Service Instruction



Fourth Issue



SERIES I AND II and TRIUMPH "RENOWN" MODELS

BODY SECTION N

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THE STANDARD MOTOR COMPANY LTD., COVENTRY

BODY

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Fig. 1. Cut-away view of body details.



Fig. 2. Exploded view of left-hand body details

NOTATION FOR FIG. 2

No.

5

Description

Sill Assembly, and jack bracket, left hand.

No.

Description

- 28 Inner Panel, centre pillar, left hand.
- 29 Front Door, inner panel, left hand.
- 30 Turret Top.
- 31 Post A Liner, left hand.
- 32 Header Panel.
- 35 Post A, and cantrail, left hand.
- 36 Post A, lower left hand.
- 39 Bonnet Top.
- 40 Bonnet Catch, upper platform.
- 41 Panel, front wing, outer, left hand.
- 42 Bead, front wing, left hand.
- 43 Panel, dash side, outer, left hand.
- 44 Panel, dash side, inner, left hand.
- 47 Panel, front wing, inner, left hand.
- 51 Bonnet Catch, lower platform.
- 52 Apron, inside, front wing, left hand.
- 54 Front Apron.

7	Floor Panel, left hand.
8	Tunnel, prop. shaft.

- 8 Tunnel, prop. shaft. 9 Rear Seat Pan.
- 10 Spare Wheel Pan—centre.
- 11 Rear Squab Support.
- 12 Bar, back bottom.
- 13 Trunk Lid, inner panel.
- 14 Trunk Lid, outer panel.
- 15 Rear Tray.
- 16 Quarter Panel, left hand.
- 18 Left Hand End, for spare wheel pan.

Sill, end filler, front, left hand.

- 19 Left-Hand Support, luggage floor.
- 21 Wheel Housing, outer panel, left hand.
- 22 Rear Door, inner panel, left hand.
- 27 Panel, centre pillar, outer, left hand.
- 2

20-S STANDARD "VANGUARD"

Series I

The body is mounted at twelve points, six by $\frac{3}{8}''$ nuts and washers and six by $\frac{3}{8}''$ dia. $\times 1\frac{5}{16}''$ long hex. head bolts. There are in addition eight jacking bracket bolts and also two studs through the lower horizontal member of the radiator block cradle.

At each of these twenty-two points (shown on Fig. 3) there is a thick aluminium distance piece sandwiched by two $1\frac{3}{4}$ " dia. Kautex washers placed between the body, floor panel and the chassis.

The latest Series I models have, in addition, a stiffener bracket secured to the front of the chassis on both sides by two of the three bumper mounting bolts (marked "A" on Fig. 3). The top of both of these brackets are clamped by a bolt (at "B" on the same illustration) to the inner front wing valances.

Interior wiring.

The main harness from dash to rear is via near side body cantrail with lead to trafficator at centre pillar, and roof light at rear quarter, the main harness continuing through to luggage compartment. Off-side trafficator wire via off-side screen pillar and cantrail to centre pillar.

To remove rear light.

Lift out rear cushion, remove two screws visible at bottom and lift out squab. The trimmed rear tray millboard panel is secured to the metal panel by means of fixing pins and can be removed by upward pressure applied from the inside of the luggage boot. (With early Models, where the tray was trimmed after fitting, carefully raise edges of tray cloth covering, thus exposing Millboard fixing pins and clearing the way for the tray's removal).

The bottom screws securing rear light moulding are now accessible through lightening holes in tray panel. Slide chrome jointing piece as required and remove chrome beading.

Lift outer lip of moulded rubber over flange of light aperture, and force glass and rubber section inwards into body.

It is advisable to have an assistant inside to insure against breakage of glass.

To fit glazing rubber to rear light glass.

Fit the special joining rivet in the rubber at one end as shown in Fig. 4 overleaf, and liberally apply Bostick 'C' Compound to this channel. Make a chalk mark at the top of the glass, on the outside surface in its central position and, starting form this point, wrap the rubber around the glass and cut it off $\frac{1}{2}$ " short. Now feed the rubber around the edge of the glass by hand until it overlaps the end with the rivet in by about $\frac{1}{16}$ " to $\frac{1}{8}$ " (See Fig. 5). Force the rubber over the protecting rivet tag and squeeze this end of the rubber back into place on the glass edge, thus making a good water tight butt joint between the two ends. Finally turn over rivet tag.

