



TROUBLESHOOTING GUIDE

Digital HDTV Over-the-Air Antennas

Classic KING Jack

OA8120/21 Series
OA8160/61 Series
OA8200/01 Series
OA8220/21 Series



KING Jack

OA8400/01 Series
OA8500/01 Series



11200 Hampshire Avenue South, Bloomington, MN 55438
PH 952.922.6889 || FAX 952.922.8424 || kingconnect.com

IMPORTANT! This Troubleshooting Guide contains information for both newer and older style KING Jack antennas. Please make sure to use the correct sections for your style antenna.

NOTE: Depending on the model, KING Jack antennas may or may not have a KING SureLock™ Signal Meter installed in the interior enclosure. Variations to operation and troubleshooting because of this are called out where necessary.

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The KING Service Department is dedicated to providing its dealers and customers with the highest possible level of satisfaction and service.

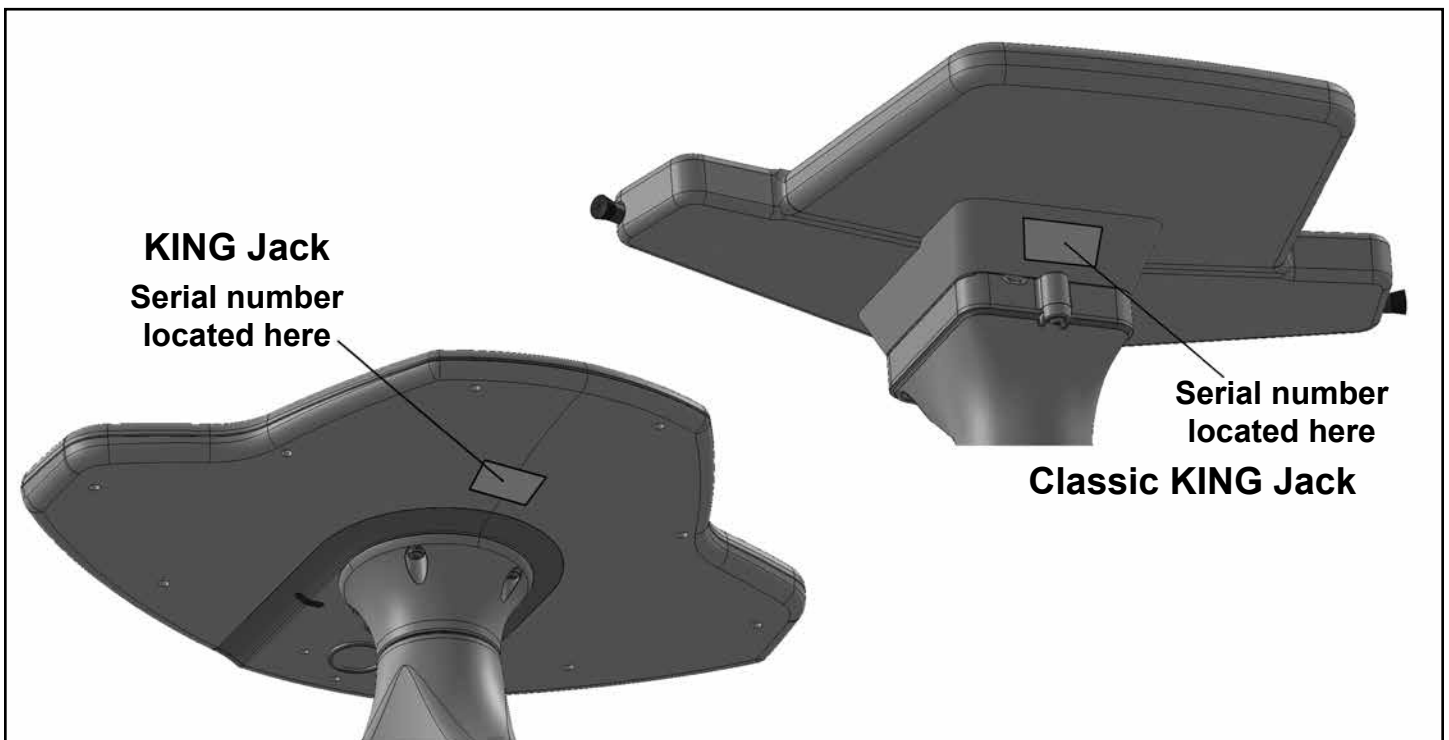
The KING Service Department stays up to date with the latest information to assist you in keeping troubleshooting and repair time to a minimum.

When calling our service department, a KING technician will

- Issue a Customer ID Number (or Case Number) and create a call log to aid in properly documenting the warranty claim.
- Clearly define the proper course of action to follow.
- Issue a Service Order Number (if any work is to be performed or parts replaced).

IMPORTANT!

For warranty reimbursement, you must call KING for a Service Order Number BEFORE performing any work: (952) 922-6889.



Section 2 WARRANTY INFORMATION (All Jacks)

KING Jack Antennas are covered by a limited warranty from the date of original purchase.

KING JackFour-year parts and one-year labor

Classic KING Jack.....Two-year parts and one-year labor

This warranty does not cover installation, external wiring, refurbished units or the following:

- The product has been abused, misused, improperly installed or improperly maintained.
- The product has been used with an accessory other than a KING accessory designed for the product.
- Repairs have been made or attempted by others that are not certified by KING to do such repairs.
- Repairs are required because of normal wear and tear.
- Alterations have been made to the product.
- The product or any associated component has been opened without authorization or disassembled to any degree.
- Damage has been caused by powerwashing.
- Circumstances beyond the control of KING cause the product to no longer operate correctly.
- Customer is not the original owner.

PROCESSING A WARRANTY CLAIM

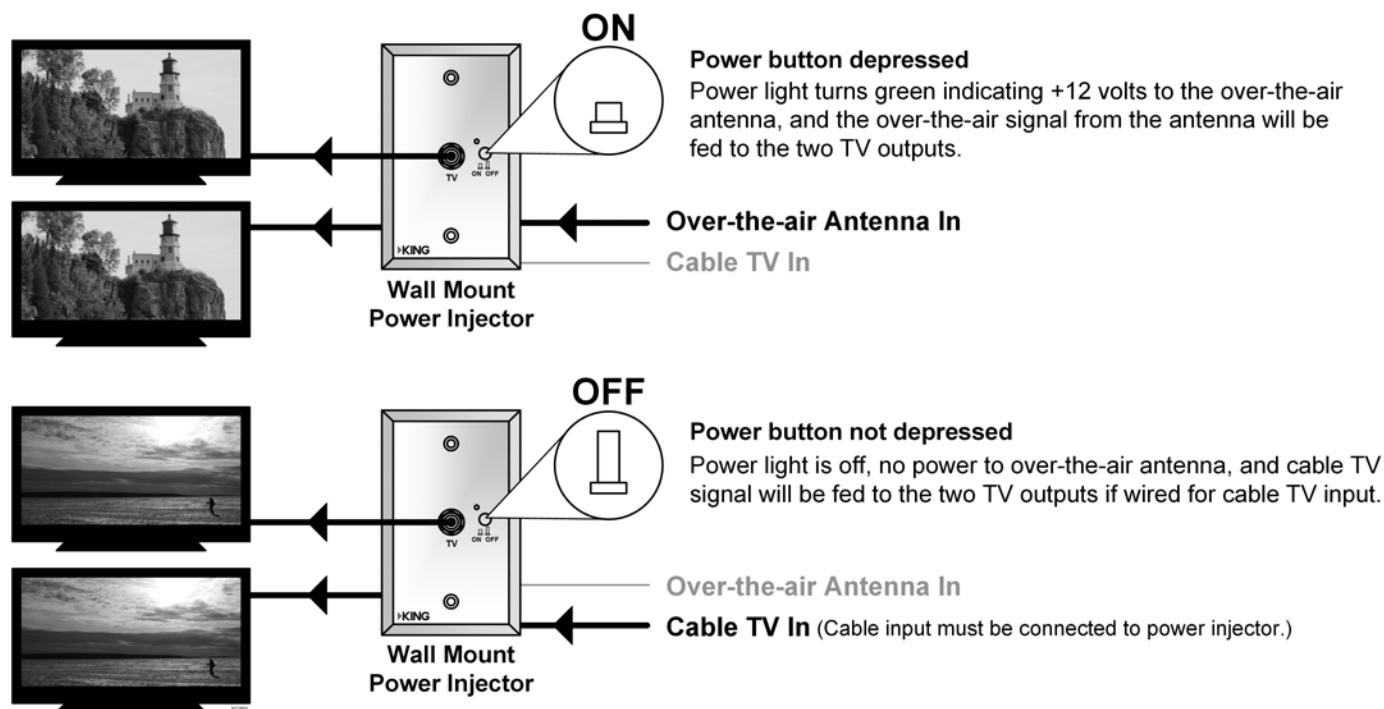
IMPORTANT! Only KING certified dealers are authorized to perform warranty evaluations and repairs.

- 1) Technician must first determine if the unit is under warranty by verifying original owner and date of original purchase. Dealer must provide one of the following when submitting a warranty claim:
 - copy of original purchase receipt, or
 - if unit was installed by an OEM, verification of in-service date
- 2) Technician must call KING to get a Service Order Number (952) 922-6889. Technician must not proceed without a Service Order Number.
 - A KING technician will issue a Service Order Number and advise technician on how to proceed.
- 3) After repairs are completed, the following must be sent to KING:
 - Defective Part if requested by KING (Warranty Labor Claim will not be processed until part is returned.)
 - Warranty Consideration Form
 - Copy of Work Order
 - Proof of Purchase

KEY POINTS

- 1) For units in service longer than one year, the customer is responsible for labor time.
- 2) Installation parts (for example coax cables) are not covered.
- 3) Replacement parts are sent directly from KING. **DO NOT USE NEW PRODUCT FOR WARRANTY REPLACEMENT WITHOUT WRITTEN AUTHORIZATION FROM KING.**
- 4) Technician must call KING before performing any work for which warranty labor reimbursement will be submitted to KING. A KING technician will issue a Service Order Number and specify the allotted time for the repair. If repairs will take longer than the allotted time, and the servicing dealer wishes to receive proper reimbursement, the technician must receive prior authorization to exceed the allotted time.
- 5) Warranty claims must include: proof of purchase, Warranty Consideration Form with Service Order Number, and copy of work order with labor time which matches that allotted by KING.
- 6) KING shall reimburse the servicing dealer for warranty work at their published labor rates.
- 7) If returning defective part, include paperwork with part. Clearly mark the Service Order Number on outside of box.

Section 3 WALL MOUNT POWER INJECTOR OPERATION (All Jacks)



Section 4 AIMING THE ANTENNA: WITH METER (All Jacks)

1. Turn on TV and power injector.
2. Turn on KING SureLock Signal Meter with switch on side of enclosure.

3. Press button and turn knob to rotate antenna in one direction until it hits the stop.

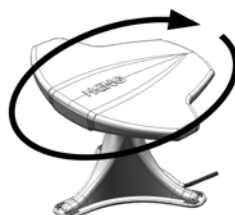
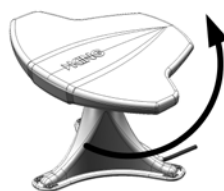
4. Rotate attenuator dial fully clockwise.



5. Rotate antenna a full 360 degrees. Antenna will hit stop again.

As you rotate it, note where the maximum number of LEDs illuminate on signal meter.

Rotate the antenna back to where the most LEDs illuminated.



Arrow on knob indicates which direction antenna is pointing.

LEDs will illuminate from left (next to power) to right.

