

INMOTION™
MOTOR CONTROLLER CELL





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inMOTION™ MOTOR CONTROLLER CELL INSTRUCTIONS

Overview

The inMOTION™ Motor Controller Cell is a powerful addition to the Infinitybox System. You get full polarity control of 5 motors, solenoids or linear actuators to control a broad range of accessories in your vehicle. Applications include windows, power locks, convertible tops and sunroofs.

General Specifications

Input Voltage Range: 8 to 19 VDC

Maximum Number of Outputs: 5 polarity reversed pairs

Output Node Technology: H-Bridge Relay with current monitoring

Current Capability: 25-amps per pair

Maximum Cell Temperature: 185°F (85°C)

Materials: All UL 94V0

Kit Includes

- | | |
|--|-------------------------------|
| 1- inMOTION Cell with Cover | 2- Power Connection Harness |
| 1- 2-Position JCASE Fuse Protection Module | 1- 2-Way CAN Cable |
| 2- 50-Amp JCASE Fuses | 1- Bag of Assorted Mini fuses |
| 1- Output Harness (A) | 4- 10 AWG Ring Terminals |
| 1- Output Harness (B) | 1- 4 AWG Ring Terminal |
| | 1- Instruction Guide |

Warnings

inMOTION controls things that move including motors, solenoids and linear actuators. Use caution and be prepared for any movement when setting up, training and using the system.

inMOTION's current limiting capabilities are not intended to protect users from potential injury caused by objects interfering with the travel of a mechanism in or on the vehicle.

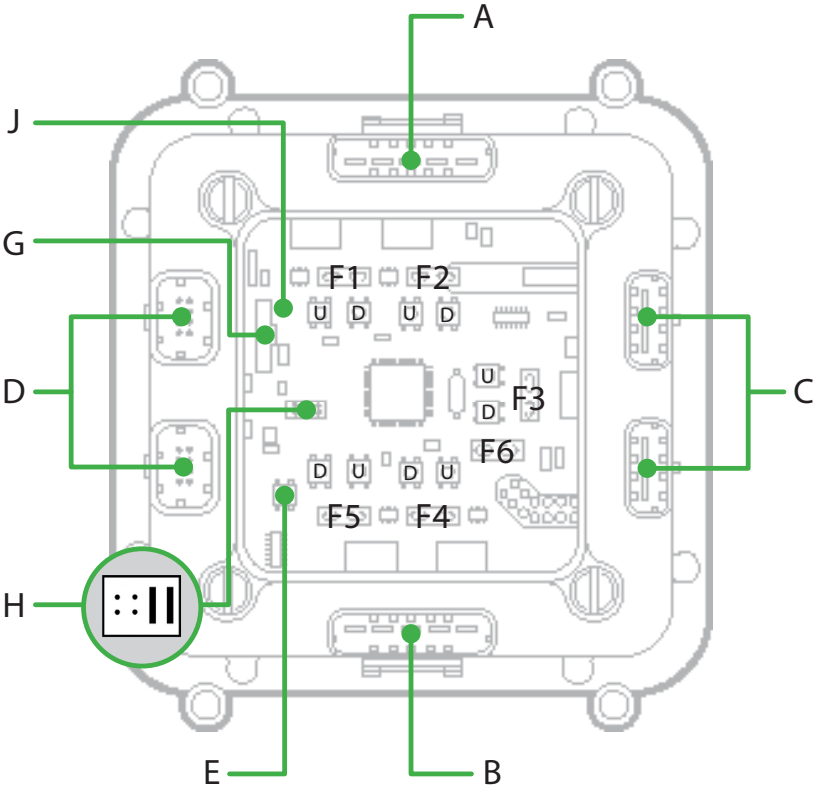
Never operate the inMOTION Cell without both Power Connection Harnesses connected to the Power Input Connectors.

Black wires on the Power Input Harnesses must be properly connected to vehicle ground. Use included fuses and fuse holder to protect power feeds from the battery.

Polarity on Power Connection Harness must never be reversed. Reversing the voltage going into the inMOTION Cell will damage the cell and void any warranty.

Do not use fuses higher than 25-amps in the inMOTION Cell.

Details of the inMOTION Cell



- A- Output Connector for A Harness
- B- Output Connector for B Harness
- C- Power Connectors for Input Harnesses
- D- Data Connectors for CAN Harnesses
- E- Train Button

- F1-F5- Output Fuses
- F6- Fuse to protect relay coils
- G- Programming Header
- H- Address Header
- J- Blue Heartbeat Indicator

Output Harnesses

Connector	Motor/Output	Direction	Color
A	1	Up/Forward	Green
A	1	Down/Reverse	Light-Green
A	2	Up/Forward	Blue
A	2	Down/Reverse	Light-Blue
A	3	Up/Forward	Brown
B	3	Down/Reverse	Tan
B	4	Up/Forward	Orange
B	4	Down/Reverse	Yellow
B	5	Up/Forward	Grey
B	5	Down/Reverse	White

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Power Connection Harness

Wire Color	Connector Label	Connection
Red	A	Battery Positive
Black	B	Chassis Ground

inMOTION Configuration

See the configuration sheet that was included with your inMOTION kit for the input and output details. This information can also be found in the Resource section at www.infinitybox.com.

