

# LC40e Installation Manual

Rev 4/22/08

**The LC-40e is not approved for installation in certified aircraft.**

## Mechanical

The 1/4" diameter control Pot shafts may be trimmed to any desired length. Any 10K control pots may be substituted if desired. Switch and Knobs are not included with kit, however, suggested part numbers and sources are on the last page of this manual.

## Electrical

The LC-40e is capable of dimming both incandescent and LED lighting. The LC-40e is designed for 12-28 volt systems.

Refer to wiring plans on the following pages for your planned installation. It is acceptable to customize your system by mixing elements from the two diagrams.

When dimming multiple lamps with a single channel is important to have the lamps wired in parallel and not in series. See figure C on page 4 for an example of Parallel vs. Series wiring.

We suggest powering the LC-40e with your navigation light circuit switch and fuse.

Cable for the dimmer controls is included. Use Tefzel wire of the appropriate gauge for power, ground and output connections. Tin the ends of all wires that will be inserted into the LC-40e.

Additional information is available for using the LC-40e to dim a Garmin 400 or 500 series radios in the "Support" section of our website: [fdatasystems.com](http://fdatasystems.com)

[See suggestions for light Grouping and Channel Usage on Page 4](#)

## Master Bright Mode

The LC-40e also has the capability of running in a Master Bright mode. This allows all or some of the four channels to be controlled by one dimmer knob.

The Master Bright mode is used as follows:

- 1) Set the four channels of the LC-40e to the desired relative brightness. If you do not want specific channels to go into Master Bright mode, rotate their knobs to off (fully counter clockwise).
- 2) Turn the switch to "On" to activate the Master Bright mode.  
Now the dimmer knob wired to the "CH1" terminal will control the brightness of all channels that were on when the switch was thrown. Channels that were off when the switch was thrown will remain independently controlled.

To return to four-channel independent operation, move the switch to the off position.

Wire the Master Bright switch as shown in wiring plans A or B

Note: If desired, the Master Bright mode may be omitted by not installing the switch.

