

MOBILITY CONTROL SYSTEM

MODEL MC2

CURTIS



DESCRIPTION

The Curtis MC-2 Mobility Control System consists of a variety of individual modules which can be configured into a powerful, reliable and flexible system designed for optimum user comfort, easy handling and security.

WARRANTY

Two Year Limited Warranty
(see terms of sale for specifics)

Application

MC-2 is an advanced, CAN-based mobility motor control system which provides flexible, expandable control of scooters and wheelchairs. This modular and versatile system is engineered to meet multiple powerchair applications.

Features

- Easily and fully programmable from every available bus connector.
- The MC-2 bus provides communication and power to all modules and ensures safe operation.
- Two standard bus connectors on each device simplify wiring.
- The battery charger can be connected anywhere in the system.
- The system is safe and reliable with DMS and KEY line.
- CAN based communication is proven and reliable.
- Module replacement is simple and fast without additional programming requirements.
- Up to 10 devices can be connected into one system.
- Updating software is fast and easy via the MC-2 bus.
- The MC-2 system is fully compatible with the Curtis Handheld Programmer for testing, diagnostic and parameter adjustments.
- Advanced functions such as device software updates and cloning of parameters is easily accomplished with the PC-Programming Station.



Dual Permanent Magnet Motor Speed Controllers

Controller

MODEL 1705-2010 (100A)

MODEL 1705-3010 (60A)



Controller with Actuators

MODEL 1705-2013 (100A)

MODEL 1705-3013 (60A)



Controller with Actuators & Light

MODEL 1705-2014 (100A)

MODEL 1705-3014 (60A)



Description

Provides smooth and decisive operating control for every configuration of the modular MC-2 System.

Application

Engineered to the unique requirements of dual PM motor powerchair applications.

Features - All Models

- Four quadrant, full bridge solid-state design.
- Internally protected against damage due to mis-wiring during installation.
- Compact, rugged housing.
- Thermally protected and compensated for stable output and overtemperature protection.
- PowerSaver feature shuts down the controller after a user-definable time.
- Drives dual DC motors, front, mid or rear wheel.
- Easily and fully programmable using the Curtis Handheld Programmer.
- Advanced closed-loop control algorithms for control of the wheelchair.
- Can be connected to 16 to 33 volts DC, available in 60A or 100A.
- Progressive brake control provides smooth and secure stops on level and sloping surfaces.

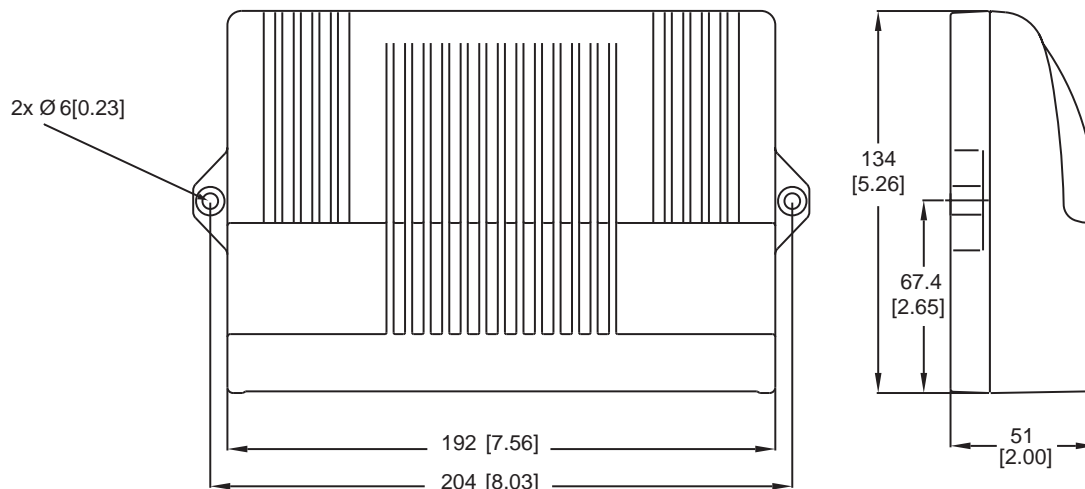
Additional Features 1705-2013 & 3013

- Controls up to 4 seat actuators.
- Simultaneous control of 2 motors.
- Inputs for limit switches or drive inhibit switches.

