



## **VOYAGER DIGIMATIC 50**

**INSTALLATION GUIDE  
AND USER MANUAL**

**TELECO**

**UK**

## TELECO WARRANTY

Teleco guarantees its satellite dishes and terrestrial antennas against any material and/or construction fault and defect. The warranty offered by TELECO is limited to the free-of-charge replacement or repairing of any parts that are deemed faulty by TELECO. The warranty is applicable for a period of 3 YEARS starting from the product purchase date; however, it will only be considered valid if the Customer is able to produce a written document (invoice or tax receipt) showing the purchase date.

The following is excluded from the TELECO warranty:

- a. Damages caused by incorrect installation and/or use and/or maintenance
- b. Damages resulting from product alterations not authorised by Teleco
- c. Damages resulting from the use of spare parts different from original Teleco parts
- d. Damages resulting from repairs carried out by personnel not authorised by Teleco
- e. Normal part wear;
- f. Expenses incurred for spare parts transport between the Customer's and the service centre
- g. Damages that may occur during transport:  
the Customer shall always be responsible for transport risks.

### Information

Congratulations on your purchase! Voyager Digimatic is among the most technologically advanced products in the field of satellite TV reception. This handbook has been prepared to provide information on how to install, use, maintain and technical specifications your Voyager Digimatic.

For additional information, please contact your local dealer or directly the manufacturers:

**TELECO s.p.a.**

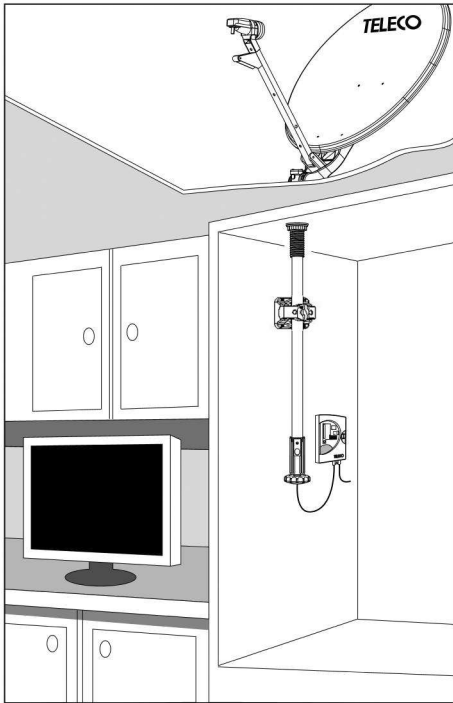
Via E. Majorana 49  
48022 LUGO (RA)

Web site: [www.telecogroup.com](http://www.telecogroup.com)

Technical attendance: 899.899.856

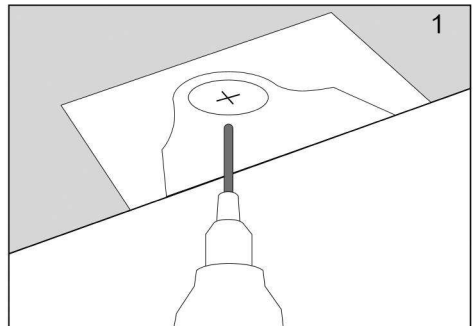
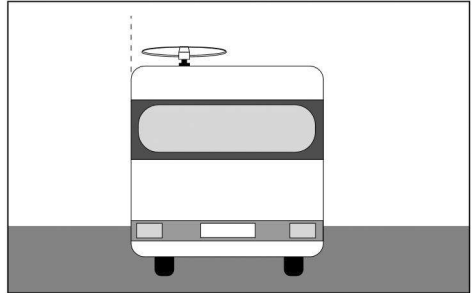
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# Installation instructions

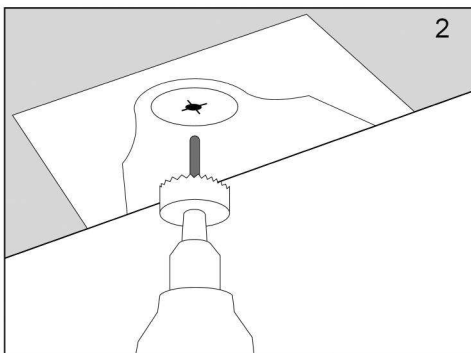


The Voyager Digimatic antenna must be installed near a vertical wall where the wall outlet can be fitted

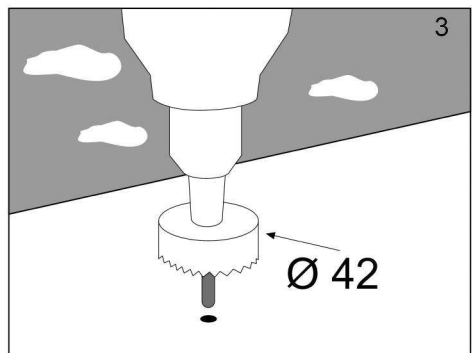
**Caution:**  
Mount the antenna away from the vehicle roof edge to avoid overhanging the roof line when travelling.



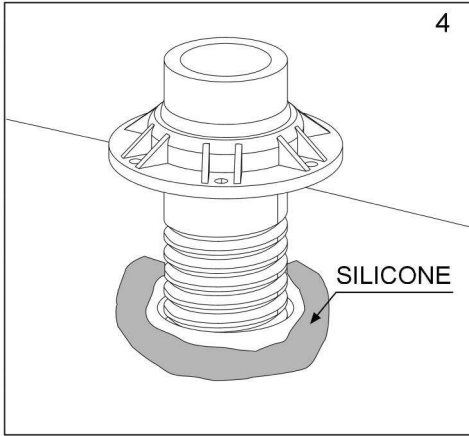
Set the drilling jig in place. Drill in the middle of the jig (page 22)



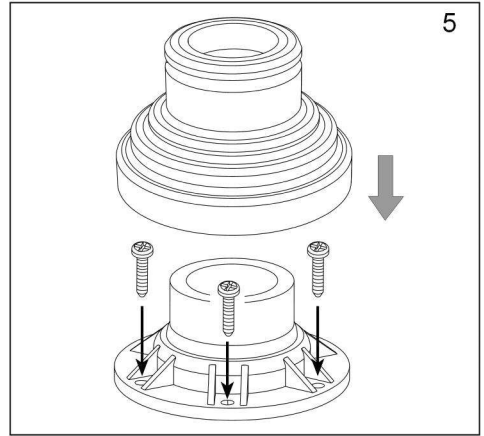
Using a dia. 42 cutter, drill the inside wall first...



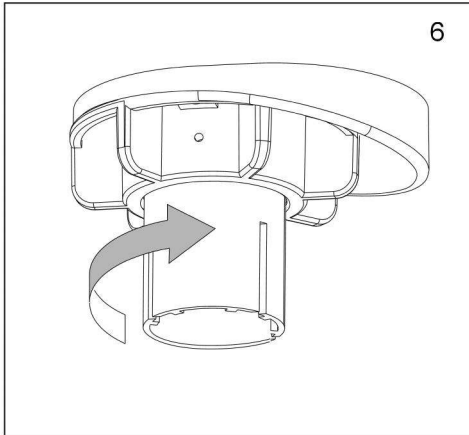
...and then drill the outside wall.



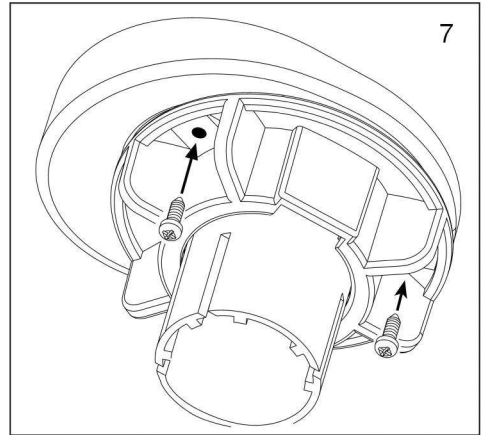
Insert the mast roof mounting bracket in the dia. 42 hole bored in the roof, making sure you apply a layer of silicone under the ring nut.



