

GO VEHICLE INSTALLATION MANUAL

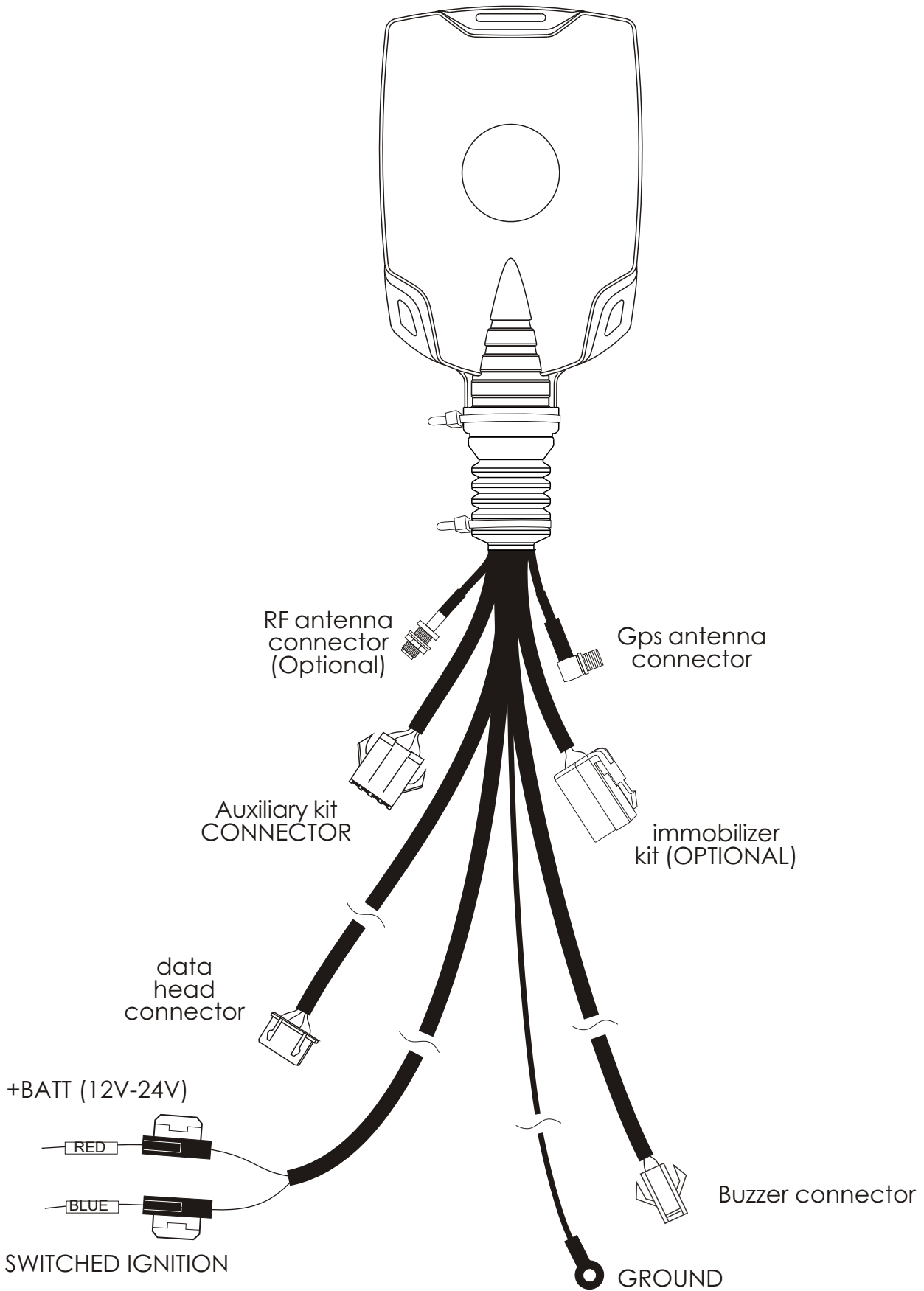
REVISION 03
JUNE 2004

contents

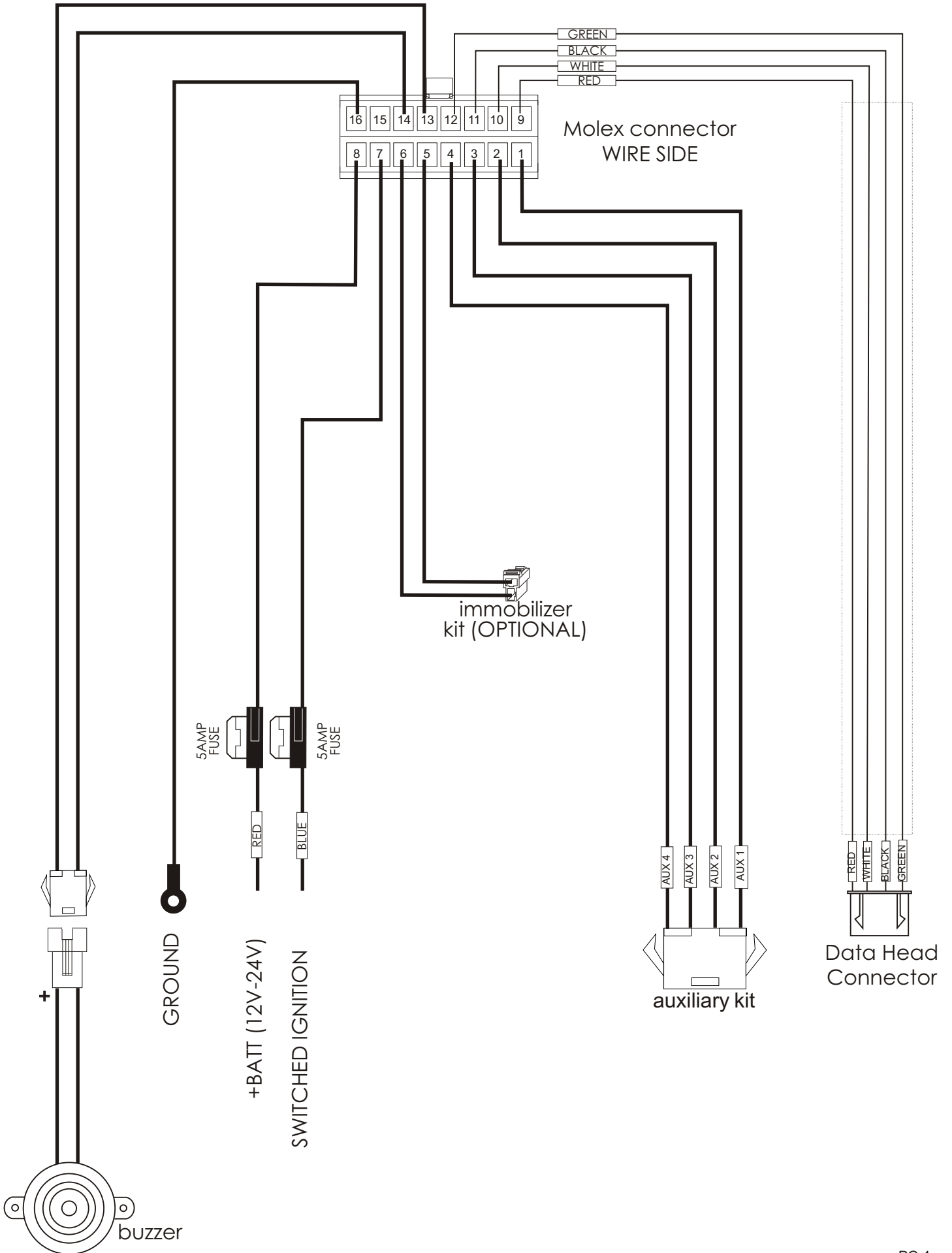
Pg1	Cover Page
Pg2	Contents
Pg3	Layout
Pg4	Harness Drawing
Pg5	Positive and Ground Wiring Diagram
Pg6	Antenna Installation - GPS
Pg7	Antenna Installation - RF
Pg8	Antenna Connections
Pg9	Wiring Auxiliary
Pg10	Assembling / mounting the GEOTAB Data Head Bracket
Pg11	Entering DIAGNOSTIC mode
Pg12	DIAGNOSTIC mode - Auxiliary test
Pg13	DIAGNOSTIC mode - GPS Acquisition Test
Pg14	DIAGNOSTIC mode - RF Test
Pg15	Completing Installation
Pg16	Starter Motor Inhibit Drawing - (OPTIONAL)

