

**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)

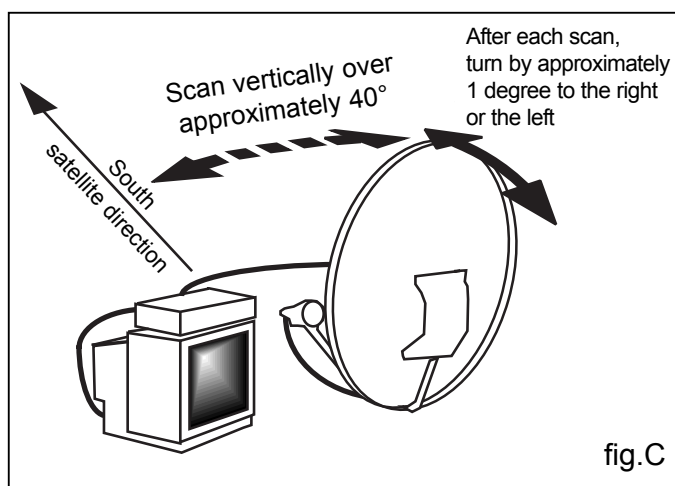
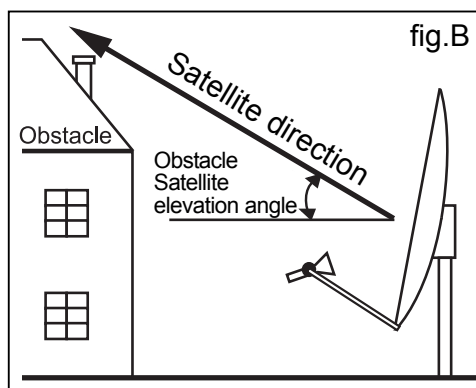
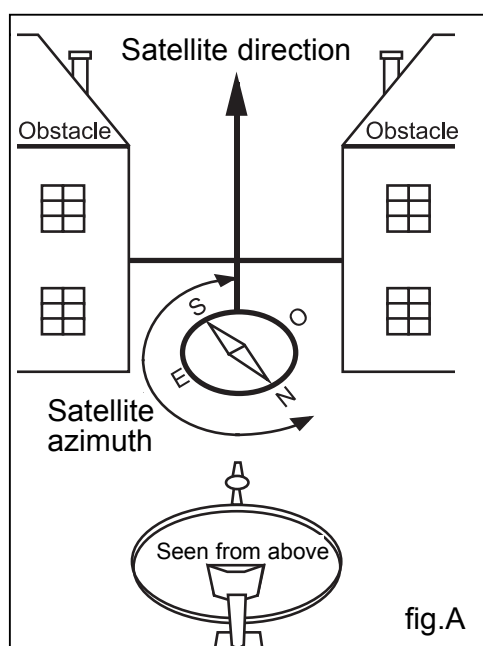
If you are adjusting a satellite antenna for the first time, we advise you to follow the temporary installation instructions in an easily accessible area free from obstructions.

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° less than the real elevation of the satellite, which is around 30° (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°).
4. Slowly tilt the dish towards the sky (40° 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.



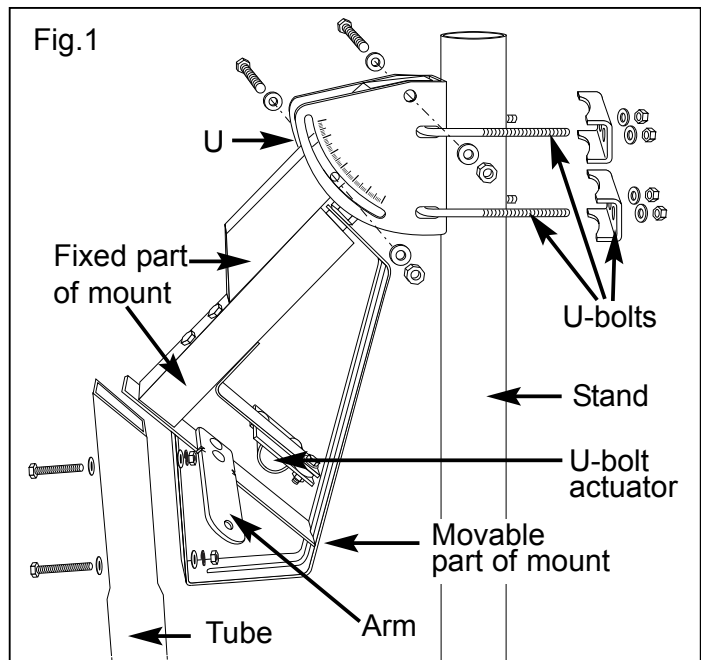
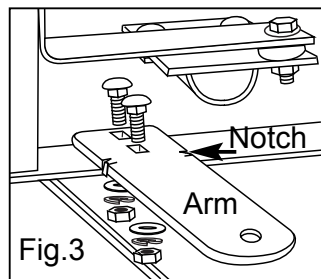
3 - MAESTROJACK ASSEMBLY