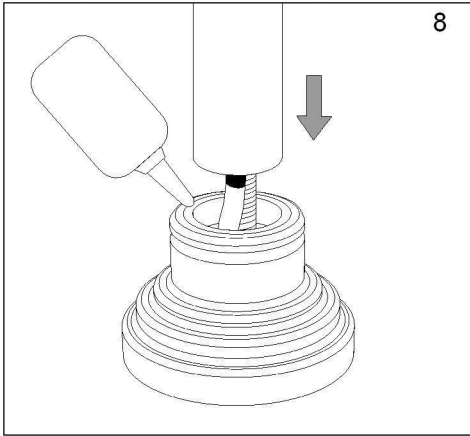
Fasten the ring nut using self-tapping screws. Place the rubber gasket over the ring nut. ( Screws not supplied )



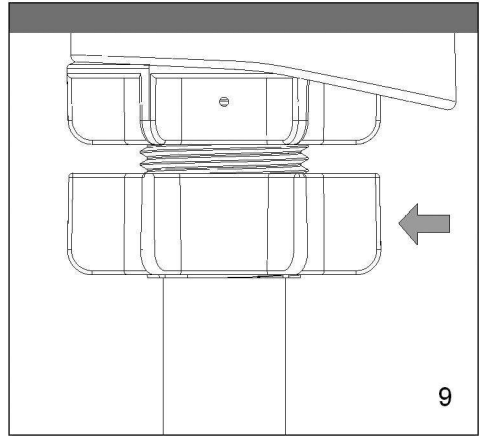
Secure the pipe lead to the roof using the ring nut and its wedge-shaped spacer. **Caution:** the antenna must be in horizontal position. The wedge-shaped spacer is used to set the antenna in the horizontal position even if the roof is inclined.



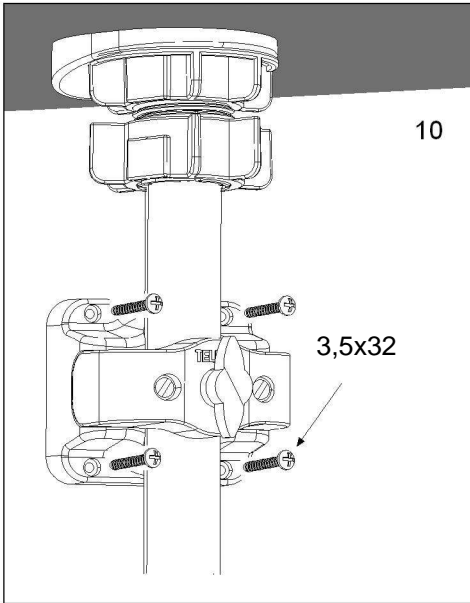
Lock the collar on the wedge spacer by applying the 2 screws (not supplied).



Spread a thin film of Vaseline inside the seal and introduce the mast

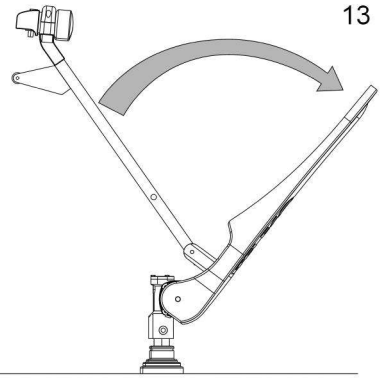
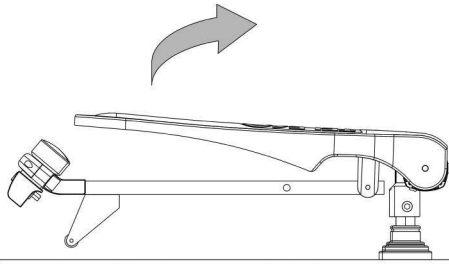


Tight the locking ring nut  
This **mast locking** device must be screwed tight every time you wish to secure the antenna in the desired position. To turn or lift the mast, loosen this ring nut.

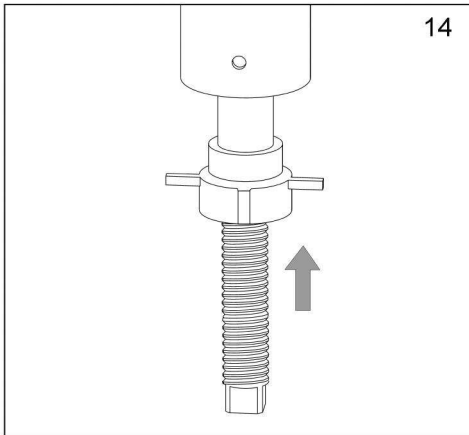


Fix the outlet unit to the wall

**Caution:** Extend the dish mast **all the way** as shown in the figure

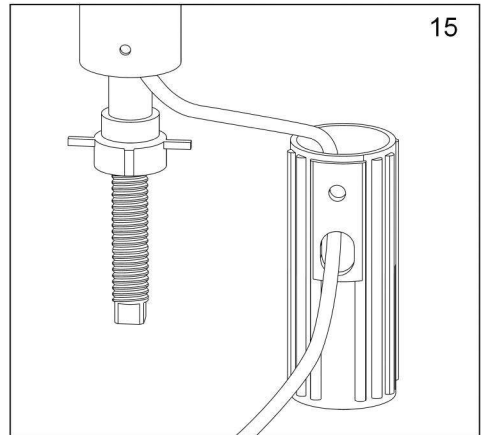


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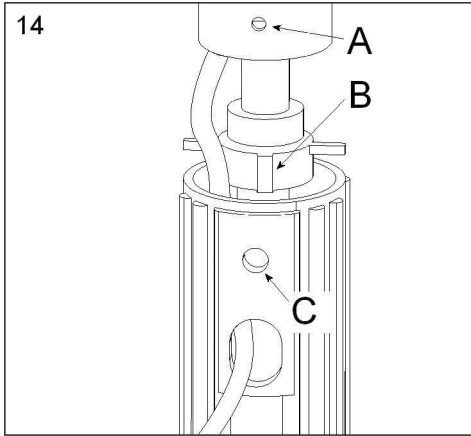
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Tighten the indicator screw hard, to the end of the thread as shown in the figure.

