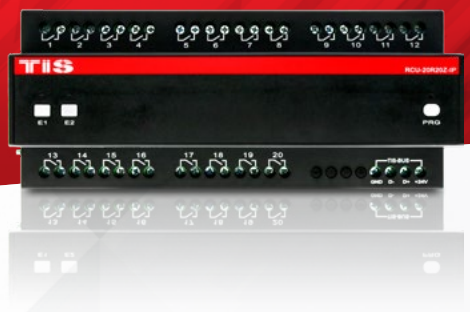
INSTALLATION MANUAL
TIS RCU MODULE
Room Control Unit with 20 Channels
Model: RCU-20R20Z-IP

TIS CONTROL EVERYTHING



PRODUCT INFORMATION

This product is a smart controller with 20 input/ output channels ideal for the automation of lights, sensors, FCU, curtains and motorized devices for maximum efficiency and user comfort.

PRODUCT SPECIFICATIONS			
	Output switching Voltage	Number of channels	20
		Nominal voltage	0 – 230 V AC 50/60 Hz
		Max. switching Voltage	440VAC / 125VDC
	Output switching current	Nominal current per channel	10 A
		Maximum total channels load	200 A
		Max switching current	16A resistive, 8A florescent
		Max continues current	10 A VAC
	Input	Number of channels	20
		Input Type	Digital input. Open / Close
		Length of connected wire	< 350 meter
TISBUS	**TIS Bus**	Number of devices on 1 line	Max. 64
		Bus voltage	12-32 V DC
		Current consumption (Normal)	<45 mA / 24 V DC
		Current consumption (Peak)	<60 mA / 24 V DC
		Protection	Reverse polarity protection
	Operation	Programming button/LED	For assignment of the physical address
		2 buttons	Emergency programmable on/off buttons
		By TIS bus	TIS protocol messages and commands
		Programming	By software
		Upgrading	By software
	Functions	Lighting control ON/OFF/Dimming	20 separately controllable channels
		Curtain control	Can set 10 groups of curtains (open/close) option
		Fan speed control	Can set 6 groups of fan speed options (low, med, high)
		Scenes	12 different scenarios
		20 digital inputs	Programmable inputs to connect to normal wall switches and sensors
	Dimensions	Width × length × height	215mm × 76mm × 91mm
	Housing	Materials	Fireproof ABS
		Casing color	Black
		Button color	Silver
		IP rating	IP 20

BARCODE (UPC-A)

6 58921 79822 5

CE RoHS COMPLIANT FC

Read Instructions

We recommend that you read this Instruction Manual before installation.

Safety instructions

Electrical equipment should only be installed and fitted by electrically skilled persons.
Failure to observe the instructions may cause damage to the device and other hazards.
These instructions are an integral part of the product and must remain with the end customer.

Programming

Advanced programming requires TIS Device Search software. Advanced software programming knowledge should be obtained in the advanced training courses.

Simple Installation

DIN Rail mount facilitates installation. Fixing points are provided for installation without the use of DIN rail.

Mounting Location

Install in a dry, well-ventilated location. Controllers may emit some mechanical noise. Take this into account when deciding on a mounting location.

Data Cable

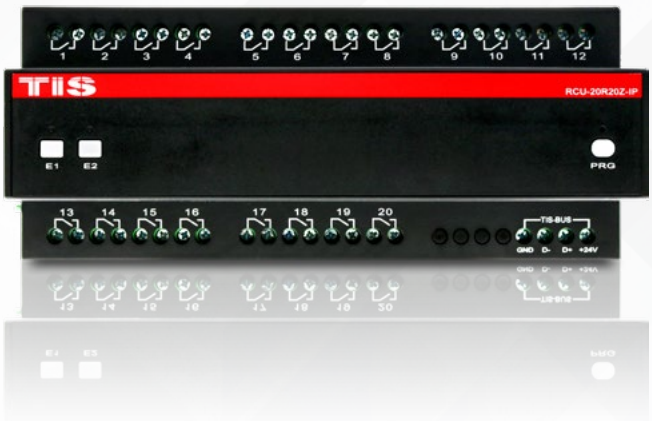
Use screened stranded RS485 data cable with four twisted pairs. Configure devices in a “Daisy Chain.”
Do not cut or terminate live data cables.

Electrical Wires

The installer should adequately consider the total current consumption when selecting the wires.
Recommended wire size for load (light channels) and input wires is 2.5 - 4 mm.

Warranty

We provide a warranty as required by law.
A hologram warranty seal and product serial number are provided on each device.
Please send the description of the defect with Product S/N to our dealer network.



