

RFL200V

Standalone RFID Access Controller

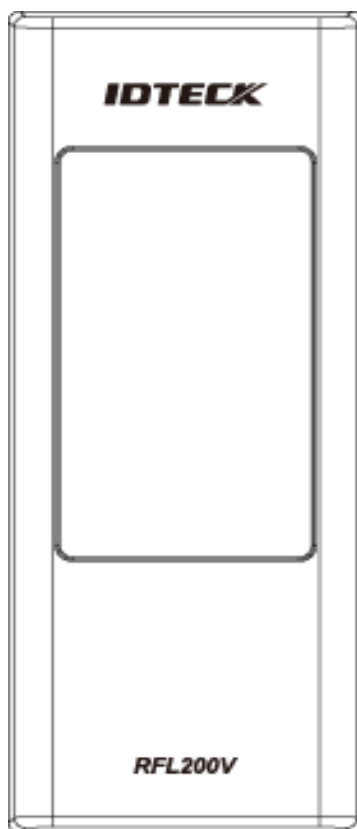


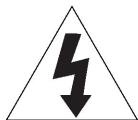
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Safety Information

1



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.



This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

WARNING

1. Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
3. Do not connect multiple controllers to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
4. Securely plug the power cord into the power receptacle. Insecure connection may cause fire.

5. When installing the controller, fasten it securely and firmly. The fall of controller may cause personal injury.
6. Do not place conductive objects (e.g. screwdrivers, coins, metal parts, etc.) or containers filled with water on top of the controller. Doing so may cause personal injury due to fire, electric shock, or falling objects.
7. Do not install the unit in humid, dusty, or sooty locations. Doing so may cause fire or electric shock.
8. If any unusual smells or smoke come from the unit, stop using the product. In such case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.
9. If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way. (IDTECK is not liable for problems caused by unauthorized modifications or attempted repair.)
10. When cleaning, do not spray water directly onto parts of the product. Doing so may cause fire or electric shock.

CAUTION

1. Do not drop objects on the product or apply strong blows to it. Keep away from a location subject to excessive vibration or magnetic interference.
2. Do not install in a location subject to high temperature (over 50°C), low temperature (below -30°C), or high humidity. Doing so may cause fire or electric shock.
3. If you want to relocate the already installed product, be sure to turn off the power and then move or reinstall it.
4. Remove the power plug from the outlet when there is a lightning storm. Neglecting to do so may cause fire or damage to the product.
5. Keep out of direct sunlight and heat radiation sources. It may cause fire.
6. Install it in a place with good ventilation.
7. Avoid aiming the controller directly towards extremely bright objects such as sun.
8. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
9. The Mains plug is used as a disconnect device and shall stay readily operable at any time.

1 IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
13. Unplug this apparatus when a card is used. Use caution when moving the cart/apparatus combination to avoid injury from tip-over.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

