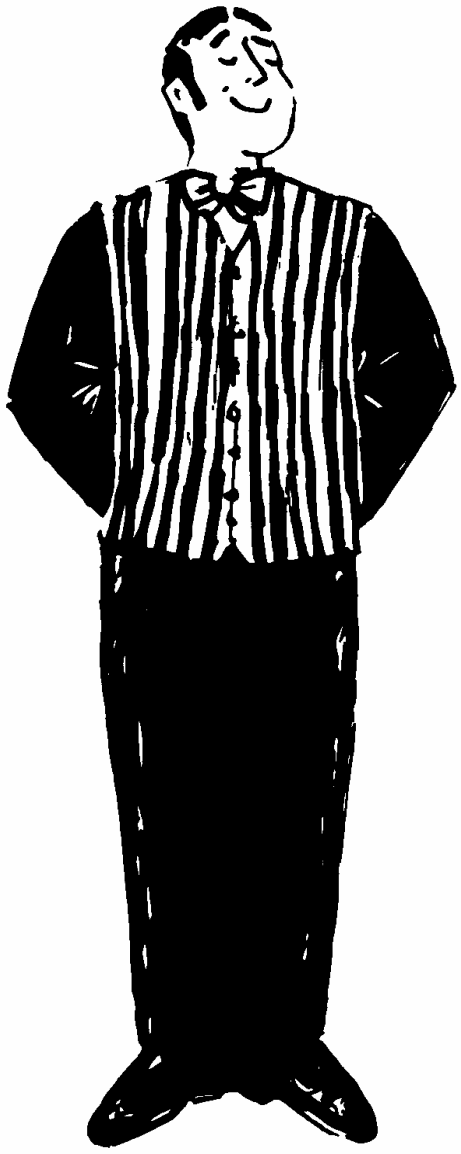
Fitting Instructions

SatMax, NZ

Oyster & Cosmo



Release: AUG 2007

FITTING INSTRUCTIONS OYSTER & COSMO DIGITAL

It is no problem to fit an Oyster / Cosmo Digital fully automatic satellite system onto any vehicle. But however, you should take care on some specific points and therefore, PLEASE READ this instruction carefully before starting your work to obtain the very best result later on when you use your new system.

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

COSMO USER'S PLEASE NOTE THE FOLLOWING.

Please NOTE: This instruction book has pictures of the Oyster product – The Cosmo is basically installed the same way – the main differences are that the Cosmo dish comes already attached to the Top Box, & the cable plugs are slightly different – but connect the same way:

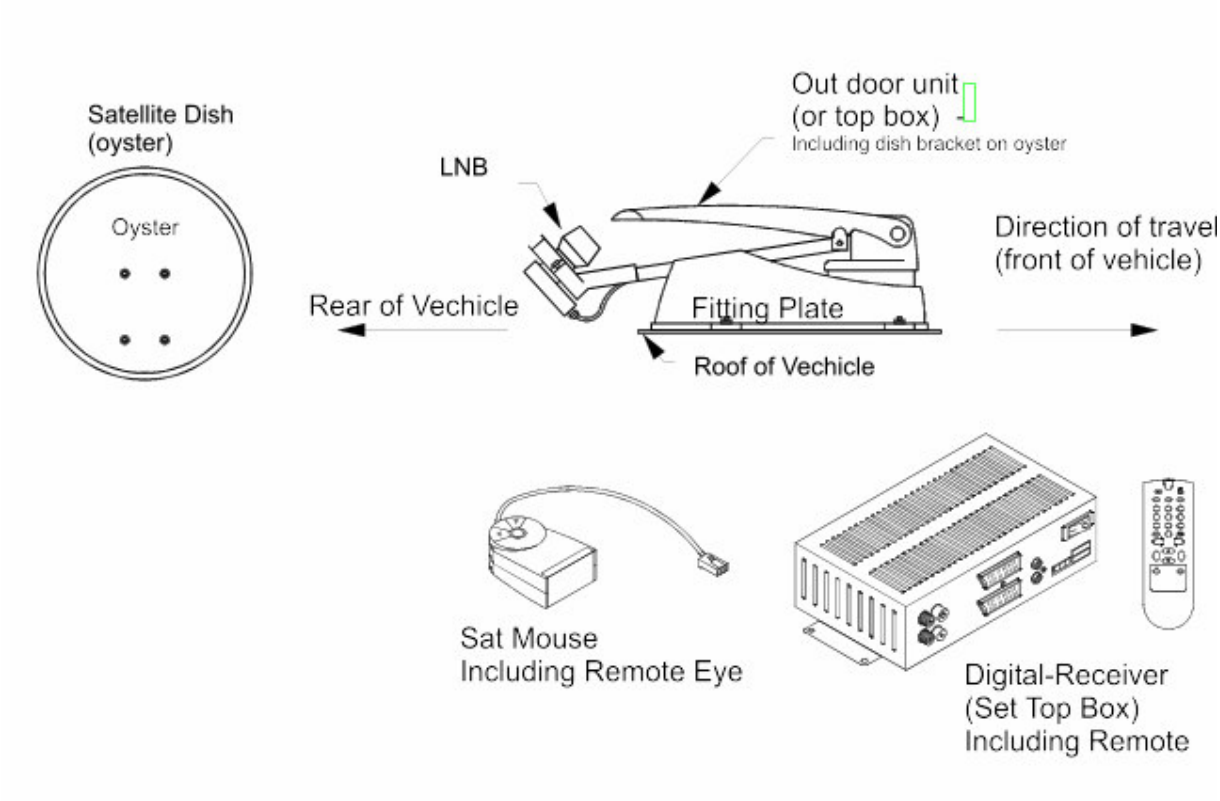
Through this instruction book – treat the word Oyster as Cosmo

