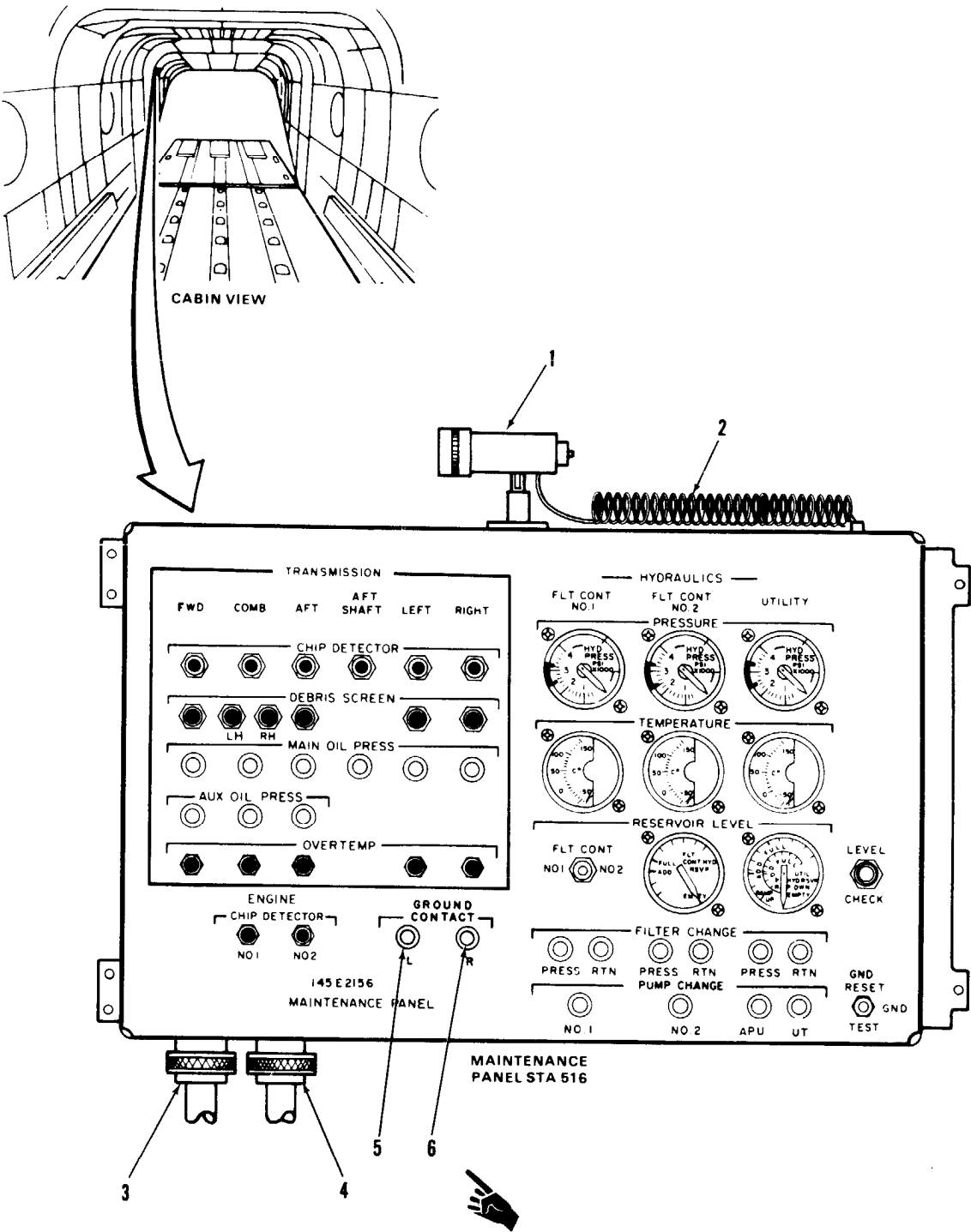
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:  
None

Personnel Required:  
Aircraft Electrician  
References:  
TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-240-23  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1 Check maintenance panel light (1) and cord (2).	If light (1) is damaged, replace it. If cord (2) is damaged, replace light.
2 Check electrical connectors (3 and 4).	If either connector (3 or 4) is loose or damaged, tighten or replace it as required. If wires to either connector are damaged, repair or replace them as required.
3 With 25, check left and right GROUND CONTACT lights (5 and 6).	If either light (5 or 6) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:  
None



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END OF TASK  
Change 3 8-321

INITIAL SETUP

Applicable Configurations:

All

Tools:

None

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

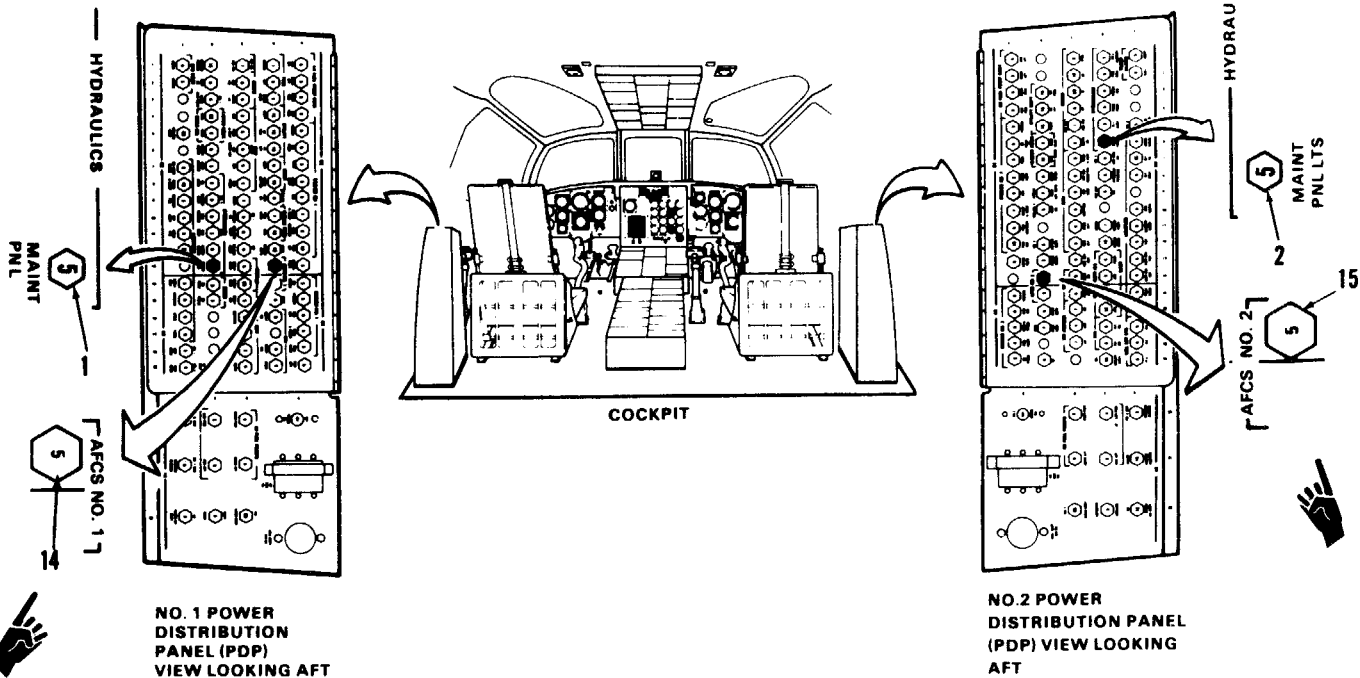
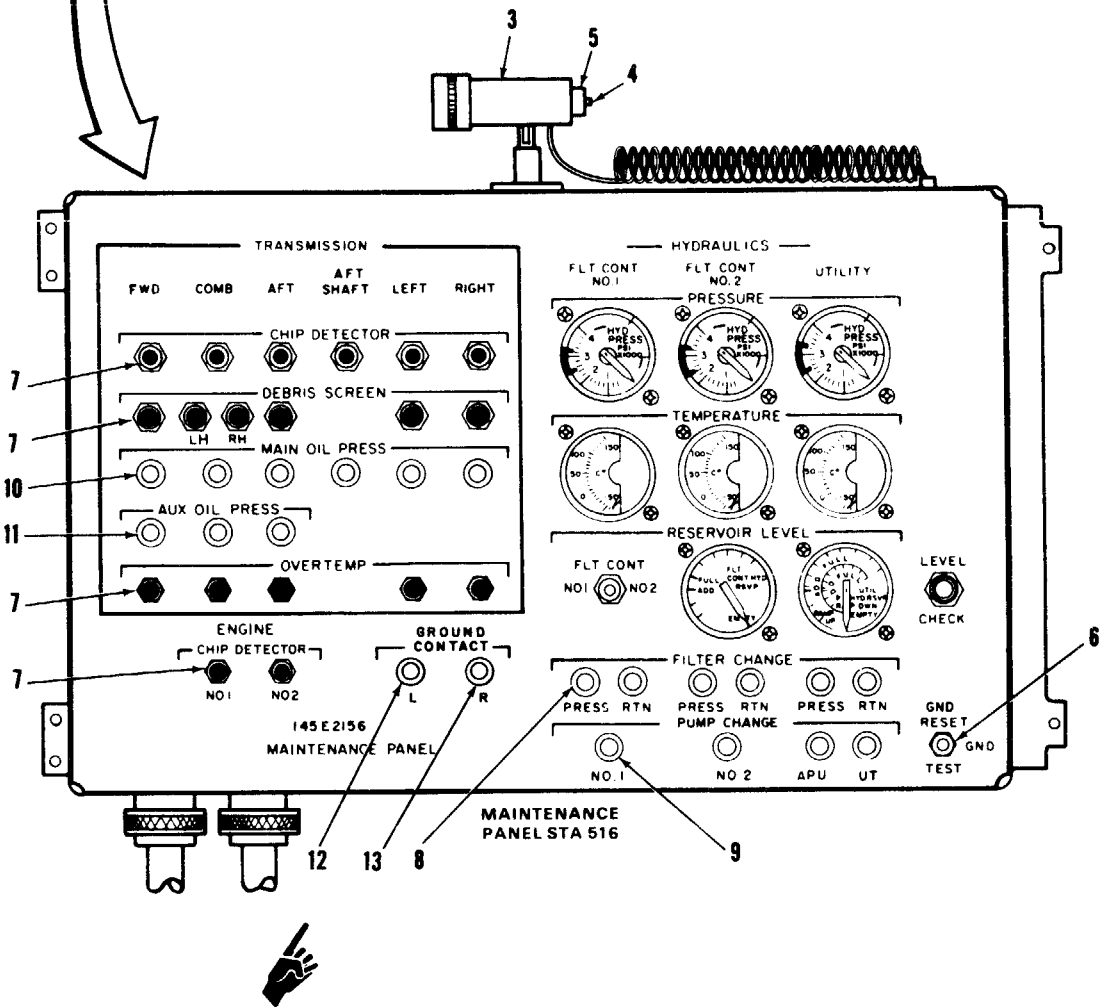
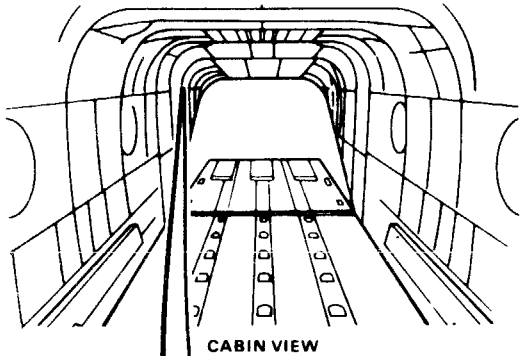
Equipment Condition:

TM 55-1520-240-23

Battery Connected

Electrical Power On

Hydraulic Power Off



12436

GO TO NEXT PAGE

8-14.3 MAINTENANCE PANEL POWER DISTRIBUTION OPERATIONAL CHECK (Continued)

8-14.3

TASK	RESULT
1. Check that HYDRAULICS MAINT PNL circuit breaker (1) is closed.	If MAINT PNL circuit breaker (1) is open, close it. If it opens again, go to task 8-14.4.
2. Check that HYDRAULICS MAINT PNL LTS circuit breaker (2) is closed.	if MAINT PNL LTS circuit breaker (2) is open, close it. If it opens again, go to task 8-14.5 (without 25 ). With 25 , go to task 8-14.10.
2.1 With 25 , check that AFCS NO. 1 circuit breaker (14) is closed.	If AFCS NO. 1 circuit breaker (14) is open, close it. If it opens again, go to task 11-3.6.
2.2 With 25 , check that AFCS NO. 2 circuit breaker (15) is closed.	If AFCS NO. 2 circuit breaker (15) is open, close it. If it opens again, go to task 11-3.11.
3. Remove maintenance panel light (3) from bracket. Press and release switch (4). Turn control (5) through its range.	Light (3) shall blink when switch (4) pressed and released. Light shall become brighter as dimming control (5) is turned. If light does not come on, go to task 8-14.6. If light comes on but does not become brighter, replace light.
4. Set GND switch (6) to TEST.	All 19 indicators (7) shall change from all black to black-and-white fan displays. If one or more indicators has not changed display, go to task 8-14.7.
5. Set GND switch (6) to RESET, then to GND.	All 19 indicators (7) shall change from black-and-white fan displays to ail-black displays. If one or more indicators has not changed display, go to task 8-14.8.
6. Press and release FILTER CHANGE PRESS light (8) and PUMP CHANGE NO. 1 light (9).	All lights (8 and 9) shall momentarily come on. If all lights do not come on, go to task 8-14.9.
7. Check that all six transmission main oil PRESS lights (10) and three transmission AUX OIL PRESS lights (11) are lit.	If any light is not lit, replace lamp. If light still is not on, go to task 8-9.3.
8. With 25 , check that left and right GROUND CONTACT lights (12 and 13) are lit.	If left GROUND CONTACT light (12) is not lit, go to task 3-1.5.  If right GROUND CONTACT light (13) is not lit, go to task 3-1.7.

NOTE

Remainder of operations are checked with each individual system check.

FOLLOW-ON MAINTENANCE:

- TM 55-1520-240-23
- Battery disconnected.
- Electrical power off.

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:**
- Electrical Repairer's Tool Kit, NSN 5180-00-323-4915
  - Multimeter

Materials:

None

Personnel Required:

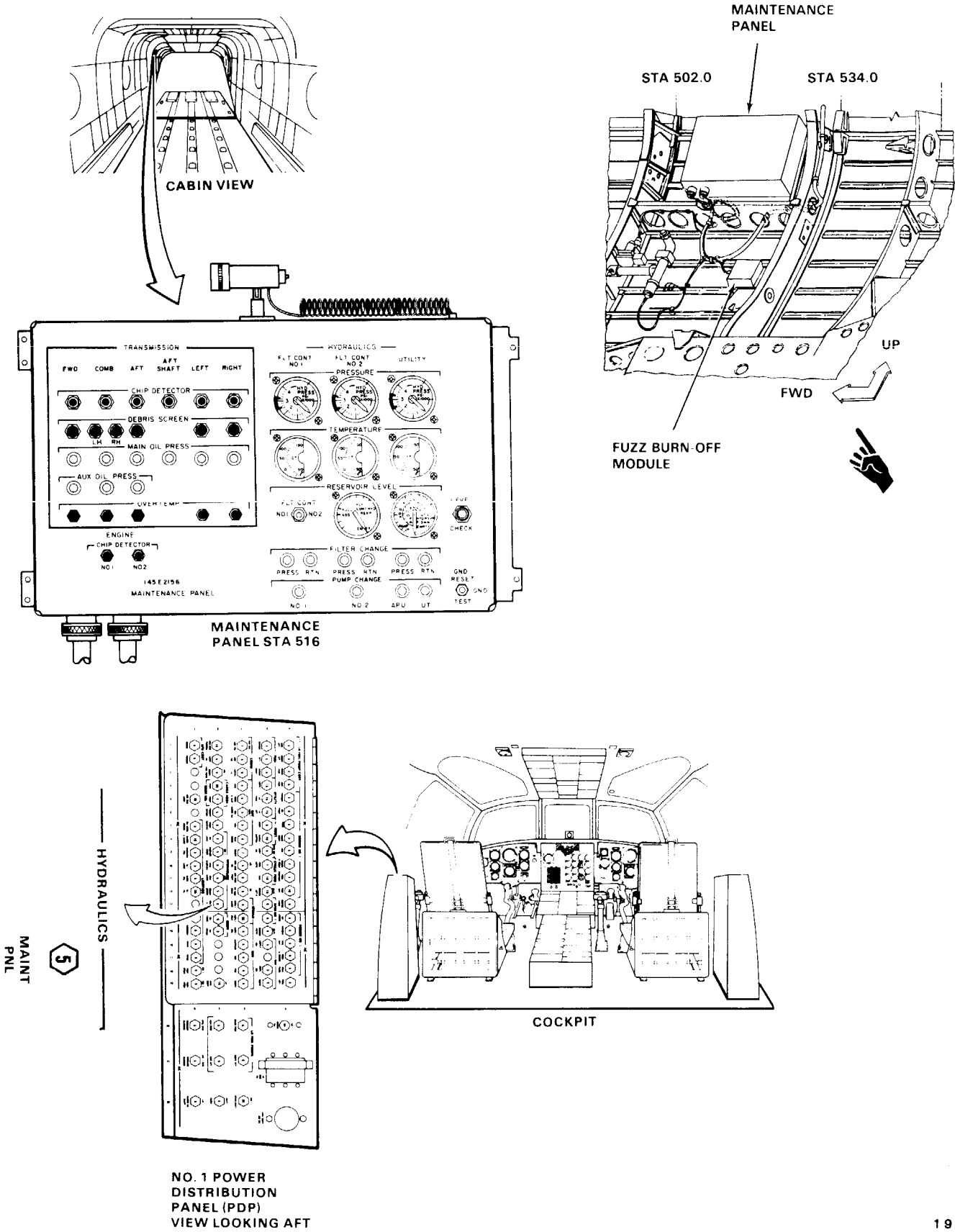
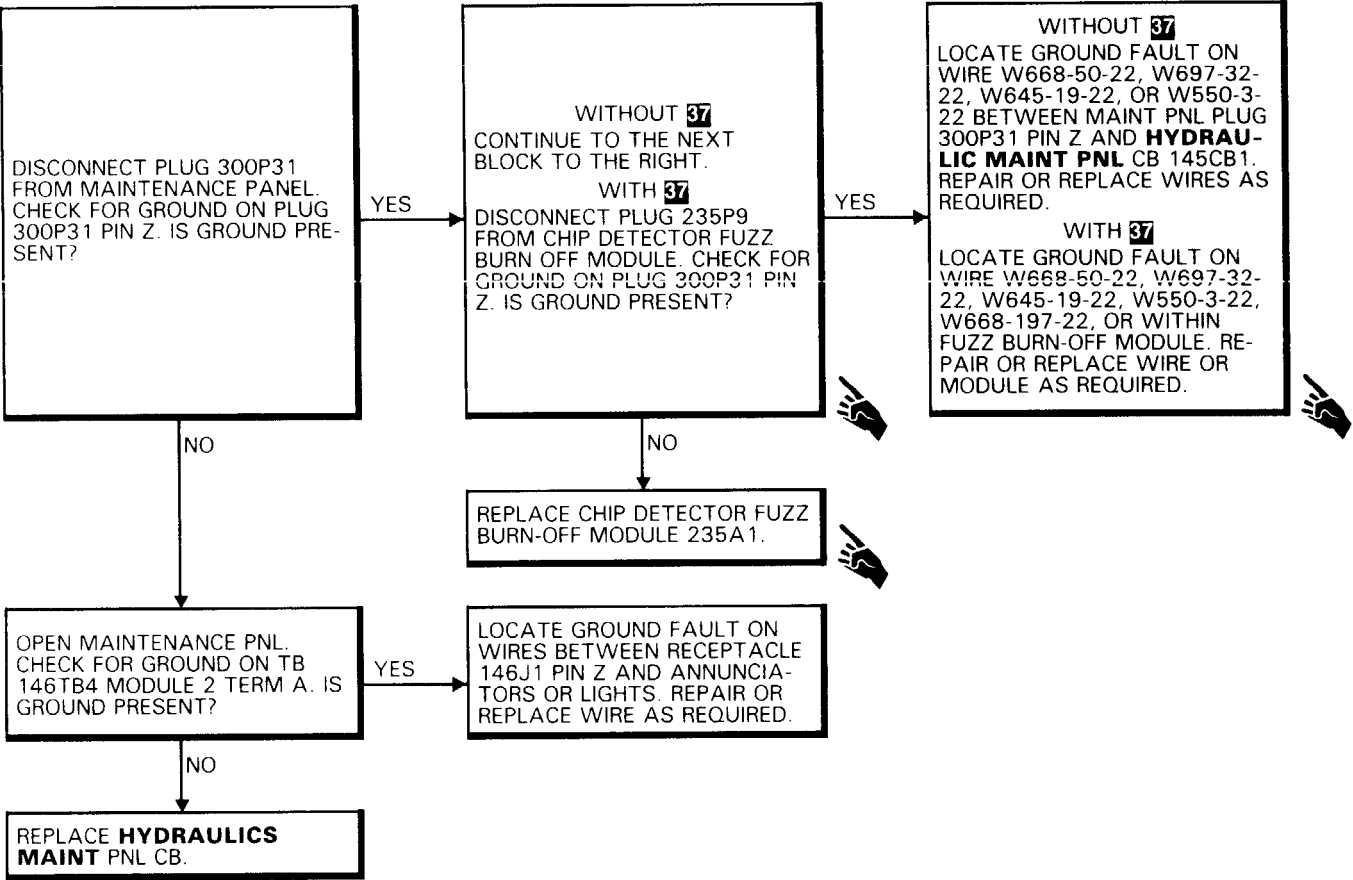
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off



## 8-14.5 HYDRAULICS MAINT PNL LTS CIRCUIT BREAKER WILL NOT STAY CLOSED

**8-14.5**

## FAULT ISOLATION PROCEDURE

## INITIAL SETUP

**Applicable Configurations:**

Without 25

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

**Personnel Required:**

Aircraft Electrician

**References:**

TM 55-1520-240-23

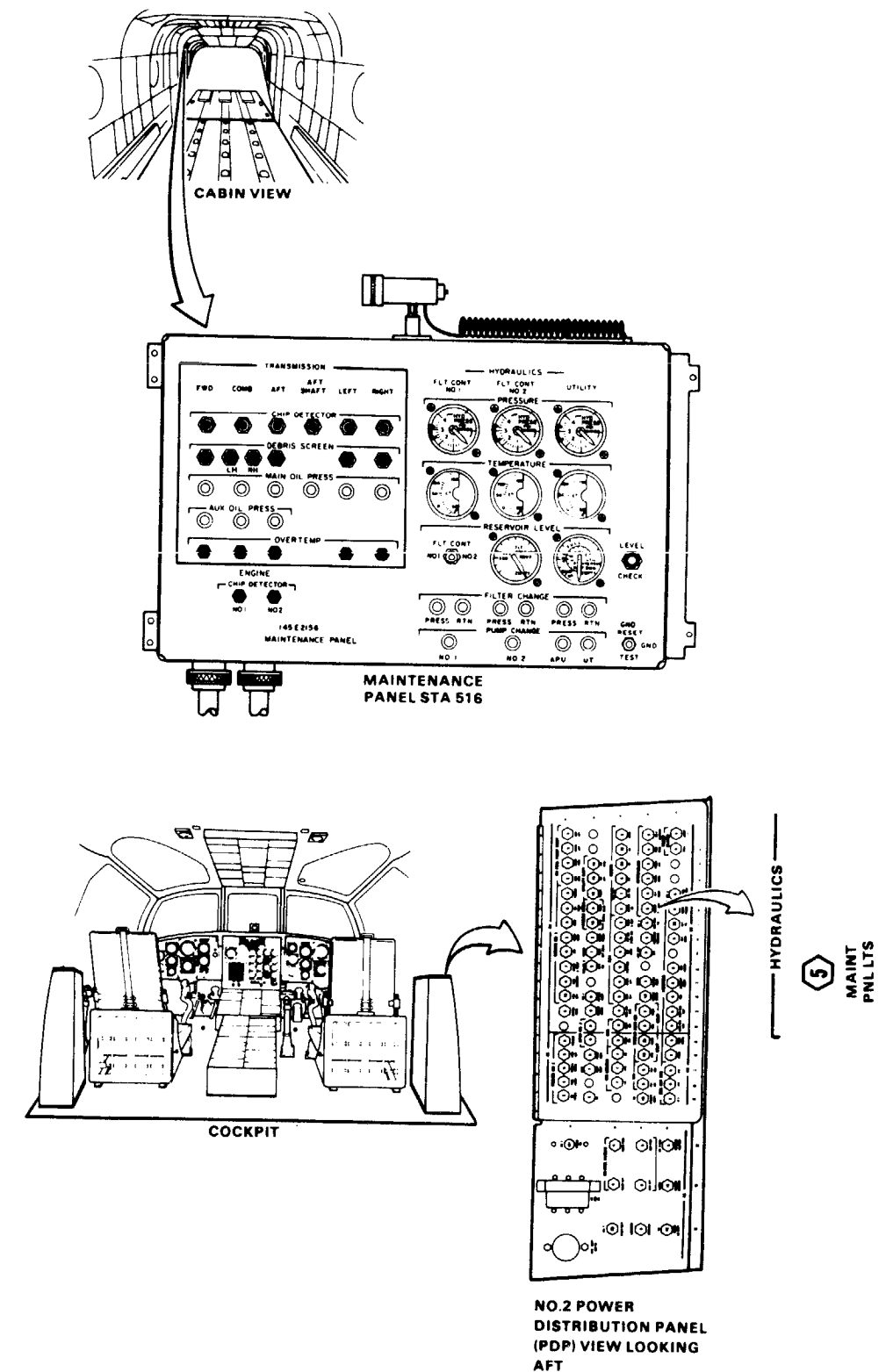
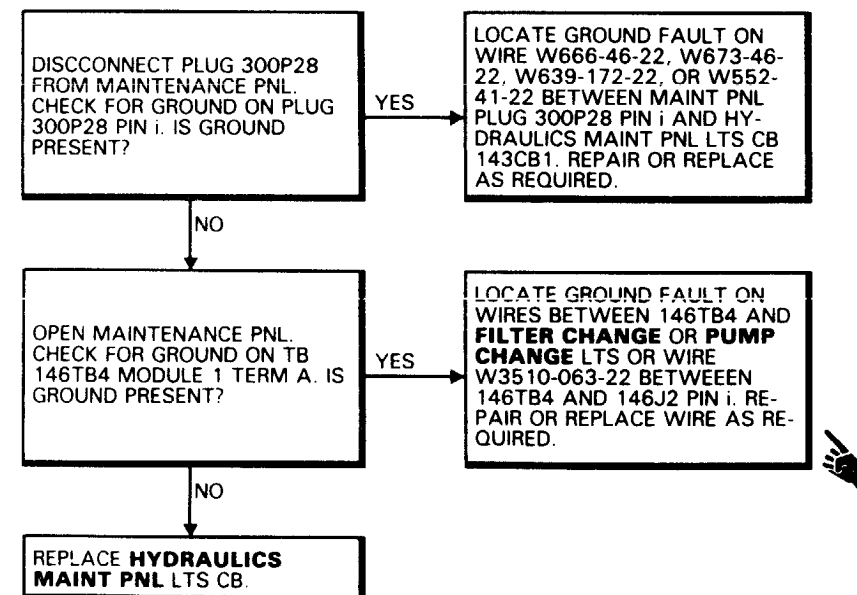
**Equipment Condition:**

TM 55-1520-240-23

Battery Disconnected

Electrical Power Off

Hydraulic Power Off



8-14.6 MAINTENANCE PANEL UTILITY LIGHT WILL NOT COME ON

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

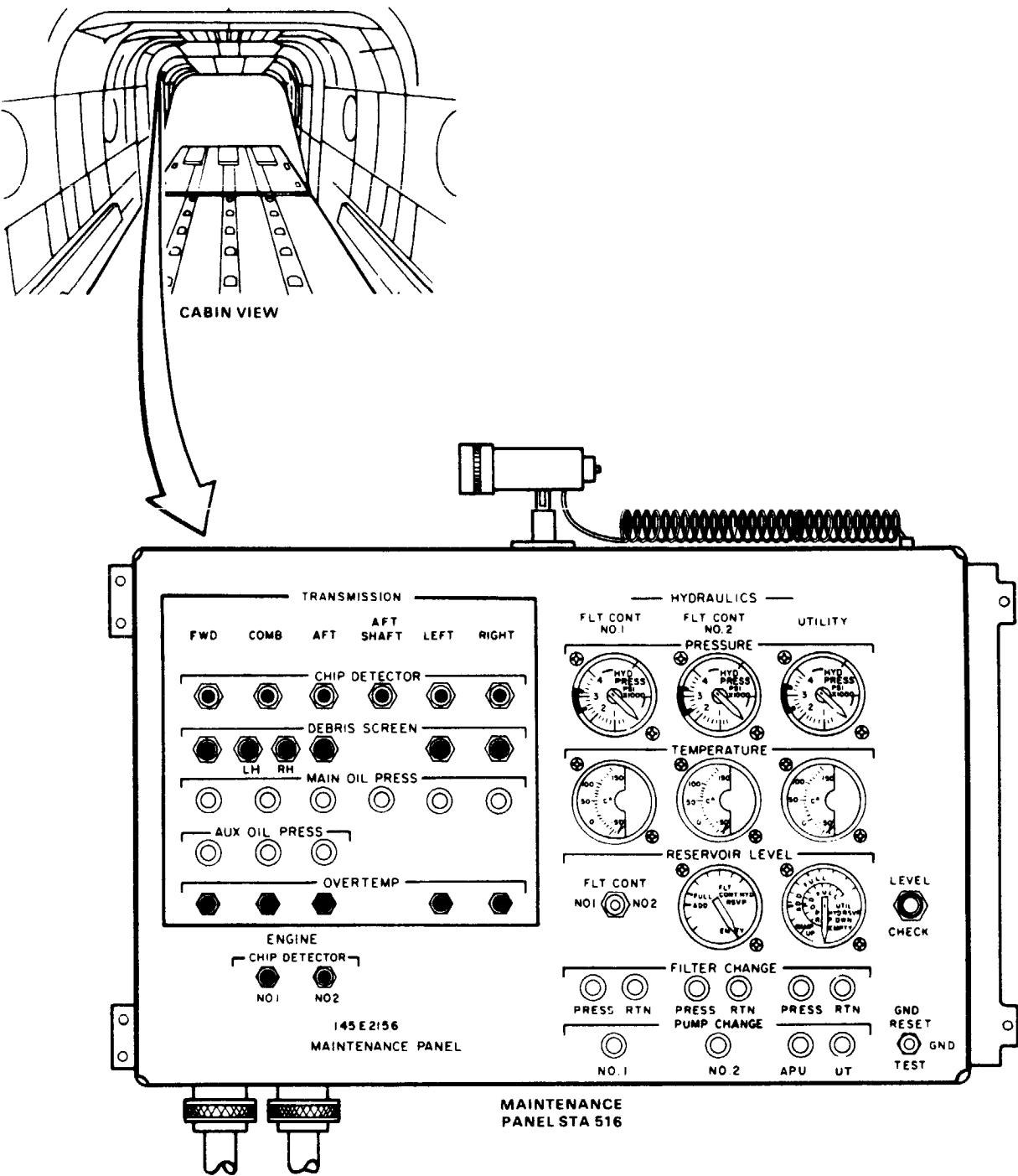
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F20 Aircraft Electrician

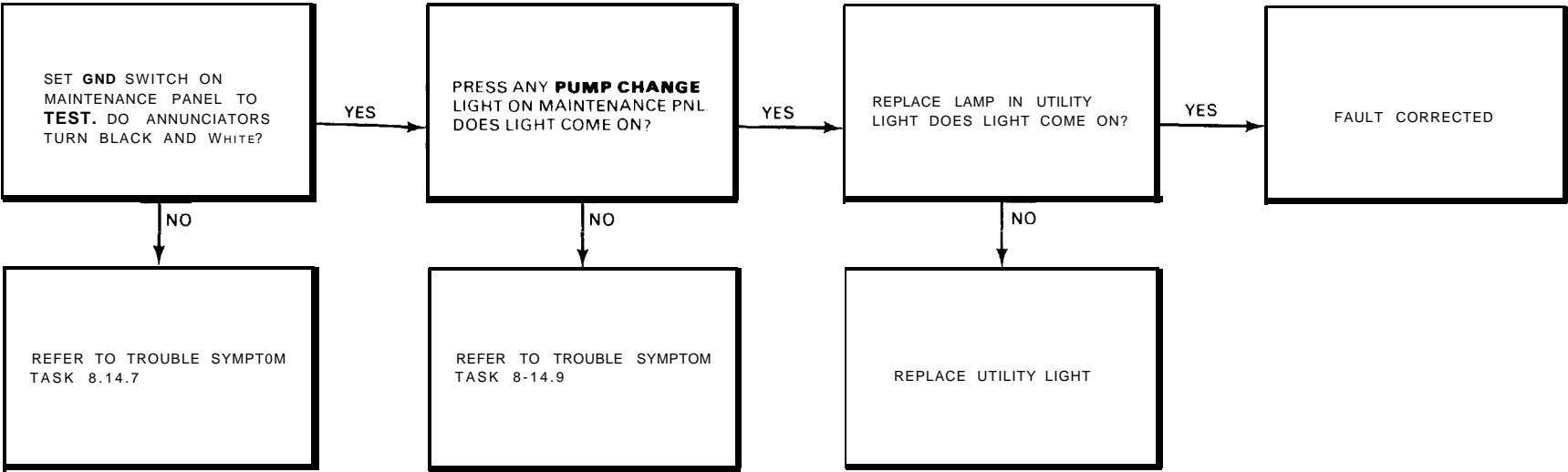
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23;  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



8-14.6 MAINTENANCE PANEL UTILITY LIGHT WILL NOT COME ON  
(Continued)

8-14.6



END OF TASK

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:**
- Electrical Repairer's Tool Kit,
  - NSN 5180-00-323-4915
  - Multimeter

Materials:

None

**Personnel Required:**

Aircraft Electrician

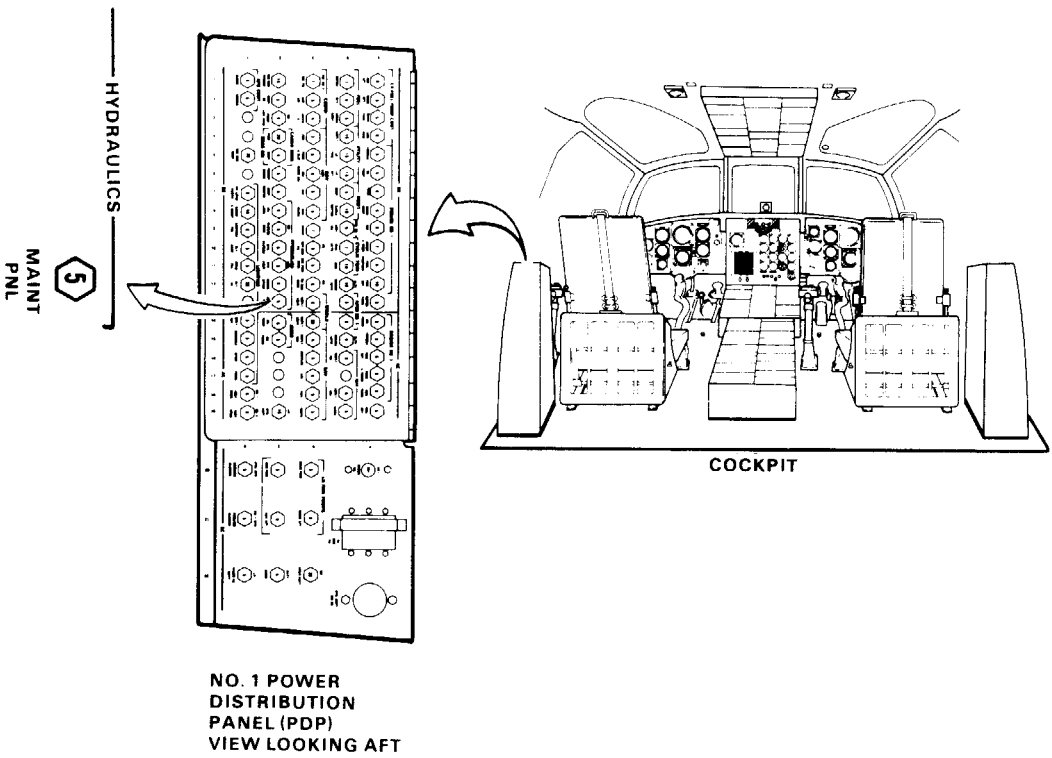
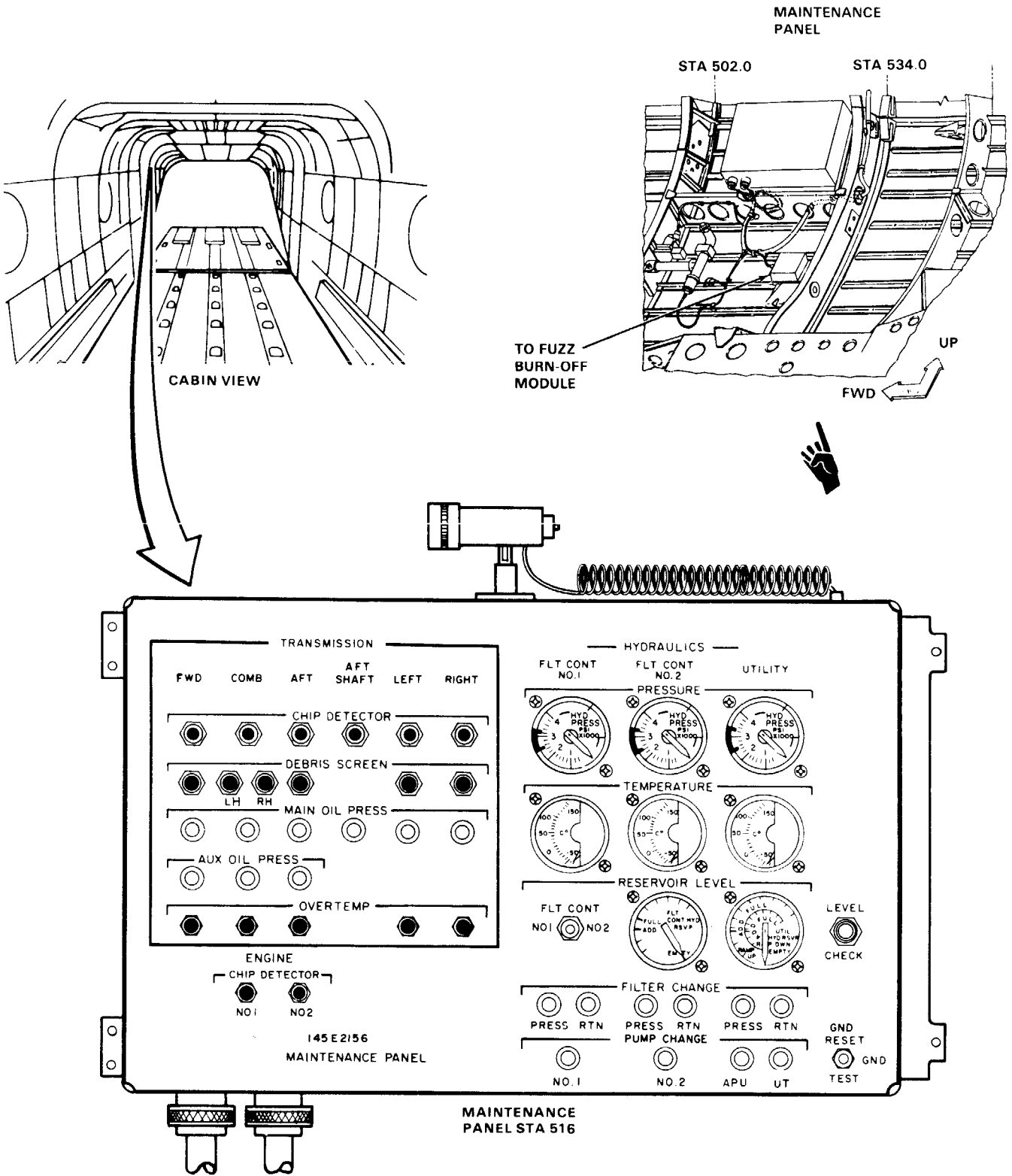
**References:**

TM 55-1520-240-23

**Equipment Condition:**

TM 55-1520-240-23:

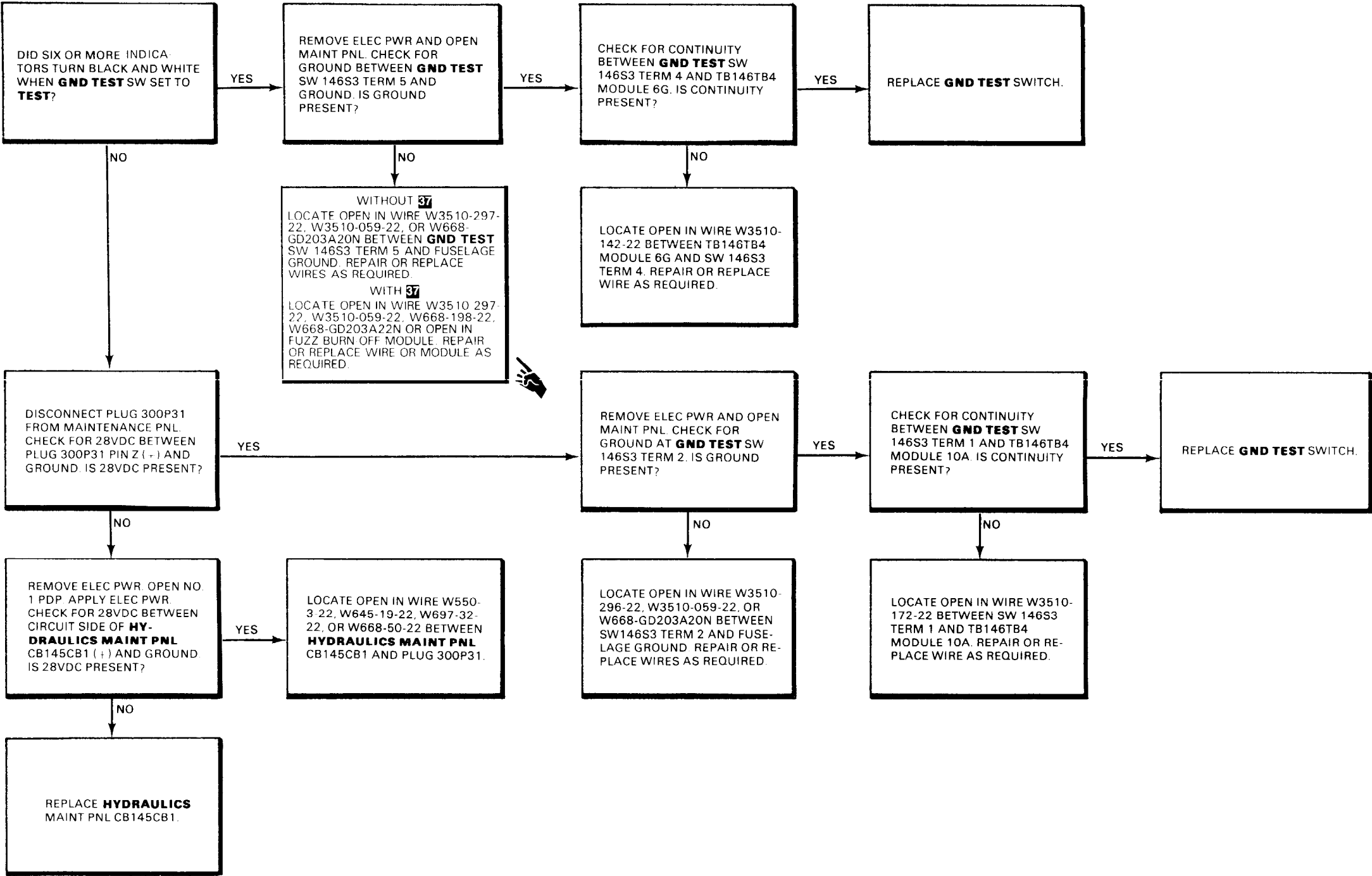
- Battery Connected
- Electrical Power On
- Hydraulic Power Off





8-14.7 INDICATORS DO NOT TURN BLACK AND WHITE WITH GND TEST SWITCH AT TEST (Continued)

8-14.7



8-14.8 INDICATOR WILL NOT TURN ALL BLACK WITH  
GND TEST SWITCH AT RESET

8-14.8

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

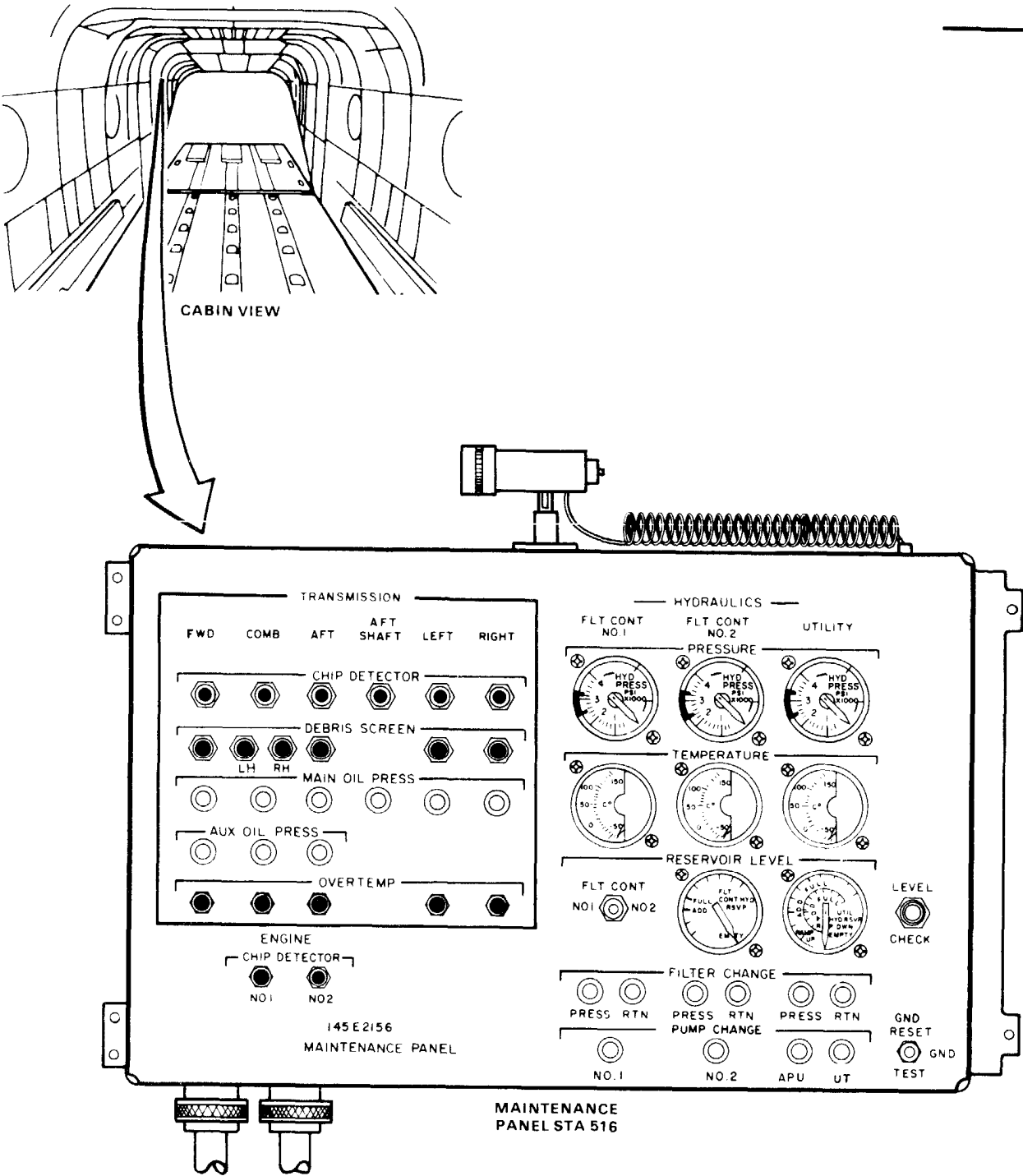
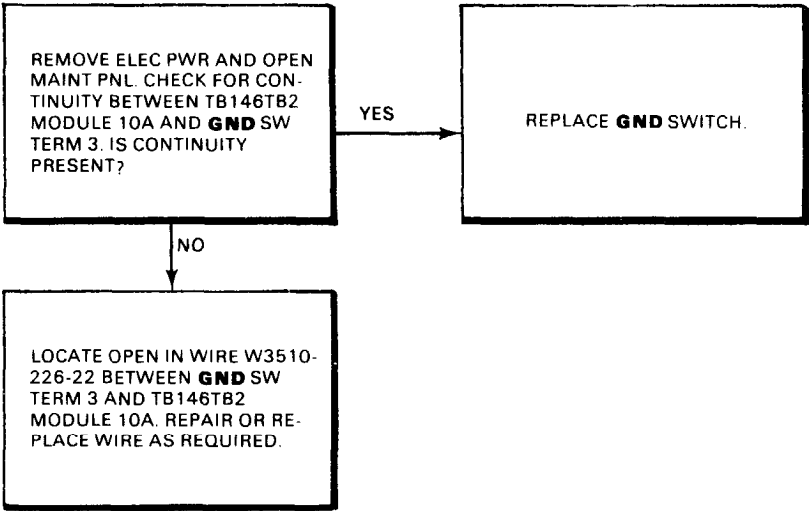
Materials:

None

Personnel Required:  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





8-14.9 FILTER CHANGE AND PUMP CHANGE LIGHTS DO NOT COME ON WHEN PRESSED

8-14.9

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

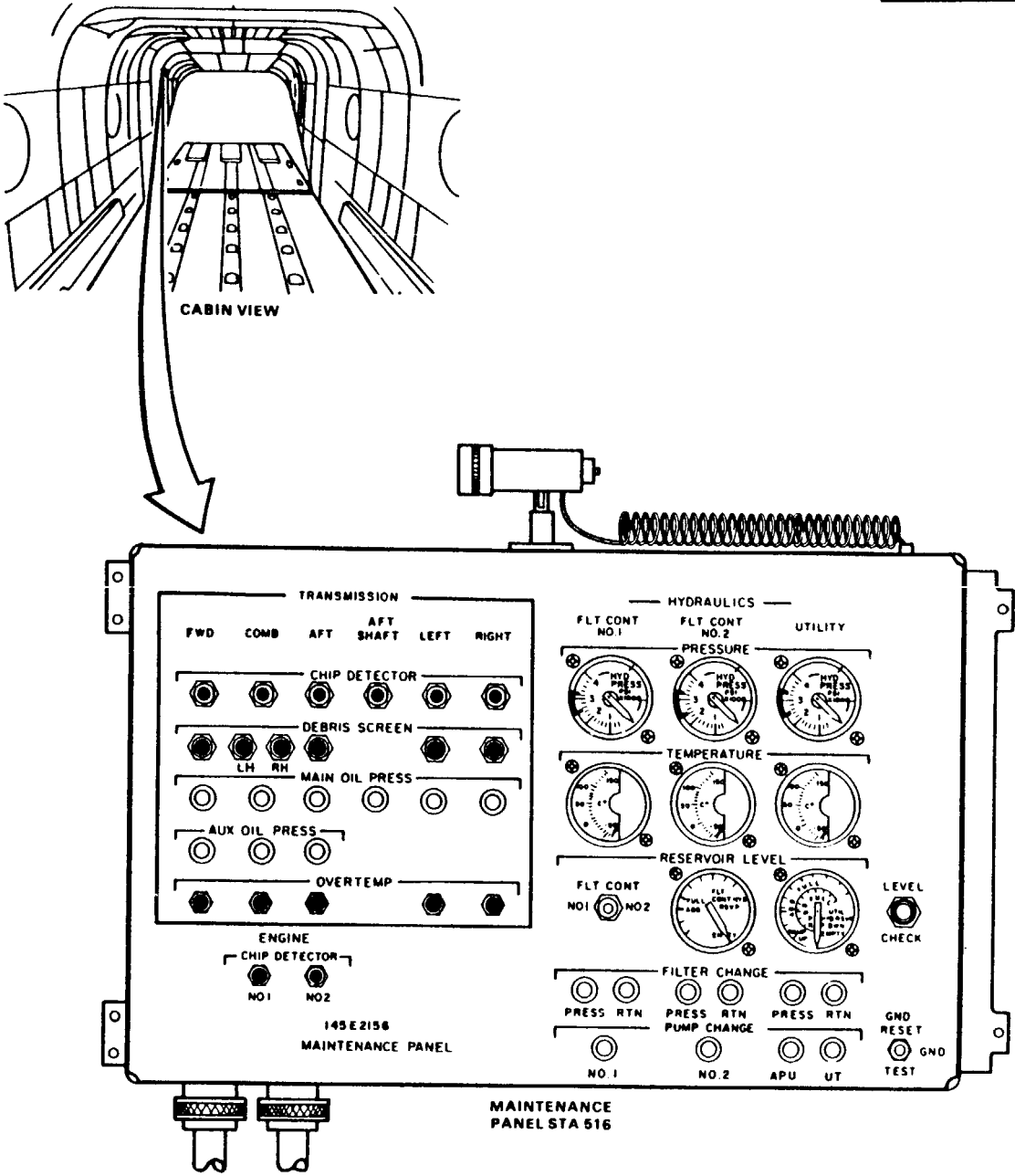
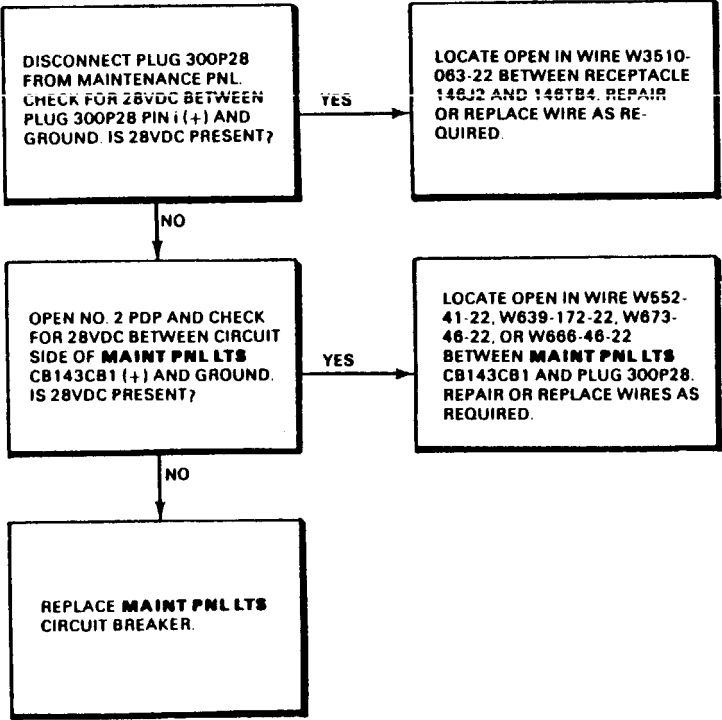
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



8-14.10 HYDRAULICS MAINT PNL LTS CIRCUIT BREAKER WILL NOT STAY CLOSED

8-14.10

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 25

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

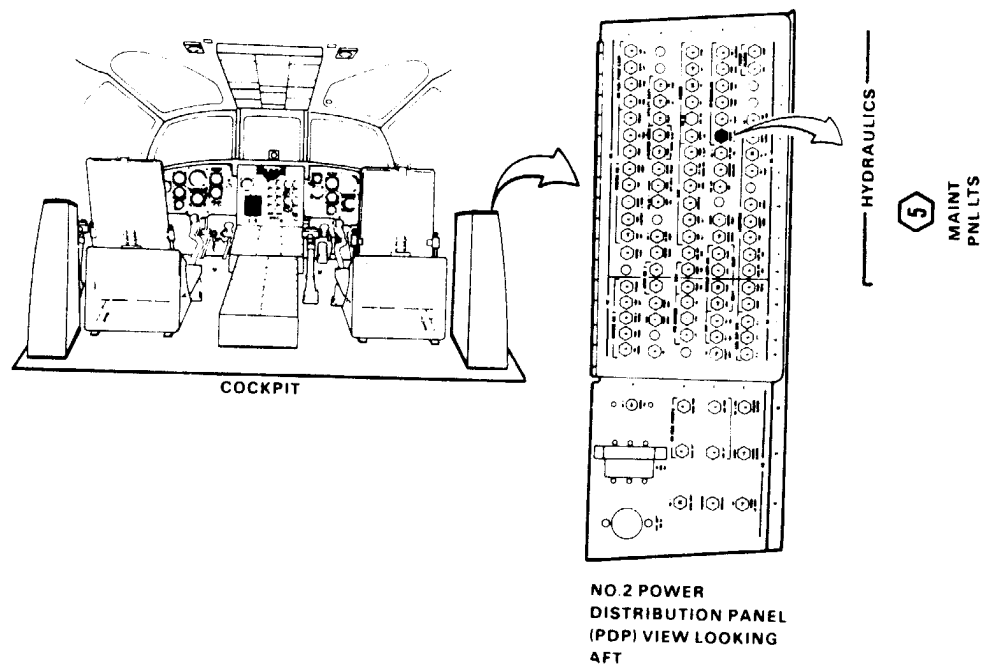
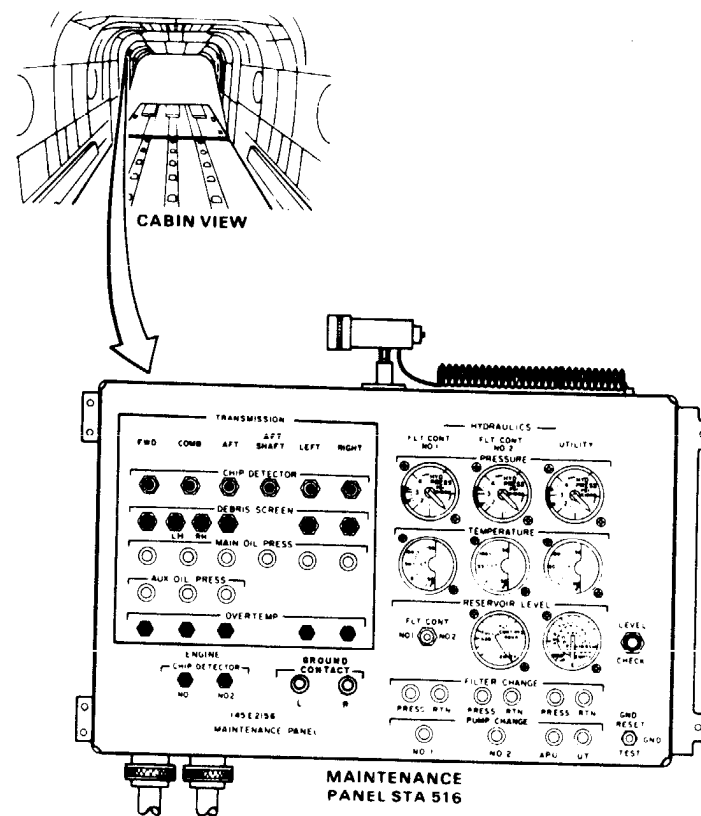
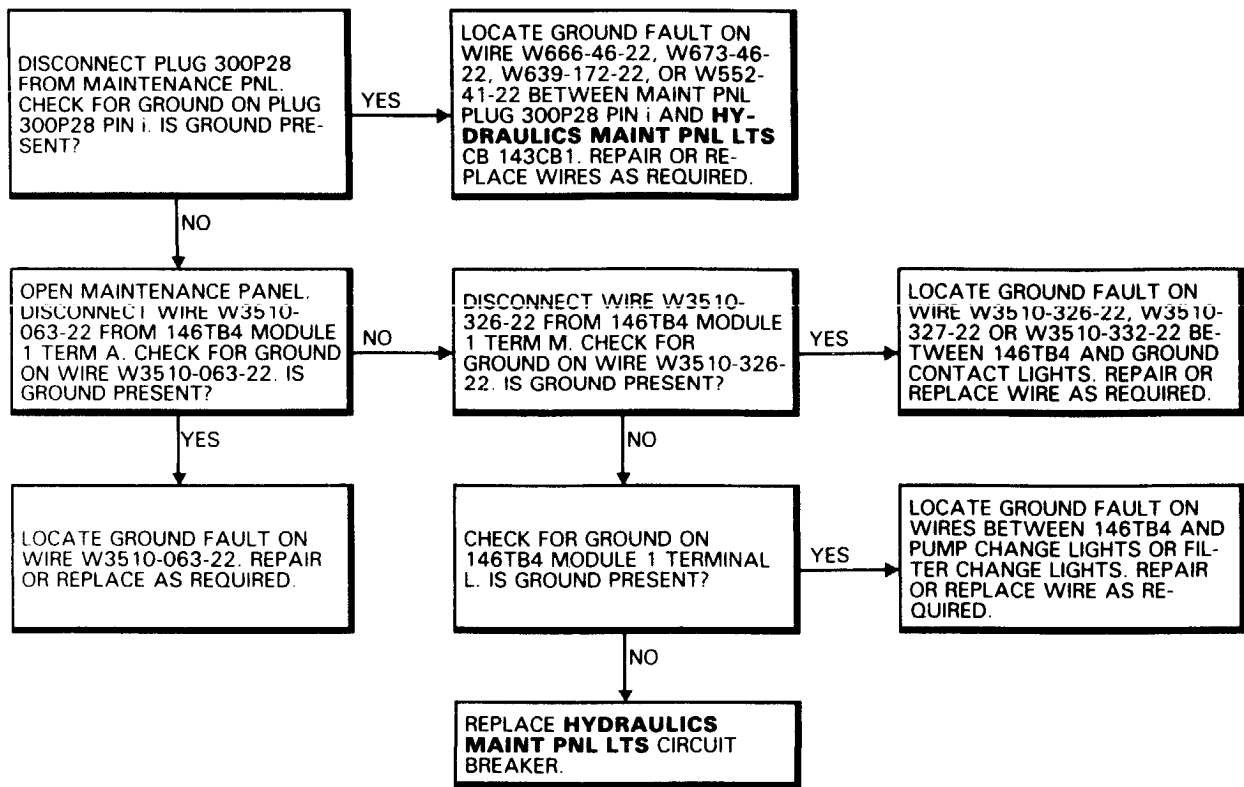
Equipment Condition:

TM 55-1520-240-23

Battery Disconnected

Electrical Power Off

Hydraulic Power Off



12437



## 8-15 ROTOR TACHOMETER

**8-15.1**





8-15.2 ROTOR TACHOMETER VISUAL CHECK

INITIAL SETUP

Applicable Configurations:  
All

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician

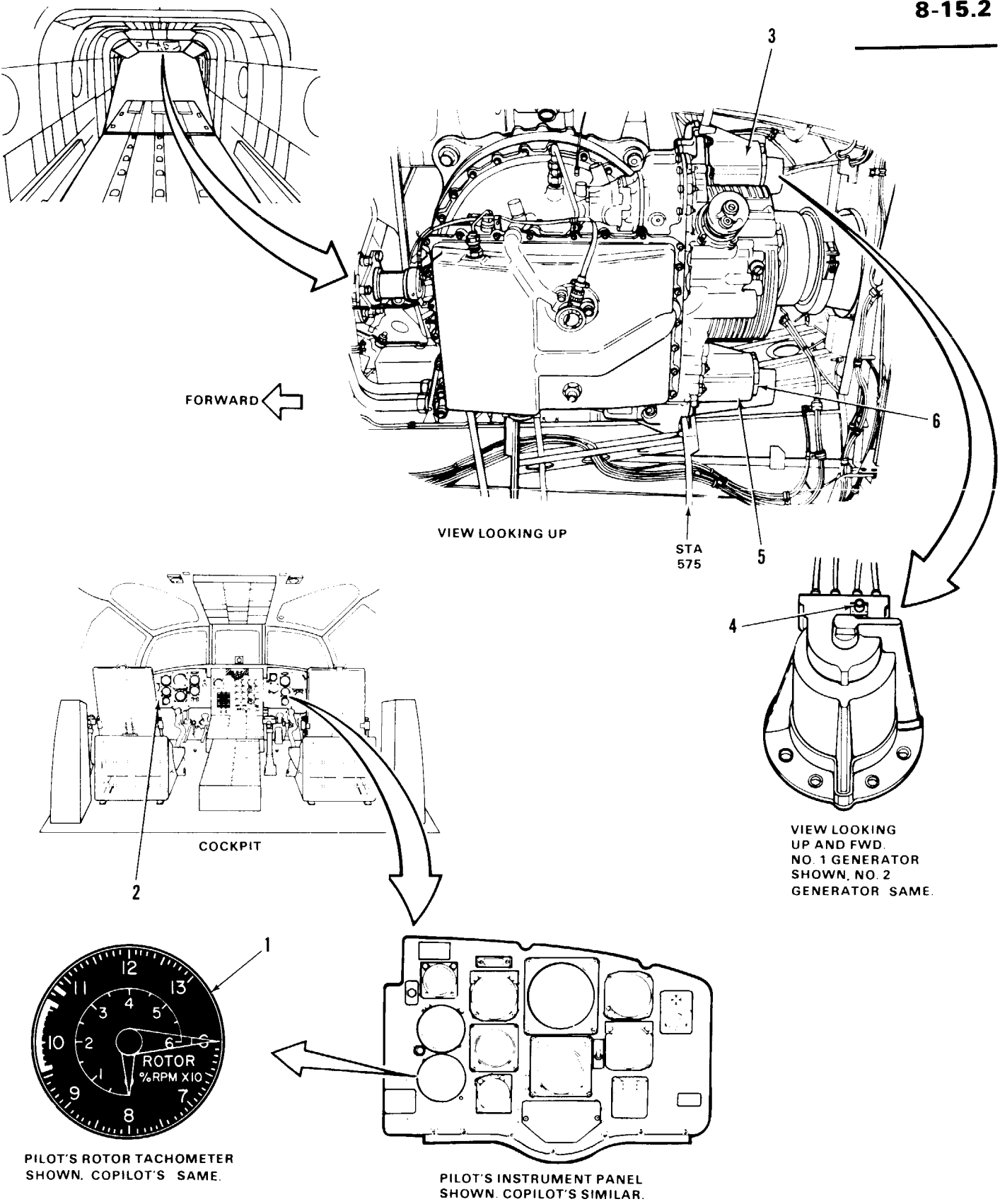
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Left and Right Baffles  
Open Under Aft Transmission

TASK	RESULT
1. Check pilot's rotor tachometer indicator (1).	If tachometer (1 ) is loose or damaged, tighten or replace it as required.
2. Check copilot's rotor tachometer indicator (2).	If tachometer (2) is loose or damaged, tighten or replace it as required.
3. Check No. 1 generator (3).	If plug (4) is loose or damaged or wiring to plug is damaged, tighten or repair it as required.
4. Check No. 2 generator (5).	If plug (6) is loose or damaged or wiring to plug is damaged, tighten or repair it as required.

FOLLOW-ON MAINTENANCE:

Left and right baffles closed under aft trans-  
mission.



45x54

D145-7841-SPA

END OF TASK

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician  
Army Rotor Wing Aviator (2)

References:

TM 55-1520-240-23

Equipment Condition:

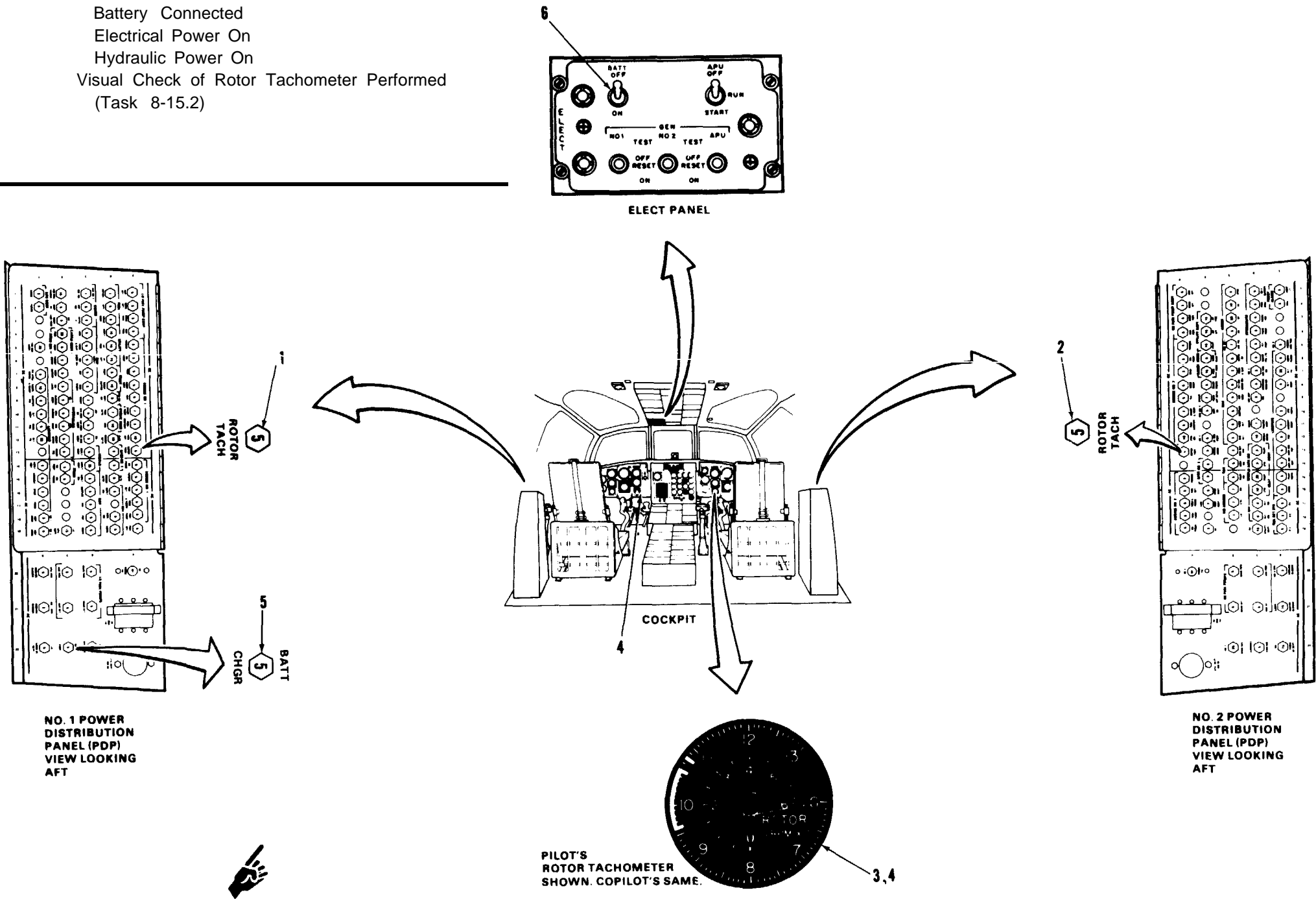
TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power On

Visual Check of Rotor Tachometer Performed  
(Task 8-15.2)



8-15.3 ROTOR TACHOMETER OPERATIONAL CHECK (Continued)

8-15.3

TASK	RESULT
1. Check that ROTOR TACH circuit breaker (1) is closed.	If circuit breaker (1) is open, close it. If it opens again, go to task 8-15.4.
2. Check that ROTOR TACH circuit breaker (2) is closed.	If circuit breaker (2) is open, close it. If it opens again, go to task 8-14.4.
3. Have pilot start engines and stabilize rotor rpm at 100 percent. Check pilot and copilot rotor tachometers (3 and 4).	Both tachometers shall read 98 to 101 percent. If copilot's tachometer does not read 98 percent to 101 Percent, go to task. 8-15.5 If pilot's tachometer does not read 98 to 101 percent, go to task 8-15.6. If copilot's tachometer varies or oscillates, replace capacitor 054C1. If pilot's tachometer varies or oscillates, replace capacitor 054C2.
4. Open BATT CHGR circuit breaker (5).	
5. Have pilot set BATT switch (6) to OFF. Check pilot and copilot rotor tachometers (3 and 4).	Both tachometers shall read 98 to 101 percent. If either tachometer pointer drifts downscale, go to task 8-15.7.
6. Have pilot set BATT switch (6) to ON.	
7. Close BATT CHGR circuit breaker (5).	
8. Open ROTOR TACH circuit breaker (1). Check copilot's rotor tachometer (4).	Tachometer (4) shall read 98 to 101 percent. If pointer on tachometer (4) drifts downscale, go to task 8-15.8.
9. Close ROTOR TACH circuit breaker (1).	
10. Open ROTOR TACH circuit breaker (2). Check pilot's rotor tachometer (3).	Tachometer (3) shall read 98 to 101 percent. If pointer on tachometer (3) drifts downscale, go to task 8-15.9.
11. Close ROTOR TACH circuit breaker (2).	

FOLLOW-ON MAINTENANCE:  
Have Pilot Shut Down Engines  
TM 55-1520-240-23:  
Hydraulics Off  
Electrical Power Off  
Battery Disconnected

FAULT ISOUTION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

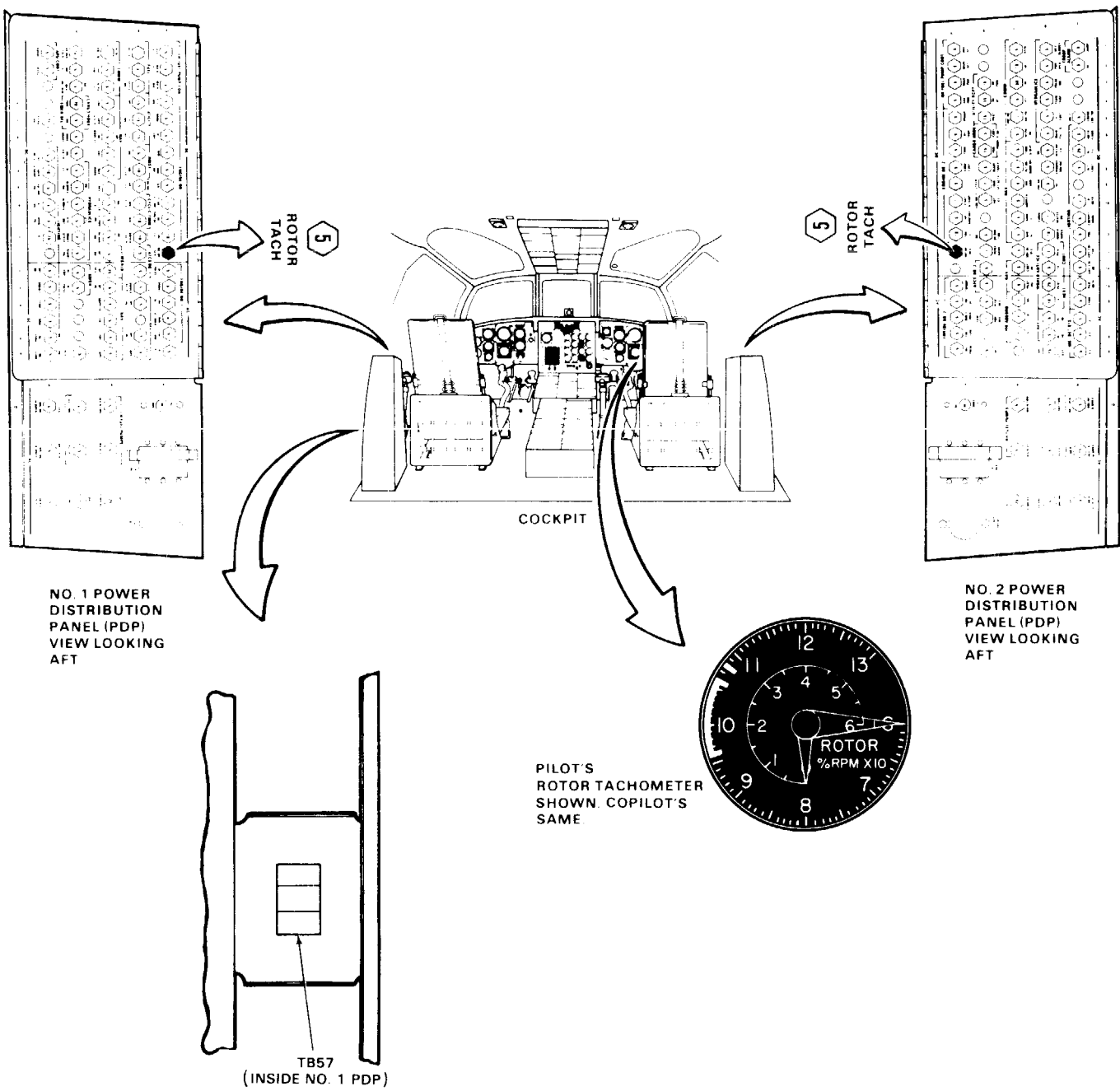
References:

TM 55-1520-240-23

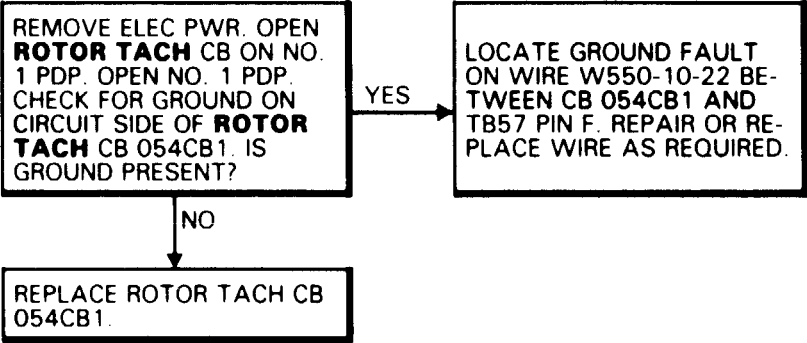
Equipment Condition:

TM 55-1520-240-23:

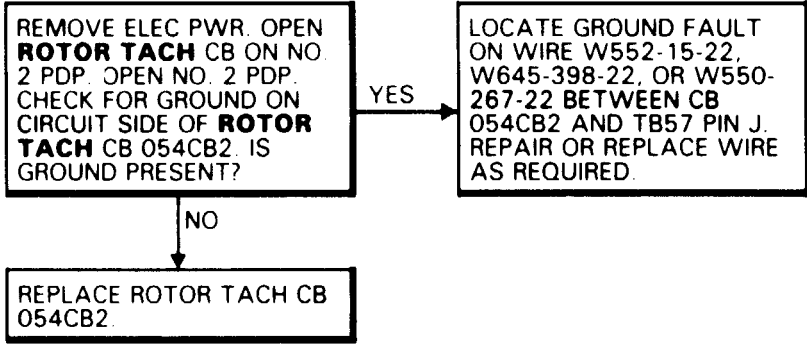
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



COPILOT TACH CIRCUIT BREAKER WILL NOT STAY CLOSED



PILOT TACH CIRCUIT BREAKER WILL NOT STAY CLOSED



**FAULT ISOLATION PROCEDURE**

**INITIAL SETUP**

**Applicable Configurations:**

All

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

**Personnel Required:**

Aircraft Electrician

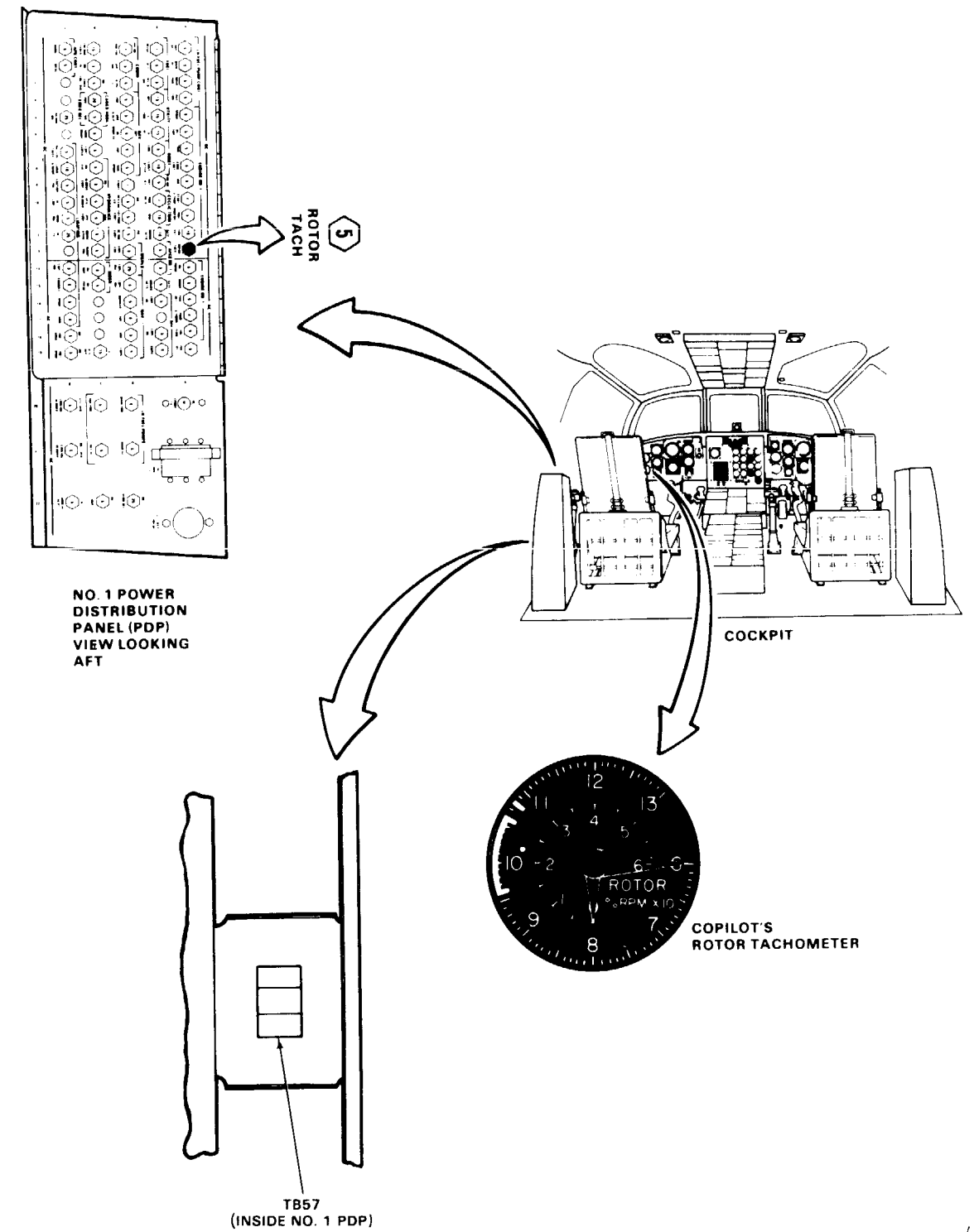
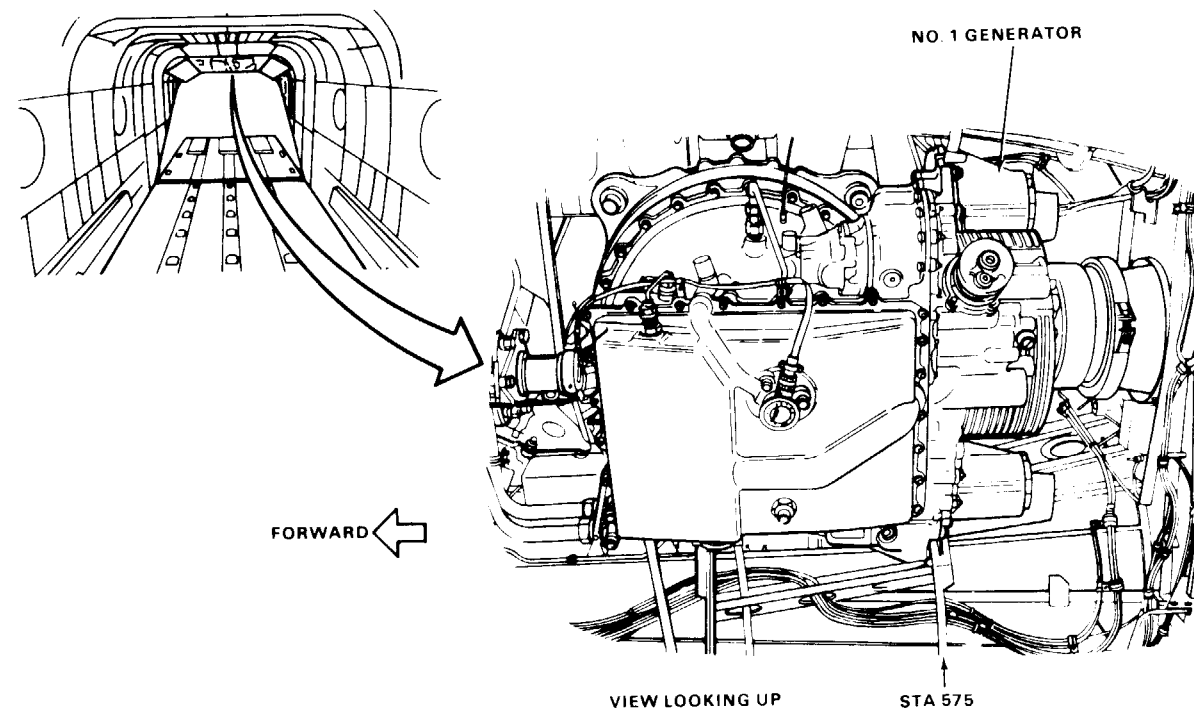
**References:**

TM 55-1520-240-23

**Equipment Condition:**

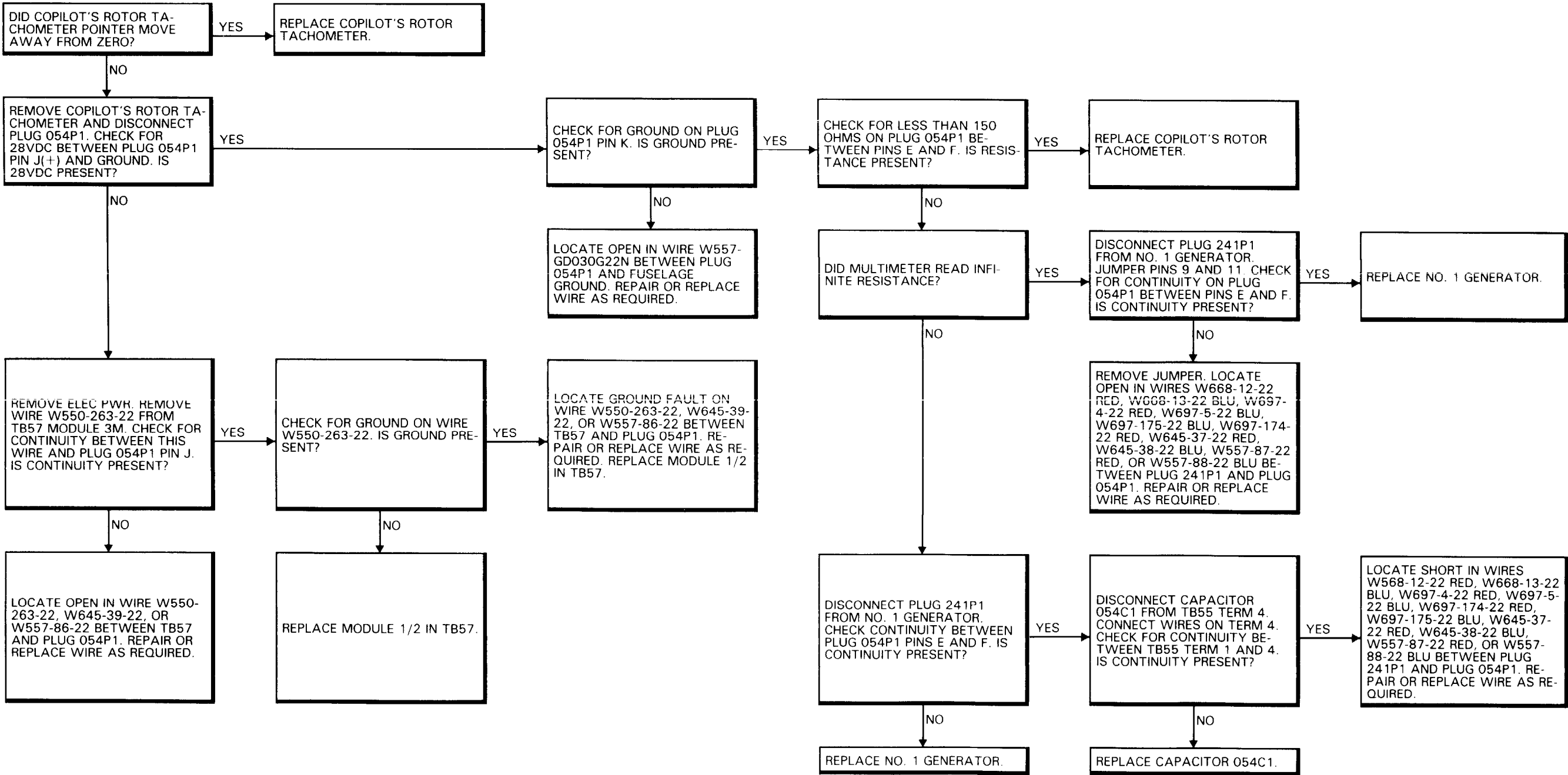
TM 55-1520-240-23:

Battery Connected  
Electrical Power On  
Hydraulic Power Off



8-15.5 COPILOT'S ROTOR TACHOMETER DOES NOT READ 98 TO 101 PERCENT (Continued)

8-15.5



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

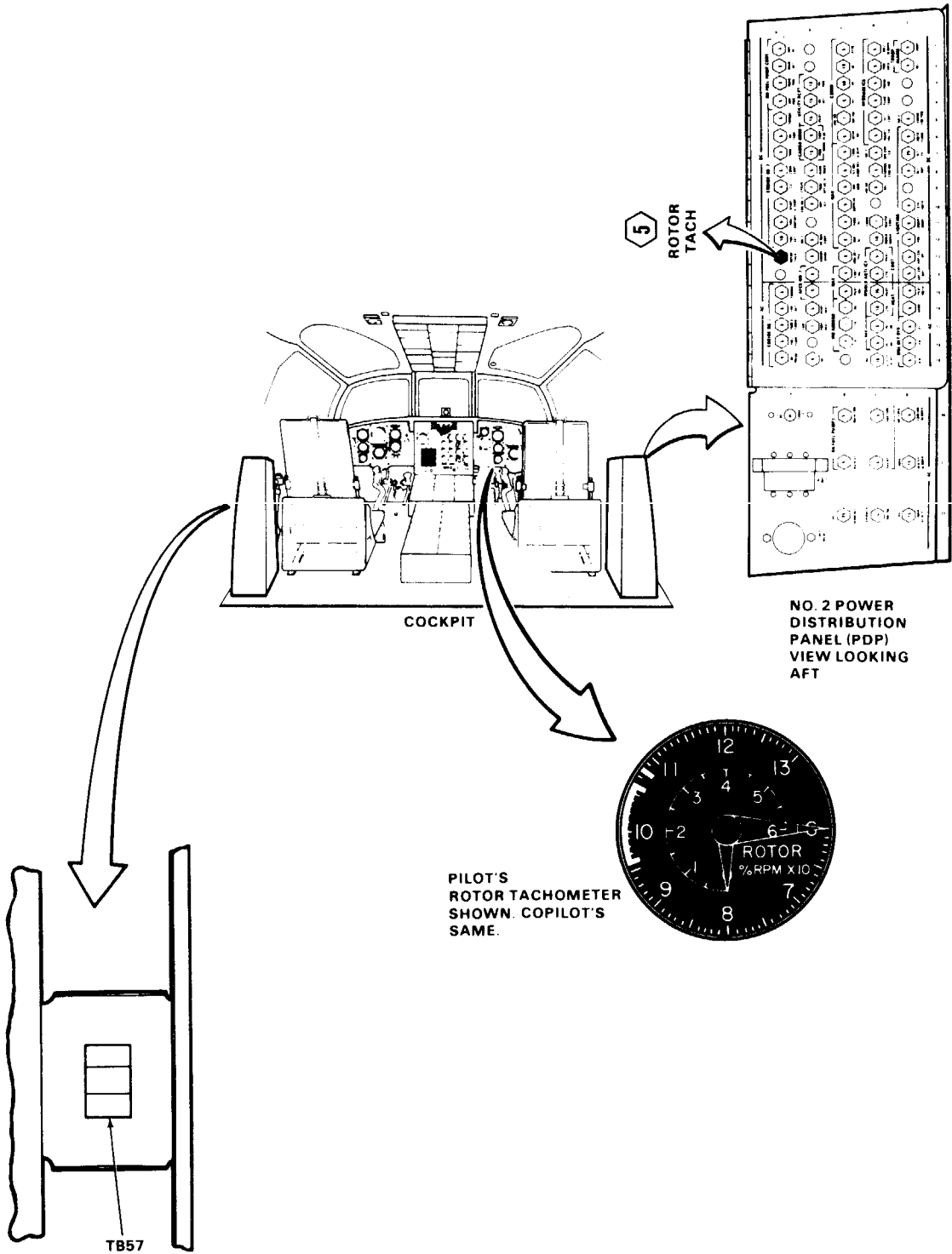
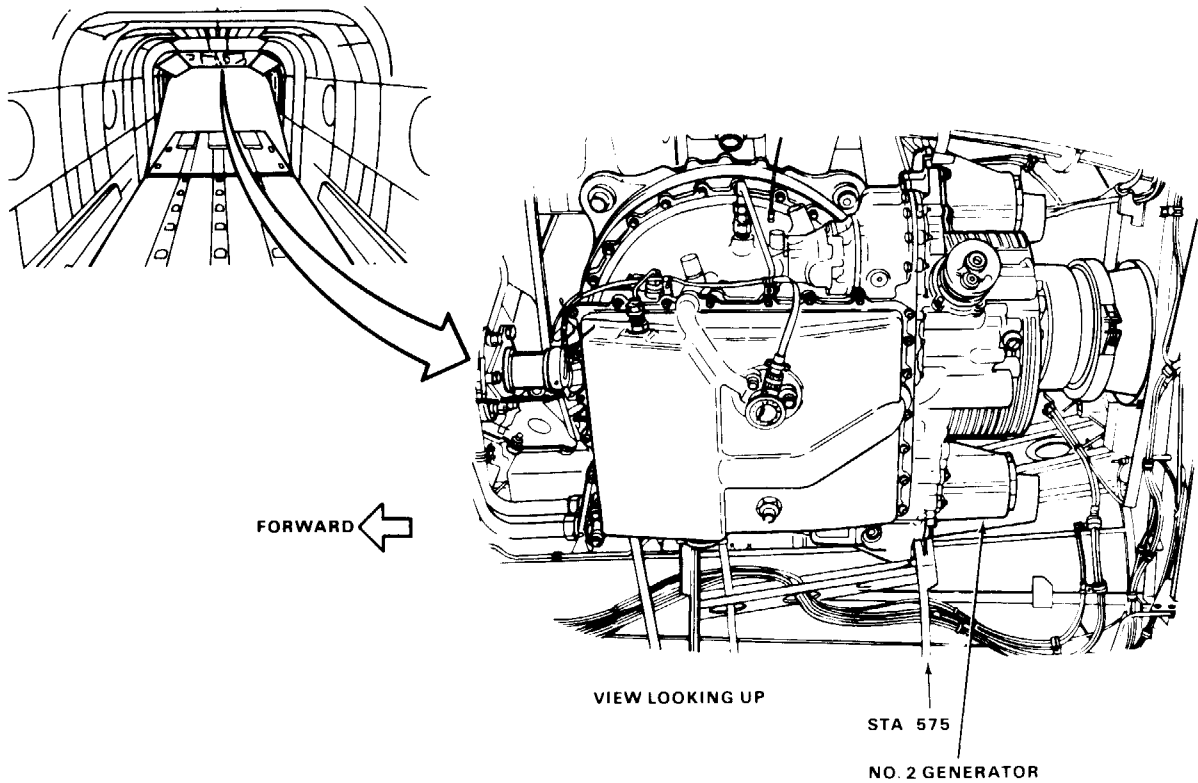
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

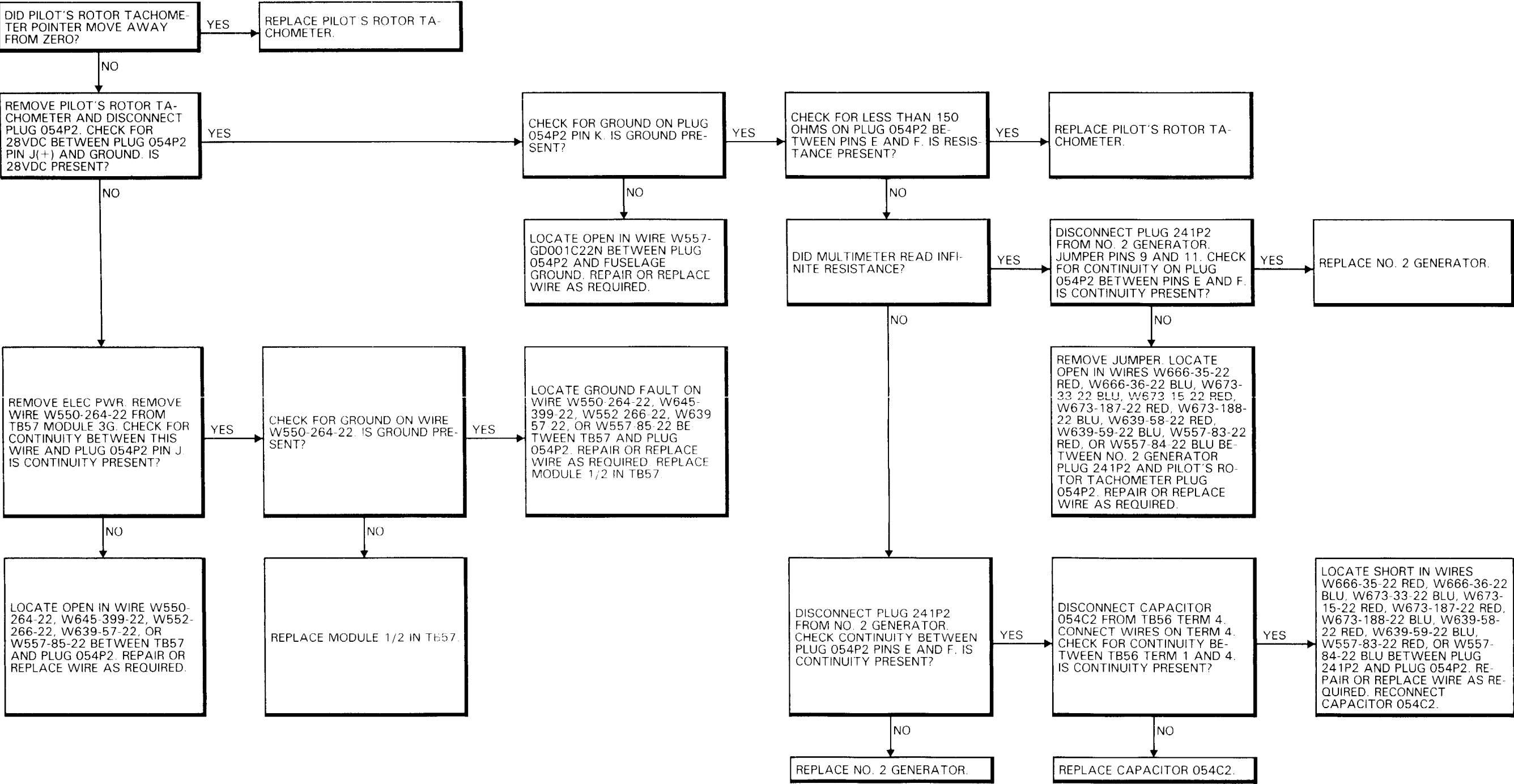
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





8-15.6 PILOT'S ROTOR TACHOMETER DOES NOT READ 98 TO 101 PERCENT (Continued)

8-15.6



**8-15.7 PILOT'S OR COPILOT'S ROTOR TACHOMETER DOES NOT INDICATE 98 TO 101 PERCENT WHEN BATT SWITCH SET TO OFF**

## FAULT ISOLATION PROCEDURE

**Applicable Configurations:**

All

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

**Personnel Required:**

Aircraft Electrician (2)

**References:**

TM 55-1520-240-23

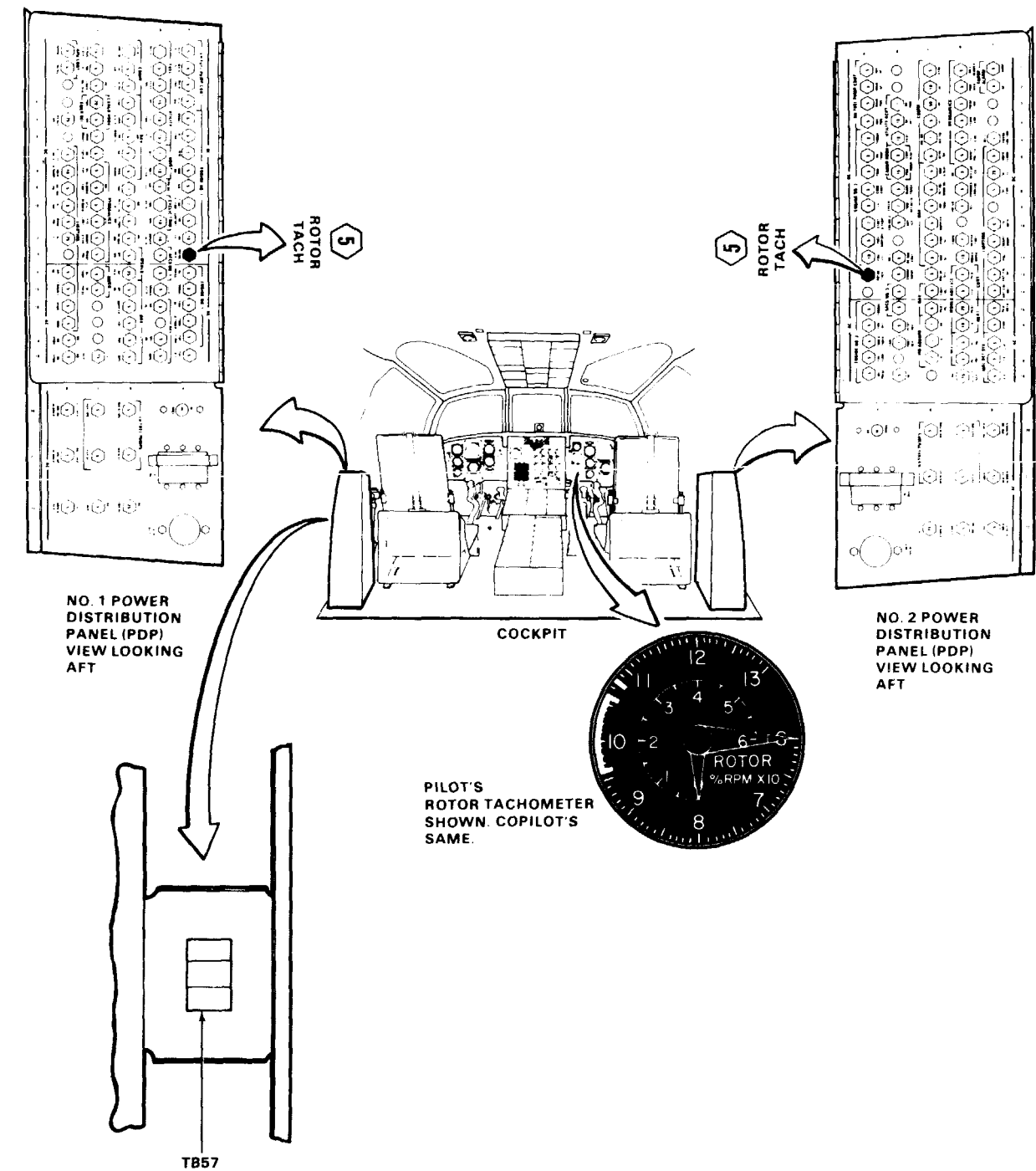
**Equipment Condition:**

TM 55-1520-240-23

Battery Connected

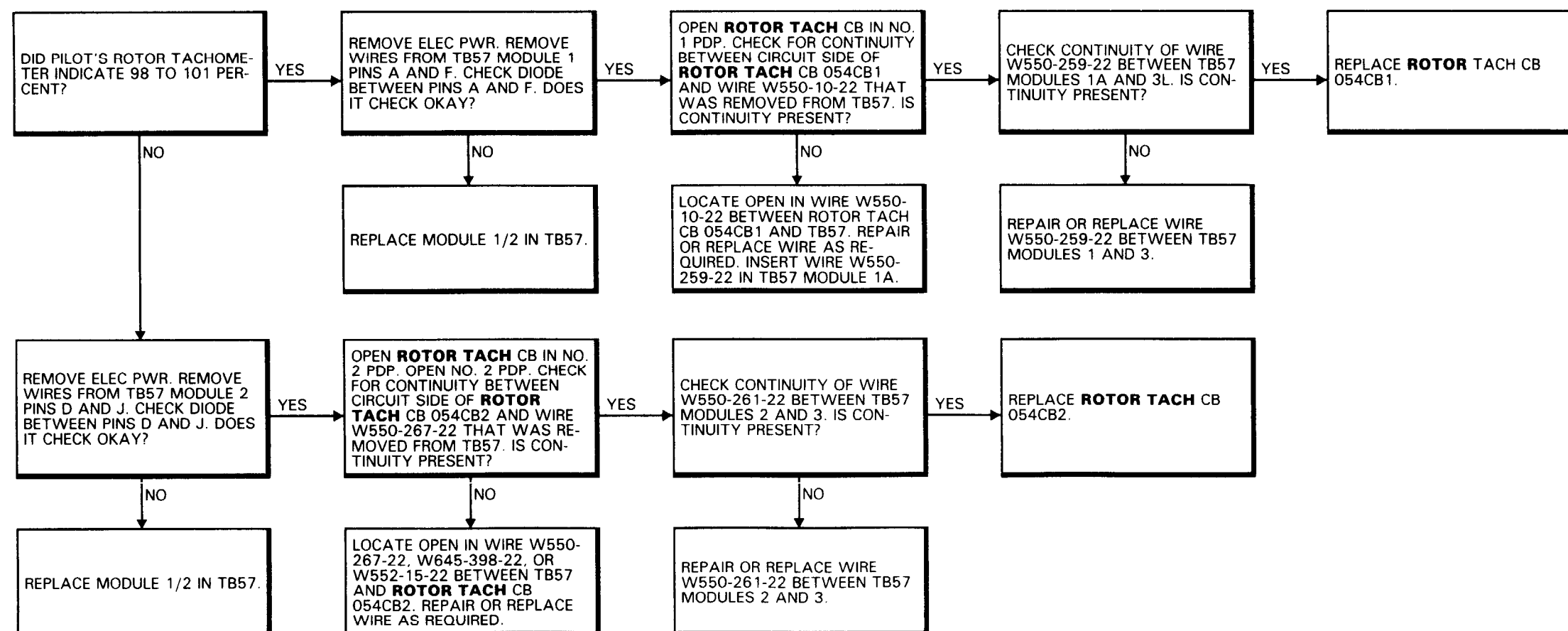
Electrical Power On

Hydraulic Power On



# 8-15.7 PILOT'S OR COPILOT'S ROTOR TACHOMETER DOES NOT INDICATE 98 TO 101 PERCENT WHEN BATT SWITCH SET TO OFF (Continued)

8-15.7



8-15.8 COPILOT'S ROTOR TACHOMETER DOES NOT INDICATE 98 TO 101 PERCENT WHEN ROTOR TACH CIRCUIT BREAKER OPENED

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

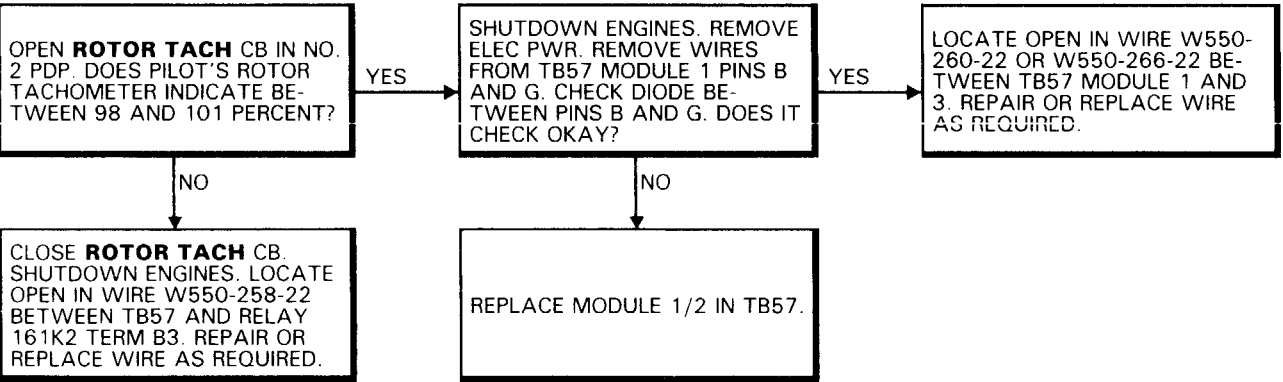
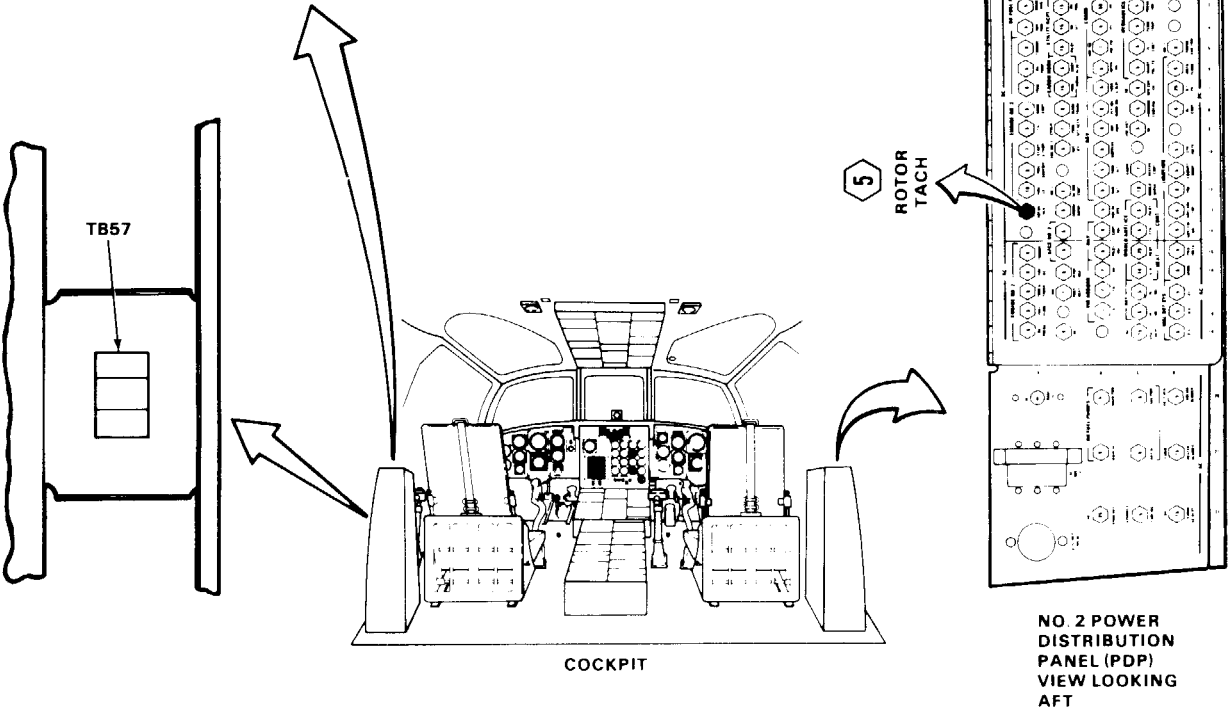
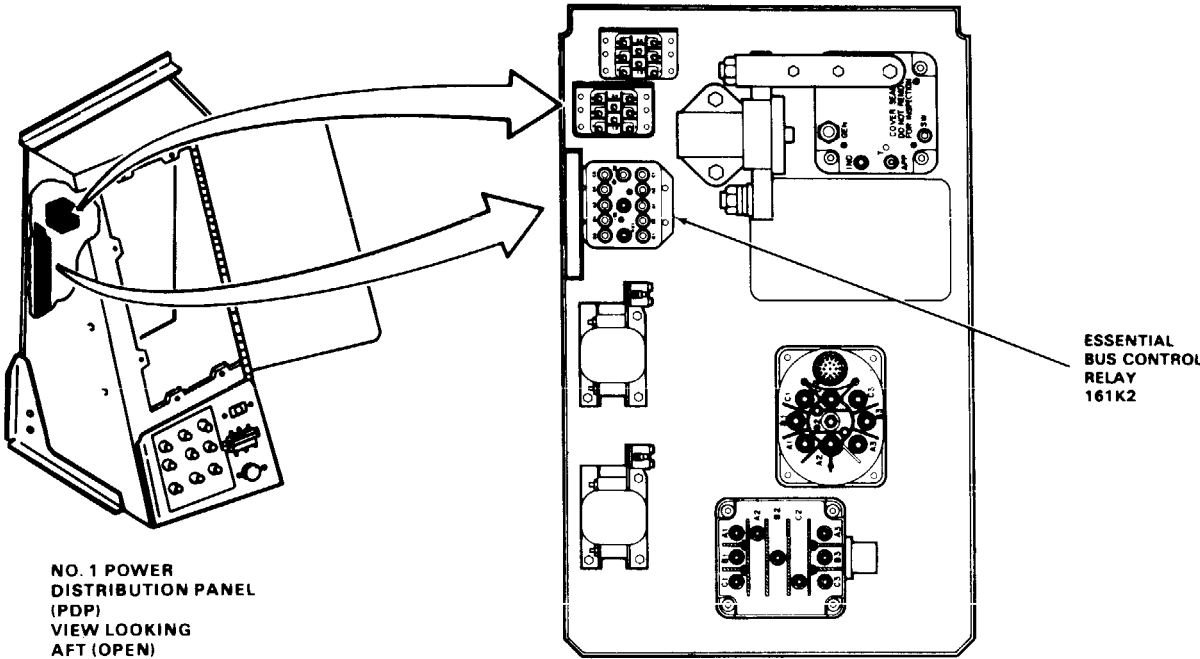
Aircraft Electrician  
Rotor Wins Aviator (2)

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On  
Rotors Turning



8-15.9 PILOT'S ROTOR TACHOMETER DOES NOT INDICATE 98 TO 101 PERCENT WHEN ROTOR TACH  
CIRCUIT BREAKER OPENED

8-15.9

FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
All

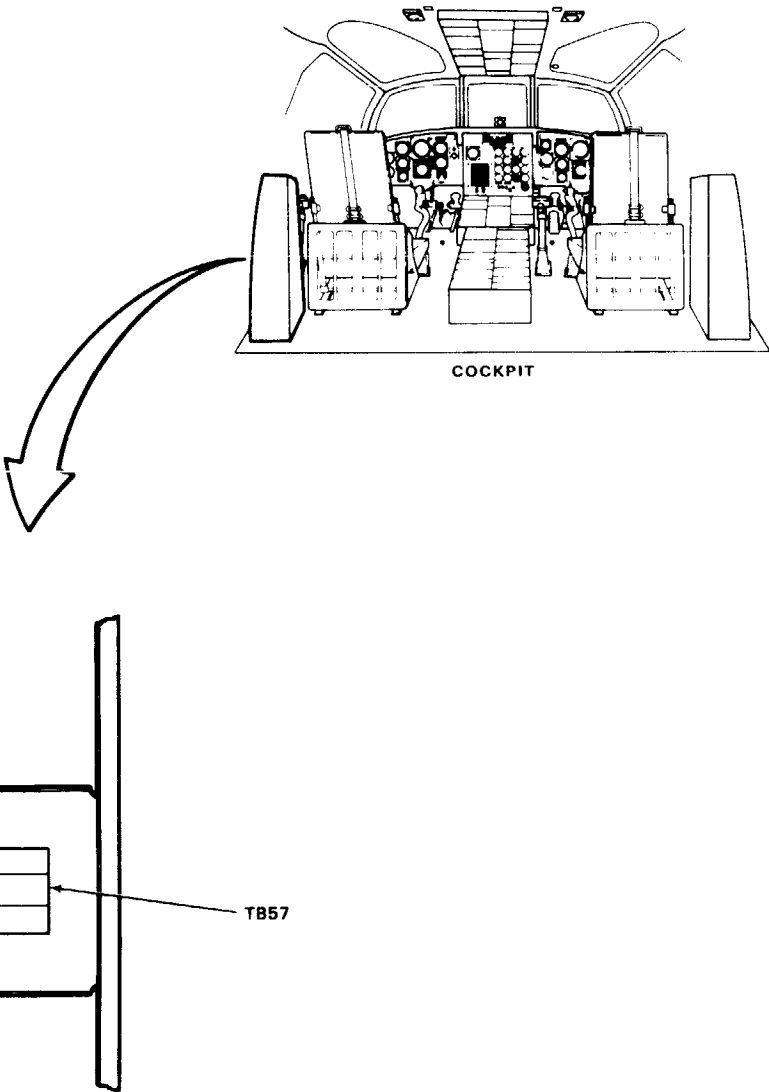
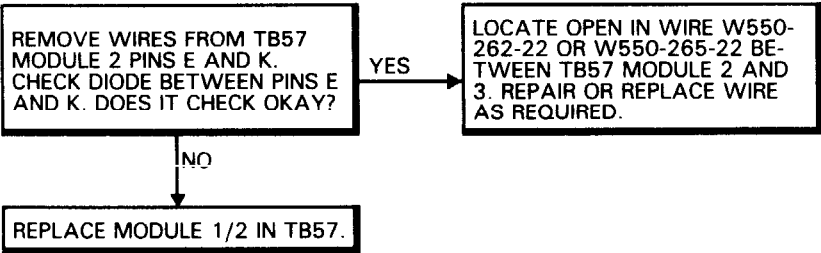
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician

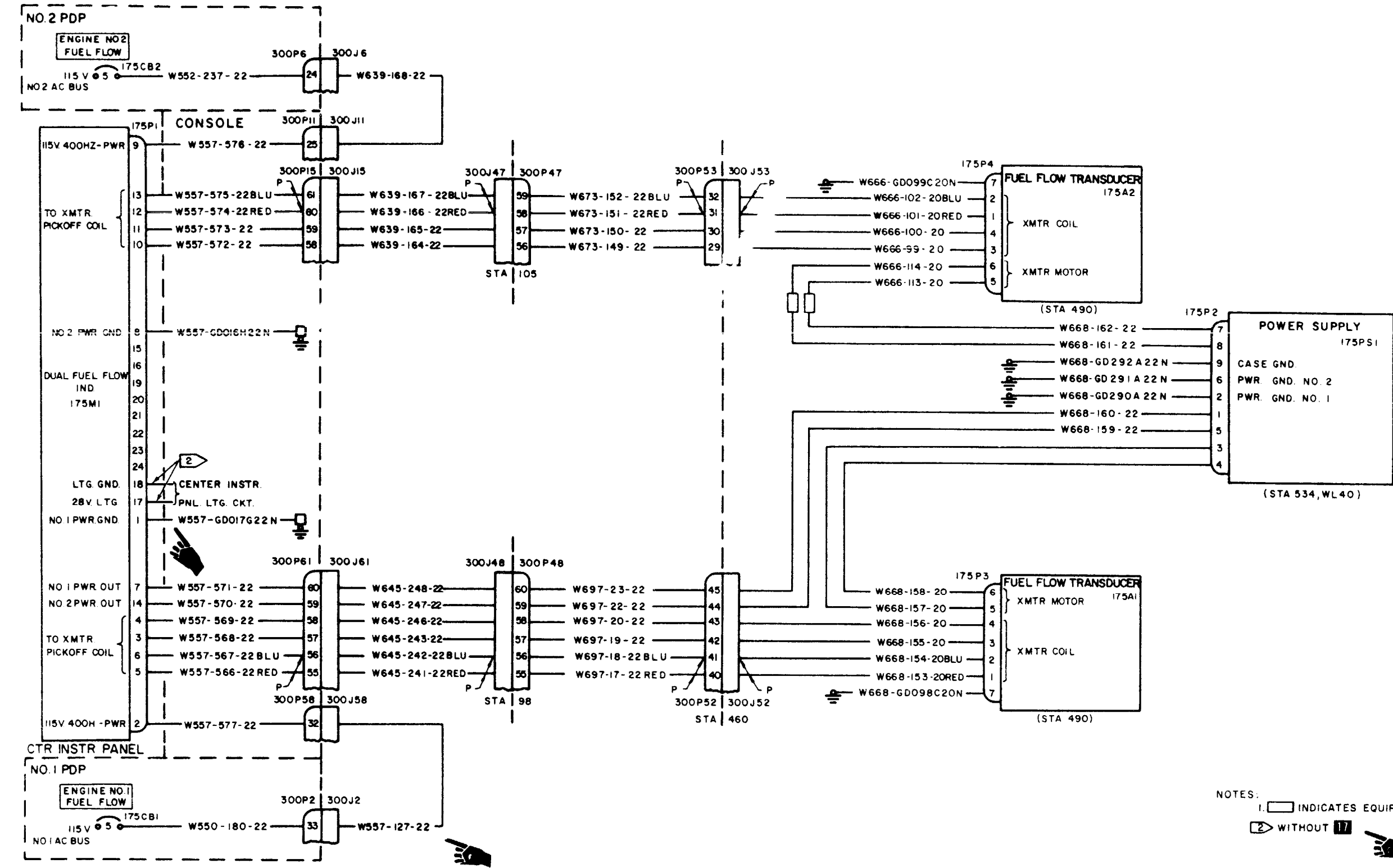
**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off





## 8-16 ENGINE FUEL FLOW INDICATING SYSTEM



175 100F

10252





8-16.2 ENGINE FUEL FLOW INDICATING SYSTEM VISUAL CHECK

INITIAL SETUP

Applicable Configurations:  
All

References:  
TM 55-1520-240-23

Tools:  
Electrical repairer's Tool Kit  
NSN 5180-00-323-4915

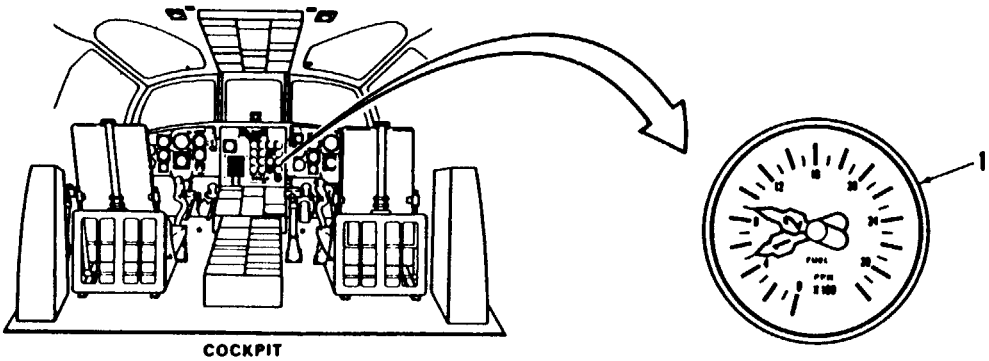
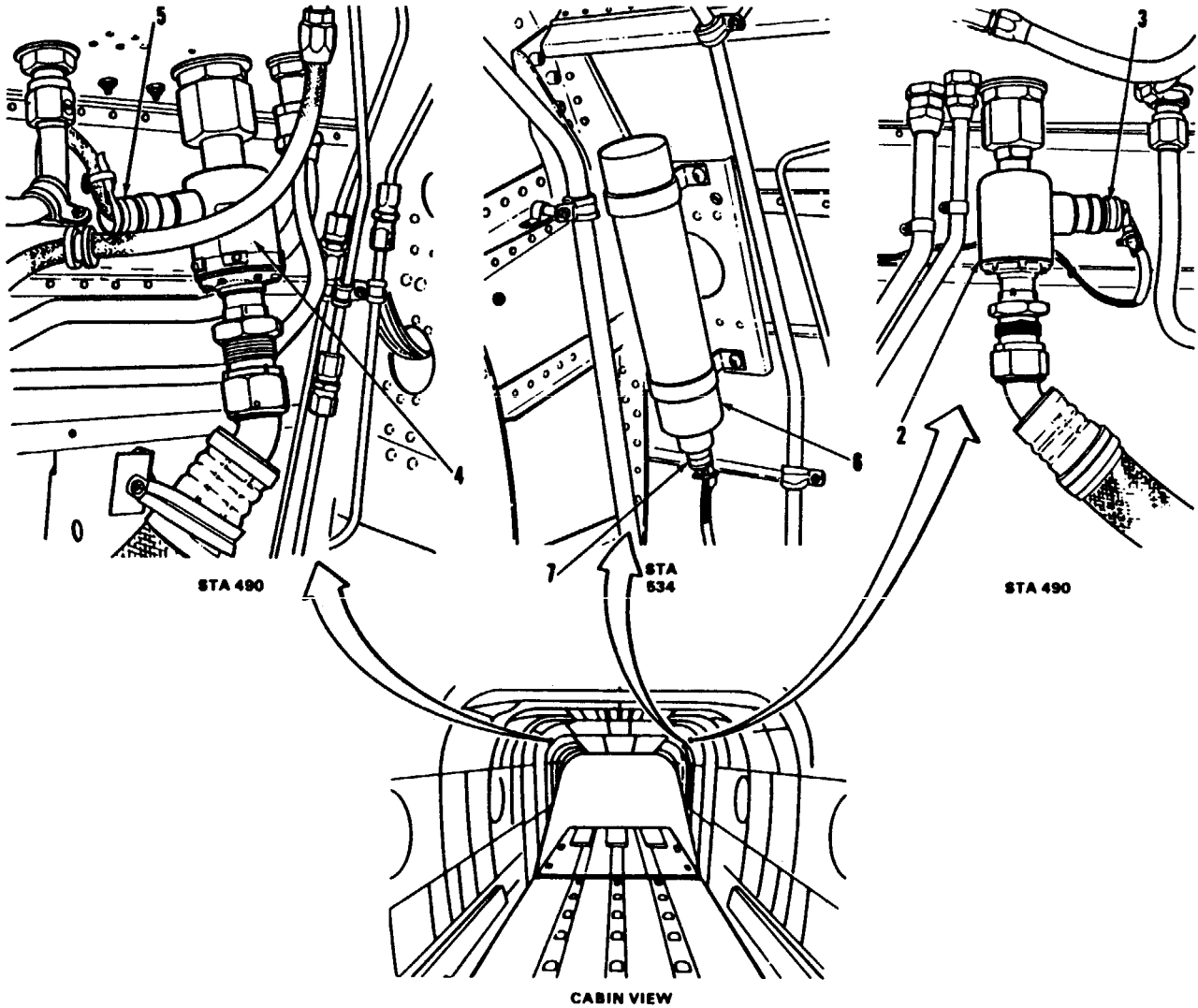
Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check dual fuel flow indicator (1).	If indicator (1) is loose or damaged, tighten or replace it as required.
2. Check No. 1 engine fuel flow transducer (2) and connector (3).	If transducer (2) or connector (3) is loose or damaged, tighten or repair them as required.
3. Check wires to fuel flow transducer (2) and connector (3).	If wires are frayed or damaged, repair or replace them as required.
4. Check No. 2 engine fuel flow transducer (4) and connector (5).	If transducer (4) or connector (5) is loose or damaged, tighten or replace them as required.
5. Check wires to fuel flow transducer connector (5).	If wires are frayed or damaged, repair or replace them as required.
6. Check fuel flow power supply (6).	If power supply (6) is loose or damaged, tighten or replace it as required. If connector (7) is loose or damaged, tighten or replace it. If wires to connector are damaged, repair or replace them as required.

FOLLOW-ON MAINTENANCE:  
None



DI45-10948-SPA

END OF TASK

Page 8-345 is a blank page.

8-16.3 ENGINE FUEL FLOW INDICATING SYSTEM OPERATIONAL CHECK

8-16.3

INITIAL SETUP

Applicable Configurations:

All

Tools:

None

Materials:

None

Personnel Required:

Army Rotary Wing Aviator (2)  
Aircraft Electrician

References:

TM 55-1520-240-10  
TM 55-1520-240-23

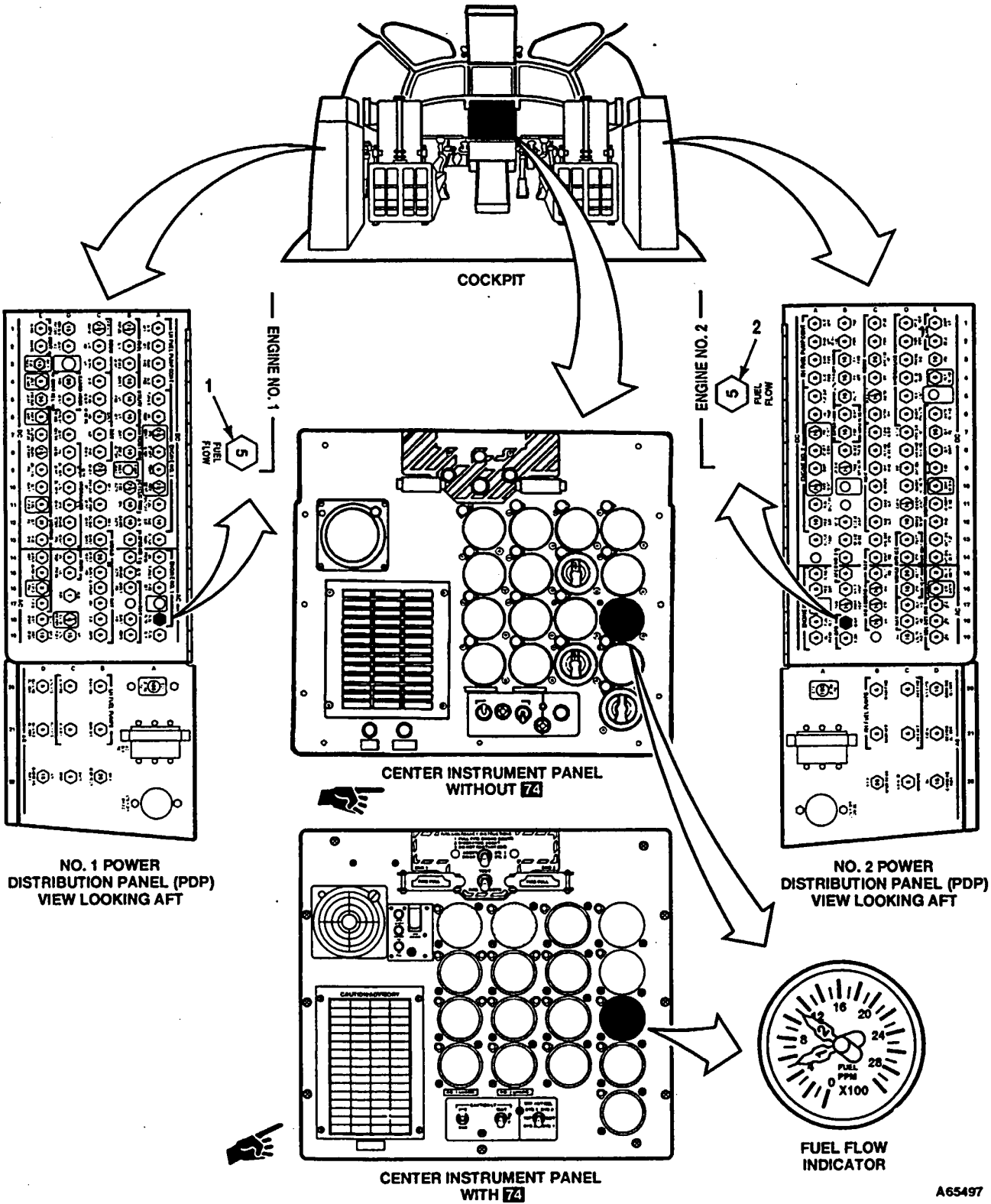
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Engine Fuel Flow Indicating System Visual Check  
Completed (Task 8-16.2)

TASK	RESULT
1. Check that <b>ENGINE NO. 1 FUEL FLOW circuit breaker (1)</b> is closed.	If circuit breaker (1) is open, close it. If it opens again, go to task 8-16.4.
2. Check that <b>ENGINE NO. 2 FUEL FLOW circuit breaker (2)</b> is closed.	If circuit breaker (2) is open, close it. If it opens again, go to task 8-16.5.
3. Have pilot start engines and stabilize rotors at ground idle and minimum beep. Observe fuel flow indicator (3) and compare readings with IDLE FUEL FLOW chart. (Ref TM 55-1520-240-10.)	Indicator readings shall be approximately the same as indicated by IDLE FUEL FLOW chart. If No. 1 pointer does not indicate any fuel flow, go to task 8-16.6. If No. 1 pointer does not indicate approximate fuel flow, go to task 8-16.7. If No. 2 pointer does not indicate any fuel flow, go to task 8-16.8. If No. 2 pointer does not indicate approximate fuel flow, go to task 8-16.9.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Shut down engines.  
Battery disconnected.  
Electrical power off.  
Hydraulic power off.



A65497

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 518000-323-4915

Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

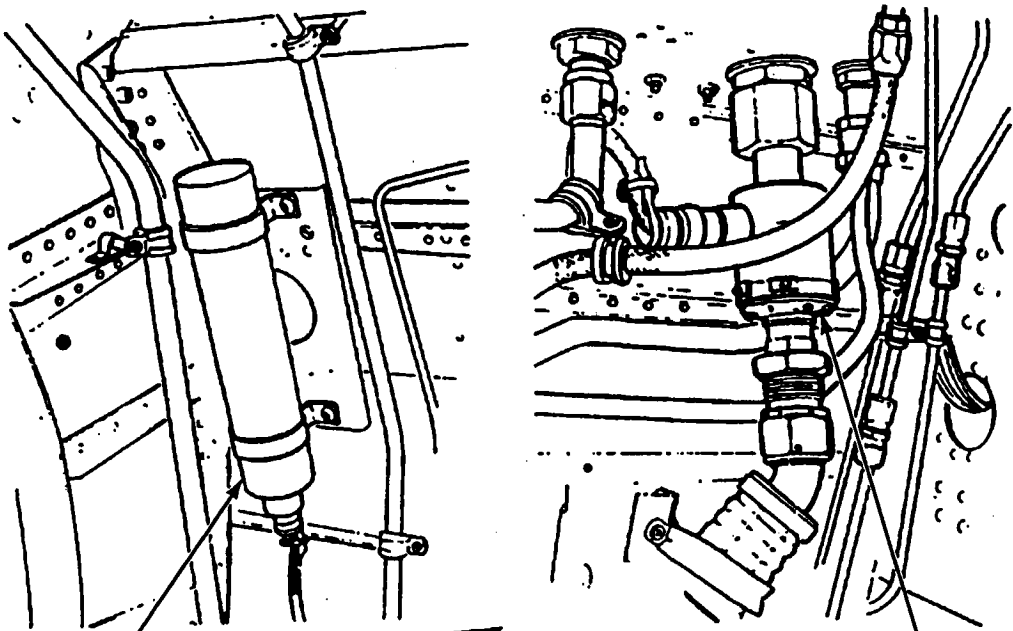
Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

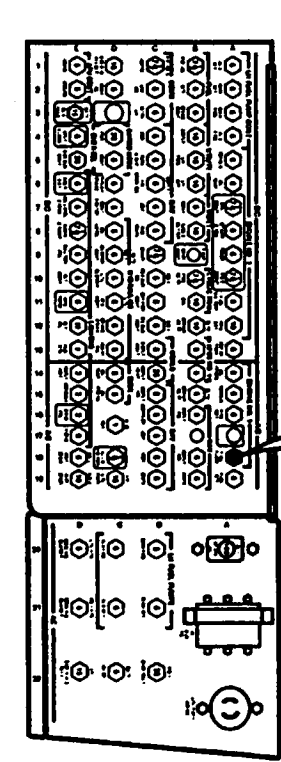
Electrical Power Off

Hydraulic Power Off



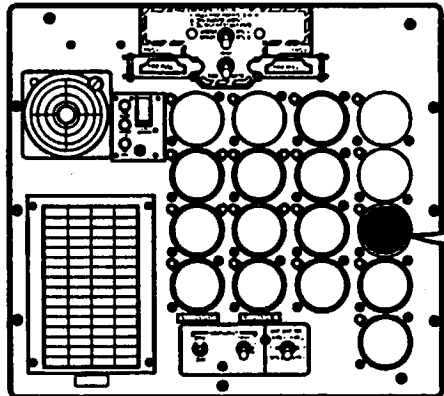
POWER SUPPLY  
STA 534 WL +40

NO. 1 ENGINE  
FUEL FLOW  
TRANSDUCER  
STA 490

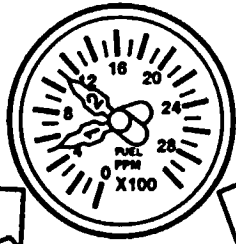


NO. 1 POWER  
DISTRIBUTION PANEL (PDP)  
VIEW LOOKING AFT

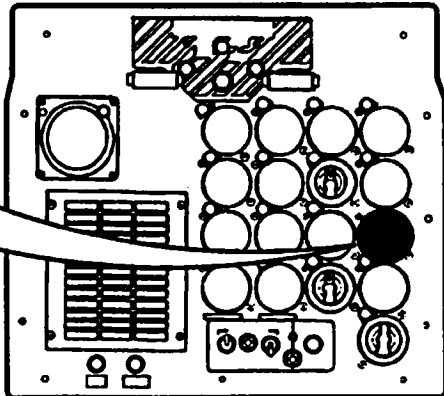
ENGINE NO. 1  
FUEL  
FLOW



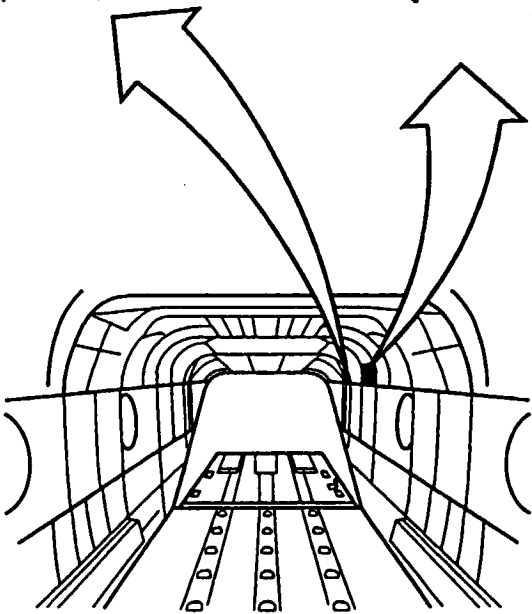
CENTER INSTRUMENT PANEL  
WITH 74



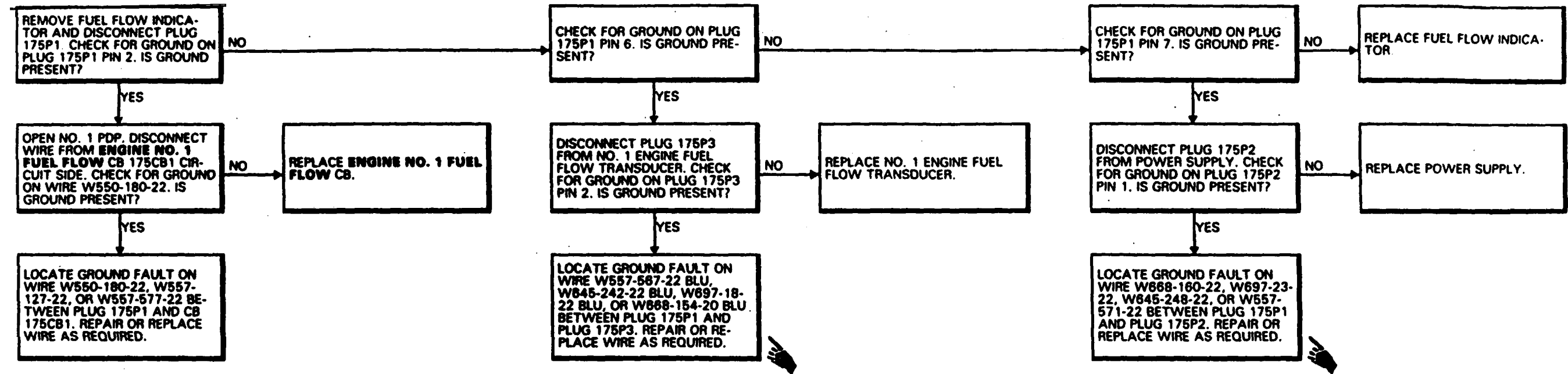
FUEL FLOW  
INDICATOR



CENTER INSTRUMENT PANEL  
WITHOUT 74



CABIN VIEW LOOKING AFT



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

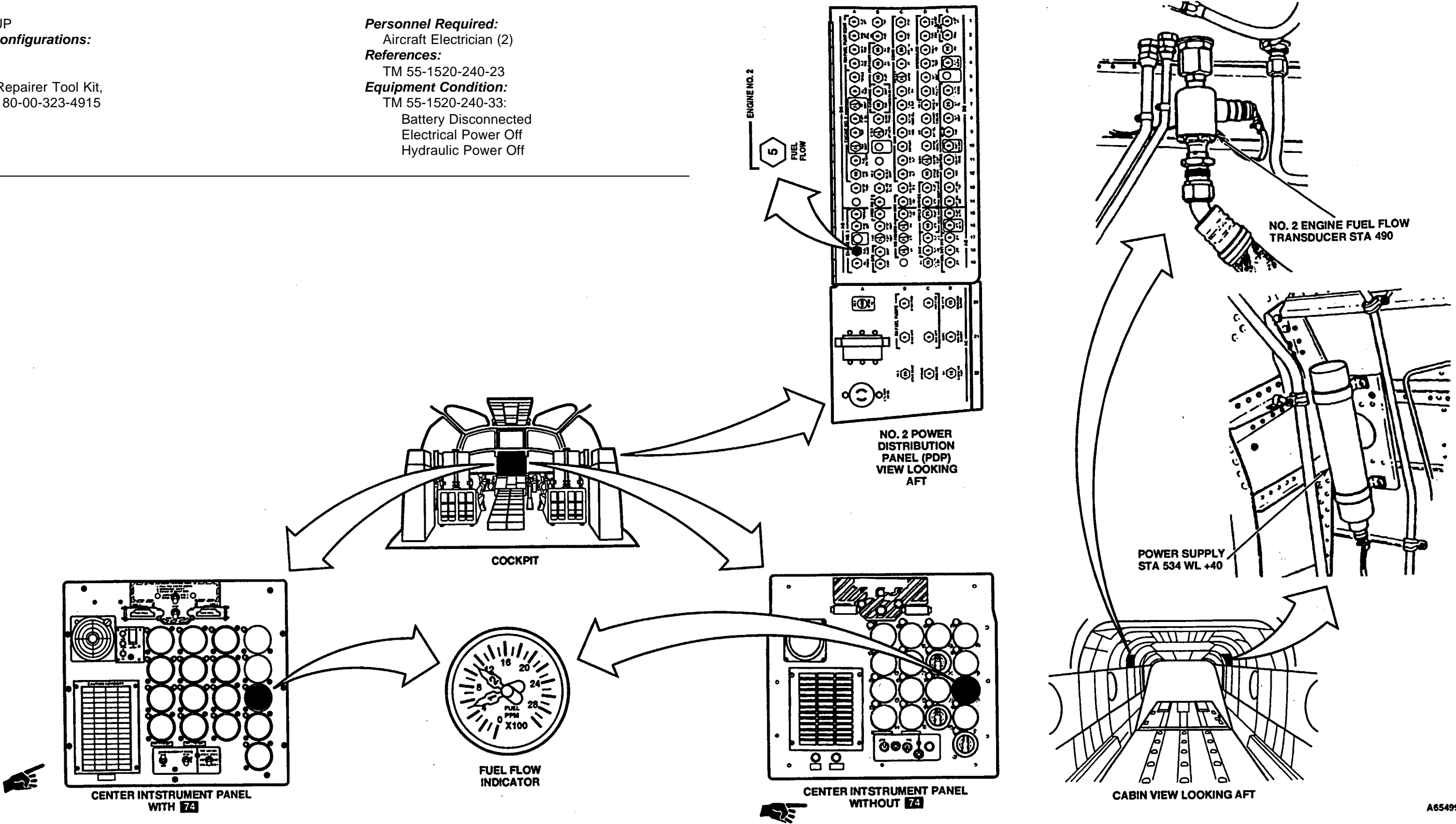
Aircraft Electrician (2)

References:

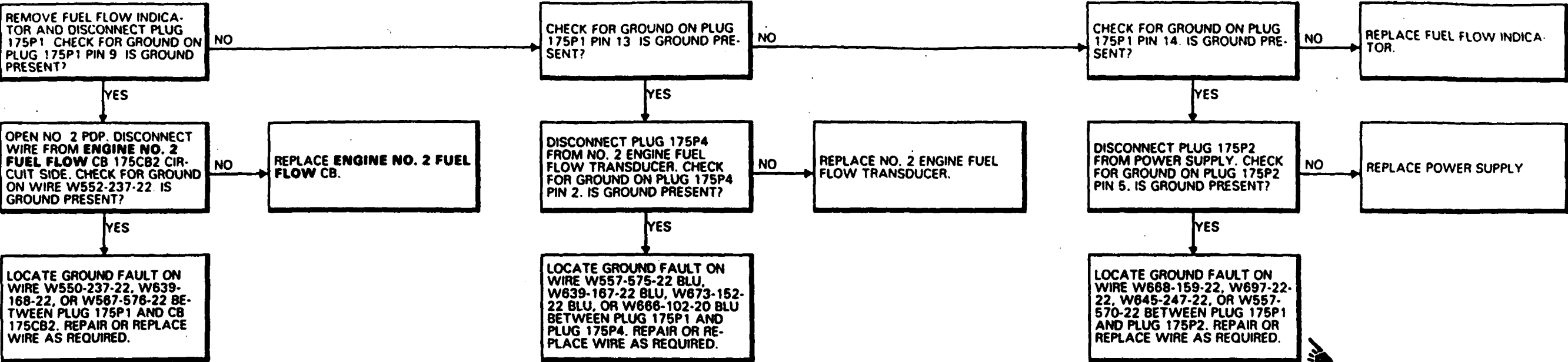
TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-33:
- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off



A65499



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

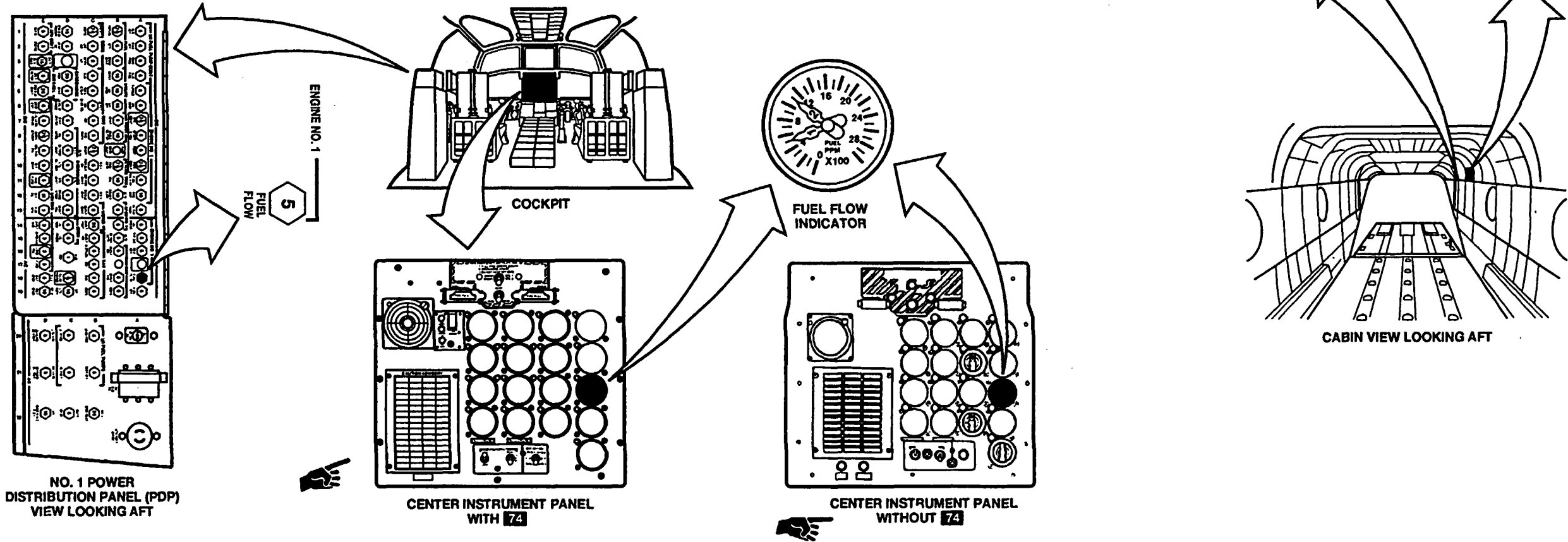
Equipment Condition:

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power On

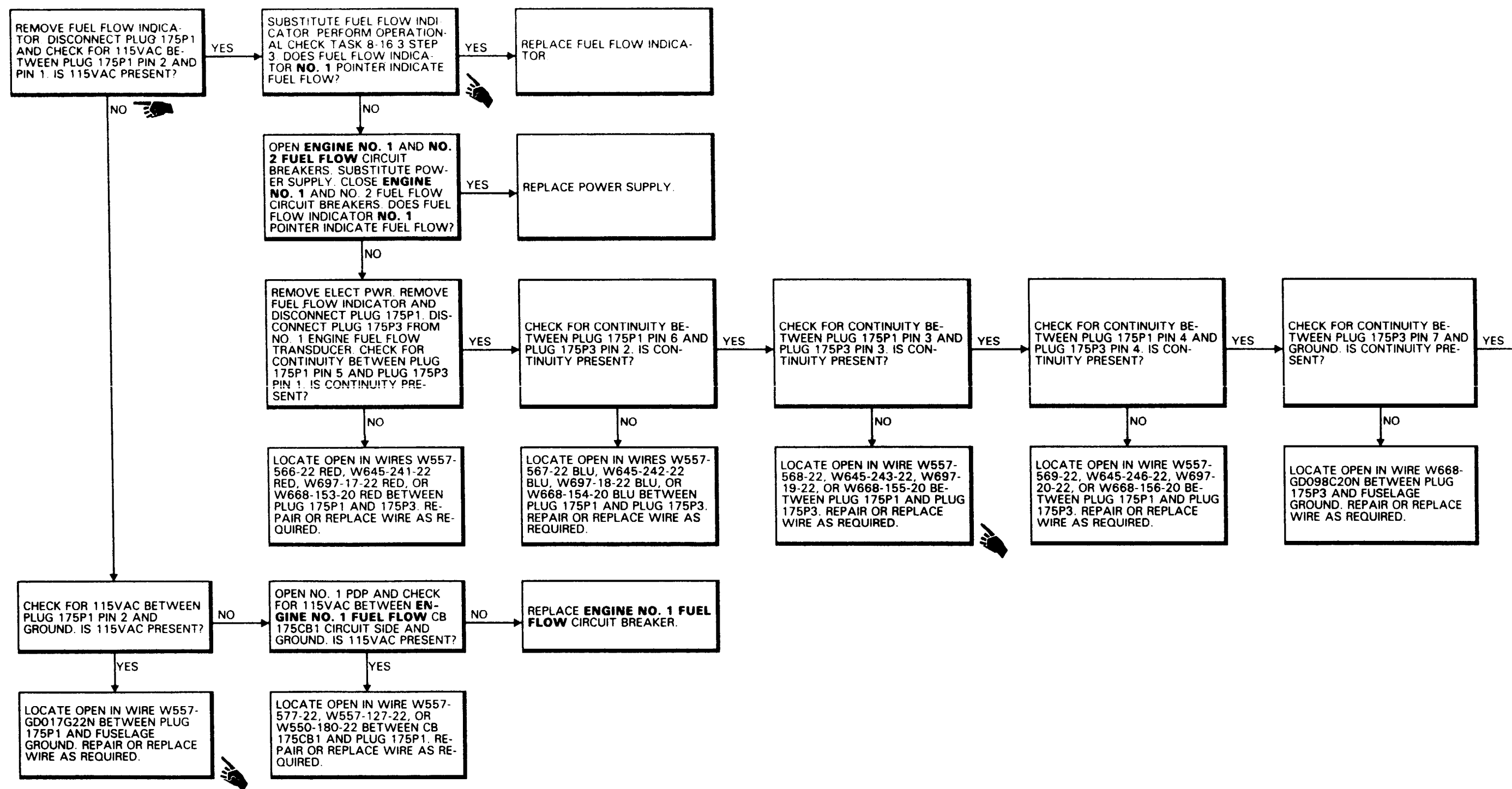


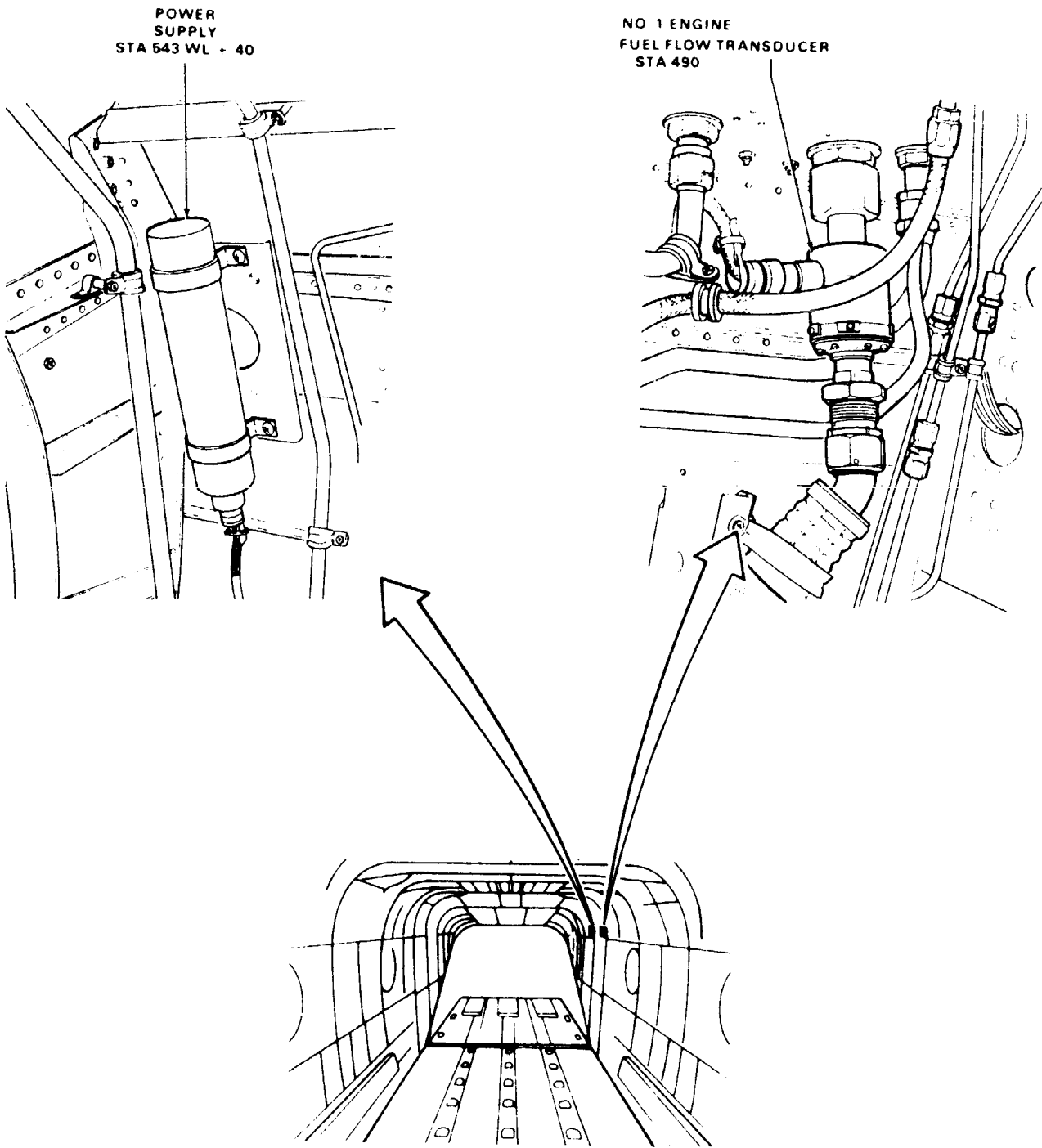
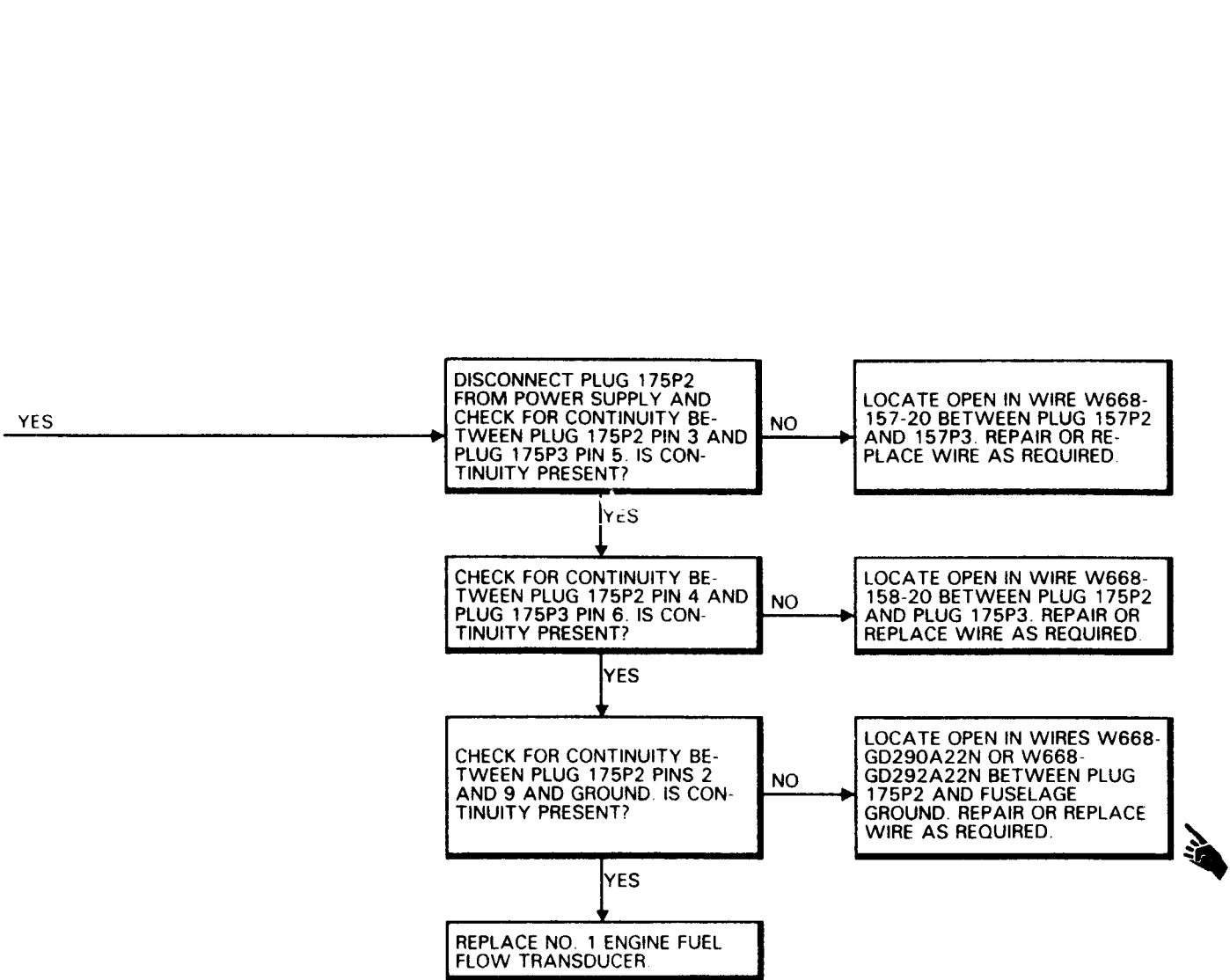
A65500



## 8-16.6 FUEL FLOW INDICATOR NO. 1 POINTER DOES NOT INDICATE FUEL FLOW (Continued)

8-16.6







FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

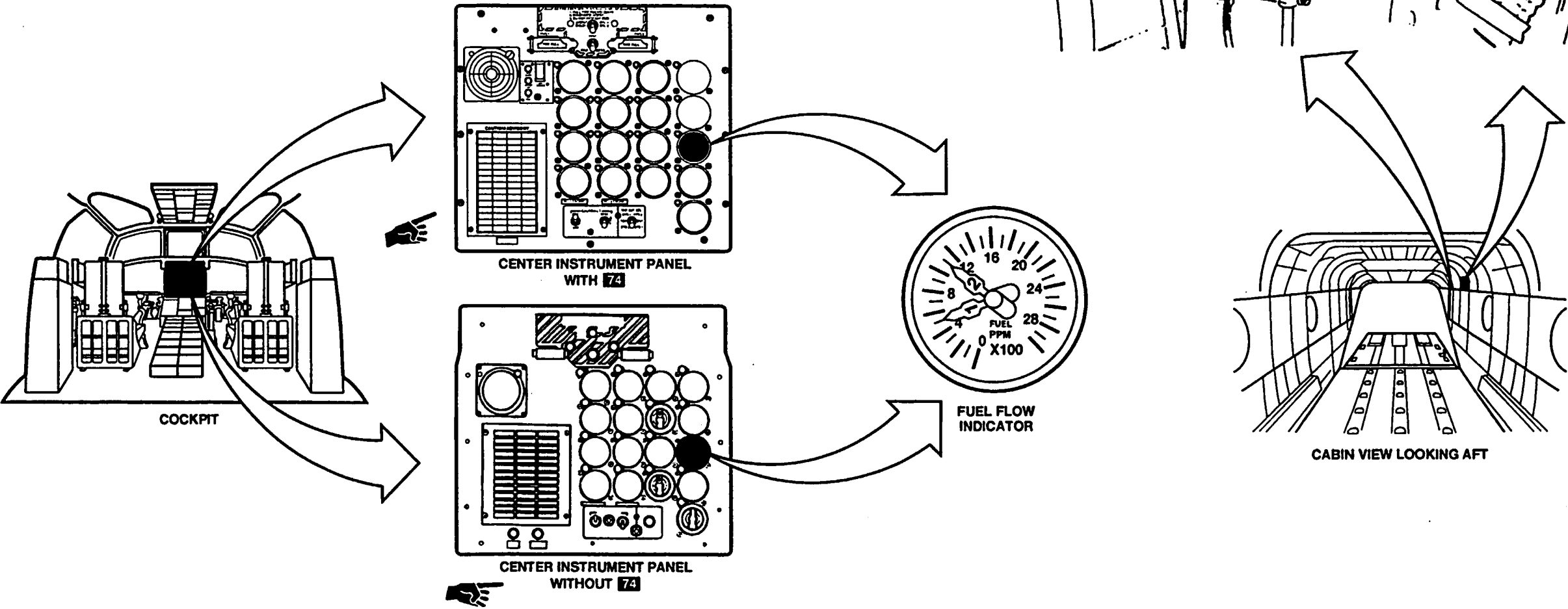
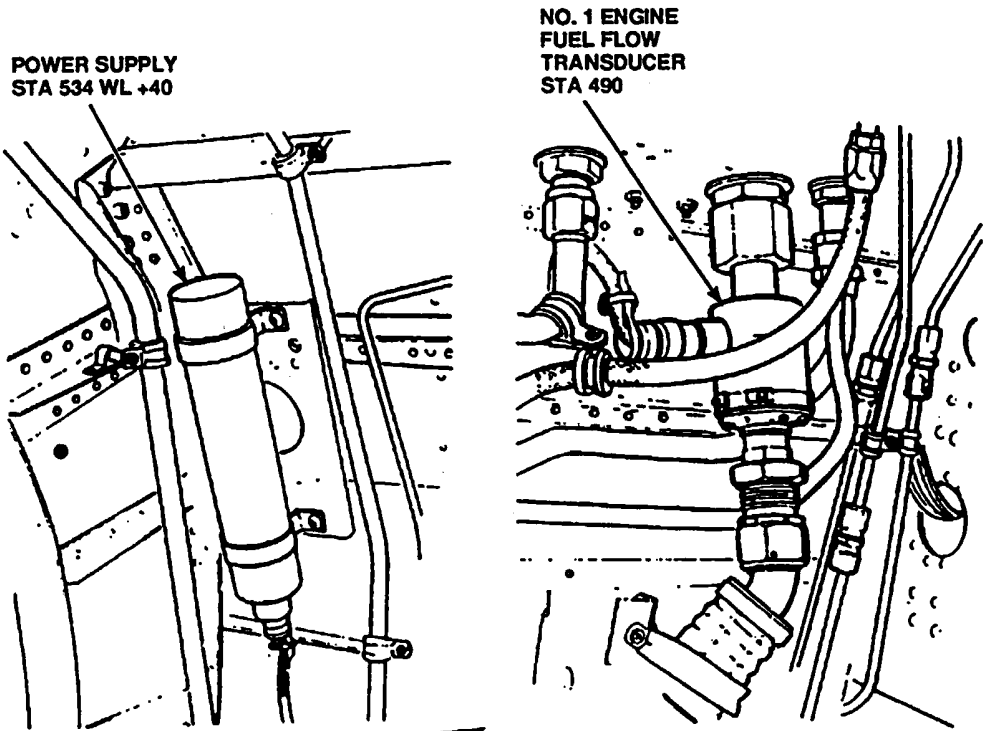
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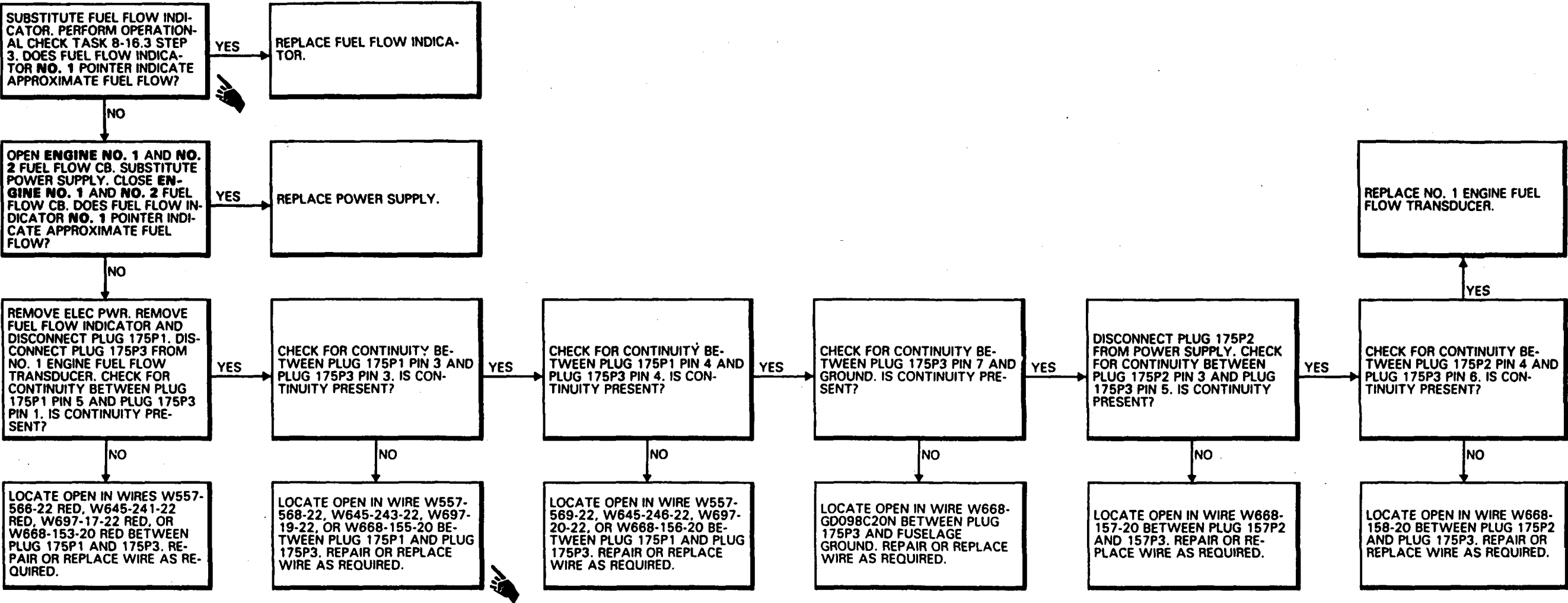
TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power On





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

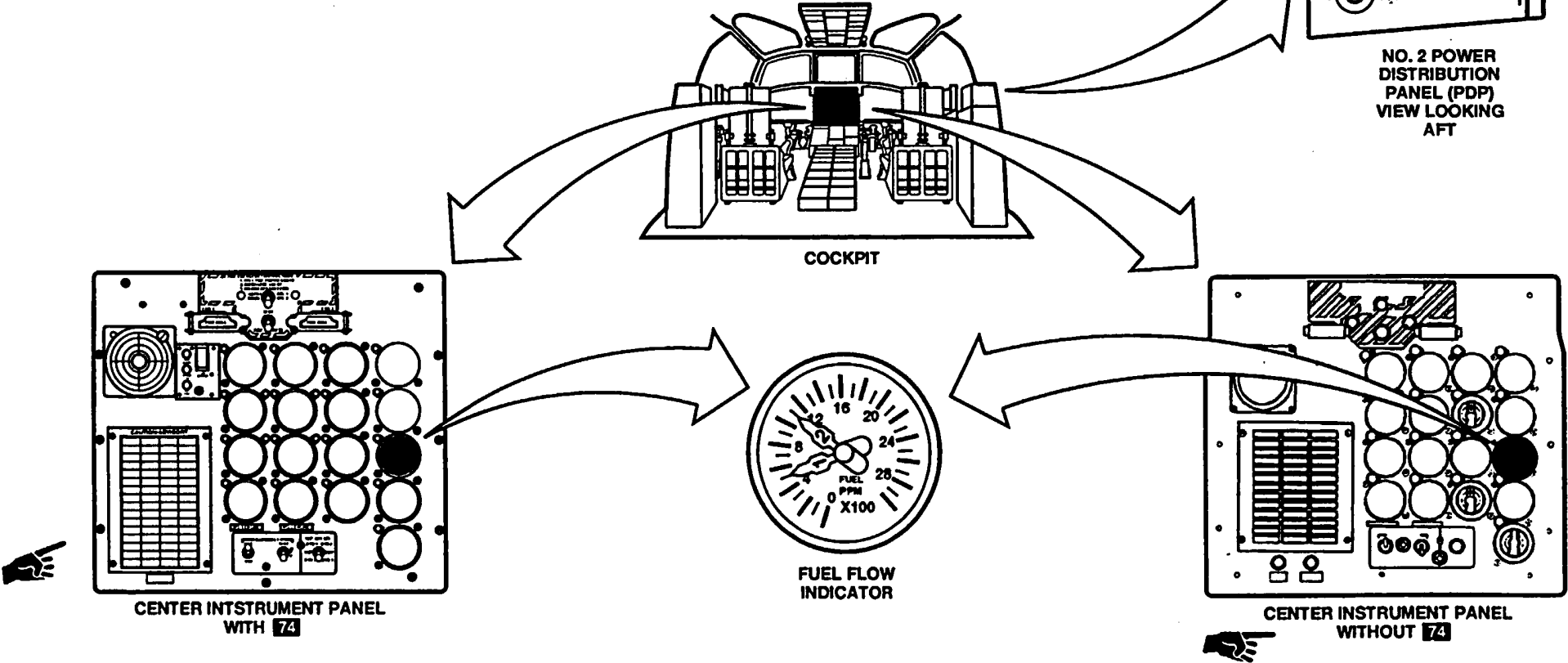
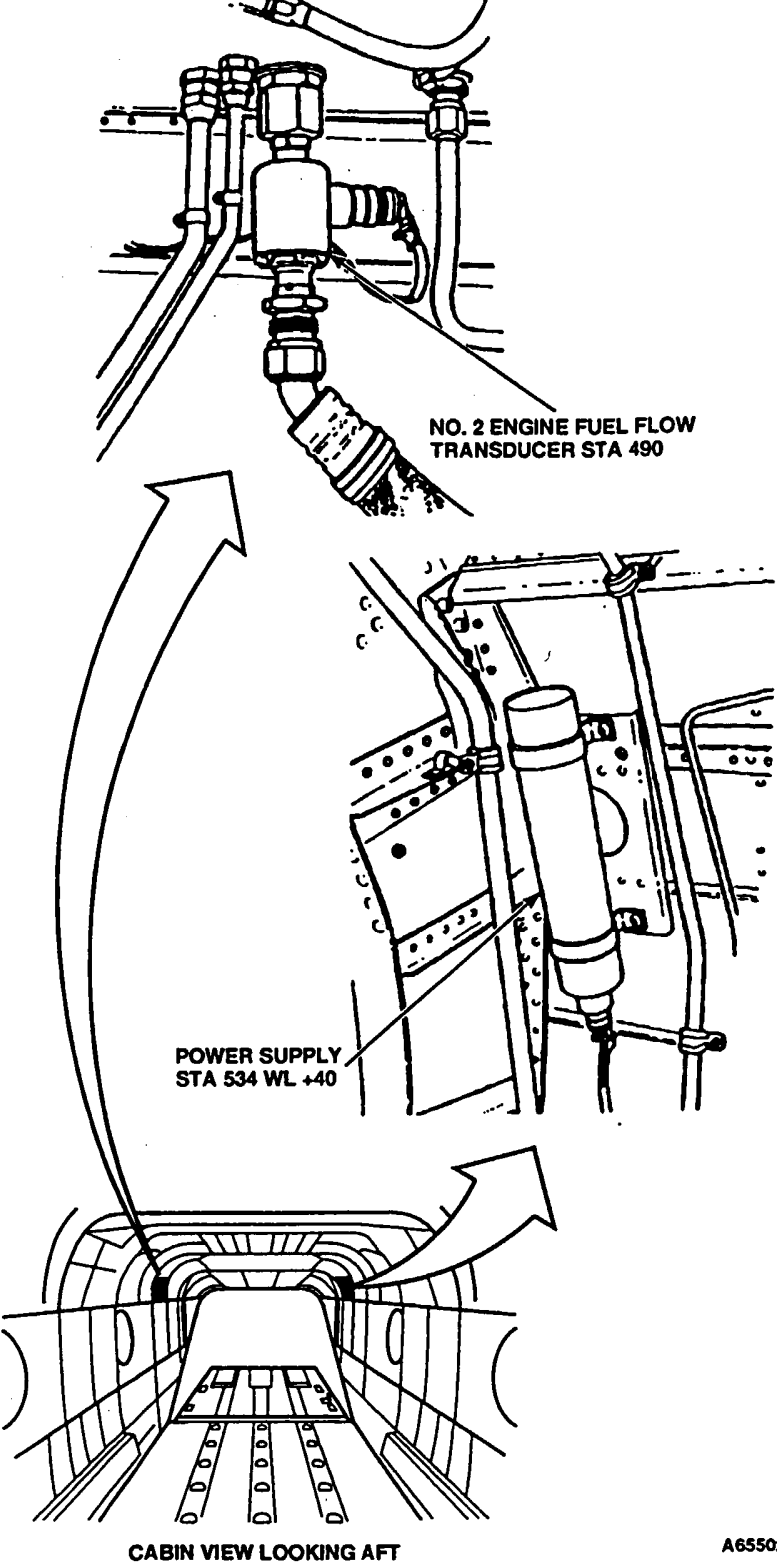
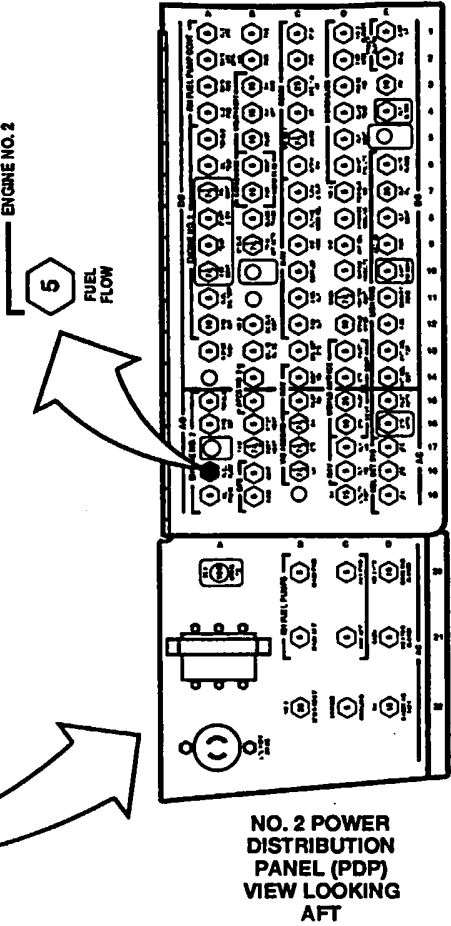
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TM 55-1520-240-23:

Battery Connected

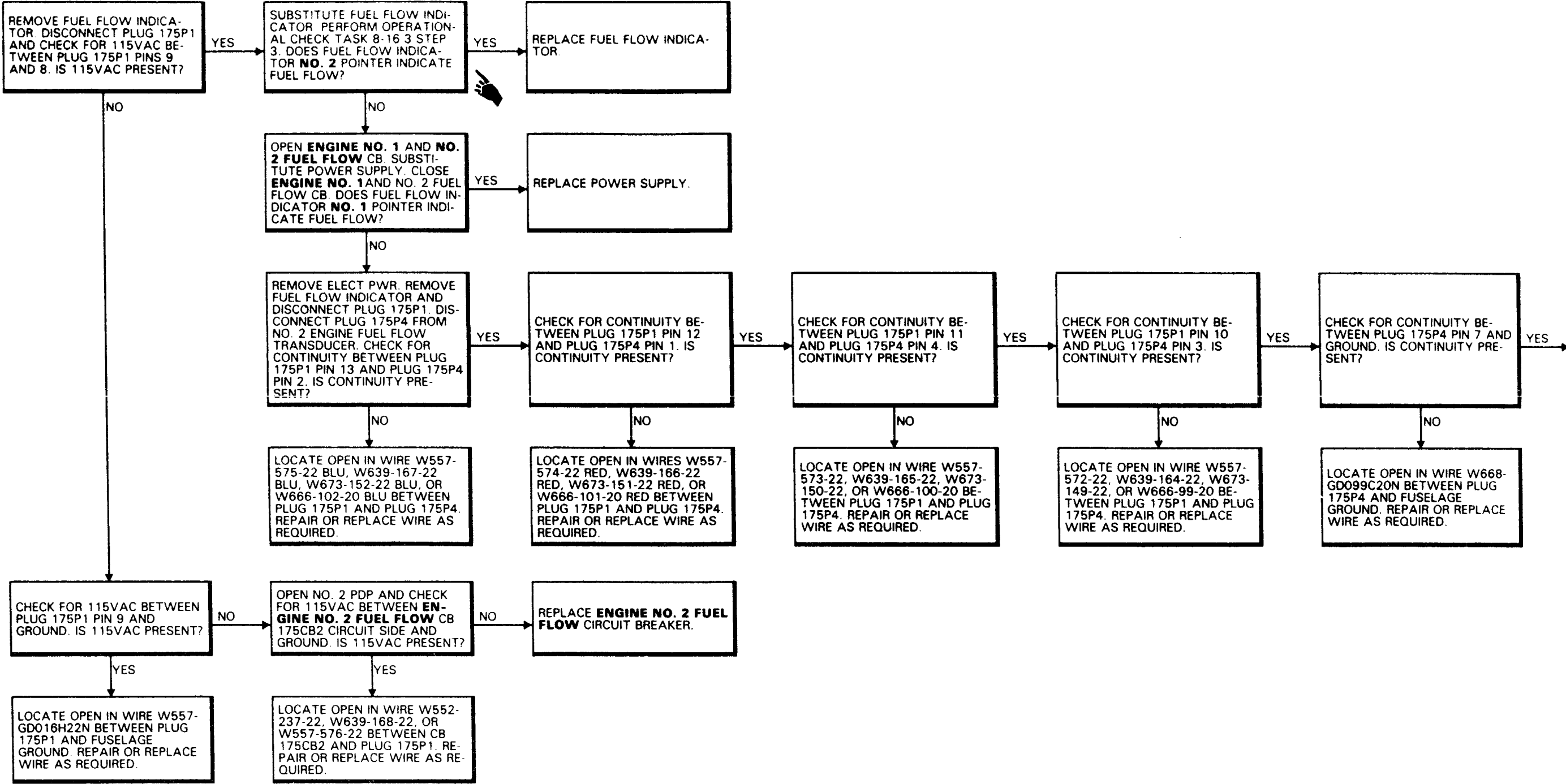
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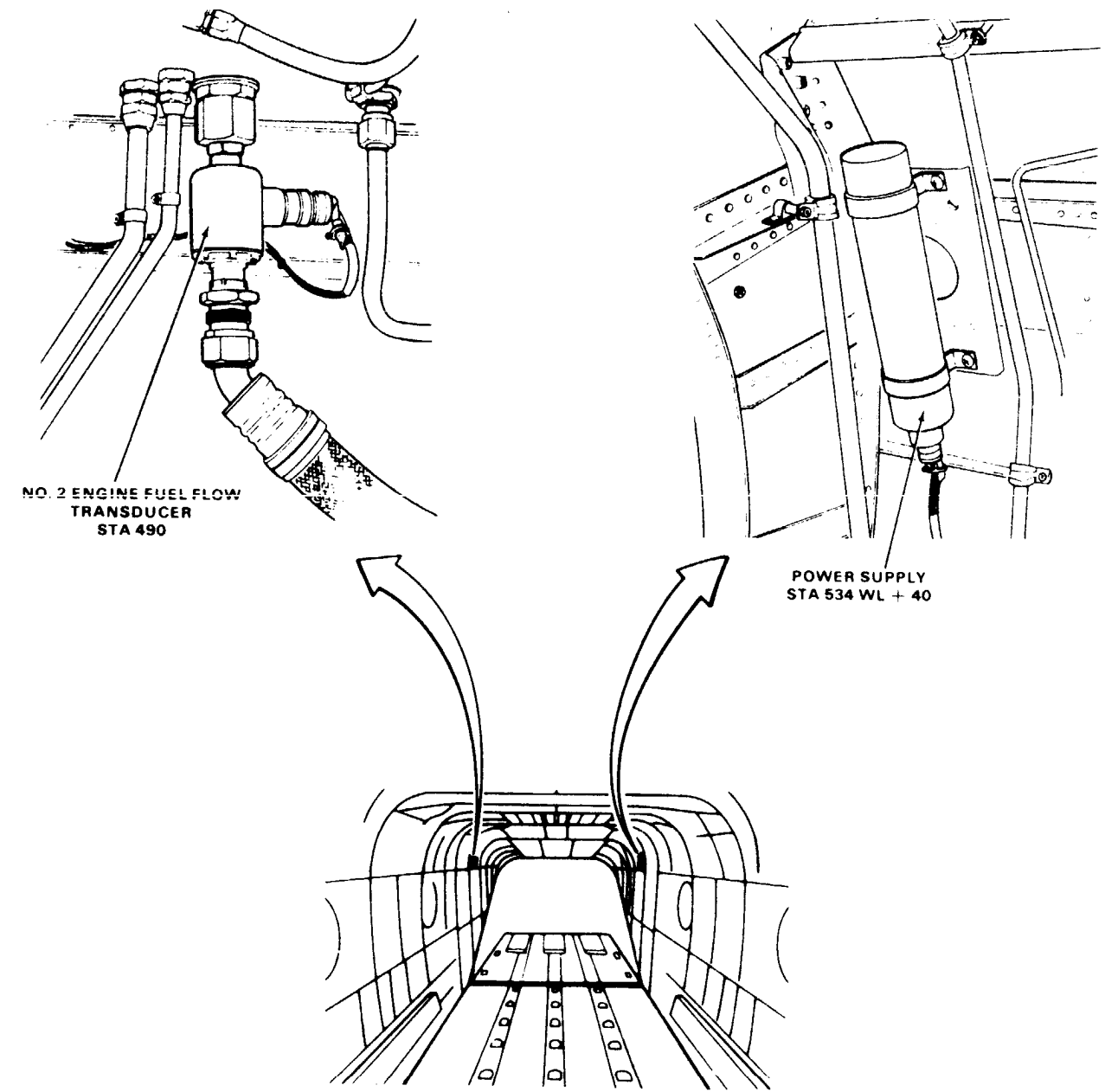
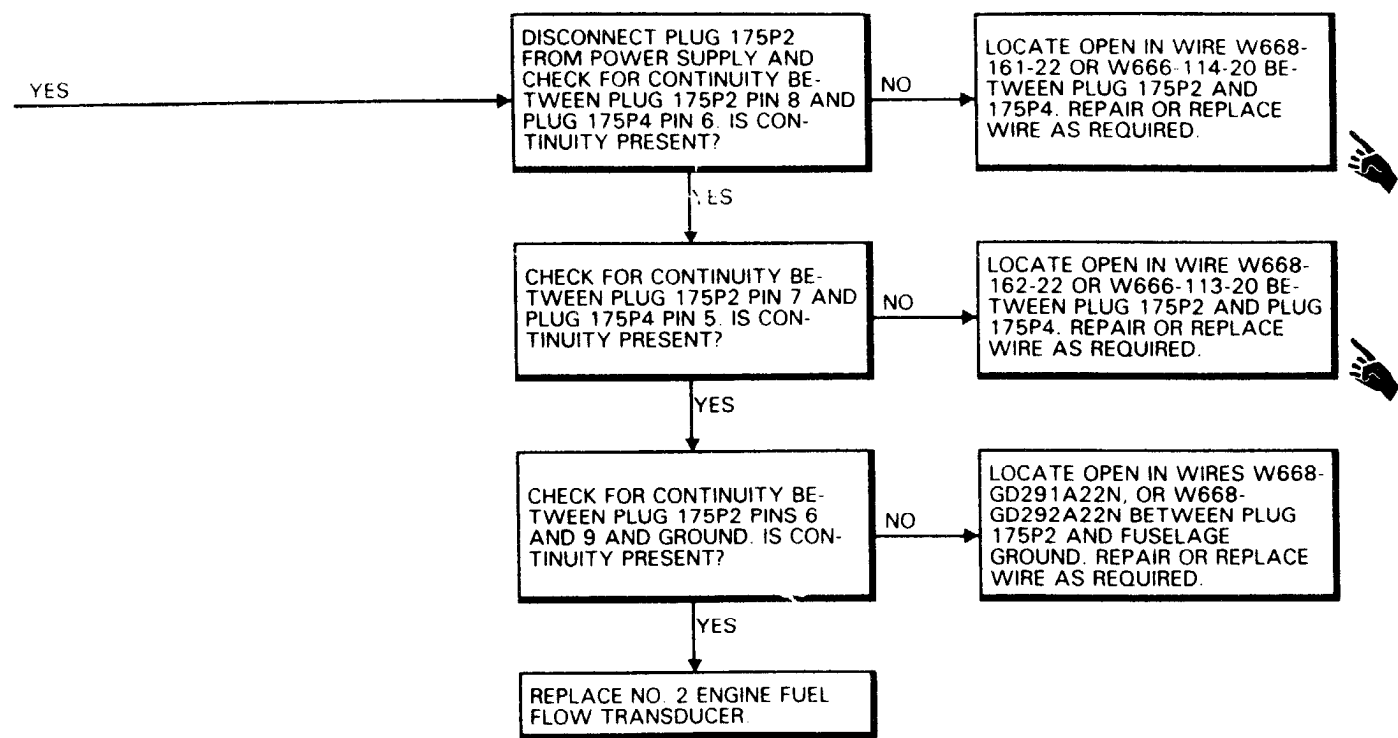
Hydraulic Power On



8-16.8 FUEL FLOW INDICATOR NO. 2 POINTER DOES NOT INDICATE FUEL FLOW (Continued)

8-16.8









FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:**
- Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915
  - Multimeter

Materials:

- None

Personnel Required:

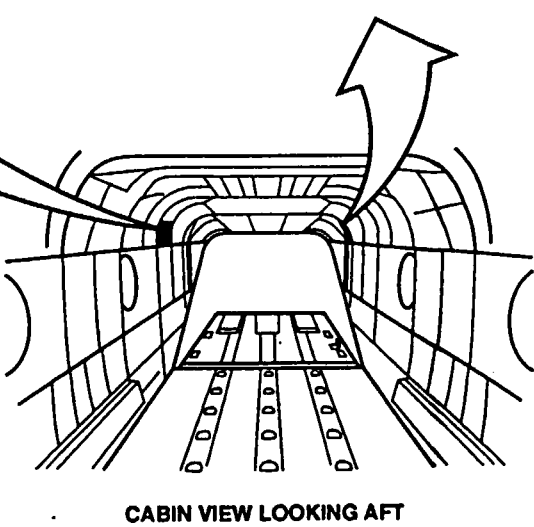
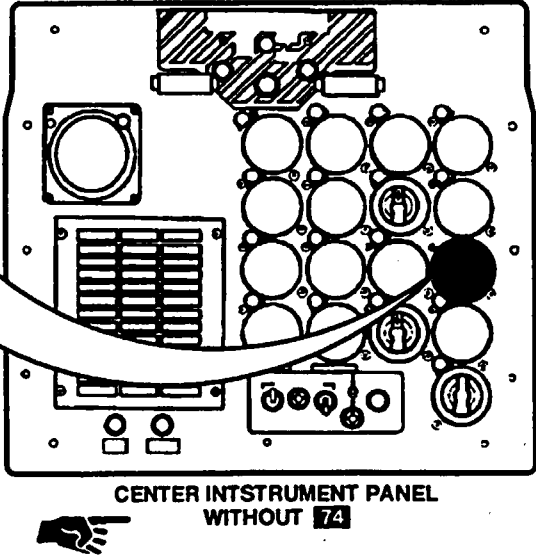
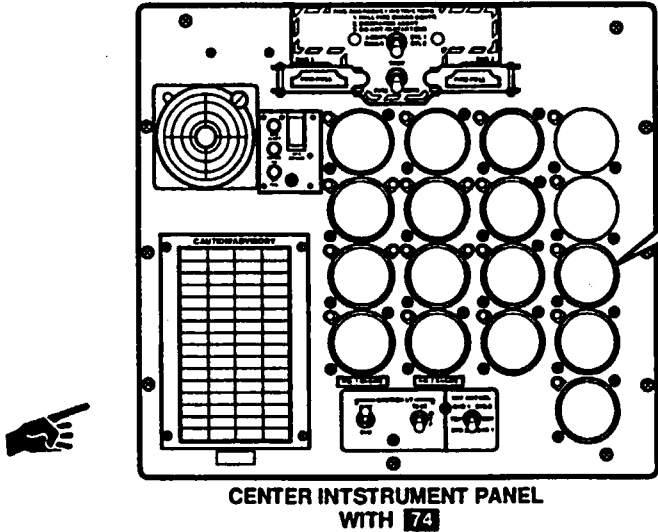
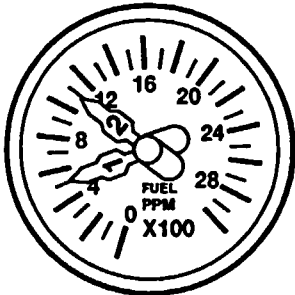
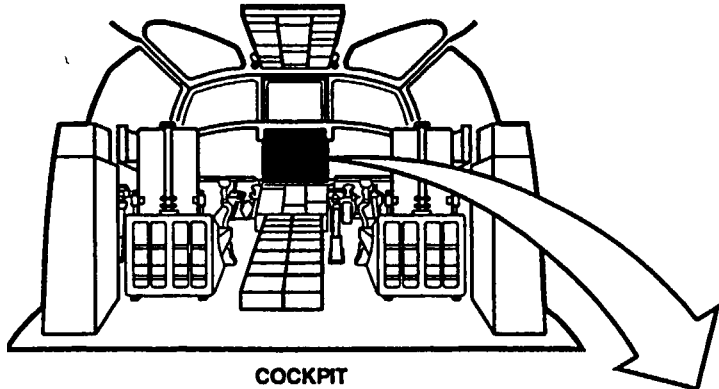
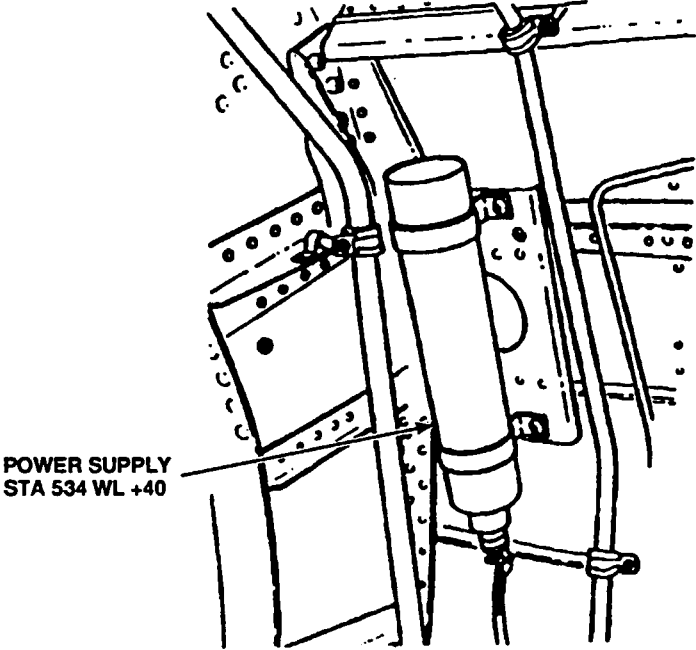
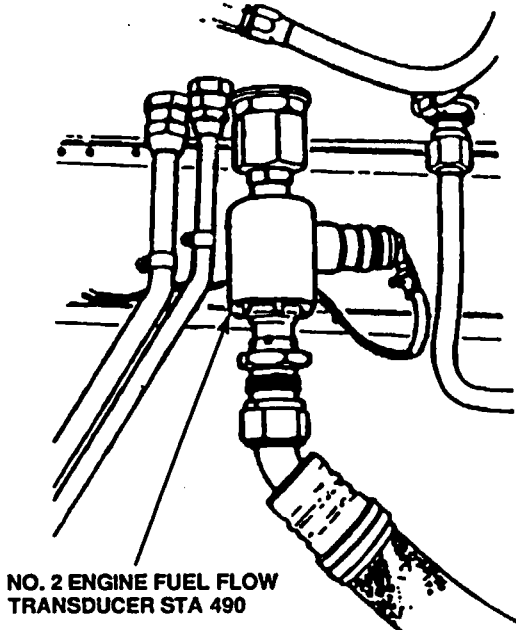
- Aircraft Electrician (2)

References:

- TM 55-1520-240-23

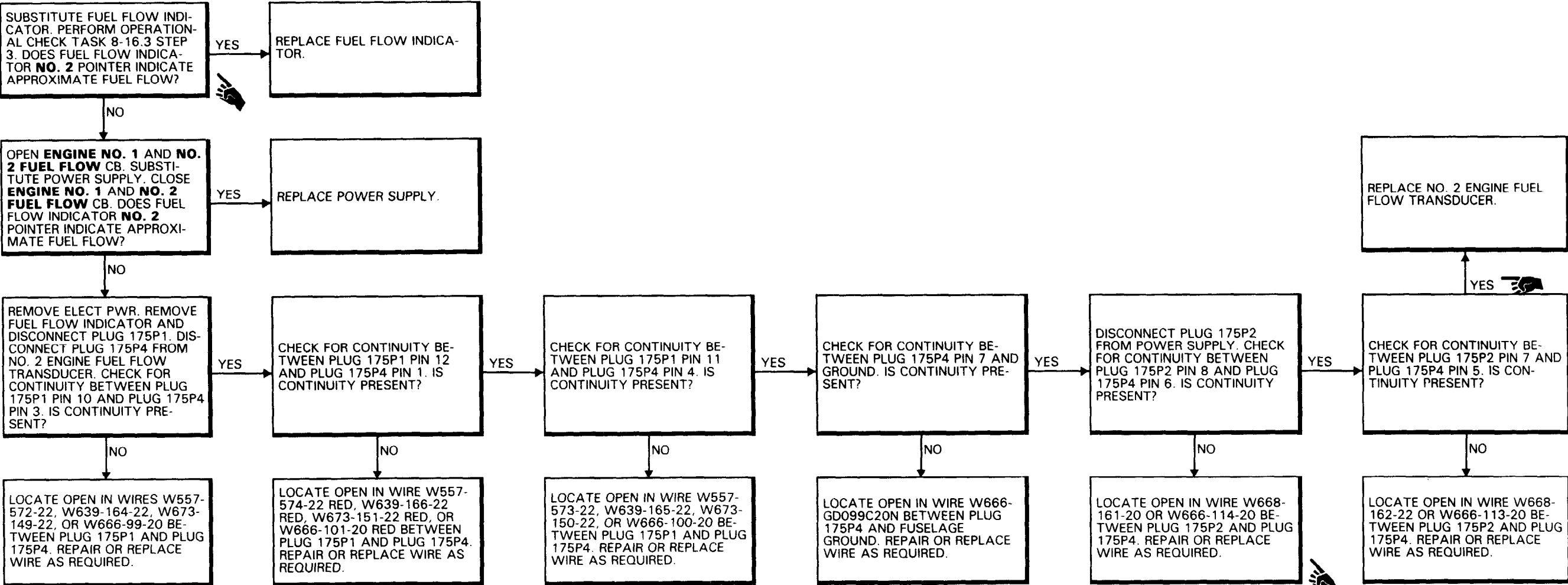
Equipment Condition:

- TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On



8-16.9 FUEL FLOW INDICATOR NO. 2 POINTER DOES NOT INDICATE APPROXIMATE FUEL FLOW  
(Continued)

8-16.9





# CHAPTER 9

## ELECTRICAL SYSTEMS TROUBLESHOOTING



CHAPTER 9  
ELECTRICAL SYSTEM TROUBLESHOOTING  
CHAPTER OVERVIEW

Chapter 9 contains procedures for Electrical System troubleshooting. Each system and failure symptom is listed below. Included in this chapter are locations and views of all electrical connectors, receptacles, relays, and ground connections for the Electrical System.

Refer to TM 55-1520-240-23 for required maintenance procedures.

SYSTEM	PARA
DC POWER SYSTEM	9-1
AC POWER SYSTEM	9-2
POSITION LIGHTS	9-3
LANDING (SEARCHLIGHTS)	9-4
FORMATION LIGHTS	9-5
ANTICOLLISION LIGHTS	9-6
MAINTENANCE LIGHTS	9-7
PILOT'S FLIGHT INSTRUMENT PANEL LIGHTS	9-8

SYSTEM	PARA
CENTER FLIGHT INSTRUMENT PANEL LIGHTS	9-9
COPILOT'S FLIGHT INSTRUMENT PANEL LIGHTS	9-10
OVERHEAD PANEL LIGHTS	9-11
CONSOLE PANEL LIGHTS	9-12
SECONDARY COCKPIT LIGHTS	9-13
COCKPIT DOME AND UTILITY LIGHTS	9-14
CABIN AND RAMP LIGHTS	9-15
TROOP WARNING SYSTEM	9-16

SYSTEM	PARA
UTILITY RECEPTACLES	9-17
MASTER CAUTION SYSTEM	9-18
AVIONICS COOLING FAN	9-19
ANTICOLLISION LIGHT (AVIM)	9-20
MASTER CAUTION PANEL (AVIM)	9-21
CLOCK	9-22
CARGO HOOK LIGHTS	9-23

FAILURE SYMPTOM LIST  
DC POWER SYSTEM

SYMPTOM	TASK
ANTICOLLISION LIGHTS DO NOT FLASH, NO. 1 DC SYSTEM TURNED OFF	9-1.4
ANTICOLLISION LIGHTS DO NOT FLASH, NO. 2 DC SYSTEM TURNED OFF	9-1.4
BATTERY CHARGING AND CHARGE COMPLETE LIGHTS OUT	9-1.4
BATTERY CHARGING OR CHARGE COMPLETE LIGHT DOES NOT COME ON WHEN PRESSED	9-1.4
BATTERY SYSTEM MAL CAPSULE (WITHOUT 74) OR MALF CAPSULE (WITH 74) ON.	9-1.4
CABIN AND RAMP LIGHTS NOT POWERED FROM SWITCHING BATTERY BUSS	9-1.4
EXTERNAL DC SUPPLY DOES NOT POWER DC BUSSES	9-1.4
EXTERNAL PWR CAPSULE OUT WHEN EXTERNAL DC SUPPLY CONNECTED	9-1.4
EXT PWR CONT CIRCUIT BREAKER WILL NOT STAY CLOSED WITH EXTERNAL POWER APPLIED	9-1.4
MASTER CAUTION LIGHTS DO NOT COME ON WHEN BATTERY SWITCH SET TO ON	9-1.4
RECT 1 AND RECT 2 CAPSULES OUT WHEN EXTERNAL DC SUPPLY CONNECTED	9-1.4

SYMPTOM	TASK
NO. 1 AND NO. 2 RECT OFF CAPSULE OUT WHEN EXTERNAL DC SUPPLY CONNECTED	9-1.4
RECT 1 OR RECT 2 CAPSULE NOT ON (WITH 74)	9-1.4
NO. 1 OR NO. 2 RECT OFF CAPSULE NOT ON (WITHOUT 74)	9-1.4
RECT 1 CAPSULE ON WHEN APU IS RUNNING (WITH 74)	9-1.4
NO. 1 RECT OFF CAPSULE ON WHEN APU RUNNING (WITHOUT 74)	9-1.4
RECT 2 CAPSULE ON WHEN APU IS RUNNING (WITH 74)	9-1.4
NO. 2 RECT OFF CAPSULE ON WHEN APU RUNNING (WITHOUT 74)	9-1.4
OVERHEAD PANEL LIGHTS DO NOT COME ON NO. 1 DC SYSTEM TURNED OFF	9-1.4
OVERHEAD PANEL LIGHTS DO NOT COME ON, NO. 1 DC SYSTEM TURNED ON	9-1.4
SWITCHED BATTERY BUS OR ESSENTIAL BUS NOT POWERED BY NO. 1 DC BUS	9-1.4
EXTERNAL POWER CAPSULE NOT ON (EXTERNAL POWER APPLIED)	9-2.4

SYMPTOM	TASK
NO. 1 AND NO. 2 RECT OFF CAPSULES ON (EXTERNAL POWER ON) (WITHOUT 74)	9-2.4
RECT 1 AND RECT 2 CAPSULES ON (EXTERNAL POWER ON) (WITH 74)	9-2.4
NO. 1 AND NO. 2 RECT OFF CAPSULES ON (NO. 1 GENERATOR SELECTED (WITHOUT 74)	9-2.4
RECT 1 AND RECT 2 CAPSULES ON (NO. 1 GENERATOR SELECTED) (WITH 74)	9-2.4
NO. 1 AND NO. 2 RECT OFF CAPSULES ON (NO. 2 GENERATOR SELECTED) (WITHOUT 74)	9-2.4
RECT 1 AND RECT 2 CAPSULES ON (NO. 2 GENERATOR SELECTED) (WITH 74)	9-2.4
NO. 1 AND NO. 2 RECT OFF CAUTION LIGHTS ON (WITHOUT 74)	9-2.4
GEN 1 CAPSULE IS ON (GENERATOR SWITCH ON) (WITH 74)	9-2.4
NO. 1 GENERATOR OFF CAPSULE STAYS ON (GENERATOR SWITCH IN TEST) (WITHOUT 74)	9-2.4

FAILURE SYMPTOM LIST (Continued)  
AC POWER SYSTEM

SYMPTOM	TASK
GEN 1 CAPSULE STAYS ON (GENERATOR SWITCH IN TEST) (WITH 74)	9-2.4
NO. 1 OR NO. 2 GENERATOR OFF CAPSULE OUT (WITHOUT 74)	9-2.4
GEN 1 AND GEN 2 CAPSULES OUT (WITH 74)	9-2.4
NO. 1 OR NO. 2 RECT OFF CAPSULE ON WHEN GEN NO. 1 OR NO. 2 SWITCH TURNED OFF (WITHOUT 74)	9-2.4

SYMPTOM	TASK
RECT 1 OR RECT 2 CAPSULE ON WHEN GEN NO. 1 OR NO. 2 SWITCH TURNED OFF (WITH 74)	9-2.4
NO. 2 GENERATOR OFF CAPSULE IS ON (GENERATOR SWITCH ON) (WITHOUT 74)	9-2.4
GEN 2 CAPSULE IS ON (GENERATOR SWITCH ON) (WITH 74)	9-2.4

SYMPTOM	TASK
NO. 2 GENERATOR OFF CAPSULE STAYS ON (GENERATOR SWITCH IN TEST) (WITHOUT 74)	9-2.4
GEN 2 CAPSULE STAYS ON (GENERATOR SWITCH IN TEST) (WITH 74)	9-2.4

POSITION LIGHTS

SYMPTOM	TASK
POS CIRCUIT BREAKER DOES NOT STAY CLOSED	9-3.3

SYMPTOM	TASK
POSITION LIGHT OR LIGHTS NOT LIT AT BRT	9-3.3

SYMPTOM	TASK
POSITION LIGHT OR LIGHTS NOT LIT AT DIM	9-3.3

LANDING LIGHTS (SEARCHLIGHTS)

SYMPTOM	TASK
COPILOT'S LANDING LIGHT DOES NOT COME ON	9-4.4
COPILOT'S LANDING LIGHT DOES NOT EXTEND OR DOES NOT FULLY EXTEND	9-4.4
COPILOT'S LANDING LIGHT WILL NOT RETRACT WITH CO-PLT SLT CONT SWITCH	9-4.4
LANDING LIGHT DOES NOT RETRACT OR DOES NOT FULLY RETRACT INTO HOUSING	9-4.4

SYMPTOM	TASK
PILOTS LANDING LIGHT DOES NOT COME ON	9-4.4
PILOT'S LANDING LIGHT DOES NOT EXTEND OR DOES NOT FULLY EXTEND	9-4.4
PILOT'S LANDING LIGHT WILL NOT RETRACT WITH PLT SLT CONT SWITCH	9-4.4
PILOTS OR COPILOT'S LANDING LIGHT WILL NOT ROTATE CLOCKWISE OR COUNTERCLOCKWISE	9-4.4

SYMPTOM	TASK
SLT CONT CIRCUIT BREAKER (CO-PILOT'S) DOES NOT STAY CLOSED	9-4.4
SLT CONT CIRCUIT BREAKER (PILOT'S) DOES NOT STAY CLOSED	9-4.4
SLT FIL CIRCUIT BREAKER DOES NOT STAY CLOSED	9-4.4

FORMATION LIGHTS (WITHOUT 17)

SYMPTOM	TASK
FORM CIRCUIT BREAKER DOES NOT STAY CLOSED	9-5.3

SYMPTOM	TASK
FORMATION LIGHT OR LIGHTS NOT ON AT DIM	9-5.3

SYMPTOM	TASK
FORMATION LIGHTS OUT OR DO NOT GET BRIGHTER AT INTERMEDIATE OR BRT POSITIONS	9-5.3

FORMATION LIGHTS (WITH 17)

SYMPTOM	TASK
NORMAL FORM CIRCUIT BREAKER DOES NOT STAY CLOSED	9-5.9
NORMAL FORMATION LIGHT OR LIGHTS NOT ON AT DIM	9-5.9
NORMAL FORMATION LIGHTS OUT OR DO NOT GET BRIGHTER AT INTERMEDIATE OR BRT POSITIONS	9-5.9

SYMPTOM	TASK
NVG FORM CIRCUIT BREAKER DOES NOT STAY CLOSED	9-5.9
NVG FORMATION LIGHT OR LIGHTS NOT ON AT DIM	9-5.9

SYMPTOM	TASK
NVG FORMATION LIGHTS OUT OR DO NOT GET BRIGHTER AT INTERMEDIATE OR BRT POSITION	9-5.9



FAILURE SYMPTOM LIST (Continued)  
ANTICOLLISION LIGHTS

SYMPTOM	TASK
ANTI-COL BOT OR TOP CIRCUIT BREAKER DOES NOT STAY CLOSED	9-6.3

SYMPTOM	TASK
ANTI COLLISION LIGHT, TOP OR BOTTOM, DOES NOT FLASH OR DOES NOT FLASH 40-60 TIMES/MINUTE	9-6.3

SYMPTOM	TASK
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FAILURE SYMPTOM LIST (Continued)

SYMPTOM	TASK
FORWARD TRANSMISSION OIL LEVEL CHECK LIGHT NOT LIT	9-7.3
PILOT INSTR CIRCUIT BREAKER DOES NOT STAY CLOSED	9-8.3
PILOT INSTR CIRCUIT BREAKER DOES NOT STAY CLOSED	9-8.8
CENTER FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT	9-9.3
CENTER FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT	9-9.8
COPLOT'S FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT	9-10.3
COPLOT'S FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT	9-10.8
OVERHEAD PANEL LIGHT OR LIGHTS NOT LIT	9-11.3
OVERHEAD PANEL LIGHT OR LIGHTS NOT LIT	9-11.8

SYMPTOM	TASK
FORWARD TRANSMISSION OIL LEVEL CHECK LIGHT	
OIL LEVEL CHECK CIRCUIT BREAKER DOES NOT STAY CLOSED	9-7.3
PILOT'S FLIGHT INSTRUMENT PANEL LIGHTS (WITHOUT 17)	
PILOT'S FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT	9-8.3
PILOT'S FLIGHT INSTRUMENT PANEL LIGHTS (WITH 17)	
PILOT'S FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT	9-8.8
CENTER FLIGHT INSTRUMENT PANEL LIGHTS (WITHOUT 17)	
CTR INSTR CIRCUIT BREAKER DOES NOT STAY CLOSED	9-9.3
CENTER FLIGHT INSTRUMENT PANEL LIGHTS (WITH 17)	
CTR INSTR CIRCUIT BREAKER DOES NOT STAY CLOSED	9-9.8
COPLOT'S FLIGHT INSTRUMENT PANEL LIGHTS (WITHOUT 17)	
COPLT INST CIRCUIT BREAKER DOES NOT STAY CLOSED	9-10.3
COPLOT'S FLIGHT INSTRUMENT PANEL LIGHTS (WITH 17)	
COPLT INST CIRCUIT BREAKER DOES NOT STAY CLOSED	9-10.8
OVERHEAD PANEL LIGHTS (WITHOUT 17)	
OVHD PNL CIRCUIT BREAKER DOES NOT STAY CLOSED	9-11.3
OVERHEAD PANEL LIGHTS (WITH 17)	
OVHD PNL CIRCUIT BREAKER DOES NOT STAY CLOSED	9-11.8

SYMPTOM	TASK
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SYMPTOM	TASK
CONSOLE CIRCUIT BREAKER DOES NOT STAY CLOSED	9-12.3
BARO ALT SWITCH CAPTION DOES NOT LIGHT BRIGHT WHEN PRESSED	9-12.8
CONSOLE CIRCUIT BREAKER WILL NOT STAY CLOSED	9-12.8
FLOOD LIGHTS ON INSTR PANEL AND OVERHEAD PANEL AND LIGHTS ON PILOT AND COPILOT'S TURN AND SLIP INDICATORS DO NOT COME ON	9-13.3
INSTR FLOOD LIGHTING CIRCUIT BREAKER WILL NOT STAY CLOSED	9-13.3
ALL FLOOD LIGHTS DO NOT COME ON WHEN PLT INST LIGHT CONTROL SET TO OFF	9-13.12
CKPT DIM CONT CIRCUIT BREAKER WILL NOT STAY CLOSED	9-13.12
COCKPIT DOME CIRCUIT BREAKER DOES NOT STAY CLOSED	9-14.3
COCKPIT DOME RED LIGHT OR LIGHTS DO NOT COME ON	9-14.3
COCKPIT DOME CIRCUIT BREAKER DOES NOT STAY CLOSED	9-14.10
COCKPIT DOME NVG LIGHT OR LIGHTS DO NOT COME ON	9-14.10

FAILURE SYMPTOM LIST (Continued)

SYMPTOM	TASK
CONSOLE PANEL LIGHTS (WITHOUT 17)	
CONSOLE PANEL LIGHT OR LIGHTS NOT LIT	9-12.3
CONSOLE PANEL LIGHTS (WITH 17)	
CONSOLE PANEL LIGHT OR LIGHTS NOT LIT	9-12.8
ILLUM SW PWR CIRCUIT BREAKER WILL NOT STAY CLOSED	9-12.8
LONGITUDINAL STICK INDICATOR NOT LIT	9-12.8
SECONDARY COCKPIT LIGHTS (WITHOUT 17)	
INSTR PANEL, CONSOLE, OR OVERHEAD PANEL FLOOD LIGHTS WILL NOT COME ON	9-13.3
NO. 1 DC BUS CONTROL CIRCUIT BREAKER WILL NOT STAY CLOSED	9-13.3
PILOT AND COPILOT'S TURN AND SLIP INDICATOR LIGHTS VARY IN BRIGHTNESS	9-13.3
SECONDARY COCKPIT LIGHTS (WITH 17)	
INSTR FLOOD LIGHTING CIRCUIT BREAKER WILL NOT STAY CLOSED	9-13.12
INSTR PANEL OR OVERHEAD PANEL FLOOD LIGHTS WILL NOT COME ON	9-13.12
COCKPIT DOME AND UTILITY LIGHTS (WITHOUT 17)	
COCKPIT DOME WHITE LIGHT OR LIGHTS DO NOT COME ON	9-14.3
COCKPIT DOME AND UTILITY LIGHTS (WITH 17)	
COCKPIT DOME WHITE LIGHT OR LIGHTS DO NOT COME	9-14.10

SYMPTOM	TASK
RAD ALT SWITCH CAPTION DOES NOT LIGHT DIM WHEN PRESSED	9-12.8
PILOT OR COPILOT'S TURN AND SLIP INDICATOR LIGHTS OR OVERHEAD PANEL FLOOD LIGHTS DO NOT COME ON	9-13.3
UTILITY LIGHT OR LIGHTS DO NOT COME ON	9-14.3
UTILITY LIGHT OR LIGHTS DO NOT COME ON	9-14.10

TM 55-1520-240-T	
SYMPTOM	TASK
CABIN & RAMP CIRCUIT BREAKER DOES NOT STAY CLOSED	9-15.3
CABIN AND RAMP DOME RED LIGHTS DO NOT COME ON WHEN CABIN & RAMP LIGHTS SWITCH SET TO RED ON	9-15.3
CABIN AND RAMP DOME RED LIGHT OR LIGHTS NOT LIT	9-15.3
CABIN & RAMP CIRCUIT BREAKER DOES NOT STAY CLOSED	9-15.11
GREEN LIGHTS ON FWD AND AFT TROOP WARNING BOXES DO NOT GO DIM	9-16.3
GREEN LIGHT ON FWD OR AFT TROOP WARNING BOX OR GREEN TROOP JUMP LTS LIGHT DO NOT COME ON BRIGHT	9-16.3
GREEN TROOP JUMP LTS LIGHT DOES NOT GO DIM	9-16.3
LEFT TROOP JUMP LTS LIGHT DOES NOT COME ON WHEN PRESSED	9-16.3
RED LIGHTS ON FWD AND AFT TROOP WARNING BOXES DO NOT GO DIM	9-16.3
CABIN AC RECEPTACLE CIRCUIT BREAKER WILL NOT STAY CLOSED	9-17.3
NO ELECTRICAL POWER AT UTILITY AC RECEPTACLE ON LEFT SIDE OF AIRCRAFT	9-17.3
NO ELECTRICAL POWER AT UTILITY AC RECEPTACLE ON RIGHT SIDE OF AIRCRAFT	9-17.3

SYMPTOM	TASK
CABIN AND RAMP LIGHTS (WITHOUT 17)	
CABIN AND RAMP DOME WHITE LIGHTS DO NOT GO OUT WHEN CAB & RAMP LT SWITCH SET TO ALL OFF	9-15.3
CABIN AND RAMP WHITE LIGHT OR LIGHTS NOT LIT	9-15.3
CABIN AND RAMP LIGHTS (WITH 17)	
CABIN AND RAMP DOME BLUE LIGHT OR LIGHTS NOT LIT	9-15.11
TROOP WARNING SYSTEM	
RED LIGHT ON FWD OR AFT TROOP WARNING BOX OR RED TROOP JUMP LTS LIGHT DO NOT COME ON BRIGHT	9-16.3
RIGHT TROOP JUMP LTS LIGHT DOES NOT COME ON WHEN PRESSED	9-16.3
RED TROOP JUMP LT LIGHT DOES NOT GO DIM (WITH 17)	9-16.3
RED TROOP JUMP LTS LIGHT DOES NOT GO DIM (WITHOUT 17)	9-16.3
UTILITY RECEPTACLES	
NO ELECTRICAL POWER AT UTILITY DC RECEPTACLES ON LEFT SIDE OF AIRCRAFT	9-17.3
NO ELECTRICAL POWER AT UTILITY DC RECEPTACLES ON RIGHT SIDE OF AIRCRAFT	9-17.3

SYMPTOM	TASK
CABIN AND RAMP DOME WHITE LIGHTS STAY ON WHEN CABIN & RAMP LIGHTS SWITCH SET TO ALL OFF	9-15.3
CABIN AND RAMP DOME RED LIGHT OR LIGHTS NOT LIT	9-15.11
TROOP ALARM BELL ON FWD OR AFT TROOP WARNING BOX DO NOT SOUND WHEN TROOP ALARM SWITCH IS SET TO ON	9-16.3
TROOP ALARM BELL CIRCUIT BREAKER WILL NOT STAY CLOSED	9-16.3
TROOP ALARM JUMP LTS CIRCUIT BREAKER WILL NOT STAY CLOSED	9-16.3
UTILITY RECEPTACLE CIRCUIT BREAKERS WILL NOT STAY CLOSED	9-17.3



FAILURE SYMPTOM LIST (Continued)  
MASTER CAUTION SYSTEM

SYMPTOM	TASK
BOTH MASTER CAUTION LIGHTS ARE ON BUT ONE IS BRIGHT AND ONE IS DIM CAUTION PNL CIRCUIT BREAKER WILL NOT STAY CLOSED LIGHTS DO NOT COME ON WHEN CAUTION LIGHTS TEST SWITCH IS AT TEST	9-18.3
	9-18.3
	9-18.3

SYMPTOM	TASK
AVIONIC COOLING FAN DC CIRCUIT BREAKER WILL NOT STAY CLOSED	9-19.3

SYMPTOM	TASK
COPILOT CLOCK CIRCUIT BREAKER DOES NOT STAY CLOSED	9-22.3
COPILOT'S CLOCK DISPLAY DOES NOT INDICATE 88:88 WHEN SELECT BUTTON PRESSED	9-22.3

SYMPTOM	TASK
MASTER CAUTION PANEL CAPSULES AND MASTER CAUTION LIGHTS ARE DIM WHEN ELECTRICAL POWER APPLIED OR WHEN CAUTION LIGHT SWITCH SET TO BRIGHT MASTER CAUTION PANEL LIGHTS DO NOT COME ON WHEN BATTERY SWITCH SET TO ON	9-18.3
	9-18.3
	9-18.3

AVIONICS COOLING FAN

SYMPTOM	TASK
AVIONIC COOLING AC CIRCUIT BREAKER WILL NOT STAY CLOSED	9-19.3

ANTICOLLISION LIGHT (AVIM)

SYMPTOM	TASK
ANTI-COLLISION LIGHT FAILS AVIM TEST	9-20.3

MASTER CAUTION PANEL

SYMPTOM	TASK
MASTER CAUTION PANEL FAILS AVIM TEST (WITHOUT 74)	9-21.3
MASTER CAUTION PANEL FAILS AVIM TEST (WITH 74)	9-21.6

CLOCK (WITH 17)

SYMPTOM	TASK
PILOT CLOCK CIRCUIT BREAKER DOES NOT STAY CLOSED	9-22.3
PILOTS CLOCK DISPLAY DOES NOT INDICATE 88:88 WHEN SELECT BUTTON PRESSED	9-22.3

SYMPTOM	TASK
MASTER CAUTION PANEL LIGHTS DO NOT GO BRIGHT WHEN DOME SELECT SWITCH SET TO WHITE	9-18.3
MASTER CAUTION PANEL LIGHTS OR MASTER CAUTION LIGHTS WILL NOT DIM	9-18.3
PILOT'S AND COPILOT'S MASTER CAUTION LIGHT WILL NOT GO OUT	9-18.3
PILOT'S OR COPILOT'S MASTER CAUTION LIGHTS DO NOT COME ON WHEN ELECTRICAL POWER IS APPLIED	9-18.3

SYMPTOM	TASK
WEAK OR NO AIR FLOW IS FELT FROM AVIONIC COOLING FAN	9-19.3

ELECTRICAL SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST

REF DESIG	PART NUMBER	TYPE	MATE WITH/LOCATION	STATION LOCATION			REF DESIG	PART NUMBER	TYPE	MATE WITH/LOCATION	STATION LOCATION		
				FS	WL	BL					FS	WL	BL
GD006		150	CONSOLE-FWD FLOOR	58	-17	2L	GD210		151	RH POD-FWD	170	-20	52L
GD014		151	AFT CABIN-ABOVE RAMP	594	50	30L	GD211		151	LH POD-FWD	160	-20	52L
GD016		150	CONSOLE, FWD CTR INSTR PNL				GD213		151	LH POD-FWD	160	-10	52L
GD017		150	CONSOLE, FWD CTR INSTR PNL				GD225		151	FWD TROOP WARN BOX-INSIDE	120	45	40L
GD026		150	CONSOLE, FWD CTR INSTR PNL				GD232		151	LH POD-FWD	160	-20	52L
GD032		151	OVERHEAD PANEL-COCKPIT				GD257		151	ELECTRONICS COMP-OVHD	115	40	10L
GD034		150	OVERHEAD PANEL-COCKPIT				GD267		151	CONSOLE-FWD FLOOR	58	-17	1L
GD035		151	OVERHEAD PANEL-COCKPIT				GD268		151	ELECTRONICS COMP-OVHD	105	20	45L
GD039		151	CONSOLE, FWD CTR INSTR PNL										
GD040		150	CONSOLE, FWD CTR INSTR PNL				TB1			PILOTS INSTR PNL			
GD045		150	NO. 1 PDP-OTBD SIDEWALL				TB2			COPILOTS INSTR PNL			
GD046		151	NO. 2 PDP-OTBD SIDEWALL				TB3			NO. 1 PDP-SIDE WALL			
GD047		150	NO. 2 PDP-OTBD SIDEWALL				TB4			CONSOLE-FWD FLOOR	50	17	0
GD048		151	NO. 1 PDP-OTBD SIDEWALL				TB7			CONSOLE-FWD CTR INSTR PNL			
GD074		151	PYLON	620	72	0	TB8			CONSOLE-FWD CTR INSTR PNL			
GD075		151	PYLON	594	110	2L	TB9			PILOT SEARCHLIGHT HOUSING	60	-35	20R
GD076		151	PYLON	594	110	2L	TB10			COPILOT SEARCHLIGHT HOUSING	60	-35	20L
GD089		151	COCKPIT BOTTOM	70.62	-35	20R	TB11			ELECTRONICS COMP	100	40	50L
GD090		151	COCKPIT BOTTOM	70.62	-35	20L	TB17			WALKWAY-UNDERFLOOR	105	-30	18R
GD100		151	AFT CABIN-ABOVE RAMP	594	55	10L	TB36			OVERHEAD PANEL-COCKPIT	80	40	12R
GD102		151	AFT CABIN-ABOVE RAMP	594	65	10R	TB37			OVERHEAD PANEL-COCKPIT	80	40	12L
GD103		151	AFT CABIN-ABOVE RAMP	594	60	20R	TB38			OVERHEAD PANEL-COCKPIT	80	45	12L
GD114		151	FWD TROOP WARN BOX-INSIDE	120	45	40L	TB50			NO. 1 PDP-SIDEWALL			
GD1		151	AFT TROOP WARN BOX-INSIDE	575	30	50L	TB51			NO. 2 PDP-SIDEWALL			
GD119		151	AFT CABIN-ABOVE RAMP	594	50	50L	TB59			NO. 1 PDP			
GD122		151	AFT CABIN-ABOVE RAMP	594	50	24L	TB62			NO. 2 PDP			
GD123		151	AFT RH CABIN	482	-5	50R							
GD132		150	LH POD-FWD	192	-20	52L	084K1		112	ELECTRONICS COMP-OVHD	100	40	50L
GD146		151	LH POD-FWD	192	-20	52L	103K1		103	LH POD-FWD (WITH 74)	162	10	52L
GD167		151	CABIN-UNDERFLOOR	280	-40	10L	128K1		106	HEATER COMPARTMENT	95	21	25R
GD170		151	CABIN OVERHEAD	200	50	0	128K2		106	HEATER COMPARTMENT	95	21	25R
GD171		151	CABIN OVERHEAD	255	50	20R	161D1		380	NO. 1 PDP (WITH 74)			
GD172		151	CABIN OVERHEAD	250	50	20L	161 D2		381	NO. 1 PDP (WITH 74)			
GD173		150	RH POD-FWD	170	-20	52R	161K1		107	LH POD-FWD	162	-10	52L
GD182		151	LH CABIN	340	30	50L	161 K2		104	NO. 1 PDP			
GD183		151	LH CABIN	260	10	50L	161 K3		102	NO. 1 PDP			
GD184		151	LH CABIN	360	10	50L	161K4		102	NO. 2 PDP			
GD185		151	RH CABIN	325	52	40R	161K5		106	NO. 1 PDP			
GD186		151	RH CABIN	260	10	50R	161 K6		106	NO. 2 PDP			
GD187		151	RH CABIN	355	15	50R	161K7		116	NO. 1 PDP			
GD198		151	RH POD-FWD	170	-12	52R	161 K8		116	NO. 2 PDP			
GD204		151	LH POD-FWD	192	-25	52L	161K9		103	NO. 1 PDP			
GD206		151	LH POD-FWD	192	-20	52L	161K10		106	NO. 1 PDP			
GD207		151	NO. 2 PDP-OTBD SIDEWALL				232K1						
GD208		151	NO. 1 PDP-OTBD SIDEWALL				232K12		103	CONSOLE	57	-17	12L
GD209		151	LH POD-FWD	160	-20	52L							

ELECTRICAL SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)

REF DESIG	PART NUMBER	TYPE	MATE WITH/LOCATION	STATION LOCATION			REF DESIG	PART NUMBER	TYPE	MATE WITH/LOCATION	STATION LOCATION		
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241K1		100	NO. 1 PDP				125J11	MS90335-3	152	TROOP WARN/HEAT PNL			
241K2		100	NO. 2 PDP				131J1	UR101F	56	LH FWD CABIN 28 VDC UTILITY RCPT	260	5	50L
241K3		101	NO. 2 PDP				131J2	UR101F	56	RH FWD CABIN 28 VDC UTILITY RCPT	260	5	50R
241K4		106	NO. 2 PDP				131J3	UR101F	56	LH FWD CABIN 28 VDC UTILITY RCPT	260	5	50L
241K5		101	NO. 1 PDP				131J4	UR101F	56	RH FWD CABIN 28 VDC UTILITY RCPT	260	5	50R
031P36	MS3476W14-19S	21	CONSOLE, AFCS CONT, J2				131J5	UR101F	56	LH FWD CABIN 28 VDC UTILITY RCPT	260	5	50L
051P1	D38999-26WB35SN	317	PLT INSTR PNL, ENGINE TORQUEMETER (WITH 74)				131J6	UR101F	56	RH FWD CABIN 28 VDC UTILITY RCPT	260	5	50R
051P2	D38999-26WB35SN	317	CPLT INSTR PNL, ENGINE TORQUEMETER (WITH 74)				131J7	UR101F	56	LH AFT CABIN 28 VDC UTILITY RCPT	360	5	50L
054P1	MS3476W14-10S	48	CPLT INSTR PNL, ROTOR TACH				131J8	UR101F	56	RH AFT CABIN 28 VDC UTILITY RCPT	360	5	50R
054P2	MS3476W14-10S	48	PLT INSTR PNL, ROTOR TACH				131J9	UR101F	56	LH AFT CABIN 28 VDC UTILITY RCPT	360	5	50L
055P1	M83723-75A1212N	31	PLT INSTR PNL, GAS PRODUCER TACHOMETER (WITH 74)				131J10	UR101F	56	RH AFT CABIN 28 VDC UTILITY RCPT	360	5	50R
055P2	M83723-75A1212N	31	CPLT INSTR PNL, GAS PRODUCER TACHOMETER (WITH 74)				131J11	UR101F	56	LH AFT CABIN 28 VDC UTILITY RCPT	360	5	50L
062P1	115785-01	61	CPLT INSTR PNL, ATTITUDE IND				131J12	UR101F	56	RH AFT CABIN 28 VDC UTILITY RCPT	360	5	50R
062P2	115785-01	61	PLT INSTR PNL, ATTITUDE IND				131J13	MS3454W14S-2S	48	LH CABIN, 3 PH UTILITY RCPT	320	20	50L
063P2	MS3476W18-32S	25	OVHD PNL, COMPASS CONT				131J14	MS25199-1	5	LH CABIN, 1 PH UTILITY RCPT	320	20	50L
066P1	MS27473T22B2S	7	PLT INSTR PNL, HSI IND				131J15	MS25199-1	5	RH CABIN, 1 PH UTILITY RCPT	320	20	50R
066P2	MS27473T22B2S	7	CPLT INSTR PNL, HSI IND				131J16	MS3454W14S-2S	48	RH CABIN, 3 PH UTILITY RCPT	320	20	50R
066P4	M83723-75A24616	43	PLT INSTR PNL, HSI MODE SEL				131J17	UR101F	56	NO. 1 PDP, 28 VDC UTILITY RCPT			
066P7	M83723-75A24616	43	CPLT INSTR PNL, HSI MODE SEL				131J18	UR101F	56	NO. 2 PDP, 28 VDC UTILITY RCPT			
084P1	MS3456W14S-5S	49	ELECTRONICS COMP, OVHD, FAN	110	40	15L	134P2	MS3476W14-19SW	21	OVHD PNL, HOIST/CARGO HOOK			
102P6	MS3476W14-19S	21	OVHD PNL, ENG COND PNL				137P2	MS3476W16-23S	23	CONSOLE, POWER STEERING CONT	160	30	50L
104P6	D38999-26WD18SA	312	J2-FADEC CONT PNL, OVHD PANEL (WITH 74)				140J7	MS3474W16-8S	22	LH FWD CABIN	160	30	50L
111P1	MS3456W12S-3S	47	PYLON, TOP ANTI COL LT	590	140	0	140P7	MS3476W16-8P	22	LH FWD CABIN	160	30	50L
111P2	MS3456W12S-3S	47	BOTTOM FUSELAGE, BOT ANTI COL LT	290	-40	0	147P1	MS3476W14-19S	21	CONSOLE, XM 130 DISP CONT			
121J1	MS90335-3	152	RDR ALT DIM CONT PNL				161J1	AN2552-3A	1	LH POD, DC EXT PWR RCPT	160	-10	60L
121P1	AN3116-2	3	CTR INSTR PNL, TOP, STANDBY COMP				161P2	MS3476W14-5S	18	LH POD, BATT CHARGR	184	-15	65L
122J1	MS90335-3	152	RDR ALT DIM CONT PNL				161P3	MS3456W20-17S	55	LH POD, NO. 1 XFMR/RECT	175	-10	65L
123J1	MS90335-3	152	FIRE HANDLE WARN PNL				161P4	MS3456W20-17S	55	RH POD, NO. 2 XFMR/RECT	175	-10	65R
123J2	MS90335-3	152	MASTER CAUTION CNTR				161P5	MS25182-2	4	LH POD, BATT DISCONNECT	178	-25	65L
125J1	MS90335-3	152	FUEL CONTROL PANEL				161P6	MS3476W12-10P	17	LH POD, BATT TEMP DISC	178	-27	65L
125J2	MS90335-3	152	CPLT/OVHD LTG PANEL				161P7	MS3476W20-16P	57	LH POD, BATT CHRGR	175	-10	65L
125J3	MS90335-3	152	PLT/CTR INSTR LTG PANEL				175P1	M83723-75A1624N	35	CTR INSTR PNL, FUEL FLOWING			
125J4	MS90335-3	152	EXTERIOR LTG PANEL				181P1	MS27473T18B32S	58	CONSOLE, RT 1167/ARC-164			
125J5	MS90335-3	152	INTERIOR LTG PANEL				182P1	MS2748T18B32S	58	CONSOLE, RTARC-186, NO. 1 VHF			
125J6	MS90335-3	152	ENGINE START PANEL				182P4	MS2748T18B32S	58	CONSOLE, RTARC-186, NO. 2 VHF			
125J7	MS90335-3	152	ANTI ICE PANEL				182P19	MS3476W12-10S	17	CONSOLE, KY28 CONT PNL			
125J8	MS90335-3	152	CTR CSL LGT PANEL				184P5	MS3476W20-39S	59	CONSOLE, HF ARC-102 CONT			
125J9	MS90335-3	152	HYD POWER PANEL				195P1	MS27473T18B35S	60	CONSOLE, RT-2585 APX100 IFF			
125J10	MS90335-3	152	ELEC PWR PANEL				187P26	M28748/6-G30L1A	62	CONSOLE, CPLT INTPH CONT PNL			
							187P27	M2874816-G30L1A	62	CONSOLE, PLT INTPH CONT PNL			
							187P30	M2874816-G30L1A	62	CONSOLE, TRP COMM INTPH CONT PNL			
							191P7	MS3476W14-19S	21	CONSOLE, ADF CONT PNL			
							192P1	M2430812-5	63	CONSOLE, VOR/LOC/GS/MKR BCN CONT PNL			



ELECTRICAL SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)

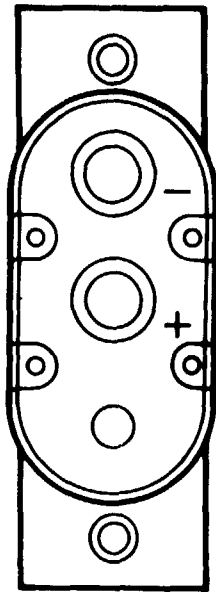
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195P1	MS2473T10B35S	6	PLT INSTR PNL, RAD ALT, RT-APN-209				300J17	M83723-74W2255N	27	CONSOLE, UNDERFLOOR DISC (WITH 74)			
195P5	MS27484T12B35S	8	CPLT INSTR PNL, RAD ALT, RT-APN-209				300P17	M83723-75A2255N	42	CONSOLE, UNDERFLOOR DISC (WITHOUT 74)			
196P1	MS3476W16-26S	24	CPLT INSTR PNL, AIMS ALT				300P17	M83723-75W2255N	27	CONSOLE, UNDERFLOOR DISC (WITH 74)			
196P2	MS3476W16-26S	24	PLT INSTR PNL, AIMS ALT				300J18	M83723-73A2041N	40	OVERHEAD PANEL - COCKPIT			
197P5	MS27484T20B16S	64	CONSOLE, ASN 128, DOPPLER				300P18	M83723-76A2041 N	40	OVERHEAD PANEL - COCKPIT			
201P2	M24308/2-3	6	CONSOLE, RADAR WARNING, APR-39				300J19	M83723-73A2041N	40	OVERHEAD PANEL - COCKPIT			
202P4	MS3476W14-19S	21	CONSOLE, MISSILE DET CONT IND				300P19	M83723-76A2041N	40	OVERHEAD PANEL - COCKPIT			
232P1	MS3476W20-41S	26	CTR INSTR PNL, MSTR CAUT PNL (WITHOUT 74)				300J20	M83723-74A2461N	43	OVERHEAD PANEL- COCKPIT			
232P1	MS3476W22-55S	27	CTR INSTR PNL, MSTR CAUT PNL (WITH 74)				300P20	M83723-75A2461 N	43	OVERHEAD PANEL - COCKPIT			
232P2	MS3476W16-26S	24	CTR INSTR PNL, MSTR CAUT PNL				300J21	M83723-74A2461 N	43	OVERHEAD PANEL- COCKPIT			
232P3	MS3476W14-19S	21	CTR INSTR PNL, MSTR CAUT PNL (WITH 74)				300P21	M83723-75A2461N	43	OVERHEAD PANEL- COCKPIT			
241J1	MS90362-3	10	LH POD FWD, EXT PWR RECPT				300J22	M83723-73A20416	40	OVERHEAD PANEL - COCKPIT			
241P1	M83723-95A1212N	31	AFT XMSN, NO. 1 GEN5806018L	580	60	18R	300P22	M83723-76A20416	40	OVERHEAD PANEL - COCKPIT			
241P2	M83723-95A1212N	31	AFT XMSN, NO. 2 GEN				300J23	M83723-74A2255N	42	OVERHEAD PANEL - COCKPIT			
241P3	MS3476W16-26S	24	NO. 1 PDP, GEN NO. 1 CNTCTR				300P23	M83723-75A2255N	42	OVERHEAD PANEL - COCKPIT			
241P4	MS3476W16-26S	24	NO. 2 PDP, GEN NO. 2 CNTCTR				300J25	MS3474W16-26S	24	COCKPIT UNDERFLOOR, PLT SIDE	70	-20	12R
241P5	MS3476W16-23S	23	NO. 2 PDP, APU GEN CNTCTR				300P25	MS3474W16-26P	24	COCKPIT UNDERFLOOR, PLT SIDE	70	-20	12R
241 P6	MS3476W10-06P	15	NO. 1 PDP, NO. 1 GEN CUR XFMR				300W26	MS3474W16-26S	24	COCKPIT UNDERFLOOR, CPLT SIDE	70	-30	40L
241P7	MS3476W10-06P	15	NO. 2 PDP, NO. 2 GEN CUR XFMR				300J40	M83723-73A1415N	34	LH CABIN	222	-5	52L
241P8	MS3476W18-32S	25	LH POD - FWD, NO. 1 GEN CONT	160	-10	60L	300P40	M83723-76A1415N	34	LH CABIN	222	-5	52L
241P9	MS3476W18-32S	25	RH POD - FWD, NO. 2 GEN CONT	175	-10	65R	300J41	M83723-73A1415N	34	RH CABIN	245	-5	52R
241P10	MS3476W18-32S	25	RH POD FWD, APU GEN CONT	170	-10	65R	300P41	M83723-76A1415N	34	RH CABIN	245	-5	52R
241P11	MS3476W16-23S	23	NO. 1 PDP, EXT PWR CNTCTR				300J44	M83723-74A2461 N	43	PYLON	528	72	18L
241P12	MS3476W12-10S	17	LH POD FWD EXT PWR MON	160	-10	60L	300P44	M83723-75A2461 N	43	PYLON	528	72	18L
300J1	M83723-74A2041N	40	NO. 1 PDP				300J45	M83723-73A2461N	43	HEATER COMPARTMENT	105	40	30R
300P1	M83723-75A2041N	40	NO. 1 PDP				300P45	M83723-76A2461N	43	HEATER COMPARTMENT	105	40	30R
300J2	M83723-74A2255N	42	NO. 1 PDP				300J47	M83723-74A2461N	43	HEATER COMPARTMENT	105	40	30R
300P2	M83723-75A2255N	42	NO. 1 PDP				300P47	M83723-75A2461N	43	HEATER COMPARTMENT	105	40	30R
300J3	M83723-74A22556	42	NO. 1 PDP				300J48	M83723-74A2461N	43	ELECTRONICS COMPARTMENT	105	40	20L
300P3	M83723-75A22556	42	NO. 1 PDP				300P48	M83723-75A2461N	43	ELECTRONICS COMPARTMENT	105	40	20L
300J4	M83723-74A2461N	43	NO. 1 PDP				300J51	M83723-74A2461 N	43	AFT CROWN - OVHD	460	45	20R
300P4	M83723-75A2461N	43	NO. 1 PDP				300P51	M83723-75A2461N	43	AFT CROWN - OVHD	460	45	20R
300J5	M83723-74A2041N	40	NO. 2 PDP				300J52	M83723-74A2255N	42	AFT CROWN - OVHD	460	45	30L
300P5	M83723-75A2041N	40	NO. 2 PDP				300P52	M83723-75A2255N	42	AFT CROWN - OVHD	460	45	30L
300J6	M83723-74A24616	43	NO. 2 PDP				300J53	M83723-74A2255N	42	AFT CROWN -OVHD	460	45	20R
300P6	M83723-75A24616	43	NO. 2 PDP				300P53	M83723-75A2255N	42	AFT CROWN - OVHD	460	45	20R
300J7	M83723-74A2255N	42	NO. 2 PDP				300J55	M83723-73A2255N	42	ELECTRONICS COMPARTMENT (WITHOUT 74)	105	40	20L
300P7	M83723-75A2255N	42	NO. 2 PDP				300J55	M83723-73W2255N	27	ELECTRONICS COMPARTMENT (WITH 74)	105	40	20L
300J8	M83723-74A2461N	42	NO. 2 POP				300P55	M83723-76A2255N	42	ELECTRONICS COMPARTMENT (WITHOUT 74)	105	40	20L
300P8	M83723-75A2461N	42	NO. 2 PDP										
300J11	M83723-73A2255N	42	CONSOLE, UNDERFLOOR DISC										
300P11	M83723-76A2255N	42	CONSOLE, UNDERFLOOR DISC										
300J17	M83723-74A2255N	42	CONSOLE, UNDERFLOOR DISC (WITHOUT 74)										

ELECTRICAL SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)

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300P55	M83723-76W2255N	27	ELECTRONICS COMPARTMENT (WITH 74)				300P61	M83723-76A24619	43	CONSOLE, UNDERFLOOR DISC (WITHOUT 74)			
300J56	M83723-73A2255N	42	HEATER COMPARTMENT	105	40	25R	300P61	M83723-76W24619	28	CONSOLE, UNDERFLOOR DISC (WITH 74)			
300P56	M83723-76A2255N	42	HEATER COMPARTMENT	105	40	25R	300J68	M83723-73A22556	42	HEATER COMPARTMENT	105	40	25R
300J58	M83723-73A22558	42	CONSOLE, UNDERFLOOR DISC				300P68	M83723-76A22556	42	HEATER COMPARTMENT	105	40	25R
300P58	M83723-76A22558	42	CONSOLE, UNDERFLOOR DISC										
300J61	M83723-73A24619	43	CONSOLE, UNDERFLOOR DISC (WITHOUT 74)										
300J61	M83723-73W24619	28	CONSOLE, UNDERFLOOR DISC (WITH 74)										

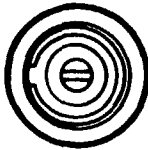
ELECTRICAL SYSTEMS ELECTRICAL COMPONENT  
LOCATION AND CONFIGURATION LIST (Continued)

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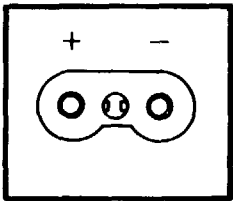


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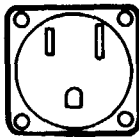


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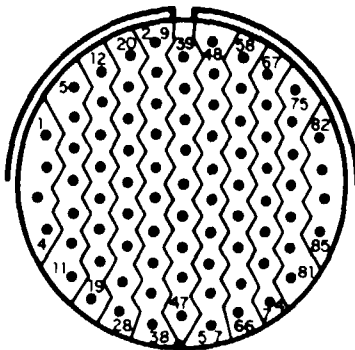
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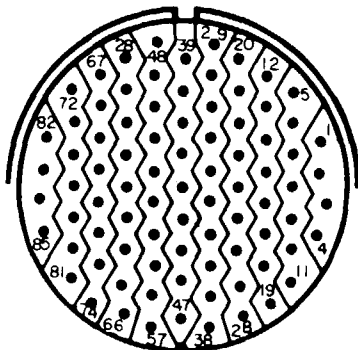
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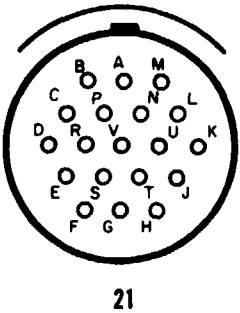
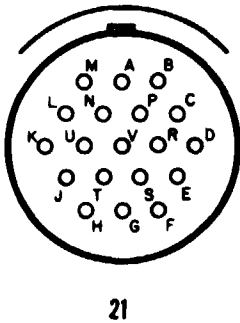
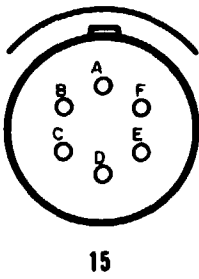
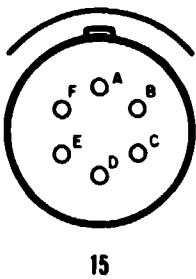
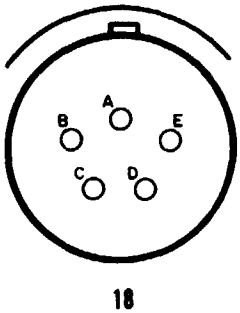
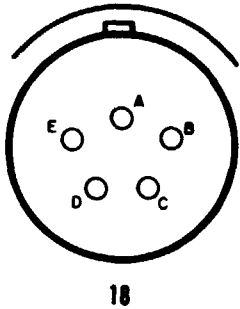
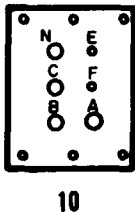
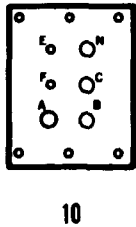
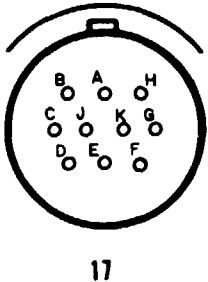
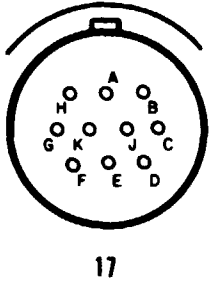
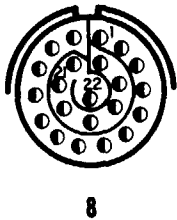
ELECTRICAL SYSTEMS ELECTRICAL COMPONENT  
LOCATION AND CONFIGURATION LIST (Continued)

RECEPTACLE

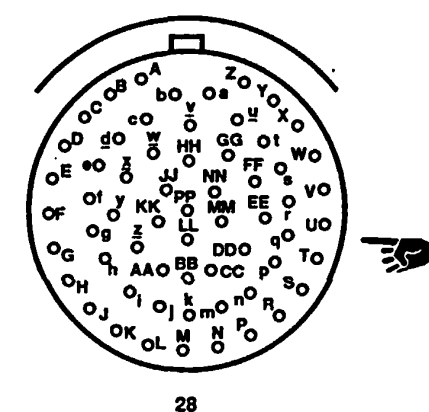
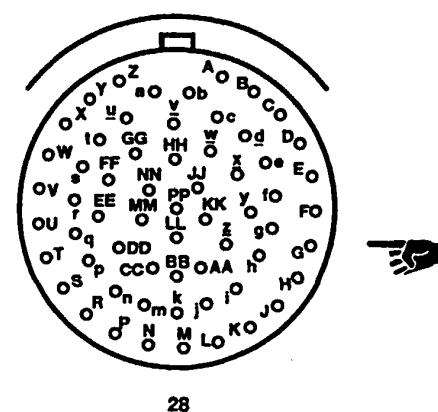
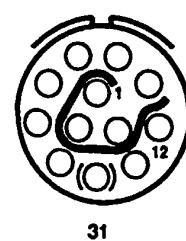
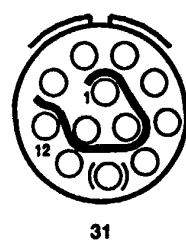
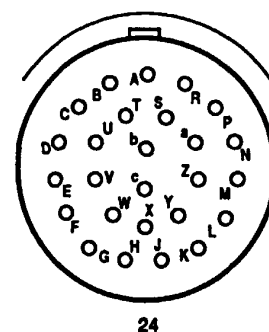
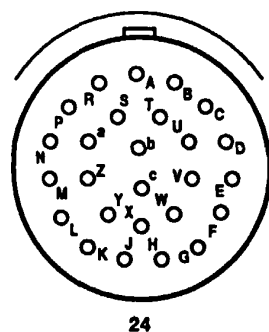
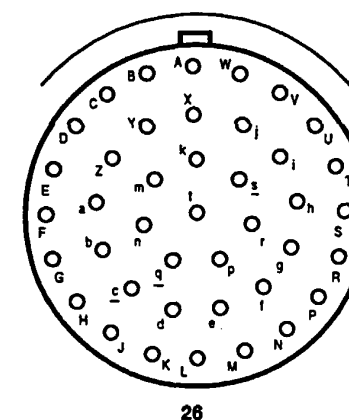
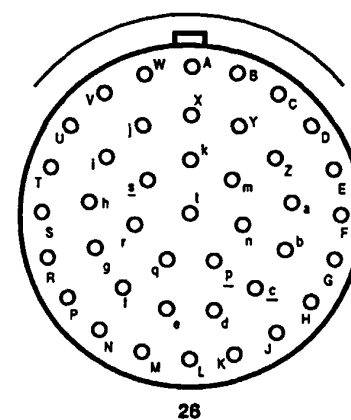
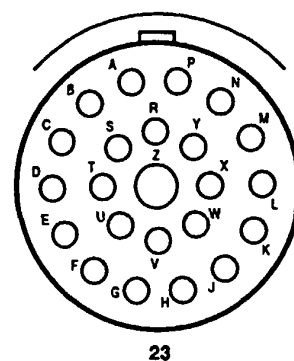
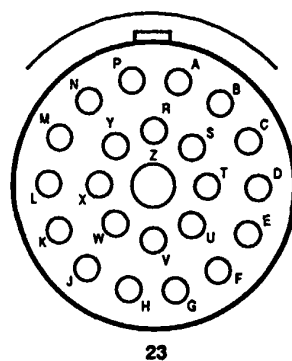
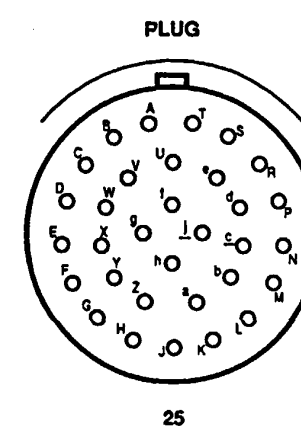
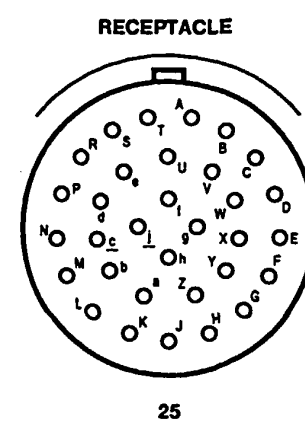
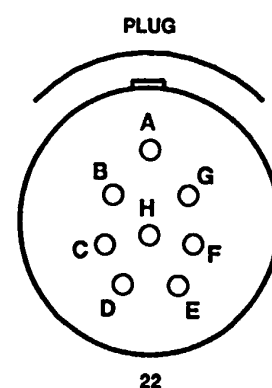
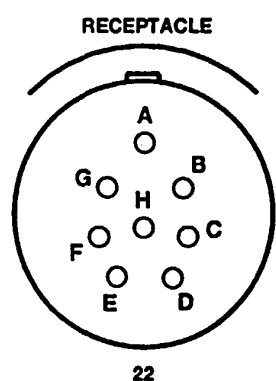
PLUG

RECEPTACLE

PLUG



### ELECTRICAL SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)



**A72225**

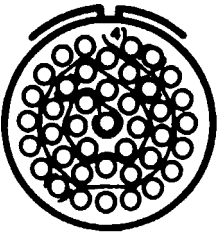
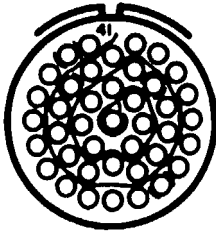
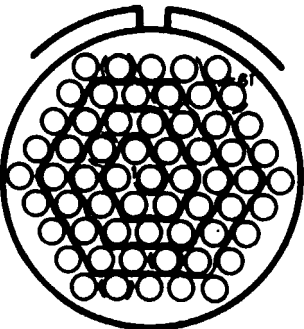
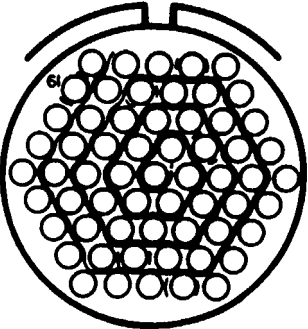
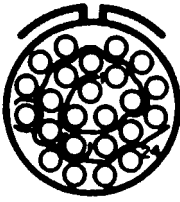
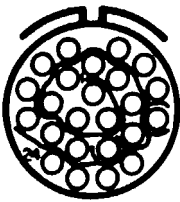
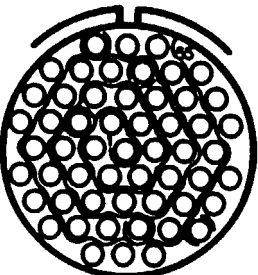
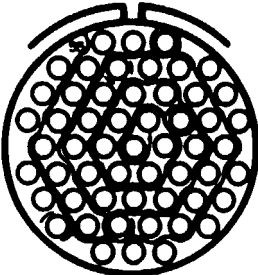
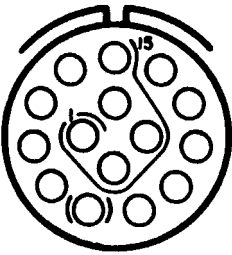
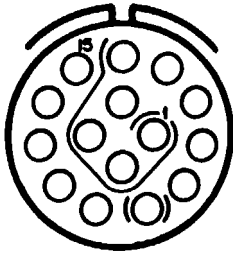
ELECTRICAL SYSTEMS ELECTRICAL COMPONENT  
LOCATION AND CONFIGURATION LIST (Continued)

RECEPTACLE

PLUG

RECEPTACLE

PLUG



90X34

D145-11057-SPA

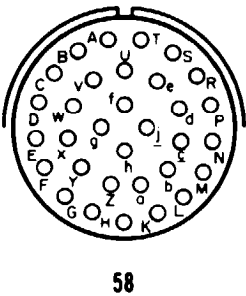
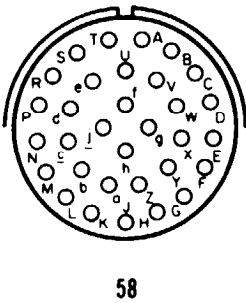
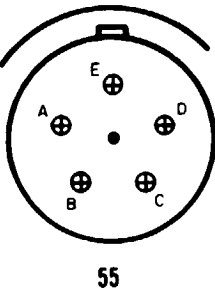
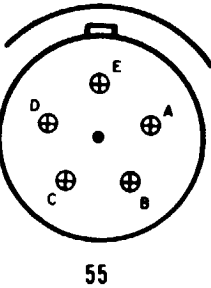
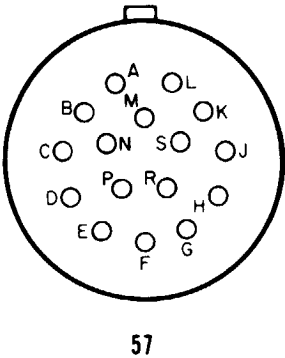
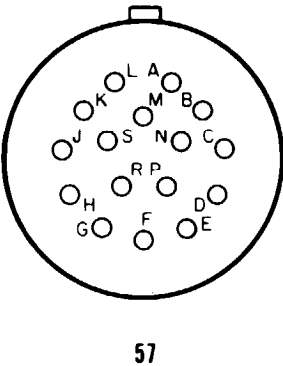
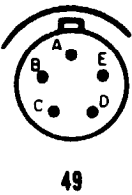
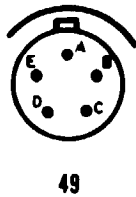
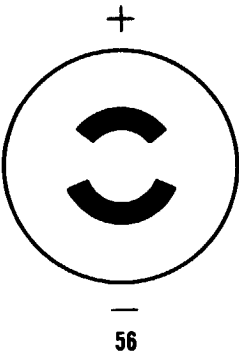
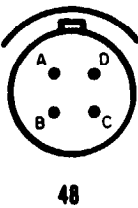
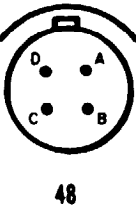
ELECTRICAL SYSTEMS ELECTRICAL COMPONENT  
LOCATION AND CONFIGURATION LIST (Continued)

RECEPTACLE

PLUG

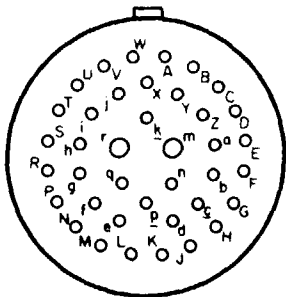
RECEPTACLE

PLUG

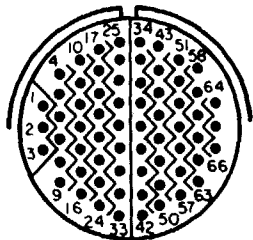


ELECTRICAL SYSTEMS ELECTRICAL COMPONENT  
LOCATION AND CONFIGURATION LIST (Continued)

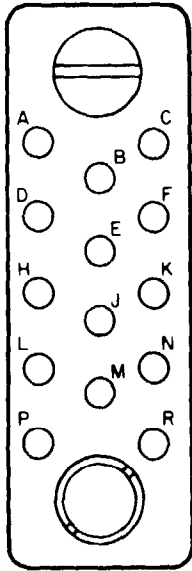
RECEPTACLE



59



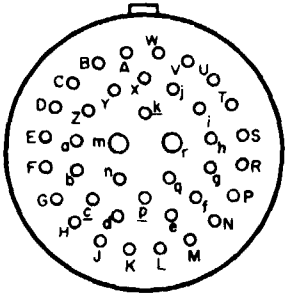
60



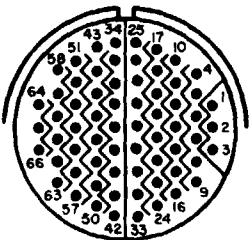
61

90 X 54

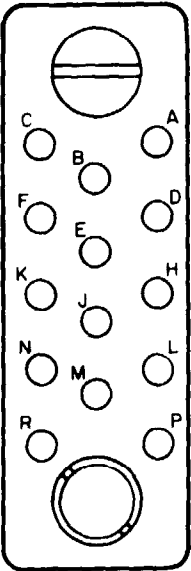
PLUG



59

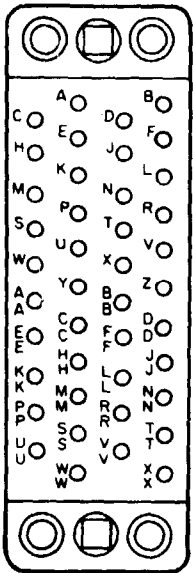


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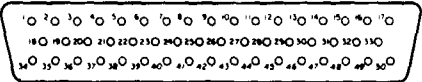


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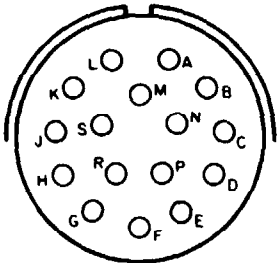
RECEPTACLE



62

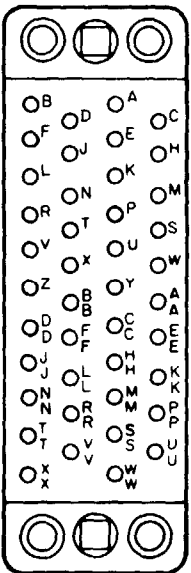


63

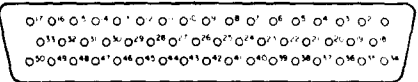


64

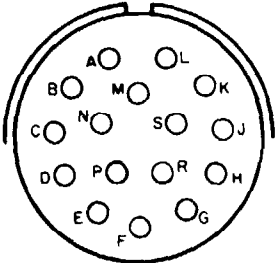
PLUG



62



63



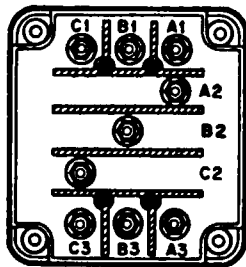
64

D145-11859-SPA



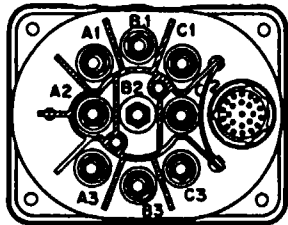
ELECTRICAL SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)

RELAY



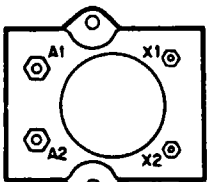
100

RELAY



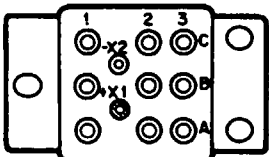
101

RELAY

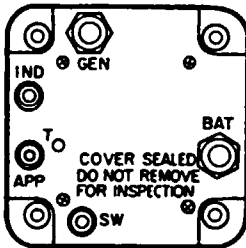


107

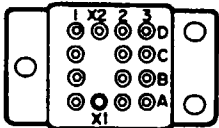
RELAY



112

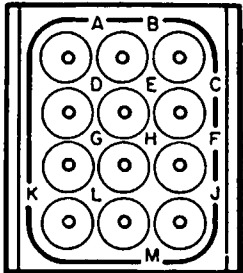


102

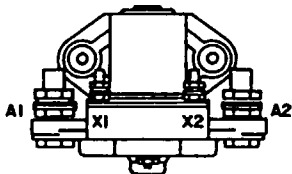


103

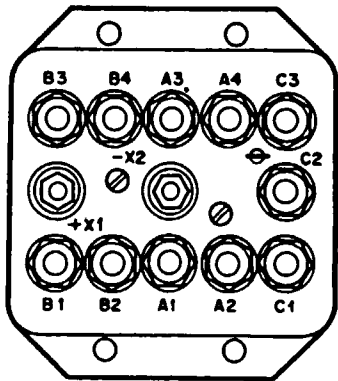
GND  
MODULE



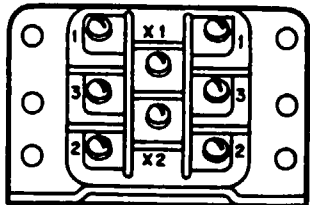
150



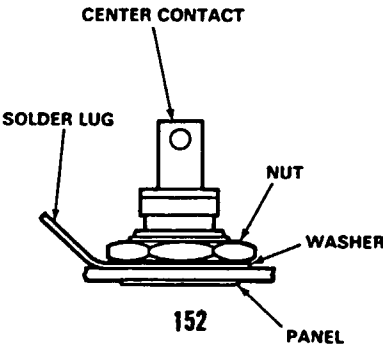
116



104



106



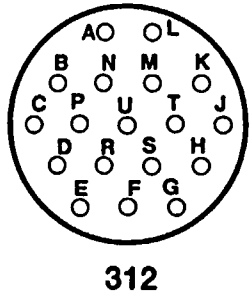
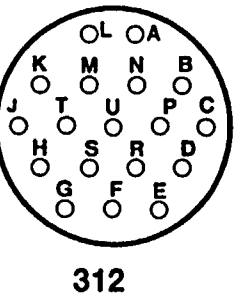
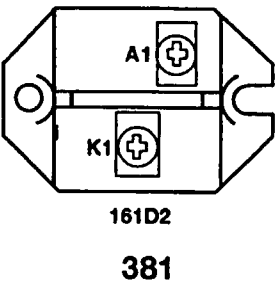
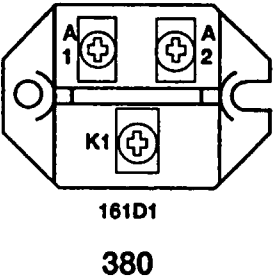
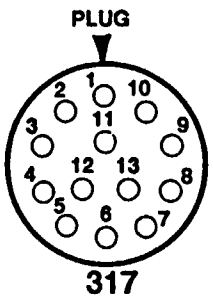
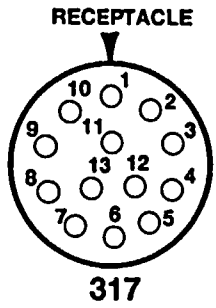
152

GND  
STUD



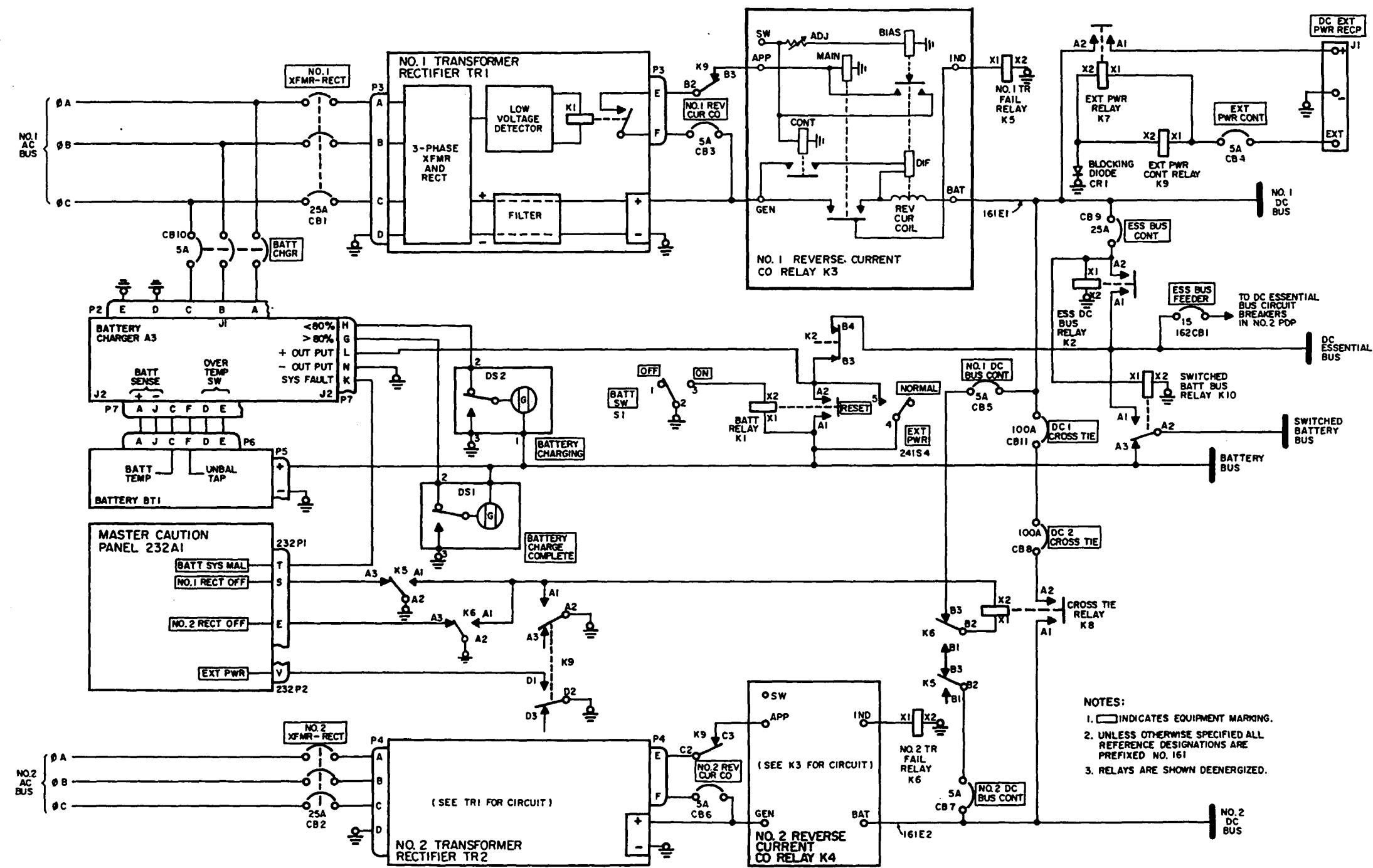
151

ELECTRICAL SYSTEM ELECTRICAL COMPONENT LOCATION AND CONFIGURATION LIST (Continued)

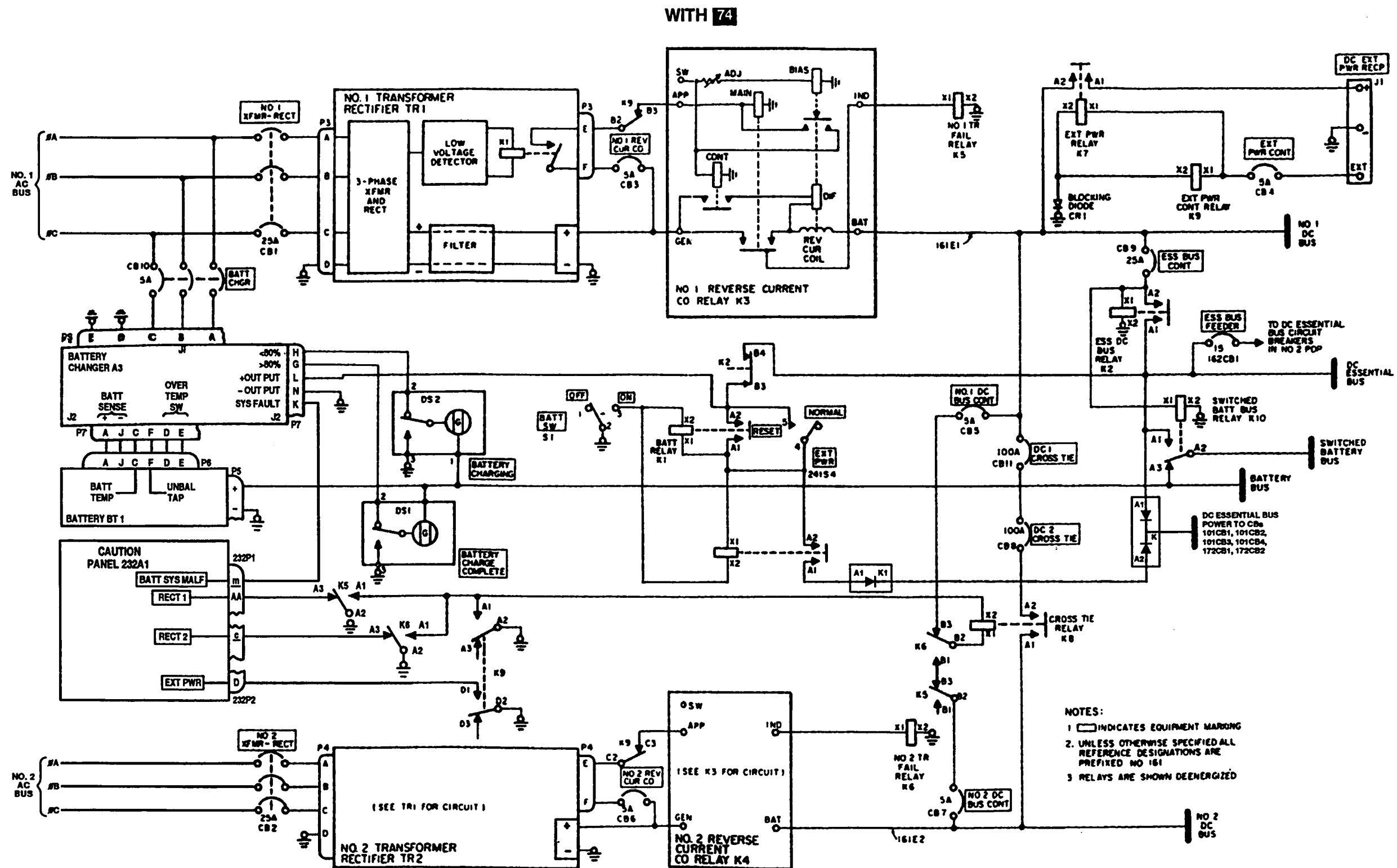


9-1 DC POWER SYSTEM

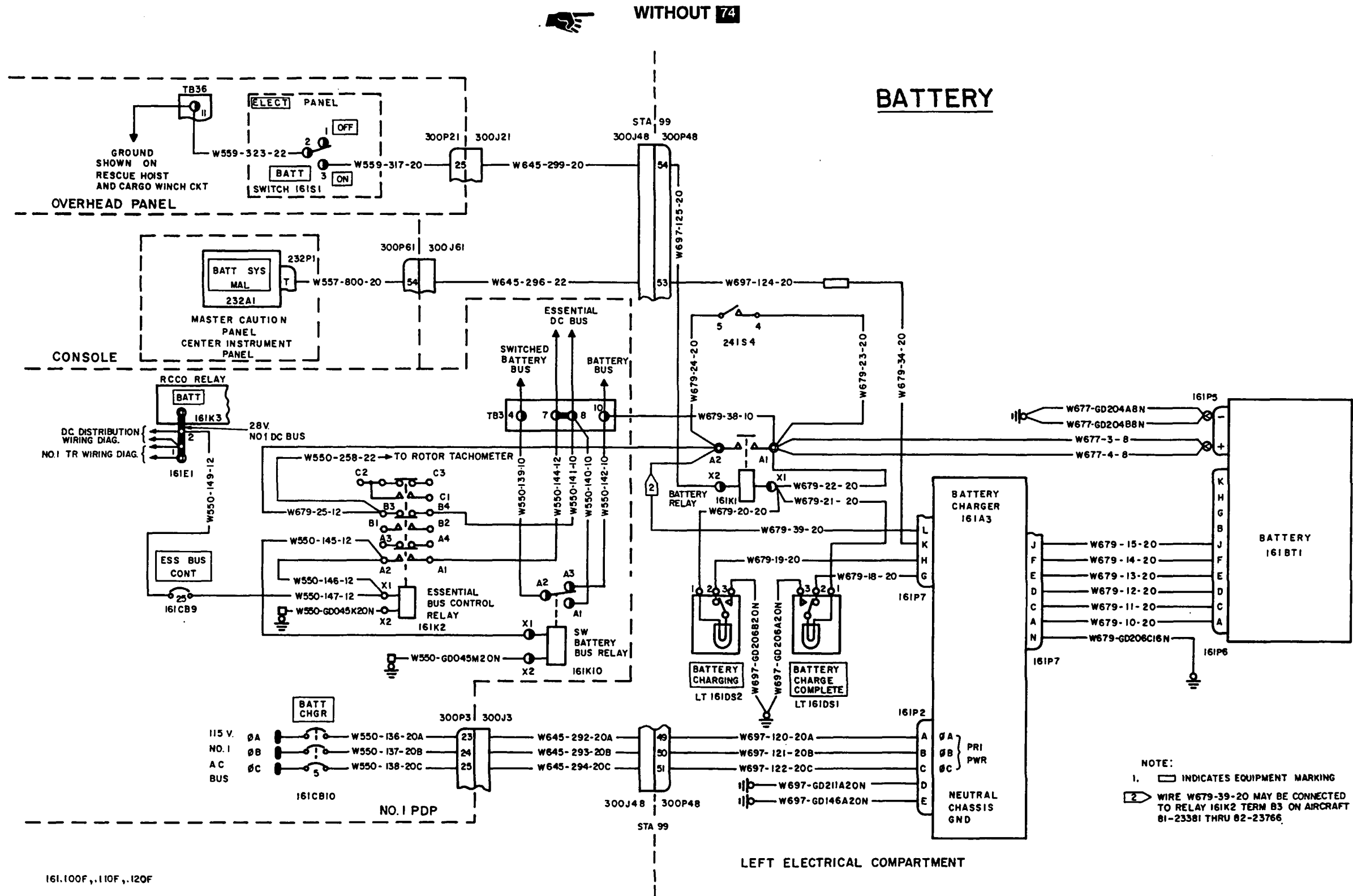
WITHOUT 74



- NOTES:
- 1. INDICATES EQUIPMENT MARKING.
  - 2. UNLESS OTHERWISE SPECIFIED ALL REFERENCE DESIGNATIONS ARE PREFIXED NO. 161
  - 3. RELAYS ARE SHOWN DEENERGIZED.

