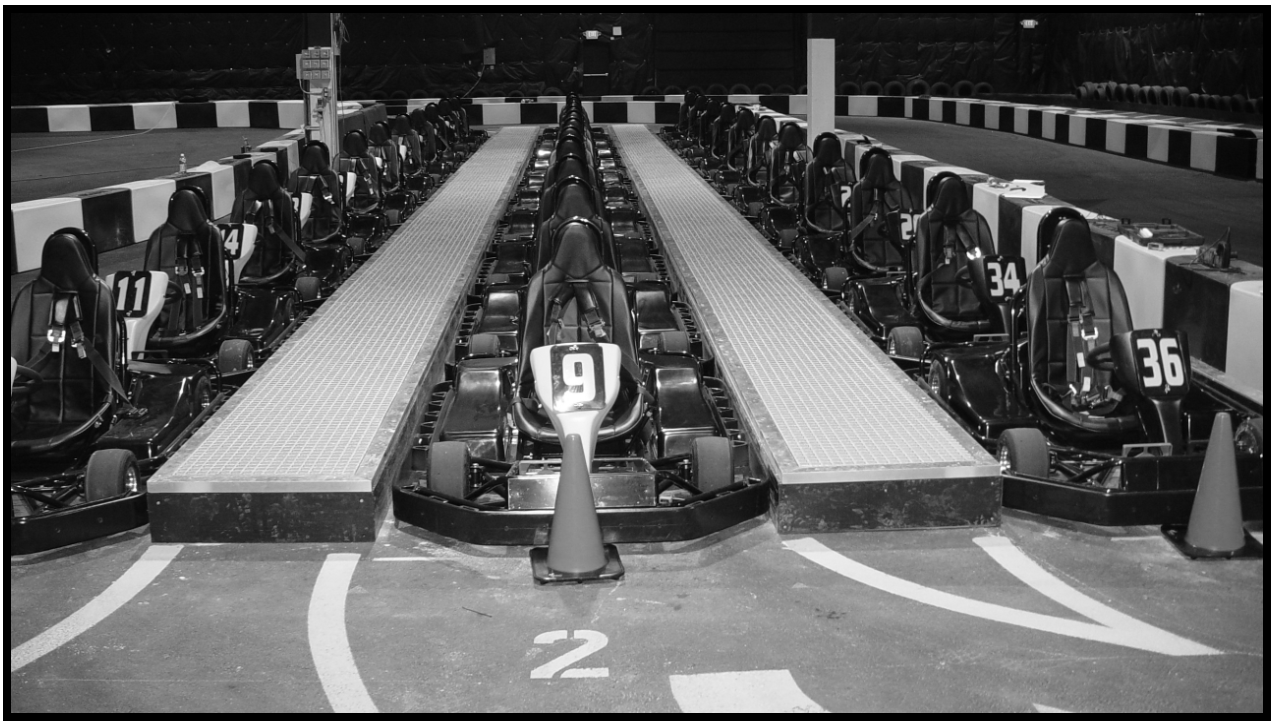
Electra Motorsports

CHARGING SYSTEM

INSTALLATION MANUAL



1176 Greenfield Drive El Cajon, CA 92021
Phone: 619-448-0886 Fax: 619-448-0917
E-Mail: info@electramotorsports.com

INSTALLATION METHOD #1

LAYING OUT PADS AND CUTTING INTO CONCRETE FLOOR

Using the dimensions shown on the cut sheet “Placement of pads,” lay each kart segment out in the pit area with a marker. In order to eliminate laying concrete, a concrete cutter will need to be used to cut into the existing floor. After cutting a minimum of a 3/8” wide hole, lay the battery wires. With the negative wire (black) running to the left hand pad and the positive wire (red) to the right hand pad, these wires will be covered in the saw-cut holes by either concrete or epoxy.