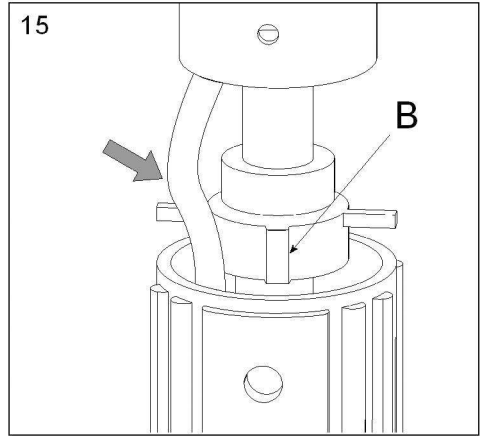


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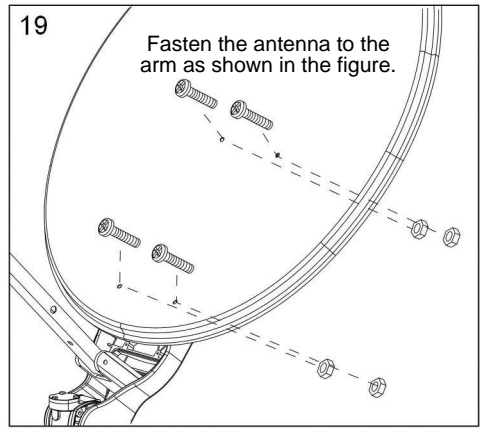
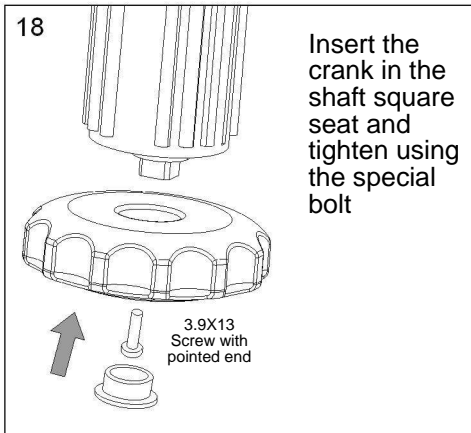
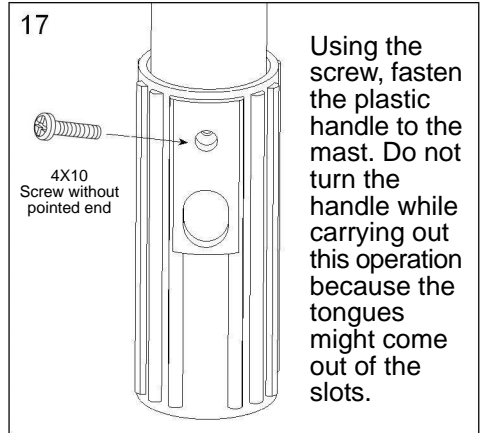
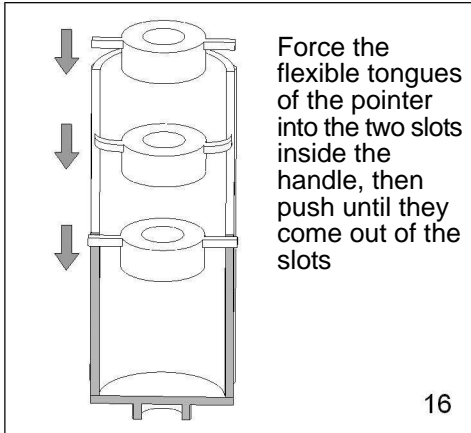
Insert the cable in the plastic handle hole

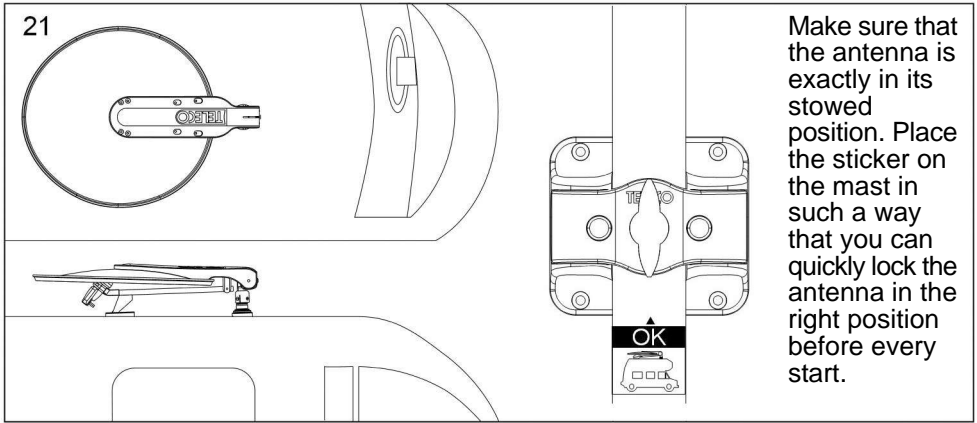
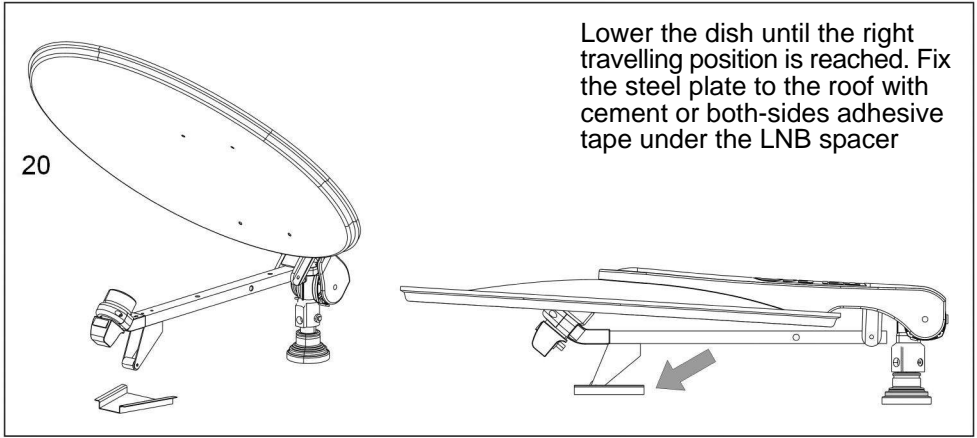


Before fitting the plastic handle in the tube, make sure that the holes A and C are aligned with the reference mark B



Make sure that the cable runs in front of the pointer reference mark B



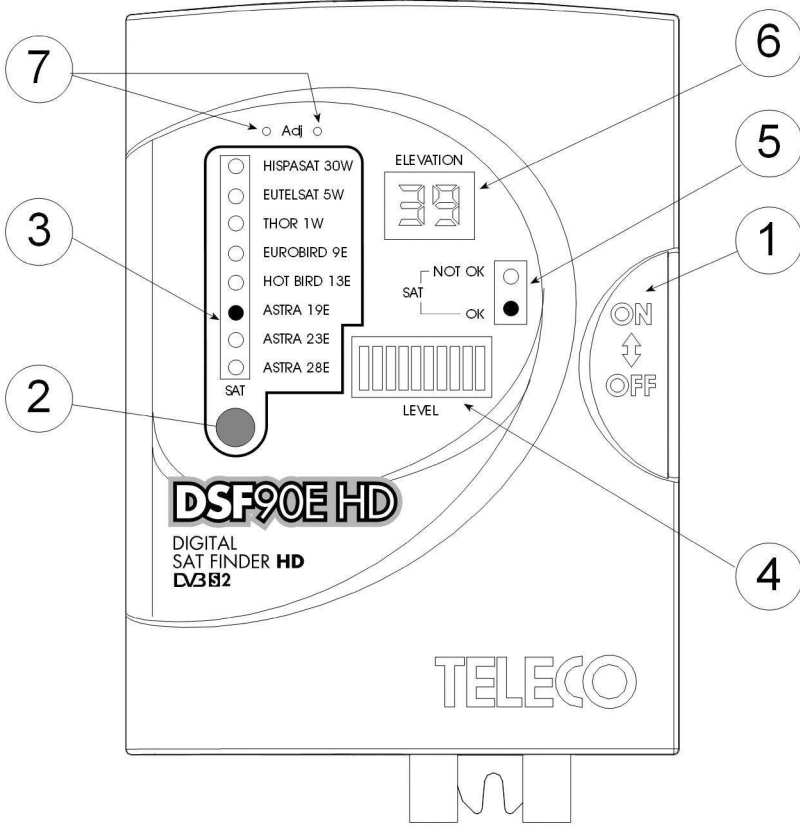


The antenna must be absolutely installed according to fig. 21, i.e., the disc must be bent to the rear of the vehicle.



