



iZIP Powerchair / Peripheral Device Control System

Features:

- (ADM) Actuator Detect Module – Connection for Actuator Detect Module cable
- Controller Output – The Controller Interface Cable (MHI-IC-XX) is connected to this 5-pin receptacle at one end and connected to the powerchair controller display 9-pin port or CANbus depending on powerchair type.
- Display Dimmer – This feature enables the brightness of the display LED to be increased or decreased contingent on ambient lighting and user's preference. The higher the numerical number, the brighter the LED's.
- Emergency Stop – This port provides a 1/8-inch (3.5mm) plug receptacle used to deactivate the system by either caregiver or user. The powerchair controller must be completely powered down to reset the system. Most commonly used mode switches can be utilized for this safety feature. A red Jelly Bean switch or similar switch could be a good choice for this application.
- Enable Delay – The Enable Delay function provides a selectable time period ranging from 0-7 seconds. The delay period commences when the user activates a mode switch, connected to this port, and ends when the blue indicator darkens. This time delay allows an individual an opportunity to position their head or other body member(s) naturally and comfortably before the system defines the user's neutral position. The higher the numerical setting on the dial, the greater the time delay prior to tilt-sensor activation.
- Enable Latch – This port provides a 1/8-inch (3.5mm) plug receptacle used to activate the system. Most common mode switches can be used for this function depending on user preference.

iZIP System Features (cont).

- Neutral Zone – This feature allows the neutral zone to be adjusted to precisely match the ROM of the user. It determines the amount of sensor movement (tilt) that is required to initiate travel or activate USP signals. In doing so, it also determines the user’s “neutral zone”. The radius of the neutral zone can be varied greatly. A smaller numerical number on the dial results in a smaller “neutral zone” where a higher numerical number on the dial results in a larger “neutral zone”. In most applications, an individual with extremely limited movement will benefit from very low settings while an individual with more uncontrolled or spastic movements will benefit from a higher setting. Settings in the range of 25-35 are considered “normal” for this feature.
- Overrange – This feature is provided to further enhance user’s safety and may be switched ON or OFF. It is especially recommended in situations where there is concern an individual may lose consciousness or experience extreme spasms. If tripped, deactivating the system with the Enable Latch switch back to stand-by mode, then reactivating when user is ready resets the iZIP drive control. The switch handle is a spring-loaded locking type that must be pulled outward for a change of position.
- Sensor Input – The Tilt Sensor Assembly (MHI-TSA-01) is plugged into this 4-pin receptacle. A pair of 4-pole DIP switches, located under the cover of the iZIP enclosure, can be switched to orient the sensor cord to exit tilt sensor module to the right (standard), to the rear, to the left or forward. For example, an eyeglass or blue-tooth mount requires cord to exit the rear of the tilt-sensor. (Call Magitek @ 260.488.2226 for non-standard settings).



iZIP Display

The iZIP LED's display in two modes, steady and flashing. These separate modes indicate the operational state of the iZIP control system.

Steady LED indicators:

- Drive (green) System is ready to drive after blue LED times out and darkens
- Delay (blue) Indicates the delay period, after user activates Enable Delay switch to the system. Prior to 0-7 second time-out, the user should be in their natural "home position" prior to blue indicator darkening.
- Centered (orange) Indicates the tilt-sensor is in its neutral zone. This is helpful this helpful to return and hold neutral position to activate timed return to menu for operating other systems such as powered positioning actuators.

Flashing LED Indicators:

- Guardian (green) Flashes when system detects an anomalous signal from the tilt sensor, typically caused by becoming dislodged from user, unexpected contact, or jolt to the powerchair and/or abnormally rapid movement of tilt-sensor. If tripped, switching the Enable Delay switch to start-up mode then active again when user is ready resets the iZIP drive control.

- Overrange (blue) Flashes when tilt-sensor has exceeded its operating range (30 degrees) with the Overrange safety switch ON. If tripped, switching the Enable Delay switch to start-up mode then active again when user is ready resets the iZIP drive control.
- Emergency (orange) Flashes when emergency stop button is pressed. The powerchair must be powered down completely to reset.



Universal Signal Port – All Magitek controllers feature our exclusive Universal Signal Port (USP). The USP receptacle provides four discreet high load switched outputs to activate wireless modules such as call alarms, door openers, lights, TV, or any desired ECU device. To activate the USP, press and hold the iZIP activate switch for 3 seconds to disable drive signals and energize the USP. Once in USP mode, directional inputs allow the user to access these functions while the powerchair is stationary. To reset, press the active switch to return to stand-by then press again to initiate the drive start up sequence.

Programming

It is important to remember all Magitek systems are recognized by each powerchair controller as either analogue, joystick or proportional. **This setting is critical for proper operation.** This is normally the default input type on most controllers.

Program the powerchair controller in such a manner that results in a gentle, lower powered performance profile, especially for beginners. In addition to less speed, it is important to set acceleration low; this prevents the powerchair from “jumping” or “oscillating”, while deceleration is set

higher, which will help prevent “fishtailing”. Additional profiles may be programmed for different environments. Often a joystick is mounted on the back of the powerchair for caregiver use, which also requires its own profile.

ALL INSTALLATION AND PROGRAMMING OF ANY MAGITEK SYSTEM SHOULD ONLY BE PERFORMED BY A CERTIFIED, EXPERIENCED ASSISTIVE TECHNOLOGY PROFESSIONAL. FOLLOW ALL SAFETY ITEMS LISTED IN EACH PARTICULAR MANUFACTURERS MANUALS. WHEN PROGRAMMING FOR MAGITEK, ALWAYS FOLLOW THE SAME GUIDELINES AS IF INSTALLING A REMOTE JOYSTICK. -