

# Instructions:



## NECO DC Fire Control Panel



### Technical Parameters

Main Power Supply: AC 220V  $\pm$  10-15% 50Hz $\pm$ 1%  
Back-Up Power: DC 24v  
Current: Between 3-5 amps  
Working Temperature: -20°C +60°C  
Relative Humidity:  $\leq$ 95%  
Atmospheric Pressure: 85-106 Kpa

### The Main Function

#### Mains Supply:

The Panel is powered by the mains supply by default. When this fails, it will automatically switch to standby and revert to battery power. Once the mains supply is restored, it will resume its standard operation whilst the battery back-up supply charges. The gravity-failsafe function will activate if the battery has depleted.

#### Automatic and Deadman Operation:

Set SW1 to the "OFF" position for Automatic Mode  
Set SW1 to the "ON" position for Deadman Mode

Set SW2 to the "ON" position for Normally Closed  
Set SW2 to the "OFF" position for Normally Open

#### Double-Knock Activation:

Set SW3 to the "ON" position for Double Knock Fire Activation

The curtain will act as a smoke curtain until it receives a second signal from a smoke or heat detector. Upon receiving this second signal, the curtain will descend to the floor.

#### Changing the Direction:

Dipswitch 4 changes the direction of the door. The direction of the door can also be switched by swapping the red and black motor wires. Whilst the door is in operation, the door must respond correctly to the internal push button.

Changing the Direction:

Dipswitch 4 changes the direction of the door. The direction of the door can also be switched by swapping the red and black motor wires.

Auto Return Reset Function:

Set Dipswitch 5 to the "OFF" position for manual fire alarm reset mode. This is required after turning off the alarm.

Set Dipswitch 5 to the "ON" position to automatically reset the fire curtain to its default position after the fire alarm has been activated.

Fire Alarm Test:

Place the jumper onto the two pins to activate the fire test signal. Place it back onto one pin to deactivate the fire test signal or move SW2 to the opposite position.

Emergency Retract:

Whilst the fire alarm is activated, the door can be raised by any trapped individuals through pressing the up button on a switch (not provided), enabling them to escape. The door will then automatically close. If the door is already descending, the door can be stopped by pressing the up button once and twice to stop the door.

Split-Drop Delay Set Up:

The delay can be set between 0 and 999, as shown on the digital display's counter.

- Hold the "Setting" button
- Press the "Stop" button and the digital display will read --4 (First Drop Delay Timer)
- Press "Up" and "Down" to adjust the delay shown on the digital display's counter
- Press the "Stop" button and the digital display will read --5 (Second Drop Delay Timer)
- Press "Up" and "Down" to adjust the delay shown on the digital display's counter

Voltage Display:

Real-time voltage is also shown on the digital display for backup power supply. Whilst in stand-by mode, press the "stop" button and the real time voltage will be displayed.

**Please ensure that all limits have been set before wiring any accessories.**

Wiring a Safety Beam:

Terminal 4 - Safe (White)

Terminal 5 - Normally Closed (Black)

Terminal 6 - Common (Yellow)

Terminal 7 - Live - (Blue)

Terminal 8 - Live + (Brown)

Wiring a Light Guard:

(From the Light Guard relay box)

