



# Electrical Load Manager 3050349



## RELIABILITY AND PERFORMANCE DELIVERED IN A SMART DESIGN

The Innovative Controls Inc. Electrical Load Manager is used to monitor a vehicle's battery system and control electrical circuits to meet the requirements detailed in NFPA-1901. All settings and status readings are made from the front panel of the control module.

Electrical loads will turn on sequentially in priority order from 1 to 8 when their respective logic switch, either ignition or master warning, is activated and the vehicle is operating in the selected mode, either response and/or scene. Loads sequence off in reverse order. Priority zero loads sequence on and off but will never shed.

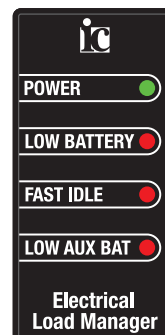
The shed point is the voltage that will cause a load to be turned off. If the system voltage drops to or below this setpoint, the load will be shed. The un-shed point is the voltage that must be achieved before a load is turned back on.

Electrical loads will be turned off when the system voltage drops to the shed point for a minimum of 1 minute. The delay prevents load shedding due to momentary system power loading such as high current transient. Once shed, loads will remain off for a minimum of 5 minutes and until the un-shed voltage is achieved for a minimum of 1 minute. Loads will only shed if the Parking Brake is set and the Load Manage Enable input is active.

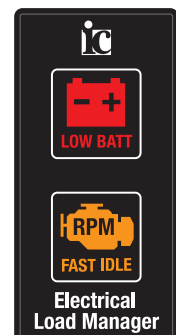
### FEATURES

- NFPA-1901 Compliant Main Battery Monitoring
- Auxiliary Battery Monitoring - Accurate to +/- 0.5%
- Electrical Load Shedding and Sequencing
- 12 Programmable Load Outputs and 4 Alarm Outputs
- Low Main Battery Voltage Auxiliary Battery Alarms
- Fast Idle and Variable User Trip Output Functions
- Master Warning, Load Manager Enable, and Park Brake Inputs
- Polarity-Selectable Load Outputs and Control Inputs
- Selectable Load Output Priority, Scene or Response Mode, Ignition or Warning Switch Logic
- Easy-to-Read 0.56" High Digital Display
- Manual Override Switch for Troubleshooting
- -40°C to +105°C (-40°F to +220°F) AEC-Q100 Level 2 Operating Temperature
- All Outputs Protected from Over-Current, Reverse Polarity, Over-Temperature, and Transients
- All Outputs Rated for 1A Continuous Duty
- No Configuration Jumpers – All Parameters are Adjustable from the Front Panel
- Lockable Front Panel User Interface
- Default Configuration Restorable from the Front Panel
- Remote Cab Display
- J1939 CAN Bus, RS-485, and USB Comm. Options
- 12VDC or 24VDC Operation