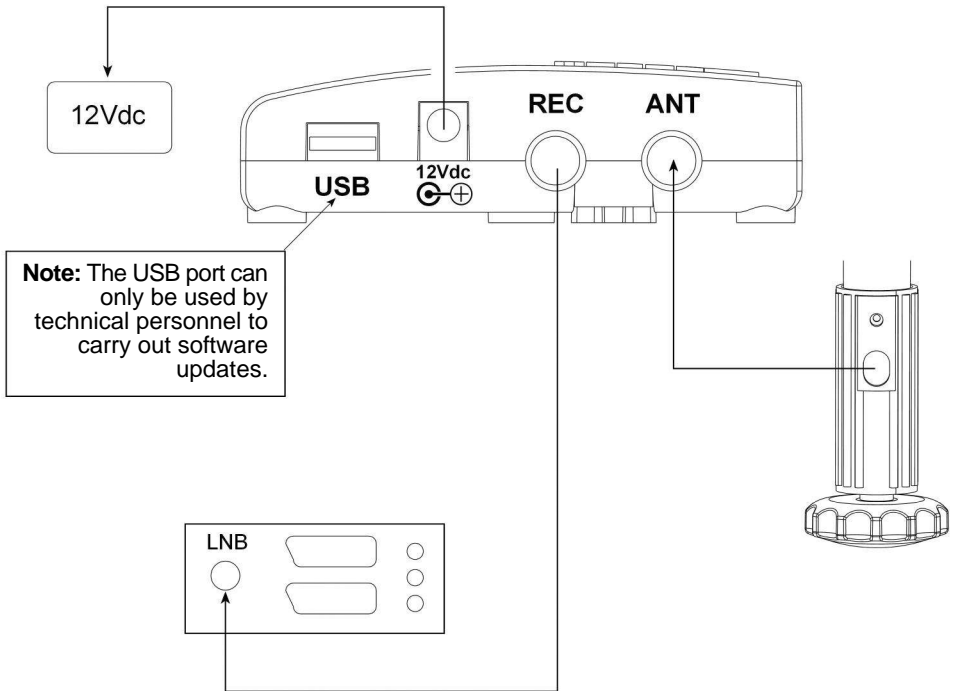
# CONNECTIONS DSF90E

DSF90E is a device designed to quickly find required DIGITAL satellites according to a manual dish pointing system. The 8 most popular satellites used in Europe are stored in the system memory: Astra 28E, Astra23E, Astra19E, Hotbird 13E, Eurobird 9E, Thor 1W, Atlantic Bird 5W and Hispsat 30W. The Digital Finder is equipped with visual and sound indicators to achieve received signal optimisation. If used in conjunction with the Electronic Angle Detector available in the Voyager Digimatic systems, DSF90E will also show the dish elevation figure, thus further simplifying pointing operations. The device display unit will show the dish angle actual 'absolute' value even if the vehicle is not levelled.



- |                                |   |
|--------------------------------|---|
| 1) ON/OFF switch               | 4) Signal level indicator                                     |
| 2) Satellite selection button  | 5) Pointing completed indicator                               |
| 3) Pointed satellite indicator | 6) Dish angle display unit                                    |
|                                | 7) Angle adjustment buttons<br>(upon first installation only) |

- 1) Connect the coaxial cable coming from the mast handle to the ANT connector of the DSF90E device
- 2) Plug the REC connector of the DSF80 in the LNB connector of your satellite receiver via the supplied coaxial cable.
- 3) Connect the 12Vdc input cable to the 12Vdc connector of the DSF90E device. Plug the other end of the cable into the vehicle battery or a 12Vdc power outlet. (stabilised)



## Instructions for DSF90E initial set-up with Voyager systems

Set-up operations should only be carried out once upon system installation. After completing all the required connections, perform inclinometer "**ADJUSTMENT**" to the vehicle on which it is installed.

- 1) Check the **Adjustment Table** to identify the correct dish angle for the selected satellite pointing (e.g. HOT BIRD 13E) from the installation area (e.g. HOT BIRD from Florence = 39°).
- 2) Switch on the DSF90E device by setting the power switch to **ON** and then select the satellite to point (e.g. HOT BIRD ) by pressing the **SAT** button. Adjust the VOYAGER elevation and rotation settings to point the satellite as required and optimise pointing until the **LEVEL** indicator shows the maximum number of burning LEDs and the **SAT OK LED** lights up.
- 3) The **ELEVATION** display unit of DSF90E will show a figure describing your dish angle. This figure must match the figure shown in the Adjustment Table (for instance, in Florence, the angle value that can be found in the table is 39°). If the display unit reading does not match the adjustment table value, the device must be reset.
- 4) To reset the device, insert a small hard tip (e.g. the end of a metal staple) in one of the 2 holes next to "**Adj**" then press repeatedly until the display unit reads the correct angle value (39°). The button inside the left-hand hole will decrease the value, while the button inside the right-hand hole will increase the value.
- 5) The DSF90E device is now ready to function and the display unit will always show the dish angle actual 'absolute' value even if the vehicle is not levelled.

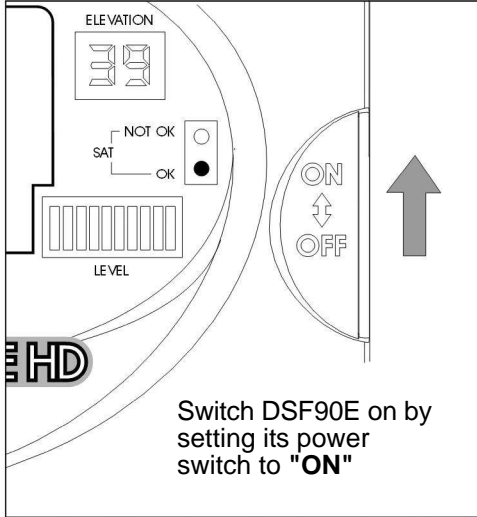
### Table of Elevation values for initial DSF90E setting up with Voyager systems

Country	Town	HOT BIRD 13° EST	ASTRA 19° EST	ATLANTIC BIRD 3 5° WEST
ALBANIA	Tirana	42	42	36
ALGERIA	Algiers	46	44	47
	Costantine	47	45	45
	Oran	46	43	48
AUSTRIA	Innsbruck	36	35	33
	Salzburg	35	35	32
	Vienna	35	35	31
BALEARICS	Palma	44	42	44
BELGIUM	Antwerp	31	30	31
	Brussels	31	30	31
	Gand	31	30	31
BULGARIA	Liege	31	30	31
	Burgas	39	40	31
	Sofia	40	41	33
CZECH REPUBLIC	Brno	33	34	30
	Prague	33	32	30
DENMARK	Copenhagen	27	27	25
EGYPT	Alexandria	49	52	38
	Cairo	50	53	38
FINLAND	Helsinki	21	22	17
FRANCE	Lyon	36	35	36
	Marseille	39	37	38
	Paris	36	35	36
	Toulouse	38	37	39
GERMANY	Berlin	30	30	28
	Cologne	31	31	31
	Hamburg	30	28	28
	Munich	35	34	33
	Stuttgart	34	34	33