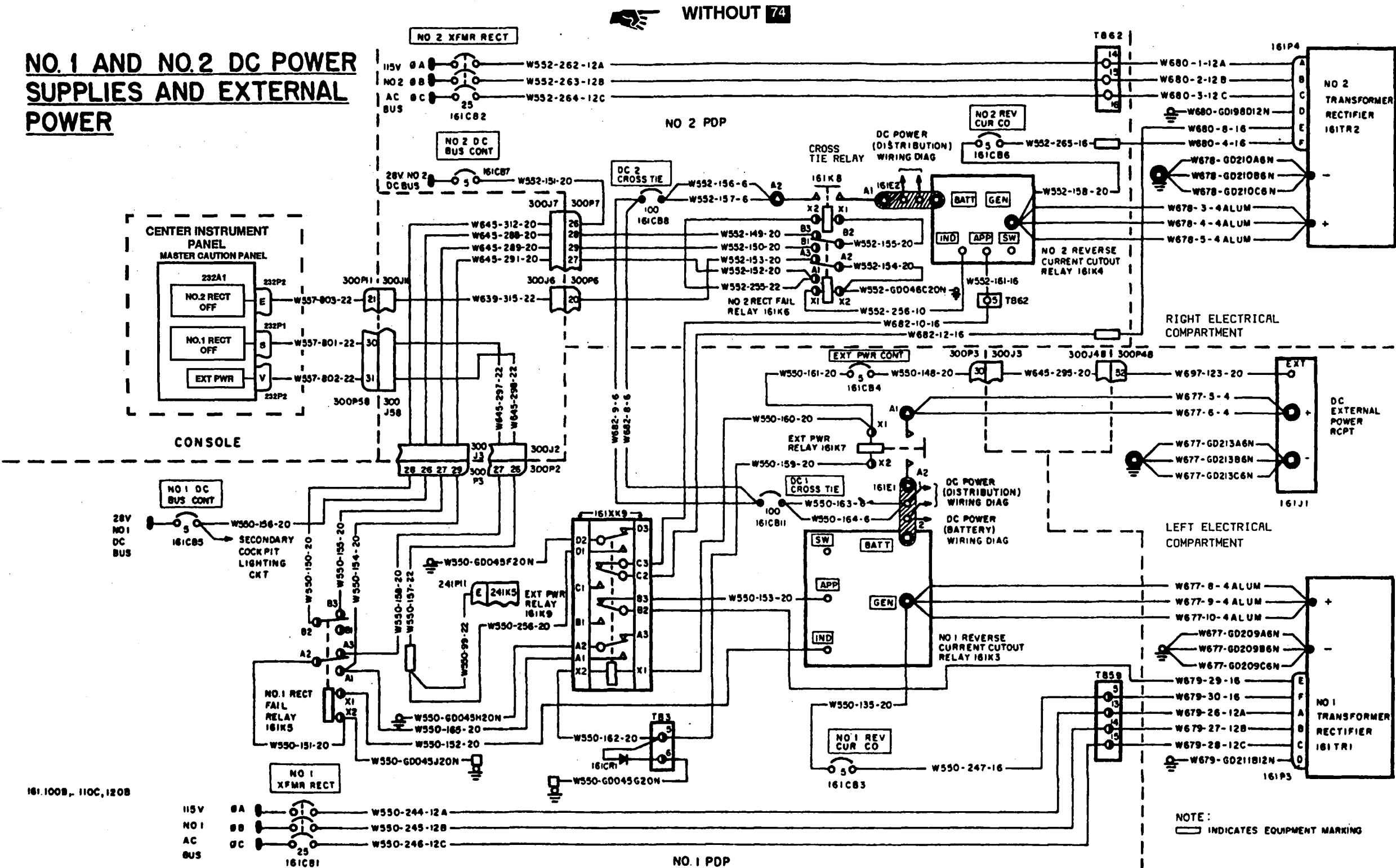


A65516



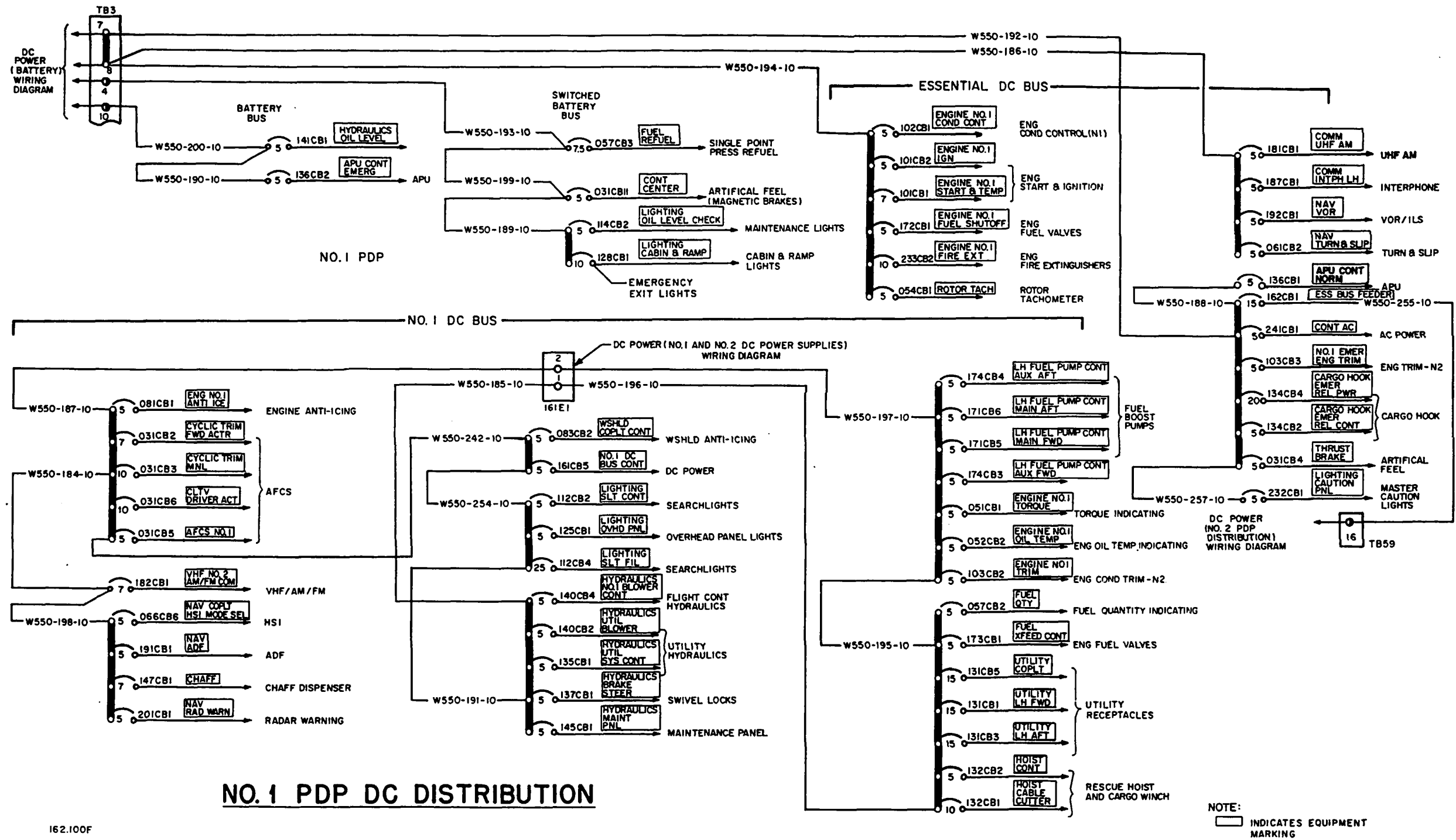
161.100F, 110F, 120F

NO. 1 AND NO. 2 DC POWER SUPPLIES AND EXTERNAL POWER



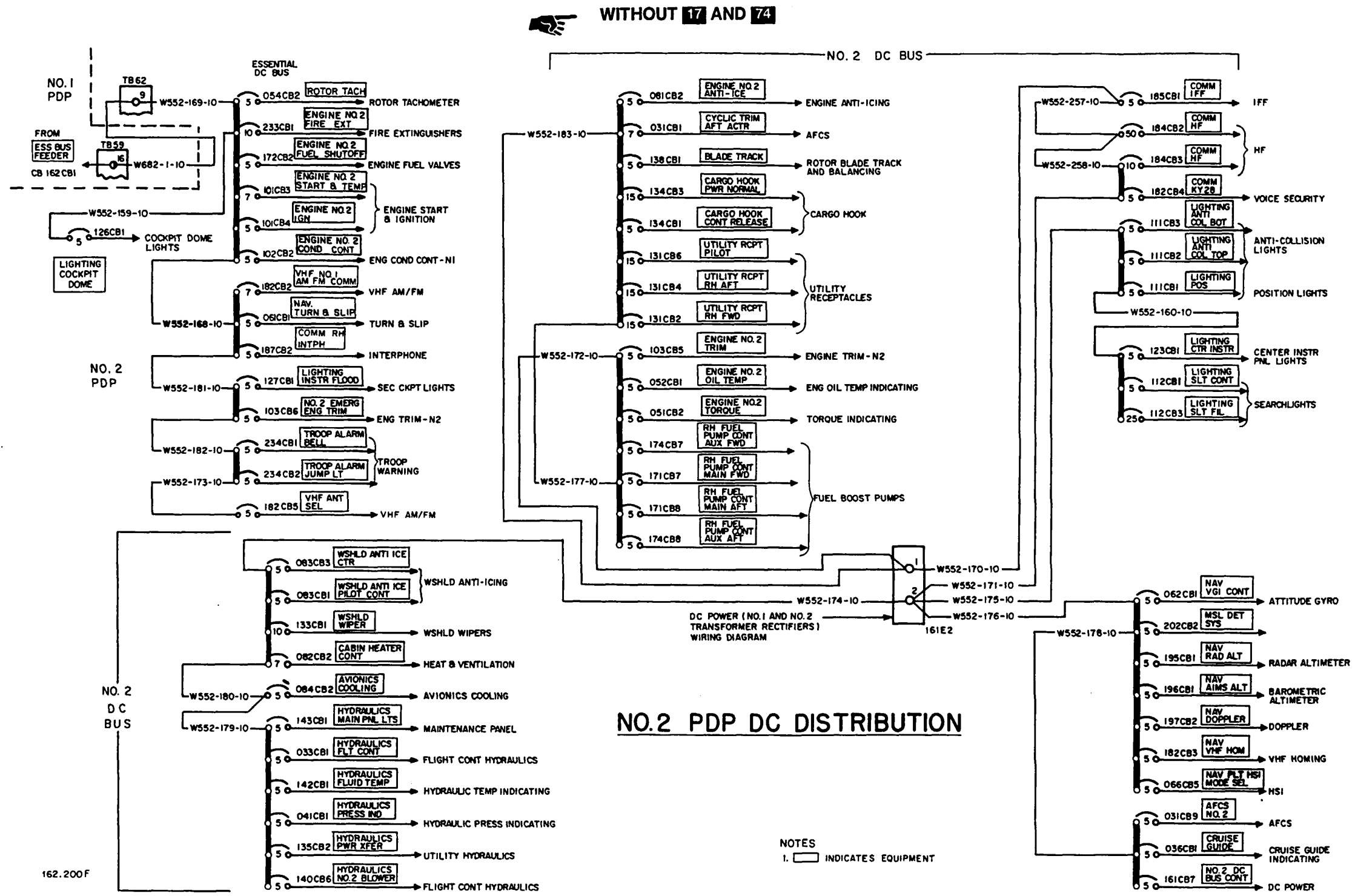
A86735

WITHOUT 17 AND 74

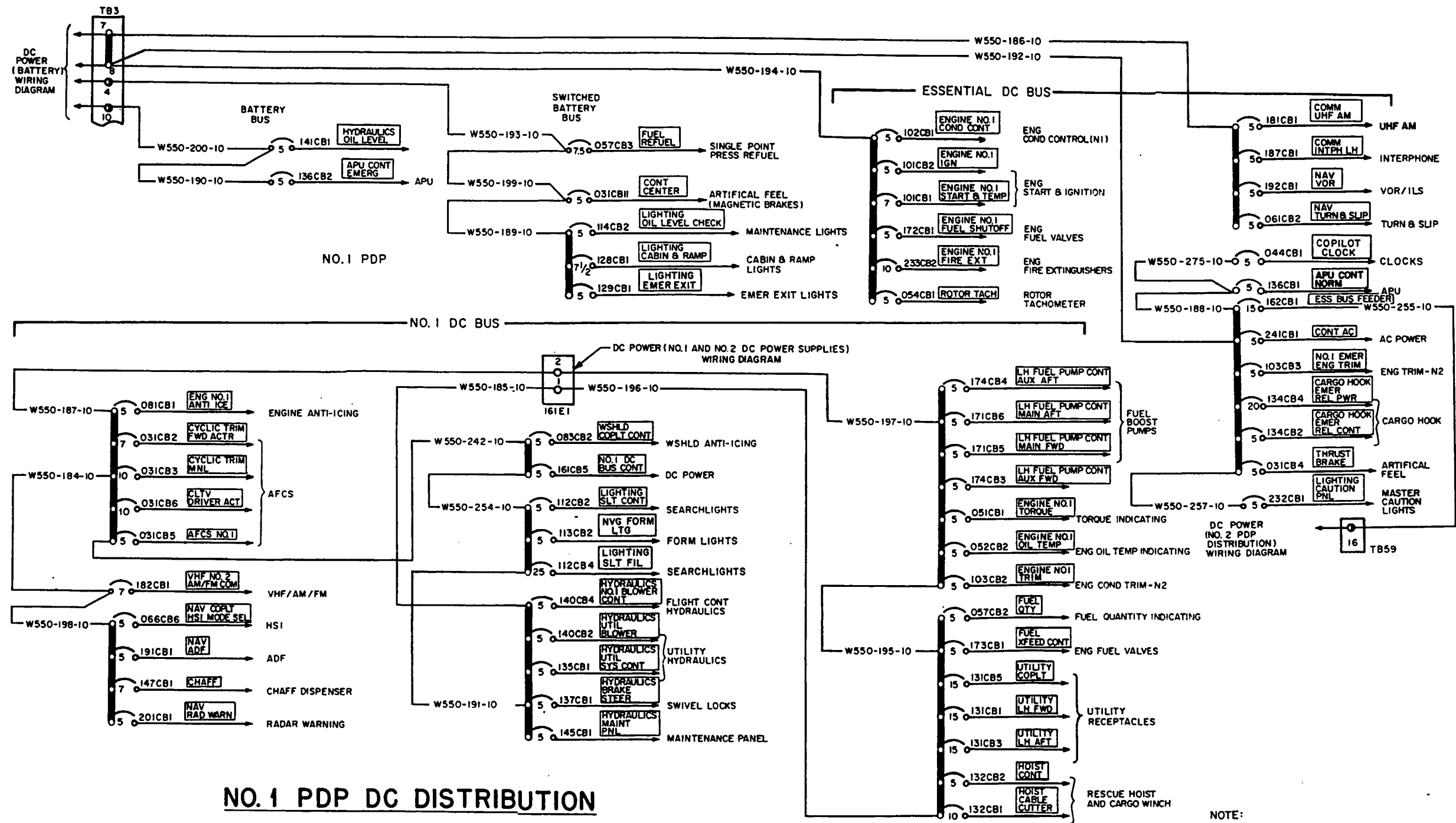


162.100F





WITH 17 AND WITHOUT 74

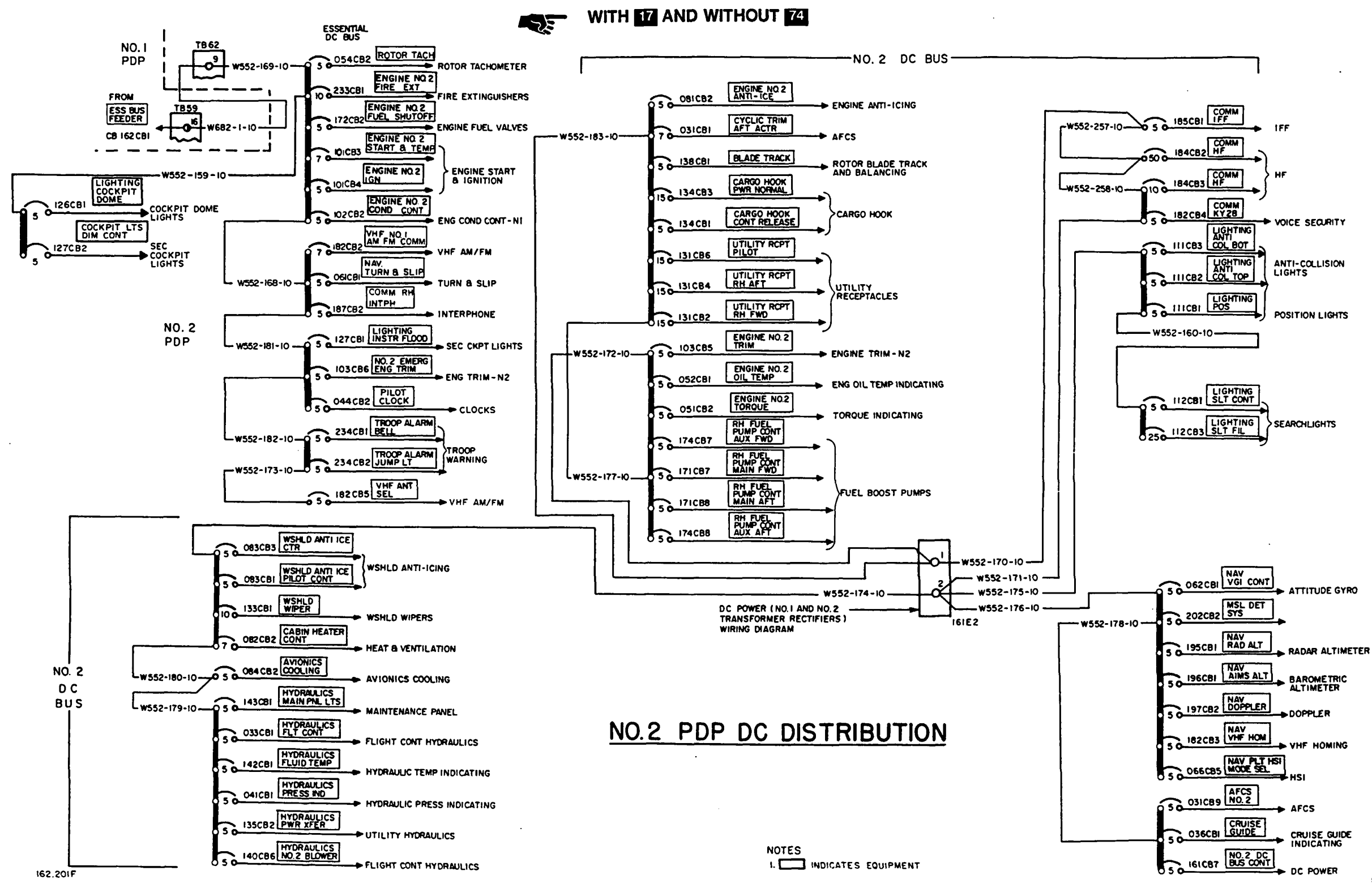


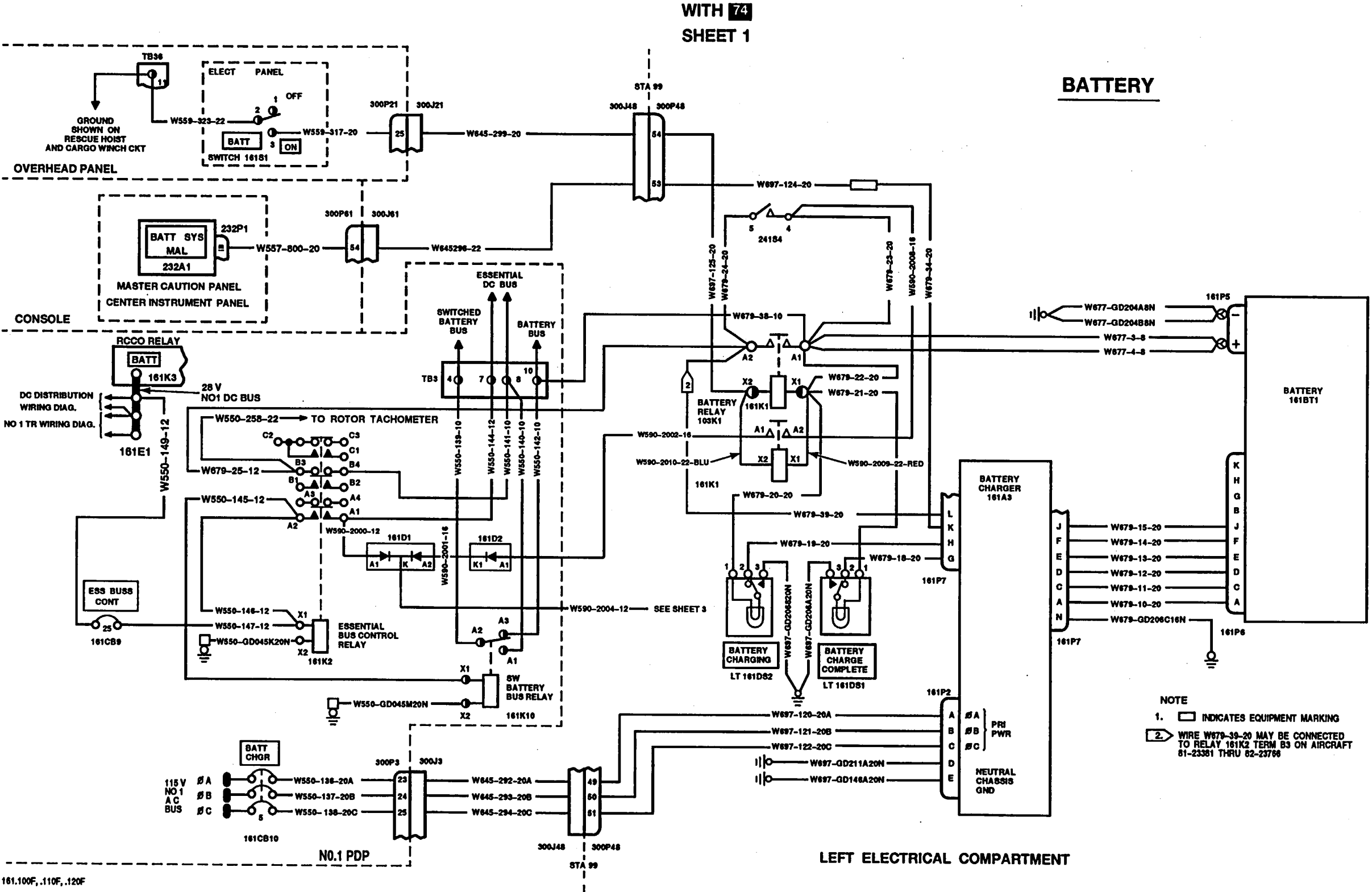
NO. 1 PDP DC DISTRIBUTION

162.101F

NOTE:  
INDICATES EQUIPMENT MARKING

10271



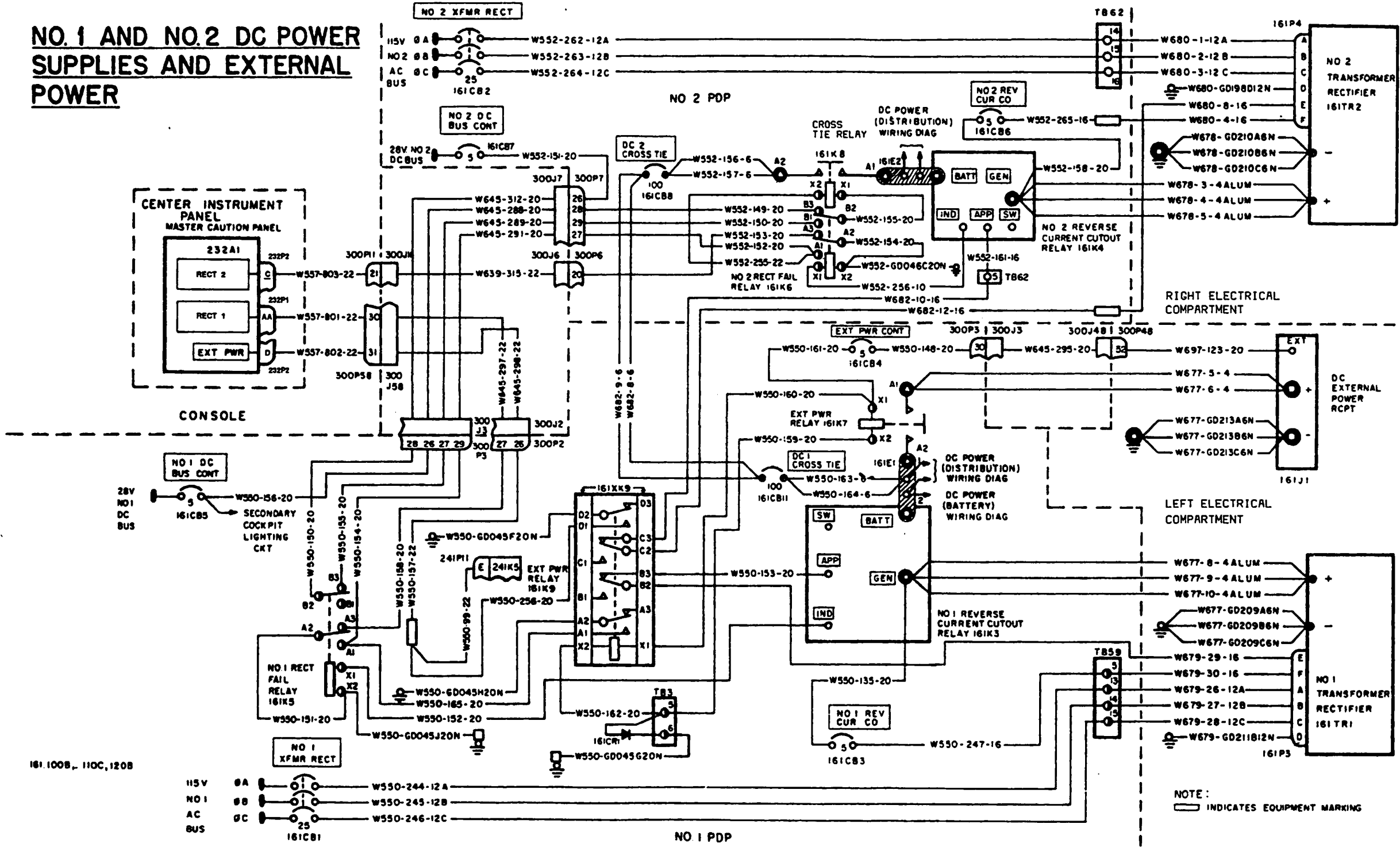


161.100F, .110F, .120F

A65517

WITH 74  
SHEET 2

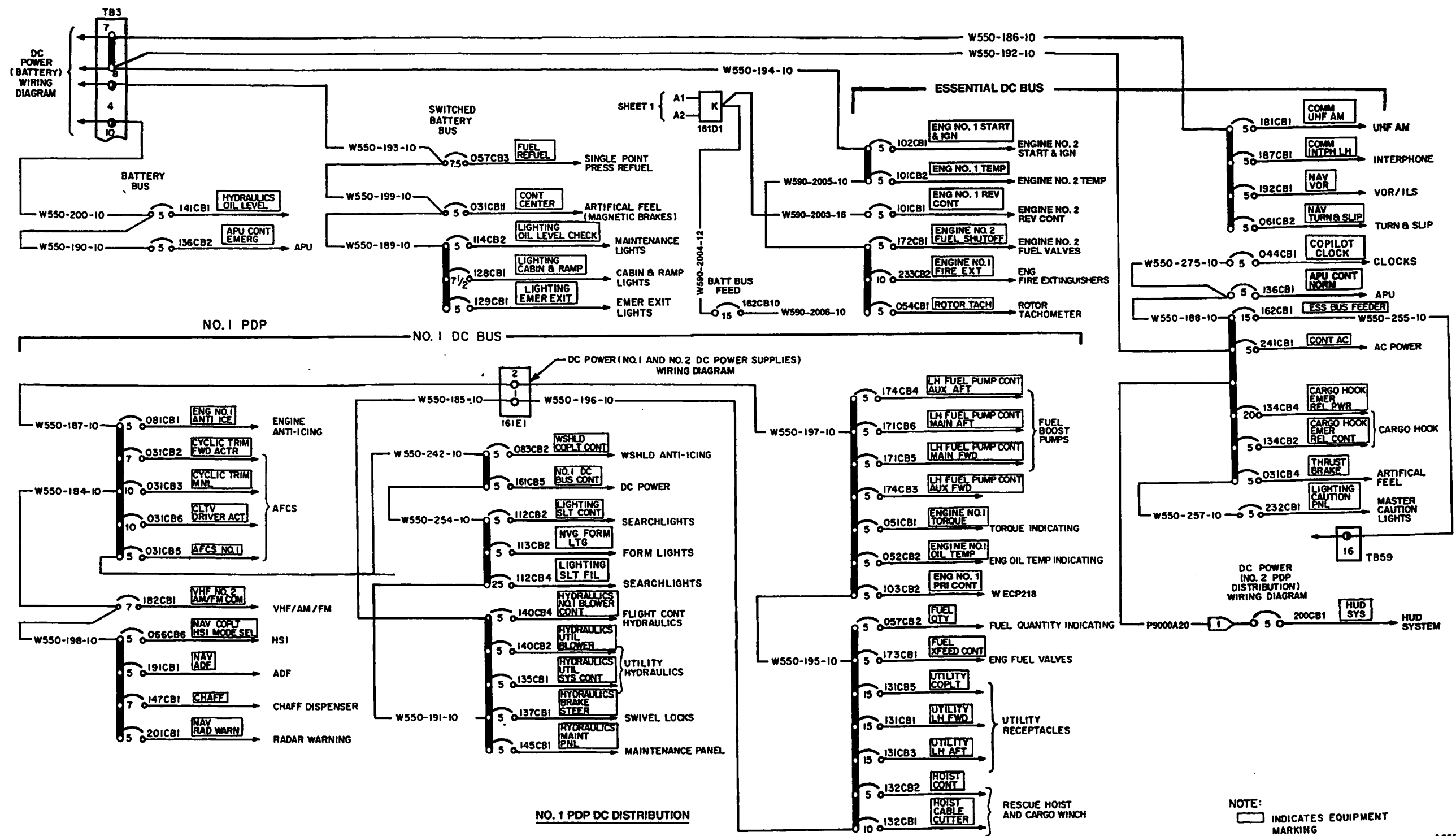
**NO. 1 AND NO. 2 DC POWER  
SUPPLIES AND EXTERNAL  
POWER**



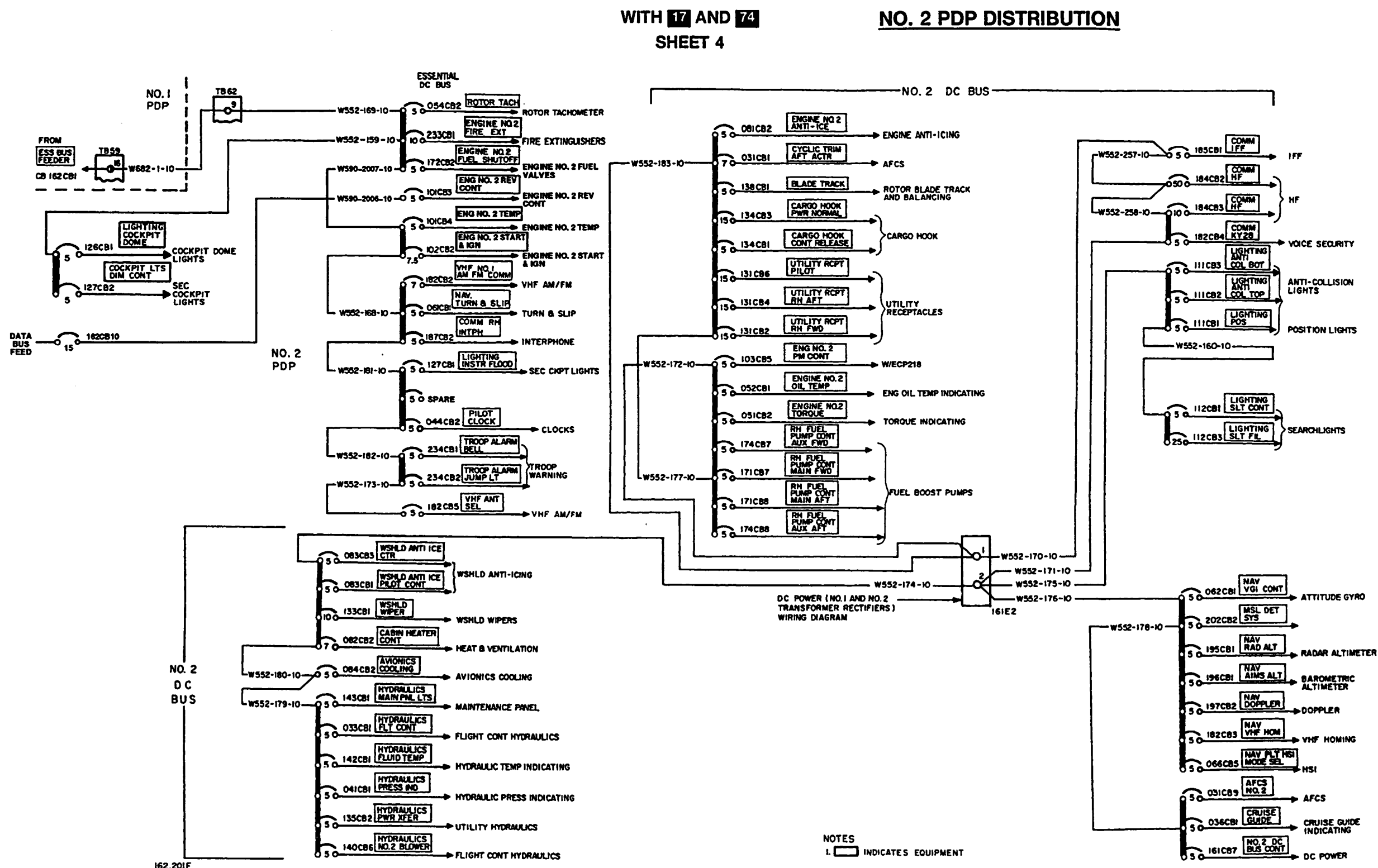
161.100B, 110C, 120B

A72199

WITH 17 AND 74  
SHEET 3



A65514



A65515





9-1.3 DC POWER SYSTEM VISUAL CHECK

INITIAL SETUP

**Applicable Configurations:**  
All

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

**Materials:**  
None

**Personnel Required:**  
68F10 Aircraft Electrician

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Left and Right Electrical Compartment  
Access Doors Open  
EXT PWR DC-AC Access  
Cover Open

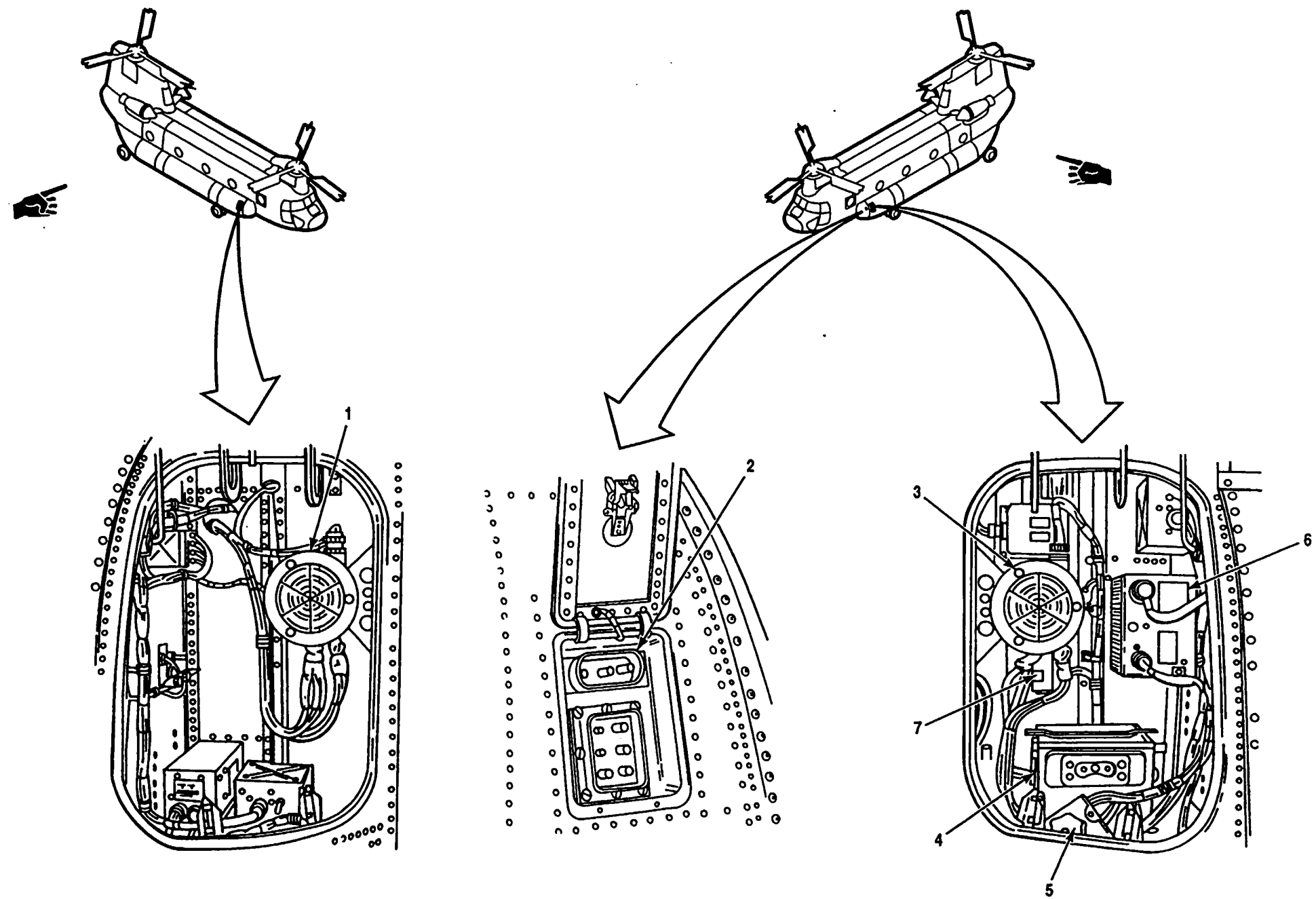
TASK	RESULT
1. Check No. 2 dc power supply (1).	If No. 2 de power supply is loose or damaged. tighten or replace it as required. If connector to supply is loose or damaged tighten or replace it es required. If wiring to connector or supply is loose or damaged, tighten or repair or replace it as re- quired,
2. Check dc external power receptacle (2).	If receptacle (2) is lwse or damaged, tighten or re- place it as required.
3. Check No. 1 dc power supply (3).	If No. 1 de power supply (3) is loose or damaged, tighten or replace it as required. If connector to supply is loose or damaged, tighten or repair it as required. If wiring to connector or supply is loose or damaged, tighten or repair or replace it as re- quired.
4. Check battery (4).	If battery is loose or damaged, tighten or replace it as required. If connector to battery is loose or damaged tighten or replace it as required. If wiring to connector is loose or damaged. repair or replace it as required.
5. Check battery connector (5).	If connector is damaged, replace it. If wiring to connector is damaged, repair or replace it.
6. Check battery charger (6).	If charger (6) is loose or damaged, tighten or re- place it as required. If connectors to charger are loose or damaged, tighten or replace them as re- quired. If wiring to connectors is damaged. repair or replace it as required.

9-1.3

TASK	RESULT
7. Check battery relay (7).	If relay (7) is loose or damaged, tighten or replace it as required. If wiring to relay is loose or damaged tighten or repair or replace it as required.

FOLLOW-ON MAINTENANCE:

None



A65608

9-1.4 DC POWER SYSTEM OPERATIONAL CHECK

9-1.4

INITIAL SETUP

**Applicable Configurations:**  
All

**Tools:**  
28 VDC External Power Source

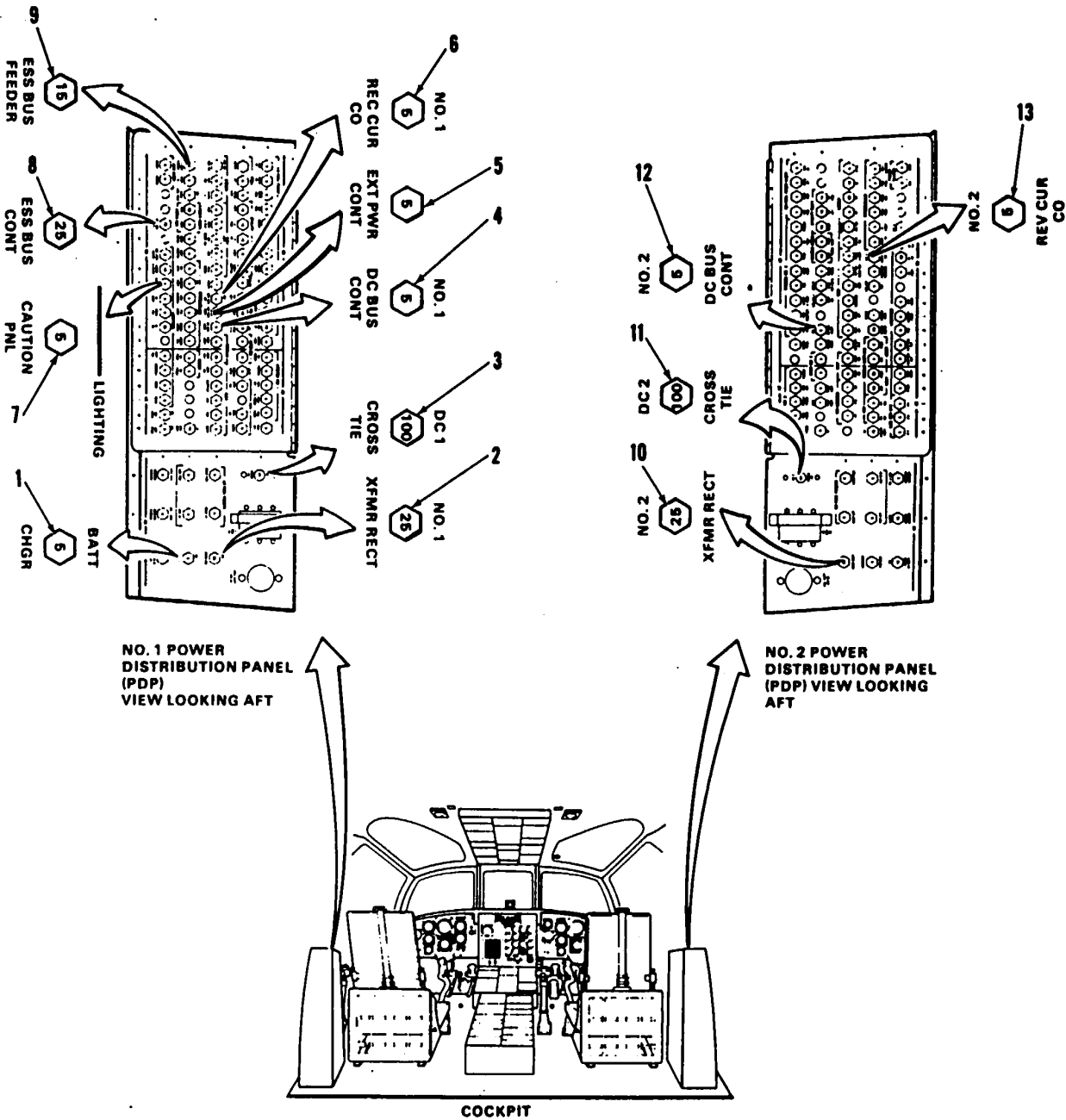
**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician (2)

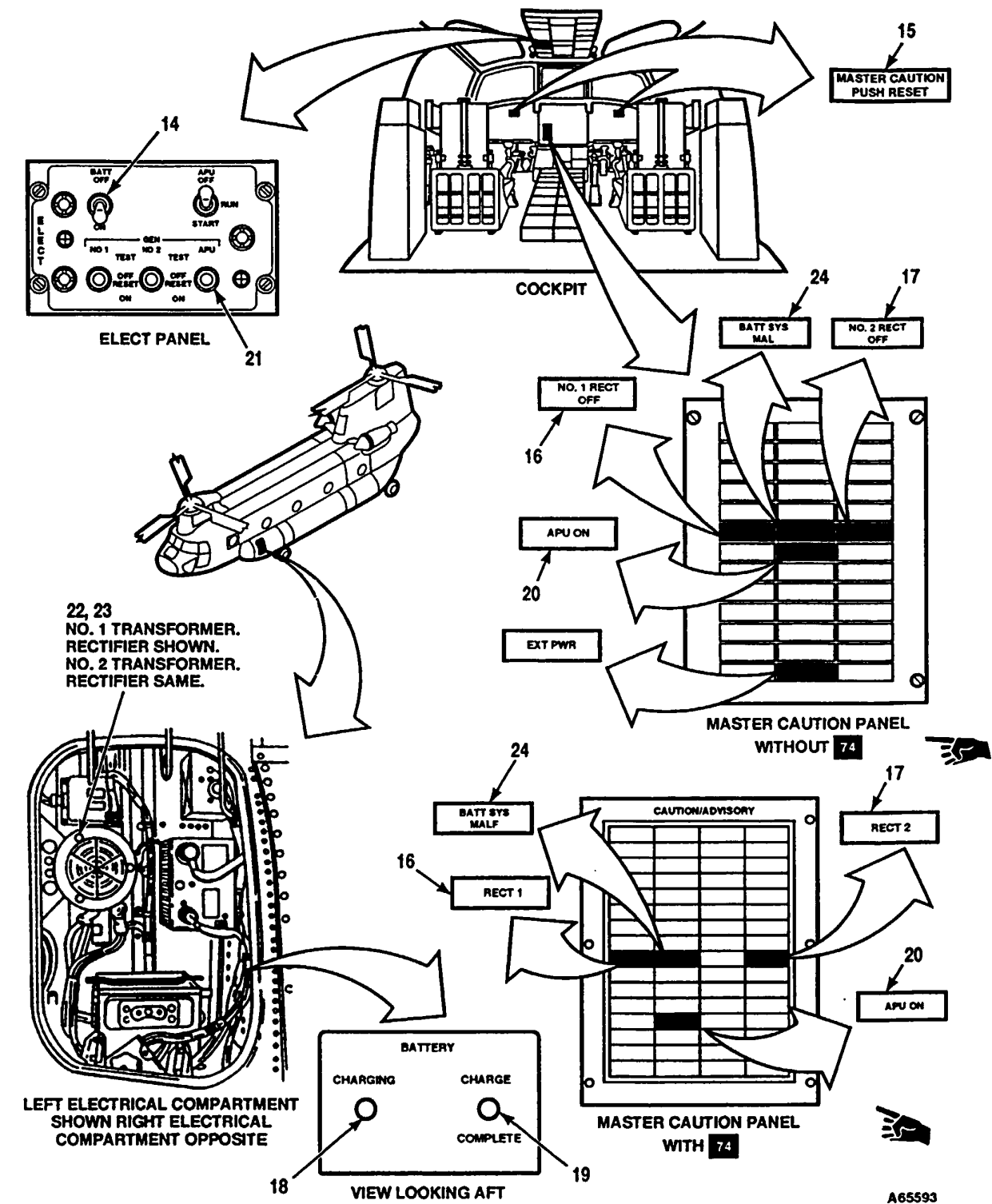
**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power Off  
Hydraulic Power Off  
Visual Check of Dc Power System  
Performed (Task 9-1.3)

TASK	RESULT
<p><b>CHECK CIRCUIT BREAKERS</b></p> <p>1. Check that following circuit breakers on <b>No. 1 pdp</b> are closed: BATT CHGR (1) NO. 1 XFMR RECT (2) DC 1 CROSSTIE (3) NO. 1 DC BUS CONT (4) EXT PWR CONT (5) NO. 1 REV CUR CO (6) CAUTION PNL (7) ESS BUS CONT (8) ESS BUS FEEDER (9)</p> <p>2. Check that following circuit breakers on <b>No. 2 pdp</b> are closed: NO. 2 XFMR RECT (10) DC2 CROSSTIE (11) NO. 2 DC BUS CONT(12) NO. 2 REV CUR CO (13)</p>	<p>If any circuit breaker (1 through 9) is open, close it.</p> <p>If any circuit breaker (10, 11, 12, or 13) is open. closed it.</p>



TASK	RESULT
3. Set BATT switch (14) to ON.	MASTER CAUTION lights (15) shall come on. NO. 1 RECT OFF and NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsules (16 and 17) shall be on. If lights do not come on, replace battery. Refer to TM 55-1520-240-23. If lights still do not come on, go to task 9-1.5. If either capsule (16 or 17) is not on, go to task 9-1.6.
4. Press and release BATTERY CHARGING and CHARGE COMPLETE lights (18 and 19).	Lights (18 and 19) shall momentarily come on. If either light does not come on, go to task 9-1.7.
5. Start apu. Refer to task 15-1.5.	APU ON capsule (20) shall come on.
6. Set APU GEN switch (21) to ON.	NO. 1 RECT OFF and NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsules (16 and 17) shall go out. APU ON capsule (20) shall stay on. If capsules (16 and 17) are still on, go to task 9-2.5. If only NO. 1 RECT OFF (Without 74) RECT 1 (With 74) capsule is still on, go to task 9-1.8. If only NO. 2 RECT 1 OFF (Without 74) RECT 2 (With 74) capsule is still on, go to task 9-1.9.
7. Check BATT SYS MAL capsule (24).	BATT SYS MAL capsule (24) shall be out. If it is on, open and then dose BATT CHGR circuit breaker (1). If capsule (24) is still on, go to task 9-1.11.
8. Check air flow from No. 1 transformer-rectifier (22).	Air shall flow from rectifier (22). If not, replace rectifier.
9. Check air flow from No. 2 transformer-rectifier (23).	Air shall flow from rectifier (23). If not, replace rectifier.
10. Check BATTERY CHARGING and CHARGE COMPLETE lights (18 and 19).	Light (18 or 19) shall be on. If either light is not on, go to task 9-1.10.

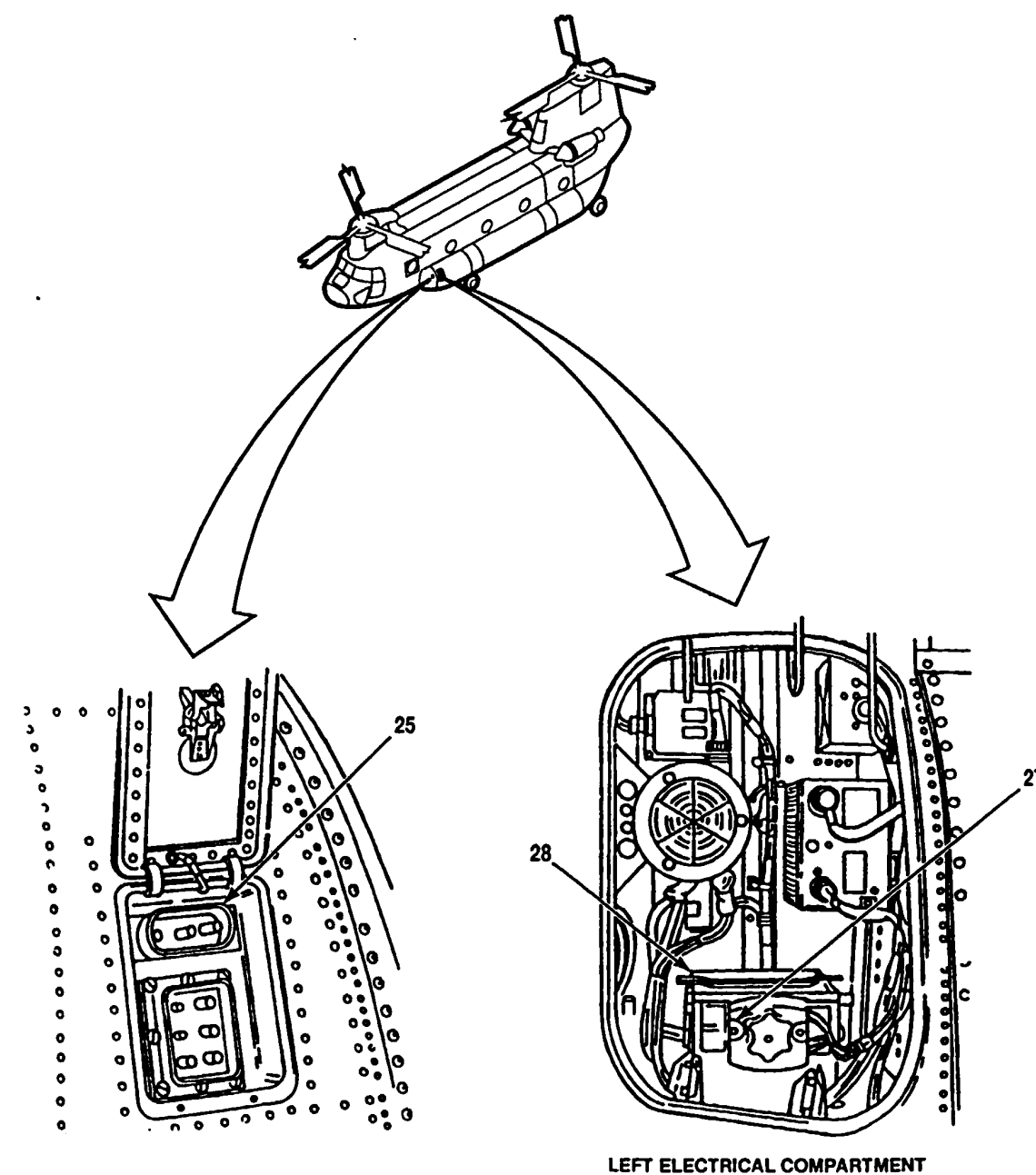
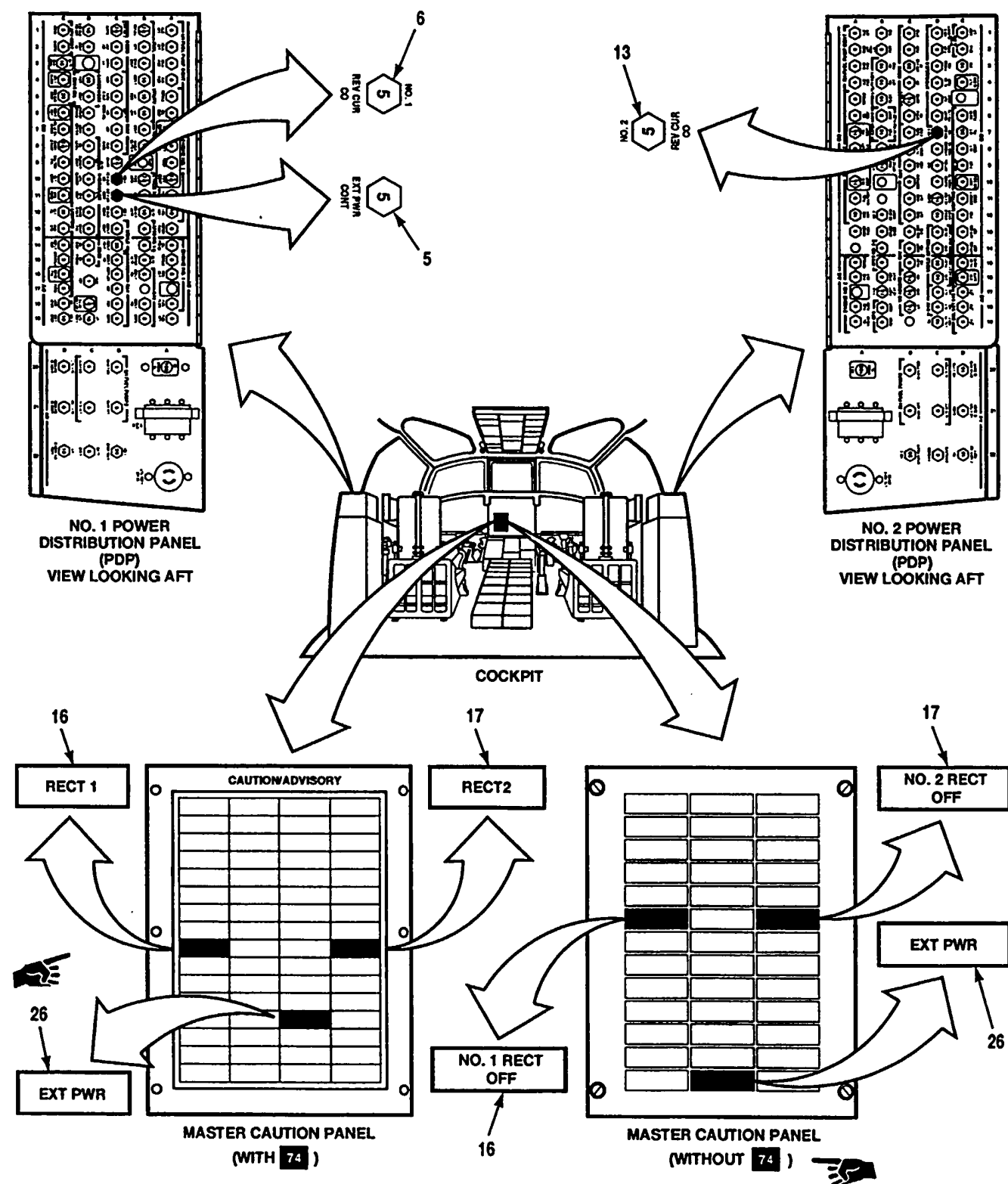


9-1.4DC POWER SYSTEM OPERATIONAL CHECK (Continued)

9-1.4

TASK	RESULT
11. Open NO. 1 REV CUR CO circuit breaker (6).	NO. 1 RECT OFF (Without 74) RECT 1 (With 74) capsule (16) shall come on. If it does not, replace NO. 1 reverse current cutout relay.
12. Turn top and bottom anti collision lights ON. Refer to task 9-6.3.	Both top and bottom anti collision lights shall flash. If they do not, go to task 9-1.12.
13. Turn overhead panel lights ON.	Overhead panel lights shall come on. If they do not, go to task 9-1.13.
14. Close NO. 1 REV CUR CO circuit breaker (6). Open	NO. 1 RECT OFF (Without 74) RECT 1 (With 74) capsule (16) shall go out. NO. 2 RECT OFF (Without 74) RECT 2 (With 74) capsule (17) shall come on. If it does not, replace NO. 2 reverse current cutout relay.
15. Check overhead panel lights.	Overhead panel lights shall still be on. If they are out, go to task 9-1.14.
16. Check anti collision lights.	Anti collision lights shall still be on. If they are not, go to task 9-1.15.
17. Turn off overhead panel lights.	
18. Close NO. 2 REV CUR CO circuit breaker (13).	NO. 2 RECT OFF (Without 74) RECT 2 (With 74) capsule (17) shall go out.
19. Open NO. 1 REV CUR CO and NO. 2 REV CUR CO circuit breakers (6 and 13).	NO. 1 and NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsules (16 and 17) shall come on.
20. Turn cabin and ramp white lights ON.	Cabin and ramp white lights shall come on. If they do not, go to task 9-1.16.
21. Close NO. 1 REV CUR CO and NO. 2 REV CUR CO circuit breakers (6 and 13).	NO. 1 and NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsule (16 and 17) shall go out.
22. Disconnect electrical connector (27) from battery (28).	
23. Check cabin and ramp white lights.	Cabin and ramp white lights shall stay on. If they are not on, go to task 9-1.20.
23.1 Connect electrical connector (27) to battery (28).	
24. Turn off cabin and ramp white lights. Use CAB & RAMP LT switch. Refer to task 9-15.3.	
NOTE Steps 25 through 27 can only be performed with an external 28VDC power source.	

TASK	RESULT
25. Connect external 28VDC power source to receptacle (25). Turn on power supply.	NO. 1 and NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsules (16 and 17) shall come on. EXT PWR capsule (26) shall come on. If capsule (16 or 17) is out, go to task 9-1.17. If capsule (26) does not come on, go to task 9-1.18. EXT PWR CONT circuit breaker (5) shall stay closed. If it does not, go to task 9-1.21.
26. Check anti collision lights.	Anticollision lights shall still be on. If they are not, go to task 9-1.19.
27. Turn off and disconnect external 28VDC power.	NO. 1 and NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsules (16 and 17) shall go out. EXT PWR capsule (26) shall go out. If any capsule (16, 17, or 26) is still on, replace external power control relay.
28. Turn off anti collision lights.	
29. Shutdown apu. Refer to task 15-1.4.	
FOLLOW-ON MAINTENANCE: None	



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

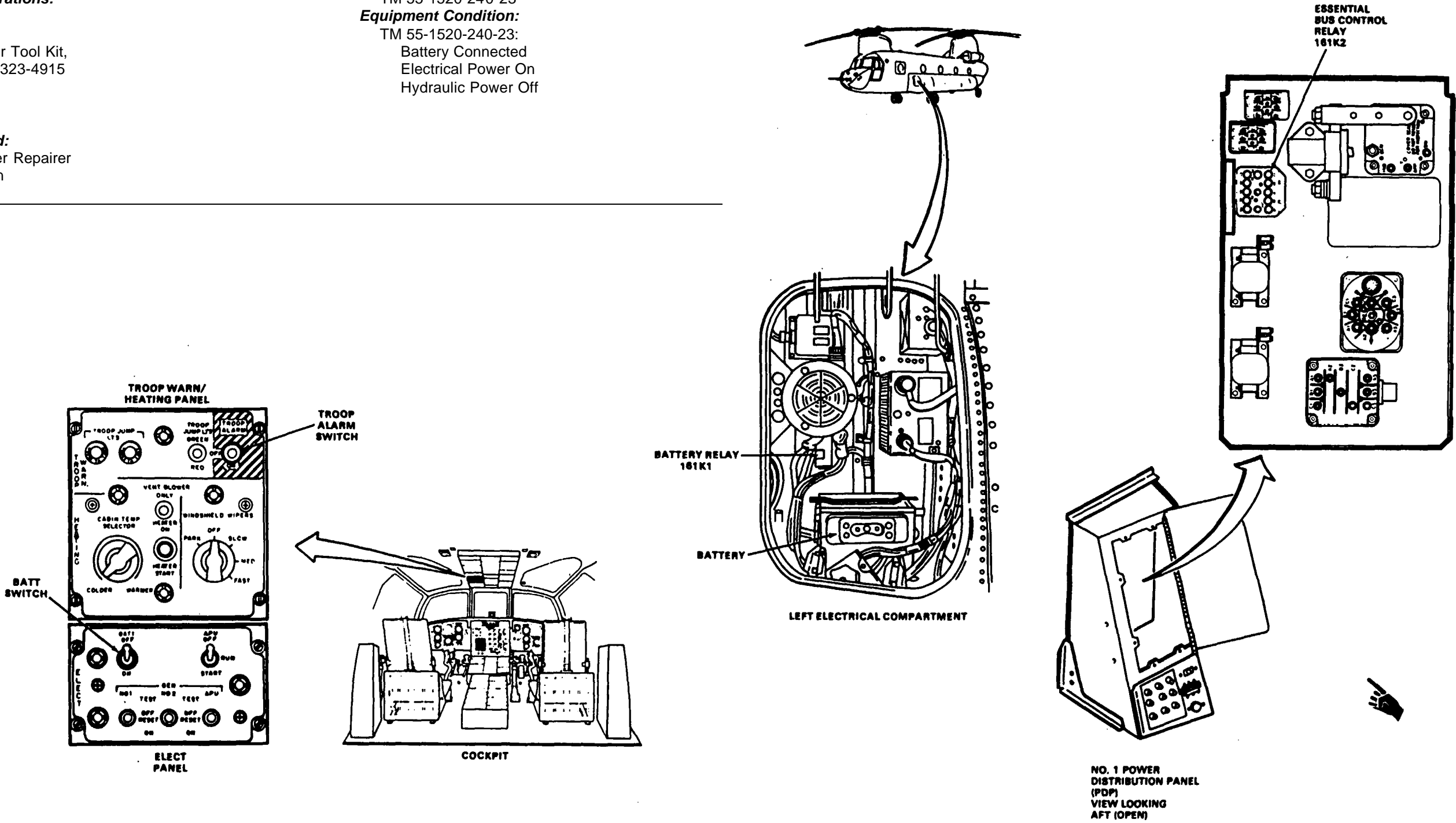
Medium Helicopter Repairer  
Aircraft Electrician

Reference:

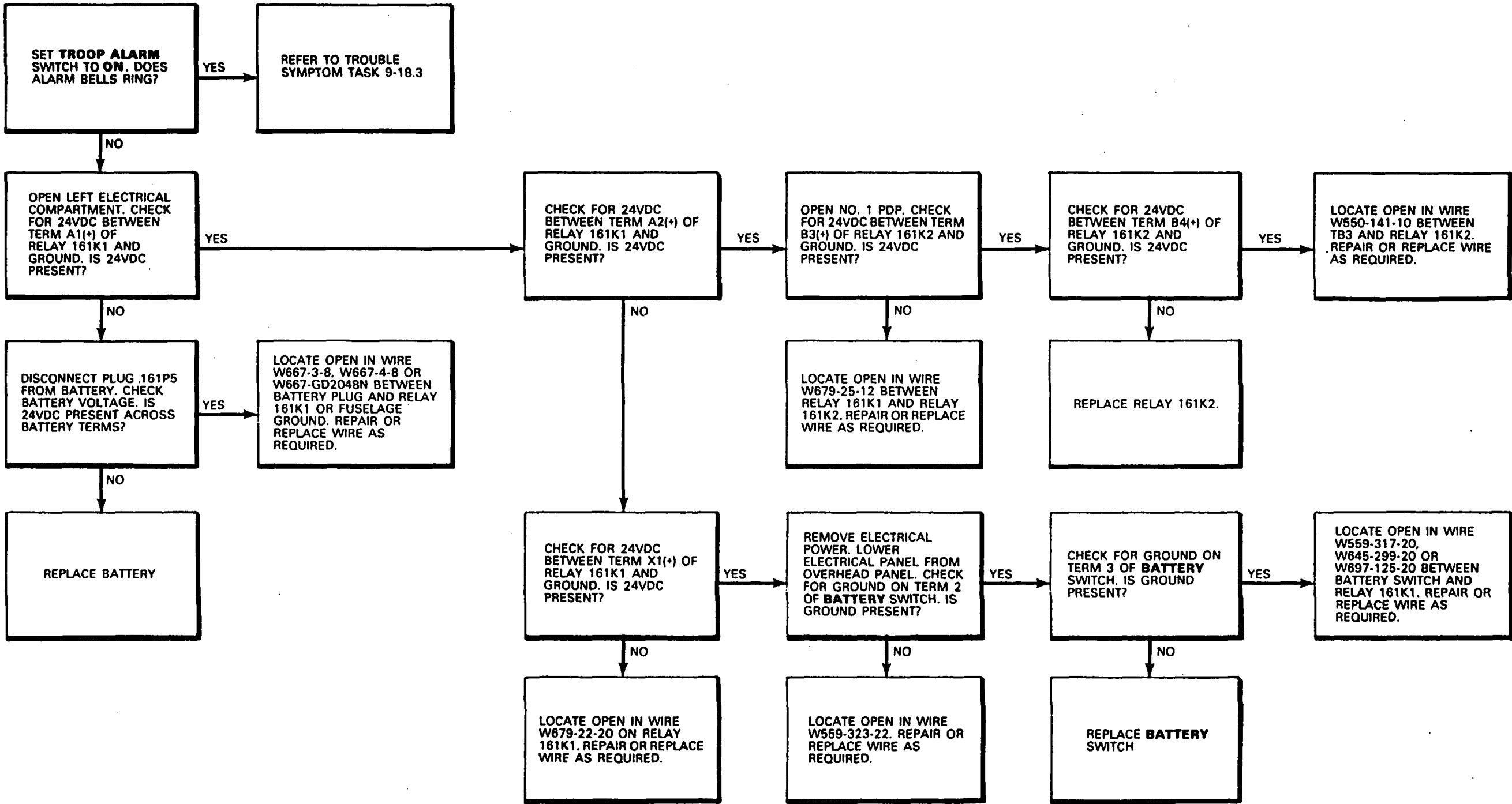
TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



17331





FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
Without 74

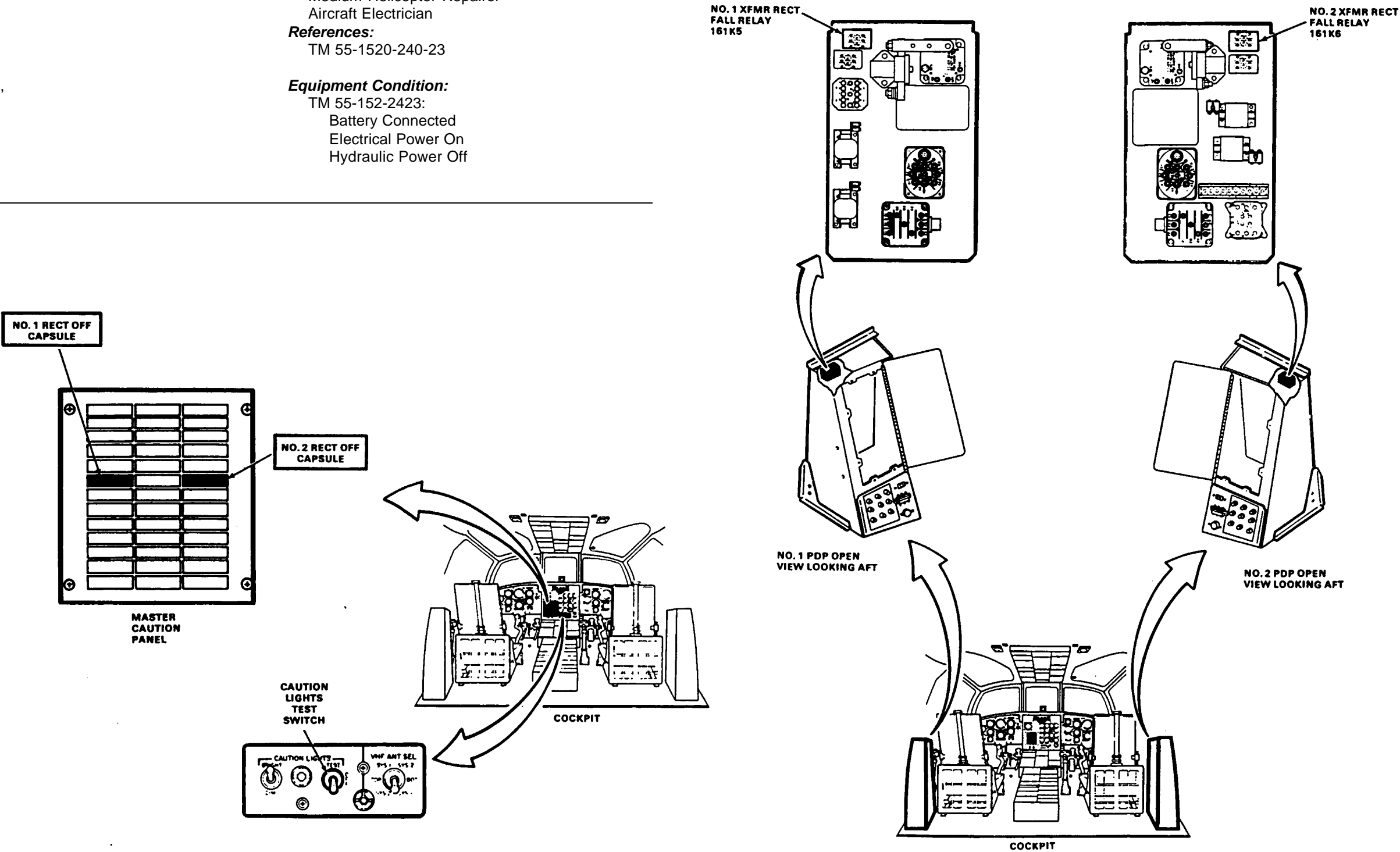
**Tools:**  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00323-4692  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
Medium Helicopter Repairer  
Aircraft Electrician

**References:**  
TM 55-1520-240-23

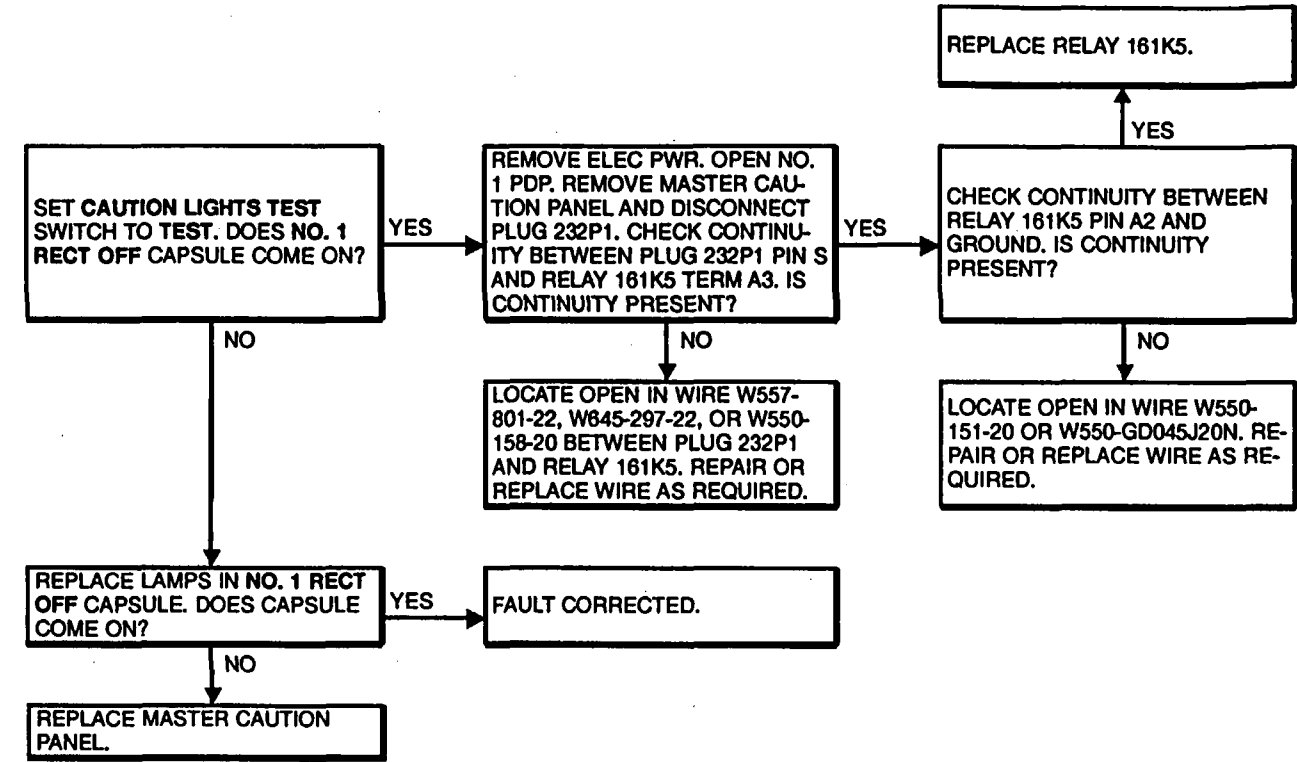
**Equipment Condition:**  
TM 55-152-2423:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



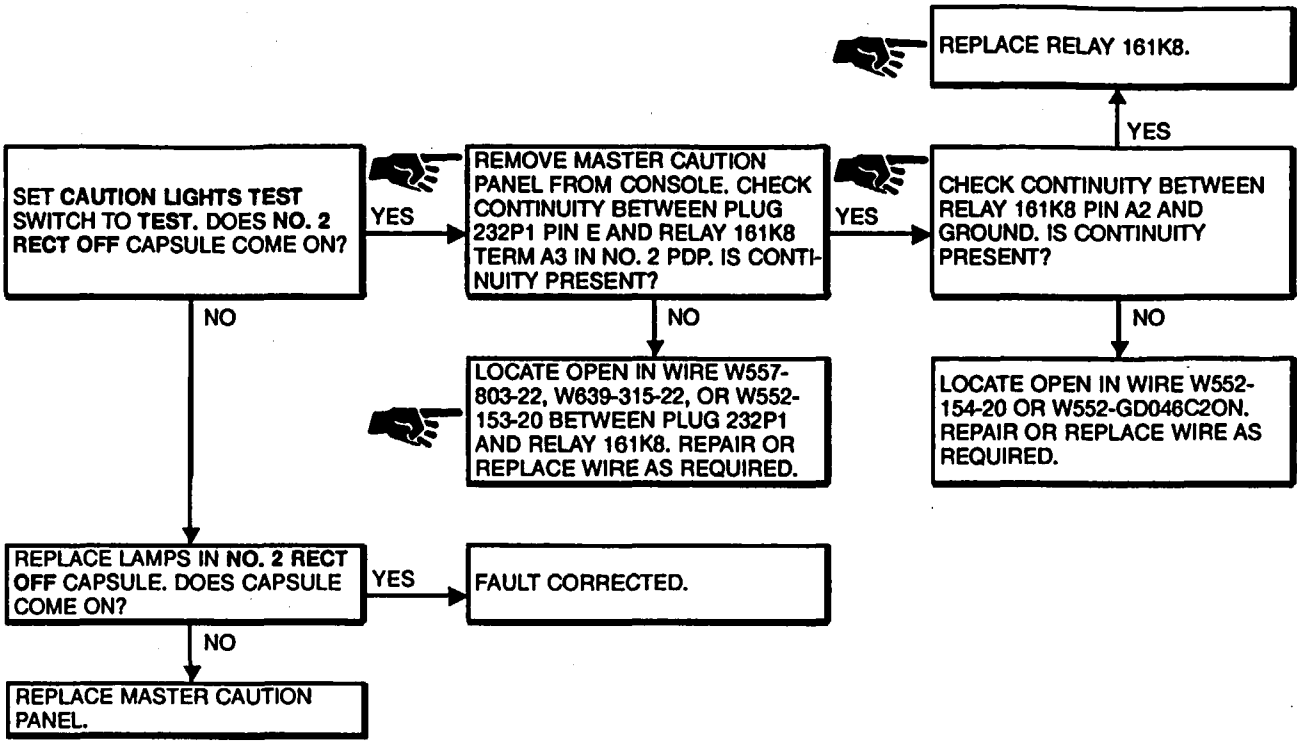
90 X 54

DM5-12035-SPA

NO. 1 RECT OFF CAPSULE NOT ON



NO. 2 RECT OFF CAPSULE NOT ON



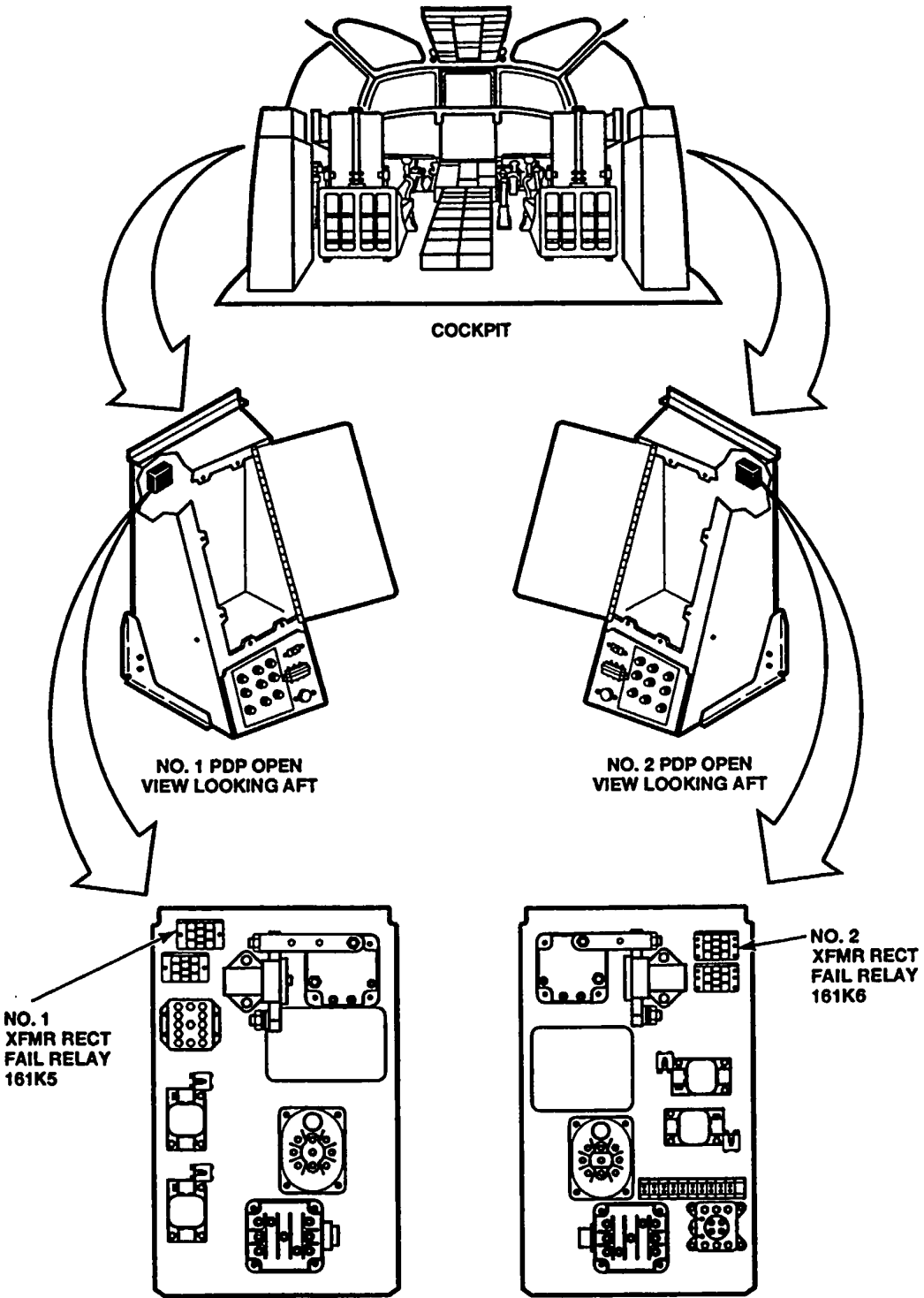
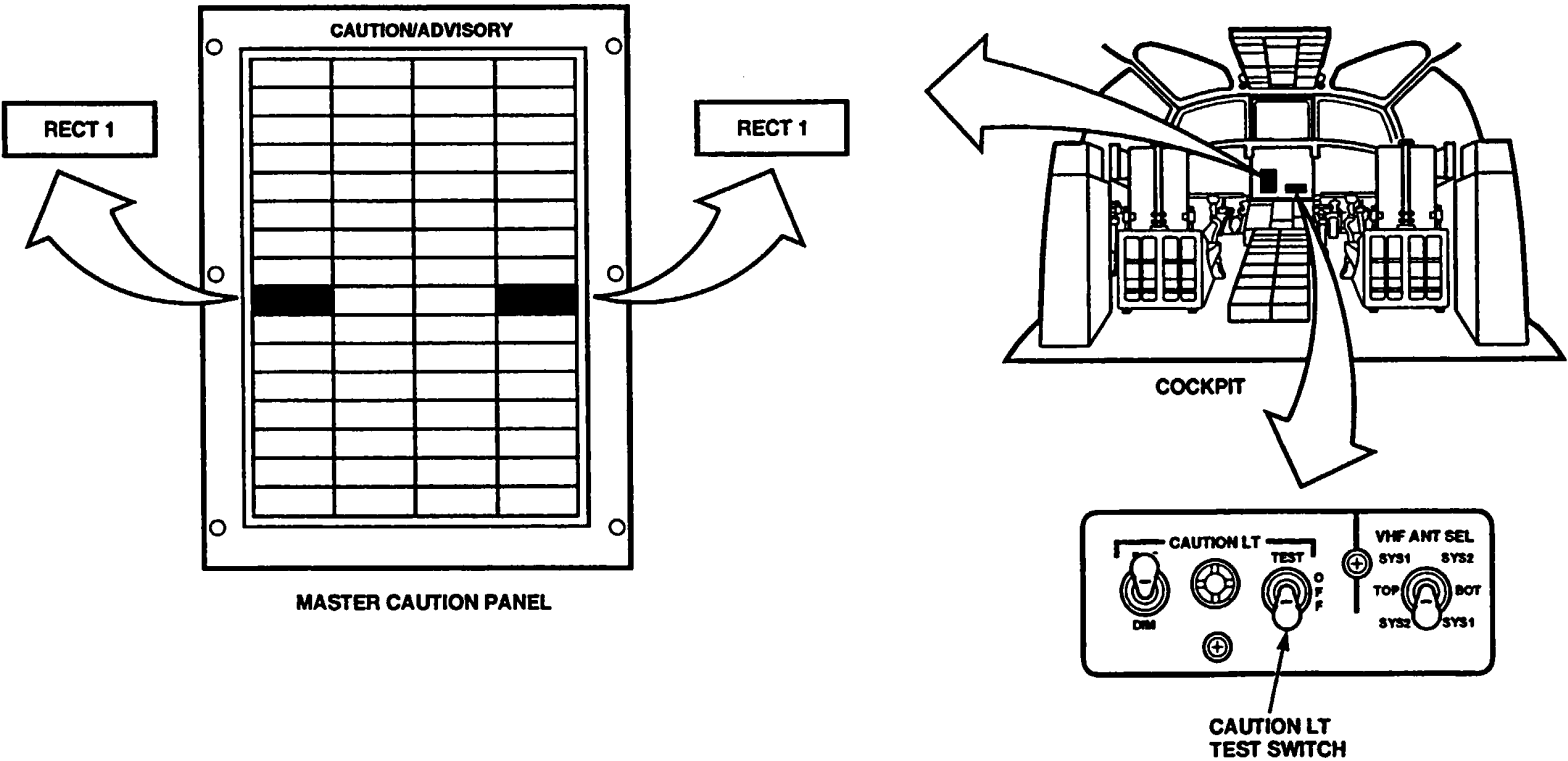
FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
With 74

**Tools:**  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00323-4692  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

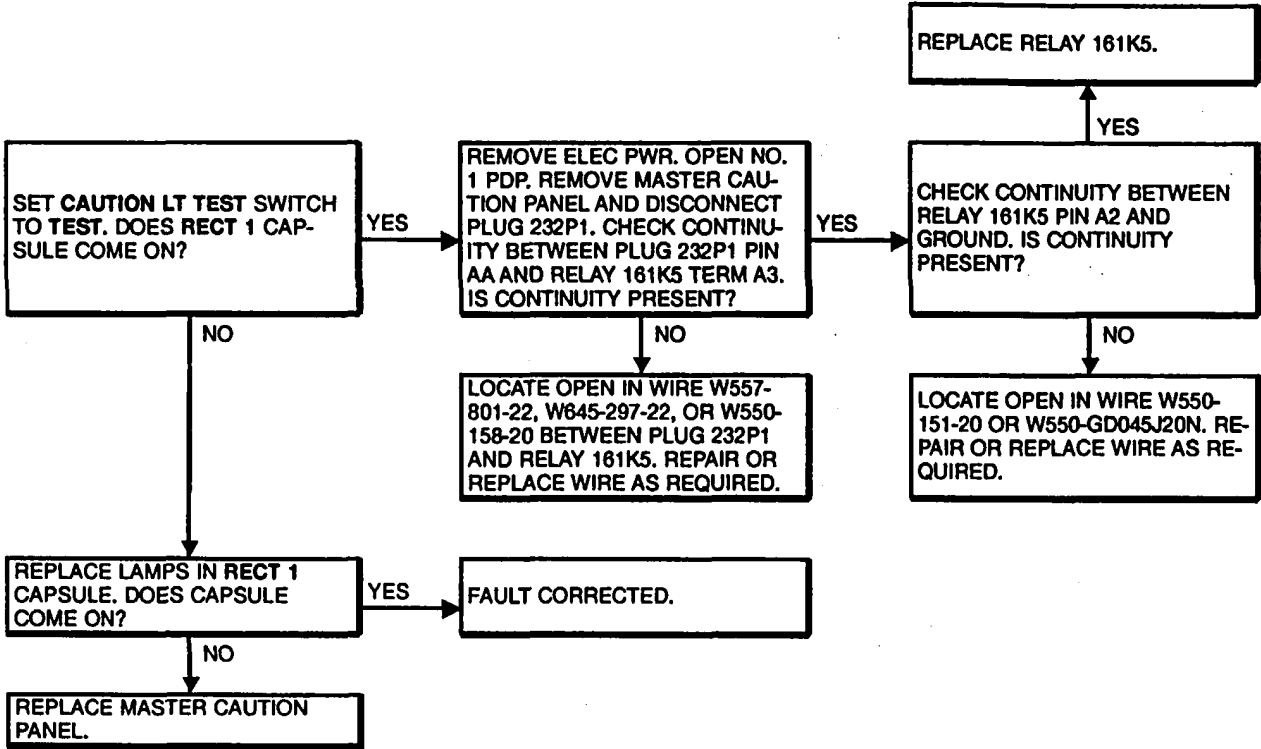
**Materials:**  
None

**Personnel Required:**  
Medium Helicopter Repairer  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-152024023:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

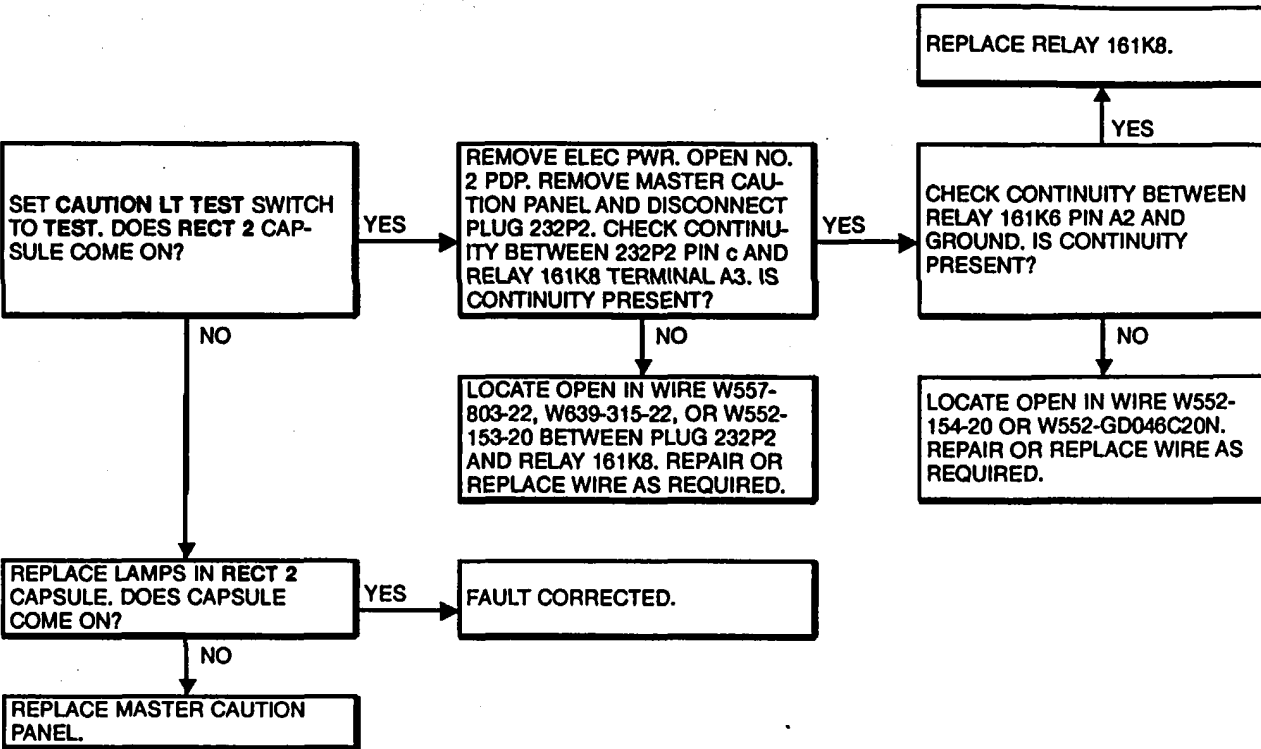


A65594

RECT 1 CAPSULE NOT ON



RECT 2 CAPSULE NOT ON



9-1.7 BATTERY CHARGING OR CHARGE COMPLETE LIGHT DOES NOT COME ON WHEN PRESSED

9-1.7

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

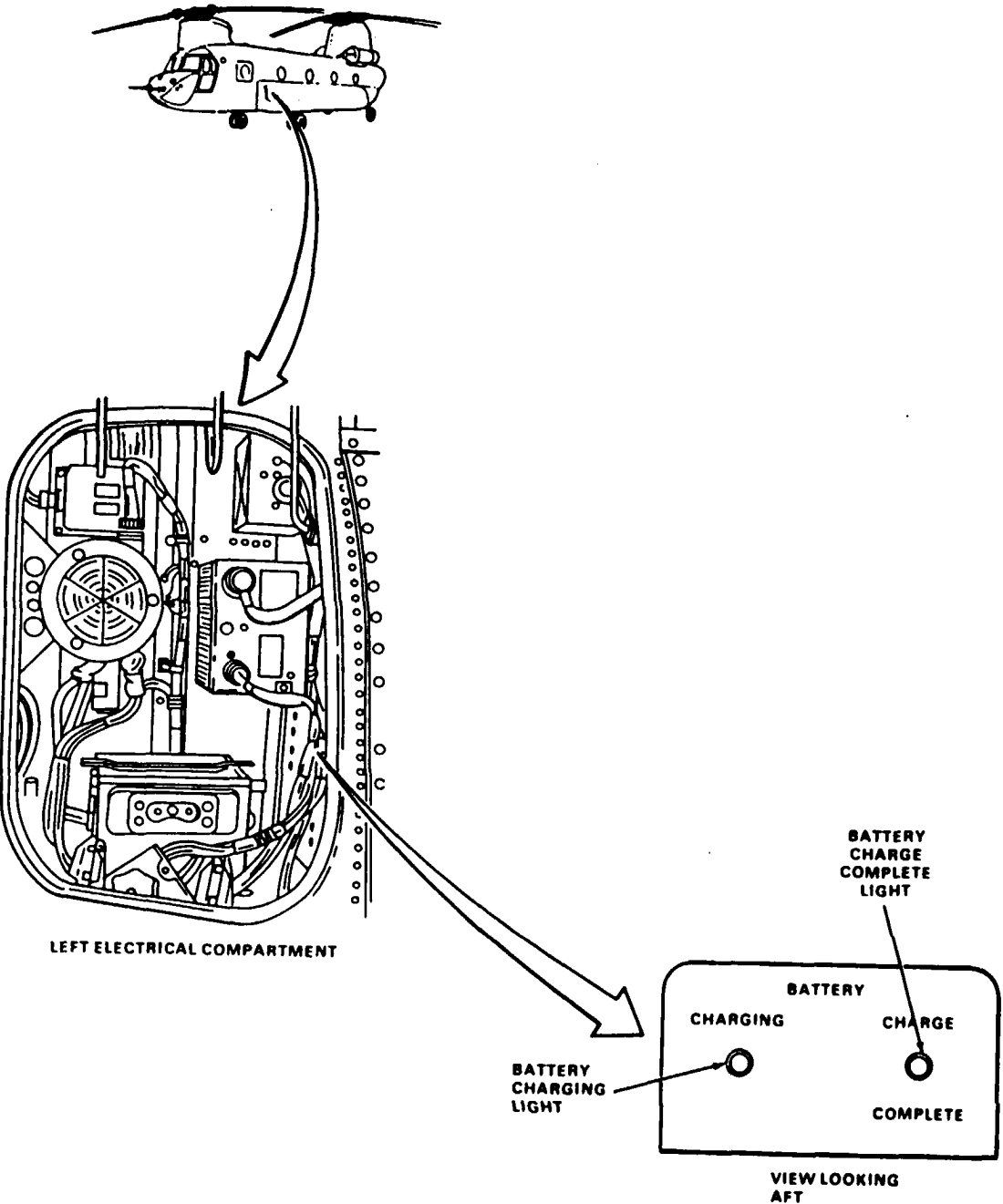
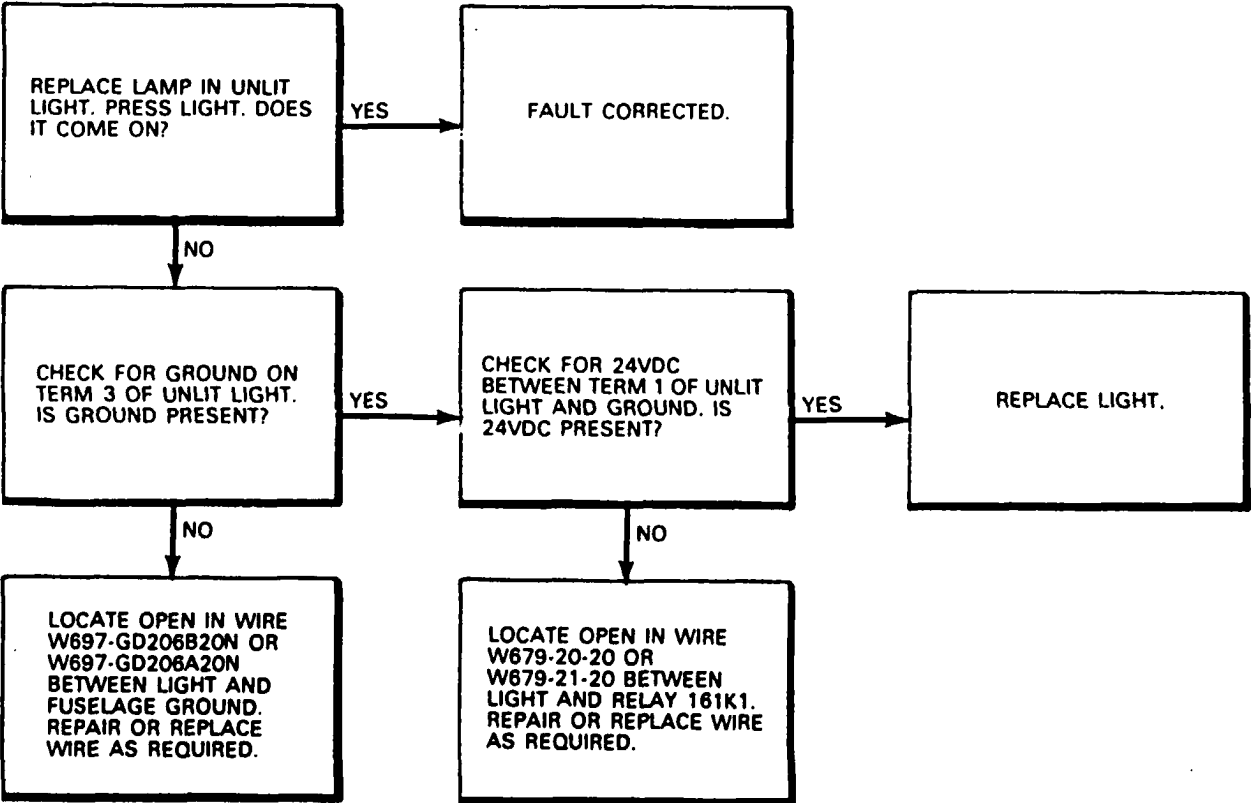
Tools:  
Electrical Repairer's Tool Kit  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
67U10 Medium Helicopter Repairer  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Left Electrical Compartment Open



45 x 54

0148-12036-8PM



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

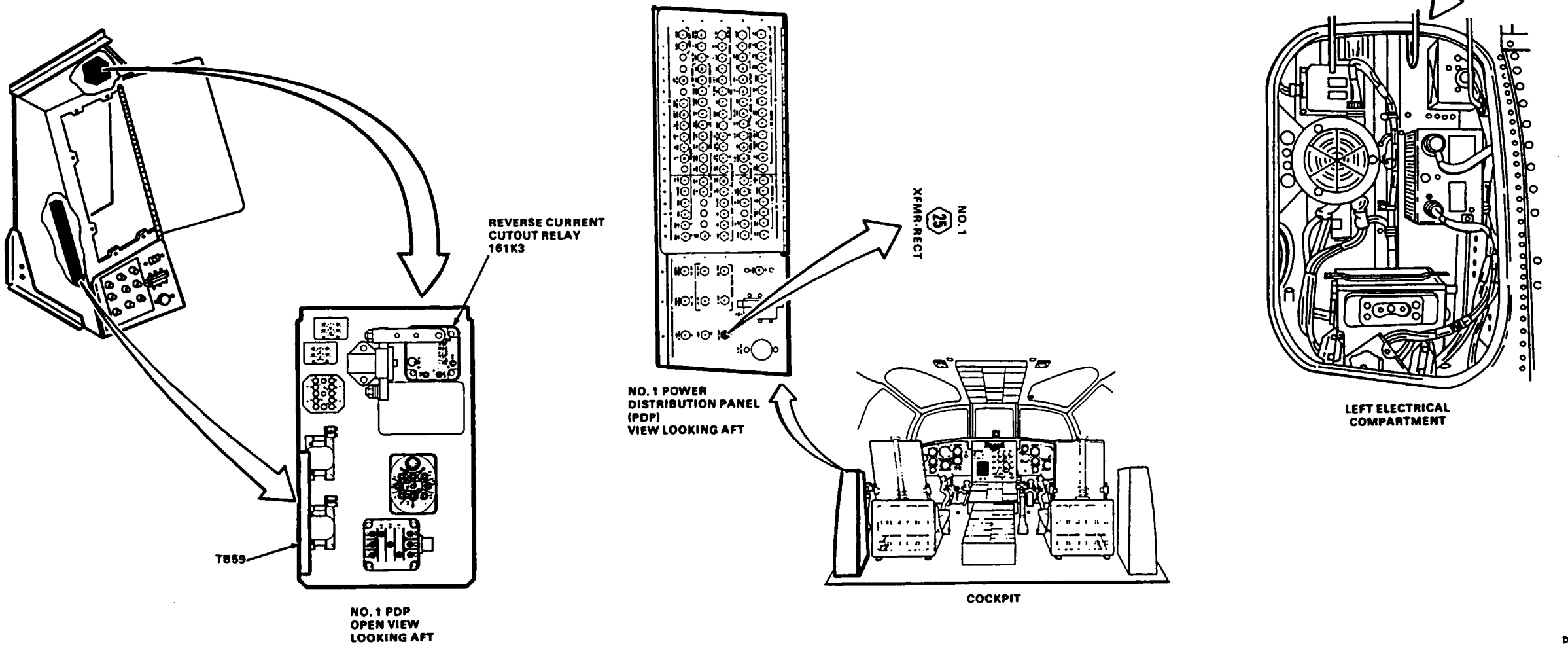
- Medium Helicopter Repairer
- Aircraft Electrician

References:

TM 55-1520-240-23

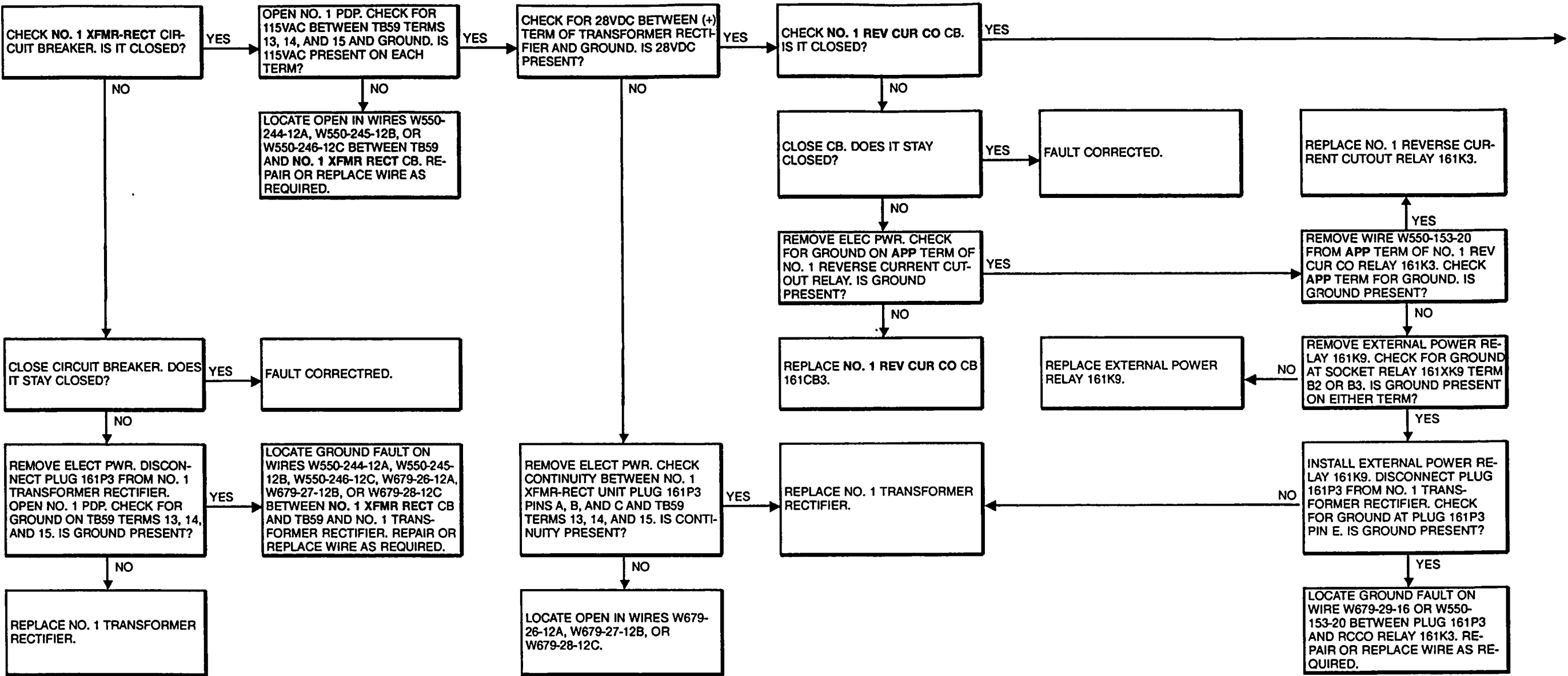
Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off

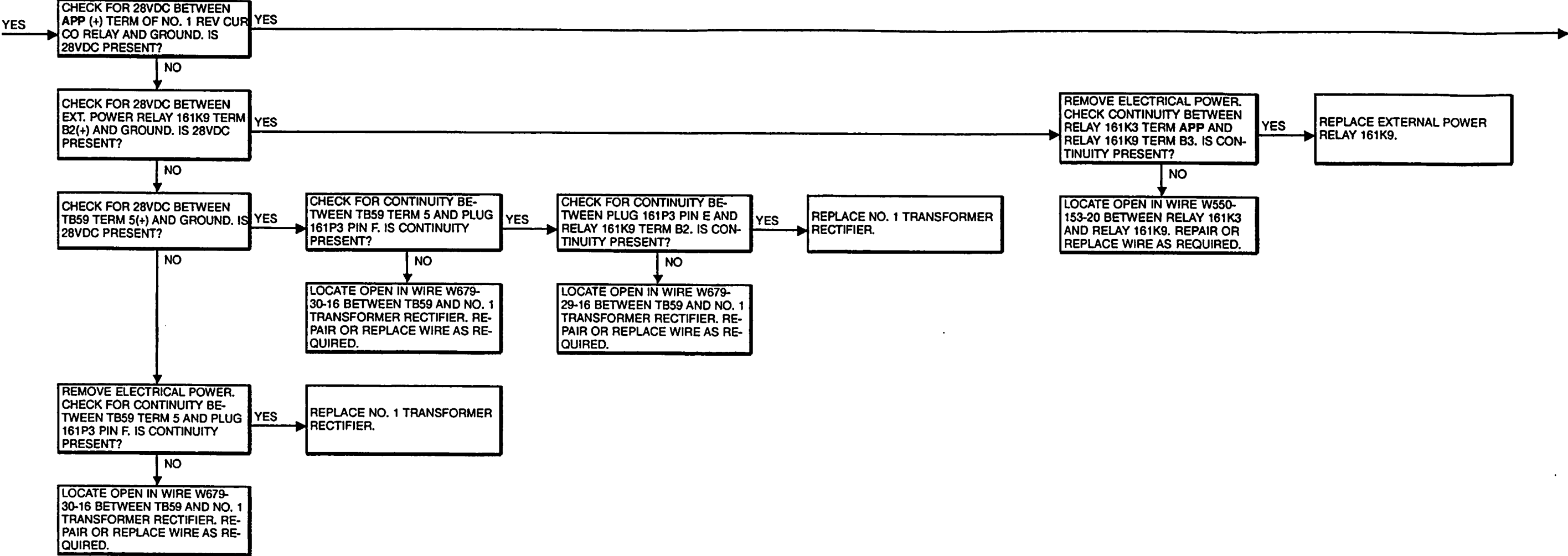


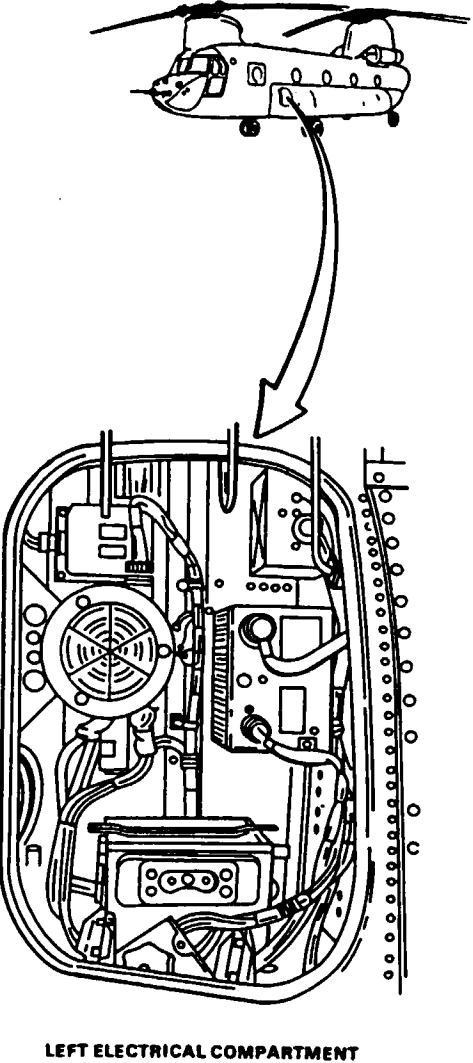
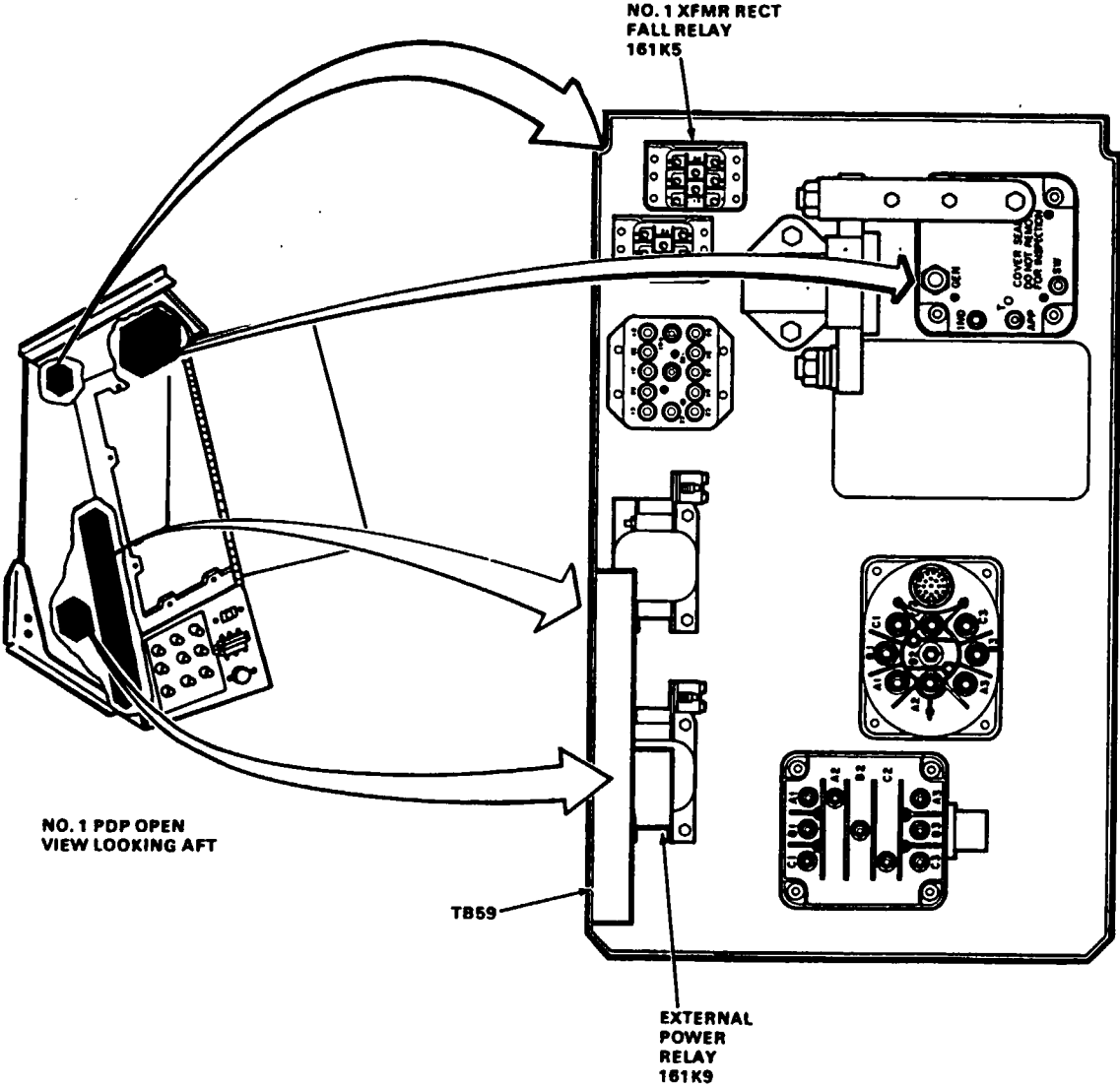
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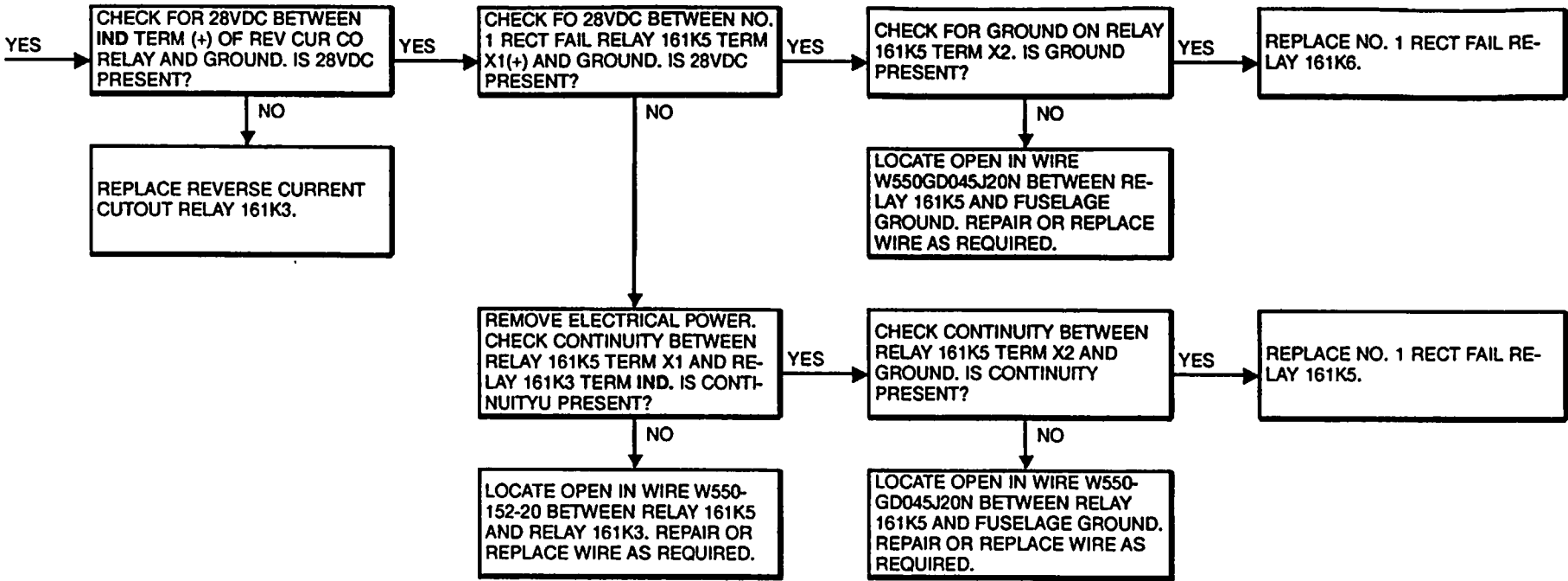
D445-12037-SPA

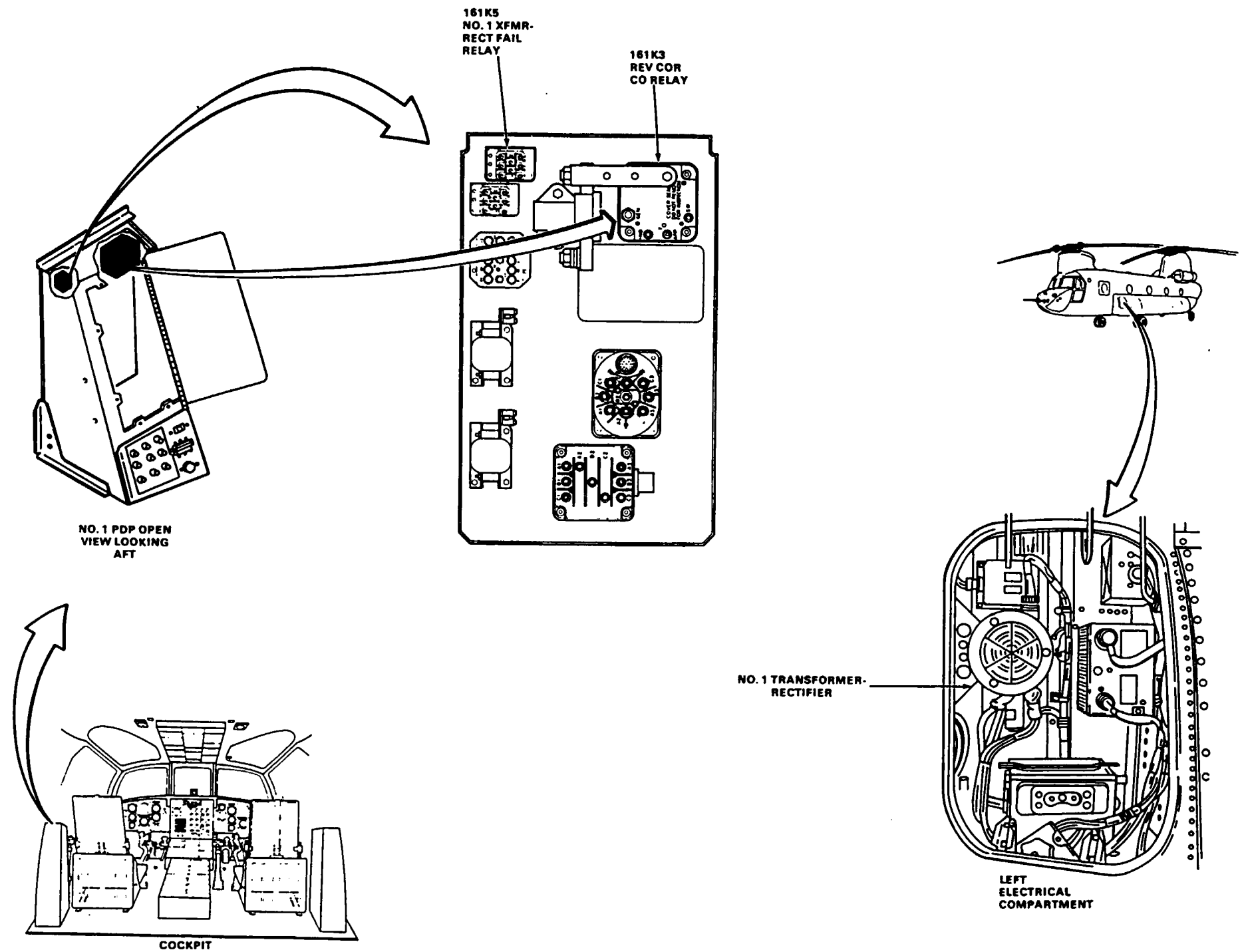












90 x 54

D145-12039-3PA

9-1.9 NO. 2 RECT OFF (WITHOUT 74 RECT 2 (WITH 74) CAPSULE ON WHEN APU RUNNING

9-1.9

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

- Medium Helicopter Repairer
- Aircraft Electrician

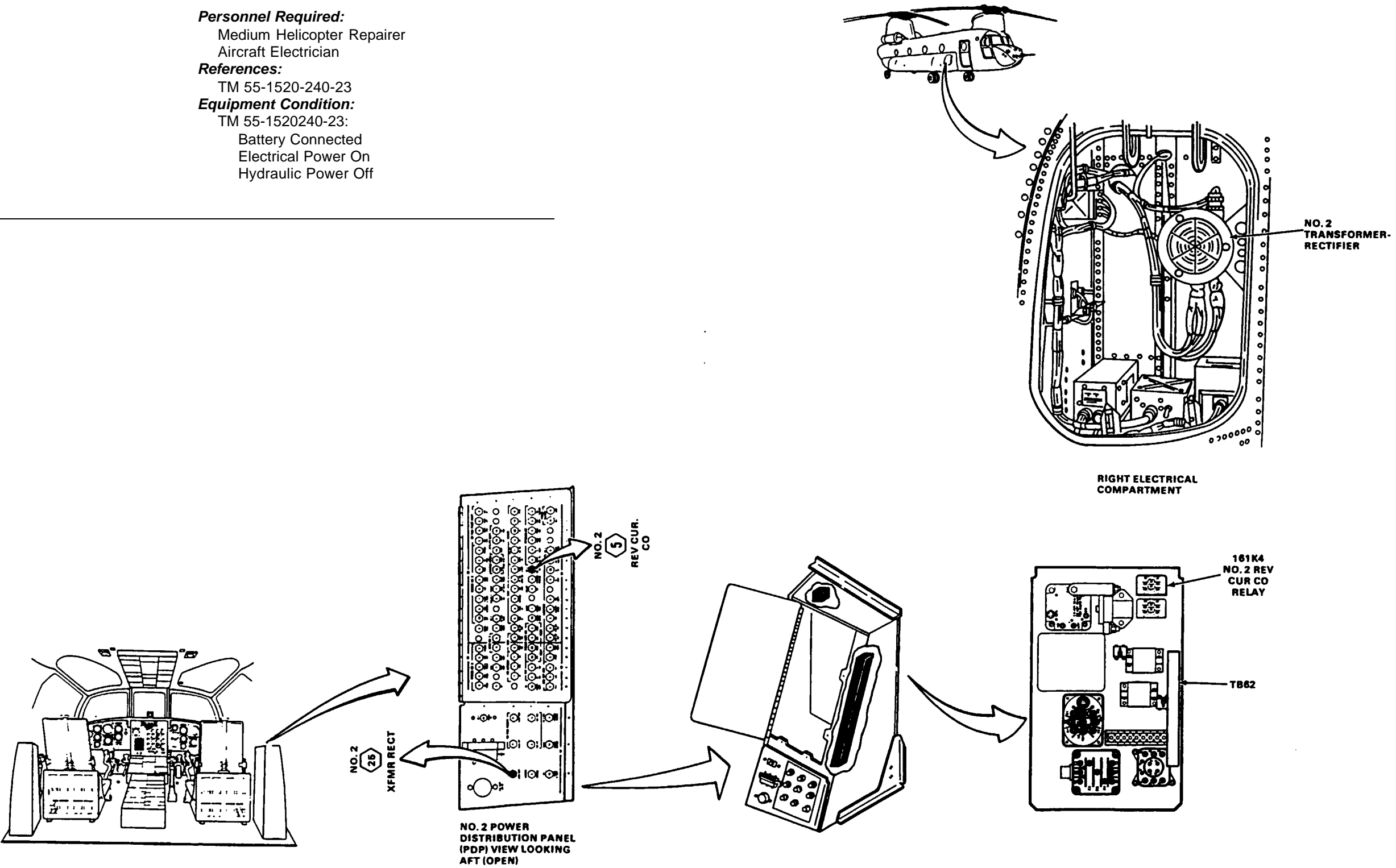
References:

TM 55-1520-240-23

Equipment Condition:

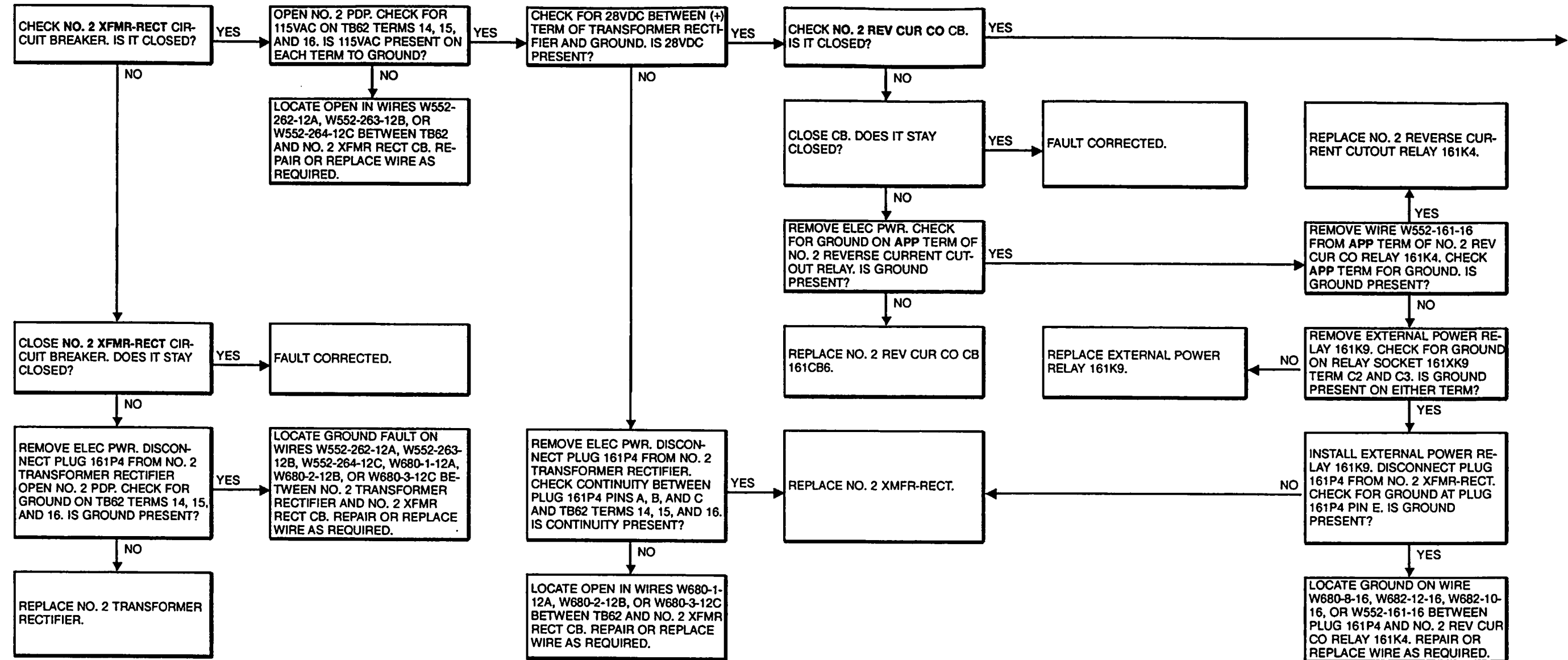
TM 55-1520240-23:

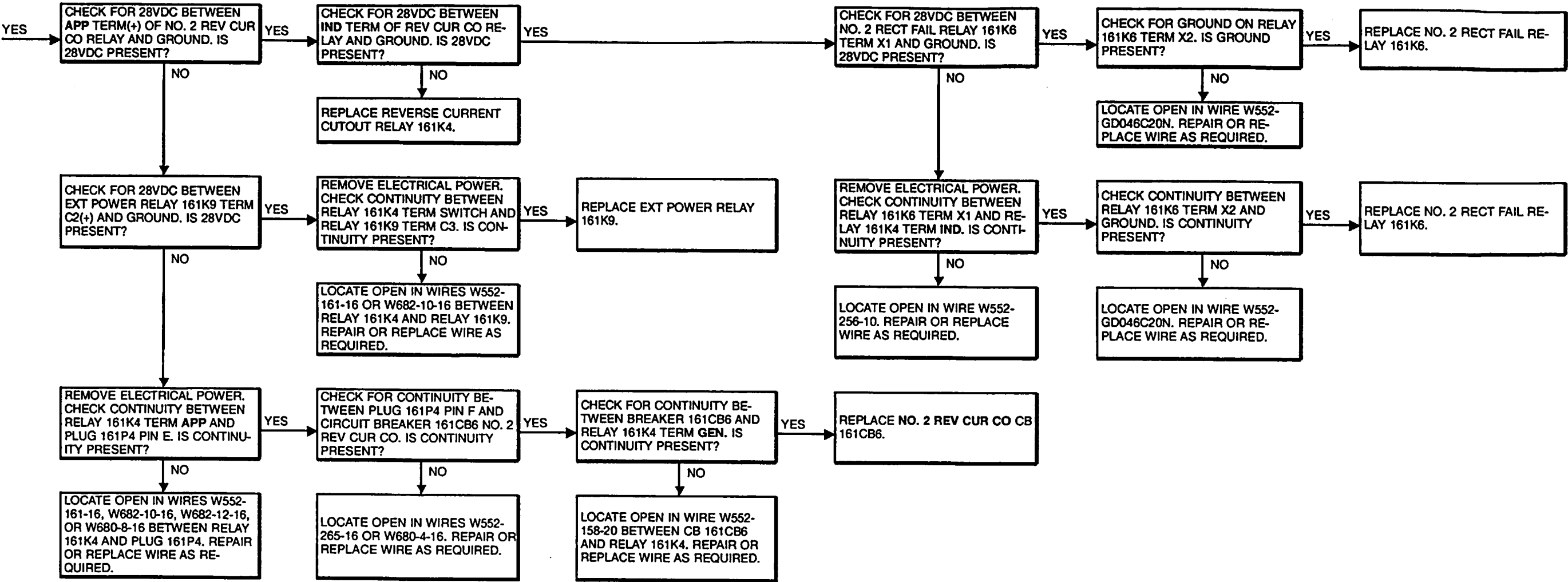
- Battery Connected
- Electrical Power On
- Hydraulic Power Off

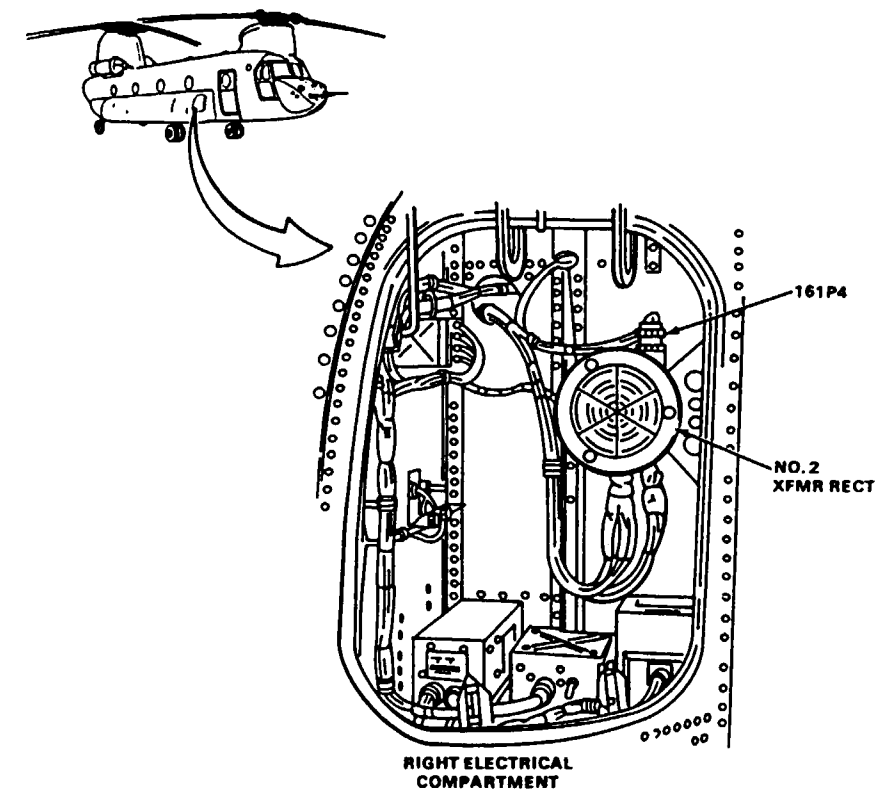
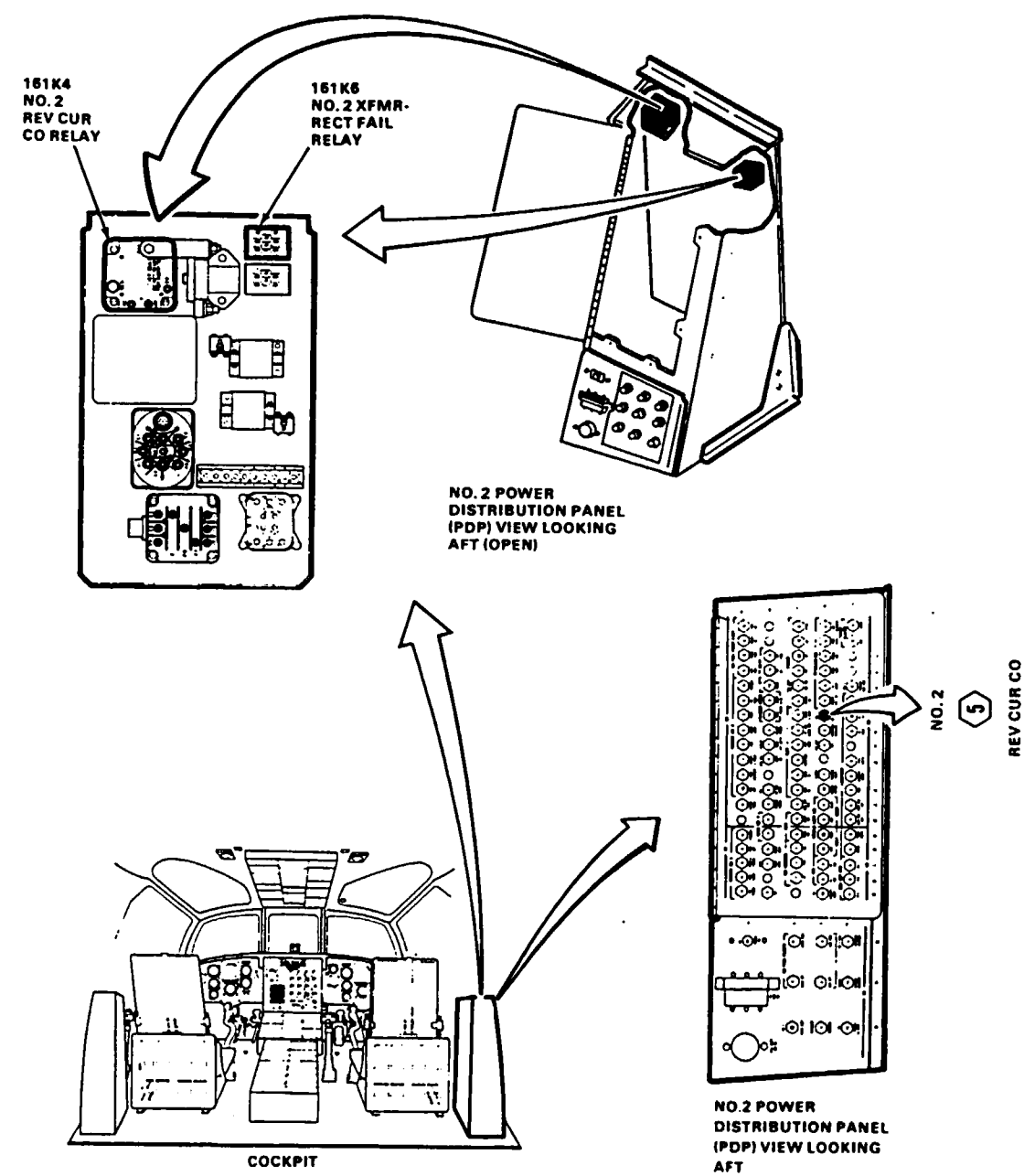


90 X 54

D145-12040-SPA









**FAULT ISOLATION PROCEDURE**  
INITIAL SETUP

**Applicable Configurations:**  
All

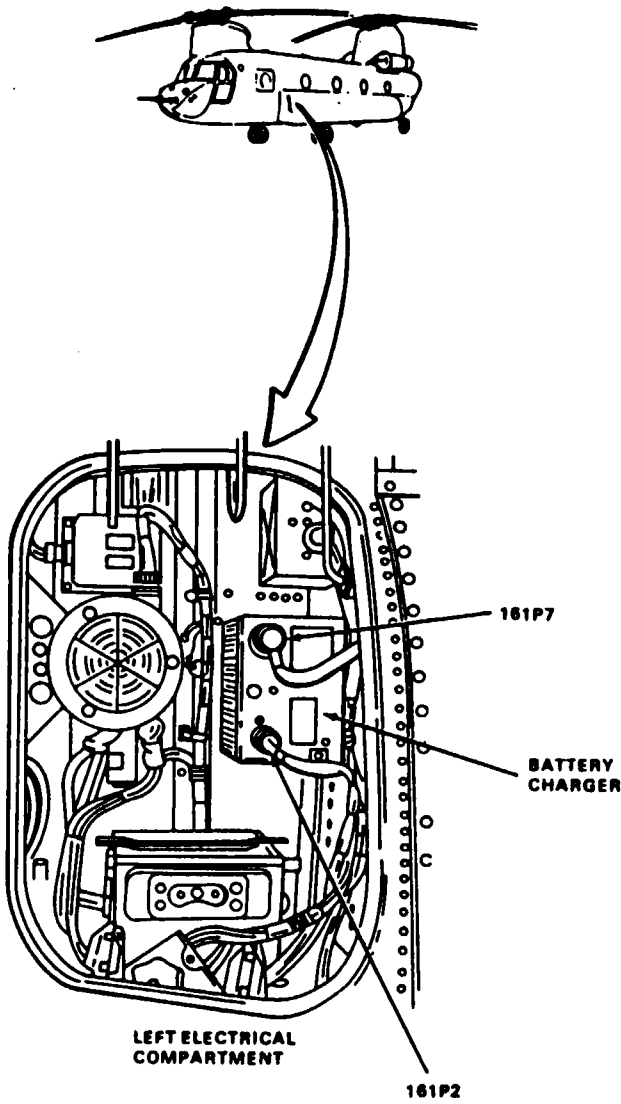
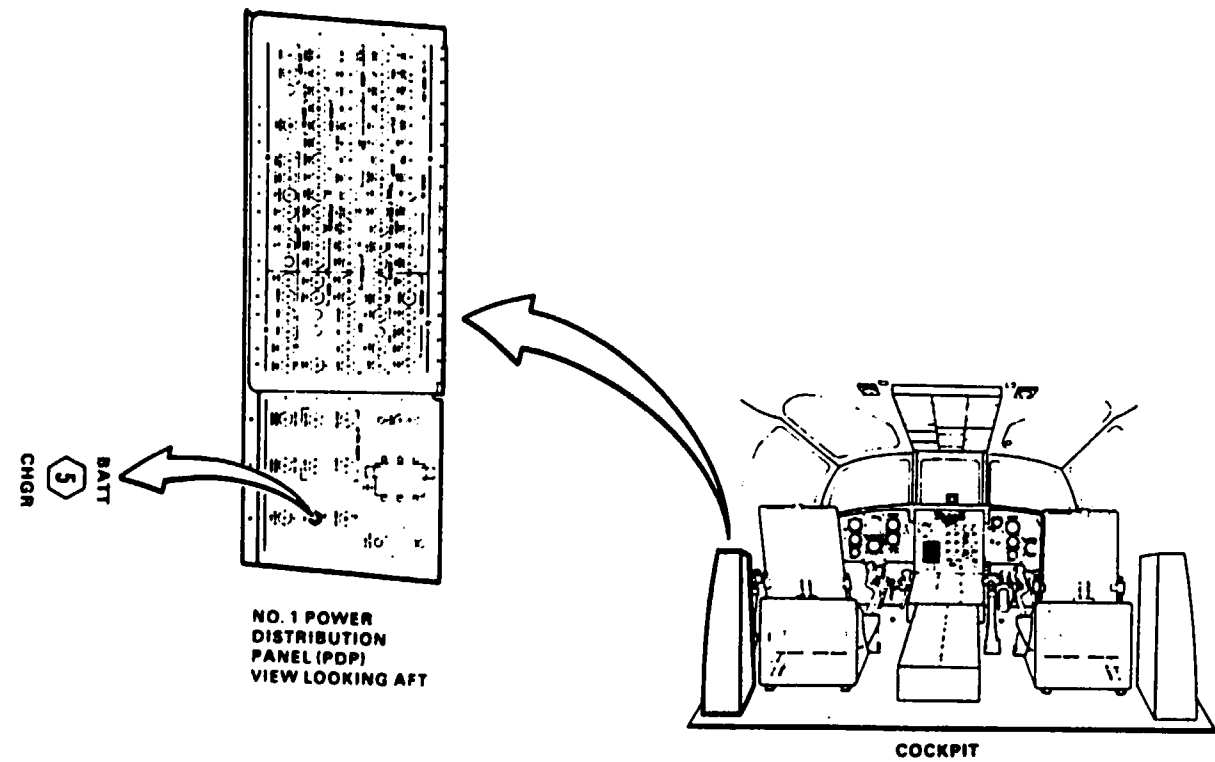
**Tools:**  
Electrical Repairer's Tool Kit  
NSN 5180-00-323-4915  
Multimeter

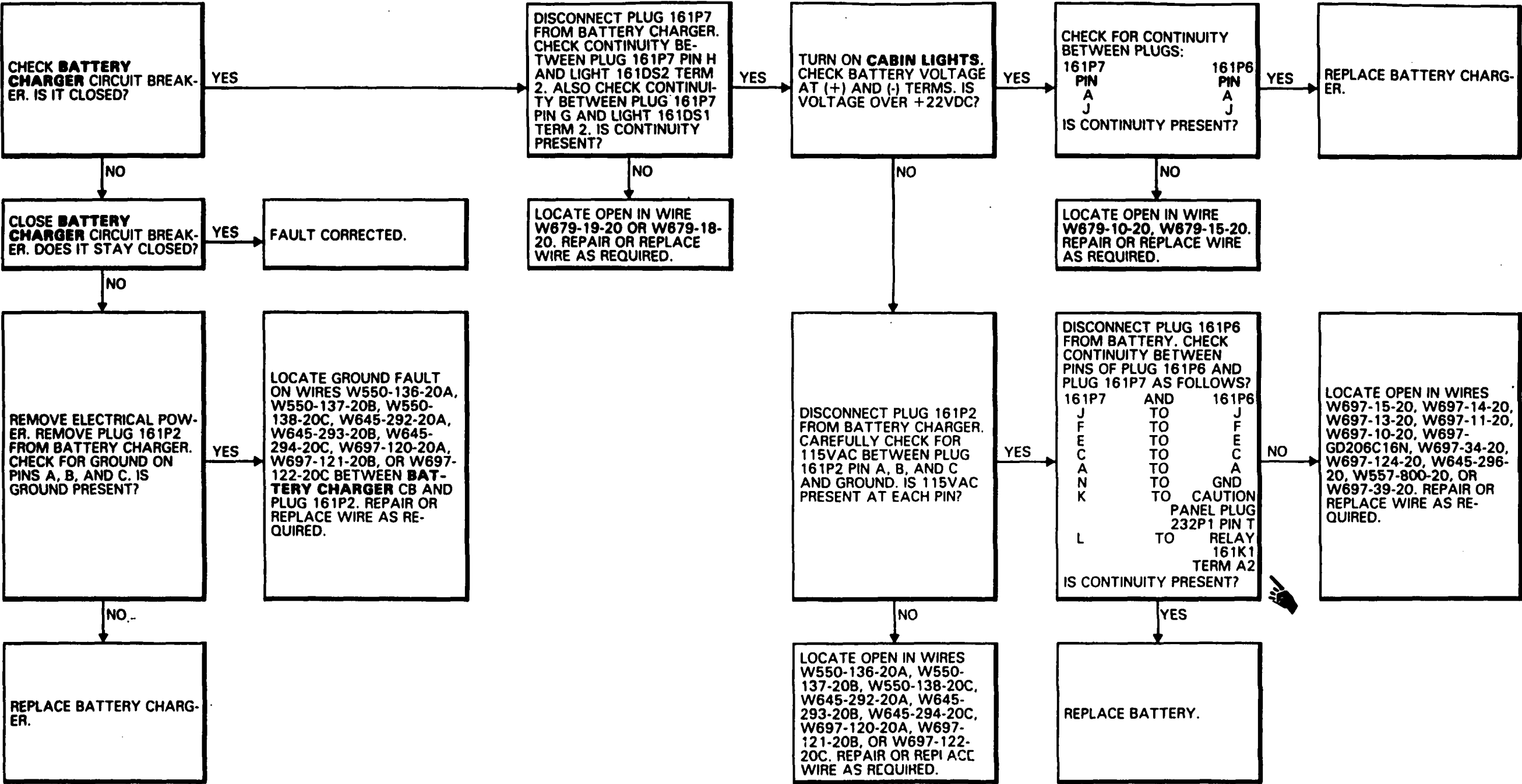
**Materials:**  
None

**Personnel Required:**  
67U10 Medium Helicopter Repairer  
68F20 Aircraft Electrician

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

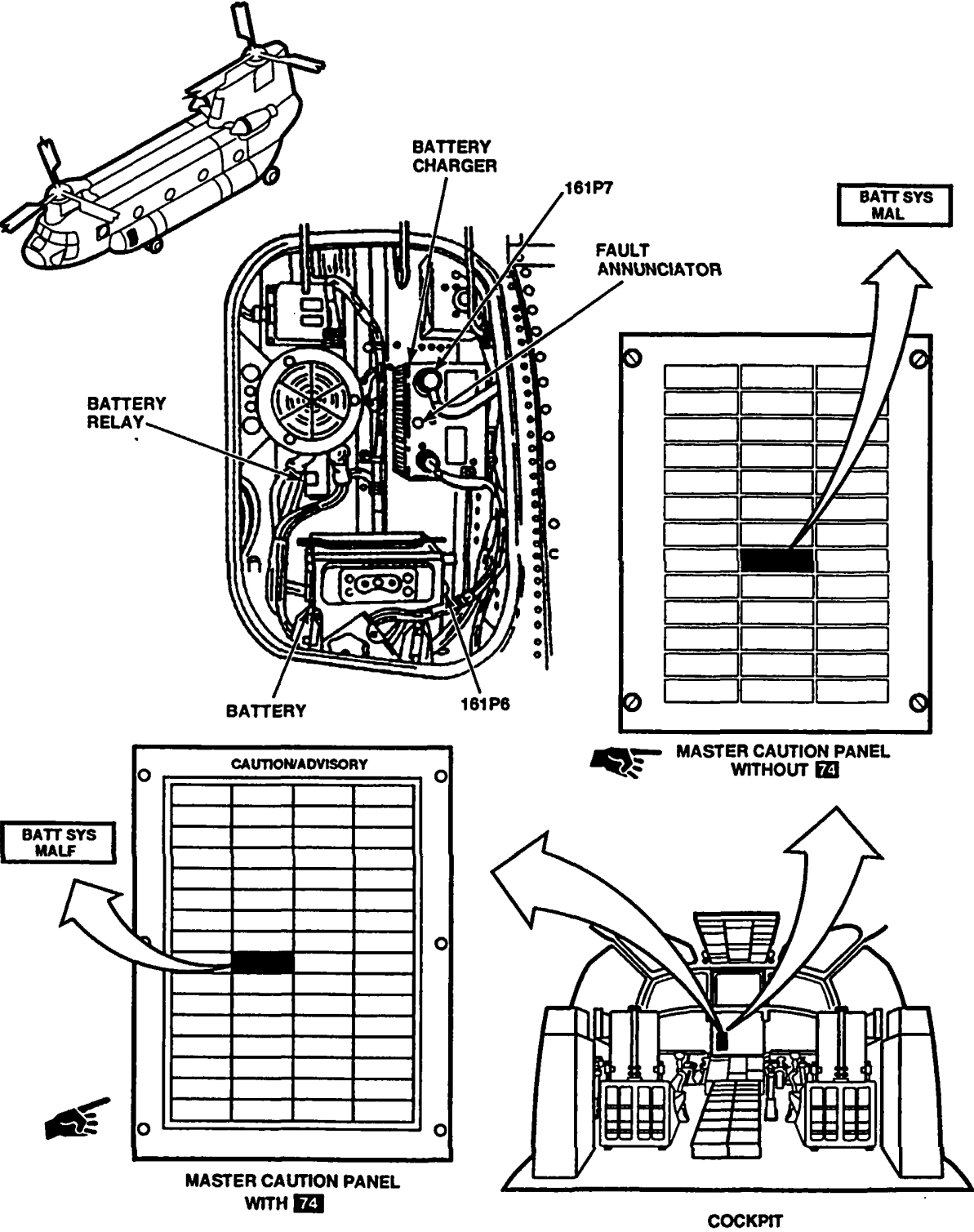
- Medium Helicopter Repairer
- Aircraft Electrician

References:

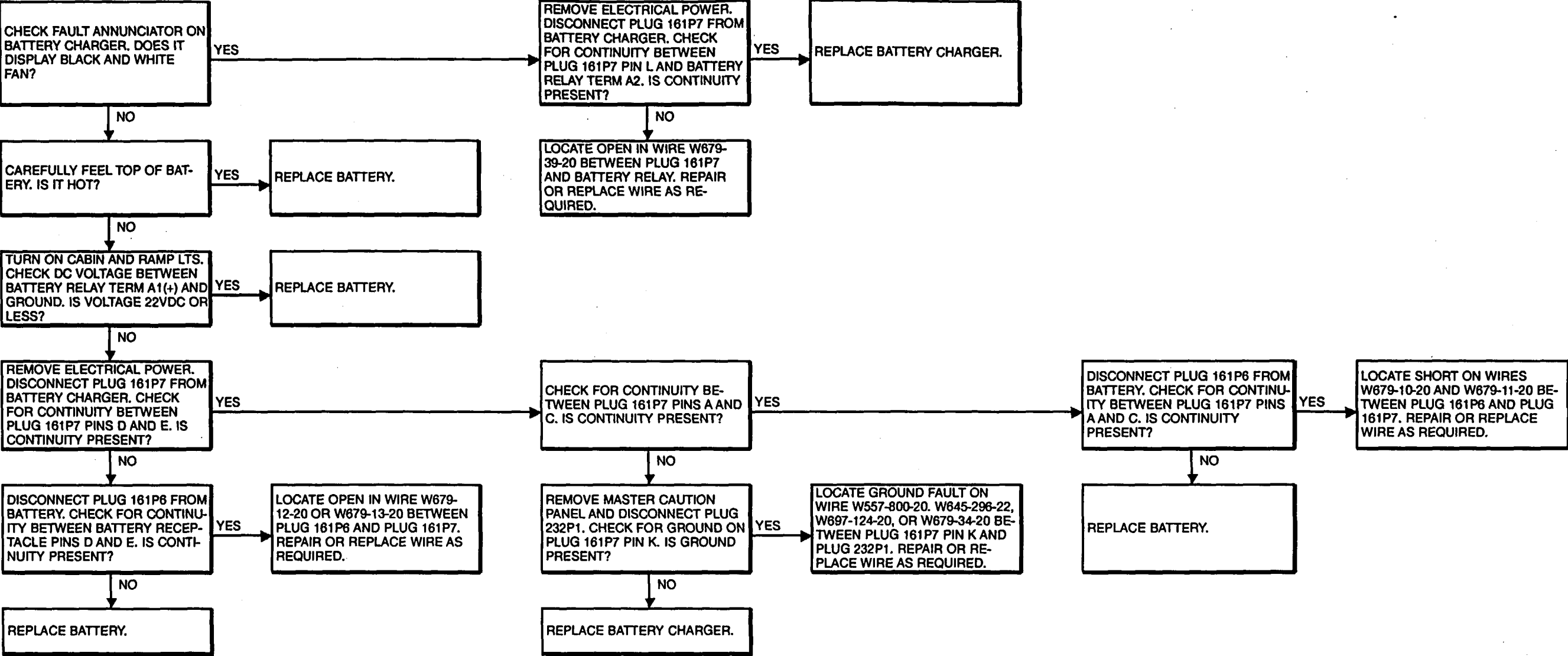
TM 55-1520-240-23

Equipment Condition:

- TM 55-152024023:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off



A65592



9-1.12 ANTICOLLISION LIGHTS DO NOT FLASH, NO. 1 DC SYSTEM TURNED OFF

9-1.12

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configuration:

All

Tools:

- Electrical Repairer's Tool Kit  
NSN 5180-00-323-4916
- Aircraft Mechanic's Tool Kit  
NSN 5180-00-323-4692
- Multimeter

Materials:

None

Personnel Required:

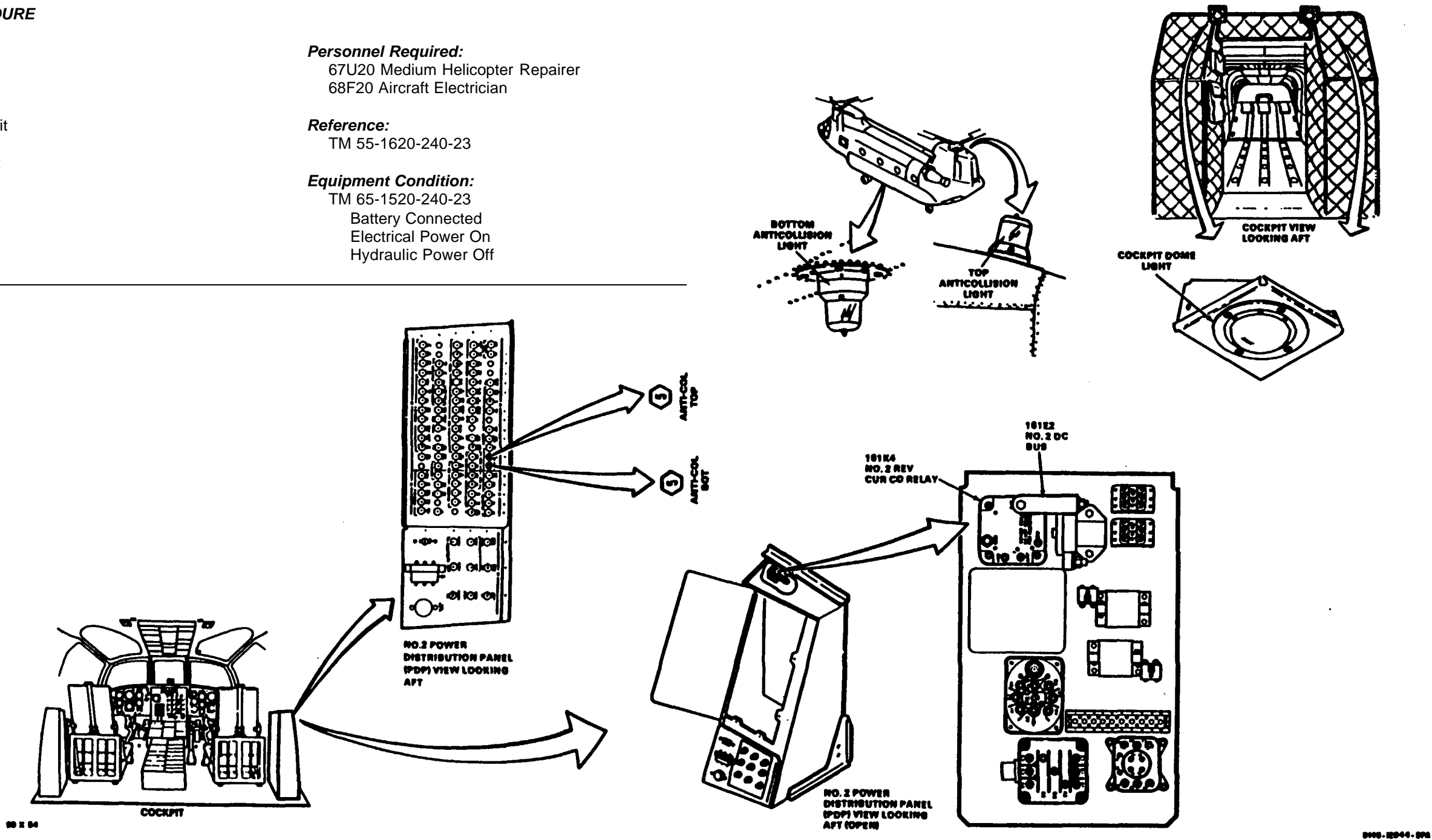
- 67U20 Medium Helicopter Repairer
- 68F20 Aircraft Electrician

Reference:

TM 55-1620-240-23

Equipment Condition:

- TM 65-1520-240-23
- Battery Connected
- Electrical Power On
- Hydraulic Power Off



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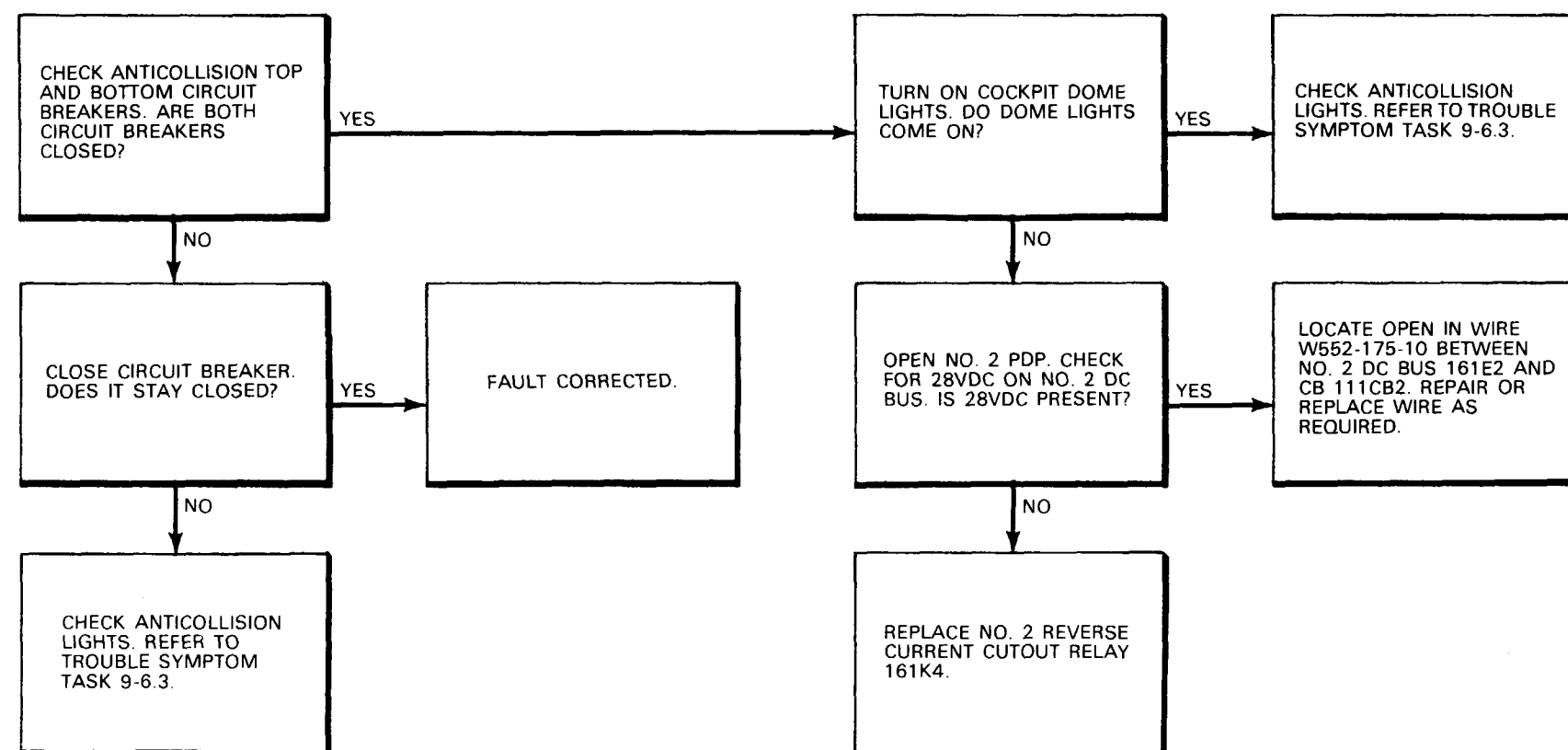
**9-1.12 ANTICOLLISION LIGHTS DO NOT FLASH,  
NO. 1 DC SYSTEM TURNED OFF (Continued)**

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**9-1.12**

---

**END OF TASK**

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Medium Helicopter Repairer  
Aircraft Electrician

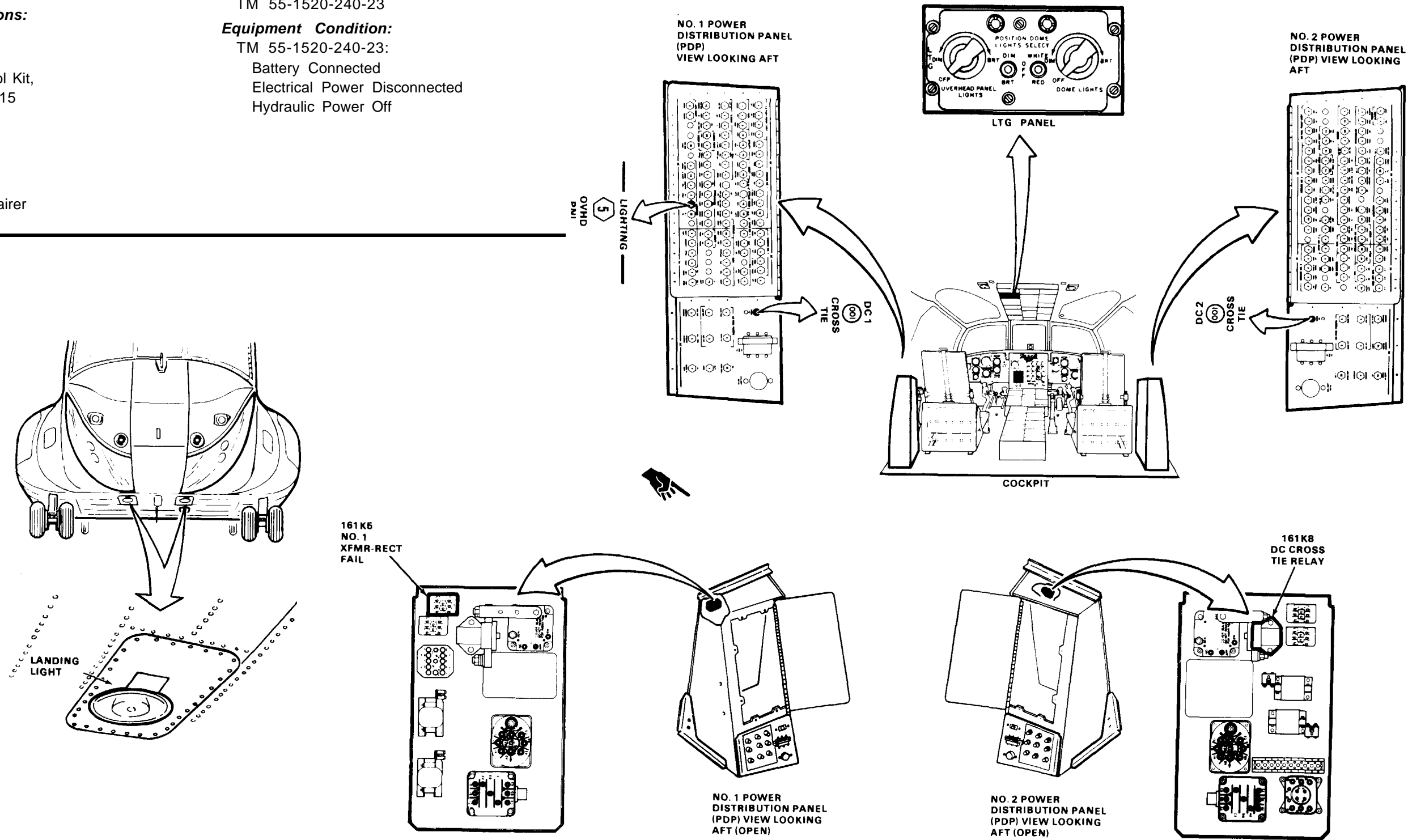
References:

TM 55-1520-240-23

Equipment Condition:

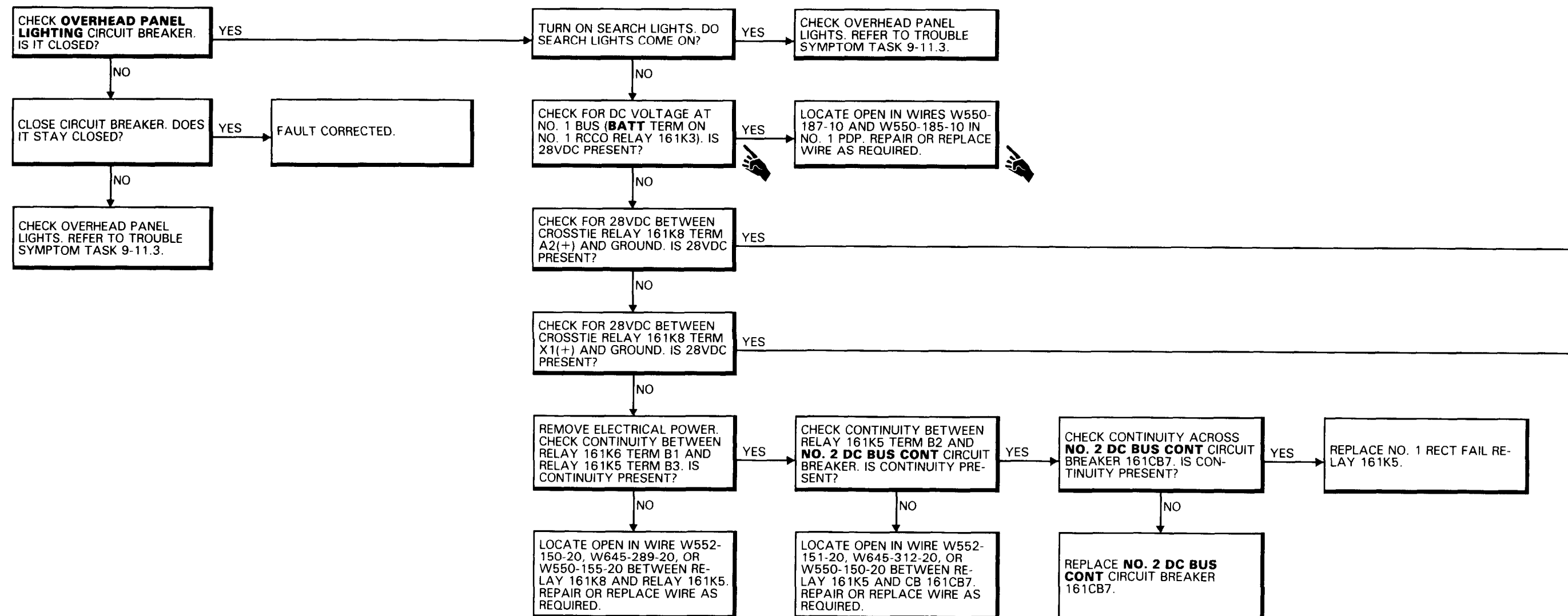
TM 55-1520-240-23:

Battery Connected  
Electrical Power Disconnected  
Hydraulic Power Off



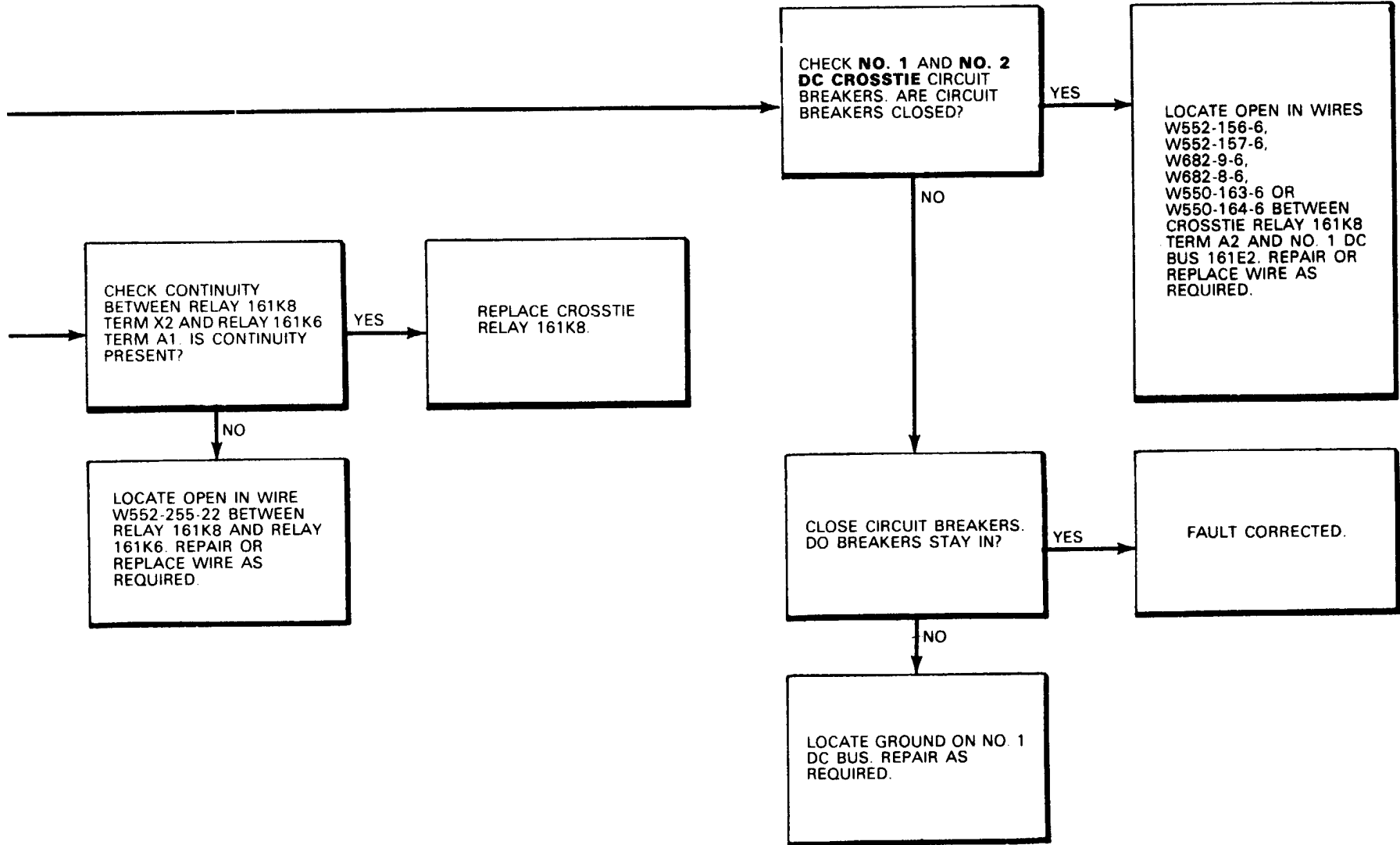
## 9-1.13 OVERHEAD PANEL LIGHTS DO NOT COME ON, NO. 1 DC SYSTEM TURNED OFF (Continued)

9-1.13





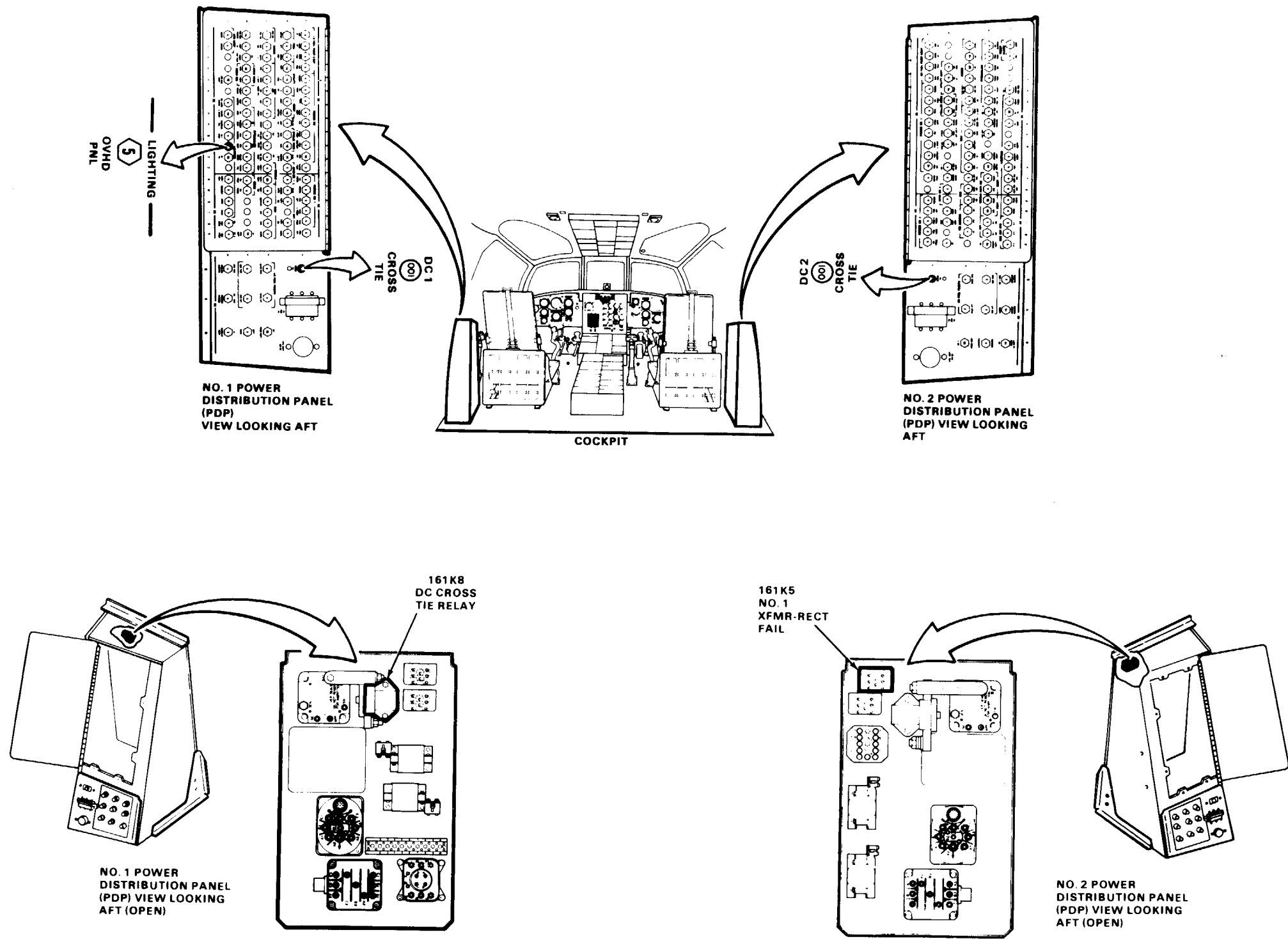
9-1.13 OVERHEAD PANEL LIGHTS DO NOT COME ON,  
NO. 1 DC SYSTEM TURNED OFF (Continued)



GO TO NEXT PAGE

9-1.13 OVERHEAD PANEL LIGHTS DO NOT COME ON,  
NO. 1 DC SYSTEM TURNED OFF (Continued)

9-1.13



90 X 54

D145-12046 - SPA

END OF TASK

9-1.14 OVERHEAD PANEL LIGHTS DO NOT COME ON,  
NO. 1 DC SYSTEM TURNED ON

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Electrical Repairer's Kit
- NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

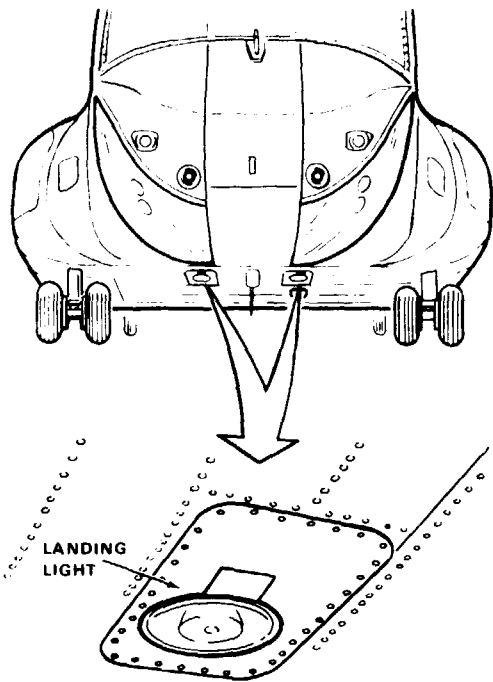
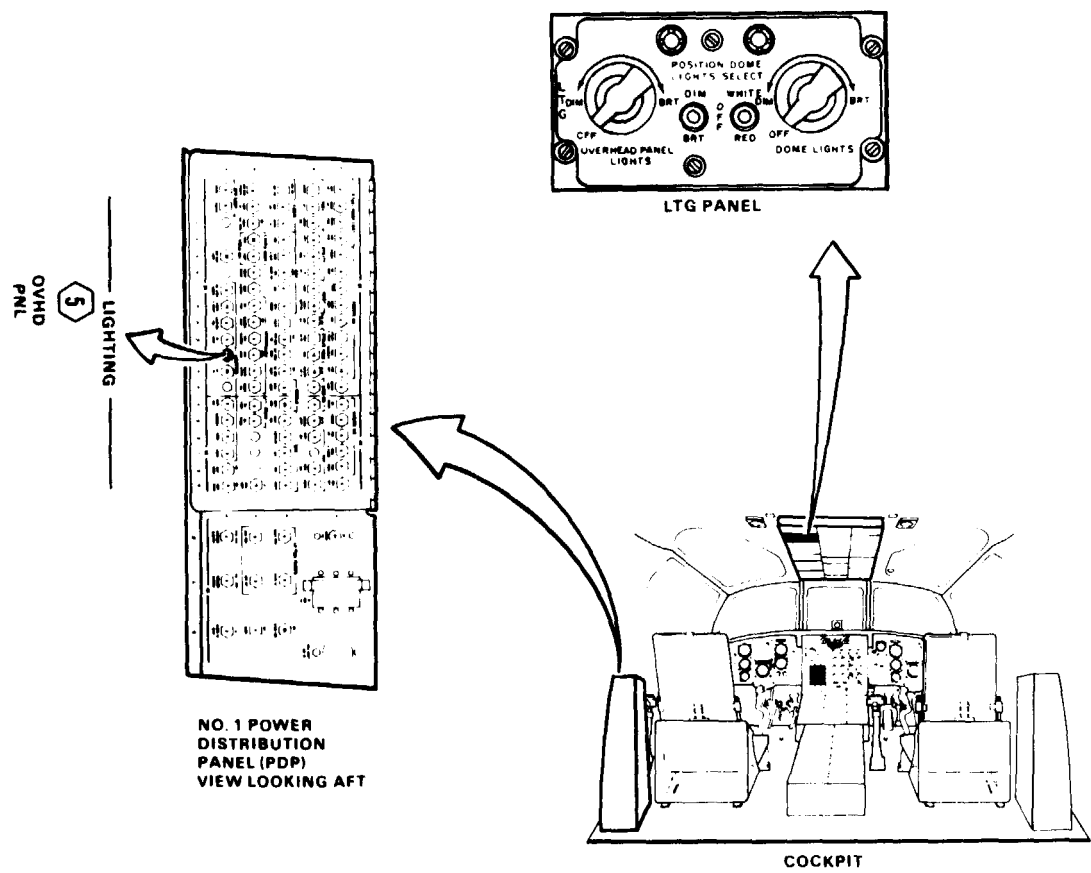
- 67U10 Medium Helicopter Repairer
- 68F20 Aircraft Electrician

References:

TM 55-1520-240-23

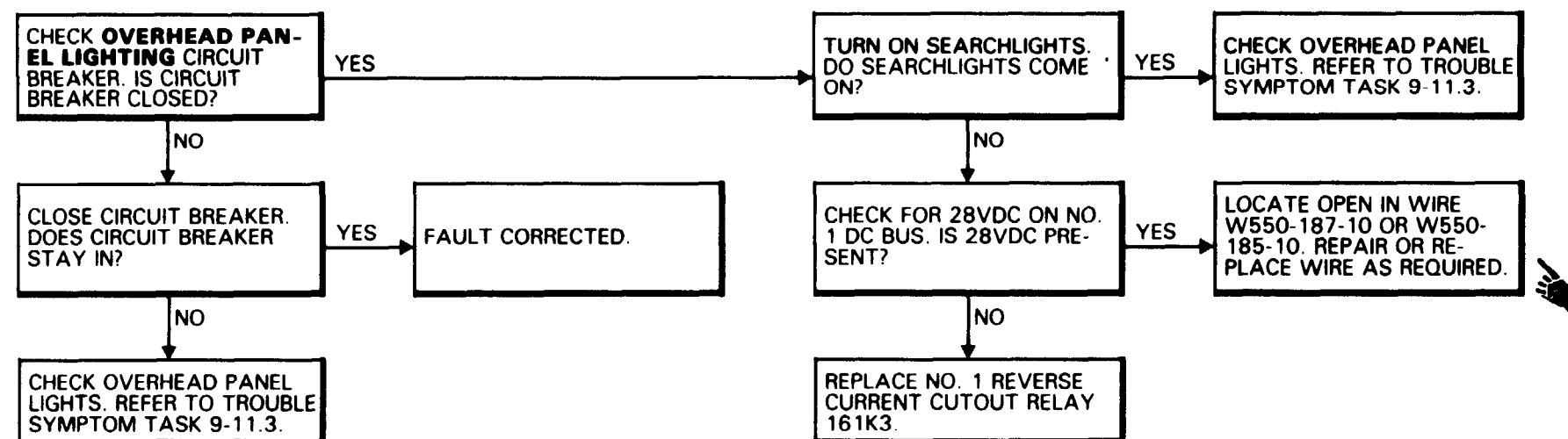
Equipment Condition:

- TM 55-1520-240-23
- Battery Connected
- Electrical Power On
- Hydraulic Power Off



## 9-1.14 OVERHEAD PANEL LIGHTS DO NOT COME ON, NO. 1 DC SYSTEM TURNED ON (Continued)

9-1.14



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

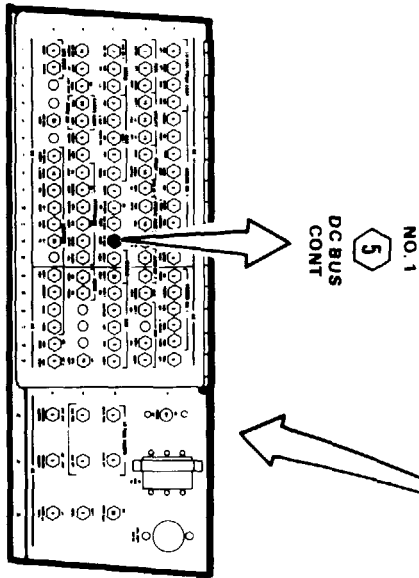
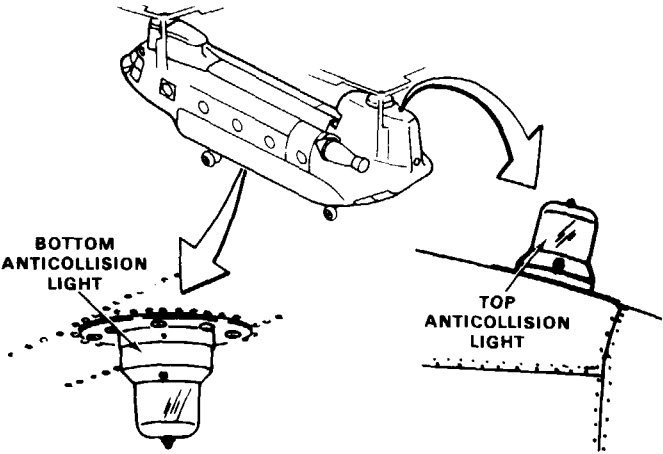
Medium Helicopter Repairer  
Aircraft Electrician

References:

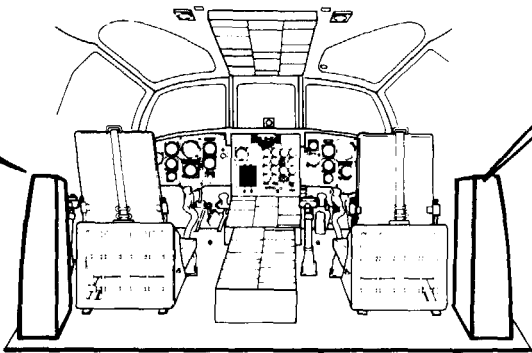
TM 55-1520-240-23

Equipment Condition:

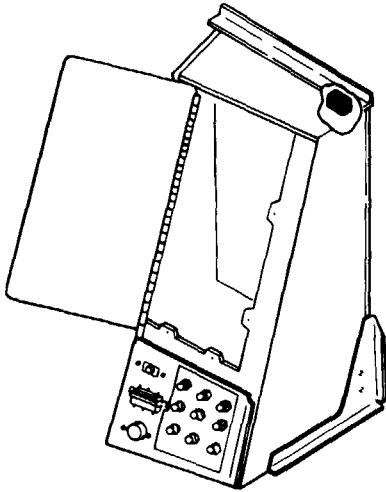
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



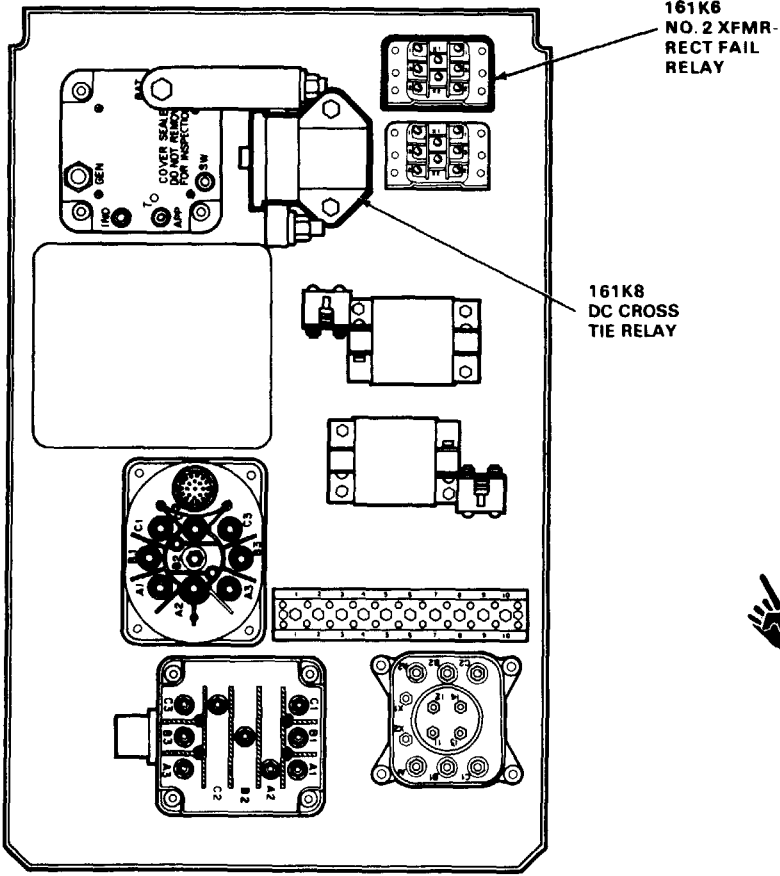
NO. 1 POWER DISTRIBUTION PANEL (PDP) VIEW LOOKING AFT



COCKPIT



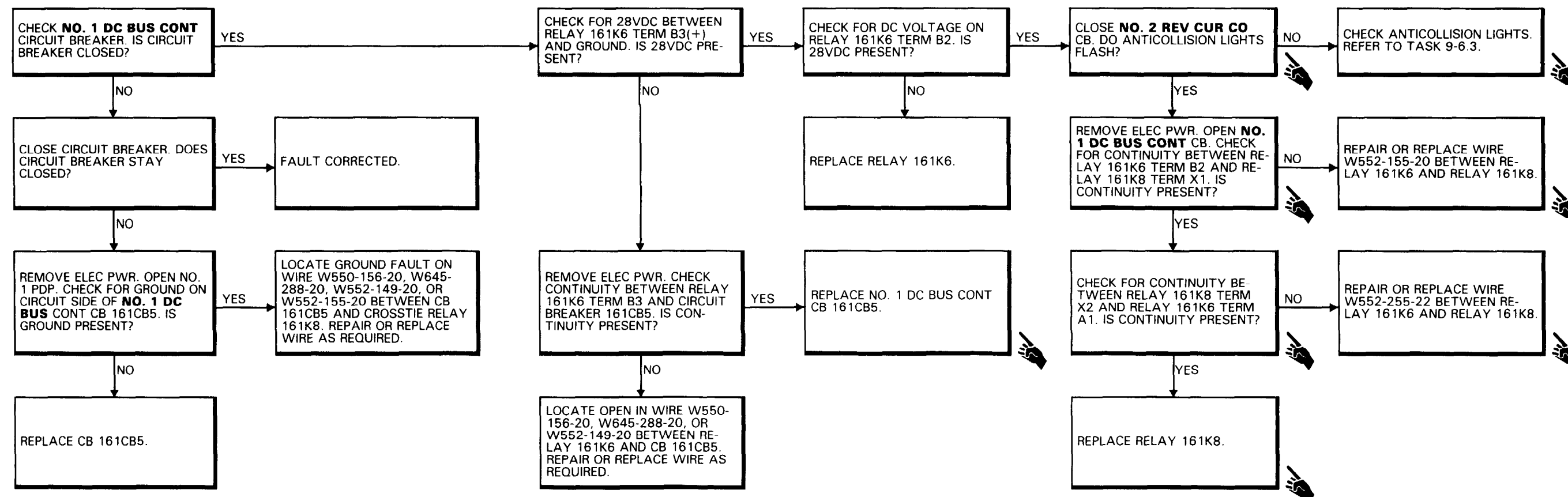
NO. 2 POWER DISTRIBUTION PANEL (PDP) VIEW LOOKING AFT (OPEN)



10269

## 9-1.15 ANTICOLLISION LIGHTS DO NOT FLASH, NO. 2 DC SYSTEM TURNED OFF (Continued)

9-1.15



9-1.16 CABIN AND RAMP LIGHTS NOT POWERED FROM SWITCHED BATTERY BUS

9-1.16

FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
All

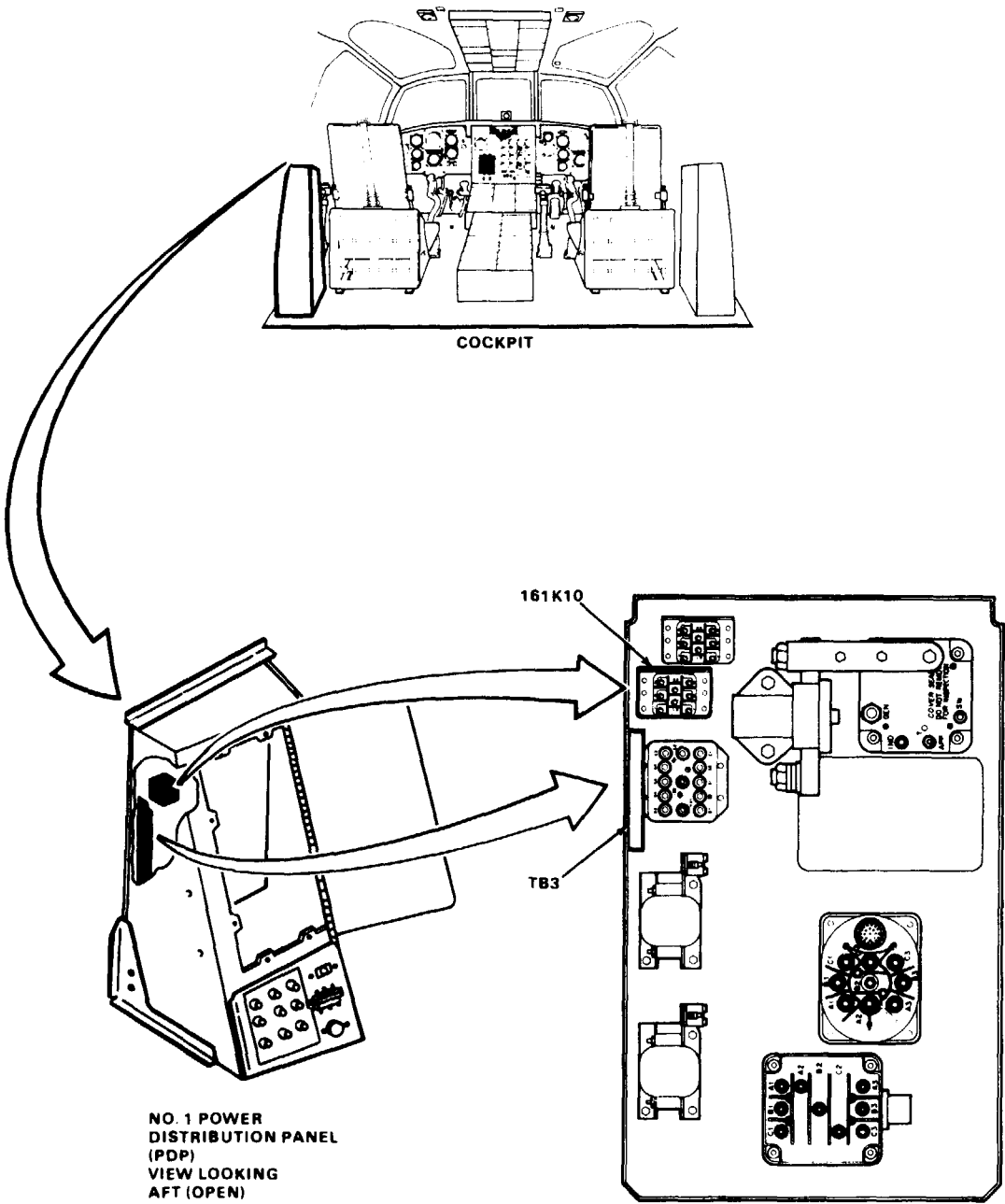
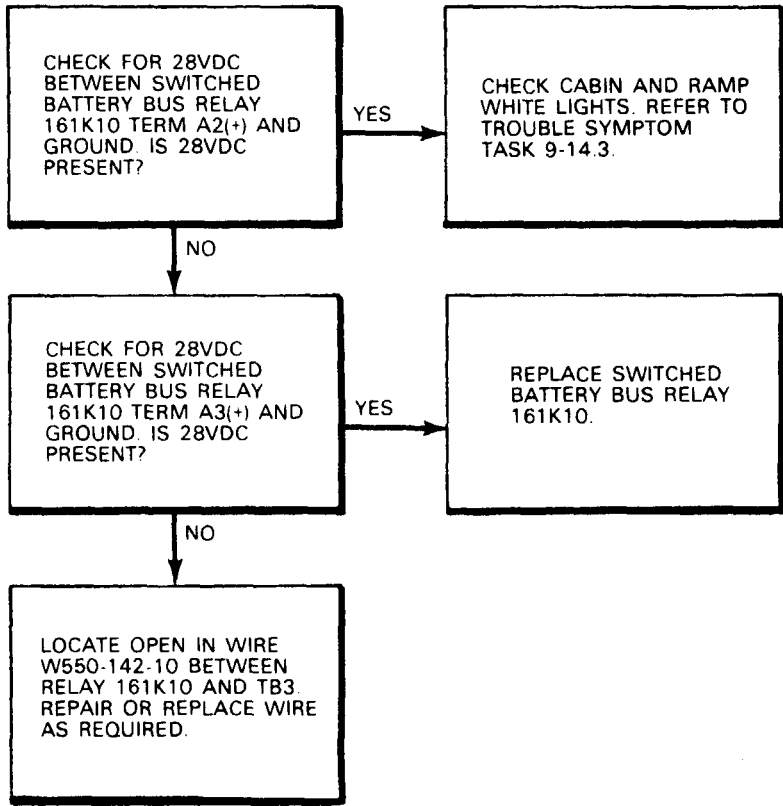
**Tools:**  
Electrical Repairer's Tool Kit  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
67U10 Medium Helicopter Repairer  
68F20 Aircraft Electrician

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



END OF TASK





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Aircraft Mechanic's Tool Kit  
NSN 5180-00-323-4692
- Multimeter

Materials:

None

Personnel Required:

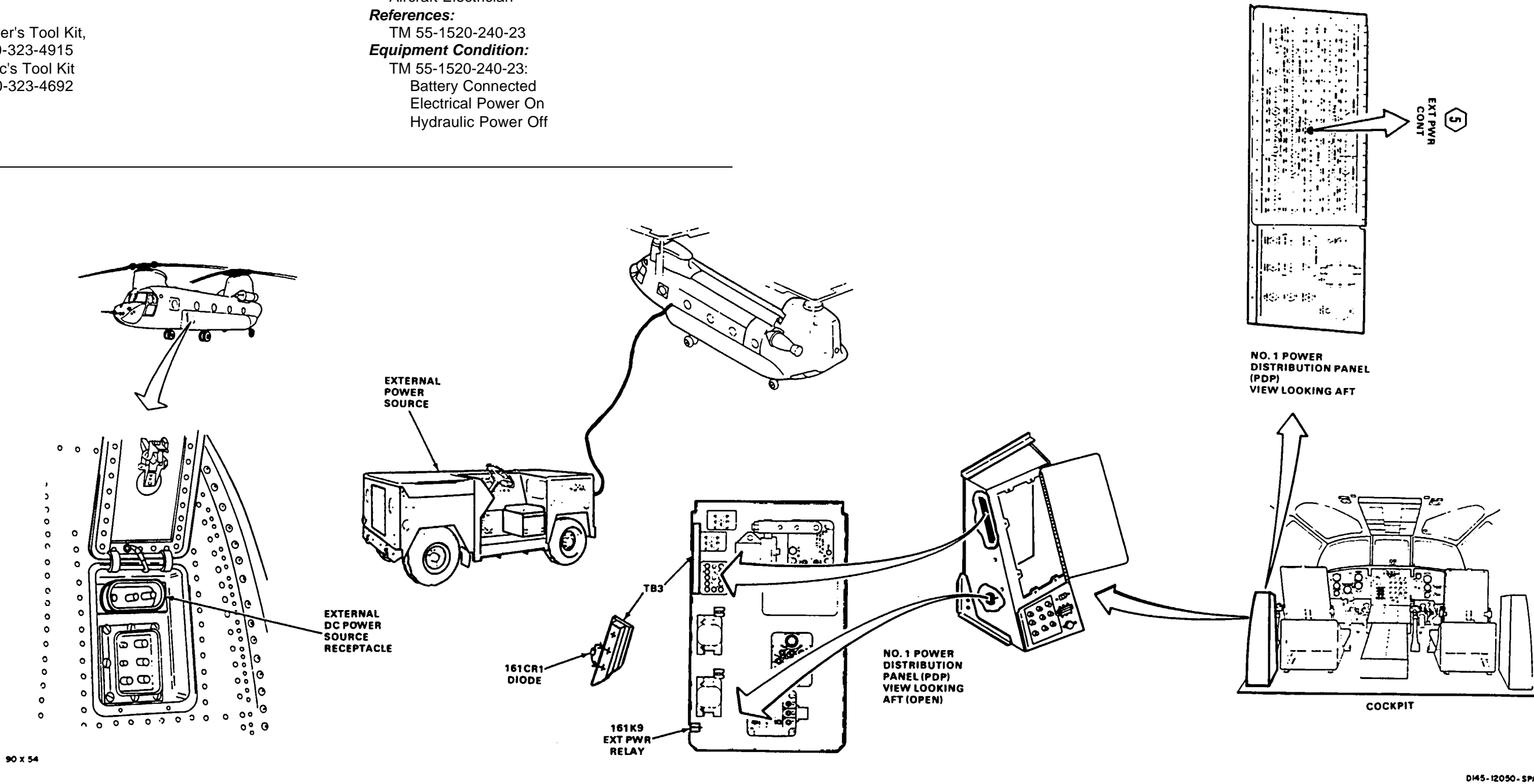
- Medium Helicopter Repairer
- Aircraft Electrician

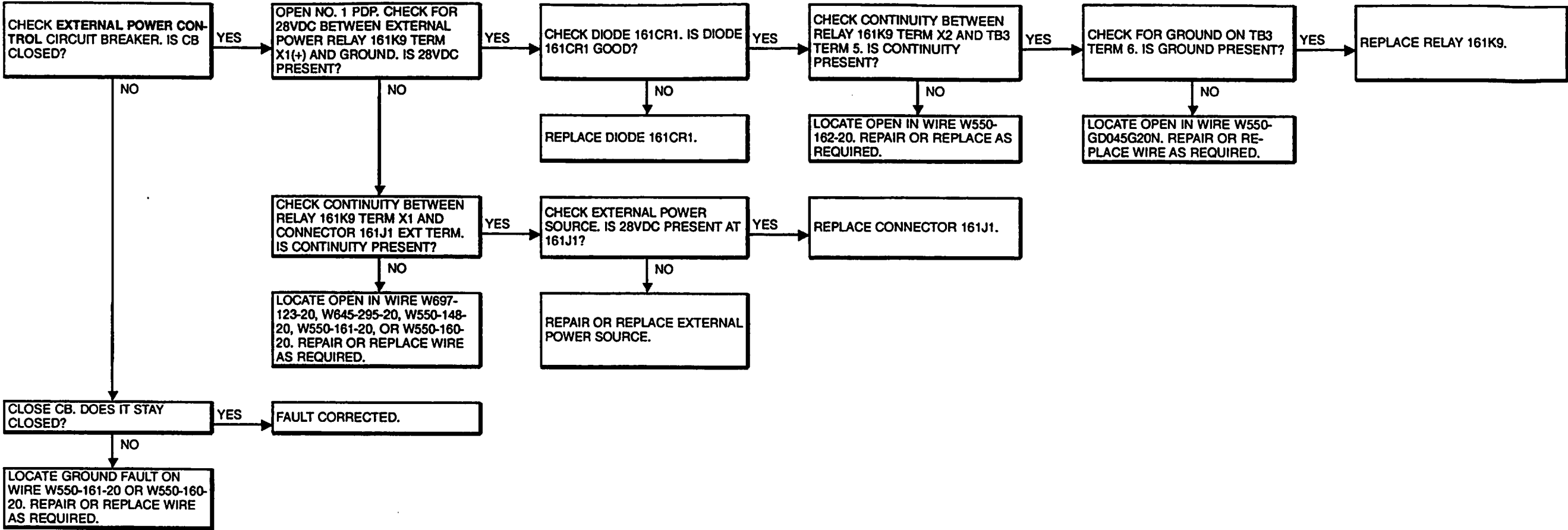
References:

TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
All

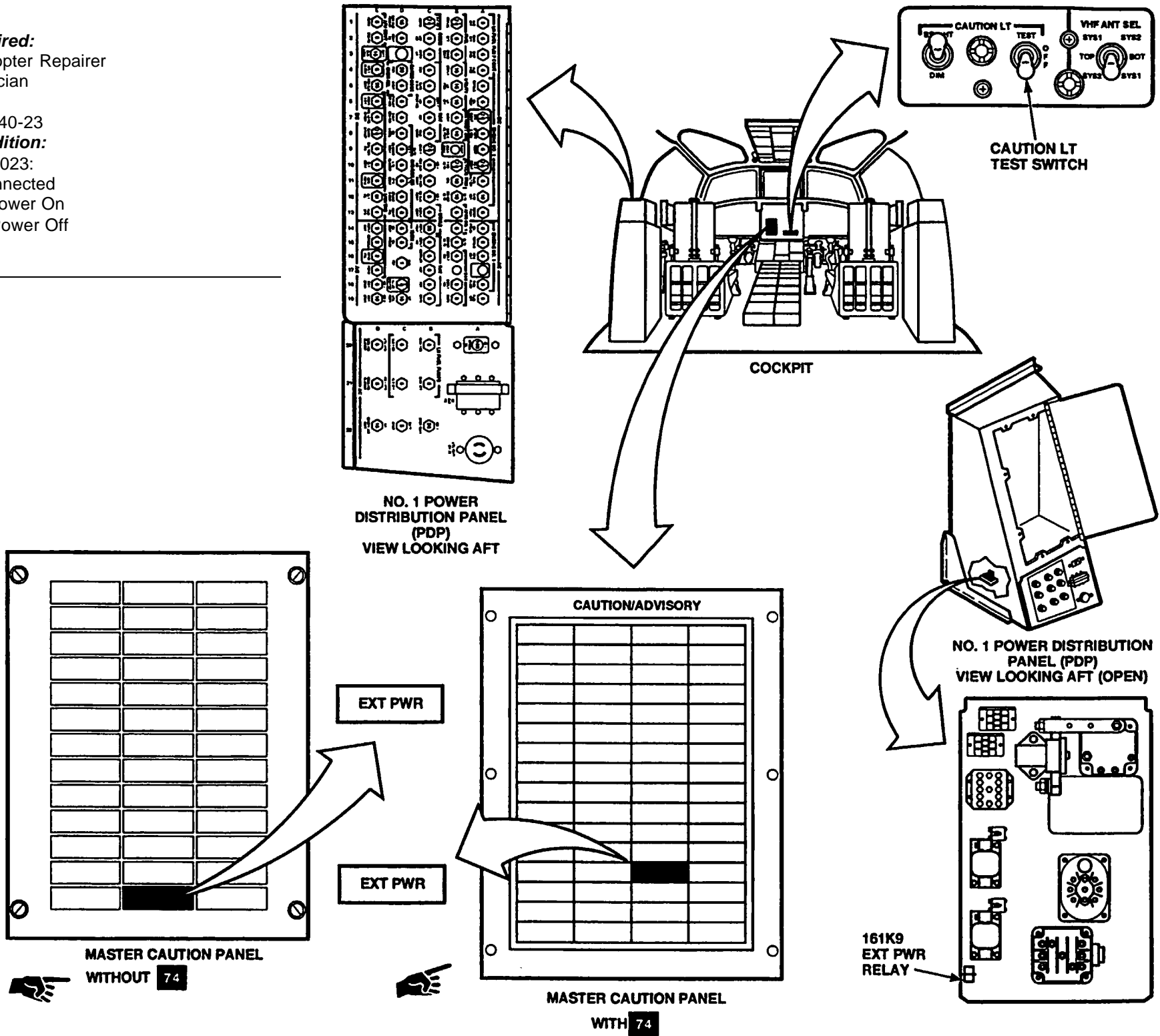
**Tools:**  
Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

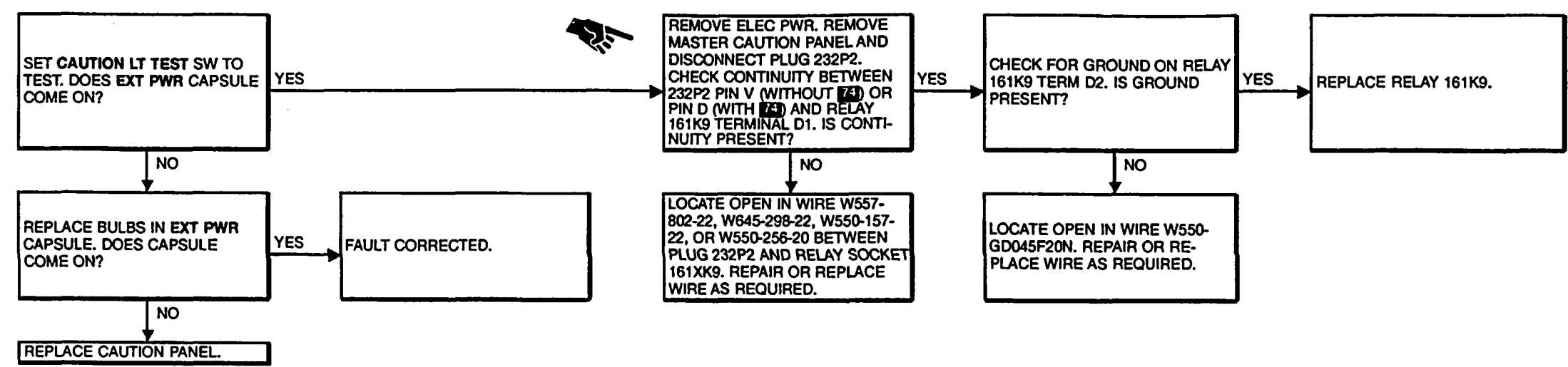
**Materials:**  
None

**Personnel Required:**  
Medium Helicopter Repairer  
Aircraft Electrician

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-152024023:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

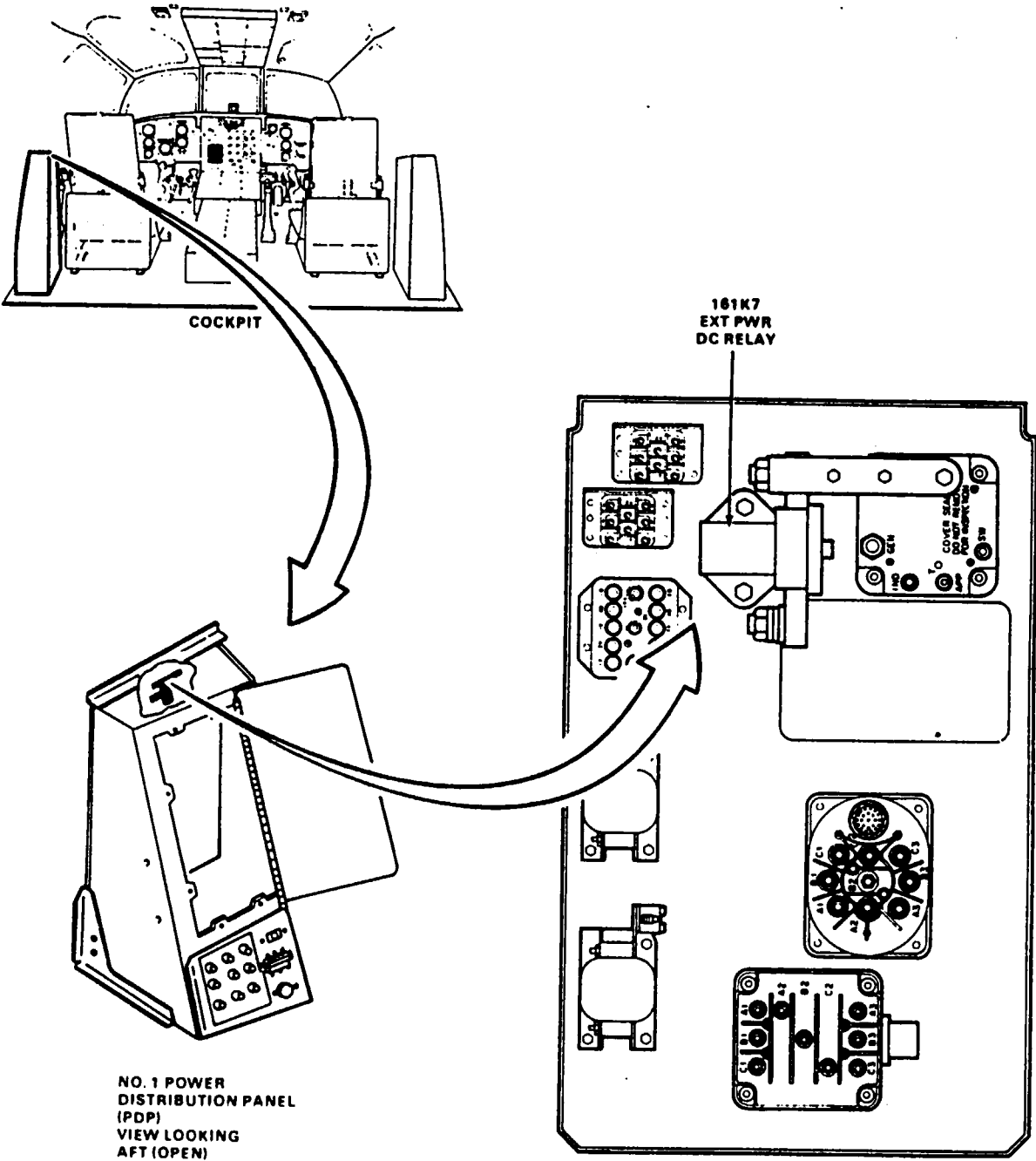
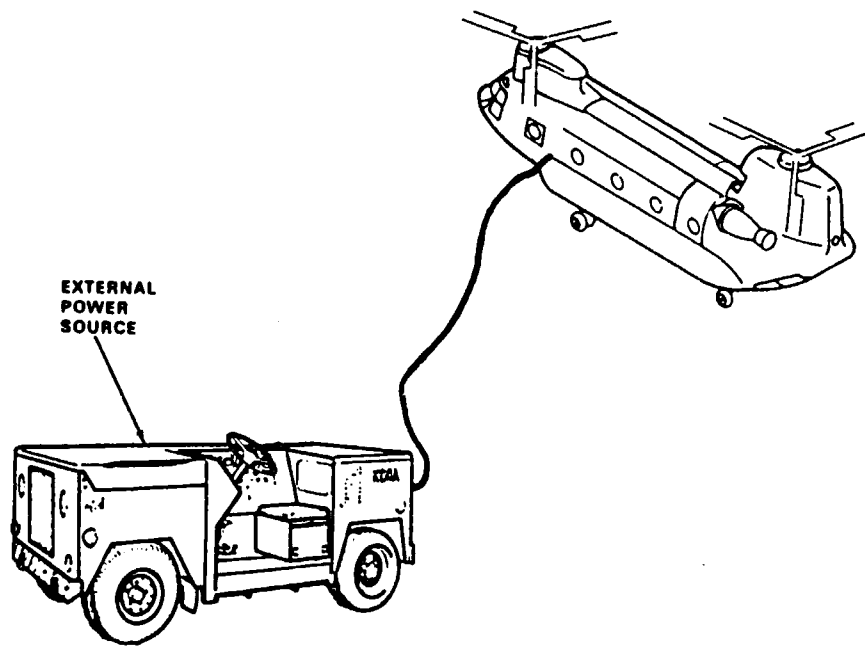
Tools:  
Electrical Repairer's Tool Kit  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
67U10 Medium Helicopter Repairer  
68F20 Aircraft Electrician

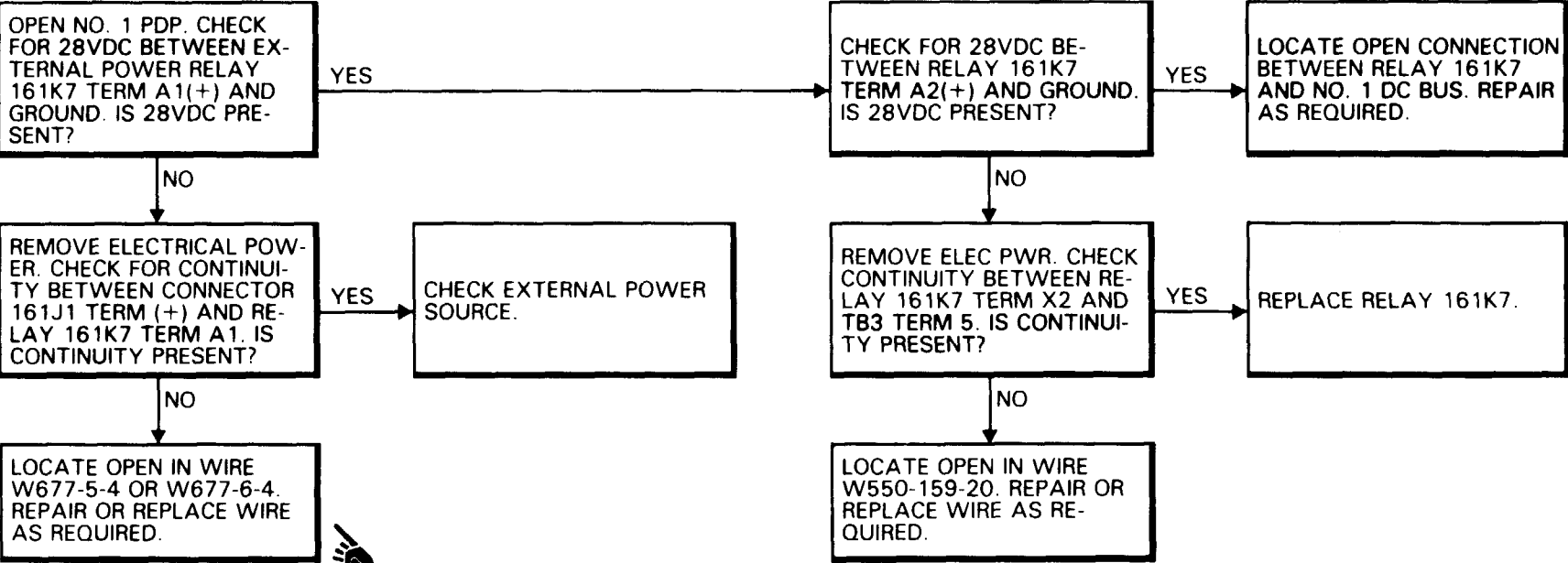
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-1.19 EXTERNAL DC SUPPLY DOES NOT POWER DC BUSES (Continued)

9-1.19



### 9-1.20 SWITCHED BATTERY BUS OR ESSENTIAL DC BUS NOT POWERED BY NO. 1 DC BUS

## FAULT ISOLATION PROCEDURE

## INITIAL SETUP

**Applicable Configurations:**

All

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

**Personnel Required:**

**Aircraft Electrician**

**References:**

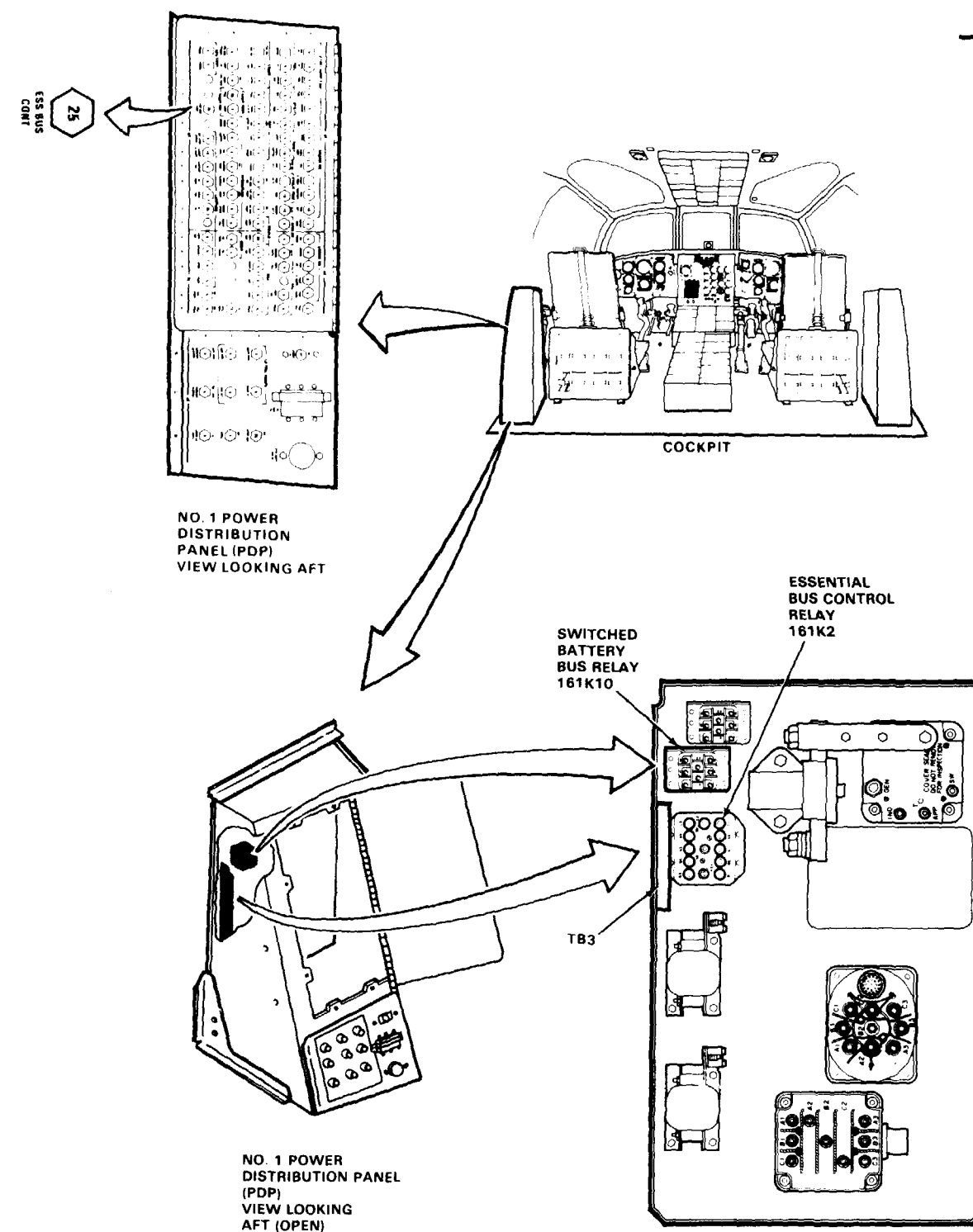
TM 55-1520-240-23

**Equipment Condition:**

TM 55-1520-240-23

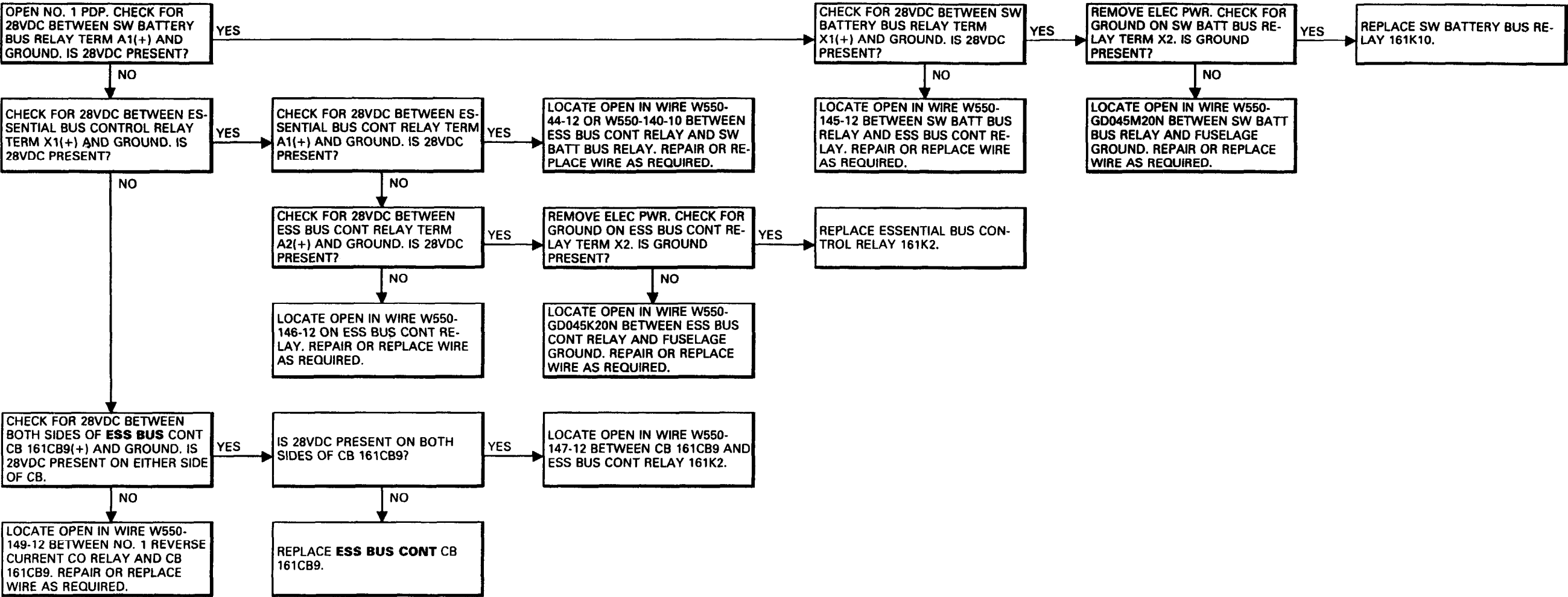
Battery Connected  
Electrical Power On  
Hydraulic Power On

**9-1.20**



9-1.20 SWITCHED BATTERY BUS OR ESSENTIAL DC BUS NOT POWERED BY NO. 1 DC BUS (Continued)

9-1.20





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

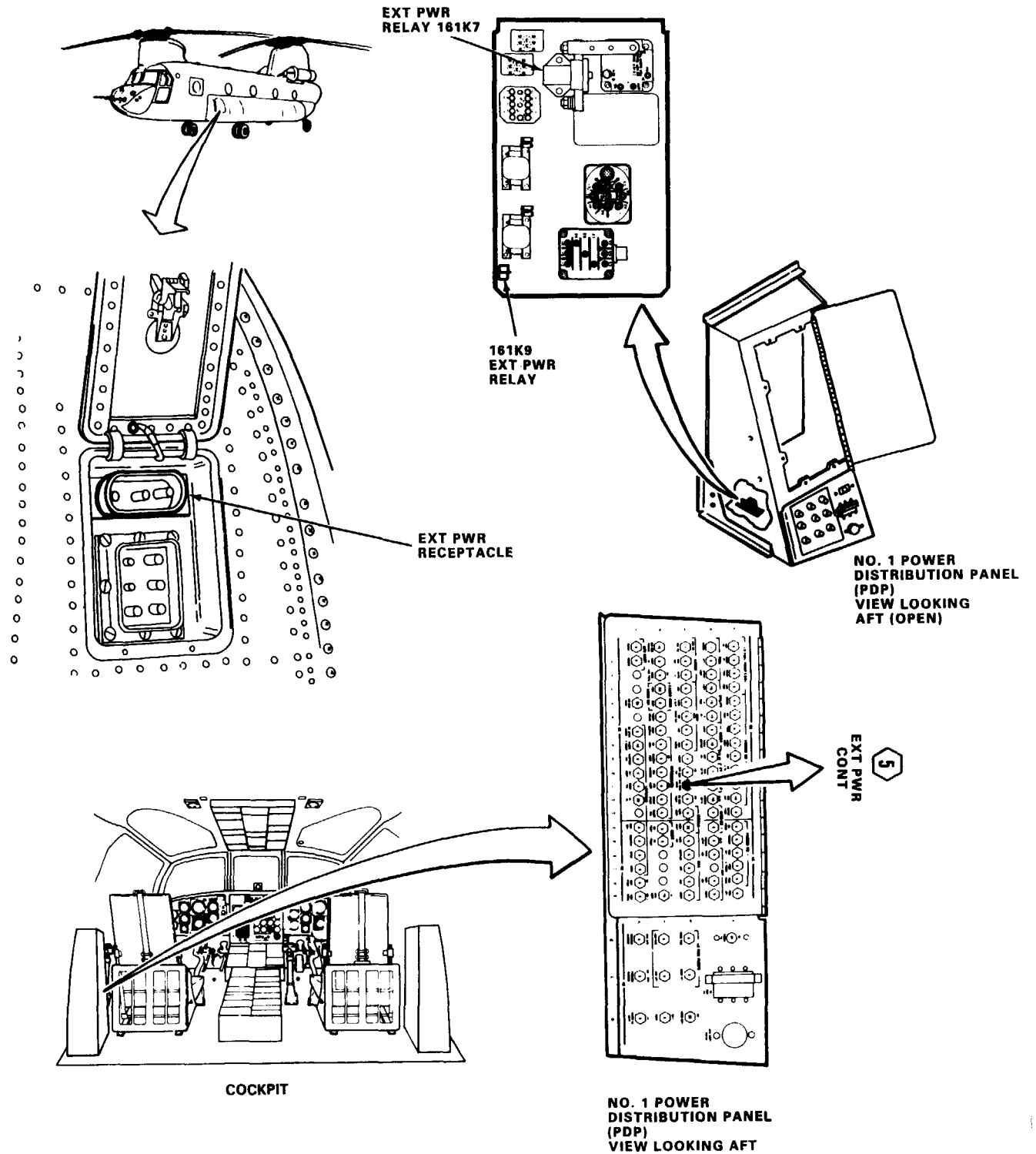
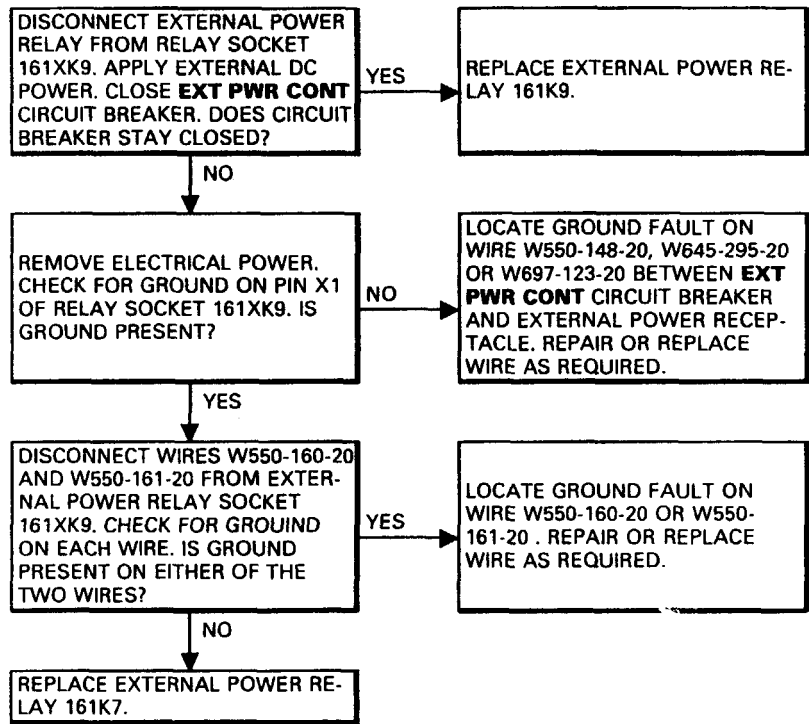
Aircraft Electrician

References:

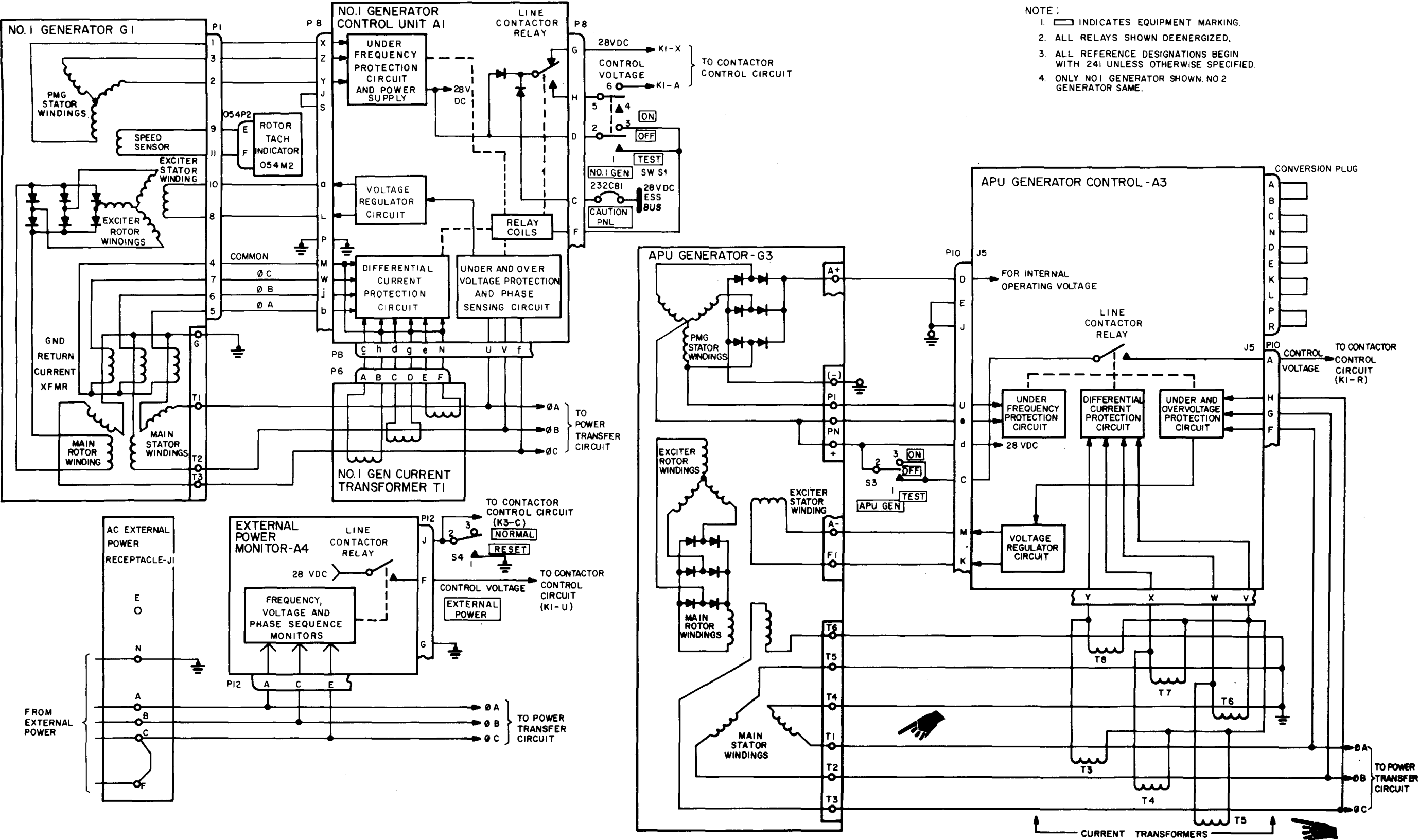
TM 55-1520-240-23

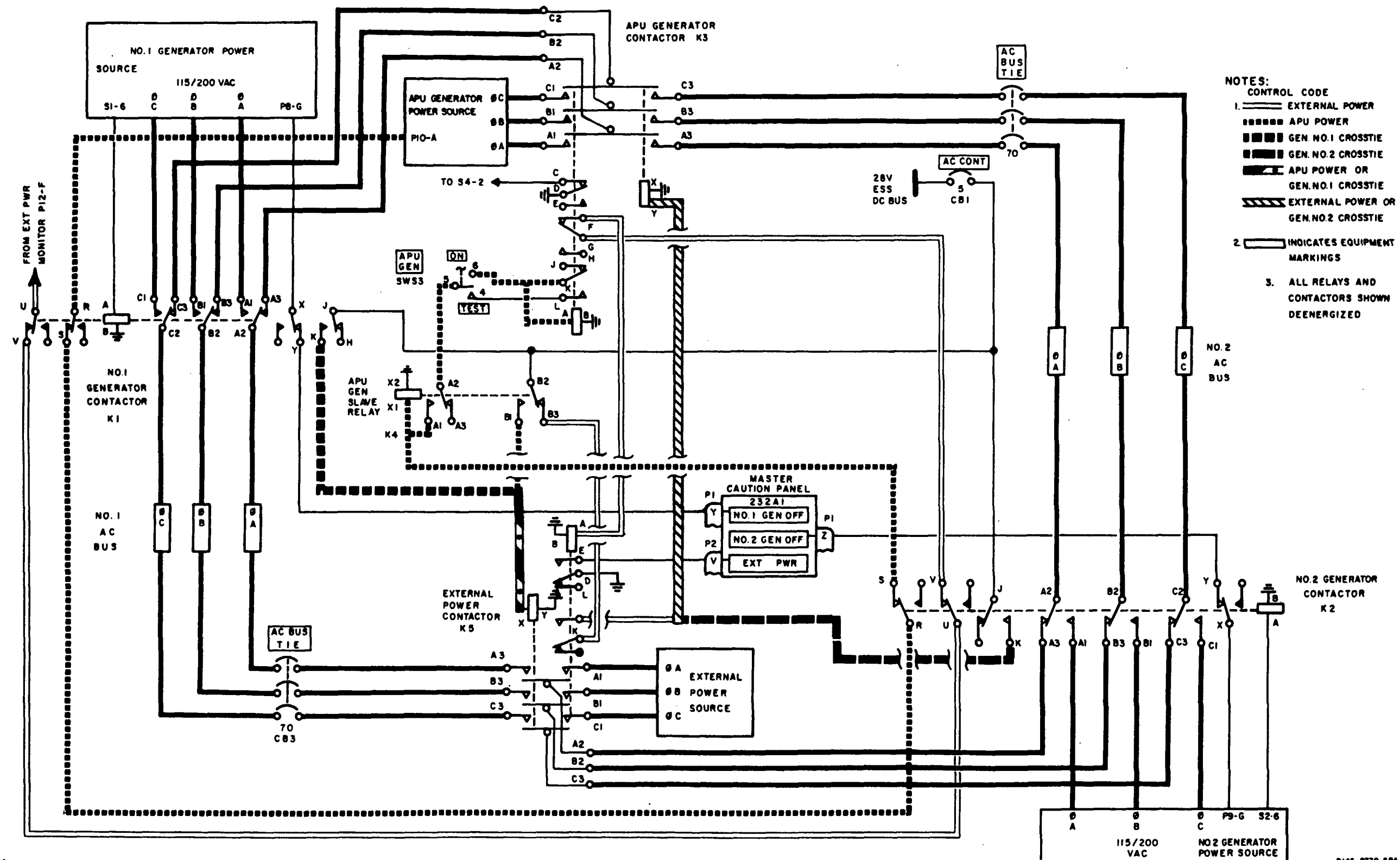
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On



## 9-2 AC POWER SYSTEM

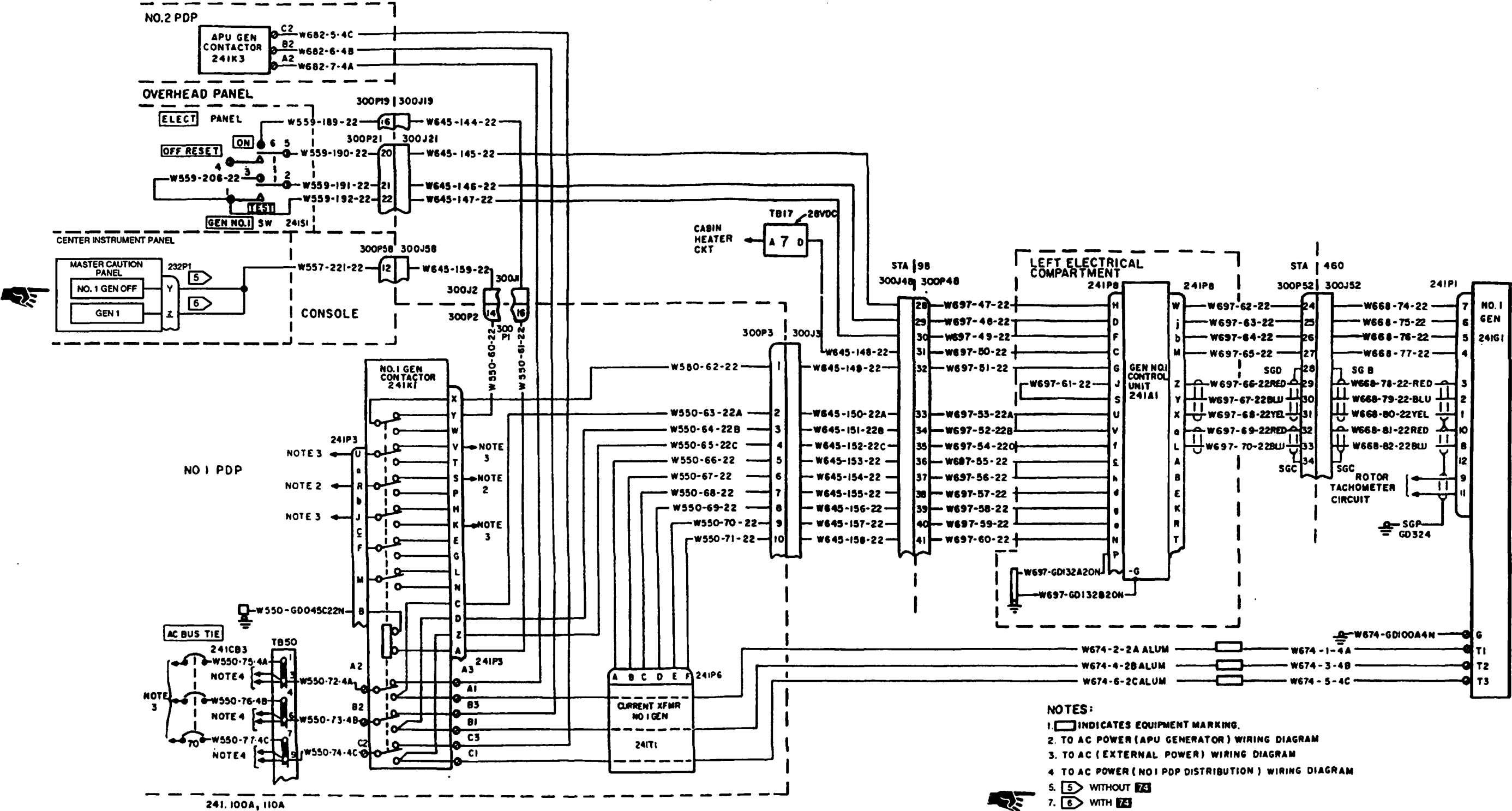




90 x 54

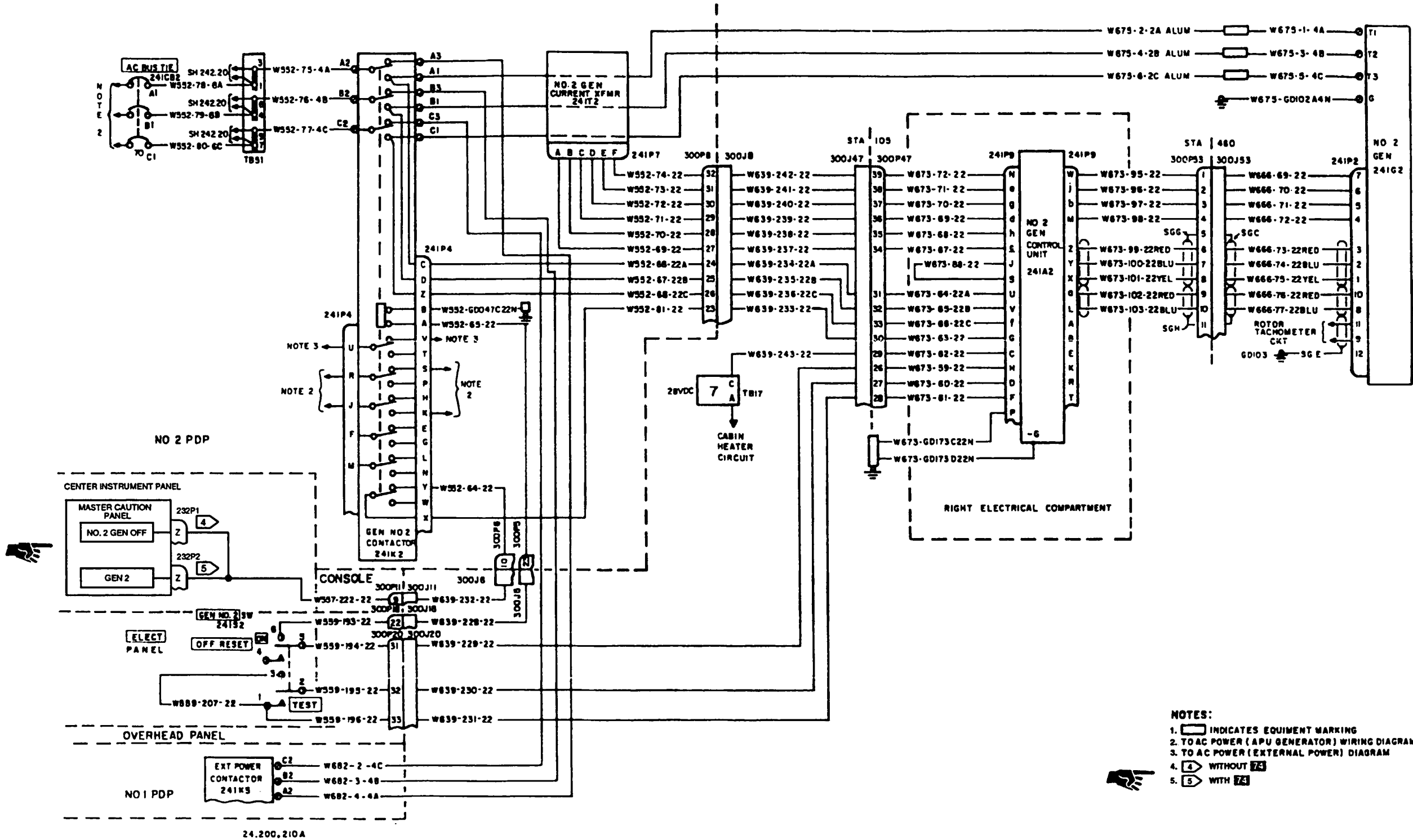
D145-9770-SPA

NO. 1 GENERATOR

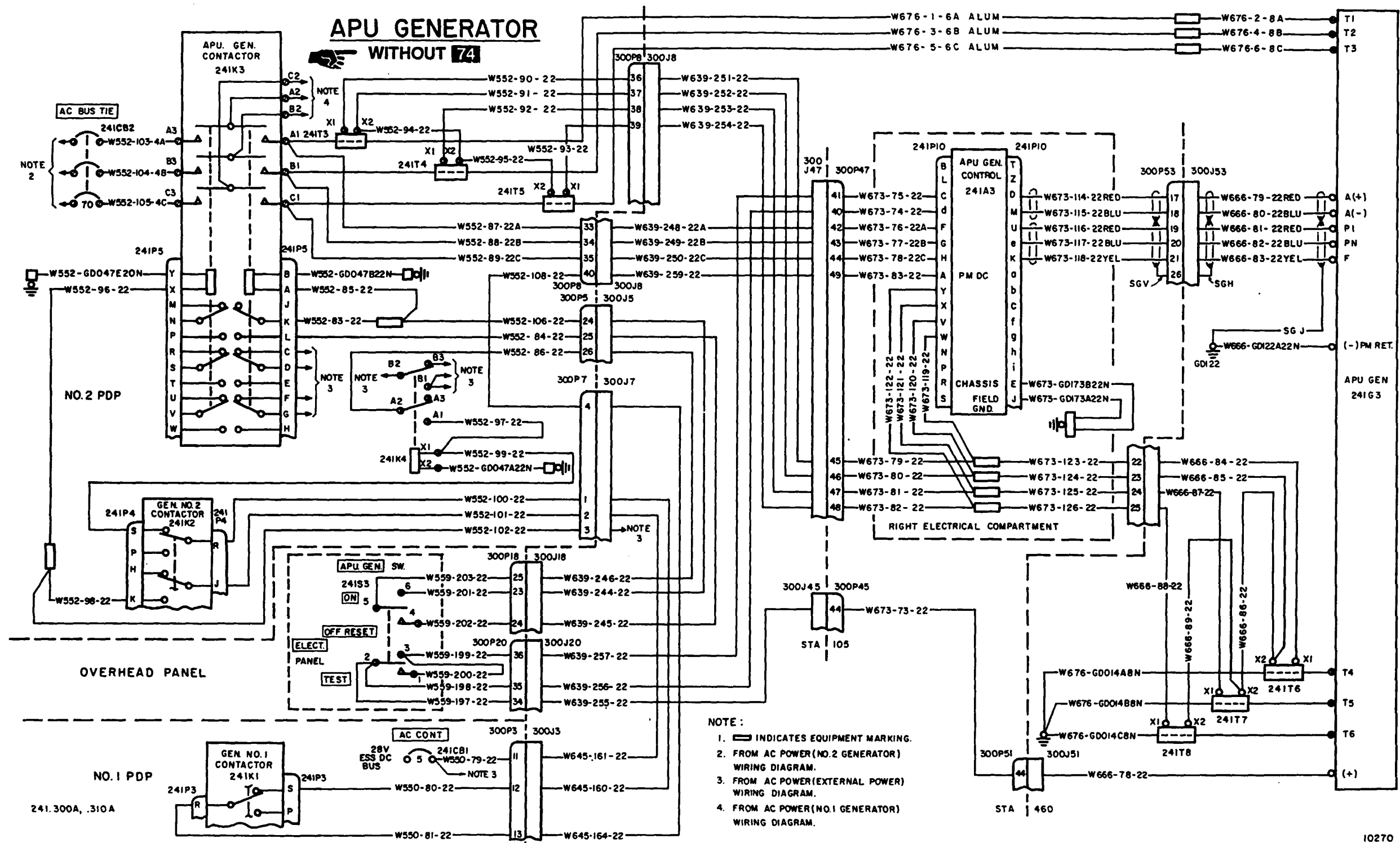


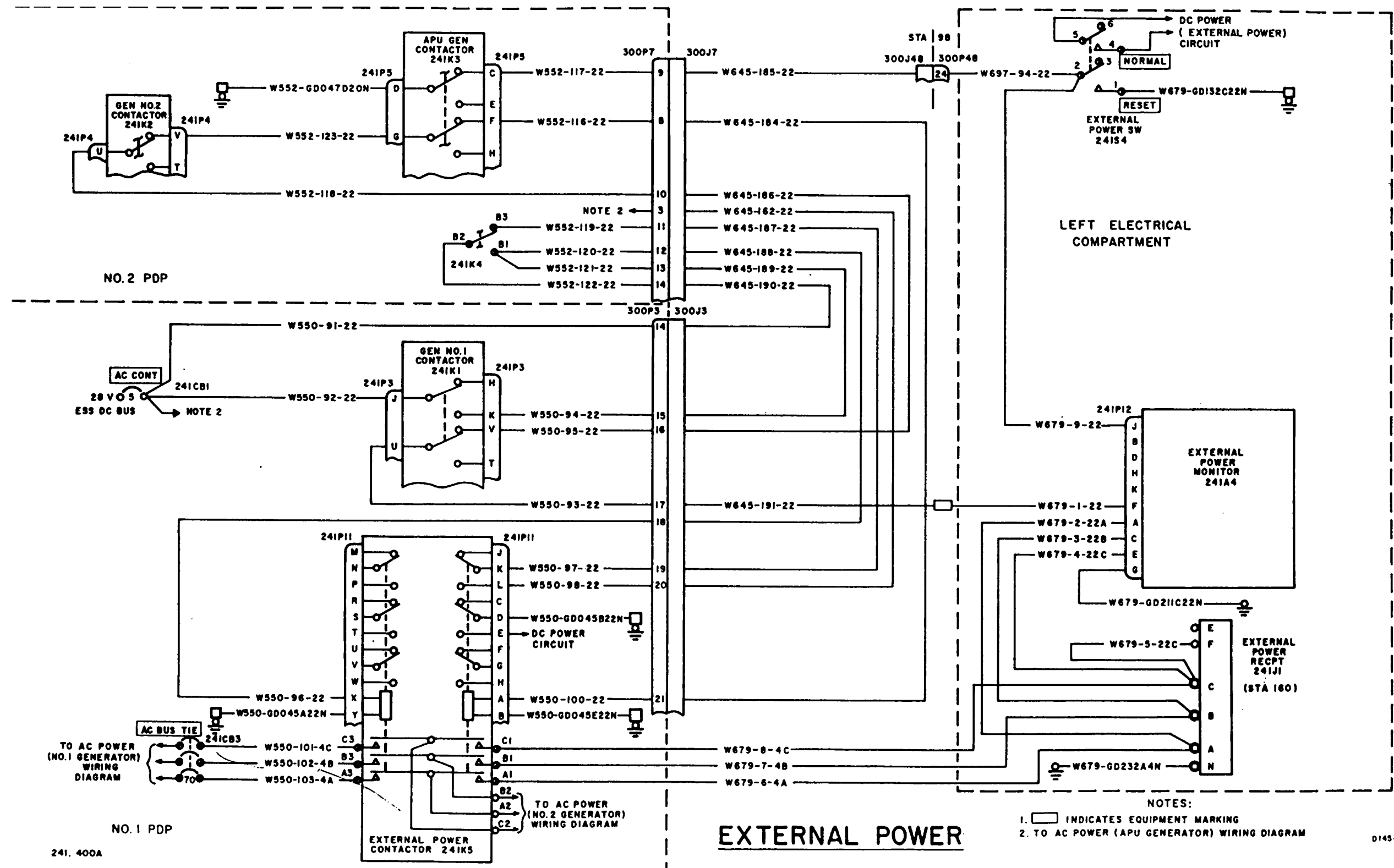
A65453

NO. 2 GENERATOR

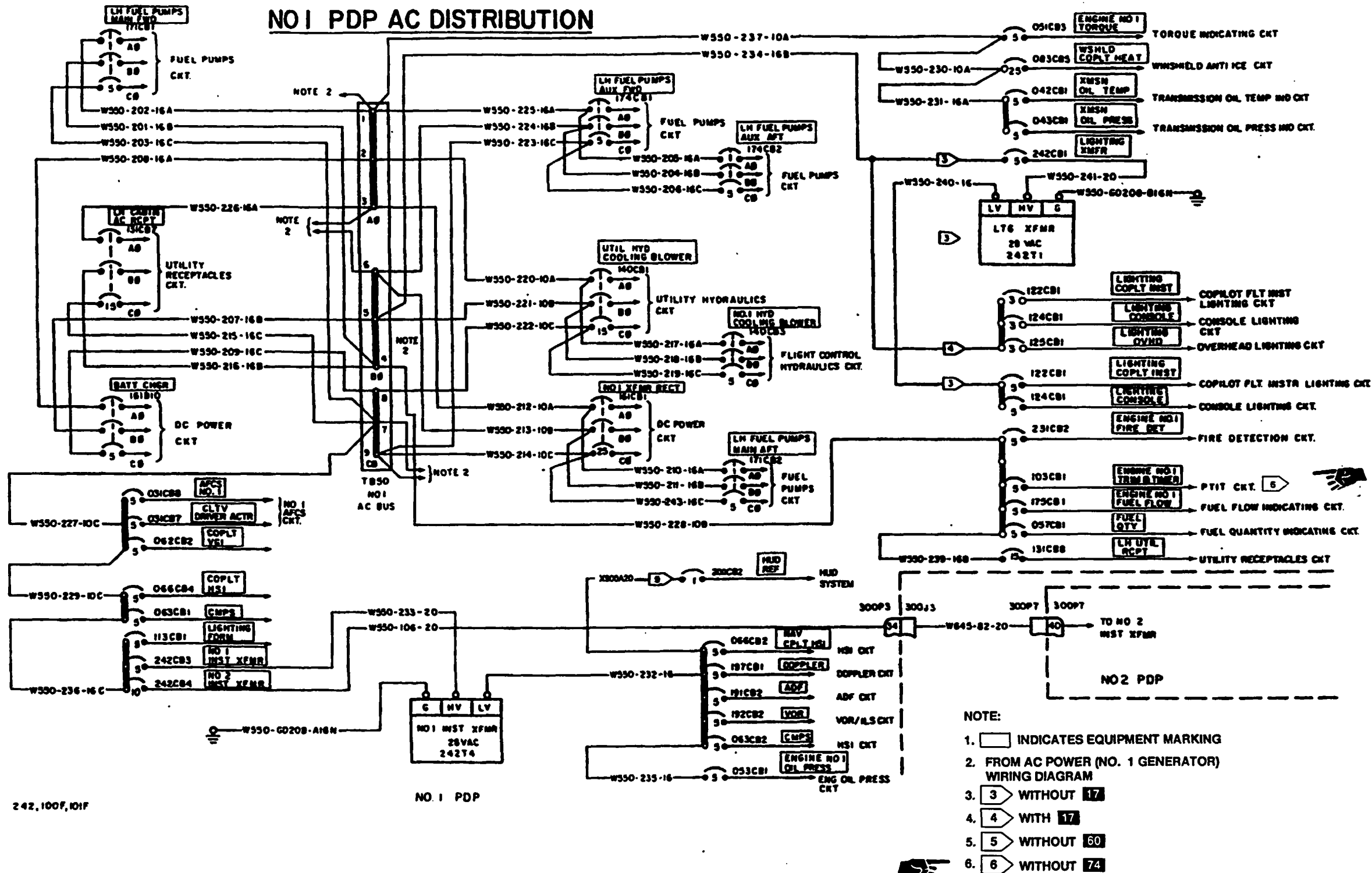


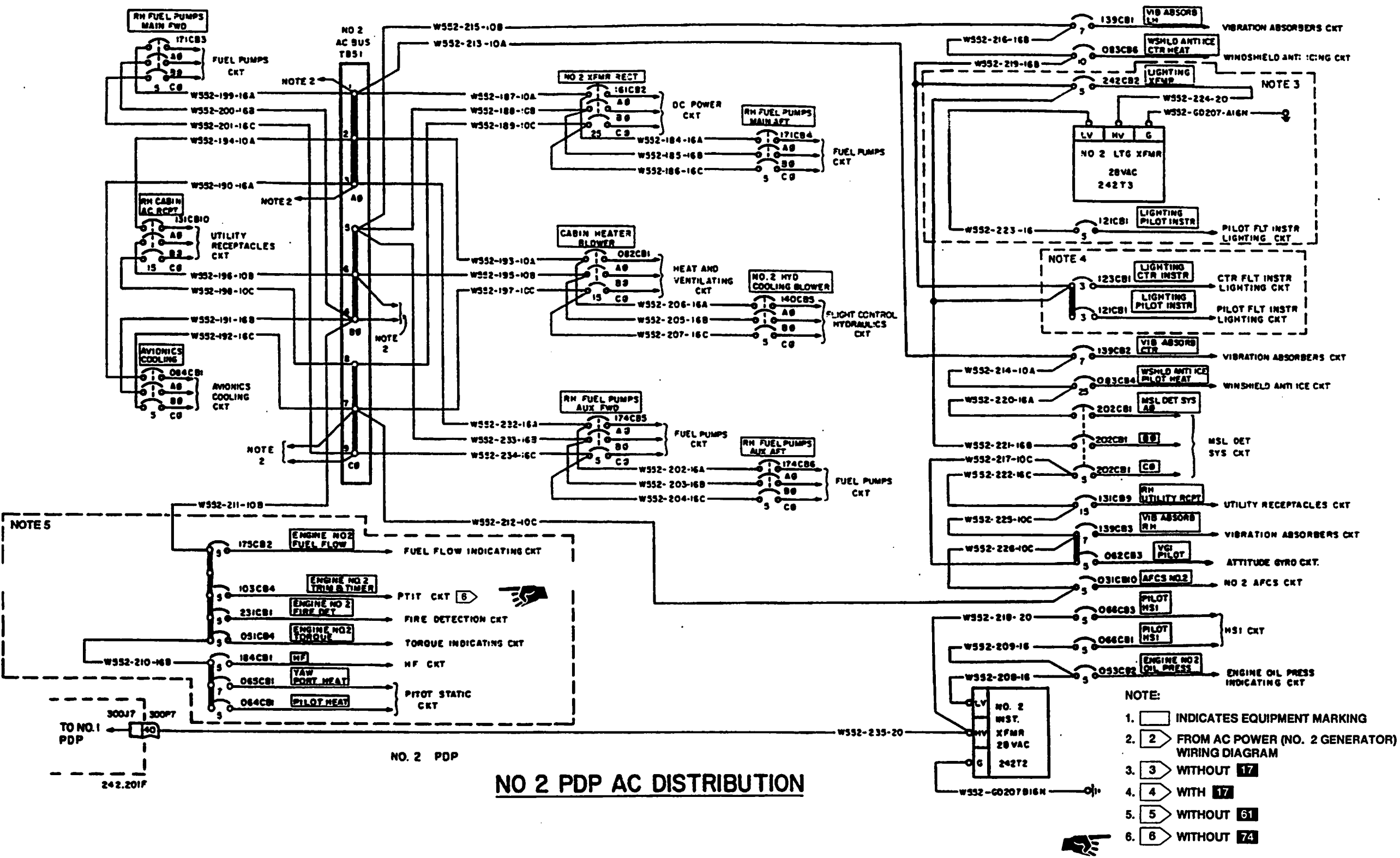
A65452





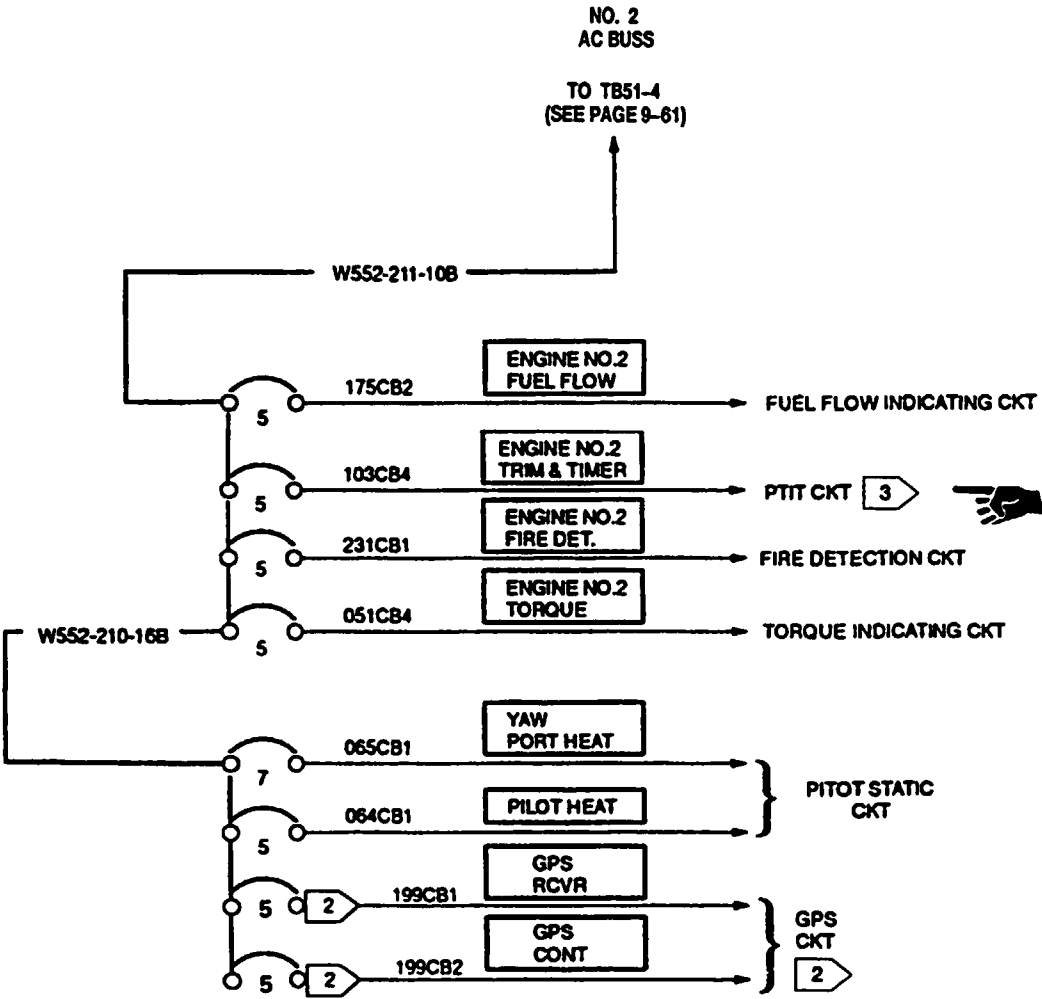






A72197

GO TO NEXT PAGE  
Change 19 9-61



- NOTE:
1. INDICATES EQUIPMENT MARKING
  2. WITH
  3. WITHOUT

A72196

9-2.3 AC POWER SYSTEM VISUAL CHECK

9-2.3

INITIAL SETUP

Applicable Configurations:

All  
TM 55-1520-240-23:

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Left and Right Transmission

Materials:  
None

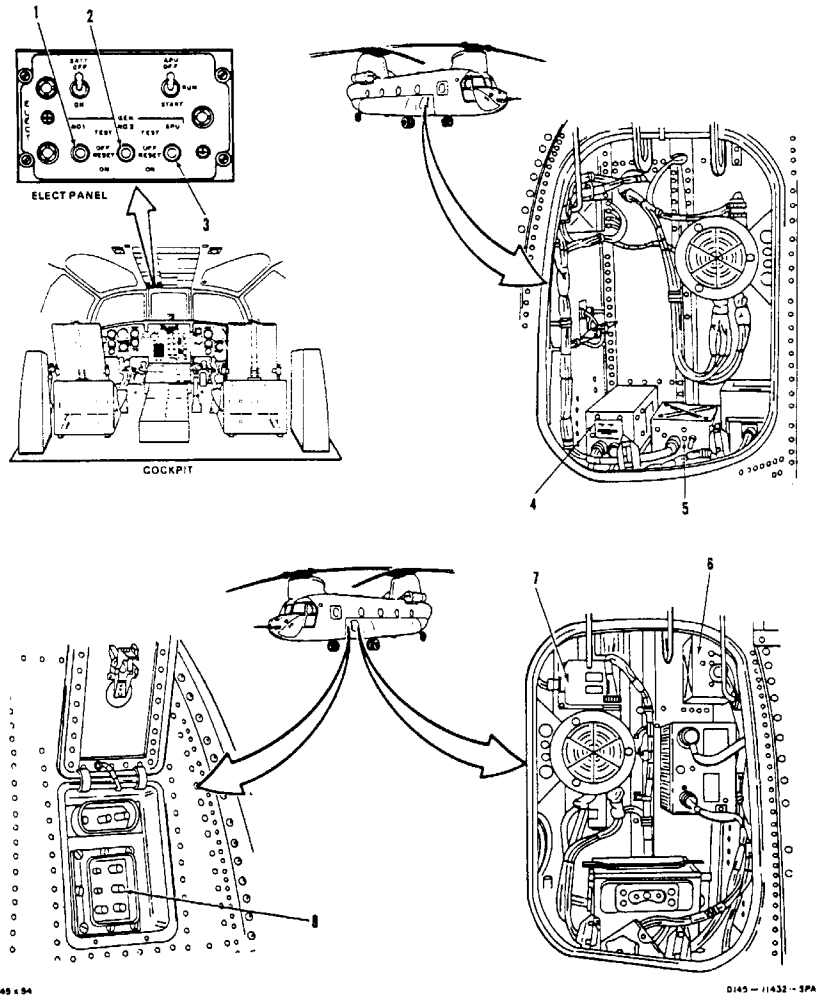
Personnel Required:  
68F10 Aircraft Electrician

References:

Equipment Condition:

Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
  
Baffles Open  
Left and Right Electrical  
Compartment Access Doors Open  
Cargo Ramp Open and Level  
(Task 7-3 4)

TASK	RESULT
1. Check GEN NO. 1, NO. 2, and APU switches (1, 2, and 3).	If any switch (1,2. or 3) is loose or damaged, tighten or replace it as required.
2. Check apu generator control panel (4).	If panel (4) is loose or damaged, tighten or replace it as required. If electrical connectors to panel are loose or damaged. tighten or replace them as required. If wiring to either connector is damaged, repair or replace it as required.
3. Check No. 2 generator control panel (5).	If panel (5) is loose or damaged. tighten or replace it as required. If electrical connector to panel is loose or damaged, tighten or replace it as required. If wiring to connector is damaged, repair or replace it as required.
4. Check No. 1 generator control panel (6).	If panel (6) is loose or damaged, tighten or replace it as required. If electrical connector to panel is loose or damaged, tighten or replace it as required. If wiring to connector is damaged. repair or replace it as required.
5. Check power monitor (7).	If monitor (7) is loose or damaged. tighten or replace it as required. If electrical connector to monitor is loose or damaged, tighten or replace it as required. If wiring to connector is damaged, repair or replace it as required.
6. Check AC power receptacle (8).	If receptacle (8) is loose or damaged, tighten or replace it as required.



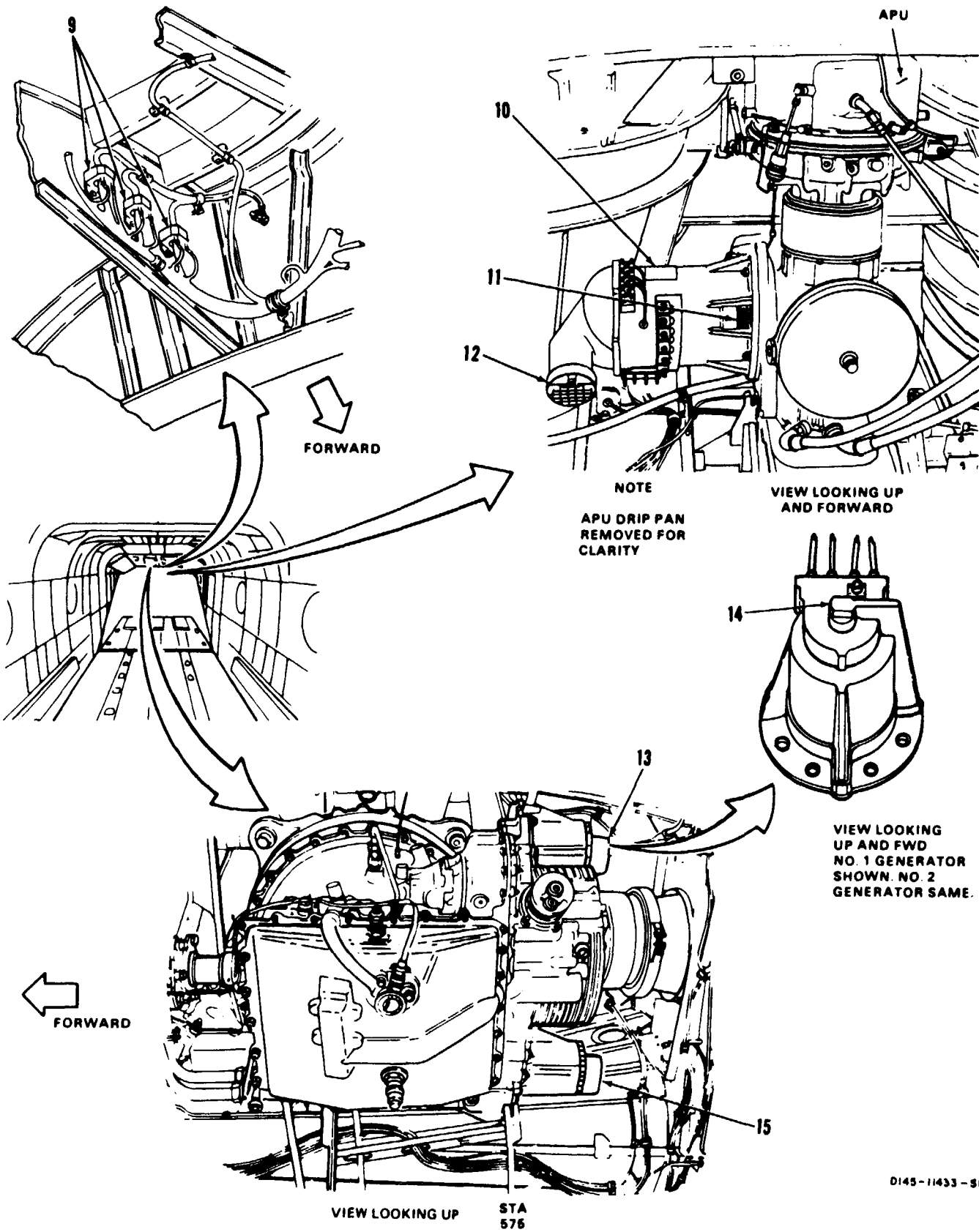
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TASK	RESULT
7. Check three apu current transformers (9).	If any transformer (9) is loose or damaged, tighten or replace it as required. If wiring to or through transformers is loose or damaged, tighten or replace it as required.
8. Check apu generator (10).	If generator (10) is loose or damaged, tighten or replace it as required. If wiring to generator is loose or damaged, tighten or replace it as required. If inlet screen (11) or exhaust screen (12) are clogged, clean screen or replace generator.
9. Check No. 1 generator (13).	If generator (13) is loose or damaged, or leaking oil, tighten or replace it as required. If electrical connector (14) is loose or damaged, tighten or replace it as required. If wiring to generator or connector is damaged, repair or replace it as required.
10. Check No. 2 generator (15).	If generator (15) is loose or damaged, or leaking oil, tighten or replace it as required. If electrical connector (14) is loose or damaged, tighten or replace it as required. If wiring to generator or connector is damaged, repair or replace it as required.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:

- Left and right transmission baffles closed.
- Left and right electrical compartment access doors closed.
- Cargo ramp closed.