Attention:

Highly sensitive device. Never ever 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
- 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

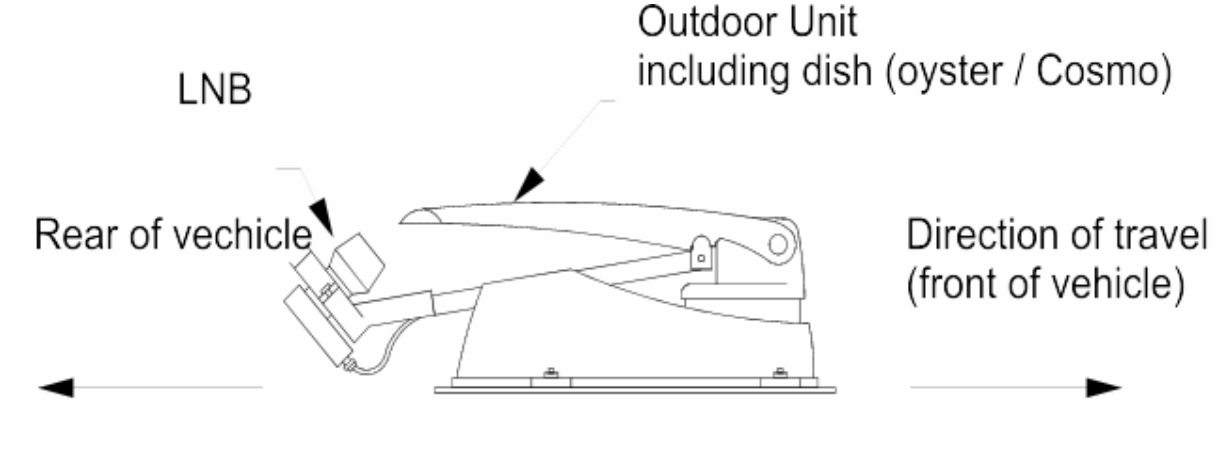
Check if the roof of the vehicle where fitting is intended to is stiff enough. If not or unsure obtain a sheet of aluminium, about. 2mm thick 1m x 1m size and fit this to the roof first. If in doubt contact the manufacturer of the vehicle to obtain information about its permissible roof load.

