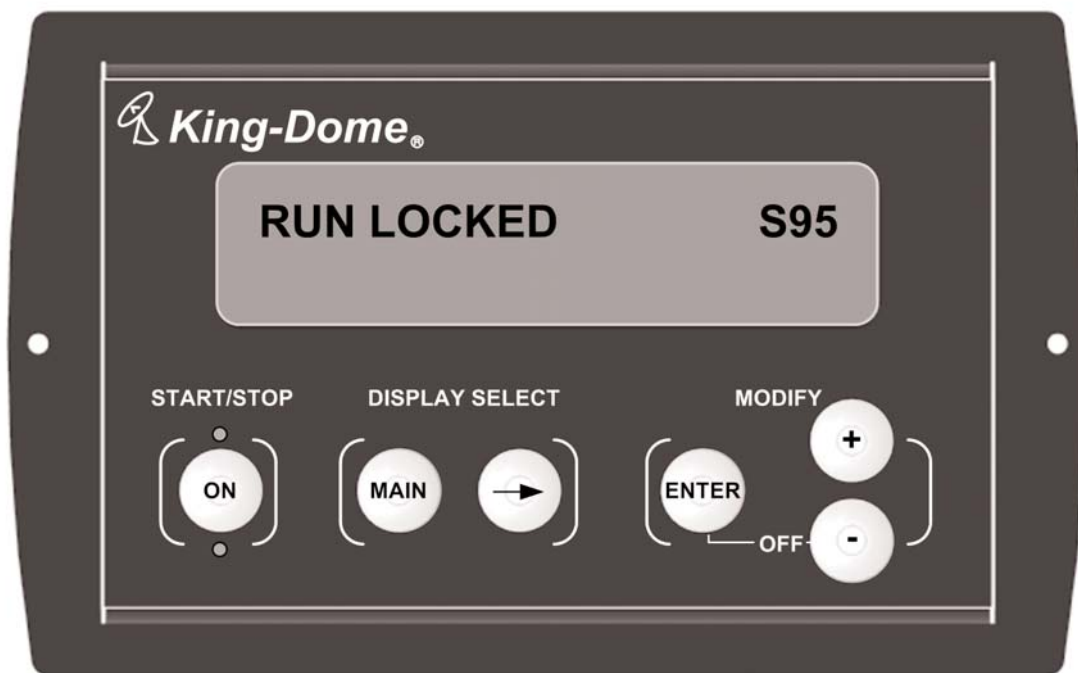




# Trac-King In-Motion Satellite System

## Model 9762-LP

Installation and Operating Instructions



*Satellite Solutions for Mobile Markets*

11200 Hampshire Avenue South, Bloomington, MN 55438-2453  
Phone: (800) 982-9920 Fax: (952) 922-8424

[www.kingcontrols.com](http://www.kingcontrols.com)



# IMPORTANT!

The satellite TV market is expanding and changing. The information in this manual was accurate at the time of printing. If your King-Dome does not operate as outlined in this manual please call King Controls at (800) 982-9920 or visit our website at [www.kingcontrols.com](http://www.kingcontrols.com).

This King-Dome will receive available HDTV programming from DIRECTV Ku band satellites at 101°, 110° and 119° with a properly installed HD converter accessory #9747. It will not receive channels broadcast from DIRECTV's Ka band satellites at 99° and 103°.

**Please read this entire manual before beginning the installation.**

Note: The following upgrade kit is available for this unit:

Upgrade Kit #9747: Enables viewing of HD broadcasts from the DIRECTV 110° satellite.

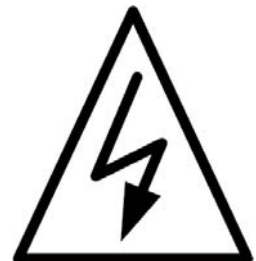
For more information, call the King Controls Sales Department at (800) 982-9920.

## TABLE OF CONTENTS

Section	Contents	Page
1.	INTRODUCTION.....	2
2.	DEFINITION OF TERMS .....	3
3.	INSTALLATION .....	4-16
4.	OPERATION .....	18-21
5.	AUTOMATIC SATELLITE SWITCHING (DIRECTV®).....	22
6.	AUTOMATIC SATELLITE SWITCHING (DISH NETWORK™ - EXPRESSVU) .....	23-29
7.	DIRECTV HDTV CONNECTIONS.....	30-32
8.	TROUBLESHOOTING .....	34-38
9.	MAINTENANCE .....	39
10.	LIMITED WARRANTY .....	40

### ELECTRICAL HAZARD WARNING!

The coaxial cable that connects the dome unit to the tuner carries a 24 volt electrical current. Exercise extreme caution when handling this cable. Do not cut, break, or splice this line. Do not insert or connect any devices such as splitters or any other device for any reason. This line is not compatible with any other equipment. Damage will occur to any device other than the dome unit if connected to the antenna port on the tuner.

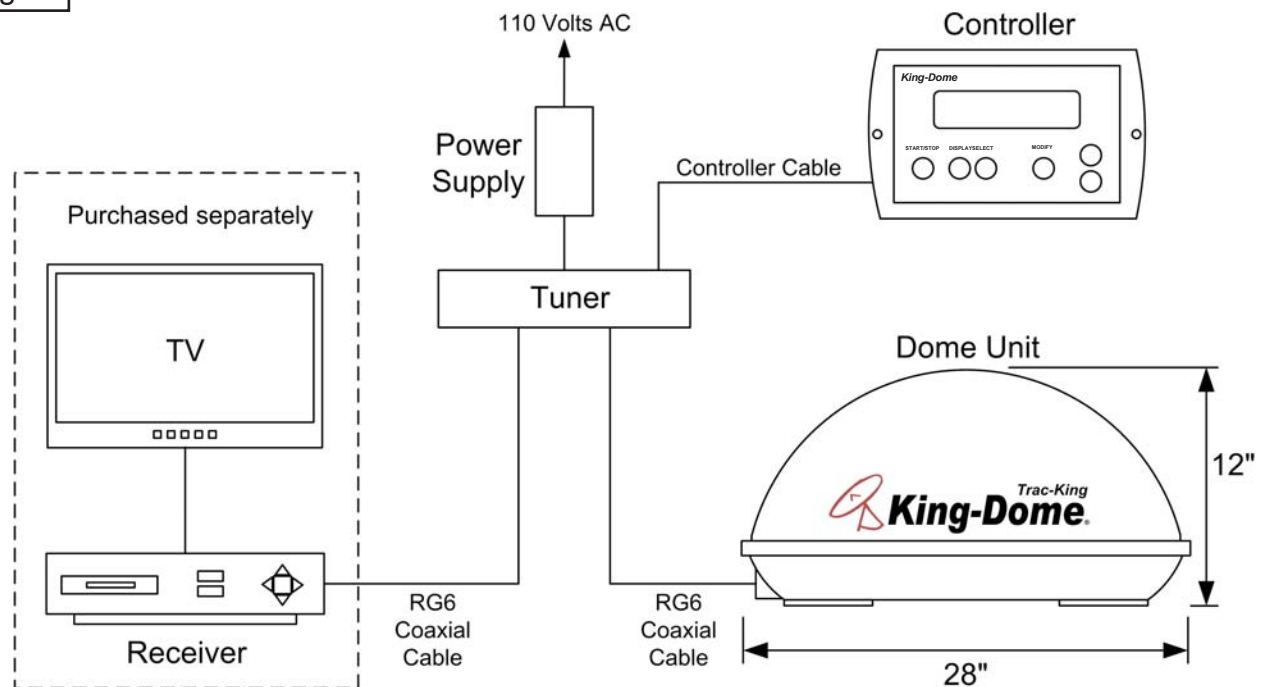


The Trac-King In-Motion Satellite System includes 4 main components (**Fig. 1**).

Dome (Antenna) Unit	Located on the roof of the vehicle. The dish is covered by a protective dome that keeps operational components free from the elements.
Controller	Located in the vehicle. Used to activate and monitor the system, and access programming and diagnostic information.
Tuner	Located in the vehicle. Decodes the satellite signal so the Trac-King locks onto and tracks the correct satellite.
Power Supply	Located in the vehicle. Supplies proper operating voltage to the Trac-King.

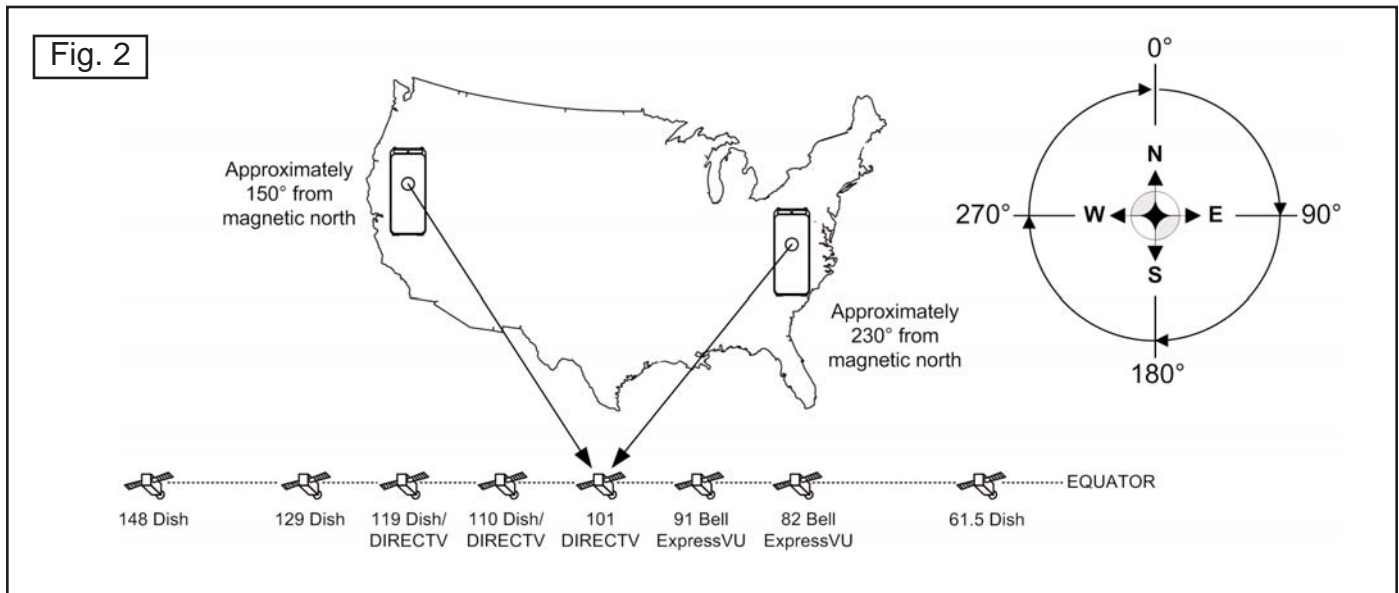
Note: A TV, satellite receiver, and program subscription are also required for satellite TV viewing.  
(Purchased separately.)

**Fig. 1**

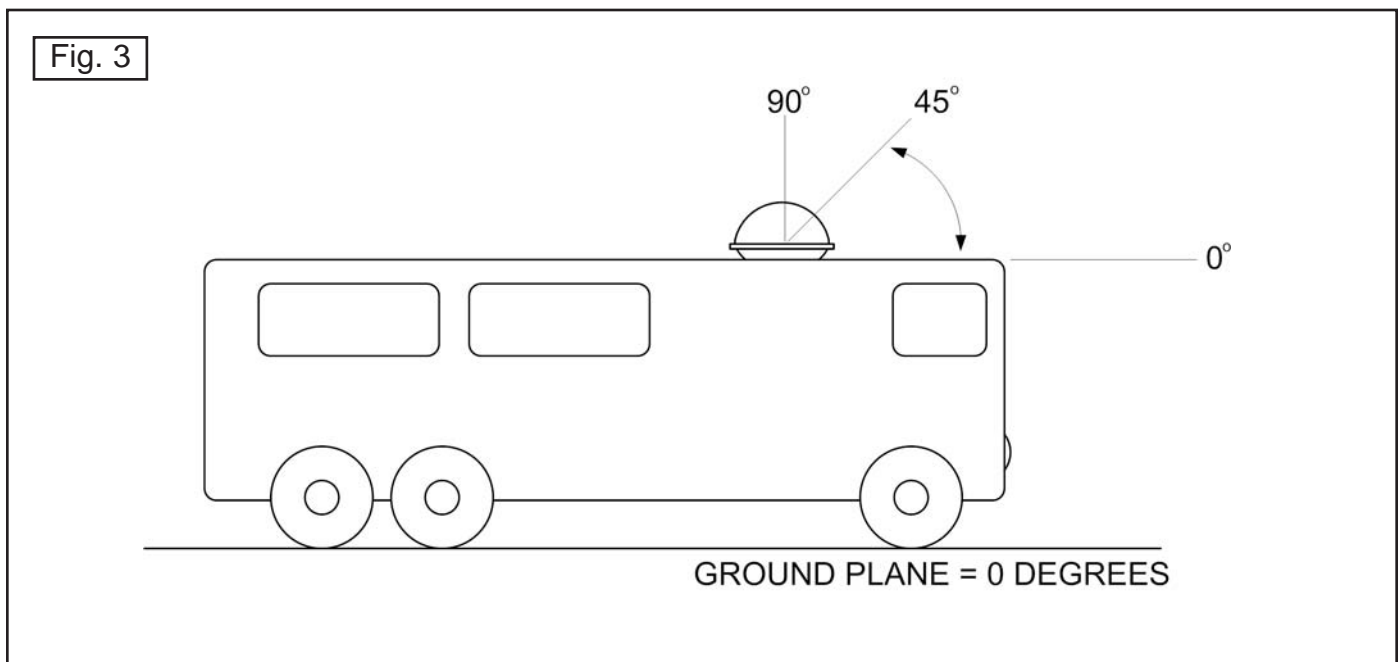


Note: For optional second receiver hookup see Pages 14-15.