To refit rear light.

Having fitted the glass in its glazing rubber.





Fig. 4. Showing one end of the rear light glazing rubber with the rivet in position



Fig. 5. The glazing rubber stretched around the edge of the rear light glass until it overlaps slightly ready to be forced over the projecting rivet head



Fig. 6. Showing the chamfers cut on the two ends of the rear light chrome finisher strip



Fig. 7. Section through top of rear light showing general layout of component parts

again liberally apply Bostick 'C' or other suitable sealing compound, to the channel in the rubber into which the aperture flange locates (See Fig. 4). The light should now be offered up to its aperture from within the body and held there firmly by an assistant while the rubber lip which fits over the aperture flange is eased out and over this flange from the outside with the assistance of the tool shown in the inset in Fig. 13.

A soft soap solution should be applied to the finisher strip channel, in the rubber, and the the chrome finisher strip itself fitted, again with the assistance of the hard wood tool mentioned above. Before doing this, however, cut a slight chamfer on the ends of the finisher strip as shown in Fig. 6. The reason for this will be appreciated when the chrome jointing strip is finally slid into position. Start by placing one end of the finisher strip into the rubber at the top central position, indicated by the chalk mark on the glass and work it into position around the rubber. Before the end finally goes home, fit the chrome joining strip on to the finisher strip. To avoid damaging the paintwork whilst the strip is being fitted, the free end should be covered with a suitable piece of rubber.

See Fig, 7 for general layout of component parts.

The later Series I Vanguards are fitted with glazing rubber similar to that used on the Series II models, and described on page 2 of the Supplement.

N.B. Where Bostick 'C' is not available, other suitable sealing compounds such as "Seelastic" manufactured by Expandite Ltd. may be used.

To dismantle front door.

1. Press spring-loaded escutcheons of inside lock handle and door glass regulator handle inwards as shown in Fig. 8, remove retaining pegs and draw off handles.

 Detach window moulding after removal of securing screws. Remove arm rest and then door casing after removal of visible fixing screws and freeing the spring clips which fit into the metal door frame, see Fig. 9 for location of these holes. (With earlier Models, the door casings are fixed with spring clips only.)

On earlier Models with the pull out type of glove box remove window moulding, open glove pocket and remove three wing nuts inside trimmed casing panel over pocket. Then, with the screwdriver or other suitable tool, prise off each spring retaining clip at both side and bottom of casing board. Occasionally a wedge may be found inserted through centre spring clips behind panel. Please check and remove. Remove glove box.

- 3. Remove outside door handle and bolts securing window regulator, and withdraw regulator through inner door panel lightening hole. (See Fig. 9.)
- 4. Remove Parker Kalon screws embedded in each drop light glass run felt at top. and slide down lock pillar channel, and out through inner panel lightening hole, remove inner and outer waist rail strips and chrome beading. Bifurcations should be bent carefully to ensure refit. The door glass may now be lifted out followed by centre post channel. Remove ventilator and lock and top channel.

This procedure is reversed for assembly. It must be remembered that the conical springs which maintain pressure on both handle escutcheon plates are to be assembled between the casing and the door body before the casing is re-attached to the door. The springs are assembled with their largest ends towards the casing.

To dismantle rear door.

Proceed as with front door (1) and (2), then release door glass lifting channel from window regulator cable at points 'C' and 'D' in Fig. 10.

Remove two Parker Kalon $\frac{1}{2}''$ No. 4 screws embedded into each glass run felt at top. The hinge pillar channel may now be withdrawn downwards and through inner panel lightening hole followed by lock pillar channel. Remove inner waist strip and lift out glass and outer waist strip, remove outer chrome beading bifurcations as for front door.

For adjusting the tension of the window regulator mechanism cable, two of the lower pulleys are bolted in slots as shown at 'F' and 'G' in Fig. 10. Cable tension adjustment is affected at these two points by slackening off the nuts, moving the pulley spindles in their slots until cable is taut and locking up the nuts again.

DOOR LOCKS AND HANDLES

Door Locks.

