



TELEVISION Service Manual

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GORDON OLIVER TELEVISION

T. V. INDEX SERVICE
YO 4815 923 CALVERHALL ST.
NORTH VANCOUVER, B. C.

ADMIRAL

Model	Page
18X4BZX Run 3 Circuit	45, 46
18X4BZX Chassis layouts	2
For all other data see 18X4BZX in Supp. #14. For cross index of chassis and model numbers see page 2 this supplement.	
18X4CZX Same as 18X4BZX	
18X4EZX Same as 18X4BZX	
18X4FZX Same as 18X4BZX	
18X4GZX Same as 18X4BZX	

CANADIAN GENERAL ELECTRIC

Model	Page
Stratopower IV chassis:	
M524 Circuit Code Z	47, 48
M524 Alignment	4 to 7
M524 Chassis layouts	3
M524 Tuner circuit	8
M524 Production changes	9
M524 Coil identification	9
C7T16 Uses the M524 chassis	
C7T17 Uses the M524 chassis	
C2T13 Uses the Stratopower III chassis. See Supplement #14.	

ELECTROHOME

Model	Page
T-146 Circuit	49, 50
T-146 Alignment	12, 13
T-146 Chassis layouts	11
T-146 Coil identification	10
T-147 Same as T-146	

HALLICRAFTERS

Model	Page
C1600 T chassis:-	
2190C5 Circuit	51, 52
2190C5 Tuner circuit	15
2190C5 Alignment	15 to 19
2190C5 Chassis layout	14
2190C5 Coil identification	16
2190TB6 Same as 2190C5	

MOTOROLA

Model	Page
MK-21K20 (Chassis TK-525) Circuit	53, 54
MK-21K20 General data	20 to 25
MK-21K20 Alignment	25 to 29
MK-21K20 Coil identification	20
MK-21K20 Chassis layouts	26, 30 & 31
MK-21K20 Tuner detail	28
MK-21K20B, W Same as MK-21K20	
MK-21K13, B, W (Chassis VTK-525) Circuit	55, 56
MK-21K13, B, W Other data same as MK-21K20	

PHILCO

Model	Page
TV-300 Circuit	57, 58
TV-300 Alignment	42 to 44 & 77 to 79
TV-300 Chassis layouts	78 & 80
TV-300 Voltages	81
TV-300 Coil identification	81

PHILIPS

Model	Page
P339 TV Same as P336 in Supp. #11. Radio same as 775 in Radio Supp. #31 except for changes noted under Rogers R739.	
P343 Same as P332 in Supp. #11.	
P348 Circuit	63, 64
P348 Alignment	84 to 88
P348 Service instructions	82, 83
P348 Coil identification	87
P348 Chassis layout	88
P359 Same as P348	

ROGERS-MAJESTIC

Model	Page
R739 TV Same as R736 in Supp. #11. Radio same as RM604 in Radio Supp. #31 except that a 2.2 meg and a .470 mmd. in parallel are connected between R14 and C28 and a .058 mfd. connects from each side of a.c. line to ground.	
R743 Same as R732 in Supp. #11.	
R748 Circuit	63, 64
R748 Alignment	84 to 88
R748 Service instructions	82, 83
R748 Coil identification	87
R748 Chassis layout	88
R759 Same as R748	

RCA-VICTOR

Model	Page
17T45 (Townsmen) Circuit	65, 66
(No other data available)	
17T133 (Townsmen III) Circuit	67, 68
(Chassis CT1703)	
17T133 Tuner circuit	89
17T133 Alignment	92, 93
17T133 Chassis layouts	90, 91
17T133 Coil identification	90, 91
17TC141 (The Dobson) Same as 17T133	

