Rockwell Collins

523-0822270-001000

CES-5000/CES-6050 CABIN ELECTRONIC SYSTEM

Service Information Letter 14-1

CES INSTRUCTIONAL LETTER FOR EFFECTIVE USE OF THE STARTUP MANAGER

TRANSMITTAL INFORMATION SUMMARY

Summary

This is the original release of SIL 14-1 for CES-5000/CES-6050 Cabin Electronic System.

Service Information Letter Revision History

REVISION	DATE OF RELEASE
Initial Release	March 24, 2014

1.0 General Information

1.1 Power Up Status

(1) The Power Up Status page is a maintenance tool that allows the user to track the software status of the CES LRUs during system start up. The Power Up Status page displays the system components in a tree structure that is representative of the equipment hierarchy.

NOTE: The hardware status of the CES LRUs is tracked in the Maintenance Diagnostics page.

(2) The following icons are displayed on the Power Up Status page to represent the status of the CES LRUs. Refer to Figures 1 thru 5.

The "[+]" icon indicates that the LRU contains components within or equipment attached to it that are viewable by selection.

Expand Icon
Figure 1

The "--" icon indicates that the LRU has not begun powering up.

Not Started Icon
Figure 2

The "In Progress" icon indicates the equipment software power up sequence is in progress, or one or more of its components are in the power up sequence process.

In Progress Icon
Figure 3

The green "checkmark" icon indicates the equipment software power up sequence has completed and is ready for use, and, if applicable, all of its components have completed the power up sequence and are ready for use.

Ready Icon
Figure 4

The yellow "x" icon indicates the equipment software has failed the power up sequence, or one or more of its components has failed the power up sequence.

Failed Icon
Figure 5

1.2 What do you do when a yellow "X" is displayed?

(1) User must allow the CES system to boot up for at least 15 minutes so that all the system LRUs have had enough time to report their condition back to the head-end equipment cabinet. Refer to Figures 6 and 7.

(2) If the yellow "X" remains, Touch the "[+]" button to expand the equipment hierarchy to locate the unit or units that failed to initialize correctly. Refer to Figures 8 thru 13.

(3) Once the failed unit is identified, check the Diagnostics page for Current Faults related to the unit's hardware status. Refer to Figures 14 thru 18.

(4) If the unit's software initialization failed due to a hardware issue, follow the troubleshooting instructions related to the hardware in the CES Fault Isolation Manual (FIM) or in Smart Fix Plus.

(5) If the unit's software initialization failure is unrelated to a hardware issue, the user is urged to power cycle the unit using the electronic circuit breakers on the Circuit Breaker pages. Refer to Figures 19 thru 23.

NOTE: Electronic circuit breakers only apply to Global aircraft. CL605 aircraft use thermal circuit breakers.

(6) If the failure remains after the unit has been individually power cycled, the user should shut "OFF" the Cabin Power Switch on the overhead panel for two (2) minutes, then turn the Cabin Power Switch back "ON".

