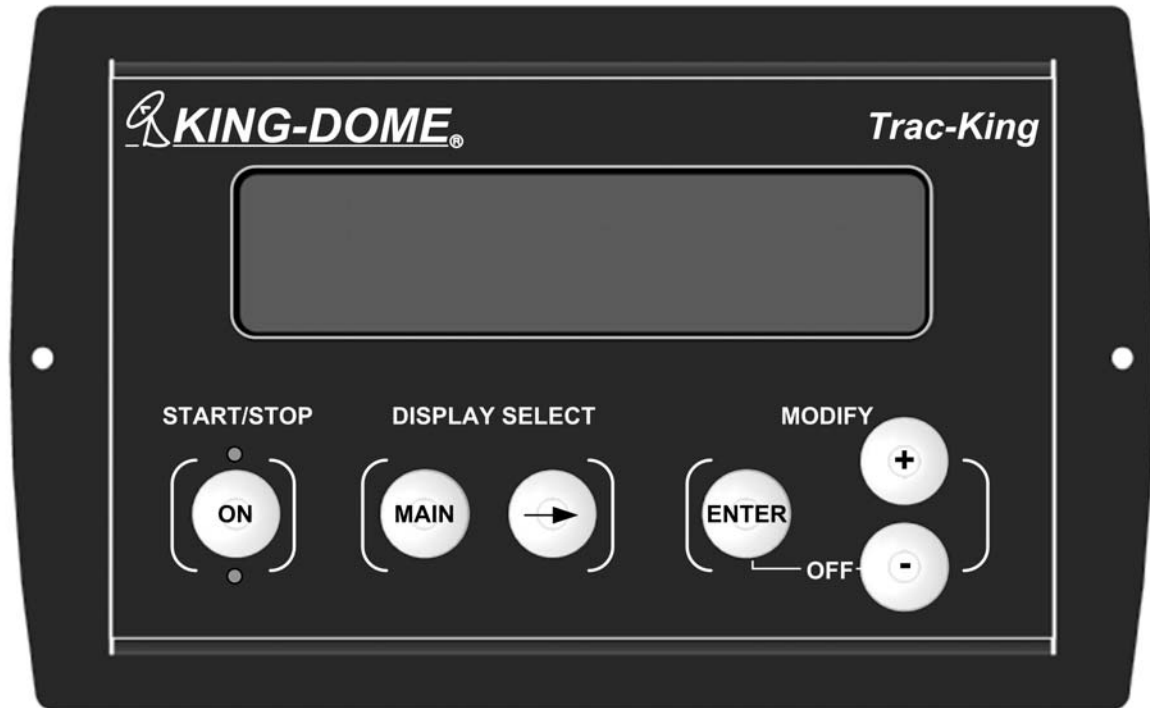




# Trac-King In-Motion Satellite System

## #9760/9762

### 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!

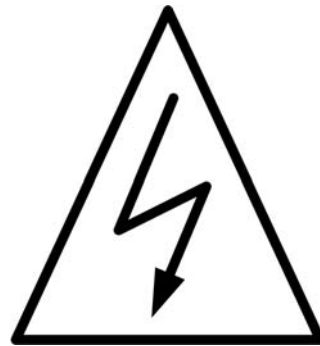
The satellite TV market is expanding and changing. The information in this manual was accurate at the time of printing. If your King-Dome does not operate as outlined in this manual please call King Controls at 1-800-982-9920 or visit our website at [www.kingcontrols.com](http://www.kingcontrols.com).

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### ELECTRICAL HAZARD WARNING!

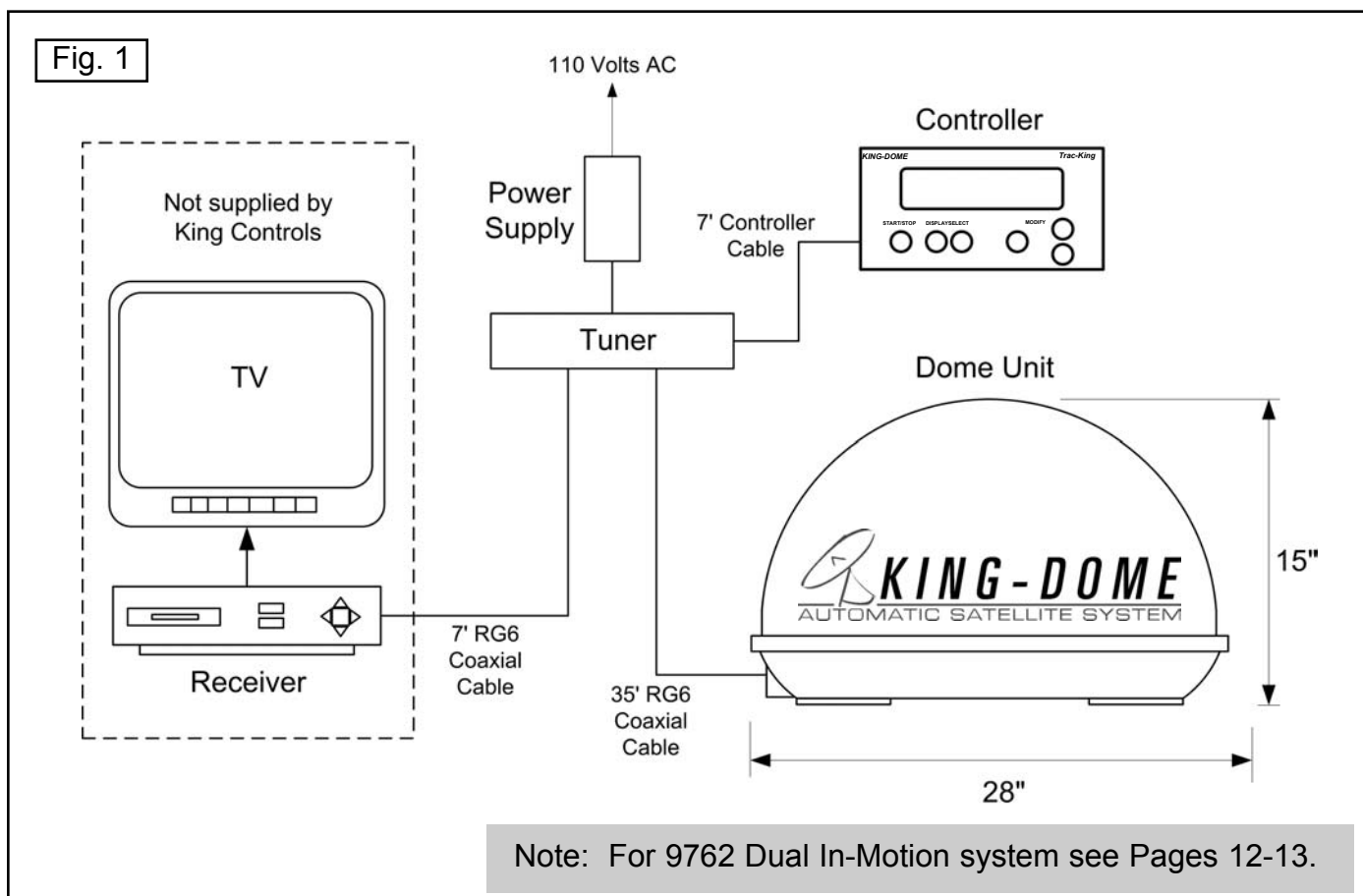
The coaxial cable that connects the dome unit to the tuner carries a 30 volt electrical current. Exercise extreme caution when handling this cable. Do not cut, break, or splice this line. Do not insert or connect any devices such as splitters or any other device for any reason. This line is not compatible with any other equipment. Damage will occur to any device other than the dome unit if connected to the antenna port on the tuner.



