

# **Owner's Manual**





## **PureLink Presentation Switcher**

## PureLink<sup>™</sup>

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## Chapter 1. Introduction

#### **1.1 Safety Precautions**

- All safety instructions should be read and understood before the unit is operated.
- The owner's manual and safety instructions should be retained for future reference.
- Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth only.
- Keep away from wet, magnetic, and flammable surfaces or substances.
- Always use the correct external power supply (indicated on the product label) when operating this unit.
- This unit may be equipped with a 3 wire grounding-type plug a plug having a third (grounding) pin. This pin will only fit in to a grounding type power outlet. If you are unable to insert the plug in to the outlet, contact your electrician to replace your obsolete outlet.
- Air vents should be kept clean and unobstructed at all times.
- Please refrain from using frayed power cords and damaged wall outlets.
- Do not place any heavy objects or equipment on top of the unit.
- To prevent electrical damage, TURN OFF the power to this unit before inserting or removing INPUT/OUTPUT slot cards.

If you experience any malfunctioning of product or have any question as to operation of the product, please contact our customer service center.

PureLink<sup>™</sup> Tel: 201.488.3232 Email: support@purelinkav.com

#### 1.2 Declaration of Conformity

According to Council Directive 73/23/EEC (February 19, 1973) on the Harmonization of the Laws of Member States relating to Electrical Equipment; Council Directive 89/336/EEC (May 3, 1989) on Electromagnetic Compatibility; Council Directive 93/68/EEC (July 22, 1993)-Amending Directives 89/336/EEC (MC) and 73/23/EEC (Low Voltage Equipment Safety), and/or CPU Boards and Power Supplies used Council Directive 93/68/EEC with Matrix, Dtrovision LLC, 535 E Crescent Ave Ramsey, NJ 07446 201-488-3232, declares under sole responsibility, that the product identifies with 93/66/EEC of the Council Directive Low Voltage Equipment Safety. Each product marketed is identical to the representative unit tested and found to be compliant with the standards.

#### 1.3 What's in the Box

- Main Frame: PS-6200
- Power Adapter DC12V, 5A, 60W
- RS-232C & LAN cables
- Rack Ears
- 5-pin Phoenix connectors
- Owner's manual

#### **1.4 Product Introduction**

The new **PS-6200 Presentation Switcher** is a complete, high definition A/V signal-routing solution for simple conferencing environments, including classrooms, boardrooms, and video-conference rooms. This all-in-one presentation switcher combines multi-format inputs, video matrix routing and scaling, audio matrix routing, audio insertion/extraction capabilities, as well as analog to digital (or vice versa) signal conversion, all in a single RU space enclosure. Together with PureLink's industry-renown "Seamless Switching Technology", the PS-6200 provides a simple, flexible, and high-performance video-conferencing or presentation solutions.

#### Hybrid Matrix Switcher

The PS-6200 delivers high-performance, seamless switching of numerous digital and analog input sources to up to three display devices such as projectors and flat-panel displays. A total of six inputs are available including HDMI, DVI (or 2nd HDMI source with use of adapter), VGA/Component, Composite Video, and 2 x 3G/HD-SDI inputs. The built-in balanced/unbalanced audio matrix router may be combined with any of the six video inputs to form an HDMI signal with embedded audio. Available outputs include HDMI, DVI (or 2nd HDMI source with use of adapter), and VGA. The HDMI and DVI ports are independent, while the VGA port produces a mirrored output of the DVI output.

#### Auto-Scaling with Seamless Switching

The PS-6200 offers as a standard feature, built-in auto-scaling on all the outputs – minimizing latency and providing seamless switching when multiple contrasting display devices are used. With the scaling feature built-in, the PS-6200 eliminates the cost of individual outboard scalers, and ensures the best resolution and picture quality on each display, regardless of which sources are routed.

#### Flexible Audio-Routing Capability

The PS-6200 adds tremendous audio-routing flexibility to the control environment with the built-in  $2x^2$  balanced/unbalanced audio matrix router. The two balanced/unbalanced audio inputs can be combined with any video source to produce a new HDMI output signal with embedded audio. The audio outputs can be configured among four audio sources –  $2 \times HDMI$  sources and  $2 \times balanced/unbalanced$  audio sources. In addition, the audio from an HDMI source can be extracted from the digital stream and converted to an analog signal to feed a third-party processor, mixer, or codec. The return signal feeds back through the analog input, and can be embedded with any video source to produce a new HDMI output.

#### **3G/HD-SDI Inputs**

Directly route 3G/HD-SDI video signals from high-end, professional cameras and other SDI devices, eliminating need for an SDI to HDMI converter. The PS-6200 features 2 x 3G/HD-SDI inputs which support SD-SDI, HD-SDI, and 3G-SDI signal formats up to 1080p@60hz.

