



Bluestar Installation and Operation Manual

(mandatory reading for both the installer *AND* customer)



The Easy To Use *Fully* Automatic Satellite TV System

© 2019 Aardvark Electronics

2 Maple Drive

MACKAY QLD 4740

Ph 07 49555879

Fax 07 49556216

Web : www.vansat.com.au

Email : support@vansat.com.au

DISCLAIMER: - Aardvark Electronics (the producers of the VANSAT system) are not responsible for service and channel availability, faults, Broadcaster/GOV policy changes or platform changes outside of the Vansat system that either may prevent reception now or in the future or require you to upgrade your hardware to receive services. Continuing the setup beyond this page signifies your acceptance of this.

Vansat Bluestar Series IX Specifications

Power – DC 12 > 24V

Current – Typically 1 amp during normal operation and 4 amp temporary for search (search time varies but is normally 1 > 2 minutes after power on)

LNB Type – KU Band. High Gain & Dual Polarity (V/H), TWIN OUTPUT & Automatic Skewing

LNB LO Frq – 10700 MHz (10.7 GHz)

Reflector (Dish) – Offset 85cm Powder Coated

Dimensions (Folded) - Length 108 cm x Width 81 cm x Height 19 cm

Dimensions (Raised) - Length 108 cm x Width 81 cm x Height 98 cm

Weight (Rooftop Unit) – 15 Kgs

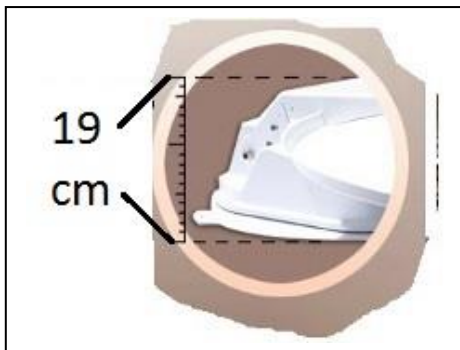
Gear Box – All Steel Construction

Wiring Loom – 8.5 Meter Length with pre-fitted connectors (3.5M loom from dome with an additional 5M extension cable included if needed)

Control Box – Multi Satellite with Adaptive Search. Upgradable Firmware

Elevation Range – 30 > 70 Degrees (Australia Wide Coverage)

Mounting Plate – Aluminium. 33cm Square (each side), roof attachment bolt holes 30cm apart (side to side – may vary by a few millimeters)

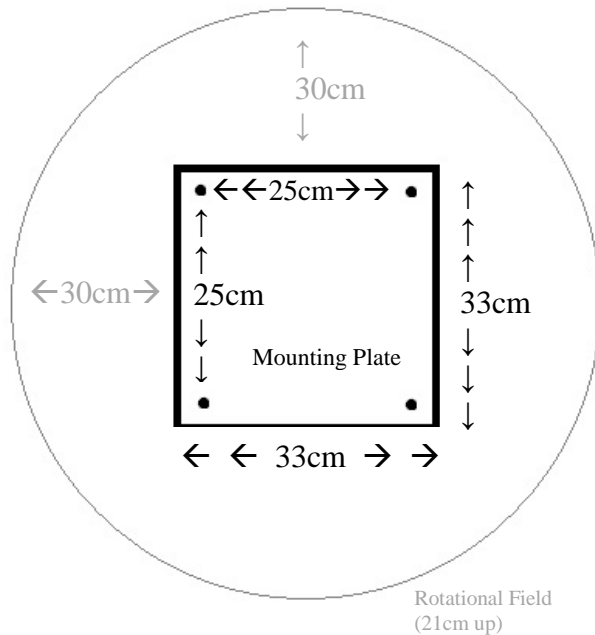


- * 19cm Ride Height When Folded
- * Auto Shut Down Feature
(must be wired to enable this)

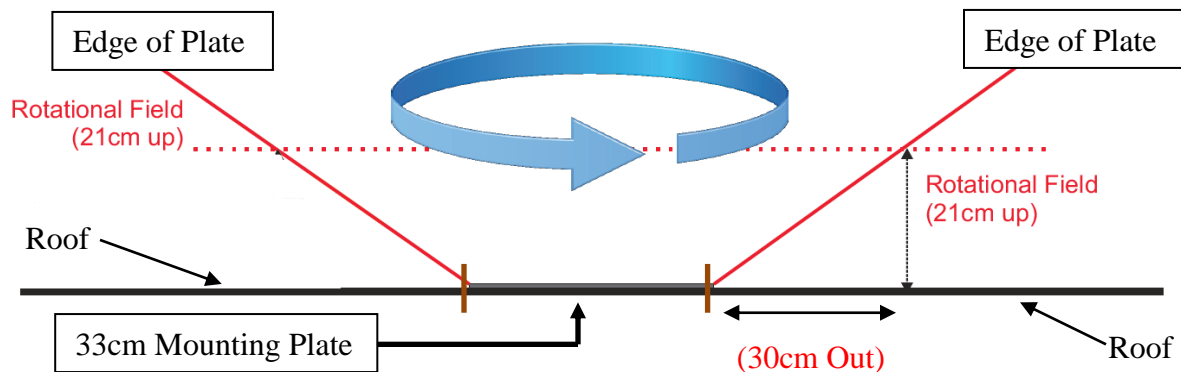
Satellite DVBS1 and DVBS2 Compliant

CAS – Irdeto 1 and 2 Compatible via optional CAM Module

Roof Space Required – Refer to the Below Figure. To Calculate for Maximum Elevation (how far back the dish will pivot at the northern tip of Queensland) measure outwards a distance of 30cm from each side of the Mounting plate. From this point measure upwards 21cm. This point in space will be the maximum angle the rear of the dish will ever go back.



Mounting Plate 33cm Square.
Mounting Holes 25cm Apart.
The Grey Circle shows the Rotational Field of the Dish. This field Pattern is measured at 30cm from the outside frame of the base starting at a Height of 21cm. You must ensure you have clear space **ABOVE** 21cm at a distance of 30cm from all sides of the Base Plate. Obstacles **BELOW** 21cm at a distance of 30cm from the Base Plate **WILL NOT** be of concern.



