

GPA Group plc

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R = REVISED, A = ADDED OR D = DELETED 632 MAY 20/09 D633N632

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CHAPTER 56 - WINDOWS

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Chapter

Section

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CODE INDEX

<u>WINDOWS</u> 56-00-00

FLIGHT COMPARTMENT 56-10-00 FLIGHT COMPARTMENT WINDOWS 56-11-00

Component Location 101 ALL

Component Index Component Location

Fault Isolation

56-CONTENTS



YOU FIND A FAULT WITH AN AIRPLANE SYSTEM

These are the possible types of faults:

- 1. EICAS Message
- 2. Observed Fault

DO THE CORRECTIVE
ACTION OR GO TO THE
FAULT ISOLATION
PROCEDURE IN THE FIM

Use the EICAS message, fault code, or fault description to find the corrective action or fault isolation procedure in the FIM.

For details, see Figure 3 ──►

If you do not have a fault code or an EICAS message and if the system has BITE, then you can use the system BITE to get more information:

Use the BITE Index to find if the system has BITE and to find the BITE procedures in the FIM.

For details, see Figure 2 -

FOLLOW THE STEPS IN THE FAULT ISOLATION PROCEDURE The fault isolation procedure explains how to find and repair the the cause of the fault.

For details, see Figure 4

Basic Fault Isolation Process Figure 1

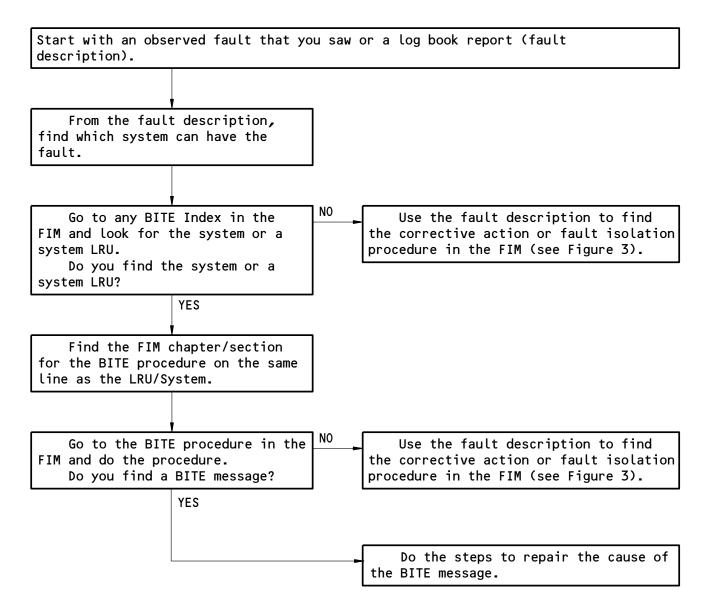
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How to Get Fault Information from BITE Figure 2

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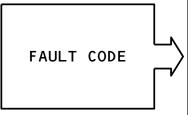
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IF YOU HAVE:

THEN DO THIS TO FIND THE CORRECTIVE ACTION OR FAULT ISOLATION PROCEDURE IN THE FIM:



- 1. The first two digits of the fault code are the FIM chapter that you need. Go to the Fault Code Index in that chapter and find the fault code.
- 2. Find the Fault Isolation Reference for the fault code and do the corrective action. If there is a FIM reference, then go to that fault isolation procedure in the FIM and do the steps in the procedure (see Figure 4).



1. If you know the chapter of the EICAS message, then go to the EICAS Messages section in that chapter and find the EICAS message.

If you do not know the chapter of the EICAS message, then do these steps:

A. Go to FIM EICAS MESSAGE LIST and find the EICAS message in the table.

 $\underline{\text{NOTE}}$: The list follows the INTRODUCTION to the FIM.

