

**MOTORISATION**  
**for SATELLITE DISH**  
**DiSEqC 1.2**  
with «**Goto X**» function

**MAESTRO JACK**  
*Mega Force System*

**INSTALLATION INSTRUCTIONS**

# ***Please read these instructions carefully before installing the Maestro Jack***

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## **1 - IMPORTANT SAFETY ADVICE**

### **INSTALLATION PRECAUTIONS**

- **Unplug all the equipment (television, decoder, VCR etc.) connected to the satellite receiver or digital terminal before connecting or disconnecting the satellite coaxial cable.**
- Take all the usual precautions when installing an antenna at a height:
  - Do not install the antenna in strong wind, rain or hail.
  - Stand the ladder on hard ground or failing that, on a plank,
  - Keep away from the area under the antenna,
  - Keep clear of the antenna whilst it is rotating,
  - Check that the wall or chimney on which the antenna is to be mounted is solid, etc...

***ATTENTION : Failure to respect the safety advice or the instructions for installing and operating the equipment, and any damage caused due to an obstacle preventing the antenna from rotating are not covered by the manufacturer's guarantee.***

## 2 - TEMPORARY INSTALLATION (optional)

If you are adjusting a satellite antenna for the first time, we advise you to follow the temporary installation instructions in an easily accessible area free from obstructions.

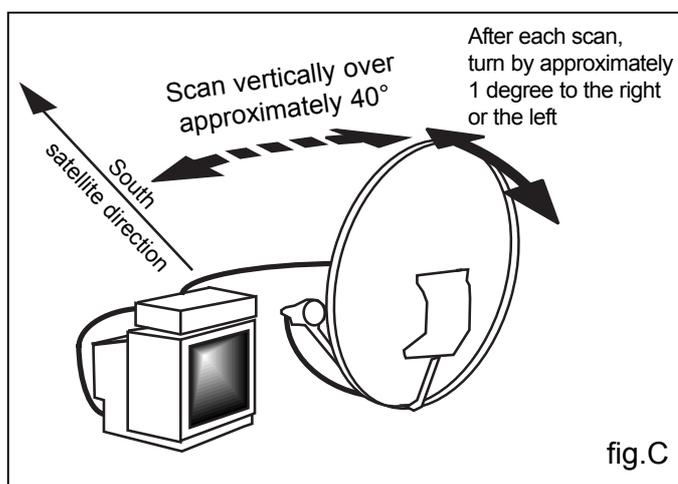
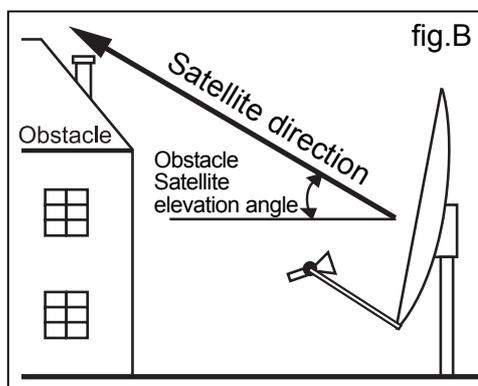
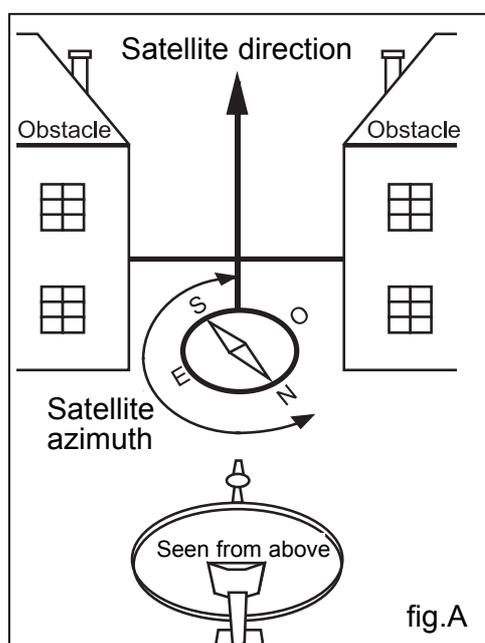
Satellites are always located between the South East and South West. No obstacles (buildings, trees, windows, tiles...) must come between the dish and the satellite (fig. A et B).

The apparent elevation of the dish is approximately  $20^\circ$  less than the real elevation of the satellite, which is around  $30^\circ$  (fig.B).

If you have any doubts about the satellite direction, carry out the following quick satellite tracking procedure:

1. Connect the head (LNB), the digital satellite receiver and a television (see satellite receiver instructions) close to the dish.
2. Select the transponder (= frequency) of the satellite you are looking for from the receiver's antenna positioning menu.
3. Rotate the dish vertically towards the South (the real elevation angle is then approximately  $20^\circ$ ).
4. Slowly tilt the dish towards the sky ( $40^\circ$  approx.), keeping the same direction towards the South (azimuth). The scanning process should last around 10 seconds (fig.C).
5. If the reception signal level does not react, turn the dish approximately 1 degree to the right (or the left), then scan again from top to bottom. Repeat the procedure turning to the right (or the left) one degree at a time until you obtain the satellite.  
Attention: if level Eb/No (= quality level) remains very weak or non-existent, the signal being received is not from the satellite you are looking for.