LAYOUT

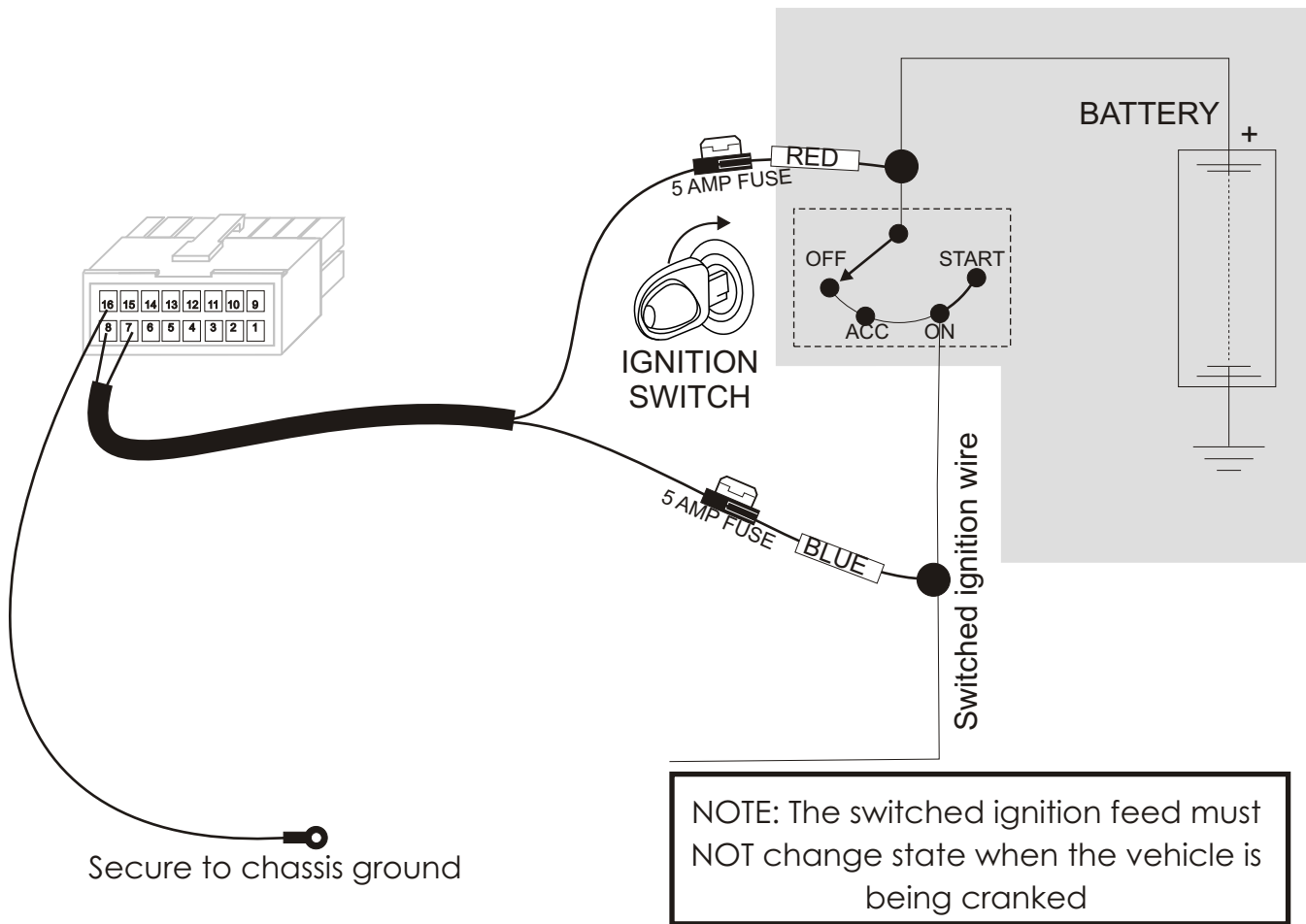
CONTROL MODULE (WEATHERPROOF / TAMPER PROOF HOUSING)



HARNESS DRAWING



POSITIVE AND GROUND WIRING



- 1) Locate the active wire from the vehicle's ignition switch that is positive at all times when the ignition switch is in the "On" position.
- 2) Check that this wire does not change state during crank. If so the wire is incorrect and the correct wire must be traced.
- 3) Locate the wire from GO connector (pin7) marked with a blue label. Solder this wire to the switched ignition wire.
- 4) Secure grounding tab from pin 16 to a good chassis ground (ground ring supplied).
- 5) Pick up positive feed at the ignition switch. The positive feed will normally be a thick wire that is hot at all times. Make certain that this connection does not lose 12v + during engine crank
- 6) Insulate all connections well.