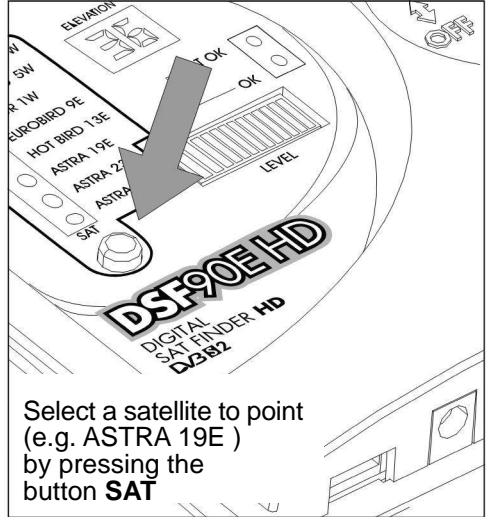
Country	Town	HOT BIRD 13° EST	ASTRA 19° EST	ATLANTIC BIRD 3 5° WEST
GIBRALTAR		44	41	48
GREECE	Athens	45	46	37
	Iraklion	47	49	38
	Patras	45	46	38
	Thessalonica	42	43	35
	Budapest	35	35	31
HUNGARY	Pecs	37	37	32
	Reykjavik	12	11	16
ICELAND	Brindisi	43	43	37
	Cagliari	44	43	42
	Firenze	39	39	37
	Milano	37	37	36
	Napoli	43	43	39
	Palermo	46	45	42
	Roma	42	41	38
	Venezia	38	37	35
	Tripoli	52	51	47
LYBIA	Casablanca	45	41	51
	Fes	46	43	50
	Marrakech	46	42	53
	Tangiers	44	41	48
NETHERLANDS	Amsterdam	30	29	29
	Eindhoven	31	30	30
	Rotterdam	30	29	30
NORWAY	Oslo	22	22	21
	trondheim	19	19	18
POLAND	Cracow	32	33	28
	Gdansk	28	28	24
	Warsaw	29	30	25
	Wroclaw	31	32	28
	Lisbon	40	36	45
PORTUGAL	Porto	37	35	42
	Bucarest	37	38	30
ROMANIA	Timisoara	37	37	31
	St. Petersburg	20	21	16
RUSSIA	Moscow	23	25	16
	Bratislava	35	35	31
SLOVAKIA	Kosice	33	34	29
	Barcelona	41	39	42
SPAIN	Bilbao	40	37	42
	Carthagene	44	42	46
	Madrid	40	38	43
	Seville	42	39	47
	Goteborg	25	24	23
SWEDEN	Stockholm	23	23	20
	Berne	36	35	35
SWITZERLAND	Geneve	36	35	36
	Zurich	35	35	34
	Tunis	47	46	44
TUNISIA	Ankara	39	42	29
TURKEY	Istanbul	40	42	31
	Izmir	44	45	35
	Belfast	28	27	27
UNITED KINDOM	Cardiff	31	29	31
	Dublin	29	28	29
	Glasgow	26	25	26
	Inverness	24	23	24
	Limerick	30	29	29
	London	30	29	31
	Manchester	27	26	29
	Newcastel	26	25	27
	Plymouth	32	31	32
	York	27	26	28

## INSTRUCTIONS FOR USE

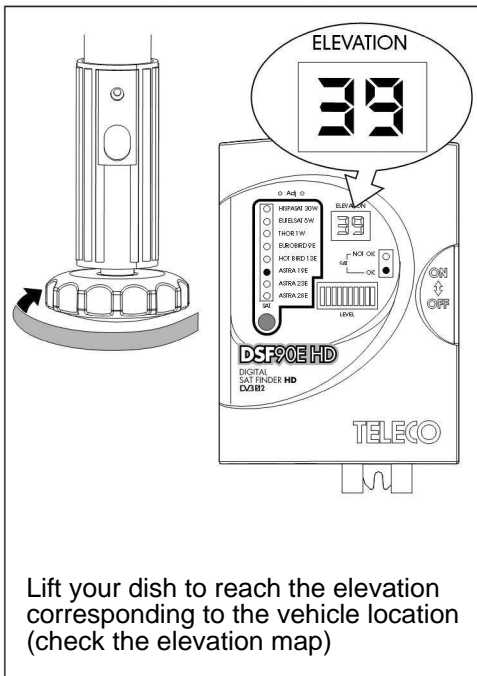
- 1) Switch on and prepare the SAT receiver and the TV set for reception following the instructions of their respective manufacturers.
- 2) It is critical to make sure that there are no obstacles (e.g. houses, trees etc.) between the antenna and the satellite southwards.
- 3) Check in the table supplied the elevation relative to the town closest to the place where you are located.



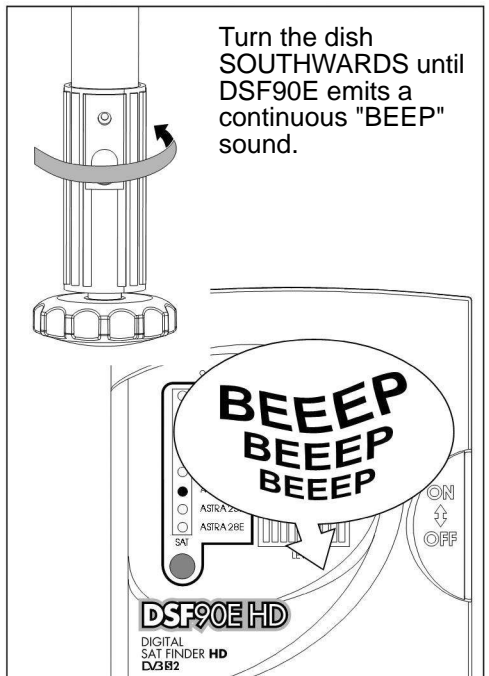
Switch DSF90E on by setting its power switch to "ON"



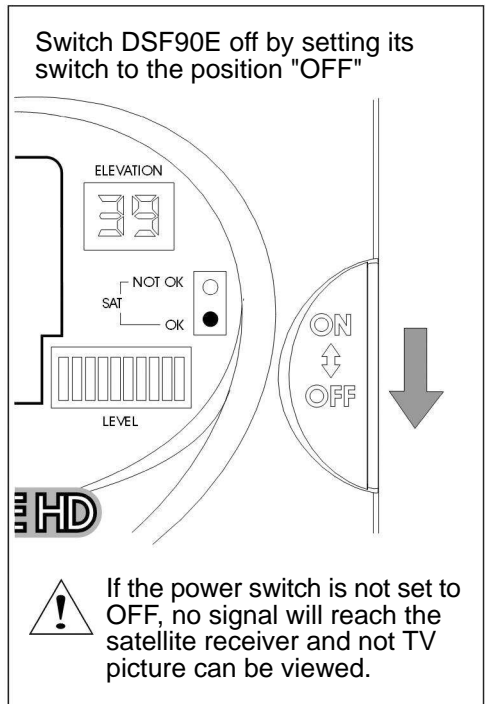
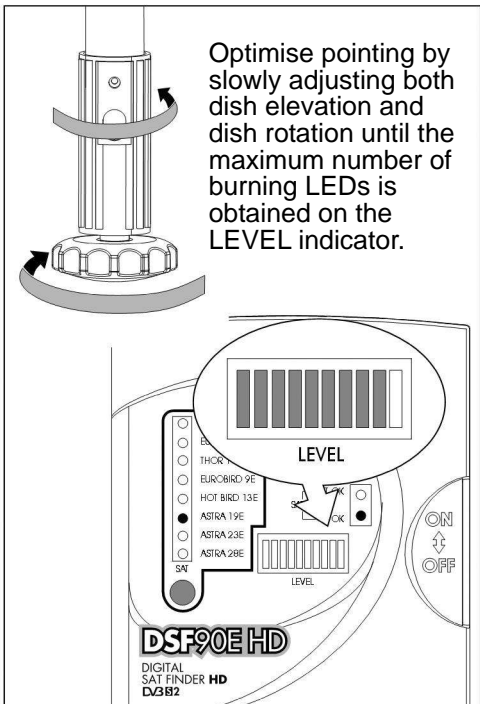
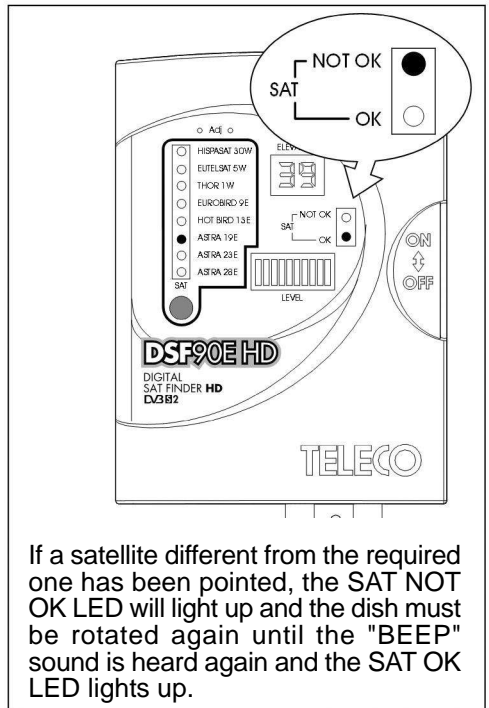
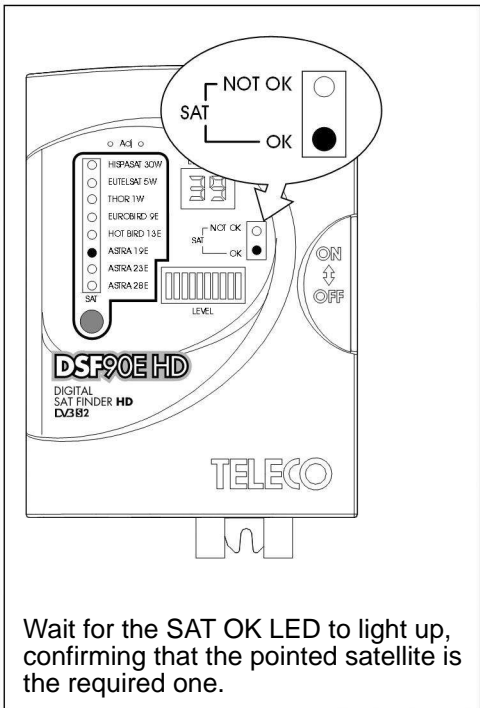
Select a satellite to point (e.g. ASTRA 19E ) by pressing the button **SAT**

