COMMSCOPE®

Instruction Sheet

639509 Revision N, May 2016

Antennas with Factory Installed CommScope Actuators

GENERAL INFORMATION

- Instructions covered in this bulletin are specific for proper handling of the factory installed AISG actuators on the antenna during installation, as well as their connectivity to the RET (Remote Electrical Tilt) system.

- Each actuator has been fitted and pre-tested in the factory to operate within the electrical tilt range of the antenna. It is recommended that each actuator be con-nected to the controller prior to installation on the tower (WHILE ON THE GROUND) and checked to that each device moves accurately on command without restriction. Note that each actuator that is factory in-stalled to an antenna is pre-configured with the antenna model number, antenna type, and antenna serial number. The following configurations will need to be updated by the user at the time of installation:

  - Installation date
  - Mechanical tilt
  - Bearing
  - Height
  - Freq band
  - Station ID
  - Sector
  - Technology
  - Installer ID
  - Location

INSTALLATION INSTRUCTIONS

1. Remove the antenna from the shipping box.
2. Leave the protective shroud around the actuator (Figure 1).

Do not use the actuator or shroud as a lifting de-vice for an antenna. Doing so is likely to damage the actuator and the coupling attachment on the antenna.

3. Test actuators ON THE GROUND with a portable con-troller before the antenna is installed on the tower.

To ensure that the actuator has been properly de-ployed, various set-tilt commands should be carriedout at this stage.

- Using the ATC200-LITE-USB Portable Controller, run each actuator between **min** and **max** tilt several times.

The motion of the actuator should be unrestricted between its minimum and maximum downtilt positions. Compare the visual reading of downtilts through the viewing window in the clear bushing on the antenna with the readings shown on the computer.

Actuators are factory set to minimun downtilt.

