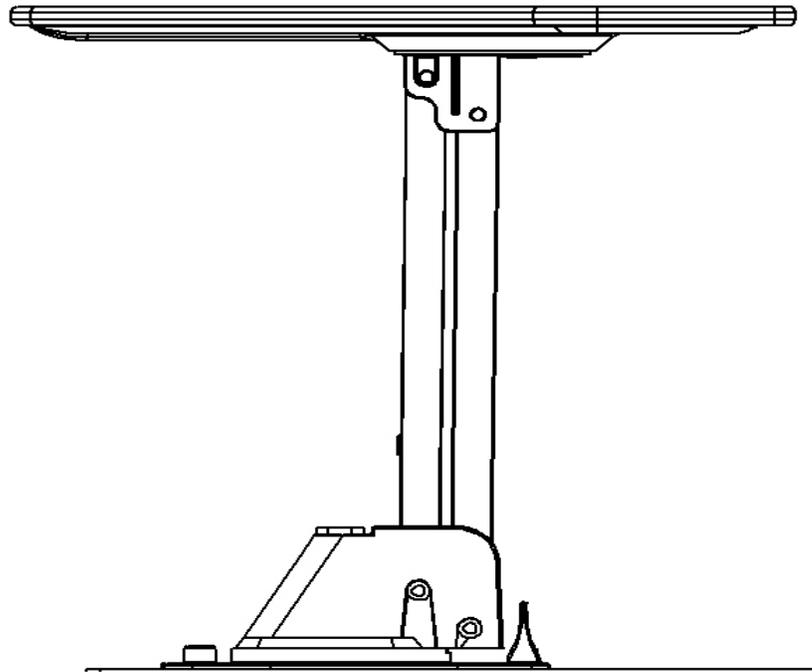


# OWNER'S MANUAL

**SIGNAL COMMANDER<sup>®</sup>**



**THIS MANUAL CONTAINS**

**INSTRUCTIONS FOR: LPDA 200**

- INSTALLATION
- OPERATION
- TROUBLESHOOTING
- EXPLODED PARTS DRAWING
- WARRANTY

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## SECTION I INSTALLATION INSTRUCTIONS

This manual contains information on the following Signal Commander® LPDA models and accessories; the model you have purchased is clearly marked on the front of this manual.

MODEL 200

Amplified Antenna with 2nd TV & Cable TV Ready

### INSTALLATION KIT CONTENTS:

### TOOLS AND SUPPLIES REQUIRED:

#### ALL MODELS

| Qty. | Description |
|------|-------------|
|------|-------------|

|    |                                   |
|----|-----------------------------------|
| 1  | Amplified Head Assembly           |
| 1  | Lift Mechanism Assembly           |
| 1  | 4.5 m (15 feet) Coaxial Cable     |
| 1  | 1.8 m (6 feet) Coaxial Cable      |
| 1  | Coaxial Coupling                  |
| 1  | 75 Ohm Wall Mount Power Supply    |
| 1  | Ceiling Plate                     |
| 1  | Rotation Handle                   |
| 1  | Elevation Handle Assembly         |
| 10 | #8x1" Pan Head Sheet Metal Screws |
| 4  | #8X3/4" Pan Head Screws           |
| 2  | Groove Pins                       |
| 2  | E Clips                           |

#### Mechanical Installation

- Electric Drill 13 mm (1/2") capacity
- Drill bits: 1.6 mm (1/16") and 13 mm (1/2") Dia.
- 38 mm (1-1/2") Diameter Hole Saw
- Phillips screwdriver
- Extension Cord
- Tape Measure
- Hacksaw
- Pliers or Vise Grips

#### Electrical Installation

- Volt Meter(DC)
- Sabre Saw
- Crimping tool

#### Supplies

- Non-hardening Caulking Compound or Silicon
- Electrical Tape
- Electrical Wire 14 AWG or Heavier
- Electrical Box if not Already Installed

## WARNING

**Driving with the antenna raised or partially raised will damage your antenna and void your warranty**

## 1. Installation Planning

### A. Pre-wired Vehicles

Follow the instructions in this manual in conjunction with the RV Manufacture's recommendations to locate and install the Signal Commander Antenna and power supply.

