

Planar UltraRes P Series RS232



URP49 | URP49-T
 URP55 | URP55-T
 URP65 | URP65-T
 URP75 | URP75-ERO-T
 URP85 | URP85-ERO-T
 URP98 | URP98-ERO-T

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RoHS Compliance Statement

The Planar UltraRes P Series is fully RoHS Compliant.

Part Number: 020-1408-02B

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RS232 Communication

RS232 control is not necessary for operation, but is a convenient way to control Planar® UltraRes P™ Series displays from a computer at a distance. Most things you can do with the remote, you can do with RS232 commands. Plus, you can send inquiries to the displays and find out the current settings and values. RS232 connections are made with standard straight-through cables.

Note: Serial communication can occur over RS232, USB-B or LAN.

1. Applicable Models

This RS232 user manual applies to the following Planar UltraRes P Series models:

- URP49
- URP49-T
- URP55
- URP55-T
- URP65
- URP65-T
- URP75
- URP75-ERO-T
- URP85
- URP85-ERO-T
- URP98
- URP98-ERO-T

RS232 user manuals for other products can be found at www.planar.com/support/.

2. RS232 Setup

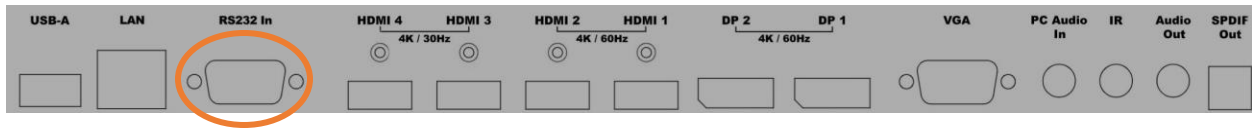
The use of RS232 requires the display's **Power Down Mode** to be in **Networked Standby** or **Fast Startup**. See the "Power Down Mode" section of the *Planar UltraRes P Series User Manual*.

The RS232 connection must use the following settings:

- 19200 baud rate
- 8 data bits
- 1 stop bit
- No parity bit
- No HW (RTS/CTS) or SW (XON/XOFF) flow control

3. Connecting the RS232 Cable

The Female DB9 connector is wired as a Straight Through serial connection.



URP49 / URP55 / URP65



URP75 / URP85 / URP98

Pin #	Signal
1	NC
2	Tx
3	Rx
4	NC
5	GND
6	NC
7	NC

4. RS232 Command Protocol

4.1 Command Structure

[OPCODE] [MODIFIERS] [OPERATOR] [OPERANDS] [TERM]

- OPCODE is the command code (e.g. "GAIN"). This can be written either using the named command code (see the "Command Code" column in the table) or the numeric command code (see the "Numeric Command Code" column in the table).
- MODIFIERS are modifier values [e.g. "(ZONE.1, ALL)"]. There are zero or more modifiers for each command. The modifiers can be written either with their named value or their numeric value (see "Examples" on page 7). See the "Modifiers" column in the table.
- OPERATOR is the action to be performed. See the "Operators" column in the table.
 - '=' writes the setting value.
 - '?' reads the setting value in name form (see "Examples" on page 7).
 - '#' reads the setting value in numeric form (see "Examples" on page 7).
 - '+' increments the setting value.
 - '-' decrements the setting value.
 - ':' indicates that the message is a response to one of the following operators: =?#+-
 - '!ERR' indicates that the message is a failure response. An error code will be listed after the "ERR", with a space before it. Error codes are as follows:
 - ERR 1: Invalid syntax
 - ERR 2: [Reserved for future use]
 - ERR 3: Command not recognized
 - ERR 4: Invalid modifier
 - ERR 5: Invalid operands
 - ERR 6: Invalid operator
 - '@ACK' indicates that the message is an acknowledgment (ACK) to a command that has no operator.
 - '^NAK' indicates that the message is a negative acknowledgment (NAK) to a command. This indicates that the command was received but cannot be processed at this time.
 - [No operator] denotes an action. In this case, there's no operator and no operand.
- OPERAND indicates the data to be sent with the message. In some cases, there can be multiple operands. See the "Operands" column in the table.
 - Enumerated operands can be written either with their named value or their numeric value (see "Examples" on page 7).
 - String operands are written with quotation marks at the beginning and end. Example: "this is a string operand". Special characters, [CR], [LF], " and \ can be included in a string by escaping them with the \ character (see "Examples" on page 7).
 - Integer (or signed integer / unsigned integer) are always numeric values.
 - Fixed point operands are numeric values with fractional parts. They use decimal point notation.
 - Note that enumerated and integer values can be written either in decimal or hexadecimal. For example, a decimal value of '50' can be written in hexadecimal as '0x32'.

- TERM is the termination character for the command. This can either be the ASCII carriage return character (0x0D), the ASCII line feed character (0x0A) or a semicolon. The response will use the same termination character.

4.2 Protocol Encoding

- All parts of the command structure are case insensitive (e.g. “BRIGHTNESS”, “brightness” and BrIghTnEsS” are all the same). Responses will always be in capital letters.
- Excessive white space is allowed (e.g. “BRIGHTNESS=50”, “BRIGHTNESS = 50” and “BRIGHTNESS = 50” are all the same).
- Modifiers and operands can be separated by commas, spaces or both (e.g. “GAIN=100,100,100”, “GAIN=100 100 100” and “GAIN=100, 100, 100” are all the same). Responses will always separate with one space between modifiers and operands).

4.3 Examples

Note: [CR] is the ASCII carriage return character (0x0D).

Command	Response	Notes
brightness = 100 [CR]	BRIGHTNESS:100 [CR]	Sets the Brightness value to 100
brightness = 100;	BRIGHTNESS:100;	Also sets the Brightness value to 100, but uses the ‘;’ termination character instead of [CR]. The response uses the same termination character.
200=100 [CR]	200:100 [CR]	“200” is the numeric command code for “BRIGHTNESS”
brightness+ [CR]	BRIGHTNESS:101 [CR]	Increments the current Brightness value
brightness- [CR]	BRIGHTNESS:100 [CR]	Decrements the current Brightness value
gain = 101 102 103 [CR]	GAIN:101 102 103 [CR]	Example command with multiple operators (sets Red Gain to 101, Green Gain to 102 and Blue Gain to 103, on the current zone)
gain(current red)+	GAIN(CURRENT RED):102	Increments the Red Gain on the current zone
gain(zone.1, all) = 104,105,106	GAIN(ZONE.1 ALL):104 105 106	Example command with multiple modifiers, multiple operators and different separators between the modifiers and operators (sets Red Gain to 104, Green Gain to 105 and Blue Gain to 106, on Zone 1)

Command	Response	Notes
ipv4.address(static)="10.15.0.220" [CR]	IPV4.ADDRESS(STATIC)="10.15.0.220" [CR]	Example command with a string operator
reset(user) [CR]	RESET(USER)@ACK [CR]	Example action command (no operator or operand)
reset(user) [CR]	RESET(USER)^NAK [CR]	Example action command that cannot be processed at this time
aspect? [CR]	ASPECT:AUTO [CR]	The name for the Aspect Ratio setting value is returned
aspect# [CR]	ASPECT:0 [CR]	The number for the Aspect Ratio setting value is returned
aspect=fill [CR]	ASPECT:FILL [CR]	Sets the Aspect Ratio to Fill
aspect=3 [CR]	ASPECT:3 [CR]	Also sets the Aspect Ratio to Fill
brightness @@ [CR]	BRIGHTNESS!ERR 1 [CR]	Example of an invalid syntax ("@" isn't a valid operator)
fake.command = 1 [CR]	FAKE.COMMAND:ERR 3 [CR]	Example of an invalid opcode ("FAKE.COMMAND" doesn't exist)
brightness(zone.999) = 100 [CR]	BRIGHTNESS(ZONE.999)!ERR 4 [CR]	Example of an invalid modifier ("ZONE.999" isn't a valid modifier for "BRIGHTNESS")
brightness="new value" [CR]	BRIGHTNESS!ERR 5 [CR]	Example of an invalid operand (the Brightness command doesn't accept a string operand)
model.id = 1 [CR]	MODEL.ID!ERR 6 [CR]	Example of an invalid operator (cannot write to this command)
display.name = "Name containing \" and \\" [CR]	DISPLAY.NAME:"Name containing \" and \\" [CR]	The name will appear on the remote monitor as Name containing " and \"
power.on.delay = .1	POWER.ON.DELAY:0.1	Example of a fixed point operand. Sets the Power On Delay to 0.1 seconds.

5. RS232 Codes

Notes:

- The examples are written with the command first and the response in italics. Example:
 - Command: ASPECT(ZONE.1)=AUTO
 - Response: *ASPECT(ZONE.1):AUTO*
- In many instances, a modifier may be omitted and the display will replace it with a default value. For example, the default modifier for the ASPECT command is CURRENT, so the following two commands are identical:
 - ASPECT(CURRENT)=AUTO
 - ASPECT=AUTO
- '!' in the Operators column indicates that the command accepts the execute operator, which uses no operator symbol. The '!' symbol is not included in the command.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Advanced Color	CMS	211	=?+-	Mod 1: Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 255 = CURRENT Mod 2: Gamut 0 = REC709 1 = SMPTEC 2 = EBU 5 = USER 6 = AUTO 255 = CURRENT Mod 3: Color Point 0 = RED.X 1 = RED.Y 2 = GREEN.X 3 = GREEN.Y 4 = BLUE.X 5 = BLUE.Y 6 = CYAN.X 7 = CYAN.Y 8 = MAGENTA.X 9 = MAGENTA.Y 10 = YELLOW.X 11 = YELLOW.Y 12 = WHITE.X 13 = WHITE.Y [None = Set all 14 values at once]	0-800	No	[Set REC709 red x color point in Zone 1 to 0.640] CMS(ZONE.1, REC709, RED.X)=640 <i>CMS(ZONE.1 REC709 RED.X):640</i> [Set all color points in the User gamut for Zone 2] CMS(ZONE.2, USER)=640 330 300 600 150 060 225 329 321 154 419 505 313 329 <i>CMS(ZONE.2 USER):640 330 300 600 150 060 225 329 321 154 419 505 313 329</i>	<i>URP75 / URP85 / URP98 only</i> See Main -> Advanced Settings -> Advanced Color. Note that the color point values for the Auto gamut cannot be written. When read, it returns the values for the auto-detected gamut.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Advanced Color Flag	CMSFLAG	212	?	Mod 1: Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 255 = CURRENT Mod 2: Gamut 0 = REC709 1 = SMPTEC 2 = EBU 5 = USER 6 = AUTO 255 = CURRENT Mod 3: Color Point 0 = RED.X 1 = RED.Y 2 = GREEN.X 3 = GREEN.Y 4 = BLUE.X 5 = BLUE.Y 6 = CYAN.X 7 = CYAN.Y 8 = MAGENTA.X 9 = MAGENTA.Y 10 = YELLOW.X 11 = YELLOW.Y 12 = WHITE.X 13 = WHITE.Y	String	No	[Zone 1 REC709 red x coordinate is achievable] CMSFLAG(ZONE.1, REC709, RED.X)? CMSFLAG(ZONE.1 REC709 RED.X):"" [Zone 2 EBU blue y coordinate is not achievable] CMSFLAG(ZONE.2, EBU, BLUE.Y)? CMSFLAG(ZONE.2 EBU BLUE.Y):""	URP75 / URP85 / URP98 only See Main -> Advanced Settings -> Advanced Color. In some cases, the target color coordinates may not be achievable. In this case, "" will be returned by this command. Otherwise, an empty string will be returned.
Allow Pop Up Messages	OSD.ALLOW.POPUP	1300	=?+-		0 = NO 1 = YES	No	OSD.ALLOW.POPUP=YES OSD.ALLOW.POPUP:YES	See Main -> Advanced Settings -> Menus and Messages -> Allow Pop Up Messages.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Aspect Ratio	ASPECT	500	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	0 = AUTO 1 = 16X9 2 = 4X3 3 = FILL 4 = NATIVE 5 = LETTERBOX	No	[For Zone 1] ASPECT(ZONE.1)=AUTO ASPECT(ZONE.1):AUTO [For the current zone] ASPECT=16X9 ASPECT:16X9	See Main -> Image Adjust -> Aspect Ratio.
Audio Input	AUDIO.INPUT	1003	?		Source 1 = HDMI.1 2 = HDMI.2 3 = HDMI.3 4 = HDMI.4 5 = DP 7 = VGA 13 = DP.2	No	AUDIO.INPUT? AUDIO.INPUT:HDMI.1	Returns the input source in the zone currently playing audio, as chosen by Audio Select. VGA and DP.2 are available only on URP49 / URP55 / URP65.
Audio Select	AUDIO.ZONE	1007	=?+-		Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4	No	AUDIO.ZONE=ZONE.1 AUDIO.ZONE:ZONE.1	See Main -> Audio -> Audio Select.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Audio Settings	AUDIO.SETTINGS	1009	=?		Op 1: Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 Ops 2-8: Unsigned Integers	No	[For Zone 3, Volume=51, Treble=52, Bass=53, Balance=54, Mute Off, Internal Speakers On] AUDIO.SETTINGS=2 51 52 53 54 0 1 <i>AUDIO.SETTINGS:2 51 52 53 54 0 1</i>	Values are set/returned in the order AUDIO.ZONE, AUDIO.VOLUME, AUDIO.TREBLE, AUDIO.BASS, AUDIO.BALANCE, AUDIO.MUTE, AUDIO.SPEAKERS On URP49 / URP55 / URP65, this command does not return value AUDIO.ZONE.
Auto Adjust	AUTO.ADJUST	5004	!			No	AUTO.ADJUST <i>AUTO.ADJUST@ACK</i>	<i>URP49 / URP55 / URP65 only</i> See Main -> Image Adjust -> Auto Adjust
Auto Power On	AUTO.ON	1407	=?+-		0 = OFF 1 = ON 2 = PREVIOUS.STATE	Yes	AUTO.ON=ON <i>AUTO.ON:ON</i>	See Main -> Advanced Settings -> Power -> Auto Power On. PREVIOUS.STATE is available only on URP49 / URP55 / URP65.
Auto Scan Sources	SOURCE.SCAN	105	=?+-		0 = OFF 1 = ON 2 = FAILOVER	No	SOURCE.SCAN=ON <i>SOURCE.SCAN:ON</i>	See Main -> Inputs and Views -> Auto Scan Sources. FAILOVER is available only on URP49 / URP55 / URP65.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Backlight Intensity	BACKLIGHT.INTENSITY	1400	=?+-		1-100	No	BACKLIGHT.INTENSITY=75 <i>BACKLIGHT.INTENSITY:75</i>	See Main -> Advanced Settings -> Backlight -> Backlight Intensity.
Balance	AUDIO.BALANCE	1000	=?+-		0-100	No	AUDIO.BALANCE=50 <i>AUDIO.BALANCE:50</i>	See Main -> Audio -> Balance.
Bass	AUDIO.BASS	1001	=?+-		0-100	No	AUDIO.BASS=50 <i>AUDIO.BASS:50</i>	See Main -> Audio -> Bass.
Blank Screen Color	BLANK.COLOR	1306	=?+-		0 = RED 1 = GREEN 2 = BLUE 3 = CYAN 4 = MAGENTA 5 = YELLOW 6 = WHITE 7 = BLACK	No	BLANK.COLOR=BLUE <i>BLANK.COLOR:BLUE</i>	See Main -> Advanced Settings -> Menus and Messages -> Blank Screen Color.
Brightness	BRIGHTNESS	200	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	0-100	No	[For Zone 1] BRIGHTNESS(ZONE.1)=50 <i>BRIGHTNESS(ZONE.1):50</i> [For the current zone] BRIGHTNESS=55 <i>BRIGHTNESS:55</i>	See Main -> Image Adjust -> Brightness. Zone modifier is available only on URP75 / URP85 / URP98.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Color	COLOR	202	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	0-100	No	[For Zone 1] COLOR(ZONE.1)=50 COLOR(ZONE.1):50 [For the current zone] COLOR=55 COLOR:55	See Main -> Image Adjust -> Color. Zone modifier is available only on URP75 / URP85.

