

CHAPTER

78

EXHAUST



CHAPTER 78
EXHAUST

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A = Added, R = Revised, D = Deleted, O = Overflow

78-EFFECTIVE PAGES

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D280A203

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<u>THRUST REVERSER SYSTEM</u>						
ENGINE THRUST REVERSER GENERAL SYSTEM FUNCTION	78-31-00		101		Feb 09/2009	ALL
ENGINE 1 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS	78-32-51		101		Mar 31/2005	YC001-YC007
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			103		Feb 09/2009	YK901-YM670
ENGINE 2 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS	78-32-61		101		Mar 31/2005	YC001-YC007
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			103		Feb 09/2009	YK901-YM670
<u>THRUST REVERSER CONTROL SYSTEM</u>						
ENGINE 1 THRUST REVERSER CONTROL	78-34-11		101		Feb 09/2009	ALL
ENGINE 2 THRUST REVERSER CONTROL	78-34-21		101		Feb 09/2009	ALL
<u>ENGINE THRUST REVERSER POSITION / THRUST LEVER INTERLOCK</u>						
ENGINE 1 THRUST REVERSER POSITION / THRUST LEVER INTERLOCK	78-35-11		101		Mar 31/2005	YC001-YC007
			102		Feb 09/2009	YC008-YM670
ENGINE 2 THRUST REVERSER POSITION / THRUST LEVER INTERLOCK	78-35-21		101		Mar 31/2005	YC001-YC007
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<u>THRUST REVERSER INDICATING SYSTEM</u>						
ENGINE 1 THRUST REVERSER FLIGHT DECK INDICATION	78-36-11		101		Mar 31/2005	YC001-YC007
			102		Feb 09/2009	YC008-YM670

**CHAPTER 78
EXHAUST**

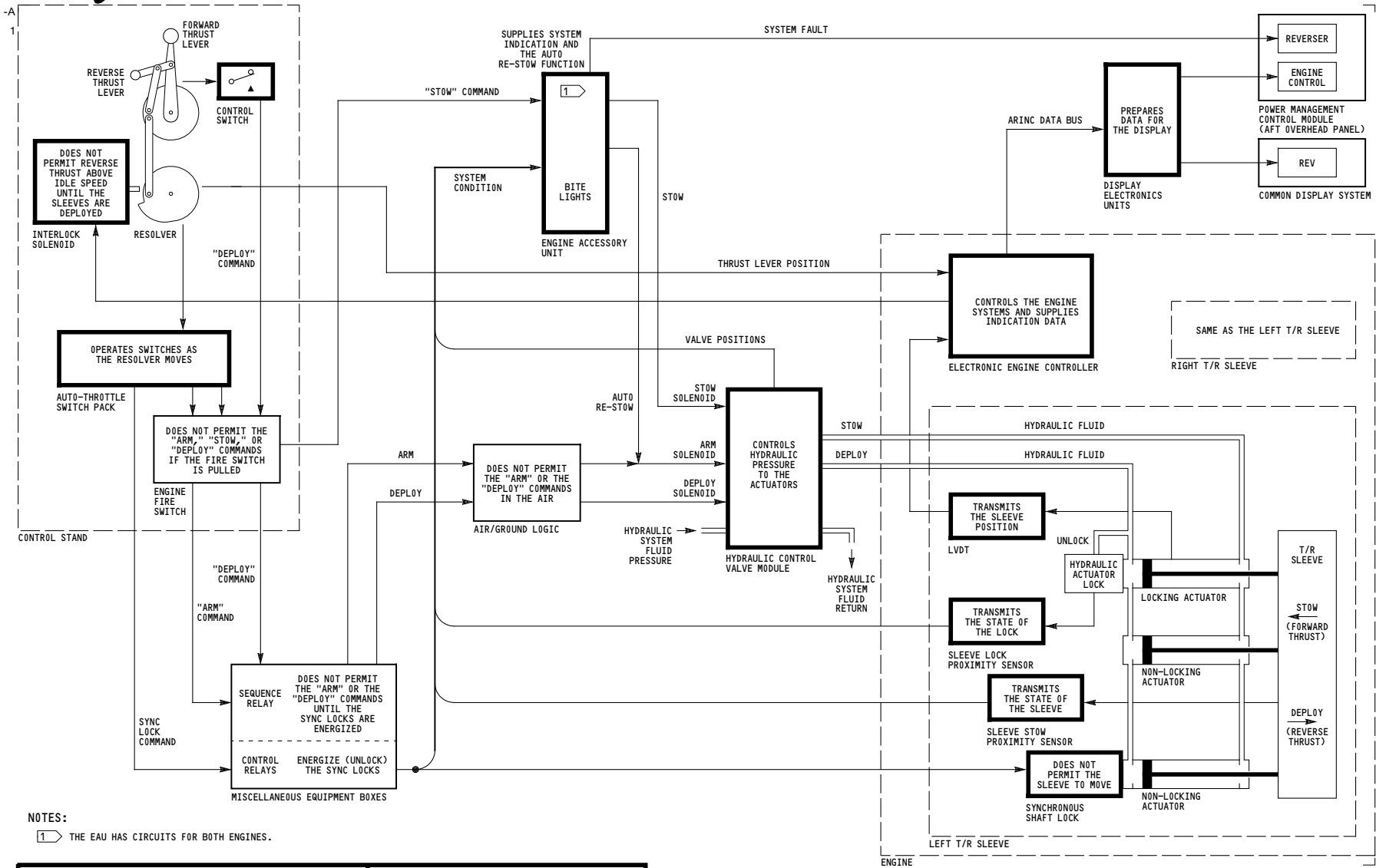
Title	CH-SC-SU	Schem	Page	Sheet	Date	Effectivity
ENGINE 1 THRUST REVERSER MAINTENANCE INDICATION	78-36-12		101		Feb 09/2009	ALL
ENGINE 2 THRUST REVERSER FLIGHT DECK INDICATION	78-36-21		101		Mar 31/2005	YC001-YC007
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78-34-11	ENGINE 1 THRUST REVERSER CONTROL
78-36-11	ENGINE 1 THRUST REVERSER FLIGHT DECK INDICATION
78-36-12	ENGINE 1 THRUST REVERSER MAINTENANCE INDICATION
78-35-11	ENGINE 1 THRUST REVERSER POSITION / THRUST LEVER INTERLOCK
78-32-51	ENGINE 1 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS
78-34-21	ENGINE 2 THRUST REVERSER CONTROL
78-36-21	ENGINE 2 THRUST REVERSER FLIGHT DECK INDICATION
78-36-22	ENGINE 2 THRUST REVERSER MAINTENANCE INDICATION
78-35-21	ENGINE 2 THRUST REVERSER POSITION / THRUST LEVER INTERLOCK
78-32-61	ENGINE 2 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS
78-31-00	ENGINE THRUST REVERSER GENERAL SYSTEM FUNCTION

CH-SC-SU	Title

78-ALPHABETICAL INDEX



NOTES:
 1 THE EAU HAS CIRCUITS FOR BOTH ENGINES.

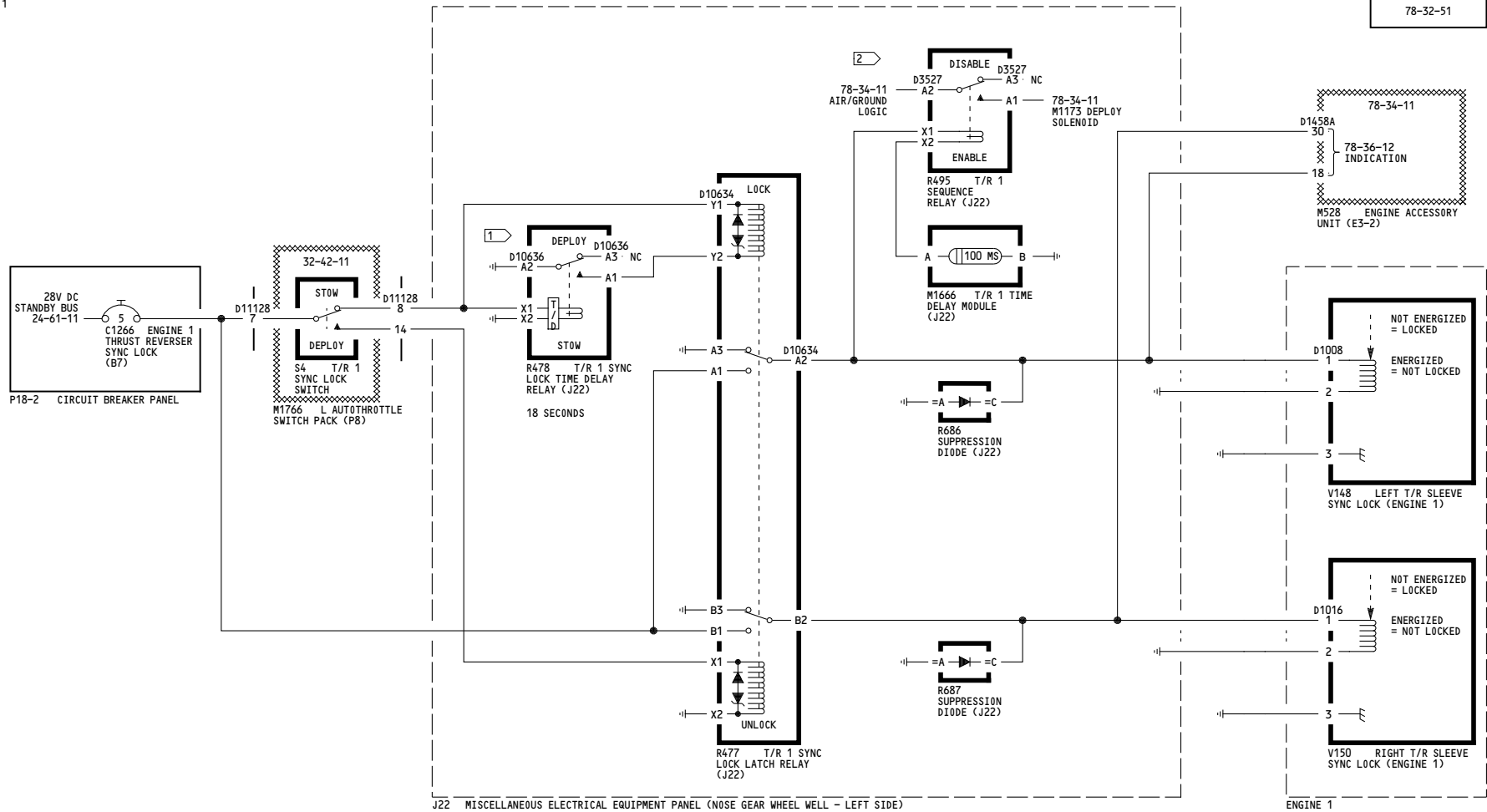
ALL	<p>ENGINE THRUST REVERSER GENERAL SYSTEM FUNCTION</p> <p>D280A203</p>
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78-31-00

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NOTES:

- 1 THE 18 SECOND TIME DELAY PERMITS THE THRUST REVERSER SLEEVES TO CLOSE BEFORE THE SYNC LOCKS DE-ENERGIZE AND LOCK.
- 2 THE 100 MS TIME DELAY PERMITS THE SYNC LOCK TO UNLOCK BEFORE THE DEPLOY VALVE OPENS.