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

Tools required:

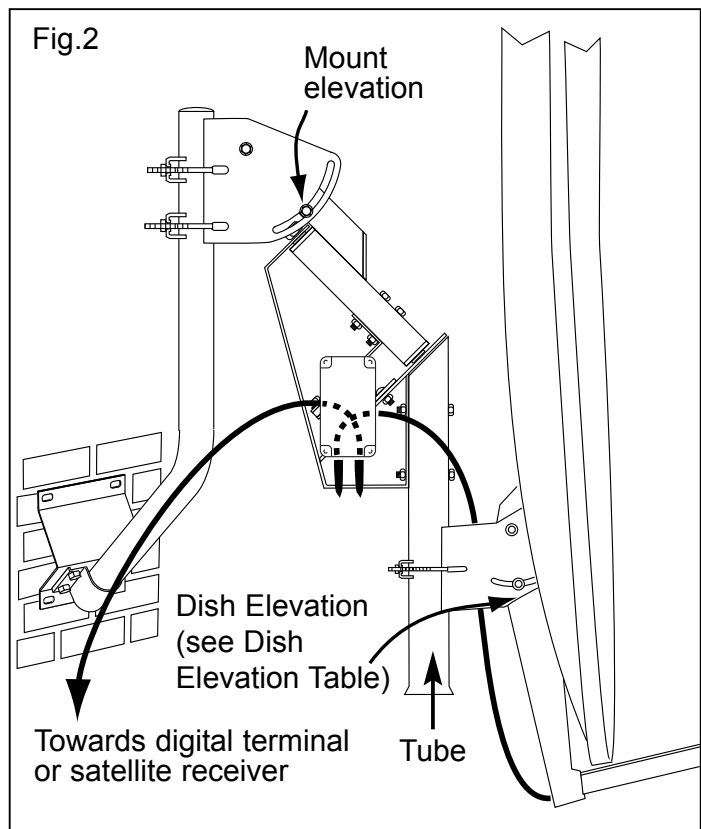
- 1 x 12 mm flat key
- 1 x 13 mm flat key
- 1 cross tip screwdriver
- 1 cutter
- 1 cutting pliers
- 1 tape measure
- 1 spirit level or 1 plumb line

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).