Color Gamut	COLOR.GAMUT	214	=?+-	Mod 1: Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 255 = CURRENT [None = CURRENT] Mod 2: Type 0 = SETTING 1 = ACTUAL 2 = COPY 3 = REVERT [None = SETTING] Mod 3: Gamut 0 = REC709 1 = SMPTE.C 2 = EBU 5 = USER 6 = AUTO 255 = CURRENT	0 = REC709 1 = SMPTE.C 2 = EBU 5 = USER 6 = AUTO 7 = DISABLE	No	[Setting Color Gamut for Zone 1] COLOR.GAMUT(ZONE.1, SETTING)=REC709 COLOR.GAMUT(ZONE.1 SETTING):REC709 [Setting Color Gamut for the current zone] COLOR.GAMUT(CURRENT, SETTING)=AUTO COLOR.GAMUT(CURRENT SETTING):AUTO [Reading the actual Color Gamut for the current zone] COLOR.GAMUT(CURRENT, ACTUAL)? COLORSPACE(CURRENT ACTUAL):RGB [Copy the Zone 2 REC709 gamut to all zones] COLOR.GAMUT(ZONE.2, COPY, REC709) COLOR.GAMUT(ZONE.2 COPY REC709)@ACK	URP75 / URP85 / URP98 only “Setting” is the value that the color gamut is set to. This takes two modifiers and does not support the execute action. See Main -> Advanced Settings -> Advanced Color -> Color Gamut. “Actual” is the currently applied color gamut (cannot return AUTO). This is read only, takes two modifiers and does not support the execute action. See Main -> Information -> Image Information -> Color Gamut. “Copy” is an execute action that takes all three modifiers and no operands. See Main -> Advanced Settings -> Advanced Color -> Copy to All Zones. “Revert” is an execute action that takes all three modifiers and no operands. See Main -> Advanced Settings -> Advanced Color -> Revert to Defaults.
Color Space	COLORSPACE	207	=?+-	Mod 1: Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4	0 = REC601 1 = REC709 2 = RGB 3 = RGB.VIDEO 4 = AUTO	No	[Setting Color Space for Zone 1] COLORSPACE(ZONE.1, SETTING)=REC709 COLORSPACE(ZONE.1 SETTING):REC709	“Setting” is the value that the color space is set to. See Main -> Image Adjust -> Color Space.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
				253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT Mod 2: Value Type 0 = SETTING 1 = ACTUAL			[Setting Color Space for the current zone] COLORSPACE(CURRENT, SETTING)=AUTO COLORSPACE(CURRENT SETTING):AUTO [Reading the actual Color Space for the current zone] COLORSPACE(CURRENT, ACTUAL)? COLORSPACE(CURRENT ACTUAL):RGB	"Actual" is the currently applied color space (cannot return AUTO). See Main -> Information -> Image Information -> Color Space.
Color Sub-sampling	COLOR.SUBSAMPLING	301	?	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 255 = CURRENT	String	No	[For Zone 1] COLOR.SUBSAMPLING(ZONE.1)? COLOR.SUBSAMPLING(ZONE.1):"4:4:4" [For the current zone] COLOR.SUBSAMPLING? COLOR.SUBSAMPLING:"4:2:0"	See Main -> Information -> Image Information -> Color Subsampling.
Color Temperature	COLOR.TEMPERATURE	208	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT	0 = 3200K 1 = 5500K 2 = 6500K 3 = 7500K 4 = 9300K 5 = NATIVE	No	[For Zone 1] COLOR.TEMPERATURE(ZONE.1)=6500K COLOR.TEMPERATURE(ZONE.1):6500K [For the current zone] COLOR.TEMPERATURE=NATIVE COLOR.TEMPERATURE=NATIVE	See Main -> Image Adjust -> Color Temperature. Zone modifier is available only on URP75 / URP85 / URP98.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Content Rotation	ROTATE	504	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	0 = NONE 90 = 90 180 = 180 270 = 270	No	[For Zone 1] ROTATE(ZONE.1)=90 ROTATE(ZONE.1):90 [For the current zone] ROTATE=NONE ROTATE:NONE	URP75 / URP85 / URP98 only See Main -> Image Adjust -> Content Rotation.
Contrast	CONTRAST	201	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	0-100	No	[For Zone 1] CONTRAST(ZONE.1)=50 CONTRAST(ZONE.1):50 [For the current zone] CONTRAST=55 CONTRAST:55	See Main -> Image Adjust -> Contrast. Zone modifier is available only on URP75 / URP85 / URP98.
Current Zone	CURRENT.ZONE	100	=?+-		Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4	No	CURRENT.ZONE=ZONE.1 CURRENT.ZONE:ZONE.1	See Main -> Image Adjust -> Current Zone.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Current Zone Layout	CURRENT.ZONE.LAYOUT	108	?		0 = S.1 1 = P.UL.1 2 = P.UL.2 3 = P.UR.1 4 = P.UR.2 5 = P.LL.1 6 = P.LL.2 7 = P.LR.1 8 = P.LR.2 9 = D.L.1 10 = D.L.2 11 = D.T.1 12 = D.T.2 13 = T.L.1 14 = T.L.2 15 = T.L.3 16 = T.R.1 17 = T.R.2 18 = T.R.3 19 = T.T.1 20 = T.T.2 21 = T.T.3 22 = T.B.1 23 = T.B.2 24 = T.B.3 25 = T.M.1 26 = T.M.2 27 = T.M.3 28 = Q.1 29 = Q.2 30 = Q.3 31 = Q.4	No	CURRENT.ZONE.LAYOUT? <i>CURRENT.ZONE.LAYOUT:Q.1</i>	See separate table on page 51 for operands. Triple View is available only on URP75 / URP85 / URP98.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Default Gateway	IPV4.GATEWAY	1206	=?	0 = STATIC [None = Current (for reads only)] [None = STATIC (for writes only)]	String	Yes	[Read the current default gateway value] IPV4.GATEWAY? IPV4.NETMASK:"10.15.0.1" [Write the default gateway for static IP] IPV4.NETMASK(STATIC)="192.168.12.1" IPV4.NETMASK(STATIC):"192.168.12.1"	See Main -> Advanced Settings -> Network -> Default Gateway.
DHCP	NETWORK.DHCP	1207	=?		0 = OFF 1 = ON	Yes	NETWORK.DHCP=ON NETWORK.DHCP:ON	See Main -> Advanced Settings -> Network -> DHCP.
Diagnostic Color	DIAGNOSTIC.COLOR	206	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	0 = RED 1 = GREEN 2 = BLUE 255 = OFF	No	[For Zone 1] DIAGNOSTIC.COLOR(ZONE.1)=OFF DIAGNOSTIC.COLOR(ZONE.1):OFF [For the current zone] DIAGNOSTIC.COLOR=BLUE DIAGNOSTIC.COLOR:BLUE	URP75 / URP85 / URP98 only See Main -> Image Adjust -> Diagnostic Color.
Display Name	DISPLAY.NAME	2404	=?		String	Yes	DISPLAY.NAME="Conference Room 1" DISPLAY.NAME:"Conference Room 1"	URP75 / URP85 / URP98 only Sets the name shown on the title of the Remote Monitoring Software pages.
Display Power	DISPLAY.POWER	1408	=?+-		0 = OFF 1 = ON	Yes	DISPLAY.POWER=ON DISPLAY.POWER:ON	See the IR remote control keys ON and OFF.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
DisplayPort 1 Type	DP.TYPE	1904	=?+-		0 = 1.1 1 = 1.2	No	DP.TYPE=1.2 <i>DP.TYPE:1.2</i>	See Main -> Advanced Settings -> System Settings -> DisplayPort Type (URP75 / URP85 / URP98) See Main -> Advanced Settings -> System Settings -> DisplayPort 1 Type (URP49 / URP55 / URP65)
DisplayPort 2 Type	DP2.TYPE	1905	=?+-		0 = 1.1 1 = 1.2	No	DP2.TYPE=1.2 <i>DP2.TYPE:1.2</i>	URP49 / URP55 / URP65 only See Main -> Advanced Settings -> System Settings -> DisplayPort 2 Type
DNS Server 1	NETWORK.DNS1	1212	=?	0 = STATIC [None = Current (for reads only)] [None = STATIC (for writes only)]	String	Yes	[Read the current DNS server 1 value] NETWORK.DNS1? <i>NETWORK.DNS1:"172.16.0.140"</i> [Write the DNS server 1 for static IP] NETWORK.DNS1(STATIC)="8.8.8.8" <i>NETWORK.DNS1(STATIC):"8.8.8.8"</i>	See Main -> Advanced Settings -> Network -> DNS Server.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
DNS Server 2	NETWORK.DNS2	1213	=?	0 = STATIC [None = Current (for reads only)] [None = STATIC (for writes only)]	String	Yes	[Read the current DNS server 2 value] NETWORK.DNS2? NETWORK.DNS2:"172.16.0.191" [Write the DNS server 2 for static IP] NETWORK.DNS2(STATIC)="8.8.4.4" " NETWORK.DNS2(STATIC):"8.8.4.4"	Selects a secondary DNS server.
EDID Timing	EDID.TIMING	400	=?+-!	Mod 1: Input 1 = HDMI.1 2 = HDMI.2 3 = HDMI.3 4 = HDMI.4 5 = DP 6 = ALL 13 = DP.2 Mod 2: Param 0 = UPDATE 1 = HACTIVE 2 = VACTIVE 3 = VREFRESH 4 = FULL.SPEC 5 = PCLK 6 = HBLANK 7 = HFP 8 = HSYNC 9 = VBLANK 10 = VFP 11 = VSYNC 12 = FACTORY 13 = TYPE	Signed Integer -3 = 4K60 -2 = 4K30 -1 = 1080P	No	[Read the EDID type for HDMI 1] EDID.TIMING(HDMI.1, TYPE)? EDID.TIMING(HDMI.1 TYPE):4K60 [Set the HDMI 2 EDID horizontal active to 3840] EDID.TIMING(HDMI.2, HACTIVE)=3840 EDID.TIMING(HDMI.2 HACTIVE):3840 [Update the HDMI 2 EDID] EDID.TIMING(HDMI.2, UPDATE) EDID.TIMING(HDMI.2 UPDATE)@ACK	See Main -> Advanced Settings -> EDID. UPDATE and FACTORY modifiers are the only ones that support the action operator. Mod 1: ALL is available only on URP75 / URP85 / URP98. On URP49 / URP55 / URP65, only the following are available for Mod 2: UPDATE, FACTORY, TYPE. Mod 1 DP.2 is available only on URP49 / URP55 / URP65.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
EDID Zone	EDID.SELECTED CONNECTOR	401	=?+-		1 = HDMI.1 2 = HDMI.2 3 = HDMI.3 4 = HDMI.4 5 = DP 6 = ALL 13 = DP.2	No	EDID.SELECTEDCONNECTOR= HDMI.1 <i>EDID.SELECTEDCONNECTOR: HDMI.1</i>	See Main -> Advanced Settings -> EDID -> Selected Connector. Operand DP.2 is available only on URP49 / URP55 / URP65.
Enable Internal Speakers	AUDIO.SPEAKERS	1004	=?+-		0 = OFF 1 = ON	No	AUDIO.SPEAKERS=ON <i>AUDIO.SPEAKERS:ON</i>	See Main -> Audio -> Enable Internal Speakers.
Enable Status LED	LED.ENABLE	1902	=?		0 = DISABLE 1 = ENABLE	Yes	LED.ENABLE=ENABLE <i>LED.ENABLE:ENABLE</i>	See Main -> Advanced Settings -> System Settings -> Enable Status LED.
Error Log	ERROR.LOG	2311	?	Log Entry Number 1-65535		No	ERROR.LOG(1)? <i>ERROR.LOG(1):"Wed Sep 16 13:39:33 2015 -CRIT- Power supply 2 issue"</i>	<i>URP75 / URP85 / URP98 only</i> Lists any faults that have occurred in the system. Entry #1 is the most recent. An empty string returned means that there are no more error log entries after that entry.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Factory Reset	RESET	2400	!	0 = USER 1 = FACTORY1		No	RESET(USER) RESET(USER)@ACK	USER is the same as Main -> Advanced Settings -> System Settings -> Factory Reset. FACTORY1 resets everything that USER resets plus EDID customizations, network settings and presets.
Firmware Update	FIRMWARE.UPDATE	2200	=?!	URP49 / URP55 / URP65 Mod 1: Firmware 0 = SCALER 1 = SUBMCU 2 = NETUART URP75 / URP85 / URP98 Mod 1: Firmware 0 = AUTO 1 = VP.AP 2 = HDMI Mod 2: Type 0 = START 1 = PACKET 2 = FINISH 3 = URL	String	Yes	URP49 / URP55 / URP65 FIRMWARE.UPDATE(SCALER) FIRMWARE.UPDATE(SCALER)@ACK URP75 / URP85 / URP98 FIRMWARE.UPDATE FIRMWARE.UPDATE(AUTO START)@ACK	See Main -> Advanced Settings -> System Settings -> Firmware Update.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Gain	GAIN	209	=?+-	Mod 1: Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT] Mod 2: Color 0 = RED 1 = GREEN 2 = BLUE 255 = ALL [None = ALL]	For RED, GREEN and BLUE modifiers, one operand: 0-200 For ALL operand, three operands: Red Gain: 0-200 Green Gain: 0-200 Blue Gain: 0-200	No	[For red gain on Zone 1] GAIN(ZONE.1, RED)=100 GAIN(ZONE.1 RED):100 [For all three gains on the current zone: Red Gain = 101, Green Gain = 102, Blue Gain = 103] GAIN=101 102 103 GAIN=101 102 103	See Main -> Image Adjust -> Red/Green/Blue Gain. ALL modifier adjusts all three gains at the same time. The first modifier can only be missing if both modifiers are missing. Zone selection modifier is available only on URP75 / URP85 / URP98.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Gamma	GAMMA	1504	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	0 = 1.5 1 = 1.55 2 = 1.6 3 = 1.65 4 = 1.7 5 = 1.75 6 = 1.8 7 = 1.85 8 = 1.9 9 = 1.95 10 = 2.0 11 = 2.05 12 = 2.1 13 = 2.15 14 = 2.2 15 = 2.25 16 = 2.3 17 = 2.35 18 = 2.4 19 = 2.45 20 = 2.5 21 = 2.55 22 = 2.6 23 = 2.65 24 = 2.7 25 = 2.75 26 = 2.8	No	[For Zone 1] GAMMA(ZONE.1)=2.2 GAMMA(ZONE.1):2.2 [For the current zone] GAMMA=2.5 GAMMA:2.5	See Main -> Image Adjust -> Gamma. Only the range of 1.85 to 2.60 is supported on URP49 / URP55 / UPR65.
HDMI® CEC	CEC.ENABLE	2407	=?+-		URP49 / URP55 / URP65 0 = OFF 1 = ON URP75 / URP85 / URP98 0 = DISABLE 1 = ENABLE	No	CEC.ENABLE=DISABLE CEC.ENABLE:DISABLE	Used to enable or disable support for HDMI CEC commands.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
HDMI CEC Power Off	CEC.STANDBY	5018	=?		0 = OFF 1 = ON	No	CEC.STANDBY=OFF CEC.STANDBY:OFF	URP49 / URP55 / URP65 only See Main -> Advanced Settings -> HDMI CEC Power Off
Help	HELP	2300	=?	0 = FIRST 2147483647 = NEXT	String	Yes	[To get help on the OSD.STATUS command] HELP=OSD.STATUS HELP:"OSD.STATUS\ Numeric Value: 1308\ Operators: ?\ No Modifiers\ 1 Operand(s)\ Operand #1: Unsigned Integer\ DISABLE 0\ ENABLE 1\ OFF 0\ ON 1\ NO 0\ YES 1\ FALSE 0\ TRUE 1 "	URP75 / URP85 / URP98 only Displays information for each serial command. To get a list of all serial commands, first enter the following command: HELP(FIRST)? Then enter the following command continuously until it returns NAK: HELP(NEXT)?

