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Installation Instructions

OYSTER DIGITAL CI

FITTING INSTRUCTIONS OYSTER DIGITAL

It is no problem to fit an Oyster Digital fully automatic satellite system onto any vehicle. However, you should take care with some specific points and therefore, PLEASE READ these instructions carefully before starting your work, to obtain the very best results later on whenever you use your new system.

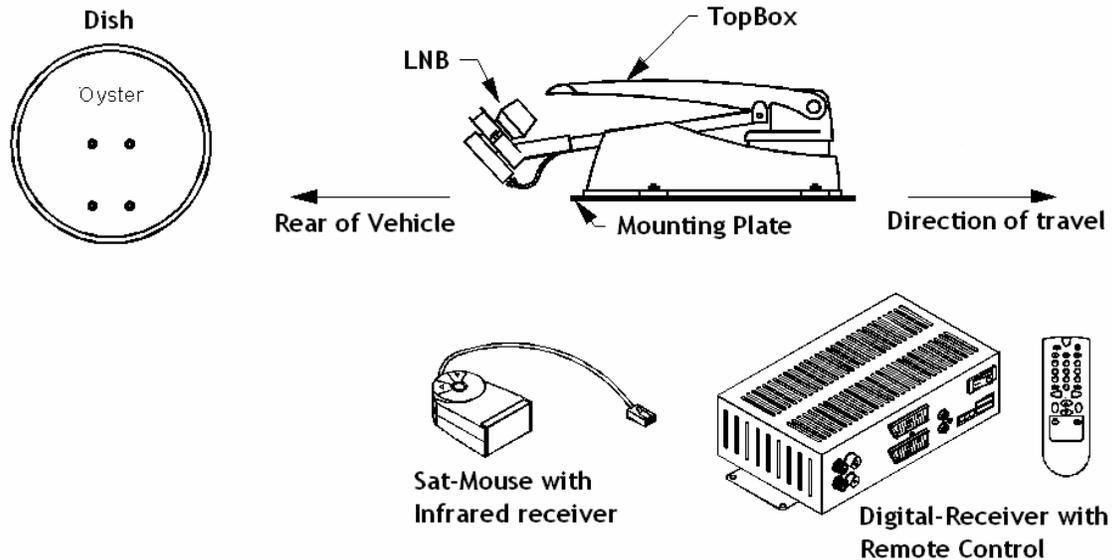
Please read each topic in this manual carefully, before performing the work described there. Go through the topics step by step.

Attention:

Highly sensitive device. Never apply any external force to the dish bracket or the LNB arm. Any movement of the dish will happen automatically. Do not lift or rotate manually. Do not carry the system on the dish, the LNB or any of the cables. Always hold it on the plastic body or the aluminium mounting plate. Do not remove any of the screws on the plastic body.

Shipped items

When unpacking you should find the following:



Plastic bag with:

- 5m Cable from TopBox to Receiver
- 3 – pin power supply strip (RED: +12V, BROWN: GND, Black: Ignition)
- TV coaxial cable
- SCART cable
- Operating instructions
- Fitting instructions (this document)
- 6 screws for the mounting plate
- 4 bolts to fit the dish to its bracket
- 4 screws to fit the aluminium elbow (cable-feed-through)

Fitting

1. Preparations

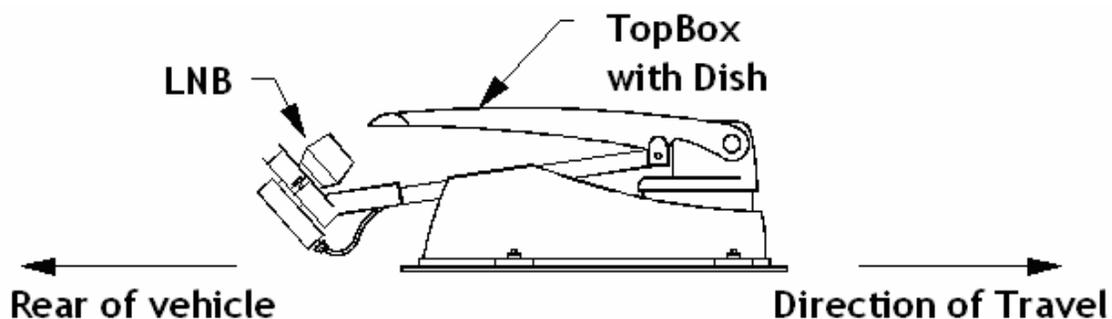
Check whether the roof of the vehicle (onto which the fitting is intended) is strong and stable enough. If not, or unsure, obtain a sheet of aluminium, approximately 2mm thick 1m x 1m size and fit this to the roof first. If in doubt contact the manufacturer of the vehicle to obtain information about its permissible roof load.