#### Auto-EDID (EDID Library & Emulation)

PureLink's legendary EDID/HDCP Management System provides EDID capture and storage, automatically assessing the format and resolution information of connected devices. Auto-EDID ensures consistent handshakes between sources, allowing proper and reliable output of content for display.

#### 1.5 Front View

The PS-6200 chassis is mountable on 19" standard rack with brackets. On front panel, there are some function keys, and a status display window placed as shown in Figure 1-1.

<Front Panel>





POWER: Main power switch ON / OFF DISPLAY: View menu and system mode MENU: Navigate menu and control options ENTER: Save/select desired setting CANCEL: Revert to previous setting

#### 1.6 Rear View

<Rear Panel>





DC 12V: Power (DC +12V) port LAN: LAN (TCP/IP) port for control RS-232C: RS-232 serial port for control

#### DOWNLOAD: Mini USB port for firmware update

VIDEO INPUTS : CH1: HDMI,

CH2: DVI (HDMI compatible),

CH3: VGA (Component compatible),

CH4: CVBS,

CH5: 3G/HD-SDI,

CH6: 3G/HD-SDI

VIDEO OUTPUTS : CH1: HDMI,

CH2: DVI and VGA (mirrored output)

AUDIO INPUTS: 2 x Balanced/Un-balanced analog audio (5-pin phoenix connector)

AUDIO OUTPUTS: 2 x Balanced/Un-balanced analog audio (5-pin phoenix connector)

#### 1.7 Installation Guidelines

The following installation settings are recommended for optimal performance.

- Operational temperature should be 30° C or below
- Operational humidity should be 60% or below
- Operational environment should be dust-free and well ventilated
- Stabilized AC input power (AVR-based power supply) is highly advised

## Chapter 2. Product Features & Specification

#### 2.1 Features

PureLink's new PS-6200 Presentation Switcher is a complete, high definition A/V signal-routing solution for simple conferencing environments. Together with PureLink's fast-switching speeds, the PS-6200 provides a simple, flexible, and high-performance solution for integration into conference rooms and corporate meeting rooms.

- 6 multi-format inputs (HDMI x1, DVI x1, VGA x1, CVBS x1, 3G/HD-SDI x2)
- 19" standard rack type case (1U)
- HDCP compliant
- Enhanced quality and color of signals
- SDI inputs support SD/HD/3G-SDI signal formats up to 1080p@60Hz
- 2 channel digital output support (HDMI x1, DVI x1 and VGA x1 mirrored output)
- Built-in auto scaling on all the outputs with seamless switching
- 2x2 Balanced/un-balanced audio matrix switching
- Audio insertion, extraction and break-away
- Control through 3 different methods;
  - Control directly with front push buttons
  - Control via RS-232C COM port
  - Control via LAN (TCP/IP)
- It has an instantaneous noise protection circuit in input and output ports; therefore it can protect expensive equipment from fault caused by noises (if any).
- Convenient to change firmware through direct update by PC.

## 2.2 Specification

PS-6200 Frame General Specification			
Power	External Power Supply DC12V, 5A		
Operational Temperature	32° ~ 117° F (0° to 47° C)		
Storage Temperature	- 40° ~ 158° F (-40° to 70° C)		
Humidity	0 ~ 90% non-condensing		
MTBF	50,000 hours		
Dimensions (W x D x H)	15.7" x 7.08" x 1.85" (400 x 180 x 47mm)		
Shipping Dimensions (with cover box)	21.7" x 14.6" x 4.9" (550 x 370 x 125mm)		
Rack mounting	Yes, 19" standard rack, 1RU		
Weight	4.8 lbs (2.18 kg)		

Shipping Weight	8.4 lbs (3.8 kg)
(with accessories and cover box)	

## **Functional Specification**

Communication			
HDMI	HDMI, HDCP, EDID, CEC		
USB	USB service port for firmware update		
RS-232	2-way device control and monitoring up to 115.2k baud rate with hardware and		
	software handshaking		
LAN	TCP/IP		