1 Features

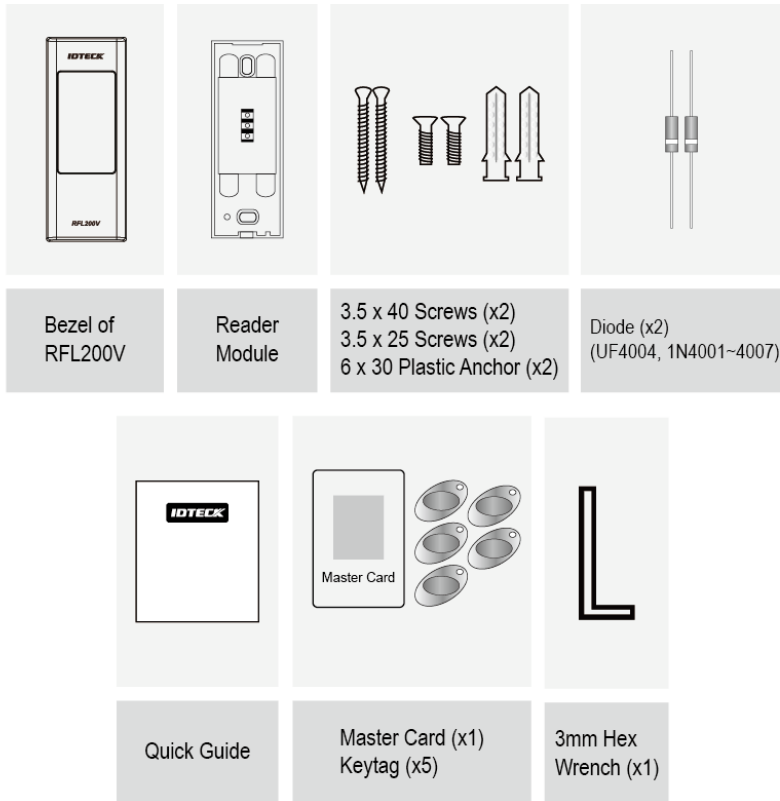
This product is designed for use with one-door access control for security applications. With its compact design, you can install this product on the wall or a doorframe; Its epoxy adhesion and aluminium case guarantee shock-resistance as well as stable operation in a challenging environment. This product enables you to control the door using the user card and provides a simple method to register or delete cards, and initialize the system, which is, one of the most convenient and safest door controller.

And it is also featured by the 2-color LED indicator and the internal buzzer, enabling you to easily check the current mode and operation of the door lock.

- 125 kHz Proximity Access Controller
- Up to 512 users including one Master ID can be registered
- Standalone (no application S/W required)
- Direct Control of the Door Lock
- Can select a lock device type from Power Fail Safe and Power Fail Secure
- Epoxy adhesion and aluminium case
- Weatherproof and Dustproof

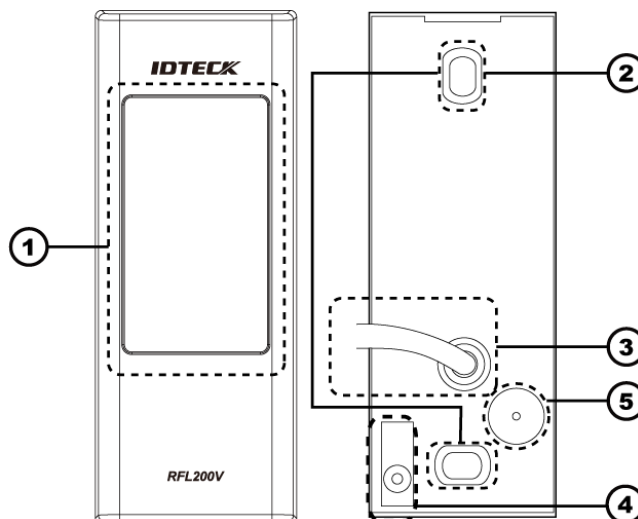
2 What's included

Check if the following items are included in the product package.



3 At a glance

3.1 Front / Rear



1. LED	Displays the system operation status using red and green indicators.
2. Fixing Hole	Fixing hole for wall-mounting.
3. Connection Cable	Used to connect to the power or I/O cable.
4. Tamper Switch	A tamper switch to detect falling from the wall.
5. Buzzer	Piezo buzzer.

4 Cable color scheme

Item	Cable color	Signal Line	Description
Power	Red	DC + 12V	Power (+12V)
	Black	GND	Earth-grounding for power
Input	Yellow	AUX INPUT#1	Select a Lock Type
	Blue	Door Contact Sensor	Door Sensor Connection Port
	Green	Exit Button	Exit Button Connection Port
Output	Purple	Alarm Out	Alarm Device Connection Port
	White	Door Lock Out	Door Lock device connection port
Tamper	Pink	Tamper (COM)	COM Port of Tamper Switch
	Light yellow	Tamper (NC)	NC Port of Tamper Switch
Not used	Gray		
	Orange		
	Brown		