- B. Find the chapter number on the same line as the EICAS message. Go to the EICAS Messages section in that chapter and find the EICAS message.
- 2. Do the corrective action in the "Procedure" column for the EICAS message. If there is a FIM reference, then go to that fault isolation procedure in the FIM and do the steps in the procedure (see Figure 4).



- 1. Go to the Fault Code Diagram for the problem in the applicable chapter.
- 2. Do the fault analysis on the diagram and find the fault code.
- 3. The first two digits of the fault code are the FIM chapter that you need. Go to the Fault Code Index in that chapter and find the fault code.
- 4. Find the Fault Isolation Reference for the fault code and do the corrective action. If there is a FIM reference, then go to that fault isolation procedure in the FIM and do the steps in the procedure (see Figure 4).

How to Find the Corrective Action or Fault Isolation
Procedure in the FIM
Figure 3

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ASSUMED CONDITIONS AT START OF TASK

- External electrical power is OFF
- Hydraulic power and pneumatic power are OFF
- Engines are shut down
- Circuit breakers for the system are closed
- No equipment in the system is deactivated

PREREQUISITES

- This box gives the steps to get the airplane from the normal shutdown condition to the configuration necessary to do the fault isolation procedure.
- The Prerequisites give procedure references, circuit breakers, and special tools and equipment requirements.

FAULT ISOLATION BLOCKS

- Start the fault isolation procedure at block 1 unless specified differently.
- Do the check to get an answer to the question in the box. Follow the arrow that applies to your answer. This will go to the next check.
- When you get to a box in the column at the right of the page, you have isolated that fault. Do the steps in that box to repair the cause of the fault.
- Make sure that fault is corrected to complete the procedure.

Do the Fault Isolation Procedure Figure 4

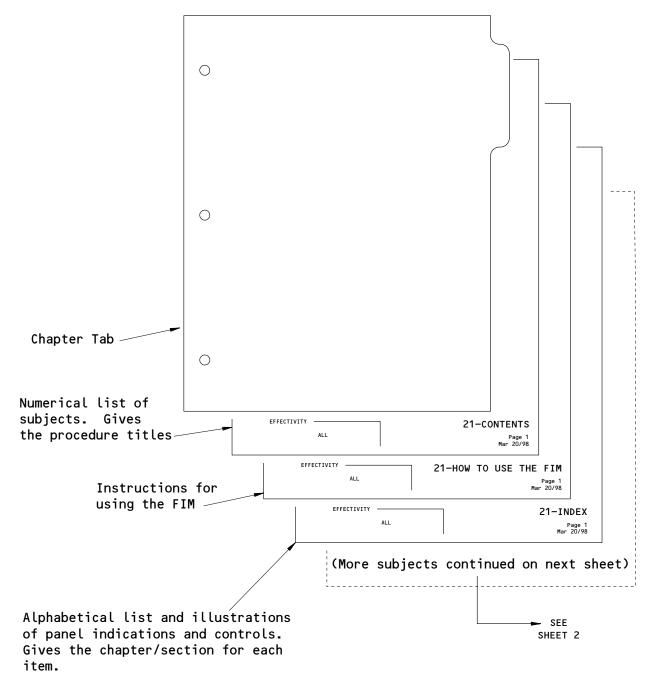
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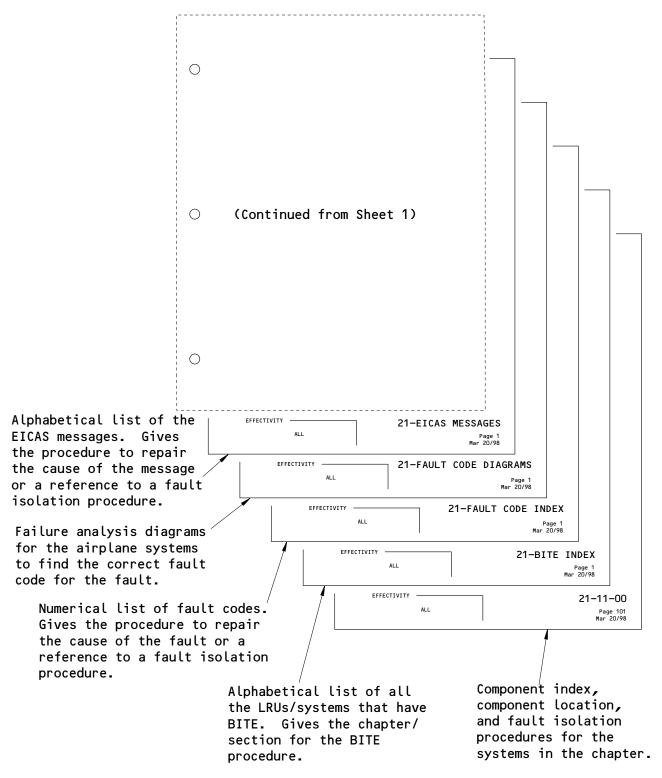
Subjects in Each FIM Chapter Figure 5 (Sheet 1)