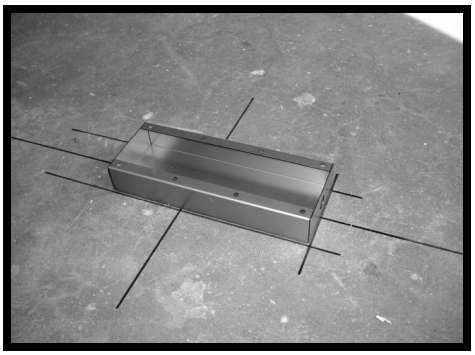
Stage 1 Layout Pit Lane
Layout the pit lane using dimensions supplied and positioning of the charge boxes in relation to curbing to be poured. Cut a ½” deep gutter from chargers to pad with a 3/8 concrete saw blade.

Stage 2 Place Charge Pad
After placing wire in the gutter, bolt the charge pad to the floor using concrete screws, approximately 1.5” long. Fill above the wire with concrete or epoxy.

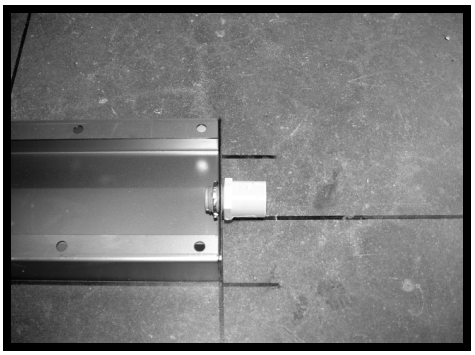
Stage 3 Bolt Brass Plate to Pad
Using a ¼” ring connector (supplied), crimp it to the end of the battery wire, bolt the connector to the center of the plate, and screw the plate to the pad.

INSTALLATION METHOD #2
-USING CHARGE BOXES-

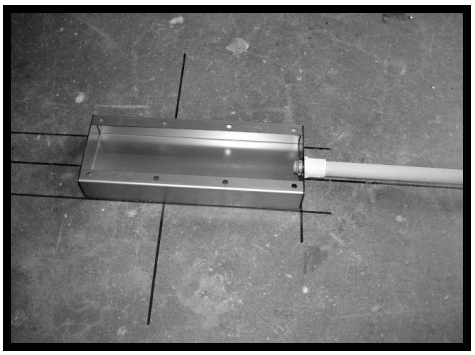
Using the charge box method, boxes will be placed on existing floor, laid out as per attached drawing dimensions. This system will require a 2” layer of concrete to be poured over the whole area with all the wires running in the concrete. It is highly recommended that rebar is used to prevent the floated concrete from breaking loose and shifting.



Stage 1 - Layout Dimensions
Layout dimensions as shown in “Placement of Pads.” Using a Hilti nail gun, or concrete screws, secure the charge box to the existing concrete floor.

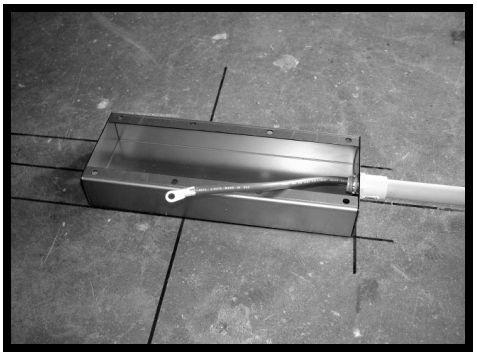


Stage 2 - Attach plastic adapter
Screw plastic ABS adapter (available at any Home Depot) into charge box.

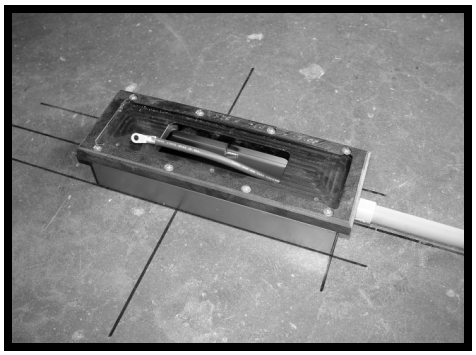


Stage 3 - Run Tubing
Glue ABS tubing all the way from charge box to charger location.