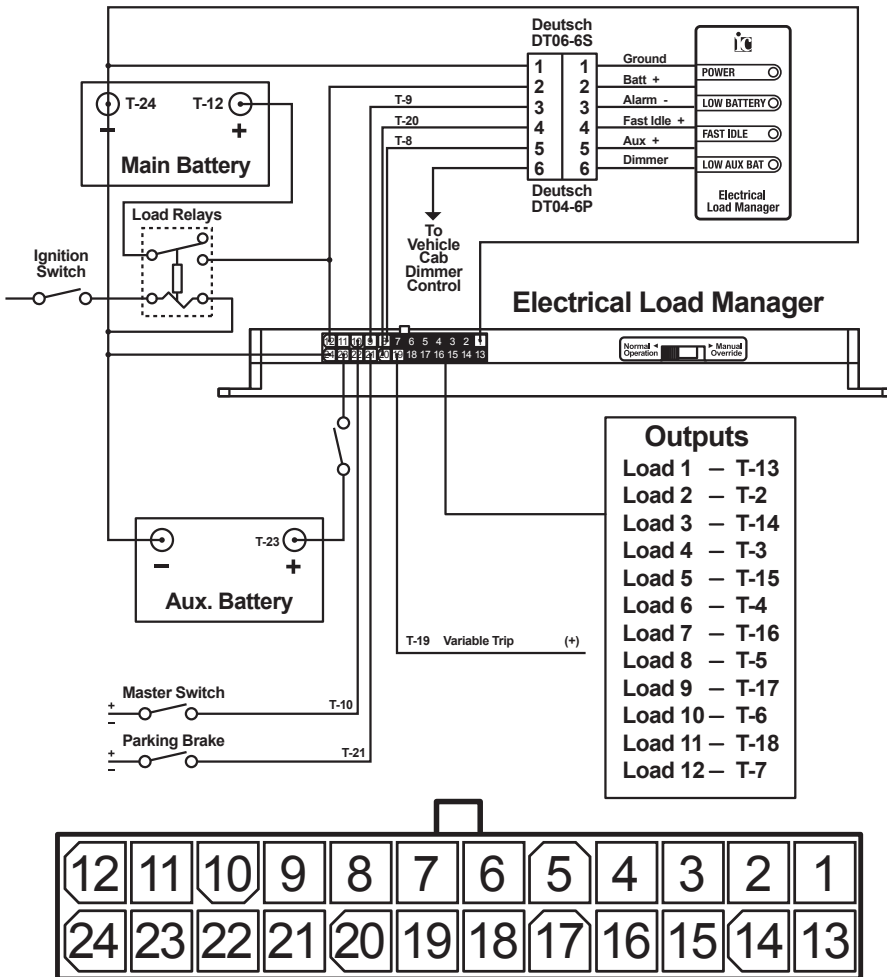
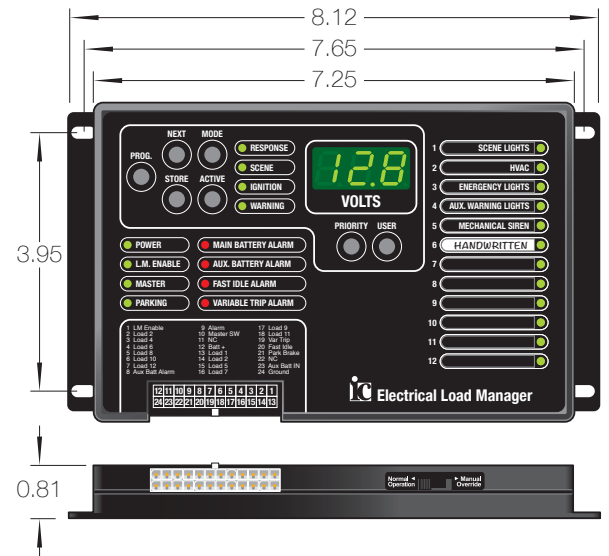
#### In-Cab Display Option 1



#### In-Cab Display Option 2



<b>Operating Voltage</b>	7 to 32 VDC
<b>Power Consumption with No Loads at 13.8 VDC</b>	120 mA
<b>at 27.6 VDC</b>	100 mA
<b>Operating Temperature Range</b>	-40°C to +105°C (-40°F to +220°F)
<b>Storage Temperature Range</b>	-40°C to +105°C (-40°F to +220°F)
<b>Ingress Protection</b>	IP64
<b>Electrical Protection</b>	Reverse voltage polarity protection on all connections Internal thermal fuses CAN Bus and RS485 ports protected to 24V ESD protected to J1113-13 specifications Transient voltage protected to J1113-11 and J1113-42 Load and alarm output circuits are protected from reverse polarity, over-current, over-voltage, and voltage transients Input circuits are protected from reverse polarity, over-current, over-voltage, and voltage transients
<b>Load Output Current Max.</b>	Low side polarity 1A High side polarity 1A
<b>Dimensions</b>	8.125" wide x 4.875" high x 0.875" deep
<b>Weight</b>	860 grams (1.9 pounds)



Electrical Load Manager connector viewed from wire insertion end.

## PARTS AND ACCESSORIES

	PART NO.
No Communication	3050349-01
J1939 CAN Bus	3050349-02
RS485	3050349-04
Connector Socket Kit	3050353
Mating Pigtail	3050352
Remote Cab Display	3050351
4 Channel Relay Board	3050354
6 Channel Relay Board	3050355
9 Channel Relay Board	3050356
8 Channel Relay Board	3050357
12 Channel Relay Board	3050358
12 Channel Relay Board with CAN BUS	3050359

## WIRING ACCESSORIES

	PART NO.
Mating Connector	TE 770587-1
Socket (Loose Form)	TE 171639-1
Socket (Strip Form)	TE 171637-1
Crimping Tool	TE 90760-1
Contact Extraction Tool	TE 189727-1
Connector Socket Kit	3050353
Mating Pigtail	3050352