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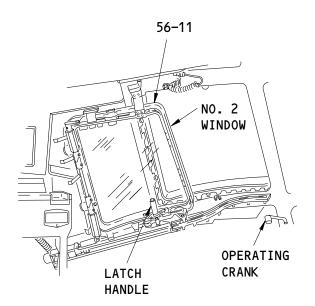
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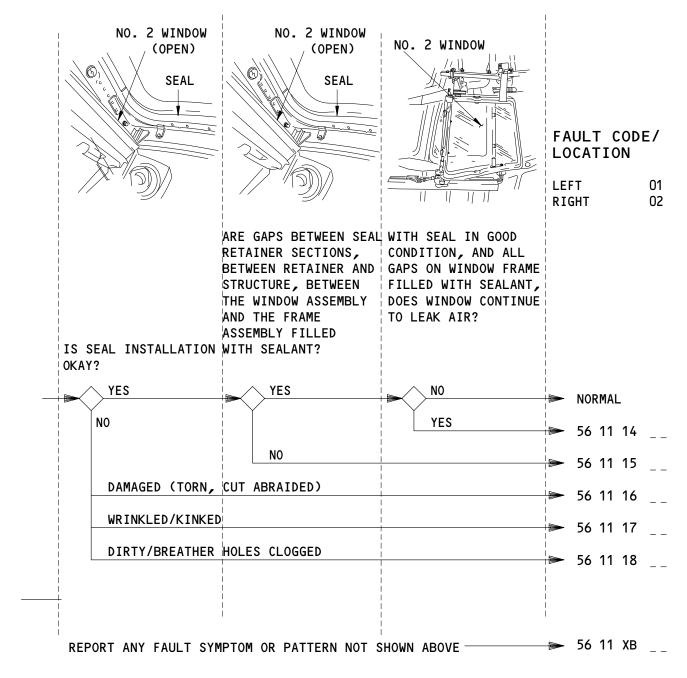
WINDOW - INDEX

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NO. 2 WINDOW AIR LEAKS - FAULT CODES (GROUND)