Lock (Mechanism) Units :---

Left Rear	CD.25275
Right Rear	CD.25276
Left Front	CD.25277
Right Front	CD.25278

5



Fig. 8. Door handle escutcheon plate being held depressed whilst the retaining peg is being pushed out



Fig. 9. Partially stripped front door



Fig. 10. Partially stripped rear door showing layout of window regulator mechanism and cable tension adjustment pulleys.

BODY



Fig. 11. Showing the chamfers cut on the two ends of both windscreen chrome finisher strips.



Fig. 12. Showing the corner of the chrome finisher strip being inserted into the bottom rubber of the windscreen



Fig. 13. Showing the chrome finisher strip being worked into position in the glazing rubber with the aid of the hard wood tool shown in the inset above. (Lignum Vitae is a particularly suitable hard wood from which to make this tool.)

Door (Outer) Handles.

(For R.H. Steering Models)	
L.H. Non-Locking Handle (Front)	CD.24993
R.H. Locking Handle (Front)	CD.24994
L.H. Non-Locking (Rear)	CD.25745
R.H. Non-Locking Handle (Rear)	CD.25746
(For L.H. Steering Models)	
L.H. Locking Handle (Front)	CD.26709
R.H. Non-Locking Handle (Front)	CD.26710
D XY . 1 11	

Door Vent Assemblies.

L.H. Door Vent Assembly	
(complete with glass)	CD.26998
R.H. Door Vent Assembly	
(complete with glass)	CD.26999

Removal and reglazing vee type windscreen.

Two methods may be employed :--

Method 1.

Remove top and bottom finishers, which secure the interior screen centre moulding in position and prize off this moulding with a suitable lever.

With early Models this centre moulding was made of spring steel and the top and bottom finishers were not fitted.

Remove remaining mouldings (Parker Kalon screws). Remove outside chrome finisher strips or beadings and centre retainer bar, remove six retainer plates on dash rail. Lift outer lip of moulded rubber over screen aperture flange and force screen glass complete with rubber section inwards at centre; considerable pressure is needed.

To refit windscreen

First remove the old sealing compound from aperture. Thoroughly clean rubber channel and edges of glass and apply Bostick 'C' solution to both and allow to stand until tacky. Next fit both glasses into glazing rubber. Apply Bostick 'C' solution to the body flange channel in the rubber and place outer edges of the two piece screen into the aperture (from the inside) and force it over centre into position. Whilst being held there firmly, lift the outer lip of the rubber over the flange of the aperture with the aid of the hard wood tool, shown inset in Fig. 13.

Where a new glazing rubber is being used it may be found that there are no holes punched in the centre strip. In this case it is best to drill these holes before the rubber is fitted around the glass. The exact location of these holes can be found by marking them off on the rubber directly from the interior screen centre plate.

With the screen in position, now loosely fit



Fig. 14. Section through top of windscreen showing general layout of component parts

the six retainer plates on the dash rail with their Millboard packing pieces. (If these packing pieces are not fitted between the rubber and the retaining plates, it will be found that, on tightening up the retainer plates they pull the rubber away from the screen.)

Before fitting the outer chrome finisher strips, chamfer the ends slightly as shown in Fig. 11, this will help the ends to bed down properly in the rubber. Now apply soft soap to the rubber and fit the chrome strips.

To do this, push the bottom corner of the chrome strip into the bottom rubber and slide it along to the corner. See Fig. 12. Now, starting from this corner, work the remaining parts of the strip into the rubber, again using the hard wood tool as shown in Fig. 13.

Next fit the chrome centre strip and interior centre plate and screw them home from the inside.





Tighten up the retaining plates on the dash rail and liberally apply Dum-Dum sealer to the interior bottom edge of the screen along the dash rail, before finally fitting the interior mouldings.

See Fig. 14 for general layout of component parts.

To fit new chrome finisher strips.

Where it is found necessary to fit a new chrome finisher strip to a screen, the interior mouldings must be removed and the retaining plates slackened to relieve the load on the rubber and thus facilitate the entry of the finisher strips.

Then fit the new finisher strips, again using soft soap, as described above.

Method 2.

Eliminates interference with Steering and Wireless Systems.

Proceed as the foregoing in No. 1 and with centre bar removed, together with mouldings and outside chrome finisher beading. Take a sharp knife and moisten and cut through vertical centre dividing rubber and remove the affected half screen or both as required. Reverse process to refit.