Additional Features 1705-2014 & 3014

- Provides outputs for lights and indicators.
- Controls up to two seat actuators
- Inputs for limit switches or drive inhibit switches
- Can also be used for servo steering

Dimensions: mm (inches)



Input/Output Modules

Seat Module

MODEL 1708-7015



Description

Suits all power chairs with automatic seat adjustments.

Application

Controls up to five seat lift actuators.

Features

- Controls up to five actuators.
- Motor Speed proportional to Joystick position.
- Acceleration, deceleration, and maximum speed programmable.
- Adjustable current threshold to detect end-of-travel.
- Provides inputs for limit switches or drive inhibit switches.
- Easily and fully programmable using the Curtis Handheld Programmer or PC Programming Station.

Environment Control Module

MODEL 1709-7018



Operates on-chair devices such as page turners, audio devices, ect.

Controls up to eight switch type outputs.

- Controls up to 8 switch type outputs.
- Each output can be set for latching or non latching mode.
- All outputs are isolated relay contacts and protected against overcurrent.
- Fully programmable with the Curtis Handheld Programmer.

Sip & Puff Module

MODEL 1711-5010

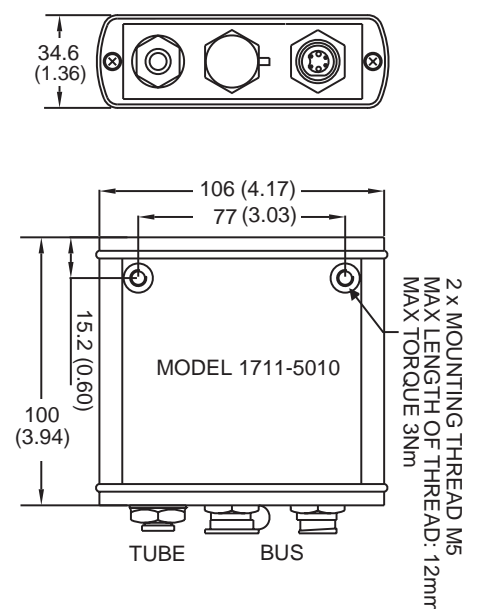
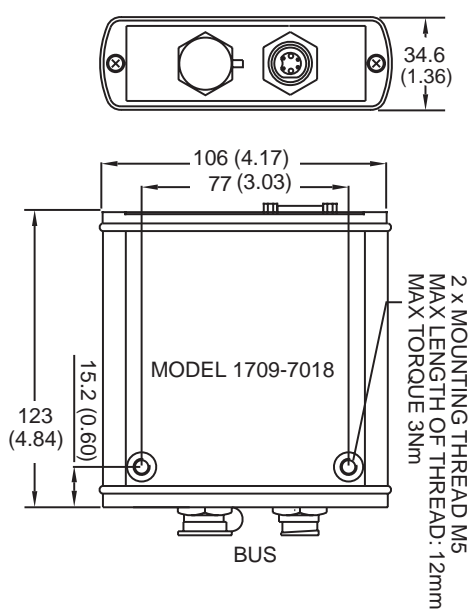
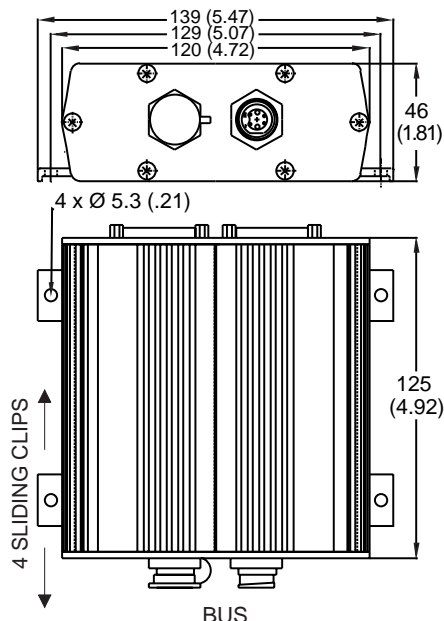


Allows control of the wheelchair by different amounts of breath pressure.

A comfortable and easy to use input device of the modular MC-2 System.

