



DRIVEIN™ 3.5" LCD TOUCH TOTALLY INTEGRATED SYSTEM OWNER'S MANUAL



This vehicle is equipped with
Drivein-Touch™
Alternative driving System

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TO OUR VALUED CUSTOMER

It is our intention to provide our valued customers with the best documentation possible to ensure successful use of our products. We will continue to improve our publications to better suit your needs. Our publications will be refined and enhanced, as new volumes and updates introduced. If you have any questions or comments regarding this publication, please contact us.

We welcome your feedback.

CUSTOMER CARE CENTER

For additional application assistance, we urge you to consult with our experienced staff in our Customer Care Center. Our Technical and Engineering staff has extensive test, research and development capabilities, and have assisted many customers in solving unique design and application problems with standard or customized products.

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INTRODUCTION

Drivein™ acronym, composed of the two words Drive and Vein; *Veins are blood vessels that carry blood towards the heart.* So, the totally integrated system is the main interface, for the driver to control his vehicle functions while driving (In-Motion) by using touch buttons/symbol and intelligent voice scan.

The Joysteer driving control system features the latest advancements in Bozzio's "drive-by-wire" technology. It is installed as a totally integrated system that incorporates both primary and secondary controls that communicate directly with the modified vehicle via a common high and low speed CANbus and LIN-Bus.

Your Drivein, is constantly collecting real-time information from your vehicle; all visible indications reflect the actual **function state** and not the actual **switch state**, *so it is easy to know if the function is working or not.*

Examples:

1. When shifting from P to D, the gear selector movement is indicated showing **R** then **N** then **D**.
2. When the High beam symbol turns blue it is 100% on.

Many screens supported, every screen combines the relevant functions for the current driving situation; the touch screens are divided into two types: Type **(A)** are functions used while driving (in motion) like turn signals, gear selector, HVAC; Type **(B)** are functions that are used while the vehicle is stationary; like seat adjust or close a window. Screen type **A** are divided into three sections, please read below, screen type **B** has two sections.

Primary driving controls are:

Gas/Brake

Auxiliary battery system (EGRESS)

Steering

Secondary driving controls are:

Ignition/ Starting

Turn signals/ Hazard warning lights

Shifting (P, R, N, D, S)

Lights (Tail, Head & high beam)

Electric Park Brake

Horn

Cruise ON/SET

Front and Rear Wipers/ Washers

HVAC (Heating Ventilation and Air conditioning)

Intelligent In-Motion Voice Scan Controls

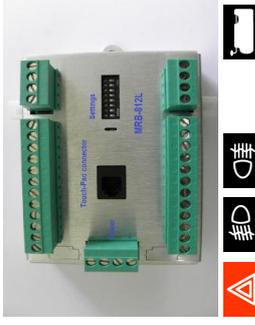
Power windows/ Door locks

Any other function in your vehicle

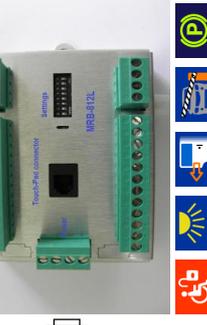
This vehicle is equipped with **Drivein-Touch™** Alternative driving System

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Part#: MRB-612L
Additional functions



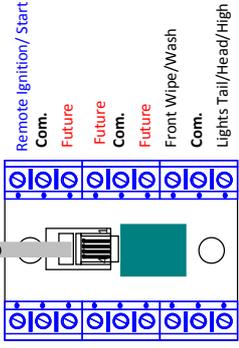
Part#: MRB-612L
Additional functions



CANBUS POWERED GEAR SELECTOR & DATA COLLECTION



COMPUTER DATA LINES SYSTEM



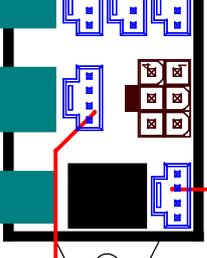
Part#: DIV-1L
12 function, Do It Yourself switches module

Basic functions switches

Part#: JID-1L

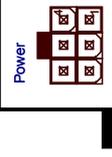


Part#: RID-1L

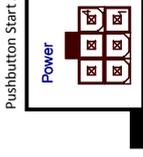


LIN function box P/N: STA-35-LJ

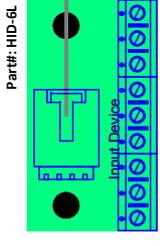
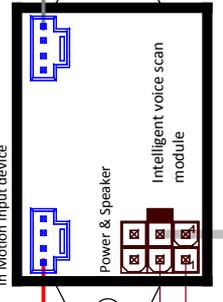
Part#: VAC-8L-xxx
Non CANbus functions module



Part#: UJS-24LL
Pushbutton Start system.



Part#: IMID-1L
In Motion Input device



Part#: HID-6L
Up to six Low effort switches

Low effort switch

The CANbus multifunction and gear selector modules are the most critical components in the system. They used to collect real time information about the vehicle while it is in use. the information transmitted to all modules plugged to the junction box.