Video				
Switcher	Multi-format digital/analog source inputs, 6x2 matrix switcher			
Input Signal Types	HDMI, DVI, VGA/Component, Composite, 3G/HD-SDI			
Output Signal Types	HDMI, DVI, VGA			
	HDMI v1.3, DVI 1.0, HDCP content protection support, HD up to 1080i/1080p,			
Formats	computer up to UXGA/WUXGA, RGBHV, RGBS, RGSB, YPbPr, Y/C, NTSC, PAL			
	640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz,			
	1024x768@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60),			
	1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz,			
Input Resolutions, HDMI,	1360x768@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz,			
Progressive	1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz			
	(1080p24), 1920x1080@25Hz (1080p25), 1920x1080@50Hz (1080p50),			
	1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, plus any other			
	resolution allowed by HDMI up to 165MHz pixel clock			
Innut Resolutions, LIDMI	720x480@30Hz (480i), 720x576@25Hz (576i), 1920x1080@25Hz (1080i25),			
Input Resolutions, HDMI,	1920x1080@30Hz (1080i30), plus any other resolution allowed by HDMI up to 165MHz			
Interlaced	pixel clock			
	640x480@60Hz, 800x600@60Hz, 1024x768@60Hz, 1280x720@50Hz (720p50),			
	1280x720@60Hz (720p60), 1280x768@60Hz,1280x800@60Hz, 1280x960@60Hz,			
Input Resolutions, VGA	1280x1024@60Hz, 1360x768@60Hz, 1366x768@60Hz, 1400x1050@60Hz,			
	1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@60Hz (1080p60),			
	1920x1200@60Hz			
Input Deselutions, Company	480i, 576i, 480p, 576p, 720p50, 720p60, 1080i25 (1125 lines), 1080i30, 1080p50 (1125			
Input Resolutions, Component	lines), 1080p60			
Input Resolutions, Composite	480i, 576i			

	SMPTE 425M (3G-SDI) 4:2:2 Colorspace: 1920x1080@50Hz (1080p50),	
	1920x1080@60Hz (1080p60); SMPTE 425M (3G-SDI) 4:4:4 Colorspace:	
	1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1920x1080@24Hz (1080p24),	
	1920x1080@25Hz (1080p25), 1920x1080@30Hz (1080p30), 1920x1080@50Hz	
	(1080i50 or 1080sF25), 1920x1080@60Hz (1080i60 or 1080sF30); SMPTE 260M (HD-	
Input Resolutions, 3G/HD-SDI	SDI): 1920x1035@60Hz; SMPTE 295M (HD-SDI): 1920x1080@50Hz (1080i50);	
	SMPTE 274M (HD-SDI): 1920x1080@24Hz (1080p24), 1920x1080@24Hz	
	(1080sF24), 1920x1080@25Hz (1080p25), 1920x1080@30Hz (1080p30),	
	1920x1080@50Hz (1080i50 or 1080sF25), 1920x1080@60Hz (1080i60 or 1080sF30);	
	SMPTE 296M (HD-SDI): 1280x720@50Hz (720p50), 1280x720@60Hz (720p60);	
	SMPTE 259M-C (SD-SDI): 720x480@59.94 (NTSC), 720x576@50i (PAL)	
	Auto, 720x480p60, 720x576p50, 1280x720p50, 1280x720p60, 1920x1080i50,	
Output Resolutions	1920x1080i60, 1920x1080p50, 1920x1080p60, 800x600@60Hz, 1024x768@60Hz,	
	1280x1024@60Hz, 1600x1200@60Hz, 1360@768@60Hz, 1366x768@60Hz,	
	1400x1050@60Hz, 1920x1200@60Hz	

Audio				
Switcher	2x2 multi-channel source switcher Typical of 4 source input channels;			
Input Signal Types	HDMI, analog 2 -channel			
Formats, Analog	Stereo 2-channel			
Formats, HDMI	Dolby Digital $^{ extsf{B}}$ , Dolby Digital EX, DTS $^{ extsf{B}}$ , DTS-ES, DTS 96/24, up to 8ch PCM			
Analog to Digital Conversion 24-bit 48kHz				
* Typical of 2 analog output channels;				
Output Signal Type and Format	Stereo 2-channel			
Digital to Analog Conversion	24-bit 48kHz			
Differential	±4.0 V			
* Typical of 2 HDMI output channels;				
Output Signal Types	HDMI			
Formats	Dolby Digital <sup>®</sup> , Dolby Digital EX, $DTS^{ extsf{B}},$ $DTS extsf{-ES},$ $DTS extsf{-24},$ up to 8ch PCM			

## Chapter 3. Operational guidelines

#### 3.1 Main Menu

[HDMI:IN1,1920x1080]

[DVI:IN2,1920x1080]

Main menu shows the current input and output switching status with resolution information.

1<sup>st</sup> line HDMI indicates output # 1 and 2<sup>nd</sup> line DVI indicates output # 2.

[HDMI: IN1, 1920x1080] means that output # 1 (HDMI) is connected to input # 1 (IN1) and its resolution is 1920 x 1080.

[DVI: IN2, 1920x1080] means that output # 2 (DVI) is connected to input # 2 (IN2) and its resolution is 1920 x 1080.

\* On this main menu, you can select output # using ▲(up) and ▼ (down) buttons and navigate through inputs using ◄ (left) and ► (right) buttons.

