Nash-Philco Radio - 1200 Series

GENERAL INSTALLATION INSTRUCTIONS

Custom Built by Philco **Sold Exclusively by Nash Dealers**

These instructions have been carefully prepared for your use in installing the Model C Nash-Philco automobile radio Receiver in the 1934 model Nash cars. Read thoroughly, then follow the instructions carefully in every detail.

Antenna

The antenna lead in the 1934 Nash closed cars is brought down the left front pillar post and is coiled behind the left cowl trim panels.

Receiver Location and Installation

Refer to Figure 1 which gives detailed dimensions for the location of the holes to be drilled in all models. These dimensions are shown from the engine side of the dash. On all current model cars, the carburetor air cleaner and silencer should be removed until the Receiver is bolted in place. This will facilitate drilling the holes in the dash.

On all 1290 models the Receiver must be spaced away from the dash approximately two inches to clear all pulleys and cables. On the 1220 and 1280 models the Receiver should be spaced far enough away from the dash to give ample clearance for the speaker cover flange and keep the Receiver in a vertical position.

In fastening the studs to the Receiver the lock washer is placed between the Receiver and the shoulder on the bolt. The large flat washer is used against the padding on the inside of the dash. Extra nuts are furnished to be used as spacers. Mount the Receiver with the control shaft couplings towards the center of the car and with the speaker facing down. See Figure 2. On the 1220 and 1280 models the throttle control wire should be disconnected to facilitate installation.

Instrument Board Control

A dummy door is provided with cutouts in which the control unit is mounted. Remove the standard door from the instrument board by taking out the two stove bolts at the bottom and loosening the nut on the rear of the cigar lighter. Disconnect the lighter wire at the fuse block. On cars not equipped with a cigar lighter the door is fastened in place with a knob and stove bolts. Install the control door on the instrument board. The greatest care must be used so as not to mar or scratch the finish.

When no provision is made in a car for instrument board mounting, a steering column control assembly may be secured from your distributor or the Nash Factory. This assembly is furnished with an adjustable strap and bracket and may be mounted to the right side or above the steering column. In assembling the strap and bracket be sure that the round nut clinched on the strap is against the steering column. This will prevent the round nut from being torn from the strap.

The black lead coming from the back of the control unit is the pilot light lead which must be connected under the pilot light terminal screw head on the speaker panel.

Connecting Control Shafts

The flexible shafts are coupled to the control unit when shipped from the factory. The right-hand knob on the control is the tuning control — the left-hand knob is the volume control and switch. The volume control must be locked with the key at the control. The flexible shafts should be dressed above the steering column dash bracket towards the center of the car and then curved down and around to the couplings on the Receiver. Loosen the small set screws and the clamp screws on the shaft couplings and clamp brackets. The volume control and switch in the Receiver must be turned all the way off (counter clockwise). The volume control coupling is the one nearest the front edge of the Receiver. The tuning control coupling is nearest the dash.

Seat the casings and shafts in the brackets and shaft couplings. Loosen the bracket mounting screws sufficiently so that the shafts and couplings are correctly aligned. Then tighten the casing clamp screws and the coupling set screws, and finally tighten the bracket mounting screws.

Battery Connections (See Fig. 2)

Connect the battery cable to the Receiver. The small end at the Receiver must be plugged into the fuse housing receptacle on the battery lead. The other end of the battery lead must be connected to the ammeter and the cable dressed up out of the way. Be sure the fuse and fuse insulator are placed in the fuse housing before connecting the cable to the Receiver.

Antenna Lead (see Fig. 2)

A shielded antenna lead is provided for connecting the Receiver to the roof antenna. This lead must be plugged into the bayonet type receptacle on the side of the Receiver. Splice to the antenna lead-in as close as possible to the left front pillar, cutting off all the excess car lead-in. The shield pig-tail must be grounded to the flange of the instrument board.

Lining Up The Receiver

The dial in the control is calibrated in channel numbers, which with the addition of a cipher indicate the frequencies in kilocycles, i.e. 70 on the dial represents 700 kilocycles.

Tune in a broadcast station of known frequency and then loosen the coupling screws on the tuning shaft. Turn the dial to the proper number and tighten set screws again. Then recheck the dial setting.

