

KVH Industries, Inc.

TracVision® M7sk
Master Control Panel Configuration
Tapered Baseplate Version



Installation Guide

TracVision® M7SK Installation Guide

Tapered Baseplate Version - Master Control Panel (MCP) Configuration

These instructions explain how to install the TracVision M7SK (M7 with Auto Skew and GPS) satellite TV antenna system on a vessel. Complete instructions on how to use the system are provided in the *User's Guide*.

Installation Steps

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Who Should Install the System?

To ensure a safe and effective installation, KVH recommends that a KVH-authorized marine technician install the TracVision antenna. KVH-authorized technicians have the tools and electronics expertise necessary to install the system. To find a technician near you, visit www.kvh.com/wheretogetservice.

Linear vs. Circular Systems

The installation process differs slightly depending on the type of LNB (low noise block) that is installed in the antenna (linear or circular). These differences are noted throughout this manual. Appendix A on page 20 notes the satellites available for each LNB type and geographic region. Refer to the User's Guide for details on setting up a circular system as needed.

Technical Support

If you need technical assistance, please contact KVH Technical Support:

North/South America, Australia:

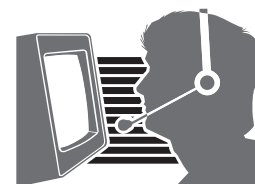
Phone: +1 401 847-3327

E-mail: support@kvh.com

Europe, Middle East, Asia:

Phone: +45 45 160 180

E-mail: support@emea.kvh.dk



1 Inspect Parts and Get Tools

Before you begin, make sure you have everything you need to complete the installation.

- a. Unpack the box and ensure it contains everything shown on the *Kitpack Contents List*. Save the packaging for future use.

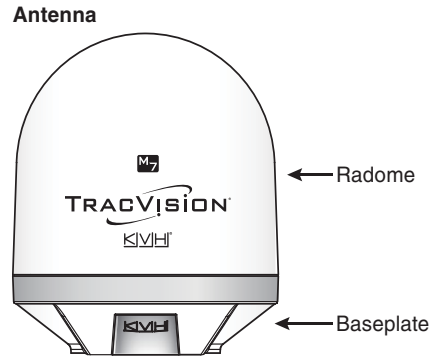
IMPORTANT!

Always lift the antenna by the baseplate (see Figure 1) or hoisting eyelets (see Figure 16) and never by the radome.

- b. Carefully examine all of the supplied parts to ensure nothing was damaged in shipment.
- c. Gather all of the tools and materials listed below. You will need these items to complete the installation.

- Flat-head and Phillips-head screwdrivers
- Electric drill and 5/8" (16 mm), 5/32" (4 mm), 3/32" (2.25 mm), and #29 bits
- 3.75" (95 mm) hole saw
- 9/16" and 3/4" socket wrenches
- 7/16" open-end wrench
- Light hammer and center punch
- Adhesive tape and scribe or pencil
- Wire strippers and terminal lug crimper
- RG-6 or RG-11 RF coax cable(s) with Snap-N-Seal[®] F-connectors; see Step 7a on page 8 for quantity and type required
- Augat IT1000 connector installation tool
- Switchplate power cables (not supplied; see Figure 2 and page 14)
- Silicone sealant, self-vulcanizing tape, or equivalent
- Satellite TV receiver and TV (see Figure 3 for a list of validated U.S./Canadian receivers)

Figure 1: TracVision M7 System Components



Switchplate



Master Control Panel (MCP)

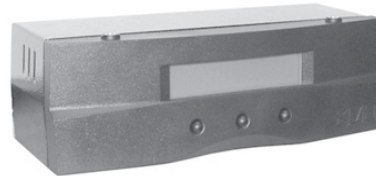


Figure 2: Switchplate Power Cable Guidelines

Cable Length	Use Cable Gauge
< 40 ft (12 m)	14AWG (2.5mm ²)
40-70 ft (12-21 m)	12AWG (4mm ²)

Figure 3: KVH-Validated U.S./Canadian Receivers

Standard-Definition Models		
DIRECTV	DISH Network	Bell TV
D12	311	4100
D11	211k/z	3100
D10	211	
High-Definition (HD) Models		
DIRECTV	DISH Network	Bell TV
HD not supported	211 211k/z	6100 6131

2 Plan the Antenna Installation

Consider the following antenna installation guidelines:

- Minimize blockage. The antenna requires a clear view of the sky to receive satellite TV (see Figure 4). The fewer obstructions, the better the system will perform.
- Make sure the mounting surface is wide enough to accommodate the antenna's base (see Figure 5). Also make sure it is flat, level (within $\pm 1^\circ$), strong enough to support the antenna's weight, and rigid enough to withstand vibration.
- Select a location that is as close as possible to the intersection of the vessel's fore-and-aft centerline and midships.
- Do not mount the antenna at the same level as the radar because the radar's energy might overload the antenna. Ideally, you should mount the antenna 4 ft (1.2 m) above the radar, outside the beam path of the radar.

IMPORTANT!

Be sure to follow the guidelines above. Damage caused by an improper installation is not covered under KVH warranty.

Figure 4: Blockage from Obstruction

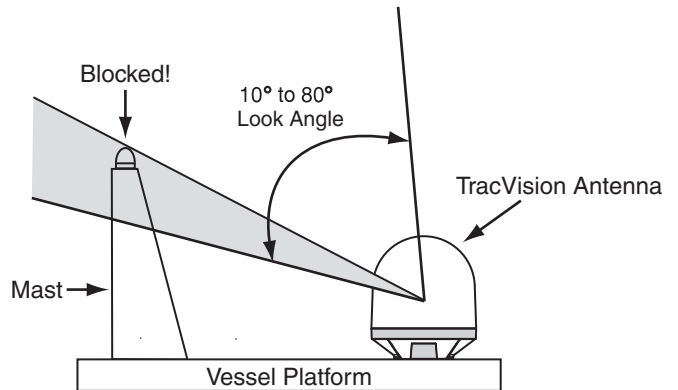
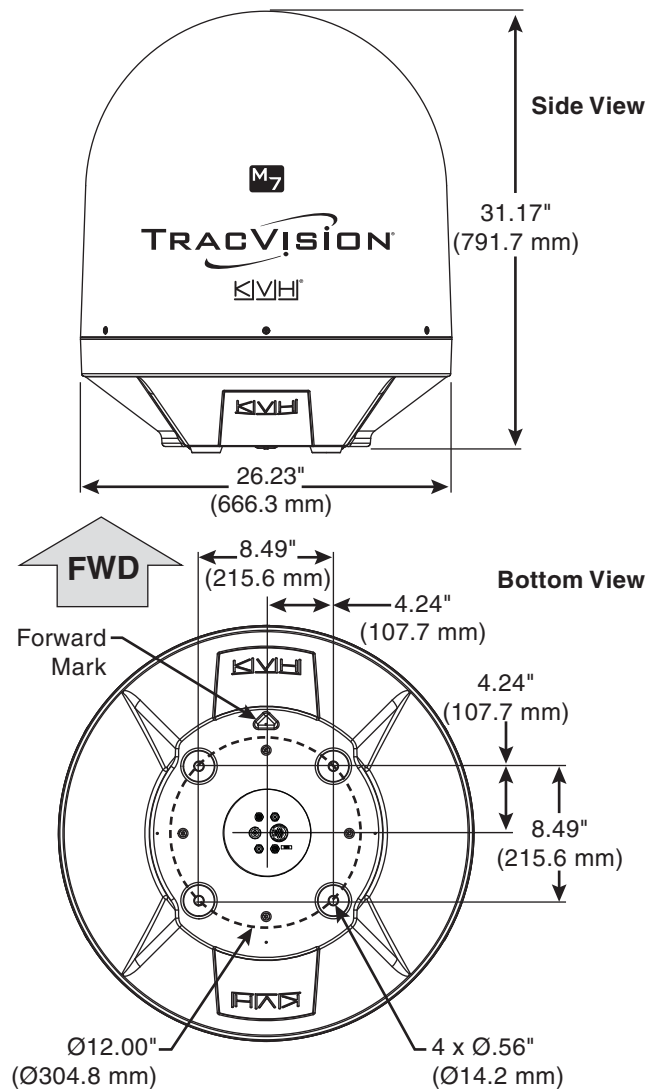