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Host Name	HOSTNAME	2403	=?		String	Yes	[Read the current hostname value] HOSTNAME? HOSTNAME:"UltraRes" [Set the hostname to "MyDisplay"] HOSTNAME="MyDisplay" HOSTNAME:"My Display" [Invalid host name - can't use spaces] HOSTNAME="My Display" HOSTNAME!ERR 5	URP75 / URP85 / URP98 only Sets the network hostname for the display. Default string is "UltraRes".
Image Information	SIGNAL.INFO	300	?	Mod 1: Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 255 = CURRENT [None = CURRENT] Mod 2: Parameter 0 = HACTIVE 1 = VACTIVE 2 = PCLK 3 = HTOTAL 4 = VTOTAL 5 = VREFRESH 6 = HREFRESH 7 = INTERLACE 8 = VFIELDRATE 9 = VREFRESH.X. 100 10 = COLORDEPTH 11 = TMDS [None = ALL]	Unsigned Integer	No	SIGNAL.INFO(CURRENT, HACTIVE)? SIGNAL.INFO(CURRENT, HACTIVE):1920	See Main -> Information -> Image Information.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Image Position	PAN	502	=?+-	Mod 1: Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT Mod 2: Direction 0 = X 1 = Y 255 = ALL [None = ALL]	-1000 ~ 1000	No	[For horizontal position on Zone 1] PAN(ZONE.1, X)=0 PAN(ZONE.1 X):0 [For horizontal and vertical position on the current zone: Horizontal Position = 10, Vertical Position = 20] PAN(CURRENT)=10 20 PAN(CURRENT):10 20	For the 'X' modifier, see Main -> Image Adjust -> Image Position -> Move Horizontal. For the 'Y' modifier, see Main -> Image Adjust -> Image Position -> Move Vertical.
IP Address	IPV4.ADDRESS	1204	=?	0 = STATIC [None = Current (for reads only)] [None = STATIC (for writes only)]	String	Yes	[Read the current IP address value] NETWORK.DNS1? NETWORK.DNS1:"10.15.0.60" [Write the DNS server 1 for static IP] NETWORK.DNS1(STATIC)="192.168.12.12" NETWORK.DNS1(STATIC):"192.168.12.12"	See Main -> Advanced Settings -> Network -> IP Address.
IR Code	IR.CODE	1210	=?+-		0-65535	Yes	IR.CODE=12345 IR.CODE:12345	See Menu -> Advanced Settings -> System Settings -> IR Remote ID Code.
IR Remote Lock	IR.LOCK	1202	=?		0 = DISABLE 1 = ENABLE	Yes	IR.LOCK=ENABLE IR.LOCK:ENABLE	See Menu -> Advanced Settings -> System Settings -> IR Remote Lock.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Key	KEY	1200	=		[See separate table]	Yes	[To send the MENU key] KEY=MENU KEY:MENU	See separate table on page 52 for key codes.
Keypad Lock	KEY.LOCK	1201	=?		0 = DISABLE 1 = ENABLE	Yes	KEY.LOCK=ENABLE KEY.LOCK:ENABLE	See Menu -> Advanced Settings -> System Settings -> Keypad Lock.
LAN Lock	LAN.LOCK	5023	=?		0 = DISABLE 1 = ENABLE	No	LAN.LOCK=ENABLE LAN.LOCK:ENABLE	URP49 / URP55 / URP65 only See Menu -> Advanced Settings -> System Settings -> Security -> LAN Lock
Language	LANGUAGE	5020	=?		0 = ENGLISH 1 = FRENCH 2 = GERMAN 3 = SPANISH 4 = ITALIAN 5 = CHINESE. SIMPLIFIED 6 = CHINESE. TRADITIONAL 7 = PORTUGUESE 8 = JAPANESE	No	LANGUAGE=ENGLISH LANGUAGE:ENGLISH	URP49 / URP55 / URP65 only See Main -> Advanced Settings -> Menus and Messages -> Language

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Layout	LAYOUT	103	=?+-	Multi-Source View 1 = DUAL 2 = TRIPLE 4 = PIP 5 = CURRENT [None = CURRENT]	0 = SINGLE 1 = PIP.UL 2 = PIP.UR 3 = PIP.LL 4 = PIP.LR 5 = DUAL.L 6 = DUAL.T 7 = TRIPLE.L 8 = TRIPLE.R 9 = TRIPLE.T 10 = TRIPLE.B 11 = TRIPLE.M 12 = QUAD	No	[To change the Dual layout to top-and-bottom] LAYOUT(DUAL)=DUAL.T LAYOUT(DUAL):DUAL.T [To change the PIP position to top left and immediately apply the Multi-Source View and layout] LAYOUT=PIP.UL LAYOUT:PIP.UL	See Main -> Inputs and Views -> Multi-Source View. See Main -> Inputs and Views -> Multi-Source View -> Advanced Layouts. Triple view is available only on URP75 / URP85 / URP98.
MAC Address	NETWORK.MAC	1203	?		String	Yes	NETWORK.MAC? NETWORK.MAC="12:34:56:AB:CD:EF"	See Main -> Advanced Settings -> Network -> MAC Address.
Menu Position	OSD.POSITION	1301	=?+-		0 = CENTER 1 = UPPER.LEFT 2 = UPPER.RIGHT 3 = LOWER.LEFT 4 = LOWER.RIGHT	No	OSD.POSITION=CENTER OSD.POSITION:CENTER	See Main -> Advanced Settings -> Menus and Messages -> Menu Position.
Model ID	MODEL.ID	2306	?		String	No	MODEL.ID? MODEL.ID="UR8451"	See Main -> Information -> System Information -> Model.
Model Series	MODEL.SERIES	2316	?		String	No	MODEL.SERIES? MODEL.SERIES:"UltraRes P"	Always returns "UltraRes P" for this product. Other products using this protocol will have a different response for this command.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Multi-Source View	MULTI.VIEW	102	=?+-		0 = SINGLE 1 = DUAL 2 = TRIPLE 3 = QUAD 4 = PIP	No	MULTI.VIEW=QUAD <i>MULTI.VIEW:QUAD</i>	See Main -> Inputs and Views -> Multi-Source View. Triple view is available only on URP75 / URP85 / URP98.
Mute	AUDIO.MUTE	1002	=?+-		0 = OFF 1 = ON	No	AUDIO.MUTE=ON <i>AUDIO.MUTE:ON</i>	See Main -> Audio -> Mute.
Network Commands	COMMAND.ENABLE	1232	=?+-	NETWORK	0 = OFF 1 = ON	No	COMMAND.ENABLE(NETWORK)=OFF	Used to enable or disable the Network command ports.
Network Ping	NETWORK.PING	1211	=		String	Yes	NETWORK.PING="www.google.com" <i>NETWORK.PING:"SUCCESS"</i>	Attempts to ping the selected network address. Response string will either be "SUCCESS" or "FAILED".
Network Port	NETWORK.ENABLE	1233	=?+-		0 = OFF 1 = ON	No	NETWORK.ENABLE?	<i>URP75 / URP85 / URP98 only</i> Used to completely enable or disable the IP Network port.
Next Source	SOURCE.NEXT	104	!	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 254 = ALL 255 = CURRENT		No	[For Zone 1] SOURCE.NEXT(ZONE.1) <i>SOURCE.NEXT(ZONE.1)@ACK</i> [For the current zone] SOURCE.NEXT <i>SOURCE.NEXT@ACK</i>	See IR remote control keys ZONE 1/2/3/4.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Noise Reduction	NOISE. REDUCTION	205	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	0 = OFF 1 = LOW 2 = MEDIUM 3 = HIGH	No	[For Zone 1] NOISE.REDUCTION(ZONE.1)=OFF NOISE.REDUCTION(ZONE.1):OFF [For the current zone] NOISE.REDUCTION=LOW NOISE.REDUCTION:LOW	URP75 / URP85 / URP98 only See Main -> Image Adjust -> Noise Reduction.
Notification Event	NOTIFICATION. EMAIL	1222	=?	Event 0 = POWER. STATE. CHANGED 1 = ERROR. OCCURRED 2 = SOURCE. DETECTED 3 = SOURCE.LOST 4 = SOURCE. SELECTED	Op 1: Enable 0 = DISABLE 1 = ENABLE Op 2: Recipients List String Op 3: User Message String	Yes	NOTIFICATION.EMAIL(SOURCE.D ETECTED)=ENABLE, "test@planar.com", "Your custom message here" NOTIFICATION.EMAIL(SOURCE.D ETECTED):ENABLE "test@planar.com" "Your custom message here"	See Remote Monitoring Software -> Notifications -> Notification Events. Modifiers ERROR.OCCURED and SOURCE.DETECTED are available only on URP75 / URP85 / URP98.
NTP Server	NETWORK. NTPSERVER	1214	=?		String	Yes	NETWORK.NTPSERVER="pool.ntp. org" NETWORK.NTPSERVER:"pool.ntp. org"	Selects the NTP server to be used with the Use Network Time setting. Default = "0.pool.ntp.org".

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Offset	OFFSET	210	=?+-	Mod 1: Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT] Mod 2: Color 0 = RED 1 = GREEN 2 = BLUE 255 = ALL [None = ALL]	For RED, GREEN and BLUE modifiers, one operand: 0-100 For ALL operand, three operands: Red Offset: 0-100 Green Offset: 0-100 Blue Offset: 0-100	No	[For red offset on Zone 1] OFFSET(ZONE.1, RED)=50 OFFSET(ZONE.1 RED):50 [For all three offsets on the current zone: Red Gain = 51, Green Gain = 52, Blue Gain = 53] OFFSET=51 52 53 OFFSET=51 52 53	See Main -> Image Adjust -> Red/Green/Blue Offset. ALL modifier adjusts all three offsets at the same time. The first modifier can only be missing if both modifiers are missing. Zone modifier is available only on URP75 / URP85 / URP98.
OSD Close	OSD.CLOSE	1310	!			No	OSD.CLOSE OSD.CLOSE@ACK	Forces any menus or message boxes that are currently on screen to close.
OSD Rotation	ORIENTATION	1302	=?+-		0 = LANDSCAPE 1 = PORTRAIT	No	ORIENTATION=LANDSCAPE ORIENTATION:LANDSCAPE	See Main -> Advanced Settings -> Menus and Messages -> OSD Rotation.
OSD Status	OSD.STATUS	1308	?		0 = DISABLE 1 = ENABLE	No	OSD.STATUS? OSD.STATUS=ENABLE	Indicates whether the OSD (menu, message box or confirmation dialog) is currently being shown on the display.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
OSD Timeout	OSD.TIMEOUT	1304	=?+-		0 = OFF 10 = 10.SECONDS 30 = 30.SECONDS 60 = 60.SECONDS 120 = 120.SECONDS 240 = 240.SECONDS 0-3600	No	OSD.TIMEOUT=60.SECONDS <i>OSD.TIMEOUT:60.SECONDS</i>	See Main -> Advanced Settings -> Menus and Messages -> OSD Timeout. Numeric value is in seconds and can be used to program any delay value.
OSD Transparency	OSD.TRANSPARENCY	1303	=?+-		URP49 / URP55 / URP65 0-10 URP75 / URP85 / URP98 0-5	No	OSD.TRANSPARENCY=3 <i>OSD.TRANSPARENCY:3</i>	See Main -> Advanced Settings -> Menus and Messages -> OSD Transparency.
Overscan	OVERSCAN	501	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	0-20	No	[For Zone 1] OVERSCAN(ZONE.1)=0 <i>OVERSCAN(ZONE.1):0</i> [For the current zone] OVERSCAN=5 <i>OVERSCAN:5</i>	See Main -> Image Adjust -> Overscan. Zone modifier is available only on URP75 / URP85 / URP98.
Phase	PHASE	5002	=?+-		0-100	No	PHASE=50 <i>PHASE:50</i>	<i>URP49 / URP55 / URP65 only</i> See Main -> Image Adjust -> Phase

