



5.8GHz All Weather 8 Channel Series

OWNER'S MANUAL

VideoComm Technologies – “The Freedom of Wireless”

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SAFETY NOTICES

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- * Reorient or relocate the receiving antenna.
- * Increase the separation between the equipment and receiver.
- * Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- * Consult the dealer or an experienced radio/TV technician for help.

Tools Required



The 5.8GHz All Weather 8 Channel Series is designed to be “Plug & Play” and simple to install with minimal tools. The following is a list of recommended tools to setup your system.

Coaxial Cable Stripper - For preparing video & audio coaxial cable.

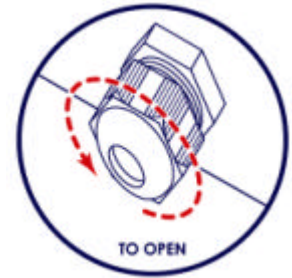
Wire Stripper – For preparing alarm input and power wires.

Phillips Screw Driver – Used for unscrewing the front cover of the IP-67 enclosure to gain access to video, audio, alarm input and power terminations.

Mini Flat Head (Slot) Screw Driver – Used for changing the receiver antennas polarization from horizontal to vertical. (if required)

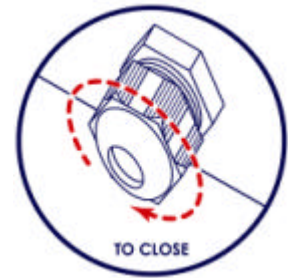
Metric 22mm Wrench (Closest Imperial Size – 7/8”) - Used for tightening or loosening the three larger all weather cable glands.

Do not use pliers as they may cause damage to the cable glands



Metric 15mm Wrench (Closest Imperial Size – 5/8”) – - Used for tightening or loosening the single small all weather cable gland.

Do not use pliers as they may cause damage to the cable glands



Hand Held LCD Monitor – Recommended for verifying video images at input to transmitter and output from receiver. Perfect for camera angle and focus adjustment.

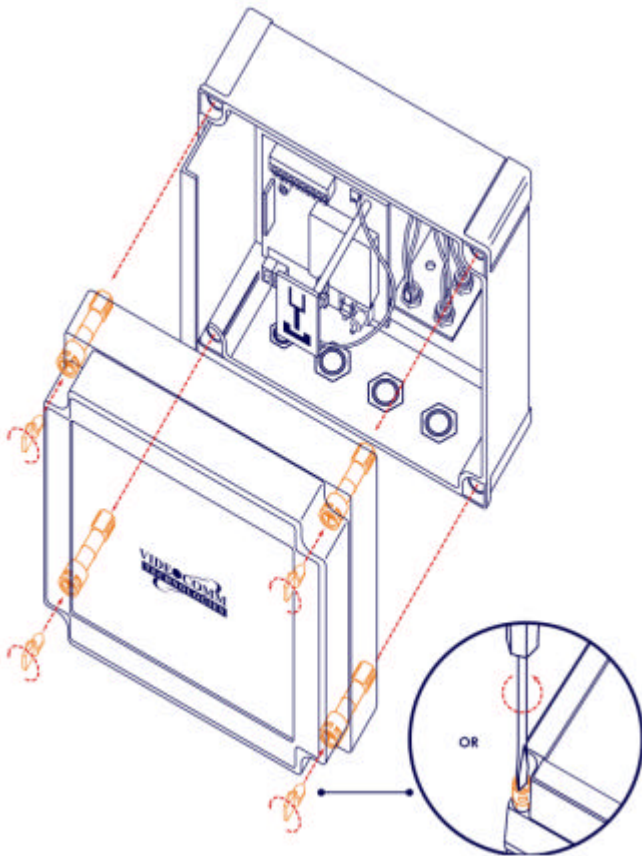
Multimeter – Measures voltage output, amperage, resistance and cable continuity.

Do Not Use Pliers - the pliers rigid grip may cause damage to the cable glands and the all weather IP-67 enclosure.

Opening & Closing The All Weather Enclosure

To make all video, audio, alarm input and power terminations we must access the interior of the enclosure by removing the front cover.

The front cover can be removed two ways:



- 1 Loosen screws using the thumb tab screw covers.