All LEDs may not illuminate depending on signal strength.

6. Rotate attenuator dial counter clockwise until last illuminated LED flickers.

7. Rotate antenna back and forth slightly to illuminate flickering LED.

8. Repeat steps 6 and 7 to pinpoint signal reception.

9. Follow instructions in TV or converter box owner's manual to scan for available channels. Watch TV!

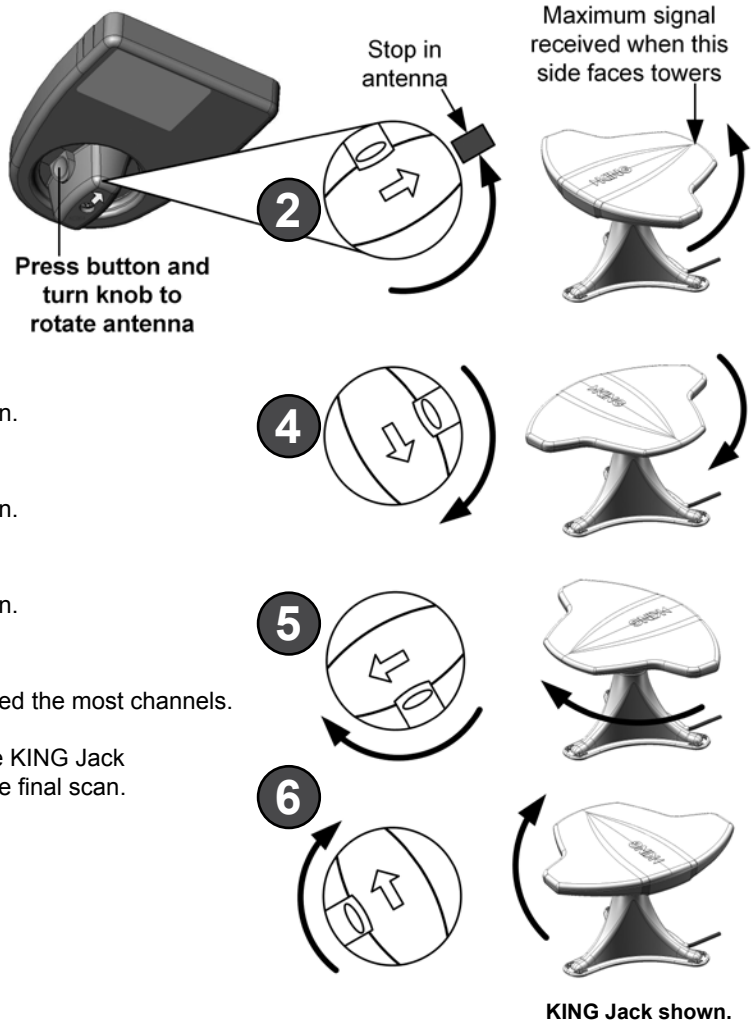


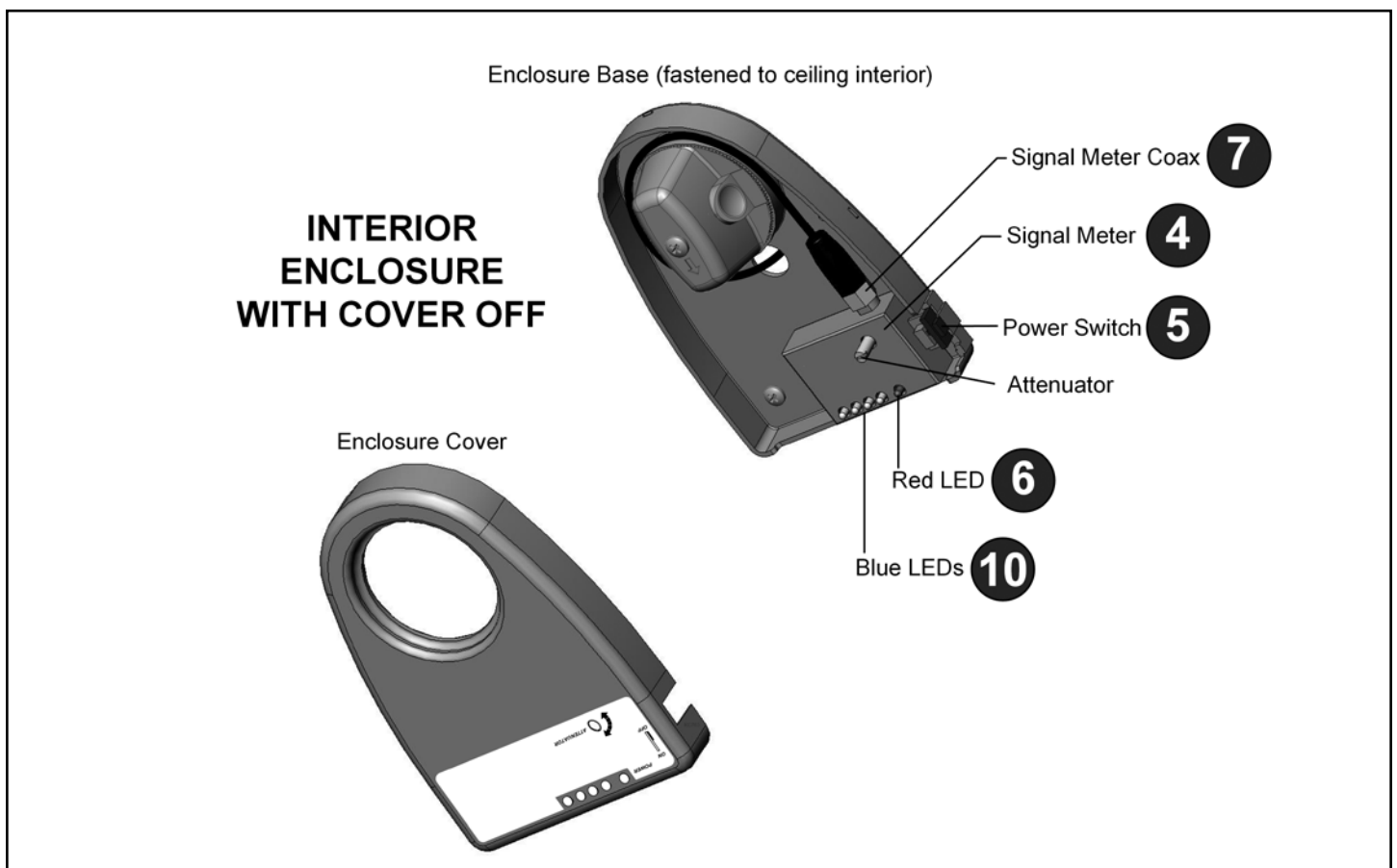
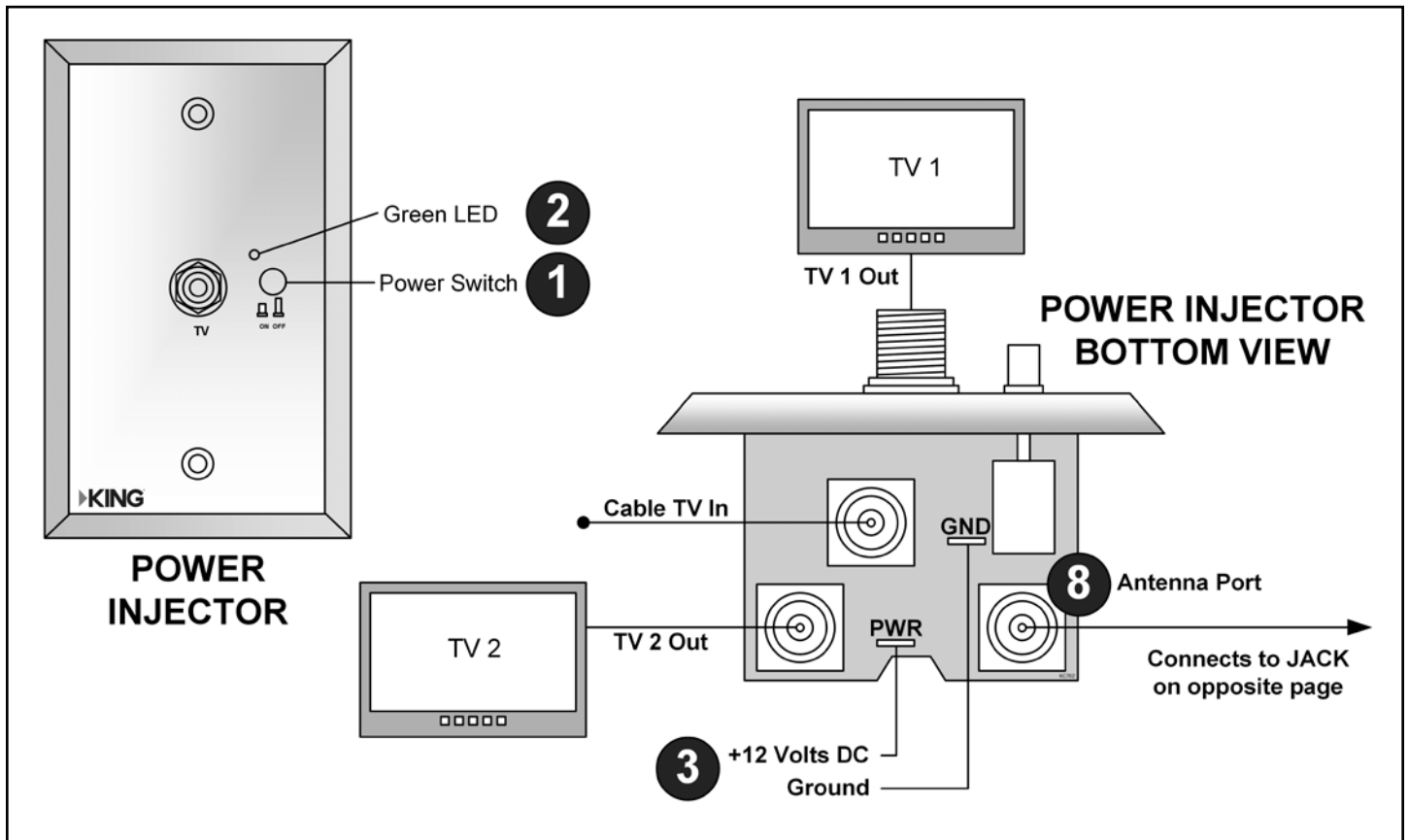
Section 5 AIMING THE ANTENNA: WITHOUT METER (All Jacks)