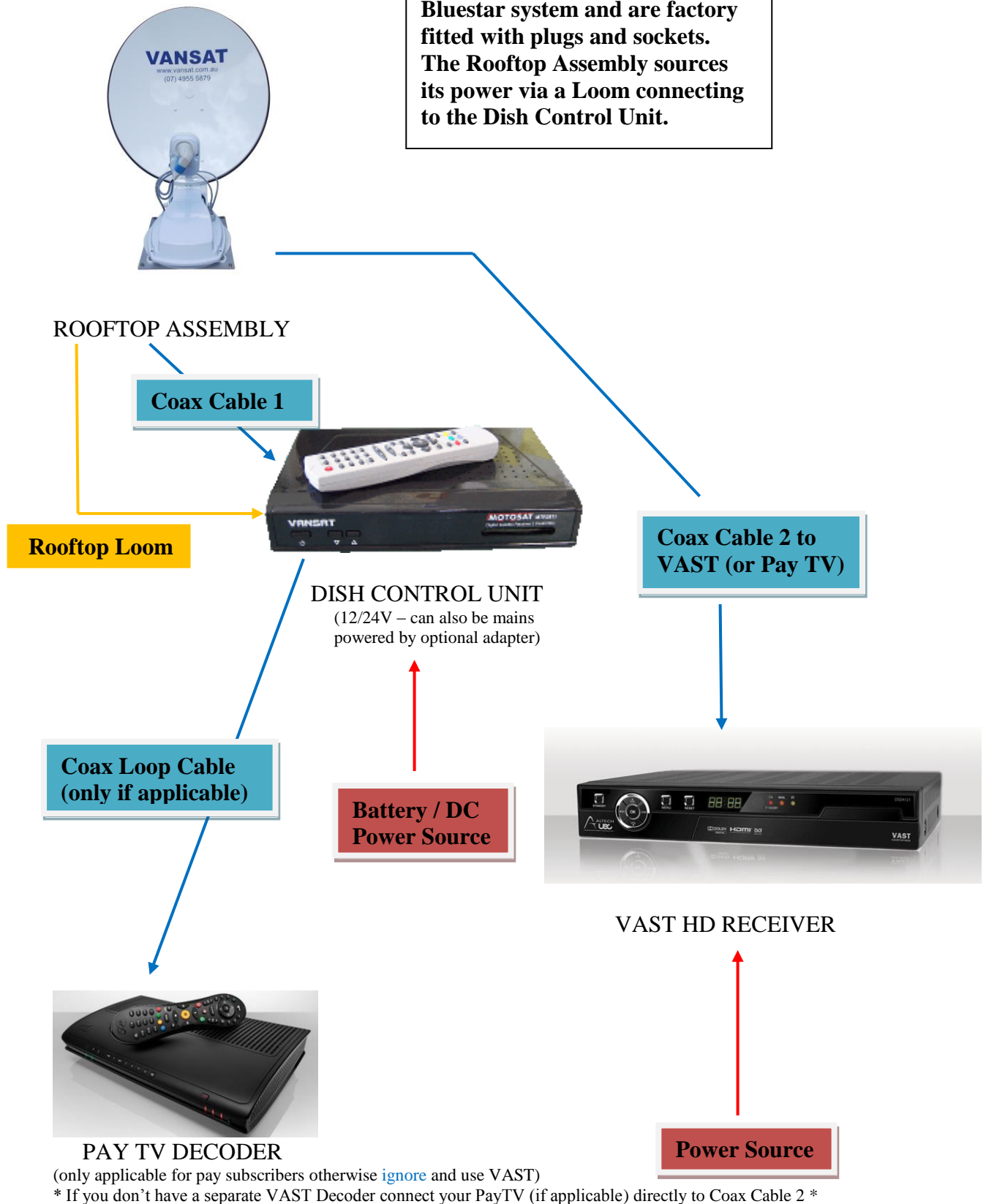
Should you not have the necessary rotational area to fit the system, simply “pad” the base plate the unit sits on to give it more height and therefore more clearance to suit your installation.

Origin of Manufacture – Europe (final assembly and testing in Australia)

Warranty – Three (3) Years

VANSAT BLUESTAR WIRING DIAGRAM

Wiring Diagram – All cables and connectors are supplied with the Bluestar system and are factory fitted with plugs and sockets. The Rooftop Assembly sources its power via a Loom connecting to the Dish Control Unit.



INSTALLATION, OPERATION, WARRANTY NOTES AND SAFETY WARNINGS (to be read by **BOTH** the Installer **AND** the Customer)

Before continuing we would advise that a suitably qualified Caravan/RV installer perform the installation on your behalf. If however you are confident and competent enough and you have no reservations in drilling into your Caravan/Motorhome walls/roof you should have no problem in performing this installation as DIY.

DISCLAIMER #1 – SAFETY FIRST! YOU SHOULD NEVER ATTEMPT TO ACCESS THE DISH OR ROOF DURING THE INSTALLATION OR CARRYING OUT OF MAINTENANCE IF THERE IS ANY CHANCE OF DANGER TO YOURSELF IN DOING SO. ENSURE IF USING A LADDER THAT IT IS SUITABLY SECURED TO THE VEHICLE AND SOMEONE REMAINS WATCHING YOU AT ALL TIMES. DO NOT ATTEMPT TO PERFORM THE DISH INSTALLATION IN WINDY/RAINY WEATHER OR WHEN THERE IS DANGER TO YOURSELF OR OTHERS. NEVER RAISE THE DISH OR ACCESS THE ROOF AROUND AREAS OF LOW POWERLINES WHERE THERE IS A RISK OF ELECTROCUTION.

DISCLAIMER #2 – NEVER TRAVEL WITH THE DISH RAISED. ENSURE IT IS ALWAYS LOWERED BEFORE COMMENCING TRAVEL. YOU SHOULD NOT RELY ON THE AUTOMATIC LOWERING FEATURE OF THE SYSTEM AS A GUARANTEE THAT THE DISH HAS LOWERED WHEN YOUR VEHICLE IS STARTED. ALWAYS PERFORM A VISUAL CONFIRMATION BEFORE DRIVING.

DISCLAIMER #3 – THE BLUESTAR SYSTEM IS DESIGNED AS A PERMANENT FIXTURE TO YOUR VEHICLE. REMOVING IT WILL LEAVE HOLES AND ADHESIVE ON THE MATERIAL TO WHICH IT WAS ATTACHED. PROCEEDING BEYOND THIS POINT SIGNIFIES YOUR UNDERSTANDING OF THIS.

DISCLAIMER #4 – DAMAGE TO THE MECHANISM FROM ROUGH HANDLING OR TRAVELLING ON POOR ROADS/BUSH TRACKS WILL VOID THE WARRANTY.

WARNING – DO NOT OPERATE THE UNIT IF THE DISH IS COVERED IN SNOW. DO NOT OPERATE THE UNIT IN EXTREME WIND. MAXIMUM RAISED WIND SPEED 70 km's (of course there will be dish movement at these extremes!)

Use only the bolts and adhesive supplied with the system. If for some reason you require additional bolts/adhesive please contact us. Do not substitute “other” bolts/adhesive as this may lead to a catastrophic failure of the mounting and anchor system thereby voiding your warranty and causing possible personal injury and property damage. Future spare parts should also be sourced from us. Aardvark Electronics (VANSAT) agrees to carry spare parts for a minimum of four (4) years either from date of supply of the system from us to you direct or in the case of the goods being purchased from a reseller/outlet, from the date we supplied the product to the reseller/outlet. The dome (roof top unit) and the inside control unit (MOTOSAT) are NOT considered a spare part but are repairable units for which spare parts will be available. Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods.

Products supplied may differ slightly from the pictures illustrated in this manual but will have the same functionality and ease of operation.