- Four pressure or two pressure mode programmable.
- Four different driving modes, customizable.
- Easy menu handling with LCD-Display.
- Fully compatible with the Curtis Handheld Programmer.
- Advanced capability with PC Programming Station.

Dimensions: mm (inches)



Hand & Head Controls

Stand Alone Joystick

MODEL 1710-5010



Description

Provides full comfort with ergonomic joystick and a variety of mounting positions.

Application

All three models are input devices for the MC-2 System, providing easy and full control of power wheelchairs. The Stand Alone Joystick and Headcontrol are always used in combination with the LCD-Display.

Features - All Head & Hand Controls

- Four separate driving modes, customizable for different conditions.
- Up to 20 programmable drive-presets.

Handcontrol

MODEL 1720-5010

MODEL 1720-5012 (w. Light)



Easy handling and full comfort with ergonomic joystick.

- Separate auxiliary modes for special functions like seat motors, environmental control, etc.
- Compact and attractive design.

Headcontrol

MODEL 1713-5210



Allows for full control of drive and auxiliary functions.

- Fully compatible with the Curtis Handheld Programmer for testing, diagnostics, and parameter adjustments.

Additional Features 1710-5010

- Variety of different joystick templates.
- Joystick knob is made of soft material.
- Small and rugged case.
- One model can easily be programmed to meet specific power chair applications.

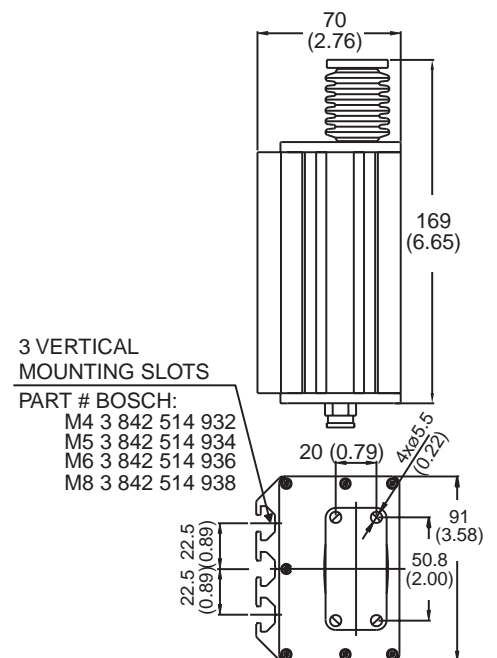
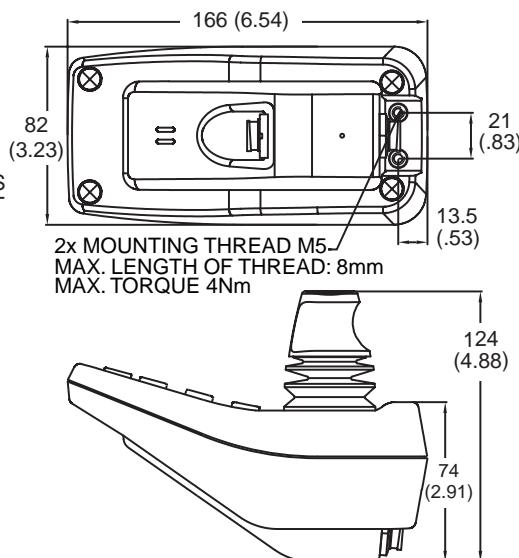
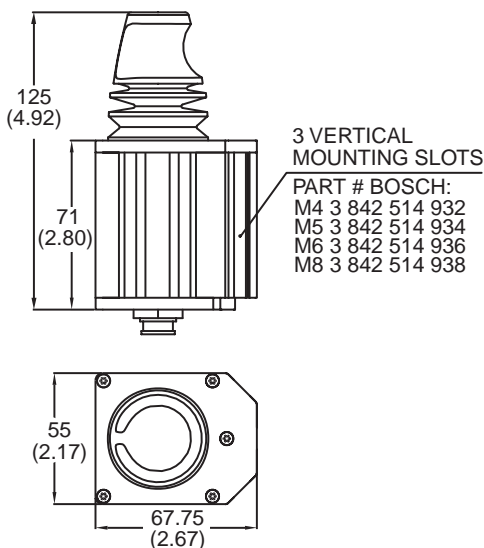
Additional Features 1720-5010

- Diagnostic display and horn.
- Advanced keypad buttons.
- Advanced capabilities with PC Programming Station.

