

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 Scriptor Modules, refer to the "[Guide to Using Scriptor Modules](#)" document.

Device Specifications

Device Type: Display
Manufacturer: NEC
Firmware Version: N/A
Model(s): C750Q, C860Q

Tested on the Following Software and Firmware Versions

IP Link Pro Control Processor Firmware	Global Scriptor Version
3.16.0000-b013	2.19.0.48

Version History

Module Version	Date	Notes
1_2_0_0	5/4/2023	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`
- DeviceID variable must be set accordingly. Default value is '1'. DeviceID ranges from '1' to '100', Broadcast, Group A, Group B, Group C, Group D, Group E, Group F, Group G, Group H, Group I, and Group J. If Device ID is set to 'Broadcast' or 'Group A – J' status is unavailable.
Example: `InterfaceName.DeviceID = '1'`
- For Ethernet, the 'keep_alive' function must be called periodically to ensure the module connection with the display remains open. The display will disconnect if it doesn't receive any commands for 15 minutes. It is recommended to call the 'keep_alive' function once every 10 minutes.
Example: `InterfaceName.keep_alive()`

Supported Classes and Examples

SerialClass
<code>InterfaceName = ModuleName.SerialClass(ProcessorName, 'COM1', Model='C750Q')</code>
SerialOverEthernetClass
<code>InterfaceName = ModuleName.SerialOverEthernetClass('192.168.254.254', 2001, Model='C750Q')</code>
EthernetClass
<code>InterfaceName = ModuleName.EthernetClass('192.168.254.254', 7142, Model='C750Q')</code>

Control Commands

Format with Qualifier:

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

Format without Qualifier:

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

Command AspectRatio	Value 'Normal' 'Zoom'	Value 'Full' '1:1'	Value 'Wide'
# AspectRatio example InterfaceName.Set('AspectRatio', 'Normal')			
Command AudioMute ¹	Value 'On'	Value 'Off'	
# AudioMute example InterfaceName.Set('AudioMute', 'On')			
Command Input	Value 'DisplayPort' 'Media Player'	Value 'HDMI 1' 'Option'	Value 'HDMI 2'
# Input example InterfaceName.Set('Input', 'DisplayPort')			
Command Power	Value 'On'	Value 'Off'	
# Power example InterfaceName.Set('Power', 'On')			
Command Volume	Value 0 to 100 in steps of 1		
# Volume example InterfaceName.Set('Volume', 100)			

¹Applies to the internal speaker.

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.
```

Command AspectRatio	Value 'Normal' 'Zoom'	Value 'Full' '1:1'	Value 'Wide'
# AspectRatio example InterfaceName.Update('AspectRatio') Value = InterfaceName.ReadStatus('AspectRatio') InterfaceName.SubscribeStatus('AspectRatio', None, FeedbackHandler)			
Command AudioMute ¹	Value 'On'	Value 'Off'	
# AudioMute example InterfaceName.Update('AudioMute') Value = InterfaceName.ReadStatus('AudioMute') InterfaceName.SubscribeStatus('AudioMute', None, FeedbackHandler)			
Command ConnectionStatus	Value 'Connected'	Value 'Disconnected'	
# ConnectionStatus example Value = InterfaceName.ReadStatus('ConnectionStatus') InterfaceName.SubscribeStatus('ConnectionStatus', None, FeedbackHandler)			
Command Input	Value 'DisplayPort' 'Media Player'	Value 'HDMI 1' 'Option'	Value 'HDMI 2'
# Input example InterfaceName.Update('Input') Value = InterfaceName.ReadStatus('Input') InterfaceName.SubscribeStatus('Input', None, FeedbackHandler)			
Command Power	Value 'On'	Value 'Off'	Value 'Standby (Power Save)'
# Power example InterfaceName.Update('Power') Value = InterfaceName.ReadStatus('Power') InterfaceName.SubscribeStatus('Power', None, FeedbackHandler)			
Command Volume	Value 0 to 100 in steps of 1		
# Volume example InterfaceName.Update('Volume') Value = InterfaceName.ReadStatus('Volume') InterfaceName.SubscribeStatus('Volume', None, FeedbackHandler)			

¹Applies to the internal speaker.

Cable and Adapter Requirements

Captive Screw to Female DB9 RS-232 Serial Cable

Notes for the Device

To ensure the functionality of the driver, please set the following:

- Menu → SYSTEM → EXTERNAL CONTROL → CONTROL TERMINAL → RS-232C
- Menu → PROTECT → POWER SAVE SETTINGS → QUICK START → DISABLE

Serial communication

Port Type: RS-232

Baud Rate: 9600

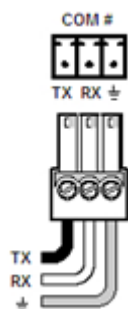
Data Bits: 8

Parity: None

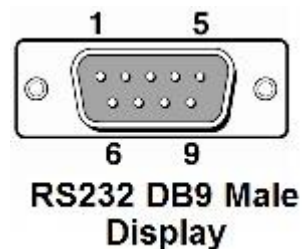
Stop Bits: One

Flow Control: None

Pin Assignments Diagram



Signal	Main Cable	Pin	Signal
TxD	→	2	RxD
RxD	←	3	TxD
GND	→	5	GND



Network communication

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

Port Type: Ethernet (TCP)

Default Port: 7142

Logon Credentials Supported: No

Multi-Connection Capabilities: Undetermined

Port Changeability: No

Ethernet Module Configuration Description

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

Notes for the Device

To ensure the functionality of the driver, please set the following:

- Menu → SYSTEM → EXTERNAL CONTROL → CONTROL TERMINAL → LAN
- Menu → PROTECT → POWER SAVE SETTINGS → QUICK START → DISABLE

Appendix A. Set Commands (Device ID: 1)

Aspect Ratio 1:1	\x010A0E0A\x0202700007\x03v\x0D
Aspect Ratio Full	\x010A0E0A\x0202700002\x03s\x0D
Aspect Ratio Normal	\x010A0E0A\x0202700001\x03p\x0D
Aspect Ratio Wide	\x010A0E0A\x0202700003\x03r\x0D
Aspect Ratio Zoom	\x010A0E0A\x0202700004\x03u\x0D
Audio Mute Off	\x010A0E0A\x02008D0002\x03\x0A\x0D
Audio Mute On	\x010A0E0A\x02008D0001\x03\x09\x0D
Input DisplayPort	\x010A0E0A\x020060000F\x03\x04\x0D
Input HDMI 1	\x010A0E0A\x0200600011\x03r\x0D
Input HDMI 2	\x010A0E0A\x0200600012\x03q\x0D
Input Media Player	\x010A0E0A\x0200600087\x03j\x0D
Input Option	\x010A0E0A\x020060000D\x03\x06\x0D
Power Off	\x010A0A0C\x02C203D60004\x03v\x0D
Power On	\x010A0A0C\x02C203D60001\x03s\x0D
Volume 0	\x010A0E0A\x0200620000\x03p\x0D
Volume 100	\x010A0E0A\x0200620064\x03r\x0D

Appendix B. Update Commands (Device ID: 1)

Aspect Ratio	\x010A0C06\x020270\x03\x00\x0D
Audio Mute	\x010A0C06\x02008D\x03y\x0D
Input	\x010A0C06\x020060\x03\x03\x0D
Power	\x010A0A06\x0201D6\x03t\x0D
Volume	\x010A0C06\x020062\x03\x01\x0D