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# AA30 Active Antenna

## Owner's Manual

## Description:

The AA30 Active Antenna is designed for the avid SWL who is unable to put up an outdoor antenna.

Utilizing the built in whip antenna or an external wire, the AA30's pre-amplifier circuit provides from –10 to +15 db of gain over a frequency range of 300KHz to 30MHz.

A varactor-tuned pre-selector with 6 band ranges prevents strong out-of-band signals from overloading the pre-amplifier.

## Specifications:

| | |
|---|---|
| Frequency Range | 300 KHz to 30 MHz |
| Gain | -10 to +15 db adjustable |
| Antenna | 50Ω SO-239, random wire or 20" telescoping whip |
| Power | 9VDC PP3 battery or 12VDC (2.1mm plug, center +). Rear panel switch selects between battery and AC adapter |
| Dimensions | 1.75" H x 6" W x 6" D |
| Weight | .5 Lbs |





### Limited Warranty

Palstar Inc. warrants products manufactured by it to be free from defects in material and workmanship under normal use and service **for a period of one (1) year from the date of delivery to the first buyer** (the "Warranty Period"). Palstar Inc's obligation under this warranty is limited to repair or replacement of the product; at its option at the Palstar factory in Piqua, OH.

Effective only when the product is returned to the factory with all transportation charges prepaid and examination of the product discloses in Palstar's judgment, to have been defective during the Warranty Period.

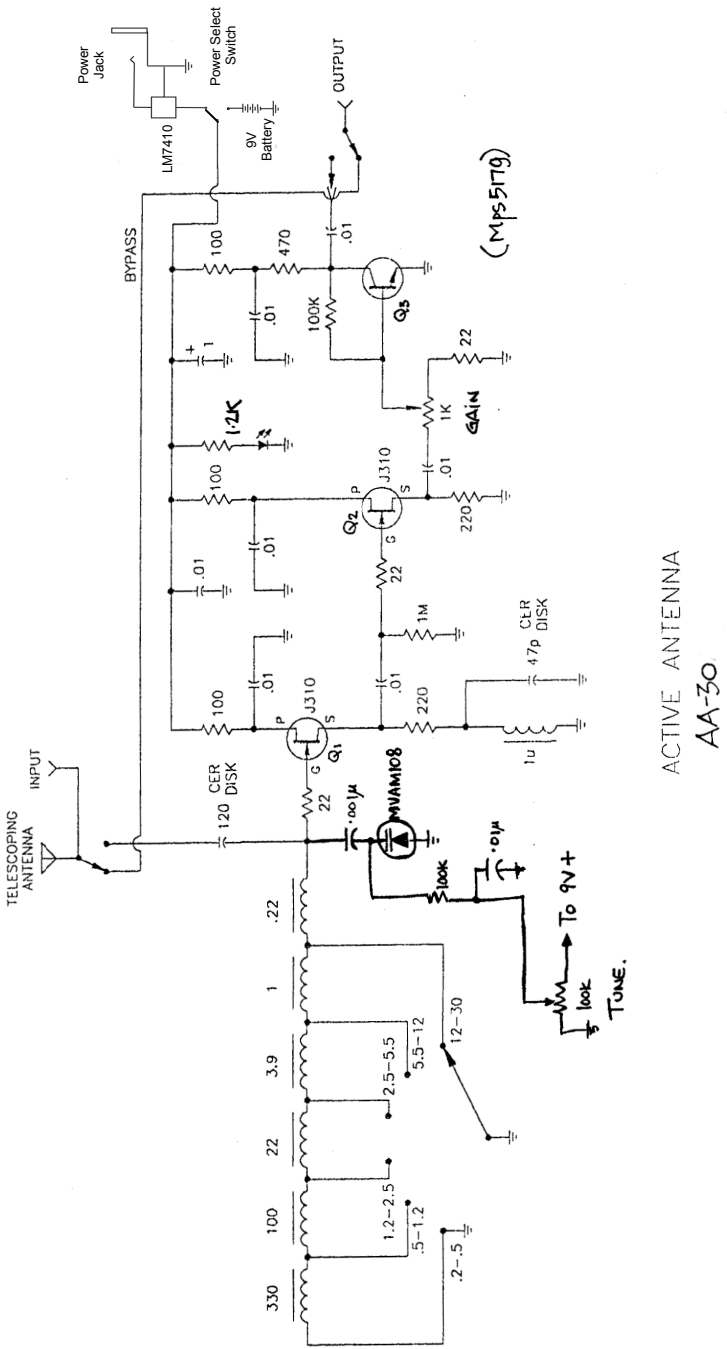
The Warranty Period shall not extend beyond its original term with respect to interim in-warranty repairs by Palstar. This Warranty Period shall not apply to any product which has been repaired or altered by anyone other than Palstar without prior written authorization. Warranty does not extend to any products which have been subject to damage from improper installation, application or maintenance in accordance with the operating specification. Palstar neither assumes nor authorizes any person to assume for it any obligation or liability other than herein stated.

