

This document provides additional assistance with wiring your Extron IP Link Pro Control Processor to your device. Different components may require a different wiring scheme than those listed below.

For complete operating instructions, refer to the user's manual for the specific IP Link Pro Control Processor or the documentation supplied by the manufacturer of the controlled device.

For more information on using Global Scripter Modules, refer to the "[Guide to Using Scripter Modules](#)" document.

## Device Specifications

Device Type: Audio Processor  
Manufacturer: Yamaha  
Firmware Version: V5.10  
Model(s): QL5, QL1

## Tested on the Following Software and Firmware Versions

IP Link Pro Control Processor Firmware	Global Scripter Version
3.04.0001-b002	2.3.1

## Version History

Module Version	Date	Notes
1_1_1_0	8/13/2019	Added commands: DCA Group Level and DCA Group Mute.
1_1_0_0	2/18/2019	Removed Firmware Version status. Added Device Status. Added status support for Recall Preset command. The following command names or parameters were updated: <ul style="list-style-type: none"><li>• Input Level<ul style="list-style-type: none"><li>◦ Channel parameter: 0–63 → 1–64 For model QL1, 0–31 → 1–32</li><li>◦ Value: -32768 to 1000, step size 1 → -138 to 10, step size 0.05 dB</li></ul></li><li>• Input Mute</li></ul>

		<ul style="list-style-type: none"><li>○ Channel parameter: 0—63 → 1—64 For model QL1, 0—31 → 1—32</li><li>● Matrix Level<ul style="list-style-type: none"><li>○ Channel: 0—7 → 1—8</li><li>○ Value: -32768 to 1000, step size 1 → -138 to 10, step size 0.05 dB</li></ul></li><li>● Matrix Mute<ul style="list-style-type: none"><li>○ Channel: 0—7 → 1—8</li></ul></li><li>● Mix Level<ul style="list-style-type: none"><li>○ Channel: 0—15 → 1—16</li><li>○ Value: -32768 to 1000, step size 1 → -138 to 10, step size 0.05 dB</li></ul></li><li>● Mix Mute<ul style="list-style-type: none"><li>○ Channel: 0—15 → 1—16</li></ul></li><li>● Recall Preset → Preset Recall</li><li>● Store Preset → Preset Save</li><li>● Stereo Level</li></ul> <p>Value: -32768 to 1000, step size 1 → -138 to 10, step size 0.05 dB</p>
1_0_0_0	11/16/2017	Initial Version

## Module Notes

- Unidirectional variable must be set to 'True' if status is not required. Default value is 'False'.  
Example: InterfaceName.Unidirectional = 'True'
- connectionCounter variable must be set to the number of queries that will be sent to the device before displaying 'Disconnected' if no response is received. Default value is 15.  
Example: InterfaceName.connectionCounter = 5
- Due to the device's level step sizing, the Update command is needed for proper functionality.

## Supported Class and Example

**EthernetClass**

```
InterfaceName = ModuleName.EthernetClass('192.168.254.254', 49280, Model='QL5')
```

## Level Step Sizing

The QL5 and QL1 devices have different step sizing for each range of the levels. Refer to the table below for the proper step size of each level range. This driver has already been optimized to support these step sizes.

Level Range	Step Size
-138.00 to -96.00	3 dB
-96.00 to -78.00	1 dB
-78 to -40	0.2 dB
-40 to -20	0.1 dB
-20 to 10	0.05 dB

## Control Commands

Format with Qualifier:

```
InterfaceName.Set(Command, Value, {'Qualifier Key': 'Qualifier Value'})
```