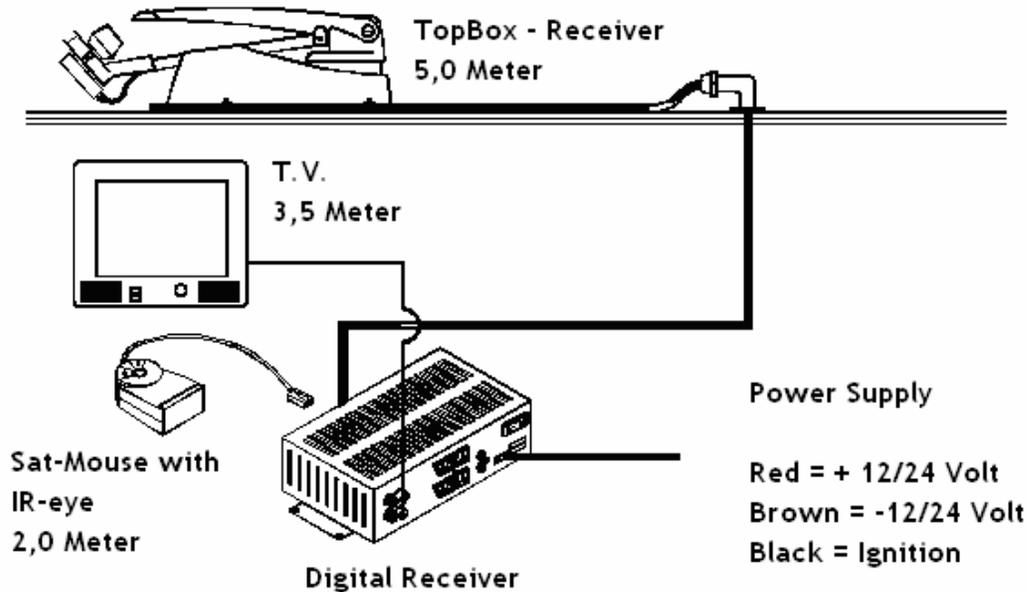
To fit the system you will need a spanner, size 13mm, a „+“(Phillips) screwdriver, a drill with 15mm diameter, a sharp blade and possibly some cleaning fluid.

You must obtain a strong adhesive glue like “sicaflex” or similar. Bathroom silicone is NOT sufficient.

2. Find the fitting location

When you are sure about the permissible load to the roof you will need to find a suitable location for the system. Refer to page 5 for the space needed. Tentatively put the mounting plate onto the desired space. Spend a minute to think about the wiring, (downwards to the receiver) that will be needed later on. It is much easier to install the wiring on top of the roof than inside the vehicle.





2a. Aluminium elbow

The cable intake into the aluminium elbow must point to the back of the vehicle to prevent water from coming in while driving. It is to your advantage to place the elbow directly above or very close to the fitting location of the receiver.

2b. Receiver

The receiver is equipped with an external infrared eye, the so called „sat-mouse“. You can install the receiver in any hidden location inside your vehicle, just the remote eye should be visible to the owner. It is a good idea to place the eye close to the TV or flat display. When hiding the receiver inside, check if its ventilation is sufficient. 5cm (2 inches) of distance from anything around would be best.

Make sure to find a way to do all the required wiring.