0145-11433-SPA

INITIAL SETUP

Applicable Configurations:  
All

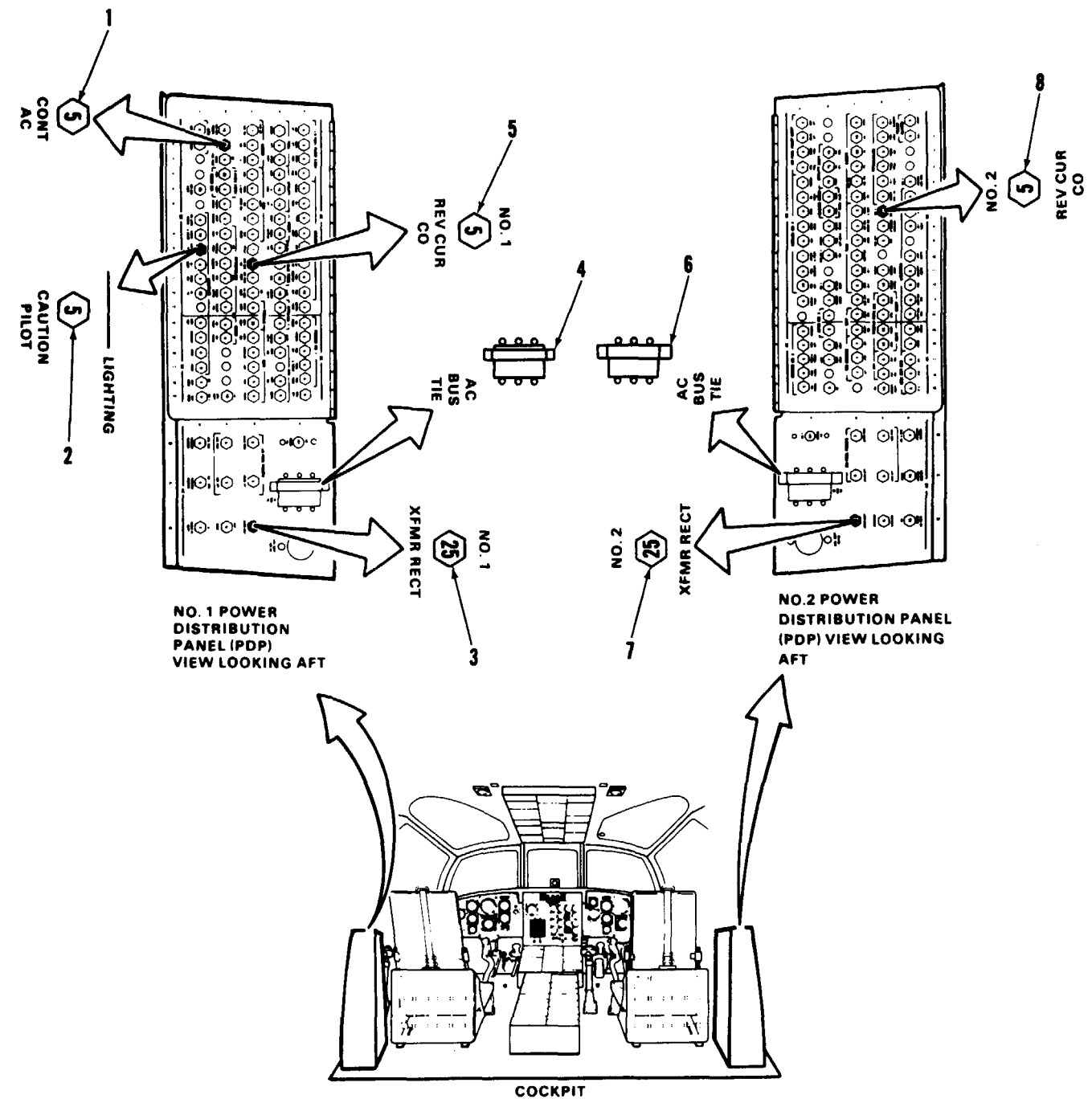
Tools:  
None

Materials:  
None

Personnel Required:  
Aircraft Electrician  
Armvy Rotary Wing Aviator (2)

References:  
TM 55-1520-240-23  
TM 55-1520-240-10  
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected

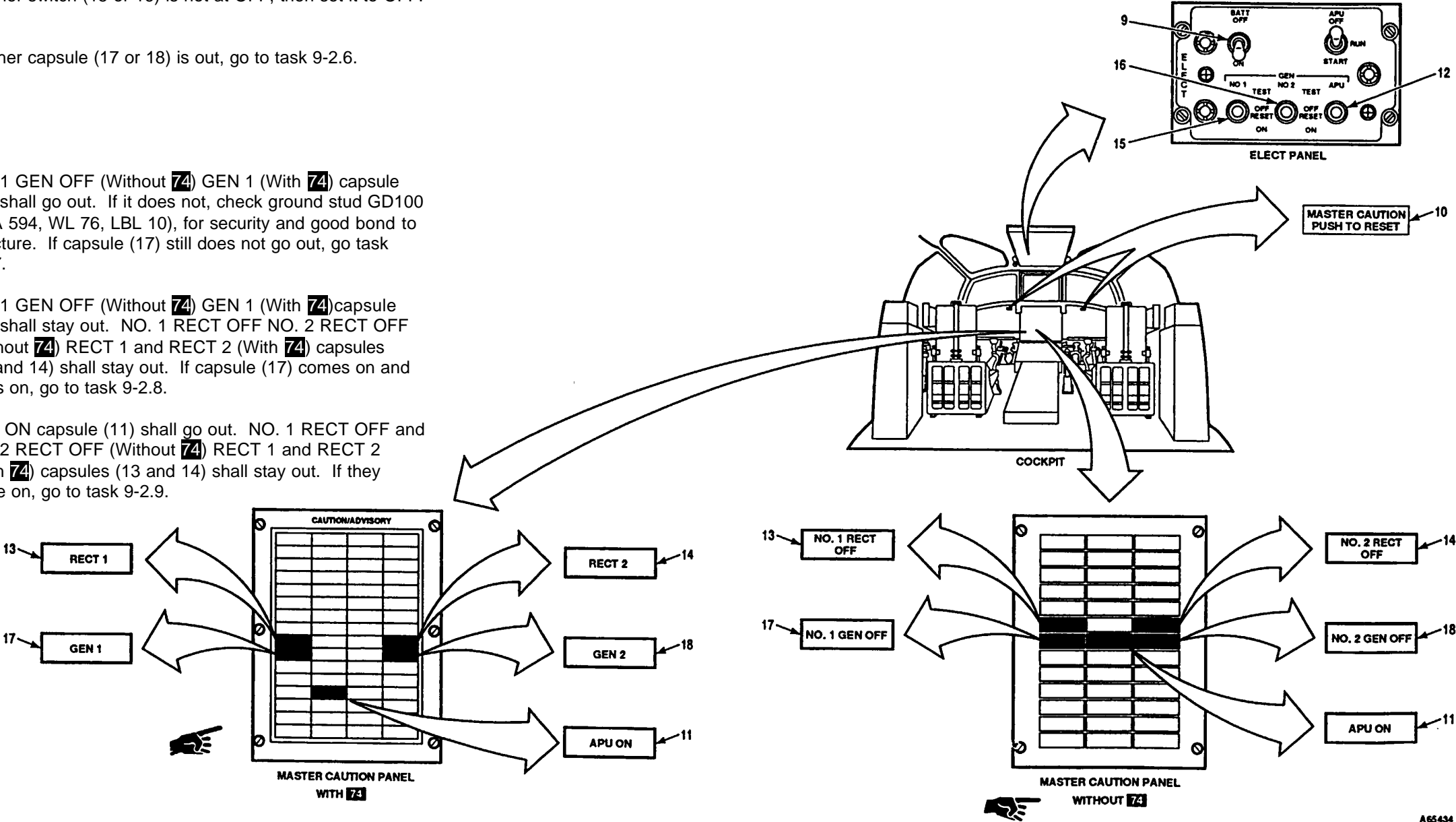
TASK	RESULT
CHECK CIRCUIT BREAKERS	
1. Check that following circuit breakers on NO. 1 PDP are closed. CONT AC (1) CAUTION PNL (2) NO. 1 XFMR RECT (3) AC BUS TIE (4) NO. 1 REV CUR CO (5)	If any circuit breaker (1 through 5) is open, close it.
2. Check that following circuit breakers on NO. 2 PDP are closed. AC BUS TIE (6) NO. 2 XFMR RECT (7) NO. 2 REV CUR CO (8)	If any circuit breaker (6, 7, or 8) is open, close it.



9-2.4 AC POWER SYSTEM OPERATIONAL CHECK (Continued)

9-2.4

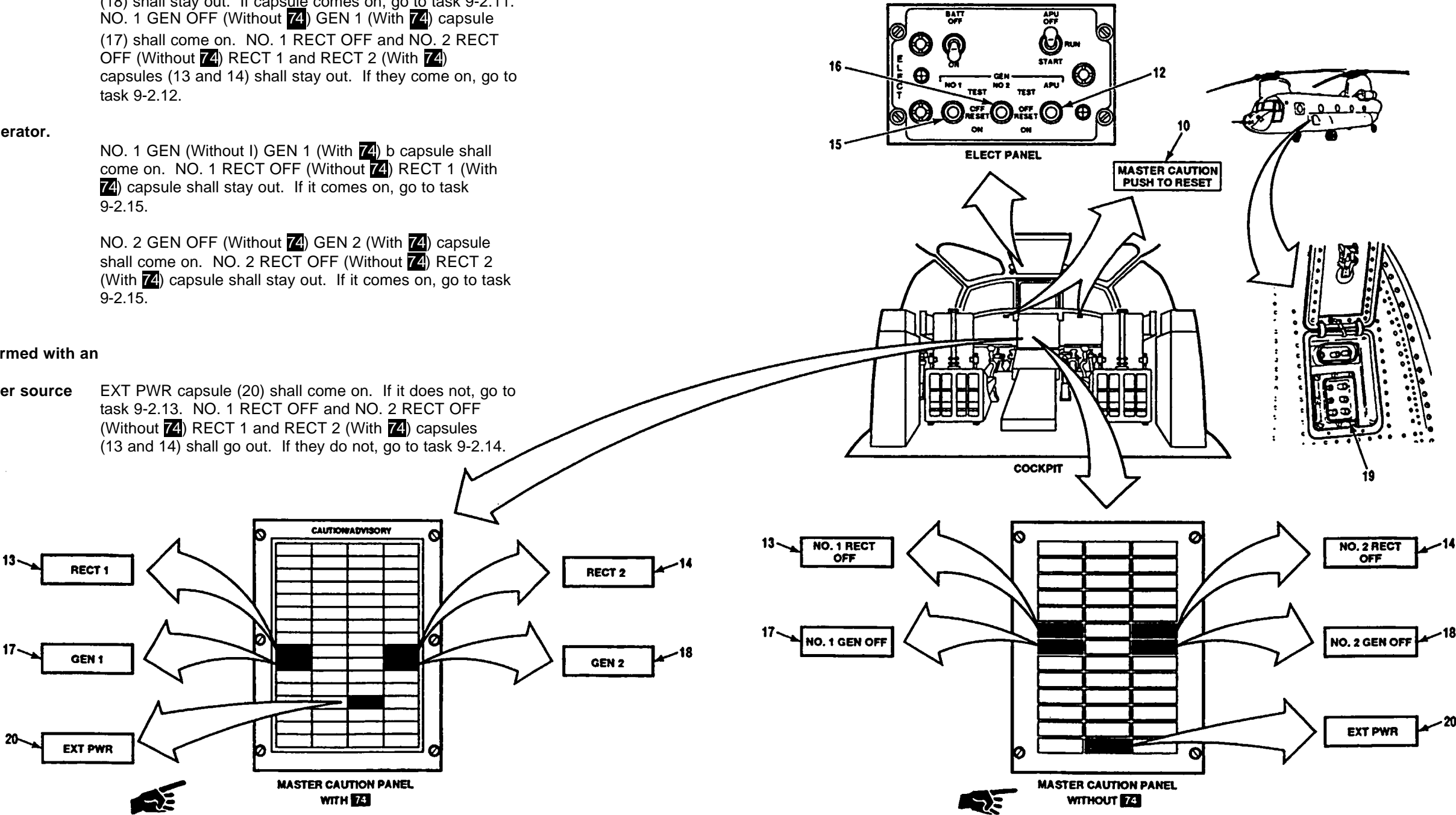
TASK	RESULT
3. Set BATT switch (9) to ON.	MASTER CAUTION lights (10) shall come on. If lights do not come on, go to task 9-1.4.
4. Have pilot start apu.	APU ON capsule (11) shall come on.
5. Set APU GEN switch (12) to ON.	NO. 1 RECT OFF and NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsules (13 and 14) shall go out. If both capsules are on, go to task 9-2.5. If either capsule is on, go to task 9-1.8 or 9-1.9.
6. Check that GEN NO. 1 and NO. 2 switches (15 and 16) are at OFF.	If either switch (15 or 16) is not at OFF, then set it to OFF.
7. Check that NO. 1 GEN OFF and NO. 2 GEN OFF (Without 74) GEN 1 and GEN 2 (With 74) capsules (17 and 18) are ON.	If either capsule (17 or 18) is out, go to task 9-2.6.
8. Have pilot start engines and establish 100% rotor rpm.	
9. Set GEN NO. 1 switch (15) to TEST.	NO. 1 GEN OFF (Without 74) GEN 1 (With 74) capsule (17) shall go out. If it does not, check ground stud GD100 (STA 594, WL 76, LBL 10), for security and good bond to structure. If capsule (17) still does not go out, go task 9-2.7.
10. Set GEN NO. 1 switch (15) to ON.	NO. 1 GEN OFF (Without 74) GEN 1 (With 74) capsule (17) shall stay out. NO. 1 RECT OFF NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsules (13 and 14) shall stay out. If capsule (17) comes on and stays on, go to task 9-2.8.
11. Have pilot shutdown apu.	APU ON capsule (11) shall go out. NO. 1 RECT OFF and NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsules (13 and 14) shall stay out. If they come on, go to task 9-2.9.



A65434

TASK	RESULT
12. Set GEN NO. 2 switch (16) to TEST.	NO. 2 GEN OFF (Without 74) GEN 2 (With 74) capsule (18) shall go out. If it does not, check ground stud GD102 (STA 594, WL 58, RBL 8), for security and good bond to structure. If capsule (18) still does not go out, go to task 9-2.10.
13. Set GEN NO. 2 switch (16) to ON.	NO. 2 GEN OFF (Without 74) GEN 2 (With 74) capsule (18) shall stay out. If capsule comes on, go to task 9-2.11.
14. Set GEN NO. 1 switch (15) to OFF.	NO. 1 GEN OFF (Without 74) GEN 1 (With 74) capsule (17) shall come on. NO. 1 RECT OFF and NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsules (13 and 14) shall stay out. If they come on, go to task 9-2.12.
15. Set GEN NO. 1 SWITCH (15) to ON.	
16. Have pilot start apu and switch on apu generator.	
17. Set GEN NO. 1 switch (15) to OFF.	NO. 1 GEN (Without I) GEN 1 (With 74) b capsule shall come on. NO. 1 RECT OFF (Without 74) RECT 1 (With 74) capsule shall stay out. If it comes on, go to task 9-2.15.
18. Set GEN NO. 1 switch (15) to ON.	
19. Set GEN NO. 2 switch (16) to OFF.	NO. 2 GEN OFF (Without 74) GEN 2 (With 74) capsule shall come on. NO. 2 RECT OFF (Without 74) RECT 2 (With 74) capsule shall stay out. If it comes on, go to task 9-2.15.
20. Have pilot shutdown engines.	
NOTE The following steps can only be performed with an external ac power source.	
21. Connect a 115/200VAC Hz AC external power source to receptacle (19). Turn on power source.	EXT PWR capsule (20) shall come on. If it does not, go to task 9-2.13. NO. 1 RECT OFF and NO. 2 RECT OFF (Without 74) RECT 1 and RECT 2 (With 74) capsules (13 and 14) shall go out. If they do not, go to task 9-2.14.
22. Turn off and disconnect power source.	

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

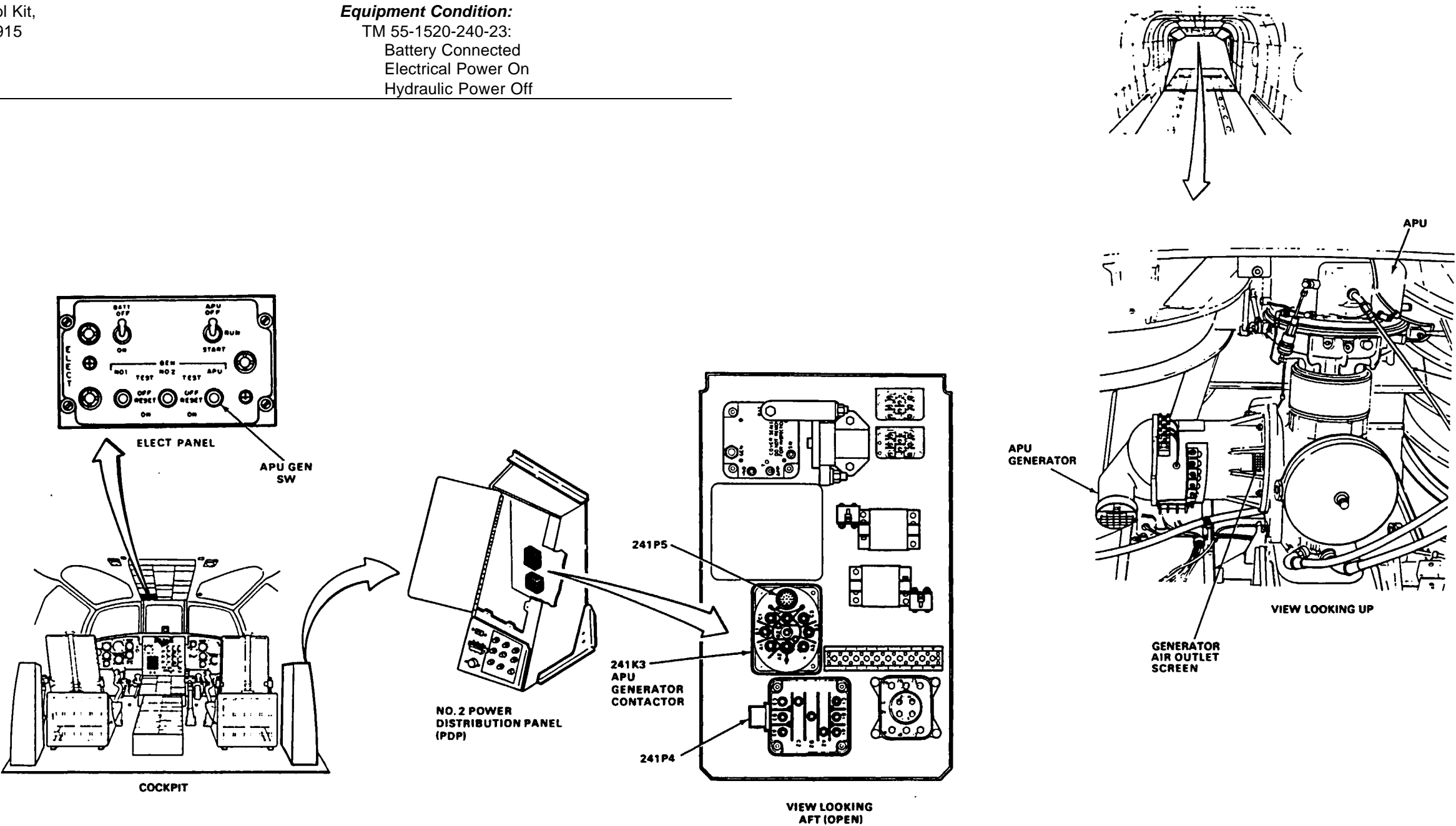
Aircraft Electrician (2)

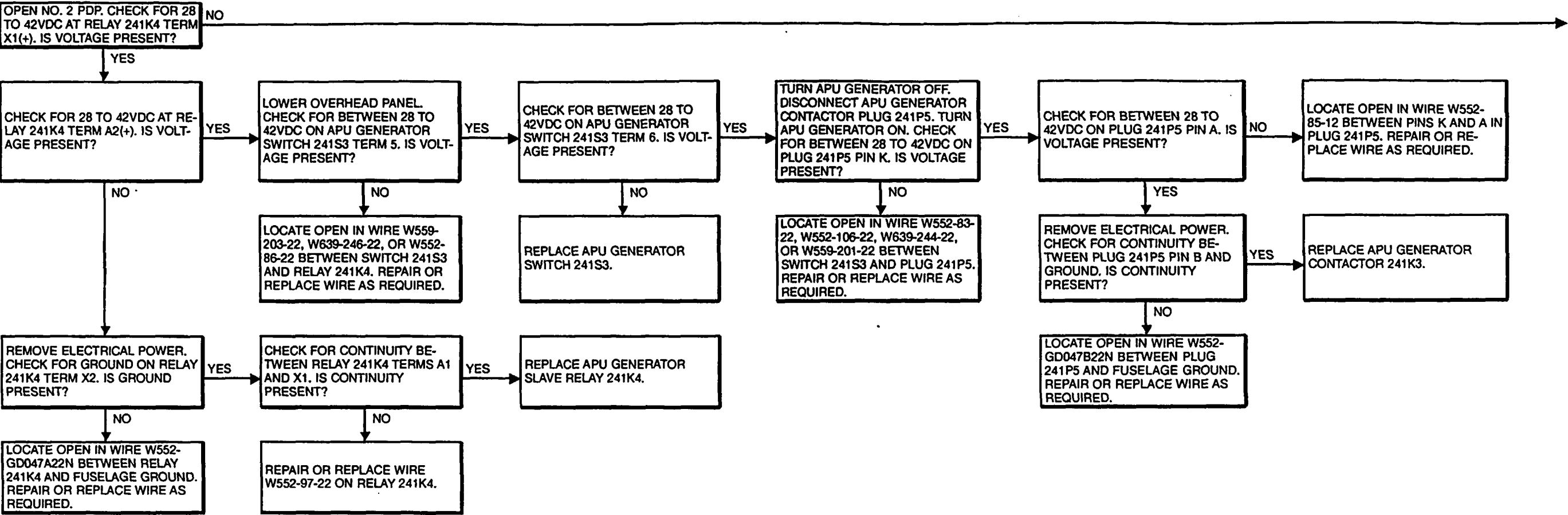
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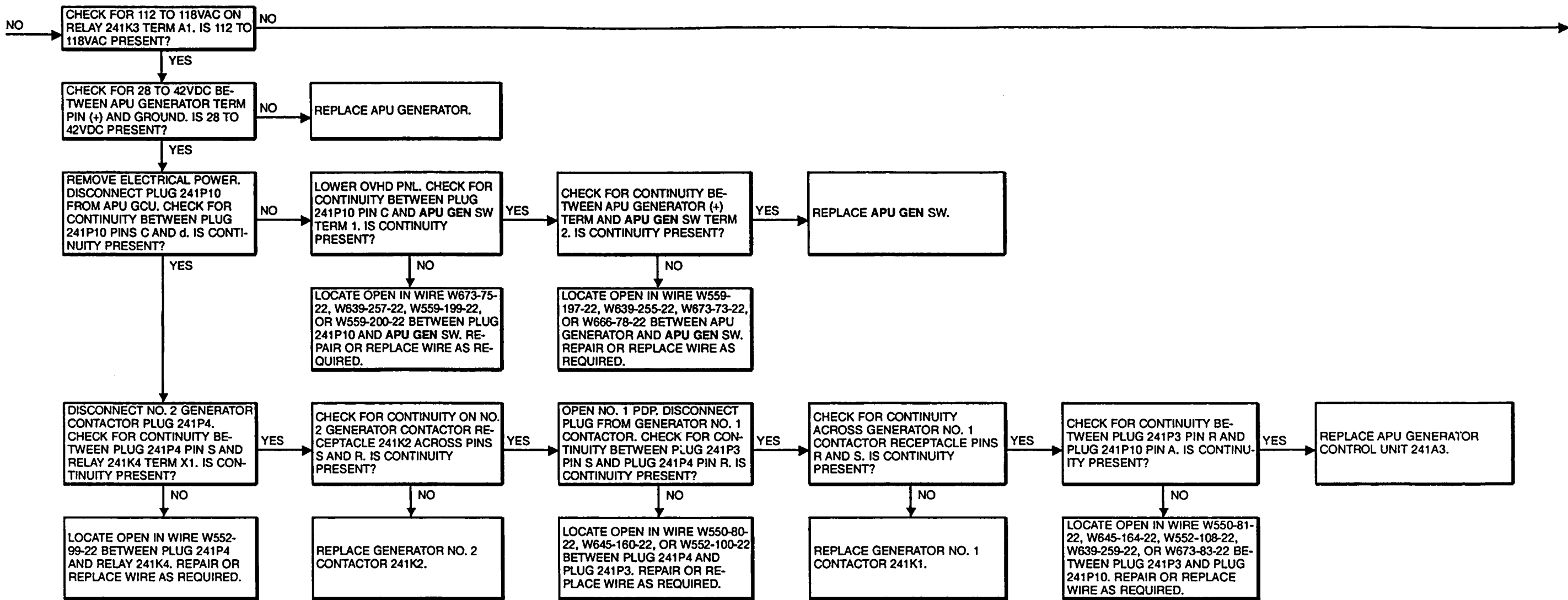
TM 55-1520-240-23

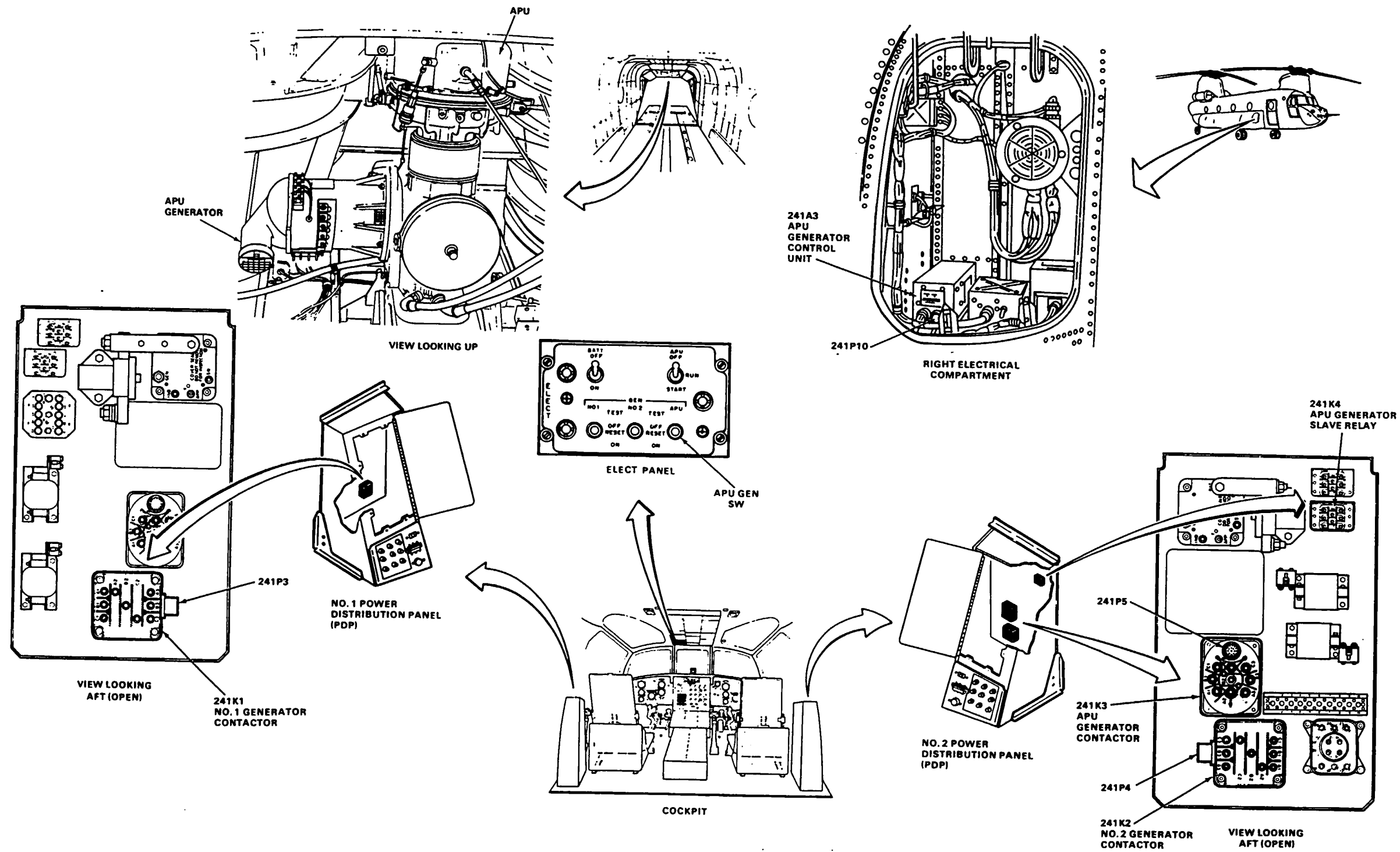
Equipment Condition:

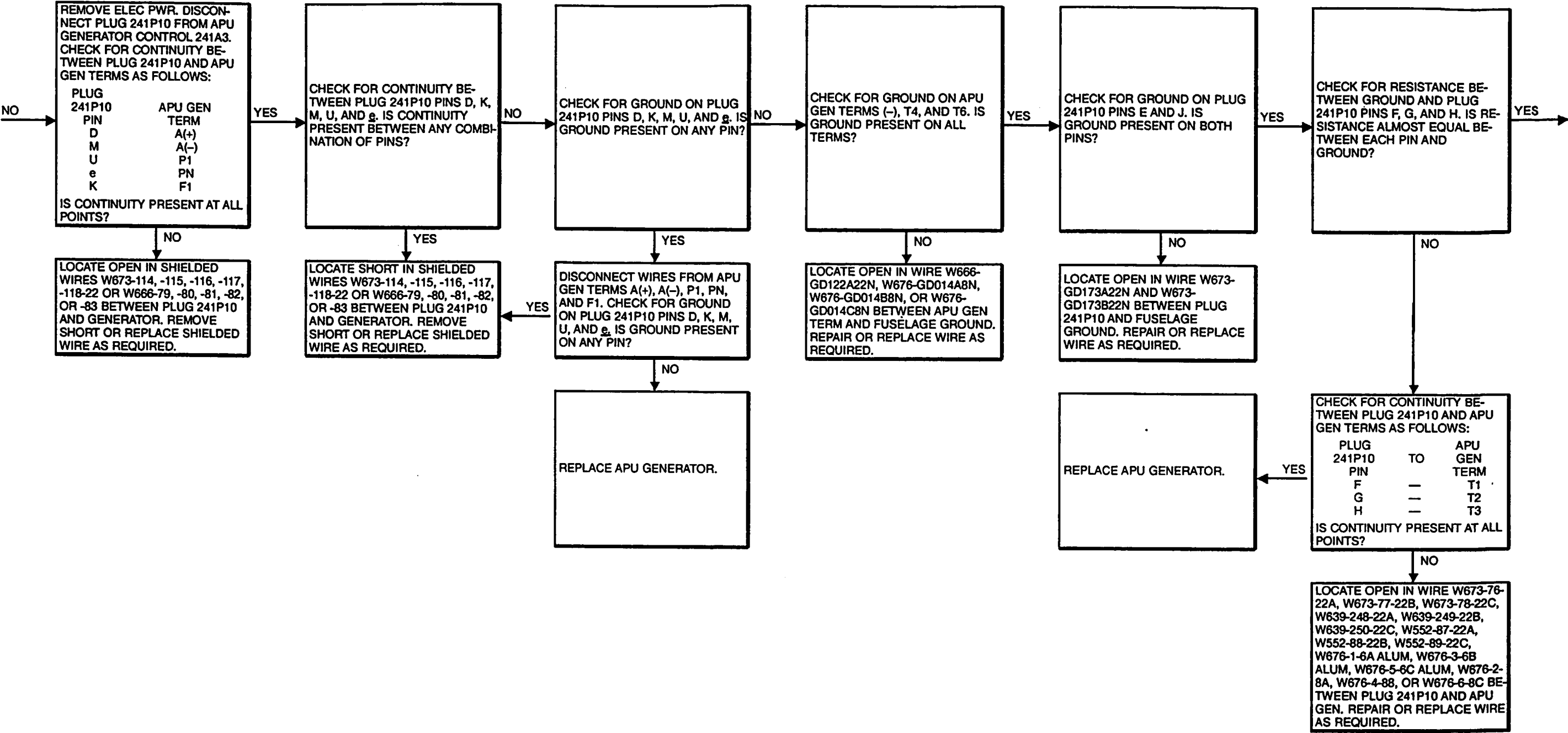
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



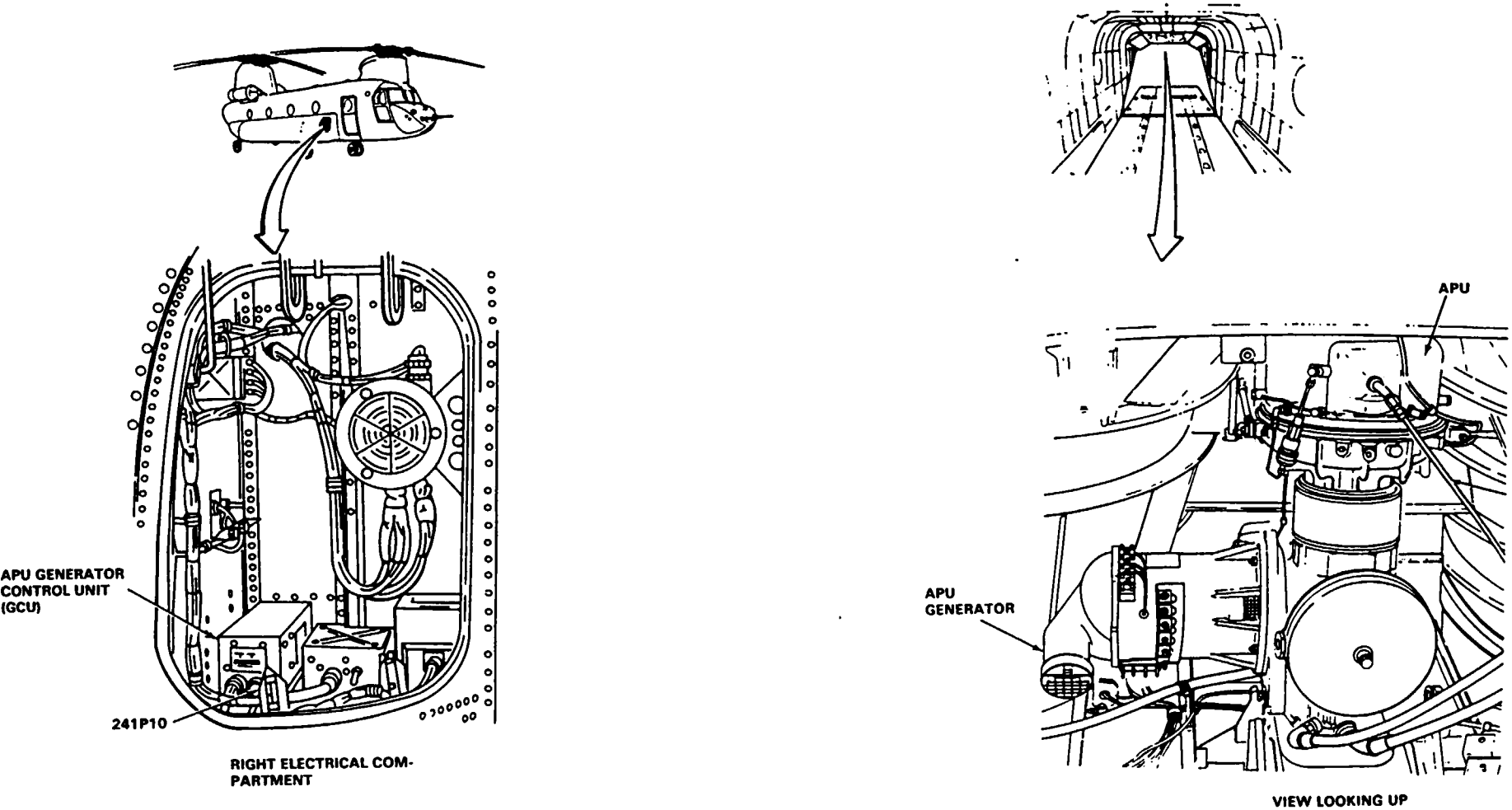


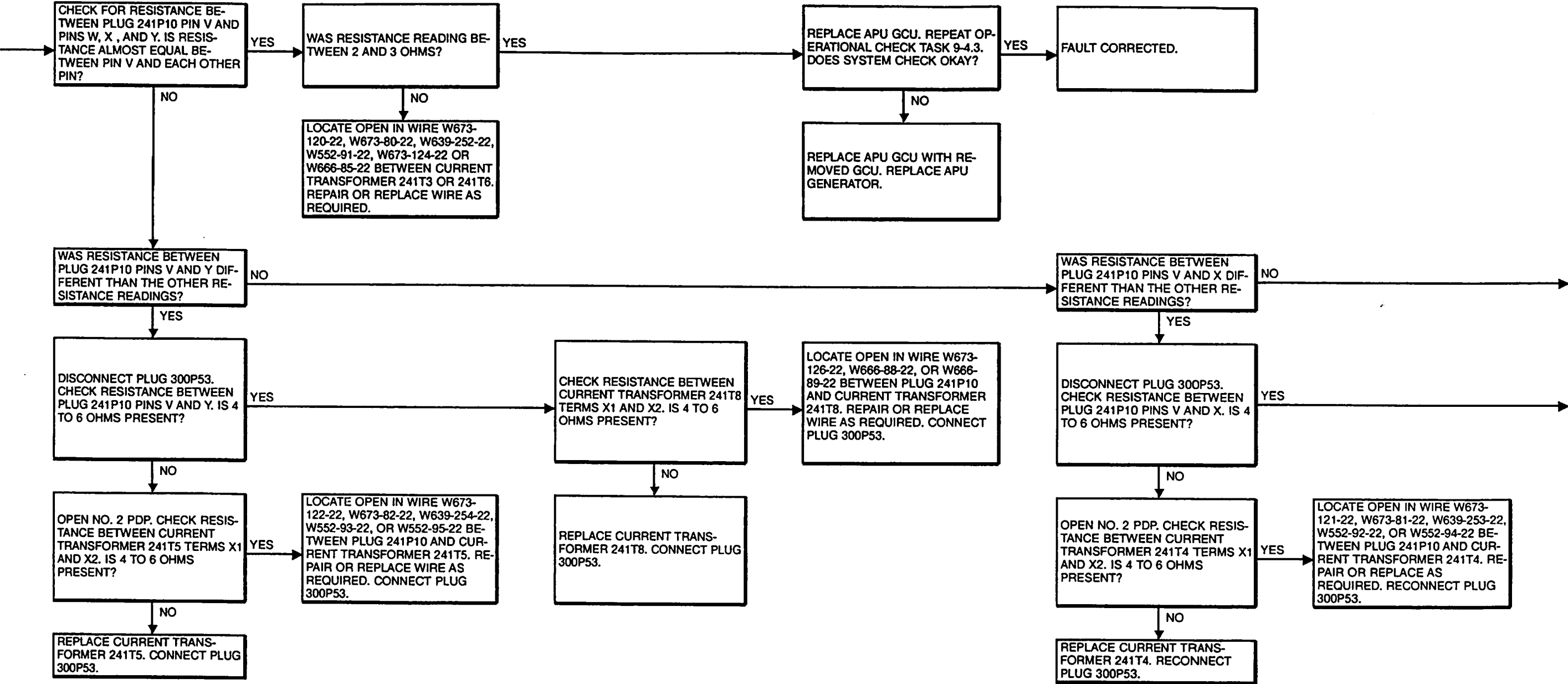




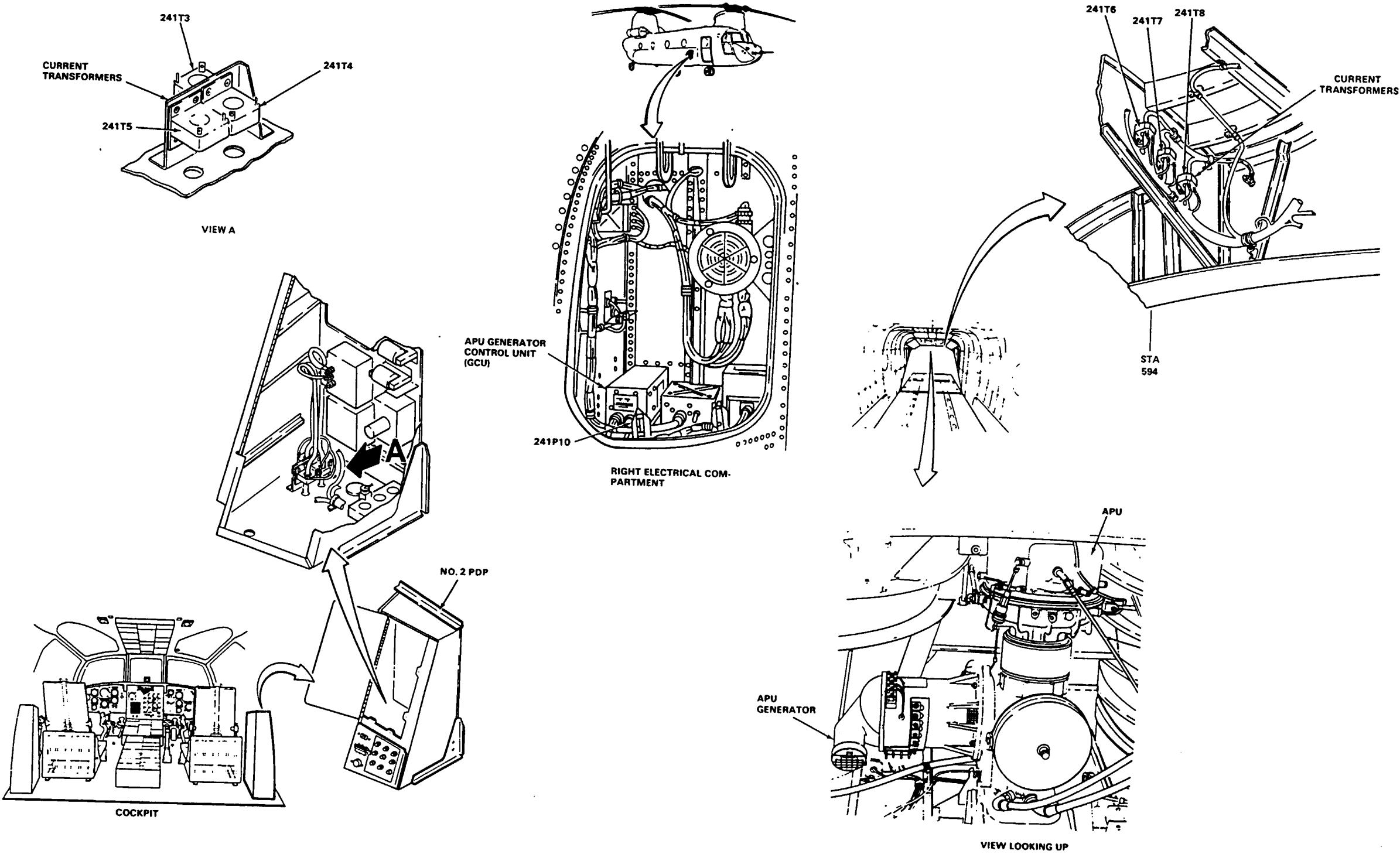


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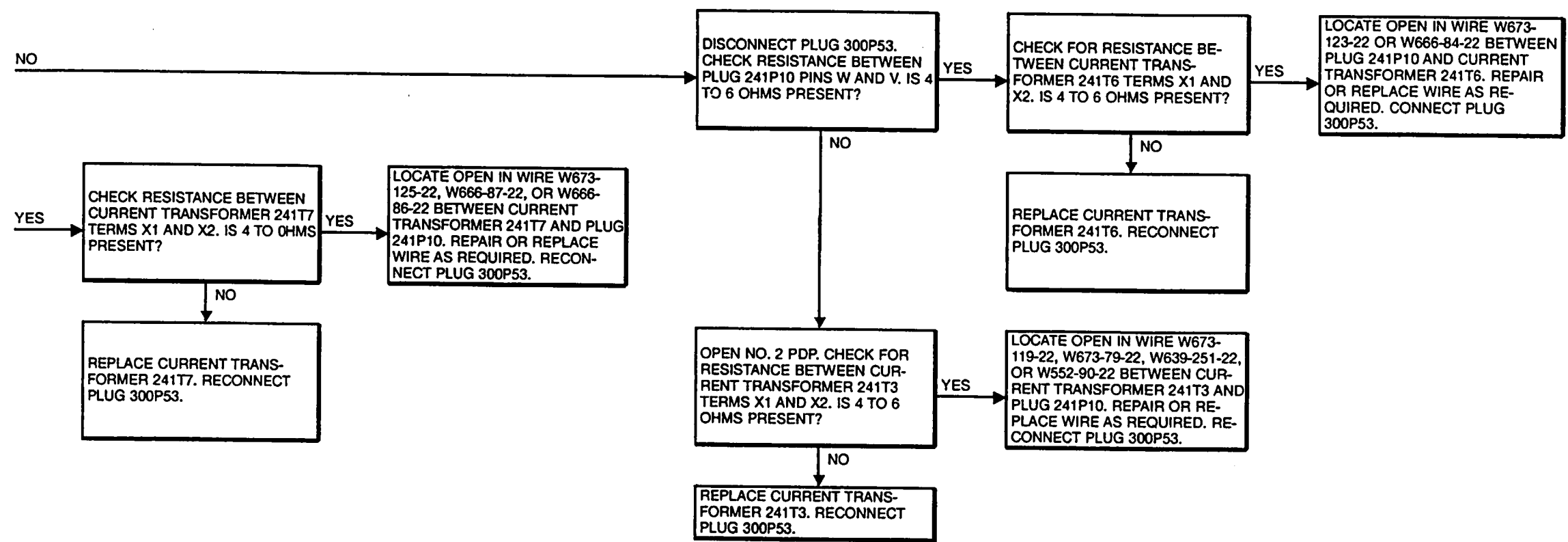


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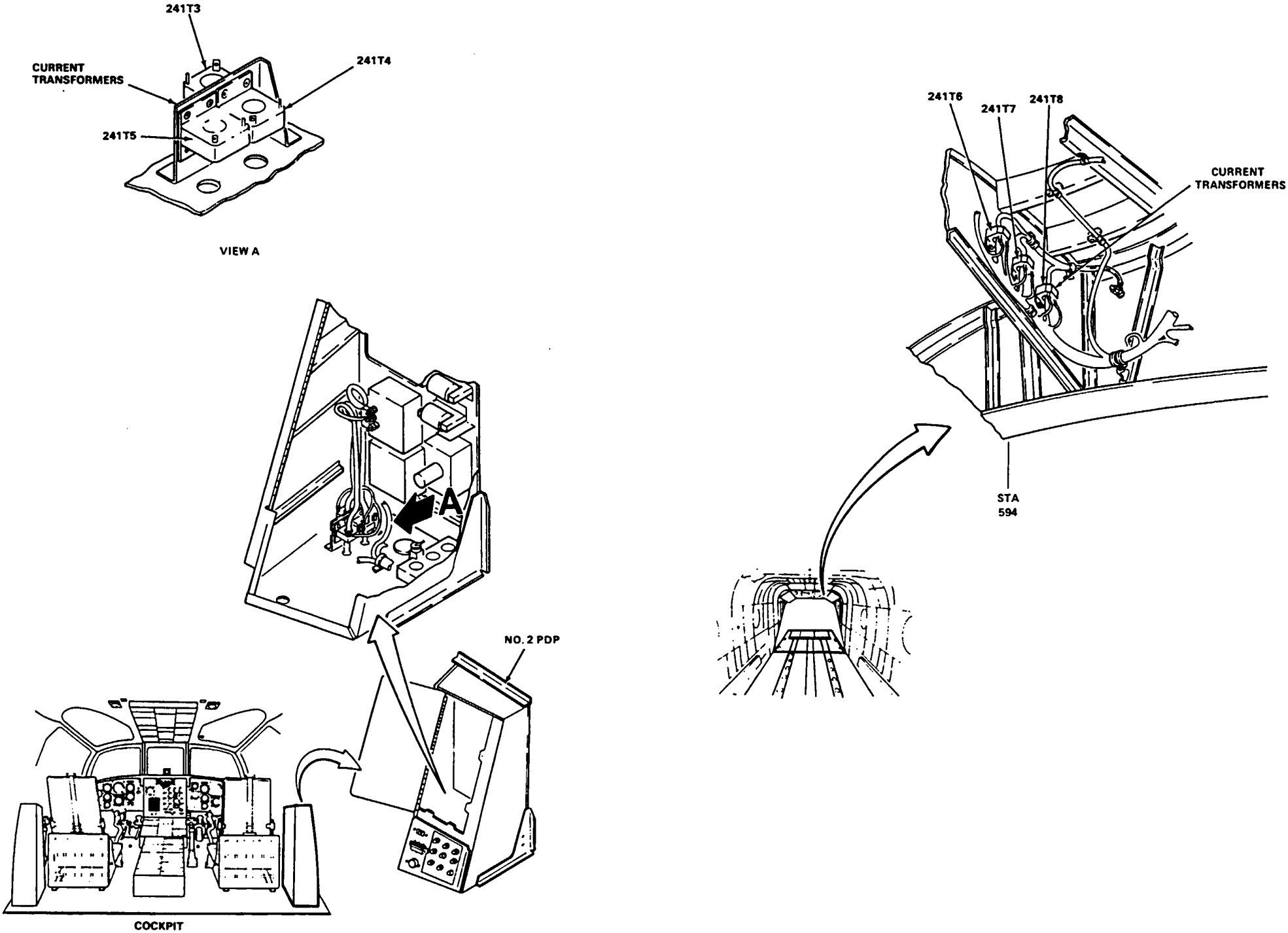


554





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FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

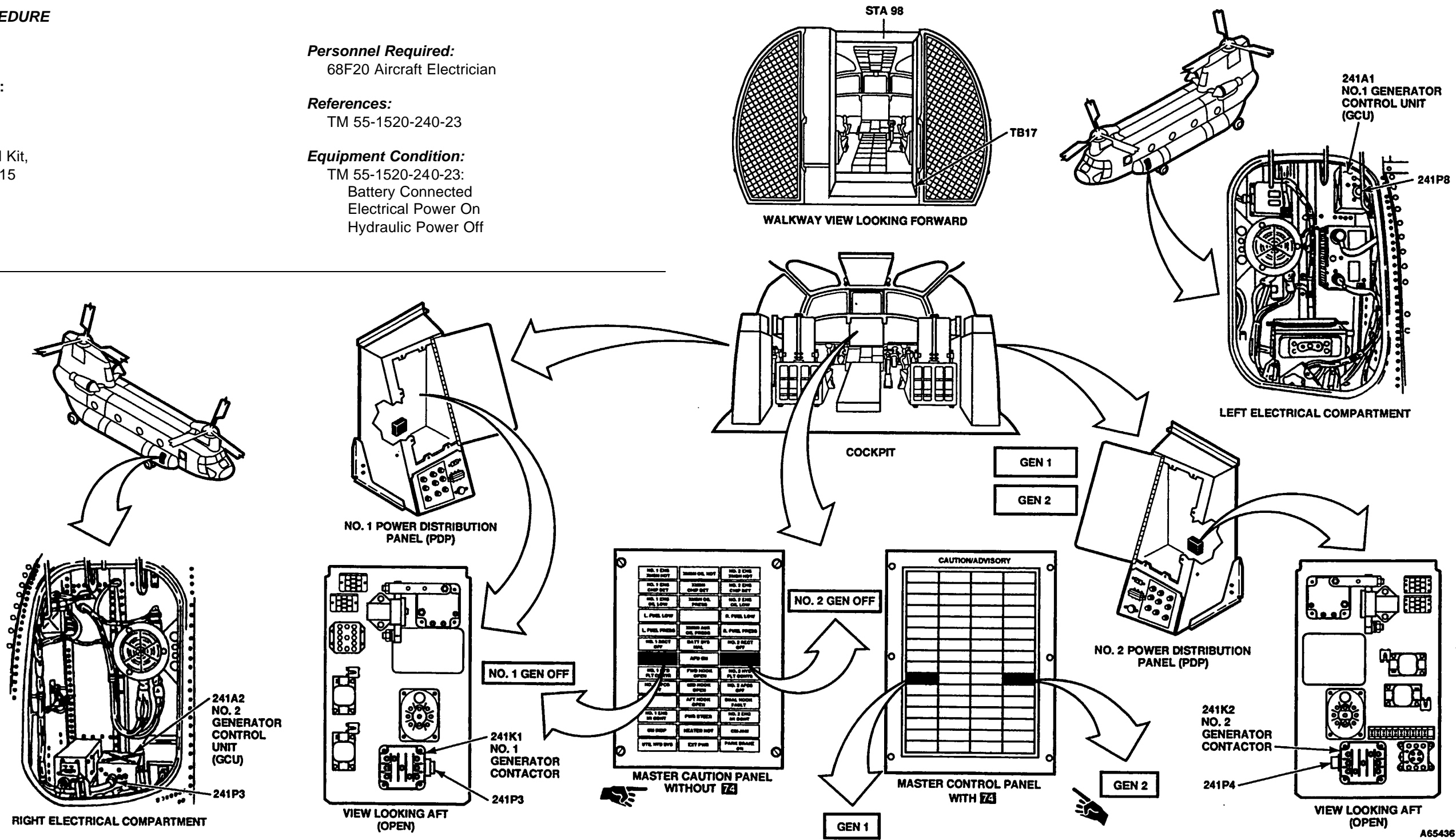
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

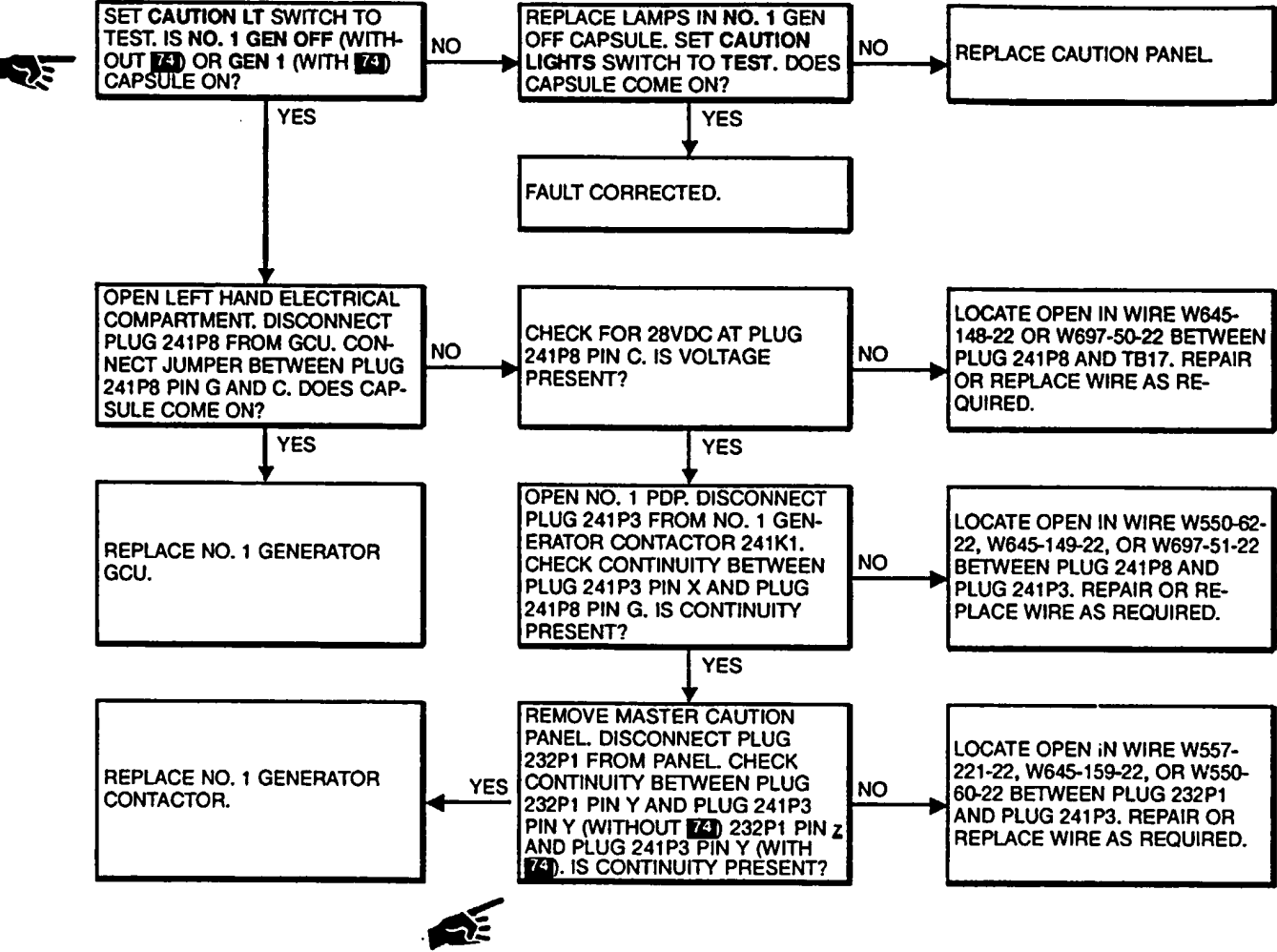
Personnel Required:  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

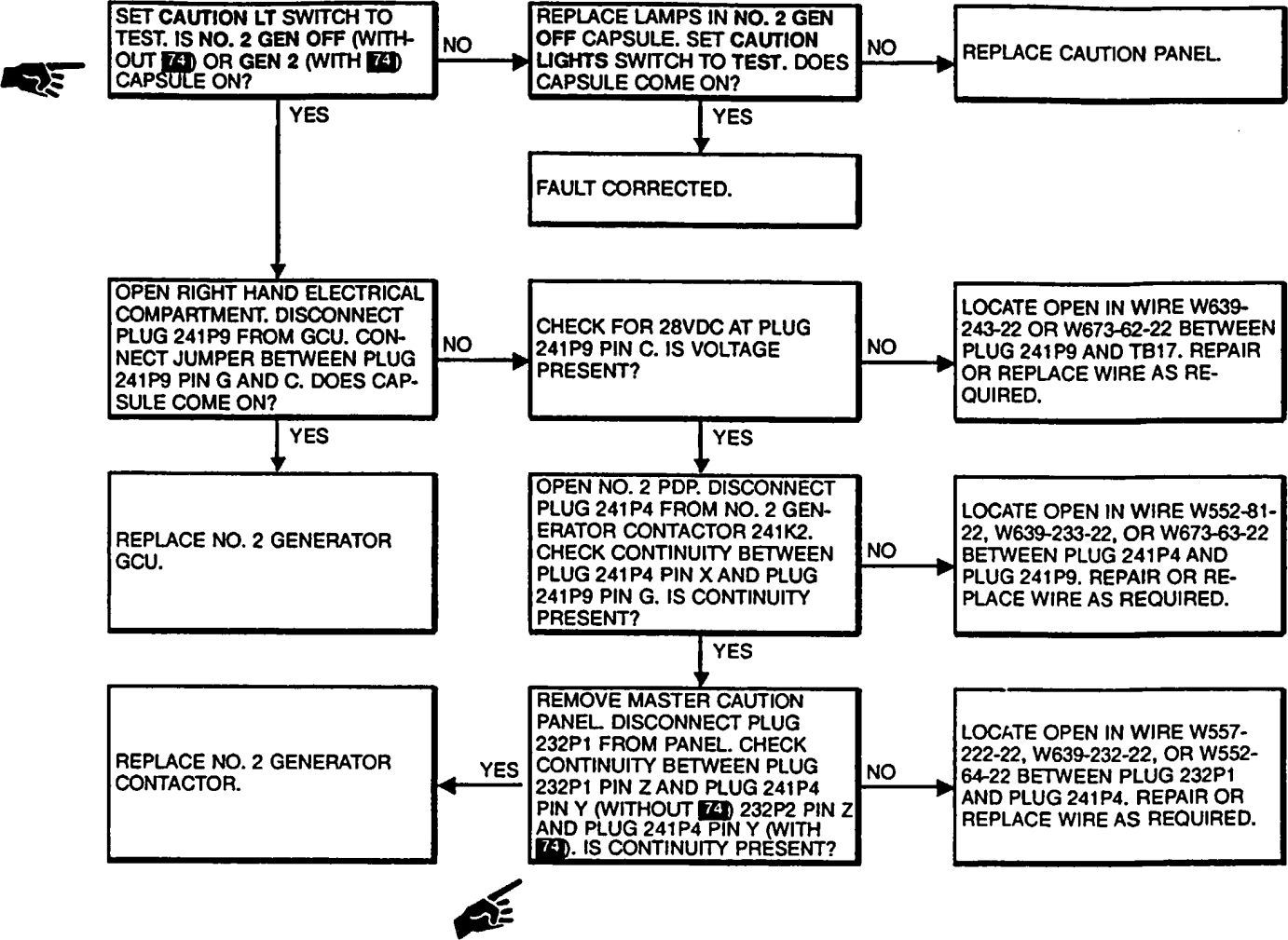
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



NO. 1 GEN OFF CAPSULE OUT



NO. 2 GEN OFF CAPSULE OUT



END-OF-TASK

Change 19 9-75

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

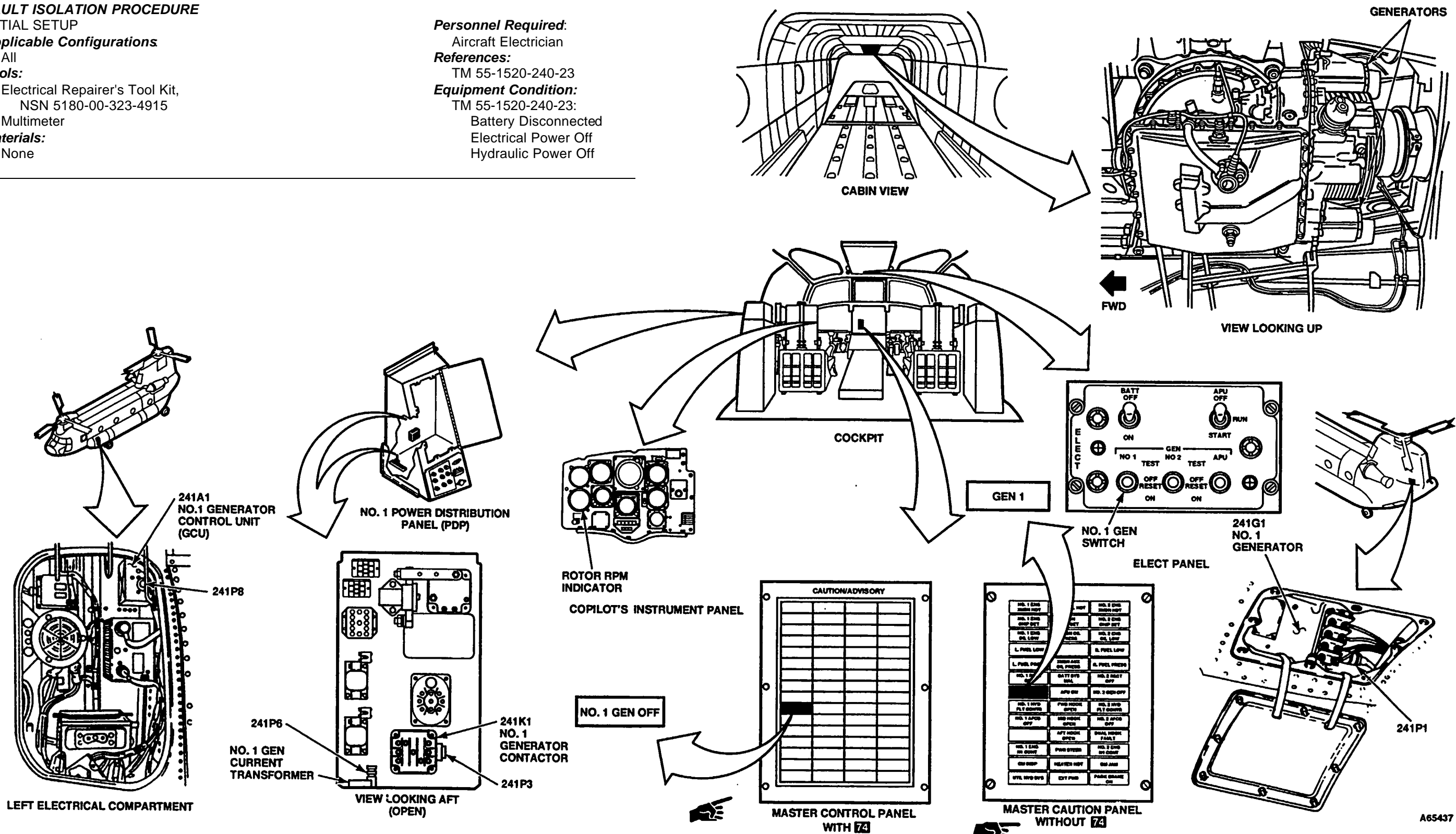
References:

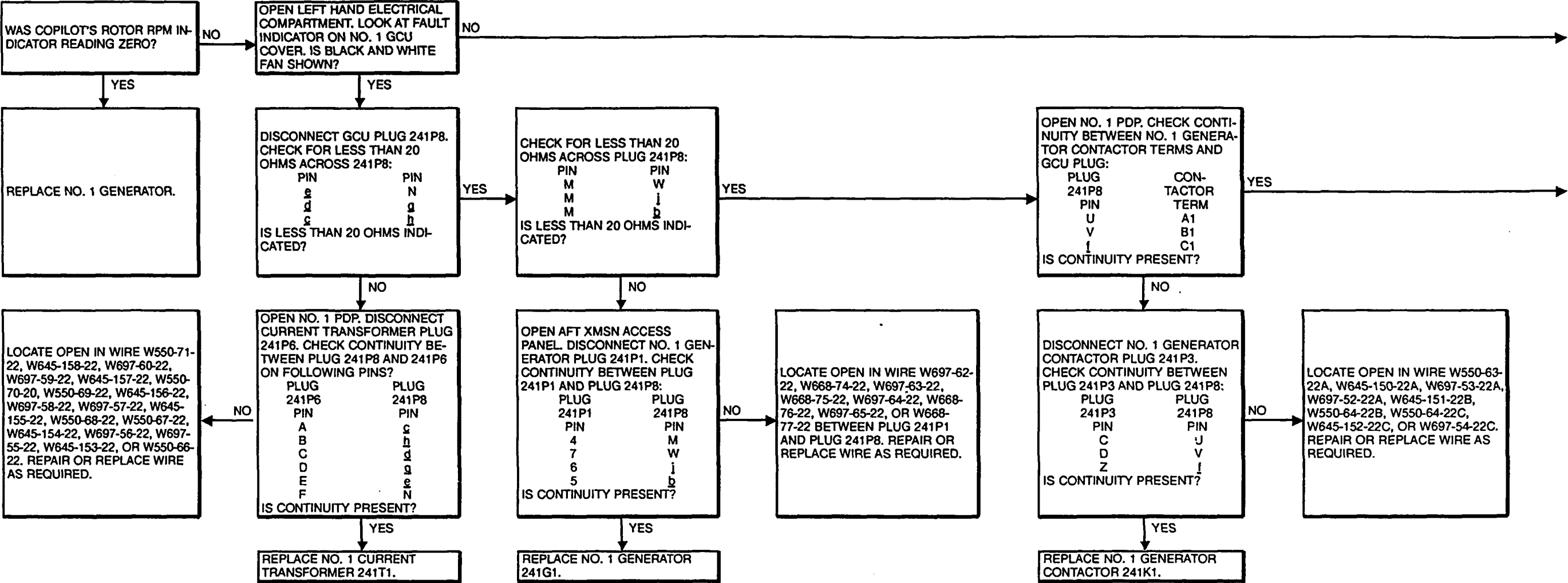
TM 55-1520-240-23

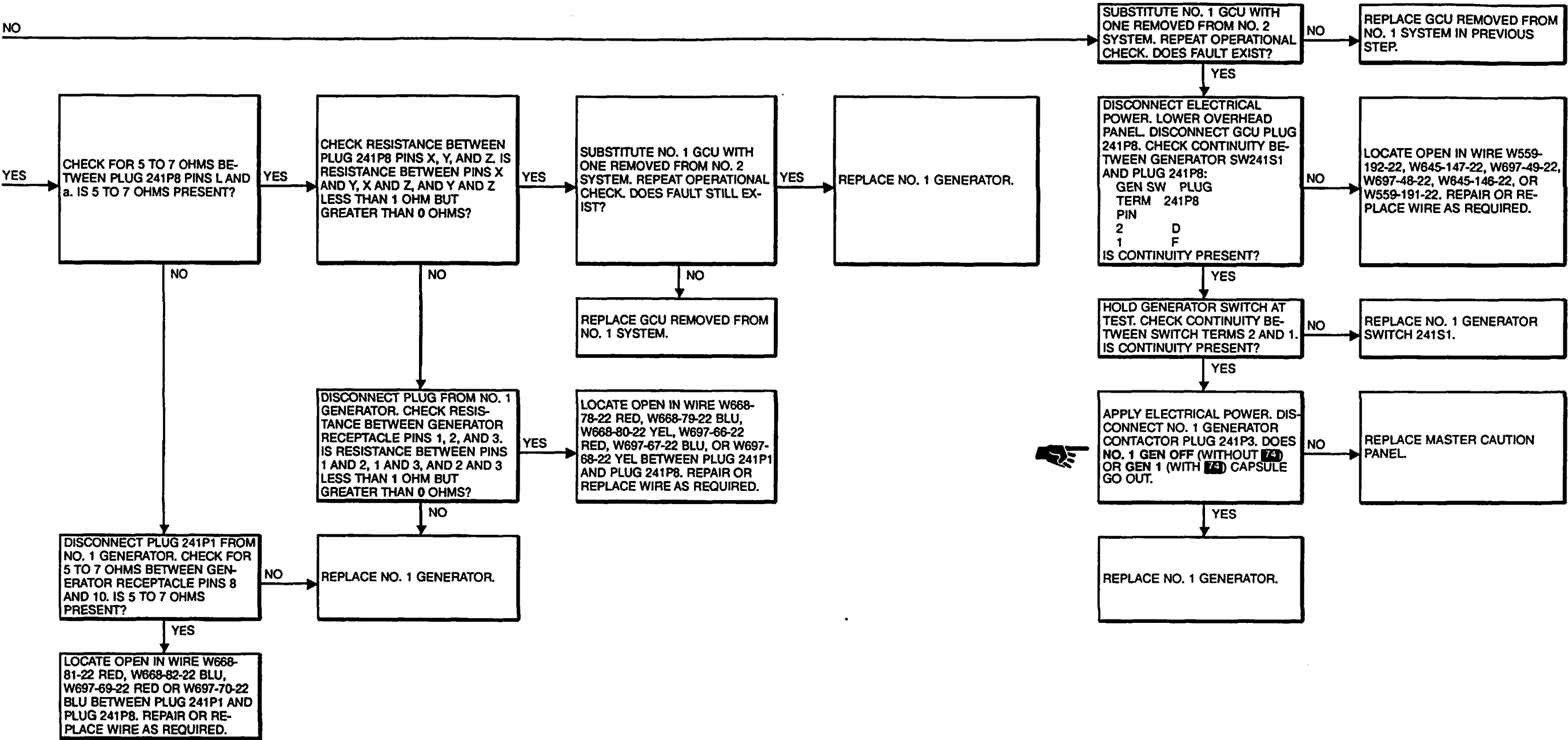
Equipment Condition:

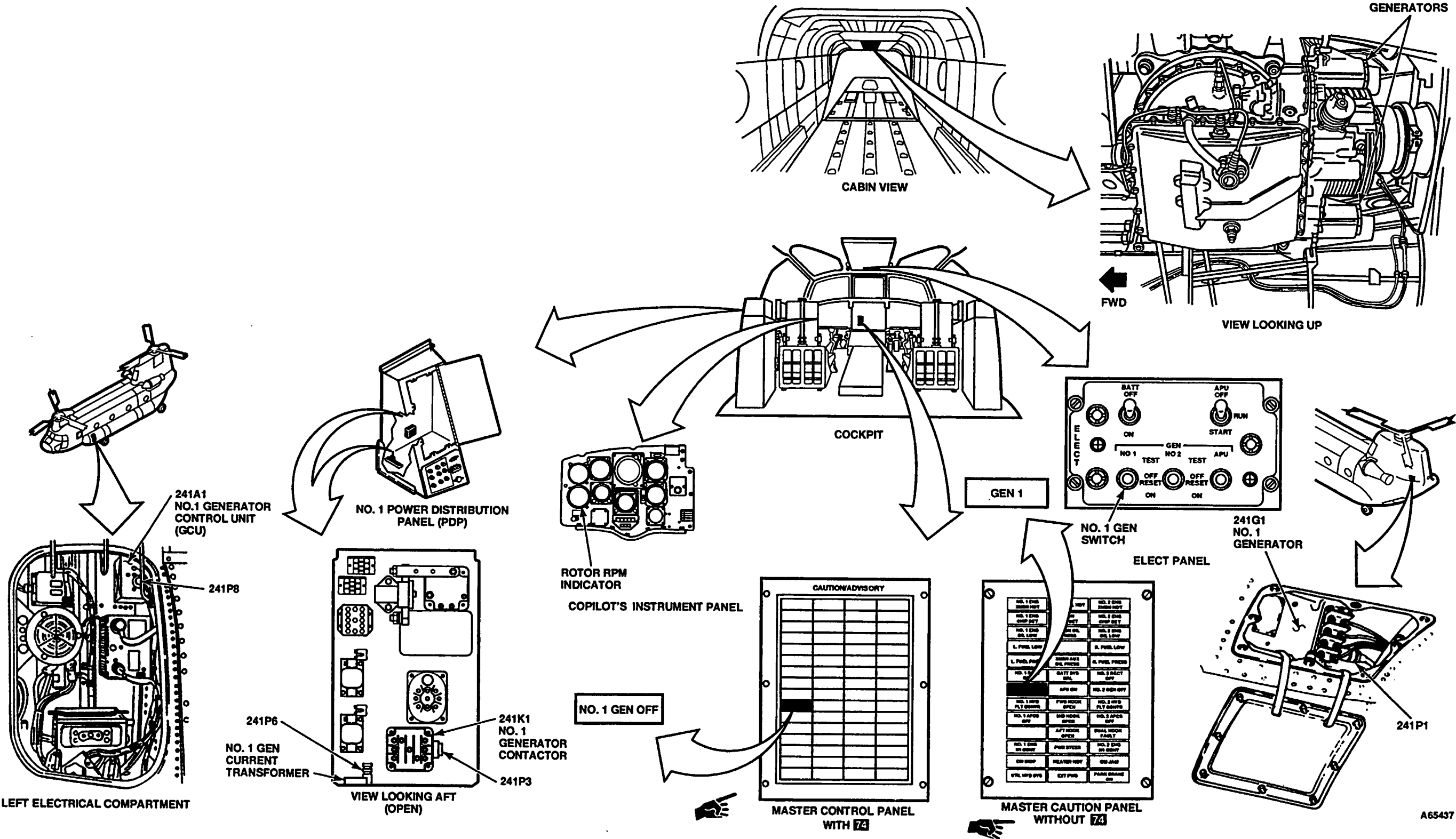
TM 55-1520-240-23:

Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off











**FAULT ISOLATION PROCEDURE**

**INITIAL SETUP**

**Applicable Configurations**

All

**Tools:**

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692
- Multimeter

**Materials**

None

**Personnel Required:**

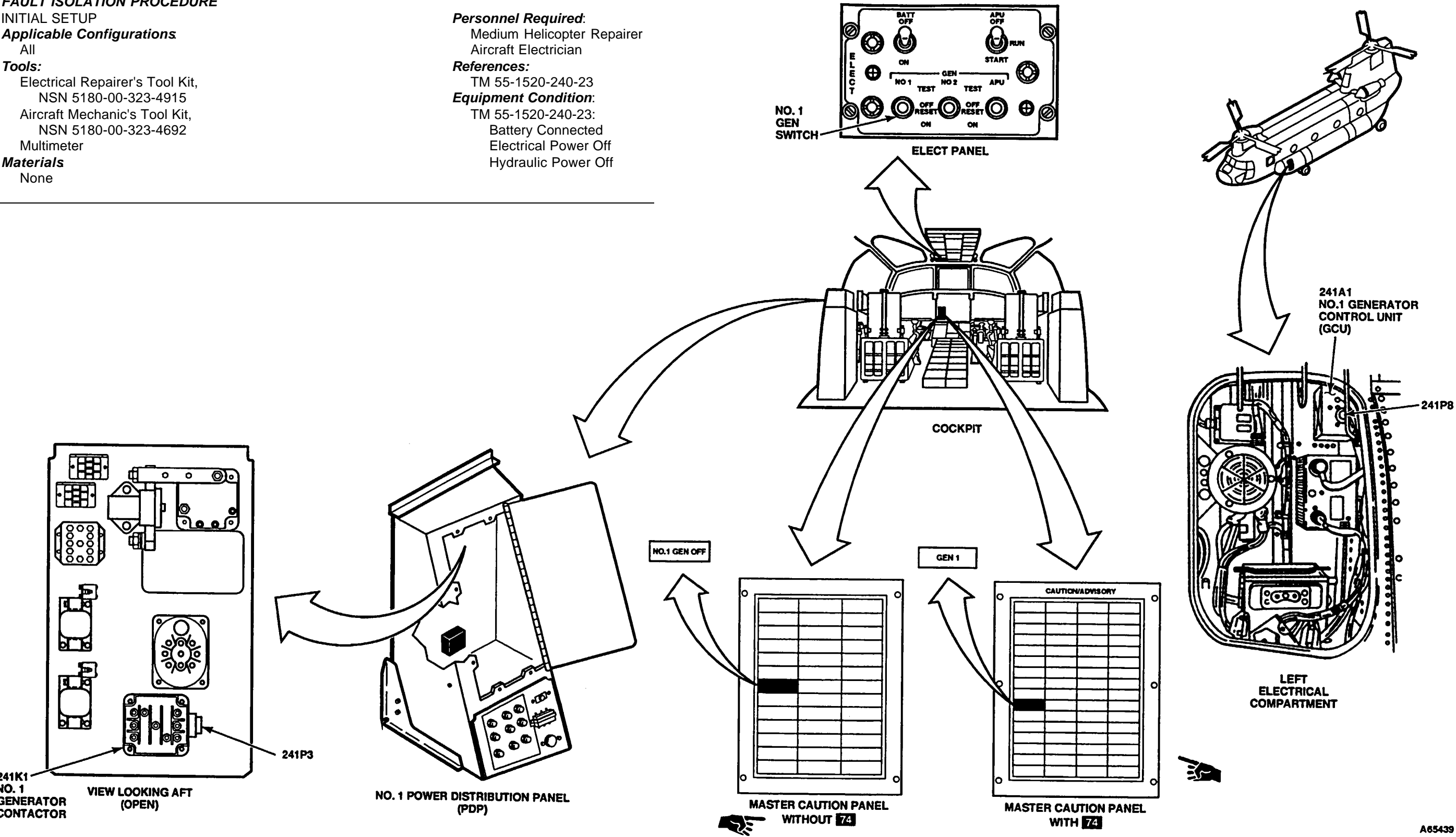
- Medium Helicopter Repairer
- Aircraft Electrician

**References:**

TM 55-1520-240-23

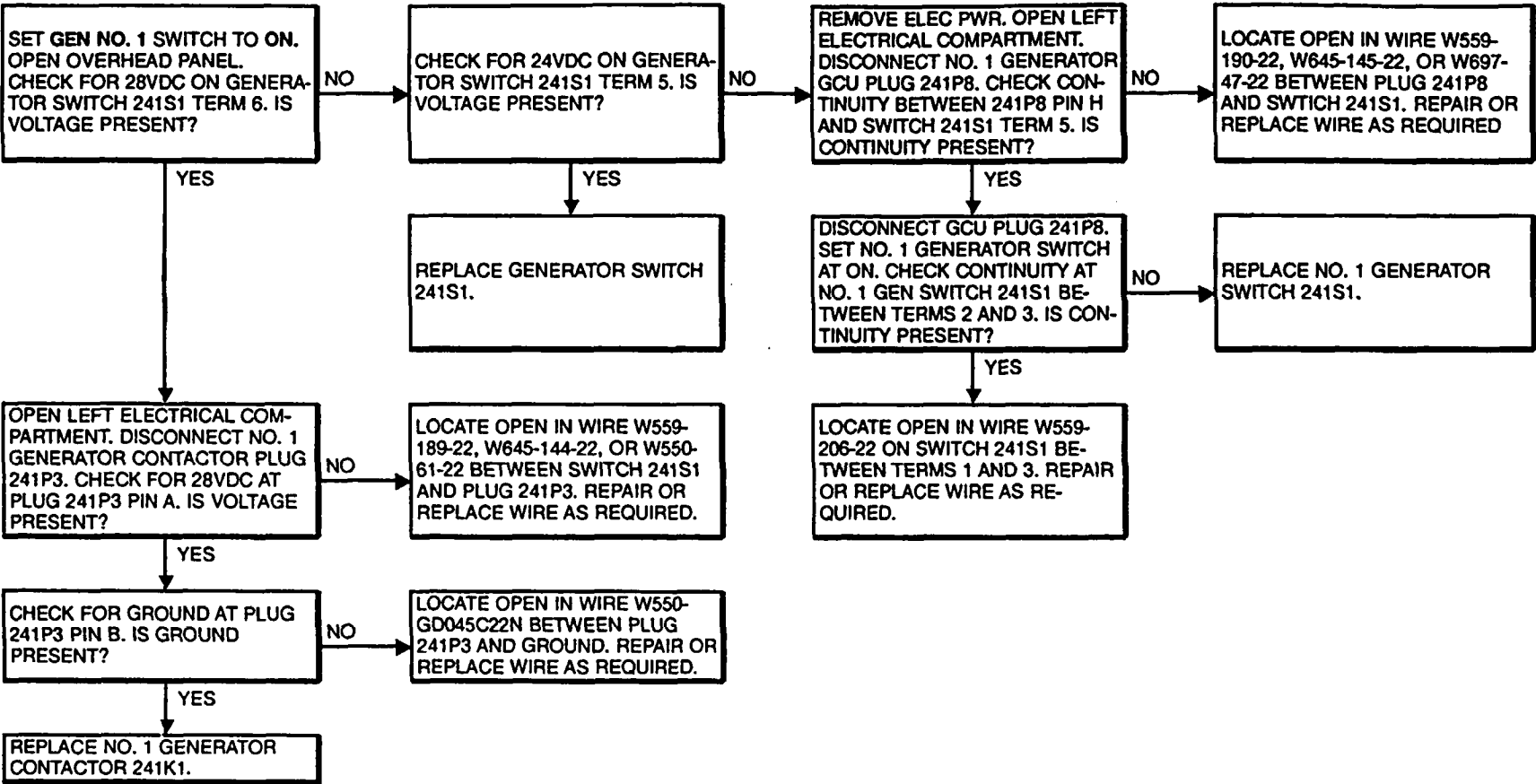
**Equipment Condition:**

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power Off
- Hydraulic Power Off



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GO TO NEXT PAGE



END OF TASK

Change 19 9-81

**FAULT ISOLATION PROCEDURE**

**INITIAL SETUP**

**Applicable Configurations**

All

**Tools**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

**Personnel Required:**

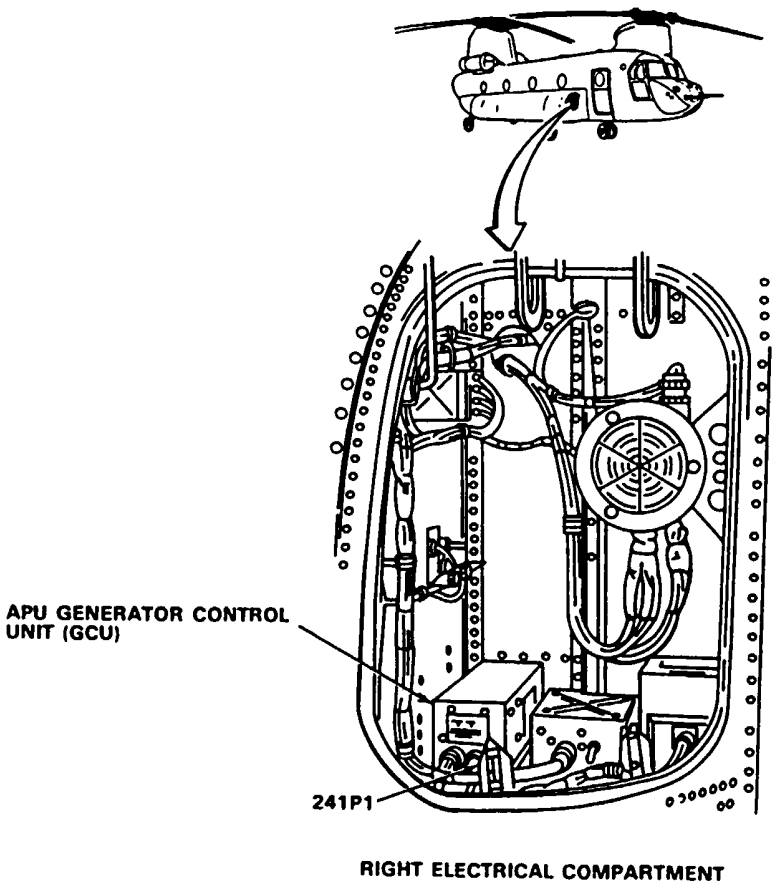
Aircraft Electrician

**References**

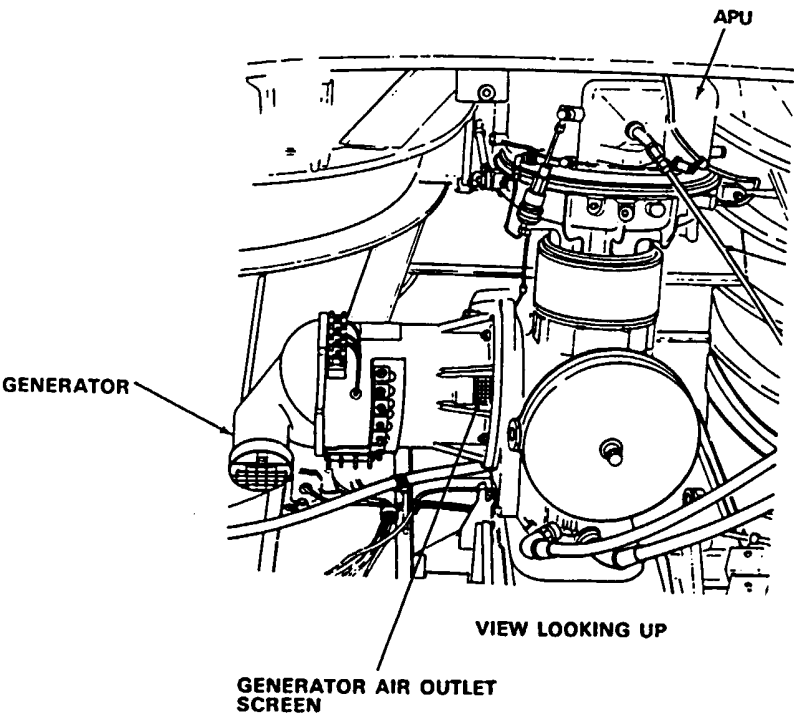
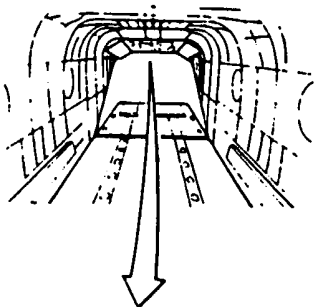
TM 55-1520-240-23

**Equipment Condition:**

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

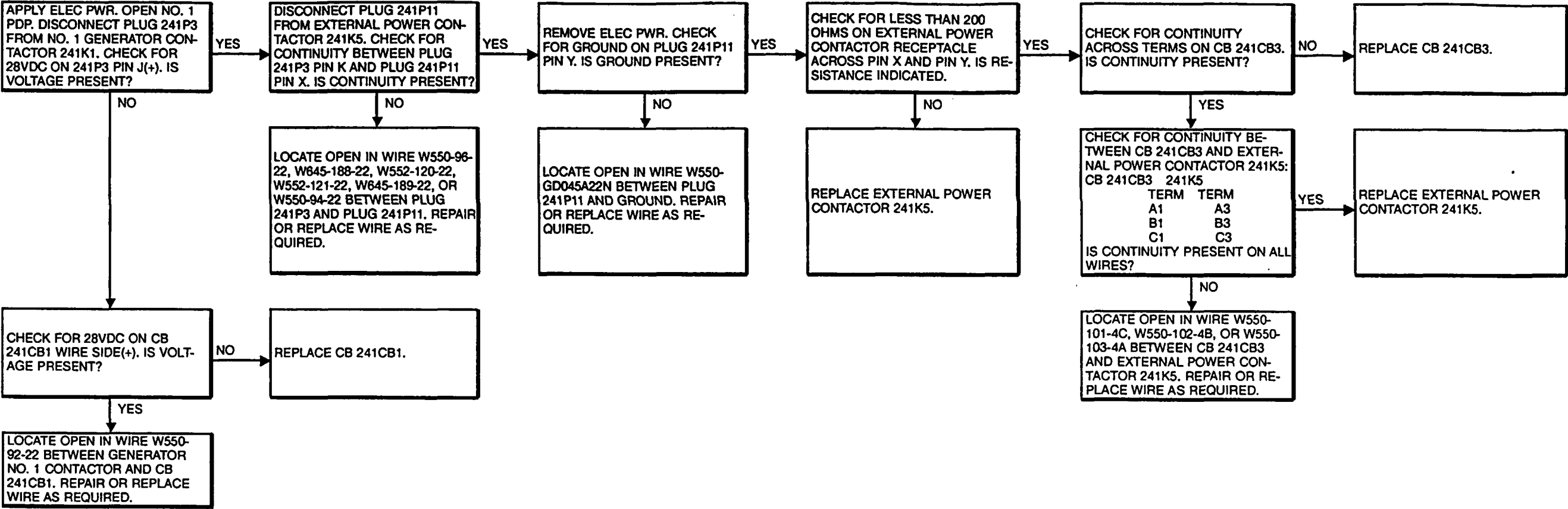


90 x 54



DM45-12067-SPA

GO TO NEXT PAGE



END OF TASK

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

All

Tools

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Aircraft Mechanic's Tool Kit  
NSN 5180-00-323-4692  
Multimeter

Materials:

None

Personnel Required:

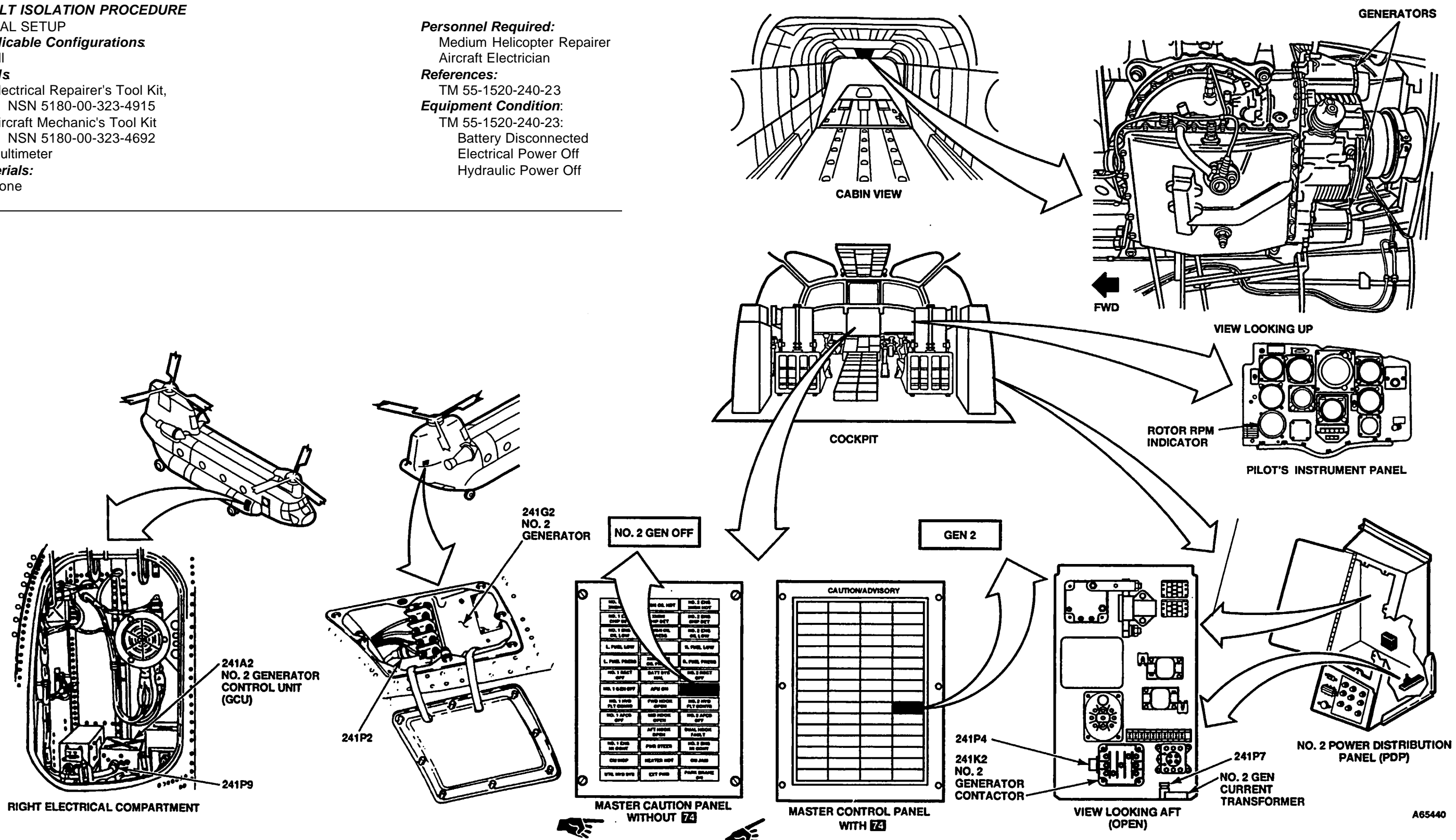
Medium Helicopter Repairer  
Aircraft Electrician

References:

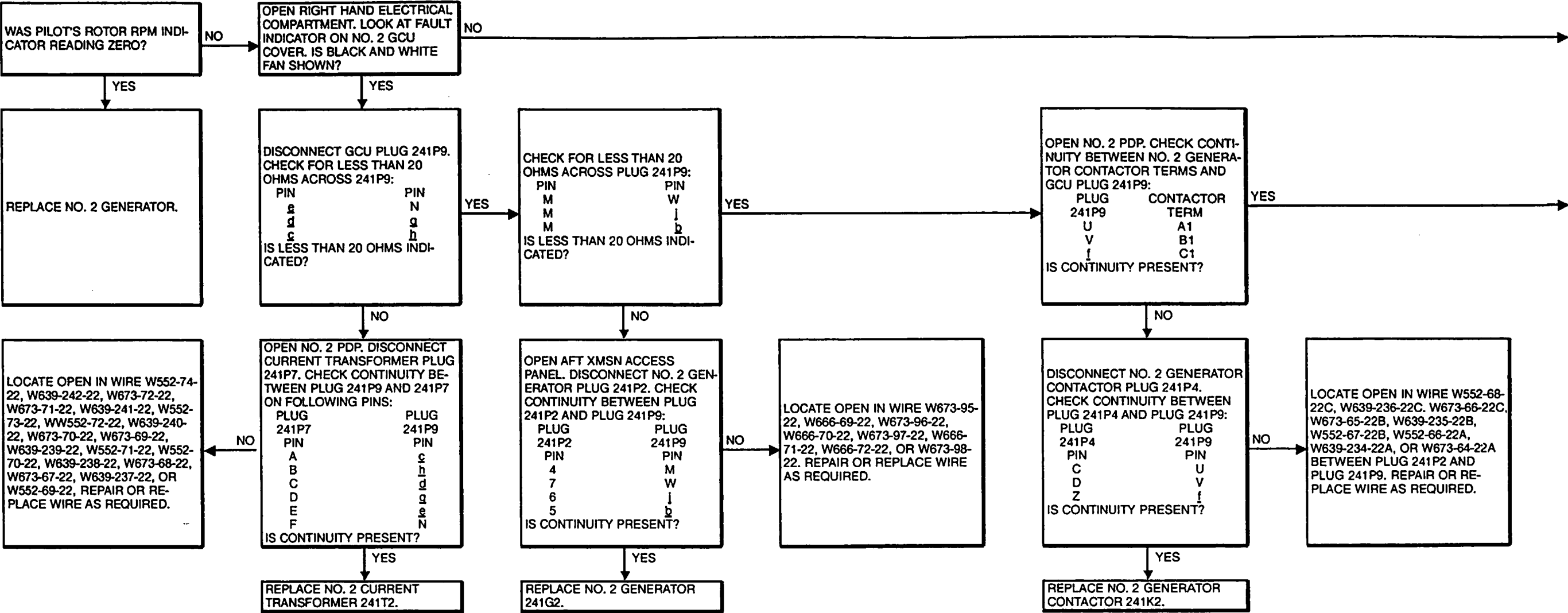
TM 55-1520-240-23

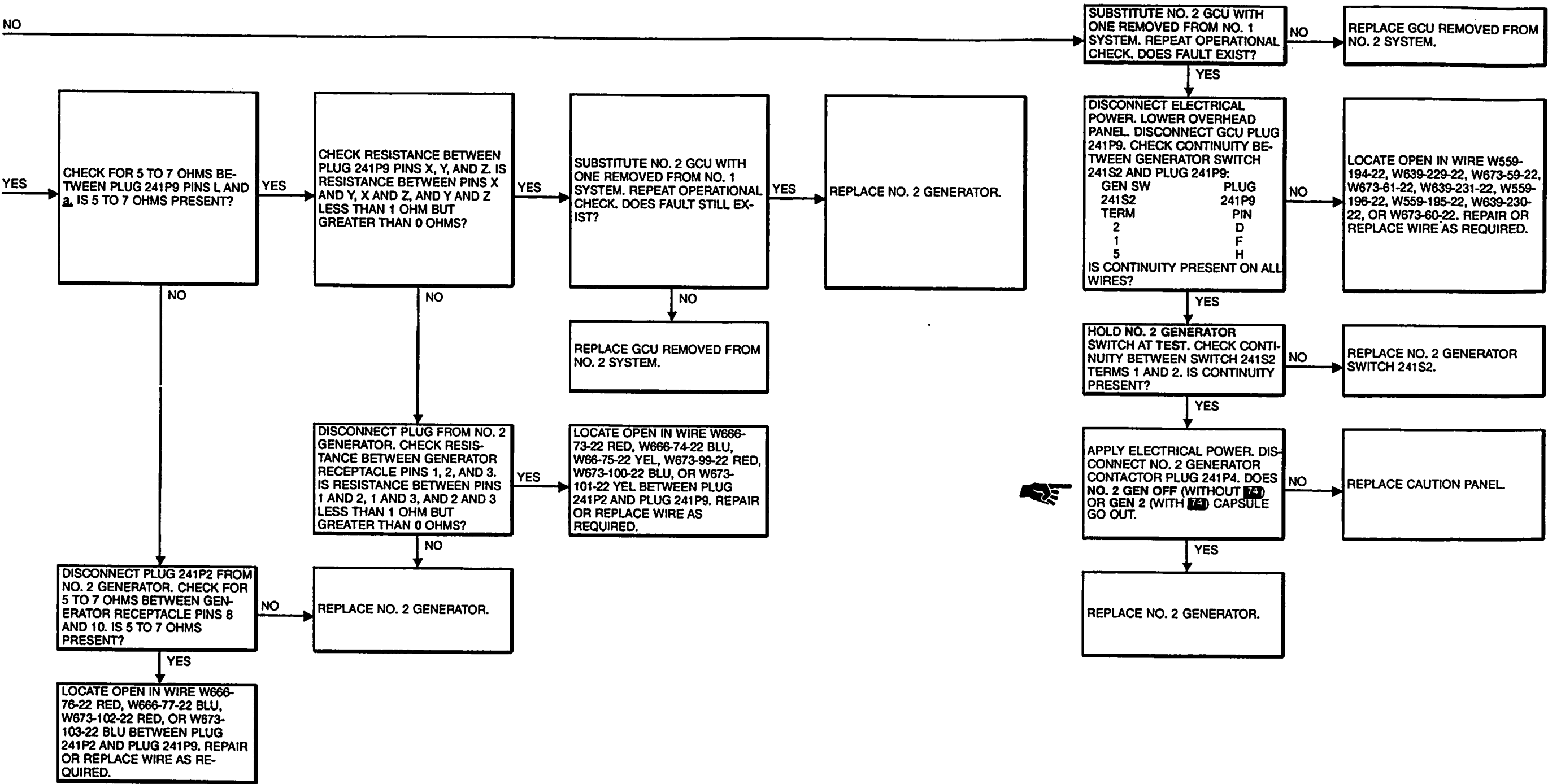
Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

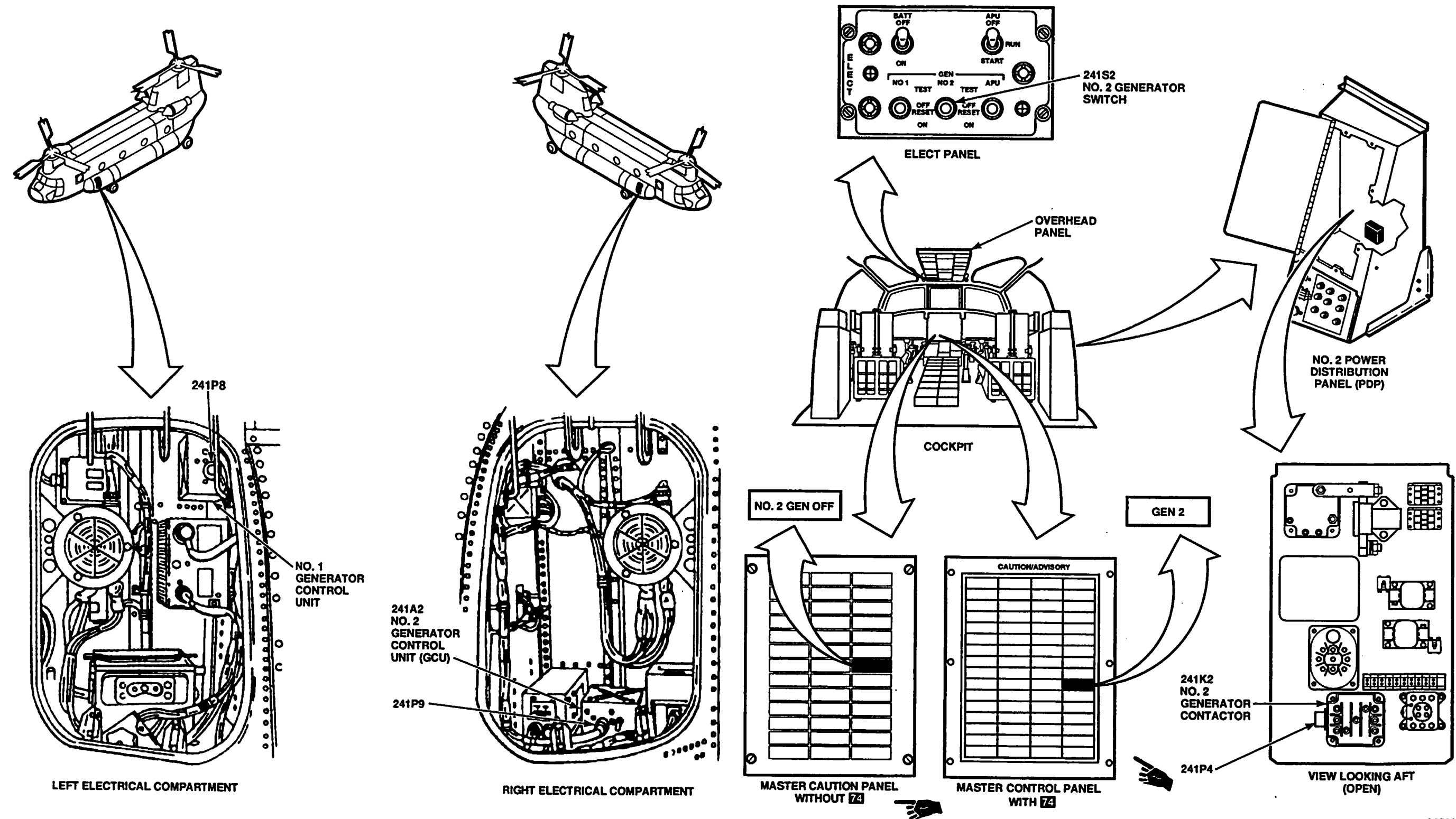


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GO TO NEXT PAGE



A65441



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

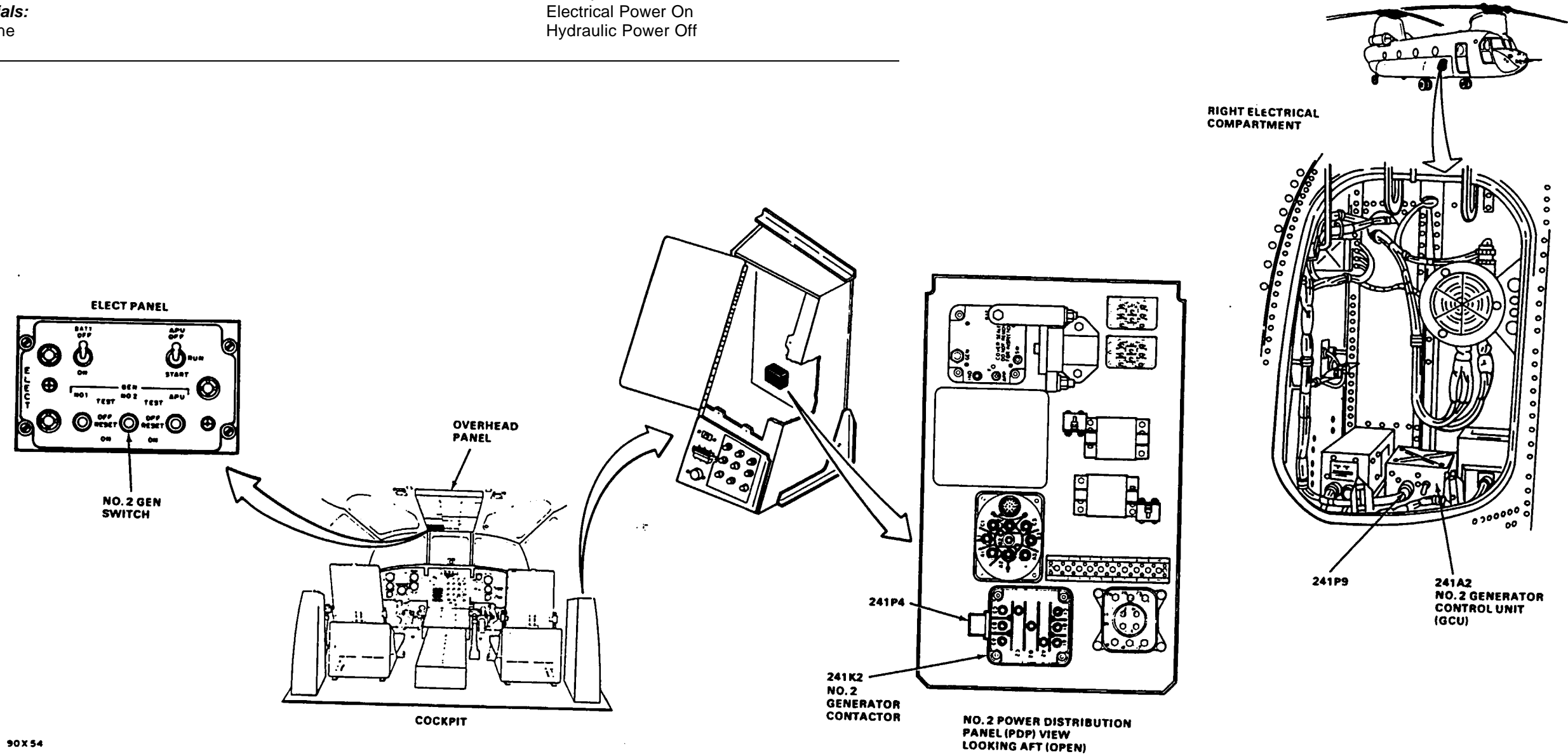
Equipment Condition:

TM 55-1520-240-23:

Battery Connected

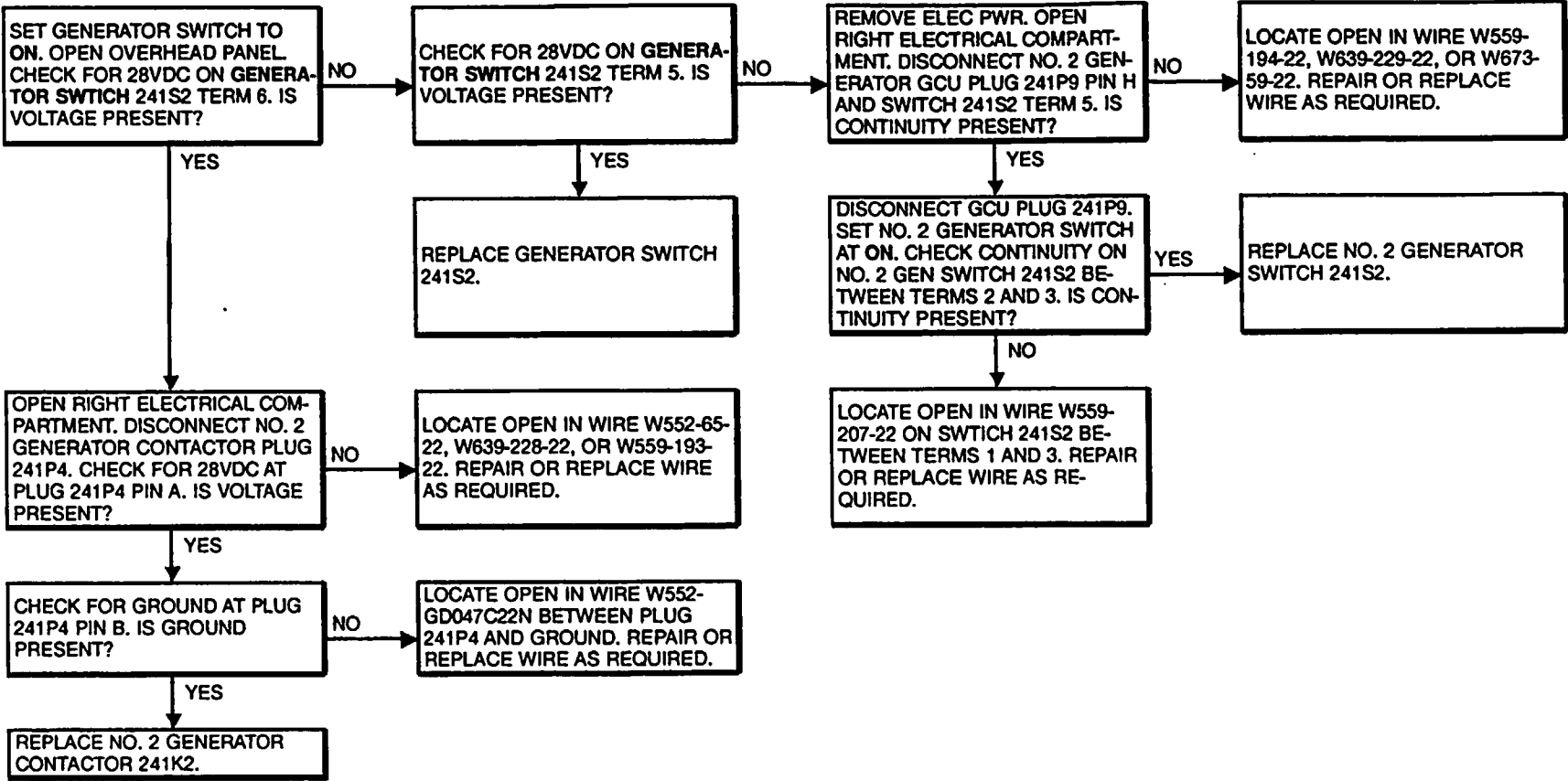
Electrical Power On

Hydraulic Power Off



90X54

DI45-12070-SPA



**FAULT ISOLATION PROCEDURE**

**INITIAL SETUP**

**Applicable Configurations:**

All References:

**Tools:** TM 55-1520-240-23

Electrical Repairer's Tool Kit,

NSN 5180-00-323-4915

Multimeter

**Materials:**

None

**Personnel Required:**

Aircraft Electrician

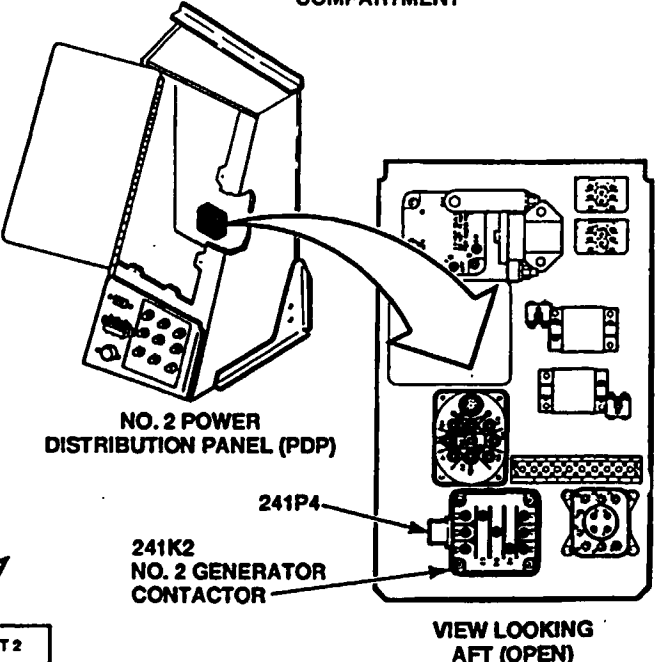
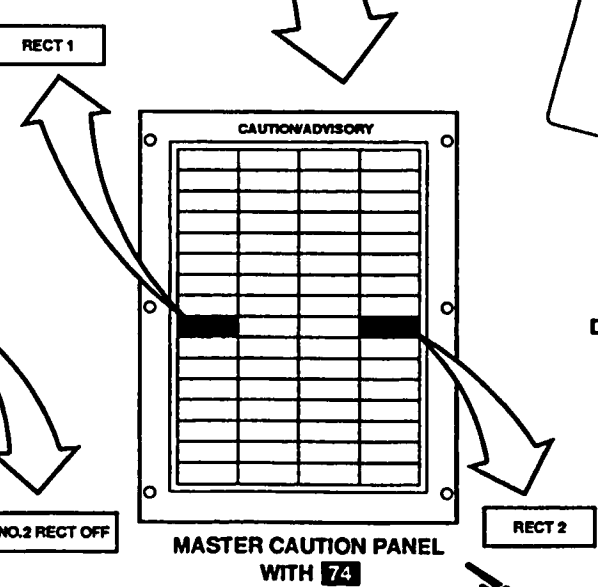
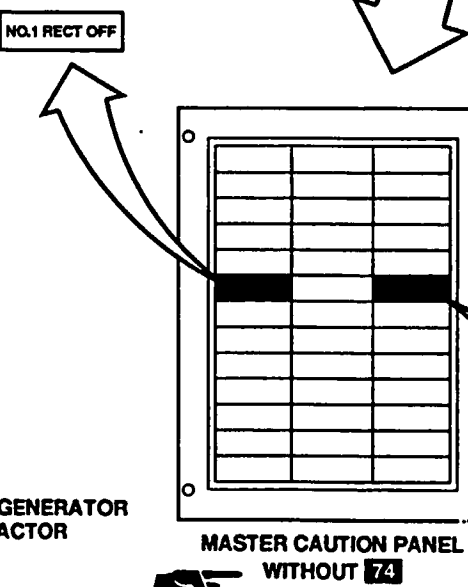
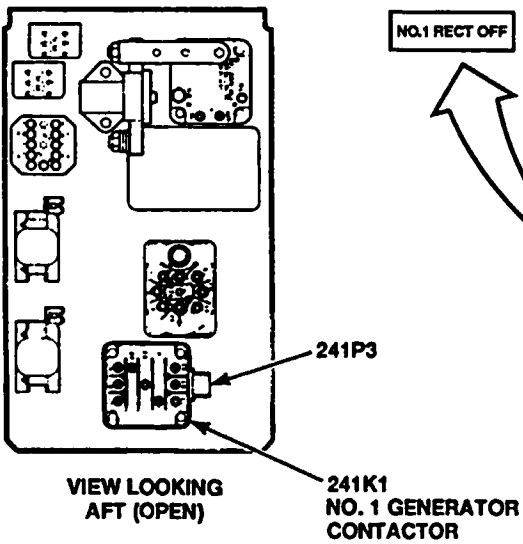
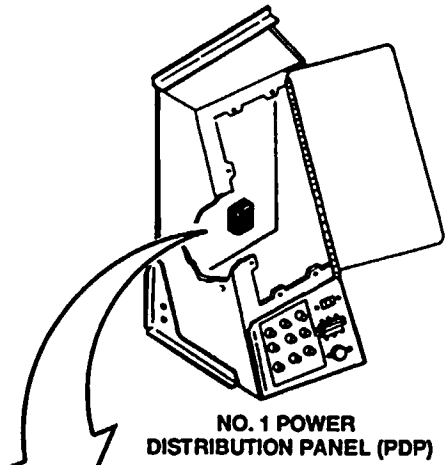
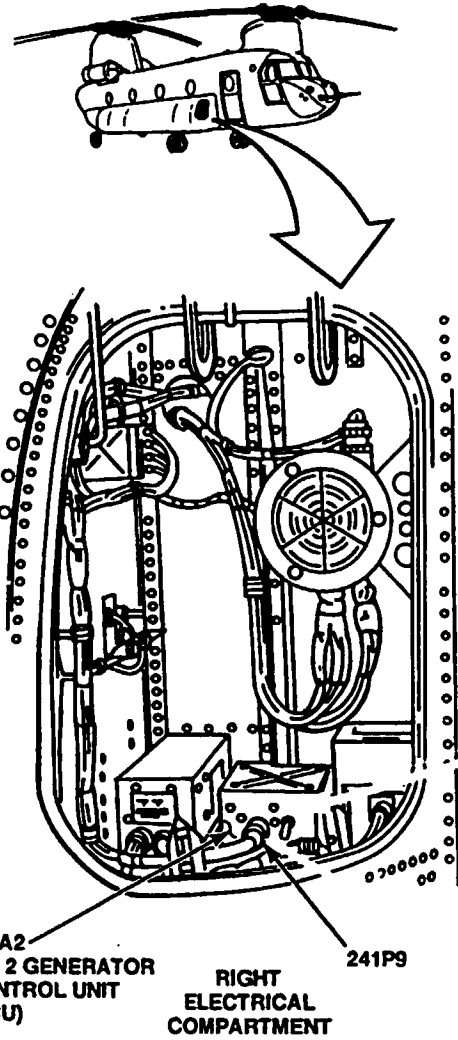
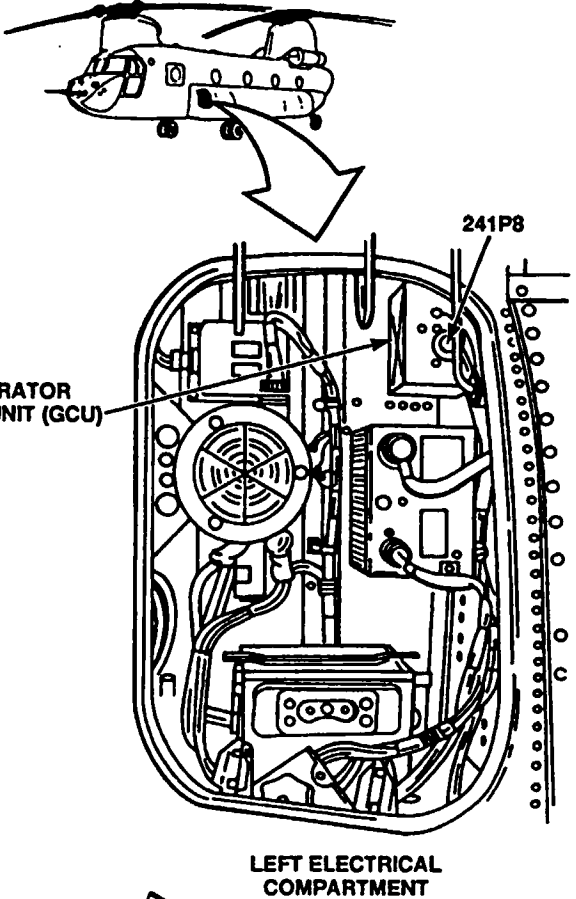
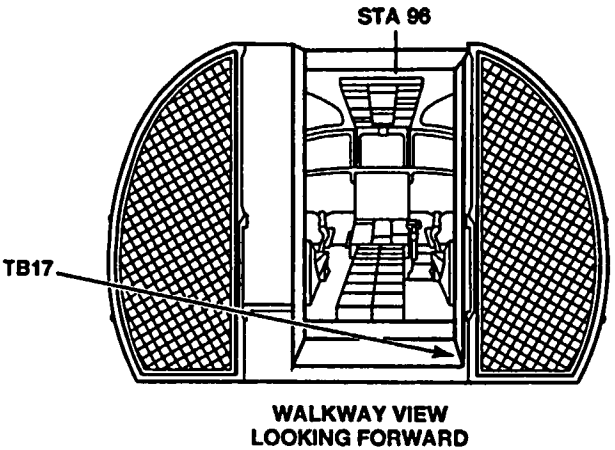
**Equipment Condition:**

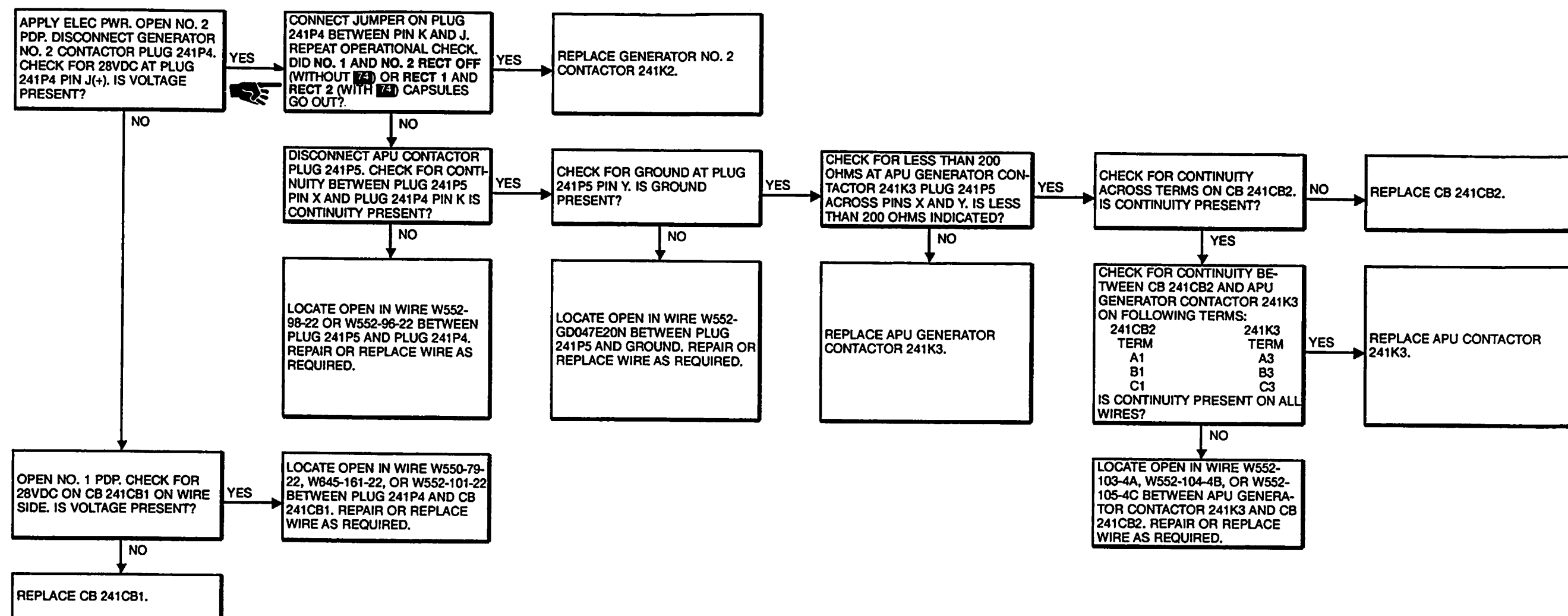
TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off





9-2.13 EXT PWR CAPSULE NOT ON (EXTERNAL POWER APPLIED)

9-2.13

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Aircraft Mechanic's Tool Kit,  
NSN 5180-00-323-4692
- Multimeter

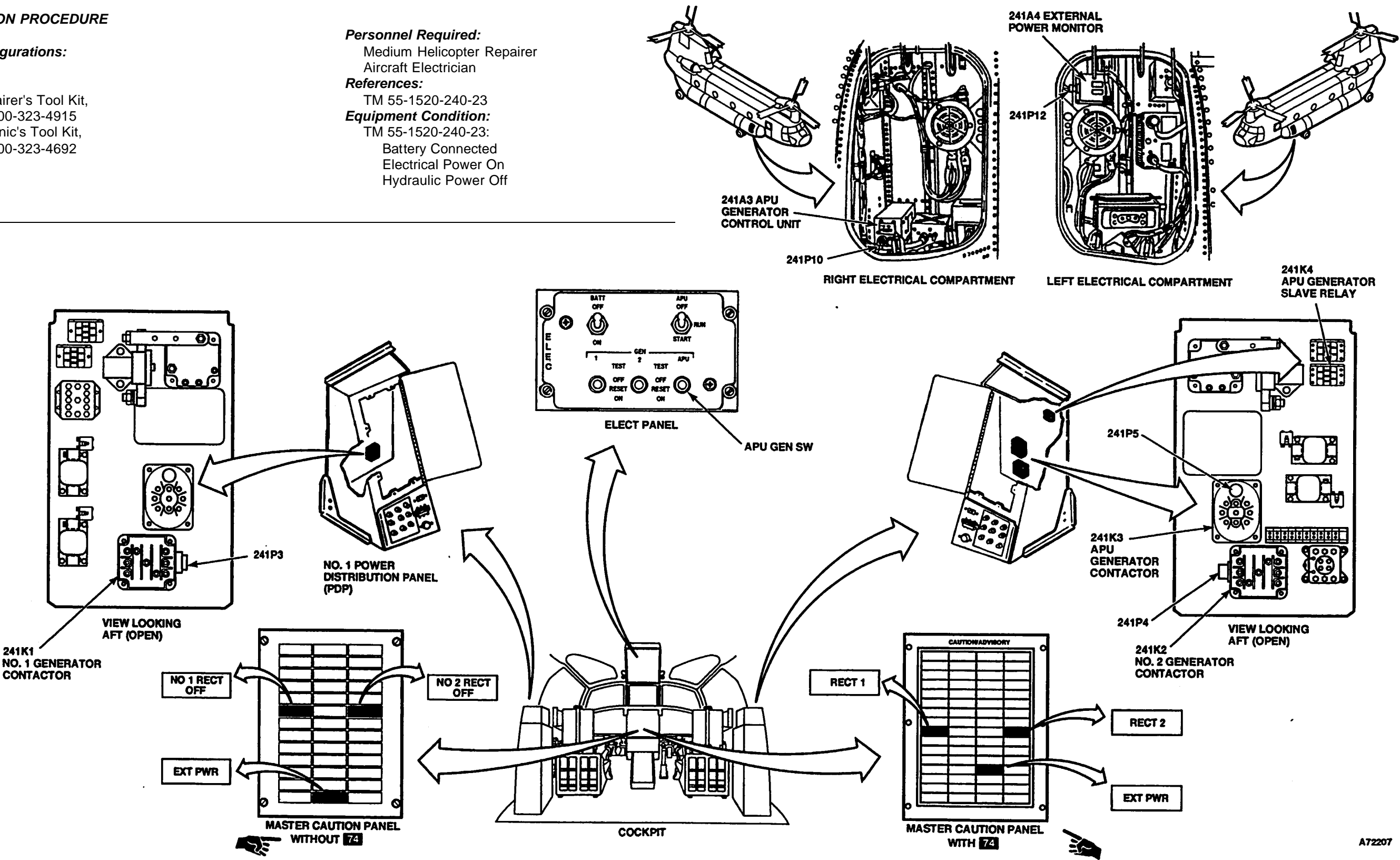
Materials:

None

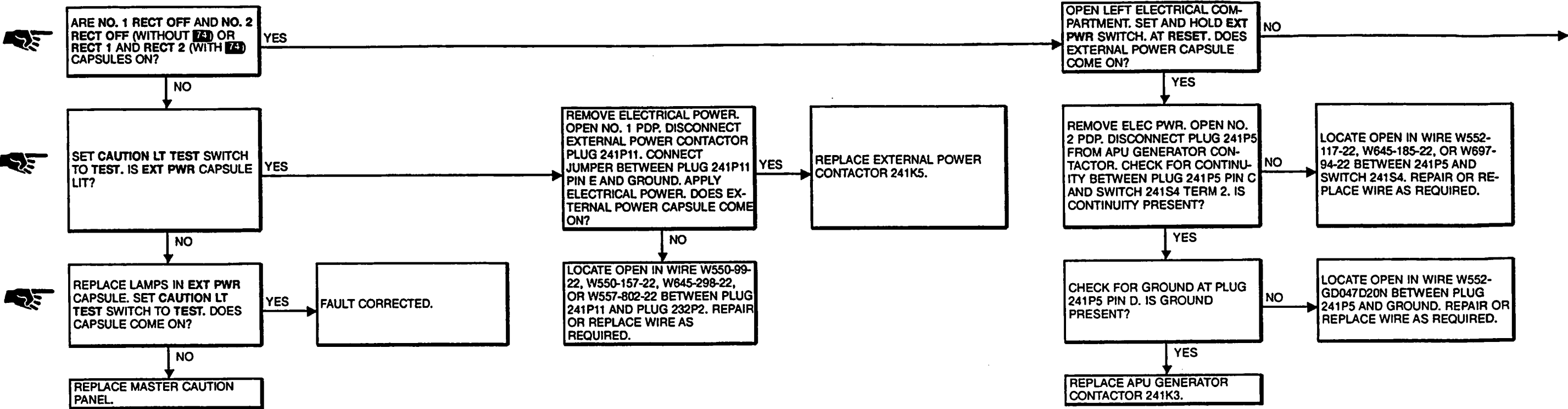
**Personnel Required:**  
Medium Helicopter Repairer  
Aircraft Electrician

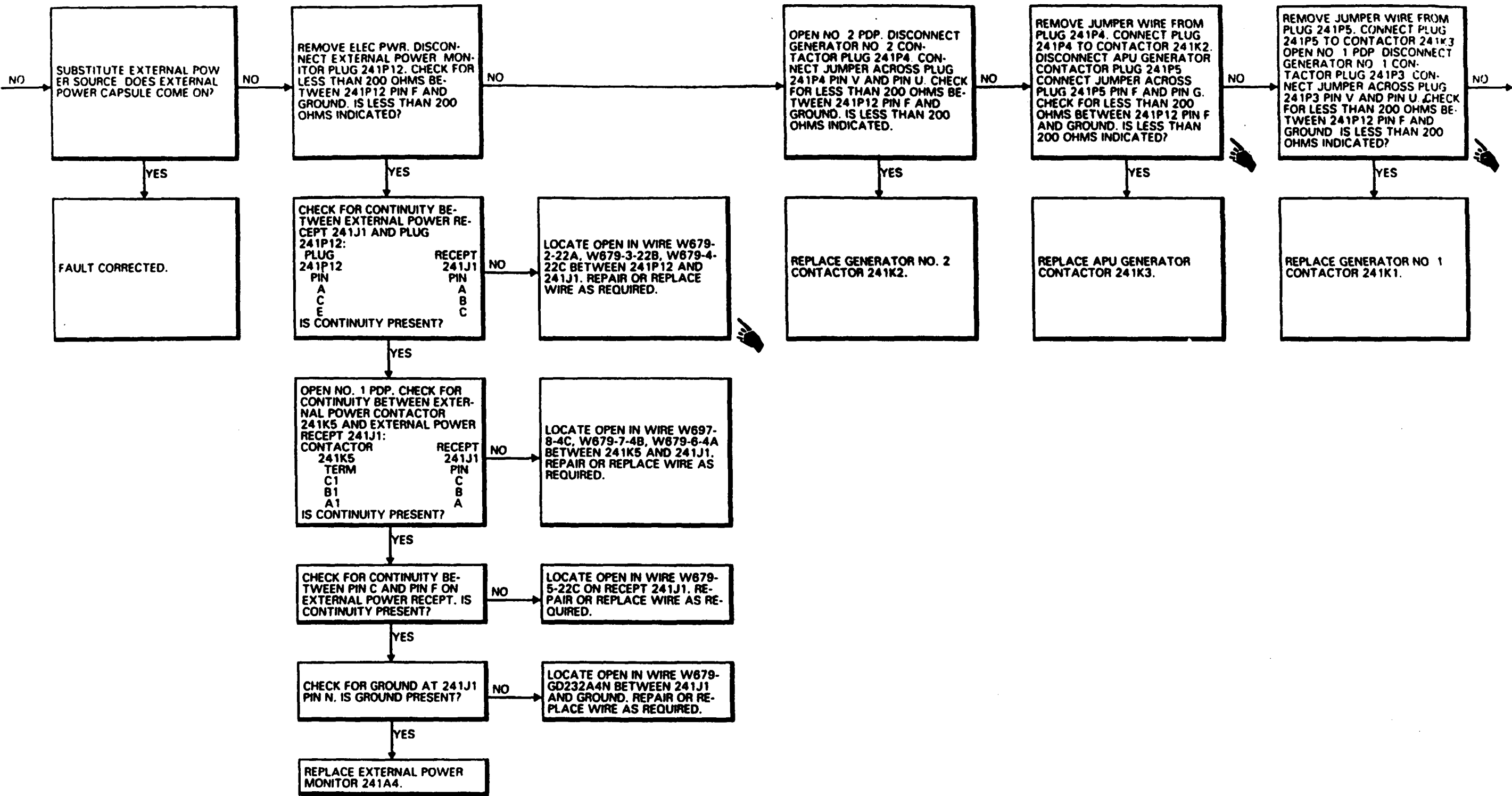
**References:**  
TM 55-1520-240-23

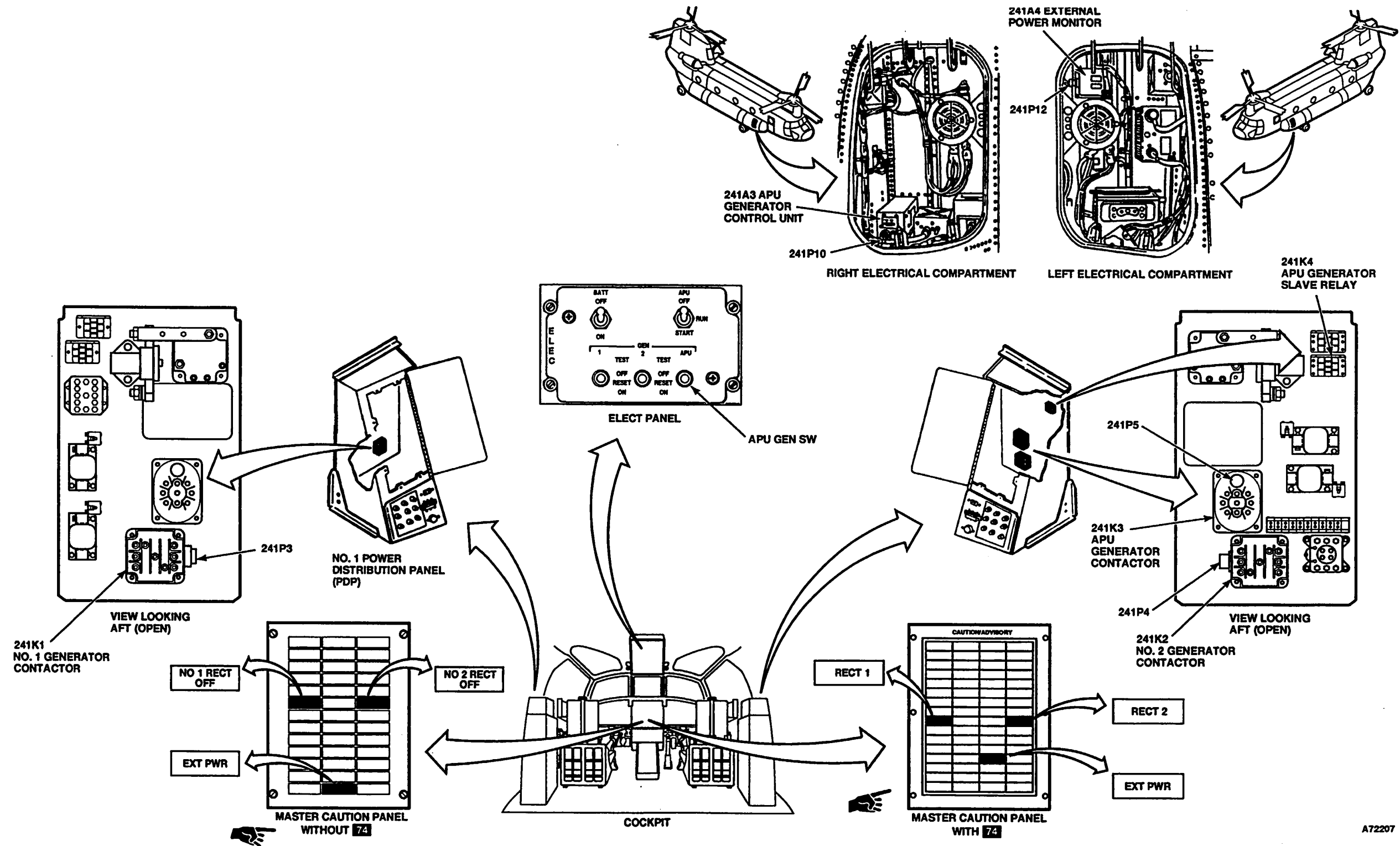
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



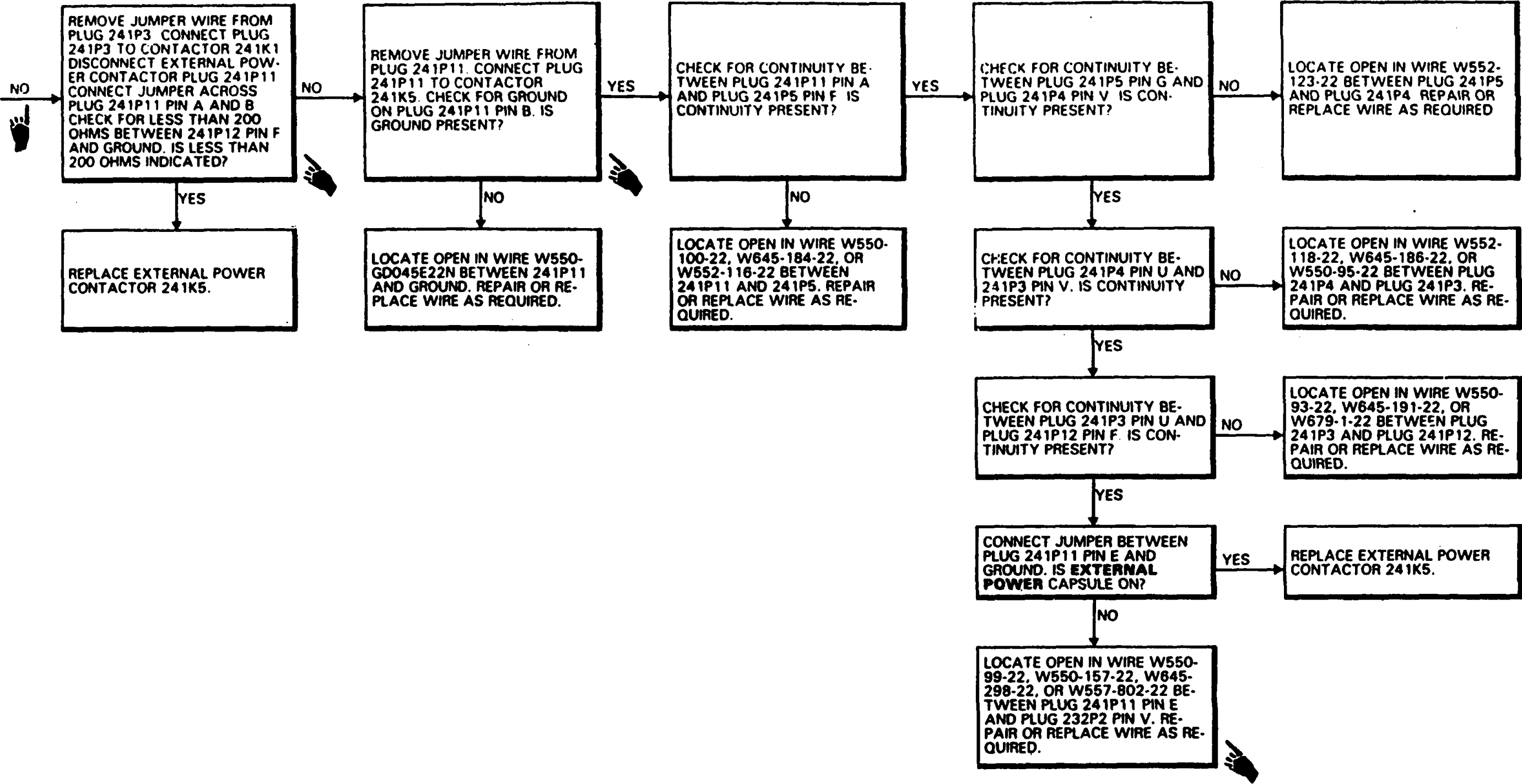
A72207

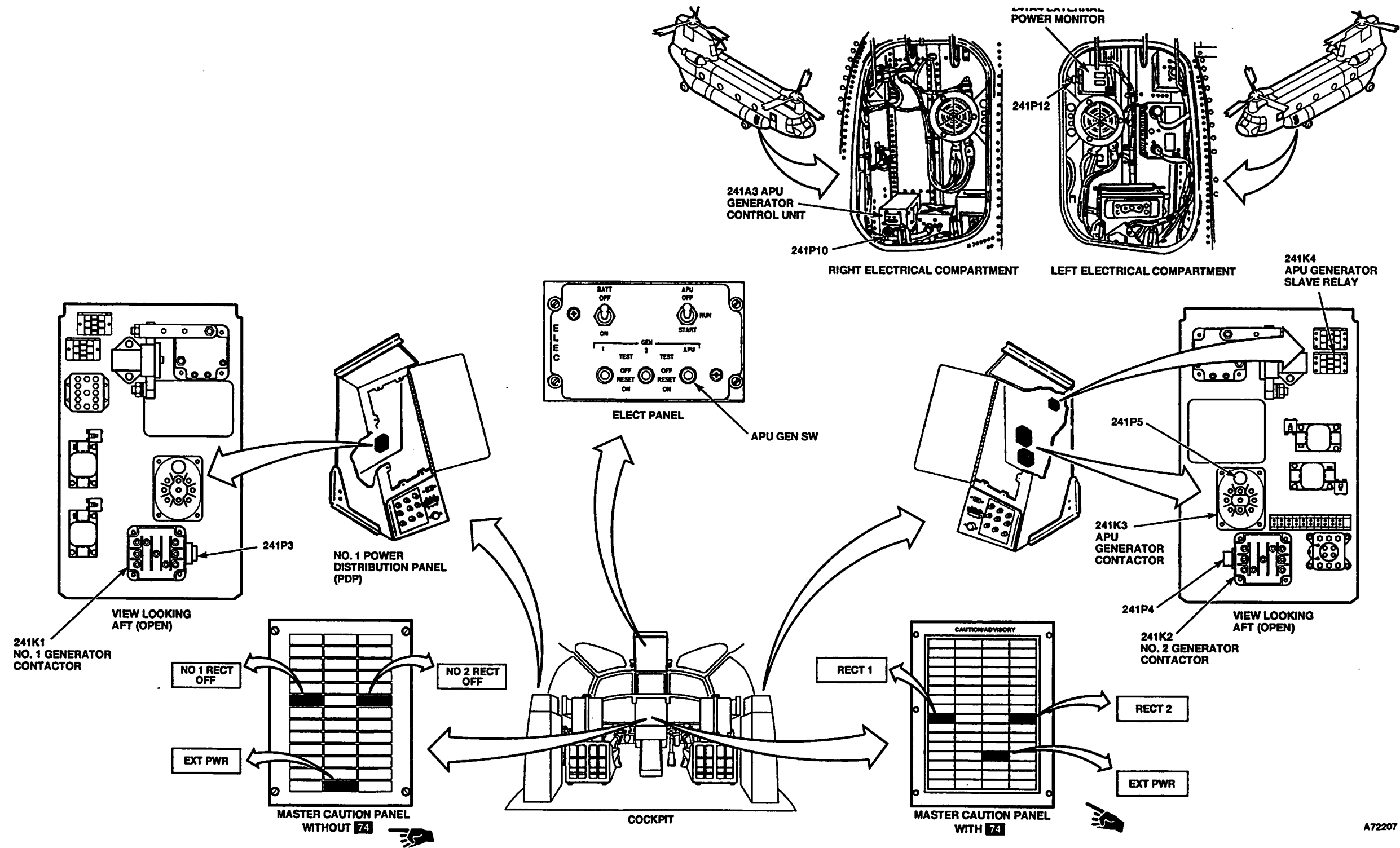












A72207

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

All

Tools

Electrical Repairer Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials

None

Personnel Required:

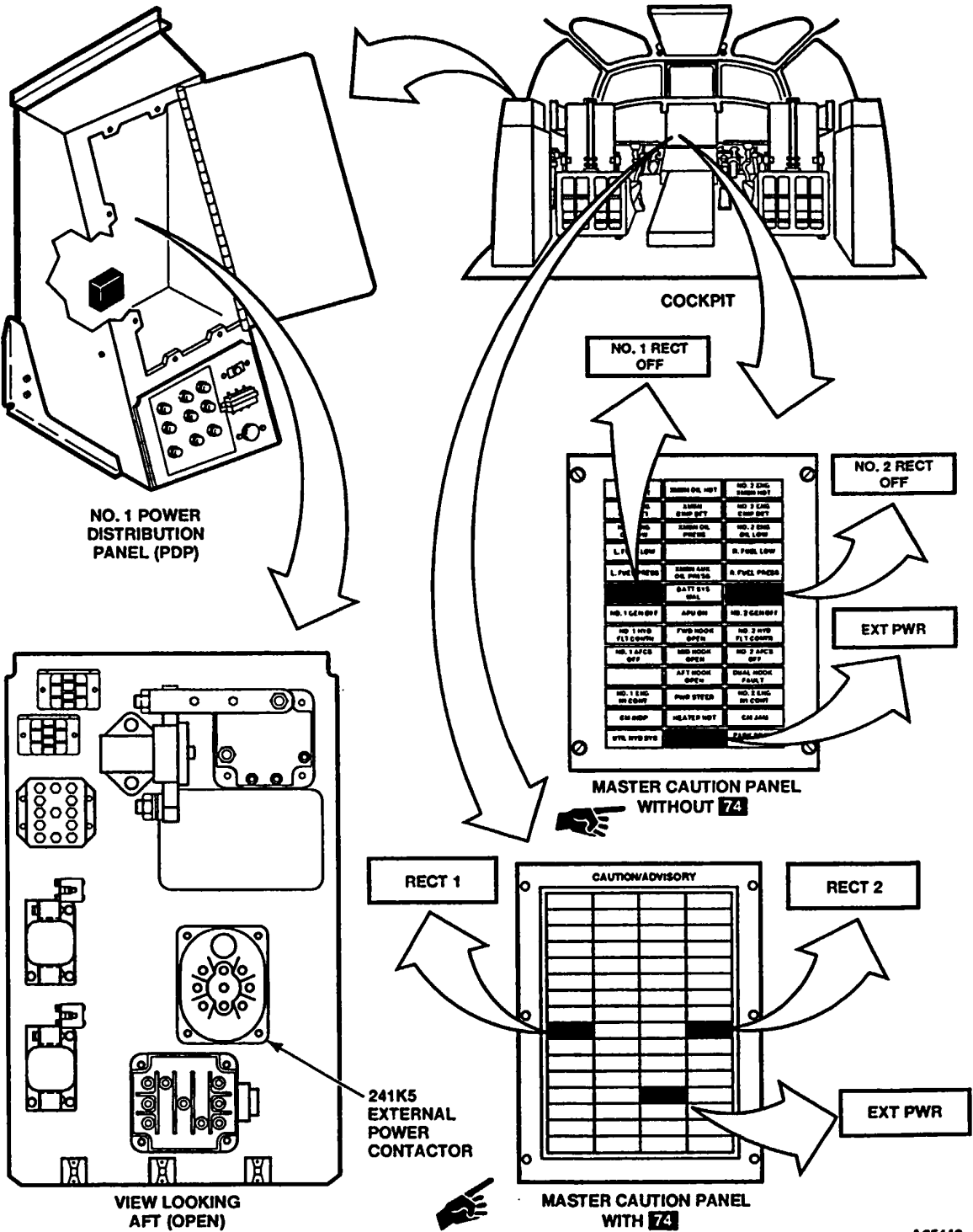
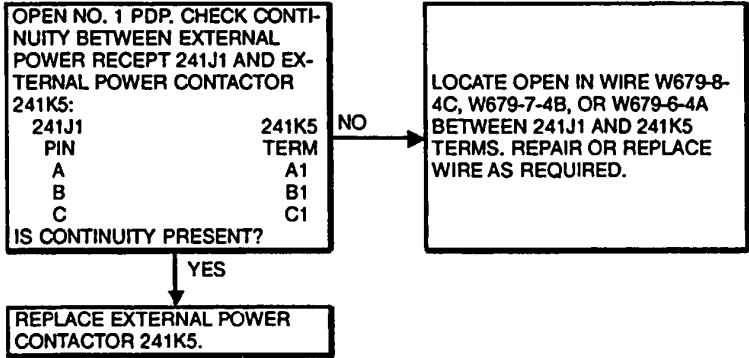
Aircraft Electrician

References

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

All

Tools

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials

None

Personnel Required:

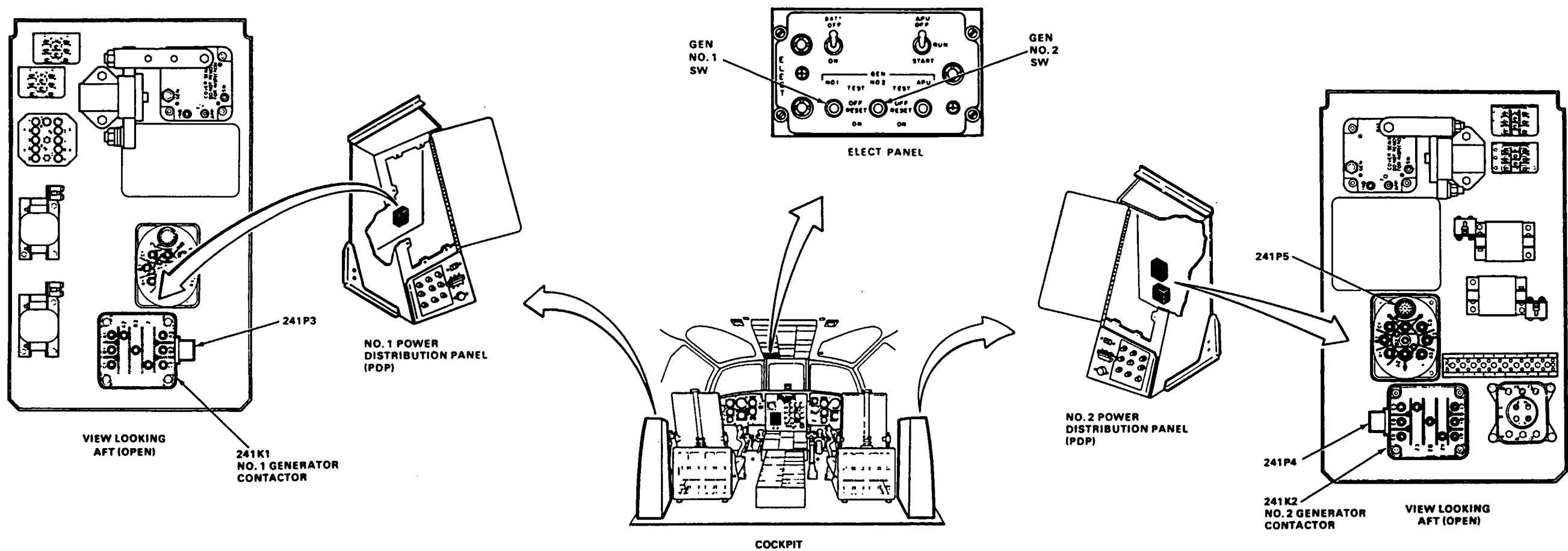
Aircraft Electrician

References

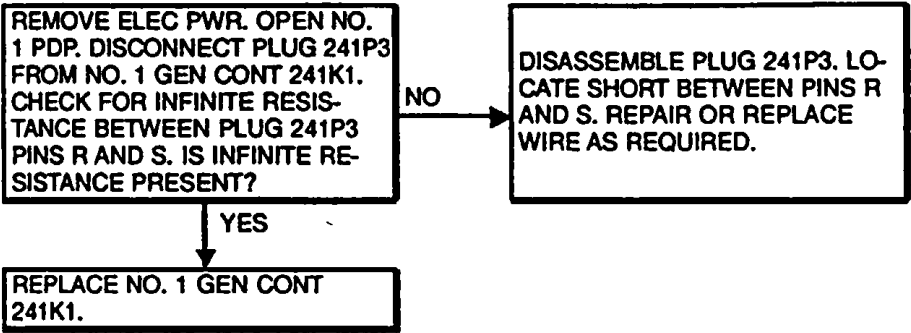
TM 55-1520-240-23

Equipment Condition:

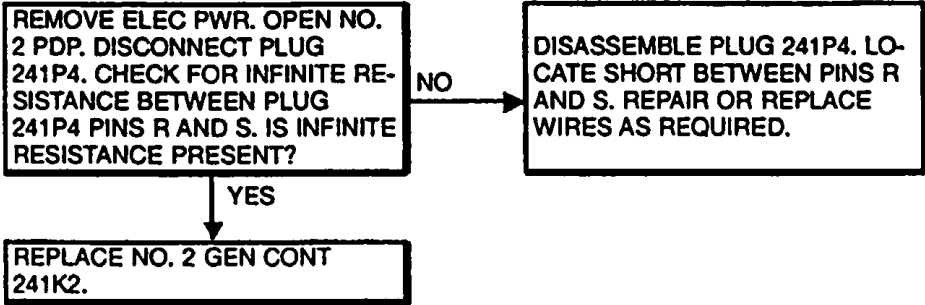
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power On  
Hydraulic Power Off



■ NO. 1 RECT OFF (WITHOUT 74) RECT 1 (WITH 74) CAPSULE ON



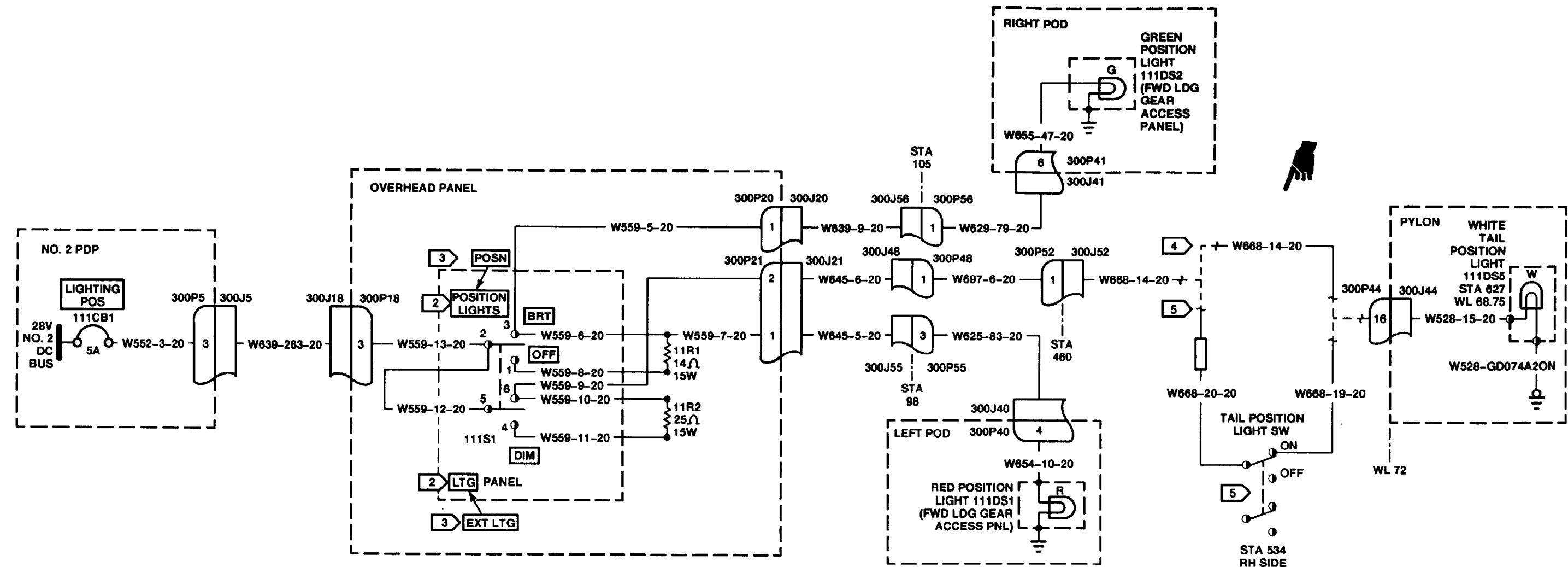
■ NO. 2 RECT OFF (WITHOUT 74) RECT 2 (WITH 74) CAPSULE ON





## 9-3 POSITION LIGHTS





NOTES

- 1. INDICATES EQUIPMENT MARKING
- 2. WITHOUT 17
- 3. WITH 17
- 4. WITHOUT 67
- 5. WITH 67

A51201

END OF TASK

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

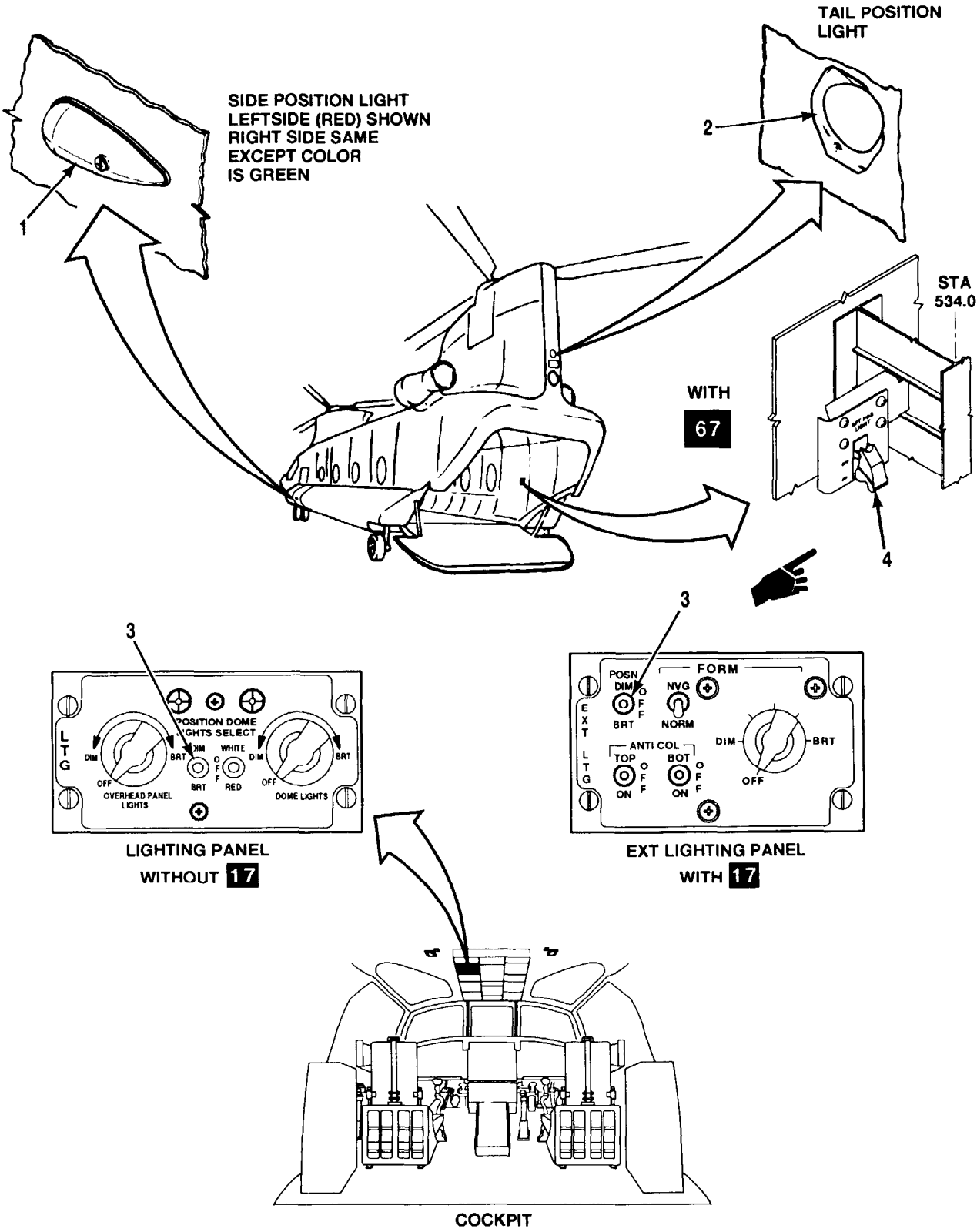
Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check left side position light (1).	If light (1) is loose or damaged, tighten or replace it as required.
2. Repeat step 1 for right side position light.	
3. Check tail position light (2).	If light (2) is loose or damaged, tighten or replace it as required.
4. Check POSITION LIGHTS or POSN switch (3) on LTG panel.	If switch (3) is loose or damaged, tighten or replace it as required.
5. On aircraft with 67 check AFT POS LIGHT switch (4) on bracket at STA 534.	If switch (4) or mounting bracket are loose or damaged, tighten or replace as required.

FOLLOW-ON MAINTENANCE:

None



A10275

INITIAL SETUP

Applicable Configurations:

All

Tools:

None

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Visual Check of Position Lights Performed (Task 9-3.2)

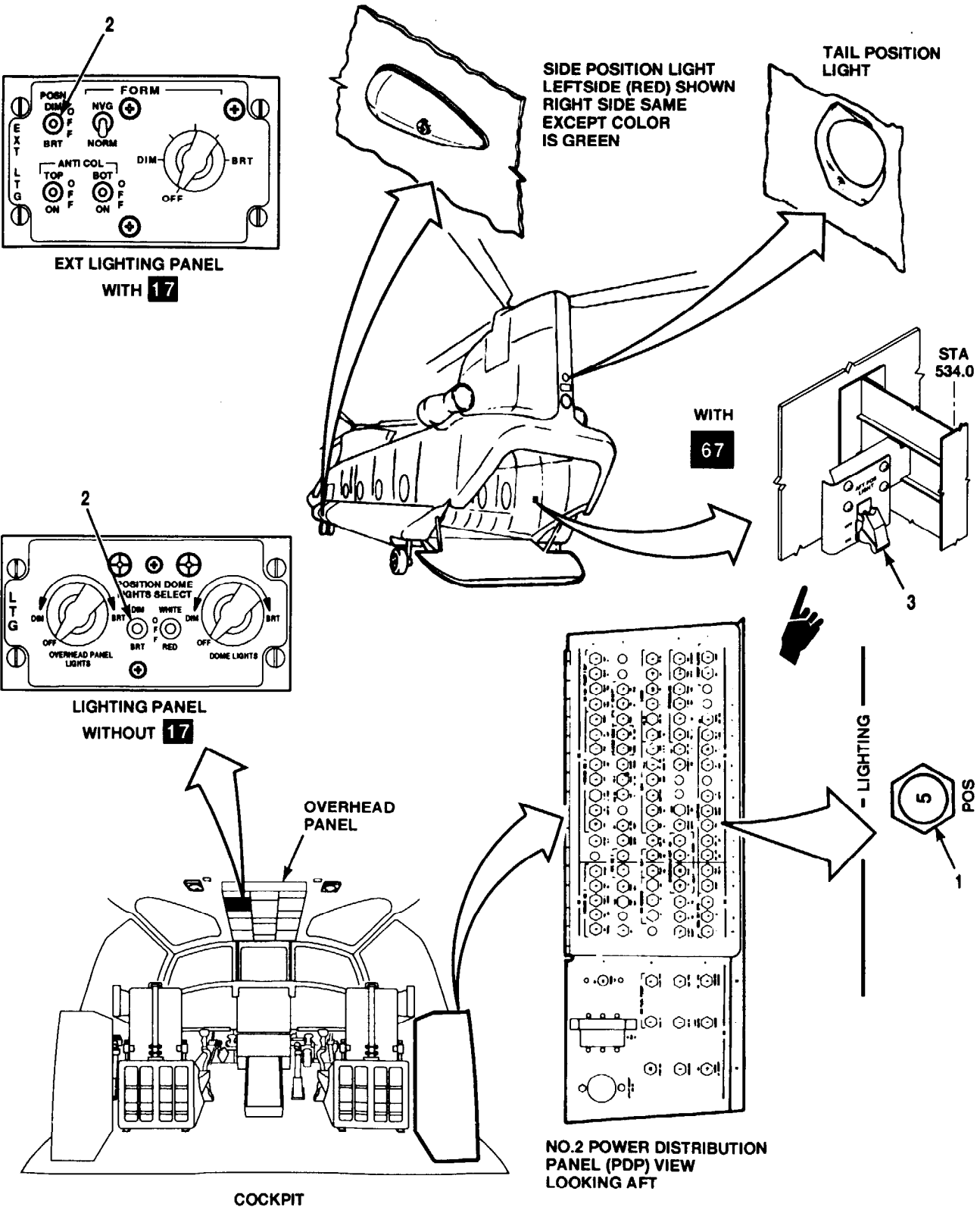
TASK	RESULT
1. Check that LIGHTING POS circuit breaker (1) is closed.	If POS circuit breaker (1) is opened, close it. If it opens again, go to task 9-3.4 on aircraft without 67 or task 9-3.4.1 on aircraft with 67.
2. Set POSITIONS LIGHTS switch or POSN switch (2) to BRT.	Left, right, and tail position lights come on at full intensity. If any light is not lit, go to task 9-3.5.
3. On aircraft with 67 , set AFT POS LIGHT switch (3) to OFF and back to ON.	Tail position light shall go out and come on. If tail position light fails to operate properly, go to task 9-3.5.
4. Set POSITION LIGHTS switch or POSN switch (2) to DIM.	Left, right, and tail position lights shall be at low intensity. If any light is not lit, go to task 9-3.6.
5. Set POSITION LIGHTS switch or POSN switch (2) to OFF.	All position lights shall go out.

FOLLOW-ON MAINTENANCE:

BH 55-1520-240-23:

Battery disconnected.

Electrical power off.



A10316

END OF TASK

**FAULT ISOLATION PROCEDURE**

**INITIAL SETUP**

**Applicable Configurations:**

Without 67

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

**Personnel Required:**

Aircraft Electrician

**References:**

TM 55-1520-240-23

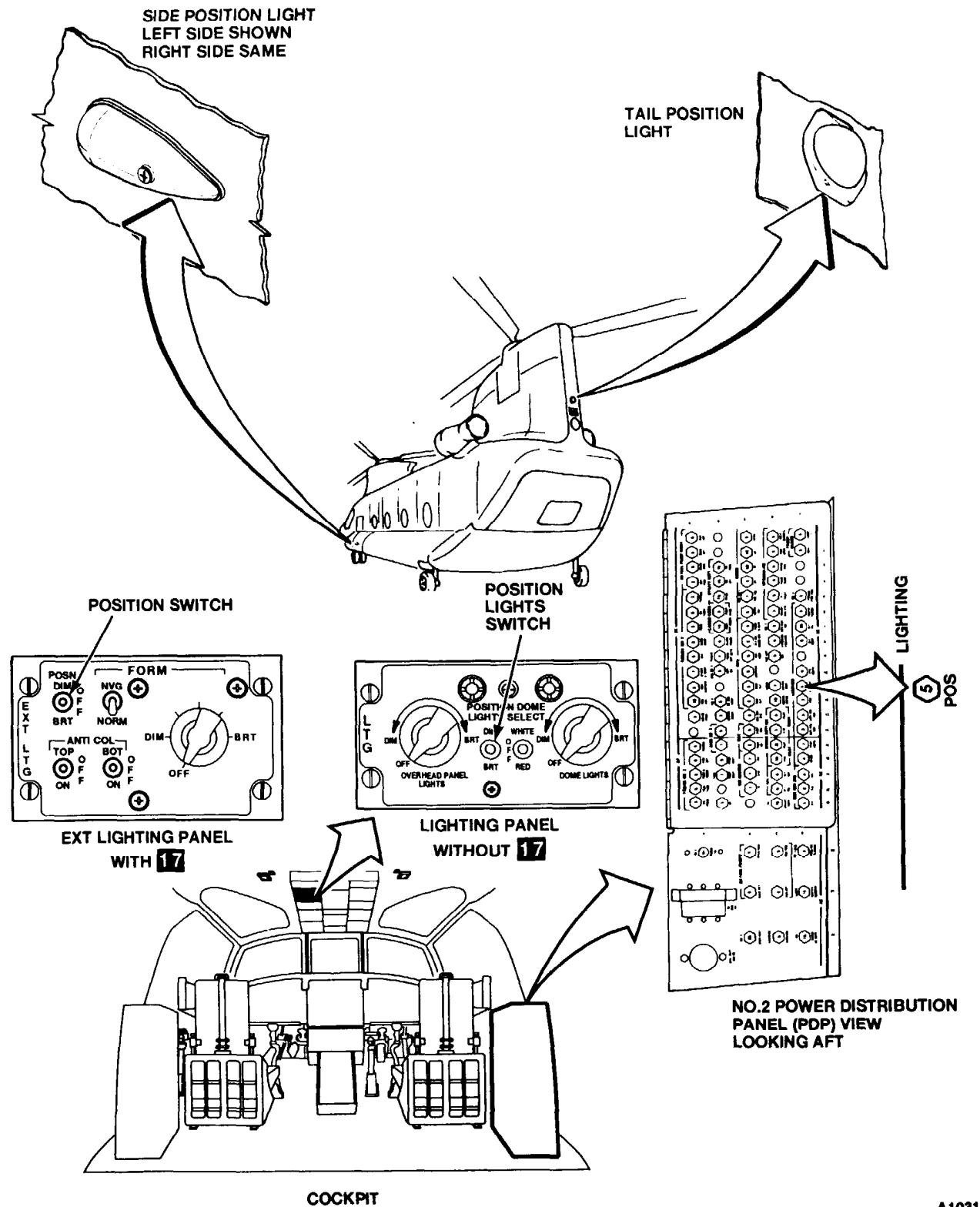
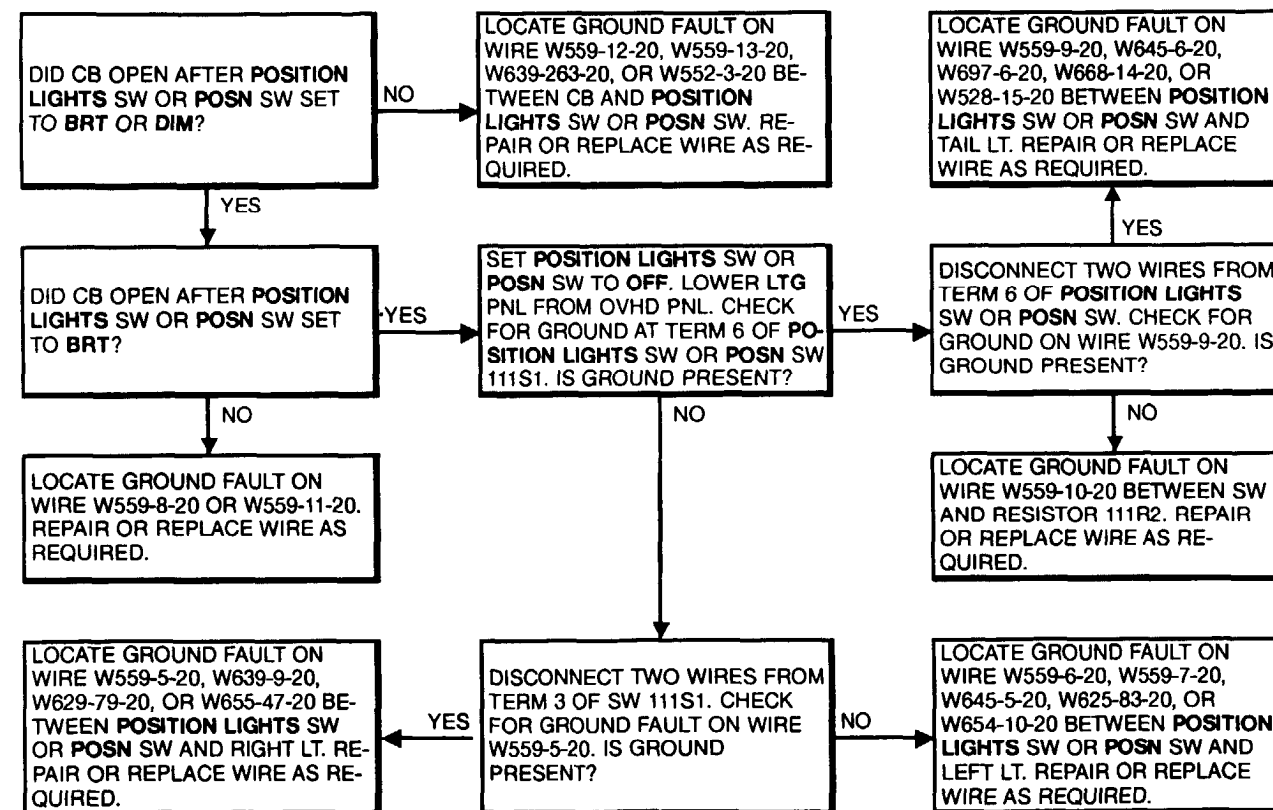
**Equipment Condition:**

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off



A10317

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 67

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

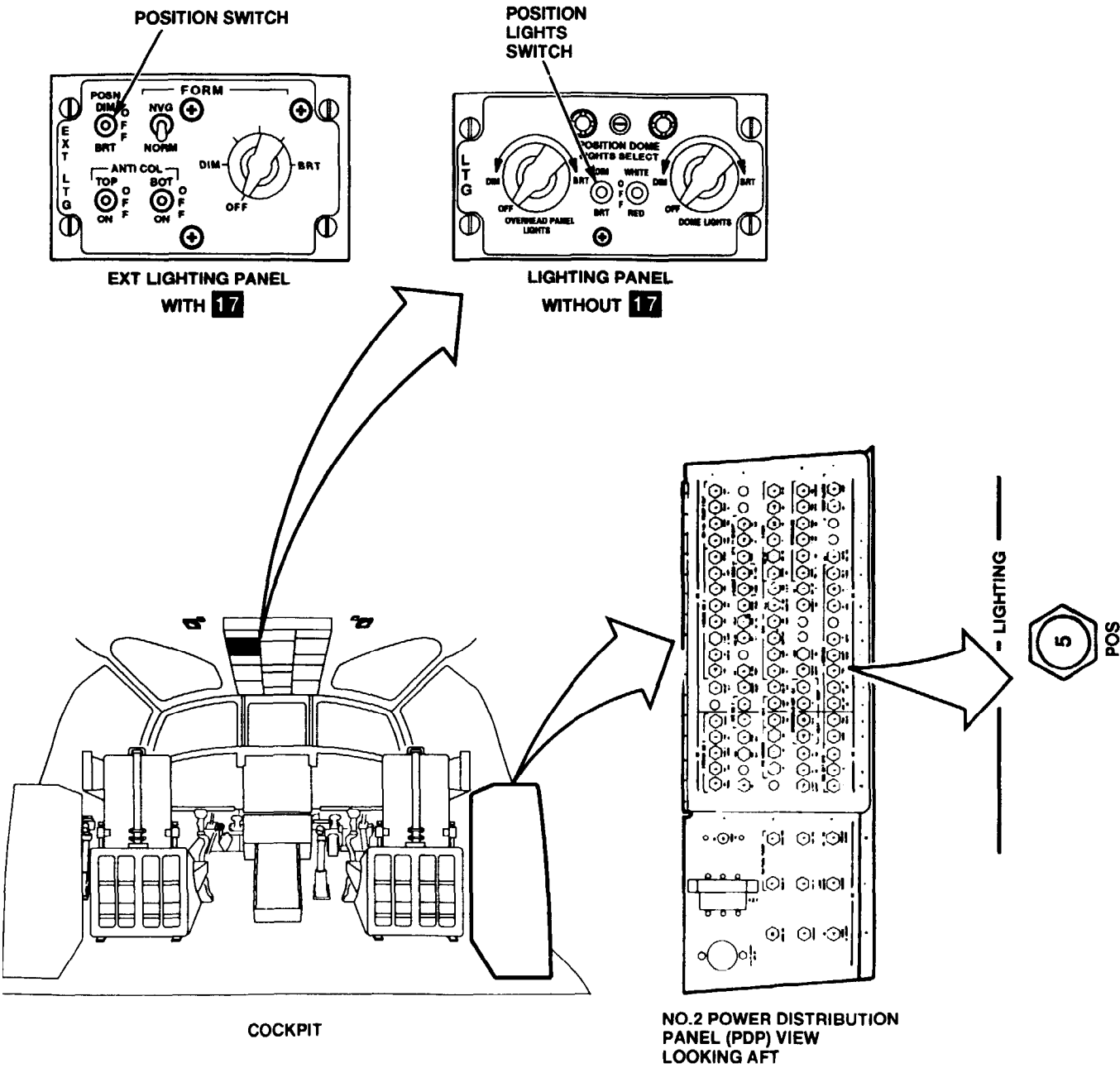
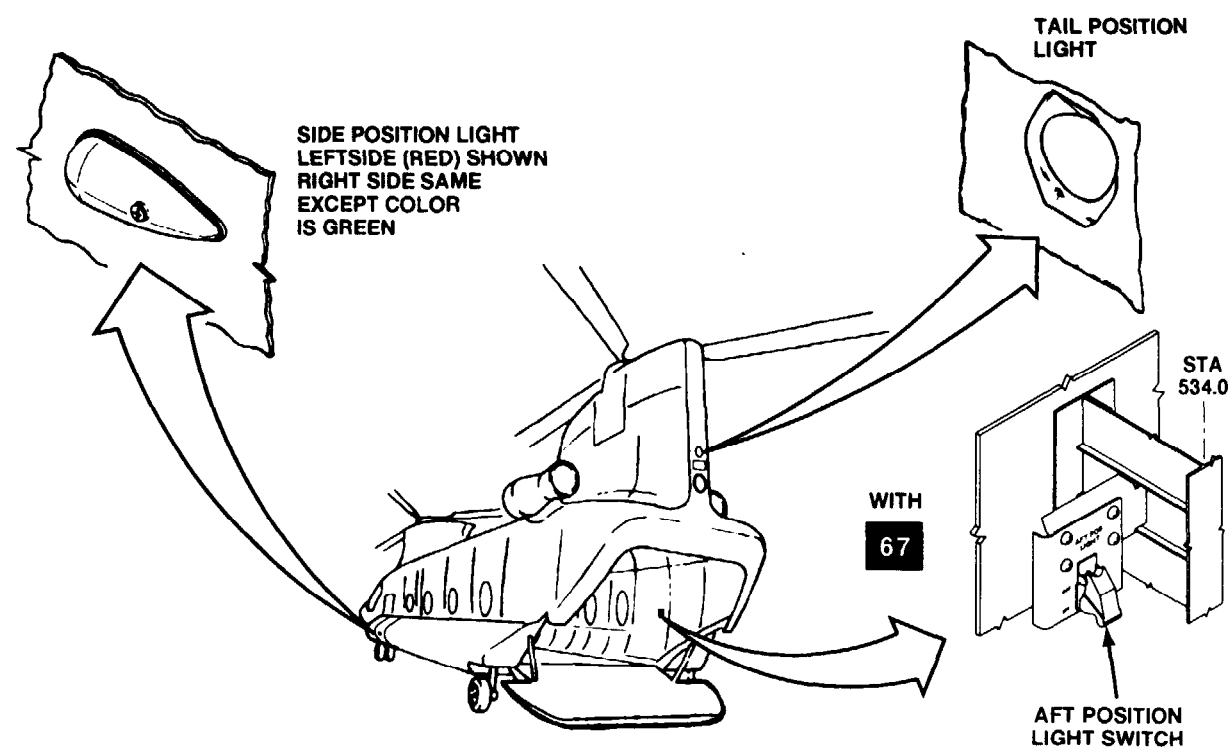
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

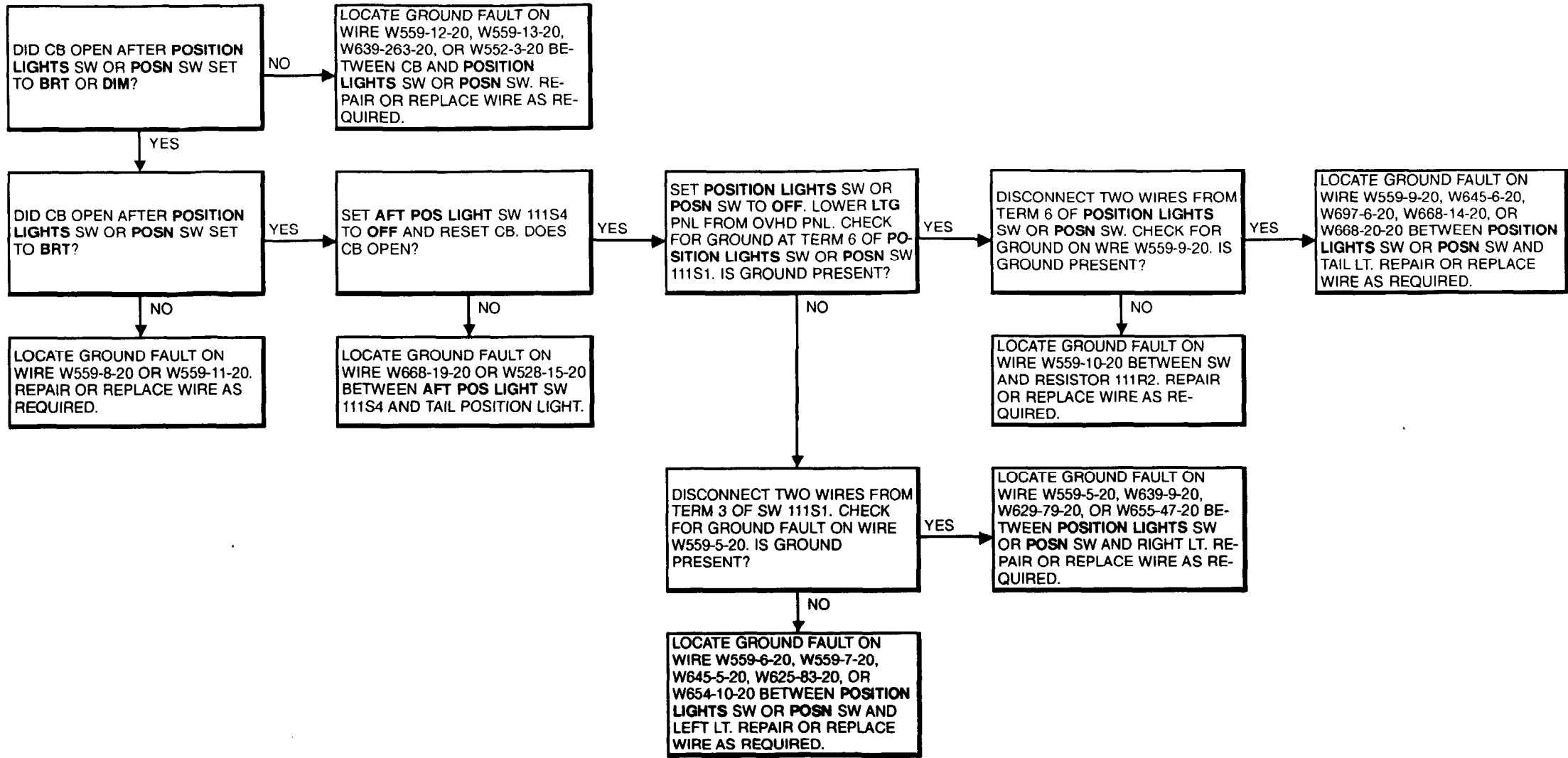
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



A51211

9-3.4.1 POS CIRCUIT BREAKER DOES NOT STAY CLOSED (Continued)

9-3.4.1



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:**
- Electrical Repairer's Tool Kit, NSN 5180-00-323-4915
  - Multimeter

Materials:

- None

Personnel Required:

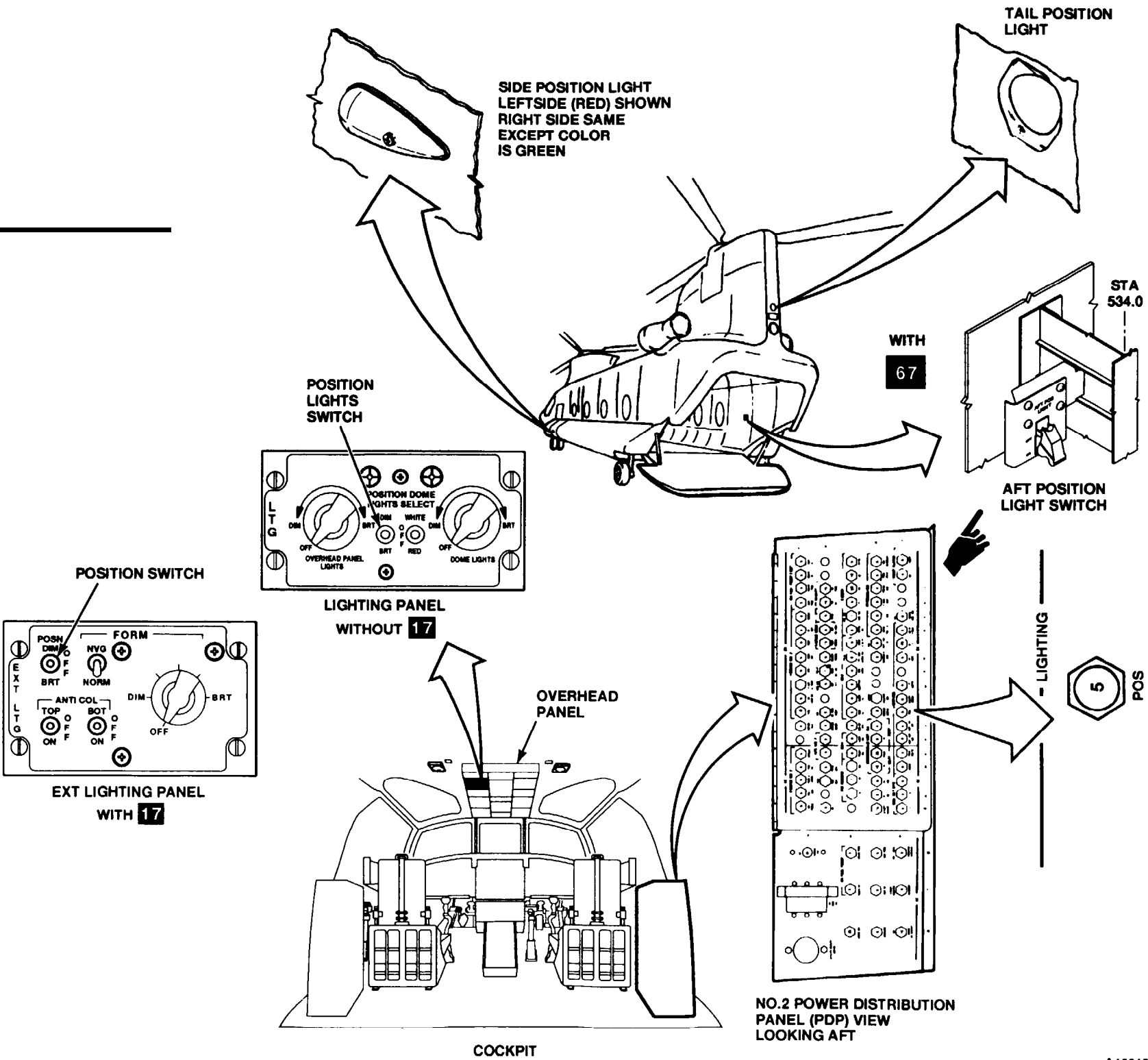
- Aircraft Electrician

References:

- TM 55-1520-240-23

Equipment Condition:

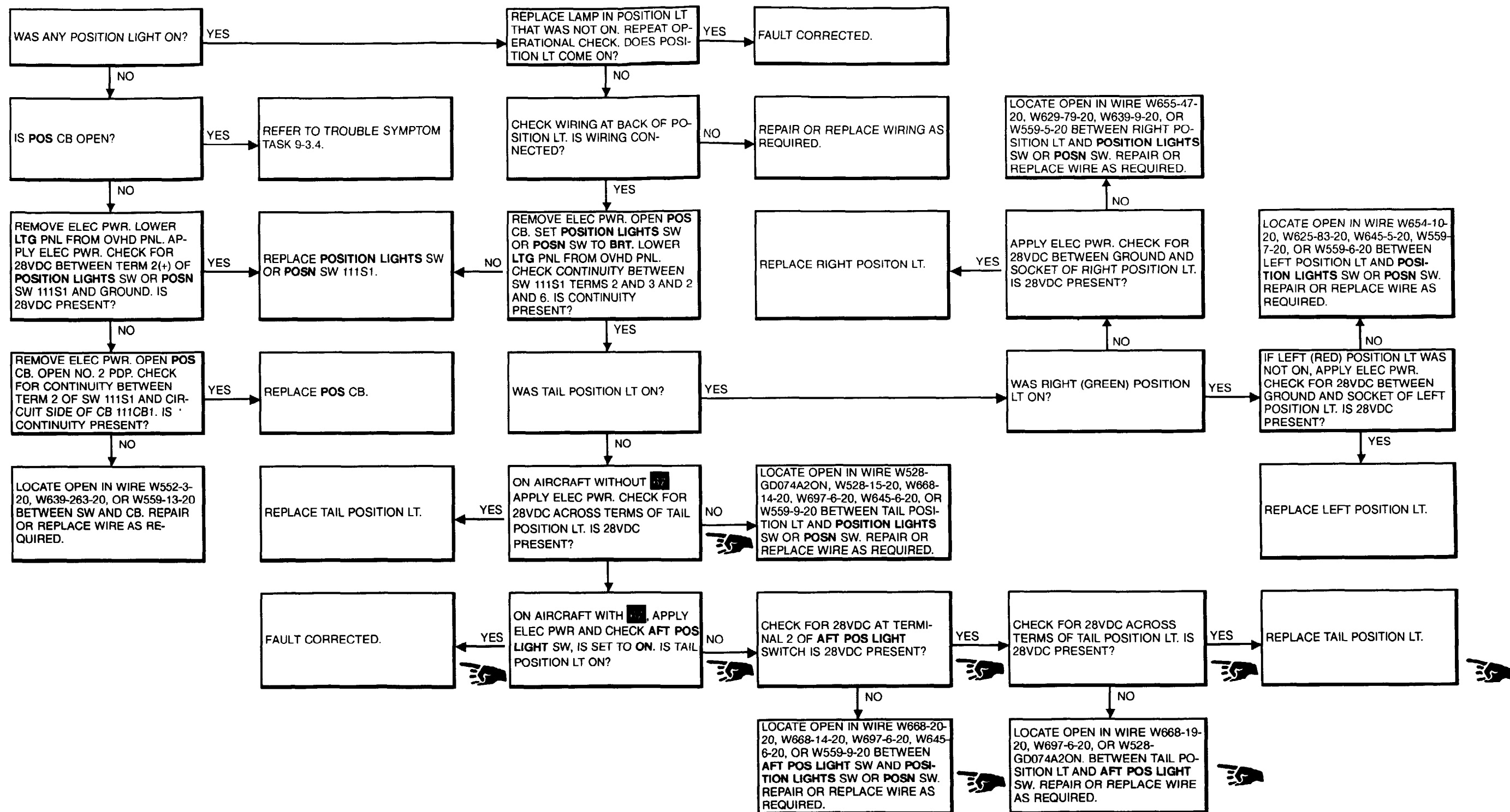
- TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



A10318

9-3.5 POSITION LIGHT OR LIGHTS NOT LIT AT BRT (Continued)

9-3.5





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

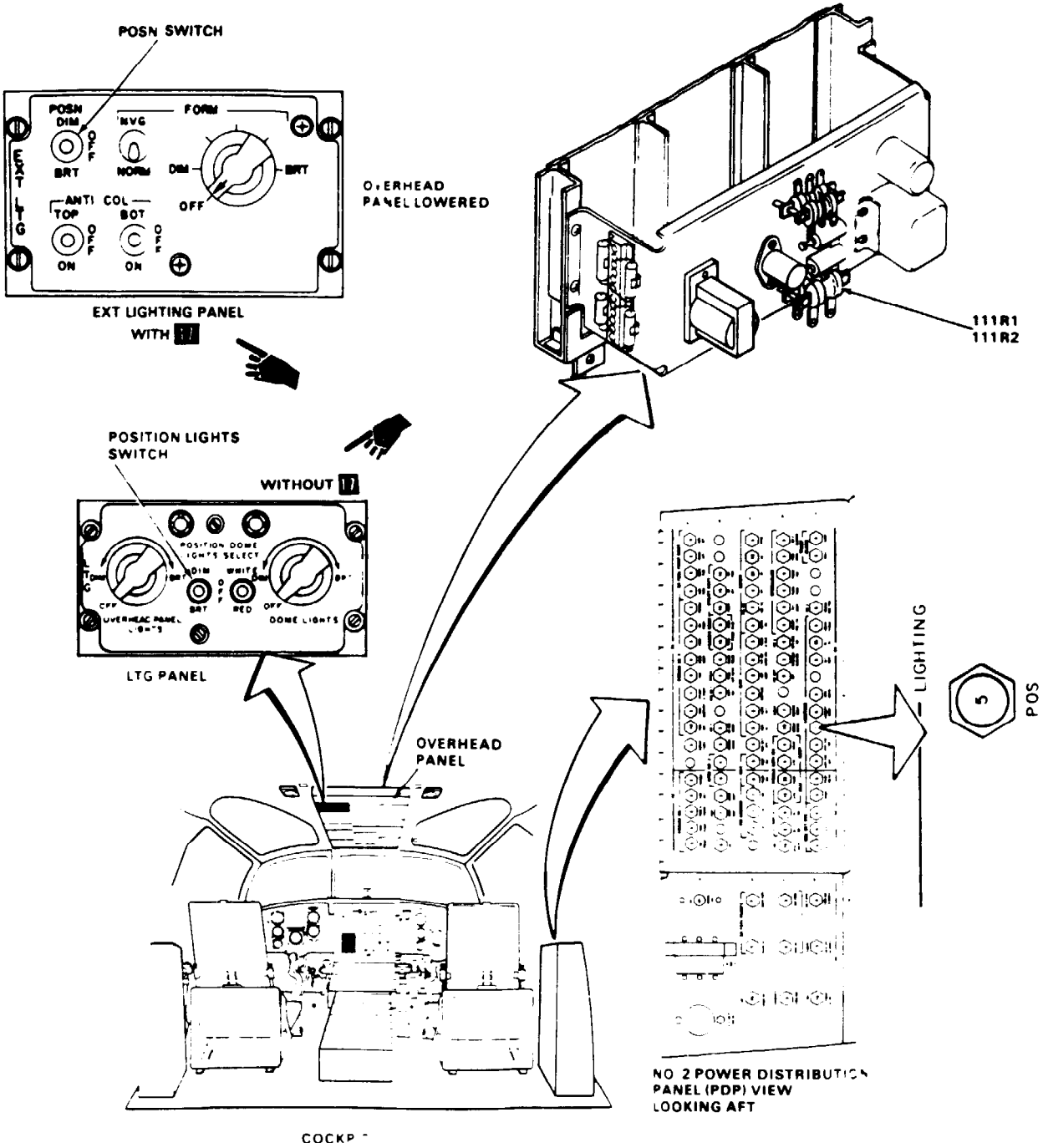
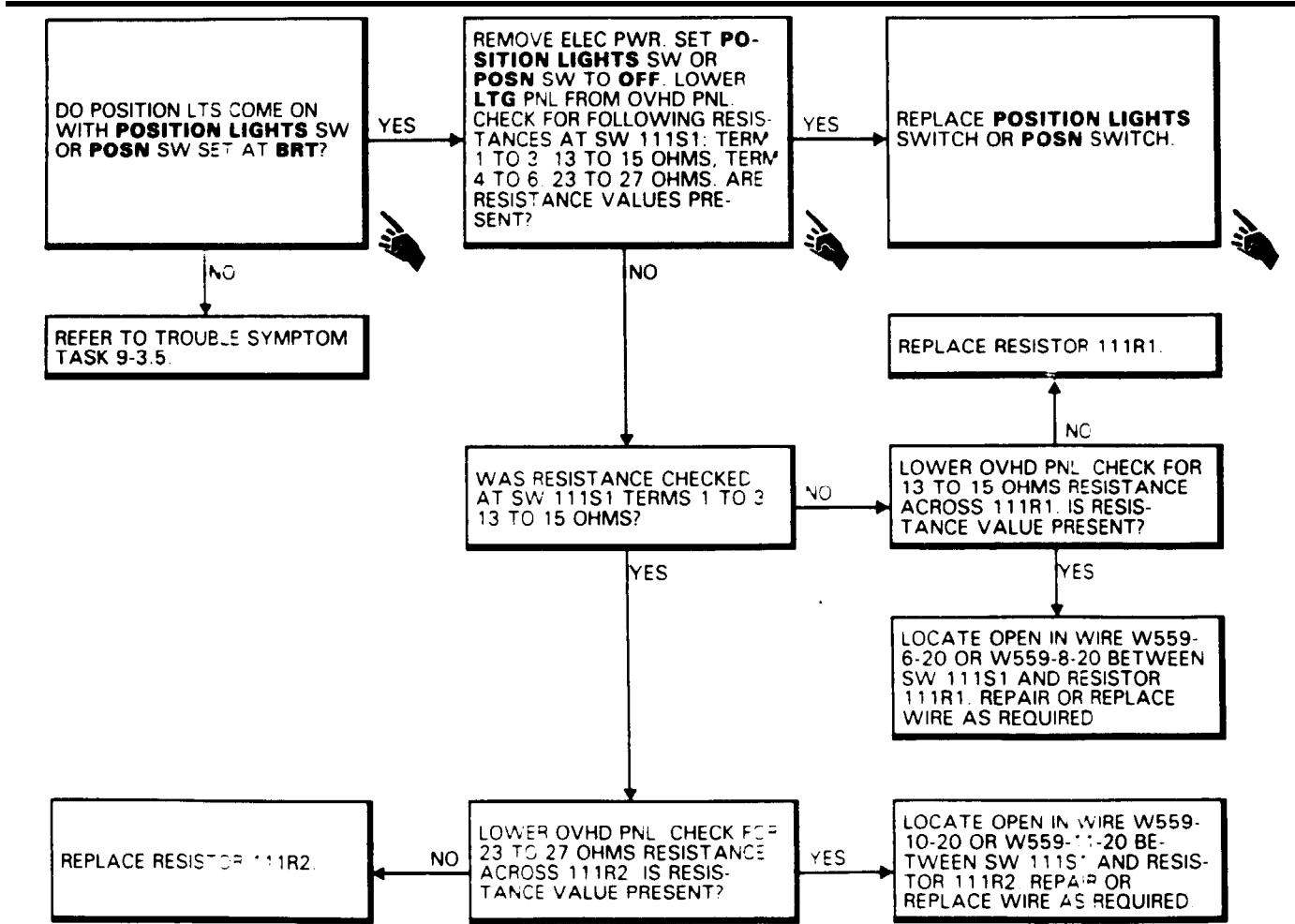
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Visual Check of Position Lights Pet-formed (Task 9-3.2)



10319

END OF TASK

9-4 LANDING LIGHTS (SEARCHLIGHTS)

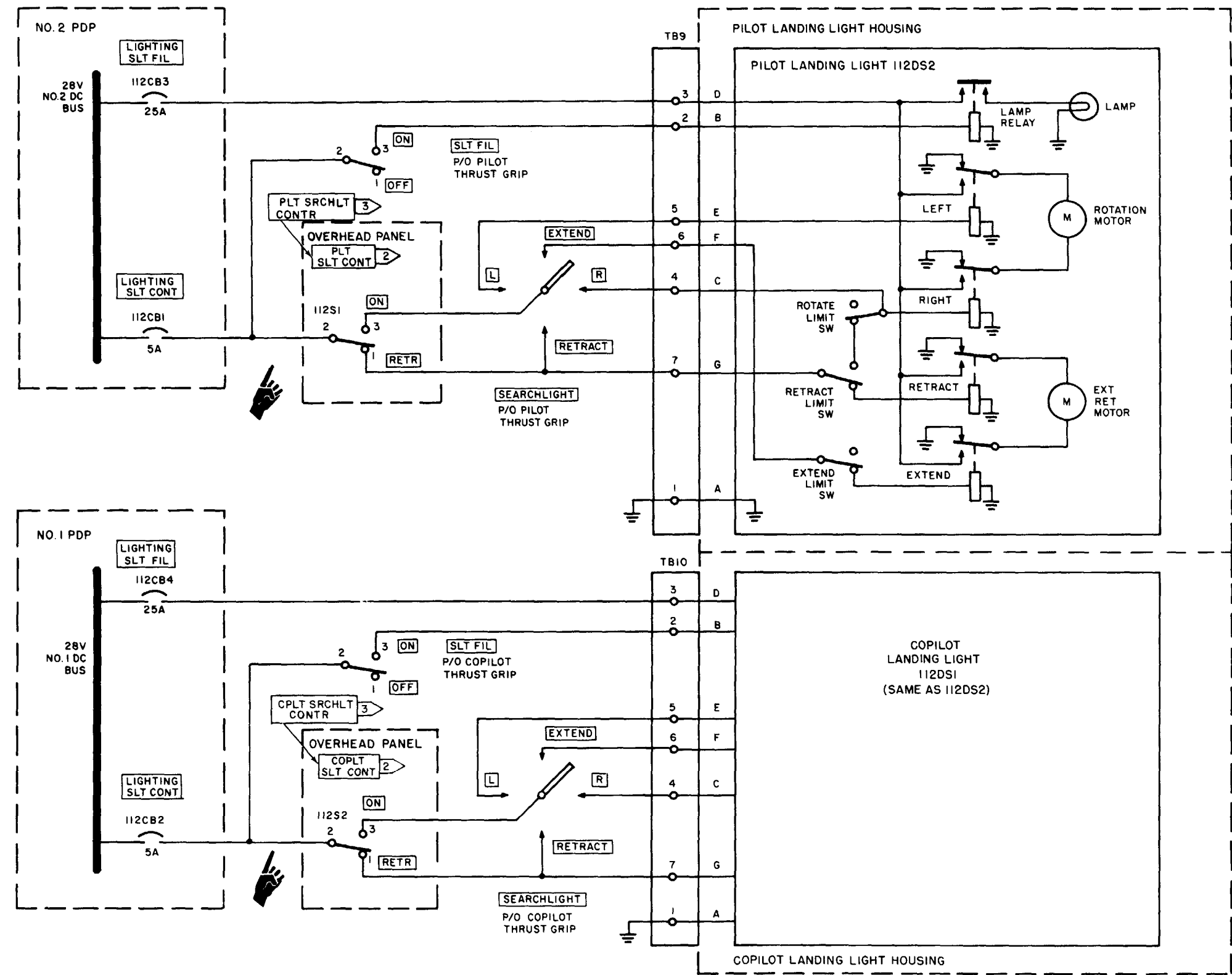
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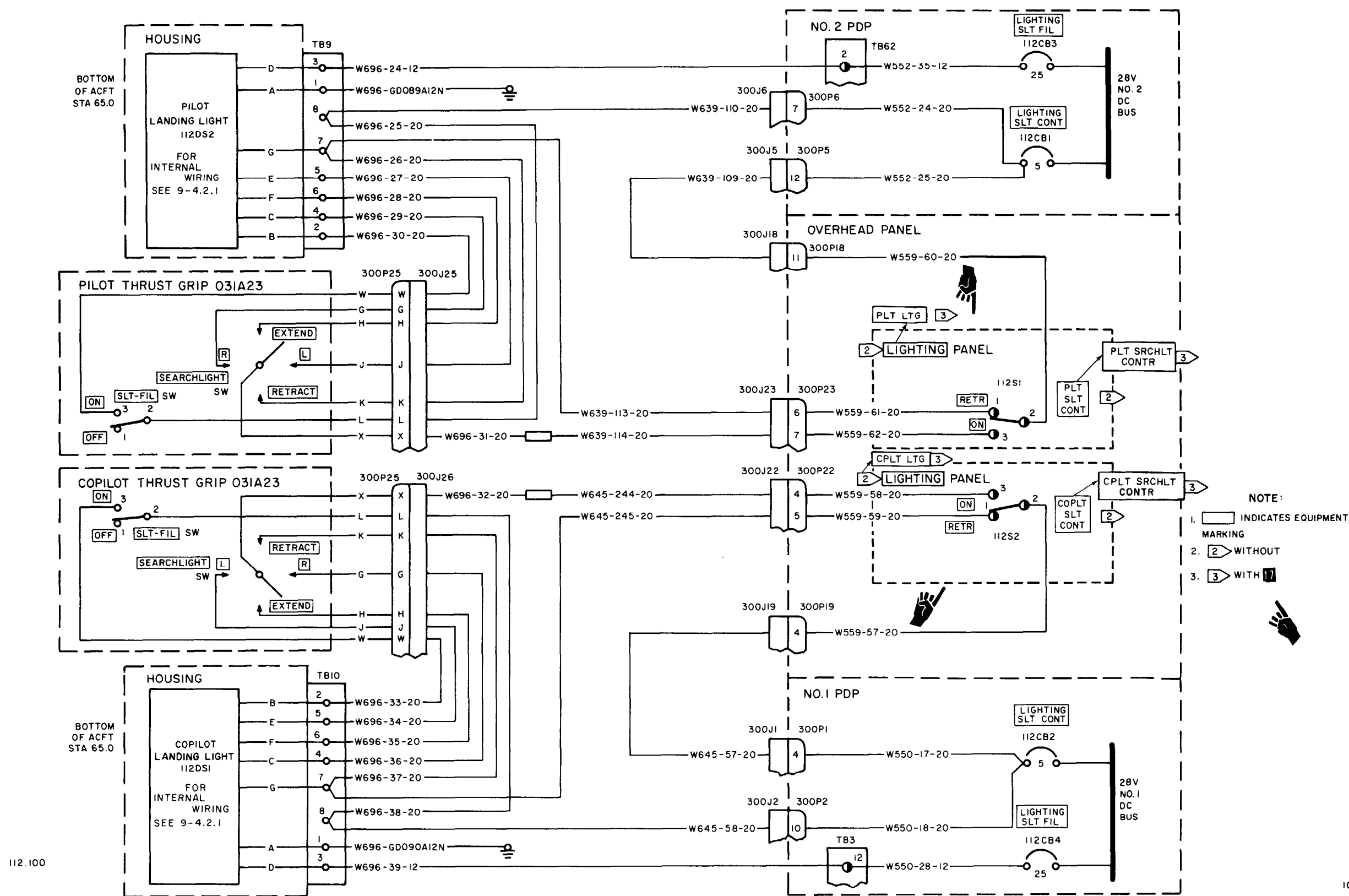
9-4 LANDING LIGHTS (SEARCHLIGHTS)

9-4

9-4.1 LANDING LIGHTS (SEARCHLIGHTS) SCHEMATIC DIAGRAM

9-4 1





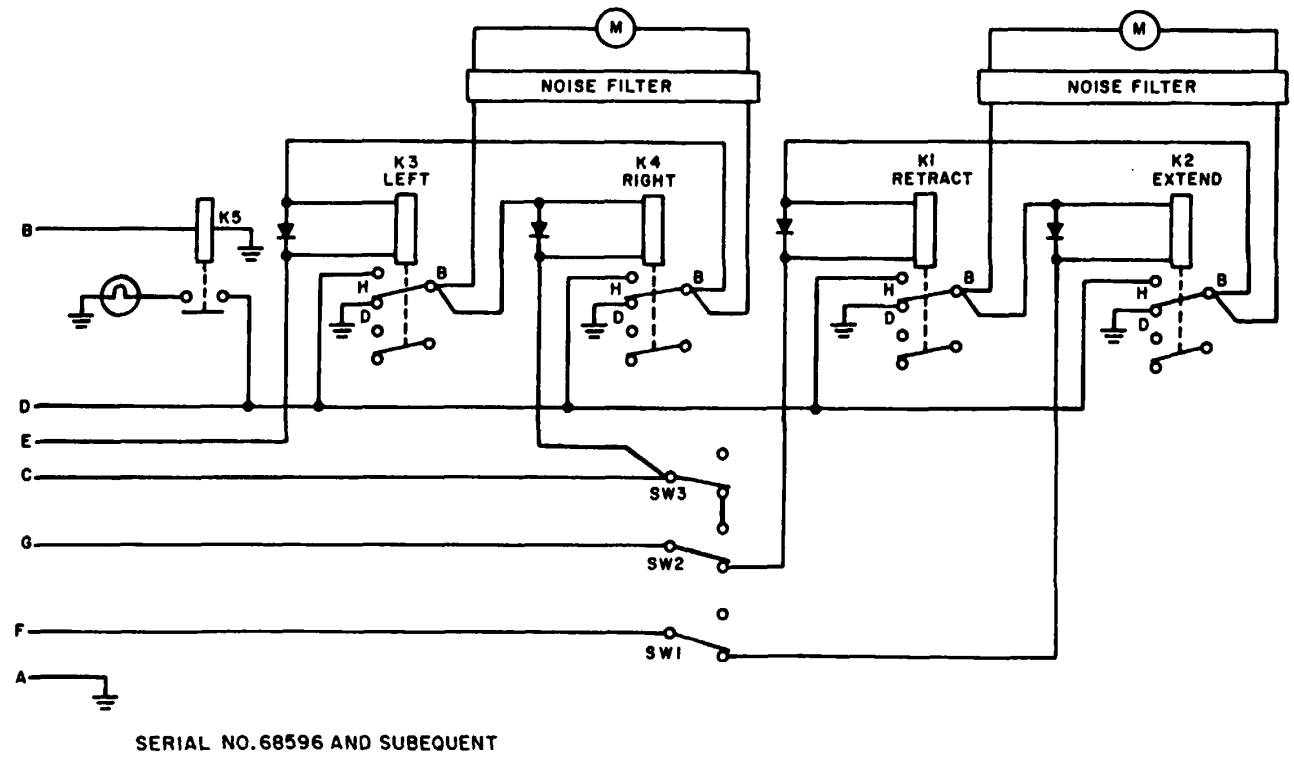
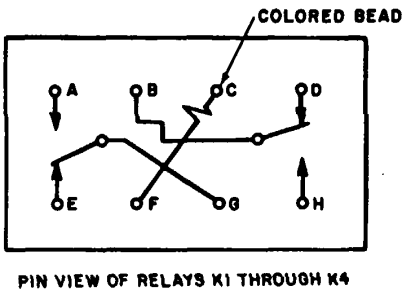
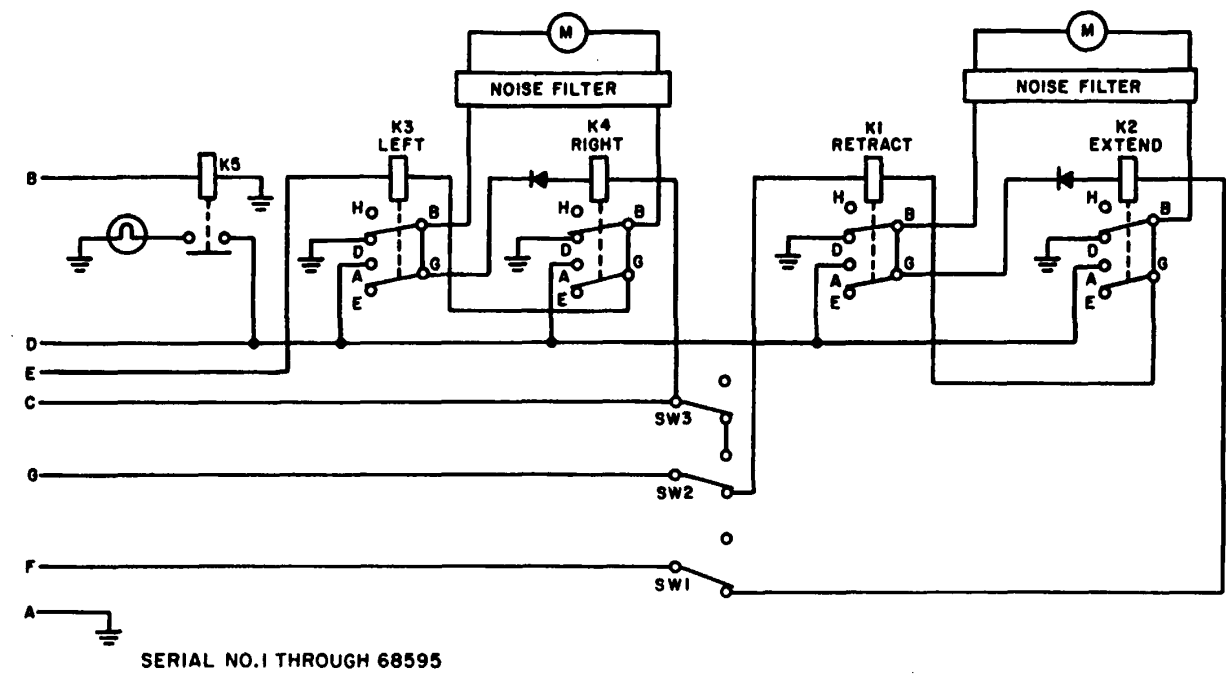
**END OF TASK**

Change 2	9-108.1/(9-108.2	blank)
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9-4.2.1 LANDING LIGHT (SEARCHLIGHT) INTERNAL WIRING DIAGRAM

9-4.2.1



9-4.3 LANDING LIGHTS (SEARCHLIGHTS) VISUAL CHECK

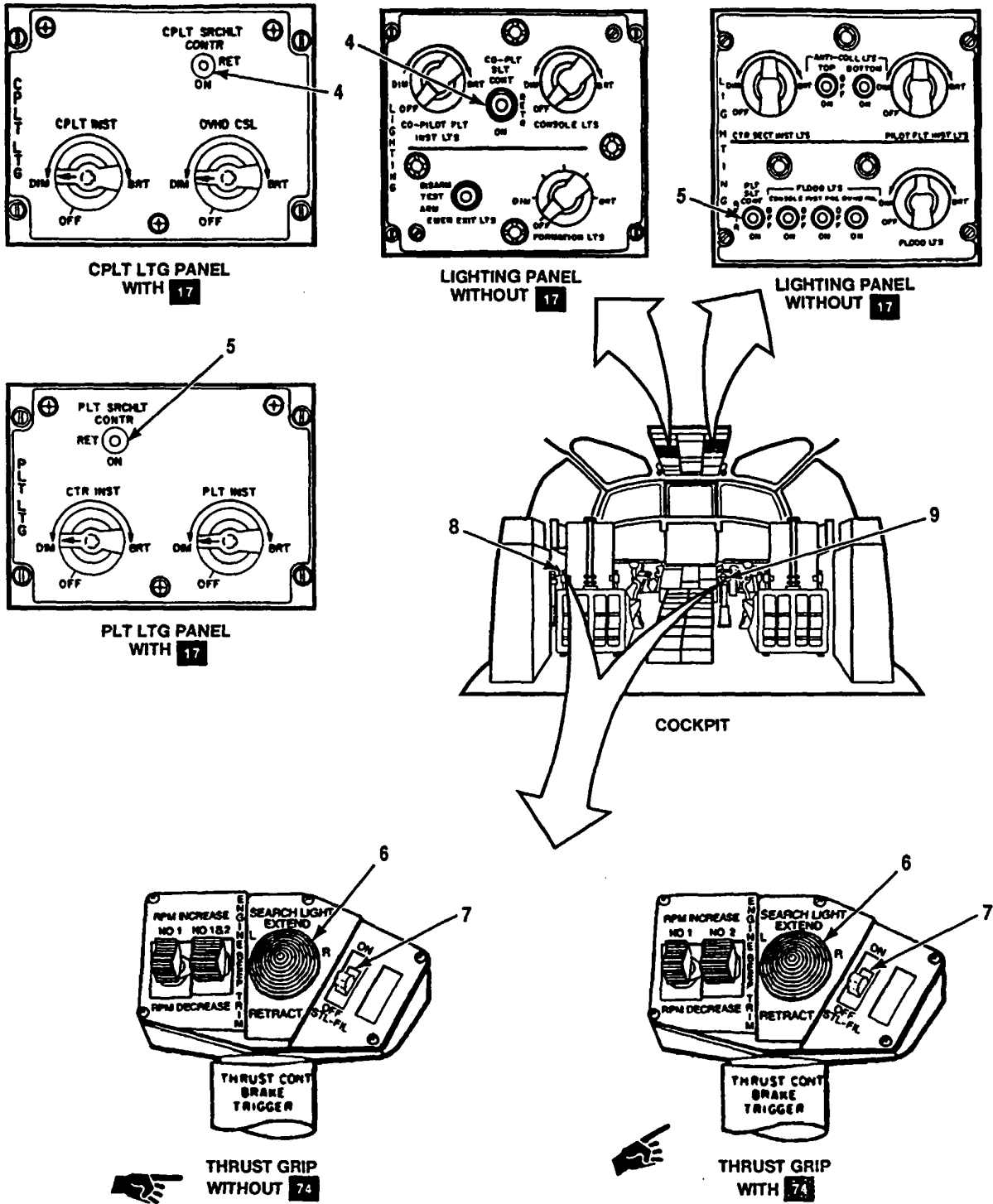
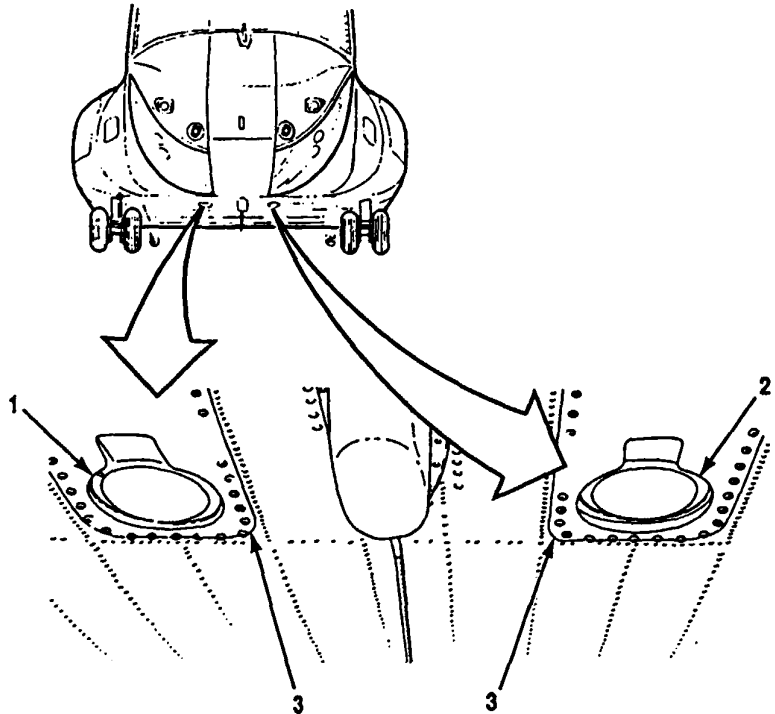
9-4.3

INITIAL SETUP  
**Applicable Configurations**  
All  
**Tools**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
**Materials**  
None  
**Personnel Required:**  
Aircraft Electrician

**References**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check pilot's and copilot's landing lights (search-lights) (1 and 2).	If landing light (1 or 2) is bent, broken or has damaged parts, replace landing light. If landing light housing screws (3) are loose, tighten them.
2. Check CO-PLT SLT CONT switch (4) on left LIGHTING panel or CPLT SRCHLT CONTR switch.	If switch (4) is loose or damaged, tighten or replace it as required.
3. Check PLT SLT CONT switch (5) on right lighting panel or PLT SRCHLT CONTR switch.	If switch (5) is loose or damaged, tighten or replace it as required.
4. Check SEARCH LIGHT switch (6) and SLT-FIL switch (7) on pilot's and copilot's thrust grips (8 and 9).	If either switch (6 or 7) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:  
None

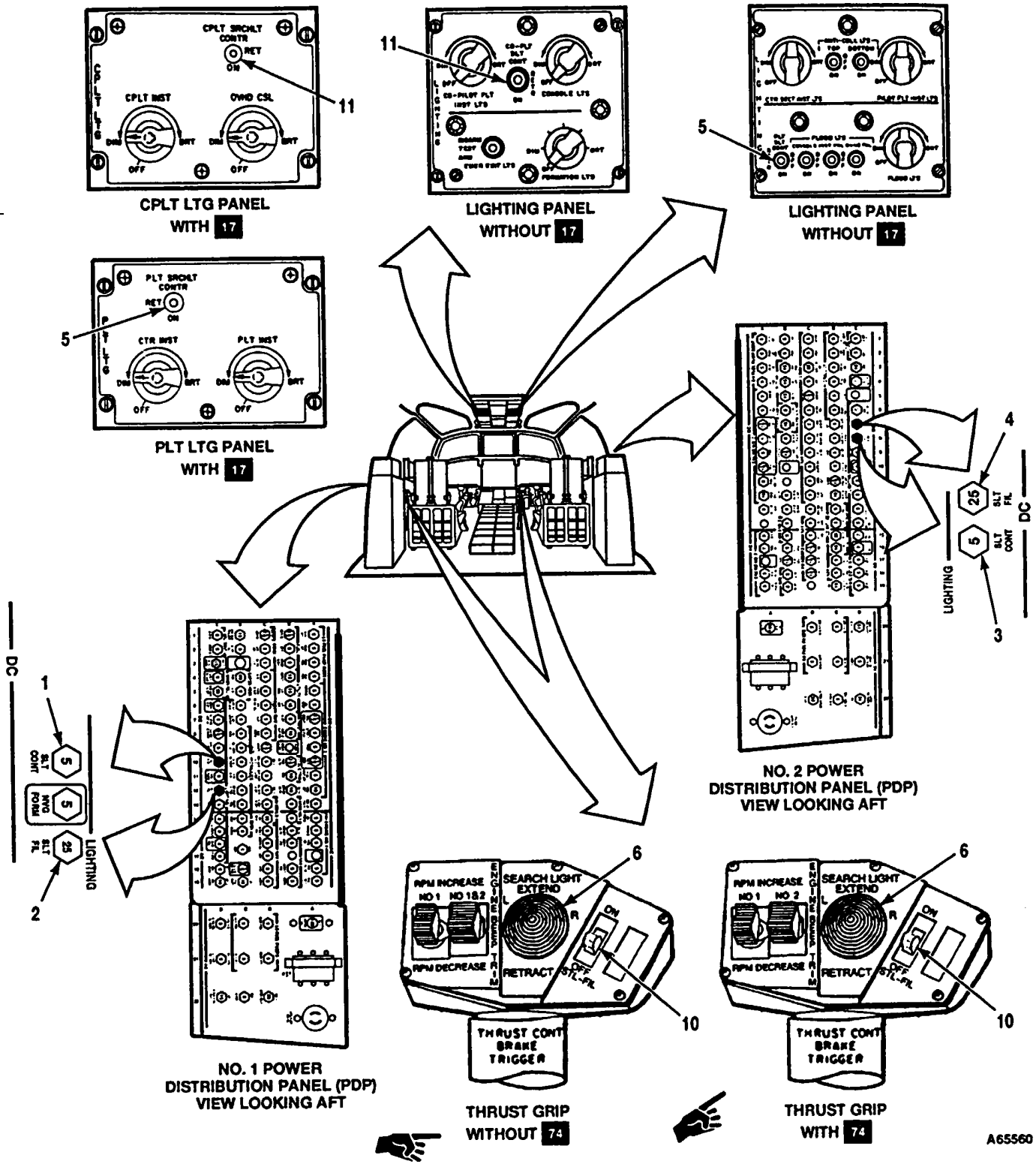
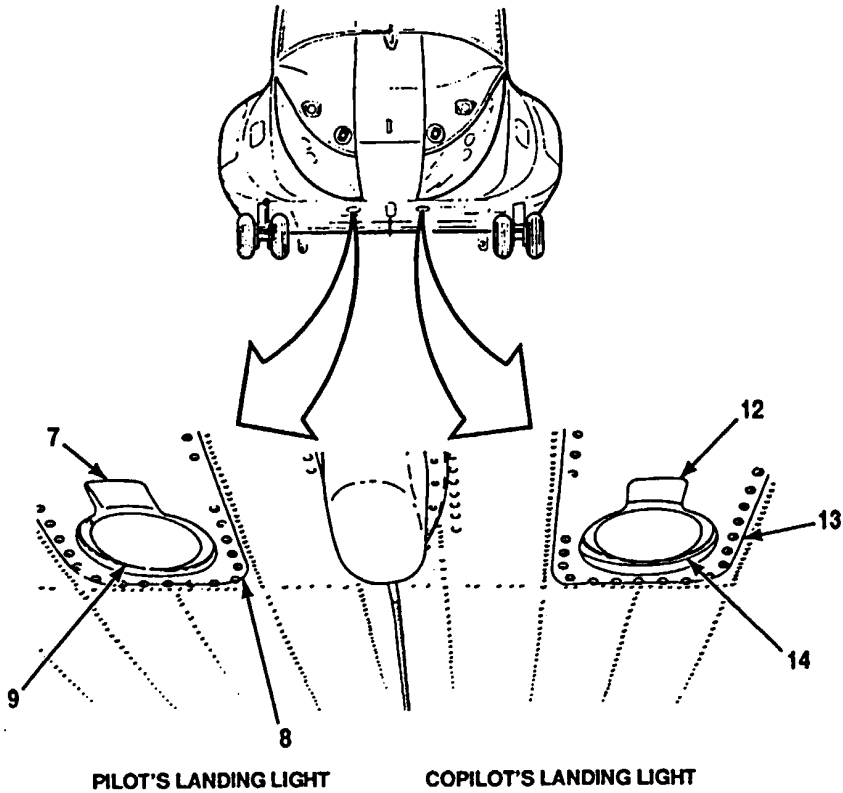


9-4.4 LANDING LIGHTS (SEARCHLIGHTS) OPERATIONAL CHECK

9-4.4

INITIAL SETUP  
**Applicable Configurations**  
All  
**Tools**  
None  
**Materials**  
None  
**Personnel Required:**  
Aircraft Electrician (2)

**References**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Visual Check Performed (Task 9-4.3)





9-4.4 LANDING LIGHTS (SEARCHLIGHTS) OPERATIONAL CHECK (Continued)

9-4.4

TASK	RESULT
<div><div>CAUTION</div><div>Do not move SEARCHLIGHT switch directly from one direction to opposite direction. Release switch to center position before moving it to a new direction. Abnormally rapid switching can damage relay contacts.</div></div>	
<div>CHECK CIRCUIT BREAKER</div>	
1. Check that LIGHTING SLT CONT circuit breaker (1) and SLT FIL circuit breaker (2) are closed.	If SLT CONT circuit breaker (1) is open, close it. If it opens again, go to task 9-4.5. If SLT FIL circuit breaker (2) is open, close it. If it opens again, go to task 9-4.6.
2. Check that LIGHTING SLT CONT circuit breaker (3) and SLT FIL circuit breaker (4) are closed. opens again, go to task 9-4.6.	If SLT CONT circuit breaker (3) is open, close it. If it opens again, go to task 9-4.7. If SLT FIL circuit breaker (4) is open, close it. If it
<div>CHECK PILOT'S LANDING LIGHT</div>	
3. Set PLT SLT CONT switch or PLT SRCHLT CONTR switch (5) to ON.	
4. Set and hold pilot's SEARCH LIGHT switch (6) to EXTEND.	Pilot's landing light (7) shall fully extend from hous- ing (8). If landing light (7) does not fully extend, go to task 9-4.8.
5. Set and hold pilot's SEARCH LIGHT switch (6) to L and then to R.	Pilot's landing light (7) shall rotate counterclockwise and then clockwise. If light does not rotate in both directions, go to task 9-4.9.
6. Set and hold pilot's SEARCH LIGHT switch (6) to RETRACT.	Pilot's landing light (7) shall fully retract into housing (8) with lamp (9) facing down. If light does not fully retract, or lamp is not facing down, go to task 9-4.10.
7. Set and hold pilot's SEARCH LIGHT switch (6) to EXTEND.	Pilot's landing light (7) shall fully extend from hous- ing (8).
<div><div>CAUTION</div><div>Prolonged lighting of landing light on ground will reduce its useful life.</div></div>	

TASK	RESULT
8. Set pilot's SLT-FIL switch (10) to ON. 9. Set pilot's SLT-FIL switch (10) to OFF.  10. Set PLT SLT CONT switch or PLT SRCHLT CONTR switch (5) to RETR.	Pilot's landing light (7) shall come on. If it does not, go to task 9-4.11. Pilot's landing light (7) shall go out. If not, replace landing light. Pilot's landing light (7) shall fully retract into housing (8). If light does not fully retract, go to task 9-4.12.
<b>CHECK COPILOT'S LANDING LIGHT</b>	
11. Set CO-PLT SLT CONT switch or CPLT SRCHLT CONTR switch (11) to ON. 12. Set and hold copilot's SEARCH LIGHT switch (6) to EXTEND.  13. Set and hold copilot's SEARCH LIGHT switch (6) to L and then to R.  14. Set and hold copilot's SEARCH LIGHT switch (6) to RETRACT.  15. Set and hold copilot's SEARCH LIGHT switch (6) to EXTEND.	Copilot's landing light (12) shall fully extend from housing (13). If light does not fully extend, go to task 9-4.13. Copilot's landing light (12) shall rotate counterclockwise and then clockwise. If light does not rotate in both directions, go to task 9-4.9. Copilot's landing light (12) shall fully retract in housing (13) with lamp (14) facing down. If light does not fully retract, or lamp is not facing down, go to task 9-4.10. Copilot's landing light (12) shall fully extend from housing (13).
<div><div>CAUTION</div><div>Prolonged lighting of landing light on ground will reduce its useful life.</div></div>	
16. Set copilot's SLT-FIL switch (10) to ON. 17. Set copilot's SLT-FIL switch (10) to OFF.  18. Set CO-PLT SLT CONT switch or CPLT SRCHLT CONTR switch (11) to RETR.	<div><div>WARNING</div><div>With <b>17</b>, do not look into lighted NVG landing light. Infra-red light output can seriously injure eyes. Use night vision goggles or feel for heat from copilot's landing light to check its operation.</div></div> Copilot's landing light (12) shall come on. If it does not, go to task 9-4.14. Copilot's landing light (12) shall go out. If not, replace landing light. Copilot's landing light (12) shall fully retract into housing (13). If light does not fully retract, go to task 9-4.15.

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off

## FAULT ISOLATION PROCEDURE

## INITIAL SETUP

### Applicable Configurations

All

## Tools

Electrical Repairer's Tool Kit,

NSN 5180-00-323-4915

## Multimeter

## Materials

None

**Personnel Required:**

Aircraft Electrician (2)

## References.

TM 55-1520-240-23

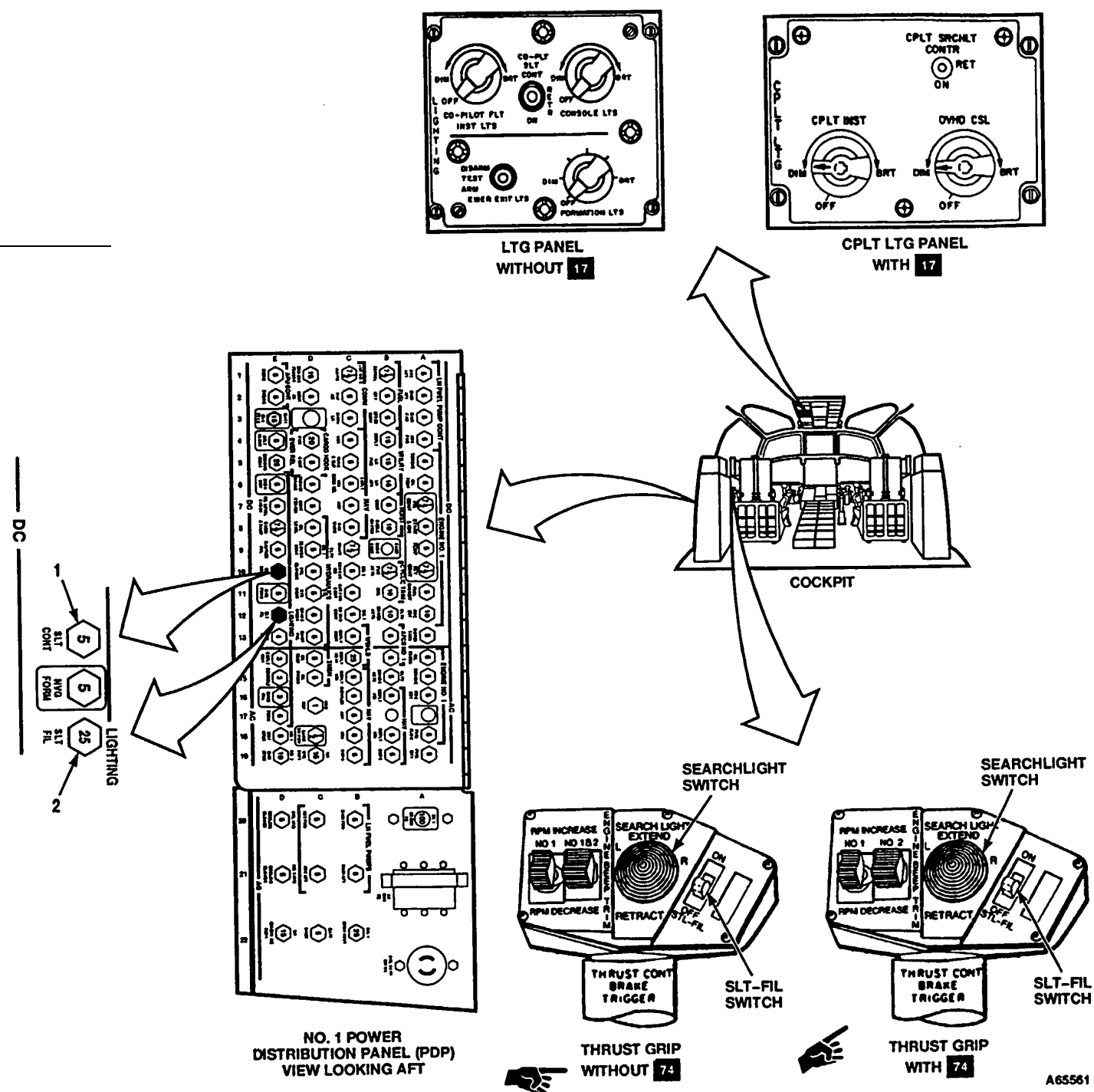
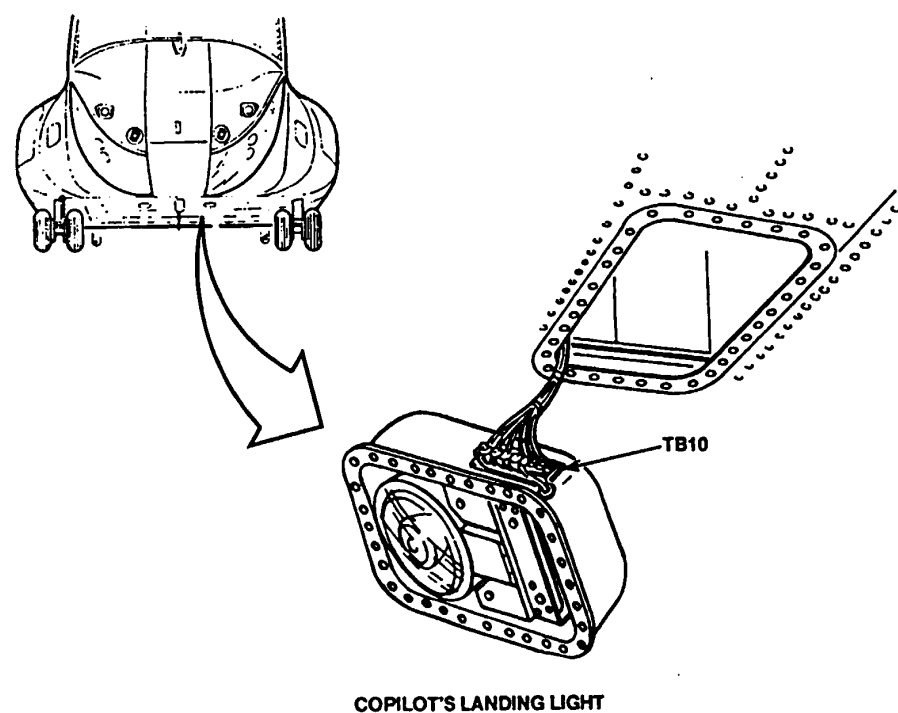
**Equipment Condition:**

TM 55-1520-240-23:

Battery Disconnected

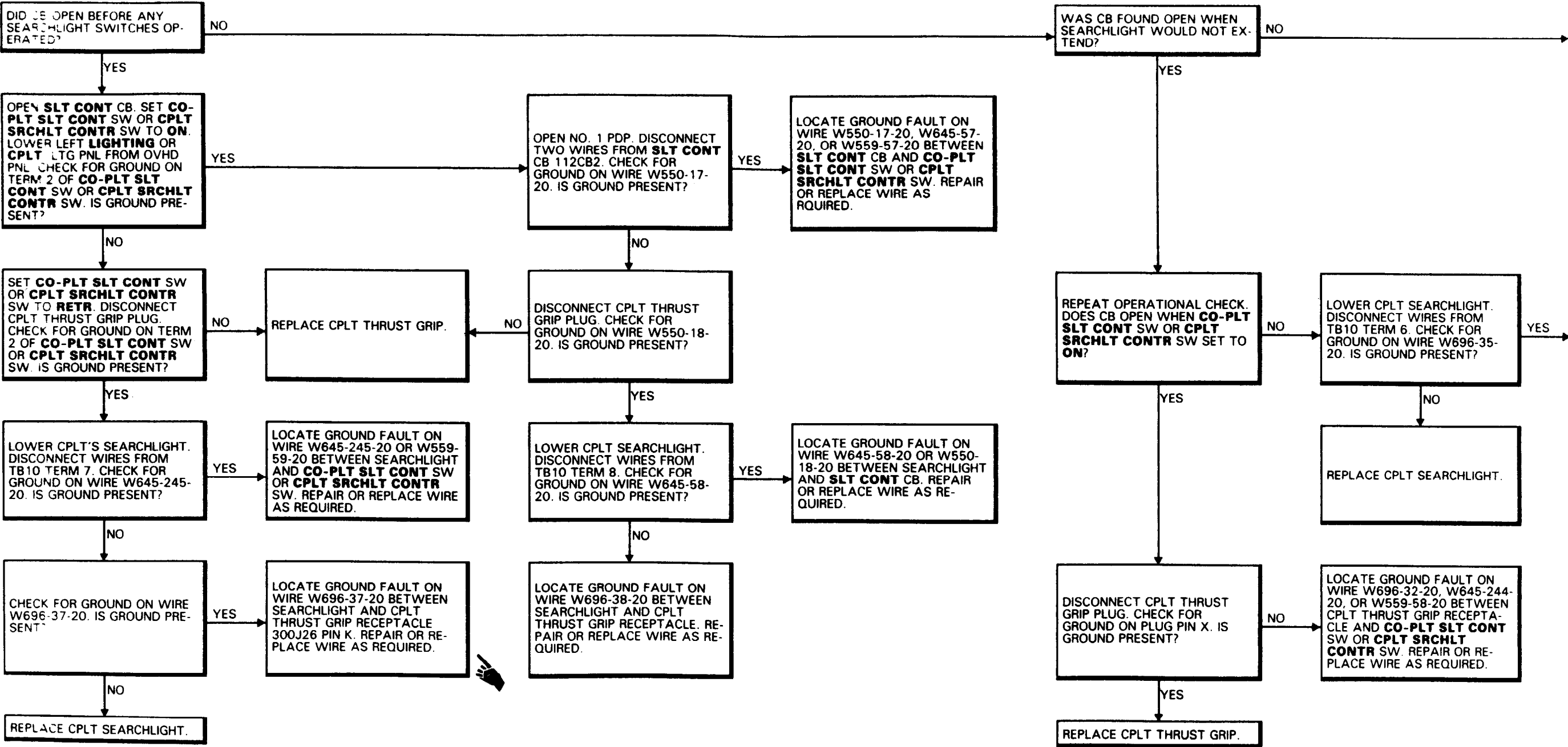
Electrical Power Off

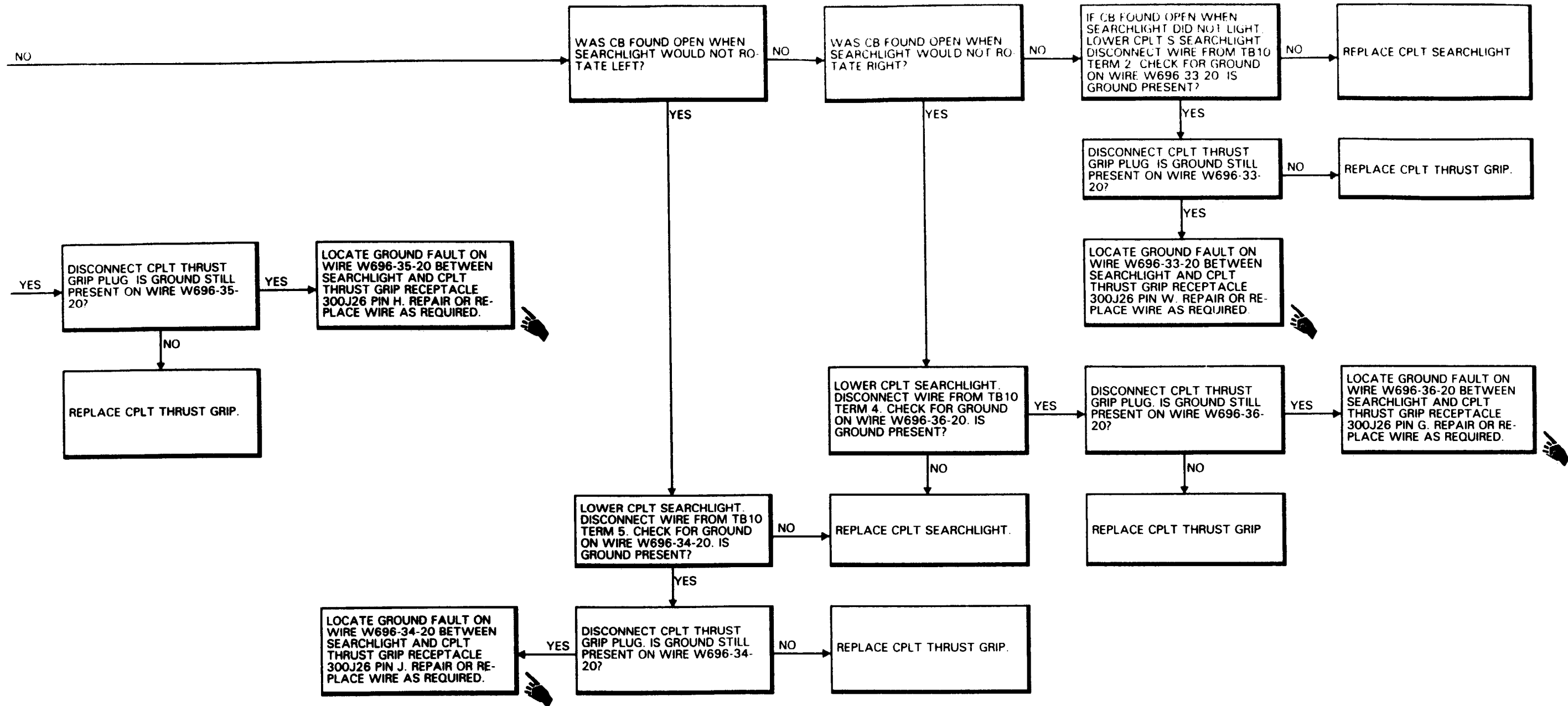
Hydraulic Power Off

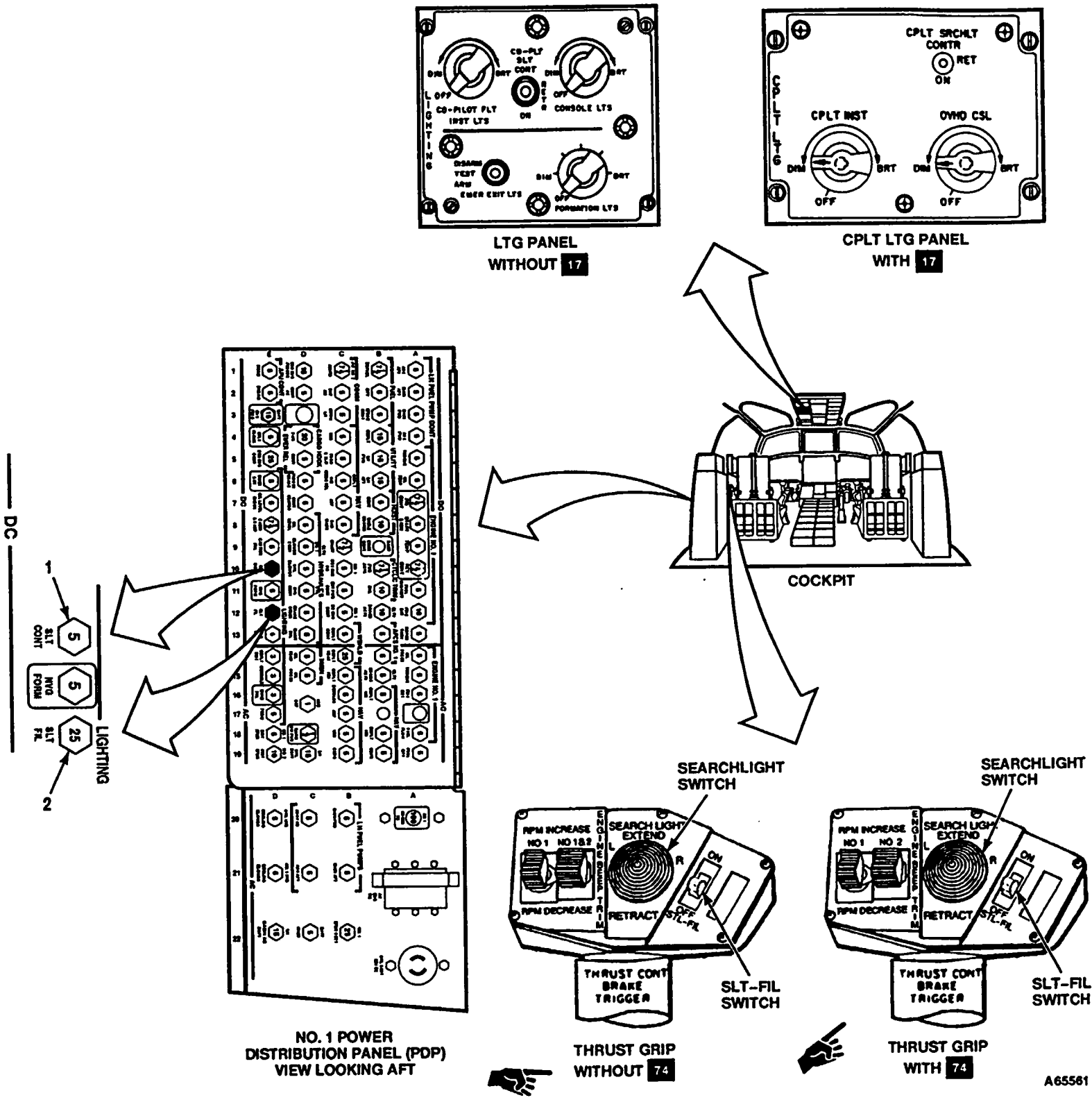
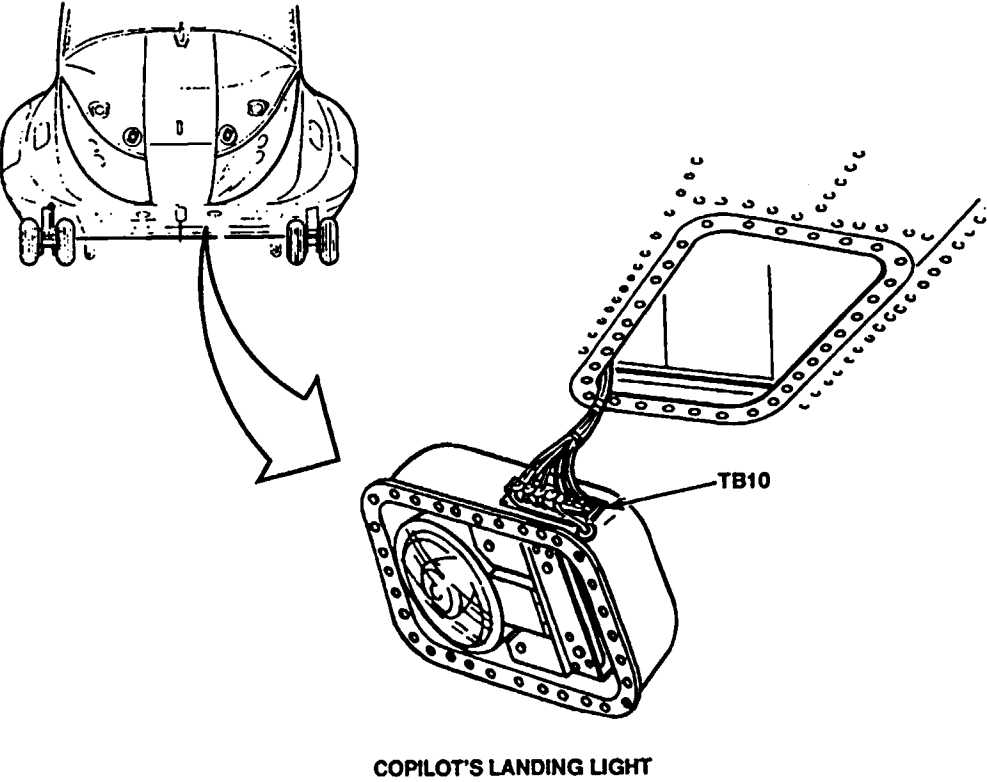


9-4.5 SLT CONT CIRCUIT BREAKER (COPILOT'S) DOES NOT STAY CLOSED (Continued)

9-4.5







A65581

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

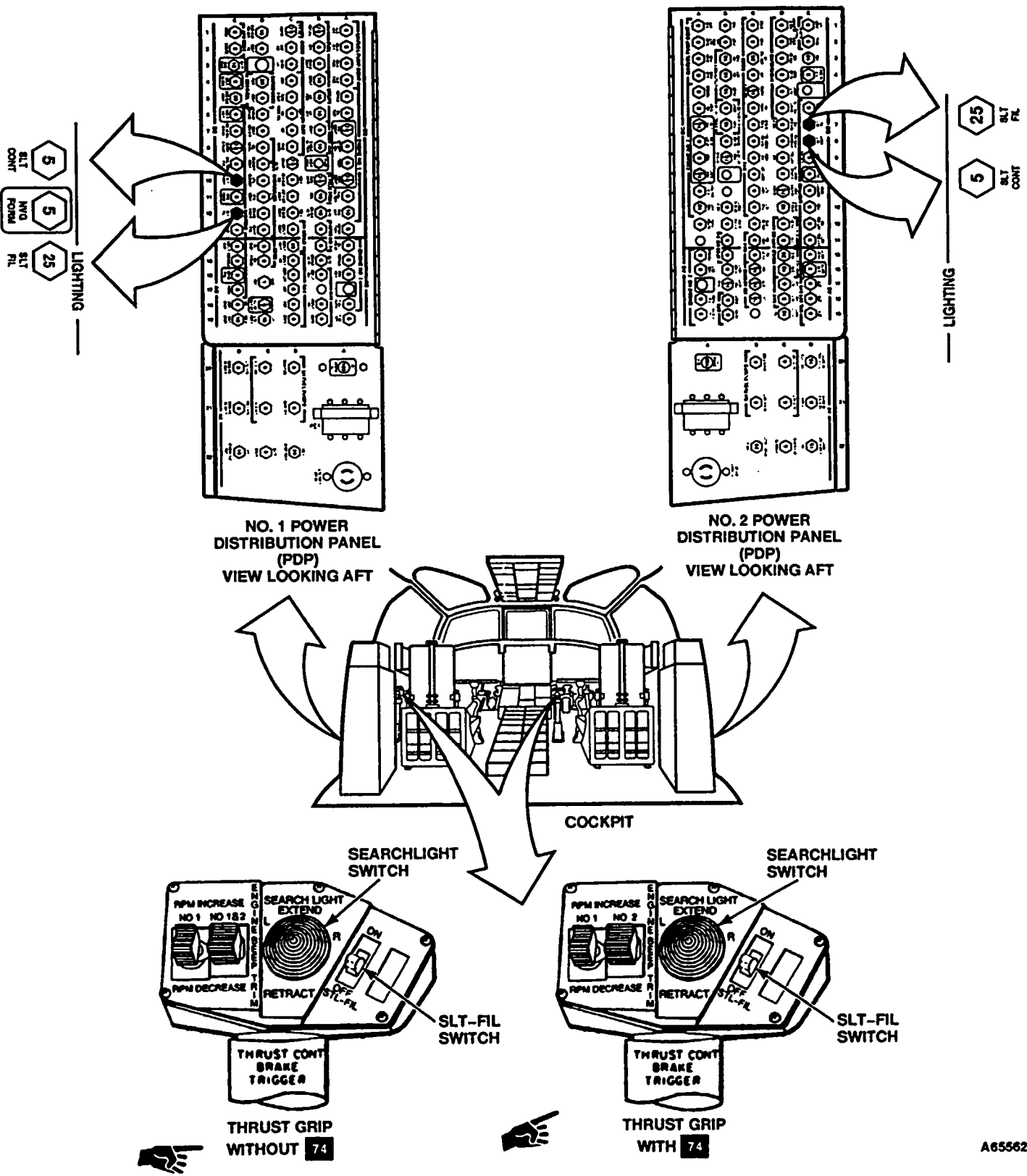
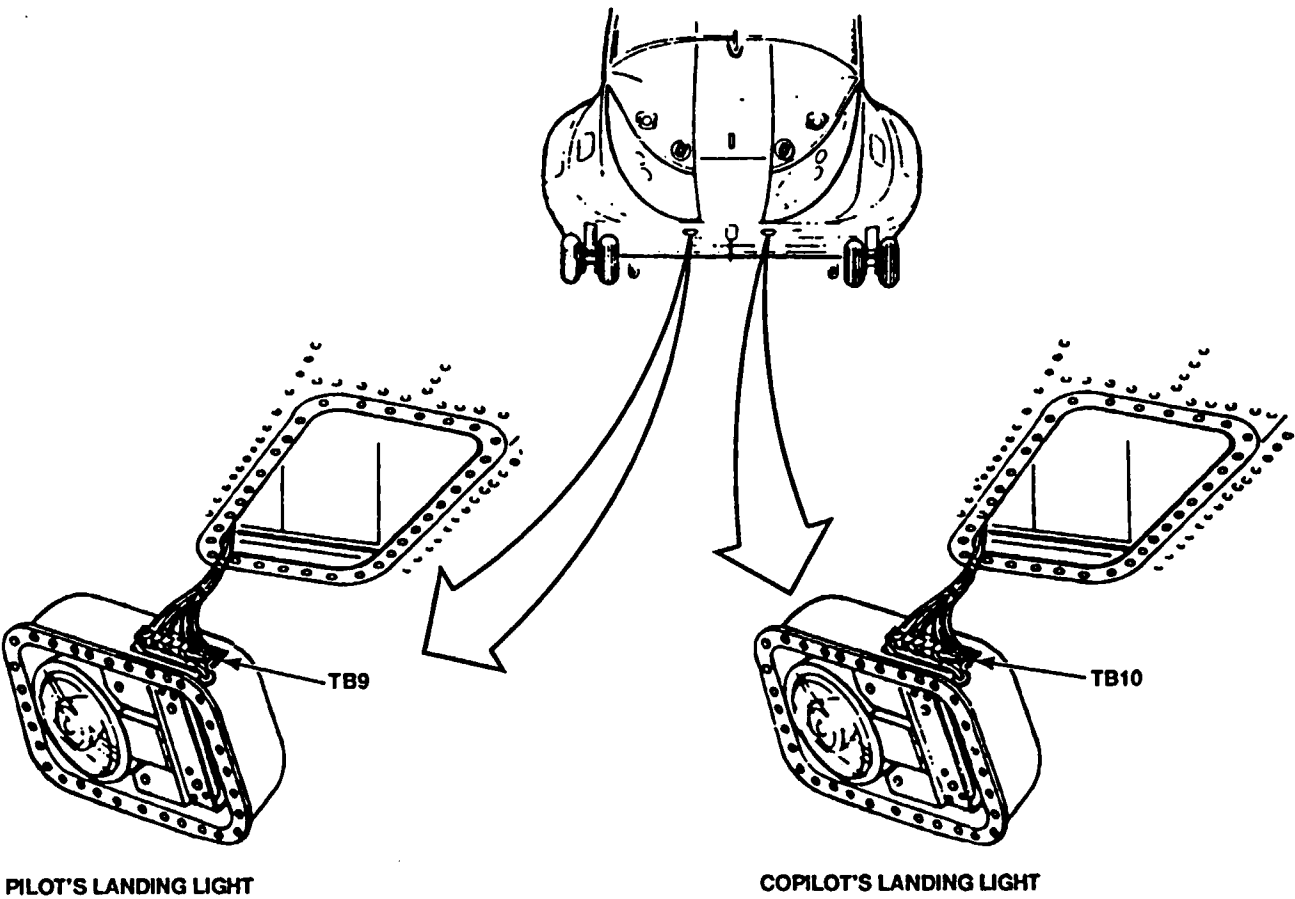
Equipment Condition:

TM 55-1520-240-23:

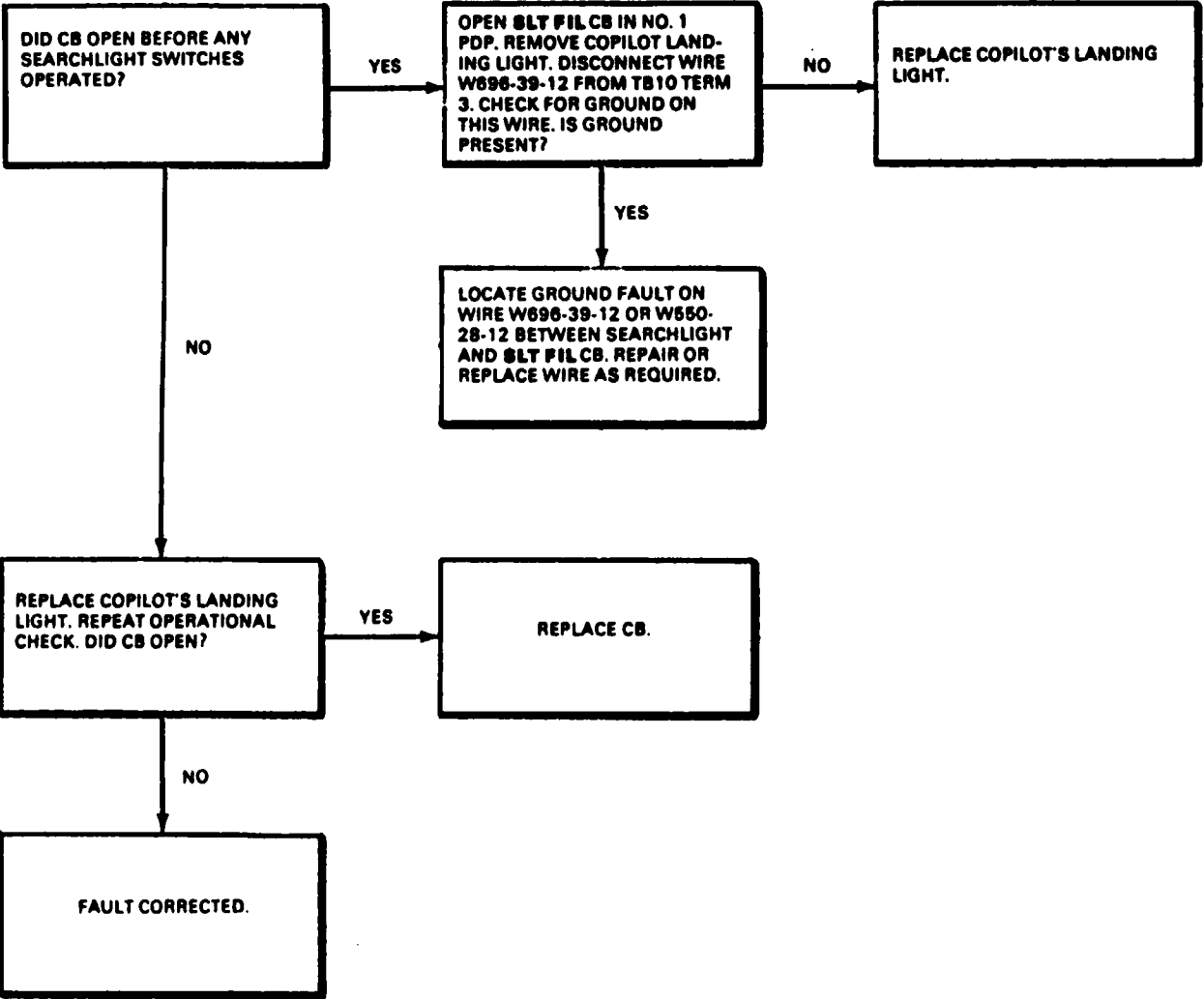
Battery Disconnected

Electrical Power Off

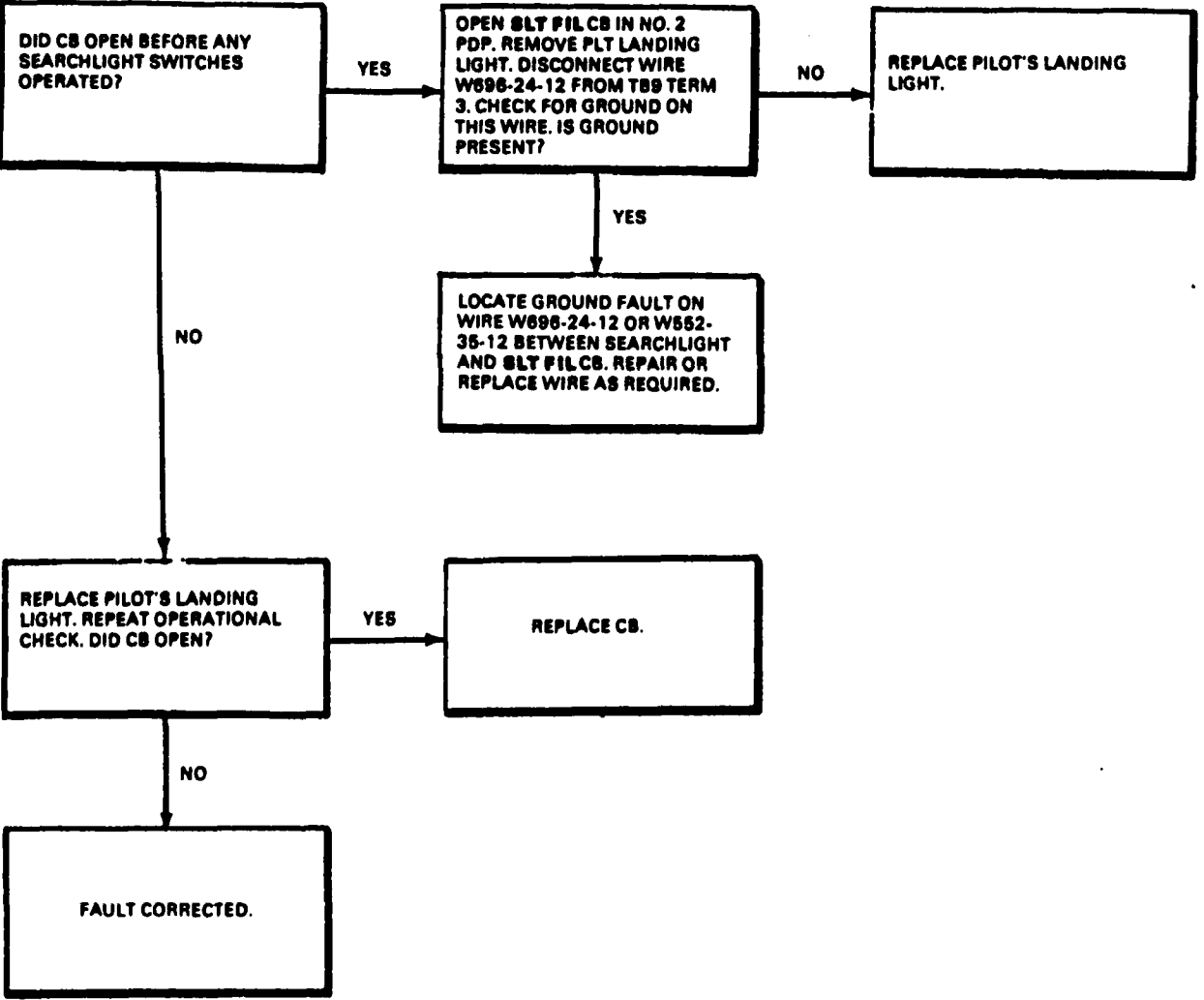
Hydraulic Power Off



NO. 1 PDP SLT FIL CIRCUIT BREAKER DOES NOT STAY CLOSED



NO. 2 PDP SLT FIL CIRCUIT BREAKER DOES NOT STAY CLOSED



9-4.7 SLT CONT CIRCUIT BREAKER (PILOT'S) DOES NOT STAY CLOSED

9-4.7

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

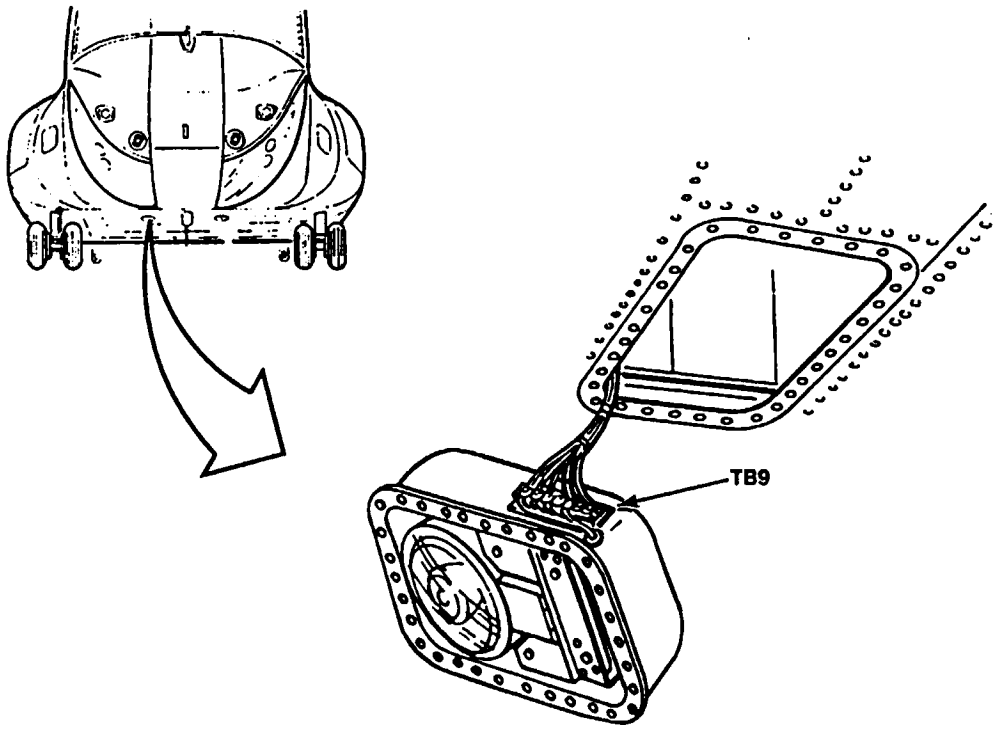
Aircraft Electrician (2)

References:

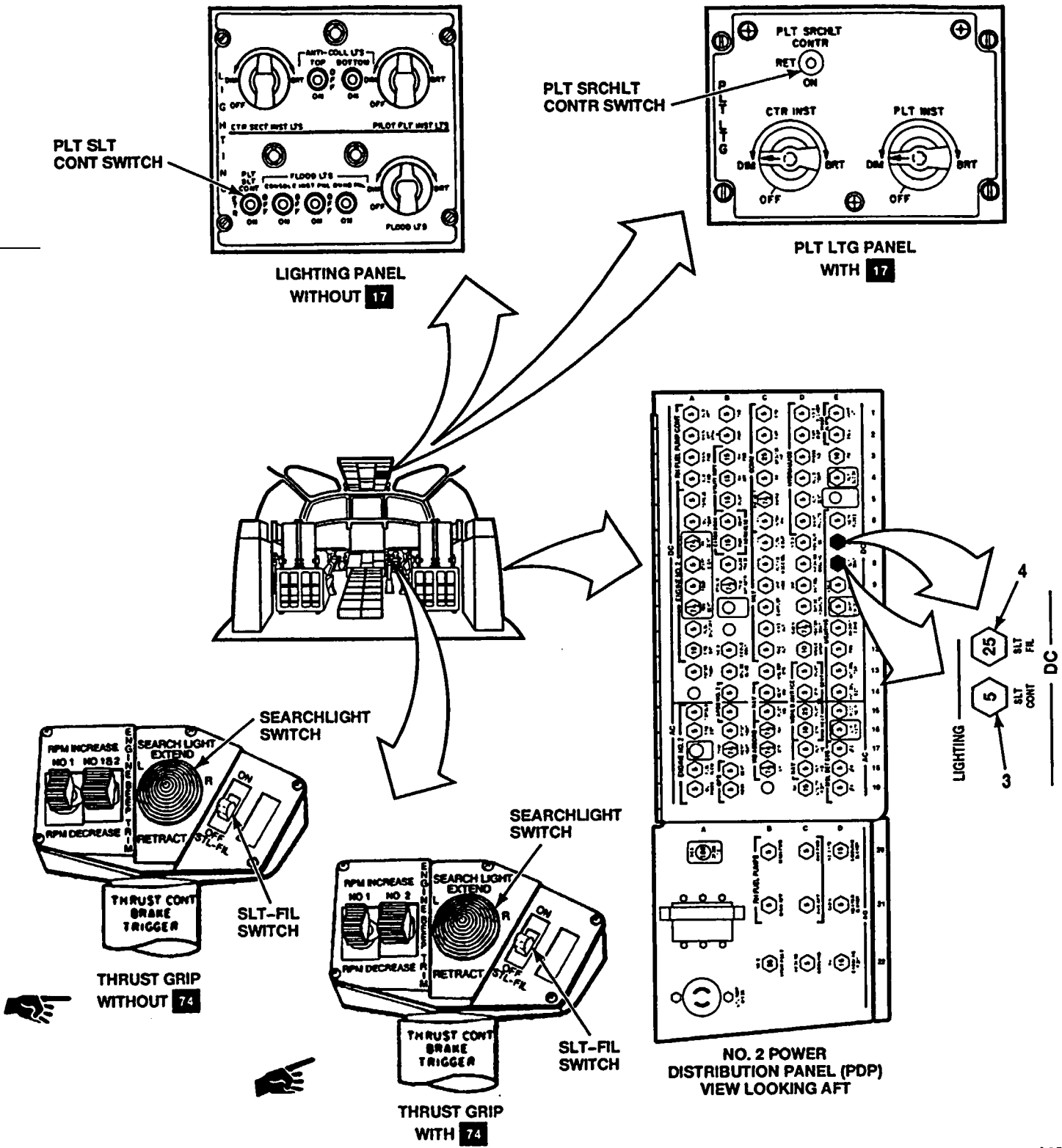
TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Disconnected
  - Electrical Power Off
  - Hydraulic Power Off



PILOT'S LANDING LIGHT



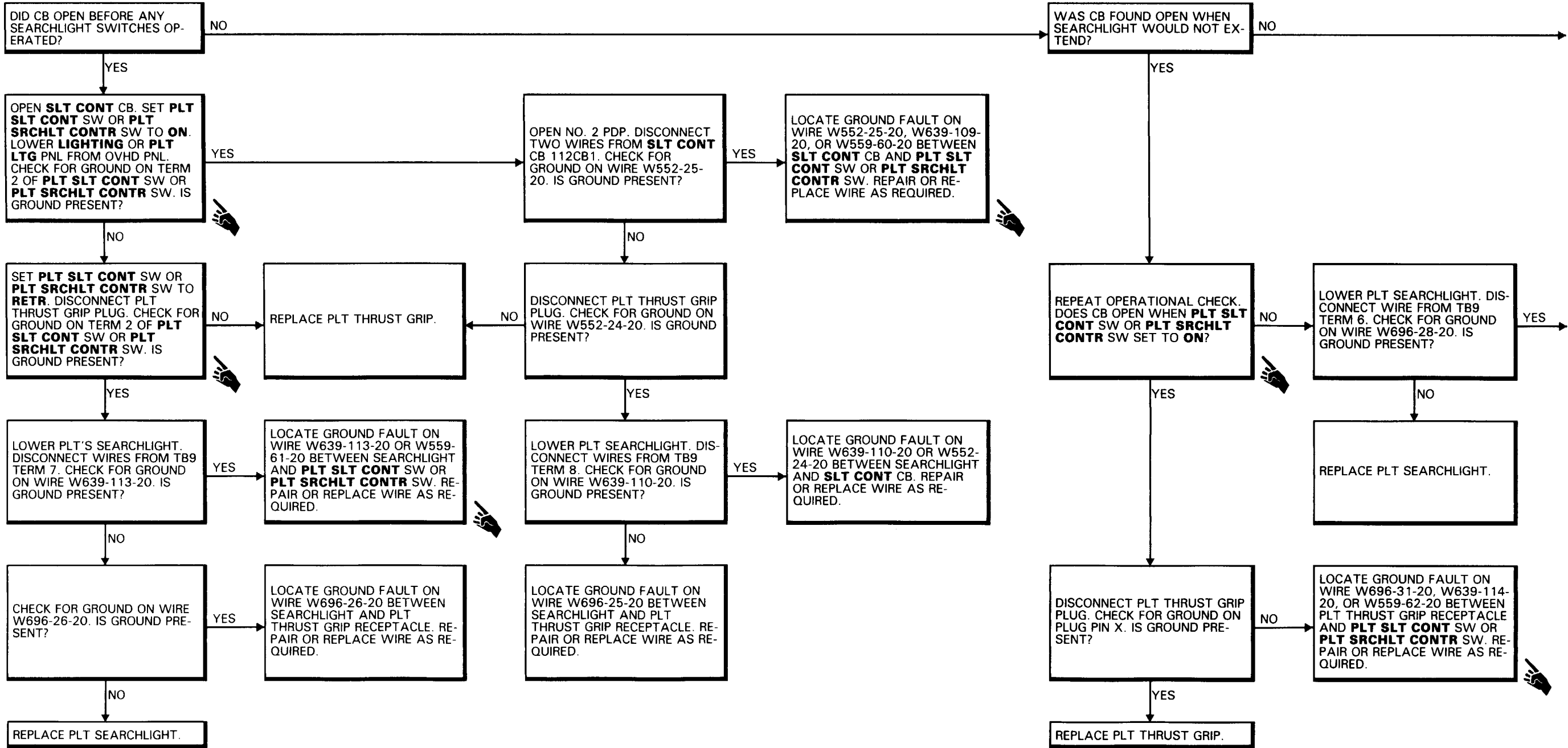
A65563

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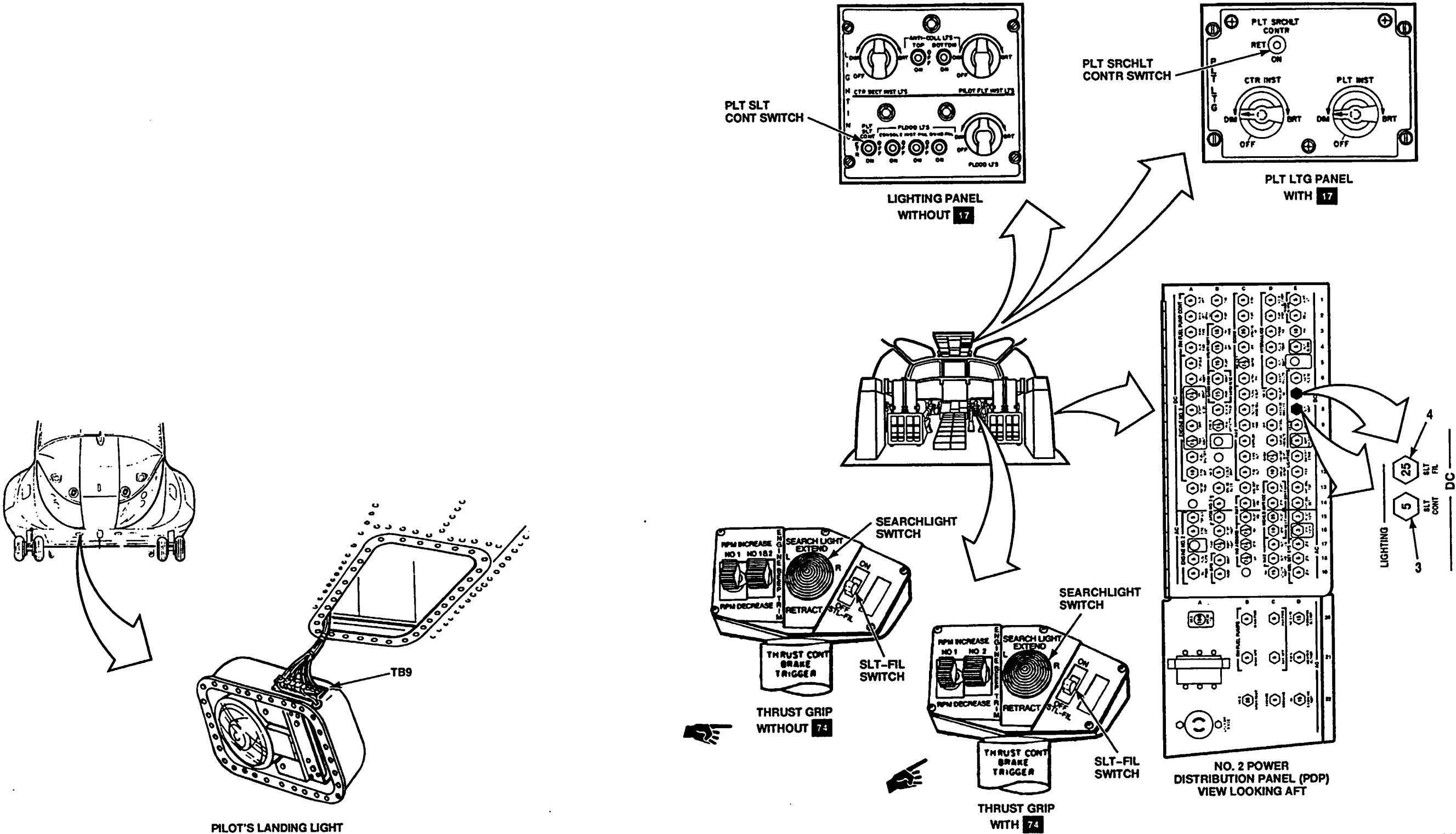


