

Fitting

INSTRUCTIONS

PRODUCT	OPEL CORSA UTILITY 1400 A/C	
APPLICATION	OPEL CORSA UTILITY 1.4i MODELS OCTOBER 2004 →	
REF: 1139-16-019_D	PART NO – 1139-001-01	DATE – 03 JUNE 2008



120 MIN

VERY IMPORTANT

PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE COMMENCING WITH FITMENT

KIT CONTENT LISTING

1139-6000-01	RECIRC ASSY, CORSA	1	EA
1139-2100-01	EVAP ASSY, CORSA	1	EA
1139-3300-01	CONDENSER ASSY, CORSA	1	EA
1139-2070-01	RECEIVER DRIER ASSY, CORSA	1	EA
03-003-079-04	COMPRESSOR	1	EA
S99-05-1420	V-BELT 5PK 1420	1	EA
1139-4450-01	BRACKET ASSY, COMP, CORSA	1	EA
1139-3700-01	TUBE ASSY LIQ NO1, CORSA 1.4	1	EA
1139-3701-01	TUBE ASSY LIQ NO2, CORSA 1.4	1	EA
1139-3702-01	TUBE ASSY LIQ NO3, CORSA 1.4	1	EA
1139-3703-01	TUBE ASSY LIQ NO4, CORSA 1.4	1	EA
1139-3900-01	TUBE ASSY SUCT NO1, CORSA 1.4	1	EA
1139-3901-01	TUBE ASSY SUCT NO2, CORSA 1.4	1	EA
1139-3850-01	HOSE ASSY DISCH, CORSA 1.4	1	EA
1139-3950-01	HOSE ASSY SUCT, CORSA 1.4	1	EA
1139-4050-01	TUBE DRAIN, CORSA 1400	1	EA
1139-4860-01	FITTING KIT ASSY, CORSA	1	EA
1139-4840-01	FITTING KIT, M&D	1	EA
	BOLT M8 X 75 ZINC YELLOW PASS	4	EA
	WASHER PLAIN - M8	4	EA

	WASHER, SPRING, M8	4	EA
	BOLT M10X50 H/T	4	EA
	WASHER, FLAT, M10	4	EA
	SPRING WASH.M10 ZN PLTD&YEL P	4	EA
	HARNESS, ENGINE, CORSA	1	EA
	CABLE TIES T18R X 100 MM	6	EA
1139-4800-01	FITTING KIT, EVAP	1	EA
	SCREW, KLGRD BLK MSH HD No6x1	10	EA
	GROMMET FIREWALL G66	1	EA
	EXPANSION VALVE FUJIKOKI	1	EA
	SCREW, SOCKET HD CAP M5X4	2	EA
	WASHER, STAR INT M5	2	EA
	HARNESS, DASH, CORSA	1	EA
	ELECTROSTAT, CORSA	1	EA
	PLATE, CUBBY HOLE, CORSA	1	EA
	HOSE, DRAIN	1	EA
	CABLE TIES T18R X 100 MM	4	EA
	CAP, CORSA SWITCH	1	EA
	Seal 20x25	0.25	MT
1139-4830-01	FITTING KIT, PIPES&HOSES	1	EA
	GROMMET, DOUBLE HOLE F/WALL	1	EA
	BRACKET, PIPE CLIP 90, CORSA	1	EA
	CLIP PLASTIC	2	EA
	SCREW M6X30H/T.ZNC PLT Y/PAS	6	EA
	WASHER PLAIN - M6	6	EA
	WASHER, SPRING M6	6	EA
	CLIP, PLASTIC	1	EA
	CABLE TIES T18R X 100 MM	1	EA
	COVER, FILTER DUCT ASSY	1	EA
	SCREW S/T P/POZI BLK NO8x32	6	EA
1139-4810-01	FITTING KIT, CONDENSER	1	EA
	NUT M6 HEX	2	EA
	WASHER PLAIN - M6	2	EA
	WASHER, SPRING M6	2	EA
	SETSCREW M6x16	2	EA

CHARGING REFRIGERANT (HFC-134a)

STANDARD AMOUNT OF REFRIGERANT $0.5\text{kg} \pm 0.05\text{kg}$

TOOLS REQUIRED FOR FITTMENT.

1. Socket set No 10,12,13 & 17
 2. Spanners No 10,12,13,17,19,24 & 27
 3. Allen key set
 4. Torques T20
 5. Phillips screw driver
 6. Flat screw driver
 7. Posi-drive bits for Socket set
 8. NT cutter/any preferred cutting tool
 9. 4mm drill bit and cordless drill
 10. Water pump pliers
 11. Tectyl
-

CAUTION

1. Before starting installation, fit fender and seat covers for vehicle protection, then remove the negative cable from battery.
2. Before making any hoses and tubes connections, apply a few drops of compressor oil to the seat of the O-ring and coupling nuts.
3. When tightening and loosening the fittings, use two wrenches for support.
4. Ensure that your workmanship is of the highest professional standard and that you do not damage or scratch the vehicle in any manner.

ENGINE COMPARTMENT INSTALLATION

Before installing the air conditioning, the following parts should be removed.

