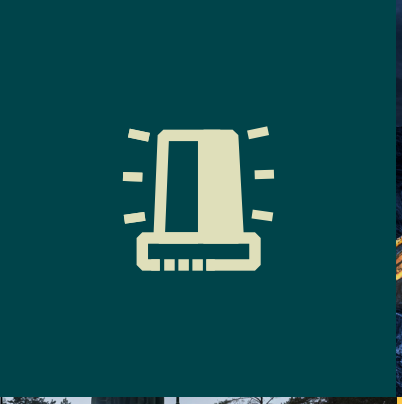












Electronic Control Unit

Put an End to Mechanical Fuses, Relays, and Switches

Addio Digital Relay Box

addio

Lots of possibilities in One box

The Addio Digital Relay Box comes with a lot of possibilities and functions

Functions

Settable fuse with slow fuse option

Fixed or normal “relay” function

Timers

Multiple input sources for each output

Set/reset from different inputs

Flashing output with settable from strobe to long duration

Individual voltage settings for each output

Toggle functions

Counters

Logics for sirens and blue-lights for emergency vehicles

Parallel or serial use of multiple functions

CAN bus Integration with vehicle, computer or extras

Temperature control from sensor

H-bridge for DC motor control with timers and deadtime settings

Energy saving mode

For Use in Vehicles and Industry

The Addio system is a 12V or 24V Electronic Control System that enables many functions to a wide variety of applications.



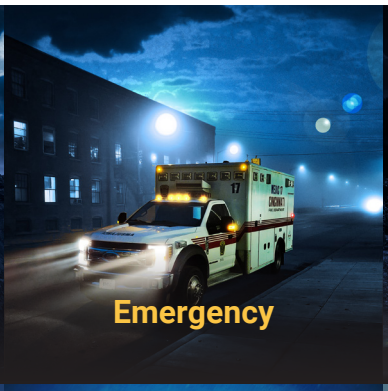


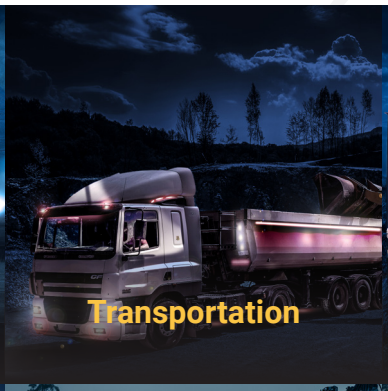


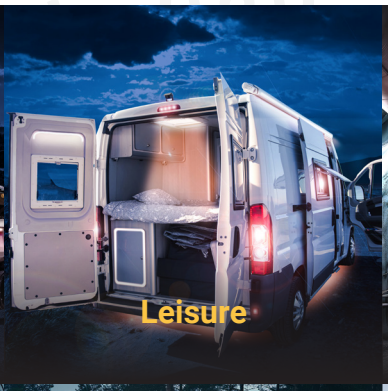


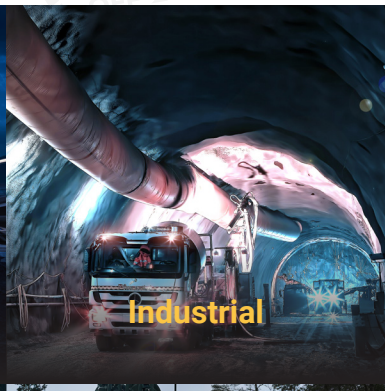
Applications

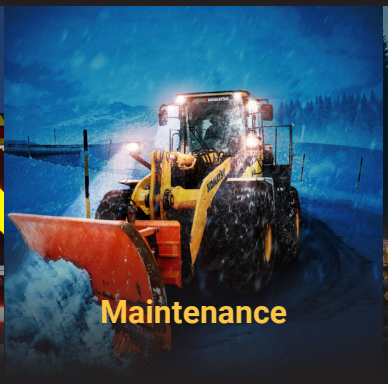
- Beacons
- Extra lights
- Fans
- Sirens
- Worklight
- Heating
- DC Motor
- Cooling
- DC Outlets
- And more