SPARTAN

Model	Page
17D2 Circuit	69, 70
17D2 Chassis layouts	94
17D2 Other data same as 17D1 in Supp. #13.	
21D1 Circuit	71, 72
21D1 Alignment	95, 96
21D1 Chassis layouts	97
21D1 Coil identification	96
A21D1 Same as 21D1	
24D1 Circuit	73, 74
24D1 Alignment	98, 99
24D1 Chassis layouts	100
24D1 Coil identification	99

STEWART-WARNER

Model	Page
T-745 Circuit	75, 76
T-745 Alignment	101, 102
T-745 Voltages	103
T-745 Coil identification	103

SYLVANIA NORTHERN ELECTRIC

Model	Page
510 (Chassis 1-521) TV Circuit	61, 62
510 Circuit sound section	59, 60
510 Tuner circuit	36
510 Alignment	33 to 38
510 Coil identification	32
510 Chassis layouts	35, 39 & 40
510 Service notes	41
520 Same as 510	
525 Same as 510	
526 Same as 510	
573 Same as 510	
575 Same as 510	
577 Same as 510	

VIKING

Model	Page
15VD-17Z Circuit	49, 50
15VD-17Z Alignment	12, 13
15VD-17Z Chassis layouts	11
15VD-17Z Coil identification	10
15VD-21, Z Same as 15VD-17Z	
15VD-211, Z Same as 15VD-17Z	
TMC-210 Same as 15VD-17Z	
TMD-211 Same as 15VD-17Z	
TCD-212 Same as 15VD-17Z	
TCD-213 Same as 15VD-17Z	

RCC
TELEVISION
Supplement
No. 15

ELECTROHOME

T 146,7 VIKING TMC 210,1,2,3

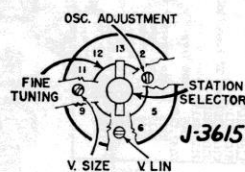
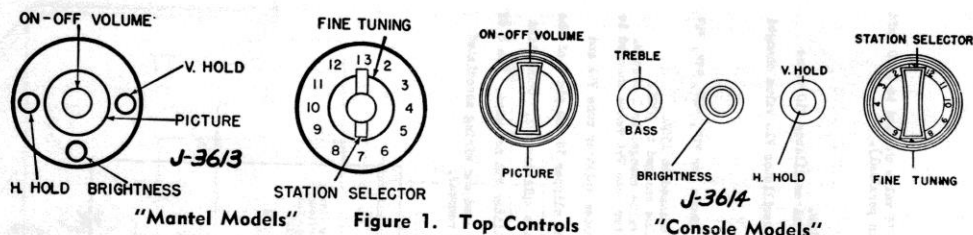


Figure 2. Service Controls

ION TRAP MAGNET

The position of the ion trap magnet **MUST** be over the screen grid of the picture tube (second cylinder from the base identified by a flared forward lip). If the adjustment is necessary, rotate and slide along the neck of the picture tube until the position which gives maximum illumination is found. Adjustment should be made with brightness and picture controls set for normal viewing.

CENTERING CONTROL

The centering tabs should be rotated until the picture is properly framed, keeping in mind that the effect of the control is governed by the position of the tabs in relation to one another. After proper centering, recheck the position of the ion trap magnet.

DEFLECTION YOKE

The correct position for the deflection yoke is as far forward on the neck of the picture tube as the shape of the tube will allow. Tube shadow or a tilted raster may result from an incorrectly positioned yoke. If a positioning adjustment is necessary, loosen the yoke positioning hex head nut located near the top of the yoke housing assembly.

REPLACING SELENIUM RECTIFIERS

Replacement of selenium rectifiers may be accomplished without removing chassis from cabinet. Loosen one hex nut (each rectifier) and move rectifiers to one side. The terminals may then be unsoldered.

WARNING:

High voltage on the plate caps of the 1X2B high voltage rectifier and the 25BQ6 horizontal pulse amplifier **DO NOT MEASURE** this voltage.