Having split centre rubber it is necessary to solution a strip of rubber down join on outside surface— $15'' \times \frac{5}{8}'' \times \frac{1}{32}''$ is a suitable size for rubber strip.

To remove head-lining.

This necessitates the removal of the windscreen and rear light, covered under those headings, then proceed as follows :—

Open up the finisher strips over each door at the right-hand and left-hand cantrails by inserting a screwdriver or other suitable instrument. Fig. 15(A).

Care must be taken to disengage the material neatly from the claws of the finisher strips (Fig. 15 B) to ensure the refit. The fixing at the screen header and at the rear is by solution.

With the material at the cantrails adrift the listing bar screws are now visible.

To dismantle instrument panel assembly.

Remove dash rail moulding followed by nuts at back of centre piece.

The instrument panel and glove box fixing is now visible.

To remove front seat.

To remove front seats, detach the seat frame from the slides by releasing the four nuts which are visible with the seat cushion removed.

BODY PANEL REPAIRS

The complete body is an assembly of subsections of which any separate panel can be obtained from The Standard Motor Co., Spares Department. The method of assembly is by electrical spot-welding. Repairs, however, may be made, including the building in of new panels, by oxy-acetelyne equipment.

We suggest the following procedure for the extraction of damaged panels. (See Fig. 16) :---

Cut the scrap panel about $\frac{1}{2}''$ from original joint flange for total length, and remove. The application of a paint remover to flange now accessible will reveal each fusion spot. Drill through surface *only* of part to be removed on each spot-weld and separate from adjoining panel with chisel. Trim the new panel to fit the body accurately and weld in position.

Fit and clamp new panel in position and apply an ample quantity of pulped asbestos to outer surface over joint to assist in the prevention of distortion in welding process.

Minor damage to panels may be repaired by body solder. All panels being steel. (See Page 25 for "Renown.")

Panels most vulnerable to accidental damage and likely to require replacement are :--

Description	S.M.	Co. Part No.
Front Wing Outer Panel L.H.		CD.24289
Front Wing Outer Panel R.H.		CD.24290
Front Wing Inner Panel L.H.		CD.24824
Front Wing Inner Panel R.H.		CD.24825
Front Wing Beading R.H.		CD.24963
Front Wing Beading L.H.		CD.26255
Front Wing Finisher L.H.		CD.24833
Front Wing Finisher R.H.		CD.24834
Head Lamp Ring L.H. & R.H.		CD.24401
Front Apron (without sideligh	ts)	CD.25366E
Front Apron (with sidelights)		CD.25366L
Lower Platform Assembly		CD.24872
Grille Channel Inner L.H.		CD.25698
Grille Channel Inner R.H.		CD.25690
Grille Channel Outer L.H.		CD.25691
Grille Channel Outer R.H.		CD.25692
Quarter Panel L.H		CD.27699
	(up	to V.110,000
Quarter Panel R.H		CD.27700
	(up t	O V.110,000)
Quarter Panel L.H		CD.28347
	(fro	m V.110,001)
Quarter Panel R.H		CD.27700
	fro	m V.110,001)
Bottom Back Bar		CD.24369
Wheel Housing Outer L.H.		CD.27703



Fig. 16. Damaged outer wing panel has been cut away $\frac{1}{2}$ " from its edge. The remainder is removed after the spot welds have been drilled through

Wheel Housing Outer I	R.H.		CD.27704
Wheel Housing Inner I.	H.		CD.24307
Wheel Housing Inner R	.н.		CD.24308
Dash Side Outer L.H.			CD.25274
Dash Side Outer R.H.			CD.25275
Centre Pillar L.H.			CD.24402
		(up	to V.50,000)
Centre Pillar R.H.			CD.24403
		(up	to V.50,000)
Centre Pillar L.H.			CD.27788
		(fr	om V.50,001)
Centre Pillar R.H.			CD.27789
		(fr	om V.50,001)

20ST. TRIUMPH "RENOWN"

To dismantle front door.

- 1. Remove interior handles by depressing inner spring loaded escutcheon plate and pushing out handle retaining pegs in each case (see Fig. 17).
- 2. Remove adjustable arm rest and unscrew its supporting bracket.
- 3. Withdraw all panel pins around the bottom edge and the sides of the trimmed door casing. The casing is now only secured by three "keyhole" brackets screwed on its back, which locate over the projecting heads of three screws in the door frame shown in Fig. 18. To release the casing, it now only has to be pulled down about 1/2" and is then free to be removed.



