This document provides additional assistance with wiring your Extron IPL PRO enabled product to your device. Different components may require a different wiring scheme than those listed below.

For complete operating instruction, refer to the user's manual for the specific Extron IPL PRO enabled product or the controlled device manufacturer supplied documentation.

Device Specifications:

Device Type:	Display
Manufacturer:	Samsung
Firmware Version:	N/A
Model(s):	UD46E-A, UD46E-B, UD46E-C, UD46E-P, UD55E-B, UD55E-P, UD55E-S, LH46UDEBLBB/GO, LH46UDEBLBB/NG, LH46UDEBLBB/XS, LH55UDEBLBB/GO, LH55UDEBLBB/NG, LH55UDEBLBB/XS

Tested on the Following Software and Firmware Versions:

IP Link Pro Control Processor Firmware	MediaLink Plus Controller Firmware	GC (Plus, Pro) Version
2.08.0002-b001	2.02.0000-b003	2.7.3.11

Version History

Driver Version	Date	Notes
1_1_1	5/21/2018	Added models LH46UDEBLBB/GO, LH46UDEBLBB/NG, LH46UDEBLBB/XS, LH55UDEBLBB/GO, LH55UDEBLBB/NG, LH55UDEBLBB/XS.
1_1_0	5/20/2016	Added models UD46E-P, UD55E-P and UD55E-S. Added PIP Command. Removed RF, DTV from Input. Removed Video and Component Input for UD46E-A/B/C and UD55E-B.
1_0_1	2/5/2016	Fixed Video Wall Size Command and Updated Driver Timings.
1_0_0	9/29/2015	Initial Version.

IPL PRO Device Interface Communication Sheet

Driver Notes:

- Device ID is set to default value of 1.
- Device ID needs to match the ID on the Master Display.
  - Only when the Master Display stops responding the driver will display Disconnected.
- Each command has a parameter called Device ID, this must be configured to the desired unit to control.
  - When set to broadcast this command will not display 'Live' status, only Emulated status will be displayed.
- User Defined Command sends User Defined String out of the port.
- Only the Power Command is sent to the device while it is in an off state.

The following models are similar:

Model Name	Alias
LH46UDEBLBB/GO	UD46E-A
LH46UDEBLBB/NG	UD46E-B
LH46UDEBLBB/XS	UD46E-C
N/A	UD46E-P
LH55UDEBLBB/GO	UD55E-A
LH55UDEBLBB/NG	UD55E-B
LH55UDEBLBB/XS	UD55E-C
N/A	UD55E-P

Driver Timings:

- Recommended repeat rate for this driver is .1 seconds

10x10 Video Wall Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Off	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00
1	0x11	0x12	0x13	0x14	0x15	0x16	0x17	0x18	0x19	0x1A	0x1B	0x1C	0x1D	0x1E	0x1F
2	0x21	0x22	0x23	0x24	0x25	0x26	0x27	0x28	0x29	0x2A	0x2B	0x2C	0x2D	0x2E	0x2F
3	0x31	0x32	0x33	0x34	0x35	0x36	0x37	0x38	0x39	0x3A	0x3B	0x3C	0x3D	0x3E	0x3F
4	0x41	0x42	0x43	0x44	0x45	0x46	0x47	0x48	0x49	0x4A	0x4B	0x4C	0x4D	0x4E	0x4F
5	0x51	0x52	0x53	0x54	0x55	0x56	0x57	0x58	0x59	0x5A	0x5B	0x5C	0x5D	0x5E	0x5F
6	0x61	0x62	0x63	0x64	0x65	0x66	0x67	0x68	0x69	0x6A	0x6B	0x6C	0x6D	0x6E	0x6F
7	0x71	0x72	0x73	0x74	0x75	0x76	0x77	0x78	0x79	0x7A	0x7B	0x7C	0x7D	0x7E	N/A
8	0x81	0x82	0x83	0x84	0x85	0x86	0x87	0x88	0x89	0x8A	0x8B	0x8C	N/A	N/A	N/A
9	0x91	0x92	0x93	0x94	0x95	0x96	0x97	0x98	0x99	0x9A	0x9B	N/A	N/A	N/A	N/A
10	0xA1	0xA2	0xA3	0xA4	0xA5	0xA6	0xA7	0xA8	0xA9	0xAA	N/A	N/A	N/A	N/A	N/A
11	0xB1	0xB2	0xB3	0xB4	0xB5	0xB6	0xB7	0xB8	0xB9	N/A	N/A	N/A	N/A	N/A	N/A
12	0xC1	0xC2	0xC3	0xC4	0xC5	0xC6	0xC7	0xC8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	0xD1	0xD2	0xD3	0xD4	0xD5	0xD6	0xD7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	0xE1	0xE2	0xE3	0xE4	0xE5	0xE6	0xE7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	0xF1	0xF2	0xF3	0xF4	0xF5	0xF6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Example:
10 x10 can control Display Number 1 – 100
8 x 12 can control Display Number 1 – 96