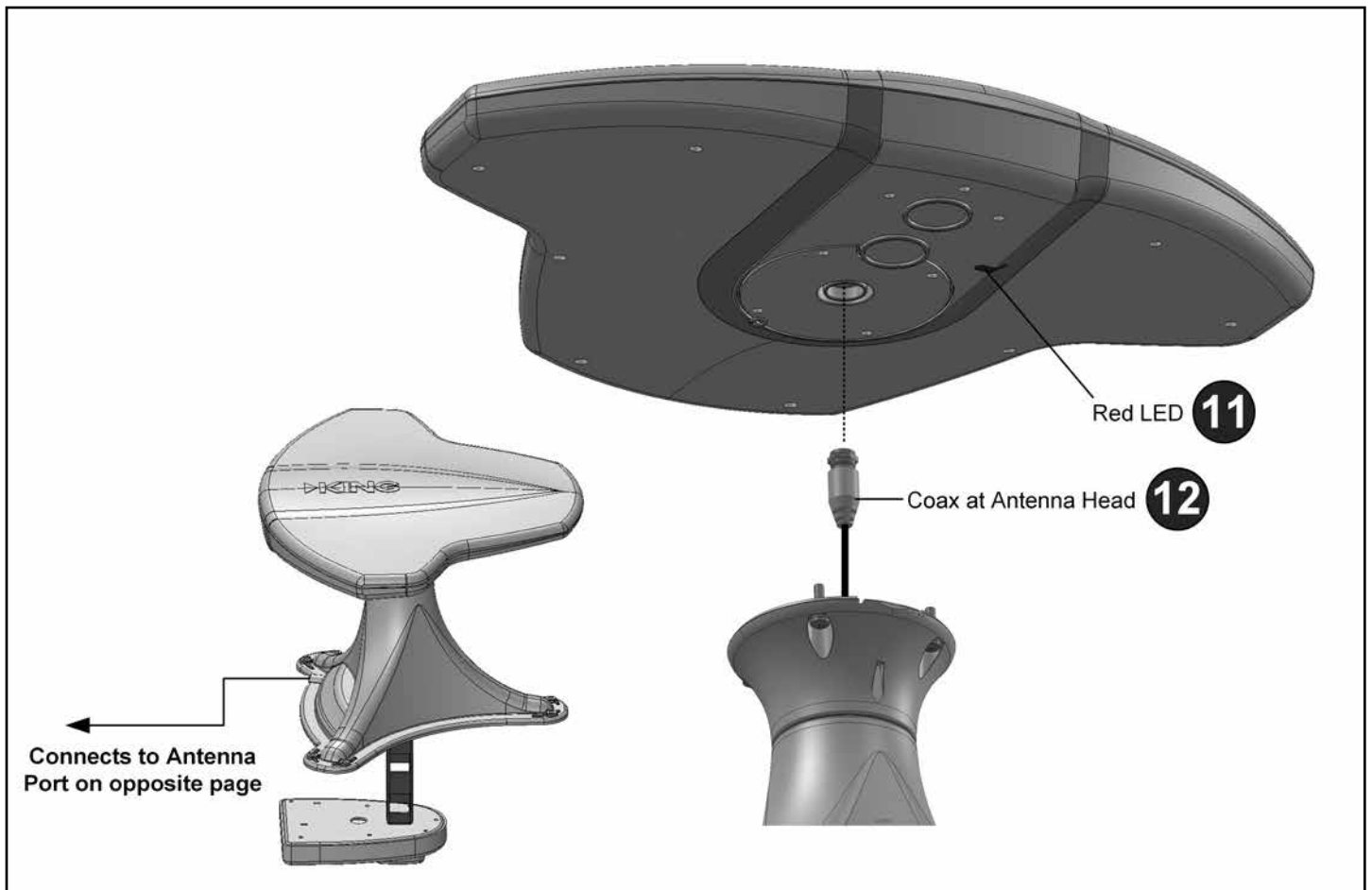
1. Turn on TV and power injector.

NOTE: In steps 2-6, keep track of the knob position where you receive the most channels.

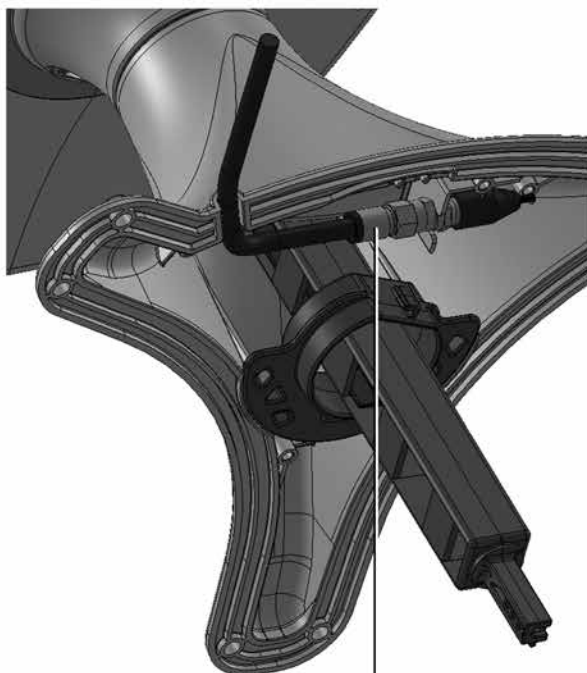
2. Press button and rotate the antenna all of the way in one direction until it hits the stop.
3. Perform a channel scan per the digital TV or digital TV converter box manufacturer's instructions. Note the number of channels received.
4. Press button and rotate antenna 90 degrees. Scan again. Note the number of channels received.
5. Press button and rotate antenna 90 degrees. Scan again. Note the number of channels received.
6. Press button and rotate antenna 90 degrees. Scan again. Note the number of channels received.
7. Reposition your KING Jack antenna to where you received the most channels. Choose one of those channels on your TV. Now monitor the signal strength screen and fine tune the KING Jack until the highest signal strength is achieved. Perform one final scan.
8. Watch TV!







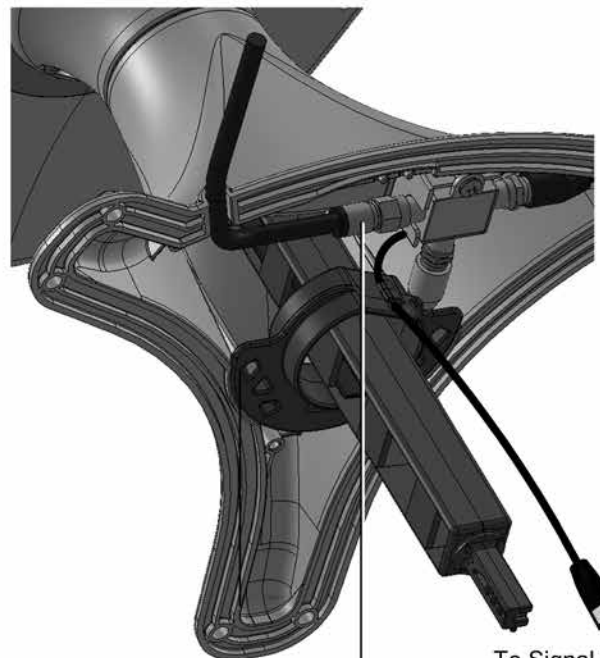
**BASE MOUNT – BOTTOM VIEW
WITHOUT SIGNAL METER**



9

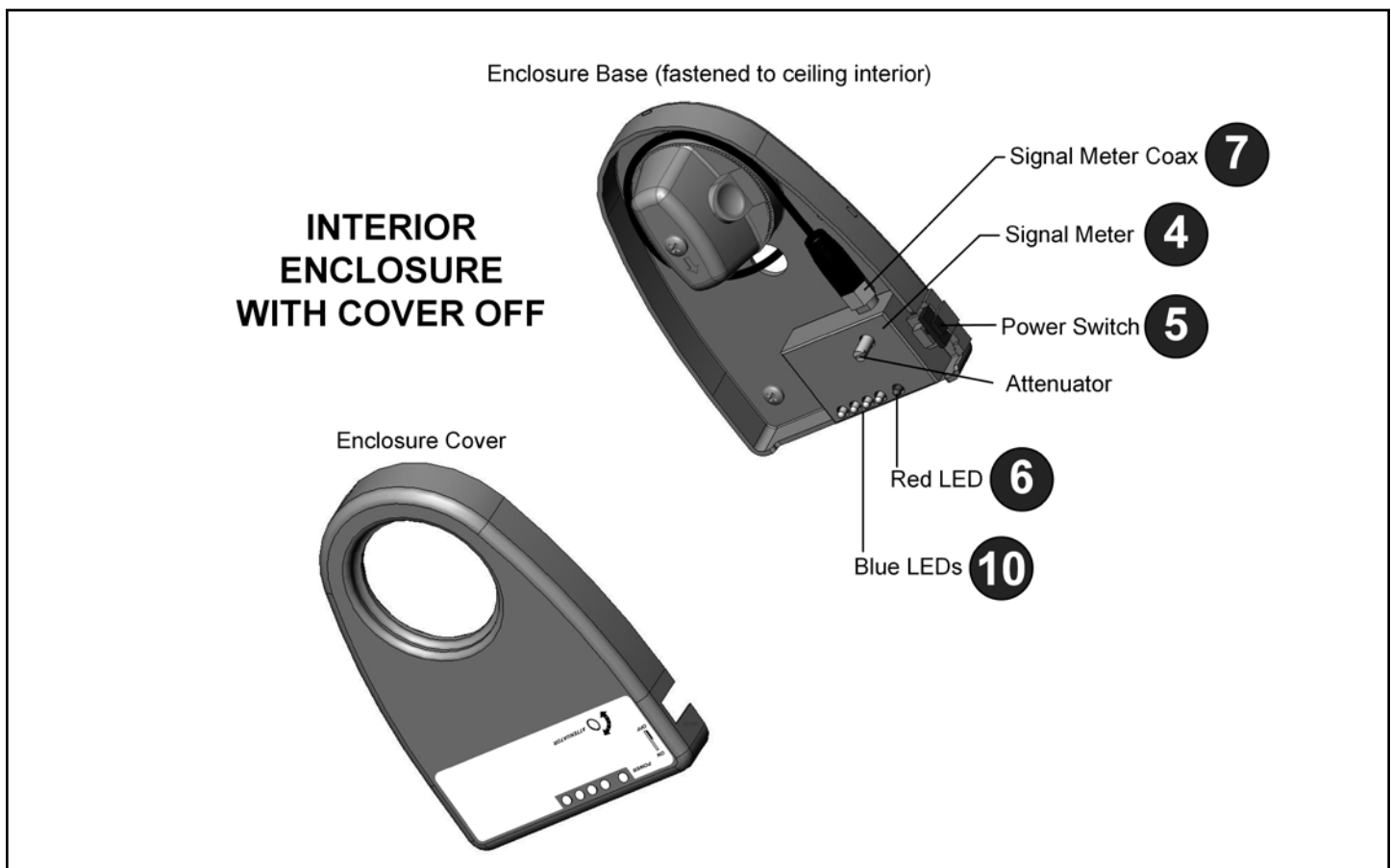
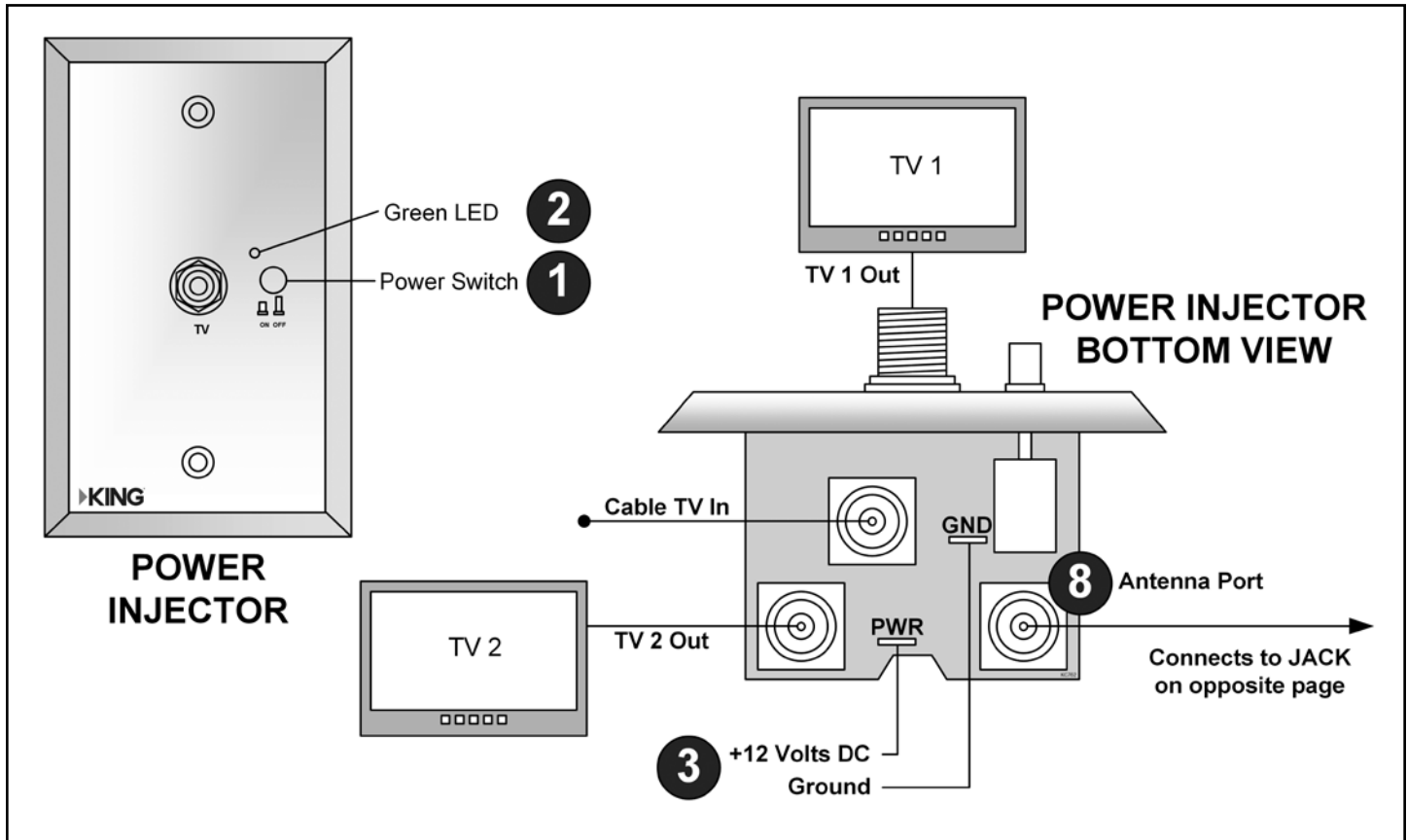
Coax from Wall Plate