9-4.7 SLT CONT CIRCUIT BREAKER (PILOT'S) DOES NOT STAY CLOSED (Continued)

9-4.7







FAULT ISOLATION PROCEDURE

INITIAL SETUP

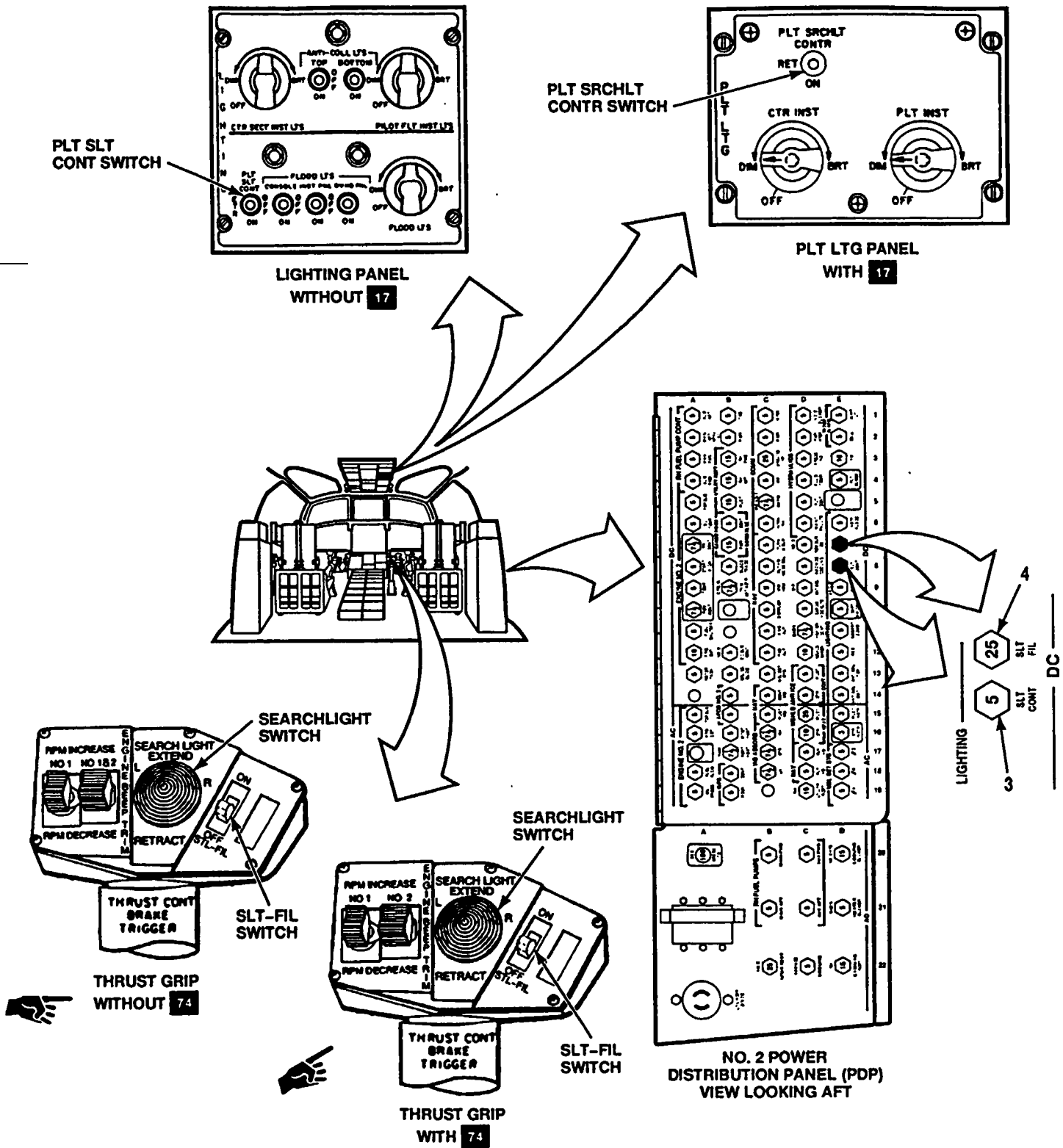
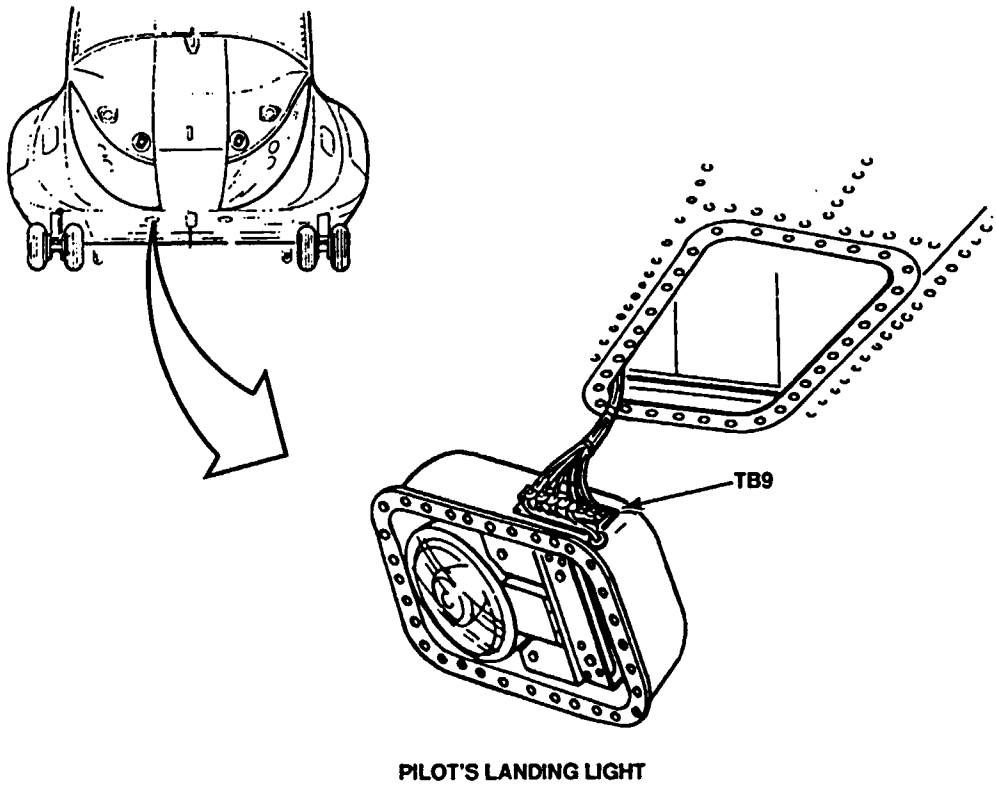
Applicable Configurations:

- All
- Tools:
- Electrical Repairer's Tool Kit,  
NSN 518000-323-4915
  - Multimeter

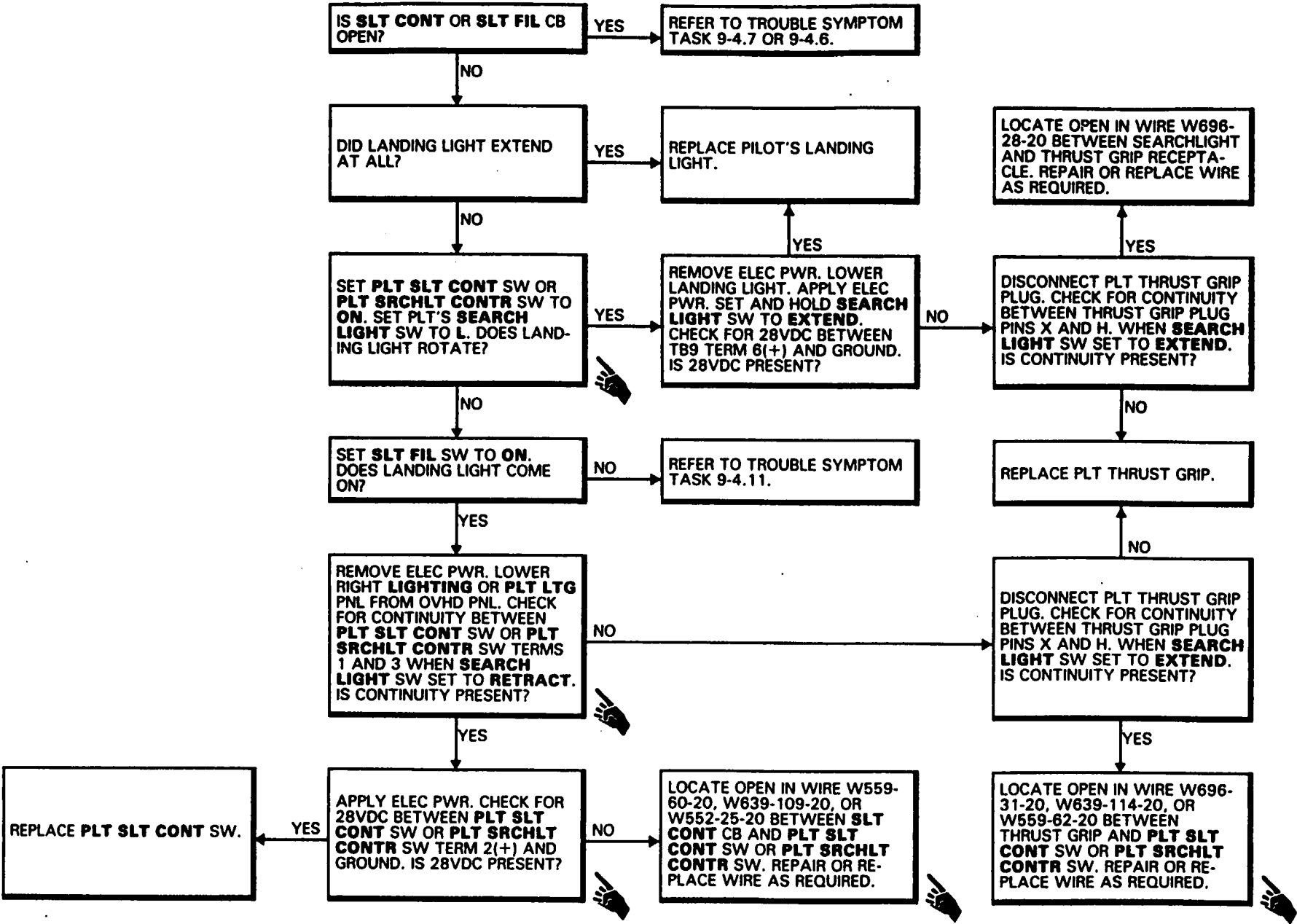
Materials:

- None

- Personnel Required:
- Aircraft Electrician (2)
- References:
- TM 55-1520-240-23
- Equipment Condition:
- TM 55-1520-240-23:
  - Battery Connected
  - Electrical Power On
  - Hydraulic Power Off



A65563



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

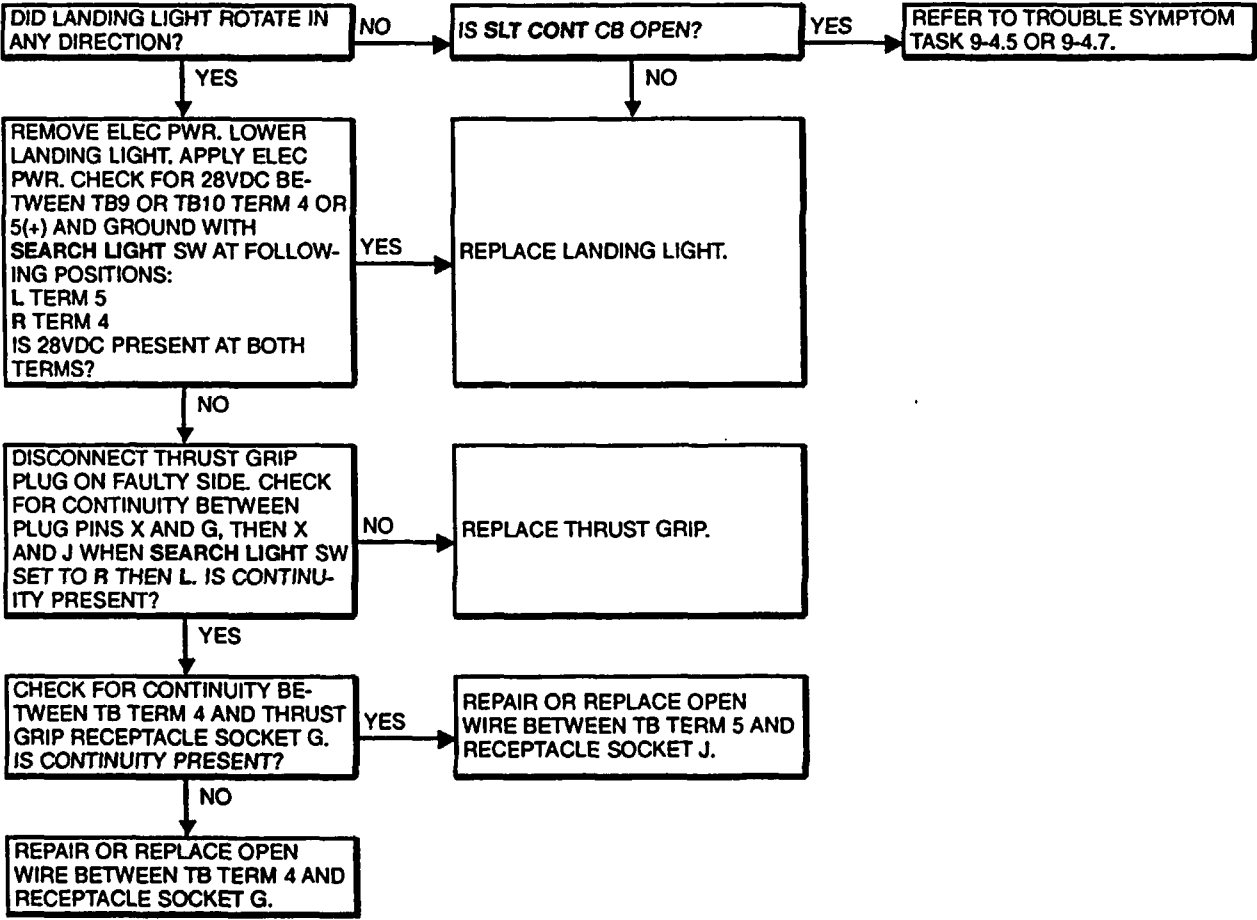
Equipment Condition:

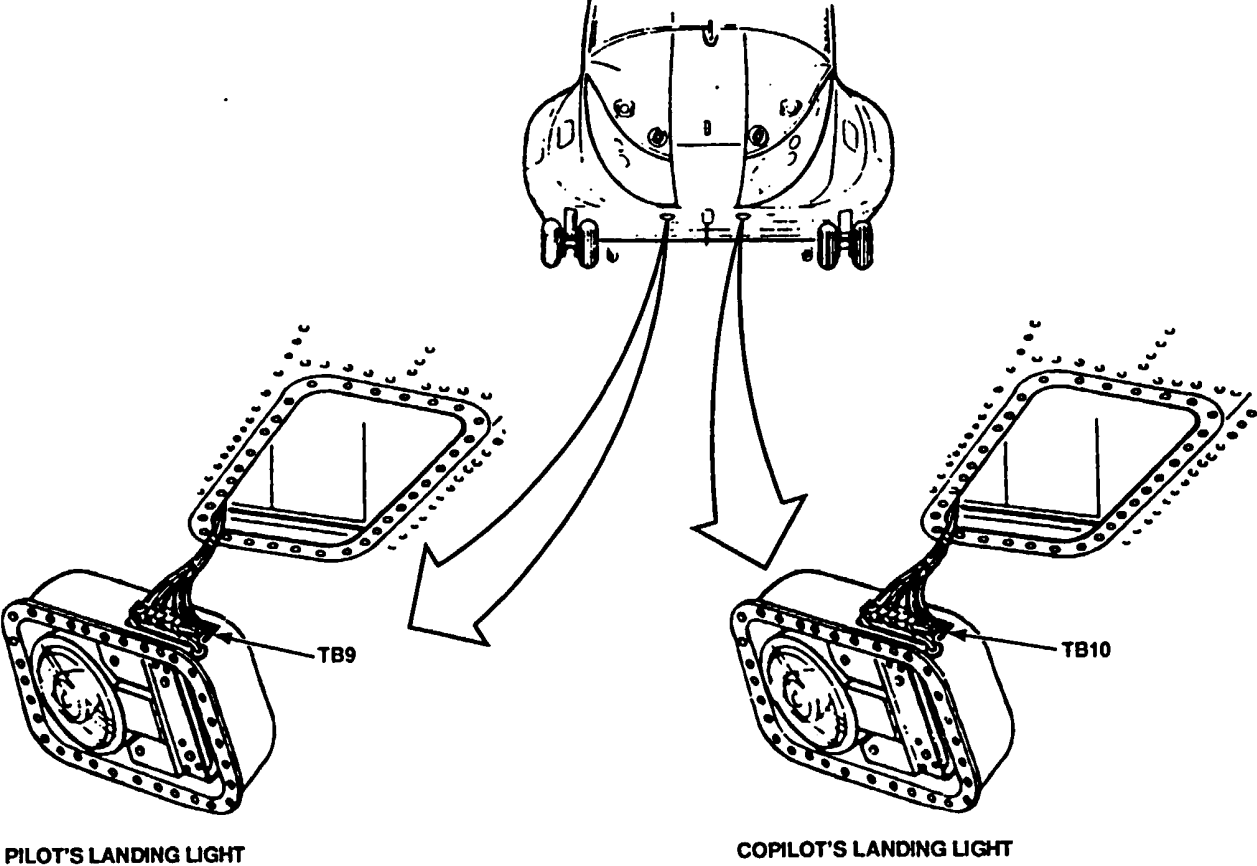
TM 55-1520-240-23:

Battery Connected

Electrical Power On

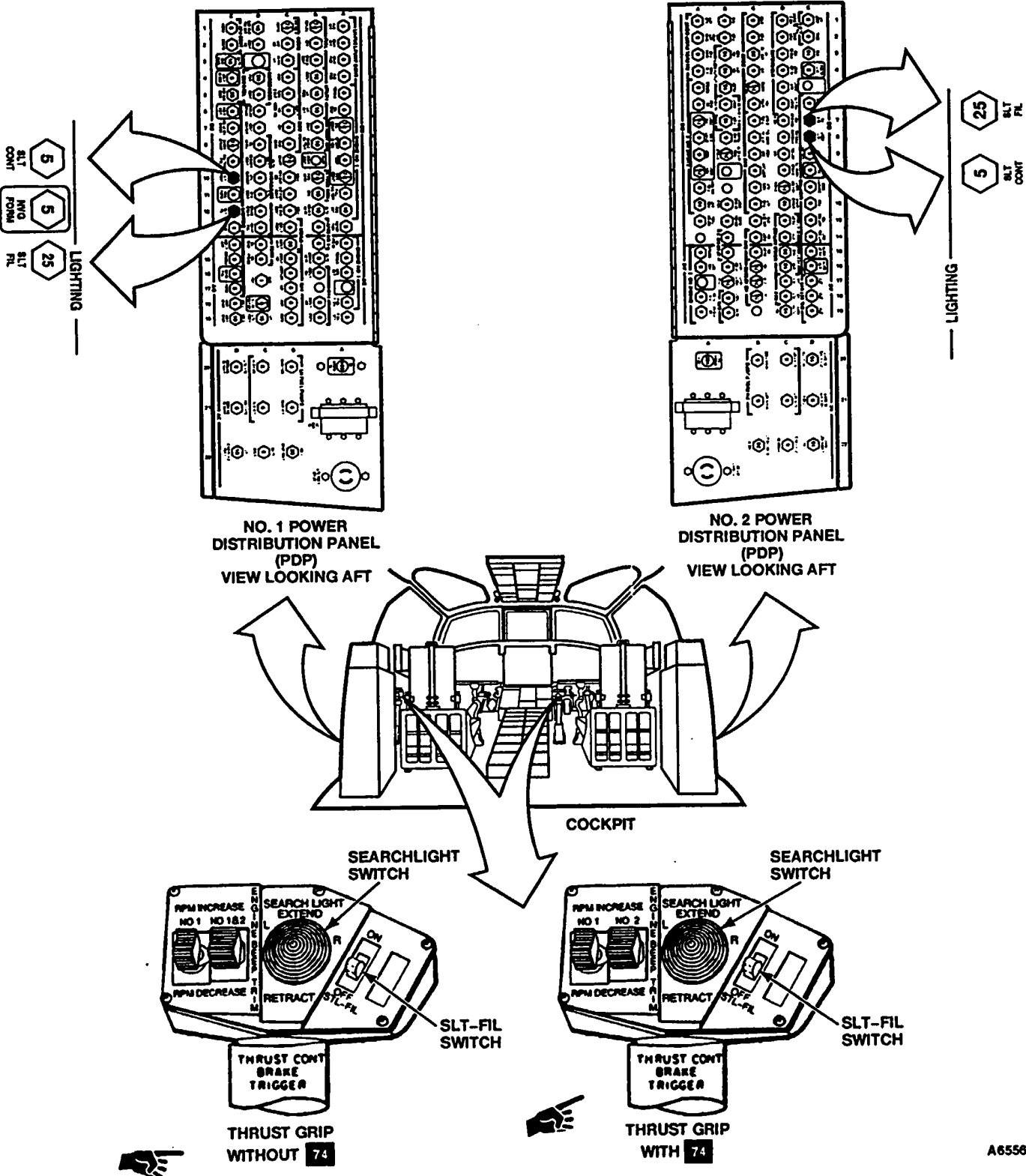
Hydraulic Power On





PILOT'S LANDING LIGHT

COPILOT'S LANDING LIGHT



A65562

9-4.10 LANDING LIGHT DOES NOT RETRACT OR DOES NOT FULLY RETRACT INTO HOUSING

9-4.10

FAULT ISOLATION PROCEDURE

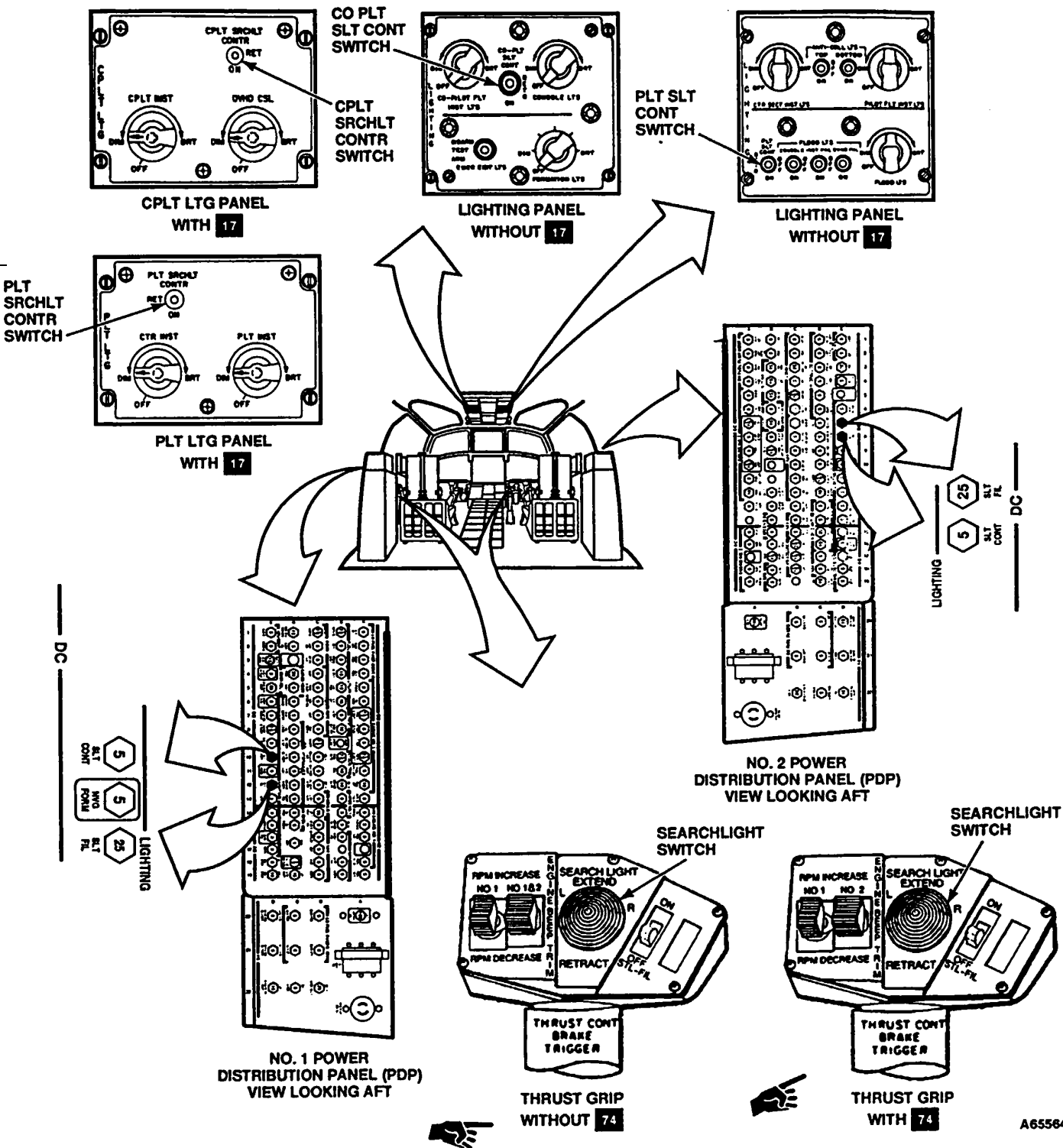
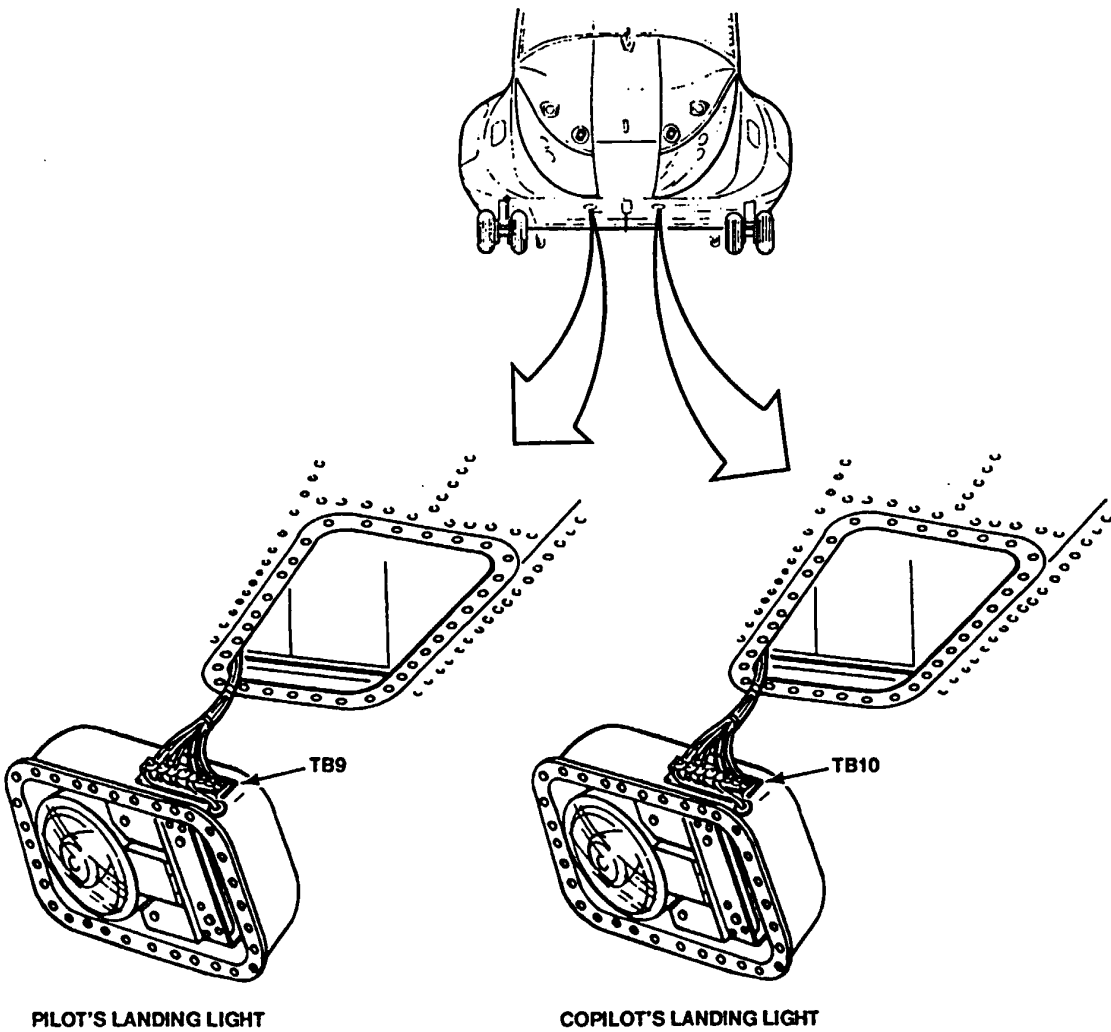
INITIAL SETUP  
**Applicable Configurations:**  
All

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

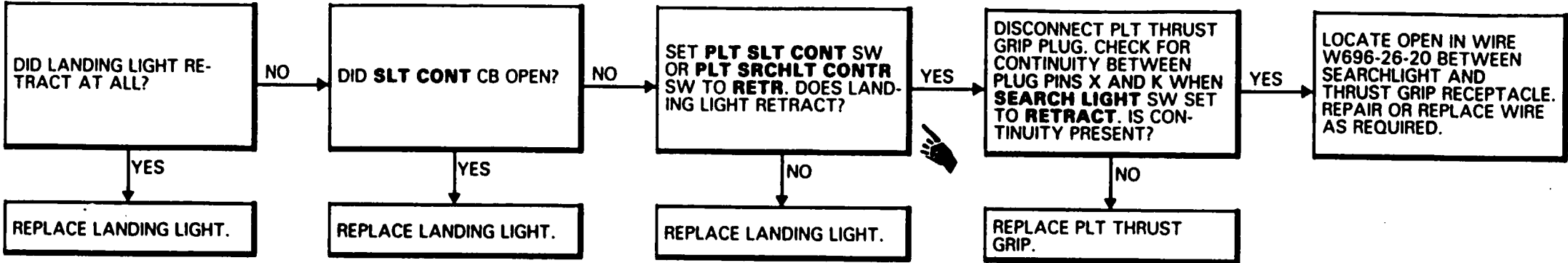
**Personnel Required:**  
Aircraft Electrician (2)

**References**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

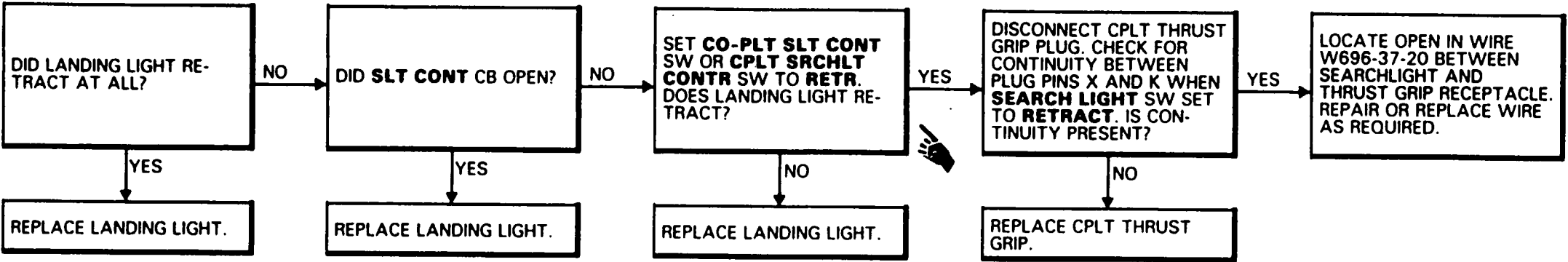




**PILOT'S LANDING LIGHT DOES NOT RETRACT OR DOES NOT FULLY RETRACT INTO HOUSING**



**COPILOT'S LANDING LIGHT DOES NOT RETRACT OR DOES NOT FULLY RETRACT INTO HOUSING**



9-4.11 PILOT'S LANDING LIGHT DOES NOT COME ON

9-4.11

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 518000-323-4915

Multimeter

Materials:

None

Personnel Required:

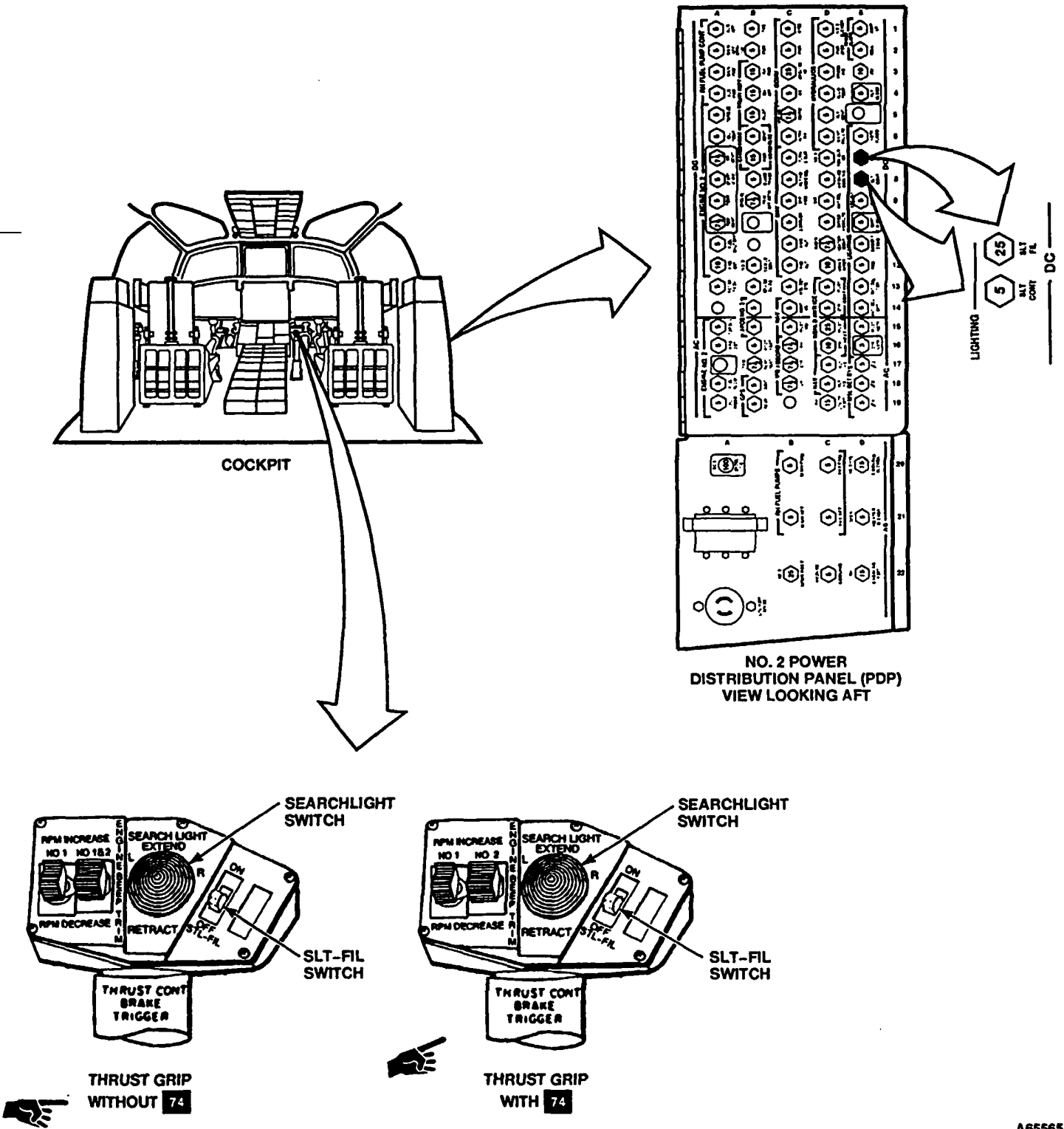
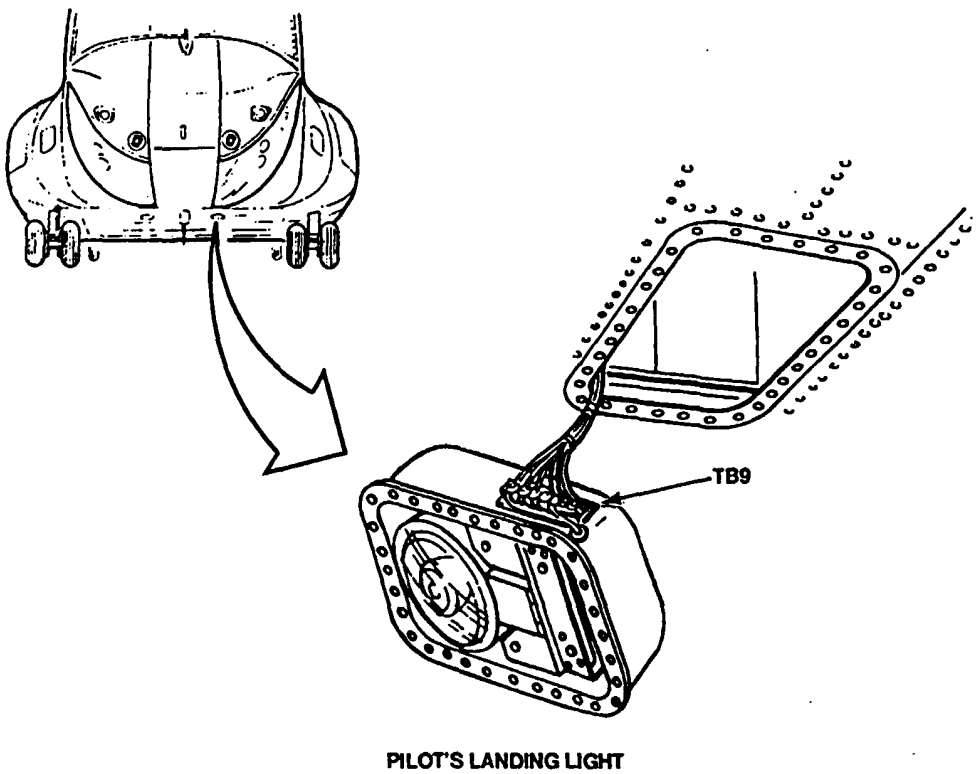
Aircraft Electrician (2)

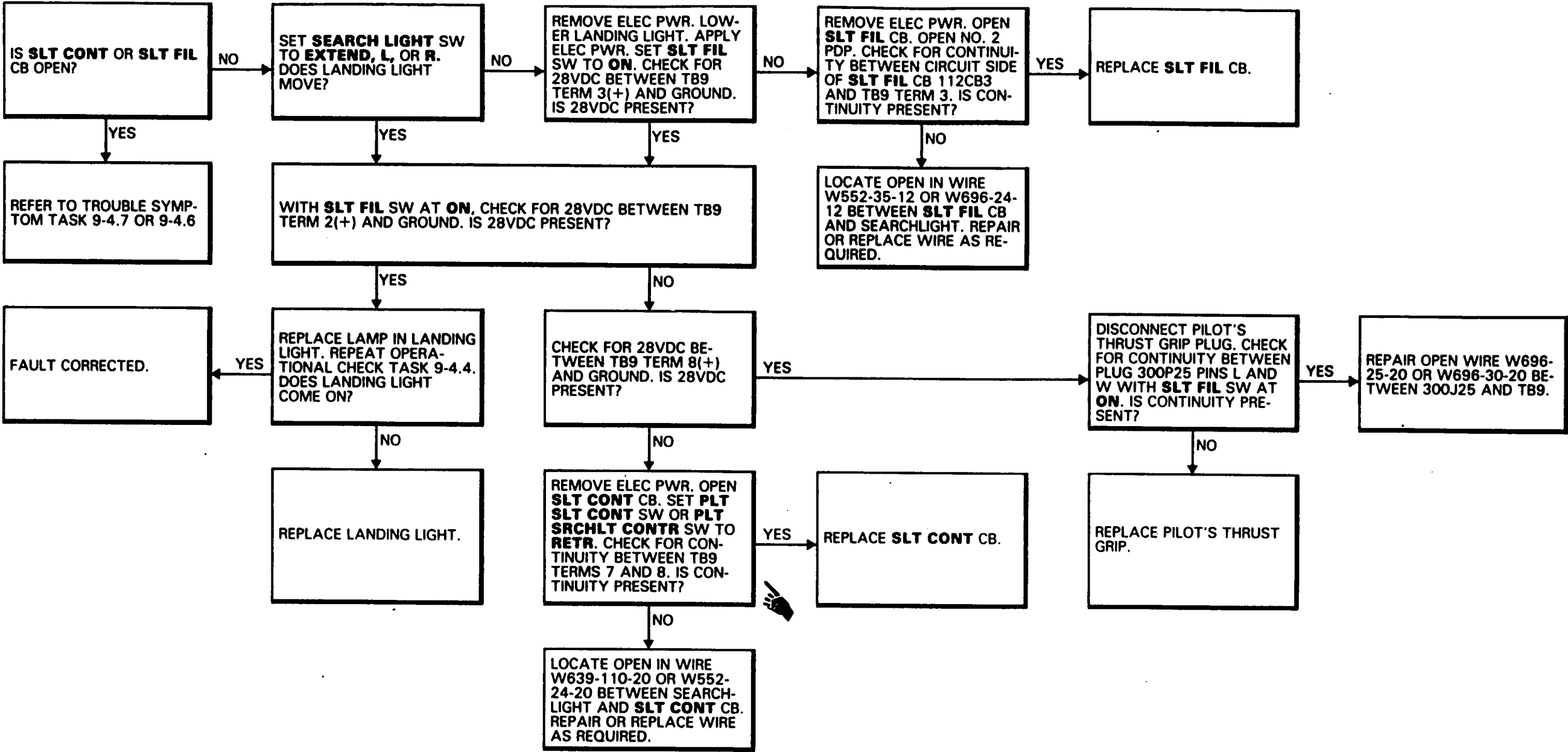
References:

TM 55-152024023

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





9-4.12 PILOT'S LANDING LIGHT WILL NOT RETRACT WITH PLT SLT CONT SWITCH

9-4.12

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

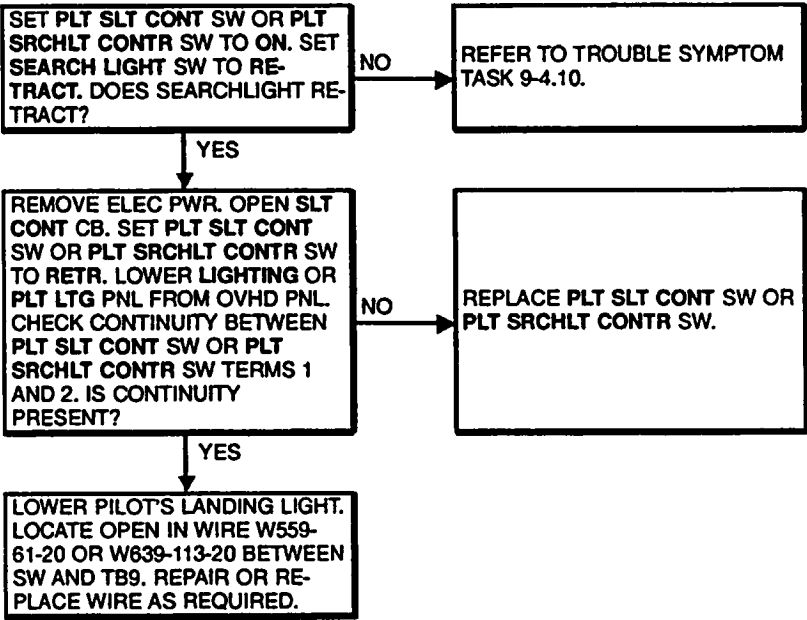
Equipment Condition:

TM 55-1520-240-23:

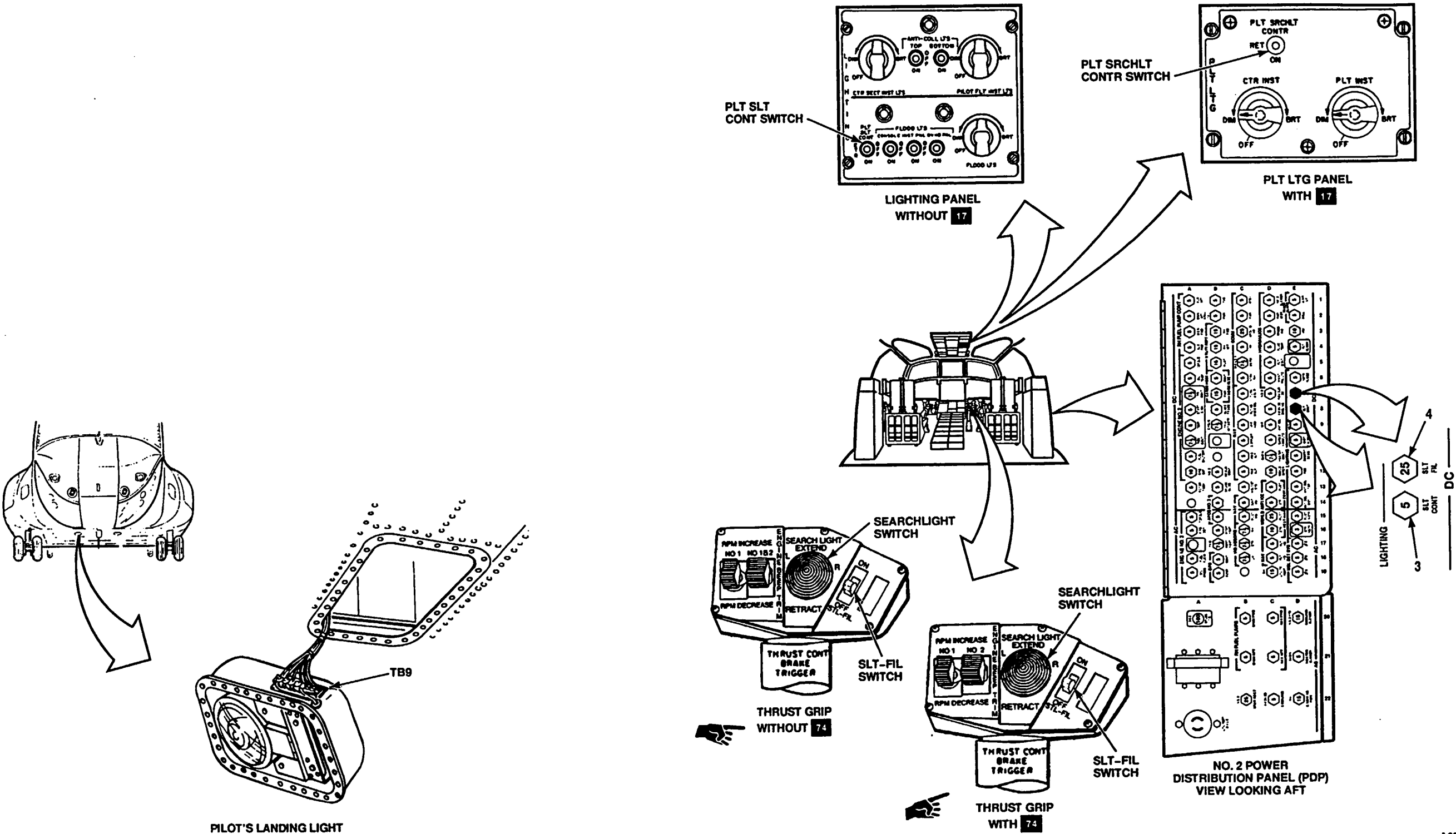
Battery Connected

Electrical Power On

Hydraulic Power Off



9-4.12 PILOT'S LANDING LIGHT WILL NOT RETRACT WITH PLT SLT CONT SWITCH (Continued)



A65563

9-4.13 COPILOT'S LANDING LIGHT DOES NOT EXTEND OR DOES NOT FULLY EXTEND

9-4.13

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

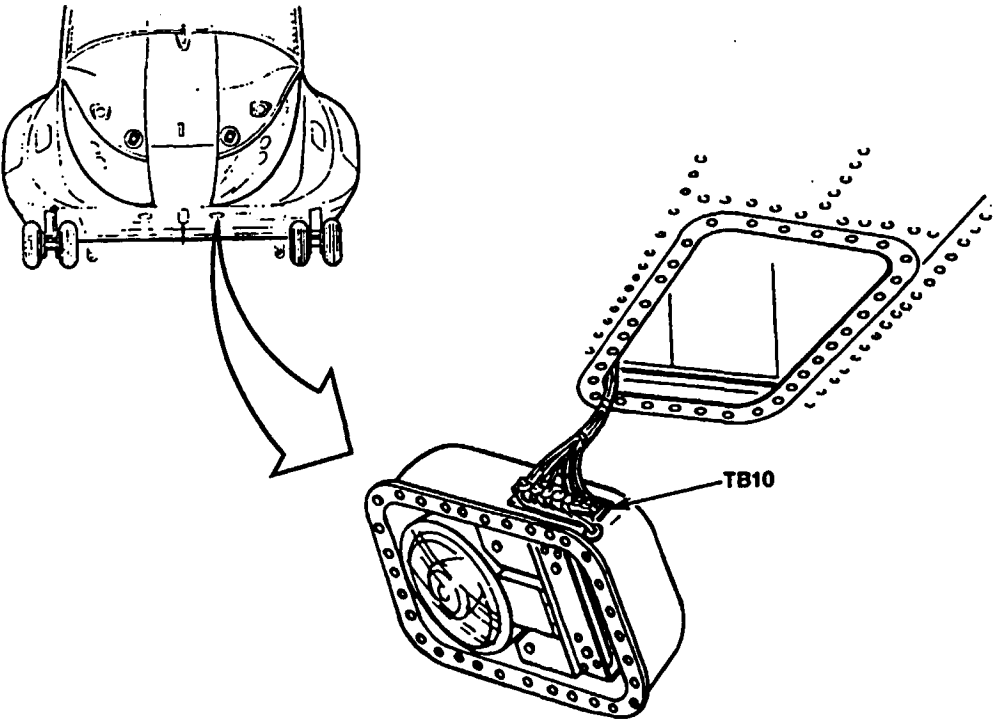
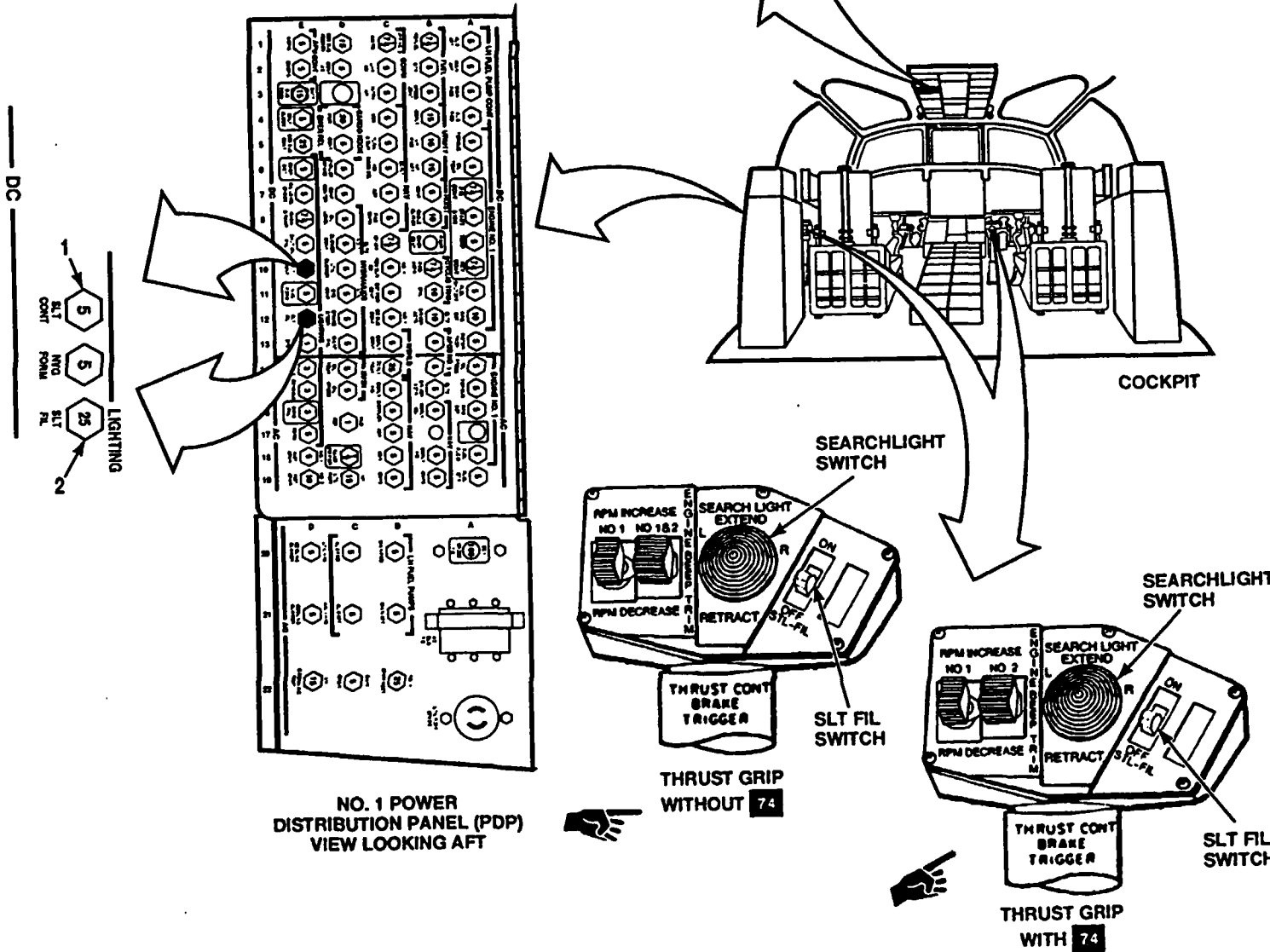
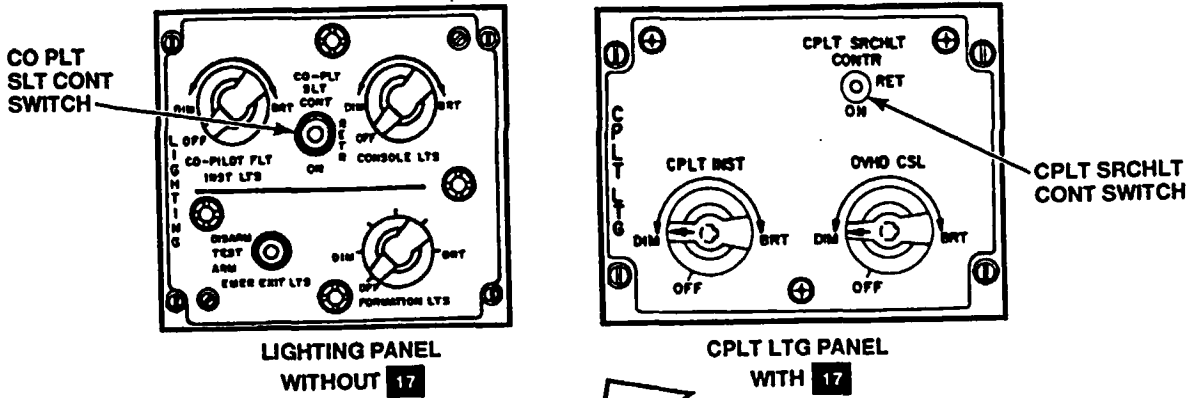
Aircraft Electrician (2)

References:

TM 55-1520-240-23

Equipment Condition:

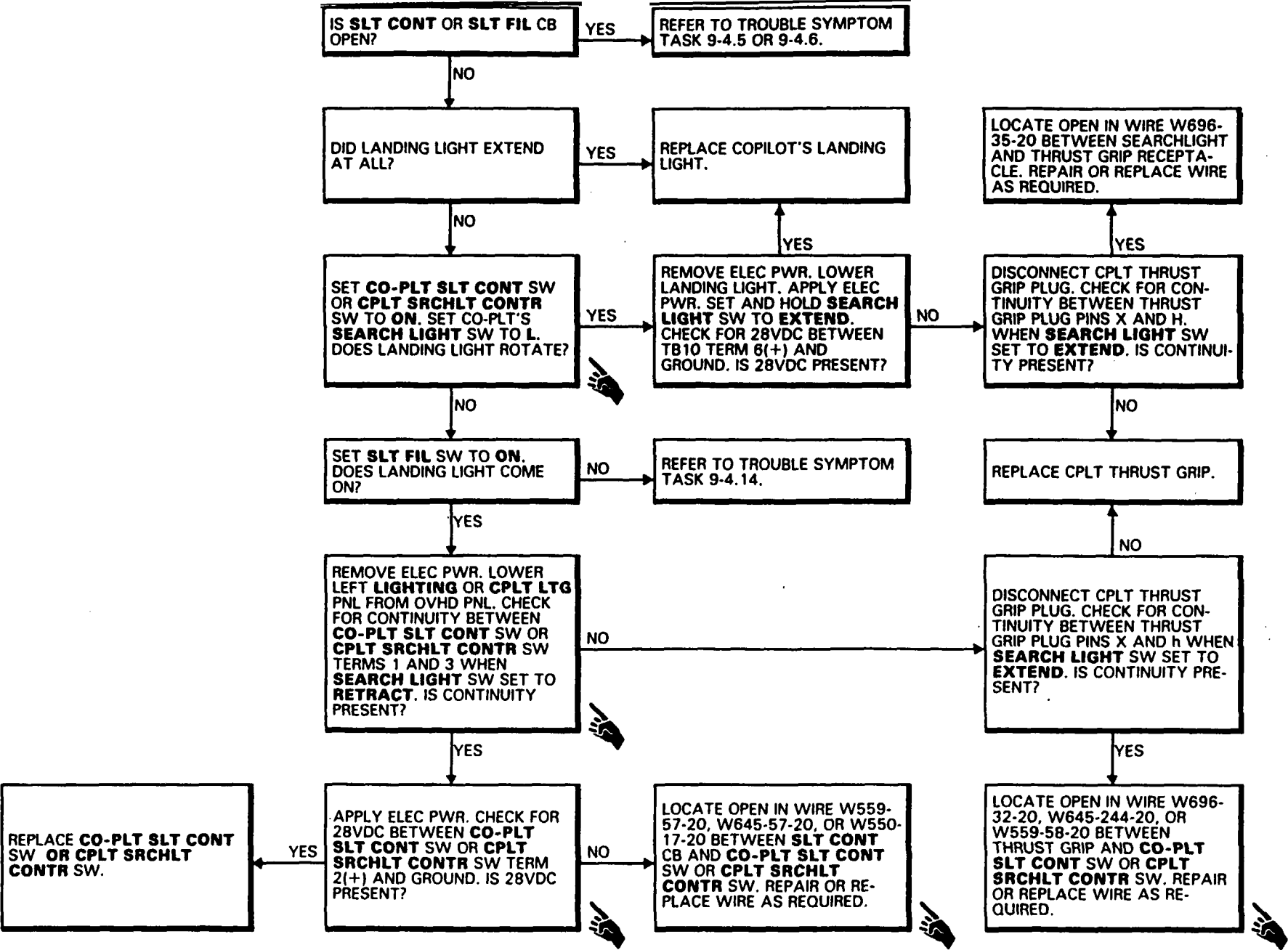
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



COPILOT'S LANDING LIGHT

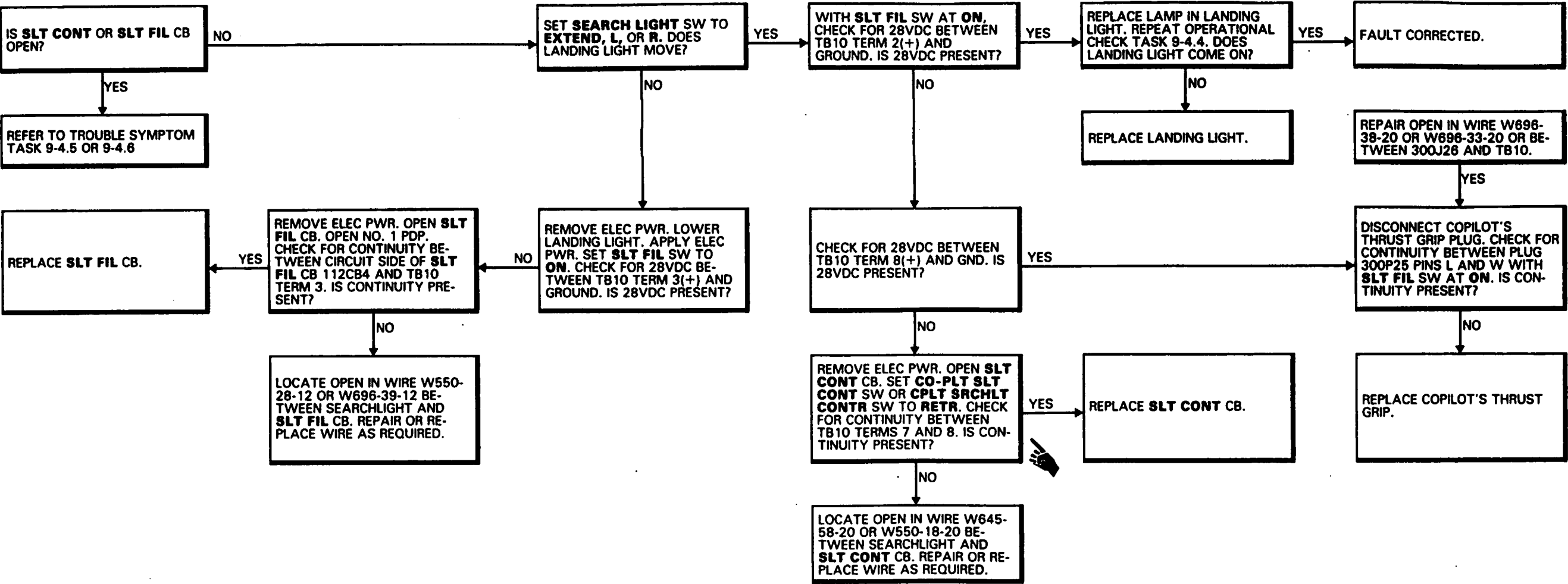
A65566

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9-4.15 COPILOT'S LANDING LIGHT WILL NOT RETRACT WITH CO-PLT SLT CONT SWITCH

9-4.15

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

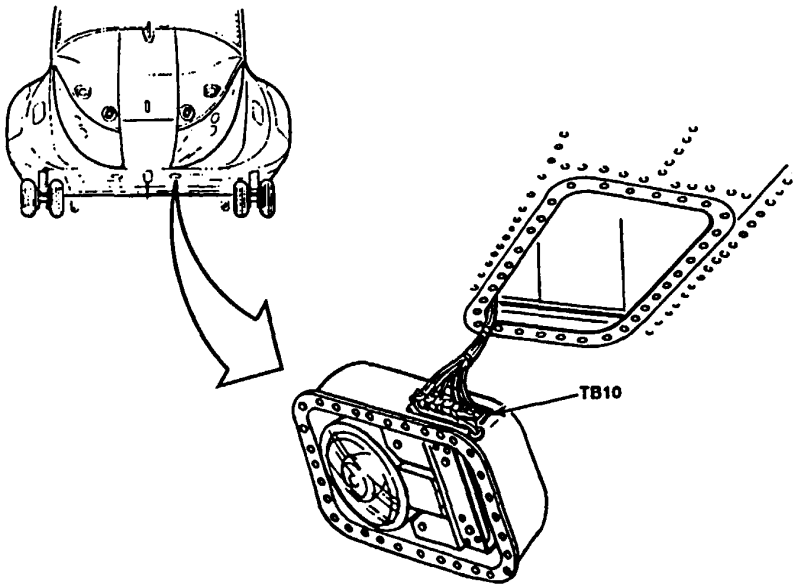
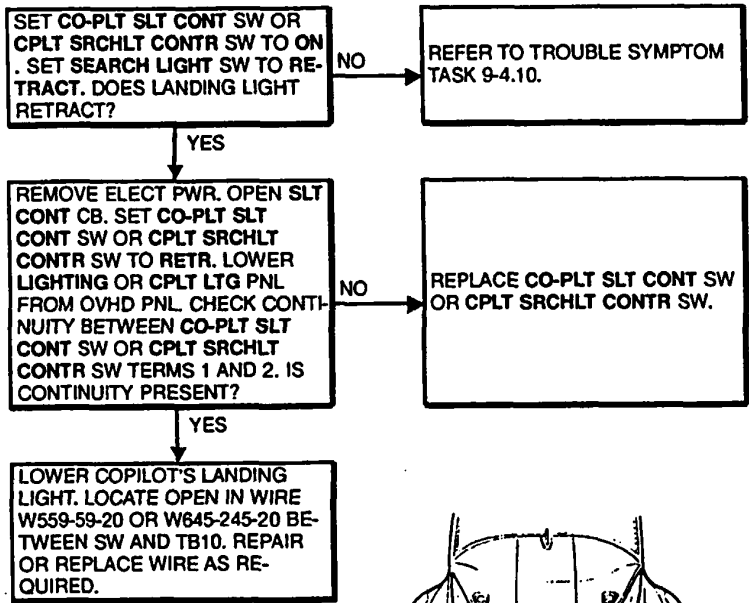
Equipment Condition:

TM 55-1520-240-23:

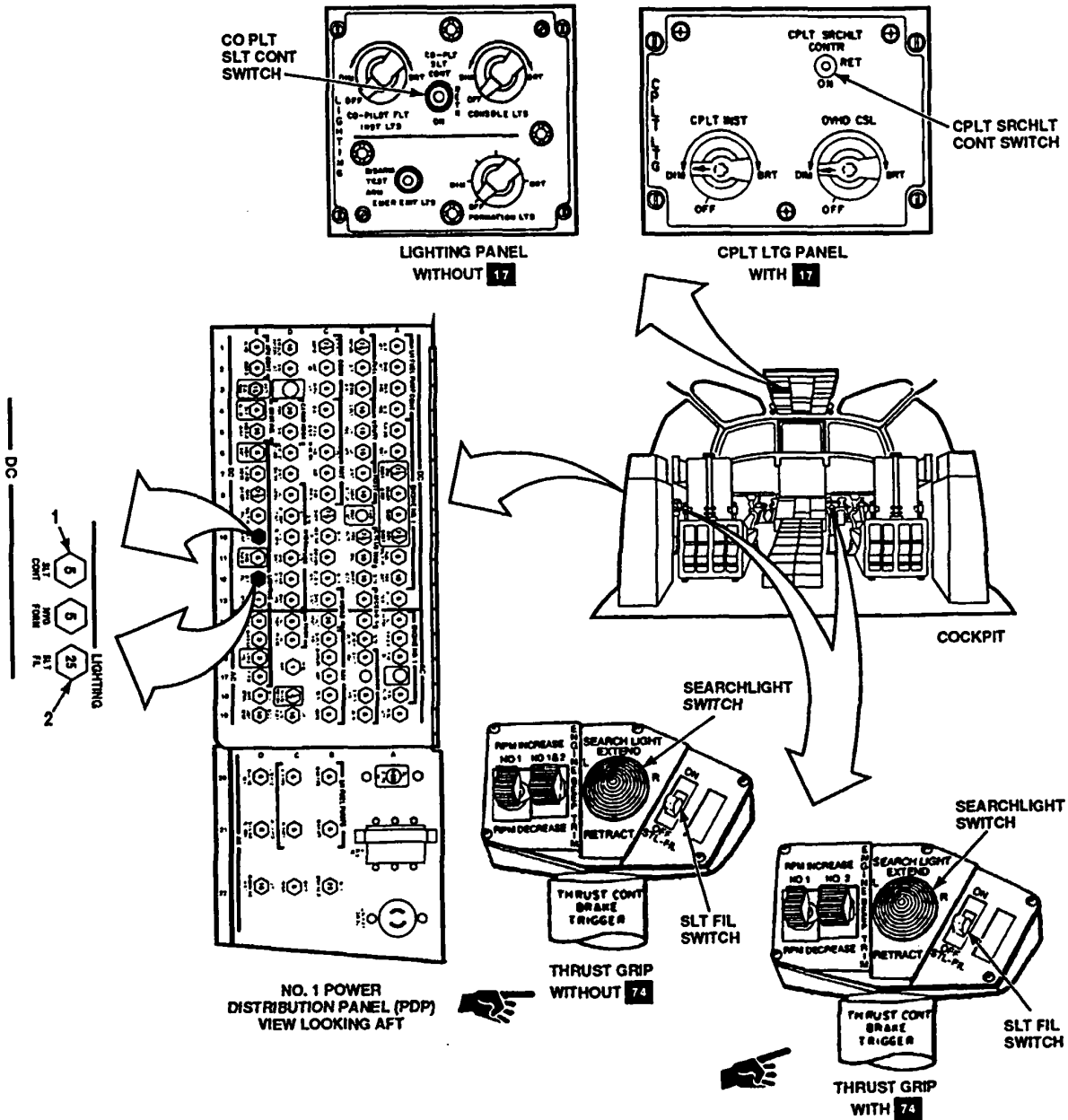
Battery Connected

Electrical Power On

Hydraulic Power Off

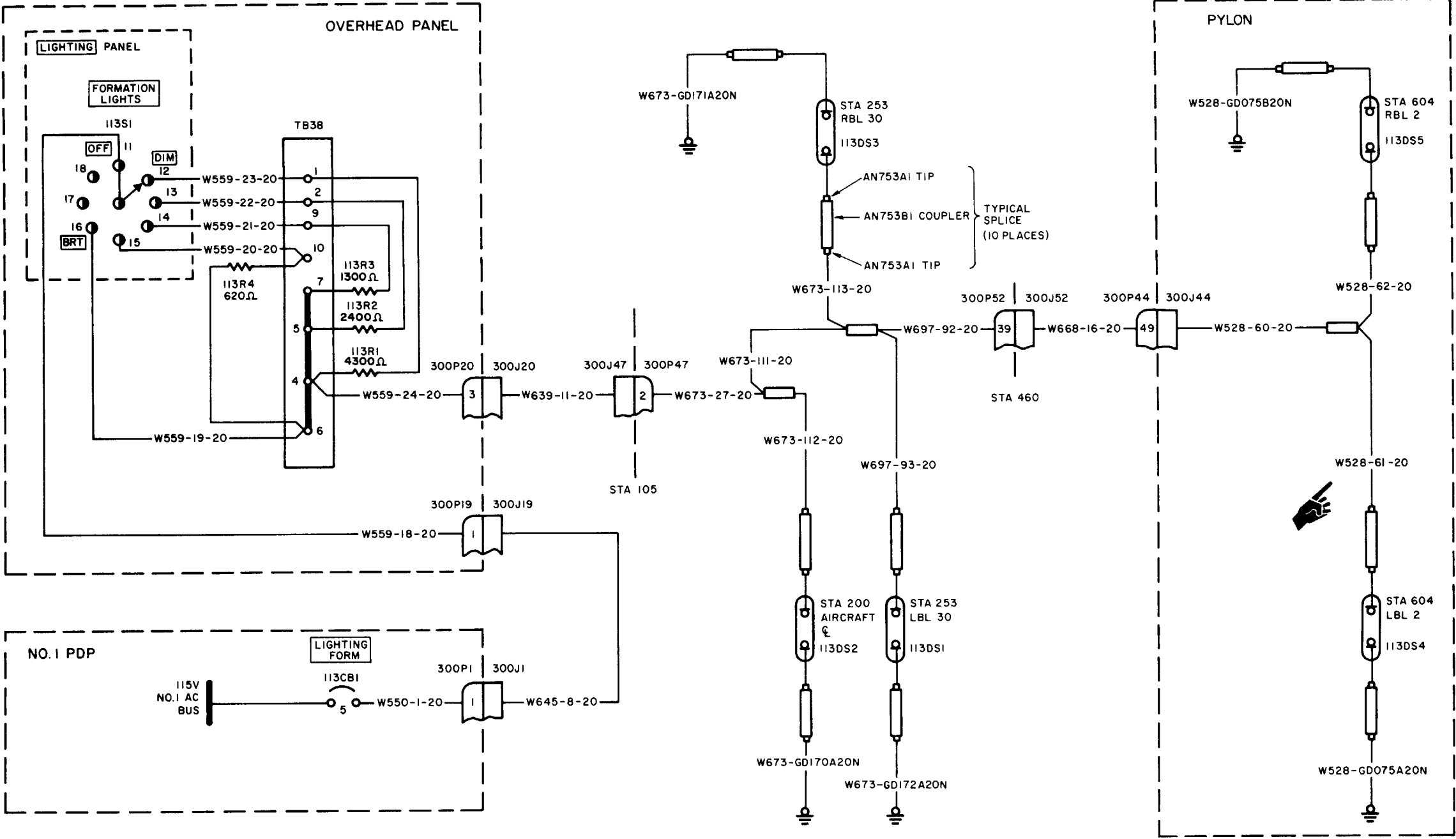


COPILOT'S LANDING LIGHT



A65566

## 9-5 FORMATION LIGHTS



113.100

11982

9-5.2 FORMATION LIGHTS VISUAL CHECK

9-5.2

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

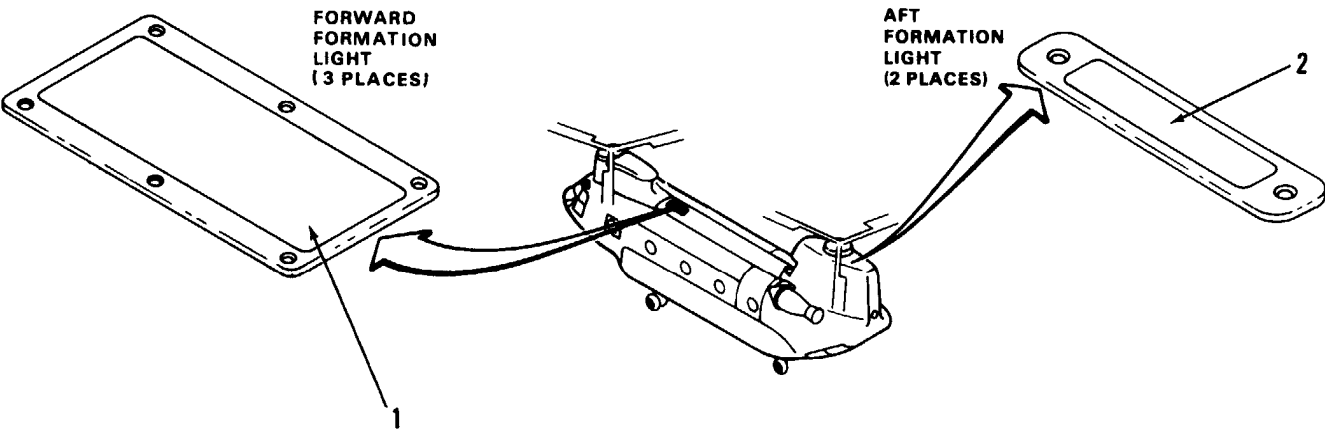
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

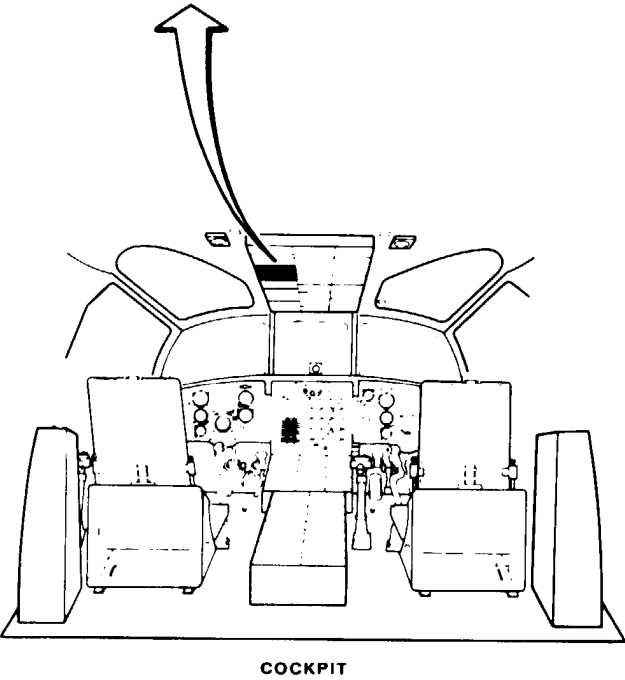
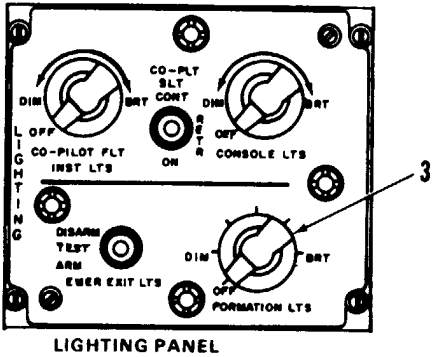
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



TASK	RESULT
1. Check three forward formation lights (1).	If any light (1) is loose, cracked, or burnt, tighten or replace it as required.
<b>NOTE</b> Slight discoloration of light face is normal.	
2. Check two aft formation lights (2).	If any light (2) is loose, cracked, or burnt, tighten or replace it as required.
3. Check FORMATION LTS control (3).	If control (3) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:

None



9-5.3 FORMATION LIGHTS OPERATIONAL CHECK

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

None

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off

Visual Check of Formation Lights Performed (Task 9-5.2)

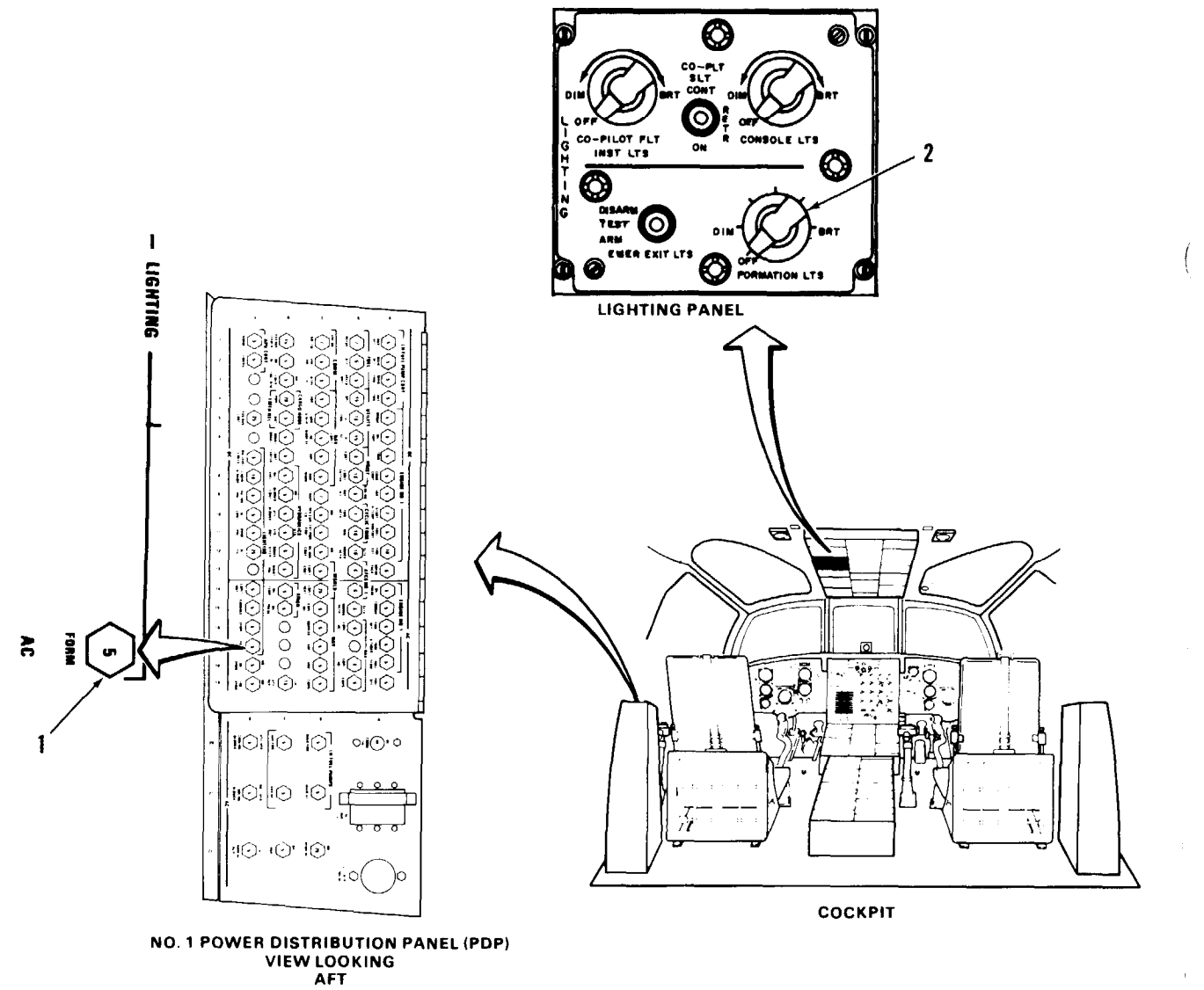
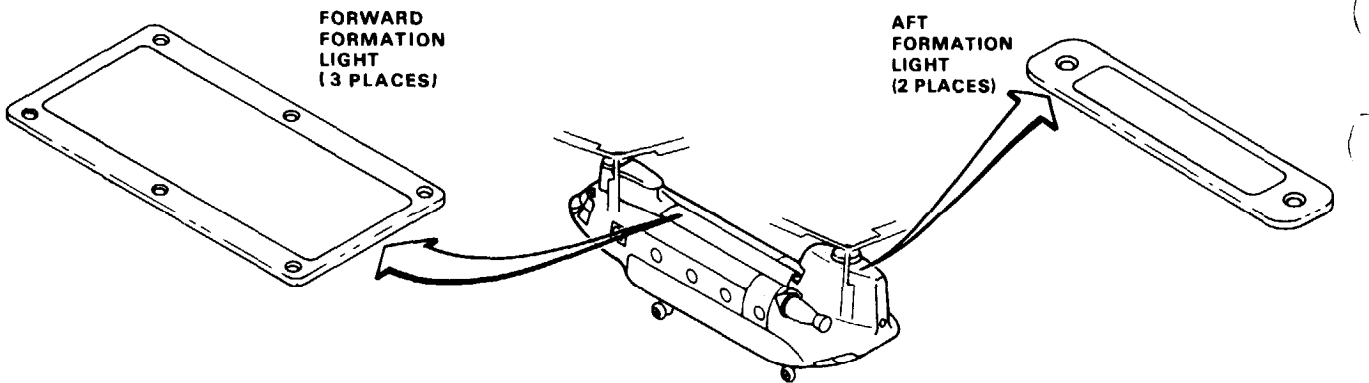
TASK	RESULT
1. Check that LIGHTING FORM circuit breaker (1) is closed.	If FORM circuit breaker (1) is open, close it. If it opens again, go to task 9-5.4.
2. Set FORMATION LTS switch (2) to DIM.	Five formation lights shall come on dim. If any light is not on, go to task 9-5.5.
3. Rotate FORMATION LTS switch (2) through intermediate positions to BRT.	Five formation lights shall get brighter as switch is turned to right. If lights go out or brightness does not increase, go to task 9-5.6.
4. Set FORMATION LTS switch (2) to OFF.	Five formation lights shall go out.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:

Electrical Power Off

Battery Disconnected





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

- Electrical Repairer's Tool Kit,
- NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

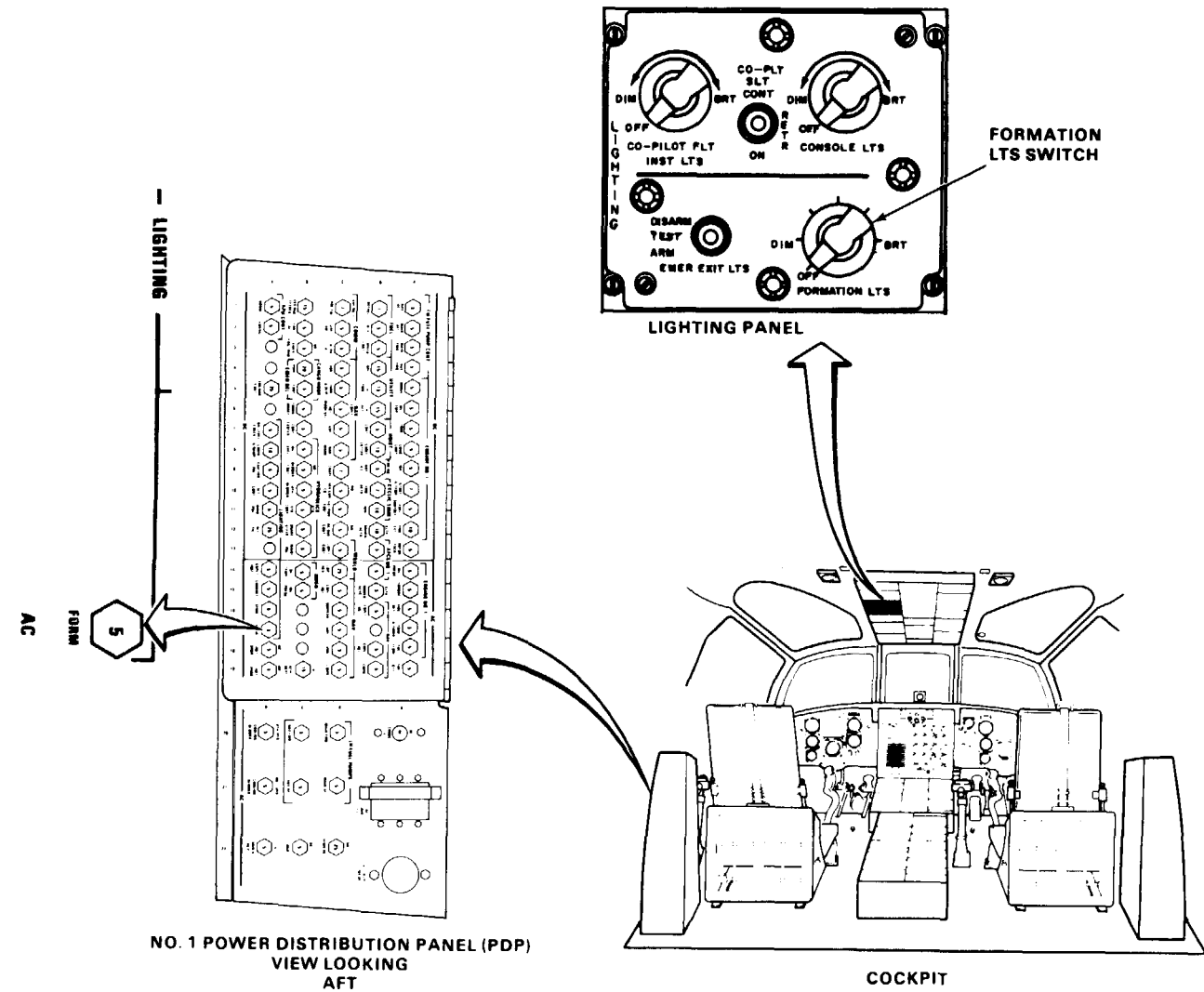
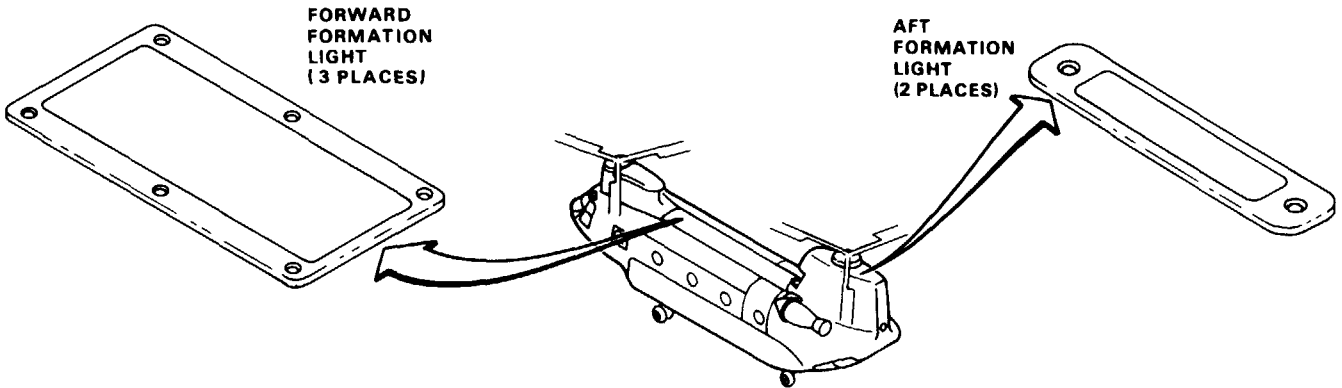
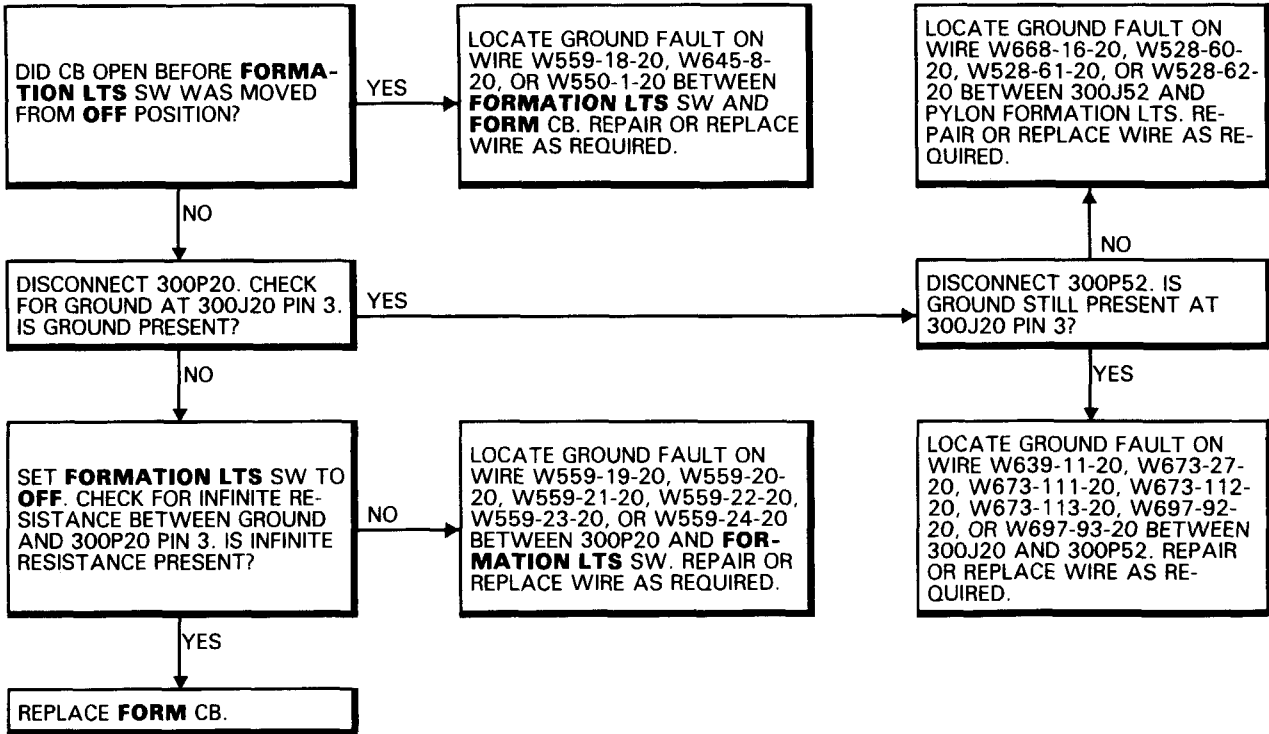
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off







FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

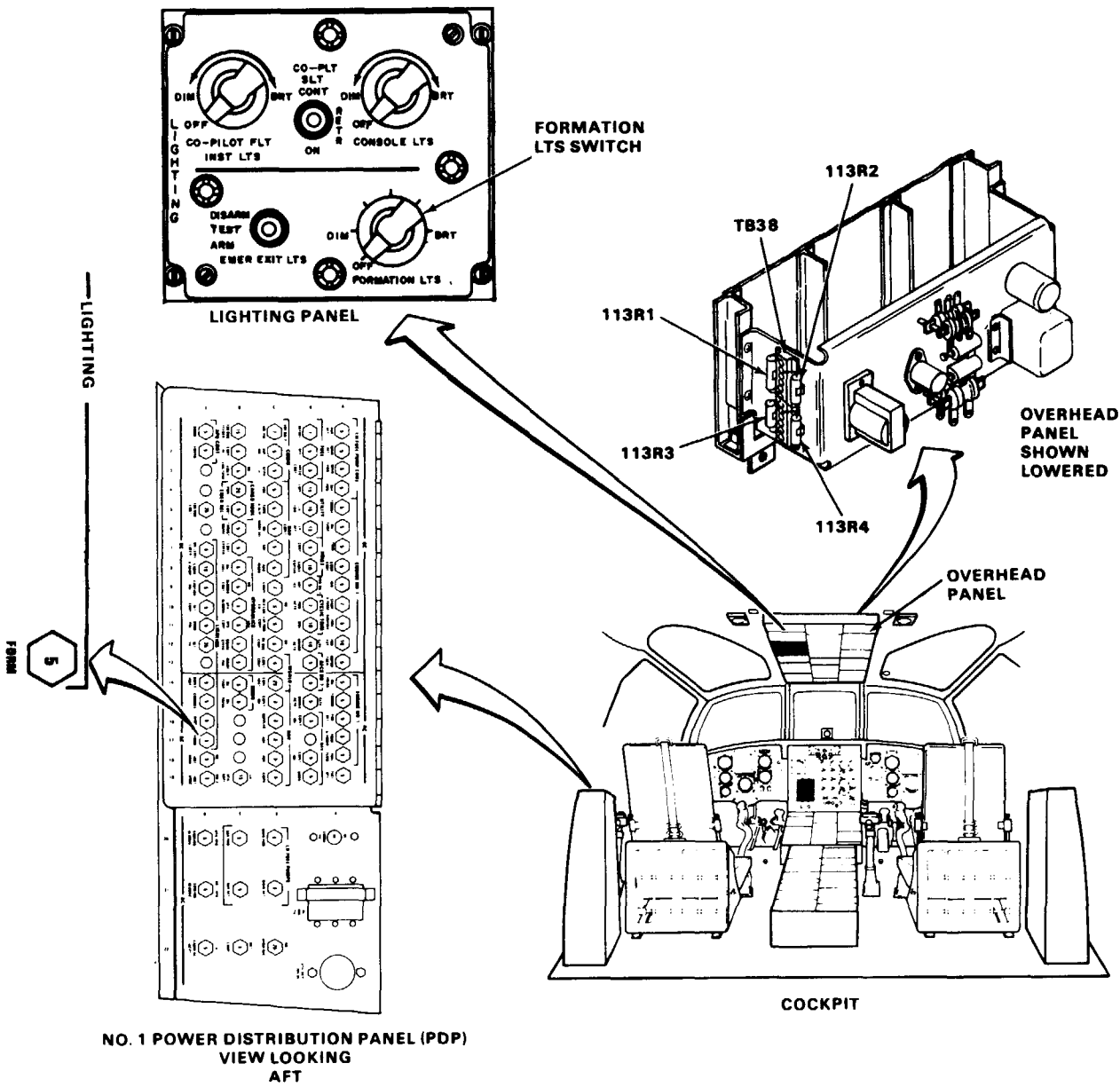
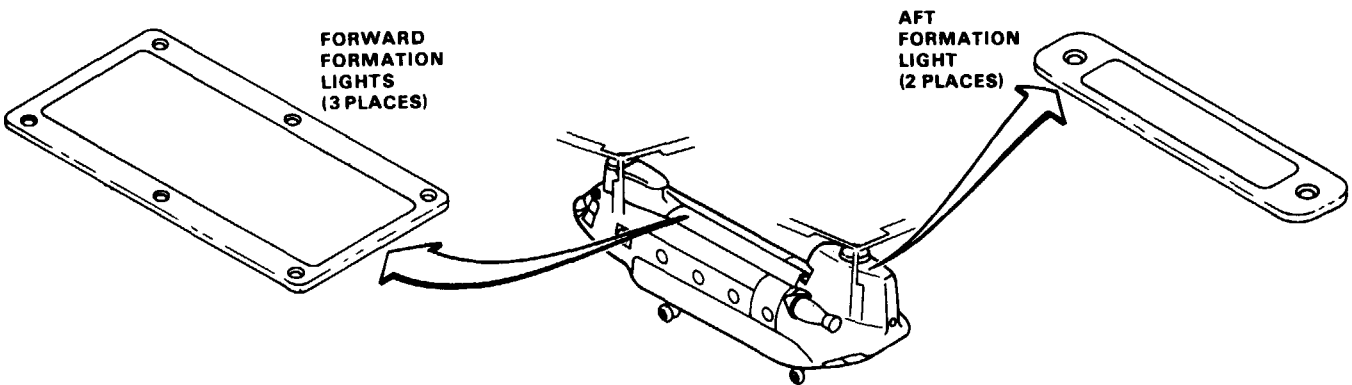
Aircraft Electrician

References:

TM 55-1520-240-23

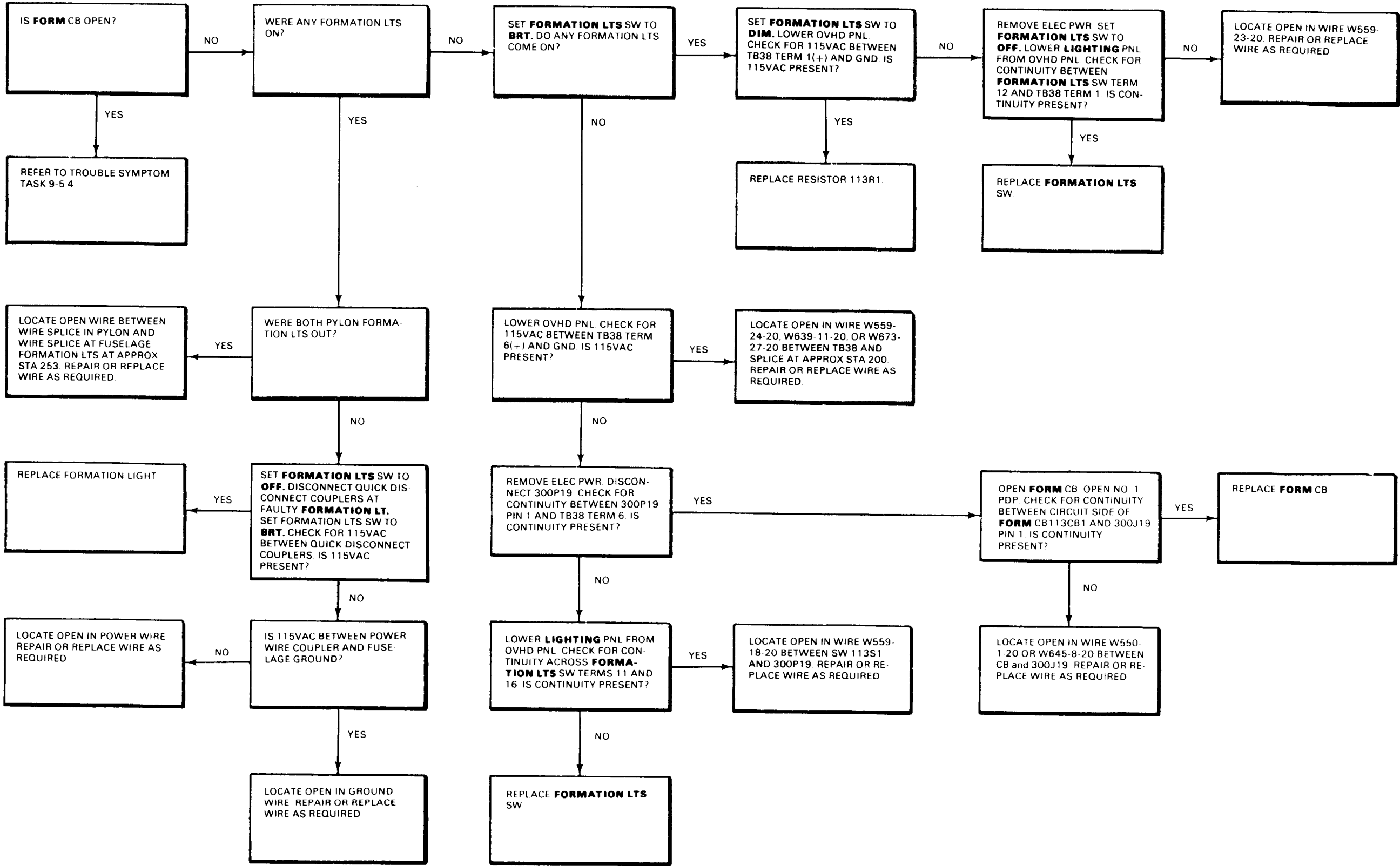
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-5.5 FORMATION LIGHT OR LIGHTS NOT ON AT DIM (Continued)

9-5.5



END OF TASK

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

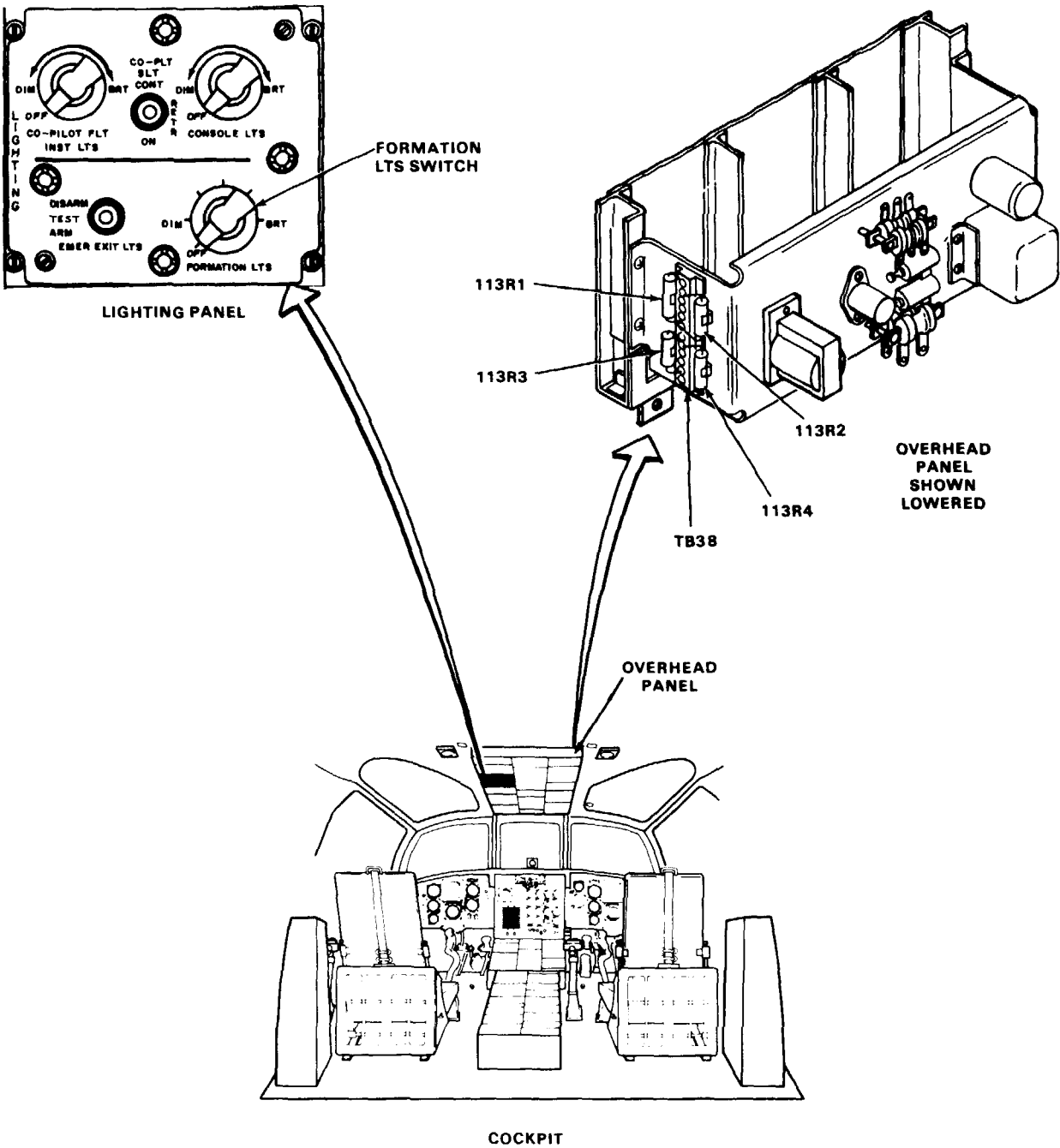
Aircraft Electrician (2)

References:

TM 55-1520-240-23

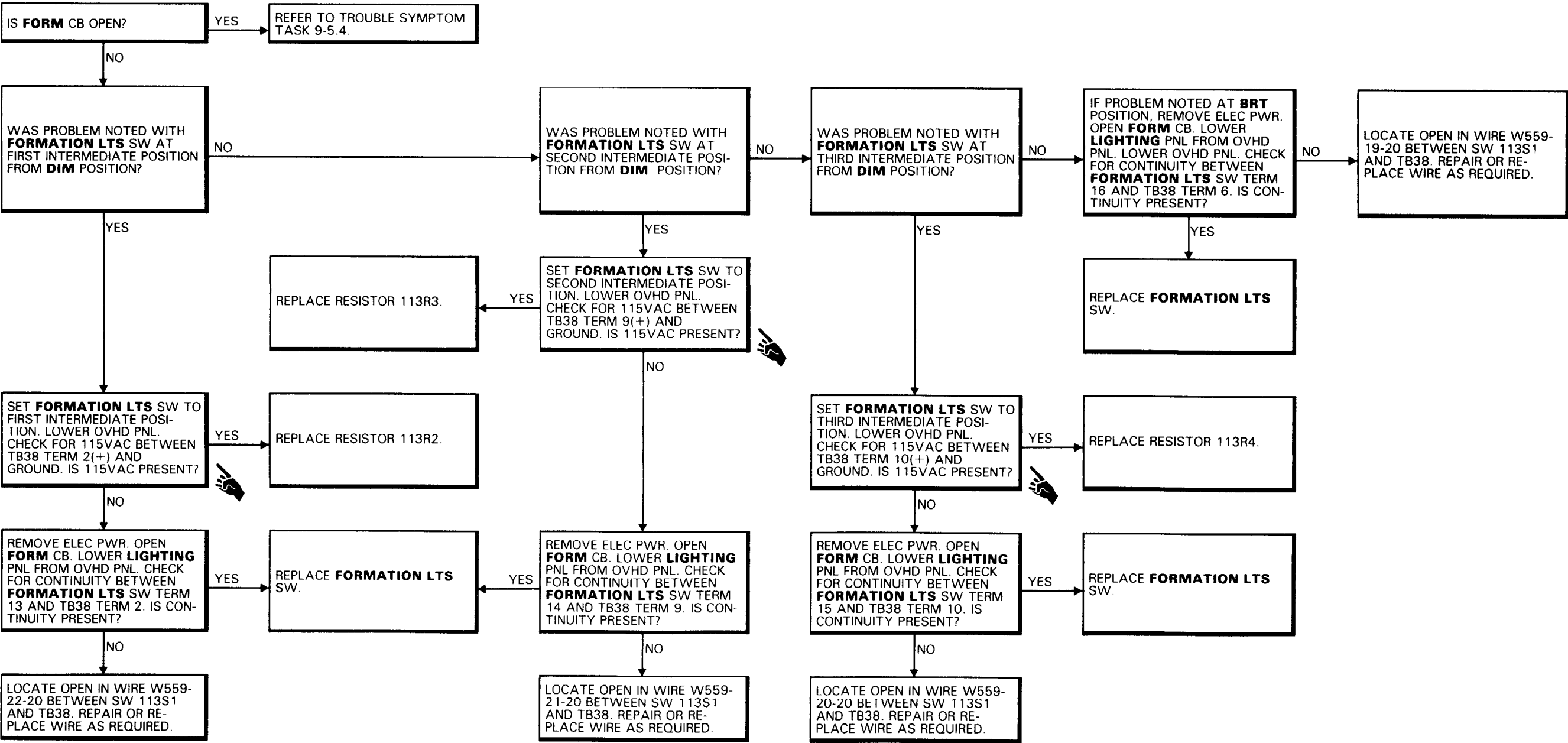
Equipment Condition:

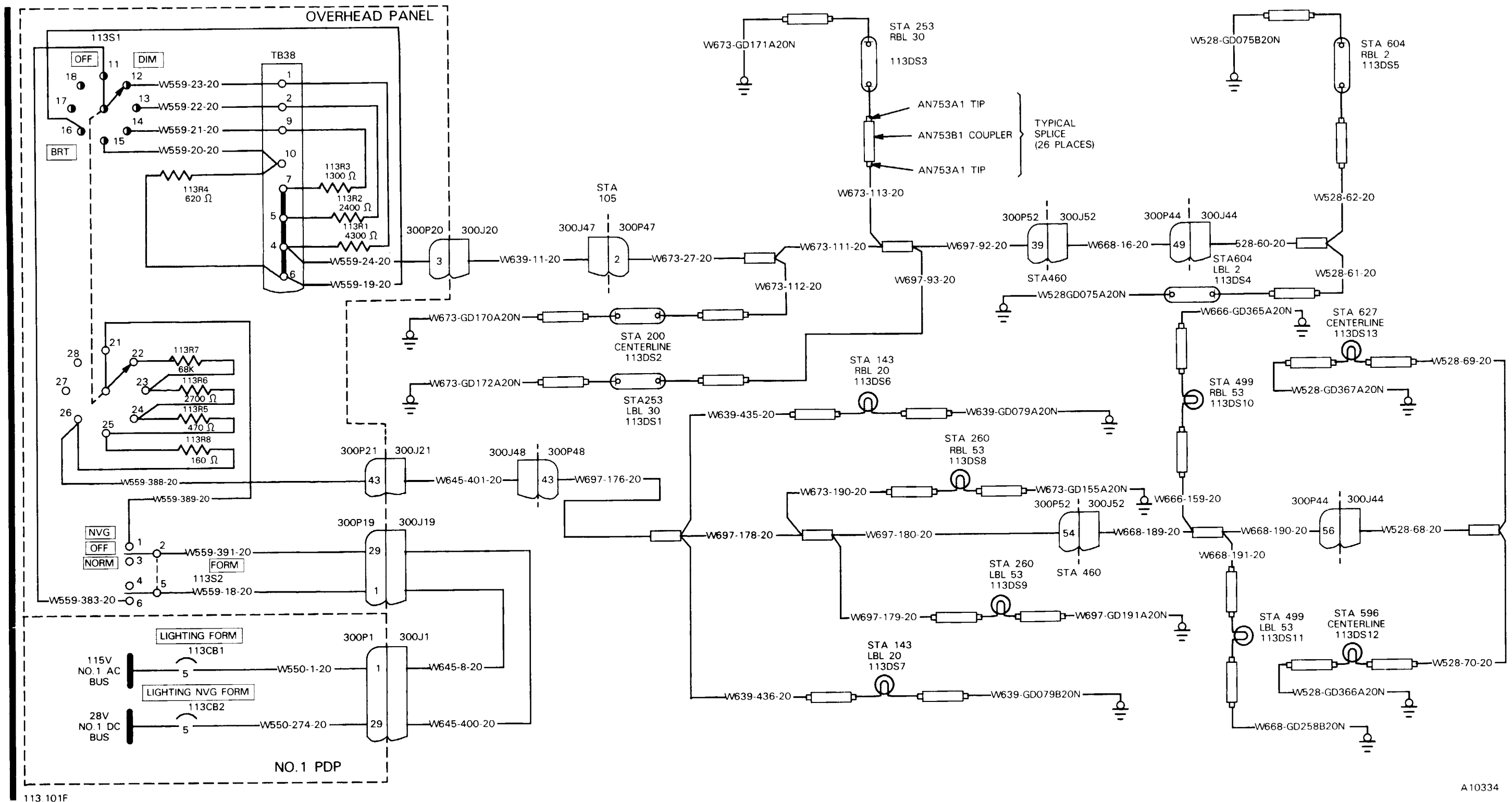
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-5.6 FORMATION LIGHTS OUT OR DO NOT GET BRIGHTER AT INTERMEDIATE OR BRT POSITIONS  
(Continued)

9-5.6





A10334

**END OF TASK**

9-5.8 FORMATION LIGHTS VISUAL CHECK (WITH 17 )

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

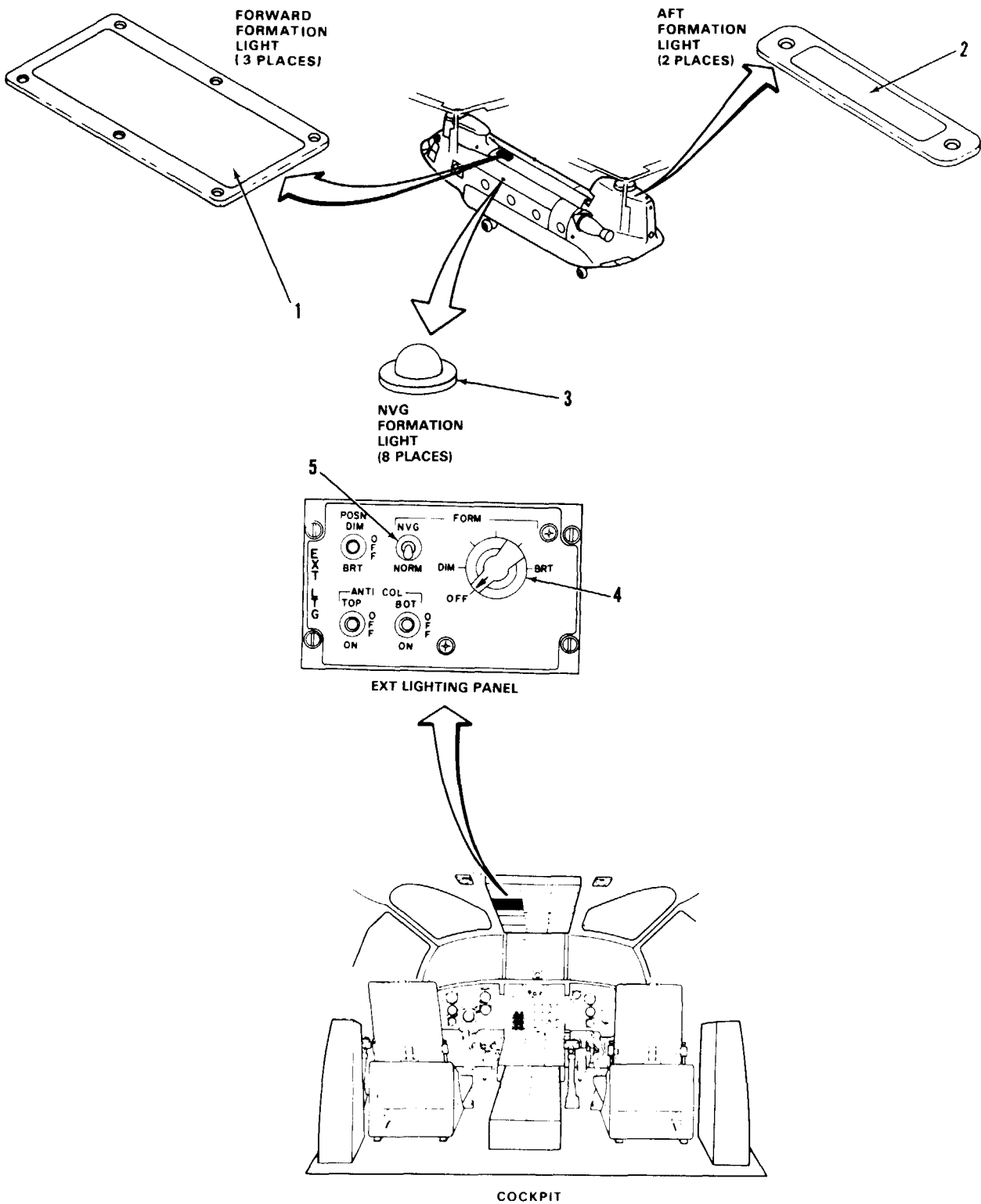
Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check three forward normal formation lights (1).	If any light (1) is loose, cracked, or burnt, tighten or replace it as required.
NOTE Slight discoloration of light face is normal.	
2. Check two aft normal formation lights (2).	If any light (2) is loose, cracked, or burnt, tighten or replace it as required.
3. Check eight NVG formation lights (3).	If any light (3) is loose, cracked, or burnt, tighten or replace it as required.
4. Check FORM LTS control (4).	If control (4) is loose or damaged, tighten or replace it as required.
5. Check FORM NVG-NORM switch (5).	If switch (5) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:

None



INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Night Vision Goggles AN/AVS-6 or AN/PVS-5A  
with Daylight Filter Installed

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

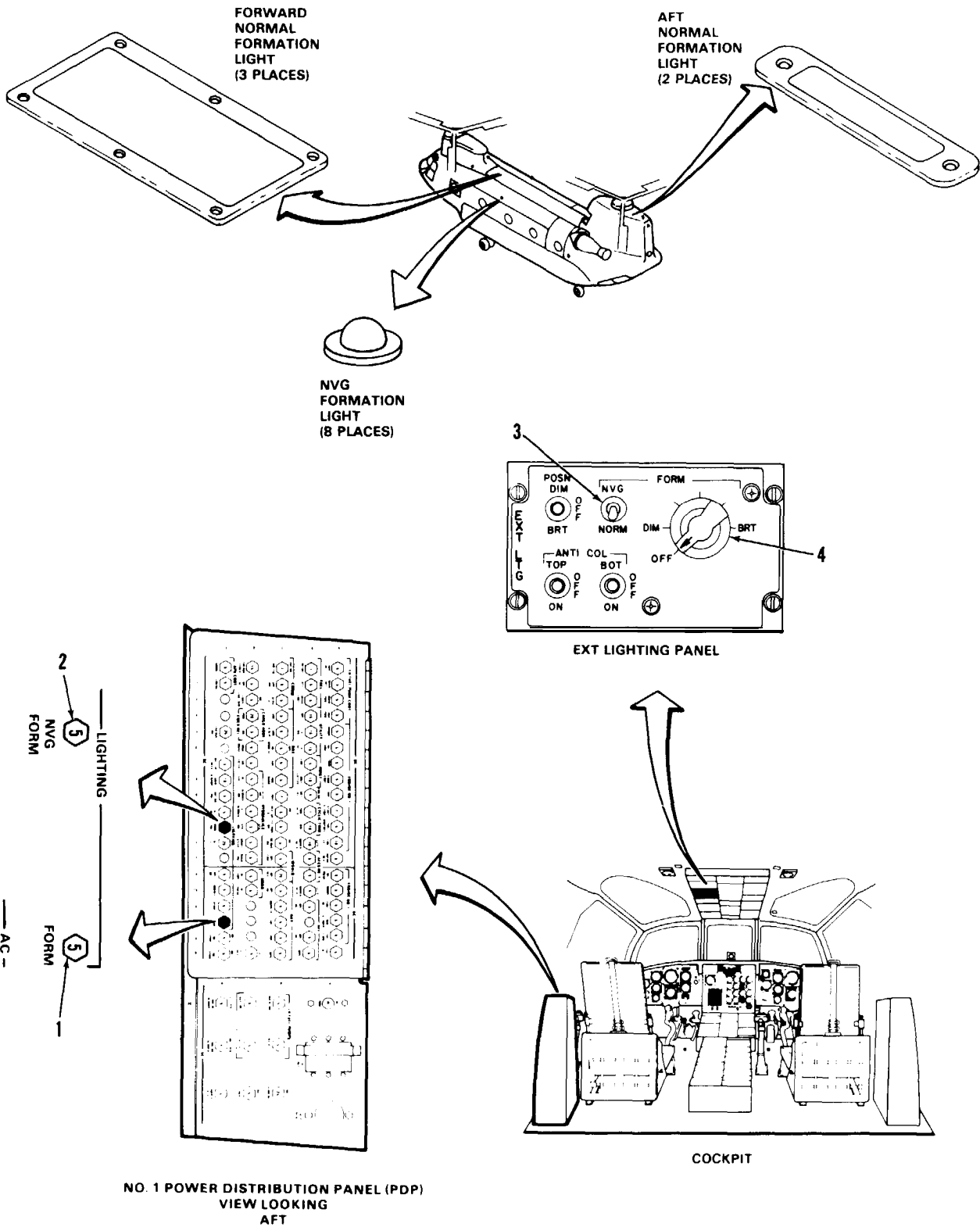
Battery Connected  
Electrical Power On  
Hydraulic Power Off

VisualCheck of Formation Lights With 17 Per-  
formed (Task 9-5.8)

TASK	RESULT
1. Check that LIGHTING FORM circuit breaker (1) is closed.	If FORM circuit breaker (1) is open, close it. If it opens again, go to task 9-5,10.
2. Check that LIGHTING NVG FORM circuit breaker (2) is closed.	If LIGHTING NVG FORM circuit breaker (2) is open, close it. If it opens again, go to task 9-5.11.
3. Set FORM NVG-NORM switch (3) to NORM.	
4. Set FORM BRT-DIM switch (4) to DIM.	Five normal formation lights shall come on dim. If any light is not on, go to task 9-5.12.
5. Rotate FORM BRT-DIM switch (4) through intermediate positions to BRT.	Five normal formation lights shall get brighter as switch is turned clockwise. If lights go out or brightness does not increase; go to task 9-5.13.
6. Set FORM BRT-DIM switch (4) to DIM. Set FORM NVG-NORM switch (3) to NVG. Use night vision goggles to view NVG formation lights. During daylight hours shield ambient light.	Eight NVG formation lights shall come on dim. If any light is not on, go to task 9-5.14.
7. Rotate FORM BRT-DIM switch (4) through intermediate positions to BRT.	Eight NVG formation lights shall get brighter as switch is turned clockwise. If lights go out or brightness does not increase, go to task 9-5.15.
8. Rotate FORM BRT-DIM switch (4) to OFF.	

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Electrical Power Off  
Battery Disconnected



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END OF TASK





## FAULT ISOLATION PROCEDURE

## INITIAL SETUP

**Applicable Configurations:**

With 17

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

**Personnel Required:**

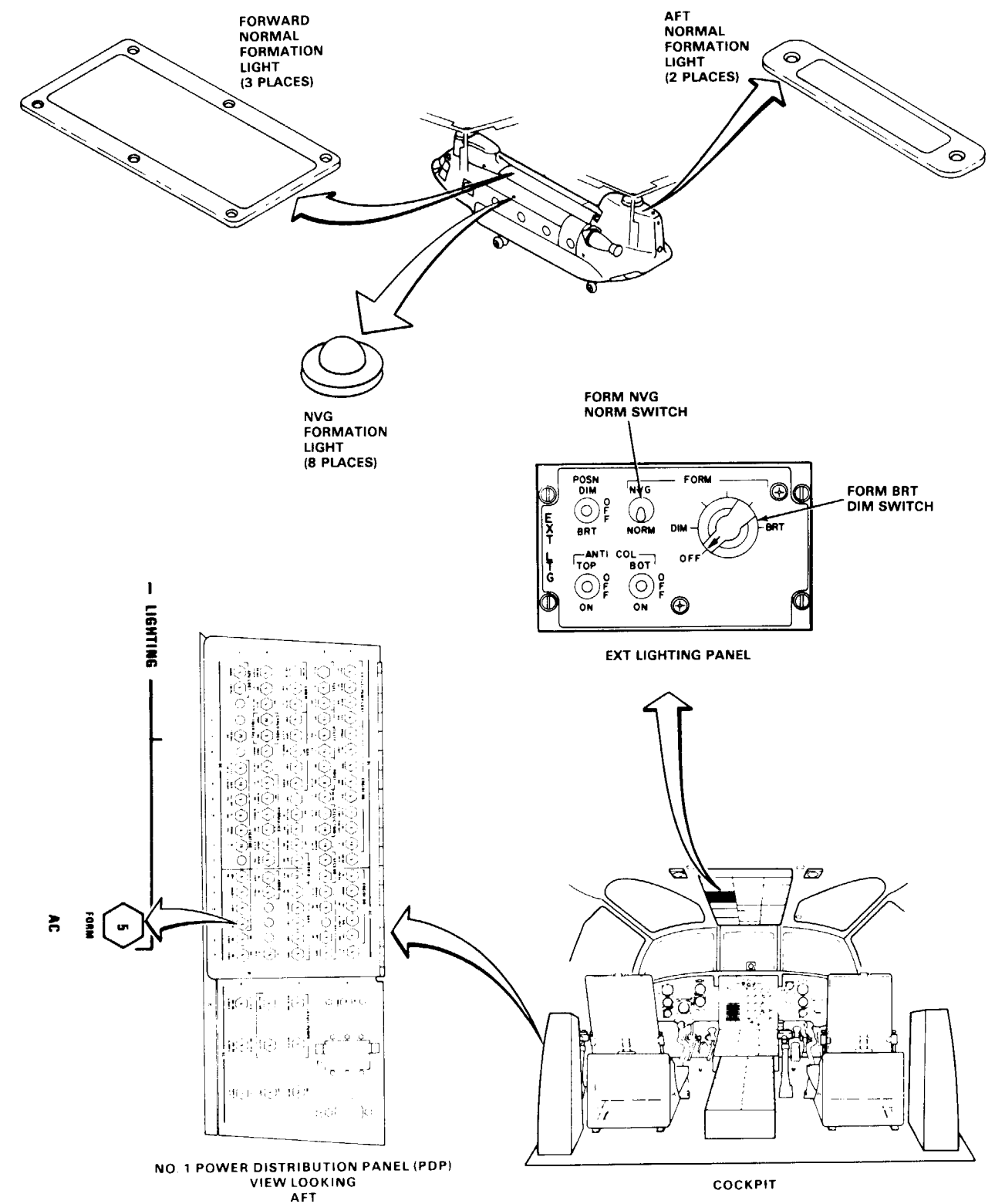
Aircraft Electrician

**References:**

**TM 55-1520-240-23**

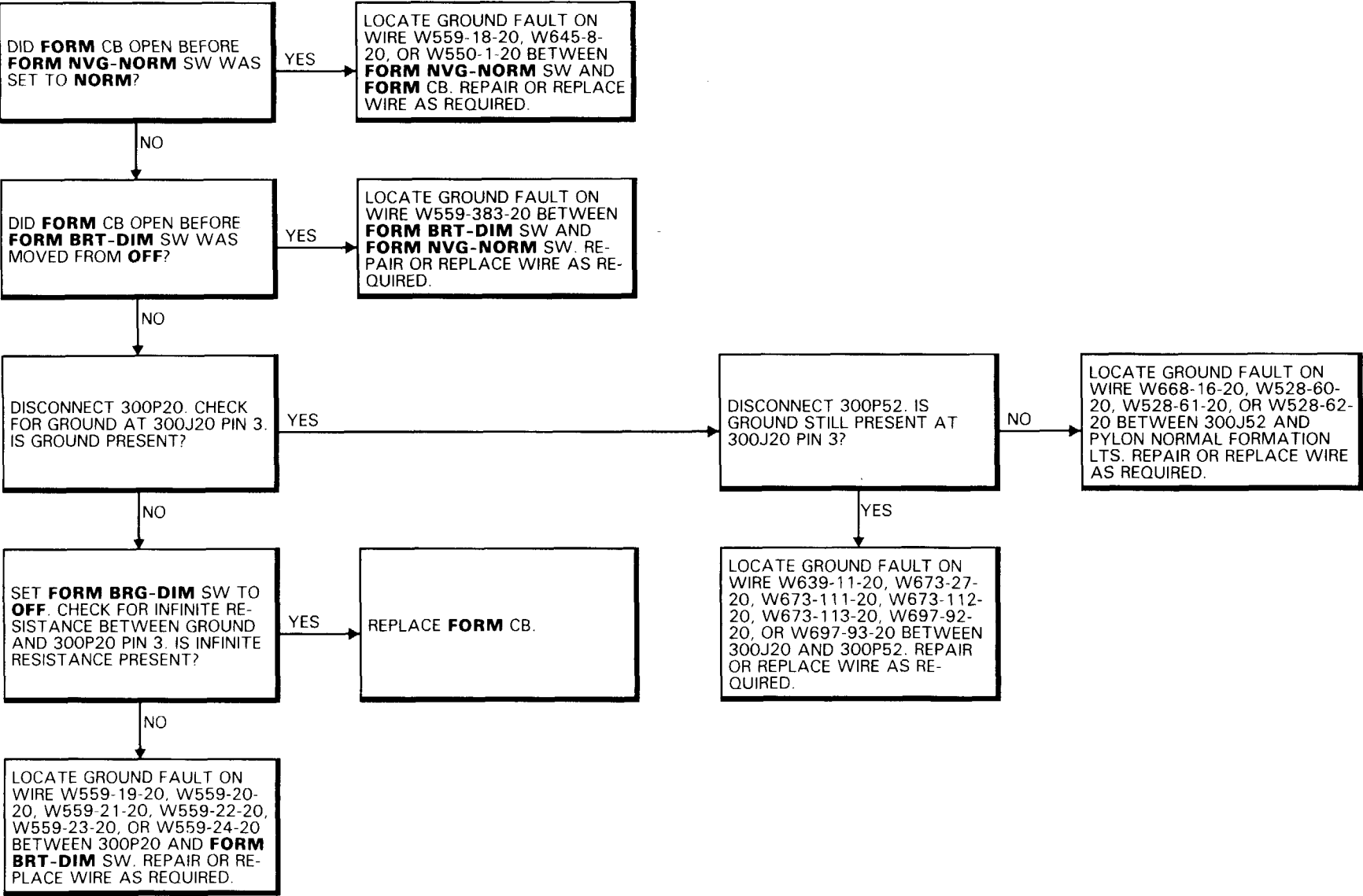
**Equipment Condition:**

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



9-5.10 FORM CIRCUIT BREAKER DOES NOT STAY CLOSED (WITH 17) (Continued)

9-5.10



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
with 17

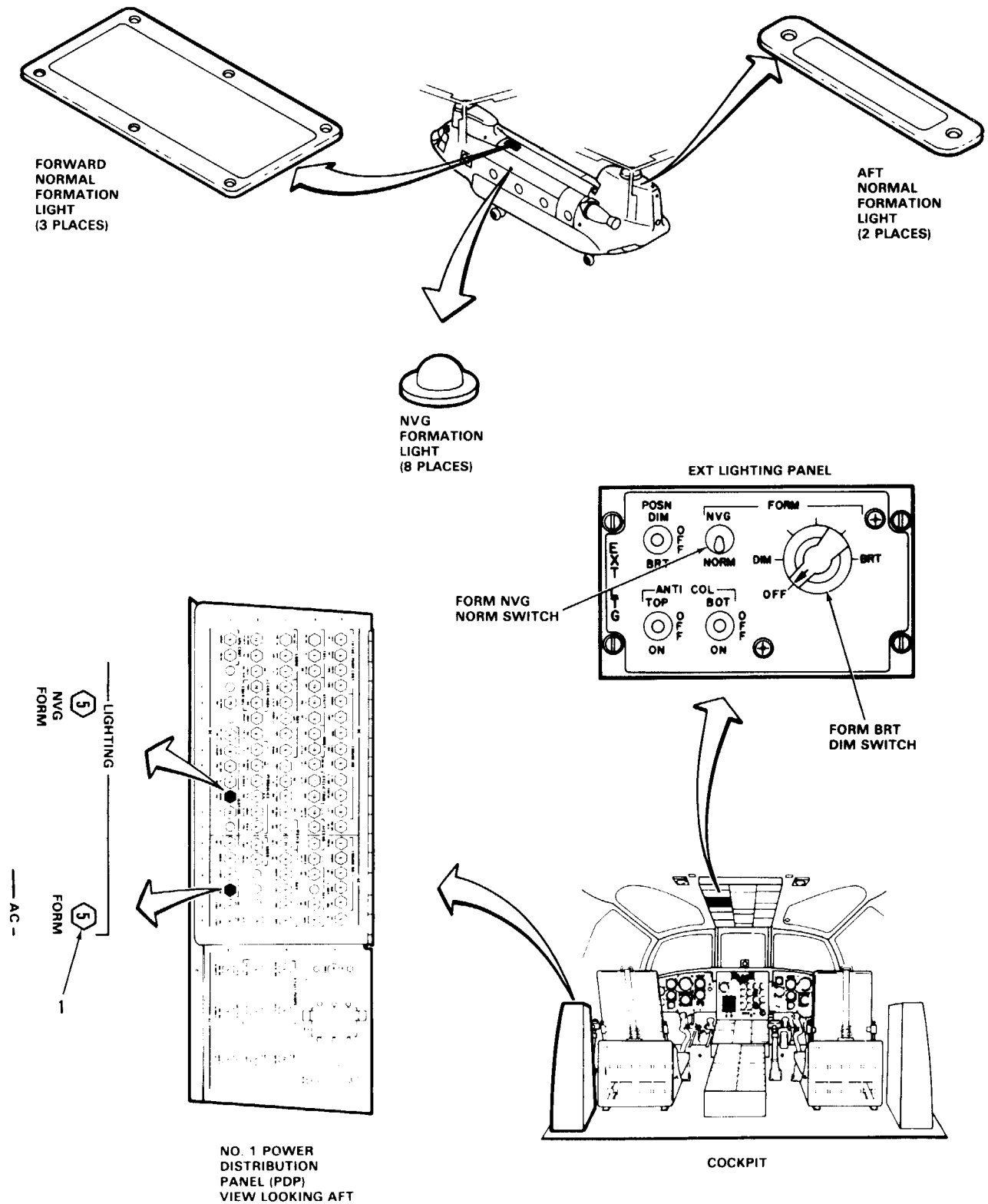
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

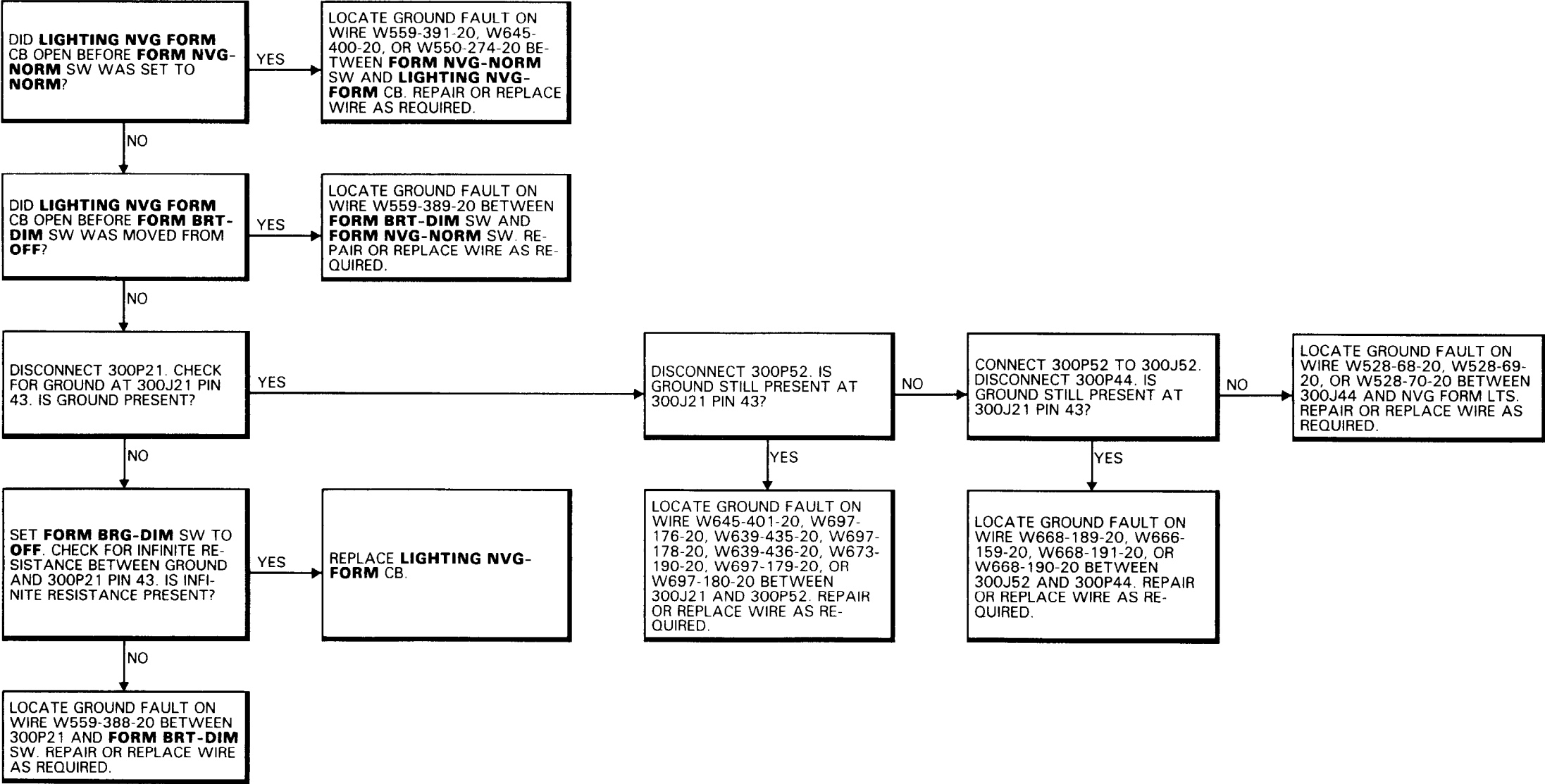
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



9-5.11 NVG FORM CIRCUIT BREAKER DOES NOT STAY CLOSED (WITH 17 ) (Continued)

9-5.11



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
with 17

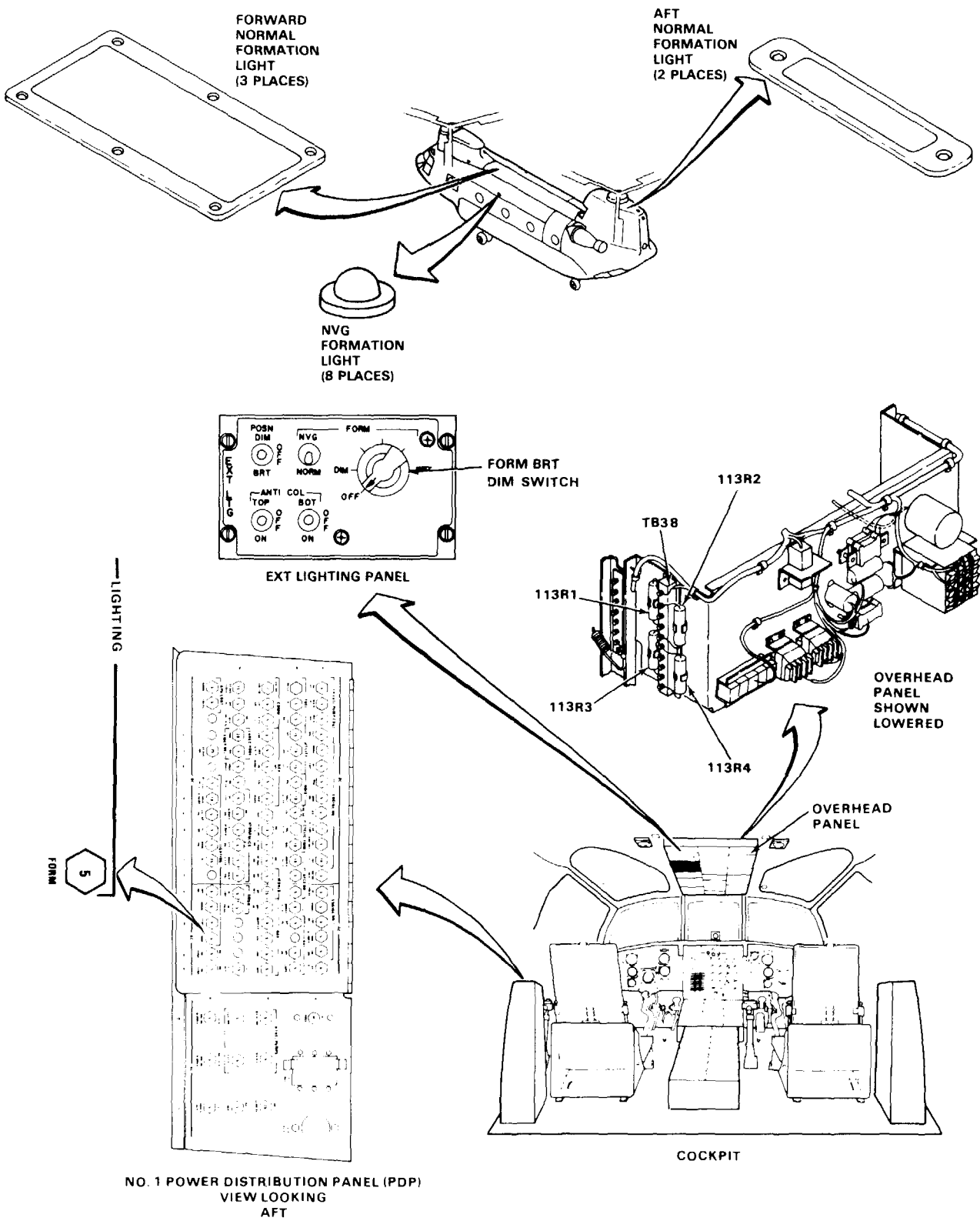
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

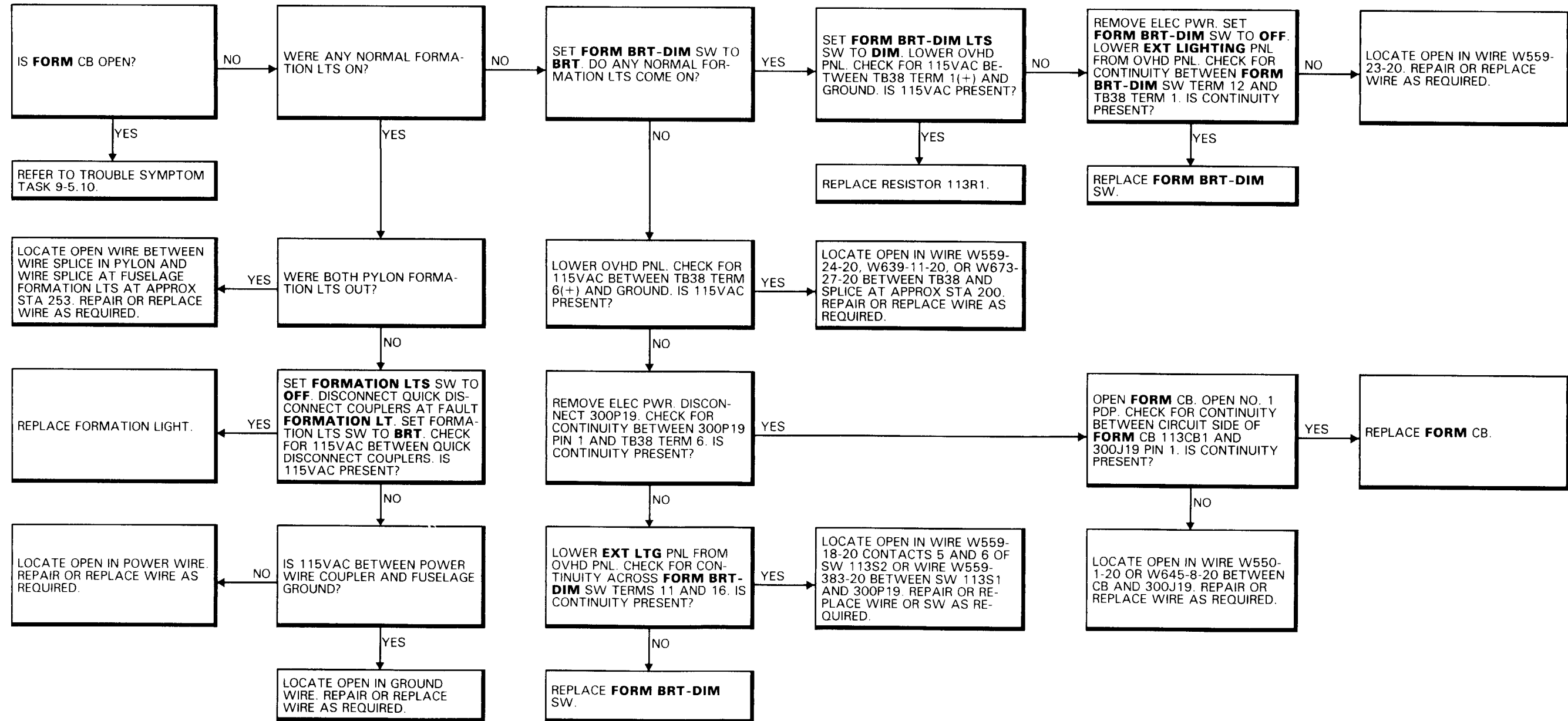


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GO TO NEXT PAGE

9-5.12 NORMAL FORMATION LIGHT OR LIGHTS NOT ON AT DIM (WITH 17)) (Continued)

9-5.12



9-5.13 NORMAL FORMATION LIGHTS OUT OR DO NOT GET BRIGHTER AT INTERMEDIATE OR BRT POSITIONS (WITH 17)

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

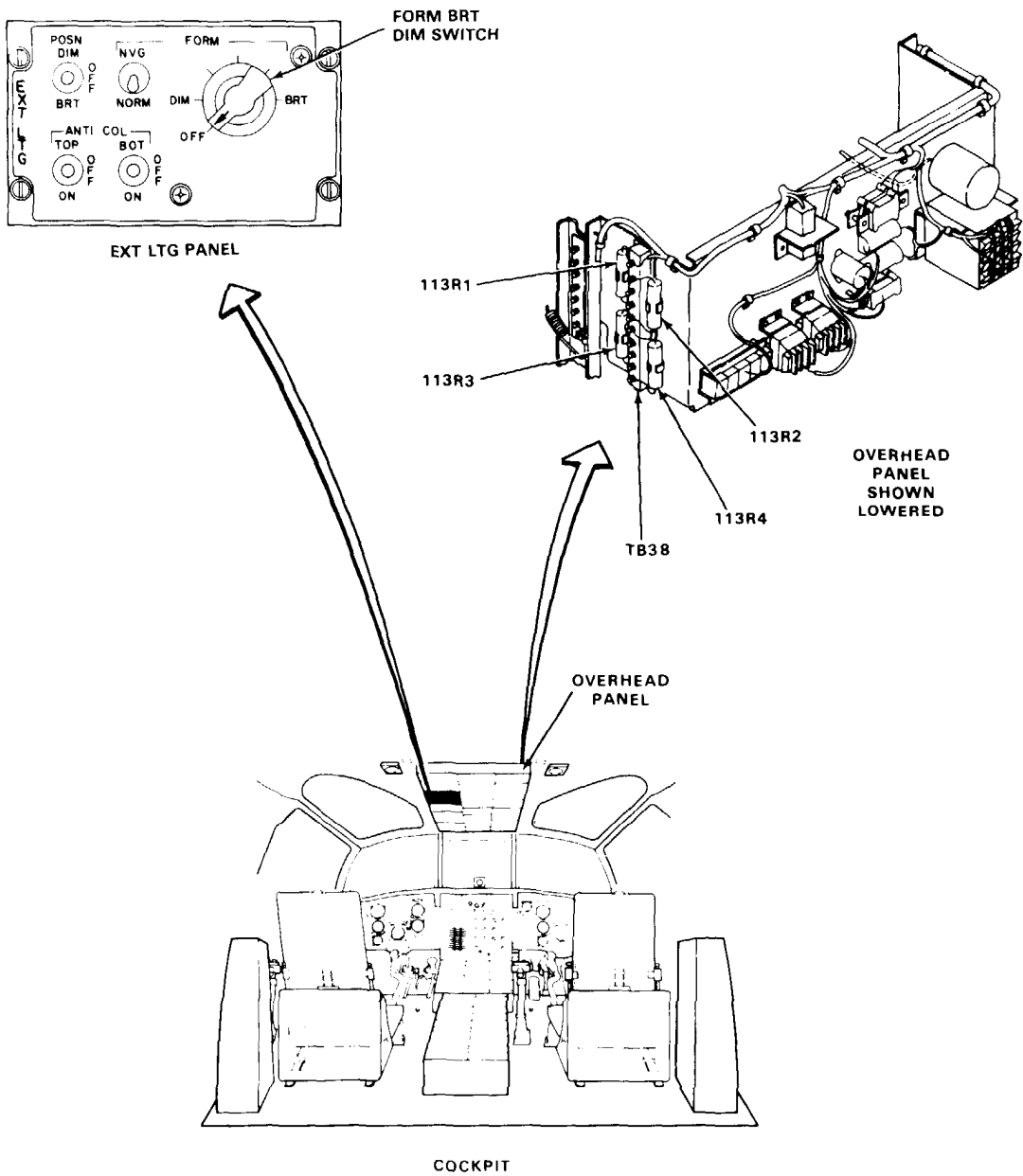
Equipment Condition:

TM 55-1520-240-23:

Battery Connected

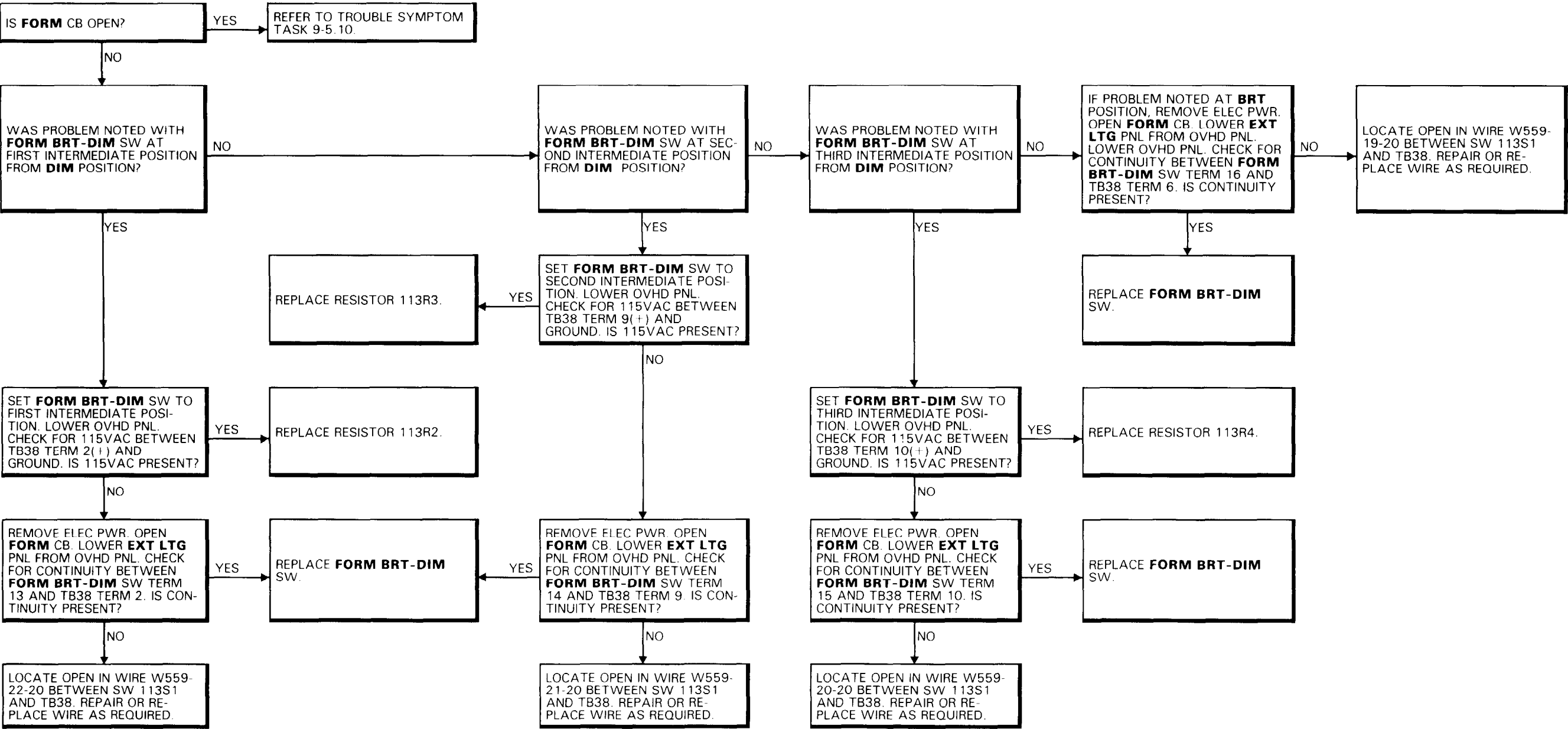
Electrical Power On

Hydraulic Power Off





9-5.13 NORMAL FORMATION LIGHTS OUT OR DO NOT GET BRIGHTER AT INTERMEDIATE OR BRT POSITIONS (WITH 17) (Continued)



**FAULT ISOLATION PROCEDURE**

**INITIAL SETUP**

**Applicable Configurations:**

With 17

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter  
Night Vision Goggles AN/AVS-6 or AN-PVS-5A  
with Daylight Filter Installed

**Materials:**

None

**Personnel Required:**

Aircraft Electrician

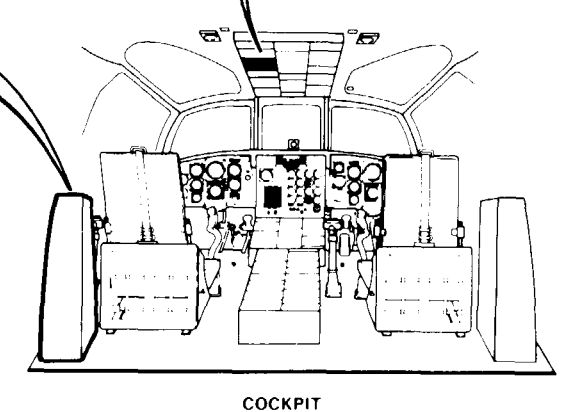
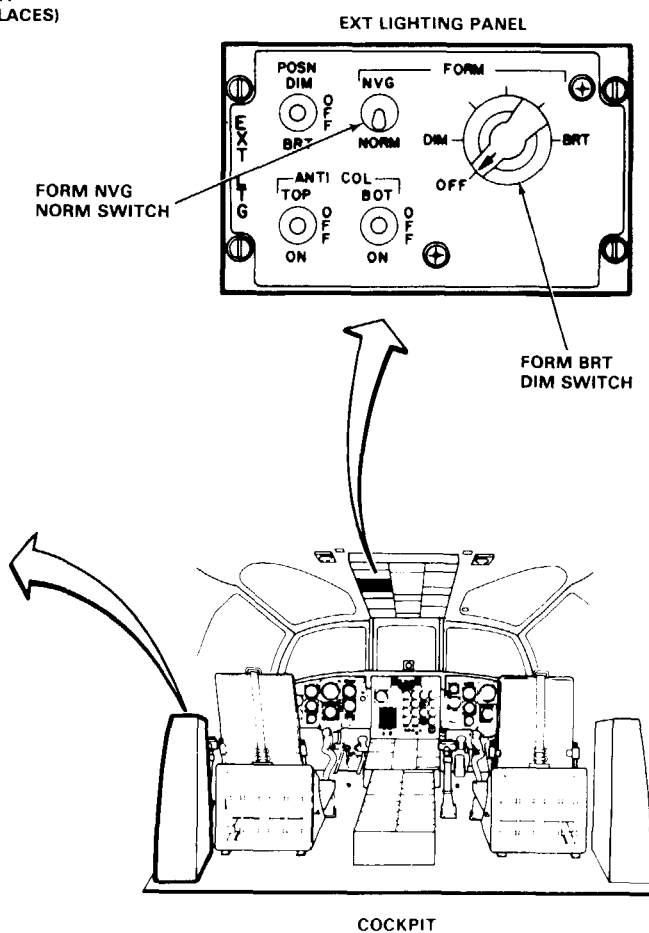
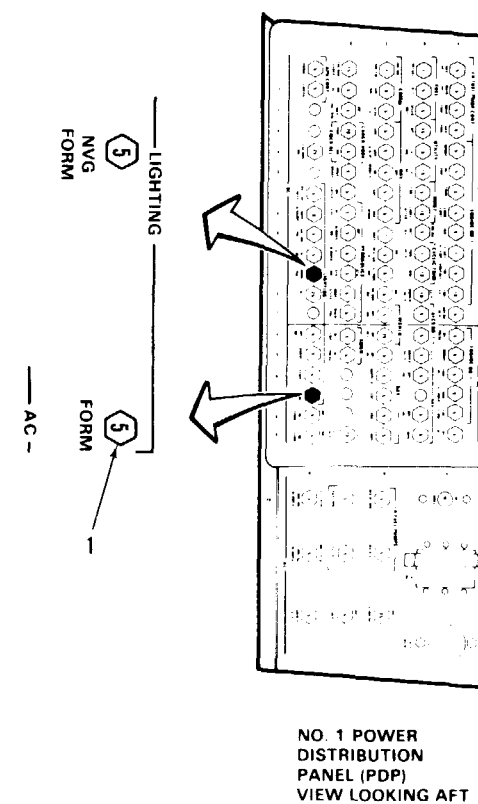
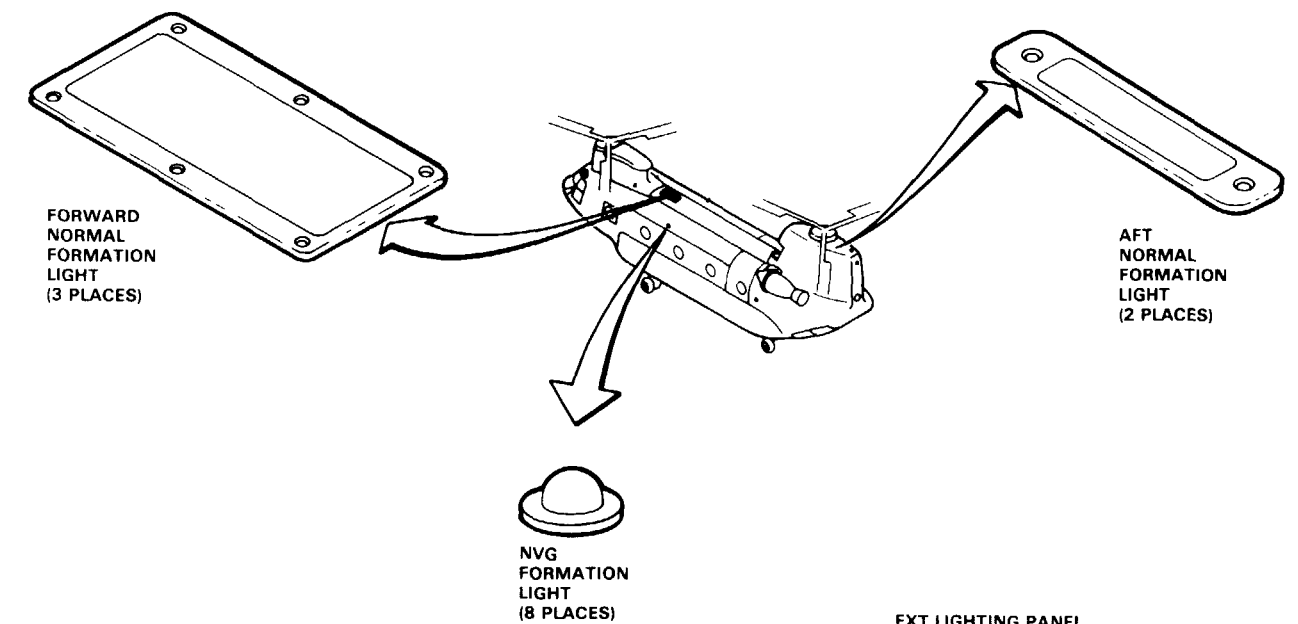
**References:**

TM 55-1520-240-23

**Equipment Condition:**

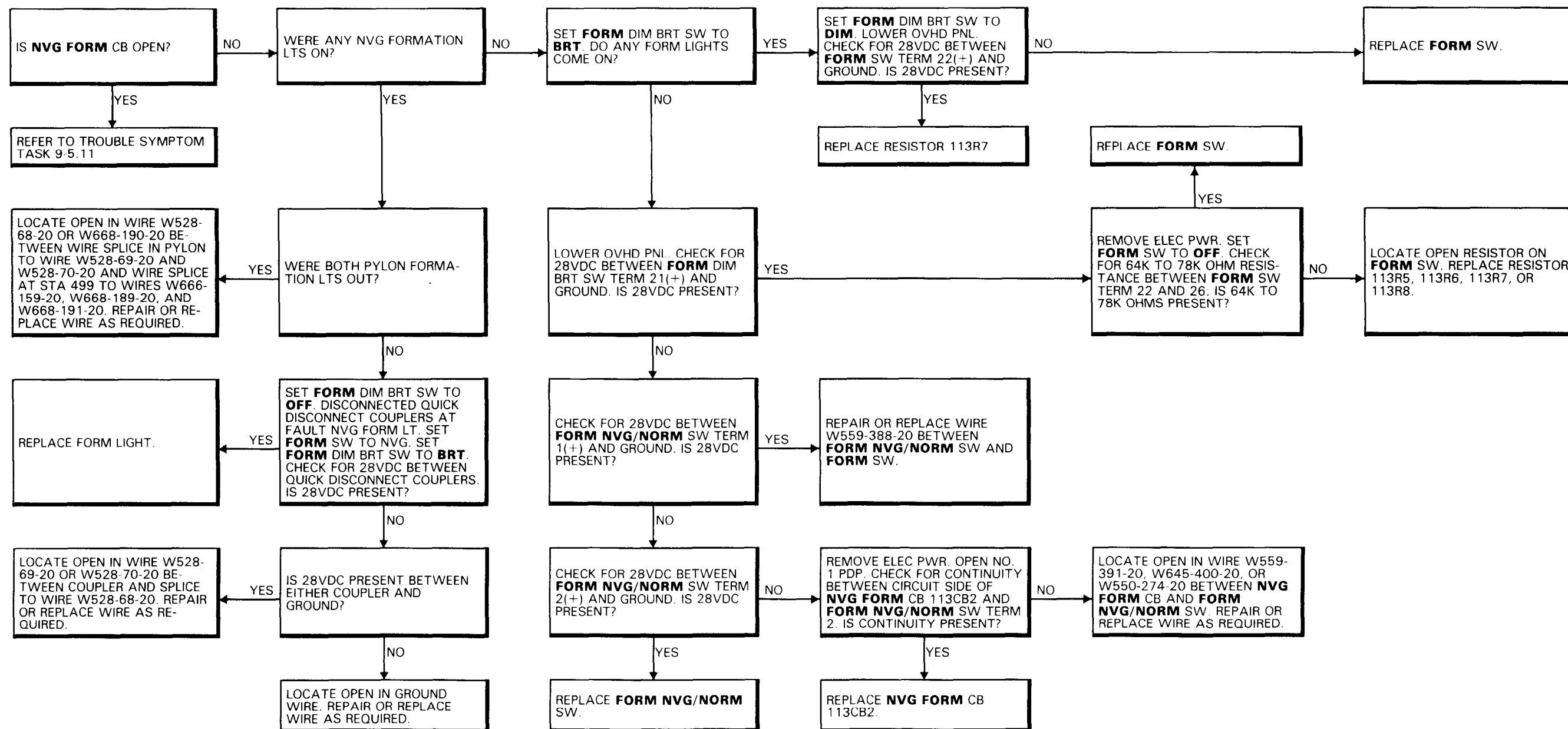
TM 55-1520-240-23:

Battery Connected  
Electrical Power On  
Hydraulic Power Off



## 9-5.14 NVG FORMATION LIGHT OR LIGHTS NOT ON AT DIM (WITH 17) (Continued)

9-5.14



## FAULT ISOLATION PROCEDURE

## INITIAL SETUP

**Applicable Configurations:**

with **17**

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter  
Night Vision Goggles AN/AVS-6 or AN/PVS-5A  
with Daylight Filter Installed

**Materials:**

None

**Personnel Required:**

Aircraft Electrician

**References:**

TM 55-1520-240-23

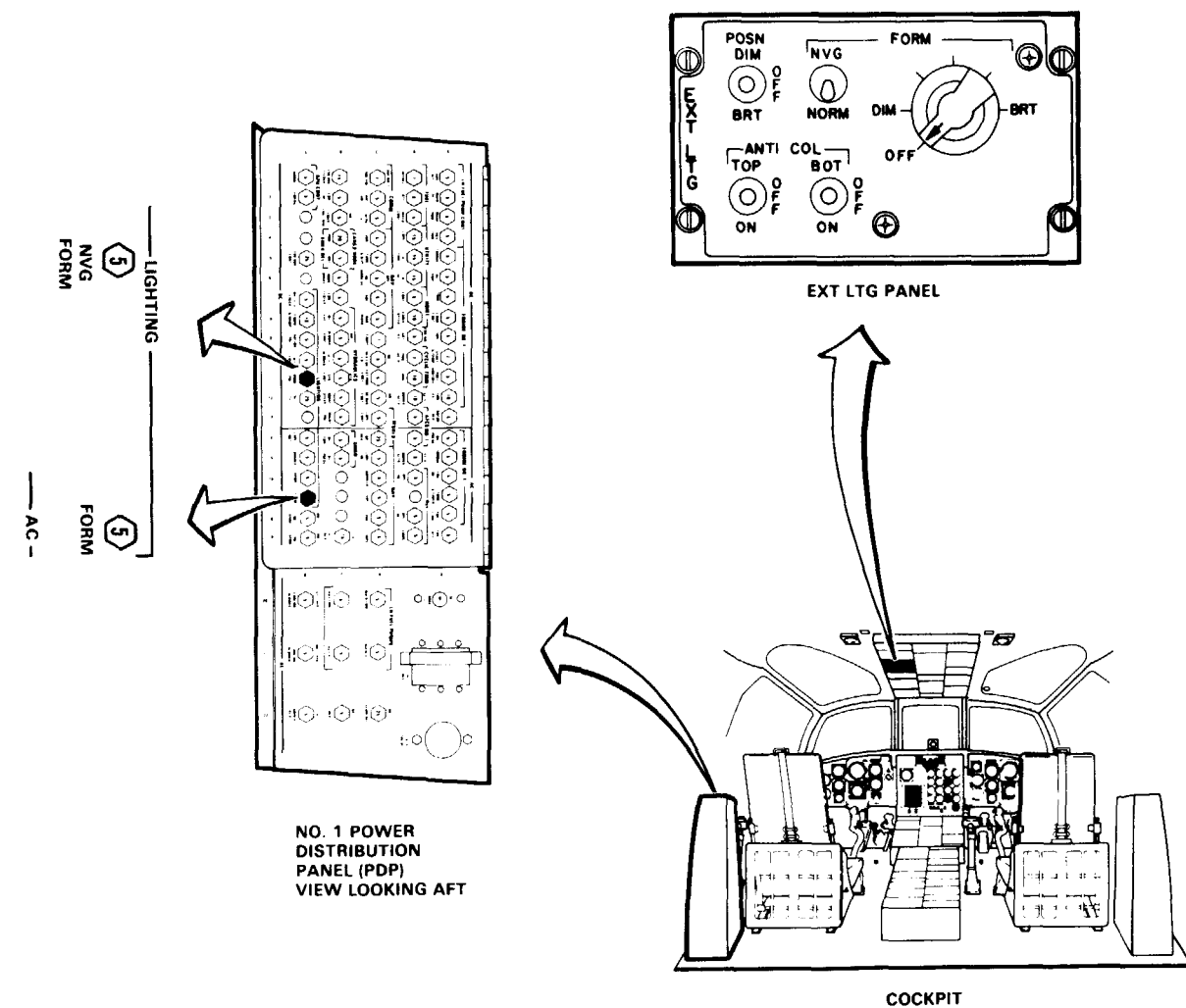
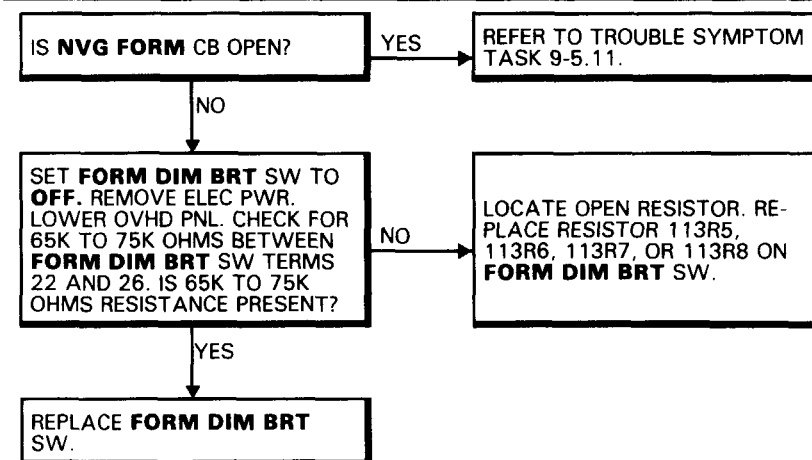
**Equipment Condition:**

TM 55-1520-240-23:

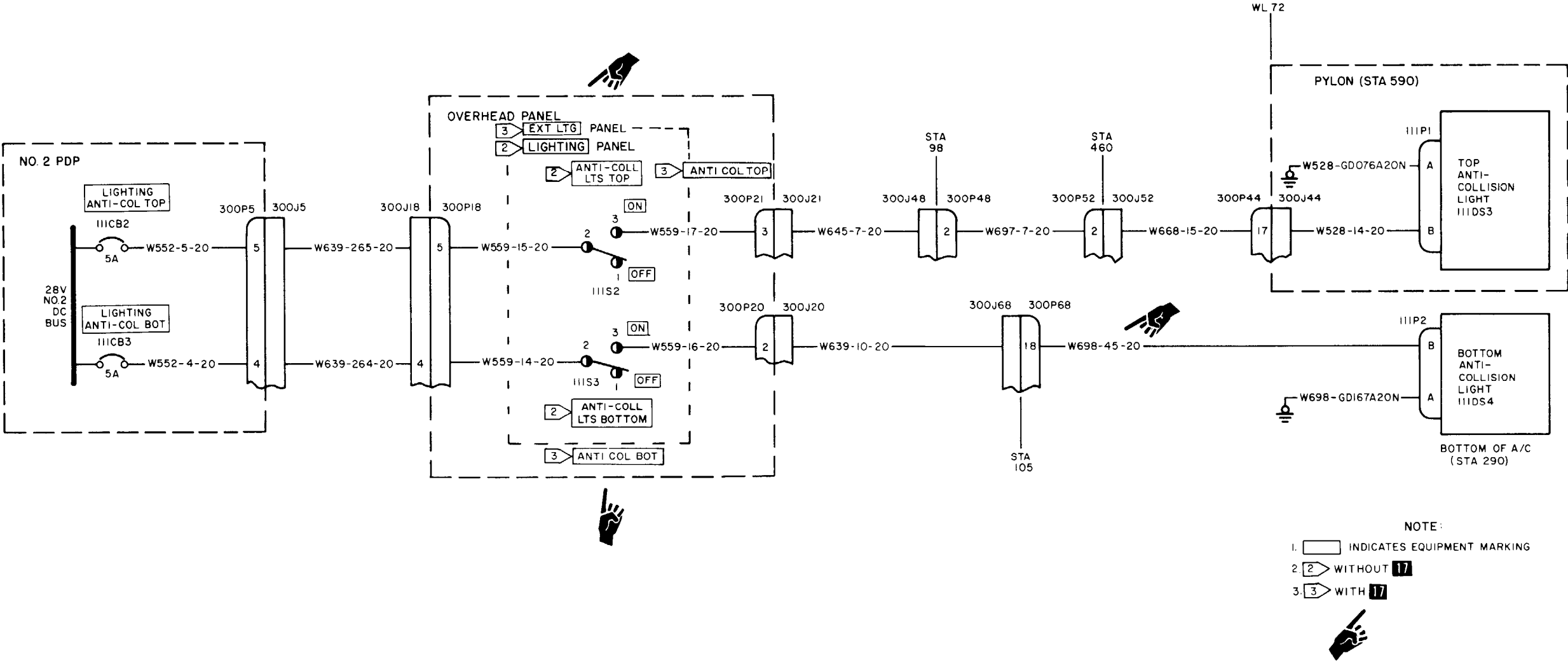
Battery Connected

Electrical Power On

Hydraulic Power Off



## **9-6 ANTICOLLISION LIGHTS**



111. 100A

556

9-6.2 ANTICOLLISION LIGHTS VISUAL CHECK

9-6.2

INITIAL SETUP

**Applicable Configurations:**  
All

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

**Materials:**  
None

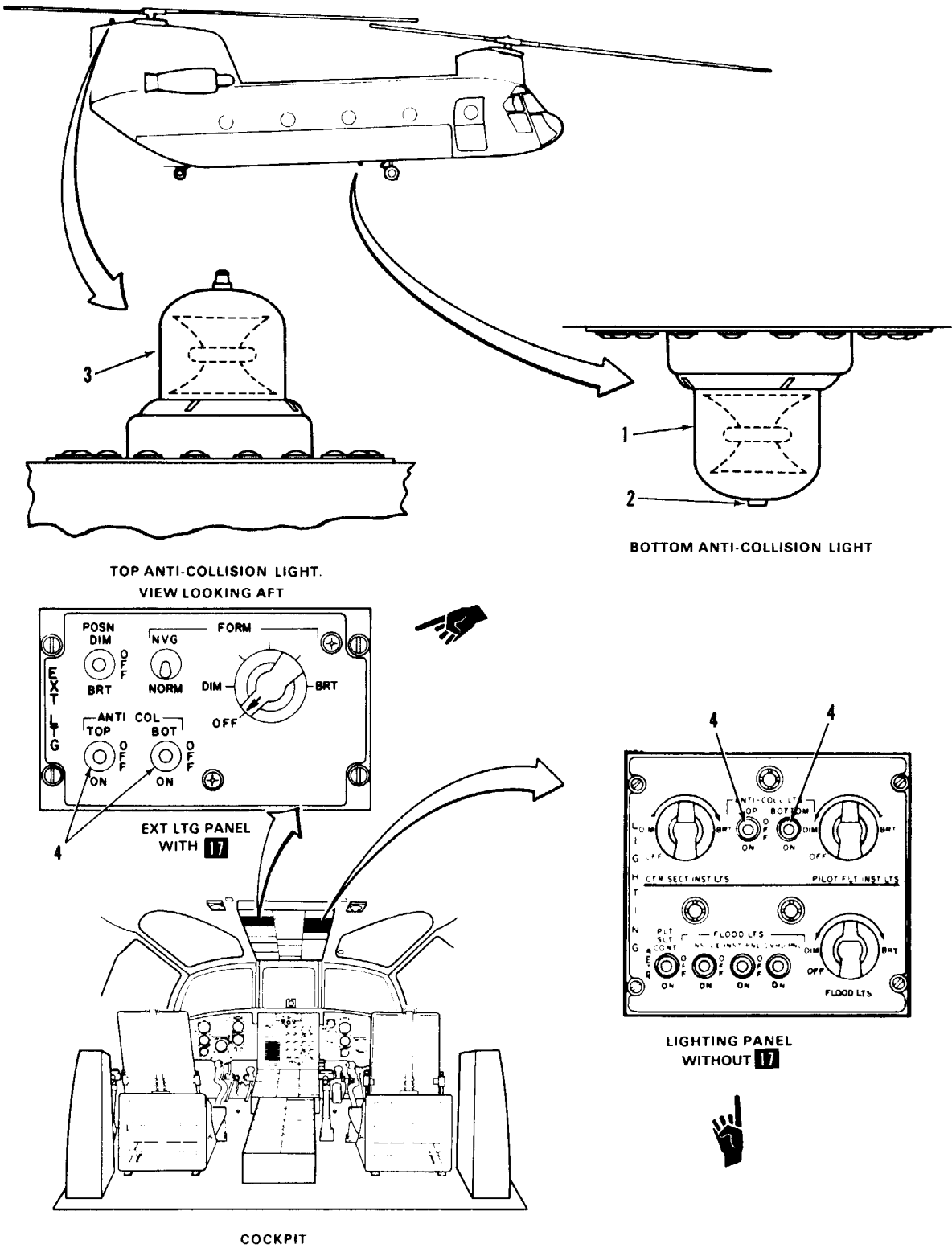
**Personnel Required:**  
Aircraft Electrician (2)

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Left or Right Pylon Work Platform Open

TASK	RESULT
1. Check bottom anticollision light (1).	If light is loose or damaged, tighten or replace it as required. Open drain (2) if there is water in light.
2. Check top anticollision light (3).	If light is loose or damaged, tighten or replace it as required.
3. Check ANTI-COLL LTS switches (4) on LIGHTING panel or ANTI COL switches (4) on EXT LTG panel as applicable.	If switches are loose or damaged, tighten or replace them as required.

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Left or Right Pylon Work Platform Closed



9-6.3 ANTICOLLISION LIGHT OPERATIONAL CHECK

INITIAL SETUP

Applicable Configurations:

All

Tools:

None

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off

Anticollision Lights Visual Check Performed (Task 9-6.2)

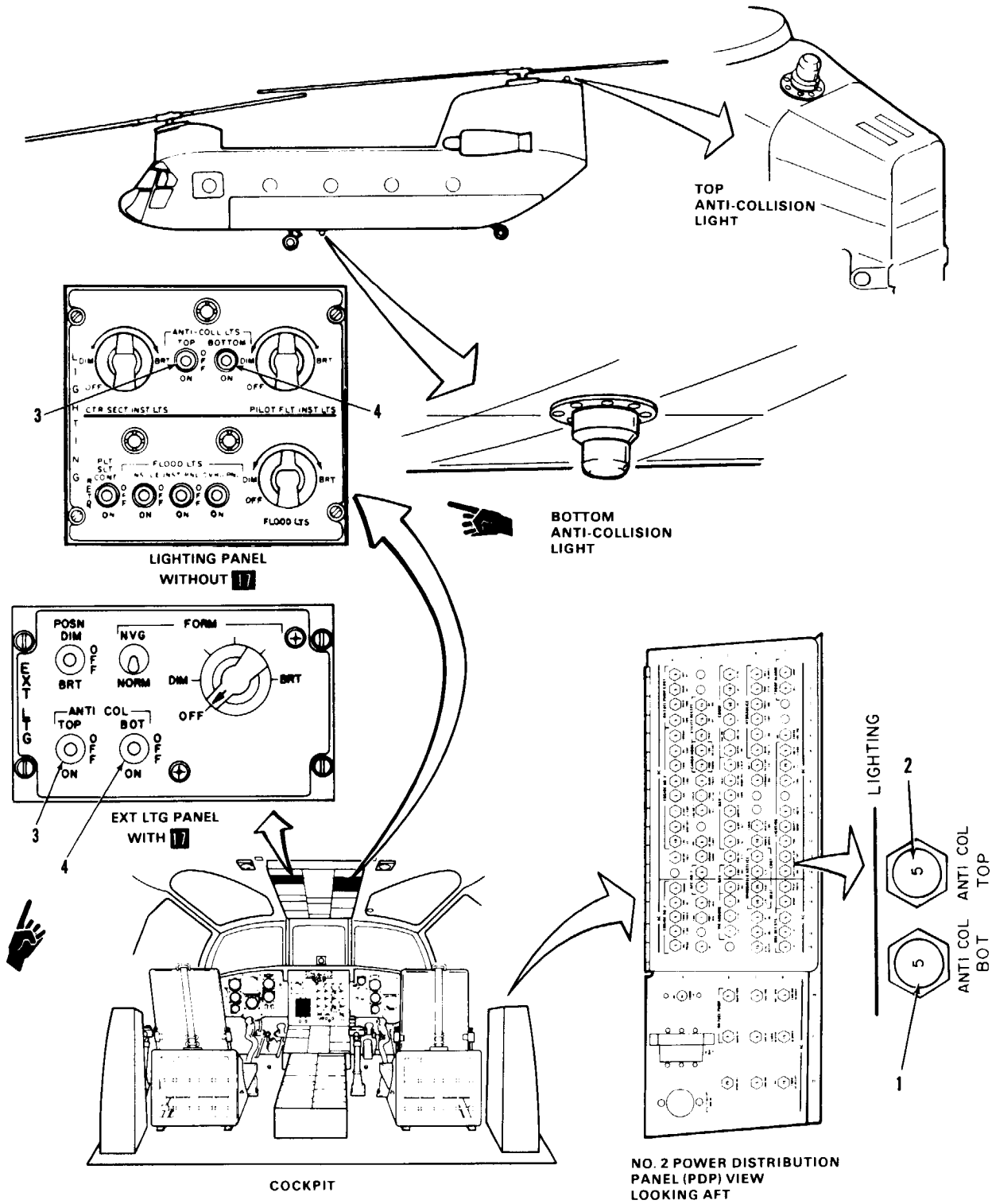
TASK	RESULT
1. Check that LIGHTING ANTI-COL BOT circuit breaker (1) and ANTI-COL TOP circuit breaker (2) are closed.	If LIGHTING ANTI-COL BOT circuit breaker (1) is open, close it. If it opens again, go to task 9-6.4. If LIGHTING ANTI-COL TOP circuit breaker (2) is open, close it. If it opens again, go to task 9-6.4.
2. Set ANTI-COLL LTS TOP or ANTI-COL TOP switch (3) to ON.	The top anticollision light shall flash 40 to 60 times per minute. If it does not, go to task 9-6.5.
3. Set ANTI-COLL LTS BOTTOM or ANTI-COL BOT switch (4) to ON.	The bottom anticollision light shall flash 40 to 60 times per minute. If it does not, go to task 9-6.5.
4. Set switches (3) and (4) to OFF.	Both anticollision lights shall stop flashing.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:

Electrical Power Off

Battery Disconnected



10344

END OF TASK



9-6.4 ANTI-COL BOT OR TOP CIRCUIT BREAKER DOES NOT STAY CLOSED

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

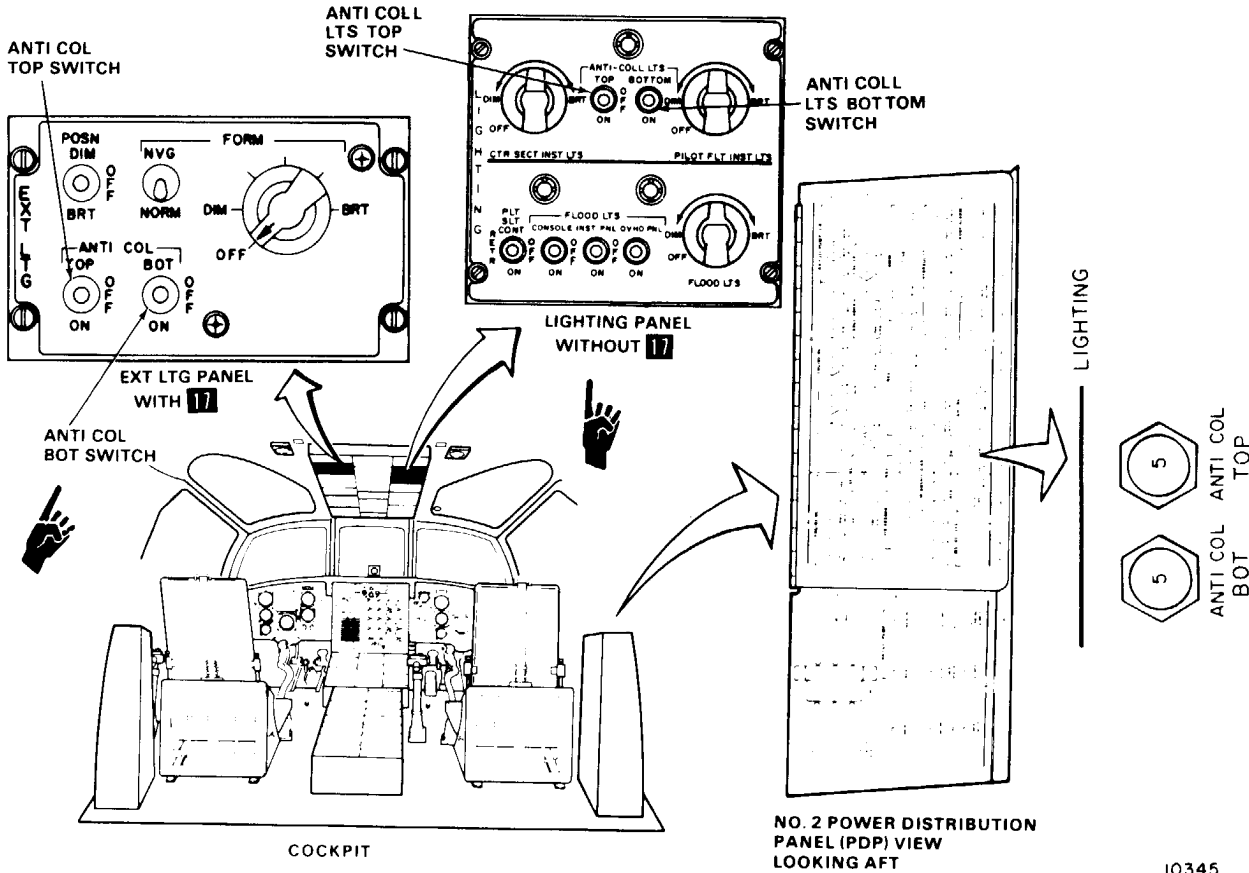
Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

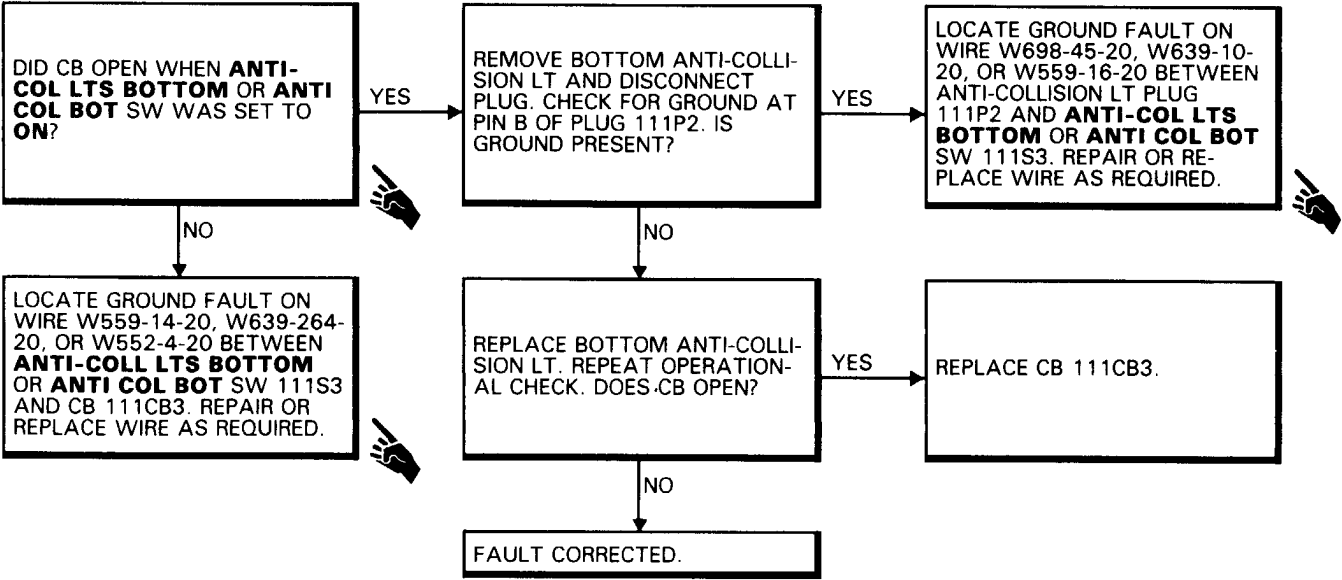
General Safety Instructions:

**WARNING**

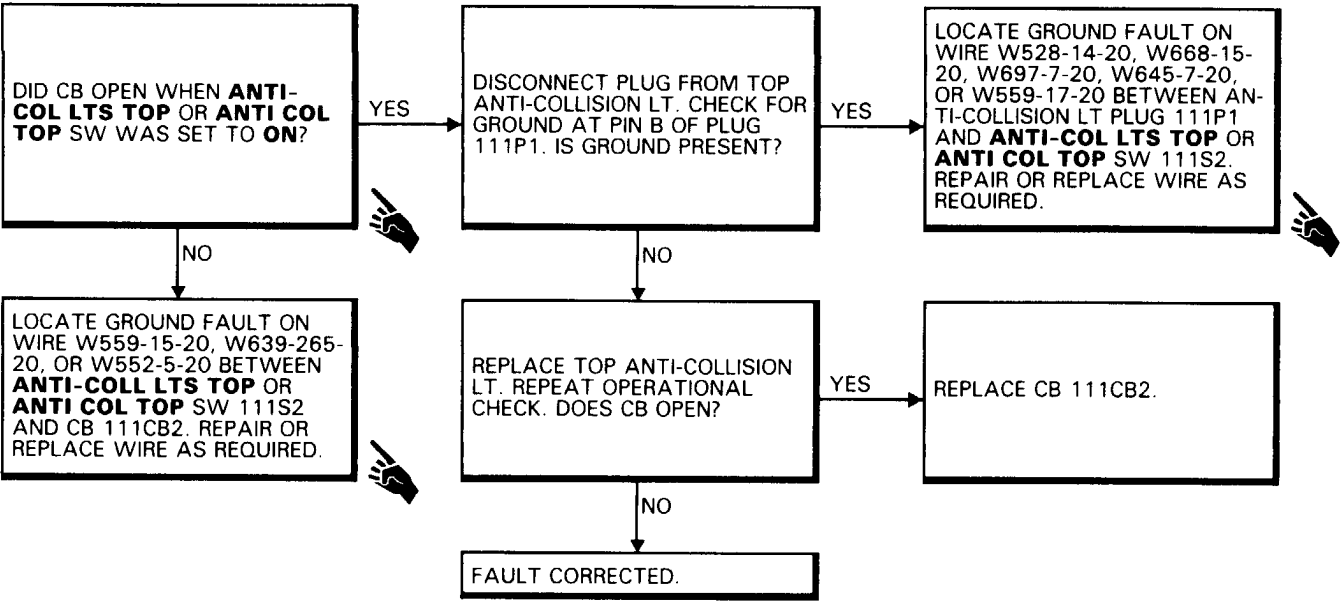
Wait 10 minutes after power has been disconnected before disconnecting anticollision light. High voltage discharge can occur, causing personnel injury.



ANTI-COL BOT CIRCUIT BREAKER DOES NOT STAY CLOSED



ANTI-COL TOP CIRCUIT BREAKER DOES NOT STAY CLOSED



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

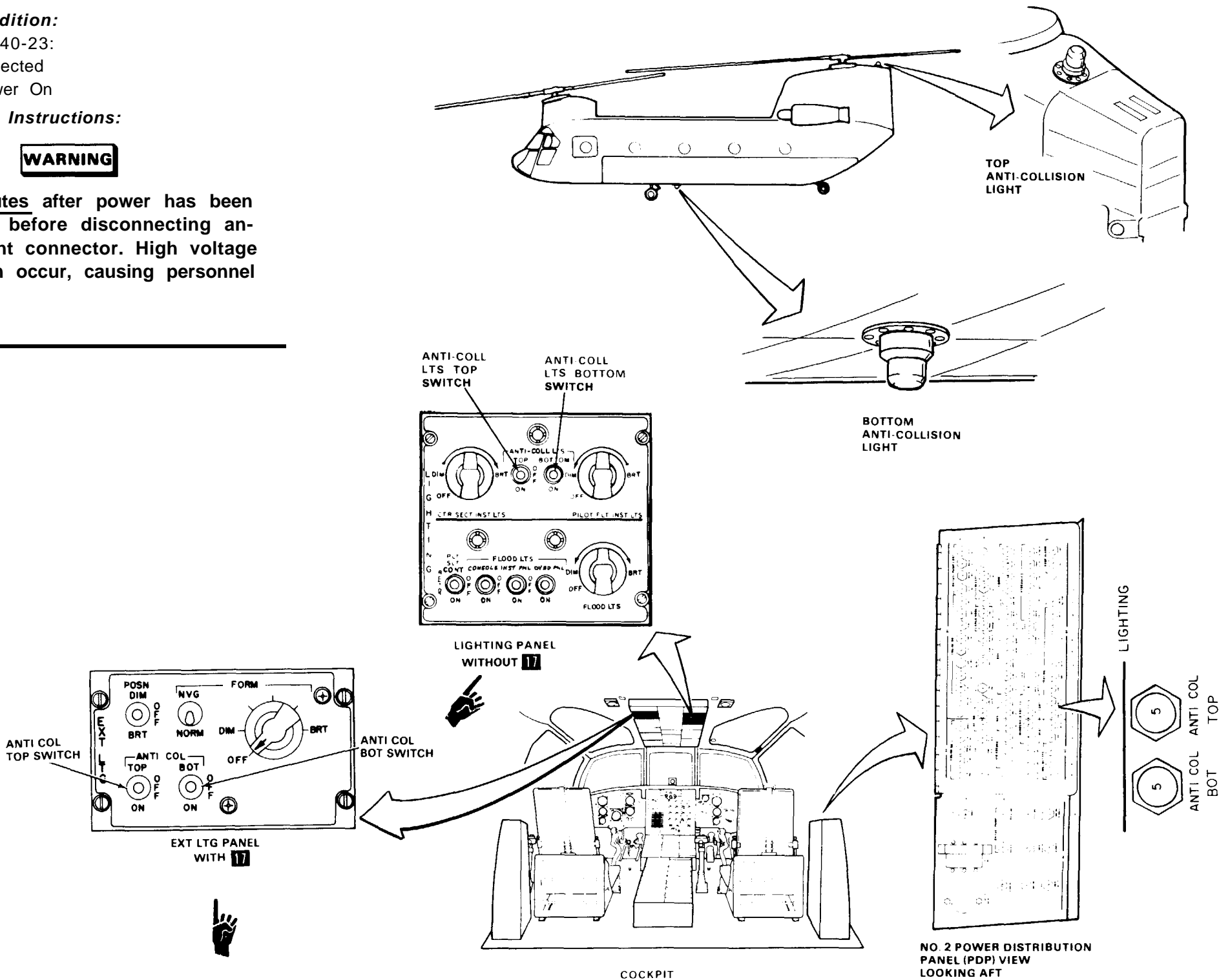
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On

General Safety Instructions:

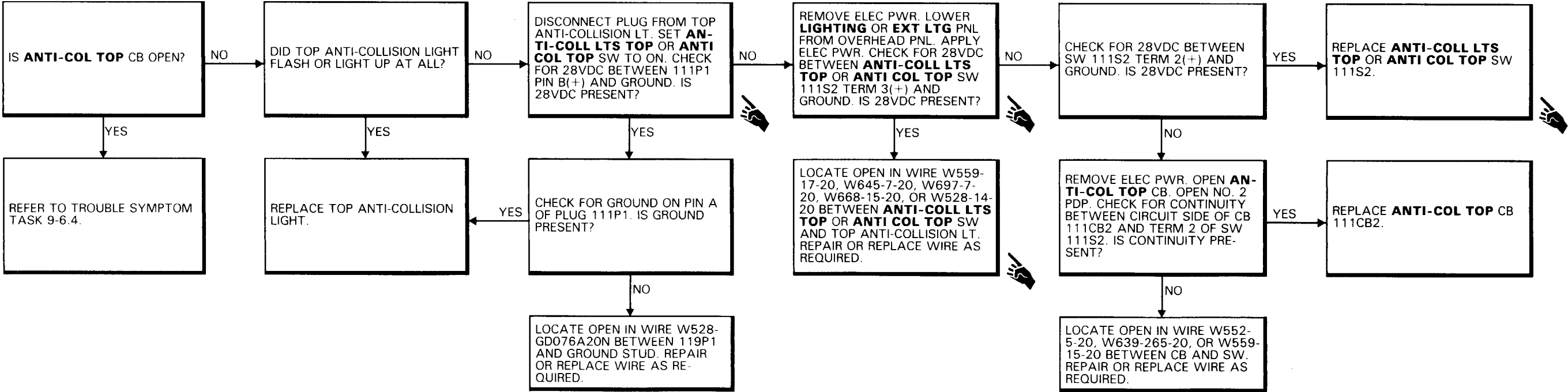
**WARNING**

Wait 10 minutes after power has been disconnected before disconnecting anticollision light connector. High voltage discharge can occur, causing personnel injury.

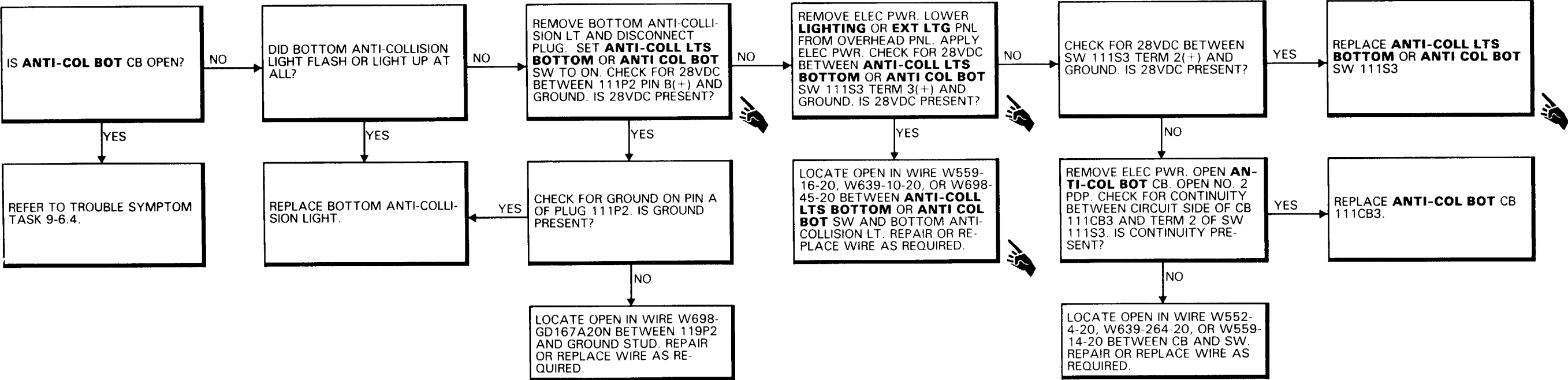


9-6.5 ANTICOLLISION LIGHT, TOP OR BOTTOM, DOES NOT FLASH OR DOES NOT FLASH 40-60 TIMES/ MINUTE (Continued)

TOP ANTICOLLISION LIGHT DOES NOT FLASH OR DOES NOT FLASH 40-60 TIMES/MINUTE



BOTTOM ANTICOLLISION LIGHT DOES NOT FLASH OR DOES NOT FLASH 40-60 TIMES/MINUTE



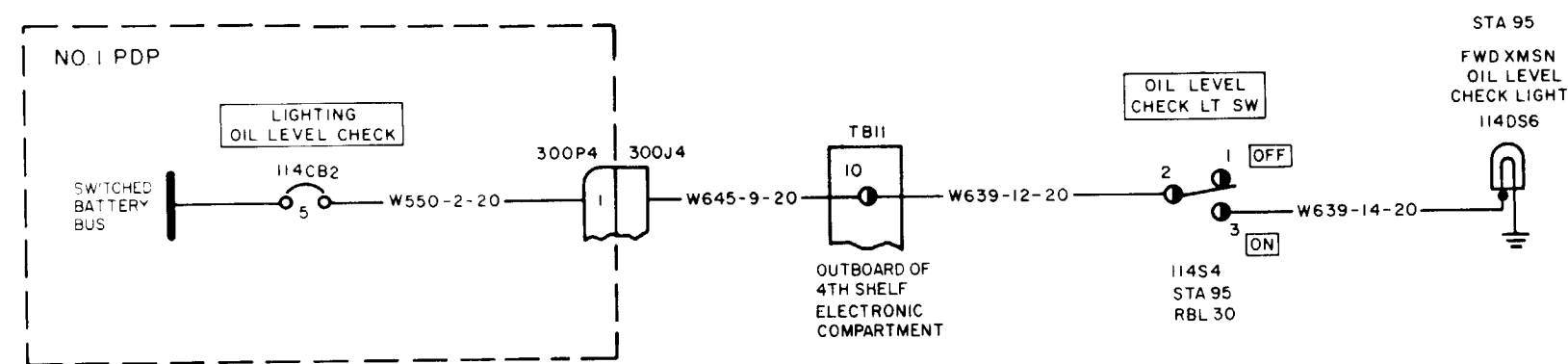
## 9-7 FORWARD TRANSMISSION OIL LEVEL CHECK LIGHT

9-7 FORWARD TRANSMISSION OIL LEVEL CHECK LIGHT

9-7

9-7.1 FORWARD TRANSMISSION OIL LEVEL CHECK LIGHT  
WIRING DIAGRAM

9-7.1



NOTE :  
[ ] INDICATES EQUIPMENT MARKING

9-7.2 FORWARD TRANSMISSION OIL LEVEL CHECK LIGHT  
VISUAL CHECK

INITIAL SETUP

Applicable Configurations:  
All

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:  
None

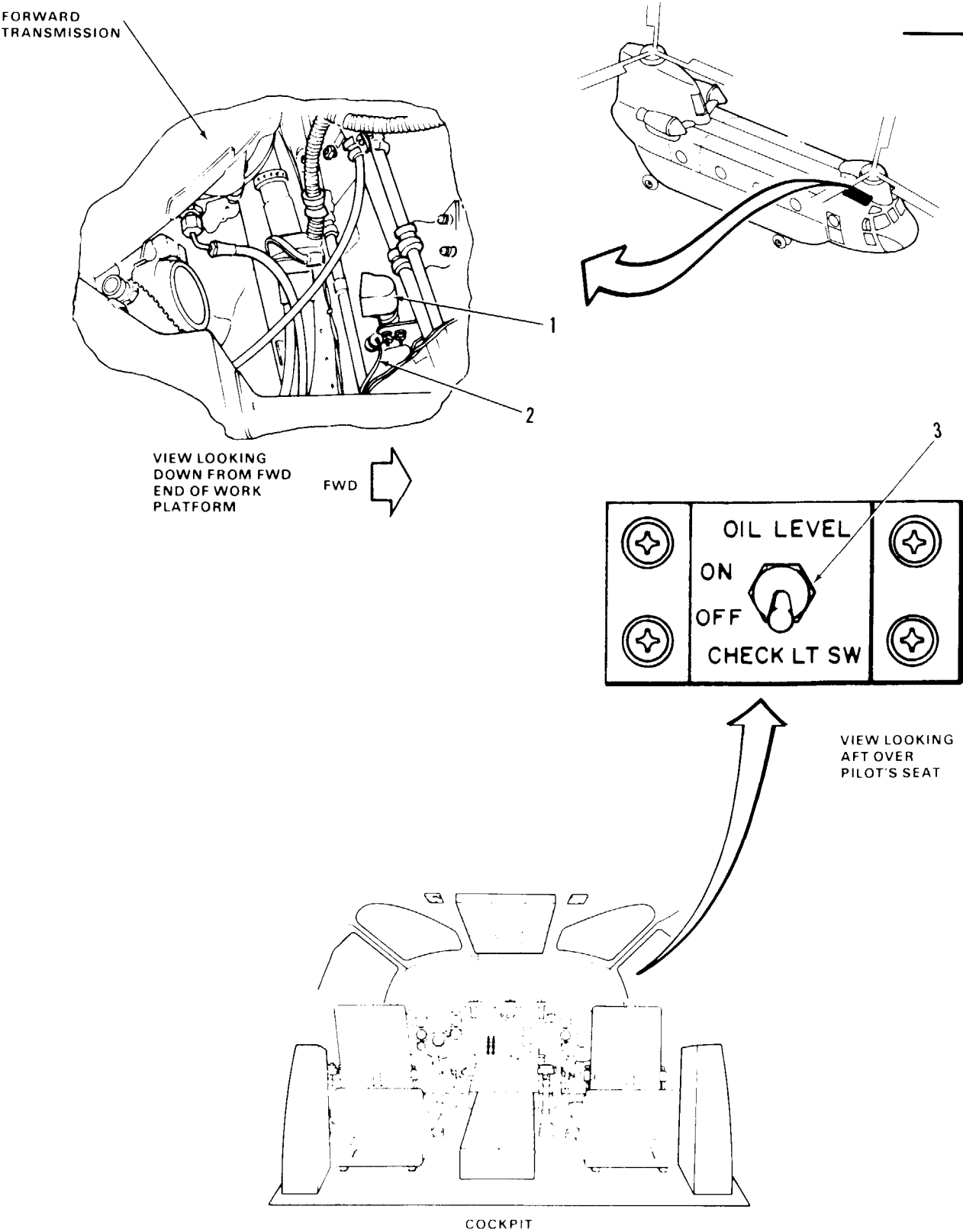
Personnel Required:  
68F10 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Right Forward Transmission Work Platform  
Open

TASK	RESULT
1. Check light (1).	If light (1) is loose or damaged, tighten or replace it as required. If wire (2) is damaged, repair or replace it as required.
2. Check OIL LEVEL CHECK LT SW (3).	If switch (3) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE  
None



END OF TASK

9-7.3 FORWARD TRANSMISSION OIL LEVEL CHECK LIGHT  
OPERATIONAL CHECK

INITIAL SETUP

Applicable Configurations:

All

Tools:

None

Materials:

None

Personnel Required:

- 68F10 Aircraft Electrician
- 68F20 Aircraft Electrician

References:

TM 55-1520-240-23

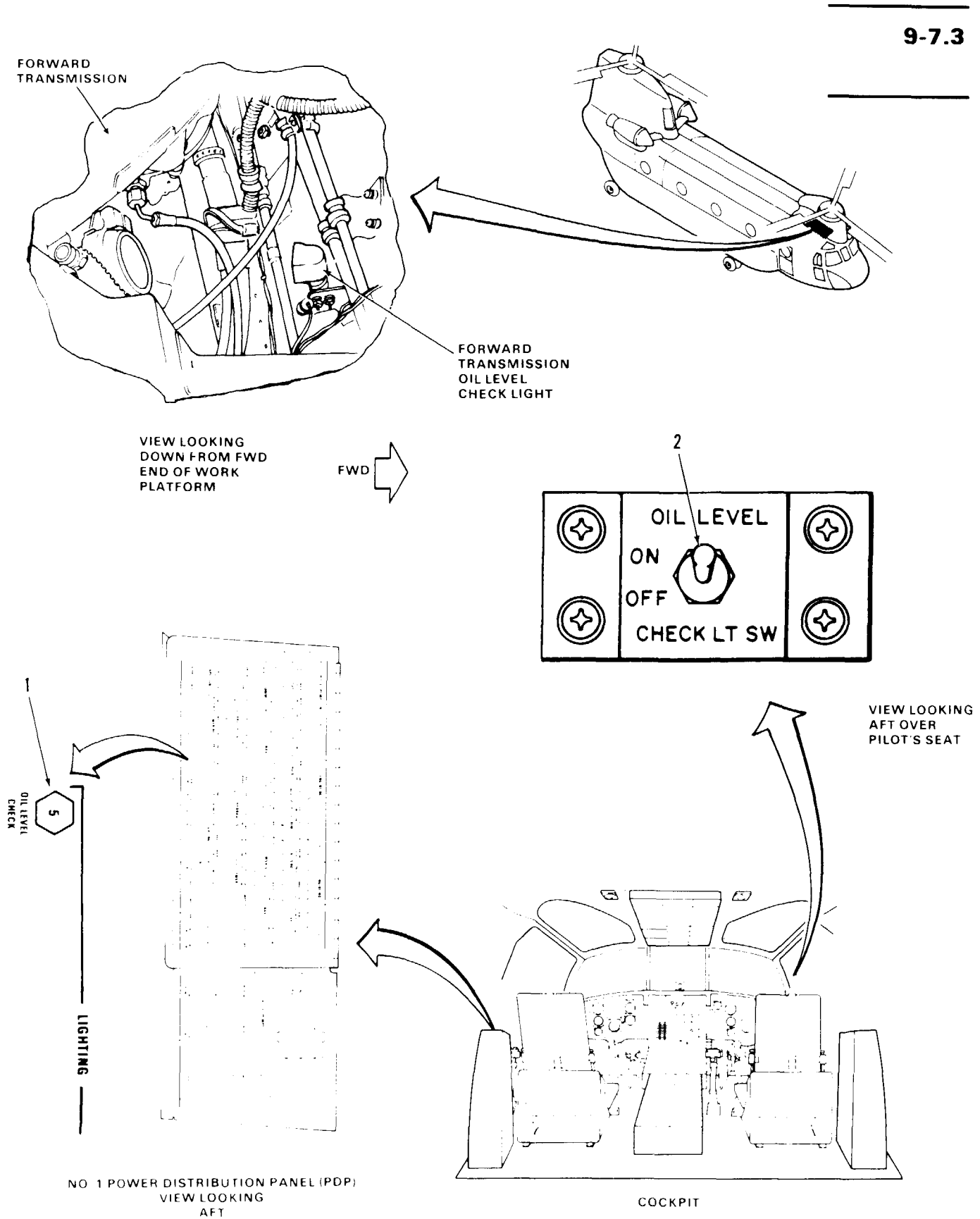
Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off
- Visual Check of Forward Transmission Oil Level Check Light Performed (Task 9-7.2)

TASK	RESULTS
1. Check that <b>LIGHTING OIL LEVEL CHECK</b> circuit breaker (A) is closed.	If OIL LEVEL CHECK circuit breaker (1) is open, close it, If it opens again, go to task 9-7.4
2. Set <b>OIL LEVEL CHECK LTSW (2)</b> to <b>ON</b> .	011 level check light shall come on. If it is not on, go to task 9-7.5.
3 Set OIL LEVEL CHECK LTSW to OFF.	Forward transmission 011 level check light shall go out.

FOLLOW-ON MAINTENANCE

- TM 55-1520-240-23:
- Battery disconnected
- Electrical power off
- Close right forward transmlsslon work platform



D145-3137-SPA

END OF TASK





9-7.4 OIL LEVEL CHECK CIRCUIT BREAKER DOES NOT STAY CLOSED

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

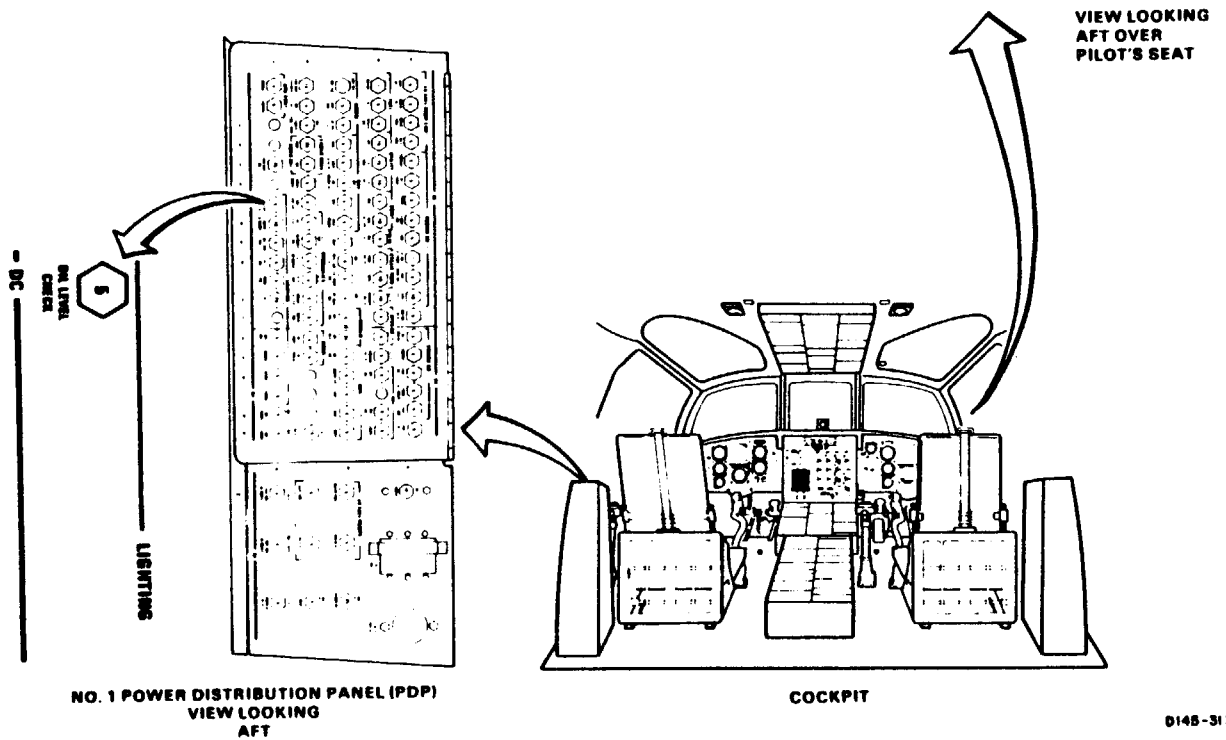
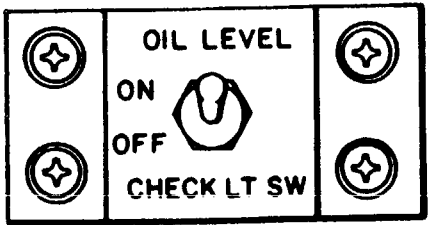
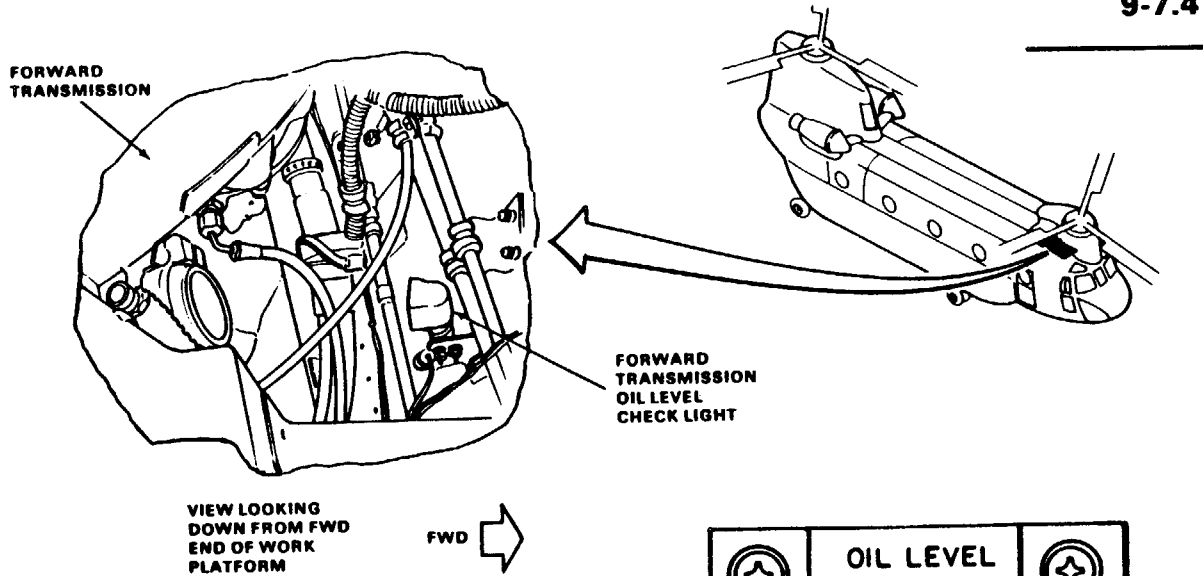
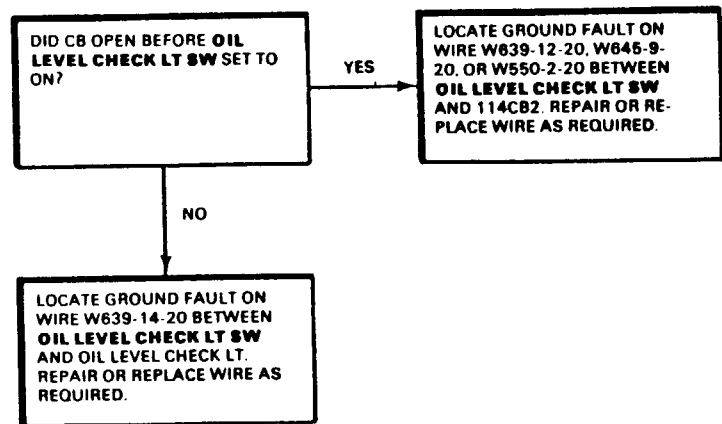
68F20 Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off



D145-3138-SPA

END OF TASK

Page 9-163 is a blank page.

### 9-7.5 FORWARD TRANSMISSION OIL LEVEL CHECK LIGHT NOT LIT

## FAULT ISOLATION PROCEDURE

## INITIAL SETUP

**Applicable Configurations:**

All

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

**Personnel Required:**

68F20 Aircraft Electrician

### References:

TM 55-1520-240-23

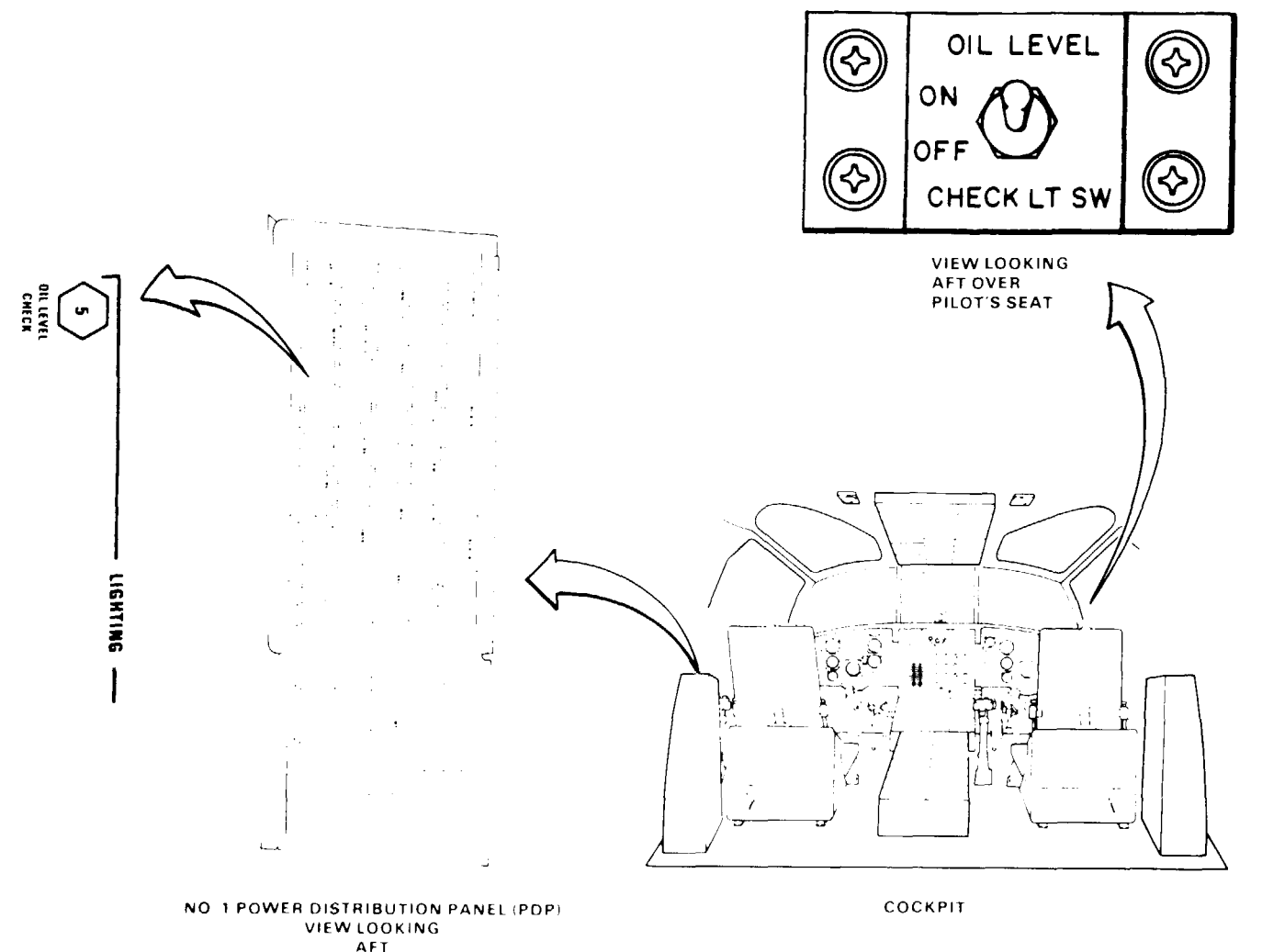
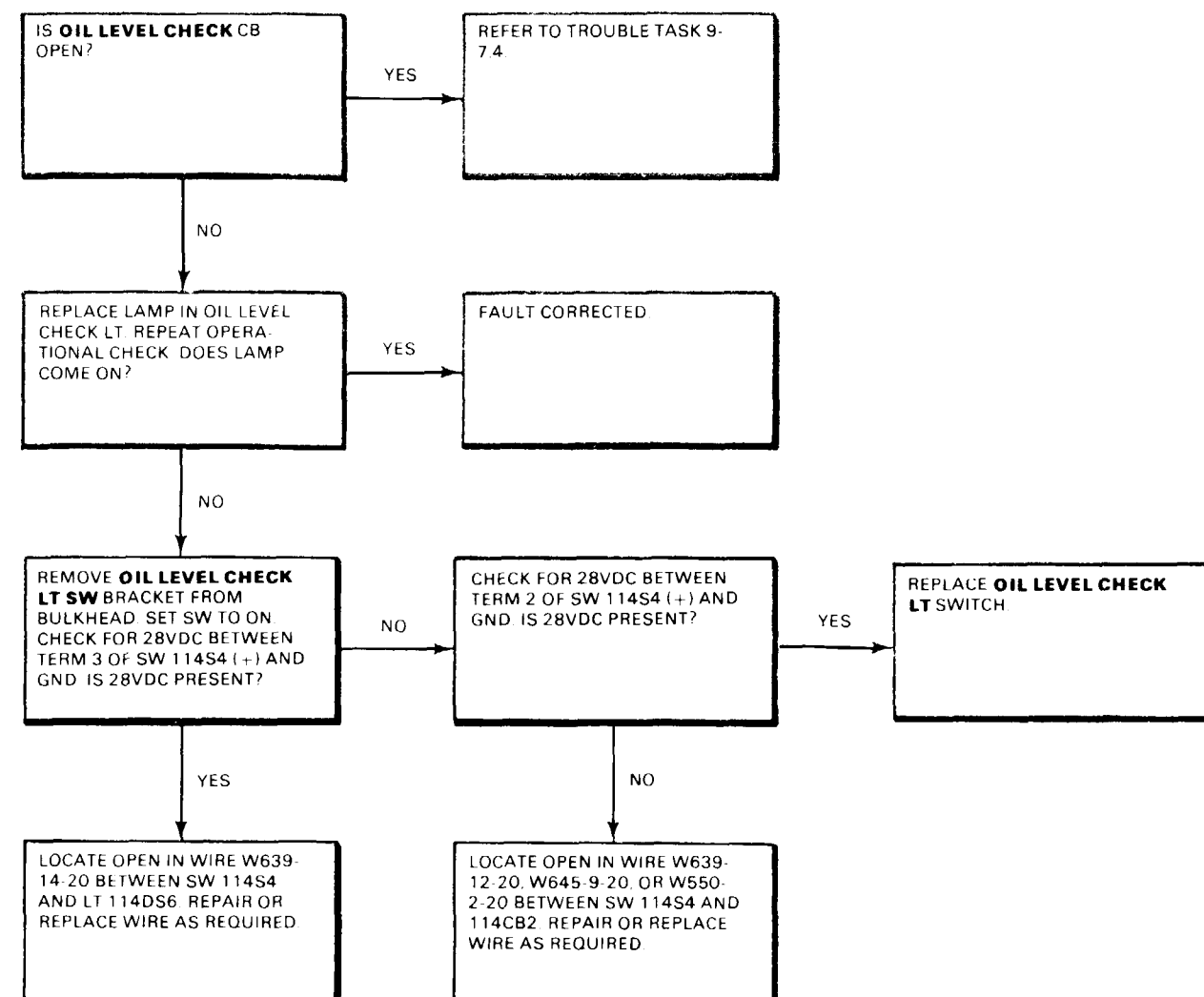
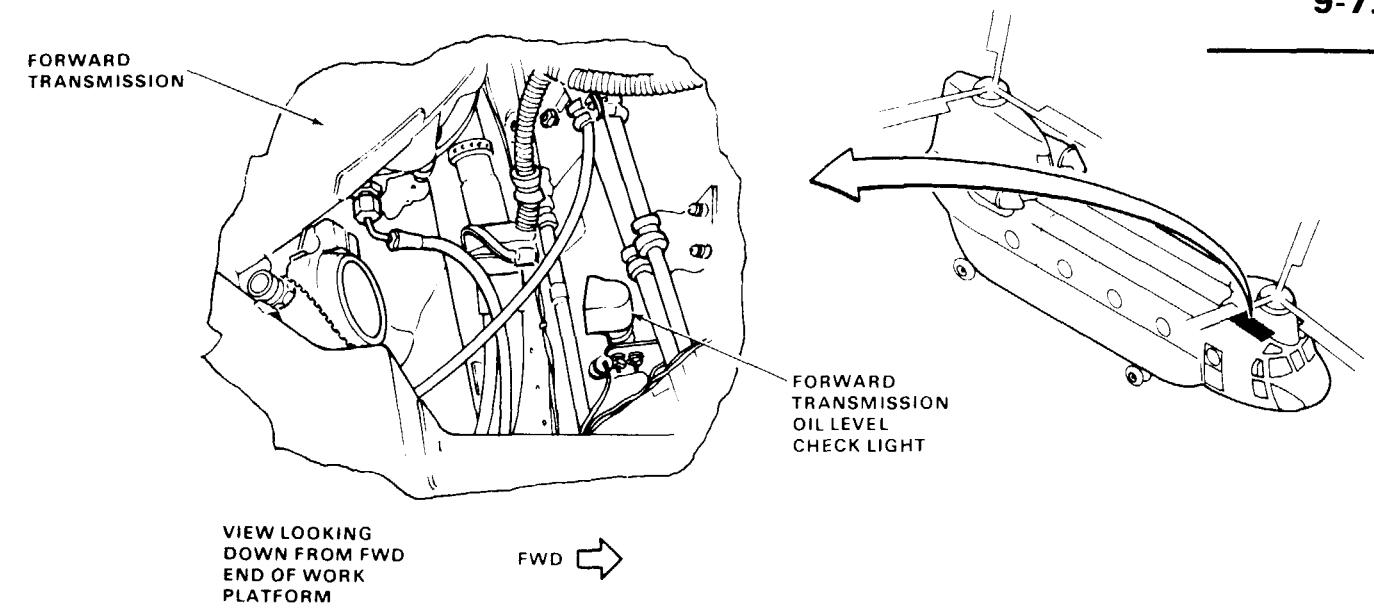
**Equipment Condition:**

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off



**END OF TASK**



9-8 PILOTS FLIGHT INSTRUMENT PANEL LIGHTS



### ***Applicable Configurations:***

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

**Materials:**

None

**Personnel Required:**

## Aircraft Electrician

**References:**

TM 55-1520-240-23

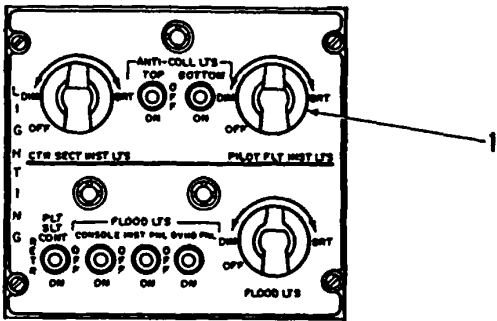
**Equipment Condition:**

TM 55-1520-240-23:

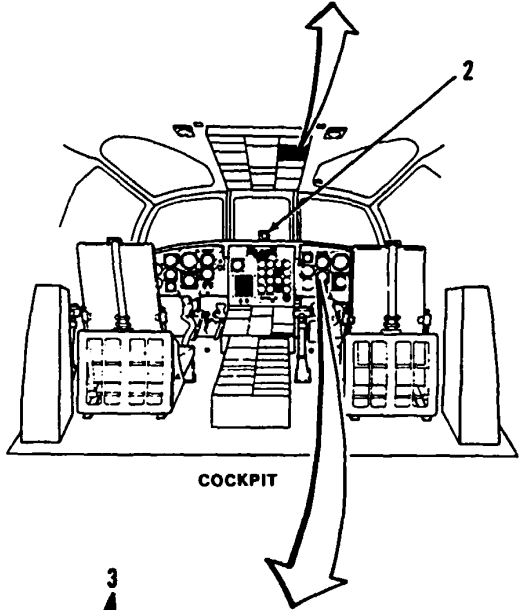
Battery Disconnected

Electrical Power Off

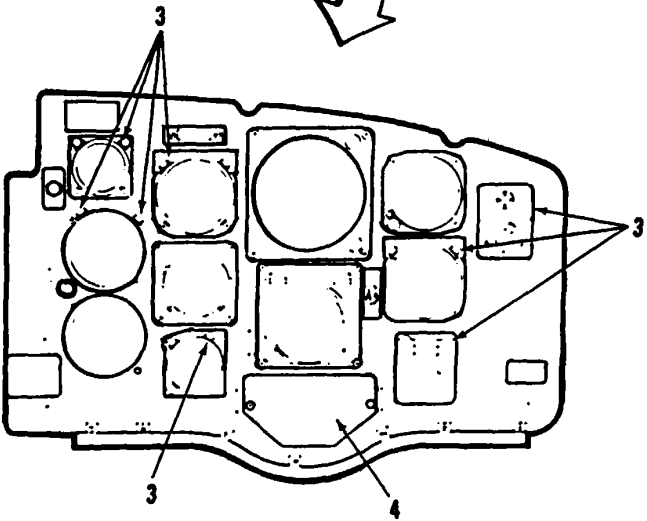
Hydraulic Power Off



## LIGHTING PANEL



## COCKPIT



## PILOT'S INSTRUMENT PANEL

D145-4161-SPA

INITIAL SETUP

Applicable Configurations:  
Without 17  
Without 74

Tools:  
None

Materials:  
None

Personnel Required:  
Aircraft Electrician

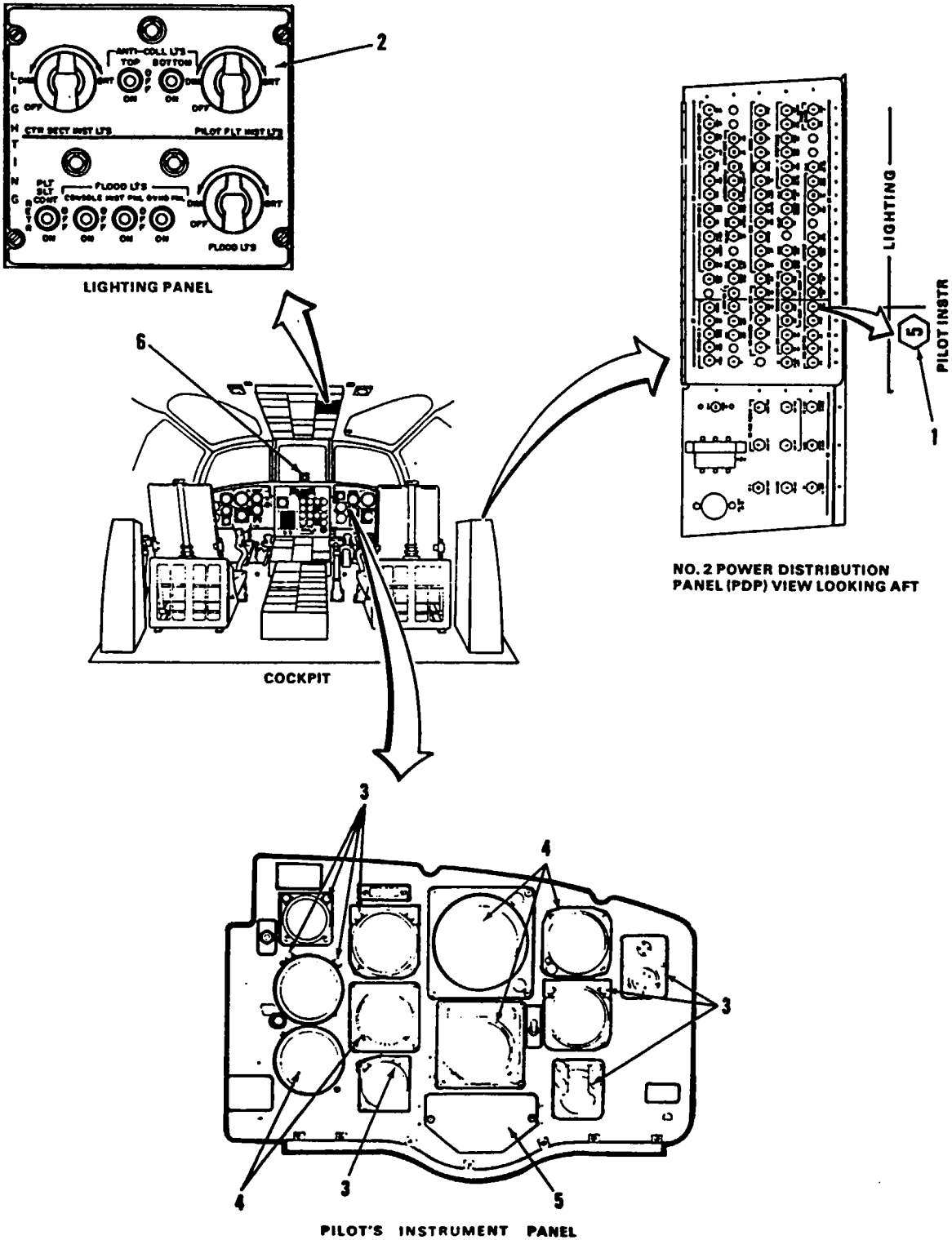
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Pilot's Flight Instrument Panel Lights, Visual Check  
Performed (Task 9-8.2)

TASK	RESULT
1. Check that LIGHTING PILOT INSTR circuit breaker (1) is closed.	If PILOT INSTR circuit breaker (1) is open, close it. If it opens again, go to task 9-8.4.
2. Turn PILOT FLT INST LTS control (2) from OFF through DIM to BRT.	Following lights shall come on and increase in brightness as control (2) is rotated to BRT: a. Panel lights (3) b. Internal lights in indicators (4). c. Panel lights and switch captions VOR, DOP, FM, and CMD on HSI MODE SELECT panel (5). d. Light in standby compass (6). If any light is not lit, go to task 9-8.5. If lights do not increase in brightness, replace PILOT FLT INST LTS control (2).
3. Turn PILOT FLT INST LTS control (2) to OFF.	All pilot's instrument panel lights shall go out. If they do not, replace PILOT FLT INST LTS control (2).

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Electrical power off.  
Battery disconnected.



D145-4162-SPA



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- Without 17
- Without 74

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

- None

Personnel Required:

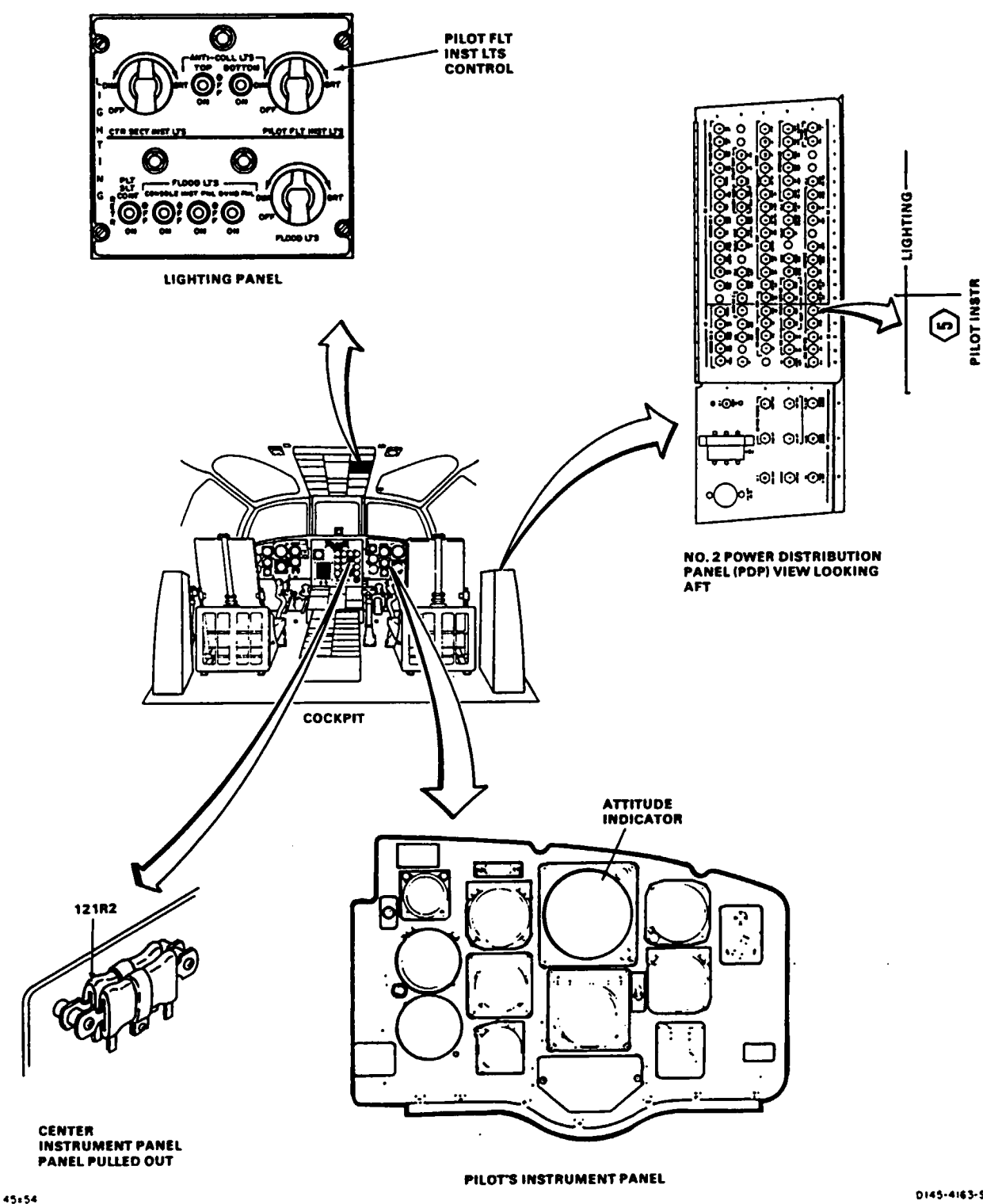
- Aircraft Electrician

References:

- TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
  - Battery Disconnected
  - Electrical Power Off
  - Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- Without 17
- Without 74

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

- None

Personnel Required:

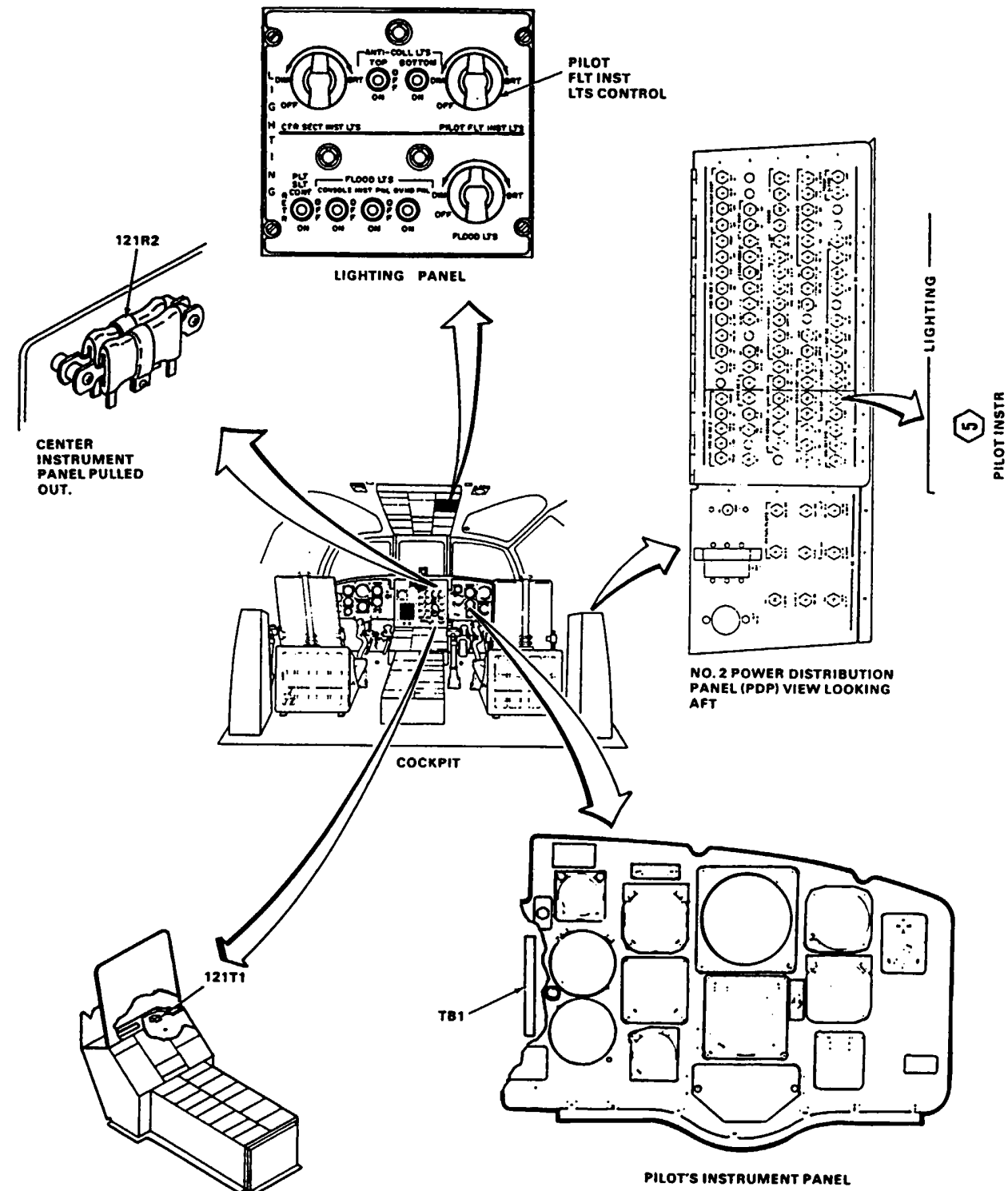
- Aircraft Electrician

References:

- TM 55-1520-240-23

Equipment Condition:

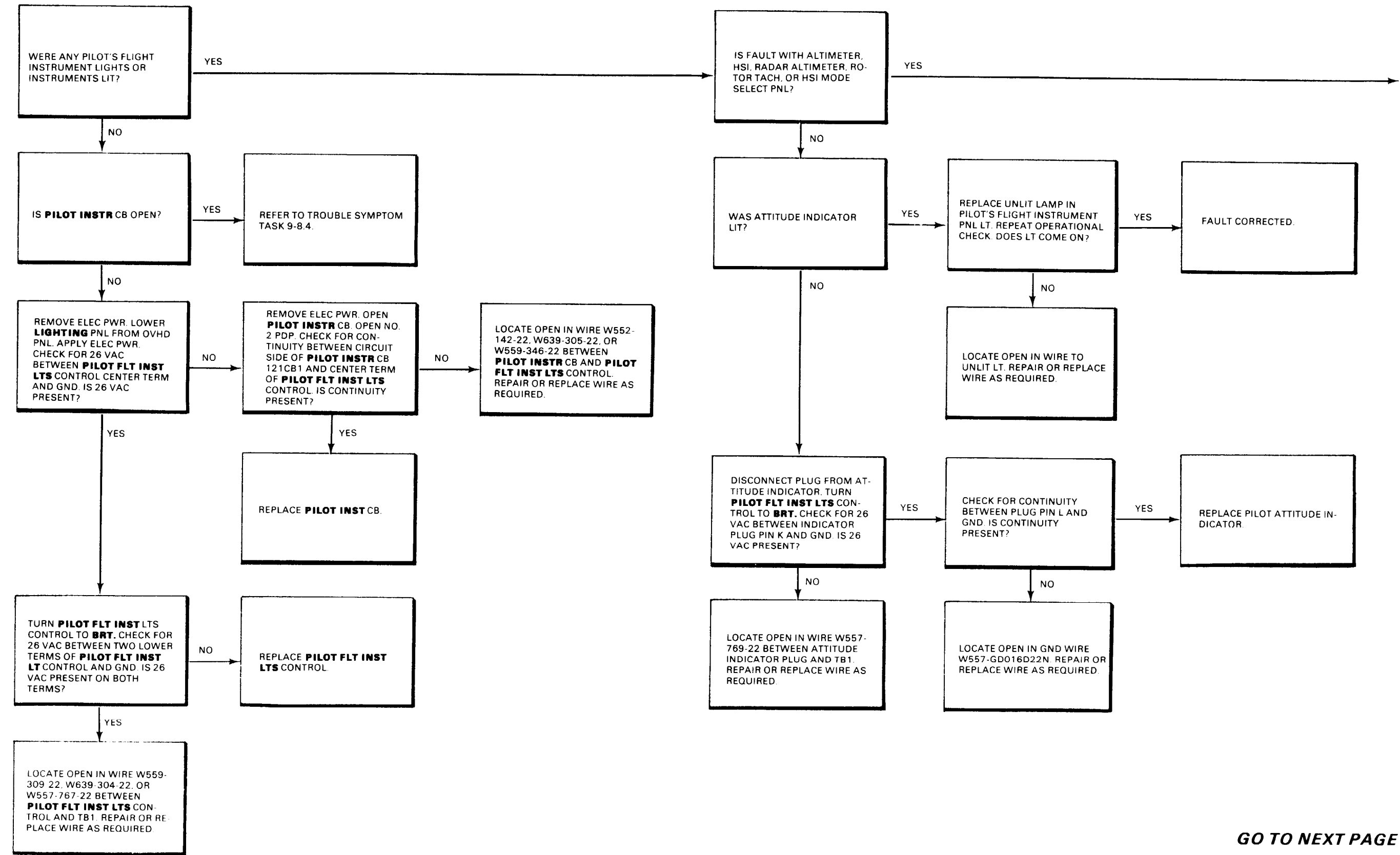
- TM 55-1520-240-23:
  - Battery Connected
  - Electrical Power On
  - Hydraulic Power Off



45154

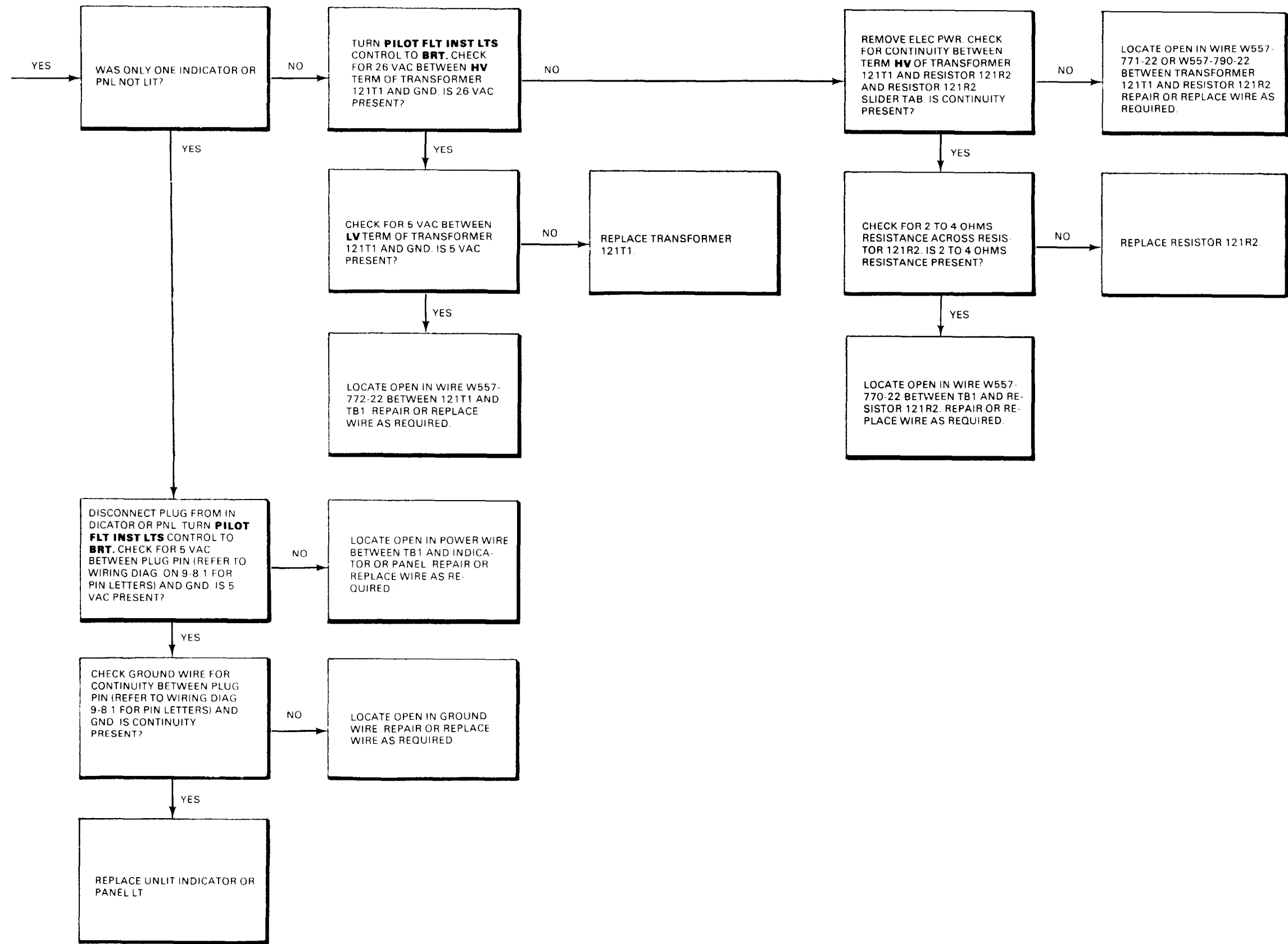
D145-4164-5PA

9-8.5 PILOT'S FLIGHT INSTRUMENT PANEL LIGHT  
OR LIGHTS NOT LIT (Continued)

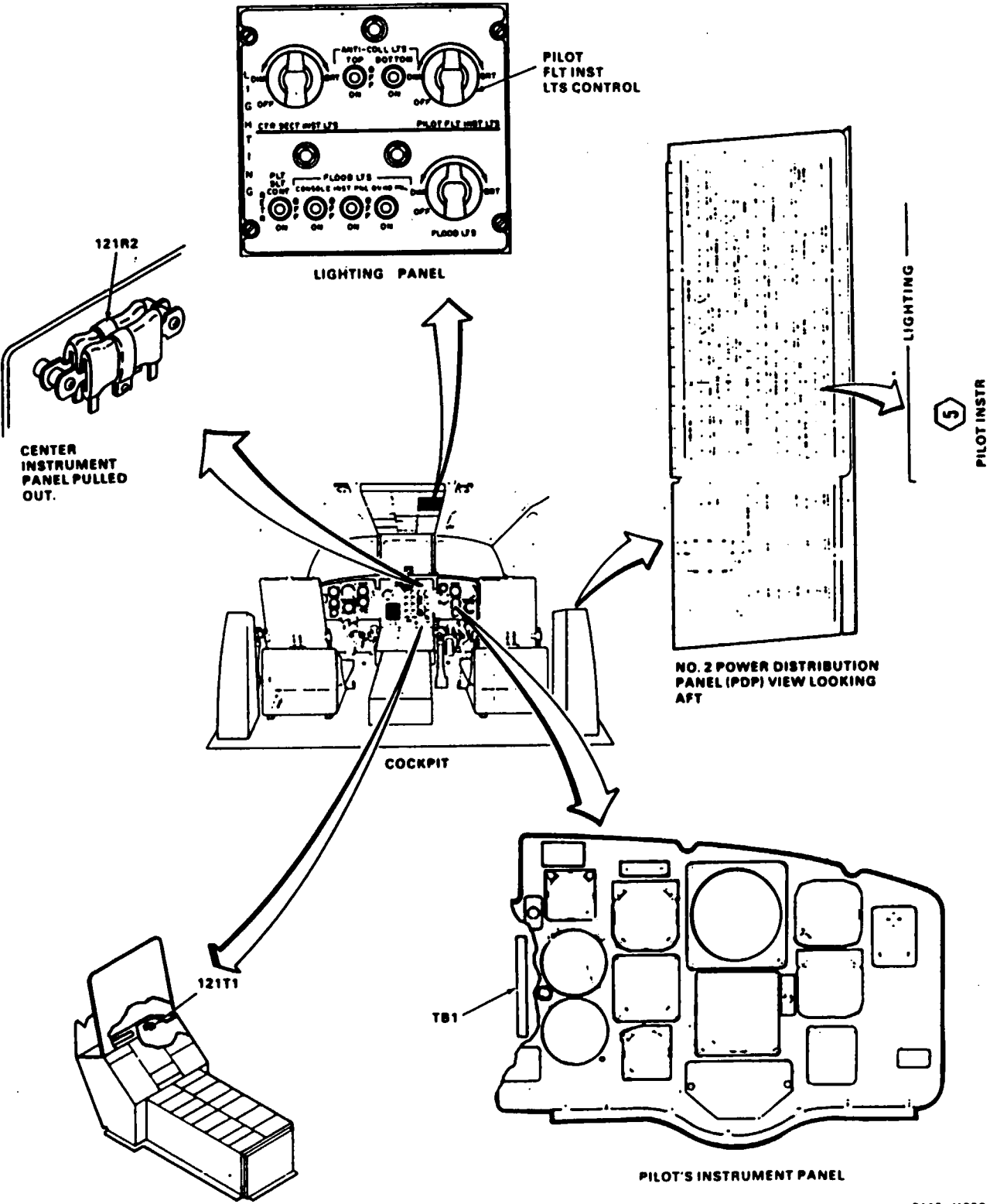


GO TO NEXT PAGE

9-8.5 PILOT'S FLIGHT INSTRUMENT PANEL LIGHT  
OR LIGHTS NOT LIT (Continued)



GO TO NEXT PAGE



45X54

D145-11838-SPA



**9-178 Change 19**

INITIAL SETUP

Applicable Configurations:

With 17 or 69

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

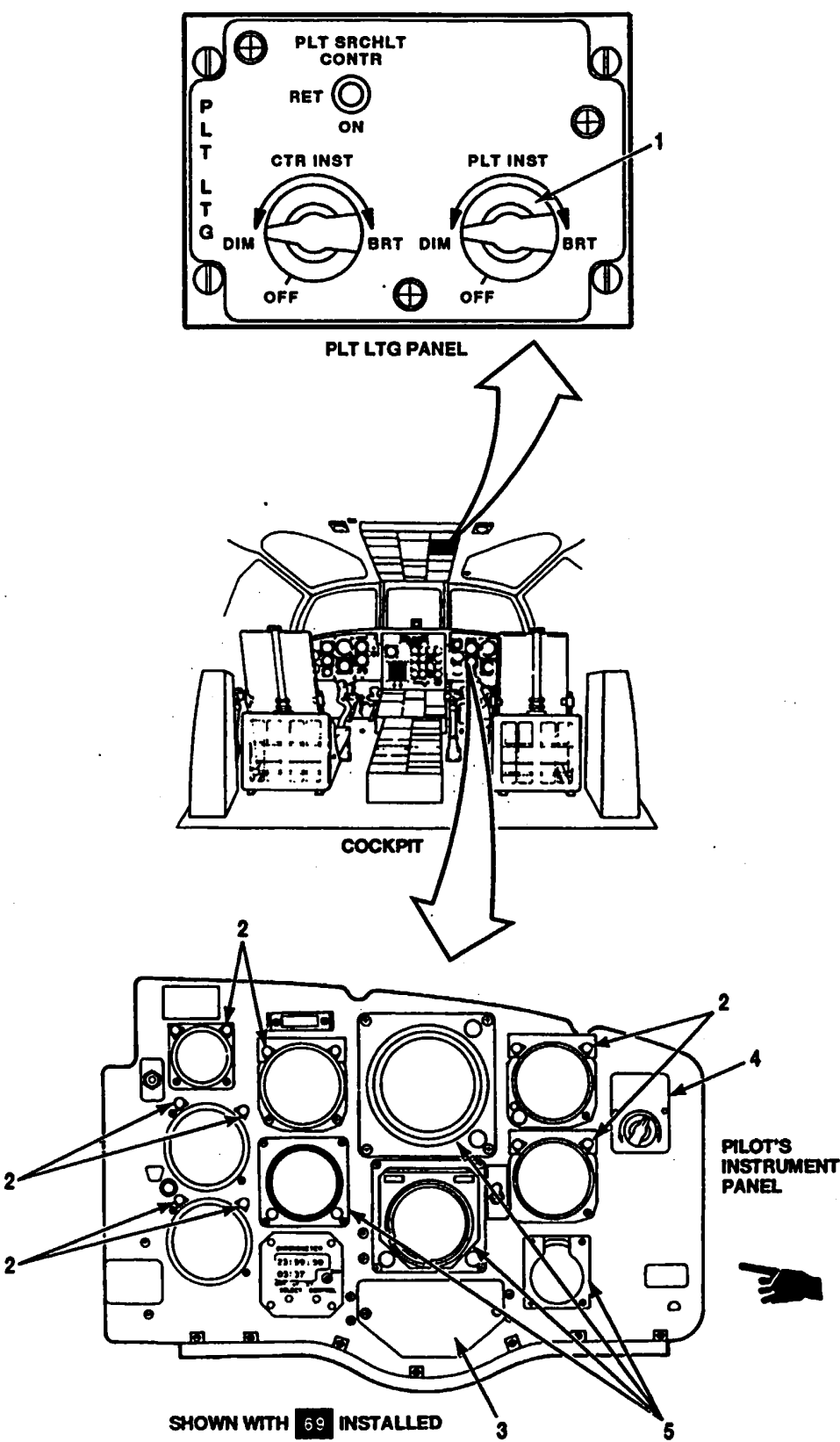
Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check PILOT INST lights control (1).	If control (1) is loose or damaged, tighten or replace it as required.
2. Check panel lights (2).	If any panel light (2) is damaged, replace it.
3. Check HSI MODE SELECT panel (3).	If panel (3) is damaged, replace it.
4. Check RAD ALT DIM panel (4).	If panel (4) is damaged, replace it.
5. Check lighting bezels (5).	If any bezel (5) is damaged, replace it.

FOLLOW-ON MAINTENANCE:

None





9-8.7 PILOT'S FLIGHT INSTRUMENT PANEL LIGHTS VISUAL CHECK

9-8.7

INITIAL SETUP

**References:**  
TM 55-1520-240-23

**Applicable Configurations:**  
With 17 and 69

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

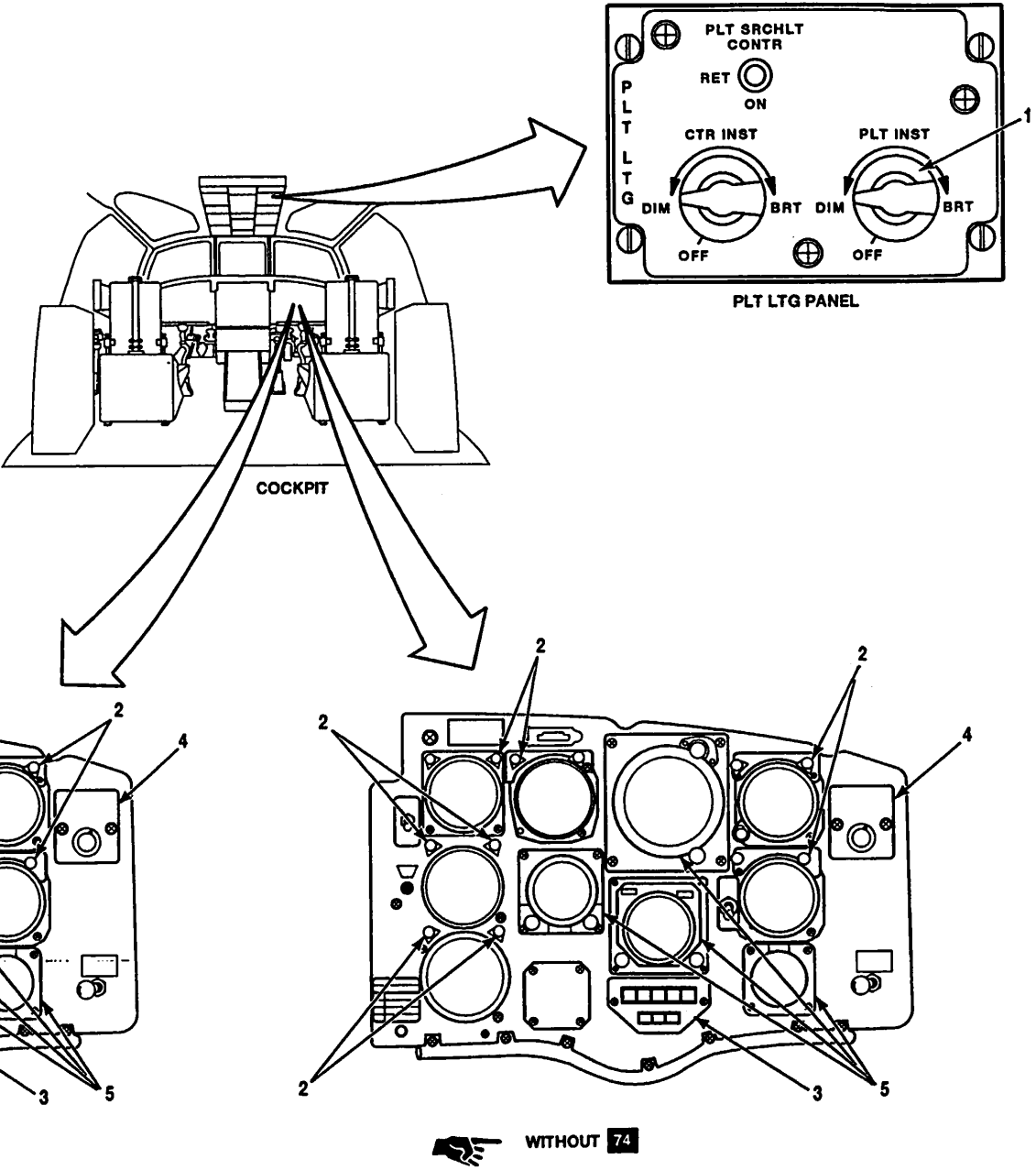
**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check PILOT INST lights control (1).	If control (1) is loose or damaged, tighten or replace it as required.
2. Check panel lights (2).	If any panel light (2) is damaged, replace it.
3. Check HSI MODE SELECT panel (3).	If panel (3) is damaged, replace it.
4. Check RAD ALT DIM panel (4).	If panel (4) is damaged, replace it.
5. Check lighting bezels (5).	If any bezel (5) is damaged, replace it.

