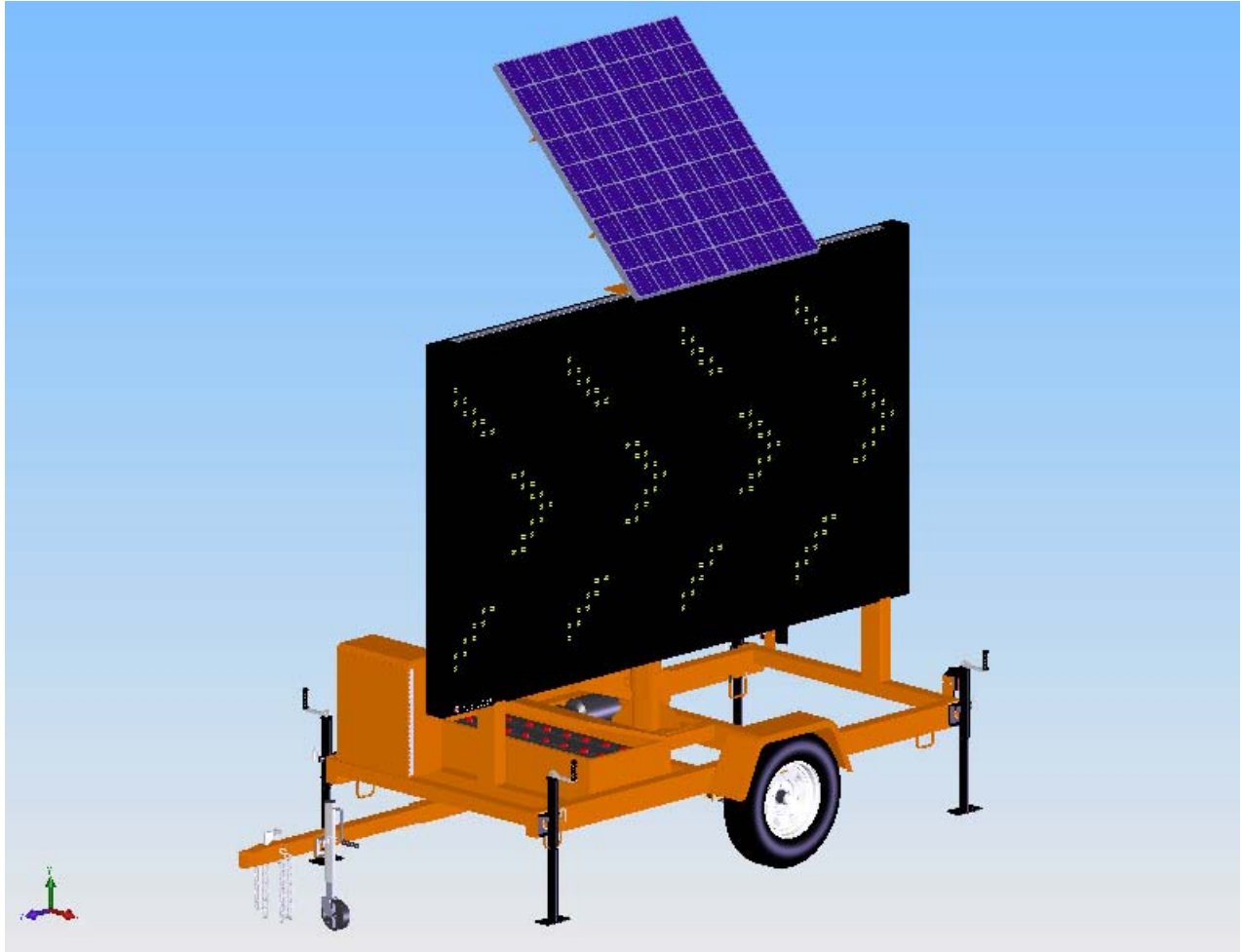


# IntelliStrobe Safety Systems

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## MODEL MB3L-220 SPECIFICATIONS

# SPECIFICATIONS

## Model MB3L-220 3 Line

### Trailer Dimensions:

Length with tongue	174"
Length without tongue	124½"
Overall width	79"