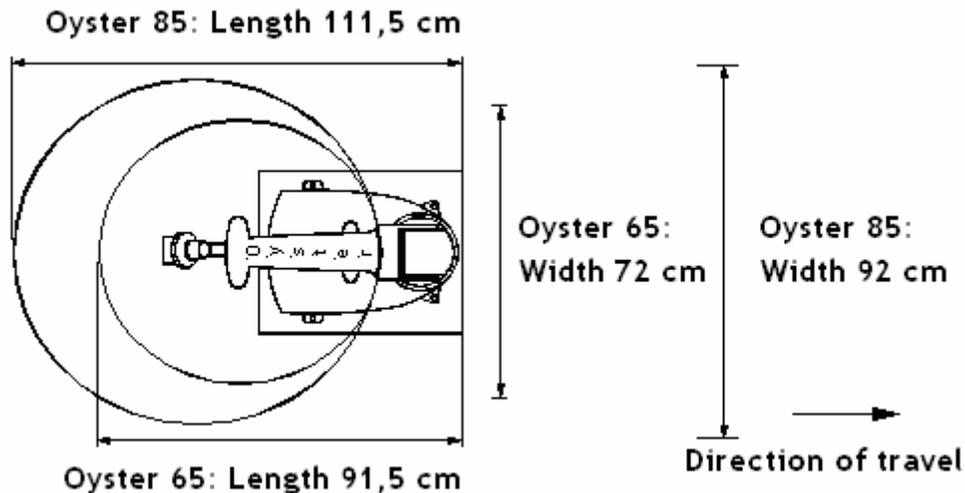
2c. Sat-Mouse

It holds the remote receiver and a channel number display as well as 2 buttons for local operation. Its location should be visible from the owner's normal seating position, to ensure proper

operation of the remote unit. The remote operates by infrared light (IR).

2d. Free space required by TopBox

Make sure, that there is enough space for the Oyster when folded down and when operating (while the dish is being rotated).



You have to fit the system with the LNB pointing to the back of the vehicle.

This diagram shows you the space required for fitting.

With the dish in folded-down position there is a free space of about 135mm (5 inches) between the dish and the roof. So you can place the dish over any existing railing, if it is lower than mentioned.

3. Fitting the mounting plate

When you are absolutely sure about the fitting position of the Oyster you should double check its fitting direction. The LNB arm

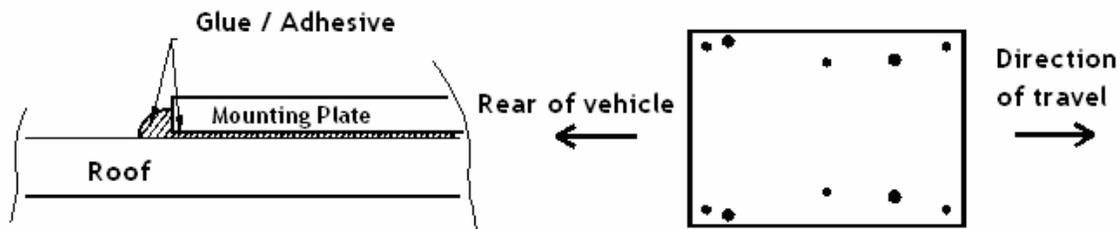
has to point to the vehicle's back. The bolts on the mounting plate are NOT fully symmetrical. This is why you need to take special care to fit the plate into the correct direction. The side with the bolts closer to each other is the forward direction. You can put the TopBox onto the plate to see if it fits!

Attention!

Before fixing the mounting plate onto the roof, be absolutely sure to fit it the correct way. Reversed fittings can damage the antenna while travelling and such events will not be covered by warranty.

If not done already, remove the 4 nuts fixing the TopBox onto the mounting plate. Take away the TopBox for the moment.

The mounting plate is glued onto the roof first and fixed with 6 screws afterwards. Before applying the glue, clean the roof and the plate with cleaning liquid. When done, apply glue onto the bottom side of the mounting plate. Put the plate onto the position that you decided on before. Again check for the correct direction! When you are sure, just stand on the plate with both feet for a few seconds to press it on firmly. Any glue coming out on the sides can be cleaned away. Now put in the 6 screws to give it some additional safety. Apply some glue to the screws as well to make sure that they are fitted waterproof.

