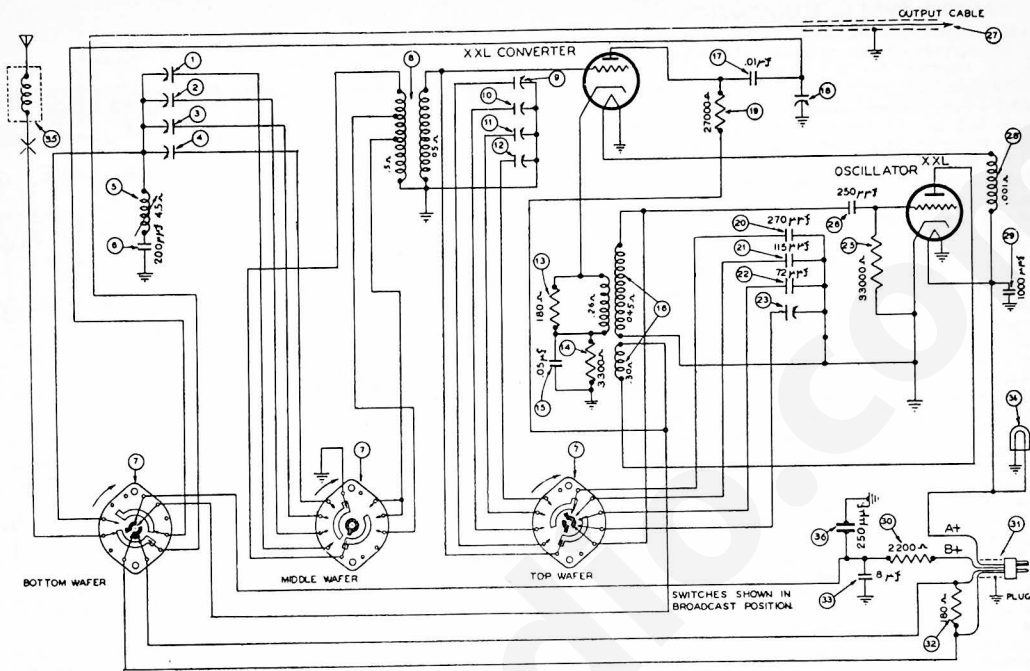


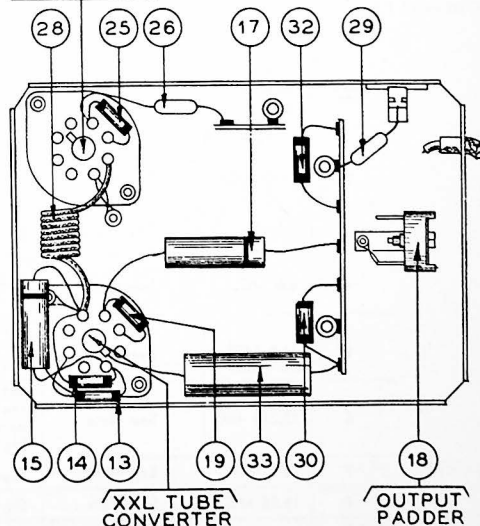
# 1941 SHORT WAVE TUNER---MODEL SW-1



## PARTS LIST — MODEL SW-1

No.	Description	Part No.	No.	Description	Part No.
(1)	Antenna Padder (Primary 8 MC)	77-0771	(16)	Oscillator Transformer	65-0436
(2)	Antenna Padder (Primary 9 MC)	Part of (1)	(17)	Condenser (.01 Mfd.)	61-0176
(3)	Antenna Padder (Primary 11 MC)	Part of (1)	(18)	Output Padder	63-0054
(4)	Antenna Padder (Primary 15 MC)	Part of (1)	(19)	Resistor (27000 ohms)	33-327334
(5)	Wave Trap	65-0416	(20)	Silver Mica Condenser (270 Mmfd.)	61-0167
(6)	Condenser (200 Mmfd.)	60-120327	(21)	Silver Mica Condenser (115 Mmfd.)	61-0166
(7)	Wave Switch	77-0913	(22)	Silver Mica Condenser (72 Mmfd.)	61-0142
(8)	Antenna Transformer	65-0417	(23)	Oscillator Padder (15 MC)	63-0076
(9)	Antenna Padder (Secondary 6 MC)	77-0772	(25)	Resistor (33,000 ohms)	33-333334
(10)	Antenna Padder (Secondary 9 MC)	Part of (9)	(26)	Condenser (250 Mmfd.)	60-125157
(11)	Antenna Padder (Secondary 11 MC)	Part of (9)	(27)	Output Cable	05-0200
(12)	Antenna Padder (Secondary 15 MC)	Part of (9)	(28)	Filament Choke	32-1644
(13)	Resistor (180 ohms)	33-118334	(29)	Condenser (1000 Mmfd.)	80-210157
(14)	Resistor (3300 ohms)	33-233154	(30)	Resistor (2200 ohms)	33-232334
(15)	Condenser (.05 Mfd.)	61-0101	(31)	Power Cable	95-0188
(16)	Oscillator Transformer	65-0436	(32)	Resistor (180 ohms)	33-118334
(17)	Condenser (.01 Mfd.)	61-0176	(33)	Condenser (8 Mfd.)	61-0104
(18)	Output Padder	63-0054	(34)	Pilot Lamp	34-2088
(19)	Resistor (27000 ohms)	33-327334	(35)	Antenna Choke	77-0785
(20)	Silver Mica Condenser (270 Mmfd.)	61-0167	(36)	Condenser (250 Mmfd.)	60-125157
(21)	Silver Mica Condenser (115 Mmfd.)	61-0166	<b>Housing</b>		
(22)	Silver Mica Condenser (72 Mmfd.)	61-0142	(1)	(Distributor)	77-0781FC59
(23)	Oscillator Padder (15 MC)	63-0076	(2)	(Chrysler Export)	77-0781FC84
(25)	Resistor (33,000 ohms)	33-333334	(3)	(Ford Export)	77-0781FC51
(26)	Condenser (250 Mmfd.)	60-125157	(4)	(Studebaker)	77-0761FC04
(27)	Output Cable	05-0200	(5)	(Packard)	77-0761FC51
(28)	Filament Choke	32-1644	(6)	Bottom Cover	57-0749FA3
(29)	Condenser (1000 Mmfd.)	80-210157	(7)	Tube Socket	27-6151
(30)	Resistor (2200 ohms)	33-232334	<b>Knob</b>		
(31)	Power Cable	95-0188	(1)	(Distributor)	77-0856
(32)	Resistor (180 ohms)	33-118334	(2)	(Chrysler Export)	77-0688
(33)	Condenser (8 Mfd.)	61-0104	(3)	(Ford Export)	77-0835