**AZIMUTH:** Angle in degrees measured clockwise from Magnetic North (0°) (**Fig. 2**).



**ELEVATION:** Angle in degrees measured from the ground plane (**Fig. 3**).



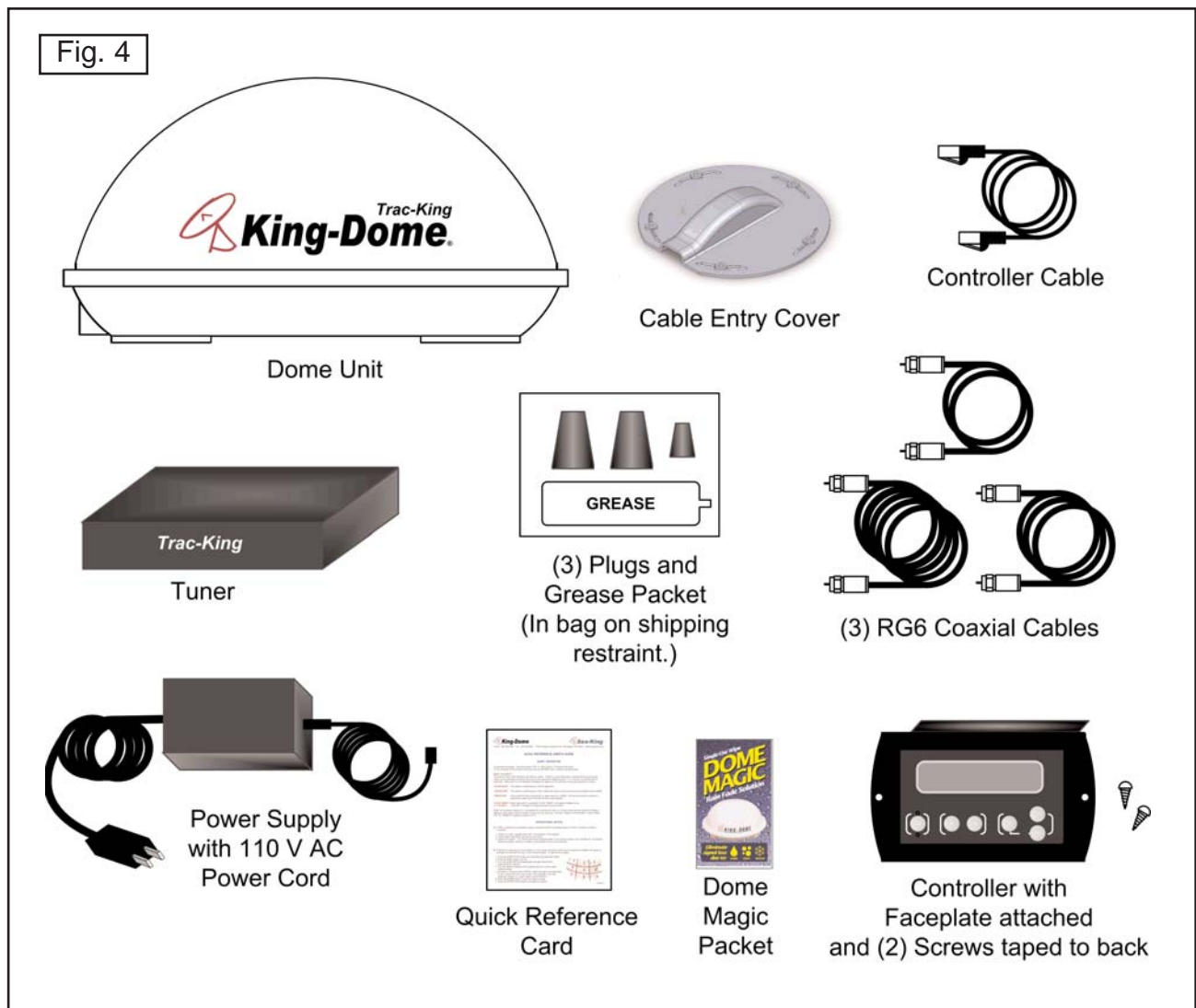
**SIGNAL STRENGTH:** Intensity of electronic signal received from the satellite transmission.

**TOOLS AND MATERIALS REQUIRED:**

- drill and drill bit set
- tape measure
- 7/16" open end wrench (coax connections)
- adhesive sealant (compatible with roof material)
- appropriate fasteners and tools to install all components and wiring
- 5/32" allen wrench, channel lock or pliers (to remove shipping bolts)
- wire cutter (to remove shipping tie strap)

**KIT CONTENTS:**

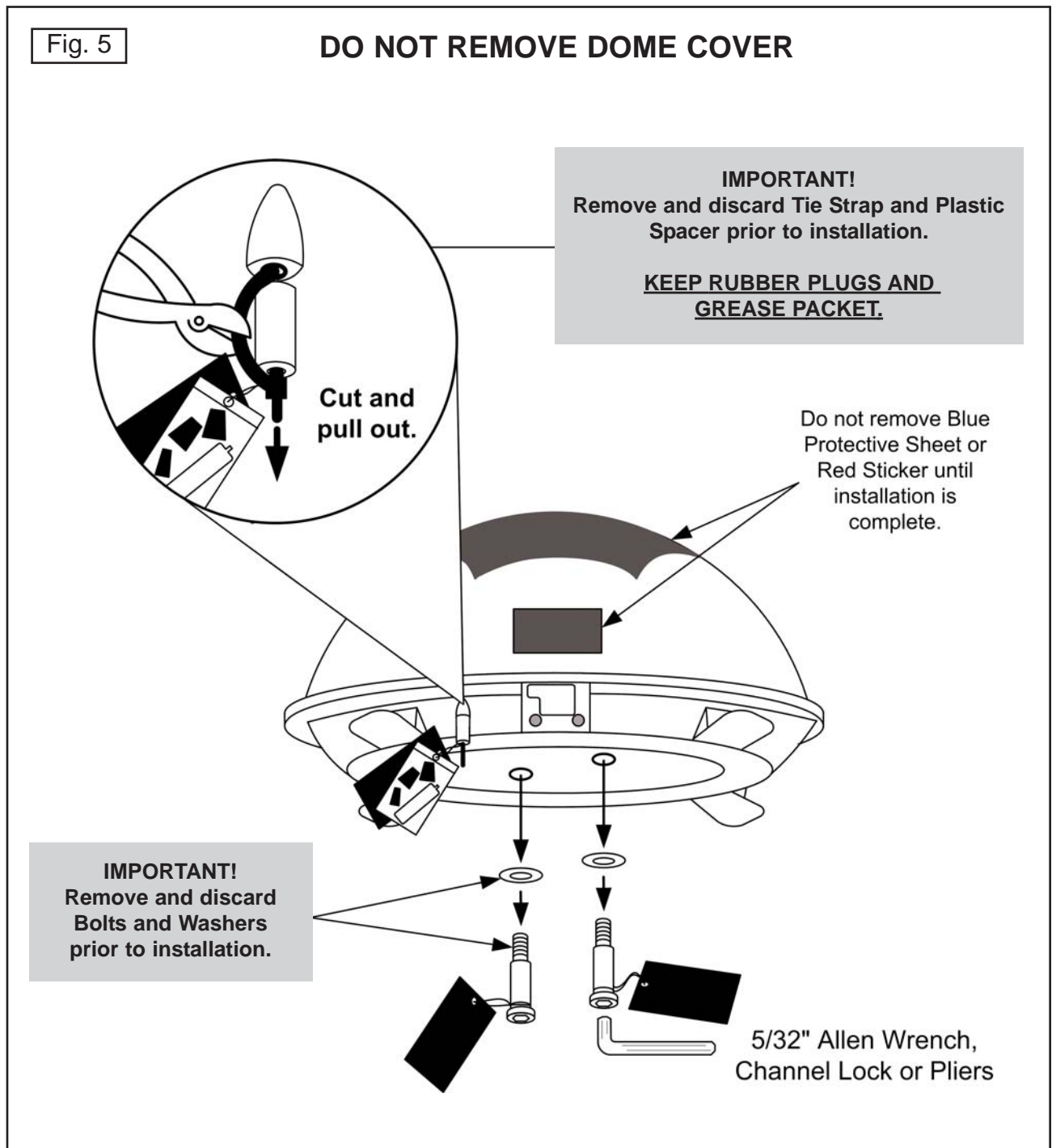
1. Unpack and identify all components (**Fig. 4**).



**IMPORTANT!** The tie strap and spacer, and the bolts and washers must be removed from the bottom of the dome unit prior to installation. **DO NOT REMOVE THE DOME COVER TO REMOVE THESE SHIPPING RESTRAINTS.**

**YOU MUST PLUG THE SHIPPING RESTRAINT HOLE AND TWO SHIPPING BOLT HOLES WITH THE SUPPLIED PLUGS. (ATTACHED TO TIE STRAP SHIPPING RESTRAINT.)**

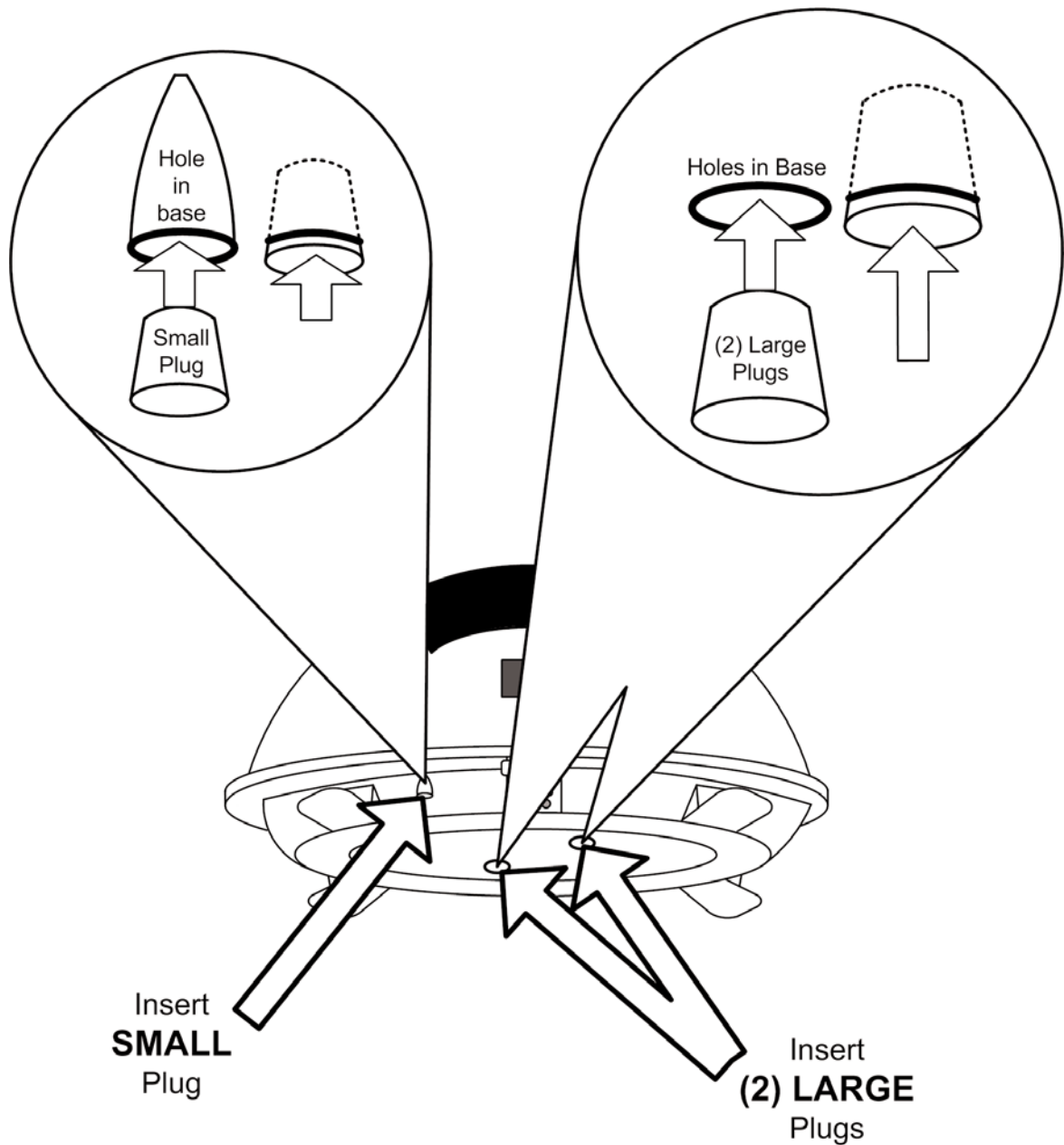
2. Remove and discard the tie strap and spacer (**KEEP RUBBER PLUGS AND GREASE PACKET**), and the (2) bolts and (2) washers that pass through the bottom of the base (**Fig. 5**).



3. Insert provided plugs into holes that were occupied by tie strap and shipping bolts. Inserted plugs should be flush with base (**Fig. 6**).

Fig. 6

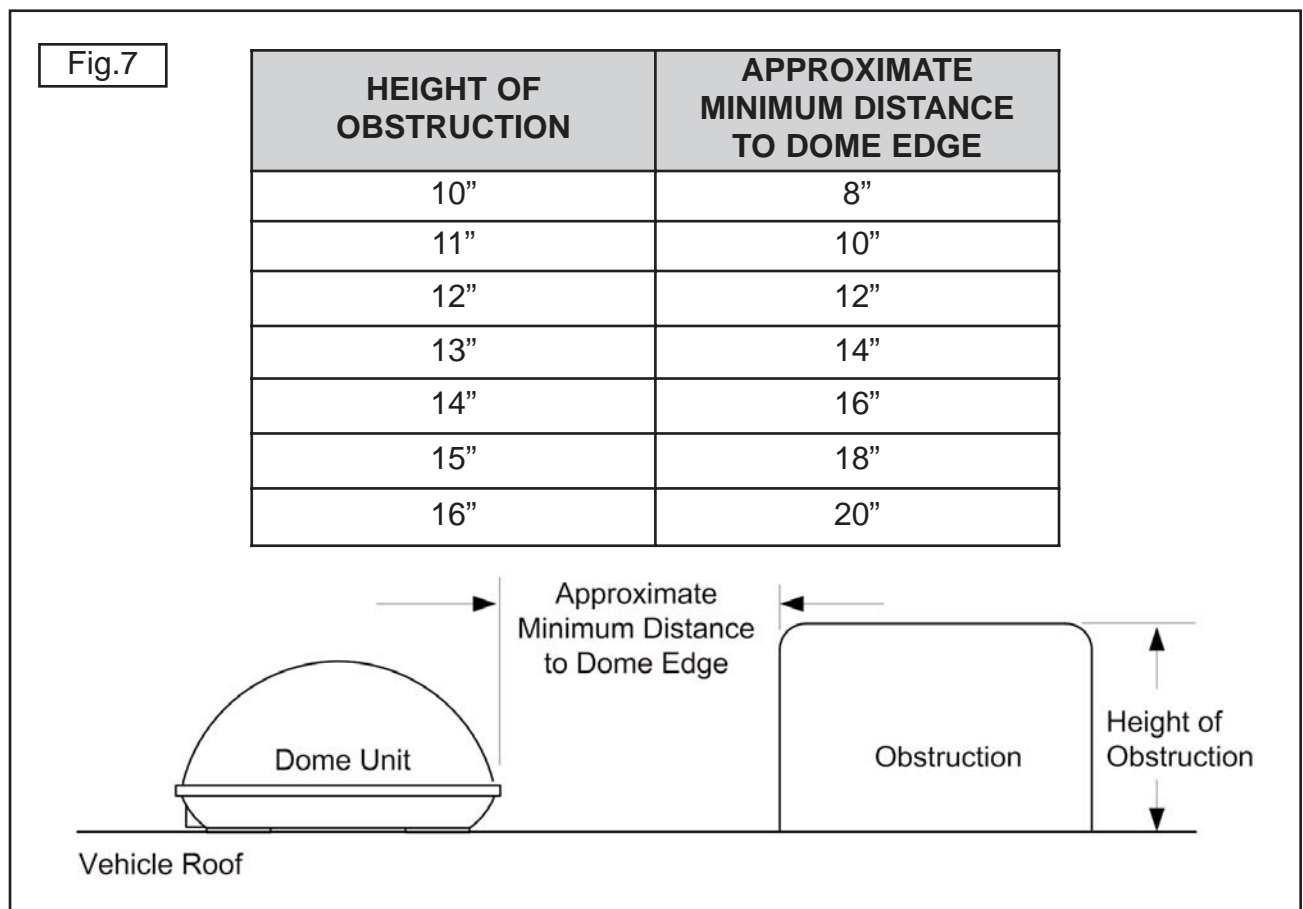
**IMPORTANT!**  
After removing shipping restraints, firmly insert plugs into appropriate holes. Plugs should be flush with base.





## DOME LOCATION

1. Select an area on the roof for the dome unit and the location where the coax cables will enter the vehicle through the roof to the satellite receivers and internal components. Use the following criteria:
  - a) The shortest distance between the dome unit and the main satellite receiver is most desirable.
  - b) The dome unit requires a 28 inch diameter circle.
  - c) The dome unit should be mounted on the centerline of the vehicle (side to side).
  - d) There must be no “line of sight” obstructions from this location. Air conditioning units, other antennas, and storage areas that are too close to the dome unit may prevent the satellite signal from reaching the dish **(Fig. 7)**.

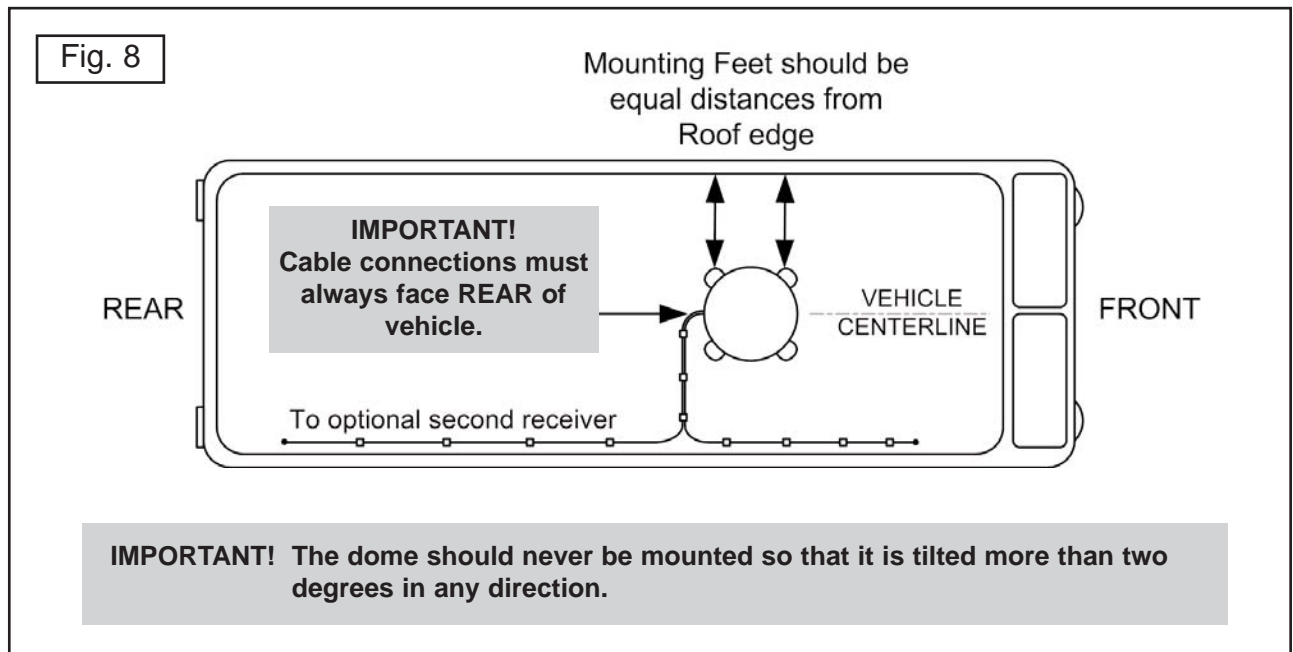


**IMPORTANT!** Make sure shipping restraints are removed from bottom of dome unit and plugs inserted in holes (Fig. 5, Page 5 and Fig. 6, Page 6).

Cable connections must **ALWAYS** be positioned facing rear of vehicle.

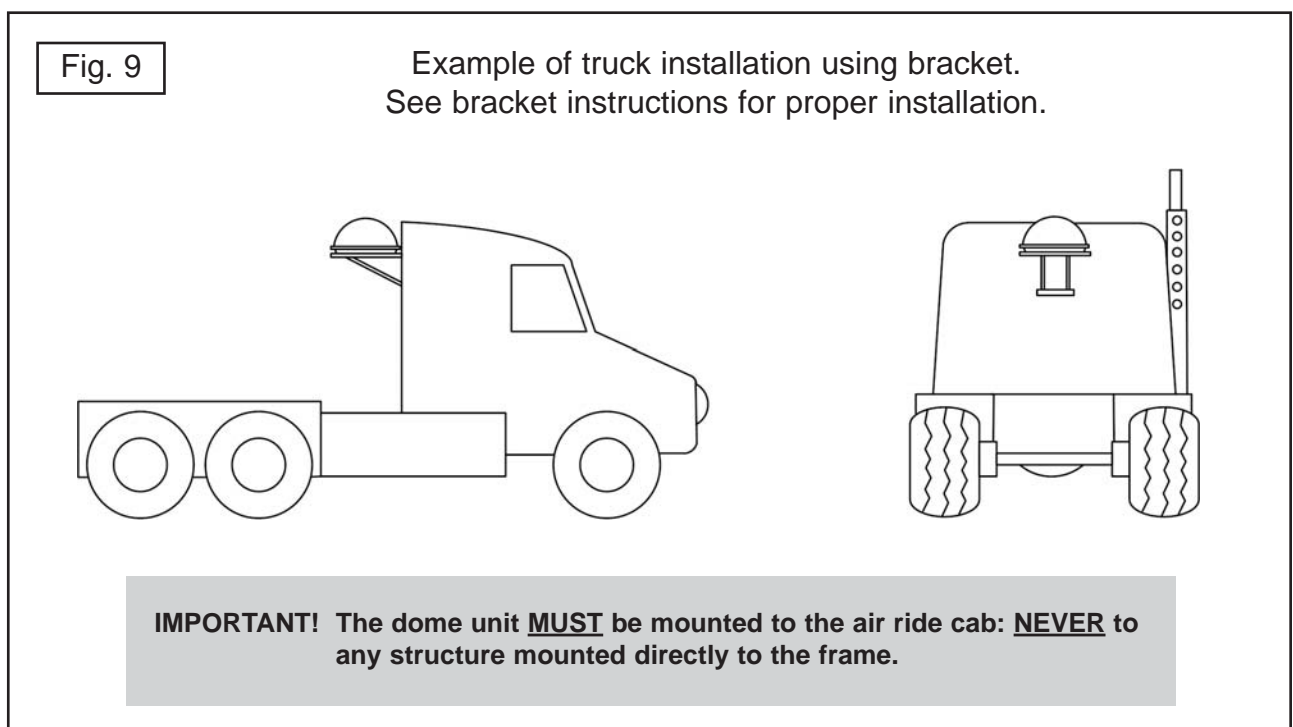
2. Place dome unit in selected area.

3. The dome unit must be positioned so that both feet on each side of the vehicle are equal distances from the roof edge. This should be checked by measuring the distance from each foot to the roof edge. Confirm that these measurements are equal (**Fig. 8**).



**IMPORTANT!** For installations on trucks with air shields, a bracket must be used for mounting the dome unit. The dome unit **MUST** be mounted to the air ride cab: **NEVER** to any structure mounted directly to the frame.

See bracket instructions for proper installation (Fig. 9).



## COMPONENT LOCATION

1. Determine the location of the internal components using the following criteria:
  - a) The Controller, Tuner, and Power Supply should be in the same general vicinity of the main satellite receiver, and **ACCESSIBLE FOR OPERATION AND MAINTENANCE PURPOSES**.
  - b) The Tuner should not be stacked directly on top of other electronics. If located in a cabinet or other enclosure, make sure there is adequate ventilation around the unit.
  - c) The Controller should be conveniently located for the end user. (If using the Wall Mount Faceplate, see page 16.)
  - d) All components should be secured so they do not shift or bounce around during vehicle motion.
2. Place the components in the selected areas.

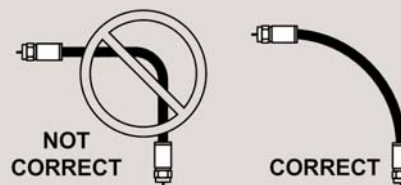
## SYSTEM LOCATION CHECK

### ELECTRICAL HAZARD WARNING!

The coaxial cable that connects the dome unit to the tuner carries a 24 volt electrical current. Exercise extreme caution when handling this cable. Do not cut, break, or splice this line. Do not insert or connect any devices such as splitters or any other device for any reason. This line is not compatible with any other equipment. Damage will occur to any device other than the dome unit if connected to the antenna port on the tuner.



### AVOID SHARP BENDS WHEN ROUTING COAX!



To verify proper operation of the components in their selected locations, perform a System Location Check as follows:

1. **TEMPORARILY** connect system as shown on pages **14 and 15**.
2. Verify system operates properly as described in **Section 4 OPERATION, Page 18**.
3. After verifying system operates properly, disconnect all components.

## DOMES INSTALLATION AND EXTERNAL WIRING

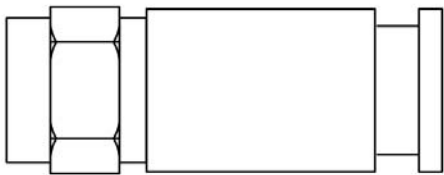
**IMPORTANT! USE ONLY THE COAXIAL CABLES SUPPLIED WITH THE KING-DOME. COIL AND STORE EXCESS CABLE IN THE CABINET WITH THE COMPONENTS. DO NOT CUT COAX.**

If coaxial cable other than that supplied with the King-Dome is used, the following guide lines must be followed (Fig. 10):

- 1) Ends must be terminated with SNAP-N-SEAL<sup>®</sup> connectors.  
(DO NOT USE TWIST-ON OR HEX-CRIMPED CONNECTORS.)
- 2) Cable must be RG6 and rated at 2.2 GHz or higher.