Figure 5: Antenna Dimensions



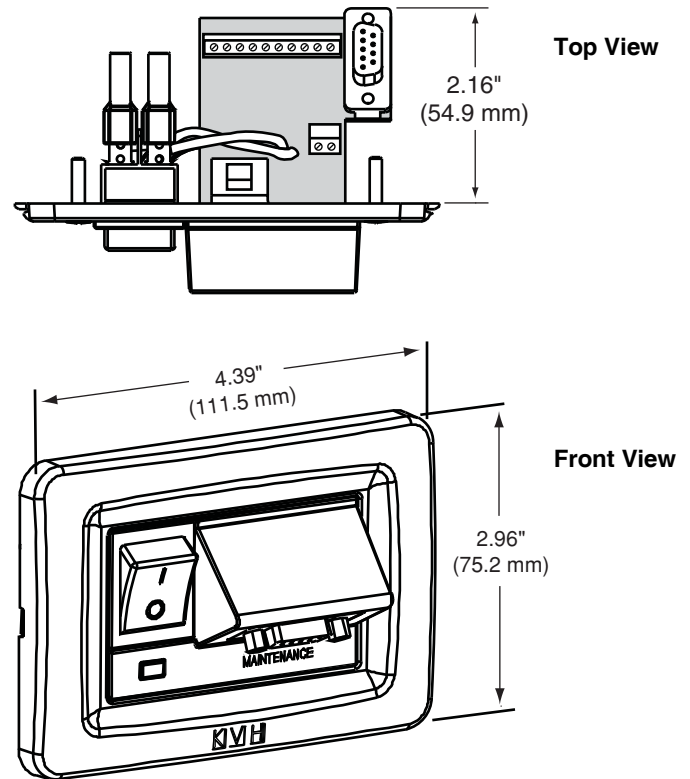
3 Plan the Belowdecks Installation

Consider the following belowdecks equipment installation guidelines.

Switchplate

- Select a switchplate mounting location in a dry, well-ventilated area belowdecks away from any heat sources or salt spray.
- Be sure to leave enough room at the switchplate's rear panel for connecting the cables and maintaining a service loop (see Figure 6 for switchplate dimensions).
- The supplied data cable is 100 ft (30 m) long. Be sure to locate the switchplate close enough to the antenna for the cable to reach, while allowing adequate slack for a service loop.
- **(Circular and Sky Mexico only)** The grounding block should be located within 95 ft (28 m) of the antenna, within 5 ft (1.5 m) of the primary receiver, and within 25 ft (7.6 m) of a suitable vessel AC ground.
- The switchplate mounting template at the end of this manual shows the size of the hole required for a flush-mount installation.

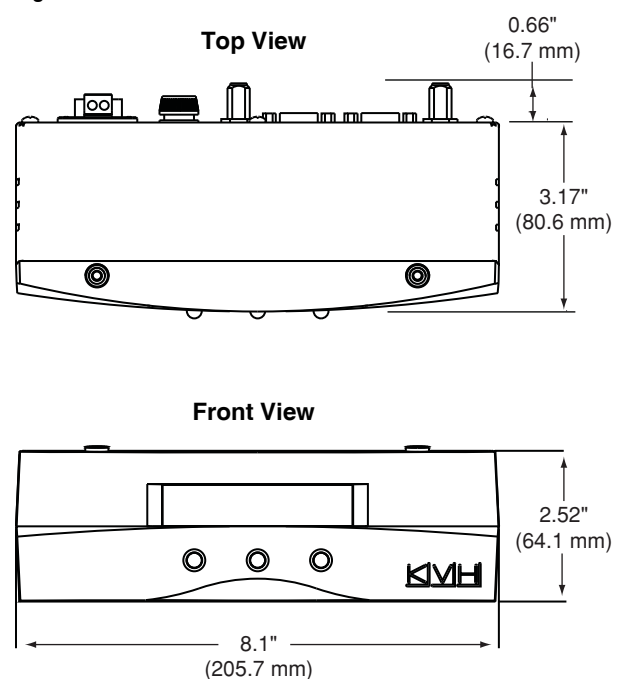
Figure 6: Switchplate Dimensions



MCP

- Select an MCP mounting location in a dry, well-ventilated area belowdecks away from any heat sources or salt spray.
- Be sure the MCP's front panel will be easily accessible to the user.
- Be sure to leave enough room at the MCP's rear panel for connecting the cables (see Figure 7 for MCP dimensions).
- Since the supplied main control cable and RF control cable are 25 ft (7.6 m) long, the MCP must be located within 25 ft (7.6 m) of the switchplate. Later, you will connect the MCP to the switchplate using these special cables.
- The kitpack contains parts for mounting the MCP either to a horizontal surface (using Velcro) or to a vertical surface (using the supplied flush mount bracket). The MCP mounting template at the end of this manual shows the size of the hole required for a flush-mount installation.

Figure 7: MCP Dimensions



4 Prepare the Belowdecks Sites

Once you have identified suitable mounting sites for the switchplate and MCP, follow these steps to prepare the sites for installation.

Switchplate

- Using the switchplate mounting template provided at the end of this manual, mark and cut out a hole in the mounting surface to accommodate the switchplate (see Figure 8).
- Using the same template, mark the locations for the four switchplate mounting holes.
- Drill a $3/32$ " (2.25 mm) hole at the four mounting hole locations. Later, you will mount the switchplate using four #6 screws.

MCP (Flush Mount only)

NOTE: Skip this step if you plan to mount the MCP to a horizontal surface instead; proceed to page 7.

- Attach the supplied flush mount bracket to the MCP now, before you connect any cables. Simply slide the bracket onto the MCP from behind and position the front edge of the bracket over the seam line between the front bezel and the chassis. Secure the bracket in place using two #6-32 screws and washers (see Figure 9).
- Using the MCP flush mounting template provided at the end of this manual, mark and cut out a hole in the mounting surface to accommodate the flush mount bracket (see Figure 10).
- Using the same template, mark the locations for the four MCP mounting holes.
- Using a #29 drill bit, drill a 0.136 " (3.45 mm) hole at the four mounting hole locations. Later, you will mount the MCP using four #8 screws.

Figure 8: Switchplate Mounting Holes Layout

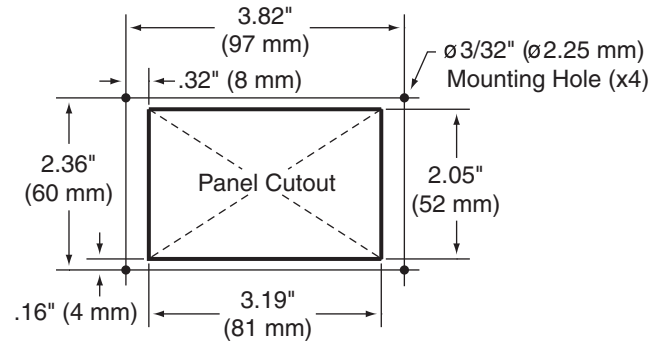


Figure 9: MCP Flush Mount Bracket

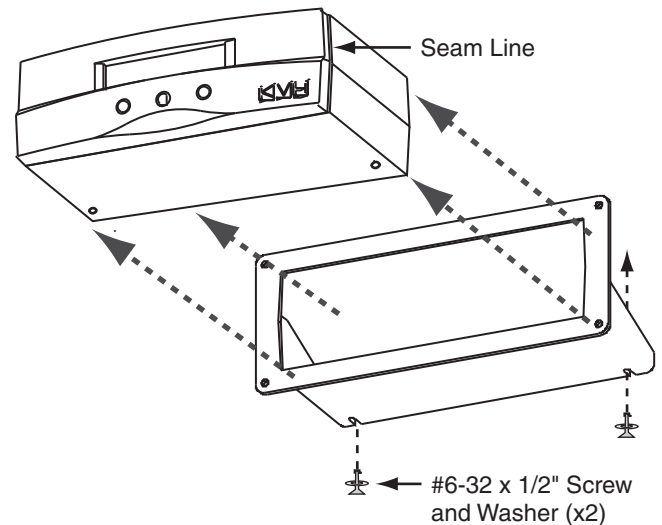
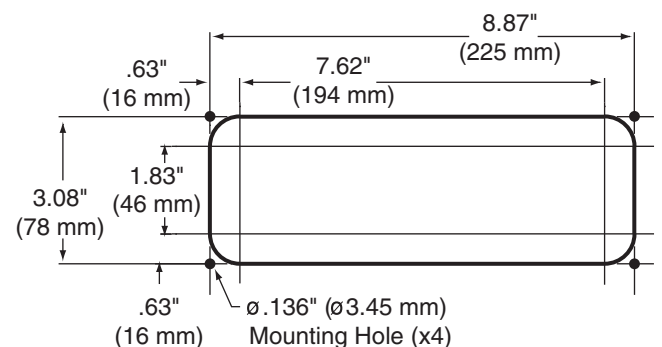


Figure 10: MCP Mounting Holes Layout



5 Prepare the Antenna Site

Once you have identified a suitable antenna mounting site, according to the guidelines provided on page 4, follow these steps to drill the mounting holes and cable access hole to prepare the site for installation.