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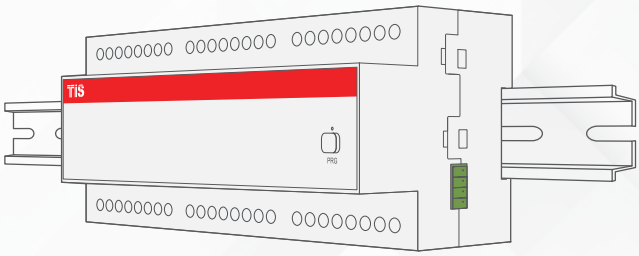
INSTALLATION STEPS

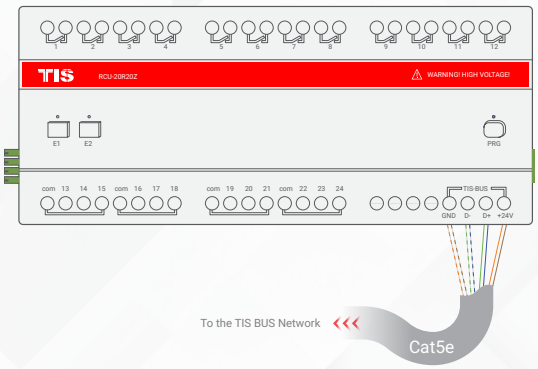
1 Turn off the main electrical source before installation.

WARNING! HIGH VOLTAGE

2 Mount the device on a DIN Rail inside an approved enclosure. The device can also be installed without the use of DIN Rail by two mounting screw holes.



3 Connect RS485 data cable to the TIS-BUS port as per the connection diagram. No need to loop the TIS-bus cable if 2 DIN Rail modules are connected together from the side bus train terminal.

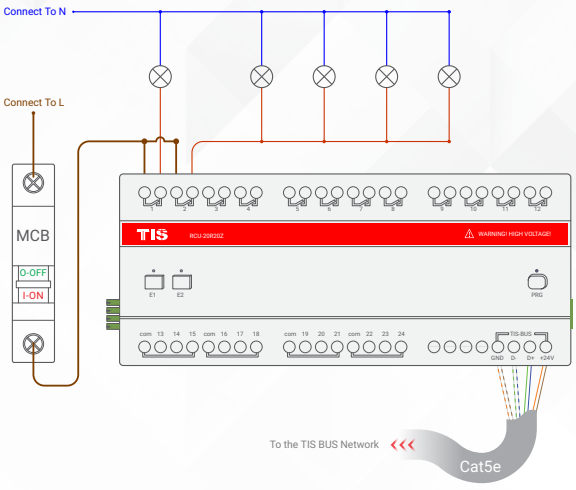


4 Complete the load connection, light, floor heating, and shutter, and FCU as per the following steps:

LIGHTS / APPLIANCES / FLOOR-HEATING CONNECTION

Connect the load electrical wires to outputs 1-20. Each channel can control a maximum of 10A loads. The installer should make sure not to overload the channels.

Load neutral wire should be linked to the neutral connection in DB enclosure.



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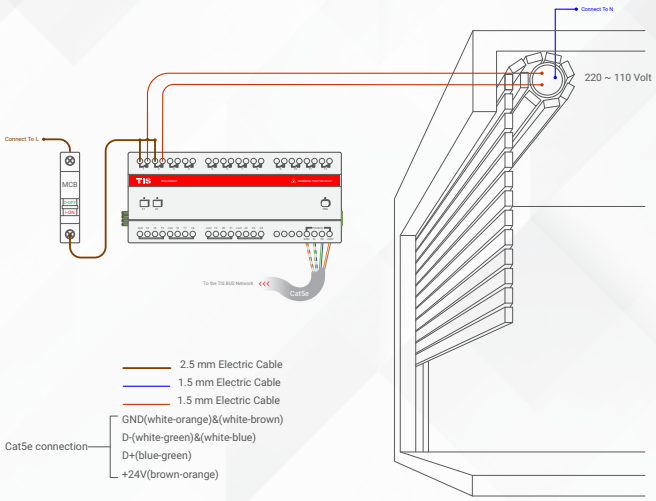
INSTALLATION STEPS

SHUTTER / CURTAIN CONNECTION

Once you combine any 2 channels as shutter/curtain, then connect the shutter-open wire to the first channel and the shutter-close wire to the second channel. The shutter neutral wire should be linked to the neutral connection in DB enclosure.

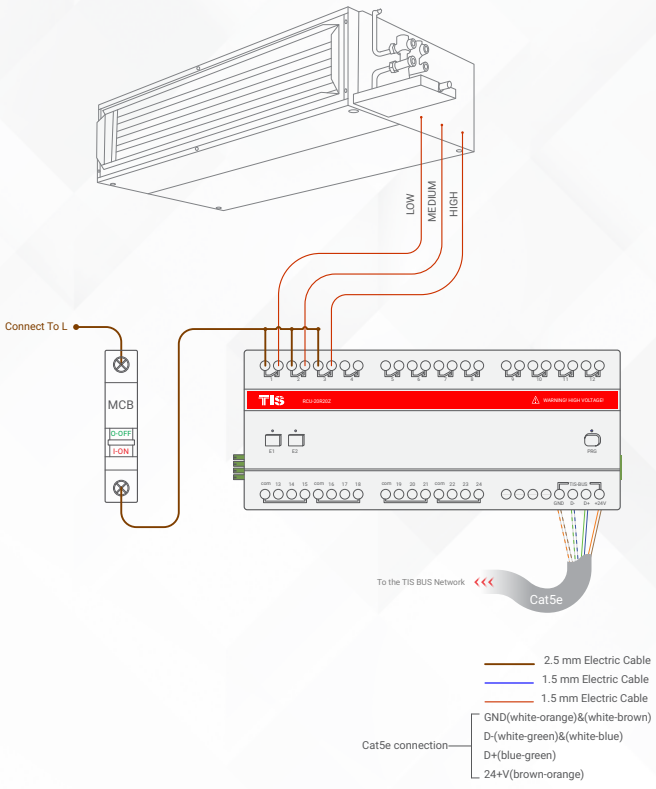
WARNING: Do not connect curtain motor wires before combining (interlocking) 2 relay channels together as curtain mode to avoid causing damage to motors. Please read about how to manually program shutter/curtain pairing in this manual.