**FOLLOW-ON MAINTENANCE:**  
None



A67643

END OF TASK

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
With 17 and 69

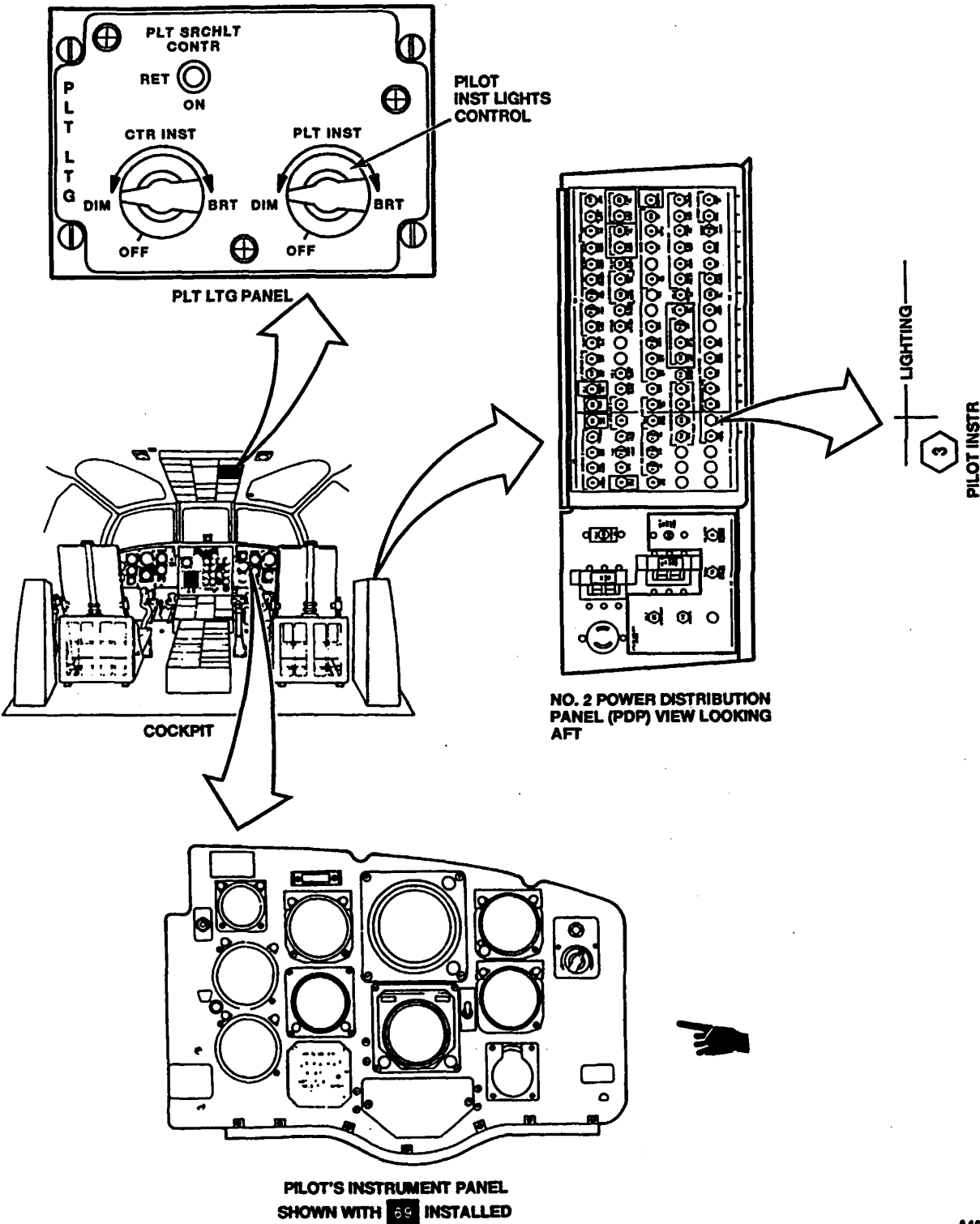
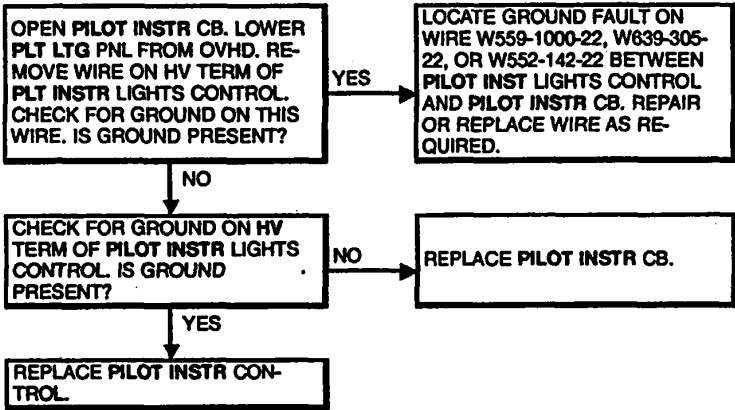
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



A10360

END OF TASK

Change 17 9-178.3

9-8.9 PILOT INSTR CIRCUIT BREAKER DOES NOT STAY CLOSED

9-8.9

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
With 17 and 69

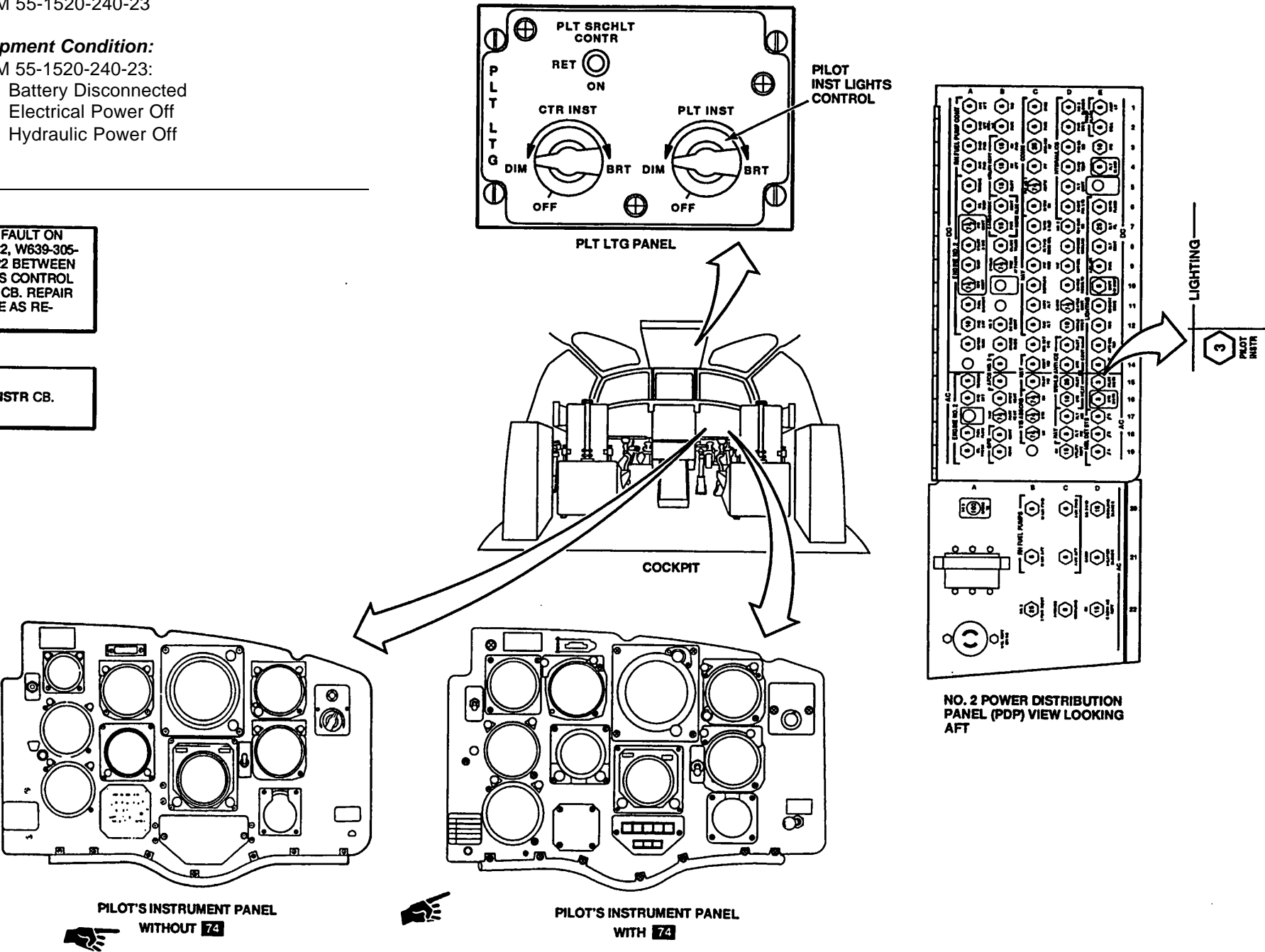
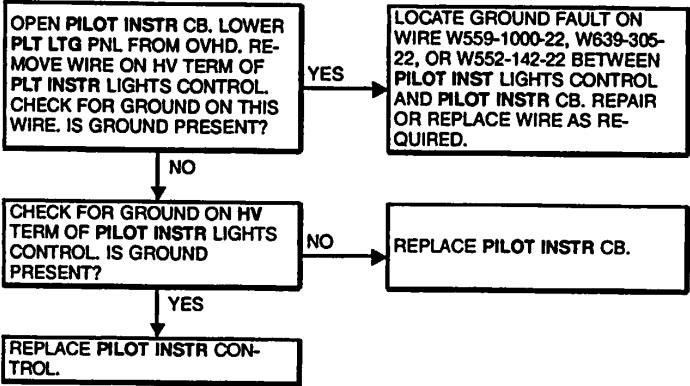
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



9-8.10 PILOT'S FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT

9-8.10

FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
With 17 and 69

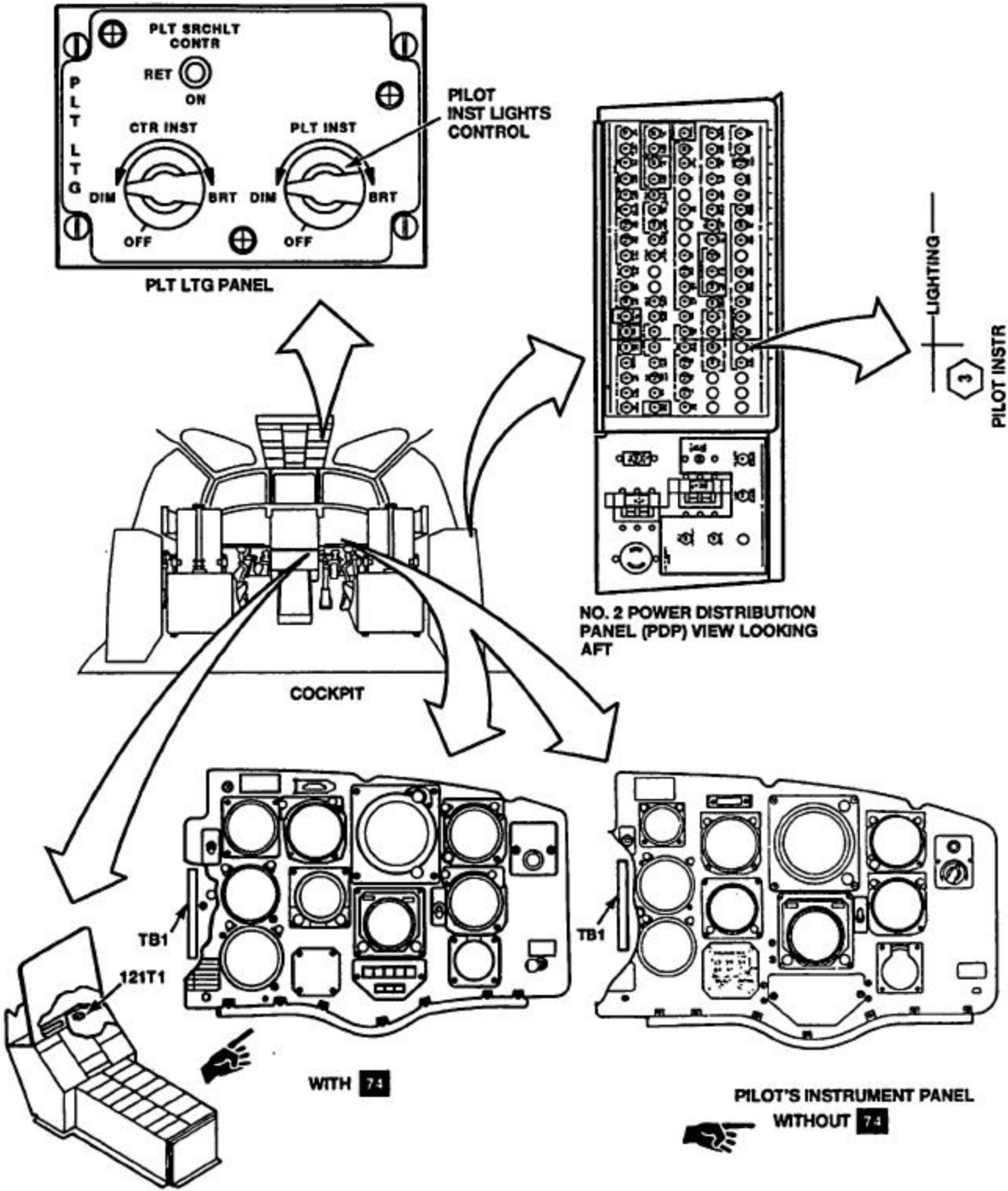
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician

**References:**  
TM 55-1520-240-23

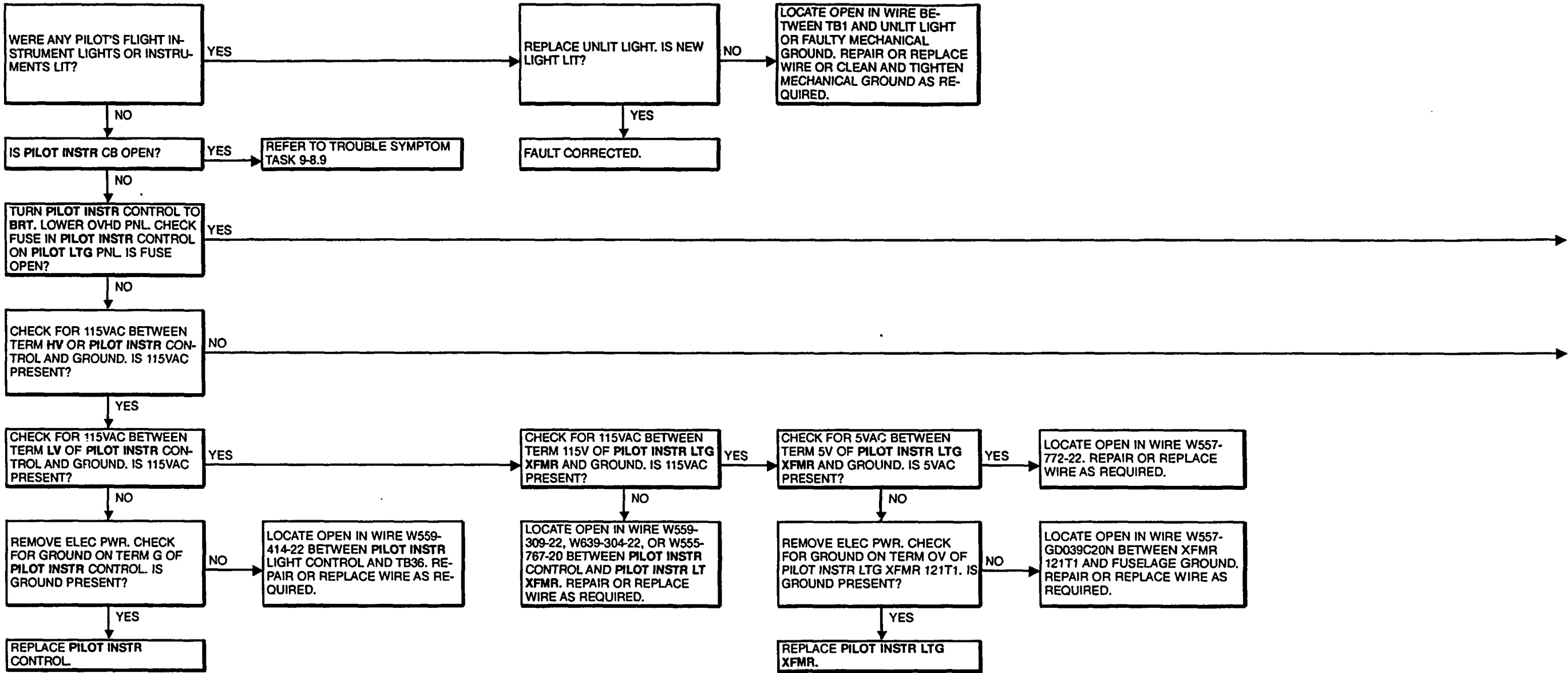
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

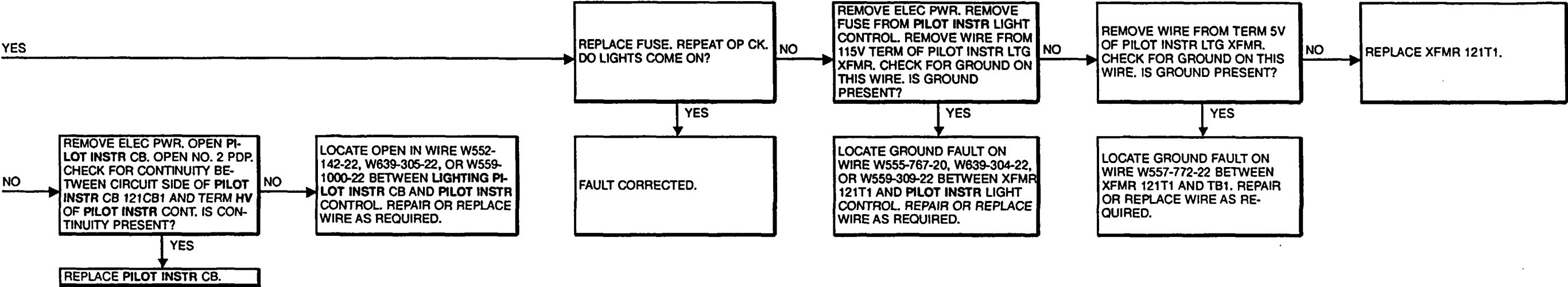


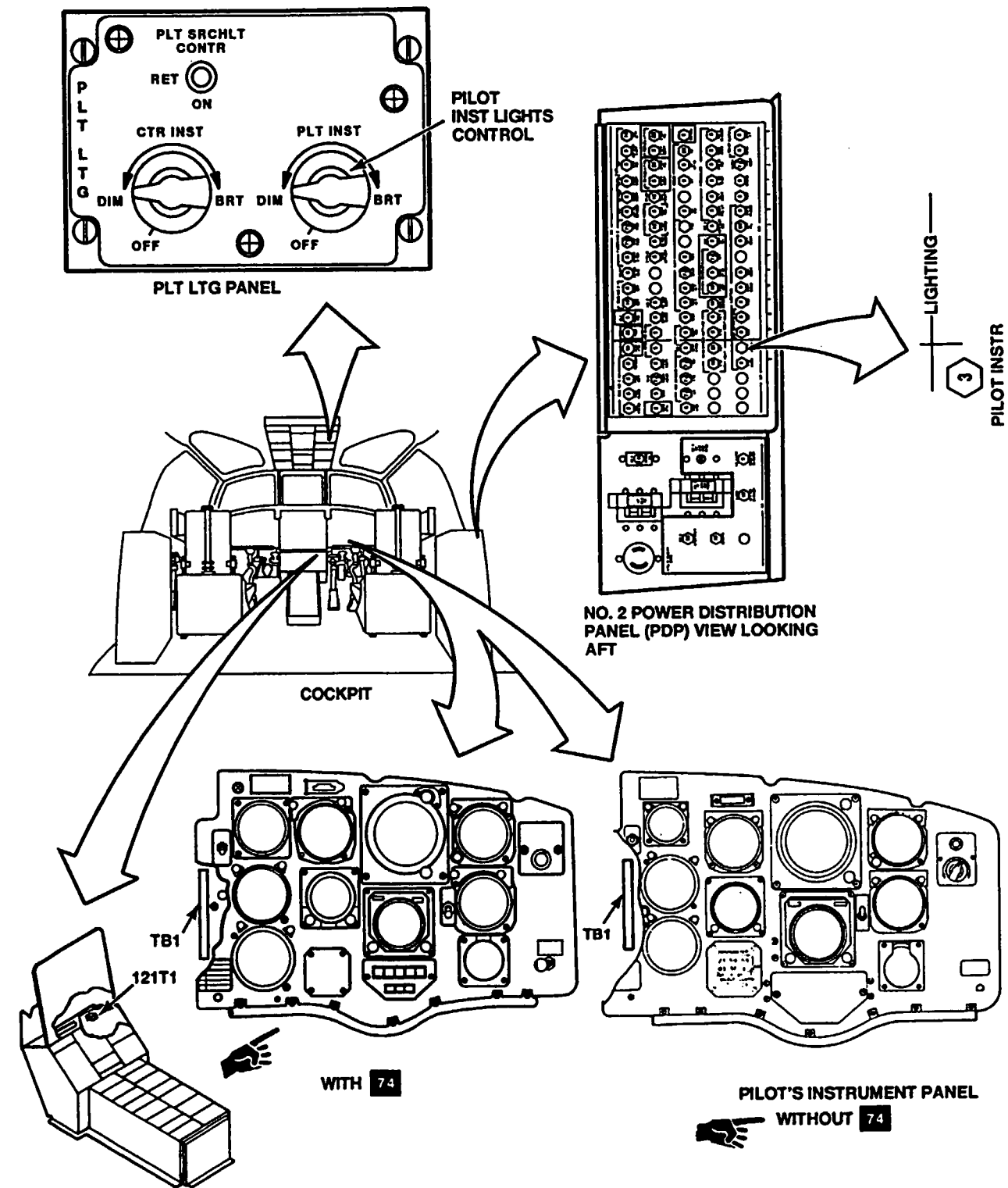
A67641

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Change 19 9-178.5





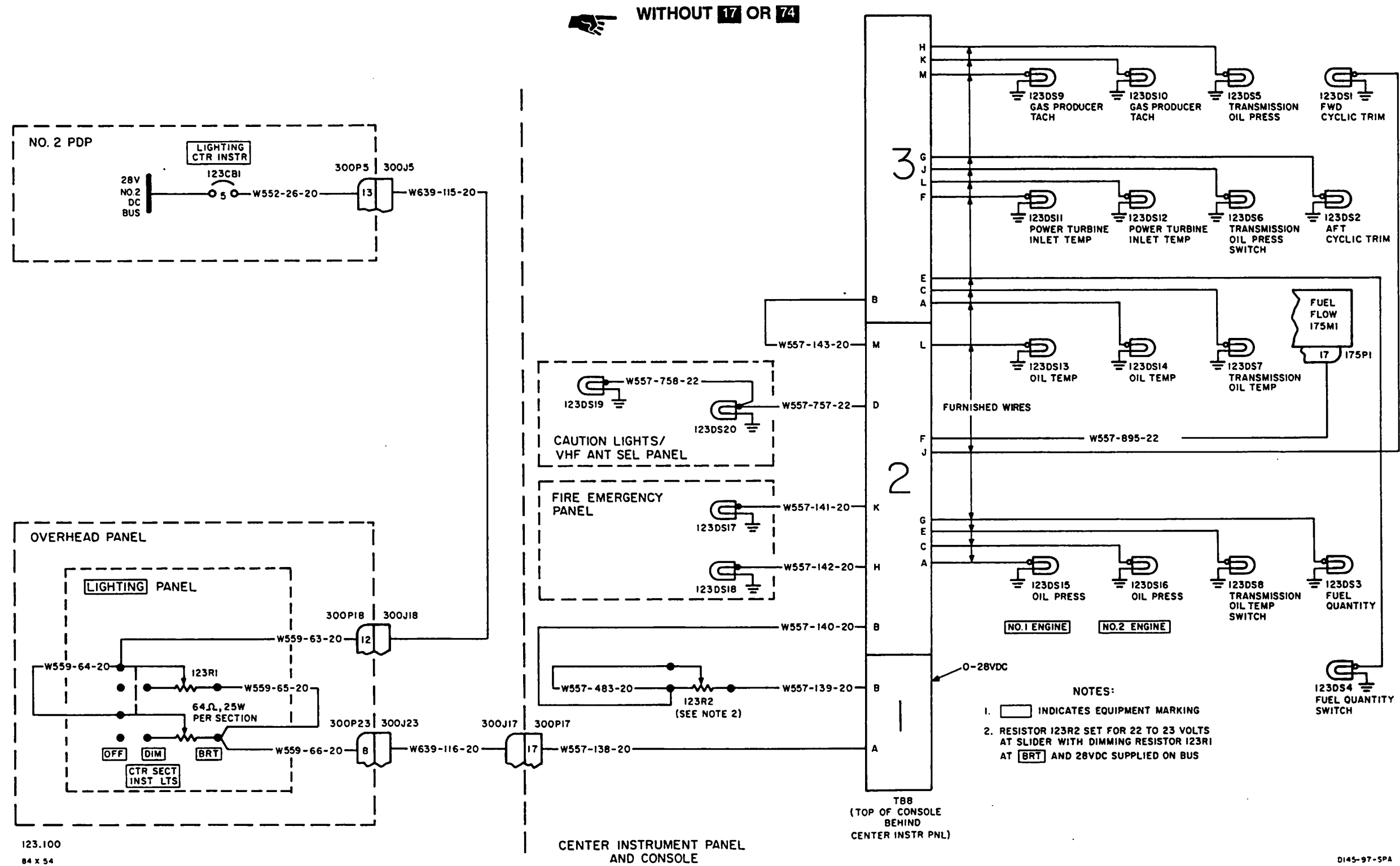


A67641





9-9 CENTER FLIGHT INSTRUMENT PANEL LIGHTS



9-9.2 CENTER FLIGHT INSTRUMENT PANEL LIGHTS VISUAL CHECK

9-9.2

INITIAL SETUP

**Applicable Configurations:**  
Without 17 or 74

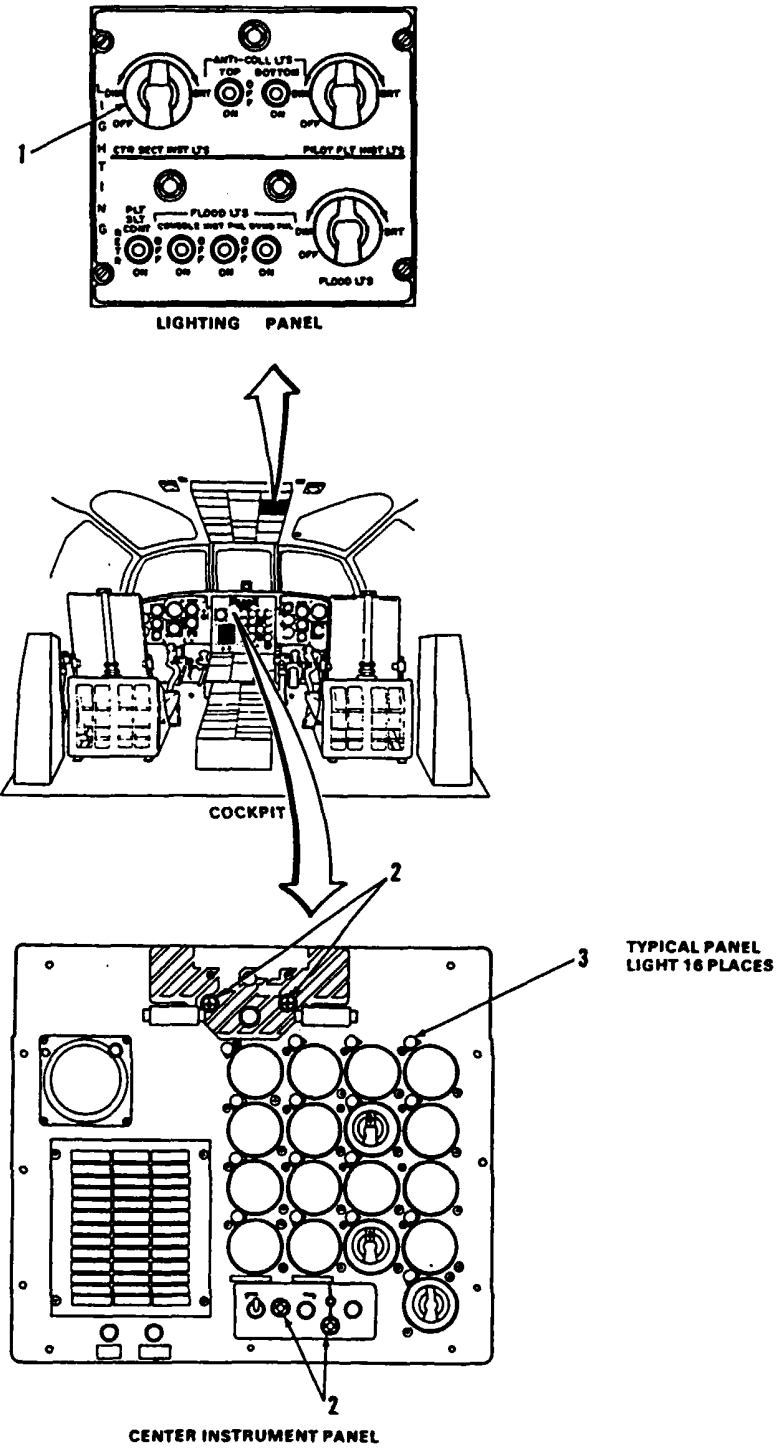
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check CTR SECT INST LTS control (1).	If control (1) is loose or damaged, tighten or replace it as required.
2. Check four panel lights (2).	If any panel light (2) is damaged, replace it.
3. Check 16 panel lights (3).	If any panel light (3) is damaged, replace it.

FOLLOW-ON MAINTENANCE:  
None



9-9.3 CENTER FLIGHT INSTRUMENT PANEL LIGHTS OPERATIONAL CHECK

9-9.3

INITIAL SETUP  
**Applicable Configurations**  
Without 17 or 74

**Tools**  
None

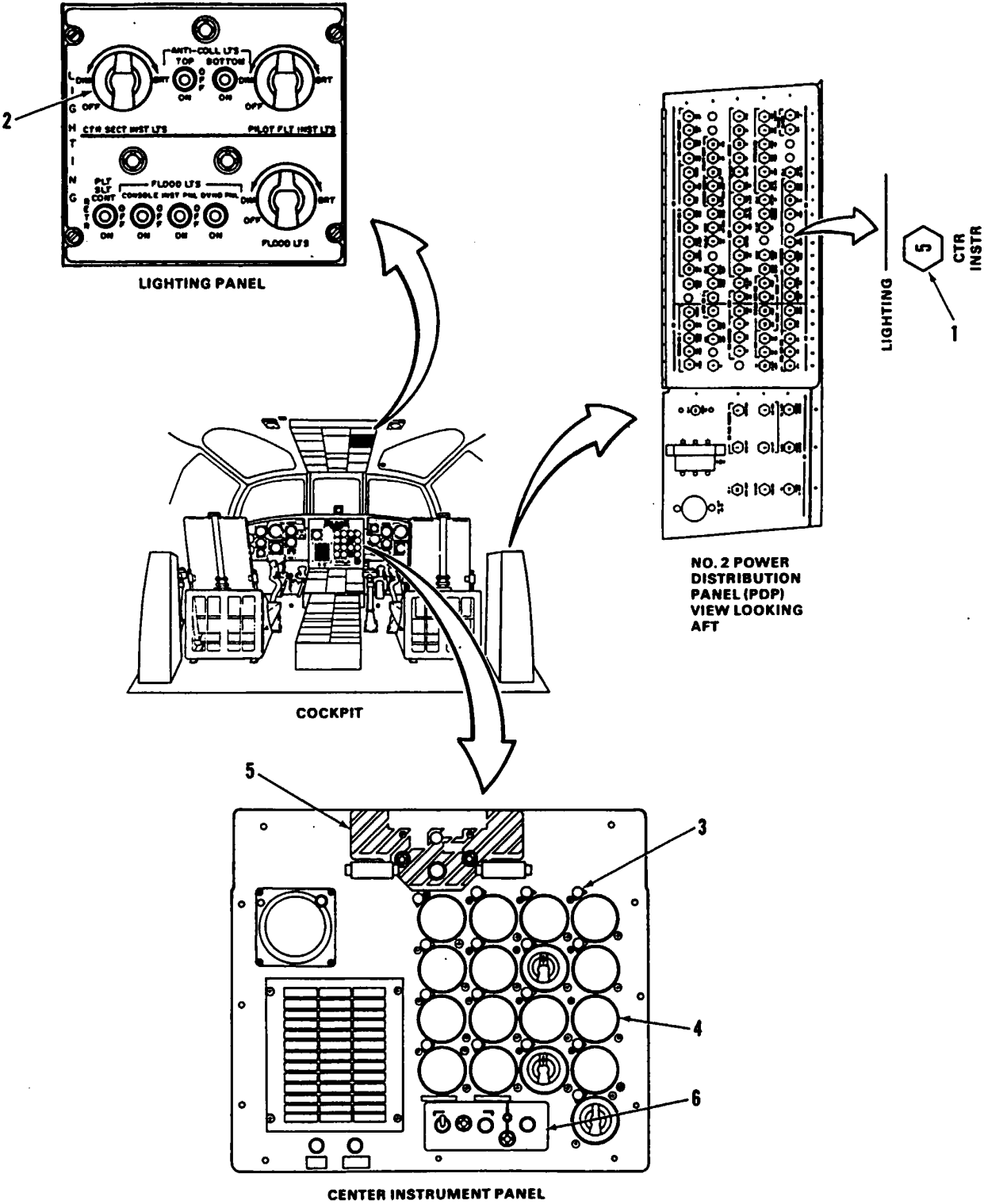
**Materials**  
None

**Personnel Required:**  
  
Aircraft Electrician

**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Center Flight Instrument Panel Lights Visual  
Check  
Performed (Task 9-9.2)

TASK	RESULT
1. Check that LIGHTING CTR INSTR circuit breaker (1) is closed.	If CTR INSTR circuit breaker (1) is open, close it. If it opens again, go to task 9-9.4.
2. Turn CTR INST lights control (2) from OFF through DIM to BRT.	All 16 instrument panel lights (3), fuel flow indicator (4) internal lights, fire emergency panel (5) lights, and caution lights/vhf antenna select panel (6) lights shall come on dim and increase in brightness as control (2) is turned to BRT. If any light is not lit, go to task 9-9.5. If brightness does not increase, replace CTR SECT INST LTS control.
3. Turn CTR SECT INST LTS control (2) to OFF.	All center flight instrument panel lights shall go out. If not, replace CTR SECT INST LTS control.

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off



45X54

D145-4166-SPA

9-9.4 CTR INSTR CIRCUIT BREAKER DOES NOT STAY CLOSED

9-9.4

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

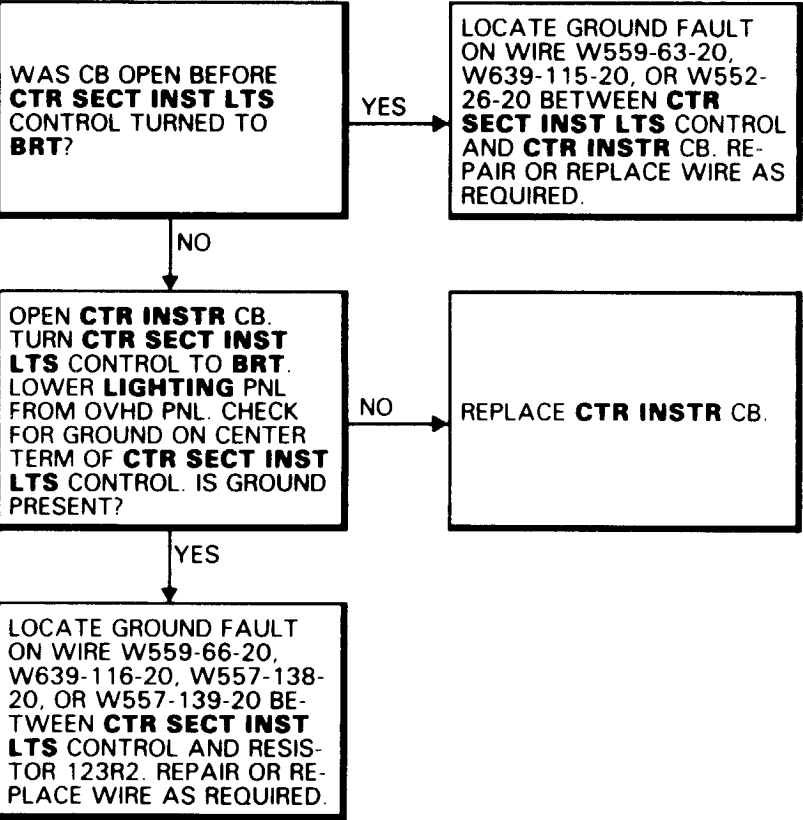
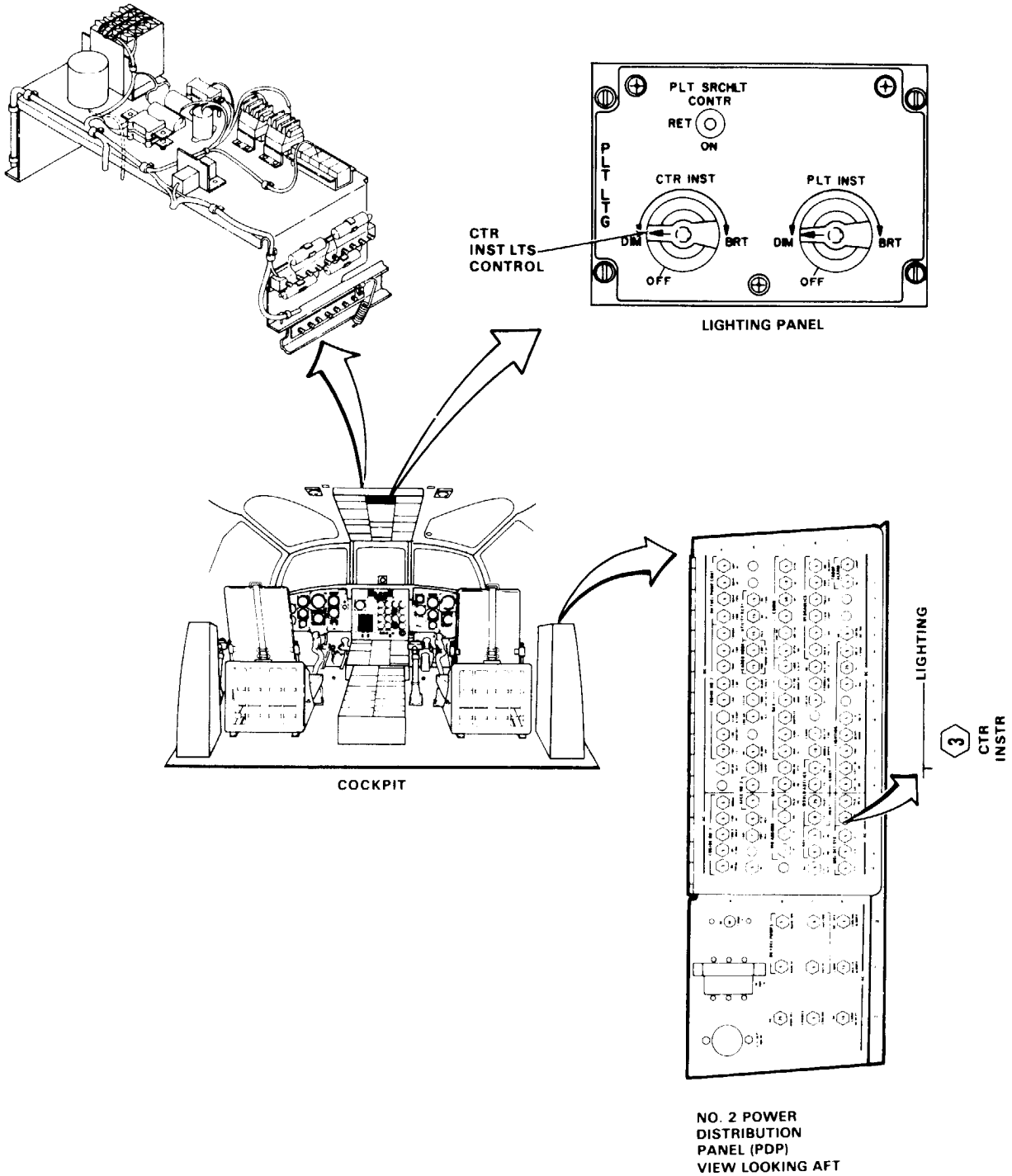
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

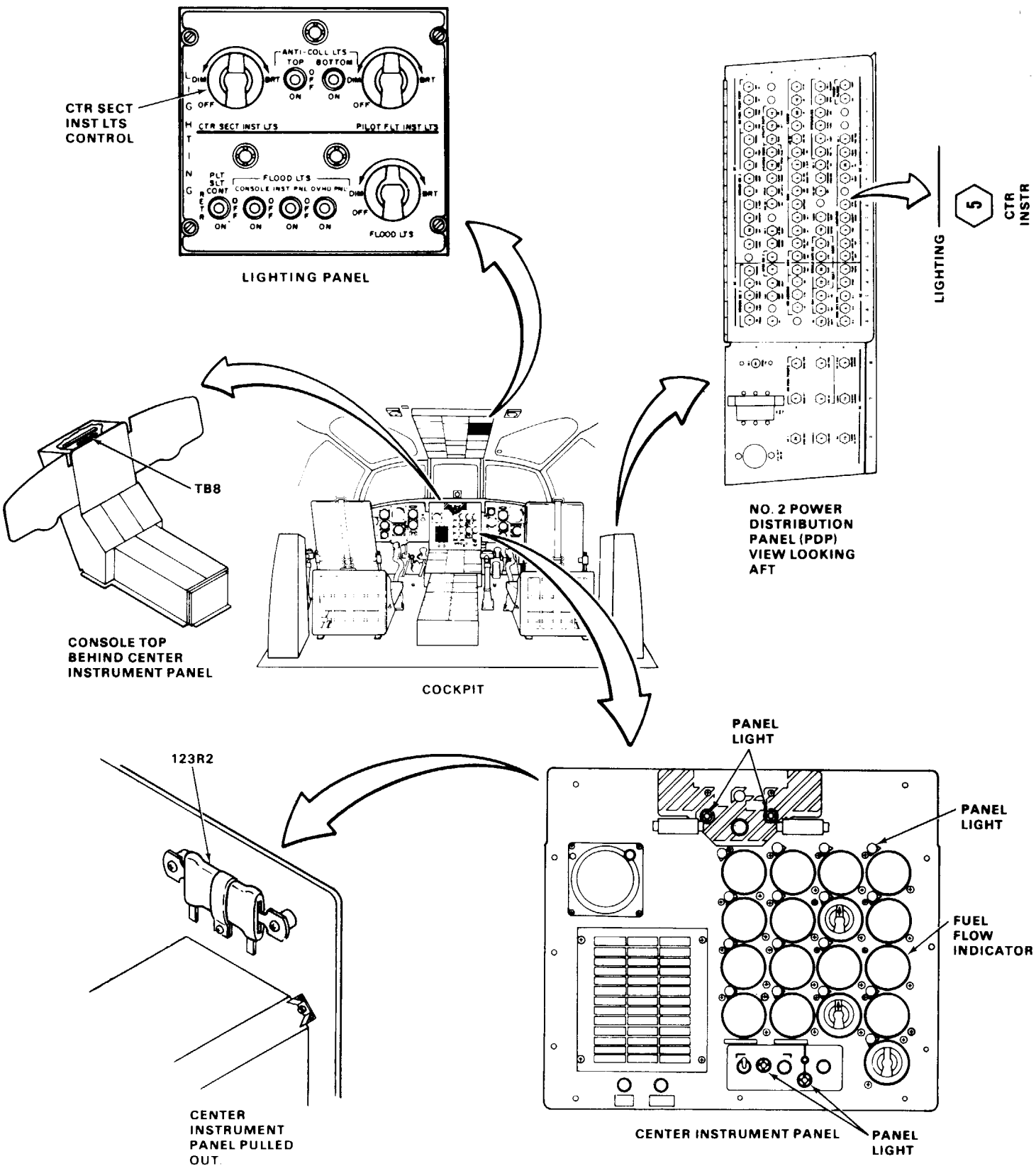
Materials:

None

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

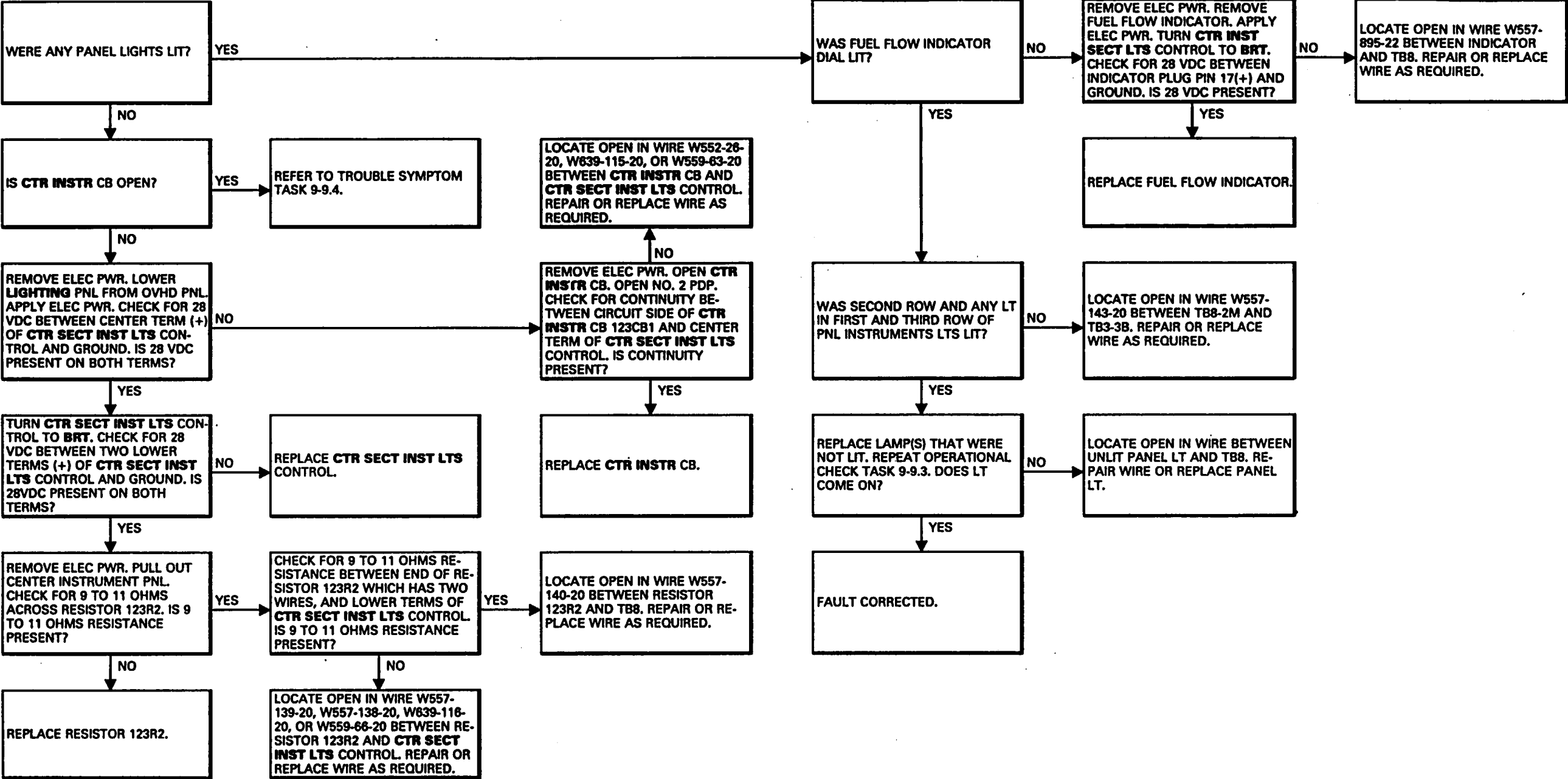
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



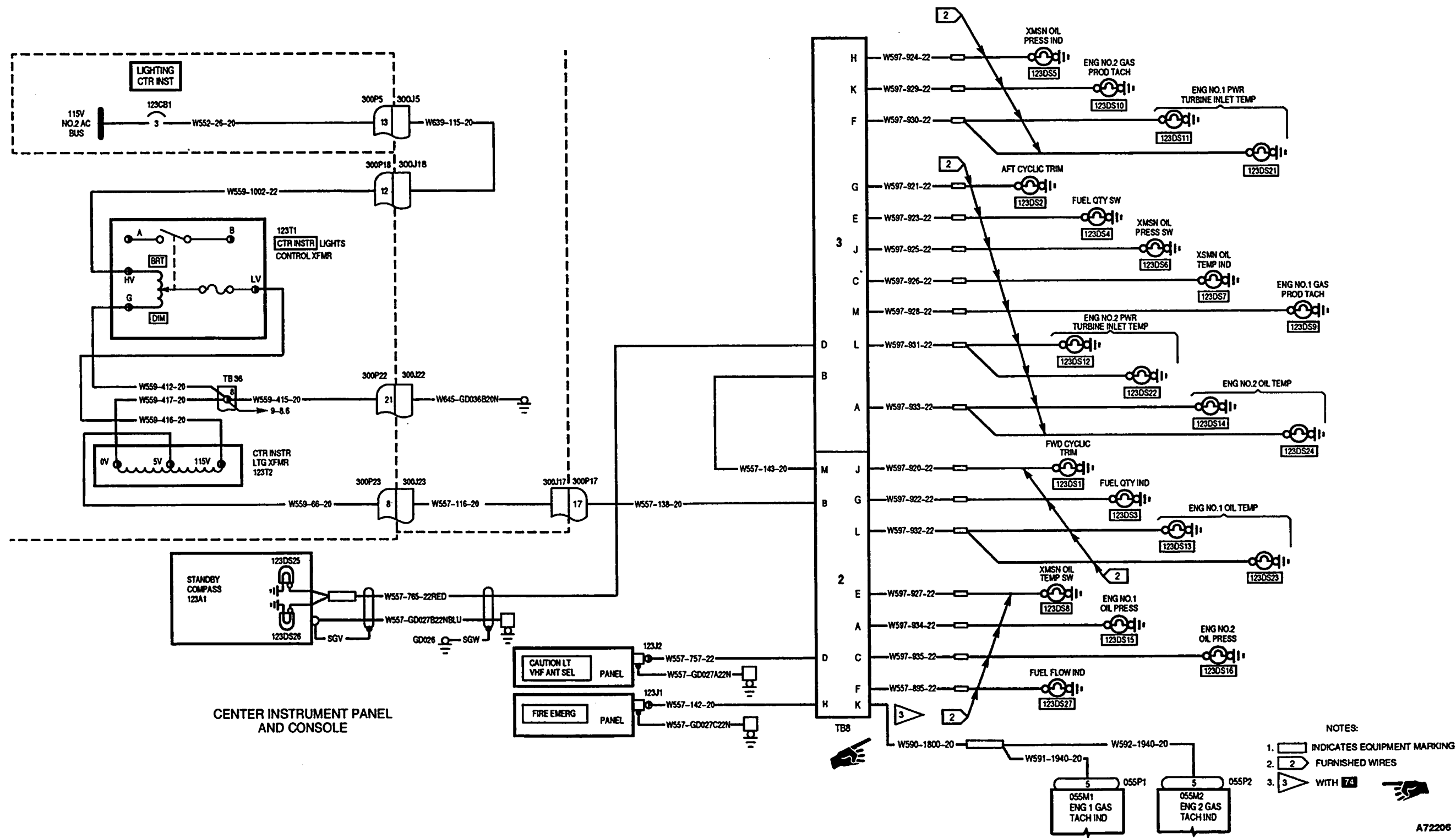
45X54

D145 - 4168 - SPA

GO TO NEXT PAGE



WITH 17 AND 74

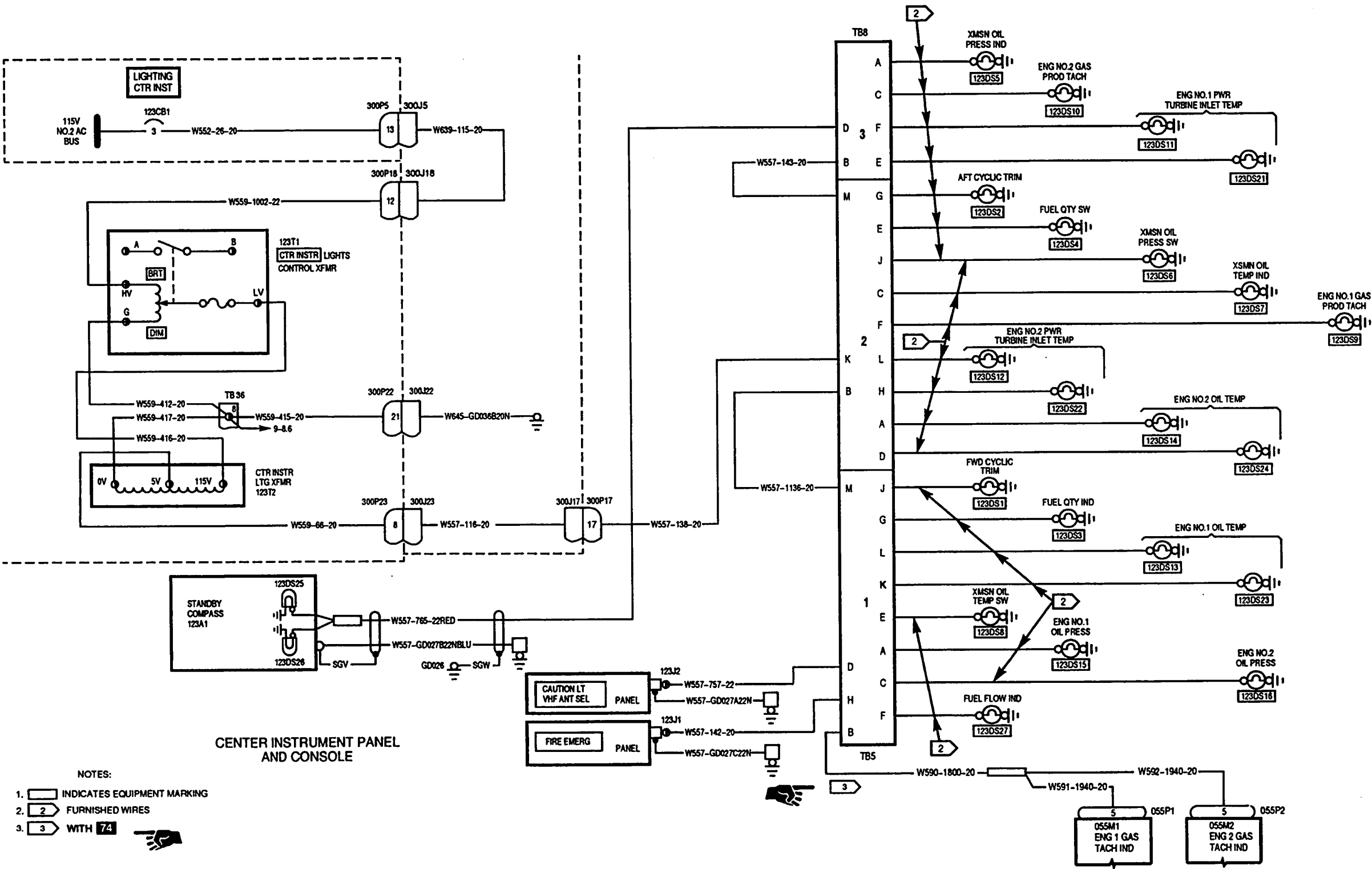




9-9.6.1 CENTER FLIGHT INSTRUMENT PANEL LIGHTS WIRING DIAGRAM (M3386 AND SUBSEQUENT)

9-9.6.1

WITH 17 AND 74



- NOTES:
1. INDICATES EQUIPMENT MARKING
  2. FURNISHED WIRES
  3. WITH 74



9-9.7 CENTER FLIGHT INSTRUMENT PANEL LIGHTS VISUAL CHECK

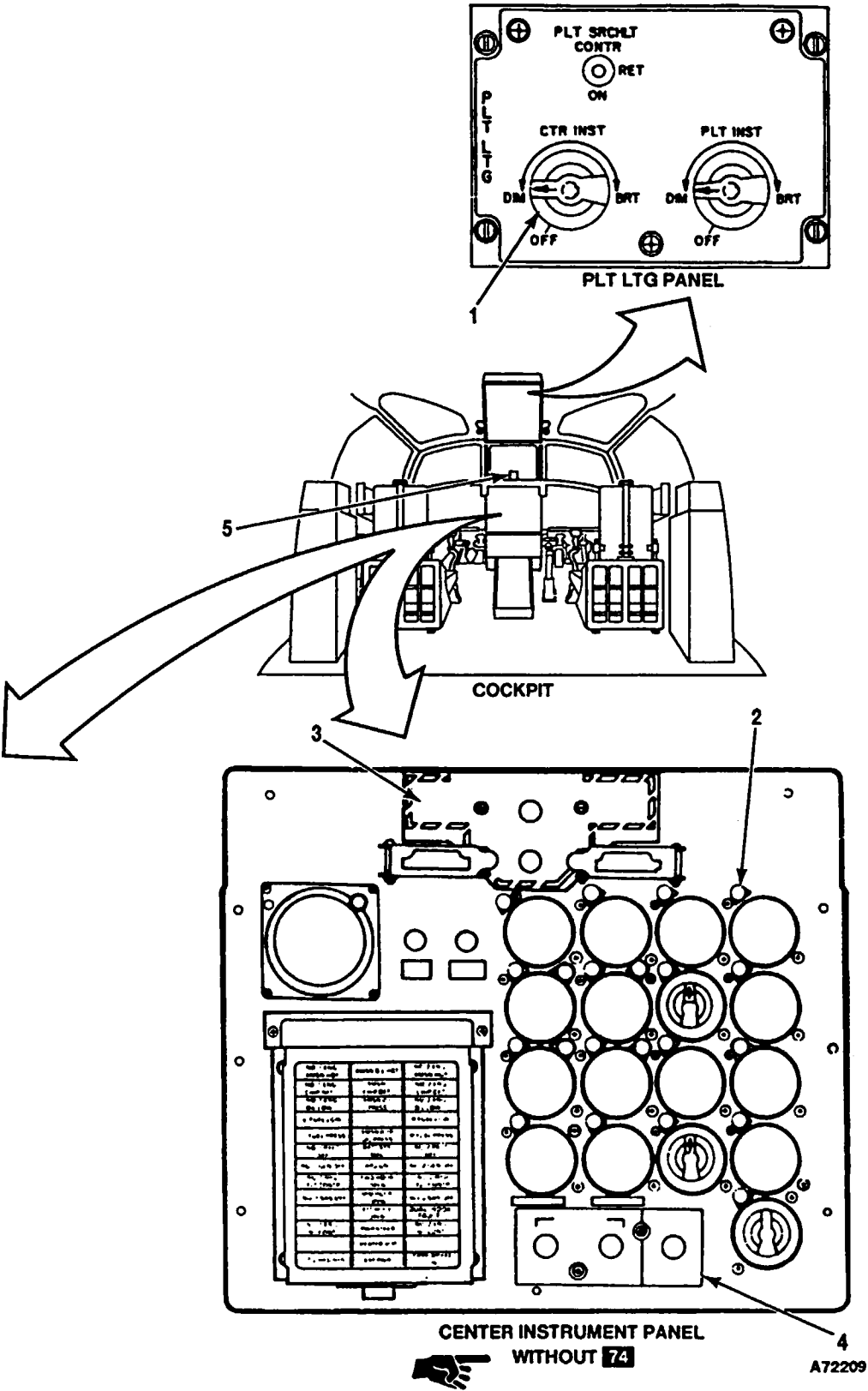
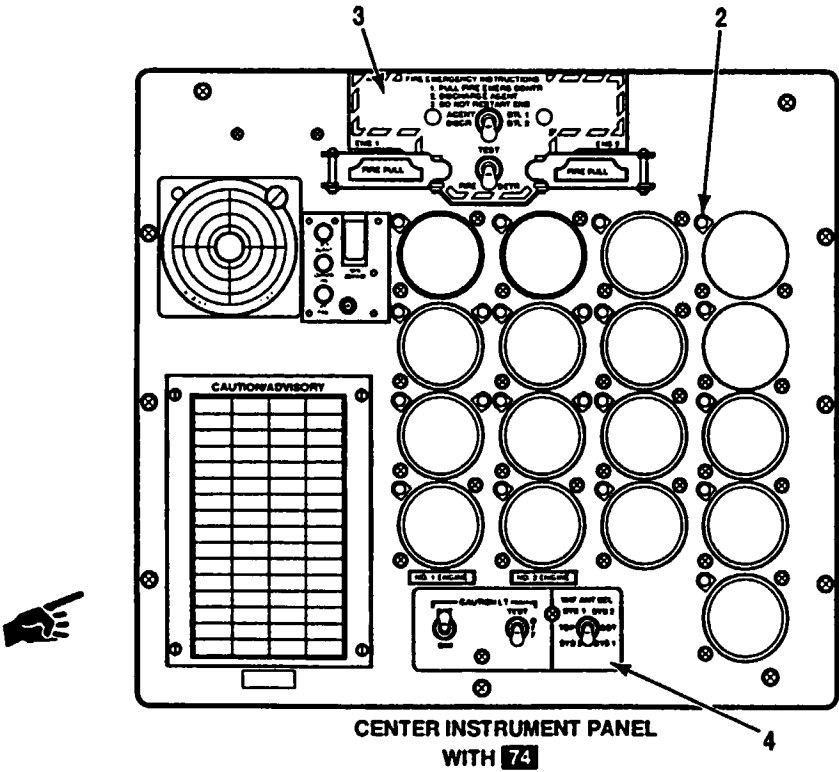
9-9.7

INITIAL SETUP  
**Applicable Configurations**  
With 17  
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
**Materials**  
None  
**Personnel Required:**  
Aircraft Electrician

**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check CRT INST lights control (1).	If control (1) is loose or damaged, tighten or replace it as required.
2. Check panel lights (2).	<div>NOTE</div> <div>There are 17 panel lights on helicopters up to 85-24330. Beginning with 85-24331, there are 21 panel lights (Without 74 ). There are 20 panel lights (With 74 ).</div>
3. Check FIRE EMERG panel (3) and CAUTION LT VHF ANT SEL panel (4).	If either panel is damaged, replace it.
4. Check lights on standby compass (5).	If either light is damaged, replace it.

FOLLOW-ON MAINTENANCE:  
None



9-9.8 CENTER FLIGHT INSTRUMENT PANEL LIGHTS OPERATIONAL CHECK

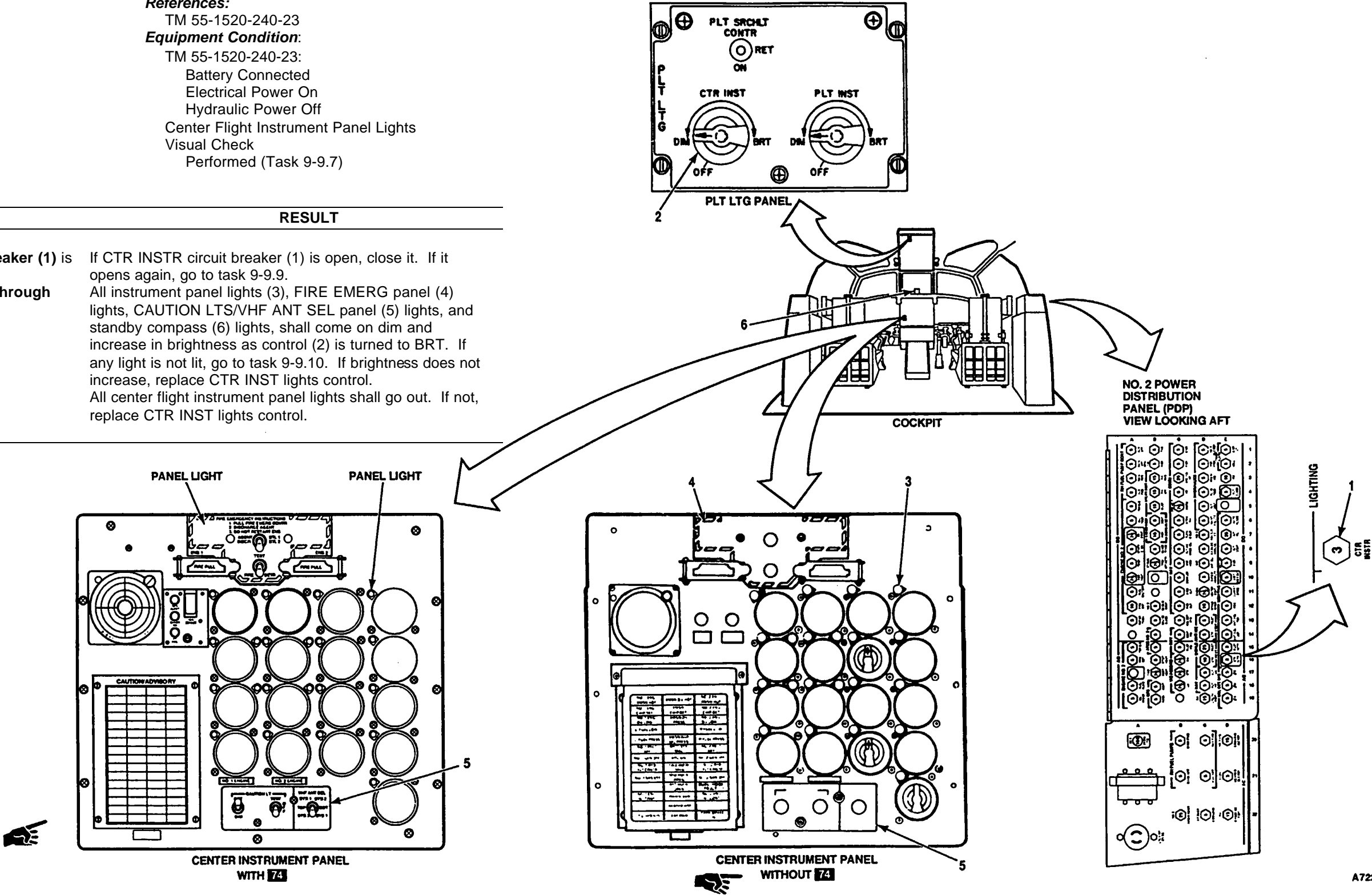
9-9.8

INITIAL SETUP  
**Applicable Configurations**  
With 17  
**Tools**  
None  
**Materials:**  
None  
**Personnel Required:**  
  
Aircraft Electrician

**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Center Flight Instrument Panel Lights  
Visual Check  
Performed (Task 9-9.7)

TASK	RESULT
1. Check that LIGHTING CTR INSTR circuit breaker (1) is closed.	If CTR INSTR circuit breaker (1) is open, close it. If it opens again, go to task 9-9.9.
2. Turn CTR INST lights control (2) from OFF through DIM to BRT.	All instrument panel lights (3), FIRE EMERG panel (4) lights, CAUTION LTS/VHF ANT SEL panel (5) lights, and standby compass (6) lights, shall come on dim and increase in brightness as control (2) is turned to BRT. If any light is not lit, go to task 9-9.10. If brightness does not increase, replace CTR INST lights control.
3. Turn CTR INST lights control (2) to OFF.	All center flight instrument panel lights shall go out. If not, replace CTR INST lights control.

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off



A72206

END OF TASK

9-9.9 CTR INSTR CIRCUIT BREAKER DOES NOT STAY CLOSED

9-9.9

FAULT ISOLATION PROCEDURE  
INITIAL SETUP

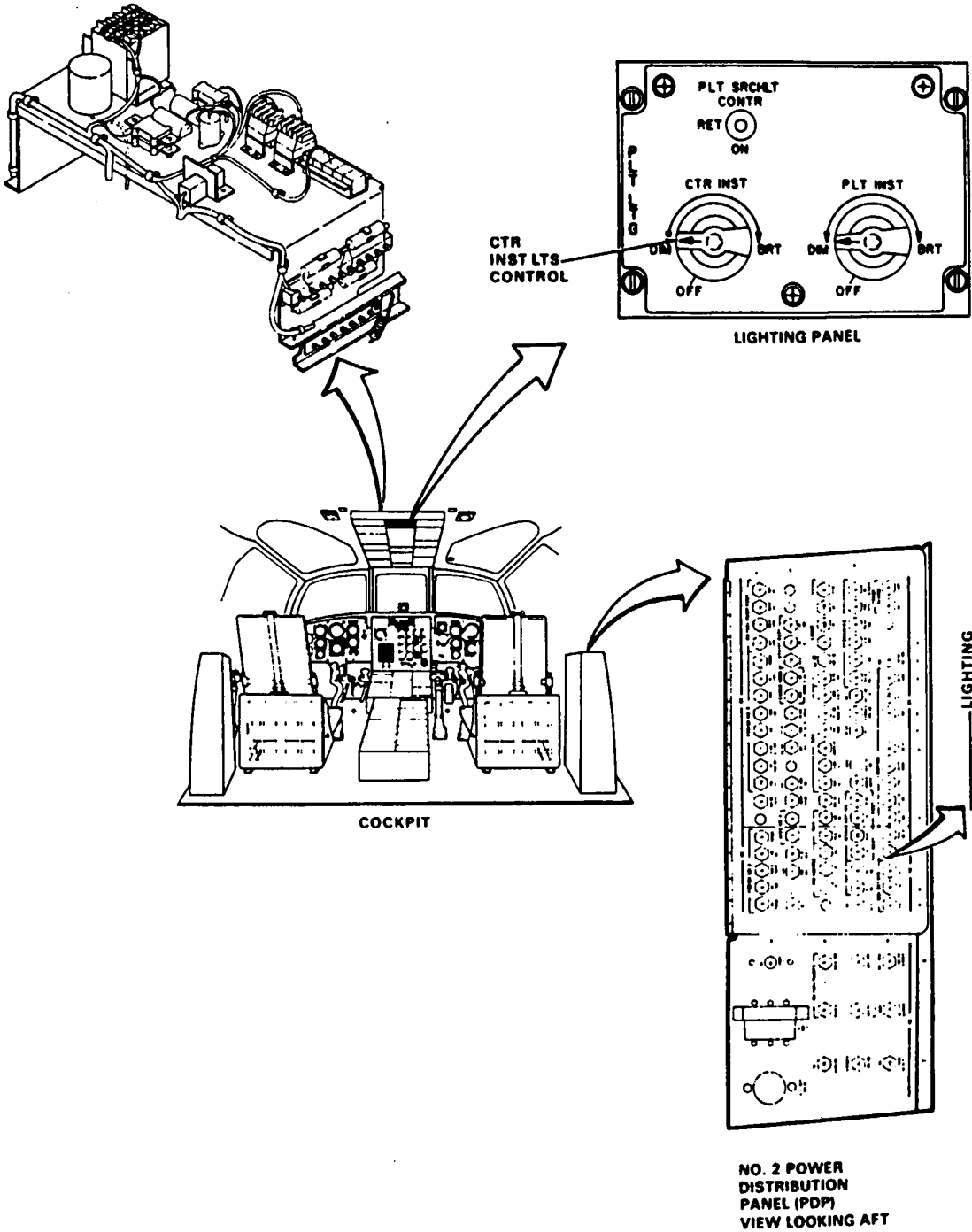
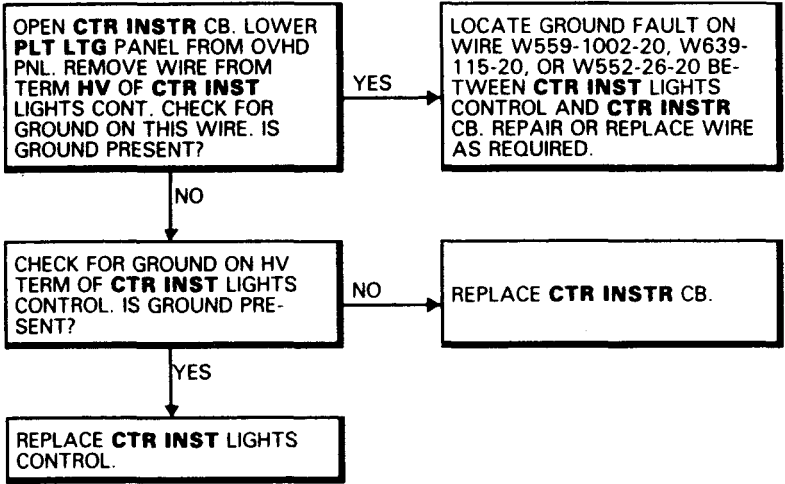
Applicable Configurations  
With 17

Tools  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

References  
TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



9-9.10 CENTER FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT

9-9.10

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

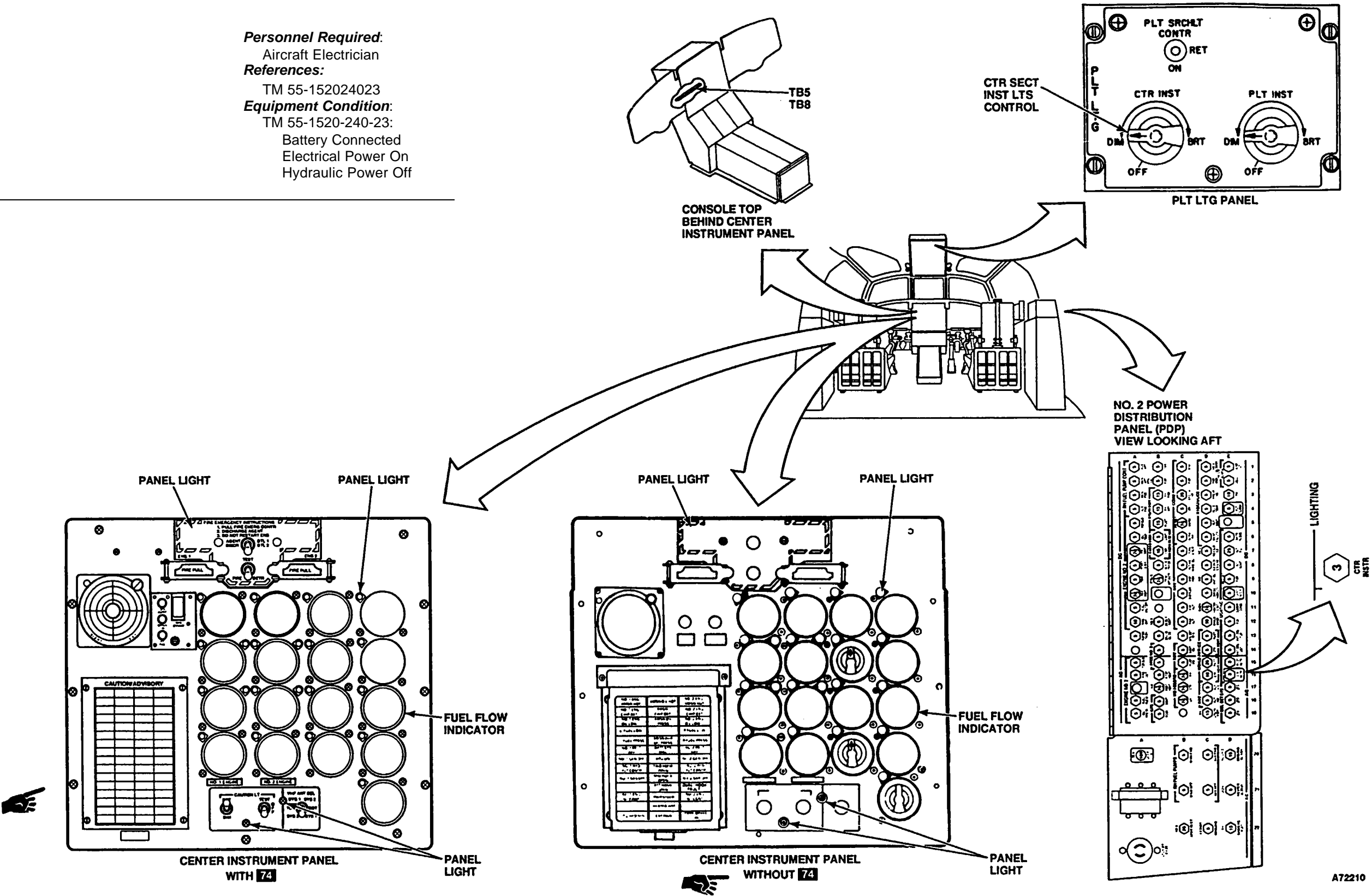
References:

TM 55-152024023

Equipment Condition:

TM 55-1520-240-23:

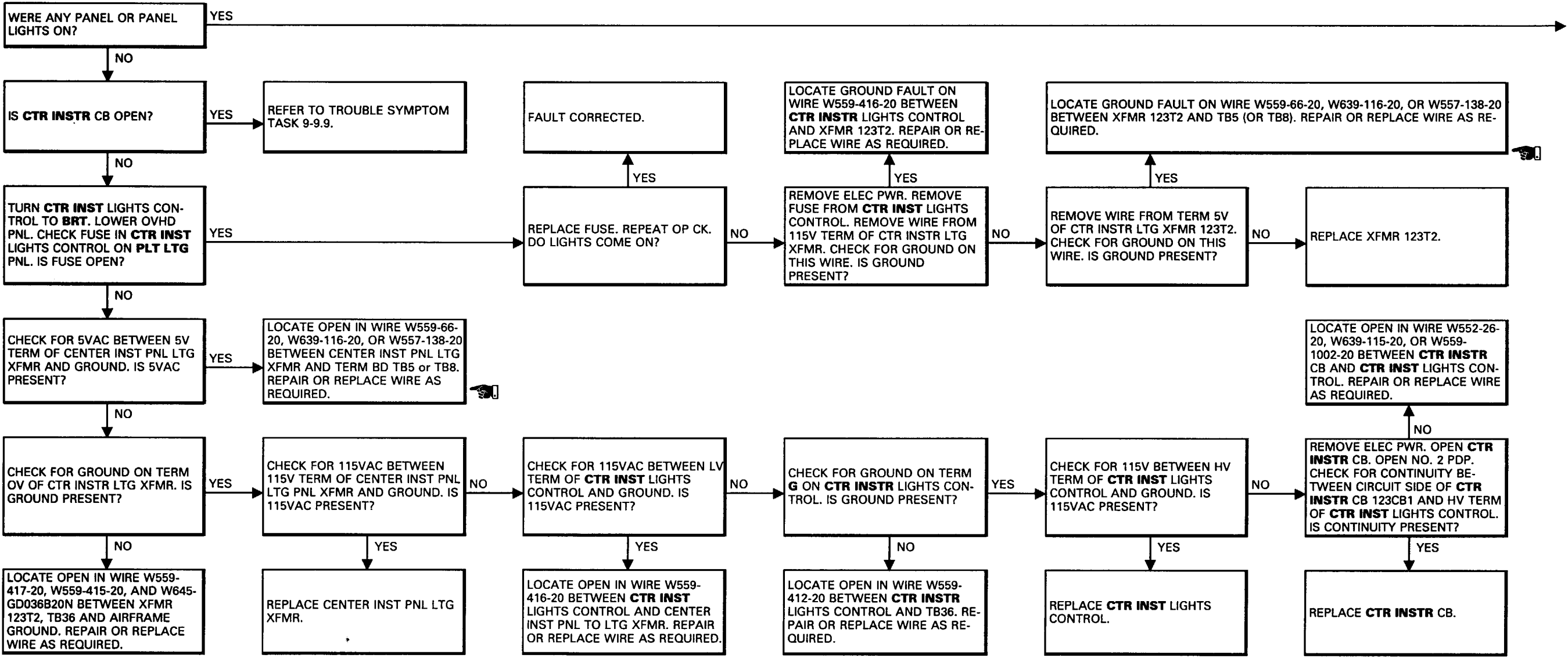
Battery Connected  
Electrical Power On  
Hydraulic Power Off

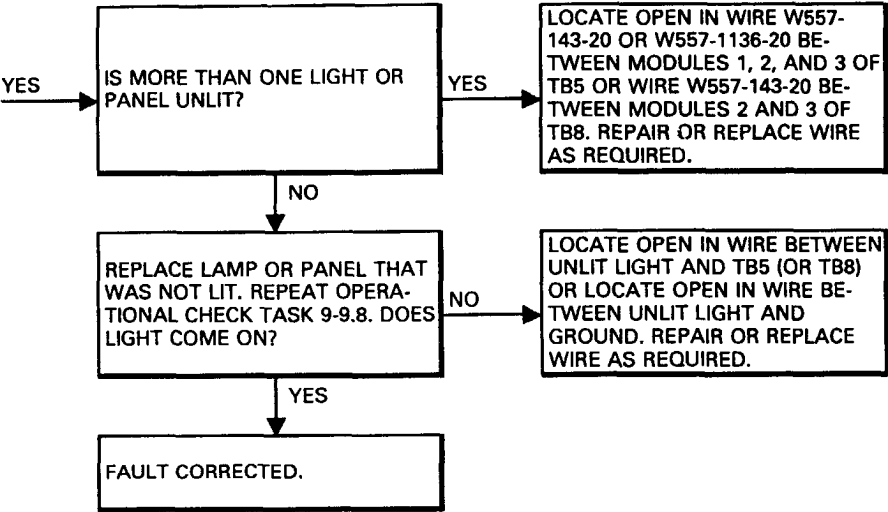


A72210

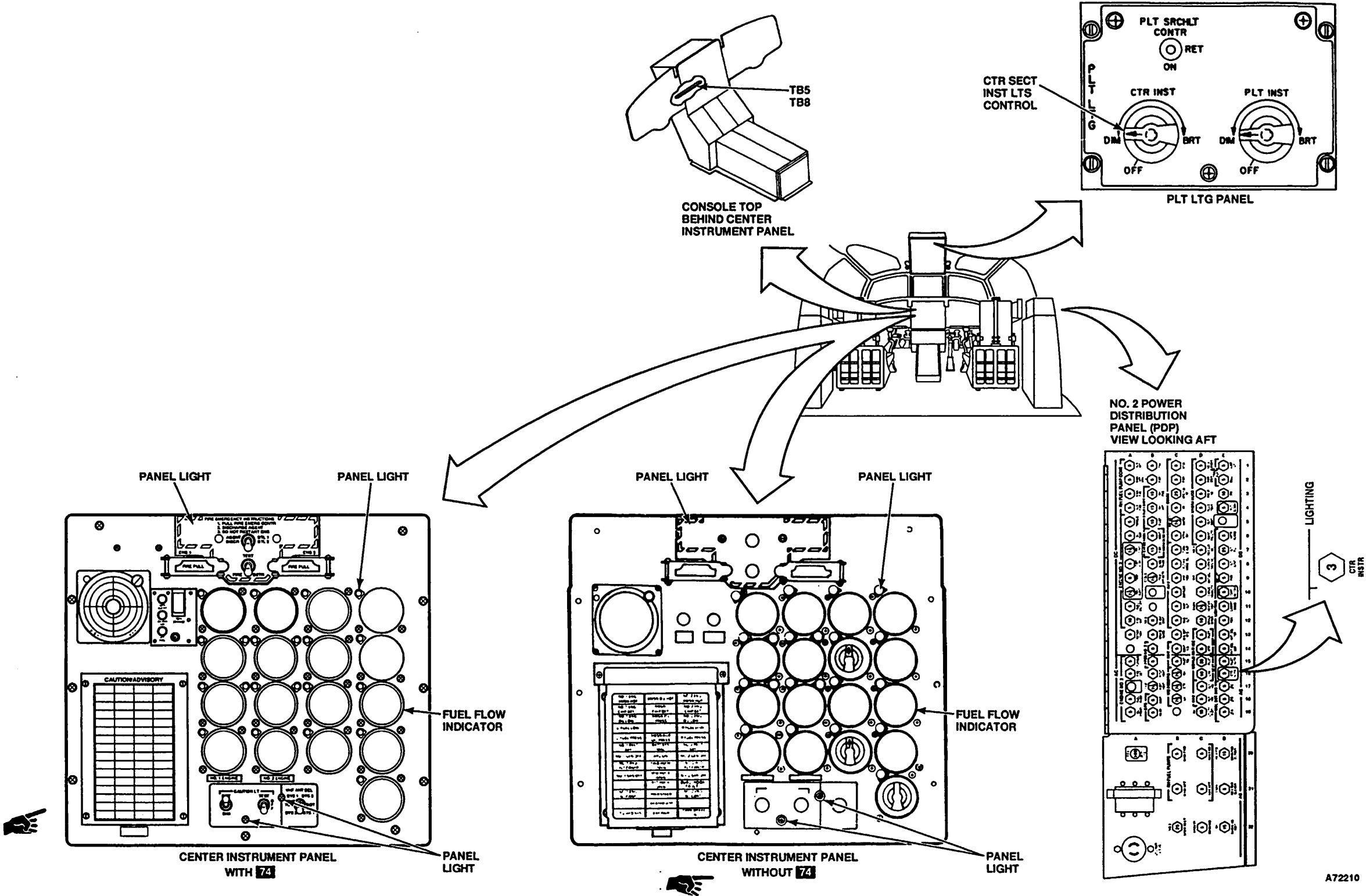
9-9.10 CENTER FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT (Continued)

9-9.10





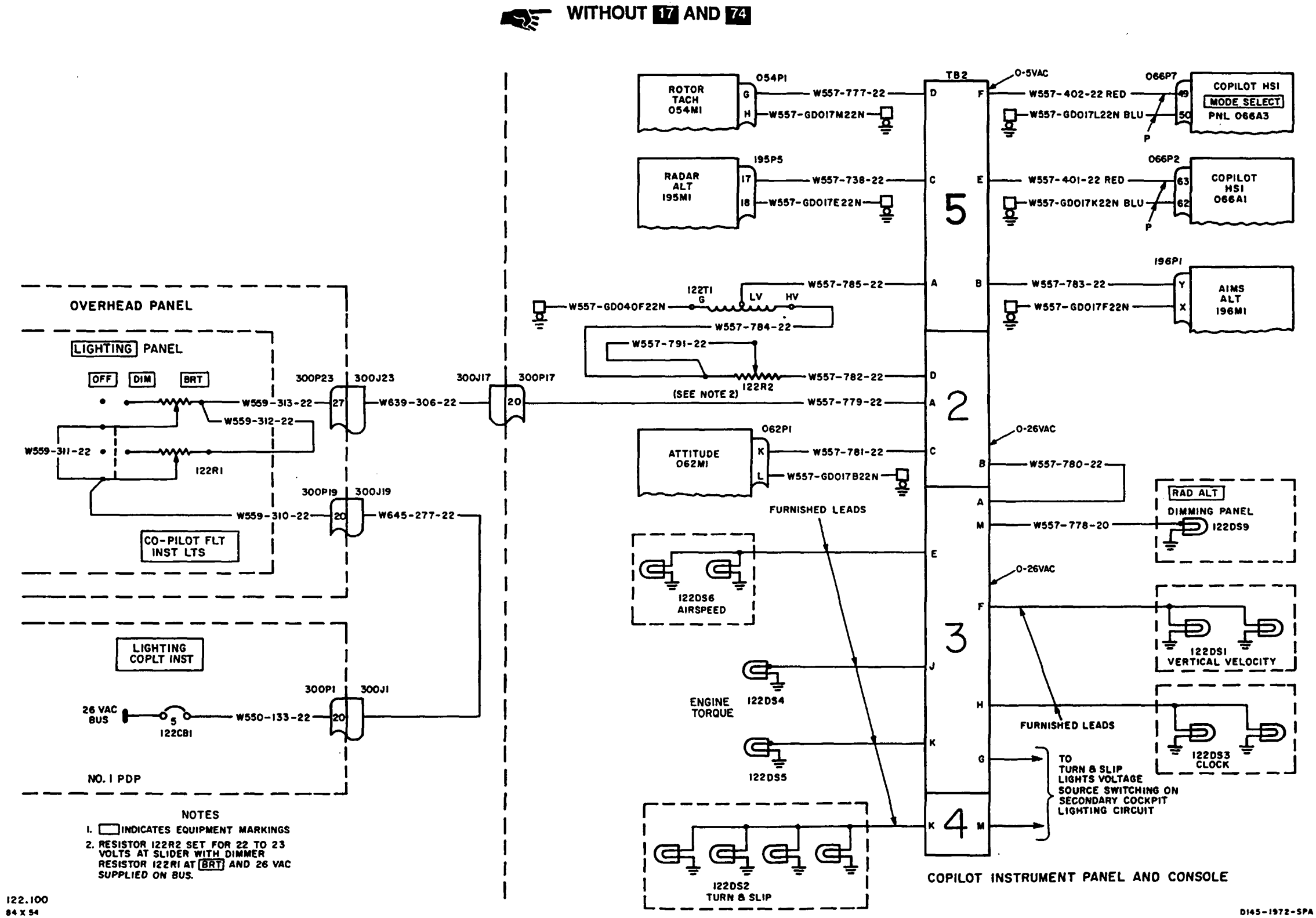




A72210



9-10 COPILOT FLIGHT INSTRUMENT PANEL LIGHTS



INITIAL SETUP

**Applicable Configurations:**  
Without 17 or 74

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-3234915

**Materials:**  
None

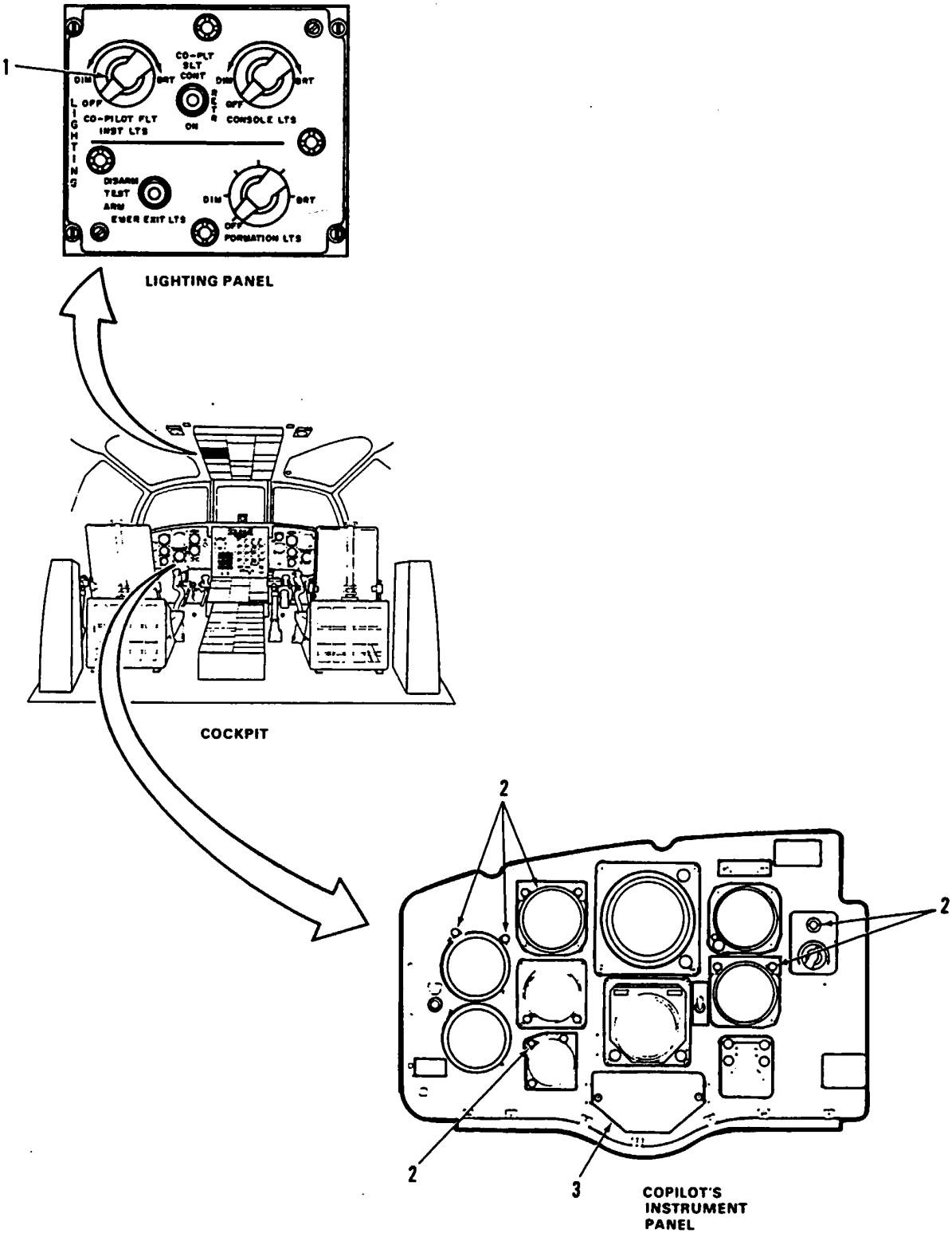
**Personnel Required:**  
Aircraft Electrician

**References:**  
TM 55-1520-24023

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK		RESULT
1.	Check CO-PILOT FLT INST LTS control (1).	If control (1) is loose or damaged, tighten or replace it as required.
2.	Check six panel lights (2).	If any panel light (2) is damaged, replace it.
3.	Check HSI MODE SELECT panel (3).	If panel (3) is damaged, replace it.

FOLLOW-ON MAINTENANCE:  
None

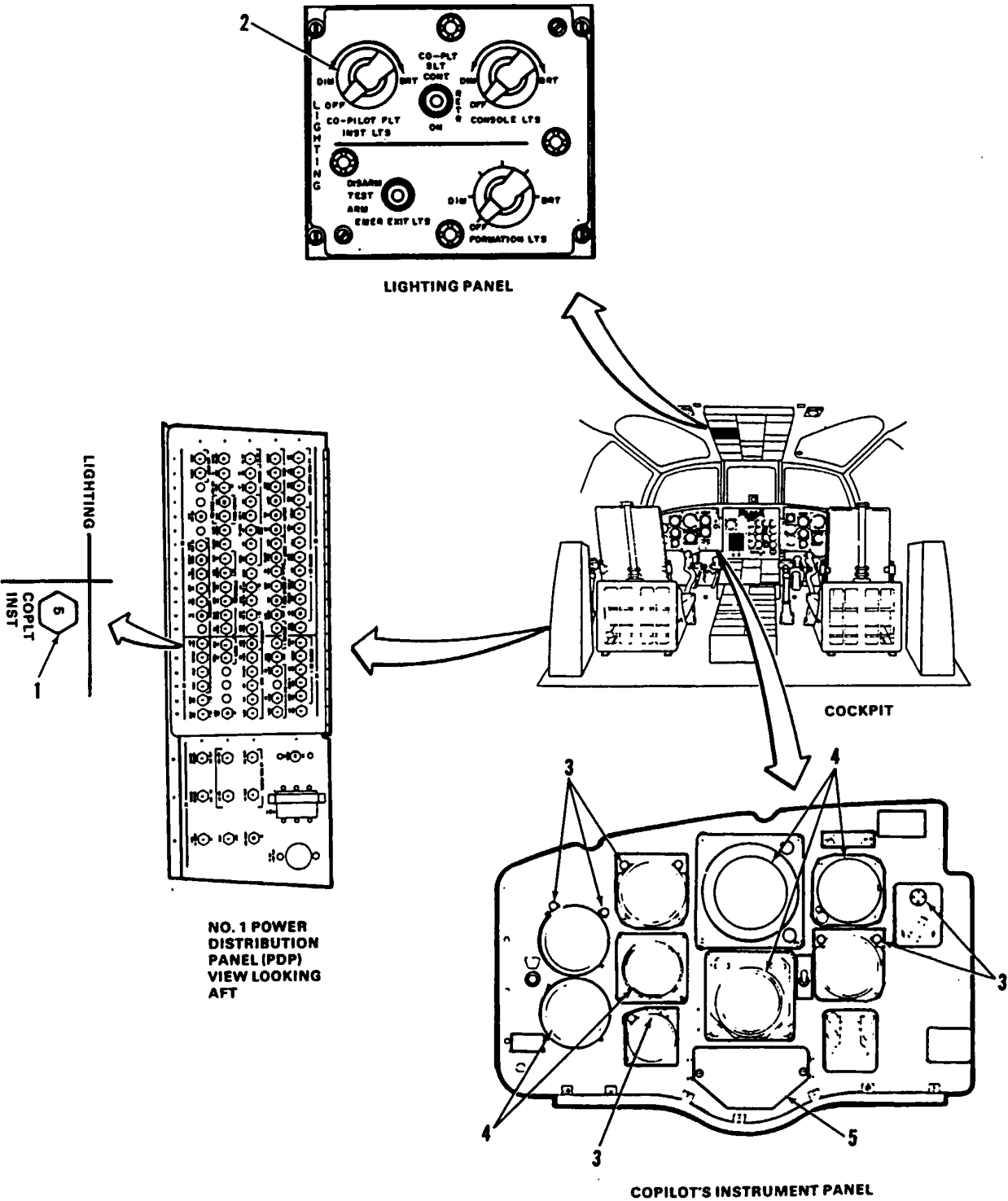


INITIAL SETUP  
**Applicable Configurations:**  
Without 17 or 74  
**Tools:**  
None  
**Materials:**  
None  
**Personnel Required:**  
Aircraft Electrician

**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Copilots Flight Instrument Panel Lights, Visual  
Check Performed (Task 9-10.2)

TASK	RESULT
1. Check that LIGHTING COPLT INSTR circuit breaker (1) is closed.	If COPLT INSTR circuit breaker (1) is open, close it. If it opens again, go to task 9-10.4.
2. Turn CO-PILOT FLT INST LTS control (2) from OFF through DIM to BRT.	Following lights shall come on and increase in brightness as control (2) is rotated to BRT: a. Panel lights (3) b. Internal lights in five indicators (4). c. Panel lights and switch captions VOR, DOP, FM, and CMD on HSI MODE SELECT panel (5). If any light is not lit, go to task 9-10.5. If lights do not increase in brightness, replace CO-PILOT FLT INST LTS control.
3. Turn CO-PILOT FLT INST LTS control (2) to OFF.	All copilot's instrument panel lights shall go out If not, replace CO-PILOT FLT INST LTS control (2).

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Electrical power off.  
Battery disconnected.



D45-4224-SPA



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17 or 74

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

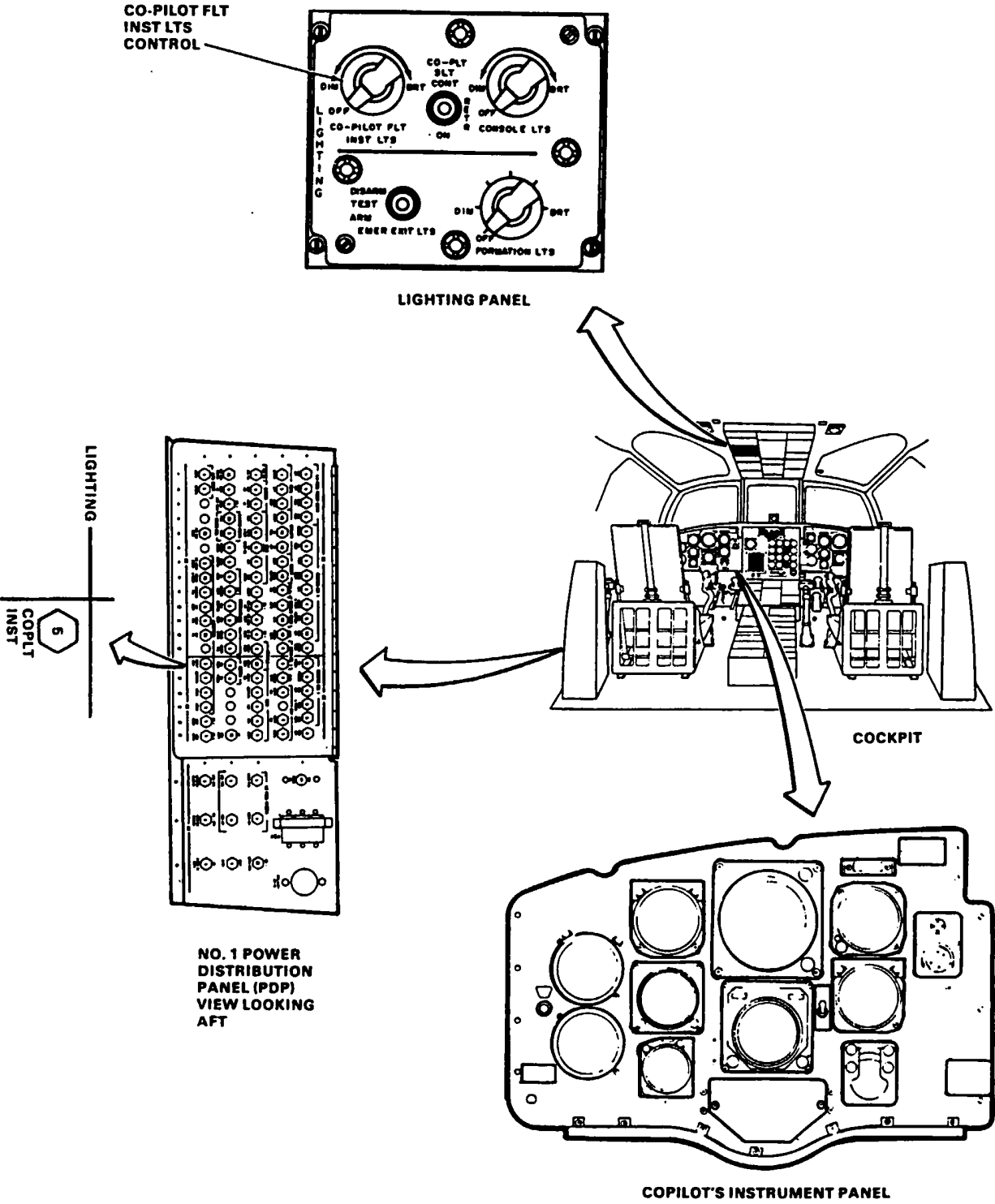
Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

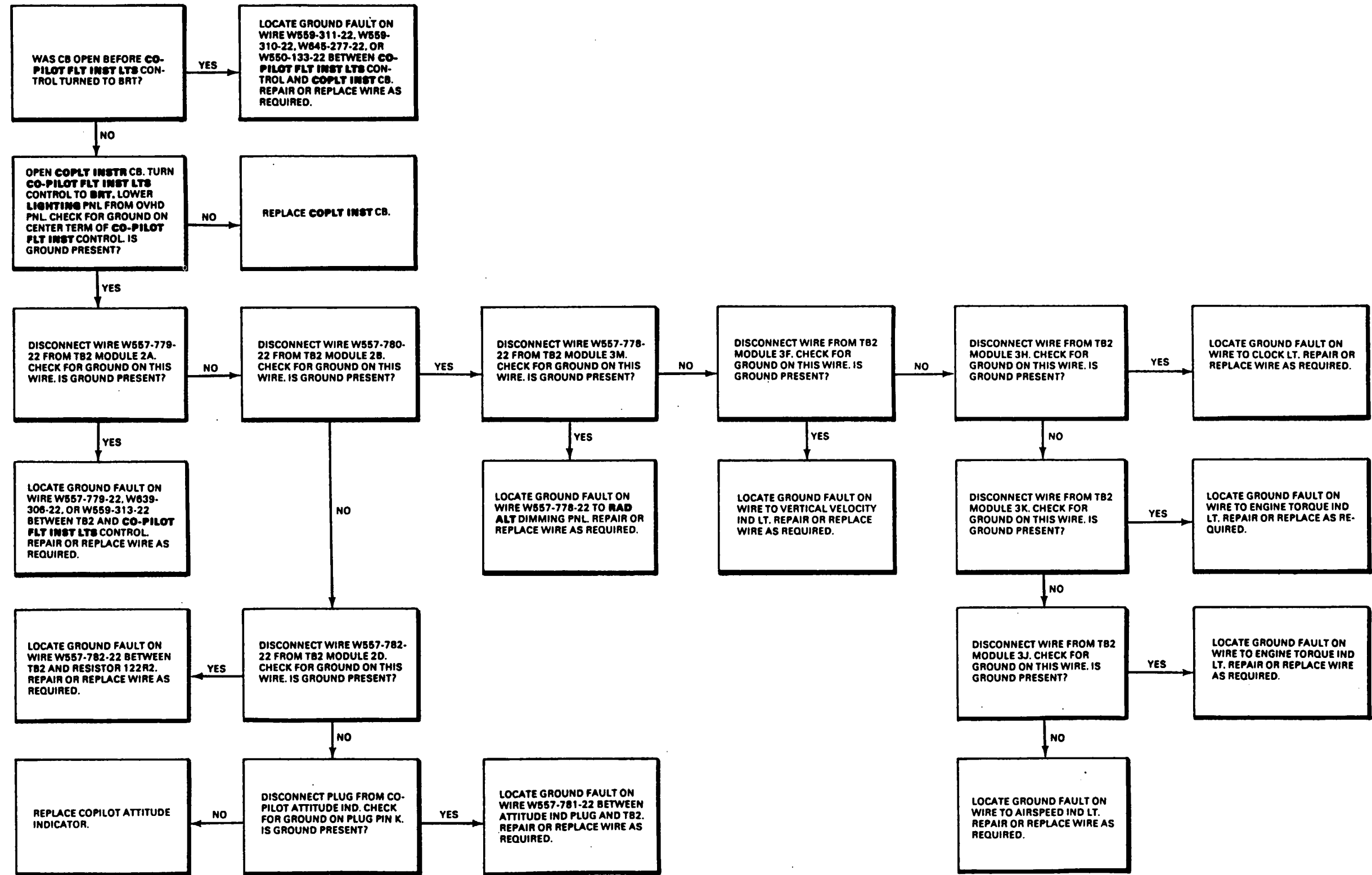
Electrical Power Off

Hydraulic Power Off





9-10.4 COPLT INST CIRCUIT BREAKER DOES NOT STAY CLOSED  
(Continued)



FAULT ISOLATION PROCEDURE

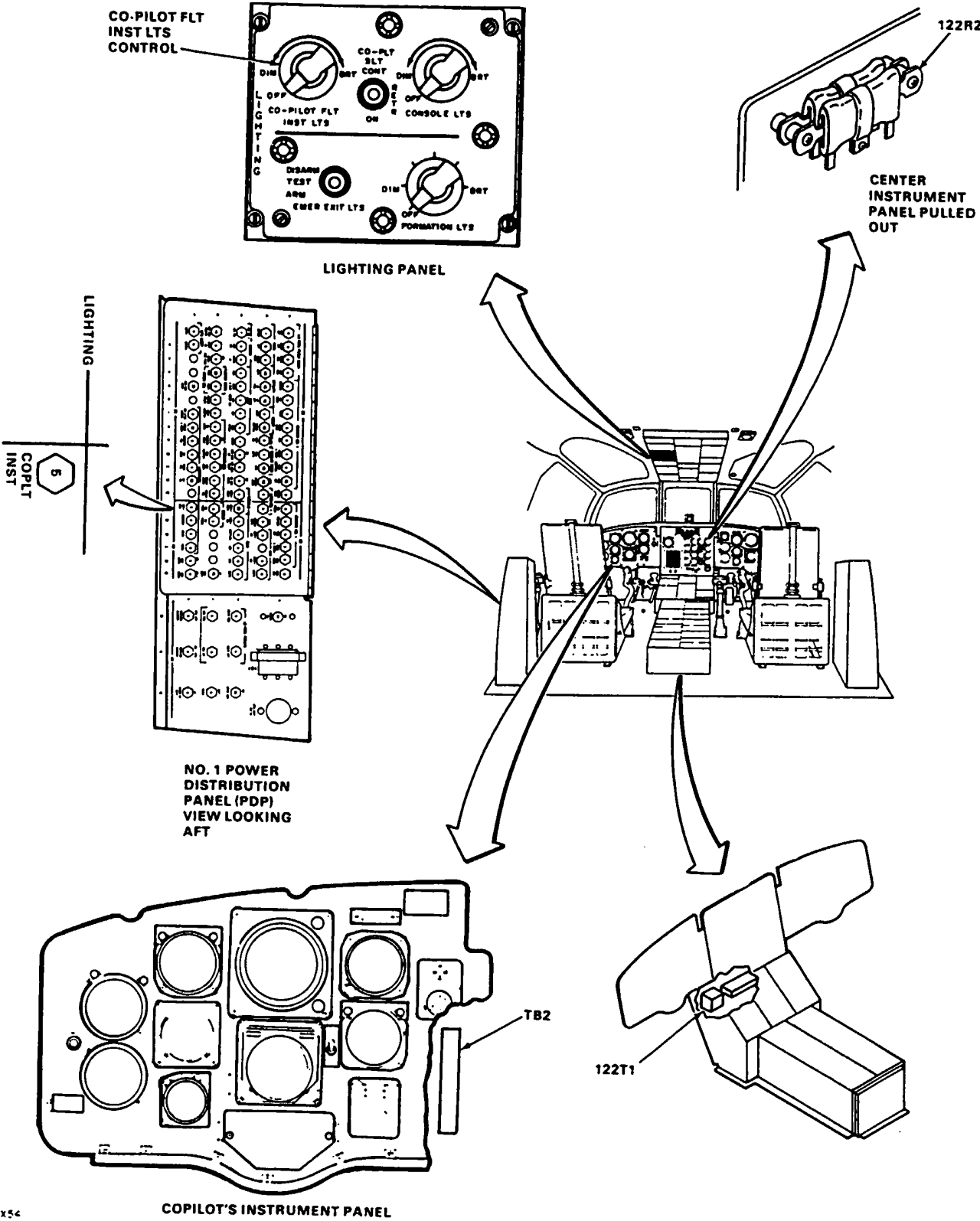
INITIAL SETUP

Applicable Configurations:  
Without 17 or 74

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

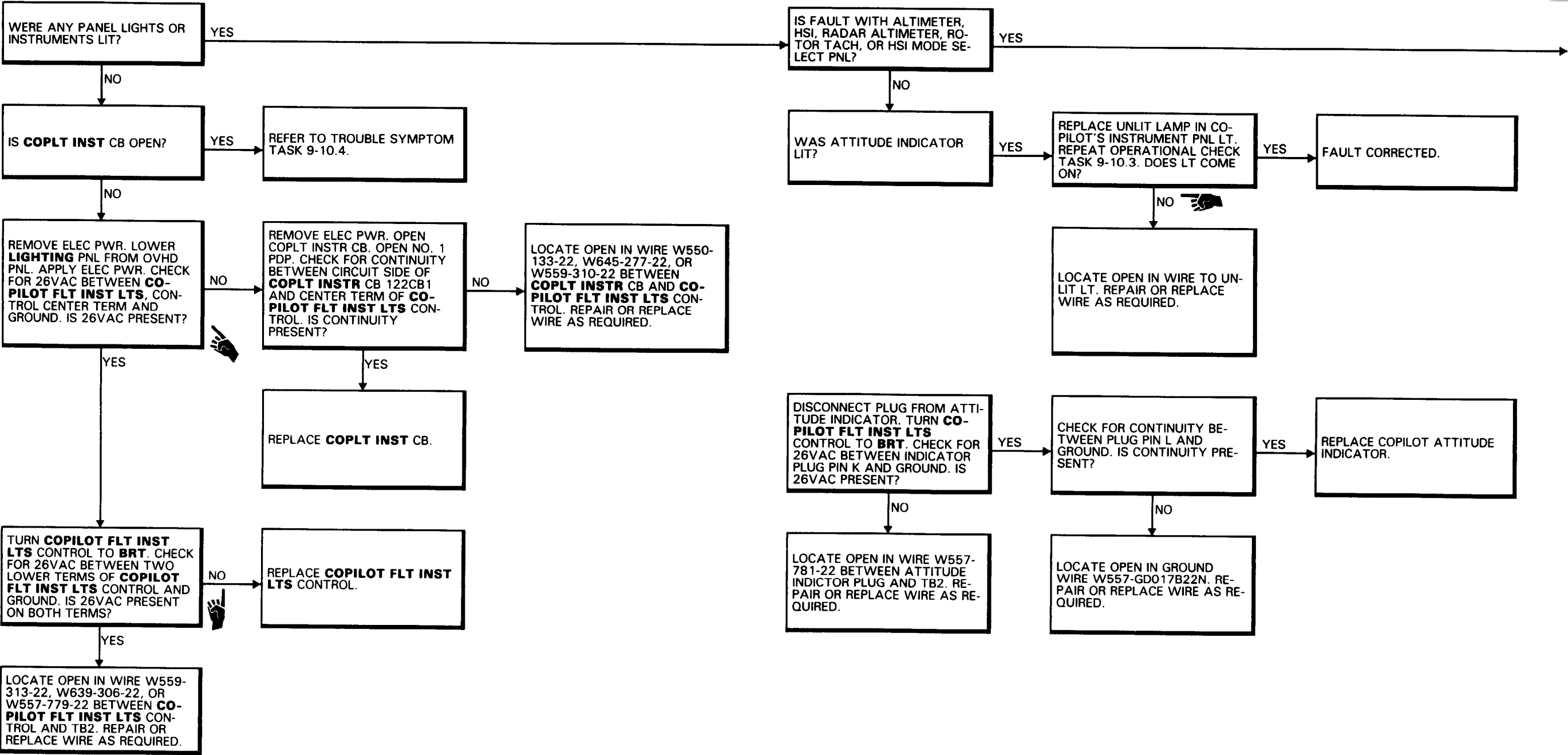
Personnel Required:  
Aircraft Electrician  
References:  
TM 55-1520-240-23  
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

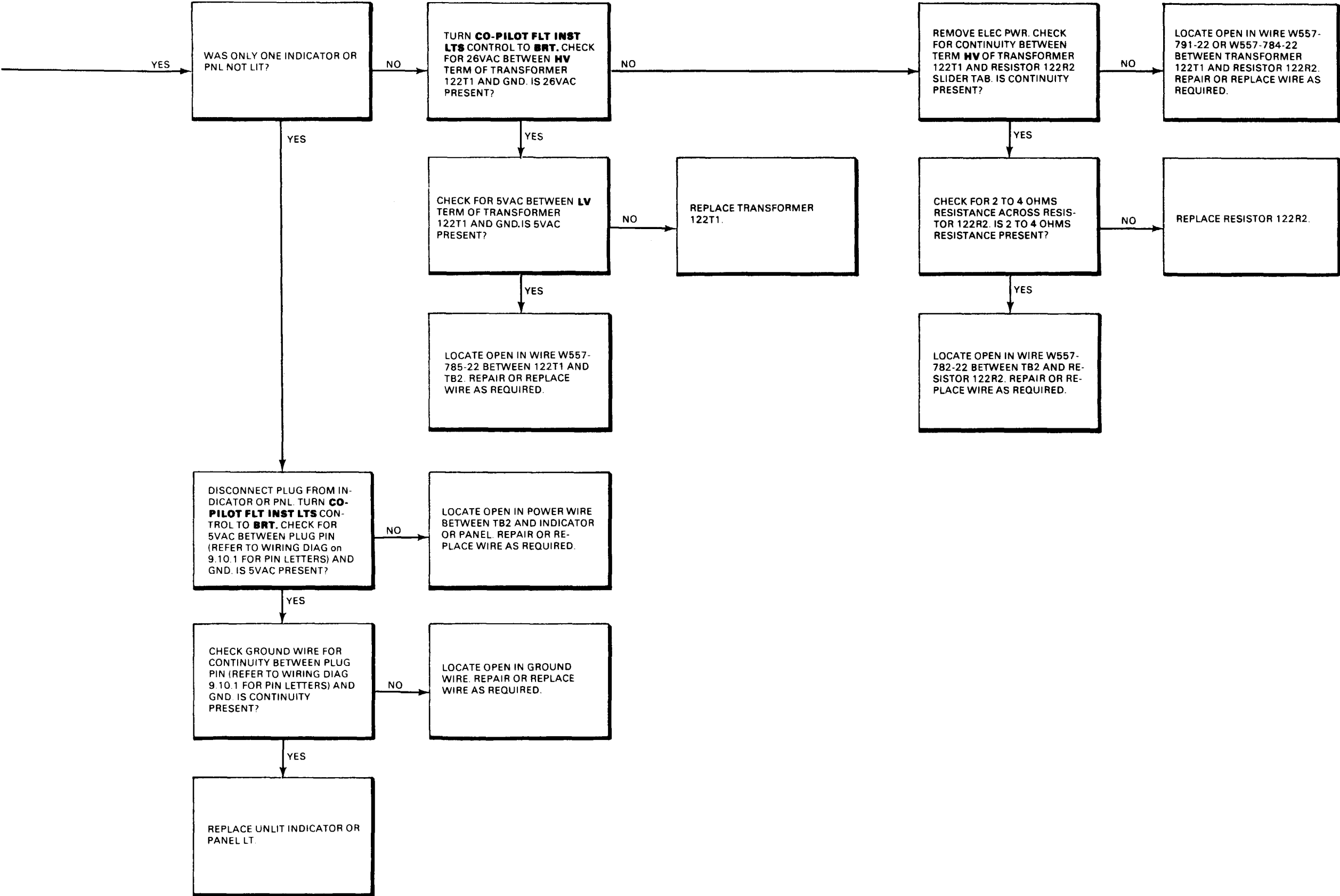


145-4226-502

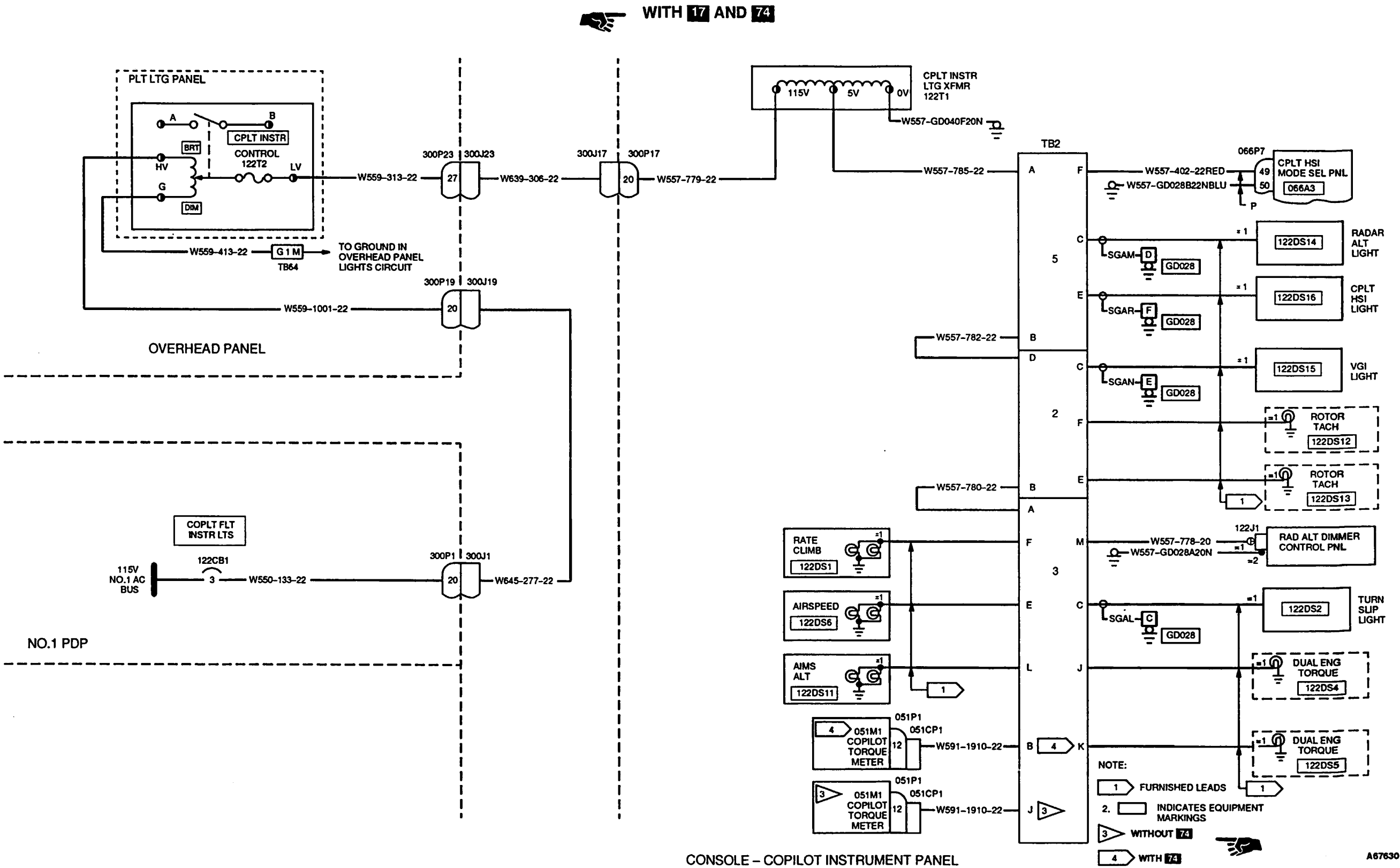
9-10.5 COPILOT'S FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT (Continued)

9-10.5









INITIAL SETUP

**Applicable Configurations:**  
With 17 and 69

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician

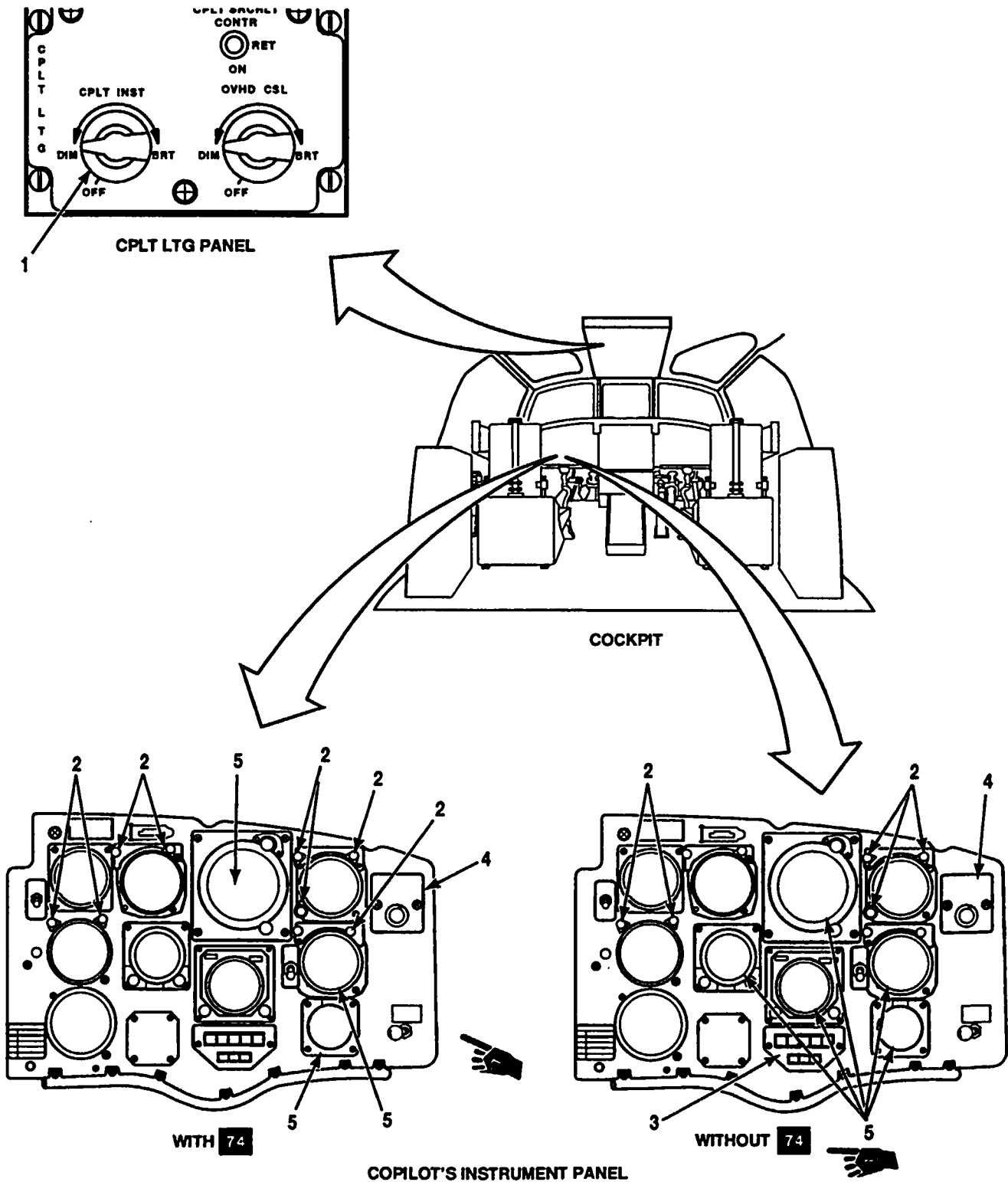
**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check CO-PILOT FLT INST LTS control (1).	If control (1) is loose or damaged, tighten or replace it as required.
2. Check panel lights (2).	If any panel (2) light is damaged, replace it.
3. Check HSI MODE SELECT panel (3).	If panel (3) is damaged, replace it
4. Check RAD ALT DIM panel (4).	If panel (4) is damaged, replace it.
5. Check lighting bezels (5).	If any bezel (5) is damaged, replace it.

FOLLOW-ON MAINTENANCE:

None



INITIAL SETUP

Applicable Configurations:  
With 17 and 69

Tools:  
None

Materials:  
None

Personnel Required:  
Check  
Aircraft Electrician

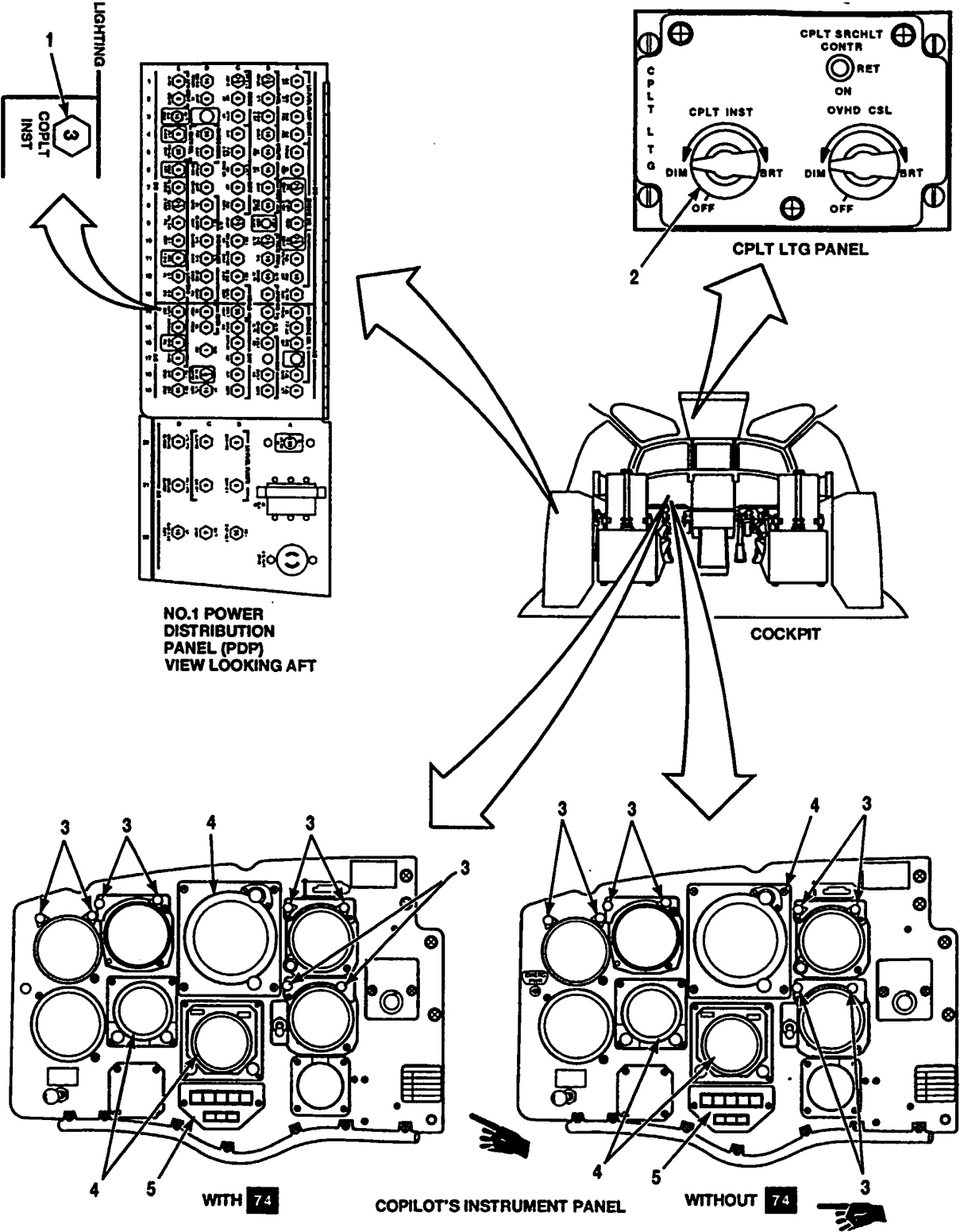
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Copilot Flight Instrument Panel Lights Visual  
Performed (Task 9-10.2)

TASK	RESULT
1. Check that LIGHTING COPLT INST circuit breaker (1) is closed.	If COPLT INST circuit breaker (1) is open, close it. If it opens again, go to task 9-10.9.
2. Turn CPLT INST light control (2) from OFF through DIM to BRT.	Following lights shall come on and increase in brightness as control (2) is rotated to BRT: a. Panel lights (3). b. Internal lights in indicators (4). c. Panel lights and switch captions VOR, DOP, FM, and CMD on HSI MODE SELECT panel (5). If any light is not lit, go to task 9-10.10. If light brightness does not increase, replace CPLT INST lights control.
3. Turn CPLT INST lights control (2) to OFF.	All copilot's flight instrument panel lights shall go out. If not, replace CPLT INST light control (2).

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off



A67632



9-10.9 COPLT INST CIRCUIT BREAKER DOES NOT STAY CLOSED

9-10.9

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

With 17 and 69

Tools

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Multimeter

Materials

None

Personnel Required:

Aircraft Electrician

References

TM 55-1520-240-23

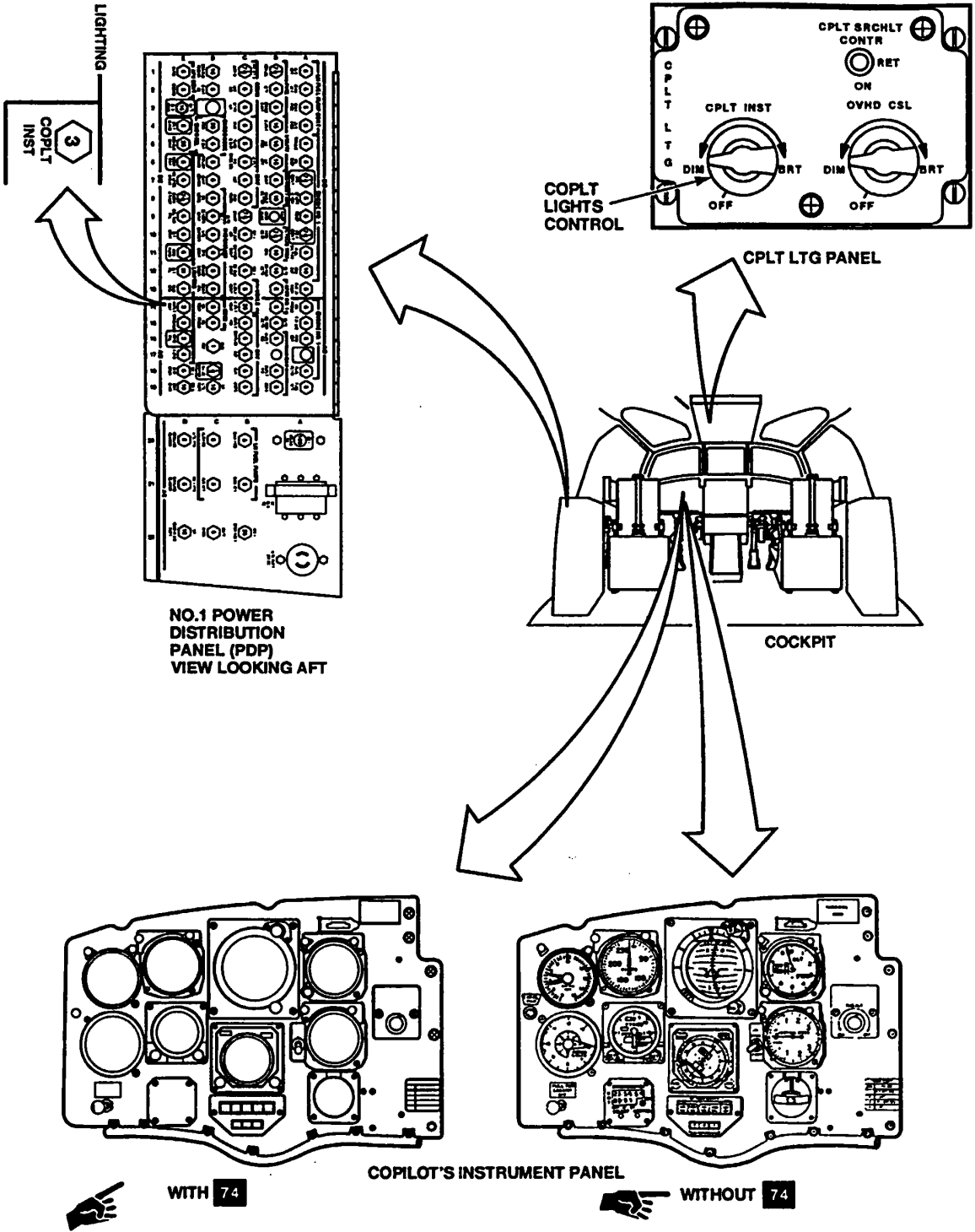
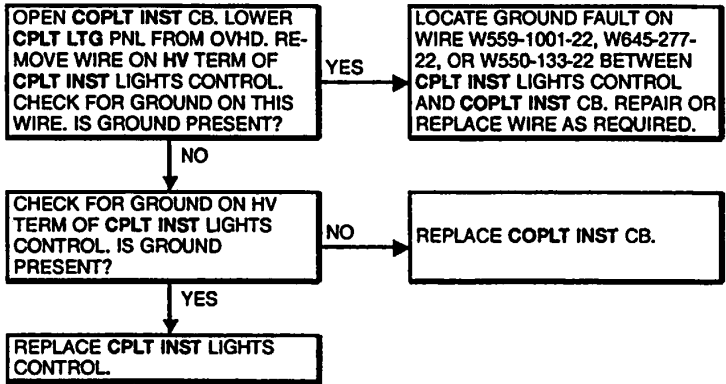
Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off

Hydraulic Power Off



A67631

END OF TASK  
Change 19 9-198.3

9-10.10 COPILOT'S FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT

9-10.10

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

With 17 and 69

Tools

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials

None

Personnel Required:

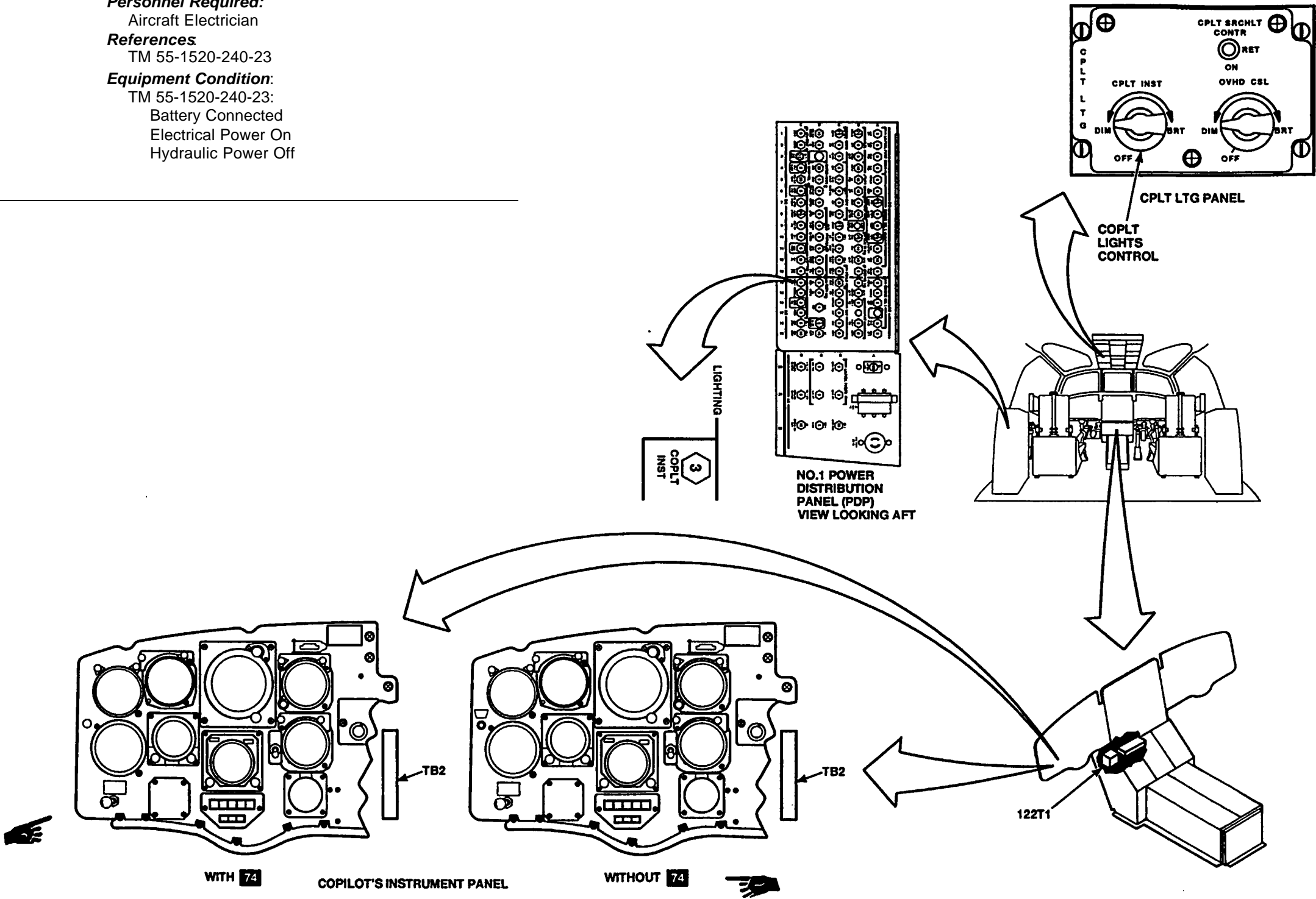
Aircraft Electrician

References

TM 55-1520-240-23

Equipment Condition:

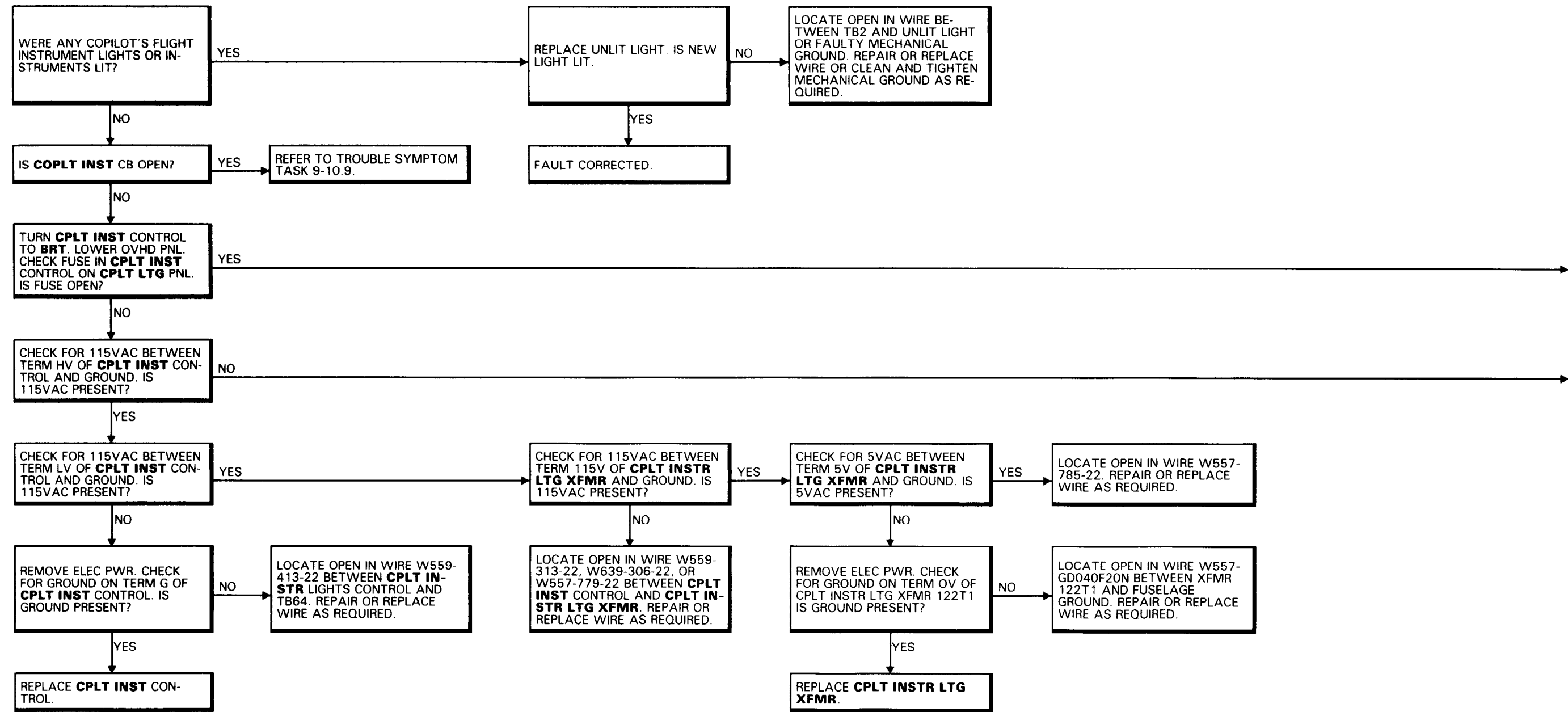
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

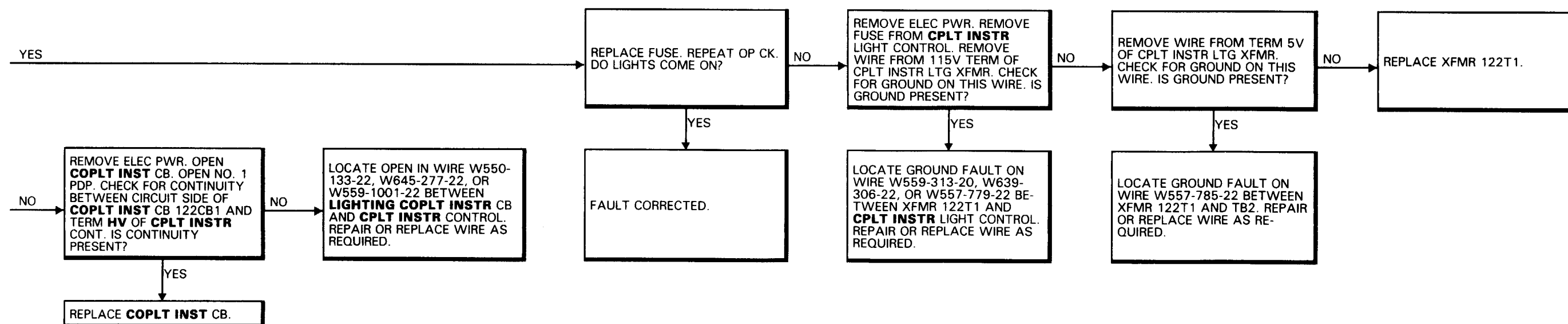


A67634

9-10.10 COPILOT'S FLIGHT INSTRUMENT PANEL LIGHT OR LIGHTS NOT LIT (Continued)

9-10.10

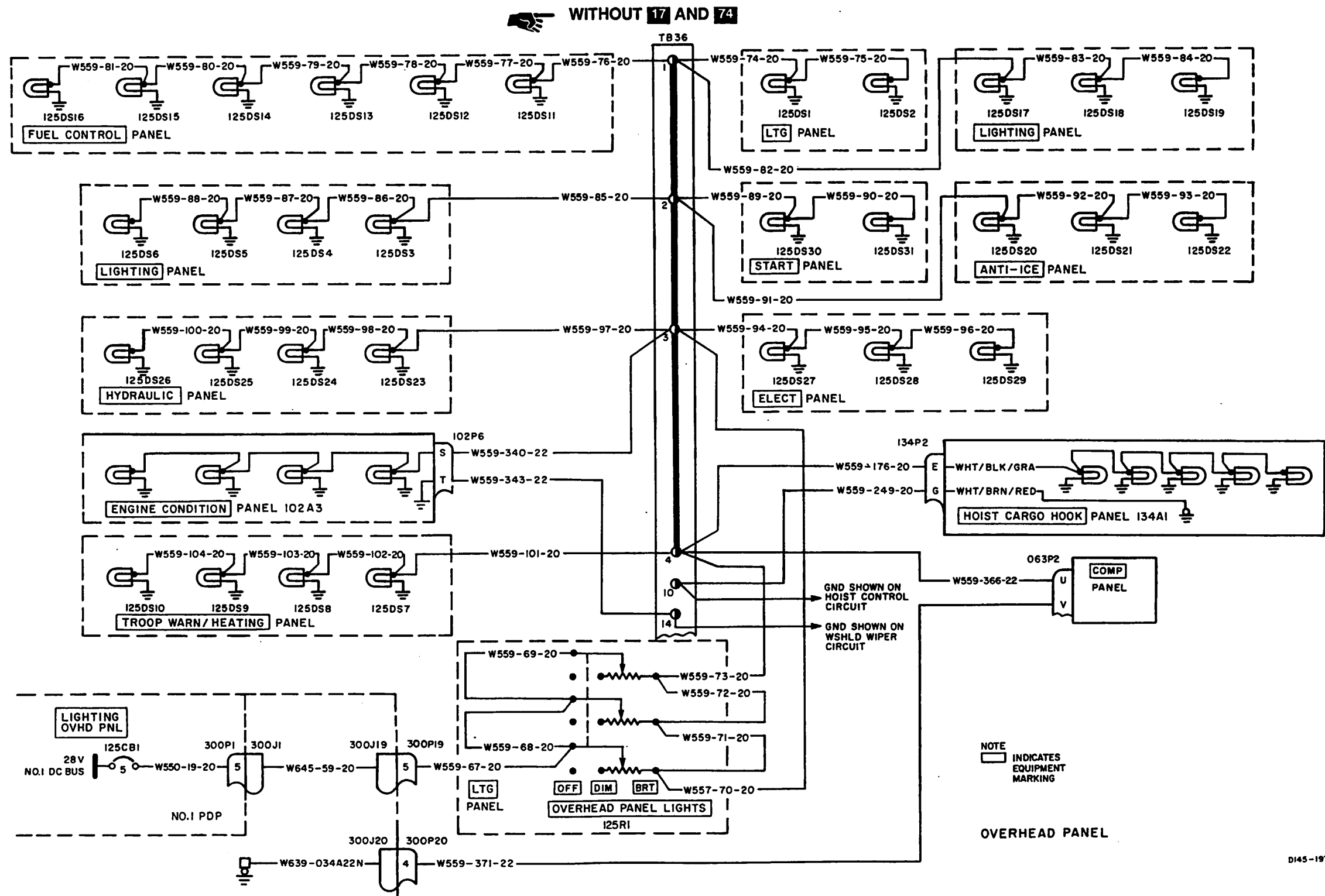








9-11 OVERHEAD PANEL LIGHTS



DI45-1970-SPA



9-11.2 OVERHEAD PANEL LIGHTS VISUAL CHECK

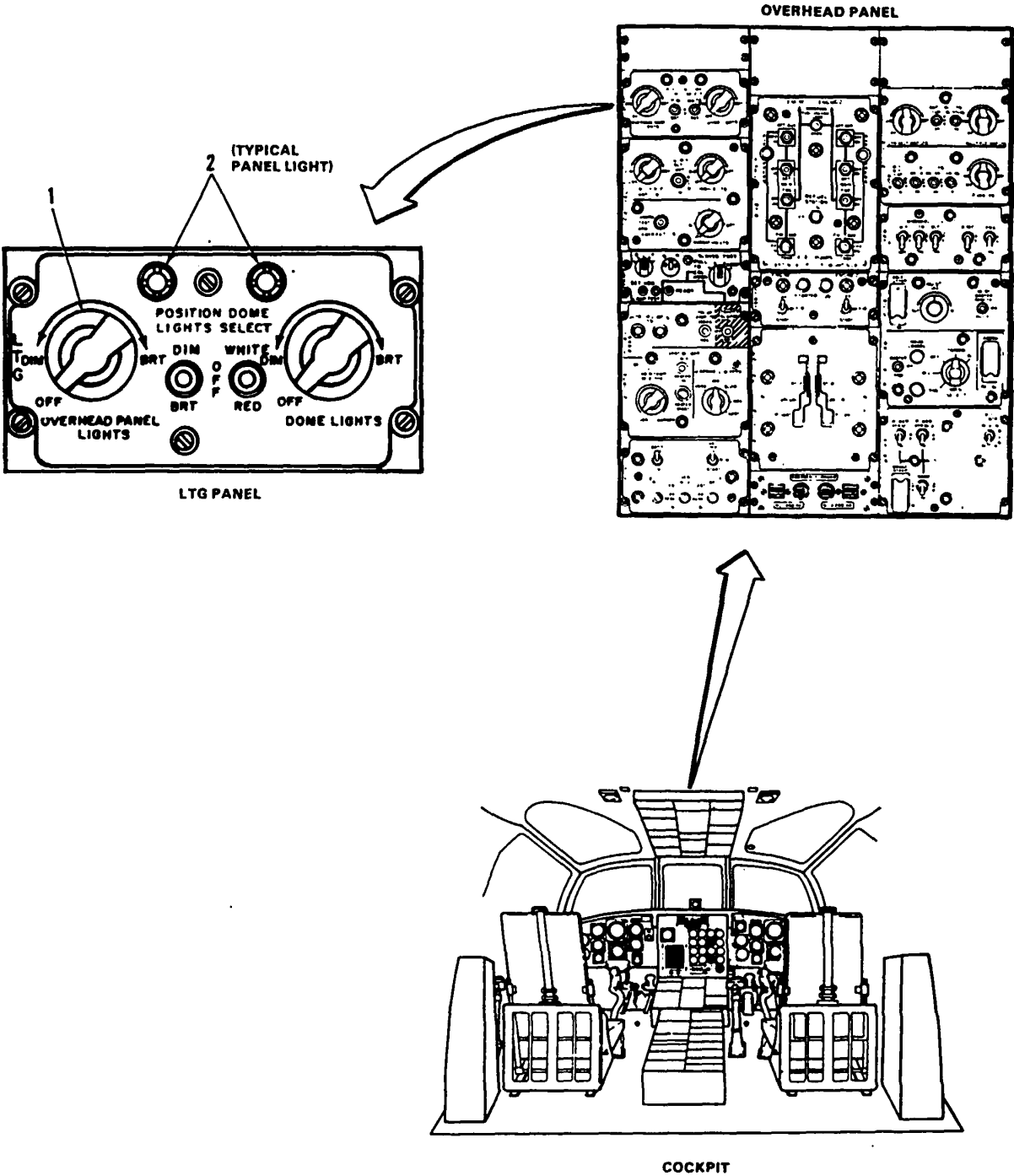
9-11.2

INITIAL SETUP  
**Applicable Configurations**  
Without 17 and 74  
**Tools**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
**Materials**  
None  
**Personnel Required:**  
Aircraft Electrician

**References**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off '  
Hydraulic Power Off

TASK	RESULT
1. Check OVERHEAD PANEL LIGHTS control (1).	If control (1) is loose or damaged, tighten or replace it as required.
2. Check 42 panel lights (2).	If any panel light (2) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:  
None



9-11.3 OVERHEAD PANEL LIGHTS OPERATIONAL CHECK

9-11.3

INITIAL SETUP

**Applicable Configurations**  
Without 17 and 74

**Tools**

None

**Materials**

None

**Personnel Required:**

Aircraft Electrician

**References**

TM 55-1520-240-23

**Equipment Condition:**

TM 55-1520-240-23:

Battery Connected

Electrical Power On

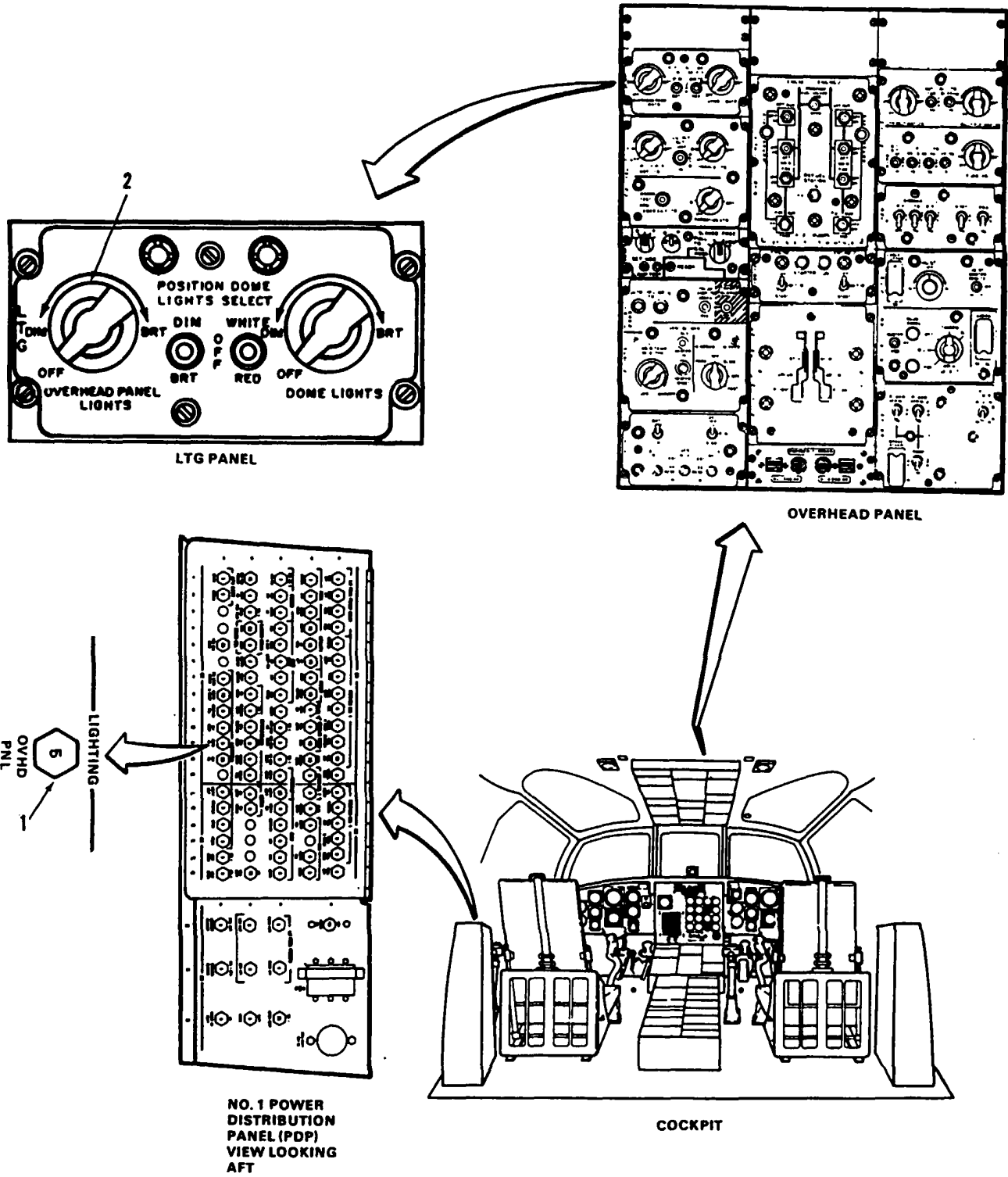
Hydraulic Power Off

Overhead Panel Lights Visual Check Performed  
(Task 9-11.2)

TASK	RESULT
1. Check that LIGHTING OVHD PNL circuit breaker (1) is closed.	If OVHD PNL circuit breaker (1) is open, close it. If it opens again, go to task 9-11.4.
2. Turn OVERHEAD PANEL LIGHTS control (2) from OFF through DIM to BRT.	All control panels in overhead panel shall light dim and increase in brightness as control (2) is turned to BRT. If any panel is not lit, go to task 9-11.5. If panel brightness does not increase as control is turned, replace OVERHEAD PANEL LIGHTS control.
3. Turn OVERHEAD PANEL LIGHTS control (2) to OFF.	All control panel lights in overhead panel shall go out. If not, replace OVERHEAD PANEL LIGHTS control.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off



9-11.4 OVHD PNL CIRCUIT BREAKER DOES NOT STAY CLOSED

9-11.4

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations

Without 17 and 74

Tools

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials

None

Personnel Required:

Aircraft Electrician

References

TM 55-1520-240-23

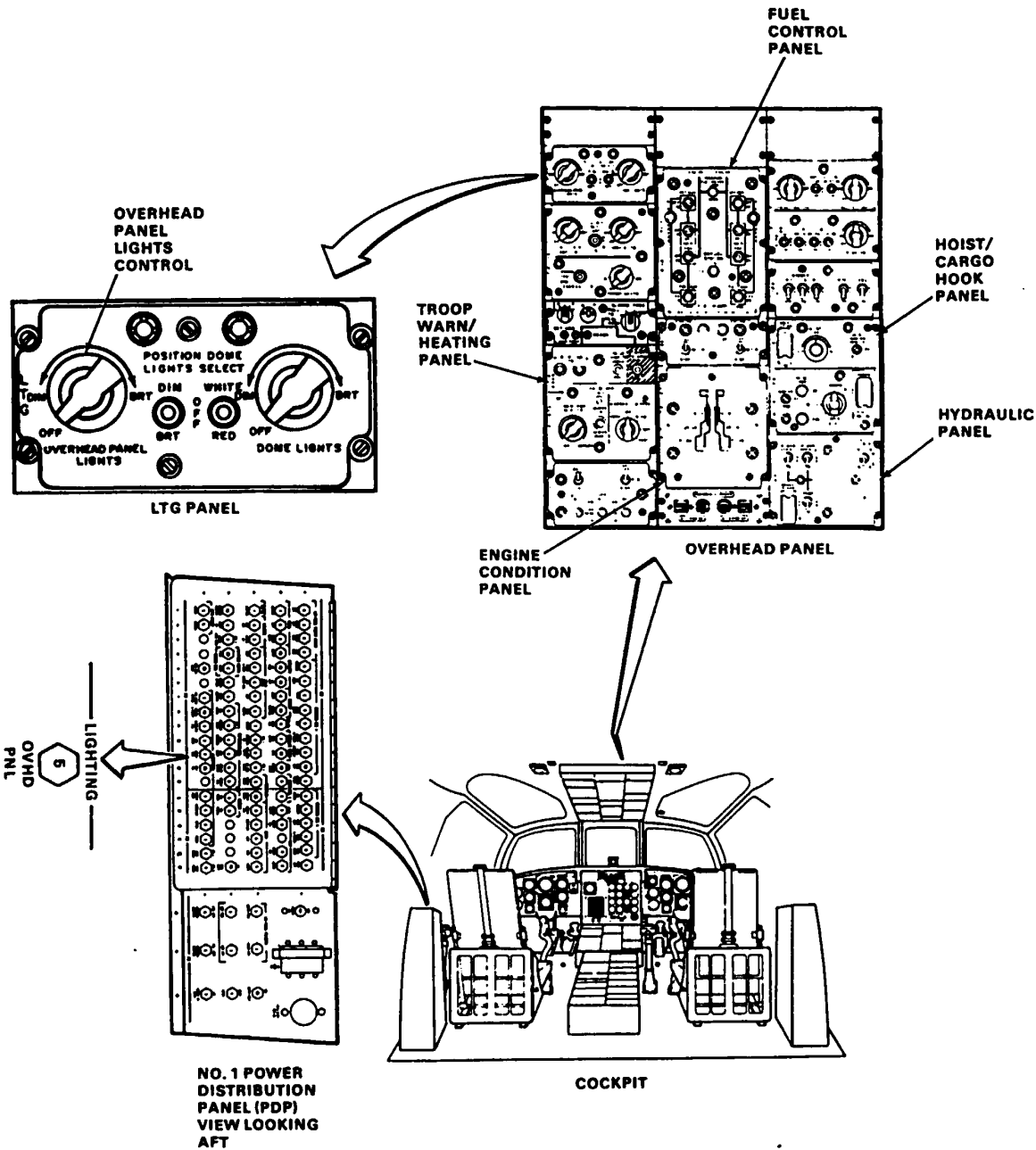
Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off

Hydraulic Power Off

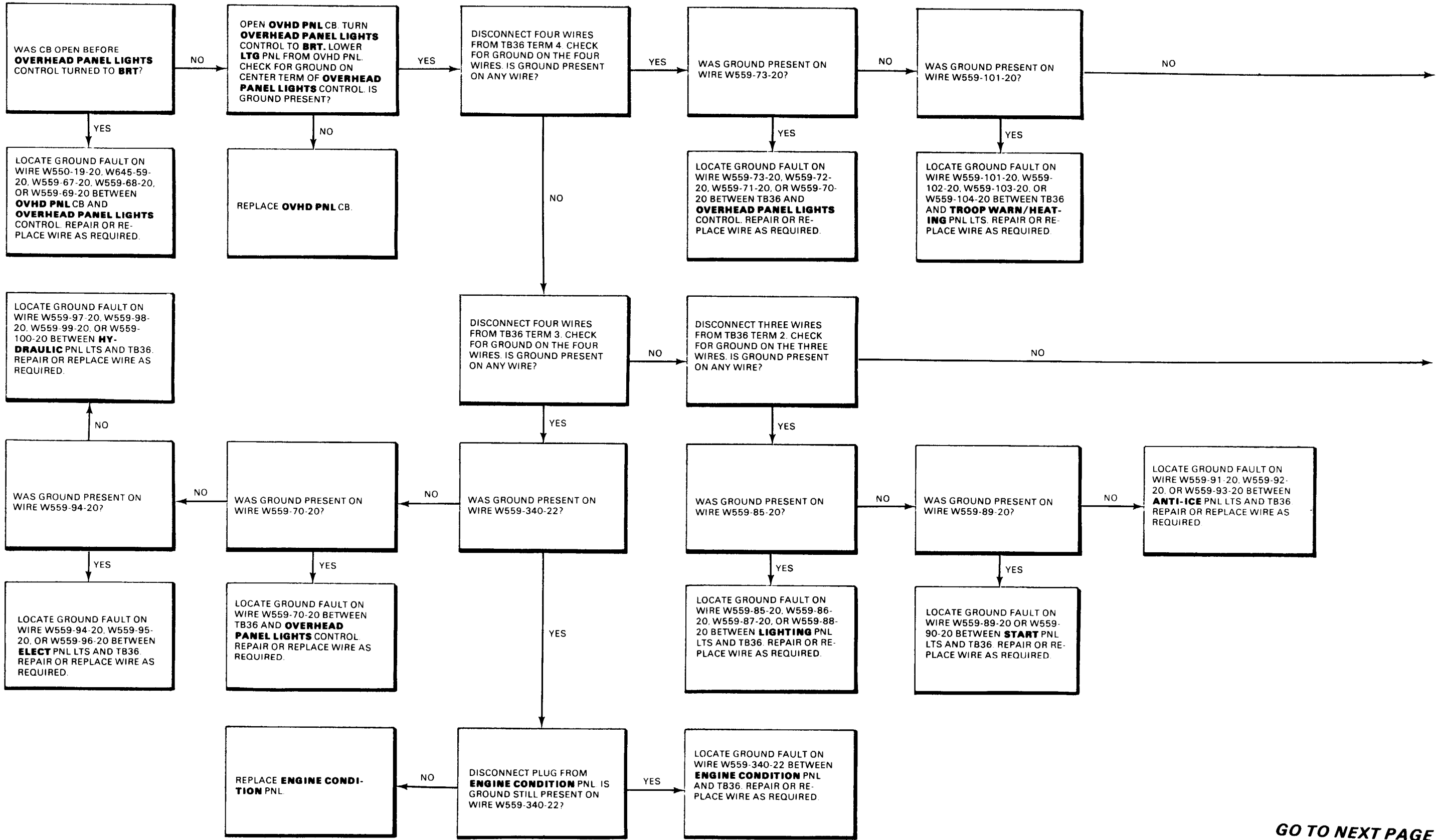


D145-4229-SPA

GO TO NEXT PAGE

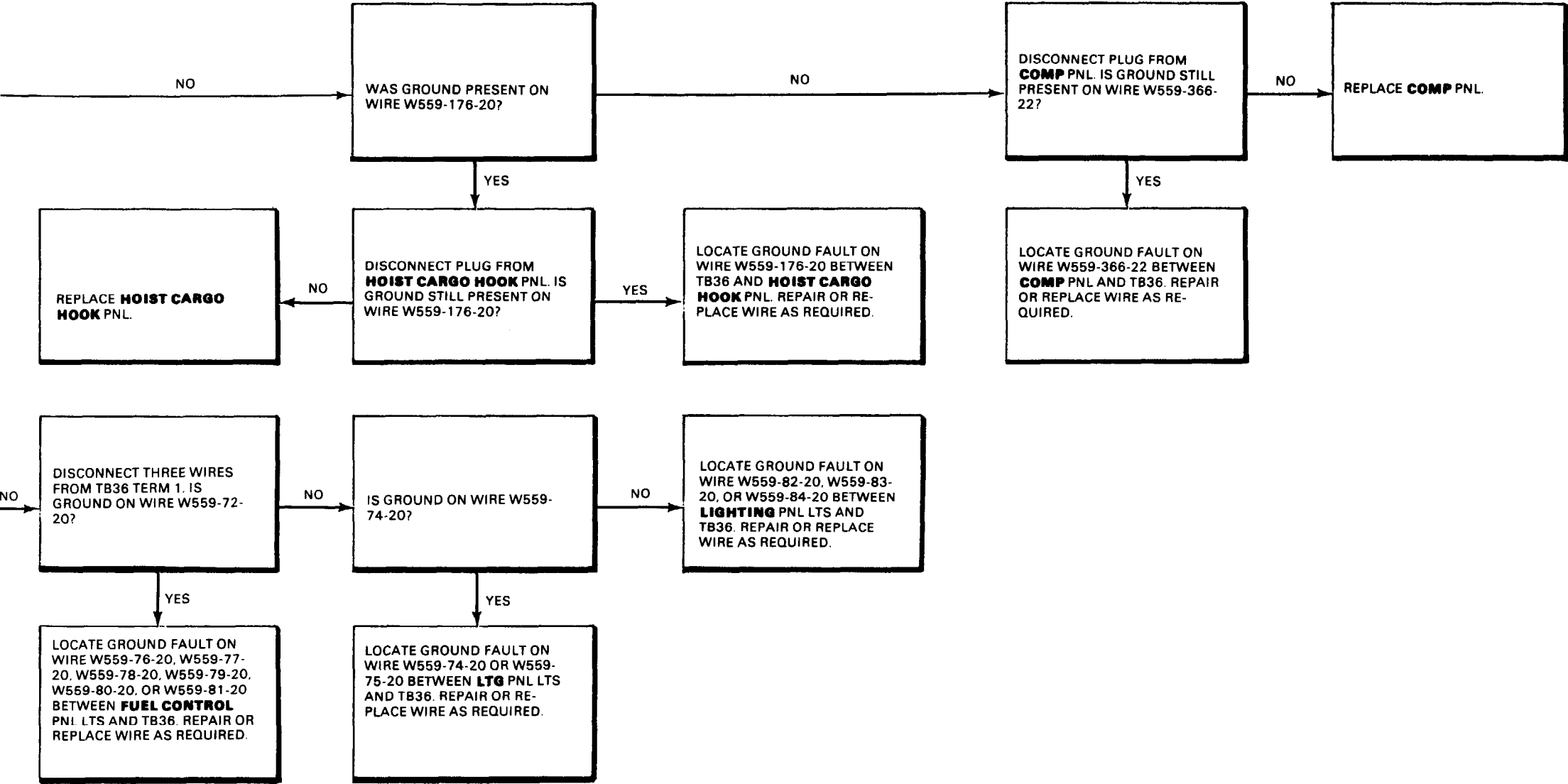
9-11.4 OVHD PNL CIRCUIT BREAKER DOES NOT STAY CLOSED  
(Continued)

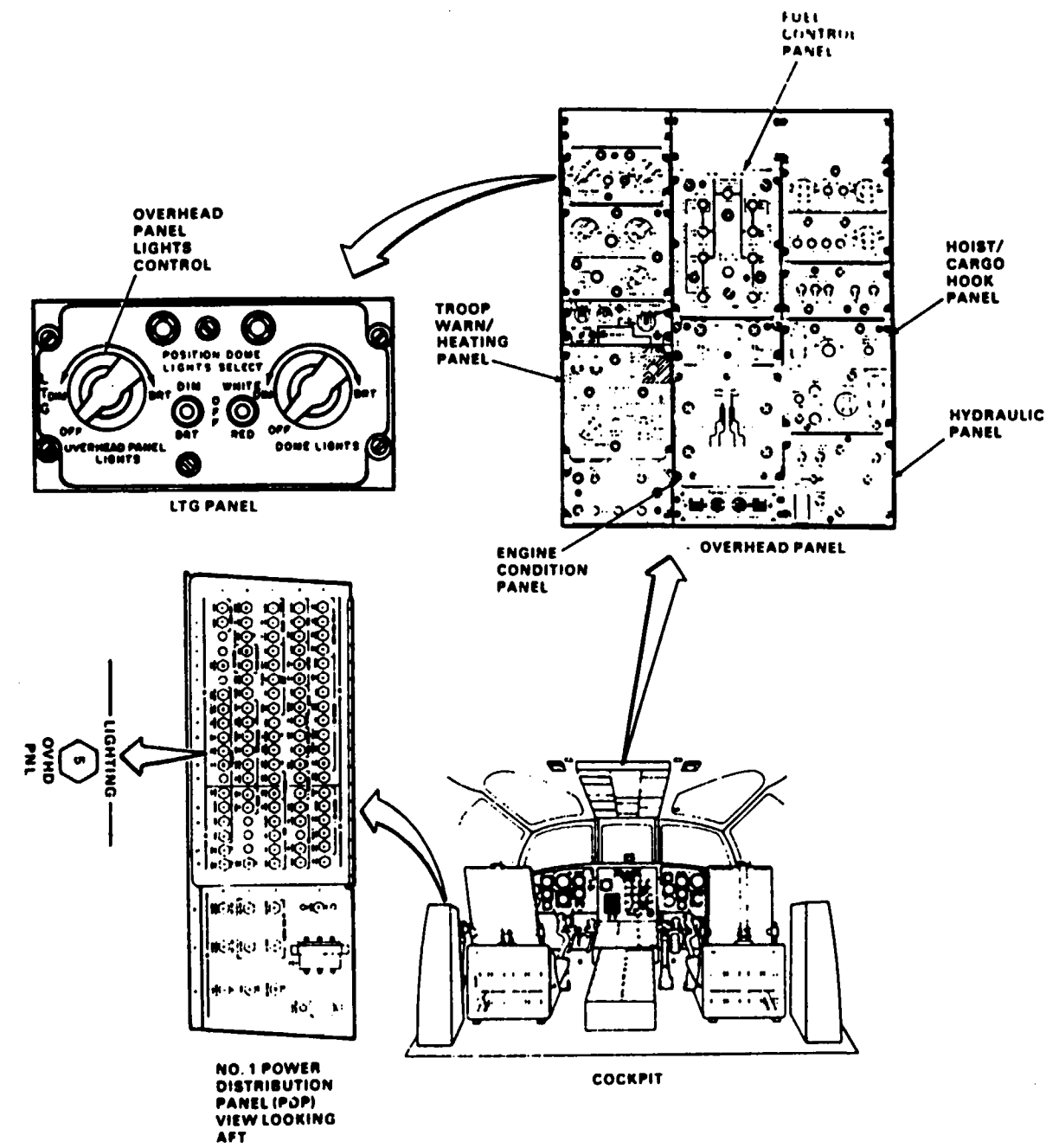
9-11.4



GO TO NEXT PAGE

9-11.4 OVHD PNL CIRCUIT BREAKER DOES NOT STAY CLOSED  
(Continued)





49 x 54

D145-11836-SPA

**FAULT ISOLATION PROCEDURE**

INITIAL SETUP

**Applicable Configurations**

Without 17 and 74

**Tools**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials**

None

**Personnel Required:**

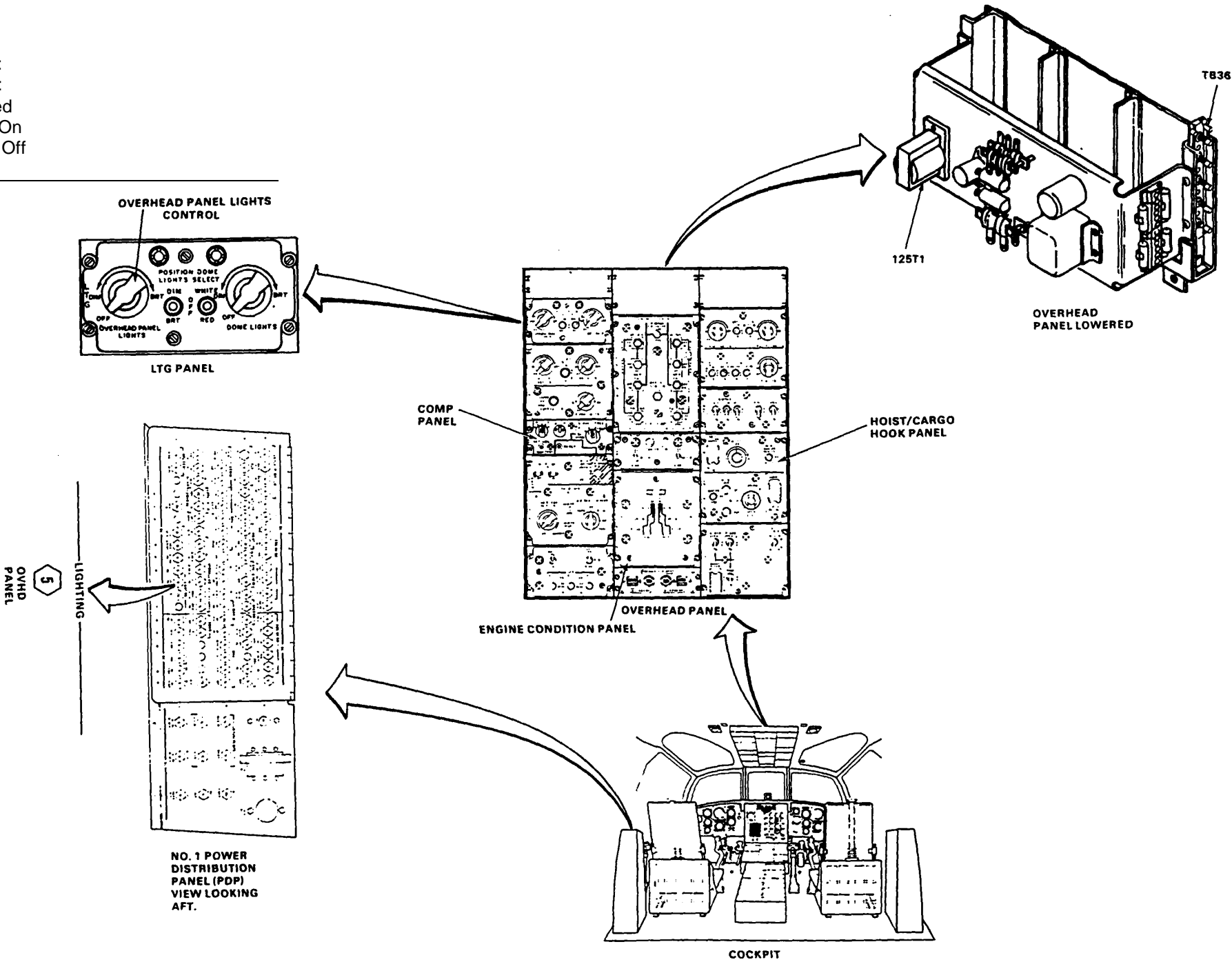
Aircraft Electrician

**References**

TM 55-1520-240-23

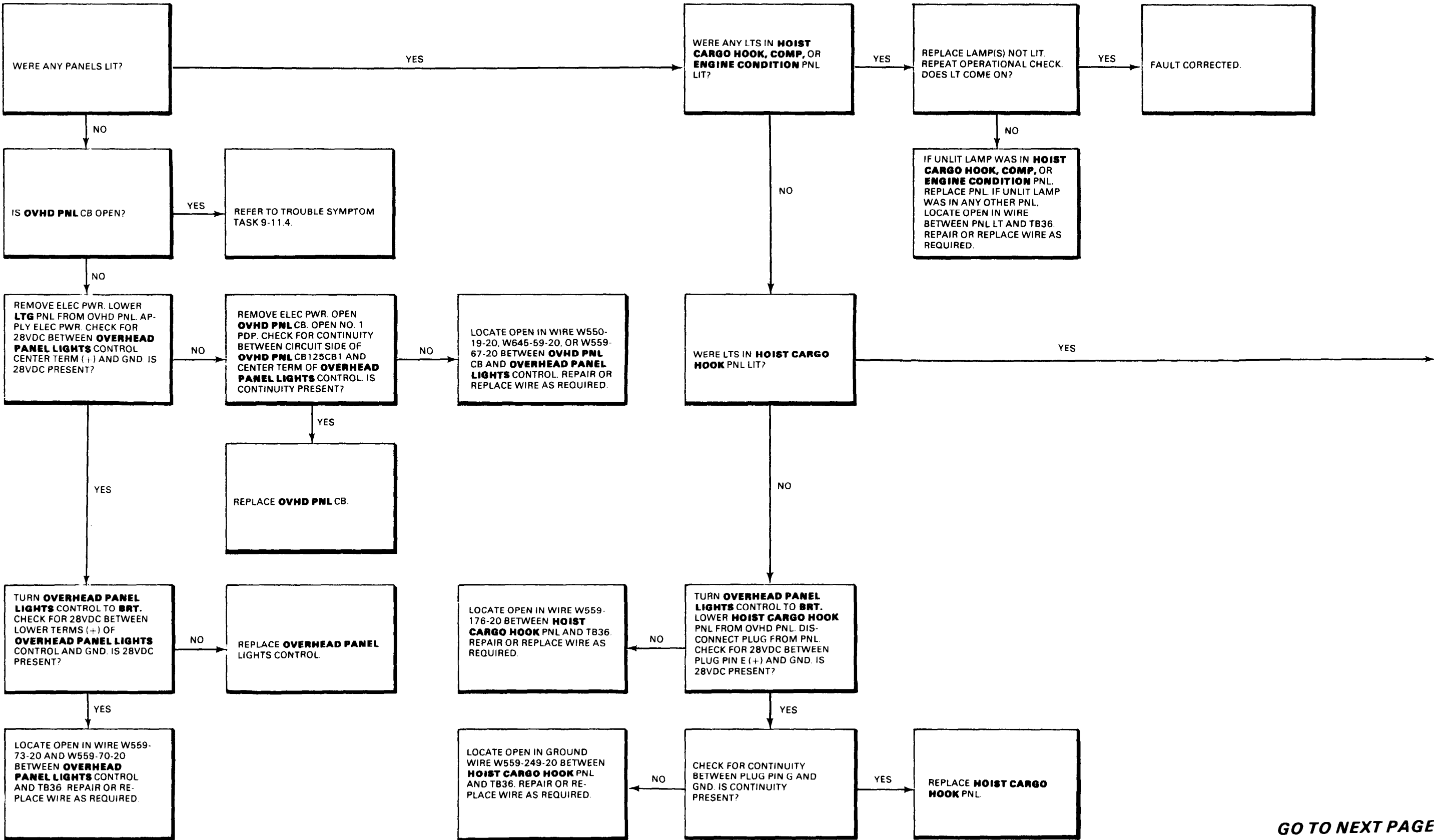
**Equipment Condition:**

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



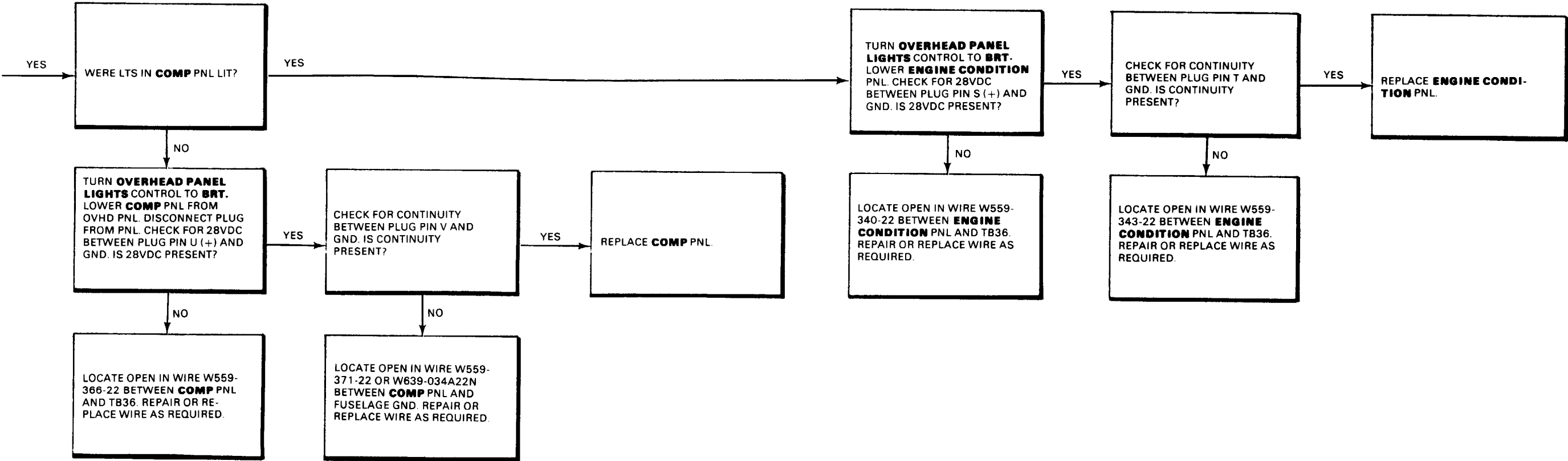
9-11-5 OVERHEAD PANEL LIGHT OR LIGHTS NOT LIT (Continued)

9-11.5

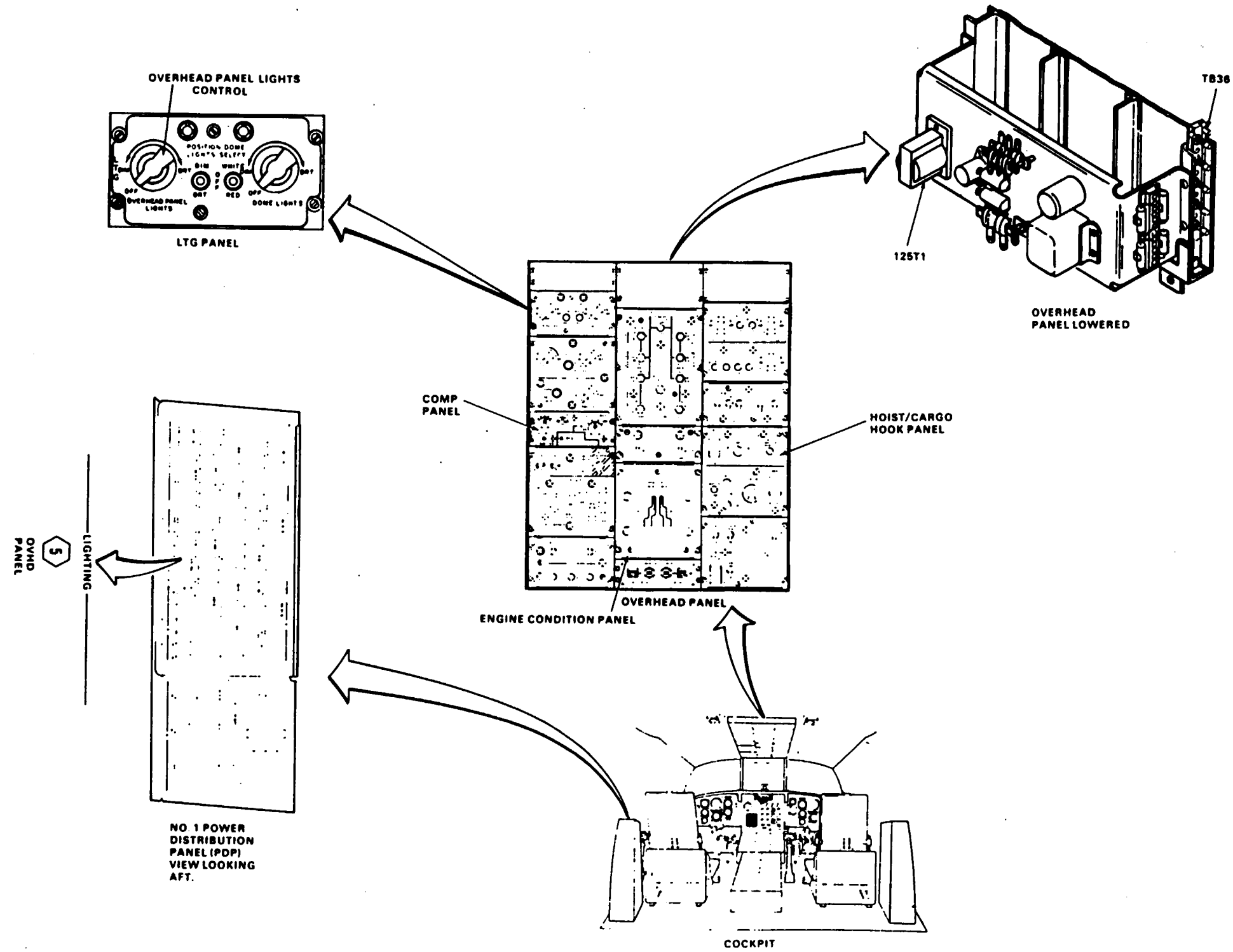


GO TO NEXT PAGE





GO TO NEXT PAGE

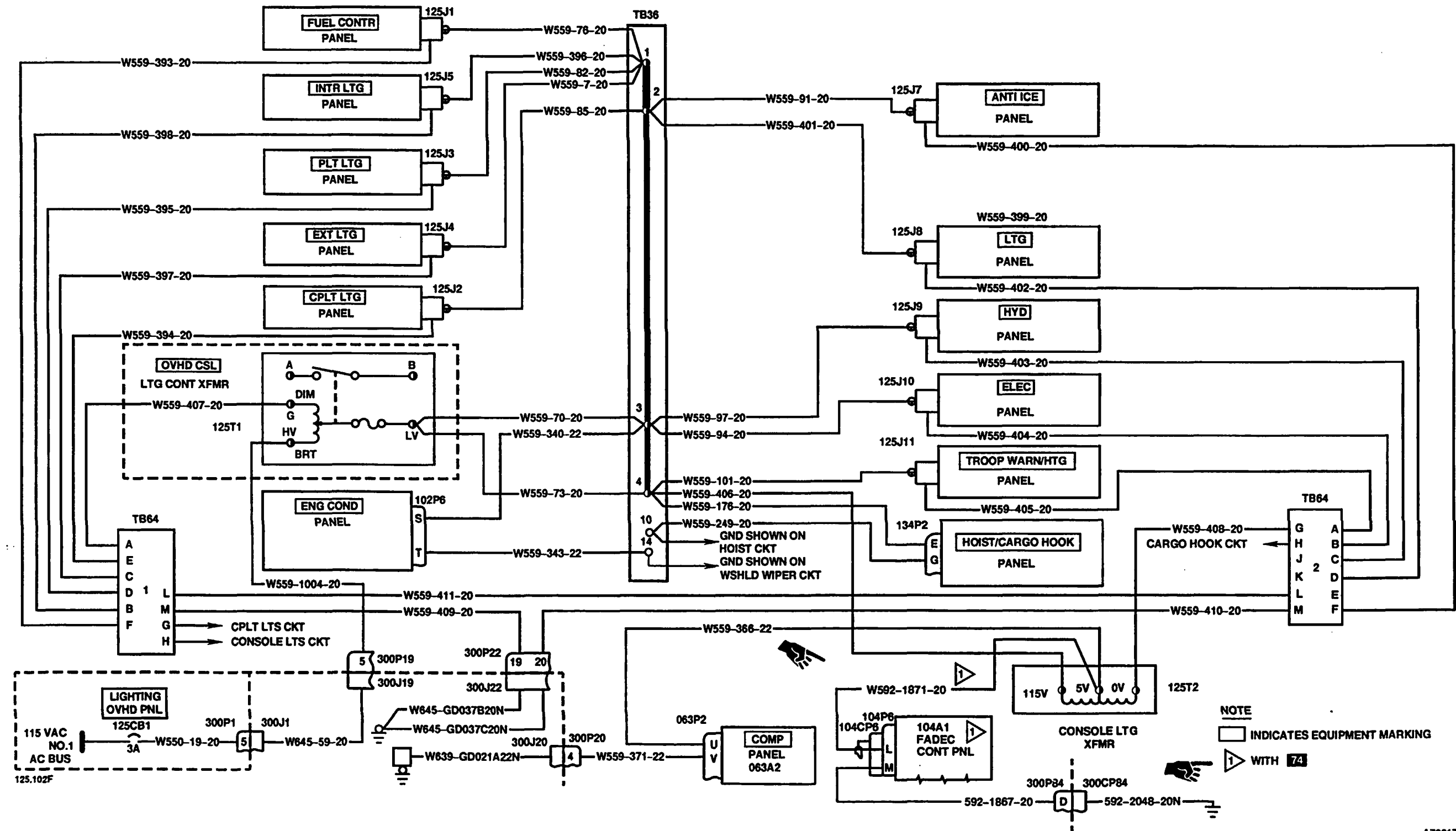


D145-11835-SPA

END OF TASK

Change 2 9-211

WITH 17 AND 74



A72217

9-11.7 OVERHEAD PANEL LIGHTS VISUAL CHECK

9-11.7

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

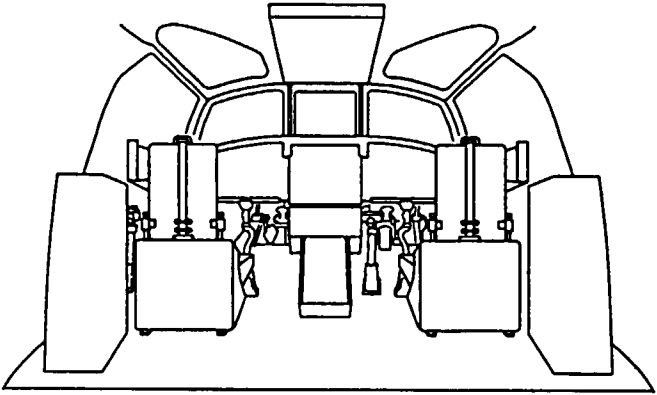
Electrical Power Off

Hydraulic Power Off

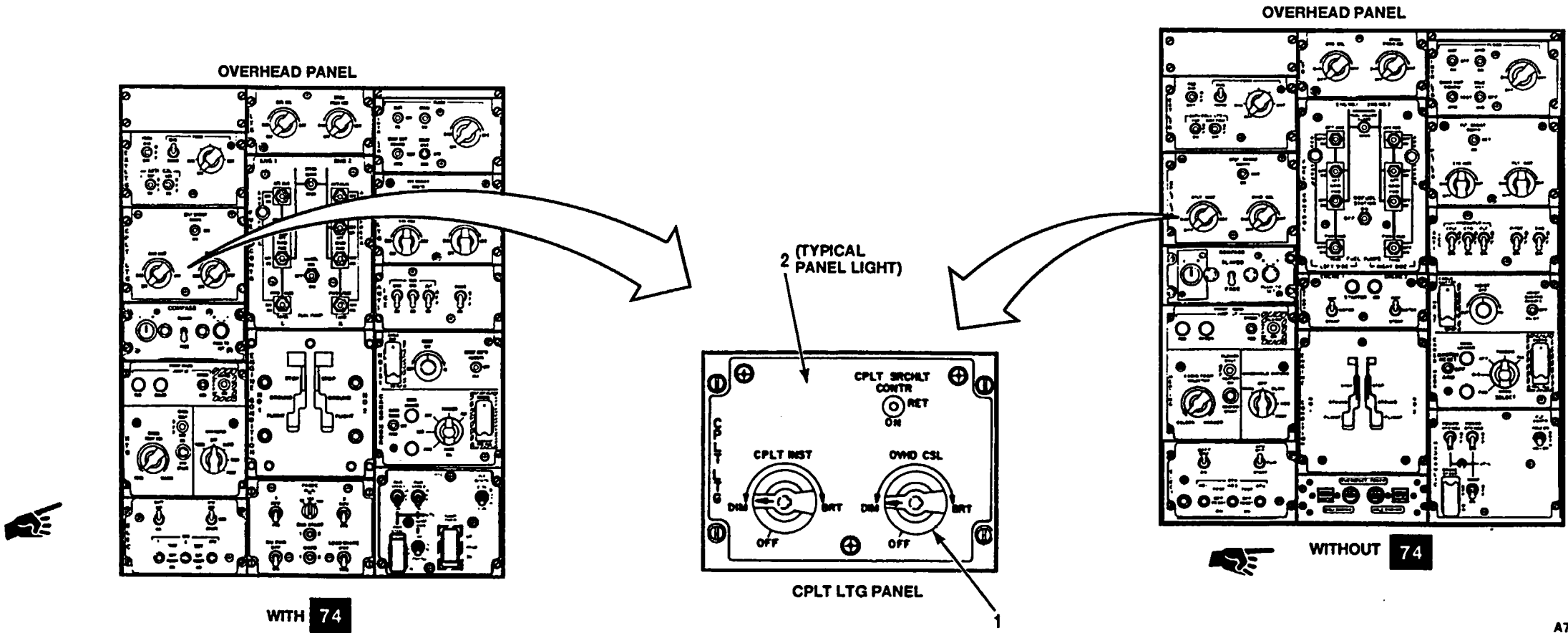
TASK	RESULT
1. Check OVHD CSL lights control (1).	If control (1) is loose or damaged, tighten or replace it as required.
2. Check 15 (Without 74) or 14 (With 74) lightplate panels (2).	If any lightplate panel (2) is loose or damaged, tighten or replace it as required.

FOLLOW ON MAINTENANCE:

None



COCKPIT



A72216

9-11.8 OVERHEAD PANEL LIGHTS OPERATIONAL CHECK

9-11.8

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

None

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23.

Equipment Condition:

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off

Overhead Panel Lights Visual Check Performed  
(Task 9-11.7)

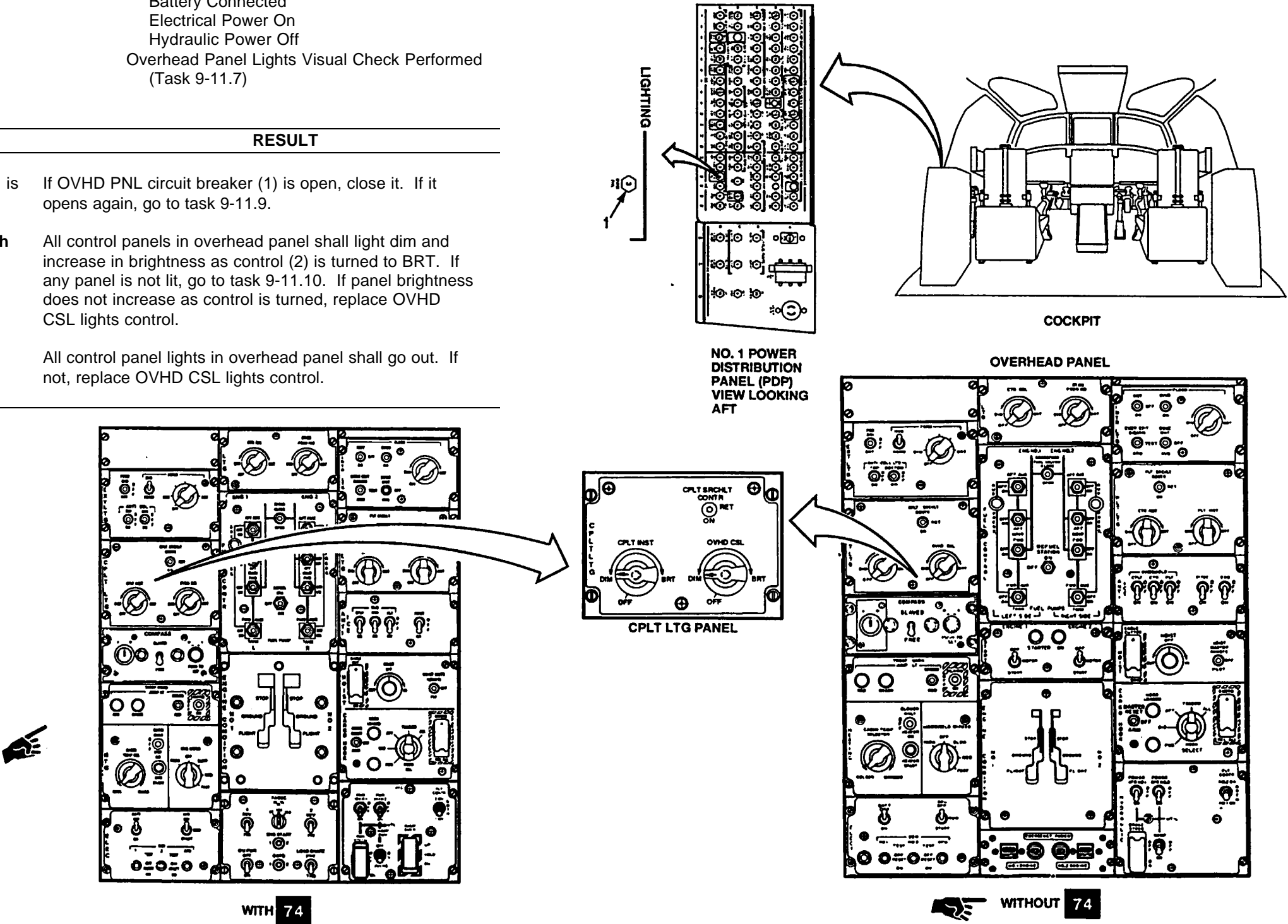
TASK	RESULT
1. Check that LIGHTING OVHD PNL circuit breaker (1) is closed.	If OVHD PNL circuit breaker (1) is open, close it. If it opens again, go to task 9-11.9.
2. Turn OVHD CSL lights control (2) from OFF through DIM to BRT.	All control panels in overhead panel shall light dim and increase in brightness as control (2) is turned to BRT. If any panel is not lit, go to task 9-11.10. If panel brightness does not increase as control is turned, replace OVHD CSL lights control.
3. Turn OVHD CSL lights control (2) to OFF.	All control panel lights in overhead panel shall go out. If not, replace OVHD CSL lights control.

Follow-on Maintenance:

TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off



9-11.9 OVHD PNL CIRCUIT BREAKER DOES NOT STAY CLOSED

9-11.9

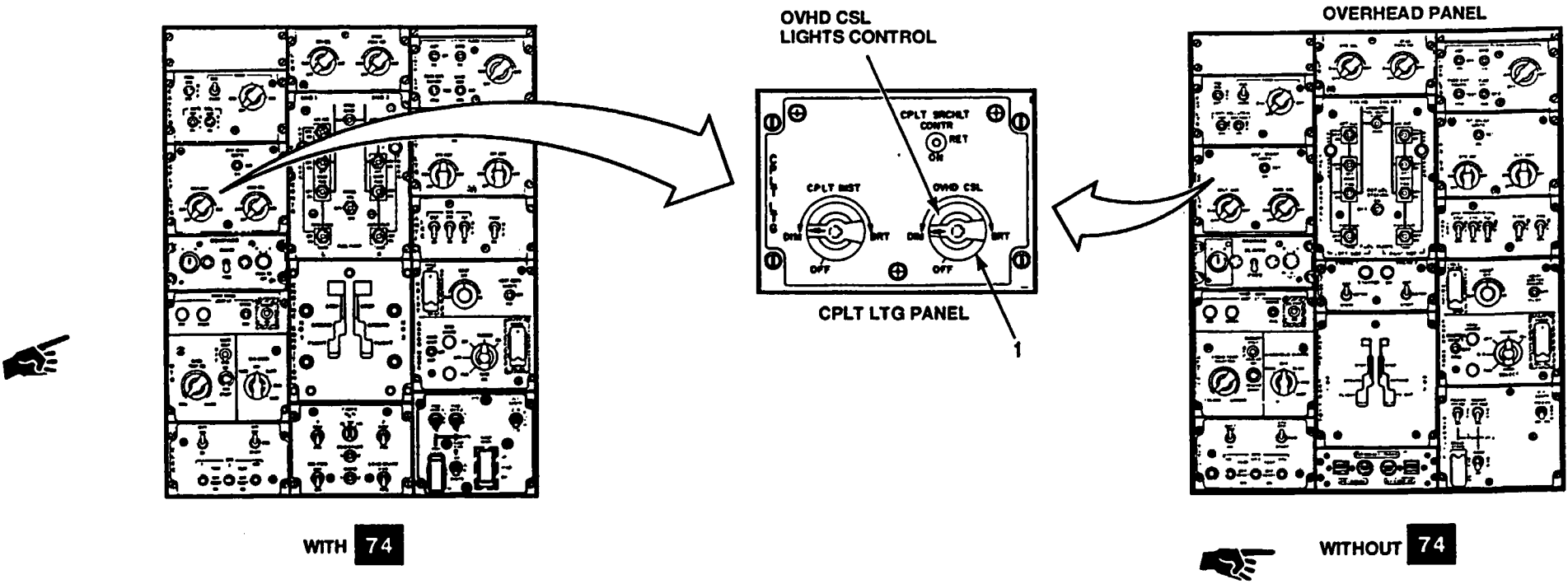
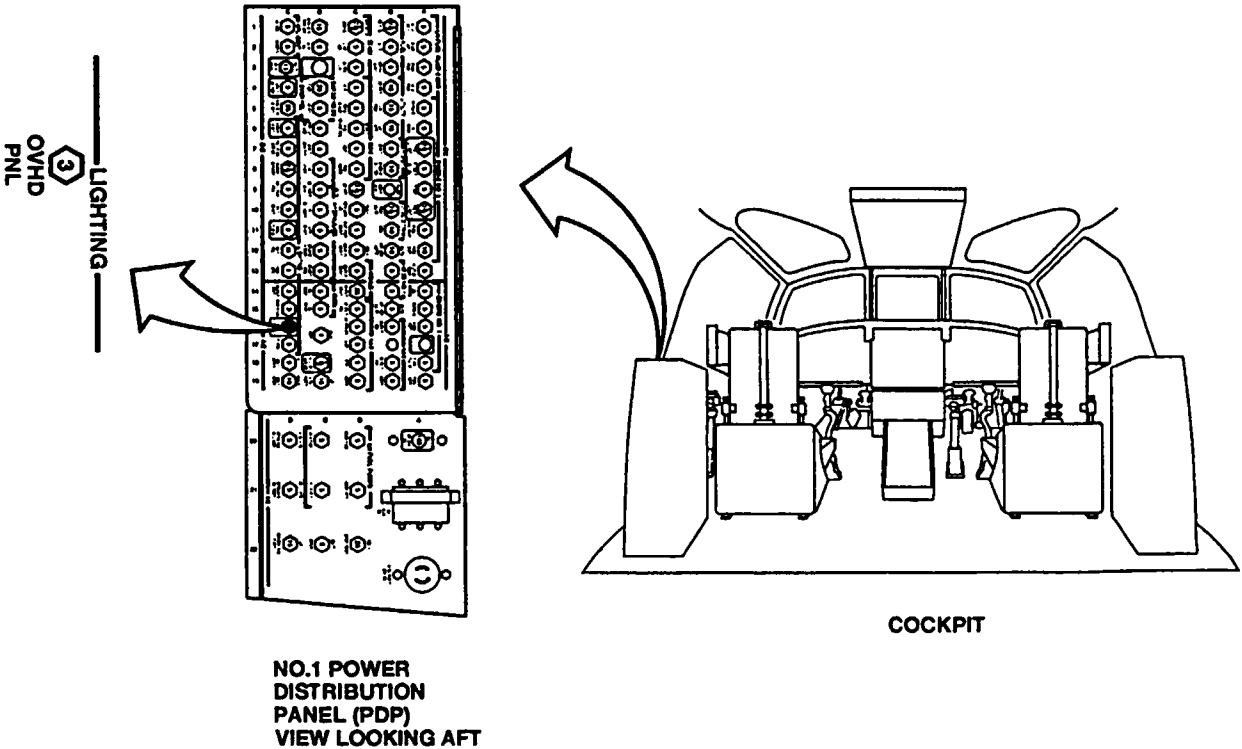
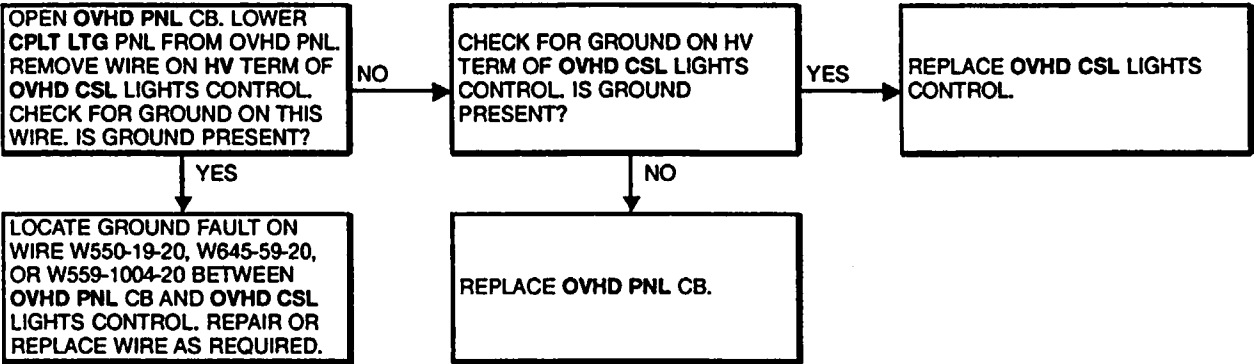
FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations**  
With 17

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



WITH 74

WITHOUT 74

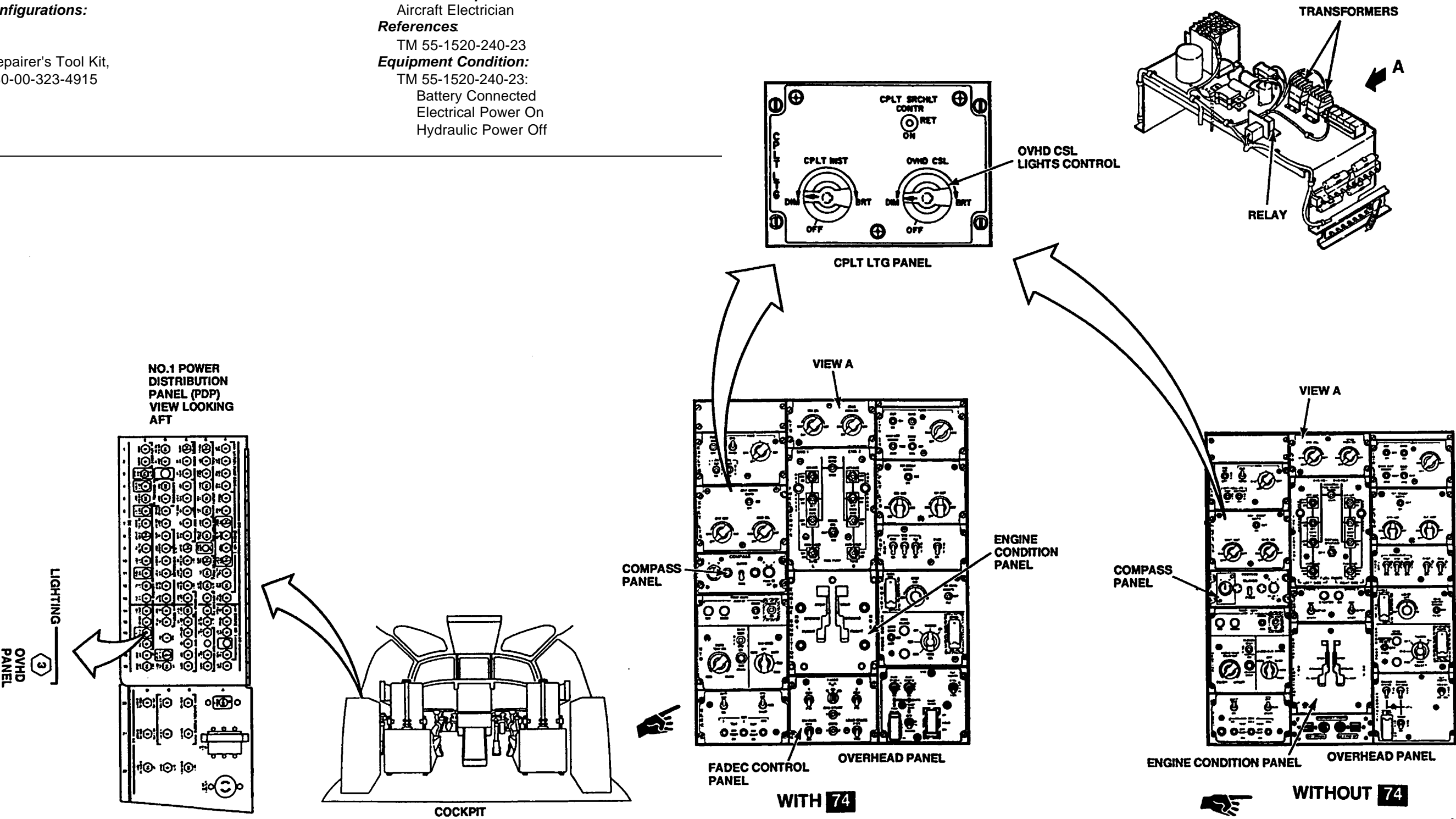
FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
With 17

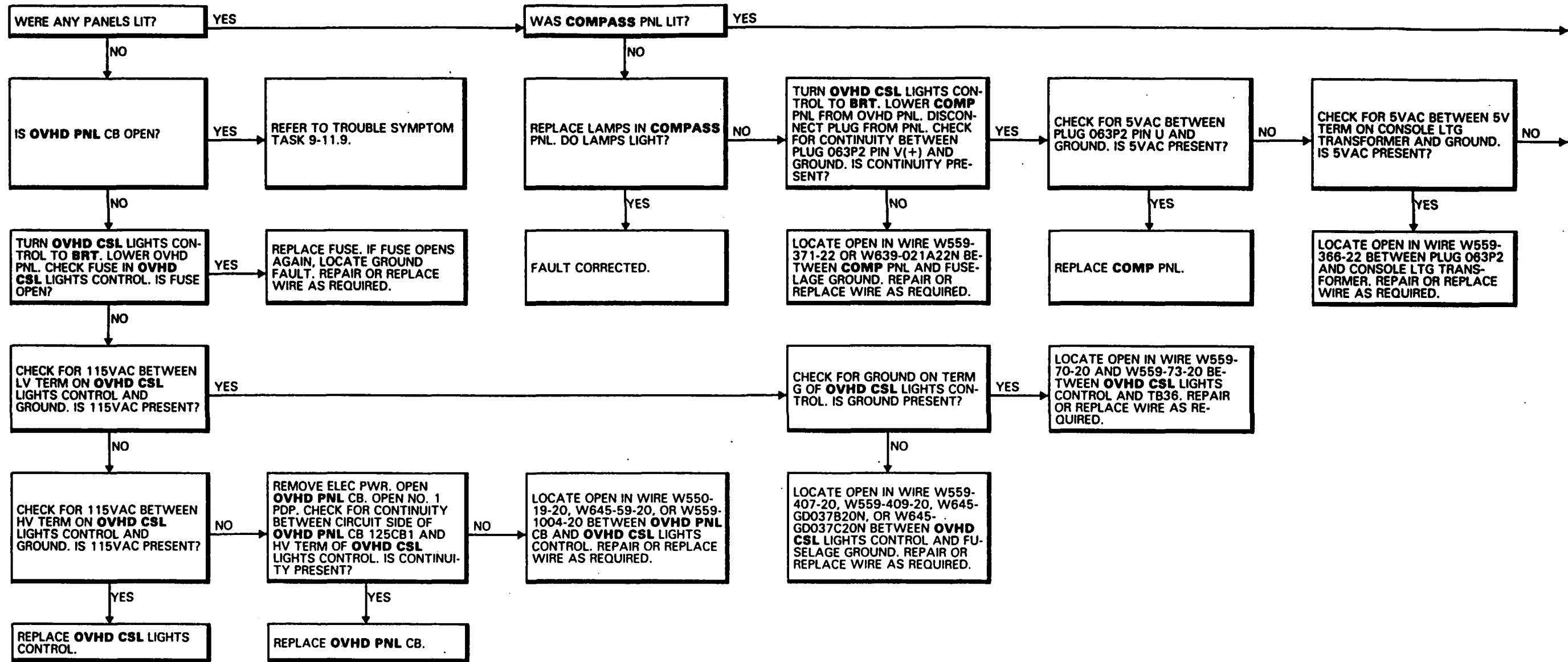
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

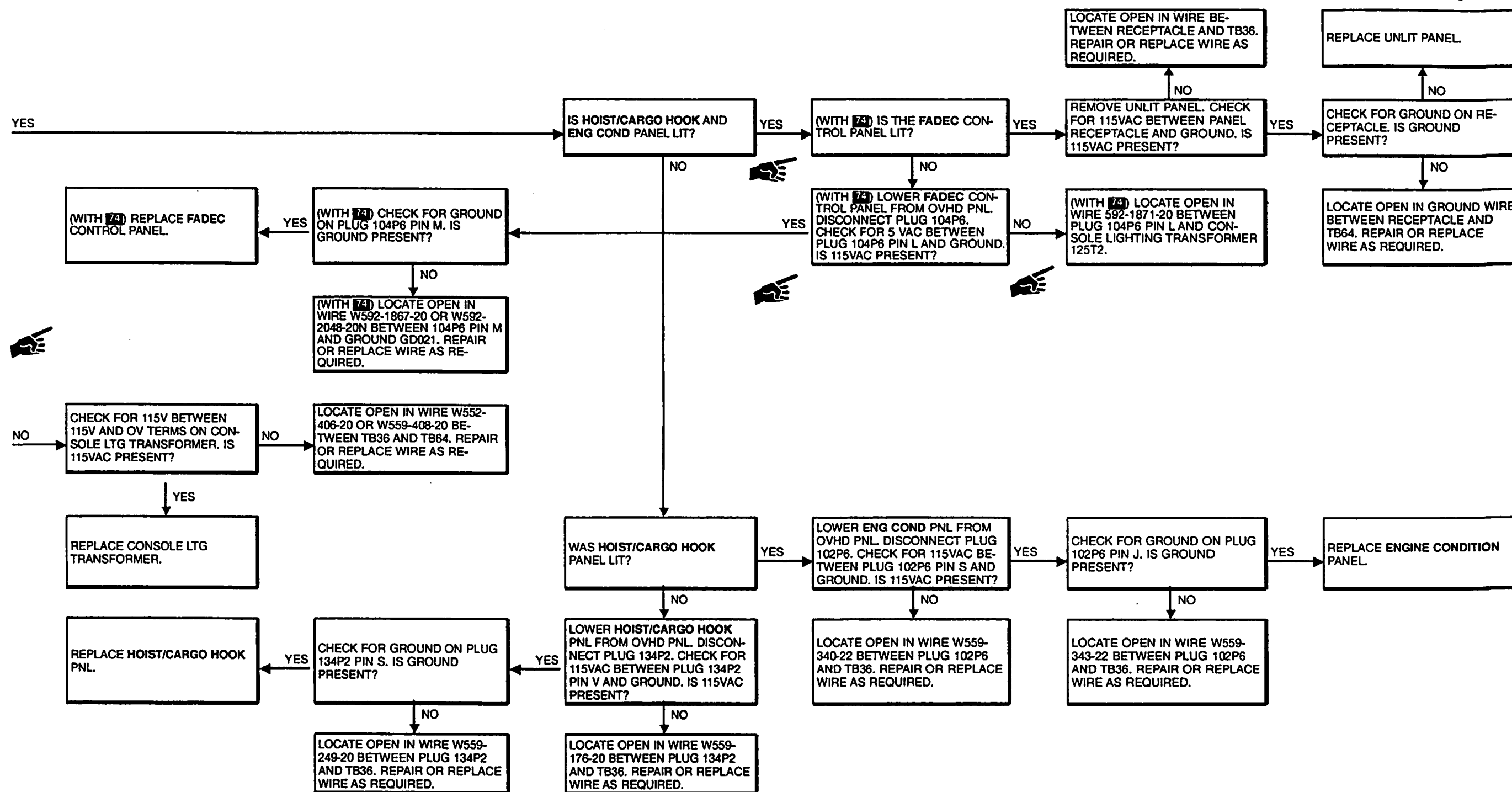
**Personnel Required:**  
Aircraft Electrician  
**References**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

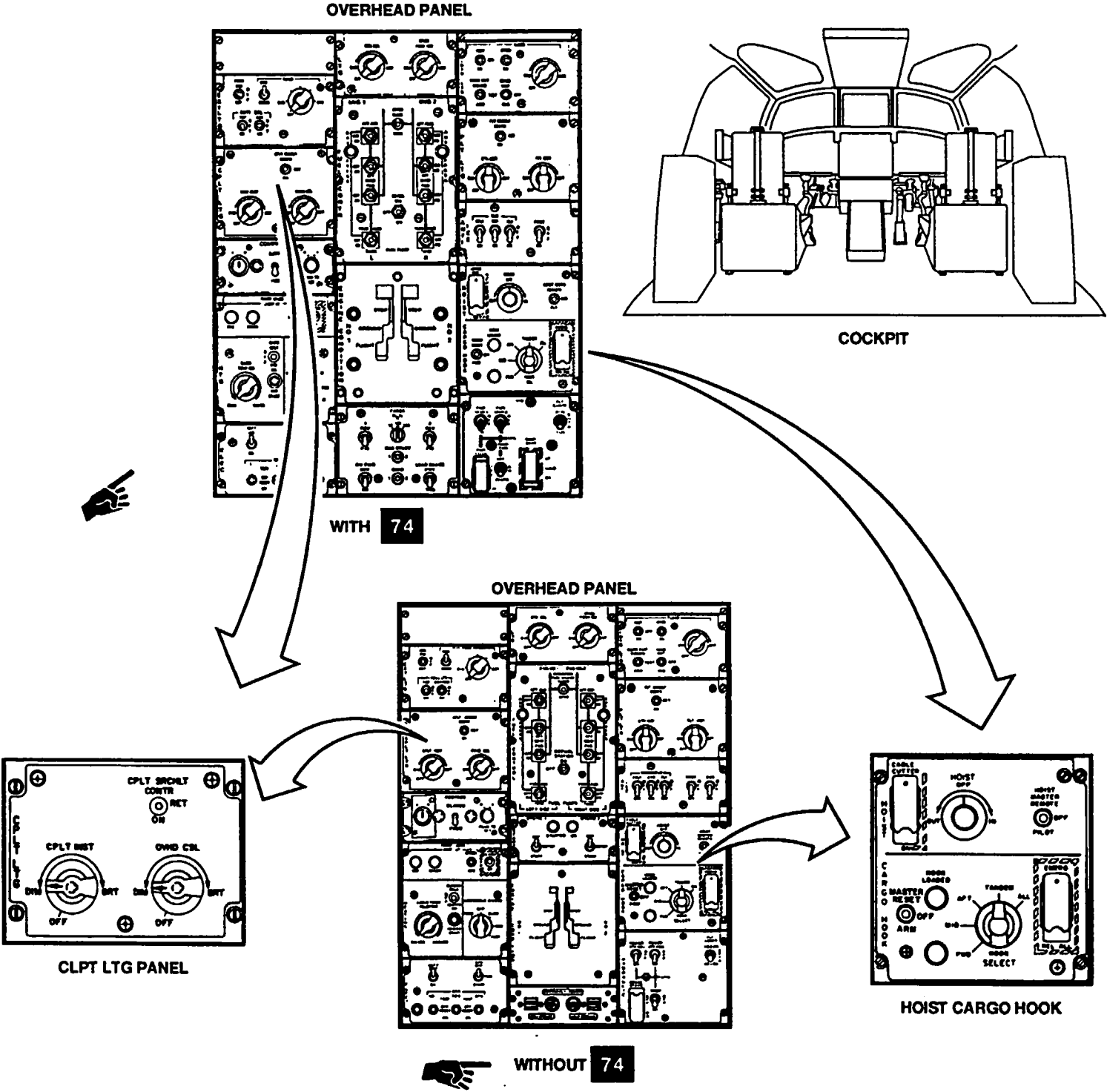


A72214





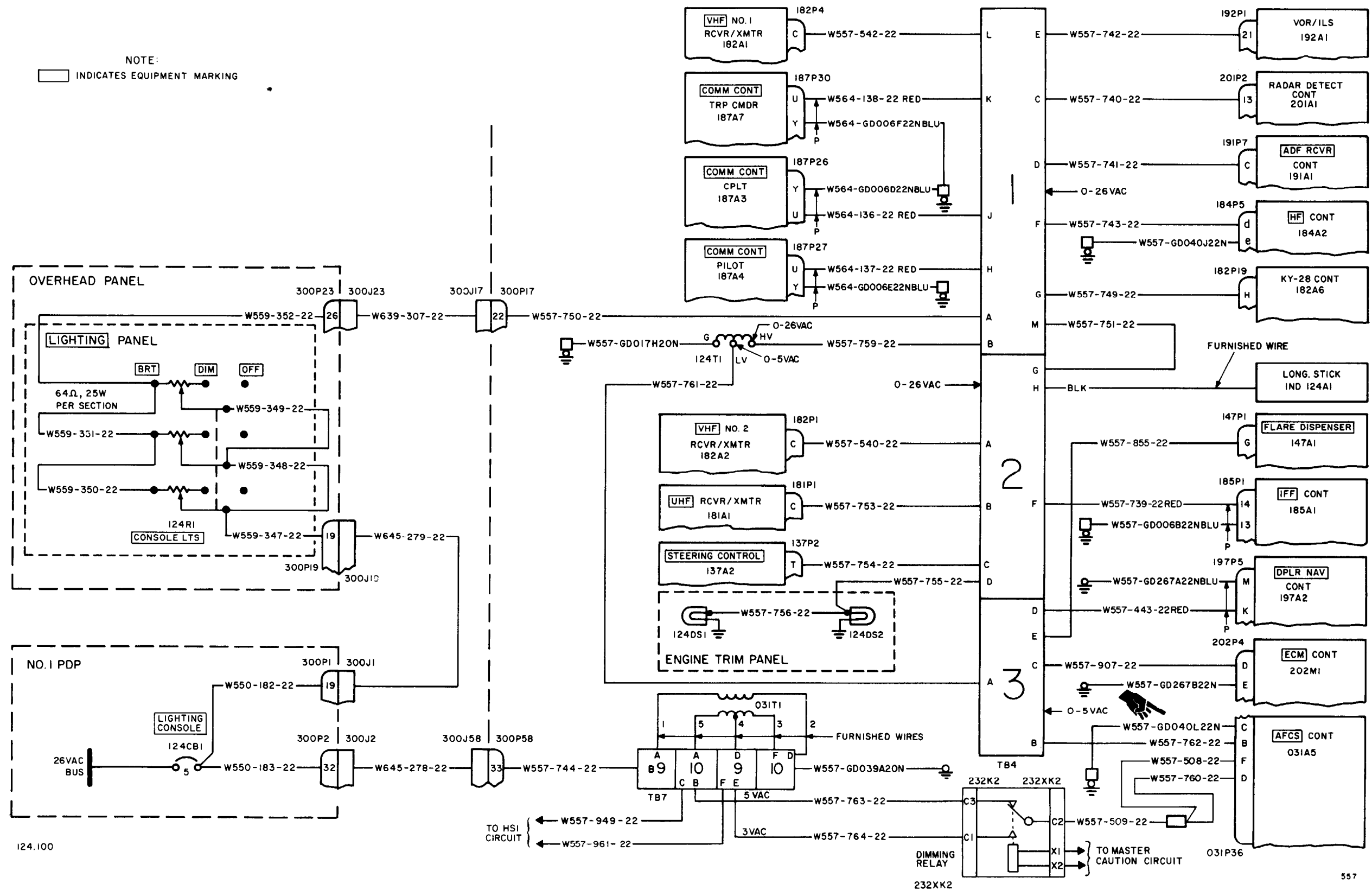




A72215



## **9-12 CONSOLE PANEL LIGHTS**



9-12.2 CONSOLE PANEL LIGHTS VISUAL CHECK

9-12.2

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Rewired:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

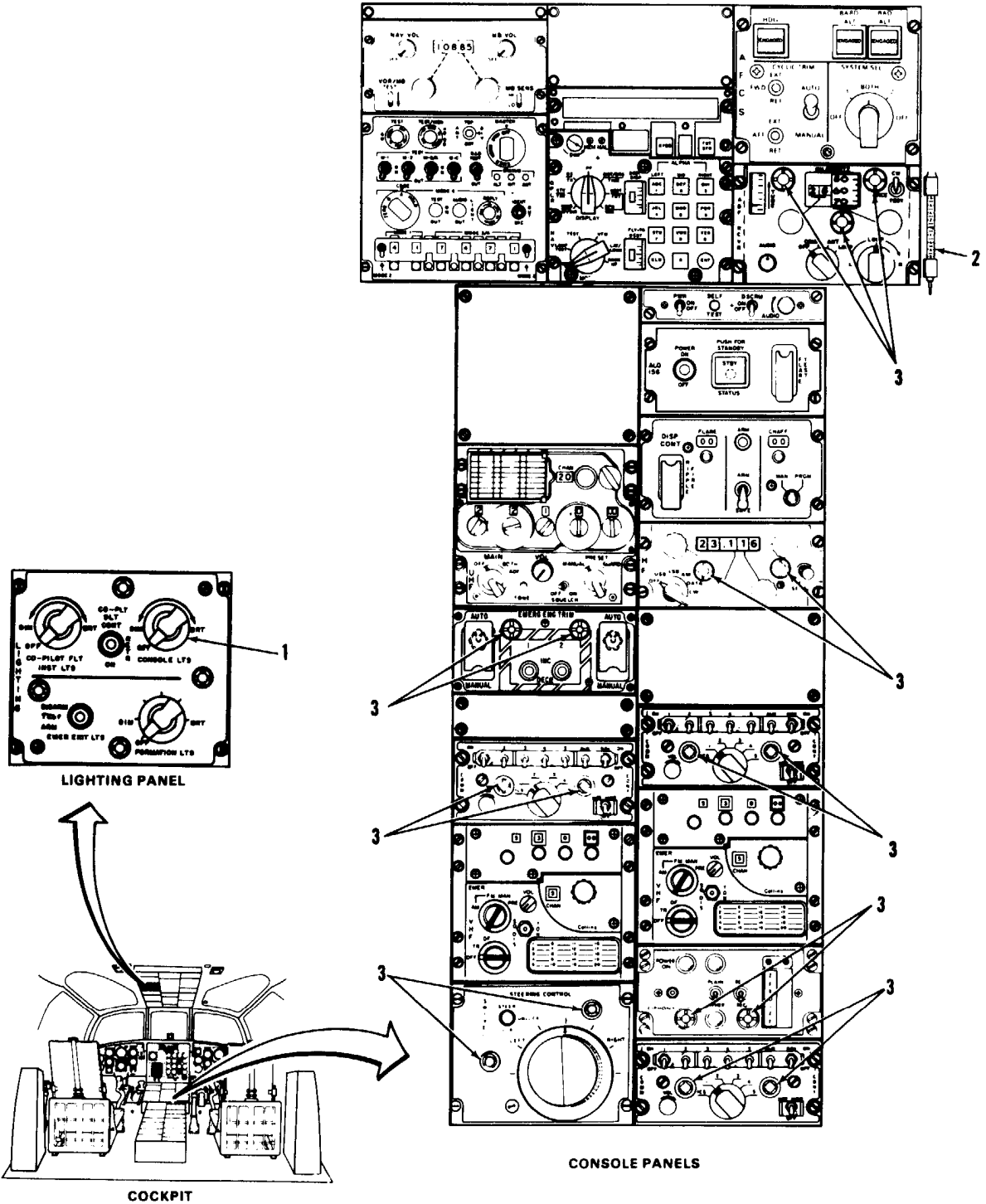
TM 55-1520-240-23:

Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check CONSOLE LTS control (1).	If control (1) is loose or damaged, tighten or replace it as required.
2. Check longitudinal stick position indicator (2).	If wire at bottom of indicator (2) is damaged, repair wire or replace light as required.
3. Check seventeen panel lights (3).	If any panel light (3) is damaged, replace it.

FOLLOW-ON MAINTENANCE:

None



D145-4618-SPA

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

Console Panel Lights Visual Check Performed  
(Task 9-12.2)

TM 55-1520-240-23:

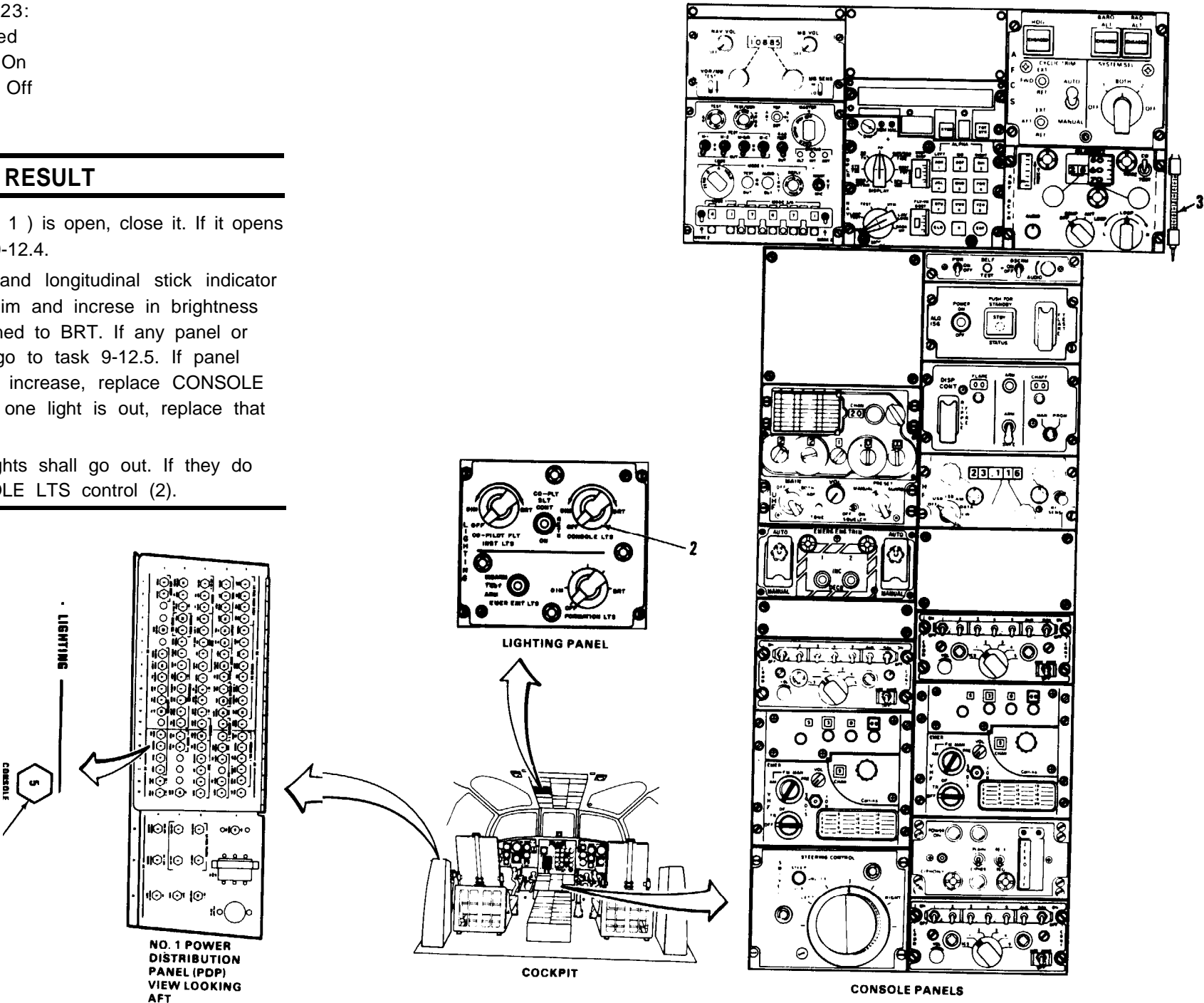
Battery Connected  
Electrical Power On  
Hydraulic Power Off

TASK	RESULT
1. Check that <b>LIGHTING CONSOLE</b> circuit breaker (1) is closed.	If CONSOLE circuit ( 1 ) is open, close it. If it opens again, go to task 9-12.4.
2. Turn <b>CONSOLE LTS</b> control (2) from <b>OFF</b> through <b>DIM</b> to <b>BRT</b> .	All console panels and longitudinal stick indicator (3) shall come on dim and increse in brightness as control (2) is turned to BRT. If any panel or indicator is not lit, go to task 9-12.5. If panel brightness does not increase, replace CONSOLE LTS control. If only one light is out, replace that light.
3. Turn <b>CONSOLE LTS</b> control (2) to <b>OFF</b> .	All console panel lights shall go out. If they do not, replace CONSOLE LTS control (2).

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:

Electrical Power Off  
Battery Disconnected







FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

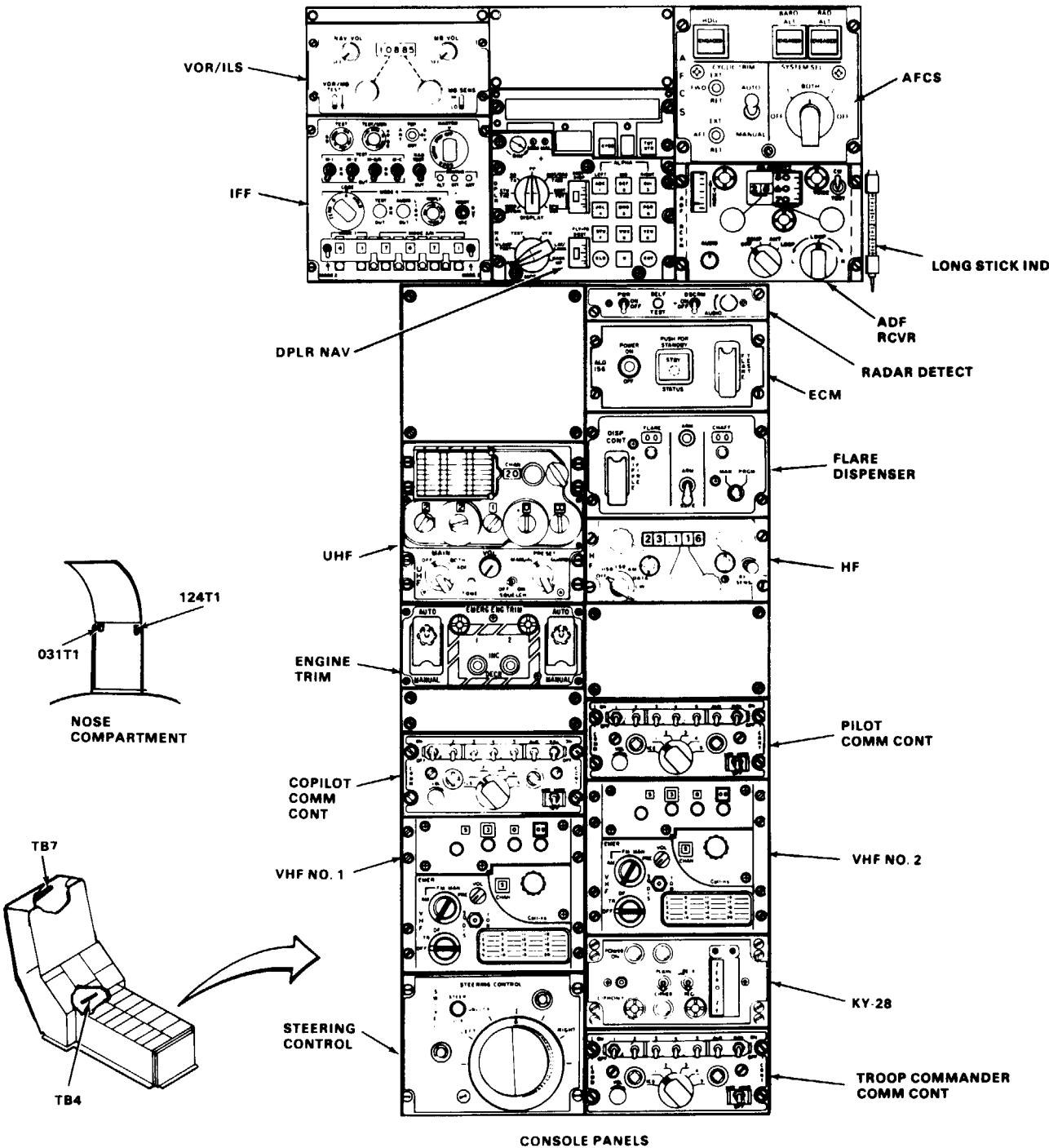
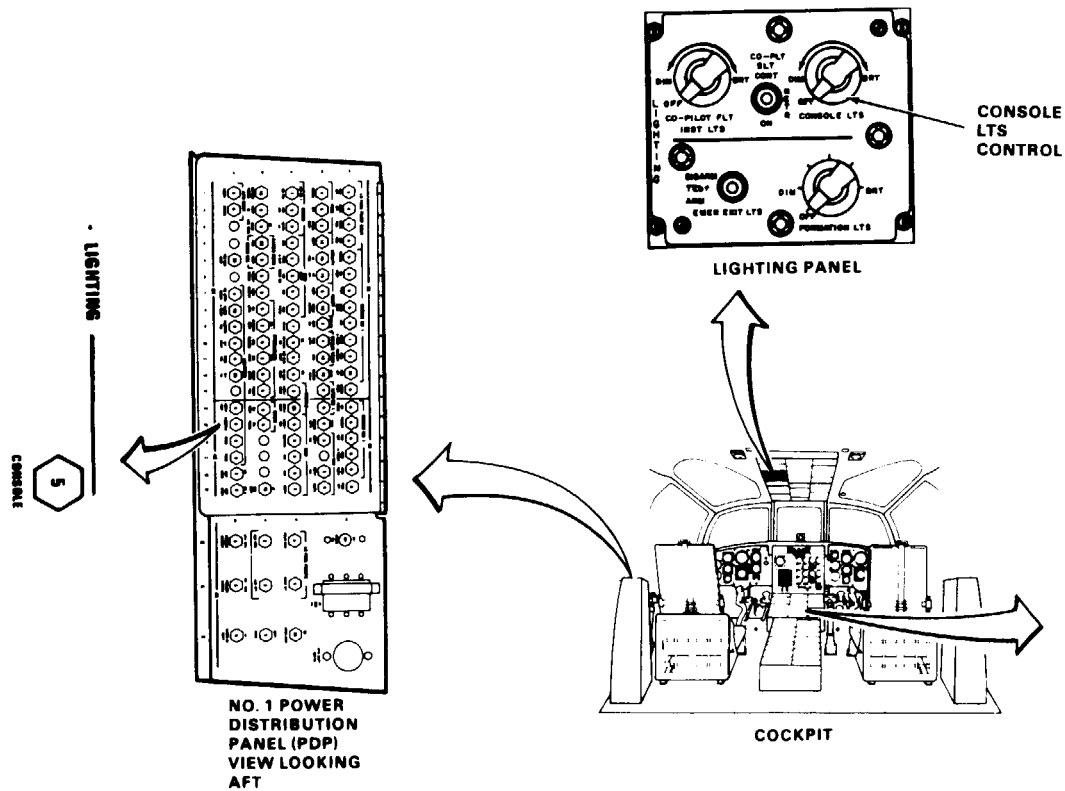
Aircraft Electrician

References:

TM 55-1520-240-23

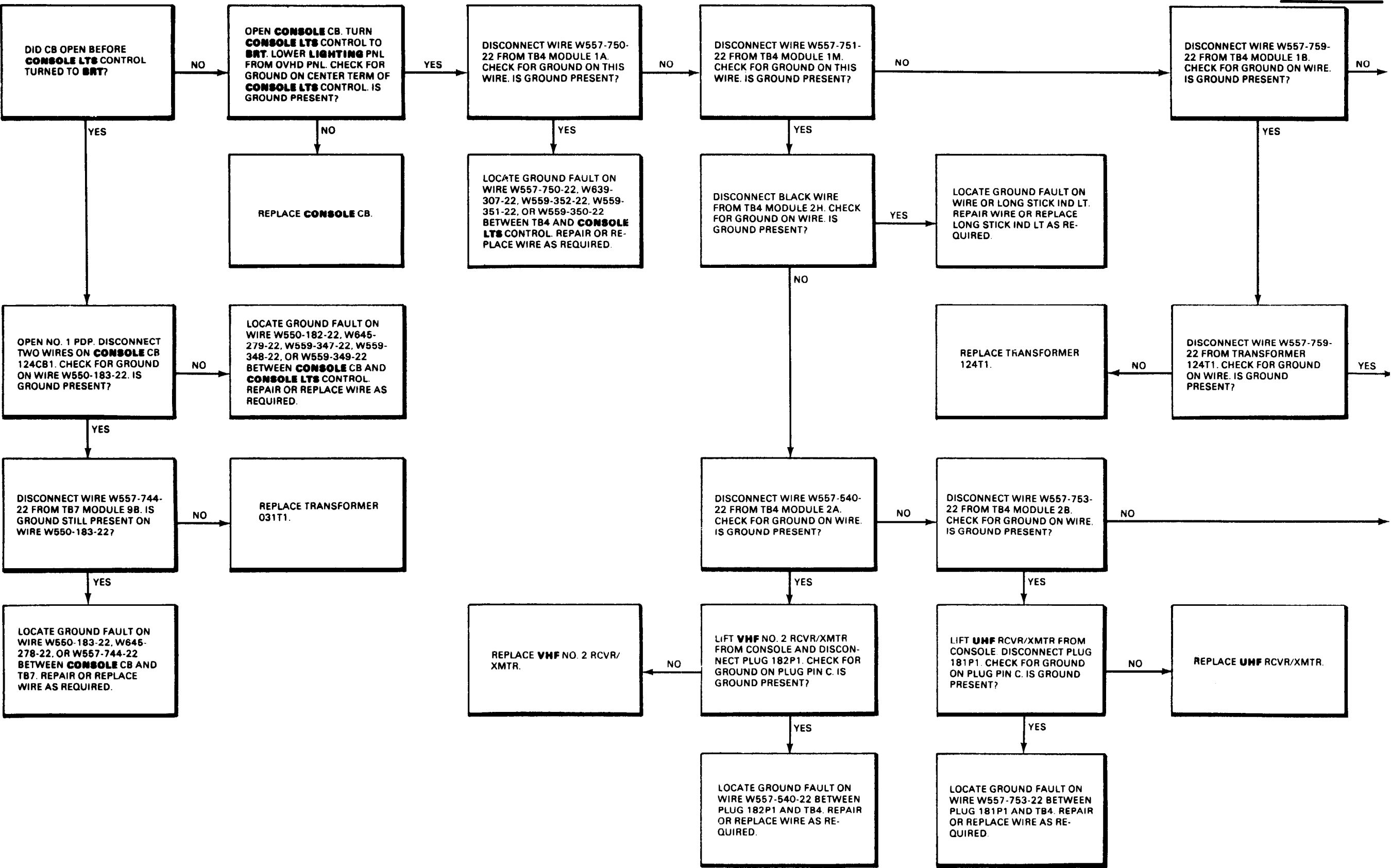
Equipment Condition:

- TM 55-1520-240-23:
- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off



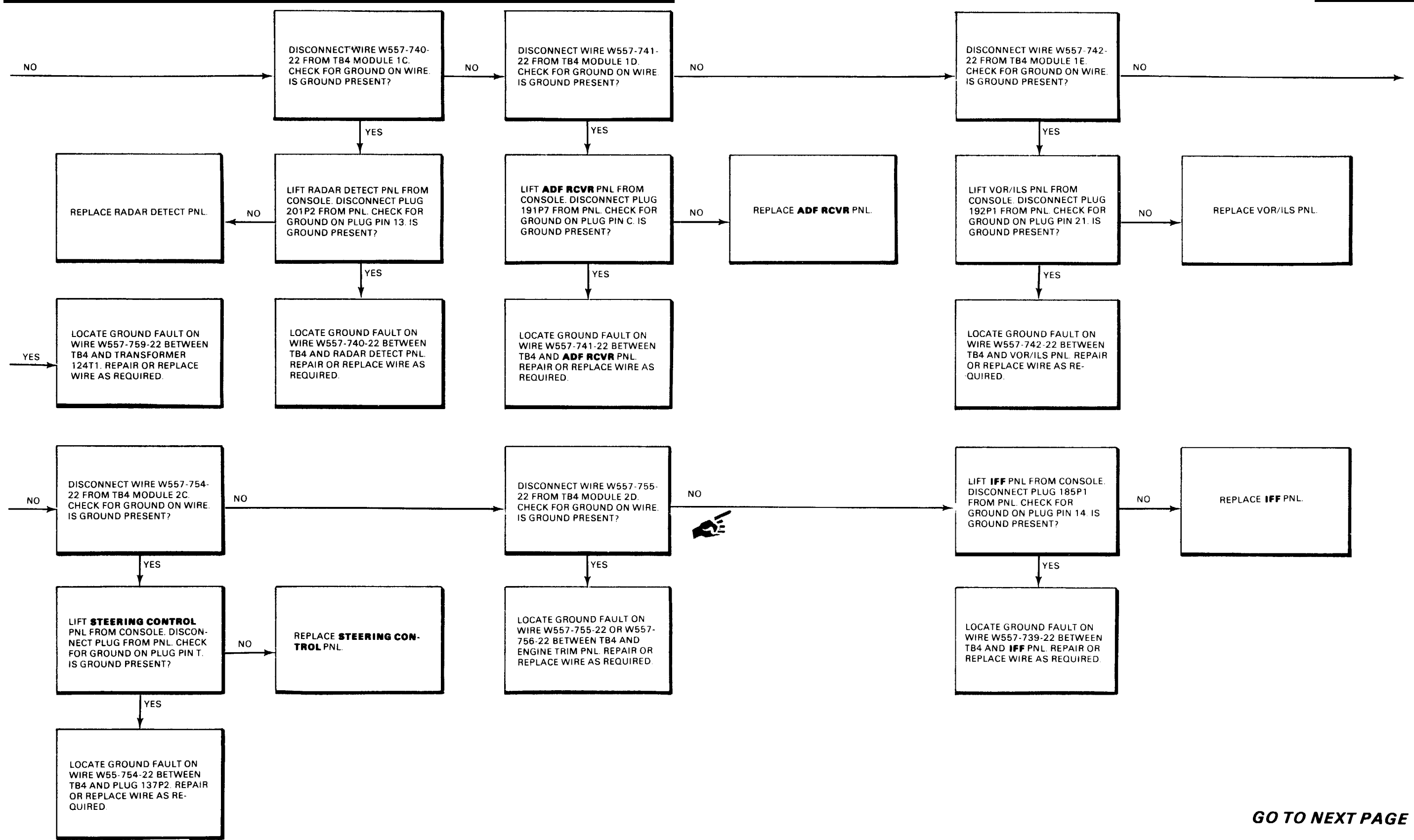
9-12.4 CONSOLE CIRCUIT BREAKER DOES NOT STAY CLOSED  
(Continued)

9-12.4



GO TO NEXT PAGE

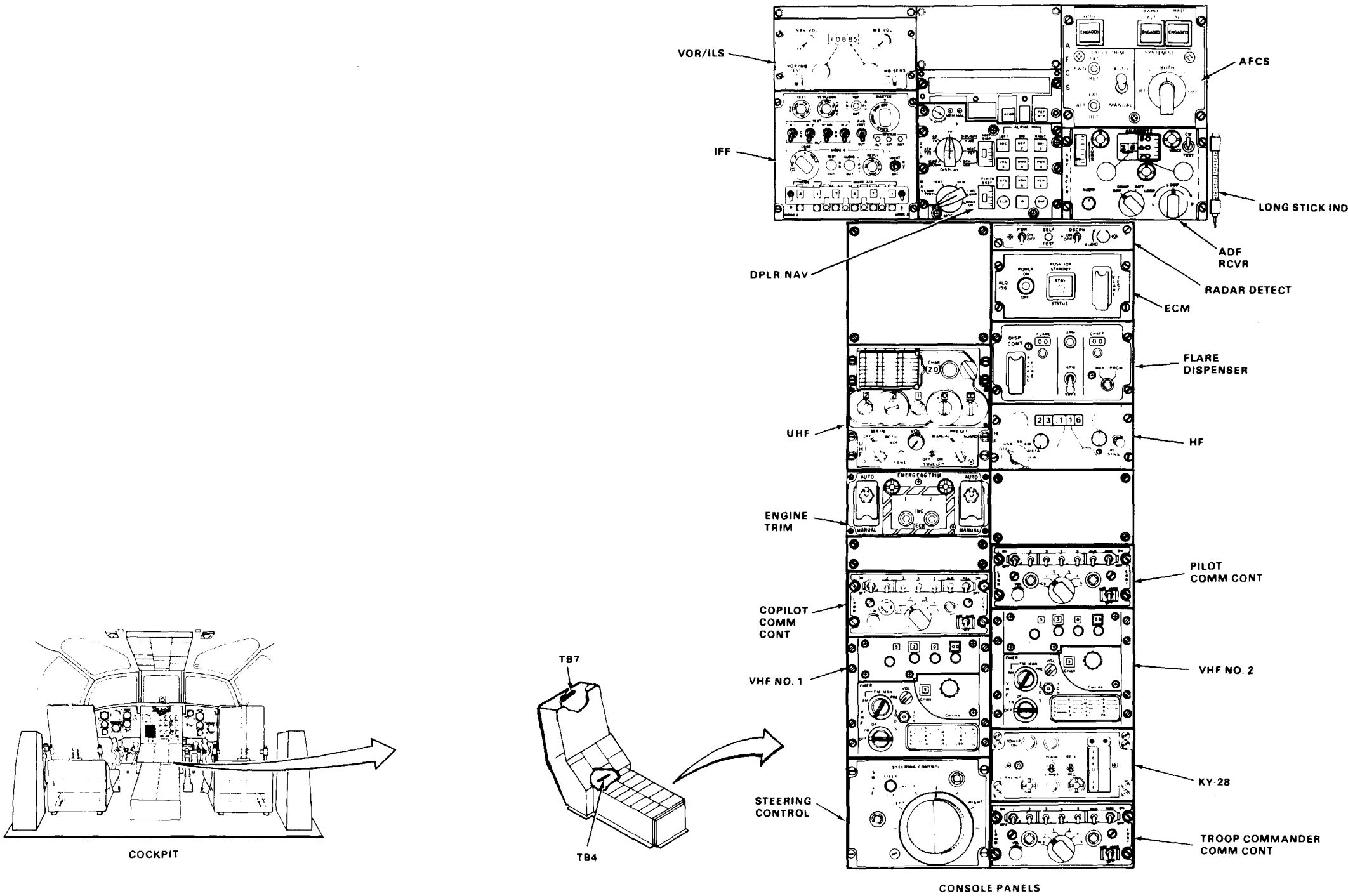
9-12.4 CONSOLE CIRCUIT BREAKER DOES NOT STAY CLOSED  
(Continued)



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9-12.4 CONSOLE CIRCUIT BREAKER DOES NOT STAY CLOSED  
(Continued)

9-12.4



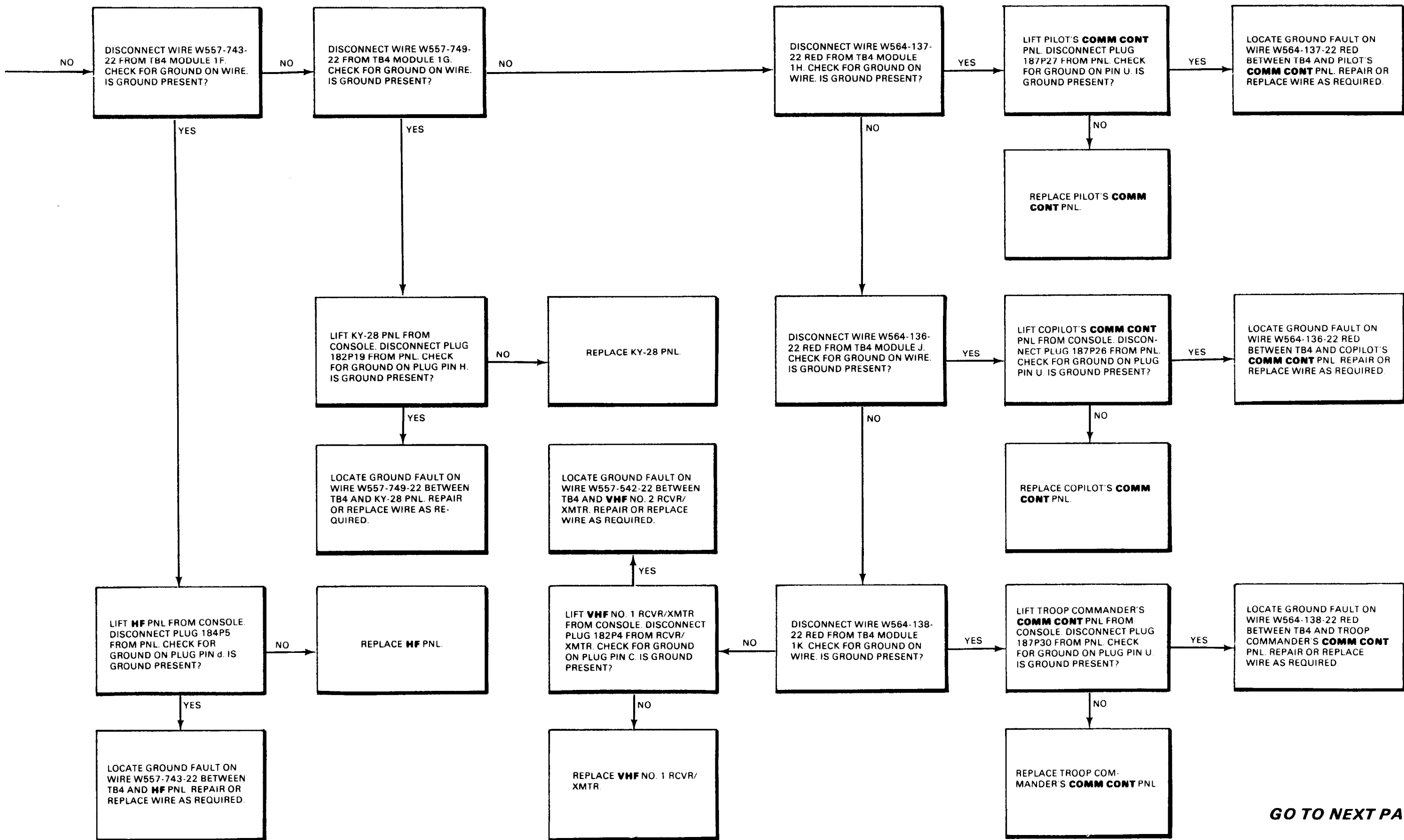
90X54

D145-11834-SPA

GO TO NEXT PAGE

9-12.4 CONSOLE CIRCUIT BREAKER DOES NOT STAY CLOSED  
(Continued)

9-12.4



GO TO NEXT PAGE



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

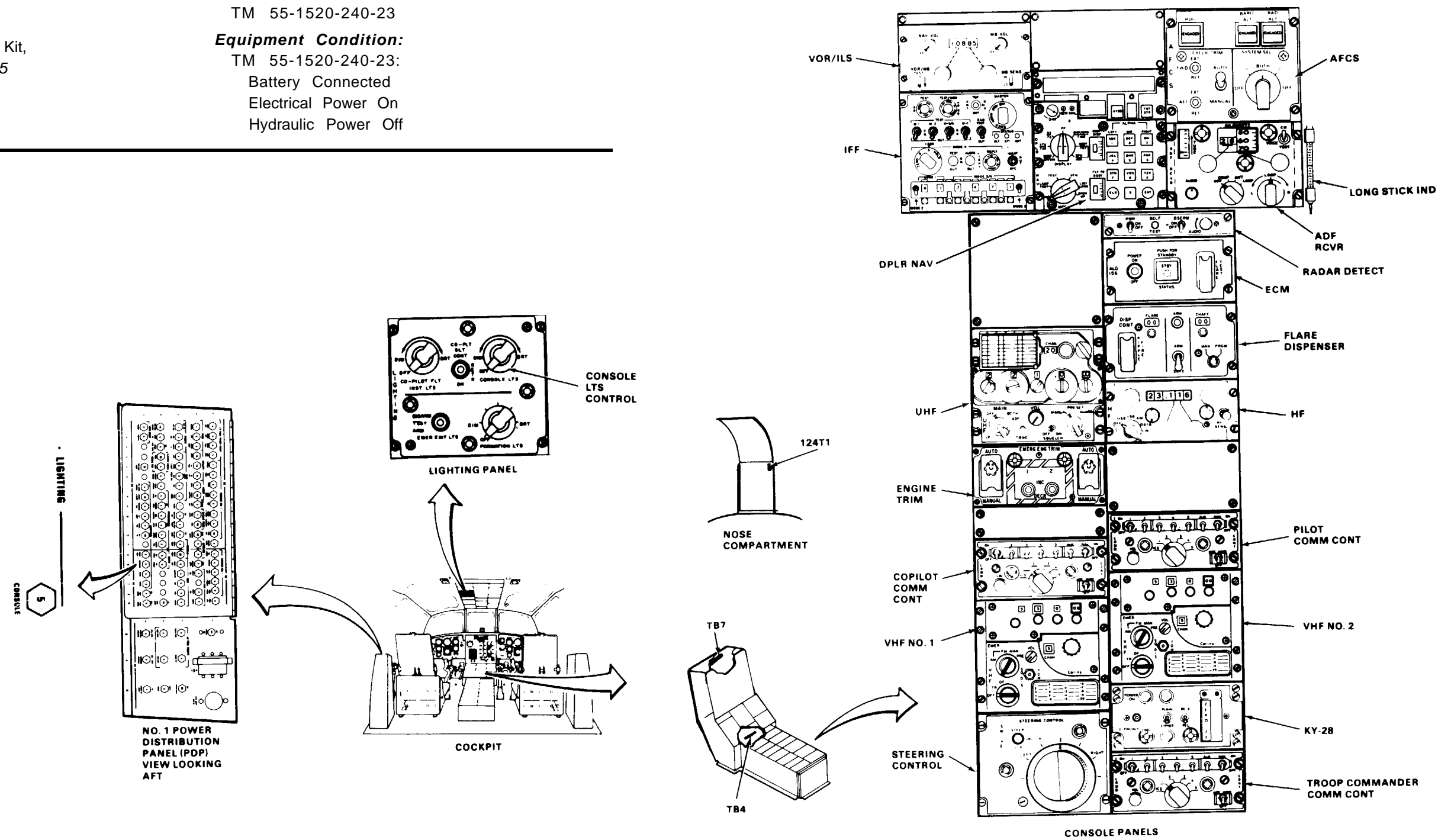
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

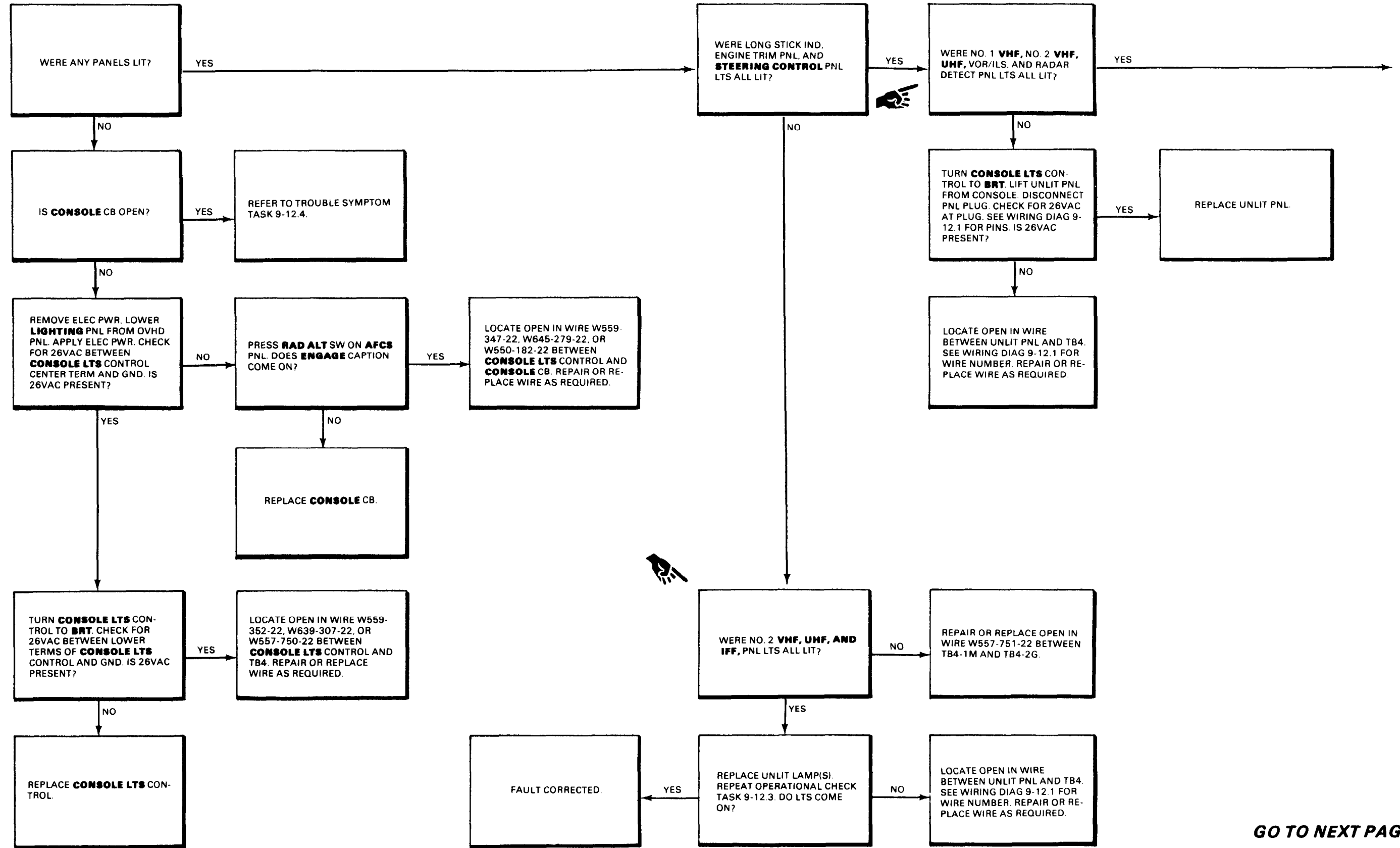
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



D145-4621-SPA

9-12.5 CONSOLE PANEL LIGHT OR LIGHTS NOT LIT (Continued)

9-12.5

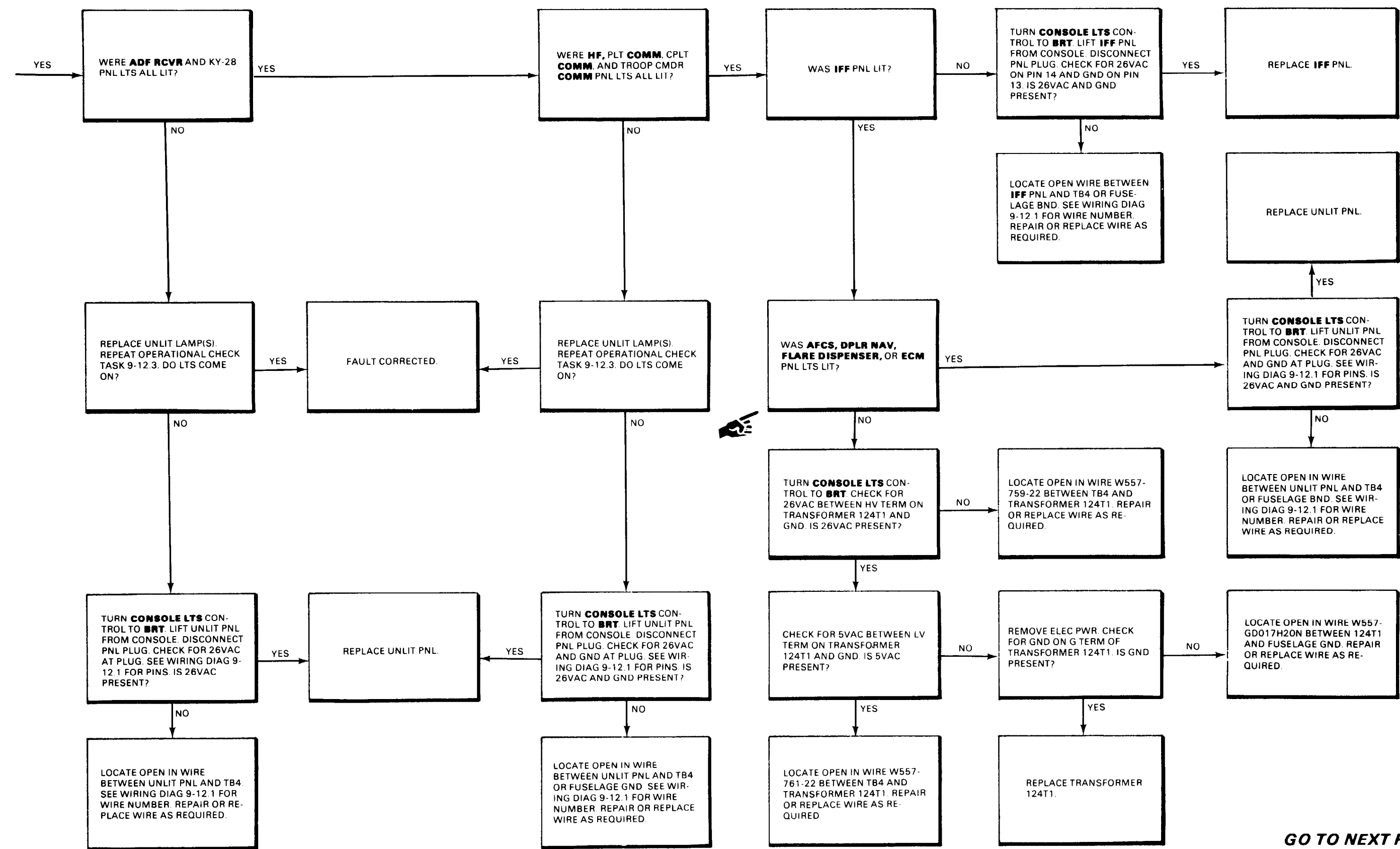


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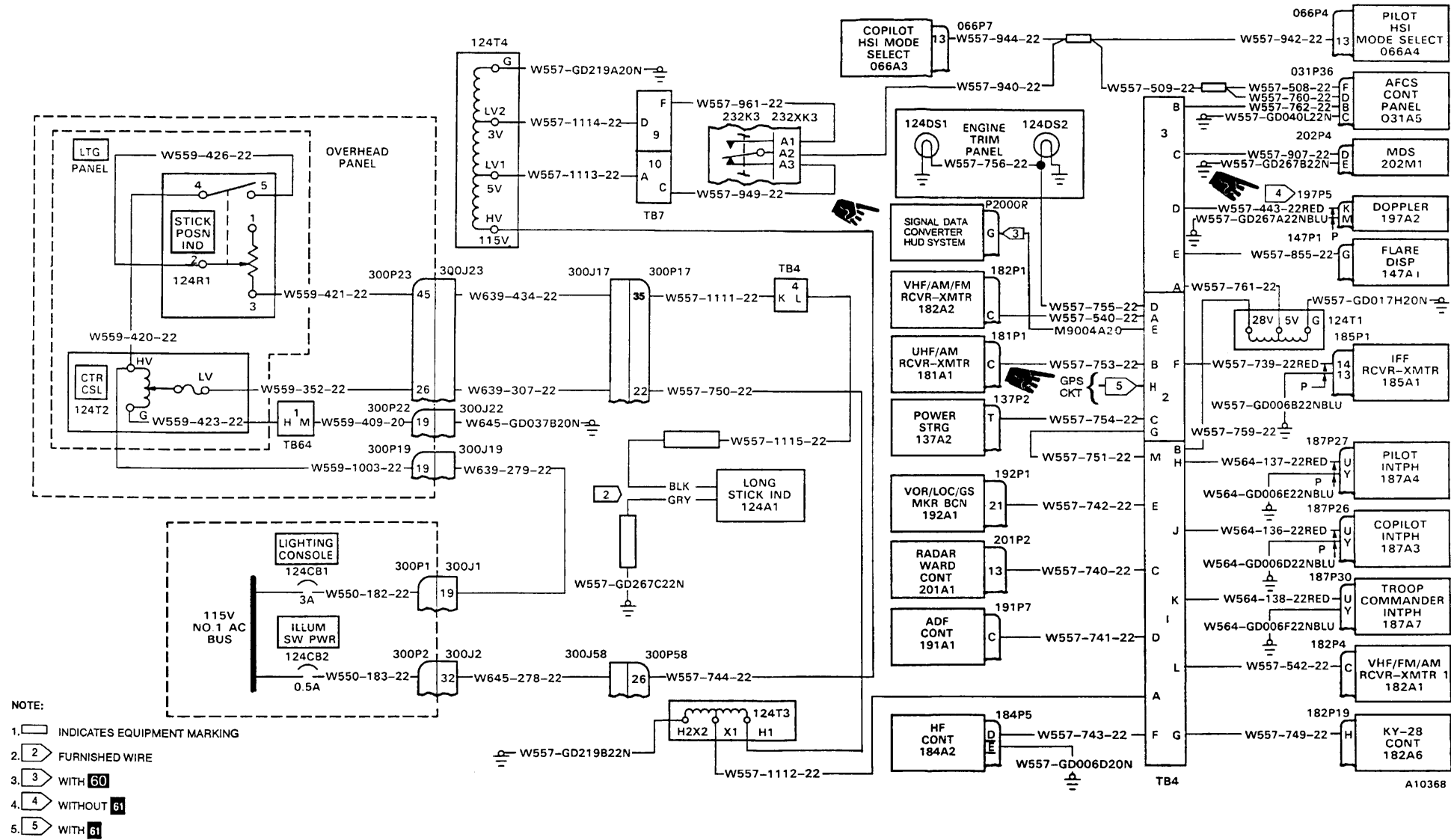


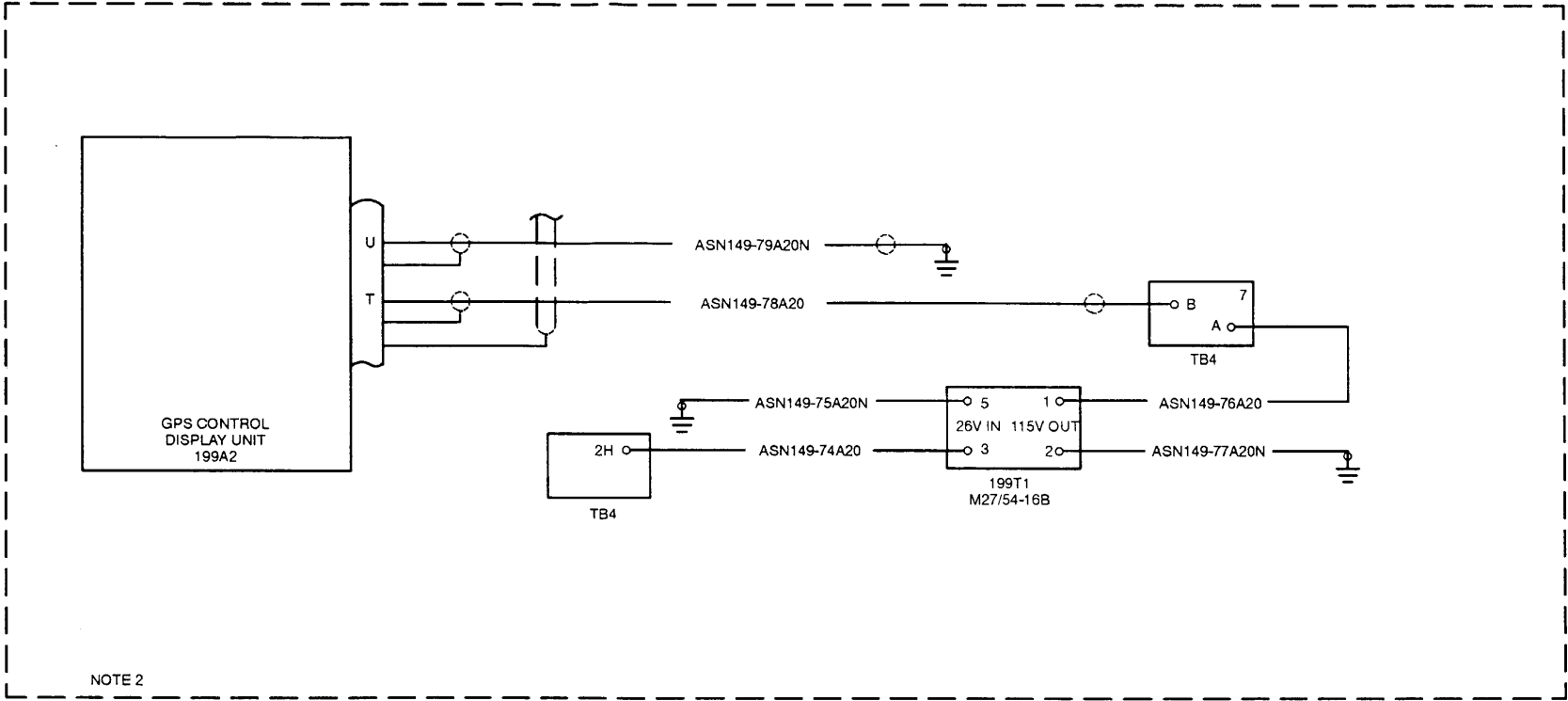
9-12.5 CONSOLE PANEL LIGHT OR LIGHTS NOT LIT (Continued)

9-12.5



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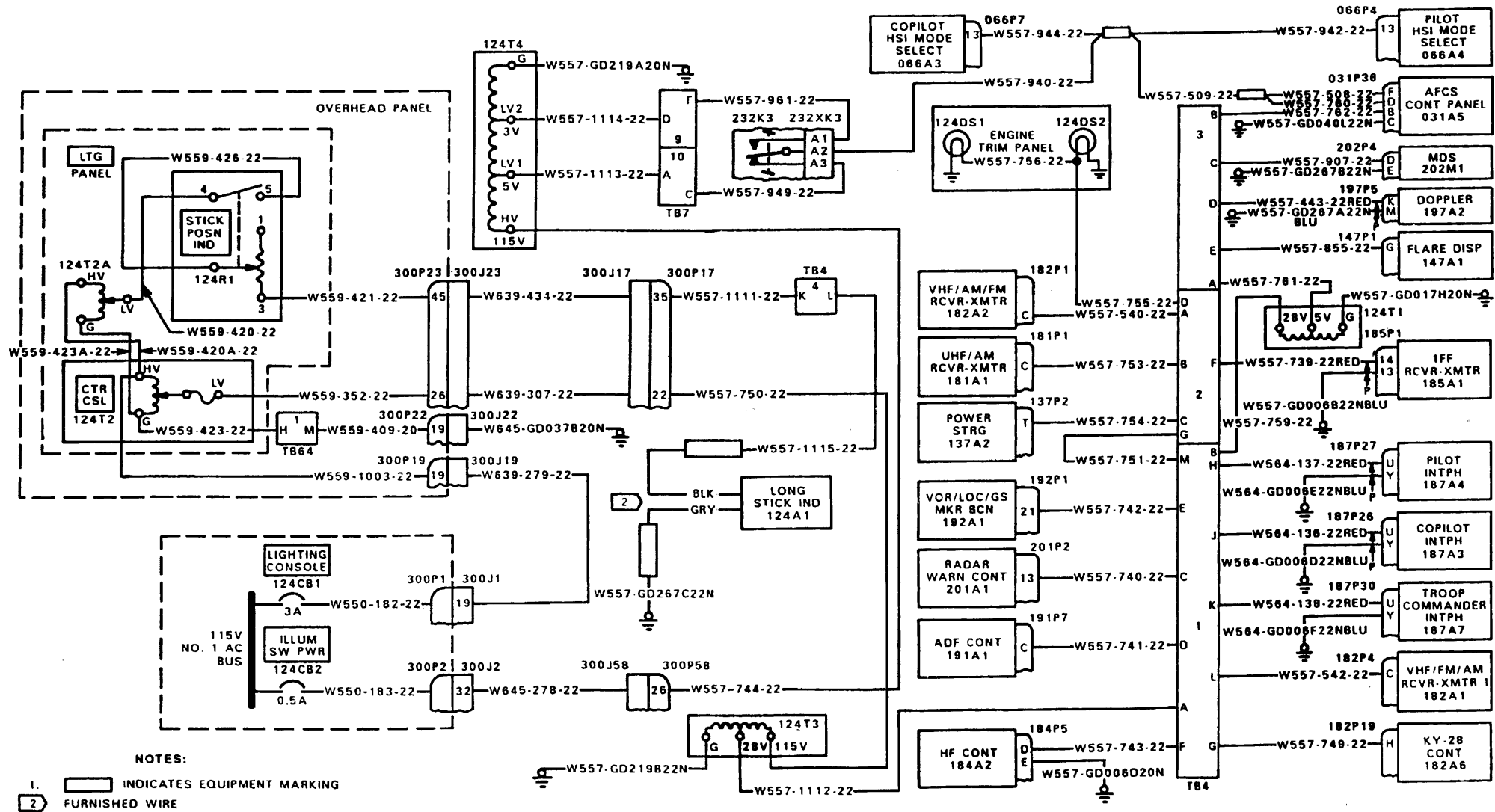


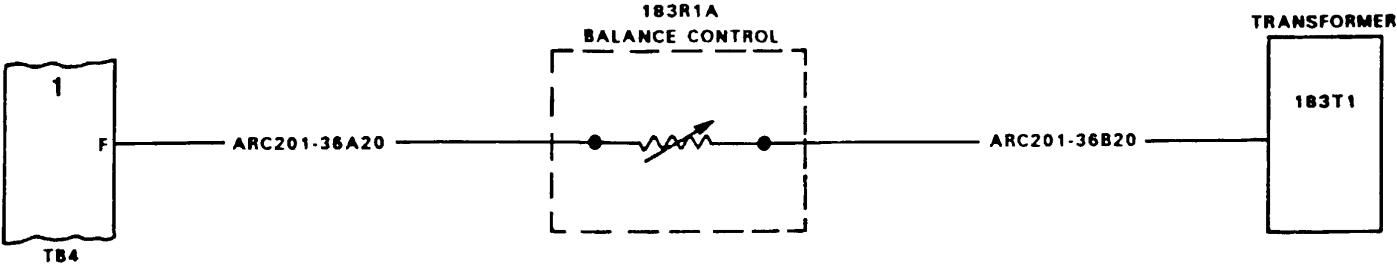


- NOTE:
- 1.  INDICATES EQUIPMENT MARKING
  - 2. WITH 

9-12.6.1 CONSOLE PANEL LIGHTS WIRING DIAGRAM (WITH (17)) AFTER MODIFICATION BY MWO 1-1520-240-50-52

9-12.6.1





EFFECTIVITY
AFTER C/W MWO 55-1520-240-50-28

9-12.7 CONSOLE PANEL LIGHTS VISUAL CHECK

9-12.7

INITIAL SETUP

**Applicable Configurations:**  
With 17

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

**Materials:**  
None

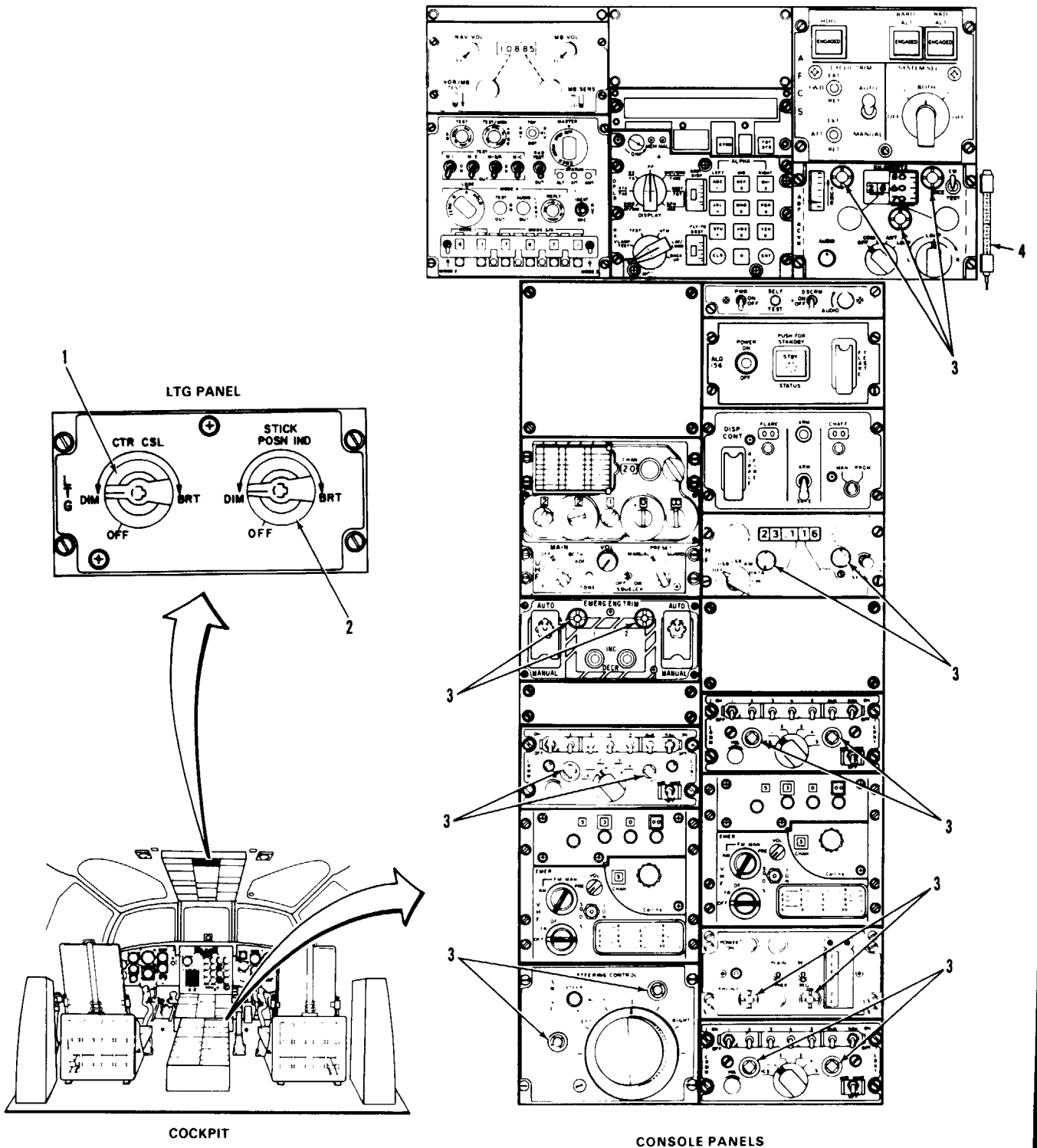
**Personnel Required:**  
Aircraft Electrician

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check CTR CSL control (1).	If control (1) is loose or damaged, tighten or replace it as required.
2. Check STICK POSN IND control (2).	If control (2) is loose or damaged, tighten or replace it as required.
3. Check seventeen panel lights (3).	If any panel light (3) is damaged, replace it.
4. Check light under longitudinal stick position indicator (4).	If light under indicator (4) is damaged, replace light as required.

**FOLLOW-ON MAINTENANCE:**  
None



9-12.8 CONSOLE PANEL LIGHTS OPERATIONAL CHECK

INITIAL SETUP

Applicable Configurations:  
With 17

Tools:  
None

Materials:  
None

Personnel Required:  
Aircraft Electrician

References:

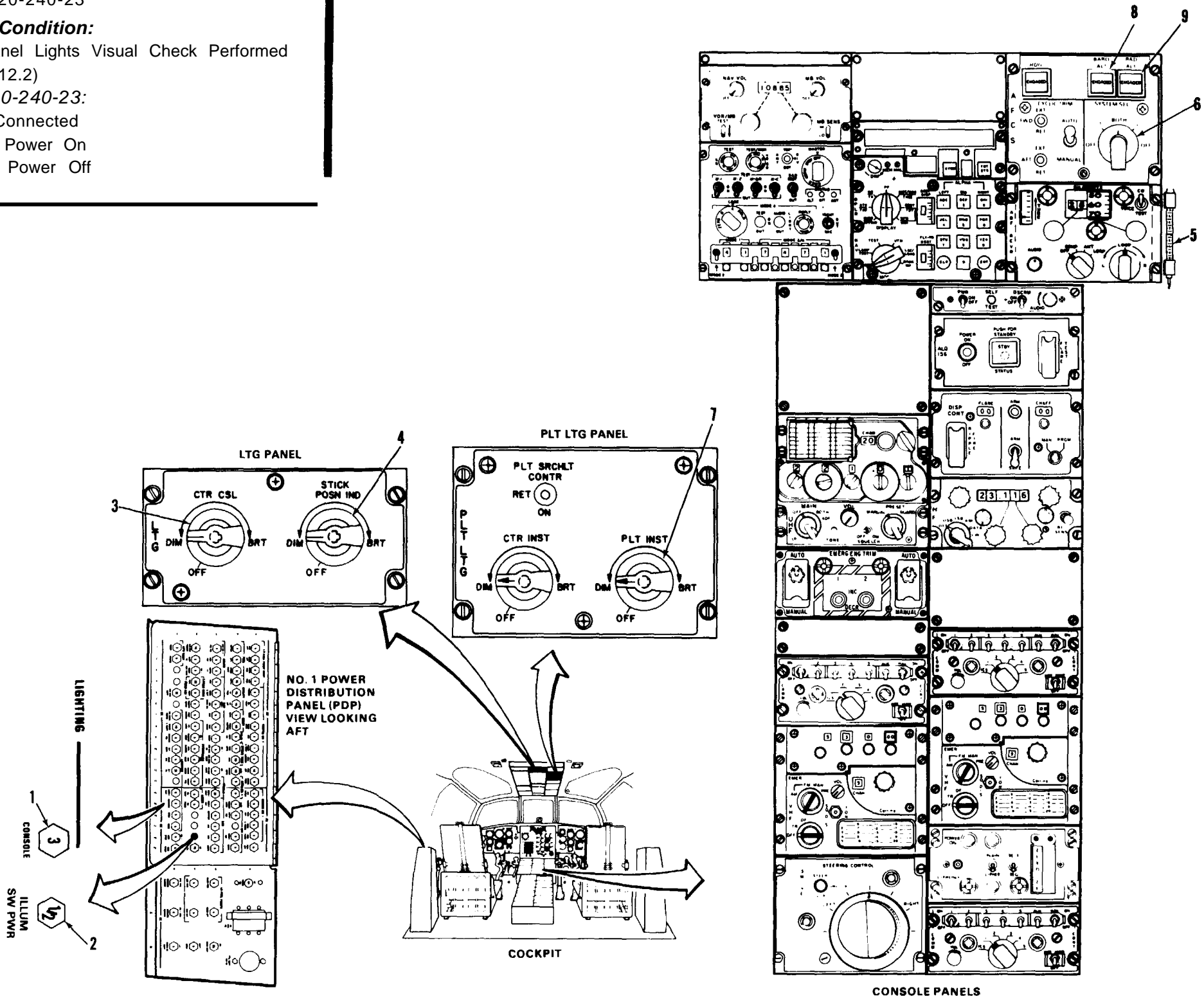
TM 55-1520-240-23

Equipment Condition:

Console Panel Lights Visual Check Performed  
(Task 9-12.2)

TM 55-1520-240-23:

Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-12.8 CONSOLE PANEL LIGHTS OPERATIONAL CHECK (Continued)

9-12.8

TASK	RESULT
<b>CHECK CONSOLE PANEL LIGHTS</b>	
1. Check that CONSOLE circuit breaker (1) is closed.	If CONSOLE circuit breaker (1) is open, close it. If it opens again, go to task 9-12.9.
2. Check that ILLUM SW PWR circuit breaker (2) is closed.	If ILLUM SW PWR circuit breaker (1) is open, close it. If it opens again, go to task 9-12.10.
3. Turn CTR CSL control (3) from OFF through DIM to BRT.	All console panels shall come on dim and increase in brightness as control (3) is turned to BRT. If any panel is not lit, go to task 9-12.11. If panel brightness does not increase, replace CTR CSL control. If only one light is out, replace that light.
4. Turn STICK POSN IND control (4) from OFF through DIM to BRT.	Longitudinal stick indicator (5) shall come on dim and increase in brightness as control (4) is turned to BRT. If indicator (5) is not lit, go to task 9-12.12. If indicator brightness does not increase above dim, replace STICK POSN IND control (4).
5. Turn CTR CSL control (3) to OFF.	All console panel lights shall go out. If they do not, replace CTR CSL control (3).
6. Turn STICK POSN IND control (4) to OFF.	Longitudinal stick indicator (5) shall go out. If it does not, replace STICK POSN IND control (4).