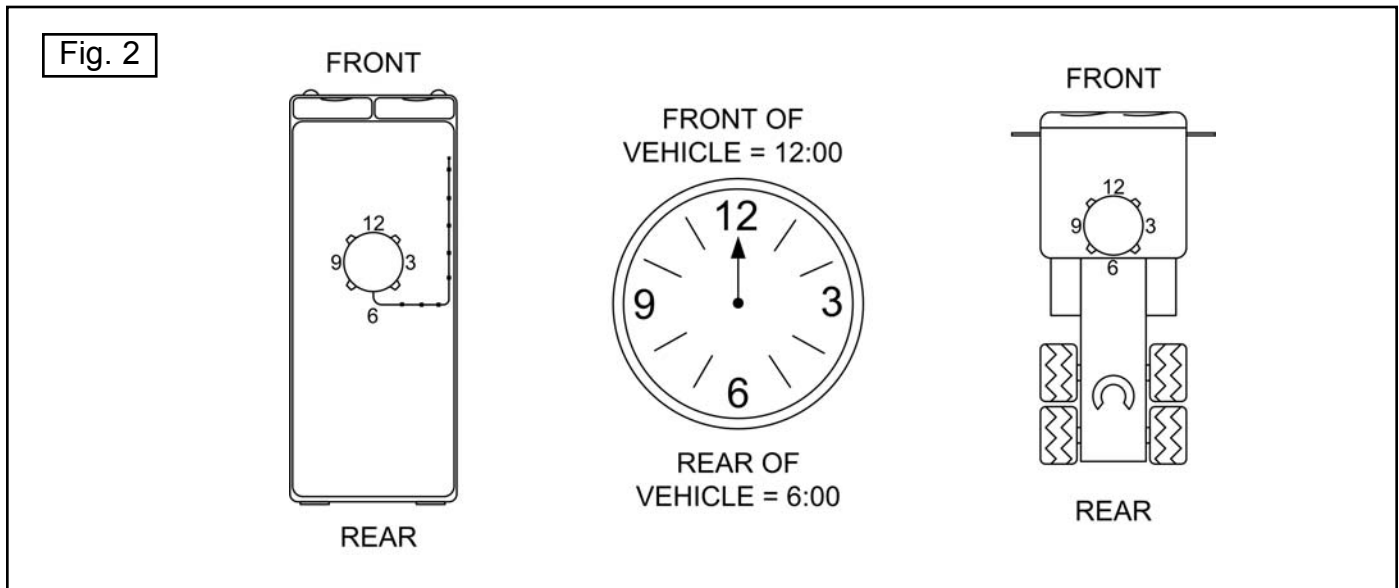
The Trac-King In-Motion Satellite System includes 4 main components. (Fig. 1)

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 the correct satellite.
Power Supply	Located in the vehicle. Supplies proper operating voltage to the Trac-King.

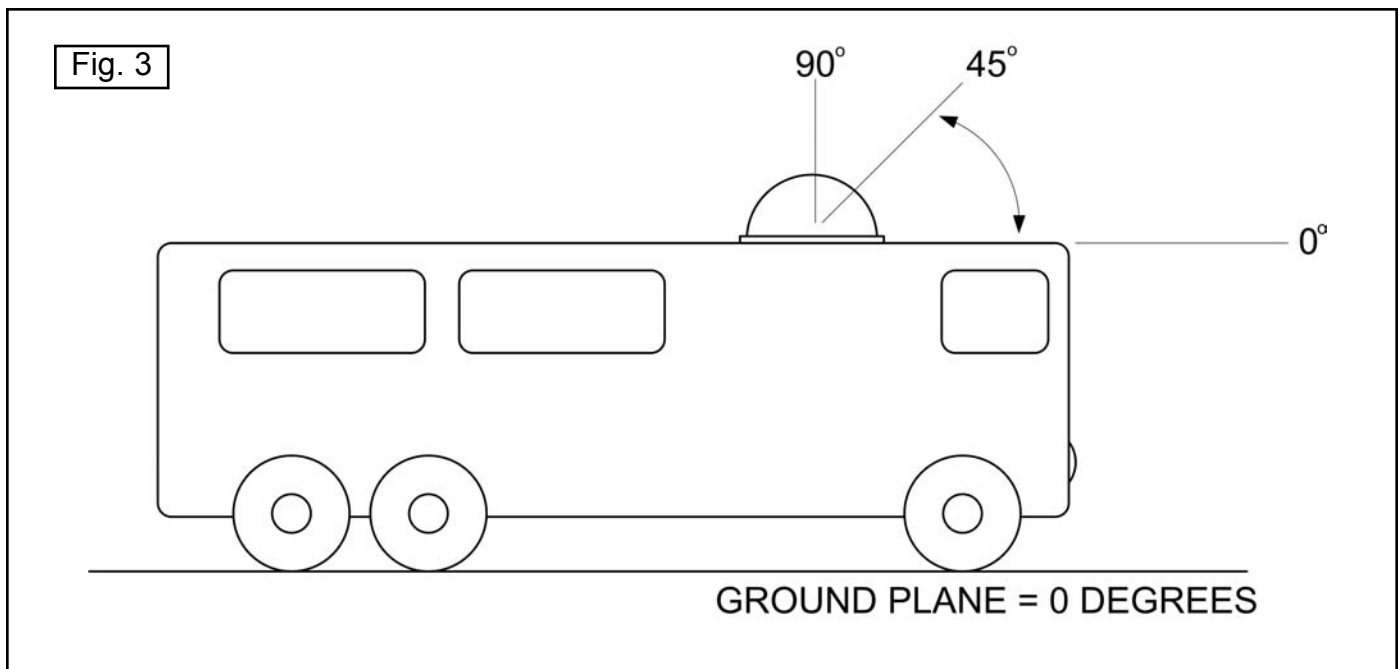
Note: A TV, satellite receiver, and program subscription are also required for satellite TV viewing. (Not supplied by King Controls.)