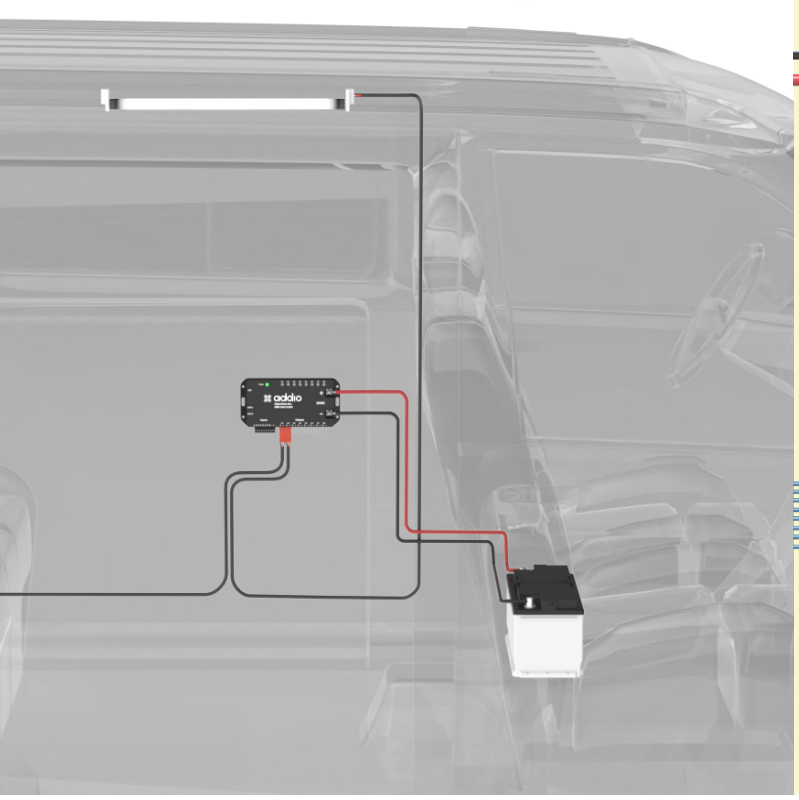


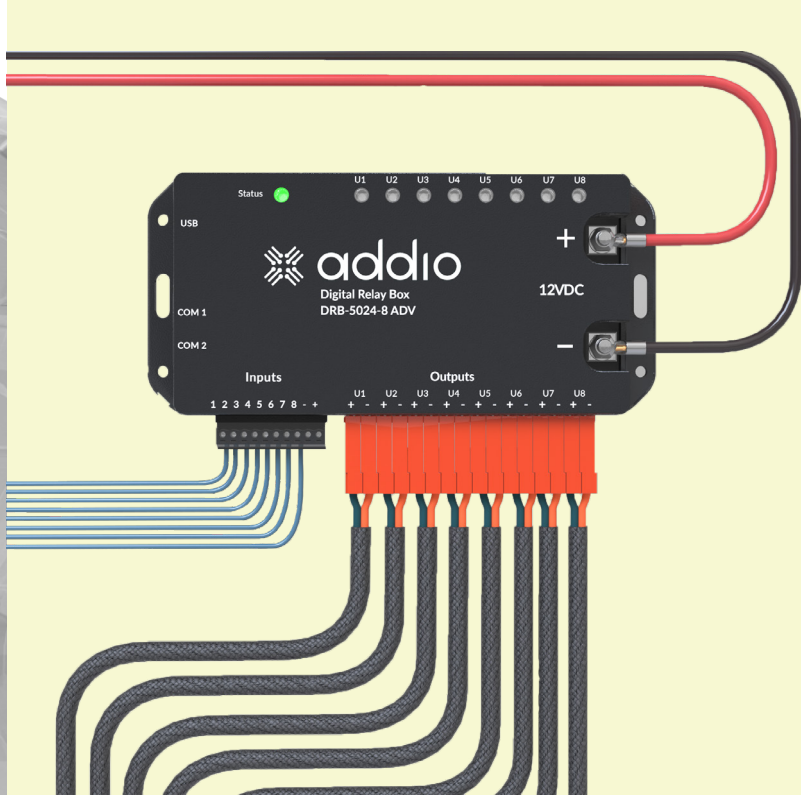













Addio Switch Panels and Hand Controller

Addio offers fully integrated and configurable 8 or 4 button Switch Panels as well as a 15 button Hand Control connected to the relay boxes via a single RJ10 Cable.

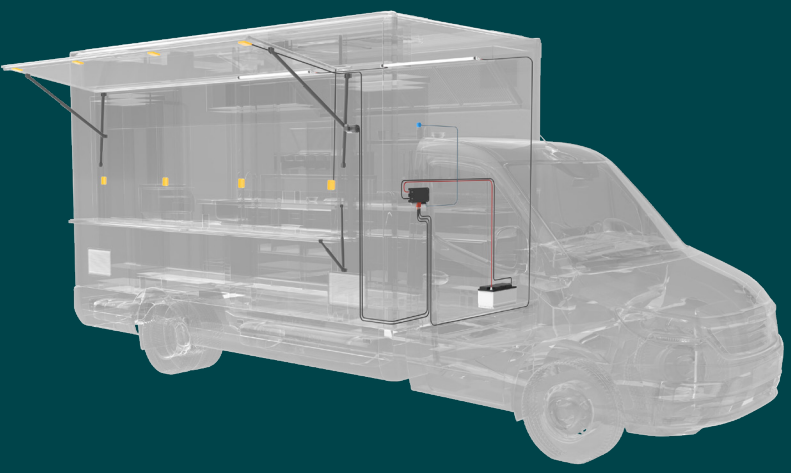
The buttons are RGB LED illuminated, each button can be set in several different modes, colors and can either activate an output or work as an indicator to show whether a specific output or input is active.

