

ELECTRONIC INDUSTRIES LTD.

CAR RADIO DIVISION

126-130 GRANT STREET, SOUTH MELBOURNE, S.C.4.

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## SERVICE BULLETIN

# 12 VOLT UNIVERSAL CAR RADIO

## INSTALLATION INSTRUCTIONS FOR FITTING

### MODEL "AJL" AND MODEL "BJL"

#### MODEL "AJL"

#### WARNING

MODEL 'AJL' RECEIVER MAY BE INSTALLED ONLY IN A CAR WHICH HAS THE NEGATIVE TERMINAL OF THE CAR BATTERY CONNECTED TO THE CAR CHASSIS.

BATTERY CONNECTION OF INCORRECT POLARITY WILL DAMAGE THE RECEIVER; e.g. Installation in a car which has the positive terminal of the battery connected to the car chassis.

#### MODEL "BJL"

#### WARNING

MODEL 'BJL' RECEIVER MAY BE INSTALLED ONLY IN A CAR WHICH HAS THE POSITIVE TERMINAL OF THE CAR BATTERY CONNECTED TO THE CAR CHASSIS.

BATTERY CONNECTION OF INCORRECT POLARITY WILL DAMAGE THE RECEIVER; e.g. Installation in a car which has the negative terminal of the battery connected to the car chassis.

Model 'AJL' and Model 'BJL' 12 volt single unit car radio receivers have been designed for mounting between the lower lip of instrument panel and firewall. Two side mount brackets are supplied to fasten the receiver to the lower lip of instrument panel.

The rear of the receiver is to be supported by a metal bracket. This bracket has holes along its length; it may be shortened, bent or twisted to provide the most suitable support between the rear of receiver and the car firewall or a cross member.

IMPORTANT: The contacting surfaces of screws, nuts, washers and mount positions must be entirely free of paint, varnish and burrs to ensure good electrical contact. Make sure that all mount screws and nuts are securely tightened.

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NOTE: ANTENNA MATCHING CONTROL ADJUSTMENT: A control is provided to ensure correct matching of the antenna to the receiver for maximum long distance reception.

This control is a small knob located on the passenger side of receiver, which is to be adjusted after the installation has been completed.

The adjustment procedure is at the conclusion of these instructions.

ANTENNA: The antenna supplied is a four section telescopic whip type which is designed for mounting on either corner of the top cowl or the crown of either front fender (mudguard).

Other types of telescopic antennas, such as side cowl or centre windscreen, are available.

Instructions for fitting the antenna are fully detailed on the instruction sheet supplied with the antenna.

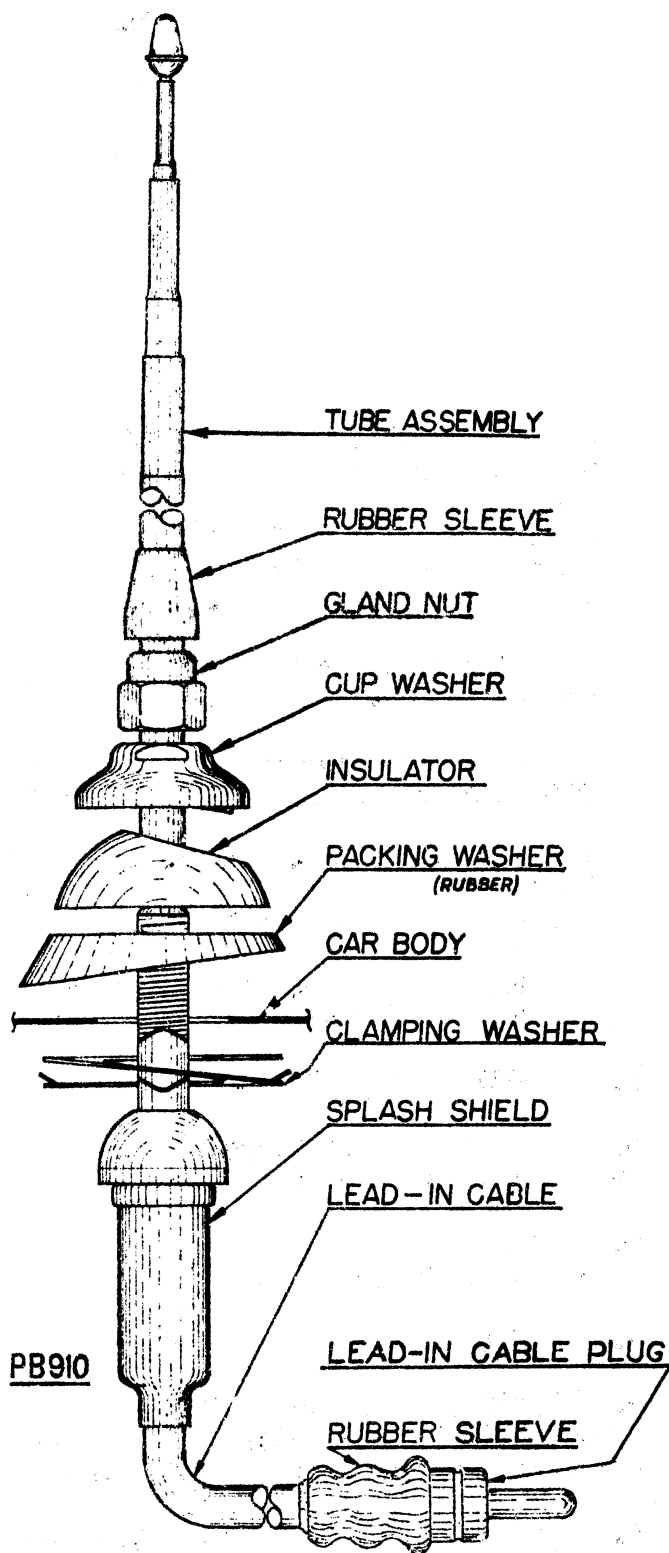
It is important to clean off all paint and burrs from underside of metal around the  $1\frac{1}{8}$ " dia. hole for approx.  $\frac{1}{2}$ " with emery paper or a sharp edged tool to ensure electrical contact between antenna clamping washer and underside of metal around the mount hole. Lightly smear cleaned surfaces with petroleum jelly.