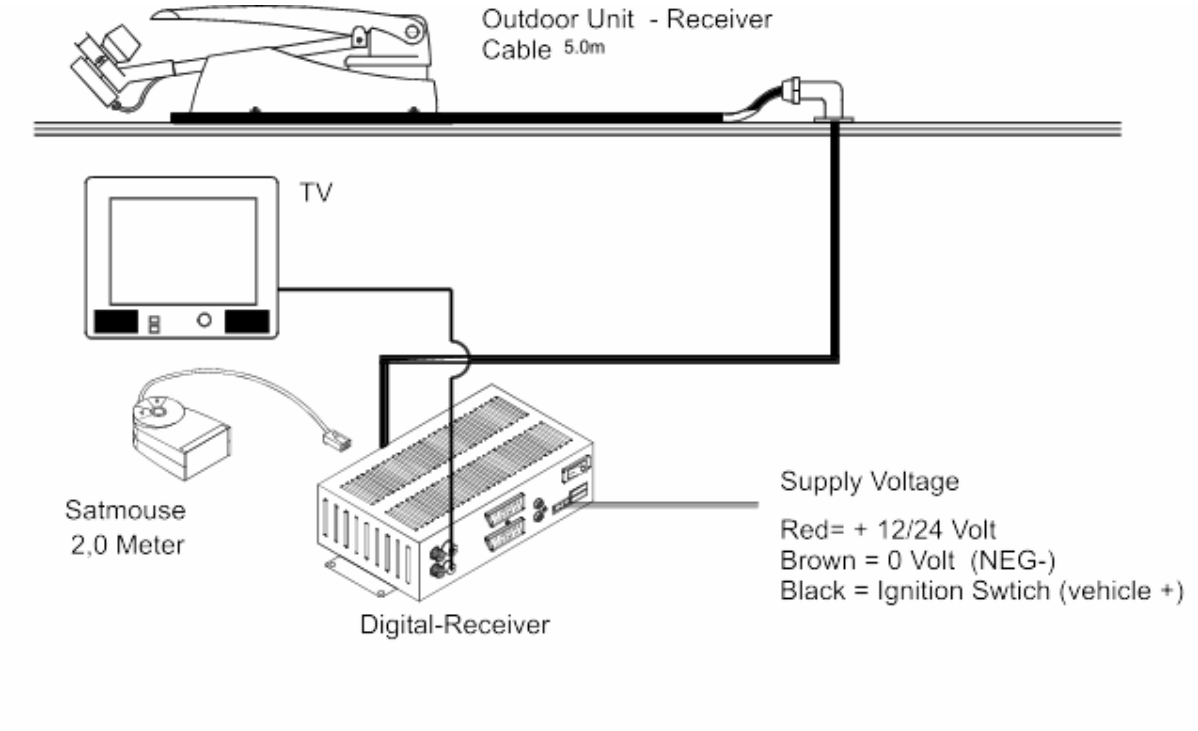
To fit the system you will need a spanner, size 13mm, a „+“ screwdriver a drill with 15mm diameter, a sharp blade and possibly some cleaning fluid.

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

2. Find the fitting location

When being 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 space you intend for. Spend a minute to think about the wiring needed later on, downwards to the receiver. It is much easier to run the wiring a top the roof than inside the vehicle.





Back of vehicle **Forward**

2a. Aluminium elbow

The cable intake into the aluminium elbow must point to the backside of the vehicle to prevent water from coming in while driving. It is your special benefit if you 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 to anything around would be nice.

