

ASSEMBLY INSTRUCTIONS FOR RCA WO-33A(K)  
SHEET #5

SECTION G, FRONT PANEL ASSEMBLY

Front Panel Assembly

PARTS LIST

Symbol	Description	Qty.
	Markings Indicated by Quotation Marks (" ")	
C-1	Capacitor, 4-to-40 mf, ceramic trimmer	1
R-35	Potentiometer, 1 megohm, "1 MEG"	1
R-36	Resistor, 1.2 megohms, 10%, 1/2-watt, "brn, red, grn, silv"	1
R-60	Potentiometer, 2 megohms, "2 MEG"	1
R-61	Resistor, 470K ohms, 10%, 1/2-watt, "ylw, viol, ylw, silv"	1
R-70	Resistor, 470K ohms, 10%, 1/2-watt, "ylw, viol, ylw, silv"	1
R-71	Potentiometer, 500K ohms, "500K"	1
R-73	Potentiometer, 75K ohms, with switch	1
MISCELLANEOUS		
S-3	Slide-switch, DPDT, has 6 lugs	1
	Bezel, rubber, for CRT	1
	Binding post for GND, 3-way blue-post	1
	Binding post for EXT SYNC/H, 3-way blue post	1
	Flat washer, 3/8"—inside diameter	6
	Ground lug, #8 (washer with lug attached)	2
	Ground lug, 3/8" (washer, with lug attached)	2
	Hex nut, #8-32	2
	Hex nut, 3/8" inside diameter	6
	V INPUT jack assembly, consisting of threaded bushing, ground lug, lockwasher and hex nut	1
	Knobs, blue plastic with flattened sides	2
	Knobs, small black rubber	4
	Lockwasher, internal tooth, 3/8" inside diameter	6
	Machine screws, #6-32 x 1/4 inch-long	2
	Panel, front panel for WO-33A	1
	Panel-to-case bracket, "L"-shaped bracket	1
	Pilot light assembly consisting of jewel-and-bushing, hex nut, lamp-holder bracket	1
	Shield for V RANGE switch	1
	Shoulder-washer, fibre, #8	1

Illustrations: Figure 7; Figure 7, Detail A.

Steps 1 through 31. Check (✓) each step as it is completed.

CAUTION: Use care to avoid scratching the front panel.

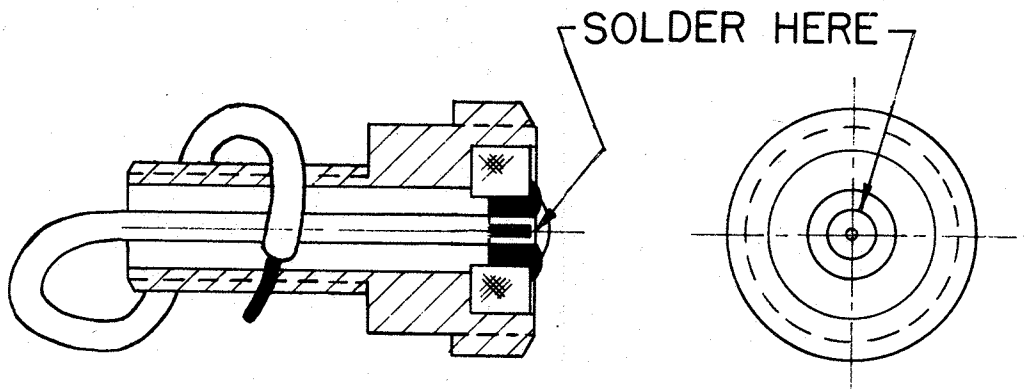
- ( ) Cut the following lengths of insulated hookup wire:  
Orange: 1 1/2" ( )  
Yellow: 2 1/2" ( )
- ( ) Strip and tin the above cut wires.
- ( ) Place front panel into position as shown in Figure 7, with the front of the panel down. The rear of the panel is now facing you. Insert the CRT rubber bezel into the hole provided, with the beveled edge facing you.
- ( ) Place a 3/8-inch internal tooth lockwasher onto the bushing of R-71, and insert the bushing from the facing side of the panel into place as shown for R-71 in Figure 5. Secure to panel with a 3/8-inch flat washer and a 3/8-inch hex nut. Be careful not to scratch panel when tightening nut.

NOTE: Follow Figure 7 carefully in the following steps, to insure proper location and exact position of parts.

- ( ) Install R-73 in the same manner as R-71 above. (R-73 has a switch mounted on its rear cover.)
- ( ) Place a 3/8-inch internal tooth lockwasher, then a 3/8-inch washer-and-ground-lug onto bushing of R-35, and install into position with ground lug between R-35 lugs #2 and #3. Fasten securely with a flat washer and hex nut on front side of panel.
- ( ) Install R-60 with ground lug, in same manner as R-35 above.
- ( ) Install SYNC slide-switch (S-3) into position marked "1-2-3-4-5-6" in Figure #7. The button will protrude through to the front side of panel. Fasten securely to panel with two #6-32 x 1/4 inch-long machine screws.