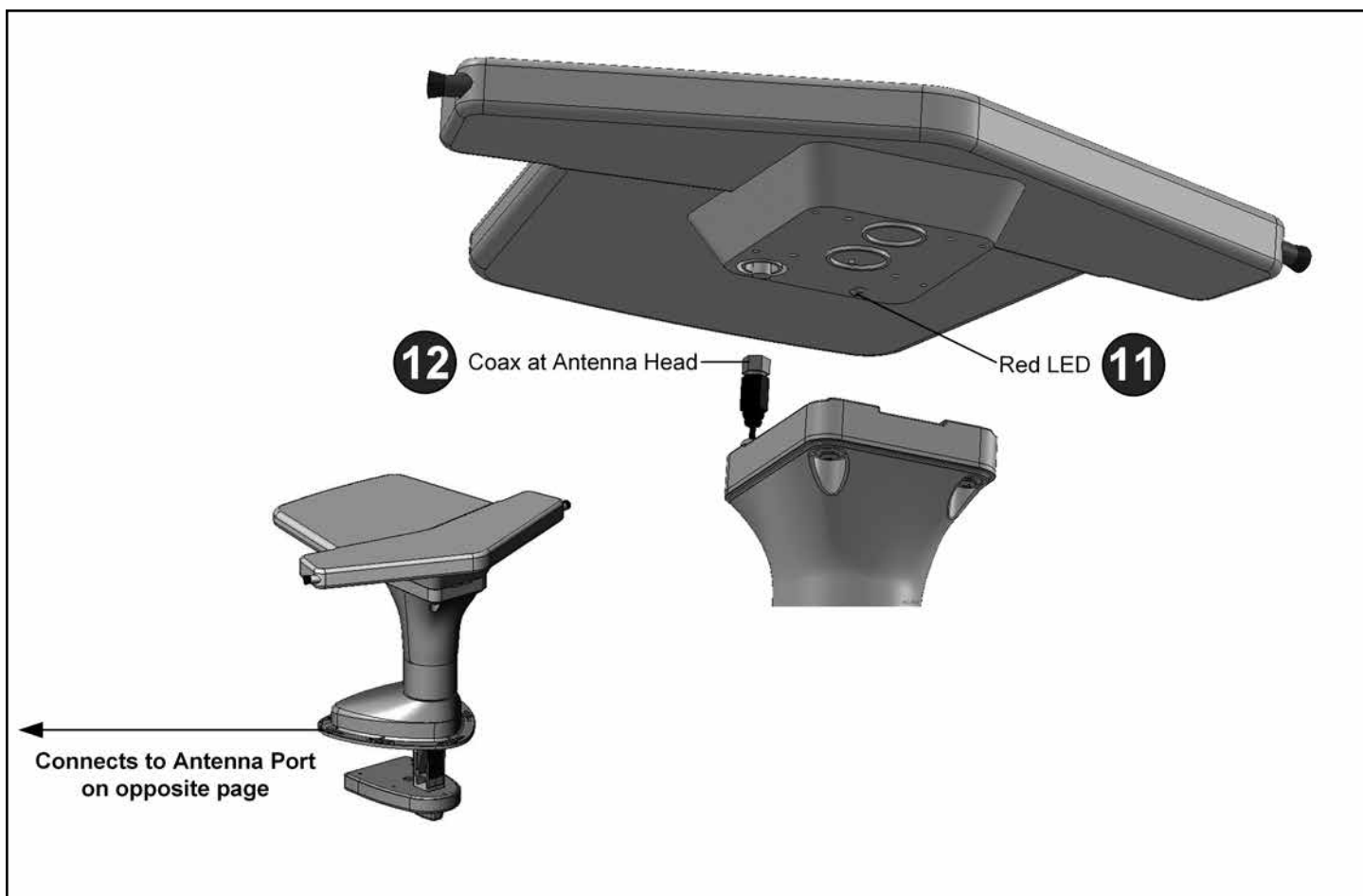
**BASE MOUNT – BOTTOM VIEW
WITH SIGNAL METER**



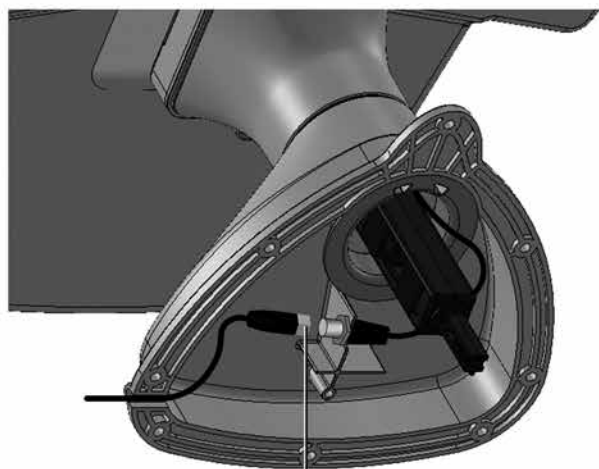
9

To Signal Meter
in Vehicle



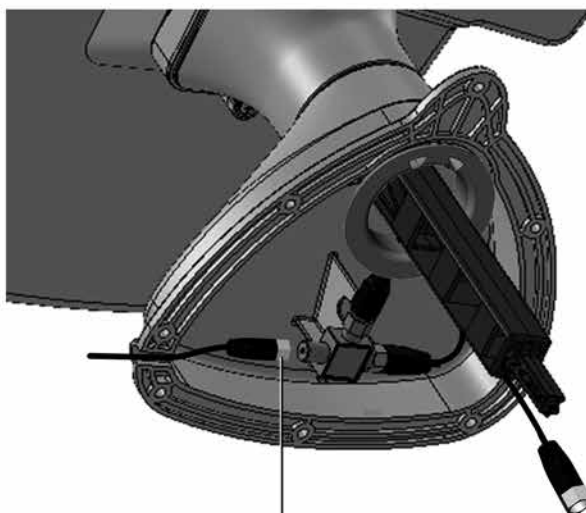


**BASE MOUNT – BOTTOM VIEW
WITHOUT SIGNAL METER**



9 Coax from Wall Plate

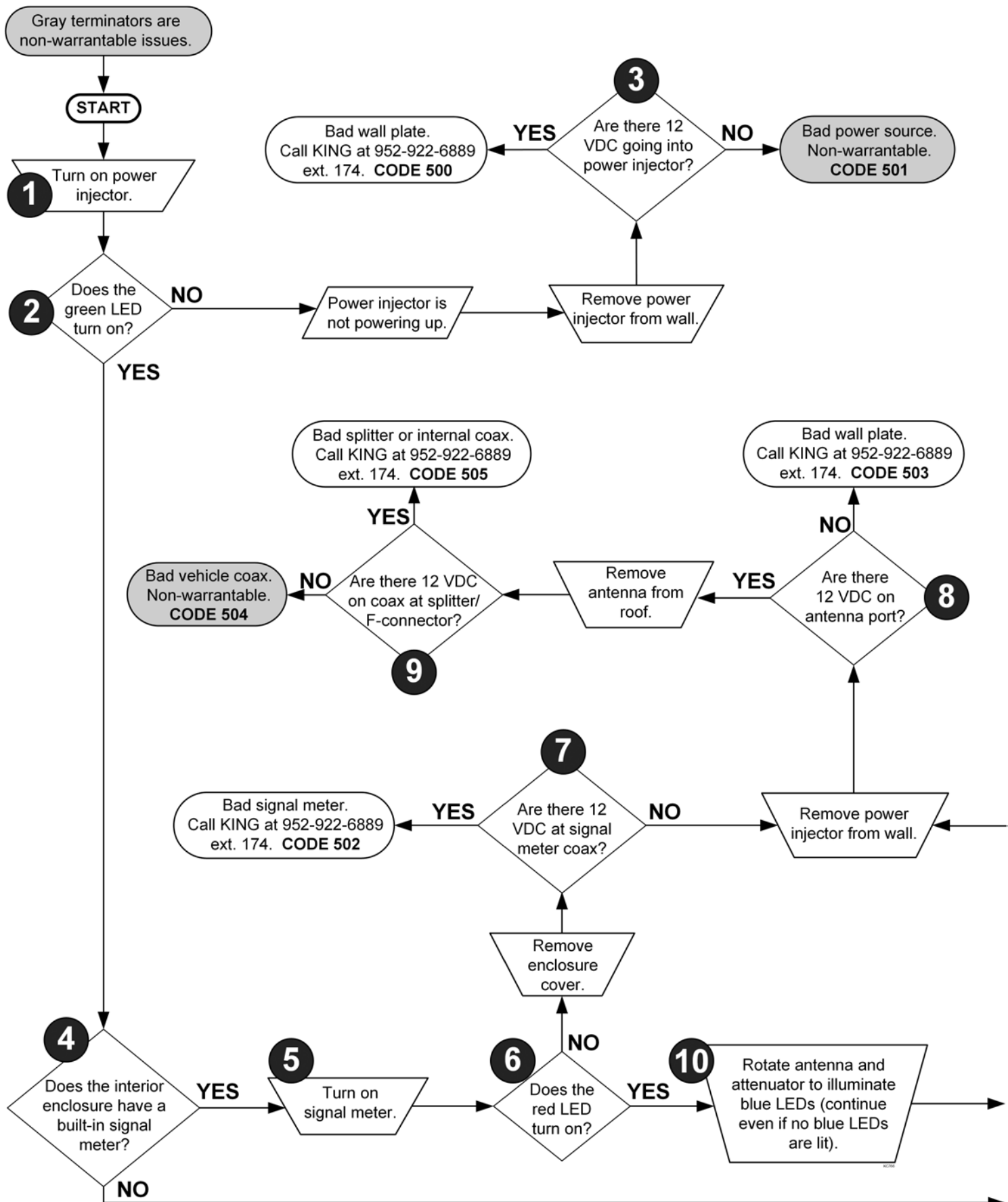
**BASE MOUNT – BOTTOM VIEW
WITH SIGNAL METER**



