

FAST ENGINE TREND MONITORING SYSTEM - TROUBLESHOOTING

1. General

- A. This section gives troubleshooting information for the Fast Engine Trend Monitoring System (FAST). The troubleshooting data given in this section refers to the startup of the FAST system. Also, this section supplies many troubleshooting procedures for errors in the log file that may be found in the MonitorTM program and for crew alert system messages (CAS) that are shown on the primary flight display (PFD) CAS message window.
- B. For troubleshooting airplane wiring refer to the Model 208 Wiring Diagram Manual. For the procedures to read and download FAST processor data refer to Fast Engine Trend Monitoring System - Adjustment/Test.
- C. If the system starts successfully, but other issues continue, contact Cessna Customer Care for assistance; (316) 517-5800.
- D. For a list of tools and equipment needed for FAST system maintenance refer to Engine Indicating - General, Tools and Equipment .

2. System Troubleshooting

- A. There is an extensive set of troubleshooting charts for some of the most common problems for the FAST system. Refer to Table 101 or Table 102 for troubleshooting procedures applicable to the FAST system fault.
- B. System Indications (Engine Off) Troubleshooting Procedures

Table 101. System Indications (Engine Off)

FAULT CONDITION	REFER TO:
The ETM FAULT CAS message is shown.	Figure 101
The PREV EXCEED CAS message from a previous flight is shown.	Figure 102

- C. System Start-Up and Communication Troubleshooting

(1) Monitor the CAS messages while the avionics system starts up.

- (a) Make sure that after the avionics system starts up, ETM CAPTURE and PREV EXCEED messages are not shown.

NOTE: If ETM CAPTURE and PREV EXCEED messages are shown after the log is cleared, then the processor did not finish the start up process.

Table 102. System Start-Up and Communication

FAULT CONDITION	REFER TO:
The EMT processor is not energized.	Figure 103
The ETM processor does not communicate with the lap top	Figure 104
The ETM processor live data monitoring is not functioning correctly.	Figure 105
There are transmit/receive errors between the ETM processor and the Garmin integrated avionics system.	Figure 106
The GSM antenna is not transmitting.	Figure 107
The ETM processor Test Monitor Transmission test is not functioning.	Figure 108
Creep Fault Flow Diagram.	Figure 109

3. System Troubleshooting Charts

Figure 101 : Sheet 1 : ETM FAULT CAS Message Troubleshooting

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With the processor powered on and the electrical connectors securely attached to the processor, the ETM FAULT CAS message shows on the PFD.

Apply electrical power to the avionics systems. Use the laptop interface and Select the Expert Command Mode. In the Monitor™ program, at the drop down box select, Recent Faults select Send, to display the last 10 faults. Does the fault (SYS_LOG_85_PERCENT_FULL) Show on the display? If -

YES NO

Download and review the FAST data.

Was a PBIT/CBIT or other fault shown on the display? If -

YES NO

Cycle the electrical power off then on. Does the ETM FAULT message still show on the PFD? If -

YES NO

Contact the P&WES or P&WC Customer First Center.

The FAST system is serviceable

Figure 102 : Sheet 1 : PREV EXCEED CAS Message Troubleshooting

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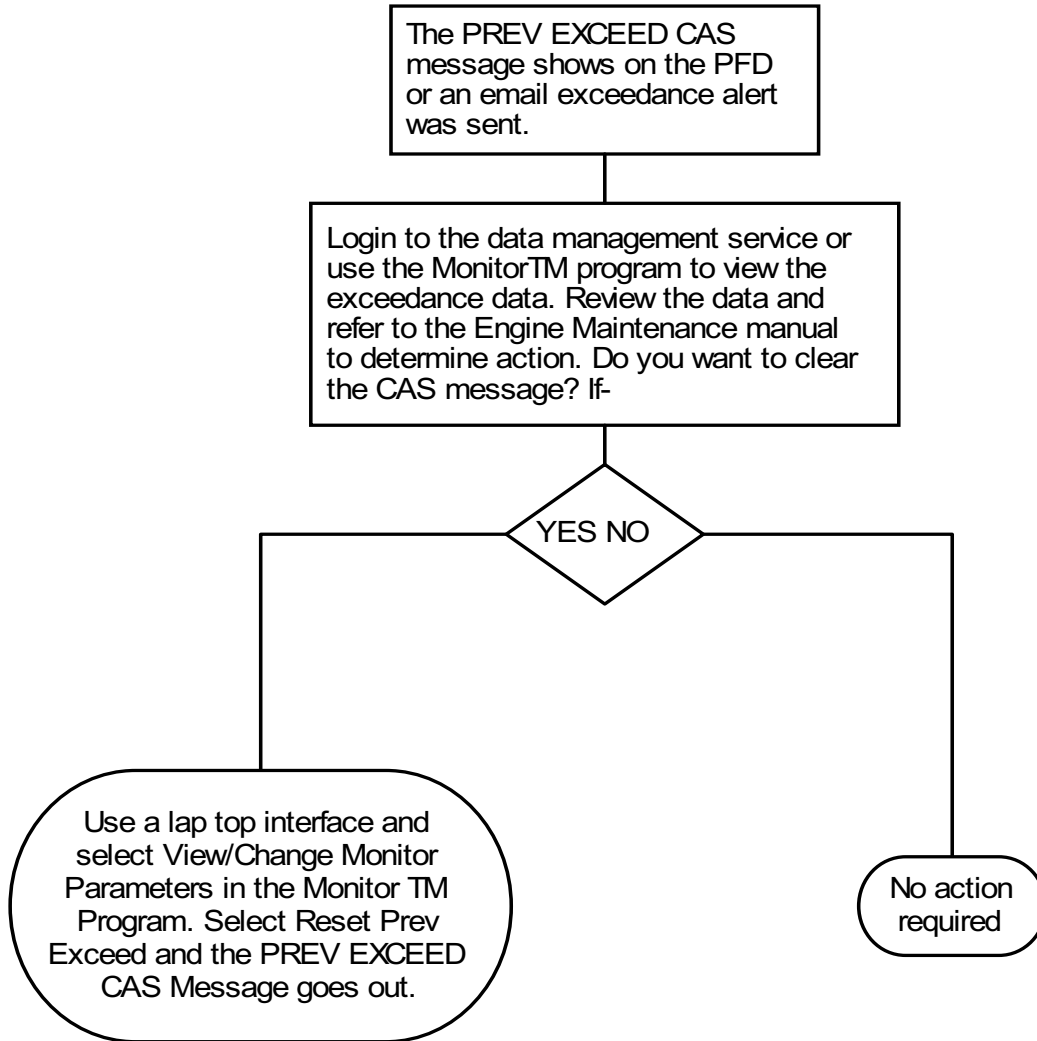