### B. All other Vehicles

Location of the antenna must allow antenna head to point towards the rear of the vehicle when resting in the travel position, and must clear all roof mounted equipment when being raised, lowered or rotated. the roof should not be more than 5.0" thick.

The inside ceiling must be clear of obstructions to ceiling plate and handle. For the cleanest installation, it is recommended that the coaxial cable enter through the roof and be hidden inside a closet. The wall of the closet can be used to mount the power supply.

Locating the antenna close to the television receiver and the 12 Volt DC power source will simplify the installation. Power supplies should be flush mounted in standard electrical boxes. Assure that the 12 Volt DC source is limited by a 7.5A fuse maximum.

Power supplies should not be connected to existing circuits with fans or motors as this may cause interference to the television, damage the antenna amplifier, and void the warranty.

## 2. Installation

### WARNING!

#### Electricity Kills!

Power lines may be overhead.

Care must be taken when installing or raising the antenna.

Before drilling, care must be taken not to damage any wiring that may be located between the vehicle roof and ceiling.

Step 1: Tape the drill template to the roof of the vehicle in the position where the antenna will be installed.

**Note: The arrow must point towards the rear of the vehicle. 3.3 feet (1.0 m) of rear ward clearance is required.**

Step 2: Using a 38 mm (1-1/2") diameter hole saw, cut a hole through the roof and ceiling for the center shaft.

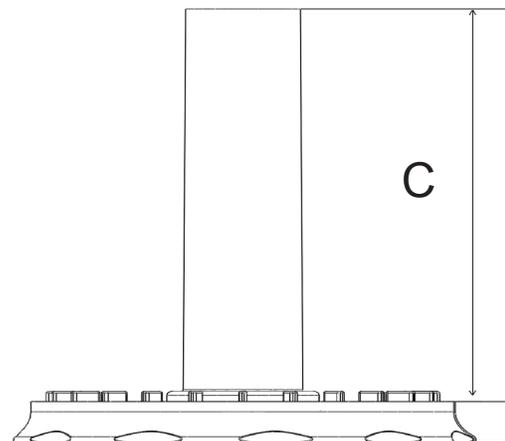
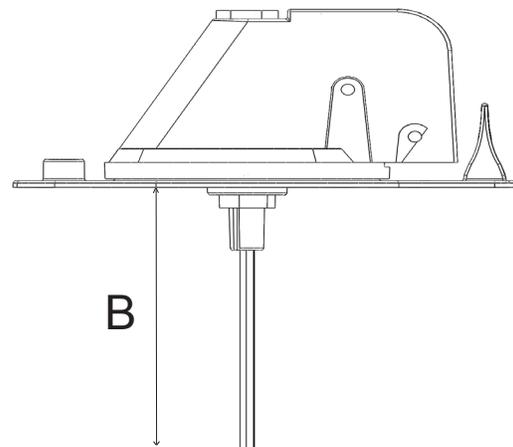
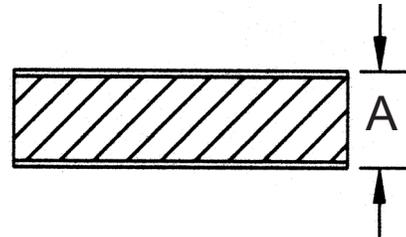
Step 3: Drill one 13 mm (1/2") diameter hole through the roof only for the coaxial cable.

Step 4: Drill ten mounting screw holes 1.6 mm (1/16") diameter, approximately 25 mm (1") deep. Remove drill template and clean around mounting area.