## Specifications

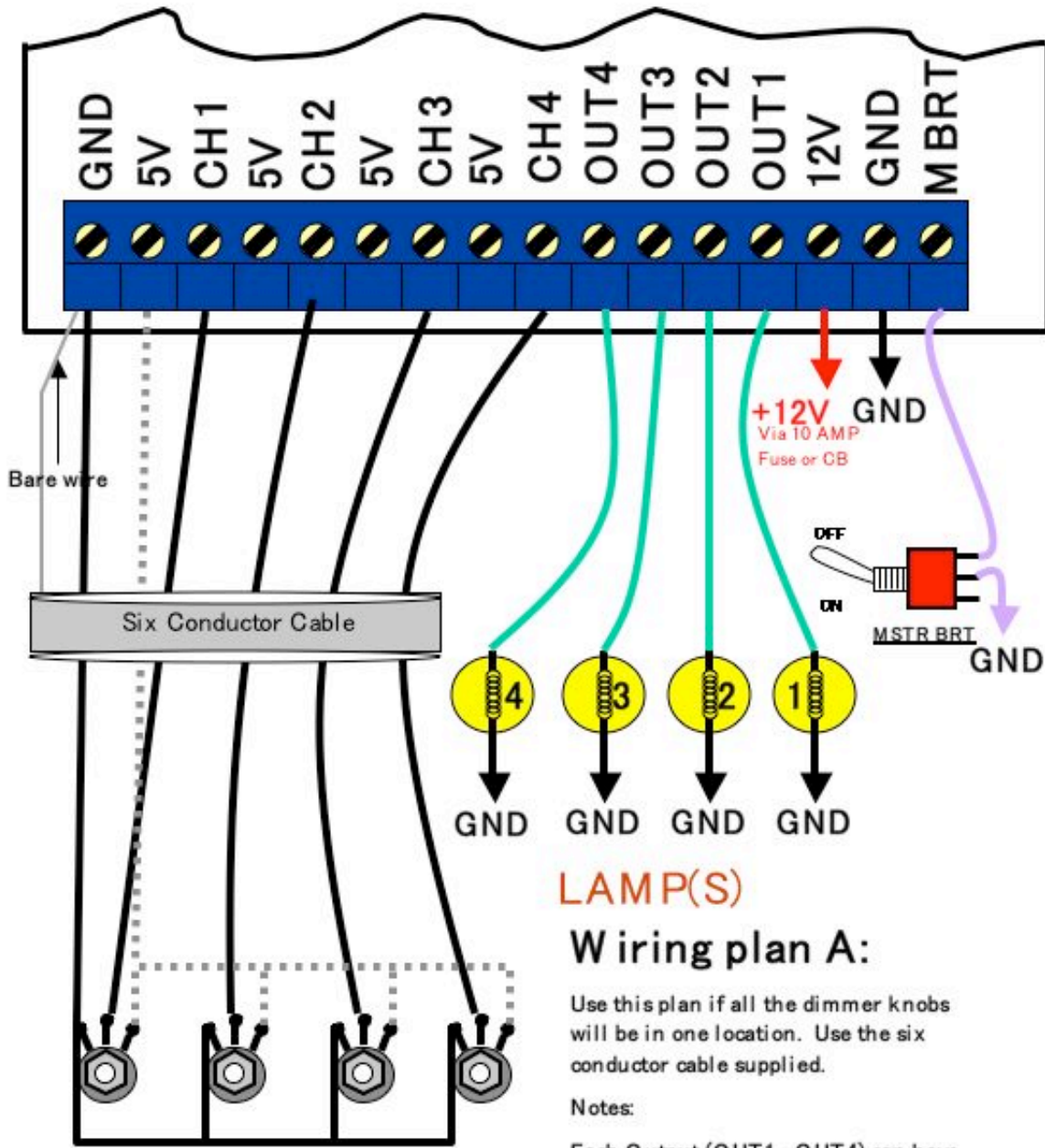
Input Voltage: 12 to 28 Volts DC  
Output Current: 1.5 Amps Per Channel  
Width 2.53", Length 3.42", Height .55", Weight 2.5 oz.



**Need Help?**

[support@fdatasystems.com](mailto:support@fdatasystems.com)

**or call (831) 325-3131**



(Shafts facing away into page)

