



Mesa Engineering

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ME-LVCI v1.10

Low Voltage Screen Control Interface Module

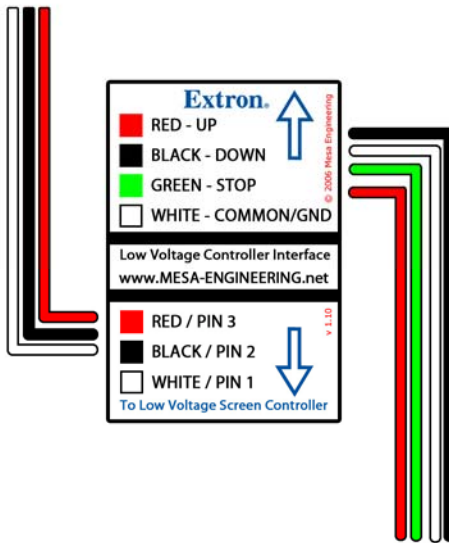
A low voltage interface for use between Extron® MediaLink series control panels and electric drop down screens to control the Up, Down & Stop commands.

Works with the following Extron panels:

- MediaLink MLC 226 IP ([page 1-1 – 1-4](#))
- MediaLink MLC 206 ([page 2-1 – 2-6](#))
- MediaLink MLC 104 IP Plus* ([page 3-1 – 3-5](#))

(*Extron IPV T RLY4 #60-545-03 also required)

To low voltage screen control box



To Extron Control Panel

Electrical Components Inside a ME-LVCI

All components inside the ME-LVCI are factory set with no user adjustability.

DO NOT open the unit for any reason. Breaking seal will void warranty.

All electrical components are rated for under 50v DC. This does not mean that any form of high voltage can be applied to the unit. Only run low voltage from a low voltage control system box.

If you are not sure if the low voltage control system box on your screen will interface with the ME-LVCI contact us at info@mesa-engineering.net or at www.mesa-engineering.net

!!! WARNING !!!

Only connect the ME-LVCI to a screen equipped with a low voltage control box.

NEVER connect to a screen with out a low voltage control box.

DO NOT connect to 110v/220v AC directly. FOR LOW VOLTAGE USE ONLY!

Wiring Configuration Between Screen and Extron® MLC 226 IP Series

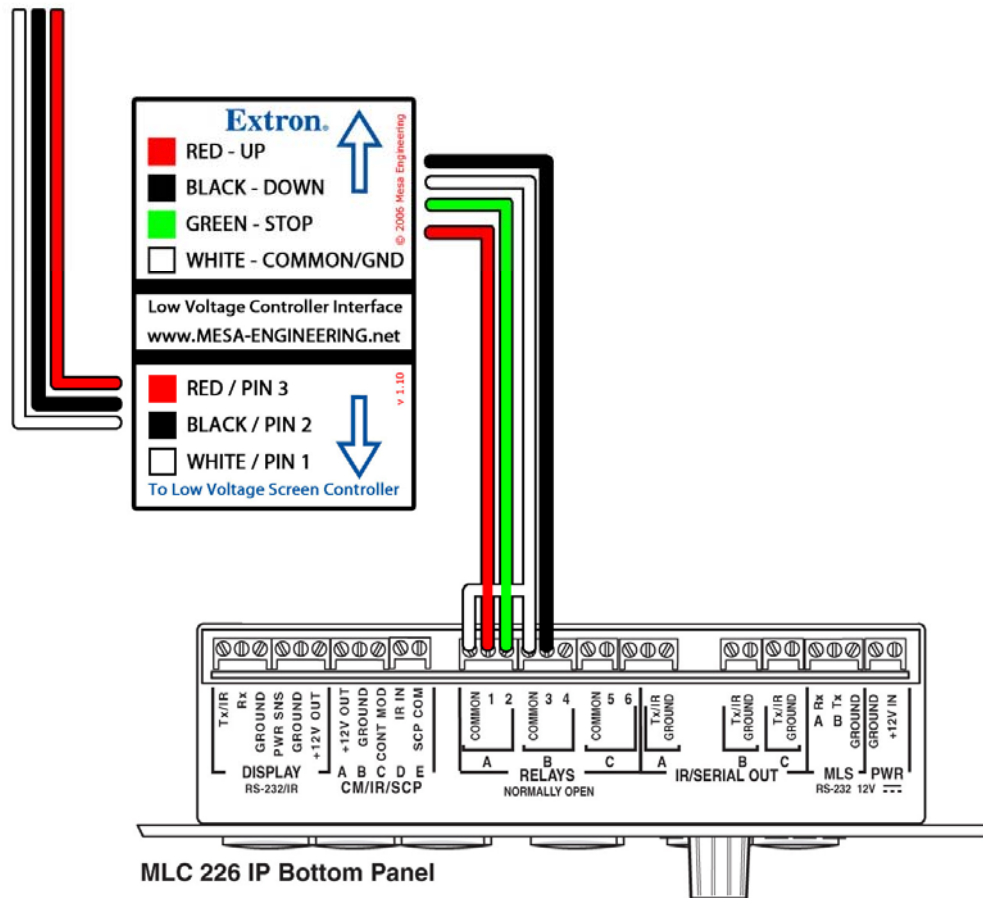
ME-LVCI to Screen Control Box (ie: DA-Lite Single Motor Low Voltage Control System)

1. Connect the **RED** wire to pin **3** of the Screen Control box (Labeled as UP on some controls).
2. Connect the **BLACK** wire to pin **2** of the Screen Control box (Labeled as DOWN on some controls).
3. Connect the **WHITE** (and/or bare shield) wire to pin **1** of the Screen Control box (Common).

ME-LVCI to Extron® MLC 226 Panel.

1. Connect the **RED** wire to **1** of Relay A.
 2. Connect the **BLACK** wire to **3** of Relay B.
 3. Connect the **GREEN** wire to **2** of Relay A.
 4. Connect the **WHITE** wire to **COMMON** of Relay A.
 5. Jumper **COMMON** of Relay A to **COMMON** of Relay B.
- (All grounds/shields outputs on ME-LVCI on the "to extron" side are internally connected to WHITE, can also be used to connect to COMMON instead of jumper)

To low voltage screen control box



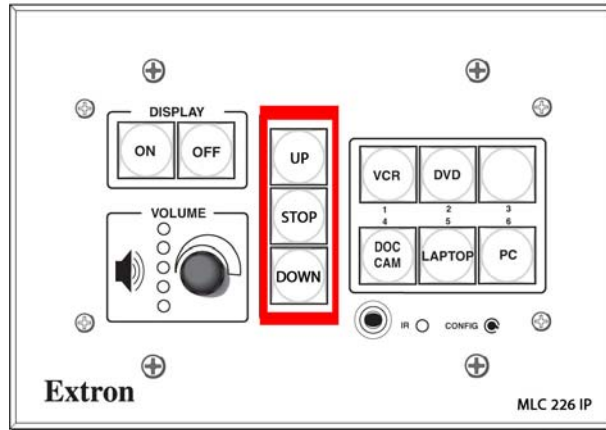
Rear panel connections

Configuration of Extron® Control Buttons

Button Arrangement (Configuration 1)

Buttons can be arranged in any order. The best and most practical locations are shown in the following figure. With **UP** as the top button, **DOWN** as the bottom button and **STOP** as the center button.