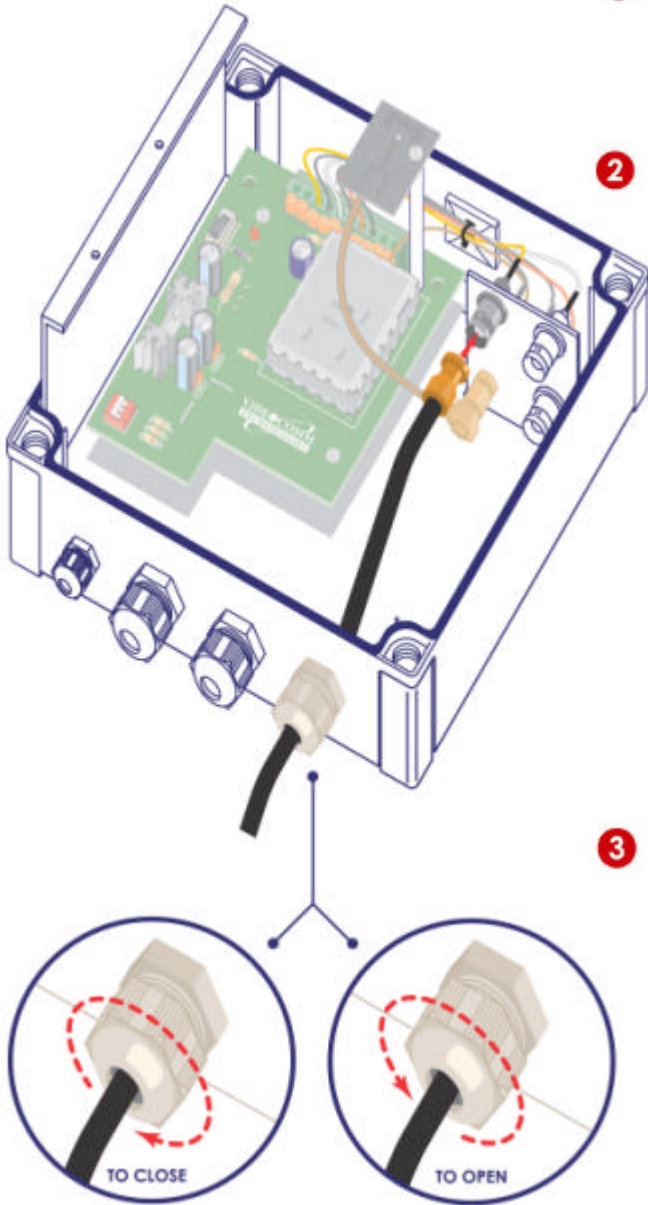


- OR -

- 2 Use a Phillips or flat head (slot) screwdriver to loosen the screws.

WARNING!!! When closing the enclosure do not over-tighten.

Video & Audio Cable Installation & Termination



1 Loosen the desired cable gland using a Metric 22mm wrench.
(Closest Imperial Size – 7/8”)

2 Feed the video and audio cable through the cable gland hole.

VideoComm Technologies recommends the use of RG-59 or higher grade coaxial cable for video and audio.

Do not use video / audio cable that is less than ¼ inch in diameter, as this may not allow a proper seal when the cable gland is tightened. If a tight seal is not made between the cable gland and the video cable, there is a chance of water leaking into the enclosure, causing serious damage.

The maximum diameter of cable that should be used in the cable gland is ½ an inch diameter.

3 **IMPORTANT!!!** Attach BNC - male connectors to the video and audio cables *after* the raw cable has been fed through the cable gland. The BNC (M) connectors are too large to fit through the cable gland hole. Be careful not to damage the rubber seal inside the cable gland as you feed through your video cable.

Attach BNC (M) connectors to the video and audio cables.

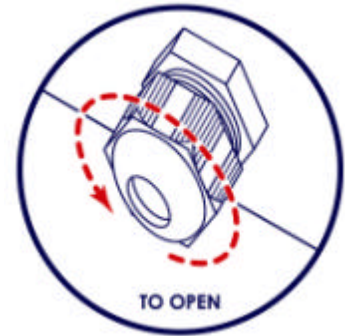
After the BNC (M) connectors have been attached to the wire make terminations to video and audio bulkhead BNC (F) connectors for the device.

WARNING!!! If you do not tighten the cable gland, you do not have a watertight seal.

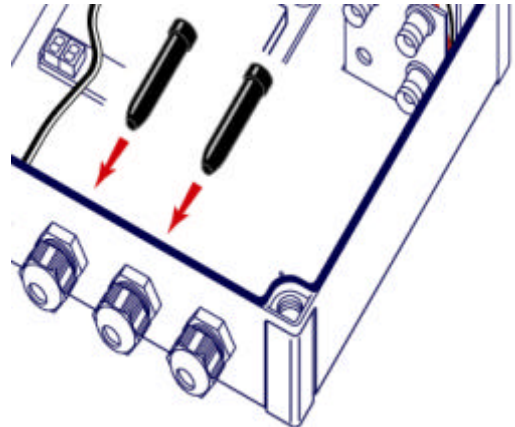
Unused Grommet Seals

After video and audio cables are installed and terminated you may find there one or more cable glands are not being used. If there are cable glands not being used this means that water can enter the enclosure, causing damage. To prevent this from happening, VideoComm includes black plugs to seal off any unused cable glands.