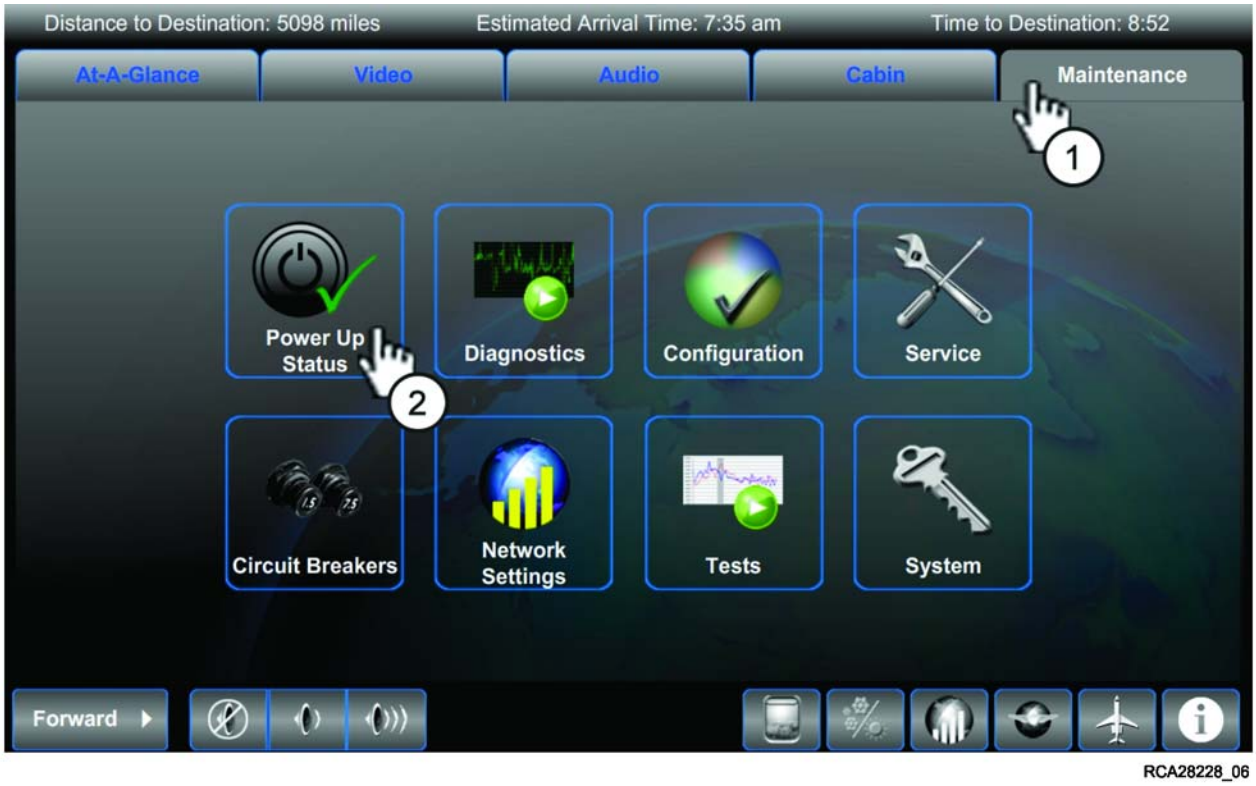
2.0 Reference Information and Figures

2.1 Reference Step 1.2.(1)

(1) Touch the MAINTENANCE tab. Refer to Figure 6.

(2) Touch the POWER UP STATUS button to display the Power Up Status page. Refer to Figure 6.

NOTE: The Power Up Status function includes the powered status of most LRUs in CES. Each piece of equipment with the [+] button displays overall power up status of its components and can be expanded to view the individual power up status of the contained components.

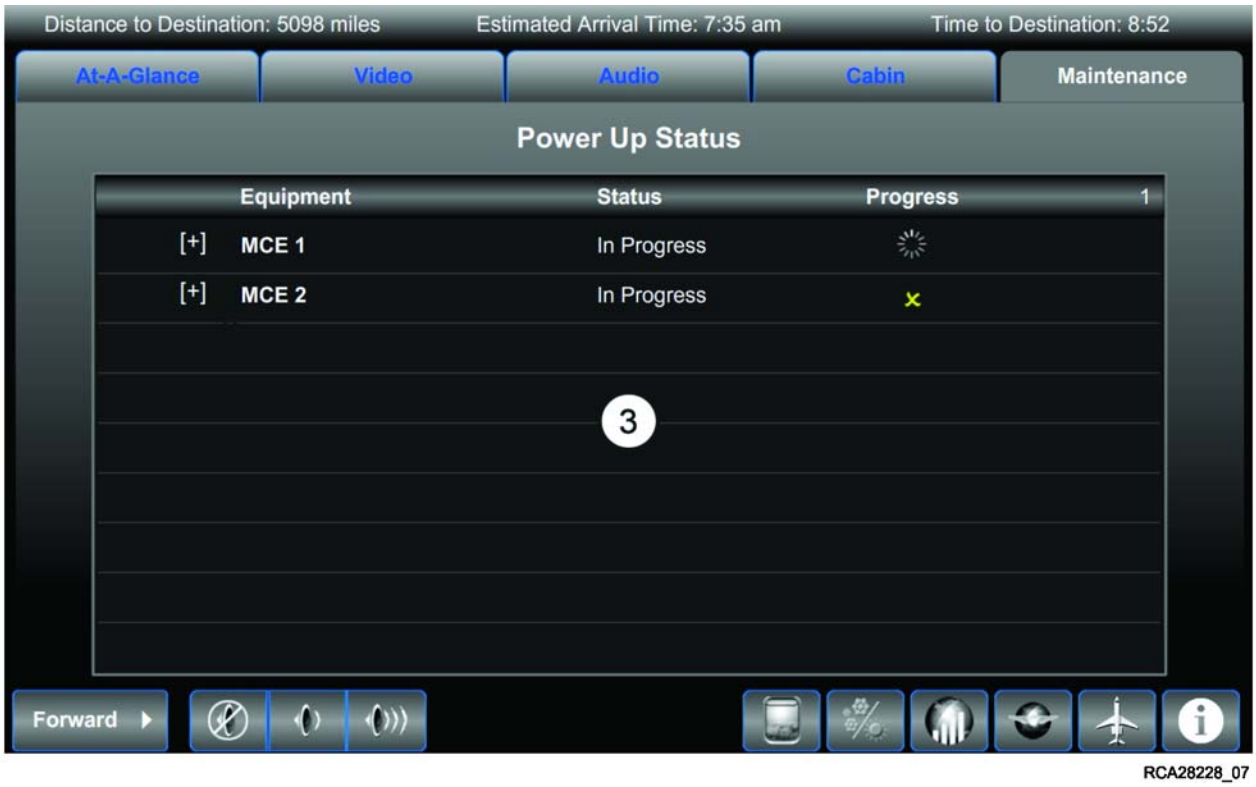


Main Maintenance Page
Figure 6

(3) View the overall Power Up Status for MCE 1 and 2 on the Power Up Status page. Refer to Figure 7.