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

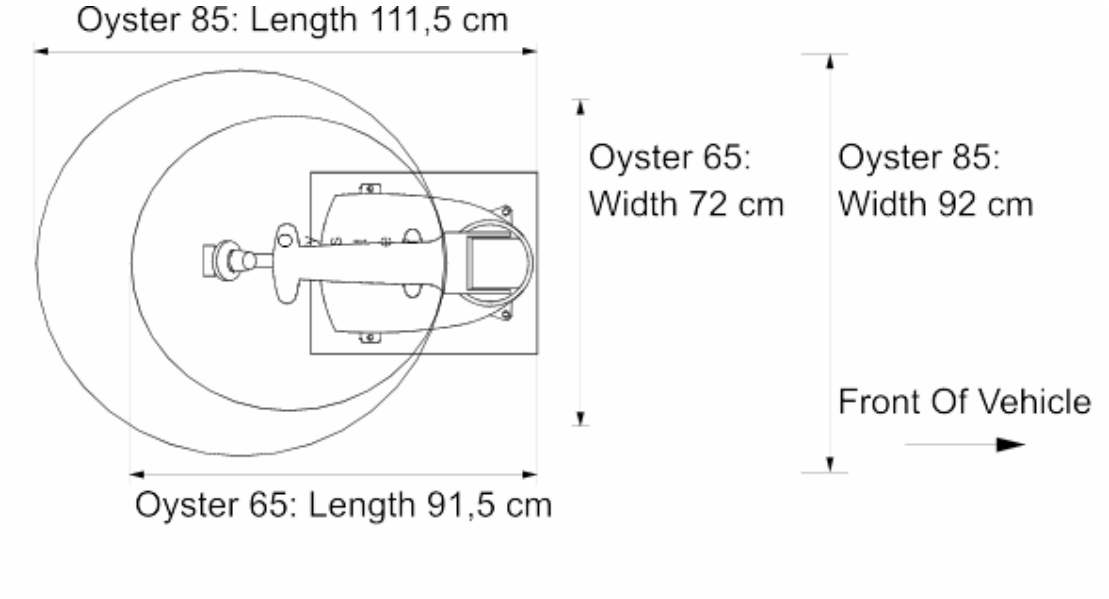
2c. Sat-Mouse

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 / Cosmo when folded down and when operating (while the dish is being rotated).

Cosmo Dish is 60cm



You have to fit the system with the LNB pointing to the vehicles backside.

This diagram shows you the space required for fitting.

With folded down dish 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 reling, if it is lower than mentioned.

3. Fitting the mounting plate

When you are absolute sure about the fitting position of the Oyster / Cosmo you should double check its fitting direction. The LNB arm has to point to the vehicles backside. 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 being narrower to each other is the forward direction. You can put the TopBox onto the plate to see if it fits!

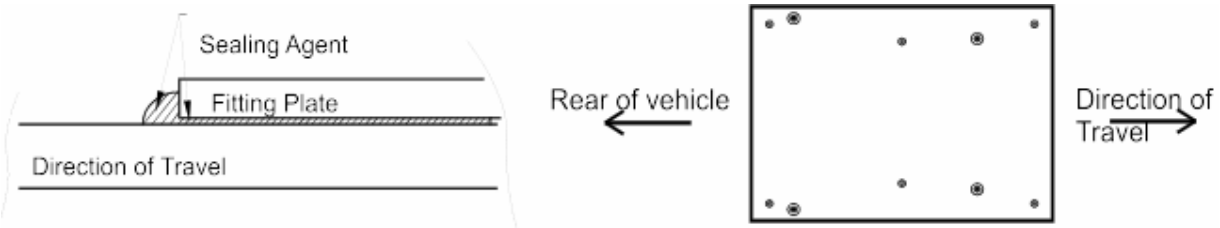
Note: on a Cosmo – you do not have a LNB arm. Treat the TOP of the dish (opposite end of the hinge end) as the LNB arm and face this away from the front of the vehicle – face TOP end to back of vehicle (Hinge to front of vehicle).

