



AUTOMATIC SATELLITE DISH

TRAVELSAT 68 LED 49652

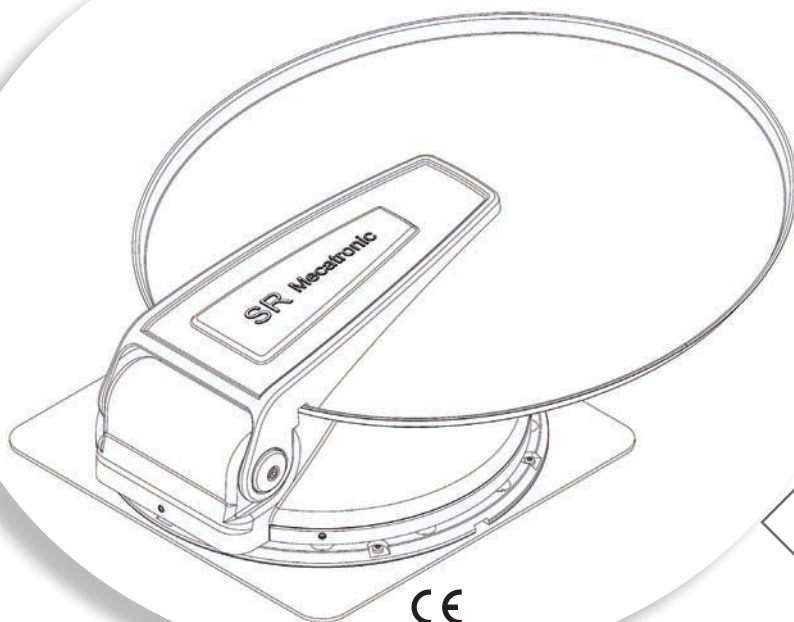
TRAVELSAT 68 PLUS 49653

TRAVELSAT 68 LED TWIN 49654

TRAVELSAT 68 PLUS TWIN 49655

TRAVELSAT 80 PLUS 49657

TRAVELSAT 80 PLUS TWIN 49659



GB

INSTALLATION AND USE MANUAL

KEEP TO THE FOLLOWING INSTRUCTIONS AND READ CAREFULLY THE SAFETY REGULATIONS BEFORE USING THE SATELLITE SYSTEM

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Congratulations on buying this ASR satellite dish with automatic tracking. This is a technologically advanced and high quality product for satellite TV reception in vehicles.

Before installing and operating the , examine carefully the functions of the device and its proper use. Carefully read this use manual and always keep it close to the device for quick and easy reference. If the device is transferred to a third party, do not forget to pass on all the necessary documents.

1.1 Description of the symbols used

	Read the instructions manual		Important warning
	Keep to the safety warnings		Dispose of the device in an environmentally friendly manner
	Operations to be performed exclusively by authorised and trained personnel		See the picture concerning the letter shown

1.2 Proper use



For a proper use of your ASR automatic satellite dish, check the following:

1.2.1 Make sure that no trees, walls, buildings or other objects that may compromise the reception of the TV satellite signal are close to the satellite dish before opening it. (see pictures 1A and 1B)



1.2.2. Before switching the system on, make sure that there are no obstacles that might hinder the opening and rotation of the satellite dish (tree branches, balconies, canopies, etc)

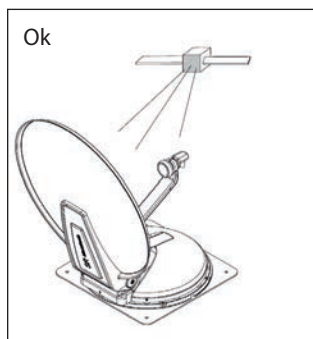
1.2.3 The satellite dish has been designed and tested to resist a wind speed of 120 km/h. However, in the case of a very strong wind, we suggest you keep the satellite dish closed because its wide surface may cause damage stress to the roof of your vehicle.

1.2.4 The battery voltage must always be sufficient; if the supply voltage is lower than 10 V, the electronic safety circuit will prevent the satellite dish from being lifted.

1.2.5 The battery voltage must always be sufficient; if the supply voltage is lower than 10 V, the electronic safety circuit will prevent the satellite dish from being lifted.