NOTE: If either MCE 1 or MCE 2 status is failed, it is possible that one (1) or more of its components may be failed and not the MCE itself. Drilling down by touching the "[+]" button will expose which components associated with the MCE have failed.

NOTE: CL605 aircraft only have one (1) MCE installed therefore only "MCE" will be displayed under equipment.



Power Up Status
Figure 7

2.2 Reference Step 1.2.(2)

(1) Touch the EXPAND ([+]) button for MCE 1 to view the status of its components. Refer to Figure 8. Refer to the following Power Up Status Table - 1 for a list of statuses along with the corresponding icons and descriptions.

Power Up Status
Figure 8

POWER UP STATUS TABLE - 1		
STATUS	**ICON**	**DESCRIPTION**
Not Started	Refer to Figure 2.	Equipment has not begun powering up.
In Progress	Refer to Figure 3.	Equipment is in the process of powering up, or one or more of its components is in the process of powering up.
Ready	Refer to Figure 4.	Equipment is powered up and ready for use, and, if applicable, all of its components are powered up and ready for use.
Failed	Refer to Figure 5.	Equipment has failed to power up, or one or more of its components has failed to power up.

(2) View the status of MCE 1 in the top left hand corner. Refer to Figure 9.

(3) View the status of each of the MCE 1 components in the Status column. Refer to Figure 9.

NOTE: If any of the MCE 1 component statuses display as failed and the component includes the "[+]" button, it is possible that one (1) or more of its components may be failed and not the MCE itself. Drilling down by touching the "[+]" button will expose which components associated with the MCE have failed. If no "[+]" button is included to the left of the failed component, there are no more associated components and the component itself requires attention.

(4) Touch the EXPAND ([+]) button for ESE 1 to view the status of its components. Refer to Figure 9.

