

# Instructions

## RCA Color Test Jig

### Stock No. 10J105

The RCA Stock No. 10J105 Color Test Jig is supplied with a complete set of deflection components including the deflection yoke assembly, convergence assembly, purity and blue lateral magnet assembly, and all necessary hardware. The contents of this kit are listed on page 2.

#### ASSEMBLY INSTRUCTIONS

To provide a ground connection to the outer coating of the picture tube, fasten the grounding spring included in the components kit from the screw of the right hand leg to the ground screw located directly above, in the cabinet shell. Make sure that these connections are tight.

Installation of the picture tube may be quickly made by following the step by step instructions outlined below:

Either of the following 19" (18"V) color picture tubes will fit in the Mark III test jig:

RCA Type 19EYP22 with integral protective window

RCA Type 19GWP22 with integral protective window

RCA Type 1830P22 test tube with integral protective window

**CAUTION:** Do not use picture tube with unlaminated face plate, in this test jig. Do not install or handle the picture tube in any manner unless shatter-proof goggles are worn. People not so equipped should be kept away while handling the picture tube.

1. Remove the picture tube from its carton and place it face down on a foam rubber mat or other well cushioned surface to protect its face.

2. Connect the high voltage anode cable, inserting the insulated spring connector in the ultor anode button of the tube.

3. With the front mask and back cover removed from the cabinet shell, feed the high voltage anode cable through the hole located at the bottom of the shell.

4. Lay the shell over the picture tube making certain that the ultor anode button is toward the top of the cabinet. The shell makes a snug fit to

the picture tube and it is necessary to apply pressure equally on all sides for proper alignment. Use the palm of the hand to tap the shell down so that it makes contact with all points of the tube including the bell.

5. Install the front mask over the shell and push back as far as possible. Secure mask tabs to cabinet shell with the two self tapping screws provided.

6. Install the convergence assembly and fasten the convergence board mounting bracket with the two screws provided. Installation of this assembly may be facilitated by inserting the exciter coils and holder assembly first through the rectangular opening and then positioning the convergence board and bracket.

7. Install the deflection yoke assembly so that the cable wires emerge from the yoke case on the lower right hand side and the wide blue lateral adjustment faces toward the bottom of the cabinet.

8. Install the convergence exciter coils and holder assembly on the deflection yoke case so that the blue coil (identified by blue color leads) is on top. Fit the holder down on the yoke case so that the three locking tabs lock the convergence holder in position. Secure the assembly to the neck of the tube with the clamp and screw supplied.

9. Install the blue lateral magnet and purity ring assembly so that the blue lateral magnet holder is in a vertical position and the holder detent is engaged in one of the notches on the nylon mount. Leave about 1/4" space between the front of the assembly and the convergence holder clamp installed in step 8. Fasten the assembly with the second clamp and screw supplied.

10. Feed the deflection yoke and convergence cable connectors through the designated holes in the back cover.

11. Solder the ferrule type connector to the end of the high voltage anode cable.

12. Connect one end of the 36" ground wire to the grounding terminal on the cabinet and fasten the ground clip to the other end.

13. At this point, assembly of the test jig is complete to the extent that adjustments for purity

and overall convergence can be made with the test jig connected to a working model of an RCA CTC40 chassis, following the procedure outlined in the service data for this chassis. After completion of these adjustments, place the back cover in the cabinet shell and secure it in position with the screws provided.

**HIGH VOLTAGE CAUTION**—Before applying power to the chassis under test, make sure all extension cables are connected securely, particularly the high voltage cable, to avoid shock hazards. Also, using the ground lead and clip supplied, make sure the chassis being tested is properly grounded to the test jig cabinet. After servicing of the chassis is completed make sure power is turned off before disconnecting the extension cables.

14. Extension cables available for servicing the various RCA chassis are described and identified by stock number in the tabulations shown under the heading "EXTENSION CABLES".

### SUSPENDED MOUNTING

If it is desired to suspend the test jig above the service bench, this may be accomplished by the use of three eye bolts described in Fig. 1 which shows the drilling locations. These bolts are not supplied with the test jig, but are standard hardware items. One of these eyebolts replaces the ground screw and must be connected to the ground wire and spring.