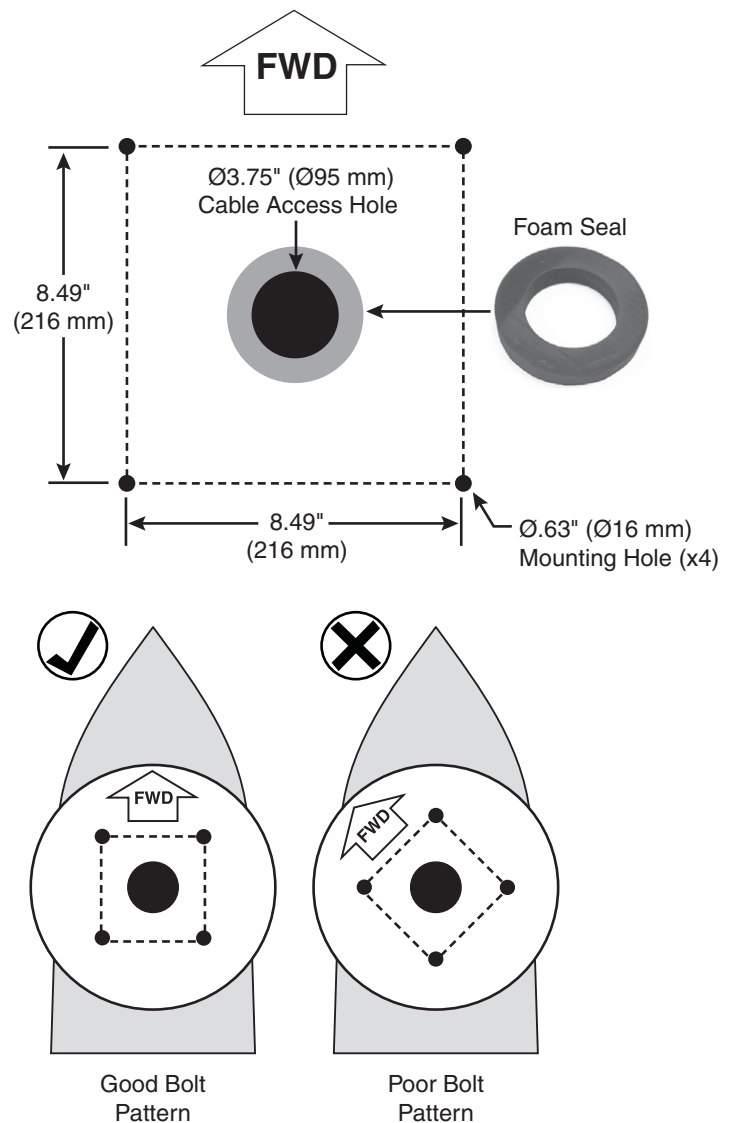
- a. Unfold the antenna mounting template (supplied in the Customer Welcome Kit) and place it onto the mounting surface. Make sure the “FWD” (forward) arrow points toward the bow and is parallel to the vessel’s centerline (see Figure 11).

NOTE: You don’t need to mount the antenna exactly on the vessel’s centerline (the closer, the better), but the antenna’s forward arrow must be parallel to it.

- b. Using a light hammer and center punch, mark the locations for the four mounting holes and cable access hole on the mounting surface in the locations indicated on the template.
- c. Drill a 5/8" (16 mm) hole at the four mounting hole locations you marked in Step b. Later, you will insert four 1/2"-13 bolts through these holes to secure the antenna to the mounting surface.
- d. Cut out the 3.75" (95 mm) cable access hole in the location you marked in Step b. Smooth the edges of the hole to protect the cables. Later, you will route the data, power, and RF cables through this hole and into the vessel.
- e. Clean and dry the antenna mounting surface.
- f. Peel off the paper backing from the supplied foam seal to expose the adhesive. Then press the foam seal down firmly onto the mounting surface, ensuring the hole in the foam seal aligns with the cable access hole in the mounting surface (see Figure 11).

NOTE: Apply the foam seal to the vessel mounting surface, not to the antenna’s baseplate. You will have difficulty connecting the cables to the antenna if the foam seal is attached to the baseplate.

Figure 11: Antenna Mounting Holes Layout



6 Wire the Antenna

Follow these steps to connect the data, power, and RF cables to the antenna.

- a. First determine the number of RF coax cables you need to connect to the antenna for your particular installation (see Figure 12). (See Figure 13 to determine the type of cable required.)

NOTE: To support future configurations, you can run all four cables.

- b. Route the data, power, and RF cables belowdecks through the 3.75" (95 mm) cable access hole. Leave an adequate service loop, approximately 8" (20 cm) of slack, in the cables for easy serviceability. Later, you will connect the data and power cables to the switchplate and the RF cable(s) to the receiver(s).
- c. Connect the data cable to the "Data" connector on the bottom of the antenna (see Figure 14). Hand-tighten until the cable locks in place; do not use excessive force.
- d. Connect the power cable to the "Power" connector on the bottom of the antenna. Hand-tighten until the cable locks in place; do not use excessive force.
- e. Connect the RF coax cable(s) to the antenna. If you need to connect just one RF cable, connect the cable to the "RF1" connector on the bottom of the antenna. Hand-tighten, then tighten with a 7/16" wrench for 1/4 turn to ensure an electrical connection. Connect any additional RF coax cables to the antenna's RF2, RF3, and RF4 connectors, in that order.

TIP: If you connect two or more RF cables, label both ends of each cable to match the connector. This will make it easier to identify the cables later.

- f. Seal the RF cable connections with silicone sealant, self-vulcanizing tape, or equivalent.

Figure 12: Number of RF Coax Cables to Connect to Antenna

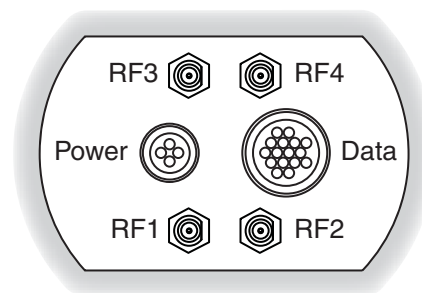
Connecting to:	# RF Cables
<i>System with Circular Dual LNB</i>	
1 receiver	1
2 receivers	2
3 or more receivers	2*
<i>System with Linear Dual LNB</i>	
1 receiver	1
2 receivers	2
<i>System with Linear Quad LNB</i>	
1 receiver	1
2 receivers	2
3 receivers	3
4 receivers	4
5 or more receivers	4*

* Multiswitch required for additional receivers.

Figure 13: RF Cable Guidelines

Cable Length	Use Cable Type
<= 75 ft (23 m)	RG-6
75-100 ft (23-30.5 m)	RG-11

Figure 14: Connectors on Bottom of Antenna



7 Mount the Antenna

Follow the steps below to mount the antenna.

- a. Remove the six #10-32 Phillips screws securing the radome to the baseplate (see Figure 15). Carefully lift the radome straight up until clear of the antenna assembly and set it aside in a safe place. If you keep the radome topside, secure it with a lanyard to prevent it from falling overboard. Also, do not place the radome on a hot steel deck – the heat may warp the radome.
- b. Keeping shipping restraints in place, transport the antenna to the mounting location.

NOTE: The two hoisting eyelets on the antenna frame may be used to lift the antenna, if necessary (see Figure 16). After they have been used once, make sure they are undamaged and free of cracks before using them again.

- c. Place the antenna baseplate over the holes drilled in the mounting surface.
- d. Ensure the forward arrow inside the baseplate points toward the bow and is parallel to the vessel's centerline (see Figure 17).



CAUTION

Observe the safety warnings printed on the tube of Loctite® anti-seize lubricant: "Contains mineral oil, calcium hydroxide, and copper. May cause skin, eye, and respiratory irritation. Wear eye protection and gloves. **First aid:** In case of eye or skin contact, flush with water. Obtain medical attention for any eye or internal contact."

