# Milestone™

**PRESENTATION SCALER** SWITCHER'S MANUAL

<u>PRESENTATION  SCALER SWITCHER</u>

*A unit whereby multiple VGA, COMPOSITE VIDEO & SVIDEO inputs along with their respective AUDIO can be switched to individual respective outputs along with their AUDIO with VGA as individual or scaled output.*

PRESENTATION SCALER SWITCHER by Milestone is available in three models as follows:

| Models | Inputs | Outputs |
|--------|--------|---------|
| ML 440PSS | 4 VGA / AUDIO, 4 C-VIDEO / AUDIO | 1 VGA/SCALER with 1 AUDIO<br>1 C-VIDEO with 1 AUDIO |
| ML 444PSS | 4 VGA / AUDIO, 4 C-VIDEO / AUDIO, 4 S-VIDEO / AUDIO | 1 VGA /SCALER with 1 AUDIO,<br>1 C-VIDEO with 1 AUDIO &<br>1 S-VIDEO with 1 AUDIO. |
| | | |

| INSTALLATION | |
|--------------|---|
| Compatibility | Fully compatible to VGA, SVGA & EVGA monitors & PC stereo audio output and standard C-Video and S-Video outputs |
| Selection | Channel selectable from<br>• Individual front panel local keypad.<br>• Wired remote keypad (optional).<br>• RF Wireless remote keypad (optional).<br>• Remote contact closure.<br>• RS232C interface.<br>• RS422/RS485 interface (optional).<br>• Active PCs selected or scanned in auto/scan mode.(VGA) |
| Indication | LED indication for working set. |
| VGA Output | 2 Gain controlled outputs |
| C-Video Output | 2 Gain controlled outputs |
| S-Video Output | 1 S-VIDEO output |
| Stereo Audio Output | 2 Stereo output for O/P1. |
| Cables | • Standard VGA cables for VGA I/P & O/P.<br>• Standard stereo Audio cables (as used with PC) for Audio I/P and O/P.<br>• Standard S-Video and C-Video Cable |
| Operations | 3 Modes – Scan, Manual / RS232C & Auto. |

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**Models:**

| Technical Specifications | ML-440PS | ML-444PS |
|---|:---:|:---:|
| **Input Connecters** | | |
| VGA (D-15 Female | 4 | 4 |
| VIDEO (RCA Standard) | 4 | 4 |
| S-VIDEO (4 Pin mini din) | 0 | 4 |
| Audio (3 pin Captive screw) | 8 | 12 |
| **Output Connecters** | | |
| VGA (D-15 Female | 1 | 1 |
| VIDEO (RCA Standard) | 1 | 1 |
| S-VIDEO (4 Pin mini din) | 0 | 1 |
| Audio (3 pin Captive screw) | 2 | 3 |
| **LED Indication** | | |
| Power | 1 | 1 |
| VGA Audio | 1 to 4 | 1 to 4 |
| Video Audio | 5 to 8 | 5 to 8 |
| S-Video Audio | 0 | 9 to 12 |
| Scale Mode Enable | 1 | 1 |
| Scalar Output VGA,Video,S-video | 3 | 3 |
| **Keypad Selection** | | |
| VGA Audio | 1 to 4 | 1 to 4 |
| Video Audio | 5 to 8 | 5 to 8 |
| S-Video Audio | - | 9 to 12 |
| Clear | CLR | CLR |
| Scalar Mode Enable | Scalar | Scalar |

| Remote Connectivity | | |
|---|---|---|
| RF Remote connectivity with | D9M x 2 | D9M x 2 |
| Cable through Remote/Keypad | D9M x 2 | D9M x 2 |
| RS 232 Interface | D9F × 1 | D9F × 1 |
| RS485 / RS422 Interface | Optional | Optional |
| Operating distance from remote keypad. | 50 M | 50 M |
| Mains input  (AC) | 230 V | 230 V |
| Dimension | 19"-2U RACK | 19"-2U RACK |
| WEIGHT | 3500 g | 4000 g |