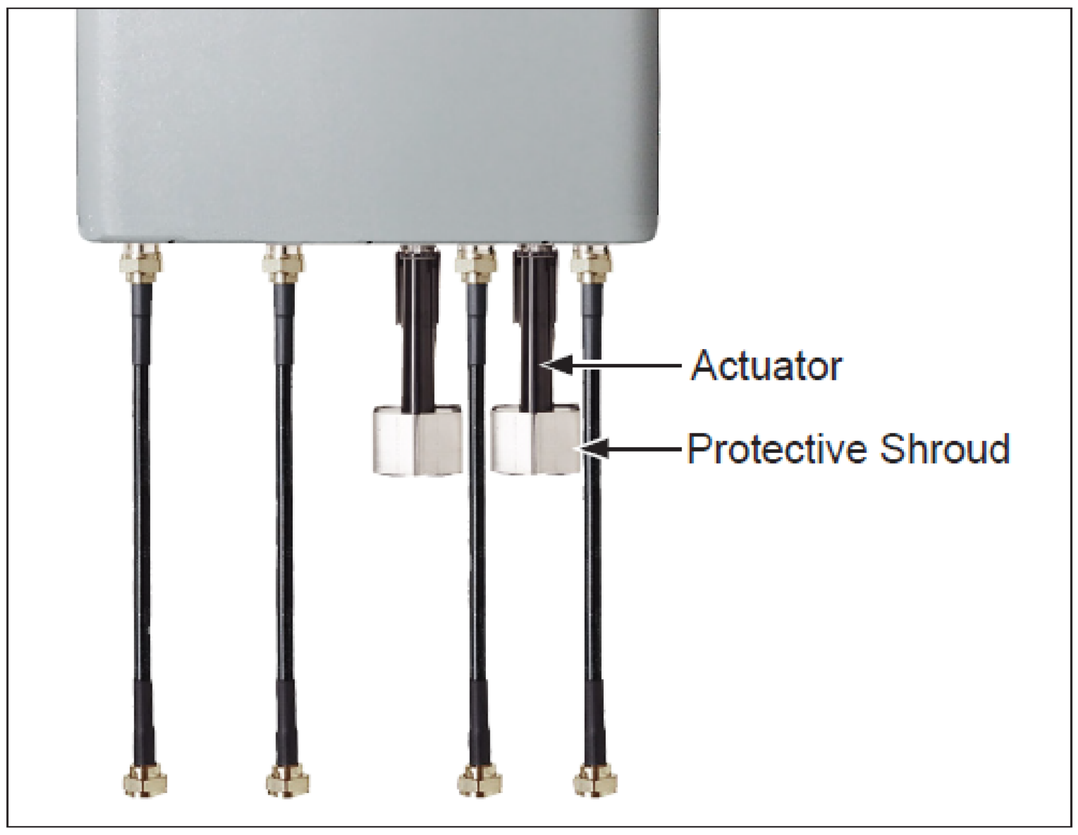

Figure 1. Actuators with Protective Shrouds.

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WARRANTY NOTICE

Proper installation procedures must be followed when installing and operating RET equipment. Failure to assure installations are done properly by trained installation personnel and to follow procedures discussed in this bulletin may cause warranty for such products to be void.
CommScope requires pretesting actuators on the ground prior to installation, using the CommScope portable controller and the latest version of the controller software (available online at www.commscope.com/Resources/Software). This will verify proper actuator functionality and also ensure that the latest available actuator firmware release is installed on the actuator. Failure to conduct pre-test and pre-installation procedures defined by CommScope will void warranty.
Unauthorized removal of a protective shroud to replace actuators voids the CommScope warranty.

SAFETY NOTICE

The installation, maintenance, or removal of an antenna requires qualified, experienced personnel. CommScope installation instructions are written for such installation personnel. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

CommScope disclaims any liability or responsibility for the results of improper or unsafe installation practices.

It is recommended that transmit power be turned off when the field installation is performed. Follow all applicable safety precautions as shown on this page.

Do not install near power lines. Power lines, telephone lines, and guy wires look the same. Assume any wire or line can electrocute you.

Do not install on a wet or windy day or when lightning or thunder is in the area.Do not use metal ladder.

Wear shoes with rubber soles and heels. Wear protective clothing including a long-sleeved shirt and rubber gloves.

Visit our website at www.commscope.com or contact your local CommScope representative or BusinessPartner for more information.

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Unauthorized removal of a protective shroud to replace actuators voids the CommScope warranty.

4. After the actuator has been tested and determined to operate satisfactorily, attach the mounting brackets to the back of the antenna (refer to the installation bulletin supplied with the mounting kit).

5. The connectors on the RET control cables are gender specific and are keyed to provide a matching fit with the ports on the actuator and the other RET equipment. Refer to Figure 2 for an example of how to properly at-tach the RET control cable connectors to the actuators for daisy-chaining. Refer to Figures 3 through 6 for location of ports on various components used in a RET system.
   While threading the connectors onto the RET equipment, turn the connector clockwise until hand tight ONLY.

CAUTION: RET connections are weather resistant and must not be weatherproofed.

6. Secure the RET control cable (that runs down toward the base station) to the tower structure, using cable ties, hangers, or similar fasteners, such as CommScope 40417 cable ties or 68MCLICK hangers. These main cables should be secured at 2 m intervals and at 1 m from either end. The cables feeding to the actuators should be secured every 0.5 m, to avoid excessive wind vibration.
   See Bulletin 639581 for details about using CommScope RET control cables.
7. Use CommScope ATGK-CABLE grounding kit for tower base and at the top of the tower.
   If the controller is installed permanently at a site, the ATLP200-001 lightning protection unit is recommended (see Bulletin 639098).