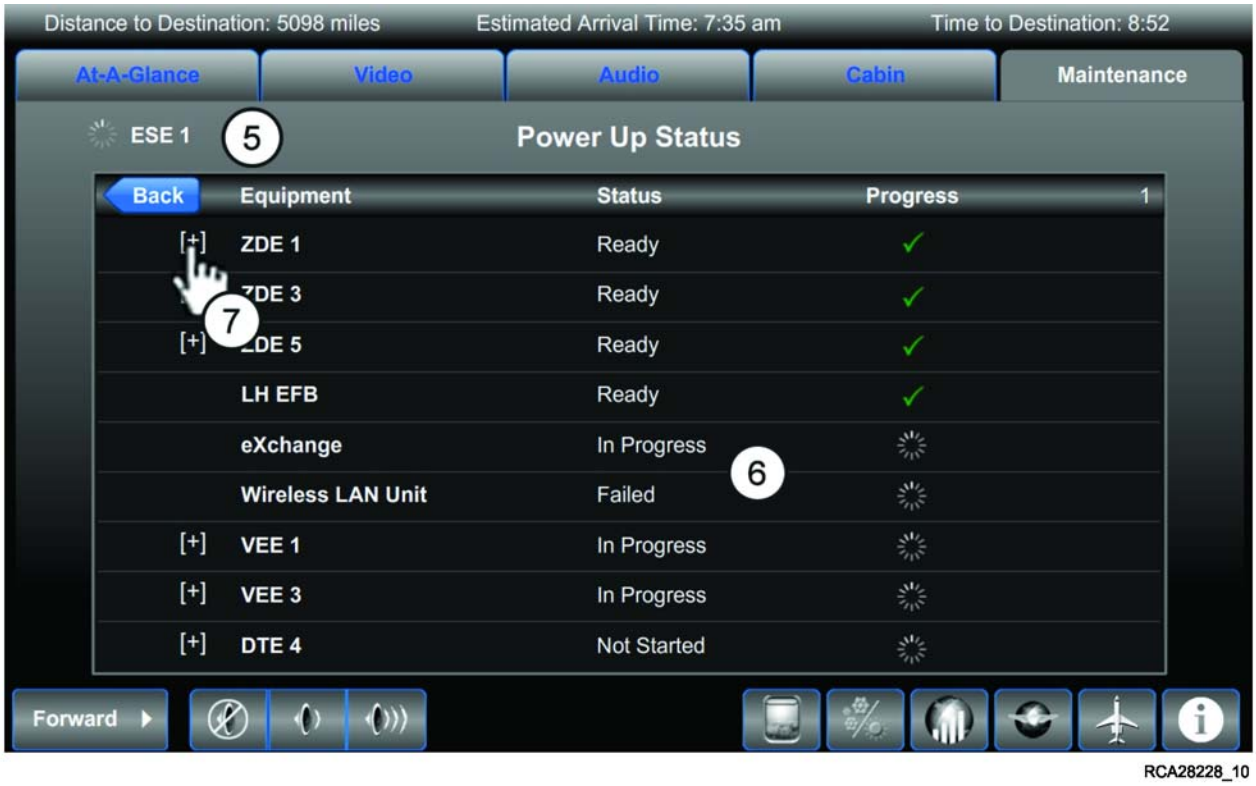
Power Up Status, MCE 1
Figure 9

(5) View the status of ESE 1 in the top left hand corner. Refer to Figure 10.

(6) View the status of each of the ESE 1 components in the Status column. Refer to Figure 10.

NOTE: If any of the ESE 1 component statuses display as failed and the component includes the "[+]" button, it is possible that one or more of its components may be failed and not the ESE itself. Drilling down by touching the "[+]" button will expose which components associated with the ESE have failed. If no "[+]" button is included to the left of the failed component, there are no more associated components and the component itself requires attention.

(7) Touch the EXPAND ([+]) button for ZDE 1 to view the status of its components. Refer to Figure 10.



Power Up Status, ESE 1
Figure 10

(8) View the status of ZDE 1 in the top left hand corner. Refer to Figure 11.

(9) View the status of each of the ZDE 1 components in the Status column. Refer to Figure 11.

NOTE: If any of the ZDE 1 component statuses display as failed and the component includes the "[+]" button, it is possible that one or more of its components may be failed and not the ZDE itself. Drilling down by touching the "[+]" button will expose which components associated with the ZDE have failed. If no "[+]" button is included to the left of the failed component, there are no more associated components and the component itself requires attention.

(10) Touch the PAGE DOWN button to show the next page of ZDE 1 components. Refer to Figure 11.

Power Up Status, ZDE 1
Figure 11

(11) Touch the BACK button to view one level above in the hierarchy. Refer to Figures 12 and 13.

Power Up Status, MCE 1
Figure 12

Power Up Status
Figure 13

2.3 Reference Step 1.2.(3)

(1) Touch the MAINTENANCE tab. Refer to Figure 14.

(2) Touch the DIAGNOSTICS button to display the Diagnostics page. Refer to Figure 14.

Main Maintenance Page
Figure 14

(3) If the Current Faults button is not selected, touch the CURRENT FAULTS button to view current LRU faults within CES. Refer to Figure 15.

(4) Touch the PAGE DOWN button to show the next page of Current Faults. Refer to Figure 15.

(5) Find the Current Fault(s) related to the failed unit's hardware status. Refer to Figure 15.

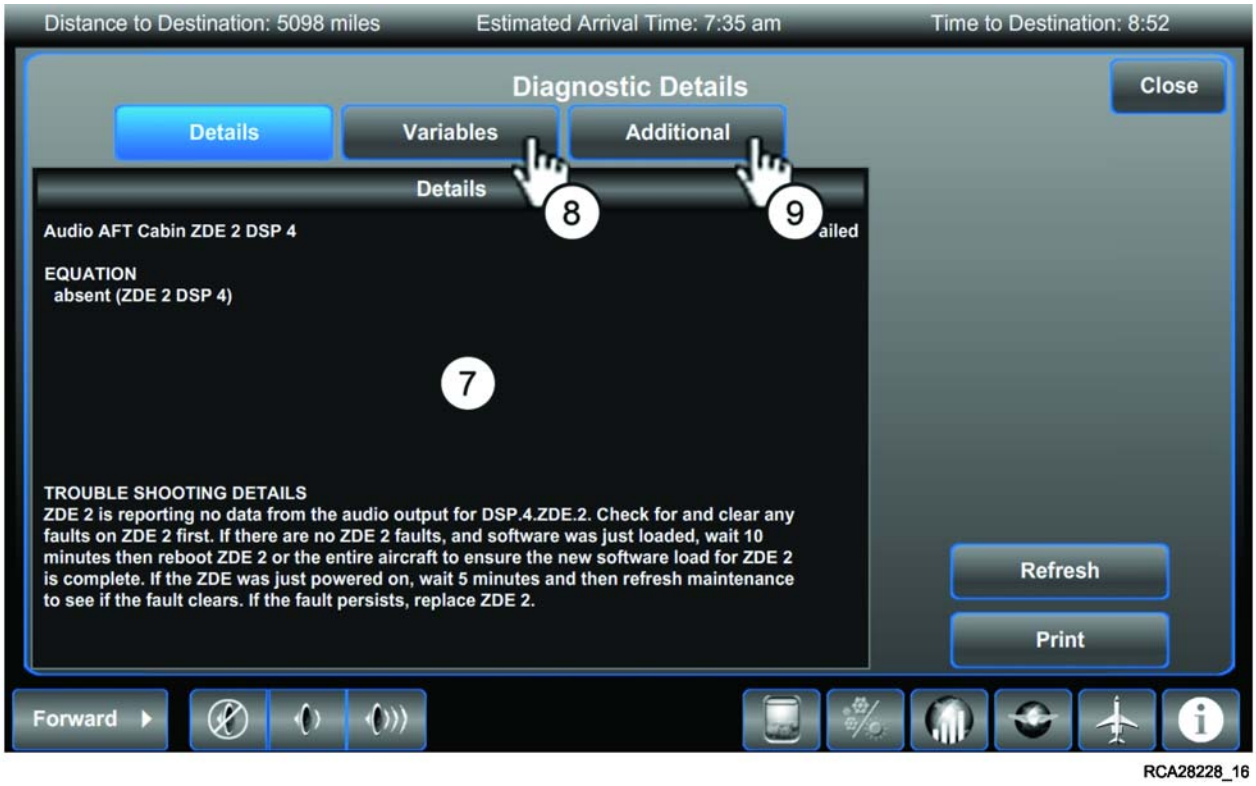
(6) Once the Current Fault is selected, touch the DETAILS button to display the Diagnostic Details which contain more information about the current fault. Refer to Figure 15.

