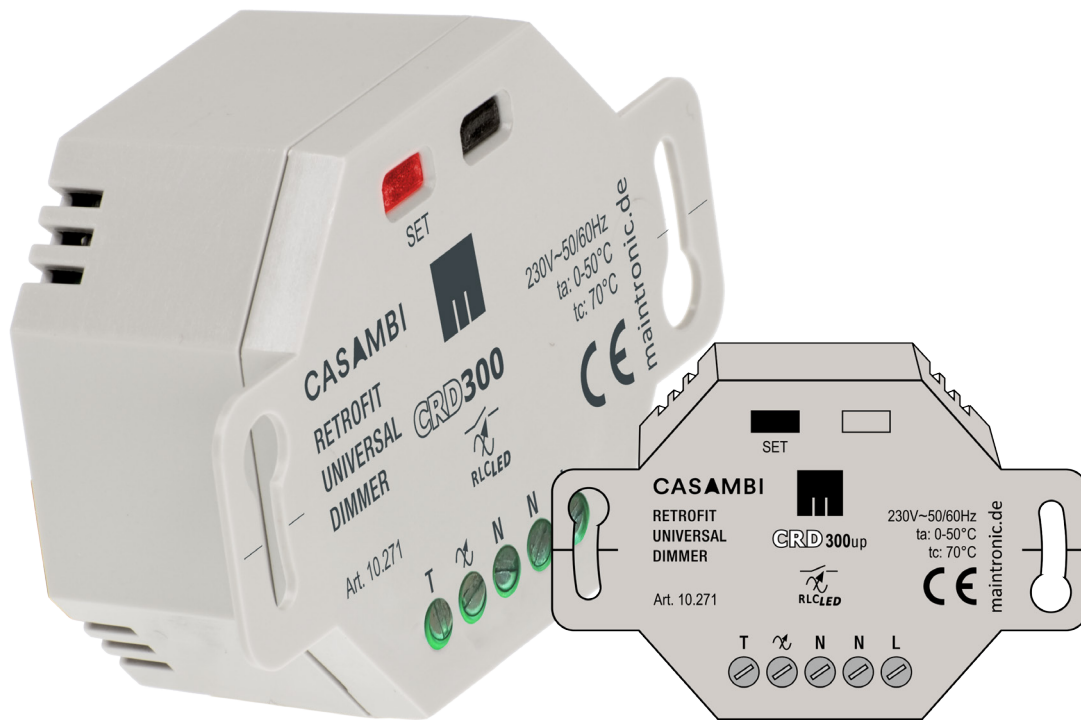


CRD300 up

Casambi Retrofit-Universal-Dimmer UP



Manual

Valid from the following versions:

(H=Hardware F=Firmware)

10.271 - **CRD300 up** H2 F1.1

CRD300_10721_manual_EN

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1. Safety instructions



Attention

For your own safety, read all instructions and information in this manual carefully before initial operation. Keep this manual for future reference.

The instructions are an integral part of the product and must be handed to the end customer.

All information and instructions in this manual must be observed completely and in detail. The manufacturer is not responsible for any direct or consequential damage that results from disregarding any information in this manual.



Waste disposal

In accordance with European Directive 2002/96/EC (it's) not longer usable electronic devices and defective or used batteries (European Directive 2006/66EG)

must collected separately and disposed by an environmentally sound recycling.

This symbol indicates that electrical and electronic equipment must be disposed of separately from normal waste at the end of its operational lifetime. Should these product are no longer be useable, the user is required by law to dispose of old appliances separately from their household waste e. g. at a local authority collection point or recycling center.



Danger

The interior and the connectors of the amplifier holds hazardous voltages.

The unit must only be installed and serviced by a proven electrician specialist, in accordance of all relevant regulations, safety and accident prevention directives of the country.

Be sure that the existing mains voltage corresponds with the specified operating voltage before operating the device.

Risk of electric shock. Do not operate the device without a cover. Even when switched off, voltage may be present at the outputs. When working on the device or connected loads, always disconnect the upstream fuse from the power supply.

Only install the device in places with a good ventilation and without humidity or high temperatures. Do not expose the unit to rain or snow. Do not operate the unit near heat sources, e.g. radiators.

Do not open the device. Otherwise you will risk a damage and void the warranty.

The unit should be serviced by qualified personnel when the unit:

- objects have fallen or liquid has been spilled into the unit
- does not appear to operate normally
- has been dropped or has a broken housing

For cleaning only use a dry, soft cloth, by no means liquids.