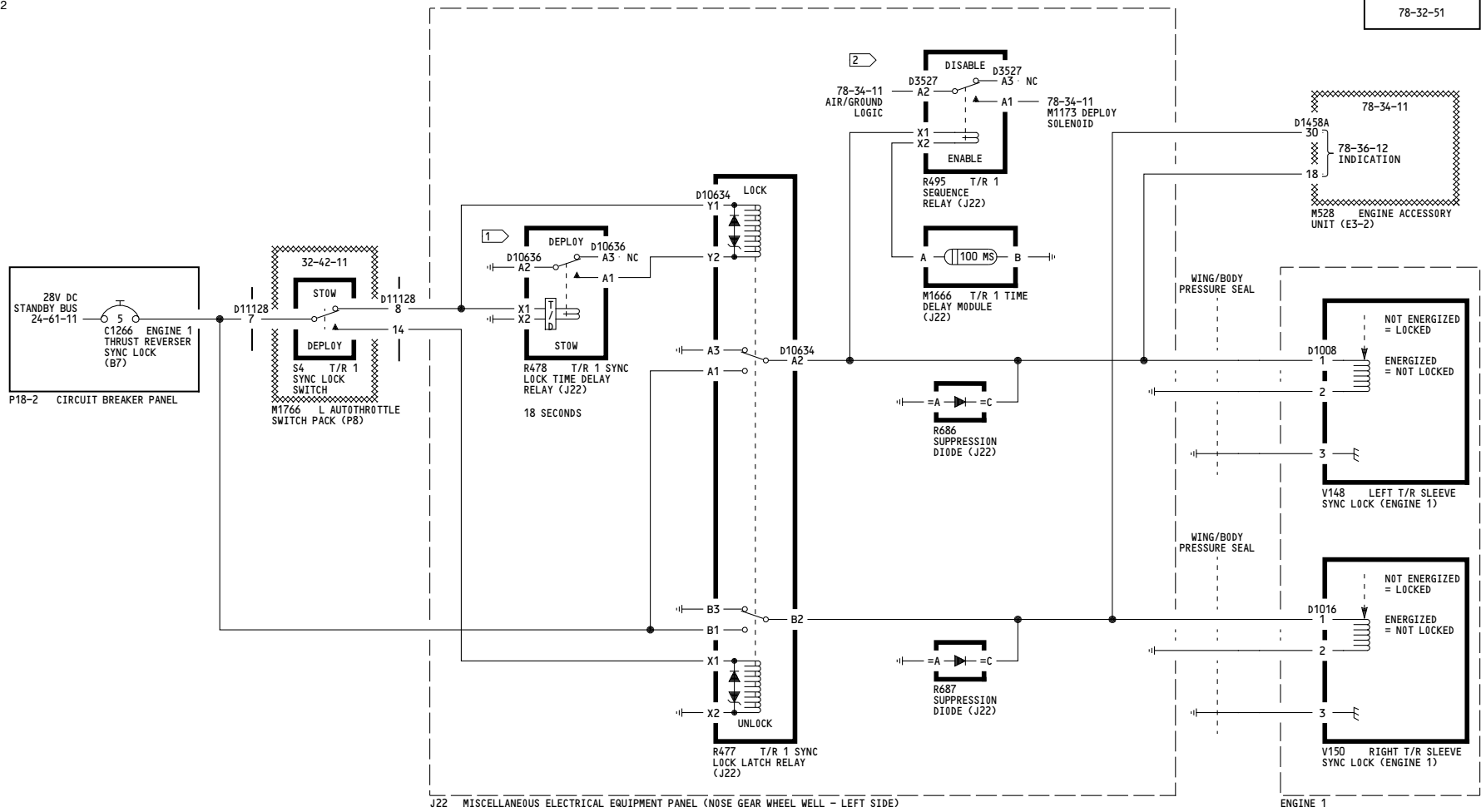
<p>YC001-YC007</p>	<p>ENGINE 1 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS</p> <p>D280A203</p>
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78-32-51

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Mar 31/2005

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2



- NOTES:**
- 1 THE 18 SECOND TIME DELAY PERMITS THE THRUST REVERSER SLEEVES TO CLOSE BEFORE THE SYNC LOCKS DE-ENERGIZE AND LOCK.
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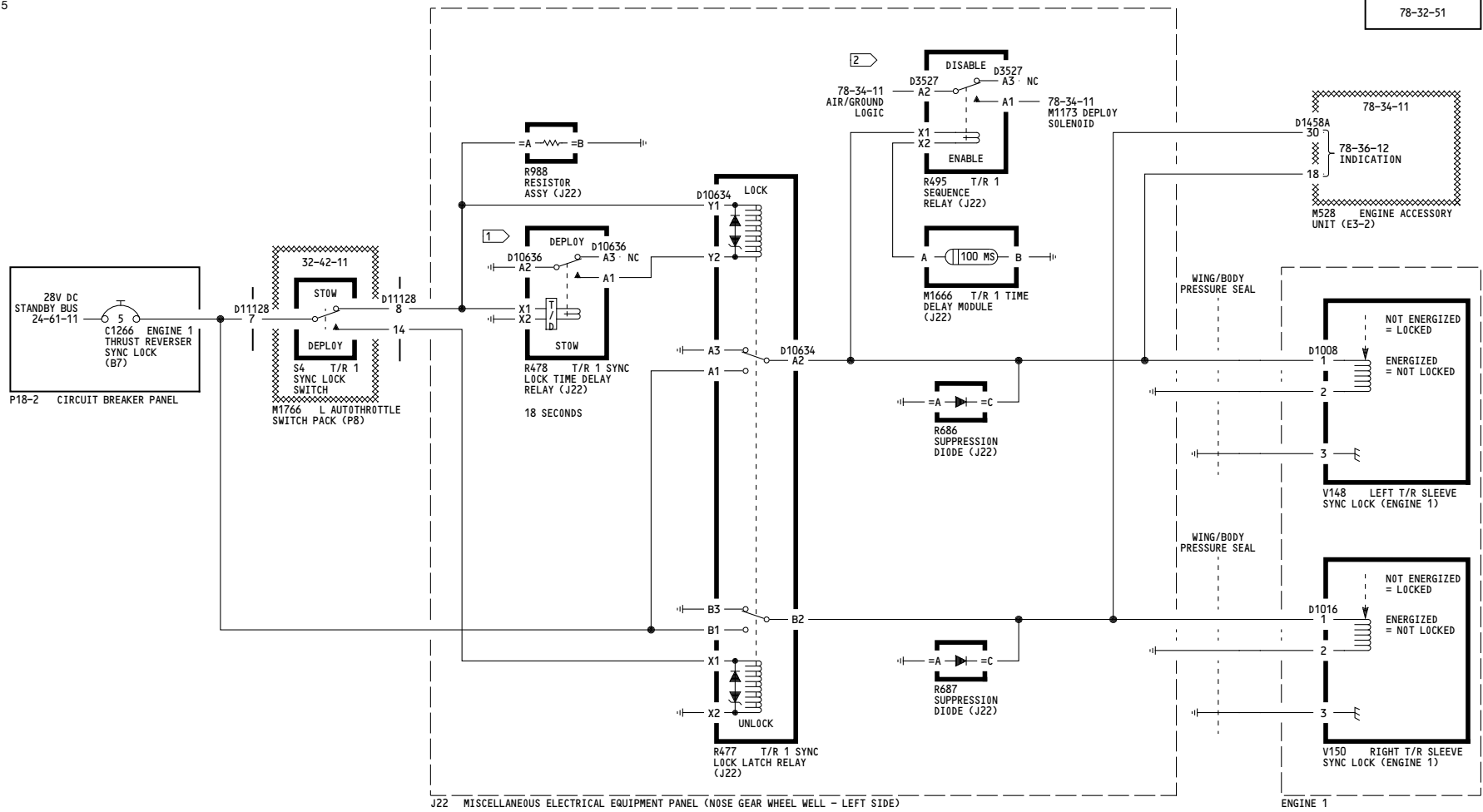
YC008-YC050	ENGINE 1 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS
D280A203	

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Jul 17/2007

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- NOTES:**
- 1 THE 18 SECOND TIME DELAY PERMITS THE THRUST REVERSER SLEEVES TO CLOSE BEFORE THE SYNC LOCKS DE-ENERGIZE AND LOCK.
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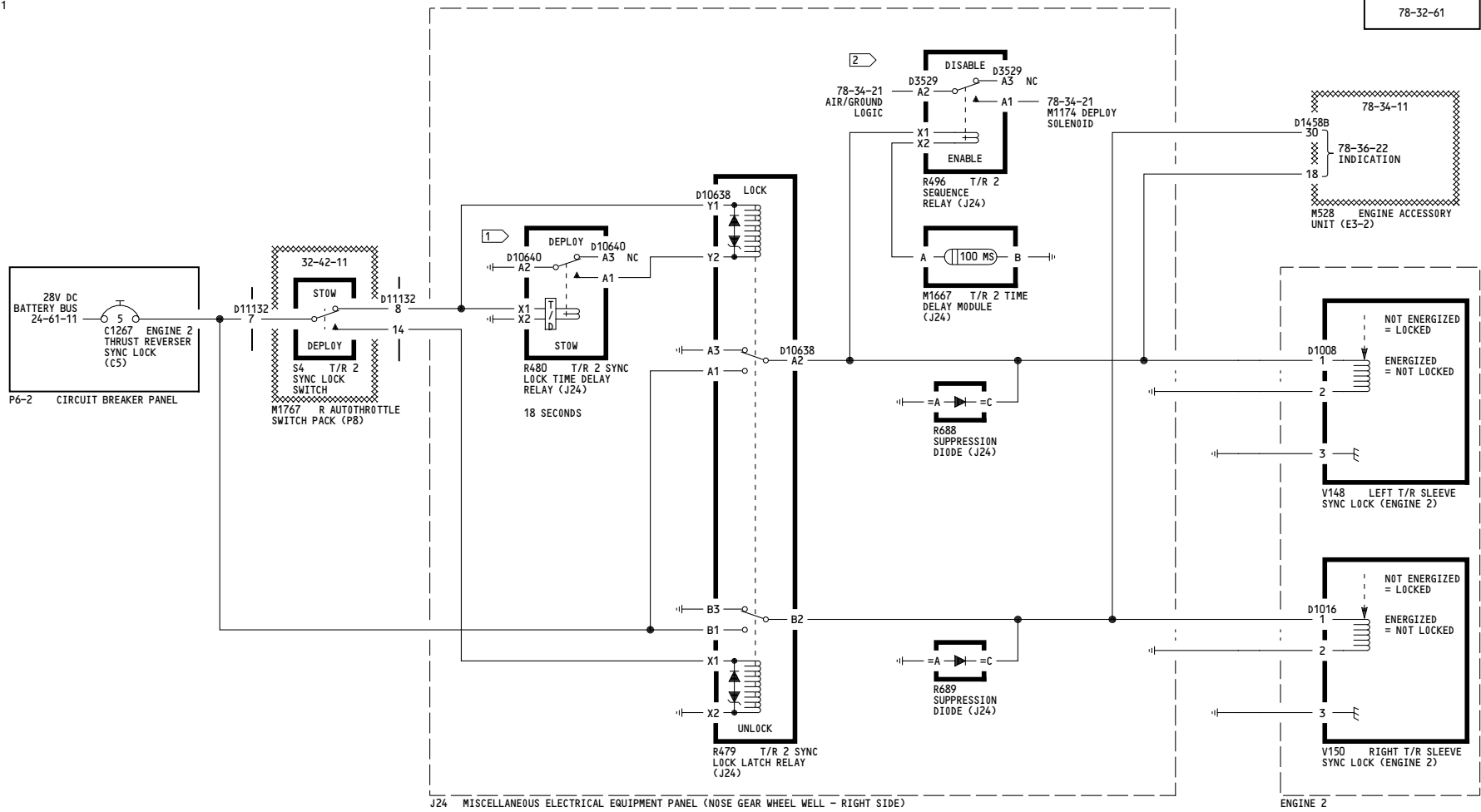
YK901-YM670	ENGINE 1 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS
D280A203	