Figure 15: Removing the Radome

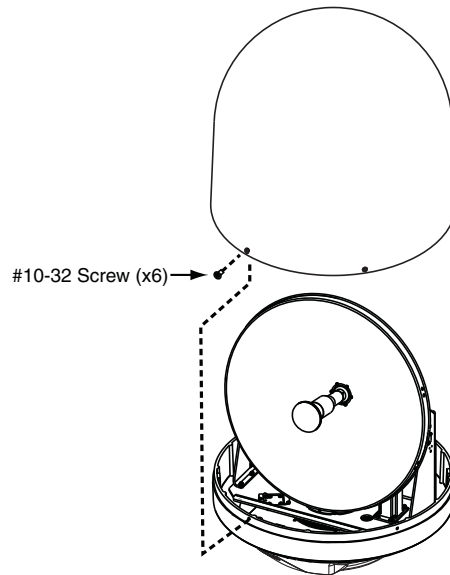


Figure 16: Hoisting Eyelets

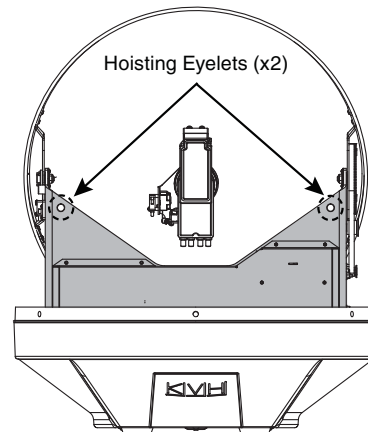
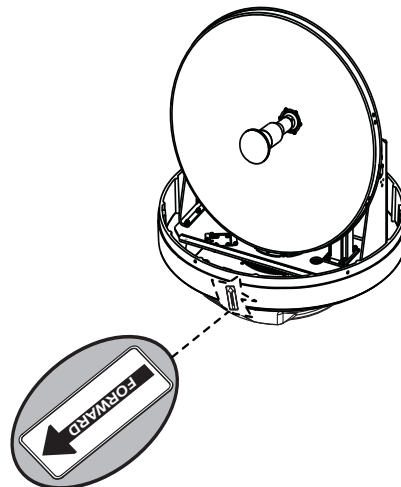


Figure 17: Forward Arrow in Antenna Baseplate



7

Continued Mount the Antenna

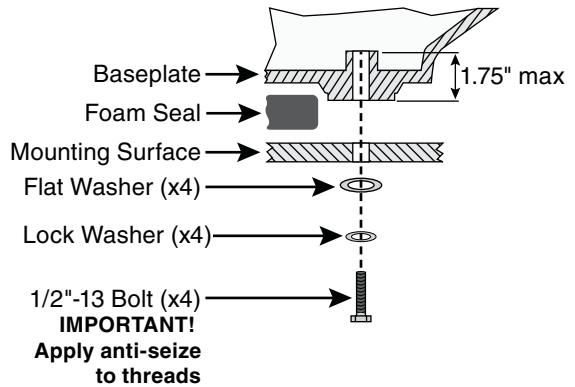
- e. Apply a thin layer of the supplied anti-seize lubricant to the threads of the four 1/2"-13 mounting bolts (see Figure 18).

IMPORTANT!

Be sure your 1/2"-13 mounting bolts extend between 1.5" (38 mm) and 1.75" (44 mm) into the baseplate to ensure sufficient thread engagement.

- f. Using a 3/4" socket, secure the antenna to the mounting surface using four 1/2"-13 bolts, lock washers, and flat washers from below (see Figure 18). Tighten all four bolts until the four rubber feet on the baseplate are bottomed against the mounting surface and the foam seal is fully compressed. KVH recommends that you tighten the bolts to between 34 and 40 ft-lbs (46.1 and 54.2 N-m) of torque.

Figure 18: Mounting the Antenna (Side View)



8 Remove the Shipping Restraints

Follow the steps below to remove the shipping restraints from the antenna.

- a. Remove the foam block that is wedged beneath the antenna's reflector (see Figure 19). Save this restraint for future use; the customer will need to reinstall it if he/she needs to relocate or reship the antenna.
- b. Using a $9/16$ " nut driver or wrench, remove the two $3/8$ " bolts, washers, and lock nuts securing the two shipping restraint brackets to the frame (see Figure 20).

NOTE: Be sure to keep the shipping restraint brackets for future use.

- c. In place of the brackets, place a $3/8$ " flat washer (supplied in the kitpack) on each of the two $3/8$ " bolts that you just removed. Then reinstall the bolts and secure them in place with the washers and lock nuts you removed earlier.
- d. Reinstall the radome onto the antenna. Secure in place with the six #10-32 screws you removed earlier (see Figure 15 on page 9).
- e. Install a protective plastic cap (supplied in the kitpack) over each radome screw.

Figure 19: Foam Block Shipping Restraint

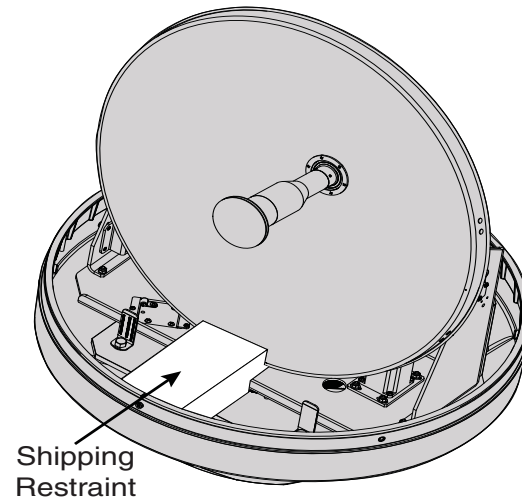
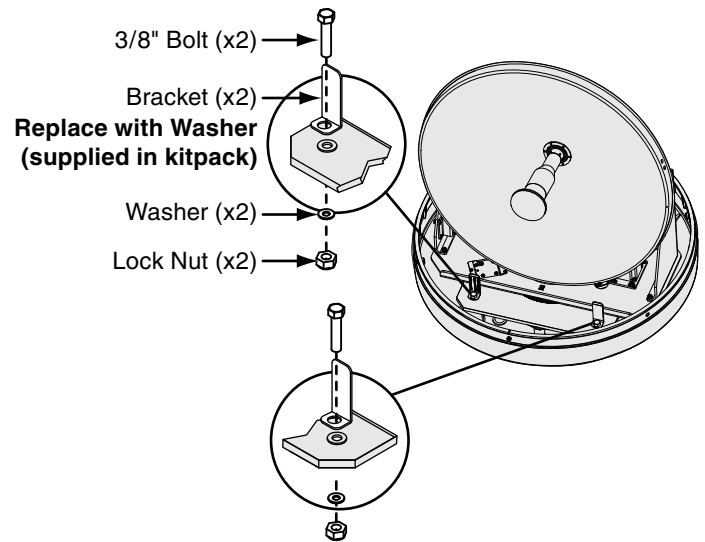


Figure 20: Shipping Restraint Bracket Removal



9 Wire the Switchplate

Follow these steps to connect the switchplate to the antenna.

- a. First dress the data and power cables from the antenna. Strip back the insulation of each wire approximately 1/4" (6 mm) and gently twist each wire to ensure a good electrical connection.
- b. Connect the data cable from the antenna to the terminal board on the back of the switchplate (see Figure 21). Be sure to match the wire colors with the terminal board label. Tighten the terminal screws to secure all wires in place.

IMPORTANT!

The diagram refers to wires by **body color/ stripe color**. For example, "Brown/White" means the brown wire with the white stripe.

IMPORTANT!

Do not connect the data cable's drain wire (shield) to anything. You can simply snip it from the cable.

- c. Connect the power cable from the antenna to the switchplate's power output terminals (see Figure 22). Later, you will also connect a power cable from these terminals to the MCP.