Figure 103 : Sheet 1 : ETM Processor Power Troubleshooting

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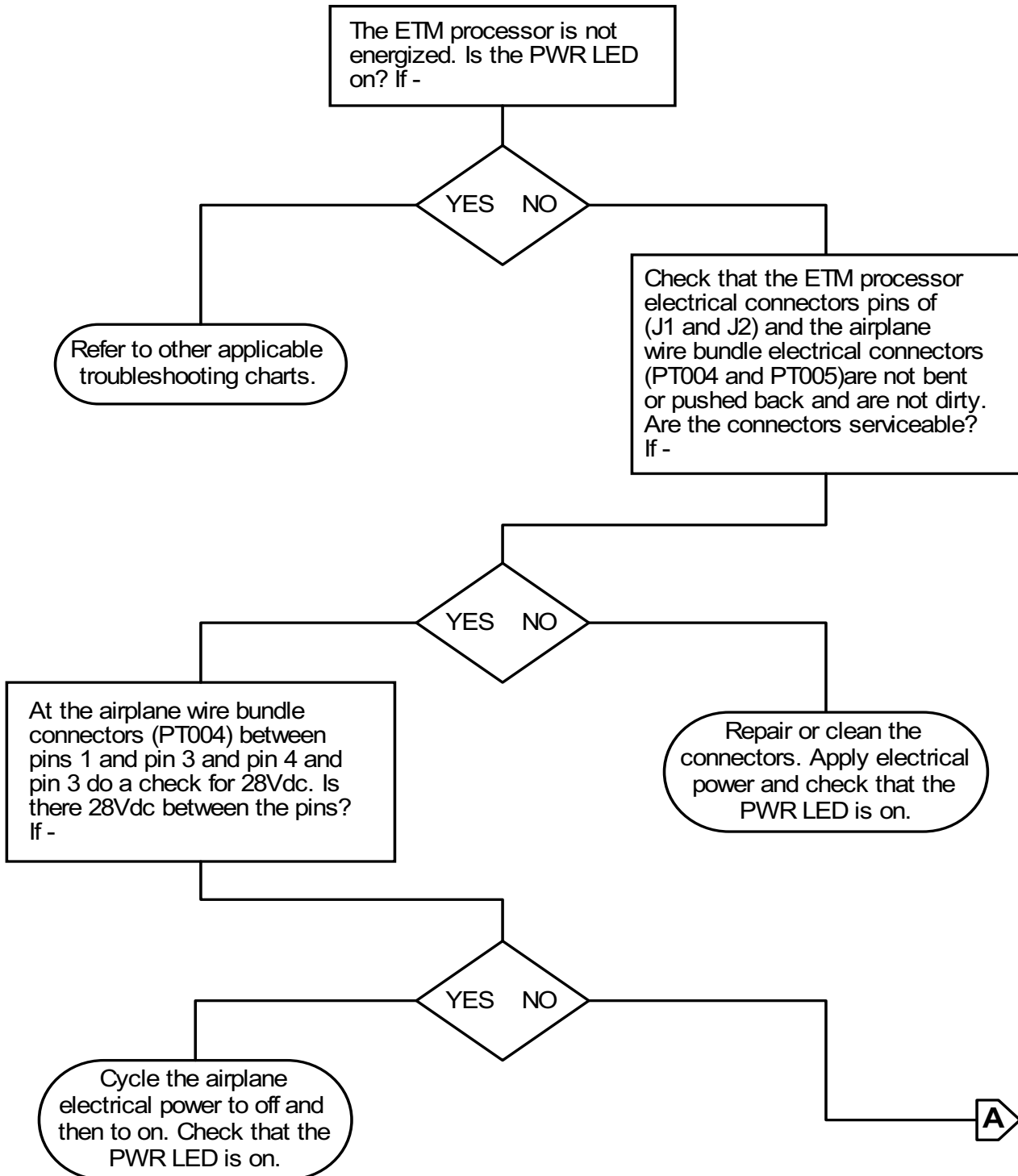


Figure 103 : Sheet 2 : ETM Processor Power Troubleshooting

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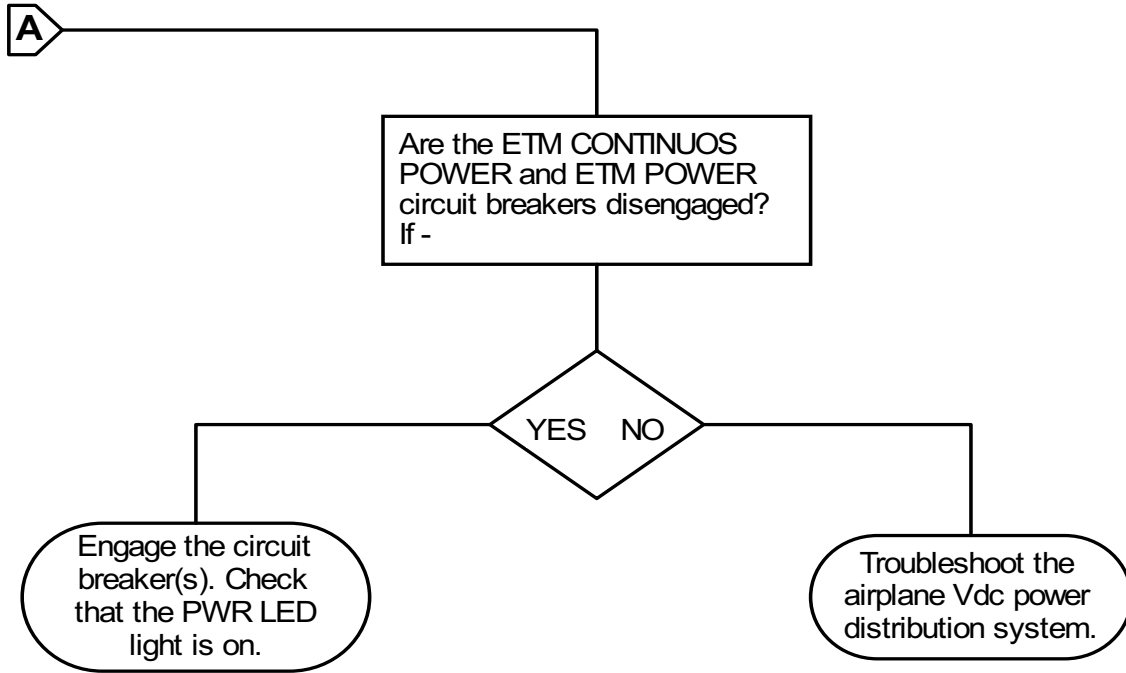