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
PIP Size	PIP.SIZE	107	=?+-		0 = SMALL 1 = MEDIUM 2 = LARGE	No	PIP.SIZE=MEDIUM <i>PIP.SIZE:MEDIUM</i>	See Main -> Inputs and Views -> Multi-Source View -> Advanced Layouts -> PIP Size.
PIP Swap	PIP.SWAP	106	!			No	PIP.SWAP <i>PIP.SWAP@ACK</i>	See IR remote control key PIP SWAP.
Pixel Orbit	PIXEL.ORBIT	1906	=?+-		0 = OFF 1 = ON	No	PIXEL.ORBIT=ON <i>PIXEL.ORBIT:ON</i>	See Main -> Advanced Settings -> System Settings -> Pixel Orbit.
Power Down Mode	POWER.DOWN.MODE	1422	=?+-		0 = Standby.Mode 1 = Networked. Standby.Mode 2 = Fast.Startup	No	POWER.DOWN.MODE?	Used to set the Power Down Mode setting in the Power submenu.
Power On Delay	POWER.ON.DELAY	1420	=?+-		Unsigned fixed point 0.0-10.0	Yes	POWER.ON.DELAY=1.4 <i>POWER.ON.DELAY:1.4</i>	<i>URP75 / URP85 / URP98 only</i> See Main -> Advanced Settings -> Power -> Power On Delay.
Power Saving Delay	POWER.SAVE.DELAY	1406	=?+-		60 = 1.MINUTE 300 = 5.MINUTES 900 = 15.MINUTES 1800 = 30.MINUTES 3600 = 60.MINUTES	Yes	POWER.SAVE.DELAY=5.MINUTES <i>POWER.SAVE.DELAY:5.MINUTES</i>	See Main -> Advanced Settings -> Power -> Power Saving Delay. Numeric value is in seconds and can be used to program any delay value.
Power Saving Mode	POWER.SAVE.MODE	1405	=?+-		0 = Disable 1 = Power.Down 2 = Wake.On.Signal	No	POWER.SAVE.MODE=Power.Down Or POWER.SAVE.MODE=1	See Main -> Advanced Settings -> Power -> Power Saving Mode.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Preset Count	PRESET.COUNT	2006	?		Unsigned Integer	Yes	PRESET.COUNT? <i>PRESET.COUNT:6</i>	Displays the number of presets that are not empty.
Preset Delete	PRESET.DELETE	2000	!	URP49 / URP55 / URP65 1-60 URP75 / URP85 / URP98 Preset Number 1-1000		Yes	[Save to Preset 4] PRESET.DELETE(4) <i>PRESET.DELETE(4)@ACK</i>	See Main -> Presets -> Delete.
Preset Full	PRESET.FULL	2004	?	URP49 / URP55 / URP65 1-60 URP75 / URP85 / URP98 Preset Number 1-1000	0 = NO 1 = YES	Yes	PRESET.FULL(4)? <i>PRESET.FULL(4)=YES</i>	Indicates whether data has been saved in the selected preset.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Preset List	PRESET.LIST	2008	?	0 = FIRST 2147483647 = NEXT	A list of unsigned integers	Yes	PRESET.LIST(FIRST)? <i>PRESET.LIST(FIRST):1 2 3 5 7 34</i>	To get a list of all the filled presets, start by entering the following command: PRESET.LIST(FIRST) Use the following command to read additional filled presets: PRESET.LIST(NEXT)? Continue sending the second command above until the last number shown matches the value returned by the Preset Max command, or until the number of presets listed equals the number returned by the Preset Count command. Note: Unless you have more than 64 presets saved, sending this command one time will return a full list of all presets.
Preset Max	PRESET.MAX	2007	?		Unsigned Integer	Yes	PRESET.MAX? <i>PRESET.MAX:34</i>	Displays the number of the highest saved preset.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Preset Name	PRESET.NAME	2003	=?	URP49 / URP55 / URP65 1-60 URP75 / URP85 / URP98 Preset Number 1-1000	String	Yes	[Set Preset 4 name to "Hello"] PRESET.NAME(4)="Hello" PRESET.NAME(4):"Hello"	Sets the name listed for the preset in the Delete, Recall and Save menus. Default = "Preset n", where 'n' is the preset number (e.g. "Preset 4")
Preset Recall	PRESET.RECALL	2001	!	URP49 / URP55 / URP65 0-60 URP75 / URP85 / URP98 Preset Number 1-1000		No	[Save to Preset 4] PRESET.RECALL(4) PRESET.RECALL(4)@ACK	See Main -> Presets -> Recall.
Preset Save	PRESET.SAVE	2002	!	URP49 / URP55 / URP65 1-60 URP75 / URP85 / URP98 Preset Number 1-1000		No	[Save to Preset 4] PRESET.SAVE(4) PRESET.SAVE(4)@ACK	See Main -> Presets -> Save. A maximum of 100 presets may be saved. The preset numbers used do not have to be contiguous and may be greater than 100. On URP49 / URP55 / URP65, preset numbers must be from 1-60.
Reboot	SYSTEM.REBOOT	2402	!			No	SYSTEM.REBOOT SYSTEM.REBOOT@ACK	Forces the system to restart.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Revert Image Settings	REVERT.IMAGE.SETTINGS	215	!	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 255 = CURRENT [None = CURRENT]		No	[For Zone 1] REVERT.IMAGE.SETTINGS(ZONE.1) REVERT.IMAGE.SETTINGS(ZONE.1)@ACK [For the current zone] REVERT.IMAGE.SETTINGS REVERT.IMAGE.SETTINGS@ACK	See Main -> Image Adjust -> Revert to Defaults. Zone modifier is available only on URP75 / URP85 / URP98.
RS232 Lock	RS232.LOCK	5022	=?		0 = DISABLE 1 = ENABLE	No	RS232.LOCK=ENABLE RS232.LOCK:ENABLE	URP49 / URP55 / URP65 only See Menu -> Advanced Settings -> System Settings -> Security -> RS232 Lock
Save and Restore Settings	CLONE.SETTINGS	2315	!	Mod 1: Operation 0 = COPY 1 = PASTE Mod 2: Location 0 = USB		No	CLONE.SETTINGS(COPY, USB) CLONE.SETTINGS(COPY, USB)@ACK	URP75 / URP85 / URP98 only See Main -> Advanced Settings -> System Settings -> Save All Settings to USB. See Main -> Advanced Settings -> System Settings -> Restore All Settings from USB.
Save Diagnostics	SAVE.DIAGNOSTICS	2314	!	Location 0 = USB		No	SAVE.DIAGNOSTICS(USB) SAVE.DIAGNOSTICS(USB)@ACK	URP75 / URP85 / URP98 only See Main -> Advanced Settings -> System Settings -> Save Diagnostics to USB.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Schedule	SCHEDULE	2100	=?	Mod 1: Slot 1-20 Mod 2: Parameter 0 = FREQ 1 = MINUTE 2 = HOUR 3 = DAY 4 = ACTION 5 = DATA 6 = ENABLE [None = ALL]	Unsigned int	Yes	[Change the action for event 3 to Turn On] SCHEDULE(3, ACTION)=0 SCHEDULE(3, ACTION):0	See Main -> Advanced Settings -> Schedule -> Set Event 1-20. Reference the Schedule Action, Schedule Day and Schedule Frequency settings for operand values.
Schedule Action	SCHEDULE.ACTION	2102	=?	Slot 1-20	0 = TURN.ON 1 = TURN.OFF 2 = RECALL 3 = PANEL BRIGHTNESS	Yes	[Change the action for event 3 to Turn On] SCHEDULE.ACTION(3)=TURN.ON SCHEDULE.ACTION(3):TURN.ON	See Main -> Advanced Settings -> Schedule -> Set Event 1-20 -> Action.
Schedule Day	SCHEDULE.DAY	2101	=?	Slot 1-20	0 = MON 1 = TUE 2 = WED 3 = THU 4 = FRI 5 = SAT 6 = SUN	Yes	[Change the day for event 3 to Monday] SCHEDULE.DAY(3)=MON SCHEDULE.DAY(3):MON	See Main -> Advanced Settings -> Schedule -> Set Event 1-20 -> Day.
Schedule Description	SCHEDULE.DESCRPTION	2104	?	Slot 1-20	String	Yes	[Read the schedule description string for event 3] SCHEDULE.DESCRPTION(3)? SCHEDULE.DESCRPTION(3): "Daily 08:15 Backlight 25"	This is the string used for the schedule slots in the Main -> Advanced Settings -> Schedule menu.
Schedule Frequency	SCHEDULE.FREQUENCY	2103	=?	Slot 1-20	0 = DAILY 1 = WEEKLY 2 = WEEKDAYS 3 = WEEKENDS	Yes	[Change the frequency for event 3 to Daily] SCHEDULE.FREQUENCY(3)=DAILY SCHEDULE.FREQUENCY(3):DAILY	See Main -> Advanced Settings -> Schedule -> Set Event 1-20 -> Frequency.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Serial Device	SERIAL.DEVICE	1220	=?	Mod 1: Port 0 = DB9 1 = USB Mod 2: Setting 0 = BAUD	String	No	SERIAL.DEVICE(DB9,BAUD)="19200" SERIAL.DEVICE(DB9BAUD):"19200"	URP75 / URP85 / URP98 only Changes the serial parameters for the various serial connections: - "DB9" is the RS232 connector - "USB" is the USB-B connector
Serial Number	SERIAL.NUMBER	2303	?		String	No	SERIAL.NUMBER? SERIAL.NUMBER="ABCD1234"	See Main -> Information -> System Information -> Serial Number.
Sharpness	SHARPNESS	204	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	URP49 / URP55 / URP65 0-100 (increments of 10) URP75 / URP85 / URP98 0-10	No	[For Zone 1] SHARPNESS(ZONE.1)=5 SHARPNESS(ZONE.1):5 [For the current zone] SHARPNESS=10 SHARPNESS:10	See Main -> Image Adjust -> Sharpness. Zone modifier is available only on URP75 / URP85 / URP98.
Smart Light Control	SMART.LIGHT	5021	=?		0 = OFF 1 = DCR 2 = LIGHT.SENSOR	No	SMART.LIGHT=LIGHT.SENSOR SMART.LIGHT:LIGHT.SENSOR	URP49 / URP55 / URP65 only See Main -> Advanced Settings -> Panel Brightness -> Smart Light Control