1.2.6 The satellite dish must be used only if the external temperature is between -15°C and + 45°C. Using the satellite dish outside these values may damage the satellite dish or cause malfunctions.

1.2.7 After using the satellite dish and before moving off, make sure that the satellite dish is closed. In any case, do not move until the audible signal that indicates that the dish is parked turns off.



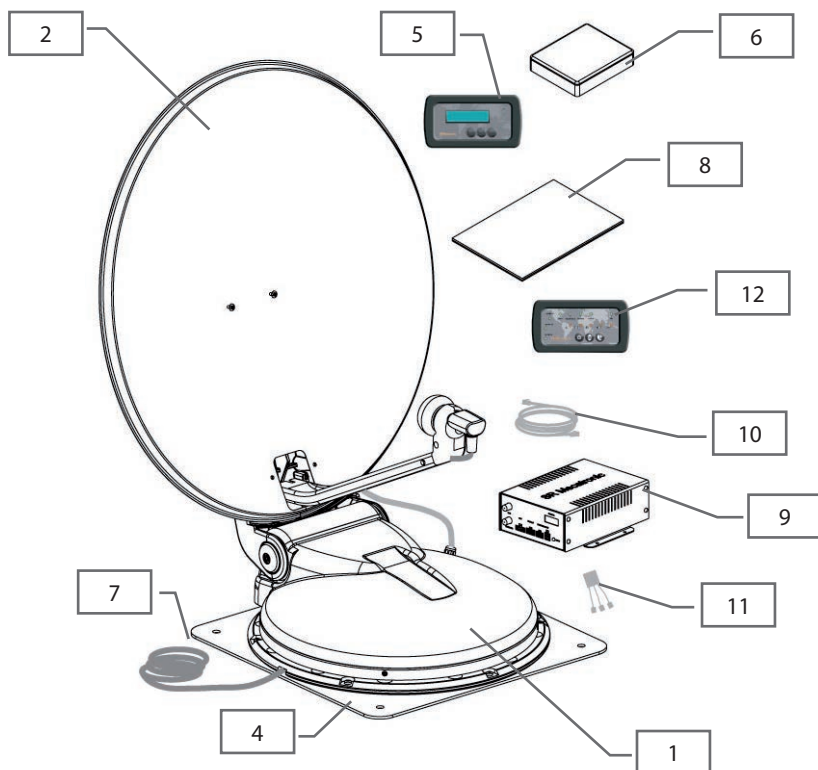
1.3 Description

Your ASR satellite dish uses a totally automatic satellite tracking system. This system can track satellites that give a signal modulated in QPSK, according to the DVB-SI EN 300 468 Standard, and can hence:

- search the selected satellite
- park the satellite dish

1.4 Components

- 1 Motor-driven external unit
- 2 Offset satellite dish with a diameter of 60-80 cm
- 3 Universal LNB
- 4 Assembly plate
- 5 User control panel, display version (only plus models)
- 6 Watertight box for the inside passage of the cables
- 7 Wiring
- 8 Assembly and use manual
- 9 Control box for external unit
- 10 Control panel – box rj45 connection cable
- 11 Box power connector
- 12 LED version user control panel (for the basic version)



1.5 Technical specifications

• Satellite dish	offset
• Search system	fully automatic NID recognition according to the DVB-SI EN 300 468 specifications
• LED version settable satellites	7 (Hotbird 13E , Astra 19 , Thor , Sirius Atl. Bird , Hippest , Astra 28).
• Display version settable satellites	15 (Hotbird 13E, Astra 19E, Astra 28E, Euro bird 16E, Thor 1W, Sirius 5E, Atlantic Bird 5W, Hispasat 30W, Eurobird 9E, Eutelsat 7E, Eutelsat 10E, Amos 3W, Atlantic bird 8W, Atlantic bird 12W, Astra 23,5E)
• Power supply	12V DC -20 + 30%
• Absorbed current	Max 4 Ampere
• Current absorbed in stand-by	≤ 5mA
• Weight	≤ 17 kg
• Protection fuse	5A
• Size (when closed)	height: 190 mm Width: 618 mm Length: 766 mm
• Settings	The satellite dish is ready for the insertion of an additional GPS module, which facilitates and reduces the satellite search time.

