




**Field Service Spares Replacement Procedure – 24VDC Pedestal Power
Supply Kit, Non-Braked, XX06-XX06RZ & 24VDC BUC Power Supply
XX06 & XX09**

Approval:

Approving Authority	Signature	Date
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Revision History

Rev.	ECO	Description of Change	Date
A	8841	Initial release	08-12-2011
B	9041	Clerical revisions	10-25-2011

Field Service Procedure – 24VDC Pedestal Power Supply Kit, Non-Braked, XX06-XX06RZ & 24VDC BUC Power Supply XX06 & XX09

1. Brief Summary:

Troubleshooting document for diagnosing a fault with and replacing the 24VDC pedestal power supply on the XXo6, XXo6R XXo6RZ and 24o6 pedestals and the NJRC 8W BUC power supply from the XXo6, XXo9 and XX10 series antennas.




2. Checklist:

- Verify AC Voltage Into The Power Supply
- Verify DC Voltage Out of The Power Supply

3. Theory of Operation:

The pedestal power supply contains the Cosel 150W unit found in the DAC-2202 (Sea Tel kit part number: 135341, power supply unit part number: 125343-6). The power supply is switch mode and will convert either 110VAC or 220VAC into 24VDC to power the antenna pedestal or NJRC 8W BUC.

4. Troubleshooting:

<p>Measure the input voltage into the power supply on the outer two pins of the AC harness, 110 - 240 volts AC should be present. If no AC voltage is present verify the breaker in the radome base is switched on and/or troubleshoot the source.</p>	
<p>Now measure the output voltage from the power supply, to the pedestal on connection J1. 24VDC should be present between pin 9 (+) and pin 5 (-).</p>	
<p>If the AC voltage is present but no DC can be measured on the D-sub connector, the voltage can then be measured directly on the output of the power supply for further diagnostics.</p>	

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If the units AC input has been verified and the 24VDC is not present the power supply is defective and needs to be replaced. If the units AC input has been verified the power supply is outputting the 24VDC consistently then the power supply is operational and the problem lies elsewhere (possible failure with the PCU/BUC or harness connection).

5. Replacing the Pedestal Power Supply Assembly:

5.1. Tools.

- 2mm Flat Blade (Terminal) Screwdriver
- #1 Phillips Screwdriver
- 5/16" Wrench/Spanner
- 7/16" Wrench/Spanner
- Snips/Cutters
- 5/32" Allen Wrench/Key
- ¼" Wrench/Spanner
- Cable Ties/Tie Wraps
- Loctite 222 and 242

5.2. Procedure

Procedure for replacing the 24VDC pedestal power supply assembly on the XX06-XX06RZ series antennas, Sea Tel kit part number: 135380 (power supply assembly part number: 125570-2).

***CAUTION:** Power down the pedestal before following this procedure.

1. Remove the D-sub connectors from the mux's and polang relay assembly using a 2mm flat blade screwdriver.

***Note:** it's advisable to mark their orientation.



2. Using a #1 Phillips screwdriver remove the 2 screws securing the harness & p-clips to the polang relay.



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3. Remove the SMA cable from the rotary joint to the MUX using a 5/16" wrench.



4. Now remove the coax cable from the LNB to the MUX using a 7/16" wrench.



5. Disconnect the D-sub connector from the 90 degree adaptor using a 2mm flat blade screwdriver.



6. Snip the cable tie securing the AC lead & remove the connector from the power supply.



7. Now remove the power supply unit from the EL pan by undoing the 4 securing screws with a 5/32" Allen wrench.



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8. Remove the 2 remaining screws securing the polang relay to the MUX's using a #1 Phillips screwdriver.



9. Disconnect the SMA cable from the upper MUX using a 5/32" wrench.

***Note:** If your system doesn't support RF communications only 1 ADE MUX will be installed.



10. Remove the stand-offs securing the MUX(s) from the defective power supply using a 1/4" wrench.



11. Remove the 90 degree connector from the defective power supply assembly using a 2mm flat blade screwdriver & install it on the replacement unit.



12. Install the MUXs onto the power supply, applying Loctite 222 to the standoffs.

***Note:** Be careful not to over tighten as this may damage the threads.

13. Install the 2 screws on the underside of the polang relay assembly using Loctite 222.

14. Reattach the SMA cable to the second MUX using a 5/16" wrench (if applicable).



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15. Reinstall the power supply, MUXs and polang relay onto the EL pan applying Loctite 242 to the 5/32" screws.

***Note:** The P-clip on the lower right hand screw.



16. Reconnect the AC lead to the power supply and secure it in place with a cable tie.



17. Reattach the coax cable from the LNB to the MUX with a 7/16" wrench.

18. Now reconnect the SMA cable from the rotary joint to the MUX using a 5/16" wrench.



19. Install the remaining 2 screws to the mounts at the top of the polang relay with Loctite 222, securing the p-clips and harness to the assembly.



20. Install the pedestal DC D-sub connection to the 90 degree connector on the power supply assembly.



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21. Reconnect the harness connections to the MUXs and polang relay assembly using a 2mm flat blade screwdriver.



6. Replacing the 24VDC BUC Power Supply:

6.1. Tools.

- 2mm Flat blade (Terminal) Screwdriver
- Snips
- 3mm or 3/16" Allen wrench/key
- Tie Wraps/Cable Ties
- Loctite 242

6.2. Procedure

Procedure for replacing the NJRC 8W BUC and Codan 8W Mini BUC 24VDC power supply assembly on the XX09 and XX10 series antennas, Sea Tel kit part number: 135380 (power supply assembly part number: 125570-2).

***WARNING: Electrical Hazard – Dangerous AC voltage exist in the breaker box and the power Supply. Observe proper safety precautions when working on the power supply.**

1. Using snips cut the cable tie securing the AC input to the power supply & remove the connector.



2. Remove the DC output d-sub connector from the power supply using a 2mm flat blade screwdriver.

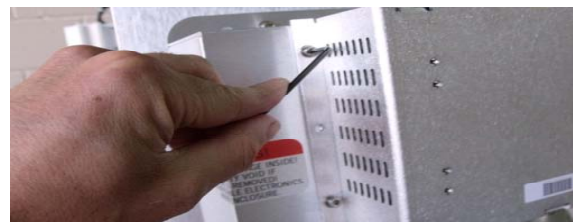


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3. Undo the 4 screws securing the power supply to the EL pan/PCU using either a 3mm or 3/16" Allen wrench (depending on antenna model).
4. Remove the defective power supply.



5. Apply Loctite 242 to the 4 screws removed earlier & install the replacement power supply.



6. Reinstall the AC connector & secure in place using a cable tie.
7. Reinstall the DC D-sub connector & tighten the screws with a 2mm flat blade screwdriver.

