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: Video Projector
Manufacturer: Epson
Firmware Version: 6Y0081709XWWV112
Model(s):   EB-G7800, EB-G7805, Pro G7800, Pro G7805, CB-G7800, CB-G7805, EB-G7100, Pro
                   G7100, CB-G7100, EB-G7200W, Pro G7200W, CB-G7200W, CB-G7000W, EB-G7000W, Pro
                   G7000W, EB-G7900U, EB-G7905U, Pro G7900U, Pro G7905U, CB-G7900U, CB-G7905U,
                   CB-G7500U, Pro G7500U, Pro G7400U, EB-G7400U, CB-G7400U, EB-G7500U

Tested on the Following Software and Firmware Versions

IP Link Pro Control Processor Firmware	Global Scripter Version
2.06.0001-b003	1.4.1

Version History

Module Version	Date	Notes
1_1_0_1	10/31/2017	Updated module to Rev. B
1_1_0_0	7/25/2017	Updated Aspect Ratio. Fixed Horizontal/Vertical Lens Shift commands. Removed Closed Caption.
1_0_3_0	2/15/2017	Added model EB-G7500U
1_0_2_0	1/31/2017	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`

- For control using the module, change the setting within menu: Extended → HDBaseT → Control Communications → Off. While this setting is set to 'On', control over RS-232 and LAN is disabled. It must be turned off to enable serial or Ethernet communication.

Supported Classes and Examples

SerialClass
`InterfaceName = ModuleName.SerialClass(ProcessorName, 'COM1', Model='EB-G7800')`
SerialOverEthernetClass
`InterfaceName = ModuleName.SerialOverEthernetClass('192.168.254.254', 2001, Model='EB-G7800')`
EthernetClass
`InterfaceName = ModuleName.EthernetClass('192.168.254.254', 3629, Model='EB-G7800')`

Rev. B

Set Commands

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

Format without Qualifier:
```
InterfaceName.Set(Command, Value)
```

Command	Value	Value	Value
AspectRatio	'Normal' [2]	'4:3'	'16:9' [5]
	'Auto' [3]	'Full' [7]	'H-Zoom'
	'Native' [1]	'V-Zoom'	

# AspectRatio example 	
InterfaceName.Set('AspectRatio', 'Normal')			

Command	Value		
AutoImage [4]	None		

# AutoImage example 	
InterfaceName.Set('AutoImage', None)			

Command	Value	Value	
AVMute	'On'	'Off'	

# AVMute example 	
InterfaceName.Set('AVMute', 'On')			

Command	Value	Value	Value
Focus	'Min'	'Max'	'Increment'
	'Decrement'	'Off'	

# Focus example 	
InterfaceName.Set('Focus', 'Min')			

Command	Value	Value	
Freeze	'On'	'Off'	

# Freeze example 	
InterfaceName.Set('Freeze', 'On')			

Command	Value	Value	Value
HorizontalLensShift	'Min'	'Max'	'Increment'
	'Decrement'	'Off'	'Initial'

# HorizontalLensShift example 	
InterfaceName.Set('HorizontalLensShift', 'Min')			

Command	Value	Value	Value
Input	'Input 1 (D-Sub)'	'Input 1 (RGB)'	'Input 1 (Component)'
	'HDMI'	'LAN'	'HDBaseT'
	'DVI-D'	'Input 4 (5BNC)'	'Input 4 (RGB)'
	'Input 4 (Component)'		

```
    # Input example
    InterfaceName.Set('Input', 'Input 1 (D-Sub)')
```

Command	Value	Value
LampMode [8]	'Normal'	'Eco'

```
    # LampMode example
    InterfaceName.Set('LampMode', 'Normal')
```

Command	Value
LensPositionPresetRecall	'1' – '10'

```
    # LensPositionPresetRecall example
    InterfaceName.Set('LensPositionPresetRecall', '1')
```

Command	Value
LensPositionPresetSave	'1' – '10'

```
    # LensPositionPresetSave example
    InterfaceName.Set('LensPositionPresetSave', '1')
```