Format without Qualifier:

```
InterfaceName.Set(Command, Value)
```

<b>Command</b> <b>DCAGroupLevel</b>	<b>Value</b> -138 to 10 in steps of 0.05
<b>Qualifier Key</b> <b>'Channel'</b>	<b>Qualifier Value</b> '1' – '16'
<pre># InputLevel example InterfaceName.Set('DCAGroupLevel', 10, {'Channel': '1'})</pre>	
<b>Command</b> <b>DCAGroupMute</b>	<b>Value</b> <b>Value</b> 'On'                          'Off'
<b>Qualifier Key</b> <b>'Channel'</b>	<b>Qualifier Value</b> '1' – '16'
<pre># InputLevel example InterfaceName.Set('DCAGroupLevel', 10, {'Channel': '1'})</pre>	
<b>Command</b> <b>InputLevel<sup>2</sup></b>	<b>Value</b> -138 to 10 in steps of 0.05
<b>Qualifier Key</b> <b>'Channel'</b>	<b>Qualifier Value</b> <b>Qualifier Value</b> '1' – '32'                          '1' – '64' <sup>1</sup>
<pre># InputLevel example InterfaceName.Set('InputLevel', 10, {'Channel': '1'})</pre>	
<b>Command</b> <b>InputMute</b>	<b>Value</b> <b>Value</b> 'On'                          'Off'
<b>Qualifier Key</b> <b>'Channel'</b>	<b>Qualifier Value</b> <b>Qualifier Value</b> '1' – '32'                          '1' – '64' <sup>1</sup>
<pre># InputMute example InterfaceName.Set('InputMute', 'On', {'Channel': '1'})</pre>	
<b>Command</b> <b>MatrixLevel<sup>2</sup></b>	<b>Value</b> -138 to 10 in steps of 0.05
<b>Qualifier Key</b> <b>'Channel'</b>	<b>Qualifier Value</b> '1' – '8'
<pre># MatrixLevel example InterfaceName.Set('MatrixLevel', 10, {'Channel': '1'})</pre>	
<b>Command</b> <b>MatrixMute</b>	<b>Value</b> <b>Value</b> 'On'                          'Off'
<b>Qualifier Key</b> <b>'Channel'</b>	<b>Qualifier Value</b> '1' – '8'

# MatrixMute example InterfaceName.Set('MatrixMute', 'On', {'Channel': '1'})	
Command <b>MixLevel</b>	Value -138 to 10 in steps of 0.05
Qualifier Key <b>'Channel'</b>	Qualifier Value '1' – '16'
# MixLevel example InterfaceName.Set('MixLevel', 10, {'Channel': '1'})	
Command <b>MixMute</b>	Value 'On'                          Value 'Off'
Qualifier Key <b>'Channel'</b>	Qualifier Value '1' – '16'
# MixMute example InterfaceName.Set('MixMute', 'On', {'Channel': '1'})	
Command <b>PresetRecall</b>	Value '0' – '300'
# PresetRecall example InterfaceName.Set('PresetRecall', '0')	
Command <b>PresetSave</b>	Value '1' – '300'
# PresetSave example InterfaceName.Set('PresetSave', '1')	
Command <b>StereoLevel</b>	Value -138 to 10 in steps of 0.05
Qualifier Key <b>'Channel'</b>	Qualifier Value 'Stereo L'                    Qualifier Value 'Stereo R'                    Qualifier Value 'Mono(C)'
# StereoLevel example InterfaceName.Set('StereoLevel', 10, {'Channel': 'Stereo L'})	
Command <b>StereoMute</b>	Value 'On'                            Value 'Off'
Qualifier Key <b>'Channel'</b>	Qualifier Value 'Stereo L'                    Qualifier Value 'Stereo R'                    Qualifier Value 'Mono(C)'
# StereoMute example InterfaceName.Set('StereoMute', 'On', {'Channel': 'Stereo L'})	

<sup>1</sup>Only supported for model QL5.<sup>2</sup>Refer to the level table on Page 2 for details regarding the step sizing of the value.

## Status Available

For all commands, call Update to receive the latest status. ConnectionStatus does not support the Update function and is triggered by the device providing a successful response to other Update function calls.

Format with Qualifier:

```
InterfaceName.Update(Command, {'Qualifier Key': 'Qualifier Value'})
Value = InterfaceName.ReadStatus(Command, {'Qualifier Key': 'Qualifier Value'})
InterfaceName.SubscribeStatus(Command, {'Qualifier Key': 'Qualifier Value'}, FeedbackHandler)
FeedbackHandler will be called only when the specified qualifier gets a new status.
```

Format without Qualifier:

```
InterfaceName.Update(Command)
Value = InterfaceName.ReadStatus(Command)
InterfaceName.SubscribeStatus(Command, None, FeedbackHandler)
FeedbackHandler will be called when any qualifier gets a new status.
```