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



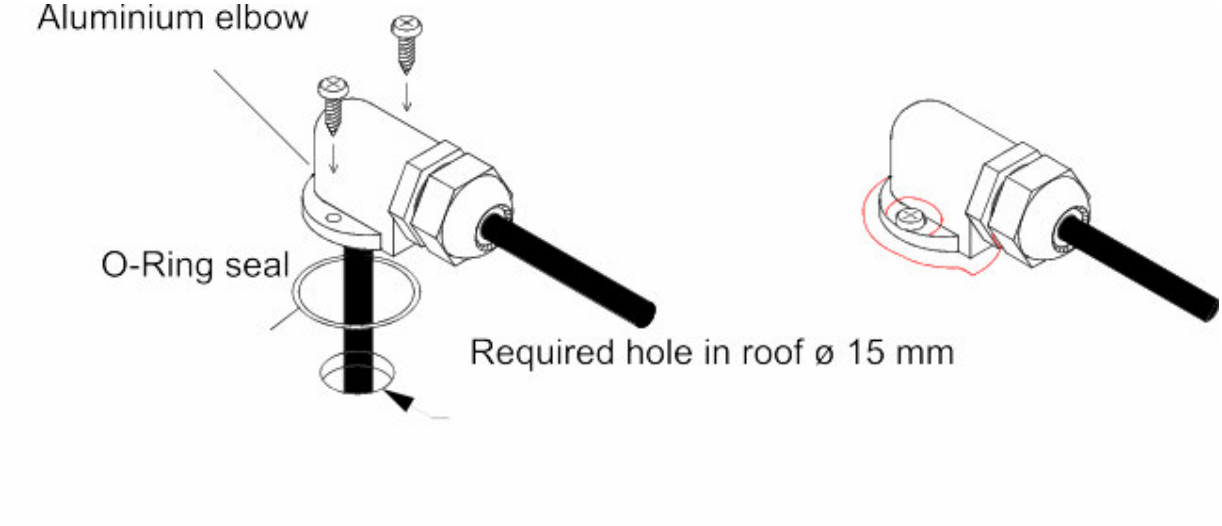
4. Place on the Oyster

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

Cosmo NOTE: cable is already attached

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

Taken care to fit the elbow into the correct way. The intake of the cable has to point to vehicles backside.



a) Drill a hole of about. ∅ 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 cableworks 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 final fitting of the elbow! Guide the receiver-side end of the cable through the hole. Any possibly remaining cable must be placed inside the vehicle.

c) Clean the elbow and the area around the hole and fix the elbow with sealant, similar to the fitting of the mounting plate. Apply some extra sealant 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 sealant onto any screw before fixing it. Make sure that the length of cable on the roof is sufficient to do proper cablework. This is your last chance to do so.

g) Now double check if the Oyster is in a proper position, the LNB-arm points to the vehicles backside, the cables are plugged into the TopBox and the cablework 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 as well easily tightened by hand.

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

6. Cableworks 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 nicely and stored close to the receiver.

c) Connect the SCART or the coax cable 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 powerconnector to the receiver. Make sure that the receivers 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 nicely 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 like 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 (0V -) 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 5m.

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

Never ever connect the Oyster to lines of any other high power system, such as air-condition, a microwave oven or anything that is suspected to produce interferences such as an electric igniters 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