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Ignition and Generator Interference Suppression

Install spark plug resistors on all spark plugs. On the right side of the motor the spark plug porcelains are covered with a rubber sleeve. When the sleeves are replaced, make sure that they are pushed down far enough to completely cover the porcelain on the plugs. Dipping the rubber sleeves in gasoline will make this operation very easy.

Cut the coil to distributor high tension lead about one inch from the distributor head and install the screw type suppressor.

Install a by-pass condenser on the generator and connect the condenser lead to the generator side of the cutout relay. The condenser must be fastened in place under the relay mounting screw.

The other by-pass condenser must be mounted behind the instrument board and the lead connected to the ammeter. Fasten the condenser mounting bracket under one of the instrument mounting screws. On some cars, this condenser may be more effective when connected to the dome light wire. In such cases, the condenser lead must be spliced to the dome light wire at the right pillar post and the condenser mounted on the instrument board flange.

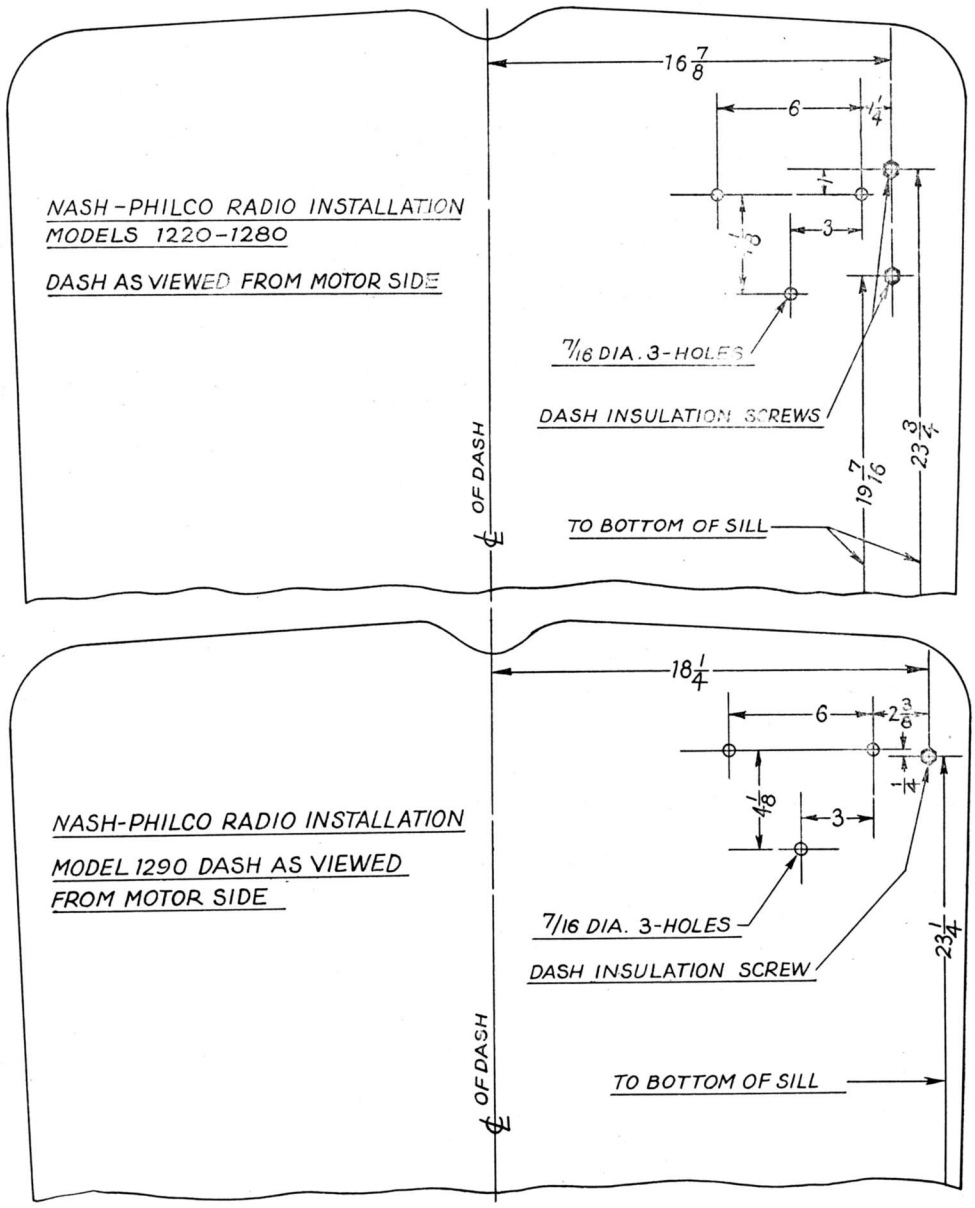

FIGURE 1

Ordinarily these operations will eliminate all ignition interference. Should there still be some objectionable interference, the distributor rotor arms must be peened out in order to minimize the sparking in the distributor head. Both ends of the rotor must be peened.