TASK	RESULT
<b>CHECK ILLUMINATED SWITCHES</b>	
7. Set SYS SEL switch (6) on AFCS panel to OFF.	
8. Set PLT INST lights control (7) to OFF.	
9. Press and hold BARO ALT switch (8).	Caption on BARO ALT switch (8) shall light bright. If it does not come on, go to task 9-12.13.
10. Release BARO ALT switch (8).	Caption on BARO ALT switch (8) shall go out.
11. Set PLT INST lights control (7) to ON.	
12. Press and hold RAD ALT switch (9).	Caption on RAD ALT switch (9) shall light dim. If it does not light dim, go to task 9-12.14.
13. Set Pilot inst lights control (7) to OFF.	Caption on RAD ALT switch (9) shall light bright.
14. Release RAD ALT switch (9).	

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Electrical Power Off  
Battery Disconnected



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
With 17

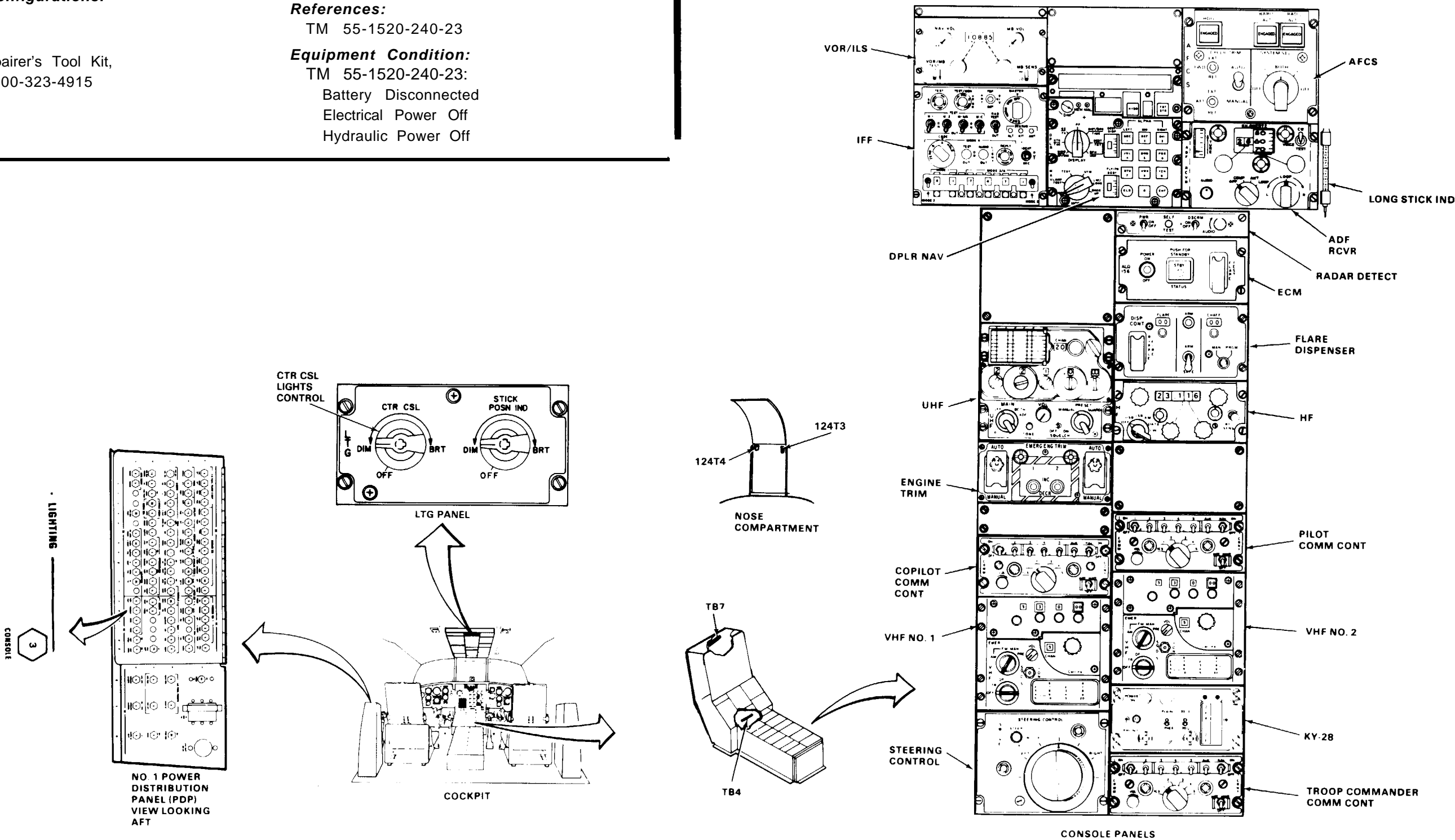
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

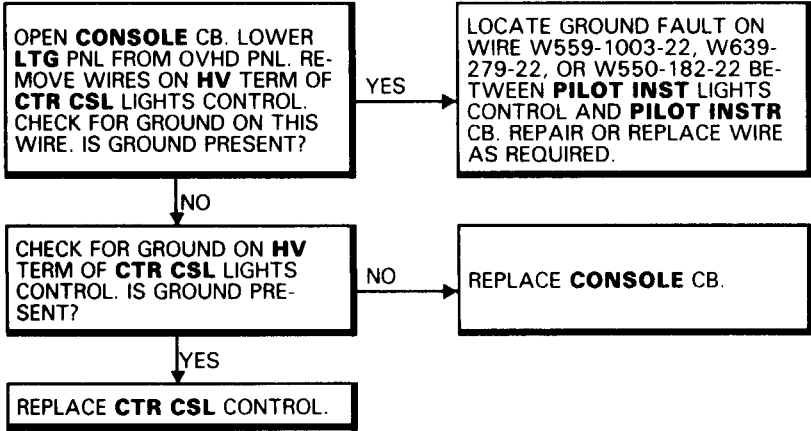


90 x 48

10371

9-12.9 CONSOLE CIRCUIT BREAKER DOES NOT STAY CLOSED (Continued)

9-12.9



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

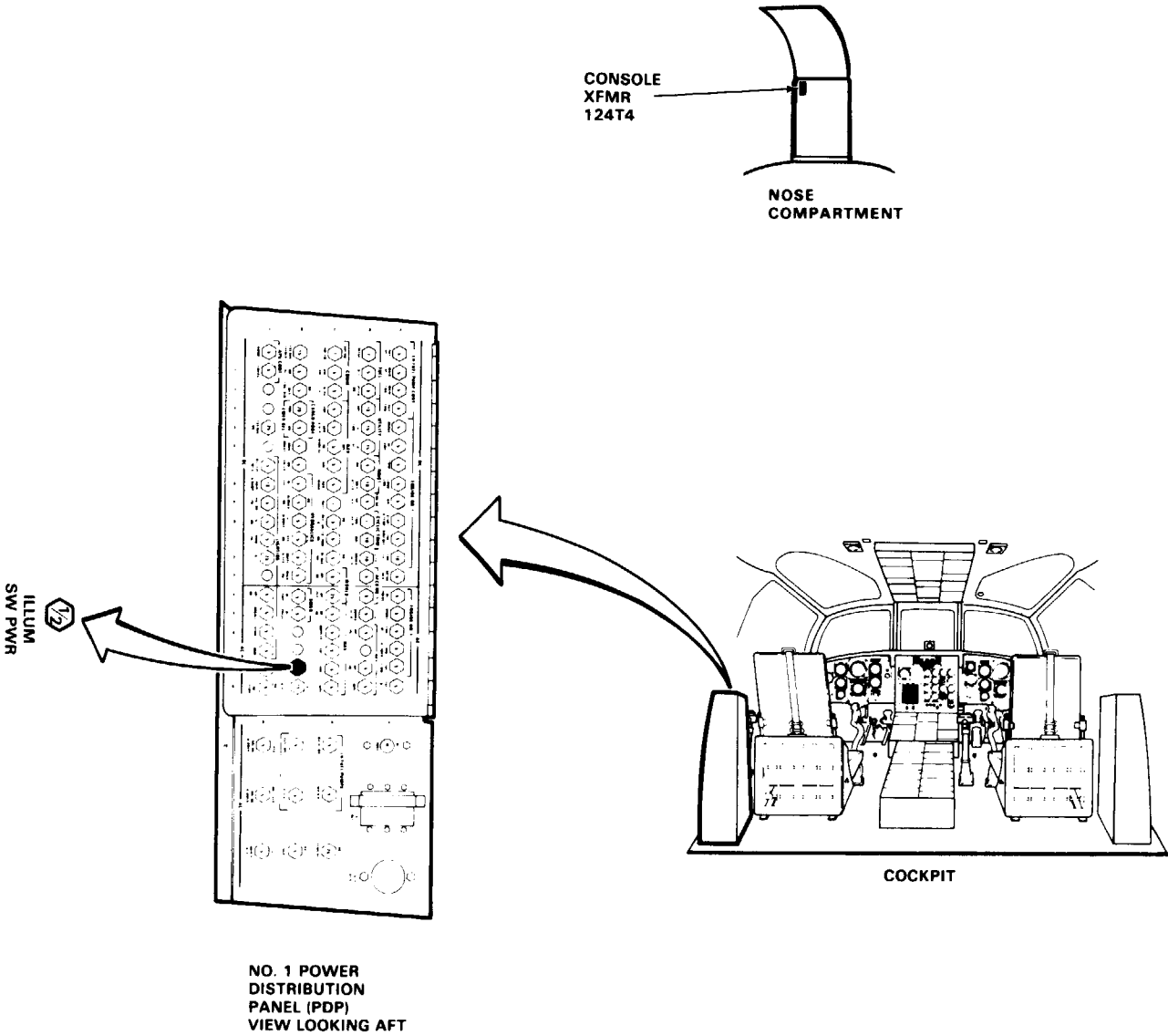
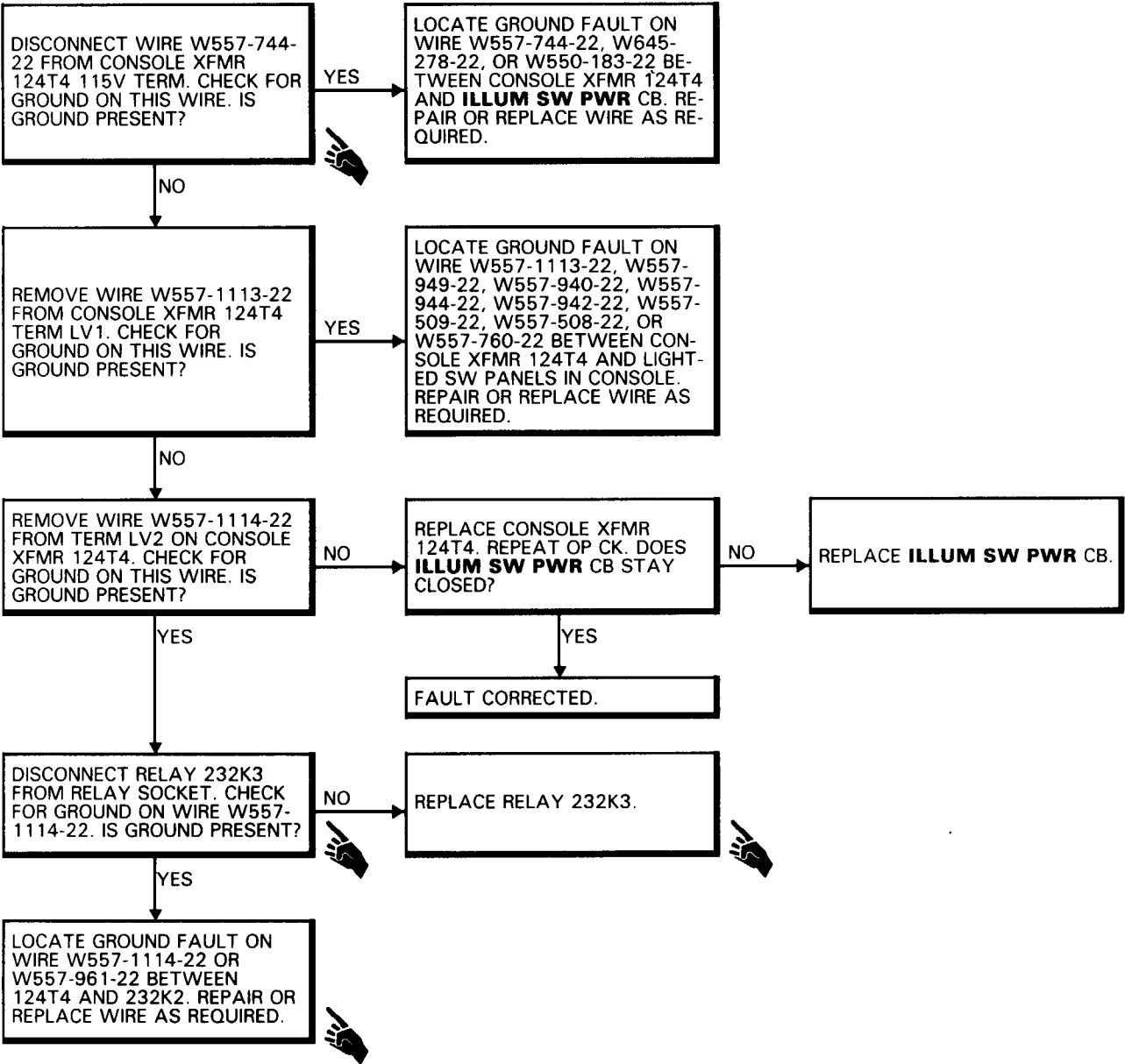
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Aircraft Electrician

Applicable Configurations:

With (17)

Without (61)

Equipment Condition:

With (61)

Tools:

Electrical Repairer's Tool Kit,

NSN 5180-00-323-4915

Multimeter

Materials:

None

Personnel Required:

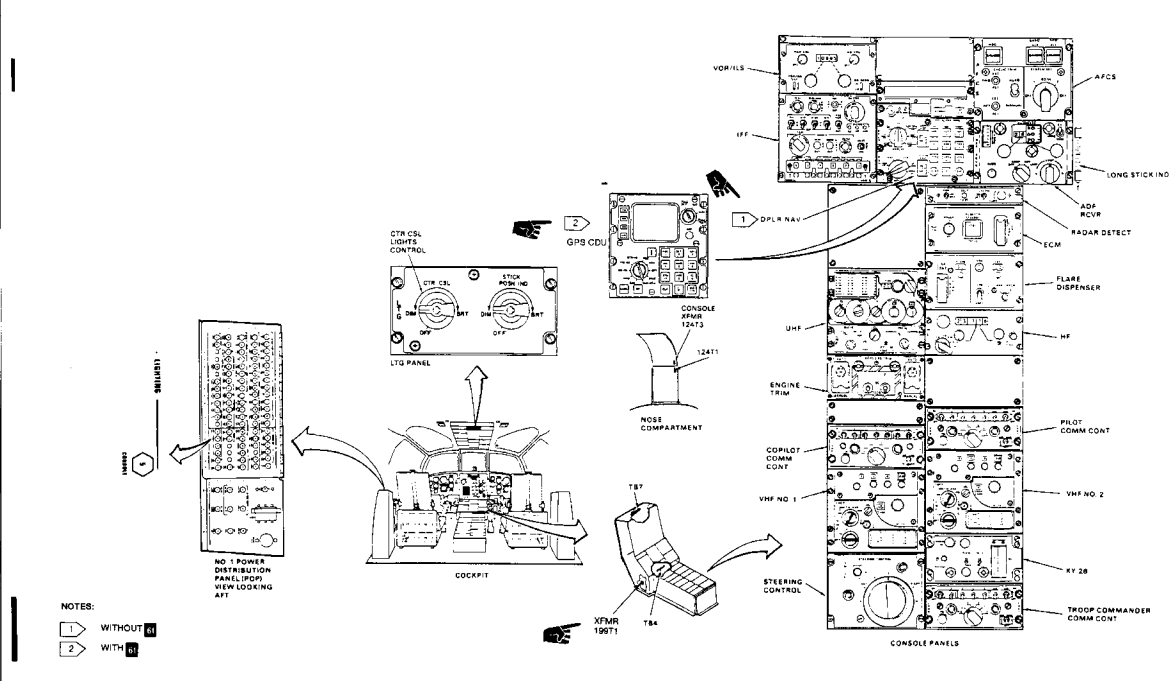
References:

TM 55-1520-240-23:

Battery Connected

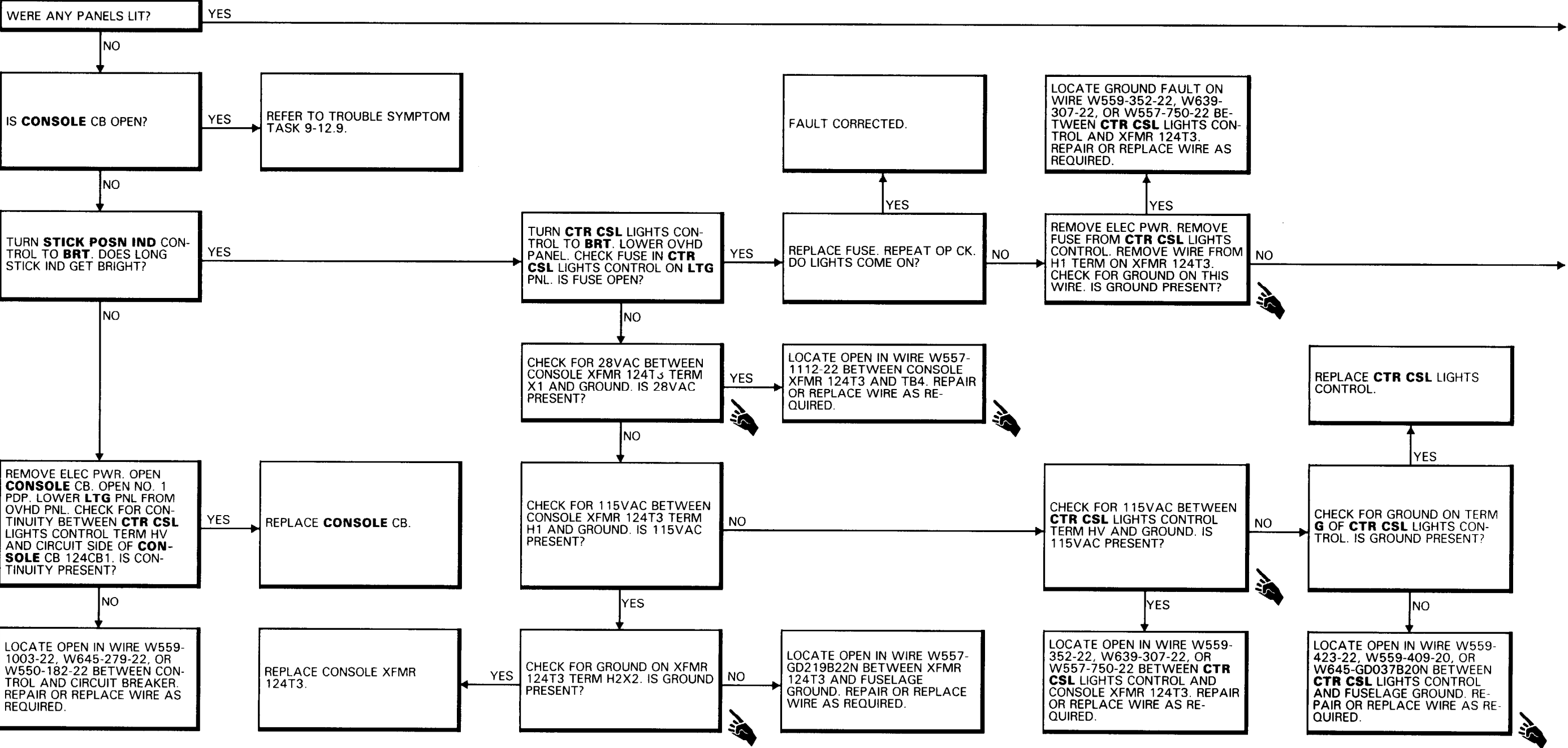
Electrical Power On

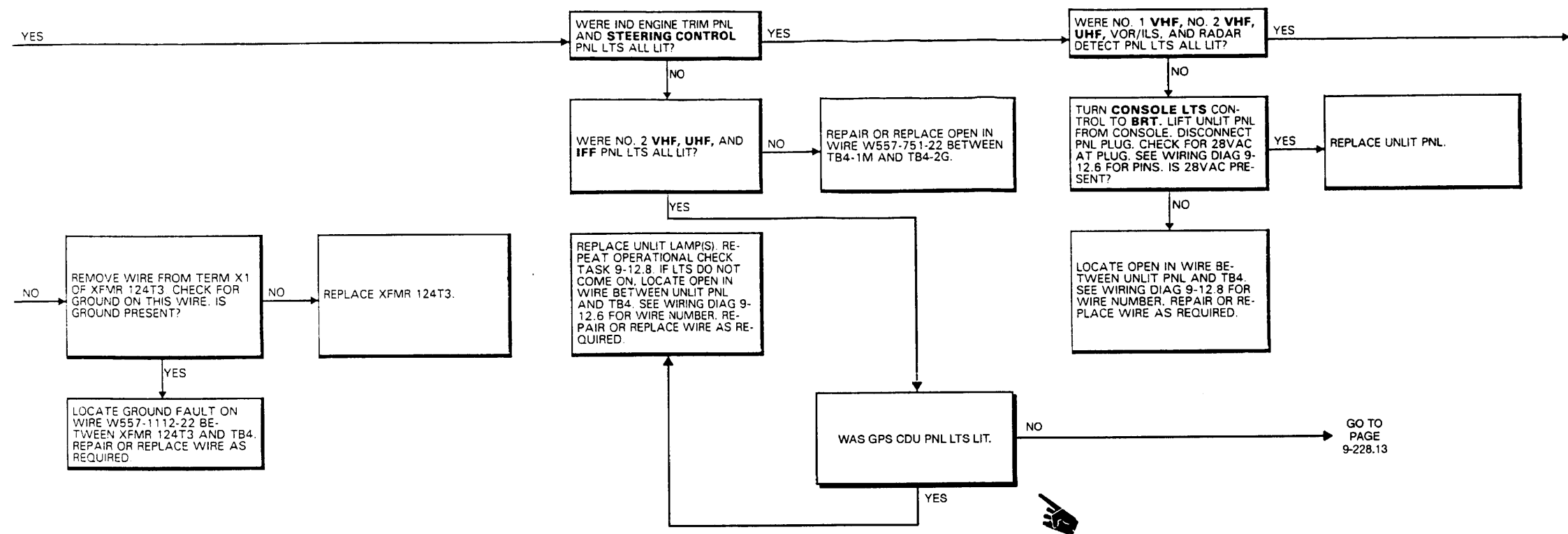
Hydraulic Power Off

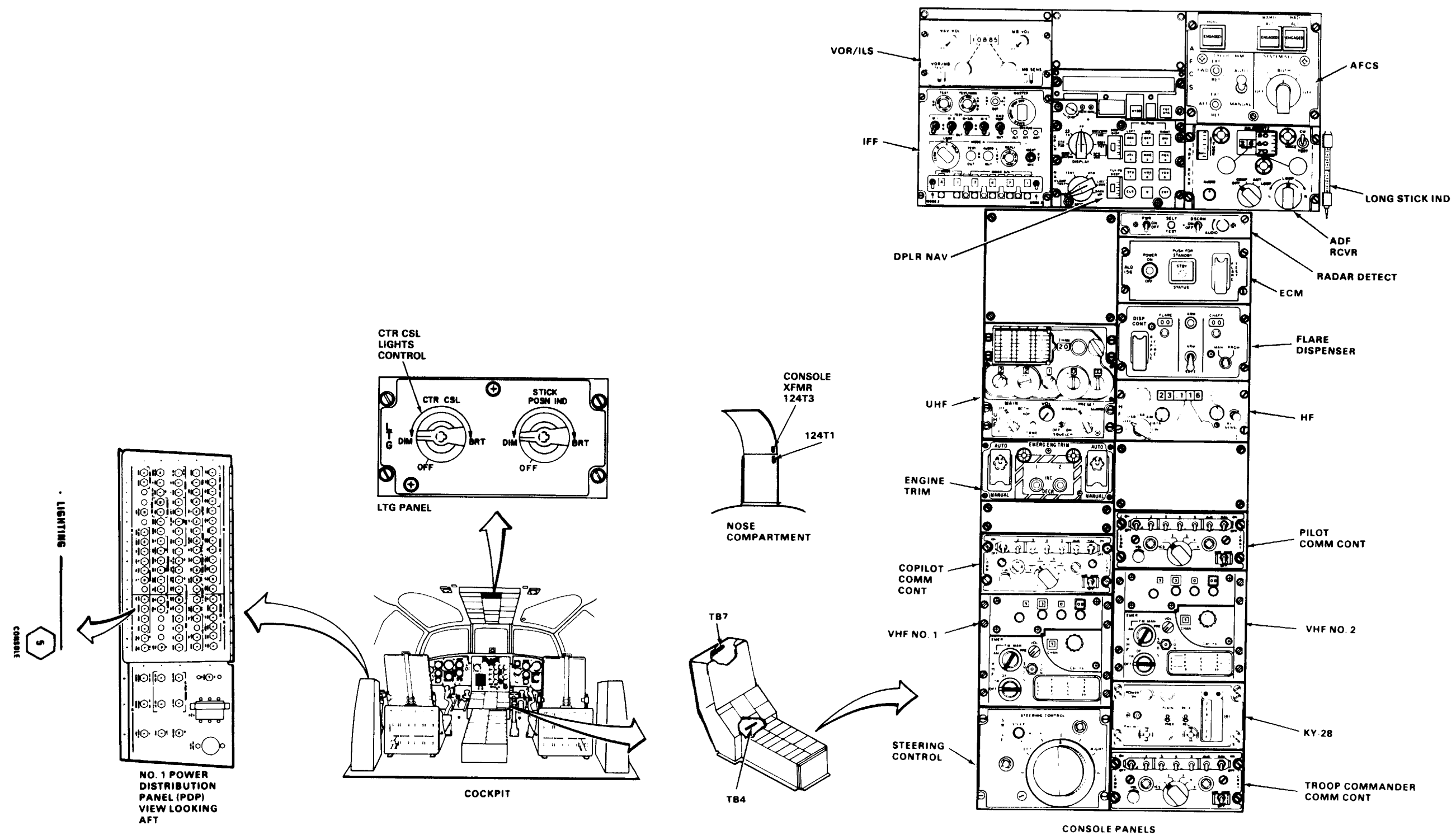


9-12.11 CONSOLE PANEL LIGHT OR LIGHTS NOT LIT (Continued)

9-12.11

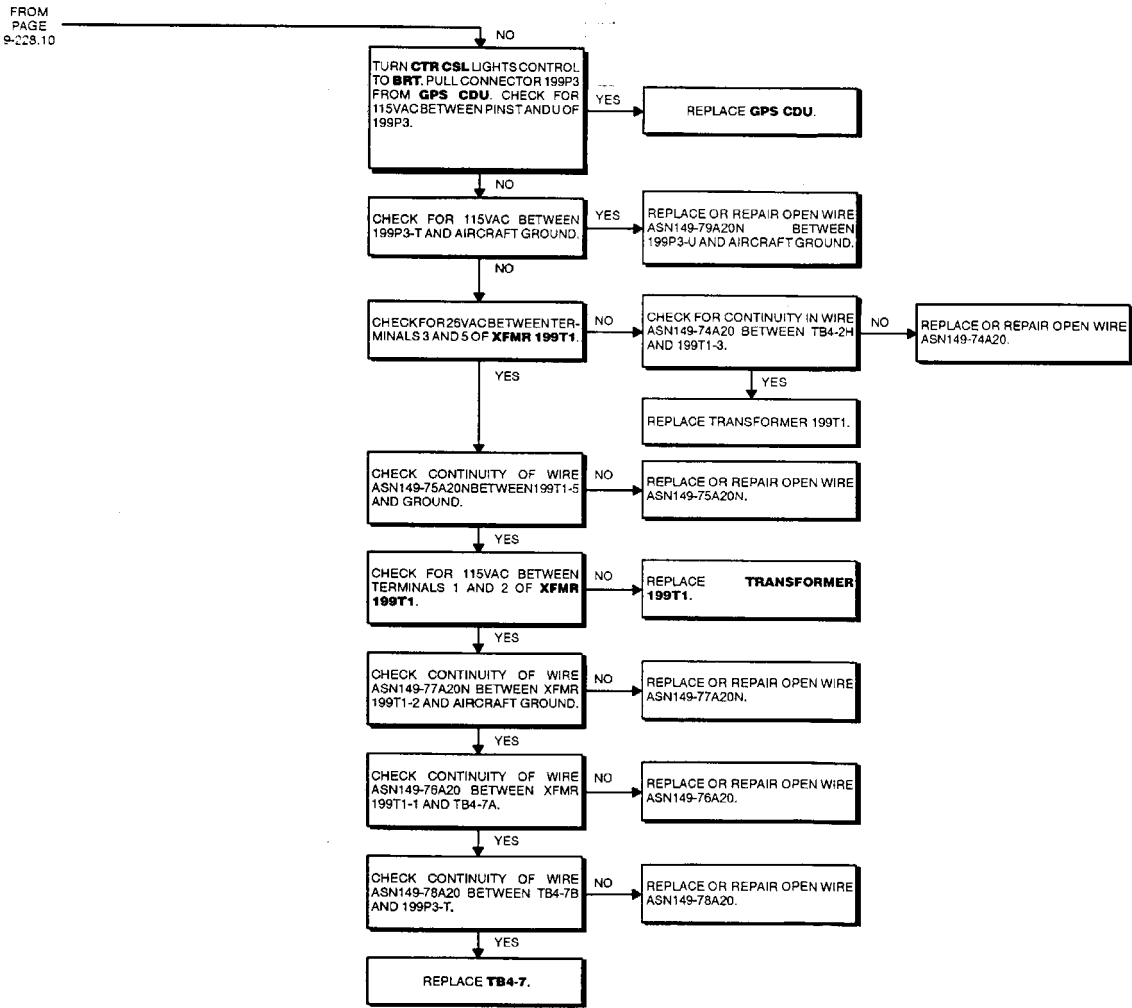




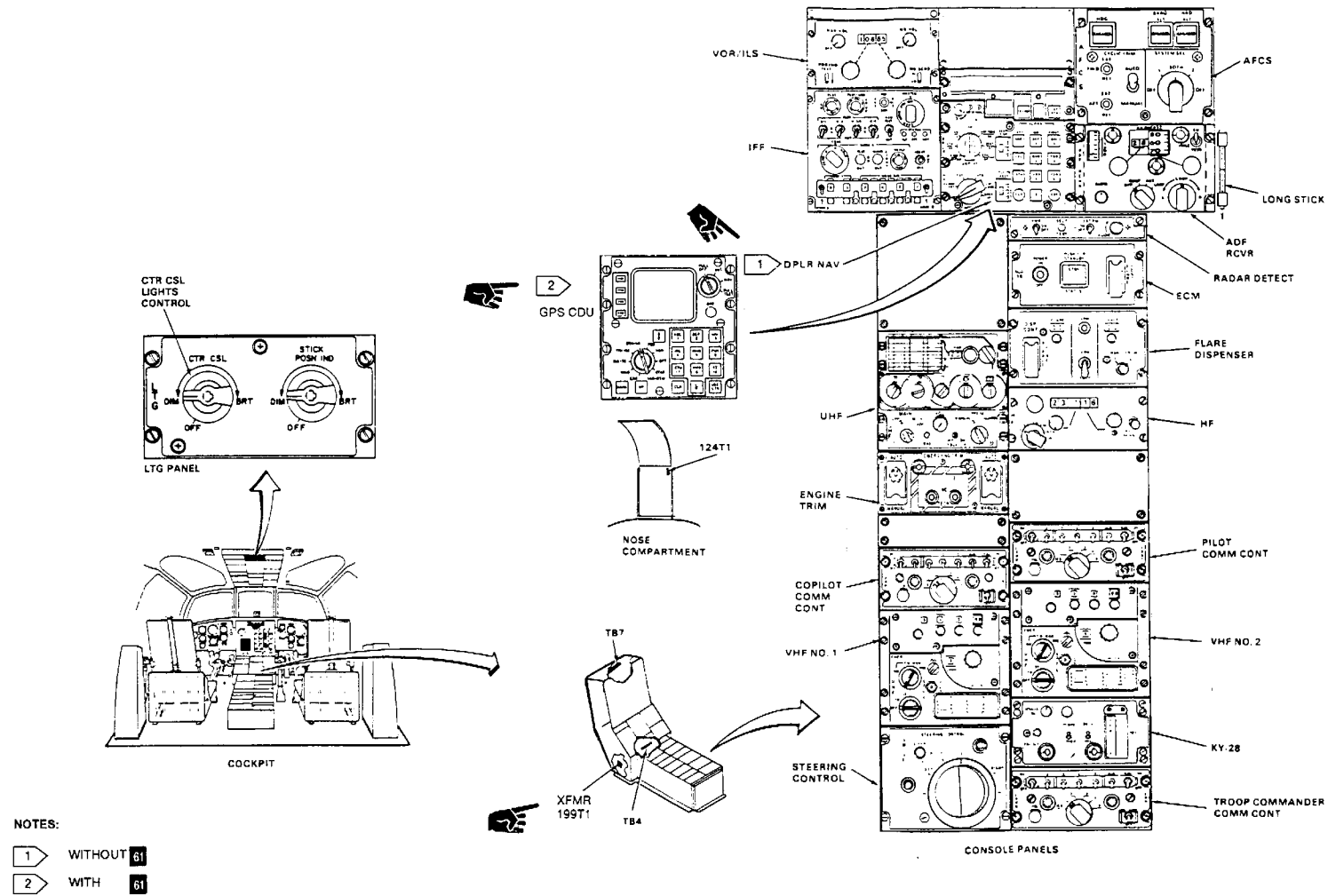








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Change 15 9-228.13



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required

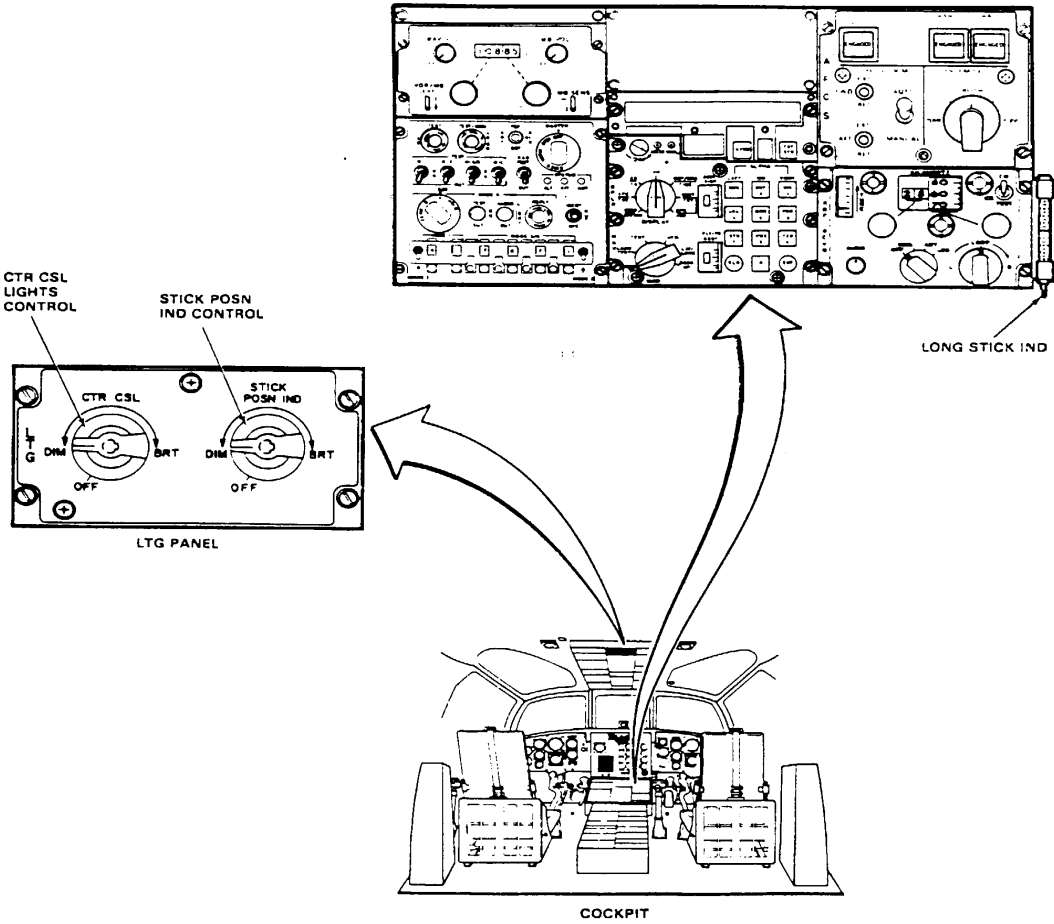
Aircraft Electrician

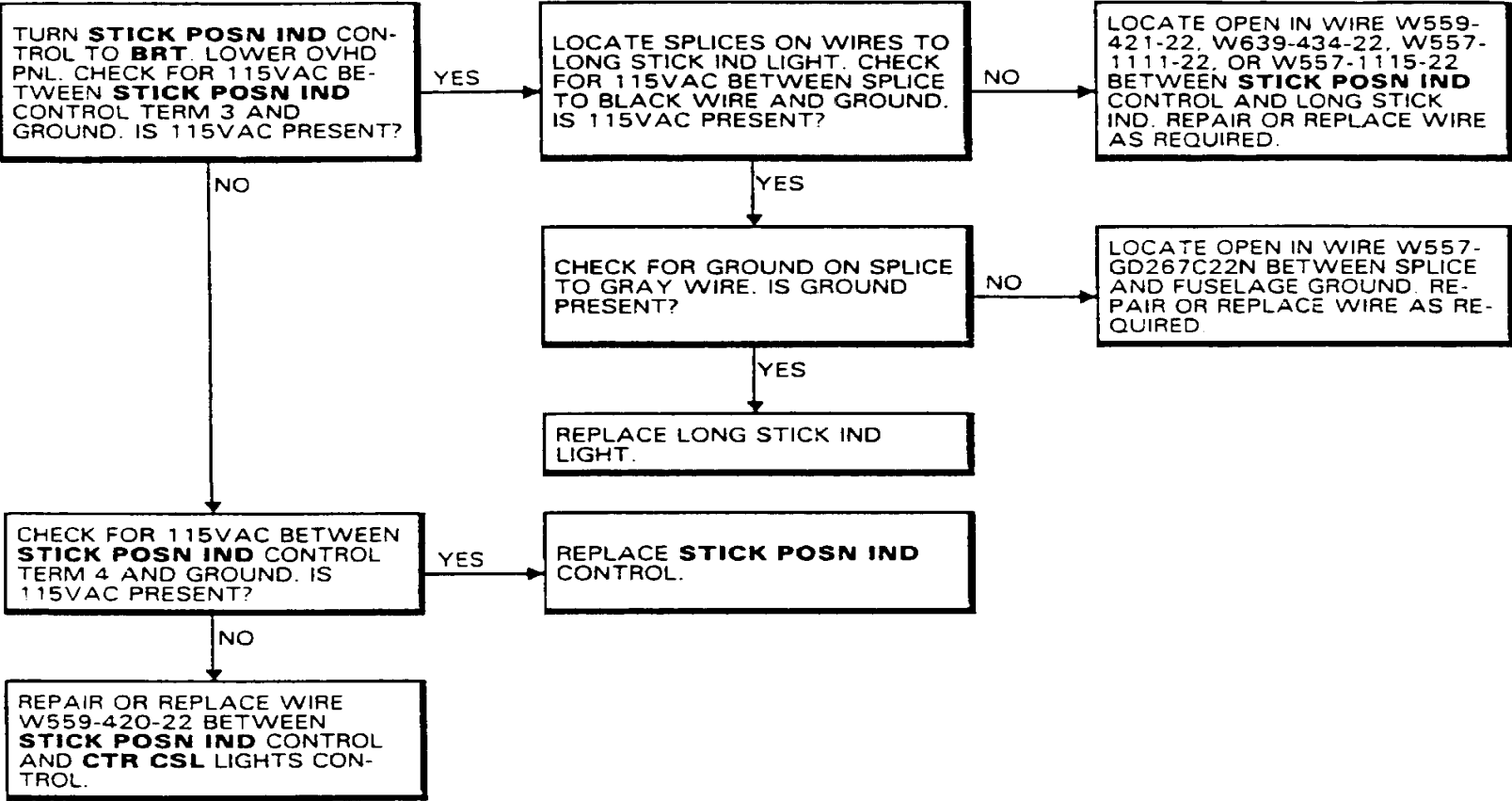
References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 7

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required

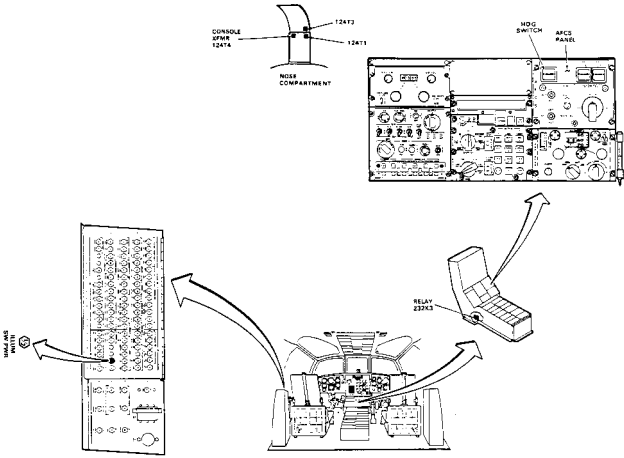
Aircraft Electrician

References:

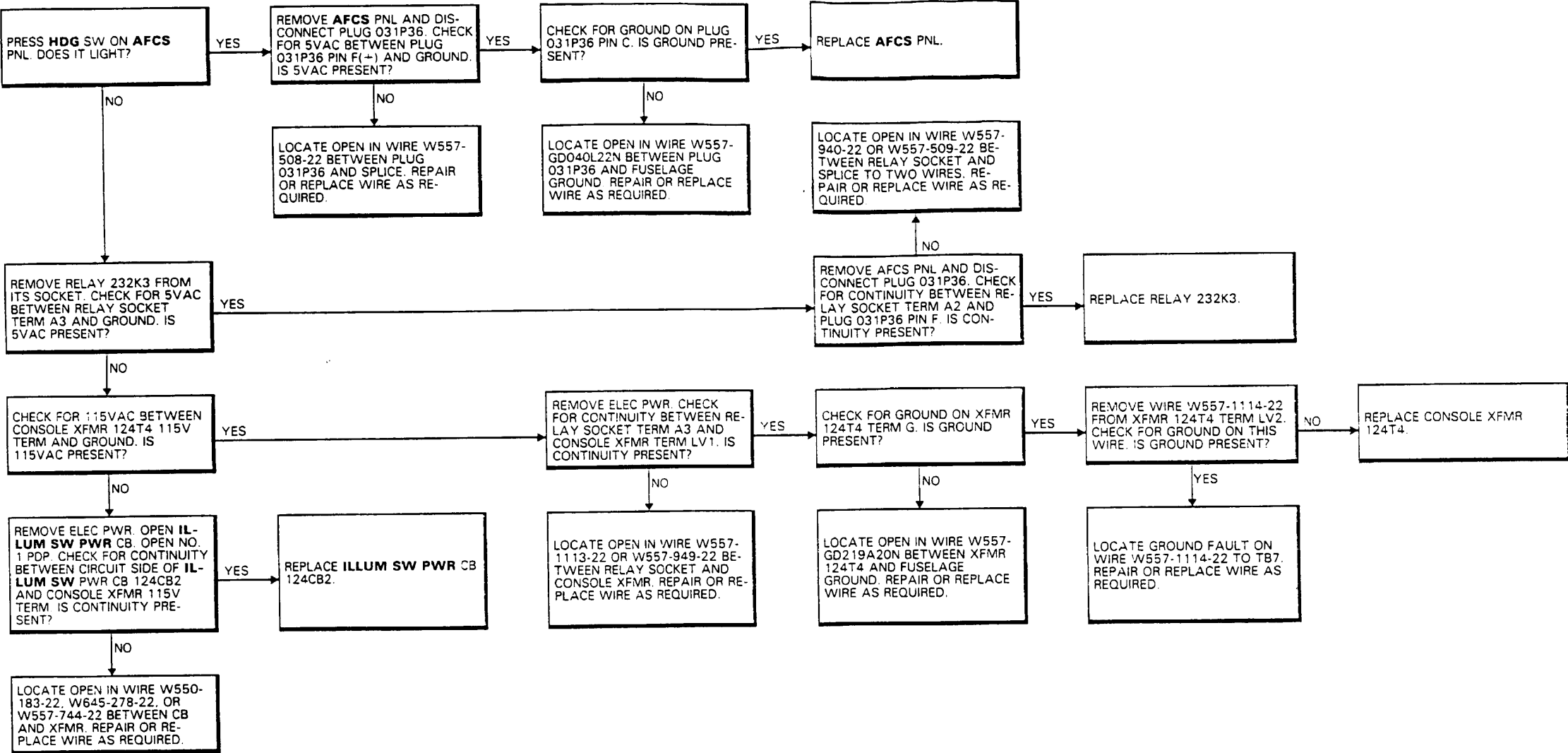
TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-12.13. BARO ALT SWITCH CAPTION DOES NOT LIGHT BRIGHT WHEN PRESSED



9-12.14. RAD ALT SWITCH CAPTION DEOS NOT LIGHT DIM WHEN PRESSED

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

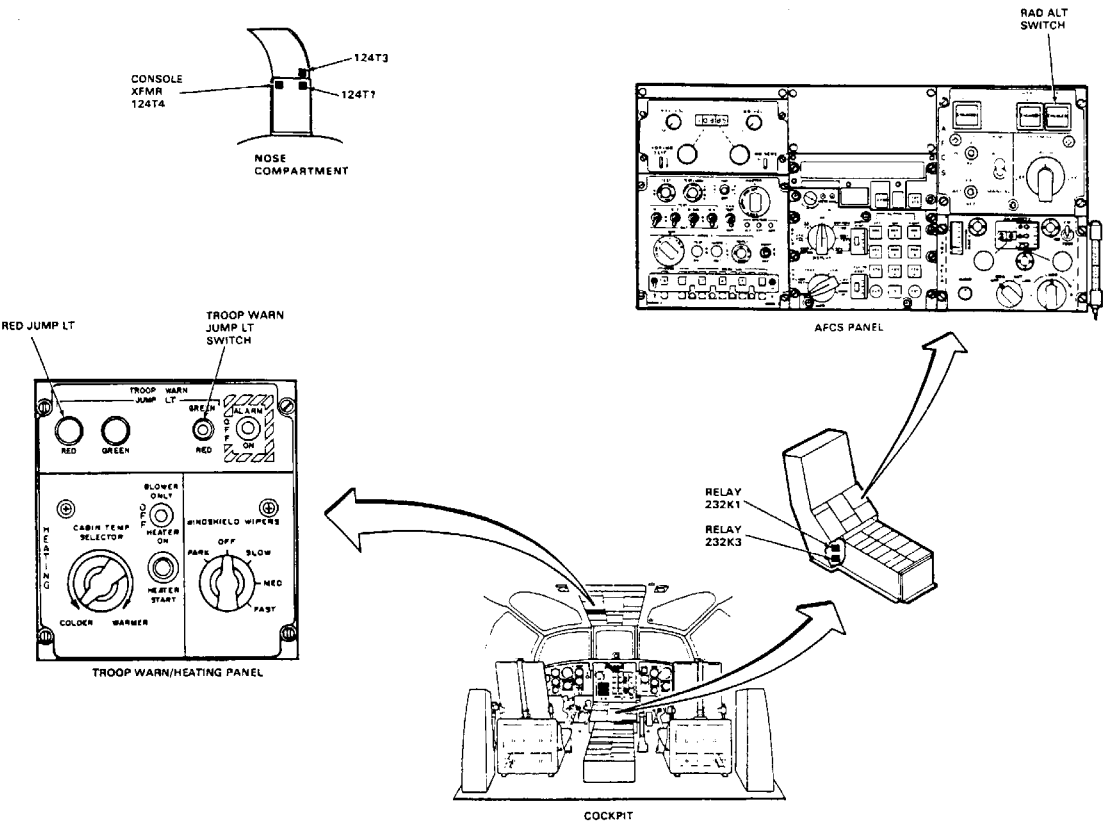
With 7

- Tools:
- Electrical Repairer's Tool Kit, NSN 5180-00-323-4915
  - Multimeter

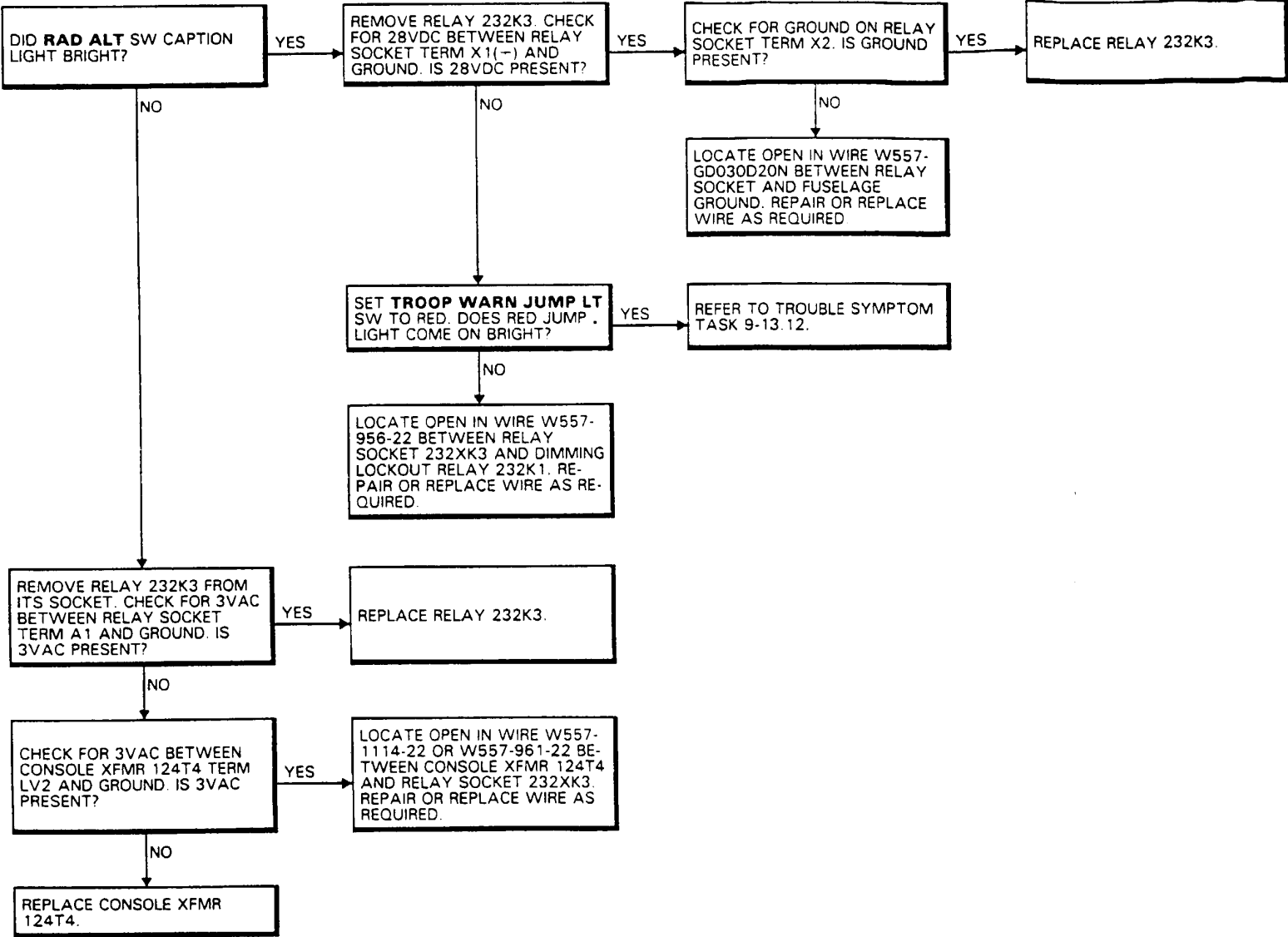
- Materials:
- None

- Personnel Required
- Aircraft Electrician

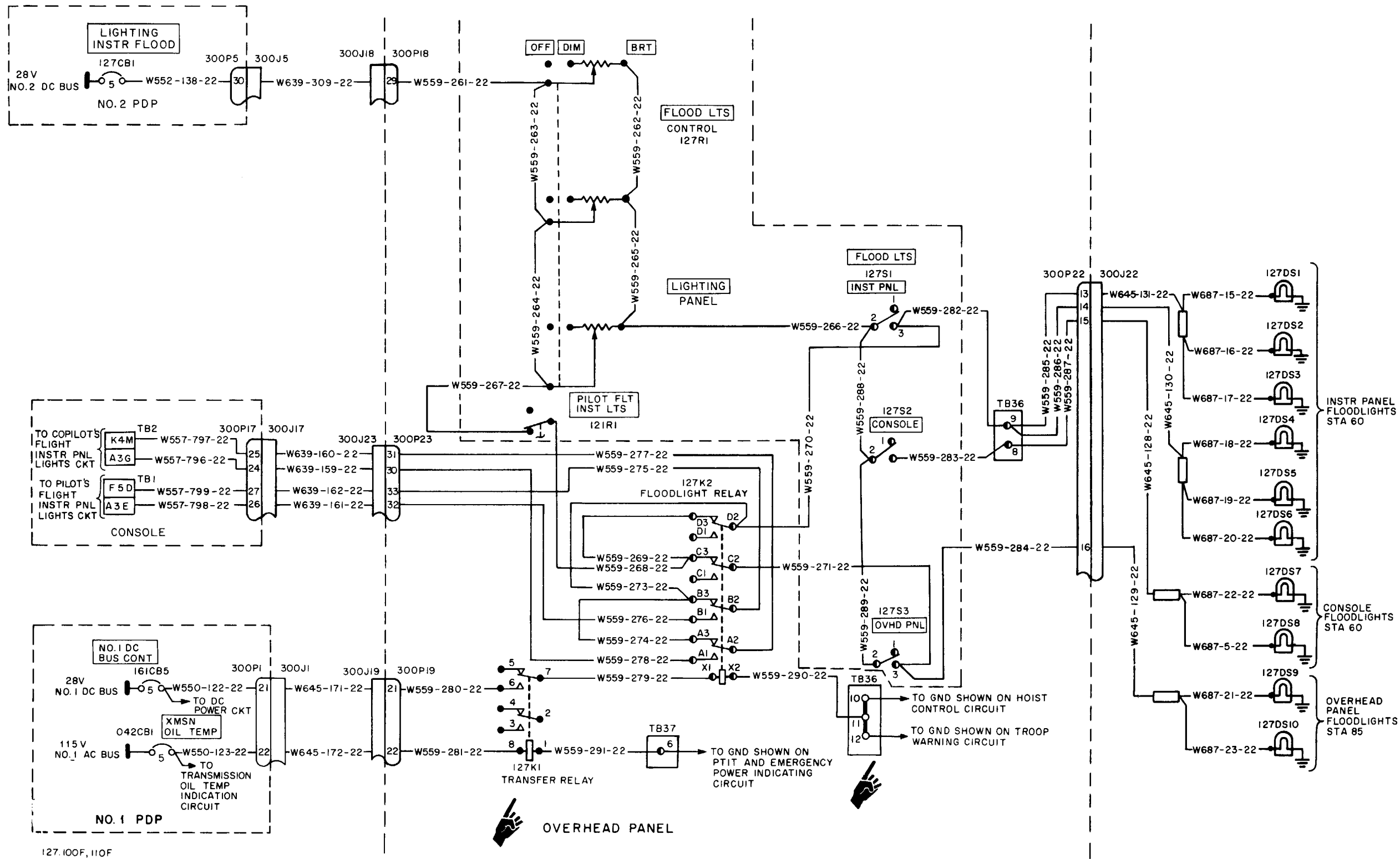
- References:
- TM 55-1520-240-23
- Equipment Condition
- TM 55-1520-240-2
  - Battery Connected
  - Electrical Power On
  - Hydraulic Power Off







## 9-13 SECONDARY COCKPIT LIGHT



9-13.2 SECONDARY COCKPIT LIGHTS VISUAL CHECK

9-13.2

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

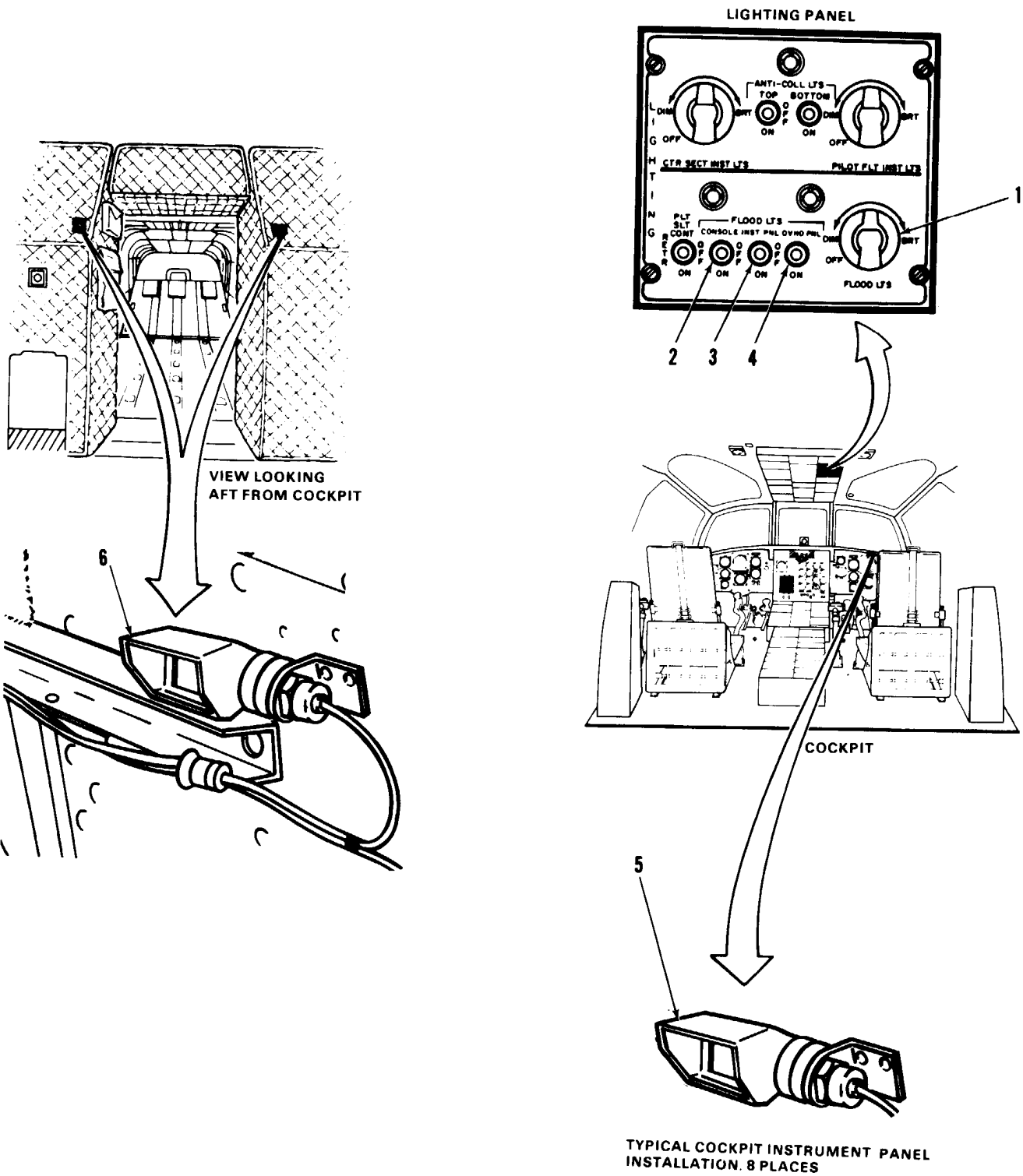
TM 55-1520-240-23:

Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Rotate FLOOD LTS DIM BRT control (1) from OFF to BRT and back to OFF.	FLOOD LTS DIM BRT control (1) shall rotate freely and smoothly. If control is loose or binding, replace it.
2. Check CONSOLE FLOOD LTS switch (2).	If switch (2) is loose or damaged, tighten or replace it as required.
3. Check INST PNL FLOOD LTS switch (3).	If switch (3) is loose or damaged, tighten or replace it as required.
4. Check OVHD PNL FLOOD LTS switch (4).	If switch (4) is loose or damaged, tighten or replace it as required.
5. Check flood lights (5) on instrument panel and center panel.	If any flood lights (5) is loose or damaged, tighten or replace it as required.
6. Check flood lights (6) behind pilot's and copilot's seat.	If either flood light (6) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:

None



INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

None

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

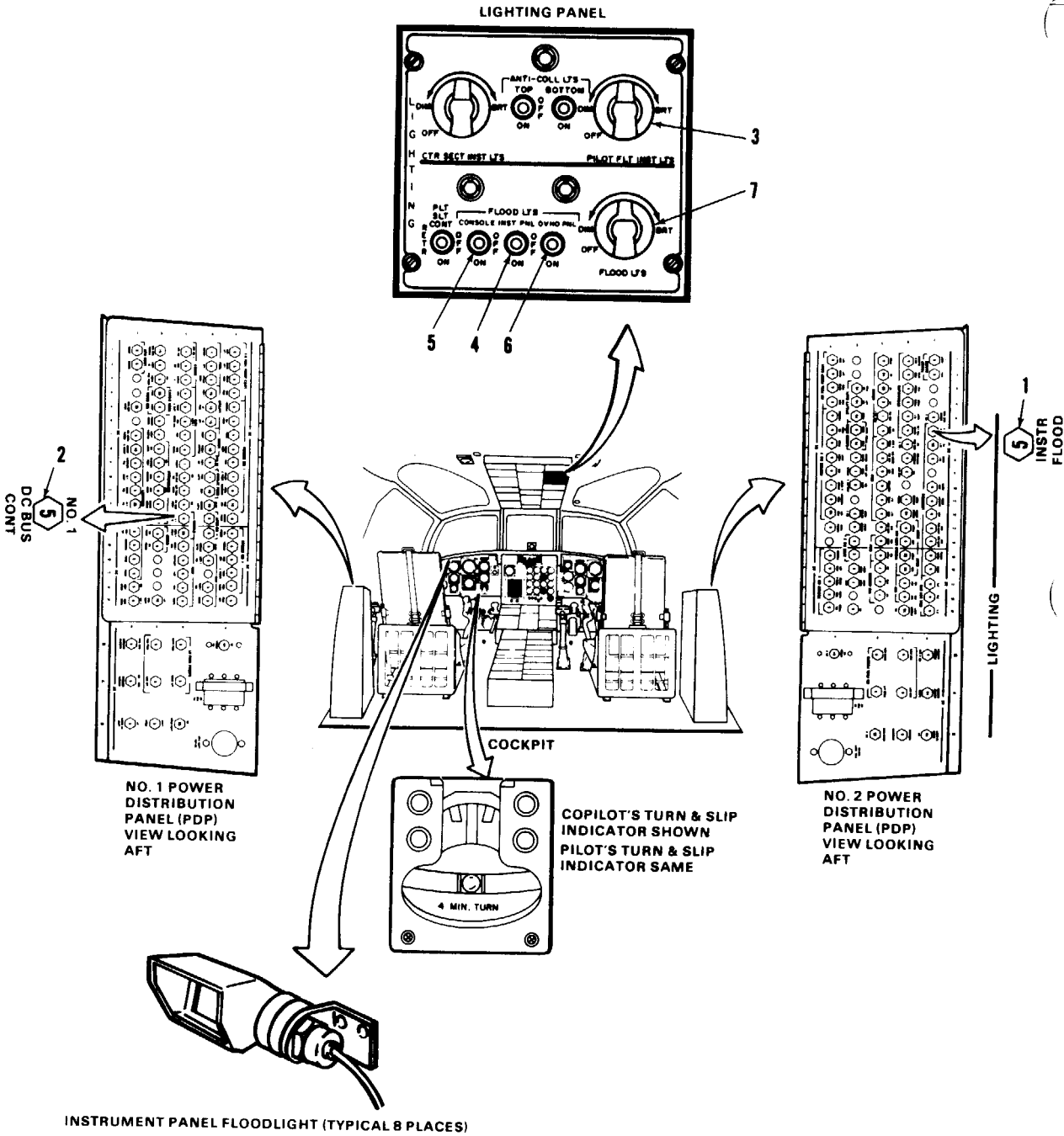
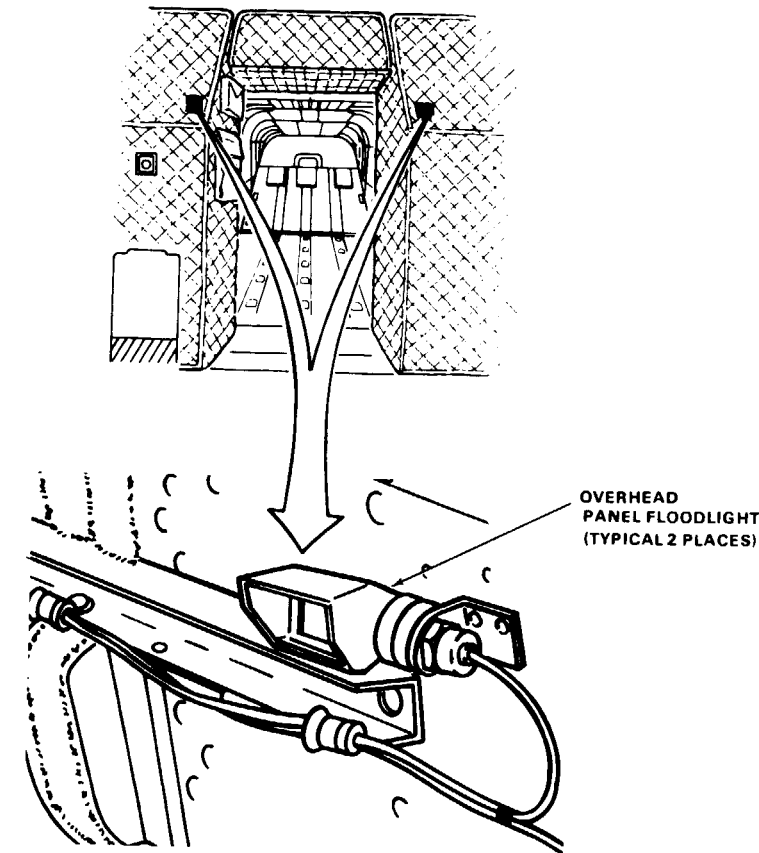
TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off

Hydraulic Power Off

Visual Check of Secondary Cockpit Lights Performed (Task 9-13.2)



9-13.3 SECONDARY COCKPIT LIGHTS OPERATIONAL CHECK (Continued)

9-13.3

TASK	RESULT
1. Check that INSTR FLOOD LIGHTING circuit breaker (1) is closed.	If circuit breaker (1) is open, close it. If it opens again, go to task 9-13.4.
2. Check that DC BUS CONT NO. 1 circuit breaker (2) is closed.	If circuit breaker (2) is open, close it. If it opens again, go to task 9-13.5.
3. Set PILOT FLT INST LTS control (3) to OFF.	
4. Set INST PNL CONSOLE, and OVHD PNL FLOOD LTS switches (4, 5, and 6) to ON.	
5. Turn FLOOD LTS control (7) from OFF through DIM to BRT.	Ten flood lights, eight on instrument panel and two behind pilot's seat shall come on dim and then increase in brightness. If flood lights do not come on go to task 9-13.6. If flood lights do not increase in brightness, replace FLOOD LTS control (7).
6. Set INST PNL FLOOD LTS switch (4) to OFF.	Six flood lights on instrument panel shall go out. If flood lights do not go out, go to task 9-13.7.
7. Set CONSOLE FLOOD LTS switch (5) to OFF.	Two flood lights over center panel shall go out. If flood lights do not go out, replace switch (5).
8. Set OVHD PNL FLOOD LTS switch (6) to OFF.	Two flood lights behind pilot's and copilot's seat shall go out. If flood lights do not go out, replace switch (6).
9. Open NO. 1 DC BUS CONT circuit breaker (2). Sat INST PNL switch (4) to ON.	Six flood lights on instrument panel and pilot's and copilot's turn and slip indicators (8) lights shall come on. If flood lights and pilot's and copilot's turn and slip lights do not come on, go to task 9-13.8.
10. Set INST PNL switch (4) to OFF.	Flood lights and pilot's and copilot's turn and slip indicator (8) lights shall go out. If flood lights and indicator lights do not go out, replace switch (4).
11. Turn PILOT FLT INST LTS control (3) to BRT.	Overhead panel flood lights, instrument panel flood lights, and pilot's and copilot's turn and slip indicator lights shall come on. If not, go to task 9-13.9.

TASK	RESULT
12. Turn PILOT FLT INST LTS control (3) to OFF.	Flood lights and indicator lights shall go out. If not replace PILOT FLT INST LTS control (3).
13. Close NO. 1 DC BUS CONT circuit breaker (2).	

FOLLOW-ON MAINTENANCE:

- TM 55-1520-240-23:
- Battery Off
- Electrical Power Off
- Hydraulic Power Off

END OF TASK

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

- Electrical Repairer's Tool Kit,
- NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

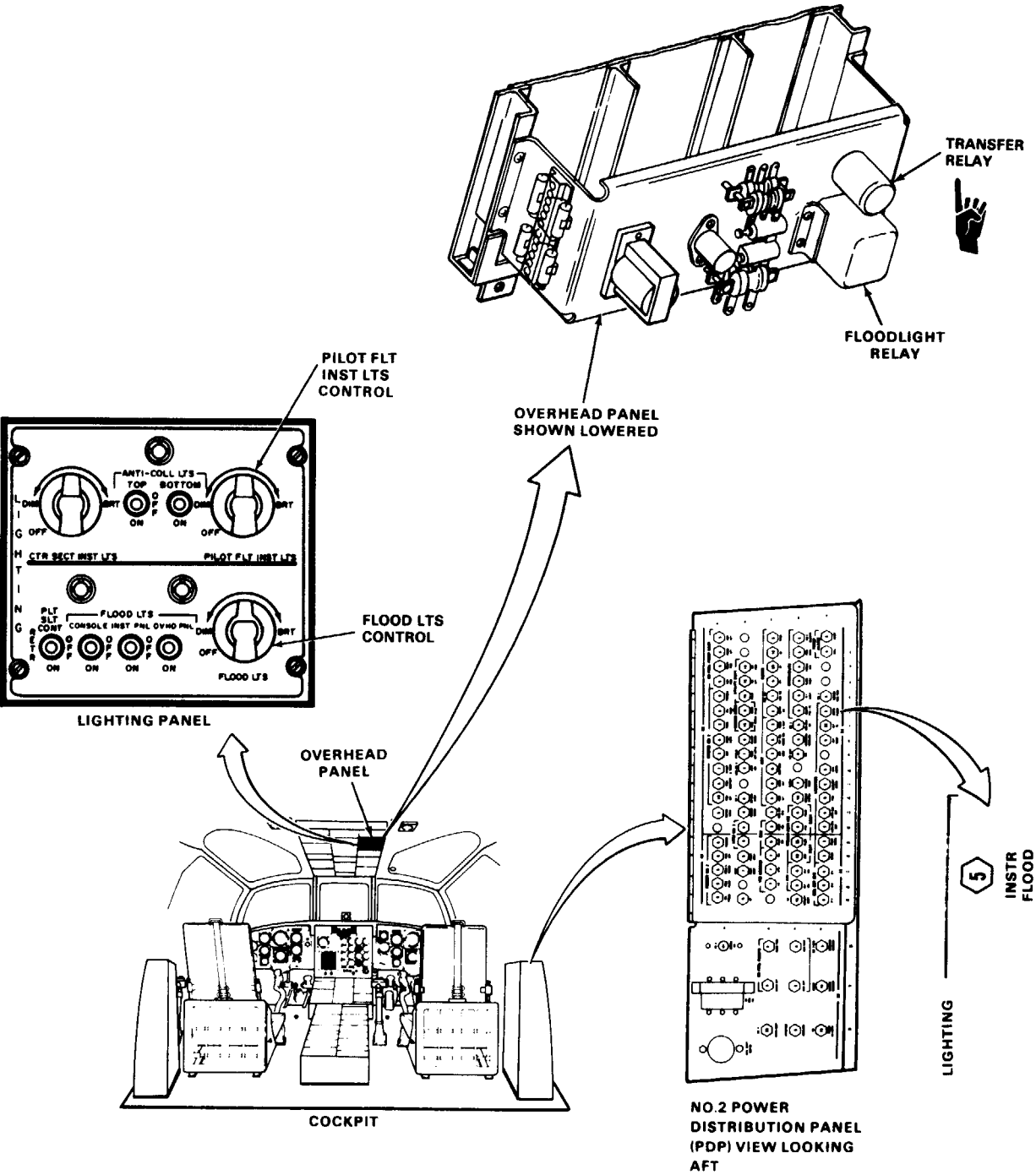
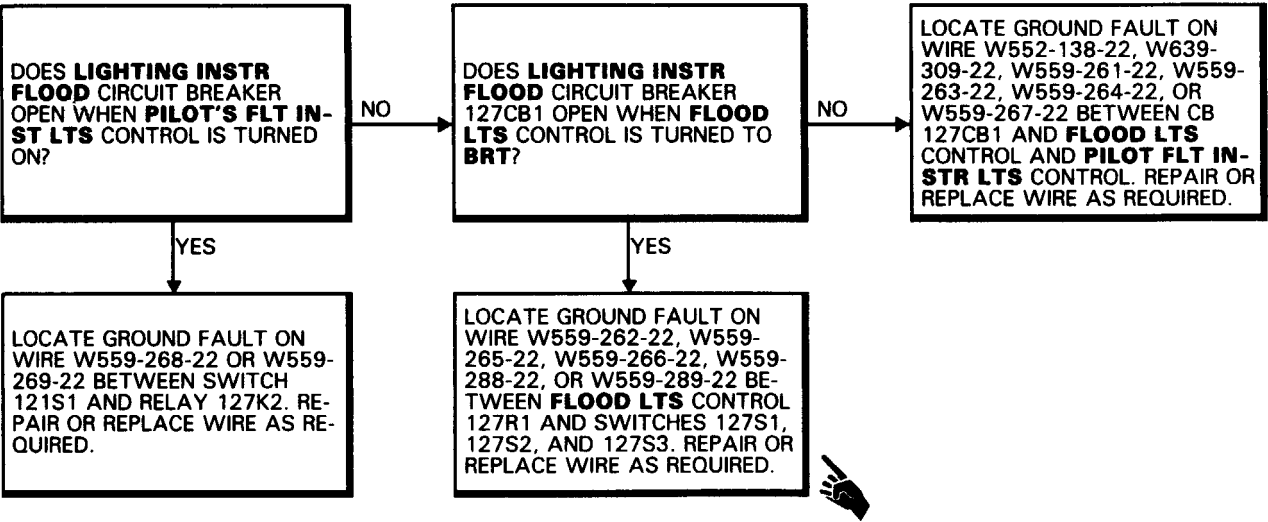
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off



9-13.5 NO. 1 DC BUS CONTROL CIRCUIT BREAKER WILL NOT STAY CLOSED

9-13.5

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
Without 17

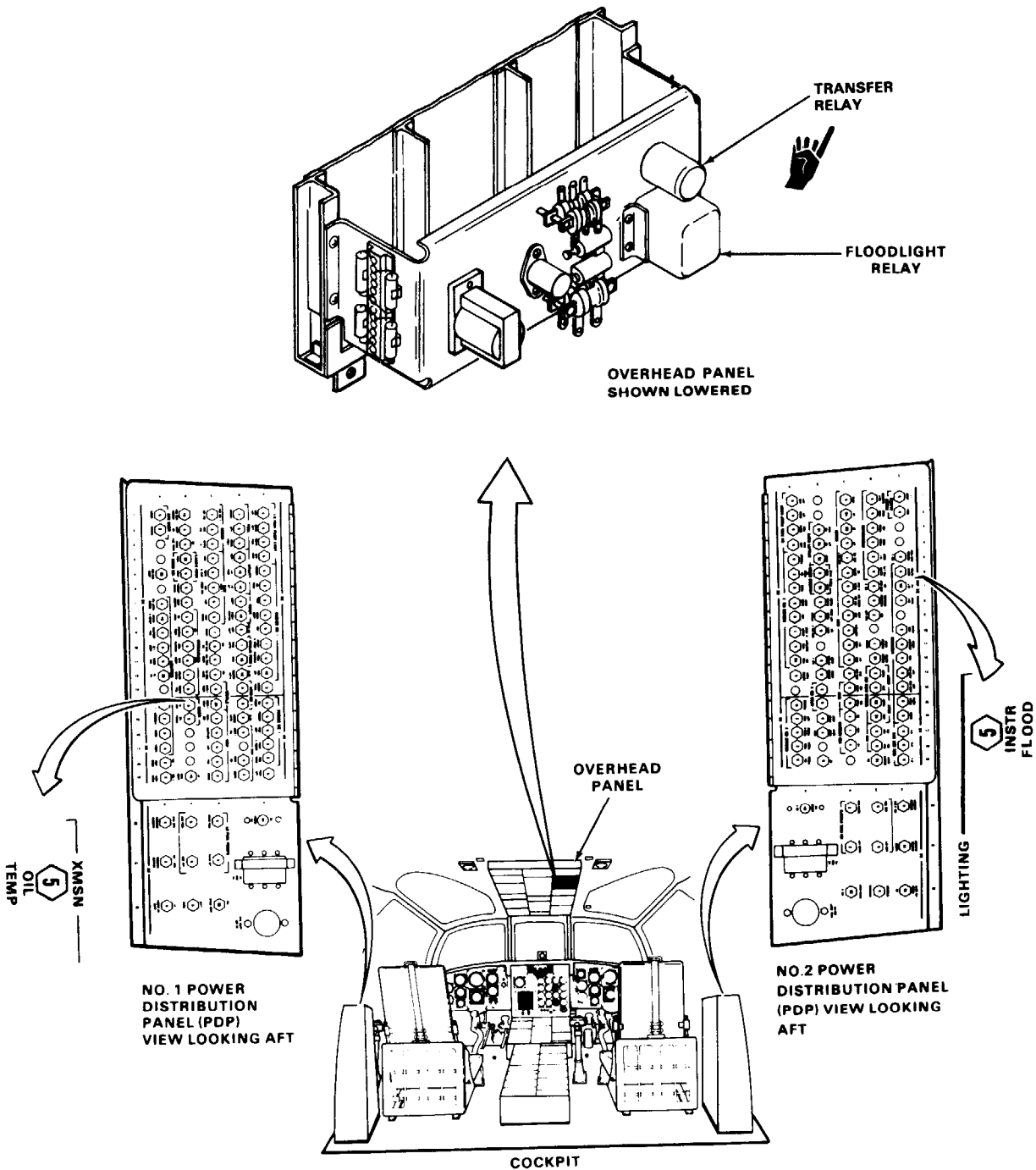
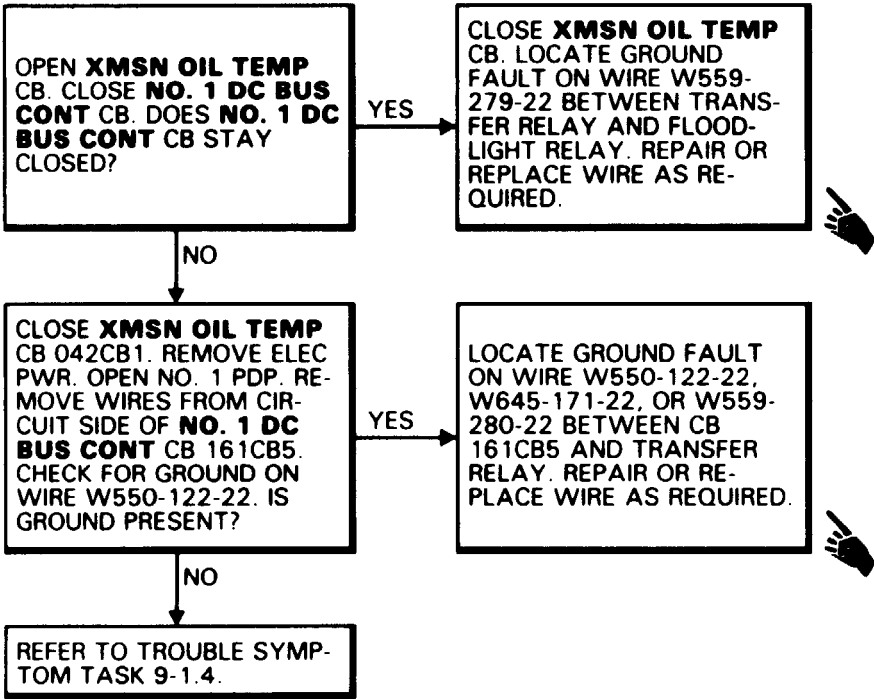
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

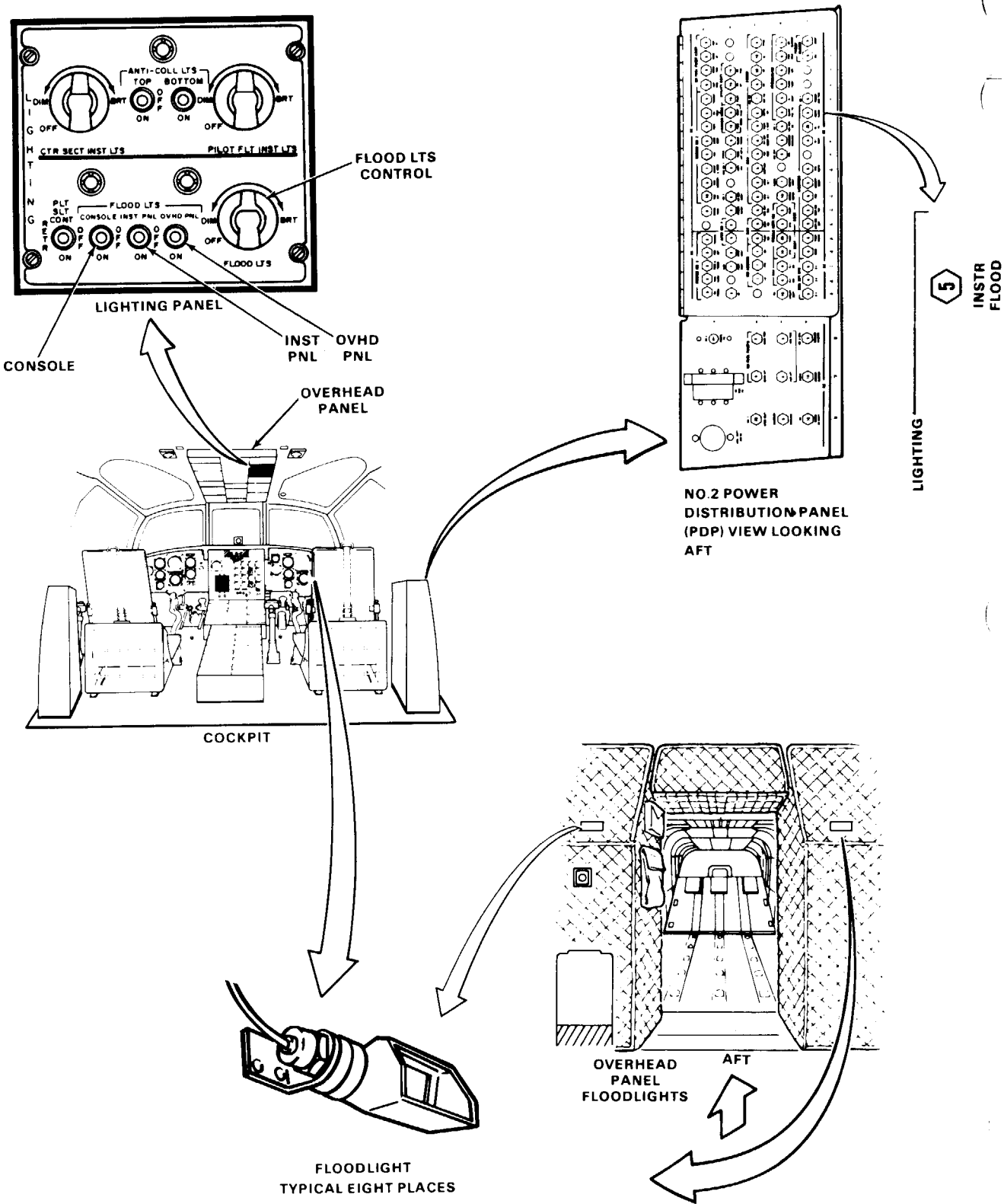
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

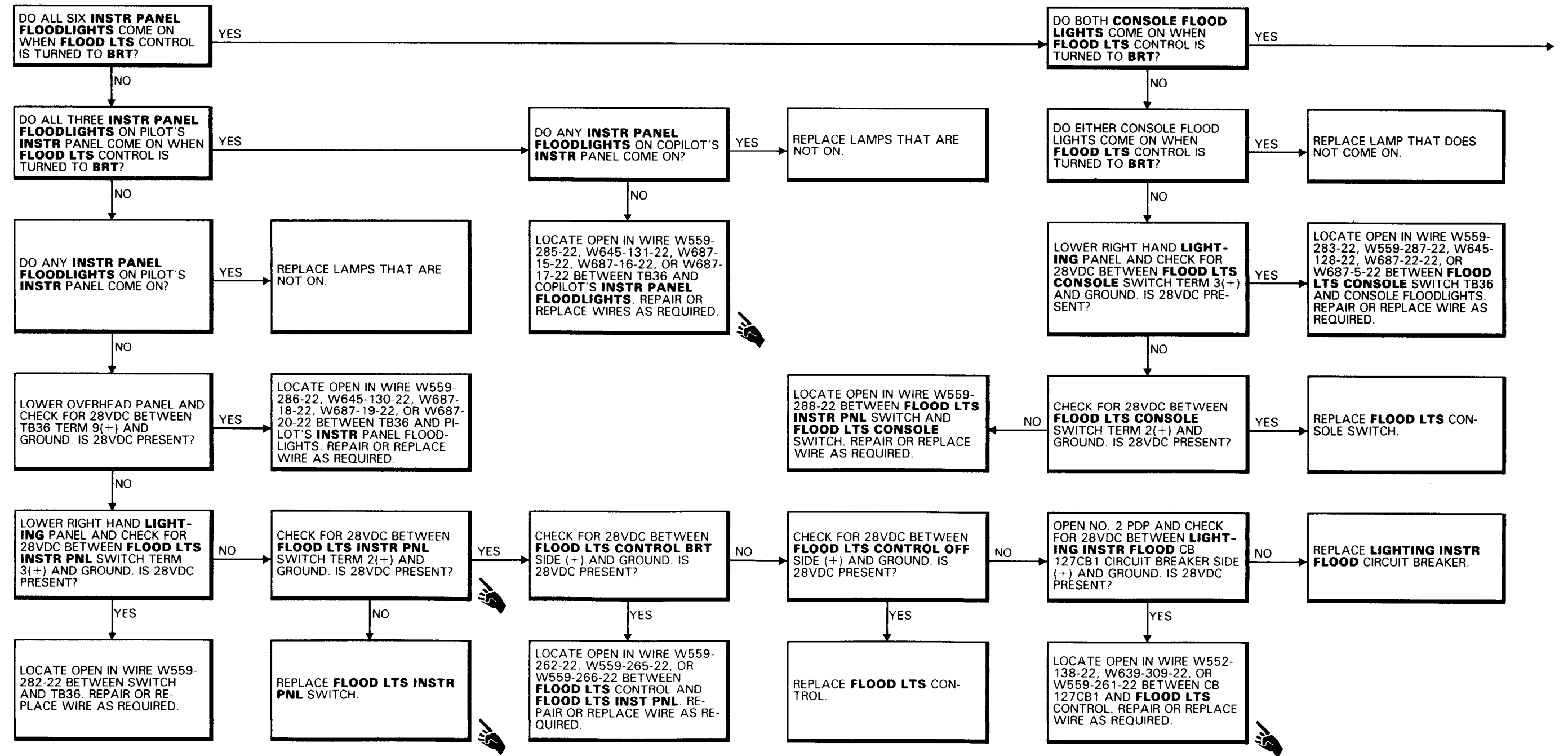


DI45-11467-SPA

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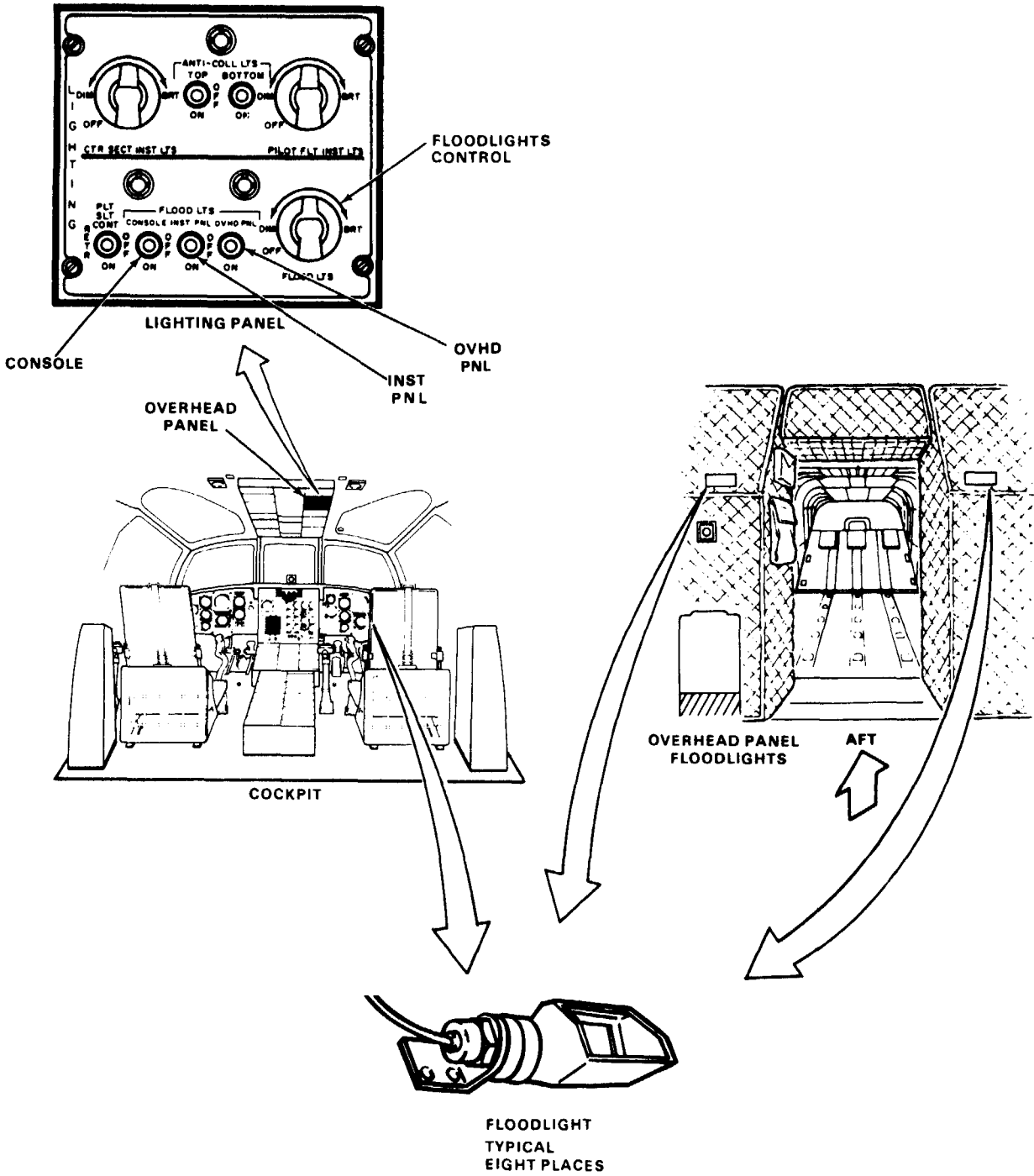
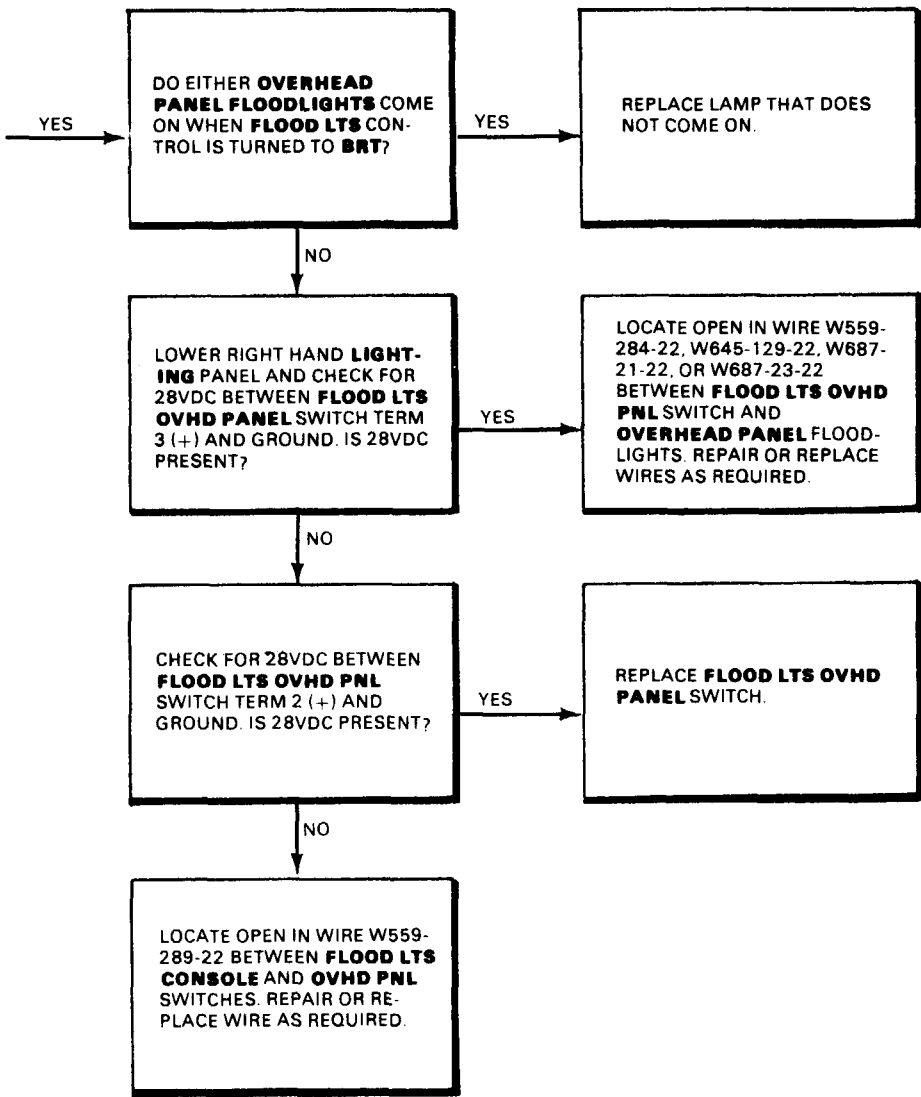
9-13.6 INSTR PANEL, CONSOLE, OR OVERHEAD PANEL FLOOD LIGHTS WILL NOT COME ON (Continued)

9-13.6



9-13.6 INSTR PANEL, CONSOLE, OR OVERHEAD PANEL FLOODLIGHTS  
WILL NOT COME ON (Continued)

9-13.6





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

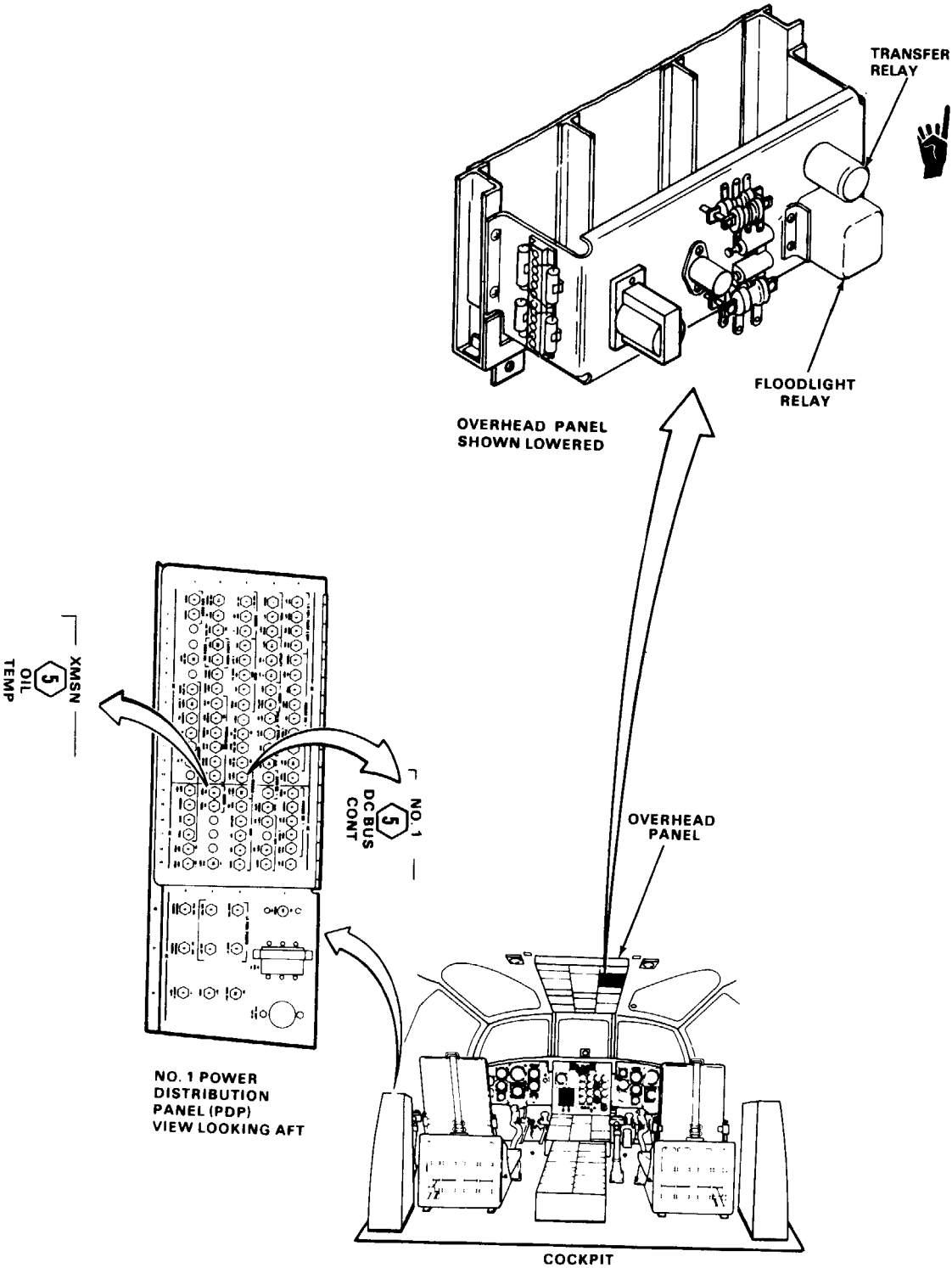
Personnel Required:

References:

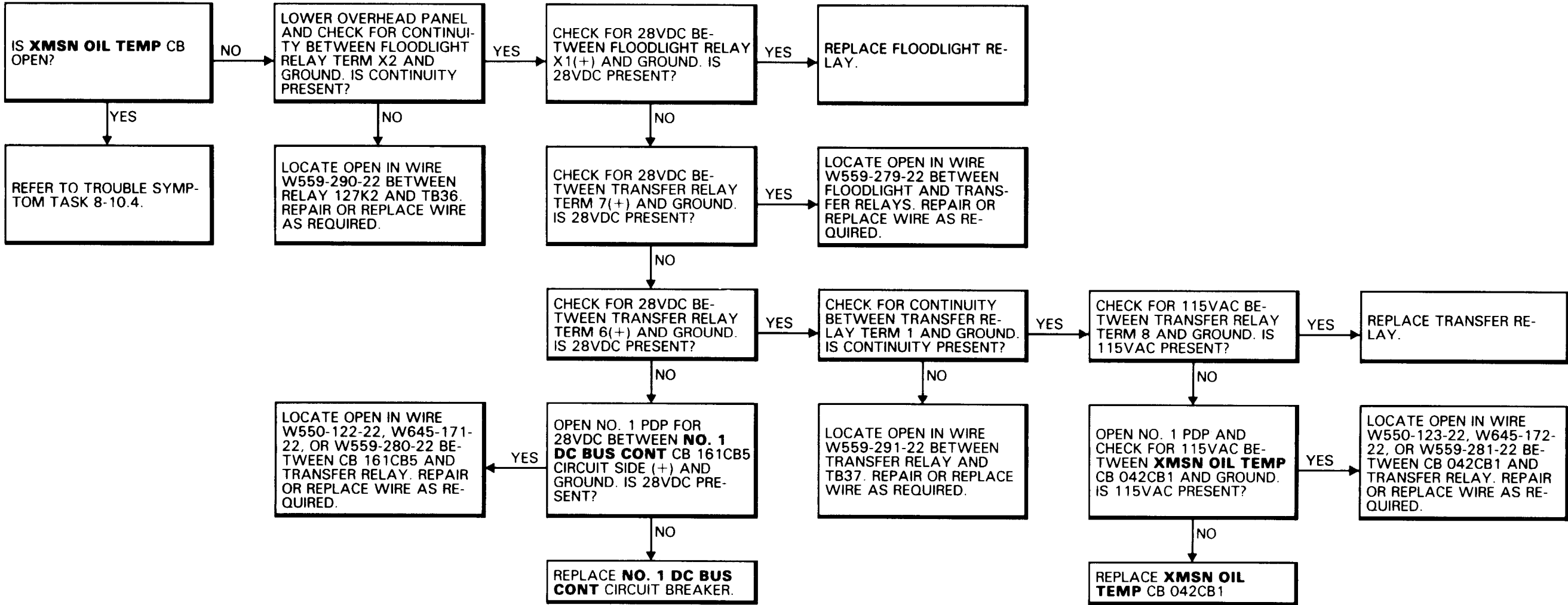
TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-13.7 PILOT'S AND COPILOT'S TURN AND SLIP INDICATOR LIGHTS VARY IN BRIGHTNESS  
(Continued)



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

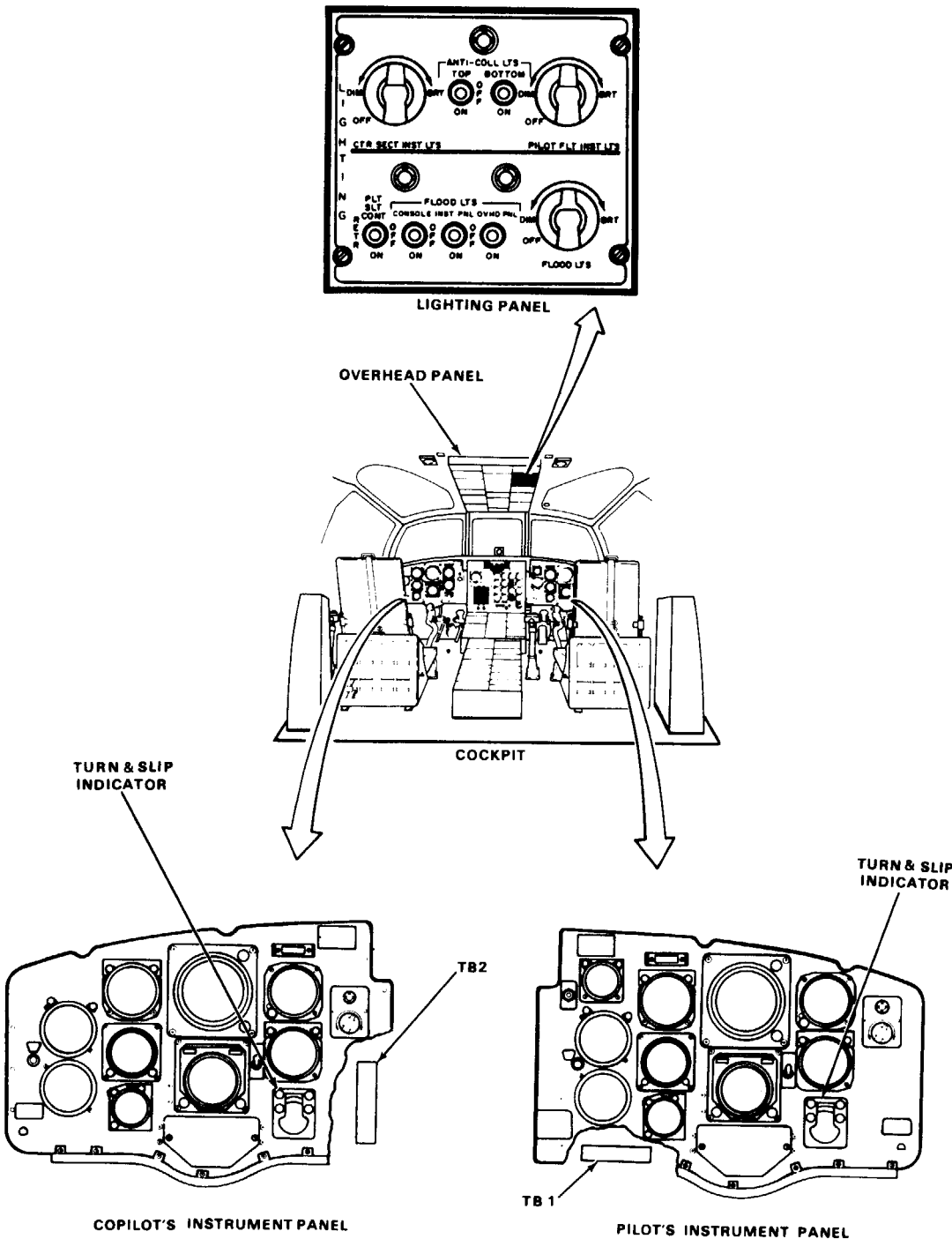
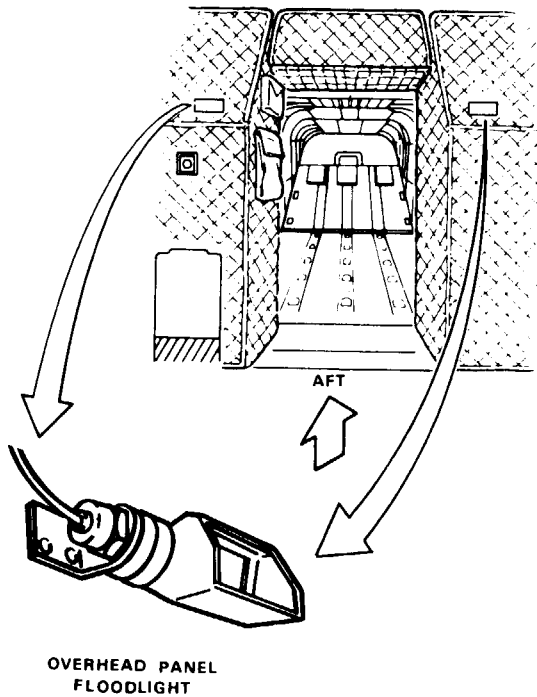
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

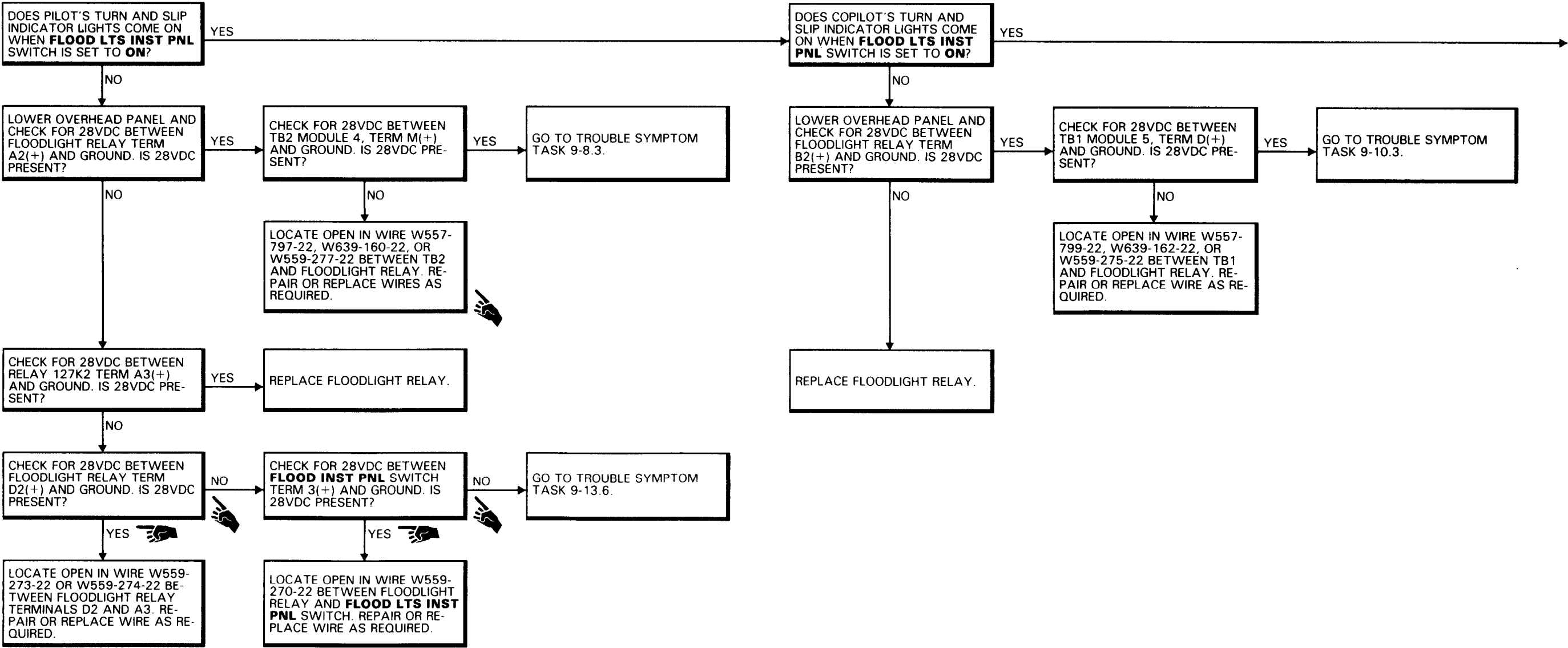
- TM 55-1520-240-23:
- Battery Connected
- Electrical Power On
- Hydraulic Power Off



D145-11470-SPA

9-13.8 PILOT'S OR COPILOT'S TURN AND SLIP INDICATOR LIGHTS OR OVERHEAD PANEL FLOODLIGHTS  
DO NOT COME ON (Continued)

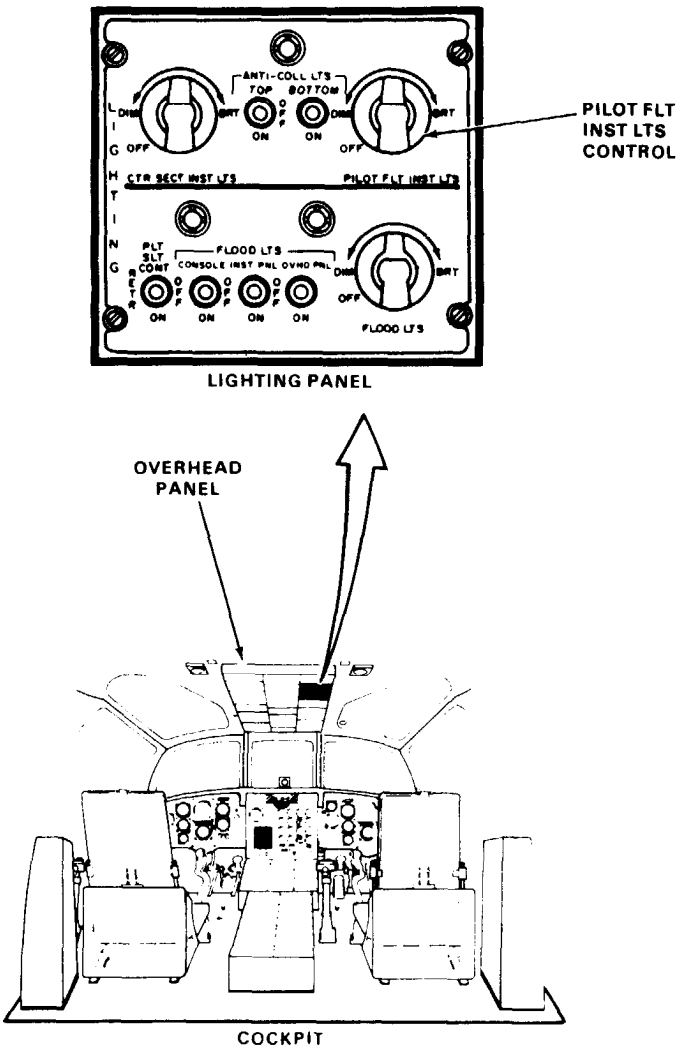
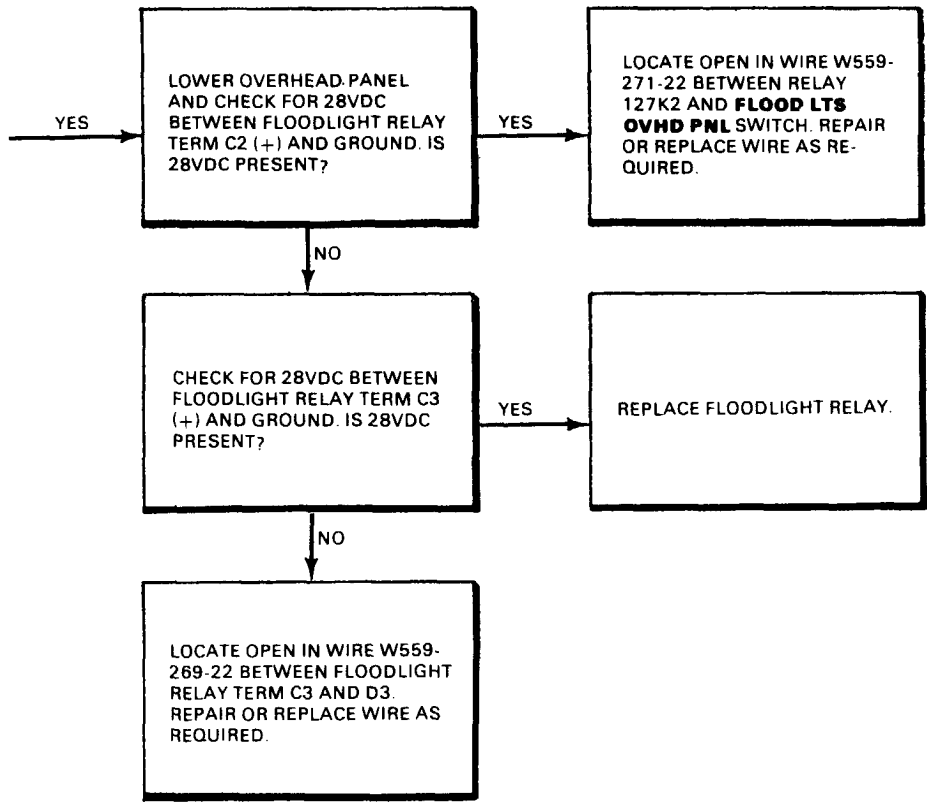
9-13.8





9-13.8 PILOT OR COPILOT'S TURN AND SLIP INDICATOR LIGHTS  
OR OVERHEAD PANEL FLOODLIGHTS DO NOT COME ON  
(Continued)

9-13.8



END OF TASK

9-13.9 FLOODLIGHTS ON INST PANEL AND OVERHEAD PANEL AND LIGHTS ON PILOT AND COPILOT'S  
TURN AND SLIP INDICATORS DO NOT COME ON

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
Without 17

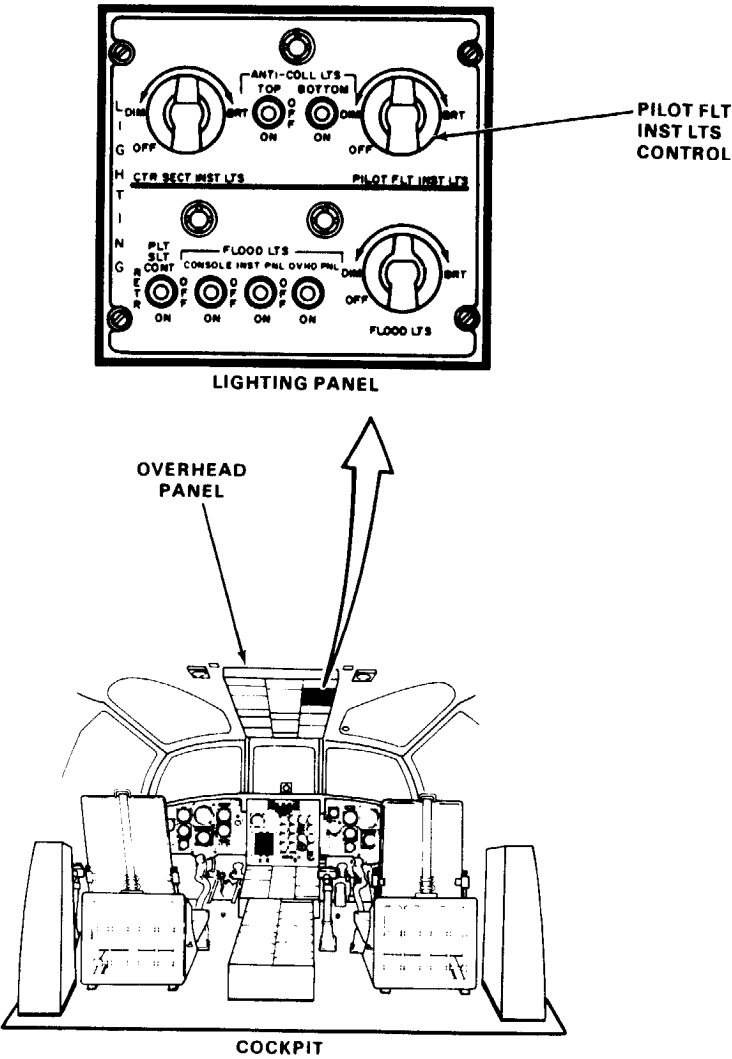
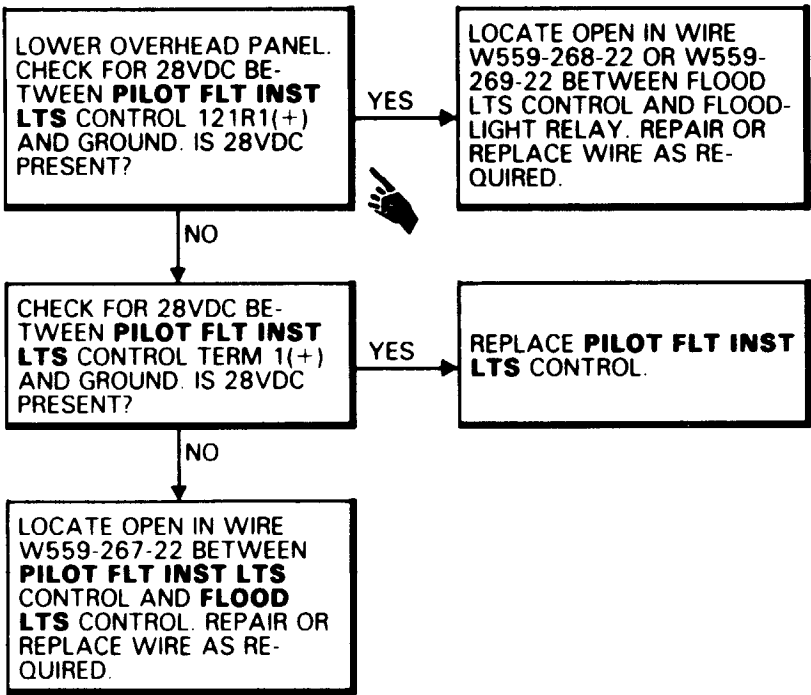
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

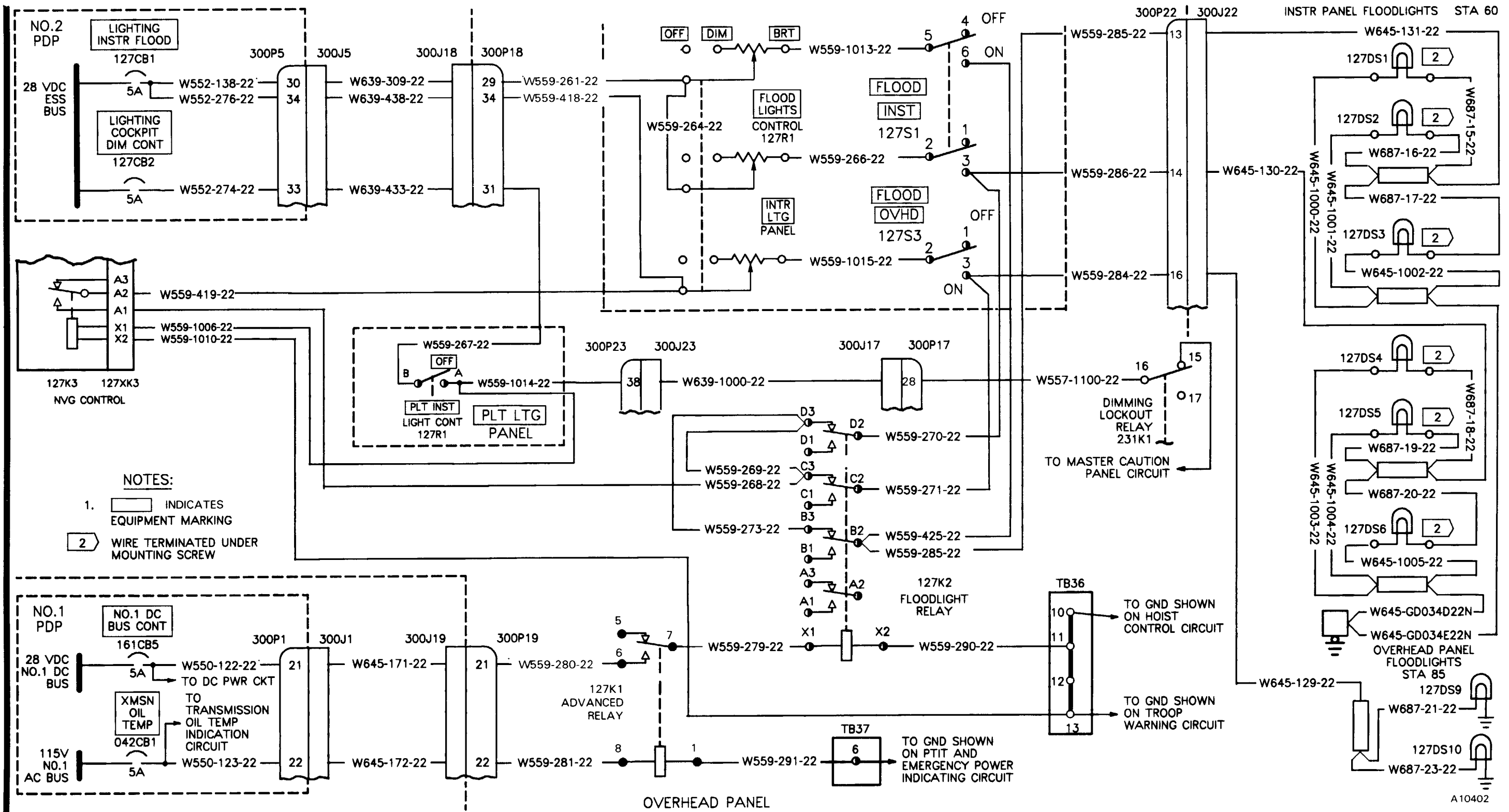
Materials:  
None

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23  
Battery Connected  
Electrical Power On  
Hydraulic Power Off





A10402

9-13.11 SECONDARY COCKPIT LIGHTS VISUAL CHECK

9-13.11

INITIAL SETUP

Applicable Configurations:  
With 17

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:  
None

Personnel Required:  
Aircraft Electrician

References

TM 55-1520-240-23

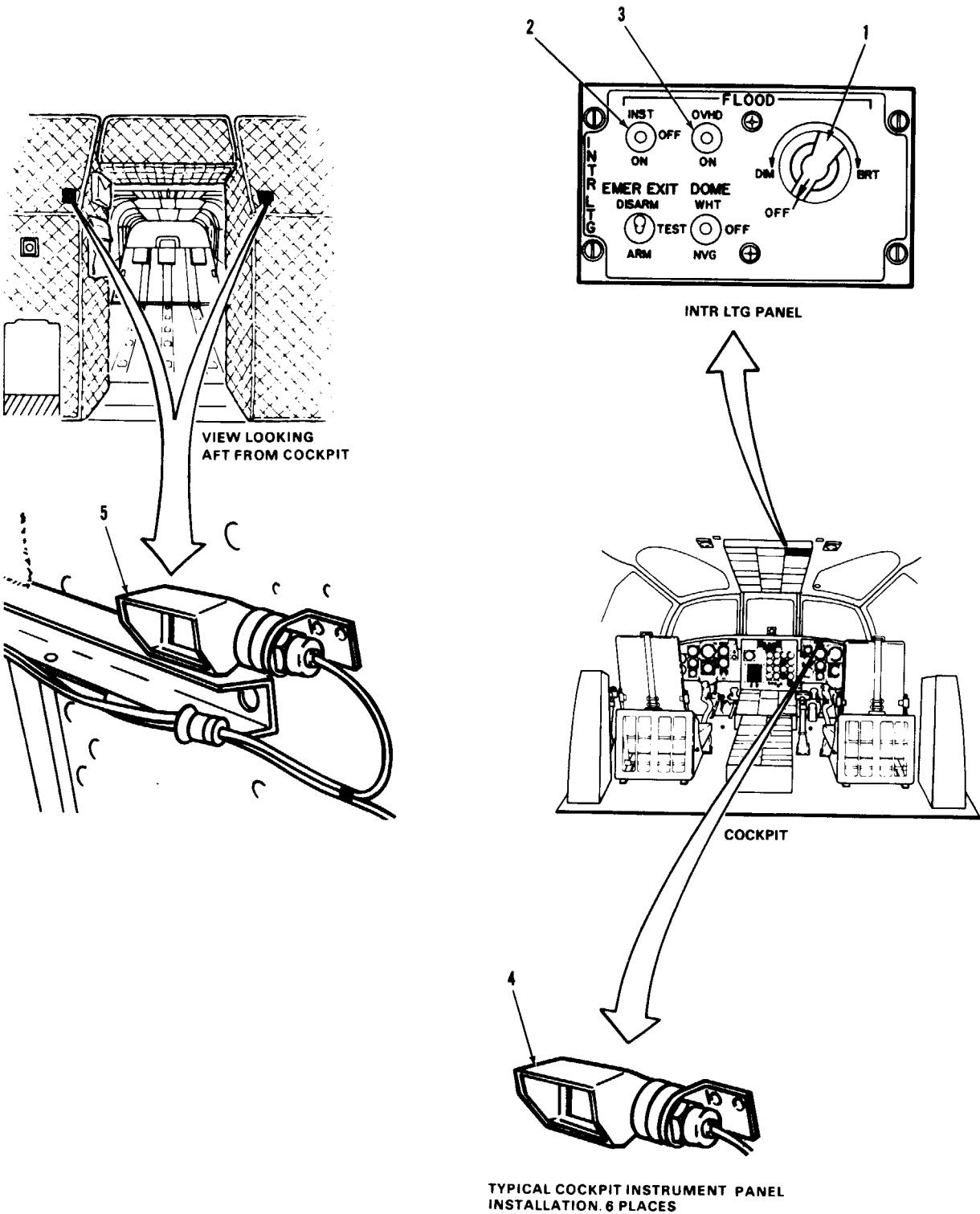
Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Rotate FLOOD lights DIM BRT control (1) from OFF to BRT and back to OFF.	FLOOD lights DIM BRT control (1) shall rotate freely and smoothly. If control is loose or binding, replace it.
2. Check INST FLOOD lights switch (2).	If switch (2) is loose or damaged, tighten or replace it as required.
3. Check OVHD FLOOD lights switch (3).	If switch (3) is loose or damaged, tighten or replace it as required.
4. Check flood lights (4) on instrument panel and center panel.	If any flood light (4) is loose or damaged, tighten or replace it as required.
5. Check flood lights (5) behind pilot's and copilot's seat.	If either flood light (5) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:  
None



9-13.12 SECONDARY COCKPIT LIGHTS OPERATIONAL CHECK

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

None

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

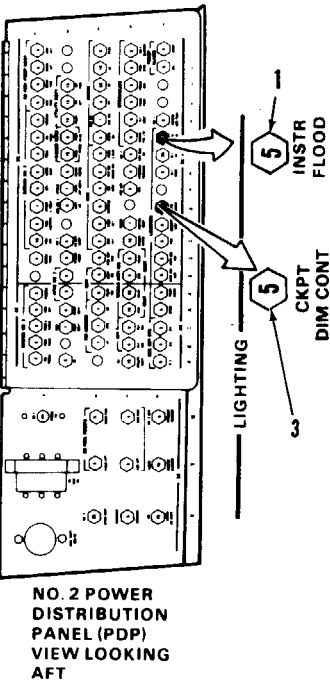
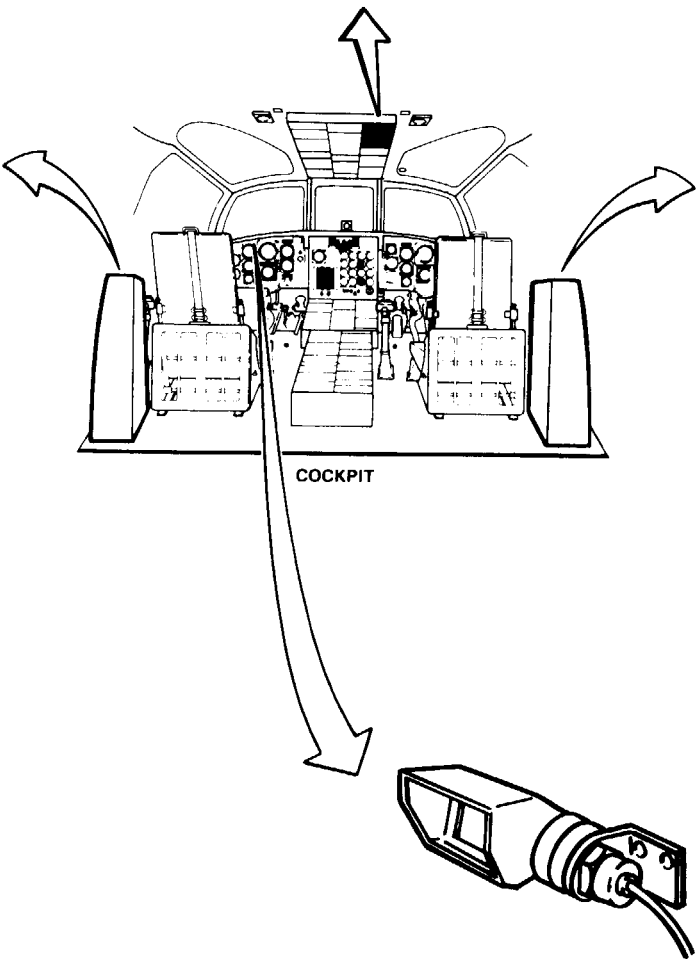
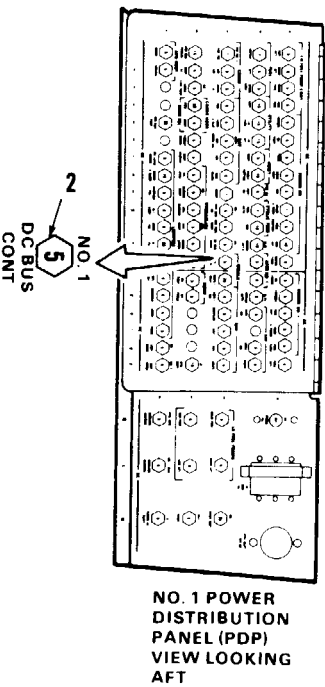
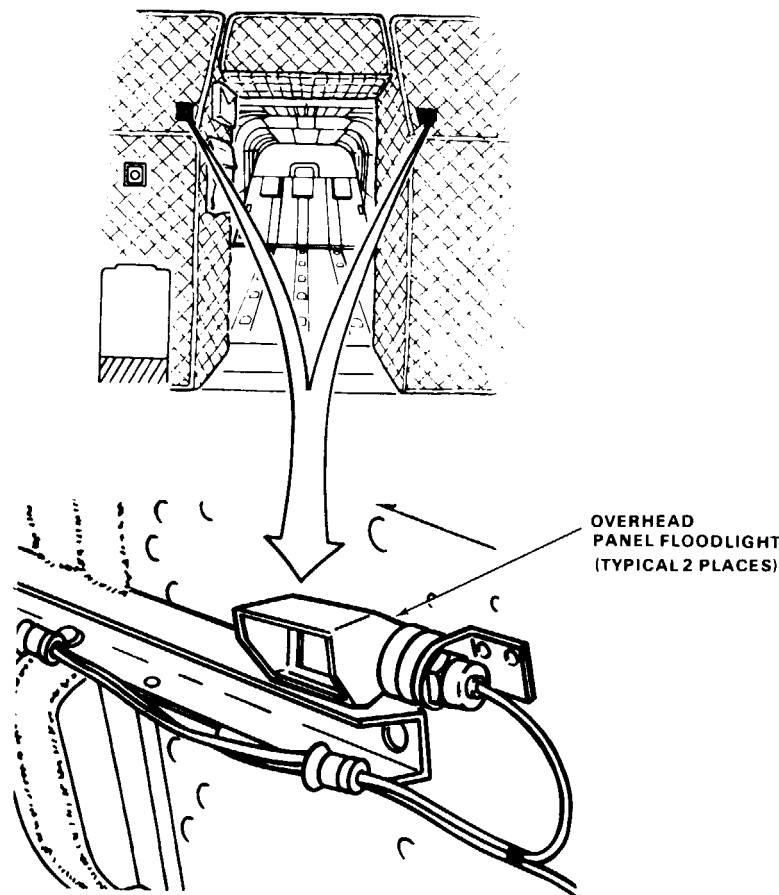
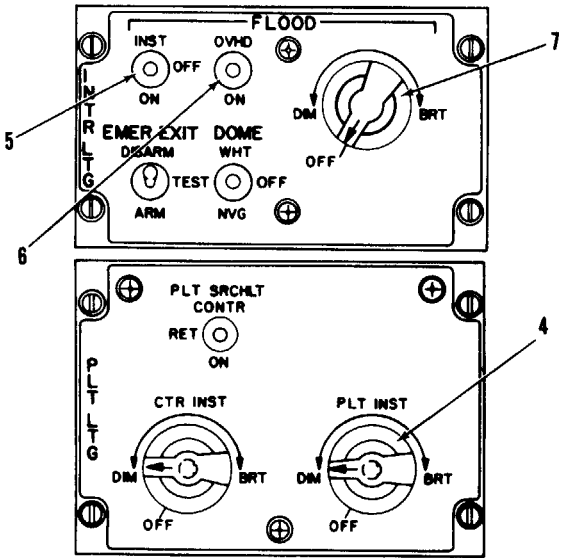
TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off

Visual Check of Secondary Cockpit Lights Performed (Task 9-13.11)



9-13.12 SECONDARY COCKPIT LIGHTS OPERATIONAL CHECK (Continued)

9-13.12

TASK	RESULT
1. Check that INSTR FLOOD LIGHTING circuit breaker (1) is closed.	If circuit breaker (1) is open, close it. If it opens again, go to task 9-13.13.
2. Check that DC BUS CONT NO. 1 circuit breaker (2) is closed.	If circuit breaker (2) is open, close it. If it opens again, go to task 9-13.5.
3. Check that CKPT DIM CONT LIGHTING circuit breaker (3) is closed.	If circuit breaker (3) is open, close it. If it opens again, go to task 9-13.14.
4. Set PLT INST lights control (4) to DIM.	
5. Set INST and OVHD FLOOD lights switches (5 and 6) to ON.	
6. Turn FLOOD lights control (7) from OFF through DIM to BRT.	Eight flood lights, six on instrument panel and two behind pilot's seat shall come on dim and then increase in brightness. If flood lights do not come on, go to task 9-13.15. If flood lights do not increase in brightness, replace FLOOD lights control (7).
7. Set INST FLOOD lights switch (5) to OFF.	Six flood lights on instrument panel shall go out. If flood lights do not go out, replace switch (5).
8. Set OVHD FLOOD lights switch (6) to OFF.	Two flood lights behind pilot's and copilot's seat shall go out. If flood lights do not go out, replace switch (6).
9. Open NO. 1 DC BUS CONT circuit breaker (2).	All eight flood lights shall come on. If not, go to task 9-13.16.
10. Turn PLT INST lights control (4) to OFF.	Flood lights and indicator lights shall go out. If not, replace PLT INST lights control (4).
11. Close NO. 1 DC BUS CONT circuit breaker (2).	

FOLLOW-ON MAINTENANCE:

- TM 55-1520-240-23:
- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
With 17

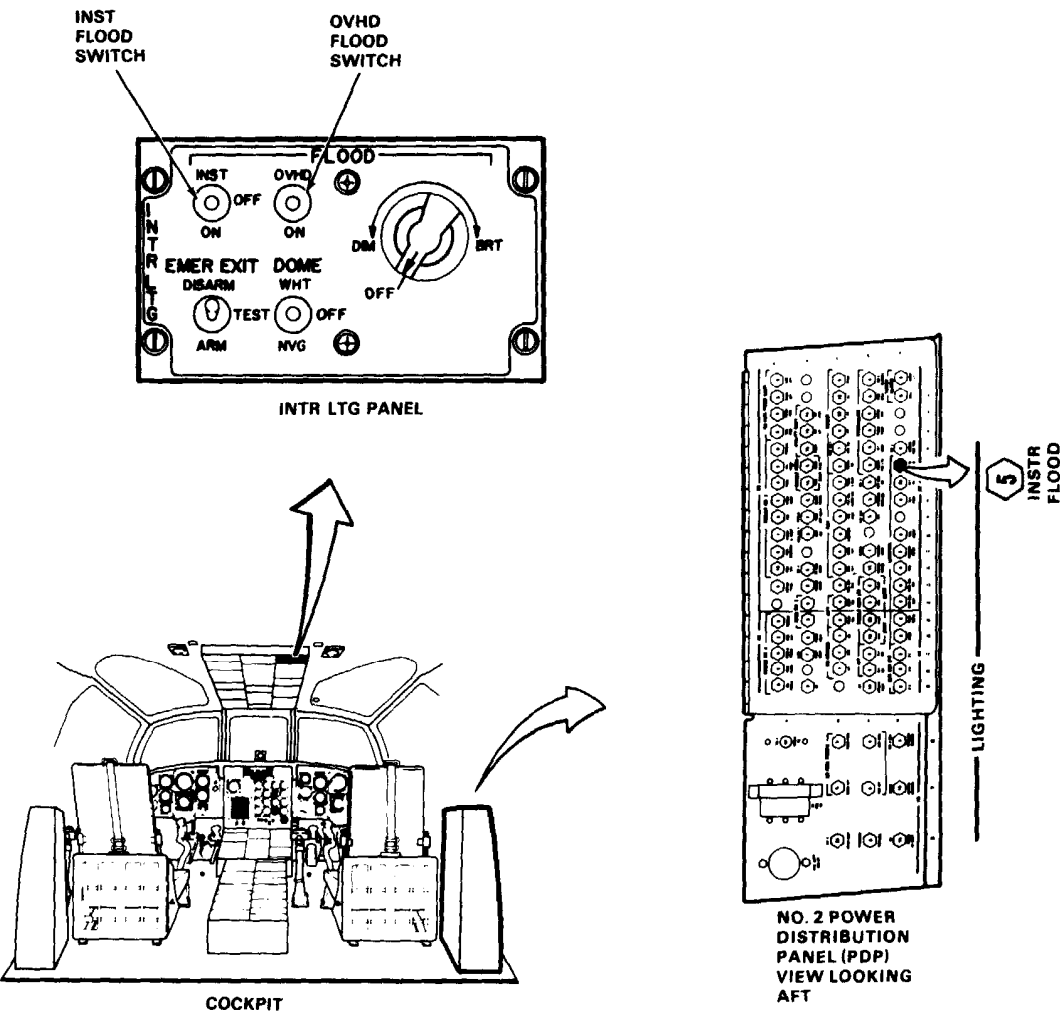
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

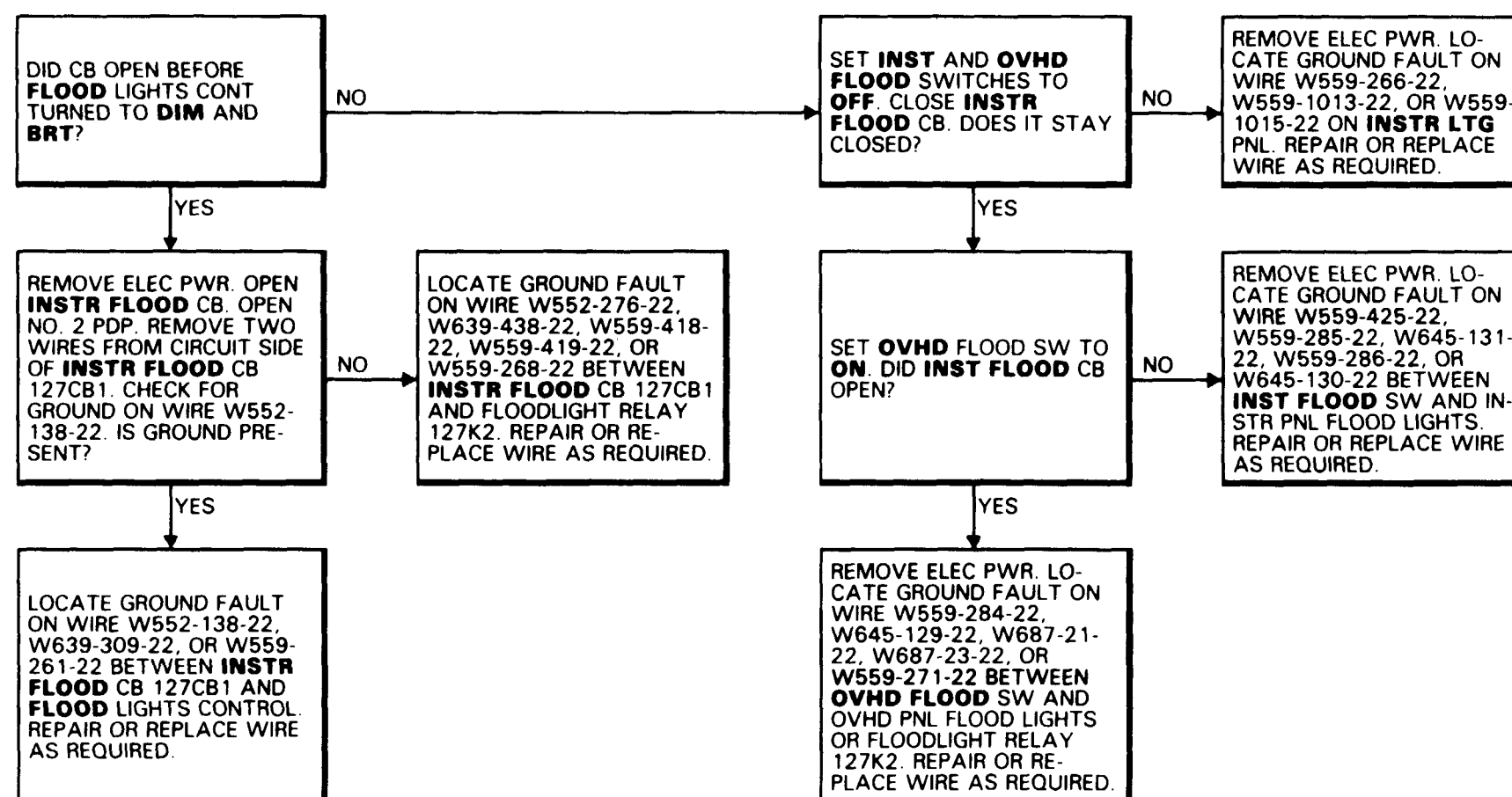
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



## 9-13.13 INSTR FLOOD LIGHTING CIRCUIT BREAKER WILL NOT STAY CLOSED (Continued)

9-13.13





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
With 17

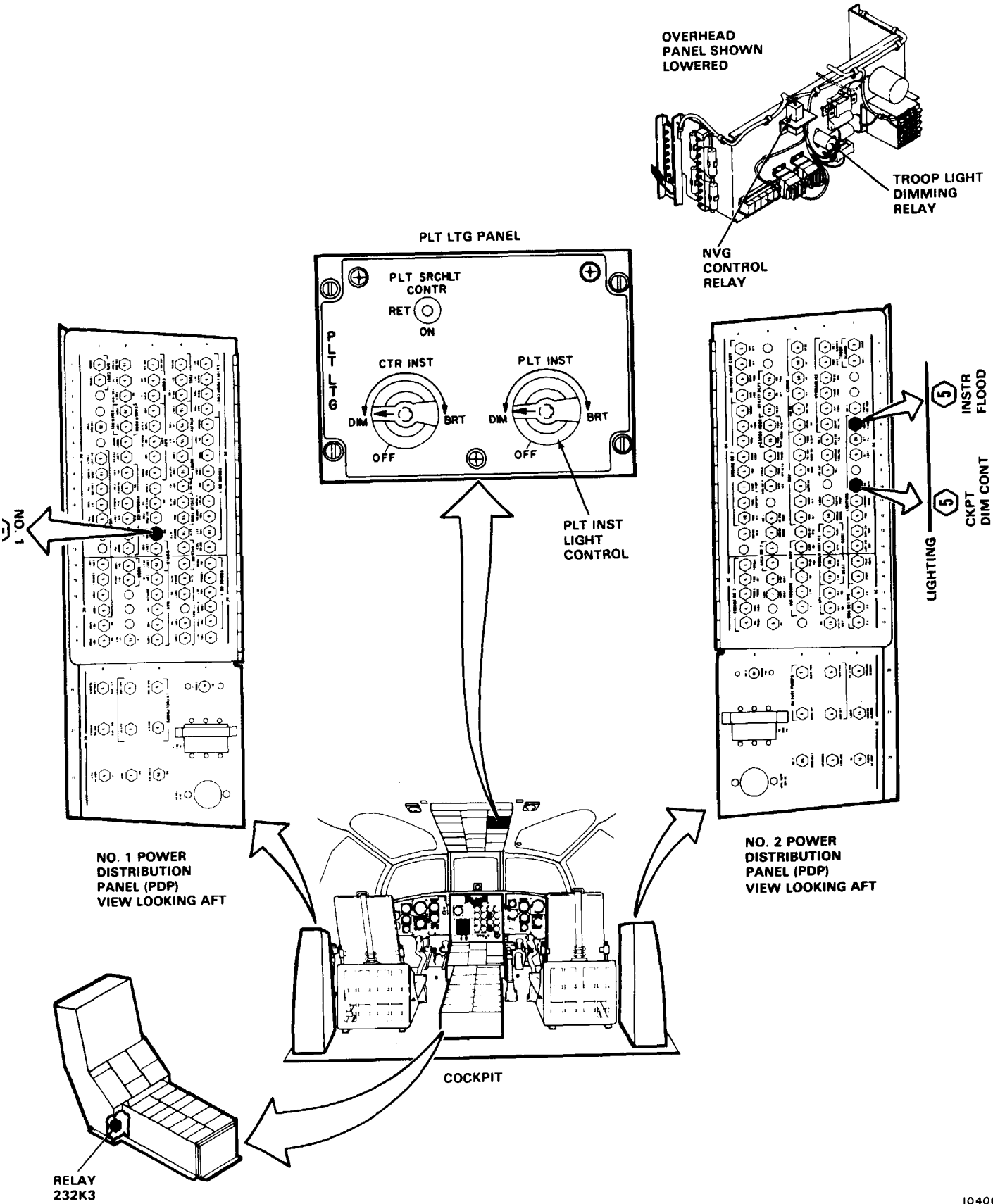
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

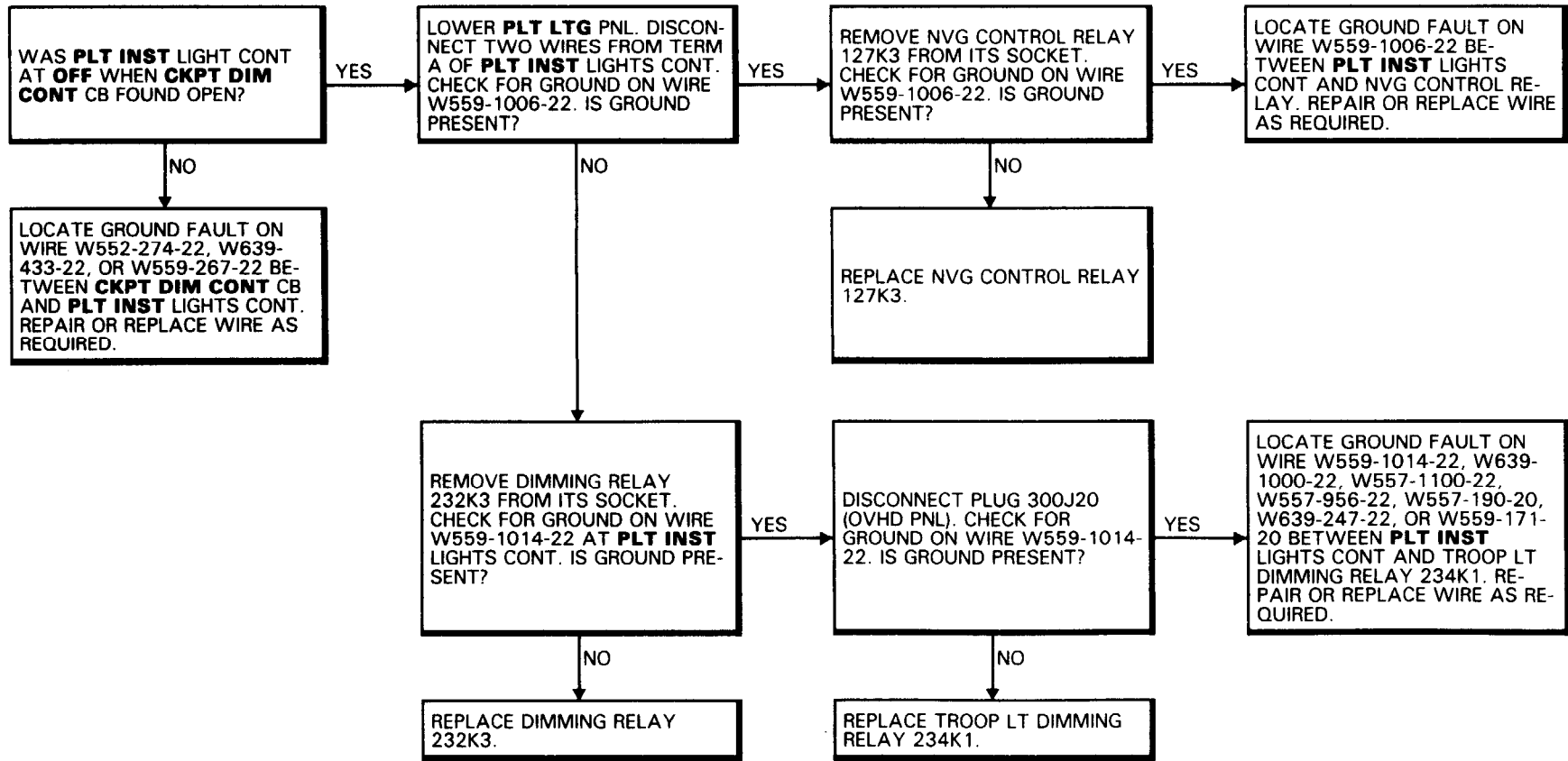
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-13.14 CKPT DIM CONT CIRCUIT BREAKER WILL NOT STAY CLOSED (Continued)

9-13.14



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

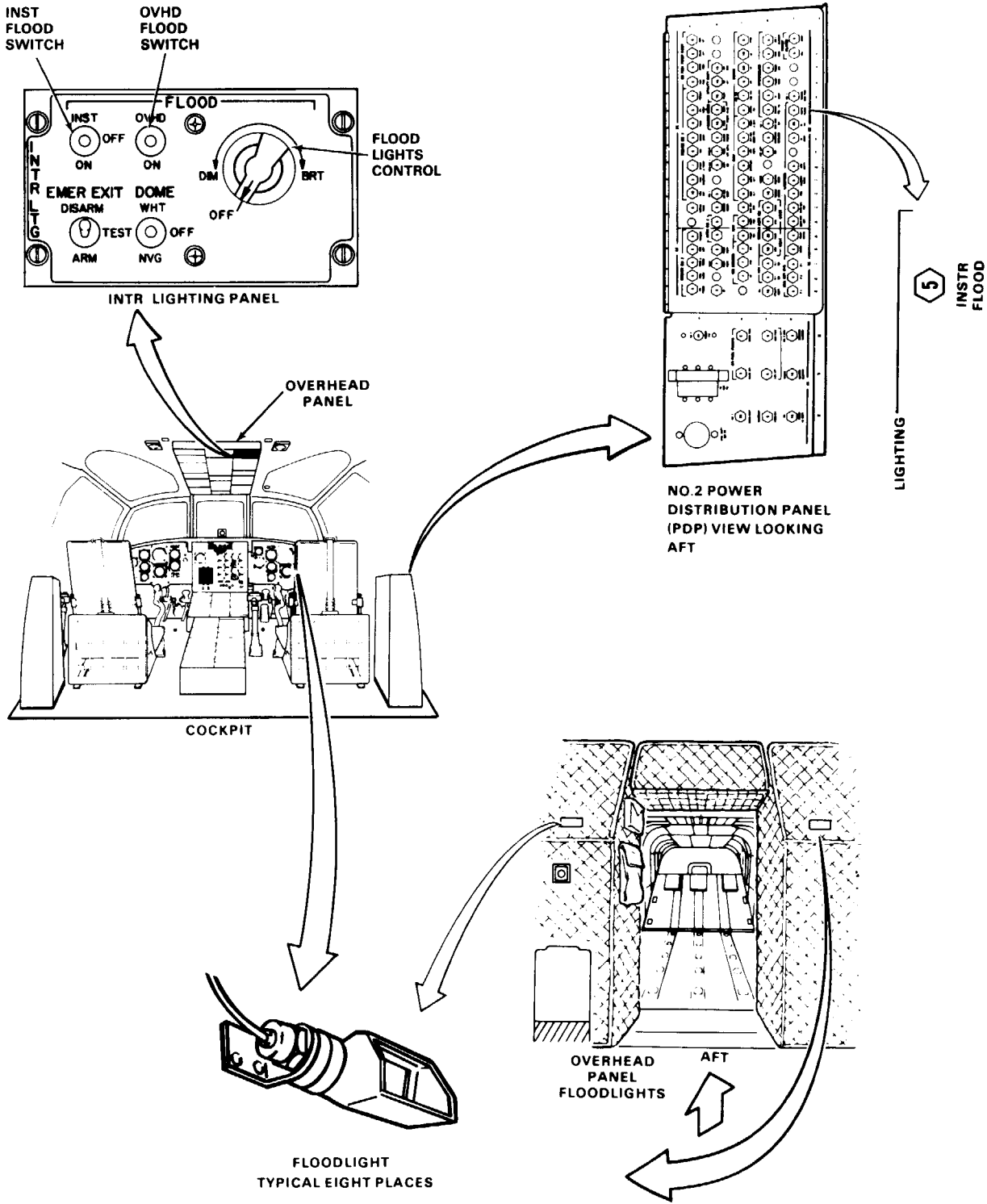
Aircraft Electrician

References:

TM 55-1520-240-23

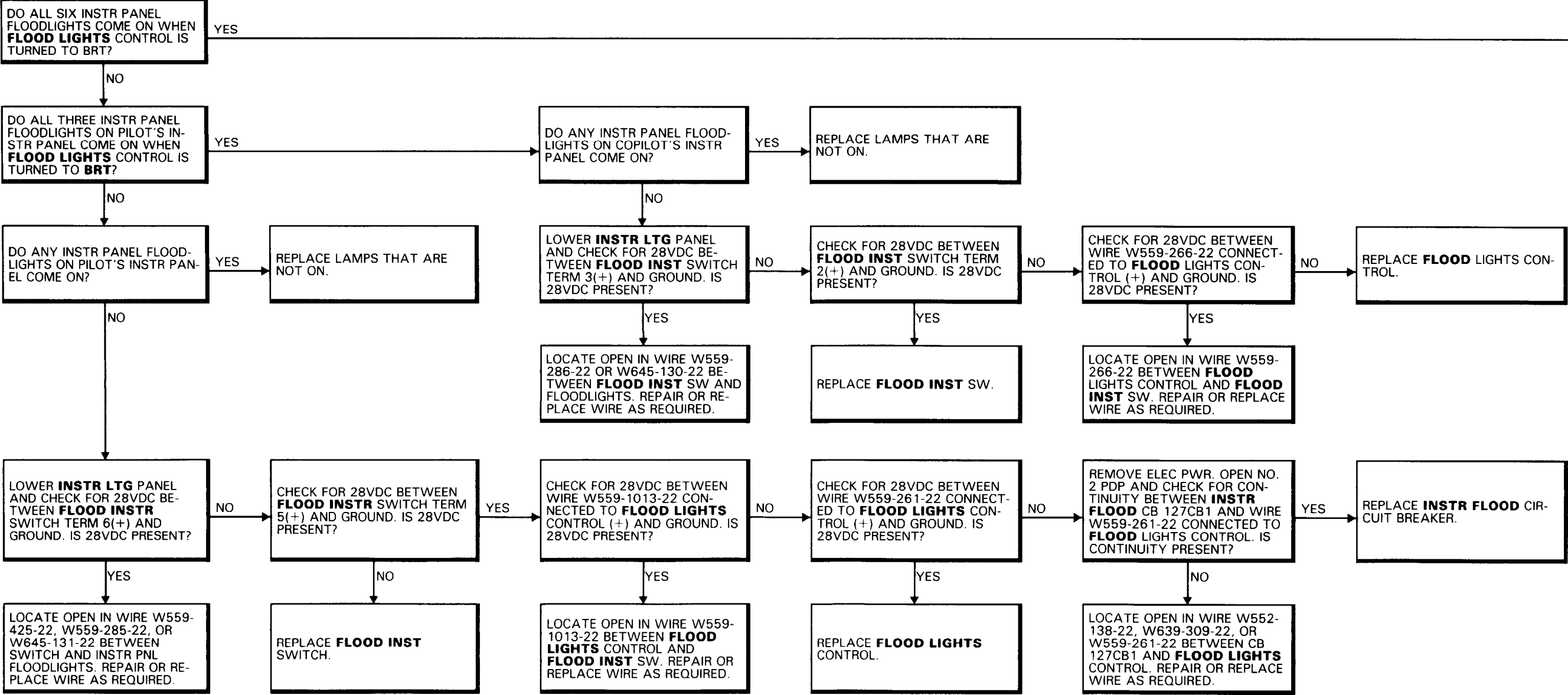
Equipment Condition:

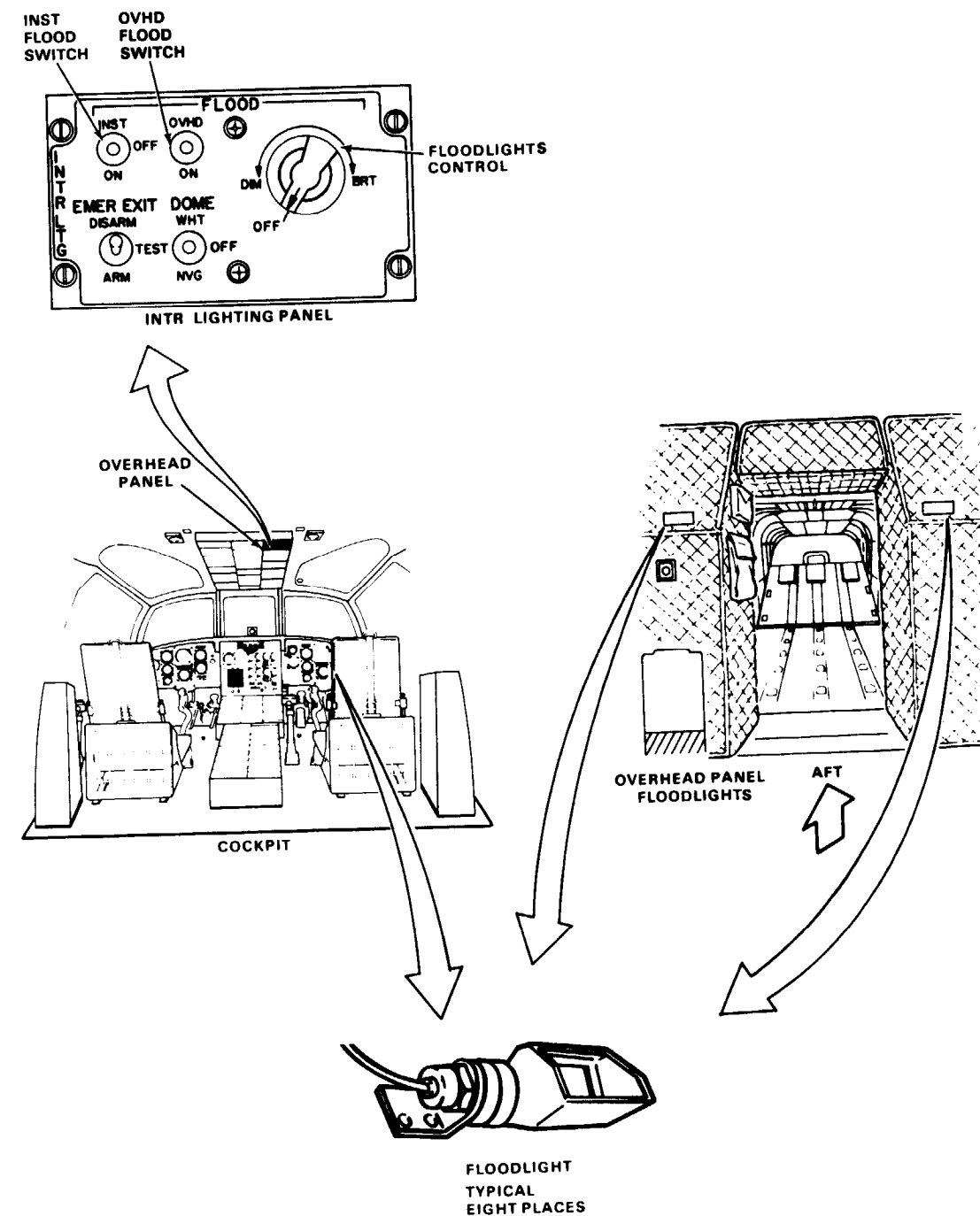
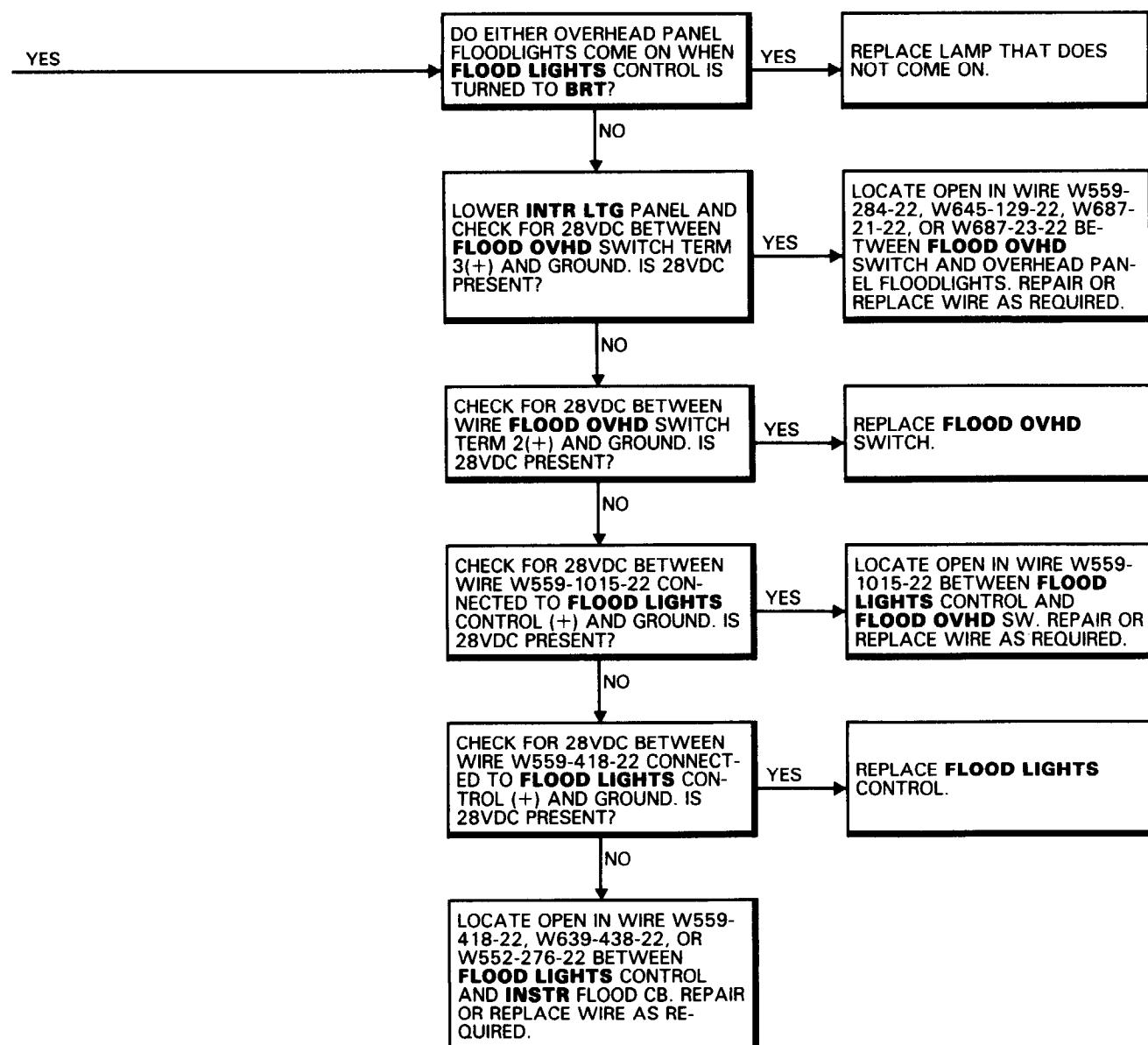
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-13.15 INSTR PANEL OR OVERHEAD PANEL FLOOD LIGHTS WILL NOT COME ON (Continued)

9-13.15





10408

END OF TASK



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
With 17

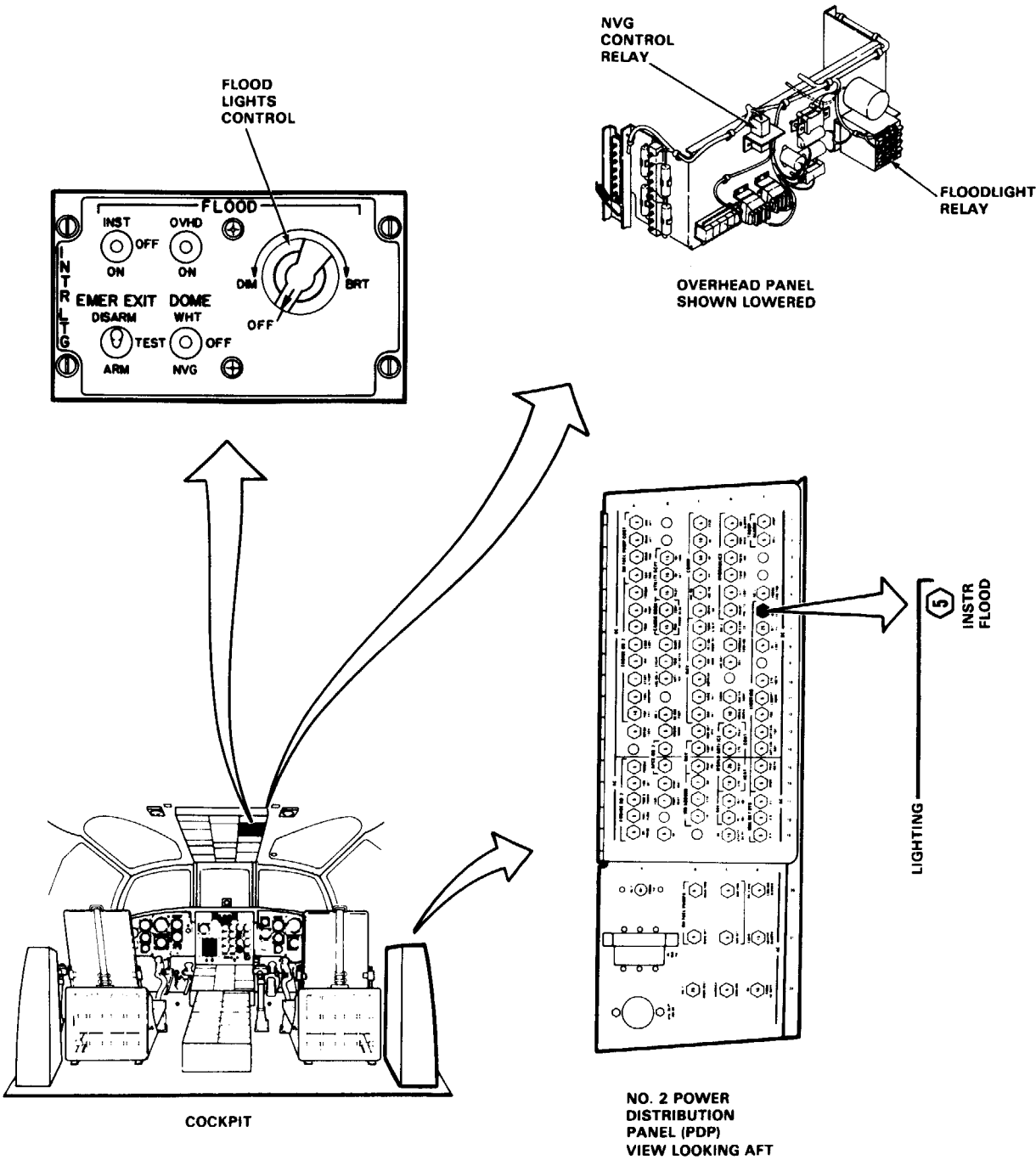
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

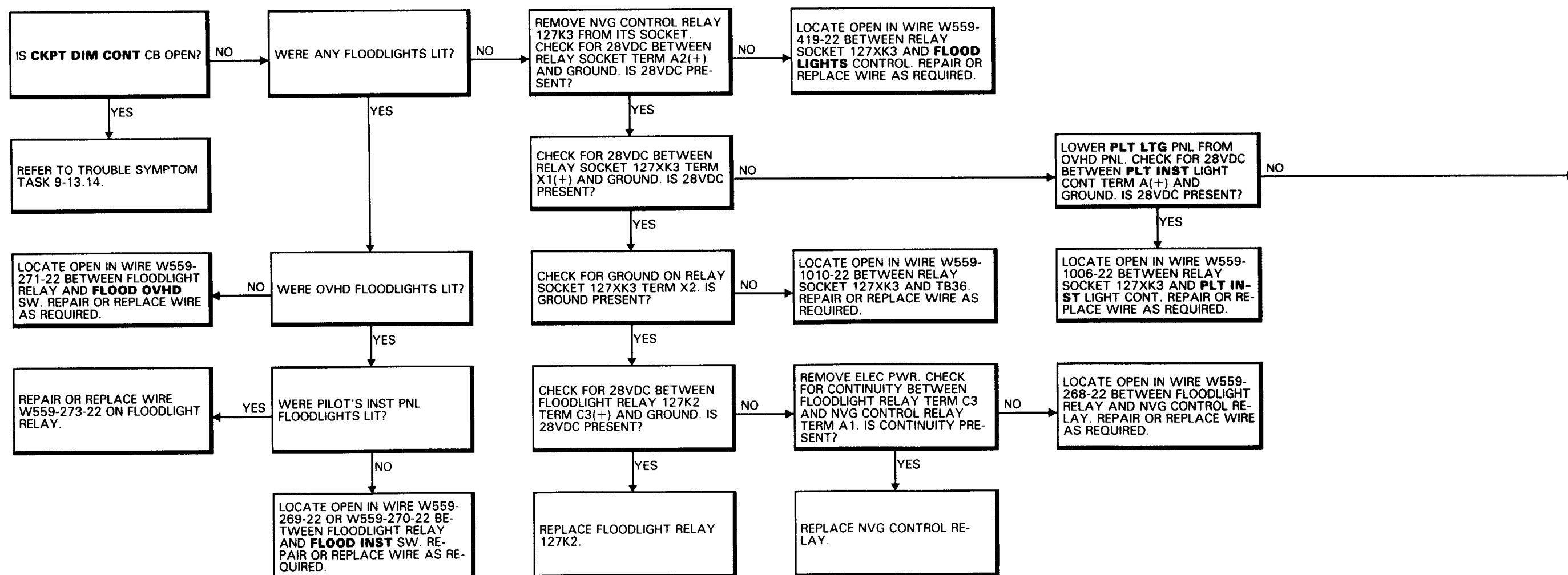
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

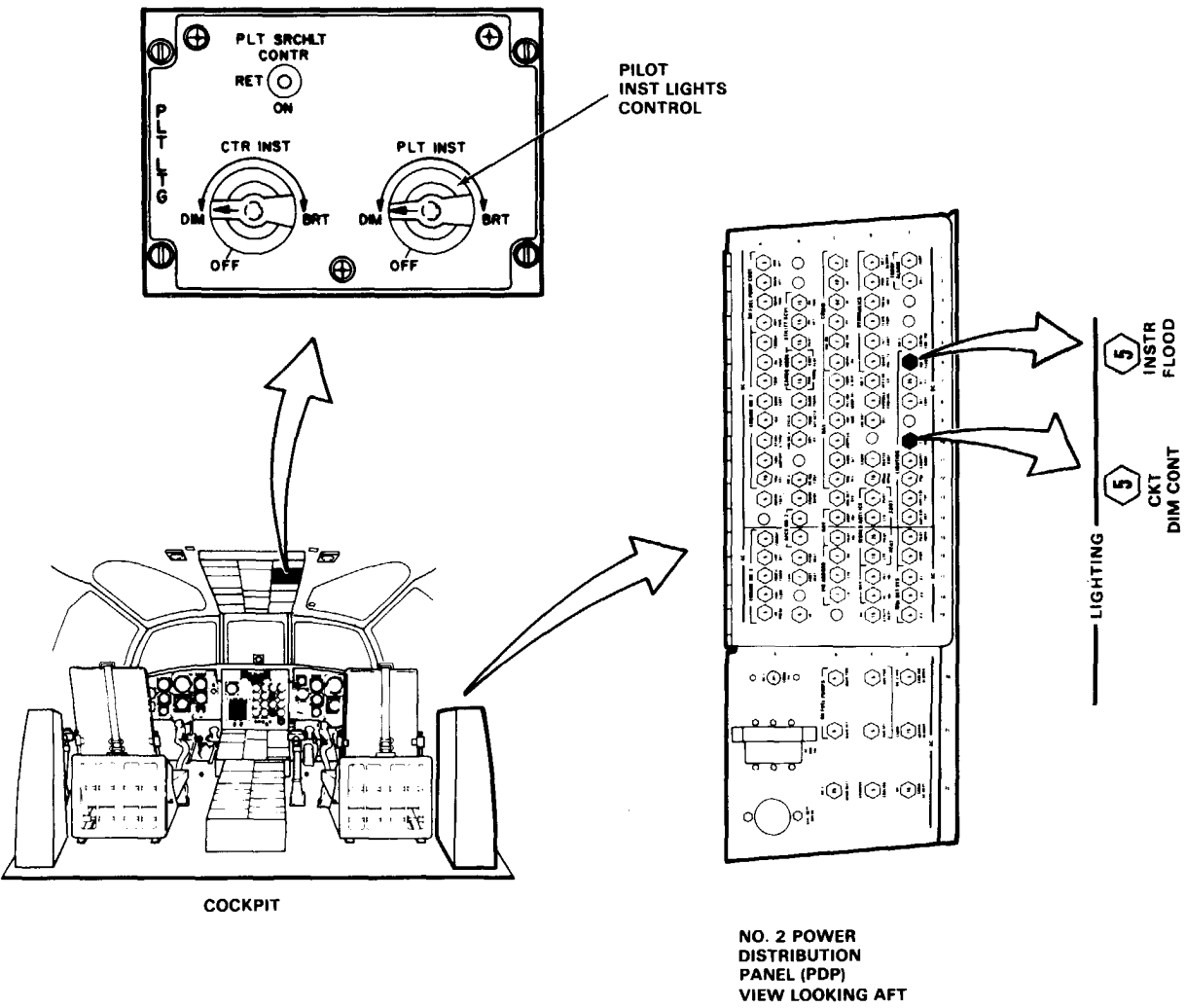
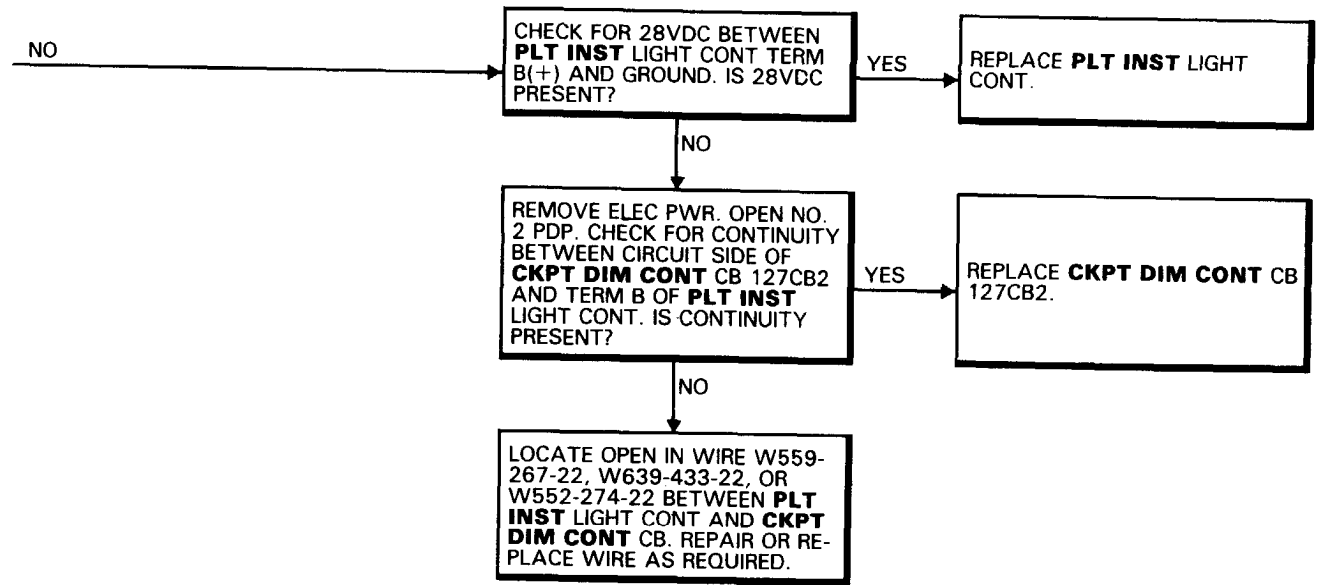


## 9-13.16 ALL FLOODLIGHTS DO NOT COME ON WHEN PLT INST LIGHT CONTROL SET TO OFF (Continued)

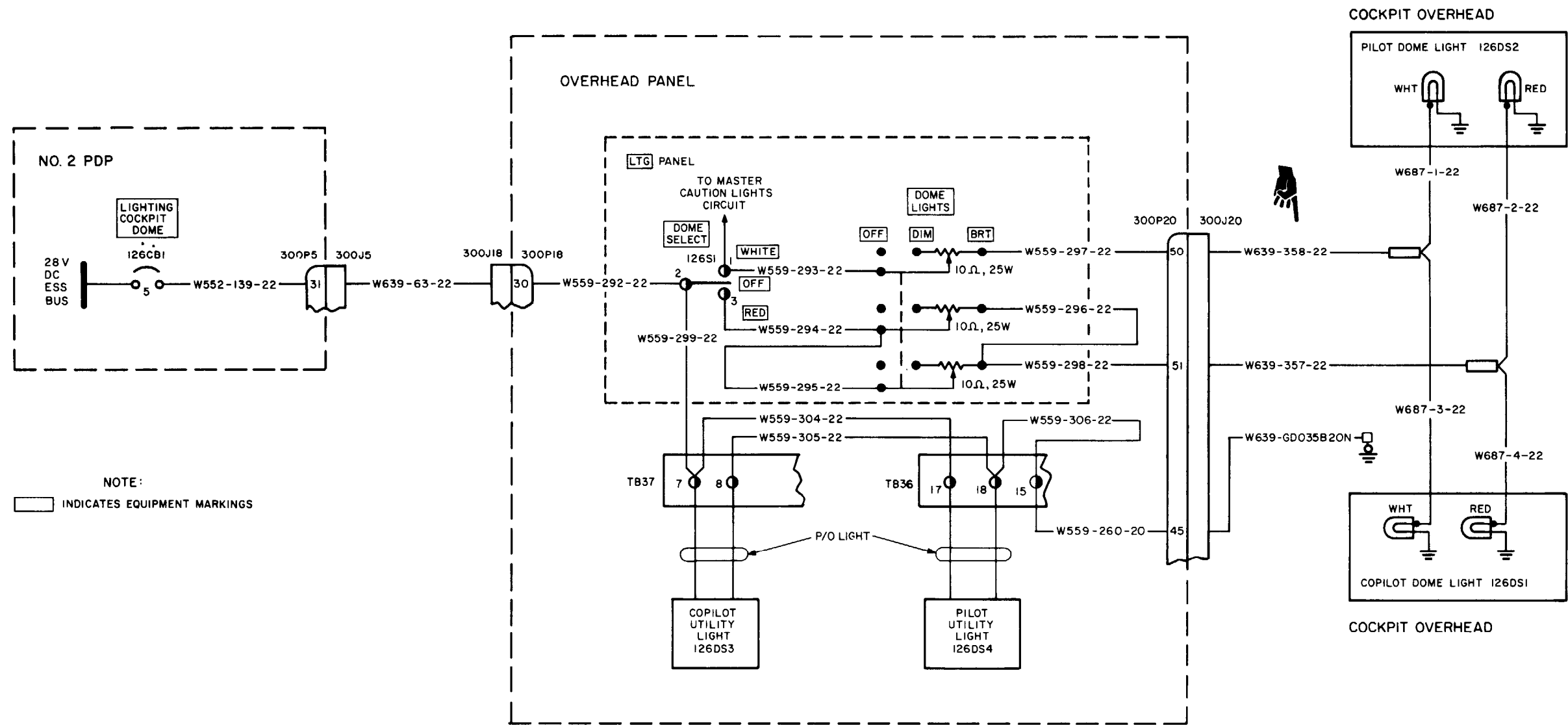
9-13.16







## **9-14 COCKPIT DOME AND UTILITY LIGHTS**



126.100C 234.100A

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

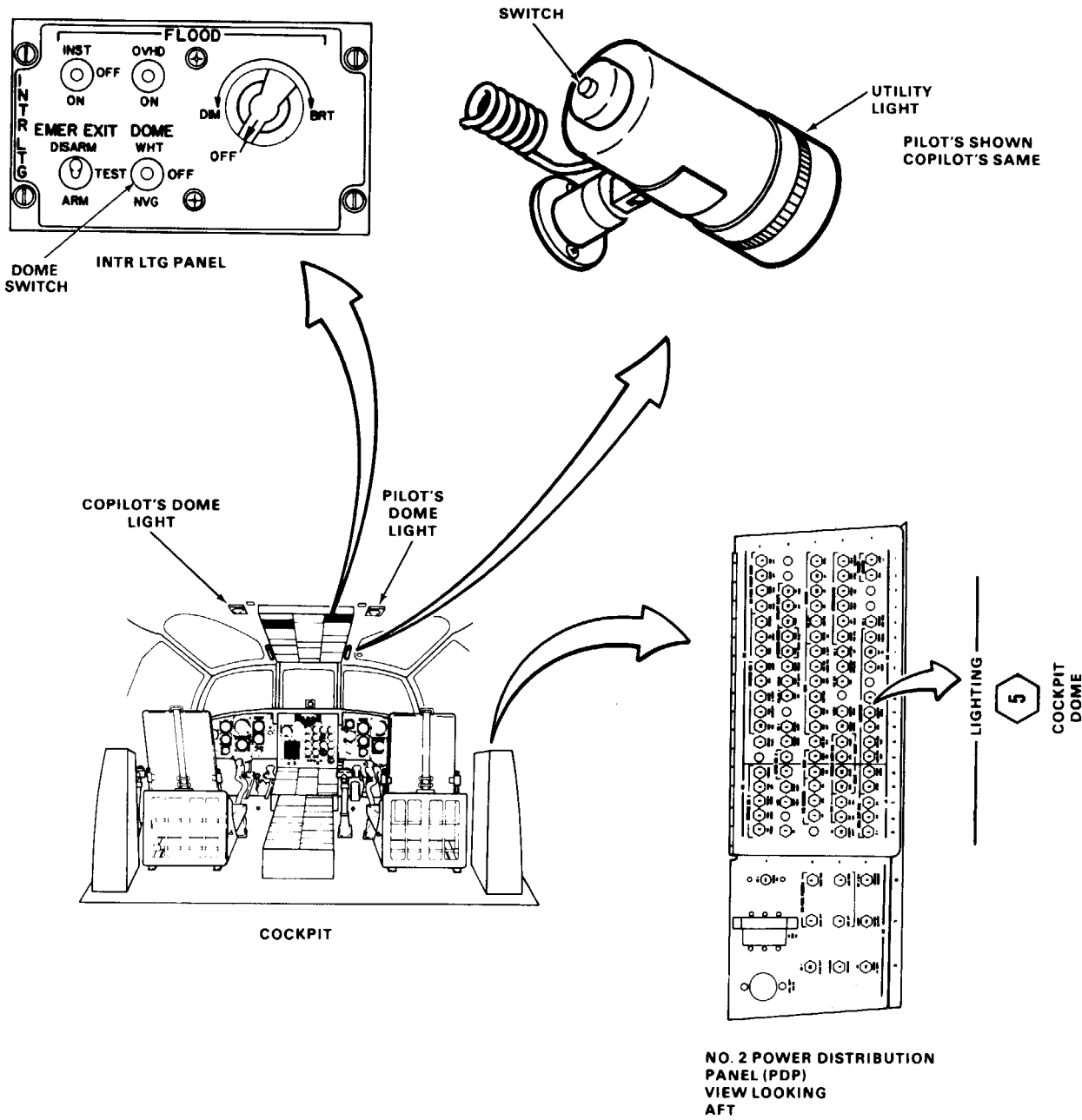
Aircraft Electrician

References:

TM 55-1520-240-23

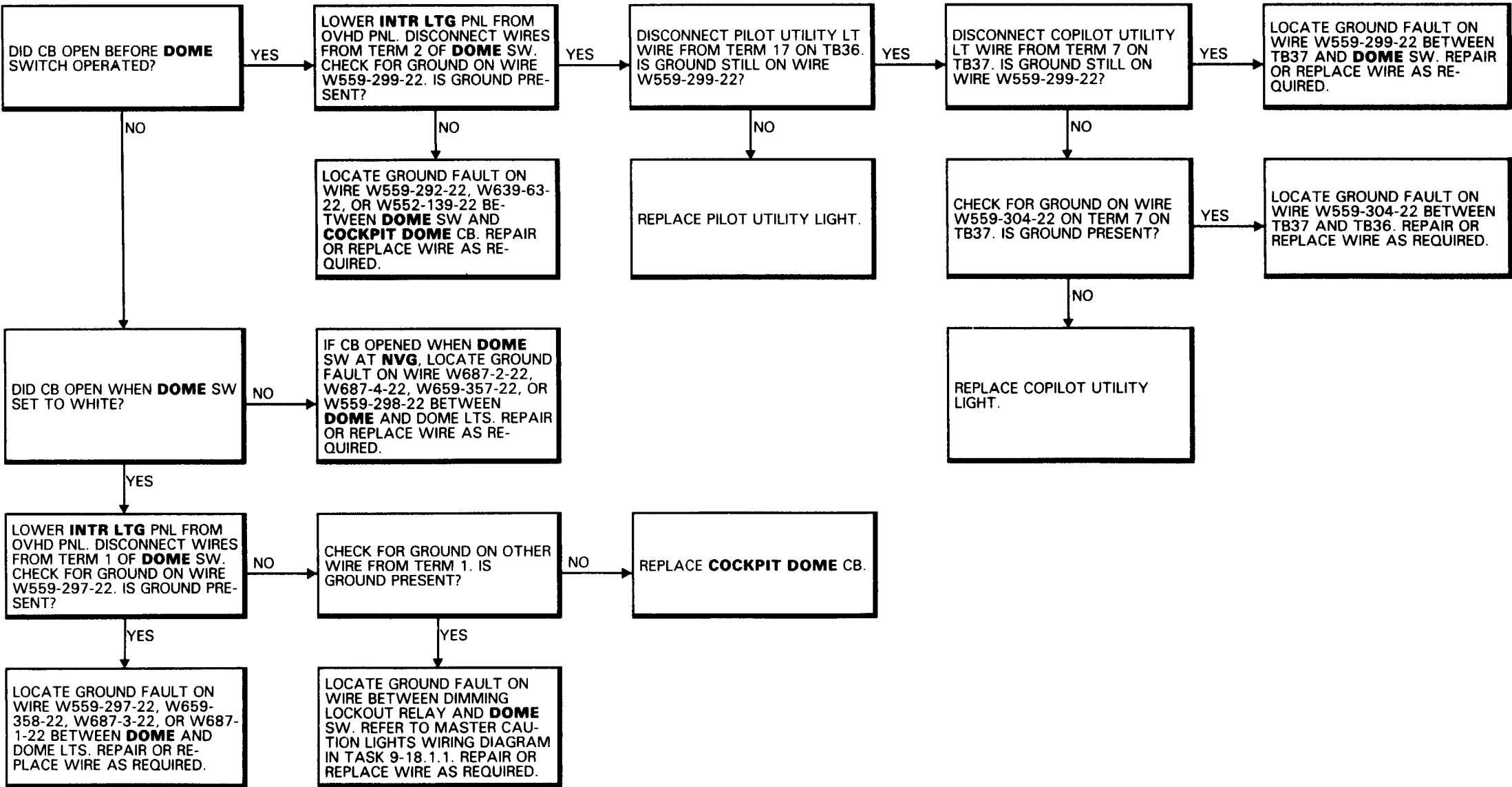
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-14.11 COCKPIT DOME CIRCUIT BREAKER DOES NOT STAY CLOSED (Continued)

9-14.11



# 9-14.11 COCKPIT DOME CIRCUIT BREAKER DOES NOT STAY CLOSED

## FAULT ISOLATION PROCEDURE

INITIALSETUP

### Applicable Configurations:

With 17

### Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

### Materials:

None

### Personnel Required:

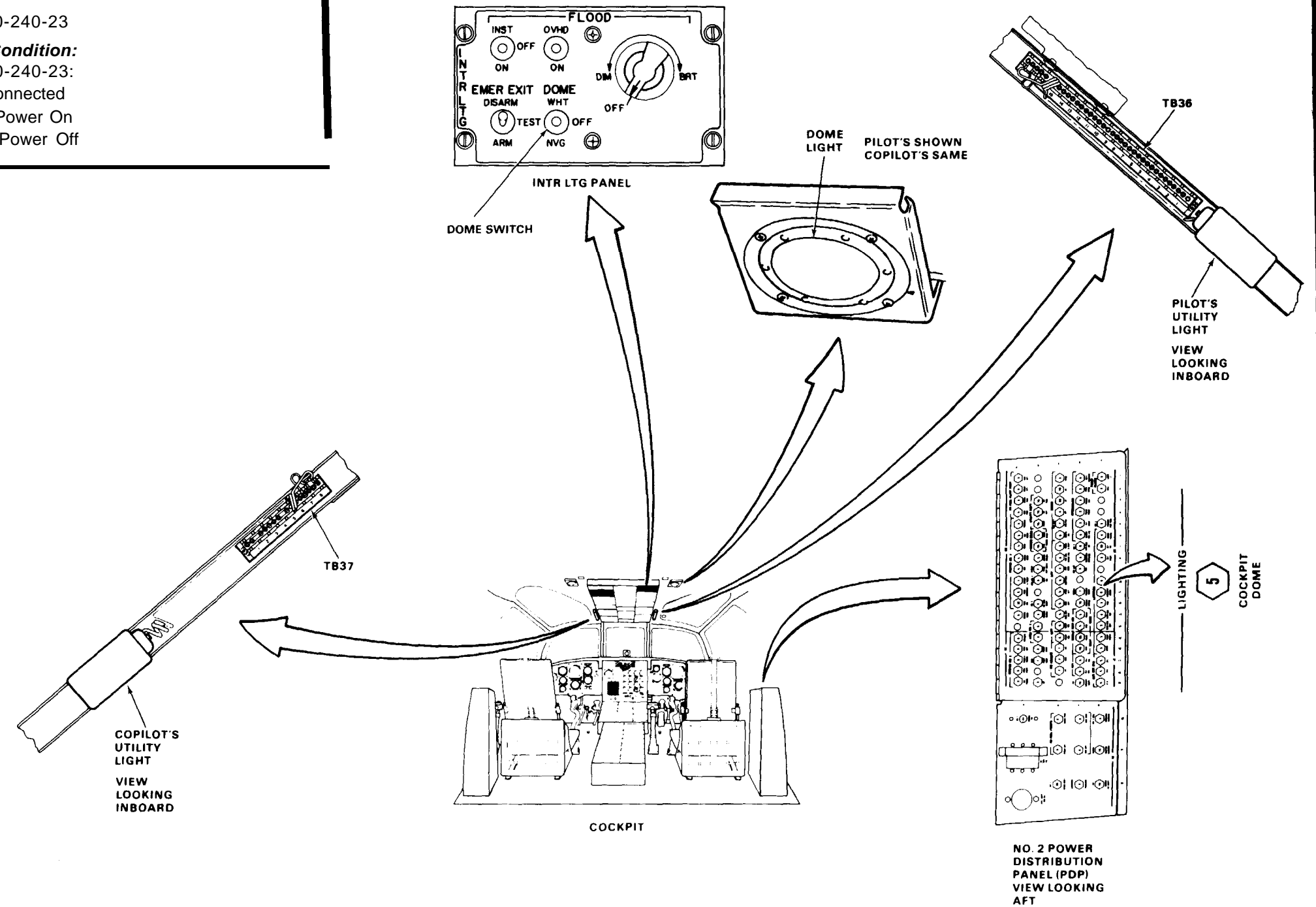
Aircraft Electrician

### References:

TM 55-1520-240-23

### Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



10414

GO TO NEXT PAGE

9-14.10 COCKPIT DOME AND UTILITY LIGHTS OPERATIONAL CHECK

9-14.10

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

None

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off

Cockpit Dome Utility Lights Visual Check Performed (Task 9-14.9)

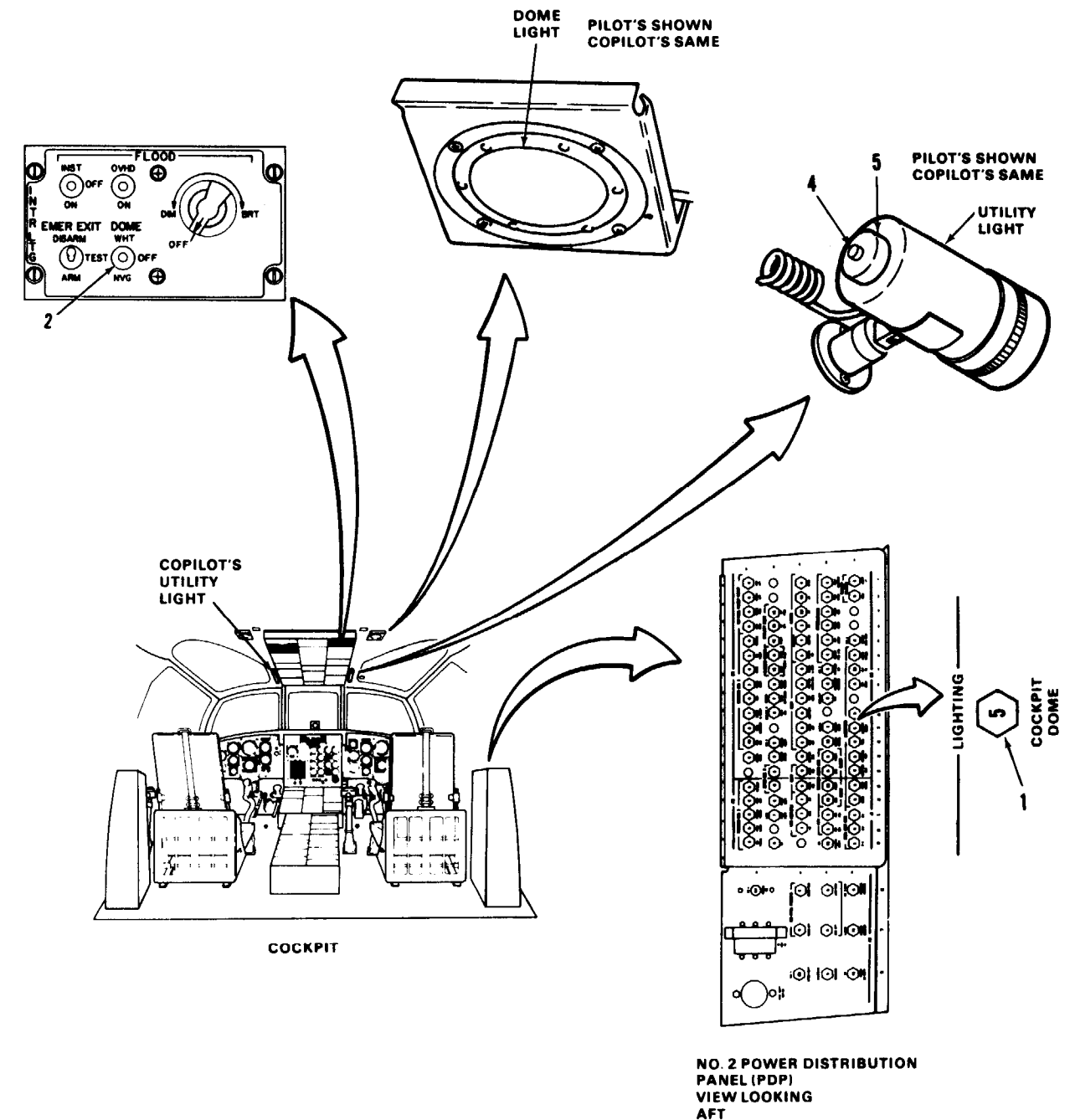
TASK	RESULT
1. Check that LIGHTING COCKPIT DOME circuit breaker (1) is closed.	If COCKPIT DOME circuit breaker (1) is open, close it. If it opens again, go to task 9-14.11.
2. Set DOME switch (2) to WHT.	White light in both dome lights shall come on. If any dome light is not lit, go to task 9-14.12.
3. Turn DOME switch (2) to OFF.	Dome lights shall go out.
4. Set DOME switch (2) to NVG.	Blue light in both dome lights shall come on. If any dome light is not lit, go to task 9-14.13.
5. Set DOME switch (2) to OFF.	Dome lights shall go out.
6. Remove pilot's utility light from overhead panel bracket. Press and release switch (4). Turn dimming control (5) through its range.	Utility light shall blink when switch (4) is pressed and released. Utility light shall increase in brightness as dimming control (5) is turned. If utility light does not come on, go to task 9-14.14. If light comes on but does not increase in brightness, replace utility light.
7. Stow pilot's utility light.	
8. Perform steps 6 and 7 with copilot's utility light.	

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off



9-14.9 COCKPIT DOME AND UTILITY LIGHTS VISUAL CHECK

INITIAL SETUP

**Applicable Configurations:**

With **17**

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

**Materials:**

None

**Personnel Required:**

Aircraft Electrician

**References:**

TM 55-1520-240-23

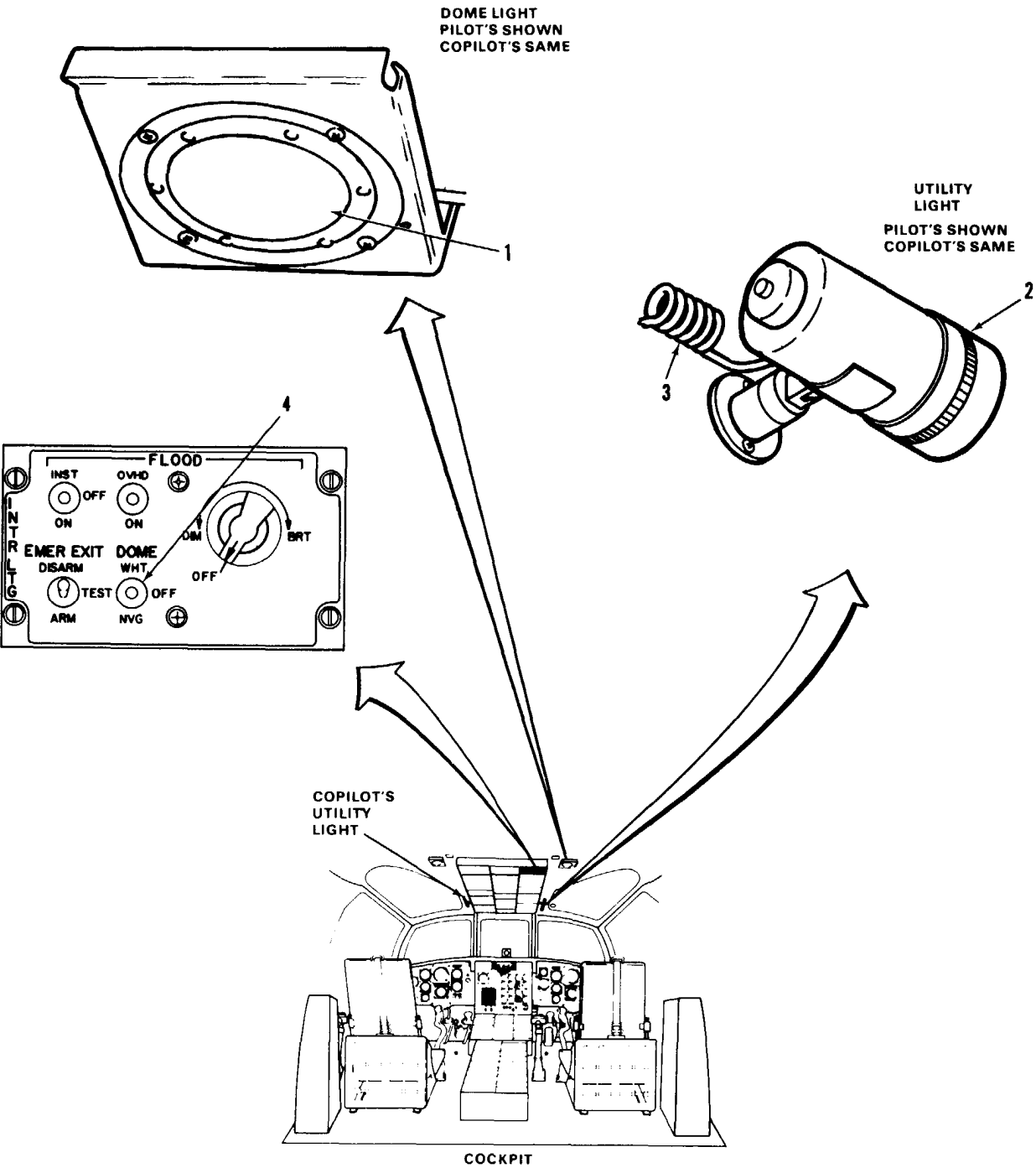
**Equipment Condition:**

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1. Check pilot's dome light (1).	If light (1) is loose or damaged, tighten or replace it as required.
2. Repeat step 1 for copilot's dome light.	
3. Check pilot's utility light (2) and cord (3).	If light (2) is damaged, replace it. If light cord (3) is damaged, replace light.
4. Repeat step 3 for copilot's utility light and cord.	
5. Check DOME switch (4) on INTR LTG panel.	If switch (4) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:

None

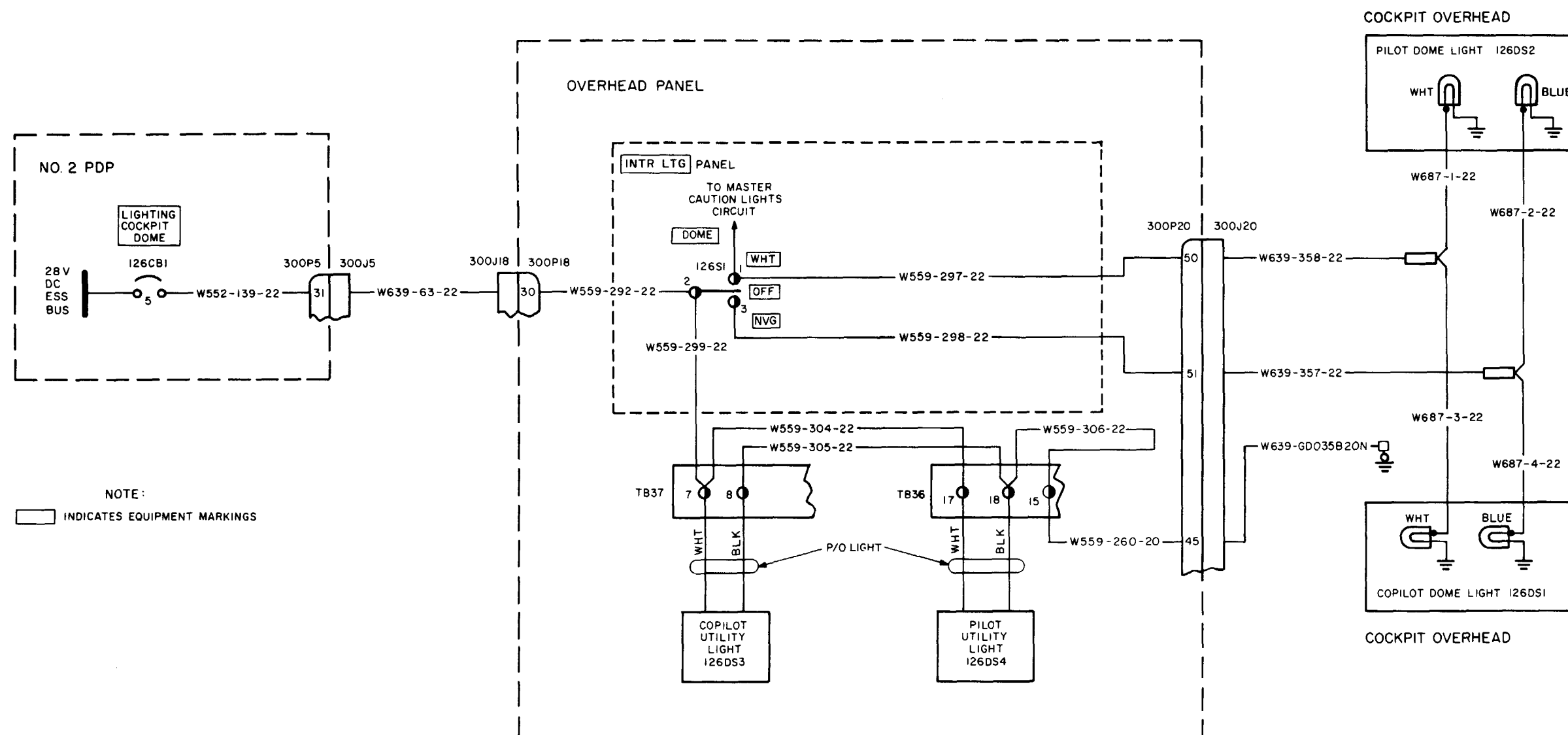


END OF TASK



9-14.8 COCKPIT DOME AND UTILITY LIGHTS WIRING DIAGRAM (WITH 17)

9-14.8



I26.100F 234.100A

10411

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

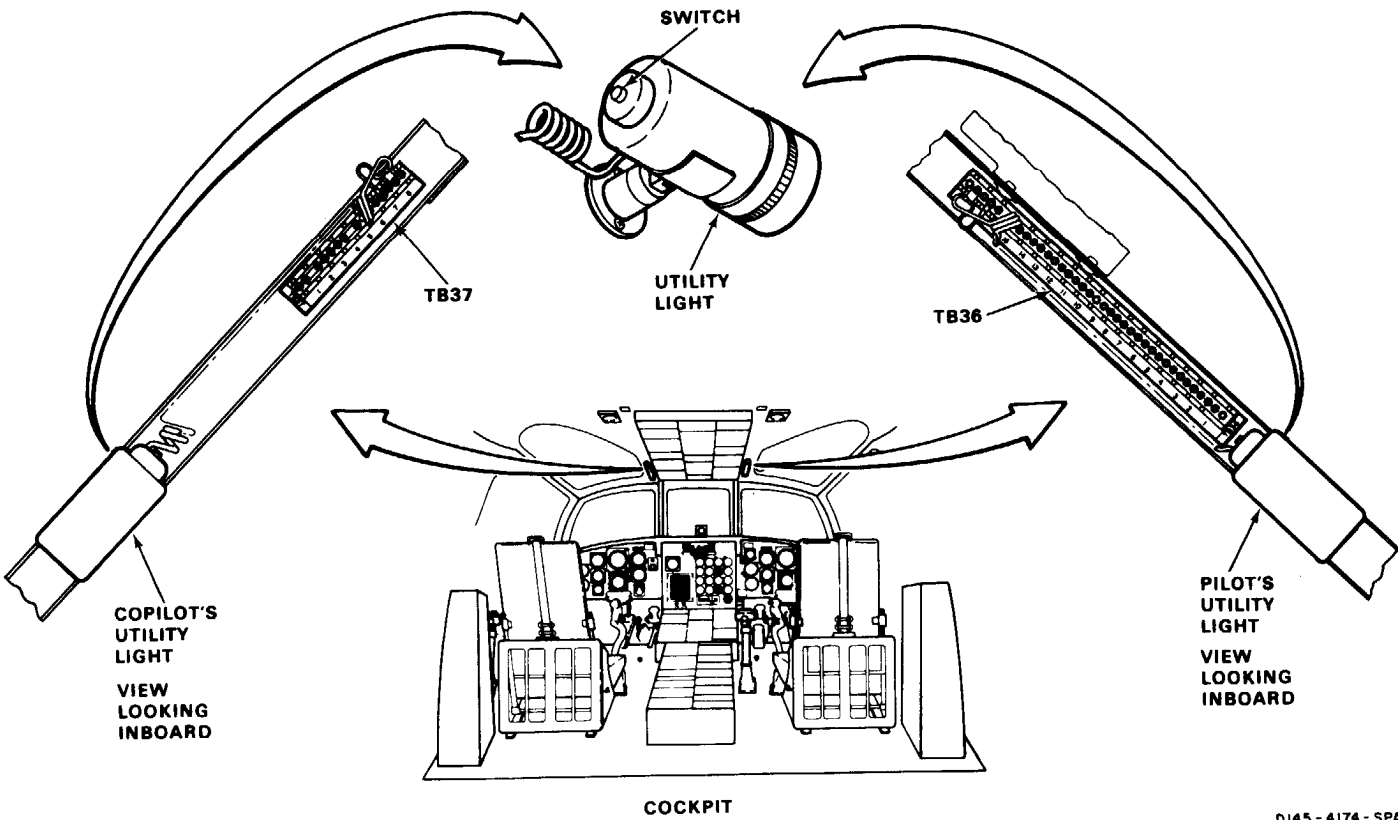
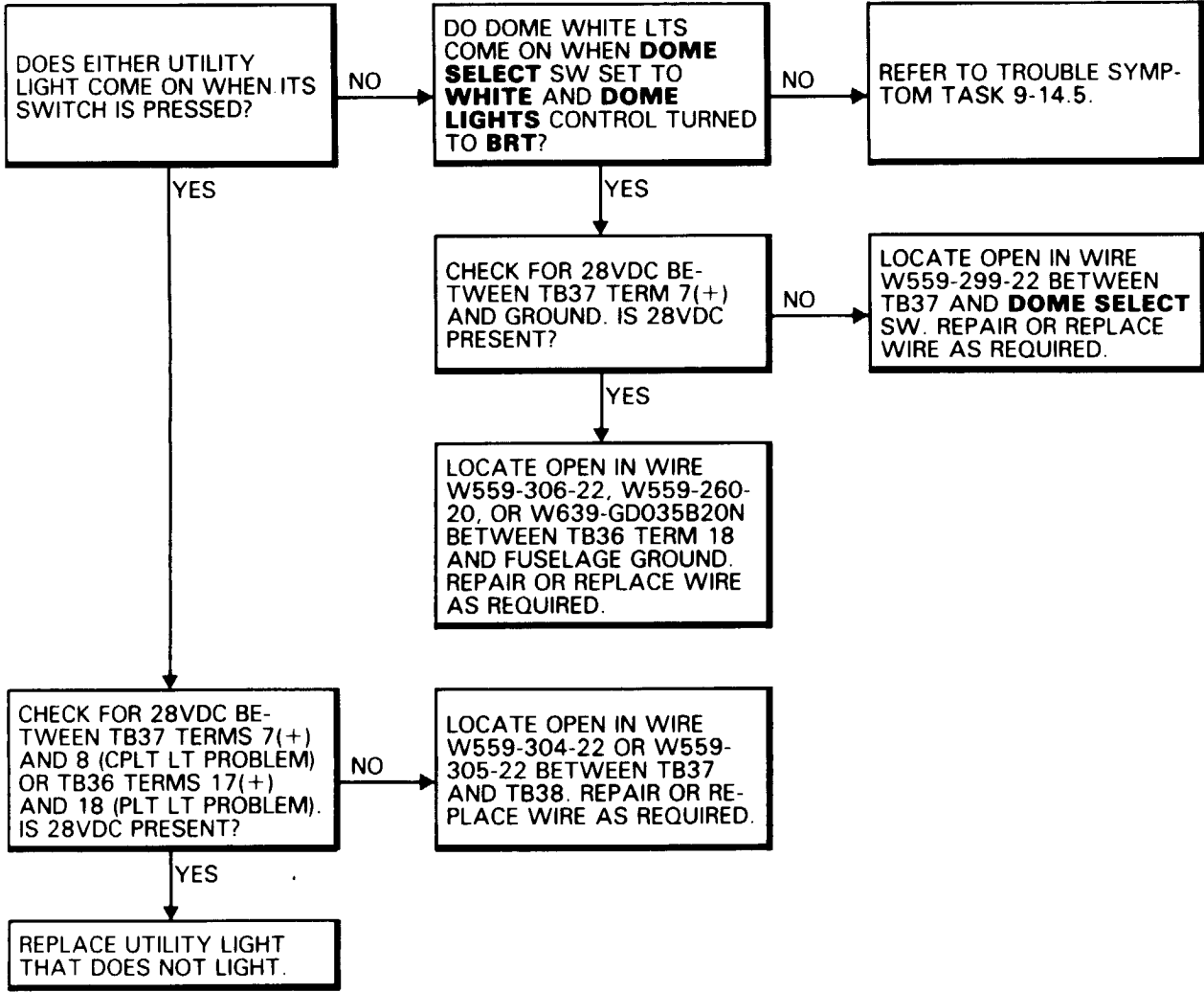
References:

TM 55-1520-240-23

Equipment Condition:

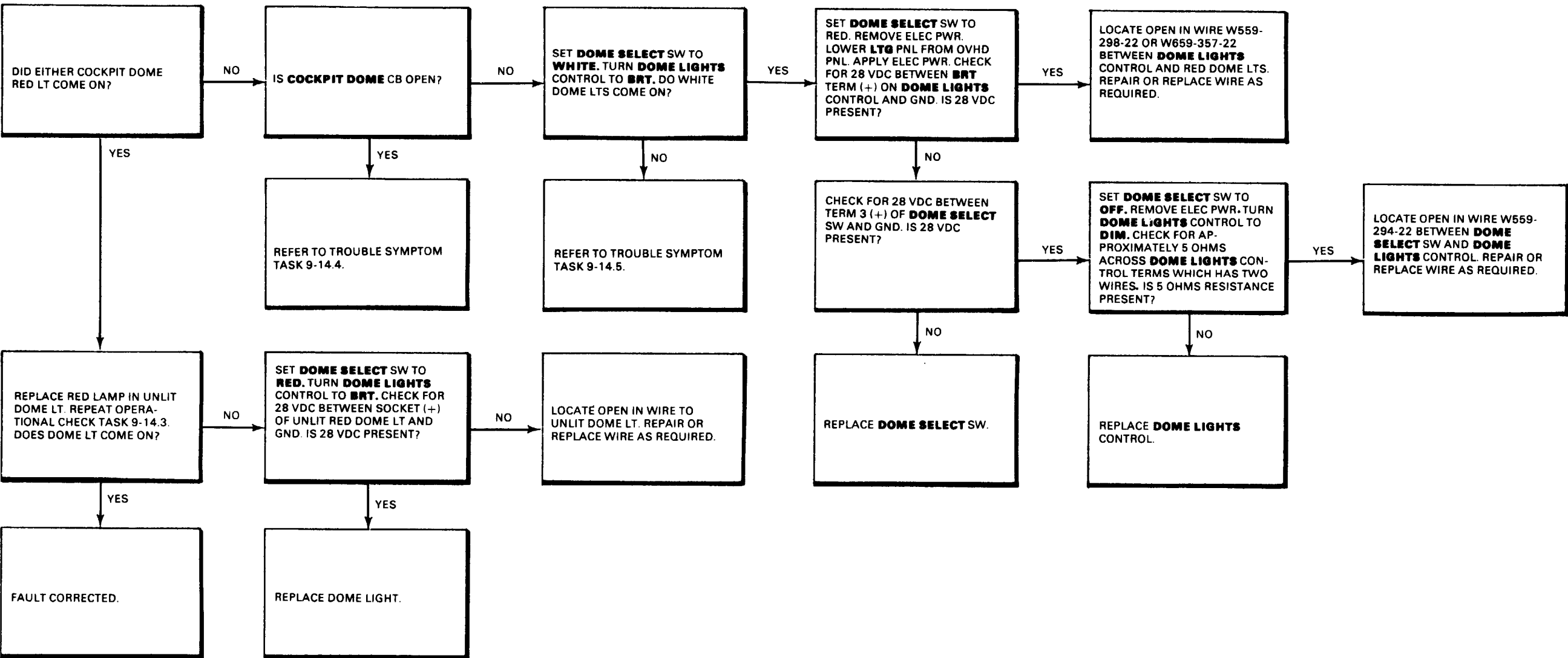
TM 55-1520-240-23:

Battery Connected  
Electrical Power On  
Hydraulic Power Off



D145 - 4174 - SPA

9-14.6 COCKPIT DOME RED LIGHT OR LIGHTS DO NOT COME ON (Continued)



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

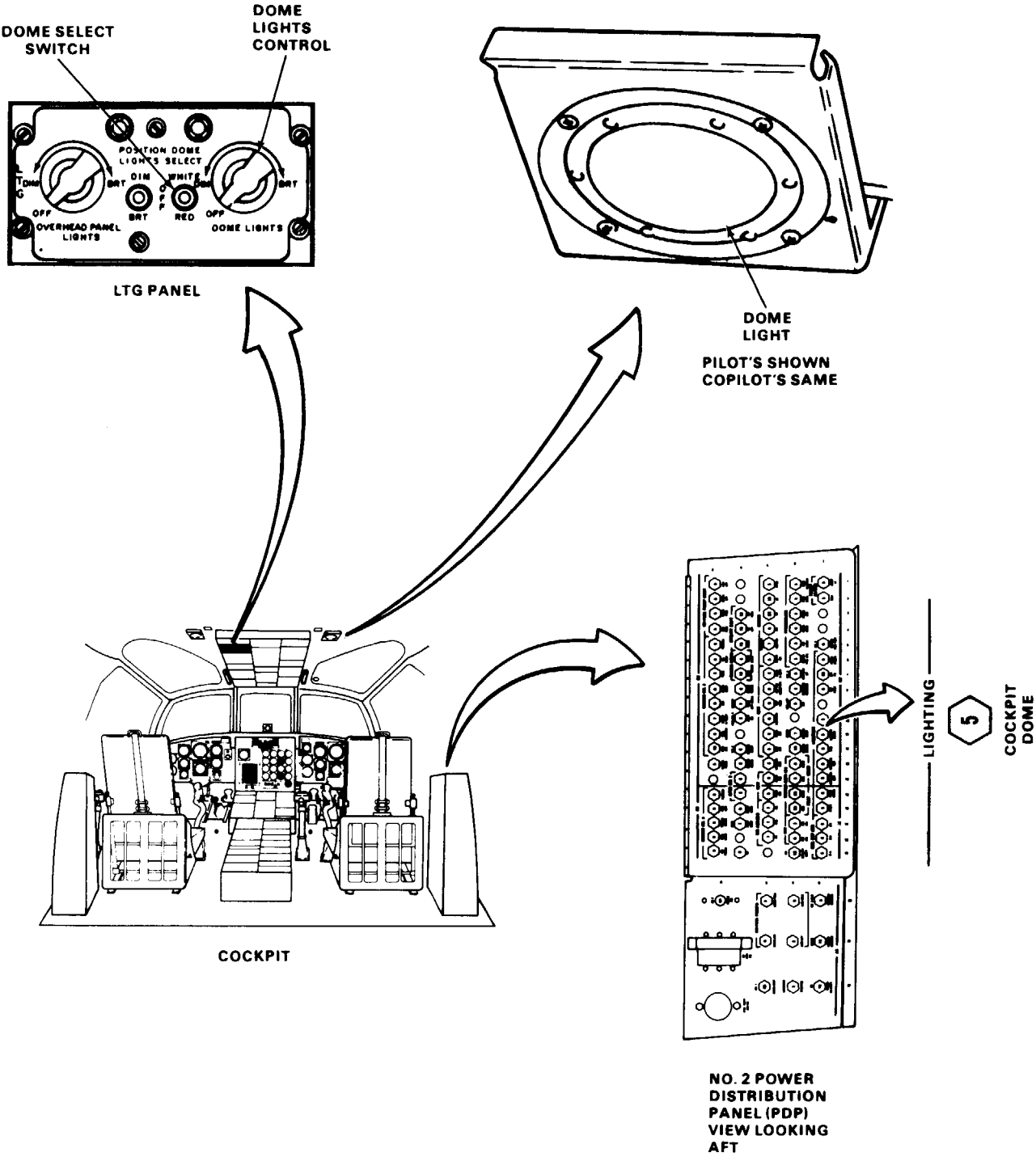
Equipment Condition:

TM 55-1520-240-23:

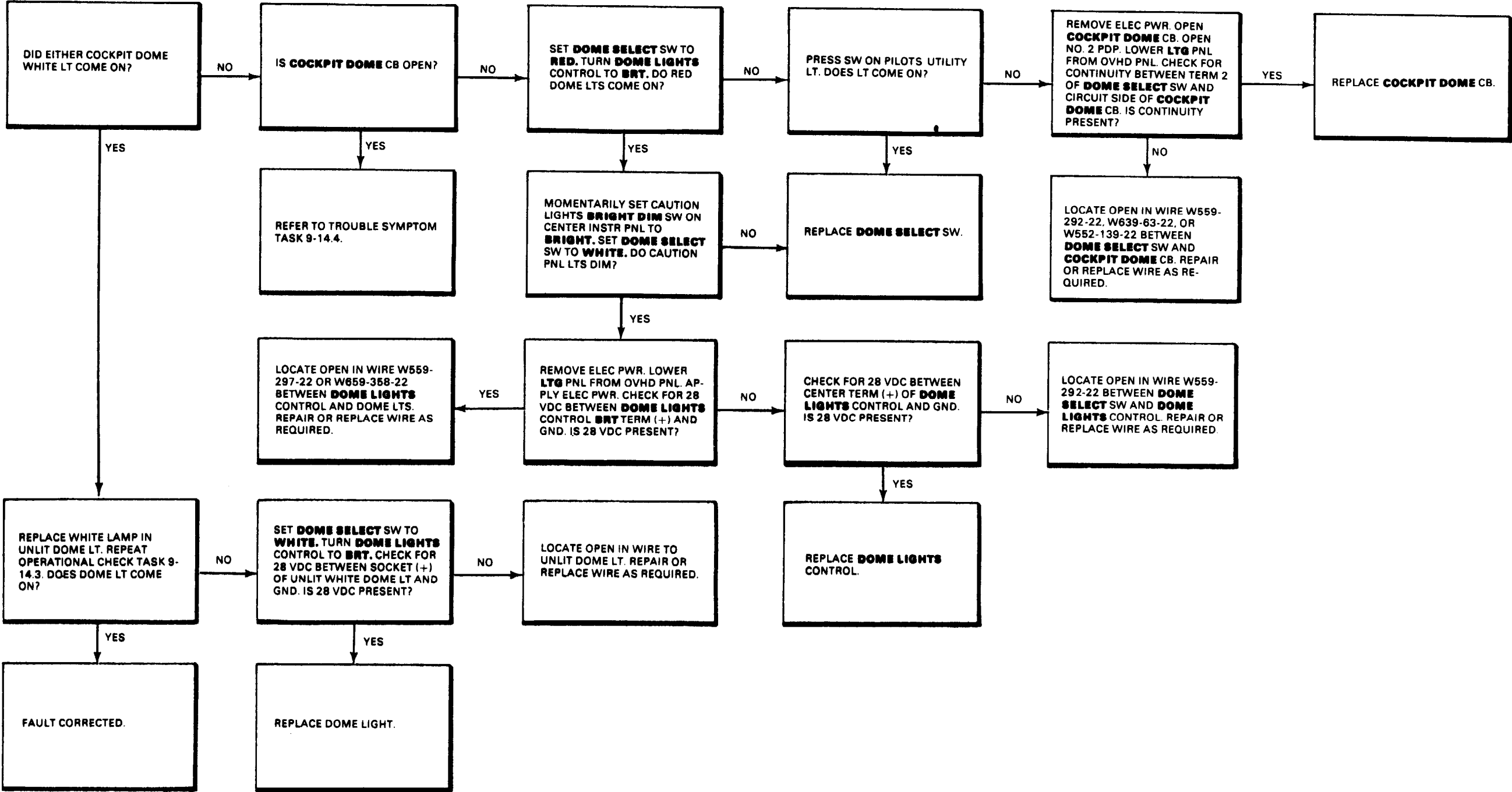
Battery Connected

Electrical Power On

Hydraulic Power Off



9-14.5 COCKPIT DOME WHITE LIGHT OR LIGHTS  
DO NOT COME ON (Continued)



END OF TASK

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
Without 17

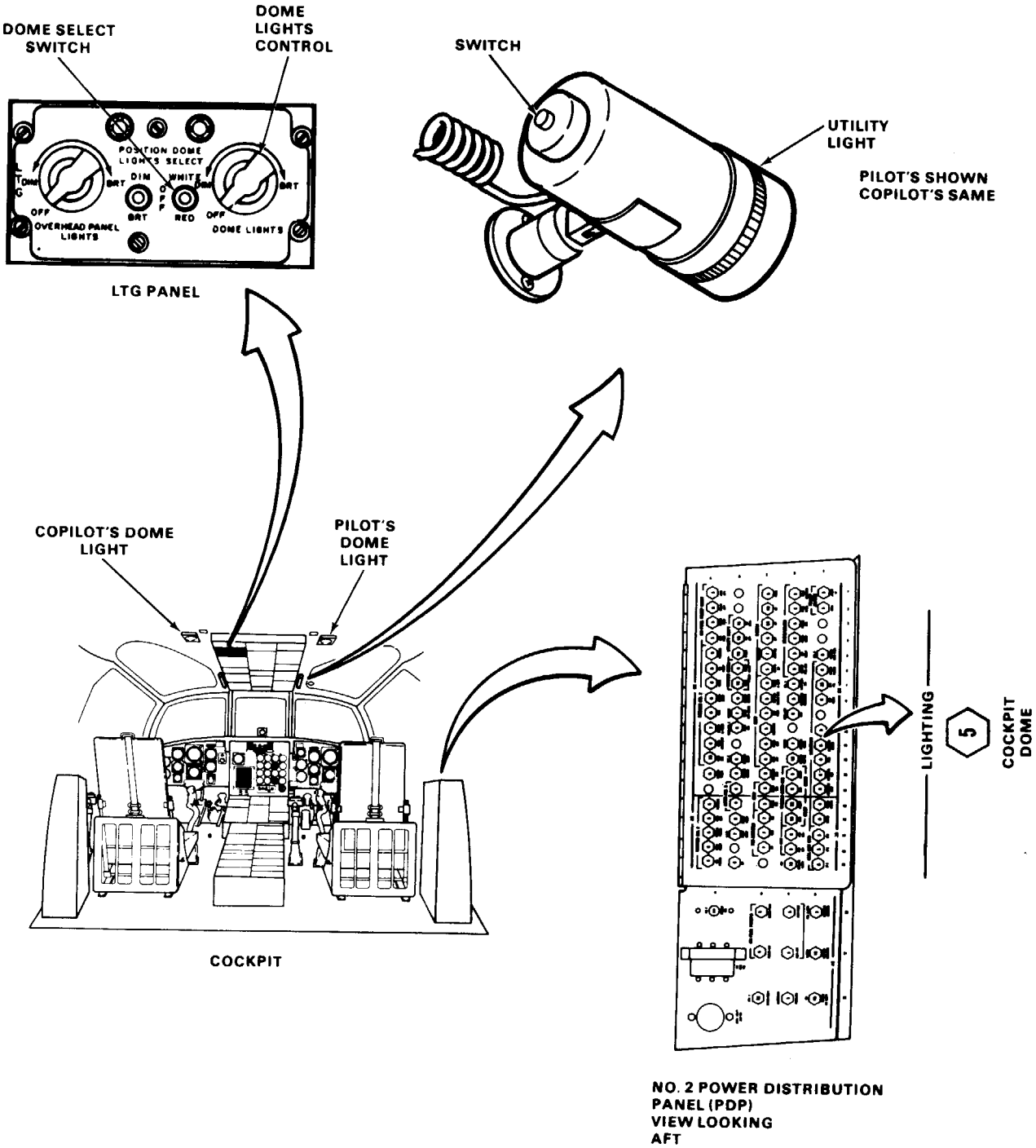
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
Aircraft Electrician

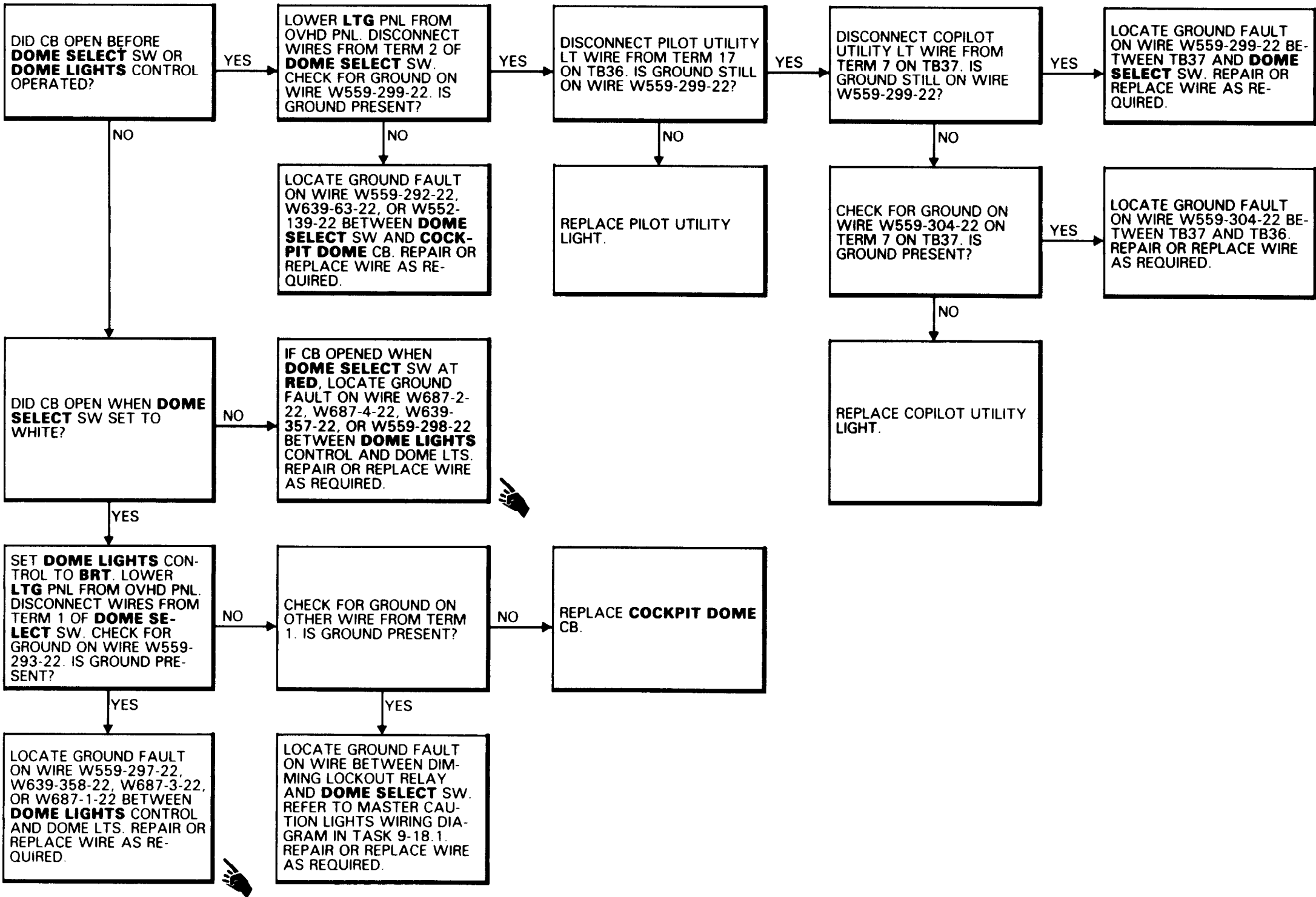
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-14.4 COCKPIT DOME CIRCUIT BREAKER DOES NOT STAY CLOSED (Continued)

9-14.4



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

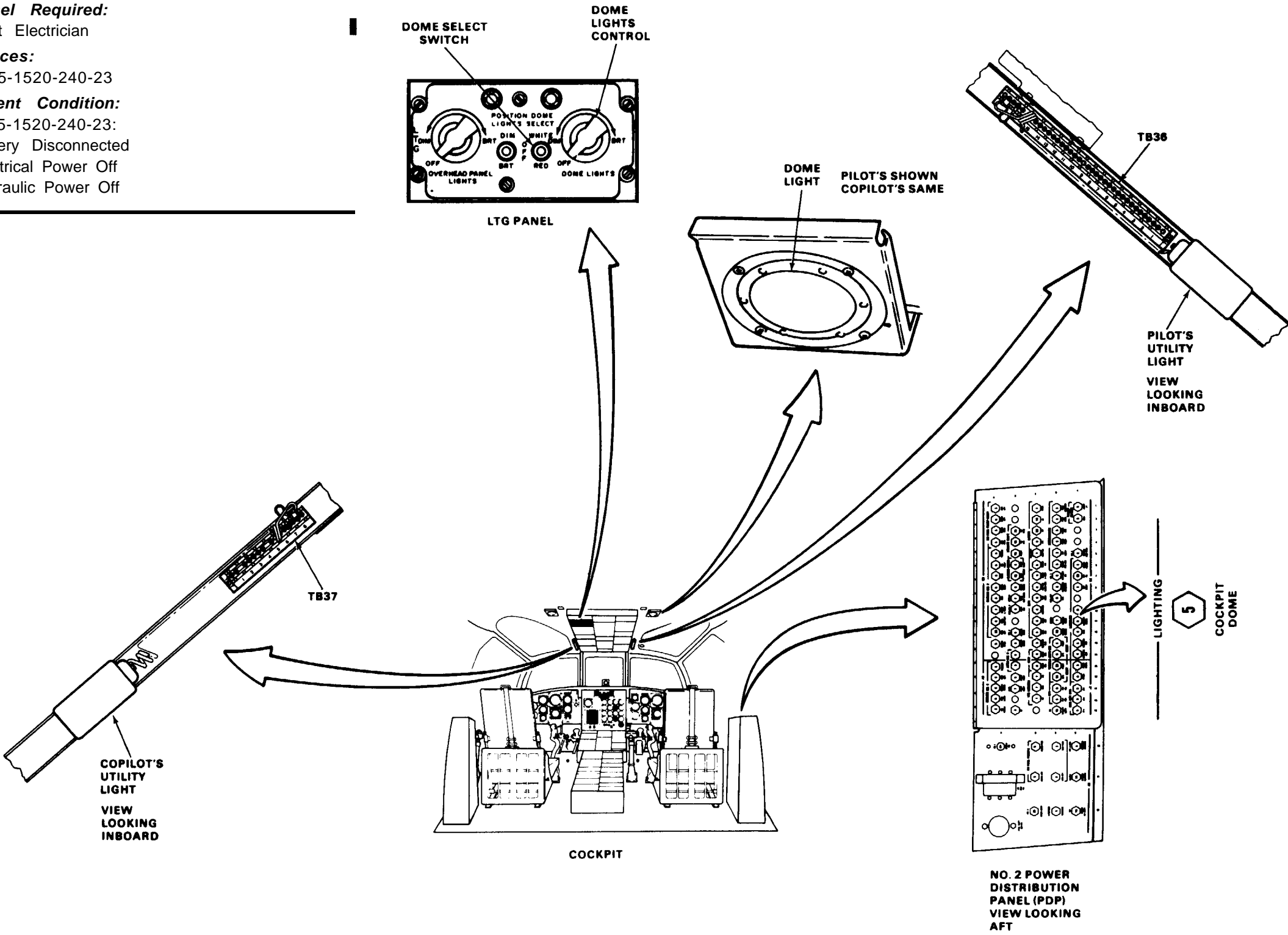
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off







INITIAL SETUP

Applicable Configurations:  
■ Without 17

Tools:  
None

Materials:  
None

Personnel Required:  
Aircraft Electrician

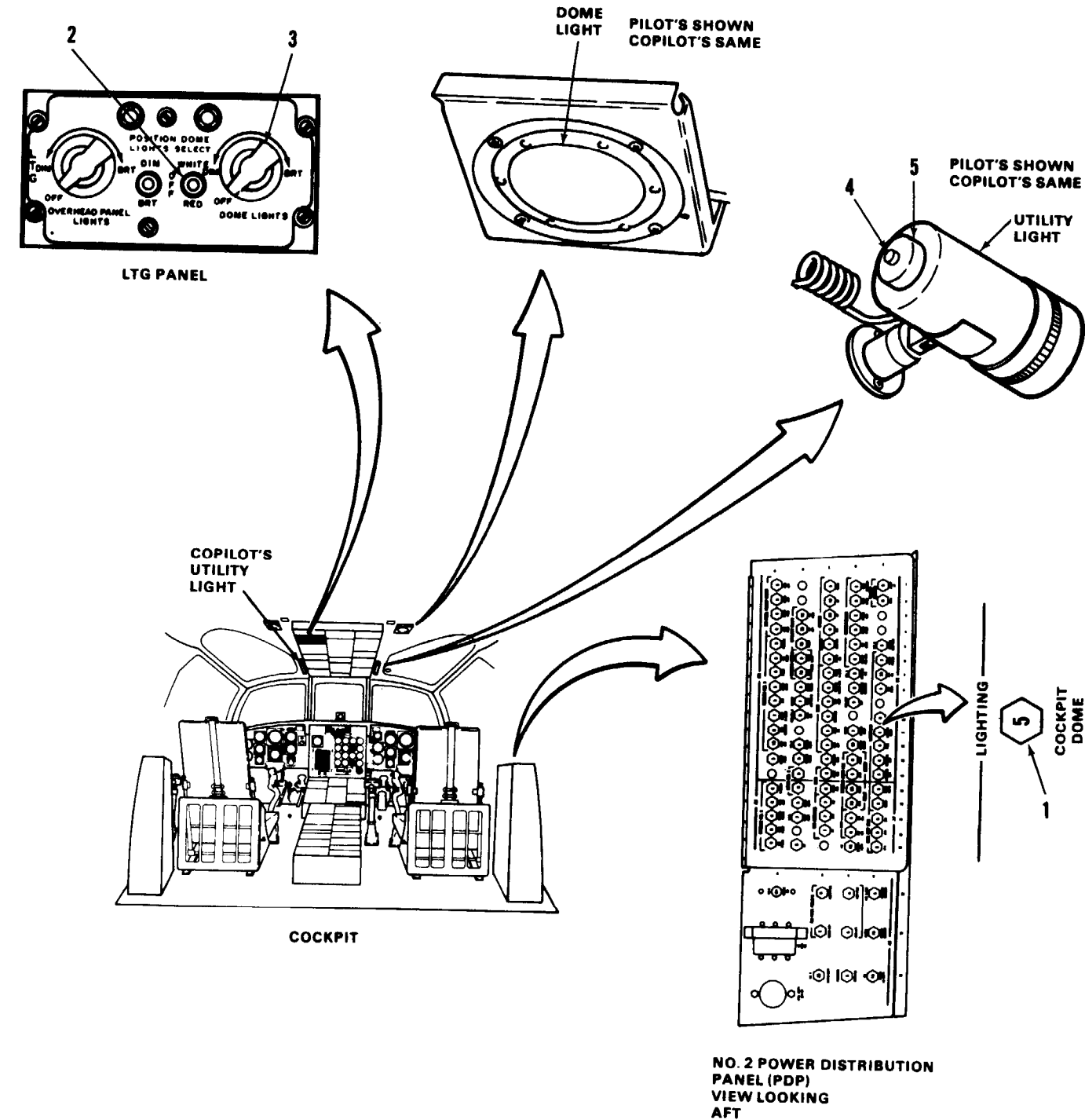
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Cockpit Dome and Utility Lights Visual Check Performed (Task 9-14.2)

TASK	RESULT
1. Check that LIGHTING COCKPIT DOME circuit breaker (1) is closed.	If COCKPIT DOME circuit breaker (1) is open, close it. If it opens again, go to task 9-14.4.
2. Set DOME SELECT switch (2) to WHITE. Turn DOME LIGHTS control (3) from OFF through DIM to BRT.	White light in both dome lights shall come on and increase in brightness as control (3) is turned to BRT. If any dome light is not lit, go to task 9-14.5. If brightness does not increase, replace DOME LIGHTS control (3).
3. Turn DOME LIGHTS control (3) to OFF.	Dome lights shall go out. If lights are still on, replace DOME LIGHTS control (3).
4. Set DOME SELECT switch (2) to RED. Turn DOME LIGHTS control (3) from OFF through DIM to BRT.	Red light in both dome lights shall come on and increase in brightness as control (3) is turned to BRT. If any dome light is not lit, go to task 9-14.6. If brightness does not increase, replace DOME LIGHTS control (3).
5. Turn DOME LIGHTS control (3) to OFF.	Dome lights shall go out. If lights are still on, replace DOME LIGHTS control (3).
6. Set DOME SELECT switch (2) to OFF.	
7. Remove pilot's utility light from overhead panel bracket. Press and release switch (4). Turn dimming control (5) through its range.	Utility light shall blink when switch (4) is pressed and released. Utility light shall increase in brightness as dimming control (5) is turned. If utility light does not come on, go to task 9-14.7. If light comes on but does not increase in brightness, replace utility light.
8. Stow pilot's utility light.	
9. Perform steps 7 and 8 with copilot's utility light.	

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off



9-14.2 COCKPIT DOME AND UTILITY LIGHTS VISUAL CHECK

9-14.2

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

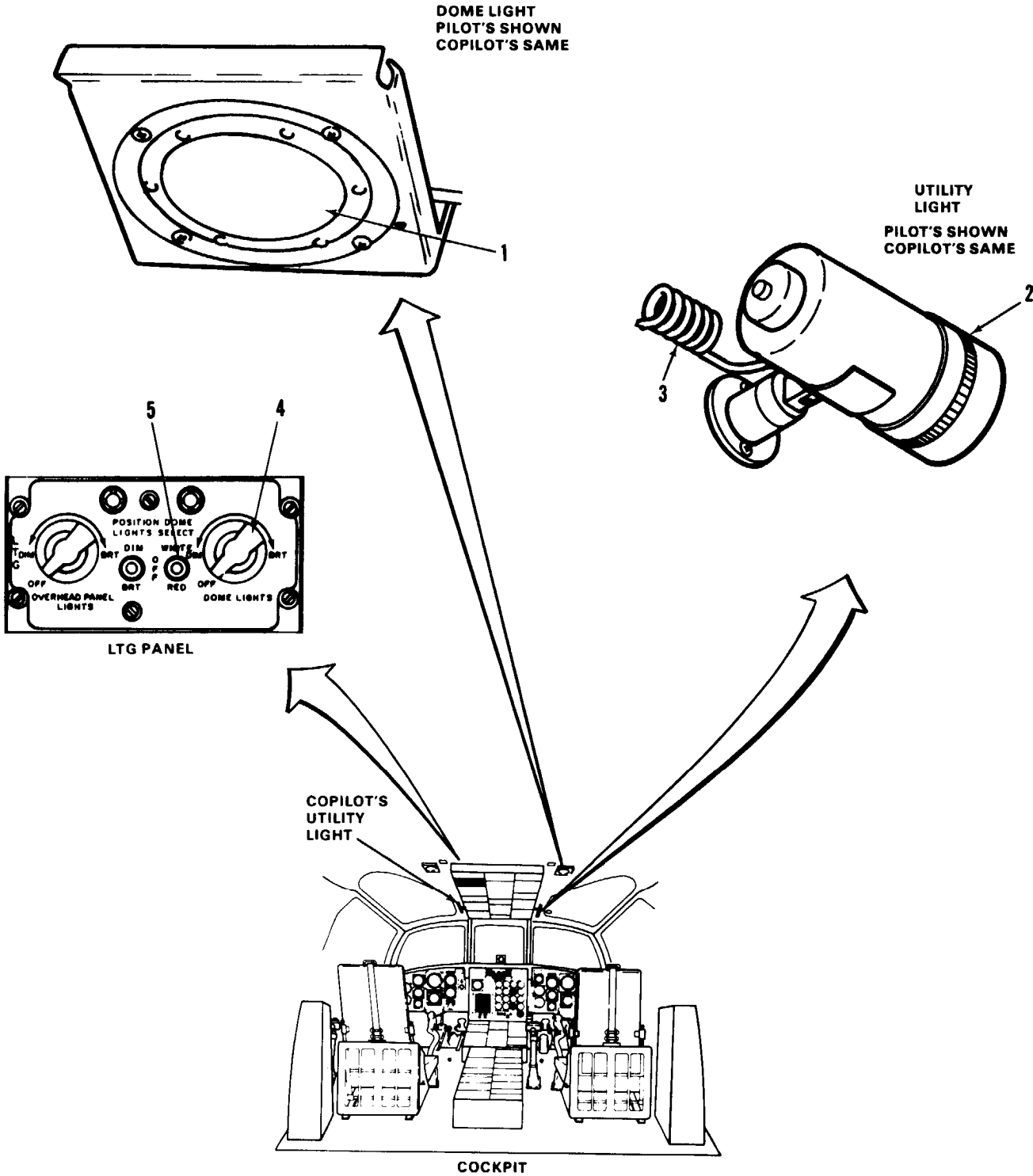
Electrical Power Off

Hydraulic Power Off

TASK	RESULT
1. Check pilot's dome light (1).	If light (1) is loose or damaged, tighten or replace it as required.
2. Repeat step 1 for copilot's dome light.	
3. Check pilot's utility light (2) and cord (3).	If light (2) is damaged, replace it. If light cord (3) is damaged, replace light.
4. Repeat step 3 for copilot's utility light and cord.	
5. Check DOME LIGHTS control (4) and DOME SELECT switch (5) on LTG panel.	If control (4) or switch (5) is loose or damaged, tighten or replace it as required.

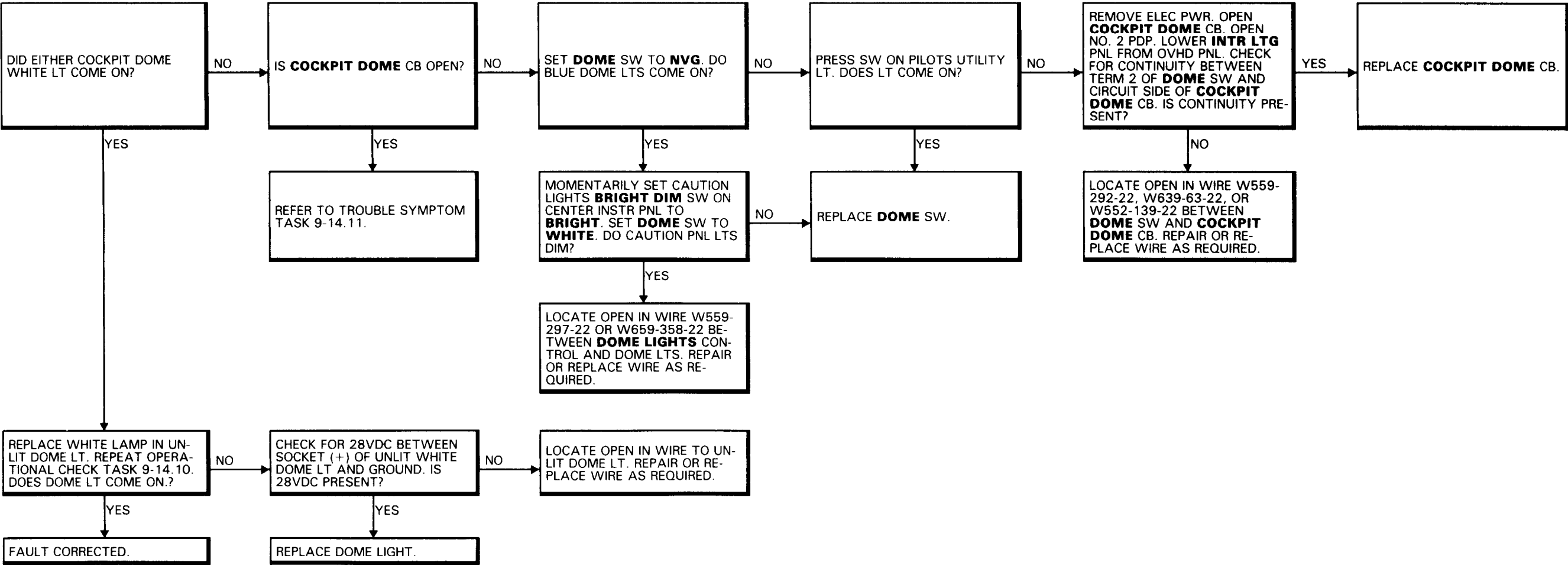
FOLLOW-ON MAINTENANCE:

None



9-14.12 COCKPIT DOME WHITE LIGHT OR LIGHTS DO NOT COME ON (Continued)

9-14.12



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

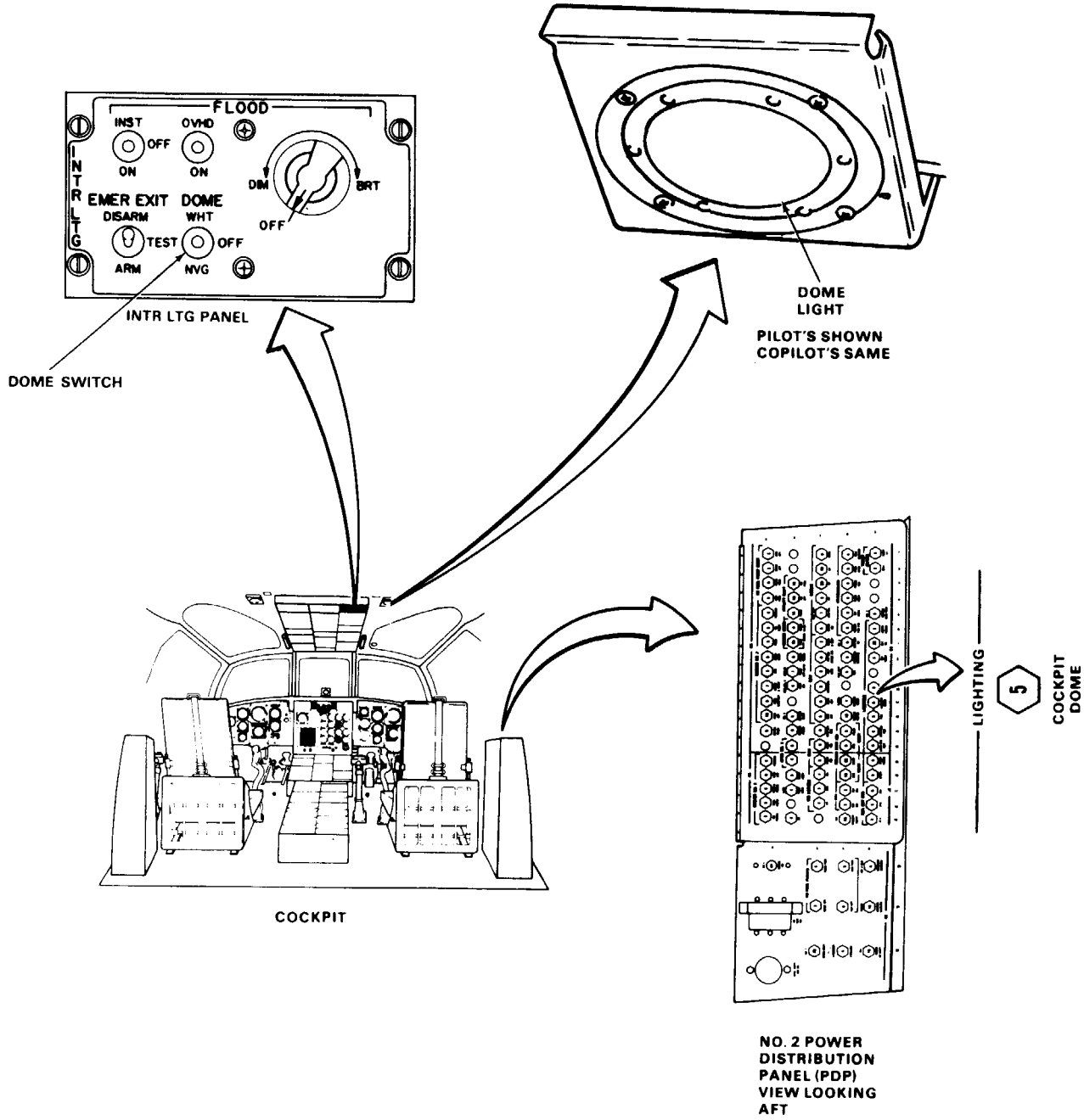
Aircraft Electrician

References:

TM 55-1520-240-23

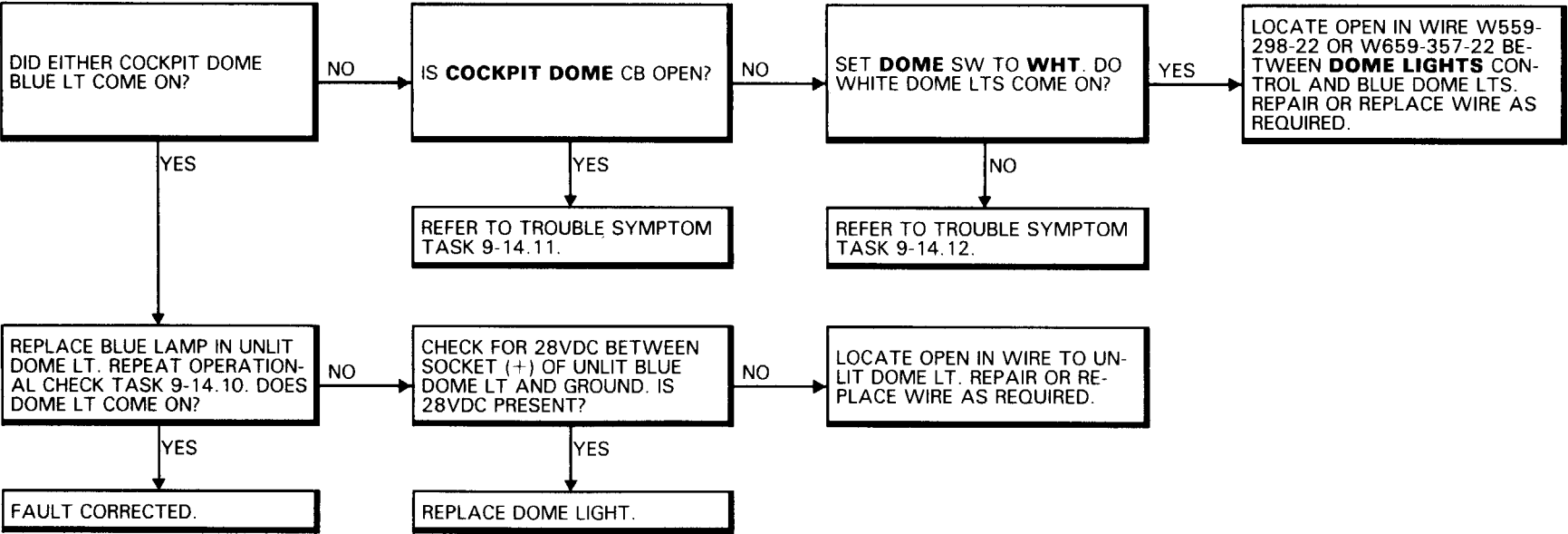
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-14.13 COCKPIT DOME NVG LIGHT OR LIGHTS DO NOT COME ON (Continued)

9-14.13



# FAULT ISOLATION PROCEDURE

## INITIAL SETUP

### Applicable Configurations:

With 17

### Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

### Materials:

None

### Personnel Required:

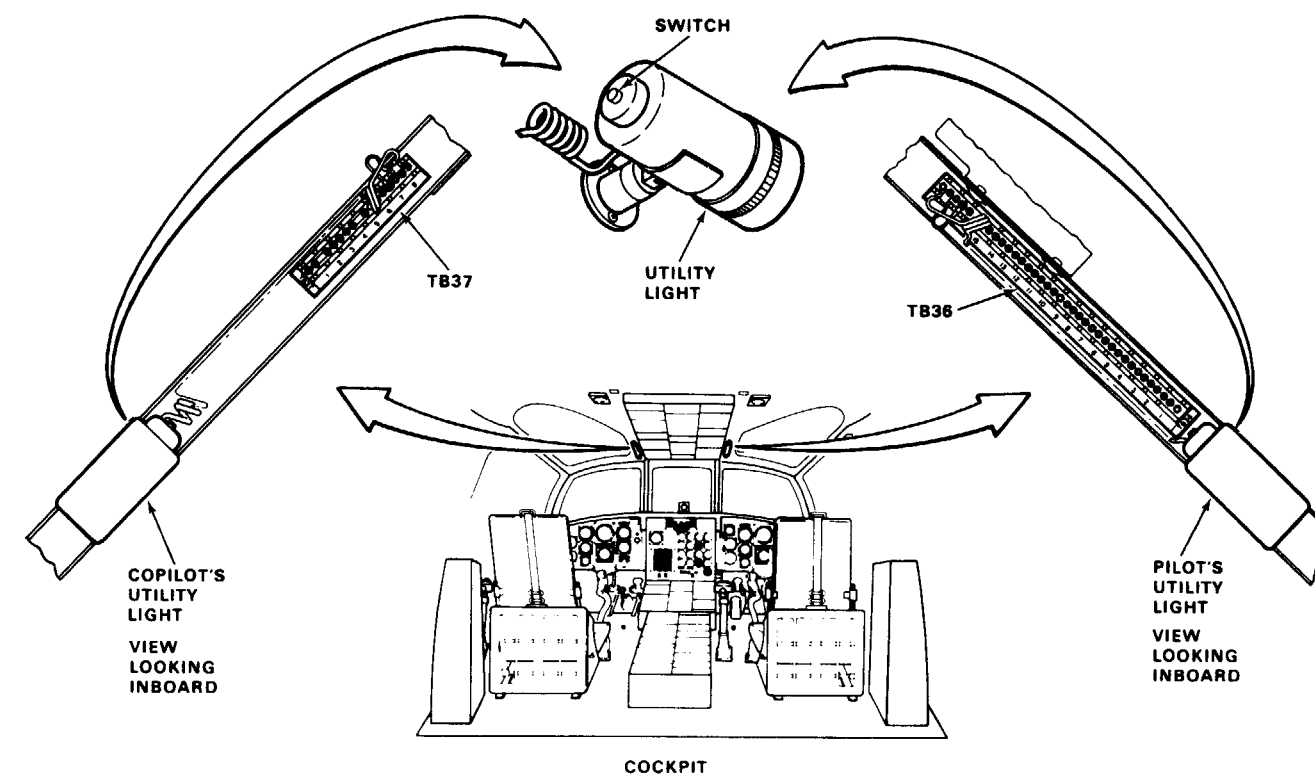
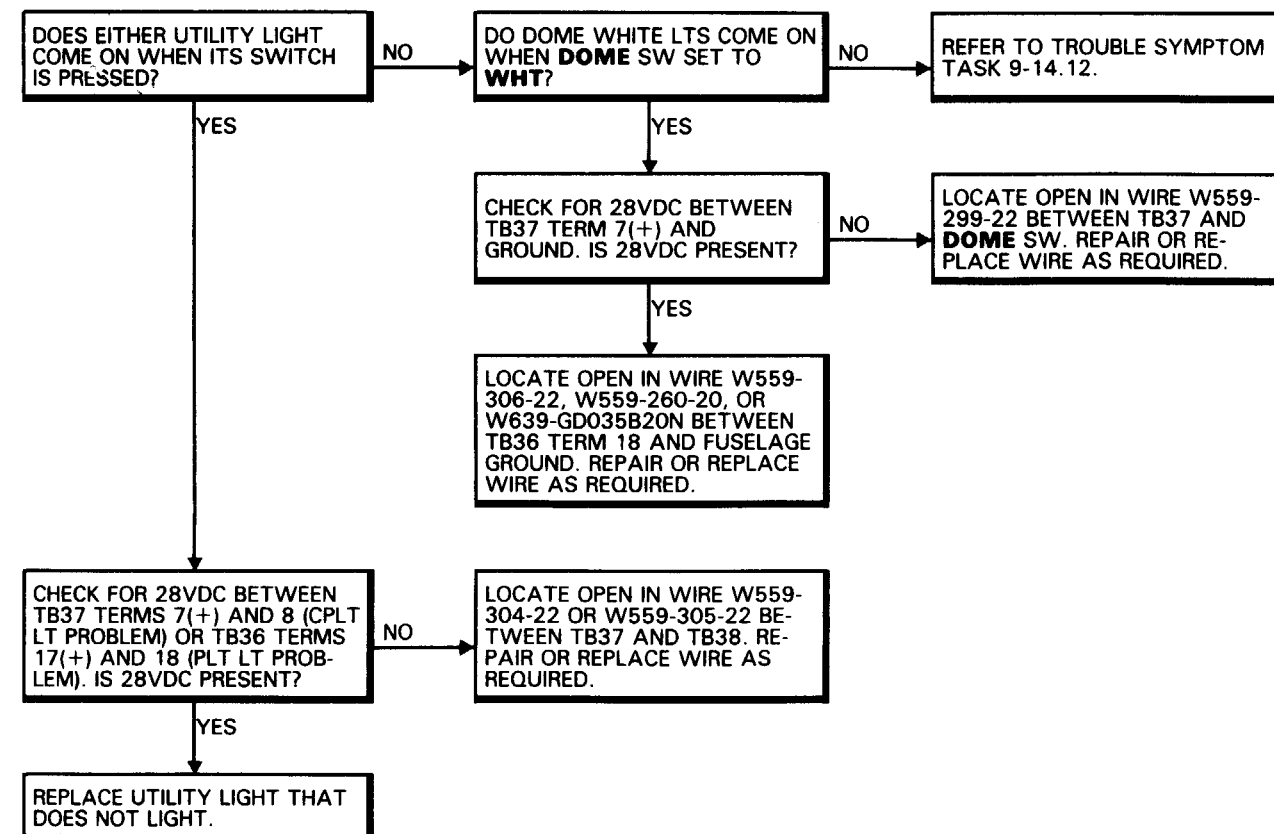
Aircraft Electrician

### References:

TM 55-1520-240-23

### Equipment Condition:

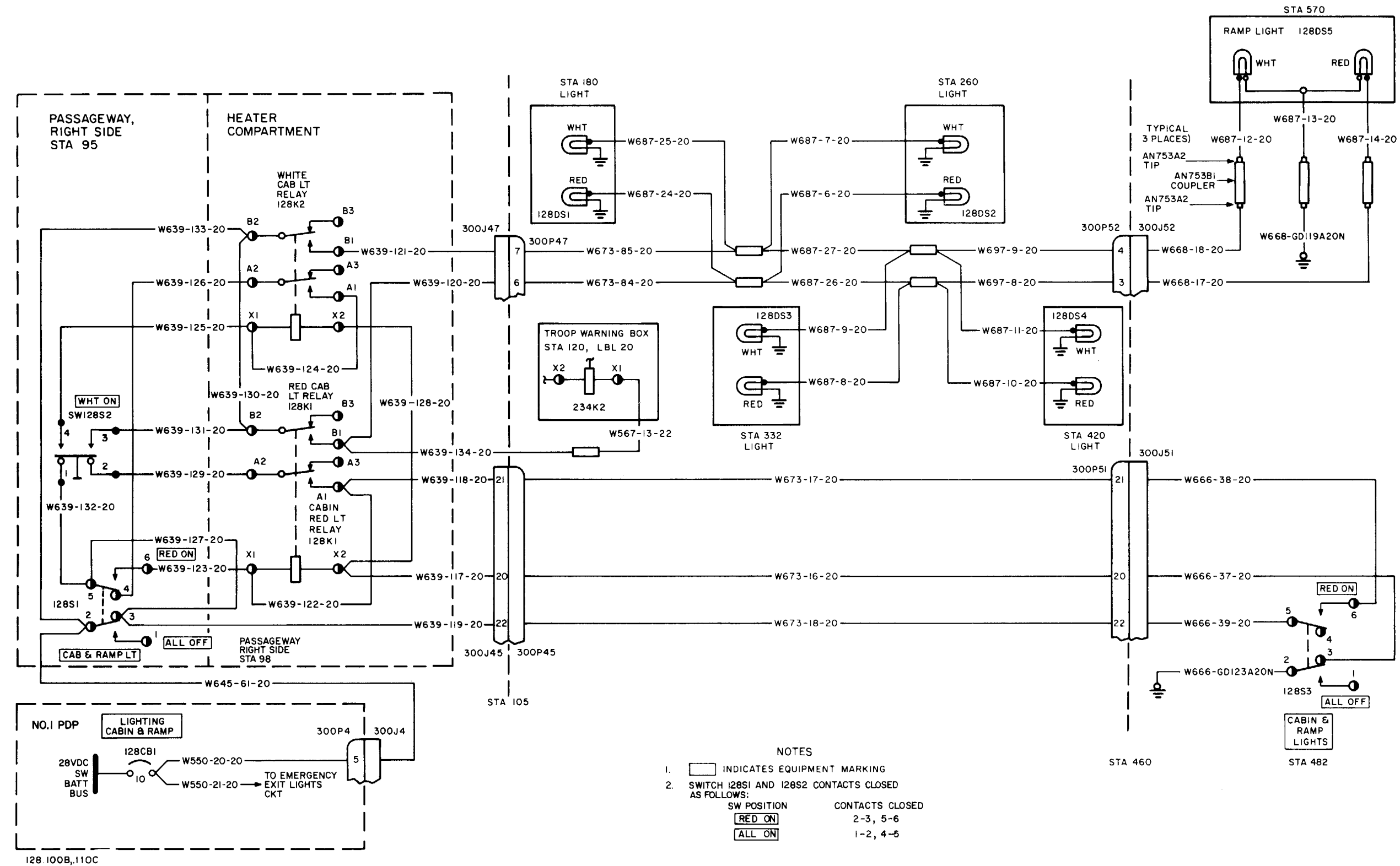
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



10417

## **9-15 CABIN AND RAMP LIGHTS**





9-15.2 CABIN AND RAMP LIGHTS VISUAL CHECK

9-15.2

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off

Hydraulic Power Off

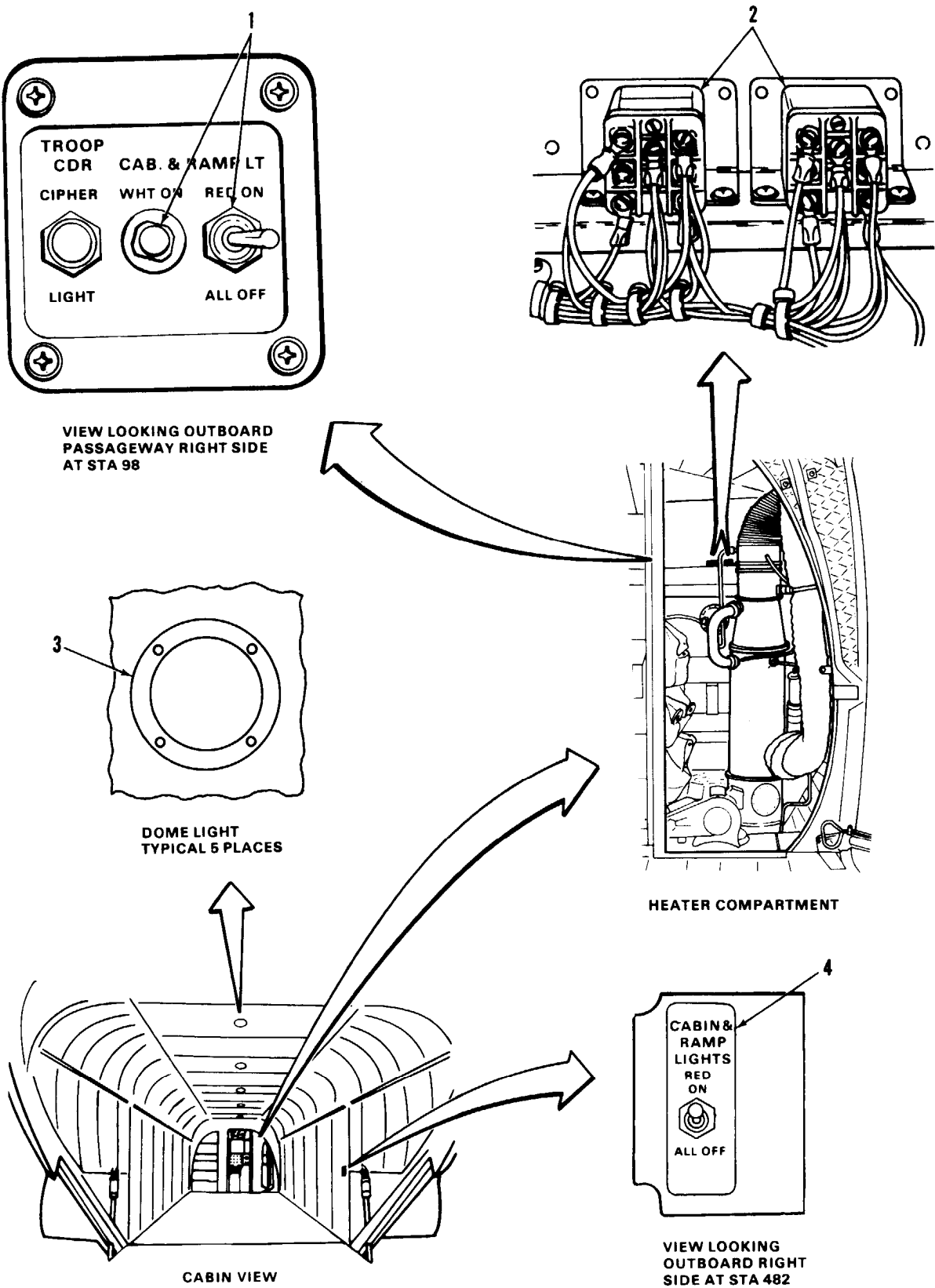
Heater Compartment Acoustic Blanket Removed

TASK	RESULT
1. Check two CAB & RAMP LT switches (1).	If either switch (1) is loose or damaged, tighten or replace it as required.
2. Check two relays (2) and back of switches (1).	If either relay (2) or switch (1) is loose or damaged, tighten or replace it as required. If wiring is loose or damaged, tighten, repair, or replace it as required.
3. Check ramp dome and four cabin dome lights (3).	If any dome light (3) is loose or damaged, tighten or replace it as required.
4. Check CABIN & RAMP LIGHTS switch (4).	If switch (4) is loose or damaged, tighten or replace it as required. If wiring is loose or damaged, tighten, repair, or replace it as required.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:

Install Heater Compartment Acoustic Blanket



D145-4237-SPA

INITIAL SETUP

Applicable Configurations:  
Without 17

Tools:  
None

Materials:  
None

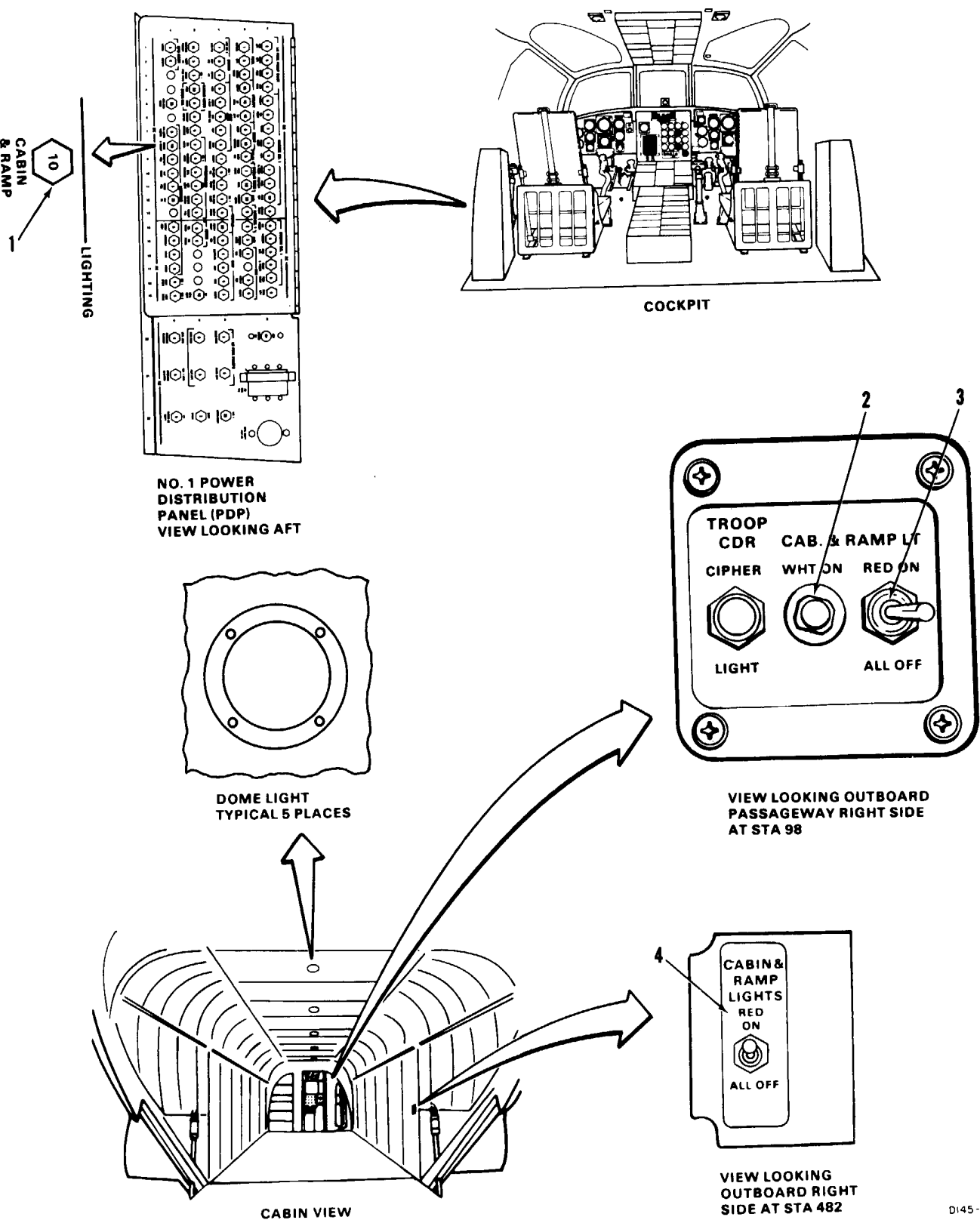
Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Visual Check of Cabin and Ramp Lights Performed  
(Task 9-15.2)

TASK	RESULT
1. Check that LIGHTING CABIN & RAMP circuit breaker (1) is closed.	If CABIN & RAMP circuit breaker (1) is open, close it. If it opens again, go to task 9-15.4.
2. Press and release CAB & RAMP LT WHT ON pushbutton (2).	All five dome white lights shall come on. If any light is not lit, go to task 9-15.5.
3. Momentarily set CAB & RAMP LT switch (3) to ALL OFF.	All dome white lights shall go out. If lights do not go out, go to task 9-15.6.
4. Momentarily set CAB & RAMP LT switch (3) to RED ON.	All five dome red lights shall come on. If any light is not lit, go to task 9-15.7.
5. Press and release CAB & RAMP LT WHT ON pushbutton (2).	All dome red lights shall go out and all dome white lights shall come on. If both red and white dome lights are lit, locate and repair shorted wiring between WHT ON switch (2) and cabin red light relay.
6. Momentarily set CABIN & RAMP LIGHTS switch (4) to ALL OFF.	All dome white lights shall go out. If lights do not go out, go to task 9-15.8.
7. Momentarily set CABIN & RAMP LIGHTS switch (4) to RED ON.	All dome red lights shall come on. If lights are not lit, go to task 9-15.9.
8. Momentarily set CABIN & RAMP LIGHTS switch (4) to ALL OFF.	All dome red lights shall go out. If lights do not go out, go to task 9-15.8.