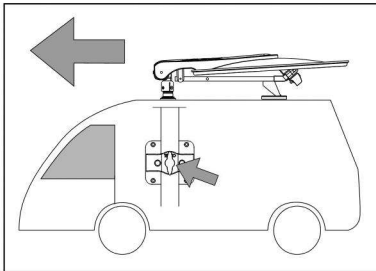


Lift your dish to reach the elevation corresponding to the vehicle location (check the elevation map)



Turn the dish **SOUTHWARDS** until DSF90E emits a continuous "BEEP" sound.





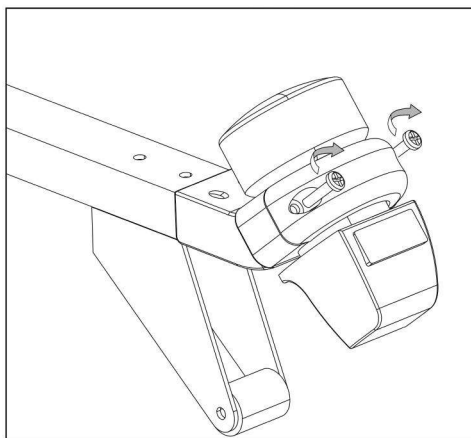
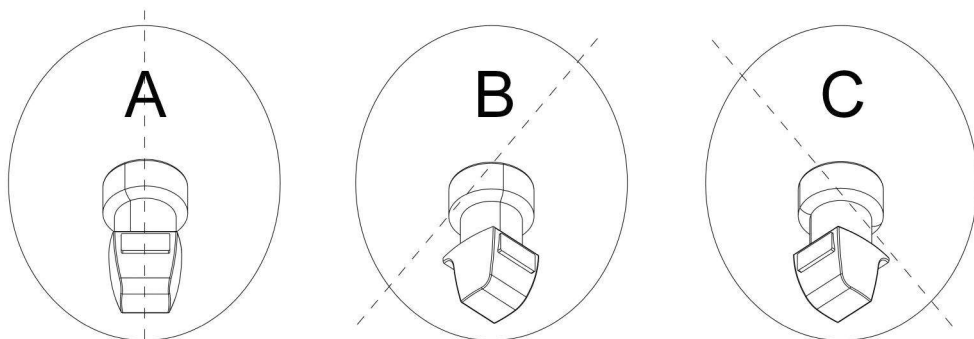
Before starting the vehicle, make sure you have brought down the antenna to its standby position and tightened the knob hard

**Failure to comply with these conditions may result in product degradation which the manufacturer cannot be held responsible for.**

- 1) It is recommended not to use the antenna under strong wind conditions (80 km/h). Failure to comply with this condition may result in product degradation which the manufacturer cannot be held responsible for.
- 2) The manufacturer declines any liability for all degradations suffered by the product owing to misuse.

## LNB rotation for ideal reception in Europe's extreme (South-West or South-East) areas

Remember that the outside converter (a.k.a. LNB) has its own assembly position which must be complied with. Otherwise you will not receive any signal. The pre-set mounting position for the LNB is along the centre line of the disk (fig. A). With this configuration, the Voyager system works correctly in most European countries. However, if you are in areas very far from the satellite orbital position, it might be necessary to adjust the converter angle. In particular, if you wish to receive transmissions from the satellites Astra 19E, Astra 28E or HotBird 13E, while you find yourself in Portugal or Morocco, your converter angle should be adjusted as shown in (fig. B), while if you are in Turkey, to receive the same satellites you should set your converter to the position (fig. C).



- 1) Loosen the screws on the LNB locking U-bolt
- 2) Turn in the Clockwise (West) or Anti-clockwise (South-East) direction
- 3) Lock the LNB again by screwing down the screw

Place	Position	HotBird 13E	Astra 19E	Astra 28E
Lisbona	B	25°	28°	37°
Casablanca	B	27°	34°	41°
Ankara	C	22°	15°	5°

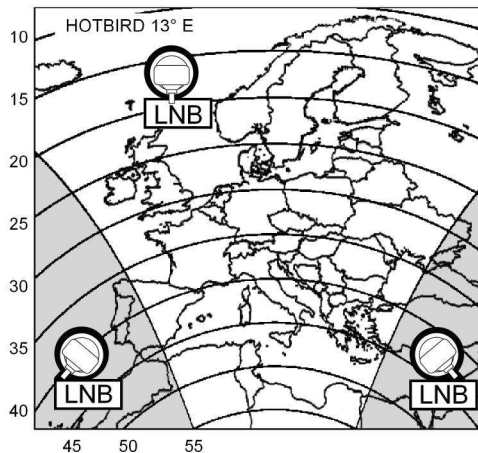
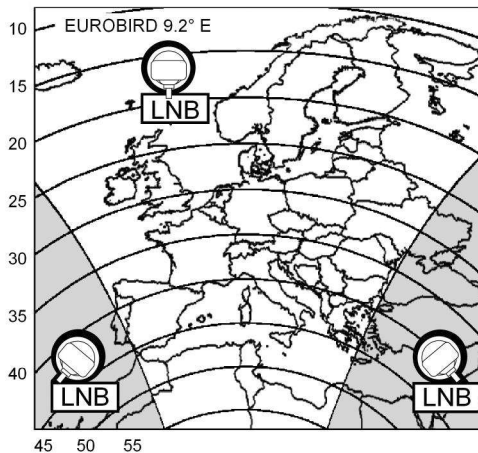