STEP 1 REMOVAL OF ORIGINAL PARTS.

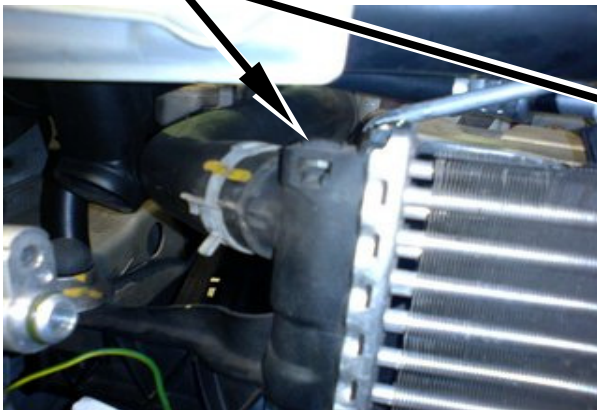
- a. Water bay cover.
- b. Battery
- c. Pollen filter duct.
- d. Water bottle.
- e. Air intake ducting.
- f. Air filter box.
- g. Water pump/alternator belt.

STEP 2 INSTALLATION CONDENSER :

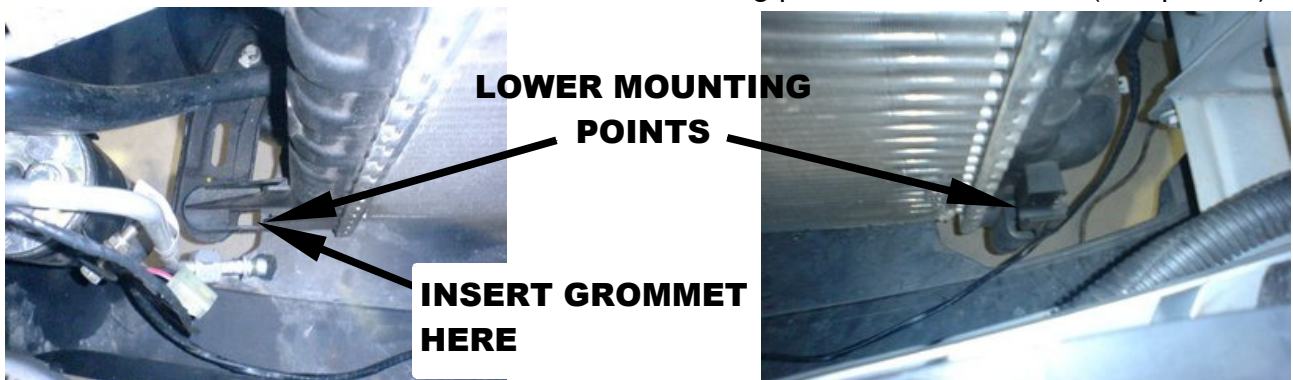
FITTING KIT, CONDENSER, A1	
WASHER, SPRING M6	2 EA
WASHER PLAIN - M6	2 EA
NUT M6	2 EA
SETSCREW M6x16	2 EA

2.1 CONDENSER

- a. Remove grommet from lower left condenser bracket and insert it in hole in lower left radiator support. (use soapy water if necessary)
- b. Insert nuts in slots in the radiator, top of left tank and right of right tank.



- c. Lower condenser in front of radiator taking care not to damage the radiator or condenser. The lower condenser brackets fit into these mounting points on the radiator (see picture).



NOTE : PUSH DIRECTLY ON BRACKETS WHEN LOCATING IN LOWER MOUNTING POINTS – NOT ON THE CONDENSER.

- d. Secure the condenser using screws, flat washers and spring washers supplied

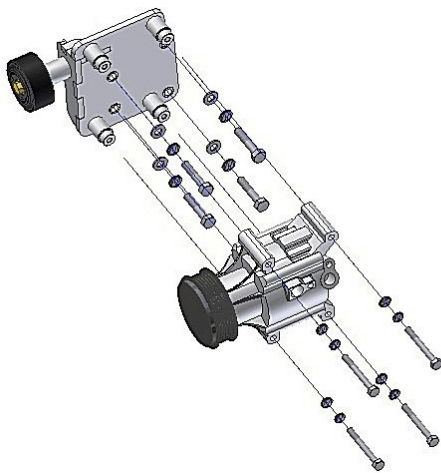
STEP 3 INSTALLATION MOUNT AND DRIVE

3.1 COMPRESSOR AND COMPRESSOR MOUNTING BRACKET

ITEM	FITTING KIT, M&D	
1	WASHER,FLAT M8	4 EA
2	WASHER,SPRING M8	4 EA
3	BOLT M8x75	4 EA
4	BOLT M10x55	4 EA
5	WASHER,FLAT M10	4 EA
6	WASHER,SPRING M10	4 EA

- a. Install the compressor bracket supplied to the engine block using the M10 hardware supplied. See diagram above.

