



MARK ROBERTS MOTION CONTROL

ETHERNET TRIGGER RELAY BOX



QUICK START GUIDE

QSG Product Code: MRMC-2310-00

Products covered: MRMC-2127-01

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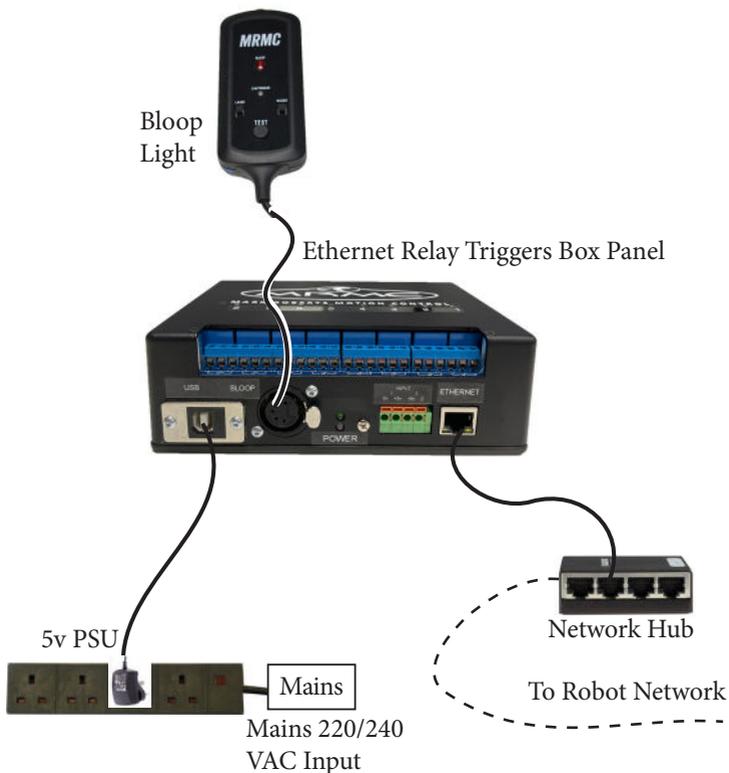
Chapter 1 Quick Start

Overview

Thank you for using the Ethernet Relay Trigger Box from Mark Roberts Motion Control (MRMC). The purpose of this device is to trigger events on it's eight relays over physical ethernet connection, it also has two inputs. The blue LED is power and green LED signifies that the program running. It works with Flair 7/ Flair Classic (but not with Flair 6). It is powered by a 5V/ 2A adapter with USB-B connector. The inputs are triggered by shorting the 5V terminal (+) to Ground (-) on each input.

Note: Be careful not to short the 5v terminal to the chassis.

Connecting Cables



Using the trigger outputs

Each trigger output consists of three connectors, a corresponding LED on the top, and an internal relay. When a trigger is activated from Flair software, the relay for that pair closes, completing the external circuit and triggering the external device. The corresponding LED (also numbered **1** to **8**) is lit during activation.



Hint

The LED is powered by the circuit that switches the C (common) terminal from NC to NO — not by the external circuit that is completed when the relay closes. Therefore a lit LED only indicates that Flair has activated the trigger; it is **not** a check to see if the external circuit now has current flowing through it.

The external device that is being triggered must provide its own power for the trigger circuit, up to 250 Volts AC or 30 volts DC, 10A maximum; **for highly inductive loads current should be limited to 3A**. Contact MRMC for further advice on maximum current for triggering external devices.

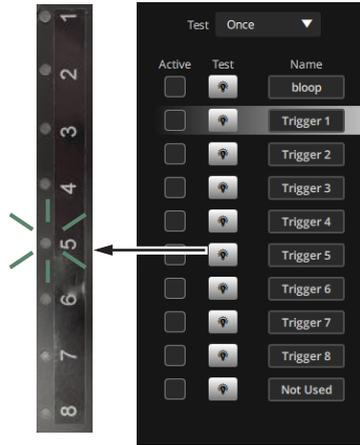
In Flair, the button for trigger **output 1** is labelled **Bloop** by default unless you have changed it, as it is usually used to trigger the Bloop light. The other buttons in Flair use label numbers that match the trigger outputs on the Trigger Box; that is, Flair button **Trigger 1** corresponds to **output 2**, button **Trigger 2** corresponds to **output 2**, etc. Again, you can change these names in Flair by using the same menu options that you use to add triggers to a move: **Setups > Outputs > #1 - Bloop, #2, #3**, etc. See the Flair documentation for details.

Testing the trigger outputs

You can test that the Trigger Box is receiving trigger signals from Flair, without needing to attach anything to the **OUT** connectors on the Trigger Box:

1. In Flair, use menu option **Setups** → **Outputs** → **Test Outputs**.
2. In the pop-up, click on one of the **Trig** buttons.

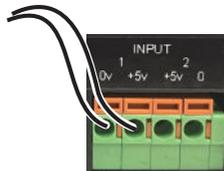
When you press the button, the corresponding numbered **OUT** LED should light up in on the Trigger Box panel. For example pressing **Trig 5** makes the **output 5** LED light up.



Using the trigger inputs

The trigger inputs in the Ethernet Relay box can be used to accept trigger inputs from another device. You can wire the trigger inputs to the Ethernet Relay Box as shown in the following example for trigger input 1 (1):

Connect the trigger wires to Trigger Input 1. To activate the trigger, short these two wires.

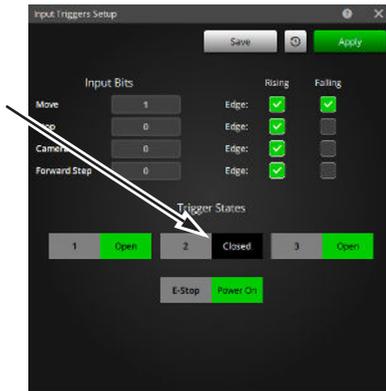


To set up Flair to initiate an action when it receives a trigger input you use the menu option **Setups** → **Input Triggers**. See the Flair documentation for details.

Testing the trigger inputs

You can test that the Flair software is correctly receiving trigger input signals from the Trigger Box:

1. In Flair, use menu option **Setups** → **Input Triggers**.
2. Short the 2 wires connected to the trigger input post.



The corresponding numbered **Input Trigger State** in the pop-up should change from **Open** to **Closed**.

Appendix 1 Specifications

Weight:

Temperature range: 0-40 °C

Humidity tolerance: 0% to 85% relative humidity, non-condensing



Notes

Notes



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