

## Radio, Phonograph and Tape Service Tips

Volume XXII Issue 1 January 29, 1971

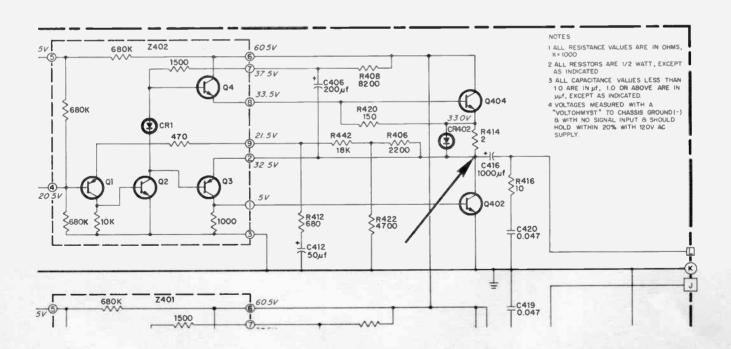
### Important Information for your Service Department

Prepared and Distributed by RCA Sales Corporation, Product Performance 600 N. Sherman Drive, Indianapolis, Indiana 46201

Coupling Capacitor, Quasi-Complementary Symmetry Output—Amplifiers RS 252, 253, 266, etc.

Normal DC reading at the output coupling capacitor (C416 or C417 in illustration) in this type amplifier is approximately one-half of full B+. Certain component failures can result in near full B+ at this point. This in turn can damage the coupling capacitor.

Before replacing a defective coupling capacitor be sure the voltage at this point is correct. Possible causes of increased voltage include: Shorted C411 or C412 (in illustration); Open printed circuit; Defective Z401 or Z402.



Output stage-RS 253



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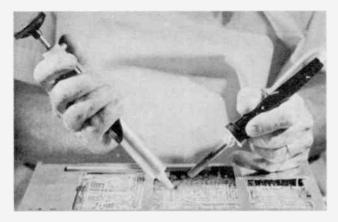
# Troubleshooting C/COS Tuner/Amplifiers

The following simple noise isolation procedure can save valuable service time when troubleshooting the C/COS Tuner/Amplifier audio circuits.

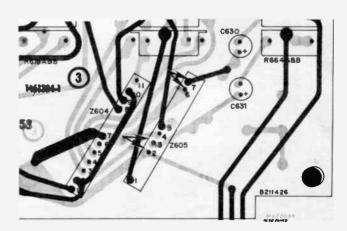
- 1. Turn the loudness control to minimum.
  - a. If noise is not present, trouble is probably before Z605 substrate (towards tuner).
  - b. If noise is still present:
- 2. Disconnect the preamp-to-amplifier audio cable.
  - a. If noise is still present, trouble is probably in the power amplifier chassis.
  - b. If noise is not present, trouble is probably Z605.

Substrates can be damaged during normal troubleshooting if the technician is not careful. As an example, the terminal guide shown is of Z605 (Stock No. 130334, Drawing No. 1410503-1) as used in preamp chassis RS 247 and tuner chassis RC 1238. Note the proximity of pins 2 (ground) and 3, and pins 6 (ground) and 7. If either pin 3 or 7 is momentarily grounded (very possible with a test probe) Z605 circuitry can be damaged, resulting in a dead channel.

When replacement is necessary, damage to the substrate and/or the printed circuit can be minimized by using a good desoldering tool (a type having high plunger pressure is required). Solder can be removed from each connection with the desoldering tool (as depicted in the photograph) then the component lifted out intact.



Use of a desoldering tool



Substrate terminal guide

#### **Substrate Interchangeability Guide**

The following interchangeability information may be helpful in order to fully utilize present substrate stock. Substrates not listed have no recommended replacement.

STOCK NO.	DRAWING NO.	NOTES
130366 131628	1410508-1 1410508-3	These parts are directly interchangeable—131628 is preferred.
130310 131358	1410508-2 1410508-4	These parts are directly interchangeable—131358 is preferred.
130314 131359	1410513-1 1410513-2	These parts are directly interchangeable.
130315 131354	1410514-1 1410514-2	These parts are directly interchangeable.
130316 131360	1410517-1 1410517-2	These parts are directly interchangeable.
130365 131353	1410506-1 1410506-2	The 131353 part can be used to replace the 130365 if a 12K, 5% resistor is added between pins 7 & 10 of the substrate. Do not use the 130365 part to replace the 131353 part.