



639572 Revision G, May 2016

#### ATC300-1000/2000 Control System

**Equipment Installation Overview** 





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### Statement of Purpose:

Starting with firmware version 2.27 and later, the ATC300-1000/2000 controller can be connected to the network out of the box and will establish a DHCP connection.

The ATC300-1000/2000 default hostname is its serial number.

ATC300-1000/2000 controllers running firmware version **2.26** or earlier should see Bulletin 639571 for network communications setup.

An upgrade to the latest firmware is recommended and may be performed once network communication is established. See Bulletin 639544, ATC300-1000/2000 Installation and Operation User Guide, Section 9.

Firmware can be downloaded from the CommScope website:

• From the Products tab on www.commscope.com, click on ATC300-1000/2000 Rack Mount Controller link.

Please contact the CommScope Customer Support Center, (see bottom of cover page), for any questions.

### **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 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.

### 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 thispage.

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.

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### **1.Equipment Installation Options**

Note: Test system components on the ground before installation on tower.



Figure 1. ATC300-1000/2000 Control System Connection Options

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### 2.0 Controller Program Startup and Device Scan

- 1. Pre-Installation Notes:
- CommScope strongly recommends that each component be tested before installation on the tower.
- Both +24 and -48 Vdc connections for the power supply module are available. For proper opera-tion, ensure wires are connected with correct polarity.
- CommScope recommends that you register online to receive notifications for updates made to the software file. It is also recommended that the CommScope web site be checked every 30 days for updated software/documentation.
- Refer to Bulletin 639571 for instructions about using the IP Config Tool to reconfigure the local PC/laptop's IP address for access to the ATC300-1000/2000's main operating interface.
- Refer to Bulletin 639577, Updating Firmware of CommScope Devices, if an update is required.

#### 2. Controller Access:

- Type the controller's IP address or hostname into Internet browser URL window. The factory default IP address is 192.168.255.141. See Figure 2-1.
- Click on **Go** (or press **Enter** on the keyboard).



Figure 2-1. Entering Controller's IP Address Into Internet Browser.

• The ATC300-1000/2000 Controller main interface screen is shown below.

Ho	ne	Configuration	n	Alarms	Help						AN	DREW.
					RET	Device Info	ermation					
D	Турс	AISG	Status	Sector	Location	Bands	ETilt	MTüt	Az Bearing	RAS	RAB	Model
							_			-		



Figure 2-2. ATC300-1000/2000 Controller Main Interface Screen.

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### 3. Device search:

Click on Find Devices (Figure 2-2).

- Click on Start Scan on the Device Scan Progress screen (Figure 2-3).
- If an antenna/actuator has been removed or added to the site, a new scan is required.
- Firmware upgrades for CommScope devices may be recommended.
- Click on **Close** to return to the main screen.

	Home	Configuratio	10	Alams	Help							NDREW.
ſ					Desi	ice Scan Progr	1433				/	
	De	rice	Vender	Serial#	Туре	Product Type	AISC	HW Version	SW Version	та	Update Req'd?	Status
	AN0000000	0000302616	AN	0000000000030261	6 RET	ATC_	1.1	02.00	90c.79	\$.0	Unknown	OK



Figure 2-3. Searching for Devices.

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#### 3.0 Device Configuration

1. Select appropriate device to be configured and click on **Edit Selected** (Figure 3-1).

	Home Configuration	1	laena	Halp				4	a a caracteria		1	AN	DREW.
				Dev	ice Infor	mation							-
	D	Type	AISG	Status	Sector	Location	Bands	ETilt	MTilt	Az Bearing	RAS	RAB	Model
	AN000000C2061201316	RET	1.1	OK.	alpha (1)	3	1900	4.0	0.0	240			08XLH- 6565A- VTM-III
	AN000000C2072501791	RET	1.0	*NOT CONFIGURED*				16.0	0.0	0	-	-	
	AN000007DESA0228564.	RET+	1.1	OK.	alpha (1)	2	1900	7.0	4.5	190			SEH- 2D6516
	AN000007DE5A0228564.p	AZANG+	1.1	ок	alpha (1)	2	1900			180	0		SEH- 2D6516
	AN000007DESA0324568.t	RET+	1.1	ок	alpha (1)	э	\$00	7.0	2.0	100			SBH- 2D6516
	AN000007DE\$A0924568.p	AZANG+	1.1	ок	alpha (1)	3	800			100	24		SBH- 2D6516
Click on Edit Selected	AN0000DE5A073917944	RET	2.0	OK.	alpha.	4	II UL: 1850- 1910 MHz, DI - 1020	6.0	5.0	120			140 -
	Devices Move Sector Edt Selected Command / Status Response	Move Se Show St	iected stistics		pdate/Re Show TI	fresh 4As	AISO Bus Fr Co	d Devic rfigure I	ns Juo		Power	iuspens Weike	1