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56-FAULT CODE DIAGRAM

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FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
56 11 XA	A (01=1L,02=2L,03=3L,04=1R, 05=2R,06=3R) window problem was encountered by the flight crew which is not covered in the Fault Code Diagrams.	AMM 56-11-00
56 11 01	(02=2L,05=2R) Window difficult to latch.	Do a test of the No. 2 Window latch system (AMM 56-11-02).
56 11 02	(02=2L,05=2R) Window difficult to unlatch.	Do a test of the No. 2 window latch system (AMM 56-11-02).
56 11 03	(02=2L,05=2R) Window crank binding toward open.	Do a test of the No. 2 window operating mechanism (AMM 56-11-02).
56 11 04	(02=2L,05=2R) Window crank binding toward close.	Do a test of the No. 2 window operating mechanism (AMM 56-11-02).
56 11 05	Evidence of air leakage at (02=2L,05=2R) window (describe area if possible).	Apply sealant at the clearance adjacent to the weather seal (AMM 56-11-02/501) or replace seal (AMM 56-11-53).
56 11 06	(01=1L,02=2L,03=3L,04=1R,05=2R, 06=3R) Window has delamination (describe size and area).	Examine the window for permitted damage limits (AMM 56-11-00).
56 11 07	(01=1L,02=2L,03=3L,04=1R,05=2R, 06=3R) Window has crack (describe).	Examine the window for permitted damage limits (AMM 56-11-00).
56 11 08	(01=1L,02=2L,03=3L,04=1R,05=2R, 06=3R) Window is chipped (locate area).	Examine the window for permitted damage limits (AMM 56-11-00).
56 11 09	(01=1L,02=2L,03=3L,04=1R,05=2R, 06=3R) Window is crazed (locate area).	Examine the window for permitted damage limits (AMM 56-11-00).
56 11 10	(01=1L,02=2L,03=3L,04=1R,05=2R, 06=3R) Window is scratched (describe).	Examine the window for permitted damage limits (AMM 56-11-00).
56 11 11	(01=1L,02=2L,03=3L,04=1R,05=2R, 06=3R) Window has bubbles (describe area).	Examine the window for permitted damage limits (AMM 56-11-00).

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FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
56 11 12 00	Windows need cleaning.	Clean the windows (AMM 12-16-02).
56 11 14	(01=LEFT,02=RIGHT) With seal in good condition, and all gaps on windowframe filled with sealant, window is leaking air.	FIM 56-11-00/101, Fig. 103, Block 1
56 11 15	(01=LEFT,02=RIGHT) With seal in good condition, gaps between seal retainer sections, gaps between retainer and structure, gaps between the window laminate assembly and the frame assembly are not filled with sealant, window is leaking.	Repair with a sealant (AMM 56-11-00/801).
56 11 16	(O1=LEFT,O2=RIGHT) Seal is damaged (torn, cut, abraided).	Replace the seal (AMM 56-11-53/401).
56 11 17	(01=LEFT,02=RIGHT) Seal is wrinkled/kinked.	Remove and reinstall the seal (AMM 56-11-53/401). If the seal remains wrinkled or kinked, replace the seal (AMM 56-11-53/401).
56 11 18	(01=LEFT,02=RIGHT) Seal is dirty and/or breather holes are clogged.	Clean the seal and make sure the breather holes on the inboard side of the seal are open.
56 21 01 00	Passenger window (locate by seat number)(describe condition: cracked, crazed, fogged, dirty, etc.).	Repair or replace the window as necessary (AMM 56-21-01).
56 31 01	(01=Fwd,02=Mid,03=Aft) Passenger entry door window (describe condition: cracked, crazed, fogged, dirty, etc.).	Repair or replace the window as necessary (AMM 56-31-02).
56 31 02	(01=Fwd,02=Mid,03=Aft) Passenger service door window (describe condition: cracked, crazed, fogged, dirty, etc.).	Repair or replace the window as necessary (AMM 56-31-02).

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BITE Index

1. General

- A. Use this index to find the BITE procedure for the applicable LRU/System.
- B. The BITE procedure will provide the fault isolation instructions for the fault indications/LRU maintenance messages.