Fig. 10

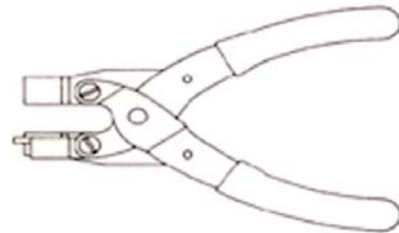
### SNAP-N-SEAL<sup>®</sup> CONNECTOR



Thomas and Betts part # SNS 1P6

King Controls part # 10211

### CRIMPER



Thomas and Betts part # SNSUTL

King Controls part # 10204

Note: The installer is responsible for determining the most appropriate fastener to secure the dome unit to the roof. Depending on the roof material, fasteners such as lag screws, well nuts, sheet metal screws, toggle bolts and T anchors may be used, and should always be used in combination with a roof compatible sealant.

**IMPORTANT! The installer is responsible for weatherproofing all holes with sealant.**

Make sure power supply is disconnected from 110 volt source before continuing with permanent installation.

Make sure shipping restraints are removed from bottom of dome unit, and plugs inserted in appropriate holes (Fig. 5, Page 5 and Fig. 6, Page 6).

Cable connections must ALWAYS be positioned facing the rear of vehicle.

1. Mount the dome unit. Use the pre-drilled holes in the mounting feet as a guide to install the fasteners into the roof. Use additional fasteners whenever necessary.
2. Test that the dome unit is secure by pulling upward from each foot location.

Note. The King-Dome is wired for a dual LNB. There are two coaxial ports on the back of the dome unit. The one labeled "MAIN" **MUST** be connected to the Tuner (IDB) in vehicle. The one labeled "AUX" can be used for an additional receiver (see page 15).

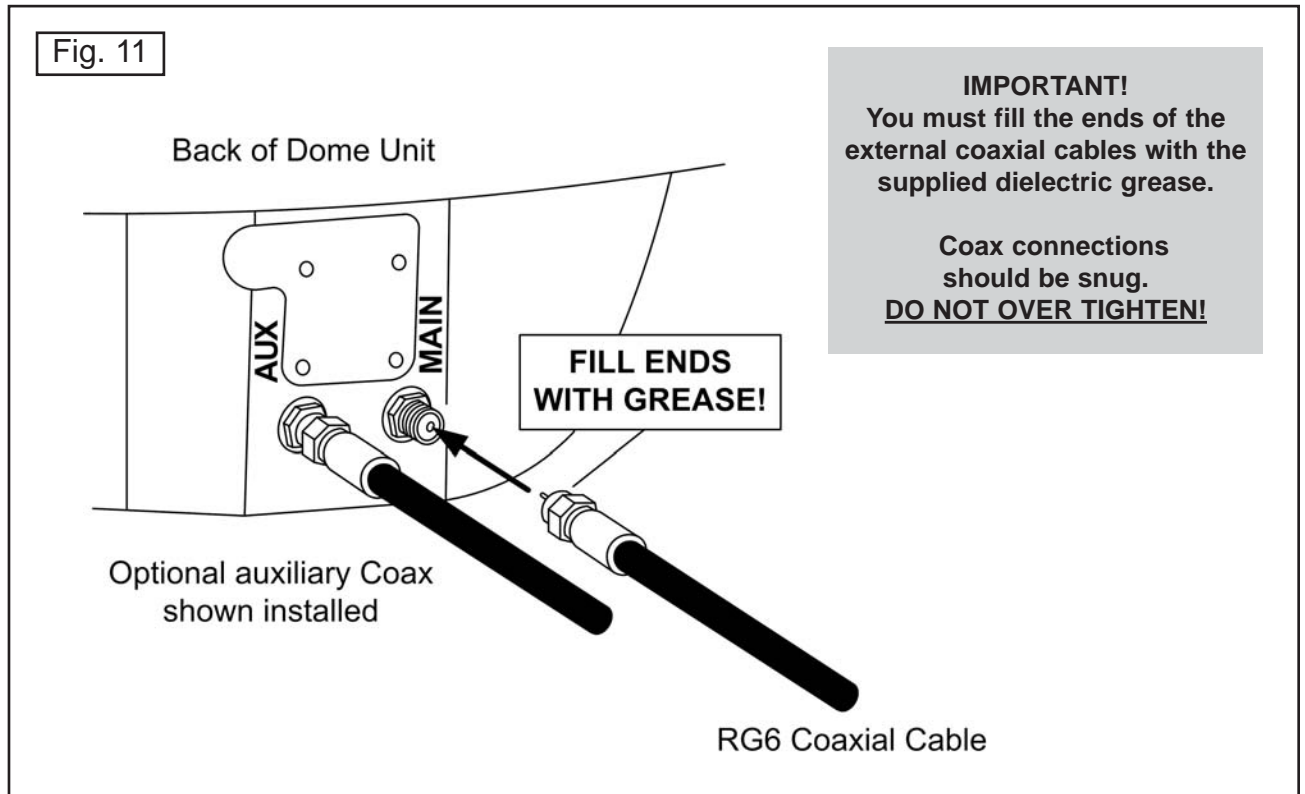
There are three lengths of coaxial cable supplied. The 7' is used to connect the tuner to the receiver. The longer two are for connecting the dome unit to the receivers. Use the shorter of the two for the closest receiver, and the longer one for the receiver farthest away.

**IMPORTANT! You must fill the ends of the external coaxial cables with the supplied dielectric grease.**

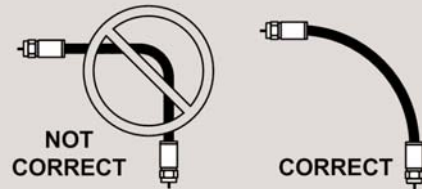
3. Fill end of coaxial cable that will connect to the MAIN port on the dome unit with supplied grease (**Fig. 11**).
4. Connect coaxial cable to the MAIN port and tighten connection.

If using a second receiver, fill end of second coaxial cable and connect it to the port labeled AUX. Tighten connection.

**DO NOT OVER TIGHTEN CONNECTIONS.**



## AVOID SHARP BENDS WHEN ROUTING COAX!



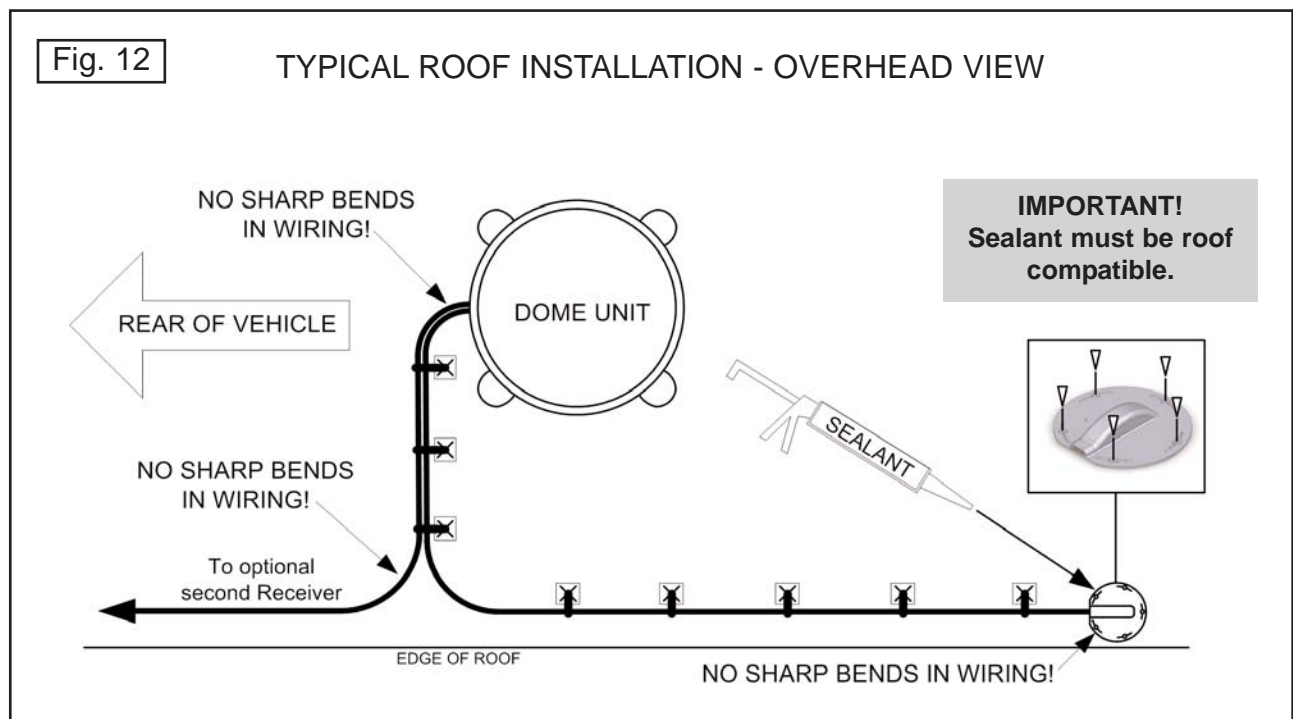
- Run coax from the back of the dome unit to the roof edge, then along edge to location where coax will be fed into the vehicle. (If installing an optional second receiver, run auxiliary coax to location where it will enter the vehicle.) Secure wiring to roof every 12-18 inches (**Fig. 12**).

**IMPORTANT! Sealant must be roof compatible.**

Installer is responsible for determining proper roof compatible fasteners for cable entry cover.

Roof holes for cables must be sealed so they are entirely waterproof. Mounting holes, perimeter of cable entry cover and cable opening of cable entry cover must be sealed so they are entirely waterproof.

- Drill 3/4" hole through the roof and into the cabinet where main receiver is stored. Feed coax down through hole. Seal opening with roof compatible sealant so that it is entirely waterproof (inside and outside of the 3/4" hole). Fasten cable entry cover to roof. Seal mounting holes, perimeter of cover and cable opening so they are completely waterproof. (**Fig. 12**).



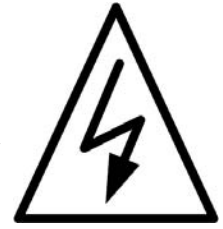
- Remove blue protective sheet and red "position to rear" sticker from the dome unit.



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## ELECTRICAL HAZARD WARNING!

The coaxial cable that connects the dome unit to the tuner carries a 24 volt electrical current. Exercise extreme caution when handling this cable. Do not cut, break, or splice this line. Do not insert or connect any devices such as splitters or any other device for any reason. This line is not compatible with any other equipment. Damage will occur to any device other than the dome unit if connected to the antenna port on the tuner.



### INTERNAL WIRING (Fig. 13)

**IMPORTANT!** The coax cable from the “MAIN” port on the dome unit **MUST** be connected to the Tuner (IDB) in the vehicle.

Coax connections should be snug. **DO NOT OVER TIGHTEN.**

**CONNECT POWER SUPPLY LAST.** When connecting the power supply cable to the tuner, push in the power supply cable end until it is flush against the back of the tuner.

1. Make all connections as shown in the wiring diagram. **ALWAYS CONNECT THE POWER SUPPLY LAST.**

Note: When the power supply is connected, the controller should turn on for 3 seconds and then turn off. If the controller stays on, Press the ENTER and “-” buttons simultaneously to turn unit off.

