

Brand and Type: MAGNUM S9

Problem: FRONT END OVERLOAD FROM VERY STRONG 'ON FREQUENCY' SIGNALS (BLOCKING DYNAMIC RANGE)

Date: November 2006

Customers have been complaining about certain "S" series receivers not being able to withstand strong, close proximity "on frequency" signals. In some cases there is also an accompanying RF feedback during transmission.

The factory installed improper diodes in a limited number of radios. These diodes are in the AGC at D15 and D16. To identify these improper diodes the body of this part is much smaller than those of a standard 1N4148 and the band is "yellow". Magnum has been advised the Serial Numbers affected are 979 392 thru 988 080.

Please visually check the parts before removing:

D-15 and D-16 Change to 1SS53 (same polarity)

R64 and R257 remain at 2.2K or for a little added RF performance can be lowered to 1.8K and no further adjustments are required to any circuits.

There is another trick in case replacing the diodes do not solve problem 100%.

There is a wire bundle that is laid on top of the echo board. Remove both cable ties at each end of the echo board and spread the wires over the entire surface of the echo board. On some radios this high concentration of RF in the bundle creates this RFI problem. Moving the wires and keeping them separated will eliminate the RFI.