L1	P-2738	I.F. Coil Assembly, 1st
L2	P-2739-1	I.F. Coil Assembly 2nd
L3	P-2733	Quadrature Coil Assembly
L4	P-2734	Stabilizer Coil Assembly
L5	P-2732	Horizontal Blocking Osc. Trans.
L6	60 Cycle LK-566	Filter Choke
	25 Cycle LK-551	Filter Choke
L7		Mixer Plate Coil (in tuner)
L8	P-2330-2.2	R.F. Choke 2.2 uh
L9	P-2742	Peaking Coil 35.2 uh
L10,L11	P-2746	Peaking Coil 22 uh (Green)
L12	P-2741-2	Peaking Coil 410 uh (Red)
L13	P-2744	Peaking Coil 305 uh (Orange)
L14	P-2743	Peaking Coil 270 uh (Yellow)
L15	P-2747	Choke Assembly
L16	P-2745	Peaking Coil 8 uh

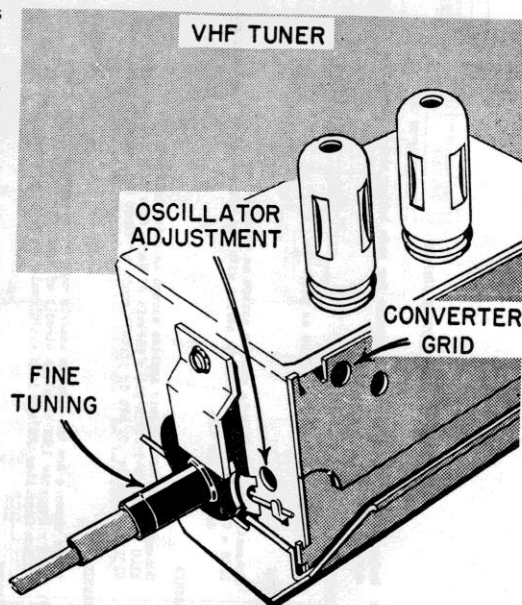


Figure 4. VHF Tuner View

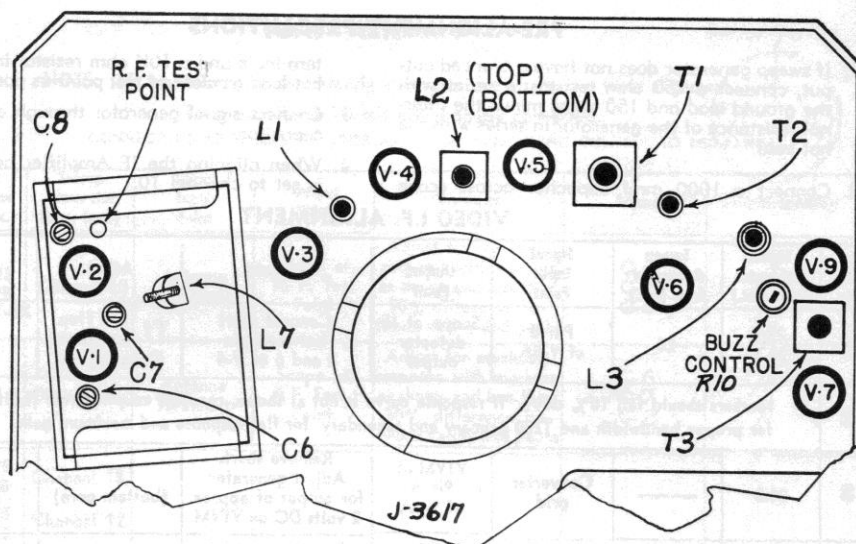


Figure 3. Top Chassis View

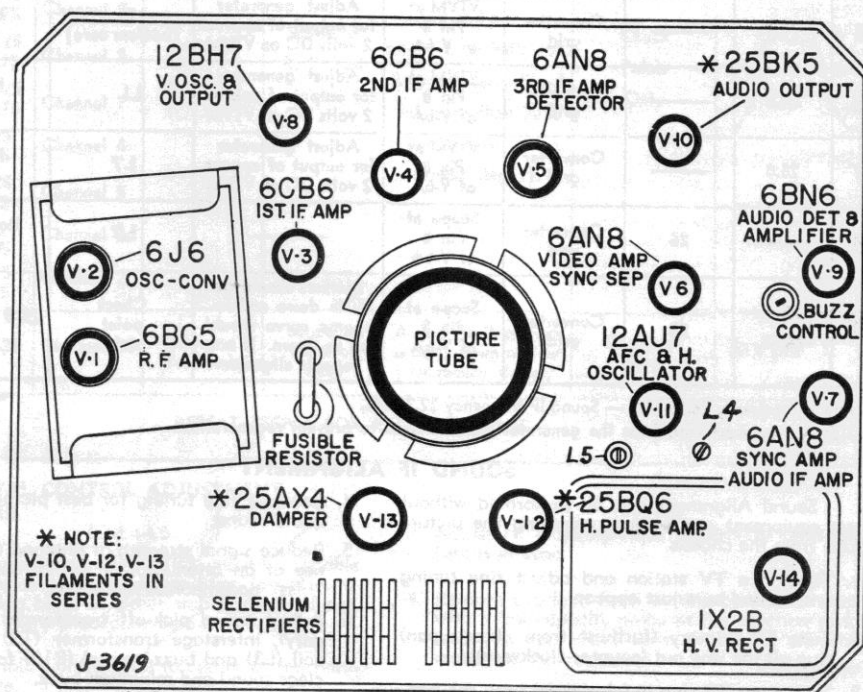




Figure 6. Tube Layout

PRE-ALIGNMENT PRECAUTIONS

- 1 If sweep generator does not have a blanced output, connect a 150 ohm resistor in series with the ground lead and 150 ohms minus the internal resistance of the generator in series with the hot lead.
2. Connect a 1000 mmf capacitor across scope terminals and a 10K ohm resistor in series with hot lead as close to test point as possible.
3. Connect signal generator through a 1000 mmf capacitor
4. When aligning the IF Amplifier be sure tuner is set to channel 10.

VIDEO I.F. ALIGNMENT

Step No.	Signal Generator Freq. (mc.)	Sweep Generator Freq. (mc.)	Signal Input Point	Output Point	Remarks	Adjust	Response