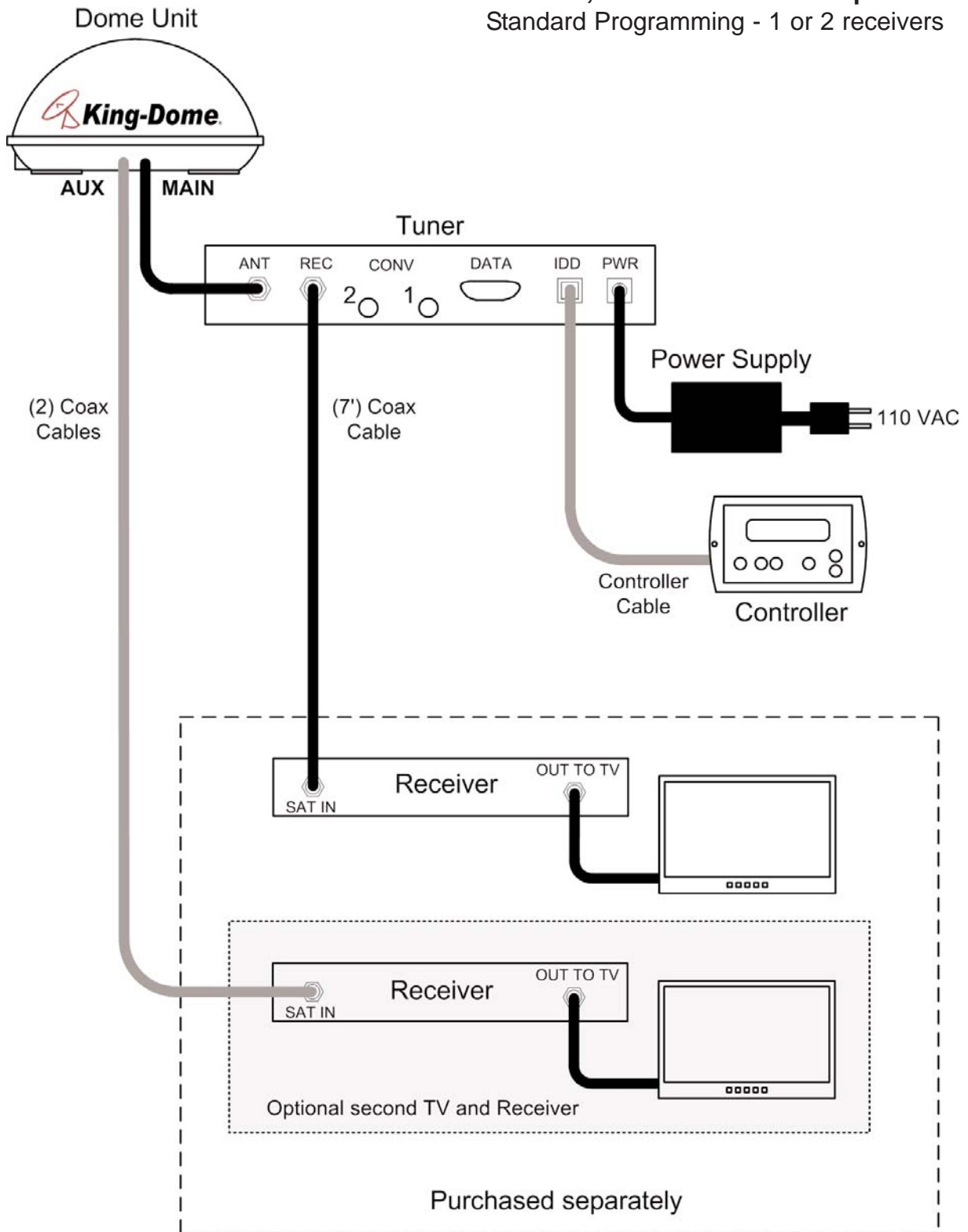


Fig. 13

## 9762-LP WIRING DIAGRAM

DIRECTV, Dish Network and ExpressVu

Standard Programming - 1 or 2 receivers

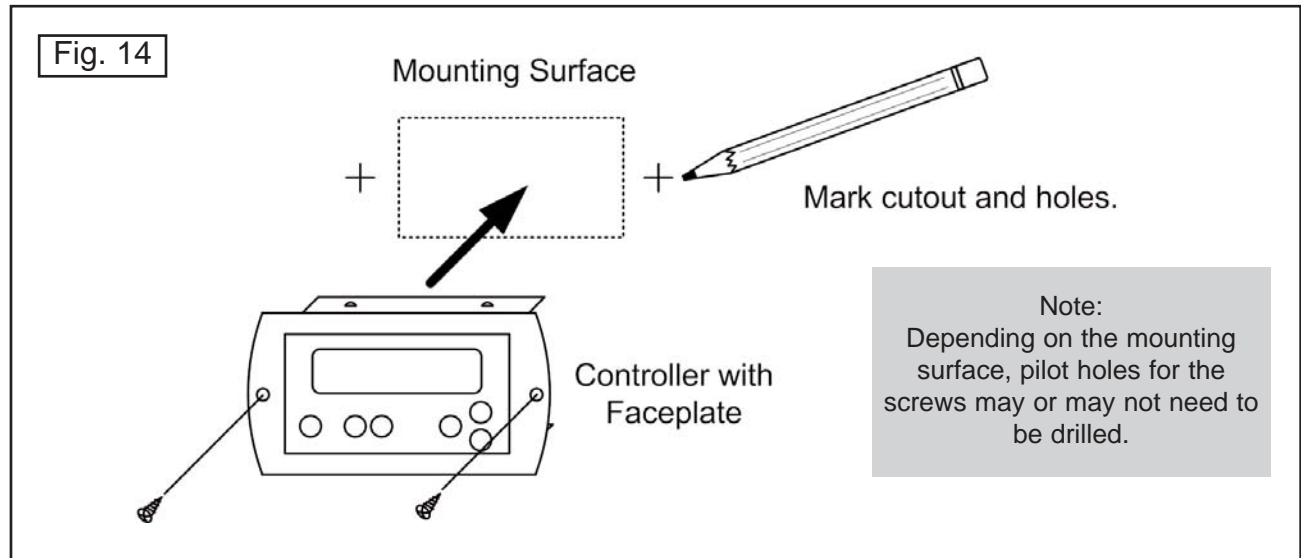


**IMPORTANT! AVOID SHARP BENDS WHEN ROUTING COAX.**

## WALL MOUNT FACEPLATE

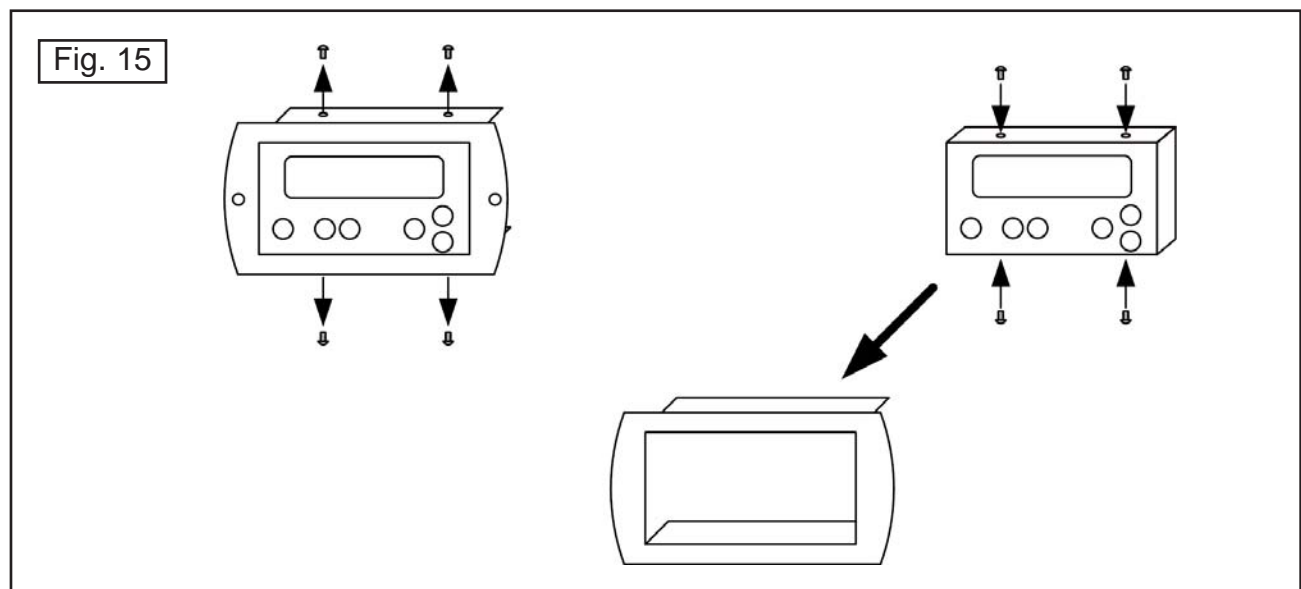
Note: If not using the Faceplate, see Faceplate removal instructions below.

1. Use the Faceplate as a guide to mark and cut out the mounting cavity, and if necessary, mark and drill the mounting holes (**Fig. 14**).
2. Mount Faceplate in wall with supplied screws.



The Faceplate is optional and can be removed as follows: (**Fig. 15**)

1. Remove 4 screws from Controller.
2. Slide Faceplate off Controller.
3. Replace 4 screws.





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**IMPORTANT!** There must be a clear “line of sight” to the satellite (See Fig. 2, Page 3). Mountains, buildings, trees, telephone poles, etc. can all block the satellite signal from reaching the dish.

Note: This example is for the DTV 101 satellite in Region 2-North Central. The information on your controller will vary depending on the satellite and region you have chosen (see pages 20-21).

1. Turn on TV and satellite receiver. “Searching for Satellite Signal” or similar should appear on TV.



Unit powers up, performs a self-diagnostic and loads software.



**POWER UP  
PLEASE WAIT**

**IDB2 VER 1.x**

Unit begins searching for the selected satellite.

**RUN: SCAN ALIGN  
NOW on? ==>**

**RUN: SCAN ALIGN  
2-NORTH CENTRAL**

**RUN: SCAN ALIGN  
DTV 101**

Unit has locked onto the selected satellite.

**RUN: LOCKED S XX  
NOW on 101 ==>**

**RUN: LOCKED S XX  
2-NORTH CENTRAL**

**RUN: LOCKED S XX  
DTV 101**

Note: The Trac-King must remain powered on to maintain a signal. If you are going to be stationary and wish to continue watching TV, **DO NOT TURN THE SYSTEM OFF.**

## AUTOMATIC SATELLITE SWITCHING

Note: For **DIRECTV** switching options see page 22.

For **Dish Network - ExpressVu** switching options see page 23.

1. Simply choose your desired channel using the receiver's remote control. The Trac-King will automatically switch to the appropriate satellite.

Note: For better performance when using the automatic satellite switching feature, change channels by selecting your program from the channel guide rather than channel surfing.

It is common for the picture to pixel or display an error message when the antenna is switching between satellites, or the signal has been temporarily blocked. PLEASE BE PATIENT.  
THE PICTURE WILL RETURN.

If an error message appears for an extended period, selecting CANCEL may help clear the message more quickly.

## SET SATELLITE SERVICE

### SATELLITE LIBRARY

DTV 101	DIRECTV at 101
DTV 101/ 110 hd	DIRECTV HDTV at 101 and 110
DTV 101/ 119	DIRECTV HDTV at 101 and 119
Sat 110	Dish Network at 110
Sat 119	Dish Network at 119
DISH 61	Dish Network at 61
DISH 129	Dish Network at 129
DISH 148	Dish Network at 148
DISH 110/119	Dish Network at 110 and 119
DISH 1000	Dish Network HDTV at 110, 119, and 129
DISH 1000a	Dish Network HDTV at 61, 110, and 119
EXPVU 82	Bell ExpressVu at 82
EXPVU 91	Bell ExpressVu at 91
BEV 82/ 91	Bell ExpressVu at 82 and 91 (not available on all units)

Note: The King Controls HD TV Converter Box (#9747 or #9747-AM) is required to receive HD programming from the DIRECTV satellite at 110.

1. Press

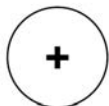


Unit goes into SET SATELLITE menu.

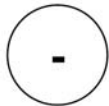
**SET SATELLITE**



2. Press



or



Use the plus and minus buttons to display your selected satellite on the controller.

**Display selected  
satellite on controller.**

3. Press



Sets satellite in memory.  
Unit moves to new selected satellite.

**RUN: SWITCHING**

**RUN: LOCKED**  
**Displays selected satellite**

## SET REGION (OPTIONAL)

Note: To reduce satellite acquisition time, you can set your current region.

1. Press **ON** Unit goes into IDLE/HOLD mode.

**IDLE/HOLD SXX**  
**NOW on 101 ==>**



2. Press **MAIN** Unit goes into USER SETUP menu.

**USER SETUP ==>**  
**Rev xxxx sn xxxxx**

3. Press **→** Unit goes into SET REGION menu.

**SET REGION**  
**■■■■■■■■**

4. Press **+**  
or **-** Find your location on the map below and determine which region you are in. Use the plus and minus buttons to display your region on the controller.

**Display your region on the controller.**

5. Press **ENTER** Sets REGION into memory.

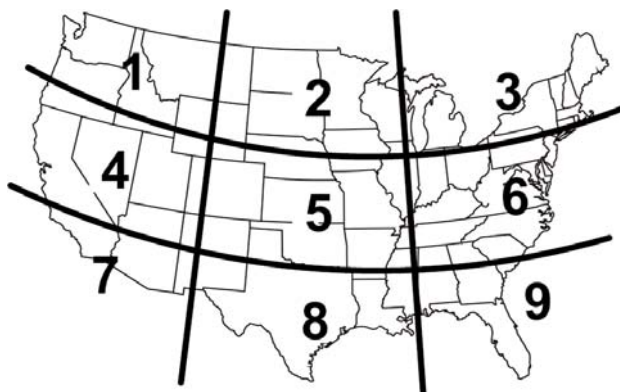
**IDLE/HOLD SXX**  
**NOW on 101 ==>**

6. Press **ON** Unit searches based on new REGION.

**RUN: SCAN ALIGN**  
**DTV 101**

### REGION OPTIONS:

- 1 NORTH WEST
- 2 NORTH CENTRAL
- 3 NORTH EAST
- 4 CENTRAL WEST
- 5 MIDDLE CENTRAL
- 6 CENTRAL EAST
- 7 SOUTH WEST
- 8 SOUTH CENTRAL
- 9 SOUTH EAST
- 0 ALL REGIONS
- 0 RECALIBRATE



# AUTOMATIC SATELLITE SWITCHING

## DIRECTV

To receive programming from the DIRECTV 101 satellite only, your receiver must be set for round dish-1 satellite (do this through the receiver's satellite set-up menu screens).

To automatically switch between the 101 and 119 satellites for DIRECTV, choose the DTV 101/119 option (see procedure on page 20), and make sure your receiver is set for oval dish-2 satellites (do this through the receiver's satellite set-up menu screens).

To receive DIRECTV HD programming with your Trac-King antenna requires the purchase of an optional HD converter kit # 9747. This will allow you to receive the specially formatted HD signals from DIRECTV's 110° satellite and automatically switch between satellites 101/110 and 101/119 when simply changing channels.

**IMPORTANT! This King-Dome will receive available HDTV programming from DIRECTV Ku band satellites at 101°, 110° and 119° with the properly installed HD converter accessory. It will not receive channels broadcast from DIRECTV's Ka band satellites at 99° and 103°.**

The automatic satellite switching feature can be active on 1 or more receivers depending on how the system is installed. The two options for automatic satellite switching are as follows:

### Switching from master receiver only

To enable automatic satellite switching from the main satellite receiver only, use the wiring configuration found on page 30. This allows only the receiver connected to the tuner to provide the switching command to the antenna when a channel from the alternate satellite is selected. If you plan to use this switching method with (2) HDTV receivers, a second HD converter #9747 is required (page 31).

### Switching from any receiver

To automatically switch satellites from any receiver location when the installation includes 2 or more satellite receivers, a multi-switch (#1810) must be installed in-line (see page 32). This allows any of the receivers to provide the switching command to the antenna when a channel from the alternate satellite is selected, provided that all other receivers are tuned to a channel on the 101 satellite.