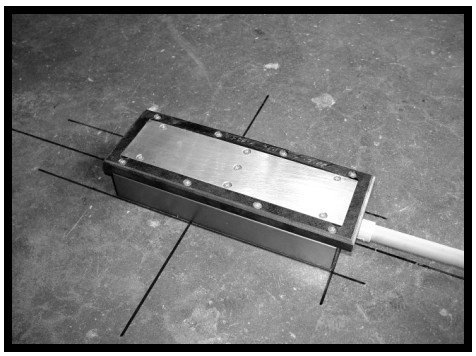
INSTALLATION METHOD #2
-USING CHARGE BOXES (CONT'D)-



Stage 4 - Pull Electrical Wire
Using a fish pull the #4 gauge wire from charger to pad location. Crimp ¼" ring connector on charge box side. After covering the box with duct or masking tape, lay concrete 2" deep to create a new pit surface.

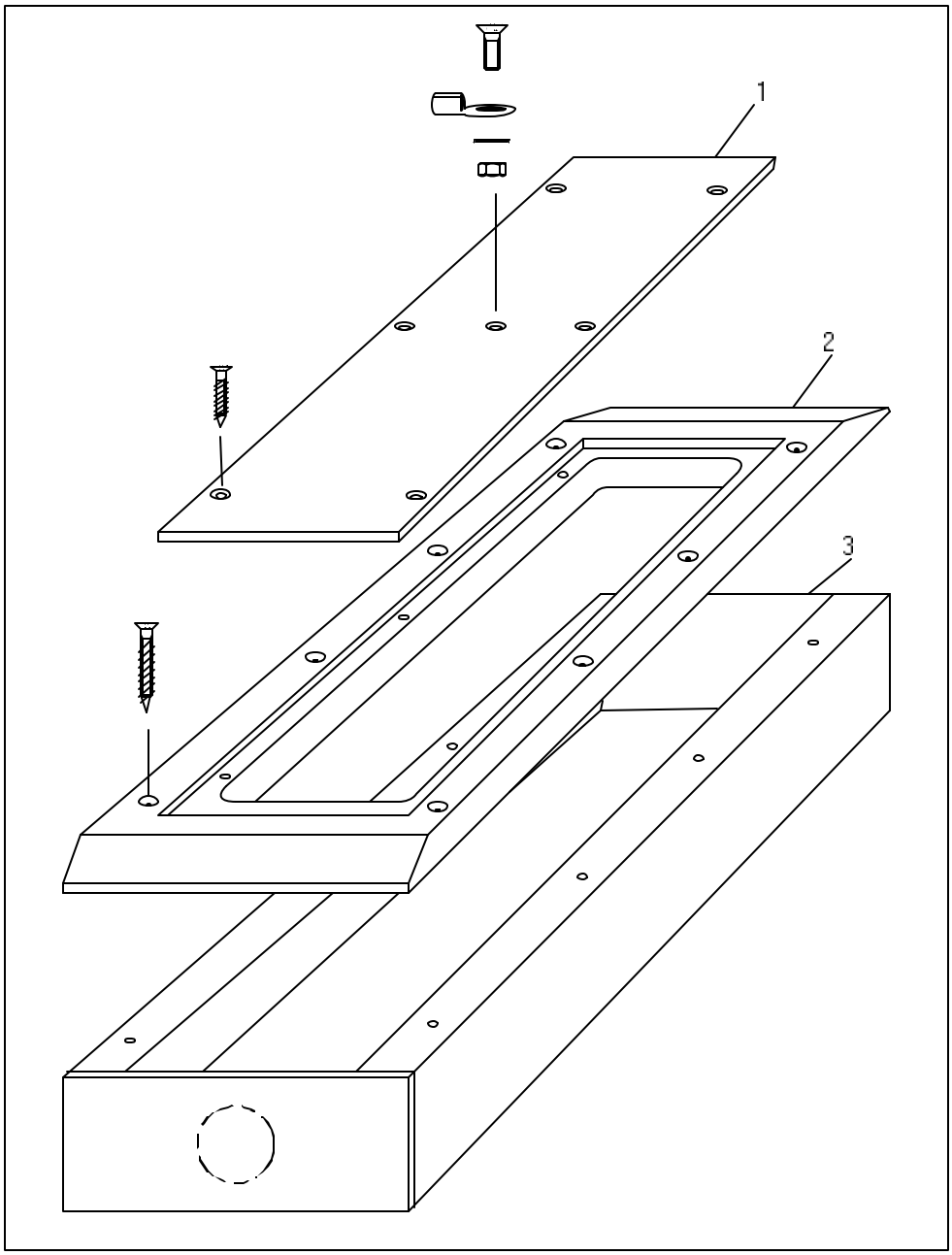


Stage 5 - Screw Pad to Charge Box
Screw insulator pad to charge box, then attach the ring connector to the brass plate.



Stage 6 - Attach Brass Plate to Pad
Screw brass plate to pad

EMS CHARGE PAD
(2 PER KART)