### Trailer Specifications:

Mainframe:	3"x5"x1/8" tubular steel
Front/Rear cross members:	3"x3"x1/8" tubular steel
Axle and leaf springs:	Straight tubular steel axle with load capacity of 3500 pounds (OPTION- lockable axle)
Wheels and tires:	5 lug-P205/75R15
Fenders:	16-gauge steel, walk able
Tongue and safety chains:	2" hitch (OPTION- dual hitch with pintle ring)-two 1/4" safety chains with 1/4" minimum diameter safety hooks
Jacks:	Adjustable 15" jacks (2000 lbs. capacity) located on each corner of the trailer. Tongue jack.
Tail Lights:	Dual combination reflective lights with stop, tail, and turn signal. Male and female quick connect. License plate bracket.
Wiring:	Enclosed in jacketed cable or conduit.
Battery/Controller Box:	Steel fabrication, lockable, hinged, ventilated, and mounted to trailer frame to protect batteries from weather and vandalism.

### Sign Frame:

Frame constructed of extruded aluminum, 6063 alloy with a T5 temper.	
Length:	131"
Height:	76"
Depth:	6"
Mounting Studs:	constructed of .080 aluminum
Back skin:	constructed of .080 aluminum
Viewing Window:	.220 thick polycarbonate with UV matte finish
Paint:	Powder paint, flat black finish
Salt spray fog:	1,000 hours
UV Resistance:	500 hours

## Display Module 5 x 7 pixel, 2.85" pitch

### Specifications:

#### Optical:

LED pixel is formed using 4 LED's

Pixels are arranged in a 5 wide by 7 tall matrix array.

LED pixel spacing is 2.85 inches x 2.85 inches

Agilent Amber lamps, 592 NM wavelength, 15 degree viewing angle, bins 4.2 cd to 12 cd

LED module is painted a flat black to improve contrast and reduce glare.

#### Operational:

Failure of any LED module does not prevent any other LED module from displaying proper information.

Supports monitoring of pixel failure (stuck-off), both in runtime or after a pixel test.

Power and data cable connectors allow for daisy chaining to each LED display, using a locking polarized connector.

Addressing of each LED module is accomplished through a dipswitch.

LED modules support the ability to update at least 10 times per second.

LED modules will have diagnostic LEDs, reporting:

Power

Heartbeat

Communication Activity

Error Detected

LED modules support 255 levels of LED brightness.

Test pattern displayed when address is set to 00 (all switches in off position).

#### Power and Data Connections:

Power input: 9 to 14 VDC

Current: All on, full brightness: 25 ma per pixels + drivers =  
2.8 amp  
All off, 45 ma average

Power connection - mating connector:

Housing Molex

Terminals Molex

Pin-out

Pin 1: +DC

Pin 2: GND

Data connection - mating connector:

Housing 3M

Strain Relief 3M

No reverse biasing protection

Power for LCD is provided through controller

#### Environmental:

LED module water sensitive hardware shall be coated with conformal coating.

Other than LEDs and sockets, all electronic hardware shall be mounted to the printed circuit board with surface mount technology.

Operating temperature: -40C to 70C (-40F to 158F)

Storage temperature: -40C to 85C (-40F to 185F)

## Controller Kit:

### Components:

- LCD screen
- Wiring harness - Data, 24 drops
- Wiring harness - Data, Controller to photocell (bulk wire)
- Wiring harness - Photocell to display data
- Wiring harness - Power, 24 drops
- Photocell / Temperature Interface

### Power Connections:

Power Input: 9 to 14 VDC  
Controller has protection against reverse biasing power inputs.

Current: Typical current draw: <250ma

### Operational:

Controller console has a virtual LED sign on LCD screen that displays what is on the sign in real-time. It can be used to preview a message without affecting the message running on the sign. User login and password protection is used to prevent unauthorized access.

#### Message Creation Functionality:

From local interface, allows for full message management allowing creating, storing, editing, and deleting messages. Allows for the creation of multiple page messages by sequencing pre-programmed messages

Supports up to 260 predefined messages (text and graphics).

Supports storage of up to 100 changeable messages, each with up to 4 pages of text.

Blank, permanent, or changeable messages can be scheduled

#### Four different fonts:

- 1 - 6x9
- 2 - 6x9 bold
- 3 - 12x9
- 4 - 5x7

Able to set hold time for a message

From local - slow, medium, fast

Able to set character flash rate (0.1 to 1 second) and able to set ON/OFF or OFF/ON sequence

From local - only default rate

From laptop - range described above plus setting of default rate

Support flashing of any character or group of characters

Units support downloadable fonts, which can be used for Graphics Symbols - which will support custom symbols and special arrows.