Terminal 14 - DC -

Terminal 15 - DC +

Terminal 17 - Normally Open

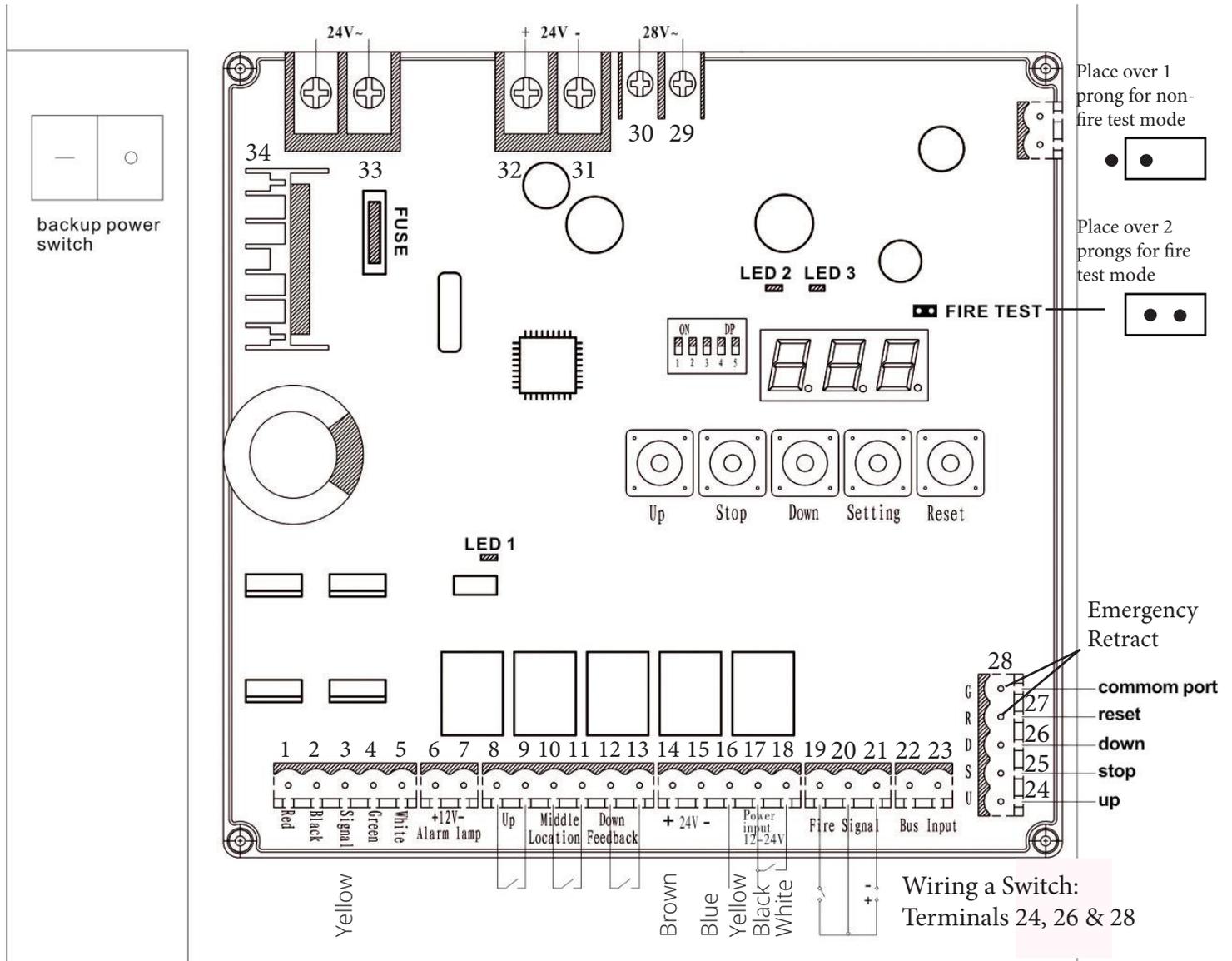
Terminal 18 - Common

# Error Codes

Lamp Colours		
		
Green (Power On)	Yellow (Charging/Motor Disconnected)	Red (Battery Depleted/Power Off)

Fault Type	Fault Lamp	Fault Code
Main Power Failure	X X X	-
Limit Signal Output	X X O	<b>E01/001</b>
Overload Protection	X X O	<b>E02/002</b>
Backup Power	X X O	<b>E03/003</b>