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1



- NOTES:**
- 1 THE 18 SECOND TIME DELAY PERMITS THE THRUST REVERSER SLEEVES TO CLOSE BEFORE THE SYNC LOCKS DE-ENERGIZE AND LOCK.
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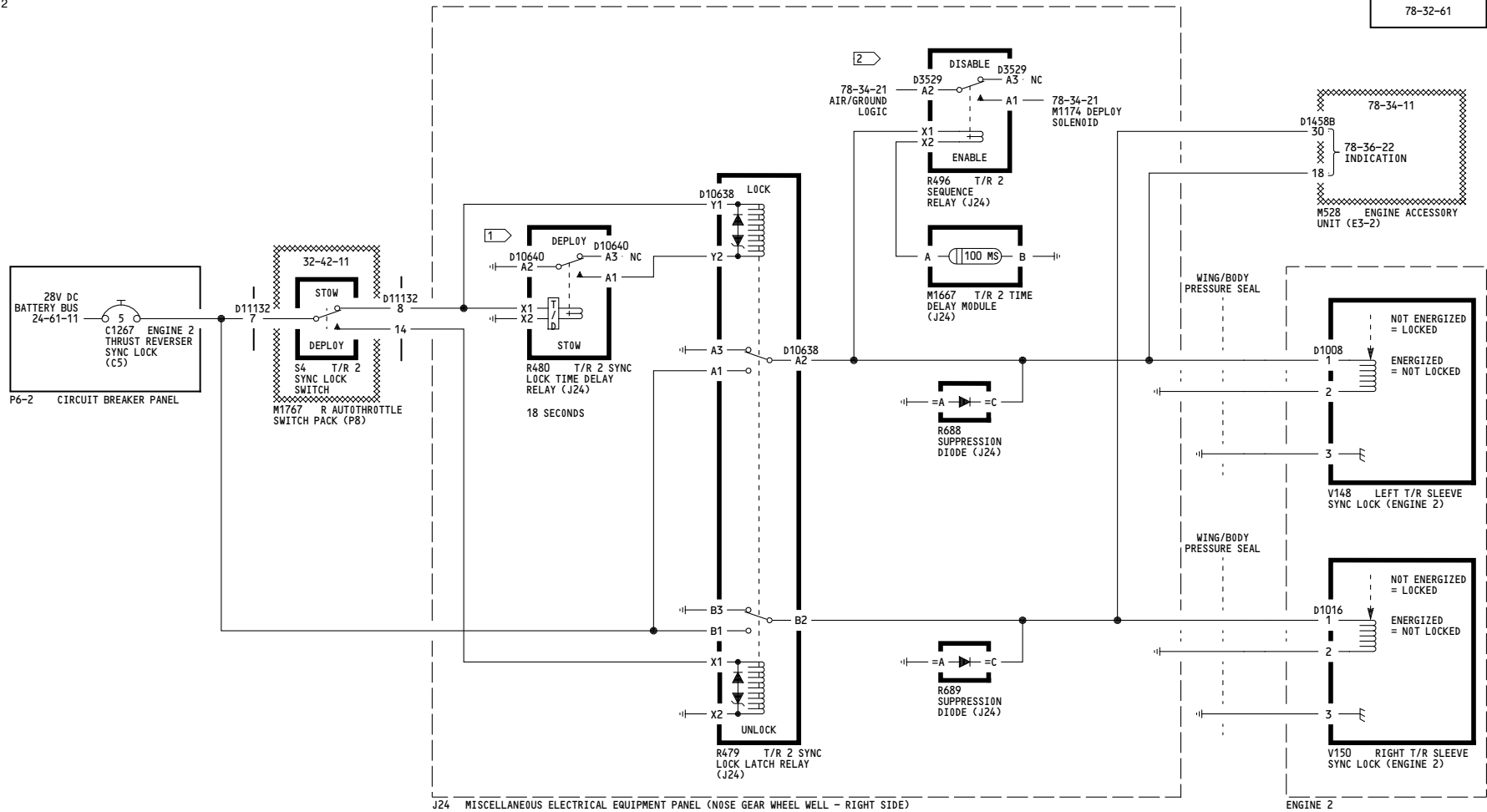
YC001-YC007	ENGINE 2 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS
D280A203	

78-32-61

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Mar 31/2005

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NOTES:

- 1 THE 18 SECOND TIME DELAY PERMITS THE THRUST REVERSER SLEEVES TO CLOSE BEFORE THE SYNC LOCKS DE-ENERGIZE AND LOCK.
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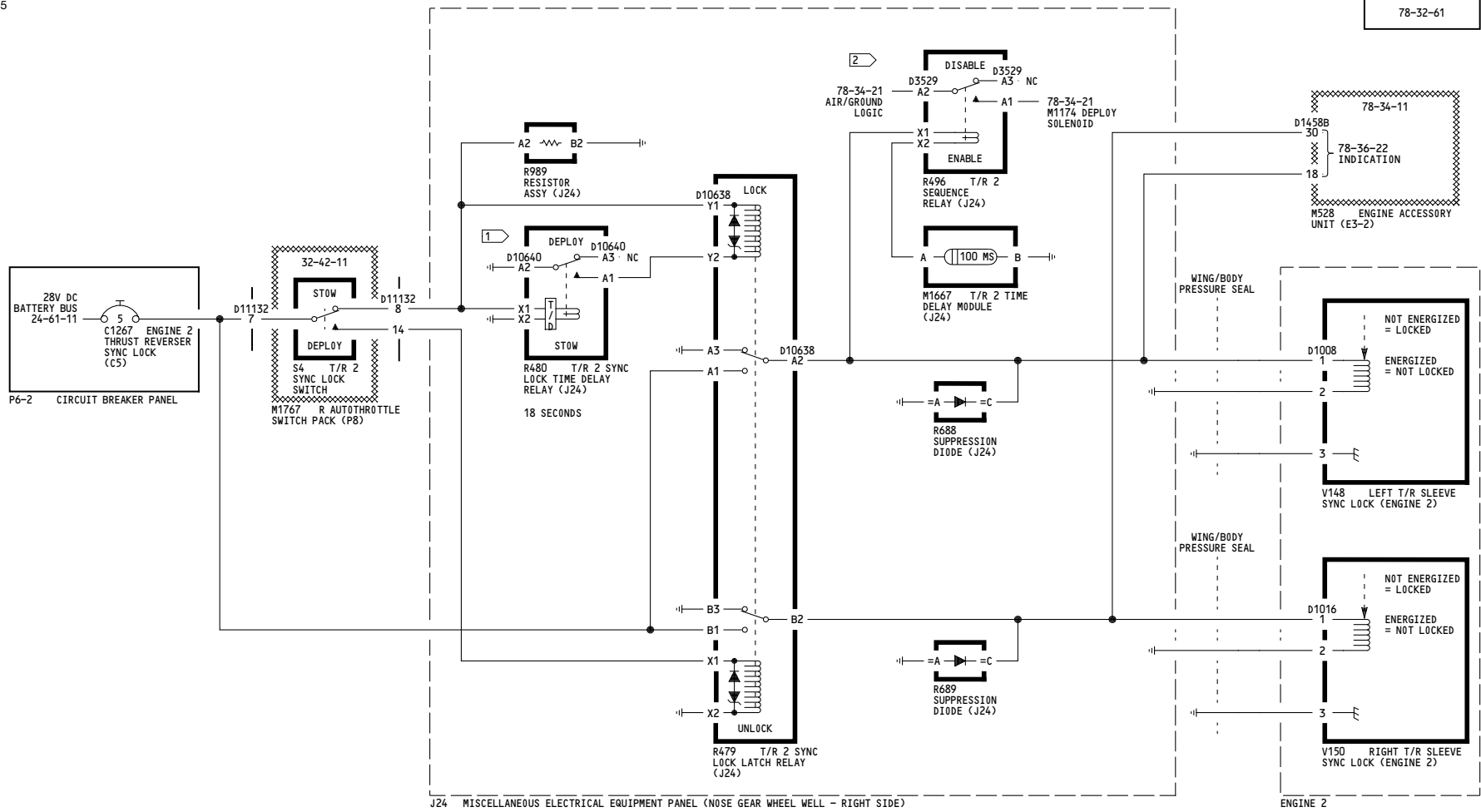
YC008-YC050	ENGINE 2 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS
D280A203	

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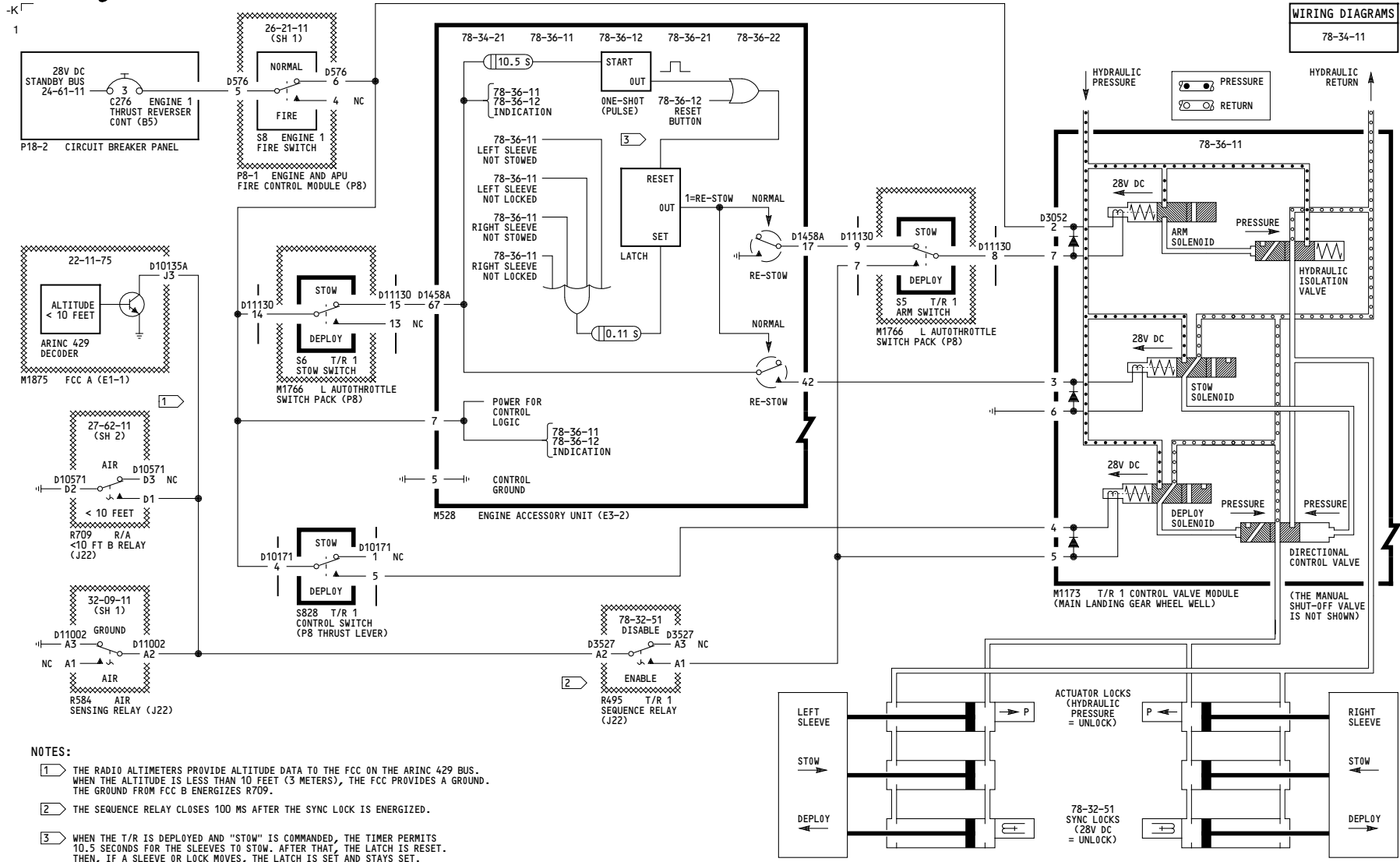
- NOTES:**
- 1 THE 18 SECOND TIME DELAY PERMITS THE THRUST REVERSER SLEEVES TO CLOSE BEFORE THE SYNC LOCKS DE-ENERGIZE AND LOCK.
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YK901-YM670	ENGINE 2 THRUST REVERSER SYNCHRONOUS SHAFT LOCKS
D280A203	