Peening the Rotor Arm

Place one end of the rotor on a steel block and peen with a small machinist's hammer, extending it for the first trial about .005 inch. Great care must be taken in performing the operation to make sure the rotor arm itself does not strike the stationary electrodes. Repeat this operation until there is just sufficient clearance (.002 inch to .005 inch) between the end of the rotor arm and the stationary electrodes in the distributor cap.

Dress the end of the rotor with a file to its original shape. Without turning on the ignition, press the starter and then examine the rotor arm and the stationary electrodes to be sure that the steel arm is not striking the stationary electrodes.

To judge whether or not the rotor has been lengthened sufficiently, place a thick layer of chalk on each of the stationary electrodes. If there is evidence of the rotor touching the stationary electrodes, file off about .001 inch and recheck.

After the one end of the rotor arm has been peened, repeat the procedure with the other end. When both ends of the motor have been properly peened, replace the rotor and distributor cap.

If there is a tendency for the motor to lope or roll at idling speed, remove the spark plugs and set the gaps to .030 inch. It may be necessary to change slightly the carburetor idle adjustment.

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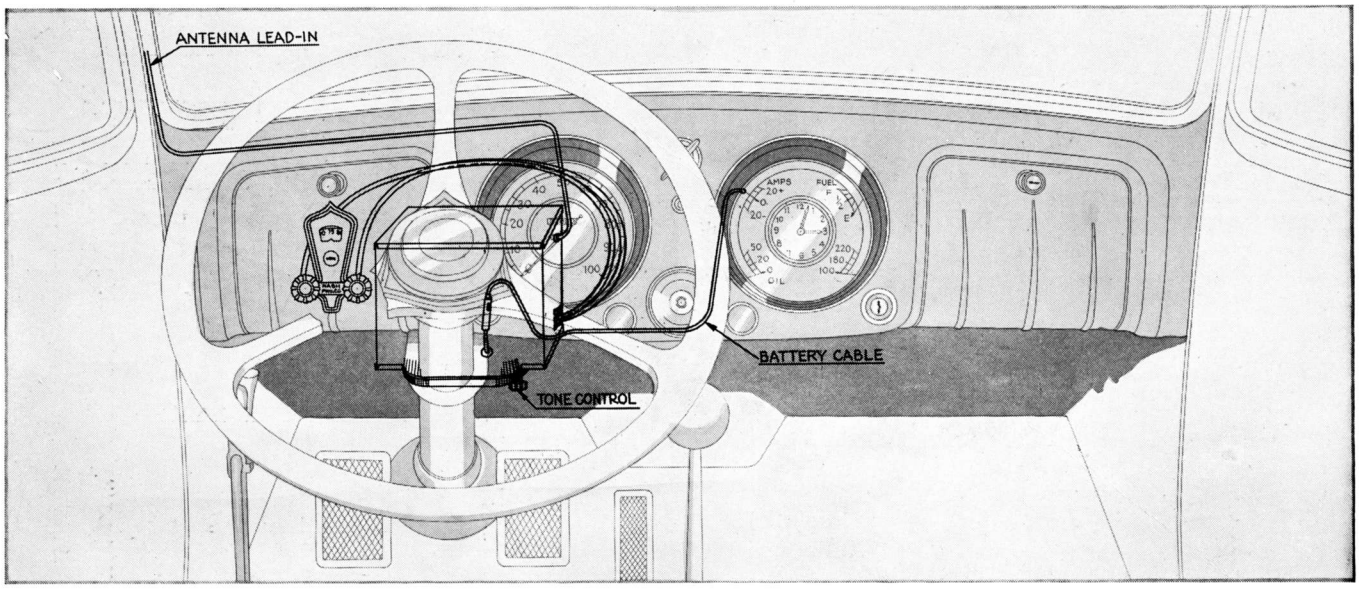