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
SMTP Authentication	NETWORK. SMTP. AUTHENTICATION	1227	=?		URP49 / URP55 / URP65 0 = NONE 1 = AUTO 2 = PLAIN 6 = LOGIN URP75 / URP85 / URP98 0 = NONE 1 = AUTO 2 = PLAIN 3 = SCRAM_SHA1 4 = CRAM_MD5 5 = DIGEST_MD5 6 = LOGIN 7 = NTLM	Yes	NETWORK.SMTP.AUTHENTICATION=AUTO <i>NETWORK.SMTP.AUTHENTICATION:AUTO</i>	See Remote Monitoring Software -> Notifications -> Authentication.
SMTP Connection Encryption	NETWORK. SMTP. ENCRYPTION	1226	=?		0 = NONE 1 = TLS 2 = START.TLS	Yes	NETWORK.SMTP.ENCRYPTION=TLS <i>NETWORK.SMTP.ENCRYPTION:TLS</i>	See Remote Monitoring Software -> Notifications -> Connection Encryption.
SMTP Email From Address	NETWORK. SMTP.FROM	1228	=?		String	Yes	NETWORK.SMTP.FROM="myemailaddress@comcast.net" <i>NETWORK.SMTP.FROM:"myemailaddress@comcast.net"</i>	See Remote Monitoring Software -> Notifications -> Email From Address.
SMTP Password	NETWORK. SMTP. PASSWORD	1225	=?		String	Yes	NETWORK.SMTP.PASSWORD="mypassword" <i>NETWORK.SMTP.PASSWORD:"mypassword"</i>	See Remote Monitoring Software -> Notifications -> Password.
SMTP Port	NETWORK. SMTP.PORT	1223	=?		Unsigned Integer	Yes	NETWORK.SMTP.PORT=465 <i>NETWORK.SMTP.PORT:465</i>	See Remote Monitoring Software -> Notifications -> Port.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
SMTP Server	NETWORK. SMTP.SERVER	1215	=?		String	Yes	NETWORK.SMTP.SERVER="smtp.comcast.net" <i>NETWORK.SMTP.SERVER:"smtp.comcast.net"</i>	See Remote Monitoring Software -> Notifications -> SMTP Server.
SMTP Username	NETWORK. SMTP.USERNAME	1224	=?		String	Yes	NETWORK.SMTP.USERNAME="my username" <i>NETWORK.SMTP.USERNAME:"my username"</i>	See Remote Monitoring Software -> Notifications -> User Name
SNMP	SNMP.ENABLE	1231	=?+-		0 = On 1 = Off	No	SNMP.ENABLE=ON	Used to enable or disable SNMP support.
Source Message	SOURCE. MESSAGE	111	?	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 255 = CURRENT [None = CURRENT]	String	No	[For Zone 1] SOURCE.MESSAGE(ZONE.1)? <i>SOURCE.MESSAGE(ZONE.1):"1920x1080i 60Hz"</i> [For the current zone] SOURCE.MESSAGE? <i>SOURCE.MESSAGE:"Searching"</i>	Returns a string with the input resolution and frame rate for the selected zone. If no signal is detected in that zone, the string will read "Searching" or "No Signal".
Source Select	SOURCE. SELECT	101	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 4 = ZONE.1. SECONDARY 254 = ALL 255 = CURRENT [None = CURRENT]	Source 1 = HDMI.1 2 = HDMI.2 3 = HDMI.3 4 = HDMI.4 5 = DP 7 = VGA 13 = DP.2 14 = NONE	No	[For Zone 1] SOURCE.SELECT(ZONE.1)=HDMI.1 <i>SOURCE.SELECT(ZONE.1):HDMI.1</i> [For the current zone] SOURCE.SELECT=HDMI.2 <i>SOURCE.SELECT:HDMI.2</i>	See Main -> Inputs and Views -> Zone 1/2/3/4. Modifier ZONE.1.SECONDARY is available only on URP49 / URP55 / URP65. Operands VGA and DP.2 are available only on URP49 / URP55 / URP65.
Splash Screen	SPLASH. SCREEN	1305	=?+-		0 = DISABLE 1 = ENABLE	No	SPLASH.SCREEN=ENABLE <i>SPLASH.SCREEN:ENABLE</i>	See Main -> Advanced Settings -> Menus and Messages -> Allow Splash Screen.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Subnet Mask	IPV4.NETMASK	1205	=?	0 = STATIC [None = Current (for reads only)] [None = STATIC (for writes only)]	String	Yes	[Read the current subnet mask value] IPV4.NETMASK? IPV4.NETMASK:"255.255.254.0" [Write the subnet mask for static IP] IPV4.NETMASK(STATIC)="255.255.255.0" IPV4.NETMASK(STATIC):"255.255.255.0"	See Main -> Advanced Settings -> Network -> Subnet Mask.
System State	SYSTEM.STATE	2310	?		0 = STANDBY 1 = POWERING.ON 2 = ON 3 = POWERING.DOWN 4 = BACKLIGHT.OFF 5 = FAULT	No	SYSTEM.STATE? SYSTEM.STATE:STANDBY	Indicates the current state of the system: - STANDBY: The system is in its lowest power mode. Not all functions are available. - POWERING.ON: The system is transitioning from the STANDBY state to the ON state. - ON: The system is on with the backlight on. - POWERING.DOWN: The system is transitioning from the ON state to the STANDBY state. - FAULT: A system failure has occurred. Use the Error Log command to get more information. Operands FAULT and BACKLIGHT.OFF available only on URP75 / URP85 / URP98.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Test Email	NETWORK.SMTP.TEST	1229	!	Event 0 = POWER.STATE.CHANGED 1 = ERROR.OCCURRED 2 = SOURCE.DETECTED 3 = SOURCE.LOST 4 = SOURCE.SELECTED		Yes	NETWORK.SMTP.TEST(SOURCE.LOST) NETWORK.SMTP.TEST(SOURCE.LOST)@ACK	See Remote Monitoring Software -> Notifications -> Test Email.
Test Pattern	PATTERN	1307	!	Pattern 0 = NONE 1 = BLACK 2 = WHITE 3 = GRAY 4 = RED 5 = GREEN 6 = BLUE 7 = CYAN 8 = MAGENTA 9 = YELLOW 11 = GRAYBAR 12 = REDBAR 13 = GREENBAR 14 = BLUEBAR 16 = CHECKERBOARD 18 = COLORBAR		No	PATTERN(GRAYBAR) PATTERN(GRAYBAR)@ACK	See Main -> Advanced Settings -> Test Pattern. CHECKERBOARD and COLORBAR are available only on URP75 / URP85 / URP98.
Time	TIME	1100	=?	0 = YEAR 1 = MONTH 2 = DATE 3 = HOUR 4 = MINUTE [None = ALL]	Unsigned int	Yes	[Set the month to March] TIME(MONTH)=3 TIME(MONTH):3	See Main -> Advanced Settings -> Schedule -> Set Date and Time.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Time - Day	TIME.DAY	1101	?		0 = MON 1 = TUE 2 = WED 3 = THU 4 = FRI 5 = SAT 6 = SUN	Yes	TIME.DAY? <i>TIME.DAY:TUE</i>	See Main -> Advanced Settings -> Schedule -> Set Date and Time -> Day.
Time - Month	TIME.MONTH	1102	=?		1 = JANUARY 2 = FEBRUARY 3 = MARCH 4 = APRIL 5 = MAY 6 = JUNE 7 = JULY 8 = AUGUST 9 = SEPTEMBER 10 = OCTOBER 11 = NOVEMBER 12 = DECEMBER	Yes	TIME.MONTH=MARCH <i>TIME.MONTH:MARCH</i>	See Main -> Advanced Settings -> Schedule -> Set Date and Time -> Month.
Time - String	TIME.STRING	1103	?		String	Yes	TIME.STRING? <i>TIME.STRING:"2015-09-01 13:21"</i>	See Main -> Advanced Settings -> Schedule -> Date / Time.
Time Zone	TIMEZONE	1208	=?+-		[See separate table]	Yes	TIMEZONE=UTCM0800.PACIFIC. TIME.US.CANADA <i>TIMEZONE:UTCM0800.PACIFIC.</i> <i>TIME.US.CANADA</i>	See Main -> Advanced Settings -> Schedule -> Set Date and Time -> Time Zone. See table on page 54 for valid values.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Tint	TINT	203	=?+-	Zone 0 = ZONE.1 1 = ZONE.2 2 = ZONE.3 3 = ZONE.4 253 = ALL.INPUT 254 = ALL 254 = ALL.ZONE 255 = CURRENT [None = CURRENT]	0-100	No	[For Zone 1] TINT(ZONE.1)=50 TINT(ZONE.1):50 [For the current zone] TINT=55 TINT:55	See Main -> Image Adjust -> Tint. Zone modifier is available only on URP75 / URP85 / URP98.
Tracking	TRACKING	5001	=?+-		0-100	No	TRACKING=50 TRACKING:50	URP49 / URP55 / URP65 only See Main -> Image Adjust -> Tracking
Treble	AUDIO.TREBLE	1005	=?+-		0-100	No	AUDIO.TREBLE=50 AUDIO.TREBLE:50	See Main -> Audio -> Treble.
USB-A Lock	USBA.LOCK	5024	=?		0 = DISABLE 1 = ENABLE	No	USBA.LOCK=ENABLE USBA.LOCK:ENABLE	URP49 / URP55 / URP65 only See Menu -> Advanced Settings -> System Settings -> Security -> USB-A Lock
Use Network Time	NETWORK.NTP	1209	=?		0 = OFF 1 = ON	Yes	NETWORK.NTP=ON NETWORK.NTP:ON	See Main -> Advanced Settings -> Schedule -> Set Date and Time -> Use Network Time.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Version Info	BUILD.INFO	2302	?	<i>URP49 / URP55 / URP65</i> 4 = VERSION.VP 10 = VERSION.SUBMCU 11 = VERSION.NETUART <i>URP75 / URP85 / URP98</i> 0 = DATE.SCP 1 = VERSION.SCP 3 = DATE.VP 4 = VERSION.VP 5 = SRC.INFO.VP 6 = VERSION.HDMI 7 = VERSION.FRC 8 = PKG.DATE 9 = PKG.VERSION 10 = VERSION.SPM	String	Yes	BUILD.INFO(PKG.VERSION)? <i>BUILD.INFO(PKG.VERSION):"1.0.600"</i>	See Main -> Information -> System Information.
Volume	AUDIO.VOLUME	1006	=?+-		0-100	No	AUDIO.VOLUME=50 <i>AUDIO.VOLUME:50</i>	See Main -> Audio -> Volume.
Wall	WALL	503	=?+-	0 = ENABLE 1 = WIDTH 2 = HEIGHT 3 = COLUMN 4 = ROW 5 = FRAME.ENABLE 6 = FRAME.WIDTH 7 = FRAME.HEIGHT	0-100	No	[Set the wall width to 4] WALL(WIDTH)=4 <i>WALL(WIDTH):4</i>	<i>URP75 / URP85 / URP98 only</i> See Main -> Advanced Settings -> Tiling.

Setting	Command Code	Numeric Command	Operators	Modifiers	Operands	Available in Standby	Example	Notes
Web UI Password	PASSWORD.SET	2405	=?+-		String	No	PASSWORD.SET="123456"	<i>URP75 / URP85 / URP98 only</i> Used to set the Admin password for the Web UI.

5.1 Current Zone Layout

Value	Name	Layout	Advanced Layout	Current Zone
0	S.1	Single View	N/A	Zone 1
1	P.UL.1	PIP	Upper Left	Zone 1
2	P.UL.2	PIP	Upper Left	Zone 2
3	P.UR.1	PIP	Upper Right	Zone 1
4	P.UR.2	PIP	Upper Right	Zone 2
5	P.LL.1	PIP	Lower Left	Zone 1
6	P.LL.2	PIP	Lower Left	Zone 2
7	P.LR.1	PIP	Lower Right	Zone 1
8	P.LR.2	PIP	Lower Right	Zone 2
9	D.L.1	Dual View	Left / Right	Zone 1
10	D.L.2	Dual View	Left / Right	Zone 2
11	D.T.1	Dual View	Top / Bottom	Zone 1
12	D.T.2	Dual View	Top / Bottom	Zone 2
13	T.L.1	Triple View	One Left / Two Right	Zone 1
14	T.L.2	Triple View	One Left / Two Right	Zone 2
15	T.L.3	Triple View	One Left / Two Right	Zone 3
16	T.R.1	Triple View	Two Left / One Right	Zone 1
17	T.R.2	Triple View	Two Left / One Right	Zone 2
18	T.R.3	Triple View	Two Left / One Right	Zone 3
19	T.T.1	Triple View	One Top / Two Bottom	Zone 1
20	T.T.2	Triple View	One Top / Two Bottom	Zone 2
21	T.T.3	Triple View	One Top / Two Bottom	Zone 3
22	T.B.1	Triple View	Two Top / One Bottom	Zone 1
23	T.B.2	Triple View	Two Top / One Bottom	Zone 2
24	T.B.3	Triple View	Two Top / One Bottom	Zone 3
25	T.M.1	Triple View	Side-by-Side	Zone 1
26	T.M.2	Triple View	Side-by-Side	Zone 2
27	T.M.3	Triple View	Side-by-Side	Zone 3
28	Q.1	Quad View	N/A	Zone 1
29	Q.2	Quad View	N/A	Zone 2
30	Q.3	Quad View	N/A	Zone 3
31	Q.4	Quad View	N/A	Zone 4

5.2 Key

Value	Name	Equivalent Remote Control Button	Description
0	UP	UP	Navigate up
1	DOWN	DOWN	Navigate down
2	MENU	MENU	Opens the menu
3	SOURCE	[None]	Toggles the source on the current zone
5	VOLUME.PLUS	VOL +	Volume increase
6	VOLUME.MINUS	VOL -	Volume decrease
9	EXIT	[None]	Exits the menu
12	LEFT	LEFT	Navigate left
13	ENTER	ENTER	Selects the current menu item
14	PREV	PREV	Returns to the previous menu
15	RIGHT	RIGHT	Navigate right
17	KEY.1	1	Number button 1
18	KEY.2	2	Number button 2
19	KEY.3	3	Number button 3
20	KEY.4	4	Number button 4
21	KEY.5	5	Number button 5
22	KEY.6	6	Number button 6
23	KEY.7	7	Number button 7
24	KEY.8	8	Number button 8
25	KEY.9	9	Number button 9
26	MUTE	MUTE	Audio mute
32	KEY.0	0	Number button 0
256	STDBY.TOGGLE		Toggles the power on and off
257	STDBY.ENTER	OFF	Power off
258	STDBY.EXIT	ON	Power on
259	MENU.PREV	[None]	Returns to the previous menu
260	TOP	TOP	Selects the top line in the current menu*
261	PRESETS	PRESETS	Opens the Presets Menu
262	PRESET1	PRESET 1	Applies Preset 1
263	PRESET2	PRESET 2	Applies Preset 2
264	PRESET3	PRESET 3	Applies Preset 3
265	PRESET4	PRESET 4	Applies Preset 4

Value	Name	Equivalent Remote Control Button	Description
266	ZONE1	ZONE 1	Selects Zone 1 and displays Source Status
267	ZONE2	ZONE 2	Selects Zone 2 and displays Source Status
268	ZONE3	ZONE 3	Selects Zone 3 and displays Source Status
269	ZONE4	ZONE 4	Selects Zone 4 and displays Source Status
270	PIP.MODE	PIP MODE	Toggles between Multi-Source View layouts
271	PIP.SWAP	PIP SWAP	Toggles sources when multi source view is enabled
272	HDMI1	HDMI 1	Selects the HDMI 1 input for current zone
273	HDMI2	HDMI 2	Selects the HDMI 2 input for current zone
274	HDMI3	HDMI 3	Not used
275	HDMI4	HDMI 4	Not used
276	DISPLAY.PORT	DP	Selects the DP1 input for current zone
277	DVI	DP2 or DVI	Selects the DP2 input for current zone**
278	VGA	VGA	Selects the VGA input for current zone**
279	OPS	OPS	Not used
280	WALL	VIDEO WALL	Not used
281	COLOR	COLOR	Not used
282	MISC	MISC	Opens the Image Information Menu
283	ARROW.LEFT	◀	Not used
284	ARROW.RIGHT	▶	Not used
285	STAR.STAR	**	Not used

* URP75 / URP85 / URP98 only

** URP49 / URP55 / URP65 only

5.3 Timezone

URP49 / URP55 / URP65

Value	Name	Description
1	UTCM1100.MIDWAY.ISLAND	(UTC-11:00) Midway Island
2	UTCM1000.HAWAII	(UTC-10:00) Hawaii
3	UTCM0900.ALASKA	(UTC-09:00) Alaska
4	UTCM0800.PACIFIC.TIME	(UTC-08:00) Pacific Time (US and Canada)
5	UTCM0800.TIJUANA	(UTC-08:00) Tijuana
6	UTCM0700.ARIZONA	(UTC-07:00) Arizona
7	UTCM0700.CHIHUAHUA	(UTC-07:00) Chihuahua, La Paz, Mazatlan
8	UTCM0700.MOUNTAIN.TIME	(UTC-07:00) Mountain Time (US and Canada)
9	UTCM0600.CENTRAL.AMERICA	(UTC-06:00) Central America
10	UTCM0600.CENTRAL.TIME	(UTC-06:00) Central Time (US and Canada)
11	UTCM0600.MEXICO.CITY	(UTC-06:00) Guadalajara, Mexico City, Monterrey
12	UTCM0600.SASKATCHEWAN	(UTC-06:00) Saskatchewan
13	UTCM0500.BOGOTA	(UTC-05:00) Bogota, Lima, Quito
14	UTCM0500.EASTERN.TIME	(UTC-05:00) Eastern Time (US and Canada)
15	UTCM0400.VENEZUELA	(UTC-04:00) Venezuela
16	UTCM0400.ATLANTIC.TIME.BARBADOS	(UTC-04:00) Barbados
17	UTCM0400.ATLANTIC.TIME.CANADA	(UTC-04:00) Atlantic Time (Canada)
18	UTCM0400.MANAUS	(UTC-04:00) Manaus
19	UTCM0400.SANTIAGO	(UTC-04:00) Santiago
20	UTCM0330.NEWFOUNDLAND	(UTC-03:30) Newfoundland
21	UTCM0300.BRASILIA	(UTC-03:00) Brasilia
22	UTCM0300.BUENOS.AIRES	(UTC-03:00) Buenos Aires
23	UTCM0300.GREENLAND	(UTC-03:00) Greenland
24	UTCM0300.MONTEVIDEO	(UTC-03:00) Montevideo
25	UTCM0200.MID.ATLANTIC	(UTC-02:00.MID) Atlantic
26	UTCM0100.AZORES	(UTC-01:00) Azores