6. Locate the precise direction of the satellite or satellites and choose a position free from obstacles.

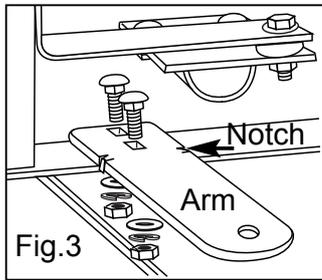


### 3 - MAESTROJACK ASSEMBLY

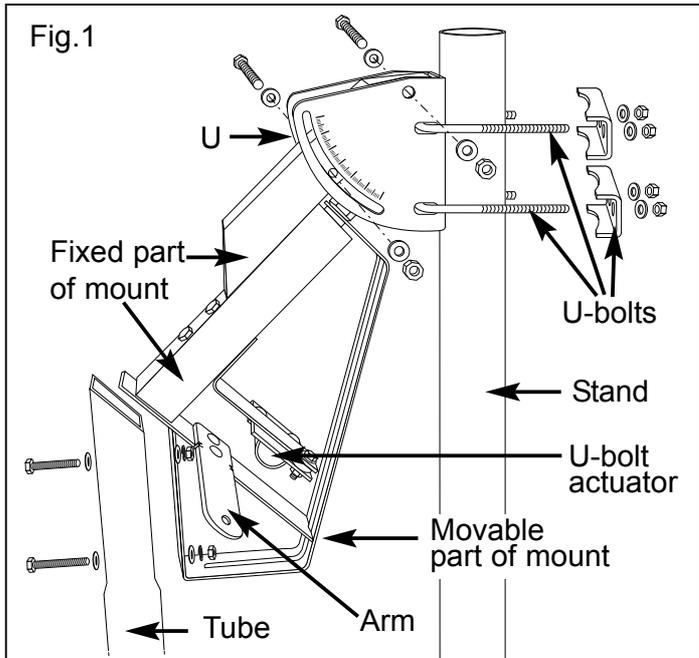
**Important : No obstacles (buildings, trees, windows, tiles...) must come between the dish and the satellites.**

- Tools required:
- 1 x 12 mm flat key
  - 1 x 13 mm flat key
  - 1 cross tip screwdriver
  - 1 cutter
  - 1 cutting pliers
  - 1 tape measure
  - 1 spirit level or 1 plumb line

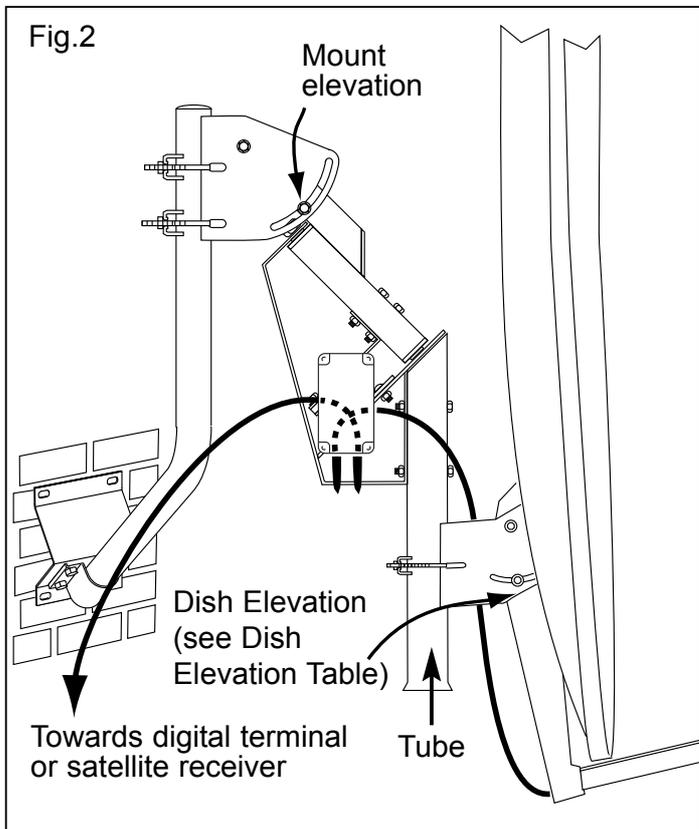
1. Assemble the 2 U-bolts and the U on the fixed mount (fig.1).
2. Assemble the tube on the movable part of the mount (fig.1).
3. Assemble the arm so that it is perpendicular in relation to the mobile part of the mount, respecting the assembly direction. The 2 notches on the arm must be pointing towards the ground (fig.3 & fig.1).
4. Adjust the mount elevation (fig.2) to the value shown in the mount elevation table.
5. Fix the mount on the stand (not supplied).  
The stand must be adjusted so that it is completely vertical (assembly on the ground or the wall) (fig.2).