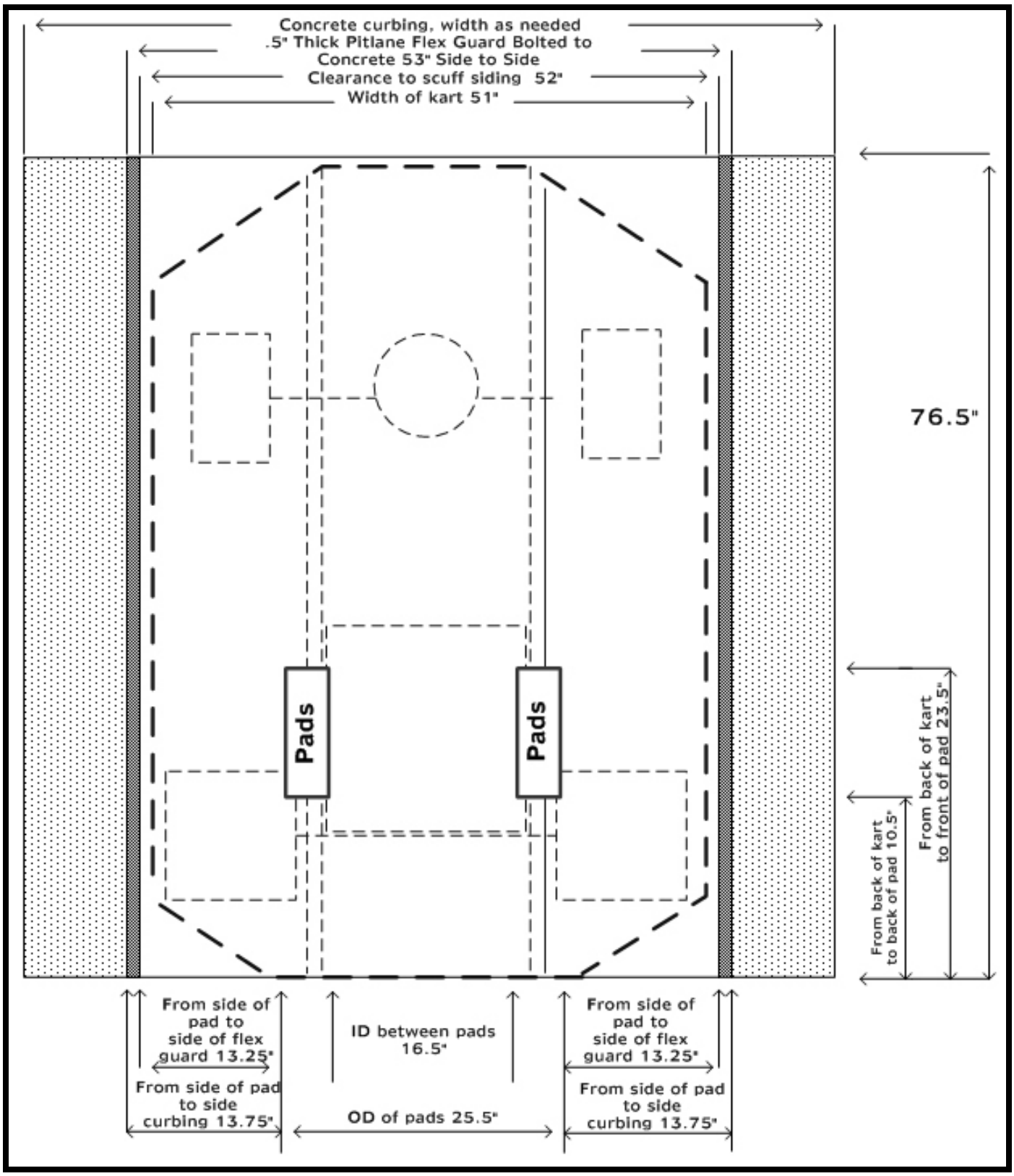


1: OSTE012:
BRASS PLATE

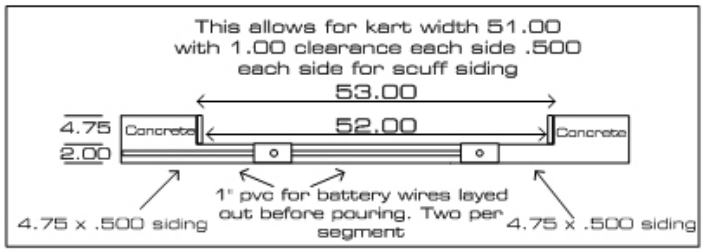
2: OSTE013:
CHARGE PAD
INSULATOR

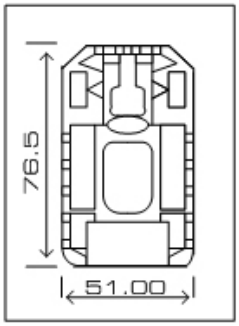
3: OSTE008:
CHARGE BOX
(STEEL)