INSTALLATION

2



Only specialised personnel should install the satellite dish. Incorrect installation may damage the system.



Before installation, open the carton packaging and make sure that the satellite dish is in good condition. Make sure that all parts described in the instruction manual are present. (SR Mecatronik does not accept any claims for damage caused by transport or missing material after the satellite dish has been installed).

2.1 Assembly instructions of the external unit

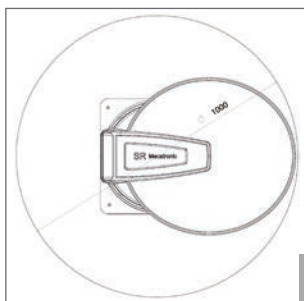


CAUTION! Read carefully the safety standards concerning installation before installing the device. The non-observance of these instructions may lead to damage or serious injuries.

2.1.1 On the roof of the vehicle, find a sufficiently large area of roof (preferably at the sides of the roof) that allows for the positioning of the satellite dish (see picture 2)



2.1.2 Clean carefully the area of the roof selected for the installation of the external unit (remove oil, grease and dust). Carefully clean the lower part of the fastening plate in order to remove any trace of dust and grease.



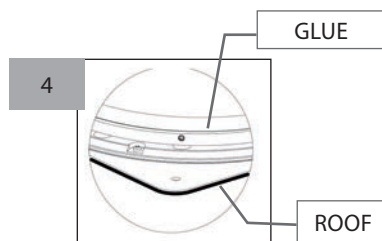
2.1.3 With a silicon gun apply a homogenous layer of structural polyurethane adhesive at ambient temperature in the lower part of the fastening plate (sikaflex 292 glue is recommended; keep to the instructions for application).

2.1.4 Position the external unit on the previously cleaned roof area. Push strongly on it in order to ensure a good distribution and adhesion of the glue.

CAUTION!!! When assembling the external unit, ensure that the bottom of the dish when closed is facing the direction of travel (see picture 3)

To complete the installation of the external unit, apply a layer of adhesive around the fastening plate in order to make it totally waterproof (see picture 4)

 DIRECTION TRAVELLING



Note: leave the adhesive to set for 24 hours before moving the vehicle

2.2 Assembly instructions of the cable run box

2.2.1 For easy and quick installation of the satellite dish, find a position on the roof where the supply and control box will be installed (see 2.3.1) .

2.2.2 With a 20 diameter hole cutter make a hole for the passage of the cables inside the vehicle's cabin.

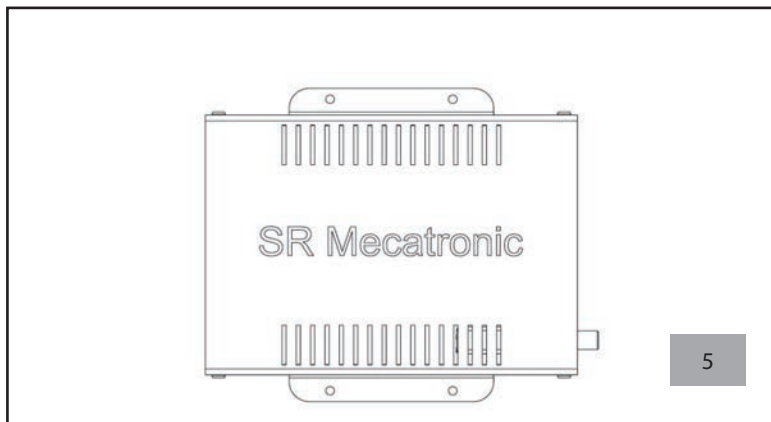
2.2.3 Clean the surface around the hole and remove any grease from it. Make two holes on the cable run box that are used for the connection on the box of the gland of the sat cable and the gland of the connection cable of the external unit.

2.2.4 Run the cables inside these holes and tighten the gland nuts on the box; insert the cables through the hole that has been previously made in the roof.

2.2.5 Apply a generous layer of polyurethane adhesive on the base of the box (use the same type as that used for the fastening of the external unit). Position the box on the roof close to the hole and press in order to ensure a good distribution and adhesion of the glue. Run the cables securely along the roof (insert them into a cable channel in order to protect them from UV rays) and bring the excess cables into the camper.

