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## CONTROL/INTERFACE PWB REPLACEMENT

1. Record the following information (as a minimum) from the front panel AUI:
  - **Presets** page: record settings for all desired presets
  - **Scheduler** page: record **Rules** and **Daily Events** information
  - **Factory Settings** page: record information in the **RF Symmetry** and **Transmitter Type** menus
  - **System Settings** page: record all information in the **Exciter Clock Calibration** and **Power Lockout** menus
  - **User Settings** page: record all information in the **Network Setup** menu
  - **Remote I/O** page: record all information for the user-defined remote **Inputs** and **Outputs**, including **Channel** and **Control** settings
  - **Changeover** page: record all information
2. Use a digital multimeter to measure the VSWR threshold voltage on the control/interface PWB at R73-LHS. Record this voltage.
3. Set the transmitter to its **RF Off** state. Turn off (disable or lock out) the ac power at the source. Open the front door to gain access to the exciter panel (see [Figure 1.6 on page 1-55](#)).
4. Disconnect all cables attached to the control/interface PWB (A11A1), taking note of the connector labels on the cables and the PWB.
5. Remove and retain the two screws securing the connector bracket in the upper, left portion of the control/interface PWB.
6. Remove either the remote interface PWB (A11A4) or both digital AM exciter PWBs (A11A2 and A11A3), whichever is easier. It may be helpful to gently pry the connectors loose with a screwdriver.
7. Remove and retain 13 sets of mounting hardware from the control/interface PWB (A11A1).
8. Obtain a replacement control/interface PWB (Nautel Part # NAPC160B/01).
9. Set the **COMB CONT INTLK** (E1) and **REMOTE SUPPLY** (E3) jumpers on the replacement PWB to the same positions as the defective PWB.
10. Install the new control/interface PWB by reversing [Step 4](#) through [Step 7](#). For connector mating assistance, refer to the connector mating tables in [Section 4, “Wiring/connector lists” on page 4-1](#).

11. Disconnect P8 from J11 of the rack interface PWB (A15) in each cabinet.
12. Enable (switch on) the ac power for the transmitter.
13. From the front panel AUI's **Factory Settings - Transmitter Type** page, press the Reset button for Rack Registration.
14. Disable (switch off and lock out) the ac power for the transmitter.
15. Reconnect P8 to J11 of the rack interface PWB in cabinet 1.
16. Enable (switch on) the ac power for the transmitter.
17. Use the AUI's **Meter List View** page to verify that Rack 1 meters are populated and the meters for all installed Modules in Rack 1 are populated. See the *NX300 Operations and Maintenance Manual* for detailed instructions.
18. Disable (switch off and lock out) the ac power for the transmitter.
19. Reconnect P8 to J11 of the rack interface PWB in cabinet 2.
20. Enable (switch on) the ac power for the transmitter.
21. Use the AUI's **Meter List View** page to verify that Rack 2 meters are populated and the meters for all installed Modules in Rack 2 are populated. See the *NX300 Operations and Maintenance Manual* for detailed instructions.
22. Disable (switch off and lock out) the ac power for the transmitter.
23. Reconnect P8 to J11 of the rack interface PWB in cabinet 3.
24. Enable (switch on) the ac power for the transmitter.
25. Use the AUI's **Meter List View** page to verify that Rack 3 meters are populated and the meters for all installed Modules in Rack 3 are populated. See the *NX300 Operations and Maintenance Manual* for detailed instructions.
26. Re-enter all the AUI information recorded in [Step 1](#).
27. Set the time using the front panel AUI's **Factory Settings - Time Setup** page.

28. Measure the VSWR threshold voltage on the control/interface PWB at R73-LHS. Adjust **VSWR THRESHOLD** potentiometer R78 until the multimeter reading is the same as the voltage recorded in [Step 2](#).
29. Upgrade the subsystem software using the AUI's **Upgrade Software** page under the **System Settings** menu. See the *NX300 Operations and Maintenance Manual* for detailed instructions.

## GPS SYNC PWB REPLACEMENT

1. Remove and retain four sets of mounting hardware from the GPS sync PWB being replaced (A11A5).
2. Set the jumpers on the replacement PWB to the same positions as the defective PWB.
3. Install the new GPS sync PWB by reversing [Step 1](#) and [Step 2](#).



**NOTE:**

*Remove the jack screws from 9-pin D-sub connector J1 on the new GPS sync PWB before installing it.*

## ENGINE PWB REPLACEMENT

1. Remove and retain four sets of mounting hardware from the engine PWB (A11A7).
2. Set the jumpers on the replacement PWB to the same positions as the defective PWB.
3. Install the new engine PWB by reversing [Step 1](#) and [Step 2](#).