**AZIMUTH:** Circular rotation around the vehicle.  
 (like a clock face: front of vehicle is 12:00, rear is 6:00) (Fig. 2)



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



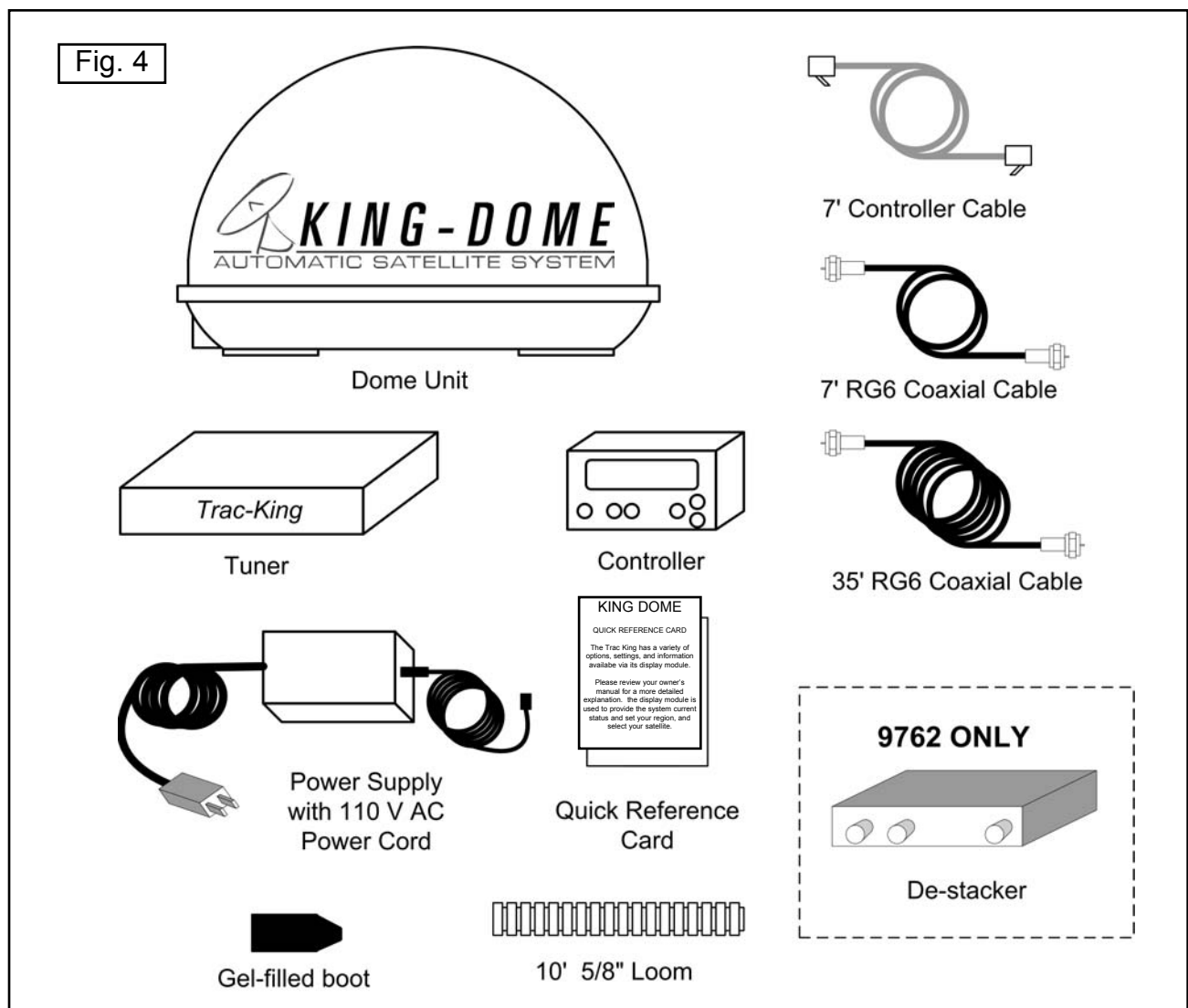
**SIGNAL STRENGTH:** Intensity of electronic signal received from the satellite transmission.

## 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 to install all components and wiring
- 5/32" allen wrench, channel lock or pliers (to remove shipping bolt)
- wire cutter (to remove shipping tie strap)

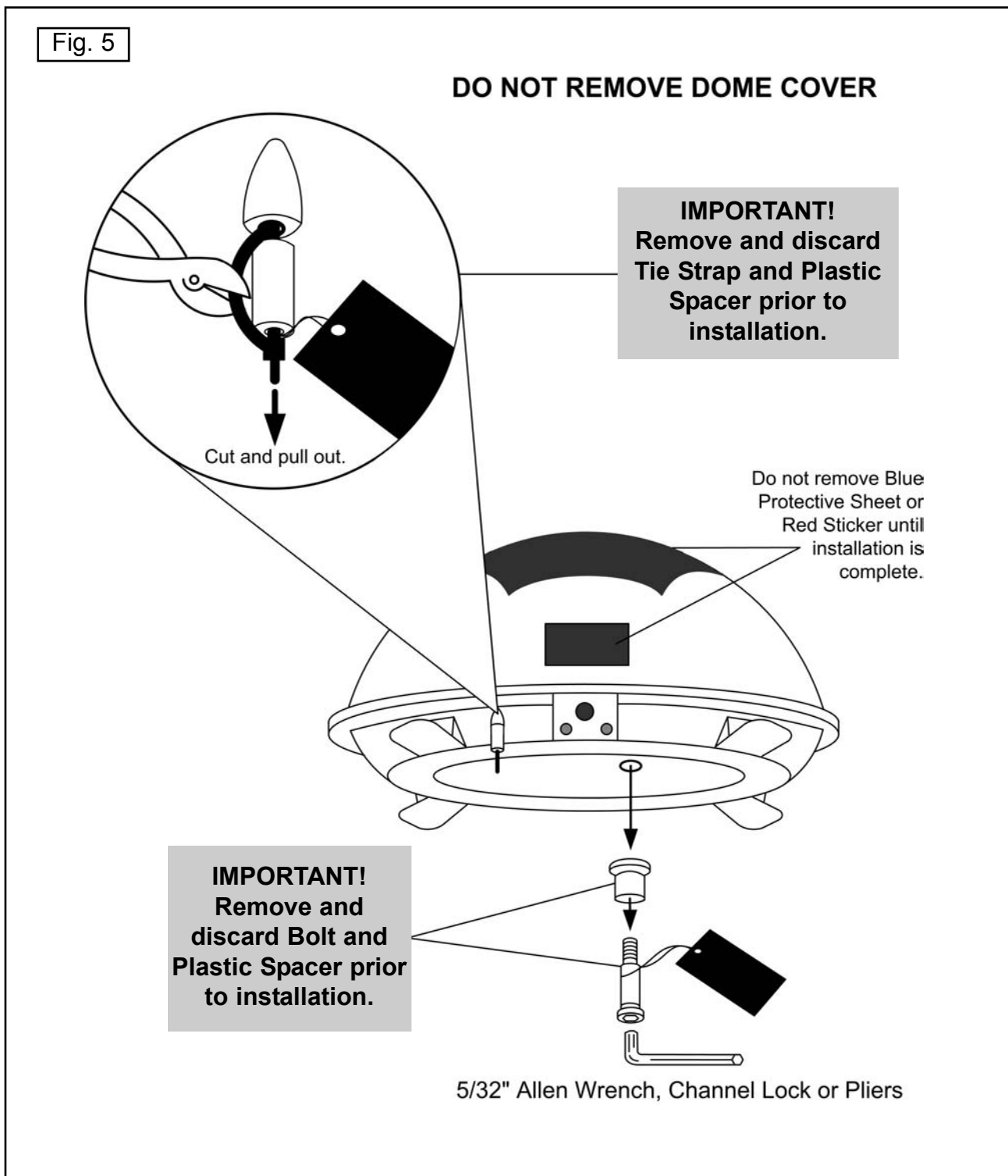
## KIT CONTENTS:

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



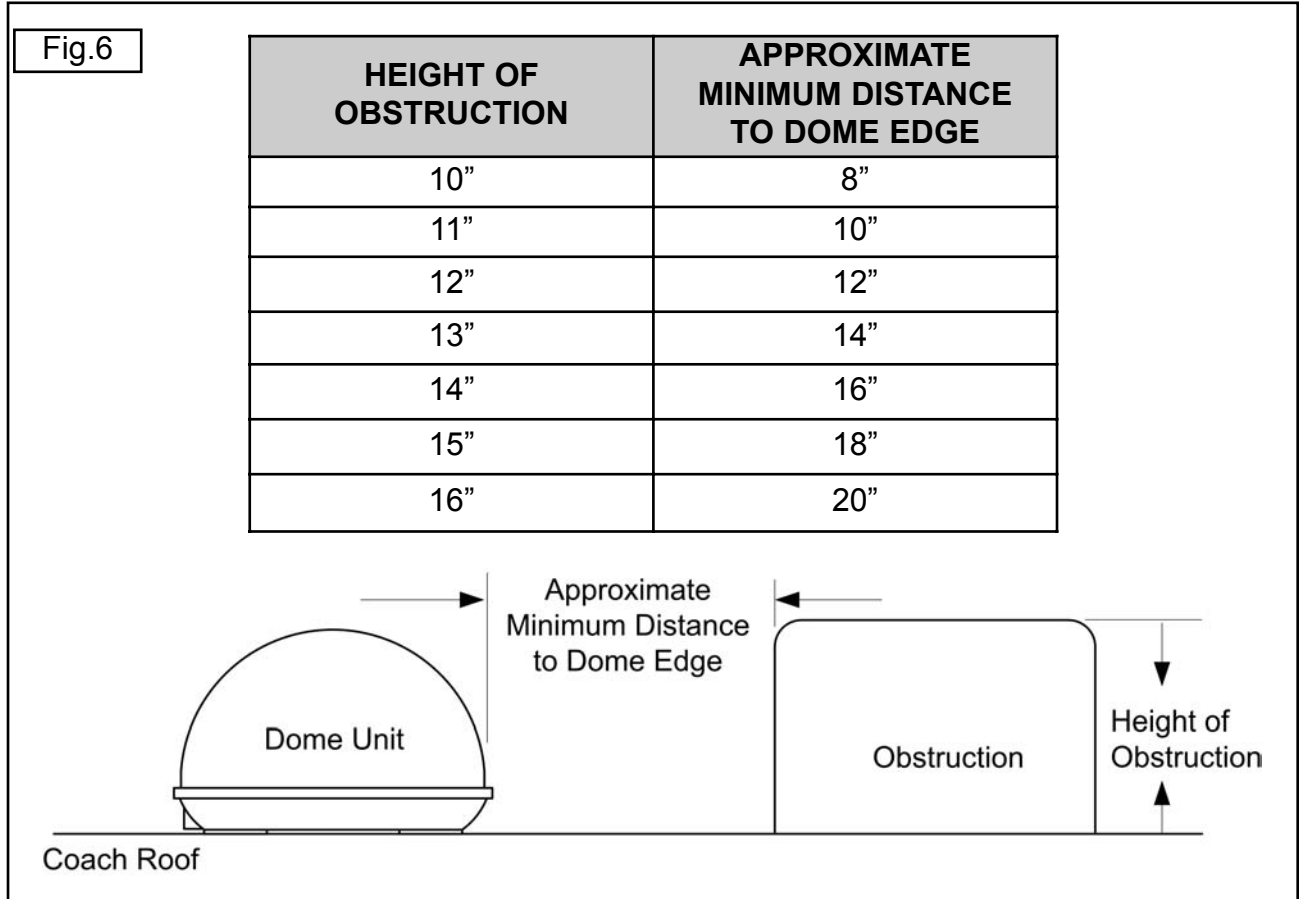
**IMPORTANT! The tie strap, bolt and plastic spacers must be removed from the bottom of the dome unit prior to installation. DO NOT REMOVE THE DOME COVER TO REMOVE THESE SHIPPING RESTRAINTS.**

2. Remove and discard the tie strap, bolt and plastic spacers that pass through the bottom of the base. (Fig. 5)



## DOME LOCATION

3. Select an area on the roof for the dome unit and the location where the wiring will enter the vehicle through the roof to the satellite receiver and internal components, using the following criteria:
  - a) The shortest distance between the dome unit and the satellite receiver is most desirable.
  - a) The dome unit requires a 28 inch diameter circle.
  - b) The dome unit should be mounted on the centerline of the vehicle (side to side).
  - c) 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. 6)**

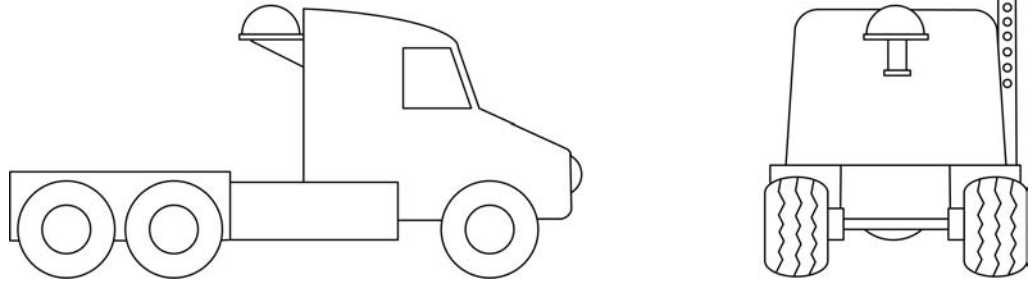


**IMPORTANT!** For installations on trucks with air shields, a bracket must be used for mounting the dome unit. The dome unit **MUST** be mounted to the air ride cab: **NEVER** to any structure mounted directly to the frame.

See bracket instructions for proper installation. (Fig. 7)

Fig. 7

Example of truck installation using bracket. See bracket instructions for proper installation.



**IMPORTANT!** The dome unit **MUST** be mounted to the air ride cab: **NEVER** to any structure mounted directly to the frame.