Figure 3-1. Starting the Device Configuration.

2. Make appropriate selections and text entries on screen below.

• To receive commands from the controller, a device must be configured to provide specific information about the antenna and its location on site.

• Factory installed actuators are pre-configured to include the antenna model number, antenna type, and antenna serial number.

• The remaining fields (Installation Date, Base Station ID, Mechanical Tilt, Technology, Freq. Band, Sector, Location, Bearing, Height, and Installer ID) will need to be configured.

• After entering data, click on **Set Device Data** (Figure 3-2).

Note: Click on **Close** to return to the controller's main screen when device configuration is complete.

Home	Configuration	Alarms	Нер	
		RET	Device AN0000	00C2072501791 Configuration
	"Antenna Model	DBXLH65658-VTMHI	-	
	Min Electrical Tilt	0.0		Max, Electrical Tilt: 16.0
	Anterna Type	Dual Polarized	-	
	Antenna Serial #:	AN000000C2072501791		
	Erro Read	300 101		+Sector: [beta (2) v]



Figure 3-2. Device Configuration.

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### 4.0 Adjusting Electrical Tilt

### 1. Device adjustments for a single antenna:

• Start at the controller's main inter-face screen. To change electrical downtilt on a single antenna, select the antenna actuator to be tilted, and click **Move Selected**. See Figure 4-1, Screen 1.

• Enter the new electrical tilt angle and click on **Set Tilt**. See Figure 4-1, Screen 2.

### 2. Device adjustments for a group of antennas:

Click on a device that is to be in-cluded in the sector move, and click **Move Sector** (Screen 1). The dialog box to **Set Electrical Tilt for Sector** *x* appears (Figure 4-2).

					RET D	wice Information						
D	Туре	AISG	Status	Sector	Location	Bands	ETili	MTili	Az Bearing	RAS	RAB	Medel
LND00000000000346890	RET	1.1	ок	heta (2)	1		8.0	6.0	0	-	-	DEXLH-909 VTM
N0000DE5A080309396	RET	2.0	ок	alpha (1)	1		10.0	0.0				TMBX-6516-
CN0000DESA073413329	RET	2.0	oĸ	beta (2)	3	IV UL: 1710-1755 MHz, DL: 2110-2155 MHz	0.1	25.5	0			926LG65V1
LN0000ASZP081419361	RET	1.1	OK.	alpha (1)	2	800	8.0	1.0	1			DBXLH-65 VT
N0000ASZP081419367	RET	1.1	OK	alpha (1)	2	1900	8.0	0.3	3			DBXLH-65 VT
Move Sector.	 Me 9	we Select	tted_	0) 	Display Upd 9	late-Refresh how TMAs		as Find Devi	cee Bus	B	a Powe	Suspend Wake
creen 2		- M	ove	e Se	ector	or Move	Se	lec	ted.			



Figure 4-1. Adjusting Tilt For One Antenna.

### 3. Adjusting the downtilt angle on a group of antennas:

- Click on the Additional models, one at a time, to be included in the sector move (Figure 4-2). Antennas are listed in the Additional box only if they have the same sector and tilt range as the selected antenna.
- Click on Add to move the selection to Included. Double-clicking on the model will also add it to the group for the sector move.
- Enter the new electrical tilt angle. Review the electrical tilt range to verify that the new tilt angle entered is valid for the antenna model. Any downtilt angle within this range may be entered. Angles may be entered with the precision of 0.1 degree (Example: 5.0 or 5.5).





Figure 4-2. Adjusting tilt for antennas in the same sector.

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