2. Introduction

Thanks a lot

Congratulations and thank you for choosing this *maintronic* product and the trust you have placed in us. We, the team of *maintronic*, wish you a lot of fun with this product.

About this Document

Due to continuous product development, some of the information may not be complete and up-to-date.

The information in this document is subject to change without prior notice. Please check our website www.maintronic.de, if there is a newer version.

Contact maintronic support

You can find downloads, manuals, onlinehelp as well as frequently asked questions (FAQ) on our Website www.maintronic.de. Please contact us, should any problems regarding your product arise.

Legals

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Intended use

The device may only be used:

- as a dimmer for switching and dimming lights
- firmly in a dry and clean environment
- approved for indoor use only
- access is only possible with tools
- only operate on 1 phase with 230 V AC
- with a backup fuse of max. 16A

Functions and features

- 300W universal automatic dimmer
- Control with Casambi and PushButton
- Load no. indicator
- Zero load dimming
- Soft-Off
- Fadetime
- R, L, C, including LED Retrofit

3. Initial operation

The dimmer can be controlled with Casambi via a smartphone or tablet or alternatively over Push-Button.

When commissioning for the first time, the dimmer will calibrate to the connected load (see page 7 calibration procedure).

3.1 PushButton operation 230V

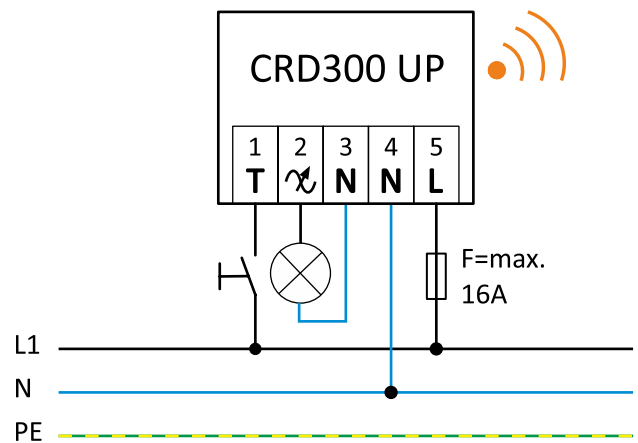
The CRD300 is equipped with a PushButton input (T), on which 230V AC buttons can be connected.

The PushButton behaviour can be freely configured in the CASAMBI APP under sensors „push-button-style“, following functions are possible:

- One-button operation of the dimmer
- Buttons with double pressure behavior like device button
- Remote control of another CASAMBI device

Functions SET-DeviceButton / PushButton (T)

	keystroke
Switch On- / Off	short press
Dimming Up and Down (Start at Min Level)	long press
Switching to Max Level	2x short press

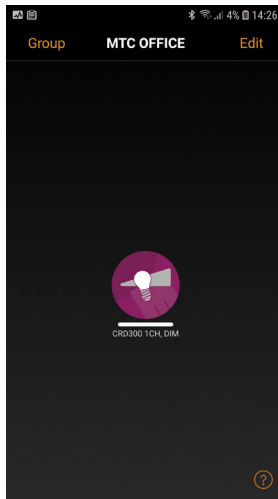
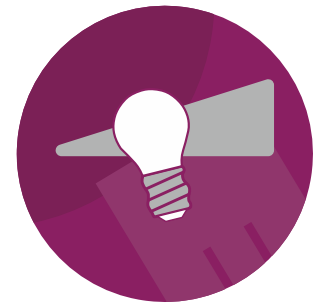


3.2 Operation with Casambi

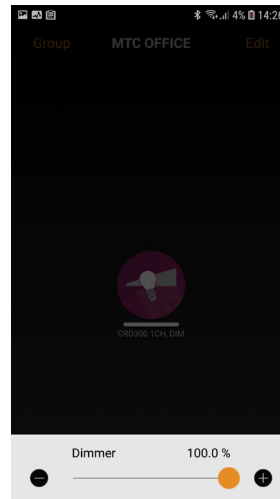
Standard profile - CRD300 1CH, DIM:

For the device are two Casambi profiles available. The standard profile has one dimmed channel, settings and parameters are not visible due to security.

These parameters are in the profile „Expert“.



CRD300 Standard profile



One dimmed channel

Sensors and parameters

Different states can be queried and displayed with the sensors in the Casambi APP.