NOTE: The panel-to-case bracket is held in place by functional components at the bottom facing-end of the panel, as described in the next four steps.

- ( ) Insert one of the 3-way blue binding posts from the front of the panel into the hole marked "GND". Make sure that the raised shoulder on the post fits into the hole, so that the body of the post rests flush on the panel. Slip hardware onto the screw in the following sequence: panel-to-case bracket, #8 ground lug, #8 internal tooth lockwasher, and #8-32 hex nut. Tighten "finger-tight".
- ( ) Insert the remaining blue binding post into the hole marked "EXT SYNC/H INPUT". Again make sure that the raised shoulder on the post fits into the hole. Slip hardware onto the screw in sequence: #8 fibre shoulder-washer (with raised shoulder fitting into hole in panel-to-case bracket); #8 flat washer; #8 ground lug; and #8-32 hex nut. Tighten finger-tight.
- ( ) Insert pilot-light jewel-and-bushing into hole marked "PILOT". Mount lamp-holder bracket and hex-nut as shown. Tighten finger-tight.
- ( ) Re-tin one end of the 1 1/2-inch cut-length of orange wire—melting solder into the strands all the way up to the yellow plastic insulation, being careful not to burn the insulation. Allow a minute to cool. Clip the exposed tinned wire down to a length of 1/16-inch.



V INPUT JACK  
DETAIL "A"

NOTE  
SMALL WAFERS ON SWITCHES ARE CLOSEST TO VIEWER, LARGE WAFERS ARE FURTHER AWAY FROM VIEWER

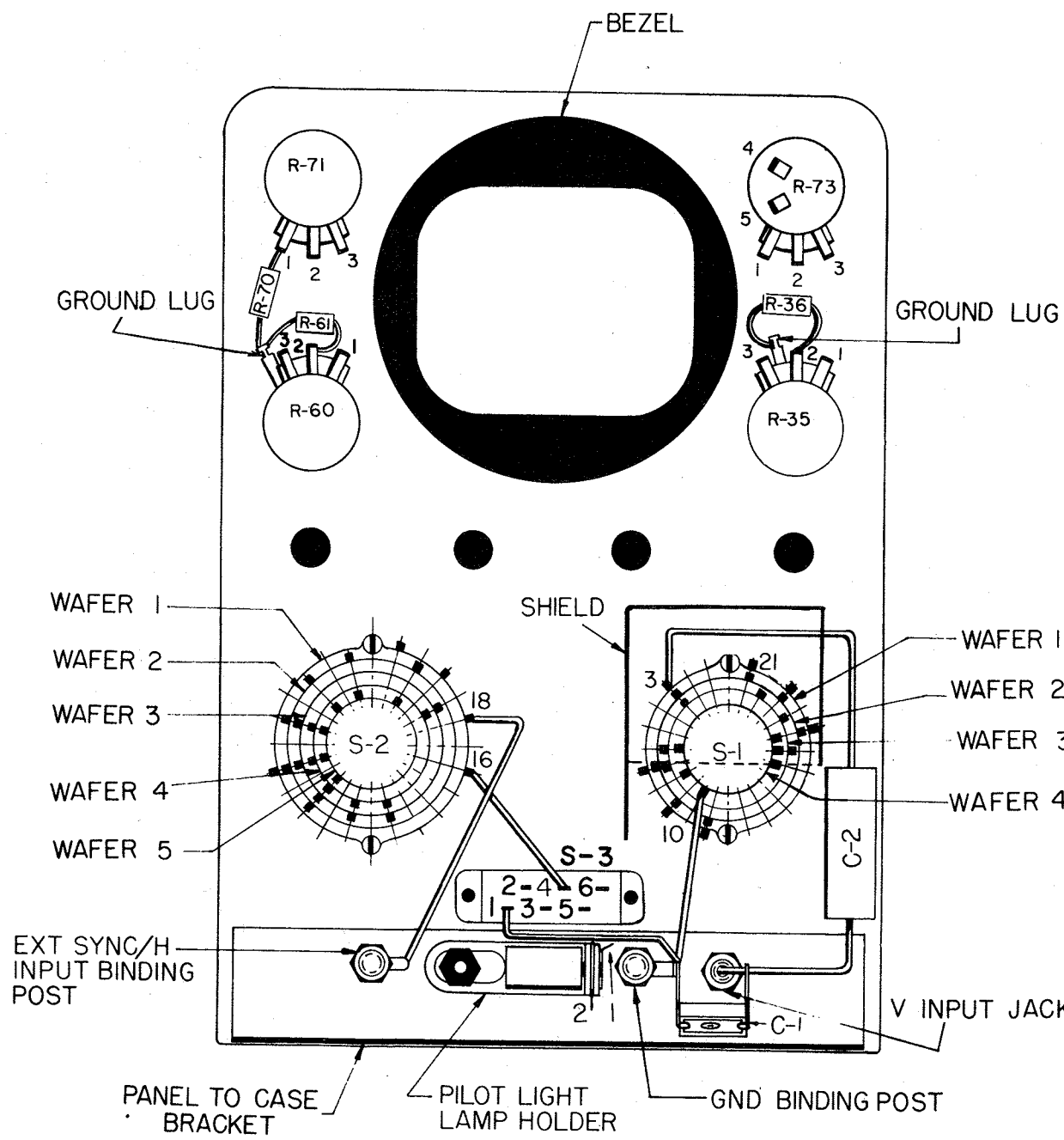
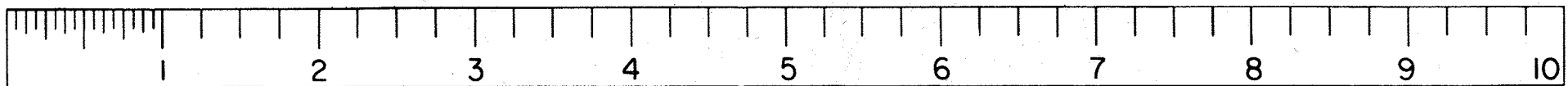