#### 3.2 Function Menu

Press a function button to view the sub-menu and available sub-menu list follows;

- 1. Create Mode
- 2. Output Timing
- 3. Balance Audio Set
- 4. Input EDID Load
- 5. RS232 Config
- 6. Network Config
- 7. Product ID Set
- 8. Factory Reset

Use  $\blacktriangle$  (up),  $\blacktriangledown$  (down) and Enter buttons to select menu.

#### 1. Create Mode

## [OUT1 VIDEO: INPUT1] [OUT1 AUDIO: SOURCE]

On this menu, you can configure outputs' video and audio input selection.

Use ▲(up) and ▼ (down) buttons to select outputs' video and audio settings (Output #1 video, output #1 audio, output #2 video, and output #2 audio).

Once you select a setting, use ◄ (left) and ► (right) buttons to configure its parameter and press Enter button to save.

A list of available parameter for the video and audio settings follows;

Video: Input # 1 ~ 6

Audio: Source, Balanced In1, Balanced In2, and Off.

\* On audio, Source indicates selected video source's embedded audio.

#### 2. Output Timing

## [OUT1 TIME FORMAT] [→8.1920x1080p 60Hz]

On this menu, you can configure outputs' resolution.

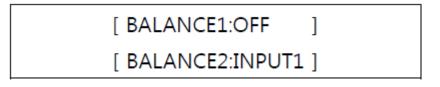
Use ▲(up) and ▼ (down) buttons to select output# (Output #1 and output #2)

Once you select output #, use  $\blacktriangleleft$  (left) and  $\blacktriangleright$  (right) buttons to configure its parameter and press Enter button to save.

- Output Timing List

1	Auto	7	1080i (60Hz)	13	UXGA (1600x1200@60Hz)
2	480p (60Hz)	8	1080p (50Hz)	14	1360x768@60Hz
3	576p (50Hz)	9	1080p (60Hz)	15	1366x768@60Hz
4	720p (50Hz)	10	SVGA (800x600@60Hz)	16	1400x1050@60Hz
5	720p (60Hz)	11	XGA (1024x768@60Hz)	17	1920x1200@60Hz
6	1080i (50Hz)	12	SXGA (1280x1024@60Hz)		

#### 3. Balanced Audio Set



On this menu, you can configure Balanced audio outputs' audio input selection.

Use ▲(up) and ▼ (down) buttons to select output # (Balanced audio output # 1 and balanced audio output #2)

Once you select output #, use ◄ (left) and ► (right) buttons to select audio input (Video input#1's embedded audio, video input# 2's embedded audio, balanced audio input# 1, balanced audio input# 2, and off) and press Enter button to save.

#### 4. Input EDID Load

## [→INPUT1 HDMI EDID] [→2.HD1080p 60Hz 2CH]

On this menu, you can configure EDID on the input.

Use  $\blacktriangle$  (up) and  $\triangledown$  (down) buttons to select input # (Input #1, input #2, and input #3).

Once you select input #, use ◄ (left) and ► (right) buttons to configure its parameter and press Enter button to save.

- EDID List

1	External EDID	7	1280x768@60Hz	13	1680x1050@60Hz
2	HD1080p 2CH	8	1280x1024@60Hz	14	1920x1200@60Hz
3	HD1080p Multi	9	1360x768@60Hz		
4	HD1080i 2CH	10	1440x900@60Hz		
5	800x600@60Hz	11	1600x900@60Hz		
6	1024x768@60Hz	12	1600x1200@60Hz		

#### 5. RS232 Config

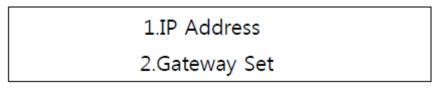


On this menu, you can configure RS232 communication settings.

Use  $\blacktriangle$  (up) and  $\forall$  (down) buttons to select communication settings (Baud rate, parity, stop bit, and data bits).

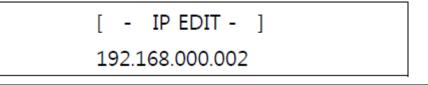
Once you select a setting, use ◄ (left) and ► (right) buttons to select parameter and press Enter button to save.

#### 6. Network Config



On this menu, you can configure network communication settings.

Use  $\blacktriangle$  (up) and  $\forall$  (down) buttons to select communication settings (IP address, gateway set, subnet mask, and mac address).



Once you select a setting, use ◄ (left) and ► (right) buttons to select parameter and press Enter button to save.

#### 7. Product ID



On this menu, you can configure router's ID.

Use  $\blacktriangle$  (up) and  $\triangledown$  (down) buttons to set the value and press Enter button to save.

#### 8. Factory Reset

[ FACTORY RESET ]	
RESET:ENTER KEY	

On this menu, you can reset setting back to factory default.

