

Series 19 B20HM2W (on/off) & B20HM2FSW Failsafe Electric Actuator User Manual



Description

The Series 19 Model B20HM2W (on/off) & B20HM2FSW (Failsafe) electric actuators features a reversing motor with multi-voltage capabilities; 95vac-265vac (50/60Hz) or 24 Vac/Vdc. An internal heater, and auxiliary switches are standard equipment. Additional features include a NEMA Type 4X enclosure, manual override, visual mechanical position indication, LED Indication (Open/Closed) ISO bolt circle, and flying leads. The auxiliary switches are SPDT and rated for 0.1A @250 Vac, and are factory calibrated. Failsafe units are capacitor discharge design, and may require up to 15 minutes to charge when initially provided power.

Additional options are NOT available for these Series 19 Models

Electrical Requirement

Model	Torque (in/lbs)	95 - 265 Vac		24 Vac/24 Vdc		Cycle Time per 90 Degrees (Seconds)	Weight (Pounds)
		Amp Draw	Duty Cycle	Amp Draw	Duty Cycle		
B20HM2W	177	0.18	75%	0.96	75%	10 for dc units 15 for ac units	1.7
B20HM2FSW	177	0.18	75%	0.96	75%	10 for dc units 15 for ac units	1.7

NOTE: Amp rating is considered Locked Rotor.
Duty cycles are for ambient temperature (73°F)

The Series 19 electric actuator has a sealed cable gland with 2M flying leads. The electrician is required to make field connections as per the wiring schematic shown in this manual for the model and voltages listed above. The electrician is responsible for following all and any, local and/or Agency wiring practices.

Manual Override Operation

This procedure is for both, on/off & Failsafe Units

Remove manual override Hex Key from storage position located on the bottom of actuator, which is secured by SS clips. To operate the manual override, insert hex key into hex socket located on top of actuator and rotate to manually cycle valve (CCW to open, CW to close). When finished using the manual override it is imperative to remove the hex key and place it back into storage on actuator base, making sure that it “clicks” into the locking position.

CAUTION: The manual override should only be used when there is no power applied to actuator. When power is restored the actuator will automatically resume normal operation.

Switch Calibration

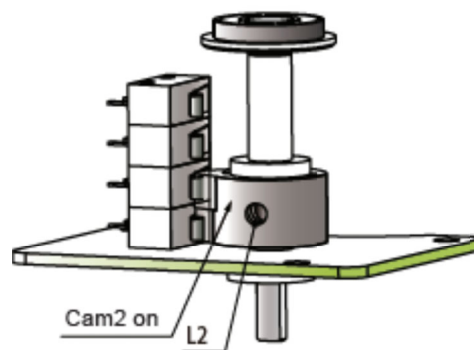
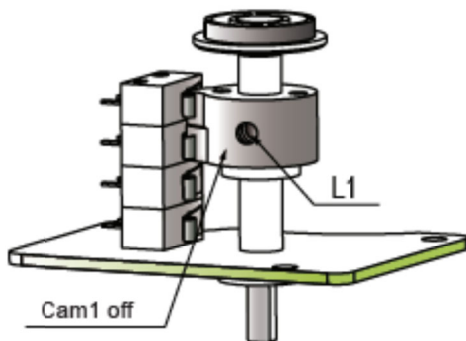
This procedure is for both, on/off & Failsafe units

Open Travel Limit Switch (Bottom Switch Cam 2):

Using manual override, move the valve into a full open position. Then loosen L2 set screw on bottom cam (Cam 2) and rotate cam CCW into limit switch until two clicks are heard, this designates the switch circuit has opened and defines a full open position. Tighten L2 set screw on Cam 2.