Figure 104 : Sheet 1 : ETM Processor Communication Troubleshooting

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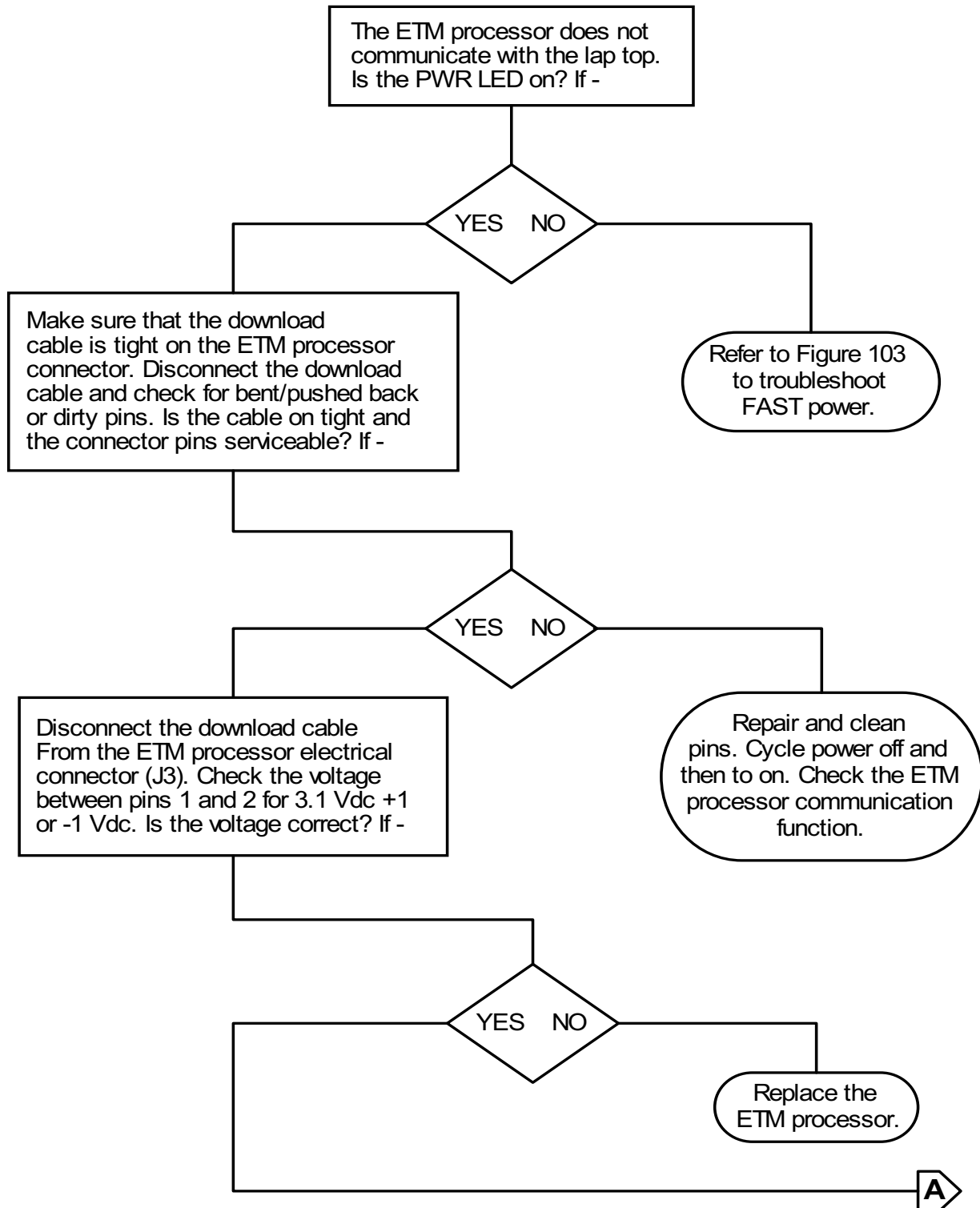