Note: To learn more about receiving HDTV programming with your Trac-King antenna, contact your local authorized King-Dome dealer or call King Controls at (800) 982-9920.



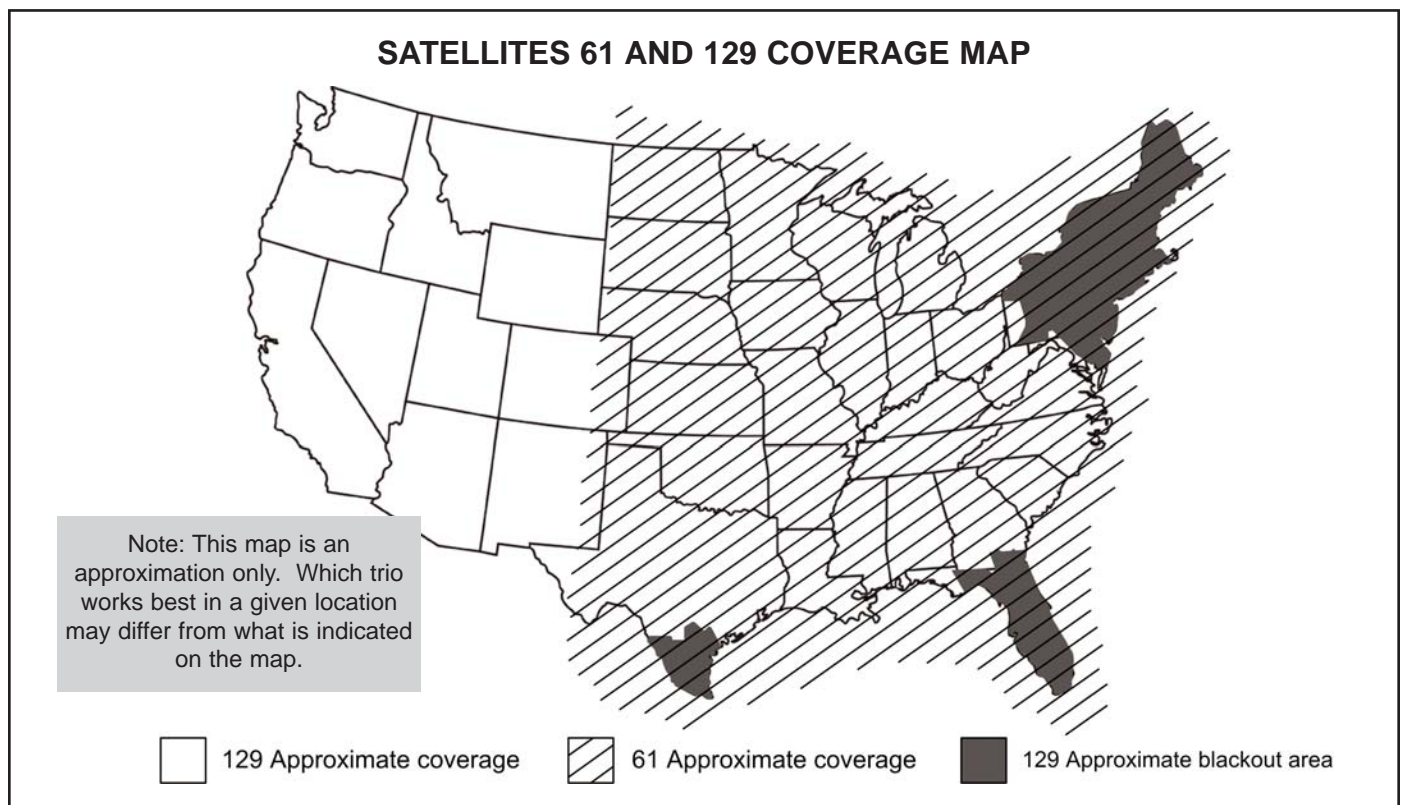
**DISH 500 FOR DISH NETWORK**

The Trac-King will automatically switch between the 110 and 119 satellites for Dish Network by using the receiver's remote control, after the receiver has been properly configured. Follow the instruction on pages 24-25.

**DISH 1000/1000a FOR DISH NETWORK HDTV**

Dish Network HD programming is broadcast from 4 satellites (61,110,119,129). The 61 and 129 satellites broadcast identical programming. (The 61 is generally stronger in the eastern U.S. and the 129 in the western U.S.) The map below shows the approximate coverage for each satellite.

Your Trac-King antenna can be easily configured to work with two different satellites trios (DISH 1000a: 61,110,119 or DISH 1000: 110,119,129) as you travel from one coverage area to another. By choosing the appropriate trio that includes either the 61 or the 129 based on where you are, you can receive all of your desired programming. Follow the instructions on pages 26-27.

**BELL EXPRESSVU HD**

The Trac-King will automatically switch between the 82 and 91 satellites for Bell ExpressVu by using the receiver's remote control, after the receiver has been properly configured. Follow the instructions on pages 28-29.

# DISH 500 for DISH NETWORK

**IMPORTANT!** In order for all receivers to work properly, each one must be configured separately while connected to the MAIN port on the Trac-King.

If you do not have a clear view of both satellites, the switch will not load.


King Controls recommends using a Dish Network model 311 receiver for automatic satellite switching.

Note: The SW21 switch is a receiver software configuration that is loaded into the receiver after running a check switch test with the dish locked on and configured for Dish 500 switching mode.

This is a one time procedure and will not need to be repeated after successful installation, unless the check switch test is run again while connected to a home dish system.

1. Turn on TV, satellite receiver and the Trac-King.




2. Press  Unit goes into SET SATELLITE menu.

SET SATELLITE  
■■■■■■■■

3. Press  or  as needed to display:

SET SATELLITE  
DISH 110/119

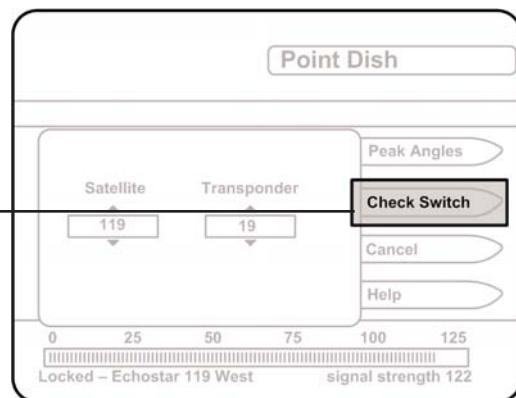
4. Press  Wait for dish to lock onto satellites, and controller to display:

RUN: LOCKED S XX  
DISH 110/119 ==>

RUN: LOCKED S XX  
CURRENT ZONE

RUN: LOCKED S XX  
DISH 110/119

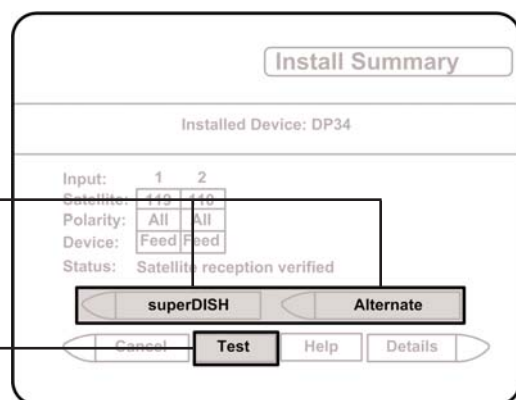
5. On the receiver remote, press **MENU 6 1 1**.



Screen graphics may vary.

6. Highlight **Check Switch** and press select.

7. Make sure **Superdish** and **Alternate** boxes are **NOT** selected.



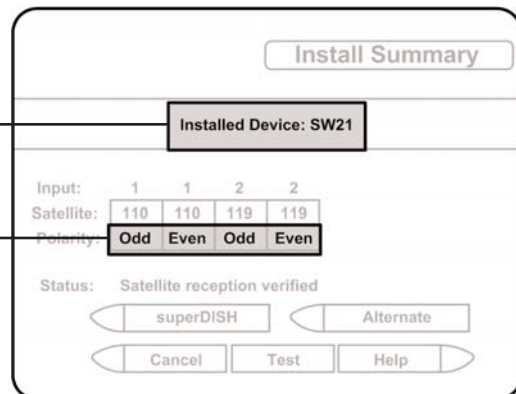
8. Highlight **Test** and press **Select**.

The unit will perform a check switch test, and the dish will periodically move back and forth. (This process will take several minutes.)

9. When test is complete, SW21 appears as the installed device, and there must be no "X"s in the indicated columns.

**MUST SHOW "SW21"**

**NO "X"s**



If indicated results are not obtained, go back to Step 5 and run test again. Contact the King Controls Service Department if the check switch fails to load after 4 attempts.

10. Save the settings, exit to the main menu screen and wait for your programming to download.

# DISH 1000/1000a for Dish Network HDTV

**IMPORTANT!** In order for all receivers to work properly, each one must be configured separately while connected to the MAIN port on the Trac-King.

If you do not have a clear view of all three satellites, the switch will not load.

**King Controls recommends using a Dish Network model VIP211 HDTV receiver for automatic satellite switching.**

Note: The SW64 switch is a receiver software configuration that is loaded into the receiver after running a check switch test with the dish locked on and configured for Dish 1000 or 1000a switching mode.

This is a one time procedure and will not need to be repeated after successful installation, unless the check switch test is run again while connected to a home dish system, or if you travel to another area and need to change the selected trio of satellites.

1. Turn on TV, satellite receiver and the Trac-King.



2. Press  Unit goes into SET SATELLITE menu.

**SET SATELLITE**  
■■■■■■■■

3. Press  or  as needed to display:

**SET SATELLITE**  
**DISH 1000**

**OR**

**SET SATELLITE**  
**DISH 1000a**

Note: **Dish 1000** = satellites **110, 119, 129**

**Dish 1000a** = satellites **61, 110, 119**

(See map on page 23.)

4. Press 

Wait for dish to lock on, and controller to display:

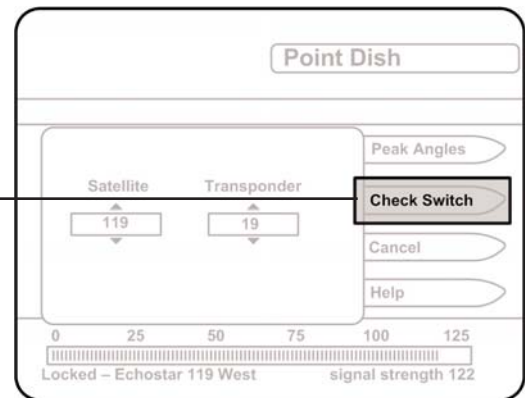
**RUN: LOCKED S XX**  
**DISH 1000 OR 1000a ==>**

**RUN: LOCKED S XX**  
**CURRENT ZONE**

**RUN: LOCKED S XX**  
**DISH 1000 OR 1000a**

5. On the receiver remote, press **MENU 6 1 1**.

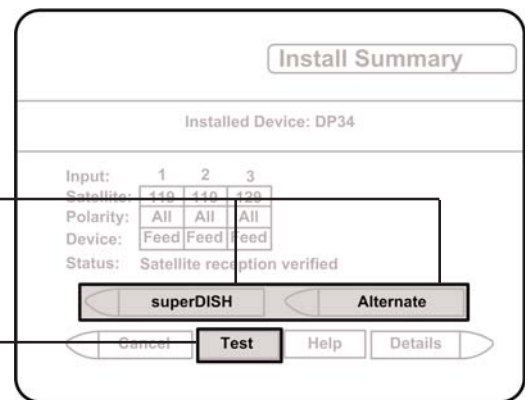
6. Highlight **Check Switch** and press select.



Screen graphics may vary.

7. Make sure **Superdish** and **Alternate** boxes are **NOT** selected.

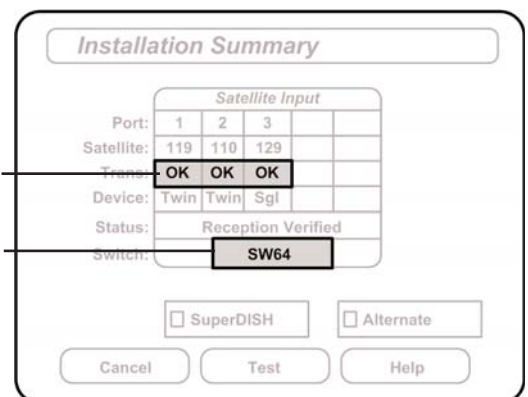
8. Highlight **Test** and press **Select**.



The unit will perform a check switch test, and the dish will periodically move back and forth. (This process will take several minutes.)

9. When test is complete, SW64 appears as the installed device, and there must be no "X"s in the indicated columns.

**NO "X"s**  
**MUST SHOW "SW64"**



If indicated results are not obtained, go back to Step 5 and run test again. Contact the King Controls Service Department if the check switch fails to load after 4 attempts.

10. Save the settings, exit to the main menu screen and wait for your programming to download.

# BELL EXPRESSVU HD

**IMPORTANT!** This feature is not available on all units. If your unit has this feature, “BEV 82/91” will be listed in the satellite library on your controller’s display (see page 20).

Some units can be upgraded with this feature. Please call the King Controls service department with the serial number of your Trac-King to determine if this feature will work with your unit.

In order for all receivers to work properly, each one must be configured separately while connected to the MAIN port on the King-Dome.

If you do not have a clear view of both satellites, the switch will not load.

Note: The SW21 switch is a receiver software configuration that is loaded into the receiver after running a check switch test with the dish locked on and configured for ExpressVu HD switching mode.

This is a one time procedure and will not need to be repeated after successful installation, unless the check switch test is run again while connected to a home dish system.