FIGURE 7

- ( ) Remove the nut, washer, and soldering lug from the "V INPUT" jack—discard the soldering lug. Insert the 1/16-inch end of the above-reprocessed 1 1/2-inch orange wire into the bushing end of the jack as shown in Detail A, pushing the tinned end through the center-contact eyelet. Wrap the insulated wire around the threaded bushing to hold it in place, so that the 1/16-inch tinned end is held inside the center-contact eyelet on the jack. Now apply a small amount of solder to "tin" the eyelet. Allow a couple of minutes to cool. The 1/16-inch tip will now be soldered to the eyelet.
- ( ) Insert the above-prepared jack into the hole marked "V INPUT", and slip hardware onto the bushing in sequence as follows:  
3/16-inch internal tooth lockwasher, and a #10 hex nut.
- ( ) Rotate the two ground lugs into position as shown. Tighten all four nuts. Bend the two ground lugs at right angles to the panel.
- ( ) Identify the shield for the "V RANGE" switch, S-1, ("L"-shaped metal bracket), and note its position in Figure 7.
- ( ) On the bushing of the assembled "V RANGE" switch, S-1, place first a 3/8-inch internal tooth lockwasher, and then the shield. Insert the bushing from the facing side of the panel into the hole marked "S-1". Place a 3/8-inch flat washer over the bushing, and then a 3/8-inch hex nut. Position the switch and shield properly and tighten the nut securely. Place one of the blue plastic knobs on the shaft, and realign the switch if necessary to make the white line on the knob index with all of the dotted positions on the panel. Leave knob in place.
- ( ) Place a 3/8-inch internal tooth lockwasher over the bushing of the Horizontal Sweep Selector Switch, S-2, and insert the bushing into the panel in hole marked "S-2". Place a 3/8-inch flat washer over the bushing, and then a 3/8-inch hex nut. Tighten. Place a blue plastic knob on the shaft, and realign the switch if necessary to make the white line index with all of the dots. Leave knob in place.
- ( ) Clip each lead of R-70 to a length of 1/2-inch, and connect between R-71, lug #1 and the ground lug from under R-60. Solder R-71, lug #1 only.
- ( ) Clip each lead of R-61 to a length of 1/2-inch, and connect between R-60, lug #2 and the ground lug from under R-60. Solder both ends.
- ( ) Clip each lead of R-36 to a length of 1/2-inch, and connect between R-35, lug #2 and the ground lug from under R-35. Solder both ends.
- ( ) Connect the 2 1/2-inch cut-length of yellow wire between the GND binding post lug and switch S-3, lug #1. (NS)
- ( ) Connect the white wire coming from S-1, wafer #4, lug #10 to ground lug of GND binding post. (S)
- ( ) Select C-1, and tin the lug on the end with the "U"-shaped cutout. Place the tinned lug against the ground lug of GND in position as shown, and solder the two lugs together, making sure that the adjustment-screw can be reached with a screwdriver.
- ( ) Connect the orange wire from the V INPUT jack to the other lug on C-1. (NS)
- ( ) Identify C-2, which is connected to S-1, wafer #1, lug #3. Clip the free-end lead of C-2 to a length of 1-inch, and connect to the junction of C-1 and the orange wire above. (S)
- ( ) Connect the orange wire from S-2, wafer #1, lug #16 to S-3, lug #4. (S)
- ( ) Connect the yellow wire from S-2, wafer #1, lug #18 to EXT SYNC/H INPUT binding post lug. (S)
- ( ) Place black rubber knobs on the shafts of the front panel controls, namely: INTENSITY, FOCUS, V POS, H POS.
- ( ) Inspect work. Shake out any loose wire cuttings. Make sure that no parts on either S-1 or S-2 become shorted to other parts, nor that any S-1 parts touch the shield.
- ( ) All connections should be soldered except S-3 lug #1. The body or unshielded leads of any component must not touch the body of any other component.

WORK AREA



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