Value	Name	Description
27	UTCM0100.CAPE.VERDE.ISLANDS	(UTC-01:00) Cape Verde Islands
28	UTCP0000.CASABLANCA	(UTC-00:00) Casablanca
29	UTCP0000.LONDON.DUBLIN	(UTC-00:00) London, Dublin
30	UTCP0100.AMSTERDAM.BERLIN	(UTC+01:00) Amsterdam, Berlin
31	UTCP0100.BELGRADE	(UTC+01:00) Belgrade
32	UTCP0100.BRUSSELS	(UTC+01:00) Brussels
33	UTCP0100.SARAJEVO	(UTC+01:00) Sarajevo
34	UTCP0100.WINDHOEK	(UTC+01:00) Windhoek
35	UTCP0100.W.AFRICA.TIME	(UTC+01:00.W.AFRICA) Time
36	UTCP0200.AMMAN.JORDAN	(UTC+02:00) Amman, Jordan
37	UTCP0200.ATHENS.ISTANBUL	(UTC+02:00) Athens, Istanbul
38	UTCP0200.BEIRUT.LEBANON	(UTC+02:00) Beirut, Lebanon
39	UTCP0200.CAIRO	(UTC+02:00) Cairo
40	UTCP0200.HELSEINKI	(UTC+02:00) Helsinki
41	UTCP0200.JERUSALEM	(UTC+02:00) Jerusalem
42	UTCP0200.HARARE	(UTC+02:00) Harare
43	UTCP0300.MINSK	(UTC+03:00) Minsk
44	UTCP0300.BAGHDAD	(UTC+03:00) Baghdad
45	UTCP0300.MOSCOW	(UTC+03:00) Moscow
46	UTCP0300.KUWAIT	(UTC+03:00) Kuwait
47	UTCP0300.NAIROBI	(UTC+03:00) Nairobi
48	UTCP0330.TEHRAN	(UTC+03:30) Tehran
49	UTCP0400.BAKU	(UTC+04:00) Baku
50	UTCP0400.TBILISI	(UTC+04:00) Tbilisi
51	UTCP0400.YEREVAN	(UTC+04:00) Yerevan
52	UTCP0400.DUBAI	(UTC+04:00) Dubai
53	UTCP0430.KABUL	(UTC+04:30) Kabul
54	UTCP0500.ISLAMABAD.KARACHI	(UTC+05:00) Islamabad, Karachi

Value	Name	Description
55	UTCP0500.URALSK	(UTC+05:00) Uralsk
56	UTCP0500.YEKATERINBURG	(UTC+05:00) Yekaterinburg
57	UTCP0530.KOLKATA	(UTC+05:30) Kolkata
58	UTCP0530.SRI.LANKA	(UTC+05:30) Sri Lanka
59	UTCP0545.KATHMANDU	(UTC+05:45) Kathmandu
60	UTCP0600.ASTANA	(UTC+06:00) Astana
61	UTCP0630.YANGON	(UTC+06:30) Yangon
62	UTCP0700.KRASNOYARSK	(UTC+07:00) Krasnoyarsk
63	UTCP0700.BANGKOK	(UTC+07:00) Bangkok
64	UTCP0700.JAKARTA	(UTC+07:00) Jakarta
65	UTCP0800.BEIJING	(UTC+08:00) Beijing
66	UTCP0800.HONG.KONG	(UTC+08:00) Hong Kong
67	UTCP0800.IRKUTSK	(UTC+08:00) Irkutsk
68	UTCP0800.KUALA.LUMPUR	(UTC+08:00) Kuala Lumpur
69	UTCP0800.PERTH	(UTC+08:00) Perth
70	UTCP0800.TAIPEI	(UTC+08:00) Taipei
71	UTCP0900.SEOUL	(UTC+09:00) Seoul
72	UTCP0900.TOKYO.OSAKA	(UTC+09:00) Tokyo, Osaka
73	UTCP0900.YAKUTSK	(UTC+09:00) Yakutsk
74	UTCP0930.ADELAIDE	(UTC+09:30) Adelaide
75	UTCP0930.DARWIN	(UTC+09:30) Darwin
76	UTCP1000.BRISBANE	(UTC+10:00) Brisbane
77	UTCP1000.HOBART	(UTC+10:00) Hobart
78	UTCP1000.SYDNEY.CANBERRA	(UTC+10:00) Sydney, Canberra
79	UTCP1000.VLADIVOSTOK	(UTC+10:00) Vladivostok
80	UTCP1000.GUAM	(UTC+10:00) Guam
81	UTCP1100.MAGADAN	(UTC+11:00) Magadan
82	UTCP1200.MARSHALL.ISLANDS	(UTC+12:00) Marshall Islands

Value	Name	Description
83	UTCP1200.AUCKLAND	(UTC+12:00) Auckland
84	UTCP1200.FIJI	(UTC+12:00) Fiji
85	UTCP1300.TONGA	(UTC+13:00) Tonga

URP75 / URP85 / URP98

Value	Name	Description
0	UTCM1200.INTERNATIONAL.DATE.LINE.WEST	(UTC-12:00) International Date Line West
1	UTCM1100.COORDINATED.UNIVERSAL.TIMEM11	(UTC-11:00) Coordinated Universal Time -11
2	UTCM1000.HAWAII	(UTC-10:00) Hawaii
3	UTCM0900.ALASKA	(UTC-09:00) Alaska
4	UTCM0800.BAJA.CALIFORNIA	(UTC-08:00) Baja California
5	UTCM0800.PACIFIC.TIME.US.CANADA	(UTC-08:00) Pacific Time (US and Canada)
6	UTCM0700.ARIZONA	(UTC-07:00) Arizona
7	UTCM0700.CHIHUAHUA.LA.PAZ.MAZATLAN	(UTC-07:00) Chihuahua, La Paz, Mazatlan
8	UTCM0700.MOUNTAIN.TIME.US.CANADA	(UTC-07:00) Mountain Time (US and Canada)
9	UTCM0600.CENTRAL.AMERICA	(UTC-06:00) Central America
10	UTCM0600.CENTRAL.TIME.US.CANADA	(UTC-06:00) Central Time (US and Canada)
11	UTCM0600.GUADALAJARA.MEXICO.CITY. MONTERREY	(UTC-06:00) Guadalajara, Mexico City, Monterrey
12	UTCM0600.SASKATCHEWAN	(UTC-06:00) Saskatchewan
13	UTCM0500.BOGOTA.LIMA.QUITO.RIO.BRANCO	(UTC-05:00) Bogota, Lima, Quito
14	UTCM0500.CHETUMAL	(UTC-05:00) Chetumal
15	UTCM0500.EASTERN.TIME.US.CANADA	(UTC-05:00) Eastern Time (US and Canada)
16	UTCM0500.INDIANA.EAST	(UTC-05:00) Indiana (East)
17	UTCM0430.CARACAS	(UTC-04:30) Caracas
18	UTCM0400.ASUNCION	(UTC-04:00) Asuncion
19	UTCM0400.ATLANTIC.TIME.CANADA	(UTC-04:00) Atlantic Time (Canada)

Value	Name	Description
20	UTCM0400.CUIABA	(UTC-04:00) Cuiaba
21	UTCM0400.GEORGETOWN.LA.PAZ.MANAUS.SAN. JUAN	(UTC-04:00) Georgetown, La Paz, Manaus, San Juan
22	UTCM0330.NEWFOUNDLAND	(UTC-03:30) Newfoundland
23	UTCM0300.BRASILIA	(UTC-03:00) Brasilia
24	UTCM0300.CAYENNE.FORTALEZA	(UTC-03:00) Cayenne, Fortaleza
25	UTCM0300.CITY.OF.BUENOS.AIRES	(UTC-03:00) Buenos Aires
26	UTCM0300.GREENLAND	(UTC-03:00) Greenland
27	UTCM0300.MONTEVIDEO	(UTC-03:00) Montevideo
28	UTCM0300.SALVADOR	(UTC-03:00) Salvador
29	UTCM0300.SANTIAGO	(UTC-03:00) Santiago
30	UTCM0200.COORDINATED.UNIVERSAL.TIMEM02	(UTC-02:00) Coordinated Universal Time -02
31	UTCM0100.AZORES	(UTC-01:00) Azores
32	UTCM0100.CABO.VERDE.IS	(UTC-01:00) Cabo Verde Is.
33	UTC.CASABLANCA	(UTC) Casablanca
34	UTC.COORDINATED.UNIVERSAL.TIME	(UTC) Coordinated Universal Time
35	UTC.DUBLIN.EDINBURGH.LISBON.LONDON	(UTC) Dublin, Edinburgh, Lisbon, London
36	UTC.MONROVIA.REYKJAVIK	(UTC) Monrovia, Reykjavik
37	UTCP0100.AMSTERDAM.BERLIN.BERN.ROME. STOCKHOLM.VIENNA	(UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna
38	UTCP0100.BELGRADE.BRATISLAVA.BUDAPEST. LJUBLJANA.PRAGUE	(UTC+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague
39	UTCP0100.BRUSSELS.COPENHAGEN.MADRID. PARIS	(UTC+01:00) Brussels, Copenhagen, Madrid, Paris
40	UTCP0100.SARAJEVO.SKOPJE.WARSAW.ZAGREB	(UTC+01:00) Sarajevo, Skopje, Warsaw, Zagreb
41	UTCP0100.WEST.CENTRAL.AFRICA	(UTC+01:00) West Central Africa
42	UTCP0100.WINDHOEK	(UTC+01:00) Windhoek

Value	Name	Description
43	UTCP0200.AMMAN	(UTC+02:00) Amman
44	UTCP0200.ATHENS.BUCHAREST	(UTC+02:00) Athens, Bucharest
45	UTCP0200.BEIRUT	(UTC+02:00) Beirut
46	UTCP0200.CAIRO	(UTC+02:00) Cairo
47	UTCP0200.DAMASCUS	(UTC+02:00) Damascus
48	UTCP0200.HARARE.PRETORIA	(UTC+02:00) Harare, Pretoria
49	UTCP0200.HELSINKI.KYIV.RIGA.SOFIA.TALLINN.VILNIUS	(UTC+02:00) Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius
50	UTCP0200.ISTANBUL	(UTC+02:00) Istanbul
51	UTCP0200.JERUSALEM	(UTC+02:00) Jerusalem
52	UTCP0200.KALININGRAD.RTZ.1	(UTC+02:00) Kaliningrad (RTZ 1)
53	UTCP0200.TRIPOLI	(UTC+02:00) Tripoli
54	UTCP0300.BAGHDAD	(UTC+03:00) Baghdad
55	UTCP0300.KUWAIT.RIYADH	(UTC+03:00) Kuwait, Riyadh
56	UTCP0300.MINSK	(UTC+03:00) Minsk
57	UTCP0300.MOSCOW.ST.PETERSBURG.VOLGOGRAD.RTZ.2	(UTC+03:00) Moscow, St. Petersburg, Volgograd (RTZ 2)
58	UTCP0300.NAIROBI	(UTC+03:00) Nairobi
59	UTCP0330.TEHRAN	(UTC+03:30) Tehran
60	UTCP0400.ABU.DHABI.MUSCAT	(UTC+04:00) Abu Dhabi, Muscat
61	UTCP0400.BAKU	(UTC+04:00) Baku
62	UTCP0400.IZHEVSK.SAMARA.RTZ.3	(UTC+04:00) Izhevsk, Samara (RTZ 3)
63	UTCP0400.PORT.LOUIS	(UTC+04:00) Port Louis
64	UTCP0400.TBILISI	(UTC+04:00) Tbilisi
65	UTCP0400.YEREVAN	(UTC+04:00) Yerevan
66	UTCP0430.KABUL	(UTC+04:30) Kabul
67	UTCP0500.ASHGABAT.TASHKENT	(UTC+05:00) Tashkent

Value	Name	Description
68	UTCP0500.EKATERINBURG.RTZ.4	(UTC+05:00) Ekaterinburg (RTZ 4)
69	UTCP0500.ISLAMABAD.KARACHI	(UTC+05:00) Islamabad, Karachi
70	UTCP0530.CHENNAI.KOLKATA.MUMBAI.NEW.DELHI	(UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi
71	UTCP0530.SRI.JAYAWARDENEPURA	(UTC+05:30) Sri Jayawardenepura
72	UTCP0545.KATHMANDU	(UTC+05:45) Kathmandu
73	UTCP0600.ASTANA	(UTC+06:00) Astana
74	UTCP0600.DHAKA	(UTC+06:00) Dhaka
75	UTCP0600.NOVOSIBIRSK.RTZ.5	(UTC+06:00) Novosibirsk (RTZ 5)
76	UTCP0630.YANGON.RANGOON	(UTC+06:30) Yangon (Rangoon)
77	UTCP0700.BANGKOK.HANOI.JAKARTA	(UTC+07:00) Bangkok, Hanoi, Jakarta
78	UTCP0700.KRASNOYARSK.RTZ.6	(UTC+07:00) Krasnoyarsk (RTZ 6)
79	UTCP0800.BEIJING.CHONGQING.HONG.KONG.URUMQI	(UTC+08:00) Beijing, Chongqing, Hong Kong, Urumqi
80	UTCP0800.IRKUTSK.RTZ.7	(UTC+08:00) Irkutsk (RTZ 7)
81	UTCP0800.KUALA.LUMPUR.SINGAPORE	(UTC+08:00) Kuala Lumpur, Singapore
82	UTCP0800.PERTH	(UTC+08:00) Perth
83	UTCP0800.TAIPEI	(UTC+08:00) Taipei
84	UTCP0800.ULAANBAATAR	(UTC+08:00) Ulaanbaatar
85	UTCP0900.OSAKA.SAPPORO.TOKYO	(UTC+09:00) Osaka, Sapporo, Tokyo
86	UTCP0900.SEOUL	(UTC+09:00) Seoul
87	UTCP0900.YAKUTSK.RTZ.8	(UTC+09:00) Yakutsk (RTZ 8)
88	UTCP0930.ADELAIDE	(UTC+09:30) Adelaide
89	UTCP0930.DARWIN	(UTC+09:30) Darwin
90	UTCP1000.BRISBANE	(UTC+10:00) Brisbane
91	UTCP1000.CANBERRA.MELBOURNE.SYDNEY	(UTC+10:00) Canberra, Melbourne, Sydney
92	UTCP1000.GUAM.PORT.MORESBY	(UTC+10:00) Guam, Port Moresby

Value	Name	Description
93	UTCP1000.HOBART	(UTC+10:00) Hobart
94	UTCP1000.MAGADAN	(UTC+10:00) Magadan
95	UTCP1000.VLADIVOSTOK.MAGADAN.RTZ.9	(UTC+11:00) Vladivostok (RTZ 9)
96	UTCP1100.CHOKURDAKH.RTZ.10	(UTC+11:00) Chokurdakh (RTZ 10)
97	UTCP1100.SOLOMON.IS.NEW.CALEDONIA	(UTC+11:00) Solomon Is., New Caledonia
98	UTCP1200.ANADYR.PETROPAVLOVSK. KAMCHATSKY.RTZ.11	(UTC+12:00) Anadyr, Petropavlovsk- Kamchatsky (RTZ 11)
99	UTCP1200.AUCKLAND.WELLINGTON	(UTC+12:00) Auckland, Wellington
100	UTCP1200.COORDINATED.UNIVERSAL.TIMEP12	(UTC+12:00) Coordinated Universal Time +12
101	UTCP1200.FIJI	(UTC+12:00) Fiji
102	UTCP1300.NUKU.ALOFA	(UTC+13:00) Nuku'alofa
103	UTCP1300.SAMOA	(UTC+13:00) Samoa
104	UTCP1400.KIRITIMATI.ISLAND	(UTC+14:00) Kiritimati Island

6. Sending Serial Commands via USB (URP75 / URP85 / URP98)

The USB-B connector accept the same serial command set as RS232. As most PCs no longer have RS232 connections, using the USB-B connector becomes a convenient method for performing serial communication with the display.