PLACEMENT OF CHARGE PADS

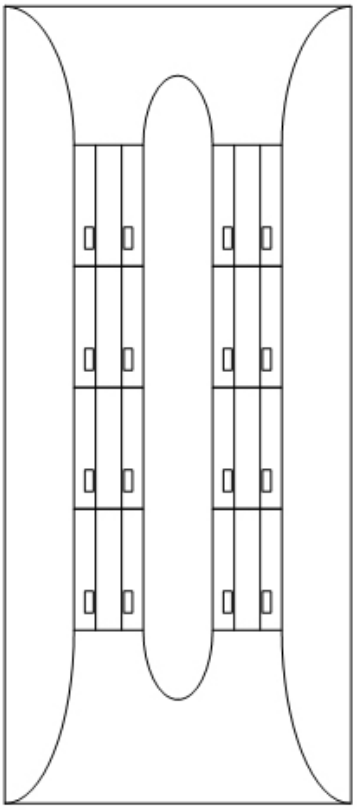


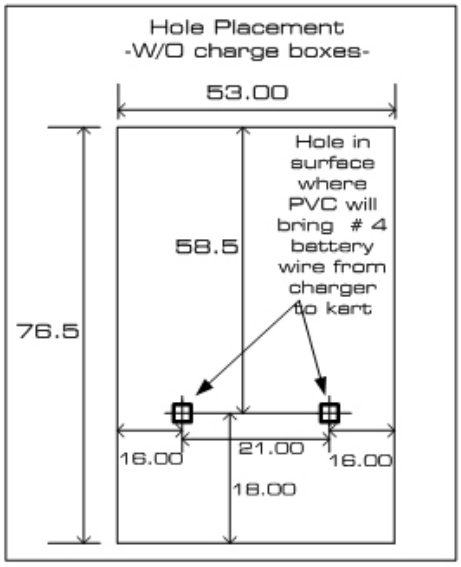
PIT LANE LAYOUT

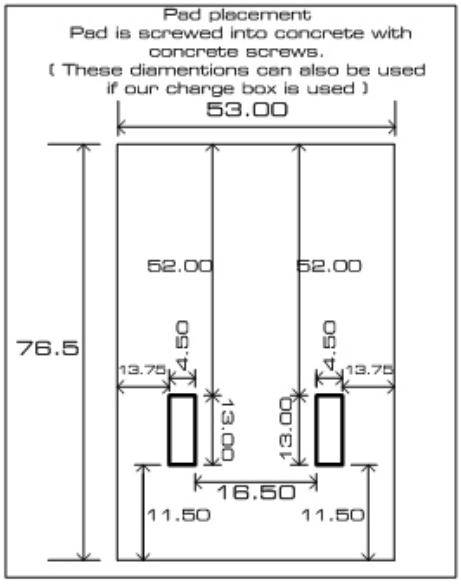