Additional Features 1713-5210

- Adapter for mounting any headrest.

Dimensions: mm (inches)



Display Module & Programmer

LCD-Display MODEL 1712-6010



LCD-Display with Infrared (IR) MODEL 1727-9010



Handheld Programmer MODEL 1311-4101C



Description

Provides operational and diagnostic information.

For programming, testing and diagnostics of Curtis Speed Controllers.

Application

Used together with specialty input devices of the MC-2 System. Allows for easy operation and menu handling.

Engineered to serve the Curtis products for testing and diagnostics.

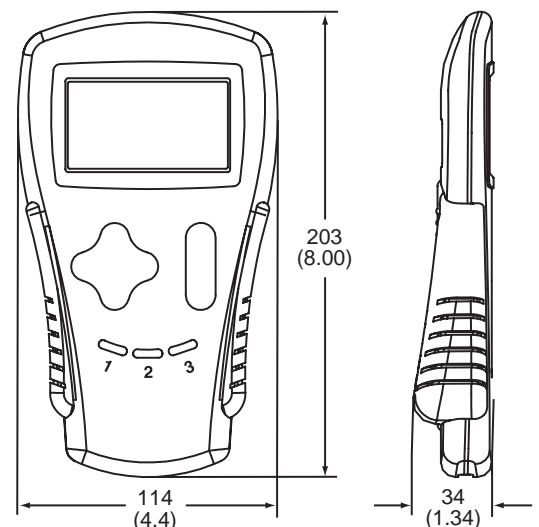
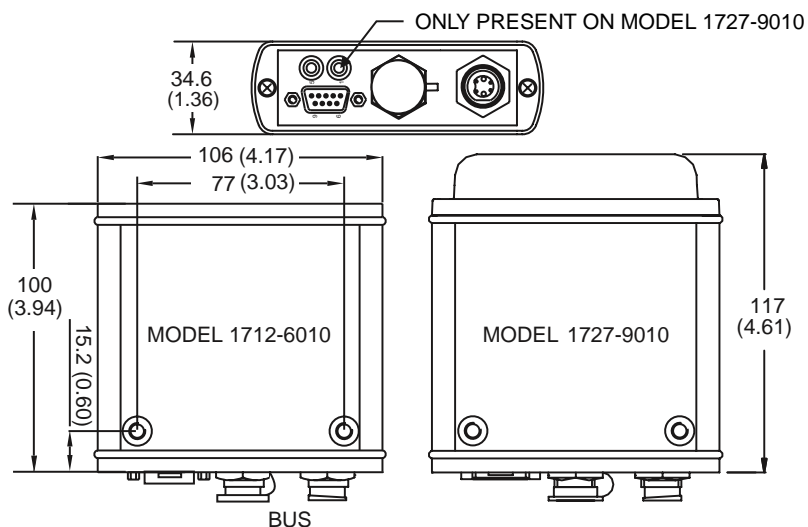
Features

- Large, easy to read Backlit Graphic display panel.
- Displays diagnostic information.
- Easy menu selection through display.
- TASH-compatible Input.
- Remote Switch-Input programmable.
- Integrated horn.
- Fully programmable with the Curtis Handheld Programmer.
- Custom specific screens and languages & (IR unit only) menu tree for Remote Control operation (configuration via PC programming station).
- IR Mouse control to GEWA interface* (IR unit only).
- Activation of mouse buttons via indicators or external switches (IR unit only).
- Recognizes a broad range of IR codes, such as TV, HiFi, BEAMIT, etc.
- Easy assignment to Remote Control menu (IR unit only).