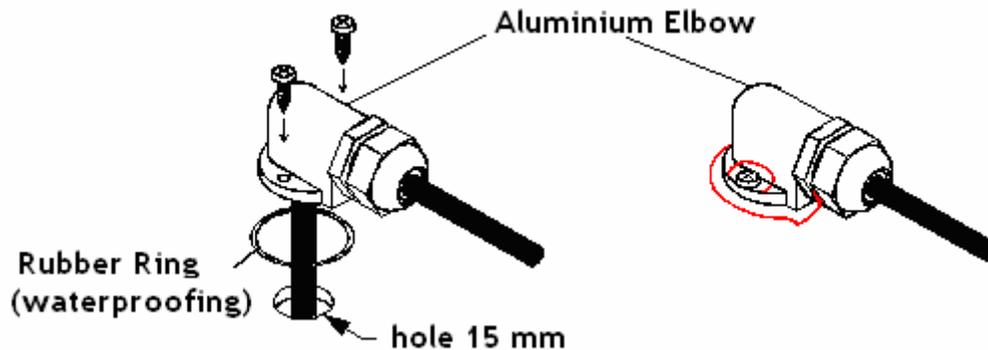


4. Place on the Oyster

First plug in the two connectors into the matching receptacle. The black cable has to be fed out into the REAR direction. Now place the Oyster onto its mounting plate. Put the cable into either one of the two given slots in the cabinet. Do not fix the box with the nuts for the moment.

5. Fixing of the aluminium elbow (cable-feed-through)

Take care to fit the elbow in the correct way. The intake of the cable has to point to the back of the vehicle.



a) Drill a hole of approx. \varnothing 15mm (1/2 inch) into the roof. Decide the location of the hole wisely to avoid any extra work inside the vehicle.

b) Place the elbow on its intended position above the hole. Do the necessary cable work on the roof. Push or pull the cable through the elbow until you have a proper length outside the vehicle. It will be very difficult to shift the cable after the final fitting of the elbow! Guide the receiver-side end of the cable through the hole. Any cable that is possibly remaining must be placed inside the vehicle.

c) Clean the elbow and the area around the hole and fix the elbow with glue, similar to the fitting of the mounting plate. Apply some extra glue into the hole to prevent water from coming in at any later time.

d) Finally, fix the elbow with the screws supplied. Again, apply

some glue onto any screw before fixing it. Make sure that the length of cable on the roof is sufficient to do proper cable work. This is your last chance to do so.

g) Now double check that the Oyster is in a proper position with the LNB-arm pointing to the back of the vehicle, that the cables are plugged into the TopBox and that the cable work on the roof is nice and clean. If all is perfect you can fix the TopBox with the 4 nuts and you can tighten the plastic ring on the aluminium elbow. The ring has a size of 27mm, but can easily be tightened by hand.

Ensure that all work you have done is nice and clean and that the roof is fully waterproof.

6. Cable work inside the vehicle

a) Guide the cable coming through the roof to the receiver. Any remaining cable must not be cut but should be wound neatly and stored close to the receiver.

c) Connect the SCART or the coax cable to the receiver and interconnect it to your display. Take care to fix the cables to prevent the connectors from falling out at a later time when the vehicle is travelling.

d) Connect the 3-pin power connector to the receiver. Make sure that the receiver's main switch is in OFF or "0" position. You have to extend the 3 short pieces of wire to connect it to the matching terminals inside the vehicle. Refer to page 9 for the power interconnection.

e) Connect the 8-pin RJ45 connector coming from the sat-mouse. Place the mouse onto an acceptable position and guide the cable properly to the mouse position. Any remainder of cable should be wound neatly and stored close to the receiver.

This cable is about 1.5m long. If this is not sufficient for the intended sat-mouse position you can obtain any 8-pin "ISDN type" telephone extension cable at a maximum of 5 meters to extend this cable.

7. Power supply

Always make sure that there is enough power to the Oyster to avoid trouble. As with any other computer device, the Oyster Digital receiver is somewhat sensitive to a weak power supply.

a) The Oyster requires a 12V or a 24V DC power supply. We recommend a 12V supply. Any voltages above 30V or any AC voltages will destroy the receiver absolutely. This will NOT be covered by warranty.

NOTE: +12V/24V is RED and COMMON GROUND is BROWN

b) To interconnect the Oyster you should use cables with a diameter of 2.5mm². Use 4mm² if the length of your cables extend beyond 5m.

c) Always directly connect the system to the vehicle's battery. If you find existing power lines in the vehicles, note that they are most often NOT sufficient to supply the Oyster.

