DATASHEET
XBB PowerUnit-6®
Bluetooth, 6x output

Innoware Development

Order number: IDAB-2024-0610-1
Version: EN-20241127-1

XBB PowerUnit-6®
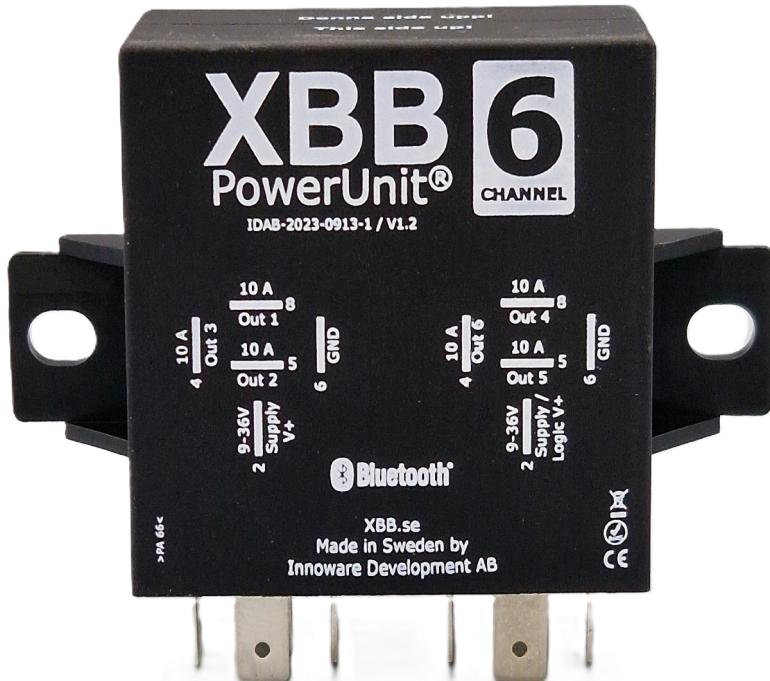
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Important:

This section contains information that is important for you to know when reading the data sheet and before working with the XBB PowerUnit-6®.

It includes the safety information that applies when you are working on and with the XBB PowerUnit® and its surrounding parts.

Disposal and Recycling

This electronic device contains components that must be properly recycled in accordance with local regulations. The XBB Dongle® must not be disposed of with household waste. At the end of its life cycle, please ensure that the dongle is taken to an authorized electronic waste disposal or recycling facility, in accordance with the WEEE Directive.

By disposing of this product correctly, you help conserve natural resources and prevent potential negative environmental and health impacts that could result from improper handling of electronic waste. For more information on the disposal and recycling of this product, please consult your local waste management authority

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Safety information:

Follow the instructions to avoid injury or damage the equipment:

!	**_WARNING!_** _There are ESD sensitive components inside the XBB PowerUnit-6®._
!	**_WARNING!_** _Contains electronics. Must be recycled. Do not dispose in household garbage._
!	**_WARNING!_** _Newer work on XBB PowerUnit® with the power supply on._

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Function:

The PowerUnit-6 is an advanced power control module with six programmable outputs, each supporting up to 10A. It is designed to provide reliable control of auxiliary electrical equipment such as LED light bars, work lights, and other electrical consumers in vehicle applications.

The PowerUnit-6 can be seamlessly integrated with the XBB Dongle and other XBB ecosystem components, offering Bluetooth connectivity and programmable functionalities to suit a variety of installation needs.

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Installation Guide

Mounting the PowerUnit-6

Mount the PowerUnit-6 in a suitable location within the vehicle's engine compartment or interior. Ensure that the unit is not exposed to excessive moisture or dust.

The PowerUnit-6 should be mounted with the connector sockets pointing downward to ensure optimal protection (IP53 rating).

Avoid using a pressure washer on the unit or its surroundings. If cleaning is necessary, remove the PowerUnit-6 before using water.

Electrical Connections

Connect the power supply (9-36V) to the PowerUnit-6.

Connect the outputs to the desired auxiliary equipment, such as LED bars or other accessories. Ensure each output does not exceed the maximum current rating of 10A.