6. Assemble the dish and the head (LNB), not supplied (see dish instructions).

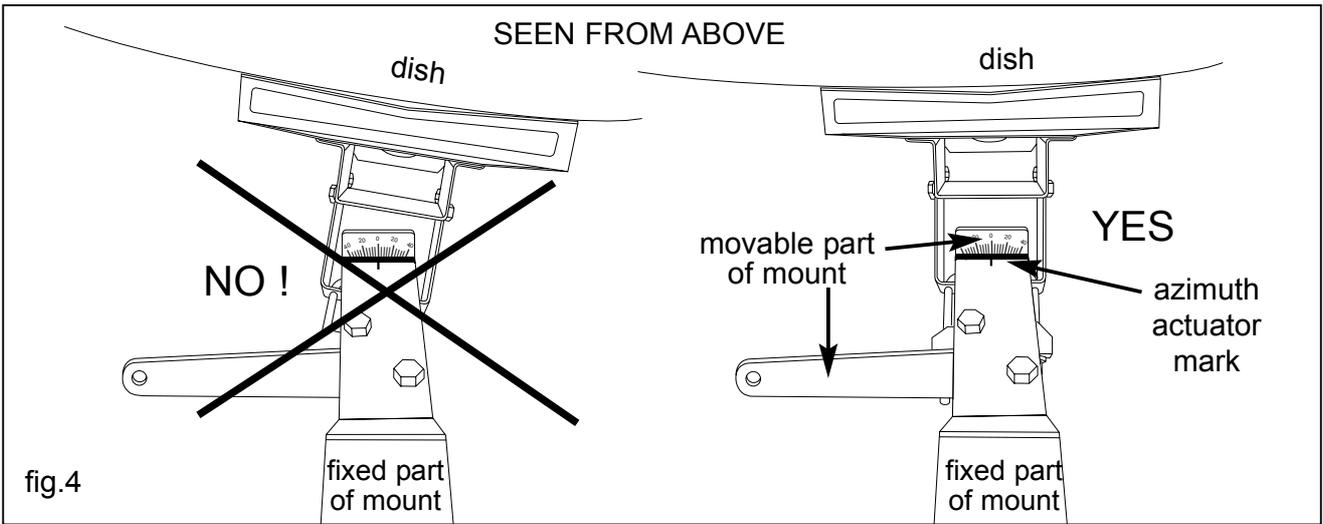


Mount Elevation & Dish Elevation Tables			
COUNTRY	CLOSEST TOWN	MOUNT	
		ELEVATION	ELEVATION
BAHRAIN	AL-MANAMAH	64	41
EGYPT	AL-ARISH	59	40
EGYPT	ALEXANDRIA	59	40
EGYPT	AL-FAYYUM	61	40
EGYPT	AL-MINYA	62	40
EGYPT	ASWAN	66	41
EGYPT	ASYUT	63	40
EGYPT	CAIRO	60	40
EGYPT	LUXOR	65	41
EGYPT	PORT SAID	59	40
EGYPT	SUEZ	60	40
JORDAN	AMMAN	58	40
KUWAIT	AL-KUWAYT	61	40
LEBANON	BEIRUT	56	39
LEBANON	TRIPOLI	56	39
LIBYA	BANGHAZI	58	40
LIBYA	TOBRUK	58	40
LIBYA	TRIPOLI	57	40
OMAN	OMAN	68	41
QATAR	DOHA	65	41
SAUDI ARABIA	JIDDAH	69	41
SAUDI ARABIA	MEDINA	66	41
SAUDI ARABIA	RIYADH	66	41
SYRIA	ALEPPO	54	39
SYRIA	DAMASCUS	57	40
SYRIA	HAMAH	55	39
TURKEY	ADANA	53	39
TURKEY	ANKARA	50	39
TURKEY	ISTANBUL	49	39
TURKEY	IZMIR	52	39
TURKEY	KONYA	52	39
UAE	ABU DHABI	66	41
UAE	DUBAI	65	41

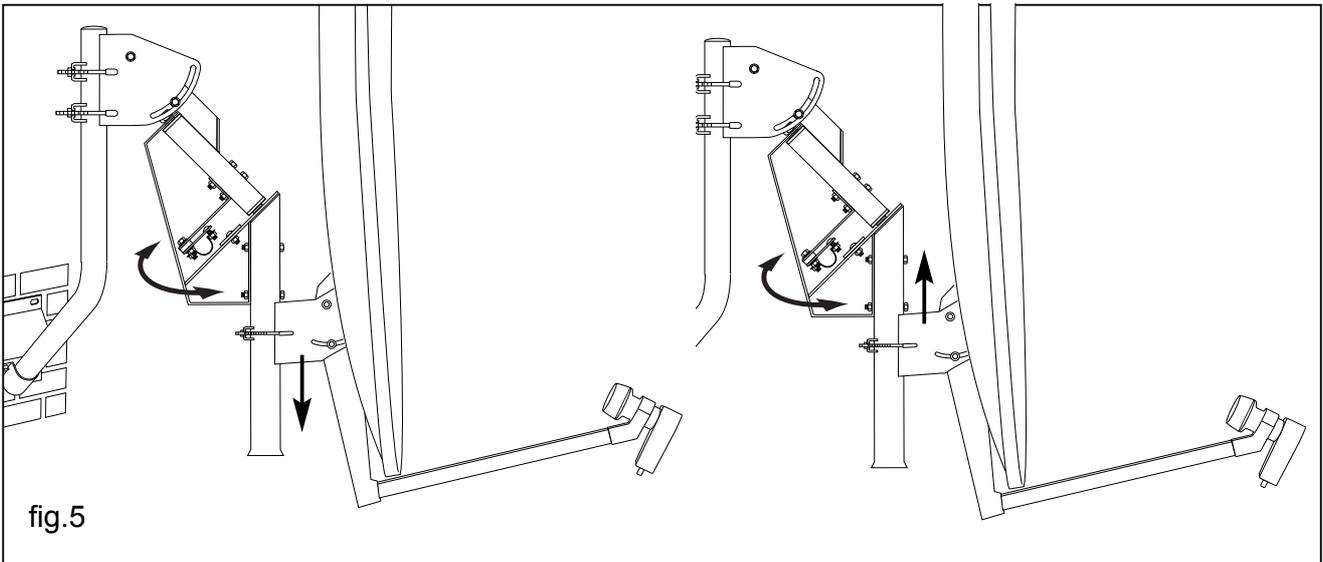


7. Adjust the dish elevation to the value shown in the dish elevation table. (fig.2).

8. Assemble the dish on the tube so that it is perpendicular in relation to the movable part of the mount (fig.4).



9. **IMPORTANT** : balance the movable part of the mount by adjusting the height at which the dish is fixed to the tube so that the dish turns without requiring any effort (fig.5); if the dish is tilting down to the left or the right, lower it. Otherwise, lift it until it is perfectly balanced. Attention, after balancing, the dish must still be perpendicular (fig.4) to the movable part of the mount.