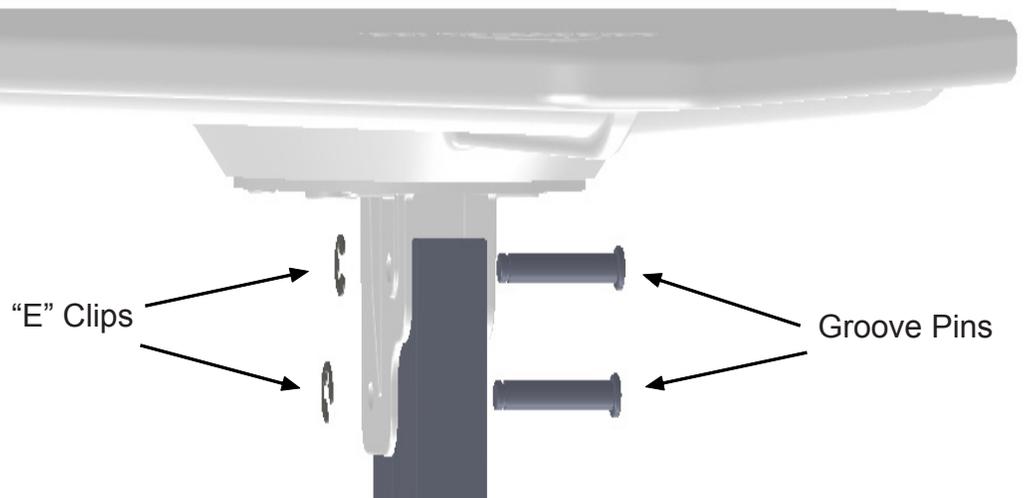
Step 5: Measure the thickness of the roof. Using the table and illustrations below, cut the elevation shaft and rotation handle to the correct length for the vehicle's roof.

| A<br>Roof<br>Thickness | B<br>Elev. Shaft<br>Length | C<br>Rot. Handle<br>Length |
|------------------------|----------------------------|----------------------------|
| 25 mm(1") Min.         | 57 mm(2.25")               | 13 mm(0.5")                |
| 33 mm(1.5")            | 70 mm(2.75")               | 25 mm(1.0")                |
| 51 mm(2")              | 82 mm(3.25")               | 38 mm(1.5")                |
| 63 mm(2.5")            | 95 mm(3.75")               | 51 mm(2.0")                |
| 76 mm(3")              | 108 mm(4.25")              | 63 mm(2.5")                |
| 89 mm(3.5")            | 120 mm(4.75")              | 76 mm(3.0")                |
| 101 mm(4")             | 133 mm(5.25")              | 89 mm(3.5")                |
| 114 mm(4.5")           | 146 mm(5.75")              | 101 mm(4.0")               |
| 127 mm (5")            | 159 mm(6.25")              | NO CHANGE                  |

Step 6: Caulk the bottom of the baseplate with a liberal amount of non-hardening sealing compound, then position and attach the lift mechanism to the roof with ten #8x1" pan head sheet metal screws. Seal the edges of the base plate and the top of the screws with sealing compound. Keep sealing compound away from the surface between base plate and gear housing.



Step 7: Mount antenna head to lift arm mechanism using two 1/4"x1-5/8" groove pins and "E" clips.



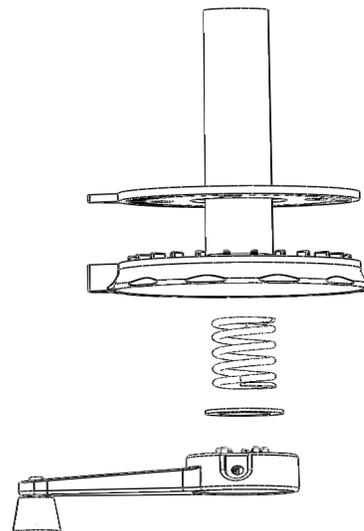
Step 8: Connect the coaxial cable to the antenna head and tighten. **TIGHTEN BY HAND ONLY**  
Slide the rubber boot over the connection.

Step 9: Attach the other end of the coaxial cable from the antenna to the 4.5 m (15 feet ) coaxial cable. Feed the cable through the base plate hub into the inside of the vehicle. Make sure there is adequate cable available for free rotation of the antenna. Route the cable to the primary power supply location. Fill the hub hole with sealing compound and seal around the hole, slide the rubber boot over the baseplate hub and seal the boot and the coaxial cable.