5 Cable selection

Item	Cable type
Power (DC12V)	Belden #9409, 18 AWG 2 Conductor, Unshielded
Door Contact Sensor	Belden #9512, 22 AWG 4 Conductor, Shielded
Exit Button	Belden #9514, 22 AWG 8 Conductor, Shielded
Sensor Input	
Tamper	
Door Lock	Belden #9409, 18AWG 2 Conductor, Unshielded

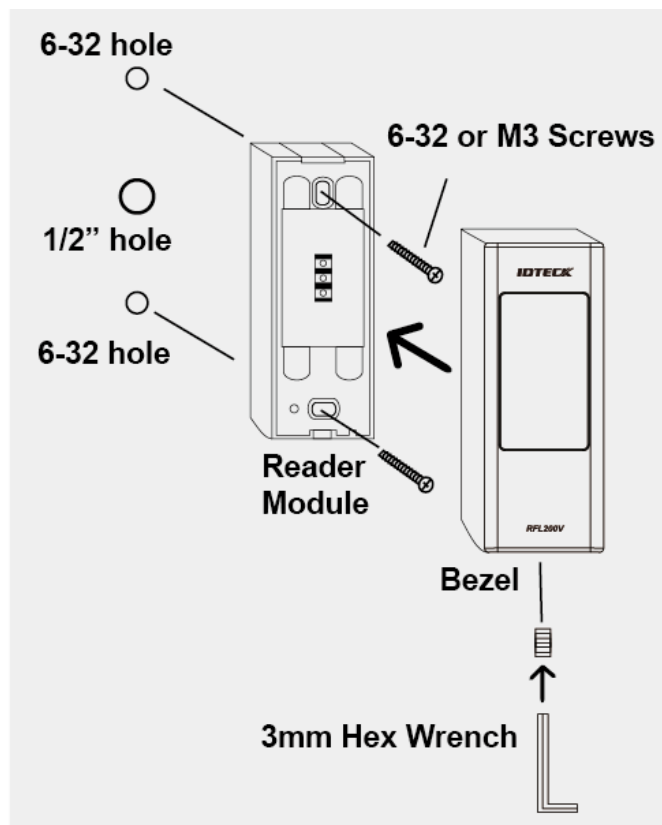
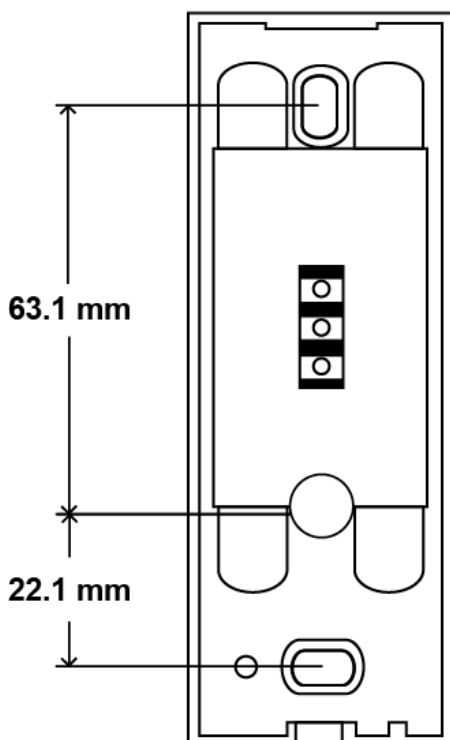
Item	Cable type
Alarm Device	

Installation and external connection

3

1 Installation

1. See [Figure 1] to drill 6-32" holes and 1/2" holes (totally 4) into the wall.
2. Tighten the four screws to secure the product to the wall.
3. With the provided 3mm hex wrench, fix the outer case to the product.



