

SR-160 TO SR-500 MODIFICATION

The SR-160 is the predecessor of the SR-500. They took the SR160 made a few ckt changes to improve the overall performance and used different final tubes. They then replaced the PS-150 with the PS-500 family of power supplies.

The factory change uses the 8236 carbon block plate tube. However the 6DQ5 is a direct replacement for the rare and expensive 8236. The 8236 is preferable. If you use the 6DQ5 then a cooling fan should be added. Tubes need to be matched. The mod will require rewiring of the PA tube sockets.

You will need both the 160 and the 500 schematics.

PARTS CHANGES REQUIRED FOR 160 TO 500 MODIFICATION		
REF DESIGNATOR	ORIGINAL PART	MODIFICATION PART
C11*	47uuf	22uuf
C12*	8.2uuf	6.8uuf
R53	47K	6.8K
C65	47uuf	150uuf
R92	180K	220K
C100	1000uuf	750uuf
C104	470uuf	220uuf
C107	1000uuf	750uuf
R96**	56K	Delete
C119	680uuf	620uuf
C120	430uuf	250uuf
C121	510uuf	300uuf

*These changes did not have anything to do with the PA mod. They were Factory directed changes to improve the receiver operation.

**Resistor R96 was removed for proper bias of the new PA tubes.

PA SOCKET REWIRE

The PA rewire looks to be a simple process. However, the 12DQ6B has unused pins and the 8236 does not. The unused pins in the SR-160 were used as component mounting points. Next the filaments are 12.6v for the 12DQ6B and 6.3v for the 8236

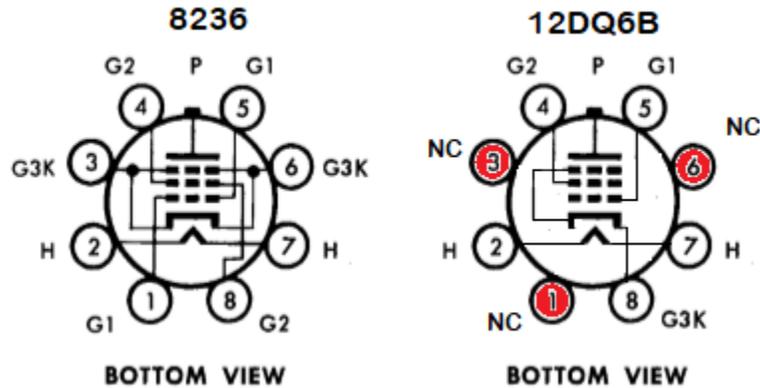
SCREEN REWIRE

The resistors R103 and R102 and capacitors C113 and C115 are good where they are. The grounds on pin 8 of both tubes must be removed. Pin 8 will remain open, no connection.

SR-160 TO SR-500 MODIFICATION continued

FILAMENT REWIRE

The most common filament wiring sees a brown wire coming into the pa cavity and connecting to pin 7 of V16. Another brown wire goes from pin 7 of V16 to pin 2 of V15. Pin 2 of V16 and PIN 7 OF V15 connect to ground.



Remove the ground from pin 2 of V16. Disconnect the wire going from V16 pin 7 to V15 pin 2 from V16 pin 7 and connect it to V16 pin 2.

GRID REWIRE

In the SR-160 the No Connection socket pins 3 and 6 of V16 were used to mount and connect C111, C112 and L11. A bit of mechanical reengineering will be required to install a terminal strip or a couple standoff insulators to mount these components. These parts could be located outside the transmitter cavity, BUT if they are, C111 should be mounted inside the cavity from the bottom end of R94 and one of the gnd lugs on the socket of V15.

This completes the upgrade go back and double check the wiring against the SR-500 schematic.