System Warranty for Units Purchased Directly from Aardvark Electronics (VANSAT) :-

WARRANTY – THE VANSAT BLUESTAR AUTOMATIC TV SYSTEM CARRIES A THREE YEAR BACK TO BASE PARTS AND LABOUR WARRANTY. THIS MEANS THAT VANSAT WILL EITHER REPAIR, OR REPLACE AT ITS DISCRETION, ANY PART FOUND TO BE FAULTY AS A RESULT OF NORMAL OPERATION, FREE OF CHARGE. THE LABOUR WARRANTY COVERS DISMANTLING AND CARRYING OUT REPAIRS TO A FAULTY MECHANISM OR CONTROL UNIT – IT DOES NOT COVER REMOVING THE ROOFTOP MECHANISM OR CONTROL UNIT FROM A VEHICLE FOR REPAIR. WE DO NOT COVER LABOUR FOR ANY INSTALLER OR CARAVAN CENTRE TO DIAGNOSE AND/OR REMOVE AND RETURN FAULTY PARTS. THE CUSTOMER IS RESPONSIBLE FOR ALL SHIPPING COSTS TO AND FROM OUR WORKSHOP. AN EXAMPLE OF HOW A WARRANTY CLAIM WOULD WORK IS AS FOLLOWS:

JOHN SMITH IS ON HOLIDAY IN WESTERN AUSTRALIA AND BELIEVES HIS BLUESTAR HAS DEVELOPED A FAULT. JOHN CONTACTS US (VANSAT) AND EXPLAINS THE ISSUE AND WE CONFIRM A FAULT EXISTS. THE ROOFTOP UNIT IS CONSIDERED TO BE IN NEED OF REPAIR. JOHN TAKES HIS VEHICLE TO A LOCAL CARAVAN DEALER AND ARRANGES AT HIS EXPENSE TO HAVE THE UNIT REMOVED FROM THE VEHICLE AND RETURNED TO US. WE (VANSAT) CONFIRM THE UNIT HAS FAILED FROM A DEFECT FROM NORMAL OPERATION AND REPAIR THE UNIT FREE OF CHARGE. JOHN PAYS FOR THE RETURN SHIPPING COSTS AND ANY FEES TO HAVE THE REPAIRED UNIT REINSTALLED TO HIS VEHICLE. SHOULD JOHN HAVE DECIDED TO WAIT TO HAVE THE UNIT REPAIRED WHEN HE WAS IN MACKAY, JOHN WILL STILL INCUR A REMOVAL AND REINSTALLATION FEE IF HE ARRIVES AT OUR FACTORY AND WANTS THE UNIT REPAIRED. THE BOTTOM LINE IS THAT OUR WARRANTY COVERS PARTS AND REPAIRS TO A REMOVED MECHANISM/CONTROL UNIT – IT DOES NOT COVER THE ACTUAL REMOVAL, REINSTALLATION OR SHIPPING COSTS INCURRED.

SHOULD YOU (THE CUSTOMER) NOT AGREE WITH OUR WARRANTY, PLEASE CONTACT YOUR PLACE OF PURCHASE WITHIN 7 DAYS TO ARRANGE A REFUND.

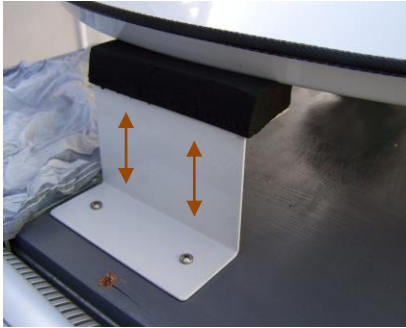
BENEFITS PROVIDED TO THE CONSUMER BY THIS WARRANTY ARE IN ADDITION TO OTHER RIGHTS AND REMEDIES AVAILABLE TO THE CONSUMER UNDER THE LAW.

System Warranty (including terms and conditions) for units purchased from resellers or other outlets will be under the terms and conditions of your place of purchase. Consumers in Australia have certain rights which you should understand. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

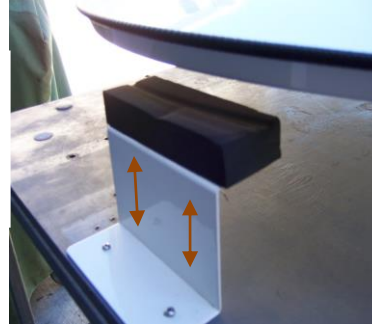
Warranties may *NOT* apply if the mandatory maintenance procedures as shown on later pages of this manual are not carried out as per the schedule.

NOTES, ERRATA AND COMMONLY ASKED QUESTIONS

1- Dish Adjustment to the Bump Stop. After the installation is complete the dish should fit snugly (but not tightly) on top of the Bump Stop. Should the dish be elevated above the Bump Stop (maybe due to roof height variations) please undo the wings nuts on the bump stop and adjust the rubber slide up so the dish rests gently on the bump stop (not excessive – just lightly resting).



**Dish
Sitting
Correctly**
←



**Dish
Sitting
Incorrectly**
←

3- ERR Messages. Should you ever see an ERR message appear on the front of the MOTOSAT please connect the MOTOSAT to the tv (via the yellow/white/red Lead) to see what error the MOTOSAT has encountered. ERR messages can easily occur should the battery voltage fall below 12V or the cable to the MOTOSAT is not thick enough to guarantee good motor operation. ERR can be cleared by pressing and holding the right channel button on the MOTOSAT front for 5 seconds.



**ERR
Code
Message**
←



**Cleared
By Holding
Channel Up
Button For
Five Seconds**
←



This Symbol indicates an area of significance in the manual, particular importance should be paid to the instructions given.

ROOFTOP MECHANISM INSTALLATION

Safety First – Have you read and understood our Safety Warnings on Page 5 ??

Pick an area anywhere on the roof of your mobile home that will allow the unit to be mounted as flat and level as possible with good support and that will permit the dish, once fitted and raised, to have a full 360 degree rotation and a full elevation range. Thoroughly clean the area where the base of the assembly will be affixed of all dirt, debris and wax using methylated spirits. The mechanism preferably should be fitted so that the dish is pointing rearward on the vehicle when it is in the shutdown position. If however space dictates that this is not feasible the unit can be mounted across the vehicle as long as a suitable wind deflector is placed next to the dish to prevent excessive wind (and possible damage). Please contact us at support@vansat.com.au as we have (for purchase) a variety of wind deflectors and optional jigs available for difficult installations.



If the dish is packed separately to the mechanism you will be able to attach it after you install the rotating mechanism. At first power-on, the arm will lift (after approx 10 seconds). When the mechanism begins to rotate you can simply press the PAUSE button on the MOTOSAT remote to stop the rotation and fit the dish – firmly tighten the four stainless screws.

Carefully transport the rooftop mechanism to the roof supporting it by its base only. **DO NOT** carry it by lifting the rotating mechanism or dish. **THIS IS IMPORTANT.** Failure to transport the mechanism correctly can result in damage to the internal workings or deforming of the satellite dish.



IMPORTANT – Support the mechanism by slipping your hands under either side of the stainless base.
(see arrows on left picture) **DO NOT** carry or attempt to turn the revolving part (the bit with the white cover). **DO NOT** carry by, or attempt to move the dish. Damage may result if incorrectly handled.