Figure 104 : Sheet 2 : ETM Processor Communication Troubleshooting

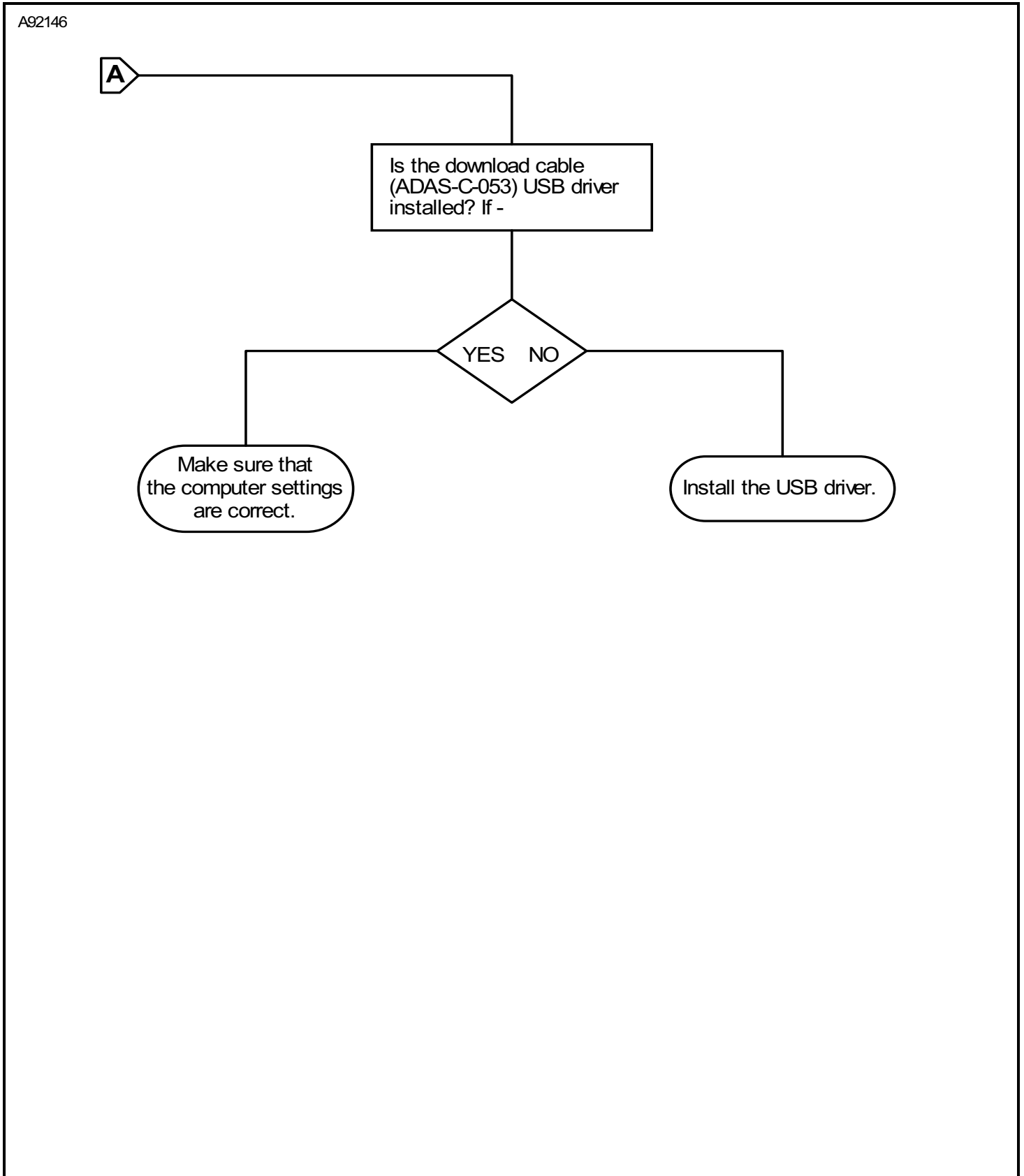


Figure 105 : Sheet 1 : ETM Processor Live Data Monitoring Troubleshooting

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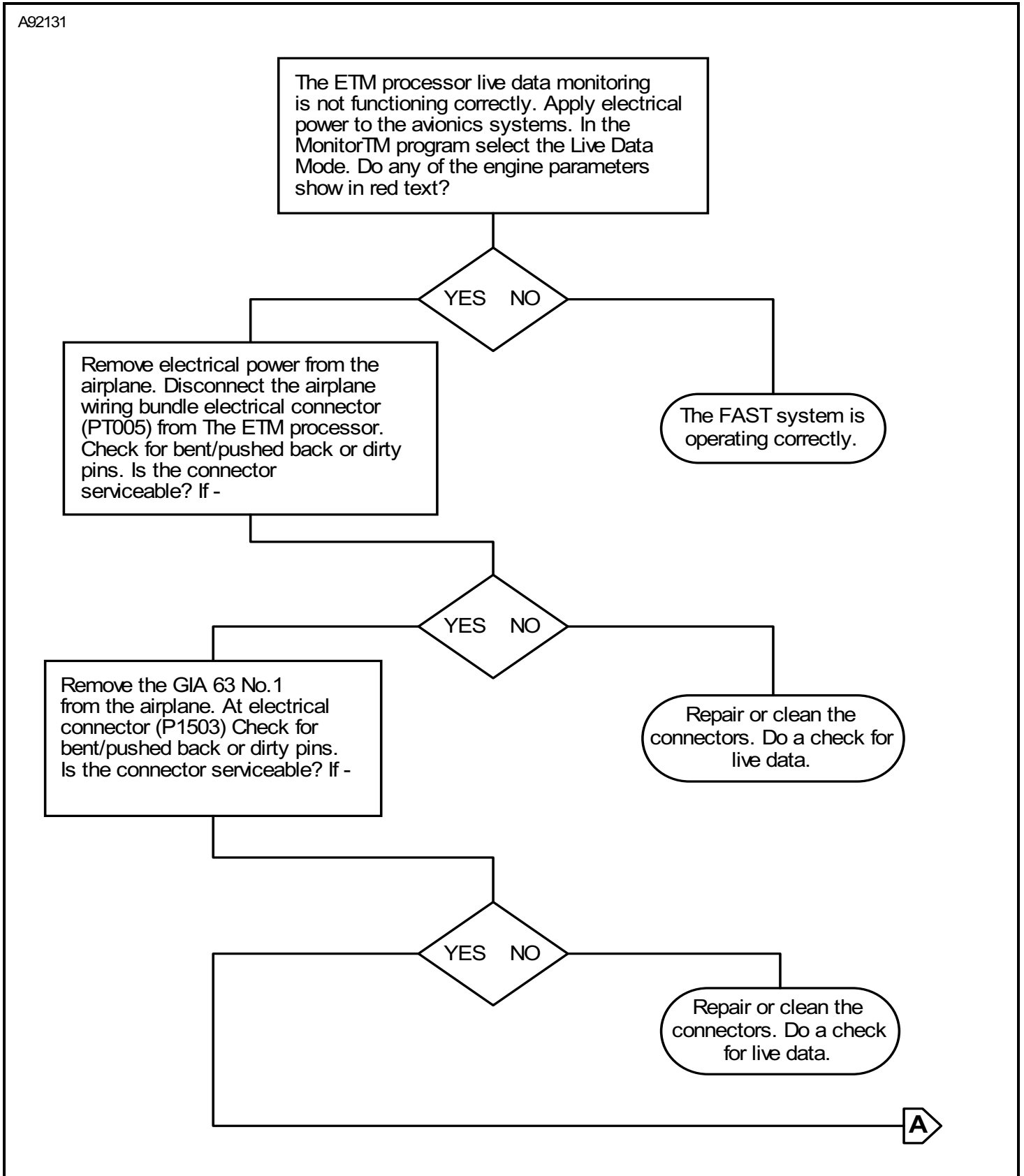


Figure 105 : Sheet 2 : ETM Processor Live Data Monitoring Troubleshooting

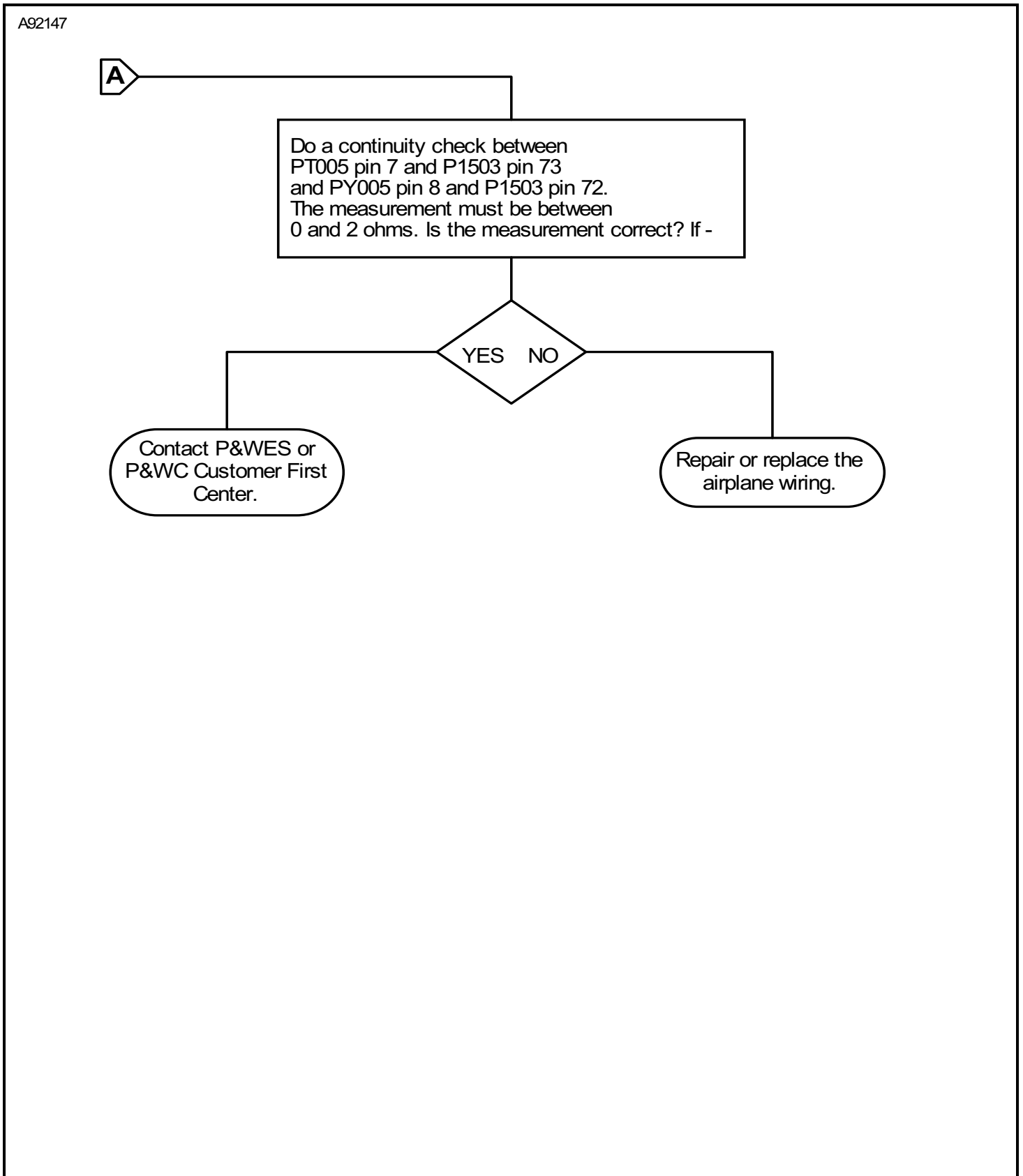


Figure 106 : Sheet 1 : ETM Processor Transmission and Receive Errors Troubleshooting