(34)	Pilot Lamp	34-2088	(4)	(Packard)	77-0849
(35)	Antenna Choke	77-0785	(5)	(Studebaker)	77-0835
(36)	Condenser (250 Mmfd.)	60-125157	<b>Flexible Shaft</b>		
			(1)	(Distributor)	77-0841
			(2)	(Chrysler Export)	77-0841
			(3)	(Ford Export)	77-0841
			(4)	(Packard)	77-0842
			(5)	(Studebaker)	77-0835
			<b>Complete Control</b>		
			(1)	(Distributor)	85-0140
			(2)	(Chrysler Export)	85-0136
			(3)	(Ford Export)	85-0139
			(4)	(Packard)	85-0142
			(5)	(Studebaker)	85-0141
			<b>Drum Assy.</b>		
			(1)	(Distributor)	77-0787
			<b>Pilot Lamp Assy.</b>		
			(1)	(Unit Mtg.)	318-2431
			<b>Stud (Unit Mtg.)</b>		
			(1)	(Unit Mtg.)	97-0184FA3
			<b>Spacer (Unit Mtg.)</b>		
			(1)	(Unit Mtg.)	57-0750FA3
			<b>Nut (Unit Mtg.)</b>		
			(1)	(Unit Mtg.)	W55FA3
			<b>Lockwasher (Unit Mtg.)</b>		
			(1)	(Unit Mtg.)	W471FE2
			<b>Screw (Control Mtg.)</b>		
			(1)	(Unit Mtg.)	W1450FA3
			<b>Washer (Control Mtg.)</b>		
			(1)	(Unit Mtg.)	W1072
			<b>Ignition Switch Condenser</b>		
			(1)	(Chrysler)	30-4007
			<b>Voltage Regulator Condenser</b>		
			(1)	(Chrysler)	30-4490
			<b>Voltage Regulator Condenser</b>		
			(1)	(Chrysler)	61-0172
			<b>Steering Column Braid</b>		
			(1)	(Chrysler)	95-0205
			<b>Distributor Point Filter</b>		
			(1)	(Chrysler)	77-0927
			<b>Ground Strap (Chrysler)</b>		
			(1)	(Ford)	77-0843
			<b>Ground Strap (Chrysler)</b>		
			(1)	(Ford)	77-0844
			<b>Temperature Gauge Condenser</b>		
			(1)	(Ford)	61-0087
			<b>Voltage Regulator Condenser</b>		
			(1)	(Ford)	61-0087
			<b>Horn Button Condenser</b>		
			(1)	(Ford)	61-0104
			<b>Gas Gauge Condenser</b>		
			(1)	(Ford)	30-4663
			<b>Generator Armature Condenser</b>		
			(1)	(Ford)	30-4007
			<b>Braid (Body to Frame)</b>		
			(1)	(Ford)	95-0145
			<b>Steering Column Braid</b>		
			(1)	(Ford)	77-0336
			<b>Antenna Cable (Ford)</b>		
			(1)	(Chrysler-Ford-Packard)	95-0199
			<b>Spark Plug Suppressor</b>		
			(1)	(Chrysler)	33-1015
			<b>Interference Condenser</b>		
			(1)	(Packard)	61-0173
			<b>Braid (Packard)</b>		
			(1)	(Ford)	49-140120
			<b>Spark Plug Suppressor</b>		
			(1)	(Studebaker)	83-1195
			<b>Distributor Suppressor</b>		
			(1)	(Studebaker)	33-1196
			<b>Fuse Block Condenser</b>		
			(1)	(Studebaker)	30-4007
			<b>Switch Condenser</b>		
			(1)	(Champion)	61-0168
			<b>Steering Column Ground Strap</b>		
			(1)	(Studebaker)	77-0336
			<b>Motor Block Ground Strap</b>		
			(1)	(Studebaker)	98-7425