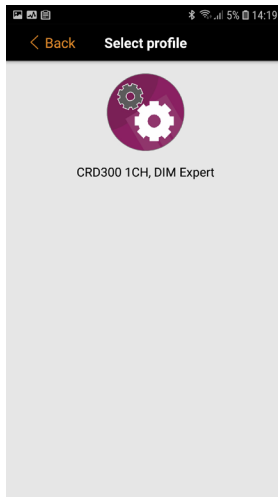
Parameters can be set for the dimmer functionality.

Sensors Casambi		Value range	Units
Total consumed	Total energy consumed in Wh	0 ... 1.000.000	Wh
Load Current	Current through the load in mA	0 ... 1.000.000	mA
Current Power	Momentary power consumed by the load	0 ... 1.000.000	Wh
On-Time Dimmer	Operating hours device	0 ... 1.000.000	h
On-Time Load	Operating hours of the lamp / load	0 ... 1.000.000	h
On-Cycles Device	Power-on device	0 ... 1.000.000	cycles
On-Cycles Load	Switching on the load / lamp	0 ... 1.000.000	cycles
Push-Button-Style	Behavior of the PushButton input		
System Status	System Status - Error Code		

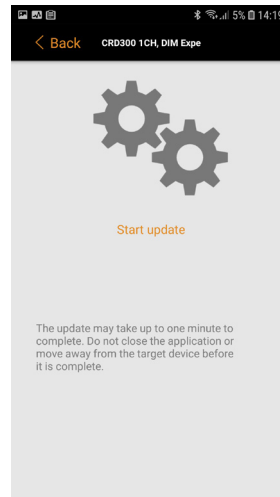
Parameters Casambi		Value range	Units
Fade Time	The time to dimm from one brightness value to another.	0 ... 100s	seconds
Soft Off Time	Time for soft dimming	0 ... 10s	seconds
Dim Speed	Dimming speed	3 ... 10s	seconds
Min Level (0=Auto)	Min. Level - minimum brightness	0 ... 100	%
Max Level	Max. Level - maximum brightness	0 ... 100	%

Expert mode profile - CRD300 Expert:

The profile Expert contains settings for commissioning. For example, a new calibration can be started after a load change.



Change profile to expert mode



Choose profile and start update

Additional sensors and parameter profile „Expert mode“

Sensors Casambi		Value range	Units
Actual Level	Actual control level of the dimmer (0-255)	0 ... 255	
Phase Angle	Phase Angle = current phase angle of the dimming output	0 ... 180°	degree (360)

Parameters Casambi		Value range	Units
Button Programming	Activate programming via PushButton input	ON / OFF	
Load Number	Show load number - max. Illuminants of the same type are displayed	0...	digits
Unlock/ Lock Settings	To release the following Expert parameters		
Lamp Type	Change load type / lamp type - Here a load type can be preset with which a new calibration starts.		
Start Measurement	Start new calibration		
Reset statistics	Delete statistics		

Automatic calibration process (AdaptiveDIM)

The dimmers are pre-set to a fixed dimming curve, in order to achieve optimum dimming behavior, the connected load can be measured and analyzed. There are different calibration phases that can be called up via the parameter programming.

In AUTO dimming mode (parameter 1), the light source is measured and the dimming curve is set to be cut to fit the light source and sets a stable MIN and MAX level.



During calibration, the connected lights may flicker. This is system-conditioned and not a defect of the device. The calibration must be completed and can not be interrupted by switching off the device.

Should a new calibration be required by changing the light source, it can be initialized by the Casambi APP (Profile Expert).

Lamp type

The load is automatically measured / adaptive DIM) and set to the best parameters. If a mode is to be set manually or another light source is used, a new calibration can be started in the Expert mode and a load type can be selected.

Load numbers

In order to optimally use the dimmer and to see how many luminaires of the same type can be used, it is possible to determine the load number of the luminaire.

To do this, measure with a single luminaire. {After the measurement, the load type is displayed and afterwards the load number is indicated by the LED flashing.}

The determined number of loads can be found in the Casambi APP in the Expert profile under Parameters.

If the load used is not compatible with the selected load type, it will switch to a compatible mode.

The parameter can be found in the Casambi APP in the profile Expert.

Normal	Measurement Automatic - the load type is determined automatically Dimming parameters are set automatically to achieve the best possible dimming result	0	
Tungsten / LED	LED / Ohmic load	1	
Tungsten	Ohmic load	Tungsten - linear characteristic	2
Trailing FIX	LED / CFL load	Trailing edge FIX - fixed dimming curve	3
Leading	LED-/Inductive load	Leading edge automatic	4
Leading FIX	LED-/Inductive load	Leading edge FIX - fixed dimming curve	5



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