Installation Steps

- 1) Mount inMOTION Cell in vehicle using 4 mounting points in corners of cell.
- 2) Connect Primary Power to inMOTION Cell
 - a. Connect primary power wire from battery to single terminal on included fuse protection module.
 - b. Connect red wires of Power Connection harnesses to two 6mm terminals on fuse protection module.
 - c. Connect black wires of Power Connection harness to chassis ground.
 - d. Plug Power Connection harness into inMOTION Cell.
- 3) Connect Output Harnesses to Loads
 - a. Connect wires in outputs harnesses to wires going to motor or solenoid. Use Output Harness table as a guide for specific wire colors..
 - b. Plug Output Connectors into inMOTION Cell. Use diagram on page 4 to identify locations for A & B connectors.
 - c. Insert appropriate fuses into fuse holders F1 through F5. Fuse should be sized to current draw for motor or solenoid.
 - d. Insert 3-amp Mini® fuse into F6.
- 4) Connect switches to the MASTERCELL inputs.
 - a. Use the configuration sheet included in your kit for details on the wire colors for each output and its direction.
 - b. MASTERCELL inputs are ground switched. Do not allow voltage to be applied to any of the MASTERCELL input wires. This will damage the input and void your MASTERCELL warranty.
- 5) Plug 2-Way CAN Cable into one of the open connectors on inMOTION Cell. Plug other end into available CAN connector on existing POWERCELL. Move terminator resistor from existing POWERCELL to open CAN connector on inMOTION Cell.

- 6) Insert jumpers into header (H) to set correct address for inMOTION Cell. Check your configuration sheet. inMOTION cells are typically set to address 3. Check the Reference Library section of www.infinitybox.com for more details on setting the address header.
- 7) Insert included 50-amp JCASE cartridge fuses into primary fuse protection module and connect the Infinitybox system to the battery.
- 8) Check direction of motors and solenoids using switches under cover. Press the U & D switches as shown in the picture to manually cycle the motor or the solenoid. Make sure that the output moves in the up or forward direction when you press the U button closest to the fuse for that output. Repeat with the D button to make sure that the output moves in the down or reverse direction. **WARNING!!! Pressing the manual buttons will provide power to the outputs. Be prepared for the motor or solenoid attached to the output to move.**
- 9) Train the output to the inMOTION Cell after all motors or solenoids are attached.
 - a. Use the manual U & D (Up and Down) buttons to move all motor controlled functions to a middle position. For example, use the U button to move a window half-way up from the down position.
 - b. Press the Train button labeled S11 under the cover of the inMOTION Cell. This will start the train sequence. Each output will cycle for 1 second in each direction so that the inMOTION cell can learn the current draw for the motor or solenoid attached to the output. **WARNING!!! Pressing the train button will provide power to the outputs. Be prepared for the motor or solenoid attached to the output to move.**
 - c. Outputs will not operate correctly from MASTERCELL inputs until the cell is trained. You must repeat the training process if new outputs are attached to inMOTION.

Warranty Policy

Warranty: Infinitybox, LLC (“Infinitybox”) warrants against any defects in materials and workmanship to the Product’s INFINITYWIRE™ modules, wiring harnesses and accessory modules for a period of five (5) years from the first date of purchase. Subject to the terms of this warranty described below, Infinitybox will replace any such defective Product that is returned to Infinitybox within the five (5) year period from initial purchase. Replacement of any defective part or Product will not extend the applicable warranty period. The warranty does not apply to: (i) any Product that is not installed in compliance with the applicable Product documentation; (ii) any defect in, or failure of, the Product resulting from an accident, shock, negligence, water immersion or misuse; (iii) any Product that has been modified, adjusted, repaired, or disassembled by any party other than Infinitybox; or (iv) any defect other than in materials and workmanship.

This warranty covers only the original purchaser of Product purchased from an Infinitybox authorized dealer in the United States. In order to receive warranty service, purchaser must provide Infinitybox with a copy of the receipt stating the dealer name, product purchased and date of purchase. Products found to be defective during the warranty period will be replaced (with a product deemed to be equivalent or better) at the discretion of Infinitybox. Infinitybox’s sole liability for any defective Product is limited solely to the replacement of Product pursuant to this warranty. Infinitybox reserves the right to replace any repairable parts with new or refurbished parts.

INFINITYBOX DISCLAIMS ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, SUCH AS WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE. IN NO EVENT SHALL INFINITYBOX BE LIABLE FOR ANY PUNITIVE, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LIABILITY FOR LOSS OF USE, LOSS OF PROFITS, LOSS OF PRODUCT OR BUSINESS INTERRUPTION HOWEVER THE SAME MAY BE CAUSED, INCLUDING NEGLIGENCE.

Infinitybox, LLC
1-847-232-1991
sales@infinitybox.com
www.infinitybox.com