

USER MANUAL

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12VDC Power Supply for VCC-64 **VCC-64PSK**



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1. SAFETY INSTRUCTIONS

Please read these safety instructions carefully.

1. Keep this User's Manual for future reference.
2. Power connectors should remain accessible for disconnection and be located where no-one can step on or trip over them. Disconnect the equipment from the alternating current (AC) output before cleaning.
3. The device must not be exposed to water or drips and no liquid-filled objects should be placed on top of it. Do not use liquid or powdered detergent for cleaning. Do not expose the device to moisture or damp areas.
4. No naked flame sources, such as lighted candles, should be placed on top of the device.
5. The device must be installed on a safe surface. If the device is not placed on a safe surface, it could fall and become damaged.
6. Never open the device. For safety reasons, the device should only be opened by qualified personnel.
7. Pay attention to the connection polarity when operating equipment with a direct current (DC) power supply. Reverse polarity connection may damage the equipment or power supply.
8. If any of the following situations occurs, please get technical personnel to check the device:
 - a. The power cord or plug is damaged.
 - b. Liquid has penetrated the inside of the device.
 - c. The device has been exposed to moisture.
 - d. The device does not work well or does not work according to the instruction manual.
 - e. The device has been dropped and damaged.
 - f. The device has obvious signs of damage.
9. Wiring must be undertaken only by qualified personnel. Ensure that the appropriate cables are used for the for connections.

2. DESCRIPTION

The VCC-64 PSK communication and power adapter allow VCC-64 devices to be installed in the system, using a single CAT5 cable for the entire device bus.

3. INPUTS AND OUTPUTS

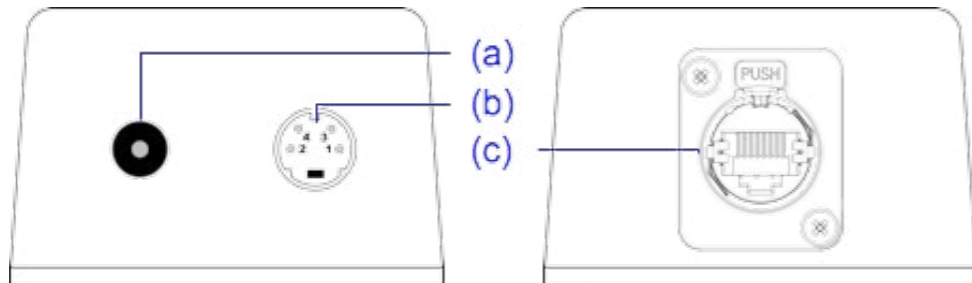


Illustration 1: Inputs and Outputs

a. POWER INPUT



Illustration 2: Power Supply Input

The device has a power supply input for a nominal voltage of 12 V. This consists of a two pole, + and -, female jack connector which connects to the positive and negative poles of the power adapter supplied with the device.

The connection is made using a male connector plug with an internal diameter of 2.1 mm, external diameter of 5.5 mm, and length of 9.5 mm.

Mark	Description	Type	Signals	Activation
	12 V power supply	Input	+ -	12 V DC 1-1.5 A

Table 1: Power Supply Input

b. SERIAL INPUT PORT

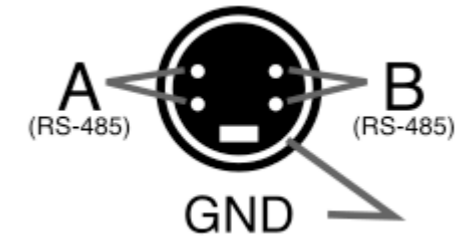


Illustration 3: Serial Input Port (mini-DIN 4 female)

The unit has a two-wire RS-485 serial port connection.

It connects through a 4-pole male mini-DIN connector plus chassis (supplied with the device). The use of twisted cable plus mesh is recommended to connect serial signals.

Mark	Description	Type	Signals	Activation
A (Pin 2 and 4)	RS-485 serial connection port Terminal A	Port	A	Standard RS-485
B (Pin 1 and 3)	RS-485 serial connection port Terminal B	Port	B	Standard RS-485
GND (Shield)	Chassis or cable mesh	NA	NA	NA

Table 2: Serial Port Input

c. COMMUNICATION AND POWER OUTPUT

**CAT 5
TYPE B**



Illustration 4: Communication and Power Output

The equipment has an output for VCC-64 wall controllers via a female RJ-45 connector that combines data signals through the serial port (RS-485) and a continuous 12 V power supply, for connection in bus mode.

It connects via an Ethernet network cable, standard T568B.

