

## Application Notes

### UCC-2 Vehicle Mounting and Wiring

May 5, 2004

By: Cadex Applications Engineering

Product: Cadex UCC-2 Charger

The UCC-2 charger is designed for vehicle operation and can be installed in any orientation with a Cadex supplied mounting bracket. This application note provides an overview of the charger vehicle installation. Due to the variety of vehicle installation and wiring preferences, this application note provides general information only and is not vehicle specific. It is assumed that the installer is familiar with vehicle electronic device installation, vehicle wiring and electrical systems.

#### A. Wiring

- If using a 'switched' or fused power feed for your vehicle, either switch off or remove the fuse.
- Install the power feed wire into the terminal block at the rear of the UCC2 Charger (see figure 1) before installing the charger into the mounting bracket. The recommended wire is a stranded 18AWG. Observe the polarity when wiring. It is indicated on the housing above the terminal blocks as shown in Figure 1. Ensure that bare wires do not touch each other or to any other metal such as the mounting bracket.
- There is a SMT 5A slow blow fuse inside the charger. This fuse is not resettable nor is it easily replaceable so before connecting the charger to the vehicle electrical system, use an ohmmeter to ensure that there are no shorts. A 5A, 125V fast blow fuse on the wire is recommended for additional protection.
- Input voltage at the terminal blocks is 10.5V to 15VDC.
- Do not use the power input.
- Cigarette lighter sockets are available from local electronic suppliers

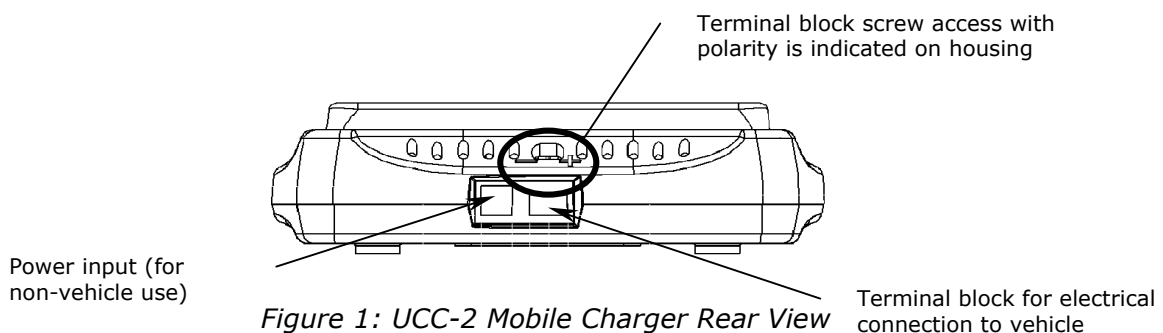


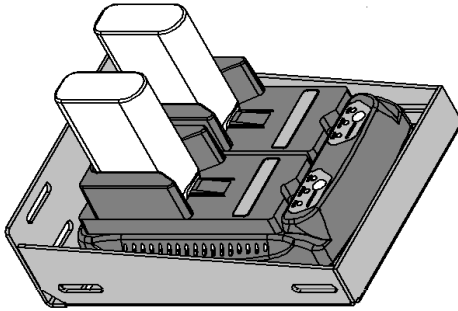
Figure 1: UCC-2 Mobile Charger Rear View

#### B. Charger Installation without the Cadex bracket

The UCC-2 charger has three keyholes and four #6-32 threaded brass inserts for vehicle installation. Screws used on the threaded brass inserts should be torqued to **10lb-in maximum**. Screw hole and keyhole locations are illustrated at the back of this document.

#### C. Charger Installation with the Cadex bracket

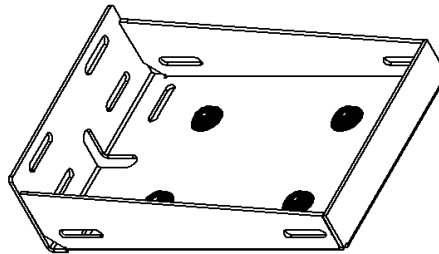
For flexibility in mounting configurations, the Cadex Universal Bracket (P/N 11-300-0001) should be used. A sample installation is illustrated in figure 2 below.