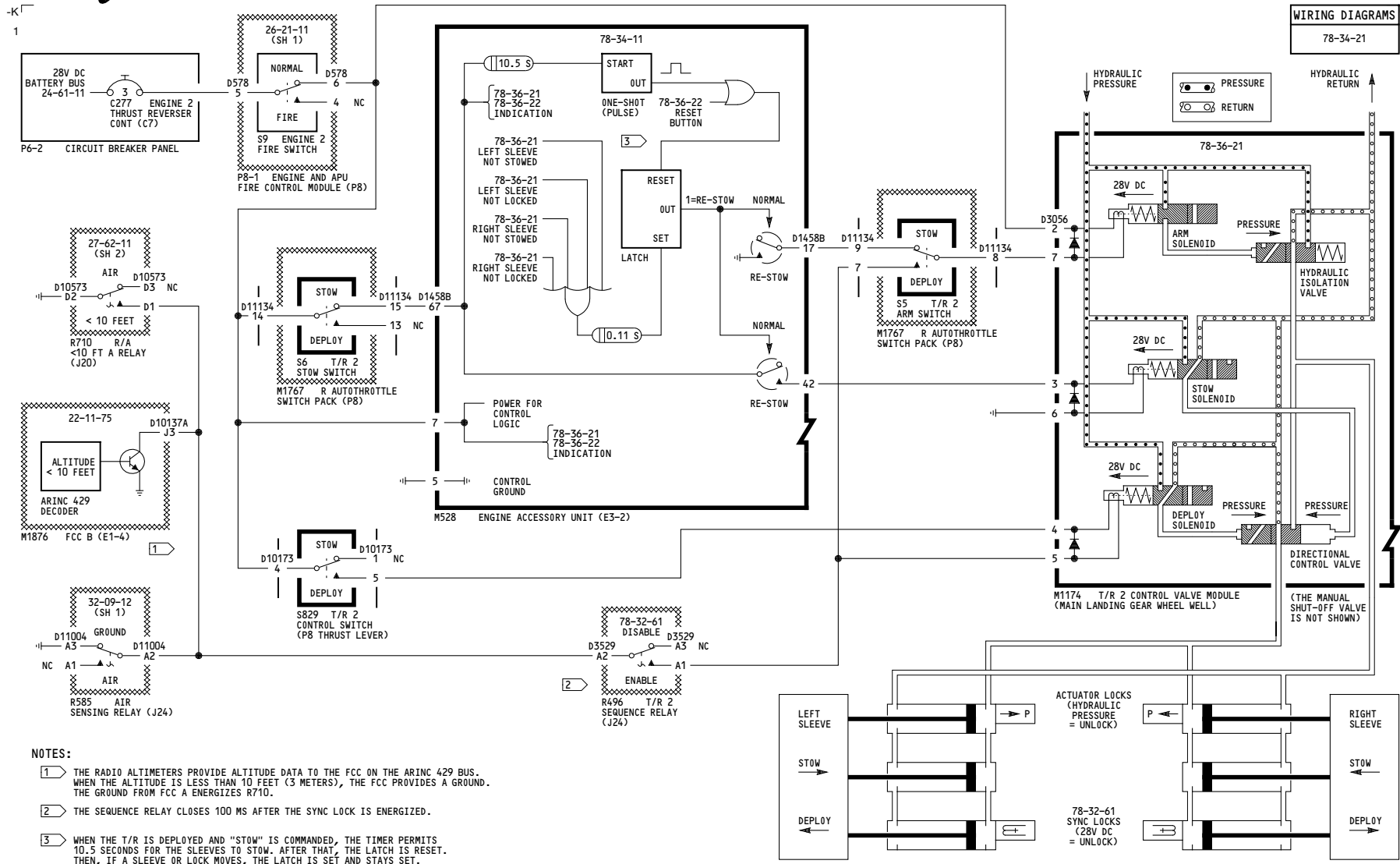
78-32-61

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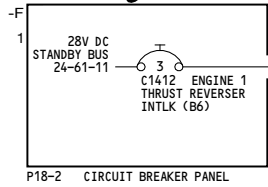
ALL	<p>ENGINE 1 THRUST REVERSER CONTROL</p> <p>D280A203</p>
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- NOTES:**
- 1 THE RADIO ALTIMETERS PROVIDE ALTITUDE DATA TO THE FCC ON THE ARINC 429 BUS. WHEN THE ALTITUDE IS LESS THAN 10 FEET (3 METERS), THE FCC PROVIDES A GROUND. THE GROUND FROM FCC A ENERGIZES R710.
 - 2 THE SEQUENCE RELAY CLOSES 100 MS AFTER THE SYNC LOCK IS ENERGIZED.
 - 3 WHEN THE T/R IS DEPLOYED AND "STOW" IS COMMANDED, THE TIMER PERMITS 10.5 SECONDS FOR THE SLEEVES TO STOW. AFTER THAT, THE LATCH IS RESET. THEN, IF A SLEEVE OR LOCK MOVES, THE LATCH IS SET AND STAYS SET.

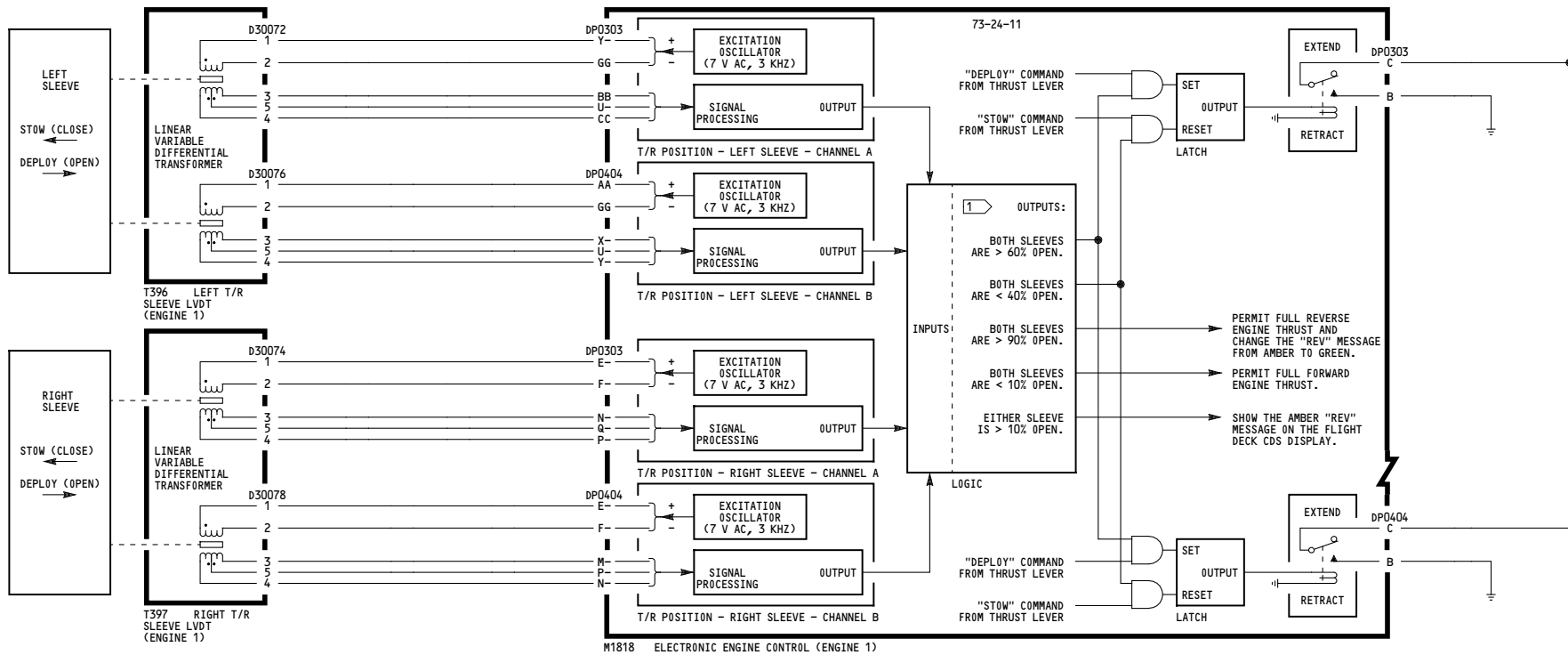
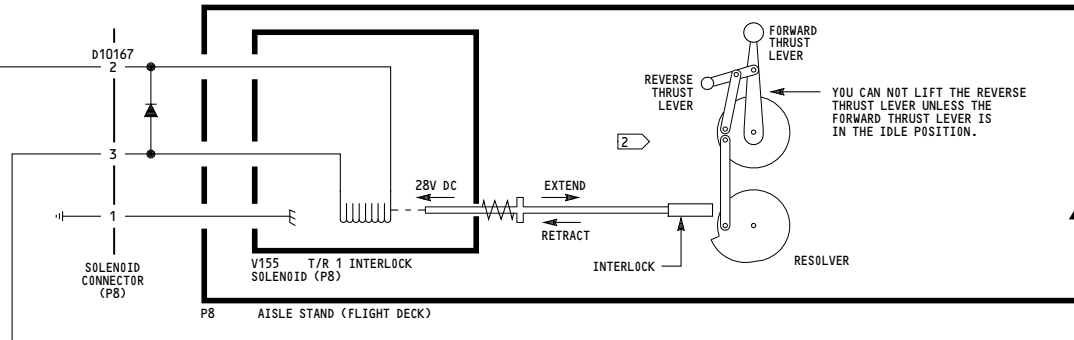
ALL	ENGINE 2 THRUST REVERSER CONTROL
D280A203	

78-34-21



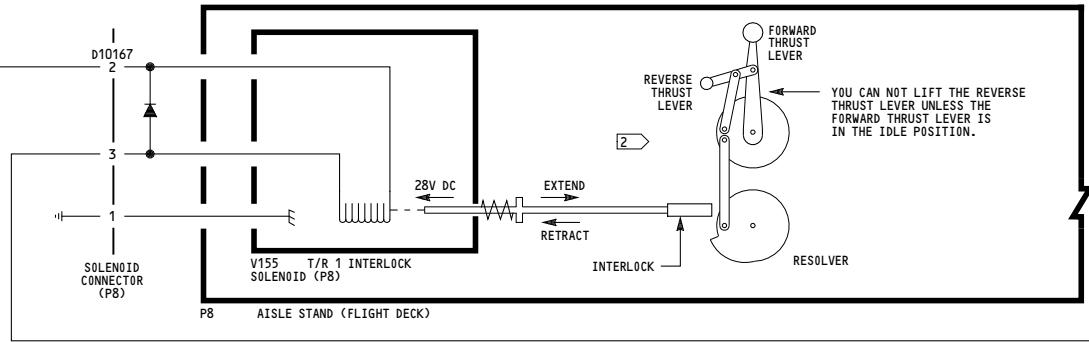
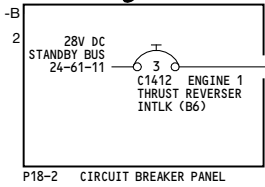
NOTES:

- 1 THE EEC ALSO SENDS THE THRUST REVERSER SLEEVE POSITION TO THE FLIGHT DATA RECORDER ON THE ARINC 429 BUS (73-24-11).
- 2 WHEN THE INTERLOCK IS EXTENDED, YOU CAN DEPLOY THE THRUST REVERSER, BUT YOU CAN NOT INCREASE THE THRUST ABOVE IDLE SPEED.