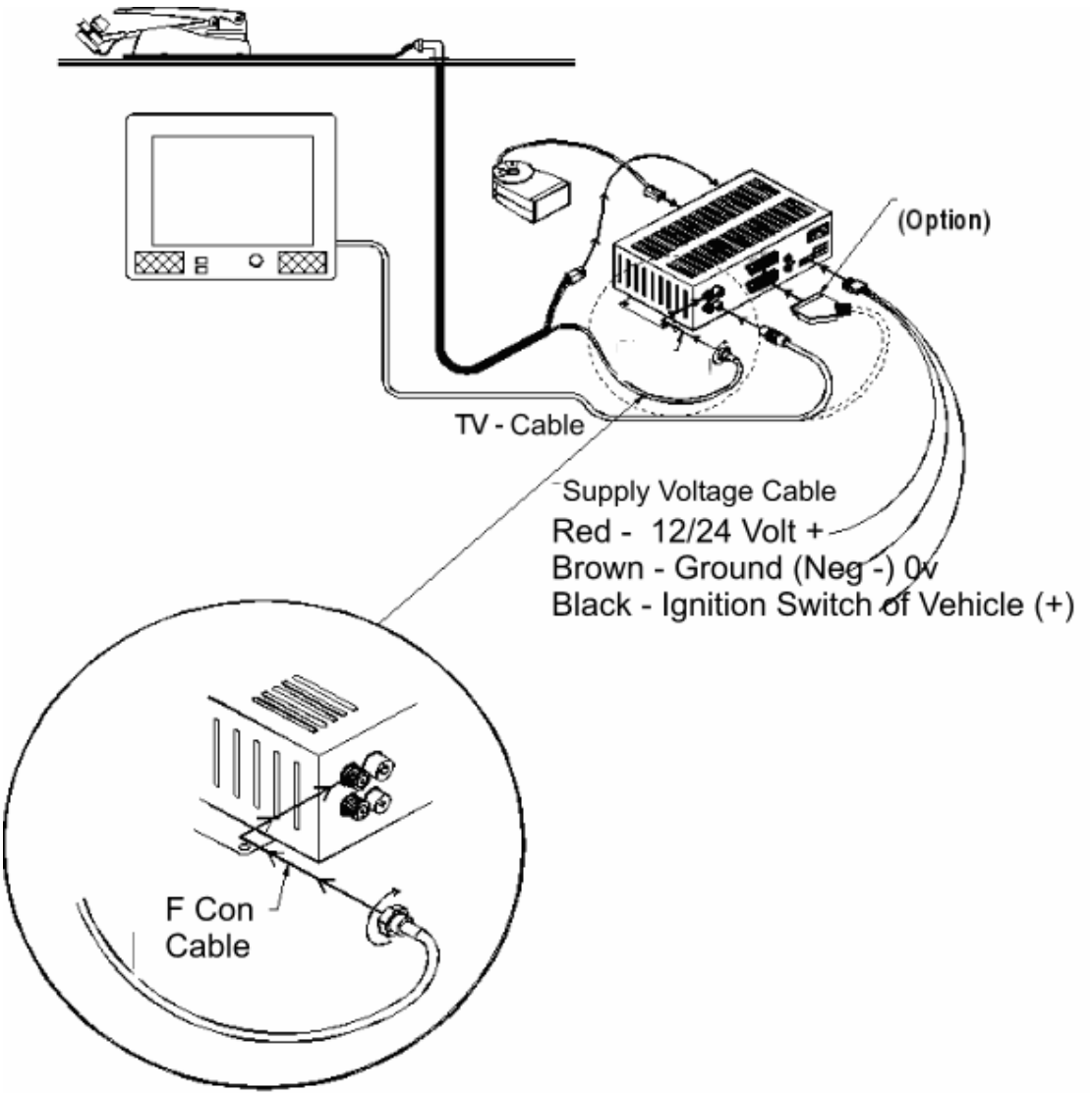
The 3-pin power connector holds a third line, coloured black. This is to automatically retract the antenna if the vehicles motor is started.

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

You must connect the black line to the vehicles 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. Cable connections



10. Fitting of dish

(Oyster only – The Cosmo is already attached)

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

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

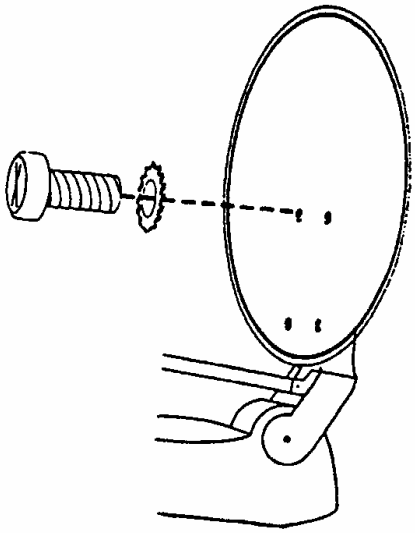
a) Switch on the main power switch on the receiver to "ON" (I).

b) Watch the sat-mouse. If you will see a moving bar the antenna will go up. If you just see a small dot, press the red button on remote to get it up. If you see two bars for more than 5 sec something seems to be wrong with the power supply.

c) Watch the antenna while 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.

With the arm being about vertical and stopped you can fit the dish onto the arm.



11. Adjust TV set and receiver

You do have two possibilities to interconnect the receiver and the display (TV set).

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 tune 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 TV side.

Almost any TV with a SCART Socket will autodetect the receiver if 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 SCART (AV) mode.

If your TV does not have a SCART Socket and you are using a SCART to RCA lead , you will have to match colours – Red , Yellow , White , and will have to select AV (Source)or similar on the TV.

Once the connection of TV is OK you should see at least some OnScreenDisplay 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 – Cosmo can be found in the OYSTER DIGITAL Operating Manual or COSMO MANUAL.

A brief description is given on the following page.

Note: Before switching on, make sure to have free sight to the satellite (into northerly directions).