<u>LRU/System Name</u>	<u>Acronym</u>	FIM Reference
Air Data Computer	ADC	34-12
Air Data Inertial Reference Unit	ADIRU	34-26
Air Traffic Control Transponder	ATC	34-53
Airborne Vibration Monitor Signal Conditioner	AVM	77–31
Antiskid/Autobrake Control Unit		32-42
APU Fire Detection System		26-15
Automatic Direction Finder Receiver	ADF	34-57
APU Control Unit	ECU	49-11
Brake Temperature Monitor Unit		32-46
Bus Power Control Unit	BPCU	24-20
Cabin Pressure Controller		21-30
Digital Flight Data Acquisition Unit	DFDAU	31–31
Distance Measuring Equipment Interrogator	DME	34-55
Duct Leak (Wing and Body)		26-18
E/E Cooling Control Card (If cards installed)		21-58
ECS Bleed Configuration Card		36-10
Electronic Engine Control (RR Engines)	EEC	73–21
Electronic Engine Control Monitor Unit (PW Engines)	EECM	71-EPCS Message Index
Electronic Flight Instrument System	EFIS	34-22
Electronic Propulsion Control System (PW Engines)	EPCS	71-EPCS Message Index
Engine Fire/Overheat Detection System		26–11
Engine Indication and Crew Alerting System Computer	EICAS	31–41

Bite Index Figure 1 (Sheet 1)

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LRU/System Name	<u>Acronym</u>	FIM Reference
Engine Turbine Cooling Overheat Detection System (RR Engines)		26-13
Enhanced Ground Proximity Warning Computer	EGPWC	34-46
Flap/Slat Accessory Module	FSAM	27-51
Flap/Slat Electronic Unit	FSEU	27-51
Flight Management Computer	FMC	34-61
Fuel Quantity Indicating System Processor	FQIS	28-41
Ground Proximity Warning Computer	GPWC	34-46
HF (High Frequency) Communication		23-11
Inertial Reference Unit	IRU	34-21
Instrument Comparator Unit	ICU	34-25
Instrument Landing System Receiver	ILS	34-31
Lower Cargo Compartment Smoke Detection System		26-16
Maintenance Control Display Panel	MCDP	22-00
PA (Passenger Address) Amplifier		23-31
Pack Standby Temperature Controller		21-51
Pack Temperature Controller		21-51
Passenger Entertainment System	PES	23-34
Power Supply Module (Control System Electronics Units)	PSM	27-09
Propulsion Discrete Interface Unit (PW Engines)	PDIU	73–21
Proximity Switch Electronics Unit	PSEU	32-09
Radio Altimeter Transmitter/Receiver	RA	34-33
Rudder Ratio Changer Module	RRCM	27-09
Spoiler Control Module	SCM	27-09
Stabilizer Position Module	SPM	27-48
Stabilizer Trim/Elevator Asymmetry Limit Module	SAM	27-09
Stall Warning Computer/Module (in Warning Electronic Unit)	SWC	27-32
Strut Overheat Detection System (RR Engines)		26-12

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<u>LRU/System Name</u>	<u>Acronym</u>	FIM Reference
Thrust Management Computer/Autothrottle	TMC	22-00
Traffic Alert and Collision Avoidance Computer	TCAS	34-45
VHF (Very High Frequency) Communication		23-12
VOR/Marker Beacon Receiver	VOR/MKR	34-51
Warning Electronic Unit BITE Module (Stall Warning)	WEU	27-32
Weather Radar Transceiver	WXR	34-43
Wheel Well Fire Detection		26–17
Window Heat Control Unit	WHCU	30-41
Yaw Damper Module	YDM	22–21
Yaw Damper/Stabilizer Trim Module	YSM	27-09
Zone Temperature Controller		21-60

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FLIGHT COMPARTMENT WINDOWS

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ARM - LINK BRACKET - UPPER ROLLER CRANK - OPERATING HANDLE - LATCH SEAL - NO. 2 WINDOW PRESSURE STUD - LATCH WINDOW - NO. 2 WINDOW - NO. 3 WINDSHIELD - NO. 1	- - - - - - -	2 2 2 2 2 8 2 2 2	BELOW NO. 2 WINDOW ABOVE NO. 2 WINDOW BELOW NO. 2 WINDOW ON NO. 2 WINDOW NO. 2 WINDOW FRAME NO. 2 WINDOW FRAME FLT COMPT FLT COMPT FLT COMPT	56-11-02 56-11-02 56-11-04 56-11-02 56-11-53 56-11-02 56-11-02 56-11-10 56-11-01

