



HC3 Burst Firing Power Controller instruction manual

1) Installation

The controller should be mounted to allow airflow through the heatsink naturally. The maximum ambient temperature should not exceed 50 Deg. C.

2) Protection Fuse

External protection fuses shall be fitted for protecting the semi-conductors of HC3.

HC3 16A, 250V very Fast Fuses, e.g. RS: 420-230

A 100mA delay fuse which is on the print circuit board is used to protect the low voltage supply of the electronic control circuit.

3) Wiring

A HC3 controller should be connected according to the wiring diagram as shown in fig. 1. The size of cables for controlling signals should be larger than 0.5 mm sq. and the cable to L, N and cables to the load must be sufficient to withstand the maximum current rating of the LOAD and meet the IEE WIRING REGULATIONS.

4) Set-up procedure

After connecting the load to a power controller, set the input signal to minimum (0V). Switch on the mains supply, the Power ON LED should illuminate. The output voltage or current to the load should be zero (except the leakage current which is less than 6mA). Gradually increase the input signal and check that the output is switching ON and OFF according to the input signal. The output LED will illuminate when the output is switched ON.

5) ALL STANDARD UNITS ARE FACTORY SET UP AS FOLLOWS

a) Set the cycle Pot to fully anti-clockwise in order to have minimum cycle period.

Set the input switch for 0-10V range.

b) With the input at minimum (0V), switch on the mains supply to a HC3 unit.

c) With an input of 9V for 0-10V input range (for other input range, set the input to 90% of the max. input), adjust the SPAN pot clockwise until the output voltage or current is at maximum.

d) With 8V input signal, the output is switching on nearly 100%. The output LED switches on for about 90% and off for about 10% of the switching period.

e) With the input at 1V for 0-10V input range (for other input range, set the input to 10% of the max. input), adjust ZERO POT until the output is zero.

f) With 2V input signal, the output switches on slightly. The output LED switches on for about 10% and off for about 90% of the switching period.

g) Repeat step c) to f) until the output is at maximum and zero and all the conditions are met.

h) Set the input to 5V, the output on and off period (the output LED on and off time) is nearly equal. Adjust the cycle time pot clockwise to increase the cycle time to a desirable value.

Specification

Supply voltage	192V to 264Vac
Supply frequency	47Hz to 63Hz
Operating temp.	0 to 45 Deg. C
Storage temp.	-10 to 80 Deg. C
Input signal	0-10V as standard, >50 kilo-ohm input impedance Users select for 0-20V, 0-5V & 4-20mA input
Current rating	4-20mA, 330 ohms input impedance Natural cooling, 14A max.
Cycle Time	adjustable from 2 sec to 55 seconds.
Isolation	2500Vrms between input and output
Min. holding current	30mA
Repetitive peak voltage	600V
Dimensions	W: 110mm x H: 110mm x D: 65mm
Mounting	DIN rail mounted, positive screw locking

**Powerlink Electronics Ltd, Powerlink House, Ivy Arch Road, Worthing, West Sussex, BN14 8BX.
Tel: 01903209550 Fax: 01903213526**

Wiring Diagram

CYCLE TIME
 FULLY ANTI-CLOCKWISE - APPROX. 3 SEC.
 FULLY CLOCKWISE - APPROX. 55 SEC.

