

# Instruction Sheet

653260 Revision G, May 2016

## **Pre-Testing and Configuring of RET Antenna Systems**

Prior to Installation Overview







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# **Notices and Precautions**

### 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 pre-testing 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.

#### <u>SAFETY NOTICE</u>

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, tele-phone 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 includ-ing a longsleeved shirt and rubber gloves

## **GENERAL INSTRUCTIONS**

- It is recommended to turn off the transmit power when working around an installed antenna.
- RET connections are weather resistant and must not be weatherproofed.
- It is required to connect the RET antenna system to the controller and to test it ON THE GROUND before installing the antenna.
- All unmated AISG connectors should be protected.
- Register online at www.commscope.com to receive e-mail announcements for software updates.
- Please contact the CommScope Customer Support Center (see bottom of cover page) for any questions.

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# Pre-Testing and Configuring of the RET Antenna System

## 1.0 Introduction

This bulletin covers pre-testing procedures for the CommScope RET antenna system. It also shows how the antenna system can be configured and set to the desired tilt positions.





Figure 1-1. Pre-Testing Setup For CommScope RET Antenna System.

Required Material: 1 ea ATC200-LITE-USB 1 ea Short RET cable, e.g. ATCB-B01-001 1 ea Laptop with the latest version of ATC Lite running on Windows 2000, XP, or



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## 2.0 Procedure

Follow the steps as illustrated below to pre-test the RET antenna system for full functionality and movement, and to ensure that the latest actuator firmware is applied.



### Figure 2-1. Pre-Testing Setup For CommScope RET Antenna System.

Note: 1). For antennas with more than one actuator, please ensure that all daisy-chain cables between actuators are attached before testing to verify proper cable installation.

2). Actuators are factory set to minimun downtilt.

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# **3.0 Controller Program Startup And Operation**

Please download the latest version of the ATC Lite software from www.commscope.com. Refer to Bulletin 639559, ATC200-LITE-USB Control System Computer Interface Setup, for installation of the ATC Lite software.

### 3.1. Program Startup:

- Double-click on the ATC Lite program icon on the computer's desk-top. See Figure 3-1.
- 3.2. Device Search:
- Click on **Find Devices**. See Figure 3-2.



Figure 3-1. ATC Lite Program Icon.

#### Andrew Teletilt Controller Lite 6.0 File Communication Tools Help Device Status and Test Auto-Discovery Self Test Find Devices Cancel Search Get Device Info Get Alarnis Clear Alarms Device Information Loc. AISG ETilt AZ/Pan DW/Pan Sector Addr Mile: ID. Status Base Station ID Click on Find Devices. > ٩, Nove Selected... Edit Selected.... Move Sector.... Startup complete

Figure 3-2. Main Startup Screen Ready For Device Search.

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# **3.3. Configuring The Actuator:**

- With the actuator selected, click on Edit Selected (Figure 3-3).
  To configure the selected device, make the appropriate selections and text entries in the Configuring Device dialog (Figure 3-4).
- After the configuration data is entered, click on **Configure** (Figure 3-4).

File Communication Tools Help         Device Status and Test:         Get Device Info       Get Alams         Device Information       0.1         ConcelSection 10       0.1         Select Actuator.       0.1         Click on       Edit Selected.         Move Sector       Move Selected	🜌 Andrew Teletilt Controller Lite 6.0	
Device Status and Test: Get Device Tinfo Get Alarms Glear Alarms Self Test Rind Devices Concel Search Device Dinformation The Adds Status Base Station ID Hilk Till A20Pen 1000/Pan Sector. Loc. LAISG Adds Select Actuator. Click on Edit Selected. Move Sector Move Selected	File Communication Tools Help	
Get Device Info       Get Alarms       Get Alarms       Self Test       Find Devices       Cancel Search         Device Information       ID       Adds       Selars       Rese Station ID       MIR.       ETit.       A2Dear       Edit No.       A105         Select Actuator.       01       5.0       Click on       Edit Selected.         Move Sector       Move Selected       Edit Selected.	Device Status and Test	
Device Information          ID       Addt       Select       Int       Aligned       Mill       Mill       Int       Aligned       Int       Int       Aligned       Int       Int	Get Device Info     Get Alarms     Self Test     Find Devices     Cancel Search	
Device Information         ID       Addi.       Setue       Base Station ID       MIR. If Tit. A32Pag. (Wd/Yan _Sector. Loc. A155)         Monocorressansor Listes       0x1       5.9       xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		
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Select Actuator.		
Click on Edit Selected.		
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		—