Mark and drill the four bolt holes. The assembly should be positioned over ceiling battens. Apply a generous amount of the supplied adhesive to the underside of the base, remembering to also apply in and around the bolt holes. You have two options of attaching the unit. (1) You can simply affix using coach screws directly into the battens or (2) using the four supplied affixing bolts (ensure loading distributing washers and nuts are fitted inside if using the bolt method). Any excess bolt length can be trimmed. Apply adhesive to the bolt heads to prevent water ingress. Either method is acceptable as long as the unit is secure!!



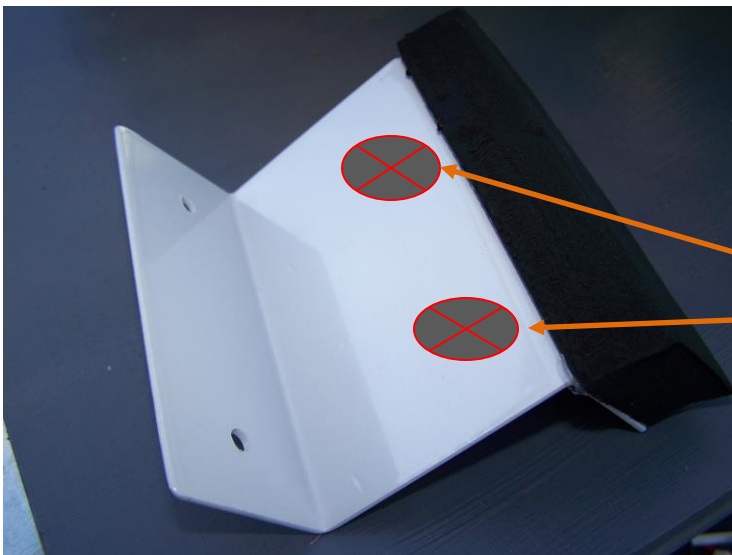
BOLT

GLUE

BOLT

Base of Unit mounted. Note that only two of the mounting bolts are visible in the picture. Your unit will be affixed with four (4) bolts and Adhesive (Glue) under the steel Base plate.

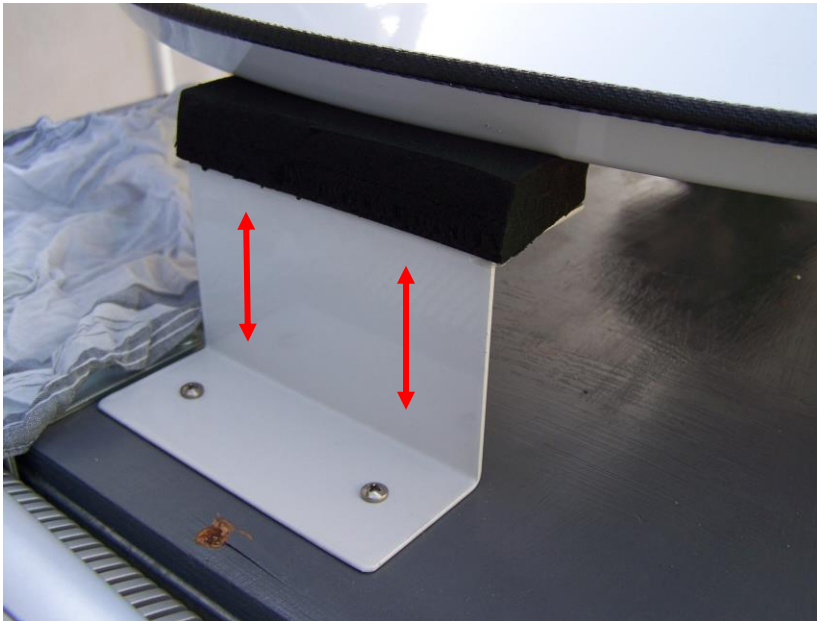
The bump stop should now be installed. This device provides additional support to the dish if the vehicle is driven on rough terrain.



Bump Stop

Wingnuts to adjust height of rubber stopper

Apply adhesive to bottom of the stop and affix to the roof using the supplied stainless screws (cover the tops of the screws also with adhesive).



**Bump Stop Fitted.
Note you can
loosen the two
wingnuts (not
shown) to adjust
the top of the stop
up and down so
that the dish is
LIGHTLY resting
on it.**

The completed job should resemble the below (except yours will have adhesive on the bolts and screw heads of course).



**Dome fully
fitted to the
Rooftop**

Cable Entry and Wiring Configuration

Position the Junction box as far away from the revolving mechanism (dome) as needed to ensure the cable will not foul as the unit rotates. Some thought should be given to positioning the junction box over an internal cavity like a cupboard. The cable length from the dome is 3.5M.



Junction Box with the loom from the dome entering a 1" hole into vehicle.

Drill a 1 inch hole to allow easy insertion of the wiring loom and signal cables.

IMPORTANT - DO NOT permanently seal the cables/loom into the roof/wall cavity. They should be fitted in such as fashion as to allow them to be easily removed (by feeding through) should the rooftop mechanism ever require servicing.



Wiring loom shown from inside the vehicle. **DO NOT** seal them permanently in the roof cavity.

If the 3.5M dome cable is long enough to reach the MOTOSAT control unit without using the included 5M extension cable please skip this step:



If using the supplied 5M extension cable ensure that when joining the two Coax Cables that the **plugs** are not allowed to twist as you tighten them.

When using the extension cable carefully click the two black connectors together (take care you do-not bend any of the pins when doing this and that none of the wires “sneak” out the rear of the connectors). For the two coaxial signal connectors (thin cables), gently tighten **BOTH PLUGS** with pliers holding the plug and socket at the same time. Do not allow the coax cables to twist as you tighten these plugs as damage may occur.

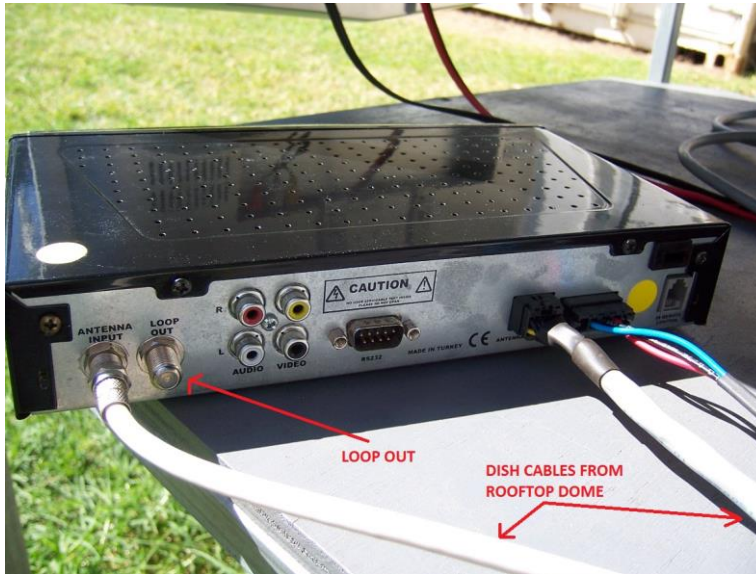
The junction box can now be secured (using the supplied stainless screws) and glued to the roof of the vehicle. Also apply adhesive/silicon to the points where the two cables enter the junction box.