GPS ANTENNA INSTALLATION

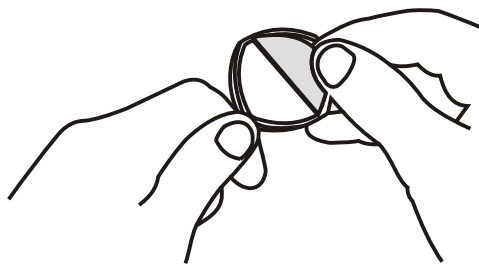
The antenna must be mounted so it is visible to the sky. The windshield must be cleaned before antenna is mounted. Ensure that tinting or any metallic objects do not obscure the line of sight.

Note the adhesive tape side is the active side and must face the sky.

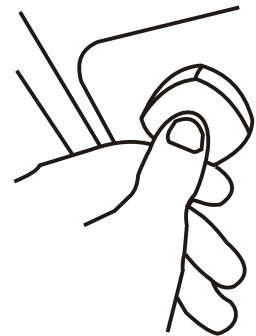
- 1) Make certain to mount in position outside of the wiper blades movement arc.
- 2) Do not mount on the tinted area at the top of some windscreens as these can contain metal content and may degrade the antenna sensitivity.
- 3) Avoid running the antenna cable next to antenna cables from two way radios, cell phones etc.
- 4) Do not lengthen / shorten the shielded antenna cable.
- 5) Only use the special rf double sided adhesive tape supplied with the Antenna. other double sided tapes may degrade signal strength. (In the event of re-installation spare tape can be ordered from GEOTAB).
- 6) Route the shielded antenna cable through the ferrite core in order to minimise radio frequency interference.
- 7) Take special care when plugging and unplugging the antenna connector into the male / female connector.
- 8) Take care not to place the antenna under a structure such as a metal Roof Rack.



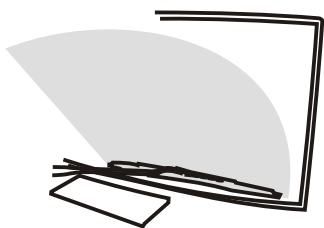
CLEAN THE INSIDE OF THE WINDSHIELD



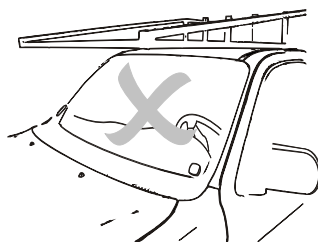
PEEL OFF THE ADHESIVE TAPE COVER



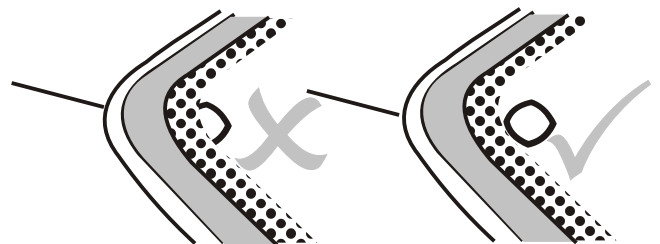
PUSH THE ANTENNA FIRMLY INTO POSITION



DO NOT MOUNT WITHIN THE WIPER MOVEMENT ARC AREA



DO NOT MOUNT THE ANTENNA UNDER A ROOF RACK OR OTHER METAL OBSTRUCTIONS



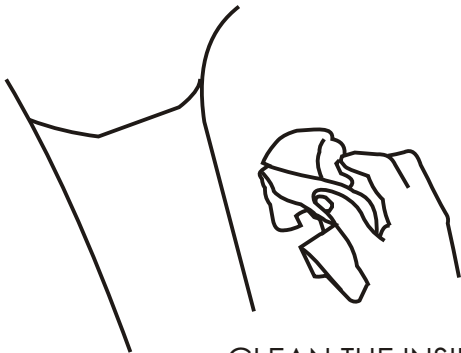
DO NOT MOUNT ON THE TINTED AREA AS DISPLAYED ABOVE

RF ANTENNA INSTALLATION

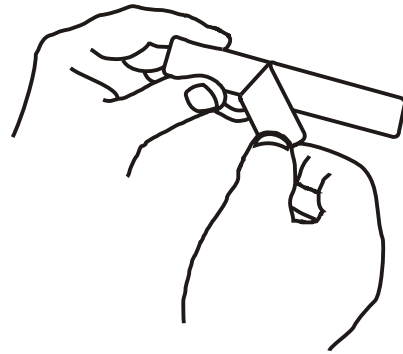
The windshield must be cleaned before antenna is mounted & it must be mounted vertically and not horizontally.

Note Any 3rd party transmitting / receiving device can affect the sensitivity and range of the RF.

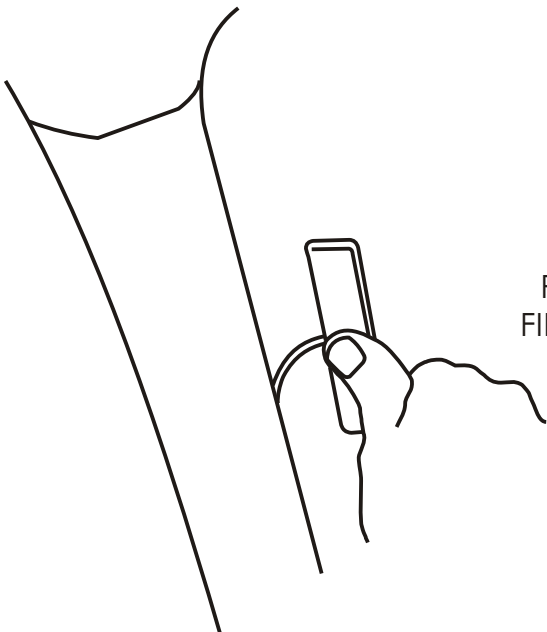
- 1) Avoid running the antenna cable next to antenna cables from two way radios, cell phones etc.
- 2) Do not lengthen / shorten the shielded antenna cable.
- 3) Take special care when plugging and unplugging the antenna connector into the male / female connector.