1.1 On a doorframe or the wall

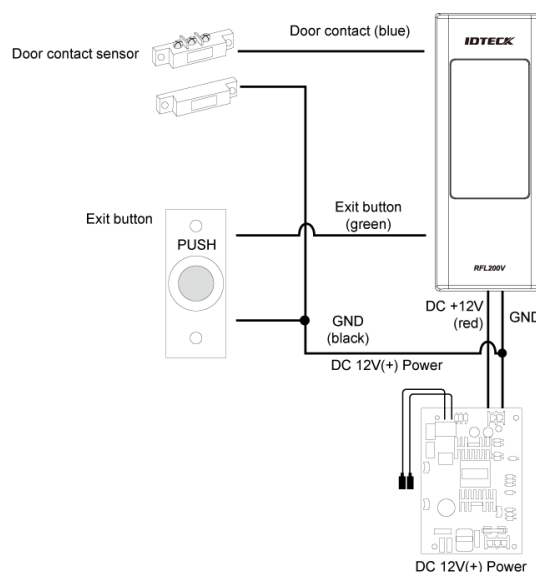
1. Drill a 1/2-inch (12.7 mm) hole onto the center of the doorframe or the wall where RFL200V is installed, which makes room for the cable of the reader module.
2. Drill a 6-32 inch hole at the 43.1mm point straight higher from the center hole and at 22.1mm straight lower, respectively.
3. Insert the reader module cable to the center hole and fix the module using two screws inserted in the upper and lower corners.
4. Insert the outer case into the product and fix it with the 3mm hex wrench.

2 Bypass diode connection

If you connected an inductor (door lock or alarm device) to the output relay, there should occur a voltage surge while the inductor was between turning on and turning off. If you do not connect a reverse diode to the relay, the voltage surge will cause damage to the electric circuit of the controller. To reduce this surge, it is recommended to connect the bypass diode to the relay.

3 I/O connection

3.1 Input connection



To connect the power supply unit

1. Connect the DC+12V to the red line.
2. Connect GND to the black line.

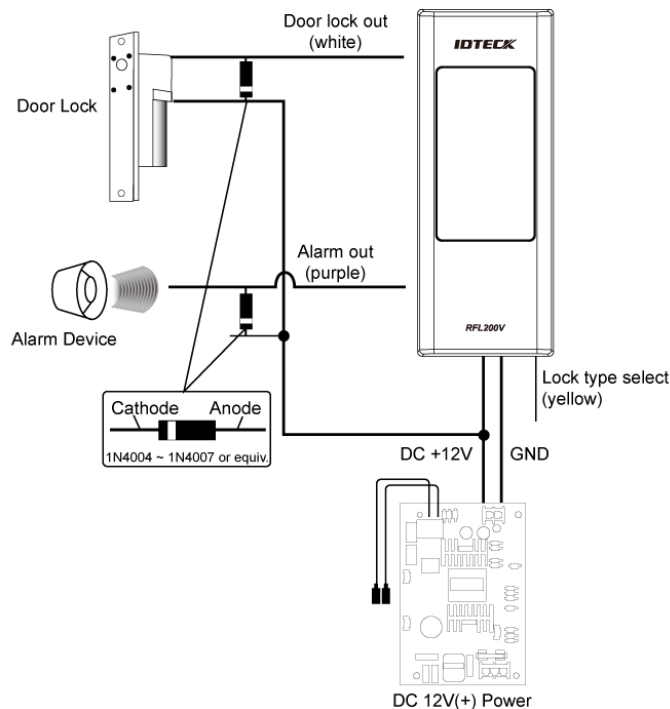
To connect the Door Contact Sensor

1. Connect the COM port of the sensor to the blue line.
2. Connect the NO port of the sensor with the GND line.

To connect the Exit Button

1. Connect one end of the button to the green line.
2. Connect the other end of the button to GND.

3.2 Output connection



To connect the power supply unit

1. Connect the DC+12V to the red line.

2. Connect GND to the black line.

To connect the door lock device

1. Connect the plus(+) line of the lock device to DC+12V.
2. Connect the minus(-) line of the lock device to the white line.

To connect the alarm device

1. Connect the plus(+) line of the alarm device to DC+12V.
2. Connect the minus(-) line of the alarm device to the purple line.