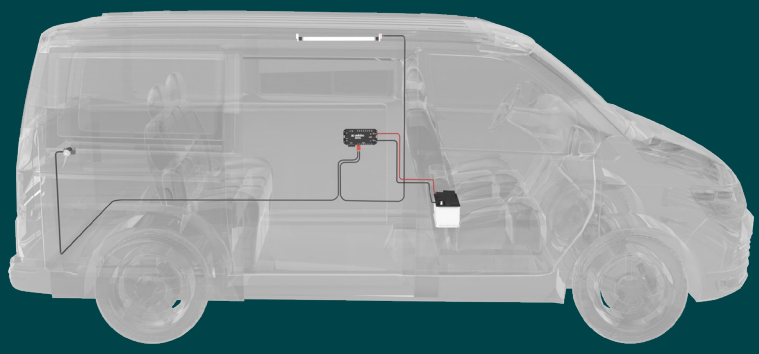
Connect two Hand Controllers and up to 4 Switch Panels to one DRB for parallel use or with individual settings for each unit.

The Hand Controller and Switch Panels have a built-in temperature sensor that can be used for output control. The Switch Panel also has a light sensor that could be used to detect night and day mode for connected warning lights etc.









Control with our App on your Smart Device

Addio Remote is a mobile application for Apple or Android smartphones or tablets. It works as a remote control for the Addio Digital Relay boxes and connects via the Addio Bluetooth Module with a range up to 150 meters.



Addio App for Android

Addio App for iPhone





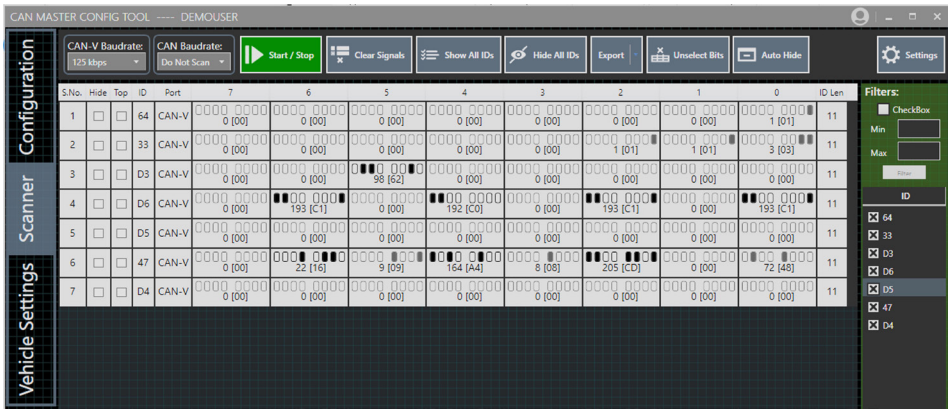
Full integration via Addio CAN Master

The Addio CAN Master lets your Addio system connect, scan and use your vehicles signals



The CAN signals can be used as input and to create automated functions tailored to the users need. Classic examples are backlights or camera turned on with reverse gear as input.

The Car integration also makes it possible to create more unique functions like sidelights that is automatically lit IF the window is rolled down, AND the speed is below 20km/h OR if the door is opened.



The integrated scanner functionality can analyze and detect signals from any vehicle like, headlight, doors, handbrake, reverse gear, speed and more.







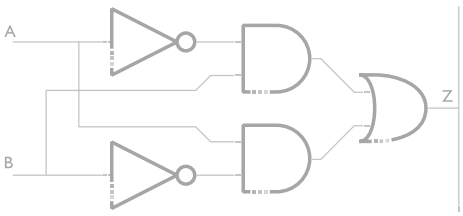
Sensors

Let your Addio system sense and act



A light sensor is built into our Switch Panels to adjust panel light, automate on/off or automate “Night Mode” on beacons and other lights. With the Addio Climate Sensor as an input you can turn on/off fans, heating or cooling based on temperature, humidity, airpreassure or air quality (VOC, VSC).

Sensors can also be used to indicate if something is opened or closed, up or down by measuring angles. Why not use a Motion Sensor (PIR) for lights or as a security alarm? Sensors are a key component when building user friendly, automated functions.



Smart Vehicles with logical functions

With Addio virtual outputs it’s easy to configure advanced logical combinations and make the vehicle work exactly as you want. The digital-toolbox, includes the functions OR, AND, NOR, NAND and XOR.

You use these functions when more than one condition has to be met in order for an output to be turned on or off. When a door is opened, the fan should automatically turn off, while the interior lighting will turn on if it’s dark outside.

Our system can handle multiple input sources, e.g. a sensor, a button or a closed door can start a fan.