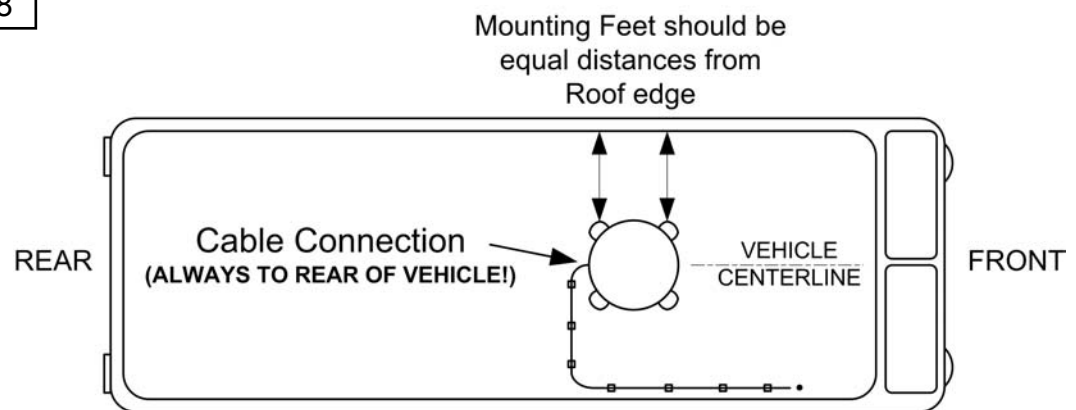
## DOMEST INSTALLATION

**IMPORTANT!** Make sure shipping restraints are removed from bottom of dome unit. (Fig. 5, Page 5)

Cable connection must **ALWAYS** be positioned facing the rear of vehicle.

- Place dome unit on installation location chosen using the criteria discussed in the previous section. Shipping restraints must be removed (Fig. 5, Page 5), and cable connection must be positioned facing rear of vehicle.
- 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)

Fig. 8



**IMPORTANT!** The dome should never be mounted so that it is tilted more than two degrees in any direction.



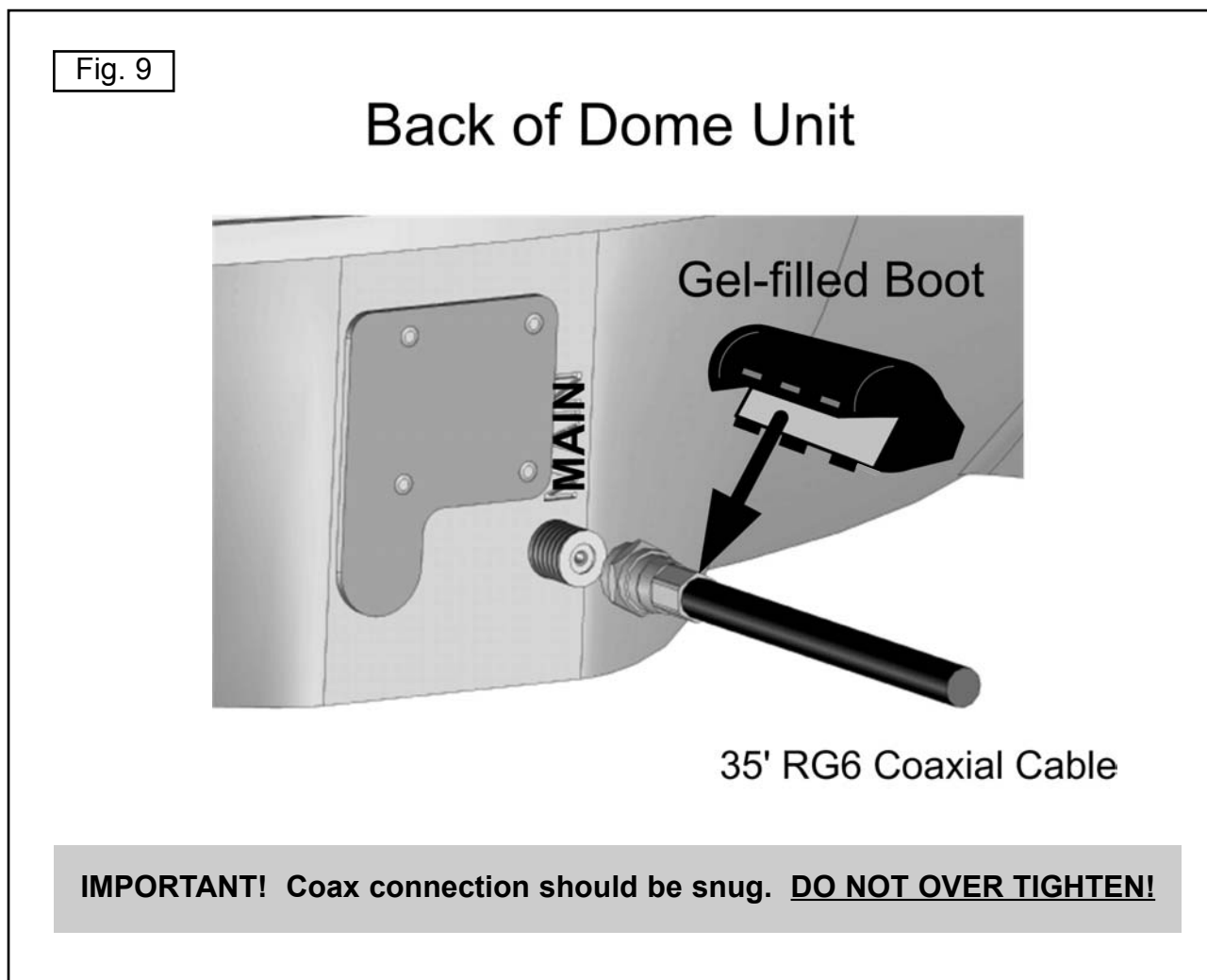
Note: The installer is responsible for determining the most appropriate fastener to secure the dome unit to the roof. Depending on the roof material, fasteners such as lag screws, well nuts, sheet metal screws, toggle bolts and T anchors may be used, and should always be used in combination with a roof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

The installer is responsible for weatherproofing all holes with sealant.

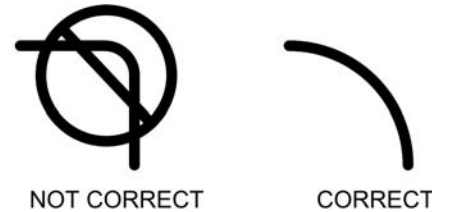
6. Mount the dome unit. Use the pre-drilled holes in the mounting feet as a guide to install the fasteners into the roof. Use additional fasteners whenever necessary.
7. Test that the dome unit is secure by pulling upward from each foot location.