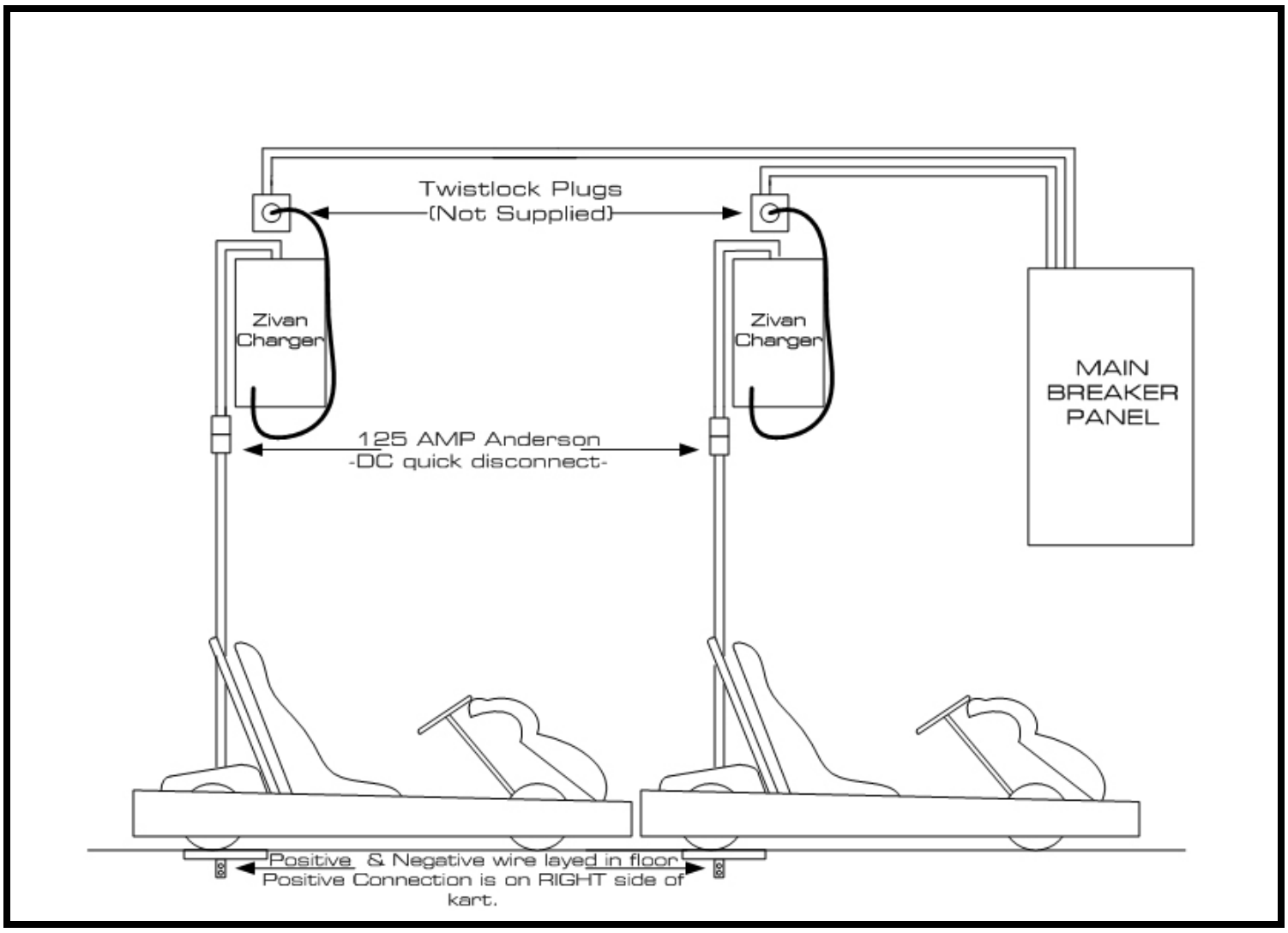
Layout for a 2
rail system



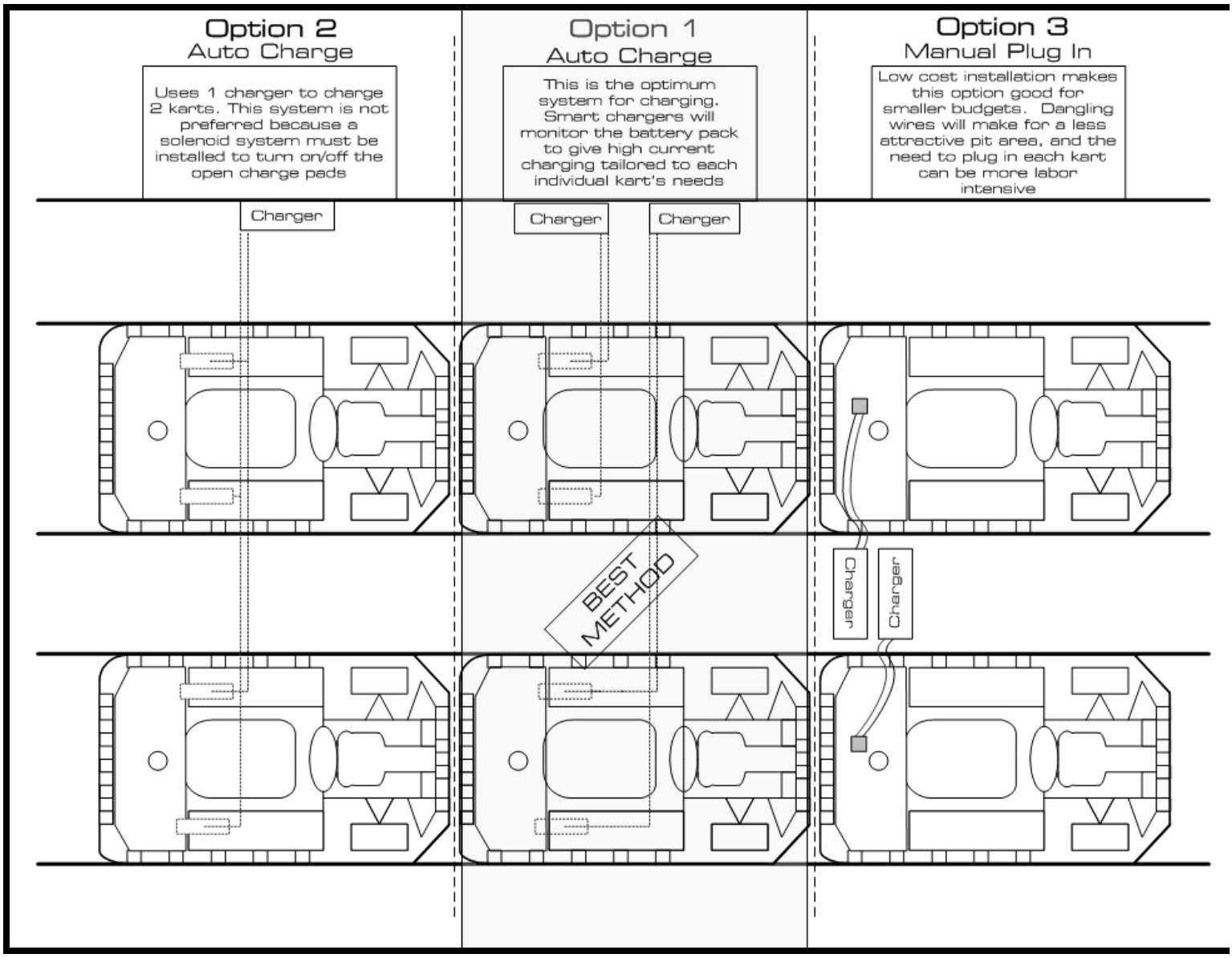




SIDE VIEW OF TYPICAL LAYOUT

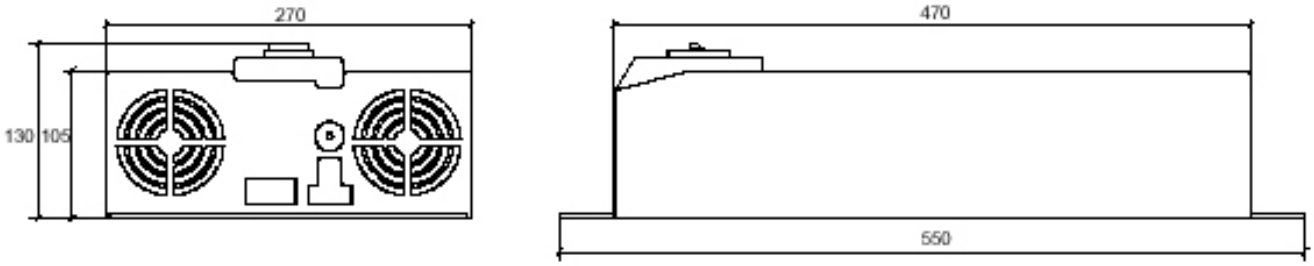