## Chapter 4. Communication Code Configuration

#### 4.1 Control Programmer's Guide (Code Structure and Examples)

This section is designed for programmers who wish to create their own control programs using the command code. All PureLink digital matrix routers provide a simple character stream control used by external control devices attached to a PureLink device. Command codes are used primarily for control, during system installation and setup, and for diagnostic purposes.

#### 4.2 Overview

Command code is a set of alphanumeric characters that combine to form control commands. Command code strings are entered into a terminal emulation program (such as windows HyperTerminal) running on an external control device. The control device (PC, third-party controller) sends the commands to the system. Control devices must be able to send and receive ASCII or HEXA code via an RS-232 or Ethernet port.

#### 4.3 Command Code Formats

A command code is a series of command characters and numbers used to send commands to the system. Commands include basic formulas for creating and disconnecting switches, as well as for verifying the status of switches.

In a command code, each character is either general command (e.g., C for connect) or an identifier that indicates what the following number designates (e.g., "O" and the number following it designate an "output number"). The command code \*01Cl01O01! Can be interested as follows: (\*) Starting the command code (01) Router ID is 01 (C) Create connection on (I01) Input 01 to (O01) Output 01 (!) take the command. For a complete list of command characters and their functions, see pages 17.

Ack value (Acknowledge value: Response from Pure Link device) will be echoed back to the terminal screen as the unit accepts them. When a command is successfully executed, all of the characters appear containing the character "s" which stands for status. For example,

Ex 1) Command (Connect Input 1 to Output 1) \*01Cl01O01! ← Ack value \*01sC l01O01! Ex 2) Command (Check Input connection status on Output 2) \*01?O02! ← Ack Value \*01s? l03O02!

#### 4.4 General Rules for Command Codes

The commands are coded in ASCII and HEXA. Please refer to Table 3.1 on pg. 17 for detailed descriptions of keys and functions. A basic command code setup is shown below;

Ex) \*01Cl01001! ←

Start (\*) + Router ID (01) + Command (C) + Input number (I01) + Output number (O01) + End (!) + Enter ( $\leftarrow$ )

- A command line allows execution of only one command. Multiple commands require execution of multiple strings; one command per string.
- All s begin with \* (Start) byte.
- All s end with ! (End) byte.
- ► All s will be executed when ← (Enter) is entered.
- The correct Router ID must be entered in a command code. Systems will not react to the command if a wrong Router ID is entered. The Factory Default Router ID is set to 01 and the universal Router ID is 99. Systems will react to the command whenever universal Router ID is entered in command code.
- Command codes typically are not case-sensitive.
- \*Audio Command is only available for MXA series product\*
- ► To specify multiple inputs and outputs, enter a "," (Comma) between numbers. (Ex., \*01Cl01O01,02,03! ← : Connects Input 01 to Output 01, 02, and 03)
- Use (Hyphen) for range connection.
   (EX., \*01Cl01O01-04! ← : Connects Input 01 to Output 01,02,03, and 04)

#### Table 4.1 Command Codes Characters Table

The table below shows command code characters (keys), which are used to generate control commands, their functions, and short function descriptions.

Ke	ey .	Function	Description and Example	Byte	
HEX	ASCII				
0x2A	*	Start the command	Header Code	1	
0x21	!	End the command	Tail Code	1	
	<b>ب</b>	Execute the command	Execute the command		
0.42	0		Initiates a Connect (switch) command for both		
0x43	С	Connect (Video and Audio)	Video and Audio; this must precede input and	1	
0x63	С		output specification		
			Status command; this must precede input and		
0x3F	?	Status	output specification	1	
0x44	D		Disconnect command for both Video and Audio;		
0x64	D	Disconnect	this must precede input and output specification	1	
			Separates the numbers within entries that		
	,	Space	contain multiple numbers	1	
			Specifies a range of numbers in entries		
	-	Range	containing multiple numbers	1	
0x49			Router ID check command; check router's	<u> </u>	
0x69	1	Router ID check	current ID number	1	
		Output Resolution Setting			
		00: AUTO			
		01: 720x480p 60Hz			
		02: 720x576p 50Hz			
		03: 1280x720p 50Hz			
		04: 1280x720p 60Hz			
		05: 1920x1080i 50Hz			
		06: 1920x1080i 60Hz			
	ОТ	07: 1920x1080p 50Hz			
		08: 1920x1080p 60Hz			
		09: 800x600 60Hz			
		10: 1024x768 60Hz			
		11: 1280x1024 60Hz			
		12: 1600x1200 60Hz			
		13: 1360x768 60Hz			
		14: 1366x768 60Hz			
		15: 1400x1050 60Hz			