Command	Value	Value	Value
MenuNavigation	'Up'	'Down'	'Left'
	'Right'	'Enter'	'Menu'
	'Escape'		

```
    # MenuNavigation example
    InterfaceName.Set('MenuNavigation', 'Up')
```

Command	Value	Value
Power	'On'	'Off'

```
    # Power example
    InterfaceName.Set('Power', 'On')
```

Command	Value
PresetRecall	'1' – '10'

```
    # PresetRecall example
    InterfaceName.Set('PresetRecall', '1')
```

Command	Value
PresetSave	'1' – '10'

```
    # PresetSave example
    InterfaceName.Set('PresetSave', '1')
```

Command	Value	Value	Value
VerticalLensShift	'Min'	'Max'	'Increment'
	'Decrement'	'Off'	'Initial'

```
    # VerticalLensShift example
    InterfaceName.Set('VerticalLensShift', 'Min')
```

Command	Value
Volume	0 to 20 in steps of 1

```
    # Volume example
    InterfaceName.Set('Volume', 20)
```

Command	Value	Value	Value

Zoom	'Min'	'Max'	'Increment'
	'Decrement'	'Off'	

```
    # Zoom example
    InterfaceName.Set('Zoom', 'Min')
```

[1] Invalid on Input 1 (Component) and Input 1 (RGB) inputs.

[2] Invalid on Input 1 (Component), Input 1 (RGB), HDBaseT and HDMI. Auto will still be able to set to Normal for these inputs.

[3] Invalid on Input 1 (RGB), Input 4 (RGB) and DVI-D inputs.

[4] Command is only valid on Input 1 (RGB) input.

[5] Not available when Screen Type is set to 16:9 in the device's menu.

[6] Only available when Screen Type is set to 4:3 in the device's menu.

[7] Not available when Screen Type is set to 4:3 in the device's menu.

[8] Not available for G7400U.

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	Value	Value	Value
AspectRatio	'Normal' [2]	'4:3' [6]	'16:9' [5]
	'Auto' [3]	'Full' [7]	'H-Zoom'
	'Native' [1]	'V-Zoom'	

# AspectRatio examples 	
InterfaceName.Update('AspectRatio')
Value = InterfaceName.ReadStatus('AspectRatio')
InterfaceName.SubscribeStatus('AspectRatio', None, FeedbackHandler)			

Command	Value	Value	
AVMute	'On'	'Off'	

# AVMute examples 	
InterfaceName.Update('AVMute')
Value = InterfaceName.ReadStatus('AVMute')
InterfaceName.SubscribeStatus('AVMute', None, FeedbackHandler)			

Command	Value	Value	
ConnectionStatus	'Connected'	'Disconnected'	

# ConnectionStatus examples 	
Value = InterfaceName.ReadStatus('ConnectionStatus')
InterfaceName.SubscribeStatus('ConnectionStatus', None, FeedbackHandler)			

Command	Value	Value	Value
DeviceStatus [4]	'Normal'	'Fan Error'	'Internal Temperature is Abnormally High'
	'Lamp Error'	'Lamp Cover Error'	'Cinema Filter Error'
	'EDL Capacitor Disconnected'	'Auto Iris Error'	'Subsystem Error'
	'Low Air Flow Error'	'Air Flow Error'	'Power Supply Error'

	'Shutter Failure'	'Cooling System Error'	'Cooling System Error (Pump)'
	'Lamp Failure at power on'		

```
    # DeviceStatus examples
    InterfaceName.Update('DeviceStatus')
    Value = InterfaceName.ReadStatus('DeviceStatus')
    InterfaceName.SubscribeStatus('DeviceStatus', None, FeedbackHandler)
```

Command	Value	Value	
Freeze	'On'	'Off'	

```
    # Freeze examples
    InterfaceName.Update('Freeze')
    Value = InterfaceName.ReadStatus('Freeze')
    InterfaceName.SubscribeStatus('Freeze', None, FeedbackHandler)
```

