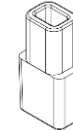


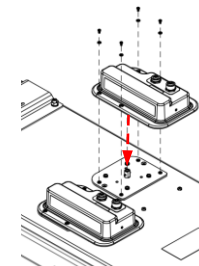
**DISCLAIMER:** The installation, maintenance, or removal of an antenna requires qualified, experienced personnel. You must refer to the appropriate local safety codes and ensure proper electrical and electromagnetic compatibility before proceeding with the installation. All local codes shall take precedence over information in this document. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment. Communication Components Inc. disclaims any liability or responsibility for the results of improper or unsafe installation.

## Replacing a BSA (Type I) RET actuator

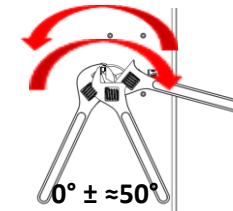
1. Record the antenna serial number, model number and position of the RET to be replaced.
- 2.a. RETs obtained via RMA under Warranty Replacement or special arrangement are preprogrammed and steps 3 thru 13 can now be followed.
- 2.b. **WARNING:** RETs not acquired through the RMA process or special arrangement are NOT pre-programmed and MUST be programmed to the specific Antenna Model, Height Class, and RET Position, for proper function, using a compatible, portable AISG 2.0 controller. Refer to procedure "Adding Devices", in the CCI Antenna Configuration Update Procedure. *Failure to adhere to this warning may result in the antenna warranty becoming void.*
3. Remove the AISG cable(s) to/from the affected RET(s).
4. Remove the four (Torx T20) screws holding the Type 1 RET on the antenna (see Figure 1).
5. Remove the RET from the antenna, by lifting it.
6. Flip the Type 1 RET over and note the position of the actuator keyway (cavity).
7. Note that the Interface Key in the keyway on the antenna can be **rotated up to 100° total movement maximum**. That is, if the Interface Key is centered it can be moved from  $0^\circ \pm 50^\circ$  in the CW or CCW direction (as seen in figure 2).
8. Using an adjustable wrench move the Interface Key to match the relative position of the keyway on the Type 1 RET when it is positioned in its normal location on the antenna, while observing the limitation noted above
9. When you believe that the Interface Key is properly positioned, then push the Type 1 RET down into place.
10. Reinstall the four Torx T20 screws. Torque the screws to  $1.6 \pm 0.1$  Nm,  $1.2 \pm 0.1$  ft-lb.
11. Re-connect the AISG cables to/from the replacement Type 1 RET.
12. Exercise the new Type 1 RET as you normally would do to verify it functions properly
13. Set the electrical down tilt of that portion (i.e. band and position) of the antenna.



**Warning:** Interface Key is “floating,” care should be given when removing the RET that the Interface Key is not dropped or lost



**Figure 1: Place Interface Key into Antenna & Later place RET onto Antenna when aligned**



**Figure 2: Align the Interface Key to match the RET Keyway (Cavity)**