FCU Connection

Once you combine any 3 channels as FCU, then connect the FCU (Low, Medium, High) wires to the first, second, and third channels, consecutively. The FCU neutral wire should be linked to the neutral connection of the same section.

WARNING: Do not connect FCU wires before combining (interlocking) 3 relay channels together as FCU mode to avoid causing damage to FCU. Please read about how to manually program FCU pairing in this manual.



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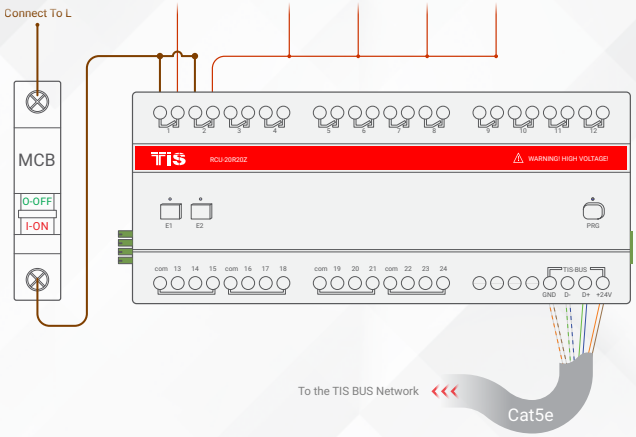
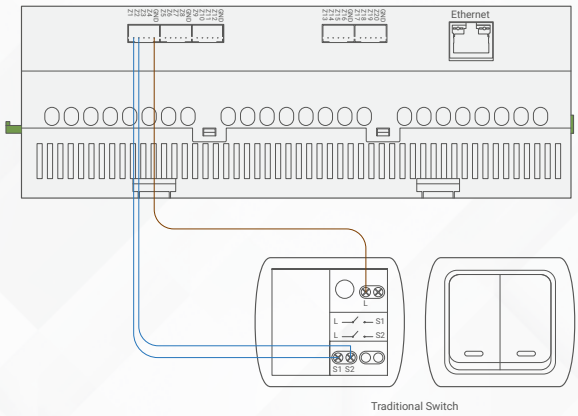
INSTALLATION STEPS

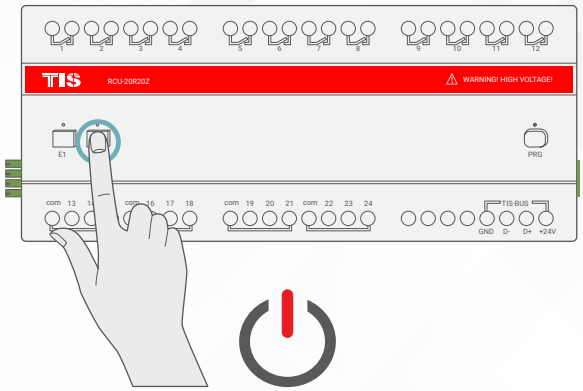
5 Connect the live (supply) wire to inputs. All inputs must have an appropriate voltage source and an MCB to protect that load circuit.



6 Connect digital inputs (dry contacts) GND terminal, and zone number (Z1-Z20) terminal to mechanical switches without any voltage supply. Then test it by pressing the wall switch up/down, Z1-Z20 inputs will trigger relay CH1-CH20 consecutively as default setting.



7 Turn on the power source, and then test the loads by short pressing on the device's local override buttons E1-E2.



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TROUBLESHOOTING

PRG Button Blinks Red Color Rapidly	**Reason:** The Module address conflicts with other device in TIS network, you need to press and hold the PRG button for 6 seconds so the module can get new address
Device PRG LED is not Blinking; Device not Powered	**Reason:** Device is not powered on; no TIS-BUS 24V supply connected to the device.
Device E1, E2 Button LED ON but lights not ON	**Reason 1:** Lights' neutral wire not connected **Reason 2:** E1.E2 default setup in software has changed
Wall Panels can't Control the Device Channels	**Reason 1:** TIS-BUS connection has a problem; check the wires and make sure there's not a short in the connection. **Reason 2:** Programming address is wrong.
Dry input is not turning the RCU lights ON/OFF	**Reason:** Either the default setting in software or the RCU address has changed.
Channel is turning off by itself after few seconds	**Reason:** It is programmed as shutter / curtain combination, and running time is enabled in the software.

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