Command	Value	Value	Value
Input	'Input 1 (RGB)'	'Input 1 (Component)'	'HDMI'
	'LAN'	'HDBaseT'	'HDBaseT (Digital-RGB)'
	'HDBaseT (RGB-Video)'	'HDBaseT (YCbCr)'	'HDBaseT (YPbPr)'
	'DVI-D'	'DVI-D (Digital-RGB)'	'DVI-D (RGB-Video)'
	'Input 4 (RGB)'	'Input 4 (Component)'	

```
    # Input examples
    InterfaceName.Update('Input')
    Value = InterfaceName.ReadStatus('Input')
    InterfaceName.SubscribeStatus('Input', None, FeedbackHandler)
```

Command	Value	Value	
LampMode [8]	'Normal'	'Eco'	

```
    # LampMode examples
    InterfaceName.Update('LampMode')
    Value = InterfaceName.ReadStatus('LampMode')
    InterfaceName.SubscribeStatus('LampMode', None, FeedbackHandler)
```

Command	Value	
LampUsage	Hours	

```
    # LampUsage examples
    InterfaceName.Update('LampUsage')
    Value = InterfaceName.ReadStatus('LampUsage')
    InterfaceName.SubscribeStatus('LampUsage', None, FeedbackHandler)
```

Command	Value	Value	Value
Power	'On'	'Off'	'Cooling Down'
	'Warming Up'		

```
    # Power examples
    InterfaceName.Update('Power')
    Value = InterfaceName.ReadStatus('Power')
    InterfaceName.SubscribeStatus('Power', None, FeedbackHandler)
```

Command	Value	
Volume	0 to 20 in steps of 1	

```
    # Volume examples
    InterfaceName.Update('Volume')
    Value = InterfaceName.ReadStatus('Volume')
    InterfaceName.SubscribeStatus('Volume', None, FeedbackHandler)
```

[1] Invalid on Input 1 (Component) and Input 1 (RGB) inputs.

[2] Invalid on Input 1 (Component), Input 1 (RGB), HDBaseT and HDMI. Auto will still be able to set to Normal for these inputs.

[3] Invalid on Input 1 (RGB), Input 4 (RGB) and DVI-D inputs.

[4] Device Status is only supported over serial.

[5] Not available when Screen Type is set to 16:9 in the device's menu.

[6] Only available when Screen Type is set to 4:3 in the device's menu.

[7] Not available when Screen Type is set to 4:3 in the device's menu.

[8] Not available for G7400U.

Cable and Adapter Requirements

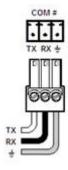Captive Screw to Female DB9 RS-232 Serial Cable

Notes for the Device

For the module to work, ensure the following settings are set in the projector's Extended menu.

- Standby Mode setting is set to Communication On.
- HDBaseT setting is set to Off for both Control Communications and Extron XTP.

Serial communication

Port Type:	RS-232		**Parity:**	None
Baud Rate:	9600		**Stop Bits:**	One
Data Bits:	8		**Flow Control:**	None

Pin Assignments Diagram

Signal	Main Cable	Pin	Signal
TxD	⟶	2	RxD
RxD	⟵	3	TxD
GND	⟶	5	GND

RS232 DB9 Male
Projector

Network communication

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

Port Type:	Ethernet
Default Port:	3629
Logon Credentials Supported:	No
Multi-Connection Capabilities:	No
Port Changeability:	No

Ethernet Module Configuration Description

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

Notes for the Device

For the module to work, ensure the following settings are set in the projector's Extended menu.
- Standby Mode setting is set to Communication On.
- HDBaseT setting is set to Off for both Control Communications and Extron XTP.
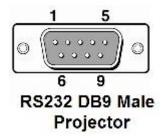
**Global Scripter Module
Communication Sheet**