Go to page 1-3 for software configuration.

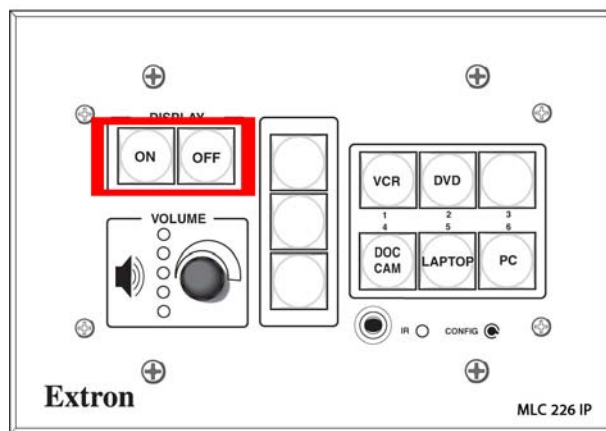


MLC 226 IP Front Panel

Button Arrangement (Configuration 2)

The Up & Down buttons can also be controlled by the “Display” **ON/OFF** buttons. When you turn the projector on the screen will drop down. When you turn the projector off the screen will rise. All to create a “Professional” look.

Go to page 1-4 for software configuration.



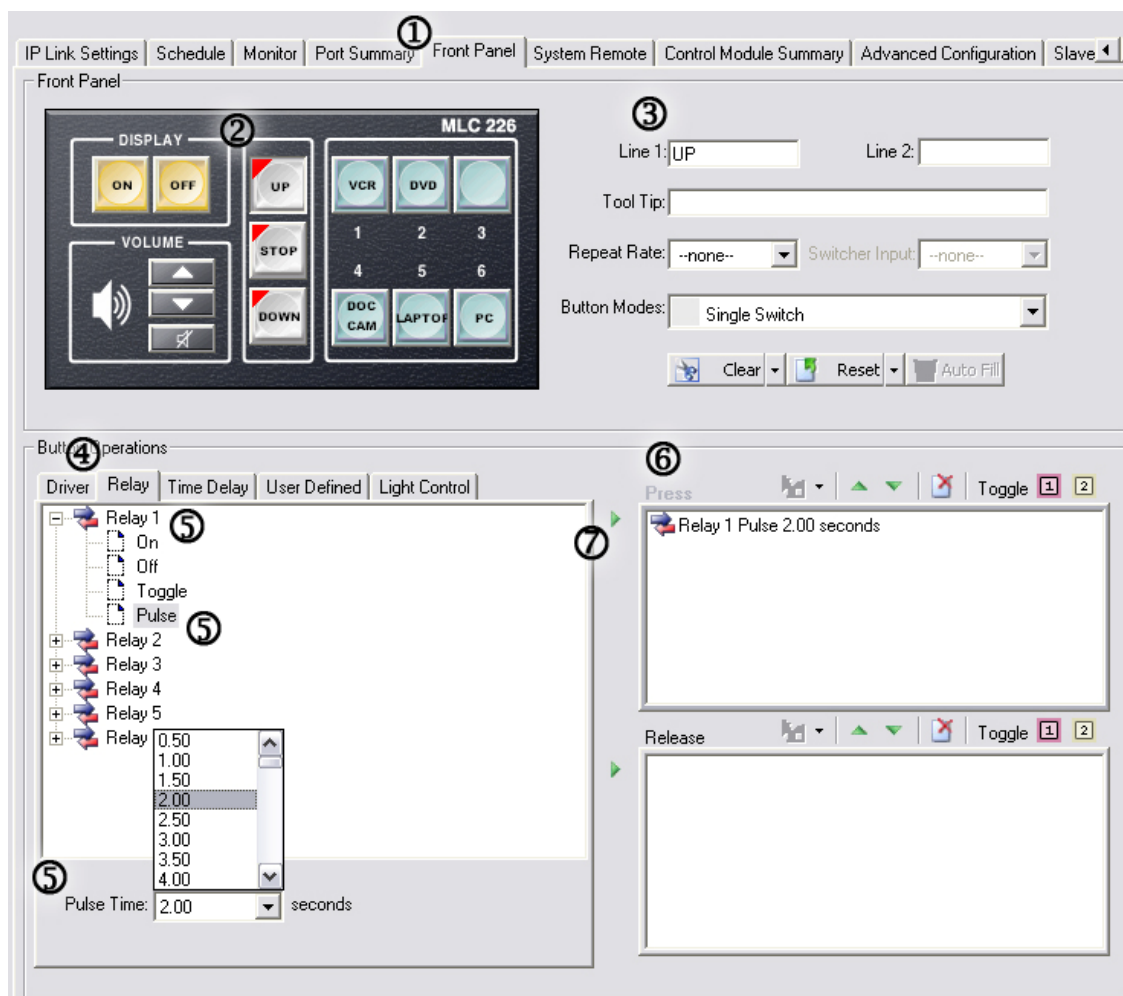
MLC 226 IP Front Panel

NOTE To control with the above configuration, swap the **BLACK** (Down) wire with the **GREEN** (stop) wire. Do not connect COMMON to the common of relay B. With this configuration only relay A 1, 2, & Common should be connected. This frees up the remaining relays for other controls.

Configuration of Extron® Global Configurator v2.2.0 for Button Configuration 1

Button Configuration 1 Overview

1. ① Select the **Front Panel** tab.
2. ② Select the button to be programmed.
3. ③ Name the button (to the right, Line 1:) *optional step, makes for quicker identification within software
4. ④ Under **Button Operations** select the **Relay** tab.
5. ⑤ Select relay to be used, operation of relay and pulse time. (see settings table below)
6. ⑥ Click on **Press** above the textbox to the right. (it will turn gray)
7. ⑦ Click the small green arrow to add the relay operation to the function of the button.



NOTE Once button is programmed a red triangle will appear in the upper left corner of that button.

Settings:

Button 1 (top) – **UP: Relay 1, Pulse, 2.00 seconds.**

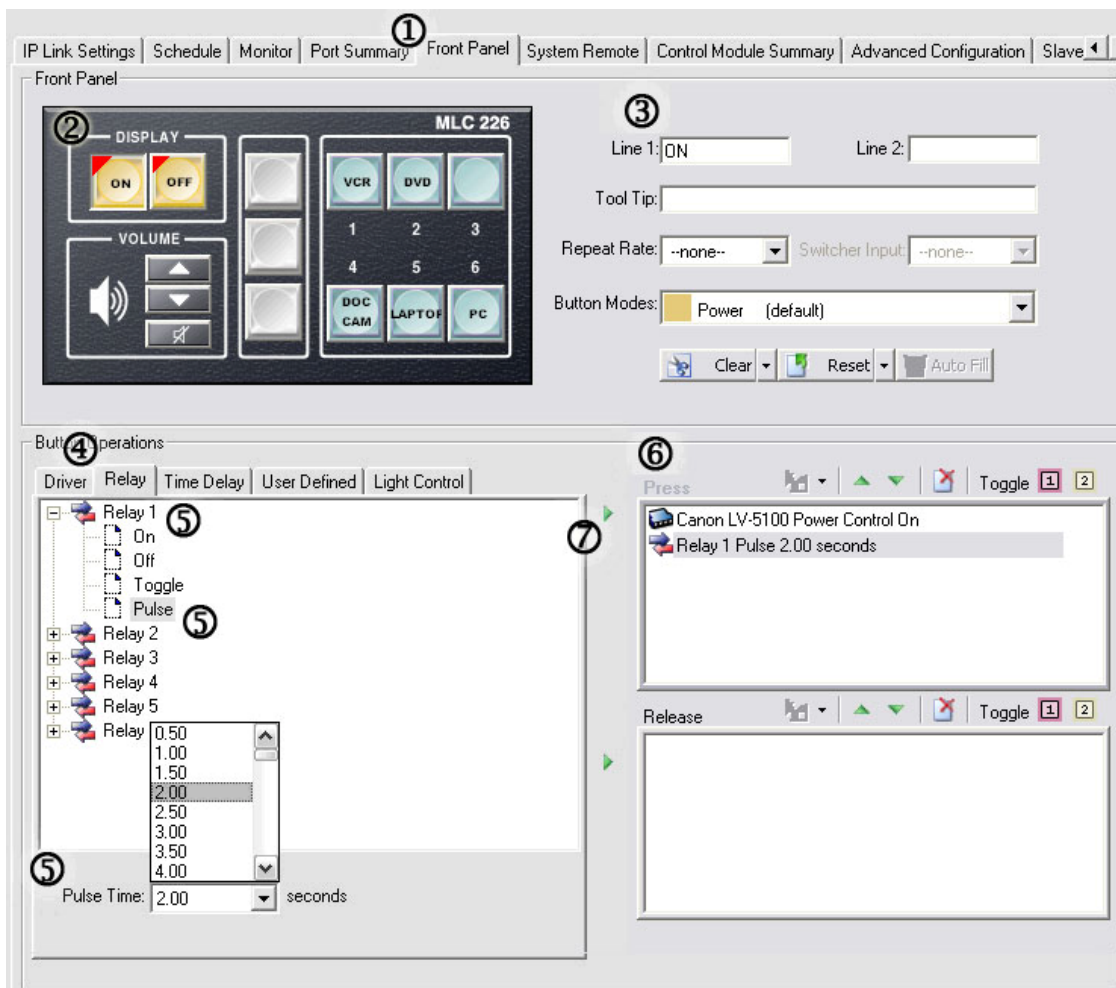
Button 2 (middle) – **STOP: Relay 2, Pulse, 2.00 seconds.**

Button 3 (bottom) – **DOWN: Relay 3, Pulse, 2.00 seconds.**

Configuration of Extron® Global Configurator v2.2.0 for Button Configuration 2

Button Configuration 2 Overview

1. ① Select the **Front Panel** tab.
2. ② Select the button to be programmed either **Display On** or **OFF**.
3. ③ Name the button (if it's not already:) *optional step, makes for quicker identification within software
4. ④ Under **Button Operations** select the **Relay** tab.
5. ⑤ Select relay to be used, operation of relay and pulse time. (see settings table below)
6. ⑥ Click on **Press** above the textbox to the right. (it will turn gray)
7. ⑦ Click the small green arrow to add the relay operation to the function of the button.



NOTE Once button is programmed a red triangle will appear in the upper left corner of that button.

Settings:

Display ON – **UP: Relay 1, Pulse, 2.00 seconds.**

Display OFF – **STOP: Relay 2, Pulse, 2.00 seconds.**

Wiring Configuration Between Screen and Extron® MLC 206 Series

ME-LVCI to Screen Control Box (ie: DA-Lite Single Motor Low Voltage Control System)

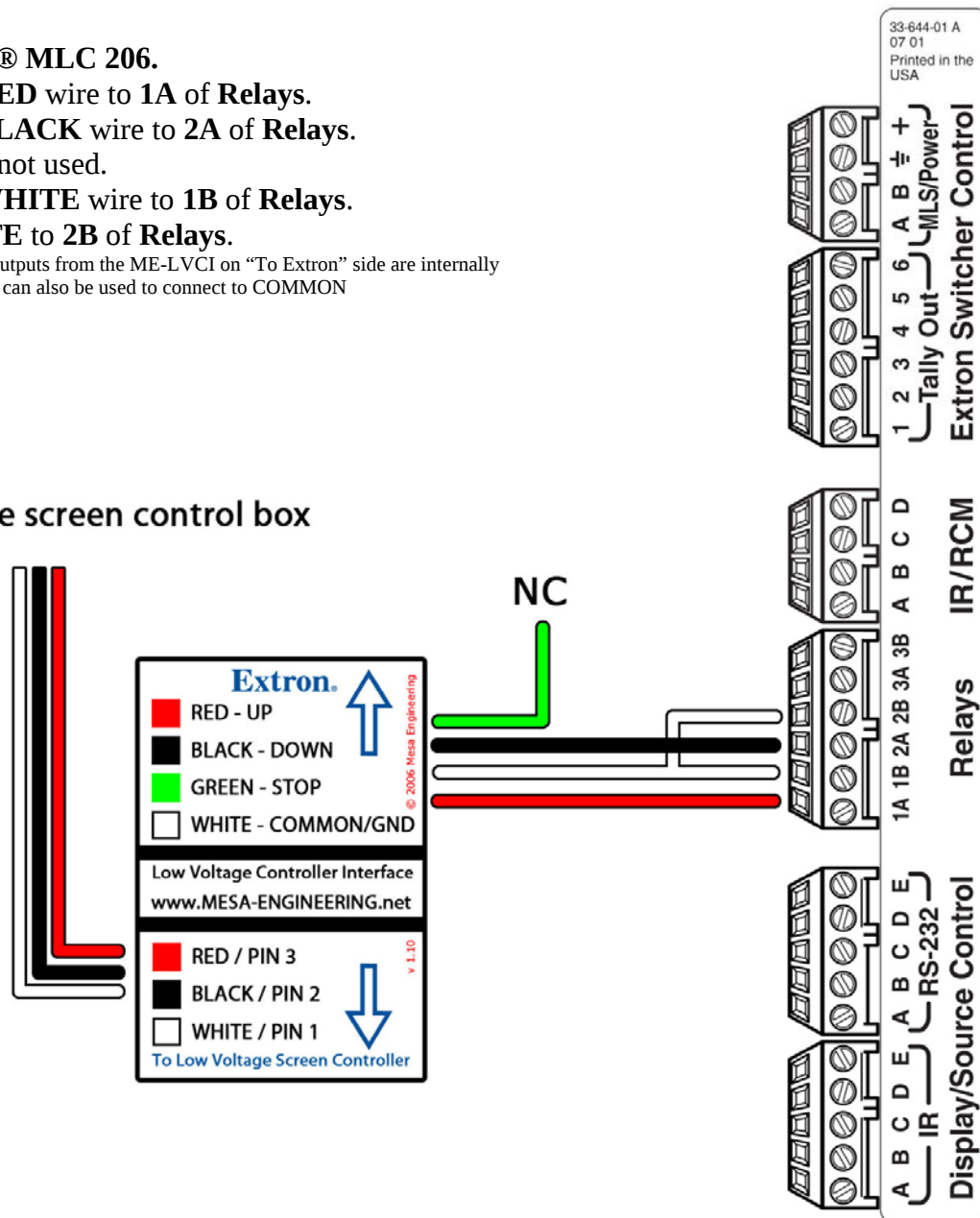
1. Connect the **RED** wire to pin 3 of the Screen Control box (Labeled as **UP** on some controls).
2. Connect the **BLACK** wire to pin 2 of the Screen Control box (Labeled as **DOWN** on some controls).
3. Connect the **WHITE** (and/or bare shield) wire to pin 1 of the Screen Control box (**Common**).

ME-LVCI to Extron® MLC 206.

1. Connect the **RED** wire to 1A of Relays.
2. Connect the **BLACK** wire to 2A of Relays.
3. **GREEN** wire not used.
4. Connect the **WHITE** wire to 1B of Relays.
5. Jumper **WHITE** to 2B of Relays.

(All grounds/shields outputs from the ME-LVCI on "To Extron" side are internally connected to WHITE, can also be used to connect to COMMON instead of jumper)

To low voltage screen control box



Configuration of Extron® MLC 206 Control Buttons

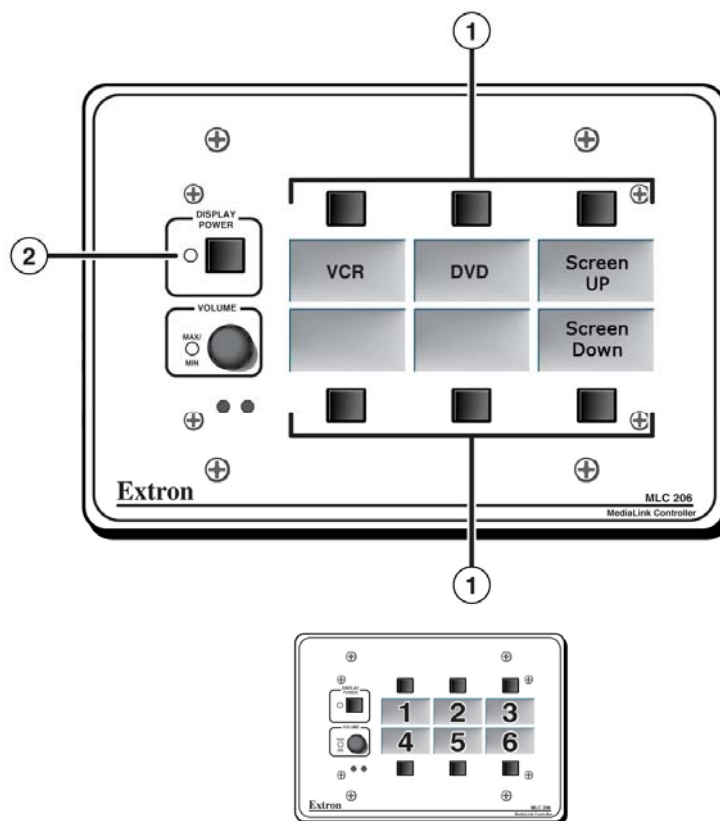
Button Arrangement

Configuration ①

Buttons can be arranged in any order. The best and most practical locations are shown in the following figure. With **UP** as the top button (button #3,) & **DOWN** as the bottom button (button #6)

Configuration ②

Buttons can also be attached to the **Display Power**. When the display is powered on the electric screen will drop down. When the display is powered off the screen will rise up.

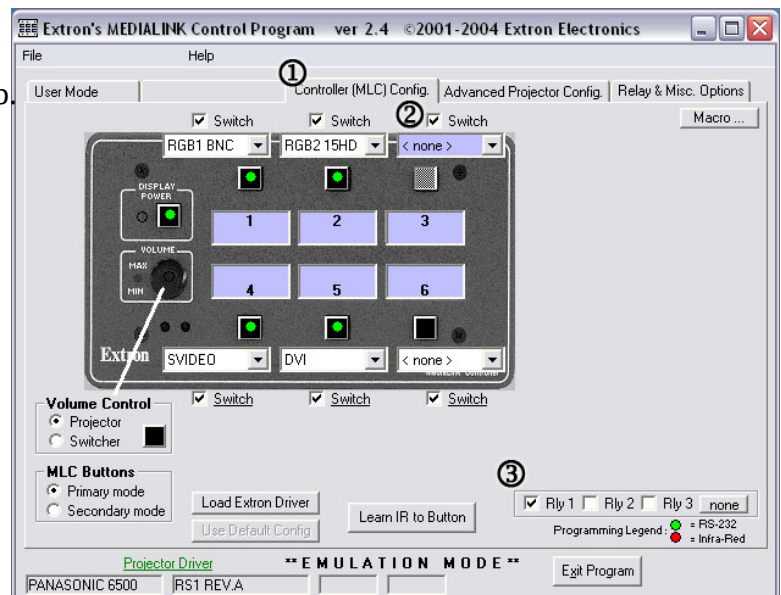


Configuration of Extron® MediaLink Control Program v2.4

Button Configuration ① Overview

(For UP Command)

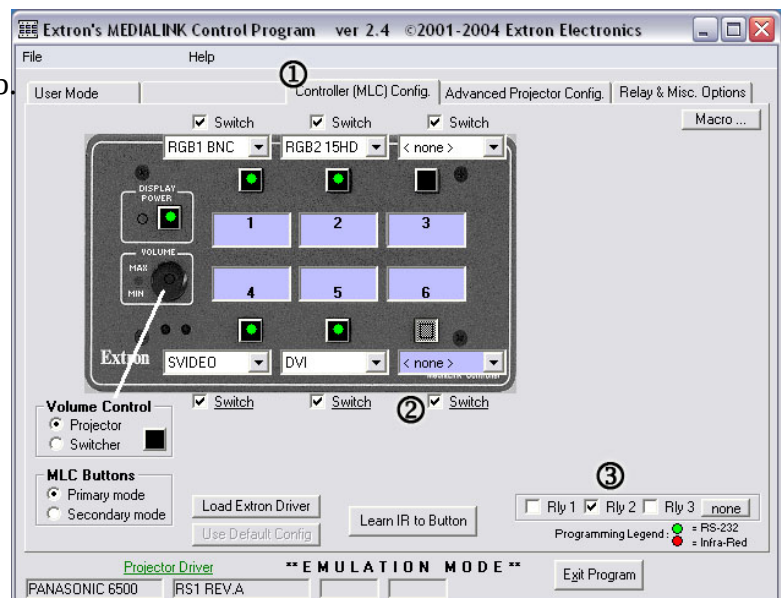
1. ① Select the **Controller (MLC) Config.** tab.
2. ② Make sure the **Switch** is checked on 3.
3. ③ Check **Rly 1** box



Button Configuration ① Overview

(For DOWN Command)

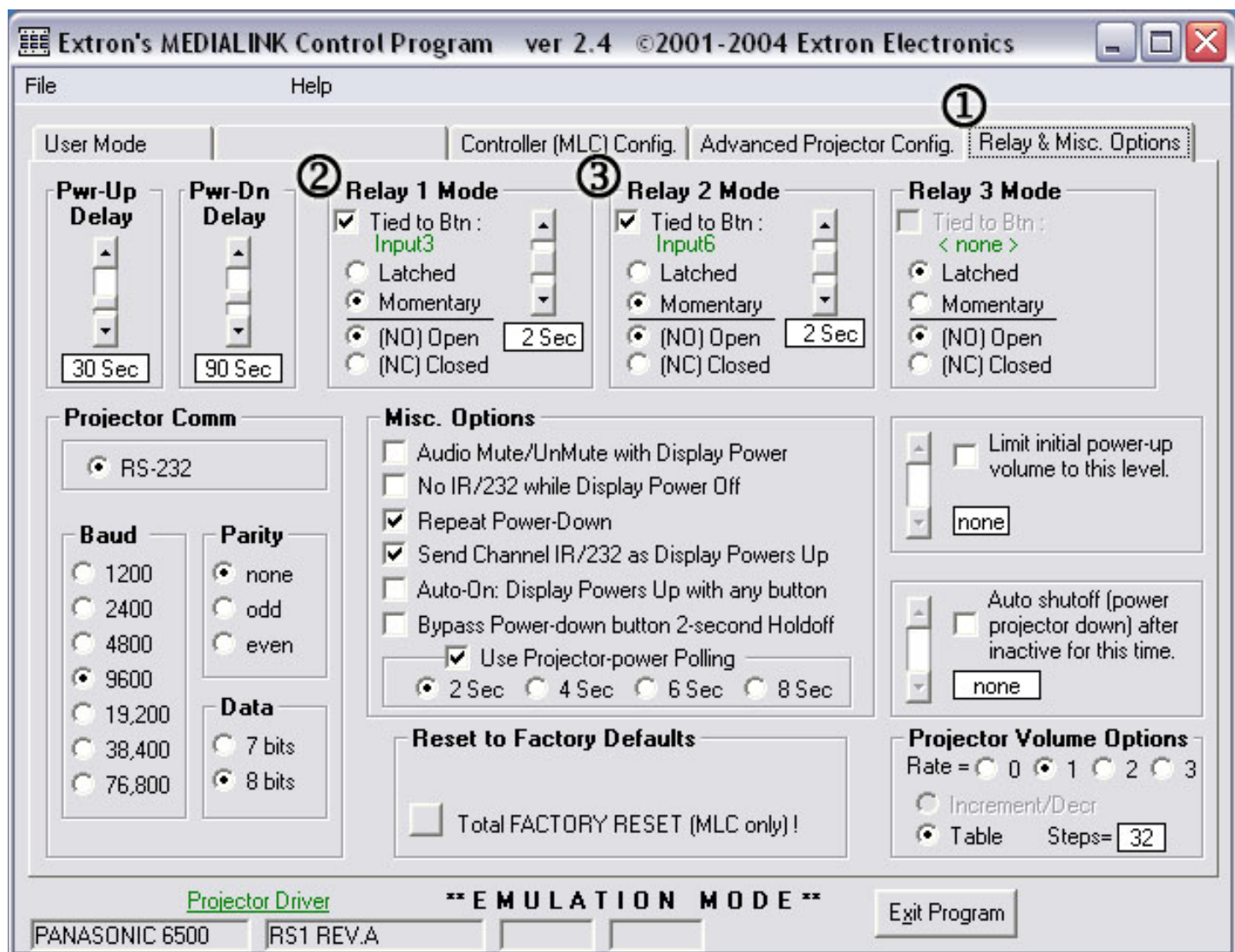
4. ① Select the **Controller (MLC) Config.** tab.
5. ② Make sure the **Switch** is checked on 6.
6. ③ Check **Rly 2** box



Configuration of Extron® MediaLink Control Program v2.4

Button Configuration ① Overview (cont.)

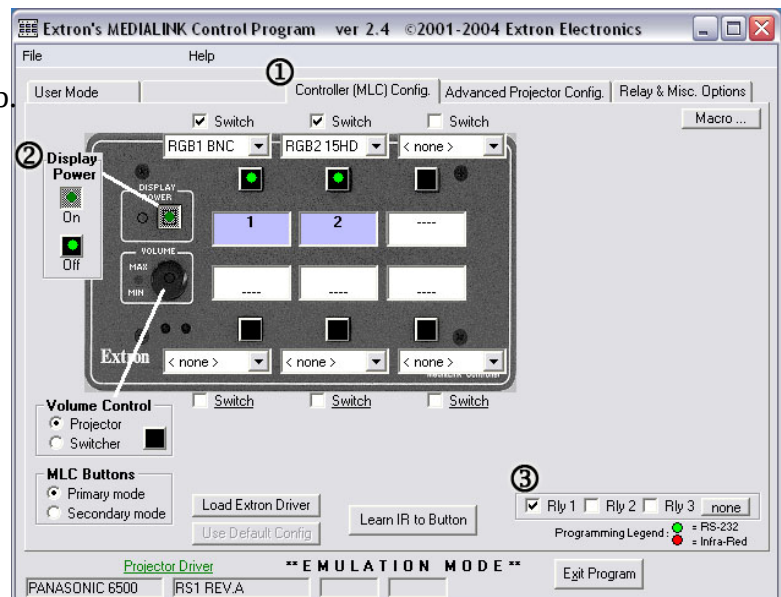
7. ① Select the **Relay & Misc. Options** tab.
8. ② Set **Relay 1 Mode** to the following settings.
 - Tied to Btn: Input 3
 - Momentary (set to 2 Sec)
 - (NO) Open
9. ③ Set Relay 2 Mode to the following settings.
 - Tied to Btn: Input 6
 - Momentary (set to 2 Sec)
 - (NO) Open



Configuration of Extron® MediaLink Control Program v2.4

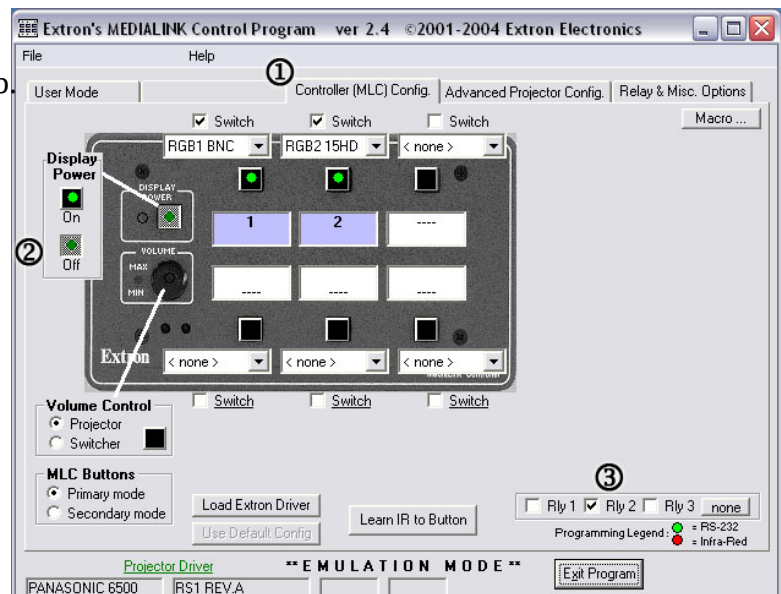
Button Configuration ② Overview (For UP Command)

1. ① Select the **Controller (MLC) Config.** tab.
2. ② Select **ON** from **Display Power**.
3. ③ Check **Rly 1** box



Button Configuration ② Overview (For DOWN Command)

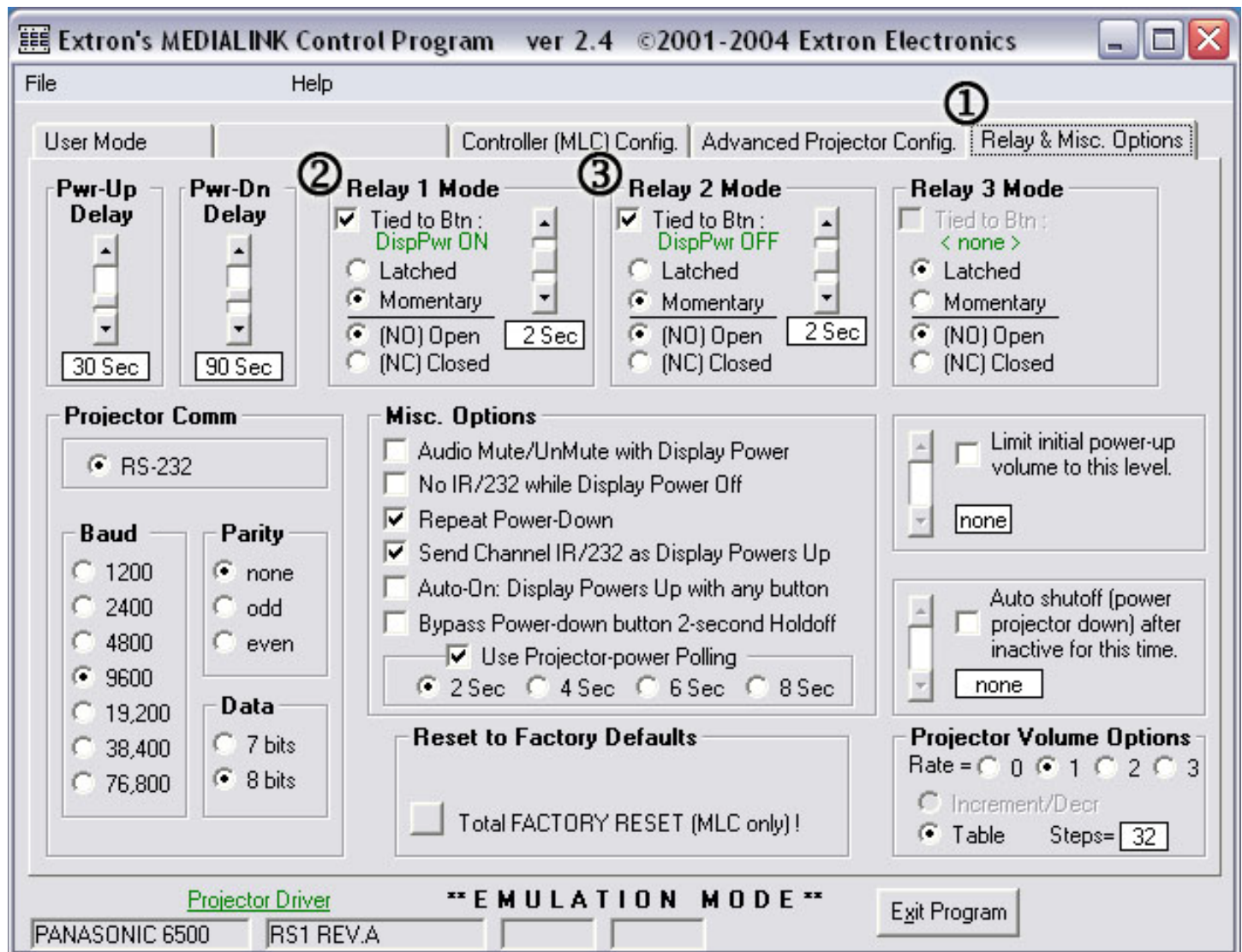
4. ① Select the **Controller (MLC) Config.** tab.
5. ② Select **OFF** from **Display Power**.
6. ③ Check **Rly 2** box



Configuration of Extron® MediaLink Control Program v2.4

Button Configuration ② Overview (cont.)

7. ① Select the **Relay & Misc. Options** tab.
8. ② Set **Relay 1 Mode** to the following settings.
 - Tied to Btn: DispPwr ON
 - Momentary (set to 2 Sec)
 - (NO) Open
9. ③ Set Relay 2 Mode to the following settings.
 - Tied to Btn: DispPwr OFF
 - Momentary (set to 2 Sec)
 - (NO) Open



User Manual - Low Voltage Controller Interface (ME-LVCI v1.10)

Wiring Configuration Between Screen and Extron® MLC 104 IP PLUS Series

NOTE An Extron IPV T RLY4 (part #60-545-03) must be used to convert the MLC 104 IP PLUS digital I/O ports to NO/NC relays.

ME-LVCI to Screen Control Box (ie: DA-Lite Single Motor Low Voltage Control System)

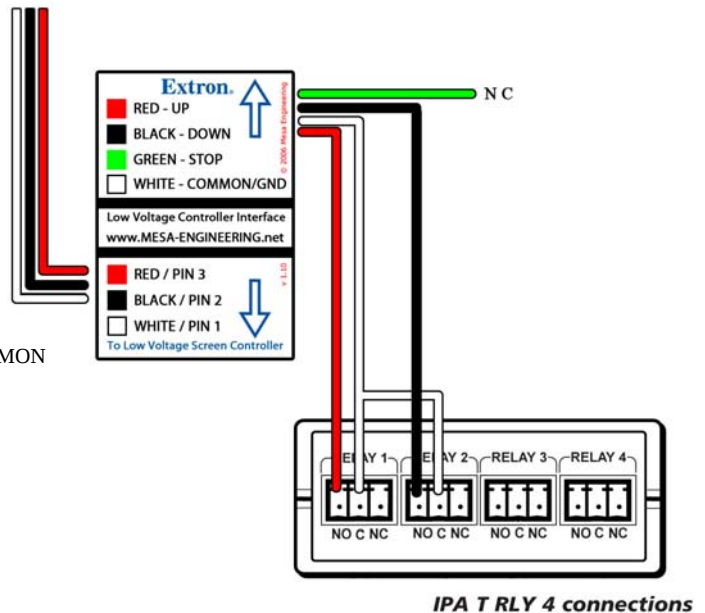
1. Connect the **RED** wire to pin **3** of the Screen Control box (Labeled as UP on some controls).
2. Connect the **BLACK** wire to pin **2** of the Screen Control box (Labeled as DOWN on some controls).
3. Connect the **WHITE** (and/or bare shield) wire to pin **1** of the Screen Control box (Common).

To low voltage screen control box

ME-LVCI to Extron® IPA T RLY 4

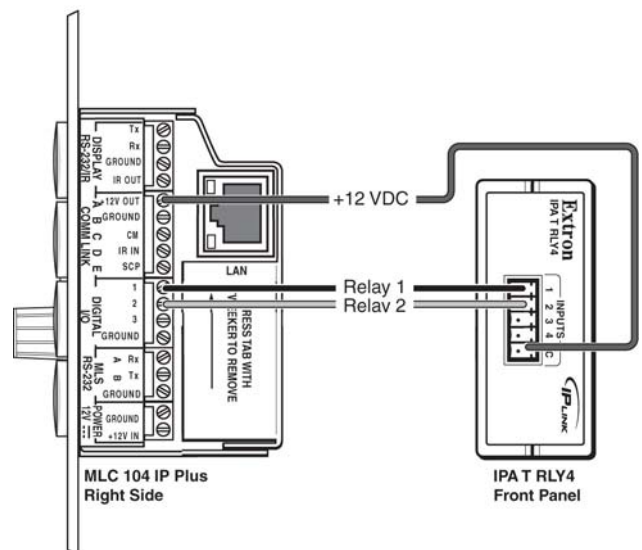
1. Connect the **RED** wire to **NO** of Relay 1.
2. Connect the **BLACK** wire to **NO** of Relay 2.
3. **GREEN** wire not used.
4. Connect the **WHITE** wire to **C** of Relay 1.
5. Jumper **C** of Relay 1 to **C** of Relay 2.

(All grounds/shields outputs from the ME-LVCI on "To Extron" side are internally connected to WHITE, can also be used to connect to COMMON instead of jumper)



Connect Extron® 104 IP Plus to IPV T RLY 4

1. Connect the **12V OUT** from the **COMM LINK** to **C** on the IPA T RLY4 **INPUTS**.
2. Connect **DIGITAL I/O 1** to **1** of the IPA T RLY4.
3. Connect **DIGITAL I/O 2** to **2** of the IPA T RLY4.

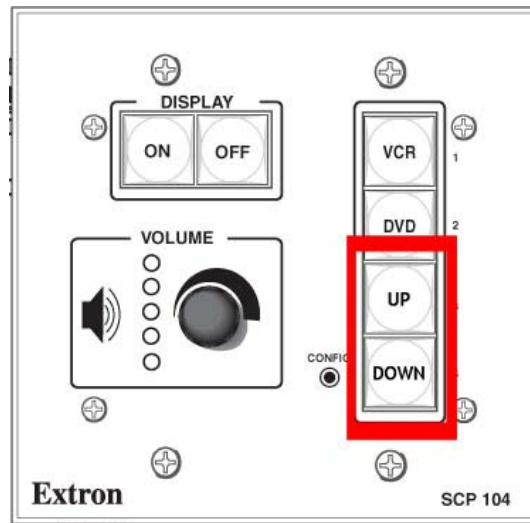


Configuration of Extron® MLC 104 IP PLUS Control Buttons

Button Arrangement (Configuration 1)

Buttons can be arranged in any order. The best and most practical locations are shown in the following figure. With **UP** as the top button (3rd down,) & **DOWN** as the bottom button (4th down)

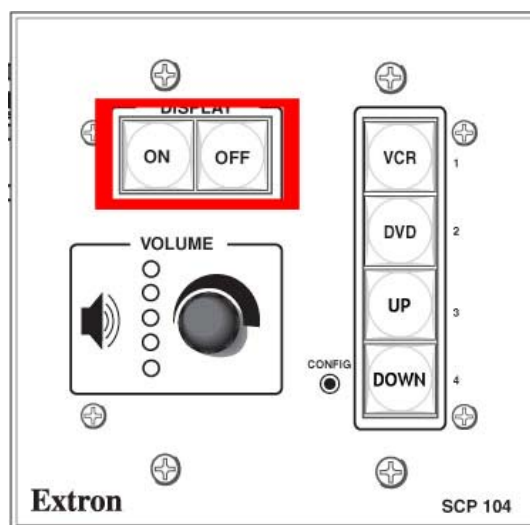
Go to page 3-4 for software configuration.



Button Arrangement (Configuration 2)

The Up & Down buttons can also be controlled by the “Display” **ON/OFF** buttons. When you turn the projector on the screen will drop down. When you turn the projector off the screen will rise. This configuration will create a “Professional” look for presentations.

Go to page 3-5 for software configuration.



Configuration of Extron® Global Configurator v2.2.0

Setting Digital I/O Ports

1. ① Select the **Advanced Configuration** tab.
2. ② Change Digital I/O #1 to “Output”
3. ③ Change Digital I/O #2 to “Output”

The screenshot displays the 'Advanced Configuration' tab of the Extron Global Configurator v2.2.0. The interface is divided into several sections:

- Power Settings:** Includes options for auto shut-off, I/O switching delays, and power down settings.
- PIN Settings:** Includes options to enable/disable PIN mode and a section for Personal Identification Numbers (Administrator and User).
- Volume Settings:** Includes options for volume adjustment and power up volume limits.
- Digital Input / Output:** Includes dropdown menus for Digital I/O #1, #2, and #3. A red circle with a '2' highlights the 'Digital I/O #1' dropdown, which is currently set to 'Output'.
- Miscellaneous Settings:** Includes options for reset button statistics and enhanced web pages.

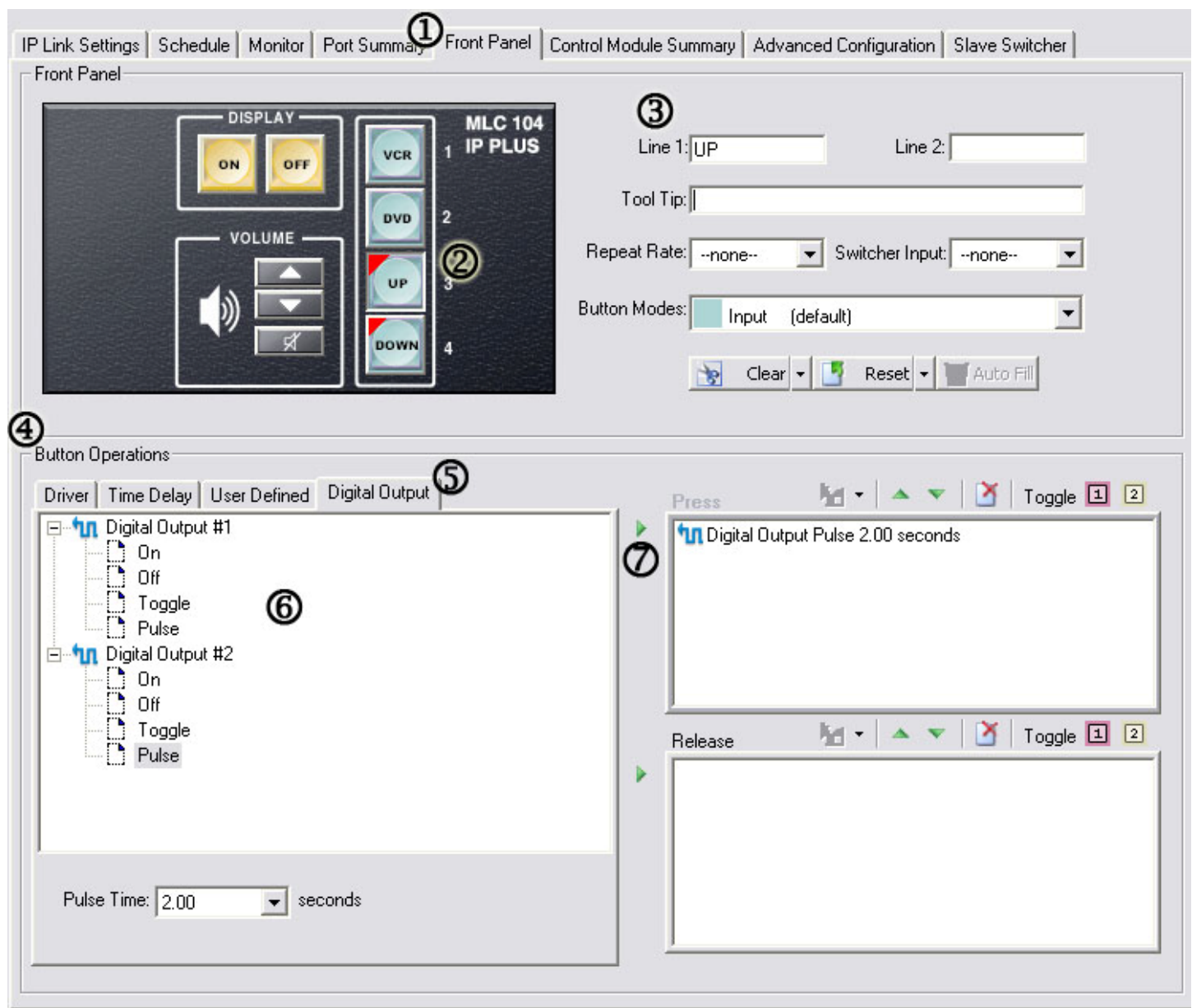
The top navigation bar shows the following tabs: IP Link Settings, Schedule, Monitor, Port Summary, Front Panel, Control Module Summary, **Advanced Configuration** (highlighted with a red circle and '1'), and Slave Switcher.

Configuration of Extron® Global Configurator v2.2.0 for Button Configuration 1

NOTE See page 3-3 for setting Digital I/O ports to output before continuing.

Button Configuration 1 Overview

1. ① Select the **Front Panel** tab.
2. ② Select the **#3** button to be programmed.
3. ③ Name the button *optional step, makes for quicker identification within software
4. ④ Under **Button Operations** select the ⑤ **Digital Output** tab.
5. ⑥ Select **Pulse** of **Digital Output #1**, Set pulse time to 2.00 seconds
6. ⑦ Click the green add arrow.
7. For next button repeat setps #2-6, this time set **#4** button to **Digital Output #2**



Configuration of Extron® Global Configurator v2.2.0 for Button Configuration 2

NOTE See page 3-3 for setting Digital I/O ports to output before continuing.

Button Configuration 2 Overview

1. ① Select the **Front Panel** tab.
2. ② Select the **ON** button to be programmed.
3. ③ Name the button (if it's not already:) *optional step, makes for quicker identification within software
4. ④ Under **Button Operations** select the ⑤ **Digital Output** tab.
5. ⑥ Select **Pulse** of **Digital Output #1**, Set pulse time to 2.00 seconds
6. ⑦ Click the green add arrow.
7. For next button repeat setps #2-6, this time set the **OFF** button to **Digital Output #2**