## XXL TUBE OSCILLATOR



## XXL TUBE CONVERTER

(1)	(Ford)	95-0145
(2)	(Studebaker)	33-1196
(3)	(Ford)	77-0336
(4)	(Ford)	95-0199
(5)	(Chrysler)	33-1015
(6)	(Champion)	61-0168
(7)	(Studebaker)	77-0336
(8)	(Packard)	61-0173
(9)	(Ford)	49-140120
(10)	(Studebaker)	83-1195

(1)	(Studebaker)	33-1196
(2)	(Studebaker)	30-4007
(3)	(Champion)	61-0168
(4)	(Studebaker)	77-0336
(5)	(Studebaker)	98-7425

# 1941 SHORT WAVE TUNER---MODEL SW-1 (CONTINUED)

## MODEL SW-1 — ADJUSTMENTS

All padding adjustments are carefully made at the factory and ordinarily no readjustments are necessary. However, when readjustments are required, the procedure given below must be followed in detail.

**EQUIPMENT**—Fully charged heavy duty storage battery or 6 volt power pack, 077 or 177 Philco Signal Generator, 027 Philco Vacuum tube voltmeter and set test or audio output meter, 45-2610 padding screw driver.

**GENERATOR—VACUUM TUBE VOLTMETER.** The model 027 Vacuum tube voltmeter is an extremely sensitive and accurate test instrument and is recommended for use when aligning and adjusting auto radios. Connect the negative (minus) terminal of the Vacuum Tube Voltmeter to the high side (ungrounded side) of the volume control. Connect the positive (plus) terminal to the housing. Connect the "AC" cord to a 110 volt AC socket. Press the VTVM button and the 10 volt button. Turn the "Set Zero Ohms—VTVM" control clockwise until a click is heard. Allow the tubes to heat up for a few minutes. Short the 150 megs. VTVM terminals and adjust the "Set Zero Ohms—VTVM" control until the meter reads zero on the 0-10 range scale (Green Scale). The needle will deflect from right to left.

**AUDIO OUTPUT METER.** If an audio output meter is used, connect the leads across the voice coil of the speaker. Use the 0-30 volt scale.

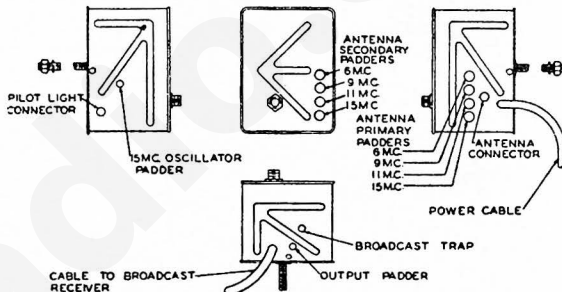
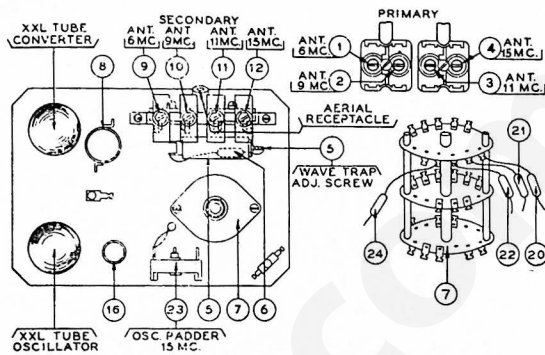
Any Philco Auto Radio that has a Short Wave Tuner receptacle can be used when padding the tuner.