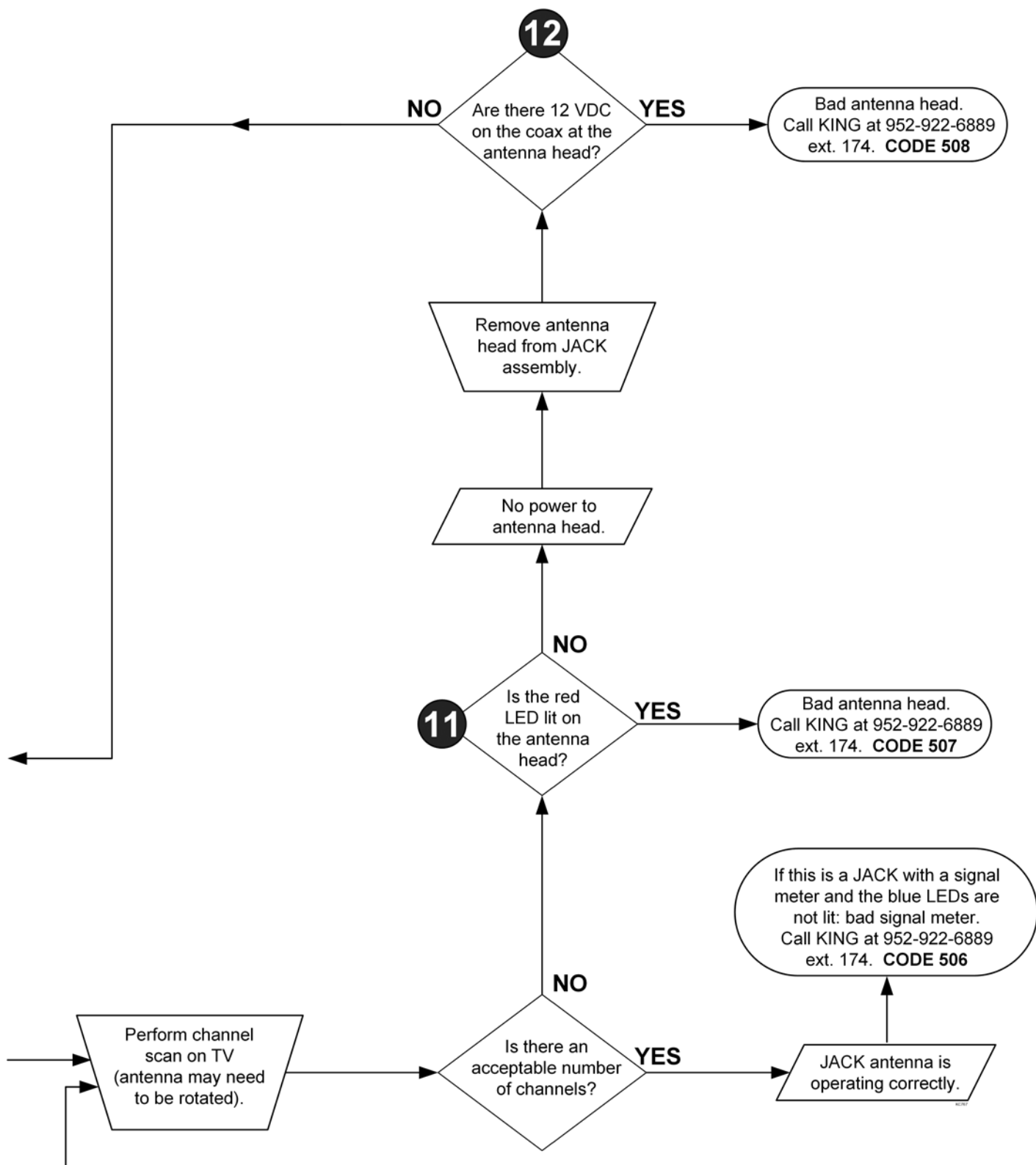
To Signal Meter
in Vehicle

9

Section 8 TROUBLESHOOTING FLOWCHART (All Jacks)



See pages 6-9 for location of reference points **1** - **12**
See page 12 for complete list of error codes.



Section 9 FLOWCHART ERROR CODES (All Jacks)

Code	Failure
------	---------

500	..... Wall Plate
501	..... Power Source (Non-warrantable)
502	..... Signal Meter
503	..... Wall Plate
504	..... Vehicle Coax (Non-warrantable)
505	..... Splitter or Internal Coax
506	..... Signal Meter
507	..... Antenna Head
508 Antenna Head

Section 10 REPLACEMENT PARTS LIST (All Jacks)

PART #	Description
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21631 Ceiling enclosure with signal meter
20954 Antenna Head (White) Classic KING Jack
21053	..... Antenna Head (Black) Classic KING Jack
22529	..... Antenna Head (White) KING Jack
22530	..... Antenna Head (Black) KING Jack
20263B	..... Coax, splitter to antenna head (metered Jacks)
10121-1	..... Coax, splitter to signal meter (metered Jacks)
21038	..... Splitter (metered Jacks)
21045	..... Coax w/F-connector, coach coax to antenna head (non-metered Jacks)

NOTE: Power injector part numbers vary and are marked on back of power injector.

Section 11 BLOCK TIMES (All Jacks)

REPLACEMENT PROCEDURE	TIME IN MINUTES
Power Injector	30
Signal Meter	30
Antenna Head	30
KING Jack Assembly	60

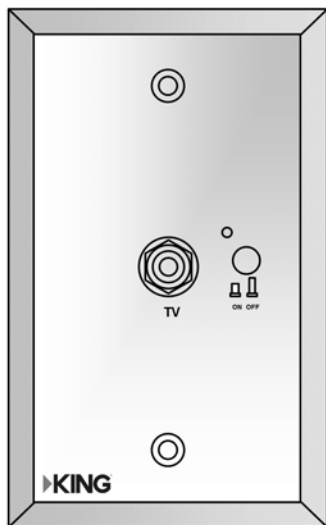
NOTE: See sections 12-17 for detailed instructions.



**You must call KING
before performing any warranty work.**

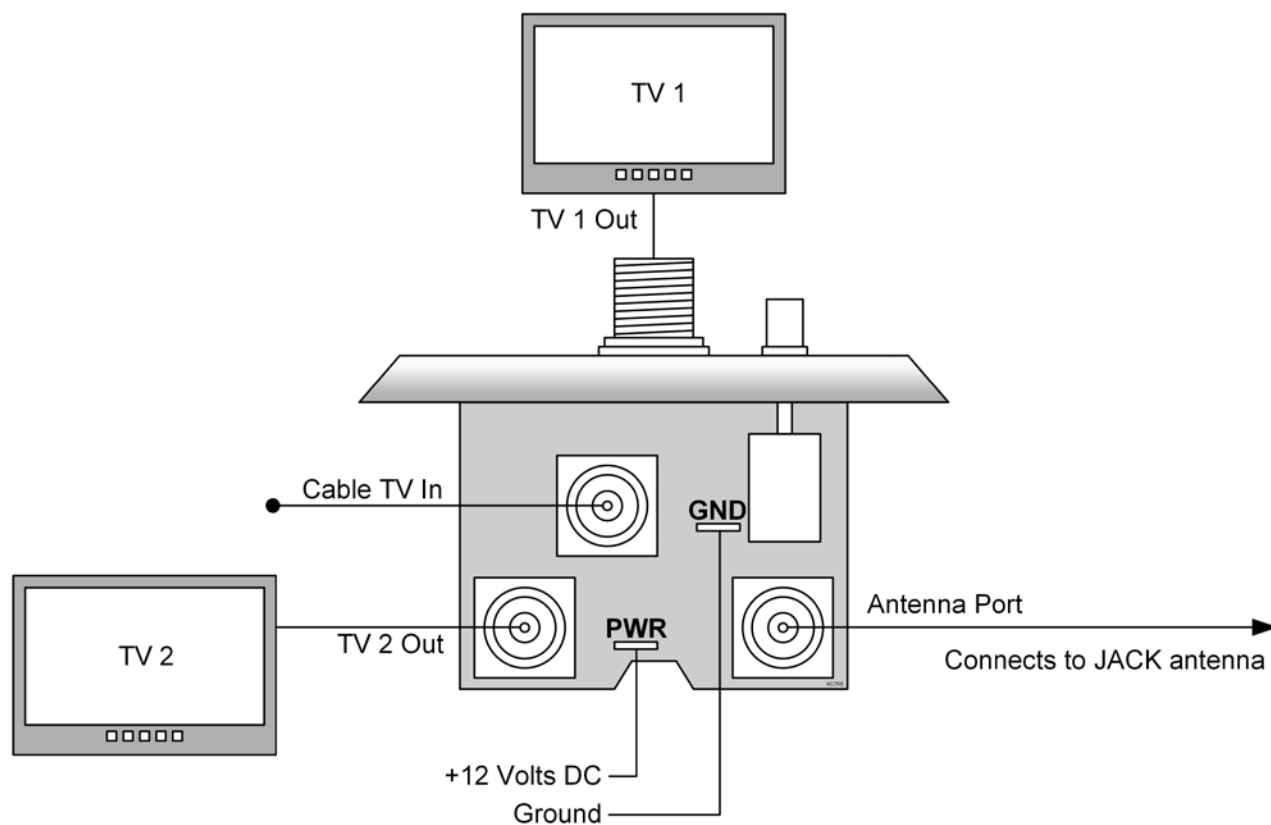
(952) 922-6889

NOTE: Make sure power to power injector is turned off before proceeding.



POWER INJECTOR
(Part number on back)

1. Remove old power injector and replace with new power injector using diagram below to make correct connections.



POWER INJECTOR BOTTOM VIEW

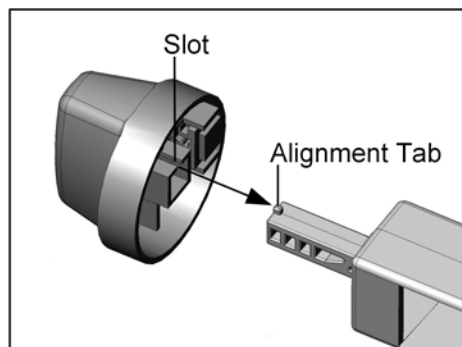
1. REMOVE EXISTING METER

- Snap off Enclosure Cover.
- Remove Screw and Knob.
- Disconnect Coax from Signal Meter.
- Remove (4) Screws attaching Enclosure to ceiling.