CLEAN THE INSIDE
OF THE WINDSHIELD

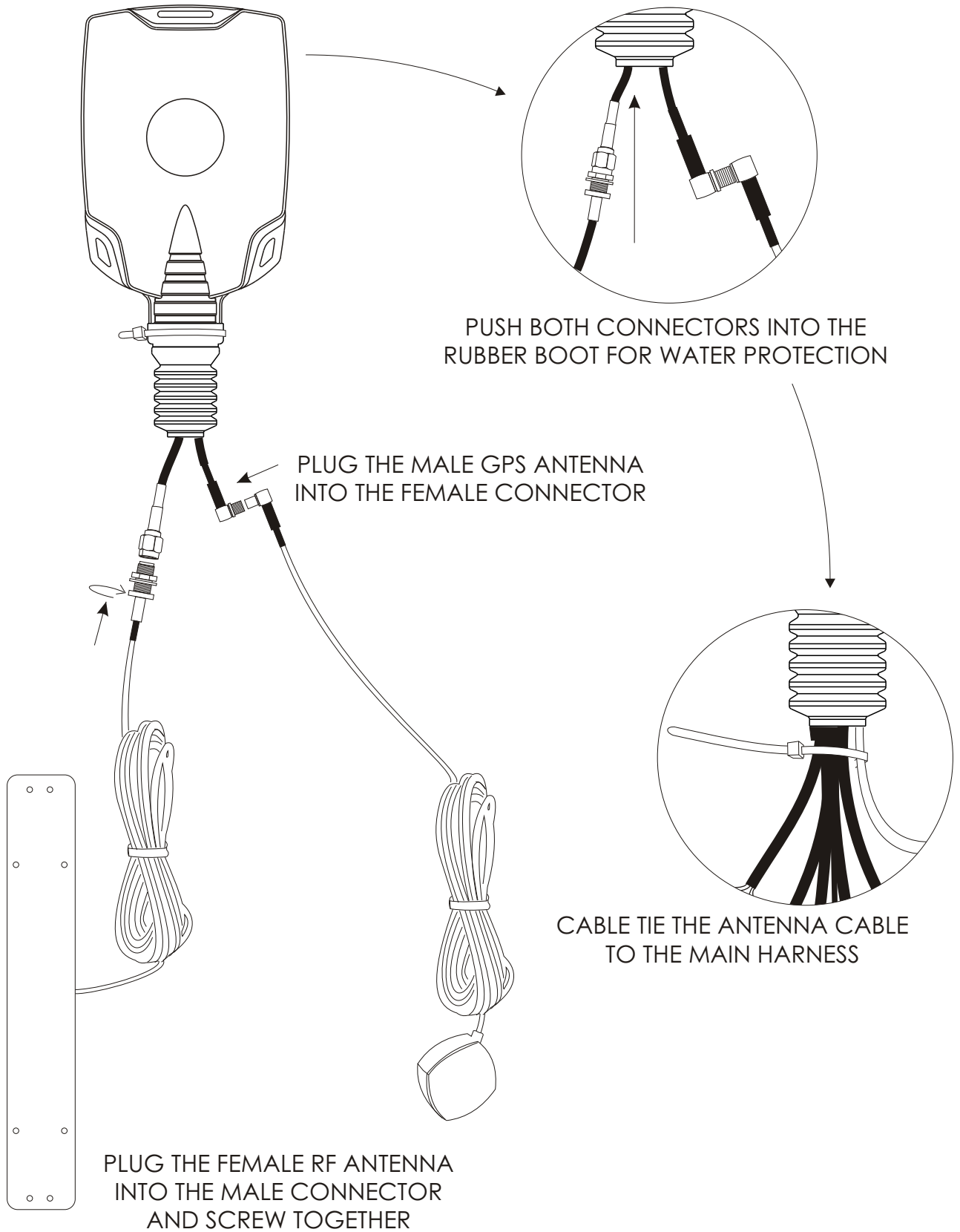


PEEL OFF THE
ADHESIVE TAPE COVER



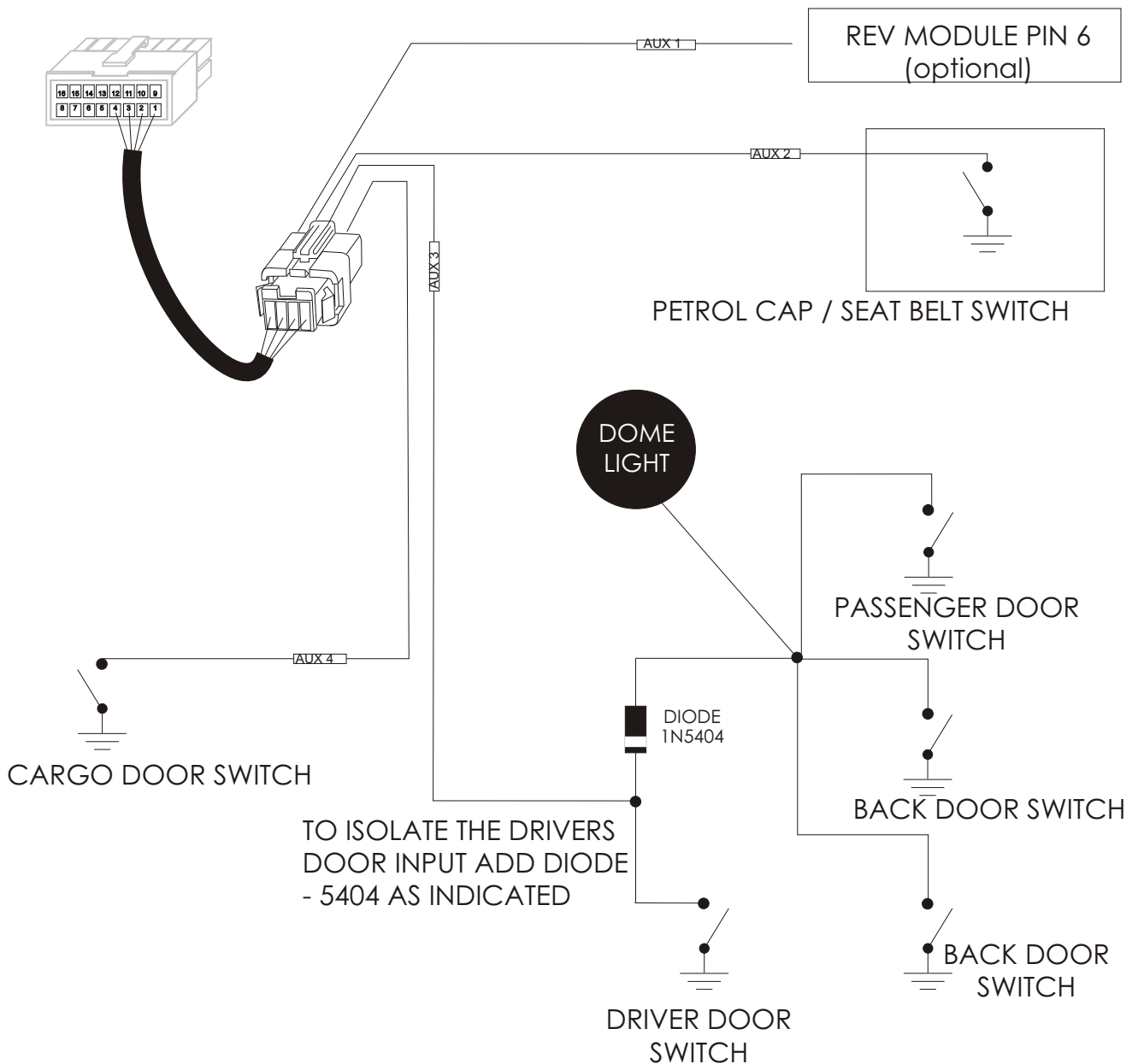
PUSH THE ANTENNA
FIRMLY INTO POSITION

ANTENNA CONNECTIONS



WIRING AUXILIARY INPUTS

All geotab auxiliaries (pin 1,2,3 and 4) are switched via reading a ground on the input. The input's are de-bounced so the ground must be present for a minimum of 1 second in order for GEOTAB control module to read as a valid switch.