Diagnostics, Current Faults
Figure 15

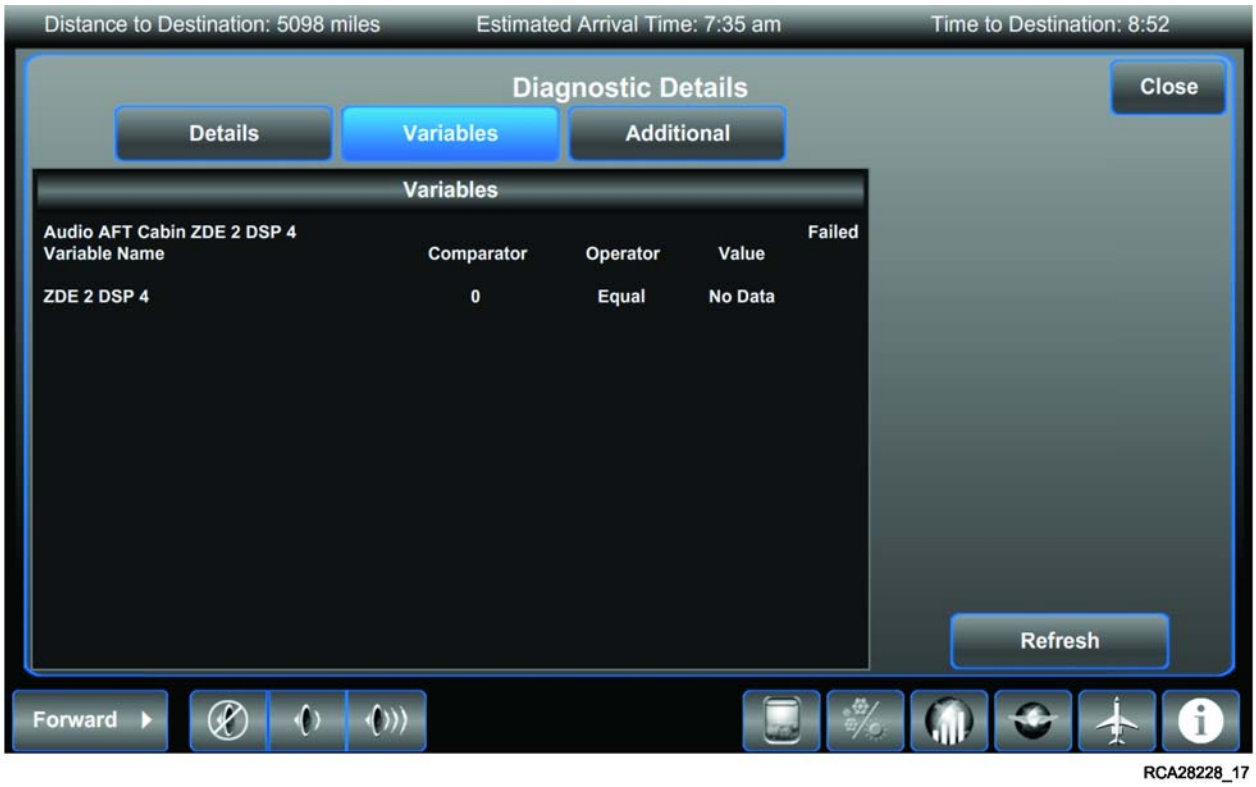
(7) View the Diagnostic Details for more information regarding the current fault. Refer to Figure 16.