<b>Command</b> <b>ConnectionStatus</b>	Value 'Connected'	Value 'Disconnected'	
# ConnectionStatus examples			
	Value = InterfaceName.ReadStatus('ConnectionStatus')		
InterfaceName.SubscribeStatus('ConnectionStatus', None, FeedbackHandler)			
<b>Command</b> <b>DeviceStatus</b>	Value 'Normal'	Value 'Emergency'	Value 'Booting'
	'Update'	'Diagnostics'	
# DeviceStatus examples			
	InterfaceName.Update('DeviceStatus')		
	Value = InterfaceName.ReadStatus('DeviceStatus')		
InterfaceName.SubscribeStatus('DeviceStatus', None, FeedbackHandler)			
<b>Command</b> <b>DCAGroupLevel</b>	Value -138 to 10 in steps of 0.05		
<b>Qualifier Key</b> <b>'Channel'</b>	Qualifier Value '1' – '16'		
# DCAGroupLevel examples			
	InterfaceName.Update('DCAGroupLevel', {'Channel': '1'})		
	Value = InterfaceName.ReadStatus('DCAGroupLevel', {'Channel': '1'})		
InterfaceName.SubscribeStatus('DCAGroupLevel', None, FeedbackHandler)			
<b>Command</b> <b>DCAGroupMute</b>	Value 'On'	Value 'Off'	
<b>Qualifier Key</b> <b>'Channel'</b>	Qualifier Value '1' – '16'		
# DCAGroupMute examples			
	InterfaceName.Update('DCAGroupMute', {'Channel': '1'})		
	Value = InterfaceName.ReadStatus('DCAGroupMute', {'Channel': '1'})		
InterfaceName.SubscribeStatus('DCAGroupMute', None, FeedbackHandler)			

<b>Command</b>	Value	
<b>InputLevel</b> <sup>2</sup>	-138 to 10 in steps of 0.05	
<b>Qualifier Key</b>	Qualifier Value	Qualifier Value
<b>'Channel'</b>	'1' – '32'	'1' – '64' <sup>1</sup>
# InputLevel examples InterfaceName.Update('InputLevel', {'Channel': '1'}) Value = InterfaceName.ReadStatus('InputLevel', {'Channel': '1'}) InterfaceName.SubscribeStatus('InputLevel', None, FeedbackHandler)		
<b>Command</b>	Value	Value
<b>InputMute</b>	'On'	'Off'
<b>Qualifier Key</b>	Qualifier Value	Qualifier Value
<b>'Channel'</b>	'1' – '32'	'1' – '64' <sup>1</sup>
# InputMute examples InterfaceName.Update('InputMute', {'Channel': '1'}) Value = InterfaceName.ReadStatus('InputMute', {'Channel': '1'}) InterfaceName.SubscribeStatus('InputMute', None, FeedbackHandler)		
<b>Command</b>	Value	
<b>MatrixLevel</b> <sup>2</sup>	-138 to 10 in steps of 0.05	
<b>Qualifier Key</b>	Qualifier Value	
<b>'Channel'</b>	'1' – '8'	
# MatrixLevel examples InterfaceName.Update('MatrixLevel', {'Channel': '1'}) Value = InterfaceName.ReadStatus('MatrixLevel', {'Channel': '1'}) InterfaceName.SubscribeStatus('MatrixLevel', None, FeedbackHandler)		
<b>Command</b>	Value	Value
<b>MatrixMute</b>	'On'	'Off'
<b>Qualifier Key</b>	Qualifier Value	
<b>'Channel'</b>	'1' – '8'	
# MatrixMute examples InterfaceName.Update('MatrixMute', {'Channel': '1'}) Value = InterfaceName.ReadStatus('MatrixMute', {'Channel': '1'}) InterfaceName.SubscribeStatus('MatrixMute', None, FeedbackHandler)		
<b>Command</b>	Value	
<b>MixLevel</b>	-138 to 10 in steps of 0.05	
<b>Qualifier Key</b>	Qualifier Value	
<b>'Channel'</b>	'1' – '16'	
# MixLevel examples InterfaceName.Update('MixLevel', {'Channel': '1'}) Value = InterfaceName.ReadStatus('MixLevel', {'Channel': '1'}) InterfaceName.SubscribeStatus('MixLevel', None, FeedbackHandler)		
<b>Command</b>	Value	Value
<b>MixMute</b>	'On'	'Off'
<b>Qualifier Key</b>	Qualifier Value	
<b>'Channel'</b>	'1' – '16'	

```
# MixMute examples
InterfaceName.Update('MixMute', {'Channel': '1'})
Value = InterfaceName.ReadStatus('MixMute', {'Channel': '1'})
InterfaceName.SubscribeStatus('MixMute', None, FeedbackHandler)
```

<b>Command</b>	<b>Value</b>		
<b>PresetRecall</b>	'0' – '300'		
# PresetRecall examples			
<b>Command</b>	<b>Value</b>		
<b>StereoLevel</b>	-138 to 10 in steps of 0.05		
<b>Qualifier Key</b>	<b>Qualifier Value</b>	<b>Qualifier Value</b>	<b>Qualifier Value</b>
<b>'Channel'</b>	'Stereo L'	'Stereo R'	'Mono(C)'
# StereoLevel examples			
<b>Command</b>	<b>Value</b>	<b>Value</b>	
<b>StereoMute</b>	'On'	'Off'	
<b>Qualifier Key</b>	<b>Qualifier Value</b>	<b>Qualifier Value</b>	<b>Qualifier Value</b>
<b>'Channel'</b>	'Stereo L'	'Stereo R'	'Mono(C)'
# StereoMute examples			
<b>InterfaceName.Update('StereoMute', {'Channel': 'Stereo L'})</b>			
<b>Value = InterfaceName.ReadStatus('StereoMute', {'Channel': 'Stereo L'})</b>			
<b>InterfaceName.SubscribeStatus('StereoMute', None, FeedbackHandler)</b>			