1. Turn on TV, satellite receiver and the Trac-King.



2. Press  Unit goes into SET SATELLITE menu.

**SET SATELLITE**  
■■■■■■■■

3. Press  or  as needed to display:

**SET SATELLITE**  
**BEV 82/91**

4. Press 

Wait for dish to lock on, and controller to display:

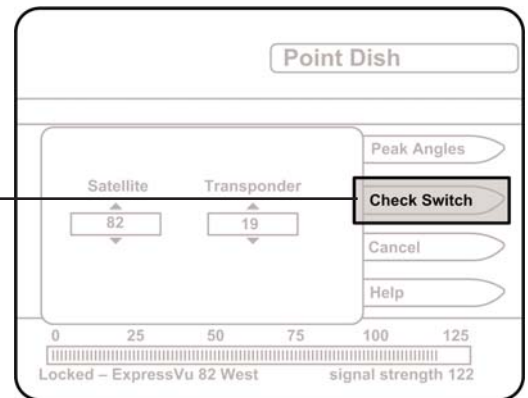
**RUN: LOCKED S XX**  
**BEV 82/91 ==>**

**RUN: LOCKED S XX**  
**CURRENT ZONE**

**RUN: LOCKED S XX**  
**BEV 82/91**

5. On the receiver remote, press **MENU 6 1 1**.

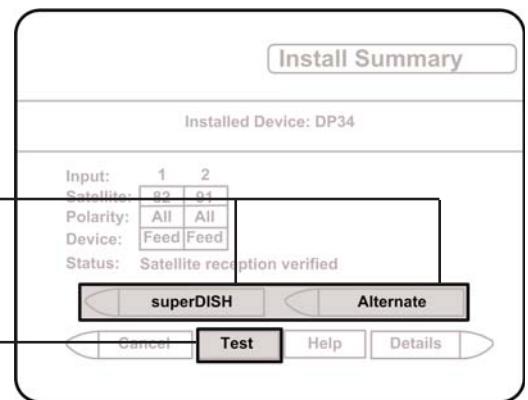
6. Highlight **Check Switch** and press select.



Screen graphics may vary.

7. Make sure **Superdish** and **Alternate** boxes are **NOT** selected.

8. Highlight **Test** and press **Select**.

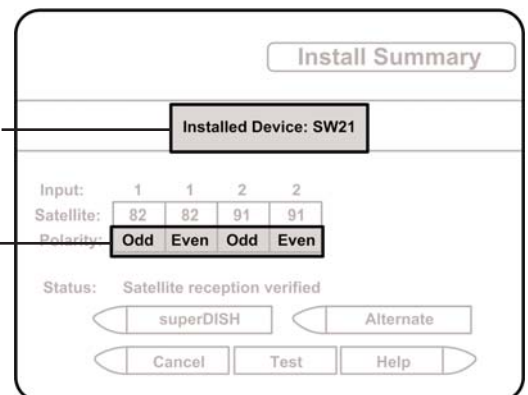


The unit will perform a check switch test, and the dish will periodically move back and forth. (This process will take several minutes.)

9. When test is complete, SW21 appears as the installed device, and there must be no "X"s in the indicated columns.

**MUST SHOW "SW21"**

**NO "X"s**



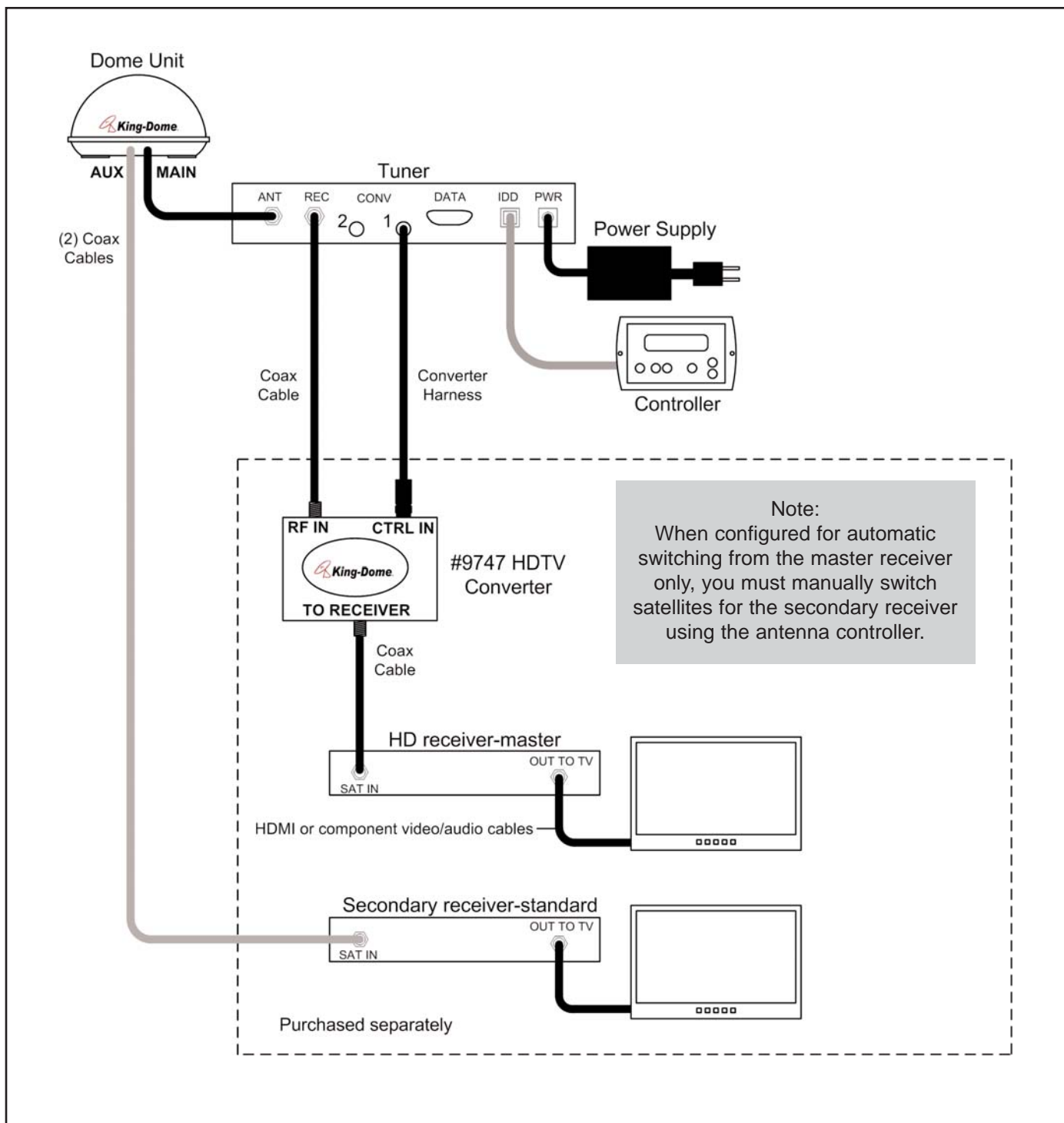
If indicated results are not obtained, go back to Step 5 and run test again. Contact the King Controls Service Department if the check switch fails to load after 4 attempts.

10. Save the settings, exit to the main menu screen and wait for your programming to download.



**(1) HD receiver and (1) standard receiver****Switching from master receiver only**

Note: Requires HDTV converter #9747 and other HDTV components (purchased separately). Call King Controls for more information.

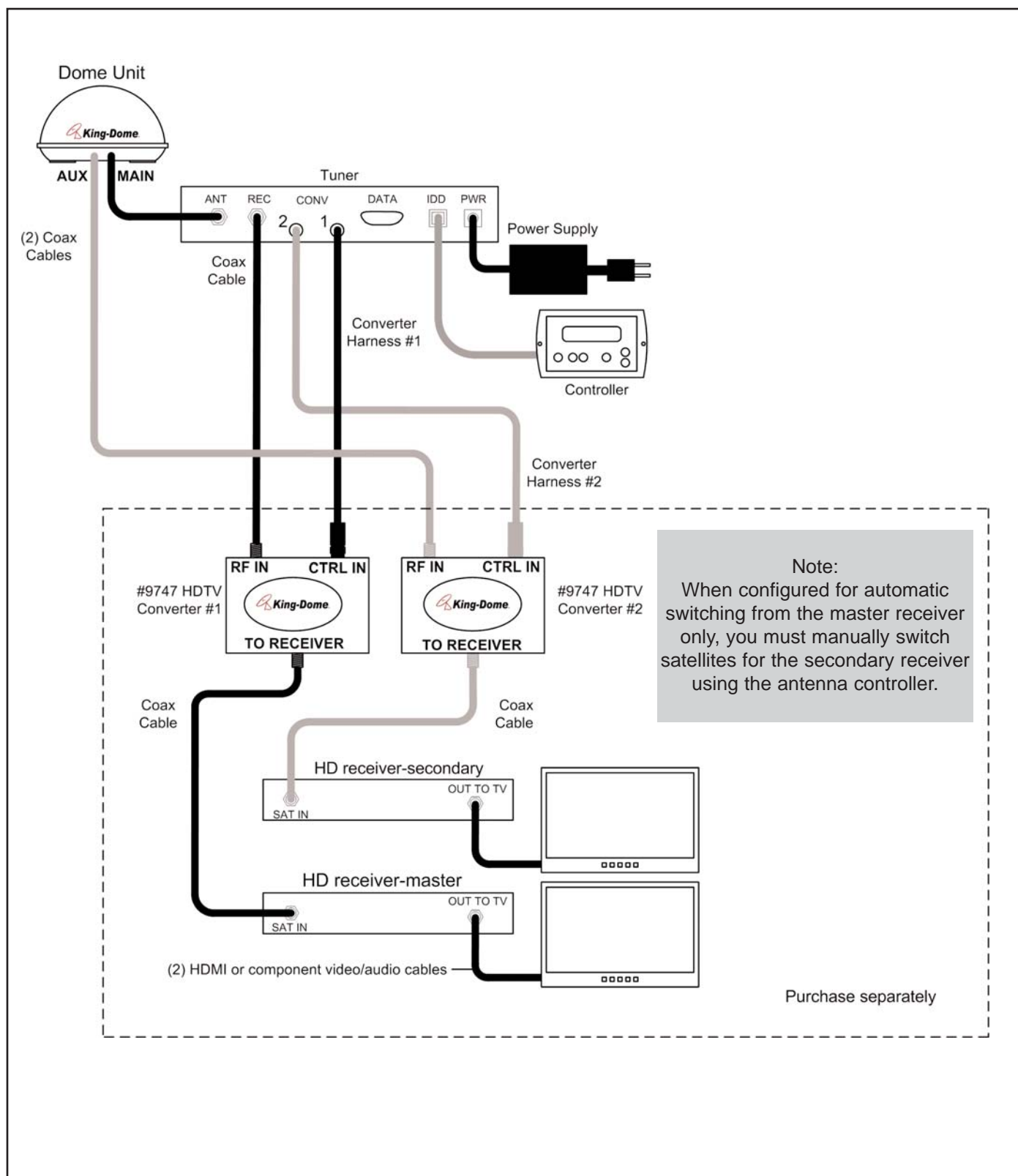




## (2) HD receivers

### Switching from master receiver only

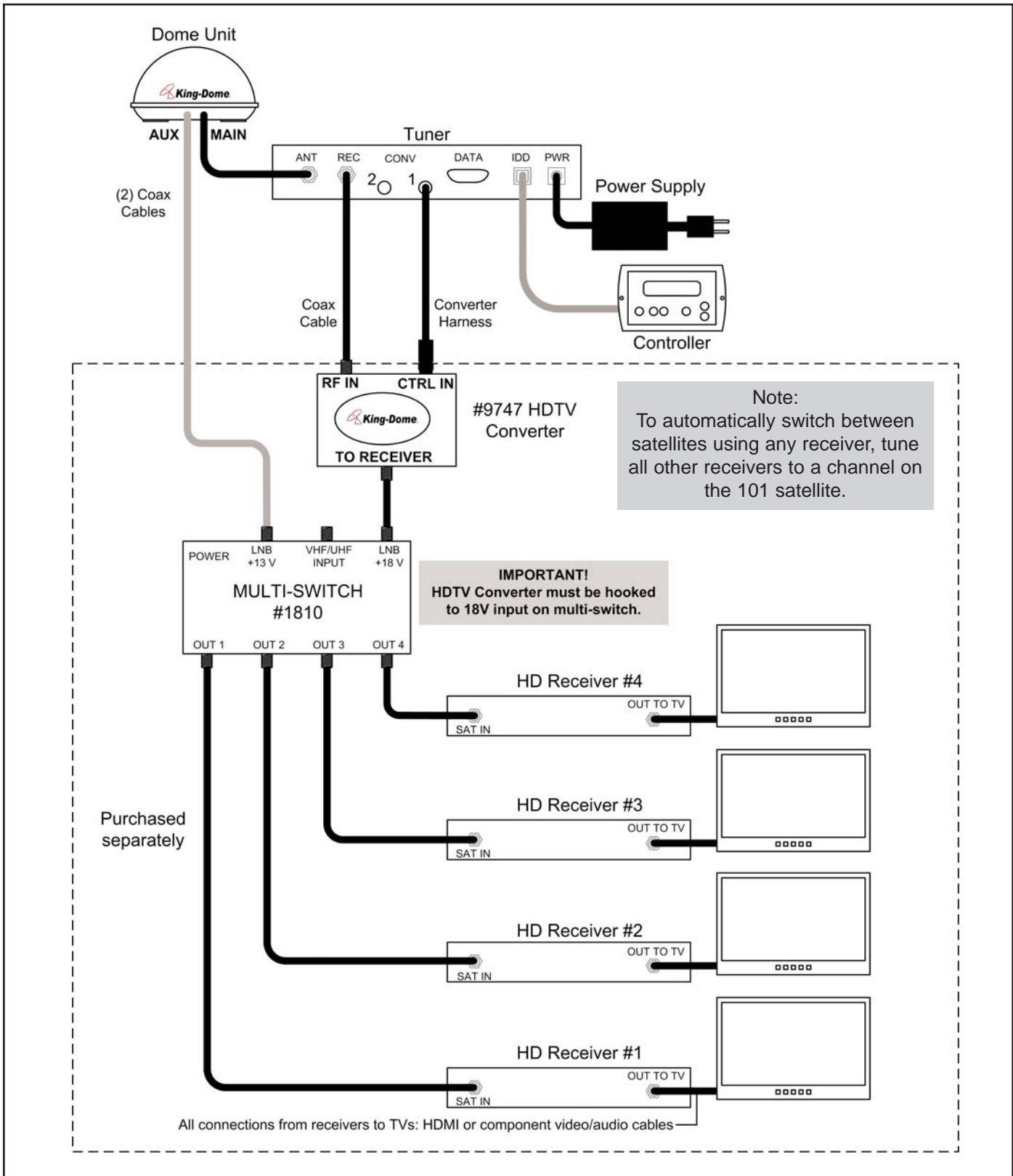
Note: Requires (2) HDTV converters #9747 and other HDTV components (purchased separately). Call King Controls for more information.