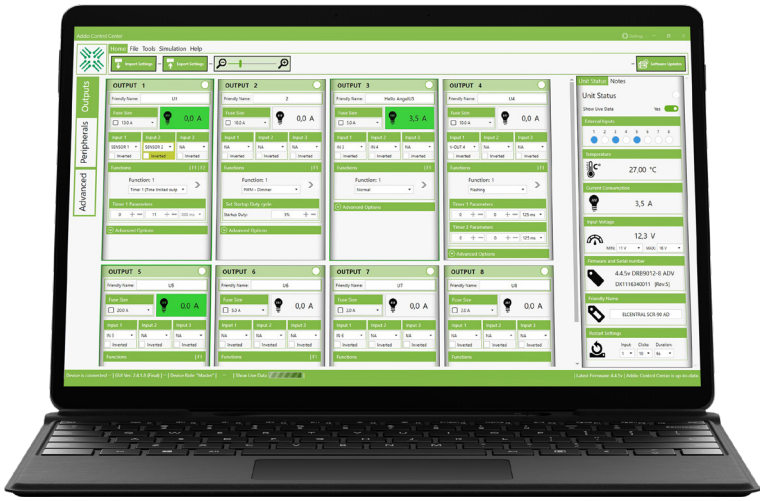


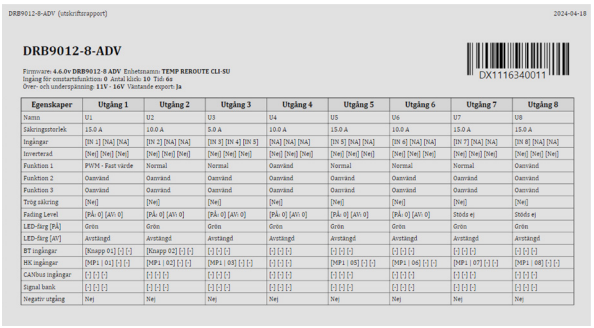
Fast and Easy Setup

Configurate With Ease With Our User-Friendly Interface

The Addio Control Center is developed for a good user experience. It’s easy to learn without any prior skills. The tool offers great flexibility to easily create many different combinations of functions.

With The Addio Control Center you create a “Profile” that defines all the settings and functions for the Units, the Switch Panels and the App.





DRB9012-8-ADV

DX1116340011

Egenskaper	Utgång 1	Utgång 2	Utgång 3	Utgång 4	Utgång 5	Utgång 6	Utgång 7	Utgång 8
Namn	U1	U2	U3	U4	U5	U6	U7	U8
Säkringsstorlek	15.0 A	10.0 A	5.0 A	10.0 A	15.0 A	10.0 A	15.0 A	15.0 A
Ingångar	[IN 1] [NA] [NA]	[IN 2] [NA] [NA]	[IN 3] [IN 4] [IN 5]	[NA] [NA] [NA]	[IN 5] [NA] [NA]	[IN 6] [NA] [NA]	[IN 7] [NA] [NA]	[IN 8] [NA] [NA]
Inverterad	[Nej] [Nej] [Nej]	[Nej] [Nej] [Nej]	[Nej] [Nej] [Nej]	[Nej] [Nej] [Nej]	[Nej] [Nej] [Nej]	[Nej] [Nej] [Nej]	[Nej] [Nej] [Nej]	[Nej] [Nej] [Nej]
Funktion 1	PWM - Fast värde	Normal	Normal	Oanvänd	Normal	Normal	Normal	Oanvänd
Funktion 2	Oanvänd	Oanvänd	Oanvänd	Oanvänd	Oanvänd	Oanvänd	Oanvänd	Oanvänd
Funktion 3	Oanvänd	Oanvänd	Oanvänd	Oanvänd	Oanvänd	Oanvänd	Oanvänd	Oanvänd
Trög säkring	[Nej]	[Nej]	[Nej]	[Nej]	[Nej]	[Nej]	[Nej]	[Nej]
Fading Level	[På: 0] [AV: 0]	[På: 0] [AV: 0]	[På: 0] [AV: 0]	[På: 0] [AV: 0]	[På: 0] [AV: 0]	[På: 0] [AV: 0]	Stöds ej	Stöds ej
LED-färg [På]	Grön	Grön	Grön	Grön	Grön	Grön	Grön	Grön
LED-färg [AV]	Avstängd	Avstängd	Avstängd	Avstängd	Avstängd	Avstängd	Avstängd	Avstängd
BT ingångar	[Knapp 01] [-] [-]	[Knapp 02] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]
HK ingångar	[MP1 | 01] [-] [-]	[MP1 | 02] [-] [-]	[MP1 | 03] [-] [-]	[-] [-] [-]	[MP1 | 05] [-] [-]	[MP1 | 06] [-] [-]	[MP1 | 07] [-] [-]	[MP1 | 08] [-] [-]
CANbus ingångar	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]
Signal bank	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]	[-] [-] [-]
Negativ utgång	Nej	Nej	Nej	Nej	Nej	Nej	Nej	Nej

The “Profile” can be saved on your computer/server and used for future builds or printed as a document.



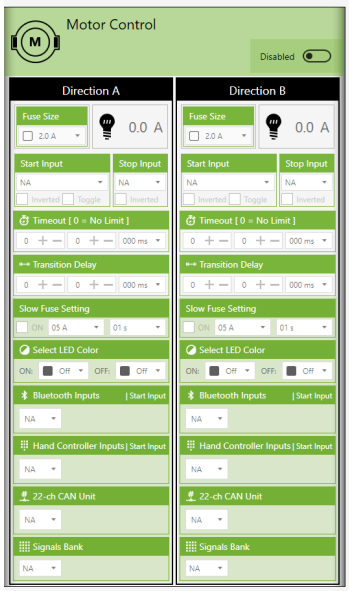


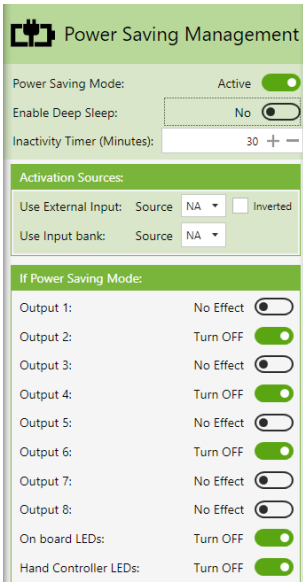
Smart And Automated Functions

Motor Control

With the built in H-bridge you can control DC motors in both directions. This can be used for foldable signs, locking mechanisms, fans, hatches, blinds etc.