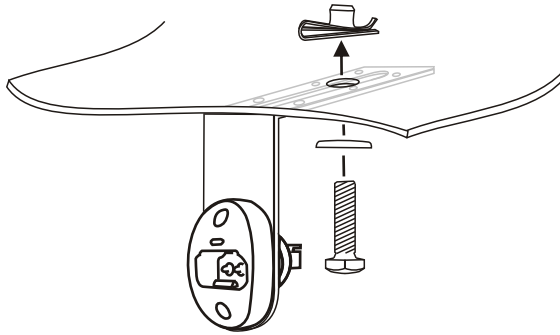


ASSEMBLING / MOUNTING THE GEOTAB DATA HEAD BRACKET

OPTION 1 - L-BRACKET MOUNT

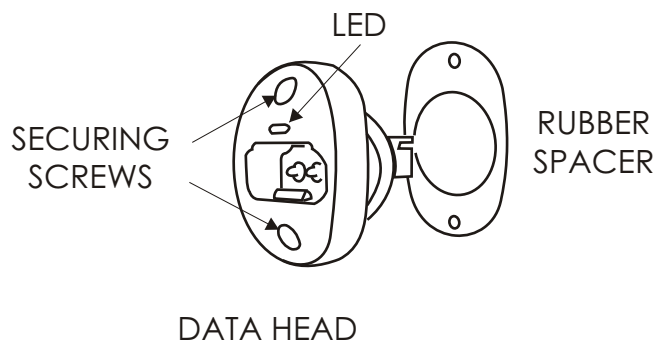
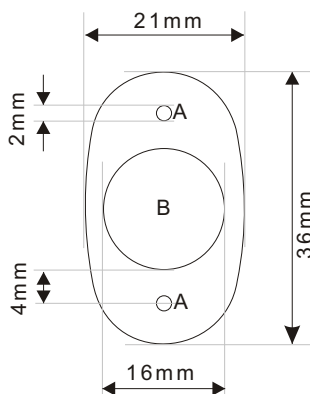
Locate the metal I shaped bracket and the data head in the hardware kit. Attach the Data Head to the I bracket with the screws and nuts provided.

Find a flat surface area on the underside of the dashboard that is easily accessible to the driver. Make sure that the area has a flat metal area that the bracket can be mounted to. Secure the bracket to the metal area with the suitable 6 mm bolt and nut supplied. Connect the 4 way connector from the Geotab harness.



OPTION 2 - DASH MOUNT

Find a flat surface area on the dashboard that is easily accessible to the driver. Make sure that the area is at least 21mm (h) by 16 mm (w). Drill a 16 mm hole (b) and drill two 2 mm holes (a) as shown in the data head drill dimensions drawing. Note that you can use the rubber spacer as a template. Place the rubber spacer over the Data Head and insert into the hole. Make sure that the LED is on the top side of the data head. Place the black cover over the data head body and with a star screwdriver screw the cover down. Connect the 4 way connector from the GEOTAB GO harness.



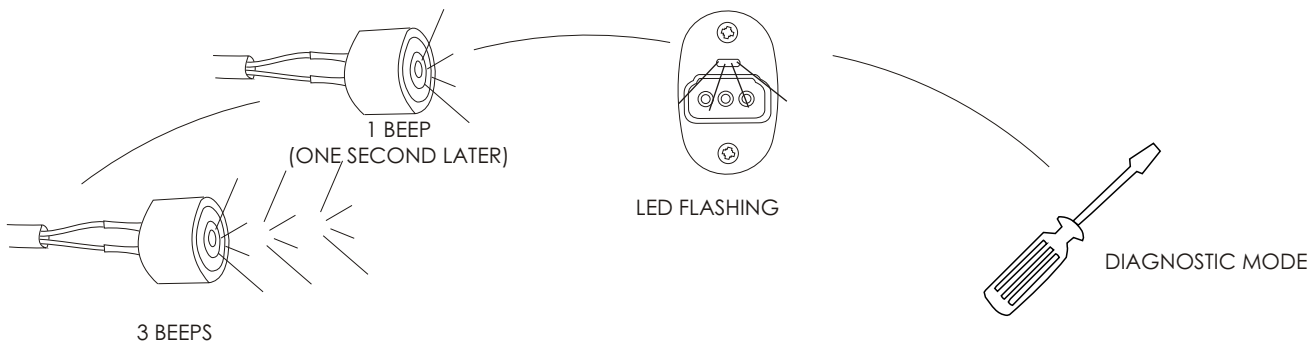
DATA HEAD DRILL DIMENSIONS

ENTERING DIAGNOSTIC MODE

to verify the hardware and the fitment the in-vehicle diagnostic mode should be performed on every fitment. By default when a unit leaves the factory and there has never been a key inserted, the unit will always power-up in DIAGNOSTIC MODE.