LAYOUT OPTIONS



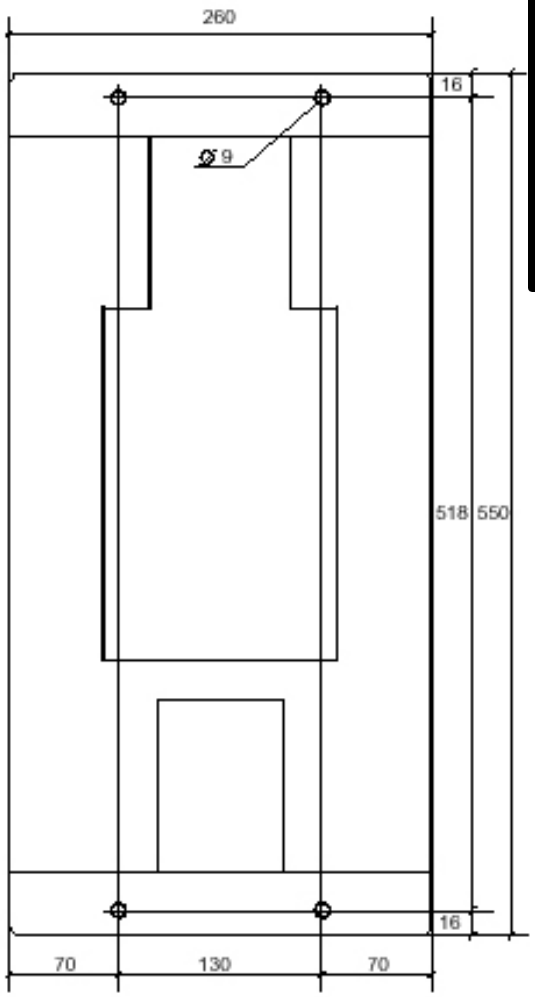
Electra Motorsports

Zivan NG5 (80 Amp) Battery Chargers



N.B. All dimensions are expressed in mm.

Drilling details



Input Breaker Values:

208 (3 Phase) – 25 Amps

480 (3 Phase) – 10 Amps

UP

Advised Installation

N.B. All dimensions are expressed in mm.