2.2.6 The cables must be fastened to the roof in order to prevent them from moving or being caught by objects such as branches.
The external assembly of the satellite dish is now complete.

Fasten to the wall with 4 screws



2.3 Assembly instructions of the control box

2.3.1 Find an easily accessible area inside the camper, preferably close to the TV area and inside a wall cupboard or locker. It must be ventilated.

2.3.2 Position and fasten the wall box inside this accessible and ventilated area so that any service operations can be performed easily and quickly (see picture 5).



CAUTION! The ventilation of the device is important because it avoids overheating of the components.

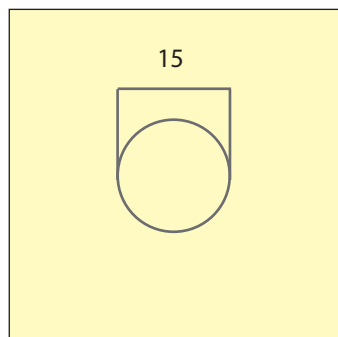
2.4 Assembly instructions of the internal control unit

2.4.1 Find an area inside the vehicle that is easily accessible and visible from a distance less than 2 metres from the control box (i.e. the length of the connection cable between the box and control panel).

2.4.2 Use a hole cutter with a 15mm diameter to make a through hole in the point selected for the assembly (see drawing 6).

2.4.3 Run the RJ45 patch cat6 connection cable supplied with the satellite dish and connect the box to the internal control unit (see drawing 7/7.1).

2.4.4 Fasten the control unit by means of the 4 screws supplied (see drawing 6).



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2.5 Electrical connections

2.5.1 Connect the grey cable from the external unit to its terminals on the internal control box (see drawing 7).

2.5.2 Connect the black coaxial cable from the satellite dish LNB to the F connector of the control box.

Note: in satellite dishes with dual output, the second black coaxial cable from the satellite dish must be directly connected to the second receiver (see drawing 7.1).

2.5.3 Insert the power connector supplied with the system in the special connector on the control box.

2.5.4 Connect the black cable of the power connector to the negative pole of the domestic battery and the red cable to the positive pole of the domestic battery.

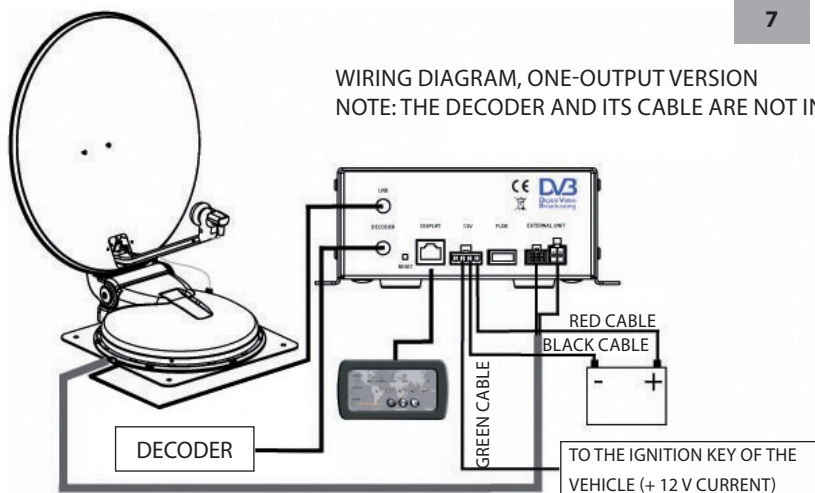
2.5.5 Connect the green cable of the power connector to the special point on the vehicle dashboard D+. Mostly it is the lasiet way to take the same connection point used for 12 V control for the fridge. This connection will close the dish when the engine of the car is sarterd. Do not drive with open sat antenna.

In many cases the plug is on pin 15 of the general terminal board and in any case it corresponds to an active and positive voltage of +12 VDC generated when the vehicle ignition key is rotated. This connection prevents the operation of the satellite dish when the vehicle is moving or the ignition key is turned for ignition.