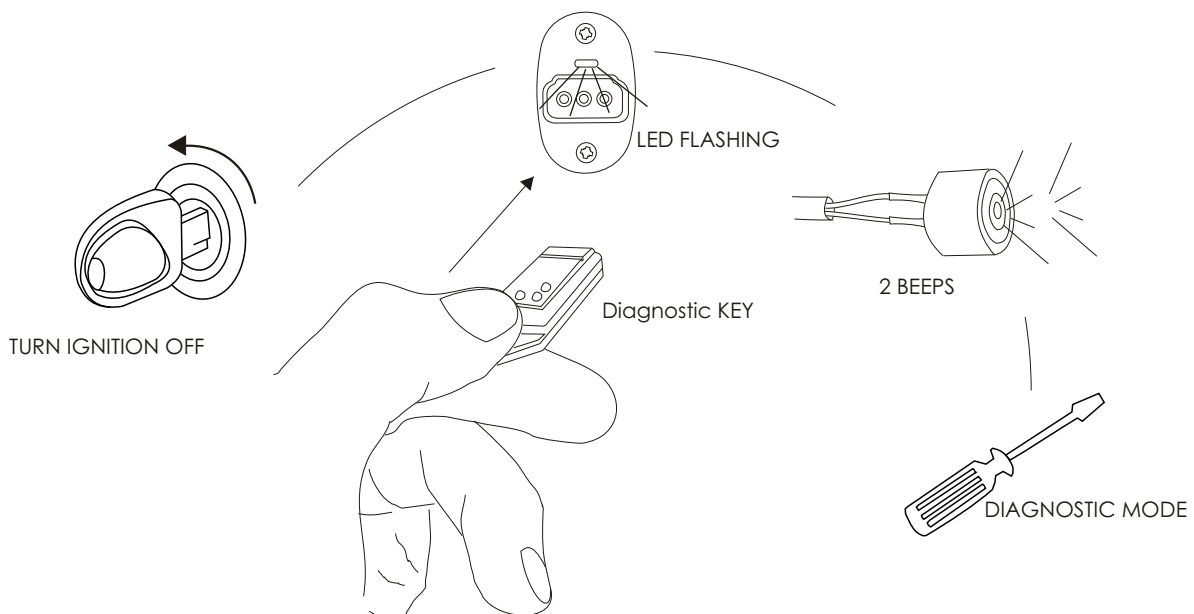
FIRST TIME POWER UP ONLY - NO DRIVER KEY HAS YET BEEN INSERTED

The very first time control module is powered up it will sound 3 beeps and if one second later one more beep sounds the units has powered up in diagnostic mode. After testing to exit diagnostic mode, insert a driver key into the data head.



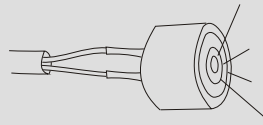
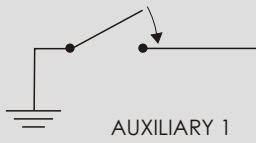
NORMAL POWER UP ONLY - A driver key has been inserted

To enter diagnostic mode turn the ignition switch to the off position. The LED on the data head will flash. Insert the diagnostic key into the data head, a double beep will sound indicating that you are in diagnostic mode.

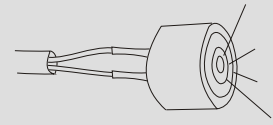
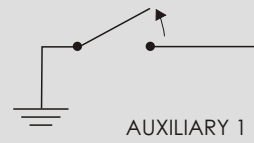


DIAGNOSTIC MODE - AUXILIARY TEST

1)

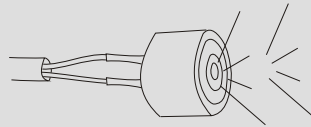
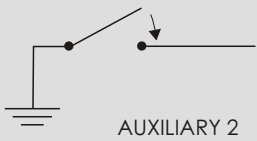


1 BEEP

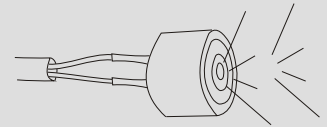
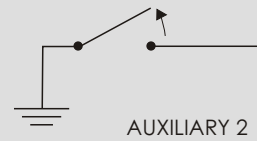


1 BEEP

2)

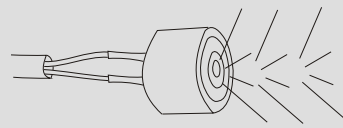
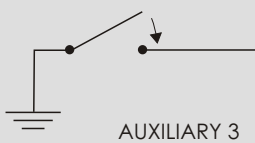


2 BEEPS

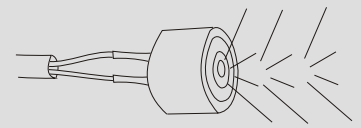
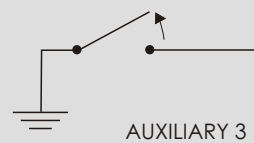


2 BEEPS

3)

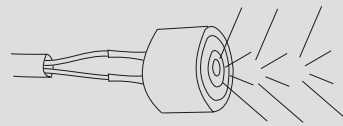
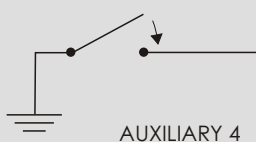


3 BEEPS

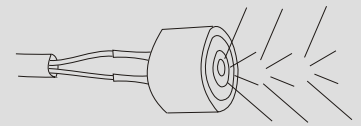
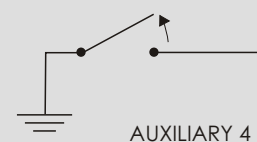


3 BEEPS

4)



4 BEEPS



4 BEEPS

IN DIAGNOSTIC MODE:

When an auxiliary input is pulled low (is connected to ground) the control module will verify the state change with a sequence of beeps corresponding with the auxiliary that has been triggered e.g. If Aux 2 is grounded then two beeps will sound, similarly 3 beeps when Aux 3 is grounded etc.

NOTE: The appropriate beeps will sound when the Aux is removed from the ground i.e beep on state change.

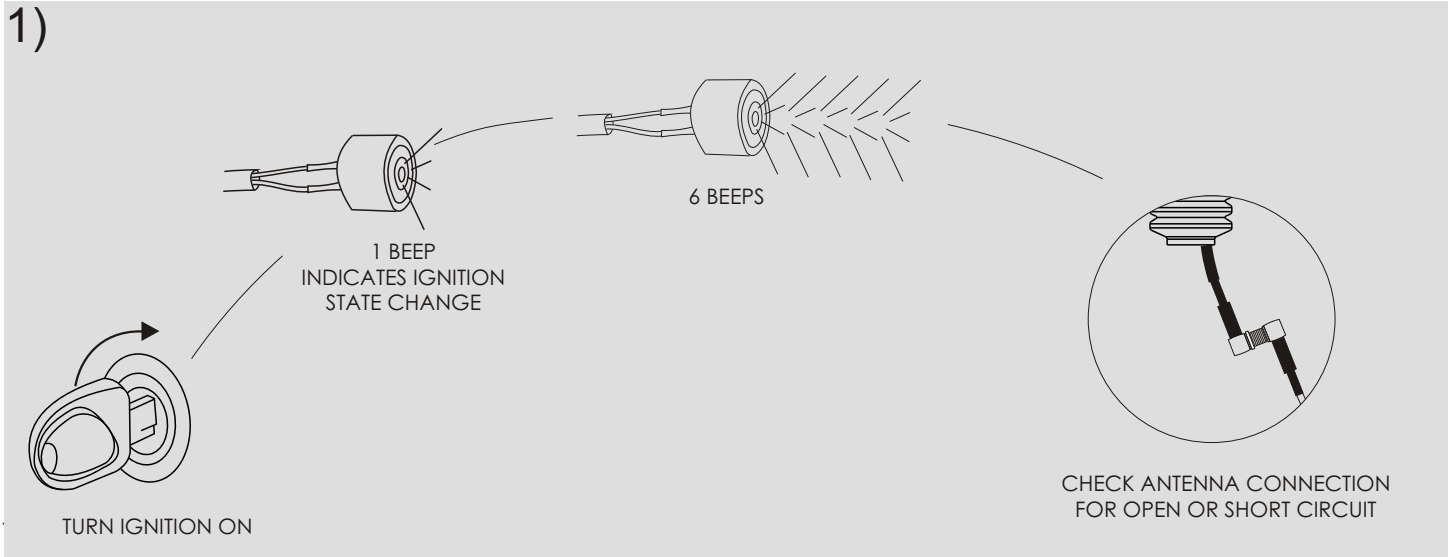
TO EXIT THIS MODE INSERT THE DIAGNOSTIC KEY.