<sup>1</sup>Only supported for model QL5

<sup>2</sup>Refer to the level table on Page 2 for details regarding the step sizing of the value.

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## **Network communication**

When configuring the Ethernet module, be sure device settings match those of the Global Scripter ethernet interface

**Port Type:** Ethernet

**Default Port:** 49280

**Logon Credentials** No

**Supported:**

**Multi-Connection** Yes

**Capabilities:**

**Port Changeability:** No

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## **Ethernet Module Configuration Description**

Please refer to user manual for settings and changes to the network communication

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## **Notes for the Device**

**Appendix A. Set Commands**

<b>Input Level 10 Channel 1</b>	set MIXER:Current/InCh/Fader/Level 0 0 1000\x0A
<b>Input Level 10 Channel 32</b>	set MIXER:Current/InCh/Fader/Level 31 0 1000\x0A
<b>Input Level 10 Channel 64</b>	set MIXER:Current/InCh/Fader/Level 63 0 1000\x0A
<b>Input Level -138 Channel 1</b>	set MIXER:Current/InCh/Fader/Level 0 0 -13800\x0A
<b>Input Level -138 Channel 32</b>	set MIXER:Current/InCh/Fader/Level 31 0 -13800\x0A
<b>Input Level -138 Channel 64</b>	set MIXER:Current/InCh/Fader/Level 63 0 -13800\x0A
<b>Input Mute Off Channel 1</b>	set MIXER:Current/InCh/Fader/On 0 0 0\x0A
<b>Input Mute Off Channel 32</b>	set MIXER:Current/InCh/Fader/On 31 0 0\x0A
<b>Input Mute Off Channel 64</b>	set MIXER:Current/InCh/Fader/On 63 0 0\x0A
<b>Input Mute On Channel 1</b>	set MIXER:Current/InCh/Fader/On 0 0 1\x0A
<b>Input Mute On Channel 32</b>	set MIXER:Current/InCh/Fader/On 31 0 1\x0A
<b>Input Mute On Channel 64</b>	set MIXER:Current/InCh/Fader/On 63 0 1\x0A
<b>Matrix Level 10 Channel 1</b>	set MIXER:Current/Mtrx/Fader/Level 0 0 1000\x0A
<b>Matrix Level 10 Channel 8</b>	set MIXER:Current/Mtrx/Fader/Level 7 0 1000\x0A
<b>Matrix Level -138 Channel 1</b>	set MIXER:Current/Mtrx/Fader/Level 0 0 -13800\x0A
<b>Matrix Level -138 Channel 8</b>	set MIXER:Current/Mtrx/Fader/Level 7 0 -13800\x0A
<b>Matrix Mute Off Channel 1</b>	set MIXER:Current/Mtrx/Fader/On 0 0 0\x0A
<b>Matrix Mute Off Channel 8</b>	set MIXER:Current/Mtrx/Fader/On 7 0 0\x0A
<b>Matrix Mute On Channel 1</b>	set MIXER:Current/Mtrx/Fader/On 0 0 1\x0A
<b>Matrix Mute On Channel 8</b>	set MIXER:Current/Mtrx/Fader/On 7 0 1\x0A
<b>Mix Level 10 Channel 1</b>	set MIXER:Current/Mix/Fader/Level 0 0 1000\x0A
<b>Mix Level 10 Channel 16</b>	set MIXER:Current/Mix/Fader/Level 15 0 1000\x0A
<b>Mix Level -138 Channel 1</b>	set MIXER:Current/Mix/Fader/Level 0 0 -13800\x0A
<b>Mix Level -138 Channel 16</b>	set MIXER:Current/Mix/Fader/Level 15 0 -13800\x0A
<b>Mix Mute Off Channel 1</b>	set MIXER:Current/Mix/Fader/On 0 0 0\x0A
<b>Mix Mute Off Channel 16</b>	set MIXER:Current/Mix/Fader/On 15 0 0\x0A
<b>Mix Mute On Channel 1</b>	set MIXER:Current/Mix/Fader/On 0 0 1\x0A
<b>Mix Mute On Channel 16</b>	set MIXER:Current/Mix/Fader/On 15 0 1\x0A
<b>Preset Recall 0</b>	ssrecall_ex MIXER:Lib/Scene 0\x0A
<b>Preset Recall 300</b>	ssrecall_ex MIXER:Lib/Scene 300\x0A
<b>Preset Save 1</b>	ssupdate_ex MIXER:Lib/Scene 1\x0A
<b>Preset Save 300</b>	ssupdate_ex MIXER:Lib/Scene 300\x0A
<b>Stereo Level 10 Channel Mono(C)</b>	set MIXER:Current/St/Fader/Level 2 0 1000\x0A
<b>Stereo Level 10 Channel Stereo L</b>	set MIXER:Current/St/Fader/Level 0 0 1000\x0A
<b>Stereo Level 10 Channel Stereo R</b>	set MIXER:Current/St/Fader/Level 1 0 1000\x0A