Why not connect your roof mounted warning sign to the car via our CAN Master and let it be folded down automatically if speed exceeds a certain limit?





Power Save

With the Power Saving Management, you can easily configure your system to automatically turn off if inactive for desired minutes. Over/undervoltage settings can be used individually per output to automatically shut down outputs if input voltage from battery is too low.

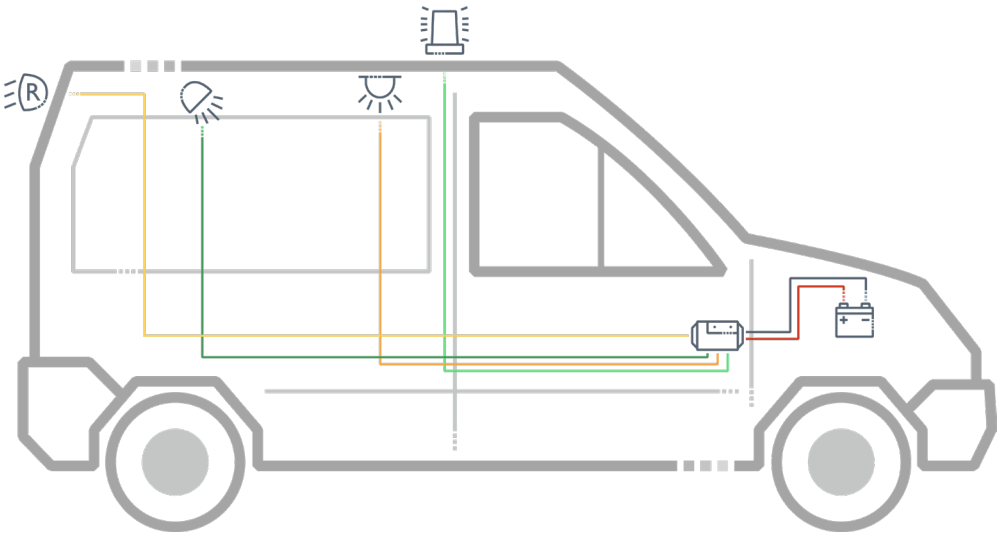
Save your battery and avoid standstill.





A Scalable Platform

Addio offers a scalable platform suitable for small ”Add on” installations in service vehicles or as the heart of major systems added to standard vehicles or as the central electronic control system for various machine builders.





Small installation

Small service vehicle installation with beacon on roof, worklight, interior light and reverse light connected to the Addio DRB with a 4 button Switch Panel installed in the cockpit.