## LAMP(S)

### Wiring plan A:

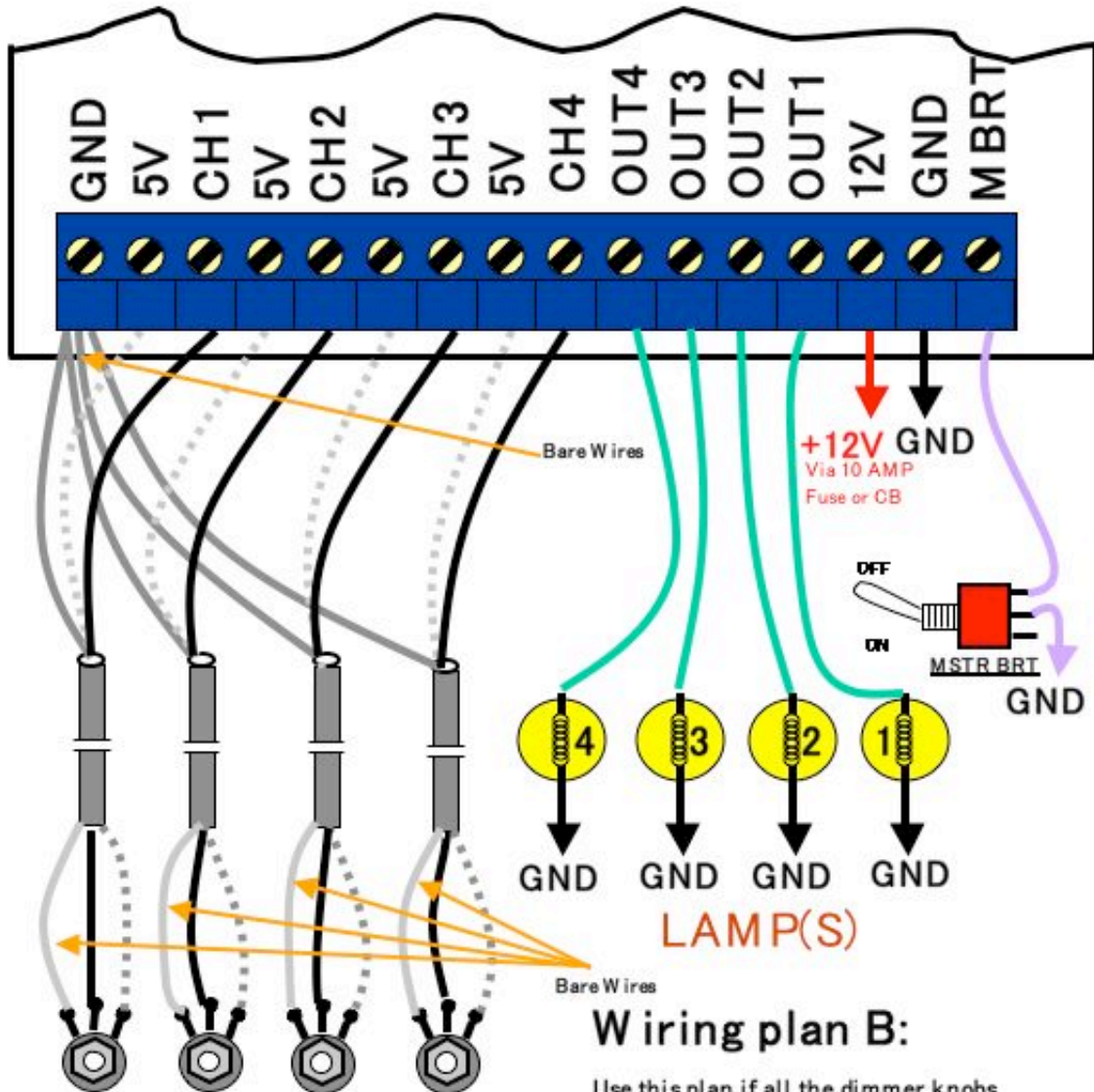
Use this plan if all the dimmer knobs will be in one location. Use the six conductor cable supplied.

#### Notes:

Each Output (OUT1 –OUT4) can have any number of bulbs with a maximum current of 1.5 Amps per Output Channel.

All 5V terminals are electrically the same. All GND (ground) terminals are electrically the same.

Rev 3/9/06



(Shafts Facing Away Into Page)