Drivein-Touch totally integrated system, components

Size: A3
CAGE Code: 059-957-746
DWG NO: _____
Rev: A

Scale: _____
Sheet: 1 of 1

SYSTEM WAKEUP

The system wakes up as soon as the vehicle is unlocked by the key fob or by switching on any function in your vehicle, like manually unlocking the door locks or manually switching on/ off the lights. After the vehicle wakes up, the system detects this and powers itself. The screen on the right is the main screen displayed after the system wakes up. It shows the system name Drivein, Manufacturer logo and a legal note, a progress bar and a warning message for drivers who are not familiar with alternative driving control systems.

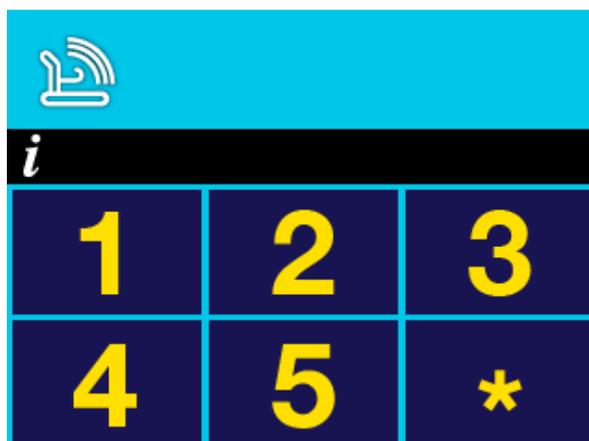
This screen is a non-touch panel and can't be removed until the progress bar has reached the end, about 5 seconds.



PROTECT YOUR VEHICLE

The second screen immediately displayed after the system wakes up, is a coder screen. It is designed to block any access to the vehicle main functions in case of theft. There is no way to start/stop the engine or to shift out of Park position or to disengage the Park brake. The only functions possible are the IN/ OUT buttons using the Lift symbol located on the top left side of the screen. The drive must correctly dial a four digits PIN (Personal Identification Number) to access the system.

It is possible to cancel the Coder screen, contact your installer for more information.



Every digit dialed, it is indicated by asterisk as shown on the picture.

The digits are not shown for security reasons.

The PIN is a fixed code, it is made so that if the customer forgotten the number, he can call the installer support number.



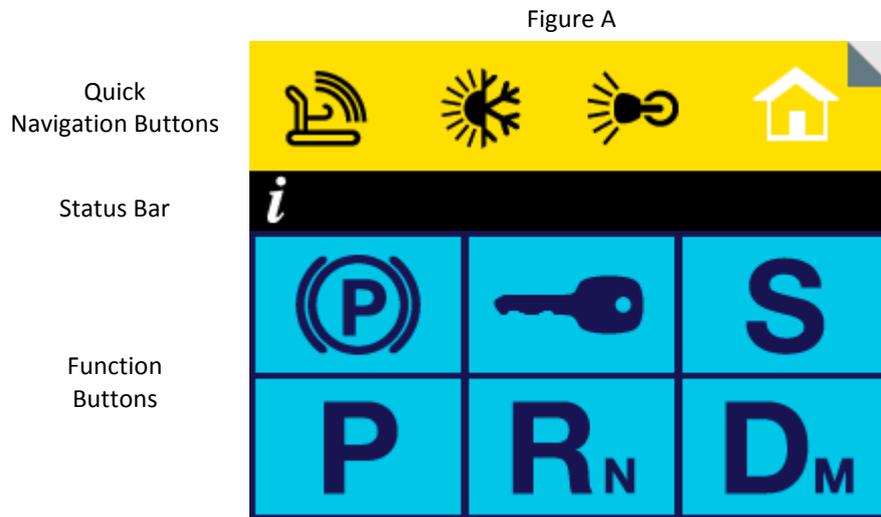
If an incorrect code dialed, a PIN ERROR R message is displayed.

The driver needs to dial again the PIN code, there is no limit for the number of attempts to dial the PIN code, it is designed so that the disabled driver may have problems reaching the touch buttons, so may dial an incorrect code.



HOME SCREEN BUTTONS

Every screen is composed of three sections, Figure A,



- The Quick Navigation Buttons are used to *quick access* the main functions from any currently selected screen. Each of the quick navigation symbol represents a group of functions that the driver should select according to the driving situation, for example for starting/stopping and shifting select the Home symbol; for climate control, select the HVAC symbol, while driving, to indicate or use the Horn, select the multifunction symbol.
- The Status Bar, is used to display real-time information and messages to the driver informing him about the state of some critical functions, like the Docking information secured/ not secured and many more.
- The Function Buttons, used to activate and trigger the various functions and controls in your vehicle. Also each button used to display the currently active function, like the gear position or the park brake status and docking station secured/ not secured or mute.

IGNITION & STARTING THE ENGINE

The Drivein start stop module is linked to your vehicle communication network, so it is constantly updated with the vehicle status, this technology introduces a new easy-to-use option to start. The system supports two Start Stop modes.



Figure A

PRESS2START™, this innovative function is uniquely developed by R.A.SH Tronics. While all OFF, press and hold the start stop symbol (Figure A) animation, until the engine starts.

The system automatically overrides the foot brake position switch, telling the vehicle ECU “foot brake is pressed”, then fires the ignition sequence; after the system detects all circuits are powered ok, it immediately fires the cranking phase.

When the engine reaches the idle speed the LCD touch button symbol automatically changes (Figure B) indicating the engine is running.