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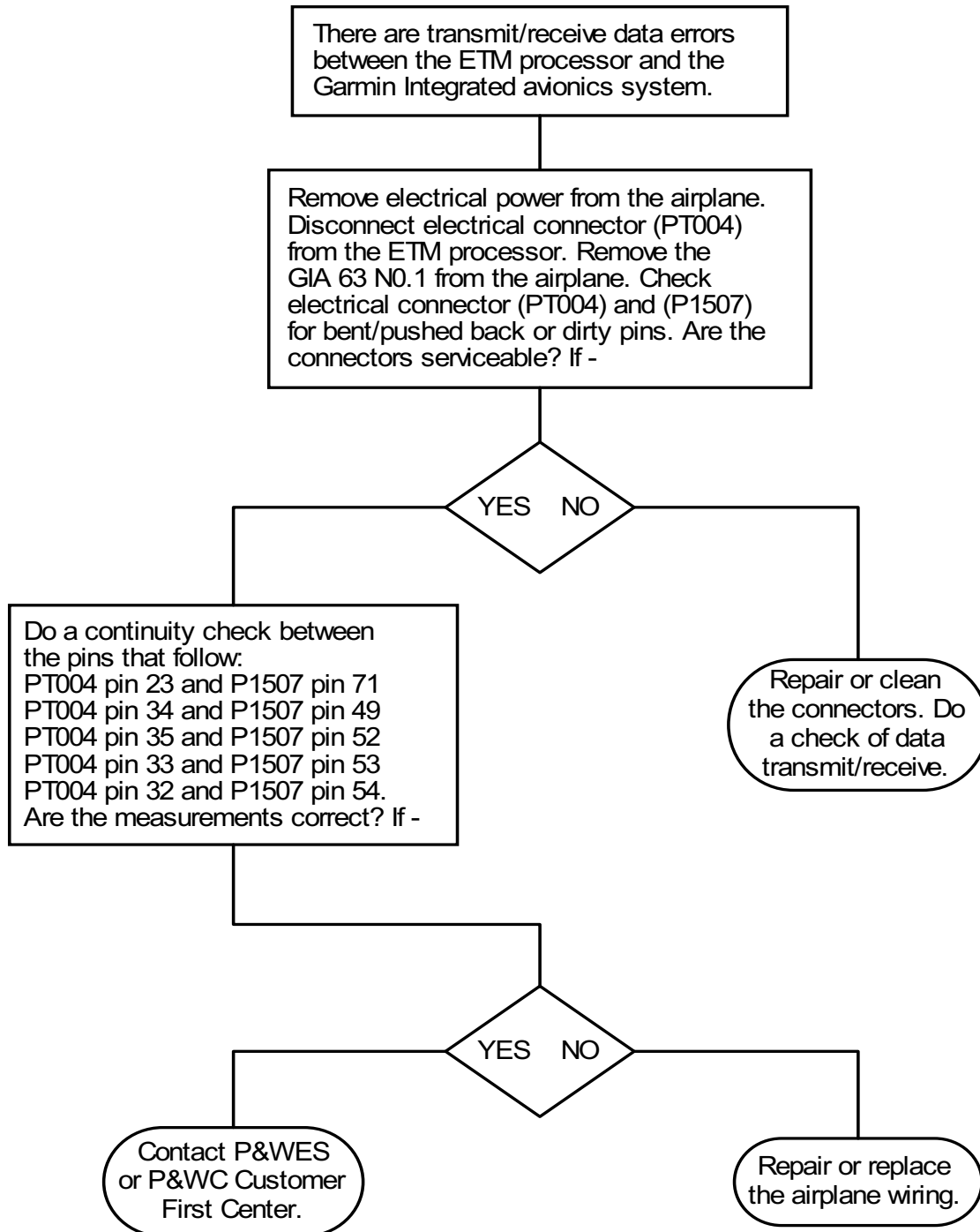


Figure 107 : Sheet 1 : GSM Antenna Transmission Troubleshooting

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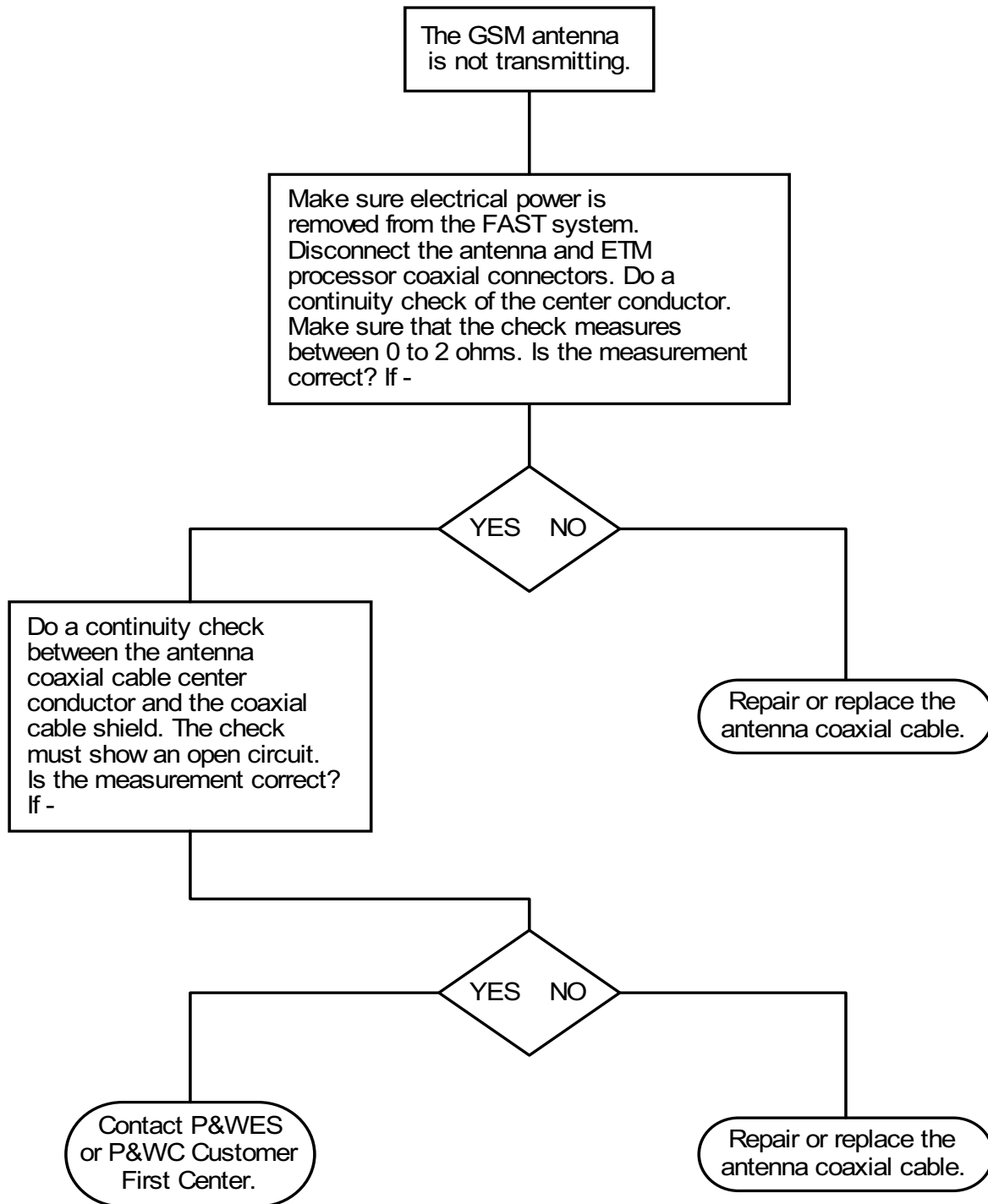


