

# ESCON

## Firmware Version «Readme»

Edition 2023-03

It is essential that you read / understand / follow the below information!

### VERSION DETAILS

Servo controller	Order number	Hardware version	Firmware version	
			Present	First edition
ESCON Module 24/2	466023	0x2200	0x0162	0x0150
ESCON 36/2 DC	403112	0x2000	0x0162	0x0100
ESCON 36/3 EC	414533	0x2100	0x0162	0x0120
ESCON Module 50/4 EC-S	446925	0x2300	0x0162	0x0140
ESCON 50/5	409510	0x2500	0x0162	0x0110
ESCON Module 50/5	438725	0x2400	0x0162	0x0130
ESCON Module 50/8	532872	0x2700	0x0162	0x0151
ESCON Module 50/8 HE	586137	0x2700	0x0162	0x0151
ESCON 70/10	422969	0x2600	0x0162	0x0130

### IMPORTANT INFORMATION

The functionality of an ESCON device is determined by its internal operating system (the so called *firmware*). The firmware is subject to continuous development as part of an ongoing improvement process and is therefore being updated on a regular basis.

- ESCON devices are shipped with the latest firmware version available.
- New versions may feature additional or enhanced functionality, as well as improved safety-relevant functions, which might not be fully compatible with former versions!
- You can update your device with the latest versions of the firmware and of «ESCON Studio» (maxon's graphical user interface for ESCON Servo Controllers). Download the updates and the latest edition of the documentation from the Internet at <http://escon.maxongroup.com>.

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*Before downloading a new version, you must check for its compatibility with the hardware version you are currently using! Consult maxon if you are in doubt.*

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- The currently used versions of both, firmware and hardware, can be read out from the device using «ESCON Studio».
- Earlier versions are available on request.

- To install a new firmware version, use the *Firmware Update* option in «ESCON Studio».
- Be aware that you alone are responsible for using the right firmware version in your present device. Consult maxon, if you are in doubt.

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*maxon or its representatives do not take responsibility nor obligation for any defect (such as, but not concluding; malfunction of the device and/or attached equipment, loss of production, etc.) caused by incompatibility of firmware versions and/or by mismatch of a particular firmware version with a given hardware version!*

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## VERSION HISTORY

Version 0x0162 (release date 2023-03)		
<b>Bug fixes</b>	Current limiter	Current limiter for speed regulation improved.
Version 0x0161 (release date 2023-01)		
<b>Bug fixes</b>	Speed sensor	Encoder polarity supervision corrected.
Version 0x0160 (release date 2021-08)		
<b>Changes</b>	Parameters	«Temperature Power Stage» added as parameter
	Parameters	Default parameters for set value changed in order to avoid motor heating in case of operation with missing configuration
	Data recorder	Digital input/output states made available
<b>Bug fixes</b>	Actual speed	Correction of measurement during disable and stop state
	Speed controller	Various improvements and optimizations, especially at zero speed
	Current controller	Encoder polarity supervision corrected. Various improvements and optimizations.
	Digital inputs	Delay of the digital input control commands reduced
Version 0x0151 (release date 2017-04)		
<b>Features</b>	Introduction	ESCON Module 50/8 ESCON Module 50/8 HE
Version 0x0150 (release date 2014-11)		
<b>Features</b>	Introduction	ESCON Module 24/2
	RC Servo functionality	Introduction of RC Servo signal input (PWM pulse length) for speed/current set value, offset, and current limiter
	Speed ramp	Introduction of adjustability by means of analog input

<b>Changes</b>	Regulation Tuning	Behavior for sensorless EC motors optimized
	Speed sensor	Hall sensors speed measurement improved
	Analog inputs	Scaling optimized
	Current limiter	Current limiter for speed regulation improved
<b>Bug fixes</b>	Speed ramp	Behavior at very small ramp values corrected

## Version 0x0140 (release date 2013-10)

<b>Features</b>	Introduction	ESCON Module 50/4 EC-S
<b>Changes</b>	Speed sensor	Hall sensors speed measurement improved

## Version 0x0130 (release date 2013-04)

<b>Features</b>	Introduction	ESCON Module 50/5 ESCON 70/10
	Digital outputs	Introduction of function «Current Comparator»
<b>Changes</b>	Regulation Tuning	Improvements
<b>Bug fixes</b>	PWM Set Value	Sporadic «PWM Set Value Input out of Range Error» fixed

## Version 0x0120 (release date 2012-09)

<b>Features</b>	Introduction	ESCON 36/3 EC
<b>Changes</b>	Parameter	Definition Motor/Hall sensor polarity changed (only for motors not corresponding to maxon standard)
	Regulation Tuning	Improvements

## Version 0x0110 (release date 2012-04)

<b>Features</b>	Introduction	ESCON 50/5
<b>Changes</b>	Regulation Tuning	Improvements

## Version 0x0100 (release date 2011-10)

— Only compatible with «ESCON Studio» version 1.0! —

<b>Features</b>	Introduction	ESCON 36/2 DC
	Full range	Initial release

## Version 0x0100 (release date 2011-10)

— Only compatible with «ESCON Studio» version 1.0! —

<b>Features</b>	Introduction	ESCON 36/2 DC
	Full range	Initial release

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