DIAGNOSTIC MODE - GPS ACQUISITION TEST

THIS TEST PROCEDURE MUST BE DONE WHERE THE ANTENNA HAS A CLEAR SIGHT OF THE SATELLITES IN THE SKY!

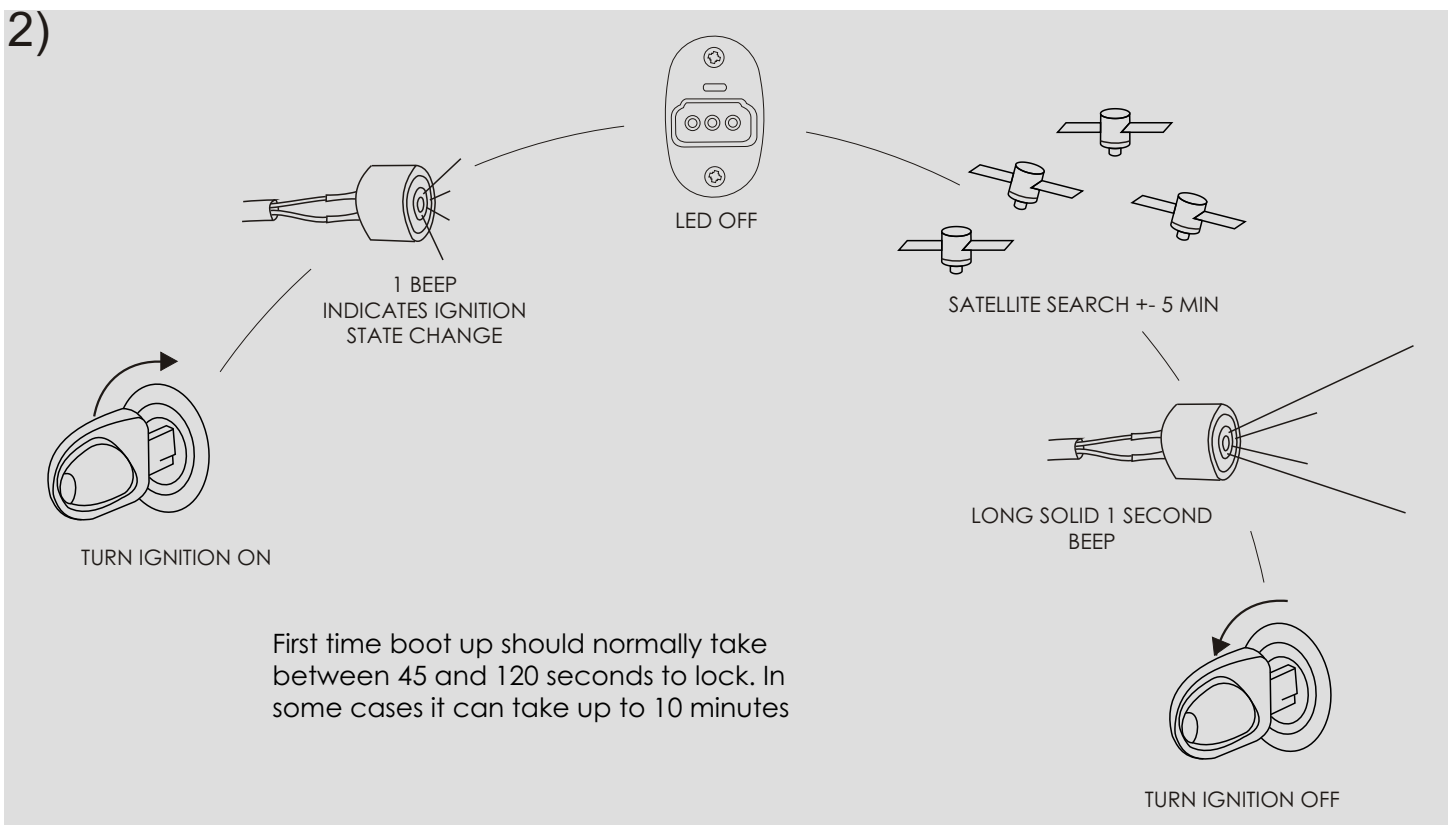
TO EXIT OUT OF THIS MODE INSERT THE TEST KEY.

1)



ONCE THE ANTENNA HAS BEEN CHECKED REPEAT THE TEST BY TURNING THE IGNITION OFF THEN ON AGAIN (point 2).

2)



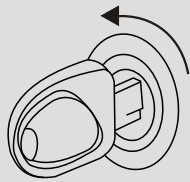
TO EXIT THIS MODE INSERT THE DIAGNOSTIC KEY OR ANY DRIVER KEY.

DIAGNOSTIC MODE - RF test

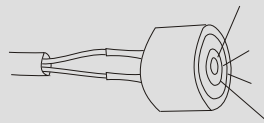
NOTE: Before testing RF in the vehicles, you must have installed the RF application on a PC & the RF base station must be connected and running. The RF application must be pointing to a valid GEOTAB database. Each vehicle serial number must be loaded into the database and finally you will need to activate the parameter 'enable RF' and have programmed the vehicle BEFORE continuing with the below tests. Refer to the GEOTAB GEOPORT RF GUIDE PDF file located in the MANUAL folder on the install set CD. Turning the ignition off initiates the RF. There are various scenarios.

IN DIAGNOSTIC MODE:

When the vehicles ignition is turned OFF, the unit will automatically try to establish communication with the base station. There are various beeps indicating the status of the vehicle unit.



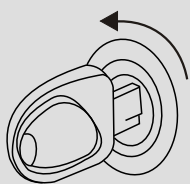
TURN IGNITION OFF



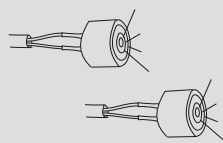
½ SECOND BEEP

NOT IN RANGE

WHEN TURNING OFF THE IGNITION AND YOU HEAR A ½ SECOND BEEP, THE UNIT IS NOT IN RANGE OF THE BASE STATION.