(8) Touch the VARIABLES button to display the Variable Details page. Refer to Figures 16 and 17.

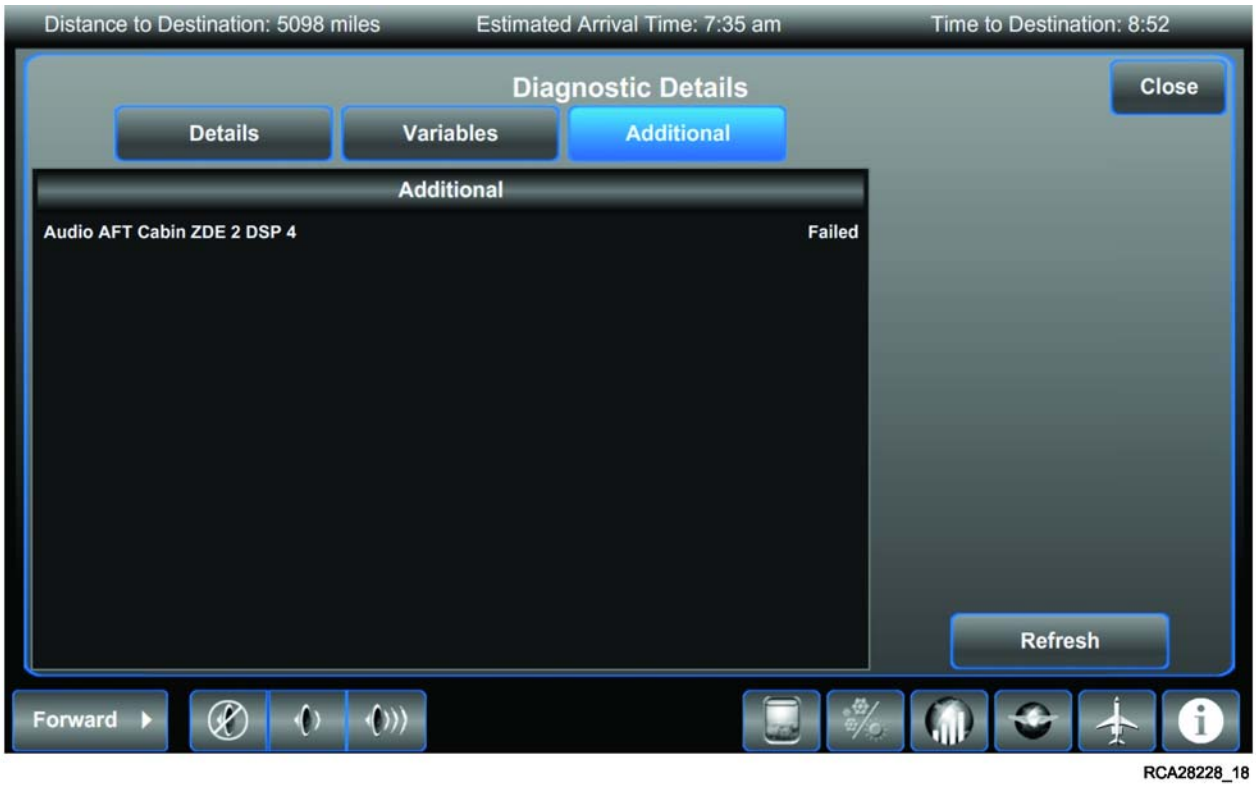
(9) Touch the ADDITIONAL button to display the Additional Details page. Refer to Figures 16 and 18.