The Junction Box fully assembled and fitted to the vehicle roof (adhesive not shown)

INTERNAL MOTOSAT CONTROL UNIT INSTALLATION

The control unit can either be flush mounted to a cupboard wall (on its side or upside down is also fine) or simply left free standing. Do not however block the ventilation holes. Screw either one of the two signal coax cables coming from the roof (does not matter which one) to the rear of the MOTOSAT control unit at the point marked ANT IN. Take care when affixing the coax plug that the coax lead does not rotate causing damage to the lead. The other connectors can then be attached.



MOTOSAT Control Unit with wiring looms shown. On the back left you will see a connection labeled “Loop Out” (next to ANT IN). This socket may be used later depending on your installation and number of decoders.

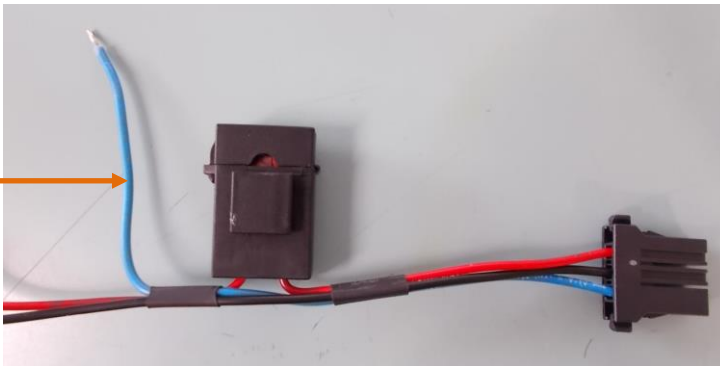
Never cut and “split” the coax cables from the roof using a splitter as this will cause signal degradation and may prevent the system from locking.

Power is via 12V/24V DC only (a 240V adapter is available as an option for purchase from us for mains operation). Wire for 12V/24V as follows:-

RED : +12/24 DC Volts (see note further down this page)

BLACK : Ground (or Negative)

BLUE : Vehicle/Car Ignition (IMPORTANT – while the unit will fully function without this wire connected, the system will not auto-close on vehicle startup. Note also that 12V/24V must be present on the RED cable for this to work)



The system Power Loom.

Do not bypass or leave out the fuse on the lead.

Use thick cable for the positive and negative connections.

Do-not use a Cigarette Plug.



NOTE: Why thick cable? The power consumption is very low in normal operation but during the search (typically 1-2 minutes) the current draw is around 4 amps. If you use light power cable the unit will search slower and may even stall with an ERR message on the display. Low battery voltage will also cause this. Hard wire to your van and **do not use a cigarette plug. (a cigarette plug is fine for the VAST decoder however if applicable)**

AV
Cable



HDMI
Cable



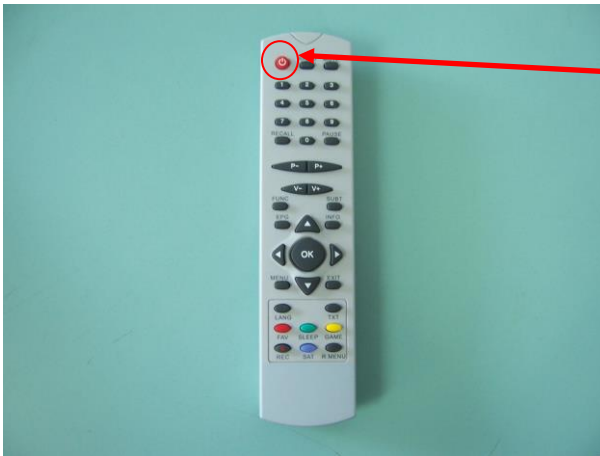
RED/WHITE/YELLOW AV Cable (or HDMI digital cable): In the packing that the MOTOSAT control unit was shipped in is an AV cable and a HDMI cable for connecting the MOTOSAT control unit to the television (use either one but NOT both). Please always connect this to the tv even if you are using a separate decoder (like Vast or PayTV) for reception. The reason for this is if you ever have a problem with the unit it will allow the technician to receive feedback from the MOTOSAT control unit on where the problem may be located. **INSTALLERS PLEASE DO NOT SKIP DOING THIS!!**

OPERATING INSTRUCTIONS

Before powering on the control unit ensure that the dish has clearance above and around it – ie no obstacles in its path of travel, and that you have a clear view of the sky.

Switch your television on and change the input to either AV (maybe called composite) using the “Source” or “AV” button, or if the connection was made via HDMI then to HDMI in the input/source menu. Fit batteries to the control unit remote and press the RED power (standby) button at the top. The dish will begin to lift and perform a search.

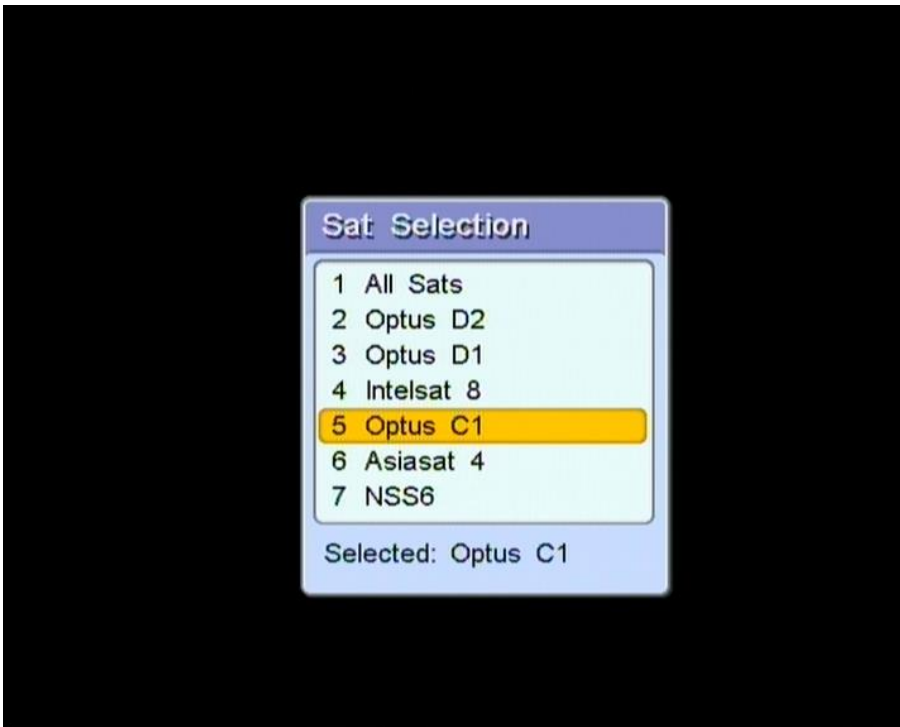
The initial search time may take as long as 20 minutes before the satellite locks and a picture appears **BUT** subsequent searches will be much quicker (generally around 1-2 minutes). The reason for this is that the unit is adaptive. It will begin the next search using the last successful search as the starting point. This way if you travel from point A to point B, the system will start using the location information from point A as a quick start. For the initial “out of the box” search it will use point A, which of course was our factory in Mackay!