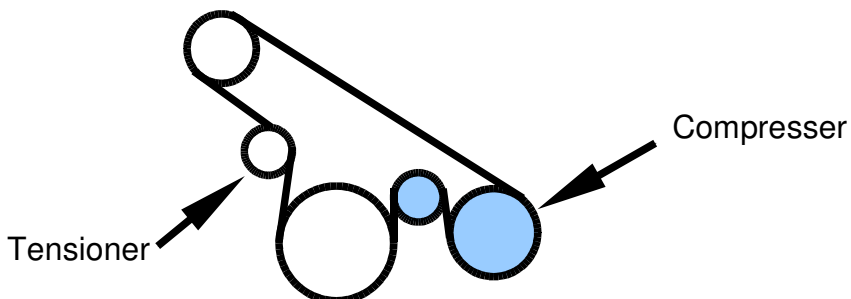
TIGHTENING TORQUE 31.2N.m



- b. Install the compressor to the Bracket using the M8 hardware supplied.

TIGHTENING TORQUE 18.2N.m

- c. Install new belt supplied.



STEP 4 FITTING HARNESS INSTALLATION

- a. Run Engine bay harness along fender behind fuse box and behind the front bumper to condenser fan, receiver drier and compressor.
- b. Cable tie harness to vehicle harness.
- c. Attach harness to battery accessory terminals.

STEP 5 FILTER DUCT REWORK

- a. Fit duct cover as shown mark outline on filter duct



- b. Remove duct cover and mark filter duct as indicated.



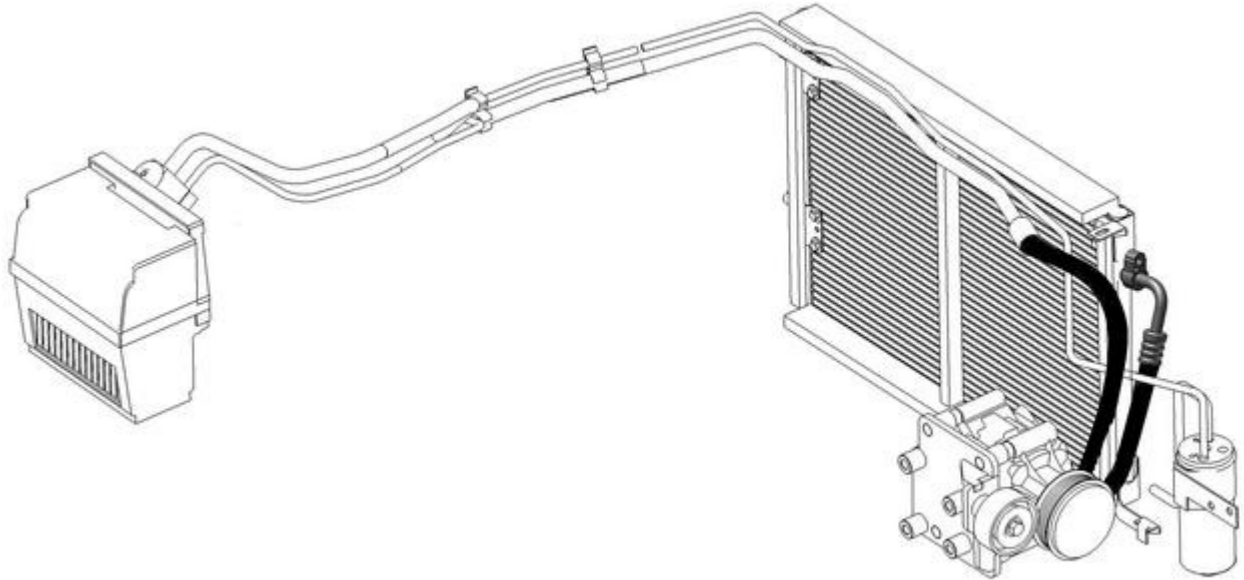
- c. Cut filter duct on line.



STEP 6 FITTING KIT PIPES AND HOSES INSTALLATION

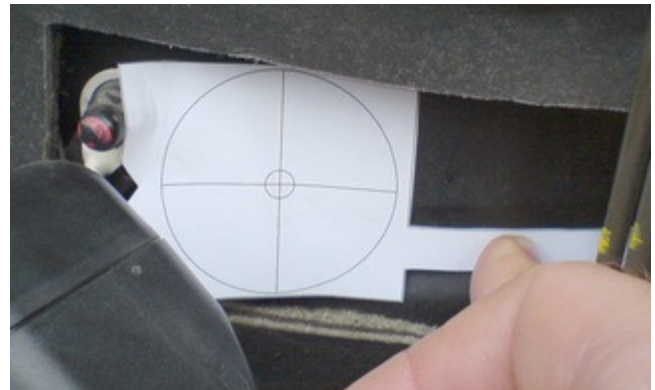
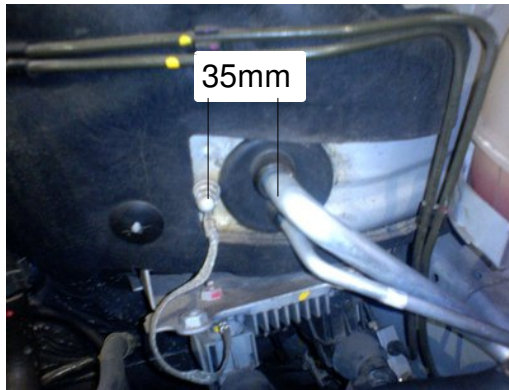
FITTING KIT, PIPES & HOSES

