

replacements for this capacitor. Should it need to be replaced individual capacitors will need to be installed. We have a very nice separate kit available for this.

If any large filter capacitor quickly gets HOT **by itself** (i.e., not conducting heat from the chassis) the amplifier should be immediately shut down and the capacitor replaced as this heat is being caused by an internal short. This is a bit tough to notice on the cardboard covered capacitors unless they are getting very hot. A severely shorted filter capacitor may blow the fuse due to excessive current draw.

If allowed to overheat, a filter capacitor may vent out the bottom creating quite a mess. The electrolyte that blows out the bottom vent is (thankfully) water soluble and can be cleaned up with a damp rag.

**NEVER** remove a failing filter cap and leave a gaping hole in the chassis! If a suitable replacement cannot be found, neat under chassis capacitor wiring (with the original disconnected, but in place) maintains the cosmetic integrity of the set, and provides for easy future replacement should it become necessary.

Replacement filter capacitors can usually be as much as 200% more or 50% less than the original value of a filter electrolytic without incurring any problems. Of course, voltage ratings **must** *equal or exceed* the original value. New standard can negative "FP Twist Lock" type capacitors are available for many applications, and these are an excellent option.

In cases where direct replacements are not available, individual capacitors can be easily and neatly wired in under the chassis. We can help with this if the need arises.

## Phase Inverter Controls

Phase inverter controls are located under the chassis. Bottom cover removal is required for access. Phase Inverter (AC Balance) adjustments can be made by either of two ways. In each case, the receiver must be connected to two 8 ohm load resistors (minimum 50 watt rating) using the "8" and "COM" terminals.

To make the adjustment using a distortion analyzer, inject a 1 khz sine wave from an audio generator. While monitoring the output on an oscilloscope, adjust the amplifier until it is just below (approx. 10% below) the clipping point. Adjust the respective Phase Inverter control for minimum distortion. Repeat for other channel.

When a distortion analyzer is not available, set up amp as outlined above. Adjust so output is just at clipping point. Adjust the respective Phase Inverter control for maximum output with balanced clip as viewed on an oscilloscope. Repeat for other channel.