6.1 Installing the Planar UltraRes P Series USB drivers

Before using USB for serial communication, the USB drivers must be installed. This section describes the steps necessary to install the USB drivers. You can skip this section if you have already installed the USB drivers on your computer.

Automatically installing the USB drivers

In most cases, the USB driver installation can be performed using the automated driver installation program, which can be downloaded from www.planar.com/support.

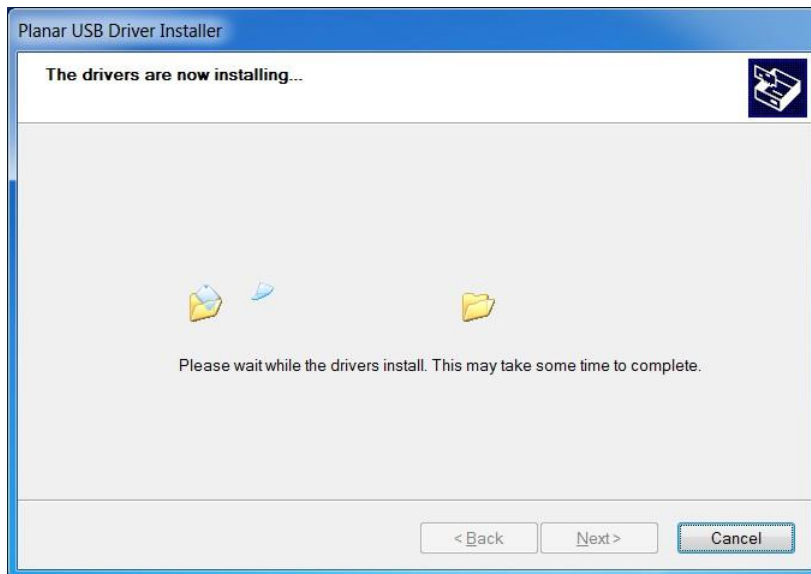
- If using a 64-bit version of Windows, use the CP210xVCPInstaller_x64.exe installation program.
- If using a 32-bit version of Windows, use the CP210xVCPInstaller_x86.exe installation program.

If you're unsure whether your machine is 32-bit or 64-bit, try both installation programs. If the selected program is for a different architecture, the installer will inform you to use the other installation program.

1. When the Planar USB Driver Installer page opens, click "Next".



2. The USB drivers will be automatically installed.



3. When the installation completes, click "Finish". The USB driver installation process is now complete.



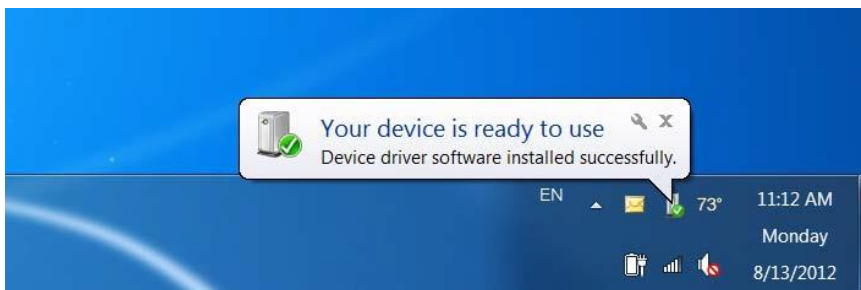
Manually installing the USB drivers

If the automatic USB driver installation doesn't succeed, you can follow the steps below to manually install the USB drivers, which can be downloaded from www.planar.com/support.

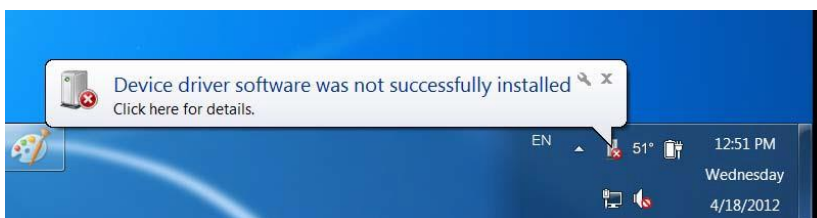
1. Plug in the USB cable to your computer and to the Planar UltraRes P Series panel.
2. Windows will detect the new hardware and attempt to install the drivers on its own. If you do not see the "Installing device driver software" message, then the driver installation previously failed. Skip to step 5.



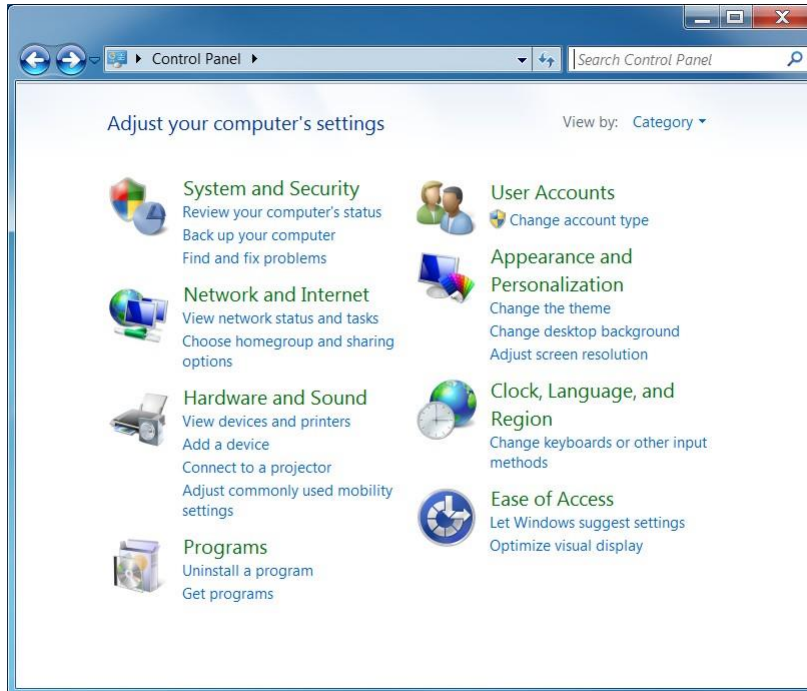
3. If driver installation succeeds, you will see a message like the one shown below. If so, driver installation is complete.



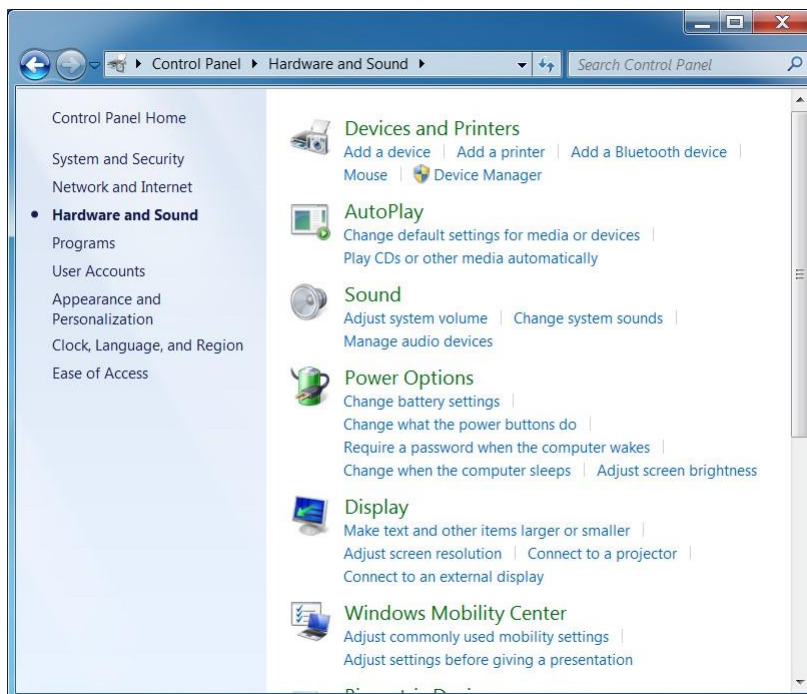
4. If Windows' attempt at installing the drivers fails, you will need to manually install the drivers using the steps below.



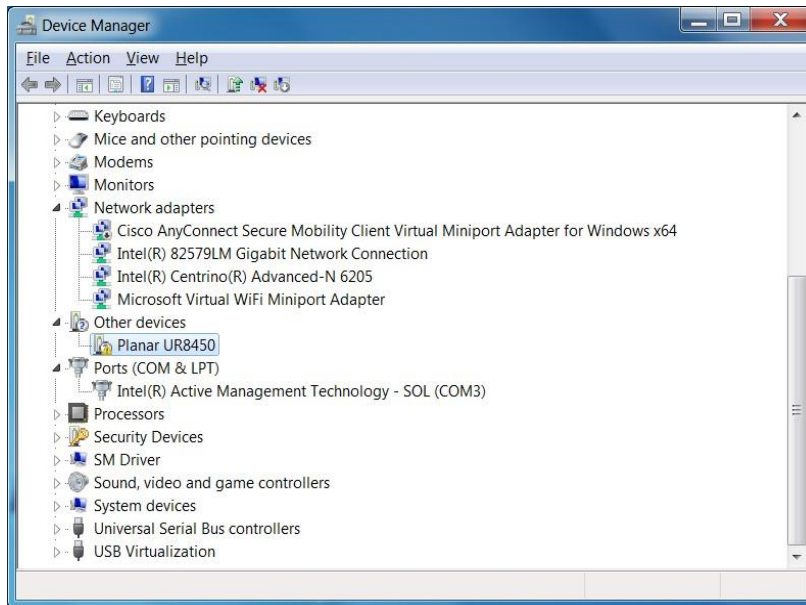
5. Open the Start menu and select “Control Panel”.



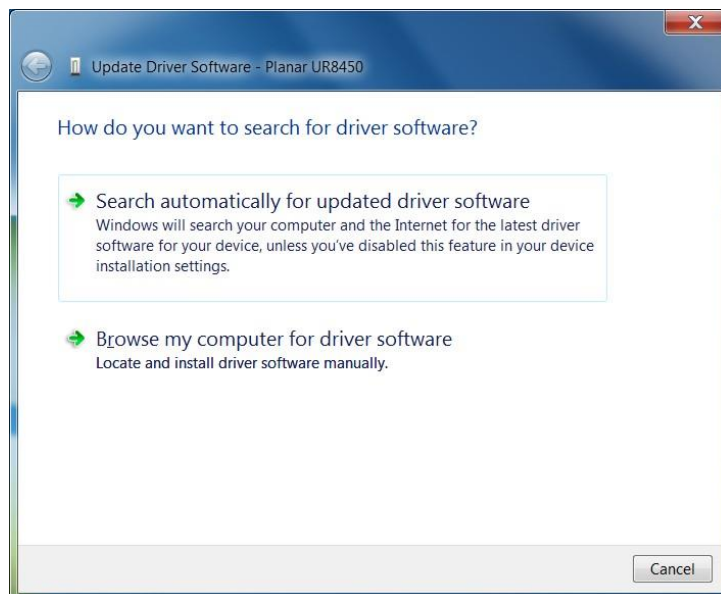
6. Select Hardware and Sound. In the following menu, under Devices and Printers, select “Device Manager”.



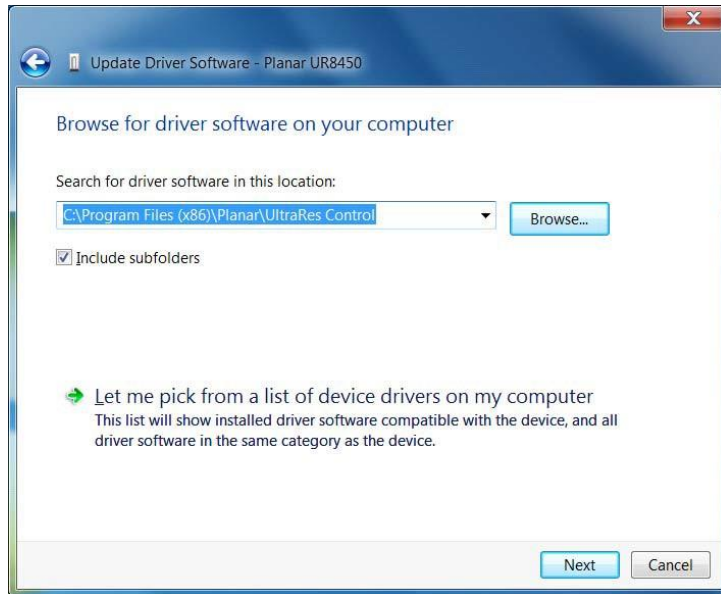
7. In the Device Manager, there will be a “Planar UltraRes” item in the “Other Devices” section. Right-click on Planar UltraRes and select “Update Driver Software”.