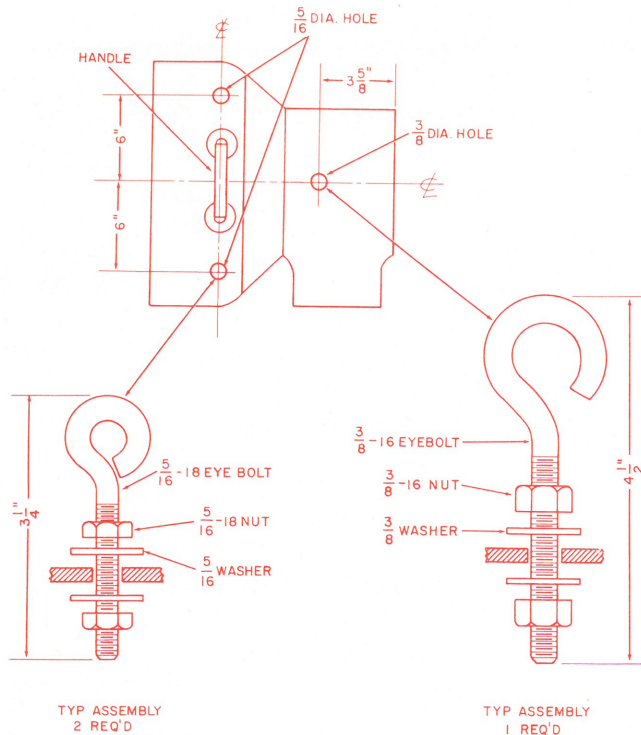


Figure 1

### OPERATION

Using the available extension cables and adapters described in the following tabulations, the Color Test Jig provides an excellent monitor for troubleshooting and servicing current model RCA receivers using the CTC40 chassis.

Reference should be made to the published service data for the particular RCA color TV chassis being serviced. These publications may be obtained from your RCA Distributor.

### EXTENSION CABLES

For servicing RCA CTC40 color TV chassis

Stock No.	Description
10J120	Convergence extension cable
10J122	Deflection yoke extension cable
13A100	High voltage anode extension cable
13B113	Picture tube extension cable

**Note #1:** Do not defeat degaussing coil circuit of chassis under test.

**Note #2:** To avoid shock hazards and damage to chassis components, make sure power is turned off before connecting or disconnecting the extension cables.

### CONTENTS OF PARTS KIT

Description	Qty.	Stock No.
Blue lateral assembly	1	see pts. list
Cable, high voltage anode	1	109827
Clamp, for blue lateral and convergence assemblies	2	114643
Clip, connector for high voltage cable	1	115551
Clip, ground (battery type)	1	—
Convergence assembly	1	see pts. list
Screw—#8 x 5/8" lg for clamps	2	—
Spring, grounding	1	106469
Wire, ground 36" long	1	—
Yoke, deflection yoke assembly	1	see pts. list

### PARTS LIST FOR BLUE LATERAL, CONVERGENCE AND DEFLECTION YOKE ASSEMBLIES

#### Blue Lateral Assembly

Stock No.	Description
114641	Cam, adjusting, for blue lateral magnets
114640	Guide, blue lateral magnets
114639	Holder, center mounting piece
114648	Magnet, purity ring (2 required)
114650	Magnet, blue lateral (includes top and bottom)
114637	Spacer, purity magnet