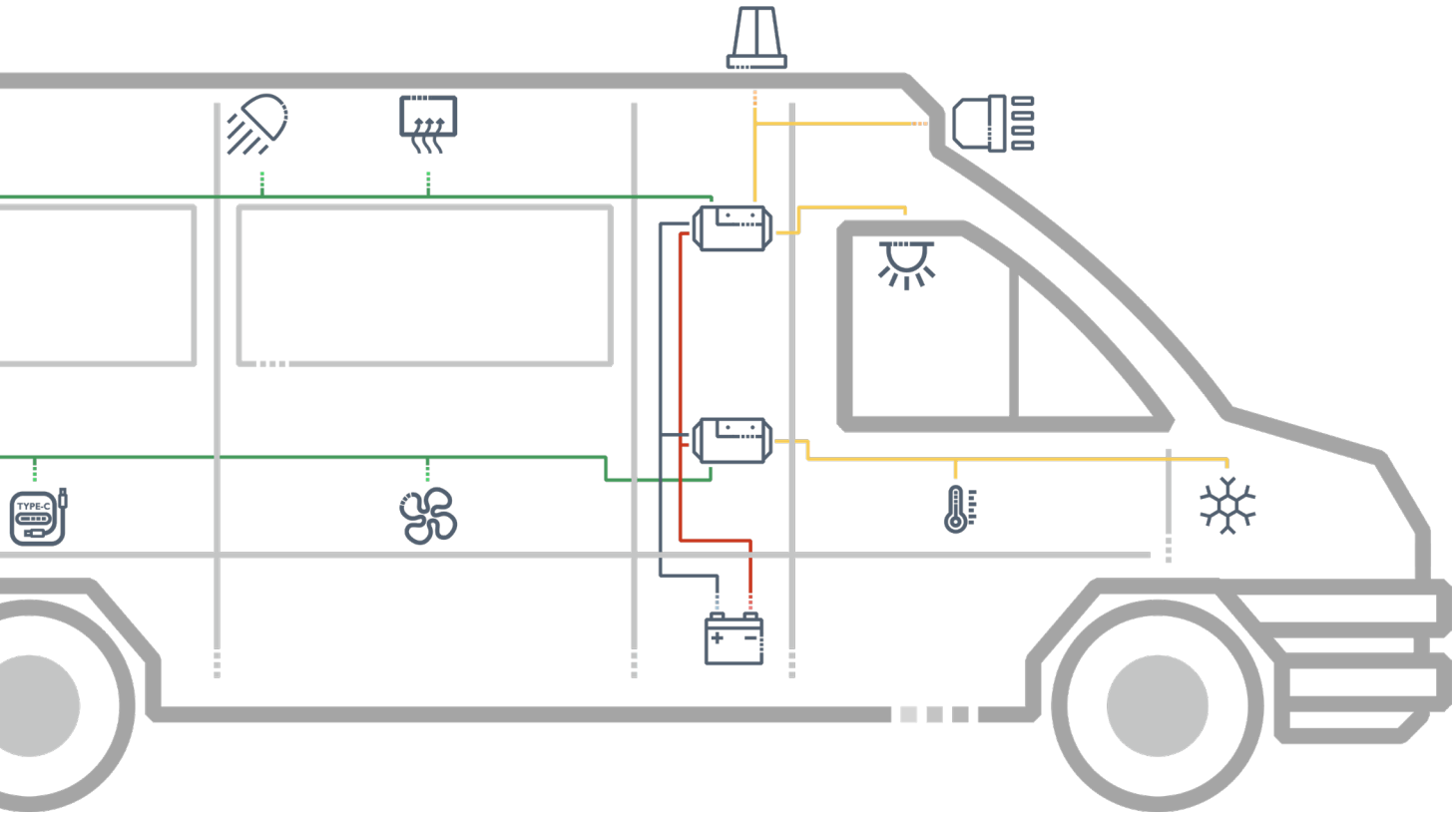
Compact, fast and clean installation



Large installation

Large vehicle with complex and extensive needs. Small and large beacon on roof, worklight on different sides. Interior light side, workbench and back, fan with air quality sensor auto of if door is open, controlled power outlets with power save. Backlight and Beacon connected to vehicle via CAN.

Controlled by two Addio DRB:s placed in front and rear, manoeuvred by two 8 buttons Switch Panel as well as via smartphone app.





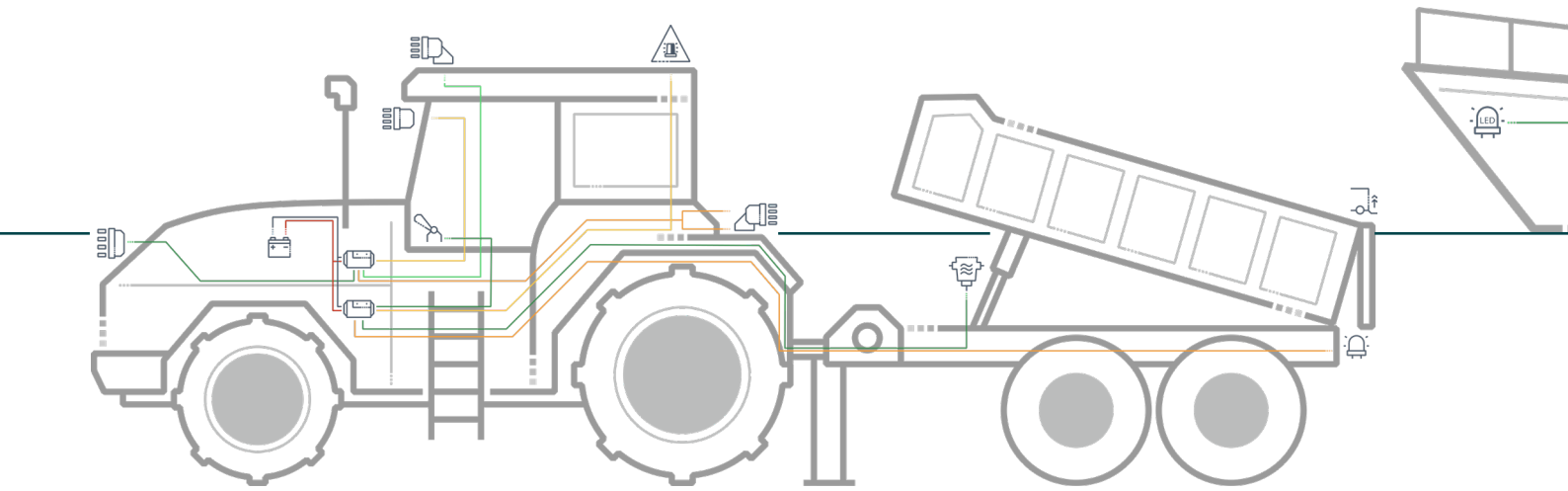
Built in per design

If you are a manufacturer of any machinery, Addio DRB offers you a possibility to design, build and maintain a modern and scalable electrical system with the Addio DRB:s as an electronic control system.