Figure B

Mode B, used to power different circuits in the vehicle without starting the engine, in this mode the engine can be started any time. For example, to turn on the radio, or open close the windows, only the ignition circuits should be turned on.

- Shortly press the start stop symbol (Figure A) animation (for about 0.5 seconds) to activate the ACC. The insert key animation is still running.
- Shortly press a second time to activate the ignition circuits. If all ignition circuits powered Ok, the insert key animation stops, the ignition ON symbol displayed (Figure C) indicating the engine hasn't started.
- After the ignition circuits turns ON, press and hold for the third time to start the engine; when the engine reaches the idle speed the ignition key symbol automatically changes to (Figure B) indicating the engine is running.



Figure C

STOPPING THE ENGINE:

- Shift into Park position.
- Engage the electric park brake.
- Shortly press the start stop touch button (Figure B) to stop the engine, all circuits are turned OFF.

IMPORTANT NOTES:

- ❖ If for any reason the engine hasn't started, press and hold again until the engine starts. Or turn off the ignition and try again.
- ❖ If for any reason it is not possible to shift into Park, press and hold the start stop symbol until the engine stops (for about 5 seconds) a unique warning tone is triggered as long as the touch button is kept pressed, it is intended to notify the driver that an attempt to stop the engine while the vehicle is not in park position.

SHIFTING (P, R, N, D, S)

Your Drivein totally integrated system is a very intelligent device, being linked to your vehicle Body Control Module, it is intended to collect as much information as possible while driving. The most important information collected are the Vehicle speed, currently engaged gear position, foot brake pedal status and many more. It is used to maximize safety and minimize driver errors or mistakes. For example, the system doesn't allow shifting into Park position while driving even if the foot brake is pressed. Then system also displays or indicates the current gear position, see pictures below.

Shifting into Park position

From any Gear position, is possible; the foot brake **must** be applied and the vehicle speed **must** be 0 miles/h. Shortly press the “P” touch button (Figure A). If all conditions allow shifting, the actuator is powered, when the Park position is reached, the actuator stops. The “P” symbol indicated (Figure A).



Figure A

Important note:

- ✚ If the Park button is pressed while the foot brake is applied, and the vehicle is moving, nothing happens.
- ✚ If the Park button is pressed while the foot brake is not applied, and the vehicle is stationary, nothing happens.

The system does not sound warning tones nor display messages. It is designed so it does not affect both driver acceptance and performance. It is the driver's responsibility to figure out the shifting problem.

Shifting into Reverse

From any Gear position, is possible; the foot brake **must** be applied and the vehicle speed **must** be 0 miles/h, shortly press the “R” touch button (Figure B). If all conditions allow shifting, the actuator is powered, when the Reverse position is reached, the actuator stops. The “R” symbol indicated (Figure B).



Figure B

Important note:

- ✚ If the Reverse button is pressed while the foot brake is applied, and the vehicle is moving, nothing happens.
- ✚ If the Reverse button is pressed while the foot brake is not applied, and the vehicle is stationary, nothing happens.

The system does not sound warning tones nor display messages. It is designed so it does not affect both driver acceptance and performance. It is the driver's responsibility to figure out the shifting problem.

SHIFTING into Neutral

Is possible in the following conditions:

- From **Park** position, apply the foot brake first and then press and hold the “RN” touch button (Figure B) until the Neutral is engaged and indicated (Figure C).
- From **Reverse** position, the vehicle must be in full stop, apply the foot brake and then press and hold the “RN” touch button (Figure B) until the Neutral is engaged and indicated (Figure C).
- From **Drive** or **Sport position**, no requirements are needed, the vehicle speed is not relevant nor the foot brake, just press and hold the “RN” touch button (Figure B) until the Neutral is engaged and indicated (Figure C).



Figure C

Shifting into Drive or Sport

Is possible in the following conditions: (depending on your vehicle, the following instructions apply to the “S” touch button as well).

- From **Park** position, apply the foot brake and then shortly press the “DM” touch button.
- From **Reverse** position, confirm the vehicle is fully stopped, apply the foot brake and then shortly press the “DM” touch button.
- From **Neutral** position, slightly apply the foot brake and then shortly press the “DM” touch button. The vehicle speed is not relevant.



Figure D

After the Drive position is reached and engaged, the Drive symbol is displayed (Figure D).

USING THE TIP-TRONIC FEATURE

Depending on your vehicle gear box, it is possible to manually shift gears like Tip-Tronic up/down shifting or manual shifting.



Figure D

ACCESSING MANUAL SHIFTING MODE:

- Shift into drive gear first, as described earlier.
- Press and hold the “DM” touch button (Figure D) until the symbol changes to (Figure E) indicating the gear box is in manual shifting mode.



Figure E

USING THE MANUAL SHIFTING TOUCH BUTTONS:

- Shortly press the Up arrow (Figure E) to shift up one gear position.
- Shortly press the Down (Figure E) arrow to shift down one gear position.

EXITING THE MANUAL SHIFTING MODE, RETURN TO AUTO MODE,

- Press and hold the Up-shift arrow (Figure E) until the manual mode is canceled, the Drive symbols displayed (Figure D).