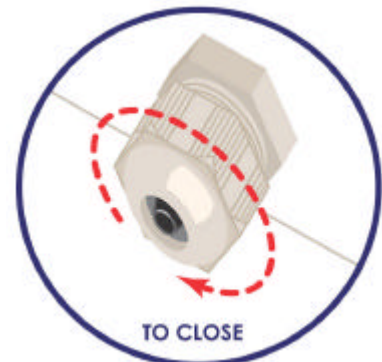
- 1 Turn cable gland counter clock wise to loosen. Use a Metric 22mm wrench. (*Closest Imperial Size – 7/8"*)



- 2 From the inside of the enclosure, insert black plugs into unused cable glands.



- 3 Using a Metric 22mm wrench (*Closest Imperial Size – 7/8"*), turn the cable gland clock wise to tighten; this will make a watertight seal. Do not over tighten.



IMPORTANT! Failure to tighten the cable gland may result in water

damage, not covered under manufacturer warranty.

Power Supply Connection

Inside the enclosure you will find a green terminal strip with orange terminal lock tabs.

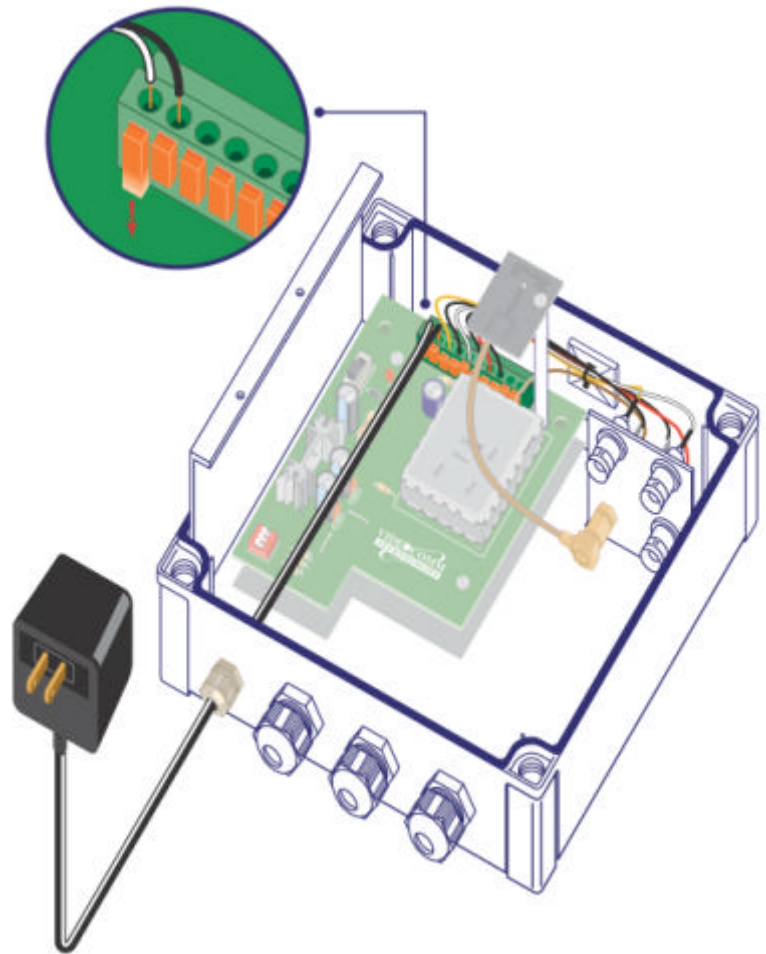
WARNING! Transformer must not be powered while making connections to the terminal strip. An electrical short can occur, causing harmful damage to the unit.

1 Turn the small cable gland counter clock wise to loosen. Use a Metric 15mm wrench. (*Closest Imperial Size – 5/8"*)

2 Feed the power cable wire through the cable gland hole.

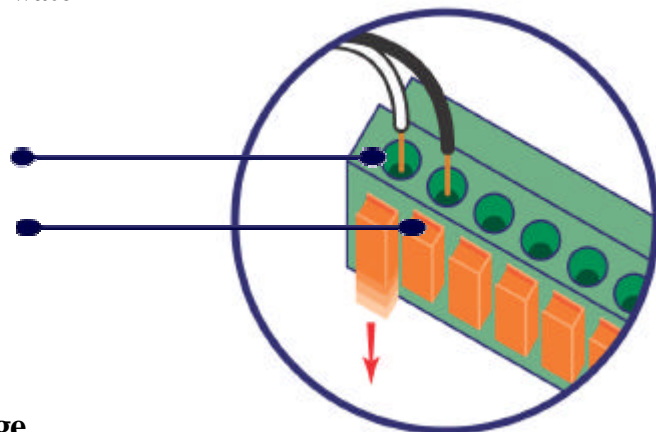
3 Push down the orange lock tabs to open the terminal input. Insert negative (-) and positive (+) wire leads as illustrated. *See Figure 5* Release the orange terminal lock tab. Ensure the wire is locked tight into the terminal to avoid an electrical short.