*Figure 2: Sample Installation with a Mounting Bracket*

The bracket is 10.63"L x 7.25"W x 3"H made of 11 Gauge Cold Rolled Steel. There are twelve 1.5" x 0.312 slots around the bracket to fasten it to the vehicle and a wire slot at the bottom rear

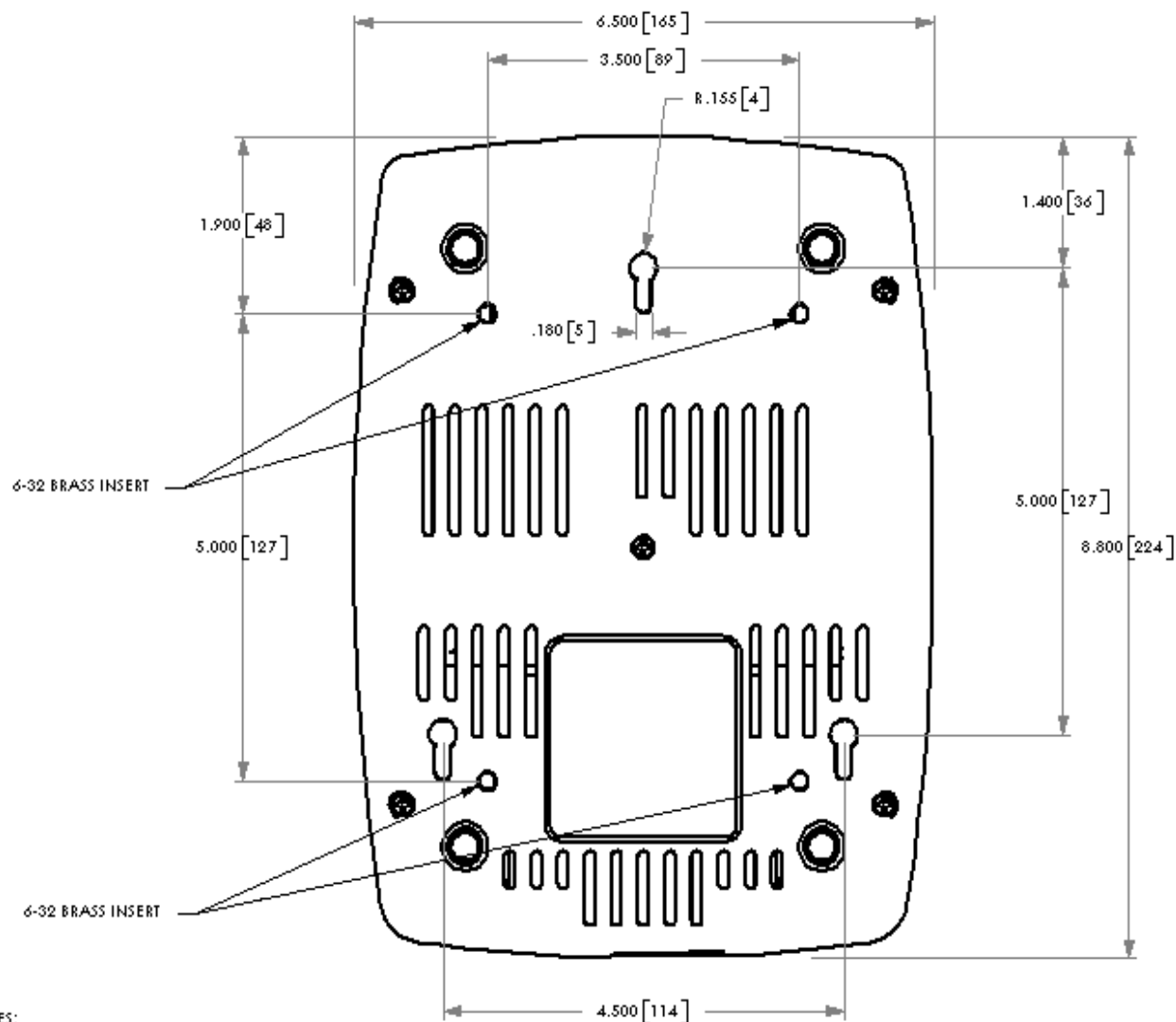
Position the UCC2 Charger in the bracket with the connectors towards the wire slot. Install the screws with the washers from the back of the bracket through the dimples (marked black in figure 3) into the brass inserts on the bottom of the UCC2 Charger.



*Figure 3: 6-32 screw locations for the mounting bracket*

#### **D. Ventilation**

- Keep a  $\frac{3}{4}$ " space around the charger.
- Do not remove the charger rubber feet.
- Do not block any of the ventilation holes on the charger.



NOTES:

1) DIMENSIONS: INCHES (mm)

BOTTOM VIEW OF UCC2 CHARGER  
SHOWING KEYHOLE AND MOUNTING SCREW LOCATIONS

- END -