INDEX

ADMIRAL

TY

Chassis

H-2A71 Circuit ........................................ 51, 52
H-2A71 Other data in manual 85
H-3-1X Circuit ........................................ 52, 54
H-3-1X Alignment .................................... 2 to 5
H-3-1X Coil identification ............................. 2
H-3-1X Layout .......................................... 3

The following models = H-3-1XUP

19F73 A1P4871W

19F74 1P14571W

19F75 1P4041W

19F76 1P4051W

19F77 1P4181W

The following models = K3-1X

19F50 A0P14451U

19F51 A1P48621U

19F52 1P14591W

19F72 20F72

19F73 20F73

19F74 20F74

19F75 20F75

19F76 20F76

DUMONT

RADIO

Chassis

2114A See Sylvania ................................... 81, 82

2117 = 2114A

ELECTROHOME

RADIO

Chassis

H13 Circuit ........................................ 55, 56
H13 Layout ........................................ 6
H13 Alignment ........................................ 7
Power amp troubleshooting ............................ 8

Models:

H13-201 Dundee = H13
H13-202 Denver = H13
H13-203 Laredo = H13
H13-204 Burlington = H13
H13-205 Bordeaux = H13
H10-110 Dakota = H10
H10-105 Tiffany = H10
H10-105 Bordeaux = H10

EMERSON

RADIO

Chassis

2114A See Sylvania .................................. 81, 82

2117 = 2114A

FLEETWOOD

TY

Model

19-29 All data ........................................ 91, 92

RADIO

Chassis

2114A See Sylvania .................................. 81, 82

2117 = 2114A

HITACHI

TV

Model

SH-35 Circuit ........................................ 59, 60
SH-35 Alignment ..................................... 9 to 10
SH-35 Coil identification ........................... 52, 53

PANASONIC

TV

Model

CT-61PC Circuit coil identification .................. 48, 50
CT-61PC Alignment ................................ 14 to 16
CT-61PC Tuner data ................................ 32
CT-61PC Circuit boards ............................. 35, 37
CT-61PC Waveforms ................................ 35
TR-329BC Circuit .................................... 30
TR-329BC Alignment ................................ 22
TR-329BC Sound output circuit board .............. 30
TR-329BC Wiring diagram ............................ 32, 33
TR-329BC Video & sound circuit board .......... 34
TR-329BC Deflection circuit board ............... 30
TR-329BC Waveforms ................................ 36

PHILCO

TV

Chassis

A300 run 4 Circuit ................................ 61, 62
A300 run 4 Base view ............................... 63, 64
C300 Circuit .......................................... 65, 66
C300 Base view ....................................... 67, 68
C300 Hi-Q chassis .................................... 69, 70
C300 Power supply .................................... 77

RADIO

1972 AM FM Stereo car radio

Model

DA10A-1A241 Circuit ................................ 72
DA10A-1A241 Modules ............................... 39
DA10A-1A241 Tuner data ............................ 39
DA10A-1A241 Alignment ................................ 40 to 43
DA10A-1A241 Trouble shooting ....................... 45, 47 to 91
DA10A-1A241 Voltage & resistance read ... 46

RCA

TV

Chassis

CCT35S Circuit coil identification ................ 73 to 76
CCT35S Layout ....................................... 92
CCT35S Alignment .................................. 93 to 97
CCT35S Waveforms .................................. 77, 78

Copyright 1971 by Northern Institute of Technology

This publication, or any part thereof, shall not be produced or reproduced in any material form whatsoever including storage in a retrievable system or transmission by any means, electronic mechanical, photocopying, recording or otherwise without the prior written permission of the publisher.
CHROMA BANDPASS ALIGNMENT

NOTE:
4.08MHz Trap L27 and IF Sweep must be properly aligned before performing Chroma Bandpass Alignment.
TEST EQUIPMENT: Connect as illustrated.
GROUND TP704

PRELIMINARY STEPS.
Do not change IF Bias Voltage as determined in IF Sweep Alignment -30V DC to PW200K. Approx. -45V DC at base of Q001. AGC Transistor.
1st Color Kicker Control maximum CCW, Color Saturation Control and Tint Control to midrange.
Video Det. Probe to PW200-N.
Connect IF Video (3.08MHz) Sweep to first Bandpass Cathode (TP706)
Calibrate scope on 1.5V P-P range.
Adjust Sweep input to produce 1.0V P-P response on scope.