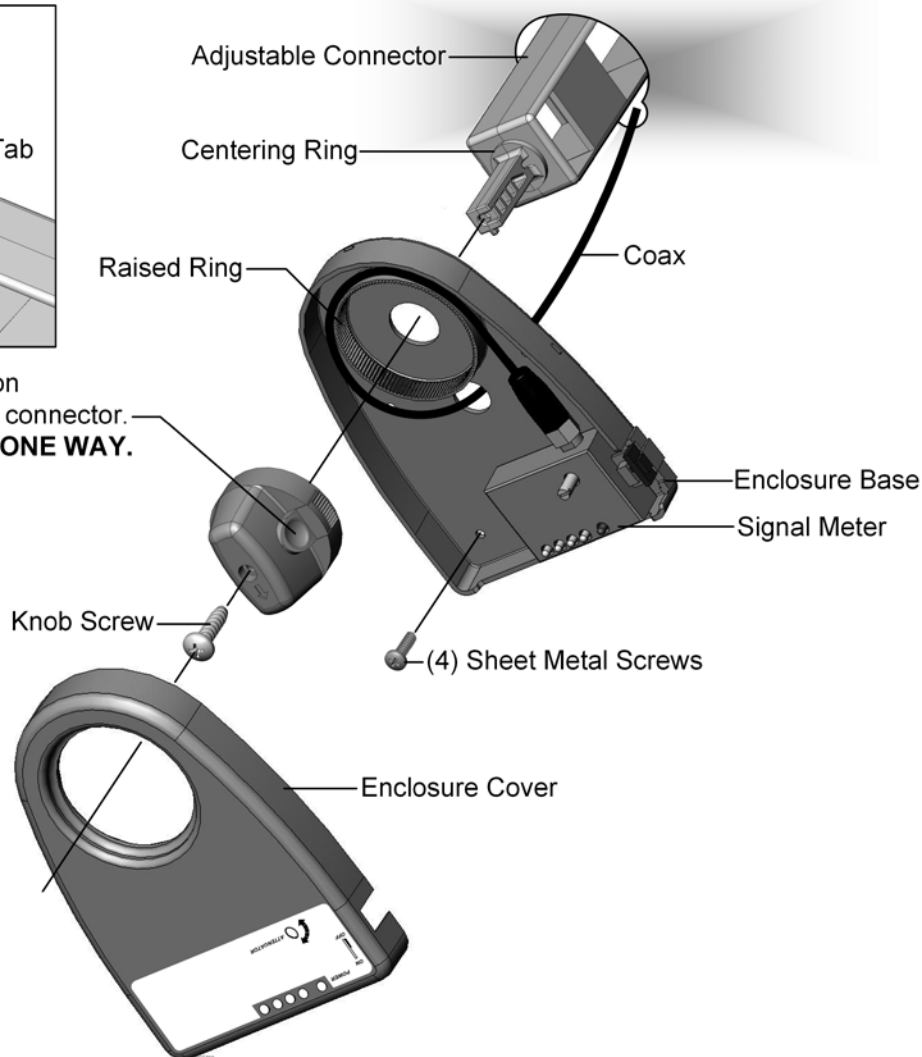
NOTE: Turn off power injector before proceeding.

2. INSTALL NEW METER

- Attach new Enclosure to ceiling with (4) Screws.
- Route Coax and connect to Meter.
- Press button on Knob and engage onto Adjustable Connector. Fasten with Screw.
KNOB ONLY FITS ON CONNECTOR ONE WAY – SEE INSET BELOW.
- Snap on Enclosure Cover. **BE CAREFUL NOT TO DAMAGE LEDS.**



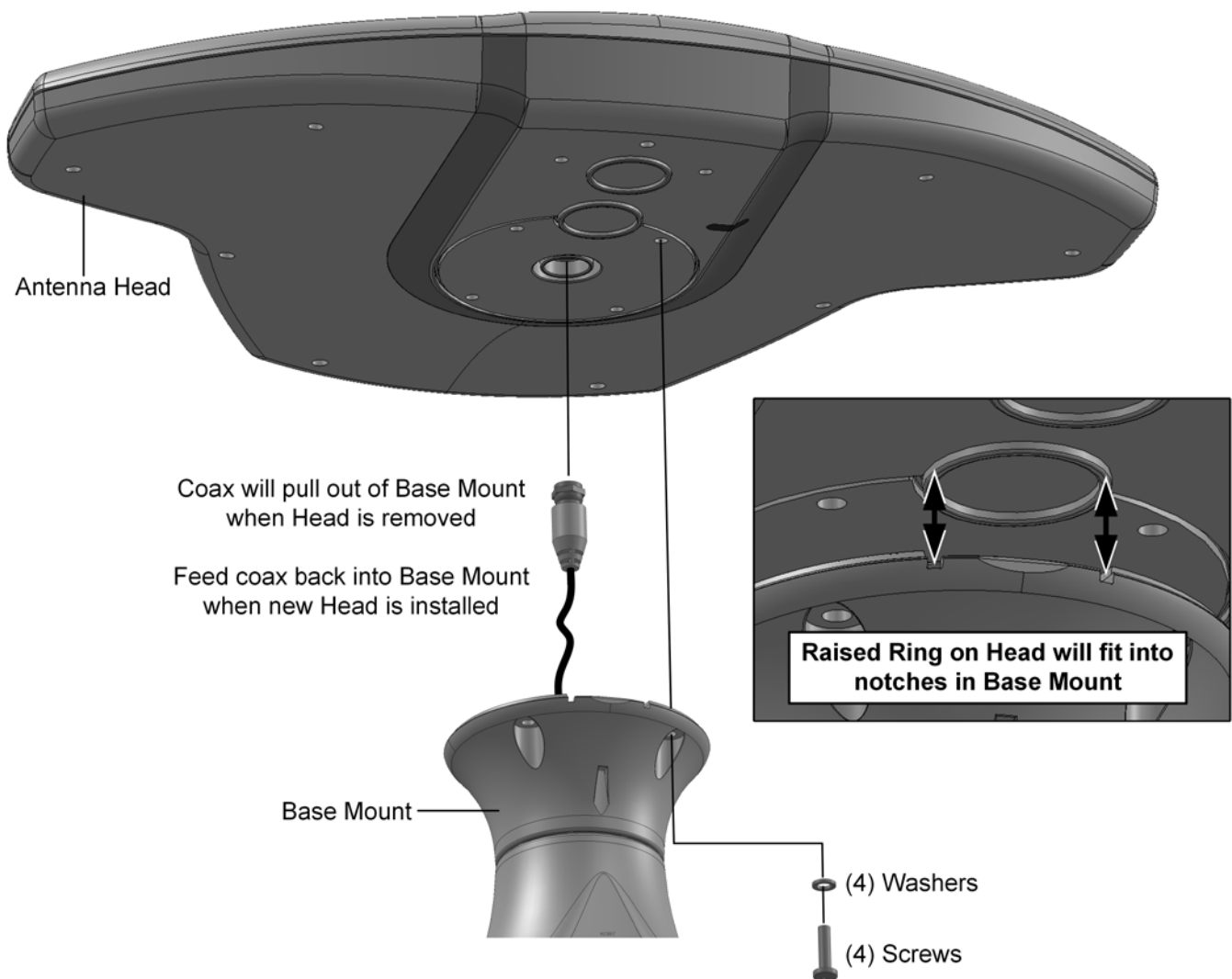
When reinstalling, press button to engage knob onto end of adjustable connector.
KNOB ONLY FITS ON CONNECTOR ONE WAY.



Section 14 REPLACE ANTENNA HEAD (KING Jack)

NOTE: Turn off power injector before proceeding.

1. Remove (4) Screws and (4) Washers and carefully lift off Antenna Head from Base Mount.
Coax will pull out of Base Mount as Head is lifted off.
2. Disconnect Coax from existing Head and attach to new Head.
3. Feed Coax back inside Base Mount and attach new Antenna Head to Base Mount.