Important notes:

- ❖ ***Depending on your vehicle gear box and ground speed, the vehicle Engine Control Module does not allow shifting up or down even when you press either of the manual shifting buttons (Figure E).***
- ❖ ***It is not possible to directly access manual shifting mode from any gear position other than Drive (Figure D), the system behaves exactly as your vehicle manufacturer designed it.***
- ❖ ***It is not possible to exit the manual shifting mode by directly selecting the desired gear position other than Drive. So, first, you must exit the manual mode as described earlier and then select the desired gear position.***

THE ELECTRIC PARK BRAKE

The park brake touch symbol, incorporate a visible indication of the park brake actual condition using, CANbus technology. There are no restrictions while using the park brake, it can be engaged/disengaged regardless of the ignition switch. It behaves exactly as the OEM park brake manufacturer designed it. Another reason, is if the vehicle needs towing, waking up the vehicle is enough to disengage the park brake.

TO DISENGAGE THE PARK BRAKE

Figure A, indicates the Park brake is engaged.

Press & Hold the park brake symbol (Figure A) until the park brake is fully released. The actuator automatically stops, the park brake released symbol (Figure B) is displayed.



Figure A

TO ENGAGE THE PARK BRAKE

Figure B, indicates the Park brake is disengaged.

Press & Hold the park brake symbol (Figure B) until the park brake is fully engaged. The actuator automatically stops, the park brake engaged symbol changes to (Figure A).



Figure B

MULTI-FUNCTION

There are three classes of secondary controls, Mode A, B and C.

Mode A, are controls that must be accessible to the driver while maintaining control of vehicle steering, accelerator, and brake with the **vehicle In-Motion**:

- Turn signals
- Horn
- Cruise control set
- High beam flash
- Wipers front washers.

Mode B controls are those which are accessible to the driver maintaining control of the brake function, while the vehicle is not In-Motion:

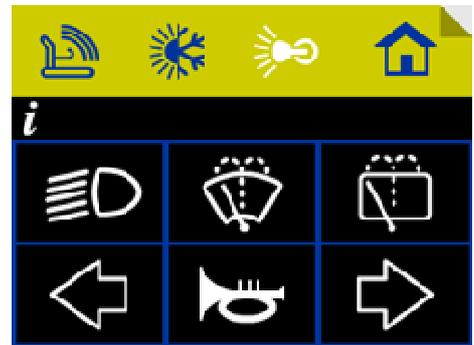
- Transmission
- Park brake
- HVAC
- Windshield wipers front /rear

Mode C controls are those accessible to the driver when the vehicle is stationary, i.e., parked or not in the traffic stream:

- Ignition/Starting and stopping
- Power windows and door locks
- Set control

The multifunction touch panel combines the main functions needed as described in mode A. This panel is accessible at all times by shortly pressing the multifunction symbol located on the left side of the Home button in the quick navigation bar. Once selected, the screen stays until any other screen is selected. Additionally, less relevant functions are available by pressing the multifunction symbol a second time, a picture of the currently available function to the right. Below you'll find a detailed description on how to use the various functions.

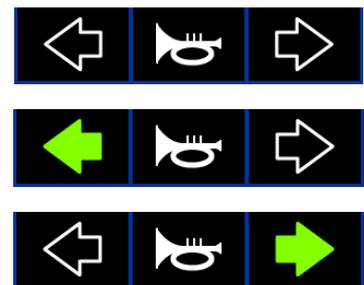
Important note: all currently active functions are automatically turned off when the ignition switch is turned off.



USING THE TURN SIGNALS

The turn signals are the mostly used functions in a vehicle while driving. These two touch buttons are located on the third row of the multi-function screen, and the decision to mount them this way was deeply studied and tested for a long period of time. These two touch buttons are mounted directly on the bottom corners of the LCD box, so the driver can easily find these buttons by sensing the inside of the LCD box frame; by practicing and educating themselves to find these two buttons without removing their eyes from the steering, *exactly as when you learn to recognize a TV remote control Volume or Channel button, at night, just by sensing the button position*; in the cores of time, you will discover how easy to use these buttons are, effortlessly.

Your Drivein system turn signals function is very smart, it incorporates a positive indication that the turn signals are operating and visible indication of the direction of turn, it has an automatic cancellation of the signal by reverse turn of the steering system as on the OEM installation using, CANbus technology.



USING THE HORN

The Horn touch button, located between the turn signals buttons; by using the turn signals technique described earlier, it is possible to easily find and press the Horn symbol without removing your eyes from the steering while In-Motion. The Horn behave exactly as your OEM horn except for the fact that it is not functional while the ignition is off.

USING THE LIGHTS

The lights touch button is designed to control the Tail lights, Head lights, High beam and flash.

Follow the instructions below to fully understand how to effectively use the lights function:

- Turn On the ignition.
- Select the multi-function screen using the multifunction button on the quick navigation bar.
- Press and hold the lights universal symbol (Figure A) until the Tail lights turns on, it is indicated on your Dash (Figure B).
- Press and hold a second time the lights universal symbol until the Head lights turns on, it is indicated on the touch panel and on your Dash (Figure C). At this stage, the head lights are on and safe to drive.
- Shortly pressing the lights button at any time, to trigger the flasher function, the high beam is automatically pulsed. It is possible to repeat this function as needed.
- To turn on the High beam, the headlights must be on. Then, press and hold the lights button until the high beam turns on and indicated by the high beam blue symbol (Figure D).
- To cancel the high beam and return to the headlights, press and hold the lights symbol until the headlights turn on and indicated by the head lights universal green symbol (Figure C).