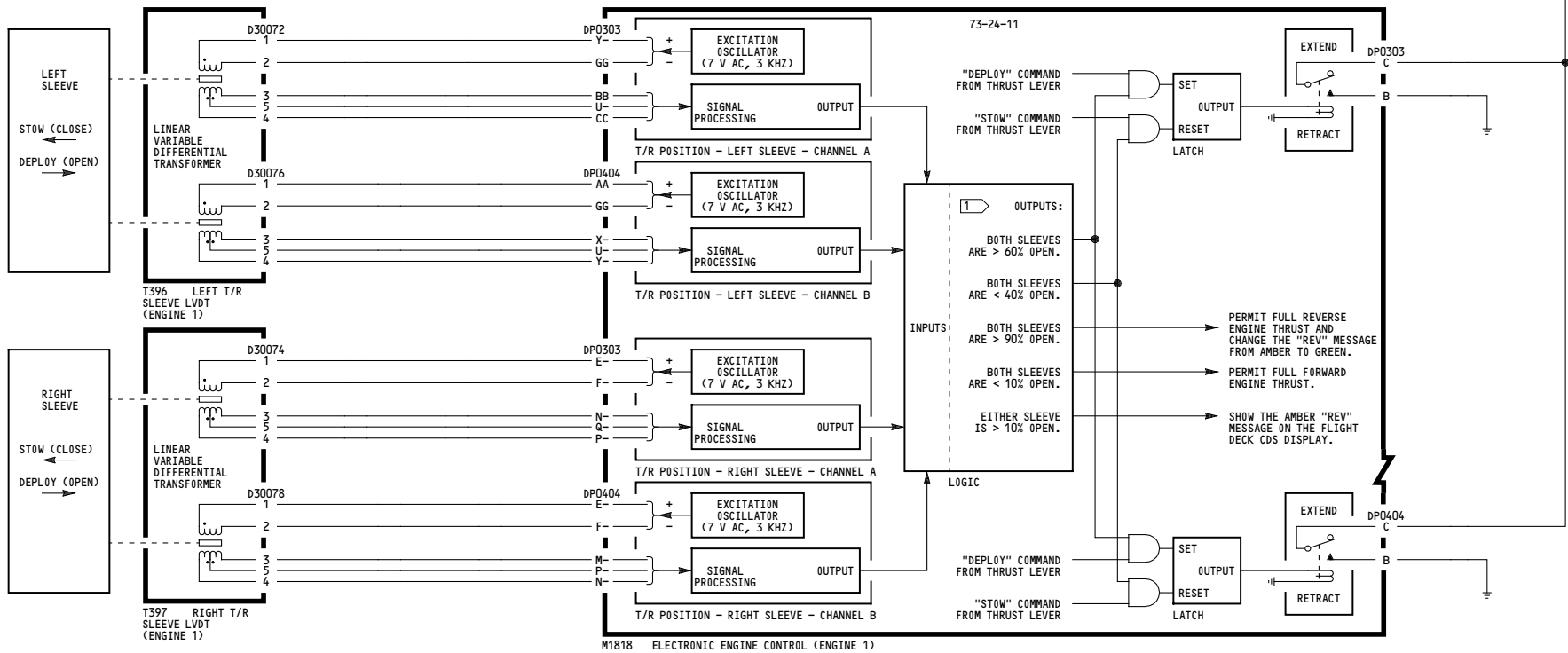


YC001-YC007	ENGINE 1 THRUST REVERSER POSITION / THRUST LEVER INTERLOCK
D280A203	

78-35-11



- NOTES:**
- 1 THE EEC ALSO SENDS THE THRUST REVERSER SLEEVE POSITION TO THE FLIGHT DATA RECORDER ON THE ARINC 429 BUS (73-24-11).
 - 2 WHEN THE INTERLOCK IS EXTENDED, YOU CAN DEPLOY THE THRUST REVERSER, BUT YOU CAN NOT INCREASE THE THRUST ABOVE IDLE SPEED.

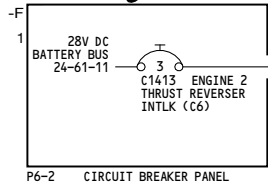


YC008-YM670

ENGINE 1 THRUST REVERSER POSITION / THRUST LEVER INTERLOCK

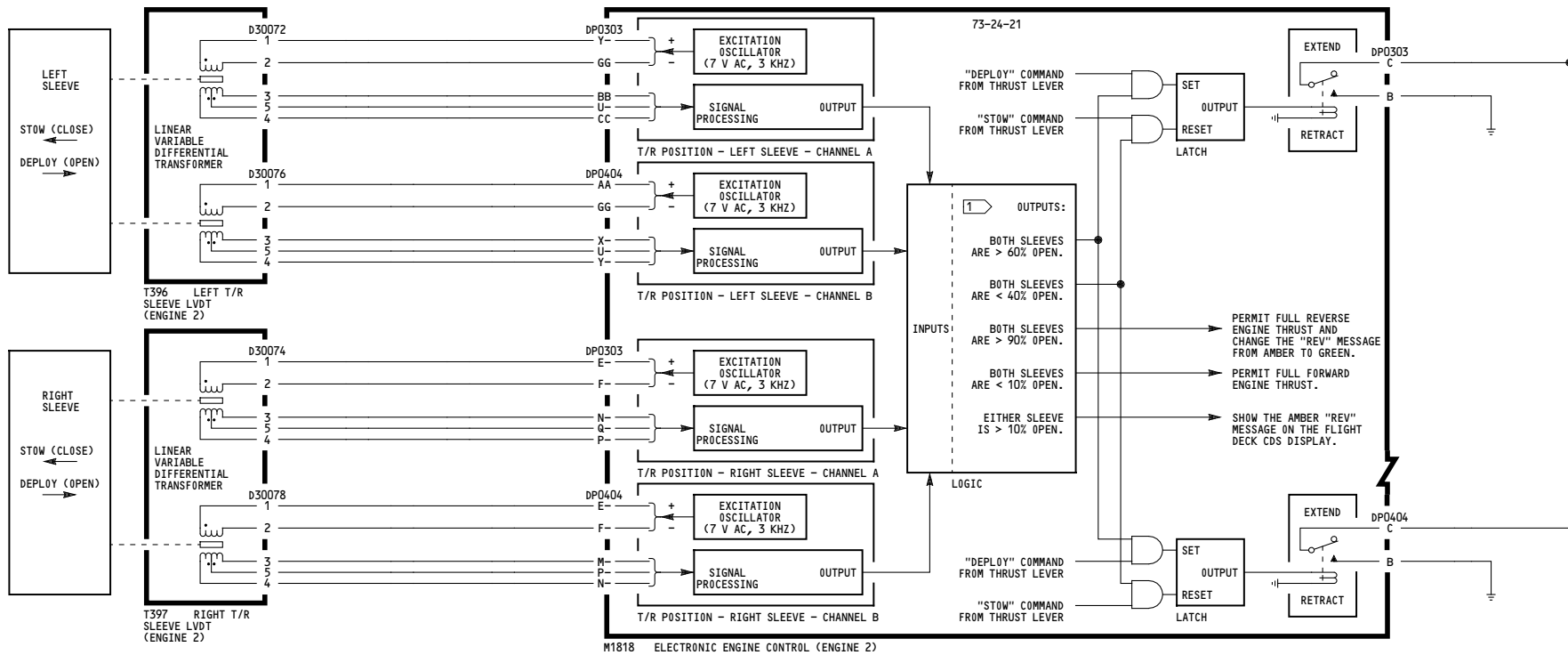
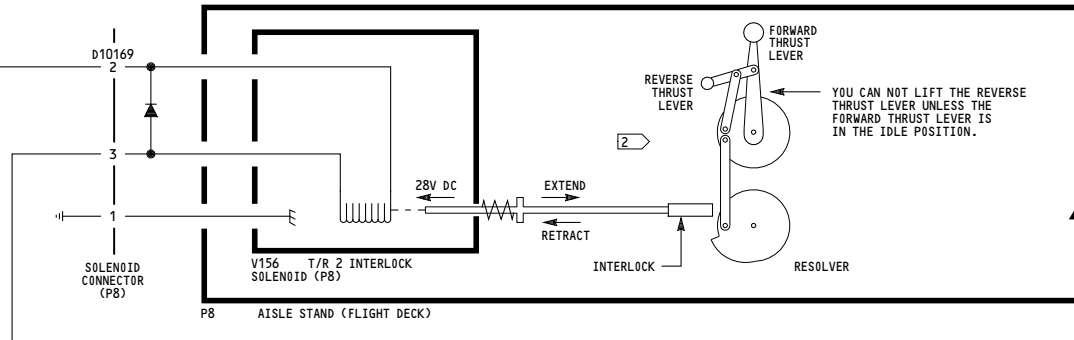
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78-35-11

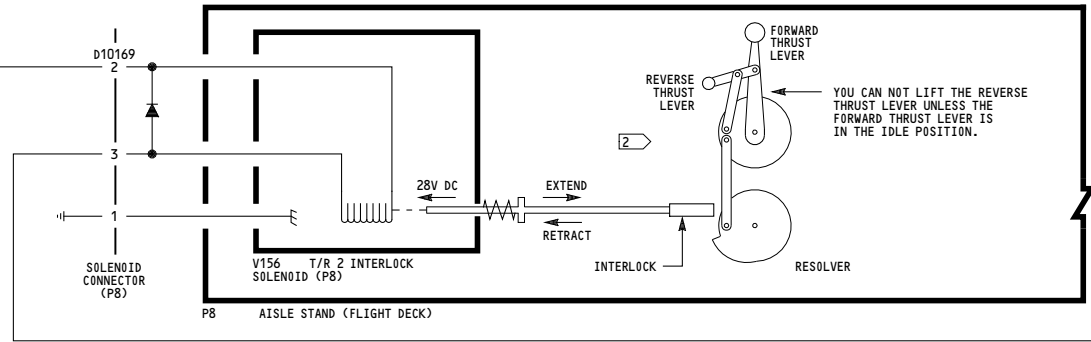
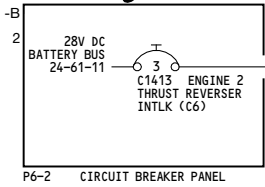


NOTES:

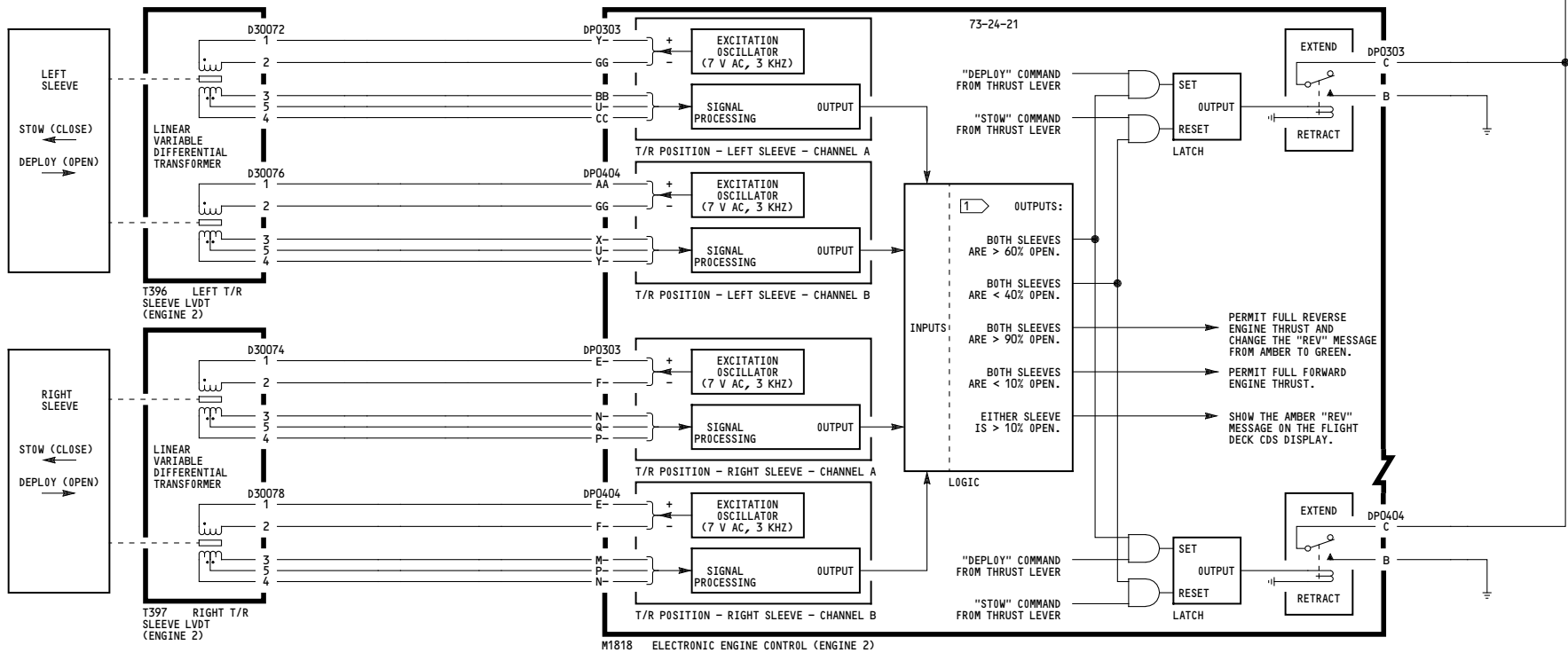
- 1 THE EEC ALSO SENDS THE THRUST REVERSER SLEEVE POSITION TO THE FLIGHT DATA RECORDER ON THE ARINC 429 BUS (73-24-21).
- 2 WHEN THE INTERLOCK IS EXTENDED, YOU CAN DEPLOY THE THRUST REVERSER, BUT YOU CAN NOT INCREASE THE THRUST ABOVE IDLE SPEED.



YC001-YC007	ENGINE 2 THRUST REVERSER POSITION / THRUST LEVER INTERLOCK
D280A203	



- NOTES:**
- 1 THE EEC ALSO SENDS THE THRUST REVERSER SLEEVE POSITION TO THE FLIGHT DATA RECORDER ON THE ARINC 429 BUS (73-24-21).
 - 2 WHEN THE INTERLOCK IS EXTENDED, YOU CAN DEPLOY THE THRUST REVERSER, BUT YOU CAN NOT INCREASE THE THRUST ABOVE IDLE SPEED.



YC008-YM670

**ENGINE 2 THRUST REVERSER
POSITION / THRUST LEVER
INTERLOCK**

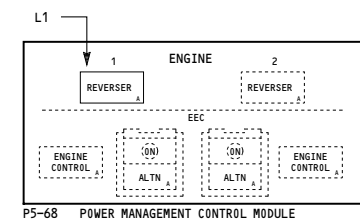
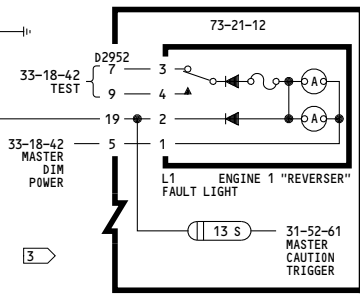
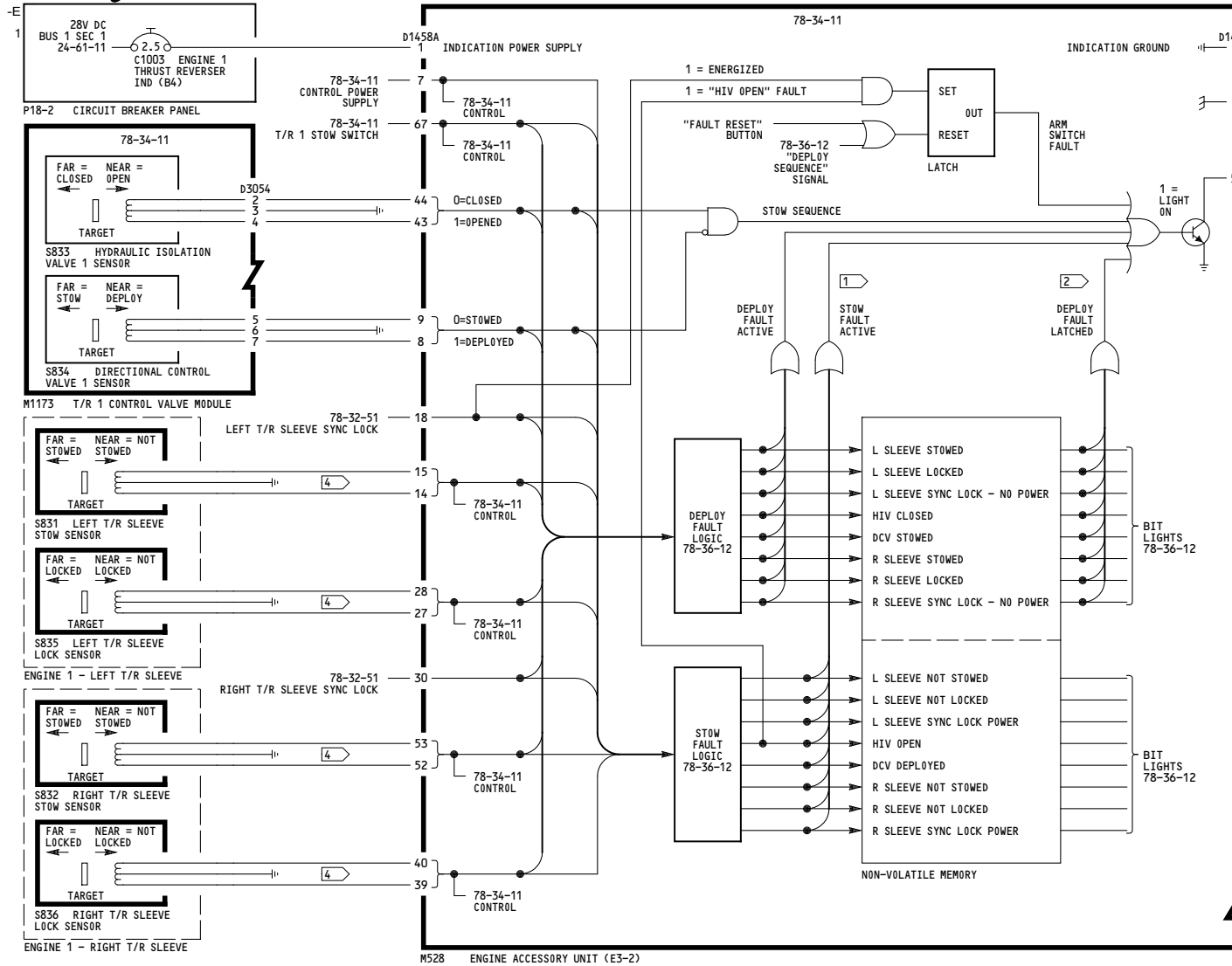
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WIRING DIAGRAMS
78-36-11



- NOTES:**
- IF A FAULT OCCURS WHEN THE T/R IS STOWED, THEN THE "REVERSER" FAULT LIGHT WILL STAY ON UNTIL THE FAULT IS GONE.
 - IF A FAULT OCCURS WHEN THE T/R IS DEPLOYED, THEN THE "REVERSER" FAULT LIGHT WILL STAY ON UNTIL THE EAU NON-VOLATILE MEMORY IS RESET.
 - THE "REV" INDICATION COMES FROM THE LVDT (78-35-11).
 - THE 4 "LOCK" AND "STOW" PROXIMITY SENSORS ON ENGINE 1 ARE ENERGIZED FROM THE CONTROL POWER SUPPLY (C276).

