

## Spread Spectrum Radio (SSR)

### A. OPERATION, MAINTENANCE, INSTALLATION INSTRUCTIONS

1. The assembly consists of a DIN or AUX function module. Prime power requirement is a maximum of 8 watts. Input voltage must be within the range of 11 to 26 VDC. Ambient temperature should not exceed 120 deg.F.

2. The function module has been factory configured to meet your application; however, changes can be made in the field by first connecting a personal computer to the 9 pin connector and adding a jumper between pin 1 and 5. Use a 9 pin male to 9 pin female straight-through cable to make the connection between the SSR and your computer. You may then use a standard terminal program such as Windows HyperTerminal to make configuration changes. See section D for a list of configuration commands. When done making changes you must use the "ATWR" command to save your changes and remove the jumper between pins 1 and 5.

3. When power is applied to the assembly the "P/X" (green) indicator will be on and if using RS485 the "4" indicator will be on. If using RS232 the "2" light will be on when the SSR is correctly connected to a RS232 device. The SSR requires the RS232 device to assert the DSR line (pin 4, 9 Pin D). If the RS232 device does not provide this signal, jumper pins 2 and 5. Your SSR is ready to use when the correct indicator is on. "2" for RS232 and "4" for RS485. Other indicators will be off or flashing.

3b. If none of the indicators are on check your power connections. If the "F" indicator is on check the power input to determine if at least 11 VDC is applied. If both "2" and "4" indicators are on then you are attempting to use the RS232 connection while the SSR is configured for RS485. If using RS485 then disconnect the cable from 9 pin connector and/or remove the jumper between pins 2 and 5. If using RS232 reconfigure the UWS to the RS232 mode.

3c. When operating the "X", "R", and "RR" indicators will flash on. The "P/X" indicator will flash off. All 4 indicators flashing indicate successful communications. If only the "R" and "RR" indicators flash then the SSR is receiving but the connected device is not responding. If the "X" and "P/X" indicators are flashing then the connected device is trying to communicate but is not receiving a response from the remote site. If using more than 2 sites flashing "R" and "RR" indicators without a "X" and "P/X" flash is normal for the slave sites when the master site is communicating with another site. The master site should however have a "X" and "P/X" indicator flash followed by a "R" and "RR" flash. Check your antenna connections, antenna direction, and remote site. You may also have a configuration problem. Flashing "X" indicators without a "P/X" indicator flash indicates a configuration problem. A "RR" indicator flash without a "R" flash indicates either a RF interference or configuration problem.

4a. For other information on the Spread Spectrum Radio (SSR), consult the wiring and schematic diagram drawings (WSD drawing) furnished with the equipment.

AGM Electronics, Inc  
Product Documentation  
Operation, Maintenance, Installation Instructions

OMI ( ) 5017

4b. For service, call or write the Manufacturer at:

AGM ELECTRONICS INC., P.O. BOX 32227, TUCSON AZ 85751-2227

(520)722-1000  
Fax (520)722-1045  
E-Mail agmelect@csi.com

**B. PARTS LIST**

1. SSR Module AUX/DIN5017-( )
2. Whip antenna

**C. RECOMMENDED SPARE PARTS LIST**

1. External antenna. If required by application.
2. Reverse SMA to TNC cable. For external antenna.
3. RF Surge Suppressor. For external antenna.

**D. COMMON CONFIGURATION COMMANDS.**

1. ATBD 0 1200 baud.
2. ATBD 1 2400 baud.
3. ATBD 2 4800 baud.
4. ATBD 3 9600 baud. (Default)
5. ATBD 4 19200 baud.
6. ATCS 0 RS232 Mode.
7. ATCS 1 RS485 Mode.
8. ATEB 0 8 Bits No parity or 7 bits any parity.
9. ATEB 1 8 Bits Even parity.
10. ATEB 2 8 Bits Odd parity.
11. ATWR Saves configuration changes.