GROMMET, DOUBLE HOLE F/WALL	1 EA
BRACKET, PIPE CLIP 90, CORSA	1 EA
CLIP PLASTIC	2 EA
SCREW M6X30H/T.ZNC PLT Y/PAS	6 EA
WASHER PLAIN - M6	6 EA
WASHER, SPRING M6	6 EA
CLIP, PLASTIC	1 EA
CABLE TIES T18R X 100 MM	1 EA
COVER, FILTER DUCT ASSY	1 EA
SCREW S/T P/POZI BLK NO8x32	6 EA



6.1 PIPING LAYOUT

- Punch a 50mm hole in the water bay 35mm to the right of the earth post in the gap in the NVH padding. Cutting template on last page.



NOTE : Coat hole with Tectyl for rust prevention.

- Fit 90° bracket and double pipe clip to chassis using the fuse box mount bolt.



c. Install the liquid from the condenser to the receiver drier.
TIGHTENING TORQUE 9.8N.m

d. Fit discharge hose between compressor and condenser.

e. The Suction hose is routed over the radiator hose and into the plastic cowl above the radiator fan.

f. The Primary Liquid line runs above the Suction hose pipe.



TIGHTENING TORQUE 13.7N.m.

- g. Fit suction pipe (1139-3901) and liquid pipe (1139-3702-01) through firewall grommet. And fit through hole(a). Clip pipes into pipe clips(b).Connect to Primary pipes.
- h. Fit Double pipe clip between pipes between the charge ports.
- i. Fit duct manifold pipes to block valve using M6x25mm set screw with flat and spring washer provided. (After recirc, evap and re-worked filter duct are fitted.)
- j. Fit Duct Cover to re-worked duct using self tapping screws provided.



STEP 7 REINSTALLATION OF ORIGINAL PARTS

Reinstall original parts as they were taken out.

STEP 8 DECAL KIT INSTALLATION

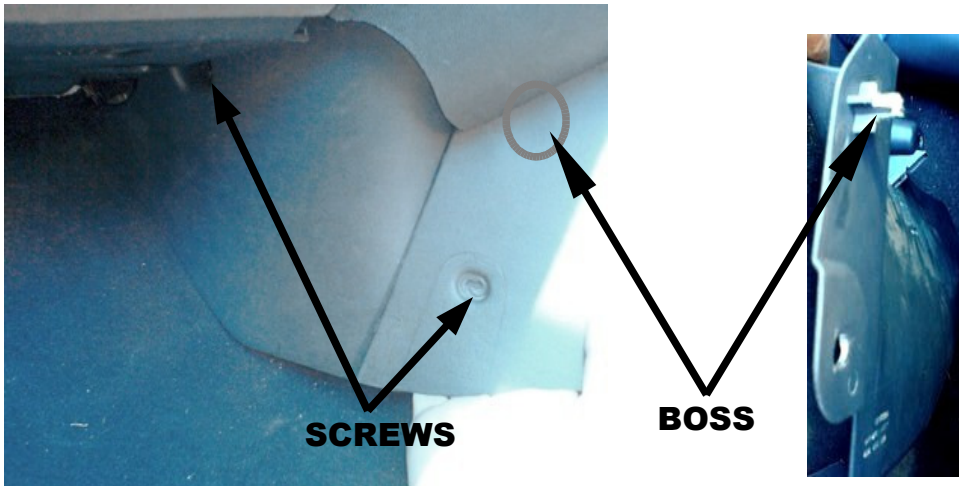
DECAL KIT R134A	
LABEL-R134a CAUTION	1
WARRANTY BOOK	1

Attach caution label on plastic cover on top of front cross member next to bonnet catch.

INTERIOR COMPARTMENT INSTALLATION

STEP 9 REMOVAL OF ORIGINAL PARTS

- a. Remove glove box with a torques drive screwdriver(T20). There are 4 screws securing the glove box 2 at the bottom and 2 on top.
- b. Remove passenger side door sill cover by lifting.
- c. Remove the passenger left kick panel with a 10mm socket.
- d. Remove the passenger right kick panel with a (T20) torque driver. There are 2 screws securing it and a locating boss behind the centre console. Place hand under and behind panel and pull forward to release locating boss.



- e. Remove the centre black utility shelf . It un-clips from behind. Pull firmly towards yourself.