1	23.9 26.3	25	Pin 8 of V-5A	Scope at IF detector output	Connect short between pin 5 and 6 of V-4	T1 pri. (top) sec. (bot.) Coupling rod	23.9  26.3
2	Markers should fall 10% down. If response curve is not as shown, readjust coupling rod (bottom T1) for proper bandwidth and T200 primary and secondary for flat response and maximum gain.						
3	21.3	—	Converter grid	VTVM at Pin 8 of V-6A	Remove short. Adjust generator for output of approx. 2 volts DC on VTVM	L2 (bottom core)	Maximum reading
4	26.5	—	Converter grid	VTVM at Pin 8 of V-6A	Adjust generator for output of approx. 2 volts DC on VTVM	L2 (top core)	Maximum reading
5	21.3	—	Converter grid	VTVM at Pin 8 of V-6A	Adjust generator for output of approx. 2 volts DC on VTVM	L2 (bottom core)	Maximum reading
6	24.0	—	Converter grid	VTVM at Pin 8 of V-6A	Adjust generator for output of approx. 2 volts DC on VTVM	L1	Maximum reading
7	25.0	—	Converter grid	VTVM at Pin 8 of V-6A	Adjust generator for output of approx. 2 volts DC on VTVM	L7	Maximum reading
8	—	25	Converter grid	Scope at Pin 8 of V-6A	—	L7	Rock for flat response
9	23.8 26.65	25	Converter grid	Scope at Pin 8 of V-6A	Markers should be 50% down and response curve should be as shown. If not, repeat alignment	Check point only	23.8  26.65

Picture IF frequency 26.75 MC — Sound IF frequency 22.25MC.