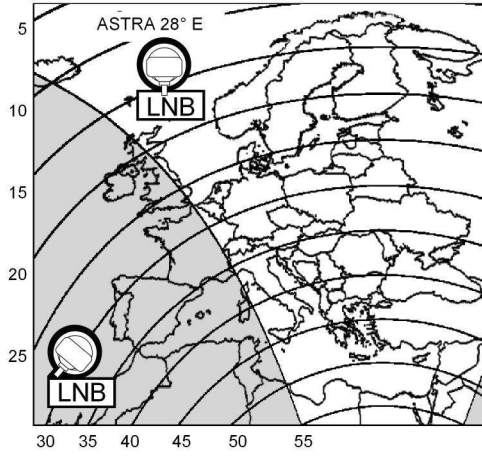
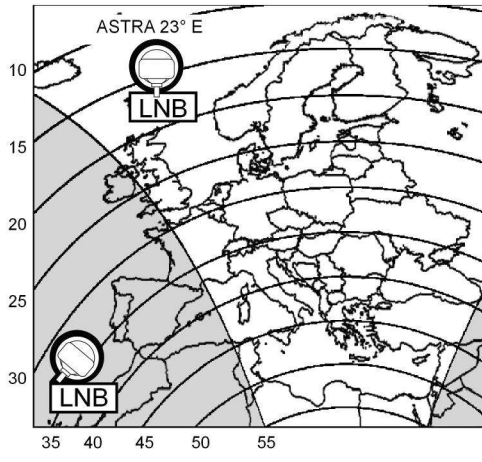
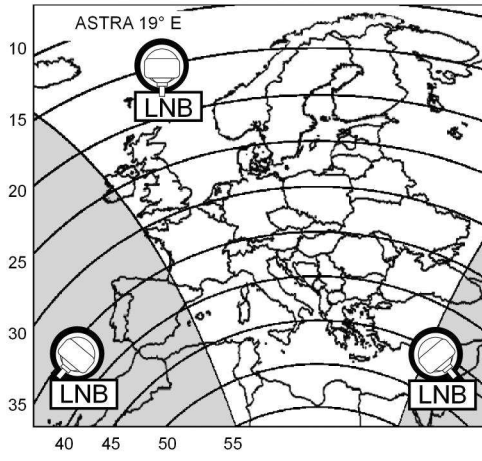
## Dish elevation maps

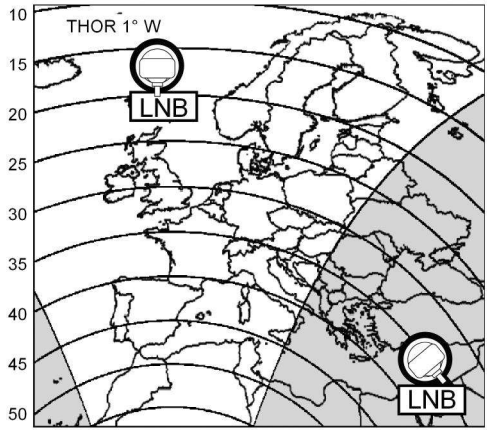
To correctly point the dish towards your required satellite, it is very important to tilt the dish to the exact angle.

Check your position on the map, then set the dish elevation figure in degrees according to the figure on the required satellite map.

The grey sections in the various maps identify the geographical areas in which LNB adjustment may be necessary.

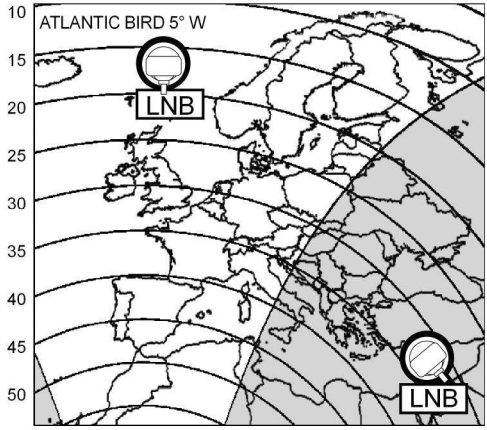




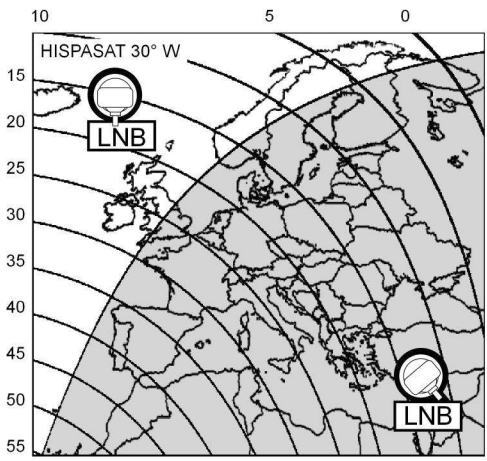


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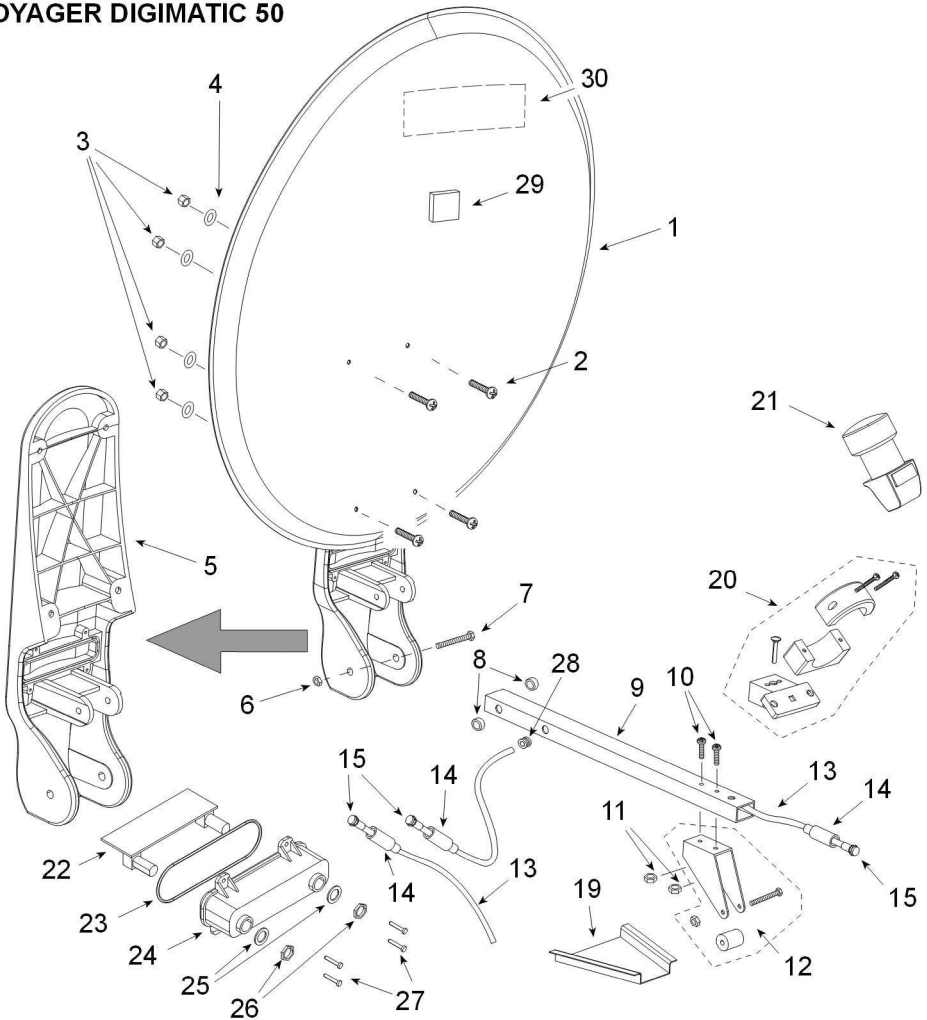
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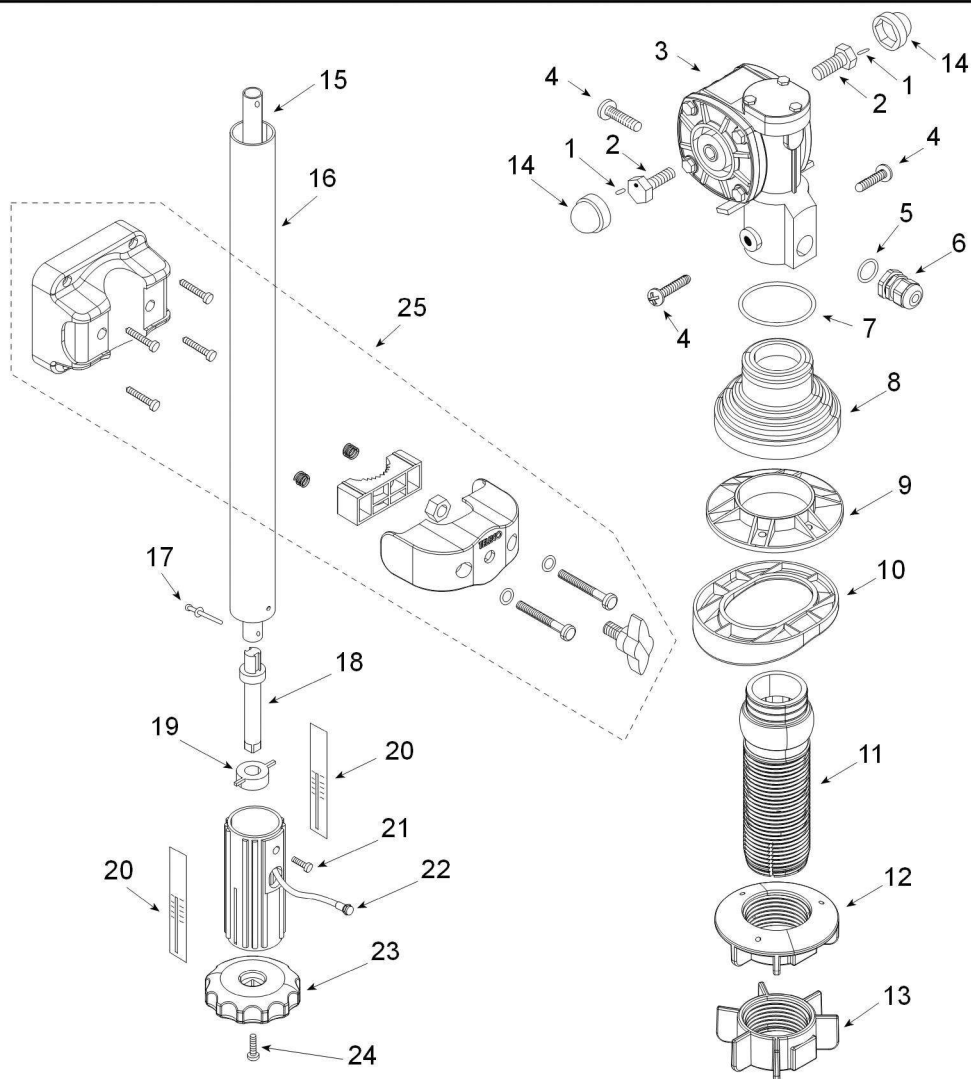


