

CryoPyro® DMX Controller User Guide

Atlanta Special FX

Version 1



Thank you for purchasing the innovative CryoPyro® control system and trusting Atlanta Special FX. We are thrilled you have joined our network of operators utilizing this streamlined control system to simplify your setup and operation. We are standing by if you have any questions about setup and operation.

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Overview

The CryoPyro DMX controller is a simple an all-in-one control system for operating DMX fixtures. It has 8 user programmable buttons and various control and safety features to fit a wide variety of use cases. It is capable of outputting 1 DMX universe using standard DMX hardware.

Hardware Overview

The CryoPyro unit has the following hardware/interfaces:

- 1 power input port
- 1 DMX out port
- 1 touchscreen display
- 8 user programmable buttons
- 1 DMX signal button
- 1 pyro safety channel key/switch
- 1 edit mode key/switch

The 8 user programmable buttons are ordered 1-8 from left to right on the unit.

Capabilities

The unit is capable of outputting 1 DMX universe via the DMX output port on the rear of the unit. Programmable buttons may operate any number of fixtures at once, and signals are multiplexed to a single output stream. Signal sending is managed via a separate internal thread to ensure stable DMX output.

Configuration

The unit has a built-in persistent configuration system, meaning that all configuration changes applied with steps described below will be maintained between power cycles.

General Operation

Connecting to Power

Connecting to power is simple with the supplied AC cable, plug the cable into the rear of the unit and twist until the locking connector clicks. Notice that the unit will automatically boot as soon as power is received. To remove the power cable slide the release switch on the cable's connector, turn in the opposite direction, and slide out.

Startup

The unit will go through a startup process to load all software necessary for operation, this will take a few moments. When the main interface comes on screen the unit is ready to use.

Connecting DMX Fixtures

Simply connect a standard DMX cable to the DMX output on the rear of the unit and connect to any number of DMX fixtures. The cable will lock into place with a click when fully connected. To remove the connected cable, press the metal release tab at the top of the unit, and pull the cable out.

Display

The unit comes with a built-in touchscreen display to show relevant information about the state of operation and allow for easy editing of the unit's configuration.

- The center of the display will show indicators for each of the 8 user buttons
- Each button indicator shows:
 - o A red/green off/on indicator shows the current state of the button
 - o Button number referencing which button the indicator is for
 - o The user defined name allows for easy reference of which fixture(s)/functions the button is assigned to
 - o A timer shows the total operation time of the button/fixtures attached. This will be useful for measuring time on fixtures with finite gas/fluid for pyro, cryo, smoke, etc.
- Across the bottom of the display there are 3 primary indicators for the units state.
 - o On the left a pyro key indicator shows the on/off state of the pyro channels.
 - o In the center a DMX indicator shows that status of DMX signal output.
 - o On the right an edit key indicator shows if the unit is in edit mode or not.



DMX Button

The latching button labeled DMX in the center of the unit controls the DMX signal out of the unit. When the button is in-pressed DMX signal is turned on, as indicated by on screen. When the button is out-pressed DMX signal is off, and no fixtures will be operated.

DMX Signal Off



DMX Signal On



Edit Key/Switch

The edit key sits in the right center of the unit, and allows the user to put the unit in edit mode. When turned on, the user can select button indicators on the touch screen to pull up configuration menus. When turned off, the touch edit functionality is turned off, and will not allow any user input. Notice that when entering edit mode, the DMX signal will automatically be disabled for safety. Turning off edit mode will automatically revert DMX signal to it's prior state.

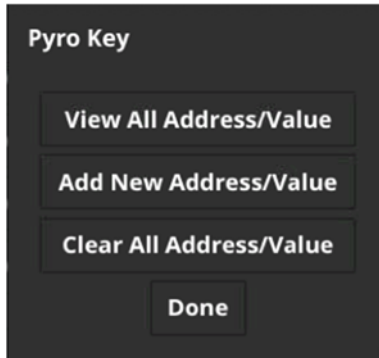


Pyro Safety Key/Switch

The pyro safety key sits in the left center of the unit, and allows the user to turn on/off pyro safety channels for devices requiring this feature. Any number of pyro safety channels may be used in union.

