

### Command Strings for UHF-R Receivers

The UHF-R receiver is connected via Ethernet to an AMX or Crestron system.

Connection: Ethernet (UPD/IP)  
Port: 2202

The UHF-R Receiver has 3 types of strings, as follows:

1. GET – The GET command is used to find the status of a parameter. After the AMX/Crestron sends a GET command, the UHF-R receiver responds with a REPORT string.
2. SET – The SET command is used to change the status of a parameter. After the AMX/Crestron sends a SET command, the UHF-R receiver will respond with a REPORT string to indicate the new value of the parameter.
3. REPORT – When the UHF-R receives a GET or SET command, it will reply with a REPORT command to indicate the status of the parameter. REPORT is also sent by the UHF-R receiver when a parameter is changed via the front panel (only when metering is SET to on).

All messages sent and received are ASCII. Note that the level indicators and gain indicators are also in ASCII.

The character “x” in all of the following strings represents the channel of that particular receiver and can be ASCII numbers “1” or “2.” With a single channel receiver, the channel is always “1.” With a dual receiver, the receiver channel on the left is channel 1 and the channel on the right is channel 2.

<b>View User Name</b>	Command String:	* GET x CHAN_NAME *	Where x is ASCII channel number: 1 or 2
	UHF-R Response:	* REPORT x CHAN_NAME yyyyyyyyyyyy *	Where yyyyyyyyyyyy is 12 characters of the user name. The UHF-R receiver always responds with a 12 character name.



# Applications Engineering Technical Bulletin

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<b>Set User Name</b>	Command String:	* SET x CHAN_NAME yyyyyyyyyyyy *	Where yyyyyyyyyyyy is 12 characters of the user name. The user name can be 1 to 12 characters long.
	UHF-R Response:	* REPORT x CHAN_NAME yyyyyyyyyyyy *	Where yyyyyyyyyyyy is 12 characters of the user name. The UHF-R receiver always responds with a 12 character name.
<b>View Mute Status</b>	Command String:	* GET x MUTE *	
	UHF-R Response:	* REPORT x MUTE ON * * REPORT x MUTE OFF *	The UHF-R will respond with one of the two strings.
<b>Mute Audio</b>	Command String:	* SET x MUTE ON *	
	UHF-R Response:	* REPORT x MUTE ON *	
<b>Un-mute Audio</b>	Command String:	* SET x MUTE OFF *	
	UHF-R Response:	* REPORT x MUTE OFF *	
<b>Toggle Mute</b>	Command String:	* SET x MUTE TOGGLE *	
	UHF-R Response:	* REPORT x MUTE ON * * REPORT x MUTE OFF *	The UHF-R will respond with one of the two strings.
<b>View Audio Gain</b>	Command String:	* GET x AUDIO_GAIN *	
	UHF-R Response:	* REPORT x AUDIO_GAIN yy *	Where yy takes on the ASCII values of 00 to 32. 32 is the minimum value and 00 is the maximum value.
<b>Set Audio Gain</b>	Command String:	* SET x AUDIO_GAIN yy *	Where yy takes on the ASCII values of 00 to 32. 32 is the minimum value and 00 is the maximum value.
	UHF-R Response:	* REPORT x AUDIO_GAIN yy *	Where yy takes on the ASCII values of 00 to 32. 32 is the minimum value and 00 is the maximum value.
<b>Increase Audio Gain by n dB</b>	Command String:	* SET x GAIN_UP n *	Where n is the amount in dB to increase the gain. Valid n values are 1-5.
	UHF-R Response:	* REPORT x AUDIO_GAIN yy *	Where yy takes on the ASCII values of 00 to 32. 32 is the minimum value and 00 is the maximum value.
<b>Decrease Audio Gain by n dB</b>	Command String:	* SET x GAIN_DOWN n *	Where n is the amount in dB to increase the gain. Valid n values are 1-5.
	UHF-R Response:	* REPORT x AUDIO_GAIN yy *	Where yy takes on the ASCII values of 00 to 32. 32 is the minimum value and 00 is the maximum value.
<b>View current Group, Channel, and Frequency</b>	Command String:	* GET x GROUP_CHAN *	
	UHF-R Response:	* REPORT x GROUP_CHAN gg cc * * REPORT x FREQUENCY yyyyyy *	UHF-R responds with both strings. Where gg is Group Number and cc is Channel Number. Where yyyyyy is the Frequency represented as yyy.yyy MHz. If the receiver is on a frequency that does not line up with a group and channel, then gg and cc will report '-'-'-'.
<b>Set Group and Channel</b>	Command String:	* SET x GROUP_CHAN gn cn *	Where gn and cn are the group number minus one.
	UHF-R Response:	* REPORT x GROUP_CHAN gg cc * * REPORT x FREQUENCY yyyyyy *	UHF-R responds with both strings. Where gg is Group Number and cc is Channel Number. Where yyyyyy is the Frequency represented as yyy.yyy MHz. If the receiver is on a frequency that does not line up with a group and channel, then gg and cc will report '-'-'-'.
<b>Increment Group</b>	Command String:	* SET x GROUP_UP *	Increases the group number by 1.
	UHF-R Response:	* REPORT x GROUP_CHAN gg cc * * REPORT x FREQUENCY yyyyyy *	UHF-R responds with both strings. Where gg is Group Number and cc is Channel Number. Where yyyyyy is the Frequency represented as yyy.yyy MHz. If the receiver is on a frequency that does