Figure A



Figure B



Figure C



Figure D

Important note:

- ❖ A high level of safety functions is implemented in your system, the lights functioning properly is critical, so it is not possible to turn off the lights once turned on. The only way to turn the lights off, is to turn the ignition off.

USING THE FRONT WIPER WASHERS

To simplify the wipers operation, a single button used to control all three speed wipers and the Front wash.

- Shortly press the universal wipers touch button (Figure A) once to activate the intermittent wipe function.
- Shortly press a second time the wipers touch button (Figure A) to activate the Normal wipe function.
- Shortly press a third time the wipers touch button (Figure A) to activate the Rapid wipe function.



Figure A

To trigger the front washers, it is possible at any time and regardless of the currently active wiper function or even if the wipers are completely OFF.

- Press and hold about 0.5 second the universal wipers touch button (Figure A) to activate the front washers, the washers with automatically wash and wipe as long as the touch button held pressed. When released the washers stopped immediately and the wipers continue for about the wipes.

USING THE REAR WIPERS WASHERS

Depending on your vehicle rear wipers capabilities, some of the functions described might not work for you. Some vehicles support two speed rear wipers and others support only the Intermittent wipe, the system triggers what is supported by your vehicle only.

- Shortly press the universal rear wipers touch button (Figure A) to activate the rear wiper function, as mentioned earlier it might be the intermittent wipe or normal wipe.
- Shortly press a second time the rear wipers touch button (Figure A) to stop the rear wipers operation or trigger the second rear wiper function.
- Press and hold the rear wipers touch button (Figure A) to activate the rear washers, the spray will be activated as long as the button is pressed, stopped immediately with releasing the touch button.



Figure A

ENTERING & EXITING YOUR VEHICLE

Your Drivein has very sophisticated functions for entering and exiting your vehicle, you can control the sliding door without opening the ramp or kneeling the vehicle or opening the ramp sequence, it allows controlling the docking station and displaying its current status secured or unsecured (more information can be found in using the docking station section); controls the head rest/ arm rest actuator or any other function. The Emergency battery also supported (more details can be found in using the emergency battery section). More functions possible by pressing the lift symbol located on the quick navigation bar a second time it is used to alternate between these two panels on the right

The second touch screen support three function, more will be added in the future. The currently supported functions are the passenger sliding door open/close, the interior lights and the garage door opener, contact your installer for more information and more options.

The system added security function to the lift/ramp deploy touch button, it is *automatically disabled while the gear is not in the Park position*. All three touch buttons (Lift/Ramp In, Out and Stow) are functional at all times.



Figure A

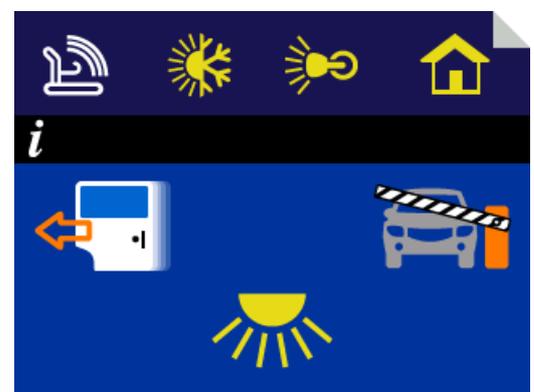


Figure B

USING THE AUXILLARY BATTERY

The Drivein system supports auxiliary exit function, in case of the main battery running flat, when inside the vehicle. The system is powered simultaneously from the main battery and from the secondary battery. So, when the main battery is flat for any reason, it is powered by the secondary battery. The system detects the problem with the battery. Once detected, the system does not put itself to sleep, until the main battery replaced. It is designed so that when the main battery is flat, the vehicle electrical systems will be put to sleep, the same with the Drivein, so when the system detect a problem with the main battery it just doesn't put itself to sleep to allow the driver to exit his vehicle by pressing the emergency touch button (Figure C) The emergency battery touch button is an animation, it is designed to easily draw the driver attention to its location. It is located on the IN/OUT screen. The driver need to select the IN/OUT screen by shortly pressing the Lift touch button located on the top right. Shortly press the emergency button to trigger a relay and connect the secondary battery to the main. **A 10-minute down timer is trigger, once the timer expires the system automatically disconnects the secondary battery and shut down. It is intended to avoid flattening the emergency batter while not in use.** Charging the secondary batter is done by the Joysteer electronics.

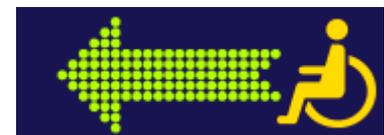


Figure C

WINDOWS AND DOOR LOCKS

Your Drivein totally integrated system allows controlling the Driver and Passenger Window open and close, it is also controls the door lock and unlock. A unique touch screen dedicated for these three functions, it is selected by shortly pressing the Home symbol once.

The driver window touch buttons are located on the left side of the screen and the passenger touch buttons located to the right side of the screen.

To open or close the either of the driver/passenger window, press as much as needed either of the Up/Down touch buttons, the window operation is stopped immediately by releasing the touch button.