Remove the connector clip and connect the power cable to the tuner receptacle on the radio. Connect the R.F. cable from the tuner to the aerial receptacle in the radio.

With the radio, signal generator and short wave tuner, set up at the prescribed frequency and proper dummy (See note), turn the radio volume control on full and set the signal generator attenuator so that a half scale reading is obtained on the meter. The signal in the speaker should be audible but not loud.

The shielding on the aerial lead should be connected to the (plus) terminal of the signal generator.

WHEN MAKING ADJUSTMENTS TO THE CHRYSLER EXPORT, FORD EXPORT, STUDEBAKER, AND DISTRIBUTOR SHORT WAVE TUNERS, IT IS NECESSARY THAT THE AERIAL LEAD BE CONNECTED TO THE CHOKE, PART NO. 77-0885, WHICH IS PACKED WITH THE RADIO.



OPERATION	SIGNAL GENERATOR FREQUENCY	DUMMY CAPACITY	SPECIAL INSTRUCTIONS AND PADDER ADJUSTMENTS
1	Push in the knob on the tuning		control or radio until stations can be tuned in by manual tuning.
2	1400 K.C.	See Note	Set the tuner to broadcast position, and adjust the manual control to 1400 K.C. Adjust the aerial padder on the radio.
3	6.1 MC	See Note	Set tuner on 6 MC position. Tune in the 6.1 MC signal and adjust the 6 MC primary and secondary padders and the output padder.
4	9.6 MC	See Note	Set tuner on 9 MC position. Tune in the 9.6 MC signal and adjust the 9 MC primary and secondary padders. If two peaks are obtained when adjusting the primary padder use the inner peak.
5	11.8 MC	See Note	Set tuner on 11 MC position. Tune in the 11.8 MC signal and adjust the 11 MC primary and secondary. If two peaks are obtained when adjusting the primary padder use the inner peak.
6	15.225 MC	See Note	Set tuner on 15 MC position—four turns clockwise, and the pointer on the dial to 1375 K.C. Adjust the 15 MC oscillator padder and 15 MC primary and secondary padders. If two peaks are obtained when adjusting the primary and secondary padders, use the outer peak on each.
7	15.1 MC	See Note	Signal should come in approximately 1250 K.C. on dial.
8	15.35 MC	See Note	Signal should come in approximately 1500 on dial.
9	1400 K.C.	See Note	Set tuner on the 6 MC position. Adjust the broadcast trap padder for MINIMUM signal on a strong local station between 1100 and 1500 KC on the dial.