FIGURE 2

Operating Instructions

The left-hand knob on the control is a combination switch and volume control. First turn the key one-quarter turn clockwise to unlock the control. Then turn the volume control knob clockwise. The first range of motion operates the Receiver switch; from there on it is the manual volume control.

With the volume control turned on halfway, allow the tubes to heat up. Then turn the other knob (the station selector) to tune in the various programs. The numbers on the dial are channel numbers which with the addition of "0" to the number correspond to the frequencies in kilocycles. Adjust the volume to a suitable level and recheck the tuning. The Receiver must be tuned so that the maximum signal is obtained. Since the Receiver is extremely selective, it is of the utmost importance that the Receiver be tuned right on the station. Careless tuning off to one side, even though the signal is still heard, results in very poor tone quality and very mushy reception.

The tone control knob is on the speaker panel at the right end, near the front. It should be adjusted to the tone most pleasing. There are four positions, brilliant, bright, mellow and deep. Speech is clearest when in bright or brilliant, while usually orchestras will sound best on bright or mellow.

Another use of the tone control is as a static modifier. When driving through an extremely noisy location, the tone control should be set on mellow or deep. This will subdue the harsh, rasping static.

Except on very weak signals, the automatic volume control maintains the same volume level while driving along without continually manipulating the manual volume control, cuts out external interference, counteracts fading and prevents blasting of local stations while tuning. It is virtually impossible, however, to maintain satisfactory reception while driving under bridges or in places which are totally shielded, known as dead spots.

When turning off the Receiver, be sure the volume control knob is turned counter-clockwise until a click is heard and the dial light goes out, otherwise the Receiver will continue to operate and discharge the battery.

WARRANTY ON NASH-PHILCO RADIO

The warranty on the Nash-Philco Radio is the standard RMA (Radio Manufacturer's Association) which is as follows:

"The manufacturer warrants each new Radio Receiver and Speaker manufactured by them to be free from defects in material and workmanship under normal use and service, their obligation under this warranty being limited to making good at their factory or factory depots any part or parts thereof which shall, within ninety (90) days after delivery of such Receiver to the original purchaser, be returned to them with transportation charges prepaid, and which their examination shall disclose to their satisfaction to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on their part, and they neither assume nor authorize any representative or other person to assume for them any other liability in connection with the sale of their Receivers or Speakers.

This warranty shall not apply to any Receiver or Speaker which shall have been repaired or altered outside of their factory or factory depots in any way so as, in their judgment, to affect its stability or reliability nor which has been subject to misuse, negligence or accident, nor which has had the serial number altered, effaced or removed. Neither shall this warranty apply to any Receiver or Speaker which has been connected otherwise than in accordance with the instructions furnished by them."

You will note that under this warranty, the manufacturer's obligations consist of replacing defective parts only at Philadelphia, Chicago, San Francisco and Kenosha. However, the manufacturer has gone beyond this standard warranty and has authorized all Philco-Transitone distributors and all United Motors authorized auto radio service stations to replace defective parts under the warranty, for car dealers F.O.B. their place of business without charge for material.

Labor extended in the repair or replacement of parts during the ninety (90) day warranty period, by Philco Transitone distributors and United Motors authorized auto radio service stations, must be paid for by the car dealer participating in the sale of the radio set.

In this connection it is recommended that Nash dealers who are not adequately equipped to handle their own radio service work have the installations made by a United Motors authorized auto radio service station or by a Philco-Transitone distributor or service station. In certain cases these stations will be glad to quote instal-

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lation price which includes warranty labor during the initial ninety (90) day period.