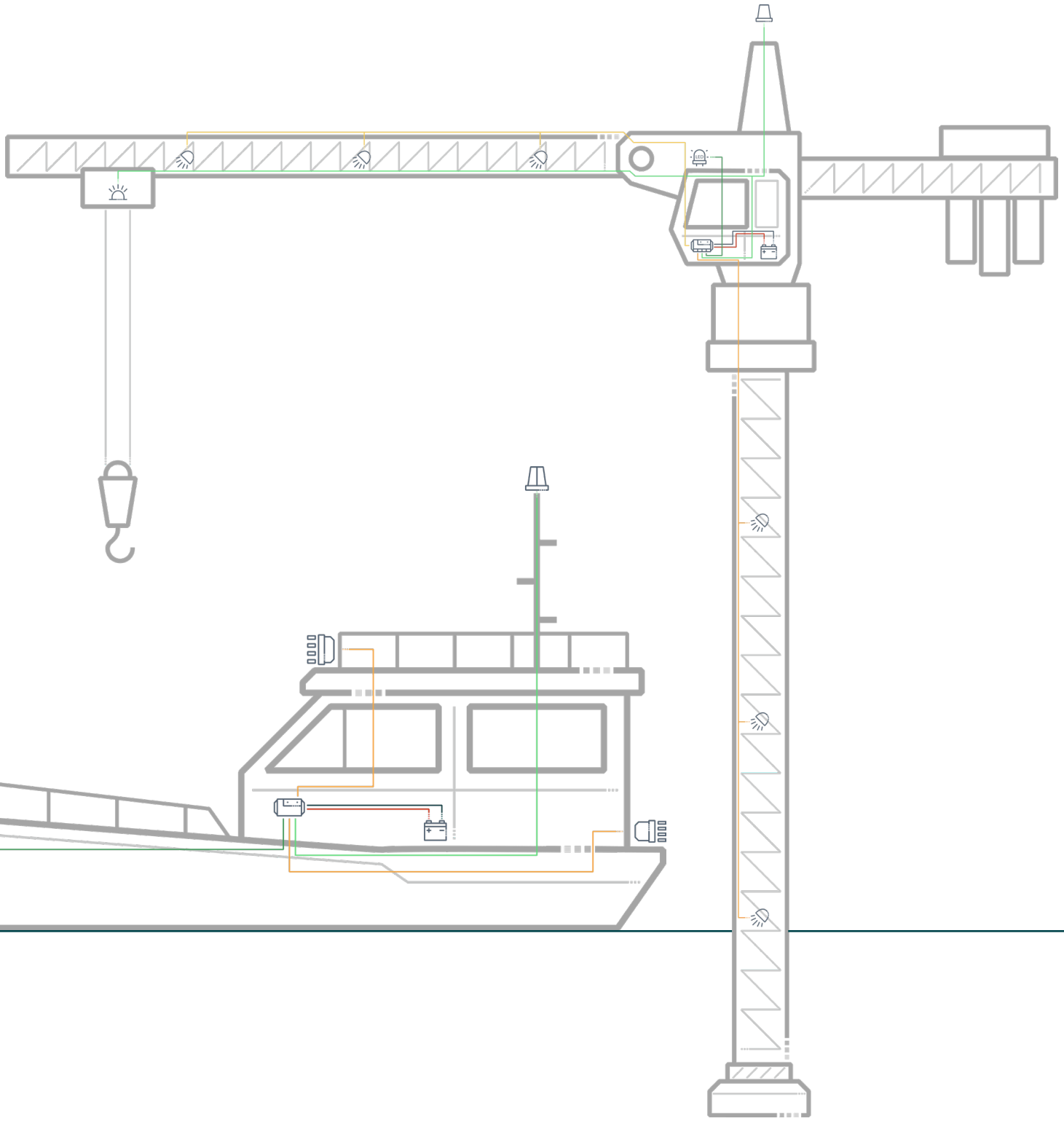
The addio platform is scalable and flexible which helps you design different basic setups for the clients as well as offering the possibility of individual adaptations.

Addio is also a good choice for a midlife upgrade of your machinery adding modern functions.

Let Addio be your partner from idéa to success.






A B C
OUTPUT

Electronic Control Units 12V and 24V

Choose the right model for your application

- The Addio DRB units come in 12V or 24V.
- The STD units has only analog/digital inputs via inputconnector.
- The ADV Units also has CANbus used for communication with other devices in the system such Switch Panels, sensors and CAN Master for vehicle integration and more.

All the relay boxes are based on microprocessors and have MOSFET technology for high current switching and a long lifetime.

Our Models



DRB-1612-4 Advanced

- 16A
- 12V Power Supply
- 4 outputs / 6 inputs
- 1x CAN port for external devices
- Can be controlled with Hand Controller, Switch Panels, Bluetooth modules etc.
- Built in pull-ups for grounded signals



DRB 5012-4 Advanced
DRB 10012-4 Advanced

50A / 100A

- 12V Power Supply
- 4 outputs / 4 inputs
- 2x CAN port for external devices
- Can be controlled with Hand Controller, Switch Panels, Bluetooth modules etc
- LED indication for each output
- H-bridge for DC motor control
- Built in pull-ups for grounded signals



DRB-8012-3 ESP (slave)

- 80A
- 12V Power Supply
- 3 inputs
- 1 high current output 80A, 2x 6A outputs
- 1x CAN port for external devices
- Not possible to configure via USB, works as a slave device from other ADV units.