Figure 108 : Sheet 1 : Test Monitor Transmission Troubleshooting

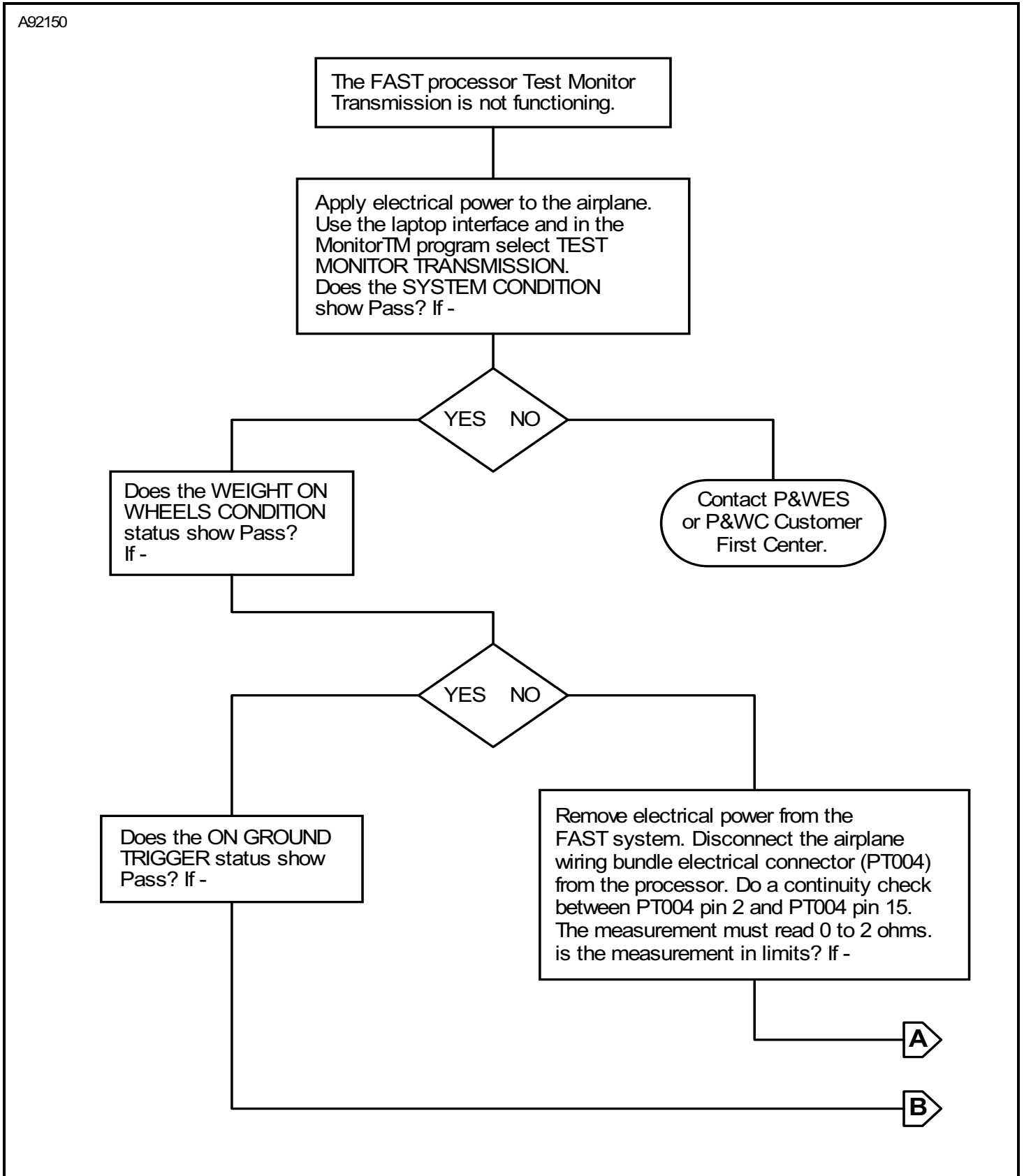


Figure 108 : Sheet 2 : Test Monitor Transmission Troubleshooting

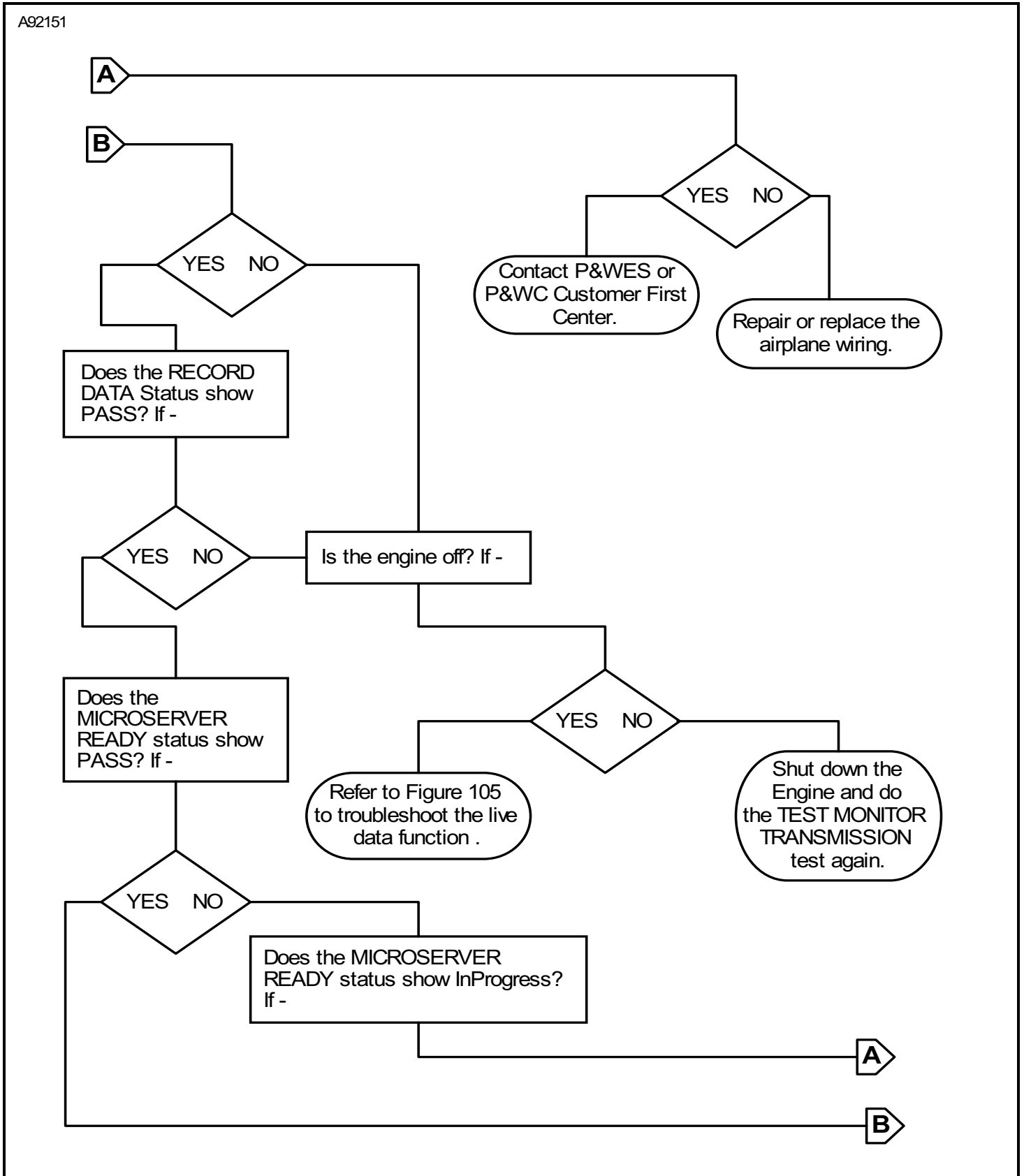