Close Travel Limit Switch (Top Switch Cam 1):

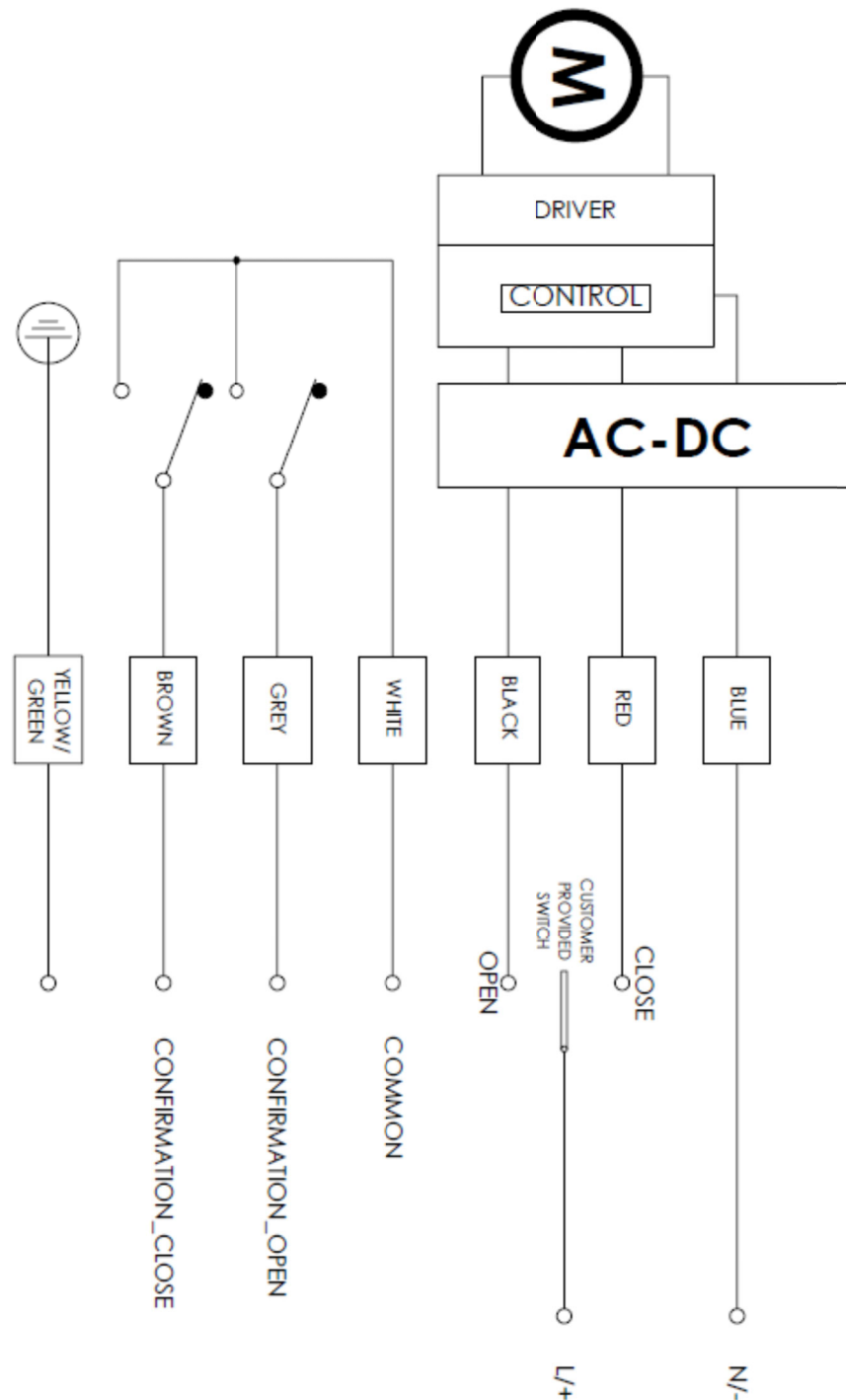
Using manual override, move the valve into a full closed position. Then loosen L1 set screw on top cam (Cam 1) and rotate cam CW into limit switch until two clicks are heard, this designates the switch circuit has opened and defines a full closed position. Tighten L1 set screw on Cam 1.



Note: Not all wires provided will be used.

Heater is internally wired and operational as long as actuator is powered
LED Indicator is green open/red closed

On/Off Wiring:



Note: Not all wires provided will be used.

Heater is internally wired and operational as long as actuator is powered
LED Indicator is green open/red closed

Failsafe Wiring:

