

THE EDITOR SPEAKS

Getting Along

Sooner or later, a man, if he is wise, discovers that business life is a mixture of good days and bad, victory and defeat, give and take.

He learns that it doesn't pay to be a sensitive soul - that he should let some things go over his head like water off a duck's back.

He learns that he who loses his temper usually loses.

He learns that all men have burned toast for breakfast now and then and that he shouldn't take the other fellow's grouch too seriously.

He learns that carrying a chip on his shoulder is the easiest way to get into a fight.

He learns that the quickest way to become unpopular is to carry tales and gossip about others.

He learns that it doesn't matter so much who gets the credit as long as the business shows a profit.

He comes to realize that the business could run perfectly well without him.

He learns that even the janitor is human and that it doesn't do any harm to smile and say "Good Morning" even if it is raining.

He learns that most of the other fellows are as ambitious as he is, that they have brains that are as good or better, and that hard work and not cleverness is the secret of success.

He learns to sympathize with the youngster coming into the business, because he remembers how bewildered he was when he first started out.

He learns that no man ever got to first base alone and that it is only through cooperative effort that we move on to better things.

He learns that the folks are not any harder to get along with in one place than another and that "getting along" depends about 98 per cent on his own behavior.

SOLVING TUNING PROBLEMS IN THE E04 CHASSIS

STEP 1 Substitute the switching panel. If the trouble is corrected, check transistors on the original panel. If the problem is not corrected, the trouble is in the tuner or push-button assembly. Go to Step 2.

STEP 2 Check voltages to tuner at switching panel terminals, as follows:

TM4 - B+ - +24 volts.

TM3 - VHF Switch - +24 volts.

TN3 - AGC - will vary with signal.

TM6 - Hi-Lo Band Switching, approximately -24 volts, Low-Band.

TM6 - Hi-Lo Band Switching, approximately +24 volts, High-Bands.

TL6 - Tuning voltage, approximately +.5 volts to +28 volts VHF, +1.5 volts to +28 volts UHF.

Suggestion - Using a working set, make a chart of tuning voltages for all channels received in your area, for future trouble shooting reference. If problem is intermittent, take readings when normal and with trouble, and compare. The AGC voltage will not be too helpful as a loss of signal or drift will change it. If voltages are OK and do not change, tuner is defective.

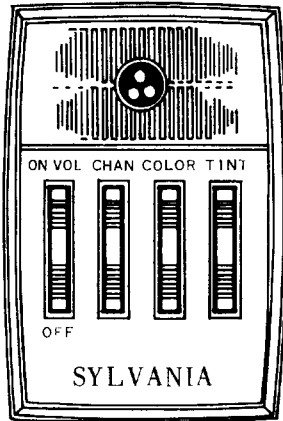
STEP 3 If tuning or switching voltages are not correct or change when the problem occurs, one or more of the push-button modules are defective. The tuning voltage should vary through the ranges listed above as a button is tuned over its entire travel.

A defective P. B. bank can often be located by opening the buss wires at the rear edge, one bank at a time. Unsolder and slip a strip of cardboard between wires and foil contacts. When a defective bank is opened, the remaining banks will tune OK.

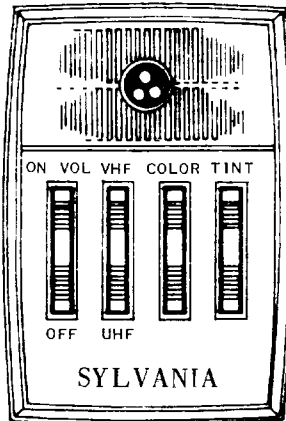
See E04 O. P. A. manual for resistance "quick check" of P. B. bank. If bank is opened, diodes and transistors should be checked. In circuit check will show up defective diodes and switch contacts.

A "sub" bank can be made up using an extra bank and a package of miniature clip leads available at parts houses. Cut the clip off one end of leads and solder leads to the foil contacts at the rear of bank. The U-V jumper wire should be cut and a short clip connection installed across, so the split U-V bank can be subbed also. To use, clip leads to the appropriate buss wires in cluster, in place of a bank that has been isolated as above, and tune channels in.