12.Operation of the OYSTER DIGITAL

1. Switch on the TV set. Switch to SCART (AV) 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 synchronously 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 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 60sec to lock onto a satellite signal, but you should allow up to 10 minutes for a system freshly fitted.

In case of any question's about the fitting of the OYSTER DIGITAL

Or Cosmo satellite system you can call our hotline under:

SATMAX

Phone: +64 (0) 3343 5565

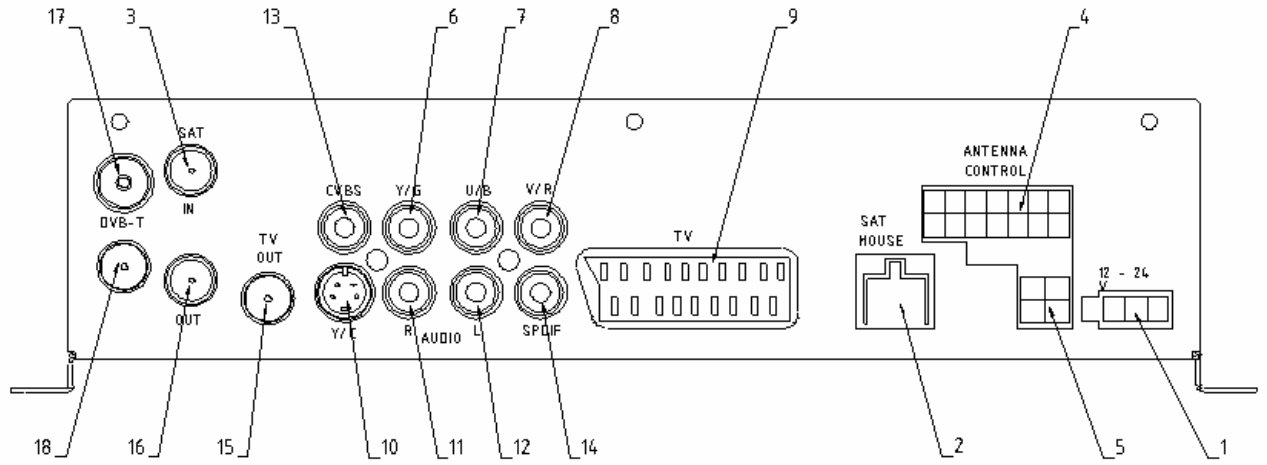
Office hours: Monday - Friday 9:00am – 5:00pm

Unit 1 ,32 Hayton Road
Sockburn
Christchurch

Or check the web: http://www.satmax.co.nz

Connections between receiver and auxiliary devices must only be made if their compatibility has been verified. Refer to the operating manual of the auxiliary device or, when in doubt, consult the manufacturer, on how to connect the device.

ten Haaft or satmax does not accept any liability for any damage resulting from incorrect connections.



(1) Power supply

(2) For Western plug of supplied satellite mouse (IR remote-control receiver)

(3) F-jack for satellite cable (coaxial cable of satellite system)

(4) Only for COSMO: for 14-pin connector of satellite system

(5) Only for OYSTER: for 4-pin connector of satellite system

(6) YUV signals or RGB signals, as standard with many LCD devices, to be used in conjunction with (7) and (8)

(7) YUV signals or RGB signals, as standard with many LCD devices, to be used in conjunction with (6) and (8)

(8) YUV signals or RGB signals, as standard with many LCD devices, to be used in conjunction with (6) and (7)

(9) SCART port

(10) Brightness and color-composite signals, to be used in conjunction with (11) and (12)

(11) Audio out, right, also for external speaker, HIFI system etc.

(12) Audio out, left, also for external speaker, HIFI system etc.

(13) PAL video signal: color, brightness, sync

(14) Digital audio out selectable in menu, e.g. for 5.1 sound systems

(15) Analog HF signal. Mono sound only.

(16) LOOP satellite signal, e.g. for second receiver, decoder

(17) Connection for antenna cable from optional or external DVB-T antenna- Optional Feature:

(18) LOOP DVB-T signal for second DVB-T receiver or decoder- Optional Feature:

Please also observe the instructions given in the operating manual of the auxiliary device!
Not all auxiliary devices feature all connections.

If available, the connection via the YUV or RGB ports is recommended.