If satisfactory local service cannot be secured on the replacement of defective Receivers or parts, during the warranty, such defective Receivers or parts will be replaced or repaired, without charge for labor or material, if these Receivers or parts are returned, transportation charges prepaid, to any of the following points:

THE NASH MOTORS CO.
Kenosha, Wisconsin

PHILCO-TRANSITONE
A and Allegheny Avenue, Philadelphia, Pennsylvania.

PHILCO-TRANSITONE
3335 W. 47th Street, Chicago, Illinois.

PHILCO-TRANSITONE
218 Fremont Street, San Francisco, California.

When returning alleged defective Receivers or parts to any of the above points, same must be accompanied by copy of letter which has been forwarded to the point of destination wherein specific information regarding serial number of the set, nature of the difficulty and the date of sale or installation, is given.

Nash dealers in general will appreciate this is a rather broad and liberal interpretation of the standard RMA warranty. However, unscrupulous or wholesale replacement of parts under this plan will not be countenanced. If it should be found that a procedure of this kind is being followed, the manufacturer has no alternative except to resort to a more literal interpretation of the standard RMA warranty.

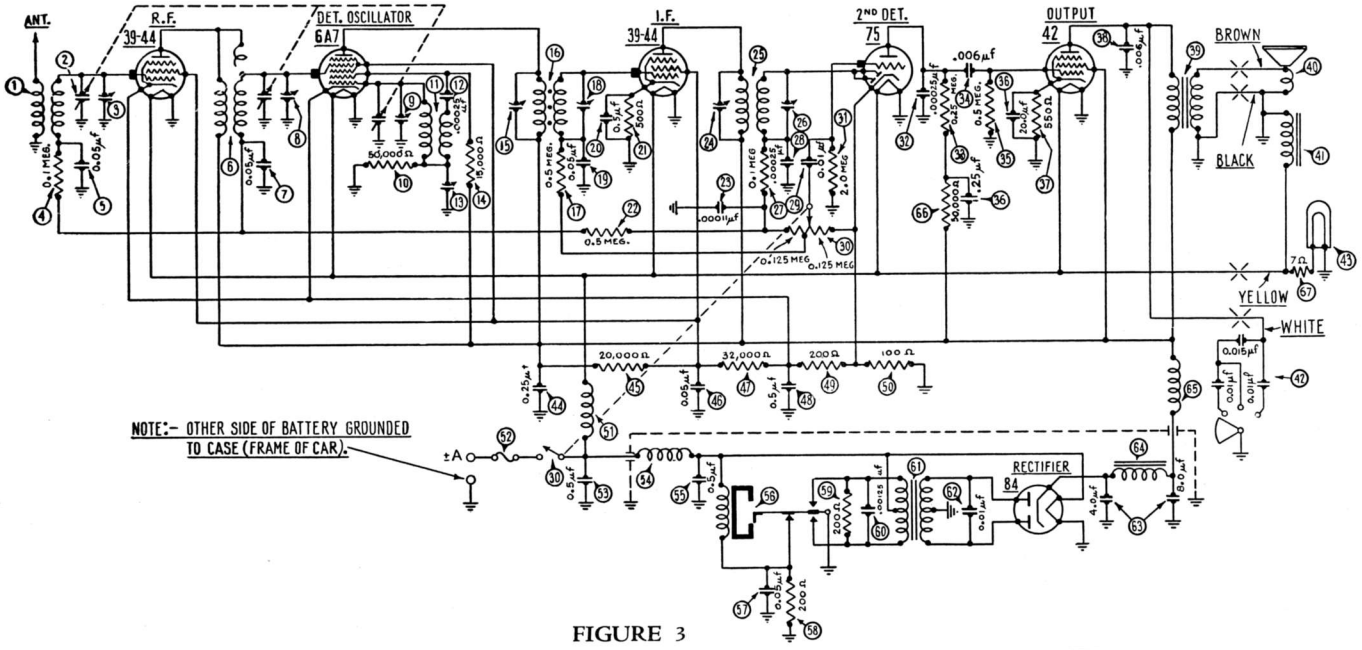

FIGURE 3

NASH - PHILCO MODEL AC 989 PARTS LIST

(1)	Antenna Transformer	32-1220	(22)	Resistor (500,000 ohms)	6097	(43)	Pilot Lamp	6608
(2)	Tuning Condenser	31-1083	(23)	Condenser (.00011 mfd.)	4519	(44)	Condenser (.25 mfd.)	04360
(3)	1st Padder (in tuning cond.)		(24)	Padder (prim. 2nd I.F.)	31-6008	(45)	Resistor (20,000 ohms)	6649
(4)	Resistor (100,000 ohms)	6099	(25)	I.F. Transformer (2nd)	32-1237	(46)	Condenser (.05 mfd.)	30-4020
(5)	Condenser (.05 mfd.)	30-4020	(26)	Padder (secondary 2nd I.F.)	31-6008	(47)	Resistor (32,000 ohms)	3525
(6)	R.F. Transformer	32-1221	(27)	Resistor (100,000 ohms)	6099	(48)	Condenser (.5 mfd.)	30-4048
(7)	Condenser (.05 mfd.)	30-4020	(28)	Condenser (.00025 mfd.)	3082	(49)	Resistor (200 ohms)	7217