To specify the lock type

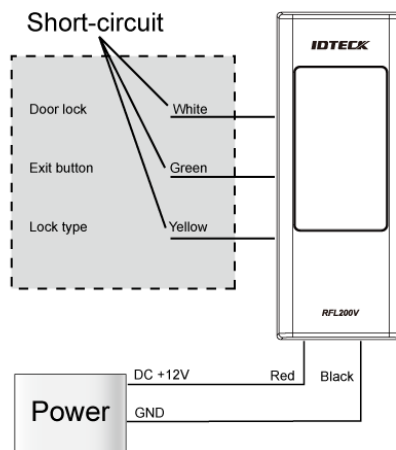
- POWER FAIL SAFE: Connect the yellow line to GND.
- POWER FAIL SECURE: Leave the yellow line in the floating state.

Initialization & basic operations

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1 Initializing the system by short-circuiting

1. Turn off the product and short-circuit three lines: white line of the door lock device, green line of the Exit button, and yellow line of the lock type.
2. When you turn the product back on, all of the LED indicators turn red or green, repeat turning on/off twice before being completely turned off.
3. In the power-off condition, all LED indicators turn green bottom up in sequence.
4. When you hear a beep 4 times, that indicates that the initialization is completed.



If you initialize the system, all of the data settings will return to the factory default.

2 Basic operations

2.1 When the power is supplied

1. All of the LED indicators will turn red or green, and repeat turning ON/OFF twice before being completely turned OFF. In the power-off condition, all LED indicators turn red bottom up in sequence.
2. You will hear a beep once.

2.2 When you present a registered card to the product or press the Exit button

1. All LED indicators turn from red to green, and turn off top down in sequence before turning back red.
2. Then, the door stays open for the specified time with the upper one indicators turning green, which indicates the door is open.
3. You will hear a beep once.

2.3 When you present an unregistered card to the product

1. All LED indicators turn red, and repeat turning on/off twice before staying in ON.
2. You will hear a beep twice.

2.4 When you present a user card to the product while the door is open

1. The one LED indicators from the top stay green, indicating the door is open; in the mean time, the other indicators reflect the authentication results.

3 To register / delete master ID

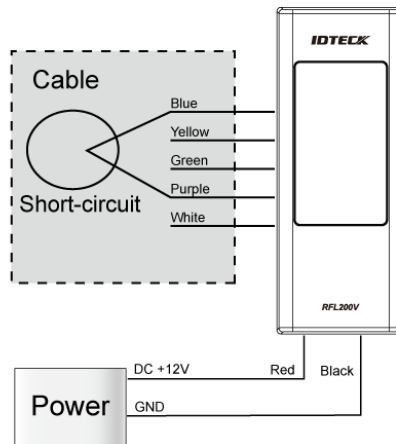
1. First turn off the product, and short-circuit two lines: purple line of Alarm Out and blue line of the Door Contact Sensor.
2. When you turn the product back on, you will hear the beep twice while all of the LED indicators turn red, and repeat turning on/off twice before being completely ON; then the Master card will be deleted.
3. Upon deletion of the Master Card, you will hear a beep once and all of the LED

indicators toggle between green and red twice before turning off; in this condition, they turn red from bottom up in sequence.

4. When the deletion is completed, turn off the product.

Connect the purple line of Alarm Out and the blue line of the Door Contact Sensor back to their original ports, respectively.

5. When you turn the product back on, it recognizes and registers the first-read card as the Master Card. And if you present a registered user card to the product upon deletion of the Master Card, that card will be registered as the Master Card.

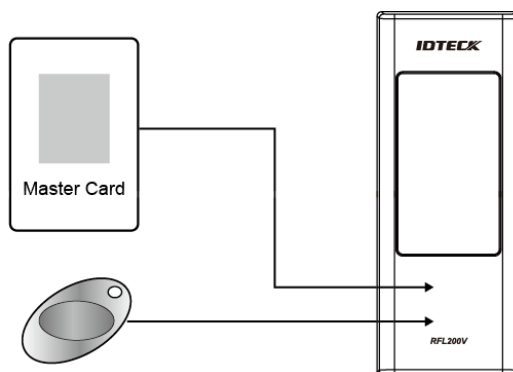


If you present a registered user card after the Master Card is deleted, that card will be registered as the Master Card.