4 Re-tighten the cable gland and ensure water tight seal



POSITIVE (+) 9 – 14VDC INPUT

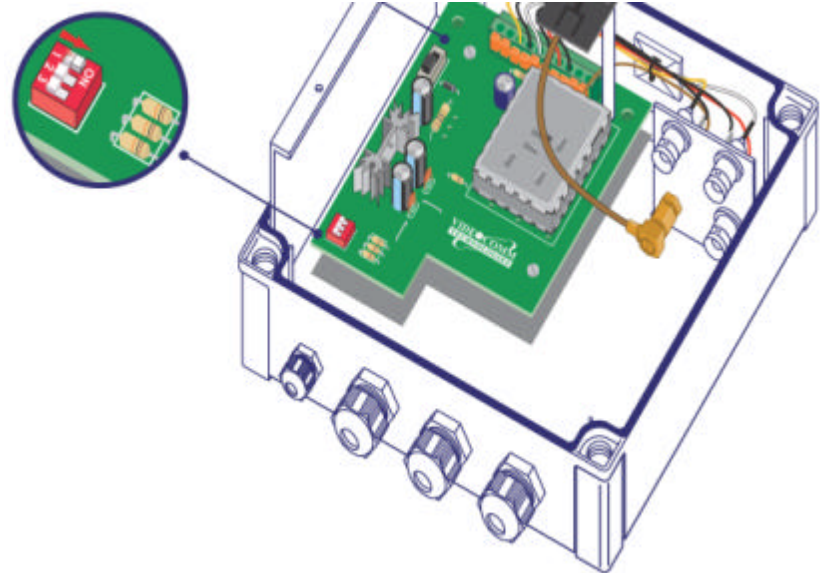
NEGATIVE (-) 9 – 14 VDC INPUT



IMPORTANT! Failure to tighten the cable gland may result in water damage, not covered under manufacturer warranty.

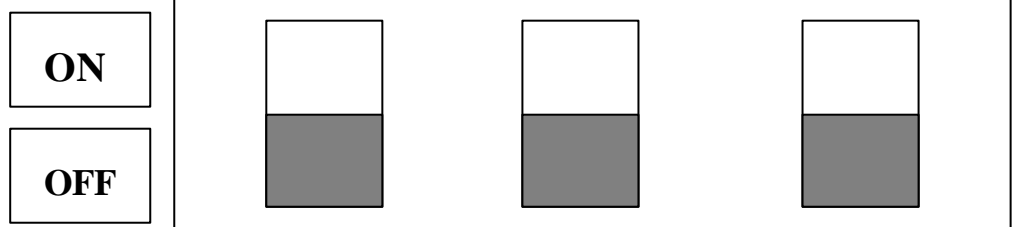
Figure 5

Channel Selection



The TCO-5808 All Weather Series has 8 channel user selectable. On the inside of the transmitter and receiver you will find three dip switches as illustrated.

Dip Switches

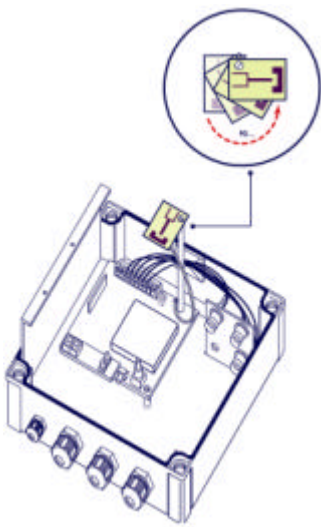


	Frequency	PIN 1	PIN 2	PIN 3
Channel # 1	5.733 GHz	OFF	OFF	OFF
Channel # 2	5.752 GHz	ON	OFF	OFF
Channel # 3	5.771 GHz	OFF	ON	OFF
Channel # 4	5.790 GHz	ON	ON	OFF
Channel # 5	5.809 GHz	OFF	OFF	ON
Channel # 6	5.828 GHz	ON	OFF	ON
Channel # 7	5.847 GHz	OFF	ON	ON
Channel # 8	5.866 GHz	ON	ON	ON

Antenna Polarization

When installing multiple 5.8GHz wireless systems at the same installation site, you will need to alternate the radio frequency polarization for each wireless link. The TCO-5800 series of transmitters and receivers can be user adjusted for either vertical or horizontal polarizations. Alternating each wireless link between vertical and horizontal polarization improves the attenuation between adjacent channels and minimizes the risk of interference between wireless links.

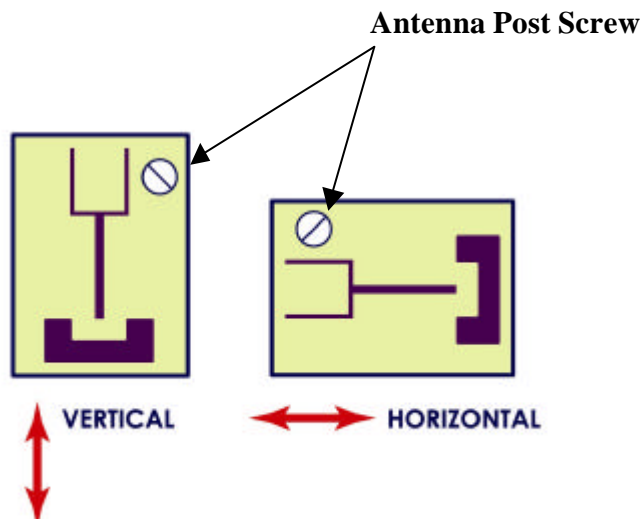
Changing Transmitter Antenna Polarization



- 1** To adjust the transmitting antenna for either horizontal or vertical polarization, first carefully loosen the screw that secures the antenna to its post.
Do not to scratch or bend the antenna as this will affect transmitting performance.
- 2** Rotate the antenna to desired vertical or horizontal polarization as shown in the diagram below.

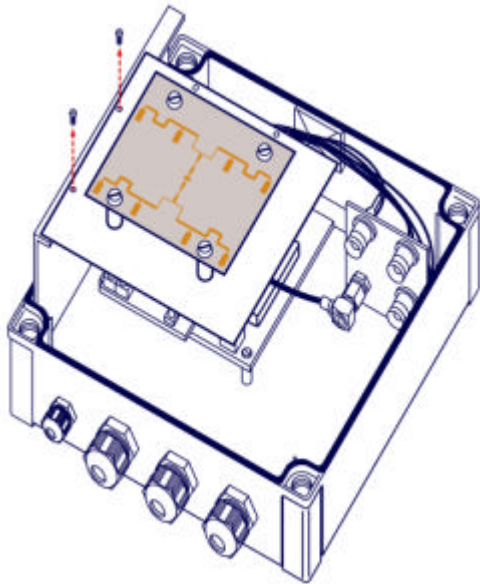
CAUTION Do not over twist the antenna cable as this may cause damage.
- 3** After positioning the antenna, carefully re-tighten the screw that secures the antenna to its post.
Do not over tighten

Transmitter Antenna Polarization



Antenna Polarization Continued...

Changing Receiver Antenna Polarization

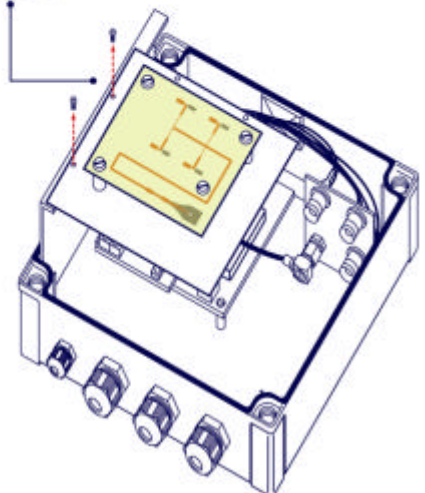
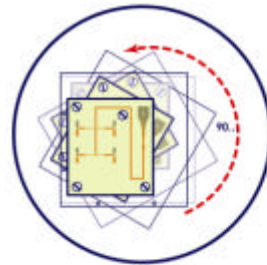


- 1** To change the polarization of the receiver antenna, carefully unscrew the two nylon screws that hold the antenna to internal metal mounting bracket. Do not to scratch or bend the antenna as this will affect receiving performance The screws are located on the edge of the metal RF reflector, on the left hand side.

- 2** Rotate the antenna to desired vertical or horizontal polarization as shown in the diagram below.

CAUTION Do not over twist the antenna cable as damage may occur.

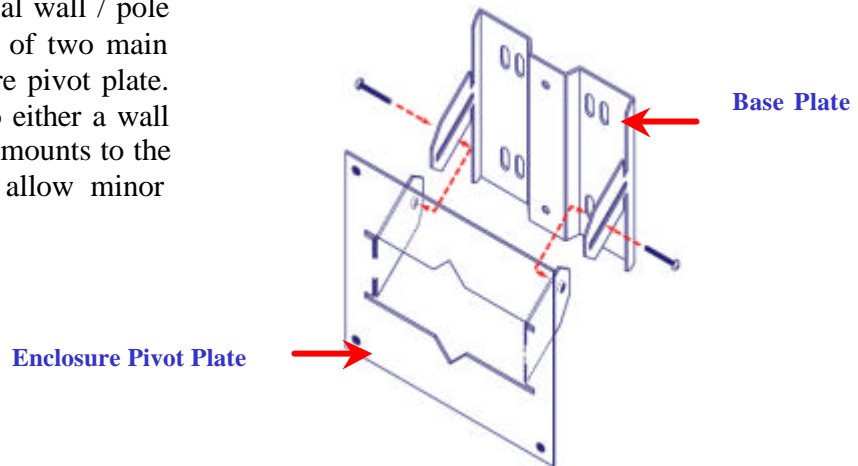
- 3** After positioning the antenna, carefully re-tighten the two screws that secures the antenna to the metal bracket. Do not over tighten the nylon screws.
- 4** Ensure the antenna cable is securely attached to the connector located on the strain relief of the RF reflector.