Diagnostic Details
Figure 16



Diagnostic Details, Variables
Figure 17



Diagnostic Details, Additional
Figure 18

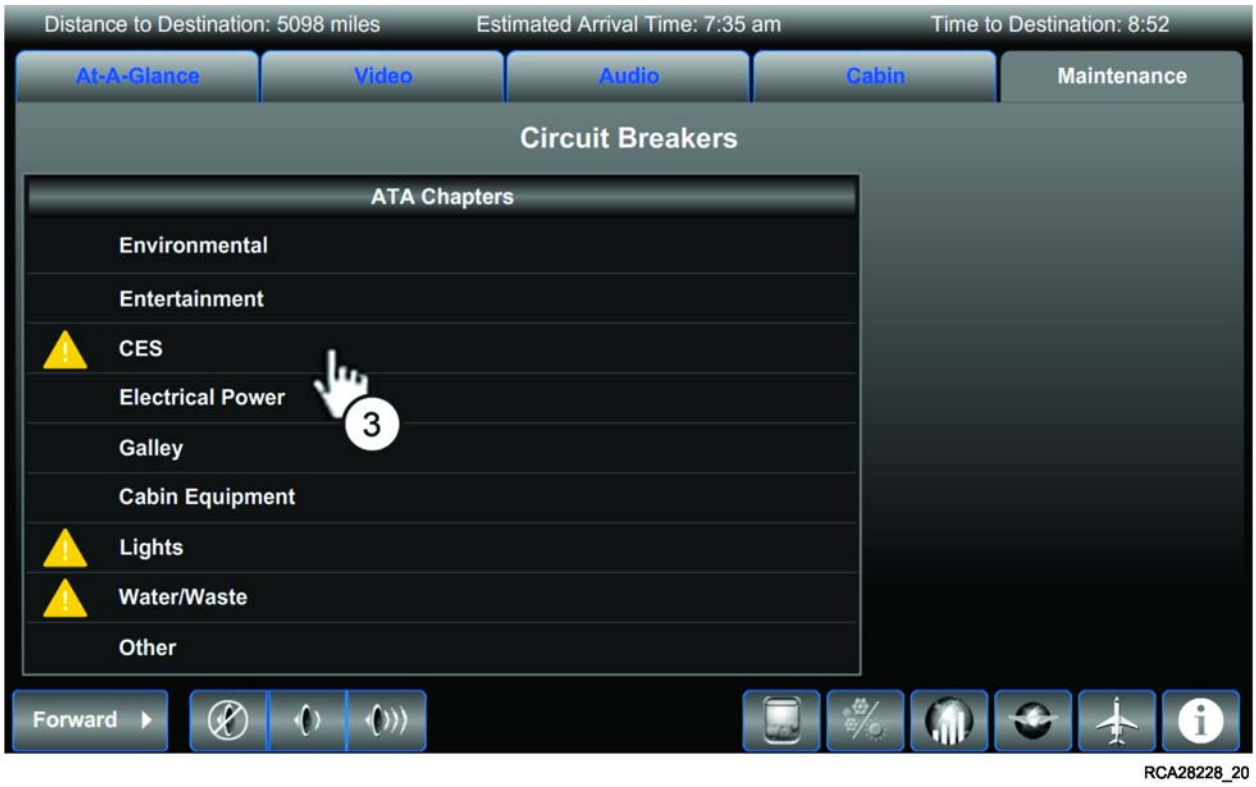
2.4 Reference Step 1.2.(5)

(1) Touch the MAINTENANCE tab. Refer to Figure 19.

(2) Touch the CIRCUIT BREAKERS button to display the Circuit Breakers page. Refer to Figure 19.

Main Maintenance Page
Figure 19

(3) Touch the ATA Chapter which contains the circuit breaker for the LRU which needs power cycled. Refer to Figure 20.



Circuit Breakers
Figure 20

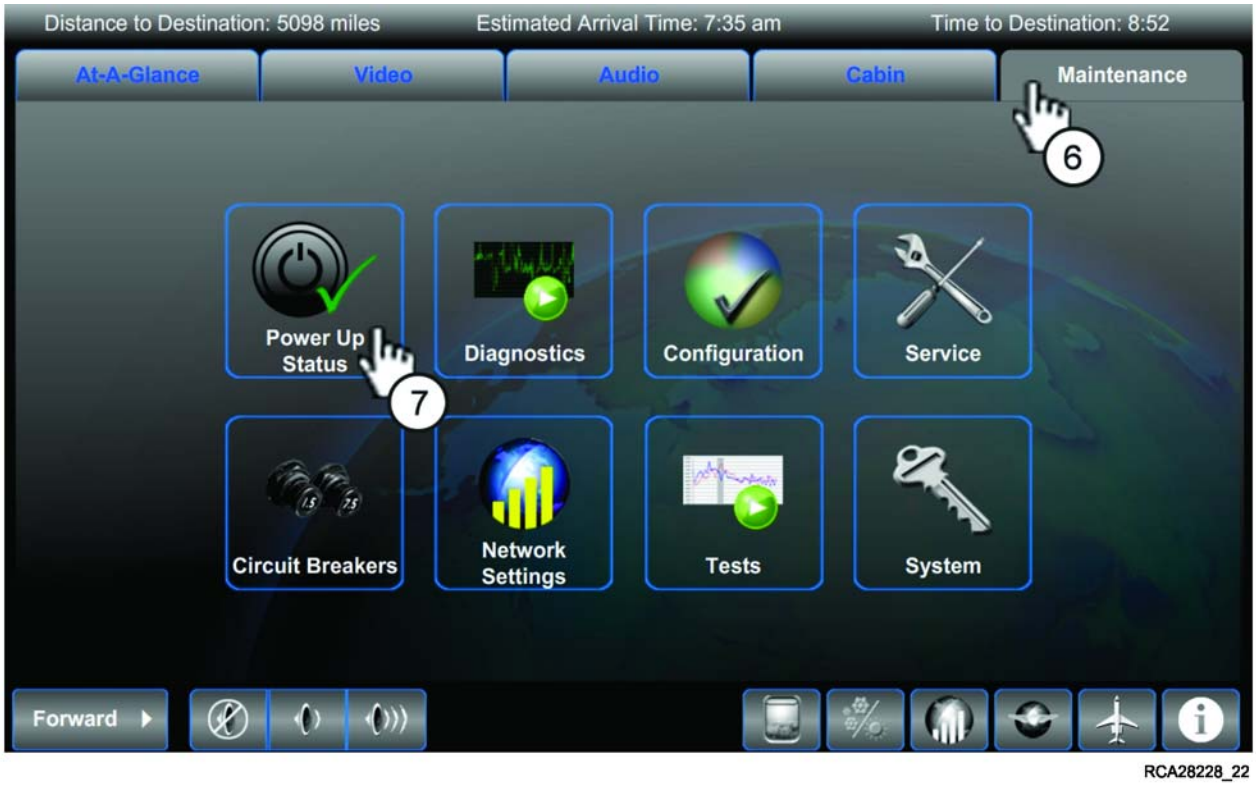
(4) Touch the CIRCUIT BREAKER button associated with the LRU to power cycle the LRU. Refer to Figure 21.