Figure 108 : Sheet 4 : Test Monitor Transmission Troubleshooting

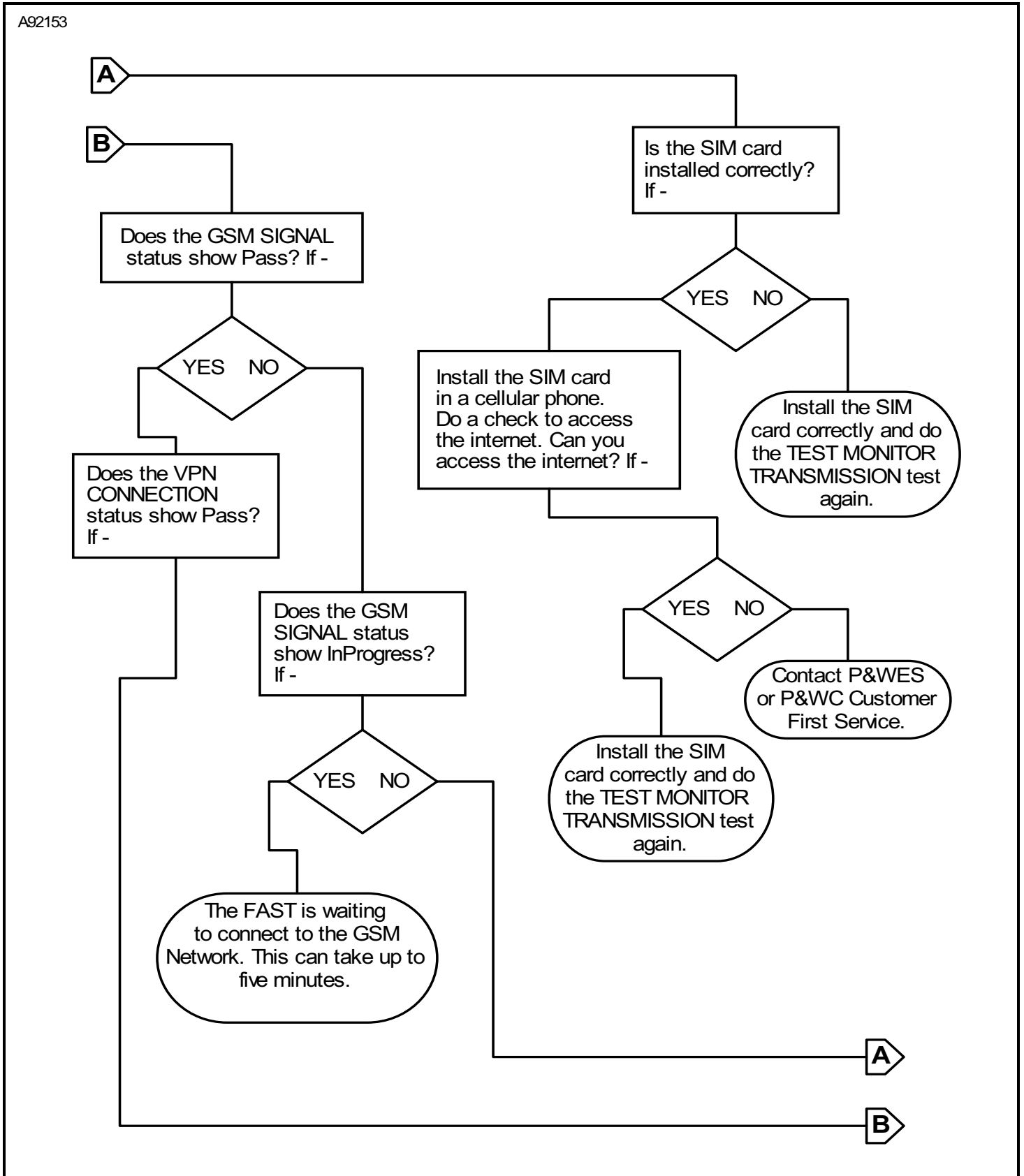


Figure 108 : Sheet 5 : Test Monitor Transmission Troubleshooting

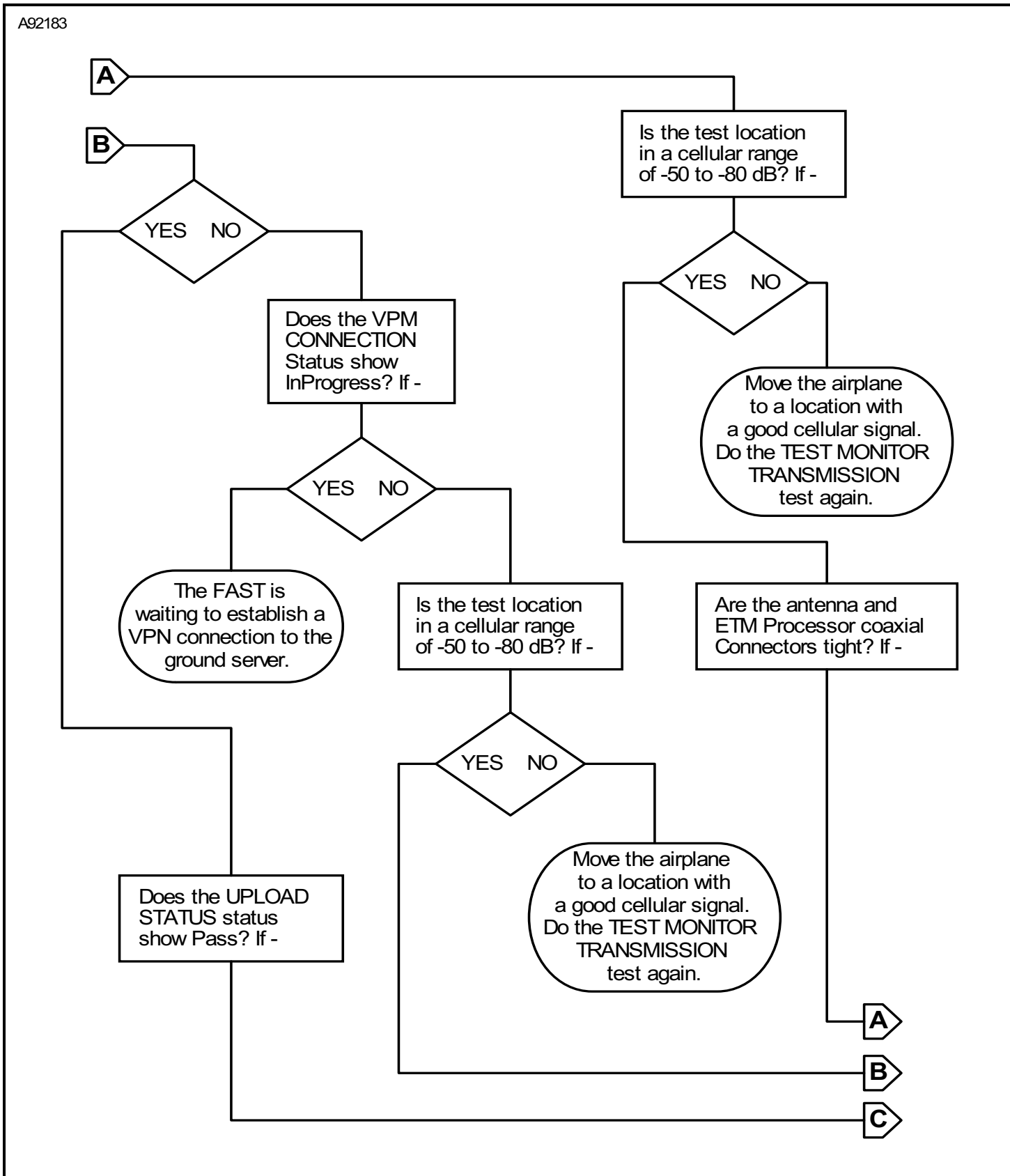


Figure 108 : Sheet 6 : Test Monitor Transmission Troubleshooting