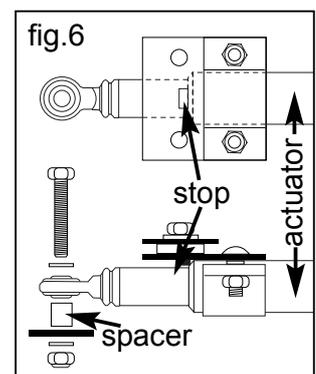


10. Check that the axis of rotation of the U-bolt actuator (fig.1) is tight enough for it to turn without leaving any play.

11. Fasten the actuator until it reaches the U-bolt stop and tighten the U-bolt (fig.6). The motor connector outputs must be pointing towards the ground.

12. Assemble the screws with the spacer at the end of the actuator (fig.6) and tighten firmly.

13. Initialise the motor (see § 5 Initialising the Motor).

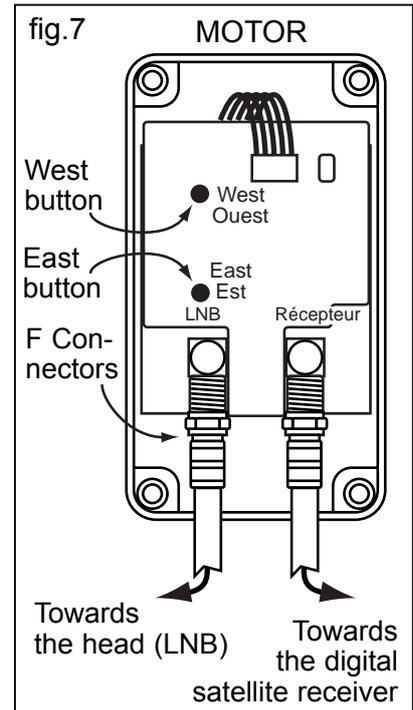
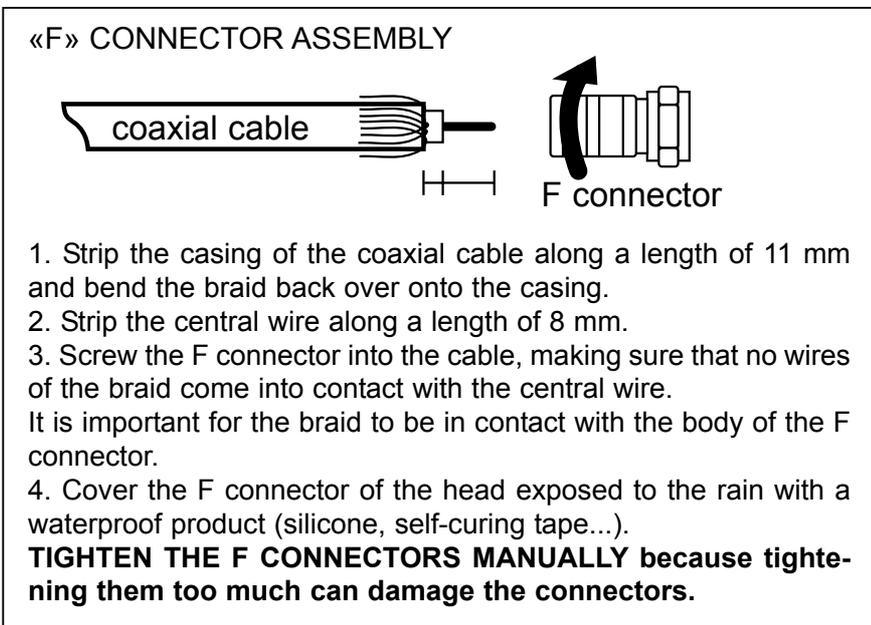


## 4 - CONNECTIONS

**As a precaution, unplug all mains flexes before connecting the MaestroJack.**

The MaestroJack is connected via 2 coaxial cables equipped with F connectors ;

1. Remove the motor hood of the actuator (do not forget to close it again after making the adjustments using the 4 screws supplied).
2. Connect the input on the motor marked "LNB" to the head (fig.7).
3. Connect the output on the motor marked "RECEIVER" to the satellite input on your digital satellite receiver or satellite receiver (fig.7).
4. Plug in the mains flexes and switch on the digital satellite receiver and television after connecting all the wires (see explanations in the digital satellite receiver instructions).



### Practical advice

- If you are having difficulty screwing an F connector, do not keep forcing. Instead, unscrew it completely and then screw it back up manually.

- Check that the coaxial cables cannot become jammed as the dish rotates. For this purpose, it is preferable to attach them to the external tube of the actuator (fig.8).

## 5 - INITIALISING THE MOTOR

The initialisation procedure resets the actuator azimuth to 0°, the motor satellite positions to the factory settings (see list opposite) and the limits to 50° East and 50° West.

The "Go to position 0°" command on the Maestro (or a "Reset" command on another terminal) initialises the motor at the real 0° position without modifying the satellite positions that have been memorised.

1. Press the 2 buttons "East" and "West" inside the motor at the same time for approximately 5 seconds. The actuator folds up completely, and then unfolds until it reaches 0° actuator azimuth, which is equivalent to aligning the movable part with the fixed part of the mount.
2. Wait until the motor has come to a complete stop.

### **ATTENTION :**

- During the initialisation process, the actuator folds up completely until it reaches the mechanical stop before returning to 0° actuator azimuth. If an obstacle prevents it from folding, the azimuth will be incorrect.
- During the initialisation process, no other commands can be taken into account.