RECEIVER:

1. Place a sh/proof washer and a flat washer under the head of the  $\frac{3}{8}$ " x  $3/16$ " Whit. rd. hd. screw supplied; insert screw through slot in rear mount bracket and into tapped hole in rear of receiver. Leave screw fingertight.
2. Place a side mount bracket on to each of the two sides of the receiver so that the slot in large fold of bracket locates over speednut attached to side of receiver; the wide end of bracket is to be toward the front end of receiver, and the fold which has a small slot is to be at the top and point away from receiver.
3. Place a flat washer under the head of each of the two  $\frac{3}{8}$ " x No.8 bdr. hd. self-tapping screws supplied; insert screws through slots in brackets into holes in speednuts attached to receiver case. Leave screws fingertight.
4. Hold receiver against lower lip of instrument panel in selected position for mounting.
5. Fashion rear mount bracket into a position which will allow one of the holes in bracket to be flat against firewall or a metal cross member. Make sure there is sufficient clearance on the other side of firewall or cross member to tighten the mount nut.
6. Using receiver as a template, mark the positions of the slots in side mount brackets on to the lower lip of instrument panel; mark the position for the rear mount hole
7. Remove receiver and drill two  $7/32$ " dia. holes at the positions marked for side mount brackets and a  $9/32$ " dia. hole at position marked for rear mount hole.

## ANTENNA MAINTENANCE

Approximately six times a year fully extend the extension rods and clean off all foreign matter with a cloth dampened with benzol. After cleaning, rub over the rods with a cloth slightly smeared with petroleum jelly. Work the rods up and down two or three times, then clean off all excess petroleum jelly. Use only benzol and petroleum jelly; do not allow the benzol to flow down the extension rod joints.



8. Clean off all paint and burrs from metal around three mount holes for approx.  $\frac{1}{8}$ " with emery paper or a sharp edged tool to ensure a good electrical contact. Lightly smear cleaned surfaces with petroleum jelly.
9. Securely tighten the screws fastening side mount and rear mount brackets to receiver.
10. Place receiver in position for mounting.
11. Place a flat washer under the head of each of the two  $\frac{5}{8}$ " x  $\frac{3}{16}$ " Whit. hd. screws supplied; insert screws through slots in side mount brackets and holes in lower lip of instrument panel.
12. Place a flat washer, a sh/proof washer and a  $\frac{3}{16}$ " Whit. nut on to each of the two screws. Leave nuts fingertight.
13. Insert a  $1\frac{1}{4}$ " x  $\frac{1}{4}$ " Whit. hex. hd. bolt through hole in rear mount bracket and hole in firewall or cross member; place a flat washer, a sh/proof washer and a  $\frac{1}{4}$ " Whit. hex. nut on to screw. Leave nut fingertight.
14. Align receiver to desired mount position and securely tighten the three mount nuts.
15. Insert the plug on end of antenna lead-in cable into antenna lead-in socket on rear passenger side corner of receiver.

SPEAKER: The 6" dia. permag. speaker encased in a moulded circular housing is designed for mounting on the firewall where it will be clear of all cables and the passengers' feet.

1. From inside car, place speaker housing mount screw against firewall in desired position; mark position of the mount screw.
2. Drill an  $11/32$ " dia. hole through firewall at the position marked.
3. Remove the  $5/16$ " Whit. hex. nut, sh/proof washer and two flat washers from mount screw protruding from rear of speaker housing.
4. Screw remaining nut on mount screw toward speaker until face of nut nearest end of screw is  $3/16$ " below ends of spacer bracket legs.
5. Refit one of the flat washers on to mount screw.
6. Position speaker housing against firewall so that mount screw locates through hole in firewall; turn speaker housing until spacer bracket is parallel with car floor and speaker lead protrudes through top of housing.
7. On engine side of firewall, refit the flat washer, sh/proof washer, and nut on to the mount screw. Securely tighten the nut.
8. Insert the four pin plug on end of speaker lead in to the four pin socket on rear driving side corner of receiver.



