

# PROMATION ENGINEERING

*Precision Actuation for Industry*

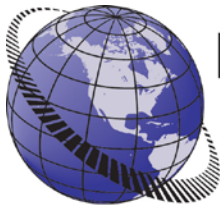
## Installation & Operation Manual

**This IOM is for the following  
ProMation Engineering Products:**

**LCS LC - Fiberglass**







# PROMATION ENGINEERING

Precision Actuation for Industry

## Field Manual

# LCS LC

Local Control Station, Fiberglass  
On/Off/Jog Control



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FM16\_LCS\_LA-LD-Fiberglass Ver A 041516

## **Product Specifications:**

	<b>Local Control Station: LC</b>
Torque "lb/Nm	<b>Actuator dependent</b>
Supply Voltage	120vac
Max Inrush Current	N/A
Running Current	N/A
Runtime (90°@60/50Hz)	Actuator dependent
Weight	7lbs/3kg (case and components)
Mechanical Connections	Actuator Dependent
Electrical Entry to box	Field punched/drilled into enclosure for mounting
Electrical Terminations	Altech terminal blocks that accept 12-16ga wire.
Environmental Rating	NEMA 4 (Local Control Station Enclosure)
Override	Local/Off/Remote Switch
Control	On/Off/Jog
Duty Cycle	Actuator Dependent
Controller Case material	Fiberglass
Ambient Temperature Operating Range	-22°F to +150°F -30°C to +65°C

### **Introduction**

This document provides necessary information for set-up, calibration, testing and use of the L Series Local Control Stations for quarter-turn electric actuators. Each unit is shipped from the factory with wiring completed as shown in the Wiring Diagram and ready to be installed.

### **Safety**

Safety is a basic factor any time you maintain and operate mechanical equipment. Appropriate handling methods and proper use of tools and clothes can help prevent serious accidents -- accidents which can cause injuries to you or a fellow worker. This manual was created to enable a trained user to install, adjust and troubleshoot your ProMation actuator.

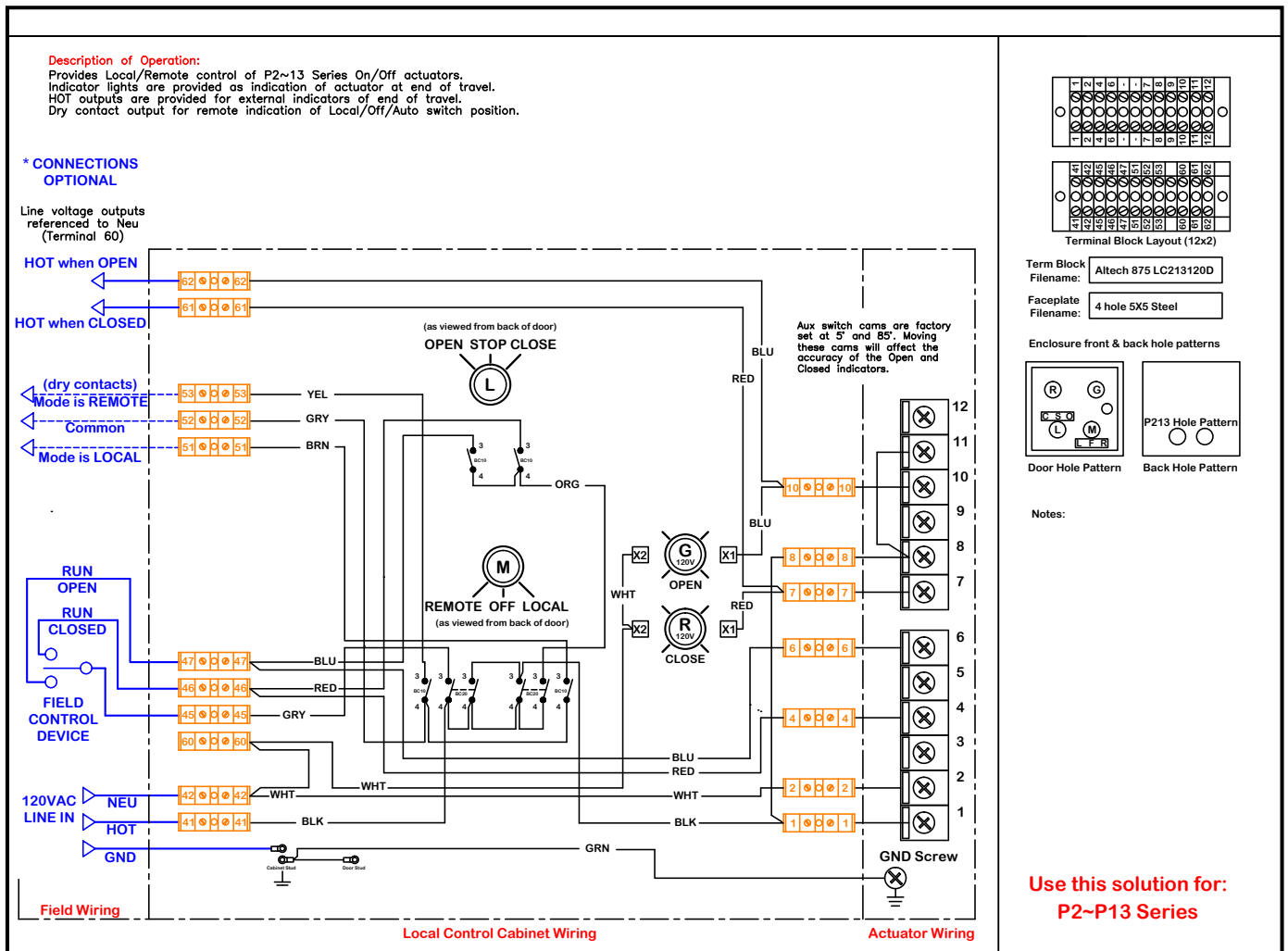
Only competent and trained personnel should install, maintain and operate ProMation Local Control Stations and actuators. Any work related to this actuator must be carried out in accordance with this manual and related codes and regulations. Local workplace health and safety rules should always be followed.