## 6 - MAESTROJACK MOTORISATION SETTINGS

### 6.1. PRESETTING THE HOT BIRD SATELLITE

The Goto X function can be used to programme a position in degrees directly on the digital satellite receiver.

#### With the Maestro 1000, 2000 and 9000 Receiver (with Goto X function)

1. Select "Motor DiSEqC & MaestroJack" from the "Reception" menu (Configuration / Installation).
2. Select "Positioning" on the Hot Bird 13° East satellite from the "Setting antenna" menu.
3. In the "Setting antenna" menu, press the "Info" button and type the Hot Bird "Adjusted position" taken from the Azimuth Table (for example: 21.1° West for Cairo) :

AZIMUTH TABLE Country	Closest Town	HOT BIRD-13°E		ASTRA-19,2°E		NILESAT-7°W		ARABSAT-26°E	
		Az	AZ length						
BAHRAIN	AL-MANAMAH	42,9°W = 236mm		35,9°W = 225mm		out of limit		28,3°W = 213mm	
EGYPT	AL-ARISH	23,8°W = 205mm		16,7°W = 192mm		46,1°W = 241mm		9,0°W = 178mm	
EGYPT	ALEXANDRIA	19,4°W = 197mm		12,3°W = 184mm		41,8°W = 234mm		4,5°W = 169mm	
EGYPT	AL-FAYYUM	20,5°W = 199mm		13,4°W = 186mm		43,0°W = 236mm		5,6°W = 171mm	
EGYPT	AL-MINYA	20,4°W = 199mm		13,3°W = 186mm		43,0°W = 236mm		5,5°W = 171mm	
EGYPT	ASWAN	23,0°W = 204mm		15,8°W = 191mm		45,5°W = 240mm		8,0°W = 176mm	
EGYPT	ASYUT	20,9°W = 200mm		13,8°W = 187mm		43,5°W = 237mm		6,0°W = 172mm	
EGYPT	CAIRO	21,1°W = 200mm		14,0°W = 187mm		43,6°W = 237mm		6,2°W = 172mm	
EGYPT	LUXOR	22,7°W = 203mm		15,5°W = 190mm		45,2°W = 239mm		7,7°W = 175mm	
EGYPT	PORT SAID	22,1°W = 202mm		15,0°W = 189mm		44,5°W = 238mm		7,2°W = 174mm	
EGYPT	SUEZ	22,4°W = 203mm		15,3°W = 190mm		44,8°W = 239mm		7,5°W = 175mm	
JORDAN	AMMAN	26,2°W = 209mm		19,1°W = 197mm		48,4°W = 244mm		11,4°W = 182mm	
KUWAIT	AL-KUWAYT	39,8°W = 231mm		32,9°W = 221mm		out of limit		25,2°W = 208mm	
LEBANON	BEIRUT	25,6°W = 208mm		18,6°W = 196mm		47,8°W = 243mm		10,9°W = 181mm	
LEBANON	TRIPOLI	26,0°W = 209mm		19,0°W = 197mm		48,2°W = 243mm		11,2°W = 182mm	
LIBYA	BANGHAZI	8,1°W = 176mm		1,0°W = 162mm		30,8°W = 217mm		6,8°E = 145mm	
LIBYA	TOBRUK	12,6°W = 185mm		5,5°W = 171mm		35,2°W = 224mm		2,3°E = 155mm	
LIBYA	TRIPOLI	0,2°W = 160mm		6,9°E = 145mm		23,0°W = 204mm		14,7°E = 128mm	
OMAN	OMAN	out of limit		44,4°W = 238mm		out of limit		36,8°W = 227mm	
QATAR	DOHA	44,0°W = 237mm		37,1°W = 227mm		out of limit		29,4°W = 215mm	
SAUDI ARABIA	JIDDAH	30,3°W = 216mm		23,2°W = 204mm		out of limit		15,3°W = 190mm	
SAUDI ARABIA	MEDINA	30,6°W = 217mm		23,5°W = 205mm		out of limit		15,7°W = 191mm	
SAUDI ARABIA	RIYADH	38,6°W = 230mm		31,6°W = 219mm		out of limit		23,9°W = 205mm	
SYRIA	ALEPPO	27,4°W = 211mm		20,4°W = 199mm		49,5°W = 245mm		12,7°W = 185mm	
SYRIA	DAMASCUS	26,5°W = 210mm		19,5°W = 198mm		48,7°W = 244mm		11,8°W = 183mm	
SYRIA	HAMAH	27,0°W = 211mm		20,0°W = 198mm		49,1°W = 245mm		12,3°W = 184mm	
TURKEY	ADANA	25,8°W = 209mm		18,8°W = 196mm		47,9°W = 243mm		11,1°W = 182mm	
TURKEY	ANKARA	22,4°W = 203mm		15,4°W = 190mm		44,5°W = 238mm		7,8°W = 175mm	
TURKEY	ISTANBUL	18,0°W = 195mm		11,0°W = 182mm		40,2°W = 232mm		3,3°W = 166mm	
TURKEY	IZMIR	16,0°W = 191mm		9,0°W = 178mm		38,4°W = 229mm		1,3°W = 162mm	
TURKEY	KONYA	22,1°W = 202mm		15,1°W = 189mm		44,3°W = 238mm		7,4°W = 175mm	
UAE	ABU DHABI	47,1°W = 242mm		40,3°W = 232mm		out of limit		32,6°W = 220mm	
UAE	DUBAI	48,1°W = 243mm		41,3°W = 234mm		out of limit		33,6°W = 222mm	

4. Press OK and then press the ▲ arrow on the joystick; the motor rotates to the position required. Wait 30 seconds and then press OK to stop the procedure.
5. Press the green button on the remote control to "Store only" the satellite position.
6. Press OK and then press the red button (this triggers the "recalculate and store" function to calculate and store the positions of the other satellites according to the list of satellites pre-programmed in the motor).
7. Continue the installation process from § 6.2 onwards.