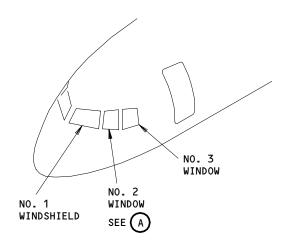
Flight Compartment Windows - Component Index Figure 101

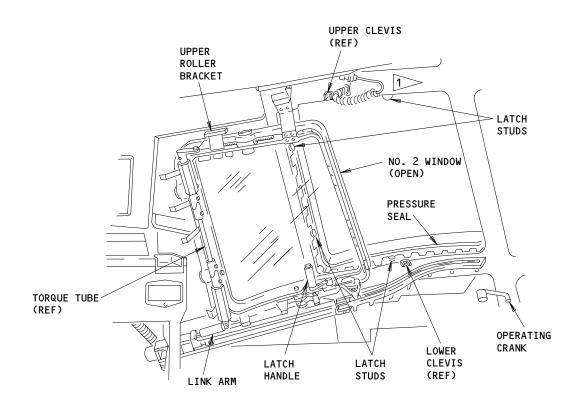
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E48677

56-11-00







NO. 2 WINDOW



THE CORD IS SHOWN DISCONNECTED FROM THE WINDOW HEAT TERMINALS.

140062

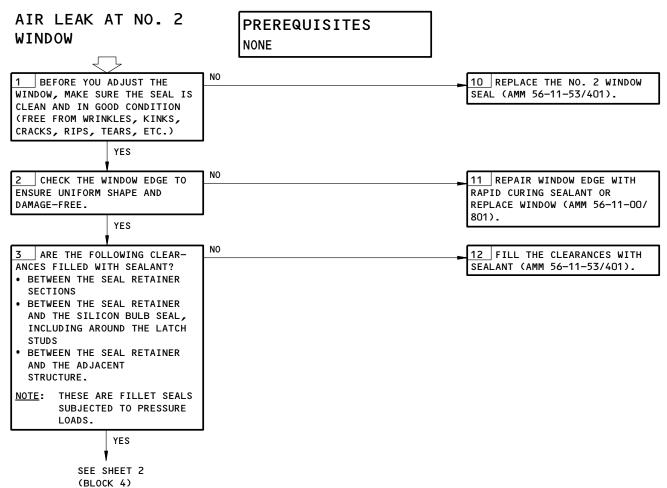
Flight Compartment Windows - Component Location Figure 102

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03

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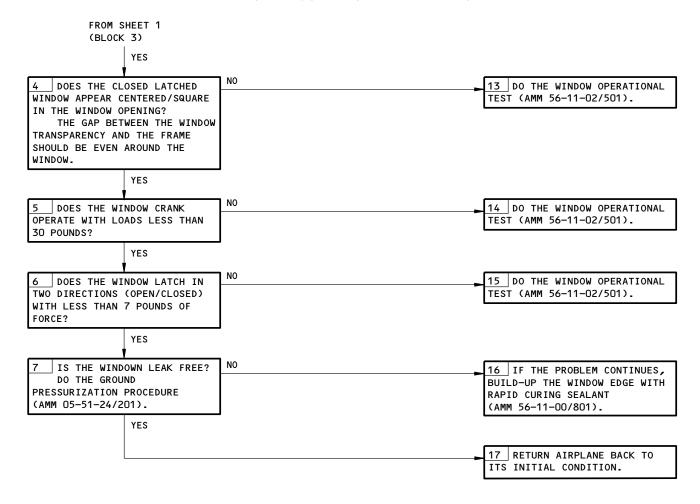




Air Leak at No. 2 Window Figure 103 (Sheet 1)

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Air Leak at No. 2 Window Figure 103 (Sheet 2)