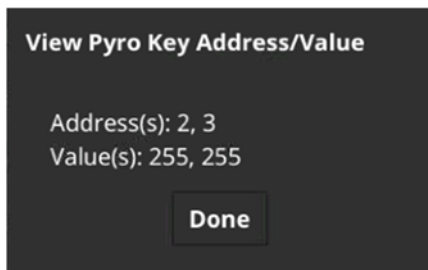
Editing Pyro Safety

While the unit is in edit mode the user can select the pyro indicator in the bottom left of the screen to enter the configuration menu for the pyro key. Three options are presented.



View All Address/Value

Selecting this option will present a menu showing the current configuration for the key.

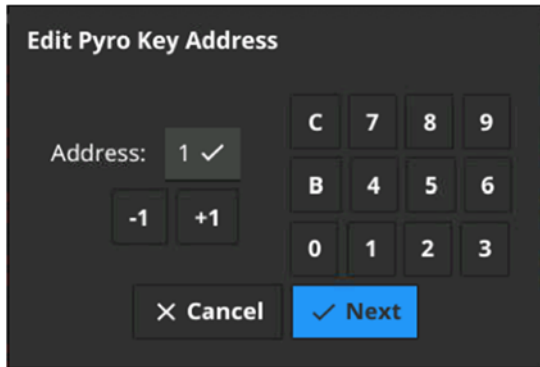


Add New Address/Value

Selecting this option allows the user to add new address/value pairs to the pyro key.

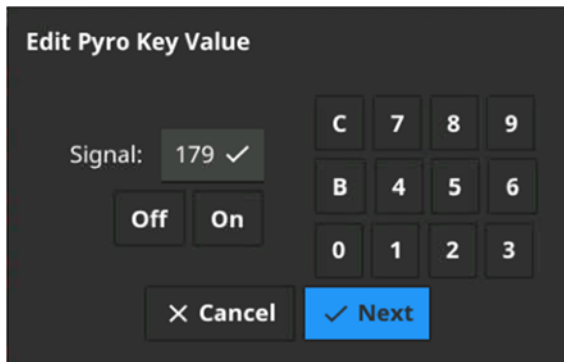
Add Address

The first step for adding a new pyro safety channel is entering the channel, a value from 1 to 512 in the DMX universe. The keypad can be used to enter a any value within this range, and clear (c) and backspace (b) buttons are included in the keypad for convivence. Next proceeds to the next step, adding values.



Add Signal

The second step for adding a new pyro safety channel is setting the signal/value for that channel, a value from 0 to 255. Using the keypad, the user can enter any value in range, and on/off buttons exist to set the value to 255/0 for ease of use. Note that many pyro devices require a value of 70% to operate; this corresponds to a DMX value of 179.



Clear All Address/Value

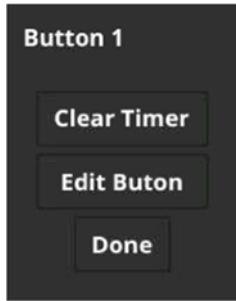
Selecting this option will wipe all configured addressed and values from the pyro key configuration.

Fixture Buttons

While the unit is in edit mode the user can select any button indicator on screen to enter the configuration menu for that button.

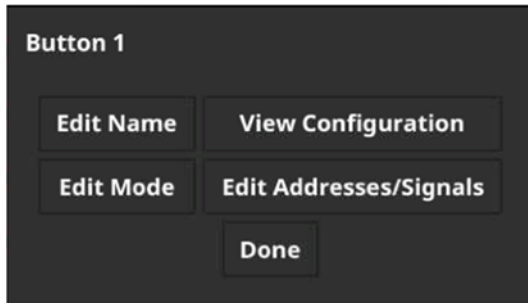
The first menu presents two options:

- Clear timer, which is used to reset the timer for this button
- Edit button, which is used to enter button configuration