CAUTION

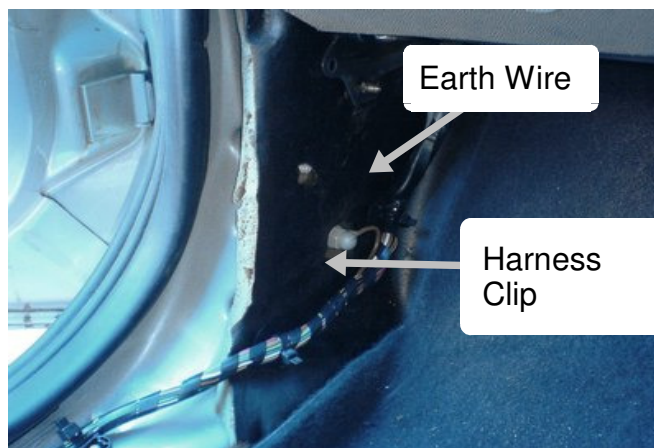
Although force is required to remove the utility shelf care must be taken to avoid damaging the shelf while removing it.

- f. Remove switch facia 4 clip points.

CAUTION

Although force is required to remove the utility shelf care must be taken to avoid damaging the facia while removing it.

- g. Remove earth wire and harness clip from left foot well.

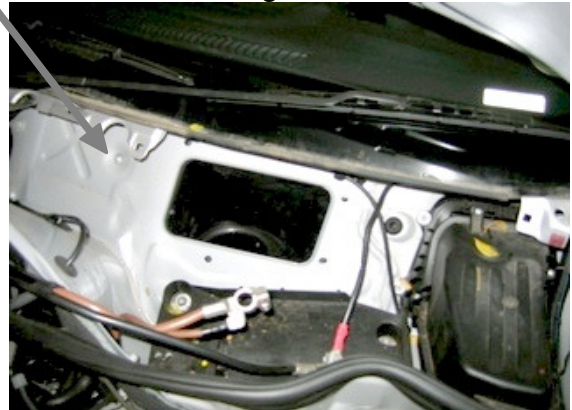


- h. Remove Top kick panel
- i. Remove foot duct. There is 1 plastic doofa clip on left of duct.
- j. Lift carpet remove floor plug in line with 'A' pillar.

- k. Remove Blower - water bay duct. There are 2 screws 6mm socket or spanner. The duct is then lifted and pulled straight back.



Remove this screw during duct removal.



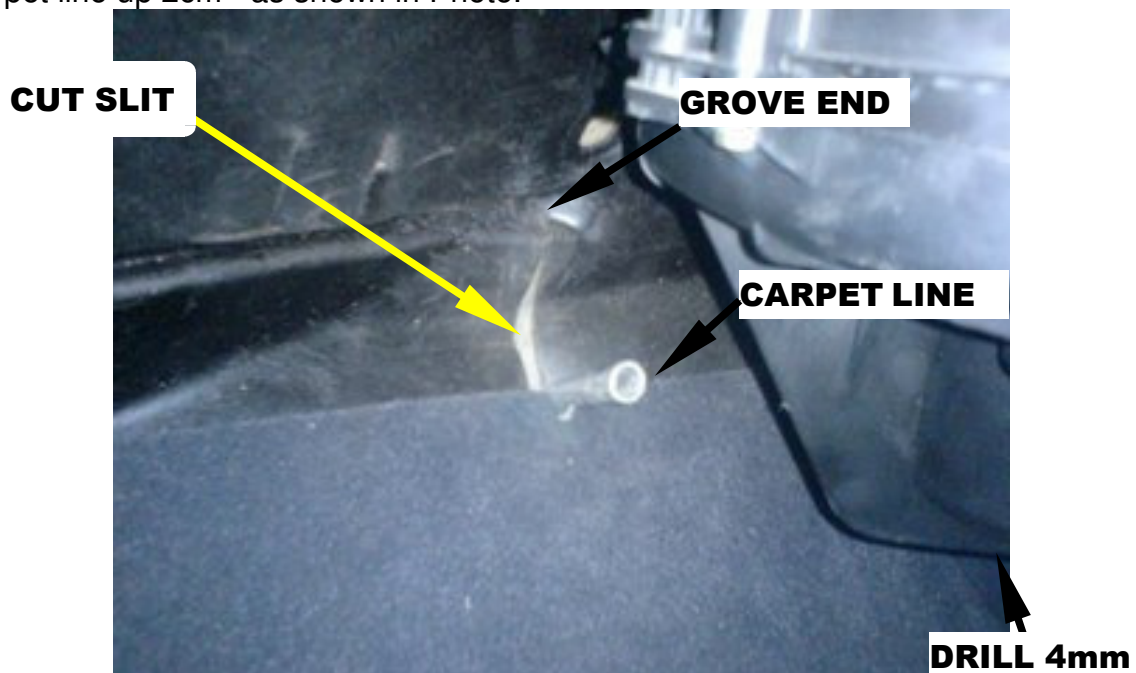
- l. NOTE : The Filter duct in the water bay must be removed before this. The duct is located with a tongue and groove on top of the blower.