## EXTERNAL WIRING

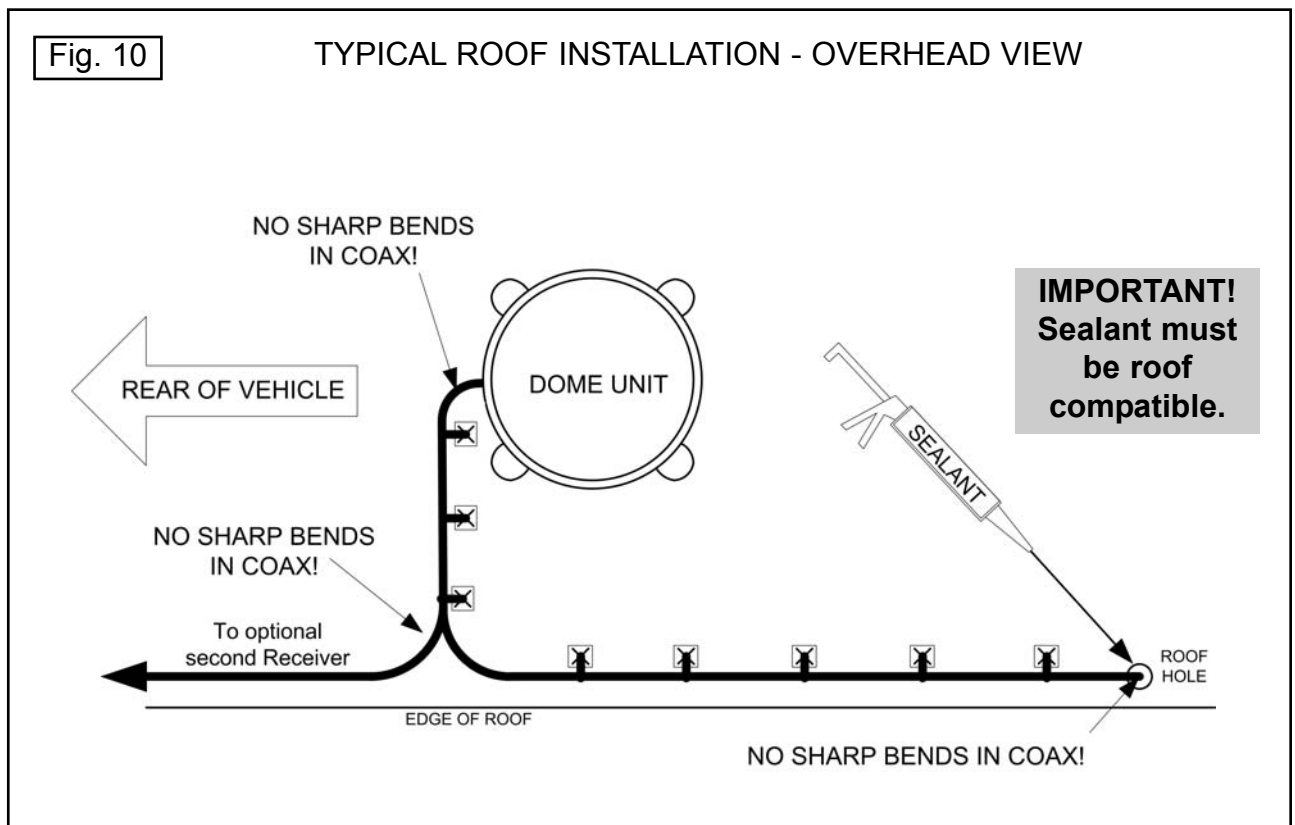
8. Connect 35' coax cable to the coax port located on the back of the dome unit and tighten connection. Do not over tighten coax connection. (**Fig. 9**)
9. Snap the gel-filled boot around the coax connection. (**Fig. 9**)



## AVOID SHARP BENDS WHEN ROUTING COAX!



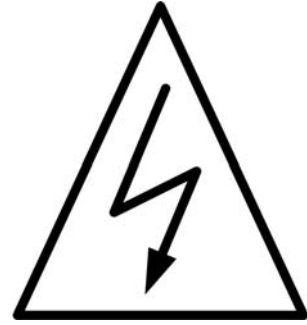
10. Run coax from the dome unit to the roof edge, then along edge to location where coax will be fed into the vehicle. Secure coax to roof every 12-18 inches. **(Fig. 10)**
11. Drill 1/2" hole through the roof and into the cabinet where receiver is stored. Feed coax down through hole. Seal opening with roof compatible sealant so that it is entirely waterproof (inside and outside of the 1/2" hole). **(Fig. 10)**



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

## ELECTRICAL HAZARD WARNING!

The coaxial cable that connects the dome unit to the tuner carries a 30 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:

Determine the location of the internal components using the following criteria:

- a) The Controller, Tuner, Power Supply and De-stacker (9762 only) should be in the same general vicinity of the satellite receiver, and accessible for operation and maintenance purposes.
- b) The Tuner should not be stacked directly on top of other electronics.
- c) The Controller should be conveniently located for the end user.
- d) All components should be secured so they do not shift or bounce around during vehicle motion.

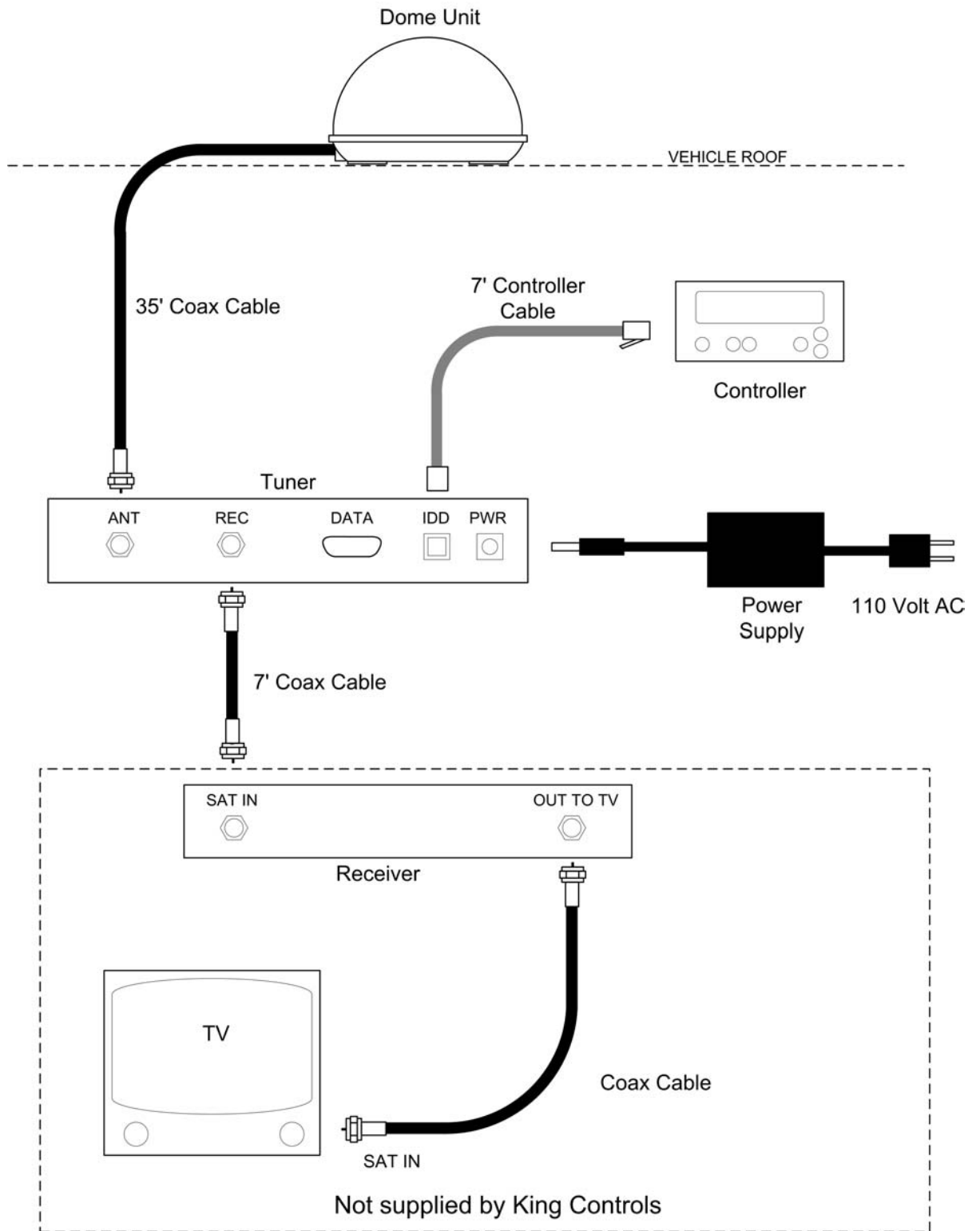
### SINGLE LNB (Fig. 11) (For dual LNB hook-up see Pages 12-13)