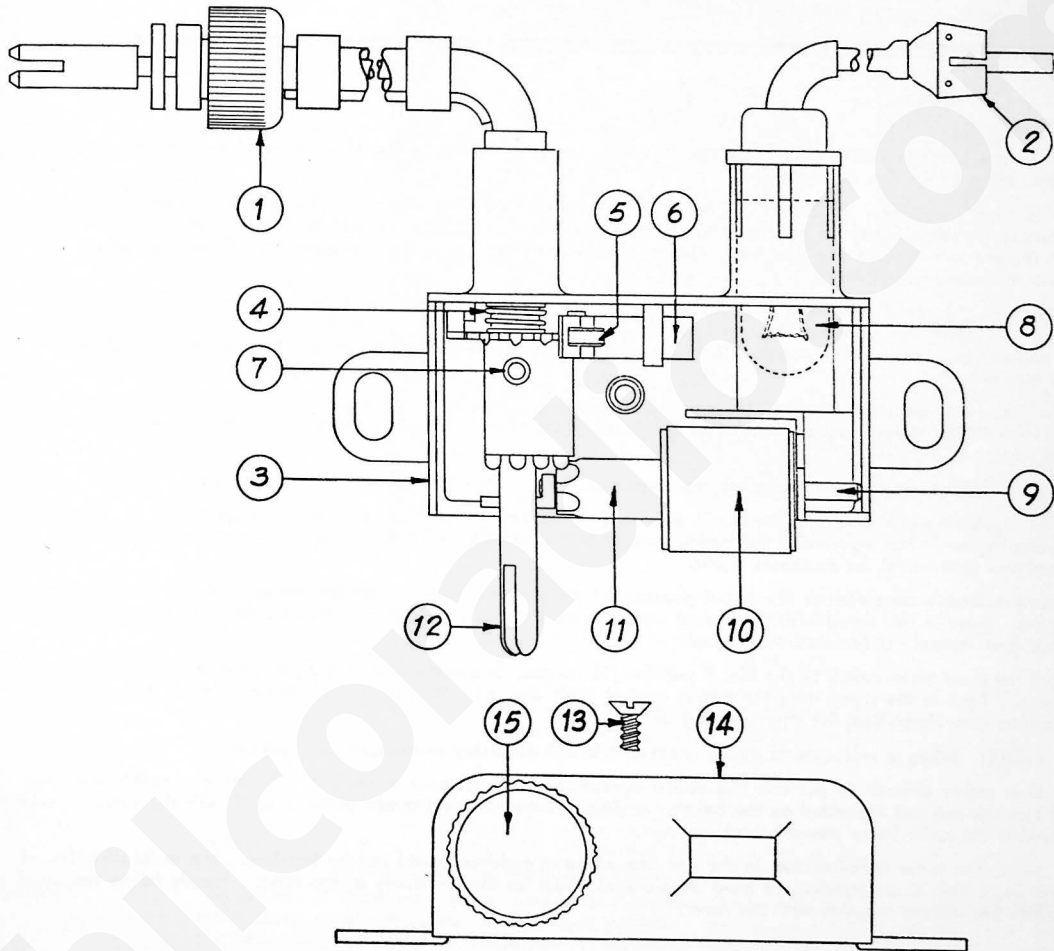
The tuner must have the housing and cover in place.

Make all adjustments for maximum reading on the meter unless otherwise specified.

**NOTE:** Connect the aerial lead, Part No. 95-0185, to the aerial choke, Part No. 77-0885, and then connect the choke in the aerial receptacle on the tuner. (DO NOT USE CHOKE ON

PACKARD). Connect an additional capacity in series between the signal generator and aerial lead on the following:  
 For Chrysler Export (SWC-1E)—Use a 25 Mmfd. condenser.  
 For Ford Export (SWF-1E)—Use a 20 Mmfd. condenser.  
 For Packard (SWP-1)—Use 45 Mmfd. condenser. No aerial choke.  
 For Studebaker (SWS-1)—Use 35 Mmfd. condenser.  
 For Distributor (SWD-1)—Use 35 Mmfd. condenser.

# CONTROL UNIT FOR SHORT WAVE TUNER MODEL SW1



## PARTS LIST

Description	Part No.	List Price	Description	Part No.	List Price
Complete Control (Distributor)	85-0140	\$5.00	(7) Set Screw	W-1785FE7	.05
(Chrysler Export)	85-0136	5.00	(8) Pilot Lamp	34-2068	.12
(Packard)	85-0142	5.50	(9) Pin	57-1953FA3	.19
(Studebaker)	85-0141	4.75	(10) Dial Drum Strip	55-1232	.35
(Ford Export)	85-0139	4.75	(11) Dial Drum	57-1958	.20
(1) Flexible Shaft (Distributor, Chrysler Export,			(12) Switch Shaft	57-1958	.35
Ford Export)	77-0841	1.25	(13) Cover Mounting Screw	W-1906FA3	1.25 Per C
(Packard)	77-0842	1.50	(14) Cover (Distributor)		
(Studebaker)	77-0842	1.50	(Chrysler Export)	57-1953FC59	.50
(2) Pilot Lamp Assy.	77-0912	1.50	(Packard)	57-1953FC52	.50
(3) Housing (Distributor)	77-0787	.50	(Studebaker, Ford Export)	57-1953FC54	.50
(Chrysler Export)	57-1954PC39	.75	(15) Knob (Distributor)	77-0856	.25
(Packard)	57-1954FC62	.75	(Chrysler Export)	77-0858	.25
(Packard)	57-1954PC63	.75	(Packard)	77-0849	.45
(4) Backlash Spring	57-1840FA3	.01	(Studebaker, Ford Export)	77-0835	.15
(5) Wheel, Index	57-1955FA3	.10	Drum Assembly	318-2431	.60
(6) Spring, Index	57-1956FA3	1.50 Per C			

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.