# Product Handling and Installation

1. Storage: This unit should NOT be stored outside unless it is powered up and has proper conduit terminations. When NOT powered up, it should be stored in a clean, dry environment at all times.
2. **Note: this enclosure must have water tight EMT fittings, with conduit drainage installed to keep it dry at the time of installation.**
3. **The switches located on the front of the enclosure do NOT function as service disconnects.**
4. Do NOT wire multiple actuators to or from the Local Control Station.

## Wiring Diagram

### On/Off/Jog Control



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# Component Identification

## Controls - Front Panel



LCS Model	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK
<b>Product</b>	All	All	All	All	All	P1,PA,PL	P2-13	P1,PA,PL	P2-13	P1,PA,PL	P2-13
For On/Off/Jog Actuators Only	X	X	X	X							
For Proportional Actuators Only					X	X	X	X	X	X	X
Local/Off/Remote Mode Switch	X	X	X	X	X	X	X	X	X	X	X
Close-Stop-Open Switch	X	X	X	X							
Close-Open Switch (2 Pos)					X	X	X				
Close / Open Indicator Lights		X	X	X		X	X	X	X	X	X
End of Travel (EOT) Outputs to Controller	X	X	X	X		X	X	X	X	X	X
Mode Switch Position Signal to Controller			X	X		X	X	X	X	X	X
Illuminated Power Indicator				X		X	X				
Full Proportional Control via Potentiometer								X	X	X	X
LCD Display for Incoming Signal								X	X	X	X
LCD Display for Feedback Signal										X	X

### CLOSED (RED) indicator

Uses aux contacts from the actuator. When the MODE switch is set for LOCAL or REMOTE and the actuator is fully CLOSED, this indicator will illuminate.

### OPEN (GRN) indicator

Uses aux contacts from the actuator. When the MODE switch is set for LOCAL or REMOTE and the actuator is fully OPEN, this indicator will illuminate.



### Close / Stop / Open Switch

This knob switch selects the run direction in which the actuator operates. In the CLOSE position, the actuator will drive closed. In the STOP position, the actuator stops driving. In the OPEN position, the actuator will drive open.

### Local / Off / Remote Mode Switch

This knob switch selects the control mode in which the actuator operates. In the LOCAL position, the actuator is commanded by the Close / Stop / Open Switch. In the OFF position, the actuator accepts no commands. In the REMOTE position, the actuator is commanded by the field control device, (typically a central control point).