INSTALLATION

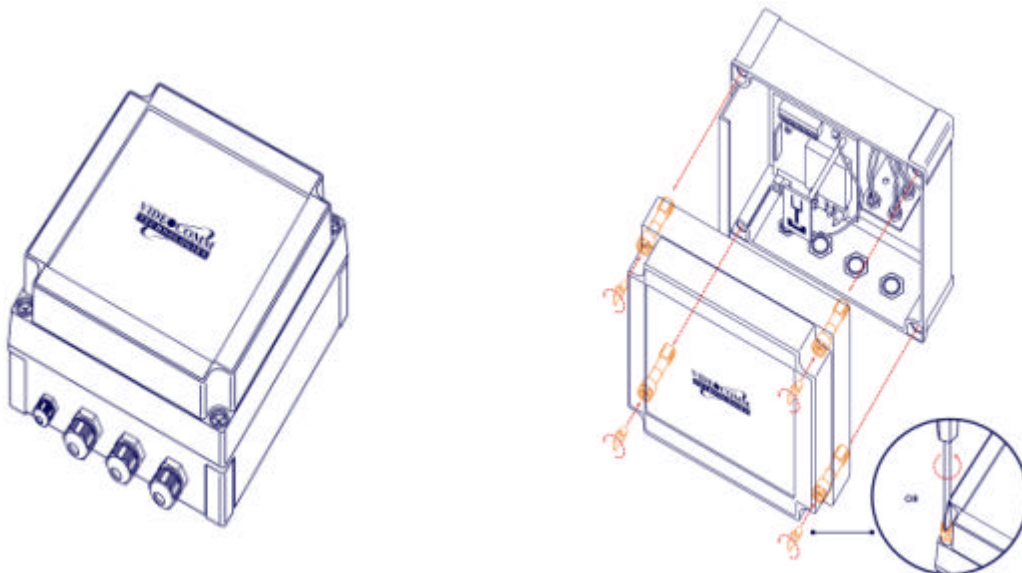
Mounting the 5.8GHz All Weather Series

Your enclosure includes a universal wall / pole mounting bracket, which consists of two main parts. The base plate and enclosure pivot plate. The base plate will be mounted to either a wall or pole. The enclosure pivot plate mounts to the enclosure and the base plate to allow minor angled adjustments.

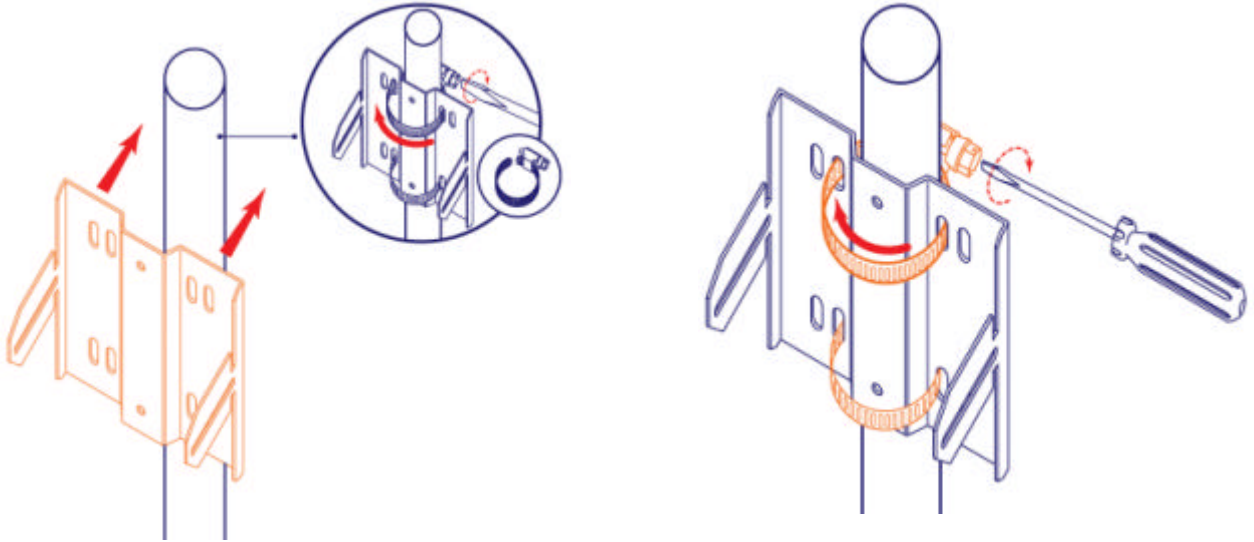


Pole Mounting

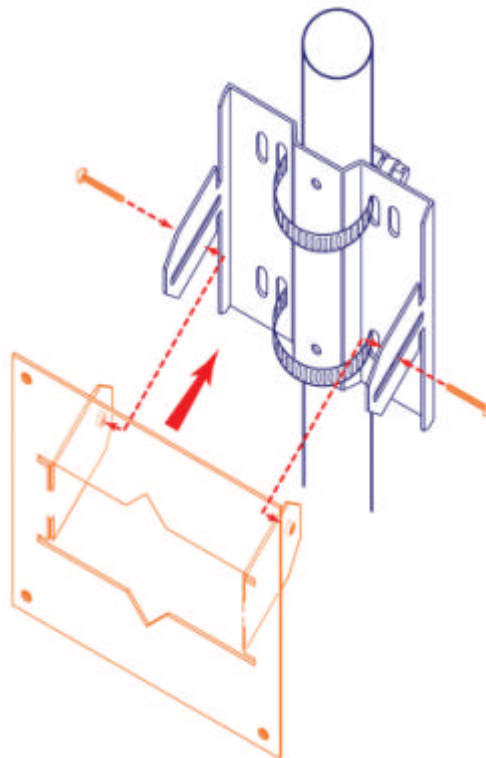
- 1 Remove the front cover of the enclosure (See also Page 13). This allows access to the four mounting screw ports, located in each corner of the IP-67 enclosure.



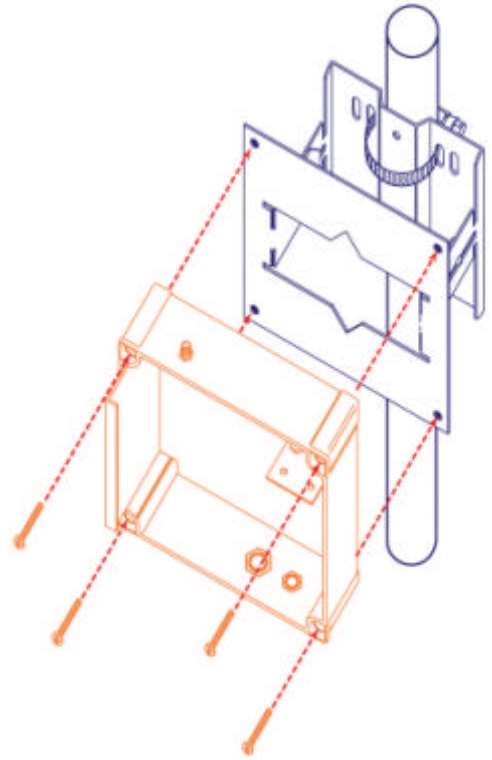
- 2** Using the mounting bracket, fasten the base plate of the bracket to the mounting pole with hose clamps.



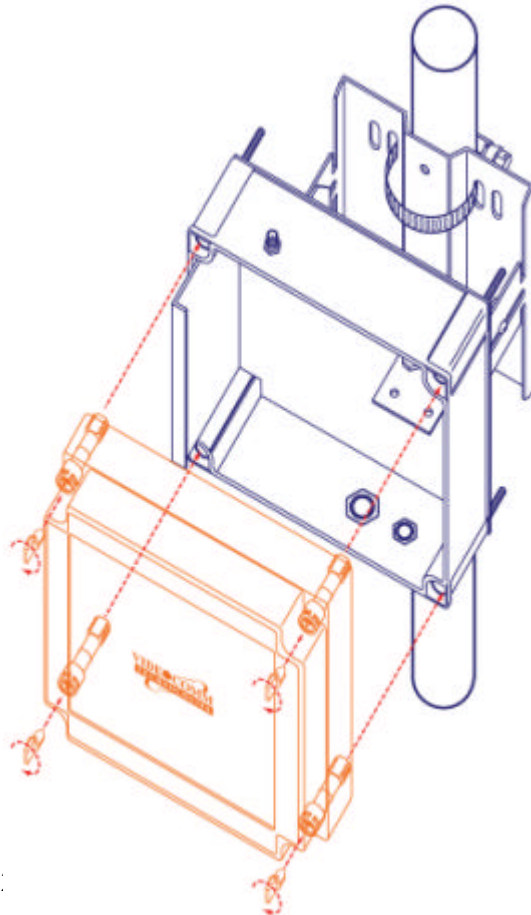
- 3** Attach the two pieces of the BRK-250 bracket, the base plate and enclosure pivot plate, using two 4 x 11/32" mounting screws, one screw per side. Do not tighten until alignment is complete.



- 4 Insert the four 4 x 11/32" mounting screws into each screw port of the IP-67 enclosure



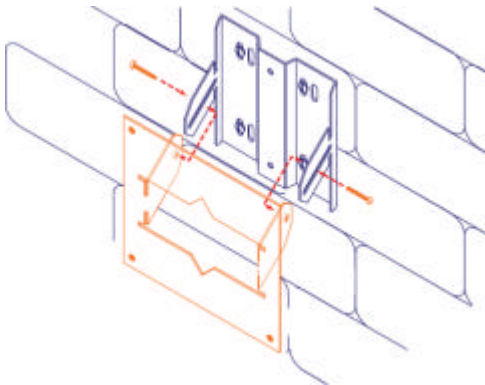
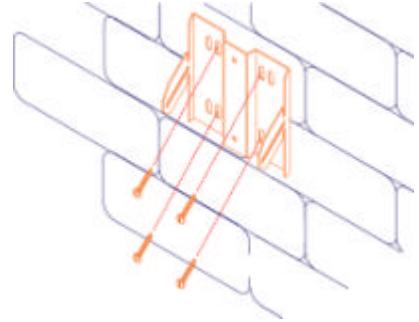
- 5 Fasten the enclosure pivot plate to the IP-67 enclosure base, by tightening the 11/32" bolts until snug. Do not over tighten. Ensure the grommet seals are pointing down to avoid water damage.



