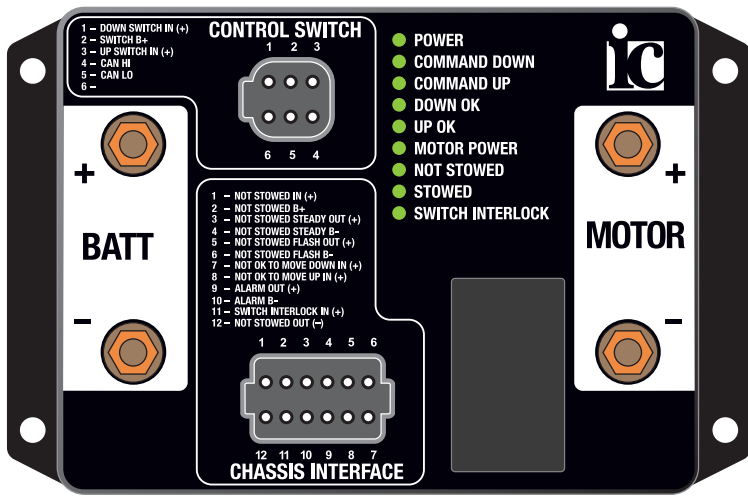




3050927 Ladder Lift Control System



LADDER RACK CONTROL WITH J1939 CAN BUS

The Innovative Controls Inc. Ladder Lift Control Systems are used to operate 12VDC electric and hydraulic actuators used in ladder rack storage lift systems. The Ladder Lift Controls can be operated and interlocked using hardwired inputs or an optional J1939 CAN Bus interface.

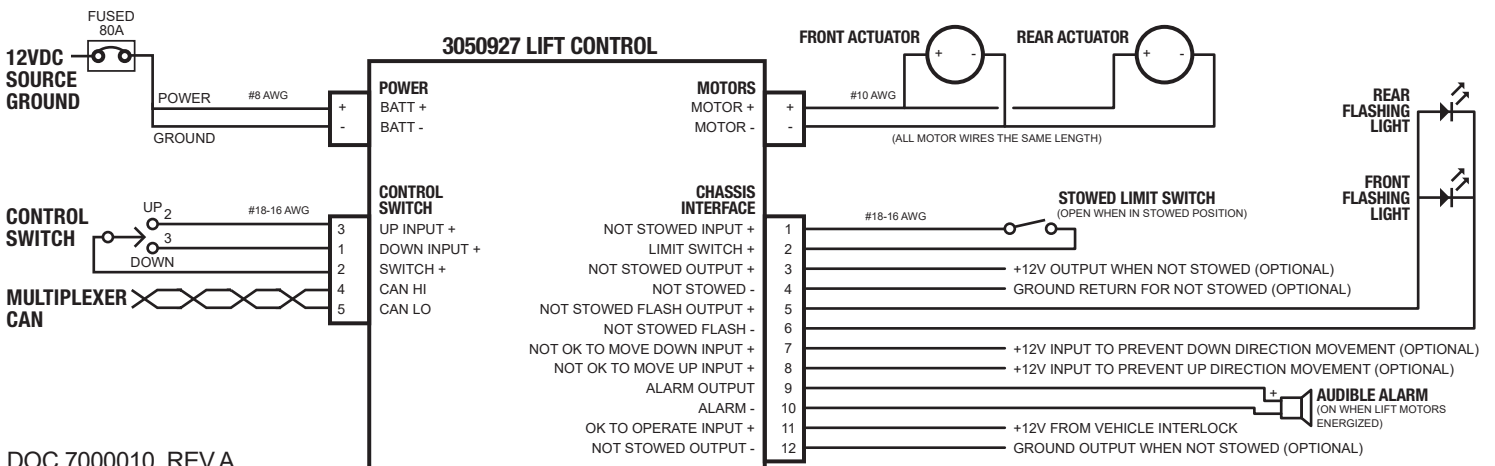
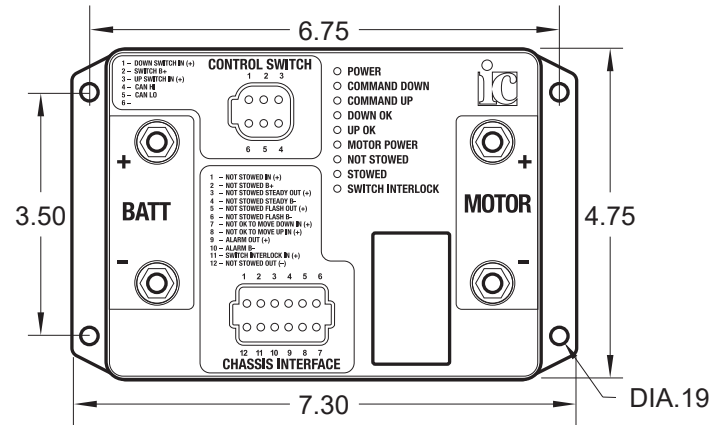
The 3050927 ladder lift control is designed to operate lift systems operated by hydraulic power under electronic control.