Figure 3-3. Selecting Actuator In A RET Antenna System.

<b>Configuring Device</b>	ANOCODESA090712828 at Address 1 -	
* Antenna Model	HBX661706-R2M	Installation Date: 05/13/09
Antenna Sesal #:	DESA12345678	Installer ID:
Nin. Electrical Tilt	0.0 Max Electrical Tit: 0.0	Mechanical Tilt -0.1
Freq. Band	1900 Hhm	Bearing
Antenna Type	Dual Polarized	Height



#### Figure 3-4. Configuring A Selected Device Prior To Operations.

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# 3.4. Electrical Tilt Settings:

- Selecting the actuator enables adjustments to the desired electrical downtilt to occur.
- The actuator of the RET antenna is selected in Figure 3-5.

🜌 Andrew Teletilt Costcoller Lite 4.0					
Me Communication Tools Melp					
Device Statue and Test					
Get Device Info Get Alerno Clear Alerno Self Test Find Devices Concel Search					
Device Diformation					
10 Add Statut Base Statut ID MIR ETH AZPan EWPan Sector Los ADG					
Select Actuator					
Click on					
Move Selected.					
< >					
Hove Sector Nove Selected Edit Selected					

Figure 3-5. Selecting The Actuator To Be Tested.

- With the tilt actuator selected, click on Move Selected (Figure 3-5) and move to the minimum and maximum tilt settings (Figure 3-6):
- 1. Enter max position and click on **Activate**.
- 2. Then enter min position and click on Activate.
- 3. Verify the movement throughout the actuator's full range. See Figure 3-6.
- 4. Then set to the desired tilt.

• If more than one actuator is attached to the antenna, repeat test for each additional actuator following the steps described in 3.3 and 3.4.

Asterna Hadet       50P-30A       Installation Dists       00/15/09         Min. Electrical Tilt       20       Max. Electrical Tilt       100       Mechanical Tilt       01         Asterna Type:		Set Actuator Positio	m, Device ANOBARTILABO12345020	5.t. at Address 1	
Note Min. and Max.       Anterno Type:       Bearing:       Bearing:         Electrical Tilt.       Freq. 8 and:       Technology:       Technology:		Autorina Madet	SBP-3DA	Installation Date: 00/15/09	
Note Min. and Max.       Arterne Type:       Bearing:         Electrical Tilt.       Arterne Swidt#:       084RTLA8012345826       Height:		Min. Electrical Tilt:	2.0 Max Electrical Til: 10.0	Hechanical Tilt 0.1	
Note With, and Wax.       Averas Serial # 08481148012345126       Height [         Electrical Tilt.       Freq Band       Technology	Note Min, and May	Antenno Type:		Bearing:	
Electrical Hit. Freq.Band Technologi	Note Min. and Max.	Arterna Serial II.	064RTLA8012345826	Height:	
	Electrical Hit.	Freq. Band		Technology:	
Base Station D: Installer ID:		Base Station D:		Installer ID:	
Sector: 1 Lecation: 1		Sector:	İ	Location: 1	



Figure 3-6. Adjusting Tilt To Minimum And Maximum Settings.

# 3.5. Summary:

This concludes the pre-testing and initial setup of the RET antenna system.

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