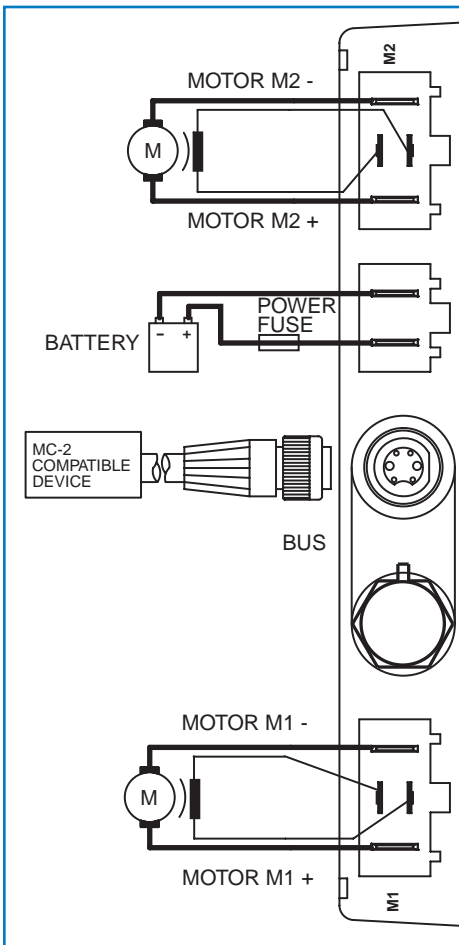
- Compatible with Curtis speed controllers and auxiliary devices.
- Emulates Curtis-1307 programmer.
- Four key "Windows like" navigation menu.
- +/- keys for "Real Time" access to Parameters.
- Detail Screen shows units and bargraph.
- Graphic display with up to seven lines.
- Popup windows for user information.
- Three Bookmark keys provide fast swapping between different menus.

(* The GEWA USB IR PC Adapter must be ordered separately (GEWA Art. No. 6632).

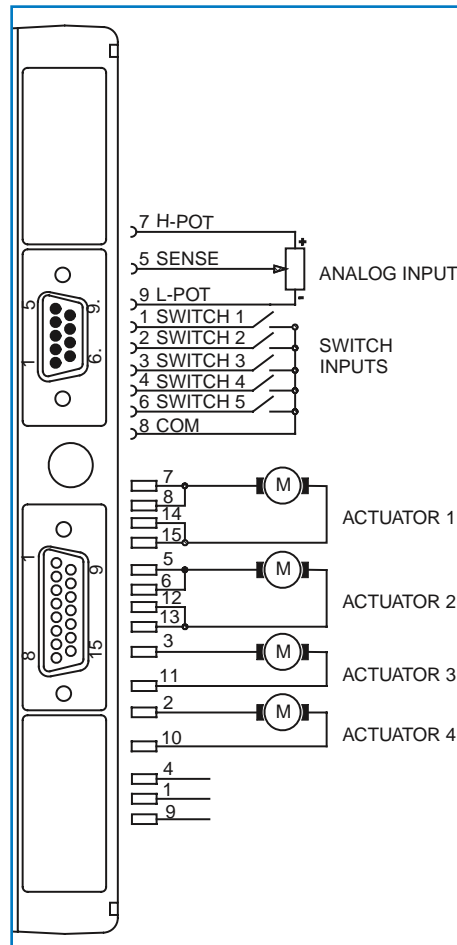
Dimensions: mm (inches)