The 3050927 ladder lift control module contains two DC motor controls used to operate a hydraulic power unit and a boom latch actuator. The boom lift direction can be controlled by +12V hardwired inputs or a J1939 CAN data link. The control module has inputs for a master interlock from the vehicle chassis, lift door open, and boom stowed. Outputs are provided to drive the left and right warning lights, boom not stowed alarm, and boom moving alarm.

FEATURES

- 80A Surge & 40A Continuous Motor Current
- J1939 CAN Bus Operation
- Hardwired Control Inputs
- Hardwired Indicator and Alarm Outputs
- Lock Inputs to Prevent Operation in either Direction
- Front Panel Status LEDs
- -40C to +105C (-40F to +220F) AEC-Q100 Level 2 Operating Temperature
- No Configuration Jumpers
- Potted Module for Dust and Water Ingress Protection
- Watertight Control Connectors
- High Current 1/4"-20 Battery and Motor Studs

DIMENSIONS



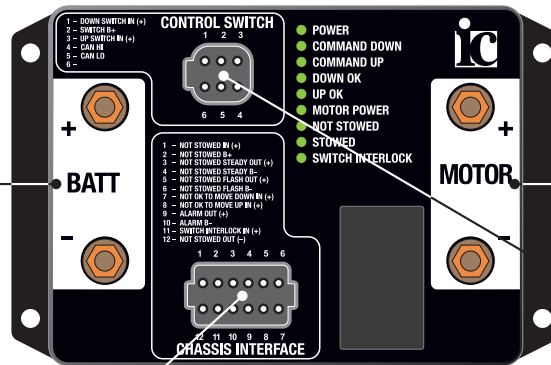
TECHNICAL SPECIFICATIONS

Operating Voltage	7 to 32 VDC, nominal 12 VDC
Power Consumption with no loads at 13.8 VDC	45 mA
Motor Current	40A continuous, 50A for 2 minutes, 80A for 2 seconds
Operating Temperature Range	-40°C to +105°C (-40°F to +220°F)
Storage Temperature Range	-40°C to +105°C (-40°F to +220°F)
Ingress Protection	IP67
Electrical Protection	Reverse voltage polarity protection on all connections Internal thermal fuses CAN Bus protected to 24V ESD protected to J1113-13 specifications Transient voltage protected to J1113-11 and J1113-42 Indicator outputs and input circuits are both protected from reverse polarity, over-current, over-voltage, and voltage transients. Watchdog timer supervises proper execution of software
SAE J1939 Protocol	CAN 2.0B port operating at 250kbps, J1939-11 or J1939-15 physical layer
Indicator Output Current	High side polarity 10A maximum
Not Stowed Output Current	Low side polarity 3.5A maximum
Dimensions	6.13" wide x 4.62" high x 1.25" deep
Weight	771 grams (1.7 pounds)

POWER INPUT 1/4"-20 Studs

Pin	Name	Description
+	BATT +	Battery positive
-	BATT -	Battery negative

1/4"-20 Studs Mates with 1/4" Ring Terminals



MOTOR OUTPUT

Pin	Name	Description
+	MOTOR +	Motor(s) positive
-	MOTOR -	Motor(s) negative

1/4"-20 Studs Mates with 1/4" Ring Terminals

LIMIT SWITCH AND INTERLOCK INTERFACE

Pin	Name	Description
1	NOT STOWED INPUT +	Boom not stowed limit switch +12V input
2	LIMIT SWITCH +	Boom limit switch +12V power
3	NOT STOWED OUTPUT +	Output +12V when boom not stowed
4	NOT STOWED -	Ground
5	NOT STOWED FLASH OUTPUT +	Unused spare input
6	NOT STOWED FLASH -	Ground
7	NOT OK TO MOVE DOWN INPUT +	Apply +12V to prevent boom from moving down
8	NOT OK TO MOVE UP INPUT +	Apply +12V to prevent boom from moving up
9	ALARM OUTPUT +	Output +12V when boom is moving
10	ALARM -	Ground
11	OK TO OPERATE INPUT +	Apply +12V to enable lift control switch input
12	NOT STOWED OUTPUT -	Output ground when boom not stowed

Deutsch DT15-12PA Connector Mating connector is Deutsch DT06-12SA Plug

CONTROL SWITCH AND CAN INTERFACE

Pin	Name	Description
1	UP INPUT	Lift moves up with +12V applied
2	DOWN INPUT	Lift moves down with +12V app.
3	SWITCH+	Control switch +12V
4	CAN HI	CAN network high
5	CAN LO	CAN network low
6	NOT USED	

Deutsch DT15-6P Connector
Mating connector is Deutsch DT06-6S Plug