Appendix A. Set Commands

Aspect Ratio 16:9	ASPECT 20\x0D
Aspect Ratio 4:3	ASPECT 10\x0D
Aspect Ratio Auto	ASPECT 30\x0D
Aspect Ratio Full	ASPECT 40\x0D
Aspect Ratio H-Zoom	ASPECT 50\x0D
Aspect Ratio Native	ASPECT 60\x0D
Aspect Ratio Normal	ASPECT 00\x0D
Aspect Ratio V-Zoom	ASPECT A0\x0D
Auto Image None	KEY 4A\x0D
AV Mute Off	MUTE OFF\x0D
AV Mute On	MUTE ON\x0D
Focus Decrement	FOCUS DEC\x0D
Focus Increment	FOCUS INC\x0D
Focus Max	FOCUS MAX\x0D
Focus Min	FOCUS MIN\x0D
Focus Off	FOCUS OFF\x0D
Freeze Off	FREEZE OFF\x0D
Freeze On	FREEZE ON\x0D
Horizontal Lens Shift Decrement	HLENS DEC\x0D
Horizontal Lens Shift Increment	HLENS INC\x0D
Horizontal Lens Shift Initial	HLENS INIT\x0D
Horizontal Lens Shift Max	HLENS MAX\x0D
Horizontal Lens Shift Min	HLENS MIN\x0D
Horizontal Lens Shift Off	HLENS OFF\x0D
Input DVI-D	SOURCE A0\x0D
Input HDBaseT	SOURCE 80\x0D
Input HDMI	SOURCE 30\x0D
Input Input 1 (Component)	SOURCE 14\x0D
Input Input 1 (D-Sub)	SOURCE 10\x0D
Input Input 1 (RGB)	SOURCE 11\x0D
Input Input 4 (5BNC)	SOURCE B0\x0D
Input Input 4 (Component)	SOURCE B4\x0D
Input Input 4 (RGB)	SOURCE B1\x0D
Input LAN	SOURCE 53\x0D
Lamp Mode Eco	LUMINANCE 01\x0D
Lamp Mode Normal	LUMINANCE 00\x0D
Lens Position Preset Recall 1	POPLP 01\x0D
Lens Position Preset Recall 10	POPLP 0A\x0D
Lens Position Preset Save 1	PUSHLP 01\x0D
Lens Position Preset Save 10	PUSHLP 0A\x0D
Menu Navigation Down	KEY 36\x0D
Menu Navigation Enter	KEY 16\x0D

Global Scripter Module Communication Sheet

Menu Navigation Escape	KEY 05\x0D
Menu Navigation Left	KEY 37\x0D
Menu Navigation Menu	KEY 03\x0D
Menu Navigation Right	KEY 38\x0D
Menu Navigation Up	KEY 35\x0D
Power Off	PWR OFF\x0D
Power On	PWR ON\x0D
Preset Recall 1	POPMEM0201\x0D
Preset Recall 10	POPMEM020A\x0D
Preset Save 1	PUSHMEM0201\x0D
Preset Save 10	PUSHMEM020A\x0D
Vertical Lens Shift Decrement	LENS DEC\x0D
Vertical Lens Shift Increment	LENS INC\x0D
Vertical Lens Shift Initial	LENS INIT\x0D
Vertical Lens Shift Max	LENS MAX\x0D
Vertical Lens Shift Min	LENS MIN\x0D
Vertical Lens Shift Off	LENS OFF\x0D
Volume 0	VOL 0\x0D
Volume 20	VOL 243\x0D
Zoom Decrement	ZOOM DEC\x0D
Zoom Increment	ZOOM INC\x0D
Zoom Max	ZOOM MAX\x0D
Zoom Min	ZOOM MIN\x0D
Zoom Off	ZOOM OFF\x0D

Appendix B. Query Commands

Aspect Ratio	ASPECT?\x0D
AV Mute	MUTE?\x0D
Device Status	ERR?\x0D
Freeze	FREEZE?\x0D
Input	SOURCE?\x0D
Lamp Mode	LUMINANCE?\x0D
Lamp Usage	LAMP?\x0D
Power	PWR?\x0D
Volume	VOL?\x0D