Support multiple display configurations - switch selectable

### Diagnostics:

Control LED brightness based on ambient light levels from ambient light sensor (Automatic mode) or manually (manual mode).

If sign cabinet temperature exceeds 70C (158F), the display will be blanked. The sign will remain blank until the cabinet temperature drops below 60C (140F).

The sign cabinet temperature is read through photocell assembly

Crucial functions such as battery level status, fault detection, and message updates are executed even during user operation

Controller console shall be able to have the software updated with laptop computer.

Access to programming port and special cable is required

Create, edit, and delete users, Ids, and password.

All software and messages are kept in non-volatile memory, so when power is lost all software and messages are retained.

Uses real-time clock protected by battery back up.

Able to configure a comms loss message from the laptop software. This message shall be displayed after a user configurable time has elapsed without the receipt of communication from central. This feature is disabled by default.

Pixel failure test can be performed from the local interface and via the laptop or cell

Modem connection - this will detect if a string of LEDs is stuck off (no longer lights).

#### Operation:

All operations on controller console is controlled with on - screen menu choices.

A user name and password must be entered first, before accessing console functions.

Able to create a sequence message by stringing multiple existing messages, then assigning this sequence to a changeable message slot

Able to schedule permanent, changeable, or blank messages to be displayed.

Controller support local laptop and cellular remote access to all functions available through the local keyboard interface.

Controller shall log out a user of there is inactivity for more than four minutes.

Supports the latest version of NTCIP and can be CERTIFIED by third party for its full functionality and conformance.

Allows automatic or manual setting of brightness, up to 15 levels of LED intensity.

Operating Temperature: -30C to 70C (-22F to 158F)

Storage Temperature: -40C to 80C (-40F to 185F)

#### Radar Gun Option:

Able to receive a Speed Value from a DR500 speed sensor.

Able to create one or more messages with a field assigned for displaying speed value received form the radar gun.

Able to define a speed value threshold, which triggers a radar message, interrupting current message for 5 seconds.

Controller has three user serial ports:

Modem interface (for cell phone usage)

Local programming port (for laptop usage)

Accessory interface (for connecting various radar guns and speed sensors, weather stations, GPS)

#### Miscellaneous:

Watchdog function

Indicator LEDs (qty 4)

Heartbeat

TX

RX

Diagnostics

### **Photocell Assembly:**

#### Specifications:

##### Operational:

Monitors ambient light conditions

Monitors ambient temperature

Operating Temperature: -40C to 70C (-40F to 158F)

Storage Temperature: -40C to 85C (-40F to 185F)

##### Power Connections

Power Input: 9 to 14 VDC

Current:

Typical Draw: <150ma

## Documentation:

K & K Logo on power up screen

Logo to be provided in .BMP format

Image size limited to 27 pixels high by 48 pixels wide

Operational Documentation:

Overview of keyboard operation is provided, electronically

Full manual on Laptop software is provided, electronically

## NTCIP

Supports the latest version of NTCIP and can be CERTIFIED by third party for its full functionality and conformance.

## Power and Charging

Battery bank:

Typical installation is eight (225 amp) 6-volt batteries wired for 1800 combined amps maximum output.

Electronic Circuitry:

Solid state, reverse polarity protection, properly fused, disconnects on all cables.

Battery Charger:

Input volts	105-130VAC
Max. Amp Draw	15
Max. Watt Draw	1000
Output Amps	60

## Solar Panel - Two (2)

Typical Electrical Characteristics	110 Watt Panel
Maximum Power (P max)	110 W
Voltage at Pmax (V mp)	17.05 V
Current at Pmax (IMP)	6.46 A
Guaranteed Minimum (P max)	99.0 W
Short-Circuit Current (Isc)	7.21 A
Open-Circuit Voltage (Voc)	21.45 V

## Typical electrical characteristics

### Regulator

#### SCC30:

3-position battery select: gel, sealed, or flooded. Jumper to eliminate telecom noise.

Parallel for up to 30 amps. 100% solid state. LED's indicate battery status and faults.