7

WIRING DIAGRAM, ONE-OUTPUT VERSION

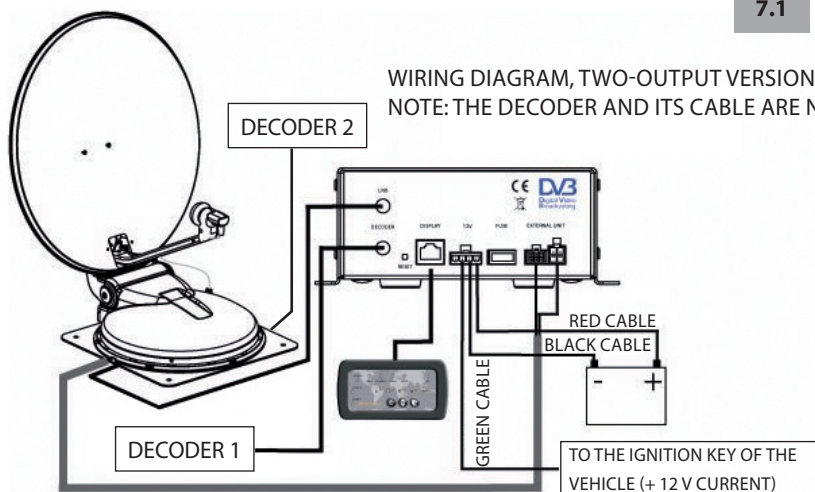
NOTE: THE DECODER AND ITS CABLE ARE NOT INCLUDED



7.1

WIRING DIAGRAM, TWO-OUTPUT VERSION

NOTE: THE DECODER AND ITS CABLE ARE NOT INCLUDED





CAUTION ! Read all the instructions.

The improper or non observance of these instructions may result in serious damage and injuries.

KEEP THESE INSTRUCTIONS

3.1 Working area



Before switching the system on, always make sure that the working area is free from obstacles (tree branches, protruding balconies etc.).

RISK OF DAMAGE TO SATELLITE DISH AND VEHICLE

3.2 Safety and electric supply

The device must be exclusively powered with 12 V, supplied directly from the service battery using cables with a minimum section of 2.5 mm.

If a 12V electric power supply is used instead of the battery, make sure that it is stabilised and able to deliver 3 Amps continuously and 10 Amps for short periods.

Do not use a poor quality battery charger that is not stabilised.

3.3 People's safety



Before enabling the opening of the satellite dish, make sure that nobody is on the vehicle roof. If someone is on the roof of the camper, he/she could be hit by the satellite dish when it is opened or closed.

RISK OF SERIOUS INJURY

3.4 Safety during assembly



For the assembly operations that imply the risk of fall, the necessary safety precautions must be adopted: for instance, a work bridge to be used when operating on the vehicle roof. Make sure that the roof of the vehicle has sufficient carrying capacity for the assembly operations.

Moreover, during assembly make sure that :

- The device is disconnected from the electric mains
- The person in charge of the assembly does not suffer from vertigo
- The person in charge of the assembly wears non-slip and accident-prevention shoes.
- Nobody is under the satellite dish during assembly.
- The lifting apparatus is non-slip and dry.
- The bridge and ladder are sufficiently stable and robust

3.5 Regulations to placing on the market

At a mounting height of more than 2 meters and if the antenna is not emerging the vehicles edges, a separate approval and registration by the government offices is not required. However the total height of the vehicle (incl. parabolic dish) may not exceed 4 meters. We advise to measure the total height and put a warning sticker on the dashboard, showing the actual dimensions.

USE

4

4.1 Destination of use

The satellite dish is manufactured for the reception of digital TV and radio signals from a satellite only when the vehicle is stationary. The reception unit allows for the reception of satellite TV and radio signals whose frequency is included between 10.7 GHz. and 12.75 GHz. Any different use renders the warranty void.