(8)	2nd Padder (in tuning cond.)		(29)	Condenser (.01 mfd.)	30-4051	(50)	Resistor (100 ohms)	7838
(9)	3rd Padder (in tuning cond.)		(30)	Vol. Control Assembly	38-5280	(51)	A Choke	32-1268
(10)	Resistor (50,000 ohms)	6098	(31)	Resistor (2,000,000 ohms)	33-1025	(52)	15 Amp. Fuse	7227
(11)	Oscillator Transformer	32-1222	(32)	Condenser (.00025 mfd.)	5858	(53)	Condenser (.5 mfd.)	30-4061
(12)	Condenser (.00025 mfd.)	3082	(33)	Resistor (250,000 ohms)	3768	(54)	Vibrator Choke	32-1259
(13)	Padder	04000S	(34)	Condenser (.006 mfd.)	30-4024	(55)	Condenser (.5 mfd.)	30-4061
(14)	Resistor (15,000 ohms)	6208	(35)	Resistor (500,000 ohms)	6097	(56)	Vibrator	38-5036
(15)	Padder (prim. 1st I.F.)	31-6007	(36)	Condenser (20 mfd.; 25 mfd.)	30-4065	(57)	Condenser (.05 mfd.)	30-4039
(16)	I.F. Transformer (1st)	32-1236	(37)	Resistor (550 ohms)	6977	(58)	Resistor (200 ohms)	7217
(17)	Resistor (500,000 ohms)	6097	(38)	Condenser (.006 mfd.)	30-4024	(59)	Resistor (200 ohms)	7217
(18)	Padder (secondary 1st I.F.)	31-6007	(39)	Output Transformer	32-7102	(60)	Condenser (.00125 mfd.)	5886
(19)	Condenser (.05 mfd.)	30-4020	(40)	Cone and Coil	36-3020	(61)	Power Transformer	32-7098
(20)	Condenser (.5 mfd.)	30-4058	(41)	Field Coil Assembly	36-3130	(62)	Condenser (.01 mfd.)	30-4051
(21)	Resistor (500 ohms)	6977	(42)	Tone Control	30-4056	(63)	Filter Condenser	30-2015

(64)	B Chokes	32-7038
(65)	R. F. Chokes	32-1078
(66)	Resistor (50,000 ohms)	4237
(67)	Resistor (7 ohms)	5110
	Spark Plug Resistors	4531
	Distributor Resistor	4546
	Screw Type Resistor	4851
	Interference Condenser	30-4007
	Dial	27-5022
	Studs—4½" Special	28-6102
	Nuts (mounting)	W55
	Knob	03064
	Battery Cable	38-5296
	Antenna Lead	38-5161
	Instrument Panel Control	42-5088
	Acorn Nut	W821
	De Luxe Control Assembly	42-5097
	Standard Control Assembly	42-5101
	Steering Col. Control Assem.	42-5096
	Gasket	27-7290
	Nash Control Plate	28-7025

THE NASH-PHILCO RADIO, Stock No. AC989 has been designed by Nash and Philco Engineers and is Custom Built by Philco. Sold Exclusively by Nash Dealers.