STEP 10 EVAPORATOR ASSY & FITTING KIT INSTALLATION

FITTING KIT, EVAP	1 EA
SCREW, KLGRD BLK MSH HD No6x1	10 EA
GROMMET FIREWALL G66	1 EA
EXPANSION VALVE FUJIKOKI	1 EA
SCREW, SOCKET HD CAP M5X4	2 EA
WASHER, STAR INT M5	2 EA
HARNESS, DASH, CORSA	1 EA
ELECTROSTAT, CORSA	1 EA
PLATE, CUBBY HOLE, CORSA	1 EA
HOSE, DRAIN	1 EA
CABLE TIES T18R X 100 MM	4 EA
CAP, CORSA SWITCH	1 EA

10.1 DRAIN TUBE INSTALLATION

- a. Cut slit in NVH padding behind the blower in line with the end of the groove. From the carpet line up 2cm - as shown in Photo.



- b. Lift carpet and NVH padding insert grommet in hole in floor.

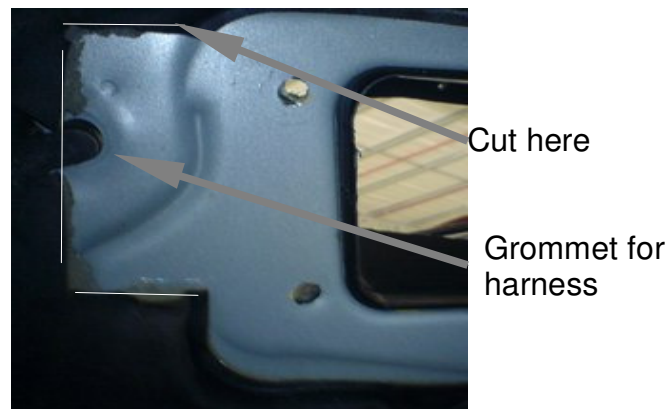


- c. Insert drain tube under NVH padding so end protrudes through NVH behind blower and other end through the floor (see Photo).

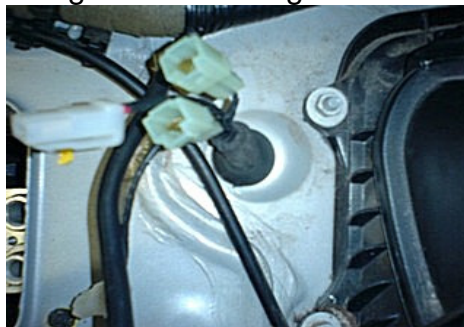
NOTE : The hole in the floor is above a bracket on the chassis and is 'out side'

- d. Drill a 4mm Hole in bottom of blower casing.

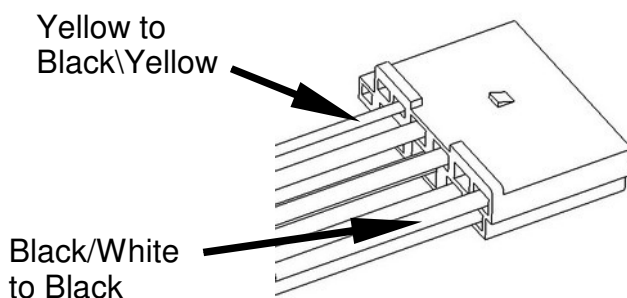
10.2 HARNESS INSTALLATION



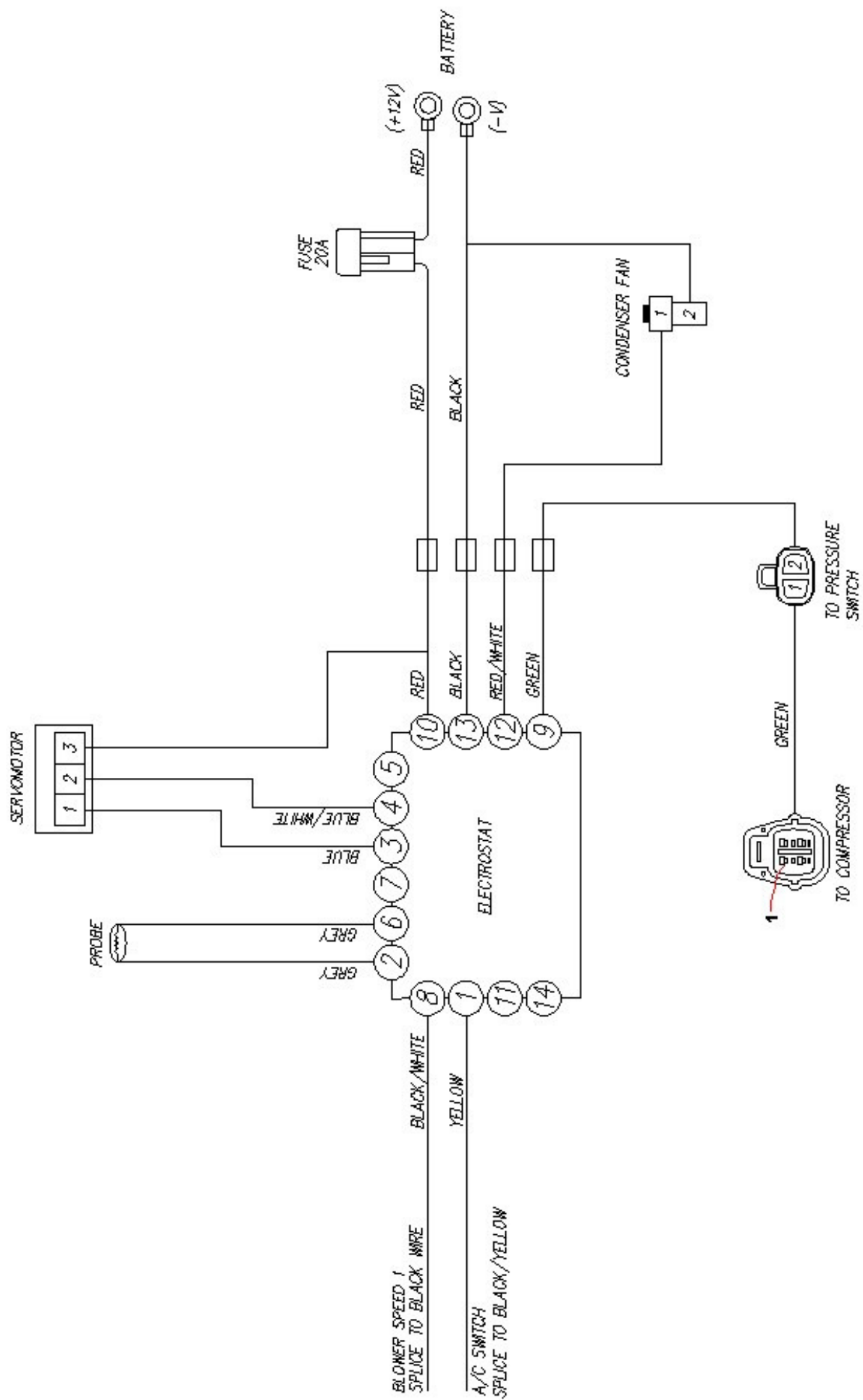
- a. Take Grommet from firewall cut and fit onto under dash harness till over 4 single connectors and foam seal.
- b. Cut NVH padding as shown under dash.
- c. Feed 4 single connectors and grommet through hole from inside.