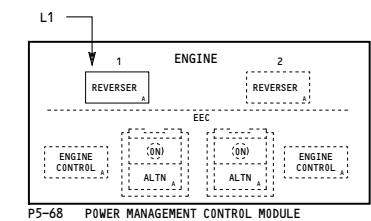
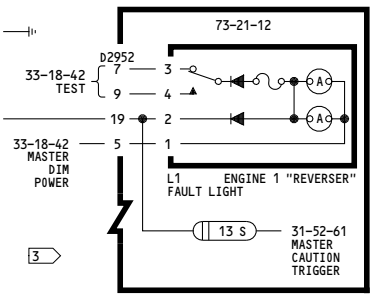
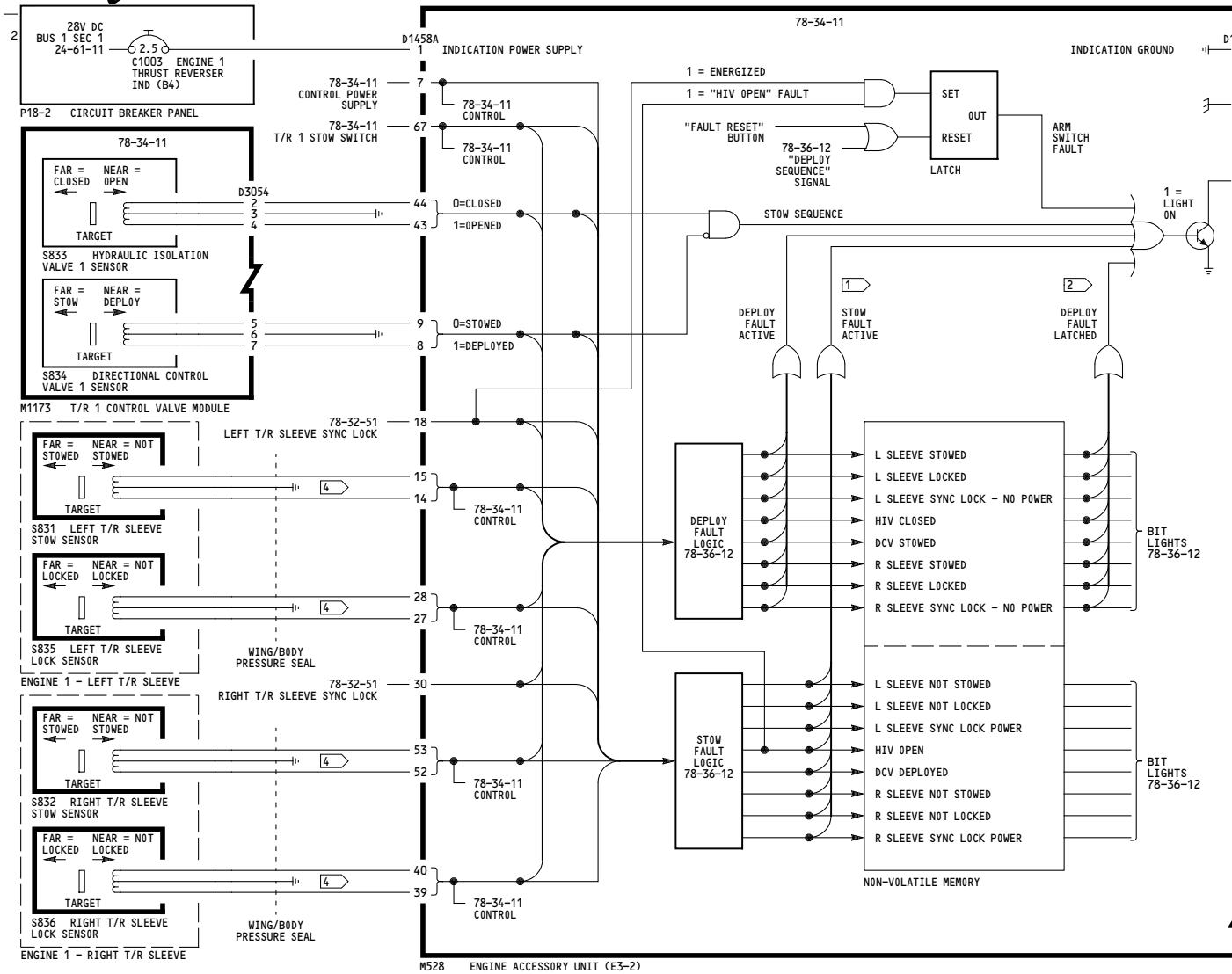
YC001-YC007

ENGINE 1 THRUST REVERSER FLIGHT DECK INDICATION

D280A203

78-36-11

WIRING DIAGRAMS
78-36-11



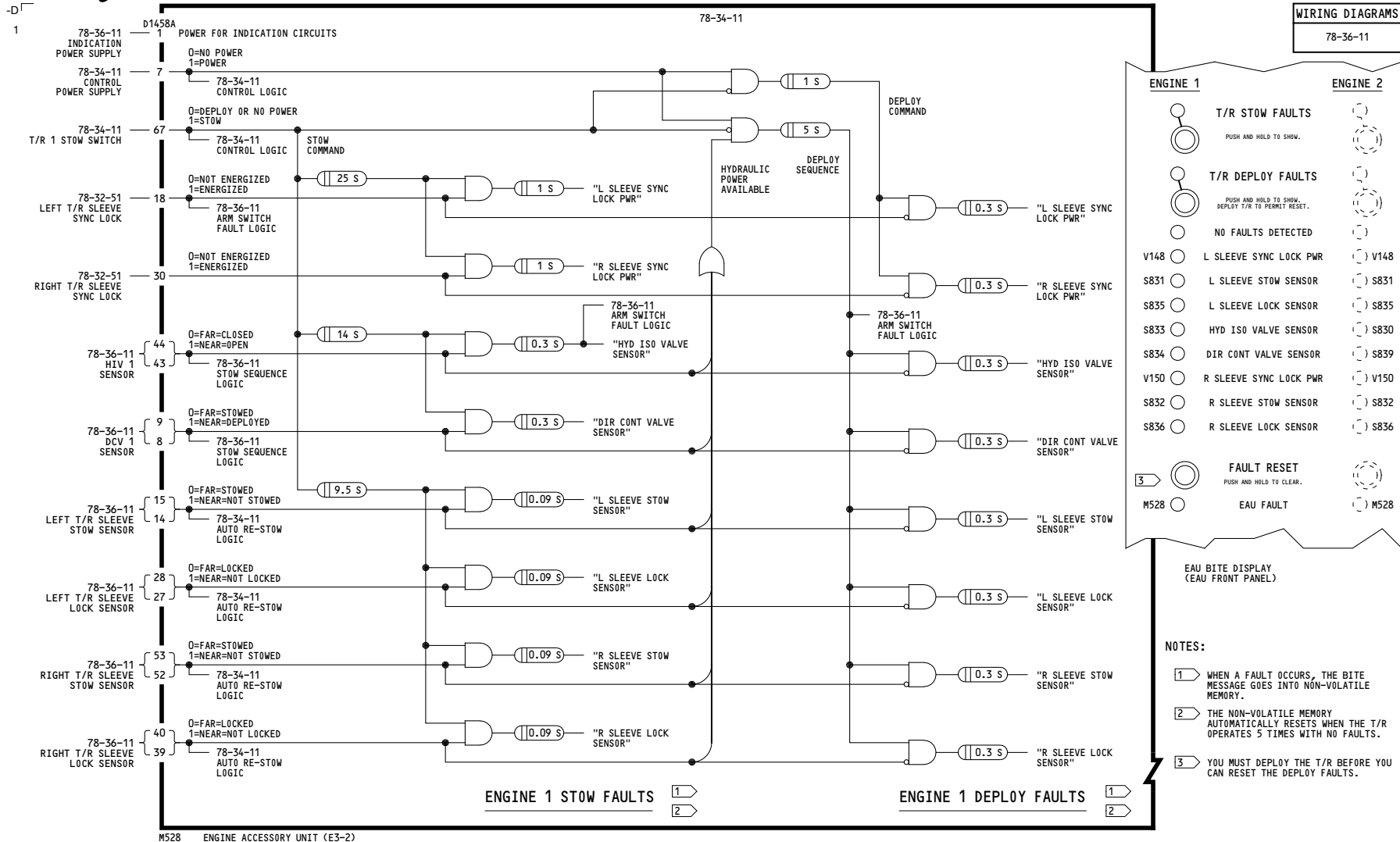
- NOTES:**
- 1 IF A FAULT OCCURS WHEN THE T/R IS STOWED, THEN THE "REVERSE" FAULT LIGHT WILL STAY ON UNTIL THE FAULT IS GONE.
 - 2 IF A FAULT OCCURS WHEN THE T/R IS DEPLOYED, THEN THE "REVERSE" FAULT LIGHT WILL STAY ON UNTIL THE EAU NON-VOLATILE MEMORY IS RESET.
 - 3 THE "REV" INDICATION COMES FROM THE LVDT (78-35-11).
 - 4 THE 4 "LOCK" AND "STOW" PROXIMITY SENSORS ON ENGINE 1 ARE ENERGIZED FROM THE CONTROL POWER SUPPLY (C276).

YC008-YM670

ENGINE 1 THRUST REVERSE FLIGHT DECK INDICATION

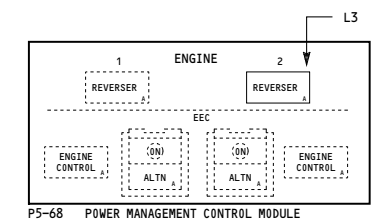
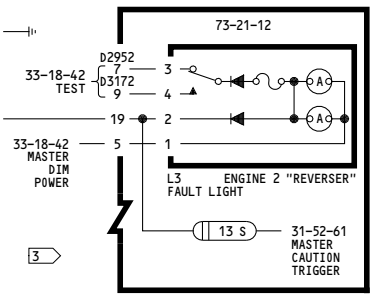
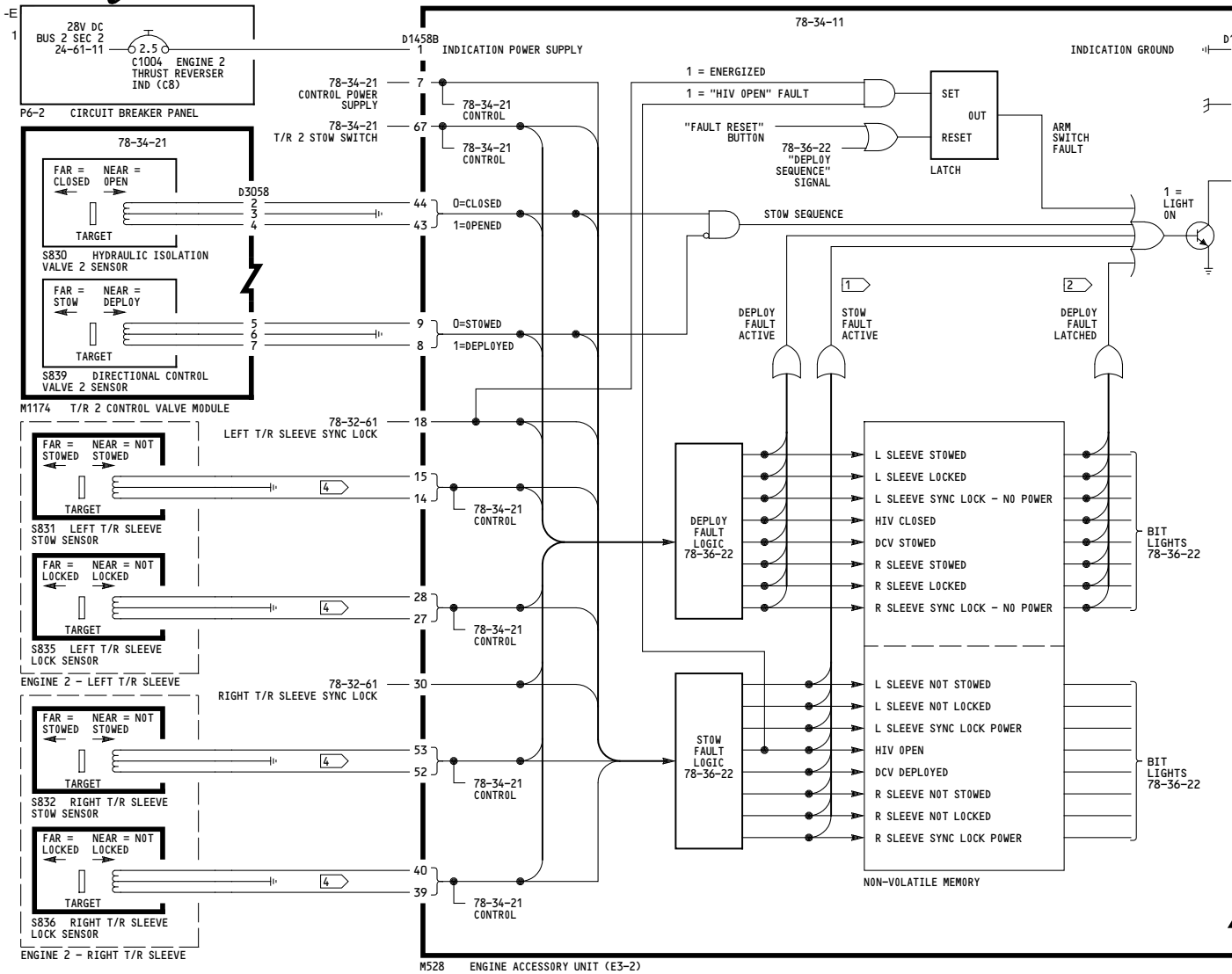
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78-36-11



ALL	ENGINE 1 THRUST REVERSER MAINTENANCE INDICATION
	D280A203

78-36-12



- NOTES:**
- 1 IF A FAULT OCCURS WHEN THE T/R IS STOWED, THEN THE "REVERSER" FAULT LIGHT WILL STAY ON UNTIL THE FAULT IS GONE.
 - 2 IF A FAULT OCCURS WHEN THE T/R IS DEPLOYED, THEN THE "REVERSER" FAULT LIGHT WILL STAY ON UNTIL THE EAU NON-VOLATILE MEMORY IS RESET.
 - 3 THE "REV" INDICATION COMES FROM THE LVDT (78-35-21).
 - 4 THE 4 "LOCK" AND "STOW" PROXIMITY SENSORS ON ENGINE 2 ARE ENERGIZED FROM THE CONTROL POWER SUPPLY (C277).