## REAR PANNEL CONNECTORS DETAILS

1. 3 Pin Captive screw for Audio
   a) Left pin        – Right Audio
   b) Center pin     – Ground
   c) Right pin       – Left Audio

2. Standard 4 pin Mini DIN for S-Video
3. Standard RCA for C-Video
4. Standard D15 Female for VGA.

## HOW TO USE THE UNIT

**1) Connecting the cables.**
a) Connect VGA along with Audio inputs to Laptops or Computers.
b) Connect C-Video along with Audio to CD or DVD player or Camera.
c) Connect S-Video along with Audio CD or DVD player or Camera.
d) Connect one VGA output & one Audio output to the VGA and its Audio input of the Projector. (Similarly for C-Video & S Video if required).

**2) Operation in individual output mode;-**
In this mode scaler mode (scaler LED) should be OFF.  All 3 outputs i.e. VGA with Audio, C-Video with Audio, S-Video with Audio work independently. All three outputs are independent of others.
Select the required channels using various selection methods.

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## 3) <u>Operation in Scaler output mode:-</u>

Press the scalar key to go in scalar model (LED ON). When scalar LED is ON, VGA & its Audio (output) goes in Scalar mode. Whichever key is pressed last the output is seen in VGA i.e. C-Video and S-Video is converted to VGA output.
C-Video and S-Video output still works independently, only VGA output is scaled.

## <u>OPERATION</u>

♦  **Local Keypad**

Select the required channel from the front panel keypad.

♦  **Remote contact closure/ remote keypad**

Rear panel has two D9 male connector, operational at a distance of 50 meters. Milestone's remote keypad or any other remote contact closure can be connected at this connector.

The connector diagram for D9 male connector is as follows:

| D-9 Male –1 (for source 1 to 8) | Channels |
|:---:|:---:|
| 1 | CH1-VGA Audio 1 |
| 2 | CH2-VGA Audio 2 |
| 3 | CH3-VGA Audio 3 |
| 4 | CH4-VGA Audio 4 |
| 5 | CH5- C-Video, Audio 1 |
| 6 | CH6- C-Video, Audio 2 |
| 7 | CH7- C-Video, Audio 3 |
| 8 | CH8- C-Video, Audio 4 |
| 9 | GRD |

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| D-9 Male –2 (for source 8 to 12, & Clear s/w ) | Channels |
|---|---|
| 1 | CH9- S-Video, Audio 1 |
| 2 | CH10- S-Video, Audio 2 |
| 3 | CH11- S-Video, Audio 3 |
| 4 | CH12- S-Video, Audio 4 |
| 8 | Clear |
| 9 | GRD |

**Note:** **1.** To select VGA Audio1, short 1and 9 through contact switch or use Milestone's remote keypad.

### Remote RS232 interface

D9 female connector from rear panel is used for selecting the switcher through RS232C Interface.

The pin configuration is as follows:

| D-9 Male | Signals |
|---|---|
| 3 | RX |
| 5 | GRD |

The simple command used for selecting the channels is as follows:

| Channel / Input | Decimal | ASCII |
|---|---|---|
| Channel 1 - VGA Audio 1 | 1! | 31, 21 |
| Channel 2 - VGA Audio 2 | 2! | 32, 21 |
| Channel 3 - VGA Audio 3 | 3! | 33, 21 |
| Channel 4 - VGA Audio 4 | 4! | 34, 21 |

| Channel / Input | Decimal | ASCII |
|---|---|---|
| Channel 5 – Video Audio 1 | 5! | 35, 21 |
| Channel 6 – Video Audio 2 | 6! | 36, 21 |
| Channel 7 – Video Audio 1 | 7! | 37, 21 |
| Channel 8 – Video Audio 2 | 8! | 38, 21 |
| Channel 9 – S-Video Audio 1 | 9! | 39,21 |
| Channel 9 – S-Video Audio 2 | a! | 61,21 |
| Channel 9 – S-Video Audio 3 | b! | 62,21 |
| Channel 9 – S-Video Audio 4 | c! | 63,21 |
| Clear | g! | 67,21 |

Communication parameters are 9600 baud, no parity, 8-bit and 1 stop bit.