- d. Route harness to switch cluster in the center console .
- e. Splice Black/White to black and yellow to Black/Yellow from connector in switch cluster.



HARNESS WIRING DIAGRAM

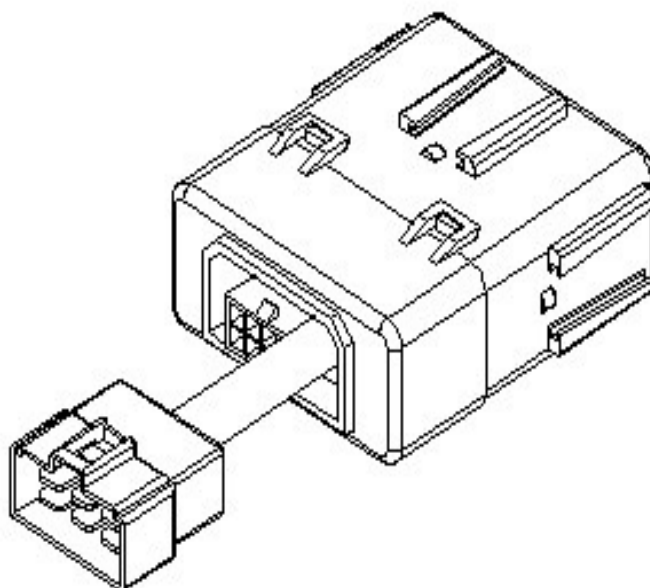
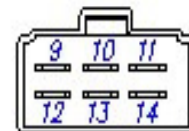
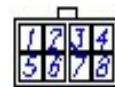
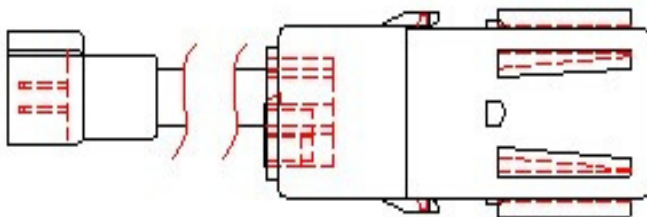


10.3 RECIRC ASSY FITMENT

- a. Fit recirc assy in place of duct between blower and firewall. Ensuring that the locating plate locates correctly in slots on firewall side of blower. Can feel with fingers with hand behind blower.
- b. Secure with 2 screws that secured original duct.



- c. Mount the electrostat on the electrostat bracket.



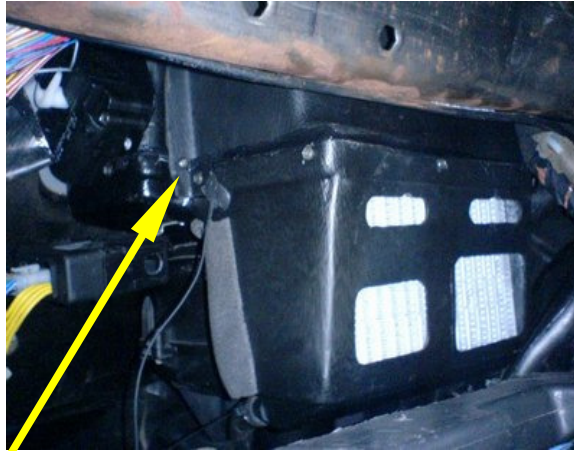
PIN ASSIGNMENTS:

1. -12V INPUT - A/C ENABLE
2. PROBE
3. -12V OUTPUT - RECIRC AIR
4. -12V OUTPUT - FRESH AIR
- 5.
6. PROBE
- 7.
8. +12V INPUT - BLOWER SPEED 1
9. +12V OUTPUT - CLUTCH
10. +12V INPUT
- 11.
12. +12V OUTPUT - RAD FAN
13. GROUND
- 14.