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off



D145-4238

END OF TASK



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

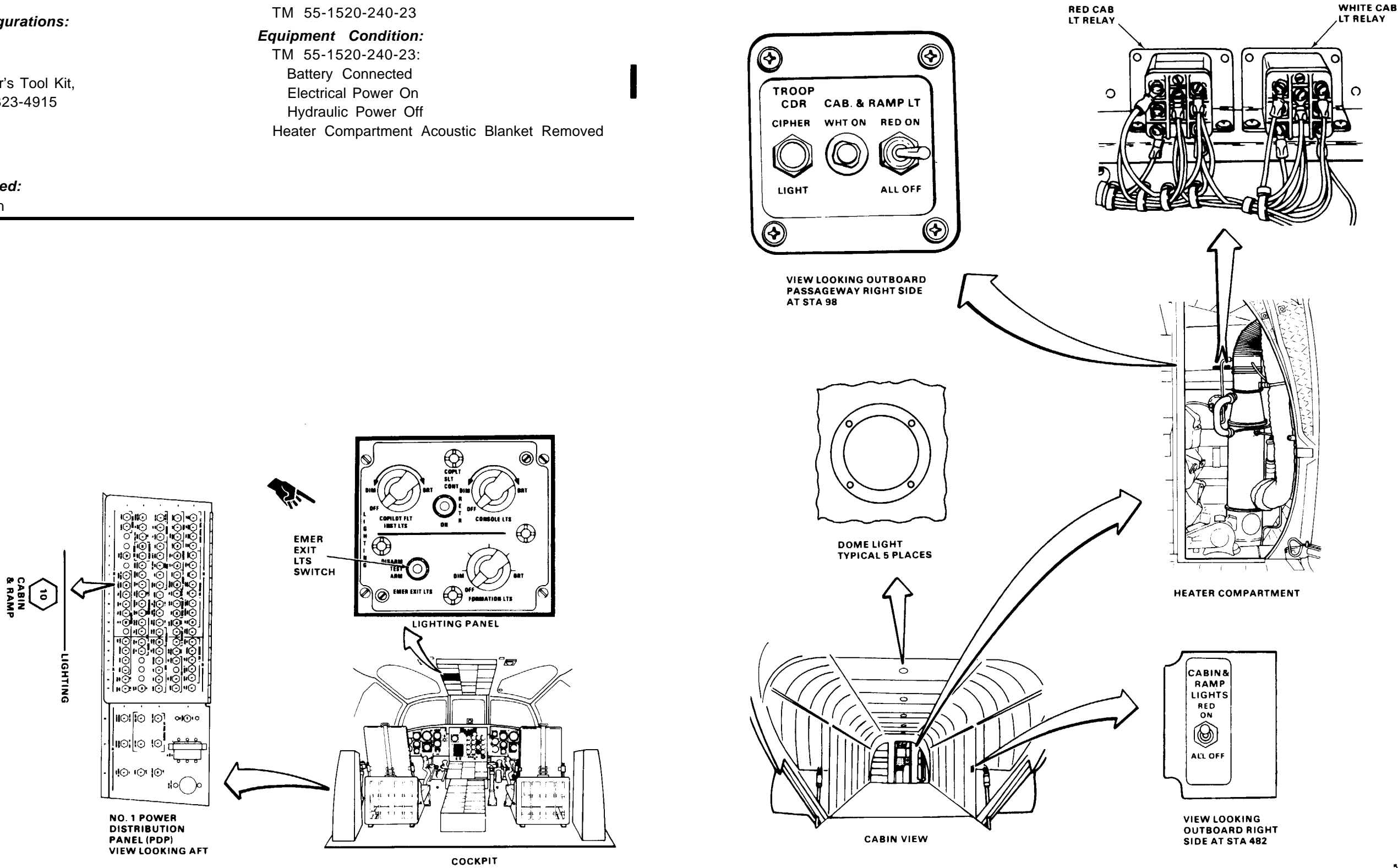
Aircraft Electrician

References:

TM 55-1520-240-23

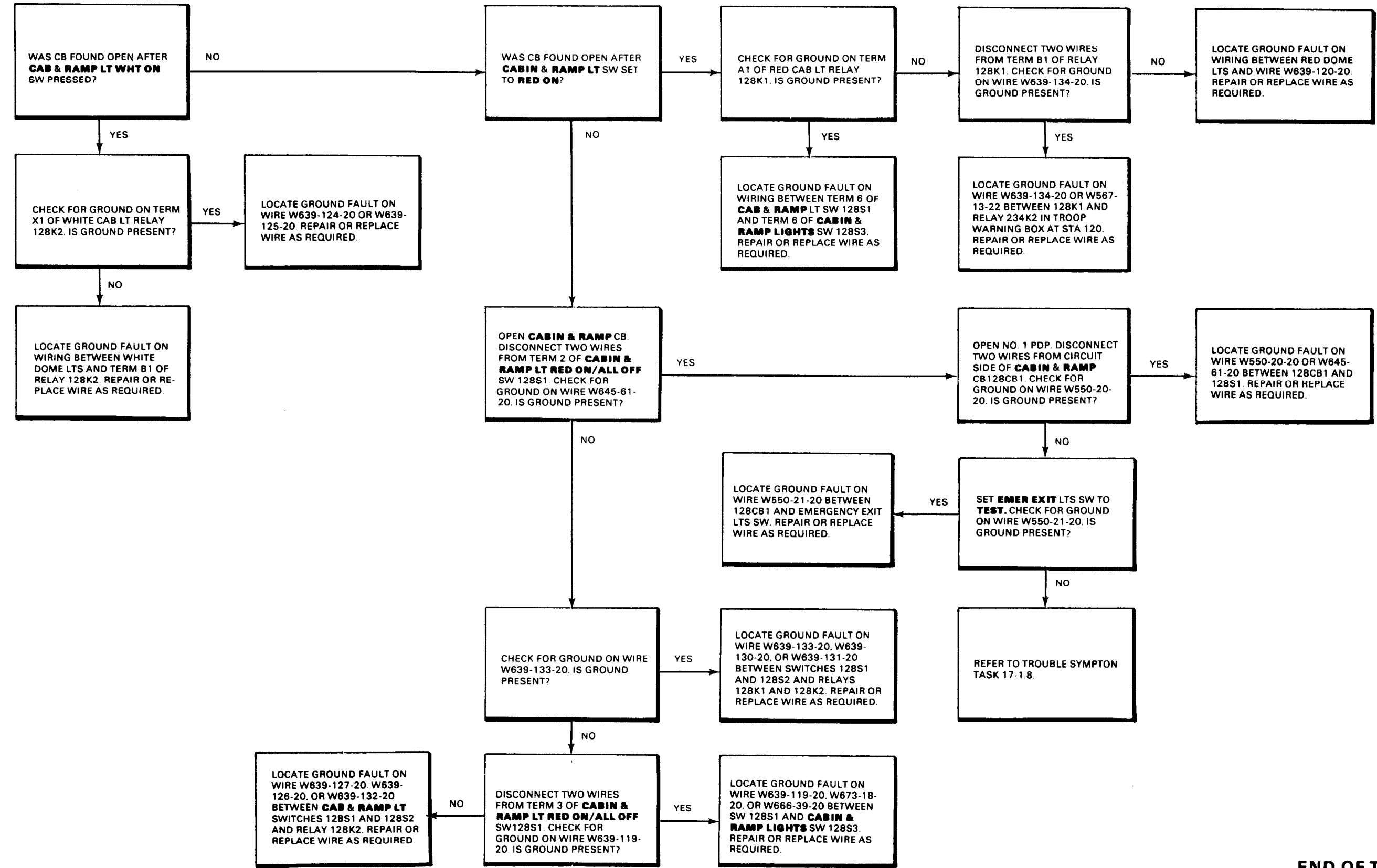
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Heater Compartment Acoustic Blanket Removed



9-15.4 CABIN & RAMP CIRCUIT BREAKER DOES NOT  
STAY CLOSED (Continued)

9-15.4



END OF TASK

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

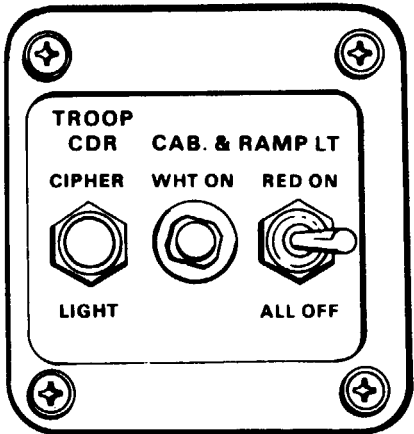
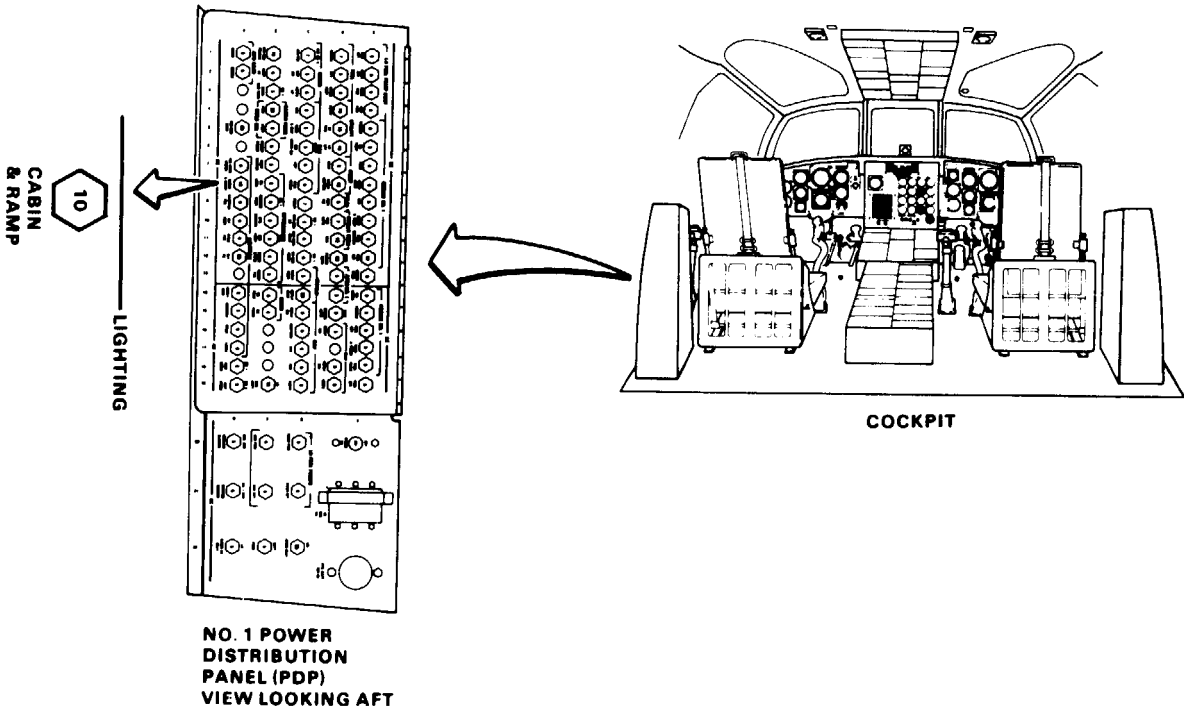
References:

TM 55-1520-240-23

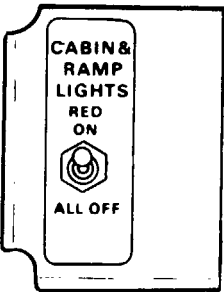
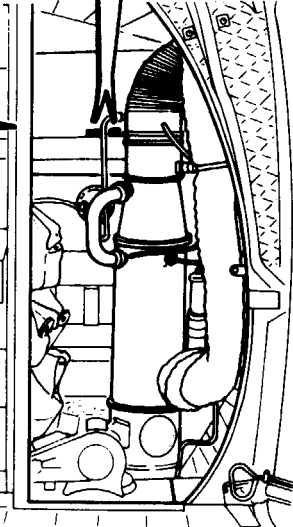
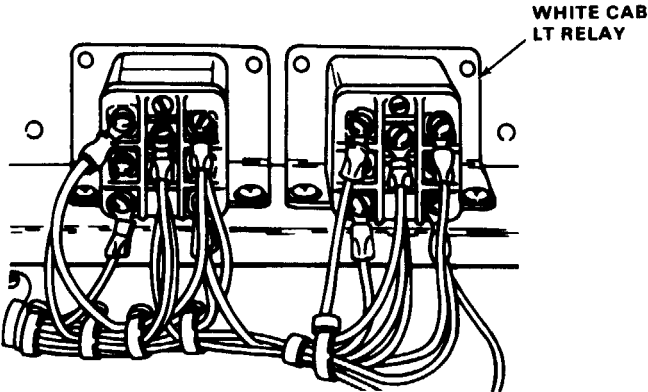
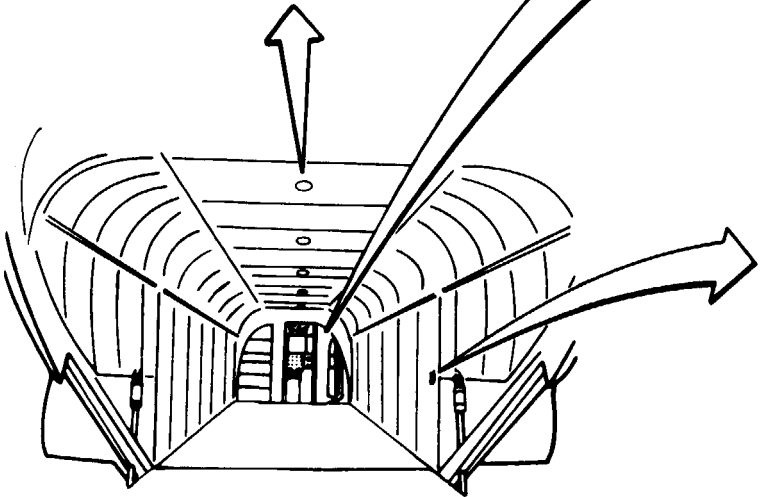
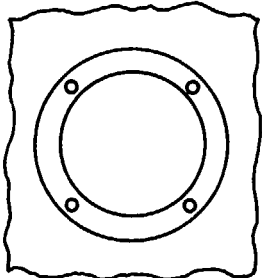
Equipment Condition:

TM 55-1520-240-23:

- Battery Connected
- Electrical Power On
- Hydraulic Power Off
- Heater Compartment Acoustic Blanket Removed



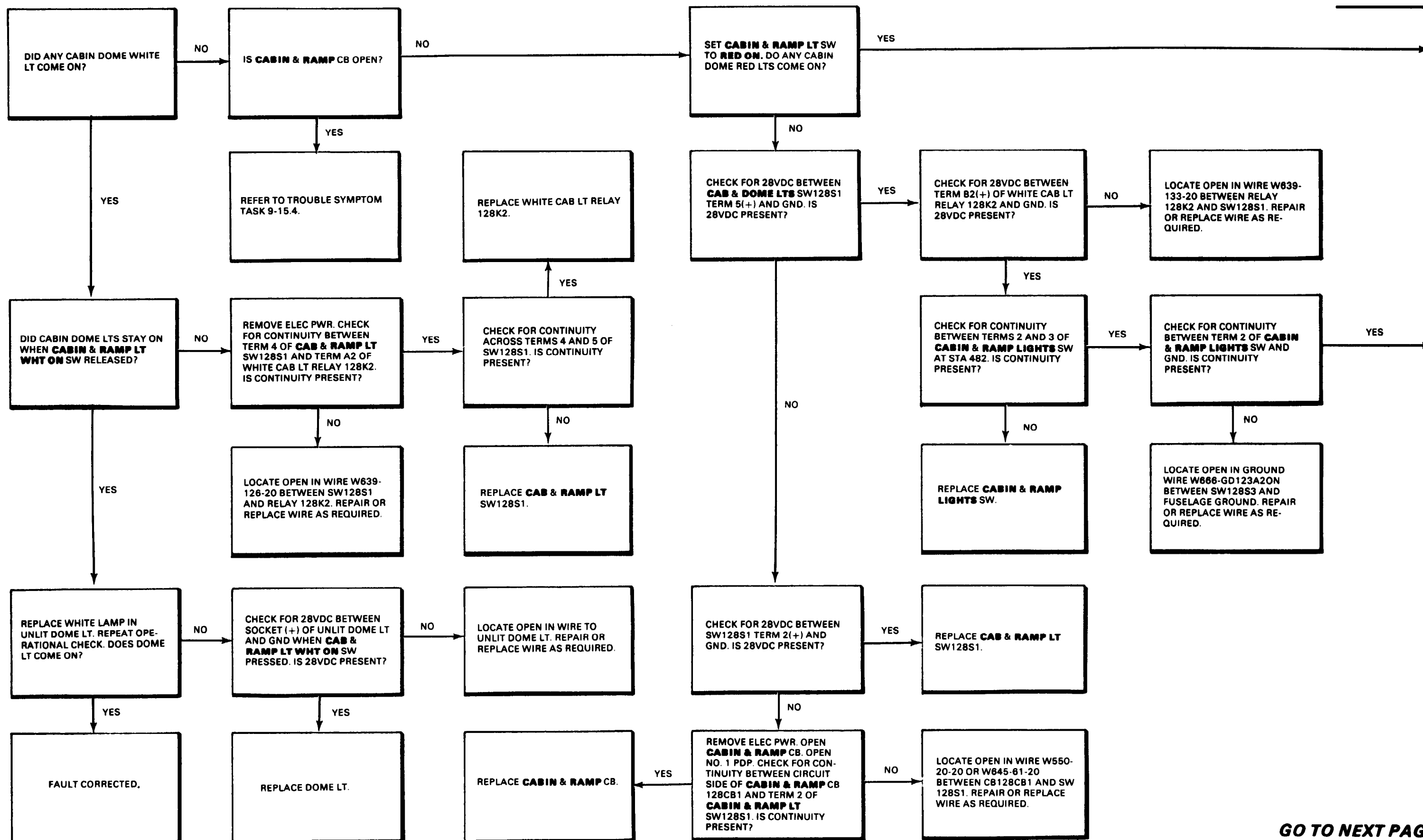
VIEW LOOKING OUTBOARD  
PASSAGEWAY RIGHT SIDE  
AT STA 98



VIEW LOOKING  
OUTBOARD RIGHT  
SIDE AT STA 482

9-15.5 CABIN AND RAMP DOME WHITE LIGHT OR LIGHTS  
NOT LIT (Continued)

9-15.5

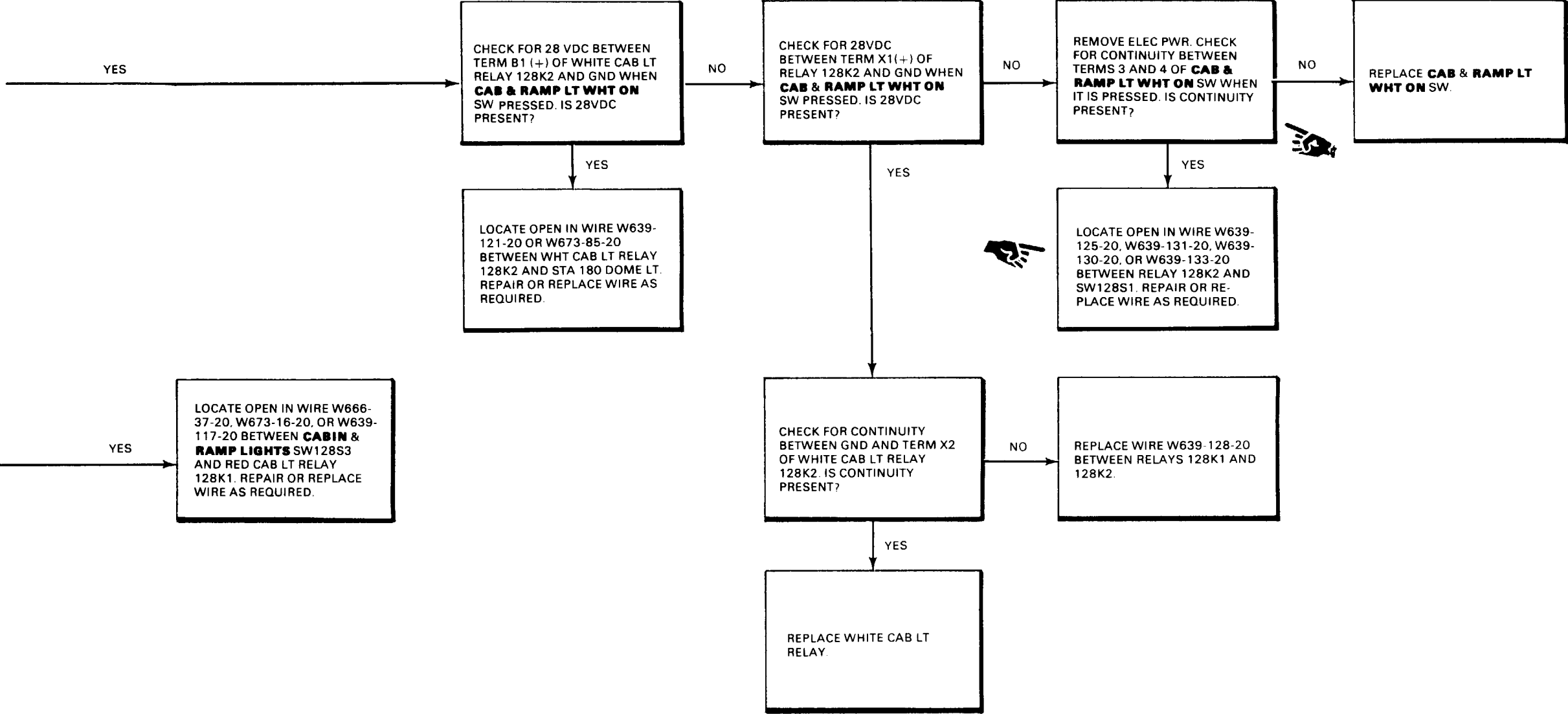


GO TO NEXT PAGE



9-15.5 CABIN AND RAMP DOME WHITE LIGHT OR LIGHTS  
NOT LIT (Continued)

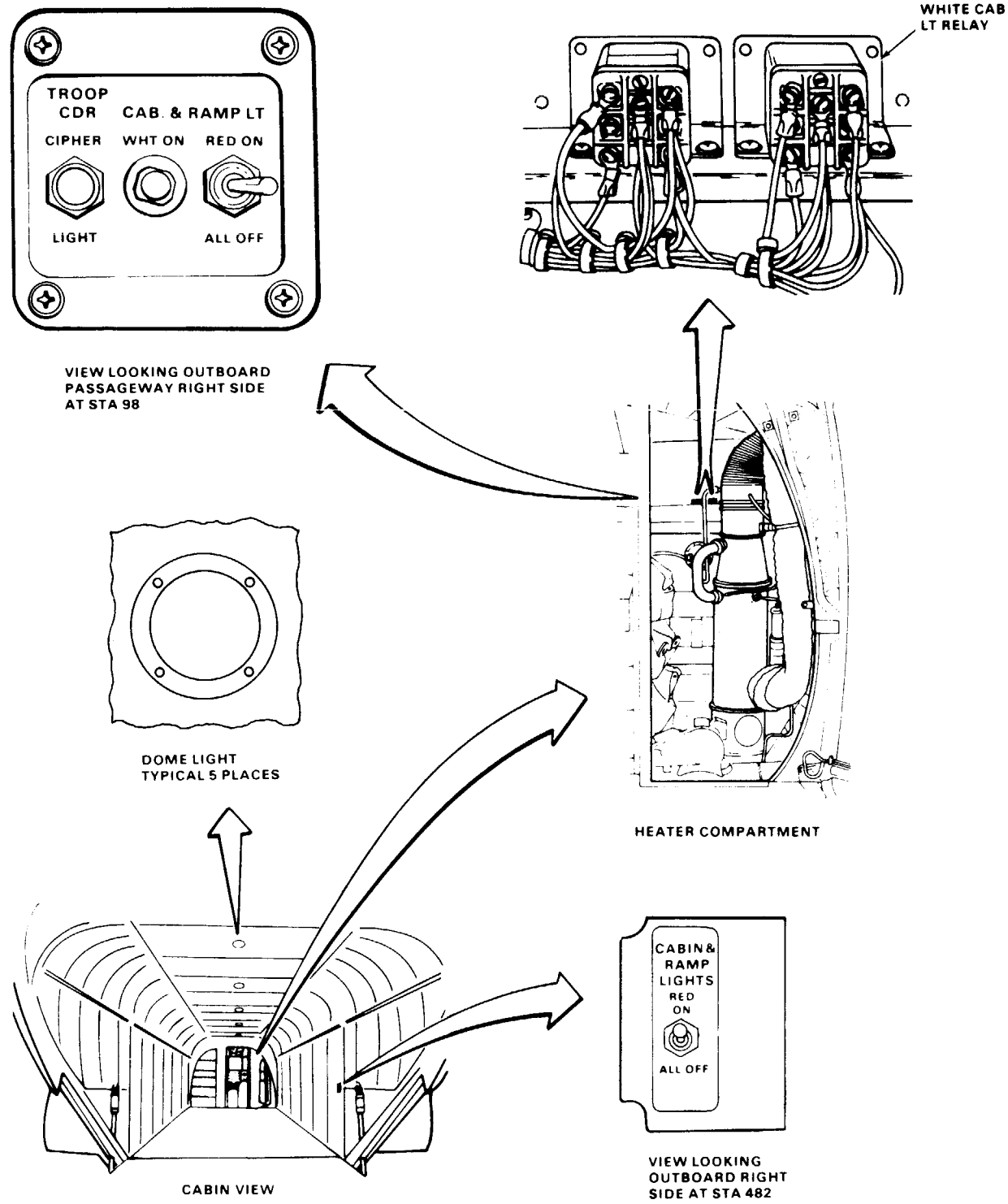
9-15.5



GO TO NEXT PAGE

9-15.5 CABIN AND RAMP DOME WHITE LIGHT OR LIGHTS  
NOT LIT (Continued)

9-15.5



9-15.6 CABIN AND RAMP DOME WHITE LIGHTS DO NOT GO OUT WHEN CAB & RAMP LT SWITCH SET TO ALL OFF

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

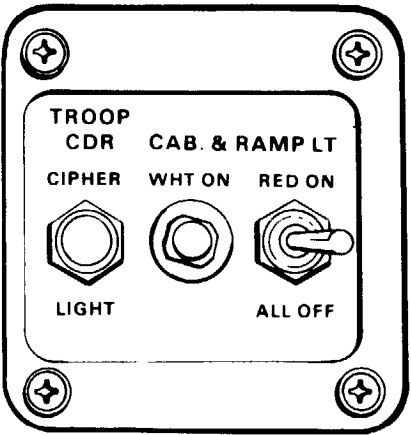
References:

TM 55-1520-240-23

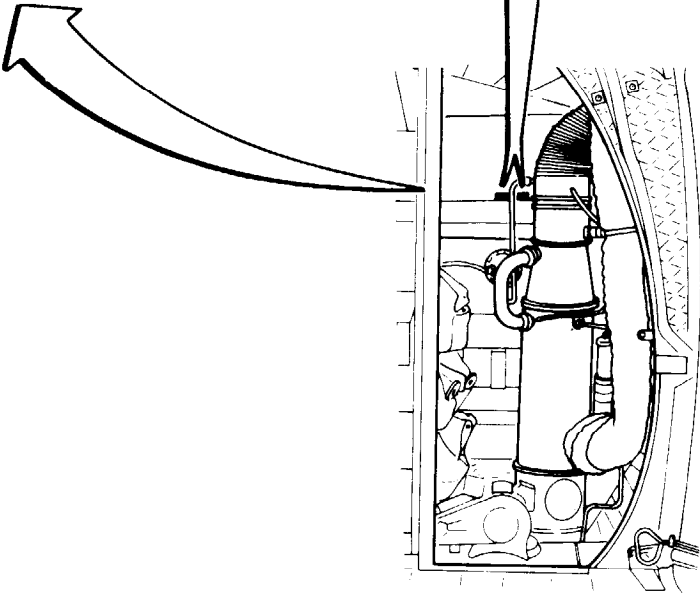
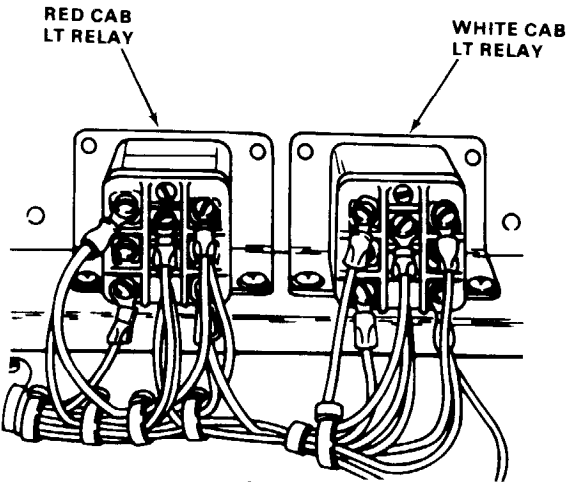
Equipment Condition:

TM 55-1520-240-23:

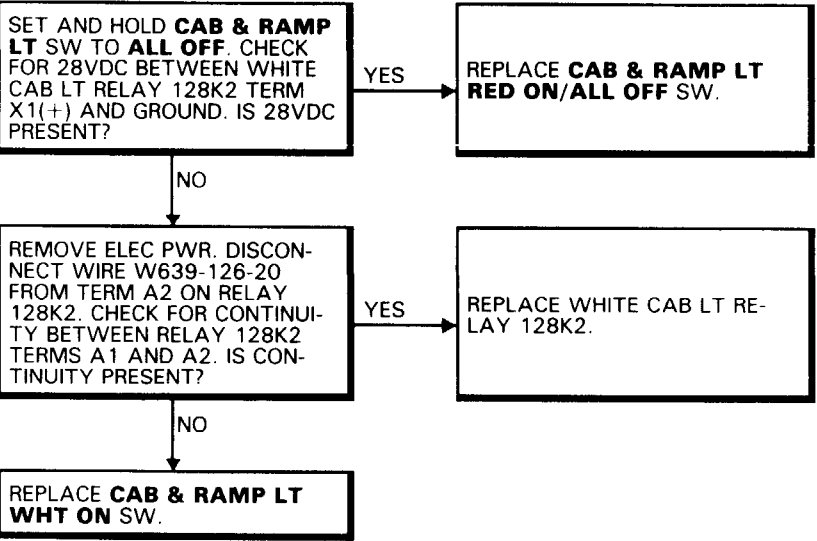
- Battery Connected
- Electrical Power On
- Hydraulic Power Off
- Heater Compartment Acoustic Blanket Removed



VIEW LOOKING OUTBOARD  
PASSAGEWAY RIGHT SIDE  
AT STA 98



HEATER COMPARTMENT



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

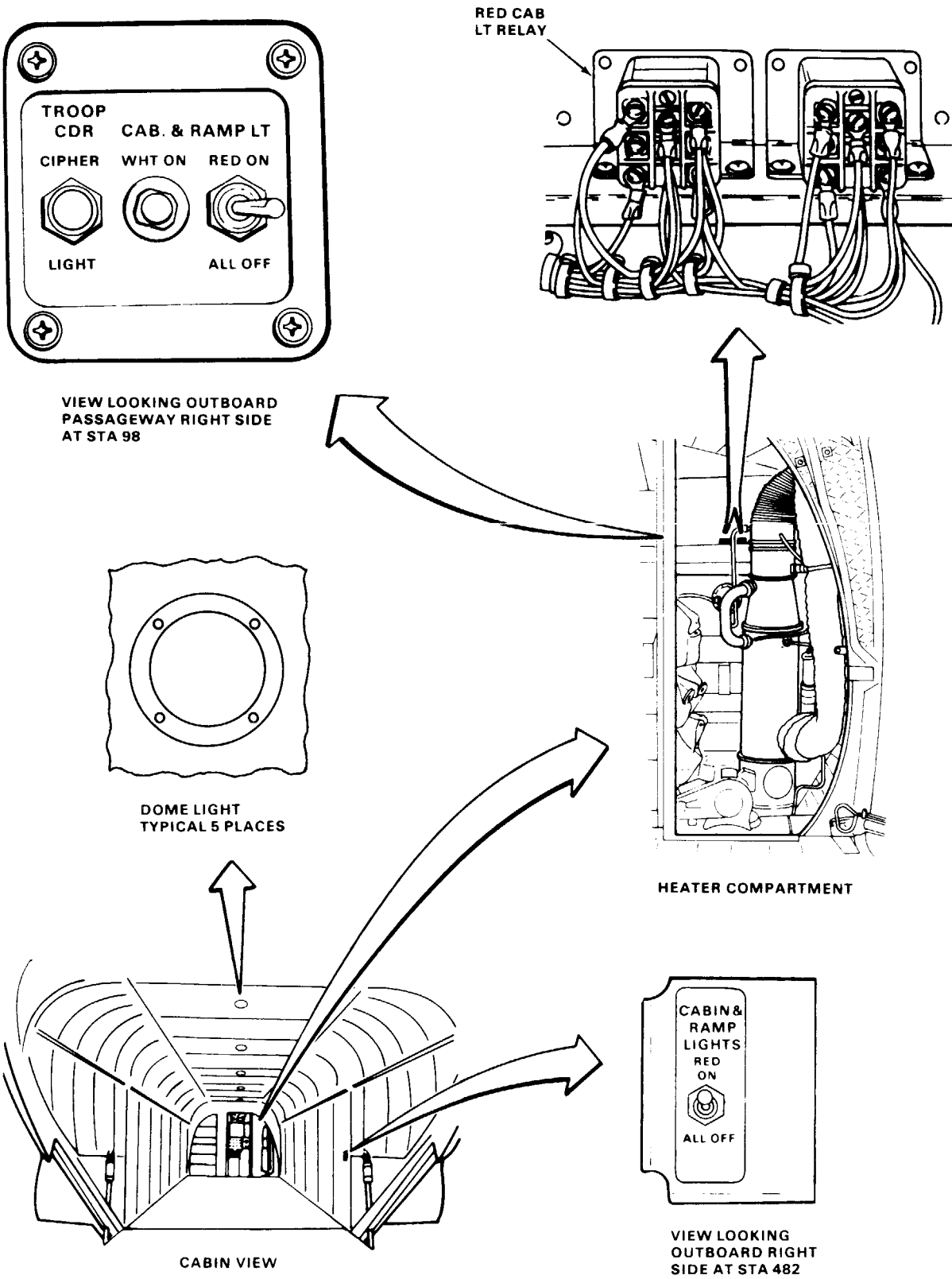
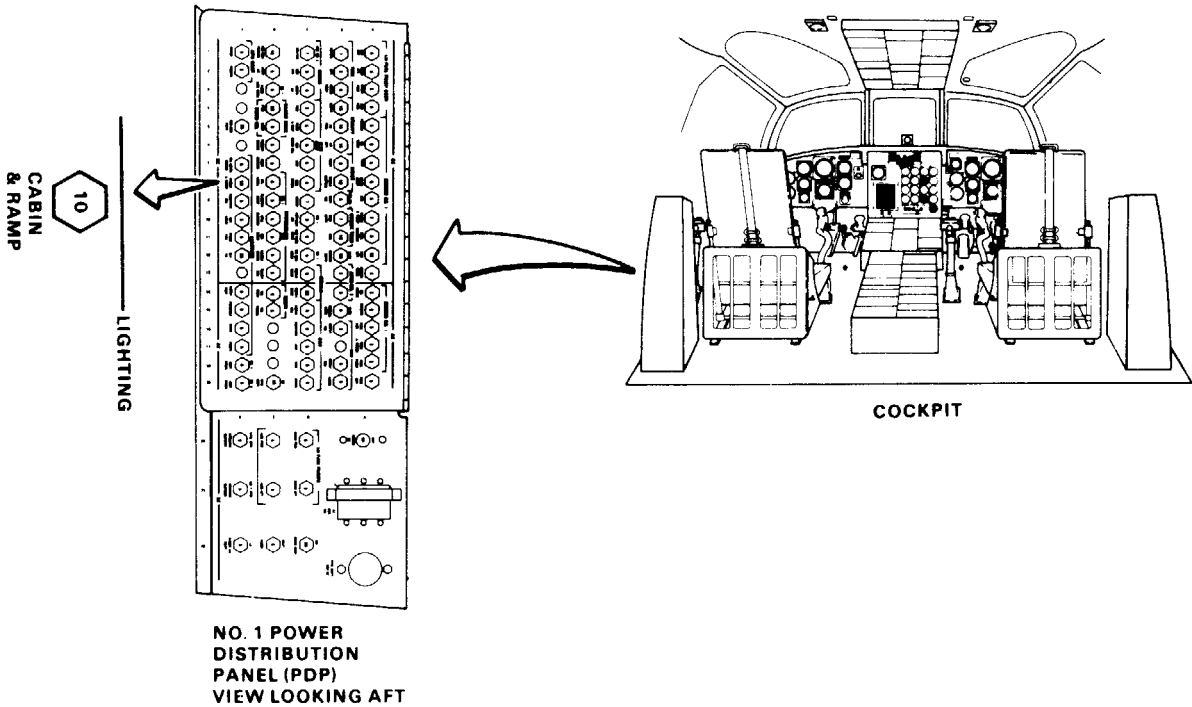
References:

TM 55-1520-240-23

Equipment Condition:

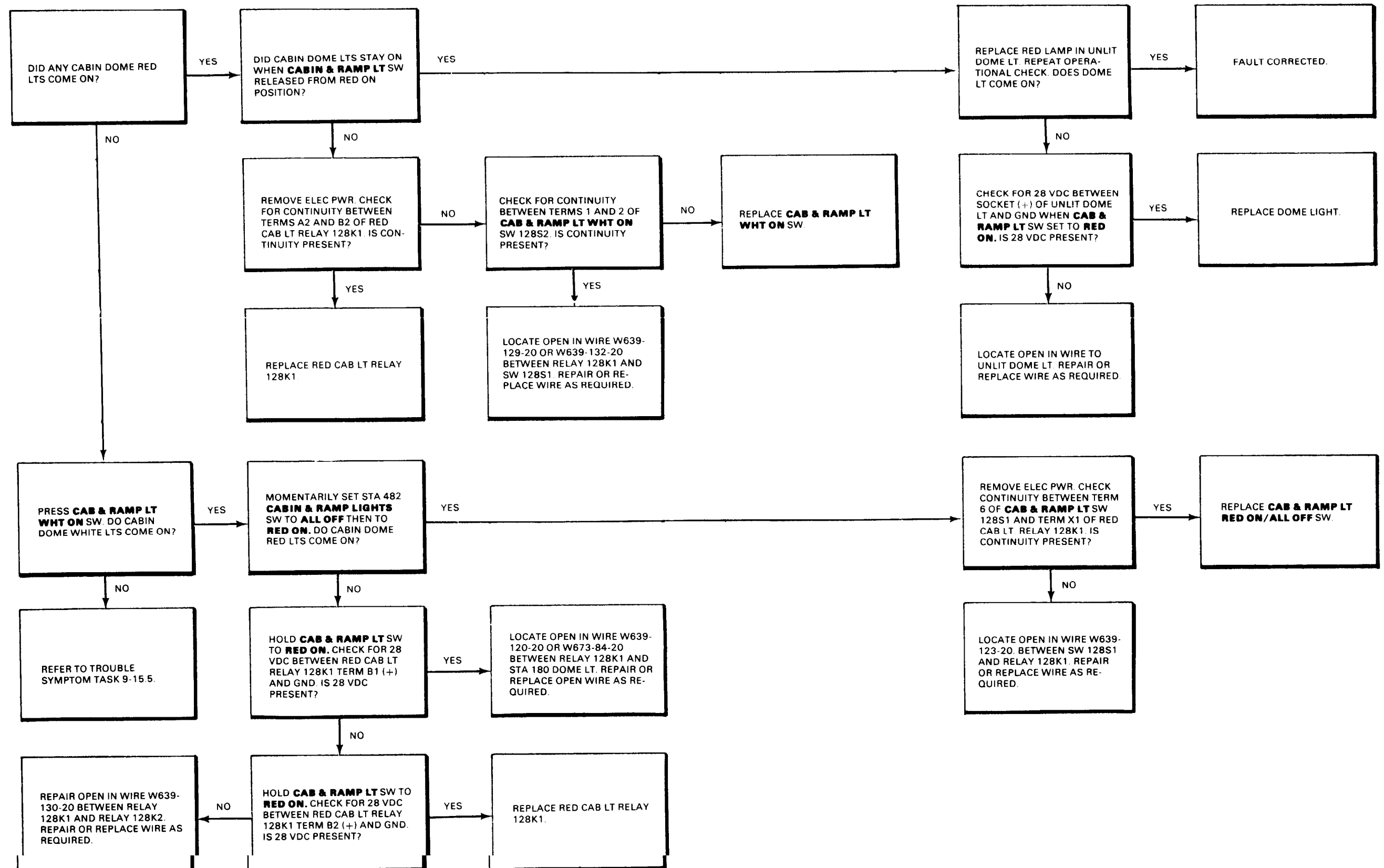
TM 55-1520-240-23:

- Battery Connected
- Electrical Power On
- Hydraulic Power Off
- Heater Compartment Acoustic Blanket Removed



# 9-15.7 CABIN AND RAMP DOME RED LIGHT OR LIGHTS NOT LIT (Continued)

9-15.7



END OF TASK

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

without 17

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off
- Heater Compartment Acoustic Blanket Removed

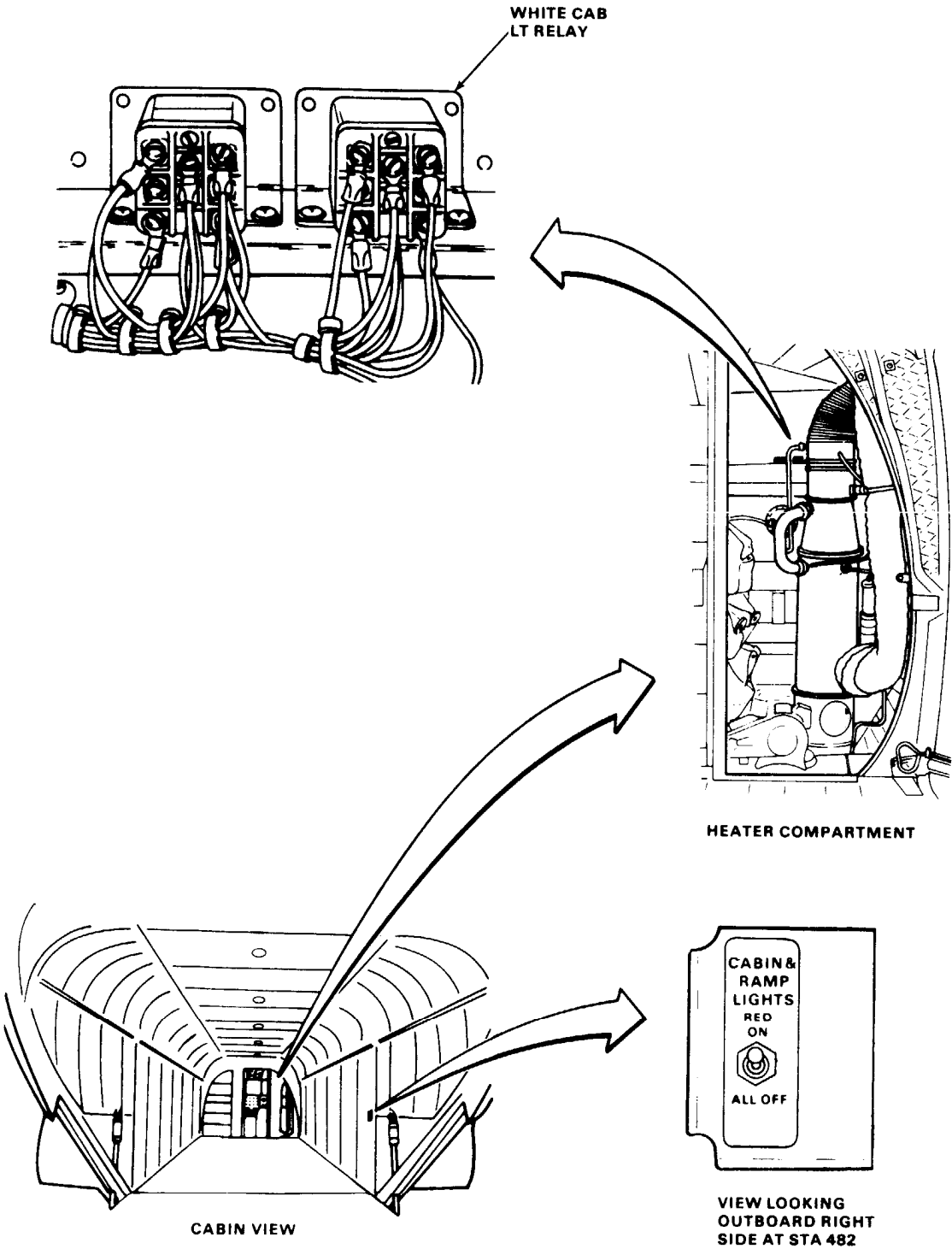
DISCONNECT WIRE W666-37-20 FROM TERM 3 OF **CABIN & RAMP LIGHTS** SW AT STA 482. CHECK FOR GROUND ON WIRE W666-37-20. IS GROUND PRESENT?

YES

LOCATE GROUND FAULT ON WIRE W666-37-20, W673-16-20, W639-117-20, OR W639-128-20 BETWEEN **CABIN & RAMP LIGHTS** SW AND **WHITE CAB LT** RELAY. REPAIR OR REPLACE WIRE AS REQUIRED.

NO

REPLACE **CABIN & RAMP LIGHTS** SW 128S3.



9-15.9 CABIN AND RAMP DOME RED LIGHTS DO NOT COME ON WHEN CABIN & RAMP LIGHTS SWITCH SET TO RED ON

9-15.9

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

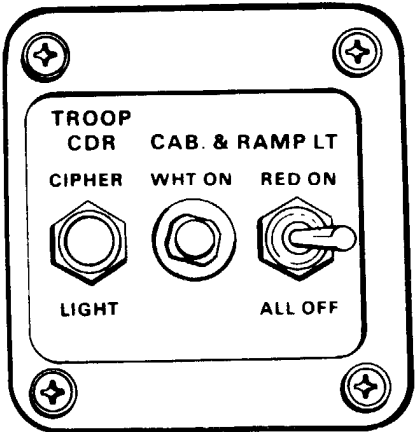
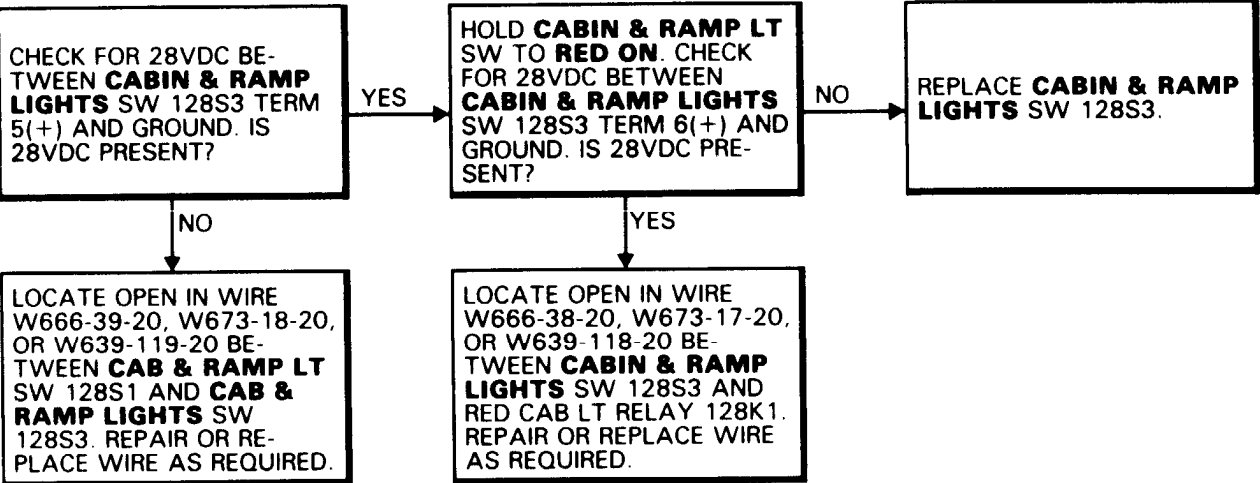
References:

TM 55-1520-240-23

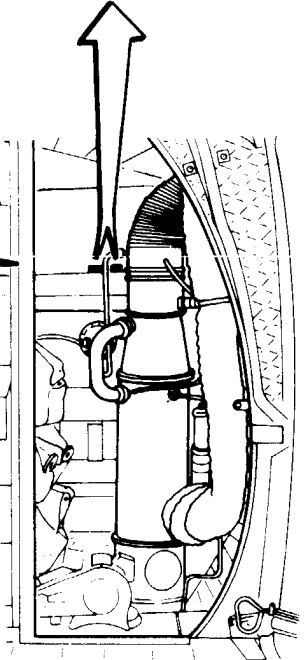
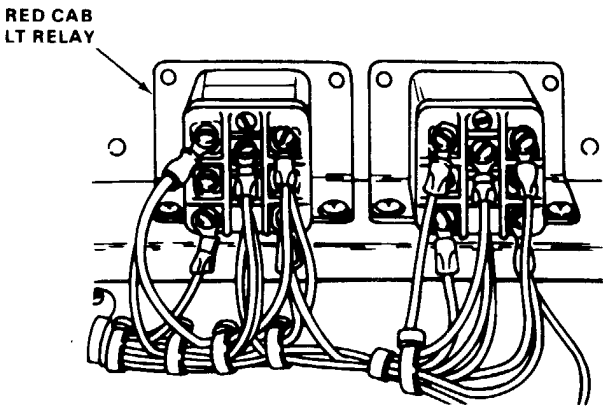
Equipment Condition:

TM 55-1520-240-23:

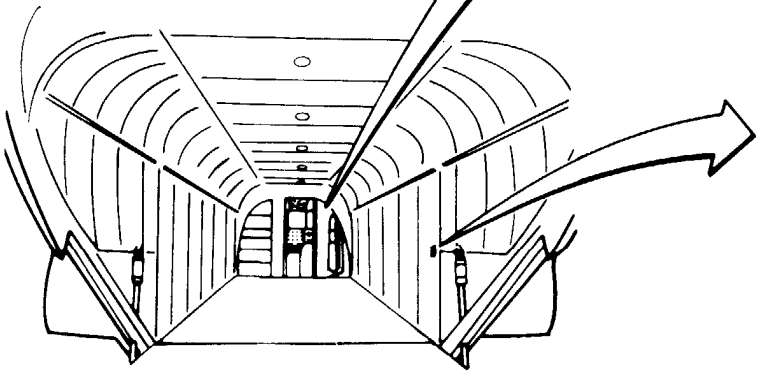
- Battery Connected
- Electrical Power Off
- Hydraulic Power Off



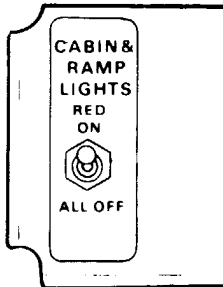
VIEW LOOKING OUTBOARD PASSAGEWAY RIGHT SIDE AT STA 98



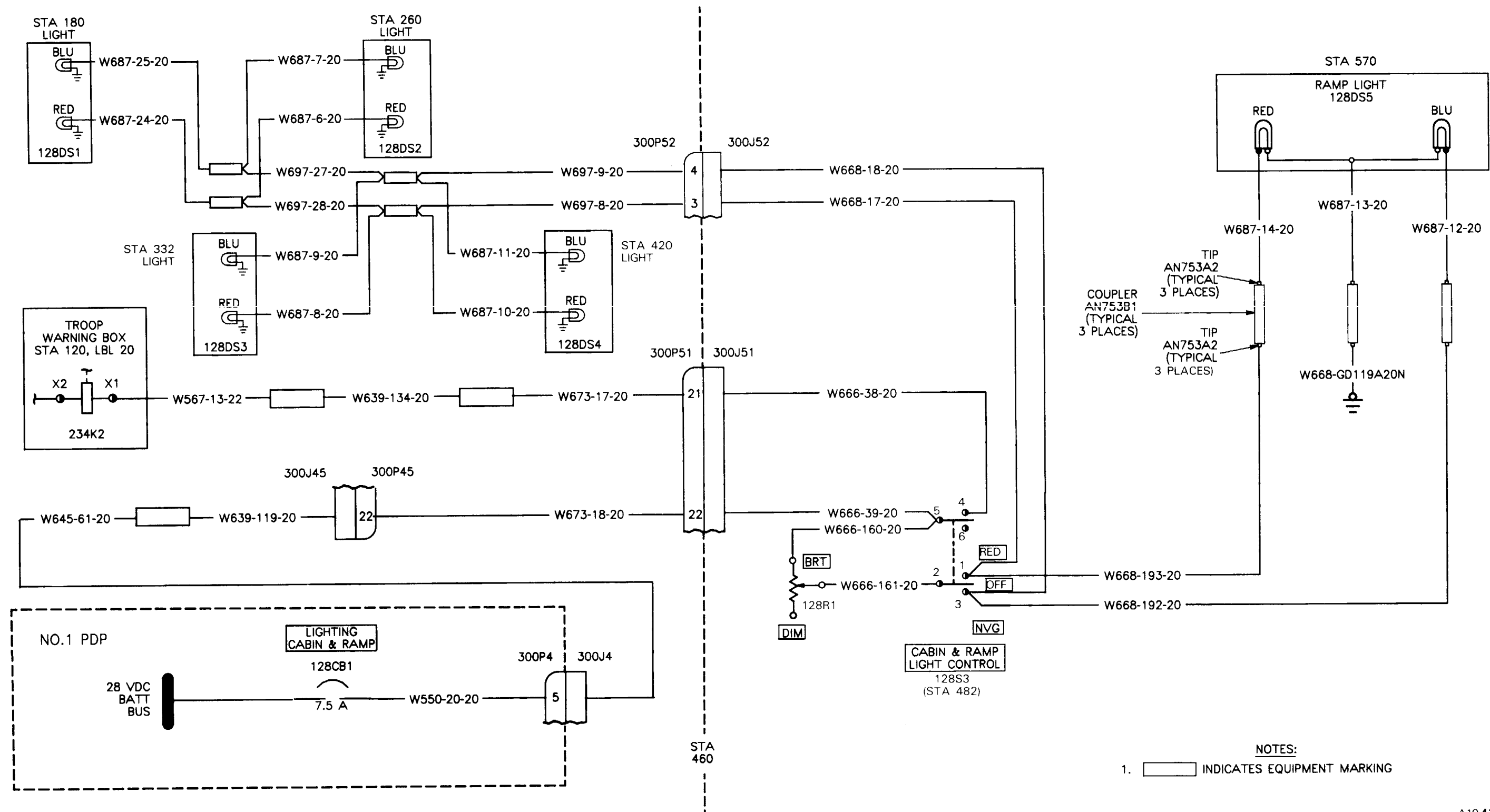
HEATER COMPARTMENT



CABIN VIEW



VIEW LOOKING OUTBOARD RIGHT SIDE AT STA 482





9-15.10 CABIN AND RAMP LIGHTS VISUAL CHECK

9-15.10

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

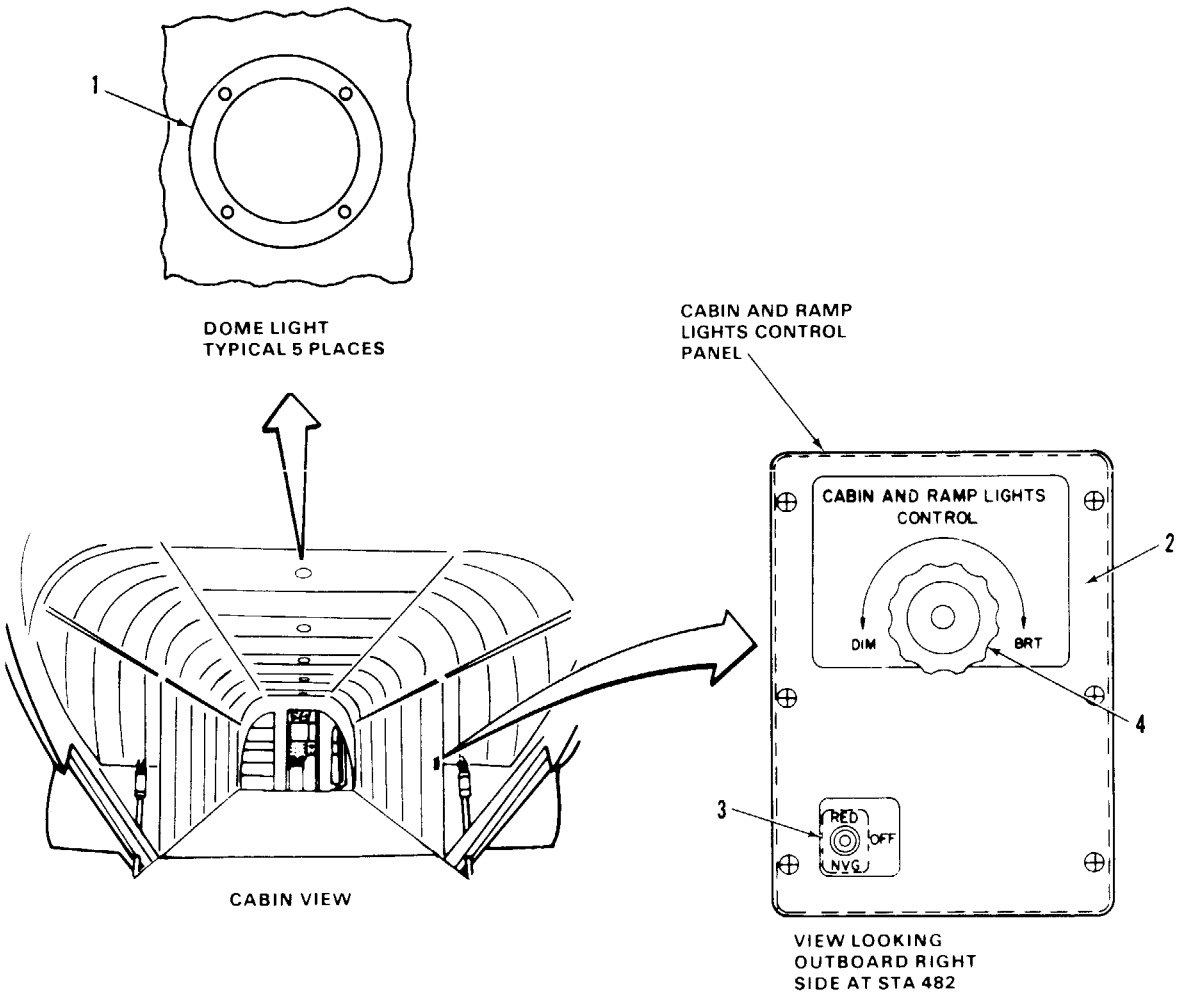
TM 55-1520-240-23:

Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULT
1 Check ramp dome and four cabin dome lights (1).	If any dome light (1) is loose or damaged, tighten or replace it as required.
2 Check CABIN & RAMP LIGHTS CONTROL panel (2).	If panel (2) is loose or damaged, tighten or replace it as required. If switch (3) or knob (4) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE

None



9-15.11 CABIN AND RAMP LIGHTS OPERATIONAL CHECK

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

None

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

Battery Connected

Electrical Power On

Hydraulic Power Off

Visual Check of Cabin and Ramp Lights Performed  
(Task 9-15.10)

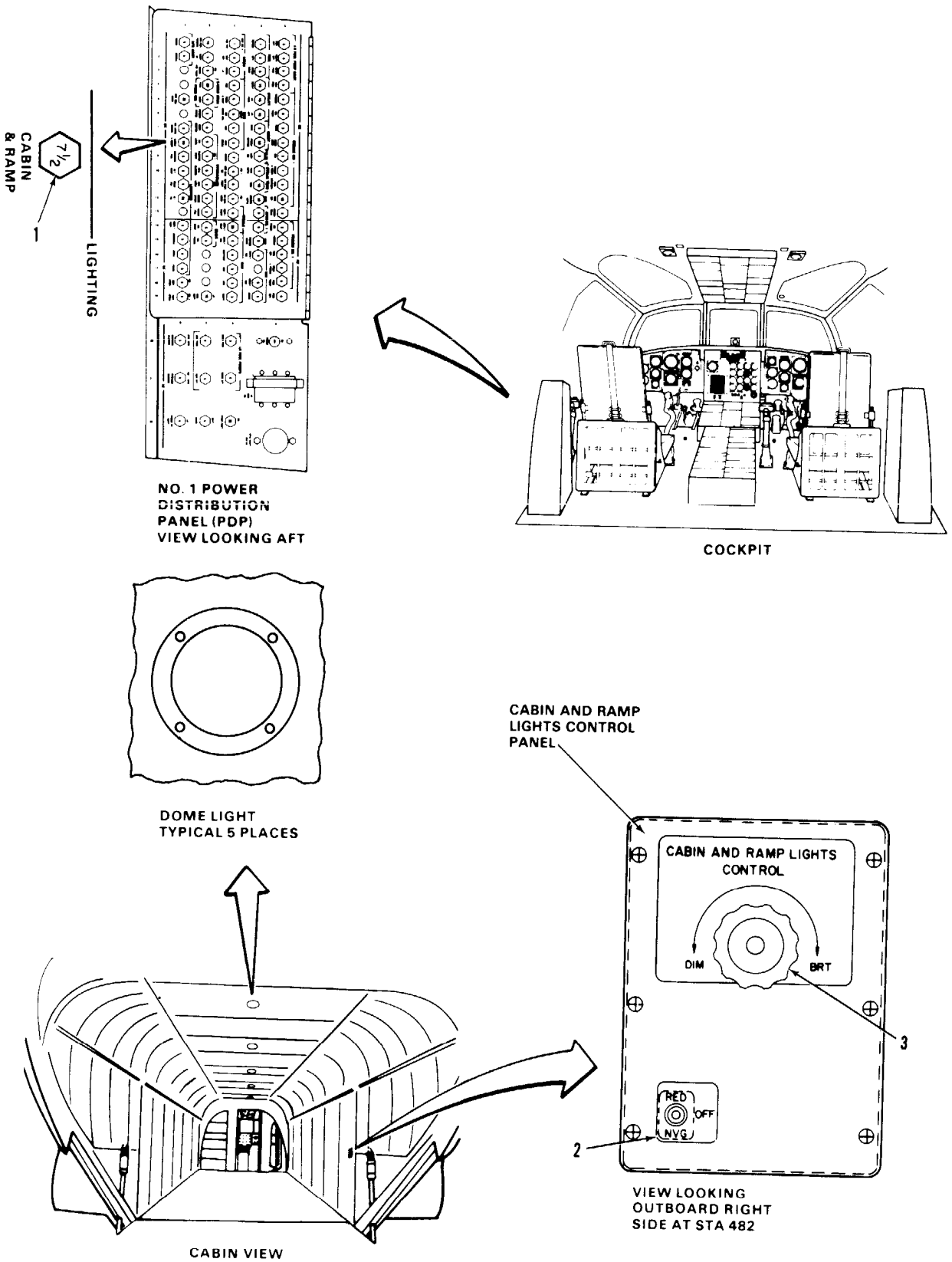
TASK	RESULT
1. Check that LIGHTING CABIN & RAMP circuit breaker (1) is closed.	If CABIN & RAMP circuit breaker (1) is open, close it. If it opens again, go to task 9-15.12.
2. Set CABIN AND RAMP LIGHTS CONTROL switch (2) to RED. Turn control (3) from DIM to BRT.	All five dome red lights shall come on and increase in brightness as control is moved. If any light is not lit, go to task 9-15.13. If lights come on but brightness does not increase, replace control (3).
3. Turn control (3) to DIM.	
4. Set CABIN AND RAMP LIGHTS CONTROL switch (2) to NVG. Turn control (3) from DIM to BRT.	All five dome blue lights shall come on and increase in brightness as control is moved. If any light is not lit, go to task 9-15.14.
5. Turn control (3) to DIM. Set switch (2) to OFF.	

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

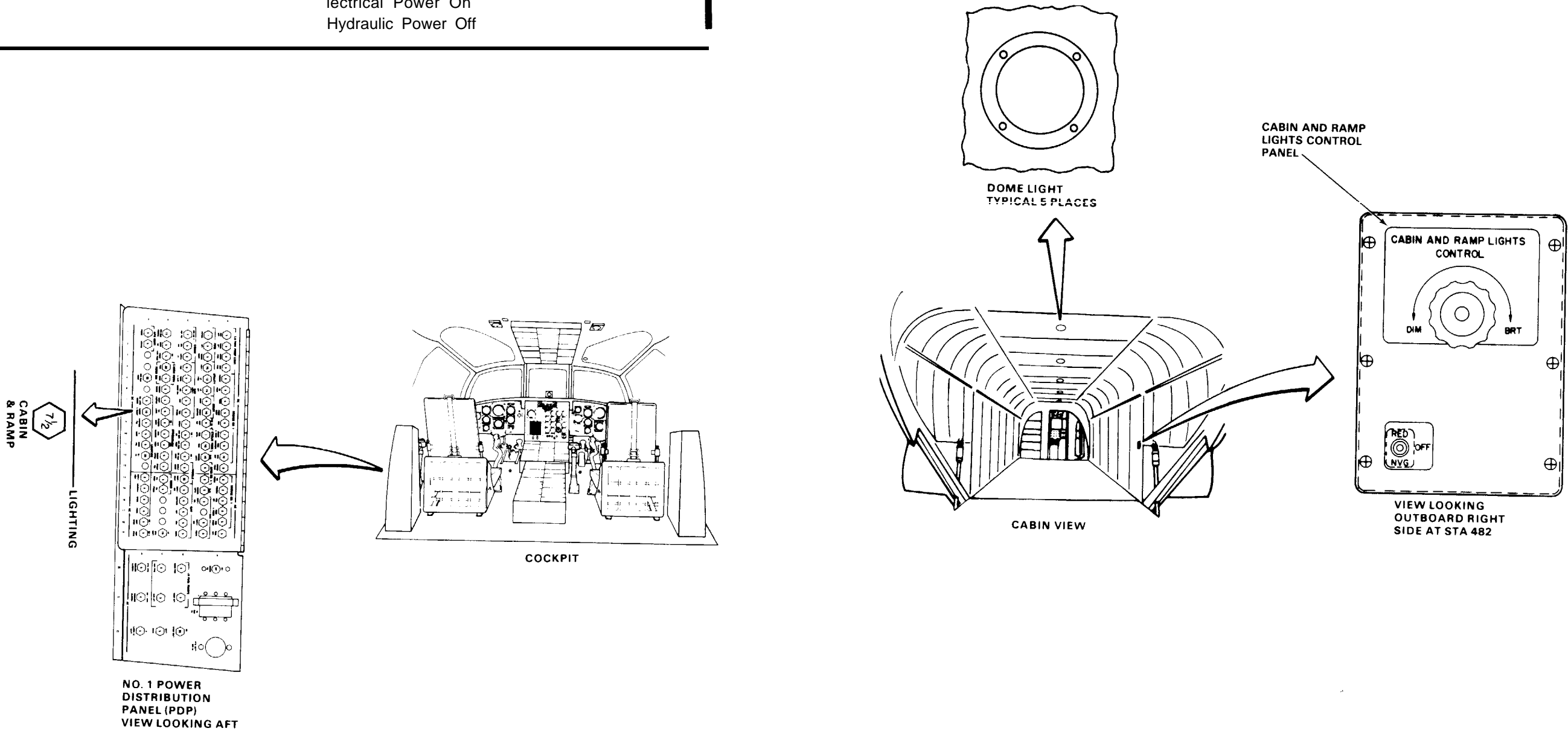
Aircraft Electrician

References:

TM 55-1520-240-23

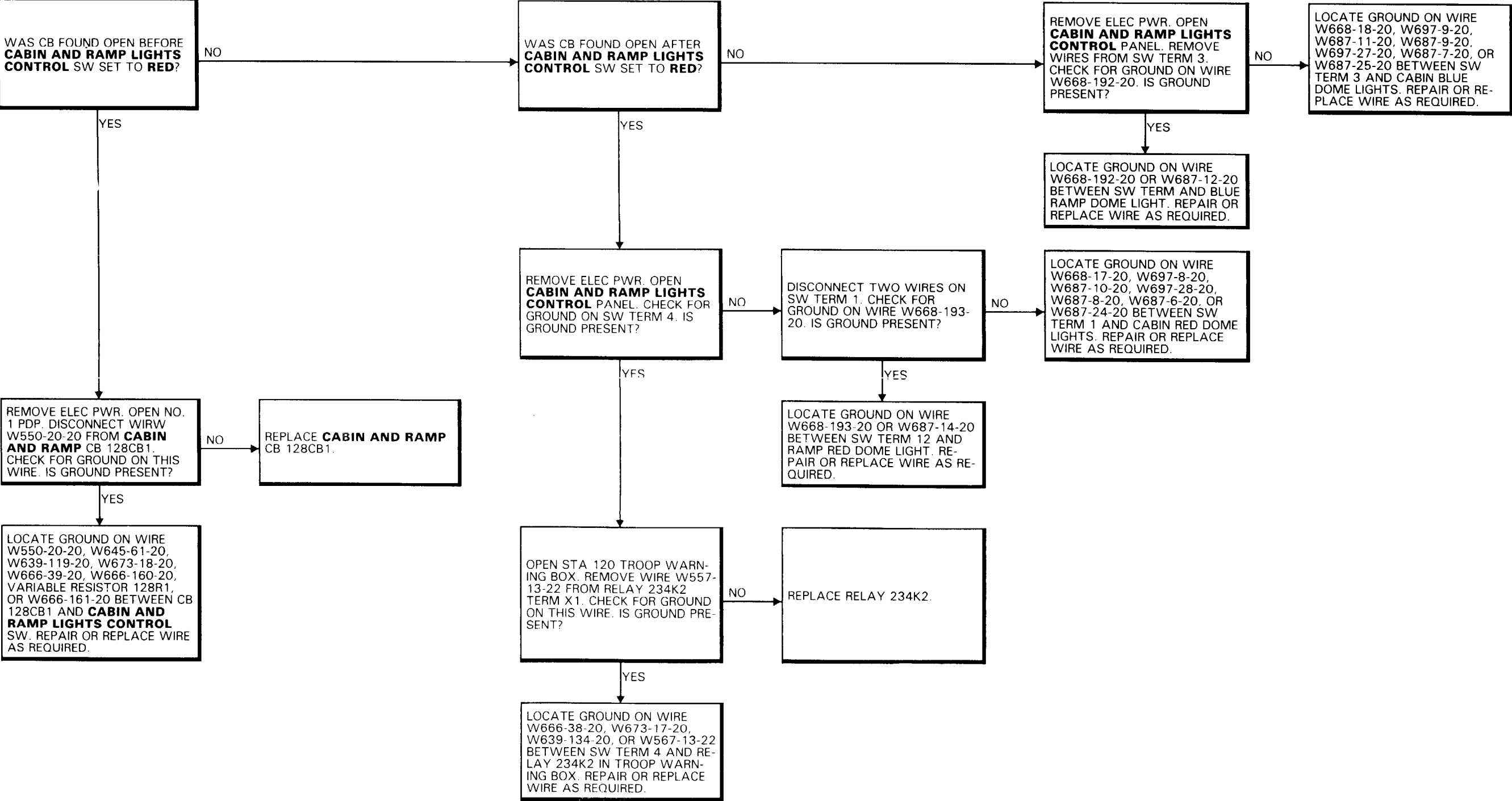
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-15.12 CABIN & RAMP CIRCUIT BREAKER DOES NOT STAY CLOSED (Continued)

9-15.12



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

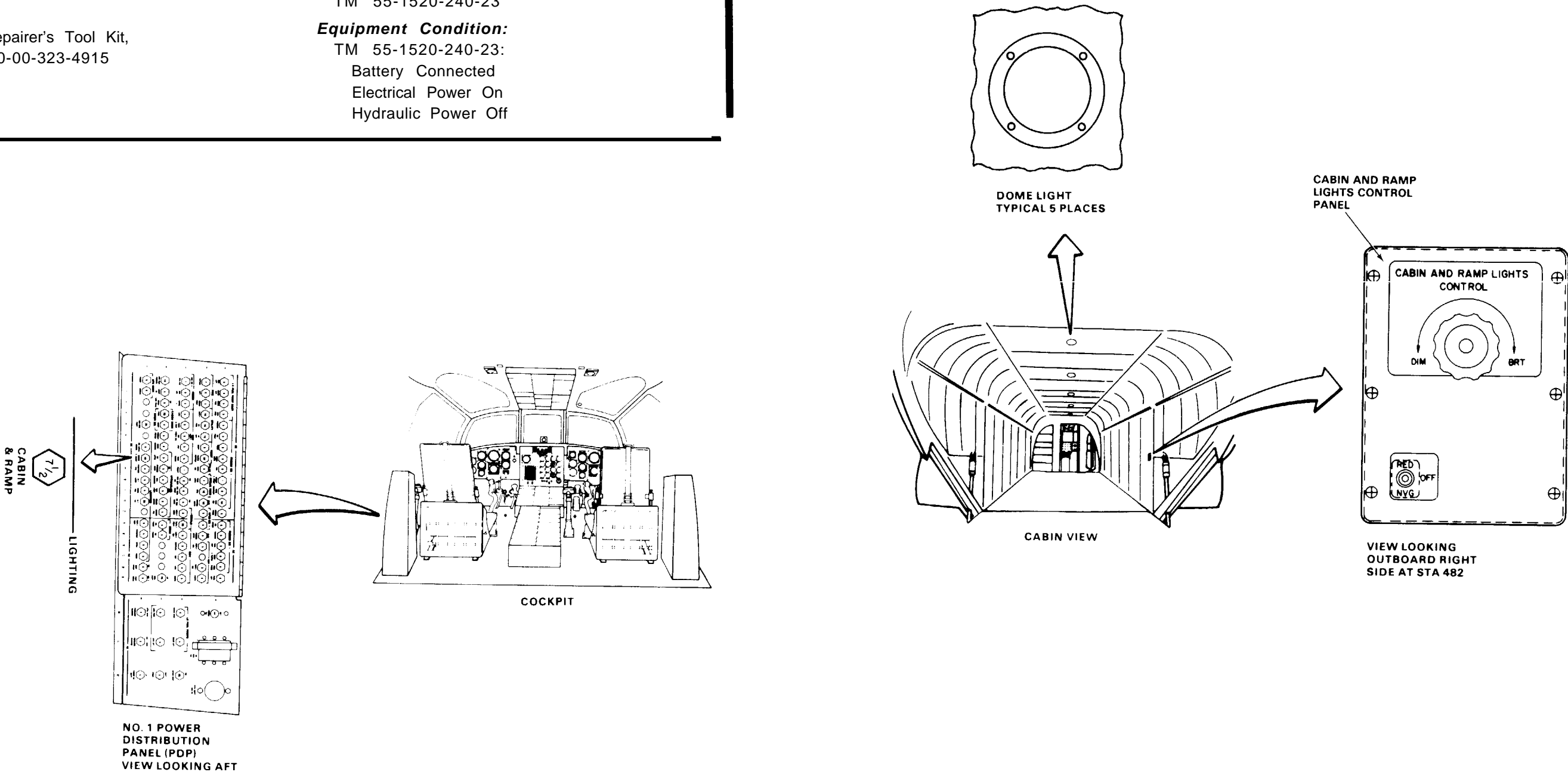
Aircraft Electrician (2)

References:

TM 55-1520-240-23

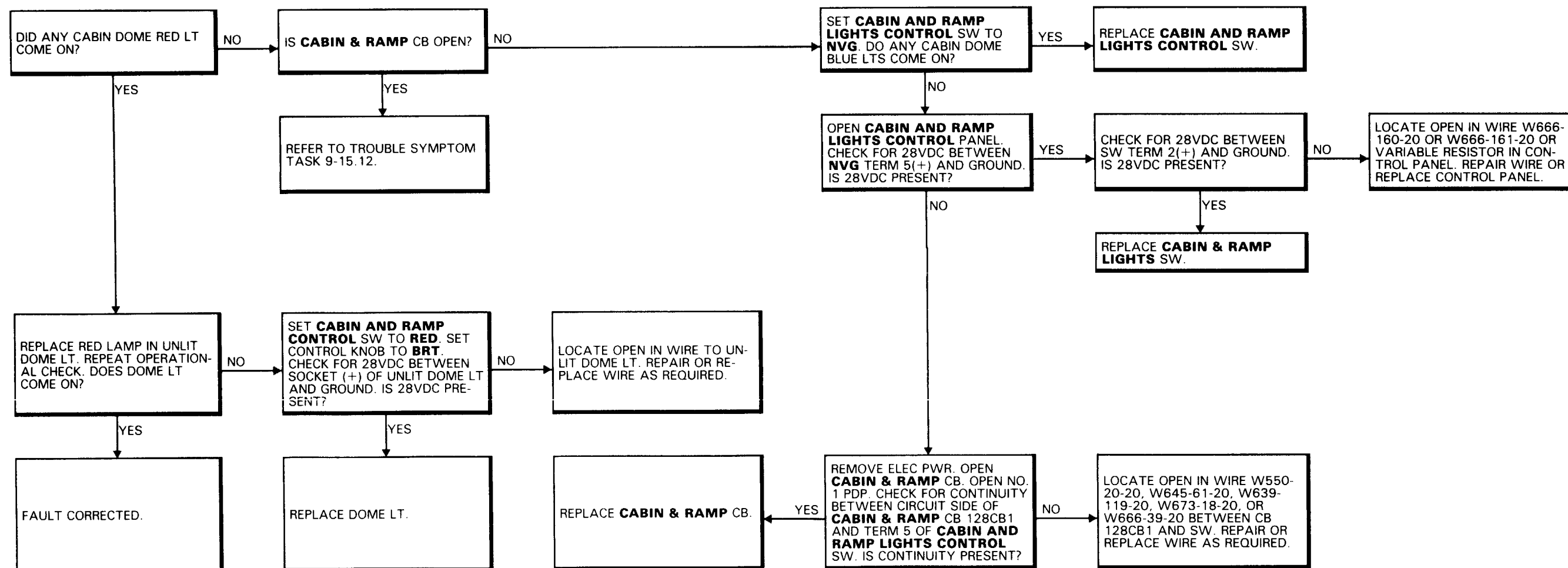
Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



## 9-15.13 CABIN AND RAMP DOME RED LIGHT OR LIGHTS NOT LIT (Continued)

9-15.13



# FAULT ISOLATION PROCEDURE

## INITIAL SETUP

### Applicable Configurations:

With 17

### Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

### Materials:

None

### Personnel Required:

Aircraft Electrician (2)

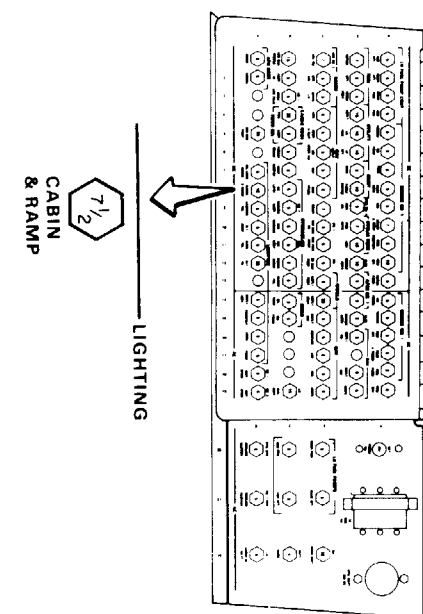
### References:

TM 55-1520-240-23

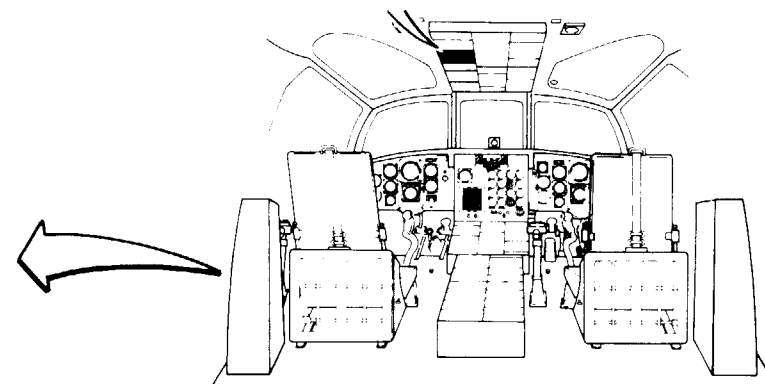
### Equipment Condition:

TM 55-1520-240-23:

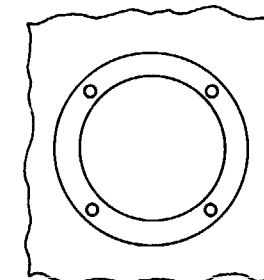
Battery Connected  
Electrical Power On  
Hydraulic Power Off



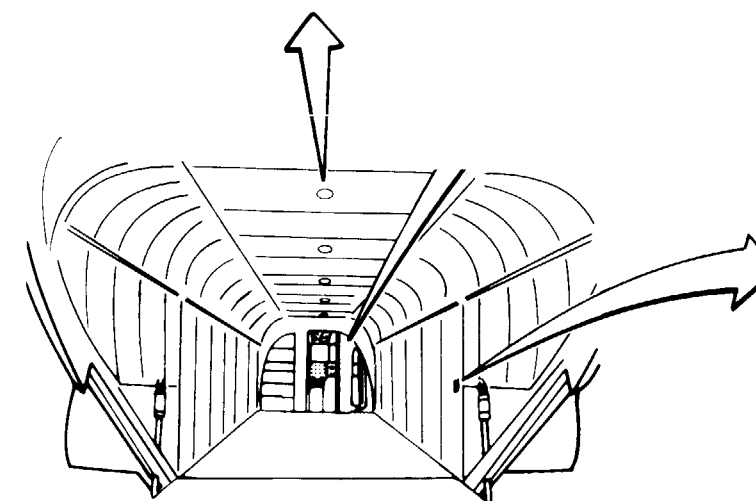
NO. 1 POWER  
DISTRIBUTION  
PANEL (PDP)  
VIEW LOOKING AFT



COCKPIT

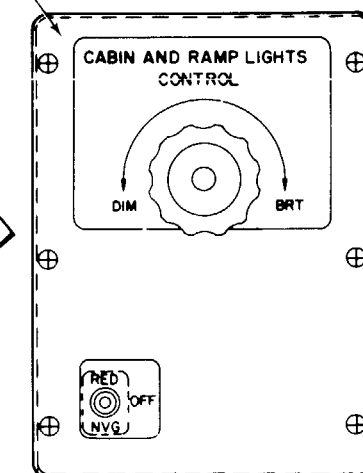


DOMELIGHT  
TYPICAL 5 PLACES

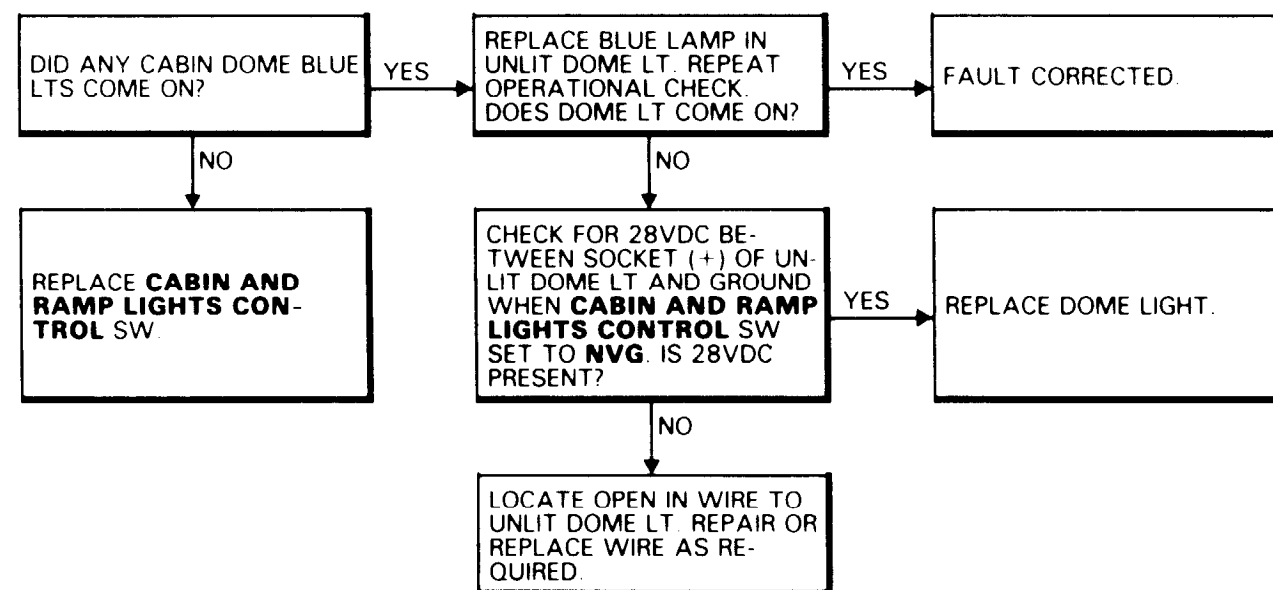


CABIN VIEW

CABIN AND RAMP  
LIGHTS CONTROL  
PANEL

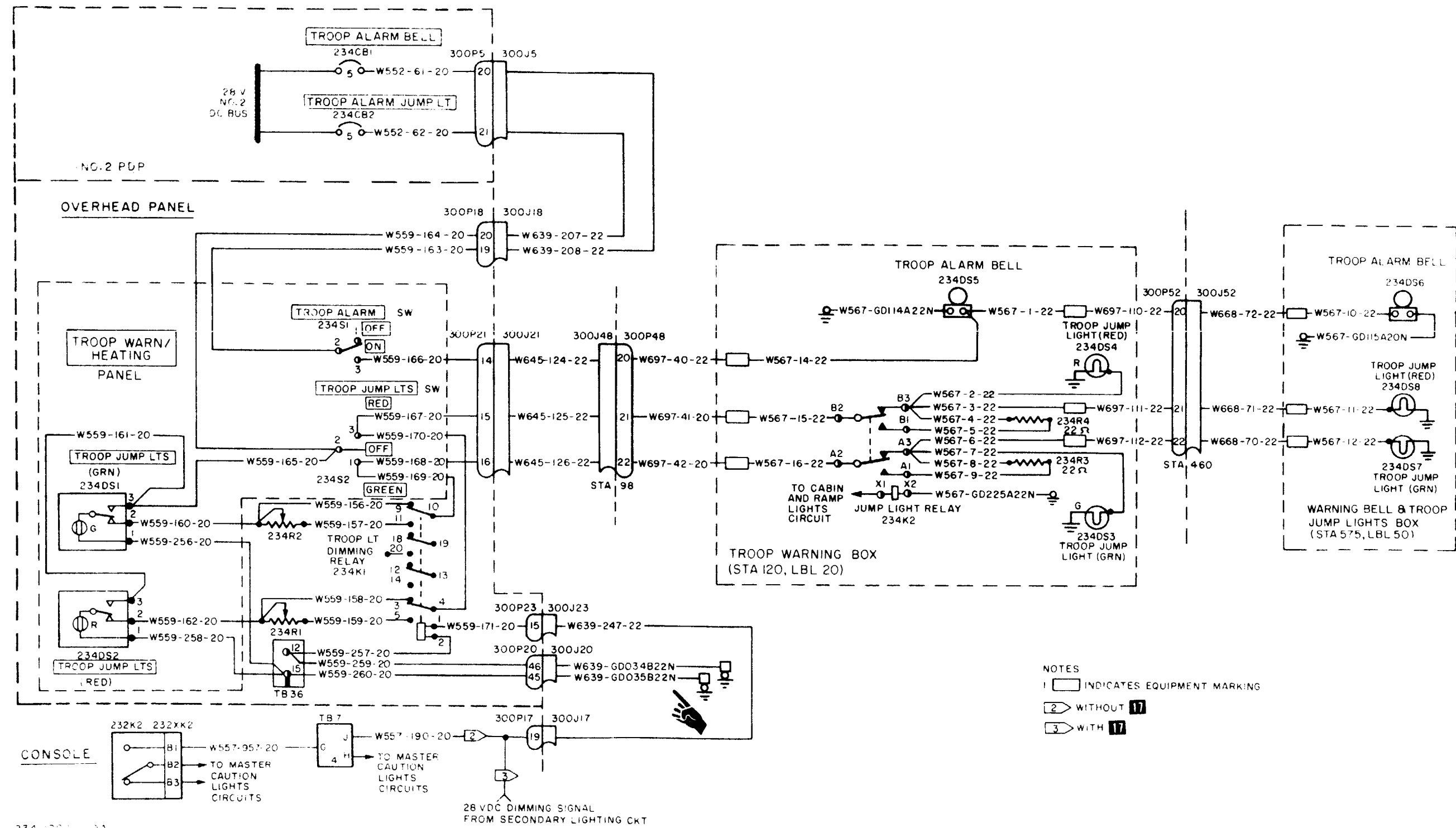


VIEW LOOKING  
OUTBOARD RIGHT  
SIDE AT STA 482





## 9-16 TROOP WARNING SYSTEM



INITIAL SETUP

Applicable Configurations:  
All

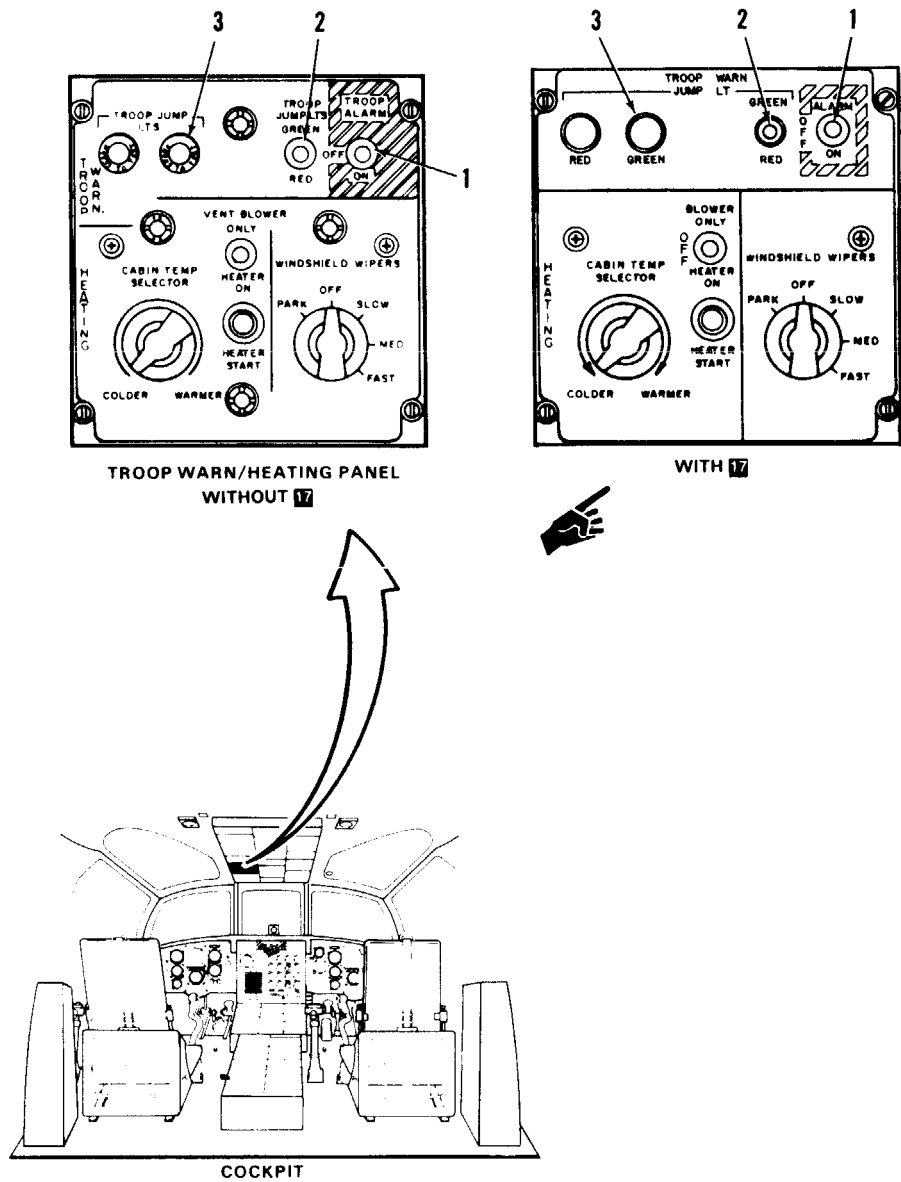
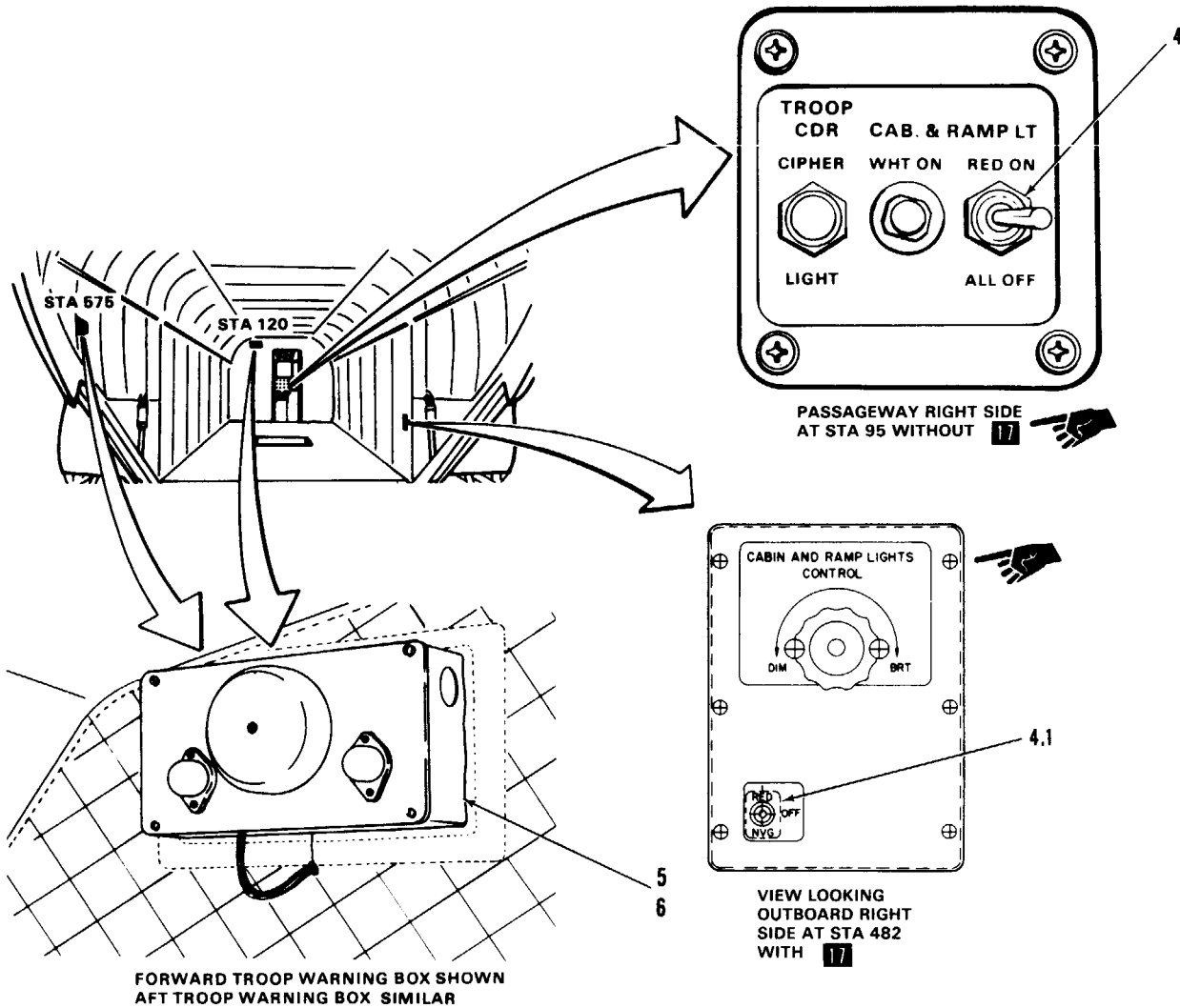
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:  
None

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



9-16.2 TROOP WARNING SYSTEM VISUAL CHECK (Continued)

9-16.2

TASK	RESULT
1. Check TROOP ALARM switch (1).	If switch (1) is loose or broken, tighten or replace it as required.
2. Check TROOP JUMP LTS switch (2).	If switch (2) is loose or broken, tighten or replace it as required.
3. Check TROOP JUMP LTS (3).	If lights (3) are loose or damaged, tighten or re-place it as required.
4. Without 17, check CAB & RAMP LT RED ON/ALL OFF swtich (4).	If switch (4) is loose or broken, tighten or replace it as required.
4.1. WITH 17, check CABIN AND RAMP LIGHTS CONTROL switch (4.1).	If switch (4.1) is loose or broken, tighten or re-place it as required.
5. Check forward troop warning box (5).	If lens or gong is loose or damaged, tighten or replace them as required.
6. Check aft troop warning box (6).	If lens or gong is loose or damaged, tighten or redade them as required.

FOLLOW-ON MAINTENANCE:  
None

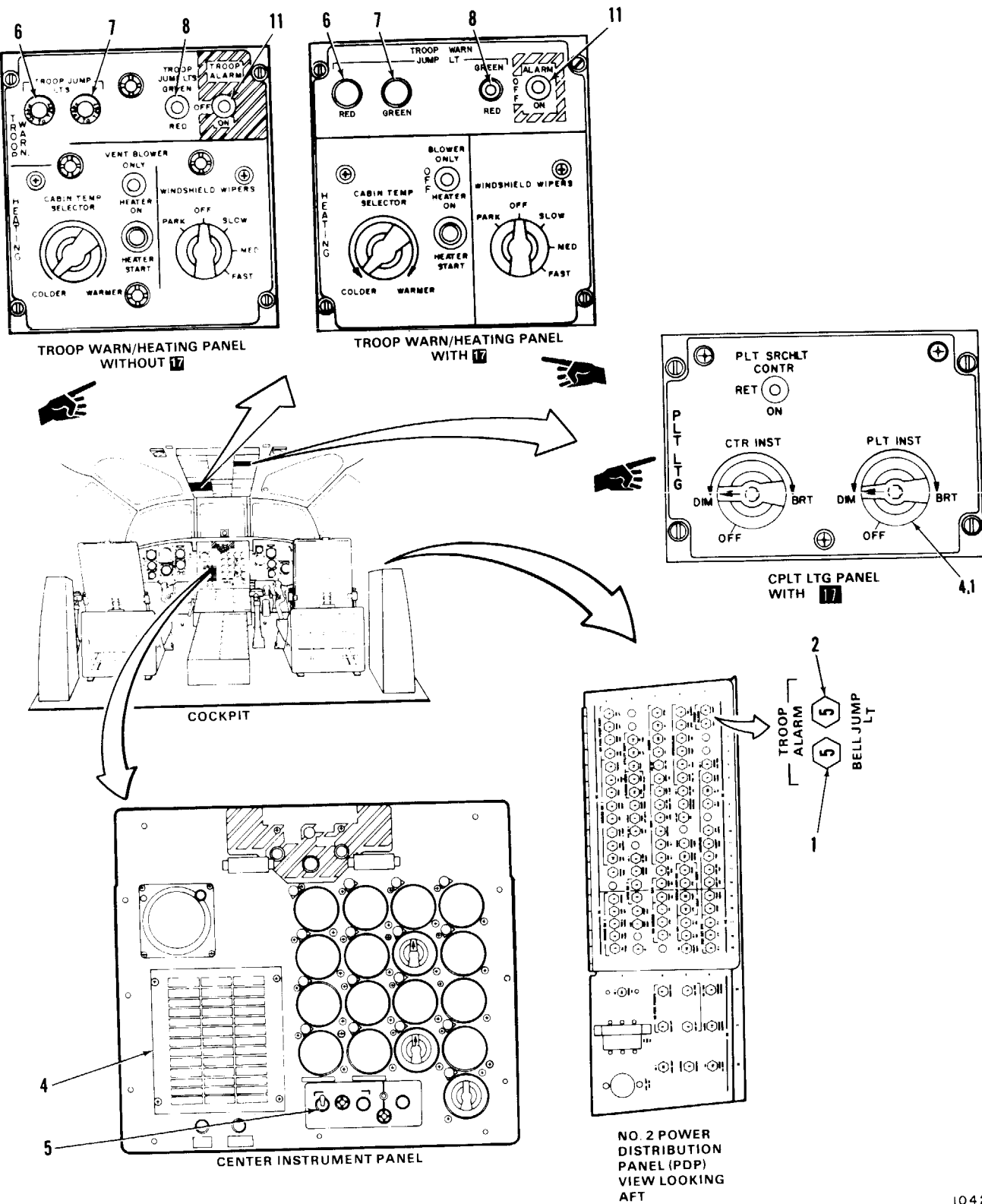
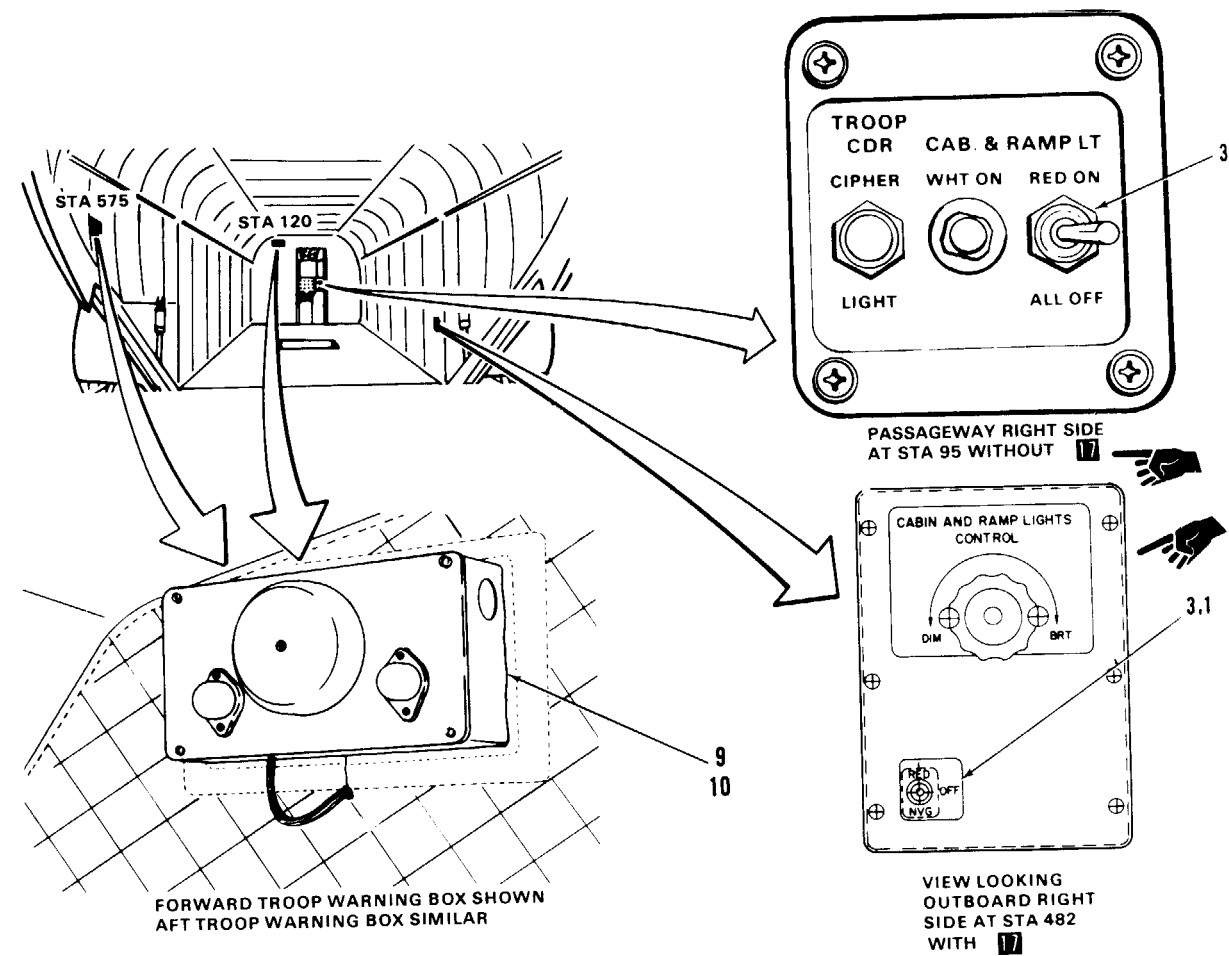
9-16.3 TROOP WARNING SYSTEM OPERATIONAL CHECK

INITIAL SETUP

Applicable Configurations:

- All
- Tools:  
None
- Materials:  
None
- Personnel Required:  
Aircraft Electrician

- References:
- TM 55-1520-240-23
- Equipment Condition:
- TM 55-1520-240-23:
  - Battery Connected
  - Electrical Power On
  - Hydraulic Power Off
  - Troop Warning System Visual Check Performed (Task 9-16.2)



9-16.3 TROOP WARNING SYSTEM OPERATIONAL CHECK (Continued)

9-16.3

TASK	RESULT
1. Check that TROOP ALARM BELL circuit breaker (1) is closed.	If circuit breaker is open, close it. If it opens again, go to task 9-16.4.
2. Check that TROOP ALARM JUMP LT circuit breaker (2) is closed.	If circuit breaker is open, close it. If it opens again, go to task 9-16.5.
3. Without 17 check that red dome lights in cabin and ramp area are not on. If red dome lights are on, momentarily set the CAB & RAMP LTS switch (3) to ALL/OFF.	If red lights remain on, go to task 9-15.3.
3.1. With 17 check that red dome lights in cabin and ramp area are not on. If red dome lights are on, set CABIN AND RAMP LIGHTS CONTROL switch (3.1) to OFF.	
4. Without 17 check that lights in master caution panel (4) are bright. If not, set master caution DIM/BRIGHT switch to BRIGHT.	If lights do not come on bright, go to task 9-18.3
4.1. With 17, set PLT INST lights control (4.1) to OFF.	
5. Press and release RED TROOP JUMP LTS light (6),	Light (6) shall momentarily come on red. If not, go to task 9-16.6.
6. Press and release GREEN TROOP JUMP LTS light (7).	Light (7) shall momentarily come on green. If not, go to task 9-16.7.
7. Set TROOP JUMP LTS switch (8) to RED.	Red lights on forward and aft troop warning boxes (9 and 10) and red TROOP JUMP LTS light (6) shall come on bright. If not, go to task 9-16.8. With 17, if red lights come on dim, replace PLT INST lights control (4.1).
8. Without 17, momentarily set CAB & RAMP LTS switch (3) to RED ON. With 17, set CABIN AND RAMP LIGHTS CONTROL switch (3.1) to RED.	Red lights on forward and aft troop warning boxes (9 and 10) shall change from bright to dim. If not, go to task 9-16.9.
9. Without 17, momentarily set CAB & RAMP LTS switch (3) to ALL OFF. With 17, set CABIN AND RAMP LIGHTS CONTROL switch (3.1) to OFF.	Red lights on forward and aft troop warning boxes (9 and 10) shall change from dim to bright. If not, replace jump light relay.
10. Without 17,, momentarily set CAUTION LIGHTS BRIGHT-DIM switch (5) to DIM.	Red TROOP JUMP LTS light (6) shall change from bright to dim, If not, go to task 9-16.10.

TASK	RESULT
10.1. With 17 set PLT INST lights control (4.1) to DIM.	Red TROOP JUMP LTS light (6) shall change from bright to dim. If not, go to task 9-16.15.
11. Without 17 momentarily set CAUTION LIGHTS BRIGHT-DIM switch (5) to BRIGHT.	Red TROOP JUMP LTS light (6) shall change from dim to bright. If not, replace troop light dimming relay.
11.1. With 17 set PLT INST lights control (4.1) to OFF.	Red TROOP JUMP LTS light (6) shall change from dim to bright. If not, replace troop light dimming relay.
12. Set TROOP JUMP LTS switch (8) to GREEN.	Red lights on forward and aft troop warning boxes (9 and 10) shall go out and green lights shall come on bright. Green TROOP JUMP LTS light (7) shall come on bright. If red lights are still on and green lights are out, go to task 9-16.11.
13. Without 17, momentarily set CAB & RAMP LTS switch (3) to RED ON. With 17, set CABIN AND RAMP LIGHTS CONTROL switch (3.1) to RED.	Green lights on forward and aft troop warning boxes (9 and 10) shall change from bright to dim, If not, go to task 9-16.12.
14. Without 17, momentarily set CAB & RAMP LTS switch (3) to ALL OFF. With 17, set CABIN AND RAMP LIGHTS CONTROL switch (3.1) to OFF.	Green lights on forward and aft troop warning boxes (9 and 10) shall change from dim to bright. If not, replace jump light relay.
15. Without 17,, momentarily set CAUTION LIGHTS BRIGHT-DIM switch (4) to DIM. With 17 set PLT INST lights control (4.1) to DIM.	Green TROOP JUMP LTS light (7) shall change from bright to dim. If not, go to task 9-16.13.
16. Without 17,, momentarily set CAUTION LIGHTS BRIGHT-DIM switch (4) to BRIGHT. With 17 set PLT INST lights control (4.1) to OFF.	Green TROOP JUMP LTS light (7) shall change from dim to bright. If not, replace troop light dimming relay.
17. Set TROOP JUMP LTS switch (8) to OFF.	Green lights on both troop warning boxes (9 and 10) and green TROOP JUMP LTS light (7) shall go out. If not, replace TROOP JUMP LTS switch (8).
18. Set TROOP ALARM switch (11) to ON.	Alarm bells on the forward and aft troop warning boxes (9 and 10) shall sound. If not, go to task 9-16.14.
19. Set TROOP ALARM switch (11) to OFF.	Both alarm bells shall stop.

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Battery disconnected.  
Electrical power off.  
Hydraulic power off.

9-16.4 TROOP ALARM BELL CIRCUIT BREAKER WILL NOT STAY CLOSED

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

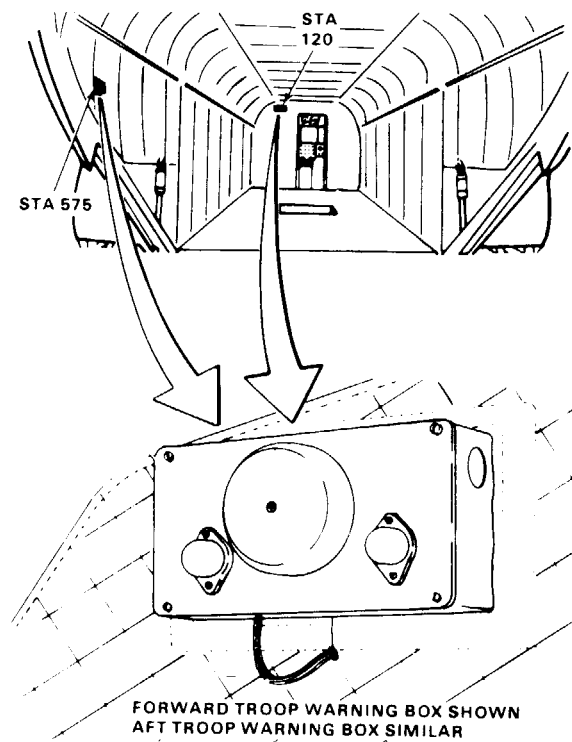
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multi meter

Materials:  
None

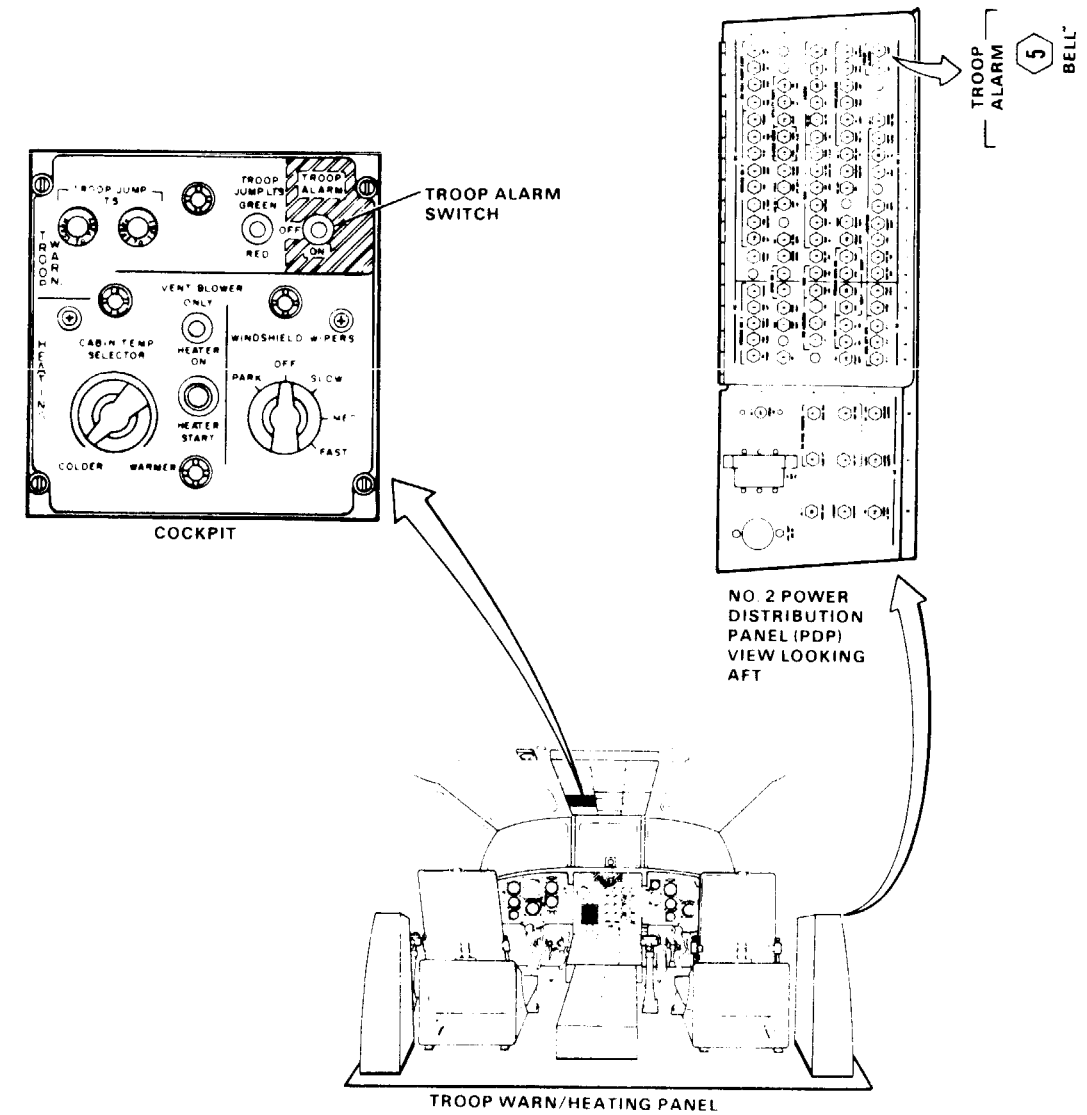
Personnel Required  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



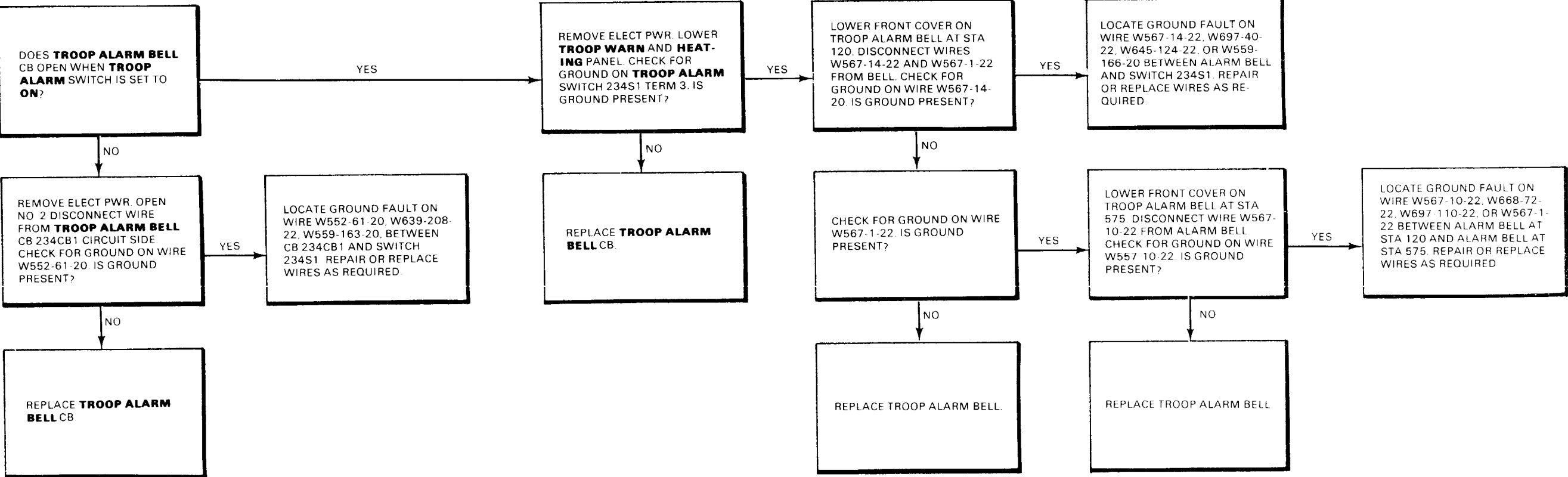
90 X 54



D145-11779-SPA

9-16.4 TROOP ALARM BELL CIRCUIT BREAKER WILL NOT STAY CLOSED (Continued)

9-16.4



END OF TASK



9-16.5 TROOP ALARM JUMP LTS CIRCUIT BREAKER WILL NOT STAY CLOSED

9-16.5

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

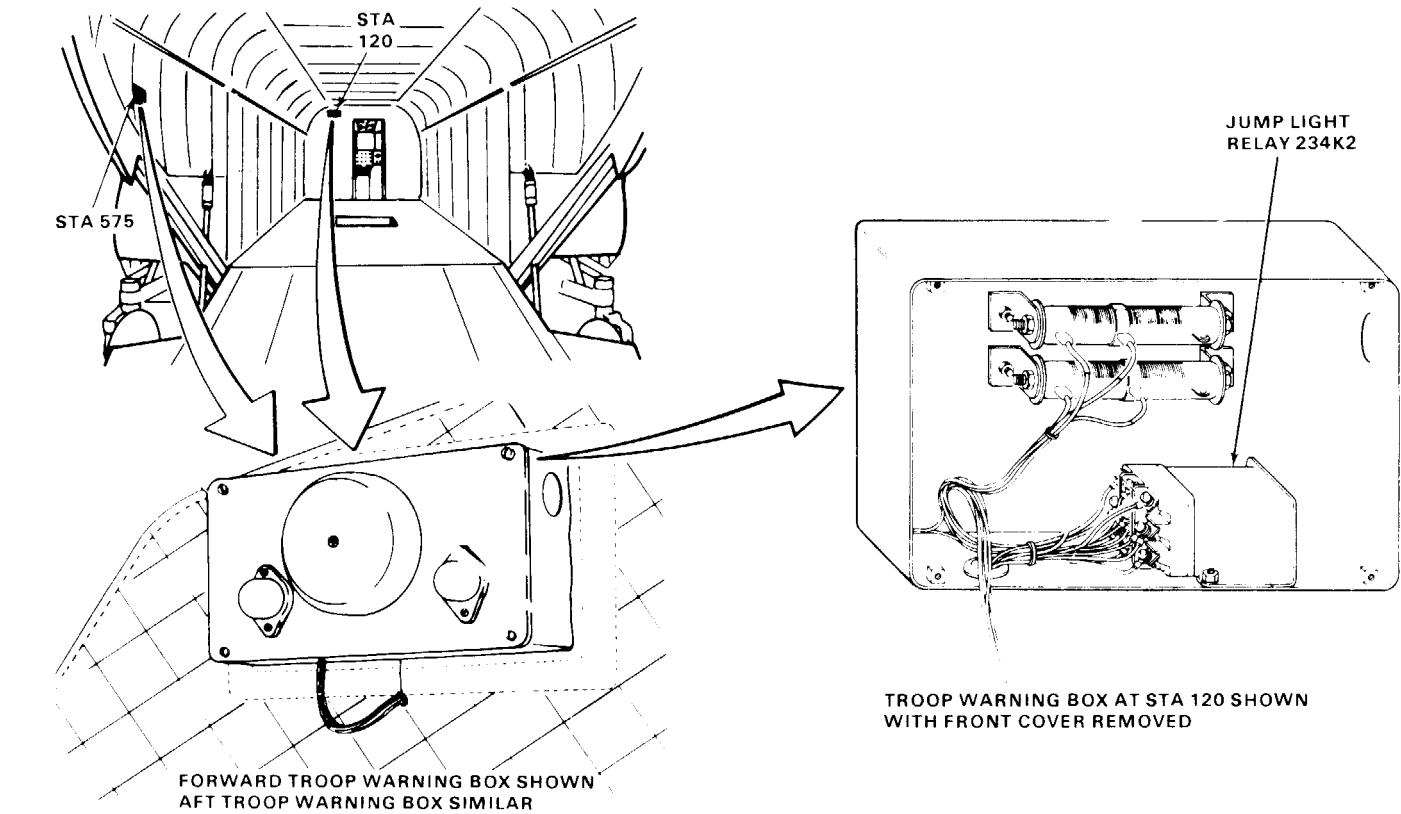
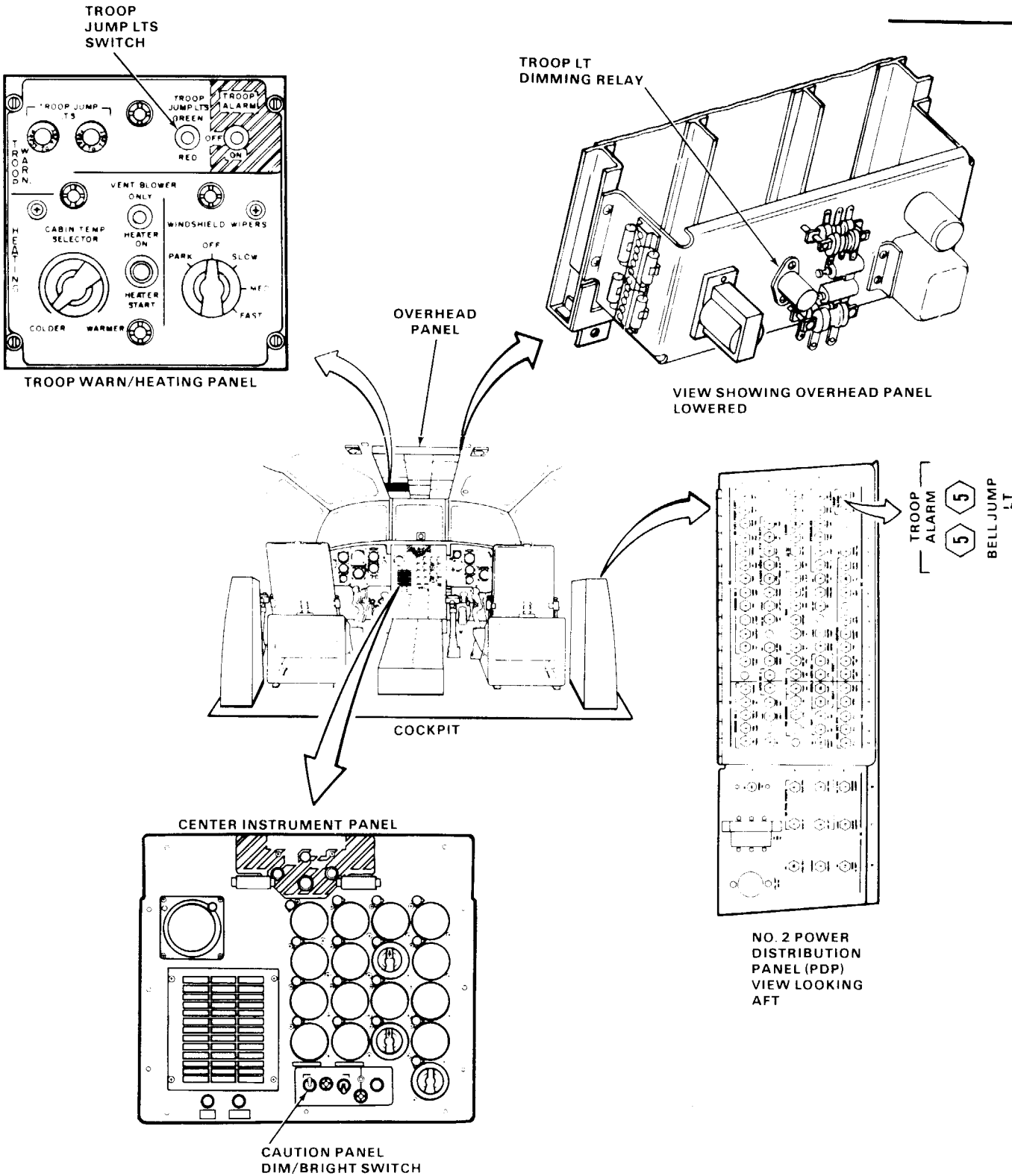
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

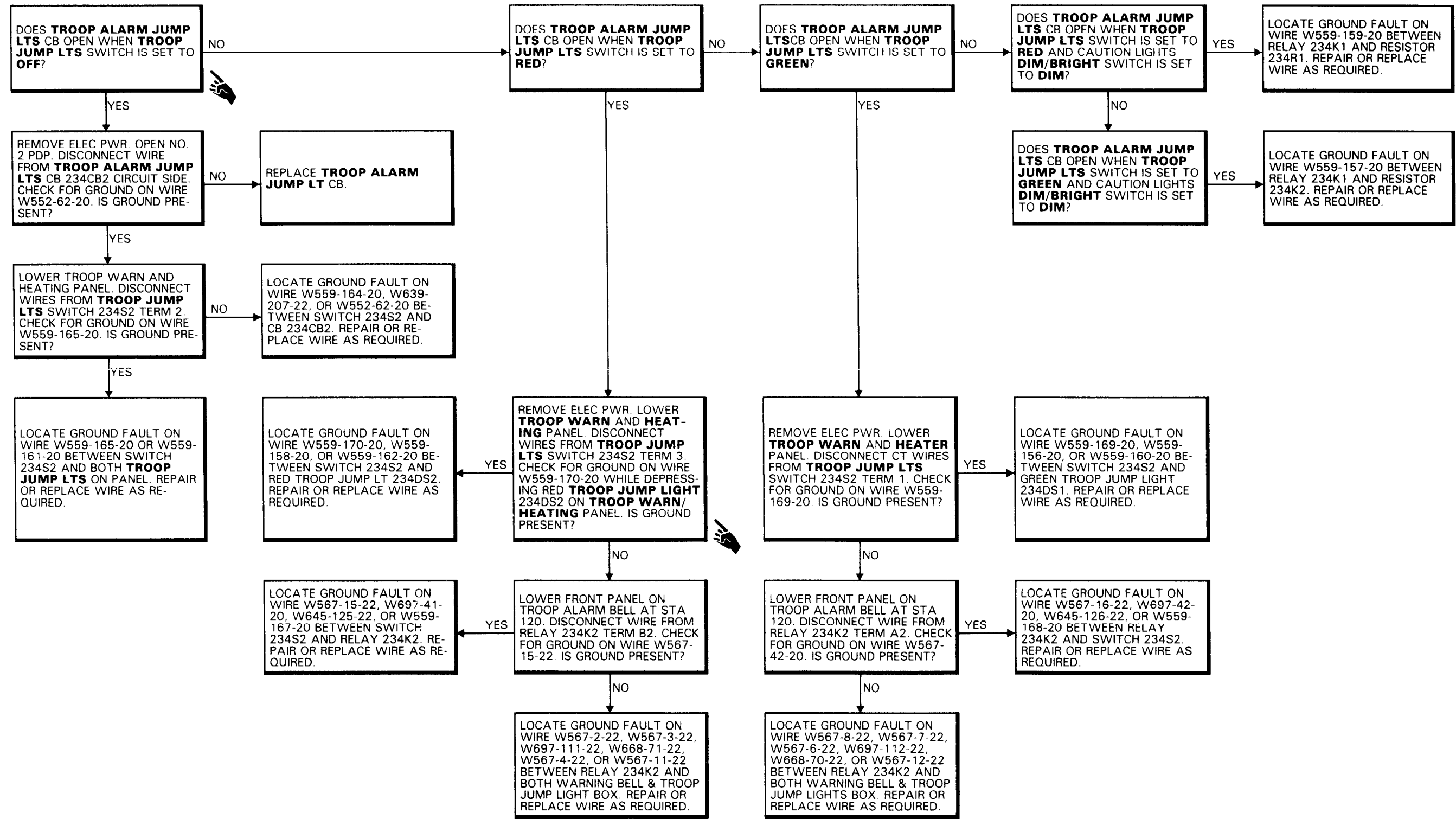


OX 54

GO TO NEXT PAGE

9-16.5 TROOP ALARM JUMP LTS CIRCUIT BREAKER WILL NOT STAY CLOSED (Continued)

9-16.5



### 9-16.6 LEFT TROOP JUMP LTS LIGHT DOES NOT COME ON WHEN PRESSED

**9-16.6**

## FAULT ISOLATION PROCEDURE

## INITIAL SETUP

**Applicable Configurations:**

All

**Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

**Personnel Required:**

68F20 Aircraft Electrician

**References:**

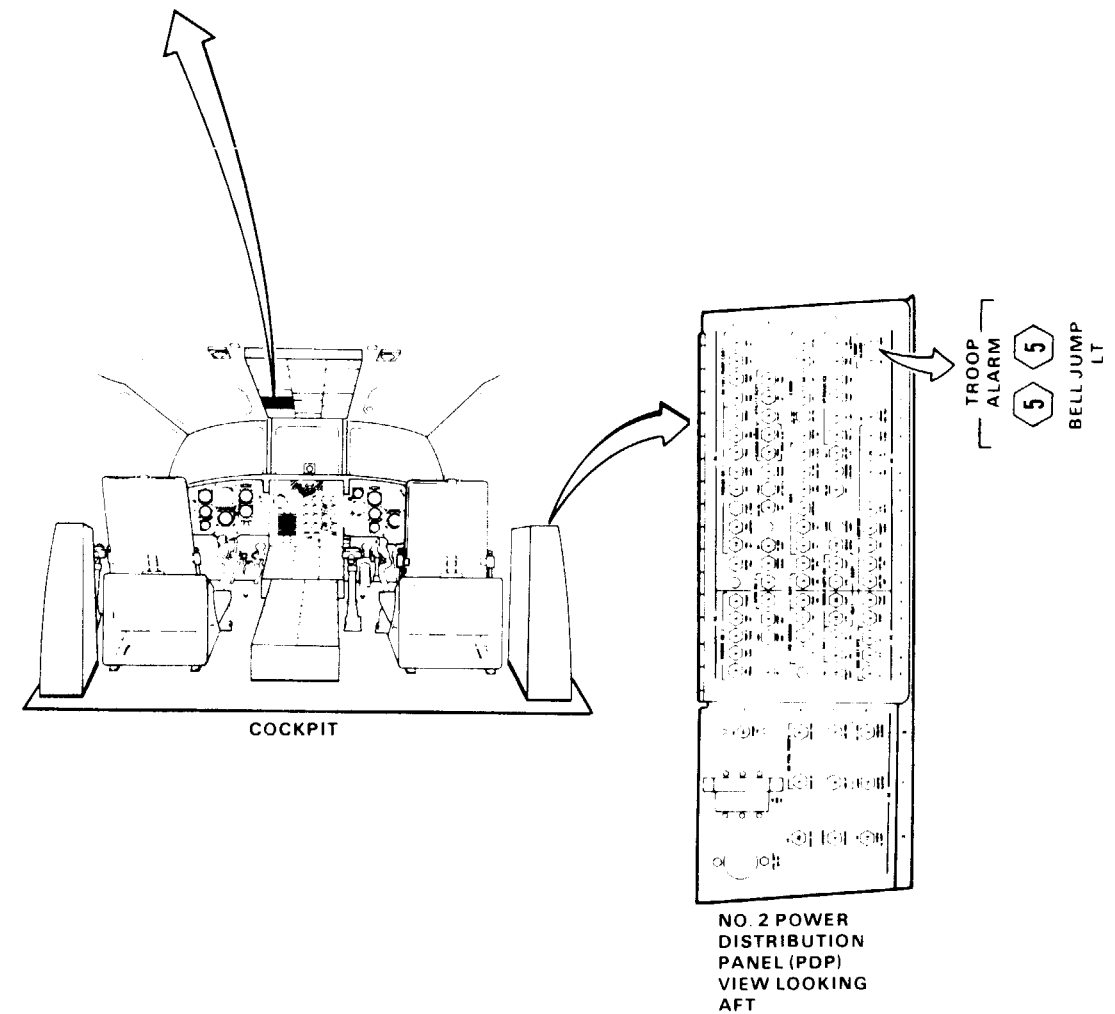
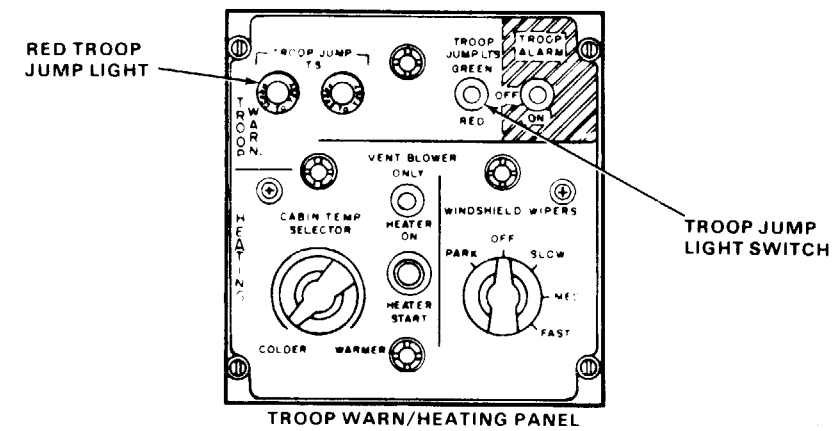
TM 55-1520-240-23

**Equipment Condition:**

Battery Connected

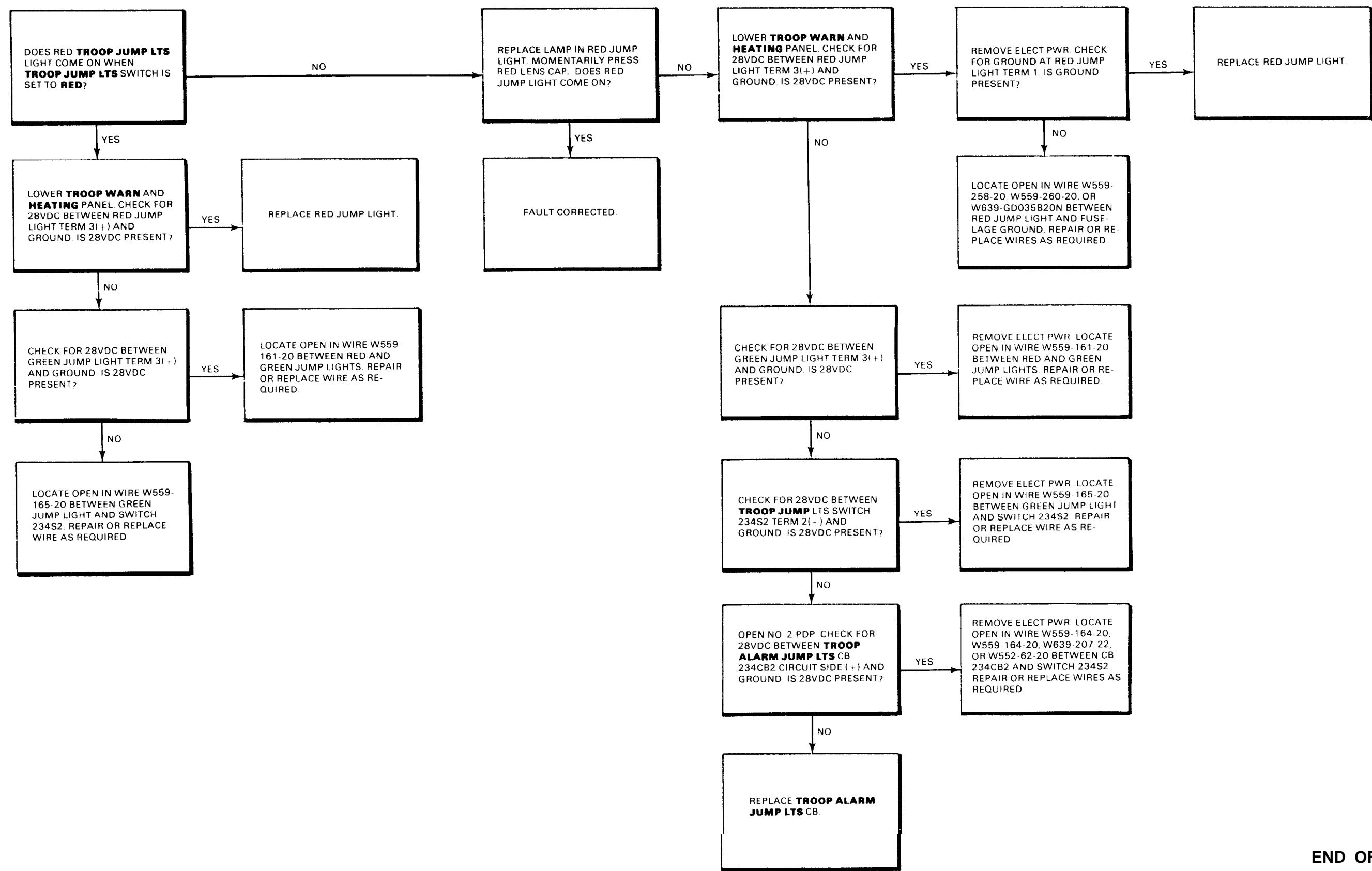
Electrical Power On

Hydraulic Power off



9-16.6 LEFT TROOP JUMP LTS LIGHT DOES NOT COME ON WHEN PRESSED (Continued)

9-16.6



END OF TASK

9-16.7 RIGHT TROOP JUMP LTS LIGHT DOES NOT  
ON WHEN PRESSED

9-16.7

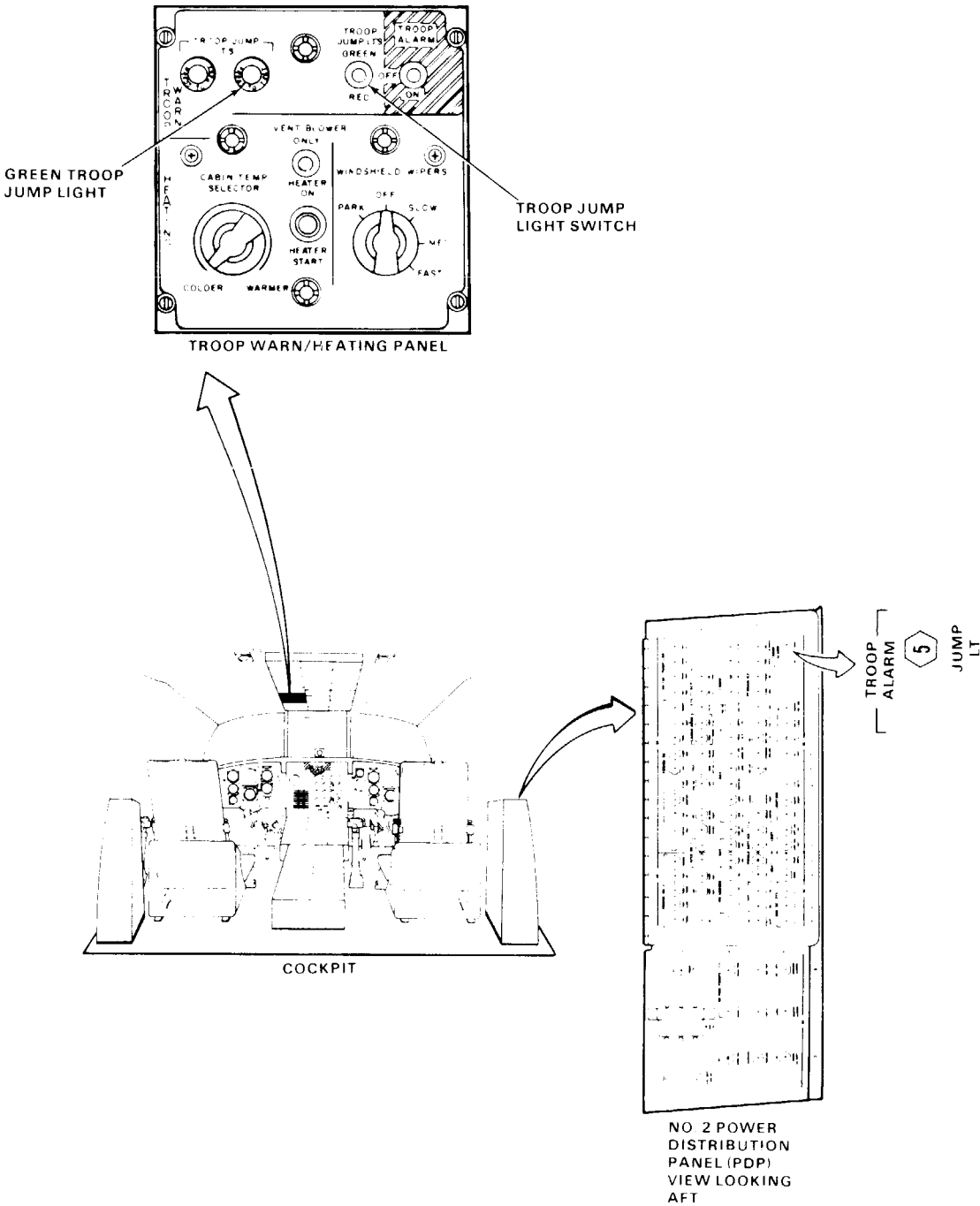
FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

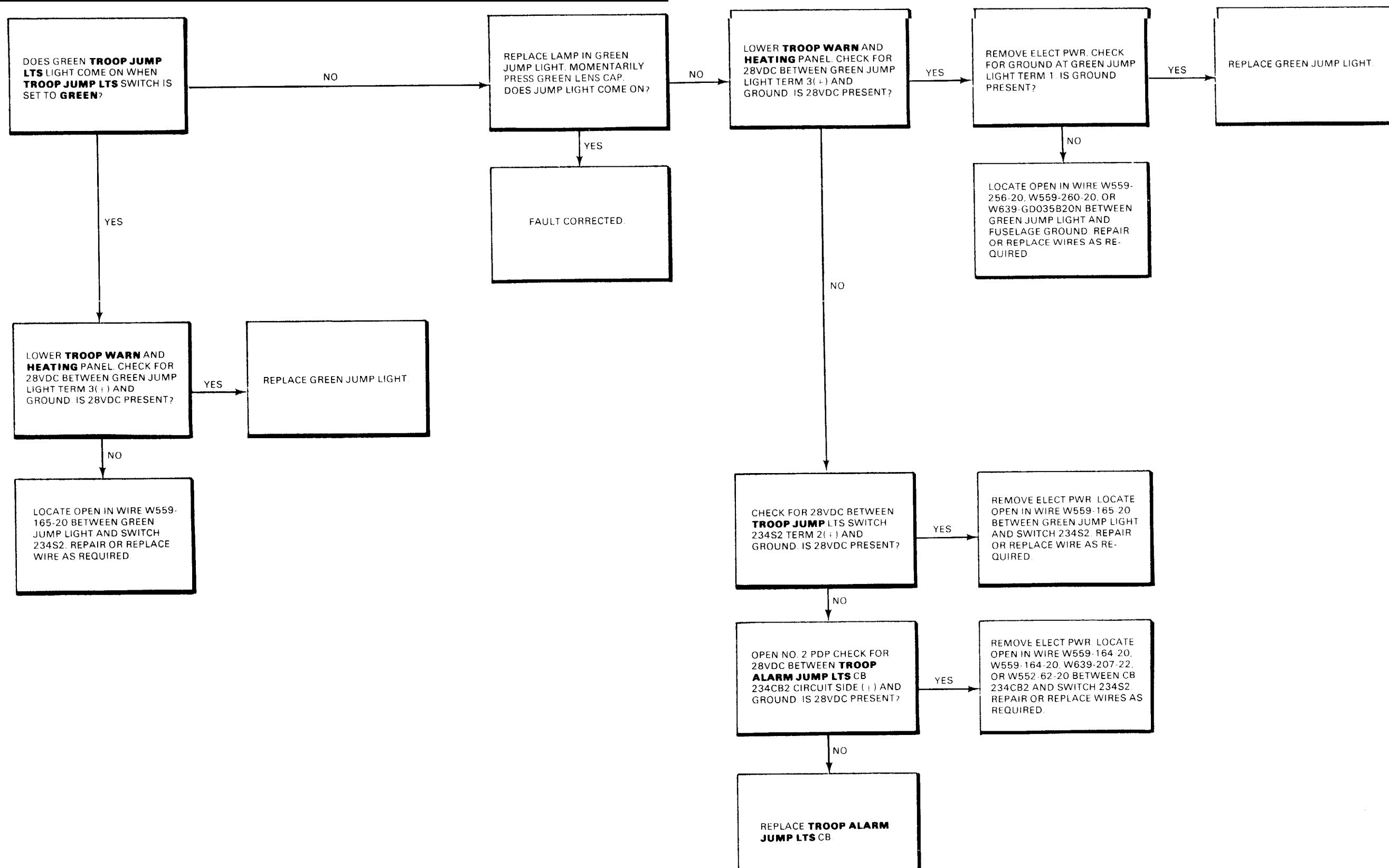
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None  
Personnel Required:  
68F20 Aircraft Electrician  
References:  
TM 55-1520-240-23  
Equipment Condition:  
Battery Connected  
electrical Power On  
Hydraulic Power Off



# 9-16.7 RIGHT TROOP JUMP LTS LIGHT DOES NOT COME ON WHEN PRESSED (Continued)

9-16.7



END OF TASK

9-16.8 RED LIGHT ON FWD OR AFT TROOP WARNING BOX  
OR RED TROOP JUMP LTS LIGHT DO NOT  
COME ON BRIGHT

9-16.8

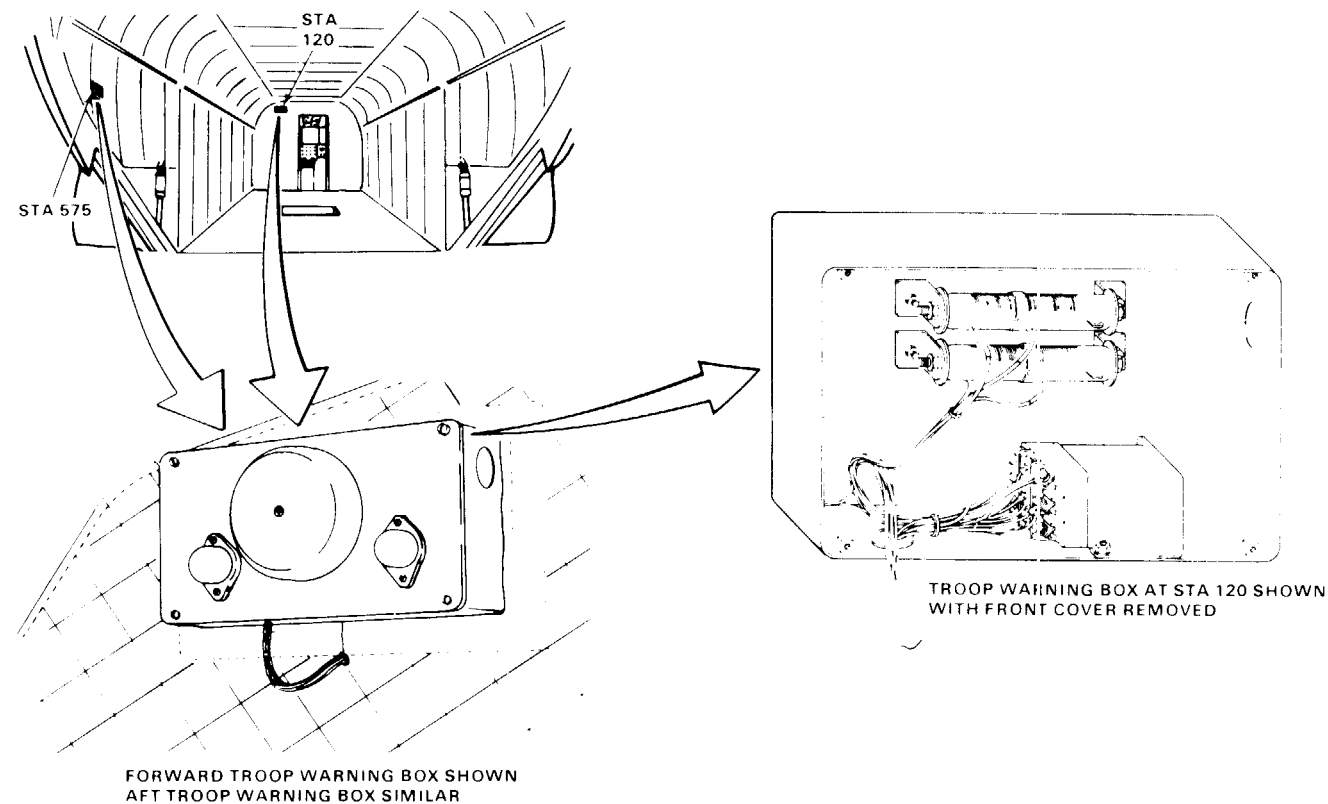
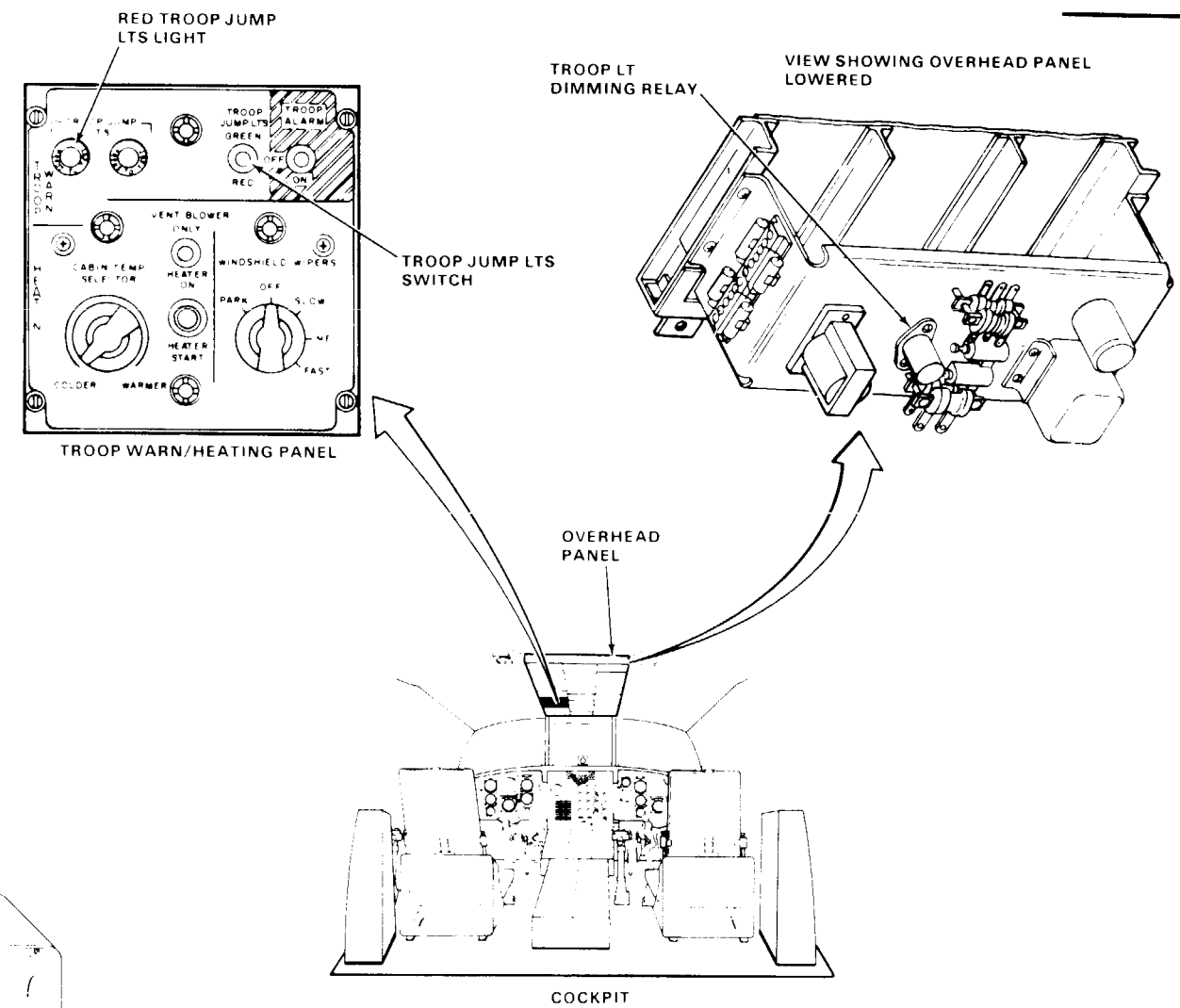
FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

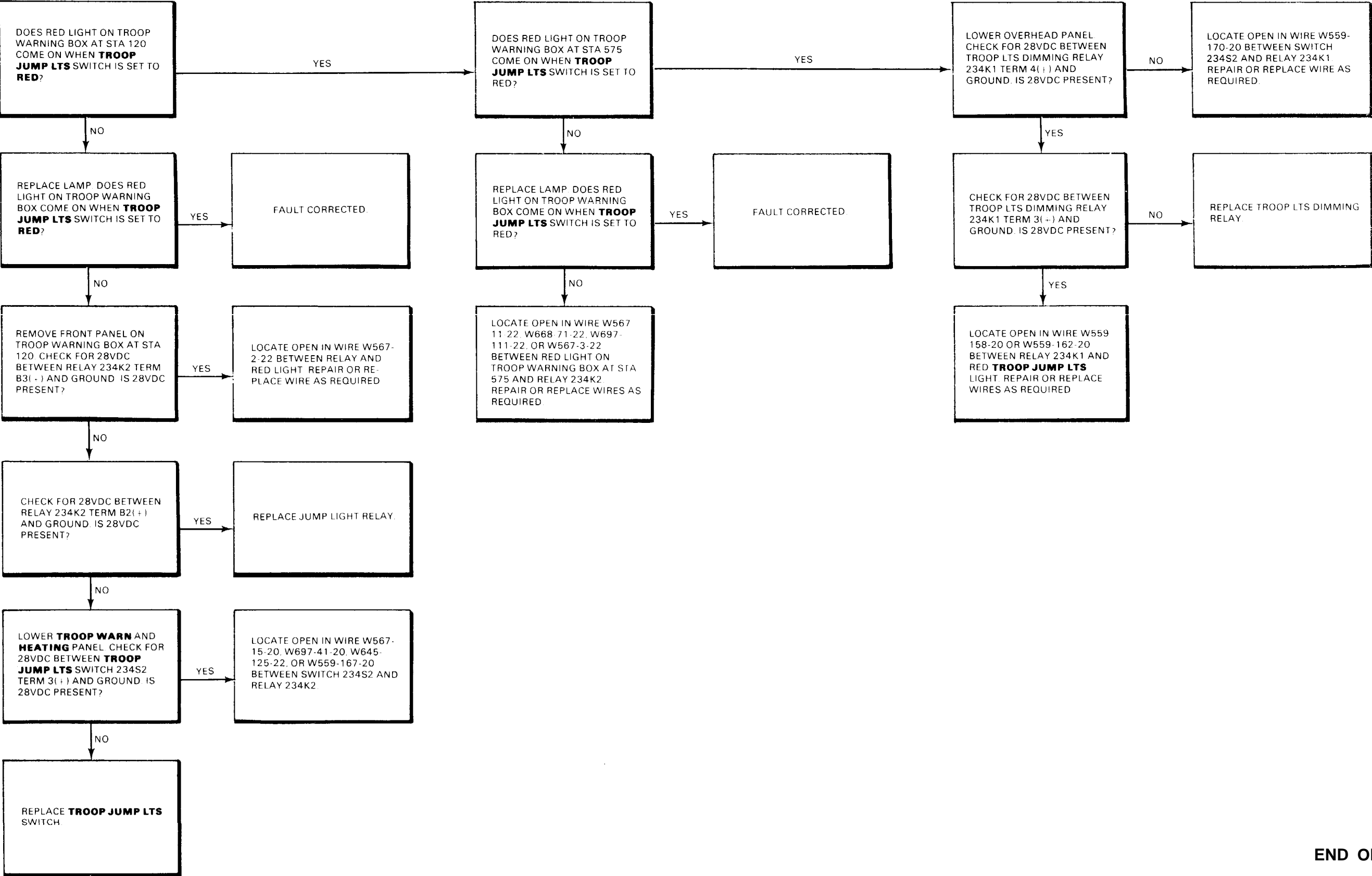
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None  
Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician  
References:  
TM 55-1520-240-23  
Equipment Condition:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-16.8 RED LIGHT ON FWD OR AFT TROOP WARNING BOX  
OR RED TROOP JUMP LTS LIGHT DO NOT  
COME ON BRIGHT (Continued)

9-16.8



END OF TASK



9-16.9 RED LIGHTS ON FWDANDAFTTROOP WARNING  
BOXES DO NOT GO DIM

9-16.9

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

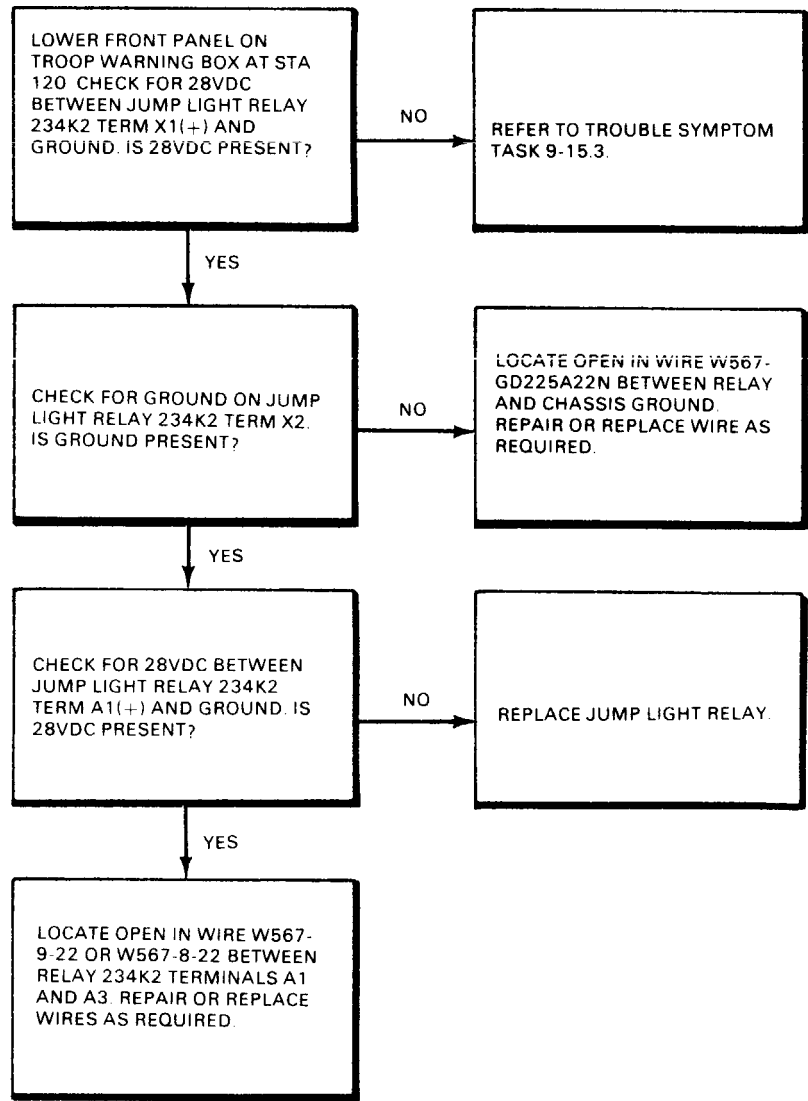
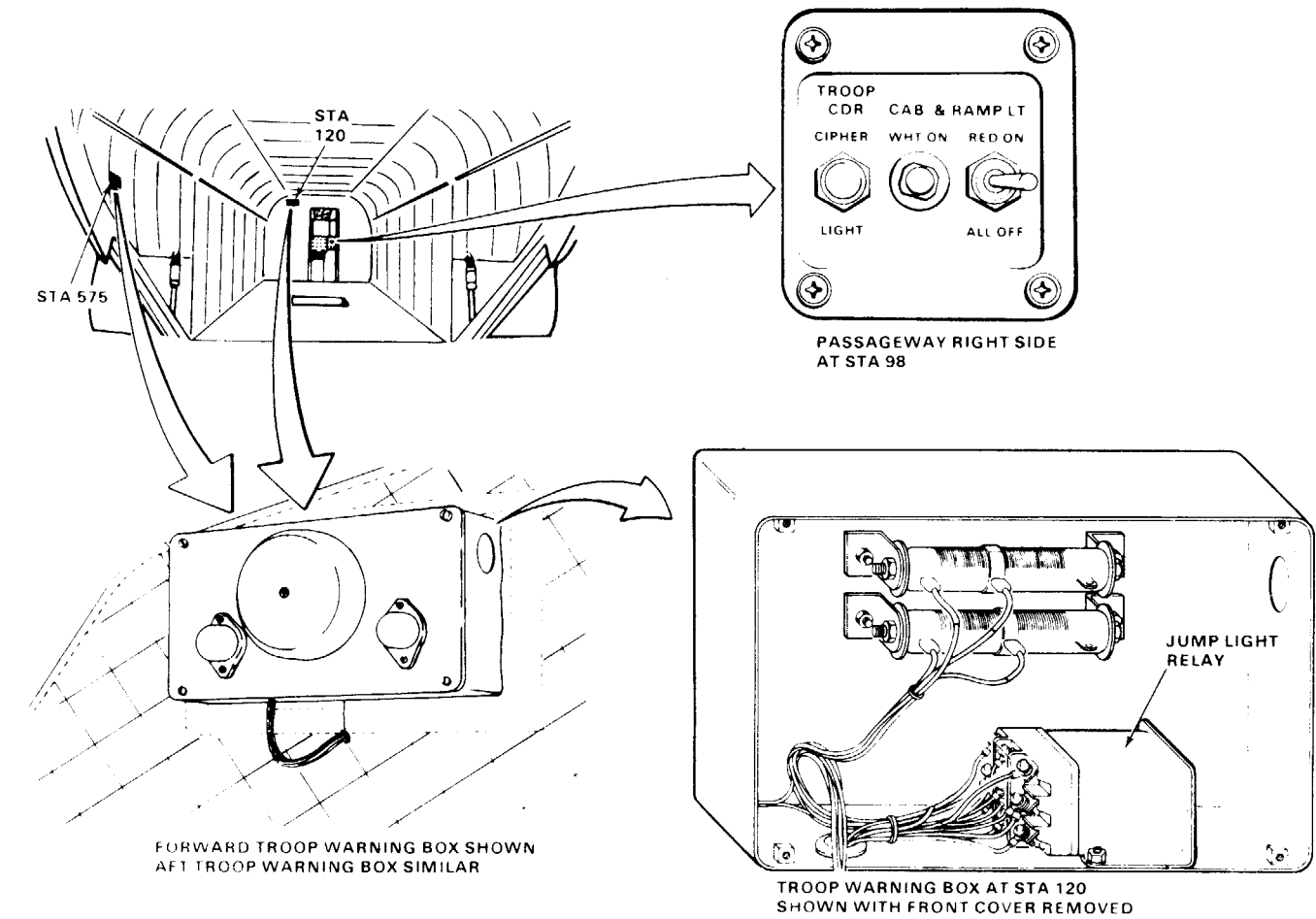
68F10 Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



END OF TASK

9-16.10 RED TROOP JUMP LTS LIGHT DOES NOT GO DIM

9-16.10

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

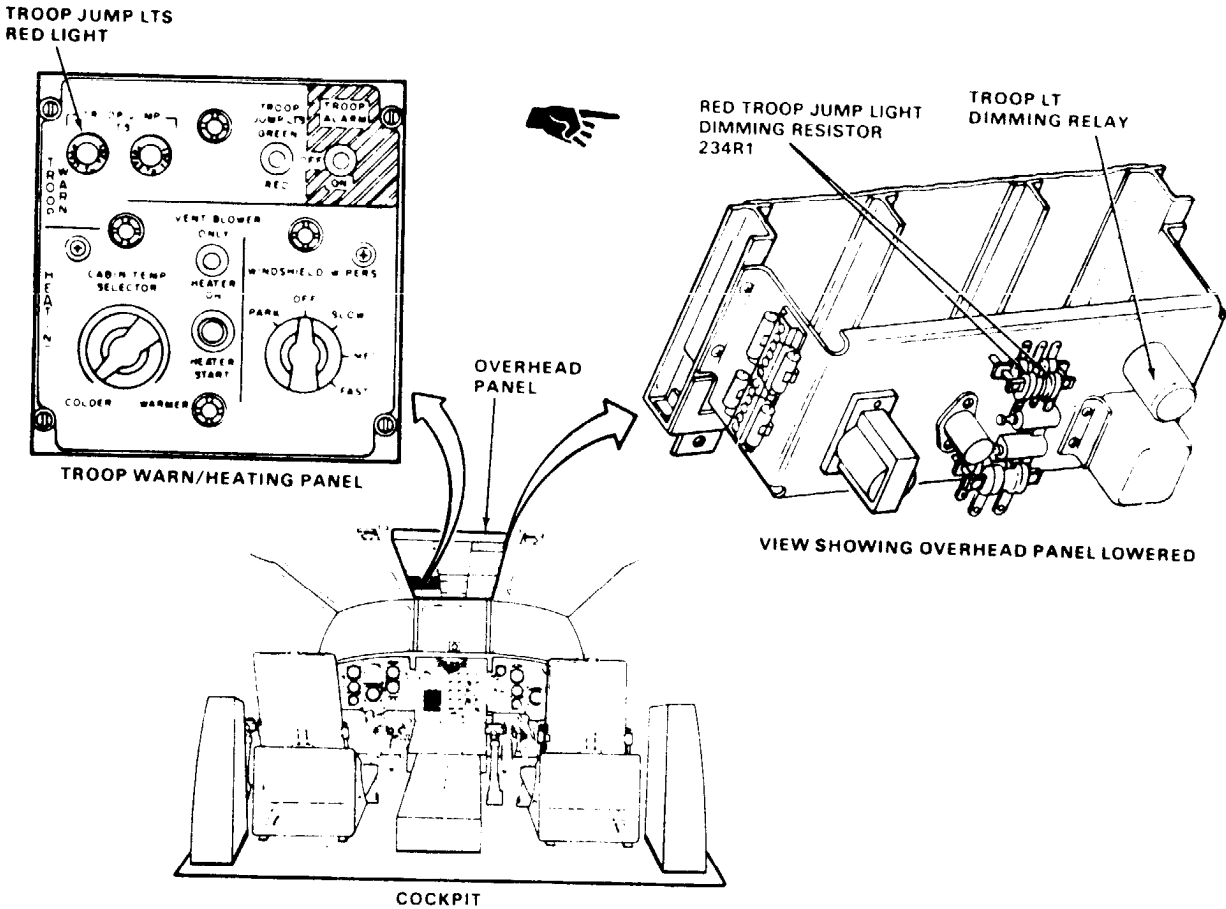
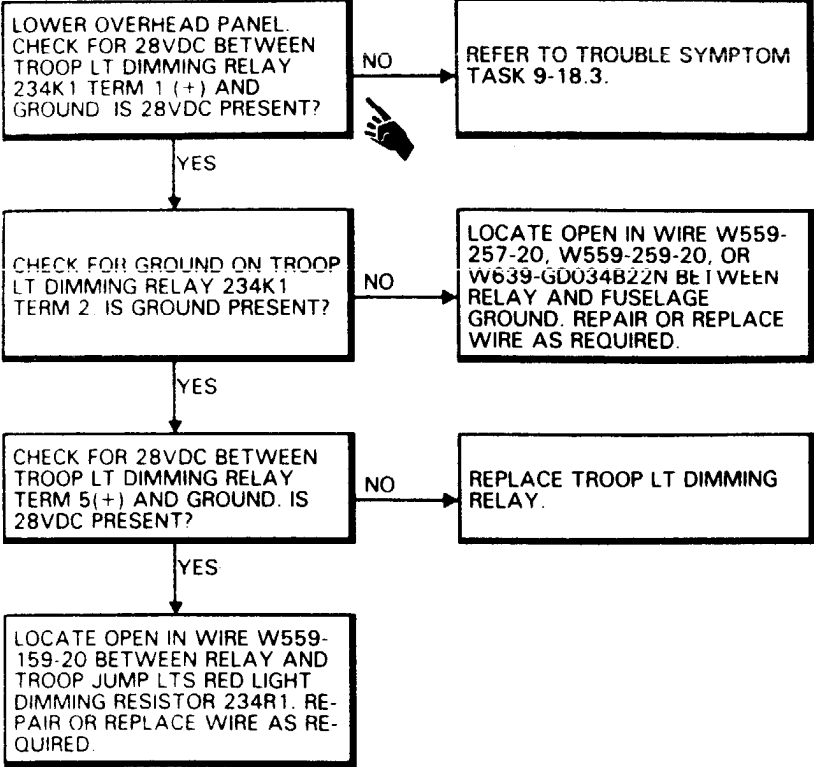
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



14001

9-16.11 GREEN LIGHT ON FWD OR AFT TROOP WARNING BOX OR TROOP JUMP LTS LIGHT DO NOT COME ON BRIGHT

9-16.11

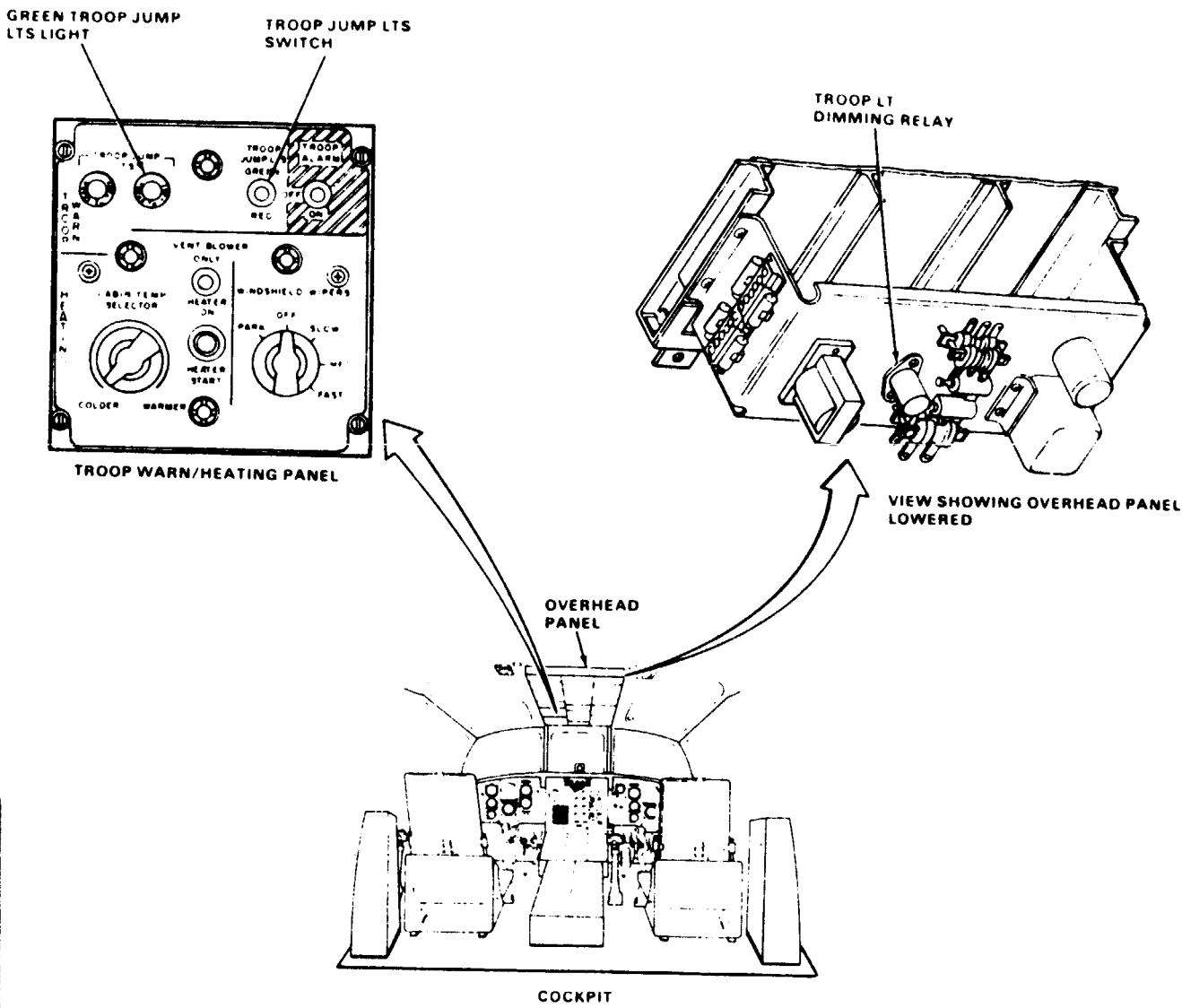
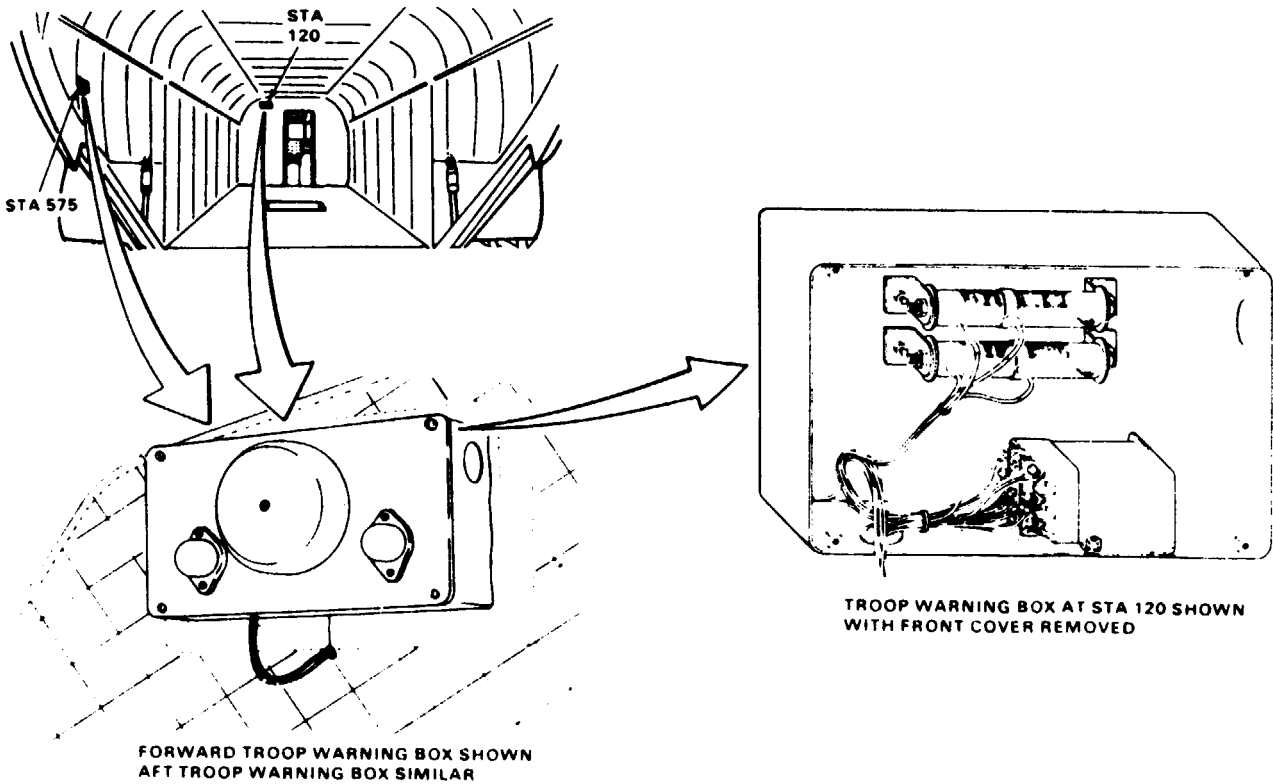
FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

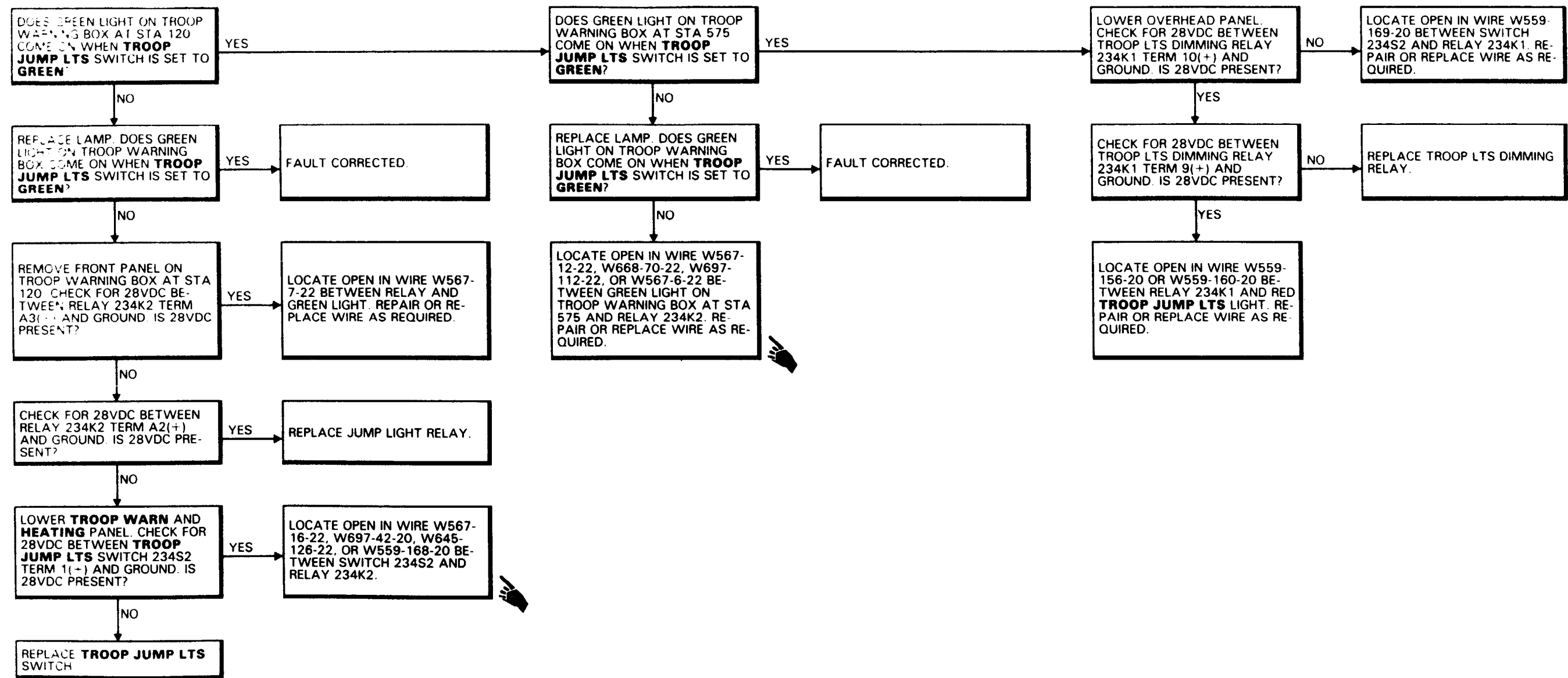
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None  
Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician  
References:  
TM 55-1520-240-23  
Equipment Condition:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



9-16.11 GREEN LIGHT ON FWD OR AFT TROOP WARNING BOX OR TROOP JUMP LTS LIGHT DO NOT COME ON BRIGHT (Continued)

9-16.11



9-16.12 GREEN LIGHTS ON FWD AND AFT TROOP WARNING BOXES DO NOT GO DIM

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

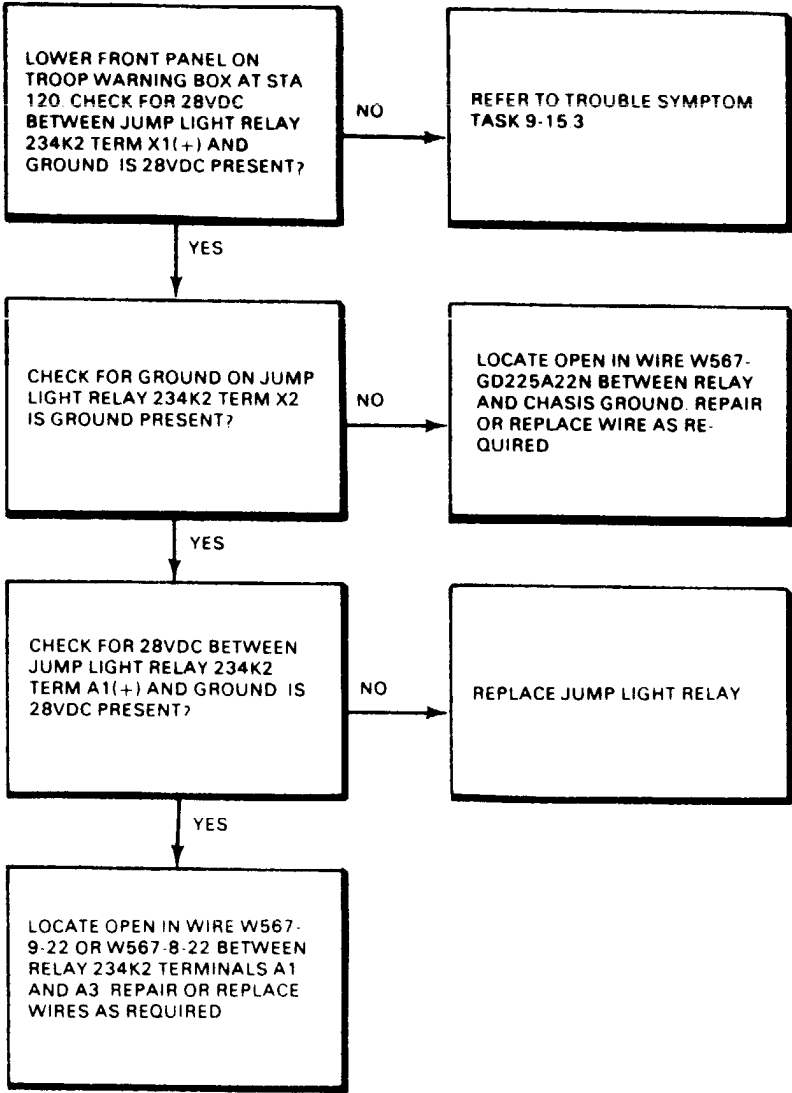
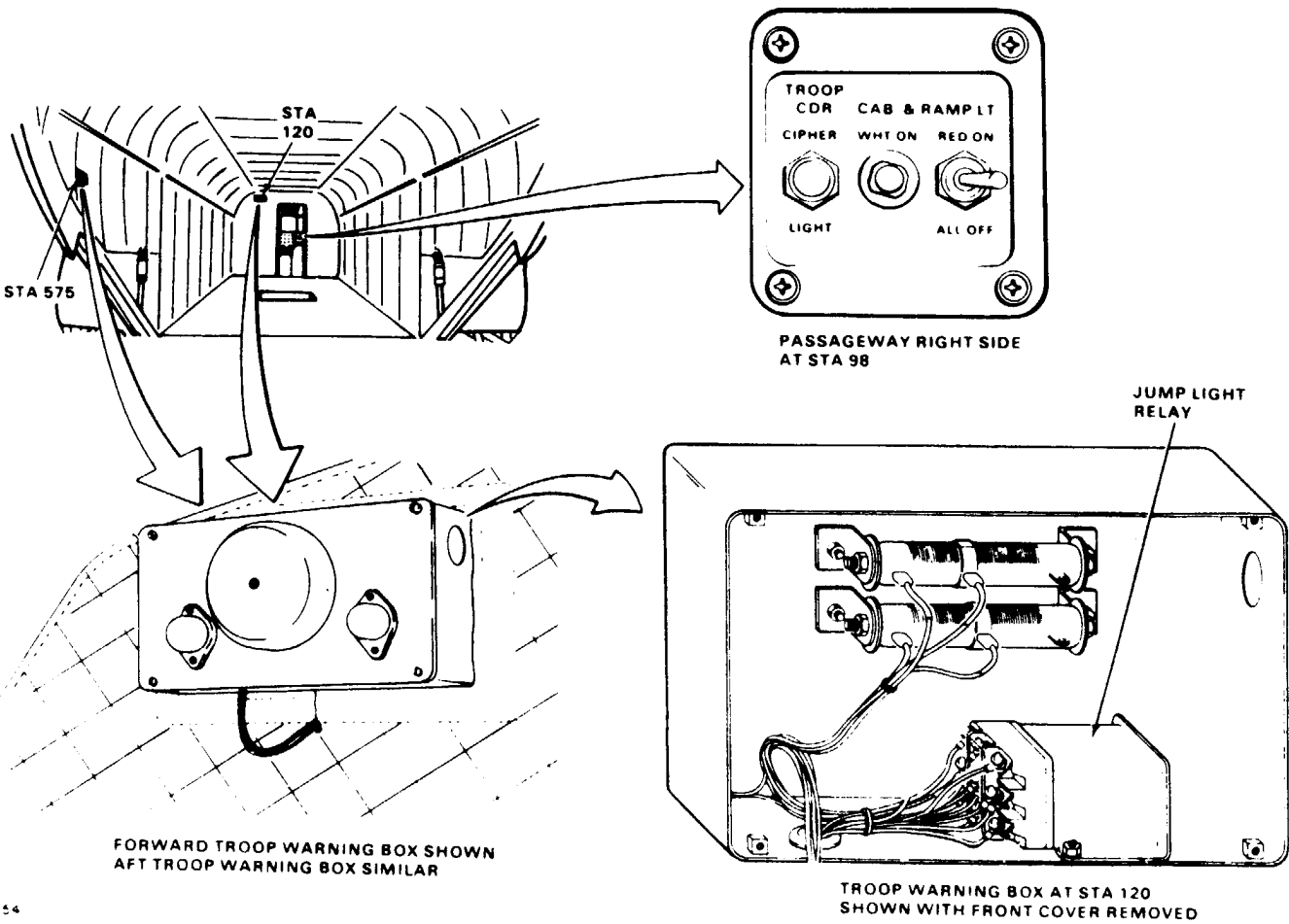
Materials:  
None

Materials:  
None

Personnel Required:  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



END OF TASK

9-16.13 GREEN TROOP JUMP LTS LIGHT DOES NOT GO DIM

9-16.13

FAULT ISOLATION PROCEDURE

INITIAL SETUP

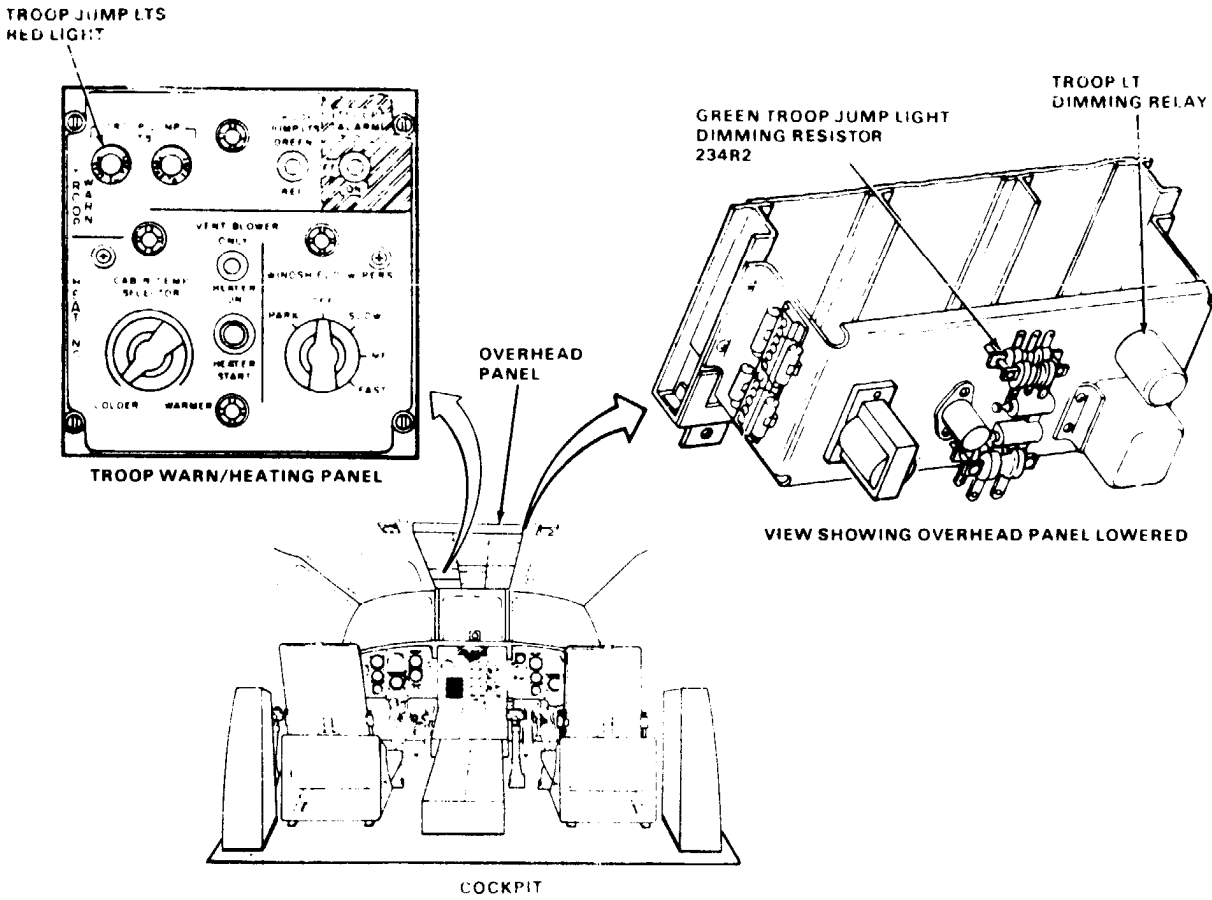
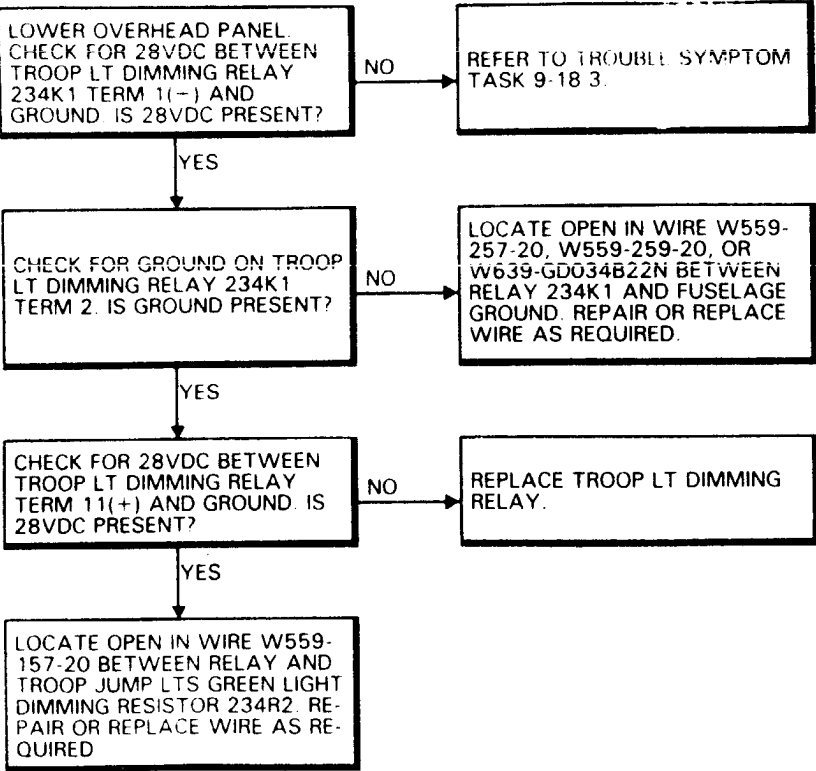
Applicable Configurations:  
All

Tools:  
Electrtcal Repairer's Tool Kit,  
NSN 5180-00323-4915  
Multimeter

Personnel Required:  
Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



45 X 54

DI45-11777-SPA

9-16.14 TROOP ALARM BELLS ON FWD OR AFT  
TROOP WARNING BOX DO NOT SOUND  
WHEN TROOP ALARM SWITCH IS SET  
TO ON

9-16.14

ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

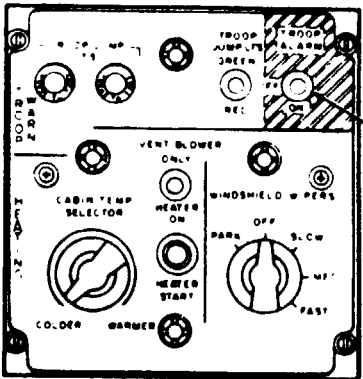
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:

TM 55-1520-240-23

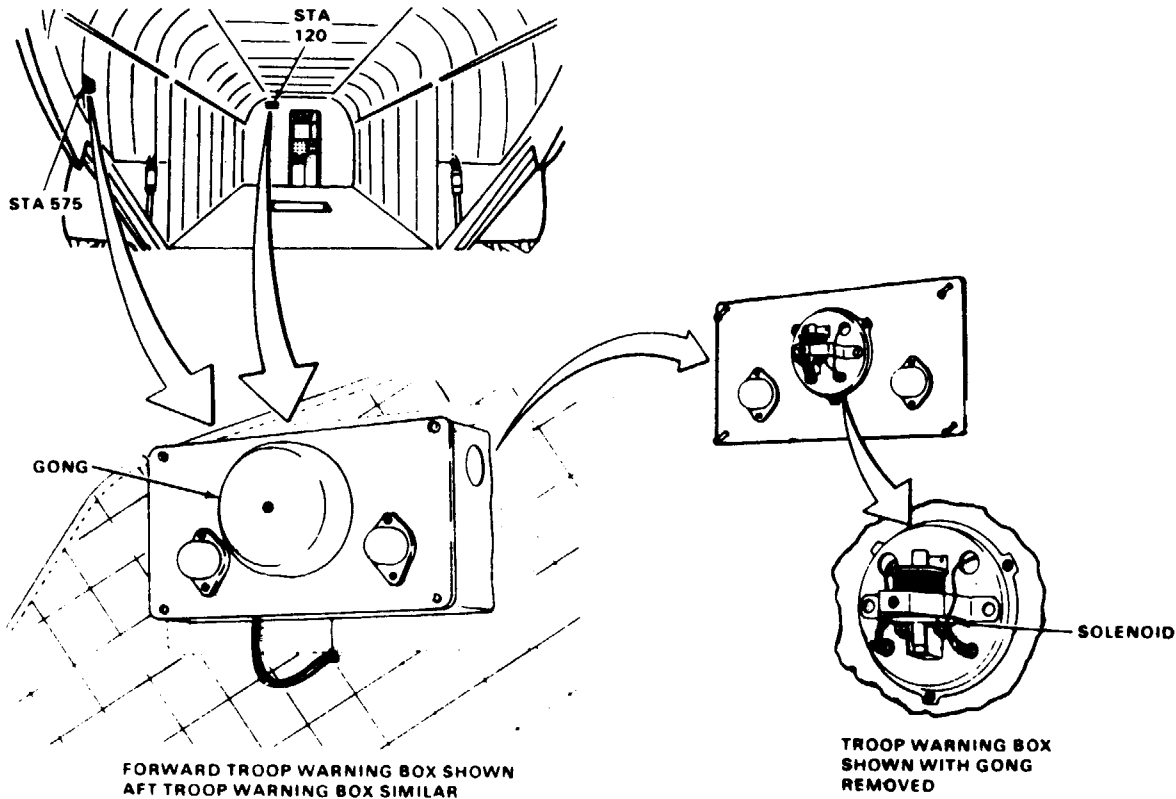
Equipment Condition:

Battery Connected  
Electrical Power On  
Hydraulic Power Off



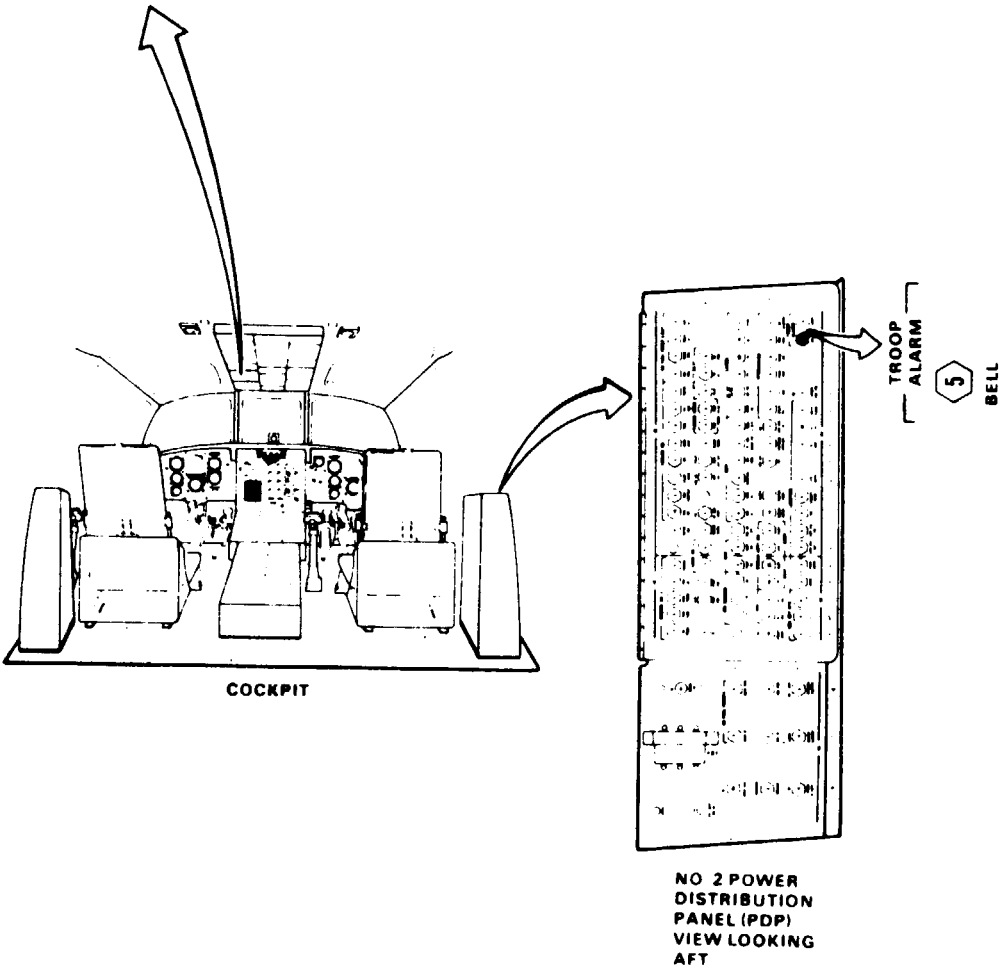
TROOP ALARM  
SWITCH

TROOP WARN/HEATING PANEL



FORWARD TROOP WARNING BOX SHOWN  
AFT TROOP WARNING BOX SIMILAR

TROOP WARNING BOX  
SHOWN WITH GONG  
REMOVED



COCKPIT

NO 2 POWER  
DISTRIBUTION  
PANEL (PDP)  
VIEW LOOKING  
AFT

TROOP  
ALARM  
BELL

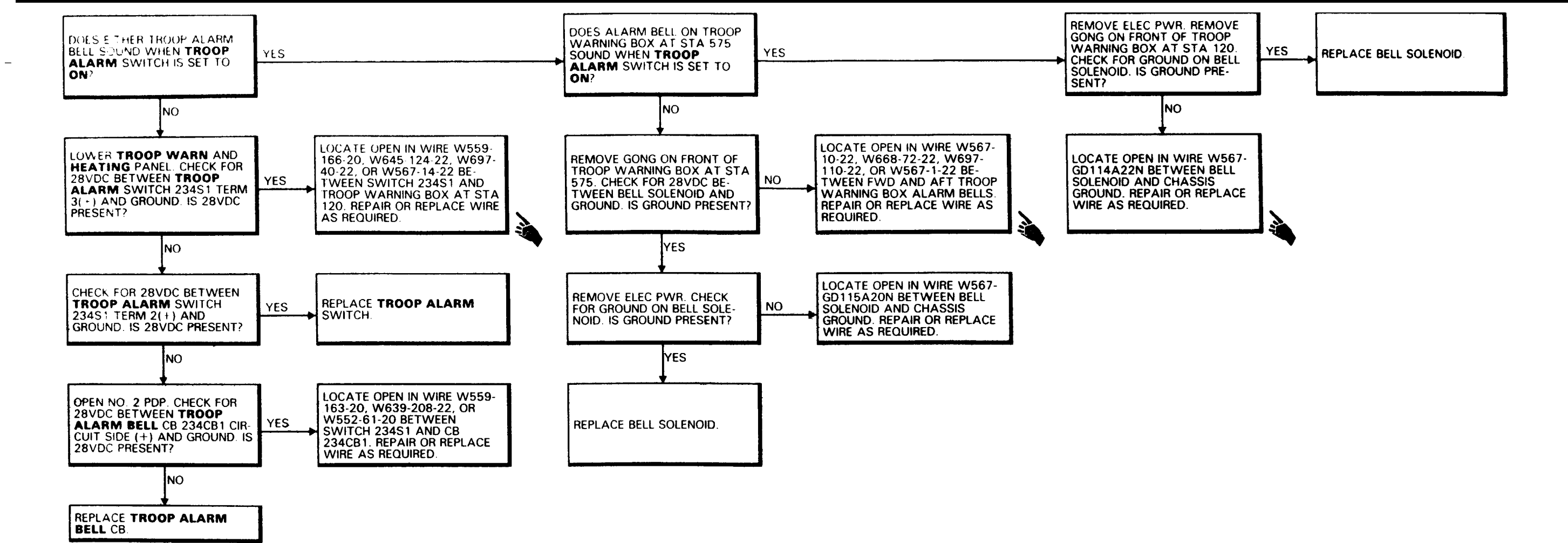
90 x 54

0145 11178 SPA

GO TO NEXT PAGE

9-16.14 TROOP ALARM BELLS ON FWD OR AFT TROOP WARNING BOX DO NOT SOUND WHEN TROOP ALARM SWITCH IS SET TO ON (Continued)

9-16.14





**FAULT ISOLATION PROCEDURE****INITIAL SETUP****Applicable Configurations:**With **17****Tools:**

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**

None

**Personnel Required:**

Aircraft Electrician

**References:**

TM 55-1520-240-23

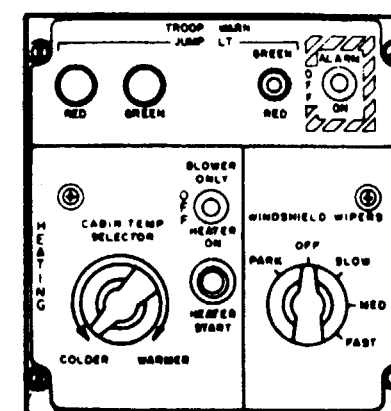
**Equipment Condition:**

TM 55-1520-240-23:

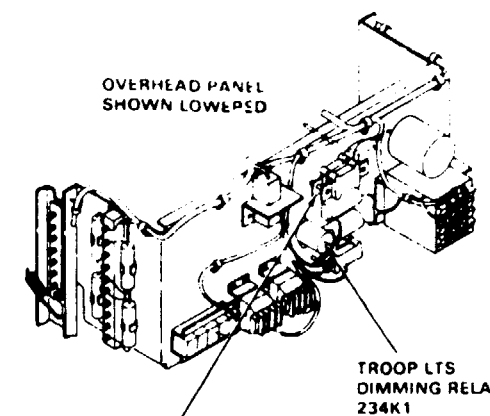
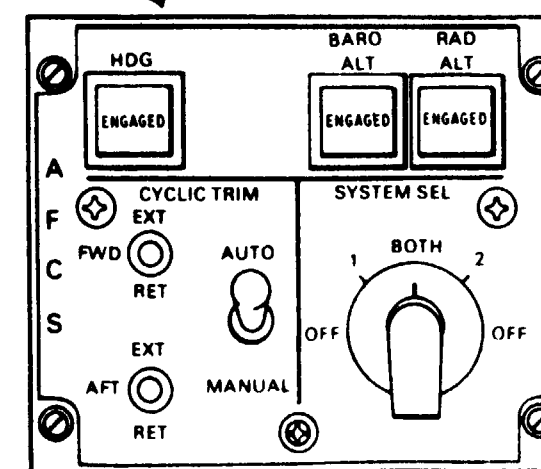
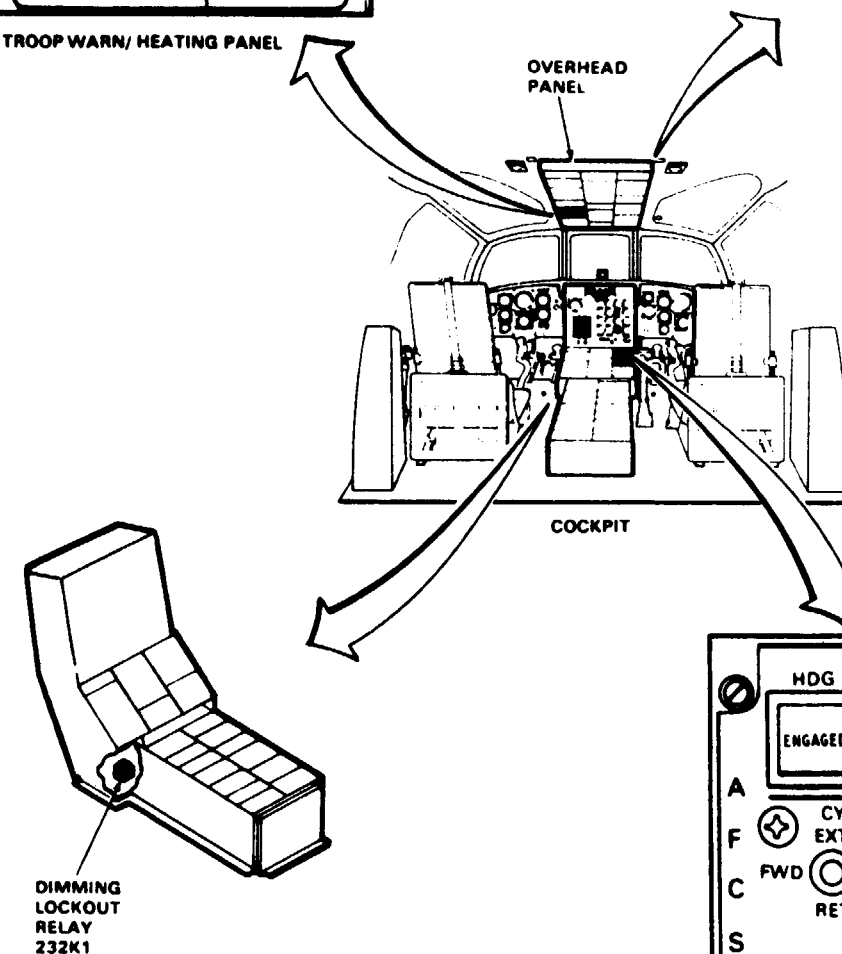
Battery Connected

Electrical Power On

Hydraulic Power Off



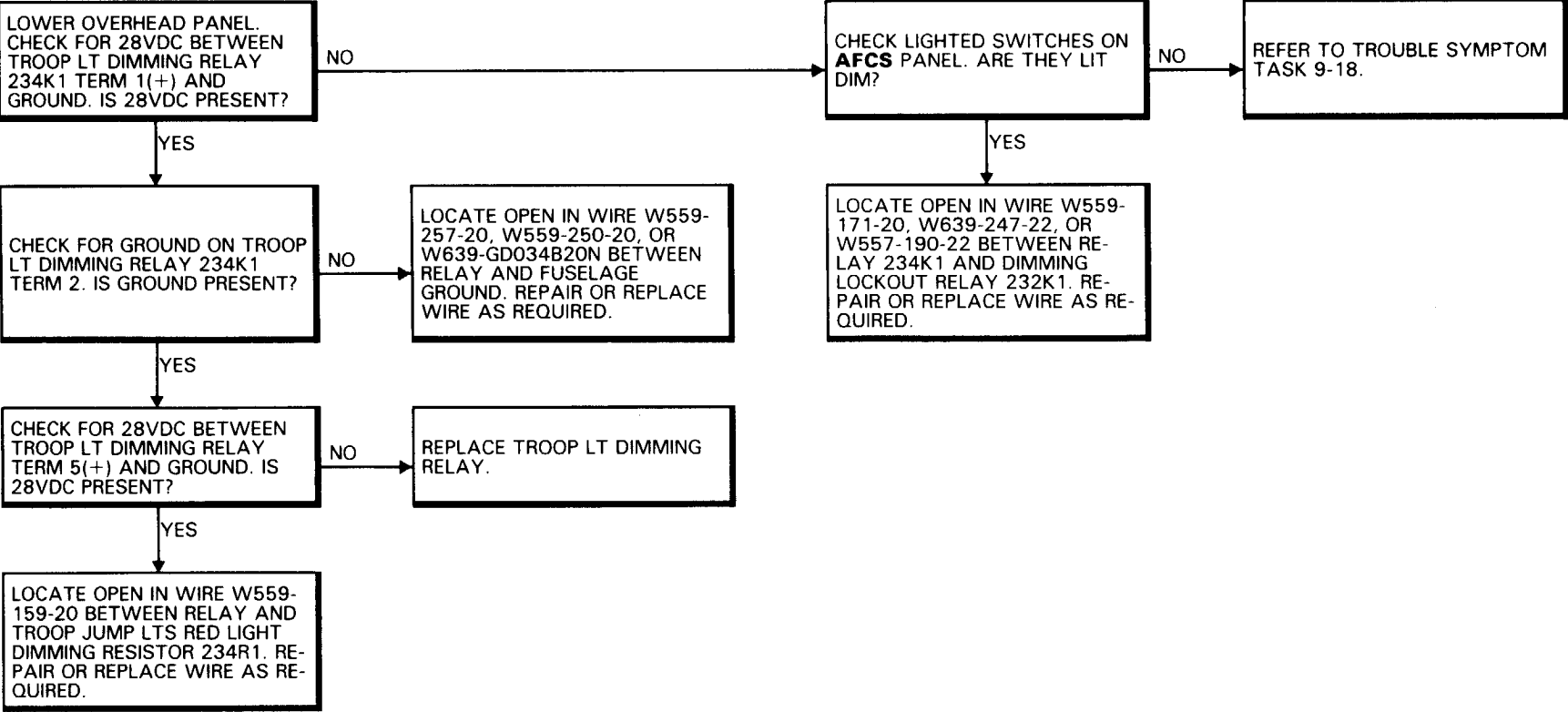
TROOP WARN/ HEATING PANEL

TROOP LTS  
DIMMING RESISTOR  
234R1

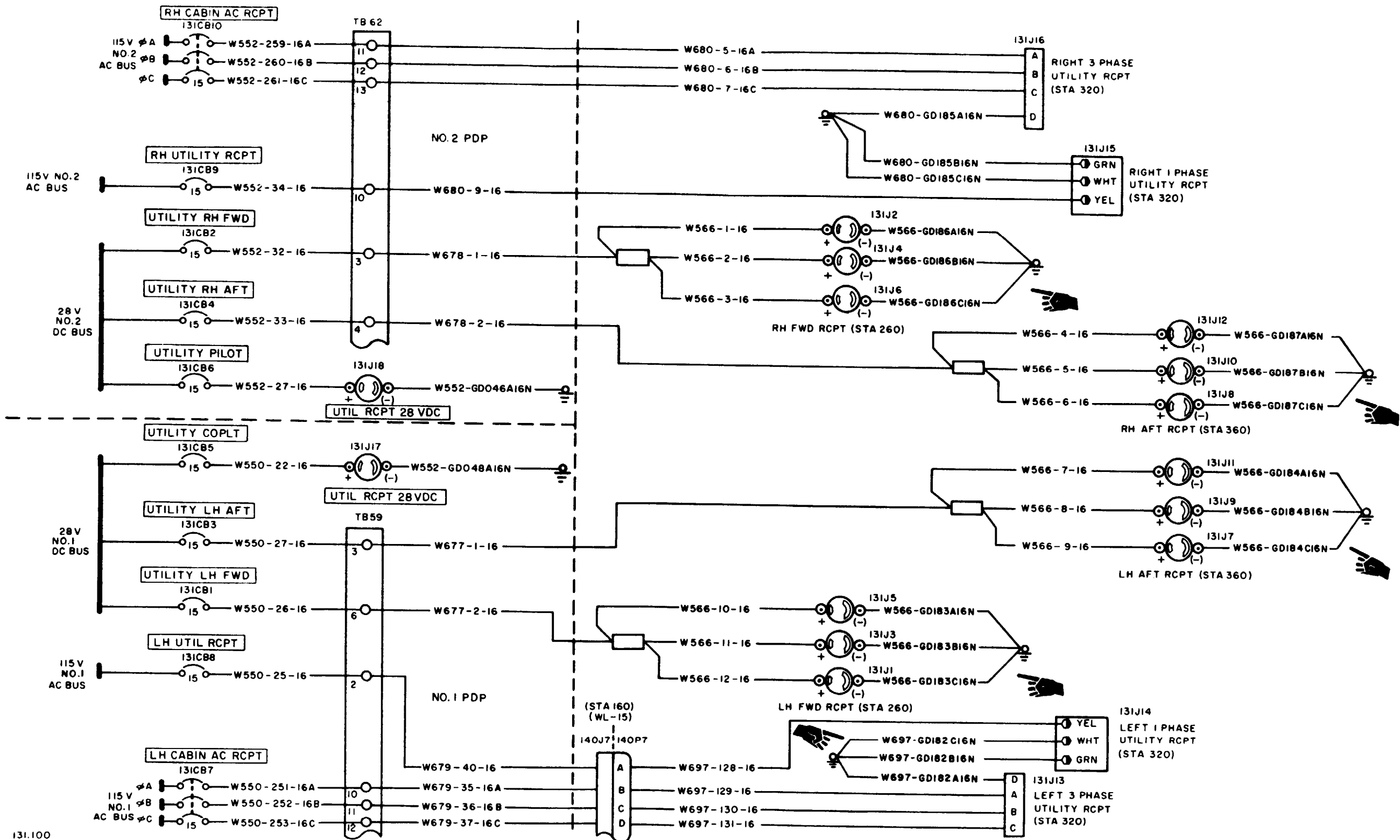
AFCS PANEL

9-16.15 RED TROOP JUMP LT LIGHT DOES NOT GO DIM (Continued)

9-16.15



## 9-17 UTILITY RECEPTACLES



131.100

14002

9-17.2 UTILITY RECEPTACLES VISUAL CHECK

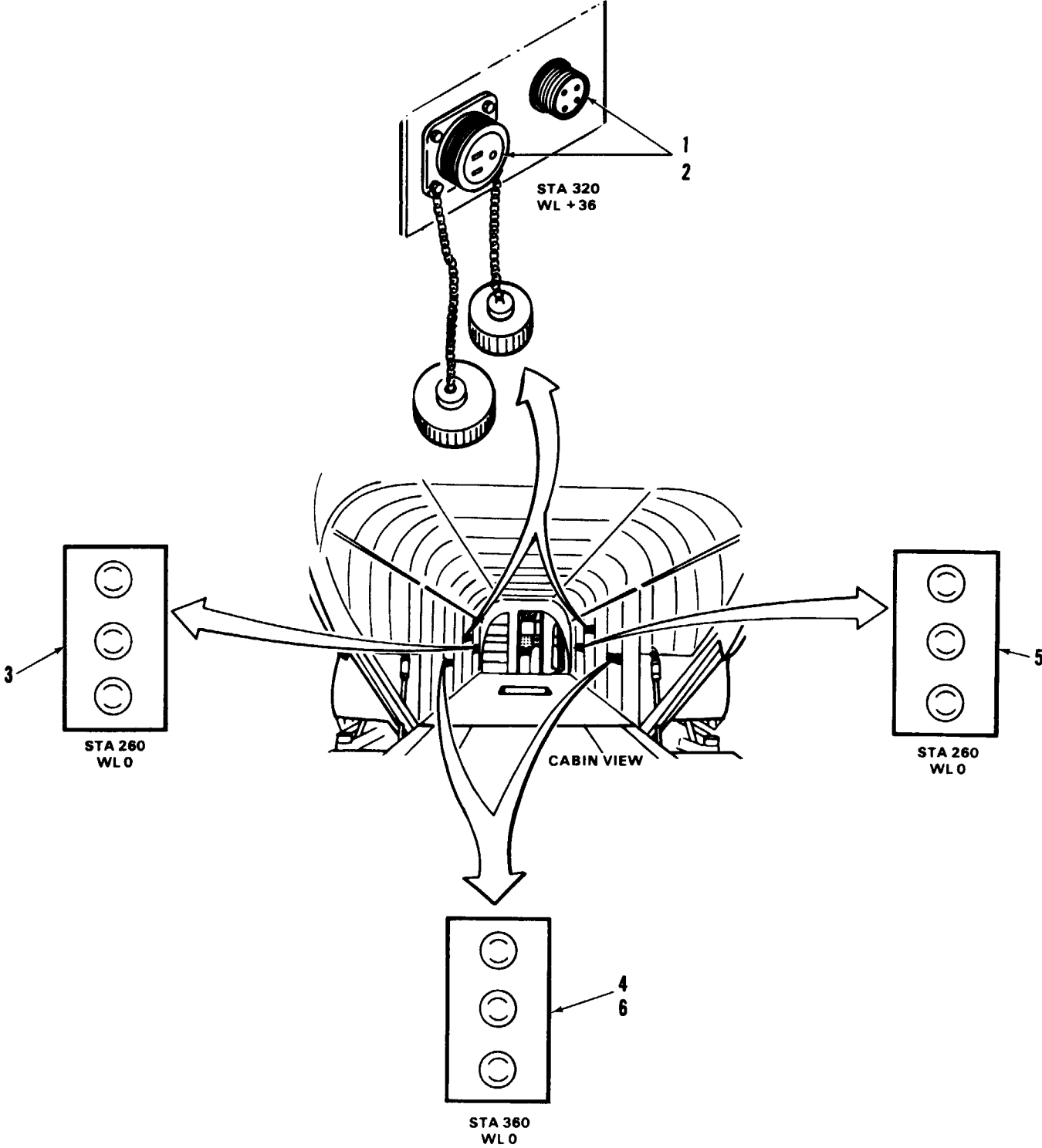
9-17.2

INITIAL SETUP	<b>Personnel Required:</b> 68F10 Aircraft Electrician
<b>Applicable Configurations:</b> All	<b>References:</b> TM 55-1520-240-23
<b>Tools:</b> Electrical Repairer's Tool Kit, NSN 5180-00-323-4915	<b>Equipment Condition:</b> TM 55-1520-240-23: Battery Disconnected Electrical Power Off Hydraulic Power Off Utility AC Receptacle Dust Covers Removed
<b>Materials:</b> None	

TASK	RESULT
1. Check ac utility receptacles (1 and 2).	If either receptacle (1) or (2) is loose or broken, tighten or replace as required.
2. Check dc utility receptacles (3, 4, 5 and 6).	If any receptacle (3, 4, 5, or 6) is loose or broken, tighten or replace as required.

FOLLOW-ON MAINTENANCE:

None



END OF TASK

9-17.3 UTILITY RECEPTACLES OPERATIONAL CHECK

INITIAL SETUP

**Personnel Required:**  
68F20 Aircraft Electrician

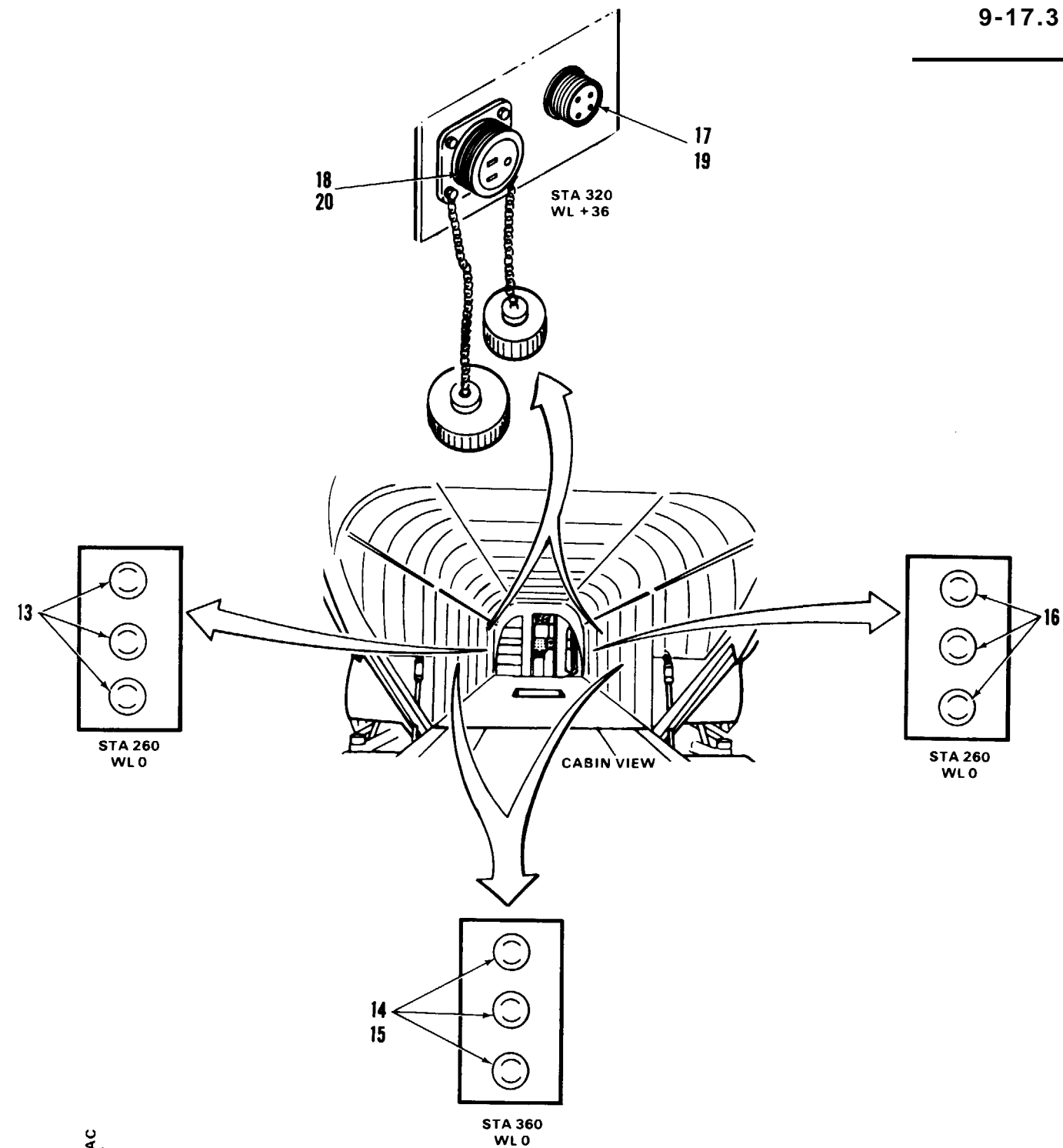
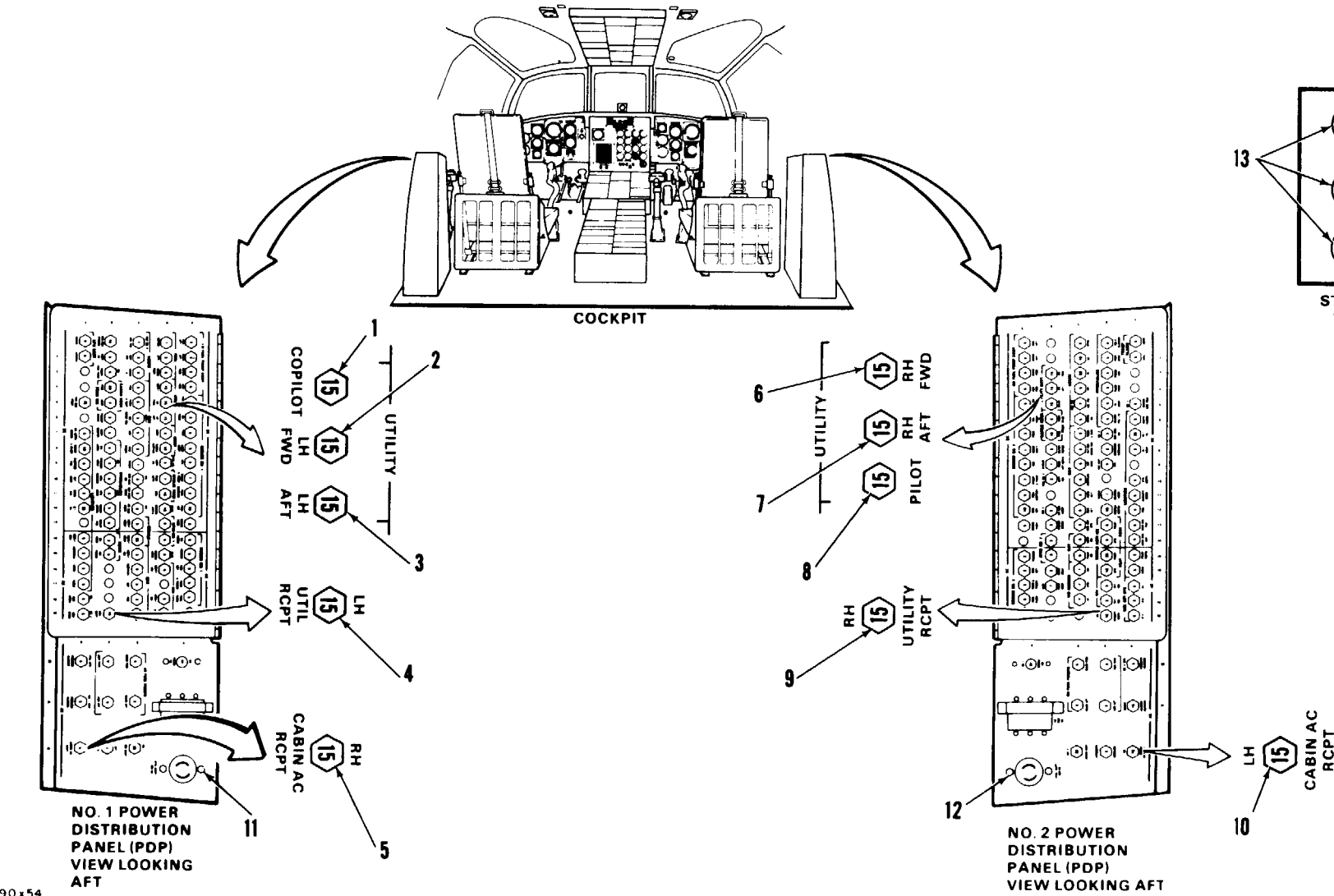
**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Utility Receptacles Visual Check Performed  
(Task 9-17.2)

**Applicable Configurations:**  
All

**Tools:**  
Multimeter

**Materials:**  
None



GO TO NEXT PAGE

9-17.3 UTILITY RECEPTACLES OPERATIONAL CHECK (Continued)

TASK	RESULT
1. Check that COPILOT LH FWD and LH AFT UTILITY circuit breakers (1, 2 and 3) are closed.	If any circuit breaker (1, 2, or 3) is open, close it, If any circuit breaker opens again, go to task 9-17.4.
2. Check that LH UTIL RCPT circuit breaker (4) is closed.	If circuit breaker (4) is open, close it, If it opens again, go to task 9-17.4.
3. Check that LH CABIN AC RCPT circuit breaker (5) is closed.	If circuit breaker (5) is open, close it. If it opens again, go to task 9-17.5.
4. Check that RH FWD, RH AFT, AND PILOT utility circuit breakers (6, 7 and 8) are closed.	If any circuit breaker (6, 7, and 8) is open, close it. If any circuit breaker opens again, go to task 9-17.4.
5. Check that RH UTIL circuit breaker (9) is closed.	If circuit breaker (9) is open, close it. If it opens again, go to task 9-17.4.
6. Check that RH CABIN AC RCPT circuit breaker (10) is closed.	If circuit breaker (10) is open, close it, If it opens again, go to task 9-17.5.
7. Connect a multi meter, set to measure <u>28VDC</u> , between small socket (+) and large socket of UTIL RCPT 28VDC receptacle (11).	Multimeter shall read <u>28VDC</u> . If not; go to task 9-17.6.
8. Connect a multimeter, set to read <u>28VDC</u> , between small socket (+) and large socket of UTIL RCPT 28VDC receptacle (12).	Multi meter shall read <u>28VDC</u> . If not, go to task 9-17.6.
9. Connect a multimeter, set to read <u>28VDC</u> , between small socket (+) and large socket of six cabin left side receptacles (13 and 14).	Multi meter shall read <u>28VDC</u> . If not, go to task 9-17.6.
10. Connect a multimeter, set to read <u>28VDC</u> , between small socket (+) and large socket in six cabin right side receptacles (15 and 16).	Multi meter shall read <u>28VDC</u> , If not, go to task 9-17.7.
11. Connect a multimeter, set to read <u>115VAC</u> , between pin D and pins A, B, and C in cabin left side 3 phase receptacle (17).	Multi meter shall read <u>115VAC</u> on all 3 pins. If not, go to task 9-17.8.
12. Connect a multimeter, set to read <u>115VAC</u> , between narrow socket and wide socket and between narrow socket and ground socket in receptacle (18).	Multi meter shall read <u>115VAC</u> on both readings. If not, go to task 9-17.8.
13. Connect a multimeter, set to read <u>115VAC</u> , between pin D and pins A, B, and C on cabin right side 3-phase receptacle (19).	Multi meter shall read <u>115VAC</u> at all 3 pins. If not, go to task 9-17.9.