Fig. 17. Door handle escutcheon plate being depressed whilst the handle retaining peg is pushed out



- Fig. 18. Trimmed casing being held against body of front door after removal showing its location points and retainer tongues which fit behind the facia capping when the casing is in position
- 4. Remove door top capping and the facia capping. (See Fig. 18.)
- 5. Release outer door handle (screw 'A' in Fig. 18). The garnish rail complete with door lock and window regulator mechanism can now be removed with a slight upward movement after its retaining screws (positioned at 'B' on Fig. 18) have been removed.
- 6. Remove window stop (shown in Fig. 19) and drop main window down as far as it will go, to position shown in Fig. 20. Peel out felt from front vertical glass channel (as



Fig. 19. Garnish rail assembly removed showing its top channel which hooks over the tops of the two door side frames



Fig. 20. The front vent light frame being removed from the door body

shown in Fig. 20) and remove the six countersunk headed screws retaining front vent light frame shown positioned at 'E'. Remove remaining four screws retaining vent light positioned at 'F' and 'G' in Fig. 19 and ease out vent light frame as shown in Fig. 20.

7. To remove main light frame, remove the retaining screws located underneath the felts at the bottom of both vertical glass channels. To do this push the movable glass up to the. top of the frame and peel the felts out from



Fig. 21. Trimmed casing being held against body of rear door after removal showing its location points and retaining tongues which fit behind the facia capping when the casing is in position



Fig. 22. Garnish rail assembly removed showing its top channel which hooks over the tops of the two door side frames

the bottom. Also, whilst the glass is in the "up" position, remove the screws from main frame support bracket (shown in Fig. 20), as this is part of the main light frame. The glass and frame may now be lifted out of the door body.

N.B. The vent light and main light frame can be removed as one unit if required by releasing all screws mentioned above, except the six shown at 'E' on Fig. 20 and two at 'G' on Fig. 19.

The above procedure is reversed for assembly.



Fig. 23. Screen pillar chrome capping assembly being refitted, the top end is pushed home first. This assembly should not be dismantled to be removed, only take out the three screws in the door shut as shown

To dismantle rear door.

Proceed in a similar manner to the method used for dismantling the front door, by removing :--

- 1. Inner door handle and window regulator handle (see Fig. 17).
- 2. Door casing panel pins and retaining screw.
- 3. Top polished wooden door capping (Fig. 21).
- 4. Door casing.
- 5. Polished wooden facia capping (Fig. 21).
- 6. Outer door handle (screw 'C' on Fig. 21).
- Garnish rail complete with door lock and window regulator mechanism as shown in Fig. 22. (Retaining screws shown in Fig. 21.)
- 8. Remove the screws positioned at 'D' in Fig. 22, in the bottom of both vertical glass channels, which are accessible when the felts are peeled out from the bottom of the frame channels with the glass in the 'up' position. Also with the glass in this position, remove the screws in both light frame support



Fig. 24. Showing parts to be dismantled when when removing the windscreen







Fig. 26. Showing parts to be dismantled when removing the rear light

brackets, also shown in Fig. 22. A certain amount of force is necessary when removing light frame to ease it past the chrome fence rail.

Removal and re-glazing of windscreen.

- 1. Remove screen pillar chrome cappings in one piece by removing the three screws from inside the "door shut" only, as shown in Fig. 23.
- 2. Remove both screen pillar interior wooden cappings.
- 3. Remove dash capping (Fig. 23).
- 4. Remove the front three screws (marked 'F' in Fig. 24) from one cantrail trimmed casing and spring it out slightly to enable the trimmed header bar to be released after its screws have been removed.
- 5. Remove all retaining screws from around windscreen frame (some shown at 'G' in Fig. 24).
- 6. Remove screen (complete in its frame) by pushing it forward out of screen aperture. Assistance is required at this stage to avoid glass breakage and body damage.

Fitting frame to front screen glass.

The Chromium (channel section) frame is forced over the edge of the glass, with the strip sealing rubber—formed round the edge of the glass into a channel—trapped between them. The rubber is then trimmed up flush with the edge of the chrome channel as shown in Fig. 25.