**NOTE: If a roof wedge is used to level the antenna you need to seal the roof wedge also.**

Step 10: Position the ceiling plate over the rotation handle with pointers aligned and slide assembly over shaft in ceiling. Mark hole positions and remove rotation handle. Mount ceiling plate in place using four #8x3/4" long pan head screws.

Step 11: Assemble rotation handle, spring, washer and elevating handle (See illustration). Slide all parts over shaft and tighten the screw in the elevation handle.



Step 12: Operate the lift and rotate mechanisms to check for correct operation (See Section II - Operating Instructions).

Step 13: The power supply is designed for installation in any standard electrical box. To mount the power supply cut a hole in the wall and install the electrical box. Place the power supply switch in the "OFF" position. Run two wires # 14 AWG or heavier from a 12 Volt DC power source to the rear of the power supply.

Assure that the 12 Volt DC power source current is limited to 7.5A at 12Volt DC.

Crimp the quick disconnects onto the wires and push wires onto tabs on the circuit board (see power supply illustration for correct polarity). Place switch in the "ON" position and check the red LED. If the LED illuminates the polarity is correct. Place switch in the "OFF" position to avoid any short circuits while making cable connections

Step 14: Connect the coaxial cable from the antenna to the connector marked "Antenna" on the rear of the power supply.

Step 15: To connect the second power supply available as an optional accessory for the model 550, run two # 14 AWG or heavier wires from a 7.5A limited 12 Volt DC power source and connect to the rear of the power supply. Insulate the DC connections



**Warning:**  
**Do not connect high current devices to 12 Volt receptacle.**  
**Maximum current rating of this receptacle is: 7.5 Amps at 12 Volt DC.**

with wire nuts and insulating tape.

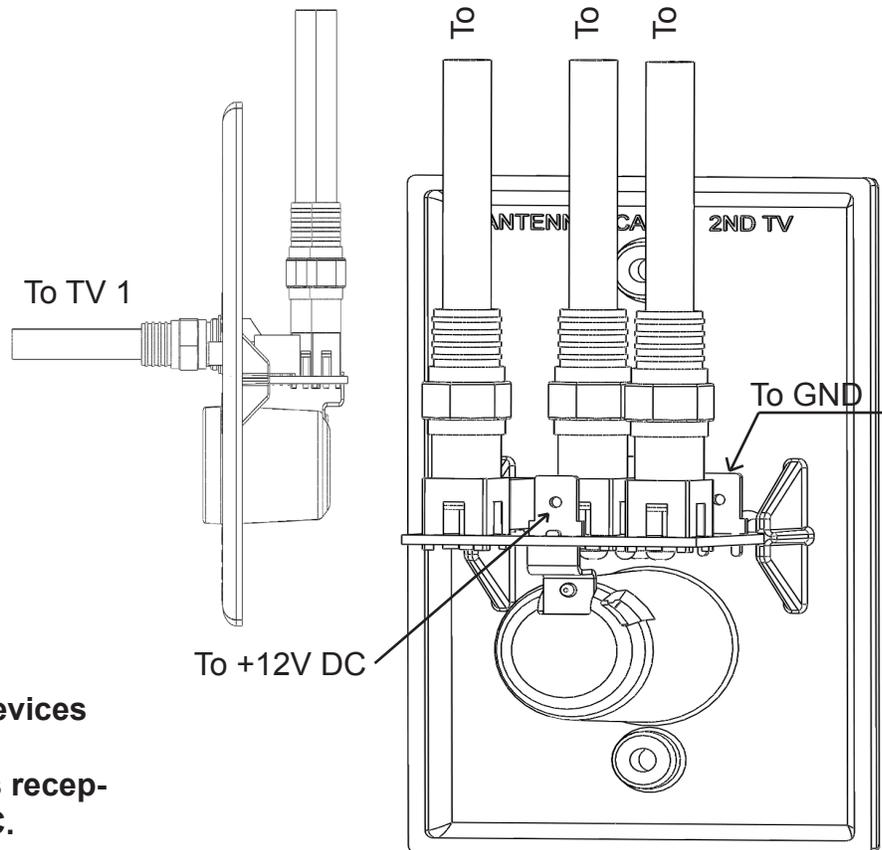
**CAUTION:**     *The red wire is positive (+)*  
                           *The black wire is negative (-)*

Attach a coax cable from the rear of the second power supply to the connector marked 2nd TV in the rear of the primary power supply.