# VOYAGER DIGIMATIC 50



Pos.	Code	Q.ty	Description (14/06/2018)
1	06681	N.1	Parabolic antenna D=49x45.5 cm
2	10425	N.4	Screw M5X10
3	03685	N.4	Self-locking nut M5
4	15616	N.4	Flat washer D 5
5	10757	N.1	Support dish arm
6	03684	N.1	Self-locking nut M6
7	10979	N.1	Screw 6x55
8	06076	N.2	Nylon bush
9	06975	N.1	LNB Voyager 500 support tube
10	09014	N.2	Screw M5x30
11	09015	N.2	Nut M5
12	12878	N.1	Roll support bracket
13	13159	MT.7	Coaxial Cable
14	03459	N.3	Connector protecting rubber
15	15077	N.3	F50 F connector
19	06132	N.1	Arm rest
20	08628	N.1	LNB Plastic Kombi-type support

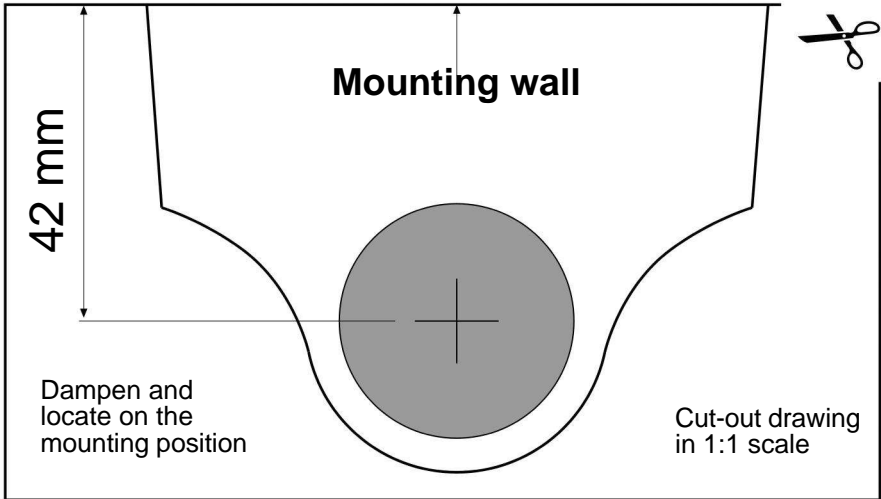
Pos.	Code	Q.ty	Description
21	16992	N.1	LNB Stark ST1
22	13142	N.1	SMLC.S. TO 253
23	11190	N.1	or gasket 75x2
24	11001	N.1	zarnak box
25	11280	N.2	Gasket
26	07960	N.2	Nut
27	11006	N.4	Self-tapping screw M2,9 x 9,5
28	05293	N.1	Hole grommet
29	05735	N.1	Transparent rubber
30	11247	N.1	Dish sticker



Pos.	Code	Q.ty	Description
1	05799	N.2	Arm locking dowel
2	07446	N.2	Arm locking screw
3	11200	N.1	Reduction gear
4	11805	N.3	Trilobed screws 5X12
5	03244	N.1	OR Gasket PG 9
6	07956	N.1	Fairlead skintop PG9
7	12030	N.1	Rubber gasket spring
8	11524	N.1	Mast gasket
9	11523	N.1	Mast inclinable flange
10	11526	N.1	Mast conic inclination adapter
11	11525	N.1	Mast pass tube
12	11528	N.1	Mast conic ring nut
13	11527	N.1	Mast locking ring nut
14	14996	N.2	NUT COVER M14 BLACK POLYETHYLENE
15	10983	N.1	Adjustment shaft 12x0.95x498
16	10968	N.1	Supporting tube
17	03605	N.1	Tear rivet

Pos.	Code	Q.ty	Description
18	06391	N.1	Index Plastic screw
19	06390	N.1	Index
20	06495	N.2	Elevation sticker
21	02075	N.1	Self-tapping screw 4x10
22	15077	N.1	F50 F connector
23	10110	N.1	Black knob
24	02087	N.1	Self-tapping screw 3,9x13
25	18174	N.1	LOCKing bracket kit for VOYAGER





**CONFORMITY CERTIFICATE**

**The manufacturer Teleco Spa**

Via Majorana nr. 49, 48022 Lugo ( RA )

Declares under its own responsibility that the following products:

**VOYAGER 50 DIGIMATIC**

which are the subject of this certificate, conform to the following norms:

EN 60065: 2002 - EN 55013: 2001 + A1: 2003 - EN 61000 – 3 - 2: 2000 + A2: 2005  
 EN 61000 – 3 – 3: 1995 + A1: 2001 + A2: 2005 - EN 55020: 2002 + A2: 2005

according to the terms of the European directive 2006/95/EC  
 Low Voltage ( modified by 93/68/CEE ) and 2004/108/CEE of Electromagnetic  
 Compatibility (modified by 92/31/CEE e 93/68/CEE ) of the European Parliament.

Lugo 22 / 06 / 2018

THE PRESIDENT

Ing. Raul Fabbri

**Recycling:** with a view to reducing disposal of waste electrical and electronic equipment as much as possible, do not throw out this end of life appliance together with other unsorted municipal waste, but make use of a recycling centre.

**CE**



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