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Command Strings for QLX-D Receivers

The most recent version of this document can be found at:
http://shure.custhelp.com/app/answers/detail/a_id/5624

The QLX-D receiver is connected via Ethernet to a control system, such as AMX or Crestron.

Connection: Ethernet (TCP/IP; select "Client" in the AMX/Crestron program)
Port: 2202

The QLX-D Receiver has 4 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 QLX-D 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 QLX-D receiver will respond with a REPORT string to indicate the new value of the parameter.
3. REP – When the QLX-D 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 QLX-D receiver when a parameter is changed via the front panel or via Wireless Workbench.
4. SAMPLE – Used for metering RF levels and audio levels.

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

Most parameters will send a REPORT command then they change. Thus, it is not necessary to constantly query battery or interference parameters. The receiver will send a REPORT command when any of these parameters change.

View All	Command String:	`< GET 1 ALL >`	*This command is intended to get all parameters on first power up.*

	QLX-D Response:	`< REP 1 CHAN_NAME {yyyyyyyy} >`
		`< REP 1 AUDIO_GAIN yyy >`
		`< REP 1 GROUP_CHAN gg,cc >`
		`< REP 1 FREQUENCY yyyyyy >`
		`< REP 1 ENCRYPTION yy >`
		`. . .`
		`. . .`
		`etc.`
			The QLX-D will respond with all parameters. See below for the definition of all REPORT commands. This is intended for use when first powering up a sound system.

Get Firmware Version	Command String:	`< GET FW_VER >`	
	QLX-D Response:	`< REP FW_VER {yyyyyyyyyyyyyyyyyy} >`	*Where yyyyyyyyyyyyyyyyy is 18 characters. The QLX-D receiver always responds with 18 characters.*
View Channel Name	Command String:	`< GET 1 CHAN_NAME >`	
	QLX-D Response:	`< REP 1 CHAN_NAME {yyyyyyyy} >`	*Where yyyyyyyy is 8 characters of the user name. The QLX-D receiver always responds with an 8 character name.*
Set Channel Name	Command String:	`< SET 1 CHAN_NAME {yyyyyyyy} >`	*Where yyyyyyyy is 8 characters of the channel name. The channel name can be 1 to 8 characters long.*
	QLX-D Response:	`< REP 1 CHAN_NAME {yyyyyyyy} >`	*Where yyyyyyyy is 8 characters of the channel name. The QLX-D receiver always responds with an 8 character name.*