Figure 21: Switchplate Wiring - Antenna Data Cable

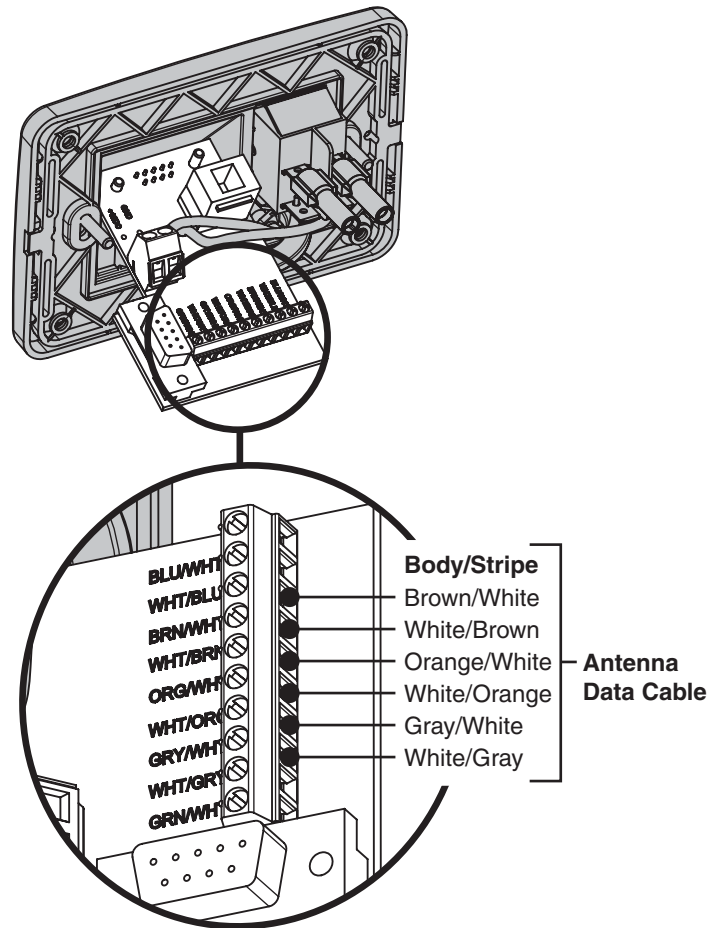
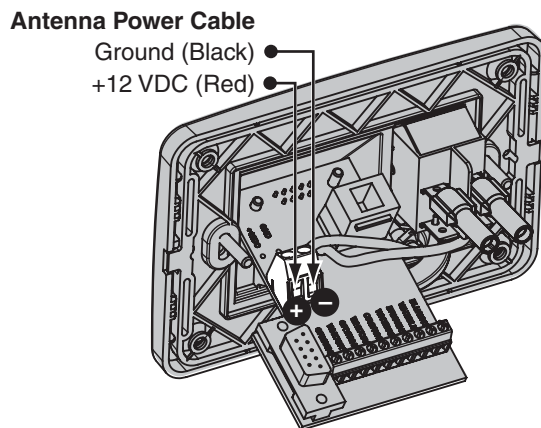


Figure 22: Switchplate Wiring - Antenna Power Cable



10 Wire the MCP and Receivers

Linear Systems

Follow these steps to connect the switchplate to the MCP and the antenna to the receiver(s).

NOTE: For details on wiring a system with a circular or Sky Mexico LNB, refer to the User's Guide.

- a. Connect the main control cable (DB9-male to DB9-male) from the "Maintenance" port on the **front or back** of the switchplate to the "Antenna Unit" connector on the MCP (see Figure 23).

NOTE: The switchplate's two DB9 connectors access the same port. Connecting to one disables the other.

- b. Connect the RF control cable (RJ22 to DB9-female) from the RJ22 jack on the back of the switchplate to the "RF Port" connector on the MCP.

- c. Connect the RF1 cable from the antenna to the "Satellite In" connector on the primary receiver. The primary receiver controls satellite selection.

NOTE: Any additional receiver(s) will be able to select channels carried on the satellite that is currently selected by the primary receiver.

- d. If you have a second receiver, connect the RF2 cable from the antenna to the "Satellite In" connector on the second receiver.
- e. If the system is equipped with a quad LNB, connect the RF3 and RF4 cables from the antenna to the "Satellite In" connectors on the third and fourth receivers, if applicable.

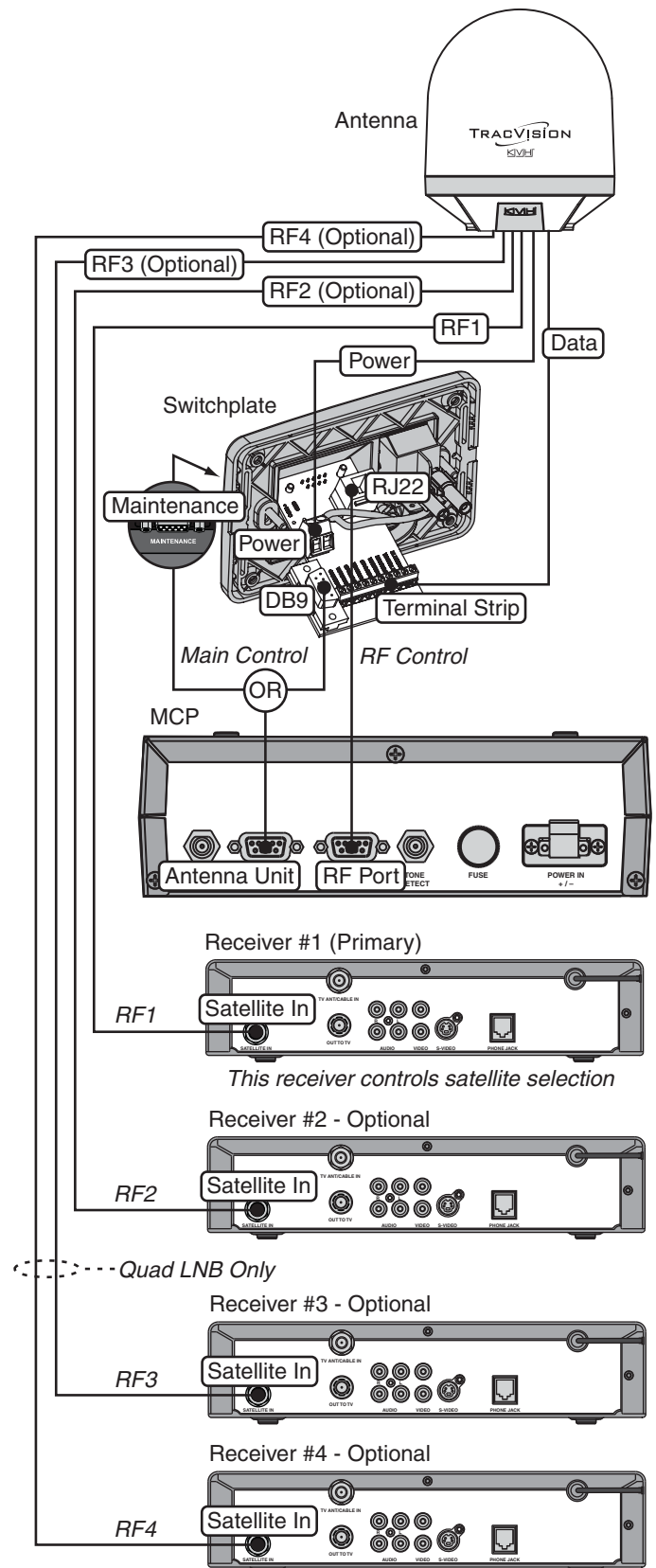
IMPORTANT!

Be sure all receivers are grounded. If the receiver has a 2-prong power plug, run a ground wire from the receiver's chassis to a suitable ground point. If a potential exists between AC and DC grounds, connect the wire to the switchplate's DC return instead.

NOTE: If you need to connect more than four receivers, install an active multiswitch that generates a 22 KHz tone (such as Eagle Aspen 501481 - KVH part no.19-0573). Connect the multiswitch in accordance with the manufacturer's instructions.

- f. Connect the receiver(s) to the television(s). Follow the steps in the receiver's manual.


Figure 23: MCP and Receiver Wiring



11 Connect Power

Follow these steps to connect power. The switchplate supplies power to both the antenna and the MCP.

- a. Before you begin, disconnect vessel power.

	CAUTION
<p>For your own safety, disconnect vessel power and make sure the circuit is dead before you connect any power wires.</p>	

- b. Route a set of power cables from the switchplate's power output terminals to the MCP (for cable specifications, see Figure 2 on page 3). Connect the wires to the plastic power plug supplied in the kitpack (see Figure 24).

NOTE: You should now have two wires connected to each power output terminal on the switchplate: one set of wires to power the antenna and one set to power the MCP.

- c. Tighten the terminal screws on the switchplate to secure all wires in place.
- d. Plug the MCP power plug into the "Power In" jack on the MCP (see Figure 25). Secure in place with the retaining screws.
- e. Connect a power cable to 12 VDC (4 amps continuous) vessel power (for cable specifications, see Figure 2 on page 3). Route the other end to the switchplate.