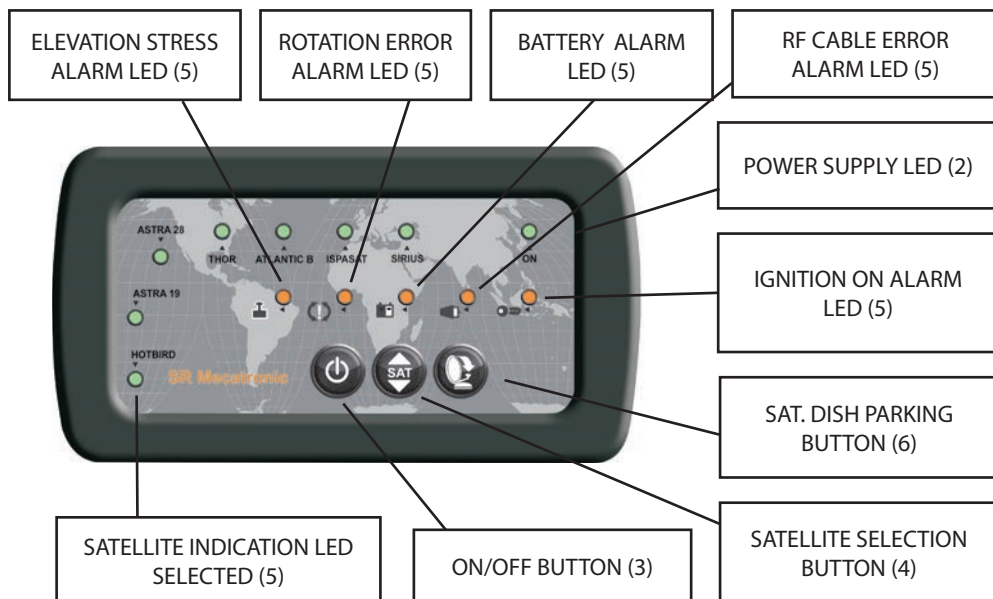
Caution: SR Mecatronic does not accept any liability for damage caused by:

- Wrong use that does not comply with the intended use of the device
- Repairs not performed by authorised service centres
- Tampering with any mechanical components
- Use of non-original spare parts and fittings
- Non-observance of the instructions in this manual

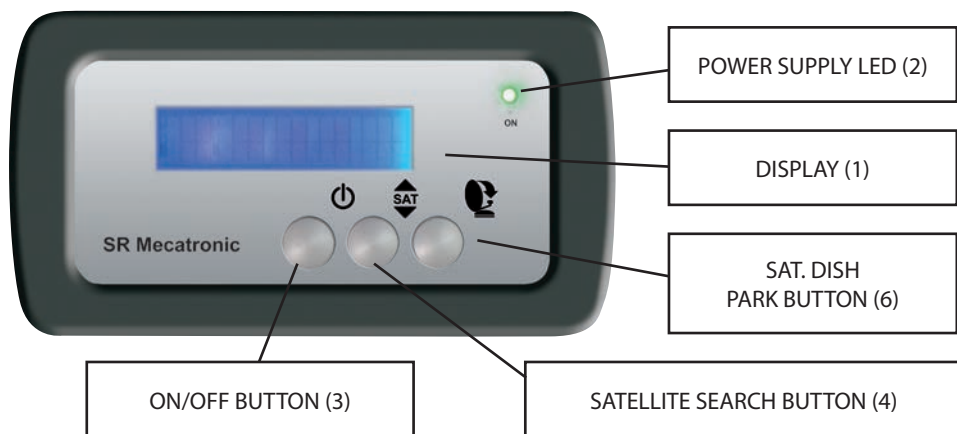


IN THE ABOVE-MENTIONED CASES THE WARRANTY IS VOID

4.2 Description of the LED control panel



4.2.1 Description of the DISPLAY control panel





4.3 Switching on

Press the on / off (3) button in the control panel.

When the button is pressed, the following LEDs will turn on in the LED version:

- green supply LED (2) showing the supply condition
- green LED (5) for the selected satellite will flash while the system searches for the satellite.

The LED light is green and stays on once the satellite dish has locked on to the satellite.

- the green power LED (2) turns on to show the power condition
- the display shows the name of the selected satellite that the system will automatically search for.

Note: if the satellite dish is not in the parked position when the power is switched on, the system will close the satellite dish instead of performing the search.

4.4 Satellite search and selection.

The system starts searching for the previously selected satellite as soon as it is switched on.