### Repair Policy

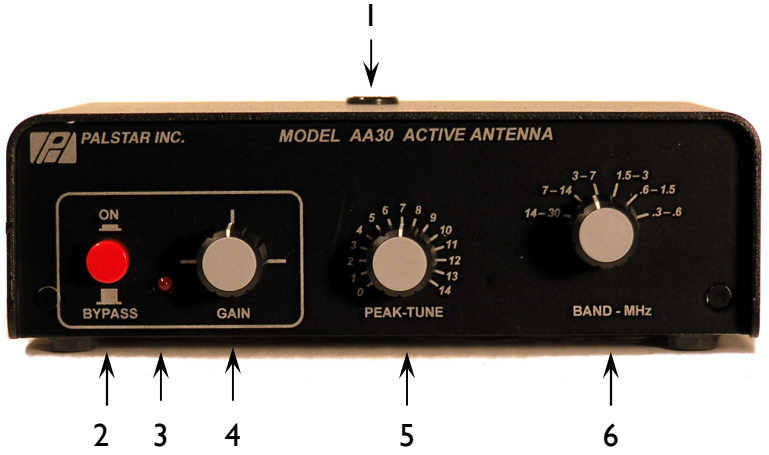
When sending in a product for service, please "double" box it carefully and ship it insured for your protection. Please include a note clearly describing the problem, how you wish the item returned and how you wish to pay for the service. Package your radio properly. Palstar, Inc. is not responsible for merchandise damaged in shipment. Our service rate is $30 per hour (1/2 hr. minimum).

### Return Policy

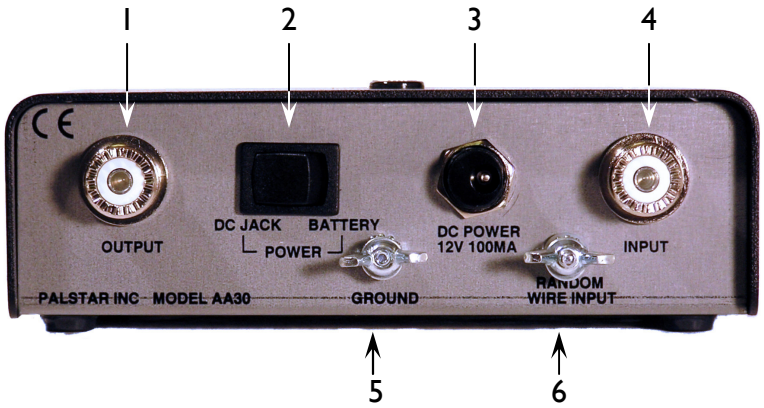
All returns must receive prior authorization from Palstar. Returned items must be received in original—AS SHIPPED– condition including the original box, manuals, accessories, and copy of sales receipt. Returns must be within 14 days of purchase. Returned items are subject to a 25% restocking fee. Shipping is not refundable.






1. **Telescoping Whip Socket.** Insert Telescoping Whip into this hole and screw it down until it is snug. Be careful when starting so not as to cross-thread the fittings. (Do not mount telescoping whip if you are using an external wire antenna.
2. **On/Bypass Switch.** Pressing the latching button to the IN position turns on the pre-amplifier and varactor tuned pre-selector. When the button is in the OUT position, active circuits are turned off and antenna (wire or telescoping) is bypassed directly to the output jack.
3. **Indicator LED.** Lights when On/Bypass Switch is ON.
4. **Gain Control.** Adjusts gain of pre-amplifier.
5. **Peak Tune.** Tunes the varactor controlled pre-selector.
6. **Band Switch.** Selects the frequency tuning range of the pre-selector.




1. **Output SO-239 Jack.** Connect to the Antenna Jack of your receiver.
2. **Power Select Switch.** Select between external power jack and internal 9v Battery (PP3).
3. **DC Power Jack.** 12VDC input for external power. (12VDC @ 100ma wall adapter supplied, U.S. only)
4. **Input SO-239 Jack.** For connecting a low impedance, coax-fed antenna. Disconnect all antennas during lightning storms.
5. **Ground Post.** Connect a ground or counterpoise wire to this post when using a single ended (non-dipole) antenna. Disconnect during lightning storms.
6. **Random Wire Antenna Post.** For connecting a random length wire antenna. Disconnect all antennas during lightning storms.





## Operation:

1. If operating from battery, remove the cover and install a 9V battery (PP3), securing it in the battery clip on the circuit board.
2. Chose the antenna you will use. If using the telescoping whip, install as described on page 3. If using a wire antenna, connect it to the appropriate connector (number 4 or 6 on page 4). Connect a ground wire (number 5, page 4) if needed. Do not operate with both an external antenna and the telescoping whip at the same time.
3. Select the power source with the switch on the back.
4. Connect the AA30 output to the antenna jack of your receiver.
5. Select the frequency range you wish to use with the Band Switch (number 6, page 3), and set the Gain Control (number 4, page 3) to 9 o'clock. Turn on receiver and AA30. The LED on the front panel will light.
6. Adjust the Tune control until an increase in signal is heard or indicated on the receiver S-meter.
7. Most tuning will be between 5 and 14 on the Tune dial.
8. Increasing the Gain control beyond 12 o'clock is usually unnecessary, and risks overloading the receiver or the AA30. (The risk is bigger the longer your antenna is.)
9. You will notice that the tuning sharpness increases on the low bands, and will be more broad on the higher bands.
10. Looking for the peaks where the AA30 tunes depends where the Gain control is set, the conditions of the bands, and time of day or night.
11. The bands tend to overlap at the band edges. If having trouble tuning near a band edge, try switching to the next adjacent higher or lower band.
12. Best results will be obtained with long wire antennas, even if it is just wire strung around inside a room. However, good results have been had with the short telescoping whip antenna in the Medium Wave band.
13. A good ground is mandatory with long wires and generally is a good practice. Disconnect ground and all antennas during storms.