		16: 1920x1200 60Hz			
	?version	Firmware version check	Firmware version check command;		
			*01?version! ⊷		
			Network configuration setting command:		
			- IP Setting		
		Networking setting	*01NIP125.135.199.004! ↔		
	N N		- Subnet Mask Setting		
			*01NSM255.255.255.000! ↔		
0x4E			- Gate Way Setting		
0x4E 0x6E			*01NGW192.168.000.001! ↔	1	
UXOE			- MAC Address Setting		
			*01NMA00.50.C2.B0.20.05! ↔		
			- Port Number Setting		
			*01NPN3000! ←		
			- Network Information		
			*01NNI000! ↩		
0x48	Н	Connection sheet	Router communication connection check	4	
0x68	н	Connection check	command: *255H000! ↩	1	

### 4.5 Command Ack (Acknowledge) Value Response

When command codes are entered into a terminal emulation program (such as HyperTerminal) and are accepted by the system, they respond back to the terminal screen one at a time, as noted below in the table. The complete command has executed successfully when all of the entered characters including "s" which stands for status, appear. If a command character is not accepted, a different character than the one entered appears and all or part of the command has not been executed.

#### Ack (Acknowledge) Value Response Table

The following table shows ack value response characters along with their descriptions and meanings, which may appear instead of the initially entered character or number. If these characters appear, all or part of the command has not been executed.

Ack value	Description	
Input 1 is not connected	No information in each channel.	
Command Code Error	Indicates that system has rejected all or part of the command	
Router ID Error	Indicates that the wrong ID number was entered	

#### Table 3.2 Descriptions of Acknowledge (ACK) Signals

#### **Command Code Ack Value Examples**

Command Code Entered	Ack Value as appears in the control program	Explanation of Result		
*01Cl01O01! ⊷	*01sC I01O01 !	The command was successfully executed		
*01CO01! ←	Command Code Error	The command was not executed because		
		the input number was not included		
*01Cl01O01 ←	Command Code Error	The command was not executed because "!"		
		(End) was not included		
		The command was not executed because		
*300Cl01O01! ⊷	Router ID Error	the actual Router ID and entered Router ID		
		did not match		

#### 4.6 Example of command codes;

#### 1) Video create command

EX) \*01CI02O01,I06O02!<CR>

- \* : START CODE
- 01 : ROUTER ID
- C : COMMAND
- 102 : INPUT PORT NUMBER
- **O01 : OUTPUT PORT NUMBER**
- , : PORT Separator
- !: END CODE
- <CR> : Carriage return (HEX CODE: 0x0D)

#### 2) Video outputs' embedded audio select command

- EX) \*01ACO01A00,O02A02!<CR>
- \* : START CODE 01 : ROUTER ID AC : COMMAND 002 : OUTUT PORT NUMBER A00 : AUDIO INPUT SELECT A00:SOURCE (selected video's embedded audio) A01:BALANCED IN1 A02:BALANCED IN2 A03:OFF , : PORT Separator ! : END CODE <CR> : Carriage return (HEX CODE: 0x0D)

#### 3) Output resolution select command

EX) \*01TCO01T16,O02T00!<CR>

\* : START CODE

01 : ROUTER ID

TC : COMMAND

O01 : OUTUT PORT NUMBER

T00 : RESOLUTION SELECT

T00:AUTO

, : PORT Separator

!: END CODE

<CR> : Carriage return (HEX CODE: 0x0D)

- Output Timing List

T00	Auto	T06	1080i (60Hz)	T12	UXGA (1600x1200@60Hz)
T01	480p (60Hz)	T07	1080p (50Hz)	T13	1360x768@60Hz
T02	576p (50Hz)	T08	1080p (60Hz)	T14	1366x768@60Hz
T03	720p (50Hz)	T09	SVGA (800x600@60Hz)	T15	1400x1050@60Hz
T04	720p (60Hz)	T10	XGA (1024x768@60Hz)	T16	1920x1200@60Hz
T05	1080i (50Hz)	T11	SXGA (1280x1024@60Hz)		

#### 4) Balanced audio output select command

EX) \*01BCO01A03,O02A04!<CR>

\* : START CODE

01 : ROUTER ID

BC : COMMAND

O02 : BALANCED AUDIO OUTUT PORT NUMBER

A00 : AUDIO INPUT SELECT

A00:OFF

A01:INPUT1 (HDMI)

A02:INPUT2 (DVI)

A03:BALANCED IN1

A04:BALANCED IN2

, : PORT Separator

! : END CODE

<CR> : Carriage return (HEX CODE: 0x0D)

EX) \*01PC00!<CR> ==> VGA SELECT \*01PC01!<CR> ==> COMPONENT SELECT

- \*: START CODE
  - 01 : ROUTER ID
  - PC : COMMAND
  - 00 : 00-VGA

01-COMPONANT

- !: END CODE
- <CR> : Carriage return (HEX CODE: 0x0D)