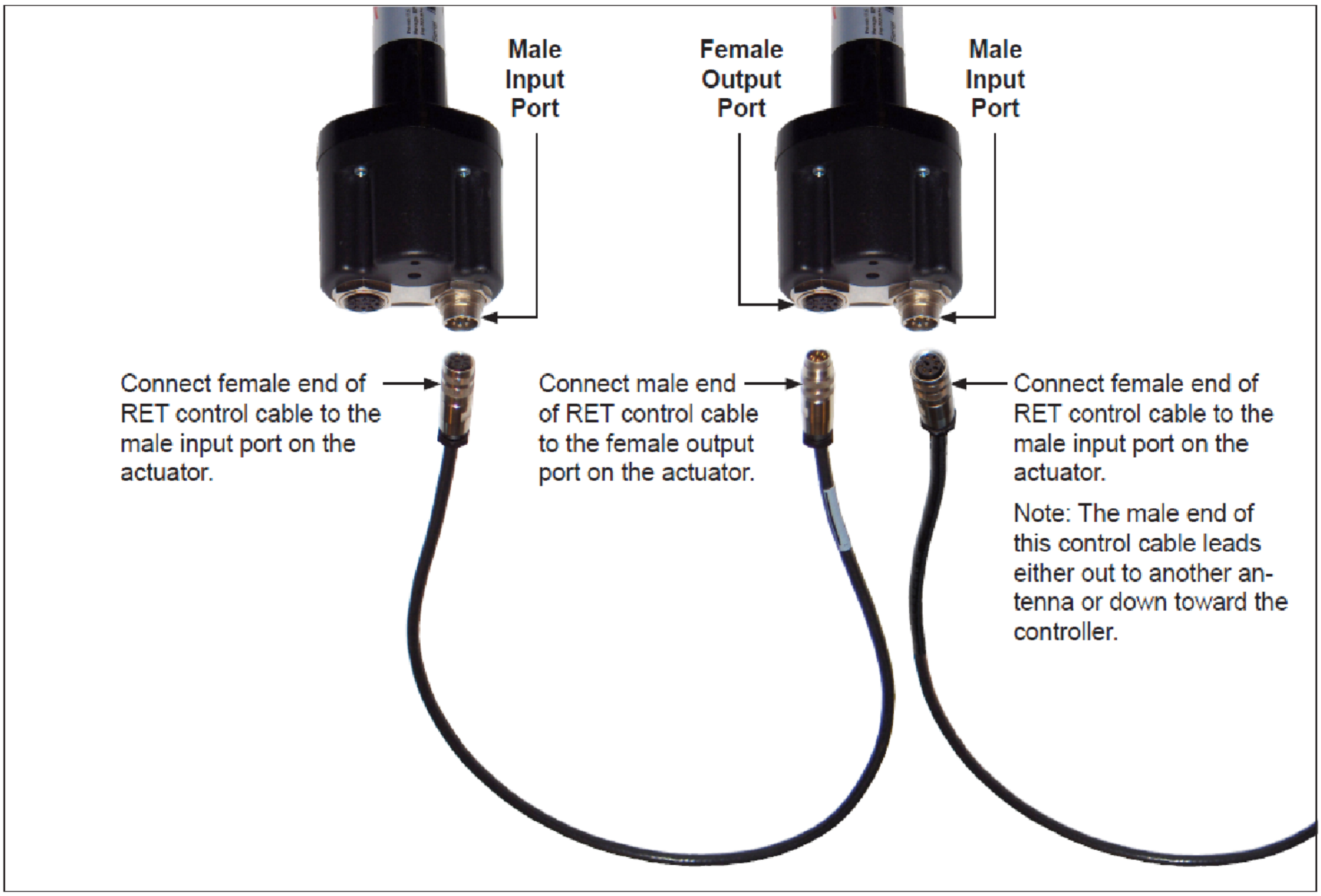

Figure 2. Daisy-Chaining the AISG RET Control Cable.

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Refer to the installation and operation bulletins provided with the controller for proper setup and use of RET sys-tem components.

8. It is recommended that each actuator be re-checked at this point, to ensure that each device moves accurately on command without restriction.

Please register online at www.commscope.com to receive e-mail announcements of downloadable software upgrades bundled with the latest antenna files.

