

Installation Guide

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Components

Make sure you have the following components before starting this installation procedure.

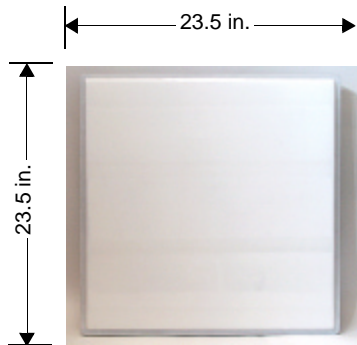
Aurora 5800 Spread Spectrum Digital Microwave Radio



CAUTION! To prevent equipment damage and shock hazard caused by lightning, antenna installation and the grounding system must comply with NEC or IEC standards, and local regulatory requirements.

Recommended antenna* and cable*

Flat-panel Antenna
(with installation instructions)



N-type Cable



* optional

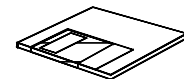
NOTE: Harris does not provide grounding kits.

The following are supplied with the radio:

Reference Manual



Software



Tools and test equipment you will need:

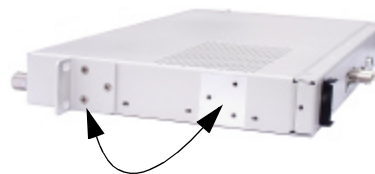
- Voltmeter**
- T1 or E1 Test Set**
- Set of screwdrivers**
- Set of wrenches**

1

Prepare the radio for a rack-mounting installation.

Rack Installation

Rack-mounting hardware may be moved for "forward" or "recessed" mount.

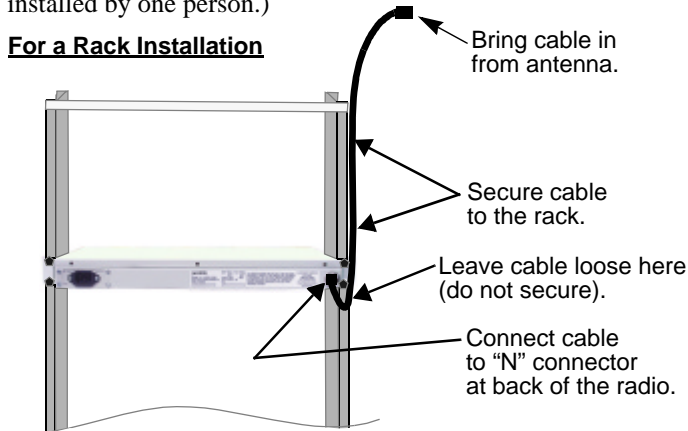


2

Set up and install the recommended antenna according to manufacturer's instructions. Connect the antenna to the radio.

(The antenna weighs 11 lb (5 kg) and can be installed by one person.)

For a Rack Installation



NOTE: For a rack installation, one rack mounting space above and one below the radio is required.

For a Desktop Installation



3

Connect power to the radio.

Connect the radio to an office AC outlet or DC power as shown below.

DC power connection

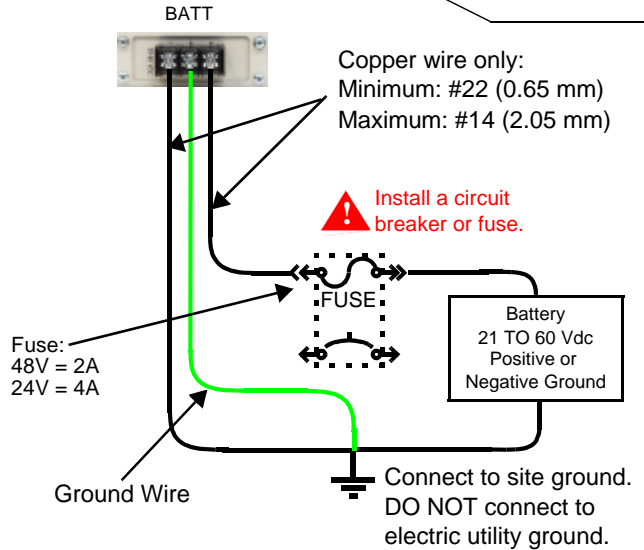
(See below.)

AC power connection



Connect to AC outlet.

Battery wiring diagram



4

Connect signal (data) lines to the radio.

RJ-48C standard pinout:
1(ring)/2(tip) - (Rx) input to radio
4(ring)/5(tip) - (Tx) output from radio
7/8 - Ground
T1=100 ohms
E1=120 ohms

Connect balanced E1 or T1 #1 line here. Use shielded pairs.

Connect balanced E1 or T1 #2 line here. Use shielded pairs.



Connect unbalanced coax E1 #1 lines here. Connect unbalanced coax E1 #2 lines here.

Data IN (Tx), Data OUT (Rx).

5

Turn on power to the radio.

Power switch



6

Check the receive signal level (RSSI) at each end of the hop.



Receive signal level must be between 0 and 4.8 volts. A signal level closer to 4 volts indicates a more robust system.

Connect Voltmeter to orange (RSSI) and black (GND) test jacks.

7

Check the BER performance of the hop.

- 1) Loopback the T1 (or E1) data at the far end.
- 2) Using a T1 (or E1) test set, send data to the far end and monitor the BER. There should be no errors over a 15-minute period. (See figure in box 4.)



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