1. Connect the 35' coax cable from the dome unit to the tuner port labeled "ANT."
2. Connect the 7' coax from tuner port labeled "REC" to the satellite receiver port labeled "SATELLITE IN."
3. Connect the 7' controller cable from the controller to the tuner port labeled "IDD."
4. Connect the power supply cable to the tuner port labeled "PWR".
5. Plug the power supply into a 110 VAC source.

**Note: The controller should turn on for 3 seconds and then turn off. If the controller stays on, press the ENTER and "-" button simultaneously for 3 seconds to turn unit off.**

Fig. 11

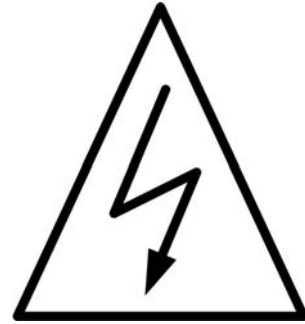
### SINGLE LNB HOOK-UP



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

## ELECTRICAL HAZARD WARNING!

The coaxial cable that connects the dome unit to the tuner carries a 30 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.



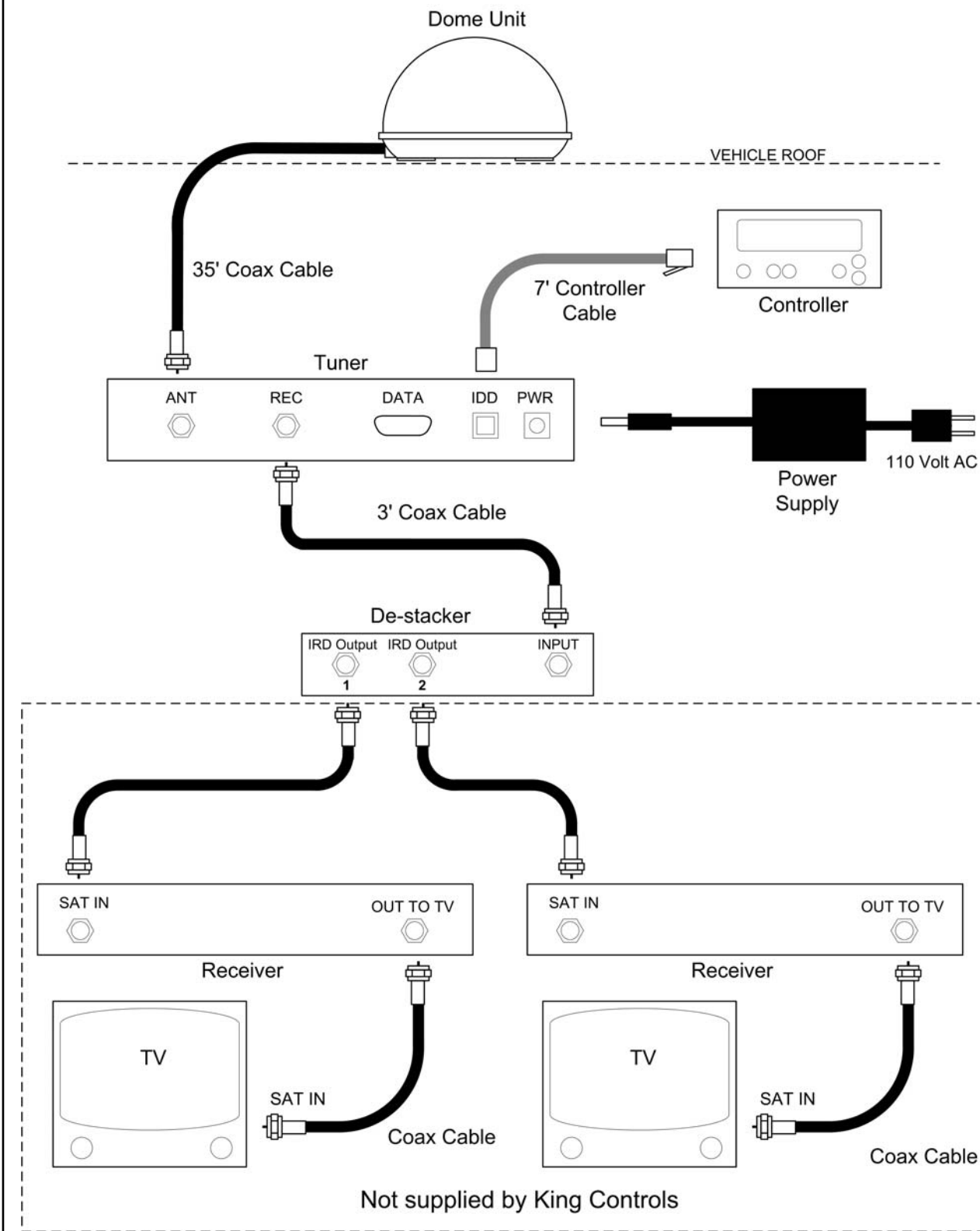
### DUAL LNB (Fig. 12)

1. Connect the 35' coax cable from the dome unit to the tuner port labeled "ANT."
2. Connect the 3' coax from the tuner port labeled "REC" to the de-stacker port labeled "INPUT."
3. Connect the 7' controller cable from the controller to the tuner port labeled "IDD."
4. Connect the port on the de-stacker labeled "IRD Output 1" to the "SAT IN" port on the first satellite receiver. Connect the port on the de-stacker labeled "IRD Output 2" to the "SAT IN" port on the second receiver.
5. Connect the power supply cable to the tuner port labeled "PWR".
6. Plug the power supply into a 110 VAC source.

**Note: The controller should turn on for 3 seconds and then turn off. If the controller stays on, press the ENTER and "-" button simultaneously for 3 seconds to turn unit off.**

Fig. 12

### DUAL LNB HOOK-UP



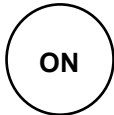
**IMPORTANT! AVOID SHARP BENDS WHEN ROUTING COAX.**

# SECTION 4 OPERATION

**IMPORTANT!** There must be a clear “line of sight” to the southern sky. Mountains, buildings, trees, telephone poles, etc. can all block the satellite signal from reaching the dish.