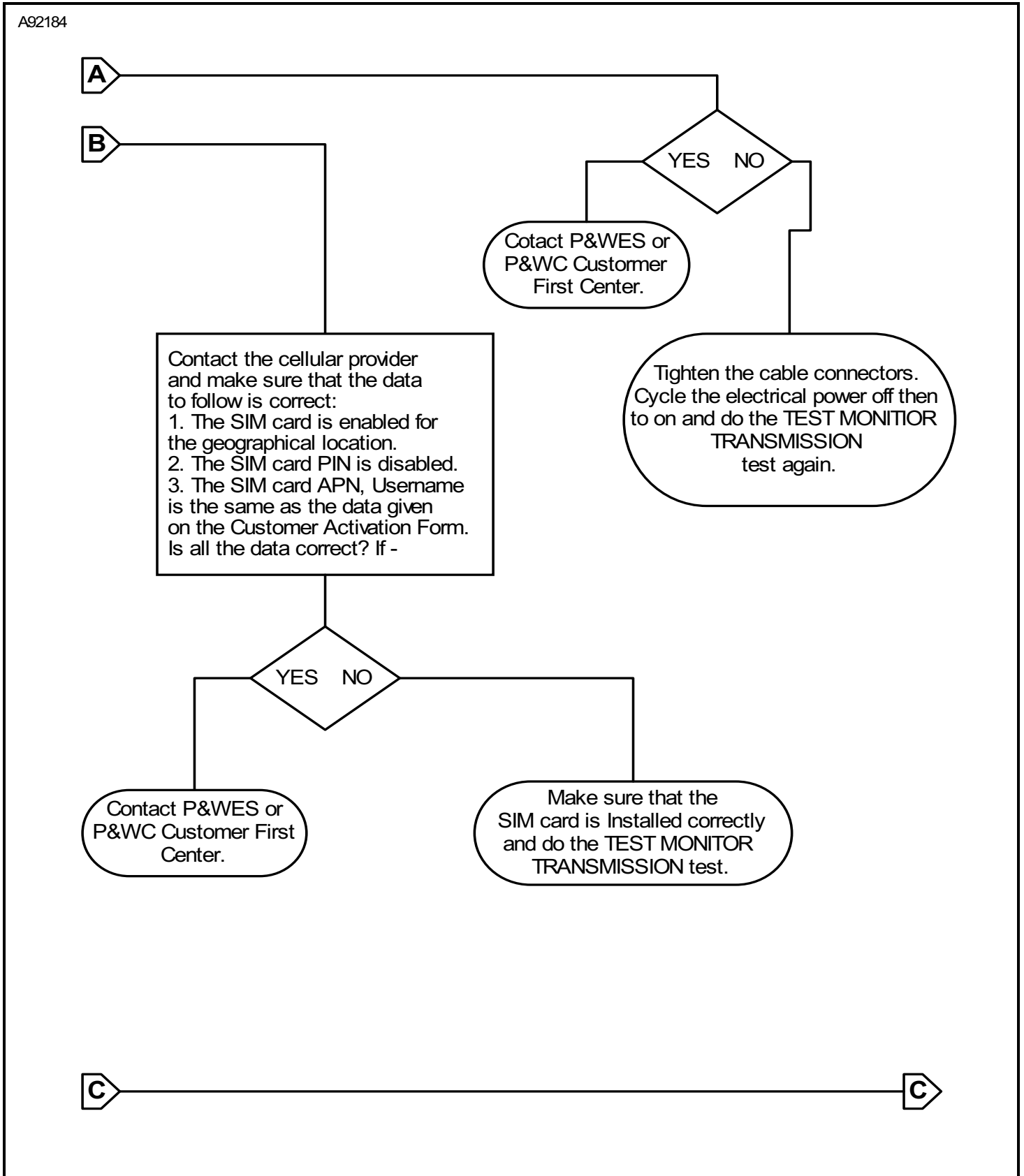


Figure 108 : Sheet 7 : Test Monitor Transmission Troubleshooting

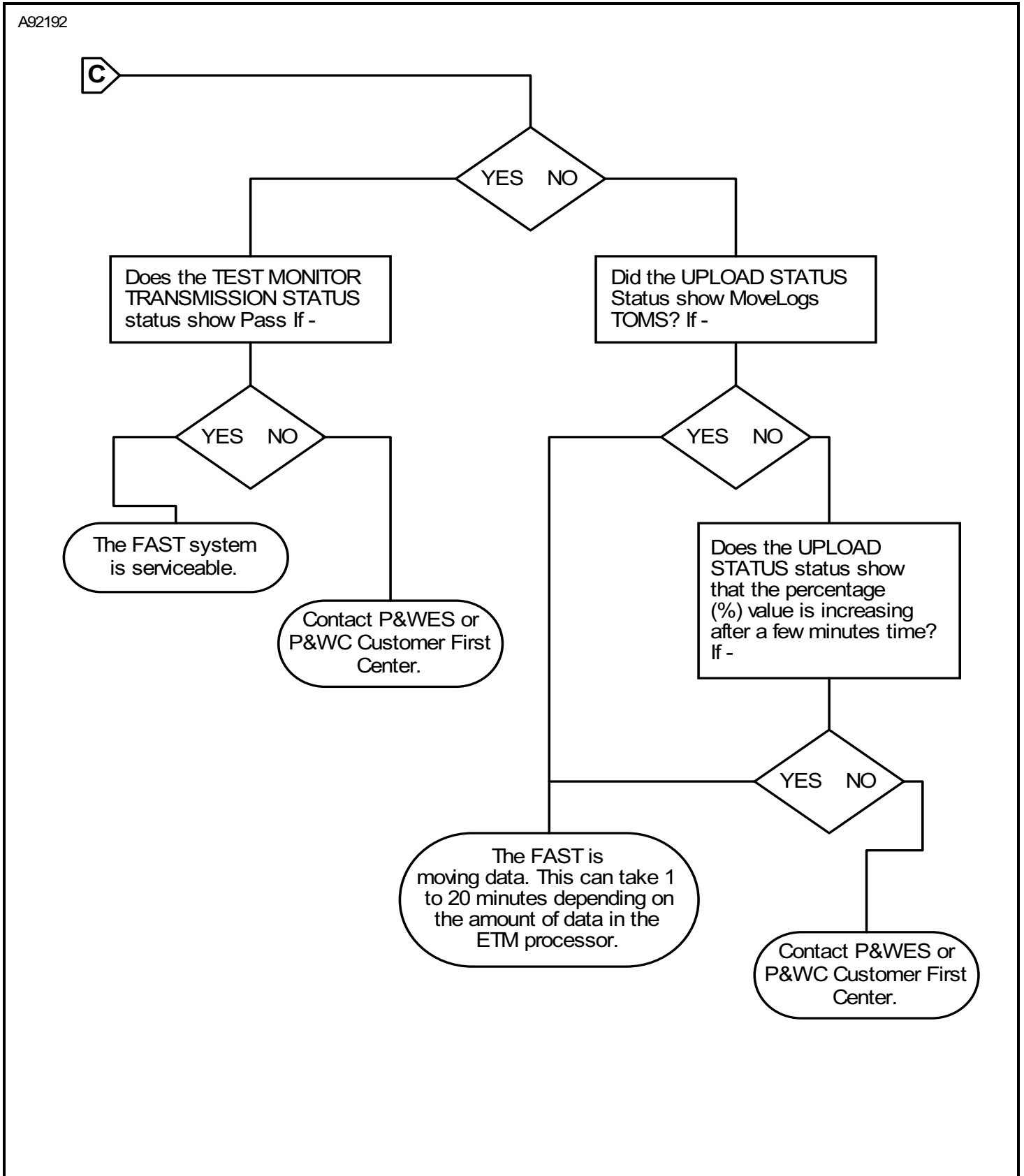


Figure 109 : Sheet 1 : Creep Fault Troubleshooting