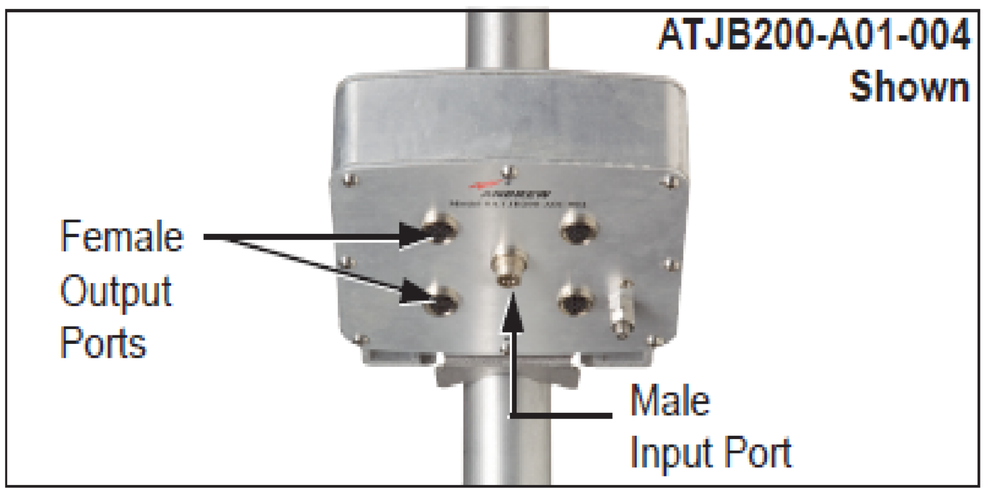

Figure 3. ATJB Series Junction Box RET Ports.

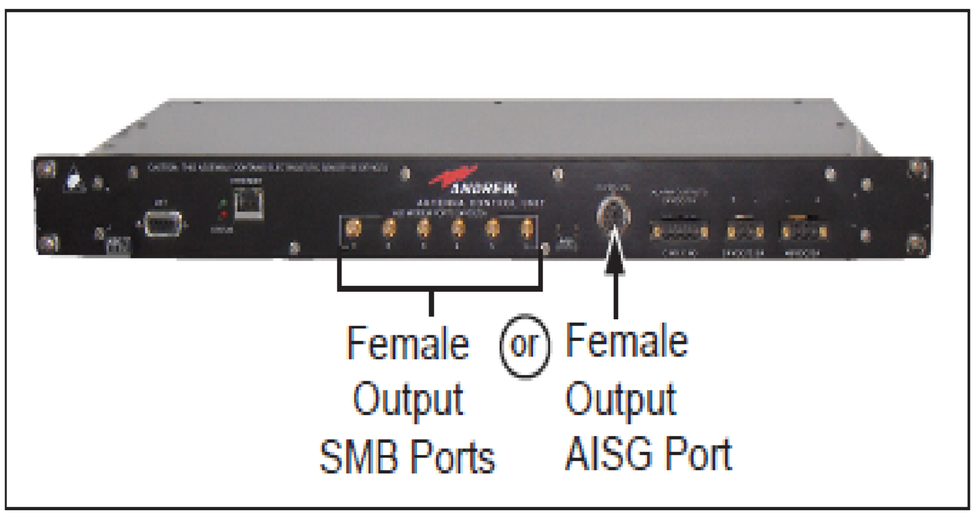

Figure 5. ATC300-1000 Controller RET Ports.