Never ever connect the Oyster to lines of any other high power system, such as an air conditioner, a microwave oven or anything that is suspected of producing interference such as an electric ignition to any kind of a gas heater. Such systems will severely interfere with the Oyster and will disturb regular operation.

d) If you find a central fuse and switch unit in the vehicle, you may connect the Oyster to it, if this unit is directly connected to the batteries with large diameter cables (25mm² and up).

In case of any trouble try to bypass such a unit to see if it fixes the trouble.

Any fuse along the power line should be between 10A and 20A.

8.Safety / Ignition OFF

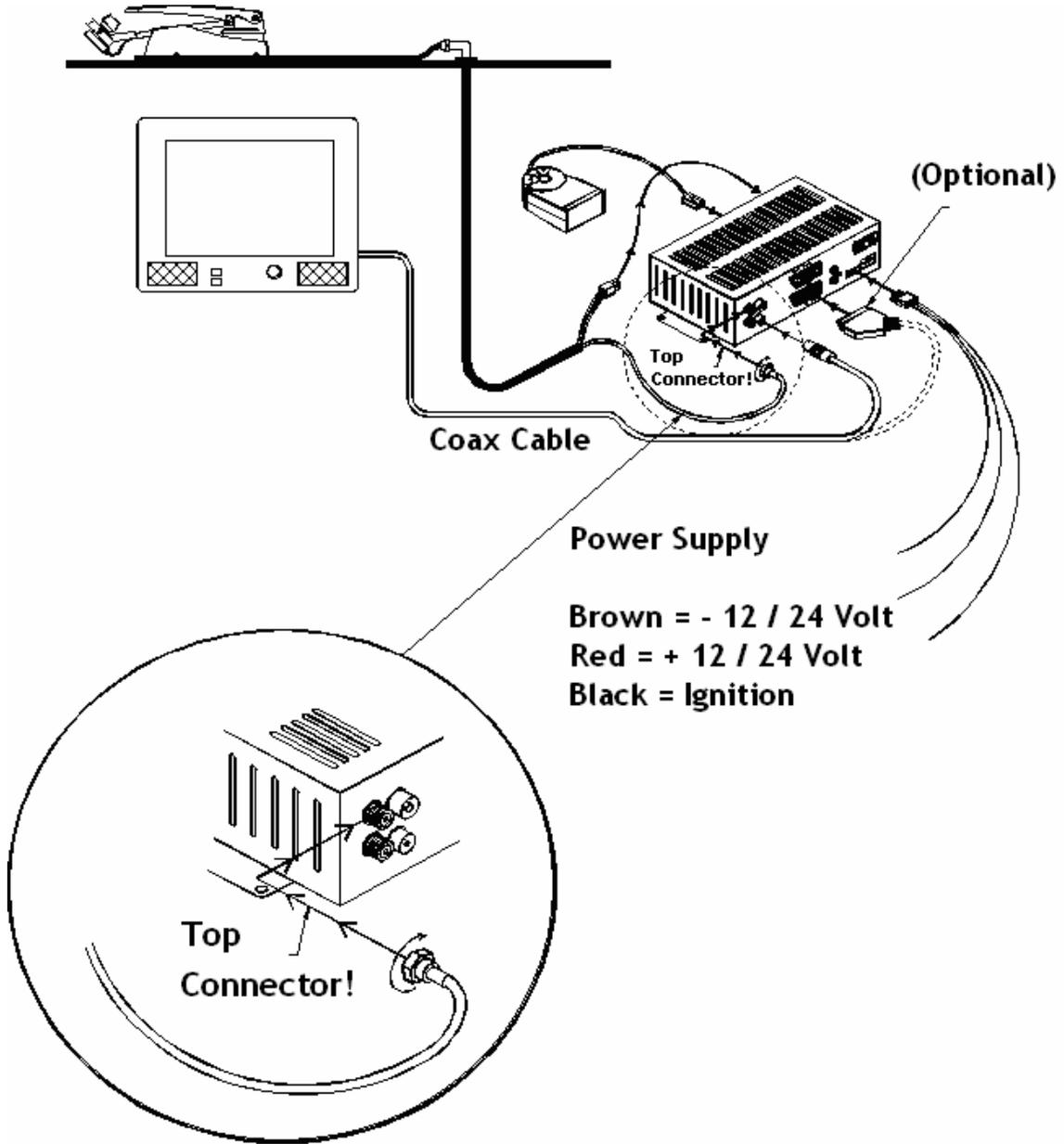
The 3-pin power connector holds a third line, colored black. This is to automatically retract the antenna if the vehicles motor is started.