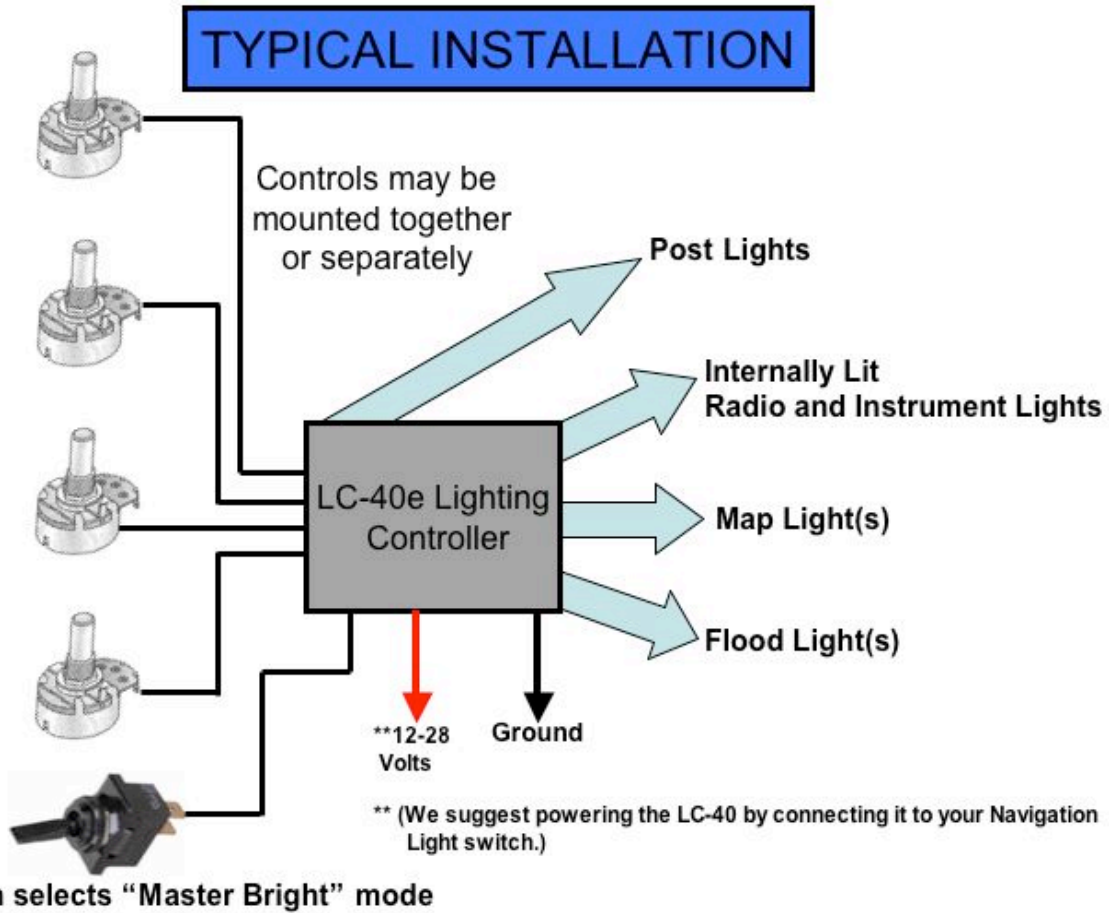
### Wiring plan B:

Use this plan if all the dimmer knobs will be in separate locations.

**Notes:**

Each Output (OUT1 –OUT4) can have any number of bulbs with a maximum current of 1.5 Amps per Output Channel.

All 5V terminals are electrically the same. All GND (ground) terminals are electrically the same.



**Suggested Sources for Knobs and Switches**

**Radio Shack**

Switch Part Numbers - 275-612, 275-624, 275-613, 275-651, 275-324, 275-645, 275-620, 275-635, 275-634, 275-325, 275-654, 275-603

Knob Part Numbers – 274-415A, 274-403A

**Mouser Electronics: 1-800-346-6873 or [www.mouser.com](http://www.mouser.com)**

Switch Part Numbers – 611-7101-54, 612-100-A1421, 108-1MS1T1B1M1QE, 633-M201101

Knob Part Numbers – 506-KB500B1/4, 506-KN500B1/4, 400-ME52, 400-CE15, 450-2040, 450-2050, 450-2060, 450-2070, 450-2023, 450-2034,

See catalog and website for many more...

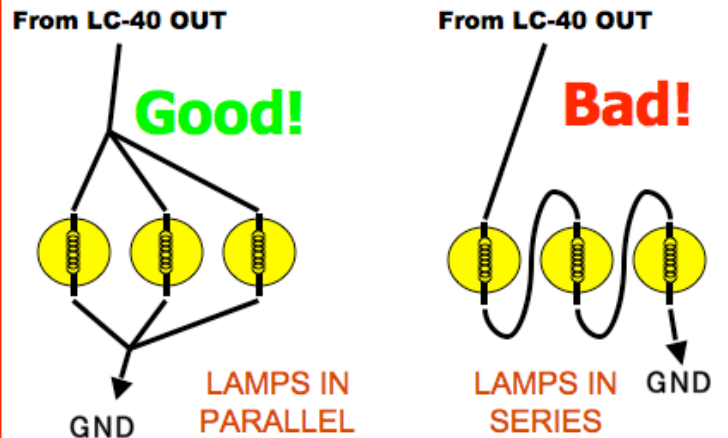


Figure C