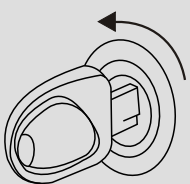
TURN IGNITION OFF



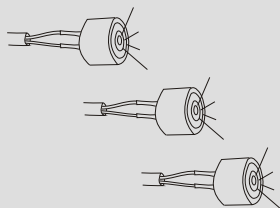
2 QUICK BEEPS

IN RANGE - NO ACKNOWLEDGMENT

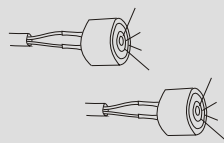
SENT HELLO TO BASE STATION AND DID NOT RECEIVE ACKNOWLEDGMENT FROM BASE STATION.



TURN IGNITION OFF



3 QUICK BEEPS



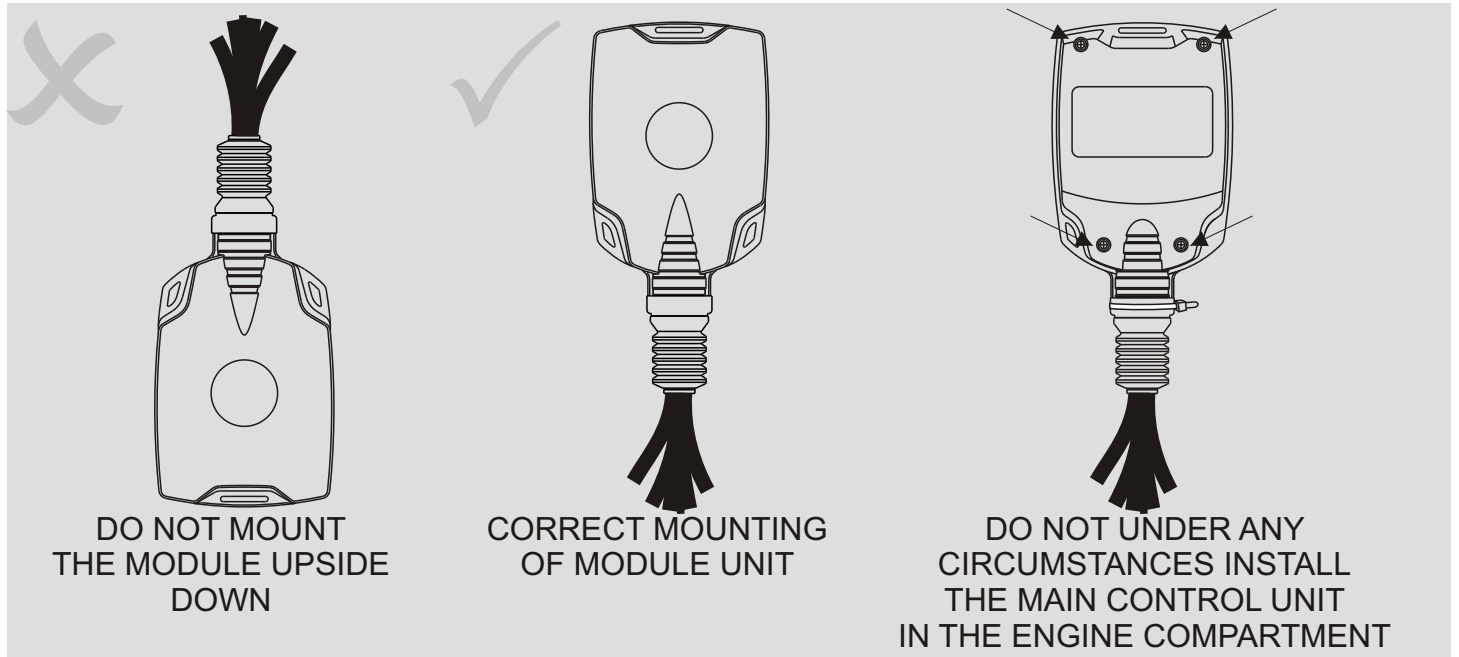
FOLLOWED BY
2 QUICK BEEPS

IN RANGE - RECEIVED ACKNOWLEDGMENT

SENT HELLO TO BASE STATION RECEIVED ACKNOWLEDGMENT FROM BASE STATION AND DOWNLOADING HAS STARTED. YOU WILL HEAR A DOUBLE BEEP WHEN DOWNLOADING IS COMPLETED.

COMPLETING INSTALLATION

ONCE ALL THE DIAGNOSTIC TESTS ARE COMPLETED AND YOU ARE SATISFIED WITH THE HARDWARE AND THE FITMENT THE HOUSING CAN BE SEALED FOR TAMPER PROTECTION. FIRSTLY TIGHTEN THE 4 SCREWS SECURELY TO ENSURE A GOOD SEAL AGAINST WATER. INSERT THE ANTI TAMPER COVERS PROVIDED INTO EACH OF THE 4 HOLES. PUSH THE ANTI TAMPER COVER DOWN FIRMLY UNTIL IT REACHES THE END OF ITS TRAVEL. ANTI TAMPER PROTECTION IS NOW ACTIVATED.

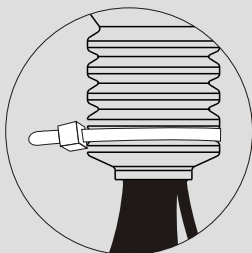


Do not mount the control module facing downwards ie with cables exiting at the top. The control module must be mounted upright with the cables exiting towards the floor. If the control module is not mounted this way the control module may malfunction due to water penetration.

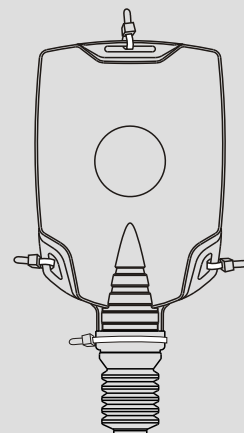
Do not mount the control module in close proximity to Radio Frequency emitting devices such as two way radio's, cell phones and any similar equipment.

SECURE THE HOUSING AS TO SECURE NON MOVING PART WITHIN THE DASHBOARD AREA. IT IS VERY IMPORTANT THAT THE HOUSING BE MOUNTED IN A VERTICAL POSITION WITH SUITABLE CABLE TIE LOCKS.

DO NOT UNDER ANY CIRCUMSTANCES SECURE TO ANY MOVING PART



Cable tie the rubber boot sealer at the wire side to ensure a water tight fit.



OPTIONAL - STARTER MOTOR INHIBIT WIRING

1) starter inhibit is a fitment option and is necessary if the client requires driver ID.

2) Insert 12v relay for 12 volt vehicles and insert 24 volt relay for 24 volt vehicles.

3) Locate the active wire from the ignition switch that is positive during crank. This wire will normally drive the starter relay. Cut this wire and solder the two thick wires with white markers to either side. Insulate well.