#### With a DiSEqC 1.2 Receiver with Goto X function

1. Use the menu that corresponds to the digital satellite receiver ("search for satellite", "satellite position...") to programme the Hot Bird azimuth taken from the azimuth table opposite (for example: 21.1° West for Cairo).
2. Store this satellite position. *Attention, Hot Bird must be programmed in position n°1 in the list of satellites.*
3. Store all the other satellite positions ("All sat"), or start the "recalculate" function for the other satellite positions.  
the recalculate function is only valid if the list of pre-programmed satellites on the satellite receiver and motor are identical.

#### List of satellites pre-programmed on the motor

No.	Satellites	Positions
1	Hot Bird	130° East
2	Astra	19°,2 East
3	Eutelsat W2	16° East
4	Eutelsat W1	10° East
5	Eutelsat W3	7° East
6	Sirius 2/3	5° East
7	Thor 2/3	0°,8 West
8	Intelsat 707	1° West
9	Telecom 2C	5° West
10	Telecom 2D	8° West
11	Intelsat 705	18° West
12	NSS 803	21°,5 West
13	Intelsat 605	27°,5 West
14	Hispasat	30° West
15	Telstar 11	37°,5 West
16	Kopernikus	23°,5 East
17	Arabsat 2A/3A	26° East
18	Astra 2	28°,2 East
19	Eutelsat II F4	28°,5 East
20	Arabsat 2B	30°,5 East
21	Turksat 1B	31°,3 East
22	Turksat 1C	42° East
23	Nilesat 101-2	7° West

Otherwise, each satellite must be searched for from the terminal either automatically or manually.

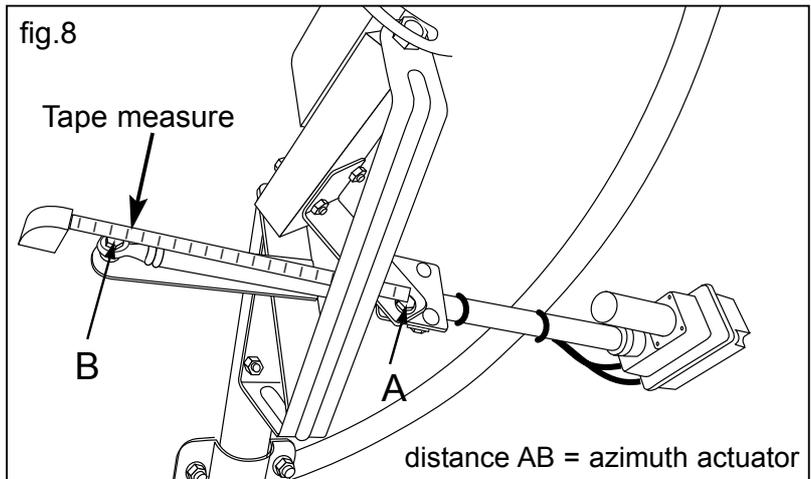
4. Continue the installation process from § 6.2 onwards.

**With a DiSEqC 1.2 Receiver without Goto X function**

1. Select or programme the transponder (frequency) for the Hot Bird satellite from the corresponding satellite receiver menu ("search for satellite", "satellite position"...).
2. Press the "East" or "West" button inside the motor (fig.7) to obtain the "azimuth" taken from the Hot Bird azimuth table opposite the azimuth mark (fig.4).

The Azimuth can also be measured on the actuator (see actuator azimuth table). For example for Cairo: 21.1°West or 20.0 cm.

*The actuator azimuth is measured between the centre of screw A on the U-bolt and the centre of screw B at the end of the actuator (fig.8).*



