Installation Procedure for
2’ – 3’ Strut Kit
IMPORTANT!

*Please read instructions through completely before beginning installation. Caution should be used. Qualified persons experienced with antenna assembly and installation are required for installation.*

DISCLAIMER

Radio Waves Inc. disclaims any responsibility or liability for damage or injury resulting from incorrect or unsafe installation practices.

Your 2’-3’ strut kit sub-assembly shipped to you in one crate containing the following components:

1. 2’-3’ strut kit
2. 2’-3’ shroud clamp kit
3. SP2 clamp assembly

**NOTE:** Options and accessories are shipped separately and include separate installation guides. Check the packing slip.

You will need the following tools to complete the assembly of the strut kit at the site:

1. 3/8” Open/box wrench or socket wrench
2. 1/2” Open/box wrench or socket wrench
3. 1/4” Open/box wrench or socket wrench
4. Adjustable Wrench
5. Torque Wrench with appropriate sockets

**NOTE:** The pictures provided in this document are for illustrative purposes only and may not appear identical to your antenna system.
Component Identification:

This strut kit is capable of being mounted on SP2, HP2, SP3, and HP3 antennas.

5/16-18 U-bolt with plate, (2) flat washers, lock washers and nuts.

3/16-16 X 1” Bolt with, (2) flat washers, (1) lock washer and nut

Strut Pipe

LONG Angle Bracket (for SP2, SP3)

STRUT ASSEMBLY

SHROUD CLAMP (HP2, HP3)

3/16-16 X 1” Bolt with, (2) flat washers, (1) lock washer and nut

Reflector Bracket

REFLECTOR CLAMP (SP2)

(2) ¼-20 X 1.5” Bolt with, (2) lock washers

(1) 3/8-16 X 1” Bolt with, flat washer, lock washer and nut

Bottom clamp plate

Top clamp plate

Reflector Clamp Block

(4) Self drilling screws

SHORT Angle Bracket

Strut Clamp Bracket
Section 1

Mounting strut on SP2

1. Attach **LONG** angle bracket to reflector clamp block using 3/8-16 x 1" hex bolt, flat washer lock washer and hex nut as shown. Do not fully tighten at this time.

2. Determine position where strut will be mounted. The position opposite pole mount will offer maximum reinforcement. Attach reector clamp block to reflector using long and short clamp plates and (2) ¼-20 x 1.5" bolts with lock washers as shown. Tighten until clamp is secure on reflector.

3. Attach strut to bracket using 3/8-16 x 2.25" lg. SS hex screw, flat washer under bolt head, flat washer, lock washer, and nut. Swing strut as necessary to align with supporting structure. (+/- 25 Deg. Max).
Proceed to Section 4: Attaching strut to supporting structure.

Section 2

Mounting Strut on SP3

1. Determine position where strut will be mounted. 3 o'clock and 9 o'clock positions offer maximum reinforcement. Drill 3/8" clearance hole through antenna support ring.

2. Mount LONG angle bracket to antenna support ring using 3/8-16 x 1" lg. SS hex screw, flat washer, lock washer, and nut. Do not fully tighten hardware at this time.

3. Attach strut to bracket using 3/8-16 x 2.25" lg. SS hex screw with flat washer under bolt head, flat washer, lock washer, and nut. Swing strut as necessary to align with supporting structure. (+/- 25 Deg. Max).
Proceed to Section 4: Attaching strut to supporting structure.

Section 3

Mounting strut on HP2 and HP3

1. Determine position where strut will be mounted. The position opposite the pole mount offers maximum reinforcement. Hold reflector bracket in place. Attach reflector bracket to reflector using (4) ¼” self drilling and tapping screws. Use drill with 3/8” hex socket bit to install screws. Caution: Do not over-tighten screws. After screw drills through reflector operate drill on low speed or tighten screws by hand to avoid stripping hole in reflector.

2. Attach SHORT angle bracket to reflector bracket using 3/8-16 X 1” Bolt with, flat washer, lock washer and nut. Do not fully tighten hardware at this time.

3. Attach strut pipe to short angle bracket using 3/8-16 X 2.25” Bolt with flat washer under head, flat washer, lock washer and nut. Swing strut as necessary to align with supporting structure. (+/- 25 Deg. Max).

Proceed to Section 4: Attaching strut to supporting structure.
Section 4

Attaching strut to supporting structure

1. Attach strut to clamp bracket with 5/16-18 U-bolt as shown. Attach bracket to tower using supplied 3/8-16 x 1” bolt with flat washer, lock washer and nut.

2. After mounting strut to supporting structure, securely tighten hardware on opposite side of strut. Re-check all hardware and Tighten per chart:

**Torque Specifications**

Tighten all hardware using torque specifications below:

<table>
<thead>
<tr>
<th>Nominal Bolt Size (Inches)</th>
<th>Nut Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>50 in-lb</td>
</tr>
<tr>
<td>5/16</td>
<td>102 in-lb</td>
</tr>
<tr>
<td>3/4</td>
<td>15 ft-lb</td>
</tr>
</tbody>
</table>

(1X) 5/16-18 U-bolt with plate
(2X) 5-16 nut
(2X) Washer, flat, 5/16
(2X) Washer, lock, 5/16

3/8-16 bolt and hardware

Strut Clamp Bracket
SAFETY INFORMATION

This Information May Save You From Death or Injury

Do not attempt to install or dismantle any RadioWaves Inc. products until you have read and understood the information and instructions in this document.

Installations: Only trained professional installers should be used to install or dismantle antennas, mounts, and related hardware. It is the responsibility of the installer to be sure that all building and safety codes are met and that the installation is complete and secure.

Lightning Protection: All antennas and related hardware must be attached to and connected correctly to a properly grounded structure. It is the responsibility of the installer to be sure that the installation is completed in accordance with all applicable grounding and safety codes.

Electrocution Hazard: Do not install or dismantle Radio Waves Inc. products near any type of power line. Should your antenna or related hardware come in contact with power lines you could be killed! Be sure your installation is out of falling distance of any overhead wires—including the lead to any building or structure.

NEVER OPERATE OR LOCATE THIS OR ANY EQUIPMENT NEAR POWER LINES

Electrocution Hazard: Portable or Mobile Installation
If you are installing a Radio Waves Inc. component or part on a portable or mobile platform such as a Portable Tripod, Mast, Truck, or Van, be sure all safety procedures are followed and that operators have been properly trained. No one should be allowed to operate or set up the equipment that has not been properly trained.

Radio Waves Inc. is a component supplier and is not the system designer and has no control over how its products are used and installed.

It is the responsibility of the System Designer, Van Manufacturer and Owner / Operator to be sure that the overall system is built in accordance with all applicable design and safety standards and procedures and that the operators have been properly trained.

NEVER OPERATE OR LOCATE THIS OR ANY EQUIPMENT NEAR POWER LINES