To refit front windscreen.

Clean out aperture and first stick the rubber weather strip to the top of the screen aperture by applying Bostick to both surfaces and allow it to get tacky for about twenty minutes before placing rubber into position. Next fit the screen into the aperture, using plenty of Dum-Dum in the aperture joint on both sides and the bottom edge of screen.

Rebuild screen components in reverse order to that used for dismantling.

Removal and re-glazing of rear light.

- 1. Remove rear seat cushion.
- 2. Remove rear seat squab held in by two screws in rear of seat pan (visible just below base of squab) and by three screws accessible from boot compartment. The position of these screws is shown (marked H) in Fig. 26.
- 3. Remove rear quarter light polished cappings.
- 4. Remove rear trimmed parcel tray, retained by two screws at either end and panel pins

along its front edge.

- 5. Remove both rear quarter trimmed casings (two screws 'J' in Fig. 26). It may be found necessary to temporarily remove the rear screw of the quarter light facia capping as the material covering the casing sometimes is pinned by this screw also.
- 6. Remove rear head lining trimmed finisher strip secured by panel pins and tacks at its ends. Release the outside edges of the rear light trimmings which are solutioned and tacked to part of the wooden body frame surrounding the rear light panel. To release the top edge it will be found that the rear edge of the head lining has also to be freed, as these are solutioned and tacked together along this edge.
- 7. The plywood rear light retaining frame (to which the trimming is solutioned on the inside) is now accessible for removal when the trimming cloth is lifted up to reveal the screw heads as shown in Fig. 27. It is advisable to fold the rear light panel trimmings as shown also in Fig. 17 to ensure that it is creased as little as possible if it is going to be used again.
- 8. When this plywood frame complete with the trimming has been removed, the rear light, complete with its glazing rubber, may be pushed out of its aperture into the car. Assistance is again required here, inside the car, to avoid breakage.

Refitting rear light.

If the sealing rubbers are damaged or are perished it will be necessary to make up new ones from a length of the special section rubber shown in Fig. 28, which is used on this Model.

The rubbers at each corner must be cut as shown in Fig. 29.

Note that this diagram shows how the bottom and left (near side) rubbers are cut to fit together at the bottom left hand corner. Other corners are cut in a similar way, but Fig. 31 must be studied before cutting the rubbers further to ensure that all corners are jointed correctly.

Fig. 30 shows how the rubbers at the bottom left hand corner fit together when the whole assembly is located in the rear light aperture. Other corners are similar, but see Fig. 31.

Reglazing rear light.

Having fitted the four rubbers around the rear light glass, apply a soft soap solution around the underside of the flange shown at 'A' in Fig. 30. It is now advisable to have an assistant to



Fig. 27. When removing the plywood rear light retaining frame, fold the rear panel trimming material as shown, to avoid creasing it as much as possible



Fig. 28. Section through bottom of rear light



Fig. 29. Showing how the glazing rubbers are cut for the bottom left-hand corner of the rear light, as viewed from the outside. See Fig. 31, for the arrangement used at the other corners



Fig. 30. Showing how the rubber flanges at the bottom left-hand corner of the rear light abutt together when in the aperture



Fig. 31. The four corners of the rear light (as viewed from the outside), showing where the flanges (F) and the channels (C) join together at each corner



Fig. 32. The rear light being held firmly in position whilst the flanges of the glazing rubber are pulled out to lay along the aperture edges. A length of string laid around the rubber first can be used (as shown above) to assist in this operation. offer up the light from the inside and press it fairly hard against the aperture whilst with a suitable tool, such as a piece of hard wood shaped like a screwdriver, the rubber flange is eased into the aperture from the outside. Great care must be taken to get the specially cut corner flanges through the aperture first, otherwise they may get trapped and be torn. A piece of cord may be of assistance in this operation if laid around the rubber channel first, as shown in Fig. 32.

Whilst the screen is still being held in position from the inside, place the plywood frame in position and screw up to hold the light in the aperture. Then rebuild in the reverse order given for dismantling. The solution to be used for resticking the trimming is Goodliff Rubber Solution for cloth to cloth, but for cloth to metal or wood use Goodliff Security Rubber Compound.