3. Store this satellite position.

**ACTUATOR AZIMUTH TABLE - East (E) ou West (W) azimuth, Length AB in centimetres (fig.8)**

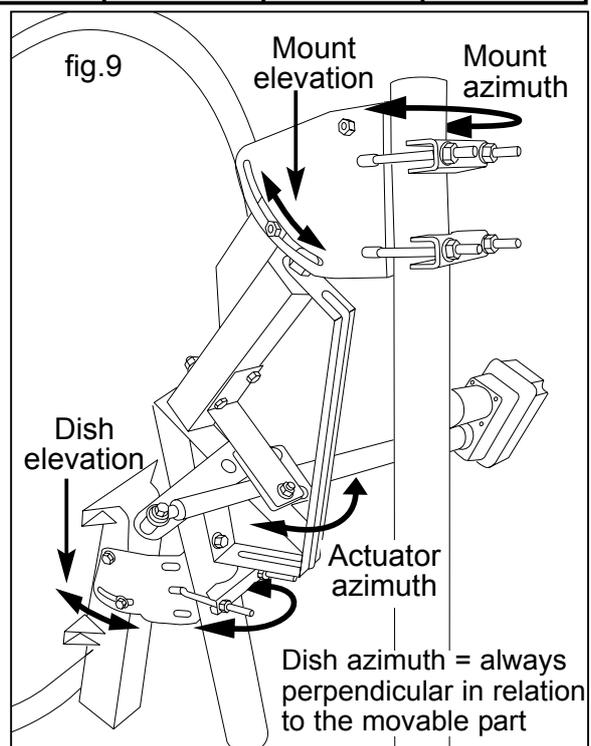
AZ	Length														
0°E	16,0cm	13°E	13,2cm	26°E	10,3cm	39°E	7,4cm	0°W	16,0cm	13°W	18,5cm	26°W	20,9cm	39°W	23,0cm
1°E	15,8cm	14°E	13,0cm	27°E	10,1cm	40°E	7,2cm	1°W	16,2cm	14°W	18,7cm	27°W	21,1cm	40°W	23,2cm
2°E	15,5cm	15°E	12,8cm	28°E	9,9cm	41°E	7,0cm	2°W	16,4cm	15°W	18,9cm	28°W	21,2cm	41°W	23,3cm
3°E	15,3cm	16°E	12,5cm	29°E	9,7cm	42°E	6,8cm	3°W	16,6cm	16°W	19,1cm	29°W	21,4cm	42°W	23,5cm
4°E	15,1cm	17°E	12,3cm	30°E	9,4cm	43°E	6,6cm	4°W	16,8cm	17°W	19,3cm	30°W	21,6cm	43°W	23,6cm
5°E	14,9cm	18°E	12,1cm	31°E	9,2cm	44°E	6,3cm	5°W	17,0cm	18°W	19,5cm	31°W	21,7cm	44°W	23,8cm
6°E	14,7cm	19°E	11,9cm	32°E	9,0cm	45°E	6,1cm	6°W	17,2cm	19°W	19,7cm	32°W	21,9cm	45°W	23,9cm
7°E	14,5cm	20°E	11,7cm	33°E	8,8cm	46°E	5,9cm	7°W	17,4cm	20°W	19,8cm	33°W	22,1cm	46°W	24,0cm
8°E	14,3cm	21°E	11,4cm	34°E	8,5cm	47°E	5,7cm	8°W	17,6cm	21°W	20,0cm	34°W	22,2cm	47°W	24,2cm
9°E	14,1cm	22°E	11,2cm	35°E	8,3cm	48°E	5,5cm	9°W	17,8cm	22°W	20,2cm	35°W	22,4cm	48°W	24,3cm
10°E	13,9cm	23°E	11,0cm	36°E	8,1cm	49°E	5,3cm	10°W	18,0cm	23°W	20,4cm	36°W	22,6cm	49°W	24,4cm
11°E	13,6cm	24°E	10,8cm	37°E	7,9cm	50°E	5,1cm	11°W	18,2cm	24°W	20,6cm	37°W	22,7cm	50°W	24,6cm
12°E	13,4cm	25°E	10,5cm	38°E	7,6cm			12°W	18,4cm	25°W	20,7cm	38°W	22,9cm		

**6.2. SEARCHING FOR THE HOT BIRD SATELLITE**

Before starting the search, check that;

- the dish elevation is set to the value given in the dish elevation table,
- the mount elevation is set to the value given in the mount elevation table,
- the actuator azimuth is set to the value given in the azimuth table,
- the dish is completely perpendicular in relation to the movable part of the mount (fig.4),
- the stand is vertical.

Fast "signal level" variations can be used to track satellites in random order. The level is of no consequence. The "Eb/No" level (quality level) gives a precise, reliable indication of the satellite being received.



1. Without activating the motor, rotate the mount azimuth manually (i.e. the entire unit attached to the stand) directly South (fig.9).
2. Using the "signal level" and "Eb/No" (or quality level) indicators, search for the Hot Bird satellite manually by scanning the dish elevation  $\pm 10^\circ$  vertically around the current position.
3. If the Eb/No level is weak, move the mount azimuth 1 degree to the east or west (without activating the motor) and start the vertical scanning process again.
4. Repeat the previous stage until the maximum Eb/No level has been reached. Lock the settings. Attention, during this search, the mount elevation, dish azimuth and actuator azimuth must not be altered.

### **6.3. SEARCHING FOR OTHER SATELLITES**

#### **With Maestro Receiver 1000, 2000 and 9000 (with Goto X function)**

1. Select another satellite (for example Astra 19.2° East) using the "Info" button followed by ◀ ▶ . If the satellites are not programmed in the order given in the list of satellites pre-programmed in the motor (see list), the dish will not rotate to the desired satellite. The motor must then be activated to search for the satellite in question
2. Select "Go to preset position" and then press the ▲ button on the joystick; the motor rotates to the new position. Wait 30 seconds before pressing OK to stop the procedure.
3. Adjust the position using the coloured buttons to obtain the maximum Eb/No level. If you do not find all the satellites, follow the "Fine Tuning" instructions in the next paragraph.
4. Store the satellite position by pressing the OK button followed by the green button.
5. Setup the other satellites following the same procedure.
6. Start the channel search for each satellite in the "Scan satellite" menu under "Channel list".

#### **With a DiSEqC 1.2 Receiver with Goto X function**

1. Select another satellite; the dish rotates towards the satellite in question. If the satellites are not programmed in the order given in the list of satellites pre-programmed in the motor (see list), the dish will not rotate to the desired satellite. The motor must then be activated to search for the satellite in question.
2. Adjust the position using the motor at the slow speed setting in order to obtain the maximum quality level. If you do not find all the satellites, follow the "Fine Tuning" instructions in the next paragraph.
3. Store the satellite position.
4. Setup the other satellites following the same procedure.
5. Start the channel search for each satellite.

#### **With a DiSEqC 1.2 Receiver without Goto X function**

1. Select or programme the transponder (frequency) of another satellite. If the satellites are not programmed in the order given in the list of satellites pre-programmed in the motor (see list), the dish will not rotate to the desired satellite. The motor must then be activated to search for the satellite in question.
2. Activate the motor in order to rotate the dish toward the satellite required (at the slow speed setting).
3. Adjust the position at the slow speed setting in order to obtain the maximum quality level. If you do not find all the satellites, follow the "Fine Tuning" instructions in the next paragraph.
4. Store the satellite position.
5. Setup the other satellites following the same procedure.
6. Start the channel search for each satellite.