<p>IMPORTANT!</p> <p>Power supplied to the antenna must not fall below 12 VDC or exceed 16 VDC.</p>
--

- f. Detach the two terminal connectors from the back of the switchplate and crimp them onto the power cable's wires.
- g. Connect the power cable wires to the power (+) and ground (-) input terminals on the switchplate (see Figure 26).

Figure 24: MCP Power Plug

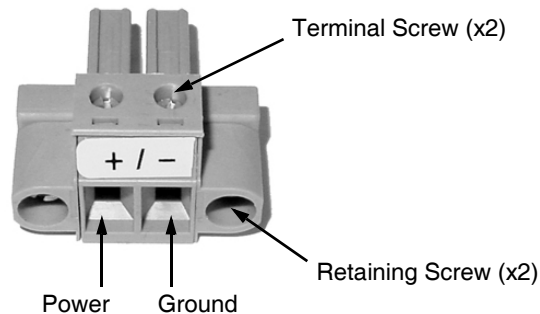


Figure 25: MCP Power Wiring

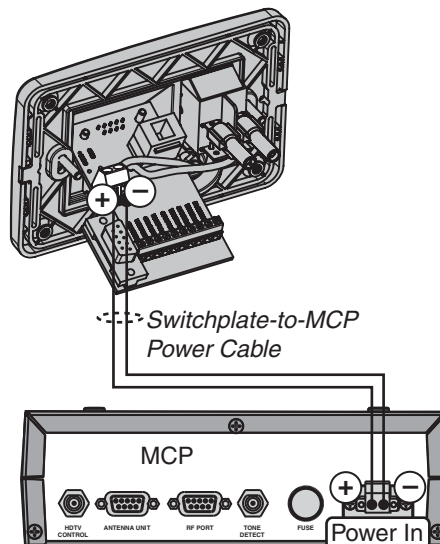
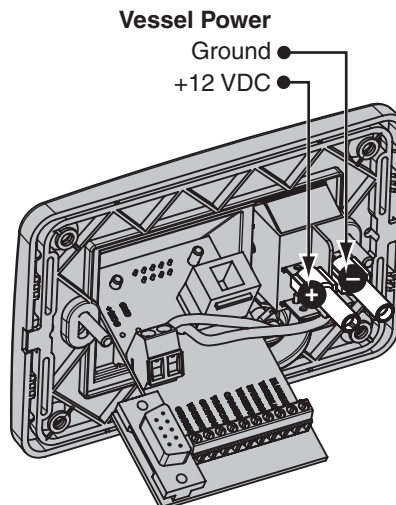


Figure 26: Switchplate Wiring - Vessel Power Cable



12 Mount the Switchplate & MCP

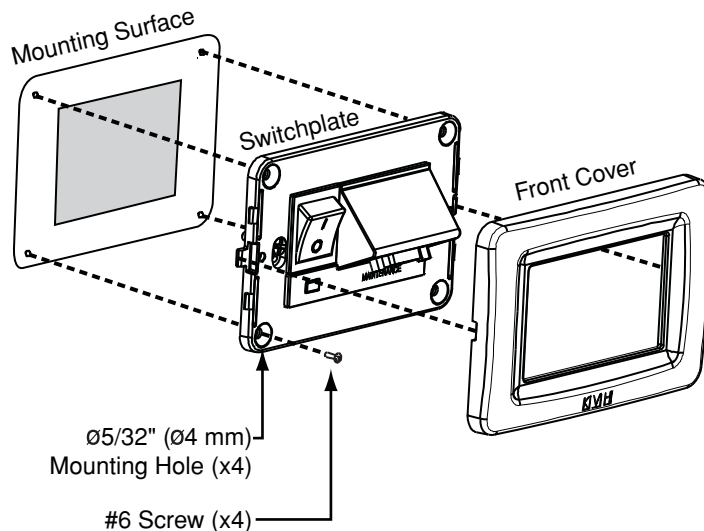
Follow these steps to mount the switchplate and MCP.

Switchplate

NOTE: As an alternative, the switchplate includes two additional mounting holes for installing within an electrical panel. If you chose this option, simply use two of the #6 screws to mount the switchplate to the panel.

- Align the four mounting holes in the switchplate with the holes in the mounting surface (see Figure 27).
- Mount the switchplate to the mounting surface using four #6 screws.
- Gently snap the front cover onto the switchplate to conceal the mounting screws.

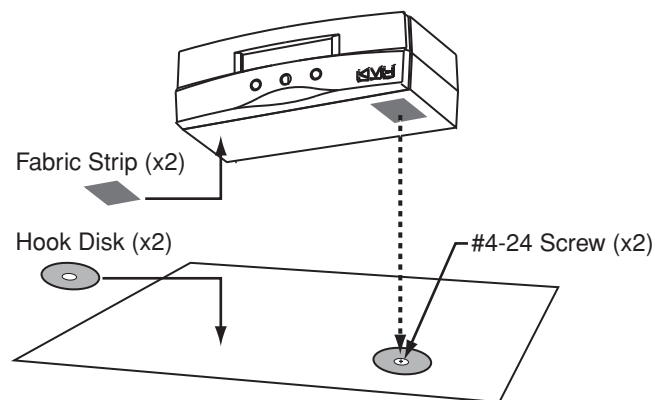
Figure 27: Mounting the Switchplate



MCP - Velcro Mount Option

- Clean and dry the bottom of the MCP and the mounting surface (use a mild detergent).
- Peel the backing from the two supplied Velcro fabric squares and stick them to the bottom of the MCP (see Figure 28).
- Position the two Velcro hook disks onto the mounting surface. Drill screw holes for the disks and secure in place with #4-24 screws.
- Press the MCP firmly into place so that the fabric's loop material engages the hook disks.

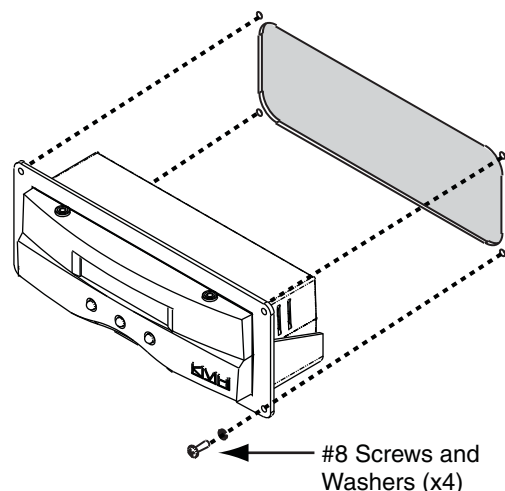
Figure 28: Velcro Mounting the MCP to a Horizontal Surface



MCP- Flush Mount Option

- Make sure the flush mount bracket is attached to the MCP. If it is not attached, disconnect all of the cables from the MCP, attach the bracket as explained in Step 4 on page 6, then reconnect the cables.
- Insert the MCP and bracket assembly into the mounting hole and secure in place with four #8 screws and washers (see Figure 29).

Figure 29: Flush Mounting the MCP to a Vertical Surface



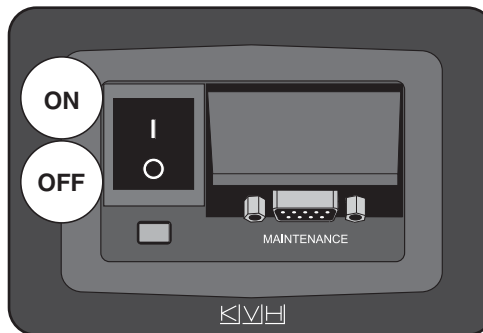
13 Turn On the System

Follow these steps to turn on the TracVision system.

- a. Ensure the antenna has a clear, unobstructed view of the sky so it can receive satellite signals.
- b. Apply power to the satellite TV receiver(s) and TV(s).
- c. Set the switchplate's power switch to the "on" position to apply power to the TracVision system (see Figure 30).
- d. Wait one minute for system startup. When the MCP display shows "Set up satellite(s)," proceed to the next step.

NOTE: For details on configuring a system with a circular or Sky Mexico LNB, disregard the next section and refer to the User's Guide before continuing to page 19.