<b>Stereo Level -138 Channel Mono(C)</b>	set MIXER:Current/St/Fader/Level 2 0 -13800\x0A
<b>Stereo Level -138 Channel Stereo L</b>	set MIXER:Current/St/Fader/Level 0 0 -13800\x0A
<b>Stereo Level -138 Channel Stereo R</b>	set MIXER:Current/St/Fader/Level 1 0 -13800\x0A
<b>Stereo Mute Off Channel Mono(C)</b>	set MIXER:Current/St/Fader/On 2 0 0\x0A
<b>Stereo Mute Off Channel Stereo L</b>	set MIXER:Current/St/Fader/On 0 0 0\x0A
<b>Stereo Mute Off Channel Stereo R</b>	set MIXER:Current/St/Fader/On 1 0 0\x0A
<b>Stereo Mute On Channel Mono(C)</b>	set MIXER:Current/St/Fader/On 2 0 1\x0A
<b>Stereo Mute On Channel Stereo L</b>	set MIXER:Current/St/Fader/On 0 0 1\x0A
<b>Stereo Mute On Channel Stereo R</b>	set MIXER:Current/St/Fader/On 1 0 1\x0A

**Appendix B. Update Commands**

<b>Device Status</b>	devstatus runmode\x0A
<b>Input Level Channel 1</b>	get MIXER:Current/InCh/Fader/Level 0 0\x0A
<b>Input Level Channel 32</b>	get MIXER:Current/InCh/Fader/Level 31 0\x0A
<b>Input Level Channel 64</b>	get MIXER:Current/InCh/Fader/Level 63 0\x0A
<b>Input Mute Channel 1</b>	get MIXER:Current/InCh/Fader/On 0 0\x0A
<b>Input Mute Channel 32</b>	get MIXER:Current/InCh/Fader/On 31 0\x0A
<b>Input Mute Channel 64</b>	get MIXER:Current/InCh/Fader/On 63 0\x0A
<b>Matrix Level Channel 1</b>	get MIXER:Current/Mtrx/Fader/Level 0 0\x0A
<b>Matrix Level Channel 8</b>	get MIXER:Current/Mtrx/Fader/Level 7 0\x0A
<b>Matrix Mute Channel 1</b>	get MIXER:Current/Mtrx/Fader/On 0 0\x0A
<b>Matrix Mute Channel 8</b>	get MIXER:Current/Mtrx/Fader/On 7 0\x0A
<b>Mix Level Channel 1</b>	get MIXER:Current/Mix/Fader/Level 0 0\x0A
<b>Mix Level Channel 16</b>	get MIXER:Current/Mix/Fader/Level 15 0\x0A
<b>Mix Mute Channel 1</b>	get MIXER:Current/Mix/Fader/On 0 0\x0A
<b>Mix Mute Channel 16</b>	get MIXER:Current/Mix/Fader/On 15 0\x0A
<b>Preset Recall</b>	sscurrent_ex MIXER:Lib/Scene\x0A
<b>Stereo Level Channel Mono(C)</b>	get MIXER:Current/St/Fader/Level 2 0\x0A
<b>Stereo Level Channel Stereo L</b>	get MIXER:Current/St/Fader/Level 0 0\x0A
<b>Stereo Level Channel Stereo R</b>	get MIXER:Current/St/Fader/Level 1 0\x0A
<b>Stereo Mute Channel Mono(C)</b>	get MIXER:Current/St/Fader/On 2 0\x0A
<b>Stereo Mute Channel Stereo L</b>	get MIXER:Current/St/Fader/On 0 0\x0A
<b>Stereo Mute Channel Stereo R</b>	get MIXER:Current/St/Fader/On 1 0\x0A