System Power Button

System
Remote
Control

Pressing the SAT button will allow you to specify which satellite you wish to view (hint – 99% of people want C1/D3 for VAST & PayTV services):



Reception of the following **FOUR** Satellites is possible in most areas of Australia:

Optus C1/D3 (VAST & PayTV)
Optus D1 (some ABC/SBS channels)
Optus D2 (foreign language and Christian channels)
Intelsat 19 (various programming)

The following two satellites may only be visible over the eastern side of Australia and reception will be difficult in many areas:-

Asiasat 4
NSS6

(channels, satellites, broadcaster and/or government policy changes, products, platform changes affecting service availability now and in the future are beyond the control of VANSAT)

ADDING AN EXTERNAL VAST DECODER OR PAYTV DECODER

To access the full suite of channels available you will need to connect an external decoder. In most cases this will be either a VAST or PayTV decoder (PayTV subscribers should read the disclaimer further down).

Below is an example of the rear of an external VAST Decoder. Connect the spare black (or white) coax lead from the roof to the SAT IN port on the rear of the VAST Decoder.



Connection to your TV can be made via the **YELLOW / WHITE / RED cable OR (and preferably) a HDMI cable**. The HDMI connection will give you superior picture and sound quality. If your decoder and TV both have this fitting we would recommend purchasing a HDMI cable. This will also have the benefit that it will free up an AV port on the TV. Many modern TV's only have the one AV port which may be taken up with the connection to the VANSAT MOTOSAT control unit. Switch your TV to HDMI (or AV if applicable) to watch the external decoder.

USING AN EXTERNAL PAYTV DECODER AND A VAST Decoder

For installations where the customer has both a VAST Decoder as well as a PayTV decoder, connect the spare black (or white) coax cable from the roof to the VAST decoder as above. For the PayTV decoder connect the short loop coax cable (supplied) from the “Loop Out” socket on the rear of the MOTOSAT Control Unit (see earlier pages for the location) to the LNB input on the users PayTV decoder. If the PayTV decoder has multiple inputs for coax cables you will need to purchase a “multiswitch” to allow multiple connections to be made without any conflict. Please contact us at support@vansat.com.au as we have various models available for purchase.

PAYTV DISCLAIMER

Using Your Satellite Pay TV Service With The VANSAT System May Violate Your Providers Terms and Conditions. Aardvark Electronics (Producers of the VANSAT System) encourages Pay TV subscribers that are considering travelling with their service to contact their provider to check the OK regarding the use of their equipment and service outside of the place it was installed into.

CLOSING THE SYSTEM DOWN

Pressing the power (standby) button on the remote will cause the dish to rotate home and lower. Before travelling, the dish should be visually checked to confirm this has taken place. **DO NOT rely solely on the ignition signal as a guarantee that the dish has lowered.**

ACTIVATION AND RENEWAL APPENDUM FOR THE VAST SERVICE

If you purchased an external VAST decoder, unless otherwise advised it will need activation. You can do this online (preferred & quicker) at <http://www.mysattv.com.au/travellers.aspx>. **NOTE YOU MUST HAVE THE SYSTEM UP AND RUNNING FOR A SUCCESSFUL ACTIVATION TO OCCUR!** You will see a message “E107-4 The smartcard is not fully authorized” displayed until activation takes places. The commercial channels need to be “refreshed” every 6 months (no charge). The service can be renewed (instantly) online at www.mysattv.com.au/Cert_Renewal.aspx. If you have not used the system for a while (but have successfully used it before) and get one of the follow messages: "E??? Service is currently scrambled" or "E19-4 Subscription Status Expired" or "E107-4 The smartcard is not fully authorized" you will need to do a “hit” on your card. This can be done at www.mysattv.com.au/decoderrehit.aspx and will restore the services instantly. Alternatively you can wait on an ABC or SBS channel for a couple of hours for the services to restore automatically.

VAST TELEVISION GUIDE

Channels listed as they show in order on an external VAST decoder. Availability now and in the future is beyond this documents creator. The list and accuracy thereof is no guarantee that you will be entitled to receive these services, it is only an indication of what channels to expect. Any questions or queries regarding channels should be emailed to VAST at vast.administration@mysattv.com.au (or phone 1300993376 but email preferred) – hours of operation are 9am > 4.30pm Weekdays.

Channels in **GREEN** are received by users who registered in the Northern Zone
Channels in **BLUE** are received by users who registered in the Southern Zone
Channels in **BROWN** are received by users who registered in the Western Zone



Australia VAST reception is divided into Three Zones. When you cross from one Zone to another Zone the system will continue to function as normal. To swap over to a new Zone's viewing email VAST at vast.administration@mysattv.com.au or call 1300993376 (email preferred).



VAST SMART CARD

The smartcard must go into the slot so the **gold contacts and the smart card number are facing downwards.**

Record Your Smartcard Number Here:

VAST CHANNEL LIST FOR NORTHERN ZONE (QLD AND NT)