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View Device ID	Command String:	< GET DEVICE_ID >	*The Device ID command does not contain the x channel character, as it is for the entire device.*
	QLX-D Response:	< REP DEVICE_ID {yyyyyyyy} >	*Where yyyyyyyy is 8 characters of the device ID. The QLX-D receiver always responds with an 8 character device ID.*
Set Device ID	Command String:	< SET DEVICE_ID {yyyyyyyy} >	*Where yyyyyyyy is 8 characters of the device ID. The device ID can be 1 to 8 characters long.*
	QLX-D Response:	< REP DEVICE_ID {yyyyyyyy} >	*Where yyyyyyyy is 8 characters of the device ID. The QLX-D receiver always responds with an 8 character device ID.*
Get Audio Gain	Command String:	< GET 1 AUDIO_GAIN >	
	QLX-D Response:	< REP 1 AUDIO_GAIN yyy >	*Where yyy takes on the ASCII values of 000 to 060. yyy minus 18 equals the value on the display of the QLX-D receiver.*
Set Audio Gain	Command String:	< SET 1 AUDIO_GAIN yyy >	*Where yyy takes on the ASCII values of 000 to 060.*
	QLX-D Response:	< REP 1 AUDIO_GAIN yyy >	*Where yyy takes on the ASCII values of 000 to 060.*
Increase Audio Gain by n dB	Command String:	< SET 1 AUDIO_GAIN INC n >	*Where n is the amount in dB to increase the gain. Valid n values are 1 through 60.*
	QLX-D Response:	< REP 1 AUDIO_GAIN yyy >	*Where yyy takes on the ASCII values of 000 to 060.*
Decrease Audio Gain by n dB	Command String:	< SET 1 AUDIO_GAIN DEC n >	*Where n is the amount in dB to decrease the gain. Valid n values are 1 through 60.*
	QLX-D Response:	< REP 1 AUDIO_GAIN yyy >	*Where yyy takes on the ASCII values of 000 to 060.*
Get current Group, Channel	Command String:	< GET 1 GROUP_CHAN >	
	QLX-D Response:	< REP 1 GROUP_CHAN gg,cc >	*Where gg is Group Number and cc is Channel Number. If the receiver is on a frequency that does not line up with a group and channel, then gg and cc will report '--,--'.*
Set Group and Channel	Command String:	< SET 1 GROUP_CHAN gg,cc >	*Where gg and cc are the group and channel numbers.*
	QLX-D Response:	< REP 1 FREQUENCY yyyyyy > < REP 1 GROUP_CHAN gg,cc >	*QLX-D 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 '--,--'.*
Get current Frequency	Command String:	< GET 1 FREQUENCY >	
	QLX-D Response:	< REP 1 FREQUENCY yyyyyy >	*Where yyyyyy is the Frequency represented as yyy.yyy MHz.*
Set Frequency	Command String:	< SET 1 FREQUENCY yyyyyy >	*Where yyyyyy is the Frequency represented as yyy.yyy MHz.*
	QLX-D Response:	< REP 1 FREQUENCY yyyyyy > < REP 1 GROUP_CHAN gg,cc >	*QLX-D 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 '--,--'.*
Get Battery Cycles	Command String:	< GET 1 BATT_CYCLE >	*Shure rechargeable battery only.*
	QLX-D Response:	< REP 1 BATT_CYCLE yyyyy >	*Shure rechargeable battery only. Where yyyyy is the cycle count of full charges. When transmitter is off or using AA batteries, yyyyy=65535.*
Get Battery Run Time	Command String:	< GET 1 BATT_RUN_TIME >	*Shure rechargeable battery only.*
	QLX-D Response:	< REP 1 BATT_RUN_TIME yyyyy >	*Shure rechargeable battery only. Where yyyyy is the minutes until the transmitter turns itself off. When transmitter is off or using AA batteries, yyyyy=65535.*