## (2) or more HD receivers

### Switching from any receiver

Note: Requires HDTV converter #9747 and other HDTV components (purchased separately). Call King Controls for more information.





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SYMPTOM	POSSIBLE SOLUTION
Controller does not power up.	<p>Check: tuner is connected to power supply.</p> <p>controller is connected to tuner.</p> <p>power supply is plugged into 110 VAC outlet.</p>
<p>Controller remains in one of the following conditions:</p> <p>POWER TRIP</p> <p>ANT COM ERROR?</p> <p>TUNER COM ERROR?</p> <p>LOAD ERROR</p> <p>LOADING PLEASE WAIT</p>	<p>Unplug tuner for 10 seconds, then plug back in.</p> <p>Check coax cables and connections between tuner and dome unit.</p> <p>Inspect all coax cables for kinks and verify connections are snug but not overly tight (inside and outside dome unit).</p>
<p>Controller remains in the following condition:</p> <p>POWER UP PLEASE WAIT</p>	<p>Verify voltage on coax at dome unit is 24 volts.</p>
<p>Controller displays AZ FAULT.</p> <p>Dish cannot rotate</p>	<p>Make sure shipping bolts are removed.</p> <p>Make sure shipping tie strap is removed.</p> <p>Disconnect power supply for 15 seconds, then reconnect.</p> <p>Perform <b>Mechanical Calibration</b> (page 38).</p> <p>Perform <b>OPTION 21 RE-INITIALIZE and 0-RECALIBRATE</b> (pages 36-37).</p> <p>Reseat ribbon cables (inside dome unit).</p>
<p>Controller displays EL FAULT.</p>	<p>Make sure shipping tie strap is removed.</p> <p>Disconnect power supply for 15 seconds, then reconnect.</p> <p>Perform <b>Mechanical Calibration</b> (page 38).</p> <p>Restart system. If problem persists, perform <b>OPTION 21 RE-INITIALIZE and 0-RECALIBRATE</b> (pages 36-37).</p> <p>Reseat ribbon cables (inside dome unit).</p>

SYMPTOM	POSSIBLE SOLUTION
Only getting signal on 1/2 of transponders.	<p>Kinked or sharply bent coax cable.</p> <p>Verify coax cables are properly terminated with SNAP-N-SEAL® connectors only.</p> <p>Verify receiver is operating properly.</p> <p>Verify LNB type is set correctly.</p>
Unit never locks on or locks on and drifts off of satellite.	<p>Atmospheric moisture. Unit will lock on as weather improves.</p> <p>Check for obstruction in sky in direction of satellite. Select another satellite and verify unit locks on.</p> <p>Verify coax cables are properly terminated with SNAP-N-SEAL® connectors only.</p> <p>Perform <b>OPTION 21 RE-INITIALIZE and 0-RECALIBRATE</b> (pages 36-37).</p> <p>Inspect all coax cables for kinks and verify connections are snug but not overly tight (inside and outside dome unit).</p> <p>Perform <b>Temperature Calibration (CALL KING CONTROLS FIRST)</b>.</p> <p>Compass stick bad or not connected.</p>
Can't get SW21 or SW 64 switch to load properly.	<p>Check for line of sight obstruction.</p> <p>Check for low signal strength.</p> <p>Current location might be out of service area.</p> <p>Select alternate trio of satellites (SW64) and try again.</p> <p>Atmospheric moisture. Wait for weather to improve.</p>
Trying to load the SW21 or SW64 results in error or no satellite.	<p>Disconnect DIRECTV HDTV Converter.</p>

## OPTION 21 RE-INITIALIZE and 0 RECALIBRATE

1. Press **MAIN** as needed  
to enter DEALER SETUP menu.



**DEALER SETUP ==>  
CODE 0**

2. Press **+** as needed to scroll up to CODE 13.

Press **ENTER**

**DEALER SETUP ==>  
CODE 13**

3. Press **→** as needed to enter SET OPTION menu.

**SET OPTION  
OPTION 0**

4. Press **-** as needed to scroll down to OPTION 21.

Press **ENTER** to re-initialize software.

**SET OPTION  
OPTION 21**

**LOADING  
PLEASE WAIT**

5. Wait until display shows OPTION 0.  
(May take up to 30 seconds.)

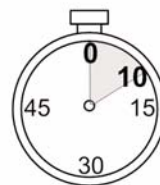
Press **ENTER** and **-** simultaneously to shut  
system off.

**SET OPTION  
OPTION 0**

**off**

6. Disconnect power (110 volt power supply)  
from tuner for 10 seconds, then reconnect.

**WAIT 10 SECONDS!**



7. Wait until controller shows "off" then press **ON** to  
start system.

**off**

8. Wait for system to load.

**POWER UP  
PLEASE WAIT**

**LOADING  
PLEASE WAIT**

When display shows RUN: SCAN ALIGN,

press  to enter IDLE/HOLD mode.

**IDLE/HOLD    SXX  
NOW on ? ==>**

9. Press  to enter USER SETUP menu.

**USER SETUP    ==>  
Rev xxxx      sn xxxxx**

10. Press  to enter SET REGION menu.

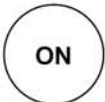
**SET REGION  
■■■■■■■■**

11. Press  or  as needed to display 0-RECALIBRATE.

**SET REGION  
0-RECALIBRATE**

12. Press  System recalibrates gyros.

**RUN: SCAN ALIGN  
0-RECALIBRATE**

13. Press  to exit IDLE/HOLD mode.

**RUN: SCAN ALIGN**

System will continue to run during recalibration process. Recalibration is complete when 0-RECALIBRATE no longer scrolls across bottom of display with search information. May take up to 10 minutes.

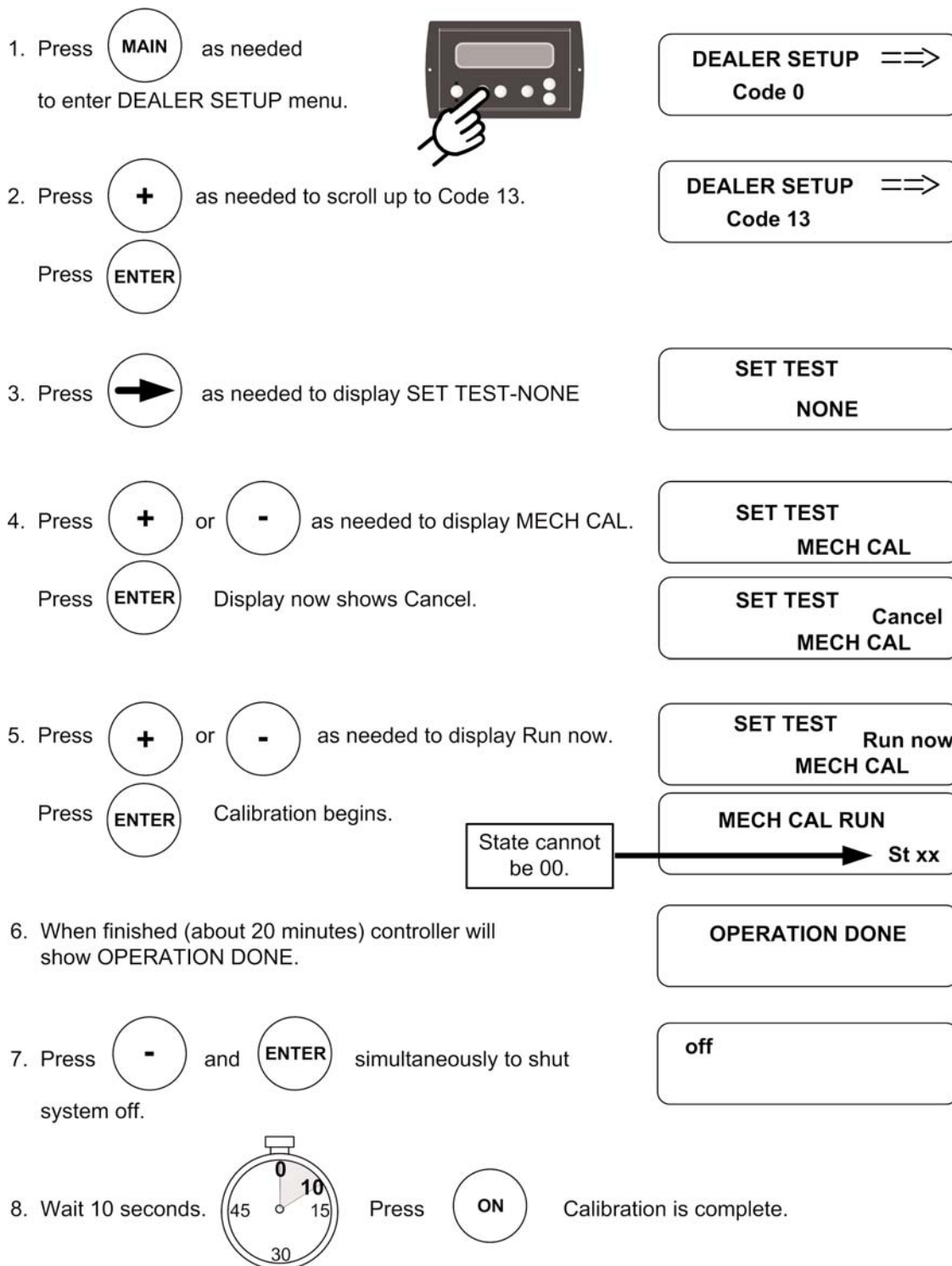
14. System continues to run after recalibration is complete.

**RUN: SCAN ALIGN  
DTV 101**

## MECHANICAL CALIBRATION

**IMPORTANT!** The Trac-King must remain perfectly still and level during the mechanical calibration. Do not have the vehicle running during the process.

The Trac-King must be running. (NOT IN IDLE/HOLD)





The King-Dome Satellite System has been designed to be maintenance and trouble free.

For optimum signal strength, keep the dome clean from dirt, bugs, and other debris. Periodic washing of the dome with mild soap and water is recommended.

If you plan on storing your vehicle for long periods of time, it is recommended that the system be put through a search procedure on a quarterly basis to keep all moving parts in good working order.

If you have any comments or questions, please contact the King Controls Service Department at (800) 982-9920, or email King Controls at [info@kingcontrols.com](mailto:info@kingcontrols.com)

## Rain Fade

Rain or dew on the dome can cause signal interference and make the digital picture freeze, pixel or go out altogether. This loss of signal is commonly referred to as “rain fade” and is caused by the combination of water in the atmosphere and water on the dome surface.

To minimize this issue and eliminate the effects of water on the dome, apply King Controls **Dome Magic®** rain fade solution to the dome. This will prevent water from sticking to the dome surface and blocking the signal. For additional details on **Dome Magic®** rain fade solution please contact your authorized King-Dome dealer or call King Controls at (800) 982-9920.



Single Application Packet #1830-SP



Spray Can #1830

Note: **Dome Magic®** will discolor black domes or domes painted a dark color.

Every King-Dome Satellite System is thoroughly inspected and tested before leaving the factory. It is covered by a two year parts and one year labor limited warranty from the date of original purchase. This warranty does not cover installation and external wiring or refurbished units.

Should any trouble develop during the warranty period, contact King Controls. Only King Controls and certified dealers are authorized to perform warranty evaluations and repairs.

If it is determined that the unit needs to be returned, return COMPLETE product, freight prepaid, to :  
**King Controls, 11200 Hampshire Ave. S. Bloomington, MN 55438-2453.** If inspection shows the trouble is caused by defective workmanship or material, King Controls will repair (or at its option, replace) without charge.

This warranty does not apply where:

- The product has been abused, misused, improperly installed or improperly maintained.
- Repairs have been made or attempted by others that are not certified by King Controls to do such repairs.
- Repairs are required because of normal wear and tear.
- Alterations have been made to the product.

**In no event shall King Controls be liable for any indirect, incidental, or consequential damages from the sale or use of the product. This disclaimer applies both during and after the term of the warranty.**

**King Controls disclaims liability for any implied warranties, including implied warranties of “merchantability” and “fitness for a specific purpose,” after the one year term of this warranty.**

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.





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[www.kingcontrols.com](http://www.kingcontrols.com)