The rear light is fitted without any form of sealing compound. With the light now in position, lift the flanges at the corners slightly and run in some Bostick, also fill up the cavities formed in corners indictated at 'B' in Fig. 30, to make rear light water tight. Cut the ends of the flanges if necessary to make neat butt ended joints at all four corners.

To remove head lining.

Release and remove the following :--

- 1. Roof lamp.
- 2. Rear quarter light cappings, and rear parcel tray (if found necessary).
- 3. Rear quarter light trimmed casings.
- 4. Rear head lining trimmed finisher strip.
- 5. Cantrail trimmed casings.
- 6. Front trimmed header bar.
- 7. Untack head lining all the way around edges.
- 8. Starting from the rear untack head cloth seams from wooden roof battens.

If the head cloth is to be replaced with new material, then the rear light trim will usually also have to be renewed to match.

For procedure to be adopted to remove rear light trimming cloth, see instructions under "Removal and reglazing of rear light".

INSTRUCTIONS FOR FITTING THE "SMITH" 2 OR 4 KILOWATT AIR-CON-DITIONING EQUIPMENT IN 2-LITRE STANDARD MODELS

This type of equipment, which is easily distinguished from that formerly used by the rectangular shape of the heater unit, can only be fitted in conjunction with the left-hand positioning of the batteries on the bulkhead, as is now used with the cars leaving the assembly line.

With the latest type of body where the batteries are suitably located on the left side of the bulkhead, provision is made in assembly for the possible future incorporation of this make of Thus, all the necessary apertures are heater. provided in the dashboard and bulkhead for the installation of the heater, it merely being necessary to remove the grommets and plates which seal these holes and to clear away trim details as described below to enable the equipment to be fitted.

The procedure given below should be adopted when making this installation and, if the instructions given are regarded, five hours should be sufficient to allow for fitting the heater equipment :---



Fig. 33. Exploded view of details for 2 K.W. Unit

- 1. Heater Unit (2 kw.).
- 2. Blower Unit.
- 3. Control Unit
- 4. Cover Plate and Felt Packing.
- 5. Rubber Packing for Heater Base.
- 6. Demister Elbows.
- 7. Grommet for Demister Elbow.
- 8. Mounting Setscrews for Heater Unit.
- 9. Spring Washers for Heater Mounting Bolts. 10. Plain Washers for Heating Mounting Bolts.
- 11. Blower to Heater Hose.
- 12. Blower to Duct Hose.
- 13. Millboard Cover.
- 14. Demister Hose Connector (Glove Box side).
- 1. Drain radiator to below level of water pump to which the return hose from the heater is attached.
- 2. Remove the two square-headed plugs, one on the water pump by-pass branch and the other at the rear right-hand corner of the combustion head, which seal the tapped holes for the return and outlet hose connection adaptors. Fit the two adaptors.
- 3. Remove the rectangular plate from the forward portion on the centre of bulkhead after withdrawal of the securing setscrews. Where the 2 kw. type of heater is to be installed, a

- 15. Demister Hose Connector (Steering Unit side).
- 16. Outlet Water Hose.
- 17. Inlet Water Hose.
- 18. Adaptor for Water Hose.
- 19. Clip for Water Hose.
- 20. Clip for Water Hose.
- 21. Heater Switch Assembly.
- 22. Bracket for Control Cables (L.H.S. Models only).
- 23. Bracket for Water Hose.
- 24. Grommets for Control Cables.
- 25. Securing Nuts for Blower Unit.

portion of the aperture revealed by the removal of this plate, will necessitate the ultimate installation of the plate (4) and packing shown in Fig. 33.

4. Remove the rubber grommets sealing off the holes provided for the mounting of the blower and heater units as applicable to the size of heater which is to be fitted. Similarly deal with the grommets sealing the heater for the demister elbows and the three control cables. Replace the sealing grommets in the case of the demister apertures by those supplied for fitting purposes. (See Fig. 34.)