NOTE: A very short lead from the generator must be used to prevent regeneration.

J-3620

SOUND IF ALIGNMENT

Sound Alignment can be performed without test equipment and without removing the picture tube from the chassis.

- 1 Tune in a TV station and adjust fine tuning until sound bars just appear
2. Turn T2 primary (furthest from chassis pan) slug all the way out (counter-clockwise).
3. Turn same T2 slug in (clockwise) until the horizontal scanning lines are smooth and continuous.
4. Readjust fine tuning for best picture with adequate sound.
5. Reduce signal strength at antenna terminals by use of an attenuator or similar device until a "hiss" accompanies the sound.
6. Adjust sound pick-off transformer (T2 secondary), interstage transformer (T3) quadrature coil (L3) and buzz control (R10) for maximum clear sound and minimum buzz.
7. If "hiss" disappears during step 3, further reduce signal strength.

TUNER ALIGNMENT



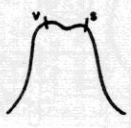
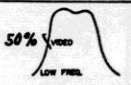
NOTE: I F Amplifiers must be correctly aligned before attempting tuner alignment.

V-Video

S-Sound

Tuner must be in chassis and properly connected.

CONNECT -1.5 VOLTS BIAS TO TUNER A.G.C. SET FINE-TUNING CONTROL TO MID-RANGE.

Step No.	Signal Generator Freq. (mc.)	Sweep Generator Freq. (mc.)	Signal Input Point	Output Point	Remarks	Adjust	Response
1	V-193.25 S-197.75	Channel 10	Antenna Terminals	Scope at R. F. Test Point	Adjust for maximum response with markers as shown and less than 30% difference between valley and peaks	C-6 C-7 C-8	
2	V-67.25 S-71.75	Channel 4	Antenna Terminals	Scope at R.F. Test Point	Adjust for maximum response with markers as shown and less than 30% difference between valley and peaks	C-6 C-7 C-8	
3	V-211.25 S-215.75 V-205.25 S-209.75 V-199.25 S-203.75 V-187.25 S-191.75 V-181.25 S-185.75 V-175.25 S-179.75 V-83.25 S-87.75 V-77.25 S-81.75 V-61.25 S-65.75 V-55.25 S-59.75	Channel 13 Channel 12 Channel 11 Channel 9 Channel 8 Channel 7 Channel 6 Channel 5 Channel 3 Channel 2	Antenna Terminals	Scope at R. F. Test Point	Set Tuner to various channels. Response curve and markers should be as indicated. Response curve tilt of not more than 30% is permissible. (If not, repeat step 1).	Check Points Only	
4	V-193.25	Channel 10	Antenna Terminals	Scope at Pin 8 of V-6A	Adjust until marker is 50% down on low frequency slope.	Oscillator Slug	
5	REPEAT STEP 4 FOR EACH CHANNEL						J-3621