9. Connect free end of receiver battery lead to battery side of headlamp switch, battery side of ignition switch, or to the radio terminal on the terminal box if a radio terminal is provided. Make sure that the contacting surfaces are free of all paint or varnish to ensure a good electrical contact, and the connection is securely tightened.

INTERFERENCE ELIMINATION: No spark plug suppressors are required.

Distributor suppressor: Insert a screw-in type suppressor, P/No. PR314, in the high tension lead from ignition coil, a few inches from where it enters the distributor. Make sure the lead is fitted well into the suppressor and that good contact is made. Securely bind both ends of suppressor to the lead with adhesive tape.

NOTE: The contacting surfaces of the nuts and mount positions for the by-pass condensers must be entirely free of paint and varnish to ensure a good electrical contact. Lightly smear cleaned surfaces with petroleum jelly.

Generator condenser: Instal a shielded .5 MFD by-pass condenser, P/No. PC545 near the generator. Loosen the front bolt of the two which fasten generator swivel mount bracket to engine block. Slide mount foot of condenser up under the head of the bolt. NOTE: The condenser is to be placed as far as possible away from exhaust manifold. Securely tighten the bolt, then connect spade lug on end of flexible lead to the armature terminal, NOT THE FIELD TERMINAL.

Ignition coil condenser: Instal a .5 MFD shielded by-pass condenser (small hole in lug on end of flexible lead) P/No. PC545-1 near the ignition coil. Loosen off one of the bolts fastening the ignition coil mount bracket in position. Slide mount foot of condenser under the bolt head. Securely tighten the bolt. Connect lug on end of flexible lead to the terminal marked battery on the coil.

Reconnect leads to car battery.

ANTENNA MATCHING CONTROL ADJUSTMENT (after installation has been completed)

A control is provided to ensure correct matching of the antenna to the receiver for maximum long distance reception.

This control is a small knob located on the passenger side of receiver case.

To adjust the control, extend antenna to half its fully extended height, then tune receiver to a barely audible distant station near the centre of the dial.

Slowly turn the small knob in either direction for maximum volume of the signal.

If a barely audible distant station is not available, adjust antenna matching control knob for maximum volume of the background noise between two stations near the centre of the dial.

For best results it should be adjusted in a locality free from interference from overhead power lines, etc. Once the control has been adjusted it should not require readjustment unless the receiver or antenna and lead-in cable have been moved or removed from the vehicle.

Antenna - 4 section - telescopic, whip type 'ball base' less lead-in cable	M373
Antenna lead-in cable - 60 ins. overall length	M483
Grommet - $\frac{1}{2}$ " split rubber	40/300
Speaker assy. - complete	A186/392
consists of -	
Speaker - 6" dia. permag. type 6M	K213
Speaker housing	391/81-3
Speaker housing back	5/375-1
Rear bracket	9/375
Felt gasket	8/375
Speaker lead assy. - consists of	
4 pin plug	583/250
Speaker lead - shielded 2 core	WM320
Alternative speaker lead - shielded 2 core	WM318
P.V.C. sleeving	ET105
Fuse - 5 amp.	PM894
Fuse insulator - cardboard tubing	15/245
Condenser - .5 MF shielded, generator by-pass	PC545
Condenser - .5 MF shielded, ignition coil by-pass	PC545-1
Suppressor - 12,500 Ohm screw-in type	PR314
Dial lamp - 16V. min. bay. base G3 $\frac{1}{2}$ bulb Lugon type 163-11	M440
Escutcheon	23/392-8
Dial reading	9/395
Barrel nut (2)	17/304-1
Chrome washer (2) - barrel nut	19/304
Volume control and tone control - concentric shaft potentiometers	
FRONT SECTION - 2 M.ohm	
REAR SECTION - 2 M.ohm tapped at 800K.ohms	
D.P.S.T. switch attached	R185
Same control as above, except S.P.S.T. switch attached	R185-1
Same control as above, except S.P.S.T. push-pull switch attached	R197
Knob - tuning control	A193/392
Knob - volume control - control fitted with rotary type switch	A194/392-3
Knob - volume control - control fitted with push-pull type switch	A199/392
Knob - tone control - used when rotary type switch is fitted to volume control	349/81-3
Knob - tone control - used when push-pull type switch is fitted to volume control	551/81-3
Clip - tone knob	22/755
Knob - antenna matching control	341/81
Speednut - No.8 captive	476/250-1
Screw - self-tapping - $\frac{3}{8}$ " x No.8 bdr. hd.	35/560-8
Mount bracket - receiver - driving side	27/392-1
Mount bracket - receiver - passenger side	27/392-2
Mount bracket - rear of receiver	41/392