(5) Touch the CLOSE button to return to the main Circuit Breakers page. Refer to Figure 21.

Circuit Breakers, CES
Figure 21

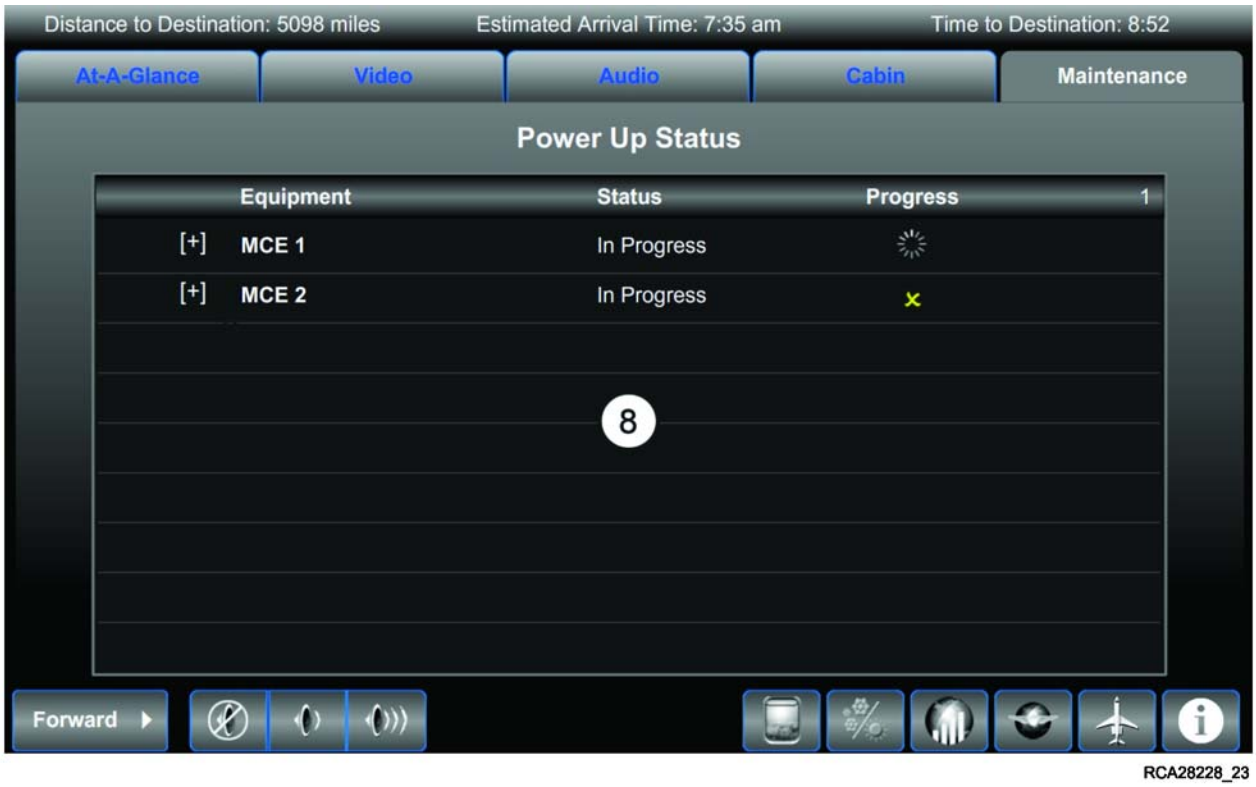
(6) Touch the MAINTENANCE tab. Refer to Figure 22.

(7) Touch the POWER UP STATUS button to display the Power Up Status page. Refer to Figure 22.



Main Maintenance Page
Figure 22

(8) View the Power Up Status of the LRU which was power cycled to verify the issue is rectified. Refer to Figure 23.



Power Up Status
Figure 23