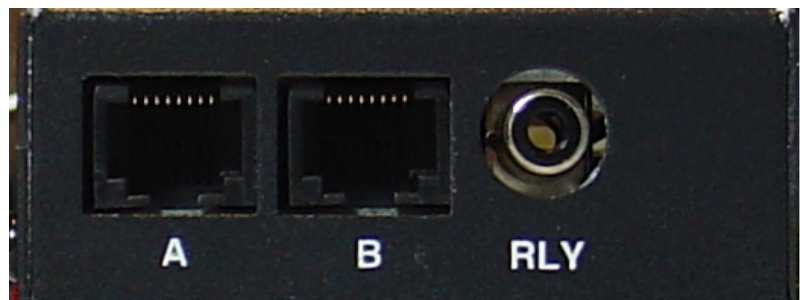


AMERITRON ALS-500RC

REMOTE CONTROL HEAD FOR THE ALS-500M/ALS-600/1300
AMPLIFIERS
INSTRUCTION MANUAL



AMERITRON

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AMERITRON ALS-500RC

The Ameritron ALS-500RC is a remote control head for Ameritron ALS-500M amplifiers with serial numbers 13049 and above, and Ameritron ALS-600 amplifiers with serial numbers 14378 and above. The ALS-500RC may be used directly with these amplifiers for manual control of the frequency range, or with the ARI-500 Automatic Band Switch for automatic frequency band selection. The ALS-500RC allows the amplifier to be located away from the operating station, but still provides access to the amplifier's power switch (ALS-500M only), OPERATE/STANDBY switch (ALS-600/1300), frequency select switch, and Fault re-set function. The ALS-500RC also provides a meter for monitoring amplifier operating current (ALS-500M only) or RF output power (ALS-600 only), and has LEDs to indicate DC PWR, TX (transmit) and O/L (fault/overload).

FUNCTIONS

POWER SWITCH: Switches power ON or OFF on the ALS-500M when the power switch of the amplifier is in the off position. Also used to reset the ALS-500 Load Fault circuitry (O/L) by switching power OFF and then ON. When used with the ALS-600/1300, the ALS-500RC POWER switch acts as a STANDBY/OPERATE switch, which also serves to reset the LOAD FAULT circuitry in the ALS-600. The ALS-500RC POWER switch does NOT turn power ON or OFF on the ALS-600.

FREQUENCY SELECT SWITCH: Selects the operating frequency range.

RELAY: Female RCA Phono jack switches the amplifier into transmit mode when the center is pulled to ground.

METER: Indicates amplifier PA current on the ALS-500m, and RF output power on the ALS-600 (RF output power = meter reading x10).

STATUS LIGHTS

PWR: Illuminates when the ALS-500RC POWER switch is in the ON position.

TX: Illuminates when the relay jack (RLY) center conductor is pulled to ground.

O/L: Overload/Fault. Illuminates when the amplifier load fault circuit is activated. This can be caused when the incorrect frequency range is selected, or the SWR is too high.

PORTS A AND B

PORT A: Amplifier interface providing ON/OFF switch, TX and O/L LEDs, and Meter functions.

PORT B: Amplifier interface for the Frequency Select Switch and the PWR LED.

CONNECTIONS

1. Place the ALS-500RC in a convenient location at your operating station. Make sure your amplifier's power switch is OFF.

2. Plug one of the supplied patch cords into port A of the ALS-500RC. Route the other end of this same cable to the amplifier or ARI-500 Automatic Band Switch and plug into the Remote A jack on the amplifier or ARI-500.
3. Connect the other supply patch cable into port B of the ALS-500RC. Route the other end to the amplifier and plug into the amplifier Remote B jack. This second cable is not used when the ALS-500RC is used with the ARI-500.
4. Set the amplifier's Frequency Select Switch to the REMOTE position.
5. The ALS-500RC's Relay Jack operates the same as the amplifier's Relay Jack. Use the ALS-500RC's relay jack (RLY) *or* the Amplifier's Relay Jack, whichever makes installation easier. When used with the ARI-500 Automatic Band Switch, amplifier keying is provided through the ARI-500. Refer to the ARI-500 and the Amplifier's Instruction Manuals for more information on amplifier keying.

OPERATION

The controls on the ALS-500RC provide the same functionality as the controls, indicators and current meter on front of the ALS-500M amplifier. The ALS-500M POWER switch must be in the OFF position, and the Frequency Select Switch must be in the REMOTE position.

When used with the ALS-600/1300, the ALS-500RC provides remote band switching, RF output power metering, and OPERATE/STANDBY functionality (using the ALS-500RC POWER switch). The ALS-600 Frequency Select switch must be in the REMOTE position.

Note: When used with the ALS-600, the ALS-500RC power meter loads the ALS-600 metering circuit. This results in an ALS-600 meter reading of approximately half power. As the ALS-500RC is normally used with a remote-mounted amplifier, this inaccurate amplifier meter reading is acceptable.

Set the ALS-500RC's Frequency switch to the same frequency range as the transceiver. If used, the ARI-500 provides the frequency information to the amplifier.