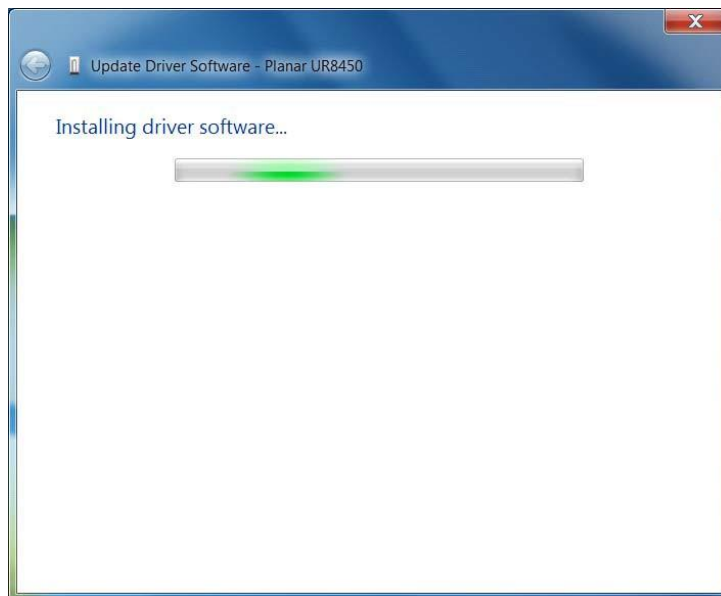
8. Follow the steps defined in the Update Driver Software wizard as follows.
- On the initial screen, select “Browse my computer for driver software”.



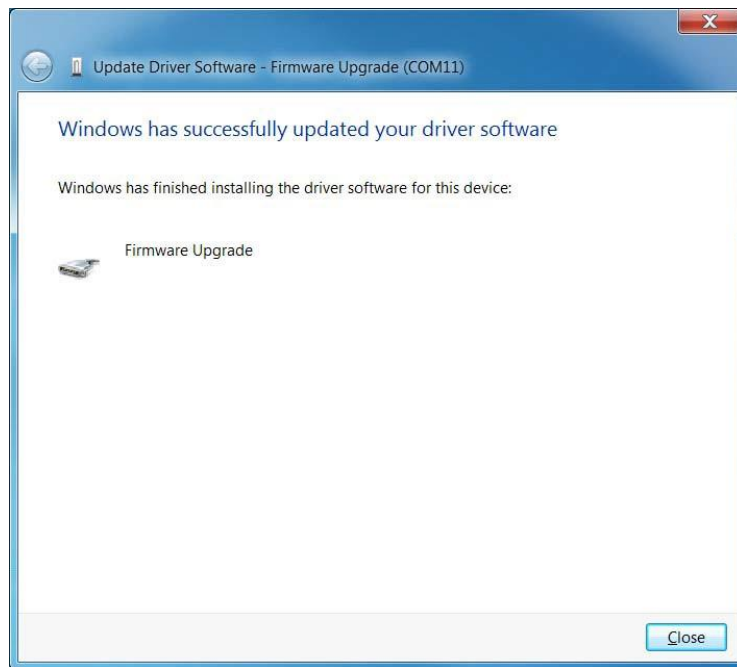
- b. Make sure the “Include subfolders” checkbox is checked. The USB drivers can be obtained from <http://www.planar.com/support>. Use the “Browse” button to locate the directory where the USB drivers are located. Click “Next”.



- c. The Update Driver Software wizard will search the directory for the proper USB drivers and install them.



- d. When the installation completes, click “Close”. The USB driver installation process is now complete.



6.2 Using the Planar UltraRes P Series USB Connection

Once the USB drivers are installed, the PC will recognize the USB-B connection as a regular serial port. The USB-B connection will appear in the COM port list of each serial terminal program. Any terminal program such as Tera Term can be used to test the connection.

7. Sending RS232 Commands Via Ethernet

The LAN connector accepts the same serial command set as RS232. It is convenient for IP control applications and can be tested with a TCP terminal program such as Tera Term or a UDP terminal program such as Hercules.

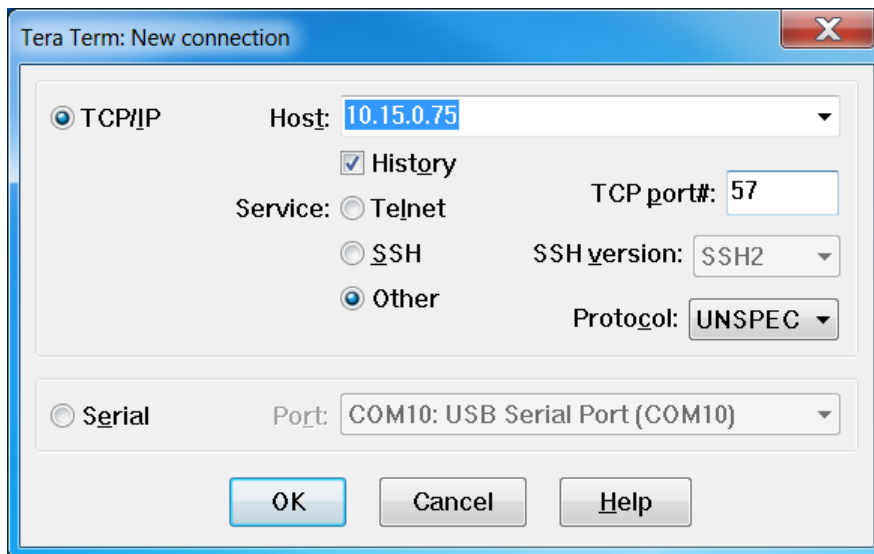
The following connections can be used for IP control:

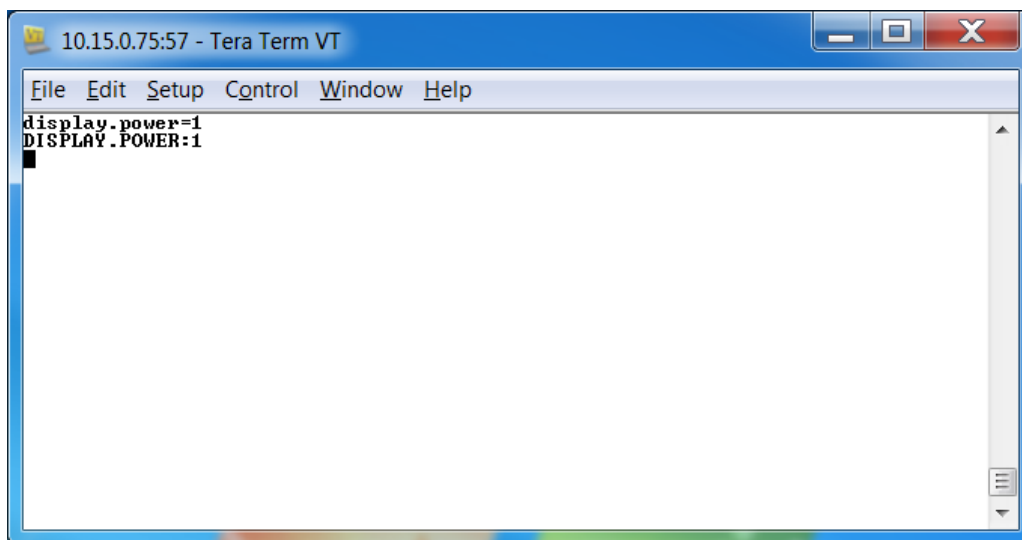
- URP49, URP55, URP65: Telnet port 23
- URP49, URP55, URP65: SSH port 22 (control connection type must be SSH. See section 7.1 on page 71)
- URP75, URP85: TCP and UDP port 57

Note: On URP49 / URP55 / URP65, you can only use one connection type at a time to send RS232 commands. The connection type can be changed in Remote Monitoring Software in the Control tab. (For example, when the connection type is set to SSH, you will not be able to send commands via telnet port 23.)

Notice the following in the TCP example below using Tera Term:

- The IP address is 10.15.0.75
- Port 57 is selected
- Service is set to “Other” to indicate that TCP is being used without Telnet or SSH

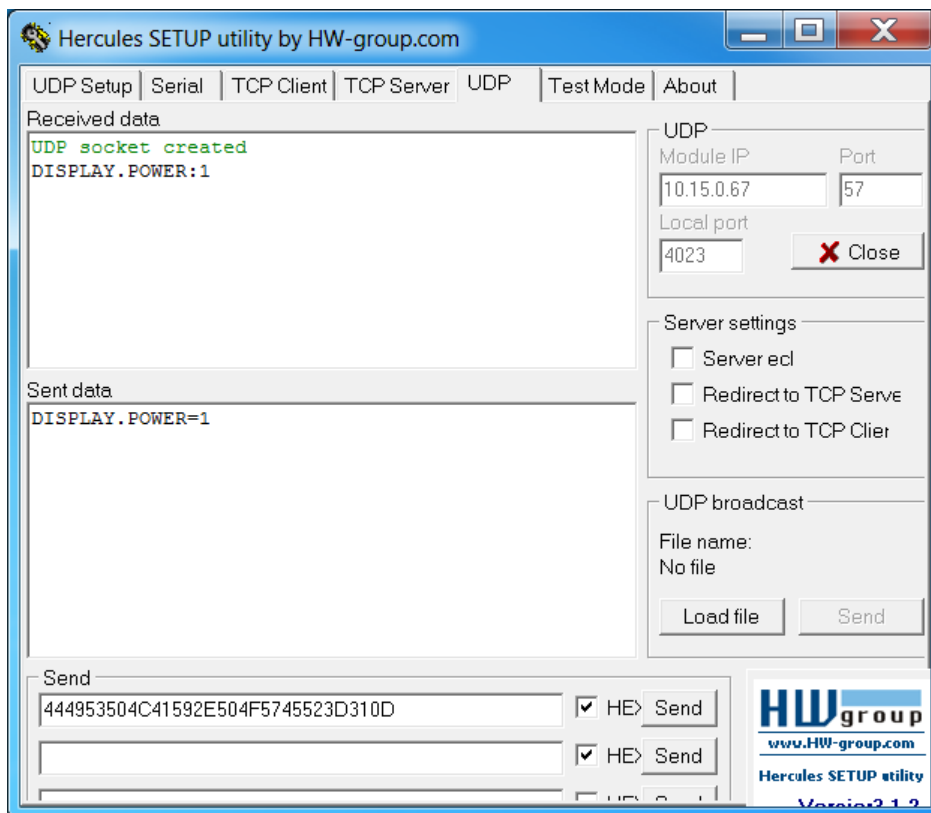




Notice the following in the UDP example below using Hercules:

- The IP address is 10.15.0.67
- Port 57 is selected
- “444953504C41592E504F5745523D310D” in the Send box is hex for “DISPLAY.POWER=1”

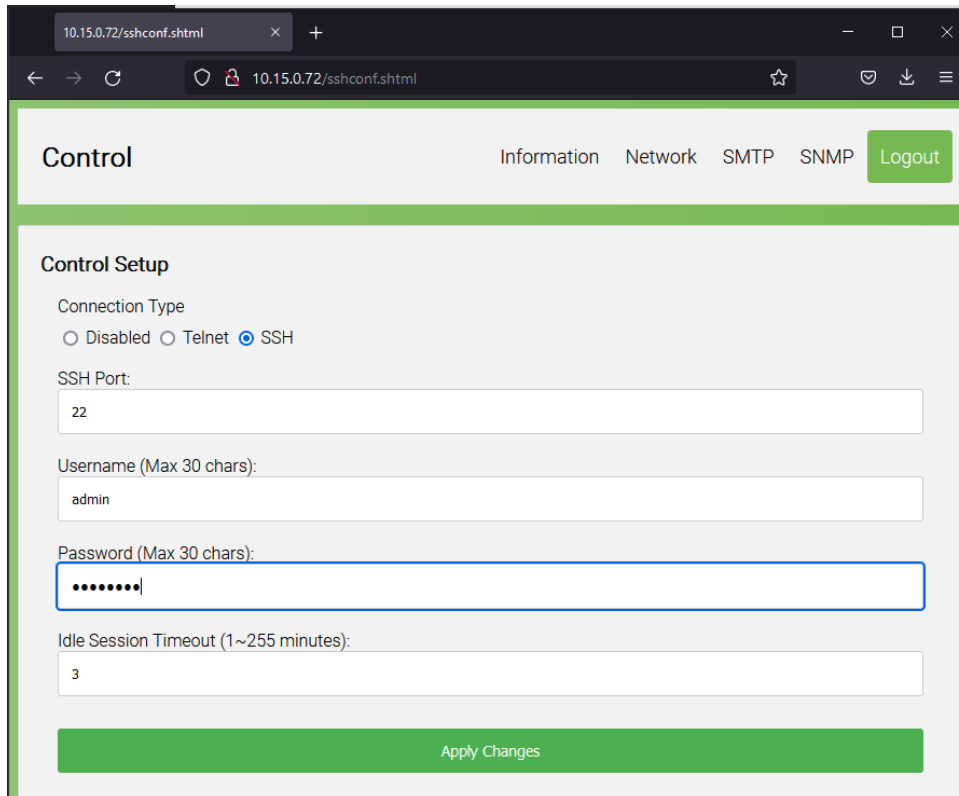
Note: Most UDP terminal programs won’t automatically send the [CR] at the end of the command, so the hex command is used to do this manually.



7.1 Sending RS232 Commands Via SSH (URP49 / URP55 / URP65)

Control connection type must be changed to SSH through the Remote Monitoring Software to allow sending commands via SSH. Changes are not applied until you click “Apply Changes”. The default username and password are:

- Username = admin
- Password = serial number



The screenshot shows a web browser window with the address bar displaying '10.15.0.72/sshconf.shtml'. The page has a navigation bar with tabs for 'Control', 'Information', 'Network', 'SMTP', and 'SNMP', along with a 'Logout' button. The 'Control' tab is active, showing the 'Control Setup' section. This section contains the following fields and options:

- Connection Type:** Three radio buttons are present: 'Disabled', 'Telnet', and 'SSH'. The 'SSH' option is selected.
- SSH Port:** A text input field containing the value '22'.
- Username (Max 30 chars):** A text input field containing the value 'admin'.
- Password (Max 30 chars):** A password input field with masked characters (dots).
- Idle Session Timeout (1~255 minutes):** A text input field containing the value '3'.

At the bottom of the form is a large green button labeled 'Apply Changes'.

Notice the following in the SSH example below using Tera Term:

- IP address is 10.15.0.72
- Port 22 is selected
- Service is set to “SSH”
- SSH version is set to “SSH2”

If you entered the credentials correctly, the terminal will notify you that SSH connection succeeded.

