

**Exhibit 7 – Instruction Manual**

**Motorola Head-end Transceiver (HUB)**

FCC ID: MIJMILHUB-USA-01

Millitech Part No. 9031291001

**7.0 Instruction Manual**

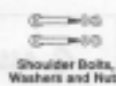
**Installing the Hub Transceiver**

**1 Inspection & Unpacking**

Inspect the shipment packaging and contents on receipt for any obvious damage due to shipment. If any damage has occurred, immediately file a claim with the transporter.

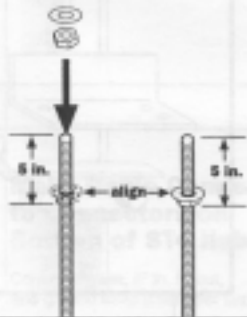
Tools Required:

- 8" adjustable open wrench
- 10" x 1/2" slotted screwdriver

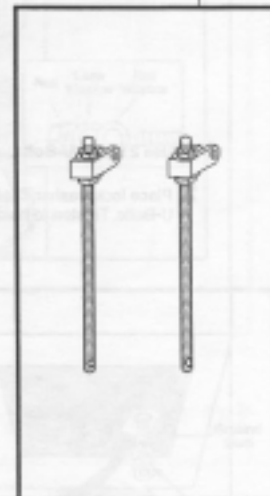
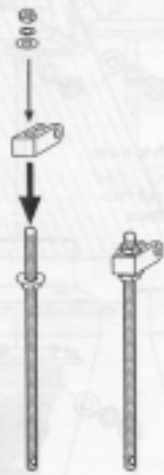


**2 Attach Elevation Adjust Mounts to Threaded Rods**

1. Screw nut onto "plain" ends of rods, slide on flat washer (no lock washer).

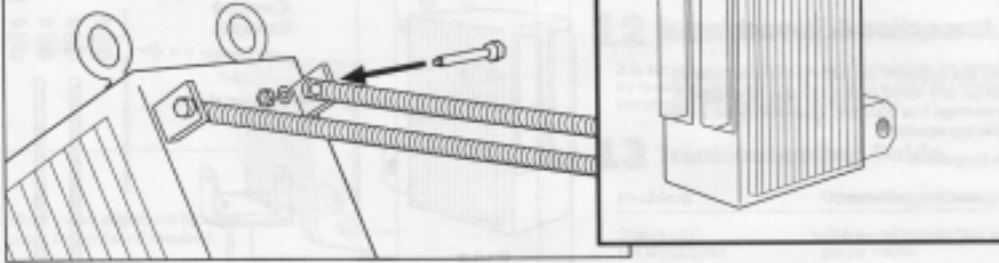


2. Slide Adjust Mount on to Threaded Rod.
3. Place flat washer, lock washer and nut on rod over mount, finger tighten.



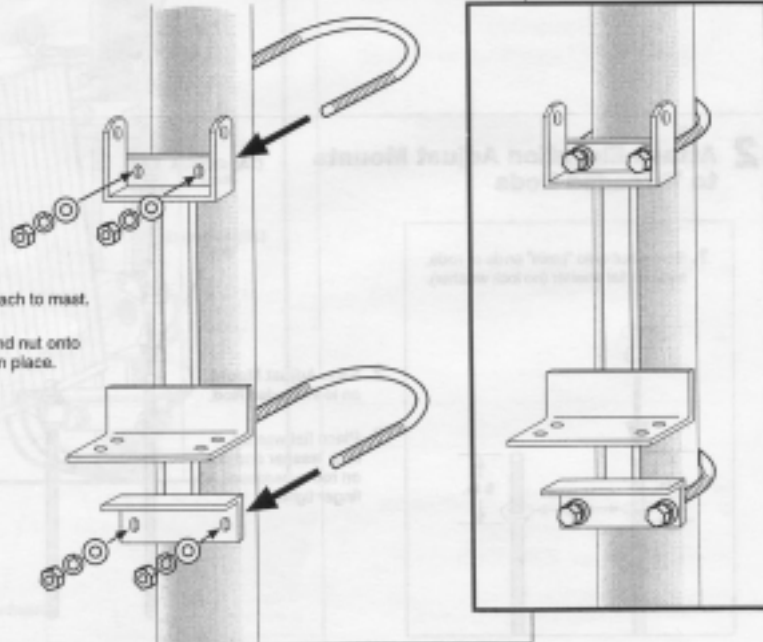
### 3 Attach Elevation Adjust Rods to Top of ST4 Hub

Insert Shoulder Bolts (from outside toward center) to attach rods to hub. Slide on flat washer and tighten nut (17 in.-lb.)

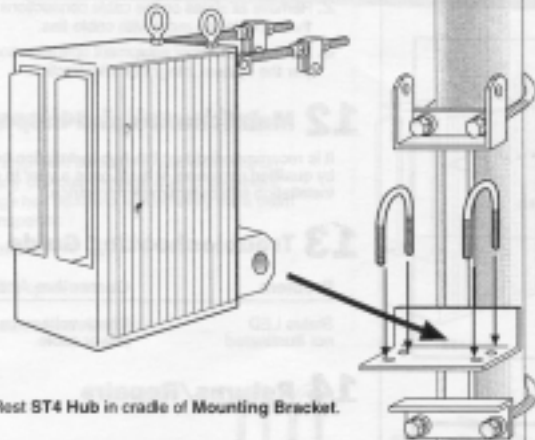


### 4 Attach Mast Mounting Bracket to Mast

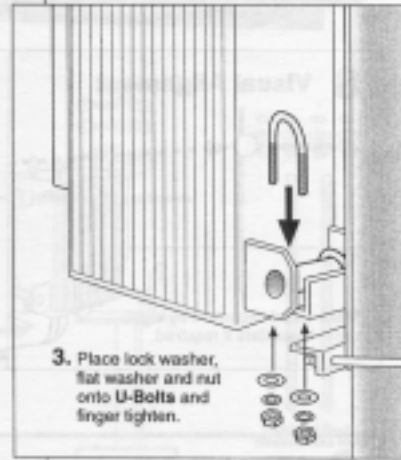
1. Use 2 Large U-Bolts, attach to mast.
2. Place lock washer, flat and nut onto U-Bolts. Tighten to hold in place.



## 5 Rest ST4 Hub in Cradle on Mounting Bracket



1. Rest ST4 Hub in cradle of Mounting Bracket.
2. Attach with 2 Small U-Bolts.

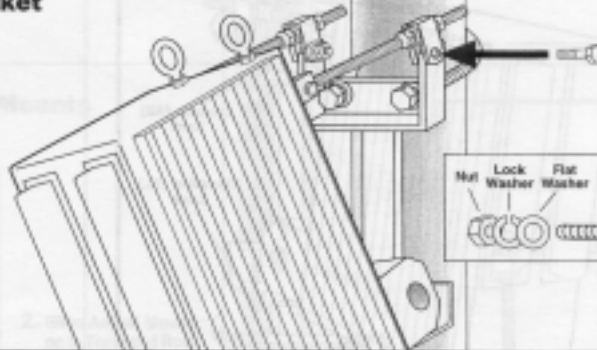


3. Place lock washer, flat washer and nut onto U-Bolts and finger tighten.

Rear view

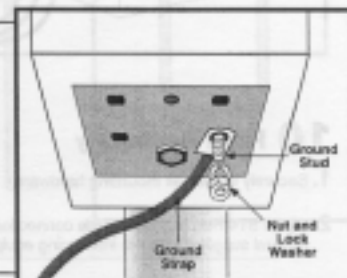
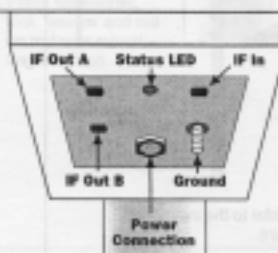
## 6 Attach Elevation Adjust Mounts to Mast Mounting Bracket

1. Align holes in Elevation Adjust Mounts with mounting holes on Mast Mounting Bracket.
2. Attach with bolts (insert from outside in toward mast).
3. Place lock washer, flat and nut onto bolts and finger tighten.



## 7 Make Cable Connections to Connectors on Bottom of ST4 Hub

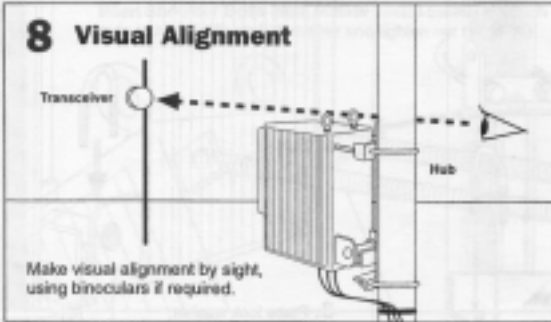
Connect Power, IF in, IF out, and ground strap (customer supplied).





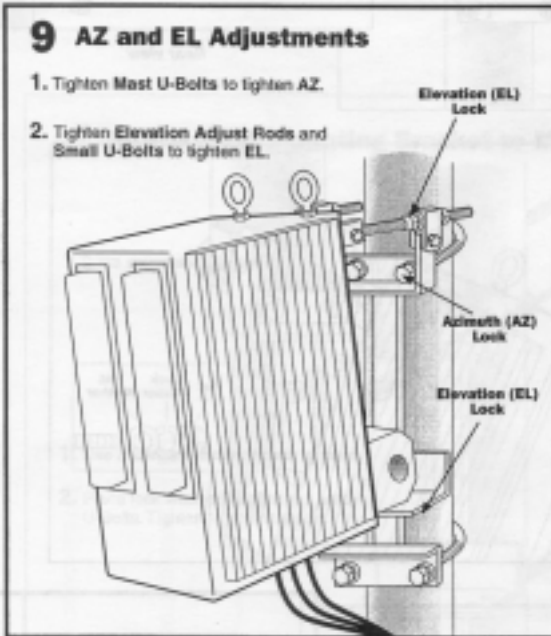
Steps 8 and 9 apply only to models with integral antennae. If your equipment has wave guide connections proceed to Step 10.

### 8 Visual Alignment



### 9 AZ and EL Adjustments

1. Tighten Mast U-Bolts to tighten AZ.
2. Tighten Elevation Adjust Rods and Small U-Bolts to tighten EL.



### 10 Final Assembly

1. Securely tighten all mounting hardware.
2. If your ST4 Hub has waveguide connections refer to the instruction manual supplied with the interfacing equipment.

### 11 Final Checklist

1. Check that all nuts are locked tightly and that the cable connections are tight before leaving the installation site.
2. Remove all stress on the cable connections by securing the cable to the mast with cable ties.
3. Proceed with indoor equipment operation and verification per the system integrator's instruction.

### 12 Maintenance and Inspection

It is recommended that the hub installation be inspected by qualified personnel at least once a year to ensure safe installation and optimum performance.

### 13 Troubleshooting Guide

Problem	Corrective Action
Status LED not illuminated	Check voltage on power cable

### 14 Returns/Repairs