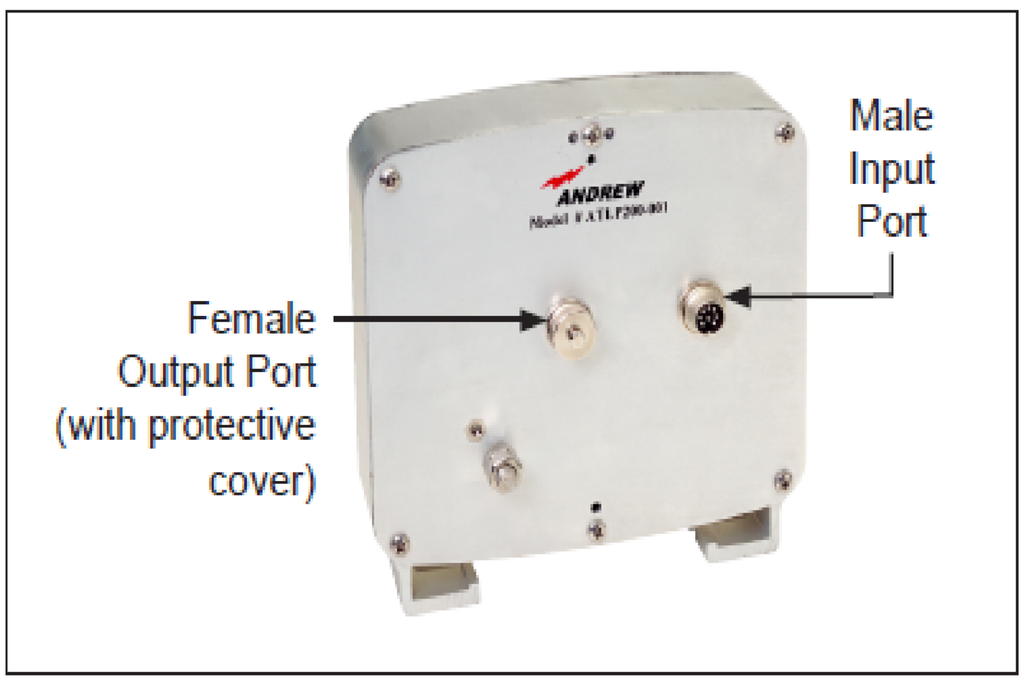

Figure 4. ATLP200-001 Lightning Protection Unit RET Ports.

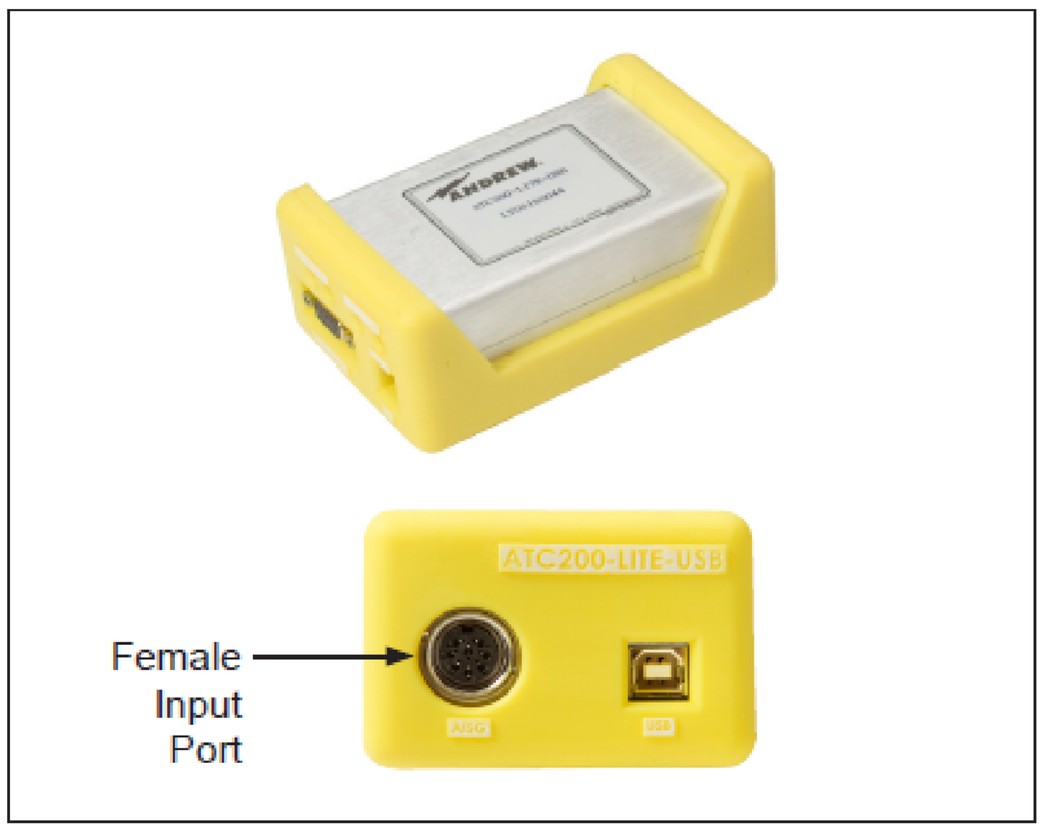

Figure 6. ATC200-LITE-USB Controller RET Port.