If integrating with the XBB Dongle, keep the distance between the Dongle and PowerUnit-6 as short as possible to ensure strong Bluetooth connectivity.

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Configuration Using the XBB Configurator App

To configure the PowerUnit-6, use the XBB Configurator app, available for download from the App Store or Google Play. Follow these steps:

Download and Install the App: Create an account and log in.

Connect via Bluetooth: Ensure that the PowerUnit-6 is powered on and within range of your smartphone.

Select and Upload a Configuration: Choose a configuration recipe that matches your vehicle and the intended functionality of each output. Upload the configuration to the PowerUnit-6.

Verification: Test each output to ensure it functions as expected. Adjust settings as needed.

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Technical data:

Rated voltage:	12	V
Operating voltage:	9 – 36	V
Quiescent current in Standby mode:	3 – 5.4	mA
Output 1-6	10	A
Protection class:	IP53	Socket downwards
Implementation:	Plastic	>PA66<
The XBB PowerUnit-6® complies with the following EMC and safety standards **RED 2014/53/EU:** "European Radio Equipment Directive" **EN 300 328** "2.4 GHz wireless communication" **EN 301 489-1** "EMC general requirements for radio equipment" **EN 301 489-17** "EMC requirements for 2.4 GHz devices" **Bluetooth SIG certified:** "Innoware Development AB No: D053188" **RoHS3 (2015/863/EU):** "Restriction of Hazardous Substances" **REACH (1907/2006):** "Registration, Evaluation, Authorization and Restriction of Chemicals"		
Permissible temperature range:	-30 to +85	ºC
Weight:	58	g
Connection:	10 pin	6.3x0.8 mm
Feature:	6 outputs	

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Dimensions:

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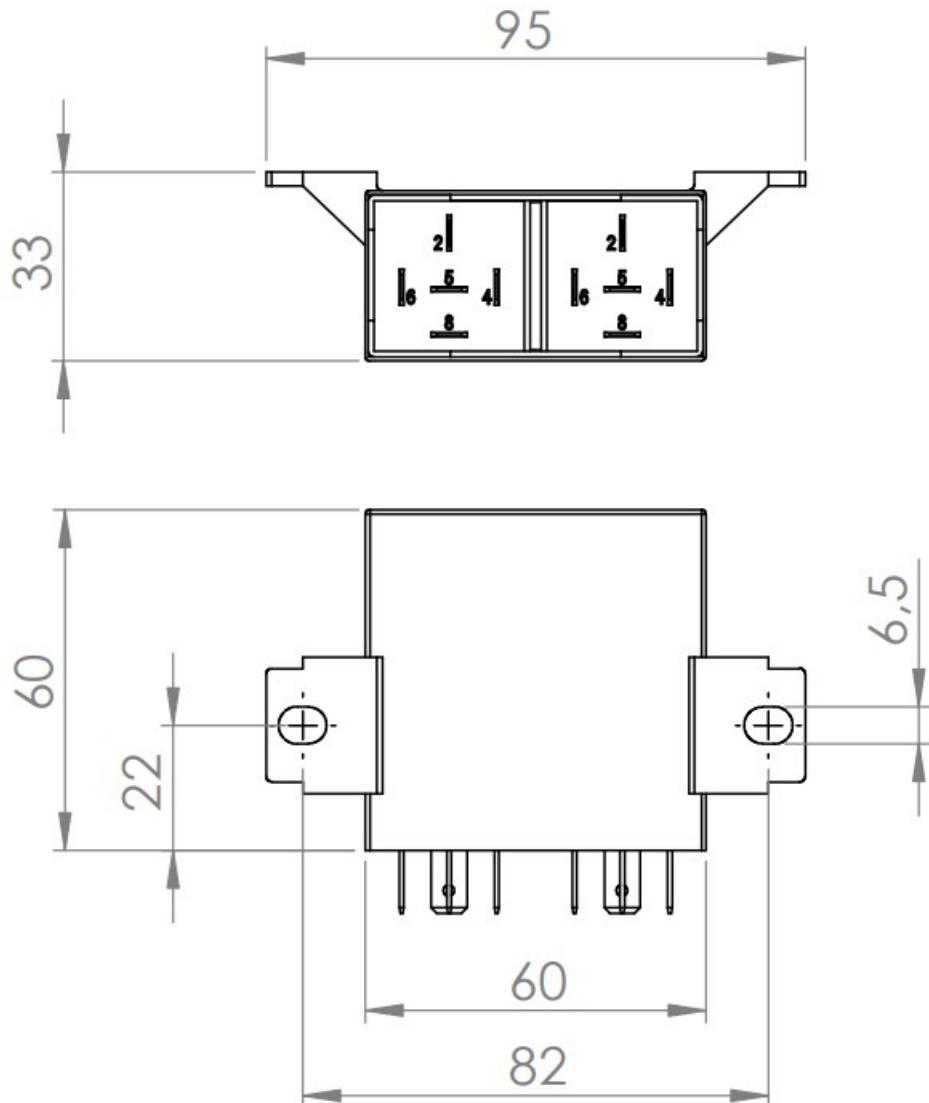
Mounting direction:

A very important step is the placement and mounting direction of the XBB PowerUnit-6®. When installing XBB PowerUnit-6® in the engine compartment it is very important to mount the XBB PowerUnit-6® with the socket pointing downwards. XBB PowerUnit-6® has IP 53 protection **only when mounted with the socket downwards!**

Note!

Avoid using water to wash the surrounding parts and XBB PowerUnit-6®. If you must use water or pressure washer, please remove XBB PowerUnit-6® from the relay sockets before using water.

Placement from the XBB Dongle® should be as short as possible. Even though both XBB PowerUnit-6® and XBB Dongle® have a relatively high output power, the signal can be disturbed due to encapsulation depending on vehicle construction and/or damping materials.
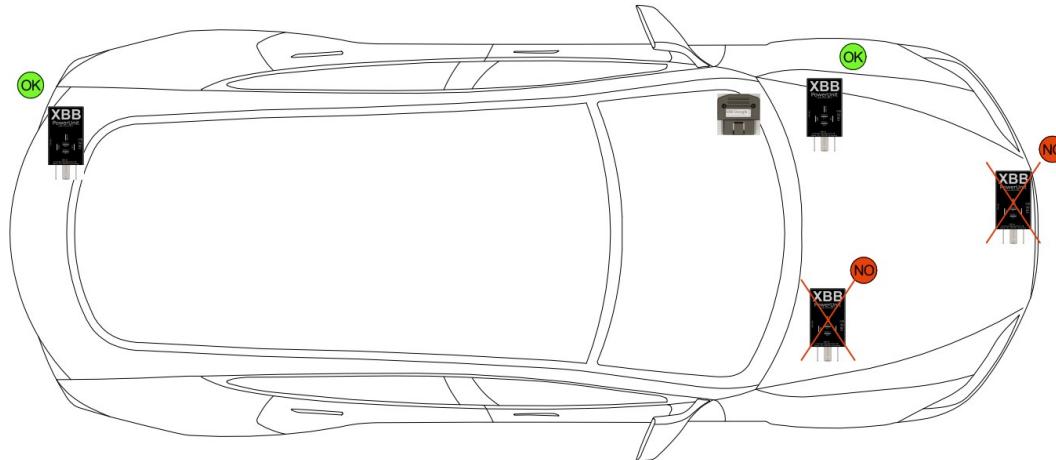
Keep the distance between the XBB Dongle® and XBB PowerUnit-6® as short as possible. In some rare conditions the vehicle and engine compartment will work as two different faraday's cage which may cause malfunction to the Bluetooth® connection.