#### 6) RS232 Baudrate select command

EX) \*01@001!<CR>

\* : START CODE 01 : ROUTER ID

@:COMMAND

001 : BAUD RATE SELECT

001:19200

002:38400

003:57600

004:115200

! : END CODE

<CR> : Carriage return (HEX CODE: 0x0D)

#### 7) Firmware version check command

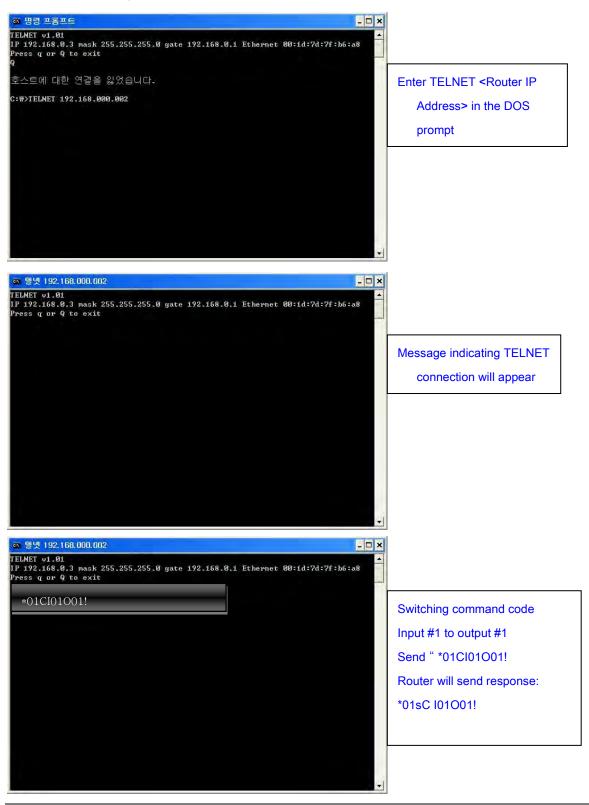
EX) \*01?version!<CR>

\* : START CODE 01 : ROUTER ID ?version : COMMAND ! : END CODE <CR> : Carriage return (HEX CODE: 0x0D)

### 4.7 LAN CODE CONFIGURATION

Using TELNET protocol with LAN(TCP/IP)

The PS-6200 presentation switcher can be controlled from remote locations through the LAN port using WINDOWS XP DOS prompts, hyper-terminal, or TELNET program (the control code is fully compliant with RS-232C).



### **4.8 WEB INTERFACE**

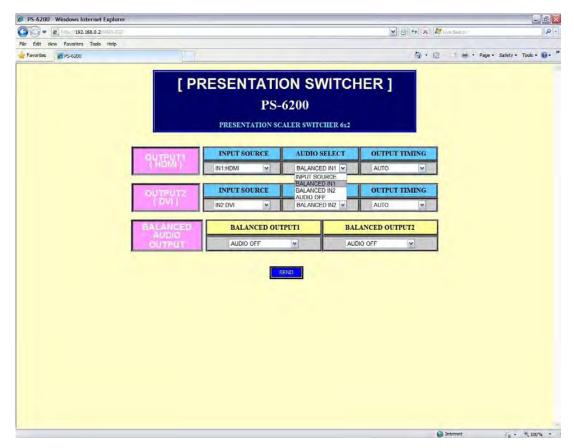
The PS-6200 presentation switcher can be controlled from remote locations through the LAN port using a PC/Laptop.

- 1. Please configure network settings (Gateway address, IP address, Subnet mask, Mac address) of PS-6200 via front panel of the unit or via RS232 commands according to the network environment.
- 2. Please open a web browser on the PC/Laptop and type IP address you configured on step 1.

On this example, we set PS-6200's IP address to 192.168.0.2

		ON SWIT				• Safety • Tools • 🔞 •
Favorites @PS-6200	PS-	6200	CHER		🖸 👼 🔻 Page -	• Safety • Tools • 😧 •
[ PRESI	PS-	6200	CHER		Page •	× Safety × Tools × ₩
	PS-	6200				
PR	ESENTATION SC	ALED SWITCHED				
		ALER SWITCHER	6x2			
	PUT SOURCE	AUDIO SELEO	T OUTP	UT TIMING		
		BALANCED IN1				
	GA(PC) VBS(VIDEO) DI1	AUDIO SELEO BALANCED IN2				
	BALANCED OUT	TPUT1	BALANCED O	UTPUT2		
AUDIO	AUDIO OFF	V	AUDIO OFF	v		
	3	END				