9-17.3

TASK	RESULT
14, Connect a multi meter, set to read <u>115VAC</u> , between narrow socket and wide socket and between narrow socket and ground socket on receptacle (20).	Multi meter shall read <u>115VAC</u> on both readings. If not go to task 9-17.9.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Utility Receptacles Dust Covers Installed

END OF TASK

9-17.4 UTILITY RECEPTACLE CIRCUIT BREAKERS WILL NOT STAY CLOSED

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

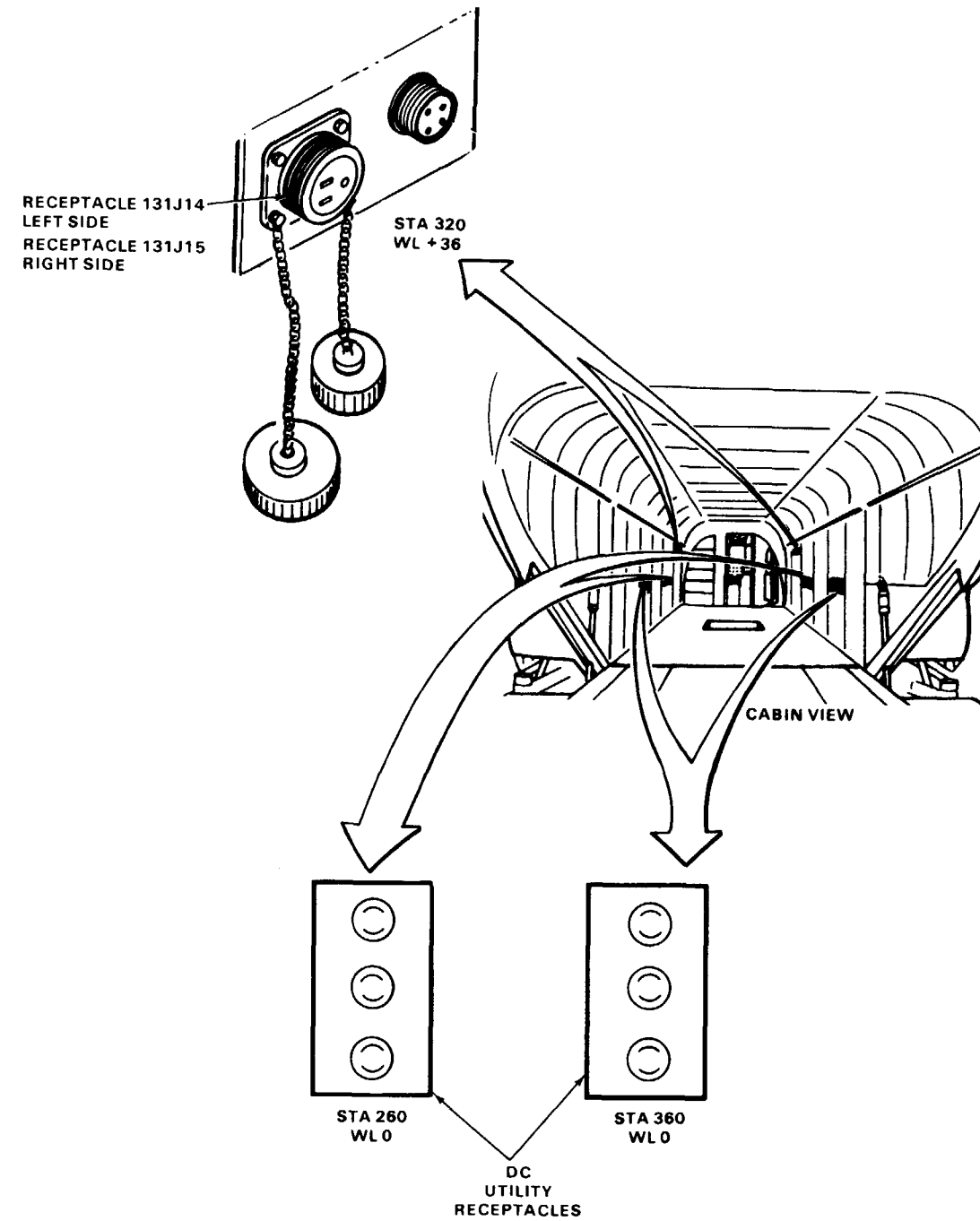
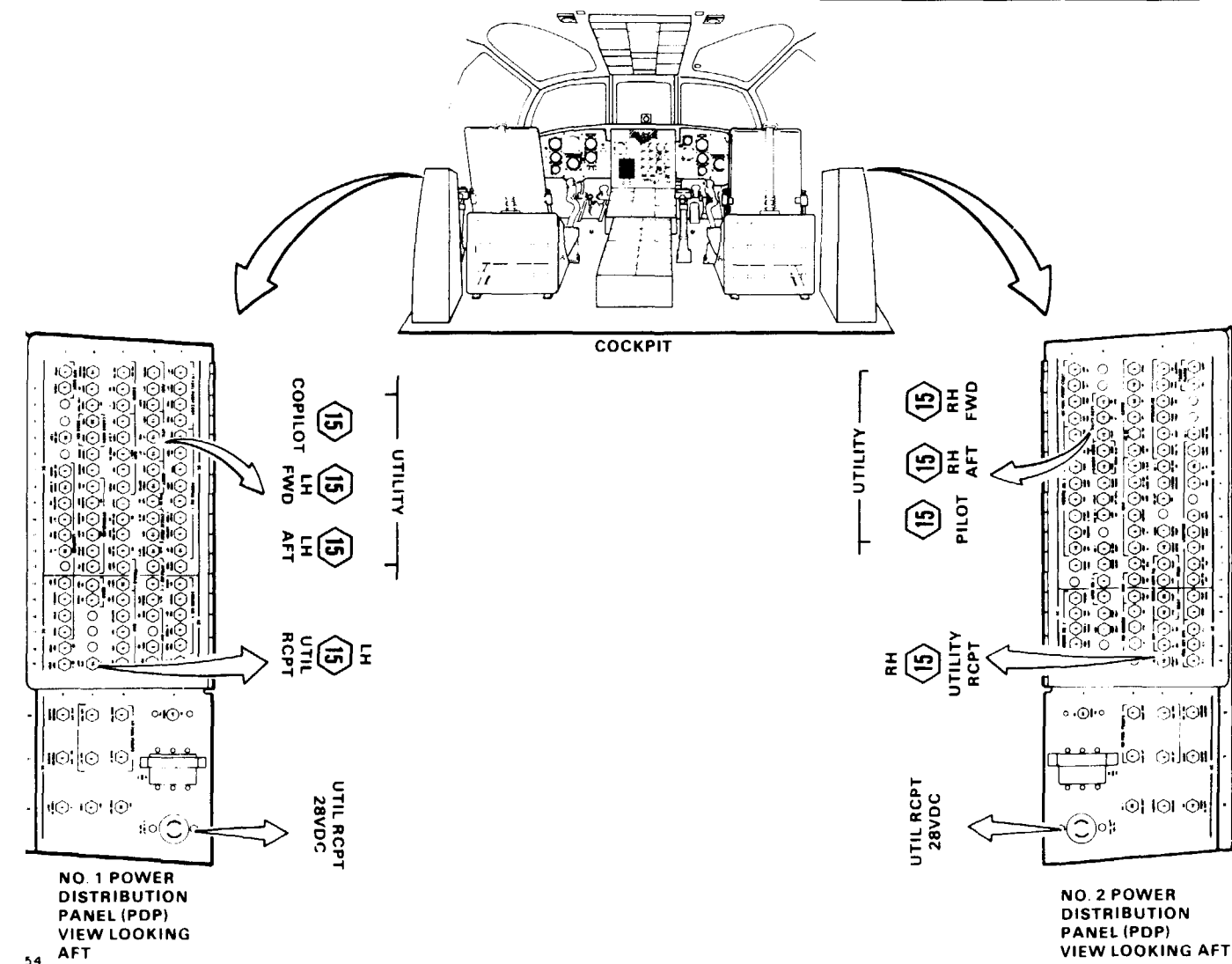
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

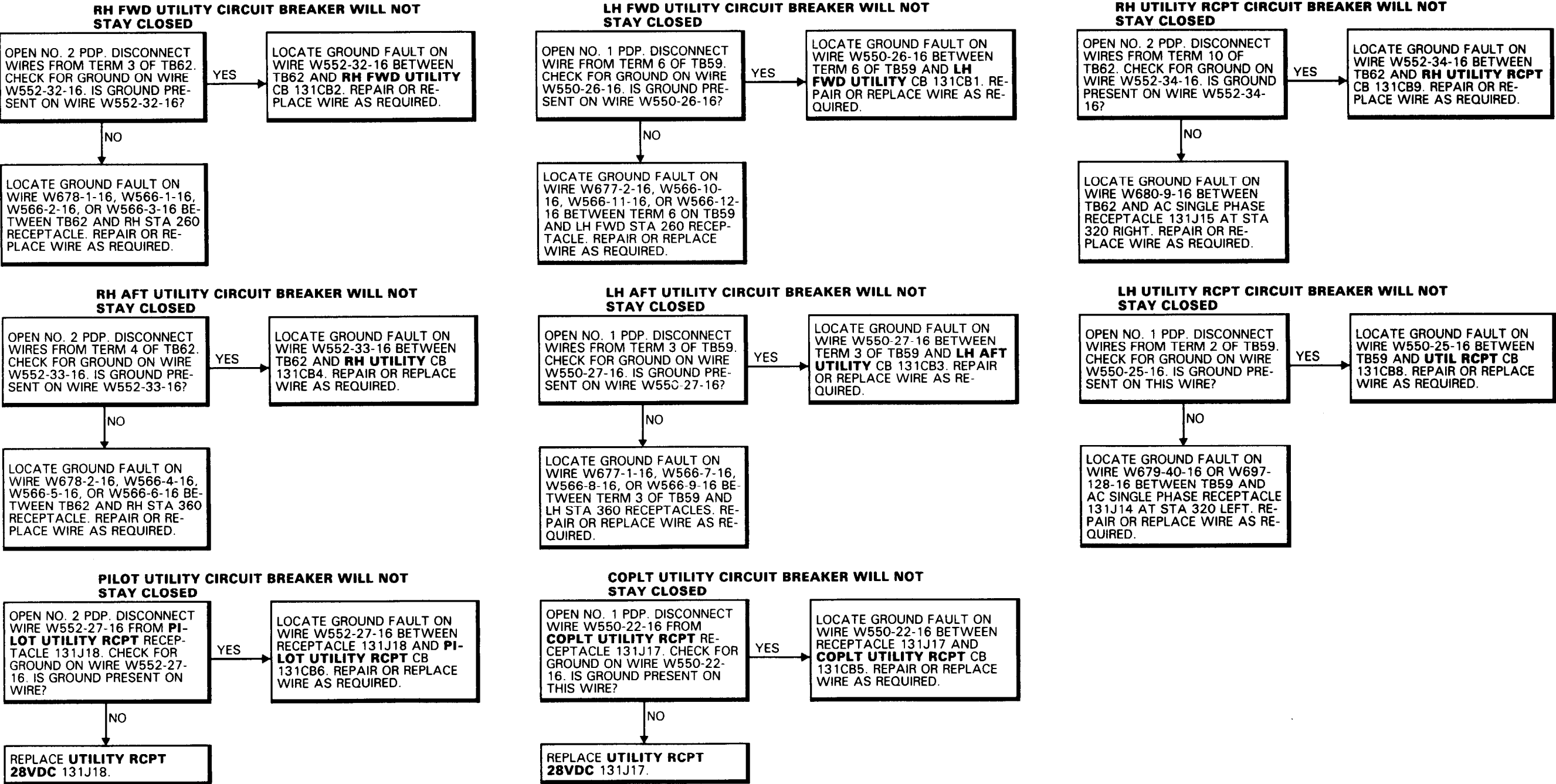
Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off





9-17.4 UTILITY RECEPTACLE CIRCUIT BREAKERS WILL NOT STAY CLOSED (Continued)

9-17.4



9-17.5 CABIN AC RECEPTACLE CIRCUIT BREAKER  
WILL NOT STAY CLOSED

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Personnel Required:  
68F20 Aircraft Electrician

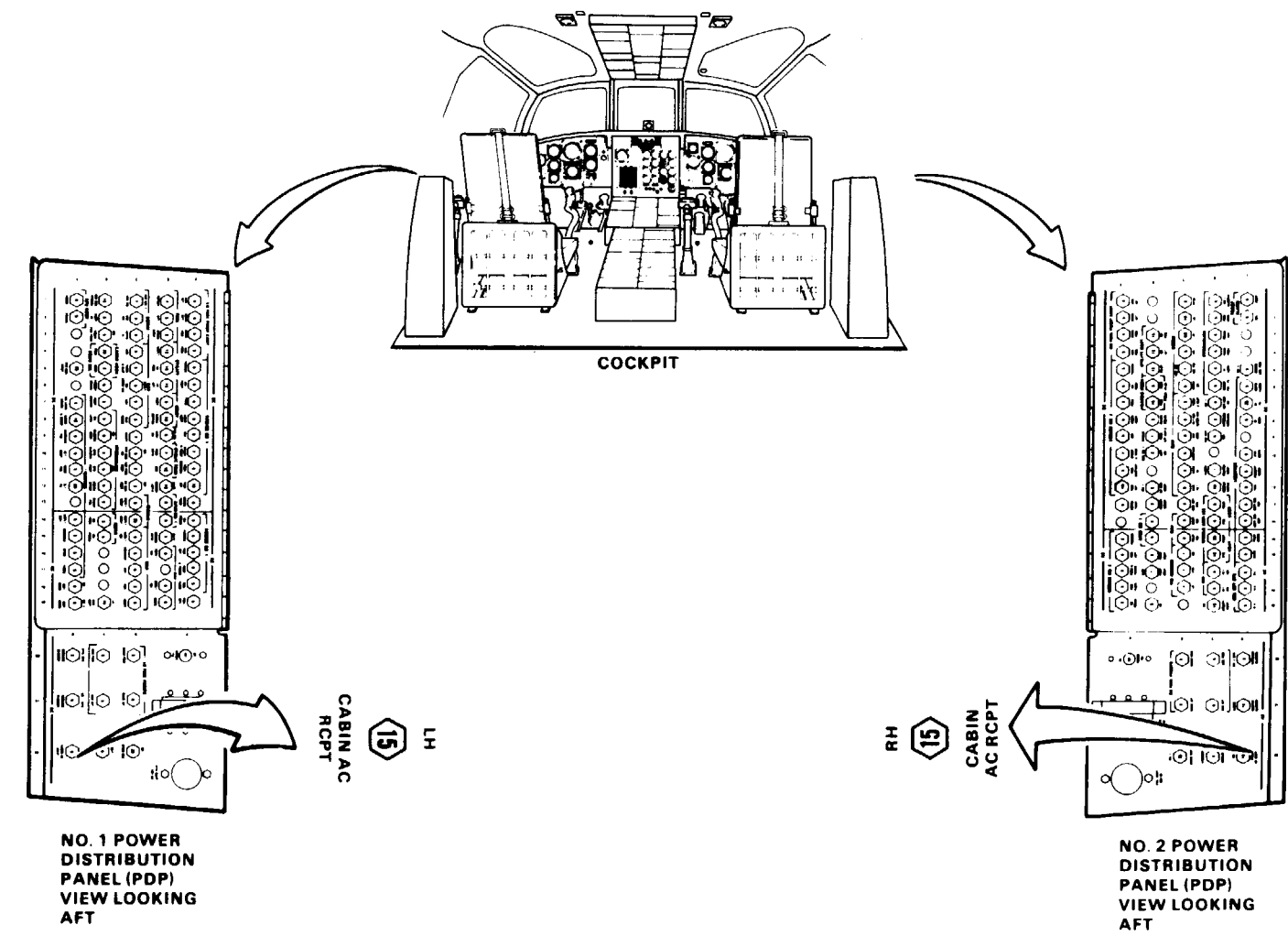
Applicable Configurations:  
All

References:  
TM 55-1520-240-23

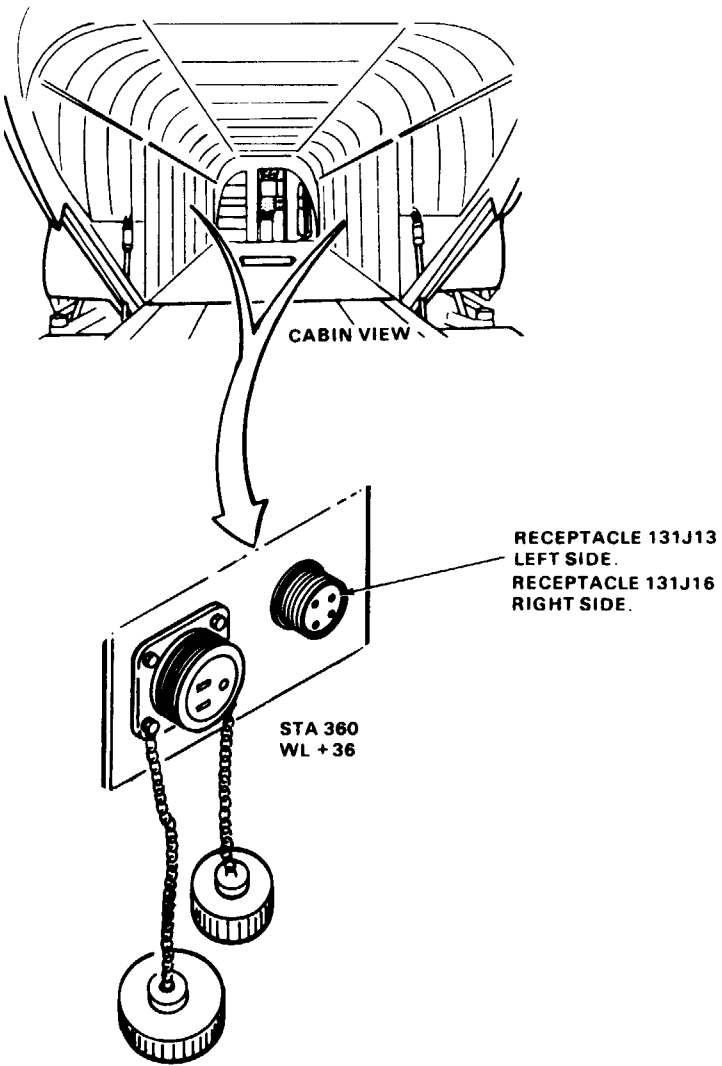
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

Materials:  
None

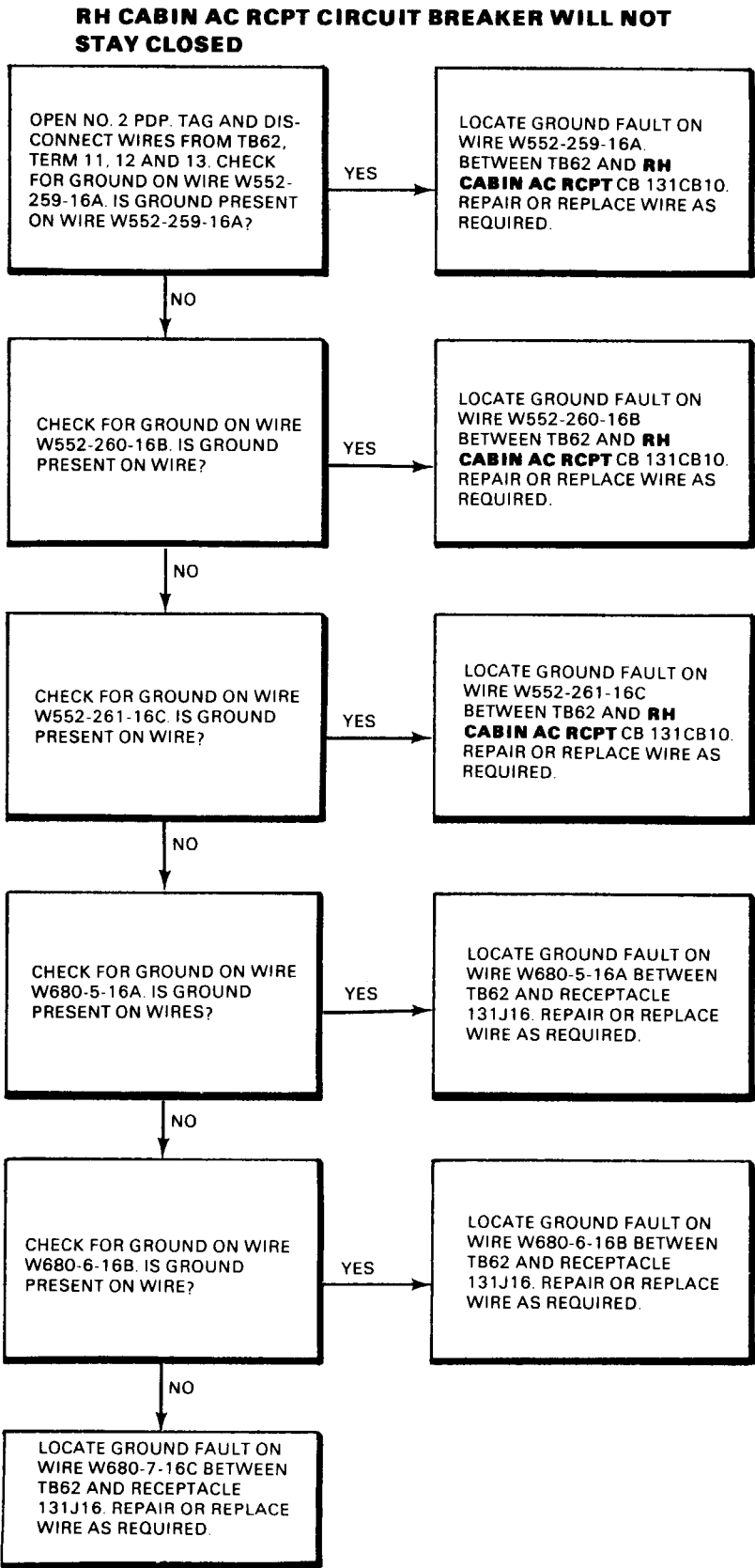
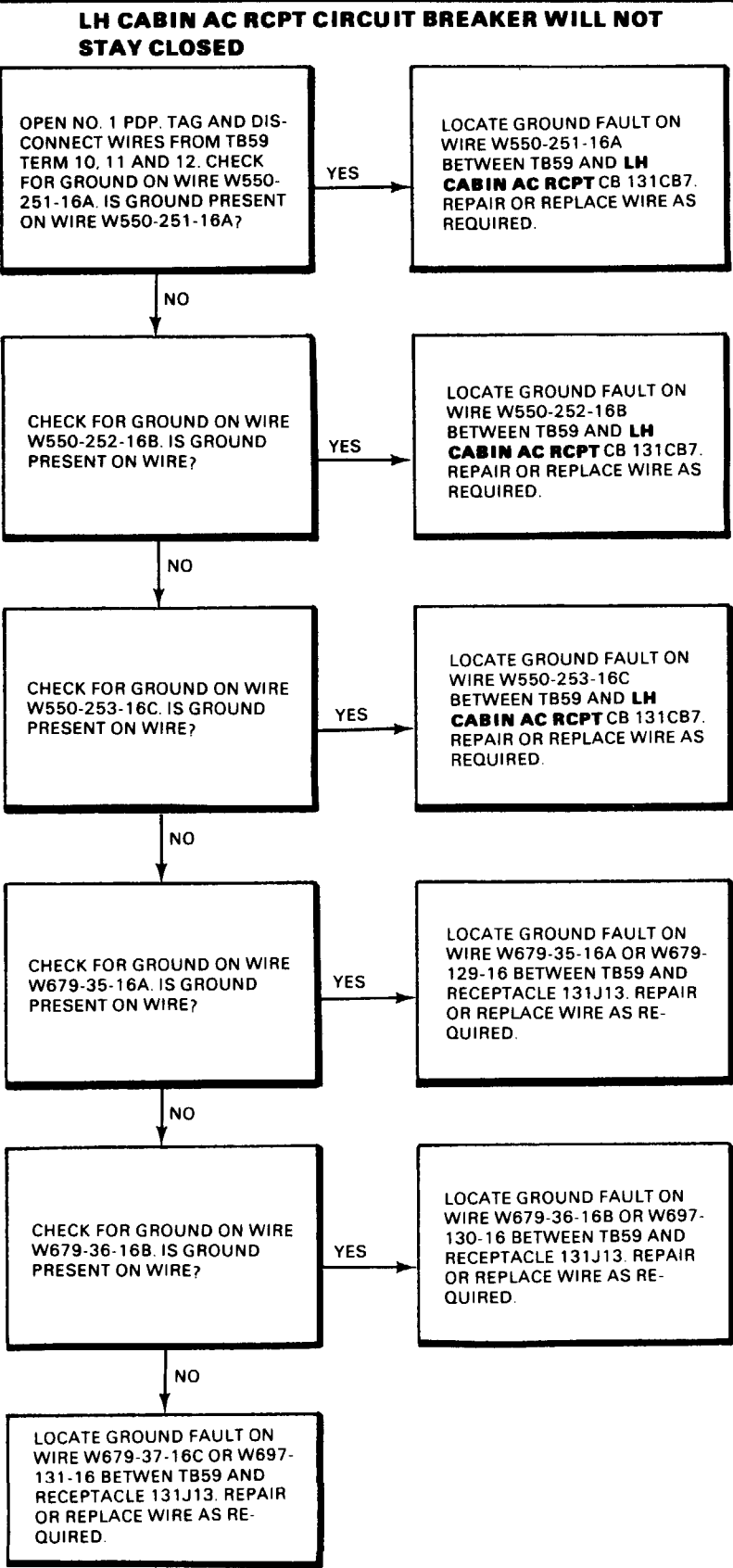


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9-17.5 CABIN AC RECEPTACLE CIRCUIT BREAKER WILL NOT STAY CLOSED (Continued)



END OF TASK

9-17.6 NO ELECTRICAL POWER AT UTILITY DC RECEPTACLES  
ON LEFT SIDE OF AIRCRAFT

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:  
All

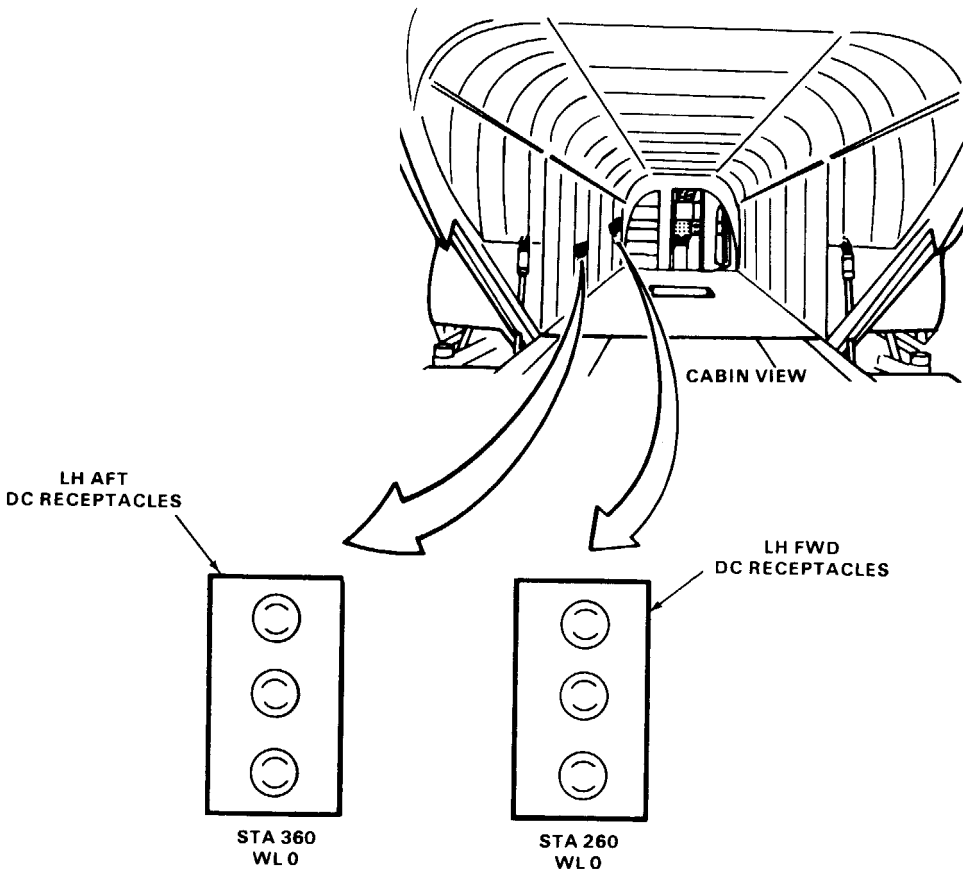
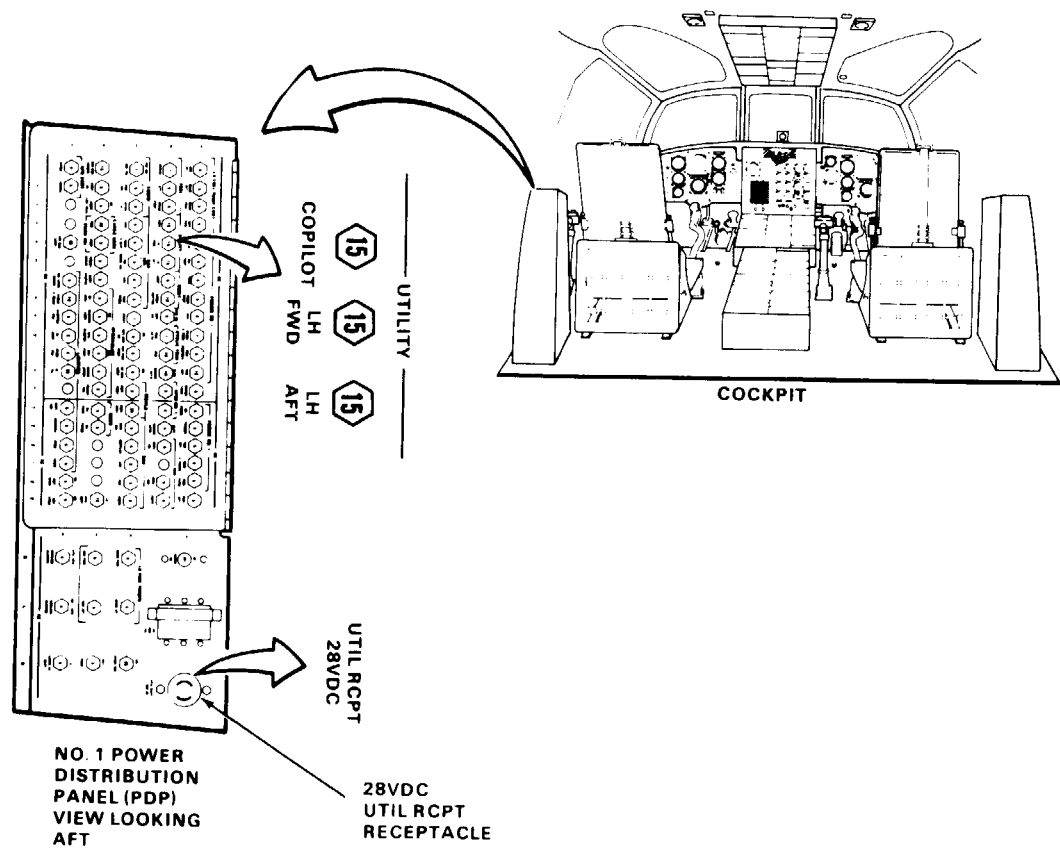
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

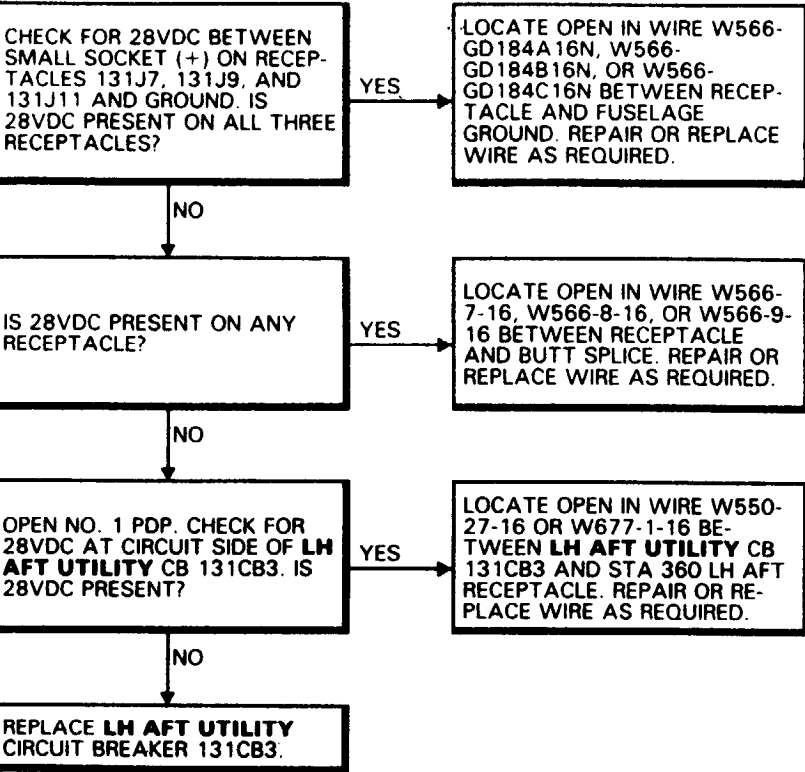
Personnel Required:  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

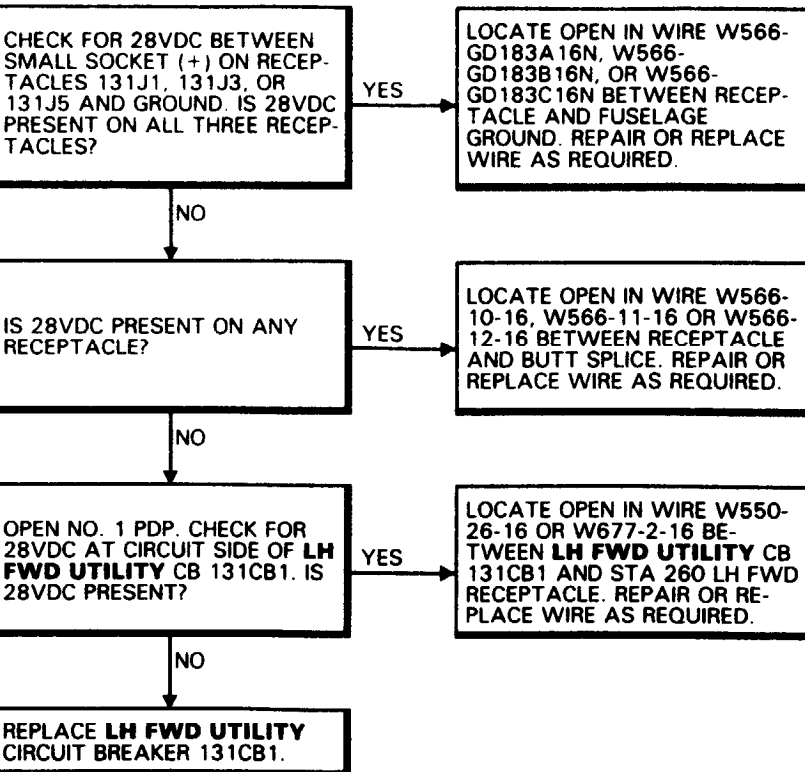
Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



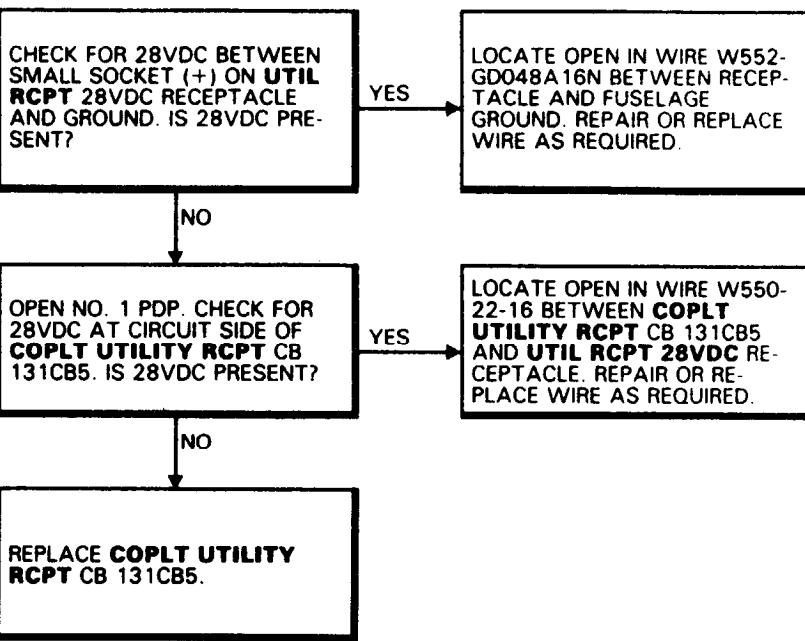
**NO ELECTRICAL POWER AT LH AFT DC RECEPTACLES**



**NO ELECTRICAL POWER AT LH FWD DC RECEPTACLE**



**NO ELECTRICAL POWER AT UTIL RCPT 28VDC RECEPTACLE IN NO. 1 PDP**



9-17.7 NO ELECTRICAL POWER AT UTILITY DC RECEPTACLES  
ON RIGHT SIDE OF AIRCRAFT

9-17.7

FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
All

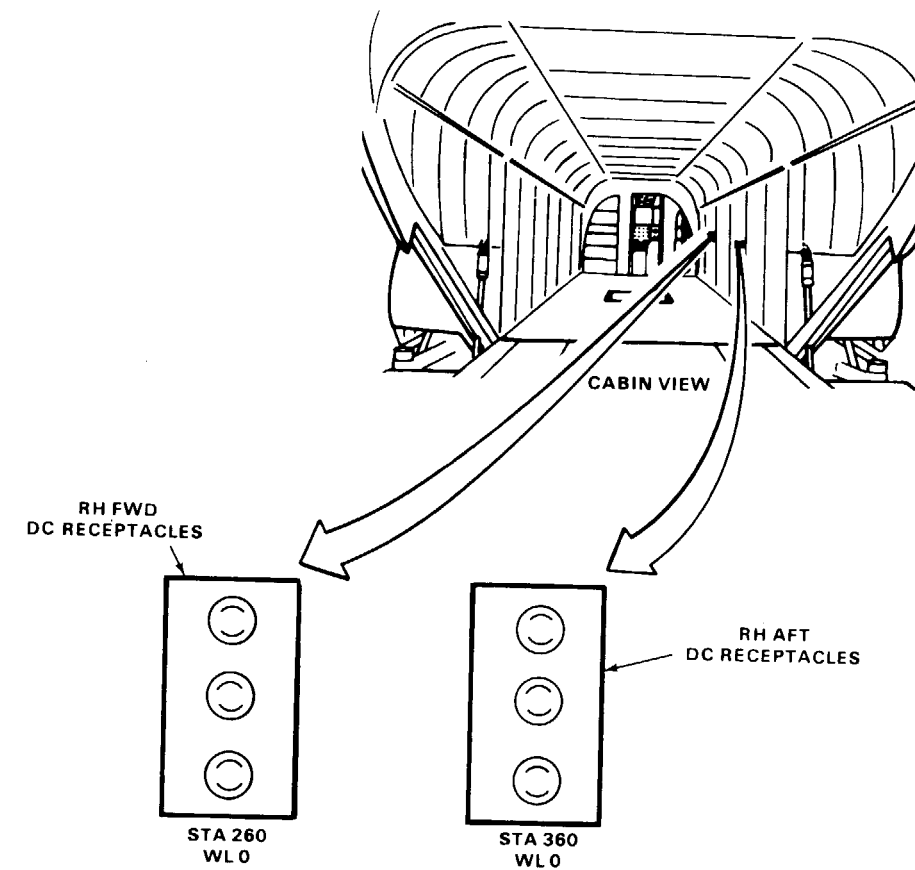
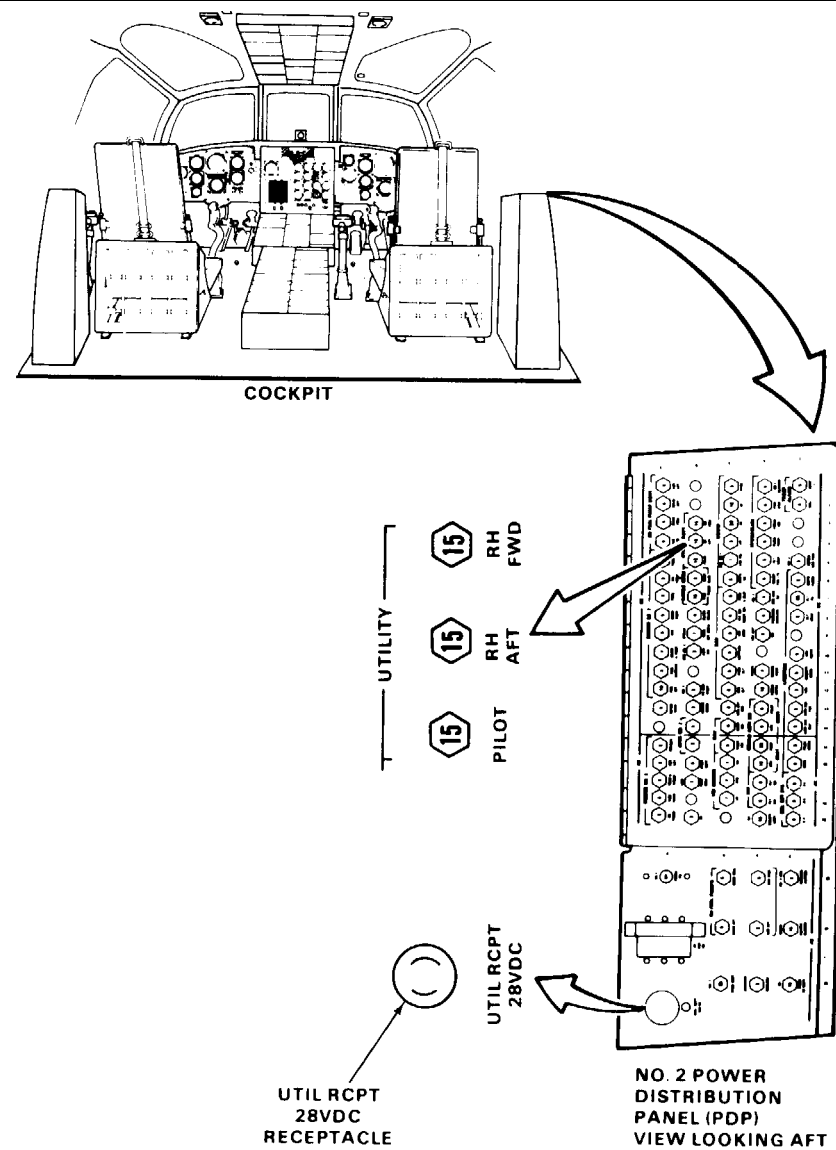
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
68F20 Aircraft Electrician

**References:**  
TM 55-1520-240-23

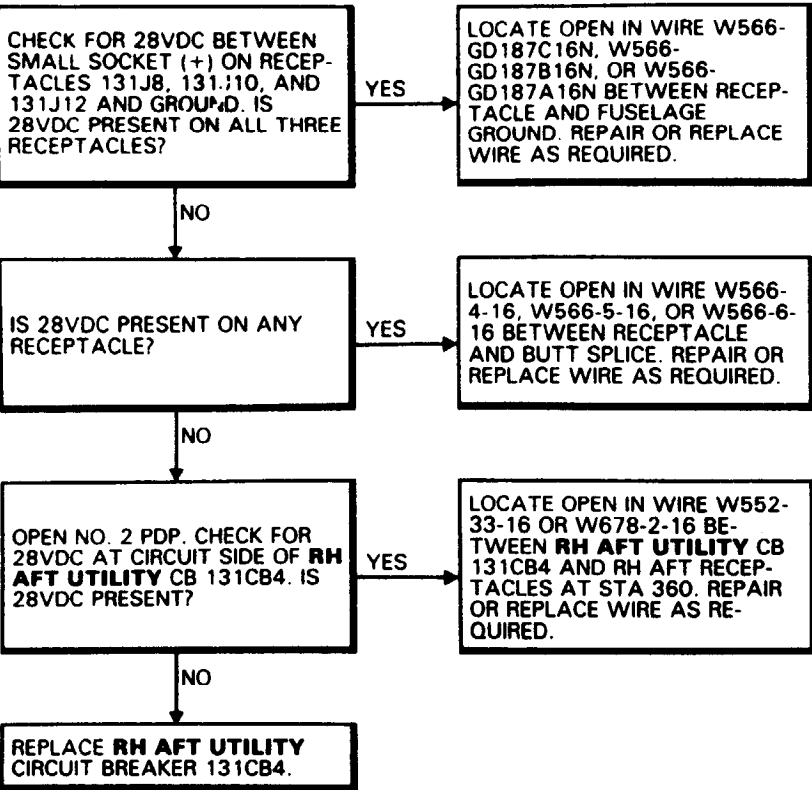
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



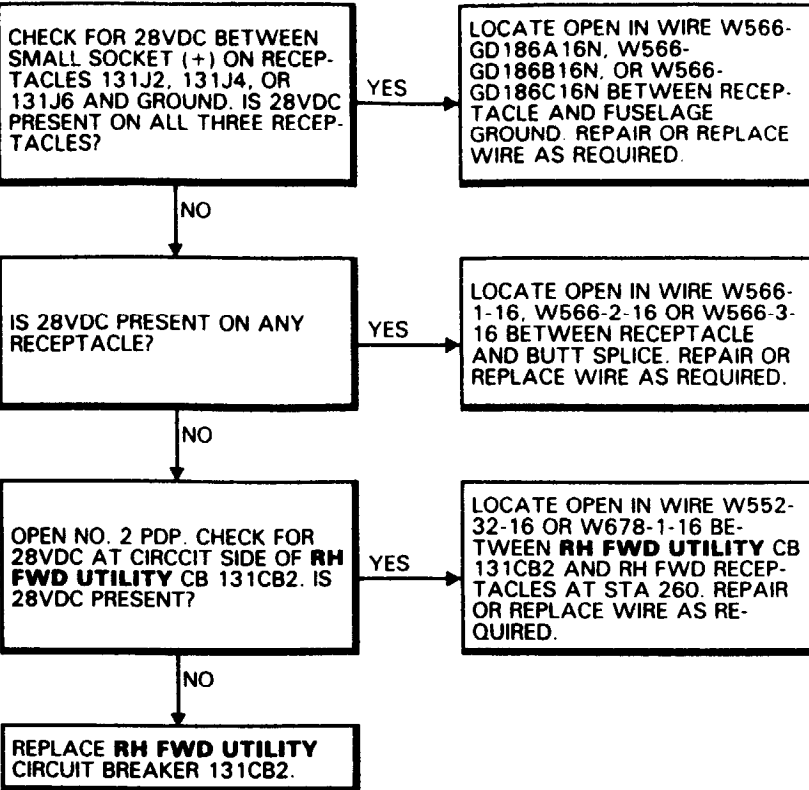
9-17.7 NO ELECTRICAL POWER AT UTILITY DC RECEPTACLES ON RIGHT SIDE OF AIRCRAFT (Continued)

9-17.7

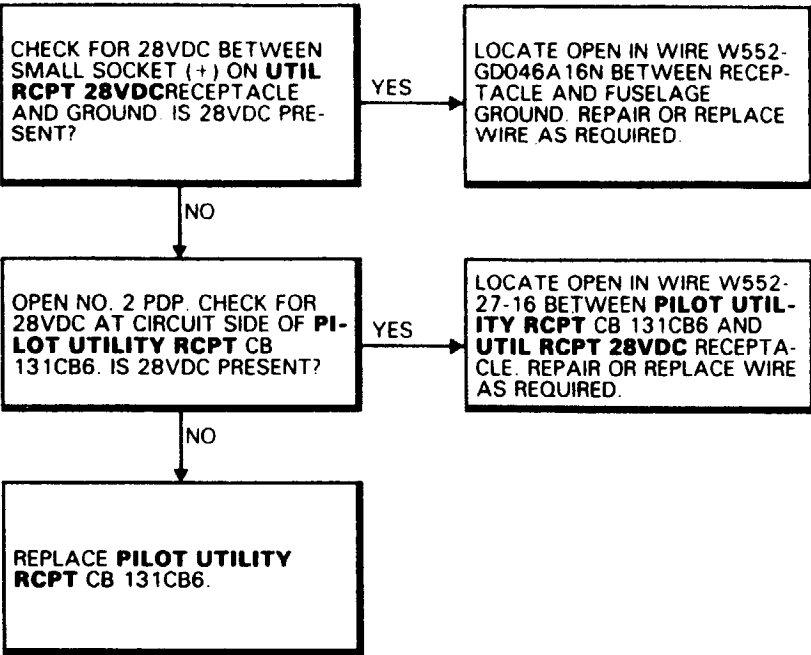
NO ELECTRICAL POWER AT RH AFT DC RECEPTACLES



NO ELECTRICAL POWER AT RH FWD DC RECEPTACLE



NO ELECTRICAL POWER AT UTIL RCPT 28VDC RECEPTACLE IN NO. 2 PDP



9-17.8 NO ELECTRICAL POWER AT UTILITY AC RECEPTACLES  
ON LEFT SIDE OF AIRCRAFT

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Personnel Required:  
68F20 Aircraft Electrician

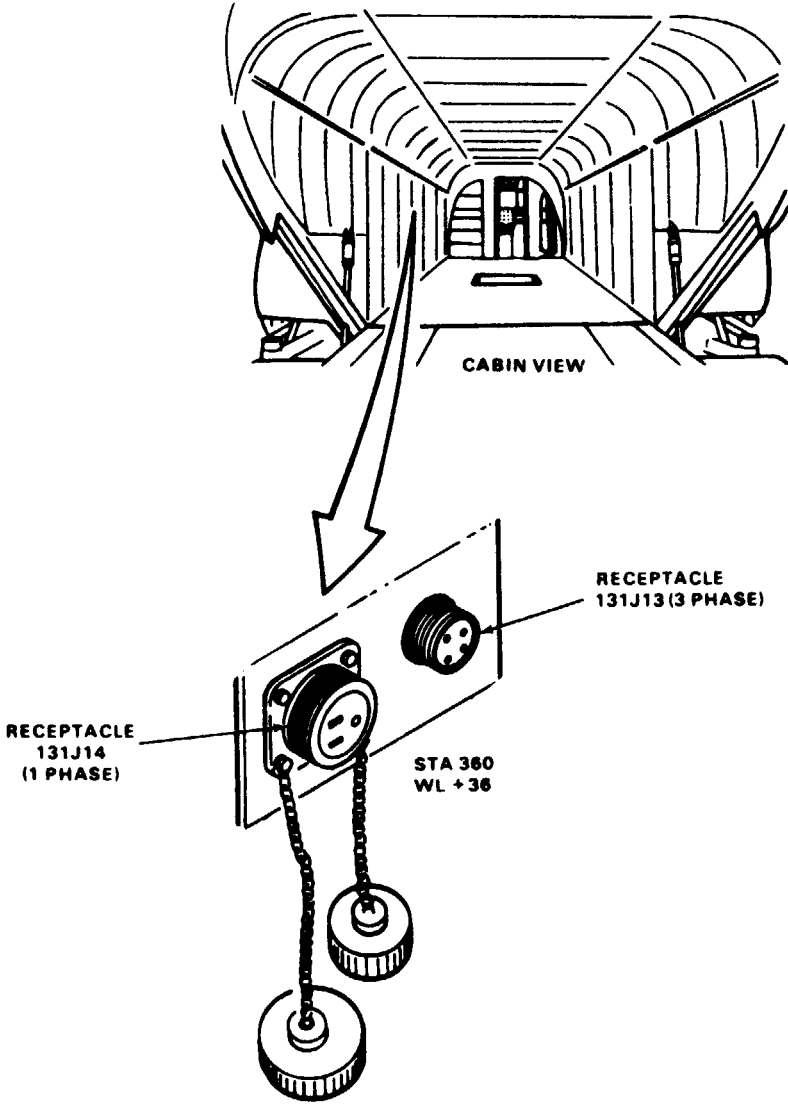
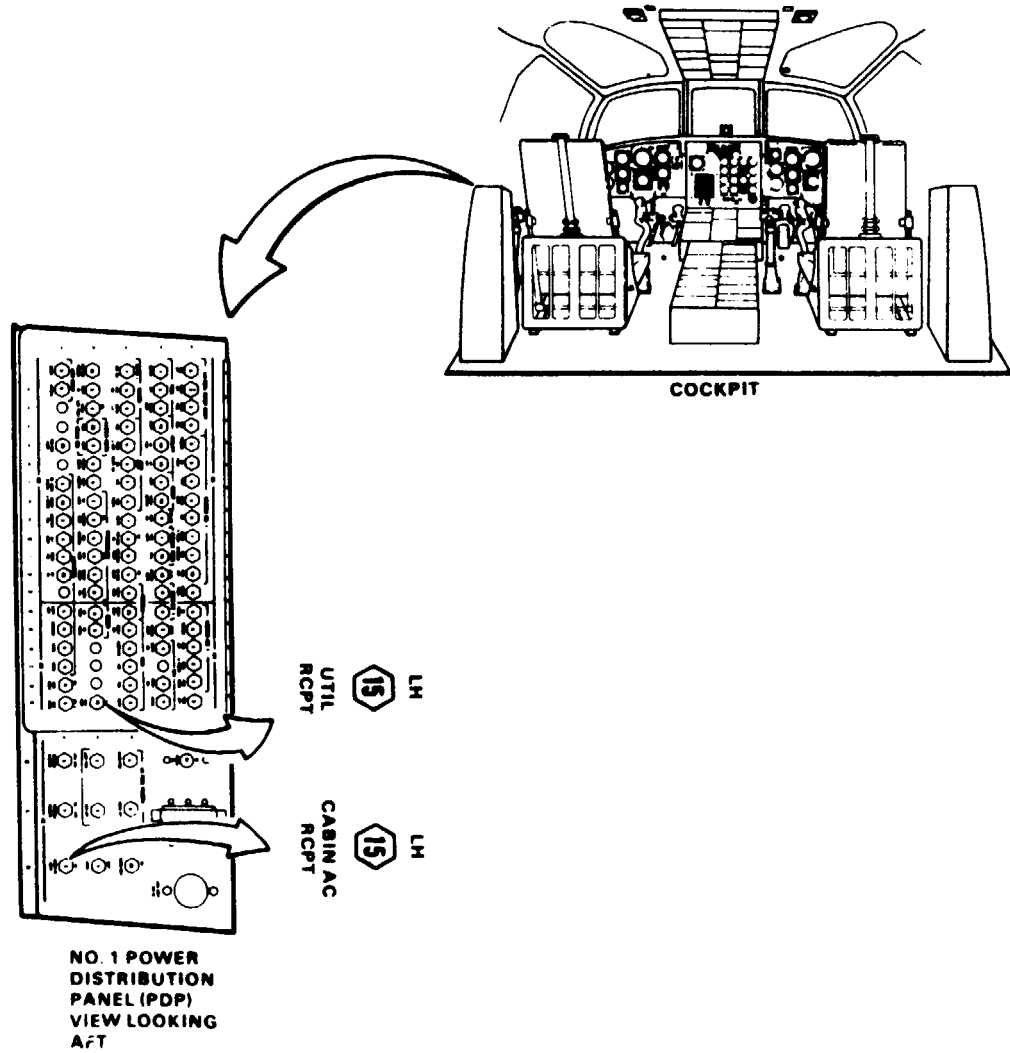
Applicable Configurations:  
All

References:  
TM 65-1520-240-23

Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Equipment Configuration:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Utility Receptacles Dust Covers Removed

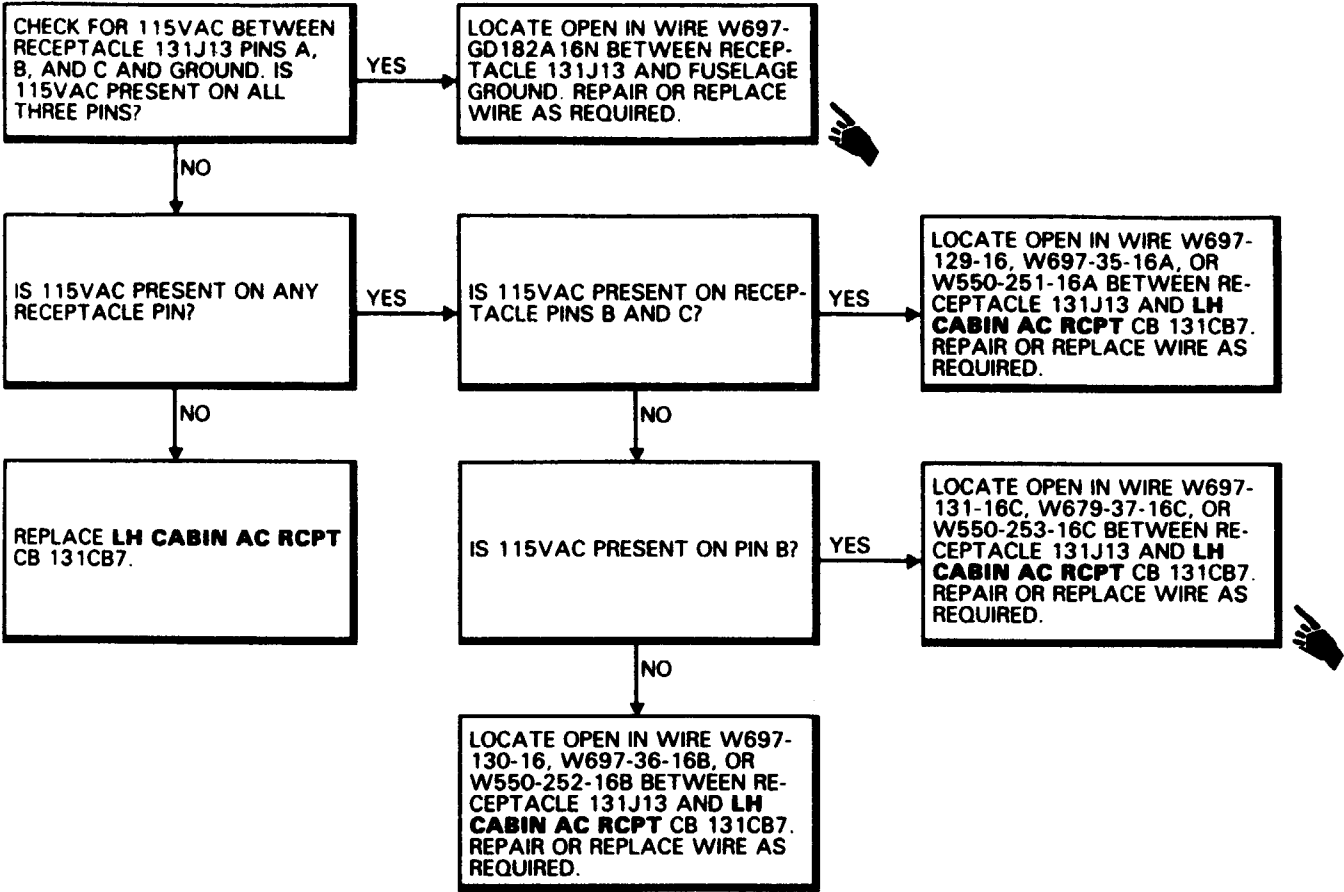
Materials:  
None



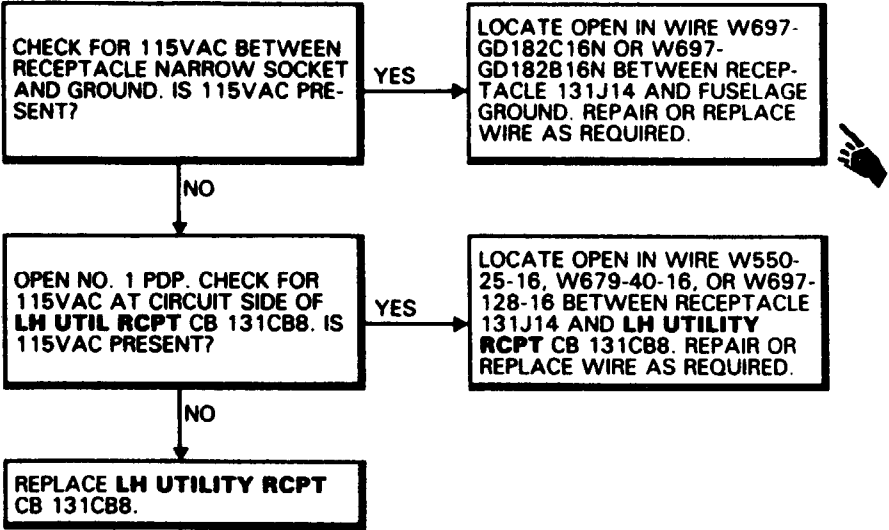
GO TO NEXT PAGE



O ELECTRICAL POWER AT LEFT 3-PHASE UTILITY RECEPTACLE



NO ELECTRICAL POWER AT LEFT SINGLE PHASE UTILITY RECEPTACLE



9-17.9 NO ELECTRICAL POWER AT UTILITY AC RECEPTACLE  
ON RIGHT SIDE OF AIRCRAFT

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Personnel Required:  
68F20 Aircraft Electrician

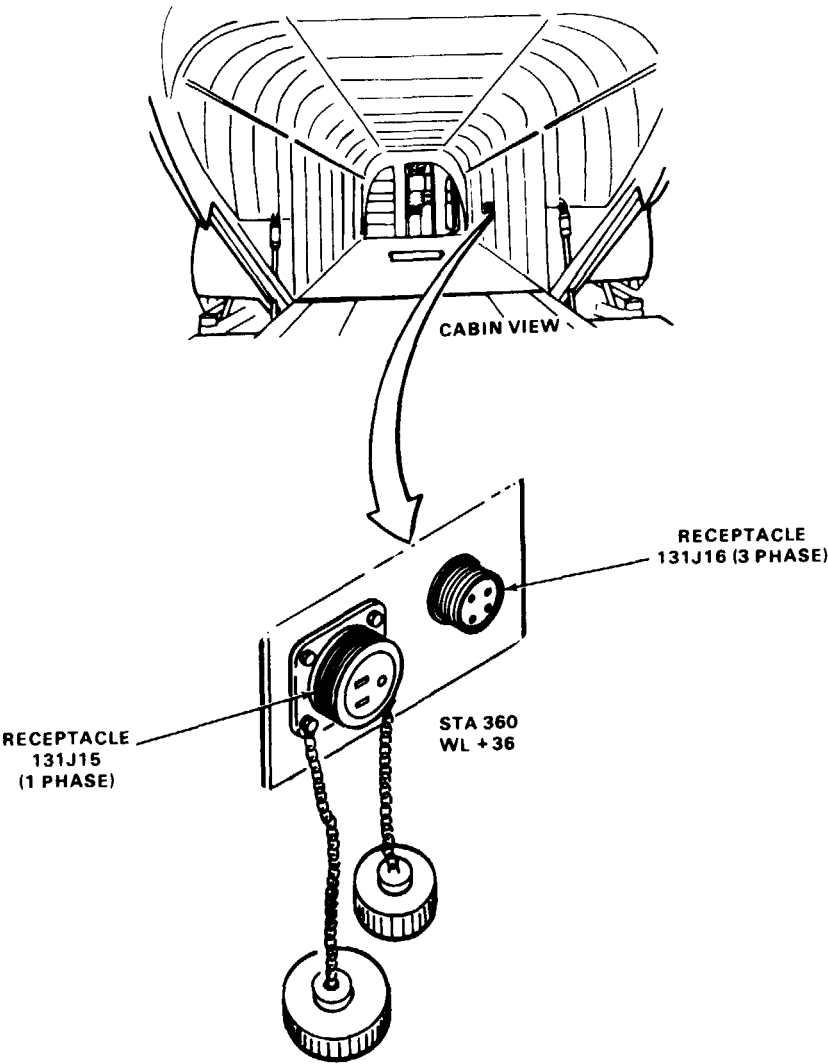
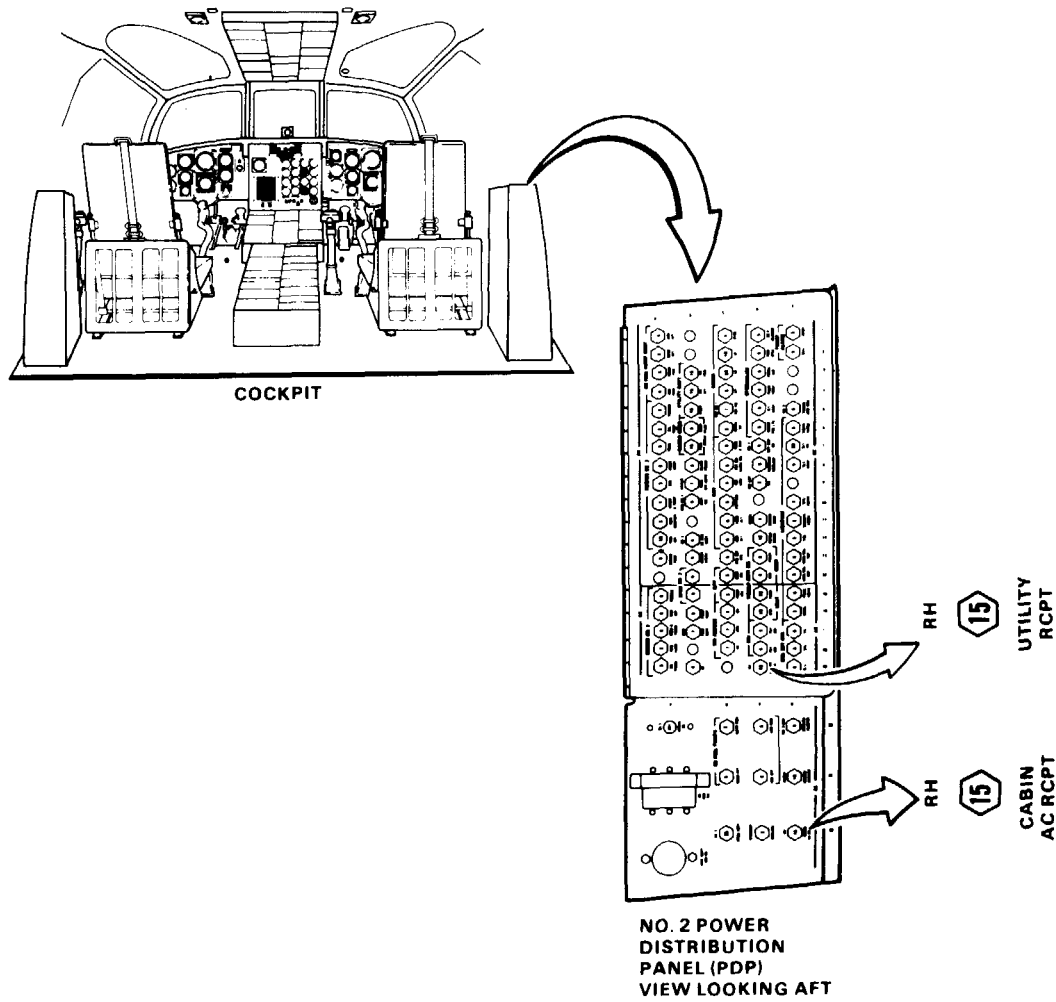
Applicable Configurations:  
All

References:  
TM 55-1520-240-23

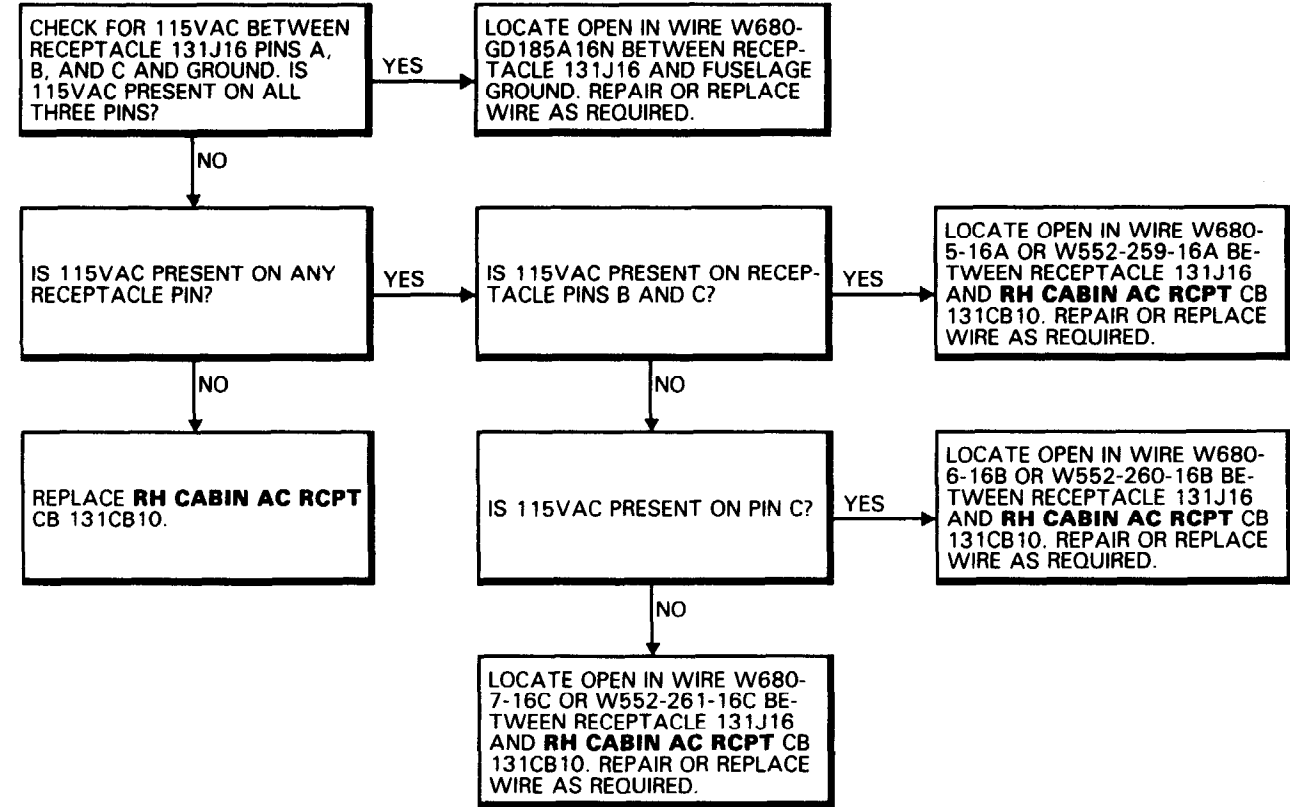
Tools:  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Utility Receptacle Dust Covers Removed

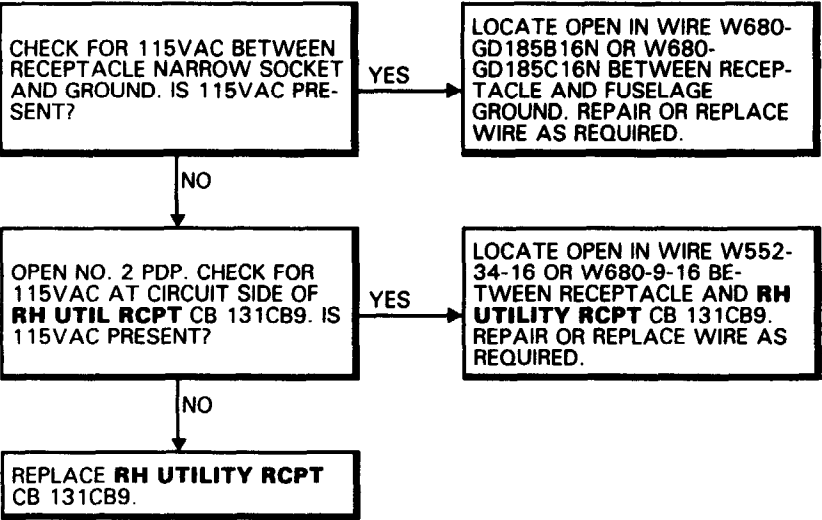
Materials:  
None



O ELECTRICAL POWER AT RIGHT 3-PHASE UTILITY RECEPTACLE

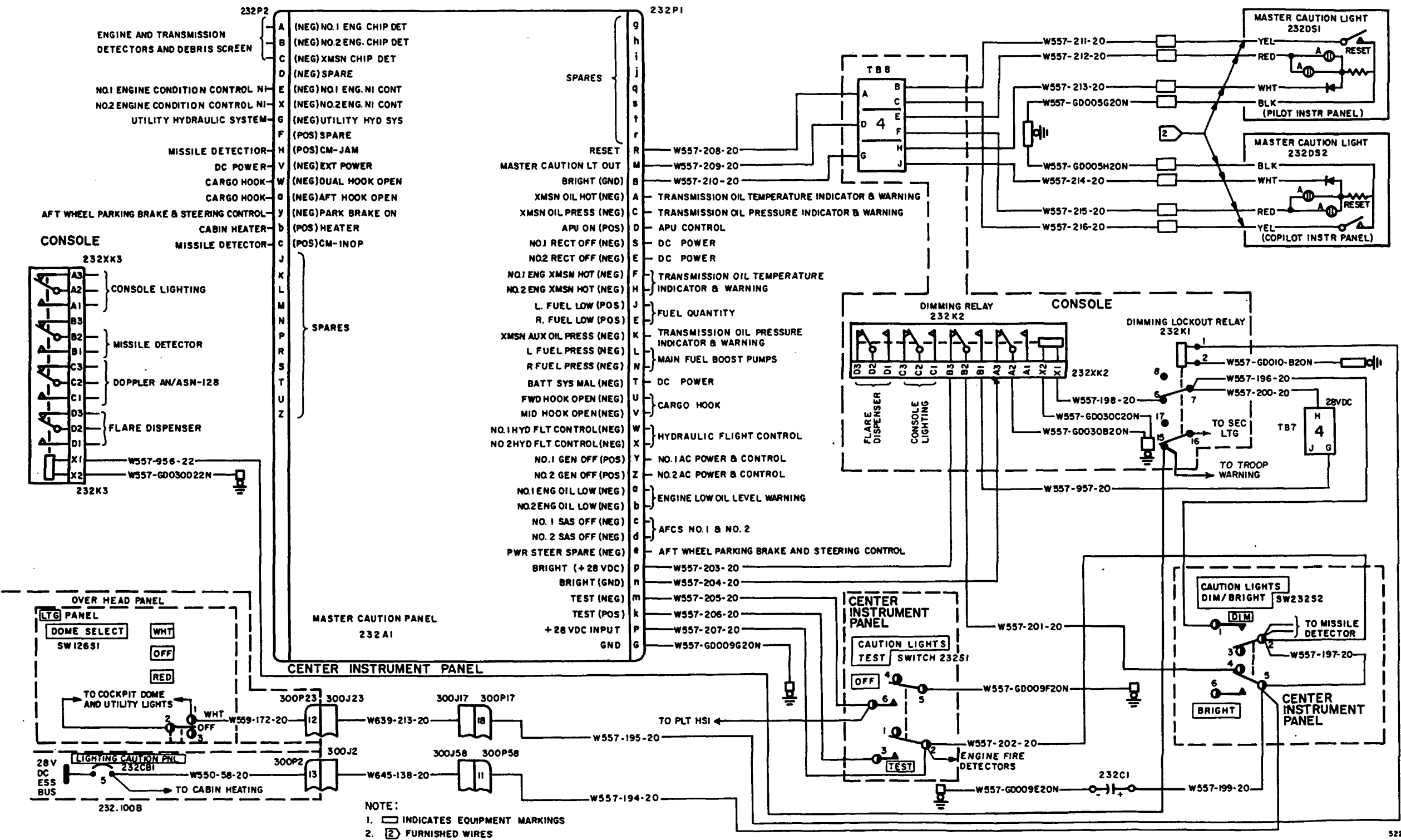


NO ELECTRICAL POWER AT RIGHT SINGLE PHASE UTILITY RECEPTACLE

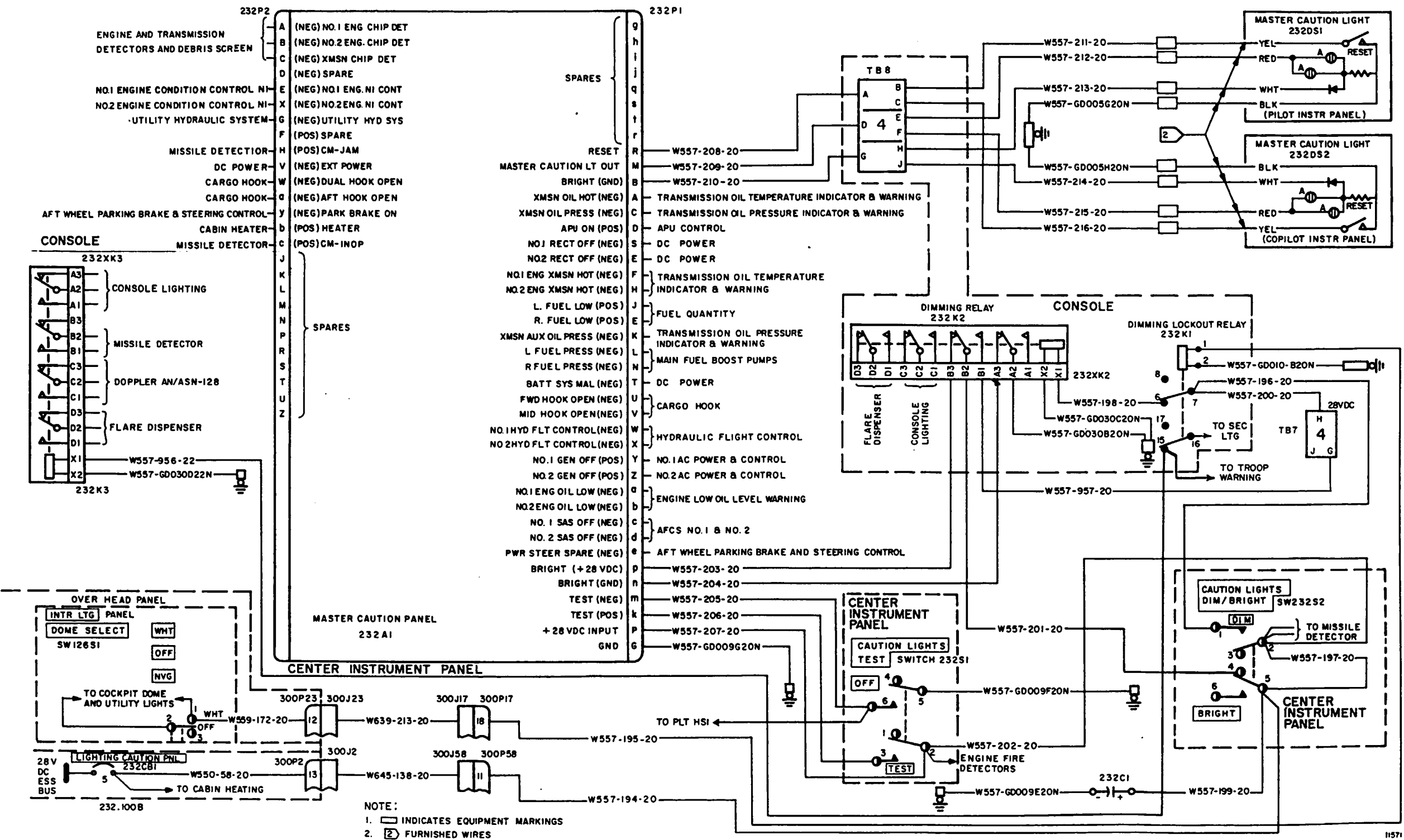


9-18 MASTER CAUTION LIGHTS

WITHOUT 17 AND 74



WITH 17 AND WITHOUT 74





9-18.2 MASTER CAUTION LIGHTS VISUAL CHECK

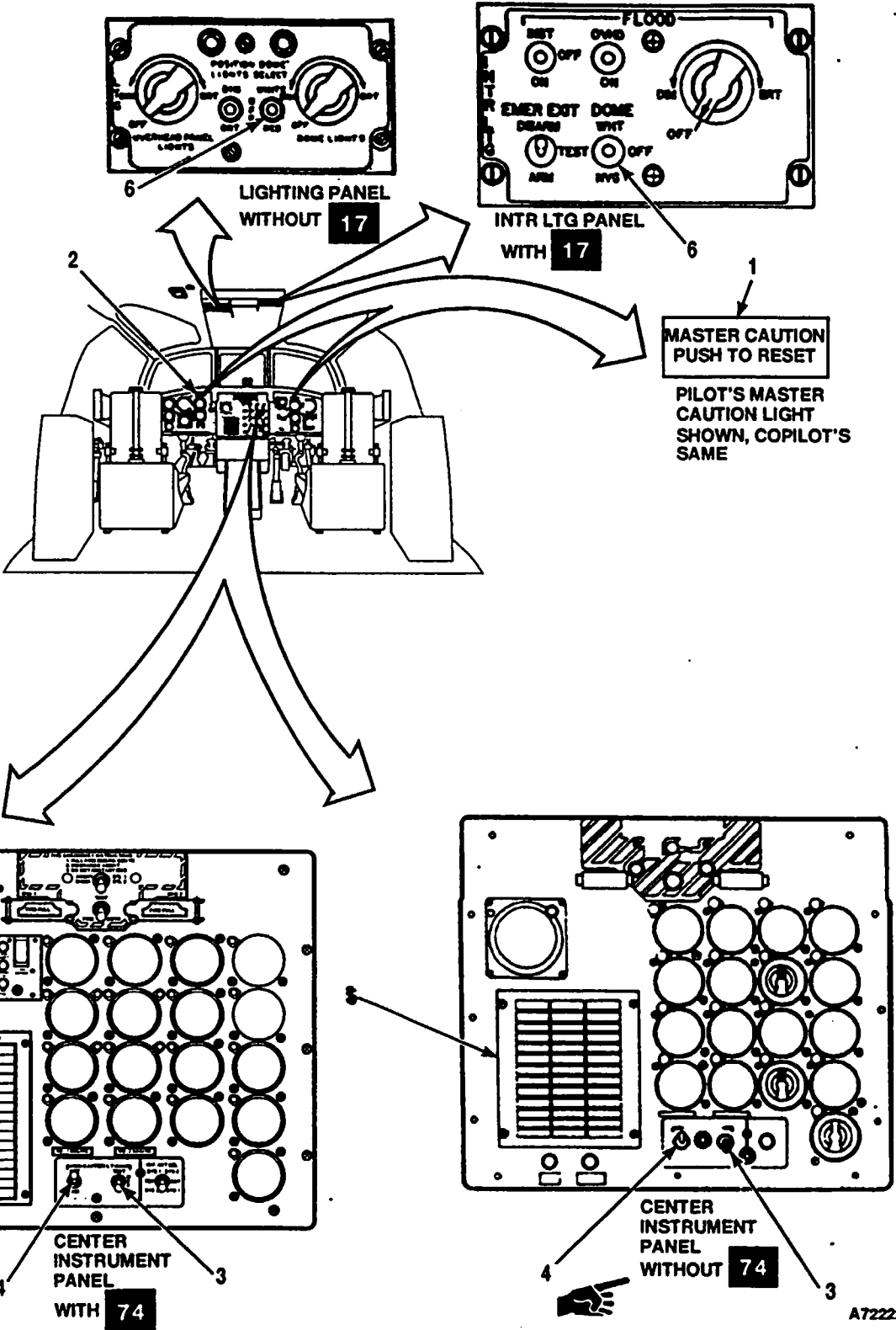
9-18.2

INITIAL SETUP  
**Applicable Configurations:**  
All  
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
**Materials:**  
None  
**Personnel Required:**  
Aircraft Electrician

**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK		RESULT
1.	Check pilot's and copilot's MASTER CAUTION lights (1 and 2).	If lights (1 and 2) are loose or damaged, tighten or replace them as required.
2.	Check CAUTION LIGHT (or LT) TEST switch (3).	If switch (3) is loose or damaged, tighten or replace it as required.
3.	Check CAUTION LIGHT (or LT) DIM/BRIGHT (or DIM/BRT) switch (4).	If switch (4) is loose or damaged, tighten or replace it as required.
4.	Check MASTER CAUTION (or CAUTION/ADVISORY) PANEL (5).	If caution panel (5) or capsules are loose or damaged, repair or replace it as required.
5.	Check DOME SELECT or DOME switch (6).	If switch (6) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:  
None



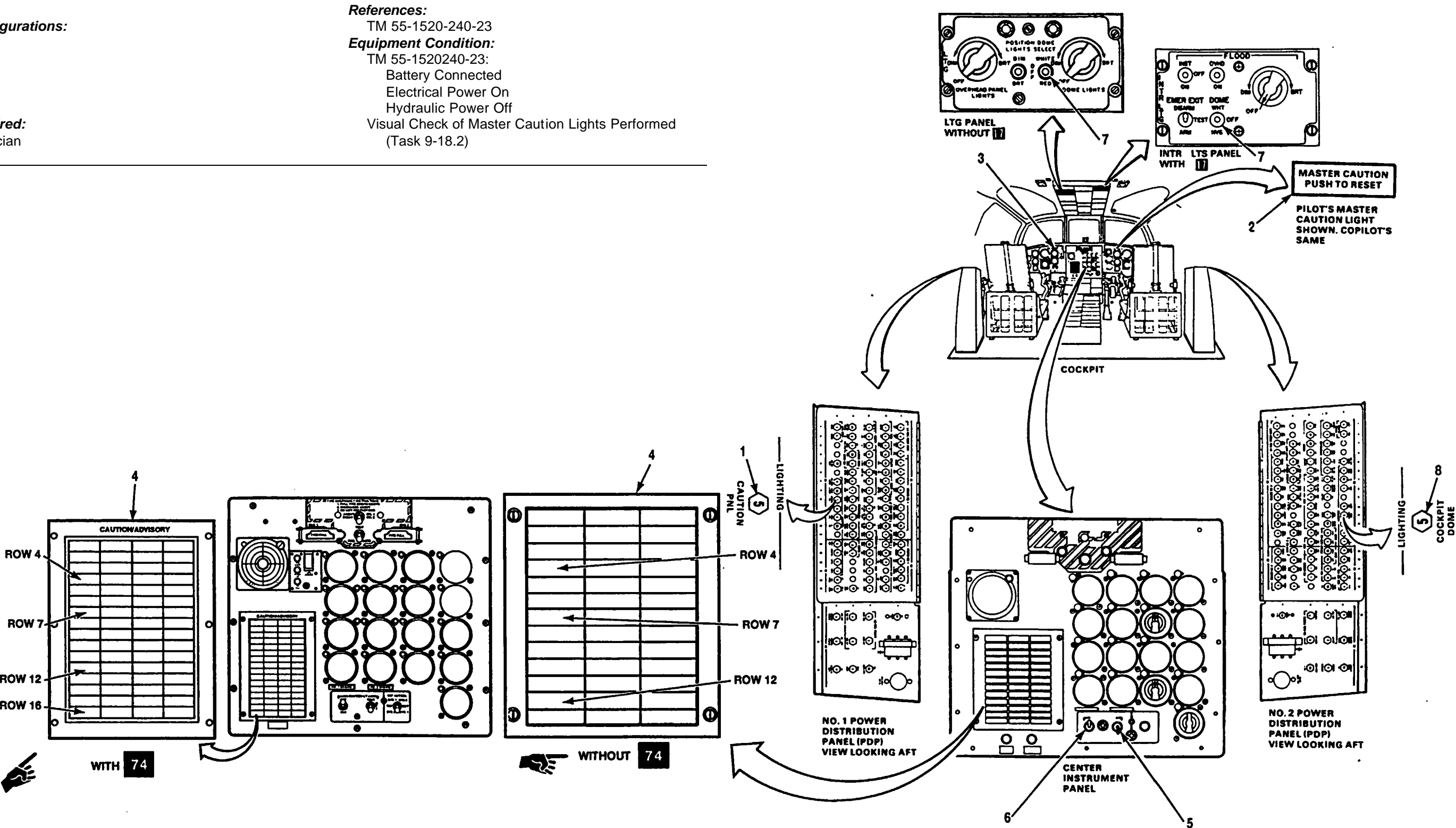


9-18.3 MASTER CAUTION LIGHTS OPERATIONAL CHECK

9-18.3

INITIAL SETUP  
**Applicable Configurations:**  
All  
**Tools:**  
None  
**Materials:**  
None  
**Personnel Required:**  
Aircraft Electrician

**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Visual Check of Master Caution Lights Performed  
(Task 9-18.2)



A72221

9-18.3MASTER CAUTION LIGHTS OPERATIONAL CHECK (Continued)

9-18.3

TASK		RESULT	TASK		RESULT
1.	Check that LIGHTING CAUTION PNL circuit breaker (1) is closed.	If CAUTION PNL circuit breaker (1) is open, close it. If it opens again, go to task 9-18.4. Both pilot's and copilots MASTER CAUTION lights (2 and 3) and some capsules on master caution panel (4) shall come on bright. If caution capsules do not come on, go to task 9-18.5 or 9-18.5.1. If pilots or copilot's MASTER CAUTION lights do not come on, go to task 9-18.6. If master caution panel capsules and MASTER CAUTION lights come on dim, go to task 9-18.7. If one MASTER CAUTION light comes on dim and one comes on bright, go to task 9-18.12. Without 74 if all capsules in rows 4, 7, and 12 are on or if all capsules in remaining rows are on, replace master caution panel. With 74 if all capsules in rows 4, 7, 12, and 16 are on or if all capsules in remaining rows are on, replace master caution panel. Repeat task 9-13.3.	12.	Set DOME SELECT switch (7) to WHITE.	Lighted capsules on master caution panel (4) and both MASTER CAUTION lights (2 and 3) shall come on bright, if not go to task 9-18.11. Both pilot's and copilot's MASTER CAUTION lights (2 and 3) shall go out. If not, go to task 9-18.8.
2.	Check pilot's and copilot's MASTER CAUTION lights (2 and 3) and master caution panel capsules.		13.	Press and release copilots MASTER CAUTION light (3).	
3.	Press and release pilot's MASTER CAUTION light (2).		14.	Set DOME SELECT switch (7) to OFF.	Lighted capsules on master caution panel (4) and both MASTER CAUTION lights (2 and 3) shall remain bright
FOLLOW-ON MAINTENANCE: TM 55-1520-240-22: Battery disconnected. Electrical power off. Hydraulic power off.					
4.	Set and hold CAUTION LIGHTS (or LT) TEST switch(5) to TEST.	All capsules on master caution panel (4) and MASTER CAUTION lights (2 and 3) shall come on bright. If lights not come on, go to task 9-18.8. Some capsules on master caution panel (4) shall go out. If none go out, replace CAUTION LIGHTS (or LT) TEST switch. Both pilot and copilot MASTER CAUTION lights (2 and 3) and some capsules on master caution panel (4) shall come on bright. If pilot's or copilot's MASTER CAUTION lights do not come on, go to task 9-18.6.			
5.	Release CAUTION LIGHTS (or LT) TEST switch (5) to OFF.				
6.	Open, then dose LIGHTING CAUTION PNL circuit				
7.	Momentarily set CAUTION LIGHTS (or LT) DIM/ BRIGHT switch (6) to DIM.	Lighted capsules on master caution panel (4) and both MASTER CAUTION lights (2 and 3) shall dim, if not, go to task 9-18.10.			
8.	Momentarily set CAUTION LIGHTS (or LT) DIM/ BRIGHT switch (6) to BRIGHT.	Lighted capsules on master caution panel (4) and both MASTER CAUTION lights (2 and 3) shall get bright. If not, go to task 9-18.7.			
9.	Momentarily set CAUTION LIGHTS (or LT) DIM/BRIGHT switch (6) to DIM.				
10.	Check that DOME SELECT or DOME switch (7) is at OFF.	If switch (7) is not at OFF, set it to OFF.			
11.	Check that LIGHTING COCKPIT DOME circuit breaker (8) is closed.	If circuit breaker (8) is not dosed, close it. If it opens again, go to task 9-14.3.			

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:
- Electrical Repairer's Tool Kit,  
NSN 5180-00-3234915
  - Multimeter

Materials:

- None

Personnel Required:

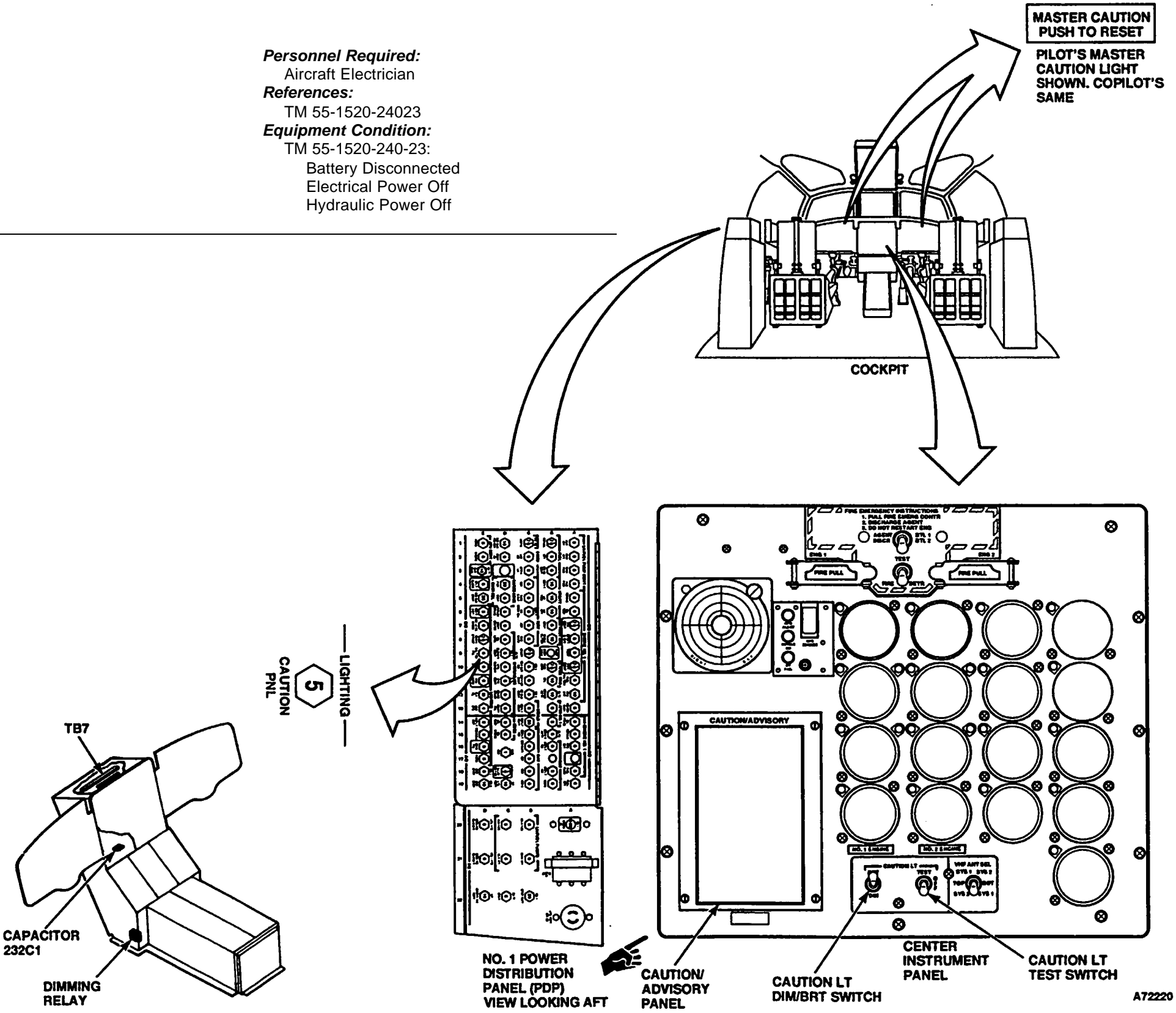
- Aircraft Electrician

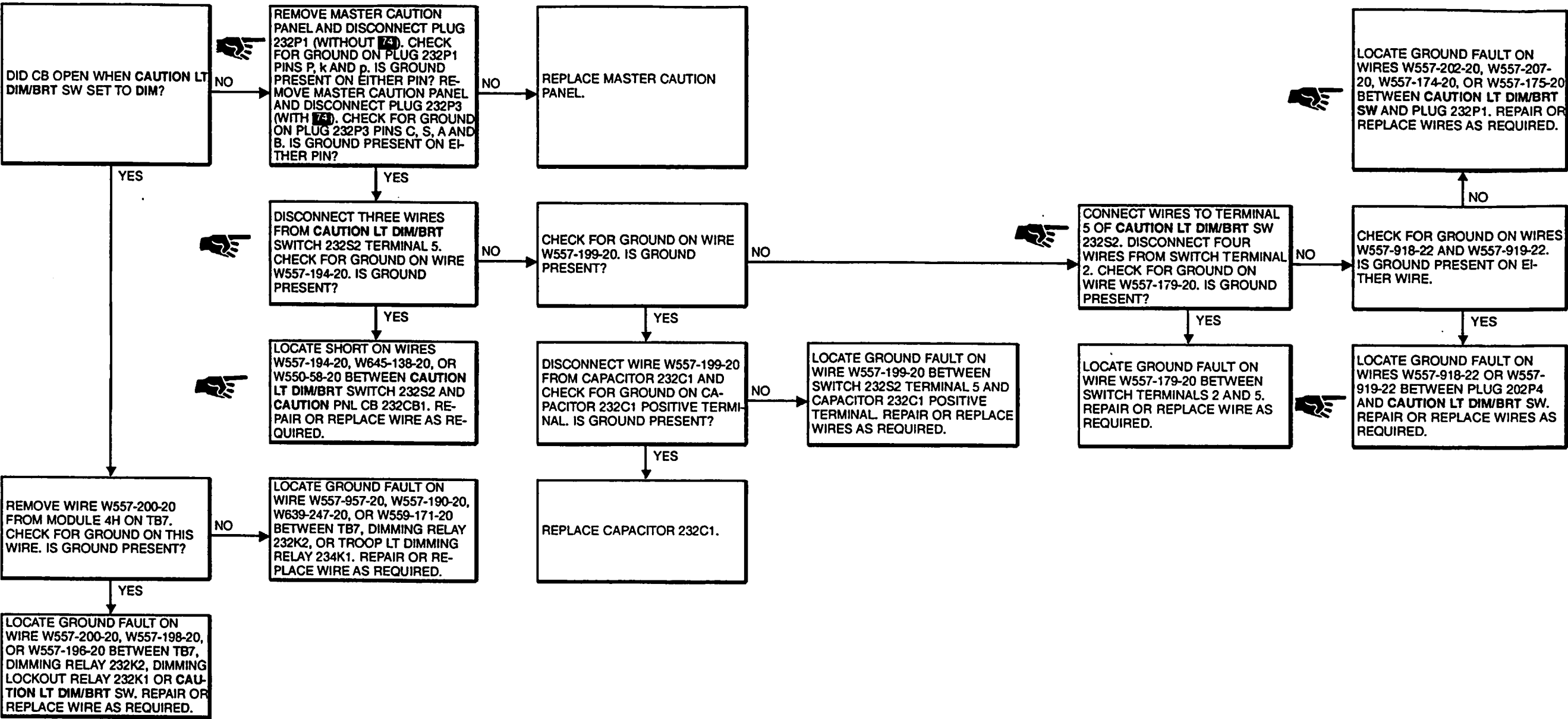
References:

- TM 55-1520-24023

Equipment Condition:

- TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off





9-18.5 MASTER CAUTION PANEL LIGHTS DO NOT COME ON WHEN BATTERY SWITCH SET TO ON

9-18.5

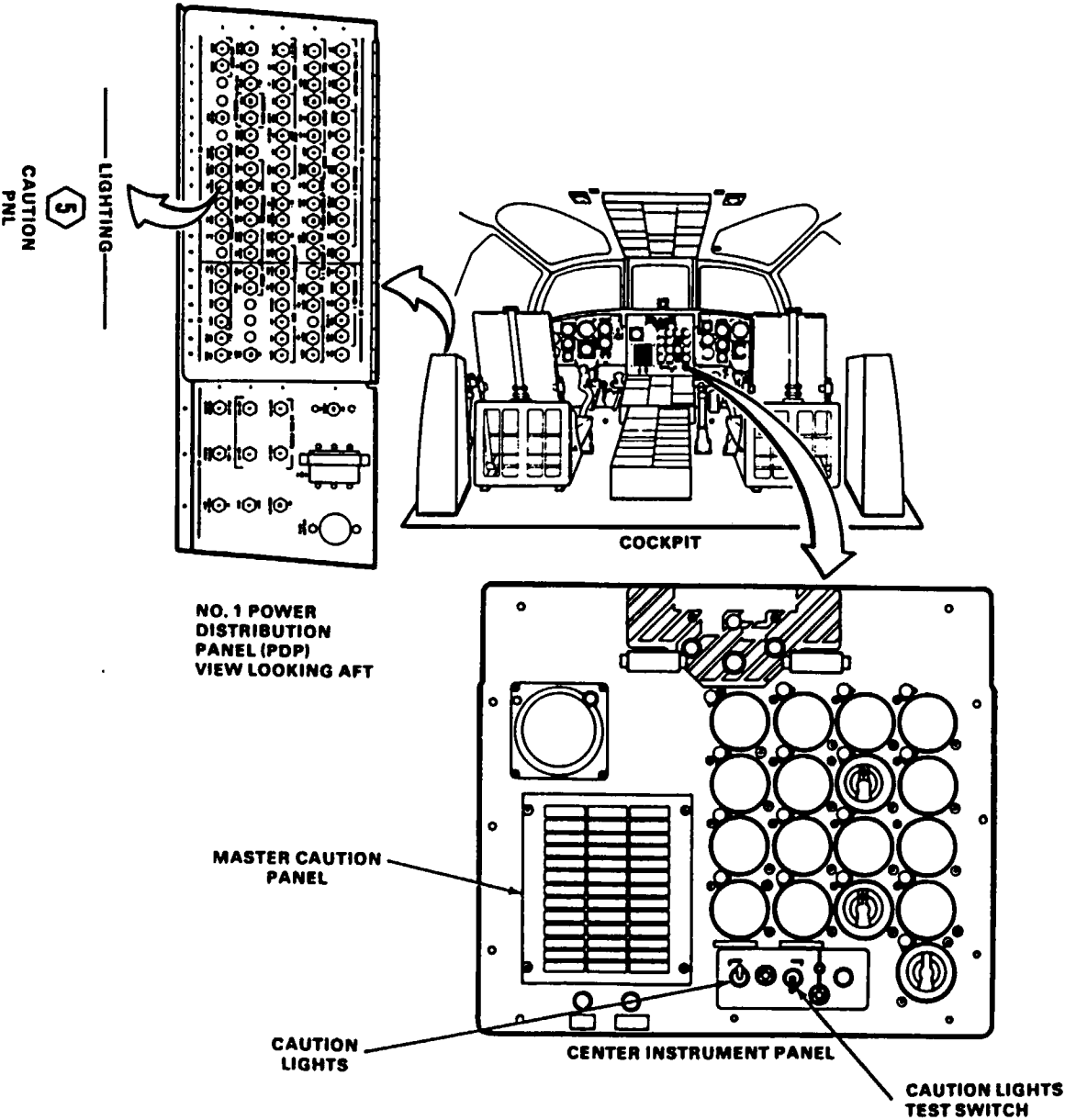
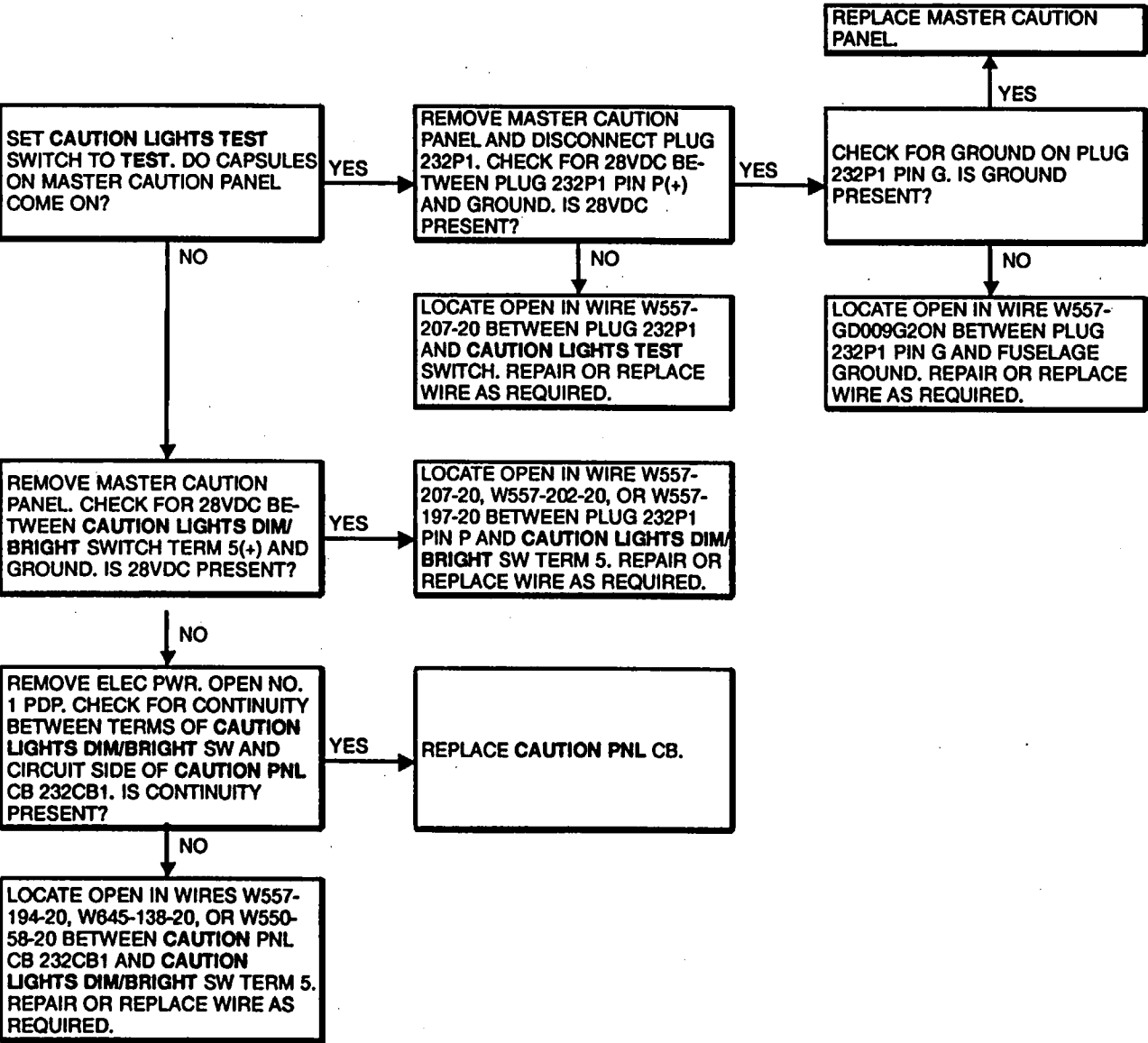
FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
Without 74

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



0145-9271-SPA

9-18.5.1 MASTER CAUTION PANEL LIGHTS DO NOT COME ON WHEN BATTERY SWITCH SET TO ON

9-18.5.1

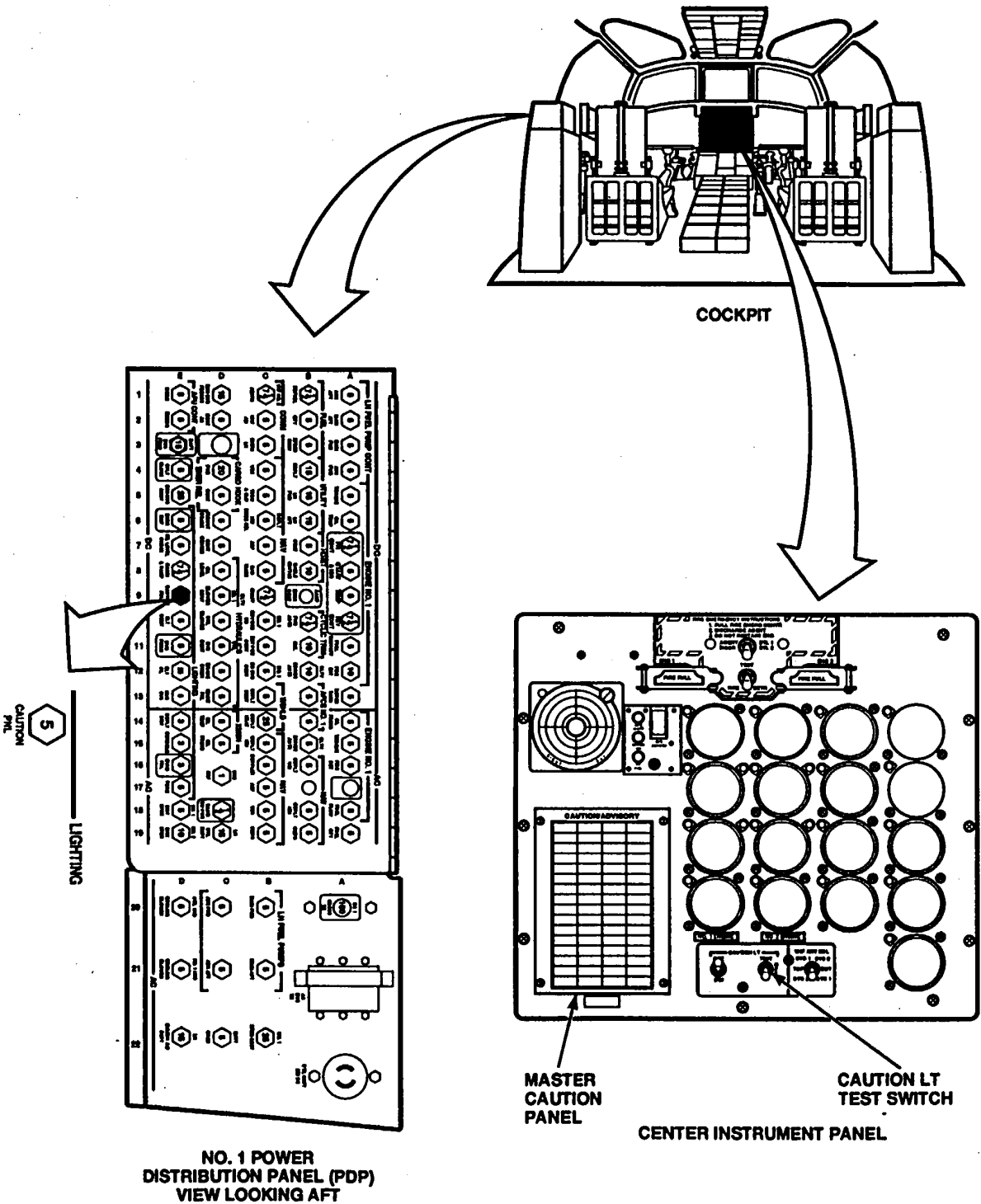
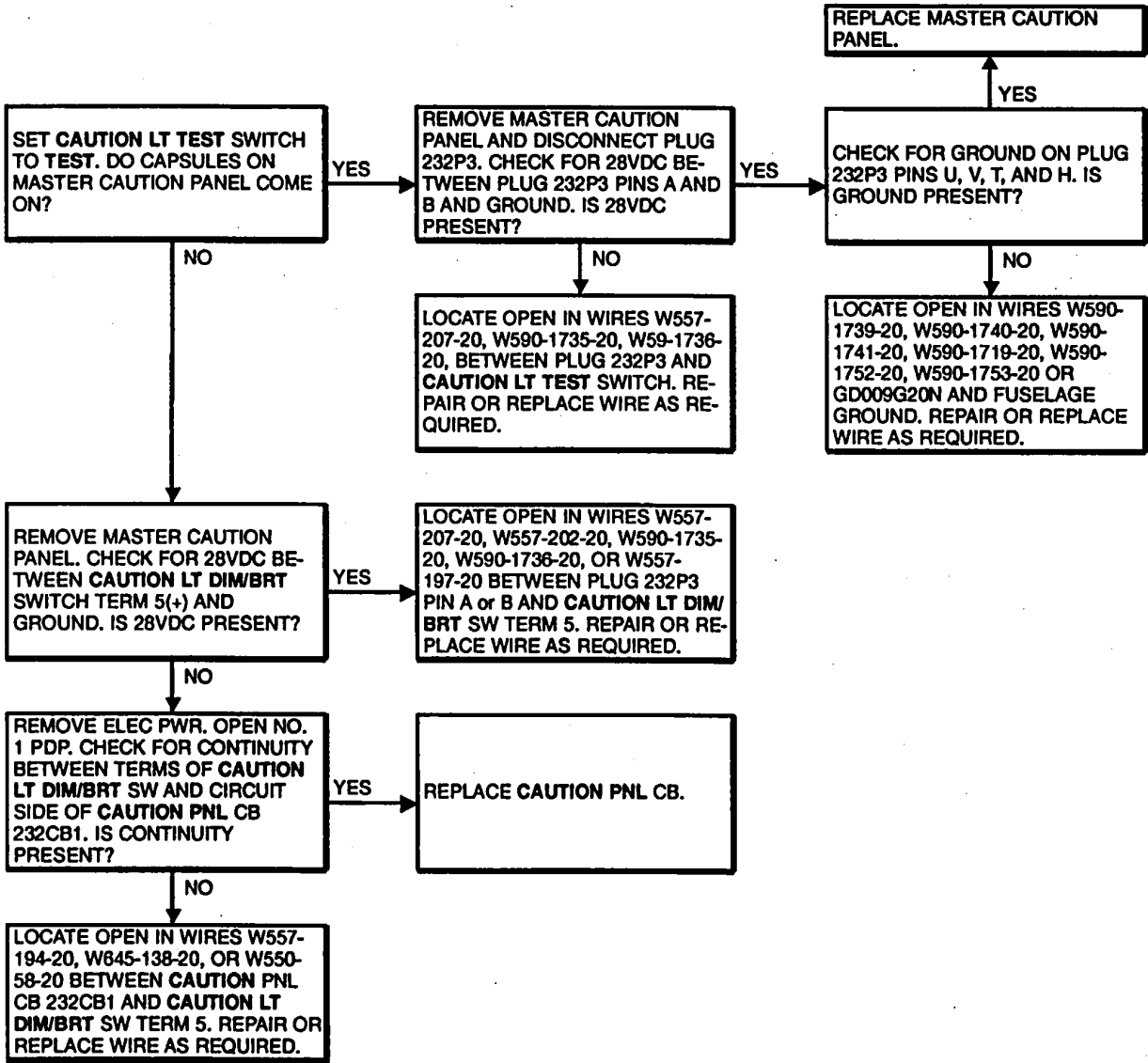
FAULT ISOLATION PROCEDURE

INITIAL SETUP  
**Applicable Configurations:**  
With 74

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
Aircraft Electrician  
**References:**  
TM 55-1520-240-23  
**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



A65491

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

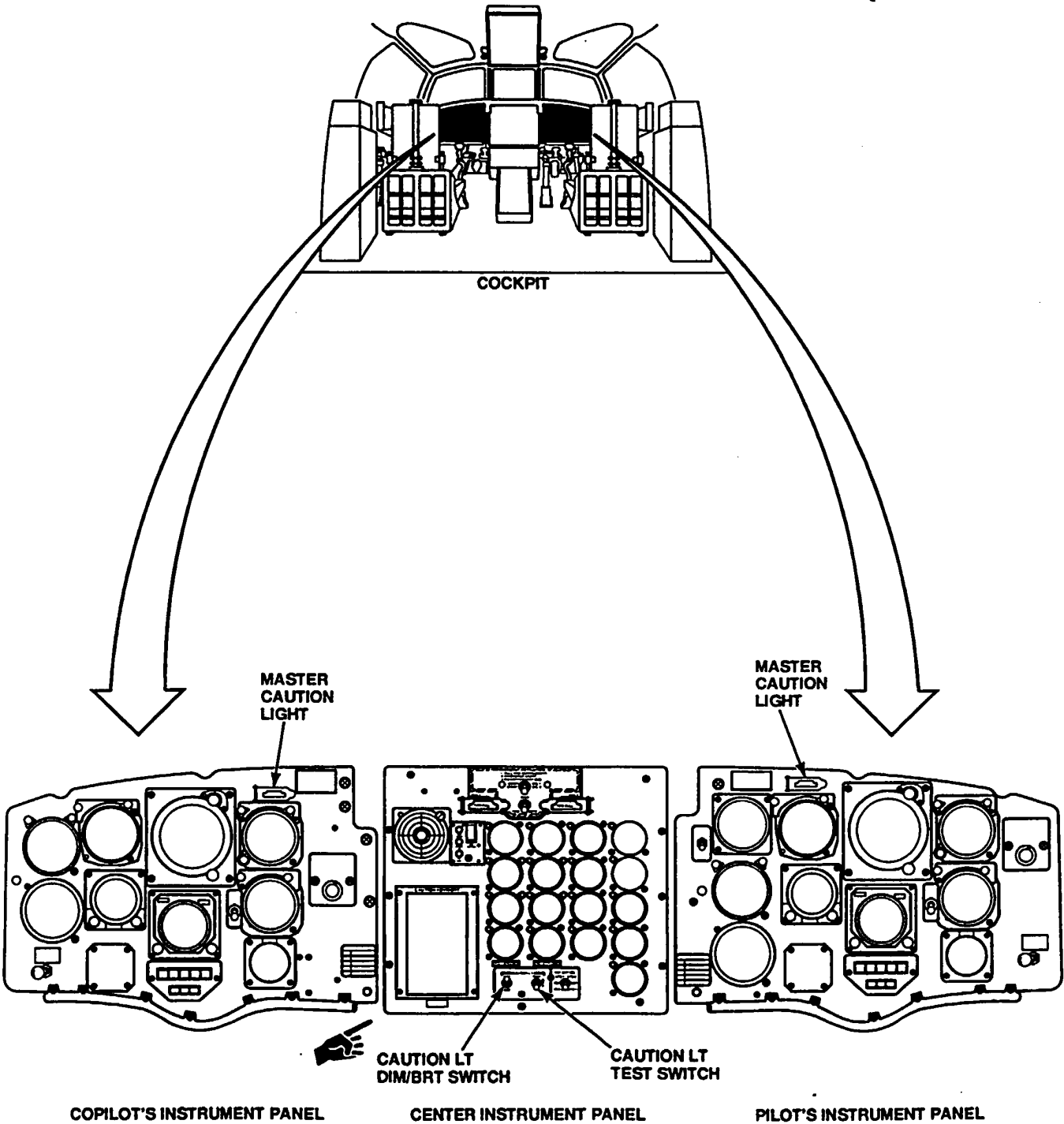
Aircraft Electrician

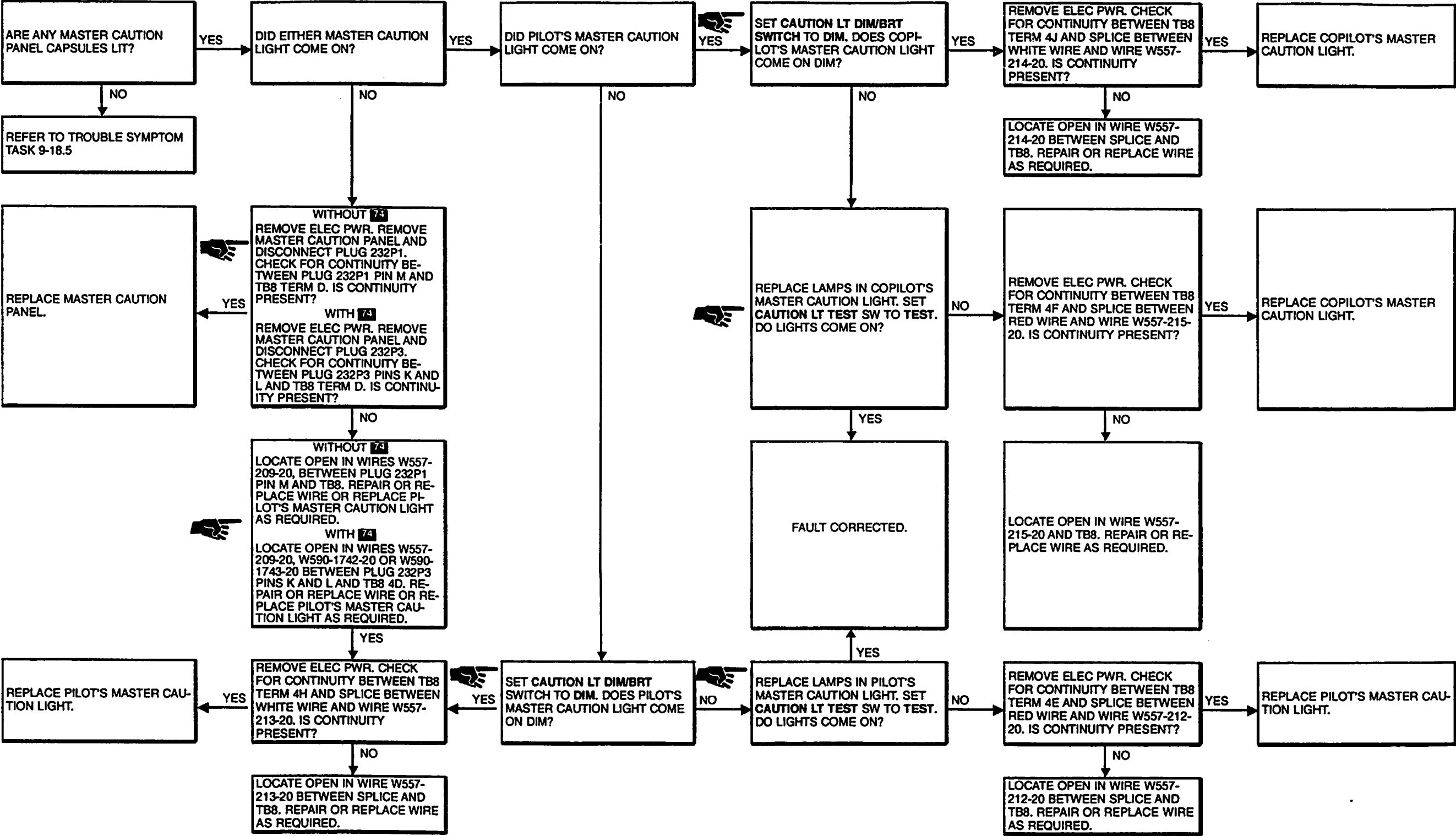
References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off







FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:**
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
  - Multimeter

Materials:

- None

Personnel Required:

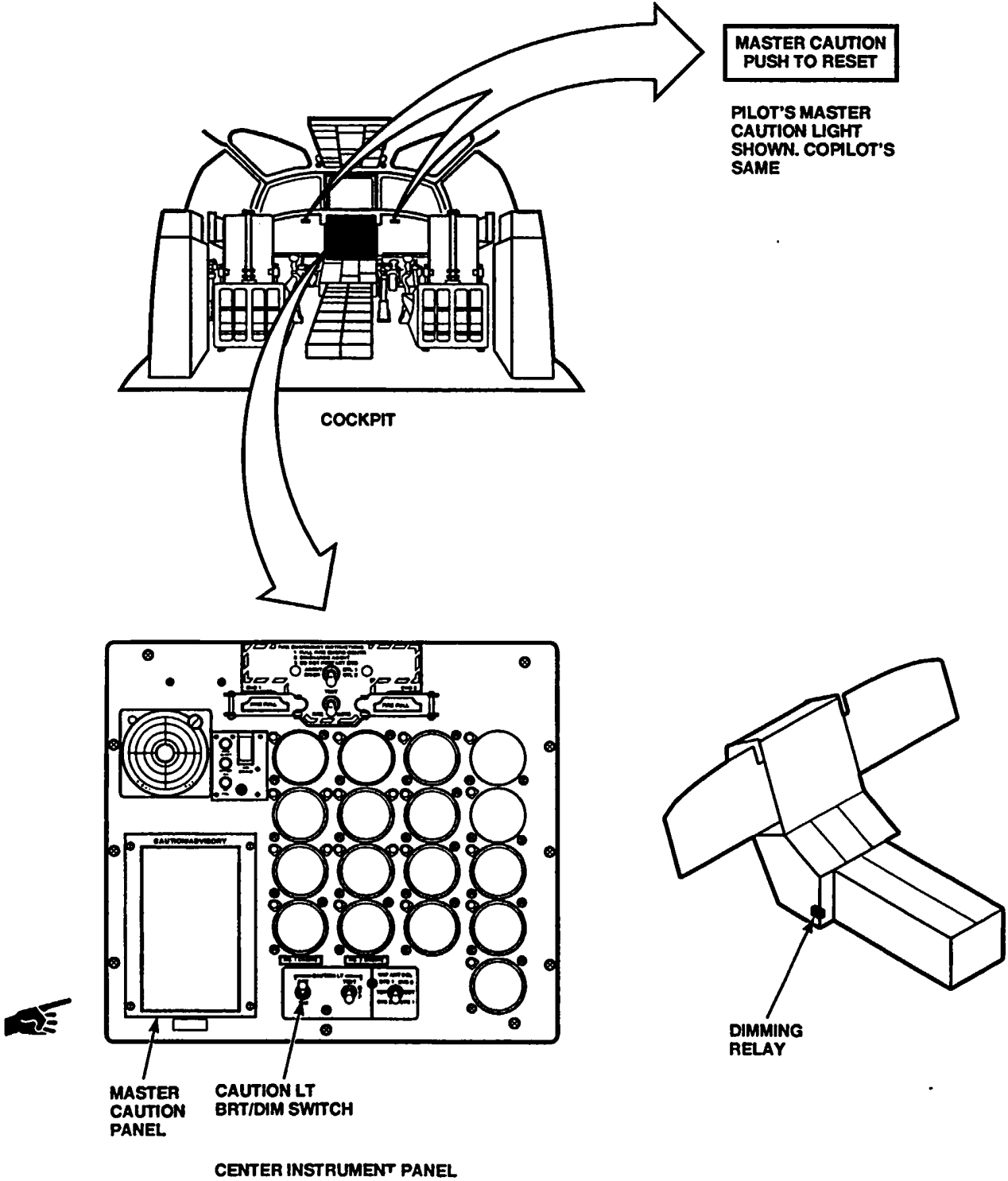
- Aircraft Electrician

References:

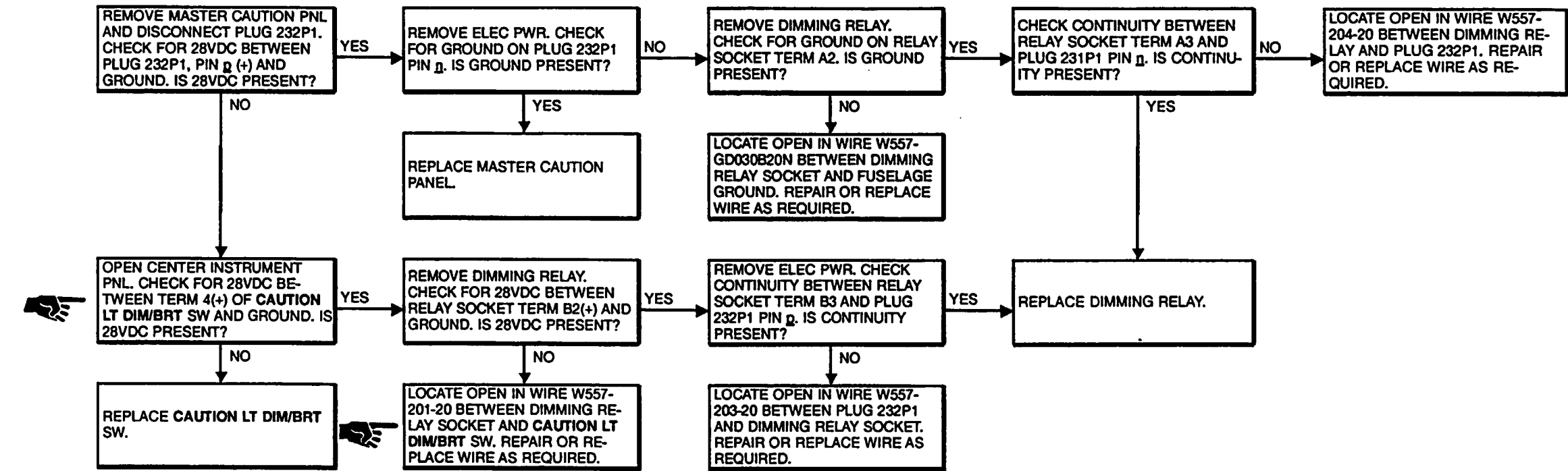
- TM 55-1520-240-23

Equipment Condition:

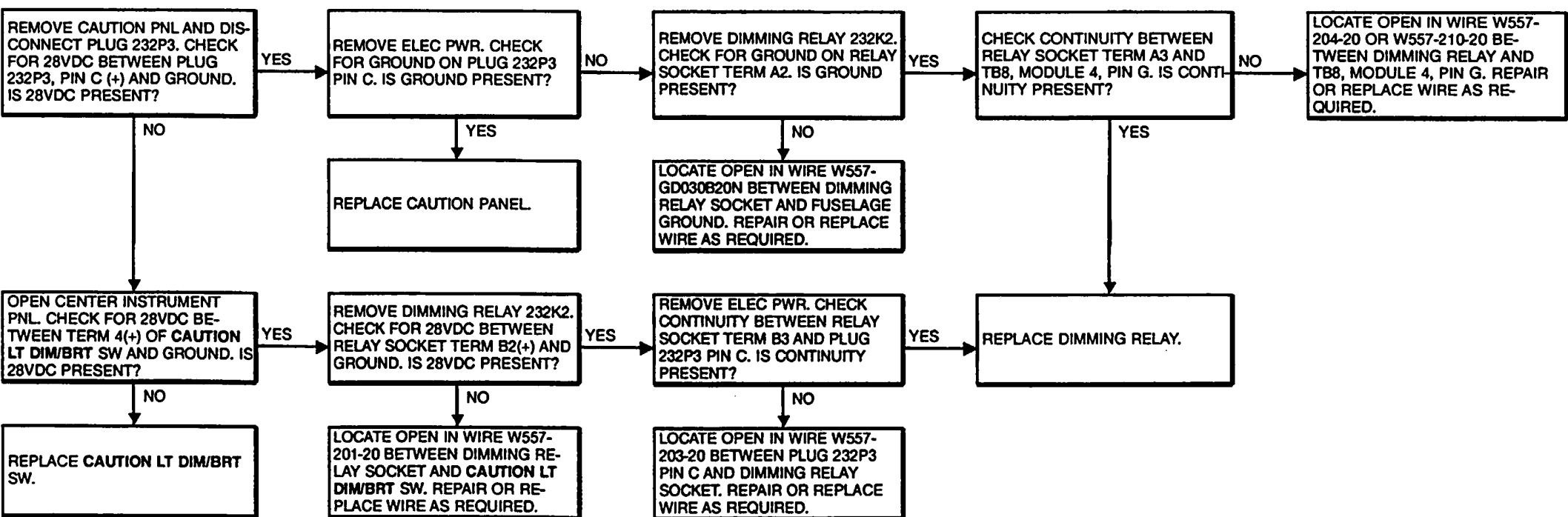
- TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



WITHOUT 74



WITH 74



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

- All
- Tools:**
- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
  - Multimeter
- Materials:**
- None

Personnel Required:

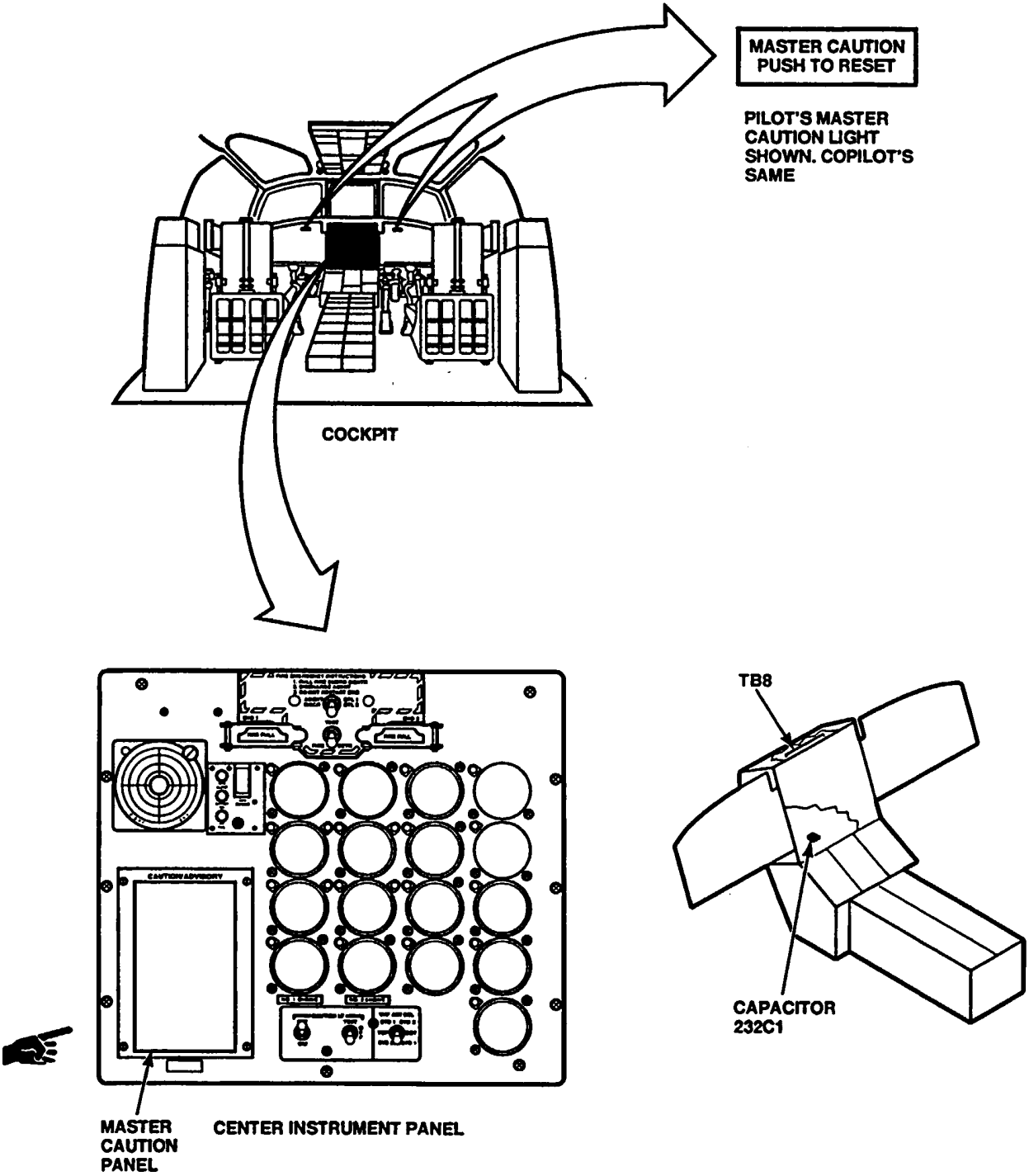
Aircraft Electrician

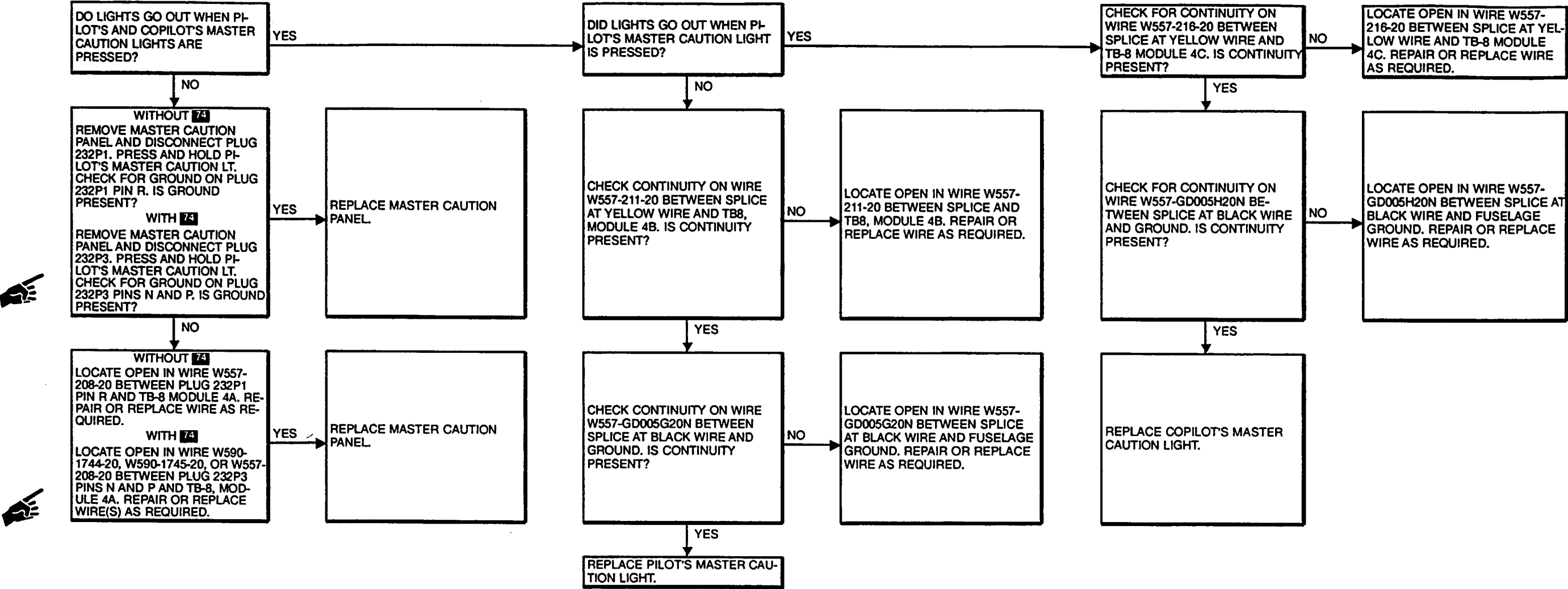
References:

TM 55-1520-240-23

Equipment Condition:

- TM 55-1520-240-23:
- Battery Disconnected
  - Electrical Power Off
  - Hydraulic Power Off





FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00323-4915

Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician (2)

References:

TM 55-1520-240-23

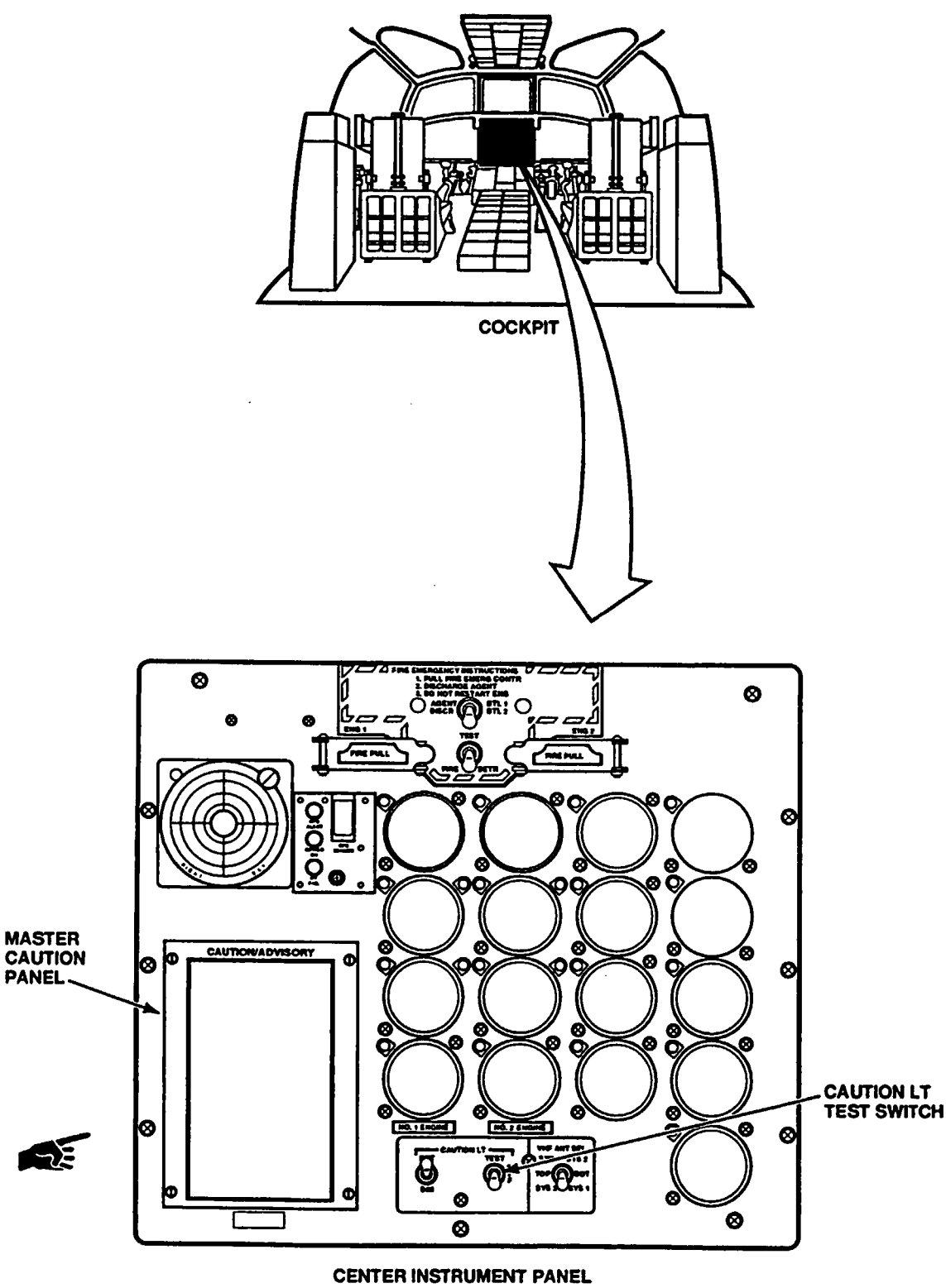
Equipment Condition:

TM 55-1520-240-23:

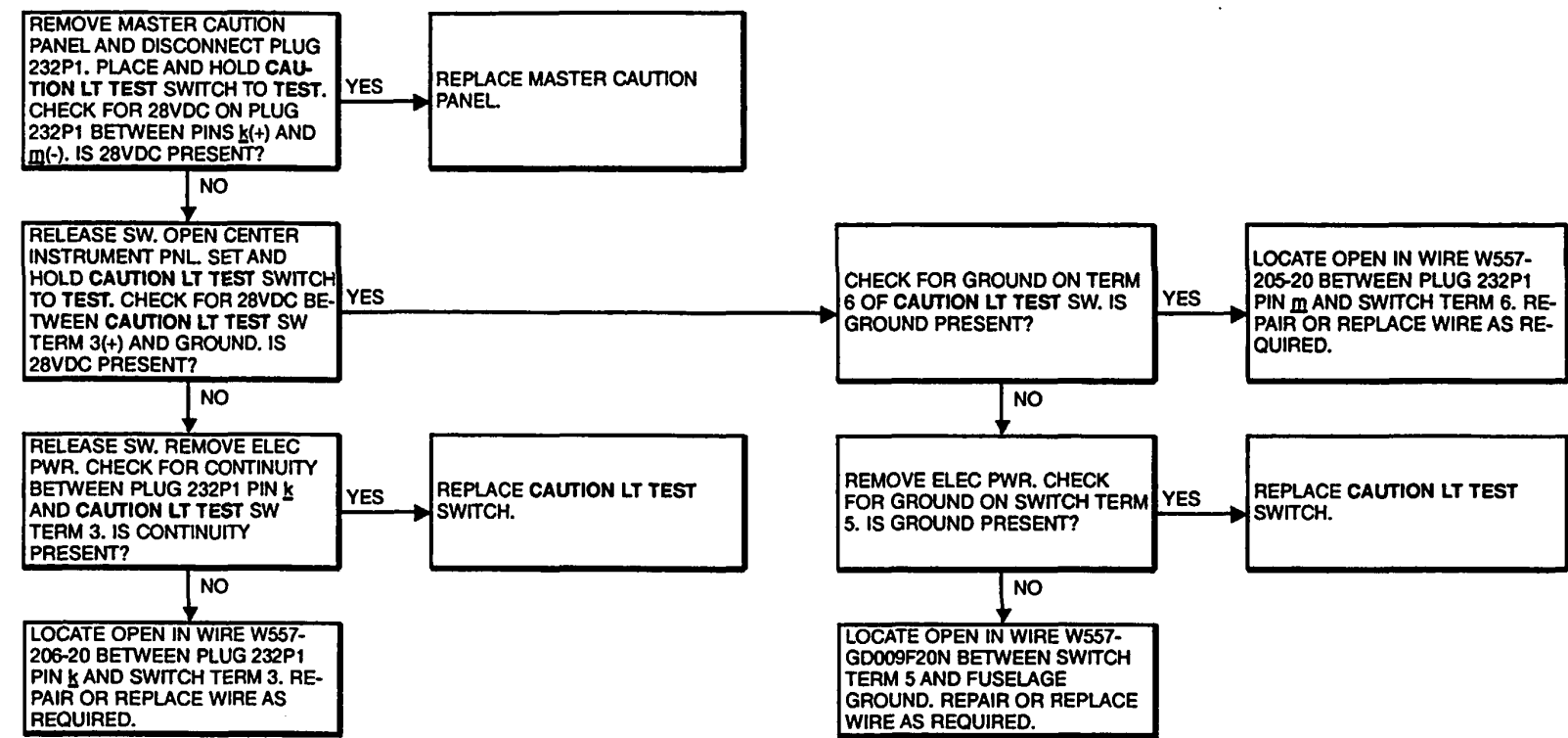
Battery Connected

Electrical Power Off

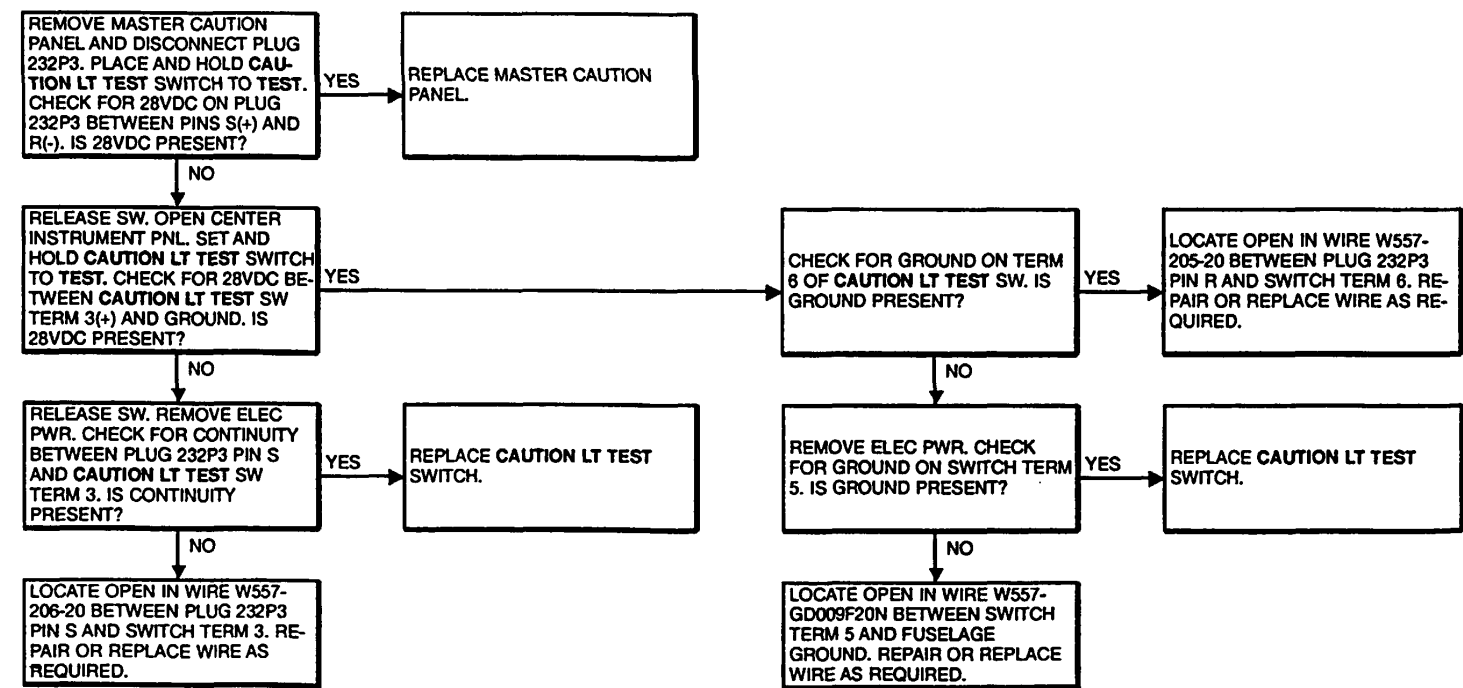
Hydraulic Power Off



WITHOUT 74



WITH 74



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

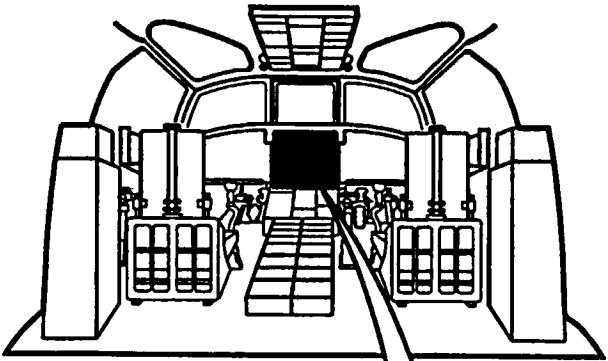
- All
- Tools:
- Electrical Repairer's Tool Kit,  
NSN 518000-323-4915
  - Multimeter

Materials:

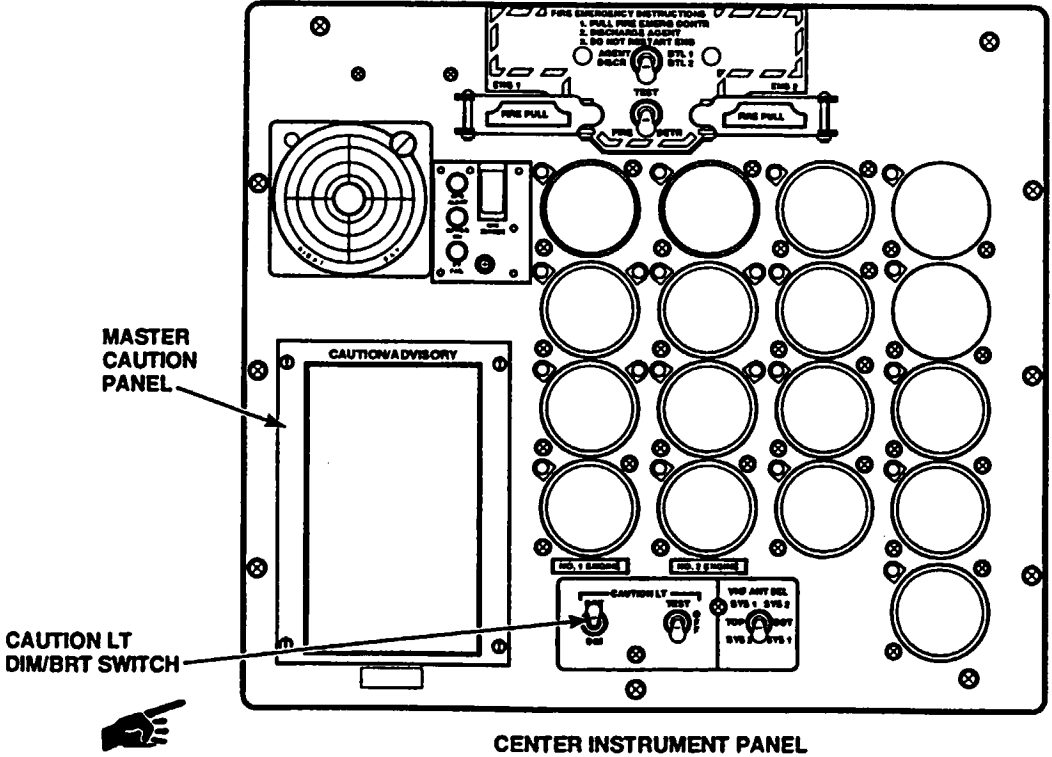
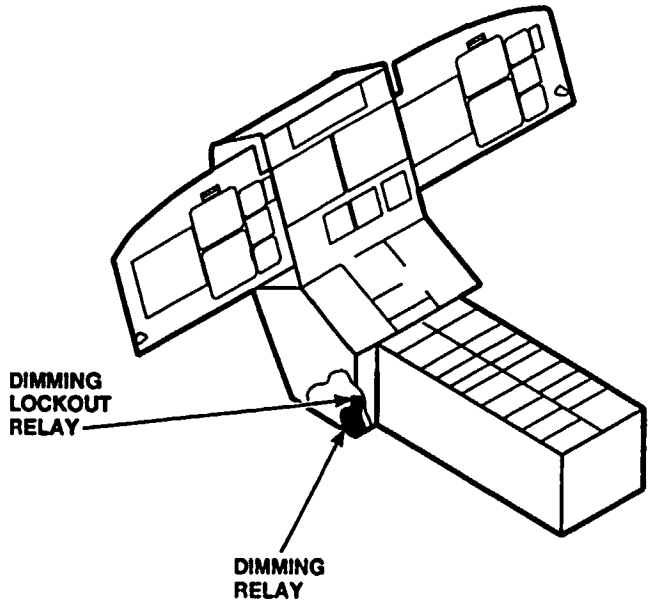
- None
- Personnel Required:
- Aircraft Electrician (2)

References:

- TM 55-1520-240-23
- Equipment Condition:
- TM 55-1520-240-23:
  - Battery Connected
  - Electrical Power Off
  - Hydraulic Power Off
  - L.H. Forward Console Cover Removed
  - Console Lighting Panel Lowered

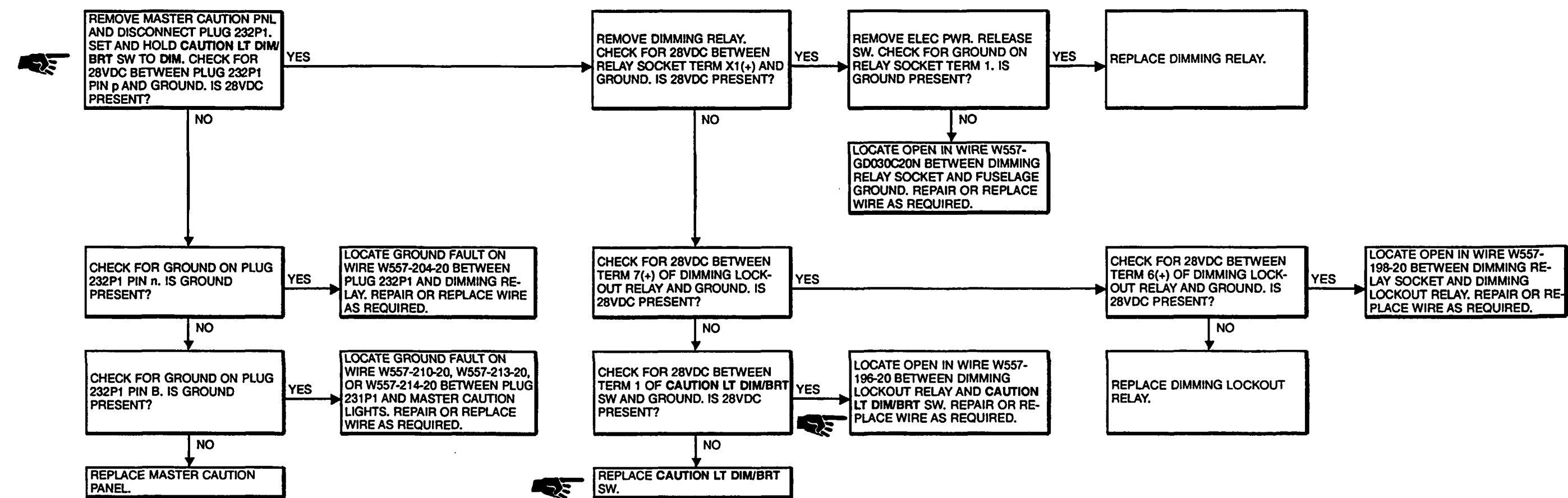


COCKPIT



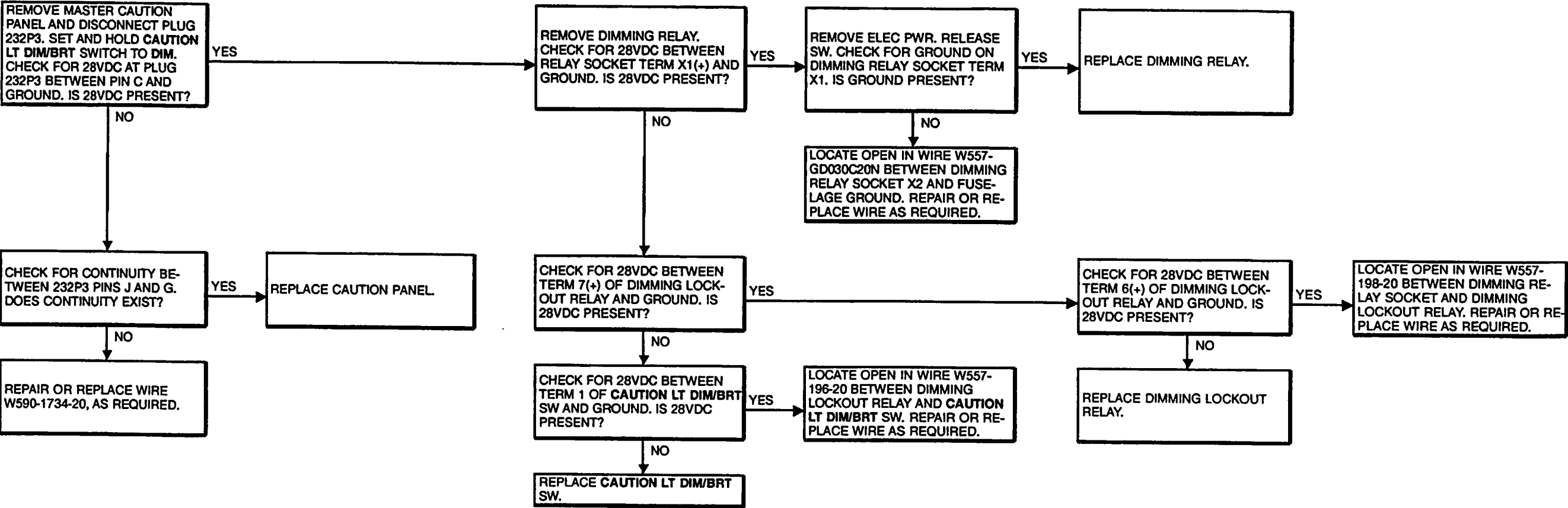
A65495

WITHOUT 74





WITH 74



9-18.11 MASTER CAUTION PANEL LIGHTS DO NOT GO BRIGHT  
WHEN DOME SELECT SWITCH SET TO WHITE

9-18.11

FAULT ISOLATION PROCEDURE  
INITIAL SETUP

Applicable Configurations:  
All

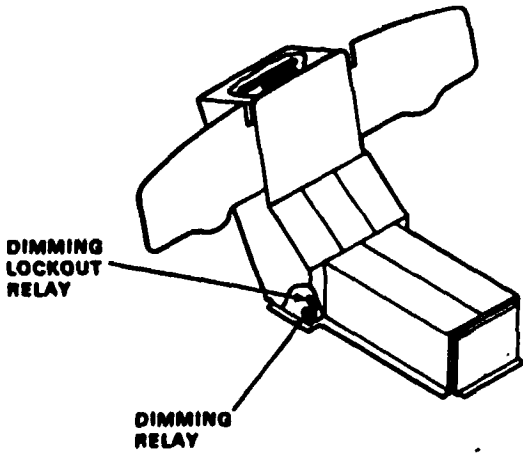
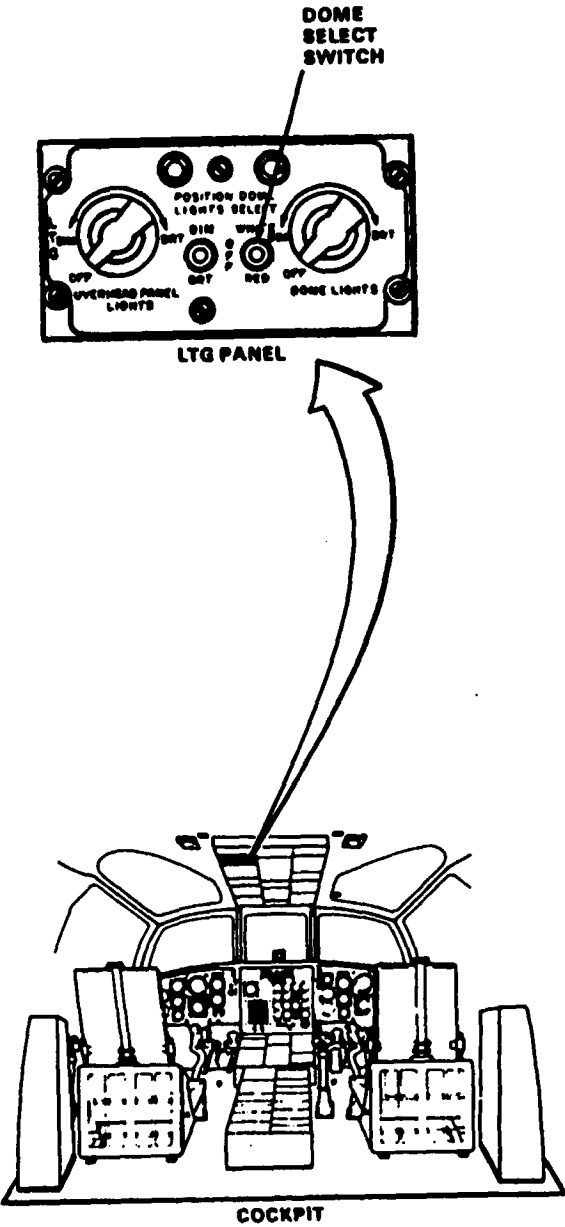
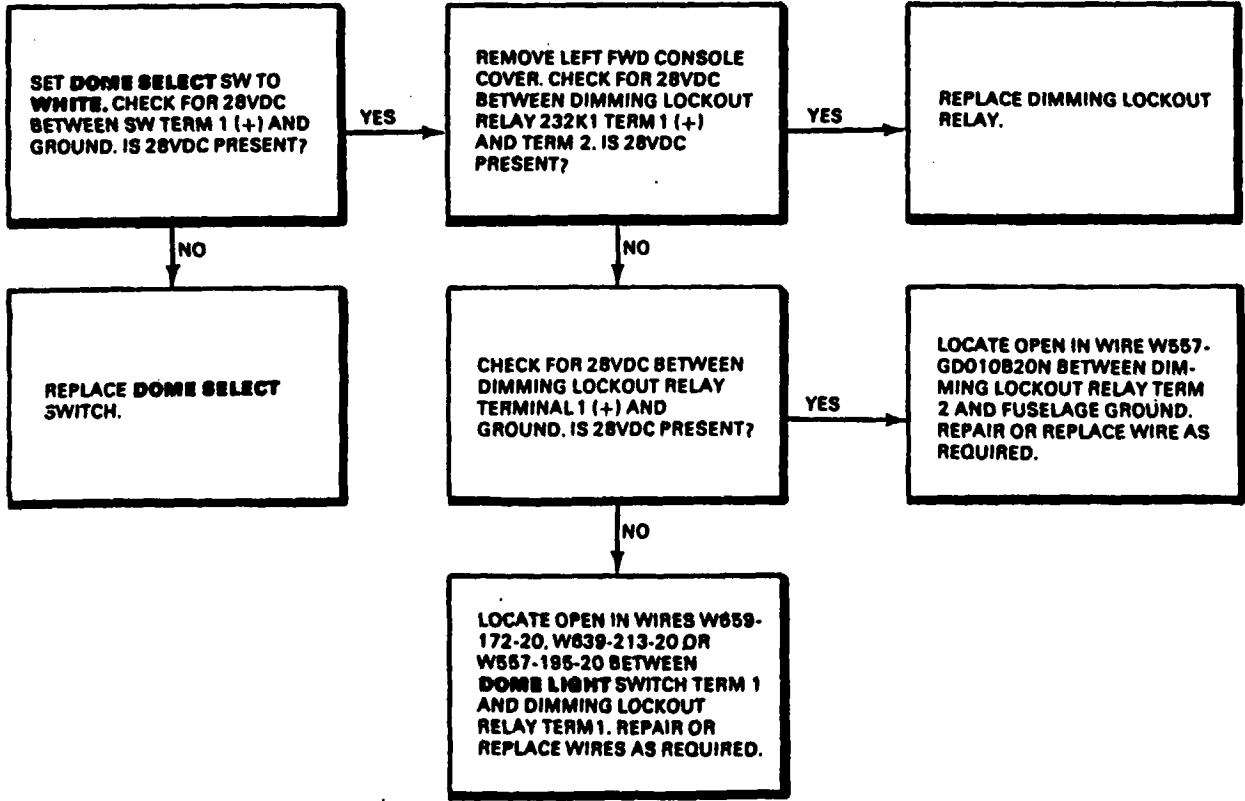
Tools:  
Electrical Repairer's Tool Kit.  
NSN 5180-00-323-4915  
Multimeter

Materials:  
None

Personnel Required:  
68F10 Aircraft Electrician  
68F20 Aircraft Electrician

References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
LTG Panel Lowered From Overhead Panel  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



**FAULT ISOLATION PROCEDURE**

**INITIAL SETUP**

**Applicable Configurations:**

All

**Tools:**

- Electrical Repairer's Tool Kit,  
NSN 5180-003234915
- Multimeter

**Materials:**

None

**Personnel Required:**

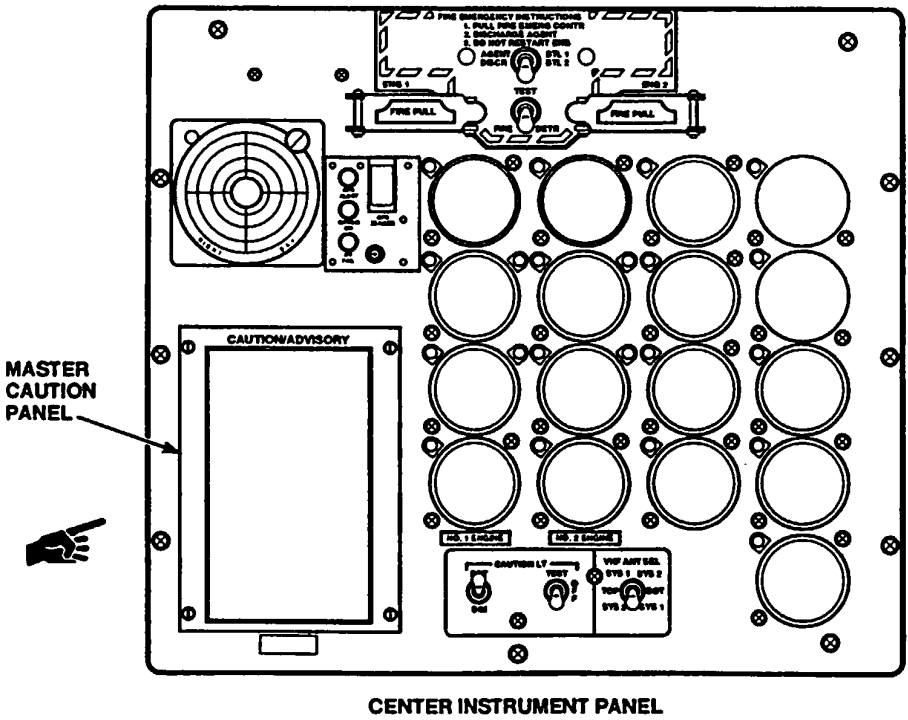
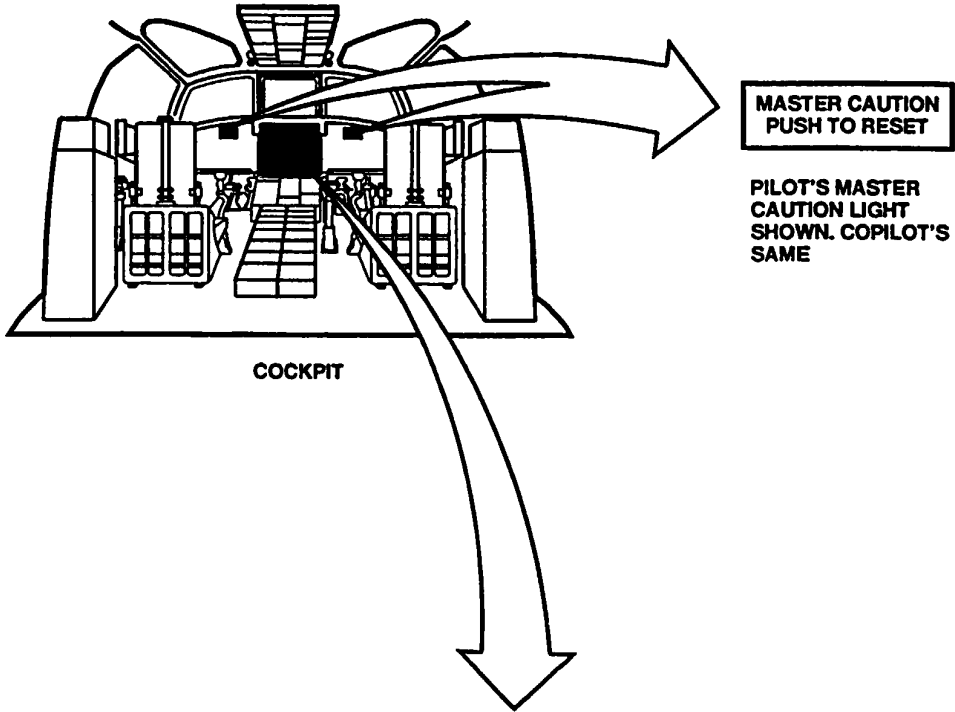
Aircraft Electrician

**References:**

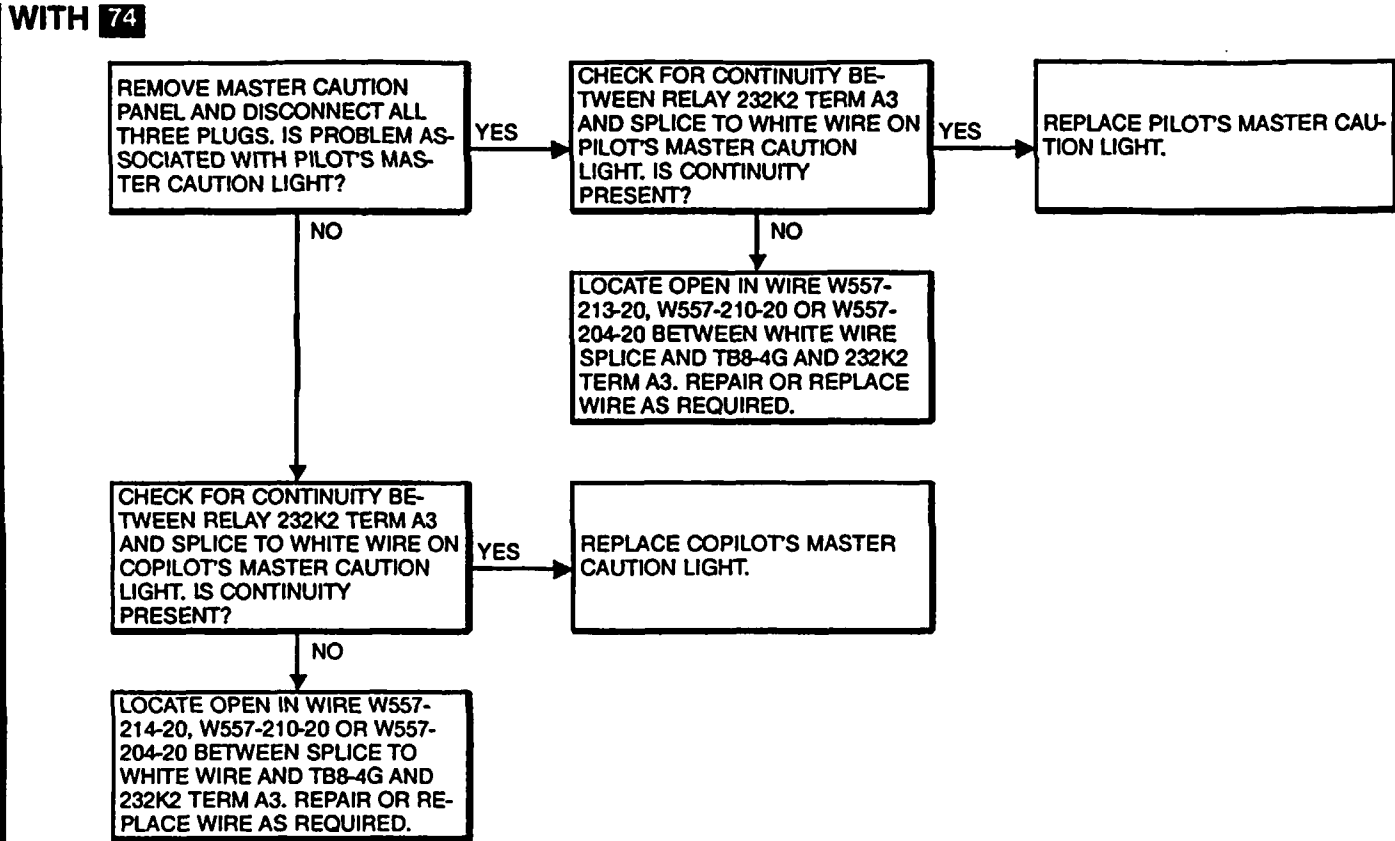
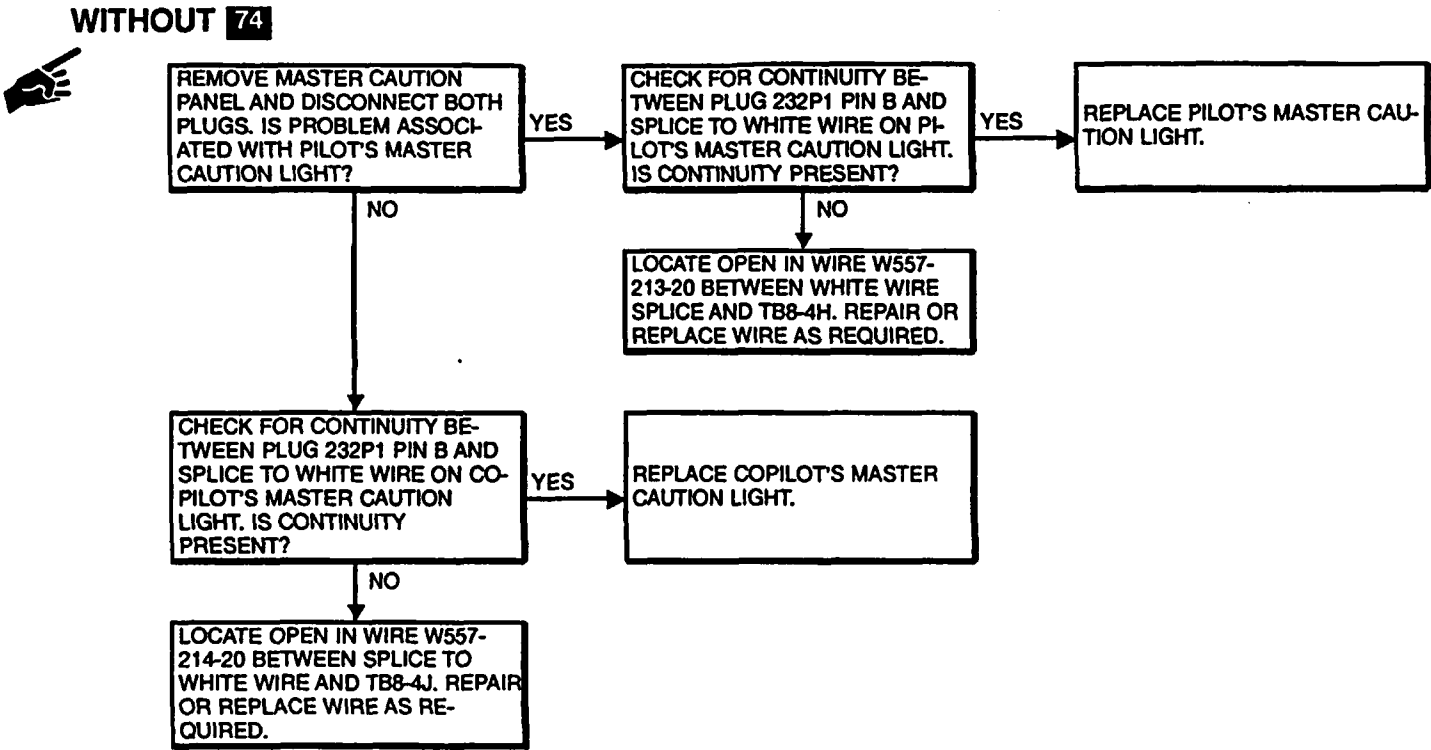
TM 55-1520-240-23

**Equipment Condition:**

- TM 55-1520-240-23:
  - Battery Disconnected
  - Electrical Power Off
  - Hydraulic Power Off



A65496



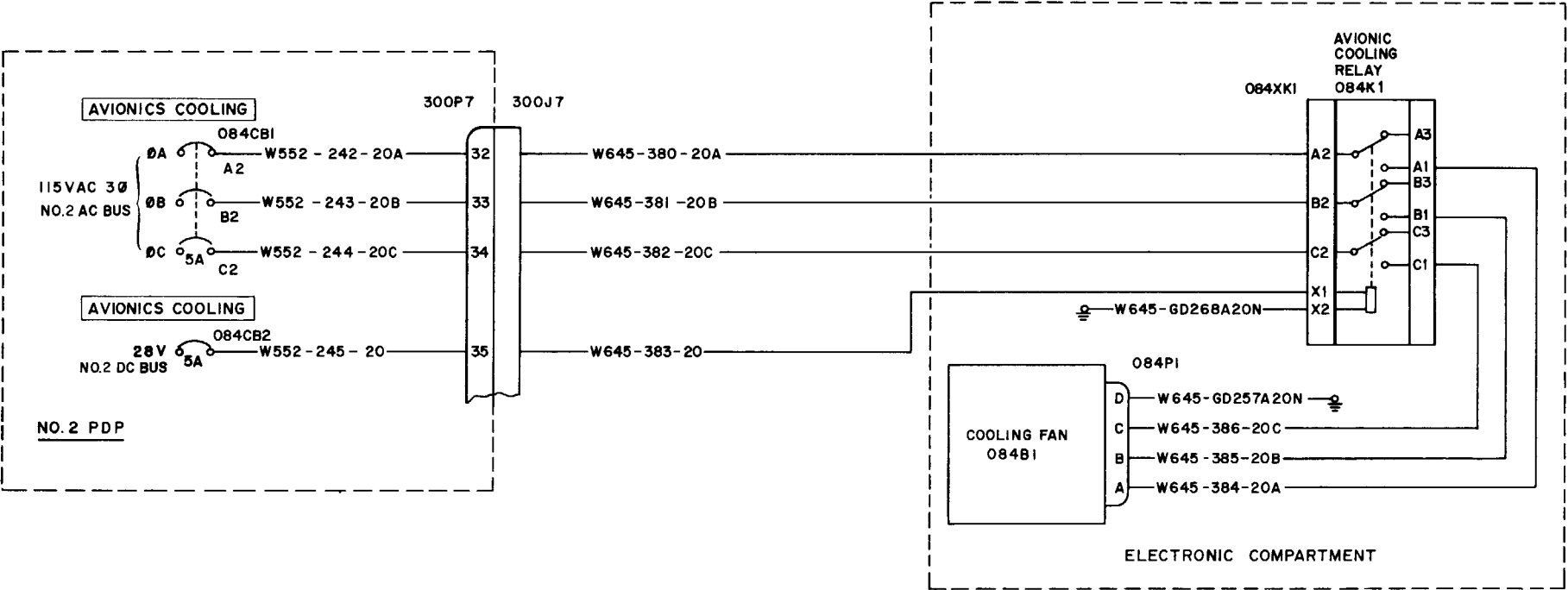
## **9-19 AVIONICS COOLING FAN**

9-19 AVIONICS COOLING FAN

9-19.1 AVIONICS COOLING FAN WIRING  
DIAGRAM

9-19

9-19.1



9-19.2 AVIONICS COOLING FAN VISUAL CHECK

9-19.2

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

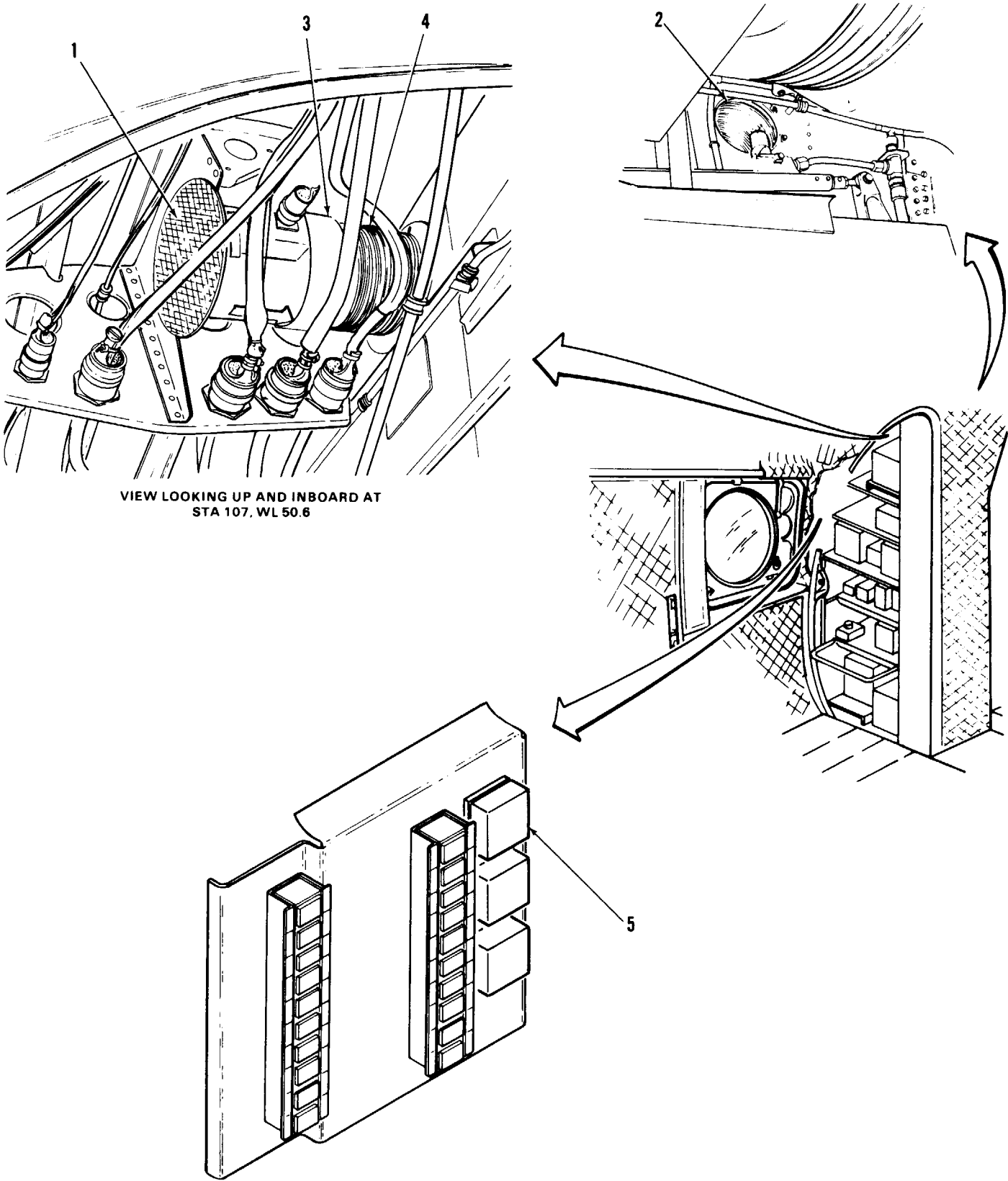
- Battery Disconnected
- Electrical Power Off
- Hydraulic Power Off
- Electronic Compartment Acoustic Blanket Removed
- Forward Transmission Drip Pan Removed

TASK	RESULT
1. Check cooling fan inlet screen (1).	If screen (1) is clogged, clean it.
2. Check cooling fan outlet (2).	Remove any debris found in cooling fan outlet (2).
3. Check cooling fan (3).	If cooling fan (3) is loose or damaged, tighten or replace it as required. If electrical connector or wiring to connector is damaged, replace it.
4. Check fan duct (4).	If fan duct (4) is torn or loose, tighten or replace it as required.
5. Check fan relay (5).	If fan relay (5) is loose or damaged, tighten or replace it as required.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:

- Electronic Compartment Acoustic Blanket Installed
- Fwd Transmission Drip Pan Installed



9-19.3 AVIONIC COOLING FAN OPERATIONAL CHECK

INITIAL SETUP	<b>Personnel Required:</b> 68F20 Aircraft Electrician
<b>Applicable Configurations:</b> All	<b>References:</b> TM 55-1520-240-23
<b>Tools:</b> None	<b>Equipment Condition:</b> TM 55-1520-240-23: Battery Connected Electrical Power On Hydraulic Power Off Visual Check of Avionic Cooling Fan Performed (Task 9-19.2)
<b>Materials:</b> None	

TASK	RESULT
1. Check that <b>AVIONIC COOLING DC circuit breaker (1)</b> is closed.	If AVIONIC COOLING circuit breaker (1) is open, close it. If it opens again, go to task 9-19.4.
2. Check that <b>AVIONIC COOLING AC circuit breaker (2)</b> is closed.	If AVIONIC COOLING circuit breaker (2) is open, close it. If it opens again, go to task 9-19.5.
<div>CAUTION</div> <p>Do not place hand into discharge port. Injury to hand could occur.</p>	
3. Place hand near discharge port (3).	Strong flow of air should be felt. If weak flow or no flow is felt, go to task 9-19.6.

FOLLOW-ON MAINTENANCE:

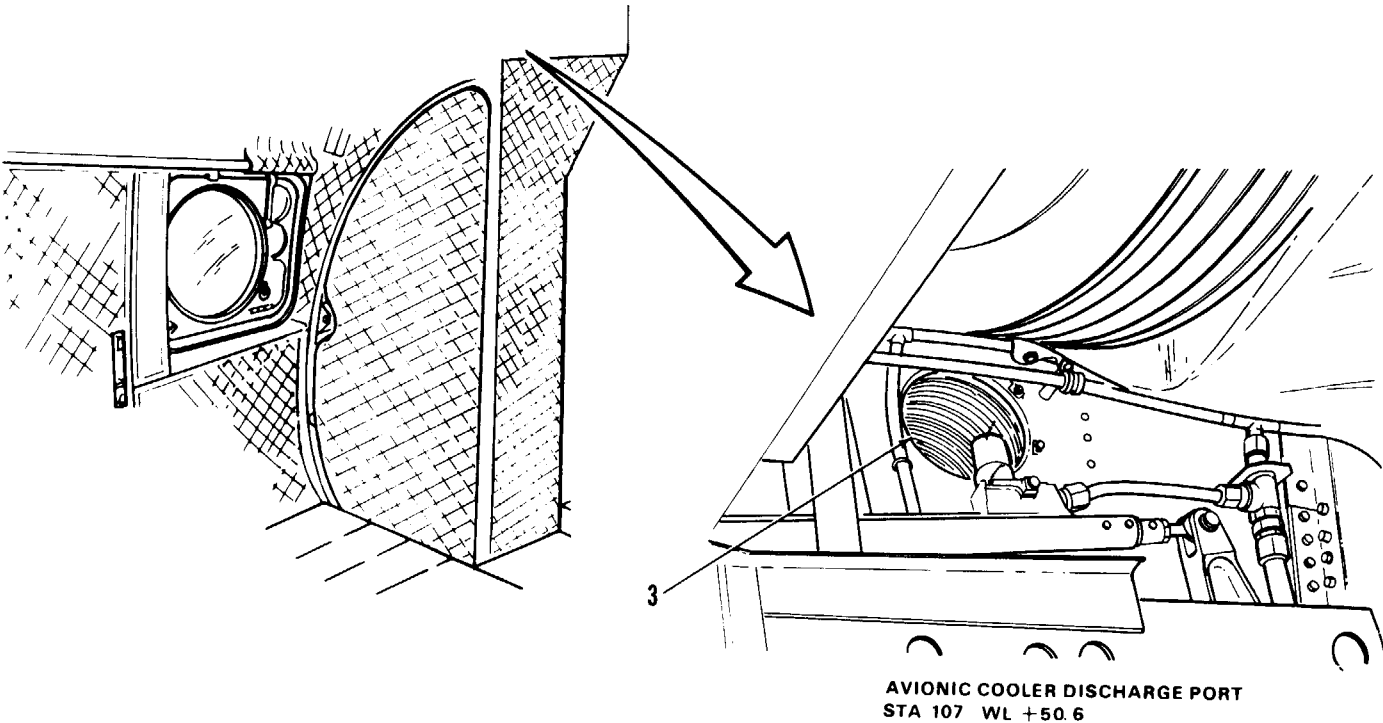
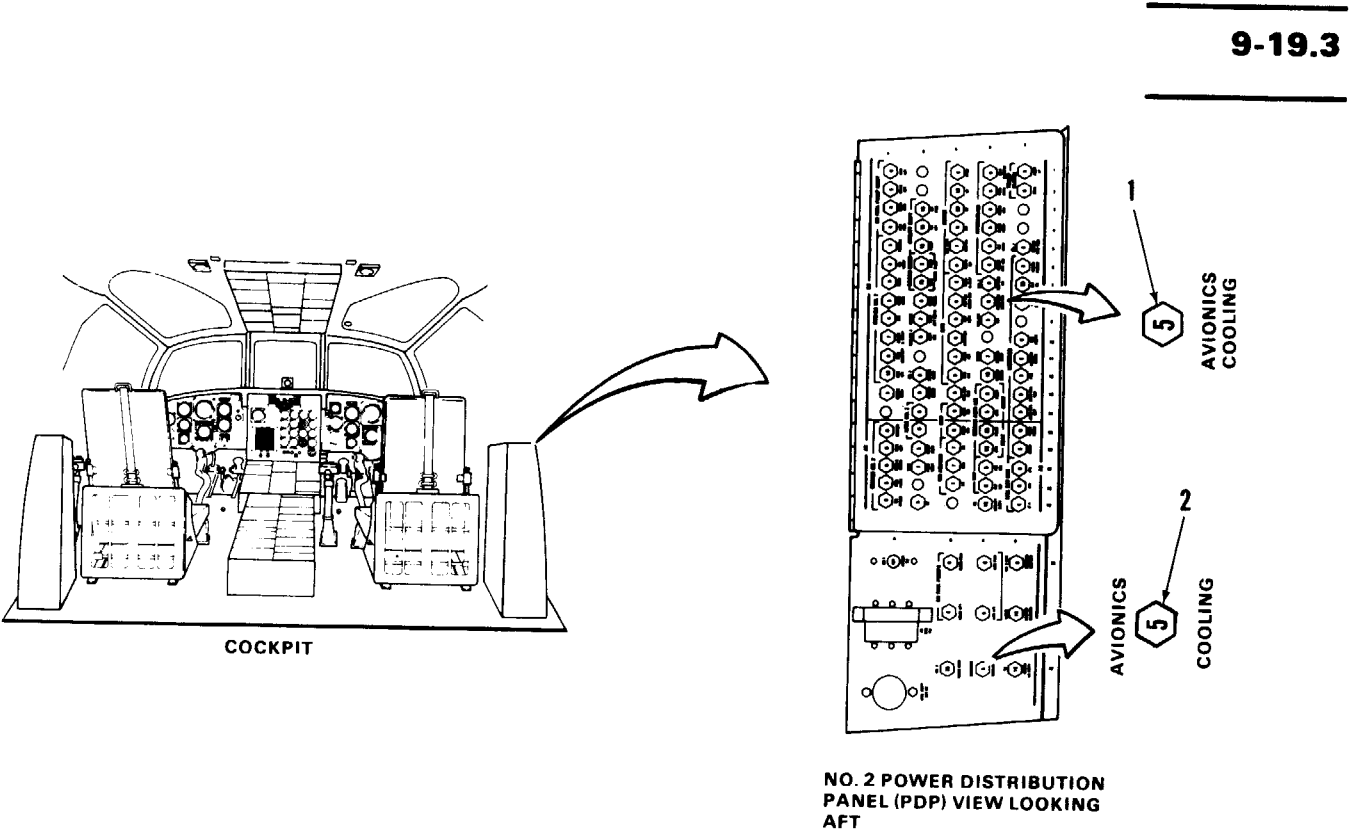
TM 55-1520-240-23:

Battery disconnected.

Electrical power off.

Hydraulic power off.

Forward Transmission Drip Pan Installed.



45 x 54

D145-7641-SPA

END OF TASK



9-19.4 AVIONIC COOLING FAN DC CIRCUIT  
BREAKER WILL NOT STAY CLOSED

FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
All

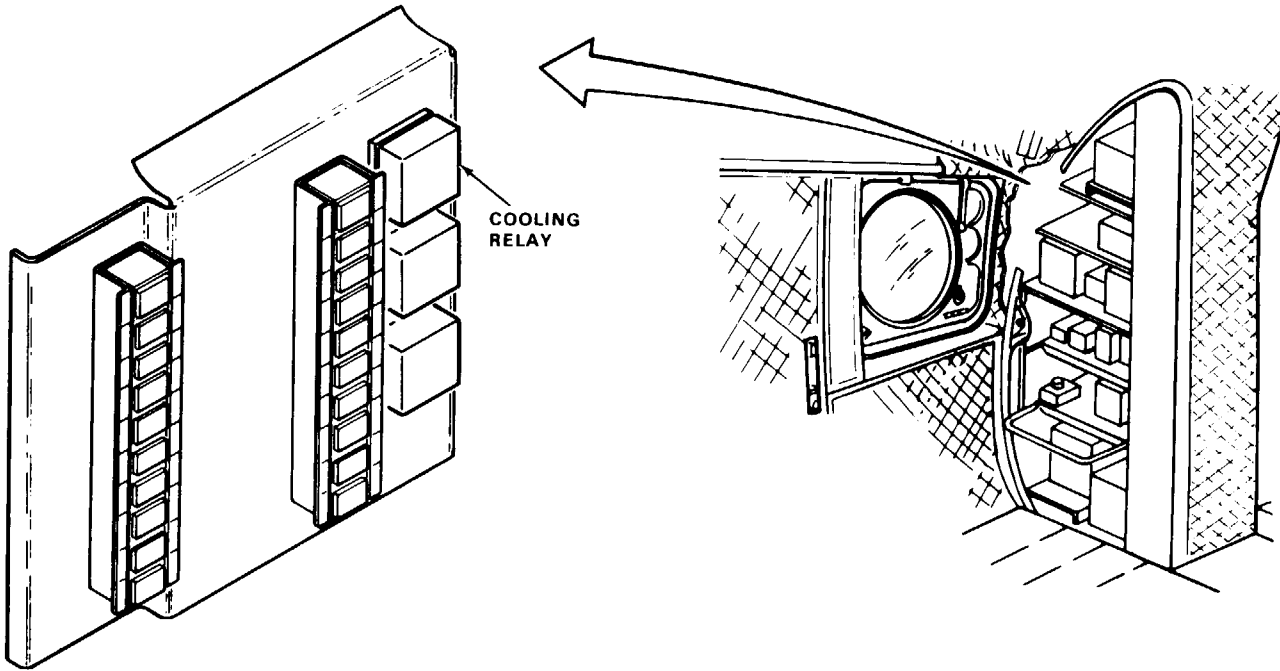
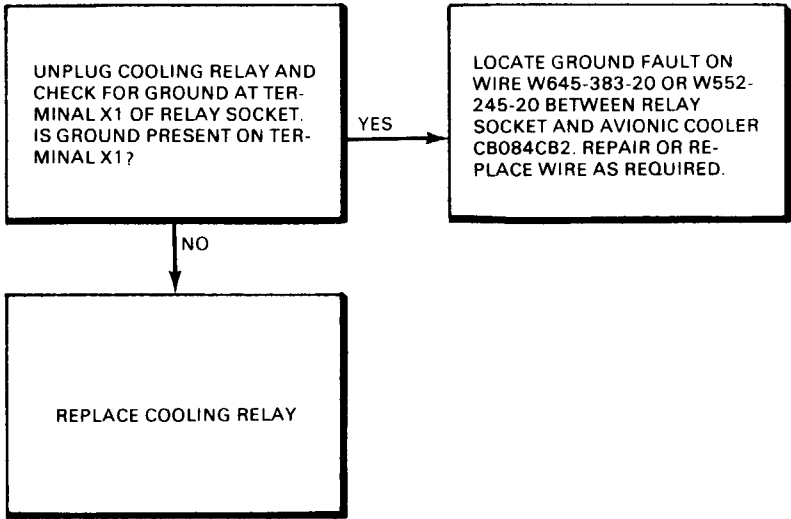
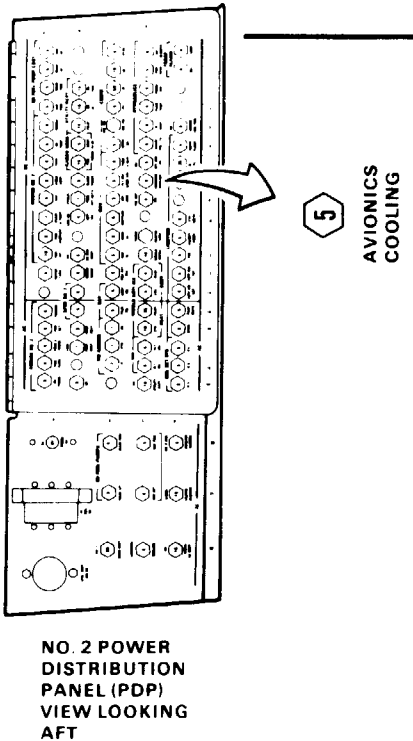
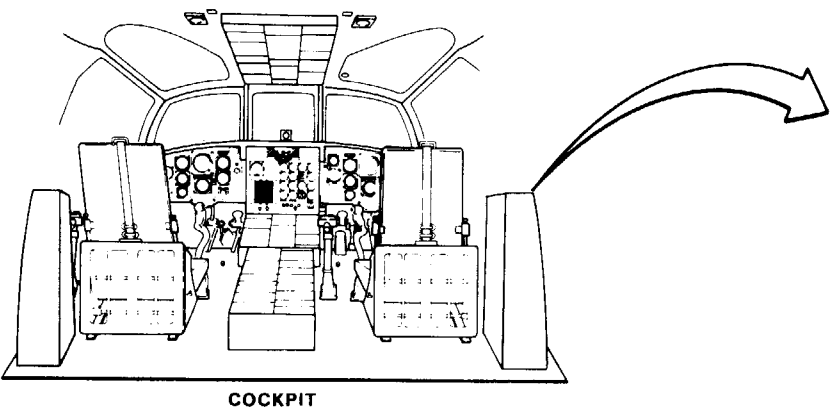
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

**Materials:**  
None

**Personnel Required:**  
68F20 Aircraft Electrician

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off  
Electronic Compartment Acoustic Blanket  
Removed



9-19.5 AVIONIC COOLING AC CIRCUIT BREAKER  
WILL NOT STAY CLOSED

FAULT ISOLATION PROCEDURE

INITIAL SETUP

**Applicable Configurations:**  
All

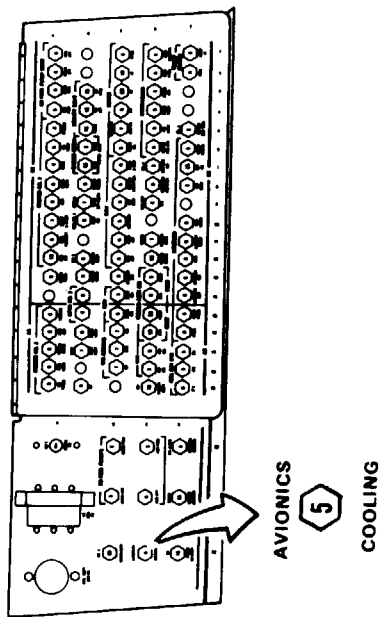
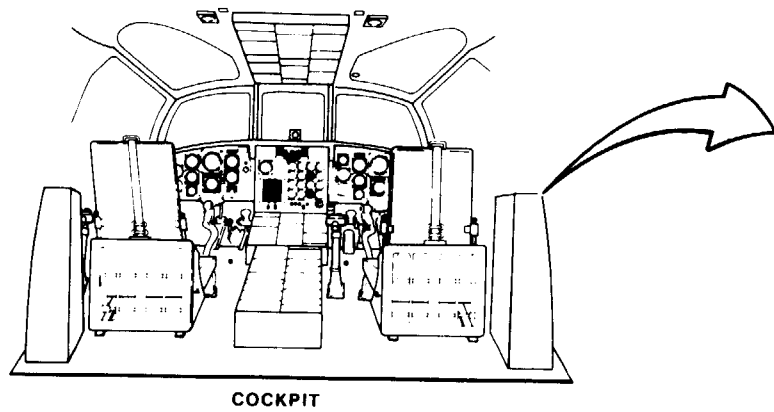
**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter  
Wood Dowel, 1-Inch X 16-Inches

**Materials:**  
None

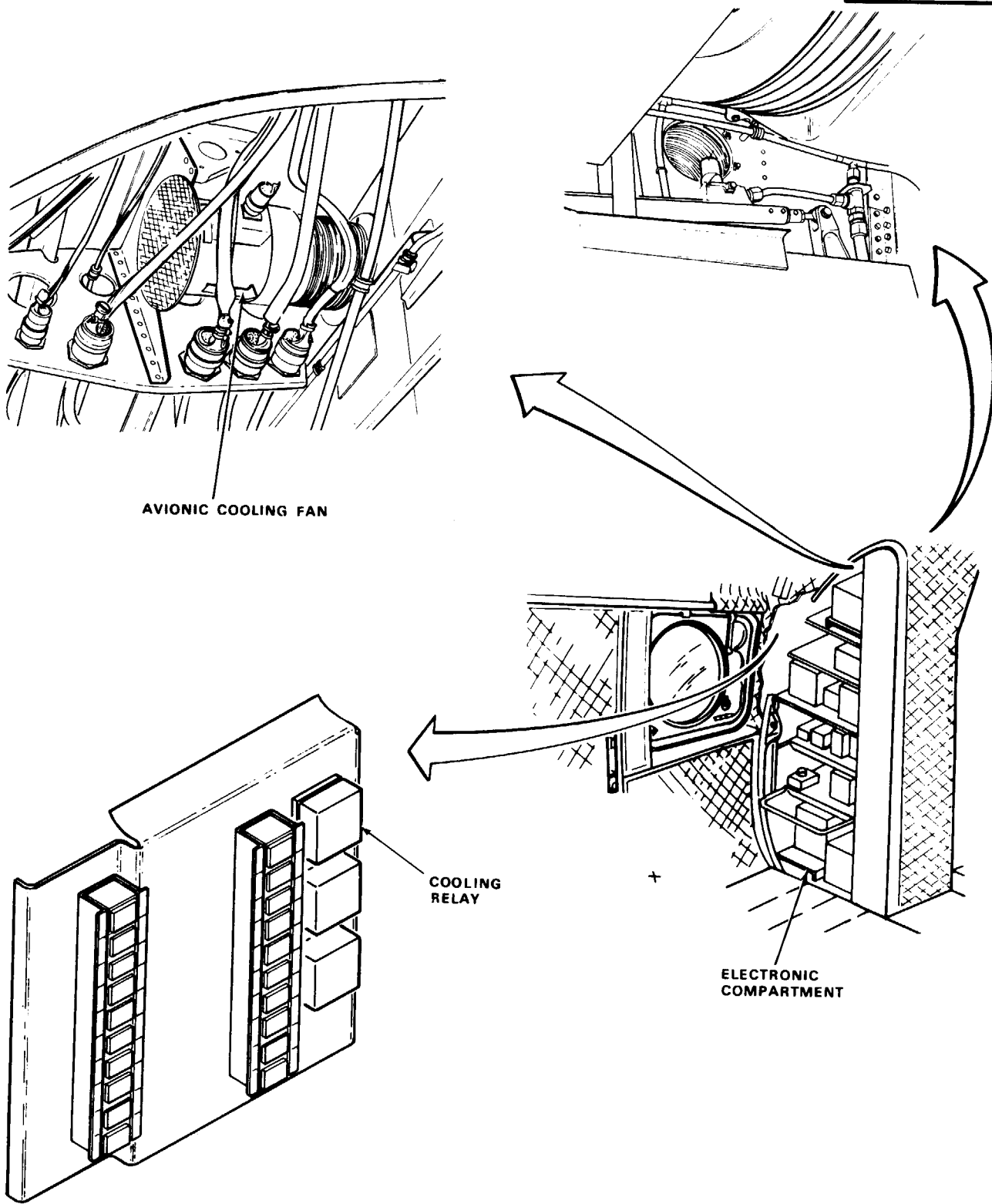
**Personnel Required:**  
68F20 Aircraft Electrician

**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

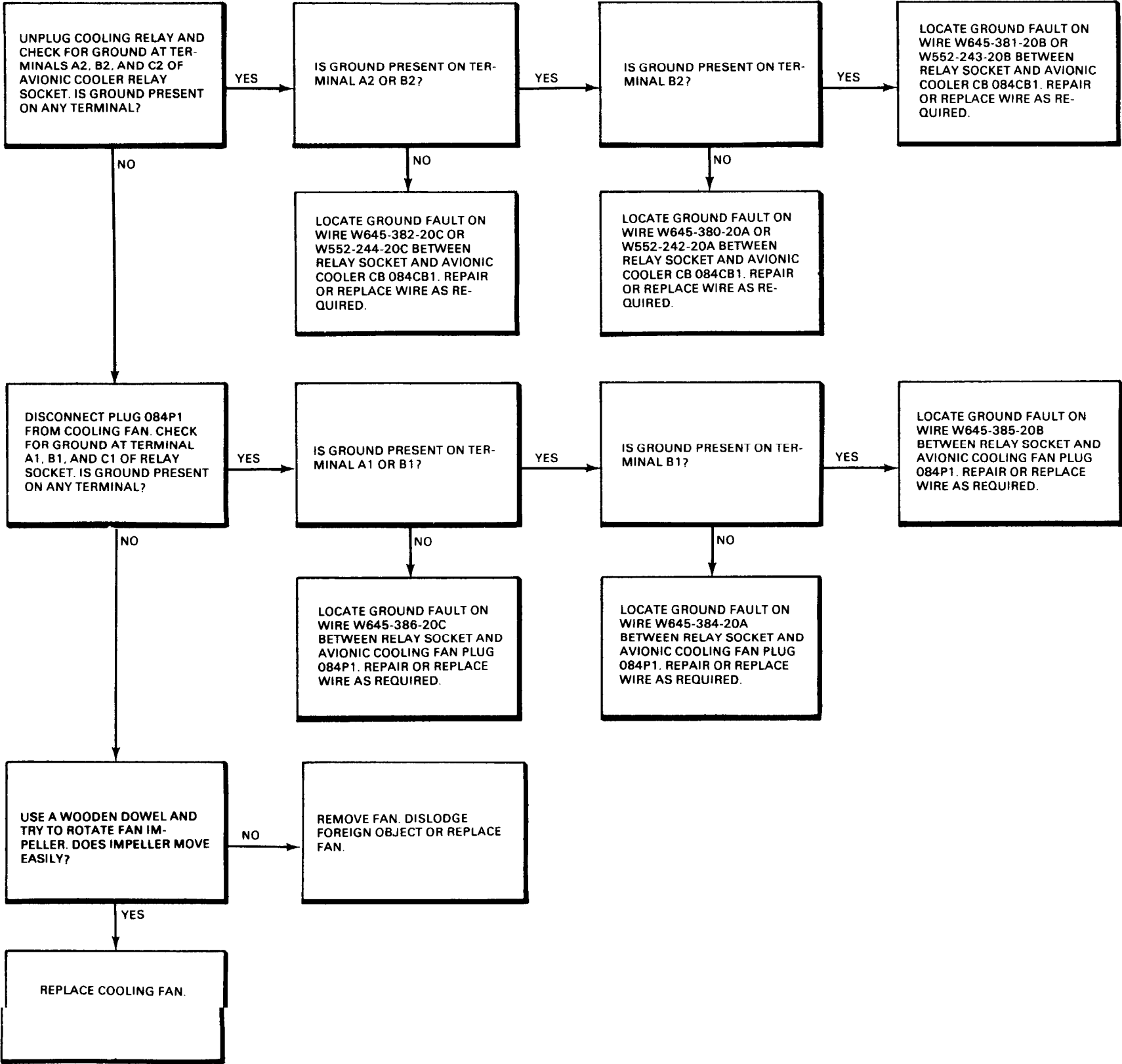


NO. 2 POWER DISTRIBUTION  
PANEL (PDP) VIEW LOOKING  
AFT



9-19.5 AVIONIC COOLING FAN AC CIRCUIT BREAKER  
WILL NOT STAY CLOSED (Continued)

9-19.5



END OF TASK

9-19.6 WEAK OR NO AIR FLOW IS FELT FROM AVIONIC COOLING FAN

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

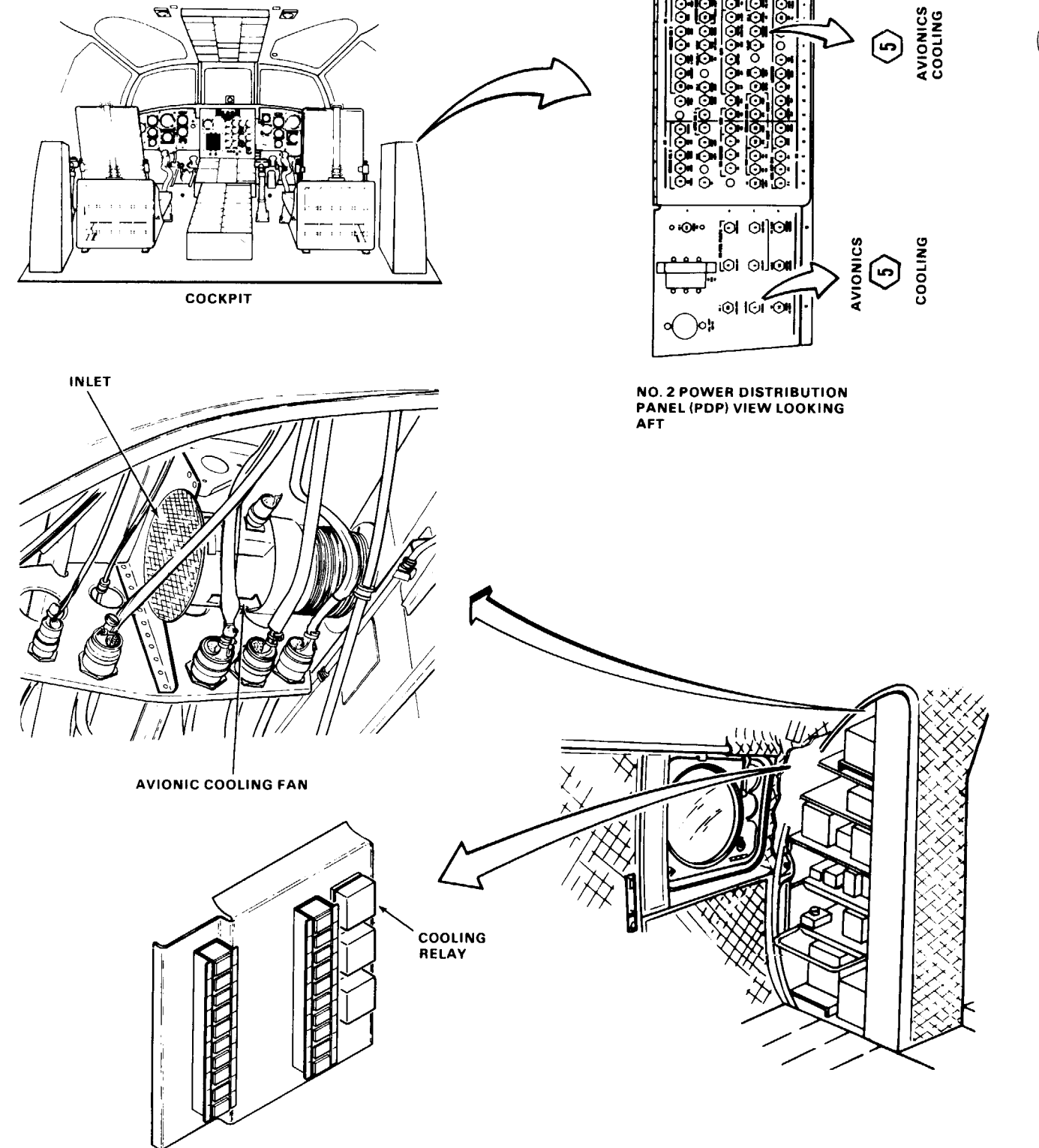
Material:

None

Personnel Required:  
68F20 Aircraft Electrician

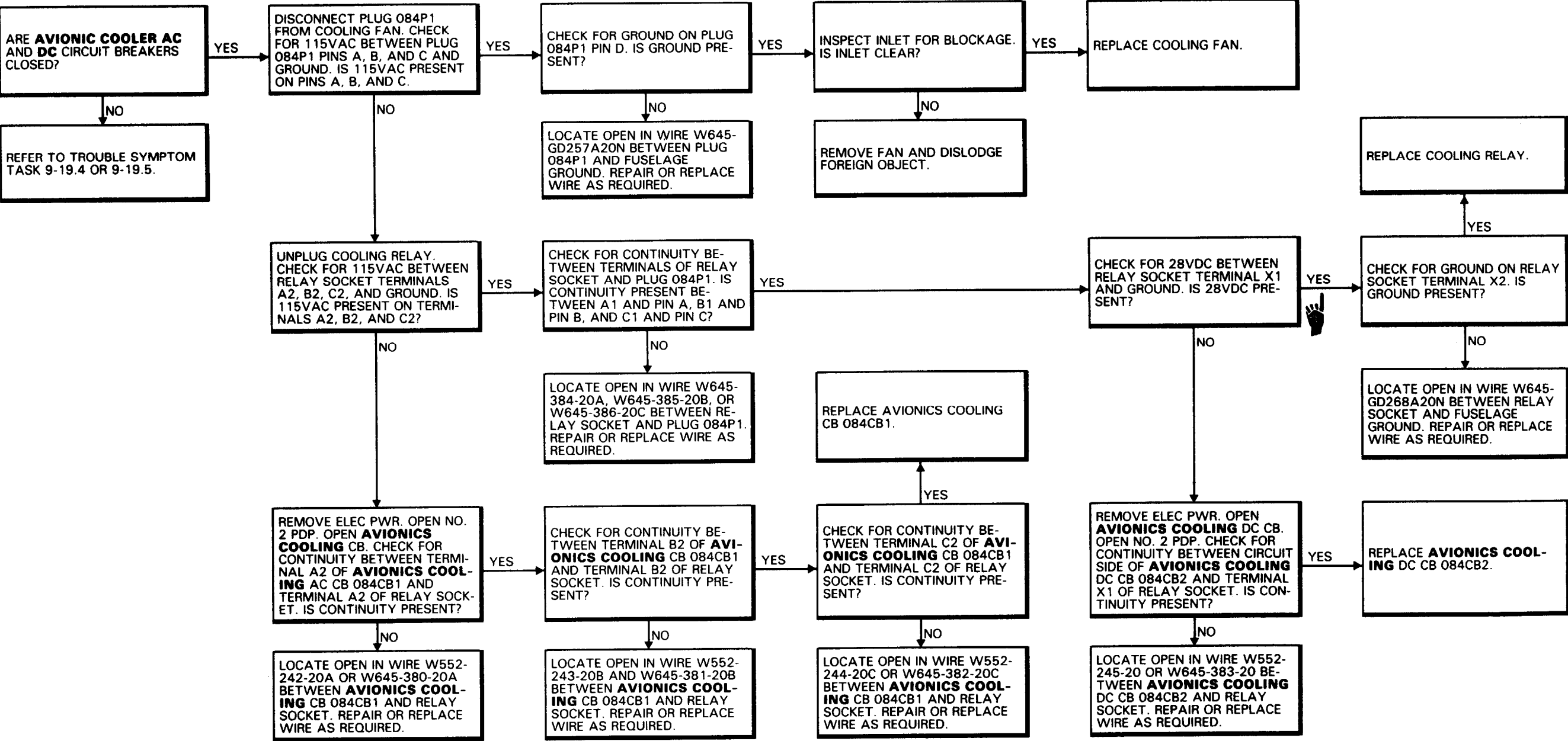
References:  
TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off  
Electronic Compartment Acoustic Blanket  
Removed



9-19.6 WEAK OR NO AIR FLOW IS FELT FROM AVIONIC COOLING FAN (Continued)

9-19.6



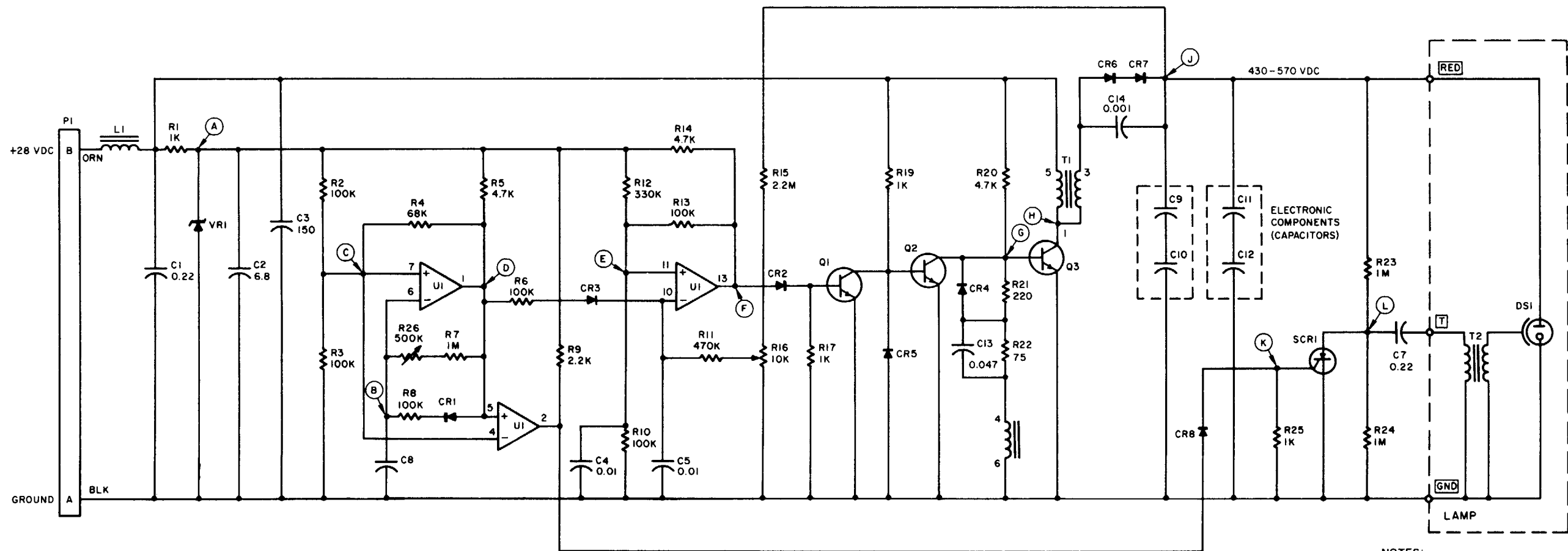
## **9-20 ANTICOLLISION LIGHT (AVIM)**

9-20 ANTICOLLISION LIGHT (AVIM)

9-20.1 ANTICOLLISION LIGHT (AVIM) SCHEMATIC

9-20

9-20.1



- NOTES:
- 1. CIRCLED LETTERS ARE TEST POINT (TP) LOCATIONS.
  - 2. ALL RESISTOR VALUES ARE IN OHMS UNLESS OTHERWISE NOTED.
  - 3. ALL CAPACITANCE VALUES ARE IN MICROFARADS.

9-20.2 ANTICOLLISION LIGHT (AVIM) VISUAL CHECK

INITIAL SETUP

**Applicable Configurations:**  
All

**Tools:**  
Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

**Materials:**  
None

**Personnel Required:**  
68F 10 Aircraft Electrician

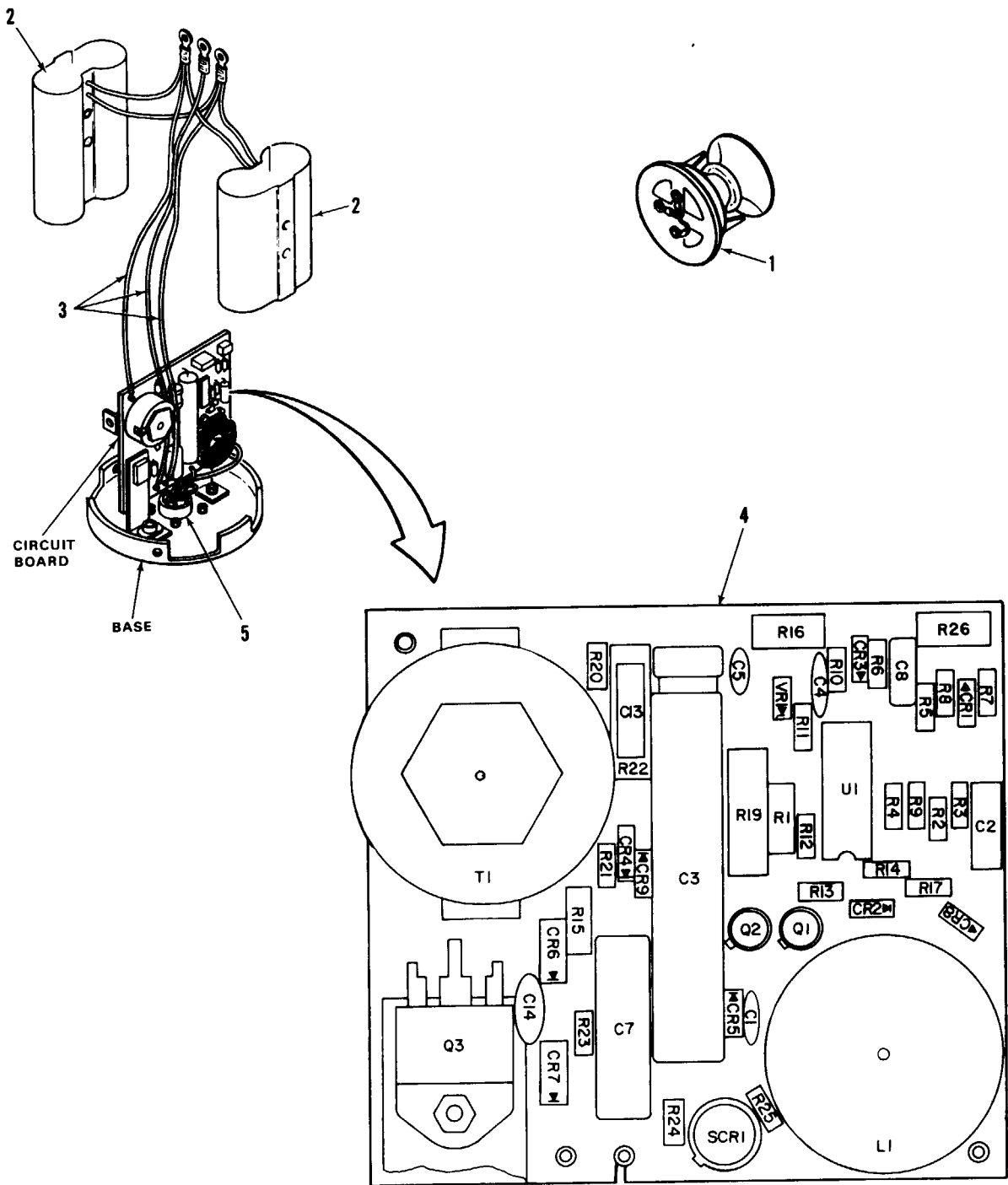
**References:**  
TM 55-1520-240-23

**Equipment Condition:**  
TM 55-1520-240-23:  
Anticollision Light Disassembled Down  
to Base with Circuit Board Attached

TASK	RESULT
1. Check lamp (1).	If lamp (1) is broken, discolored, or damaged, replace it.
2. Check two electronic components (capacitors) (2).	If a capacitor (2) is leaking or damaged, or its wiring is damaged, replace it.
3. Check three wires (3).	If any wire (3) is damaged, replace it.
4. Check circuit board (4).	If <b>circuit board (4)</b> or any component on board (4) is loose, burnt, leaking, cracked, or damaged, repair or replace it as required.
5. Check receptacle (5).	If receptacle (5) is damaged, replace it. If wiring to receptacle(s) is damaged, replace it.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:  
Lamp Connected to Tagged Wires.





9-20.3 ANTICOLLISION LIGHT FAILS AVIM TEST

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

All

Tools:

- Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915
- Multimeter
- Power Supply 0-50 VDC
- Oscilloscope

Materials:

None

Personnel Required:

68F20 Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

Anticollision Light (AVIM) Visual Check  
Performed (Task 9-20.2)

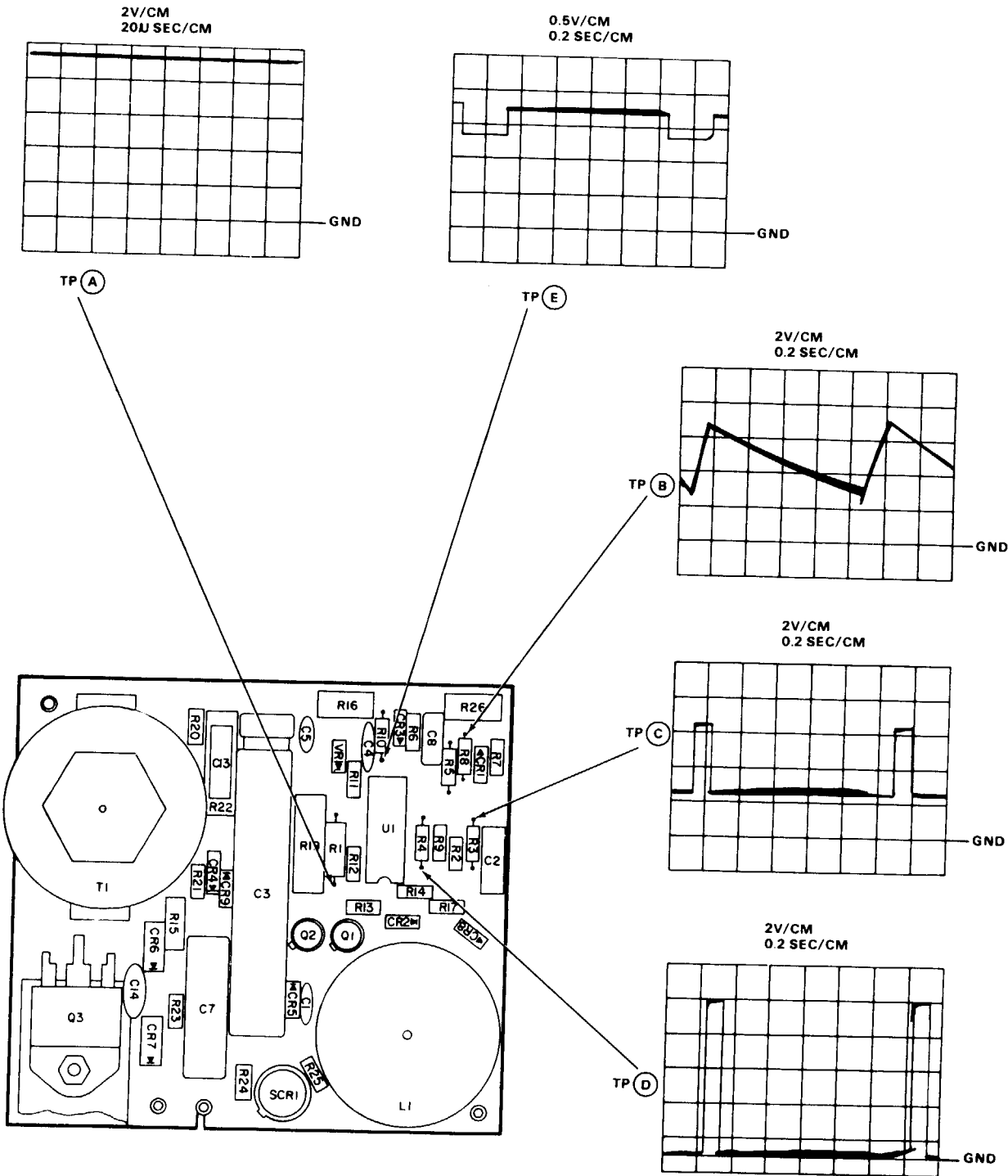
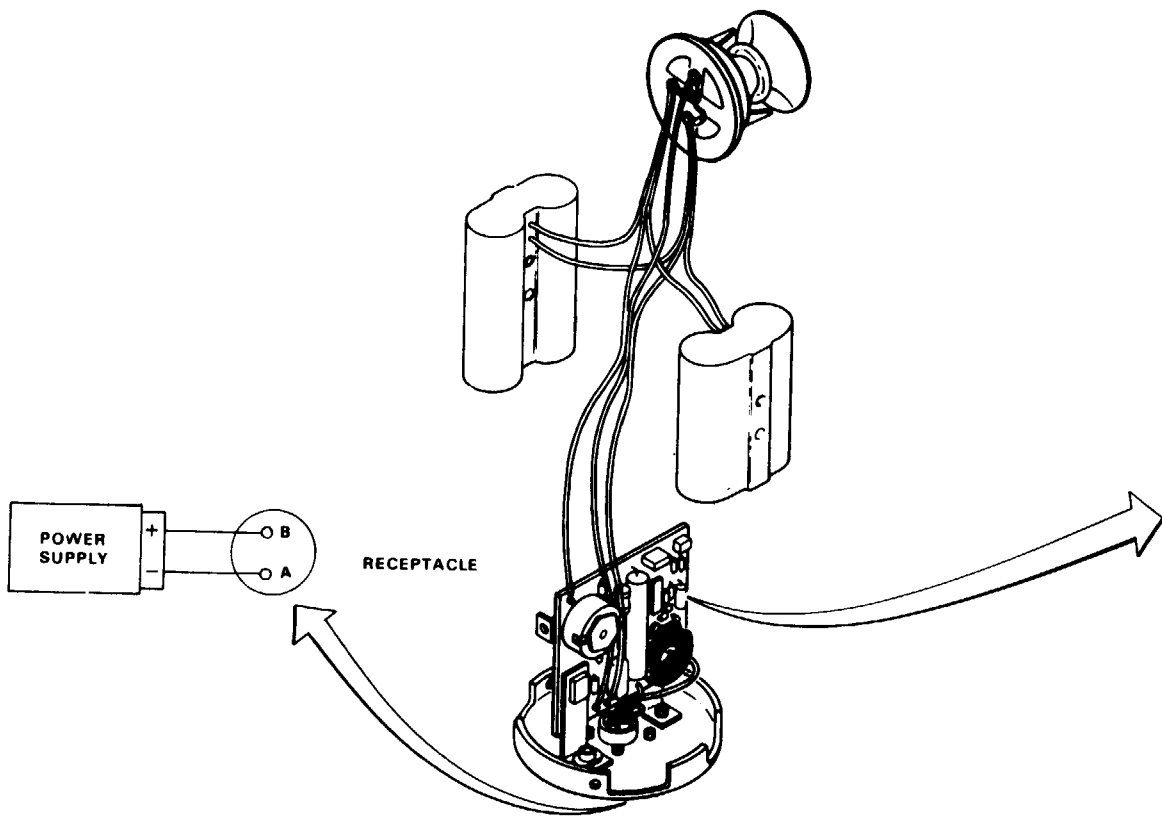
General Safety Instructions:

**WARNING**

Be careful when troubleshooting anticollision light. 500 vdc is present and can cause serious personnel injury.

**WARNING**

Wait 10 minutes after power supply has been turned off before disconnecting anticollision light. High voltage discharge can occur causing personnel injury.

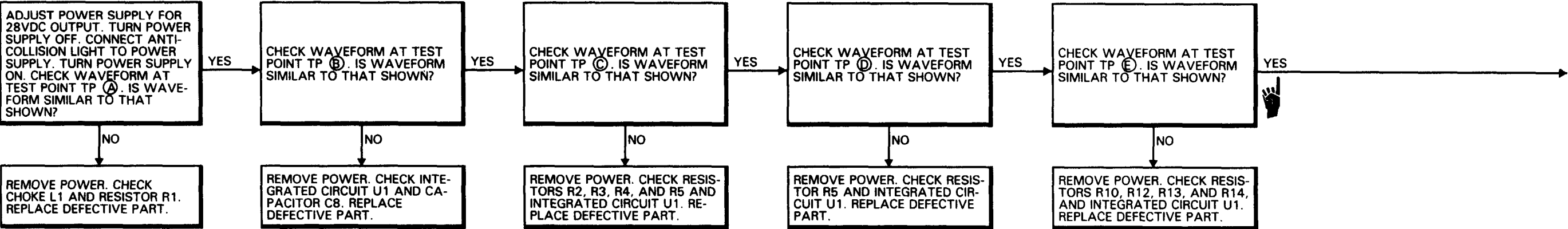


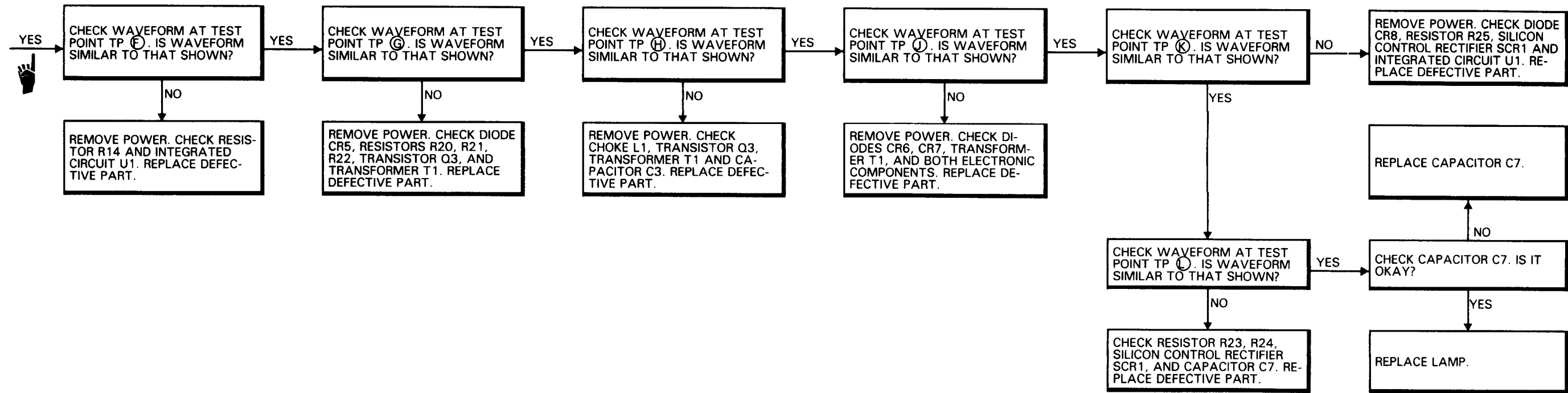
D145-12599-SPA

GO TO NEXT PAGE

9-20.3 ANTICOLLISION LIGHT FAILS AVIM TEST (Continued)

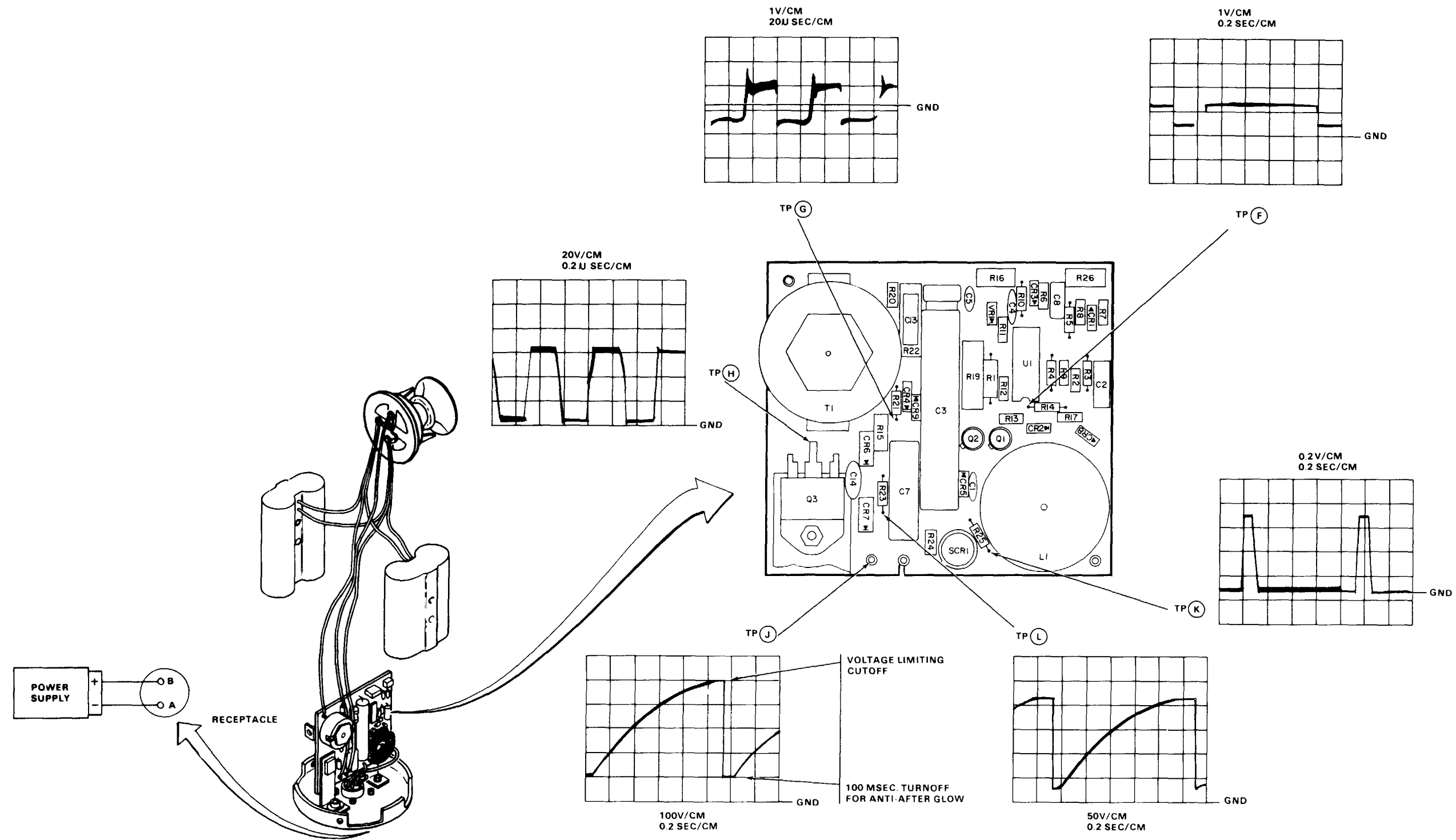
9-20.3





9-20.3 ANTICOLLISION LIGHT FAILS AVIM TEST (Continued)

9-20.3

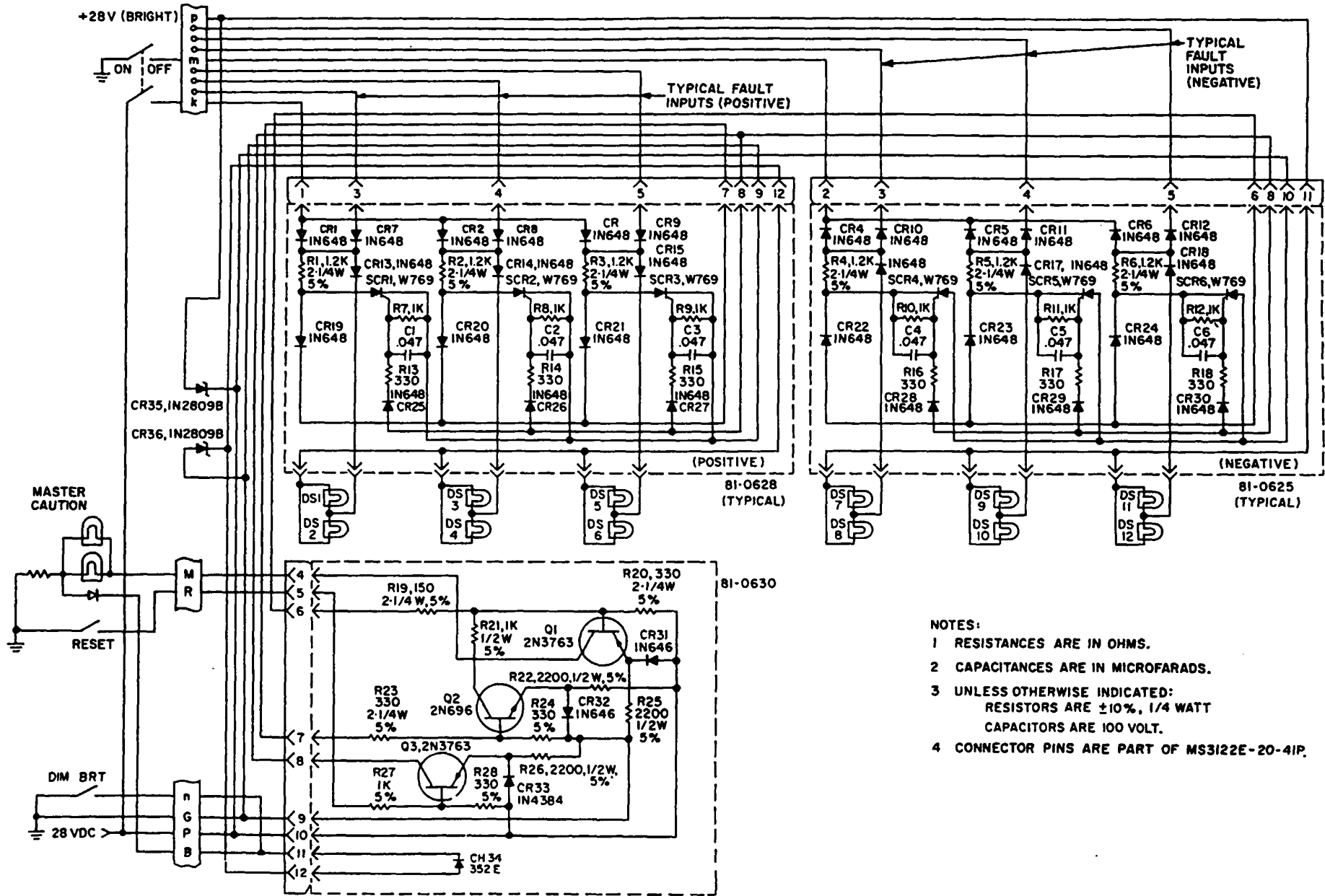


90 x 54

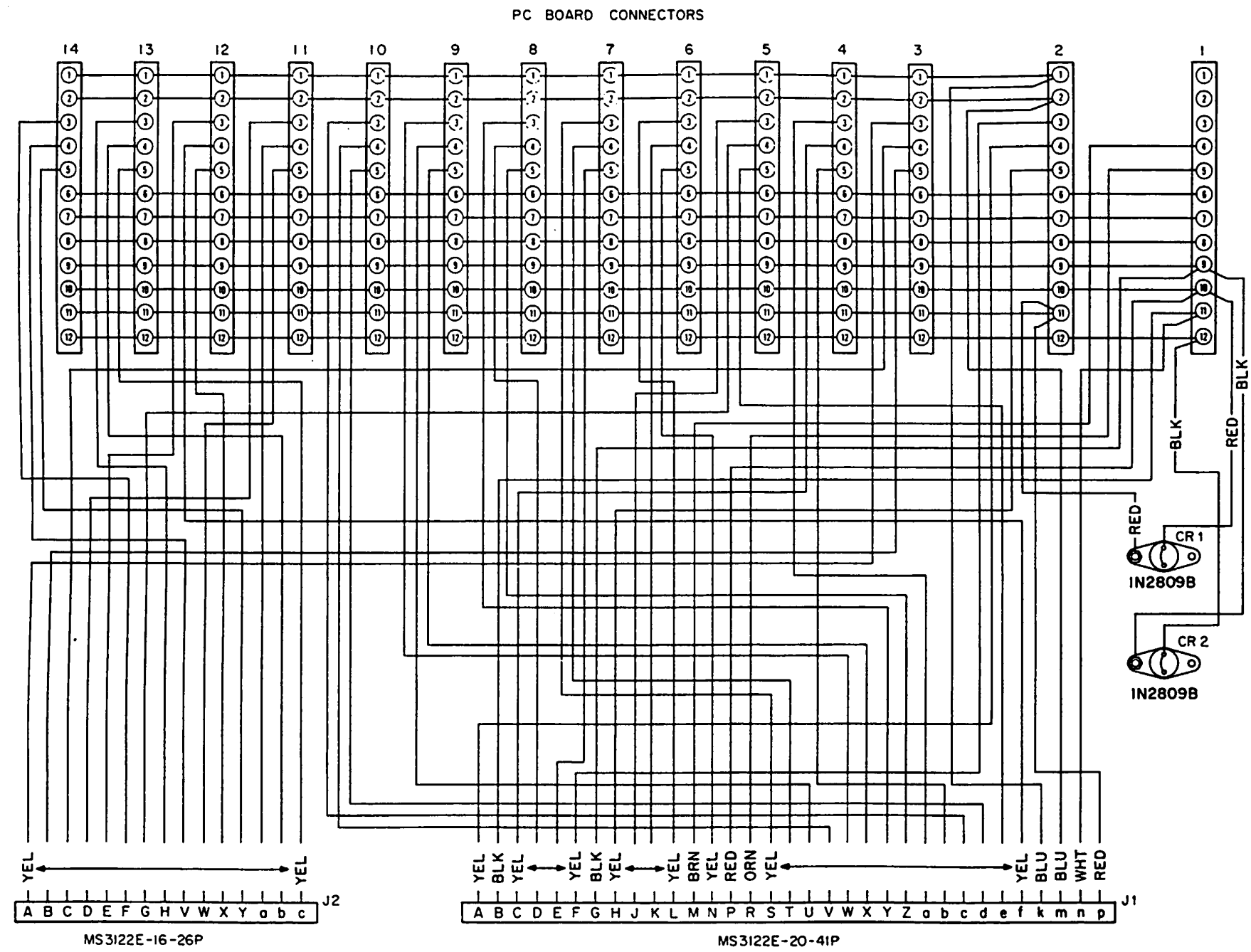
D145-12600-SPA

9-21 MASTER CAUTION PANEL  
(AVIM)

WITHOUT 74



 WITHOUT 74



90154

0145-12651-SPA

END OF TASK  
Change 19 9-361

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

Without 74

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

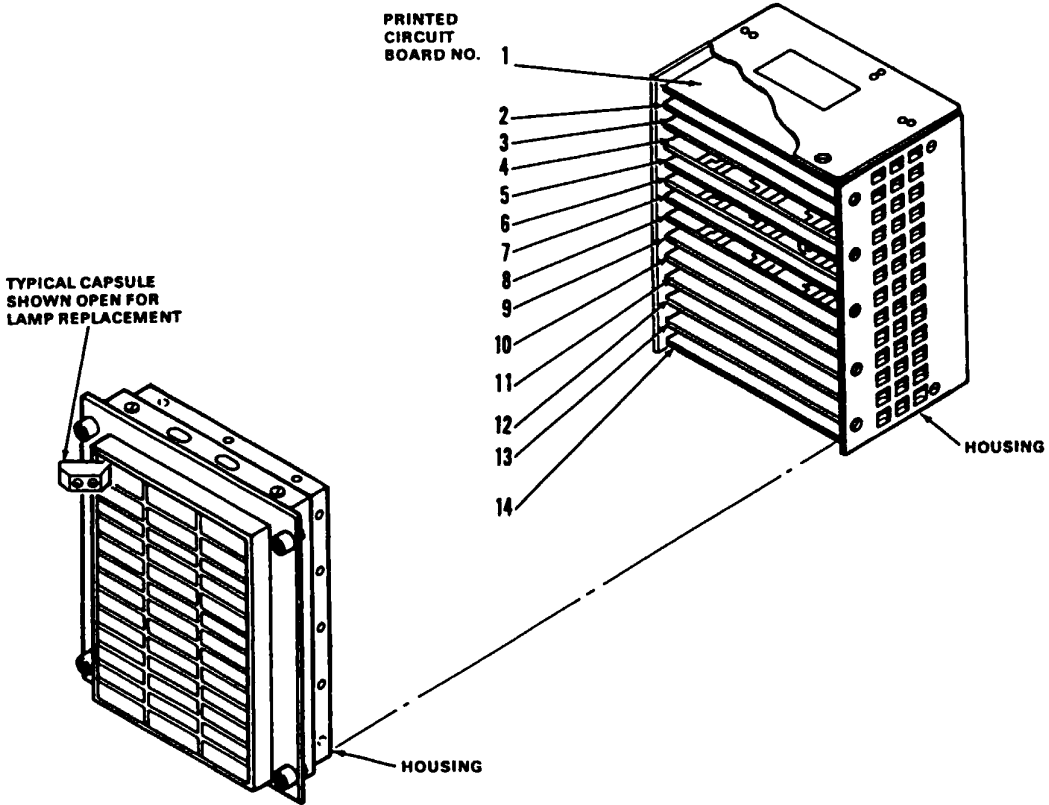
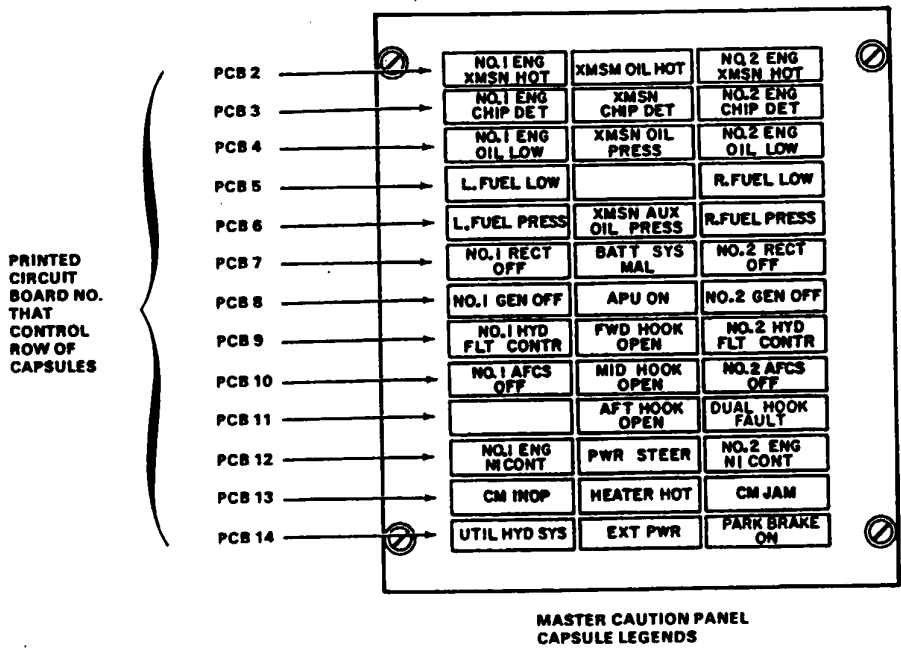
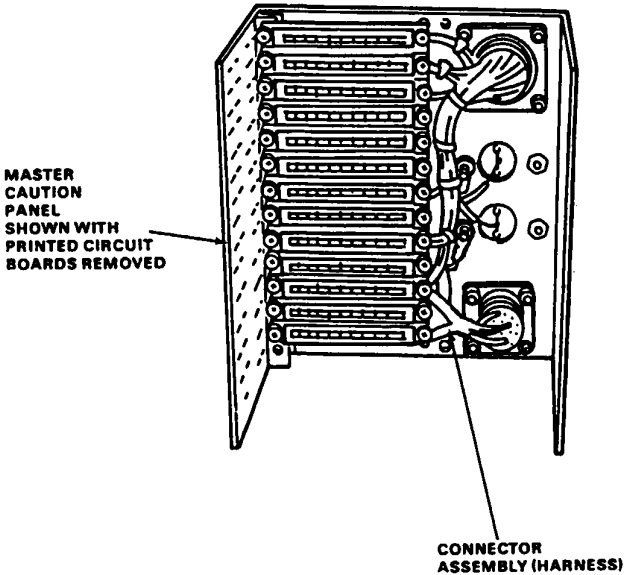
Aircraft Electrician

References:

TM 55-1520-240-23

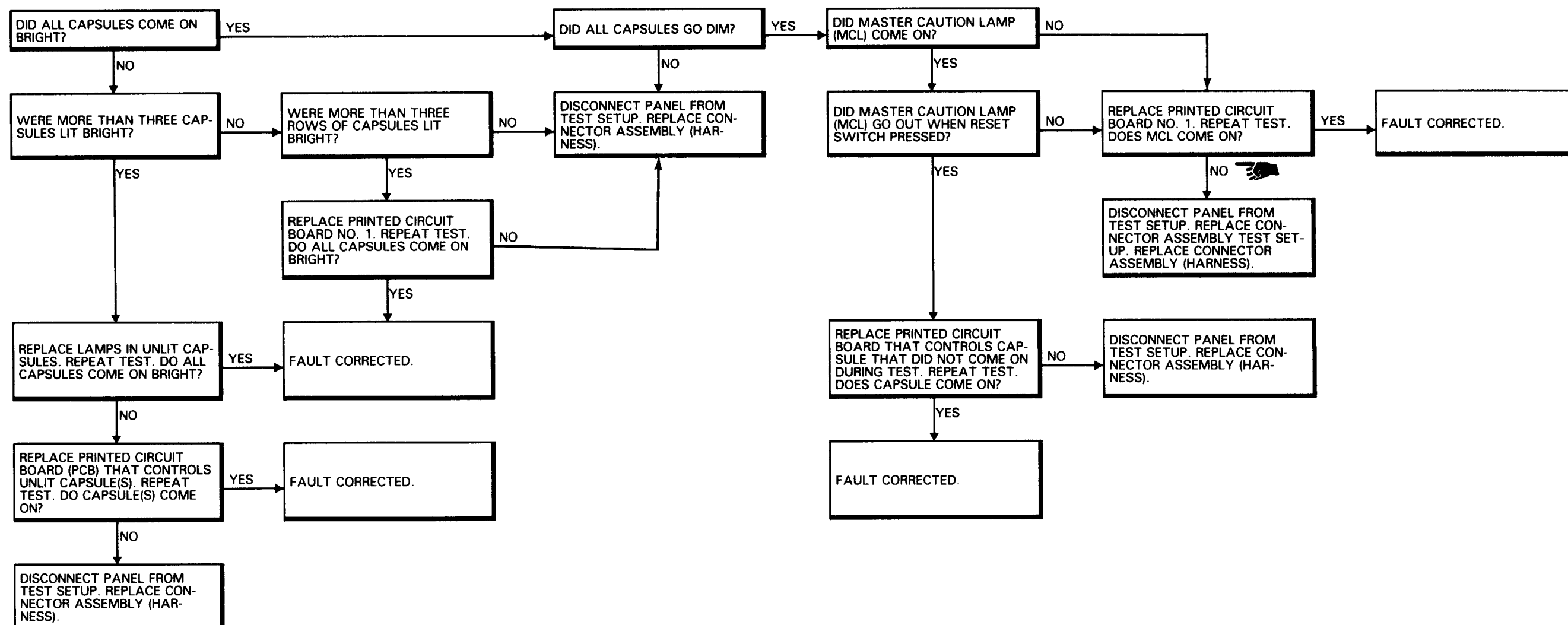
Equipment Condition:

TM 55-1520-240-23:  
Master Caution Panel Disconnected from Test  
Setup



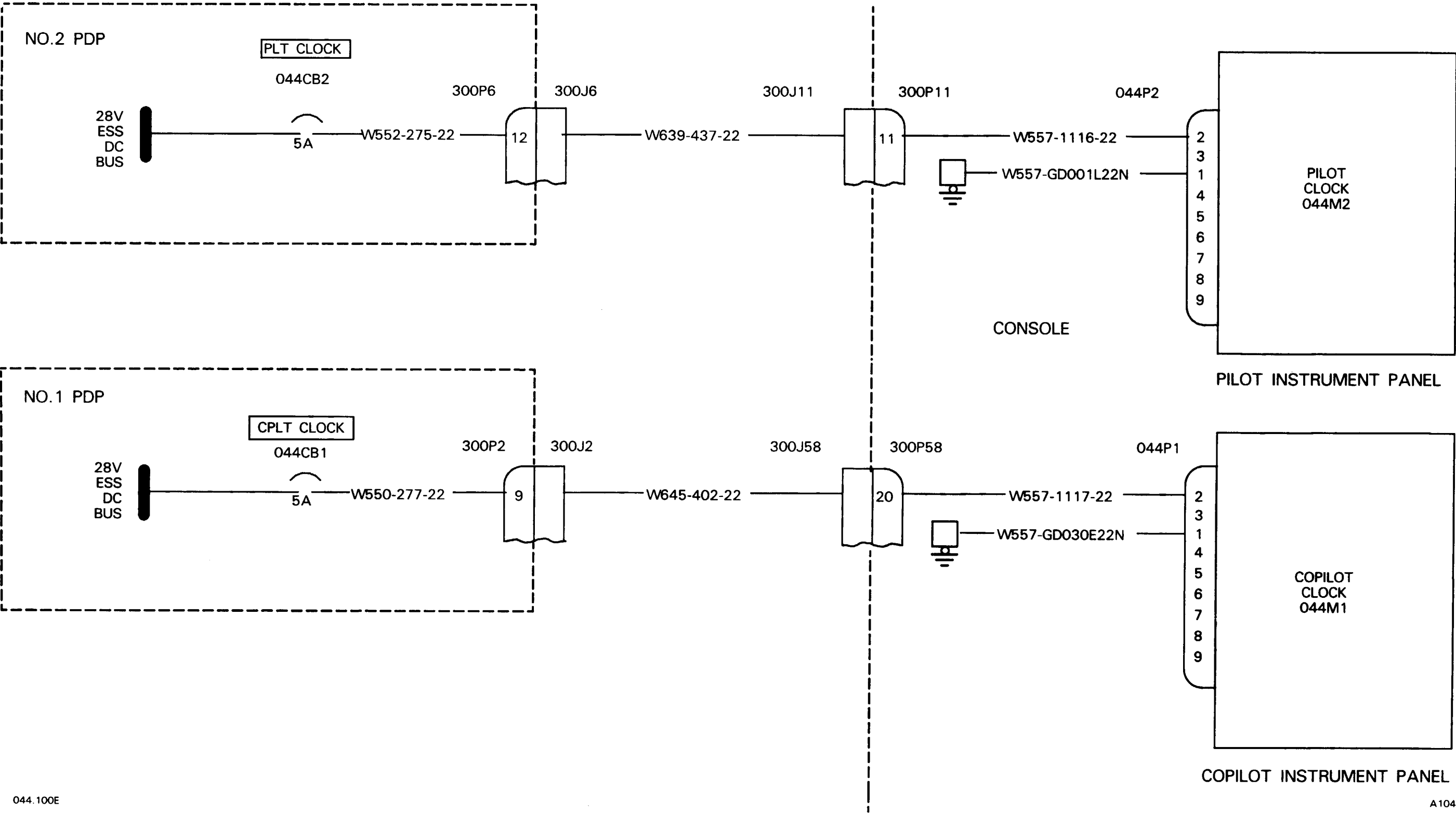
D145-12665-SPA



**9-21.3 MASTER CAUTION PANEL FAILS AVIM TEST (Continued)****9-21.3**

9-22 CLOCK

I



9-22.2 CLOCK VISUAL CHECK

9-22.2

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected

Electrical Power Off

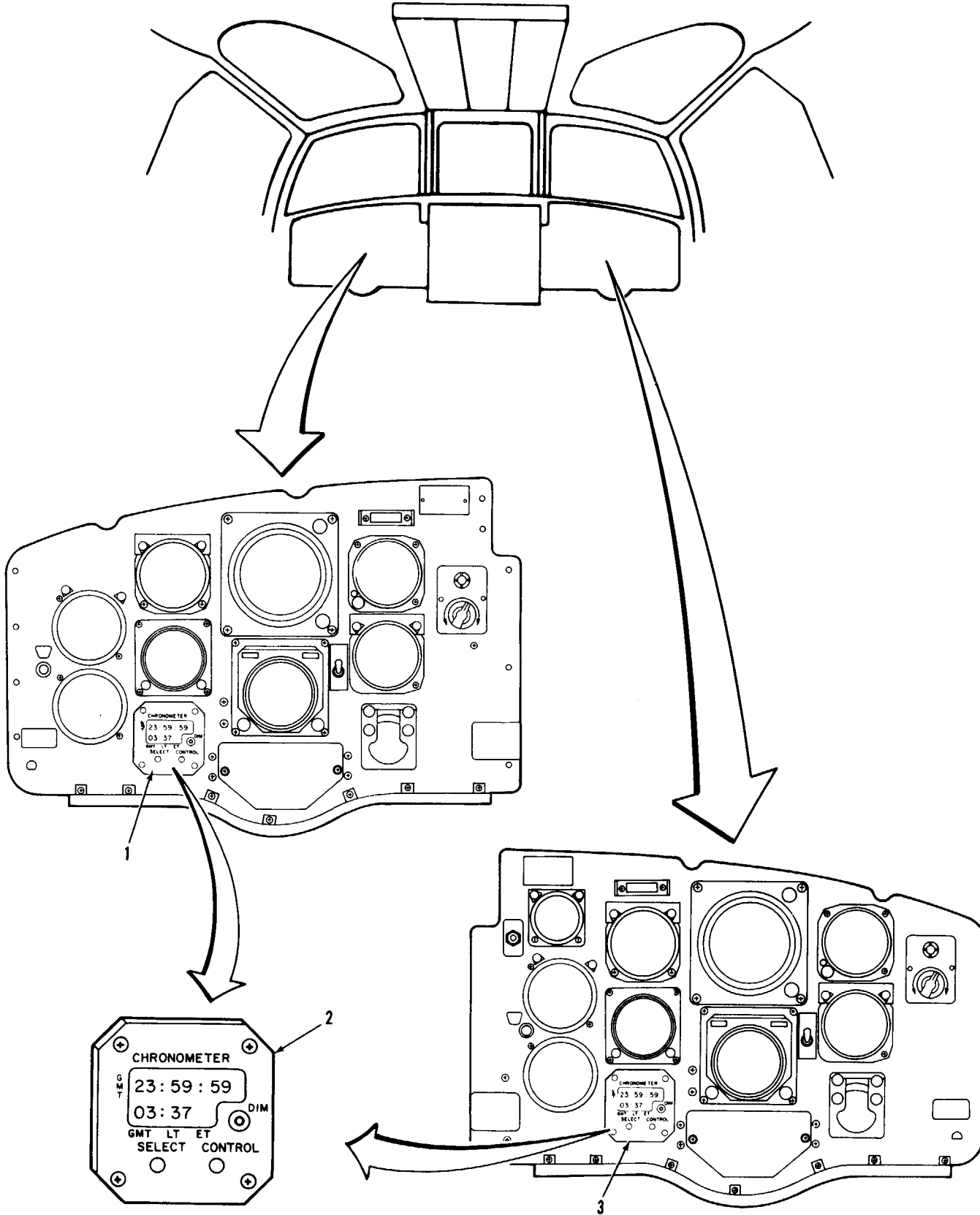
Hydraulic Power Off

TASK	RESULT
1. Check copilot's clock (1).	If clock (1) is loose or panel (2) is damaged, tighten or replace clock as required.
2. Check pilot's clock (3).	If clock (3) is loose or panel (2) is damaged, tighten or replace clock as required.

FOLLOW-ON MAINTENANCE:

TM 55-1520-240-23:

None

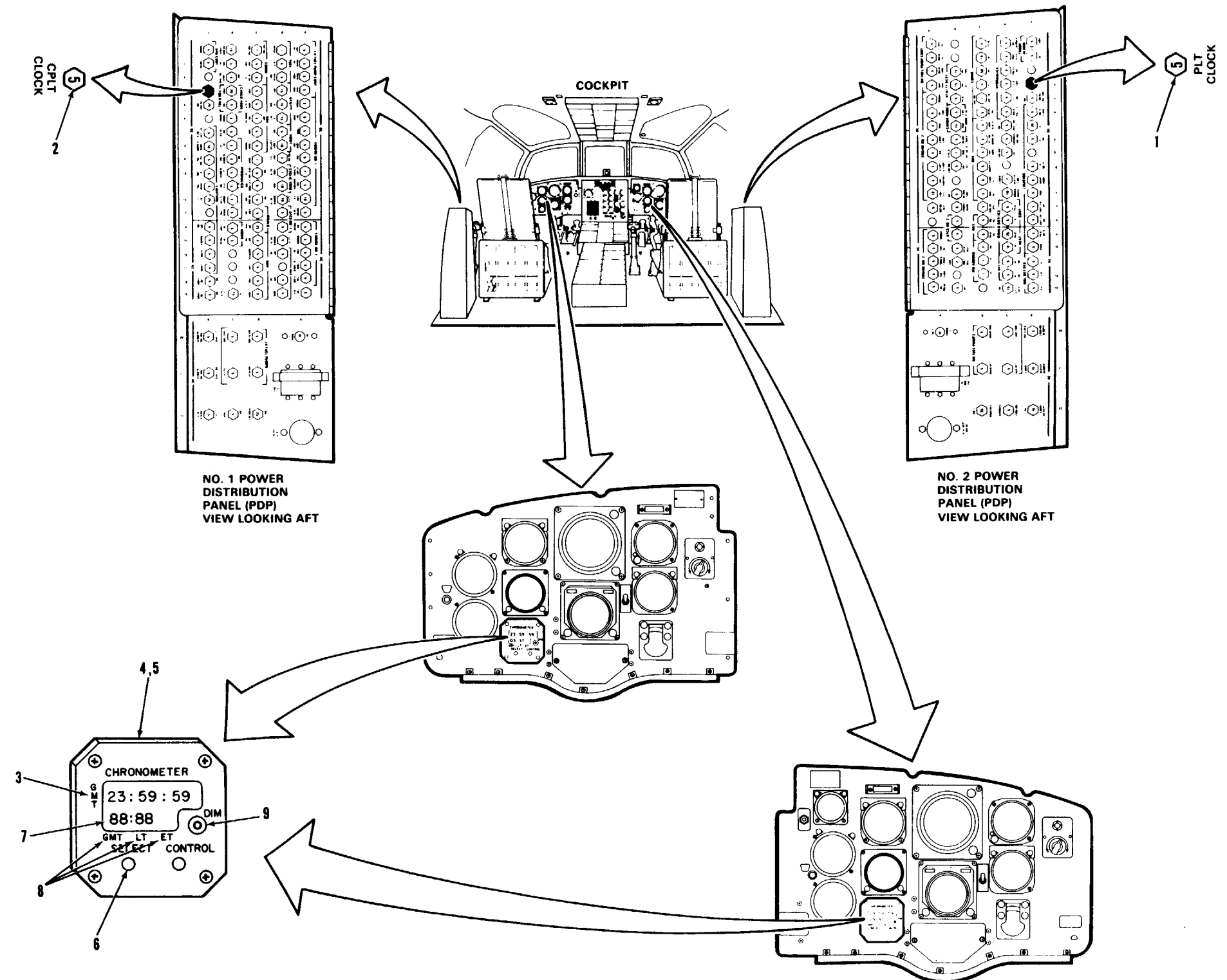


9-22.3 CLOCK OPERATIONAL CHECK

INITIAL SETUP	<b>References:</b> TM 55-1520-240-23 TM 55-1520-240-10
<b>Applicable Configurations:</b> With 17	<b>Equipment Condition:</b> TM 55-1520-240-23: Battery Connected Electrical Power On Hydraulic Power Off
<b>Tools:</b> None	
<b>Materials:</b> None	
<b>Personnel Required:</b> Aircraft Electrician	Visual Check of Clock Performed (Task 9-22.2)

TASK	RESULT
1. Check that PLT CLOCK circuit breaker (1) is closed.	If PLT CLOCK circuit breaker (1) is open, close it. If it opens again, go to task 9-22.4.
2. Check that CPLT CLOCK circuit breaker (2) is closed.	If CPLT CLOCK circuit breaker (2) is open, close it. If it opens again, go to task 9-22.5.
3. Check GMT display (3) on pilot and co-pilot clocks (4) and (5).	GMT display (3) shall indicate greenwich mean time. If display is blank, replace battery on back of clock and set clock. Refer to TM 55-1520-240-20 for setting instructions.
4. Press and hold SELECT button (6) on pilot's clock (4) for three seconds.	Clock display (7) shall indicate 88:88 and annunciators (8) shall light. If display does not indicate 88:88 and annunciators are not lit, go to task 9-22.6.
5. Rotate DIM control (9) on pilot's clock (4).	Clock display brightness shall vary. If it does not, replace pilot's clock.
6. Press and hold SELECT button (6) on copilot's clock (5) for three seconds.	Clock display (7) shall indicate 88:88 and annunciators (8) shall light. If display does not indicate 88:88 and annunciators are not lit, go to task 9-22.7.
7. Rotate DIM control (9) on copilot's clock (5).	Clock display brightness shall vary. If it does not, replace copilot's clock.

FOLLOW-ON MAINTENANCE:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off



10432

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:

Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

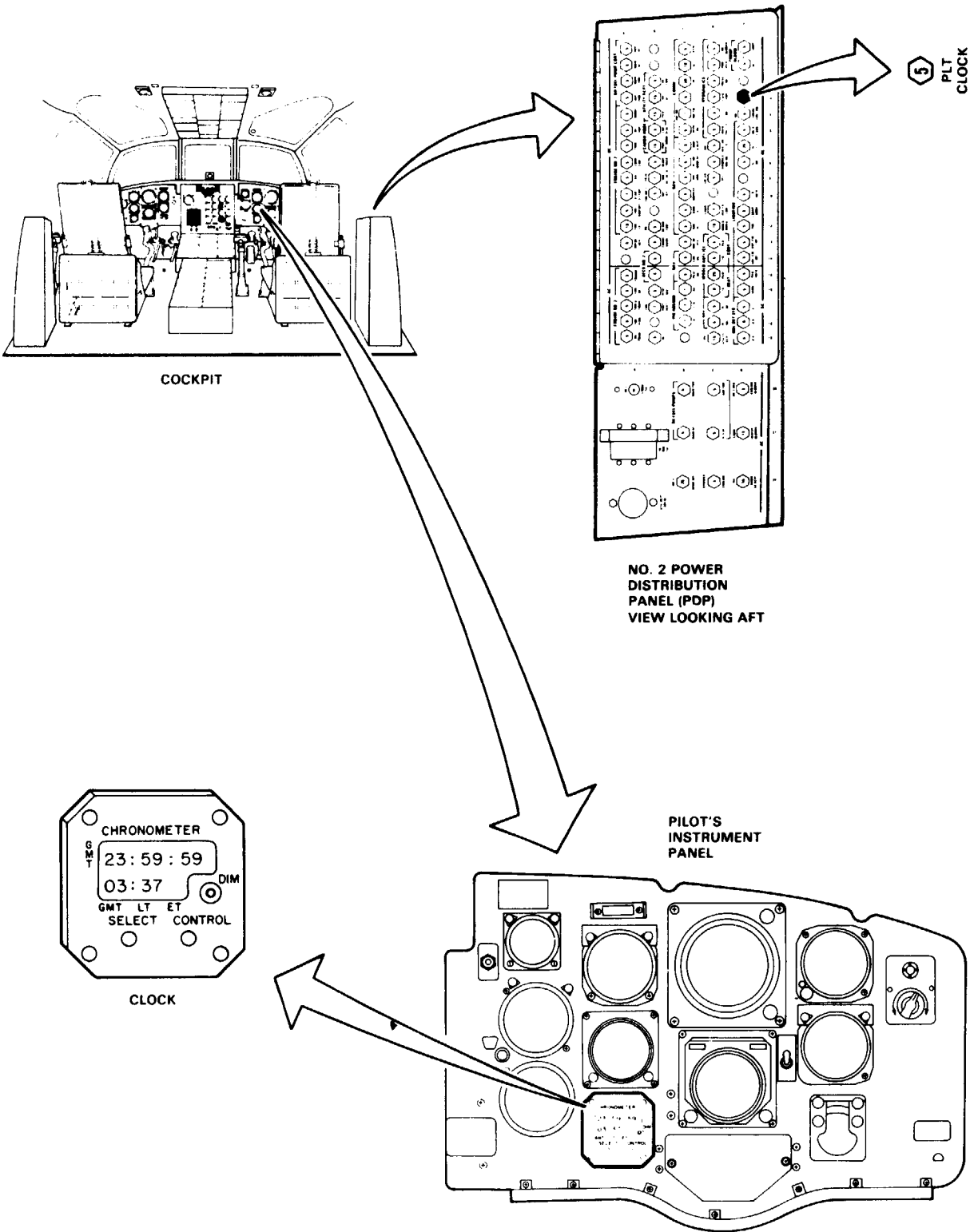
OPEN **PLT CLOCK** CB. RE-  
MOVE PILOT'S CLOCK AND DIS-  
CONNECT PLUG 044P2. CHECK  
FOR GROUND ON PLUG 044P2  
PIN 2. IS GROUND PRESENT?

NO

REPLACE PILOT'S CLOCK.

YES

LOCATE GROUND FAULT  
ON WIRE W557-1116-22,  
W639-437-22, OR W552-  
275-22 BETWEEN PLUG  
044P2 AND **PLT CLOCK**  
CB 044CB2. REPAIR OR RE-  
PLACE WIRE AS REQUIRED.



10433

9-22.5 COPILOT CLOCK CIRCUIT BREAKER DOES NOT STAY CLOSED

9-22.5

FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

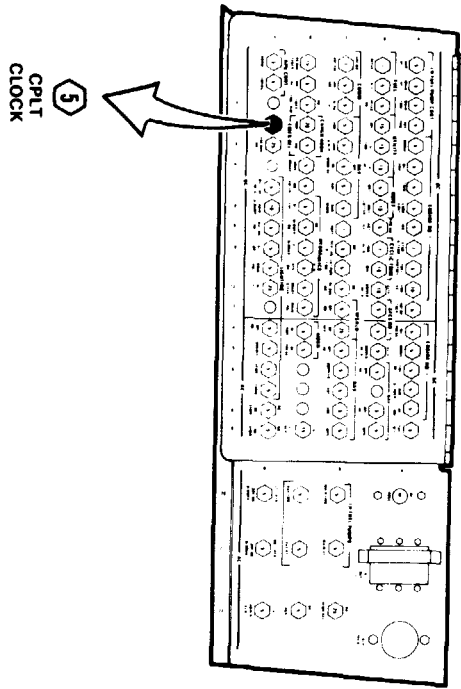
OPEN **CPLT CLOCK** CB. RE-  
MOVE COPILOT'S CLOCK AND  
DISCONNECT PLUG 044P1.  
CHECK FOR GROUND ON PLUG  
044P1 PIN 2. IS GROUND PRE-  
SENT?

NO

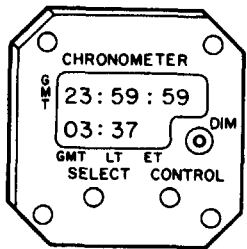
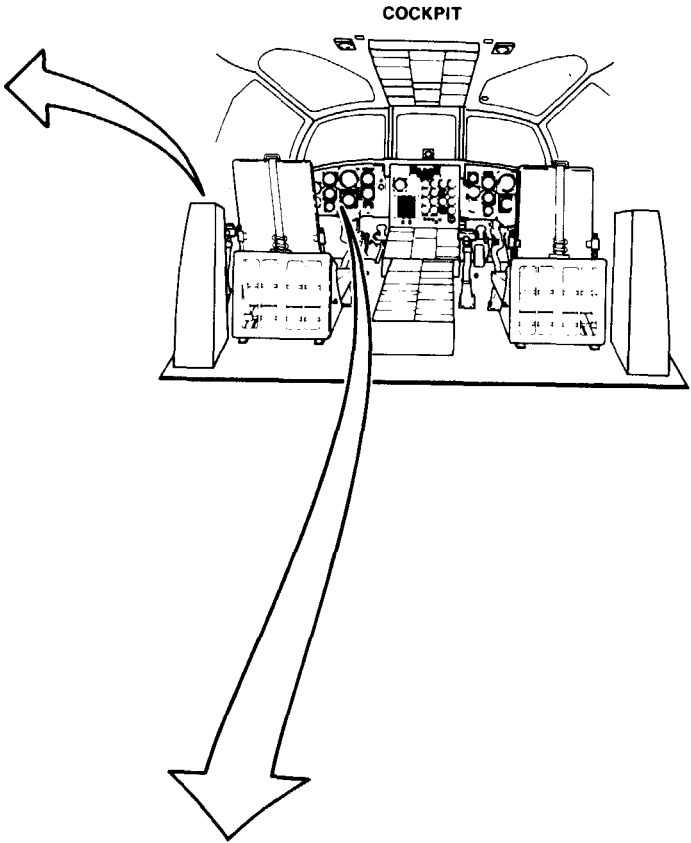
REPLACE COPILOT'S CLOCK.

YES

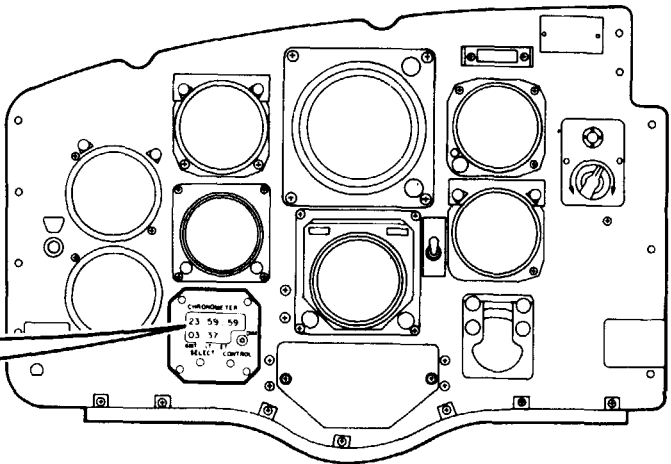
LOCATE GROUND FAULT ON  
WIRE W557-1112-22, W645-  
402-22, OR W550-277-22 BE-  
TWEEN PLUG 044P1 AND  
**CPLT CLOCK** CB 044CB2. RE-  
PAIR OR REPLACE WIRE AS RE-  
QUIRED.



NO. 1 POWER  
DISTRIBUTION  
PANEL (PDP)  
VIEW LOOKING AFT



CLOCK



COPLOT'S  
INSTRUMENT  
PANEL



FAULT ISOLATION PROCEDURE

INITIAL SETUP

Applicable Configurations:

With 17

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required:

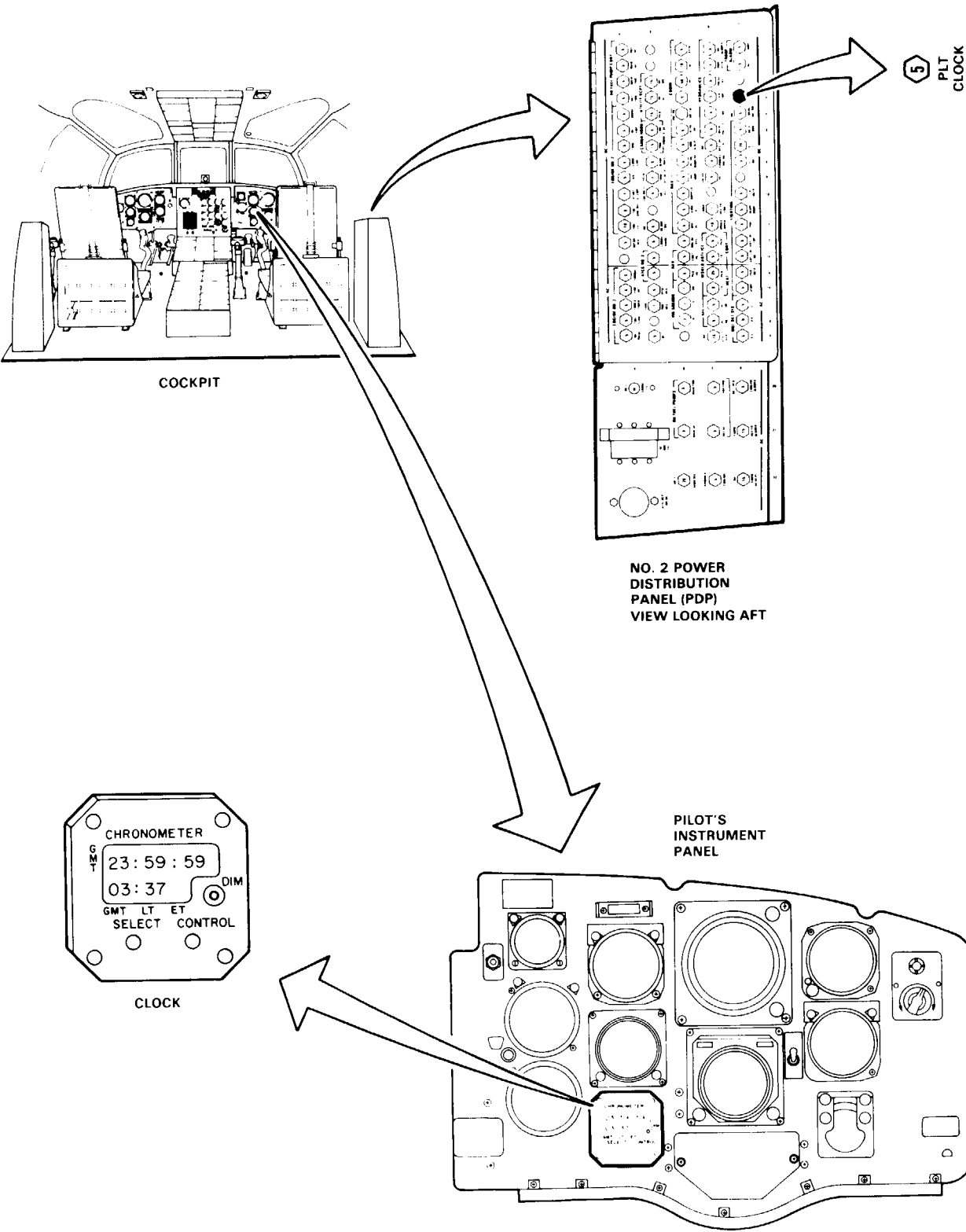
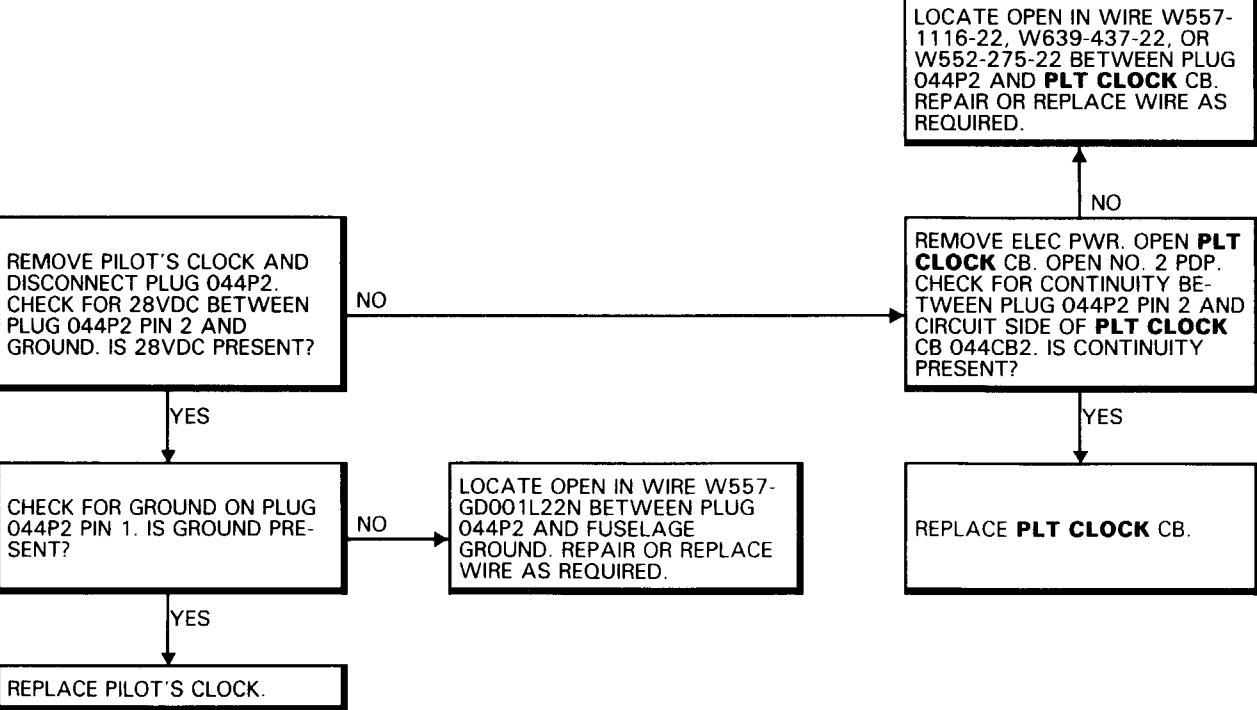
Aircraft Electrician

References:

TM 55-1520-240-23

Equipment Condition:

TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



# 9-22.7 COPILOT'S CLOCK DISPLAY DOES NOT INDICATE 88:88 WHEN SELECT BUTTON PRESSED

9-22.7

## FAULT ISOLATION PROCEDURE

### INITIAL SETUP

#### Applicable Configurations:

With 17

#### Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

#### Materials:

None

#### Personnel Required:

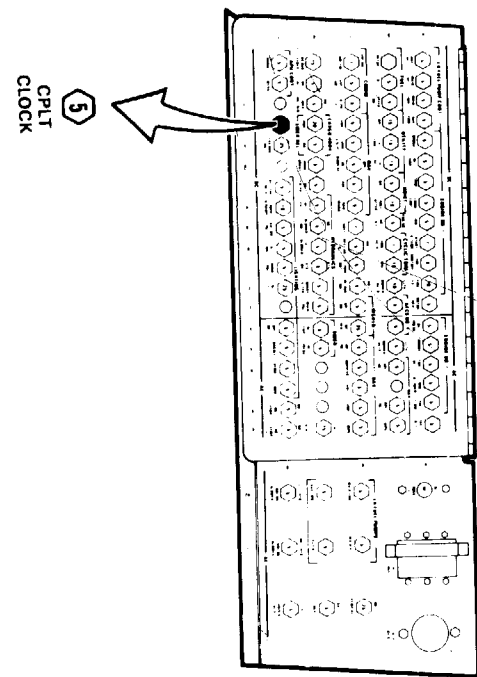
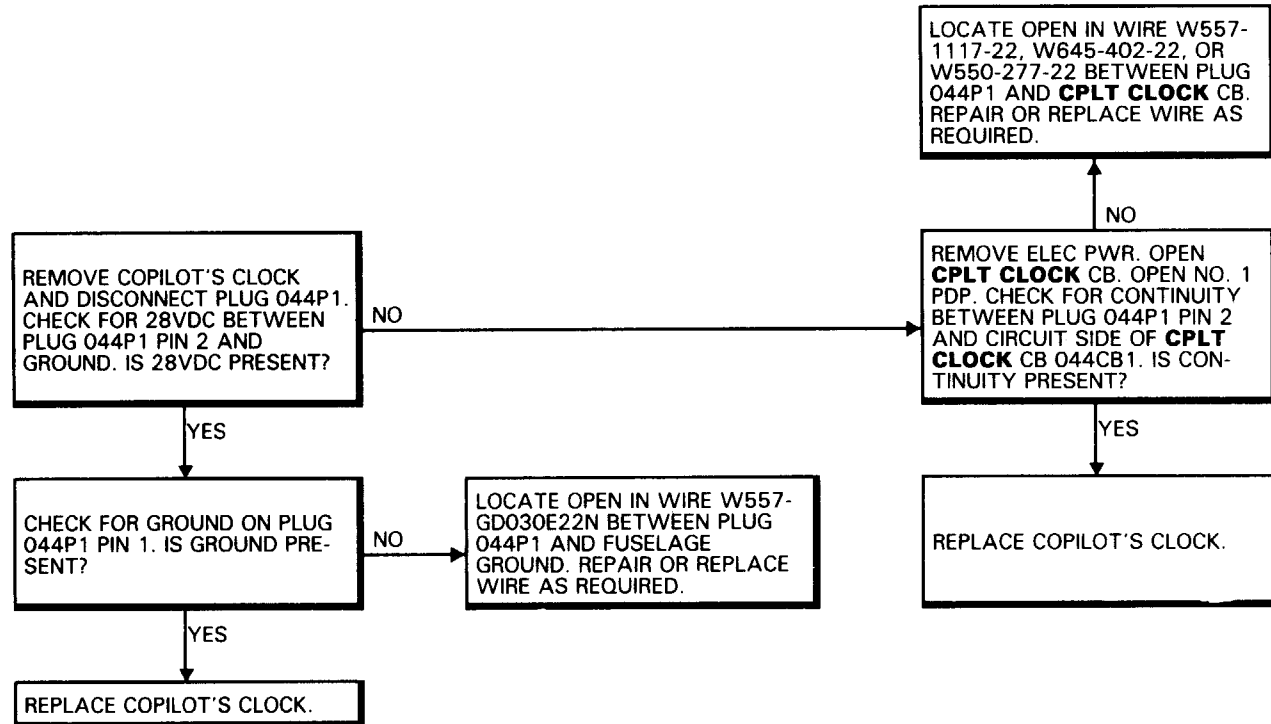
Aircraft Electrician

#### References:

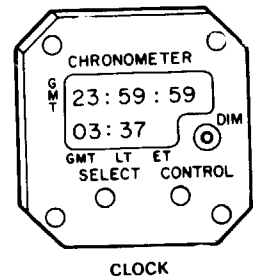
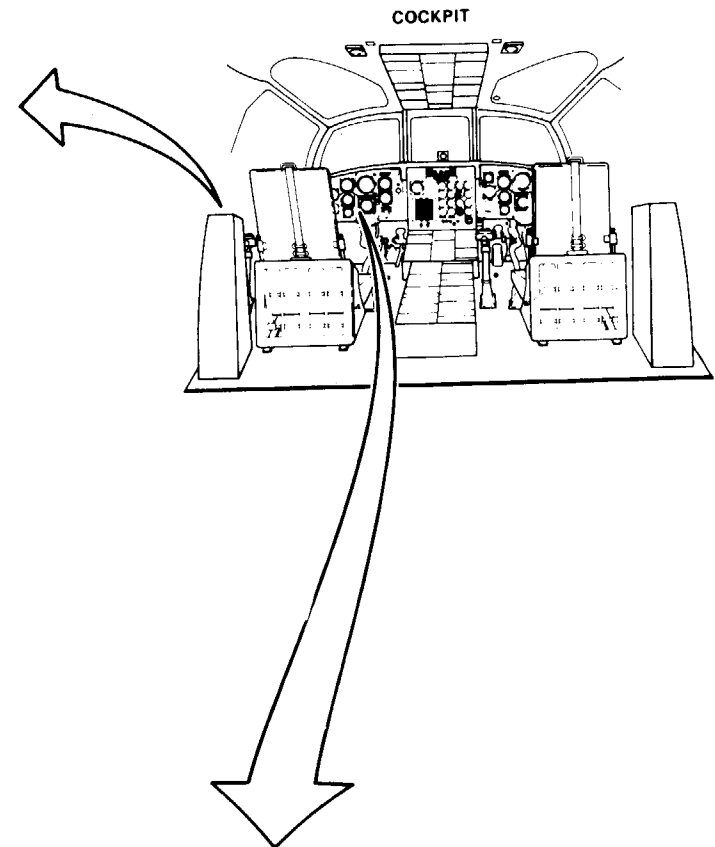
TM 55-1520-240-23

#### Equipment Condition:

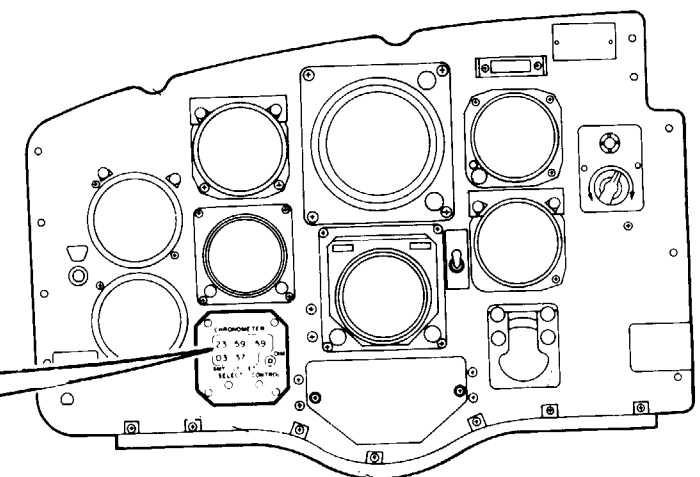
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off



NO. 1 POWER DISTRIBUTION PANEL (PDP) VIEW LOOKING AFT



CLOCK



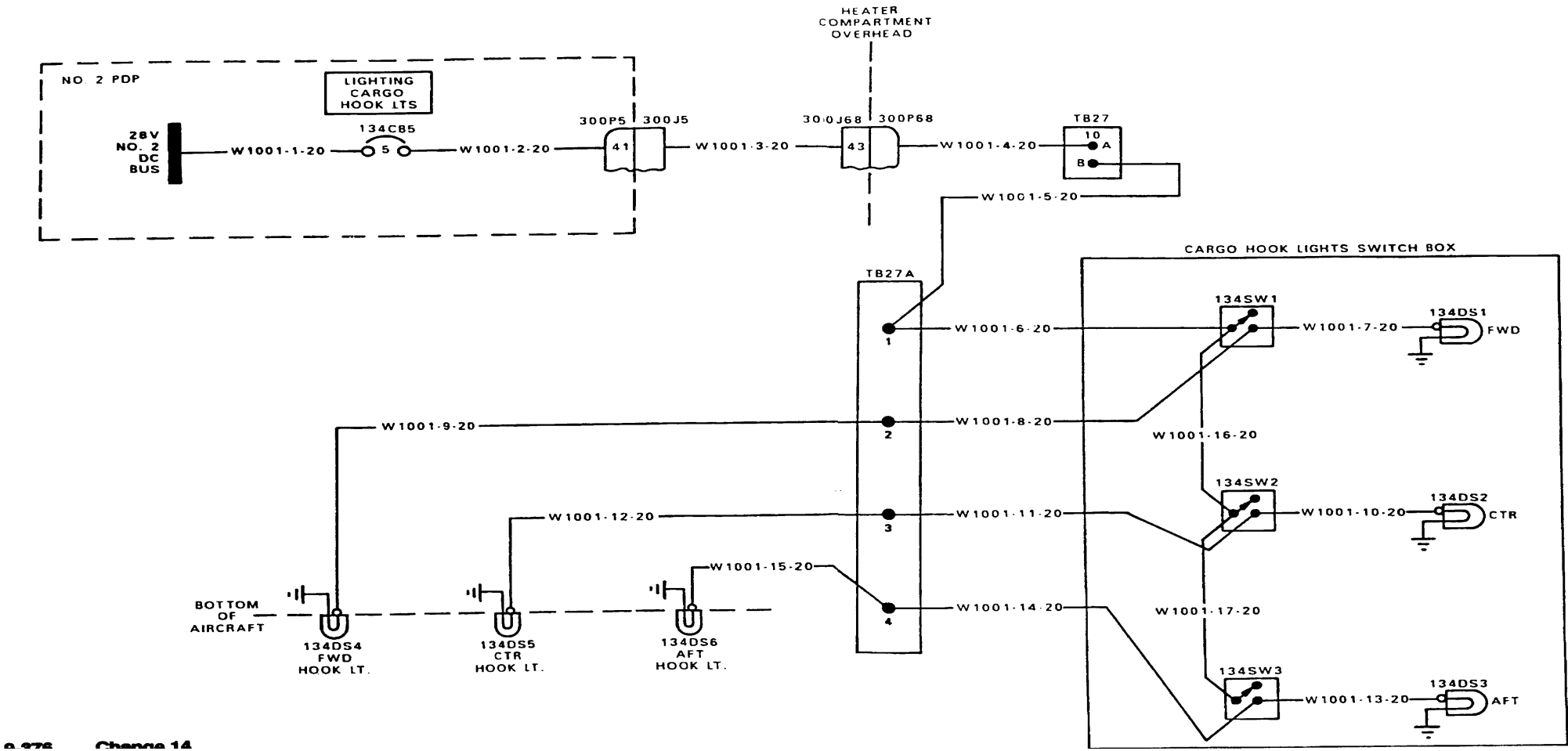
COPILOT'S INSTRUMENT PANEL

10436

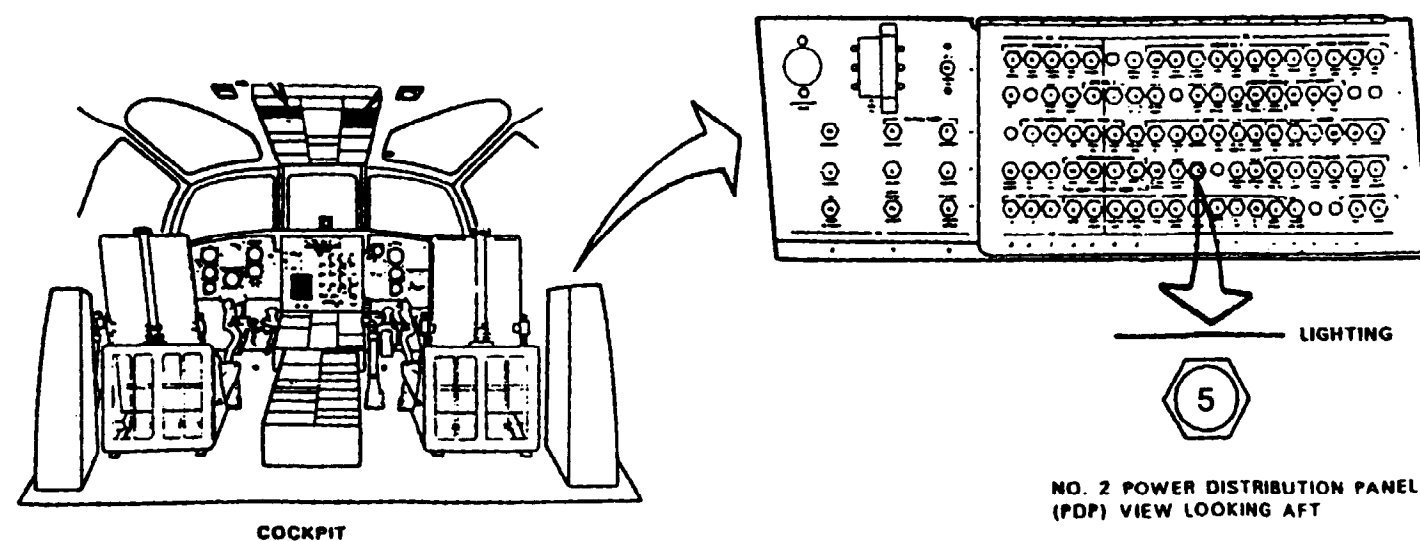
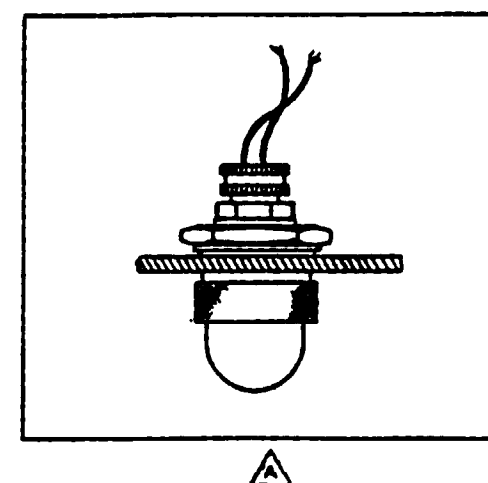
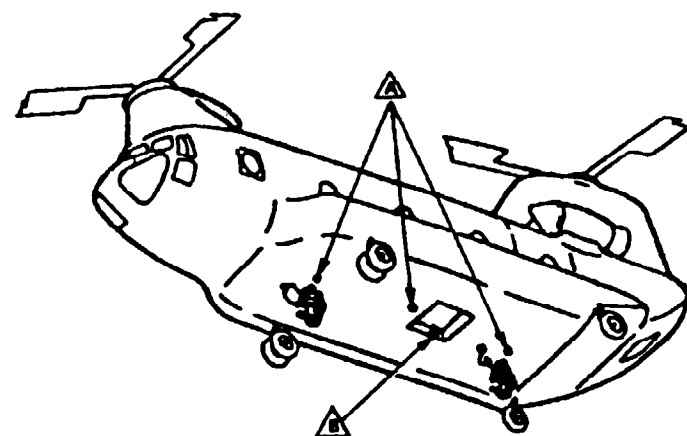
9-23 CARGO HOOK LIGHTS

9-23. CARGO HOOK LIGHTS

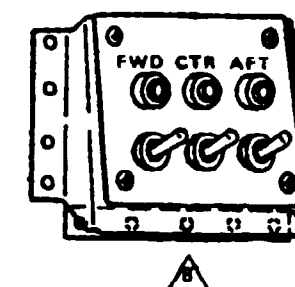
9-23.1 CARGO HOOK LIGHTS WIRING DIAGRAM (WITH 7 FTER C/W MWO 1-1520-240-50-52



9-376 Change 14



NO. 2 POWER DISTRIBUTION PANEL (PDP) VIEW LOOKING AFT



INITIAL SETUP

Applicable Configurations:

With 1 1/2 ft C/W MWO 1-1520-240-50-52

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required

Aircraft Electrician

References:

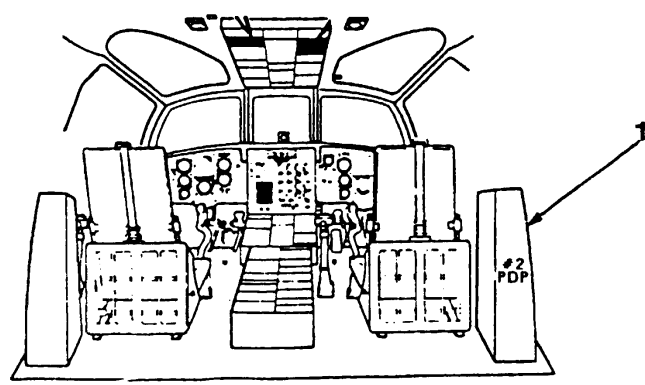
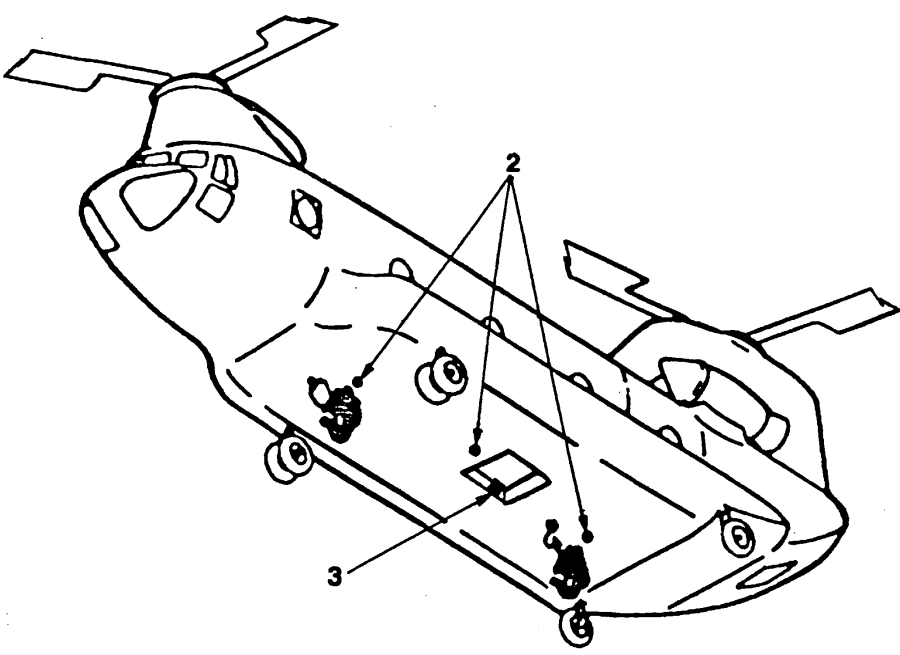
TM 55-1520-240-23  
TM 55-1520-240-23-10  
TM 55-1520-240-10  
TM 55-1520-240-23P-2

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off

TASK	RESULTS
1. Check cargo hook light circuit breaker	If hook light circuit breaker is loose or broken, tighten or replace as required.
2. Check cargo hook lights (2) by each cargo hook.	If cargo hook lights are damaged \or loose, tighten or Replace as required.
3. Check cargo hook lights switch box (3) and components	If any components or switch box is damaged, replace or repair as required.

FOLLOW-ON MAINTNANCE:

None



COCKPIT

f

END OF TASK

9-23.3. CARGO HOOK LIGHTS OPERATIONAL CHECK

9-23-3

INITIAL SETUP

Applicable Configurations:

With 7 Aft C/W MWP 1-1520-240-50-52

References:

TM 55-1520-240-23  
TM 55-1520-240-10

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power Off

Materials:

None

Personnel Required

Aircraft Electrician

TASK	RESULTS
1. Check that cargo hook light circuit breaker is closed	If cargo light circuit breaker is open, close it. If it opens again, go to Task 9-23-4.
2. Check switch marked "FWD" on cargo hook light switch box is pushed up to "ON" position. Indicator lamp above switch is lit. Forward cargo hook light is lit.	If indicator lamp does light. Replace £327. If not lit after replacing lamp go to Task 9-23.6  If indicator lamp does not light replace £327. If not lit, after replacing lamp, go to Task 9-23.5.
3. Check switch marked "CTR" on cargo hook light switch box is pushed up to "ON" position. Indicator lamp above switch is lit.	If center cargo hook light does not light, replace £327 lamp. If not lit, go to Task 9-23.6.
4. Check switch marked "AFT" on cargo hook light switch box is pushed up to "ON" position. Indicator lamp above switch is lit. Aft cargo hook light is it.	If aft cargo hook light does not light, replace £327 lamp. If not lit after replacing lamp, go to Task 9-23.5.

END OF TASK  
Change 14 9-379

9-23.4

INITIAL SET-UP

Applicable Configurations:

With 7 ft C/W MWO 1-1520-240-50-52

Tools:

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

Materials:

None

Personnel Required

Aircraft Electrician

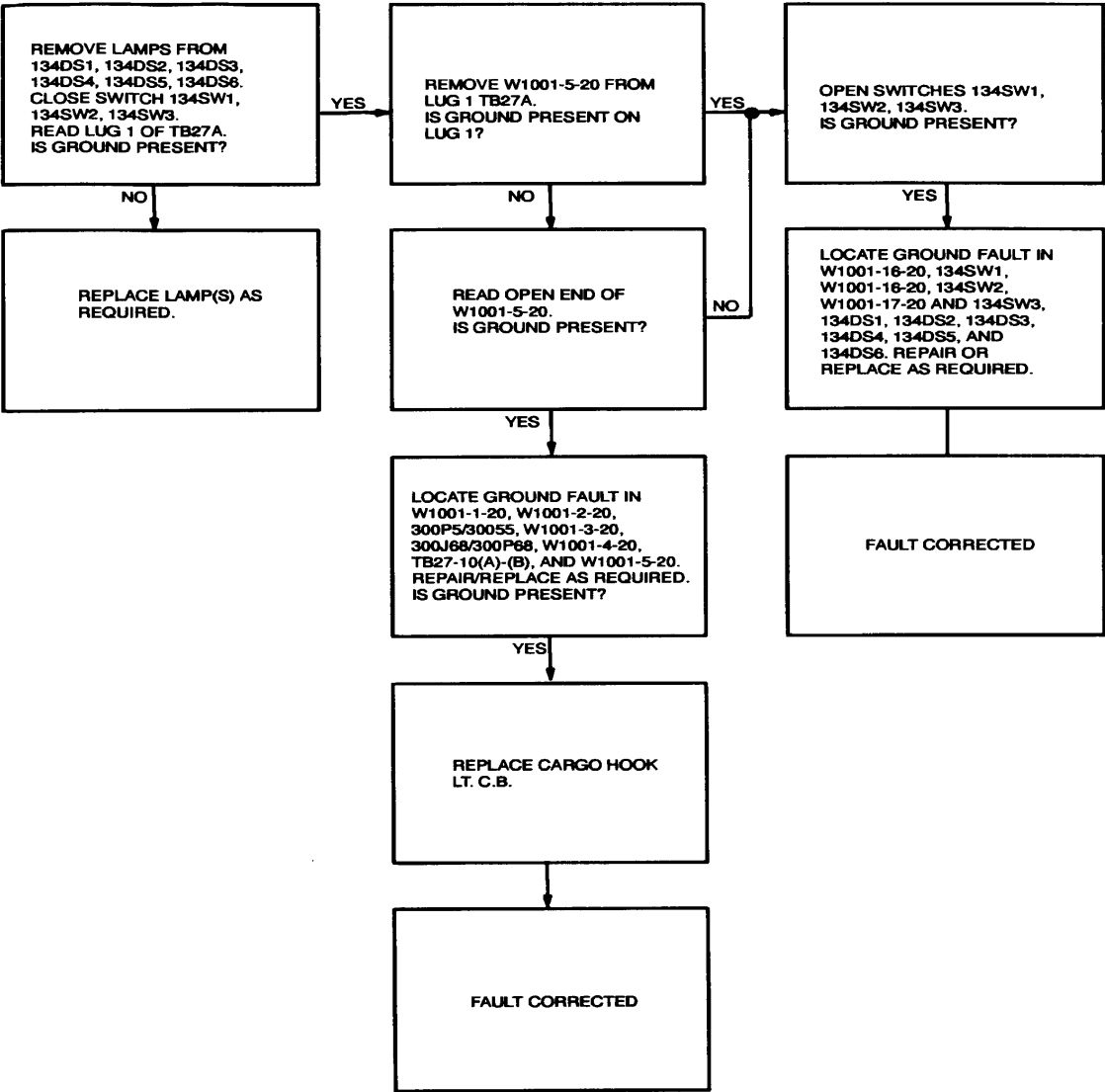
FOLLOW-ON MAINTENANCE:

None

References:

TM 55-1520-240-23

Equipment Condition:  
TM 55-1520-240-23:  
Battery Disconnected  
Electrical Power Off  
Hydraulic Power Off



END OF TASK



INITIAL SETUP

Applicable Configurations:

With 17 Aft CW MWO 1-1520-240-50-52

Electrical Repairer's Tool Kit,  
NSN 5180-00-323-4915  
Multimeter

References:

TM 55-1520-240-T

Equipment Condition:  
TM 55-1520-240-23:  
Battery Connected  
Electrical Power On  
Hydraulic Power On  
Operational Checks of Cargo Hook Lights  
performed Task 9-23.3

Materials:  
None

Personnel Required  
Aircraft Electrician

FOLLOW-ON MAINTENANCE:  
None

INITIAL SETUP

<b>Applicable Configurations:</b>	<b>References:</b>
With 7 ft CW MWO 1-1520-240-50-52	TM 55-1520-240-T
Electrical Repairer's Tool Kit, NSN 5180-00-323-4915 Multimeter	Equipment Condition: TM 55-1520-240-23: Battery Connected Electrical Power On Hydraulic Power On Operational Checks of Cargo Hook Lights performed Task 9-23.3

**Materials:**  
None

**Personnel Required**  
Aircraft Electrician

FOLLOW-ON MAINTENANCE  
None

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**By Order of the Secretary of the Army:**

**Official:**

**E. C. MEYER**  
***General, United States Army***  
***Chief of Staff***

**ROBERT M. JOYCE**  
***Major General, United States Army***  
***The Adjutant General***

**DISTRIBUTION:**

To be distributed in accordance with DA Form 12-31, Organizational Maintenance requirements for CH-47B/C & D aircraft.

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The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however, only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: "Whoever" <whoever@avma27.army.mil>

To: ls-lp@redstone.army.mil

Subject: DA Form 2028

1. **From:** Joe Smith
2. Unit home
3. **Address:** 4300 Park
4. **City:** Hometown
5. **St:** AL
6. **Zip:** 77777
7. **Date Sent:** 19-OCT-93
8. **Pub No:** 55-2840-229-23
9. **Pub Tit/e:** TM
10. **Publication Date:** 04-JUL-85
11. Change Number: 7
12. Submitter Rank: MSG
13. **Submitter Fname:** Joe
14. Submitter Mname: T
15. **Submitter Lname:** Smith
16. **Submitter Phone:** 123-123-1234
17. **Problem:** 1
18. Page: 2
19. Paragraph: 3
20. Line: 4
21. NSN: 5
22. Reference: 6
23. Figure: 7
24. Table: 8
25. Item: 9
26. Total: 123
27. **Text:**

This is the text for the problem below line 27.

# RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



## SOMETHING WRONG WITH THIS PUBLICATION?

THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM, CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

PFC John Doe  
CO 4 3rd Engineer Bn  
Ft. Leonardwood, MO 63108

DATE SENT

22 August 1992

PUBLICATION NUMBER

TM 1-1520-250-10

PUBLICATION DATE

15 June 1992

PUBLICATION TITLE

Operator's manual MH60K Helicopter

BE EXACT PIN-POINT WHERE IT IS

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO	
6	2-1 a			In line 6 of paragraph 2-1a the manual states the engine has 6 cylinders. The engine on my set only has <u>4</u> cylinders. Change the manual to show 4 cylinders.
B1		4-3		Callout 16 in figure 4-3 is pointed to <u>bolt</u> . In key to figure 4-3, item 16 is called a <u>shim</u> . Please correct one or the other.

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

JOHN DOE, PFC (268) 317-7111

SIGN HERE

JOHN DOE *John Doe*

DA FORM 2028-2  
1 JUL 79

PREVIOUS EDITIONS ARE OBSOLETE.  
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DEPARTMENT OF THE ARMY

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Commander  
U. S. Army Aviation and Missile Command  
ATTN: AMSAM-MMC-LS-LP  
Redstone Arsenal, AI 35898-5230



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<b>PUBLICATION NUMBER</b> TM 55-1520-240-T-2	<b>PUBLICATION DATE</b> 10 May 83	<b>PUBLICATION TITLE</b> Troubleshooting, CH-47D Helicopter
---	--------------------------------------	--

BE EXACT PIN-POINT WHERE IT IS

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

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DEPARTMENT OF THE ARMY

Commander  
U. S. Army Aviation and Missile Command  
ATTN: AMSAM-MMC-LS-LP  
Redstone Arsenal, AL 35898-5230

# The Metric System and Equivalents

## Linear Measure

1 centimeter = 10 millimeters = .39 inch  
 1 decimeter = 10 centimeters = 3.94 inches  
 1 meter = 10 decimeters = 39.37 inches  
 1 dekameter = 10 meters = 32.8 feet  
 1 hectometer = 10 dekameters = 328.08 feet  
 1 kilometer = 10 hectometers = 3,280.8 feet

## Weights

1 centigram = 10 milligrams = .15 grain  
 1 decigram = 10 centigrams = 1.54 grains  
 1 gram = 10 decigrams = .035 ounce  
 1 dekagram = 10 grams = .35 ounce  
 1 hectogram = 10 dekagrams = 3.52 ounces  
 1 kilogram = 10 hectograms = 2.2 pounds  
 1 quintal = 100 kilograms = 220.46 pounds  
 1 metric ton = 10 quintals = 1.1 short tons

## Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce  
 1 deciliter = 10 centiliters = 3.38 fl. ounces  
 1 liter = 10 deciliters = 33.81 fl. ounces  
 1 dekaliter = 10 liters = 2.64 gallons  
 1 hectoliter = 10 dekaliters = 26.42 gallons  
 1 kiloliter = 10 hectoliters = 264.18 gallons

## Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch  
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches  
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet  
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet  
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres  
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

## Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch  
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches  
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

# Approximate Conversion Factors

To change	To	Multiply by	To change	To	Multiply by
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pound-inches	newton-meters	.11296			

# Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C
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