Step 16: Place the power supply(s) inside the electrical box(s) and mount flash with 2 # 6x3/4" flat head screws. Attach the coaxial cable(s) to the front of the power supply(s) and connect to the television set(s). Place Switch in the ON position.

**MAINTENANCE:**

Lubricate the gears and the "O" ring on the elevating shaft assembly at least twice yearly or as required. With the antenna in the down position remove the 7/8-14 plug and spray a liberal amount of silicon lubricant on the gears and the "O" ring. Install the 7/8-14 plug over the gear and tighten. Remove the arrow clip on the gear housing and spray silicon lubricant into hole.



## SECTION II OPERATING INSTRUCTIONS

### 1. To Raise & Rotate Antenna

A : Rotate elevation handle clockwise to raise the antenna. Resistance will be felt in the handle when the antenna is completely extended.

B: Switch ON the main power supply. Note red LED indicator illuminated. This indicates amplified reception.

C: Switch ON the television, set the input of the TV to antenna then scan for channels. If a desired channel was not found, pull the rotation handle down to disengage gear from ceiling plate, rotate the antenna 90 degrees and scan for channels.

NOTE: For the Model 550, if external cable TV is connected, turning your power supply OFF will route cable TV to all attached TV's.

### 2. To Lower Antenna

A: Pull rotation handle down to disengage gear from ceiling plate and rotate the antenna until the pointer on the ceiling plate is aligned with the pointer on the rotation handle. Rotate elevation handle counter-clockwise until you hear the antenna touch the roof (resistance will be felt in the handle).

**WARNING: Lowering the antenna with the pointers misaligned may damage the antenna.**

B: Amplified reception is possible while driving if your antenna is in the full down position. Switch your main power supply off when TV is OFF.

C: Model 550 only. If external cable TV is connected, disconnect and attach protective cap.

**Warning: Vehicle must not be driven with antenna in raised or partially raised position. Worm gear or worm breakage may result.**

## SECTION III TROUBLESHOOTING GUIDE

Elevation handle turns, but antenna does not raise or lower

Handle loose  
Stripped gears

Tighten screw  
Replace gears

Antenna will not rotate

Rotation handle engaged to ceiling plate  
Obstruction when raised  
Friction adjustment  
Installation (caulking)  
Coax cable too tight

Pull down to disengage from ceiling plate  
Remove obstruction  
Adjust center lock nut  
Remove excessive caulk between base and pivot plates  
Adjust cable