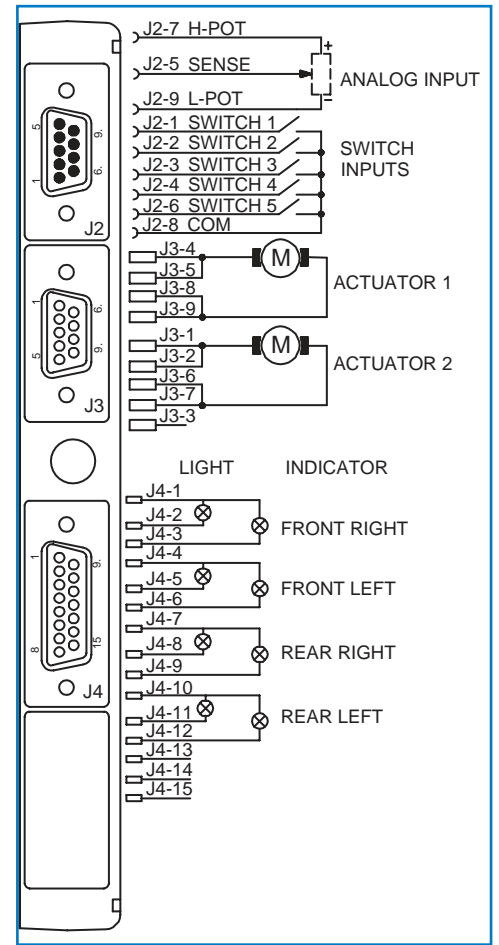
Controller Wiring Diagrams



Models 1705-2010 & 3010



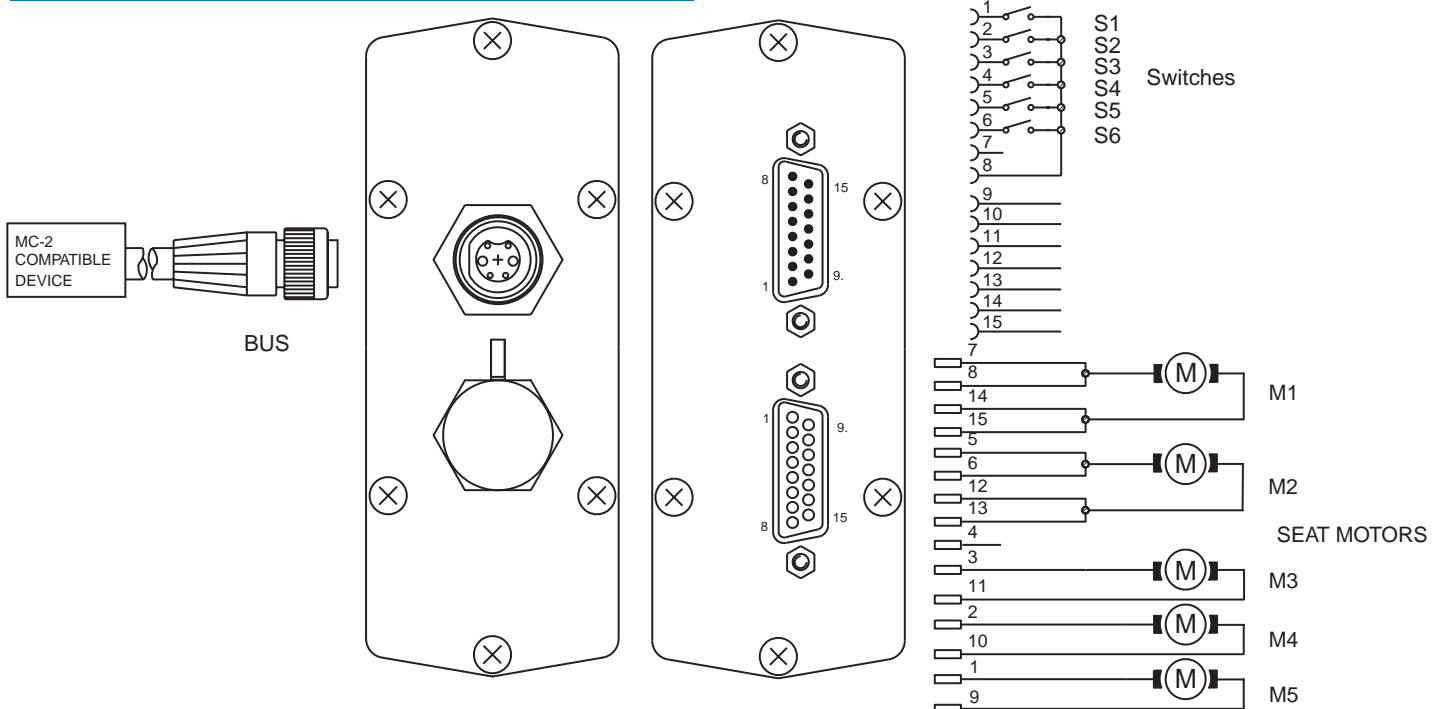
Models 1705-2013 & 3013



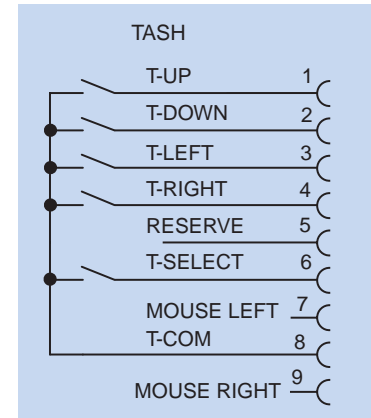
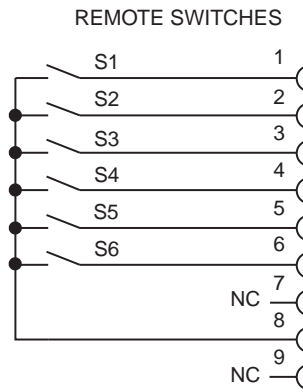
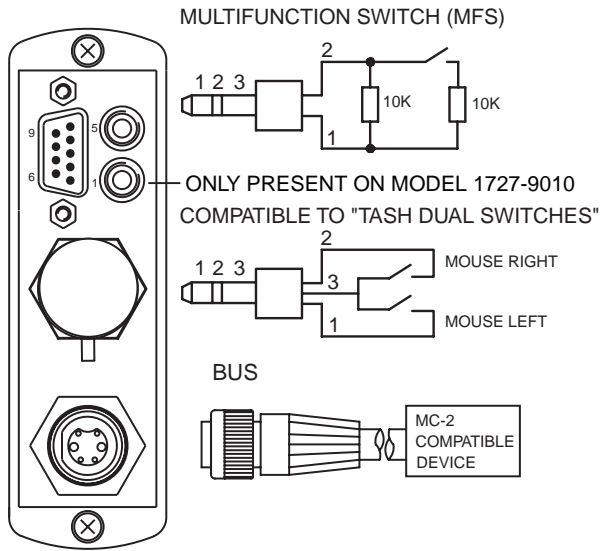
Models 1705-2014 & 3014

These connections are standard for all models

Seat Module Wiring Diagrams



LCD Display Wiring Diagram



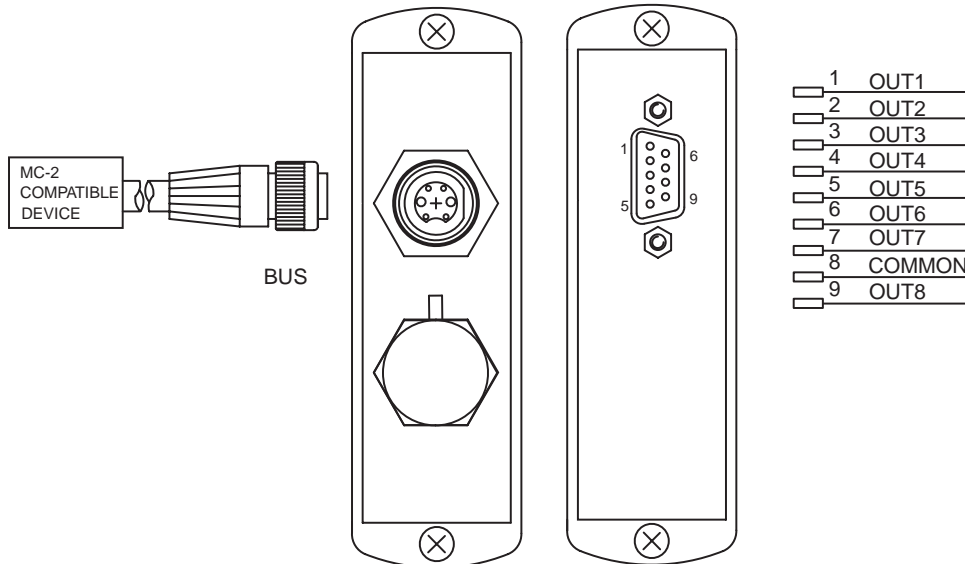
FOR CONTROLLERS
1705-X010/X013

| | |
|----|--------------|
| S1 | DRIVE MODE 2 |
| S2 | DRIVE MODE 1 |
| S3 | DRIVE MODE 3 |
| S4 | DRIVE MODE 4 |
| S5 | HORN |
| S6 | MODE |

FOR CONTROLLER
1705-X012

| | |
|----|-----------------|
| S1 | LIGHT |
| S2 | HAZARD |
| S3 | INDICATOR LEFT |
| S4 | INDICATOR RIGHT |
| S5 | HORN |
| S6 | MODE |

Environment Control Module Wiring Diagram



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