DRB-9012-8 Standard
DRB-9012-8 Advanced

- 90A
- 12V Power Supply
- 8 outputs / 8 inputs

Advanced features

- 2x CAN port for external devices
- Can be controlled with Hand Controller, Switch Panels, Bluetooth modules etc
- LED indication for each output
- H-bridge for DC motor control
- Built in pull-ups for grounded signals



DRB-5024-8 Advanced
DRB-10024-8 Advanced

- 50A / 100A
- 24V Power Supply
- 8 outputs / 8 inputs
- 2x CAN port for external devices
- Can be controlled with Hand Controller, Switch Panels, Bluetooth modules etc
- LED indication for each output
- H-bridge for DC motor control
- Built in pull-ups for grounded signals

All Addio units has a 3-year warranty.

Model Details

Model	DRB-1612-4 ADV	DRB-5012-4 ADV DRB-10012-4 ADV	DRB8012-3 ESP	DRB-9012-8 STD	DRB-9012-8 ADV	DRB-5024-8 ADV DRB-10024-8 ADV
Power supply	10-22 VDC	10-22 VDC	10-22 VDC	10-22 VDC	10-22 VDC	18-31 VDC
Internal Power consumption (approximately) Normal mode no output active / Sleep mode	~20mA/ ~4mA	~30mA/ ~4mA	~5mA/ ~2mA	~30mA/ ~6mA	~30mA/ ~10mA	~30mA/ ~10mA
Undervoltage protection (adjustable)	10-13V, 0.5V steps	10-13V 0.5V steps	Fixed 10V	10-13V, 0.5V steps	10-13V, 0.5V steps	18-25V, 0.5V steps
Overvoltage protection (adjustable)	16-26V, 2V steps	16-26V, 2V steps	No	16-26V, 2V steps	16-26V, 2V steps	26-31V, 1V steps
Max.total current 1 minute	24A	50A/100A*	80A	90A	90A	50A/100A*
Max. total current continous	16A	50A/100A*	80A	70A	70A	50A/100A*
Total number of inputs	6 pcs	4 pcs	3 pcs	8 pcs	8 pcs	8 pcs
Digital inputs	6 of 6 pcs	4 of 4 pcs	3 of 3 pcs	8 of 8 pcs	4 of 8 pcs	4 of 8 pcs
Analogue inputs	2 of 6 pcs	2 of 4 pcs	0 pcs	4 of 8 pcs	4 of 8 pcs	4 of 8 pcs
Input resistance @12V	22kΩ	22kΩ	22kΩ	22kΩ	22kΩ	22kΩ
Connections inputs (jackable screw terminals)	8-pole inc. +/-	6-pole inc. +/-	10-pole inc. +/-	10-pole inc. +/-	10-pole inc. +/-	10-pole inc. +/-
Number of outputs	4 pcs	4 pcs	3 pcs	8 pcs	8 pcs	8 pcs
Connection outputs	6-pole screw terminal inc.	Cable crimp connector	M5 nut + crimp connector	Cable crimp connector	Cable crimp connector	Cable crimp connector
Fuse size A, outputs	1, 2, 3, 4, 5, 6.	2, 3, 5, 7.5, 10, 13, 15, ,18, 20, 25*, 30*, 35*, 40*.	Out 1 Fixed 80A, Out 2-3 Fixed 6A	5, 10, 15, 20, (25 only U7, U8)	5, 10, 15, 20, (25 only U7, U8)	5, 10, 15, 20*, 25*, 30*
Connection power supply	2p Screw terminal	M5 nut	M5 nut	M5 nut	M5 nut	M5 nut
Bluetooth	Yes, accessory	Yes, accessory	No	No	Yes, accessory	Yes, accessory
Motor control H-Bridge (prel current)	No	Yes, max 12A	No	No	yes, max 12A	yes, max 12A
Error Indication	No	Shared RGB LED	No	Shared RGB LED	Shared RGB LED	Shared RGB LED
Led per output (adjustable color)	No	Yes, RGB	No	No	yes, RGB	yes, RGB
Communication bus (CAN bus)	Yes 1pcs RJ10	Yes 2 pcs RJ10	Yes 1pcs RJ10	No	Yes 2 pcs RJ10	Yes 2 pcs RJ10
Computer connections	USB Micro	USB Type C	No	USB Mini	USB Mini	USB Mini
Earthing Signals	Yes with internal pull up Input 5-6	Yes with internal pull up Input 1-2	Yes with external resistor to positive	Yes with external resistor to positive	Yes with internal pull-up. Input 1-4	Yes with internal pull- up. Input 1-4
Handcontroller, Swich Panels, sensors etc.	Yes, as accessory	Yes, as accessory	No	No	Yes, as accessory	Yes, as accessory
Size (mm)	66x74x21	119x68x21	119x57x21	170x92x21	170x92x21	170x92x21

** High current version*

Addio — We love technology

We love technology - hardware and software. We love all the fantastic possibilities it creates. We love to create and to innovate, and we love happy customers. Our Digital Relay Box is the first product that we bring to the market. The first prototype installation was in 2013 and in 2015 we founded Addio in order to bring the boxes to the world.

Stay tuned, we are working on more cutting edge innovation that will bring smartness and connectivity to your devices.

Email us: info@addio.eu

Website: addio.eu

addio