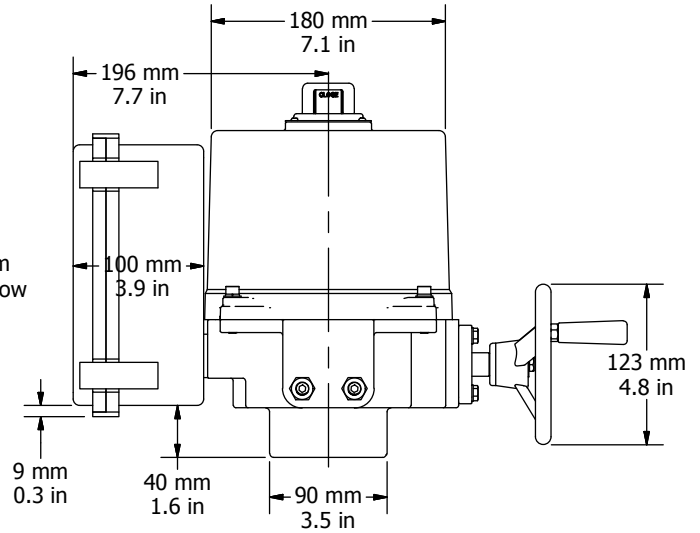
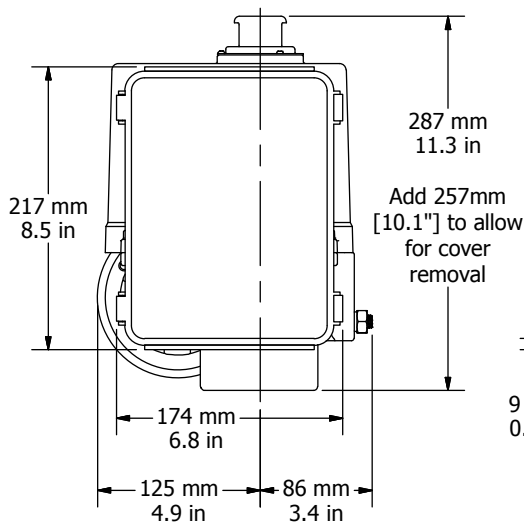
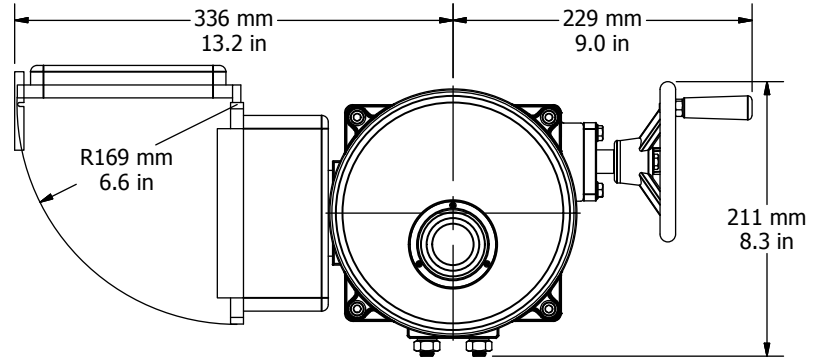
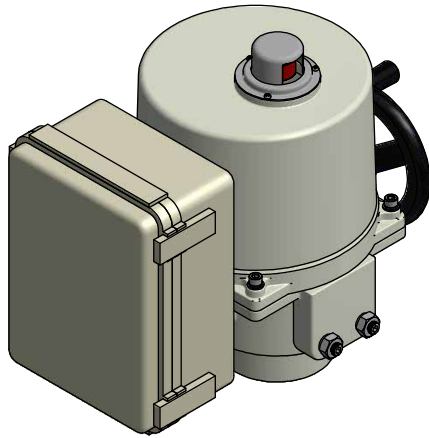
**WARNING!**  
The Mode switch does NOT function as a service disconnect!  
Power is still present inside this enclosure when the mode switch is OFF.

# Mechanical Data

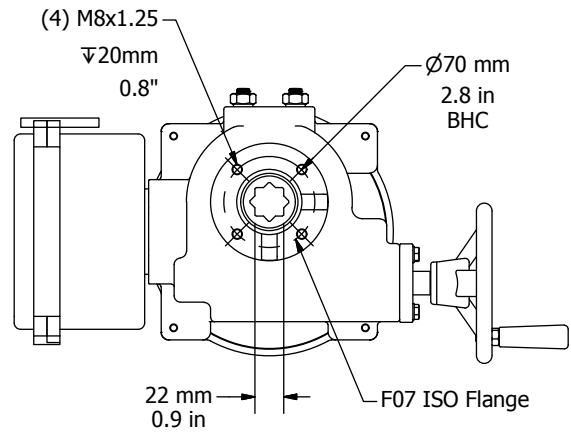
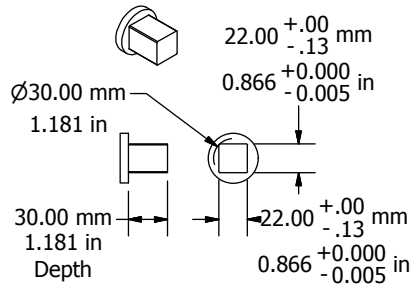
## Product Controls

### SAMPLE DIAGRAM

LCS shown is only a sample and may not represent all components completely.



#### Drive Coupling Fabrication Data



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# Industrial Applications

ProMation Engineering actuators have been installed to operate process controls such as butterfly valves, ball valves, high performance valves, plug valves, gate valves and dampers, in a broad range of demanding industrial applications.

**Power  
Generation**



**Water  
Processes**



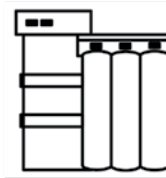
**Mining**



**Oil and Gas**



**Agriculture**



**Chemicals**



## Complete Support

ProMation Engineering is committed to providing superior customer support for your sales, project management and installation teams. Contact us today.

### Full Documentation

We offer complete wiring diagrams, field installation manuals and set up documentation for all our products, both in printed and digital form. We regularly host customized educational webinars for our customers.

### RapidQuote

Most quotes and estimates are generated within hours of the request.

### ProMation Engineering Services

ProMation Engineering can provide design and technical services for OEM's, projects with customized requirements and specialized operations.

ProMation Engineering follows a policy of continual product updates and enhancements. Our website is the best place to obtain the latest product documentation, including the wiring diagrams for these controllers. Visit us at [www.promationei.com](http://www.promationei.com) or use the code to link to the site.



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