- d. Fit modified filter duct in water bay using hardware removed.(STEP 5)

10.4 EVAPORATOR ASSY FITMENT

- a. Lift Evaporator tilting back slightly when passing the blower. A little force is required to tilt the evap assy past the dash support pipe.
NOTE: Take care when the connector block is passing the cut-out on the base of the recirc assy.
It is easier to fit the evap with the Pollen filter duct loose.



- b. Screw evap to the recirc in line with the join in casings on the recirc assy.
- c. Wrap seal 20x20x250mm seal around block valve. Squash seal before fitment.



- d. Fit block valve with seal to evap from engine bay secure with 2 M5 cap head screws and star washers provided.
- e. Fit drain hose from evap to drain tube. Cable tie around both ends to ensure seal with cable ties provided.

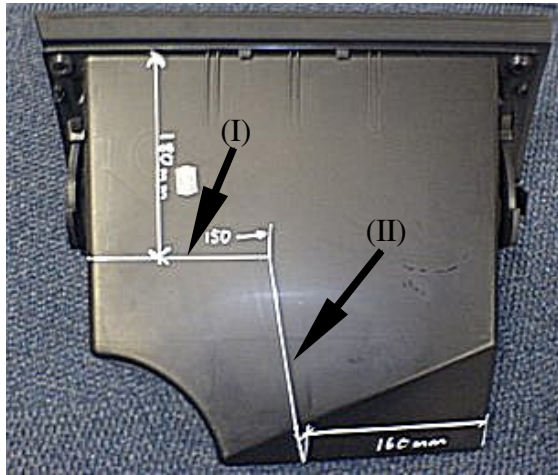
10.5 A/C SWITCH

- a. Carefully drill a 16mm hole through switch facia in the centre of the bump in the facia
- b. Clean hole to clear Switch Cap provided
- c. Install Switch cap provided.



11.4 GLOVE BOX REWORK

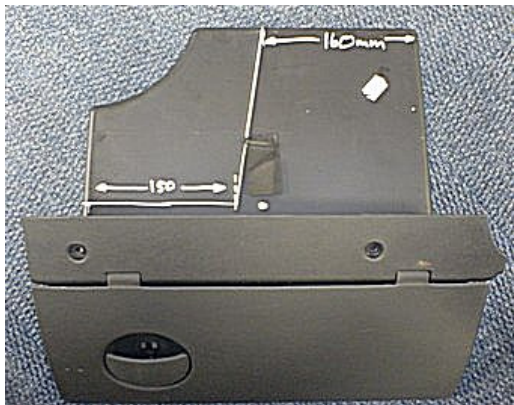
- a. On the top of the glove box draw a line from the side with the round recess, 180mm from the edge and 150mm from the side, as indicated (I). Draw a line from the end of that line so it meets the back 160mm from the other side as indicated (II)



- b. On the side of the glove box draw a line from the line on top to a point 75mm from edge, as indicated



- c. On the bottom of the glove box draw a line (as on to but from line on side), as indicated

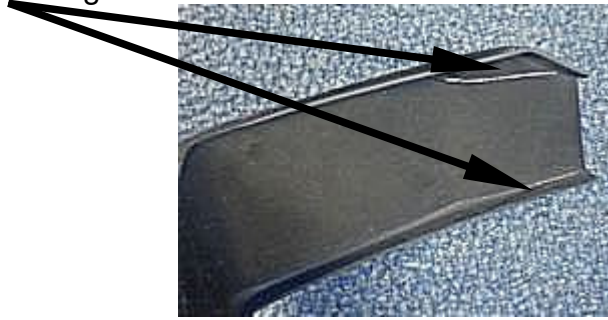


- d. On the back of the glove box join the lines from the top and the bottom.



- e. Install the Cubby Plate using self tapping screws supplied in kit.

NOTE : if glove box has a bigger round recess, the cubby plate should be trimmed to suit using markings as a guide



STEP 12 REINSTALLATION OF ORIGINAL PARTS

Reinstall original parts as they were taken out

STEP 13 Final Inspections:

Recheck your workmanship, ensuring that it has been of the highest professional standard. Test components function by running the engine at normal operating temperature. Ensure that there are no leaks and that all bolts screws or clamps are correctly tightened / torqued. Ensure that the vehicle is left in good order by removing all tools, protective covers, waste and that the vehicle is left clean and tidy, free from any dust dirt, grime or grease.

CUTTING TEMPLATE