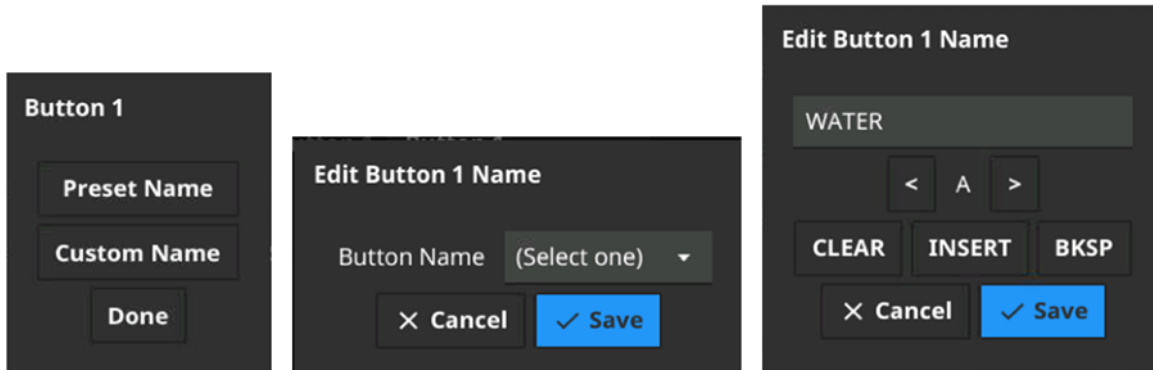
Edit Button

The edit button menu provides several options for editing/viewing button configuration:



Button Name

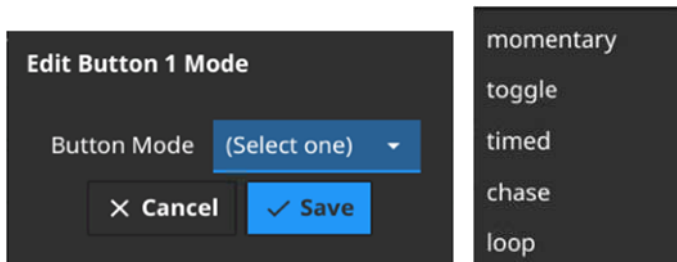
Button name can be modified either by selecting a preset name from the provided dropdown menu or entering a custom name via the scrollable character selector.



Button Mode

The button mode menu provides 5 options for button mode.

- Momentary – the fixtures will be activated only while the button is pressed and held
- Toggle – the fixtures are activated on a first press, and deactivated on a second press
- Timed – the fixtures are activated for the user specified time
- Chase – the fixtures are activated in sequence for the user specified time
- Loop – the fixtures are activated in sequence for the specified time in a repeating loop



View Configuration

The view configuration menu will allow the user to visualize the current button configuration.

Edit Addresses/Signals

This menu provides several options for the user to view/modify addresses, signals, and times.



View All Address/Value

Selecting this option will present a menu showing the current configuration for the button.

Add New Address/Value

Selecting this option allows the user to add new address/value pairs to the button.

Add Address

The first step for adding a address is entering a value from 1 to 512 in the DMX universe. The keypad can be used to enter a any value within this range, and clear (c) and backspace (b) buttons are included in the keypad for convience. Next proceeds to the next step, adding values/signals.

Address: 1 ✓

-1 +1

× Cancel ✓ Next

Add Signal

The second step for adding a channel is setting the signal/value for that channel, a value from 0 to 255. Using the keypad, the user can enter any value in range, and on/off buttons exist to set the value to 255/0 for ease of use.

Signal: 255 ✓

Off On

× Cancel ✓ Next

Add Time

The third step for adding a channel is setting the time for that channel. Using the keypad, the user can enter any value. Time is entered in milliseconds for granularity of control. Easy +/- 100ms and +/- 1sec buttons allow the user to quickly adjust times in these increments.

Time (ms): 100

-100 ms +100 ms -1 s +1 s

× Cancel ✓ Next

Note that this time option is only present for timed, chase, and loop modes, as these modes are the only modes requiring user defined times.

Clear All Address/Value

Selecting this option will wipe all configured addressed and values from the pyro key configuration.

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For More Information On The CryoPyro® Control System Feel Free To Call Our Technicians at
888-664-0097