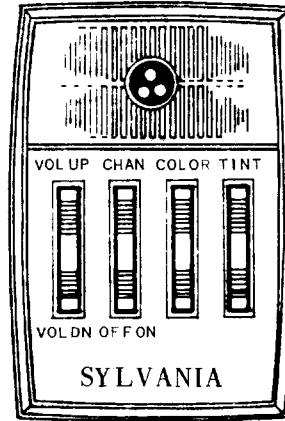
REMOTE CONTROL



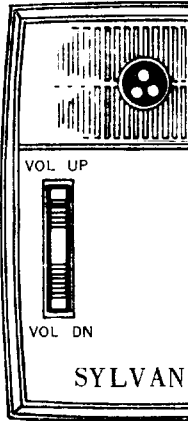
RC1
*RC3
RC4
D10-2,-4
D12-3,-5,-6,-7,-16



RC2
RC2MOD
RC5MOD
RC6
RC8
D12-11,-14,-21
D14-4,-5,-7,-11
D16-3



RC5
RC9
E01-8,-10,-14,-18,-20



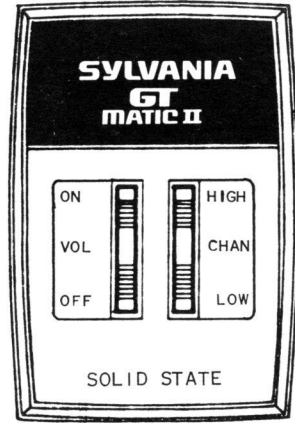
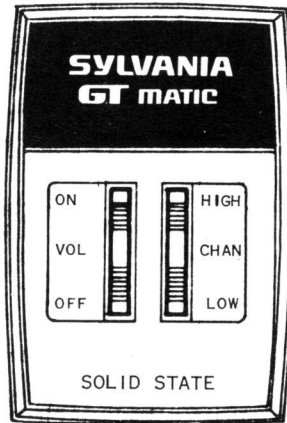
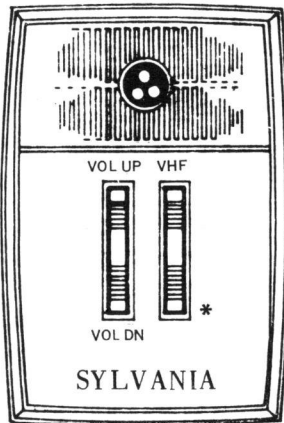
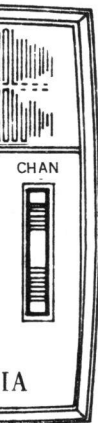
RC11
D16-6
D18-3
D19-3,-

***VOLUME DOWN
COMMAND
SIGNAL DIFFERS**

TRANSMITTER	RC1	RC2	RC6 RC2MOD	RC3	RC4	RC5	RC6 RC5MOD	RC8*
<u>TV CHASSIS</u>	D10-2-4 D12-3-5-6 D12-7 D12-16	D12-14 D12-11	D14-4-5-7 D14-11 D12-21	D12-17	D10-2-4 D12-3-5-6 D12-7 D12-16	E01-8-18 E01-14	D14-4-5-11 D12-21 D14-7	D16-3
<u>COMMAND</u>	ALL FREQUENCIES IN kHz						38.75	
ON/OFF								
VOL. UP	18.625	18.625	18.625	18.625	18.625	37.25	18.625	37.25
VOL. DN	19.375	20.875	20.875	20.875	19.375	41.75	20.875	20.875
COLOR UP	21.625	21.625	21.625	21.625	21.625	34.25	21.625	21.625
COLOR DN	20.125	19.375	19.375	19.375	20.125	43.25	19.375	19.375
CHANNEL	20.875	20.125	20.125	20.125	20.875	40.25	20.125	20.125
CHANNEL UP								
CHANNEL DN								
TINT RED	22.375	22.375	22.375	22.375	22.375	44.75	22.375	22.375
TINT GRN	17.875	17.875	17.875	17.875	17.875	35.75	17.875	17.875
UHF		17.125	17.125				17.125	17.125
BATTERY	9 VOLT	9 VOLT	9 VOLT	9 VOLT	9 VOLT	9 VOLT	9 VOLT	1.5 V
EVEREADY E126	X	X	X	X	X	X	X	
BURGESS H126	X	X	X	X	X	X	X	
RCA VS328	X	X	X	X	X	X	X	
MALLORY AA								X
TRANSISTOR	2N2614	13-23785-1	13-23785-1	2N2614	2N2614	13-23785-1	13-23785-1	13-23785-1

***RC8 SUBS THE RC6. HOWEVER THE

TRANSMITTERS



RC13
 **RC14
 D16-16
 **D16-11
 D19-6

RC15
 E04-2

RC16
 E11-4

****HAS UHF
 FUNCTION**

**	RC9	RC10	RC11	RC13	RC14	RC15	RC16
B	E01-10-20		D16-6 D19-3-4 D18-3	D16-16 D19-6	D16-11	E04-2	E11-4
5	38.75	USED AS SERVICE REPLACEMENT FOR RC1, RC4.	37.25 35.75	37.25 35.75	37.25 35.75	38.75 35.75	38.75 35.75
5	37.25						
5	41.75						
5	34.25						
5	43.25						
5	40.25		40.25	40.25	40.25	40.25 41.75	40.25 41.75
5	44.75						
5	35.75						
VOLT	1.5 VOLT		1.5 VOLT	1.5 VOLT	14.75 1.5 VOLT	1.5 VOLT	1.5 VOLT
785-1	X 13-23785-1		X 13-23785-1	X 13-35792-1	X 13-35792-1	X 13-35792-1	X 13-35792-1

BATTERY VOLTAGE DIFFERS.