YC001-YC007

ENGINE 2 THRUST REVERSER FLIGHT DECK INDICATION

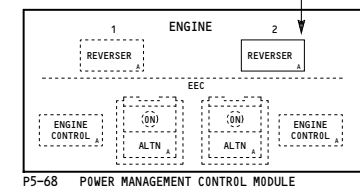
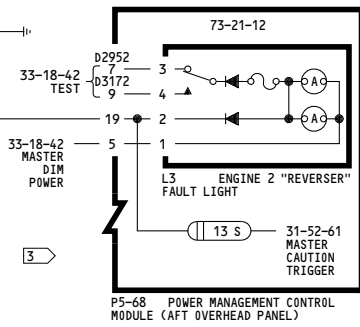
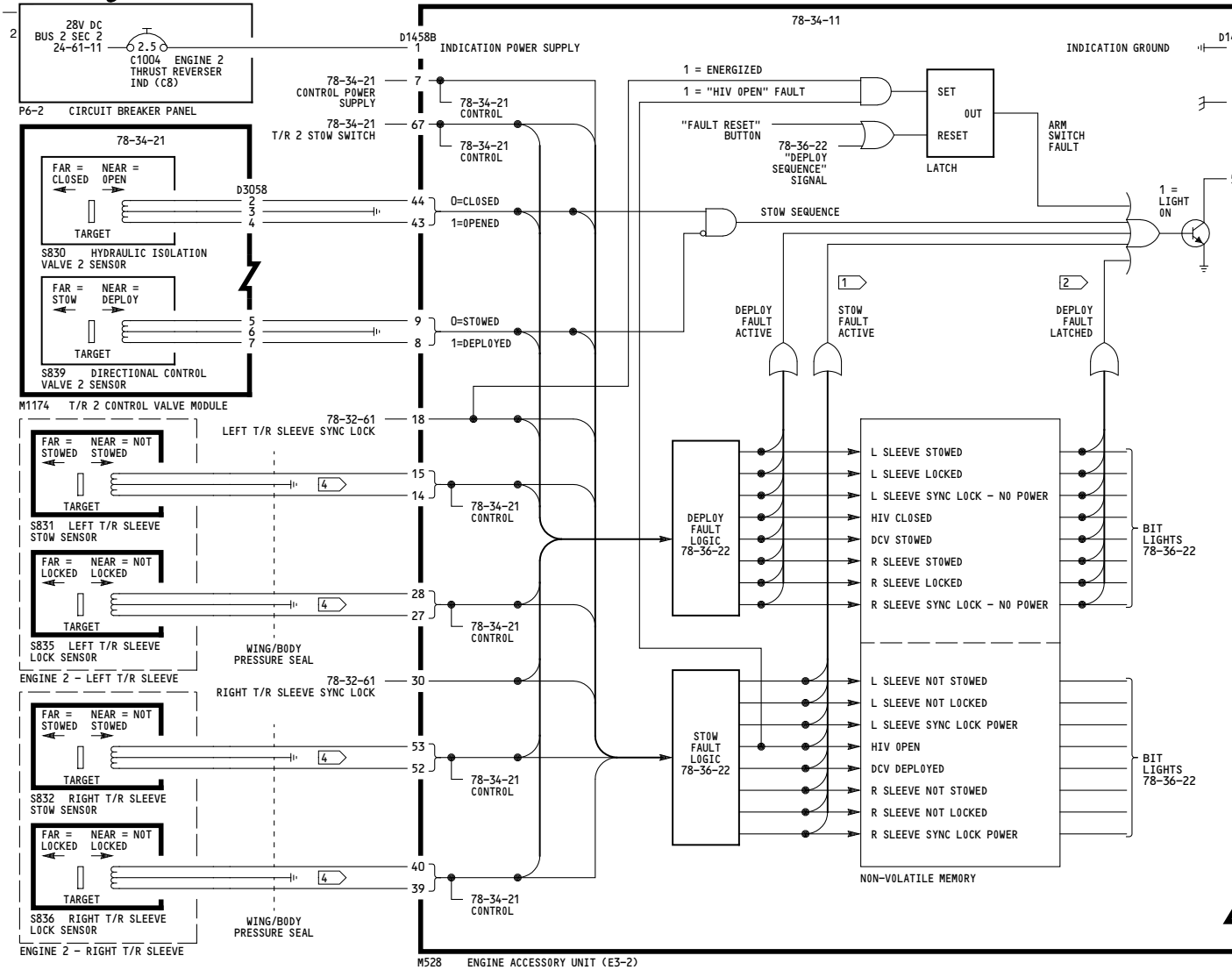
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78-36-21

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WIRING DIAGRAMS
78-36-21



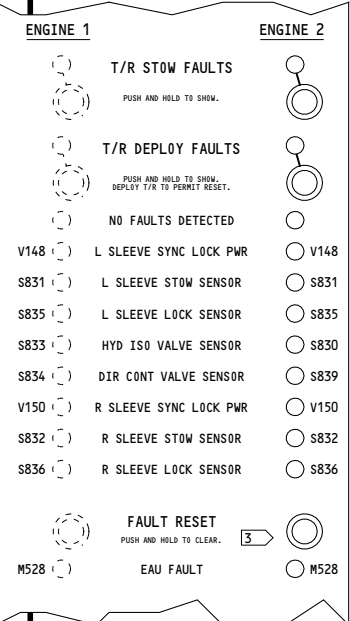
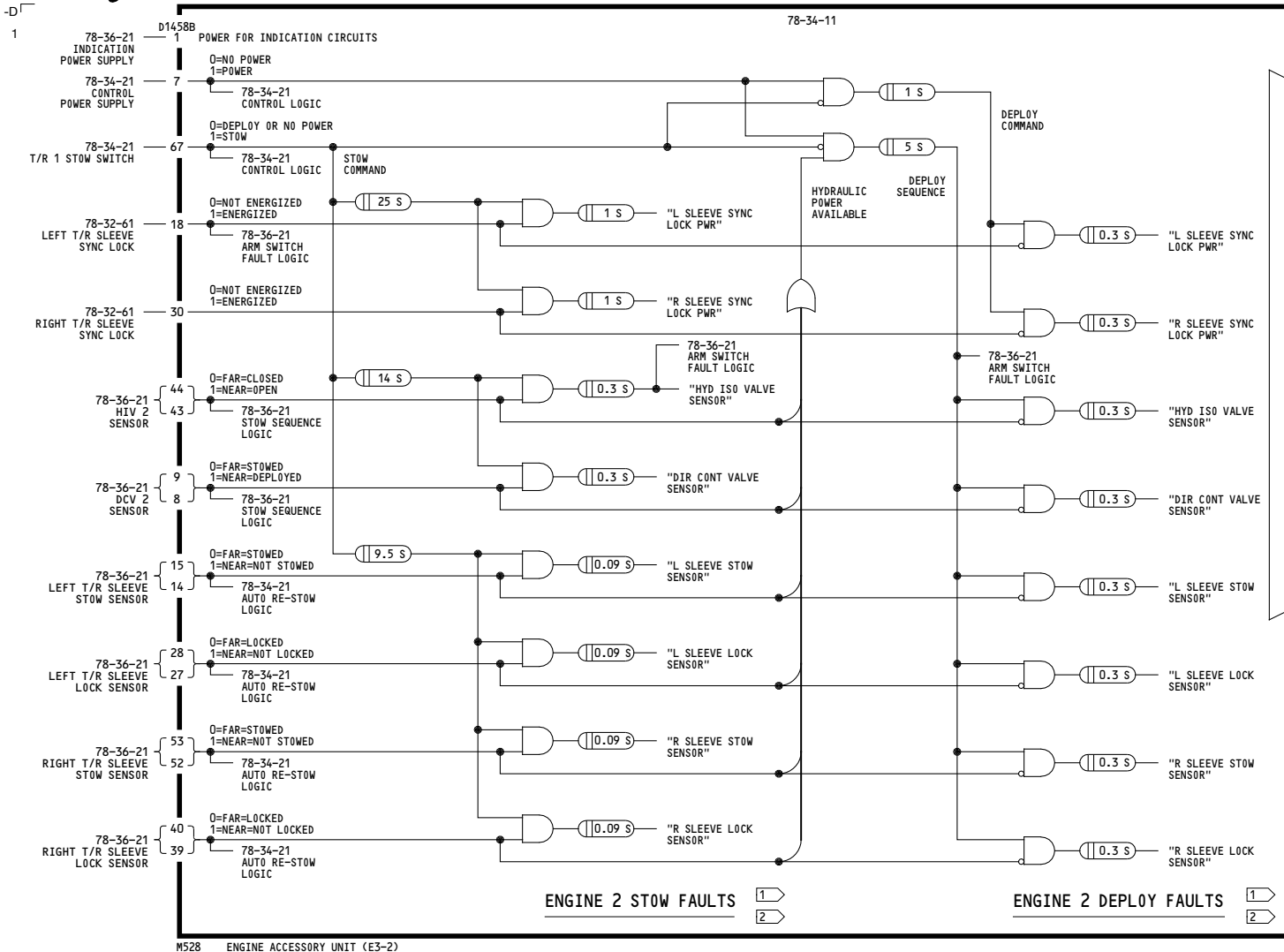
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 - 2 IF A FAULT OCCURS WHEN THE T/R IS DEPLOYED, THEN THE "REVERSER" FAULT LIGHT WILL STAY ON UNTIL THE EAU NON-VOLATILE MEMORY IS RESET.
 - 3 THE "REV" INDICATION COMES FROM THE LVDT (78-35-21).
 - 4 THE 4 "LOCK" AND "STOW" PROXIMITY SENSORS ON ENGINE 2 ARE ENERGIZED FROM THE CONTROL POWER SUPPLY (C277).

YC008-YM670

ENGINE 2 THRUST REVERSER FLIGHT DECK INDICATION

D280A203

78-36-21



EAU BITE DISPLAY (EAU FRONT PANEL)

- NOTES:**
- 1 WHEN A FAULT OCCURS, THE BITE MESSAGE GOES INTO NON-VOLATILE MEMORY.
 - 2 THE NON-VOLATILE MEMORY AUTOMATICALLY RESETS WHEN THE T/R OPERATES 5 TIMES WITH NO FAULTS.
 - 3 YOU MUST DEPLOY THE T/R BEFORE YOU CAN RESET THE DEPLOY FAULTS.

ALL

ENGINE 2 THRUST REVERSER MAINTENANCE INDICATION

D280A203

78-36-22