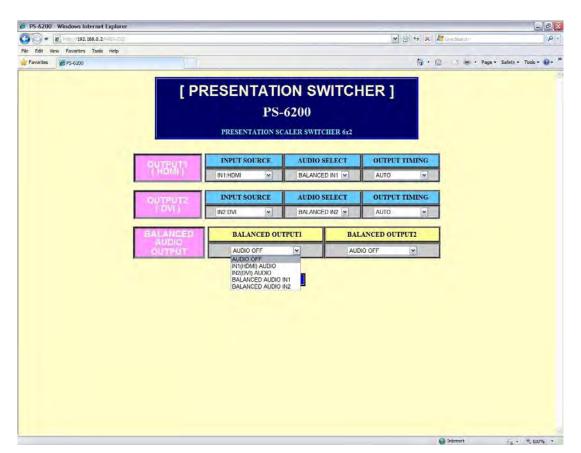
<Video outputs' input video source select>



<Video outputs' input audio source select>

PS-6200         Windows Internet Explorer           Image: Windows Internet Explorer         Image: Windows Internet Explorer           Image: Windows Internet Explorer         Image: Windows Internet Explorer			💌 🕾 😚 🗶 🥂 Uve Search	- E
le Edit View Favorites Tools Help				💼 • Page + Safety + Tools + 📦 +
Favorites #PS-6200	[ PRESENTAT	ION SWITCH		
	PS	5-6200		
		SCALER SWITCHER 6x2		
CUT (HI	INPUT SOURCE	AUDIO SELECT BALANCED IN1 Y	AUTO	
out	INPUT SOURCE	AUDIO SELECT	720*480P @60 720*576P @50 1280*720P @50	
	BALANCED	BALANCED N2	1280*720P @60 1920*1080i @50 1920*1080i @60 1920*1080i @60	
	AUDIO OFF		1920*1080P @60 800*600 @60 1024*768 @60 1280*1024 @60	
		SEND	1600*1200 @60 1360*768 @60 1366*768 @60	
			1400°1050 @60 1920°1200 @60	
			internet	÷a + % 100%

<Video outputs' video resolution select>



<Audio matrix outputs' input audio select>

## Chapter 5. Firmware Update Instruction and Warranty Information

### 5.1 Firmware Update Instruction

	Megaload NET V6.3
	File to be programed in the Flash
	C:WUleasWRichnutzWDeekcopWPM.CRFR1028.hex
	File to be programed in the EEprom CWUkesWitkdnutzWDeaktopWFMCRFF1102E1 hex Open
Extender Firmware Update Instruction.jp	BoatLoader Lock Bis to be propriam IF BLB12 IF BLB11 IF BLB02 IF BLB01 Check means programmed (bit - 0)
Extender Firmware opdate instruction.jp	Comm Seluc Target Messages
	CommPart Speed Device sums Reah File Selected Rate
	S ComPot j5/500bp PageSize: cox; Exprimitie Selected
	T DTR RTS Flash Size and
	4 Open Port EEpromSize: xxx
	Command Thanks to read
	Send Reset Monitor
	Fyou find the activare used u, I would be
	D picased to receive some About Atmel Megar of your
	Ratus Ready, Wating for target
	Progrees

- A. Please install Megaload firmware update program to your PC
- B. Plug firmware update USB cable between the unit and your PC
  - \*Make sure the unit is powered on
- C. Run Megaload program

Firmware update procedure follows;

- $1 \ \& 2$  . Load firmware file on both Flash and EE prom.
- 3. Setup comport # and speed.

\*Baudrate speed must be matched with baud rate speed on PS-6200 unit

- 4. Open the port
- 5. Click send reset button

It may take few minutes to update the firmware

## Chapter 6. Additional Information

### 6.1 Manufacturer's Warranty (2-Year)

Dtrovision warrants this PS-6200 presentation switcher to be free from defects in workmanship and materials, under normal use and service, for a period of two (2) year from the date of purchase from Dtrovision or its authorized resellers.

If the product does not operate as warranted during the applicable warranty period, Dtrovision shall, at its option and expense, execute one of the following as necessary:

- 1. Repair the defective product or part
- 2. Deliver to customer and equivalent product or part to replace the defective item
- 3. Refund to customer the purchase price paid for the defective product

All products that are replaced become the property of Dtrovision, LLC. Replacement products may be new or reconditioned. Repaired or replacement products or parts come with a 90-day warranty or the remainder of the warranty period. Dtrovision shall not be responsible for any software, firmware, information, or memory data loss of contained in, stored on, or integrated with any products returned to Dtrovision for repair under warranty.

### 6.2 Customer Service

Any customer service inquiries can be submitted electronically through the Q&A form on our website (<u>www.purelinkav.com</u>).

For immediate assistance please contact us at (201) 488-3232 to reach our customer care or tech support team.