E04 TUNING PROBLEMS (CONT'D)

A set of extension cables including an IF extension will allow the cluster to set on top of the set when working on it. Don't forget a pad to protect the cabinet top.

NOTES FROM THE FIELD

D170202 CHASSIS. UNSTABLE VERTICAL SYNC.

The picture breaks up and loss of partial sweep on unused channels. The problem was caused by leaky SC310 diode.

Cliff Morris, Shore Appliances, Inc., Salisbury, Maryland.

E06 CHASSIS. FLAG WAVING AND POOR SYNC.

IC202, 13-39060-1.

Stewart Appliance, Elyria, Ohio.

E0602 CHASSIS. ARCING - NO RASTER.

Focus terminal within the CRT socket was arcing to ground terminal of Arc Gap replacing CRT socket and then the H. V. Tripler - cured the problem.

Ken Hughes, Boyd Distributing Co., Inc., Denver, Colorado.

E0602 CHASSIS. SET WOULD OPERATE NORMALLY FOR ABOUT 4 - 5 MINUTES, THEN RASTER & SOUND WOULD DISAPPEAR. HORIZ. DRIVE MEASURED AT BASE OF Q400 WAS ABOUT .5VPP - HORIZ. DRIVER (Q400) AND R444 (1.3K) RUNNING TOO HOT. SPRAYING IC400 WITH COOLENT, SET WOULD COME ON FOR A SHORT WHILE, REPLACING THIS SAME IC DID NOT CURE PROBLEM. VOLTAGE AT PIN NO. 6 OF IC400 MEASURED ZERO VOLTAGE, INSTEAD OF 17 VOLT DC.

SC302 (3.6V Zener) Shorted.

Ross Teal, Meyerson Distributing Co., Council Bluffs, Iowa.

CRT3730 CHASSIS. WON'T CHANGE CHANNELS.

R003 increased value from 10 ohm to 25 ohm.

Standard TV, Buffalo, New York.

B10-14 CHASSIS. SPOT REMAINS ON CRT - AFTER THE SET IS TURNED OFF.

Defective I400, NE83 Neon Lamp.

Charlie Jackson, Jackson TV Sales & Service, Buckner, Illinois.

B1018 CHASSIS. NO VERTICAL.

C318 open.

D1615 CHASSIS. INTERMITTENT - NO PICTURE - NO SOUND.

SW500 (On/Off) intermittent between PL504 (pin 4) and PL500 (pin 4).

Harlan Lippincott, FSDM, Columbus, Ohio.

A120200 CHASSIS. VERTICAL HOLD AND LINEARITY VERY ERRATIC.

Vertical linearity control spotty and dirty. Value went to 50K intermittently.

E110303 CHASSIS. AGC WHITE - OUT AFTER WARM-UP. WOULD REMAIN THAT WAY IF SWITCHED TO OTHER LIVE CHANNELS, BUT WOULD RE-CYCLE IF SWITCHED TO UNUSED CHANNEL.

IC400.

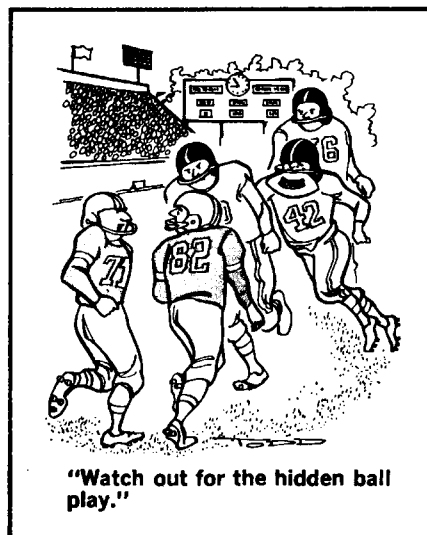
Hi Fi Tel, Inc., Rochester, New York.

E02 CHASSIS. SNOWY PICTURE ON NO. 9 AND 5, CHANNEL NO. 5 TUNES IN HIGH, NEAR END OF TUNING RANGE, CHANNEL NO. 4 HERRINGBONE PATTERN. Shorted diode (switching) in Varactor tuner, part numbers 13-10321-55 and 13-10321-54. VHF tuner part number is 54-35890-1.

Russ Bowe & Bob Frazier, Kennedy & Cohen, Kansas City, Mo.

CORRECTION TO ALTERNATE & DIRECT REPLACEMENT PARTS LIST.

On page 8, it shows the part number for Alternate replacement part for original part number 13-34002-1 to be a 13-34000-3. It should read Alternate part number 13-34002-3.



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