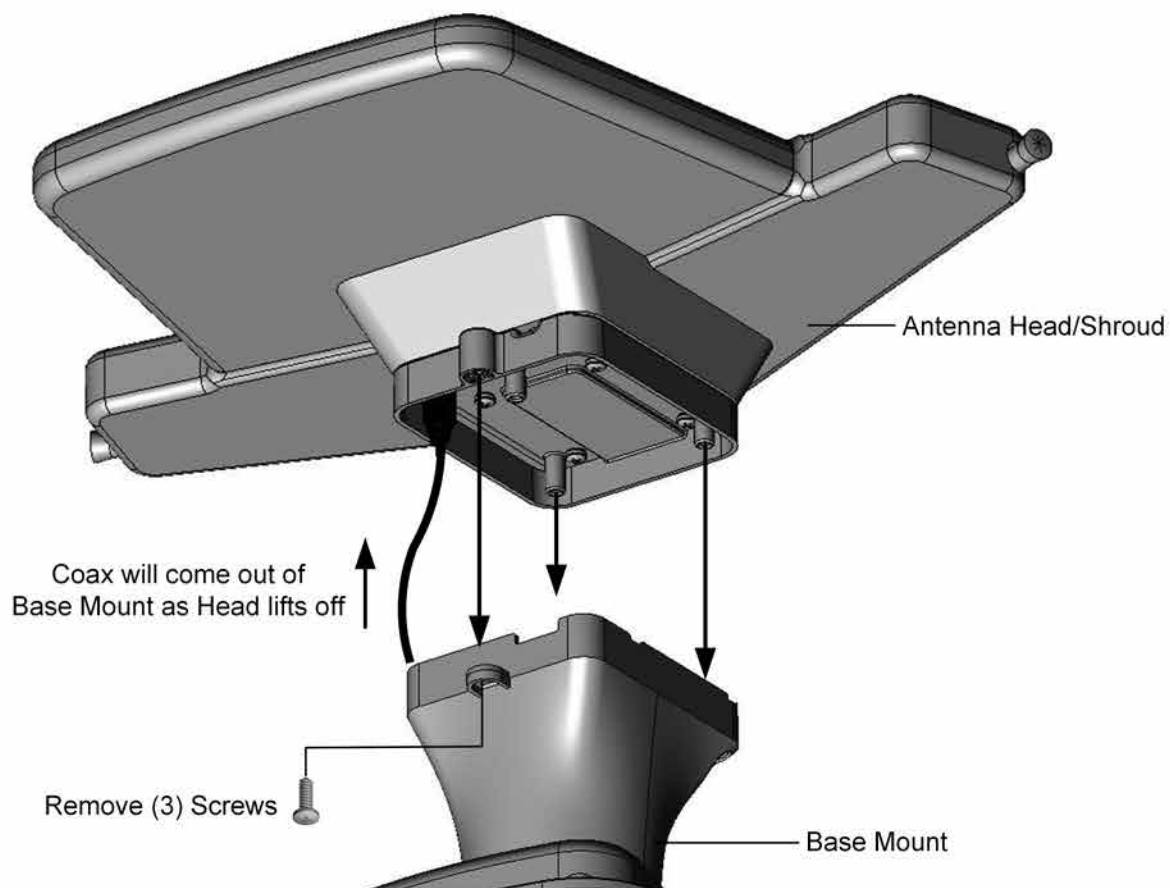


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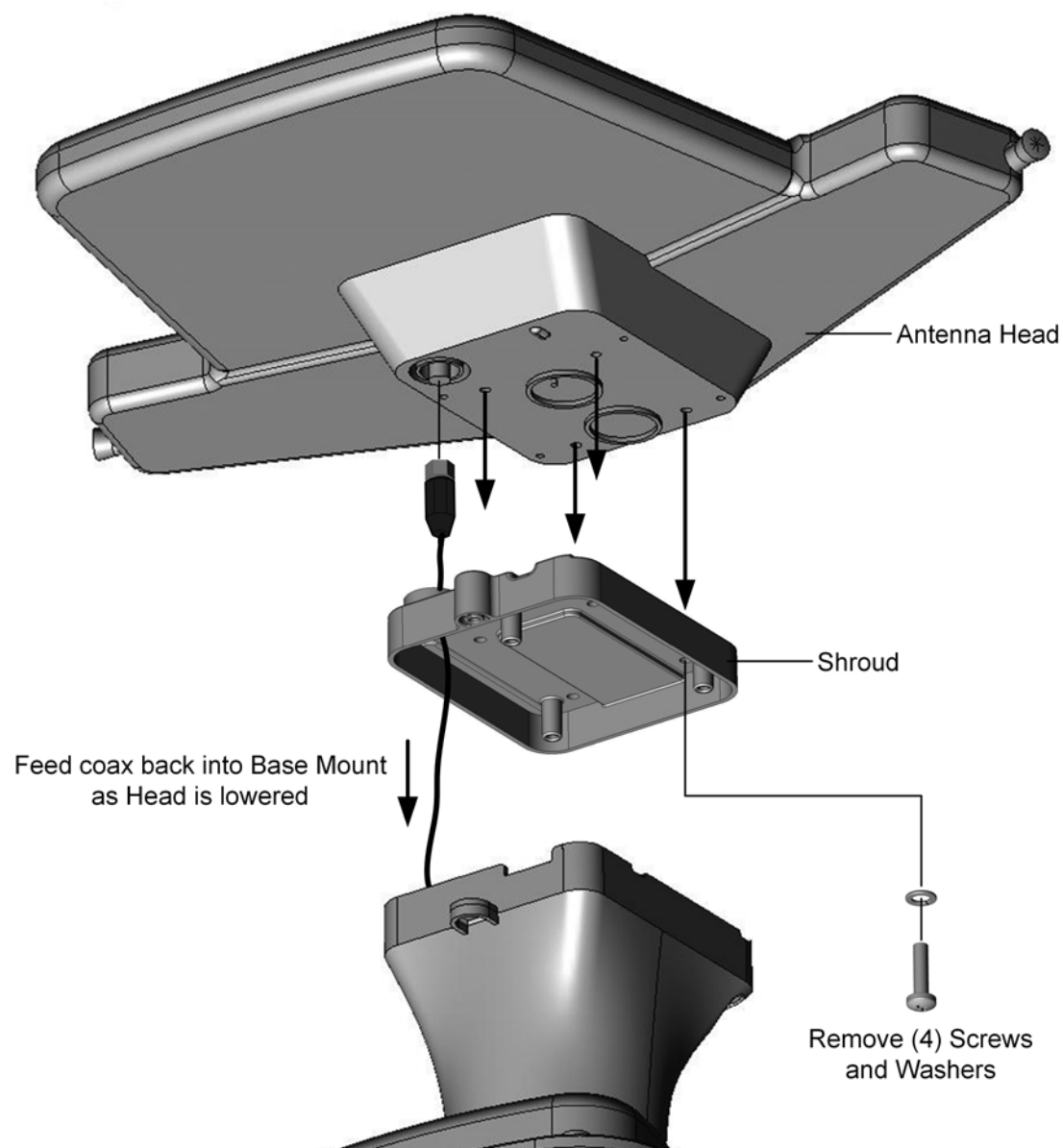
NOTE: Turn off power injector before proceeding.

1. Remove (3) Screws and carefully lift off Antenna Head/Shroud from Base Mount.

Coax will pull out of Base Mount as Head is lifted off.



2. Remove (4) Screws and Washers and remove Shroud.
3. Disconnect Coax.
4. Connect Coax to replacement Antenna Head. Reattach Shroud.
5. Feed Coax back inside Base Mount and reattach Antenna Head/Shroud to Base Mount.



1. REMOVE EXISTING ANTENNA

NOTE: Turn off power injector before proceeding.

- INSIDE**
- Snap off Enclosure Cover.
 - Remove Screw and Knob.
 - Disconnect Coax from Signal Meter if present.

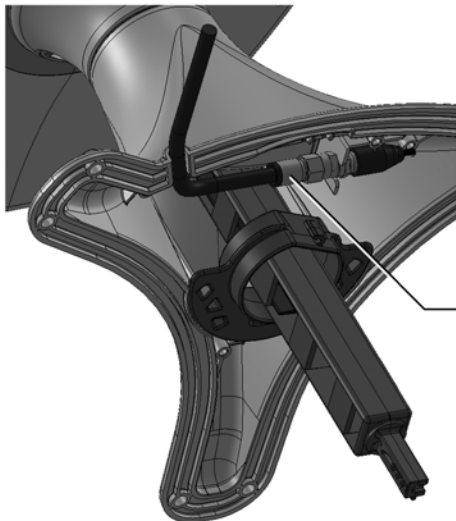
- OUTSIDE**
- Remove fasteners holding Antenna to roof.
 - Remove Antenna and disconnect coax from Base Mount connection.
 - Clean up old sealant to ensure a good seal when installing new antenna.

2. INSTALL NEW ANTENNA

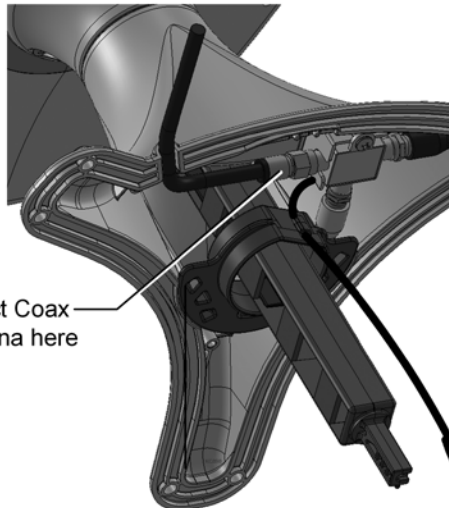
- OUTSIDE**
- Pull out Adjustable Connector to match approximate length of old Connector.
 - Reconnect Coax inside Base Mount.
 - Lower Antenna into place, feeding Adjustable Connector (and Meter Coax if present) through roof.
 - Seal and fasten Antenna unit to roof. All holes, coax channel, Ring Seal and Base Mount perimeter must be sealed so they are watertight.

- INSIDE**
- Route Coax and connect to Meter if present.
 - Press button on Knob and engage onto Adjustable Connector. Fasten with Screw.
KNOB ONLY FITS ON CONNECTOR ONE WAY – SEE INSET ON OPPOSITE PAGE.
 - Snap Enclosure Cover in place. **BE CAREFUL NOT TO DAMAGE LEDS.**

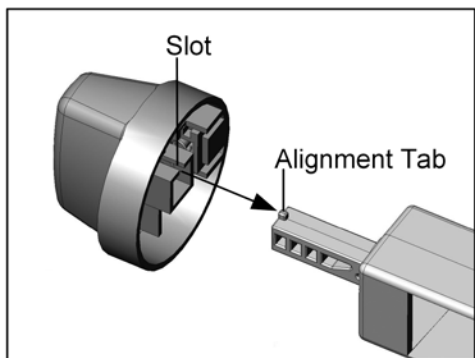
WITHOUT SIGNAL METER



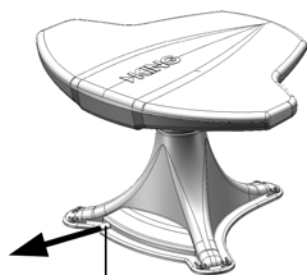
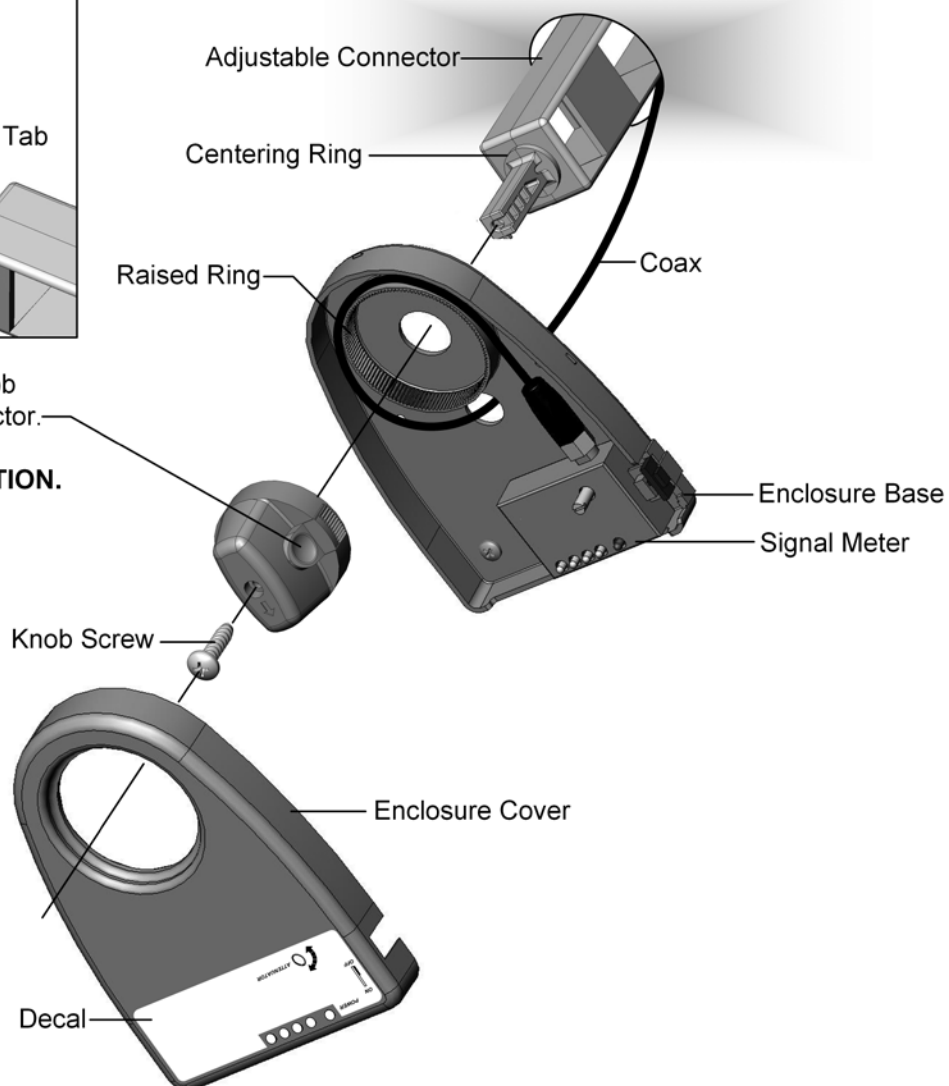
WITH SIGNAL METER



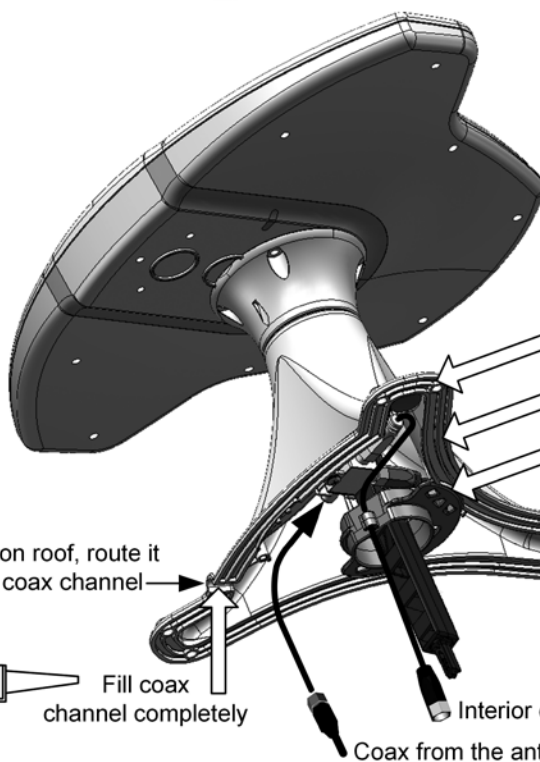
To Signal Meter in Vehicle
(Will not be present on Antenna without Meter)



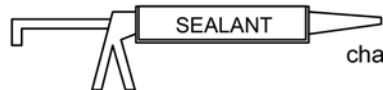
Press button to engage knob
onto end of adjustable connector.
**KNOB ONLY FITS ON
CONNECTOR IN ONE DIRECTION.**



IMPORTANT!
Coax channel must face
towards rear of vehicle.