## **7 - FINE TUNING**

*Method:*

- Take 3 satellites as references, one close to the South, another in the East and finally one in the West.
- The elevation errors indicate the setting that needs to be adjusted. The errors can be noted by modifying the dish elevation one degree at a time and activating the motor until you receive the East or West satellite. To make it easier to read off the errors, use a pencil to mark the mount elevation, mount azimuth and dish elevation on the mount before making any modifications.
- Make the necessary correction, always starting with the correct South satellite setting :

<b><u>Dish setting errors found</u></b>	<b><u>Setting to be adjusted</u></b>	<b><u>Correction to be made</u></b>
1- East sat lower and West sat lower	Dish elevation	Decrease by 1° (towards the ground)
2- East sat lower and West sat OK	Mount azimuth	Turn 1° to the West
3- East sat lower and West sat higher	Mount azimuth	Turn 3° to the West
4- East sat OK and West sat lower	Mount azimuth	Turn 1° to the East
5- <b>East sat OK and west sat OK</b>	<b>Correct settings</b>	
6- East sat OK and West sat higher	Mount azimuth	Turn 1° to the West
7- East sat higher and West sat lower	Mount azimuth	Turn 3° to the East
8- East sat higher and West sat OK	Mount azimuth	Turn 1° to the East
9- East sat higher and West sat higher	Dish elevation	Increase by 1° (towards the sky)

*For example, if you need to tilt the dish towards the ground to find the East satellite and tilt it towards the sky to find the West satellite, you need to make the correction shown on line 3.*

- After modifying the "Setting to be adjusted" indicated, set the mount elevation and mount azimuth again on the south satellite, then note the elevation errors for the east and west satellites.
- Repeat the procedure until you receive the 3 satellites correctly.

## **8 - PROBLEM SOLVING**

***If the "East" and "West" motor buttons are not working :***

- 1 - Check that the satellite receiver is working with the power supply to the head (LNB) active and the coaxial cable connected properly.
- 2 - Wait while the motor is running because commands sent by the satellite receiver can disable the buttons.
- 3 - Wait until the motor initialisation is complete because the buttons and commands sent by the receiver are disabled.

***If the motor does not come on :***

- 1 - Check that the satellite receiver is working with the power supply to the head (LNB) active and the coaxial cable connected properly.
- 2 - Check that the satellite receiver is programmed in Diseqc 1.2 or Diseqc 1.2 motor positioning mode.
- 3 - Check that the dish is not too heavy or that the limit of the motor (50° East or 50° West) has not been reached.

***If the motor works intermittently or in jerks :***

- 1 - Check that the motor has not reached one of the limits programmed in the satellite receiver.
- 2 - Check that the motor has not reached one of the motor limits (50° East or 50° West).
- 3 - Check that the dish is not hitting an obstacle.
- 4 - Check that the dish is not too large or too heavy.
- 5 - Check that the coaxial cable is not damaged or of poor quality.

**If the motor is too fast or too slow :**

1 - The speed of rotation depends on the polarization of the selected channel. The motor turns more quickly if the polarization is horizontal than with vertical polarization.

**If the list of satellites pre-programmed in the motor is different to the list for the Receiver :**

1- Reprogram the satellite receiver list. Otherwise:

2- Keep the satellite receiver list and search for the satellites without taking the motor list into account. This type of search will take longer. A motor that only receives the satellite number from the satellite receiver will go to the corresponding position on the list of satellites pre-programmed in the motor. The motor will need activating to position the dish on the required satellite.

**If all the satellite positions are incorrect :**

1 - Check that the satellite numbering in the satellite receiver is identical to the list of satellites pre-programmed in the motor. If not, search for the satellites that have not been found.  
2 - If the research is unsuccessful, follow the instructions in the paragraph regarding "Fine Tuning";

**If all the satellite positions are in the wrong order :**

1 - Start the reset procedure from the receiver (for the Maestro, activate "Go to position 0" on the "Setting Antenna" menu).

## **9 - TECHNICAL SPECIFICATIONS**

- Compatible protocols: DiSEqC 1.2, DiSEqC 1.2 Goto X
- 50 programmable satellite positions
- Dish dimensions: 1.80 m max. (varies according to the weight of the antenna and the type of mount)
- Automatic satellite selection.
- Without positioner or external power supply.
- MaestroJack motor connection to the coaxial antenna cable.
- Compatible with all types of head (LNB)
- Compatible with all setup boxes and satellite receivers that meet the DiSEqC 1.2 norm
- East-West buttons for manual settings
- "Goto X" function
- "Goto 0" function
- "Recalculate" function
- Automatic stop if obstacle
- 2 types of protection:
  - software limit programming
  - excess motor current detection
- Motor elevation adjustability range: 30° to 80°
- Motor azimuth adjustability range: 100° (50° East to 50° West)
- High angular precision: < 0.1°
- Angular velocity: 1.7°/sec. (H polarization), 1.2°/sec. (V. polarization)
- Power supply: 13VDC and 18VDC
- Consumption: 350 mA during rotation (supplied by the satellite receiver)  
15 mA on standby (supplied by the satellite receiver)
- Consumption: 7 W (< 0.3 W on standby)
- Connectics: 2 type F connectors
- Stand diameter : 35 to 60 mm
- Dish attachment tube: diameter 50 mm
- Weight: 6 kg

*The present specifications can be modified without prior notice.*

*Illustrations are non contractual.*

*DiSEqC is a trademark registered by Eutelsat.*