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Get Battery Temperature (F)	Command String:	< GET 1 BATT_TEMP_F >	*Shure rechargeable battery only.*
	QLX-D Response:	< REP 1 BATT_TEMP_F yyy >	*Shure rechargeable battery only. Where yyy is the temperature in Fahrenheit, offset by 40. (ex. 072 = 32F). When transmitter is off or using AA batteries, yyy=255.*
Get Battery Temperature (C)	Command String:	< GET 1 BATT_TEMP_C >	*Shure rechargeable battery only.*
	QLX-D Response:	< REP 1 BATT_TEMP_C yyy >	*Shure rechargeable battery only. Where yyy is the temperature in Celsius, offset by 40. (ex. 040 = 0C). When transmitter is off or using AA batteries, yyy=255.*
Get Battery Type	Command String:	< GET 1 BATT_TYPE >	
	QLX-D Response:	< REP 1 BATT_TYPE ALKA > < REP 1 BATT_TYPE LION > < REP 1 BATT_TYPE LITH > < REP 1 BATT_TYPE NIMH > < REP 1 BATT_TYPE UNKN >	*The QLX-D will respond with one of the five strings.*
Get Battery Charge Status	Command String:	< GET 1 BATT_CHARGE >	*Shure rechargeable battery only.*
	QLX-D Response:	< REP 1 BATT_CHARGE yyy >	*Shure rechargeable battery only. Where yyy is the remaining battery life as a percentage. Valid values are 000 through 100.*
Get Battery Health	Command String:	< GET x BATT_HEALTH >	*Shure rechargeable battery only.*
	QLX-D Response:	< REP x BATT_HEALTH yyy >	*Shure rechargeable battery only. Where yyy is the percentage of capacity the battery currently has relative to the factory defined original capacity.*
Get Battery Bars	Command String:	< GET 1 BATT_BARS >	
	QLX-D Response:	< REP 1 BATT_BARS yyy >	*Where yyy is the number of bars shown on the transmitter. Valid values are 000 through 005. (ex. 005 = 5 bars).*
Get Transmitter Type	Command String:	< GET 1 TX_TYPE >	
	QLX-D Response:	< REP 1 TX_TYPE QLXD1 > < REP 1 TX_TYPE QLXD2 > < REP 1 TX_TYPE ULXD1 > < REP 1 TX_TYPE ULXD2 > < REP 1 TX_TYPE ULXD6 > < REP 1 TX_TYPE ULXD8 > < REP 1 TX_TYPE UNKN >	*The QLX-D will respond with one of the three strings.*
Get Transmitter Offset	Command String:	< GET 1 TX_OFFSET >	
	QLX-D Response:	< REP 1 TX_OFFSET yyy >	*Where yyy is the transmitter offset. Typical values are 000, 003, 006 … 018, 021. When transmitter is off, yyy=255.*
Get Transmitter RF Power	Command String:	< GET 1 TX_RF_PWR >	
	QLX-D Response:	< REP 1 TX_RF_PWR LOW > < REP 1 TX_RF_PWR HIGH > < REP 1 TX_RF_PWR UNKN >	*The QLX-D will respond with one of the four strings.*
Get Transmitter Power Lock	Command String:	< GET 1 TX_PWR_LOCK >	
	QLX-D Response:	< REP 1 TX_PWR_LOCK ON > < REP 1 TX_PWR_LOCK OFF > < REP 1 TX_PWR_LOCK UNKN >	*The QLX-D will respond with one of the three strings.*
Get Transmitter Menu Lock	Command String:	< GET 1 TX_MENU_LOCK >	
	QLX-D Response:	< REP 1 TX_MENU_LOCK ON > < REP 1 TX_MENU_LOCK OFF > < REP 1 TX_MENU_LOCK UNKN >	*The QLX-D will respond with one of the three strings.*

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Get Encryption Status	Command String:	< GET ENCRYPTION >	
	QLX-D Response:	< REP ENCRYPTION ON > < REP ENCRYPTION OFF >	*The QLX-D will respond with one of the two strings.*
Set Encryption Status	Command String:	< SET ENCRYPTION ON > < SET ENCRYPTION OFF >	*Send one of these commands to the receiver. Changing this setting will require an IR sync with the transmitter to be performed.*
	QLX-D Response:	< REP ENCRYPTION ON > < REP ENCRYPTION OFF >	*The QLX-D will respond with one of the two strings.*
Get Encryption Mismatch	Command String:	< GET 1 ENCRYPTION_WARNING >	
	QLX-D Response:	< REP 1 ENCRYPTION_WARNING ON > < REP 1 ENCRYPTION_WARNING OFF >	*The QLX-D will respond with one of the two strings.*
Get Firmware Version	Command String:	< GET FW_VER >	
	QLX-D Response:	< REP FW_VER {yyyyy.yyyyy.yyyyy.yyyyy }	*Where yyyyy.yyyyy.yyyyy.yyyyy is 24 characters. The charger always responds with 24 characters. There is either a space or an asterisk at the end of the firmware version. An asterisk indicates corrupt firmware.*
View Transmitter Device ID	Command String:	< GET x TX_DEVICE_ID >	
	QLX-D Response:	< REP x TX_DEVICE_ID {yyyyyyyy} >	*Where yyyyyyyy is 8 characters of the device ID. The charger always responds with an 8 character device ID.*
View Transmitter Mute Status	Command String:	< GET TX_MUTE_STATUS >	
	QLX-D Response:	< REP TX_MUTE_STATUS ON > < REP TX_MUTE_STATUS OFF > < REP TX_MUTE_STATUS UNKN >	*The QLX-D receiver will respond with one of these strings.*
View Transmitter Mute Button Status	Command String:	< GET TX_MUTE_BUTTON_STATUS >	
	QLX-D Response:	< REP TX_MUTE_BUTTON_STATUS PRESSED > < REP TX_MUTE_BUTTON_STATUS RELEASED > < REP TX_MUTE_BUTTON_STATUS UNKN >	*The QLX-D receiver will respond with one of these strings.*
View Transmitter Power Source	Command String:	< GET TX_POWER_SOURCE >	
	QLX-D Response:	< REP TX_POWER_SOURCE BATTERY > < REP TX_POWER_SOURCE EXTERNAL > < REP TX_POWER_SOURCE UNKN >	*The QLX-D receiver will respond with one of these strings.*
View Transmitter Device ID	Command String:	< GET x TX_DEVICE_ID >	*ULXD6 and ULXD8 only.*
	QLX-D Response:	< REP x TX_DEVICE_ID {yyyyyyyy} >	*Where yyyyyyyy is 8 characters of the device ID. The charger always responds with an 8 character device ID.*