Fig. 34. Showing Bulkhead with Aperture for Heater uncovered

- 5. Remove the centre portion of the millboard trim under the facia panel and the small piece of similar material which surrounds the steering column, where this passes downwards towards the bulkhead tunnel. The trim is held in position by four screws and two nuts. The large piece of millboard must necessarily be removed before the smaller piece and this may be carried out after removal of the screws and by forcing the choke control out of its hole through the cut portion of the fabric. (Fig. 35 shows position of elbows.)
- 6. Bolt heater and blower units in position, fitting, in the case of the heater, the rubber



Fig. 35. Showing Demister Elbows assembled in position for 2 K.W. Unit and provision made for 4 K.W. Set



Fig. 36. Showing Controls and Hoses

packings (5) on the bulkhead. Where the smaller unit is being installed, plate and felt packing (4) should be employed to seal off the aperture left in the bulkhead.

- 7. Having bolted down the heater and before connecting up the controls, test the levers on the heater for freedom. If these do not move freely, the difficulty may be explained by distortion of the heater casing and necessitates the fitting of packing washers on one, or more, of the securing setscrews.
- 8. Fit demister elbow on the back of the heater unit and couple elbows with their respective demister fishtails at the top of the dash. The longer hose of the two should always be fitted behind the glove box. The glove box should be removed, after the withdrawal of the four securing self-tapping screws to facilitate this operation. The position of the glove container will vary according to whether the car is fitted for Right Hand or Left Hand driving being, in each instance, on the side remote from the steering unit.
- 9. Check for the correct attachment of the control cable to the bracket assembly in particular the double control which is connected to the gearing on the right of the heater box, as shown in Fig. 36. The shortest control cable, which is attached to the shutter lever, must be placed uppermost next to the bracket in its fitted position, thus allowing the necessary clearance on the blower to heater connector hose.
- 10. Fit control cable grommets and assemble brackets in the appropriate relation to the



Fig. 37. Showing Fitted Portion of Control Bracket on Left-Hand Steering Model

steering column—on the left of this for Right Hand steering and on the right for Left Hand steering. Utilize the two screws supplied with the bracket, fitting one of these into hole at present occupied by a metal screw under the dash in line with a chromium beading and the second into a tapped hole adjacent to the steering column. See Fig. 37.

- 11. Assemble switch on facia panel and complete electrical connections. The shortest of the three leads should be used to couple one side of this switch to the live side of the wiper switch and the other terminal should be coupled with the snap connector on one of the two leads fitted to the blower unit. The earth connection is made by connecting the second lead on the blower unit to the windscreen wiper motor.
- 12. Fit the tunnel-shaped millboard baffle under the aperture in the bottom of the heater, which protrudes into the car, attaching this with the two rear heater securing setscrews and suitably placed screws in the bottom of the dash. Refit felt packing and large and small millboard trim pieces removed to enable the installation to be made.
- 13. To complete the installation, the water hose connections should be made, fitting the return pipe support bracket as shown in Fig. 38, and lastly the blower hoses should be coupled to the heater and duct.

Note—Where "radiator draining" is resorted to as protection against frost, the heater control should always be placed in the "HOT" or open position when carrying out this operation, to enable the unit to be emptied with the rest of the system.



Fig. 38. Showing 4 K.W. Unit Water Hoses and Support Bracket for Outlet Pipe

CAR RADIO

Two Types of Radio are fitted, with current productions, and for these two types of equipment provision has been made in the design of the Car.

The equipment specified for use with these Models is that Manufactured by Messrs. S. Smith and Sons (Radiomobile) Ltd., 179/185, Great Portland Street, London, W.1. The types of radio which we use are the Radiomobile Models 4200 and 4202.

Radiomobile Model 4200 is intended for use with Medium and Long Wave lengths and has five push buttons on its facia panel.

Radiomobile Model 4202 is for use with Medium Wave length only and has, like the other Model, five push buttons on facia panel.

Early Vanguard Models were equipped with Model 100 which has 8 push buttons.

Whilst the installation of this equipment is not difficult, to get proper quality of sound reception, technical knowledge in regard to such matters is necessary.

By the special request of Messrs. Smiths, we have purposely withheld fitting instructions and are requesting Standard and Triumph Distributors or Dealers to apply for assistance with regard to installation, to the nearest Radiomobile Agent. A list of Radiomobile Home and Overseas Agents is given below and where such an installation is contemplated, reference should be made to the appropiate Agent, or where such assistance is not readily available, to Messrs. S. Smith and Sons (Radiomobile) Ltd., 179/185, Great Portland Street, London, W.1. (See overleaf.)