Figure 30: Switchplate Power Switch



14 Select Satellites

Linear Systems - Tri-Sat

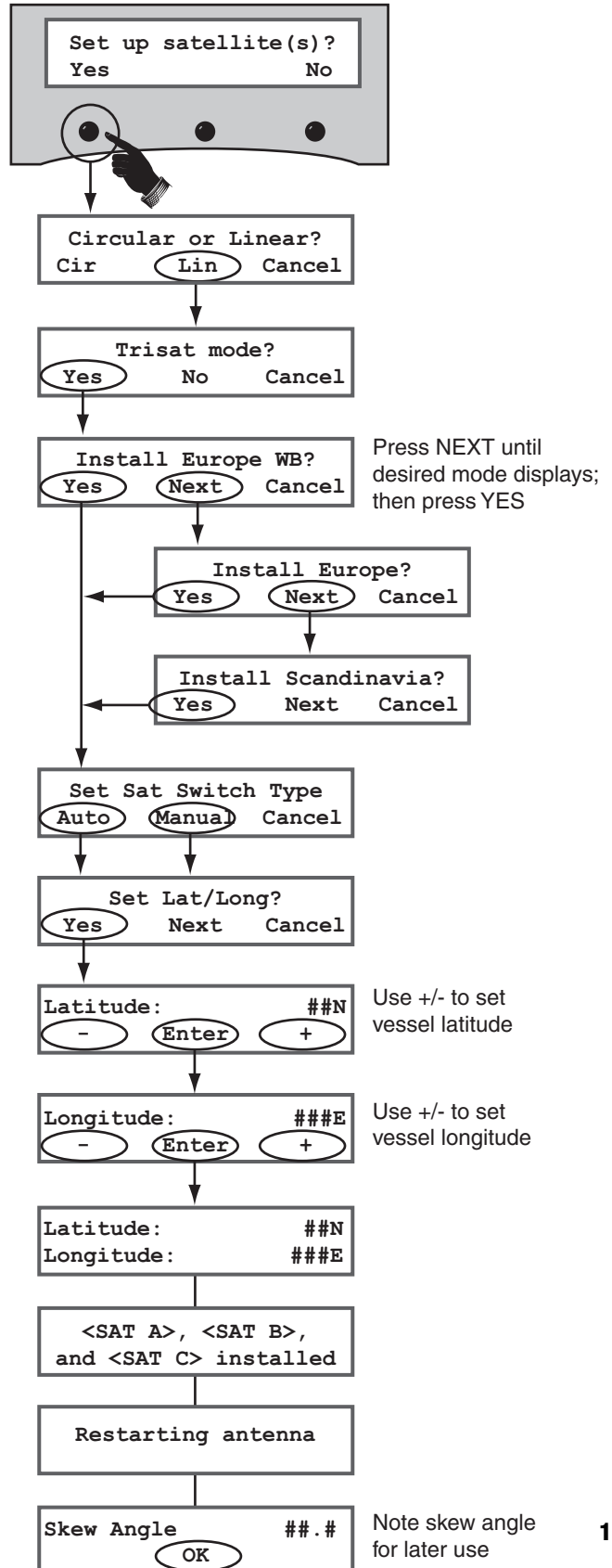
Follow these steps and refer to the flowchart in Figure 31 to set up the system for one of the following European Trisat groups:

Group	Satellites		
	Sat. A	Sat. B	Sat. C
Europe WB	HotbirdWB	Astra1	Astra2S
Europe	Hotbird	Astra1	Astra2S
Scandinavia	HotbirdWB	Sirius	Thor

- At "Set up satellite(s)," press the **YES** button on the MCP's front panel.
- At "Circular or Linear?," press **LIN**.
- At "Trisat Mode?," press **YES**.
- At "Install Europe WB?," press **NEXT** until the display shows the Tri-Sat group you want to select. Then press **YES**.
- At "Set Sat Switch Type," press **AUTO** for automatic satellite switching (*recommended*) or **MANUAL** for manual switching.
- Set up the receiver(s) for the same satellites, and in the same order, as the antenna:

Antenna	Receiver	DiSEqC
Sat. A	Alternative 1 or A	DiSEqC 1
Sat. B	Alternative 2 or B	DiSEqC 2
Sat. C	Alternative 3 or C	DiSEqC 3

Figure 31: European Trisat Group Selection Menus on MCP



14 Select Satellites

Linear Systems - Custom

Follow these steps and refer to the flowchart in Figure 32 to set up the system for a custom pair of satellites from the antenna's library.

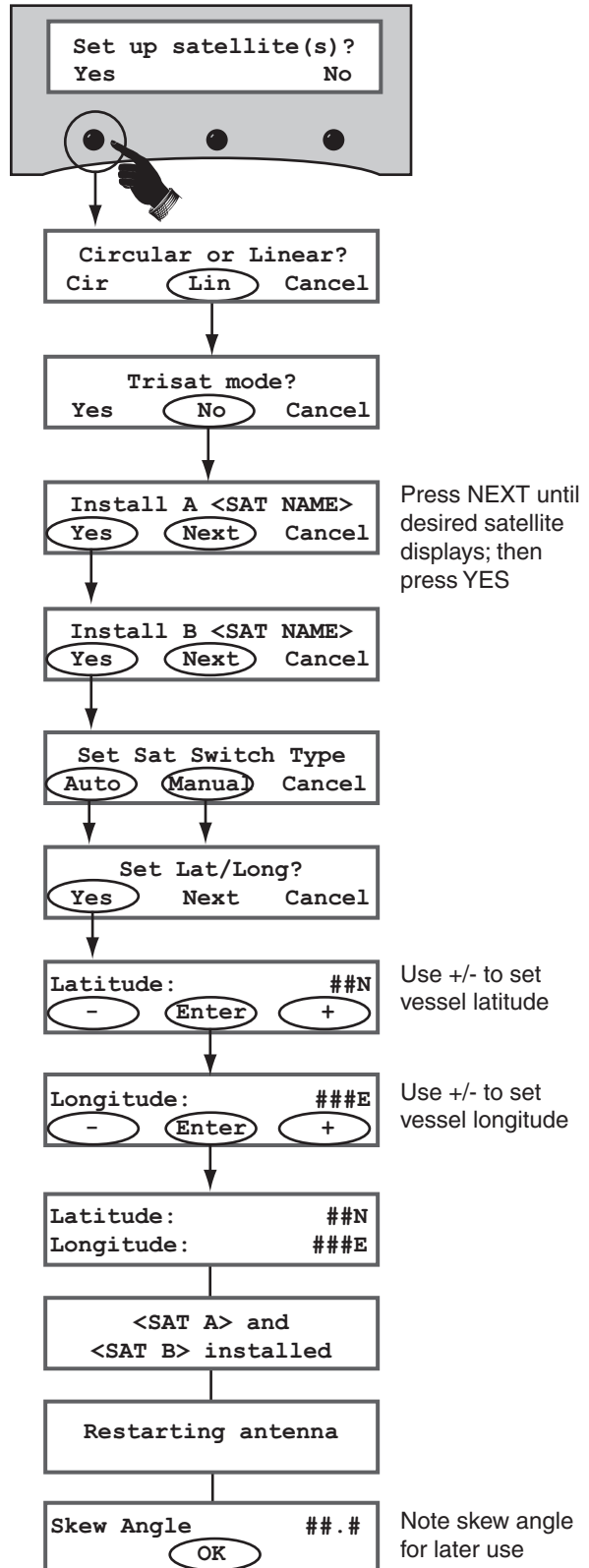
- At "Set up satellite(s)," press the **YES** button on the MCP's front panel.
- At "Circular or Linear," press **LIN**.
- At "Trisat Mode?," press **NO**.
- At "Install A <SAT NAME>," press **NEXT** until the display shows the first (primary) satellite you want to select. Then press **YES**. (See Appendix A on page 20 for a list of available satellites.)

NOTE: If you don't find the satellite you want, you can set up user-defined satellites. Refer to the associated Application Note on the KVH Partner Portal (KVH-authorized technicians only).

- Repeat Step d to select the second satellite. If you want to set up the antenna to track just one satellite, select "None" instead.
- At "Set Sat Switch Type," press **AUTO** for automatic satellite switching (*recommended*) or **MANUAL** for manual switching.
- Set up the receiver(s) for the same satellites, and in the same order, that you set them up in the antenna:

Antenna	Receiver	DiSEqC
Sat. A	Alternative 1 or A	DiSEqC 1
Sat. B	Alternative 2 or B	DiSEqC 2


Figure 32: Custom Pair Satellite Selection Menus on MCP



15 Educate the Customer

Before you leave the vessel, test the system to verify the antenna works properly. Then give the Customer Welcome Kit to the customer and be sure the customer understands the following:

- The receiver(s) must be activated before it can decode satellite TV signals. Refer to Figure 33 for activation details for North America.
- Keep the radome installed on the antenna at all times. The radome protects the antenna's moving parts from wind, rain, and debris.