HORIZONTAL CONTROL ADJUSTMENT PROCEDURE

R3-L4-L5

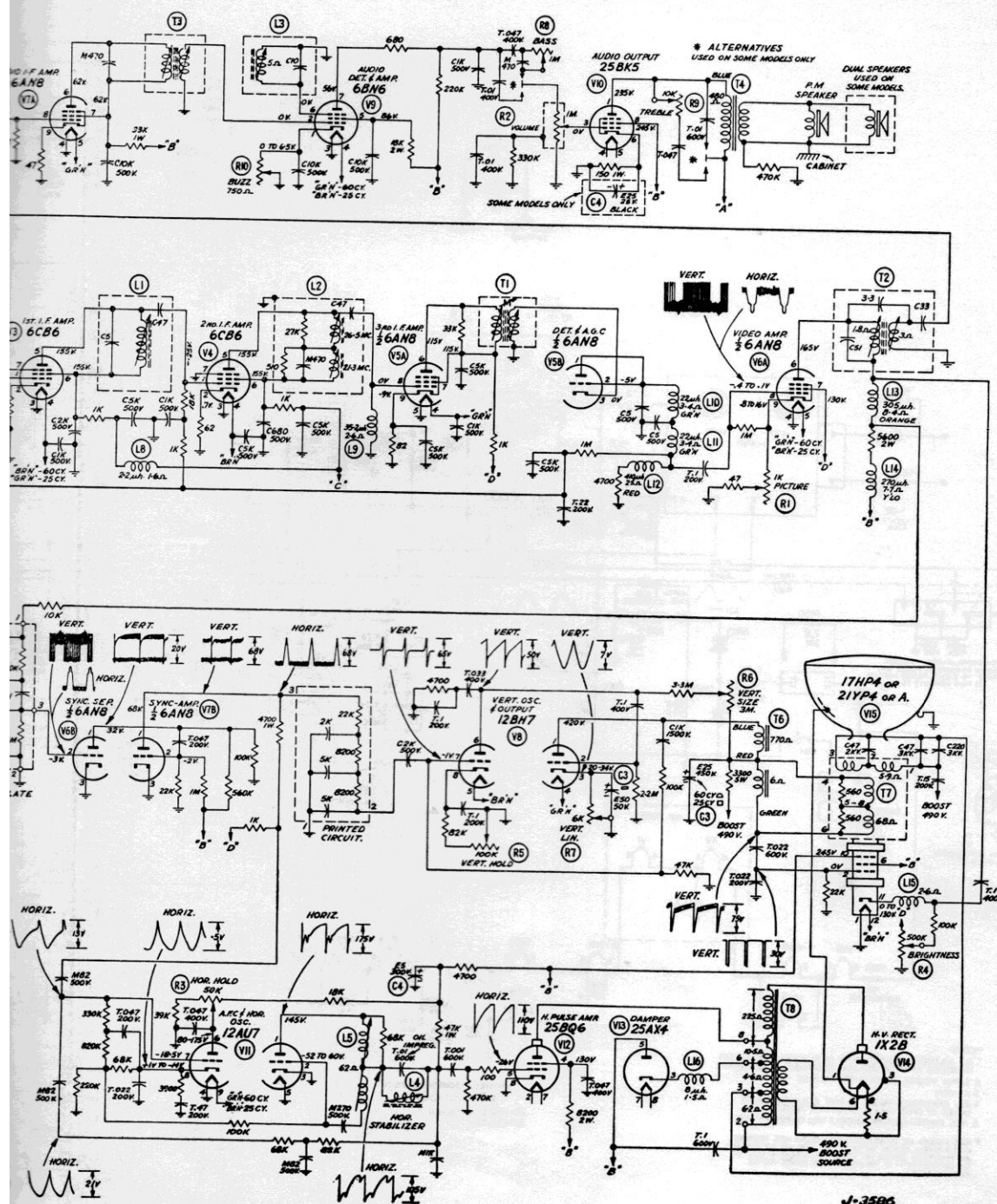
The Horizontal Hold control (R3) must be capable of producing an out-of-sync condition (equal number of sloping bars) at either stop position. If not, follow alignment procedure below:

- Set H. Hold Control (R3) to centre of mechanical range.
- Short out H. Stabilizer coil (L4) with a clip lead.

- Adjust H. Blocking transformer (L5) until picture is in sync.

- Remove clip lead from L4 and connect a scope with a low capacity probe at the junction of L4 and 68K res. Wave form illustrated on schematic must be obtained.

- Adjust H. Stabilizer coil (L4) until peaks of wave form are equal in amplitude.





VOLTAGE READINGS TAKEN WITH A V.T.V.M BETWEEN POINTS INDICATED AND CHASSIS WITH LINE VOLTAGE AT 115 V. A.C. AND THE ANTENNA SHORTED TO CHASSIS.