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

2. Press



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

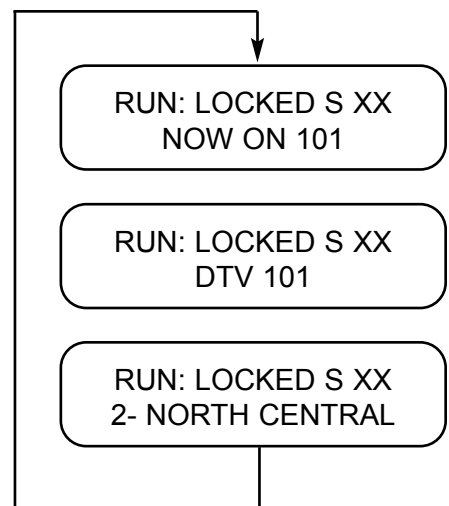
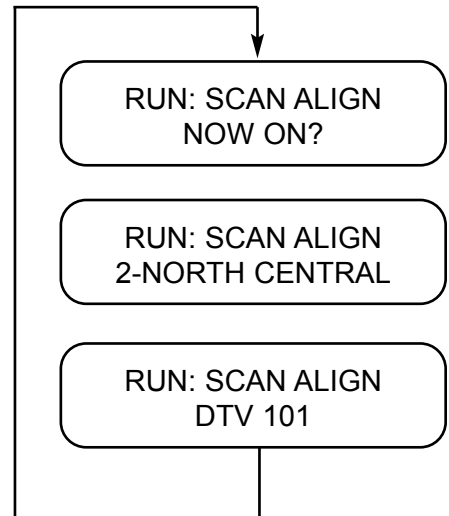


Trac-King begins searching for indicated satellite in the indicated region.

Trac-King has locked onto indicated satellite in indicated region.

POWERING UP  
PLEASE WAIT

LOADING  
PLEASE WAIT




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

## SET REGION

1. Press **ON** Unit goes into IDLE/HOLD mode. IDLE/HOLD
  
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  
XXXXXXXXXXXX
  
4. Press **+** 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.  
or **-** Display your region  
on the controller
  
5. Press **ENTER** Sets REGION in memory. IDLE/HOLD
  
6. Press **ON** Unit searches based on new REGION. RUN: SCAN ALIGN

**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





## SET SATELLITE SERVICE

Note: The satellite setting allows the user to select the satellite and service provider of choice. For DIRECTV subscribers, the Track-King can also track a secondary or alternate satellite.

Example: If you are a subscriber to the DIRECTV service most of the programming that you will be watching will be transmitted from the satellite located at 101 degrees. You may also subscribe to programming that is transmitted from another satellite located at 119 degrees. In order to receive programming from both satellites you can either select an individual (DTV 101) satellite manually from the display or you can select a multiple (DTV 101/119) satellite setup. The multiple satellite selection will automatically switch between satellites (DTV 101/119) based on the channel or programming that you select on the Satellite Receiver (multi-satellite capable receiver is required). Please keep in mind that the programming may pause (freeze frame) or pixelate while the antenna acquires and locks onto the new satellite.

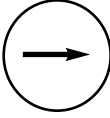
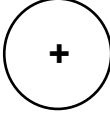
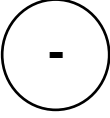

The multiple satellite setting will work only if your satellite receiver is set up to work in oval dish mode. Consult your satellite receiver manual for instruction.

It is not recommended to use the DTV 101/119 setting unless there is programming on the DTV 119 satellite that you specifically subscribe to.

### SATELLITE OPTIONS

DTV 101	DIRECTV at 101 West Longitude
DTV 119	DIRECTV at 119
DTV 101/119	DIRECTV at 101 and 119
DISH 110	Dish Network at 110
Dish 119	Dish Network at 119
Dish 148	Dish Network at 148
Dish 61.5	Dish Network at 61.5
EXPVU 91	Bell ExpressVu at 91

Note: Future locations can be added.

1. Press  Unit goes into SET SATELLITE menu. SET SATELLITE  
-----?-----
  
2. Press  Use the plus and minus buttons to display your desired satellite on the controller. Display desired satellite  
on controller  
 or 
  
3. Press  Sets SATELLITE in memory. Unit searches for new designated satellite. RUN: SWITCHING

Note: The Trac-King must remain turned on to maintain a signal. If you are going to be stationary and wish to continue watching TV, do not turn the system off.

Press ON to put the system into "IDLE/HOLD" mode.

In "IDLE/HOLD" mode, the system cannot track the satellite when the vehicle is in motion.

Before moving the vehicle, press ON to put the system back into "RUN" mode.

## SECTION 5

**TROUBLESHOOTING**



Controller does not power up.	Check: tuner is connected to power supply.  controller is connected to tuner.  power supply is plugged into live outlet
Controller remains in "POWER UP, PLEASE WAIT" condition.	No communication between tuner and dome unit.  Check for 24 volts coming out of tuner to dome unit.  Check for 24 volts at dome unit end of 35' coax.
Display reads "AZ ERROR"	Dish cannot rotate.  Make sure shipping restraints are removed.
Display reads "EL ERROR"	Dish stuck on limit switch.  Restart system. If problem persists, perform 0-RECALIBRATE. (See Page 19)

Unit will not lock on satellite,  
or drifts off satellite,

Satellite signal is blocked from reaching unit. Move vehicle to have unobstructed view of southern sky.

Software needs rebooting. Perform Option21 Reboot and 0-RECALIBRATION.

#### OPTION 21 REBOOT and 0-RECALIBRATE

1. Press MAIN 2 times to enter DEALER SETUP menu.
2. Press “+” 13 times to scroll up to CODE 13.
3. Press ENTER.
4. Press  2 times to enter SET OPTION menu.
5. Press “-” 10 times to scroll down to OPTION 21.
6. Press ENTER to reinitialize software.
7. Wait until display shows “Option 0” then press MAIN to return to main page.
8. Press ENTER and “-” simultaneously to shut system off.
9. Unplug data cable from controller for 10 seconds and then plug back in.
10. Wait until controller shows “off” then press ON to start system.
11. Press ON to enter IDLE/HOLD mode.
12. Press MAIN to enter USER SETUP menu.
13. Press  to enter SET REGION menu.
14. Press “-” 5 times to scroll down to 0-RECALIBRATE.
15. Press ENTER. System returns to IDLE/HOLD mode and is ready to run recalibration.
16. Press ON. System recalibrates gyros (may take up to 10 minutes) and continues search in previously set region.

Note: If OPTION 21 REBOOT and 0-RECALIBRATE do not solve the problem, replace the 35' coax and repeat procedure.

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 1-800-982-9920, or email King Controls at [info@kingcontrols.com](mailto:info@kingcontrols.com)

Every King Controls 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 or one of its certified dealers. 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, 5100 West 36th Street, St. Louis Park, MN 55416**. 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.
- Unit has been sold by original owner.

**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)