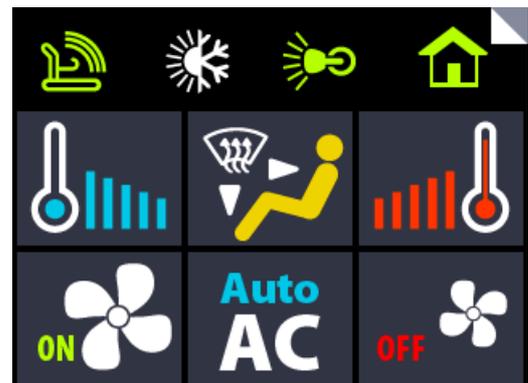
Important note:

- Only one window can be controlled at a time.
- There is no auto up or auto down function, it is the driver responsibility to close the windows prior to leaving the vehicle.
- The OEM safety implemented in your vehicle is maintained; it is the driver responsibility to avoid any accidental closing the window at any person.

USING THE HVAC

Your Drivein supports Heating Ventilation and Air Conditioning, depending on your vehicle and the installed HVAC unit, sometimes it is not possible to control all available functions. The instructions provided below are non-vehicle specific, contact your installer for more details or vehicle specific instructions. The HVAC screen selected by the HVAC symbol located on the quick navigation bar.

- Shortly press the big fan symbol to turn ON the HVAC operation, it uses the last known settings. Shortly press the same touch button to increase the fan speed or press and hold to automatically increase the speed to the Max.
- Shortly press the small fan speed to decrease the fans speed one step or press and hold to automatically decrease the fans speed down to Min and even turn Off the HVAC.
- Shortly press the (+) touch button to rise (Hot) the ambient temperature one step at a time, the same applies to (-) touch button to reduce (Cold) the ambient temperature.
- Shortly press the (AUTO/AC) touch button to turn ON or OFF the air-conditioning, press and hold to switch to AUTO mode.
- Shortly press either of the air flow three touch buttons to select the air outlet, it is possible to mix between different air flow options.



Important note:

- Your OEM HVAC manufacturer designed the system in a way that it maintains the last selected options, this is not possible with the Drivein.
- There is no indication of the currently selected temperature or selected fan speed, you should be able to see this information on your OEM HVAC display.

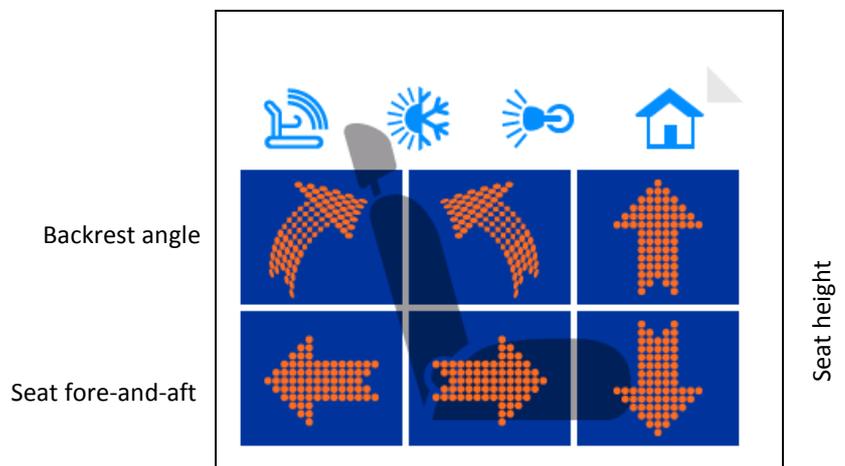
ADDITIONAL FUNCTIONS

Your Drivein totally integrated system supports many smart functions, not all of them supported by your vehicle and not all modules installed. Contact your dealer for more information regarding availability and support.

DRIVER SEAT ADJUST

Depending on the vehicle's equipment, electrical seats can be adjusted using the touch buttons available on this screen; cycle through the Home button until this page displayed.

The page buttons support three axes, more options can be made on request with additional page.

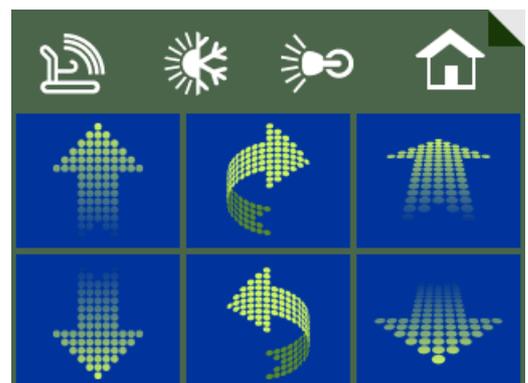


ACTUATORS CONTROL

This screen is a multi-purpose page, can be used for almost any function, it is up to you to discuss the functions need for your use. **(Important, the applications below are advisory only)**

Application examples:

- ✓ Person lifts
- ✓ Hoist control in the truck.
- ✓ Transfer seat base in a van.
- ✓ Wheelchair lift.
- ✓ In tractors and agriculture machinery.
- ✓ Any function with up to three axes.