1 – ONE CENTRAL “EASTERN”	322 – SBS TWO SE
2 – ABC1 QLD	330 – SBS HD VIC
3 – SBS ONE QLD	331 – SBS ONE VIC
4 – REGIONAL NEWS GUIDE	350 – SBS HD SA
7 – SCTV CENTRAL NORTH	351 – SBS ONE SA
9 – IMPARJA NORTH	352 – SBS TWO SA
10 – TEN CENTRAL NORTH	360 – SHS HD WA
11 – ELEVEN NORTH	361 – SBS ONE WA
21 – ABC1 QLD	362 – SBS TWO WA
22 – ABC2/ABC4 QLD	370 – SBS HD TAS
23 – ABC3 QLD	371 – SBS ONE TAS
24 – ABC NEWS 24	380 – SBS HD NT
30 – SBS HD QLD	381 – SBS ONE NT
31 – SBS ONE QLD	382 – SBS TWO NT
32 – SBS TWO QLD	401 – WIN NEWS: CAIRNS/TOWNSVILLE
34 – NITV	402 – WIN NEWS: MACKAY/ROCKHAMPTON
70 – 7MATE CENTRAL “EASTERN”	403 – WIN NEWS: BUNDABERG/SUNSHINE COAST
72 – 7TWO CENTRAL NORTH	404 – WIN NEWS: ORANGE/WAGGA WAGGA
90 – GEM “EASTERN”	405 – WIN NEWS: WOOLLONGONG/CANBERRA
91 – IMPARJA NORTH	406 – WIN NEWS: ALBURY/GIPPSLAND
99 – GO NORTH	407 – WIN NEWS: BENDIGO/SHEPPARTON
221 – ABC1 NSW	408 – WIN NEWS: BALLARAT/MILDURA
222 – ABC2/ABC4 SE	409 – WIN NEWS: TASMANIA/MT GAMBIER
223 – ABC3 SE	410 – SC NEWS: QLD/NT/NSW/VIC
224 – ABC NEWS 24	411 – SC NEWS: TASMANIA/SA/BROKEN HILL
231 – ABC1 VIC	412 – 7QLD NEWS: CAIRNS/TOWNSVILLE
251 – ABC1 SA	413 – 7QLD NEWS: MACKAY/ROCKHAMPTON
252 – ABC2/ABC4 SA	414 – 7QLD NEWS: WIDE BAY/SUNSHINE COAST
253 – ABC3 SA	415 – NBN NEWS: GOLDCOAST/LISMORE
254 – ABC NEWS 24	416 – NBN NEWS: COFFS HARBOUR/TAMWORTH
261 – ABC1 WA	417 – NBN NEWS: NEWCASTLE/CENTRAL COAST
262 – ABC2/ABC4 WA	418 – PRIME NEWS: NSW NORTH COAST
263 – ABC3 WA	419 – PRIME NEWS: NSW/VICTORIA
264 – ABC NEWS 24	420 – PRIME NEWS: ORANGE/WAGGA WAGGA
271 – ABC1 TAS	600 – RURAL HEALTH CHANNEL
281 – ABC1 NT	601 – ICTV
282 – ABC2/ABC4 NT	602 – WESTLINK
283 – ABC3 NT	800 – INFO
284 – ABC NEWS 24	802 – 2 ND INFO CHANNEL
320 – SBS HD NSW	803 – D3 TUNE CHANNEL
321 – SBS ONE NSW	

NOTE: Channels shown are subject to change. Programs and channels are outside the control of VANSAT. This list should be used a guide only as what to expect when you register your decoder for a particular zone.

VAST CHANNEL LIST FOR SOUTHERN ZONE (SA / NSW / VIC / TAS)

1 – ONE CENTRAL “EASTERN”	330 – SBS HD VIC
2 – ABC1 TAS	331 – SBS ONE VIC
3 – SBS ONE TAS	340 – SBS HD QLD
4 – REGIONAL NEWS GUIDE	341 – SBS ONE QLD
7 – SCTV CENTRAL SOUTH	342 – SBS TWO QLD
9 – IMPARJA SOUTH	350 – SBS HD SA
10 – TEN CENTRAL SOUTH	351 – SBS ONE SA
11 – ELEVEN SOUTH	352 – SBS TWO SA
21 – ABC1 TAS	360 – SHS HD WA
22 – ABC2/ABC4 SE	361 – SBS ONE WA
23 – ABC3 SE	362 – SBS TWO WA
24 – ABC NEWS 24	380 – SBS HD NT
30 – SBS HD TAS	381 – SBS ONE NT
31 – SBS ONE TAS	382 – SBS TWO NT
32 – SBS TWO SE	401 – WIN NEWS: CAIRNS/TOWNSVILLE
34 – NITV	402 – WIN NEWS: MACKAY/ROCKHAMPTON
70 – 7MATE CENTRAL “EASTERN”	403 – WIN NEWS: BUNDABERG/SUNSHINE COAST
72 – 7TWO CENTRAL SOUTH	404 – WIN NEWS: ORANGE/WAGGA WAGGA
90 – GEM “EASTERN”	405 – WIN NEWS: WOOLLONGONG/CANBERRA
91 – IMPARJA SOUTH	406 – WIN NEWS: ALBURY/GIPPSLAND
99 – GO SOUTH	407 – WIN NEWS: BENDIGO/SHEPPARTON
221 – ABC1 NSW	408 – WIN NEWS: BALLARAT/MILDURA
231 – ABC1 VIC	409 – WIN NEWS: TASMANIA/MT GAMBIER
241 – ABC1 QLD	410 – SC NEWS: QLD/NT/NSW/VIC
242 – ABC2/ABC4 QLD	411 – SC NEWS: TASMANIA/SA/BROKEN HILL
243 – ABC3 QLD	412 – 7QLD NEWS: CAIRNS/TOWNSVILLE
244 – ABC NEWS 24	413 – 7QLD NEWS: MACKAY/ROCKHAMPTON
251 – ABC1 SA	414 – 7QLD NEWS: WIDE BAY/SUNSHINE COAST
252 – ABC2/ABC4 SA	415 – NBN NEWS: GOLDCOAST/LISMORE
253 – ABC3 SA	416 – NBN NEWS: COFFS HARBOUR/TAMWORTH
254 – ABC NEWS 24	417 – NBN NEWS: NEWCASTLE/CENTRAL COAST
261 – ABC1 WA	418 – PRIME NEWS: NSW NORTH COAST
262 – ABC2/ABC4 WA	419 – PRIME NEWS: NSW/VICTORIA
263 – ABC3 WA	420 – PRIME NEWS: ORANGE/WAGGA WAGGA
264 – ABC NEWS 24	600 – RURAL HEALTH CHANNEL
281 – ABC1 NT	601 – ICTV
282 – ABC2/ABC4 NT	602 – WESTLINK
283 – ABC3 NT	800 – INFO
284 – ABC NEWS 24	802 – 2 ND INFO CHANNEL
320 – SBS HD NSW	803 – D3 TUNE CHANNEL
321 – SBS ONE NSW	

NOTE: Channels shown are subject to change. Programs and channels are outside the control of VANSAT. This list should be used a guide only as what to expect when you register your decoder for a particular zone.

VAST CHANNEL LIST FOR WESTERN ZONE (WA)

2 – ABC1 WA	251 – ABC1 SA
3 – SBS ONE WA	252 – ABC2/ABC4 SA
5 – TEN	253 – ABC3 SA
6 – GWN7	254 – ABC NEWS 24
8 – WIN	271 – ABC1 TAS
21 – ABC1 WA	281 – ABC1 NT
22 – ABC2/ABC4 WA	282 – ABC2/ABC4 NT
23 – ABC3 WA	283 – ABC3 NT
24 – ABC NEWS 24	284 – ABC NEWS 24
30 – SBS HD WA	320 – SBS HD NSW
31 – SBS ONE WA	321 – SBS ONE NSW
32 – SBS TWO WA	322 – SBS TWO SE
34 – NITV	330 – SBS HD VIC
50 – ONE “WESTERN”	331 – SBS ONE VIC
55 – ELEVEN	340 – SBS HD QLD
60 – GWN7	341 – SBS ONE QLD
61 – GWN7	342 – SBS TWO QLD
62 – 7TWO	350 – SBS HD SA
63 – 7MATE “WESTERN”	351 – SBS ONE SA
64 – 4M3	352 – SBS TWO SA
80 – GEM “WESTERN”	360 – SHS HD WA
82 – GOLD2	370 – SBS HD TAS
84 – GOLD	371 – SBS ONE TAS
88 – GO!	380 – SBS HD NT
221 – ABC1 NSW	381 – SBS ONE NT
222 – ABC2/ABC4 SE	382 – SBS TWO NT
223 – ABC3 SE	600 – RURAL HEALTH CHANNEL
224 – ABC NEWS 24	601 – ICTV
231 – ABC1 VIC	602 – WESTLINK
241 – ABC1 QLD	800 – INFO
242 – ABC2/ABC4 QLD	802 – 2 ND INFO CHANNEL
243 – ABC3 QLD	803 – D3 TUNE CHANNEL
244 – ABC NEWS 24	

NOTE: Channels shown are subject to change. Programs and channels are outside the control of VANSAT. This list should be used a guide only as what to expect when you register your decoder for a particular zone.