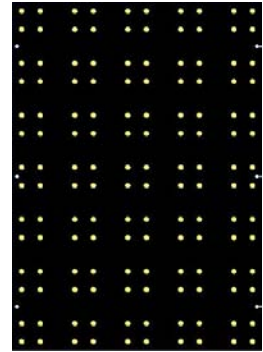
Rated Solar Current	30 amps
Rated Load Current	30 amps
System Voltage	12/24 volts

# 5x7, 2.85" Pitch, 4 LEDs/Pixel, 18" Characters

## LED Display Module

### OPTICAL

LED/Pixel	:	4
Matrix	:	5 Wide x 7 High
Pitch	:	2.85"
LED Type	:	EOL-MAYFCC0
Typical Luminous intensity	:	4000
Minimum Luminous intensity	:	2225
Viewing Angle	:	30 Degrees



### OPERATIONAL

- Failure of any LED module does not prevent any other LED module from displaying information.
- Module consist of one circuit board.
  - Pixel Board: LED`s and connectors.
- Power and data connector cables allow for daisy chaining to each LED display, using a locking polarized connector.
- Jumper on back of panel sets digit position (1`s and 10`s digit)

### POWER & DATA

- Power Input: 10-14 VDC

### ENVIROMENTAL

- LED Module water sensitive hardware is coated with conformal coating.
- Other than LED`s and sockets-all electronic hardware shall be mounted to a printed circuit board with surface mount technology.
- Operating temperature: -40C to 85C (-40F to 185F)
- Storage Temperature: -40C to 100 C (-40F to 212F)
- LED module is colored flat black to improve contrast and reduce glare.

# MODEL SCC-30

## 30 Amp Solar Charge Controller

Solid State PWM Regulator

### Electrical Specifications:

- Voltage: 12V
- Rated Solar Input: 30A
- Rated Load Current: 30A
- Regulation Voltage:
- Boost Charging Voltage: 14.8V
- Direct Charging Voltage: 14.4V
- Float Charging Voltage: 13.7V
- Low Voltage Disconnect: 11.1V
- Low Voltage Reconnect: 12.6V
- Self-Consumption: <15 mA
- Operating Temp: -20°C to +50°C (-4F to +122F)
- Battery Capacity: 50AH – 5,000AH

### Characteristic

- Automatic Load Reconnection
- State Of Charge (SOC) Regulating
- LCD Digital Display
- Digital Readouts:
- Battery Voltage
- Battery Capacity
- Battery Temperature
- Load Current
- Charging Current
- Voltage Of Solar Module
- Protections:
- Over Voltage
- Over Current
- Short Circuit
- TVS Lightning
- Reverse Polarity:
- Solar
- Battery
- Load



## PD9260C

### 60 Amp RV Converter/Charger

The **PD9260C**, 60 amp power converter is designed to provide reliable filtered DC power to all recreational vehicle 12-volt lighting and appliance circuits. The **PD9260C** converter also provides safe and rapid recharging of RV batteries. Built-in features such as electronic current limiting, reverse battery protection, high voltage protection, low voltage operation, and over temperature shut down ensure long term reliability. The built-in Charge Wizard is a microprocessor-controlled system that constantly monitors the battery voltage and ensures a rapid; yet, safe, recharge. The Charge Wizard can select one of three charging



voltages and one of four operating modes depending on the condition and use of the battery. The built-in Accessory Port makes it easy to add the [Converter Status Remote Pendant](#) that shows the charger/converter status.

### Specifications

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<b>Input:</b>	105-130 VAC, 1,000 Watts
<b>Output:</b>	13.6 VDC, 60 Amps
<b>Dimensions:</b>	3.6" x 8" x 9"
<b>Weight:</b>	5.8 lbs.

### Features

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- ▶ Built-in Charge Wizard.
- ▶ Reverse Battery Protection.
- ▶ Delivers filtered DC power to all 12 Volt lighting and appliance circuits, providing safe and reliable service.
- ▶ Electronic Current Limiting.
- ▶ Low line Voltage Protection.
- ▶ Variable speed intelligent Cooling Fan.
- ▶ High Voltage Protection.
- ▶ Automatic thermal shutdown.

Manufacturer reserves the right to make changes in its products from time to time without incurring any obligation to incorporate such improvements in any products previously sold or in service.