If the satellite shown is not the one you want, press button (4) on the control panel and:

- a) scroll through the list of stored satellites until you find the satellite you want (in the display version)
- b) scroll through the different LEDs until the light on the LED of the satellite you want turns on (LED version).

The system will automatically search for the selected satellite and will store its position in order to facilitate and speed up subsequent searches.

If the satellite is not able to find the satellite after performing a full scan, the system will set the satellite dish to its parked position.

4.5 Satellite dish parking

Press button (6) to park the satellite dish

This operation must be performed before switching the power off and it brings the satellite dish to its parked and travel positions.

If the button controlling this operation is pressed, the green LED starts flashing and will flash for all the time required for the closure of the satellite dish. The green LED will turn off when the closure of the dish is complete. In the display version the message (closure in progress) will appear.

4.6 Switching off

Switch off the satellite dish by pressing the ON / OFF button (3) and holding it for about 5 seconds.

CAUTION !!! Before switching off your satellite system by pressing button (3), make sure that the satellite dish is in parking position (button 6) .



If you switch off the satellite dish when it is not in the parked position, it will stay in the position it was before switching it off. The satellite dish will be brought back to its parked position by turning the vehicle ignition key, provided that the green cable has been correctly connected with + 12 V generated when the ignition key is turned.

4.7 Programming the display languages

4.7.1 Languages can be programmed in the display are: Italian, Spanish, French, English, German and Dutch.

4.7.2 To access the language programming menu:

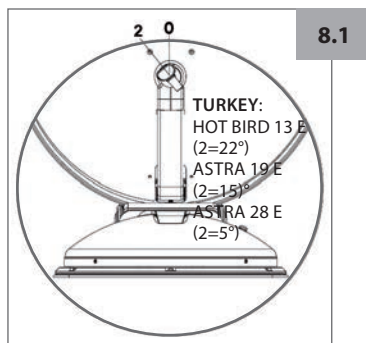
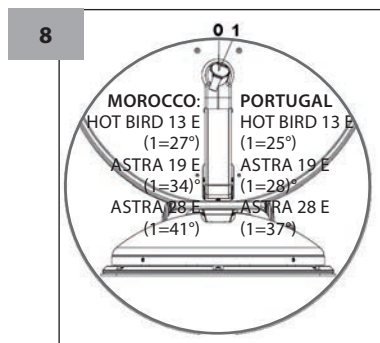
- Switch on the satellite dish by pressing ON (3)
- Wait for the start and then close the satellite dish by pressing the parking button (6).
- Wait for 5 seconds from closure, then press the satellite change button (4) and the parking button (6) simultaneously.
- If this operation is performed correctly, the currently set language will appear on the display, followed by 3 asterisks (ITALIAN ***, for instance)
- Press the satellite change button (4) several times in order to scroll through the menu until the desired language appears.
- Save the selected language by pressing the parking button (6). 3 dots will appear after a few seconds, confirming the new language.
- To leave the menu, press the satellite change (4) and parking (6) buttons simultaneously.

4.8 Special notes

The factory assembly position of the LNB is along the centre axis of the dish and in this position the LNB works properly in many places in Europe. However, if you are in a marginal area of the satellite footprint, the adjustment of the LNB angle can be critical.

In particular, if you wish to receive from Astra 28E, Astra 19E or Hot Bird 13E satellites while you are in Spain, Portugal, Italy or further afield, slightly loosen the screw that secures the LNB in order to rotate it.

For more information, consult your dealer.



In compliance with article 13 of Law Decree n. 151 of 25th July 2005 "implementation of the 2002/95/EC, 2002/96/EC and 2003/108/EC Directives concerning the reduction of hazardous materials in electric and electronic devices and of waste disposal"



This symbol means that this device must be disposed of separately from other waste and not in household waste after its use.

The user must dispose of this device in the special collection centres for electric and electronic waste, as regulated by the local legislation in force.

The proper selective waste collection, followed by recycling, treatment and eco-compatible disposal of the device, has a positive impact on the environment and health because it facilitates the re-use and recycling of the materials composing the device.

The illegal disposal of the product by the user implies the administrative sanctions provided for by the regulations in force.

INFORMATION

6.1 Service



CAUTION ! Only qualified and authorised personnel can repair the device (see paragraph 5.5 on the service centres). This guarantees that the device is used in conditions of safety, without running the risk of voiding the warranty and being certain that only original spare parts are used.

6.2 Warranty



6.2.1 The device has a warranty of 3 years from the date of purchase for all its mechanical parts. For the electronic parts SR Mecatronic warrants that the device has been manufactured and tested carefully and is therefore free from defects before its delivery.

6.2.2 Keep the receipt or invoice, which must be shown as a purchase proof for any service operations under warranty (otherwise the warranty is void).

6.2.3 SR Mecatronic will repair any defects found on this device free of charge in a reasonable time after receiving the device. The necessary costs for this purpose, especially the work and material costs, will be totally charged to us, while the costs and risks concerning the transport of the device to the authorised centre will be charged to you.

6.2.4 The operations under warranty do not imply an extension or renewal of the warranty period of the device. The replaced parts become automatically our property.

6.2.5 For any warranty operations we kindly ask you to deliver your device to our authorised service centre. Make sure that the packaging is in perfect conditions for a safe transport (original packaging). A brief description of the failure must be included and inserted in the pack, together with your full address. Moreover, as a proof of warranty right, do not forget to put your original document of purchase (receipt or invoice) in the pack.

6.2.6 WAIVERS

The warranty does not cover those defects that:

- occur following improper, negligent or careless use or storage of the device;
- are caused by wrong installation, maintenance or repair performed by non authorised - personnel or by damage caused by transport;
- are not referable to manufacturing defects;
- are caused by the use of non original spare parts and accessories;
- have been caused by lightning, wrong supply voltage or other force majeure events, not ascribable to the Manufacturer.

6.4 TROUBLESHOOTING

PROBLEMS	CAUSES	SOLUTIONS
The satellite dish cannot be opened	<ul style="list-style-type: none"> -No power supply to the satellite dish -An obstacle is on the satellite dish -The vehicle is moving or engine is on -Loose or broken connection 	<ul style="list-style-type: none"> -Mettre sous tension le panneau -Switch the control panel on - Remove the obstacle - Stop the vehicle and turn off - Check the connections
Error: satellite not found	<ul style="list-style-type: none"> - Obstacles in front of the satellite dish (trees, metal walls, buildings, etc.) prevent the reception of the signal. - The connection from the box to the LNB is loose - You are outside or at the extreme limits of the satellite footprint 	<ul style="list-style-type: none"> - Move the vehicle away from anything that prevents satellite reception and make sure that the South is free from obstacles - tighten the connectors and try again - Make sure that you have followed the instructions in paragraph 4.7; otherwise wait until you arrive in a more central area
Error: rotation maximum stress	<ul style="list-style-type: none"> - there are obstacles in the area of action of the satellite dish (trees, ice or snow) 	<ul style="list-style-type: none"> - remove the obstacles that prevent rotation
Error: elevation maximum stress	<ul style="list-style-type: none"> - there are obstacles in the area of action of the satellite dish (trees, ice or snow) 	<ul style="list-style-type: none"> - Eliminer les obstacles qui empêchent le levage.
Rotation error	<ul style="list-style-type: none"> - the rotation motor does not work 	<ul style="list-style-type: none"> - check the connections of the grey cable to the box from the satellite dish to the external unit position
Elevation error	<ul style="list-style-type: none"> - the elevation motor does not work 	<ul style="list-style-type: none"> - check the connections of the grey cable to the box from the satellite dish to the external unit position
Error: insufficient power supply	<ul style="list-style-type: none"> - the battery is too low and cannot ensure the correct operation of the system 	<ul style="list-style-type: none"> - charge the battery
Error: unstable power supply	<ul style="list-style-type: none"> - faulty battery or presence of non stabilised power supply 	<ul style="list-style-type: none"> Turn off any current generators or have the battery checked
The satellite dish loses the signal	<ul style="list-style-type: none"> - slow connections - strong storm or wind 	<ul style="list-style-type: none"> - check and tighten the F connections of the box, satellite dish and decoder - wait until the storm or wind cease
RF cable error	<ul style="list-style-type: none"> broken or disconnected satellite cable 	<ul style="list-style-type: none"> - check the connection - check the supply voltage