O = Light On  
X = Light Off



**The motor must be wired correctly before activating the power.**

## Building Management System

Terminal 8 - 12v - (Up Position)  
Terminal 9 - 12v + (Up Position)  
Terminal 11 - (Split-Drop Position)  
Terminal 13 - (Top Position)

Terminal 9 - 12v + ( Up Position)  
Terminal 10 - (Split-Drop Position)  
Terminal 12 - (Top Position)

## Installation Procedure

- 1.) Install the motor.
- 2.) Connect the wires accordingly.
- 3.) Turn on the mains supply and turn on the battery back-up power switch
- 4.) Hold "setting" for 3 seconds until the blue lamp lights up and the digital display shows "001".
- 5.) Press up (switch SW4 if the doors runs in the wrong direction) and allow the door to rise to it's highest limit and press "setting". The digital display will now show "002" indicating the top limit has now been set.
- 6.) Press down and allow the door stop in the middle. Press "setting" again. The digital display will now show "003", indicating that the middle limit has now been set.
- 7.) Press "down" and allow the door to descend to the floor, then press "Setting". The digital display is shown as being in stand-by mode, (the number shown in the digital display whilst in stand-by mode represents the number of signals). All limits should now be set.
- 8.) After you have finished setting the limits, you are now able to fully open and close the door. Press and release the "Up" Button but do not hold the button down.
- 9.) To set the delay timer, hold the "Setting" button until the blue indicator lights up. "001" should appear on the digital display, then press the stop button and the digital display should read "--4", indicating that you are setting the top delay timer. Press up and down to set the delay time, press "stop" and the digital display will read "--5", meaning enter the middle limit delay time setting. After setting the delay for the middle limit, press the stop button four times to activate standard use.

Code	Meaning
--4	Delay Before Descent
--5	Split Delay Timer
--6	<i>Pending Future Developments</i>
--7	Polarity Adjuster/ Thermal Trip
--8	<i>Pending Future Developments</i>

## Polarity

Hold the "Setting" button to activate the programming mode. When the digital display reads "001", repeatedly press the "stop" button until the digital display reads "--7".

Hold the "setting" button to set the overflow protection value. Press the up and down keys to adjust the value. (Normally set to 10).

Press the stop button again to adjust the door's descent speed during standard operation.

Once you have finished, press the stop button twice and exit the parameter settings.

Model	Overload Protection	Set state Downward Speed	Normal Downward Speed
DC 55G-25	10.0 + to 32.7	65	100
DC 55G-40	10.0 + 32.7	65	100
DC 80G-10	10.0 + 32.7	75	40
DC 80G-18	10.0 + 32.7	75	40

## Please Note

- 1.) All NECO DC Fire Control Panels must be used with their corresponding NECO DC Tubular Motor otherwise either product can get severely damaged.
- 2.) The gravity failsafe function will activate on associated models (DC55G, DC80G, DC95G) when there is a loss of power.
- 3.) After resetting the power the limits will need to be reset, as the door will have run through the limits without counting down.
- 4.) To reset the power, hold the "reset" button for 5 seconds. When you hear the beep, press the up button and the door will fully ascend.
- 5.) When an error code appears on the digital display, after you have fixed the error, press the "reset" button to clear the error code. The panel will then return to its stand-by mode.
- 6.) When error code "E01" appears, you must reset the limits.

## Troubleshooting

- 1.) Power failiure:  
When a power failiure occurs, the green light will turn off. Please ensure that there are no abnormalities with the mains supply, the power cord plug or fuse. Please also ensure that the transformer has not short circuited.
- 2.) Backup power disconnection or depletion:  
The red light on the panel lights up and error code "E03" is shown on the digital display.
- 3.) When error code "E01" is shown it means there is a fault with the limit signal output. Check that the yellow wire is connected correctly.
- 4.) When error code "E02" appears, there is a prolem regarding motor overload protection. Please ensure that the motor is not overloaded, there are no obstacles in the path of the door, the door is not jamming and that is has not been dropped onto anything.