Invalid Configuration
10 x 12
8 x 13
8 x 12 Display number 97 (range is only 1 - 96)

IPL PRO Device Interface Communication Sheet

Control Commands & States:

Aspect Ratio [1]	16:9	Zoom	Wide Zoom
	4:3		
Auto Image [2]	None		
Input	PC	DVI	Video [3]
	HDMI 1	HDMI 2	MagicInfo
	DisplayPort	Component [3]	
PIP [3]	On	Off	
Power	On	Off	
Safety Lock	On	Off	
User Defined Command	None		
User Defined String	String		
Video Wall	On	Off	
Video Wall Mode	Full	Natural	
Video Wall Size [4]	1 – 100		
Volume	0 to 100 in steps of 1		

[1] Aspect Ratio do not work when Video Wall is On.

[2] Auto Image works with PC and BNC only.

[3] UD55E-P, UD55E-S only.

[4] Video Wall size has 3 qualifiers that must be configured: Device ID, Row, and Column

**Note: Device ID must be configured in order to show the correct status.

**IPL PRO Device Interface
Communication Sheet**

Status Available:

Aspect Ratio [1]	16:9	Zoom	Wide Zoom
	4:3		
Connection Status [RP]	Connected	Disconnected	
Input	PC	DVI	Video [2]
	HDMI 1	HDMI 2	MagicInfo
	DisplayPort	DVI-Video	HDMI 1 PC
	HDMI 2 PC	Component [2]	
PIP [2]	On	Off	
Power	On	Off	
Safety Lock	On	Off	
User Defined String	String		
Video Wall	On	Off	
Video Wall Mode	Full	Natural	
Video Wall Size [3]	1 – 100		
Volume	0 to 100 in steps of 1		

[1] Aspect Ratio do not work when Video Wall is On.

[2] UD46E-P, UD55E-P and UD55E-S only.

[3] Video Wall size has 3 qualifiers that must be configured: Device ID, Row, and Column.

[RP] Connection Status is based on the following: \xAA\x11\DeviceID\x00\Checksum

**Note: Device ID must be configured in order to show the correct status.

Cable and Adapter Requirements:
Captive Screw to Female DB9 RS232 Serial Cable. (UD46E-P, UD55E-P, UD55E-S)
Captive Screw to 3.5mm Stereo Plug RS232 Serial Cable. (UD46E-A, UD46E-B, UD46E-C, UD55E-B)

Notes for the Device:
Device needs to be turned off after any ID changes in order to work properly with the driver.

Serial communication:

Port Type:	RS-232	**Parity:**	None
Baud Rate:	9600	**Stop Bits:**	1
Data Bits:	8	**Flow Control:**	None

Pin Assignments Diagram:

UD46E-P, UD55E-P, UD55E-S:
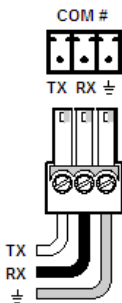
Signal	Main Cable	Pin	Signal
TxD	→	2	RxD
RxD	←	3	TxD
GND	———	5	GND

RS232 DB9 Male
Display
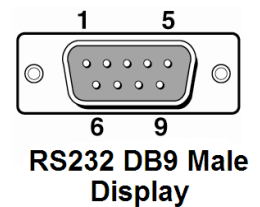
UD46E-A, UD46E-B, UD46E-C, UD55E-B:
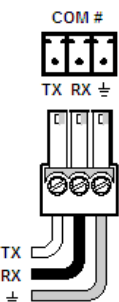
Signal	Main Cable	Pin	Signal
TxD	→	1	RxD
RxD	←	2	TxD
GND	———	3	GND

−P2−
(STEREO PLUG)
(3.5ø)
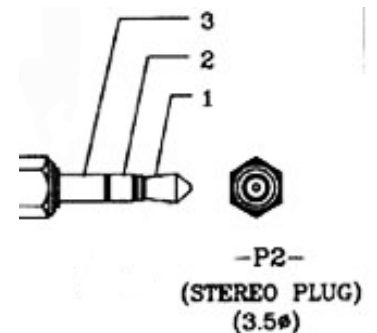
General Notes:

Network communication:

When configuring the Ethernet driver, be sure device settings match that of the GC configuration.

Port Type:	Ethernet
Logon Credentials Supported:	No
Default Port:	1515
Multi-Connection Capable:	Undetermined
Port Changeable:	Yes

Ethernet Driver Configuration Description:

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

Notes for the Device: