### Audio and Speaker Connections (continued)

#### Internal Amplifier Volume Controls

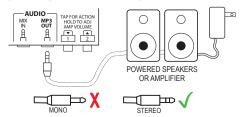
Hold the 1 or 2 buttons for a few seconds to start adjusting volume. The MP3 LED will start to flash and the current volume is shown on the input LEDs. If you want to adjust the Mix In volume hold both buttons until the AMP LED starts to flash.





#### Connecting Amplified Speakers

The FlexMax audio output is designed to connect to powered speakers or external amplifiers.

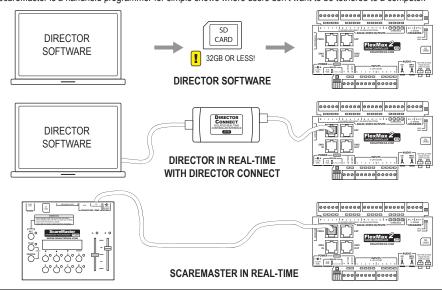


#### Copying Audio Files to the FlexMax

The recommended method to get your audio files onto the FlexMax is to use our free Director software. It will copy the sounds to your FlexMax or ScareMaster and ensure the filenames and folder structure are correct

## **Programming**

The FlexMax can be easily programmed with our free Director software and an SD card. The Director Connect allows you to see your changes in real-time, rather than having to save the program to an SD card first. The ScareMaster is a handheld programmer for simple shows where users don't want to be tethered to a computer.



## **Troubleshooting**

The status LED indicates the current state at startup, during operation, and when an error occurs. See the Help menu in Director for the full list of LED states and error codes.

#### STARTUP

- **OPERATION**  Firmware Check o Idle
- Firmware Updating Playing Scene
- Version Display
- → Importing Show

#### AS A DMX SLAVE

- Good DMX Signal
- No DMX Signal

Connected to Director

Connect

- **ERROR CODES**
- - 1 & \* x5 or 6 Firmware on CPU corrupt. Update firmware.
  - 1 & \* x7 Firmware file on card corrupt. Re-export to card.
- 2 & \* x13 or 14 SD card error. Must be 32GB or less.
- 2 & x3 Voltage Too Low or Too High.
  - 2 & \* x5 Out of Memory for Behaviors.
  - 2 & \* x6 Behavior Exception. Try updating firmware.

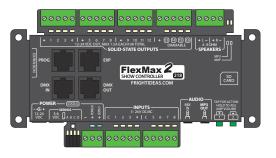
For other errors update firmware first. If error persists email support@frightideas.com.



### Quick-Start Guide

FlexMax 2

PN: 218

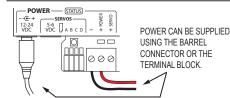


#### VIDEOS AND MORE AVAILABLE ONLINE

Scan the OR code here or on the controller's enclosure. Or visit: help.frightideas.com



# **Power Supply and Outputs**



#### Selecting your Power Supply Voltage

The FlexMax requires a 12 or 24 volt DC power supply. A 24 volt power supply will get you the most volume from the audio amplifier. It will however require that all the devices connected to your outputs be rated for 24 volts. If you want to use any of the outputs to control 12 volt devices then 12 volts is the way to go.

#### Sizing Your Power Supply

To size a supply you must add up the wattage for the most outputs that will be on at any one time, then add 2 watts for the FlexMax if you're NOT using the internal amplifier, or 50 if you are.

#### **About Solid-State Outputs**

Solid-state outputs are great for reliably controlling relays, solenoids, and LED lights. They cannot be used to directly control high-current, 110 volt, or contact-closure devices like a relay can. However, unlike relays, they have no moving parts that wear out over time. Use external mechanical or solid-state relays for high-current or high-voltage loads. This will result in a highly reliable and maintainable system.

#### Dimmable Outputs

Outputs 13 thru 16 are PWM outputs that can be used as signals to PWM input devices, or to directly control the brightness of LEDs or small DC bulbs.

#### Servo Outputs

The FlexMax has four servo outputs. To use these you must connect a separate 5-6VDC power supply to power the servos. This can be connected to the Servos. barrel connector or to the - and + SERVO terminal block screws.