MANDATORY MAINTENANCE PROCEDURES

The Bluestar is basically maintenance free. You will need however to check and tighten the four stainless screws that affix the satellite dish to the white lift arm annually. Also the two 17mm stainless bolts that join the white lift arm to the rotating mechanism need also to have their torque checked annually (you may have to pry off a cosmetic cap to view them). The torque should be 45 foot pounds (60 nm) for these two bolts. This last step is especially important and should NOT be overlooked. Warranty claims may not be accepted (or severely limited) on goods where this has not been carried out and damage has resulted.

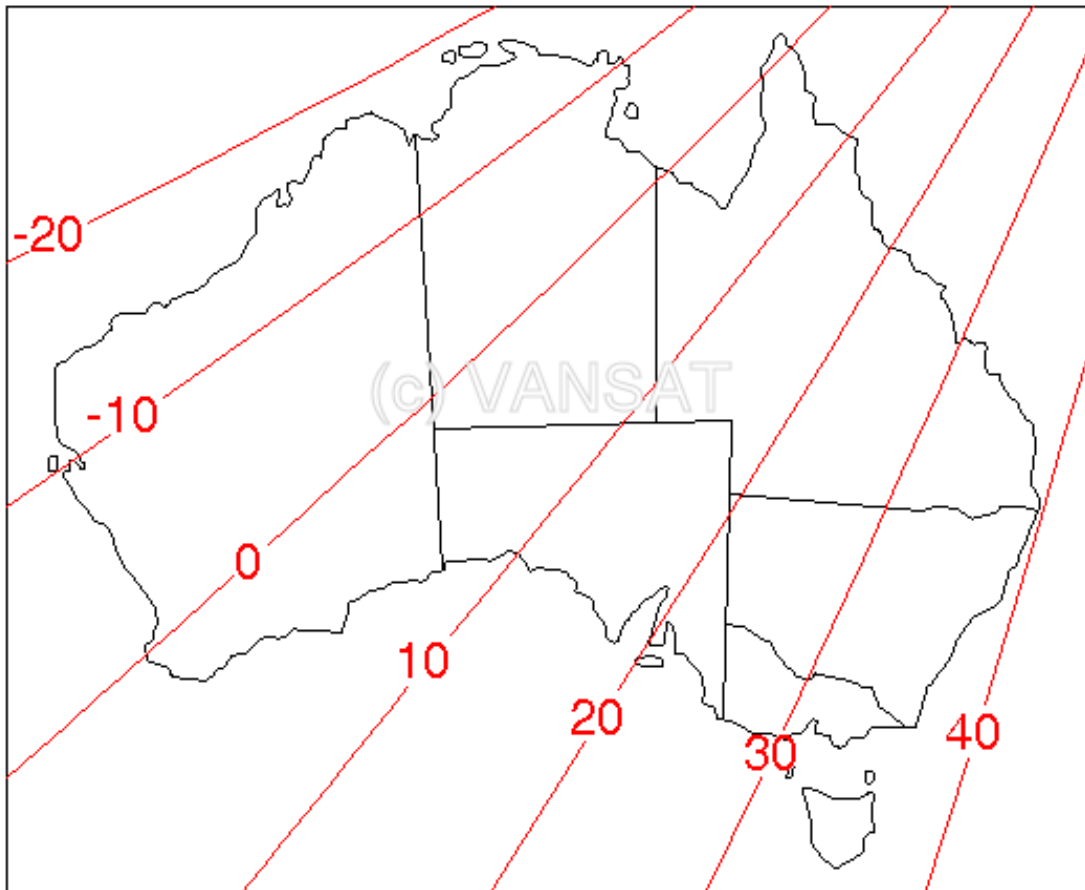


Safety First – Have you read and understood our Safety Warnings on Page 5 ??

The screws and bolts as indicated above will require checking and tensioning every 12 months. This is required maintenance that **MUST** be performed regularly. If you do not have easy and safe access to the roof please have your installer do this for you.

MAN V/S MACHINE (optional)

Ok, so the machine is automatic. Fancy you can do the alignment better than the electronic brain? Ensure the MOTOSAT is connected to the television via AV (or HDMI) and switch the television to the appropriate input. On the remote control for the MOTOSAT Control Unit press FUNC and go down to "Manual Adjust" and press OK. In the screen that appears you will see "Level" and "Quality" bars at the bottom. Using the left/right/up/down arrows you can step the dish in various directions. The LNB twist (Skew) is adjusted with the RED and GREEN buttons on the bottom of the remote. Each skew number corresponds to approximately 4 degrees of twist. Looking at the map below you will see the Skew angle for Optus C1/D3. As an example, for Brisbane the "official" skew is +40. So the machine skew is +10 ($40 \div 4 = 10$). Another example, for Derby at the top of WA the "official" skew angle is -16 so the machine skew is -4 ($16 \div 4 = 4$). Don't worry if you mess things up, you can simply press the Yellow button on the bottom of the remote to force a return to the previous position or switch the MOTOSAT off and back on again and it will auto-align.



LNB TWIST

UNDOCUMENTED FEATURES (some good bits we've added ☺)

Viewing the Mechanical & Electronic positioning – while the system is searching if you press INFO on the remote it will show you the mechanical (and electronic) values the system is currently searching. The Skew value is the LNB twist.

System Default to Factory Settings – someone had a play with the remote and muddled up the channel list or altered the search settings? You can restore to factory default. Press Menu and then the left arrow to SYSTEM – Press OK, go down to Service – Press OK. Here you can RESTORE the system to the out of the box settings using the FACTORY RESET feature. **DO NOT** backup your own settings (with the BACKUP option) as you will overwrite our factory programmed settings and you may render your system unstable or non-operational ☹.

Pause Rotation – to pause the mechanical operation during the search press the “PAUSE” button on the remote. Pressing it again will resume the search sequence. For normal TV viewing the pause button will “freeze” the picture.

Arcade Action! – Ok, everyone complains that there is never anything good on TV. We've added some retro style games to relieve the boredom. You will find them in the Menu Options under “Games”.



Got a great picture of your van/motorhome with the dish in a great location? Please email them with your name to photos@vansat.com.au and we will post them on our website! HAVE FUN !



© 2019 Aardvark Electronics
2 Maple Drive
Mackay QLD 4740
Ph 07 49555879
Fax 07 49556216
Web : www.vansat.com.au
Email : support@vansat.com.au