- 6 Re-attach the enclosure lid and tighten screws.

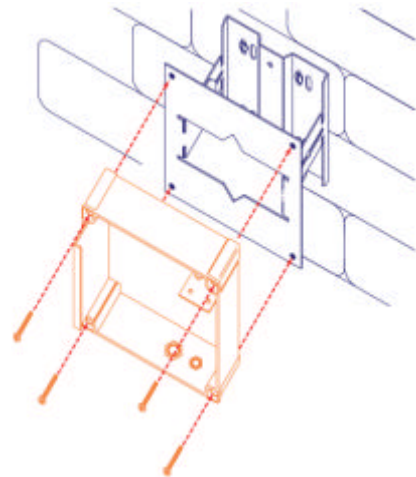
Wall Mounting

- 1** Mount the base plate of the BRK-250 to the wall using four screws or bolts (not included). Ensure the mount is secure and will be able to support the weight of the transmitter or receiver.



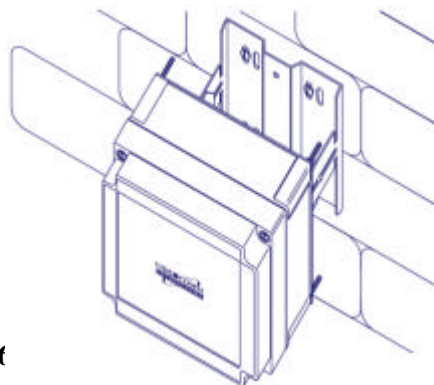
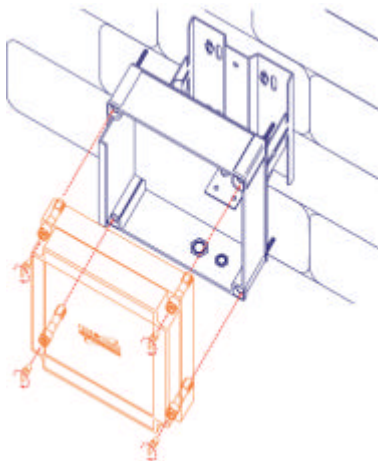
- 2** Attach the base plate and enclosure pivot plate of the BRK-250 bracket using two 4 x 11/32" mounting screws, one screw per side.

- 3** Insert the four 4 x 11/32" mounting screws into each screw port of the all weather enclosure.



- 4** Fasten the mounting bracket to the IP-67 enclosure by tightening the 11/32" bolts until snug. Do not over tighten.

- 5** Replace the front cover of the transmitter or receiver. Do not over tighten the screws as this can crack or cause damage to the front cover of the unit. Verify all cable glands are snug, water tight seal.



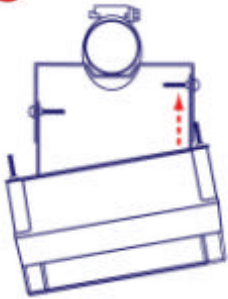
Alignment of the BRK-250 Mounting Bracket

All applications are not created equal. From time to time the transmitter or receiver will have to be tilted up, down, left or right to have proper alignment to the other unit.

Poor alignment can result in a poor image. Below are steps to adjust the BRK-250 mounting bracket to ensure proper alignment.

Adjusting The Mounting Bracket Right or Left

1

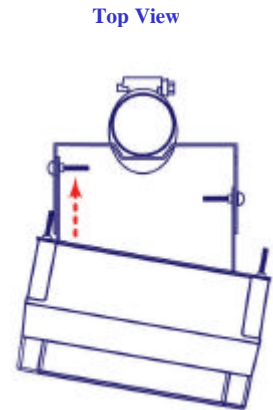


Top View

To tilt the bracket to the left push the right hand side in, leaving the left hand side at it's full length.

2

To tilt the bracket to the right push the right hand side in, leaving the right hand side at full length.

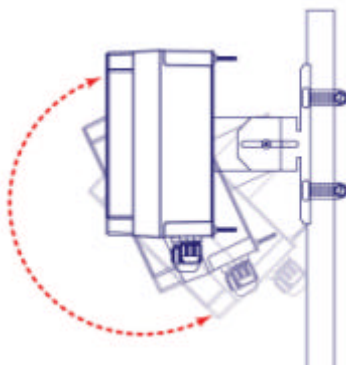


Top View

Adjusting The Mounting Bracket Up or Down

1

To align the transmitter or receiver up simply tilt the bracket up or down.



Side View