LED on power supply does not light up

Switch off  
DC power  
Coax cable shorted

Turn switch on  
Check 12 V supply & polarity  
Replace coaxial cable

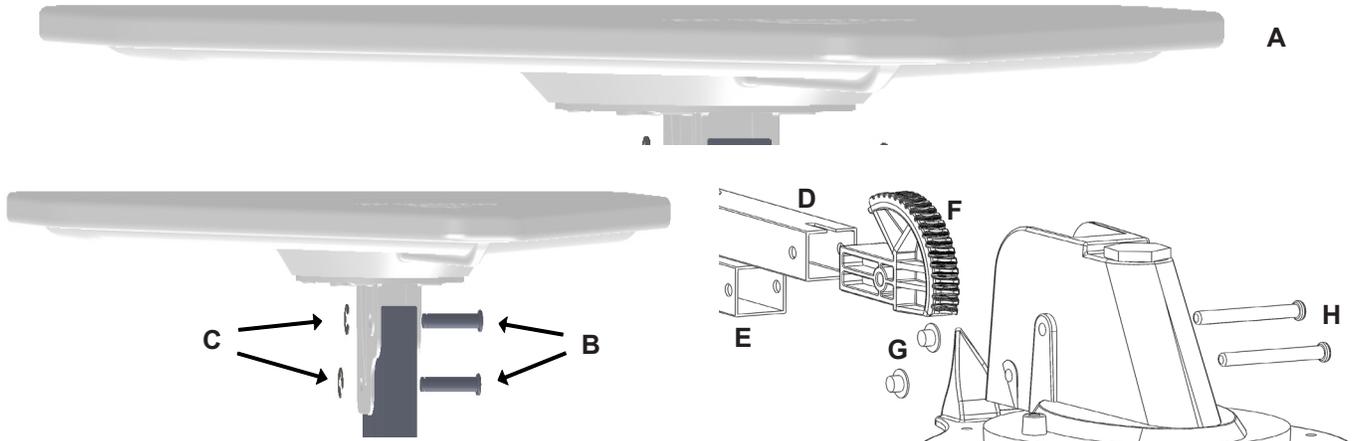
No Picture

Television  
Wiring  
Antenna cables  
Antenna or Vehicle location

Tune in or change station  
See installation steps 14 & 16  
Coax cable going to antenna head should have 12V DC, between center conductor and outside shield.  
Raise and rotate antenna, scan for channels or move vehicle