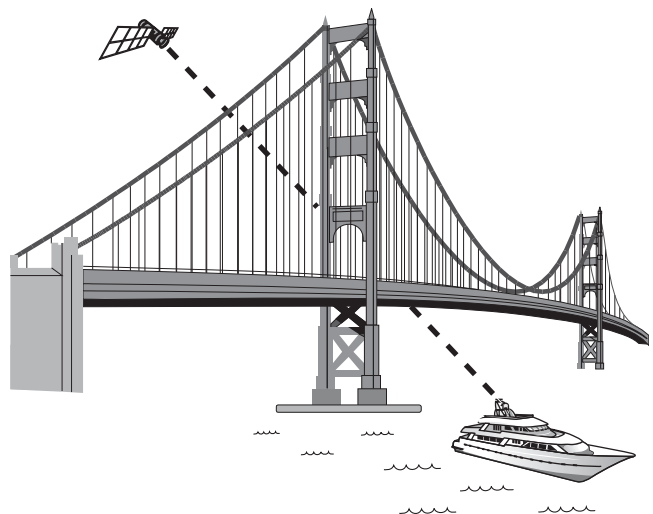
	WARNING
It is dangerous to watch TV while piloting a vessel. While under way, the system is intended for passenger entertainment only.	

- The antenna must have a clear view of the sky to receive satellite TV. Common causes of blockage include trees, buildings, bridges, and onboard equipment (see Figure 34). Heavy rain or snow may also temporarily interrupt reception.
- Clean the antenna regularly. Dirt buildup on the radome can affect reception.
- **DISH 1000 modes only:** You might need to change the operating mode when traveling between regions (see "Select Satellites" on page 17).
- The vessel must be located within the selected satellite's coverage area to receive its satellite TV signals. To view satellite coverage maps, visit www.kvh.com/footprint.
- Please register the system with KVH. The registration process is quick, easy, online, and ensures the best possible service from KVH. Visit www.kvh.com/register or refer to the Product Registration Form for details.
- Refer to the *User's Guide* for operation and troubleshooting information.

Figure 33: North American Receiver Activation Information

Service:	Call to Activate:
DIRECTV	1-866-551-8004 (24 hours, 7 days a week)
DISH Network	1-866-399-8509 (Mon.-Fri., 8:30am - 5pm ET)
Bell TV	1-888-759-3474 (SKY-DISH) (24 hours, 7 days a week)

Figure 34: Example of Satellite Blockage



A Satellite Library

The TracVision antenna can track a variety of DVB-compatible and DSS (DIRECTV) satellites. Most popular satellites are programmed in the antenna's library (see the tables below).

NOTE: Refer to the User's Guide for details on setting up circular systems.

North America

Circular LNB Required

Satellite, Longitude	Name in Library
DIRECTV, 72°W	DSS_72
DIRECTV, 101°W	DSS_101
DIRECTV, 110°W*	DSS_110
DIRECTV, 119°W	DSS_119
EchoStar, 61°W	ECHO_61
EchoStar, 110°W	ECHO_110
EchoStar, 119°W	ECHO_119
EchoStar/Ciel 2, 129°W	ECHO_129
Bell TV, 82°W	EXPRESSVU
Bell TV, 91°W	EXPRESSTV

* DIRECTV HD not supported.

Asia

Linear LNB Required

Satellite, Longitude	Name in Library
Asiasat 4, 122.2°E	ASIASAT

Latin America

Galaxy Circular LNB Required

Satellite, Longitude	Name in Library
Galaxy 3C, 95°W	GALAXY3CN

Europe

Linear LNB Required

Satellite, Longitude	Name in Library
Astra 1, 19.2°E	ASTRA1
Astra 2N, 28.2°E	ASTRA2N
Astra 2S, 28.2°E	ASTRA2S
Hispasat, 30.0°W	HISPASAT
Hotbird, 13.0°E	HOTBIRD
Astra 3, 23.5°E	ASTRA3
Astra (Sirius), 5.0°E	SIRIUS
Thor, 0.8°W	THOR
Arabsat/Badr 4, 26°E	ARABSAT
Nilesat, 7°W	NILESAT
Turksat 1C, 42°E	TURKSAT1C
Eutelsat W3A, 7°E	EUTEL_W3A

Mexico

Linear LNB Required

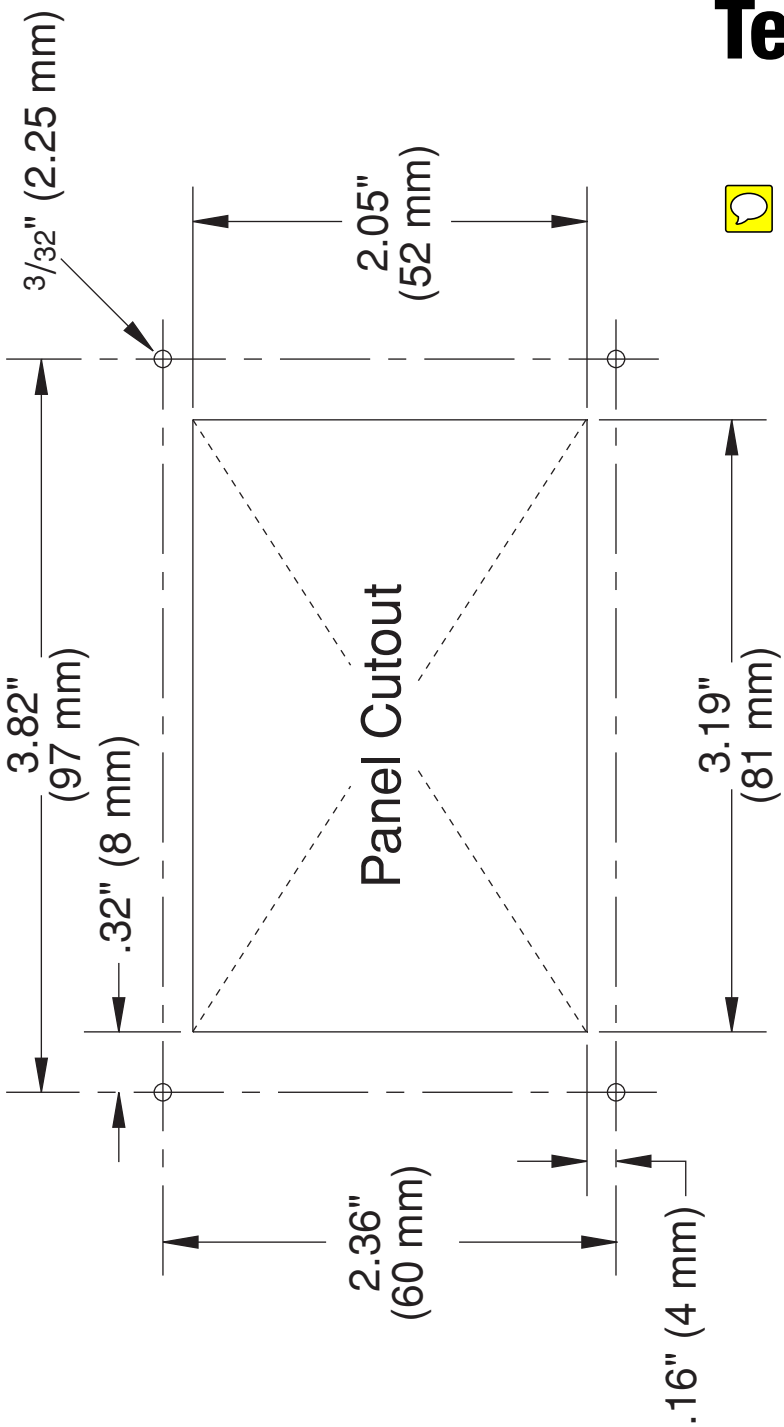
Satellite, Longitude	Name in Library
PAS 9/Intelsat 9, 58°W	PAS_9

Australia & New Zealand

Linear LNB Required

Satellite, Longitude	Name in Library
Optus D1, 160°E	OPTUS_D1
Optus C1, 156°E	OPTUS_C1

Switchplate Mounting Template





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