			<i>not line up with a group and channel, then gg and cc will report '-'-'-'</i> .
<b>Decrement Group</b>	Command String:	* SET x GROUP_DOWN *	<i>Decreases the group number by 1.</i>
	UHF-R Response:	* REPORT x GROUP_CHAN gg cc * * REPORT x FREQUENCY yyyyyy *	<i>UHF-R responds with both strings. Where gg is Group Number and cc is Channel Number. Where yyyyyy is the Frequency represented as yyy.yyy MHz. If the receiver is on a frequency that does not line up with a group and channel, then gg and cc will report '-'-'-'</i> .
<b>Increment Channel</b>	Command String:	* SET x CHAN_UP *	<i>Increases the channel number by 1.</i>
	UHF-R Response:	* REPORT x GROUP_CHAN gg cc * * REPORT x FREQUENCY yyyyyy *	<i>UHF-R responds with both strings. Where gg is Group Number and cc is Channel Number. Where yyyyyy is the Frequency represented as yyy.yyy MHz. If the receiver is on a frequency that does not line up with a group and channel, then gg and cc will report '-'-'-'</i> .
<b>Decrement Channel</b>	Command String:	* SET x CHAN_DOWN *	<i>Decreases the channel number by 1.</i>
	UHF-R Response:	* REPORT x GROUP_CHAN gg cc * * REPORT x FREQUENCY yyyyyy *	<i>UHF-R responds with both strings. Where gg is Group Number and cc is Channel Number. Where yyyyyy is the Frequency represented as yyy.yyy MHz. If the receiver is on a frequency that does not line up with a group and channel, then gg and cc will report '-'-'-'</i> .
<b>View Battery Status</b>	Command String:	* GET x TX_BAT *	
	UHF-R Response:	* REPORT x TX_BAT d *	<i>Where d is 1-5 or U. 'U' stands for 'undefined' and indicates that the transmitter is off or does not exist.</i>
<b>Get Type of Transmitter</b>	Command String:	* GET x TX_TYPE *	
	UHF-R Response:	* Report x TX_TYPE yyy *	<i>Where yyy is UR1, UR2, UR1H, UR1M, MW1, MW2, or UNKNOWN</i>
<b>Turn Metering On</b>	Command String:	* METER x ALL sss *	<i>Where sss is the metering speed. Each step of sss is 30 milliseconds. Thus, for a speed of 1.2 seconds, use sss=040.</i>
	UHF-R Response:	* REPORT x CHAN_NAME yyyyyyyyyyyy * * REPORT x AUDIO_GAIN yy * * REPORT x GROUP_CHAN gg cc * * REPORT x FREQUENCY yyyyyy * * REPORT x MUTE yy * * SAMPLE x ALL nn aaa bbb d eee *	<i>See below.</i>
<b>Stop Metering</b>	Command String:	* METER x ALL STOP *	
	UHF-R Response:	none	<i>UHF-R receiver does not acknowledge the meter off command.</i>

### Notes on metering

- When metering is first turned on, the CHAN\_NAME, AUDIO\_GAIN, GROUP\_CHAN, FREQUENCY, MUTE will be reported one time. The SAMPLE will be reported at the specified time interval.
- Where sss is the metering speed. Each step of sss is 30 milliseconds. Thus, for a speed of 1.2 seconds, use sss=040.
- Setting sss to greater than 12 seconds, enables updating. Updating enables the UHF-R receiver to send a response if any value is changed via the front panel of the UHF-R, but the receiver will not send SAMPLE messages. With metering is turned off, the UHF-R receiver will not send a response message when a value is changed via the front panel of the UHF-R.
- Setting sss to less than 12 seconds turns on metering and updating. The SAMPLE message will be sent from the UHF-R at the rate specified and a REPORT message will be sent if any value is changed via the front panel of the UHF-R.

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- Where nn indicates the blue RF LED's from the receiver. These show the squelch status of the receiver and take on the following ASCII values.
  - AX – Antenna A on, Antenna B off
  - XB – Antenna A off, Antenna B on
  - AB – Antenna A on, Antenna B on
  - XX – Antenna A off, Antenna B off
- Where aaa and bbb are the value of the RF level received on antenna A and B. They can take on the following ASCII values:
  - 20 – RF overload
  - 70 – Strong RF Level
  - 75
  - 80
  - 85
  - 90
  - 100 – Weak RF level
- Where d is battery level and is 1-5 or U. 'U' stands for 'undefined' and indicates that the transmitter is off or does not exist.
- Where eee is the audio level and is 000-255.