The automatic retraction will avoid any damage to the system if the owner accidentally forgets to switch the system off properly before starting to travel.

You must connect the brown line to the vehicle's ignition control line to get this feature working. No special cable diameter is required, as this line is control only, not a power line.

The control voltage must be $> 8V$ and $< 30V$.

9. Interconnection



10. Fitting of dish

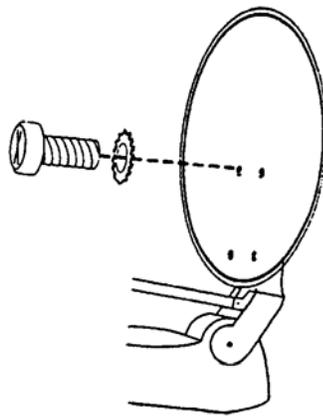
When all interconnection and fitting is done you have to fit the dish finally.

Attention: Before the first power up, check if all tools have been removed from the TopBox. It might be a good idea to have an assistant watching the TopBox when it is coming up first, if you do not have direct sight to it when first powering up.

- a) Switch on the main power switch on the receiver to "ON" (I).
- b) Watch the sat-mouse. If you see a moving bar the antenna will go up. If you just see a small dot, press the red button on the remote to get it up. If you see two bars for more than 5 seconds then something may be wrong with the power supply.
- c) Watch the antenna while it is going up. As soon as the arm is roughly vertical or slightly over vertical press EXIT on the remote. The antenna has to stop movement immediately.

Be sure to beam the remote towards the sat-mouse while pressing EXIT and to mount the batteries into the remote before this operation.

When the arm is approximately vertical and stopped, you can fit the dish onto the arm.



11. Adjust TV set and receiver

You have two possibilities to interconnect the receiver and the display (TV set). It is enough to do only ONE of either the coax connection or SCART connection.

Coax connection

First, you need to connect the coax cable on both sides (TV and receiver) then you will have to tune in your TV to the proper channel. To do so the Oyster just needs to be powered up. Refer to your TV set manual how to operate your TV to tune in correctly.

SCART connection

This way needs no tuning of the TV set and will typically give a better picture quality, therefore it is to be preferred. Simply connect the SCART cable into the receptacle named "TV scart" on the receiver side and into the matching one on the TV side.

Almost any TV will auto detect the receiver when switched on and will automatically change over to SCART input. If not, you need to refer to the TV manual to find how to get the TV into the CART (AV) mode.

Once the connection of the TV is OK you should see at least some Onscreen Display menu coming from the Oyster receiver.

Press the red button on the Oyster remote again to retract the dish. With the dish retracted the Oyster should switch to Standby immediately.

The Oyster Digital is now ready to operate.

For a first test, just switch on again and wait about a minute, while the system will locate the satellite and will lock onto its transmission.

Any details about the operation of the Oyster can be found in the OYSTER DIGITAL Operating Manual.

A brief description is given on the following page.

Note: Before switching on, make sure you have free sight to the satellite (in a northerly direction).

12. Operation of the OYSTER DIGITAL

1. Switch on the TV set. Switch to SCART or the matching TV channel if necessary.
2. Power up the Oyster with the red button on the remote. Alternatively you can push both buttons on the sat-mouse simultaneously for a short moment to get the system up.

Everything else will go on automatically from now on, until you will see a picture on your screen.

The Oyster will typically move to the position where a signal has been received from last time. If no signal can be found there, it will jump to a fully automatic search immediately. While the antenna is moving you will see moving dashes on your sat-mouse. It will typically take no longer than 60 seconds to lock onto a satellite signal, but you should allow up to 10 minutes for a freshly-fitted system.

If you have any questions about the fitting of the OYSTER DIGITAL satellite system you can call our hotline under:

Telephone: 07 5540 6850

Fax: 07 5546 7044

Office hours: Monday - Friday 8:00am – 5:00pm

Or check the web: <http://www.smartsat.com.au>