4 To register / delete ID card

1. If you present the Master Card to the product, it will sound the beep once and the first two LED indicators from the top will turn green from the top.
2. If you present a new user card to the product, it will sound the beep once and all of the LED indicators except for the first two ones from the top will turn from red to green. Then, they all turn off and turn back on bottom up in sequence. When all of the LED indicators turn back on, they will turn red except for the first two LED indicators from the top. Then, the user card will be registered.
3. If you present a registered user card, the product will sound the beep twice and all LED indicators except for the first 2 from the top will turn red, and repeat turning on/off twice before being completely ON. Then the user card will be deleted.

4. When you present the Master Card to the product after the user card is deleted, the product will sound the beep once and all of the LED indicators turn red, starting with the first two LED indicators from the top turning from green to red.



If you present a registered user card after the Master Card is deleted, that card will be registered as the Master Card.

1 Troubleshooting

If the product does not function properly, please see the below for trouble shooting.

Problem	Solution
The user card is not deleted	1. Check if the product works properly. - If the product works properly and you have the Master Card I. Read the Master Card. II. Read the card to delete. III. Read the Master Card again to switch to normal mode. IV. For more information about deleting user cards, refer to the ID registration and deletion section in this manual. - If you lost the Master Card V. Turn off the product and short-circuit the purple and blue lines, then turn the product back on. VI. The Master ID will be deleted with a fl ashing LED indicator and beep. VII. When the Master card is deleted, turn off the product and restore the purple and blue lines to their respective original positions. VIII. The very first card read by the product after turning on the product will be registered as the Master Card. IX. For deleting the ID once the Master Card is registered, refer to the ID registration and deletion section in this manual.

Problem	Solution
The Exit button does not work at all.	1. Check if the Exit button is connected to RFL200V properly. (the Exit button should be used with a NO-type button) 2. Check if the Exit button works normally. - Check the connection cable between the Exit button and RFL200V for any disconnection or short-circuit. - Try to connect the two lines on the Exit button. I. If RFL200V responds when you press the Exit button ✓ Replace the Exit button as it is defective. II. If RFL200V does not respond at all ✓ Initialize the product as it is damaged or malfunctions. (Initializing the product will lose all user data.) 3. If the trouble persists after following the procedures above, contact a designated service center.

Product specifications

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1 Product specifications

Item	RFL200V
Users	512 Users
Power / Current	DC 12V / Max.110mA
Reading Time (Card)	30ms
Door Open Time	5sec. (Fixed)
Input Port	3ea: Exit Button, Door Sensor, Lock Type Select [Power fail Safe / Power Fail Secure]
Output Port	2ea : TR Output / DC 12V. Rating Max. 300mA Alarm Output, DC 12V. Rating Max. 1A Lock Output
LED Indicator	5 LED Indicators (Red and Green)
Beeper	Piezo Buzzer
Operating Temperature	-20°C to +50°C
Operating Humidity	10% to 90% relative humidity non-condensing
Color / Material	Silver with Black/Polycarbonate & Aluminum Die casting
Dimension (W x H x D(mm))	47 x 120 x 26
Weight	250g ±10

RMA Request

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To make the RMA request, the product must be initially registered on IDTECK webpage.

After registering the product, send it to IDTECK RMA Center.

Please follow the instructions below:



1. Please register the RMA request via IDTECK webpage.

: www.idteck.com → “Customer Center” → “Technical Information” → “Online RMA” → “RMA REQUEST”

(Please refer to the IDTECK webpage for more details.)

2. RMA Code will be issued after the RMA Center reviews the RMA request form.

3. Enclose the product along with the RMA Code and send it to IDTECK RMA Center.

(Product without RMA Code is not accepted.)

If you have any questions or problems regarding the RMA services, please contact us using the contact information below. Friendly representatives at IDTECK are always standing by to provide the best after sales services.

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The specifications contained in this manual are subject to change without notice at any time.