When the ALS-500RC switch is turned on, the meter and power light will illuminate. This switch also controls power to the ALS-500M if the ALS-500M POWER switch is in the OFF position.

When the transceiver is placed into transmit, the ALS-500RC TX light will illuminate and the meter will deflect.

The O/L light will illuminate when the SWR is too high or the frequency switch is in the wrong position. Switch the ALS-500RC POWER switch OFF and then back ON to reset the O/L light and the amplifier's Fault circuitry.

Note: If used with the ARI-500, the ALS-500RC automatically disables the ARI-500 O/L auto-reset feature.

DIFFICULTIES

Nothing turns on

Check the B connection. Check the amplifier's power source. See the ALS-500M/ALS-600 manual for power connections.

Amplifier keeps going into O/L

Check the antenna system SWR. Check position of the frequency select switch. Amplifier's frequency switch must be in the REMOTE position.

O/L can not be reset on the ALS-500M

ALS-500M power switch must be in the off position.

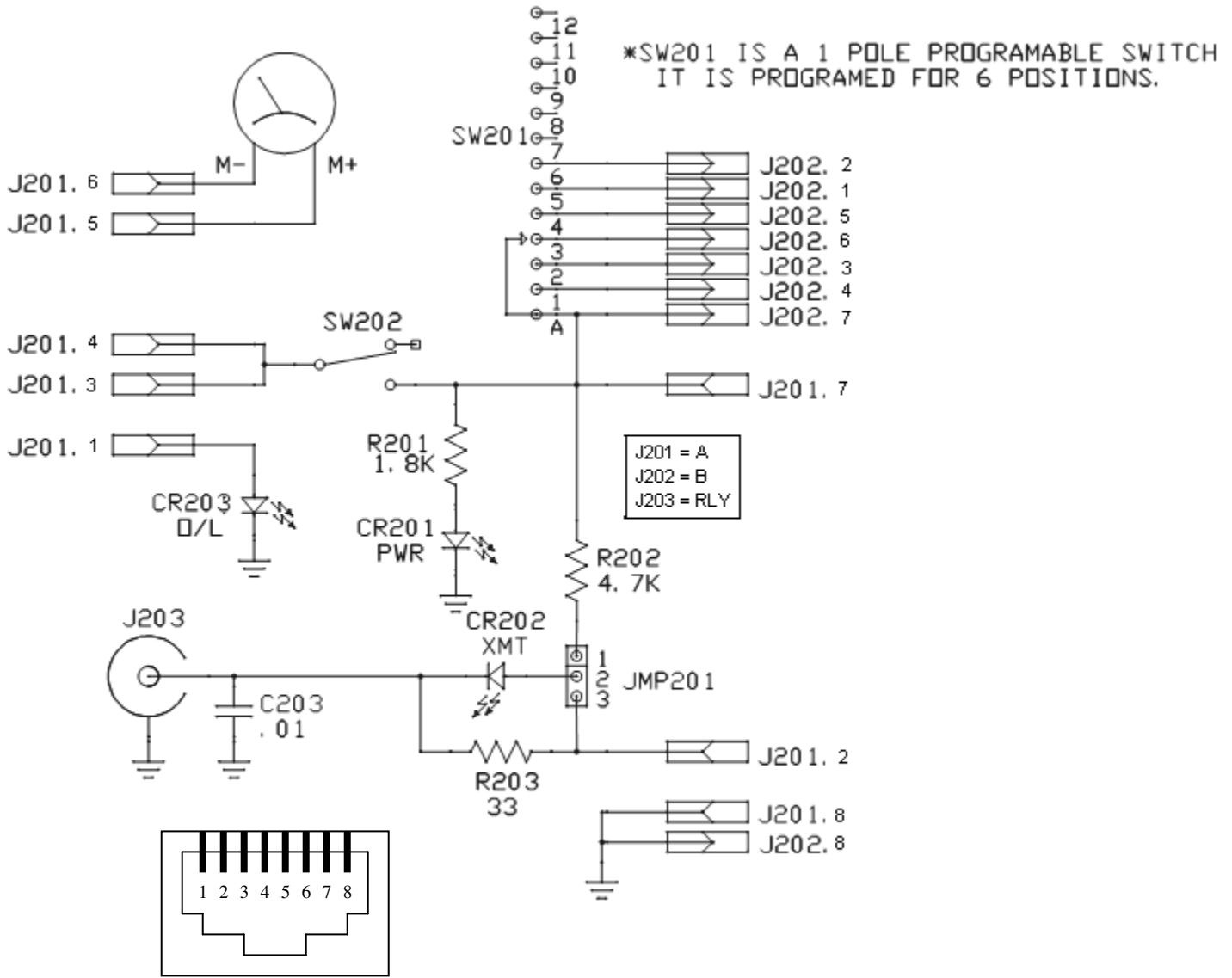
TECHNICAL ASSISTANCE

Technical assistance is available Monday through Friday by calling 662-323-8211 between the hours of 8:00 AM and 4:00 PM central time.

Before calling, please have the following information available:

- The model and serial number
- The date of purchase
- A brief description of the station equipment
- A complete description of the problem along with all meter readings.

SCHEMATIC



ALS-500RC Revision 2