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View Transmitter Mute Status	Command String:	< GET x TX_MUTE_STATUS >	*ULXD6 and ULXD8 only.*
	QLX-D Response:	< REP x TX_MUTE_STATUS ON > < REP x TX_MUTE_STATUS OFF > < REP x TX_MUTE_STATUS UNKN >	*The QLX-D receiver will respond with one of these strings.*
View Transmitter Mute Button Status	Command String:	< GET x TX_MUTE_BUTTON_STATUS >	*ULXD6 and ULXD8 only.*
	QLX-D Response:	< REP x TX_MUTE_BUTTON_STATUS PRESSED > < REP x TX_MUTE_BUTTON_STATUS RELEASED > < REP x TX_MUTE_BUTTON_STATUS UNKN >	*The QLX-D receiver will respond with one of these strings.*
View Transmitter Power Source	Command String:	< GET x TX_POWER_SOURCE >	*ULXD6 and ULXD8 only.*
	QLX-D Response:	< REP x TX_POWER_SOURCE BATTERY > < REP x TX_POWER_SOURCE EXTERNAL > < REP x TX_POWER_SOURCE UNKN >	*The QLX-D receiver will respond with one of these strings.*
Turn Metering On	Command String:	< SET 1 METER_RATE sssss >	*Where sssss is the metering speed in milliseconds. Setting sssss=0 turns metering off. Minimum setting is 100 milliseconds. Metering is off by default.*
	QLX-D Response:	< REP 1 METER_RATE sssss > < SAMPLE 1 ALL nn aaa eee >	*See below.*
Stop Metering	Command String:	< SET 1 METER_RATE 0 >	*A value of 00000 is also acceptable.*
	QLX-D Response:	< REP 1 METER_RATE 00000 >	
Get MAC address	Command String:	< GET MAC_ADDR >	
	QLX-D Response:	< REP MAC_ADDR aa:aa:aa:aa:aa:aa >	*Where aa:aa:aa:aa:aa:aa is the MAC address of the QLX-D receiver.*

Notes on metering

- Where sssss is the metering speed in milliseconds. Setting sssss=0 turns metering off. Minimum setting is 100 milliseconds. Maximum setting is 99999 milliseconds. Metering is off by default.
- 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
    - XX – Antenna A off, Antenna B off
- Where aaa is the value of the RF level received and is 000-115.
- Where eee is the audio level and is 000-050.

Error Codes

All commands adhere to a common set of error codes. The error codes are at the upper ends of the binary numbers. Thus 255, 254, 253, 252 are error codes for three digit numbers. 65535, 65534, 65533, 65532 are error codes for 5 digit numbers. These error codes indicate that the device you are trying to control is not available. The microphone might be off, not responding, etc.