**Convergence Assembly**

Symbol No.	Stock No.	Description
C-801	120264	Capacitor—500 pf, 15 V., electrolytic
C-802	126811	Capacitor—65 uf, 15 V., electrolytic
C-803	127030	Capacitor—0.082 uf, $\pm 10\%$ , 400 V., paper
C-804	120057	Capacitor—0.27 uf, $\pm 10\%$ , 75 V., mylar
C-805	230449	Capacitor—0.1 uf, $\pm 20\%$ , 200 V., paper
C-806	127030	Capacitor—0.082 uf, $\pm 10\%$ , 400 V., paper
C-807	120056	Capacitor—0.15 uf, $\pm 10\%$ , 75 V., mylar
C-808	119383	Capacitor—0.1 uf, $\pm 10\%$ , 100 V., mylar
C-809	77624	Capacitor—680 pf, 500 V., GMV, ceramic
C-810	77624	Capacitor—680 pf, 500 V., GMV, ceramic
C-811	77624	Capacitor—680 pf, 500 V., GMV, ceramic
C-812	77624	Capacitor—680 pf, 500 V., GMV, ceramic
C-813	77624	Capacitor—680 pf, 500 V., GMV, ceramic
CR-801	125528	Diode—50 P.I.V., 600 MA
CR-802	125528	Diode—50 P.I.V., 600 MA
CR-803	125528	Diode—50 P.I.V., 600 MA
CR-804	125528	Diode—50 P.I.V., 600 MA
CR-805	125528	Diode—50 P.I.V., 600 MA
CR-806	125528	Diode—50 P.I.V., 600 MA
L-801	126843	Coil—right blue horizontal lines
L-802	118245	Coil—120 uh
L-803	126843	Coil—right red/green vertical lines
L-804	126842	Coil—right red/green horizontal lines
P-102	123896	Connector—4 contact, housing only
	123895	Terminal—female (3 required), for P-102
	118414	Terminal—male (1 required), for P-102
PW-800	126885	Circuit—printed, complete with components
R-801	502068	Resistor—68 ohms, $\pm 10\%$ , $\frac{1}{2}$ W.
R-802	502033	Resistor—33 ohms, $\pm 10\%$ , $\frac{1}{2}$ W.
R-803	126777	Control—top red/green vertical
R-804	126776	Control—bottom red/green horizontal
R-805	127029	Control—top red/green horizontal
R-806	502056	Resistor—56 ohms, $\pm 10\%$ , $\frac{1}{2}$ W.
R-807	502056	Resistor—56 ohms, $\pm 10\%$ , $\frac{1}{2}$ W.
R-808	127029	Control—bottom red/green vertical
R-809	502110	Resistor—100 ohms, $\pm 10\%$ , $\frac{1}{2}$ W.
R-810	502110	Resistor—100 ohms, $\pm 10\%$ , $\frac{1}{2}$ W.
R-811	126775	Control—top blue horizontal
R-812	126775	Control—bottom blue horizontal
R-813	502118	Resistor—180 ohms, $\pm 10\%$ , $\frac{1}{2}$ W.
R-814	116555	Control—left blue horizontal
R-815	512047	Resistor—47 ohms, $\pm 10\%$ , 1 W.
R-816	116555	Control—left red/green horizontal
R-817	114627	Control—left red/green vertical
R-818	512110	Resistor—100 ohms, $\pm 20\%$ , 1 W.
R-819	512110	Resistor—100 ohms, $\pm 20\%$ , 1 W.
R-820	512127	Resistor—270 ohms, $\pm 10\%$ , 1 W.

**Note:** For schematic of convergence assembly, see RCA color television service data 1968 No. T20 available from your RCA distributor.

**CONVERGENCE EXCITER ASSEMBLY**

Stock No.	Description
126954	Coil—pole piece exciter coil and core assembly complete with magnet and retainer spring (3 required)
122413	Core—pole piece coil (2 required per coil)
121465	Holder—plastic, for exciter assemblies
114698	Magnet—pole piece coil (3 required)
114701	Spring—retainer, for pole piece coil (3 required)

**DEFLECTION YOKE ASSEMBLY**

Stock No.	Description
115440	Arm—wide blue field correction
114746	Bracket—mounting, includes wing screw (3 required)
126678	Connector—12 contact, complete with terminals and leads
115442	Cushion—rubber (4 required)
121466	Housing—outer case for yoke
126681	Yoke—deflection

**ADDITIONAL AVAILABLE ACCESSORIES**

Stock No.	Description
205W1	Degaussing Coil
205W2	Degaussing Coil with switch