### DMX In, Out, Expansion

#### Master Mode (Default)

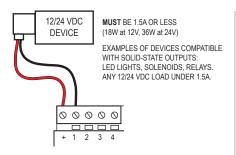
The DMX OUT port can be used to connect and control DMX devices as part of the show. This port follows the DMX over CAT5 wiring standard. The EXP port can be used to link to additional FlexMax or IO Expanders to add more inputs / outputs.

#### Slave Mode

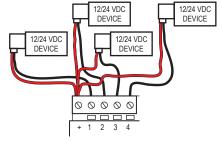
The DMX IN port can be used to link a FlexMax to a DMX master device or to another FlexMax. As a slave, the DMX master can control the audio, outputs, or even trigger scenes.

# CONNECTING FOR INPUT EXPANSION 00000 00000 00000 00000 0000 0000 ... 00000 00000 00000 00000 00000 00000000000 10000000000000 CONNECTING TO DMX FIXTURE RJ45 TO FEMALE XLR ADAPTER

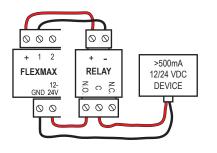
### Solid-State Output Wiring Diagrams



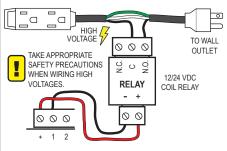
#### ANY 12 OR 24 VDC DEVICE



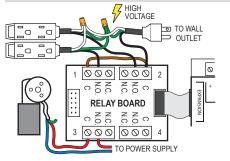
#### **FOUR 12 OR 24 VDC DEVICES**



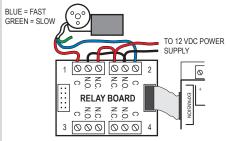
12 OR 24 VDC DEVICE > 1.5A



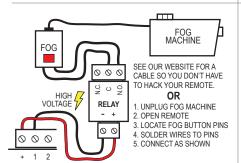
**ANY 110 VOLT LOAD** 



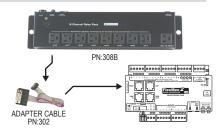
**USING A QUAD RELAY BOARD** 



#### 12 VDC MOTOR IN FORWARD AND REVERSE



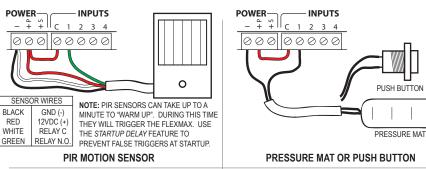
**FOG MACHINE** 

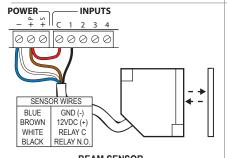


USE ONE OF OUR AC RELAY PACKS WHEN YOU HAVE A LOT OF 110 VOLT DEVICES TO CONTROL. THE OUTPUTS ON THE RELAY PACK WILL MIRROR THE OUTPUTS ON THE FLEX.

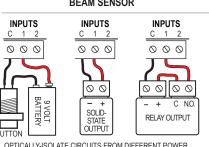
**AC RELAY PACKS** 

### **Trigger Input Wiring**



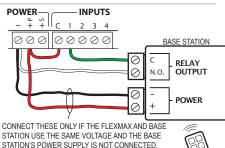


BEAM SENSOR

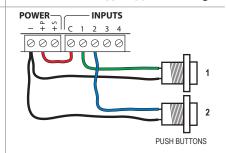


OPTICALLY-ISOLATE CIRCUITS FROM DIFFERENT POWER SUPPLIES, OR WHEN WIRE LENGTHS ARE EXCESSIVE.

OPTICALLY-ISOLATED INPUT



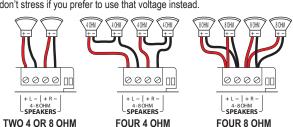
WIRELESS TRIGGER



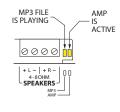
TWO TRIGGERS

### **Audio and Speaker Connections**

The FlexMax includes a 50 watt (2 x 25 watt) Class D stereo amplifier. To take full advantage of this amplifier the power supply needs to be 24 volts and have at least 50 watts of power. It will still get very loud at 12 volts, so don't stress if you prefer to use that voltage instead.



The MP3 and AMP LEDs indicate the state of the MP3 decoder and internal amplifier.



MP3 / SPEAKER LEDS