**Note: Signals may be interfered with if the antenna is too close to obstructions such as buildings or trees.**

# SECTION IV EXPLODED PARTS DIAGRAM

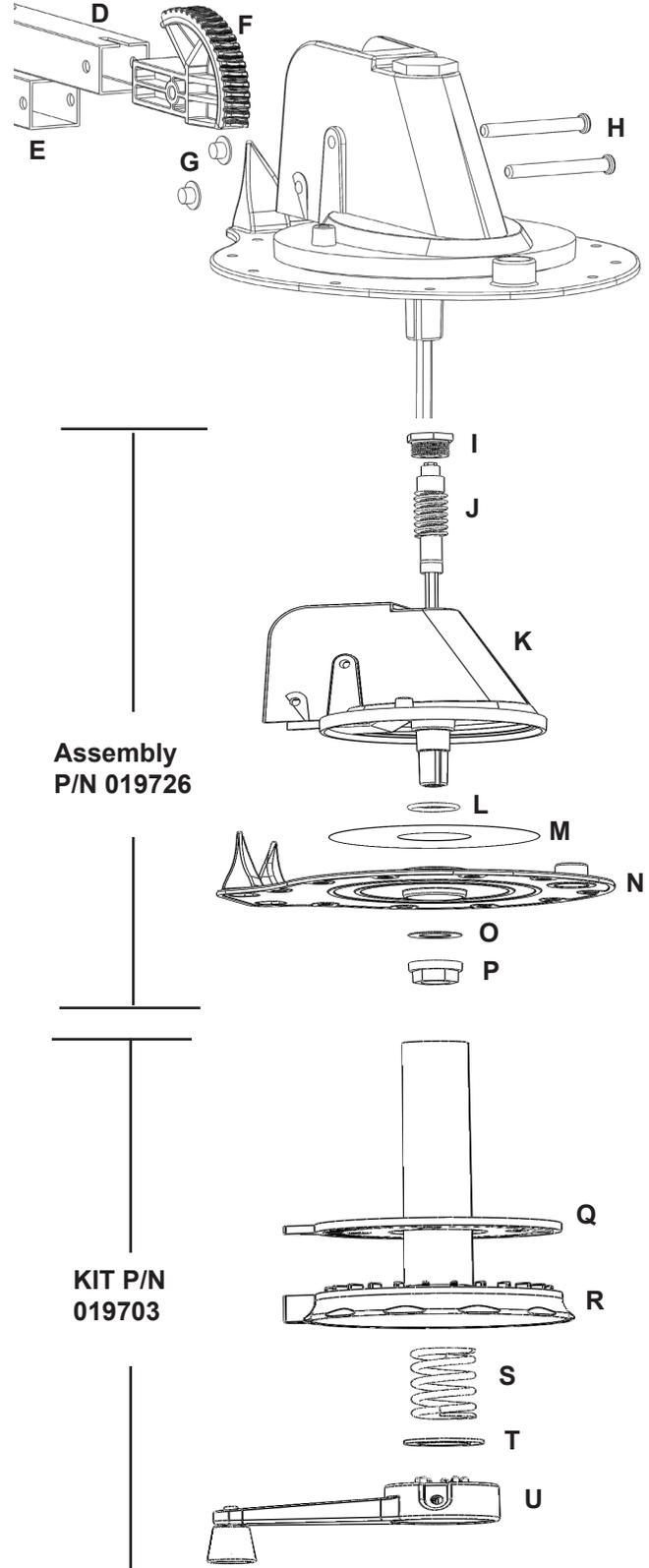


## Distributors:

### Australia / New Zealand

Dometic Australia  
 1 800 21 21 21  
 Email: sales@dometic.com.au  
 Web: www.dometic.com.au

| SIMB | DESCRIPTION            | P/N    |
|------|------------------------|--------|
| A    | Head Assembly for LPDA | 902201 |
| B    | Groove Pin             | 030195 |
| C    | E-Clip                 | 030197 |
| D    | Upper Arm for LPDA     | 065603 |
| E    | Lower Arm for LPDA     | 065604 |
| F    | Worm Gear              | 065645 |
| G    | Cap Nut                | 030260 |
| H    | Clevis Pin 1/4x1.938   | 065565 |
| I    | Hex Plug 7/8 - 14      | 065614 |
| J    | Elev. Shaft Assembly   | 065640 |
| K    | Alum. Gear Housing     | 065610 |
| L    | Large O-Ring           | 065569 |
| M    | Disc Washer            | 065561 |
| N    | Alum. Base Plate       | 065551 |
| O    | Washer .750IDx.031     | 065660 |
| P    | Center Lock Nut        | 065612 |
| Q    | Ceiling Plate          | 065651 |
| R    | Rotation Handle        | 065656 |
| S    | Spring                 | 030280 |
| T    | Washer .755IDx.060     | 065659 |
| U    | Elevation Handle       | 065542 |



## SECTION V WARRANTY

Know your rights and responsibilities before operating this product! Please read the "limited warranty" provided below carefully. Improper operation and maintenance, abuse, neglect, etc. will void your warranty.

### AntennaTek, Inc. LIMITED WARRANTY

#### 1. Duration:

One year (365 days) from date of purchase.

#### 2. Who gives the warranty?

AntennaTek, Inc. (the "Company")

#### 3. Who receives this warranty?

The original purchaser (the "Purchaser"), other than for the purpose of resale, of the Signal Commander Antenna.

#### 4. What is covered under this warranty?

A. Repair or replacement at no charge, of parts found by the Company to be defective, provided that the Company receives notice of the defect within three hundred sixty five (365) days from the date of original purchase.

B. Payment of reasonable freight charges incurred to repair or replace the defective part, as pre-authorized by the Company via an "Authorization to Return" form. Expedited shipment or shipment other than that offered by the Company is available as an optional, customer paid service.

#### 5. What is not covered under this warranty?

**A. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM DATE OF ORIGINAL PURCHASE OF THE SIGNAL COMMANDER® ANTENNA. LIABILITY FOR INDIRECT OR CONSEQUENTIAL DAMAGES**

#### **FOR ANY INCIDENTAL EXPENSES, UNDER ANY AND ALL WARRANTIES IS EXCLUDED.**

Some states do not allow limitation on how long an implied warranty lasts, or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

B. Any failure that results from accident, purchasers' abuse, neglect, improper maintenance, or failure to operate and use the product in accordance with the instructions provided in the owner's manual supplied with the product.

C. Any labor charges, travel time, or mileage incurred as a result of installing the replacement part.

D. Any failure that results from improper installation of the product.

E. Any component not sold or manufactured by the company.

#### **6. Responsibilities of purchaser under this warranty.**

A. Provide proof of purchase to qualify for credits under provisions of coverage.

B. Promptly notify the seller, or alternatively the Company, of any claim hereunder.

C. Obtain Authorization to Return from the Company and return the product to the Company:  
AntennaTek, Inc., 425 S. Bowen St., #4, Longmont, Colorado 80501.

D. Use reasonable care in the maintenance, operation, use and storage of the product in accordance with the instructions contained in the owner's manual.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.