ODEL 3-70A

PHILLIPS PETROLEUM CO.

Alignment: No attempt should be made to realign this receiver until it has been determined that a poor tube, or some local condition is not responsible for faulty reception. The Signal Generator may be connected through a 0.01 mf capacitor (used as a dummy antenna) to the lug on R. F. section (A) of tuning capacitor. Connect ground clip of generator directly to chassis. Align the I. F. trimmers to 455 K.C., using least possible input from the Signal Generator to avoid developing A.V.C. voltage which would make the tuning adjustments very broad. An output meter may be clipped across the voice coil lugs.

To align broadcast R. F. trimmers, remove the 0.01 mf capacitor and connect the Signal Generator leads to two or three turns of heavy wire, forming a self-supporting loop of about 7 or 8 inches diameter placed about a foot away from the receiver's loop antenna. Again, use the least possible input from the Signal Generator. With the tuning plates completely out of mesh and the pointer at the extreme right end of travel, adjust the broadcast oscillator trimmer, on the under side of the chassis, to 1650 K.C. With tuning capacitor fully meshed adjust the padder on the chassis deck to 535 K.C. Readjust both Signal Generator and tuning capacitor to 1550 K.C. and adjust the R. F. trimmer on the loop for maximum response.

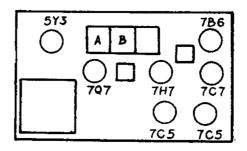
To align the short wave band connect the Signal Generator through a 0.01 mf capacitor and a 400 ohm resistor in series (used as a dummy antenna) to the antenna connection on the loop antenna. With the tuning capacitor plates completely out of mesh, and pointer at the extreme right end of travel, adjust the short wave oscillator trimmer (on the under side of the chassis) to 18.25 magacycles. Readjust both Signal Generator and tuning capacitor to 16 megacycles and adjust short wave antenna coil trimmer for maximum response. With tuning capacitor fully meshed, the receiver should tune to 5.75 megacycles, however no adjustment is required at this point.

For checking purposes five marks are engraved on the front of the dial plate. These represent, in order, the pointer position with the capacitor plates fully meshed and the pointer settings for 600 kc, 8 mc, 16 mc, and 1550 kc.

Pushbuttons: To set pushbuttons remove pushbutton knobs. This will expose a set screw on the shaft of each pushbutton. Starting at one end push a pushbutton down and loosen its set screw. Set the bandswitch to the broadcast position. Hold the pushbutton down and tune the manual tuning control to the station to which the pushbutton is to be set. Still holding the pushbutton down tighten its set screw. The pushbutton may now be released and its knob replaced. It will now select the station to which it was set. The other pushbuttons may be set in a similar manner.

REPLACEMENT PARTS LIST

Circuit	Part			
Symbol	Number	ltem	Description	
C-1 A & B	CV-9	Capacitor	Variable 2-gang, Push-button	
C-2	CT1-1	Capacitor	Trimmer 1.5-15 MMF	
C-3	CT1-2	Capacitor	Trimmer 2.2—40 MMF	
C-22	CT1-2	Capacitor	Trimmer 2.2-40 MMF	
C-23	CT1-2	Capacitor	Trimmer 2.2—40 MMF	
C-25	CX2-1	Capacitor	Padder	
E-1	EH-9	Speaker	10" Electrodynamic	
E-2	EH-14	Speaker	10" P.M.	
L-1	LL-9	Loop Antenna		
L-2	LO-4	Oscillator Coil	Broadcast & S.W. Osc. Coils	
		Assembly		
L-3	LR-4	S.W. Antenna Coil		
R-23	RP8-105	Potentiometer	1 Meg. with 2 taps, Volume Control	
R-26	RP5-2	Potentiometer	0.5 Meg. with switch, Tone Control	
R-27 A & B	RW3-1	Resistor	Wirewound 1850 Ohms 17 watt tapped at 500 Ohms	
S-2 A, B & C	SR-9	Bandswitch		
T-1	TM2-4	Transformer	I. F. Input	
T-2	TM2-5	Transformer	I. F. Output	
T-3	TA-8	Transformer	Push-pull speaker output	



TUBE LOCATION

T-4

TP-9

Transformer

Power