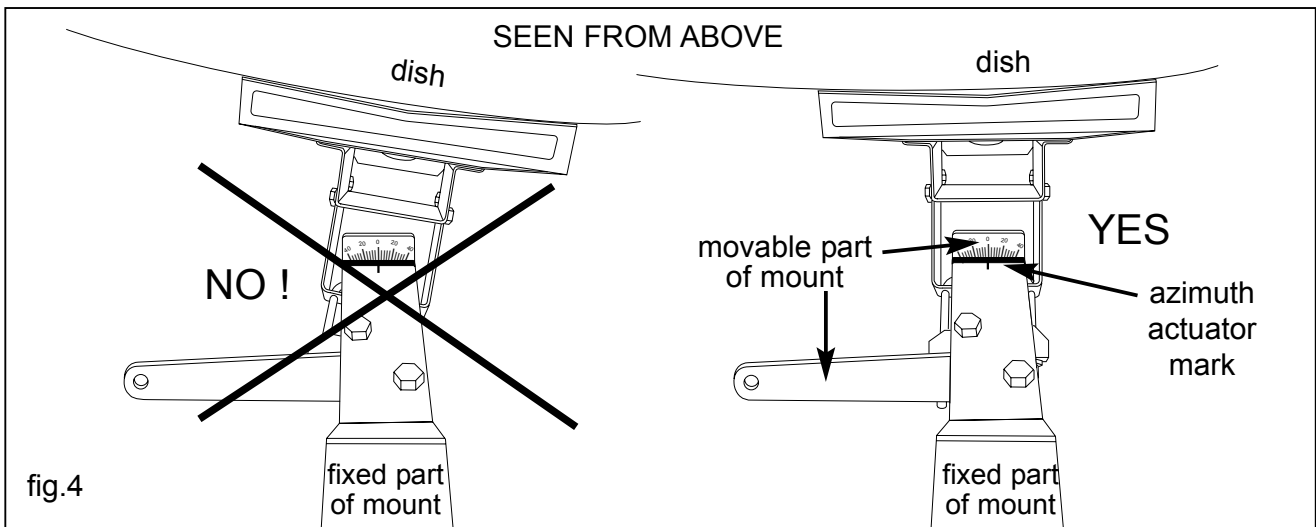
Mount Elevation & Dish Elevation Tables

COUNTRY	CLOSEST TOWN	MOUNT ELEVATION	DISH 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

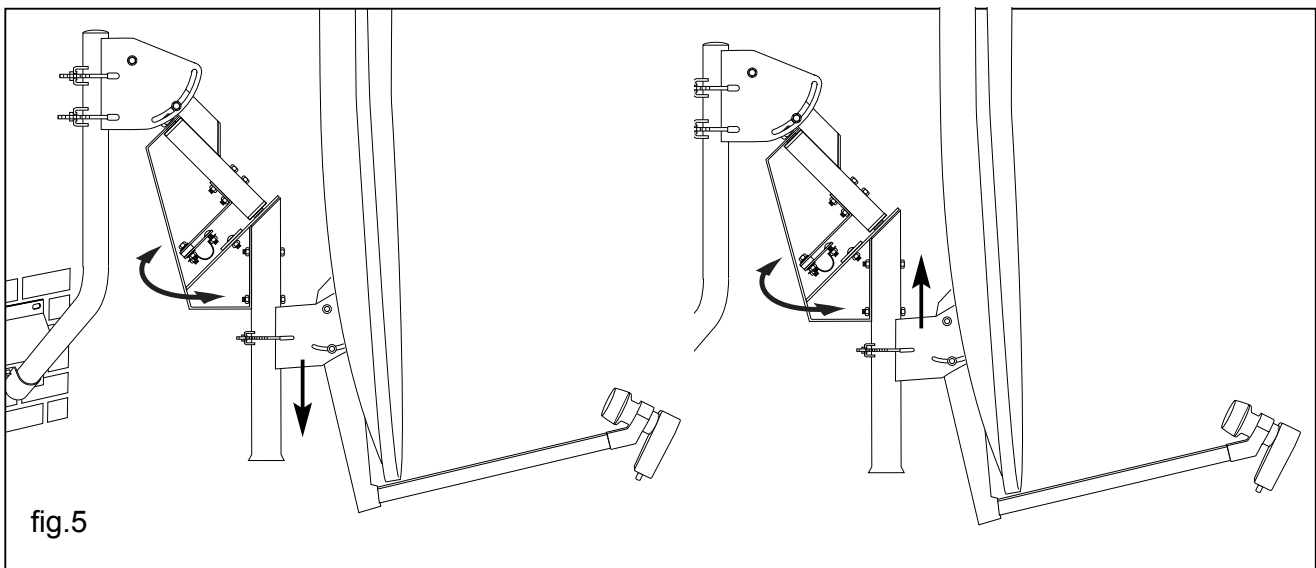


7. Adjust the dish elevation to the value shown in the dish elevation table. (fig.2).

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.

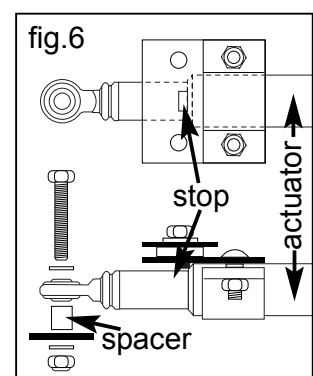


10. Check that the axis of rotation of the U-bolt actuator (fig.1) is tight enough for it to turn without leaving any play.

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).

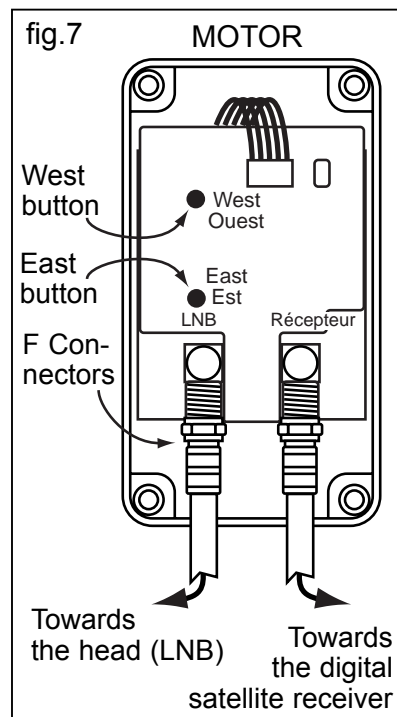


4 - CONNECTIONS

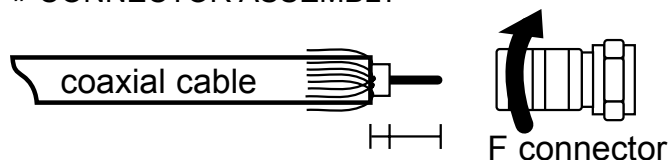
As a precaution, unplug all mains flexes before connecting the MaestroJack.