Seal (6) fastener heads
SEALANT
Apply sealant to ring seal
and flange bottom
IMPORTANT!
Do not allow sealant to
contact adjustable connector.
Sealant must be compatible
with roof material.



Fill coax
channel completely

1. REMOVE EXISTING ANTENNA

NOTE: Turn off power injector before proceeding.

INSIDE • Snap off Enclosure Cover.

- Remove Screw and Knob.
- Disconnect Coax from Signal Meter if present.

OUTSIDE • Remove fasteners holding Antenna to roof.

- Remove Antenna and disconnect coax from Base Mount connection.
- Clean up old sealant to ensure a good seal when installing new antenna.

2. INSTALL NEW ANTENNA

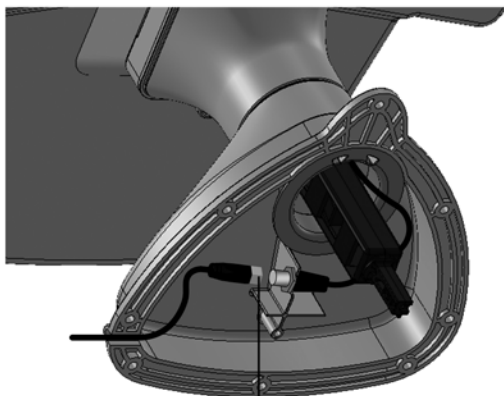
OUTSIDE • Pull out Adjustable Connector to match approximate length of old Connector.

- Reconnect Coax inside Base Mount.
- Lower Antenna into place, feeding Adjustable Connector (and Meter Coax if present) through roof.
- Seal and fasten Antenna unit to roof. All holes, coax channel, Ring Seal and Base Mount perimeter must be sealed so they are watertight.

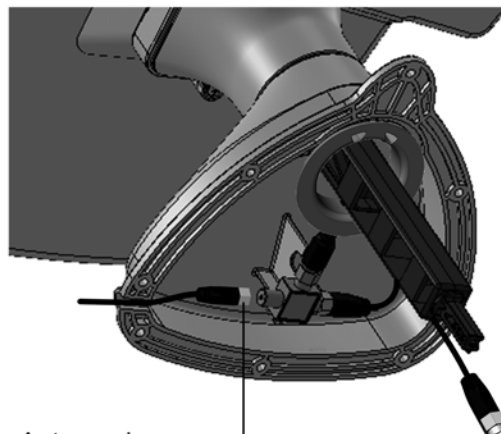
INSIDE • Route Coax and connect to Meter if present.

- Press button on Knob and engage onto Adjustable Connector. Fasten with Screw.
KNOB ONLY FITS ON CONNECTOR ONE WAY – SEE INSET ON OPPOSITE PAGE.
- Snap Enclosure Cover in place. **BE CAREFUL NOT TO DAMAGE LEDS.**

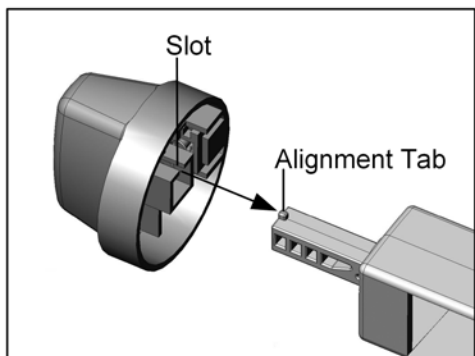
WITHOUT SIGNAL METER



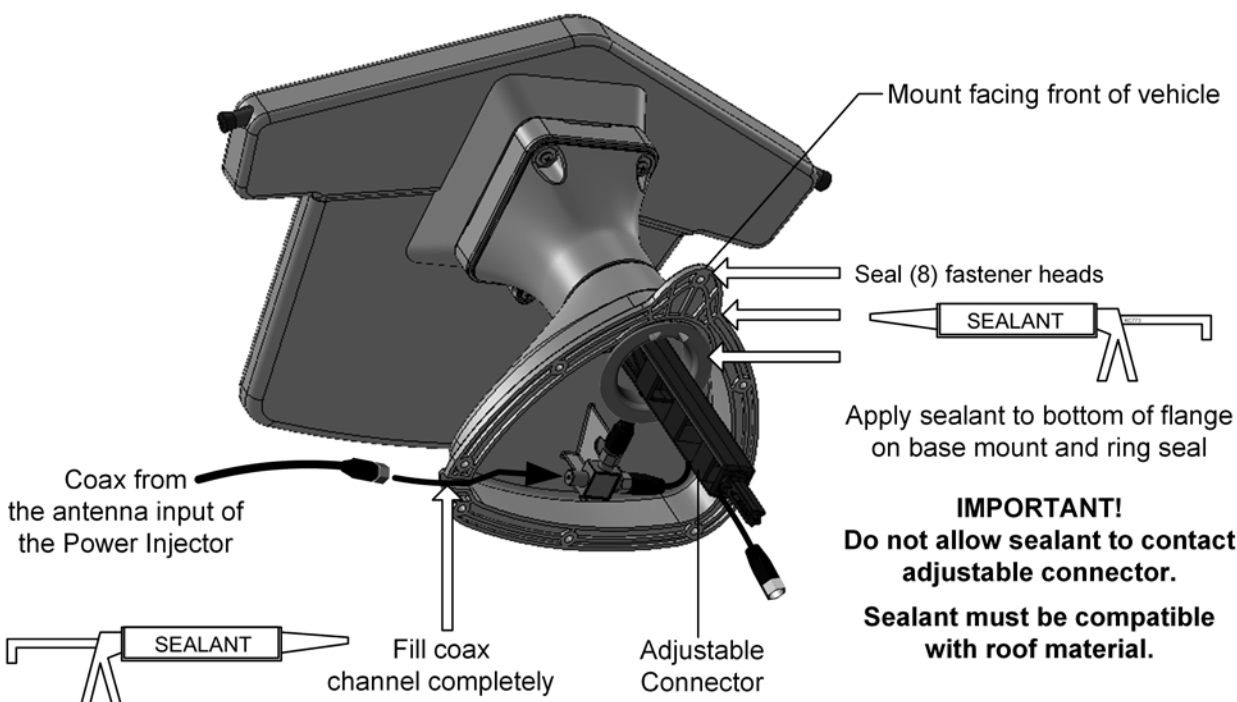
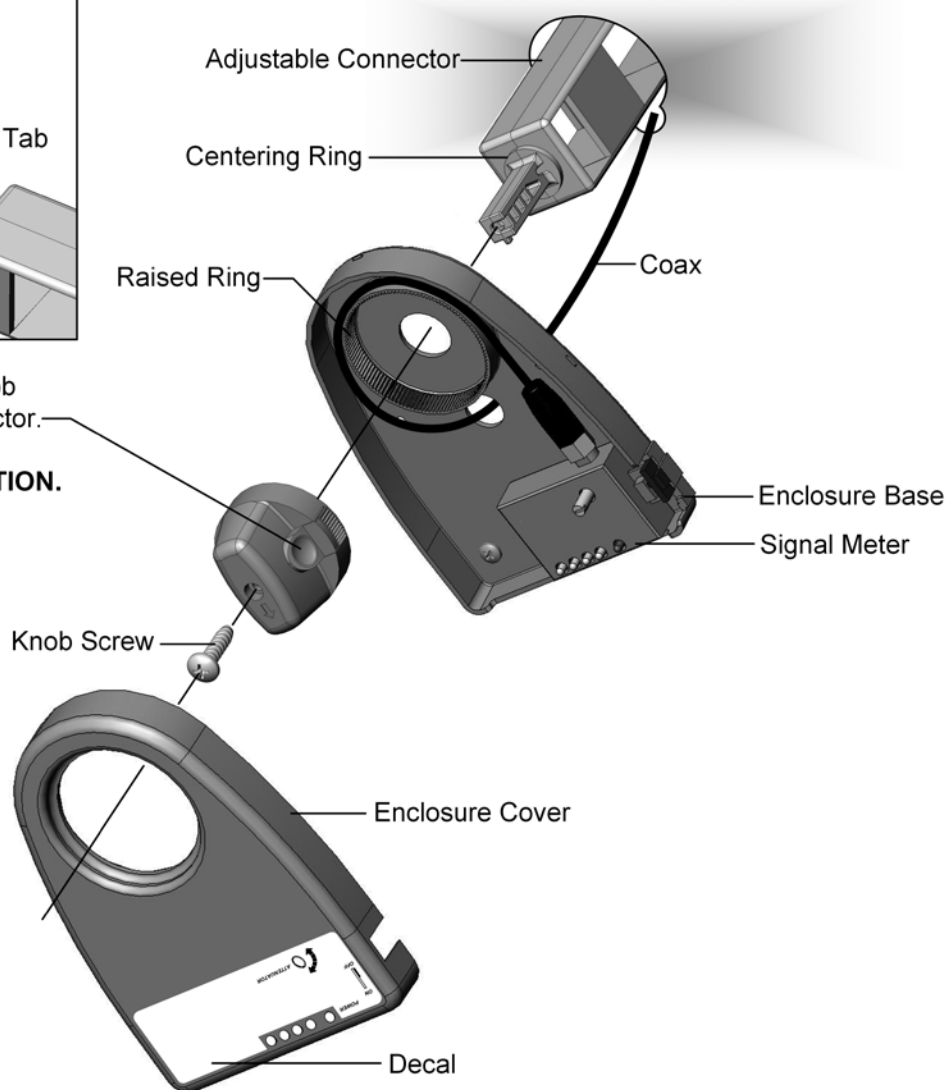
WITH SIGNAL METER



To Signal Meter
in Vehicle
(Will not be present on
Antenna without Meter)



Press button to engage knob
onto end of adjustable connector.
**KNOB ONLY FITS ON
CONNECTOR IN ONE DIRECTION.**



IMPORTANT!
Do not allow sealant to contact
adjustable connector.
Sealant must be compatible
with roof material.

WARRANTY CONSIDERATION FORM

Service Center Name	Customer Name*
Address	Unit Serial Number* / Model Series
	Date of Original Purchase or Installation*
Phone No.	Make, Model and Year of Vehicle
Name and Title of person working on unit	Customer I.D. Number

Service Order Number*
(RMA Number)

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***REQUIRED**

Repair Date(s)	Total Labor Time (Hours) _____ @ Hourly Rate of _____	Return Shipping Charges (Ground Only)
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Description of Failure and Work Performed _____

The following paperwork must be sent to KING for warranty reimbursement consideration:

- 1) Warranty Consideration Form with Service Order Number
- 2) Copy of Work Order
- 3) Proof of Purchase / Sales Receipt or Verification of In-Service Date

Note: If returning defective part, please include with paperwork. Warranty Labor Claim will not be processed until part is returned.



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KC670



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