STEP 1
1ST BANDPASS ALIGNMENT
Adjust TP704, top and bottom cores for response as illustrated in Fig. 1 (Outside peaks)
Top core determines marker position (equal markers) bottom core sets T11 (equal amplitude).

STEP 2
2ND BANDPASS ALIGNMENT
Remove Video Det. probe from PW200-N and connect to TP706
Calibrate scope on 3.08V P-P range.
Attenuate sweep to produce 2.5V P-P response on scope.
DO NOT EXCEED 2.5V P-P.
Adjust TP704 for response as illustrated in Fig. 2, with core adjusted to outer peak and markers equal.

STEP 3
Modify test equipment hook-up as illustrated below. Connect a VVM to TP202 on PW200 (0-60V scale). Remove ground from TP701. Connect a -3.5V DC bias to TP701. Adjust R10 attenuation to obtain a DC voltage change of 1V DC at TP202 (video detector) between the presence and absence of signal (switch generator on and off as needed to meet “change” conditions). Adjust peak, call L701, (bottom peak) for response illustrated in Fig. 3. There should be no peak between the 3.08 MHz and 4.08 MHz markers.
**PRELIMINARY STEPS:**
Return receiver to normal operating condition.
Adjust receiver for normal viewing.
Connect color bar generator to Antenna Terminals.
Center Tint control to 50% of its mechanical range.
Turn killer control full CW.
Turn AFT and accu-tint switch off.
Ground TP701 to disable ACC.
Connect TP704 to +280V (PW 700-5), in series with 38K 2w, resistor, to cut off Burst Amplifier.
If 3.58 oscillator is inoperative, use trimmer capacitor C713 to make oscillator run.

**STEP 1**
Connect VTM to TP703.
Adjust C713 for zero beat.
Adjust T701 for minimum DC voltage.
If coil adjusts to two (2) dips, use dip away from mounting end of coil. Readjust C713 for zero beat.

**STEP 2**
Adjust L702 for —3.5V DC. If coil adjusts to two (2) peaks, use peak at mounting end of coil. Readjust C713 for zero beat.

**STEP 3**
Remove short at TP701 and bias at TP704. Adjust color control to approximately midrange (color must not be in saturation). Connect VTM to GR2 anode on Demodulator Board. Connect scope to T703-E. Adjust T703 for maximum DC Voltage on VTM. Observe scope at same time for symmetrical deviation while rocking Tint control. Signal @ 1500H should be equal with tint control fully CW or fully CCW. If coil adjusts to two (2) peaks, use peak at mounting end of coil.

**STEP 4**
Place scope on R-Y output (PW700-3). Check to see that turning the tint control through its range moves null from 5 bars or less to 7 bars or more. If not, readjust transformer T703.

**STEP 5**
Set the tint control so that the 6th bar is cancelled. Place scope on B-Y output (PW700-12) and check to see that the bars null within ±1/2 bar at 3/2 and 9/2 bars on the scope. Check that G-Y output (PW700-7) nulls at 11/2 and 71/2 bars.

**STEP 6**
Turn the channel selector to a vacant channel (Snow) and adjust the color killer pot (R701A) until color snow just disappears. Check for optimum performance on all available channels.
PICTURE TUBE GRID WAVEFORMS

The series of 18 waveforms below illustrate the demodulator gain and phase-angle changes resulting from the ACCU-TINT circuits. These were taken with a color-bar pattern furnished by a WR-64B color-bar generator. Conditions of nominal phase, +30° and -30° are represented with the color circuits operating first with A-T "OFF" and second with A-T "ON".

NOMINAL PHASE

+30° PHASE—PURPLE FLESH TONES

-30° PHASE—GREEN FLESH TONES