4.3 Troubleshooting

The troubleshooting table below provides typical operating problems and the means to restore normal operation. If you cannot restore normal operation, do not open the cover of the FA-70; there are no user serviceable parts inside the transponder.

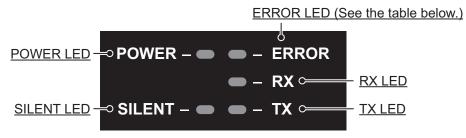
Symptom	Remedy
Cannot turn on the power.	 Check the cable between the transponder and power for damage. Check the power supply. Check the fuse.
Cannot transmit/receive.	Check that the VHF antenna cable is firmly connected.Check the VHF antenna and its cabling for damage.
The message is sent to a wrong ship.	Confirm the MMSI.
No position data.	Check the GPS antenna.Check the GPS antenna cable and its connectors.
ERROR LED lights in red.	Contact your dealer.
ERROR LED lights in orange.	 Check that the GPS antenna is correctly connected. Check that the VHF antenna is correctly connected. Confirm the MMSI.
Cannot start the AIS Setting Tool, or cannot connect the PC to the transponder.	 Check the USB cable between the transponder and the PC for damage. Do the following: Quit the AIS Setting Tool. Disconnect the USB cable from the PC, and then connect the cable again. Start the AIS Setting Tool.

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The FA-70 has no power switch. Power is fed from the ship's switchboard, and a power switch on the switchboard turns the FA-70 on or off.

The table below shows the function for each LED.

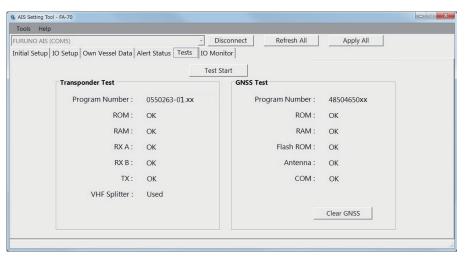
LED	Color	Meaning
POWER	Green	When the power is on, the POWER LED lights in green for CSTDMA mode.
	Blue	When the power is on, the POWER LED lights in blue for SOTDMA mode.
SILENT	Blue	The SILENT LED lights in blue when the silent mode is set to on.
ERROR	Red	The ERROR LED lights in red when equipment error (TX, RX, ROM, or RAM) is found.
	Orange	The ERROR LED lights in orange when the equipment is not installed correctly.
RX	Green	The RX LED lights in green for 50 msec when receiving.
TX	Green	The TX LED lights in green for 200 msec when transmitting.
	Orange	 The TX LED blinks in orange when continuous transmission is not possible (TX time out). The TX LED lights in orange when the MMSI is not set.



Red	Orange
Memory error	GPS antenna short
RX1/2 PLL unlock error	Lost position
TX PLL unlock error	VSWR error
TX power error	Temperature error
	Power amplifier voltage error
	MMSI not registered
	Noise level error (CSTDMA mode only)

4.4 Diagnostics

The FA-70 provides diagnostic tests to check the transponder unit for proper operation.



[Tests] screen for PC

Menu item	Description
[Test Start] (for the PC)	Click to start the test.
[Transponder Test]	The program version number appears on the first line. The RAM, ROM, two RX channels (A and B) and TX are checked for proper operation, and the results are displayed as "OK" or "NG" (No Good). For any NG, contact your dealer for advice. When the VHF splitter board is connected, "Used" appears, not connected, "Unused" appears on the last line.
[GNSS Test]	The program version number appears on the first line. The ROM, RAM, Flash ROM, the connection with antenna (including power line) and COM (communication) are checked for proper operation, and the results are displayed as [OK] or [NG] (No Good). For any NG, contact your dealer for advice.
[Clear GNSS] (for the PC)	Click to initialize the internal GNSS core. The confirmation message "Clear GNSS. Are you sure?" appears. Click [Yes] to initialize.