Clutch Controller



Description:

The Clutch Controller is designed to operate with a linear actuator containing potentiometer feedback.

The primary application of this device is to control a linear actuator that moves a clutch pedal. It monitors the position of the actuator and moves the actuator and pedal to the desired position.



Basic Operation:

The potentiometer controls can be adjusted to set the engaged and disengaged positions. The linear actuator simulates the clutch pedal engagement and disengagement positions. Feedback voltage from the linear actuator is fed to a pair of comparators that drive a pair of H-bridge motors controllers that adjust the linear actuators position. The logic determines when the actuator should stop at the desired position.

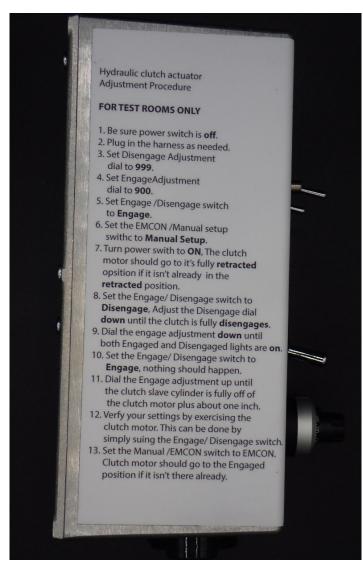
May be used to control any motor circuit that has a potentiometer output that indicates position.

Electrical Specifications:

Signal	Minimum	Maximum
Motor Control Voltage		+12 V
Motor Control Current		8 A
Potentiometer Input Range	0	10kΩ
Voltage Input Range	0 VDC	+5 VDC
Engage Adjustment Control Potentiometer	0 Ω	10kΩ
Disengage Adjustment Control Potentiometer	0 Ω	10kΩ
Input Supply Voltage	+9 VDC	+14 VDC
Input Supply Current	2 A	8 A
Operating Temperature	-25°C	+85°C

Dimensions LxWxH: (195x115x112)mm







Amp Connector: (10) Power

(1) Reset Button (11)———

(2) GND (12) Var F Back Res

(3) GND (13) GND

(4) Encon pin 3 (14) NC

(5) GND (15) Power

(6) Encon ED Input (16) Custom Input SW1 Comm

(7) Power

(8) Custom Input NC

(9) Custom Input NO

Amp Connector From Back Side