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Circuit diagram:
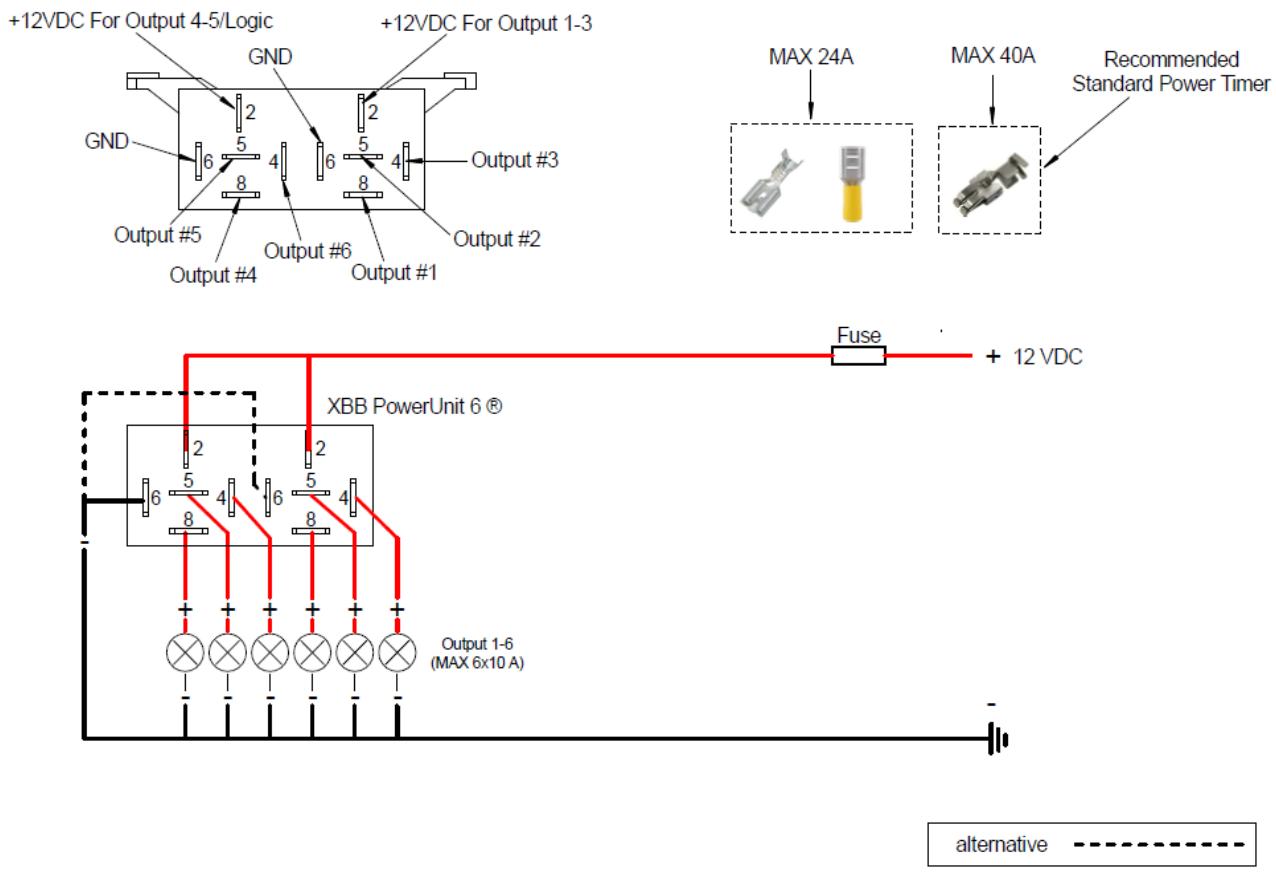
Note!

The picture represents the underside of the relay, not relay socket.

Note 2!

GND is only logic **GND**, You *must* ground your loads externally.

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Traceability

Reference document

Denomination	Publication number
Reference instruction	Nr: EN-20241127-1

Revision

The following significant changes have taken place since the previous version:

Rev	Page	Description of revision	Approved by tech. manager	Date	App. by doc. officer.	Date
1	ALL	Creation of doc.	KHS	24-11-27	KHS	24-11-27
2	11	Updated schematic	KHS	24-12-03	KHS	24-12-02
3	11	Updated schematic	HH	26-01-23	HH	26-01-23
4	1	Changed picture	HH	26-01-23	HH	26-01-23

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