IN-MOTION CONTROLS

The In-Motion Control is a Voice Scan System. It is an input device that can be easily added to the Drivein, like any other input device manufactured by R.A.SH Tronics. Its unique function is that the driver needs to press a single low effort button to cycle through different messages announced through a speaker, one function (message) at a time. When the desired function is reached, the driver should release the button to activate the announced function.

The In-Motion Control uses intelligence, it is constantly updated with the vehicle status, like: *Key position, Vehicle speed, Engine running/stopped, current gear, Park brake, and Foot brake*, according to this information, the announcements automatically adjusted to the relevant driving conditions.

Example A: *when the vehicle is in Park with the engine off, pressing the advance functions button, will trigger the message "Ignition ON", the gear position will not be announced because the gear selection only functions with the ignition turned on.*

Example B: *when the vehicle is moving, pressing the advance functions button will trigger "Shift into Neutral", "Shift into Sport", the Park/ Reverse/Stop engine command will not be announced, because the speed is too high.*

Example C: *when maneuvering back and forth in a parking lot, the system cycles between "Shift to Reverse", "Shift to Drive".*

The In-Motion system is powered on and off with the ignition switch. To operate the system, a low effort switch can be used and the system provides two function lists:

Basic Functions

Turn signals Announced message: <ol style="list-style-type: none"> 1. Left indicator 2. Right indicator 3. Cancel indicators 	Lights: Announced message: <ol style="list-style-type: none"> 1. High beam 2. Head lights 3. Flash 	Horn
Front Wipers Announced message: <ol style="list-style-type: none"> 1. Intermittent wipe 2. Normal wipe 3. Rapid wipe 4. Cancel wipers 5. Front wash 	Rear wipers Announced message: <ol style="list-style-type: none"> 1. Rear wipe 2. Rear wash <p>The rear wipe announcement used to turn On and Off the rear wipers.</p>	Play music Announced message: <ol style="list-style-type: none"> 1. Play music. <p>This is preliminary function, not mature yet. Use as is.</p>

Advance Functions

Key position Announced message: <ol style="list-style-type: none"> 1. Ignition ON 2. Accessories ON 3. Ignition OFF 4. Start Engine (cranking) 	Gear selector Announced message: <ol style="list-style-type: none"> 1. Shift to Park 2. Shift to Reverse 3. Shift to Drive 4. Shift to Neutral 5. Shift to Sport 	Gear selector Announced message: <ol style="list-style-type: none"> 1. Speed is too high <p>This is an attention message announced when trying to shift, while it is not allowed.</p>
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IN-MOTION BASIC FUNCTIONS

After switching on the ignition, the In-Motion is ready for use. Press and hold the low effort switch, the systems starts announcing the relevant messages one after the other in a reasonable speed and volume.

Release the switch when the desired function is announced, to activate it.

Linked to CANbus communication network in your vehicle, the system is intelligent and knows at all times what functions are on or off.

As an example, when you press the switch, the turn signals are the first to be announced. The system knows if the turn signals are on and announces the next message in order to avoid repeating the currently active function.

Example A: Left indicators are on	Example B: Right indicators are on
Announced message: <ol style="list-style-type: none">1. Cancel indicators2. Right indicators	Announced message: <ol style="list-style-type: none">1. Cancel indicators2. Left indicators

Using the In-Motion Lights Function

The system knows the actual lights condition:

1. When the Head lights are off, the system announce "Flash".
2. When the headlights are on, the system announce "High beam" and then "Flash".
3. When the high beam turned on, the system announces "Head lights" and then "Flash".

Using the In-Motion Front Wipers Function

The system knows the actual wipers condition:

1. When the wipers are completely off, the system announce "Front wash", "Intermittent wipe", "Normal wipe", "Rapid wipe".
2. When the Intermittent wipers are on, the system announces "Cancel wipers", "Front wash", "Normal wipe", "Rapid wipe".
3. When Normal wipe is on, the system announces "Cancel wipers", "Front wash", "Rapid wipe".
4. The Front wash can be triggered any time regardless of the current wipers status. The water spray is activated continuously for about five seconds and then automatically stopped.

USING THE IN-MOTION REAR WIPE WASH FUNCTION

The Rear wash water spray is activated continuously for about five seconds and then automatically stopped. The rear wipers operation, is vehicle dependent; in some vehicles, two functions supported and in other vehicles only the normal wipe.

To activate the rear wipe, cycle through the announcements until the "Rear wipers" heard, the same announcement reared to cancel or select the next wipers function in turn. The same apply to the rear wash.

IN-MOTION CONTROLS ADVANCED FUNCTIONS

To access the In-Motion Advance Functions, a special input device needed, three different types available, depending on the driver disability, it is recommended to use the **HID-6L**, a small box, with up to six inputs for direct plug low effort switches. Each switch can do a pre-defined function or list, no additional programming needed to any of the system components. As mentioned earlier, the currently available functions are Ignition/ Starting/Stopping, and Gear shifting (P/ R/ N/ D & S).

It is recommended to familiarize yourself with the system operation before going on road.

ANNOUNCEMENTS DETAILED DESCRIPTION

Message: Ignition On

This is the first message announced, it is used to activate the ignition, power to all circuits, this message does not start the engine. This message will never be heard as long as the ignition circuits turned on.

Message: Ignition Off

This message announced in many situations, it is intended to stop the engine if was started and shut down all circuits. It is never announced if the vehicle is not stationary, meaning while the vehicle is moving, the current gear is Drive/Neutral or Sport, it will never be announced.

