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## **HOW-TO**

## How-to Configure Autosaved Channels in PMU

**Document version: 1.2** Firmware version: 101.0 or later Published on: 18 March 2025





## 1. Description

The Autosave Channels feature allows users to store values for up to 20 channels, which are loaded when the device starts. These values are saved automatically.

Below is a list of elements from Project Tree that can save their state:

- 1. Keyboards buttons
- 2. Switches
- 3. Logical functions
- 4. Numbers

The Autosave Channels prove useful in various scenarios, such as preserving the state of any encoder. By doing so, users can easily recover the encoder's state after the device is turned on.

Auto-save operates based on three independent paths. These paths are pre-programmed and not configurable by the user:

- Ignition switch the save of all channels occurs when the ignition switch +12V is disconnected, but the constant battery +12V remains powered (requires separate wiring for battery and ignition switch). This method provides most reliable results.
- On change after detecting a change in any of the autosaved channels, a save occurs, followed by a 2-minute period without further saving (cooldown). If none of the selected channels change their values, no save occurs, and the system awaits a channel change. The 2-minute intervals (cooldowns) without saving are implemented to prevent memory wear as it is not designed to handle rapid changes.
- **RPM drop** the save of all channels occurs when the engine RPM drops to zero, provided the engine speed was greater than zero for at least 10 seconds. The RPM channel has to be defined in *Standard channels assignments* panel in *Engine RPM channel*.

Standard channels assignments		
Standard channels assignments		
Engine RPM channel	c_ecu_rpm	

To open the *Autosave Channels* panel, press F9 and select it from the list or locate it in the *Configuration* panel.

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In the panel, select the channels you want to be autosaved.

	Autosaved channels				
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Ξ	Autosaved channels				
	Channel slot #1	k_encoder_1			
	Channel slot #2	k_encoder_2			
	Channel slot #3				
	Channel slot #4				
	Channel slot #5				
	Channel slot #6				
	Channel slot #7				
	Channel slot #8				
	Channel slot #9				
	Channel slot #10				
	Channel slot #11				
	Channel slot #12				
	Channel slot #13				
	Channel slot #14				
	Channel slot #15				
	Channel slot #16				
	Channel slot #17				
	Channel slot #18				
	Channel slot #19				
	Channel slot #20				

Upon turning on the device, the autosaved channel values will be loaded into their respective channels. Subsequently, the evaluation proceeds as usual, meaning the loaded value will be replaced with any new data.



New in version 103.0

Autosaved channels		
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Autosaved channels		
Force save channel	k_button	
Force save trigger edge	Rising	
Channel slot #1	k_encoder1	
Channel slot #2	k_encoder2	
Channel slot #3		
Channel slot #4		
Channel slot #5		
Channel slot #6		
Channel slot #7		
Channel slot #8		
Channel slot #9		
Channel slot #10		
Channel slot #11		
Channel slot #12		
Channel slot #13		
Channel slot #14		
Channel slot #15		
Channel slot #16		
Channel slot #17		
Channel slot #18		
Channel slot #19		
Channel slot #20		

A new method for saving **Autosaved channels** has been introduced: the "**Force save channel**" feature. This adds to the existing save methods (Ignition switch, On change, and RPM drop) by allowing an immediate save when triggered.

When triggered by the rising or falling edge of the **Force save channel** (as configured by the user), a save occurs even if the standard 2-minute cooldown has not elapsed.

However, triggering an instant save starts a new 2-minute cooldown, during which further triggers will be ignored.

## 2. Document history

Version	Date	Changes
1.0	2024.04.09	Initial release
1.1	2024.04.11	Improved screenshot of Autosaved Channels panel
1.2	2025.03.18	Added "Force save channel" description