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).



«F» CONNECTOR ASSEMBLY



1. Strip the casing of the coaxial cable along a length of 11 mm and bend the braid back over onto the casing.
 2. Strip the central wire along a length of 8 mm.
 3. Screw the F connector into the cable, making sure that no wires of the braid come into contact with the central wire.
- It is important for the braid to be in contact with the body of the F connector.

4. Cover the F connector of the head exposed to the rain with a waterproof product (silicone, self-curing tape...).

TIGHTEN THE F CONNECTORS MANUALLY because tightening them too much can damage the connectors.

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		Closest		HOT BIRD-13°E		ASTRA-19,2°E		NILESAT-7°W		ARABSAT-26°E	
Country	Town	Az	AZ length	Az	AZ length	Az	AZ length	Az	AZ length	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.

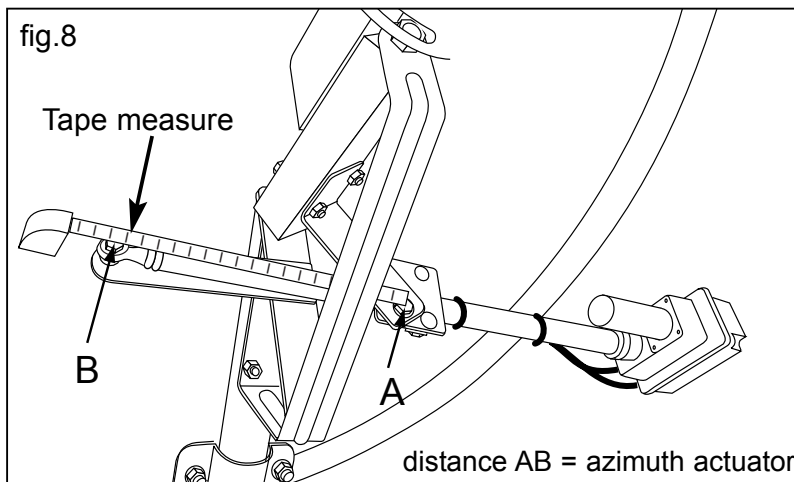
With a DiSEqC 1.2 Receiver without Goto X function

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)

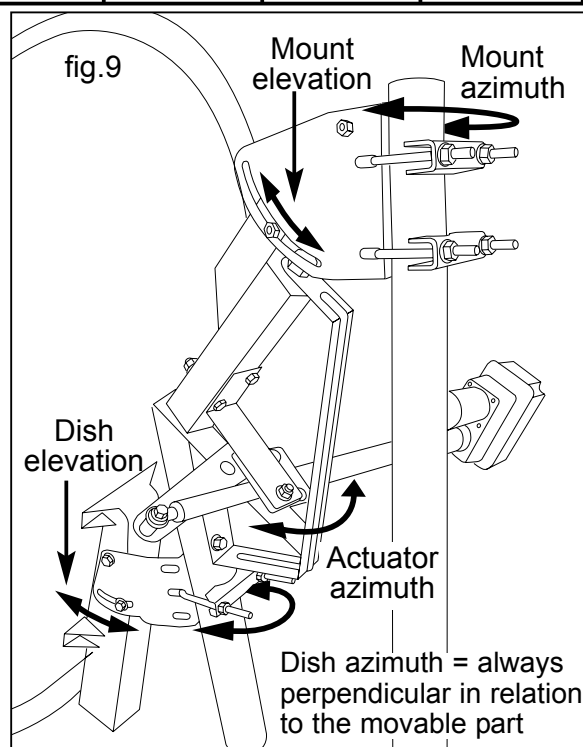
AZ	Length	AZ	Length	AZ	Length	AZ	Length	AZ	Length	AZ	Length	AZ	Length	AZ	Length	AZ	Length
0°E	16,0cm	13°E	13,2cm	26°E	10,3cm	39°E	7,4cm	0°W	16,0cm	13°W	18,5cm	26°W	20,9cm	39°W	23,0cm		
1°E	15,8cm	14°E	13,0cm	27°E	10,1cm	40°E	7,2cm	1°W	16,2cm	14°W	18,7cm	27°W	21,1cm	40°W	23,2cm		
2°E	15,5cm	15°E	12,8cm	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 :

<u>Dish setting errors found</u>	<u>Setting to be adjusted</u>	<u>Correction to be made</u>
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- East sat OK and west sat OK	Correct settings	
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.

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