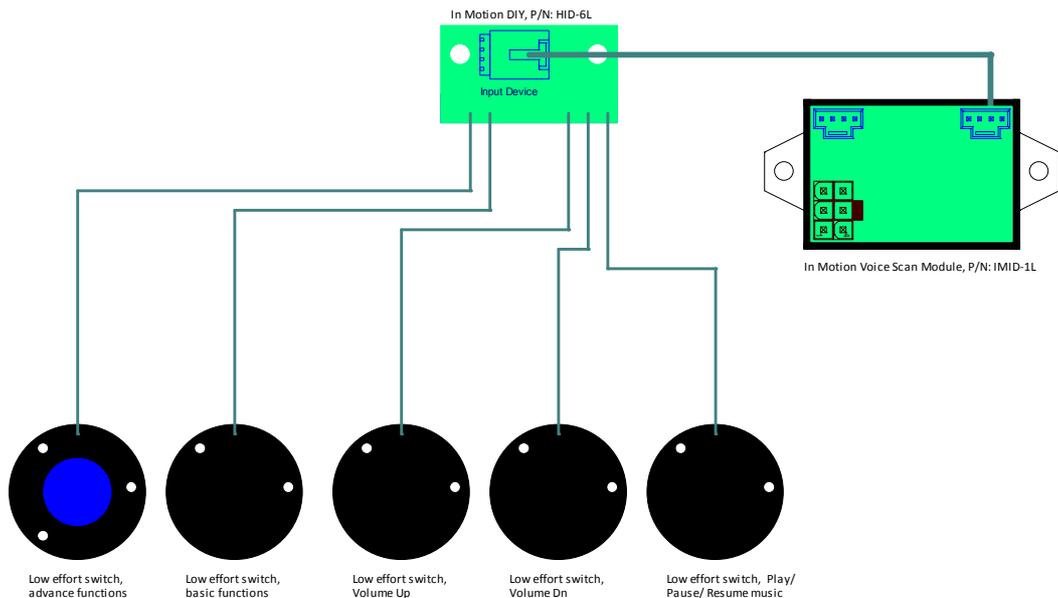
Message: Start engine

This message is heard after the ignition circuits turned on and the system detects no engine run. When the button released during the message being announced, the cranking phase automatically triggered and stopped when the engine started. If the engine does not start, the system does nothing, it is up to the driver to decide the next step.

SELECTING A GEAR POSITION MESSAGES

The system detects the current gear position, so it is never announced. The system also adapts the relevant messages according to the vehicle status, for example, if the engine running and the Park brake is engaged and the gear is not in park, the first message will be "Shift into Park" and then it cycles through all other gears. The same apply if the Park is engaged then the message will be "Stop engine".

Press and hold the button, messages heard one after another, when the desired function message is heard, release the button. All safety features are tested before triggering the desired function.



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In Motion System, Inputs HID-6L

Size	CAGE Code	DWG NO	Rev
A4	059-957-746	HID-6L	A
Scale		Sheet	1 of 3

USER INPUT DEVICES

The **RID-1L**, Round Input Device, is a five switches round device mainly used on a mechanical hand controls to operate up to eight functions of your vehicle, like:

1. Turn signals
2. Horn
3. Front wipers (two or three speeds) and front wash
4. Low/ High beam and flash



Crisp tactile feel switches, large caps with laser engraving universal automotive symbols, light blue when the ignition turns on, the system incorporate a positive indication that the turn signals are operating and visible indication of the direction of turn, it has an automatic cancellation of the signal either by reverse turn of the steering system as on the OEM installation or by an automatic timeout circuit within 20-30 seconds after the brakes are released, this feature is vehicle dependent.

The **JID-1L**, a five-way small joystick, mainly used on a mechanical hand controls to operate up to eight functions of your vehicle, like:

1. Turn signals
2. Horn
3. Front wipers (two or three speeds) and front wash
4. Low/ High beam and flash



A SHORT DESCRIPTION OF USE (RID-1L & JID-1L):

1. Press and hold the High beam switch to turn on the high beam, repeat to turn on the low beam, shortly press any time to flash.
2. Press and hold the wipers switch at any time to activate the front wash, the water spray stops when releasing the switch. Shortly press the wiper switch to cycle through all three speeds until turned off.
3. Horn and Turn signals switches are momentary.

POWERED GEAR SELECTOR

The **GID-1L**, Gear buttons Input Device, is a five switches designed to replace the Gear selector lever in a vehicle:

Crisp tactile feel switches, large caps with laser engraving universal automotive symbols, light blue when the ignition turns on, the system incorporate a positive indication of the currently engaged gear and visible indication of the direction of actuator movement while selecting new gear position.





YOUR FEED BACK MOST WELCOME

This system is unique and needs your feedback to improve its functionality, your feedback is very important. Use the system and send us your comments whatever they are, we will replay but do not promise to update its function.

Send your comments to this link: rashtronix@gmail.com

NOTES

R.A.SH Tronics Ltd, reserve the right to make changes in product specifications at any time and without prior notice. The information in these manuals is believed to be accurate and reliable. However, R.A.SH Tronics Ltd assumes no responsibility for its use.