Mark	Description	Type	Signals	Activation
12V+	Positive 12V DC power supply	Output	Pins 2, 6, 8	12 V DC 1-1.5 A
12V-	Negative 12V DC power supply	Output	Pins 1, 3, 7	12 V DC 1-1.5 A
D+	RS-485 serial connection port Terminal D+	Bus	Pin 4	Standard RS-485
D-	RS-485 serial connection port Terminal D-	Bus	Pin 5	Standard RS-485

Table 3: Communication and Power Output

Pin	CAT5 B cable colours	Signal
1	White/orange	12V-
2	Orange	12V+
3	White/green	12V-
4	Blue	D+
5	White/blue	D-
6	Green	12V+
7	White/brown	12V-
8	Brown	12V+

Table 4: CAT5B Wiring Signals



Illustration 5: VCC-64 PSK to VCC-64 connection

4. CONNECTION

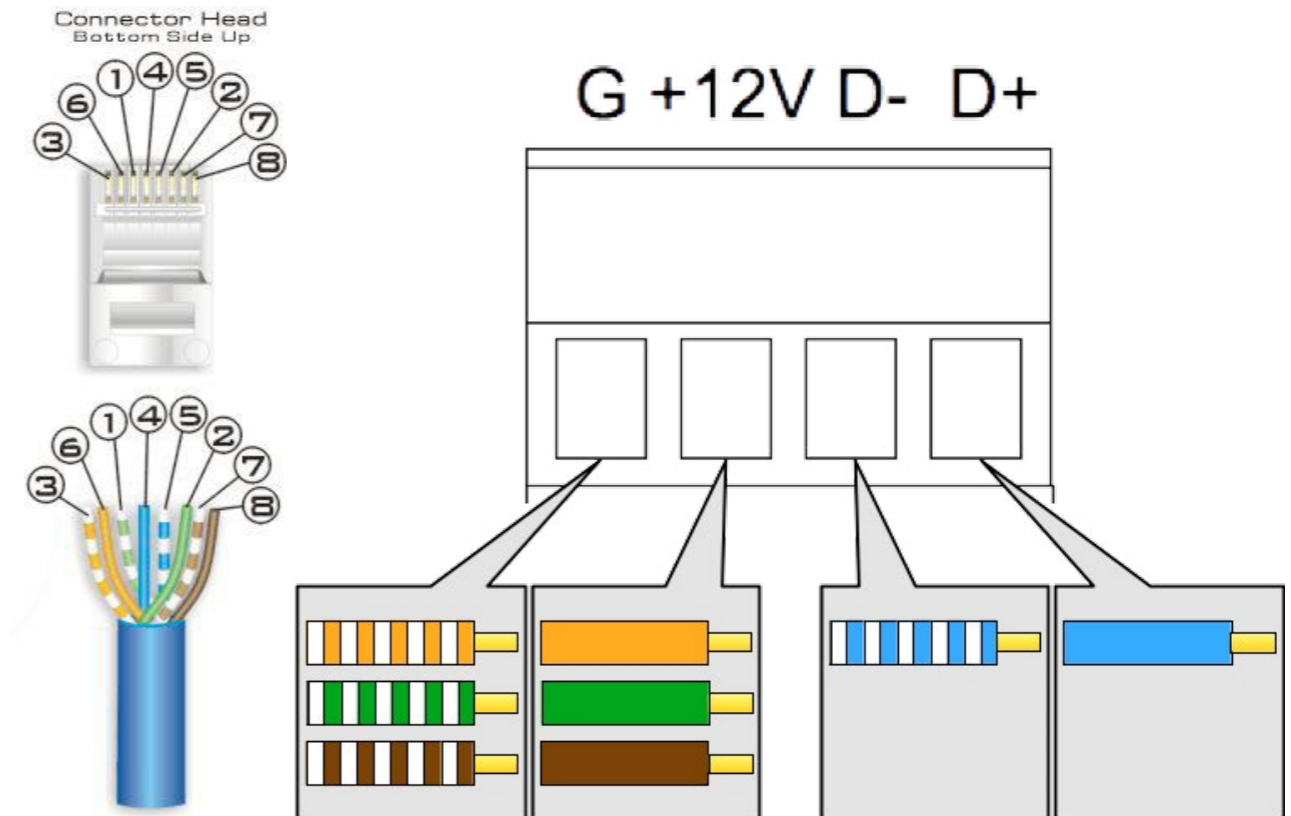


Illustration 6: VCC-64 PSK to VCC-64 connection detail

5. INSTALLATION DISTANCE

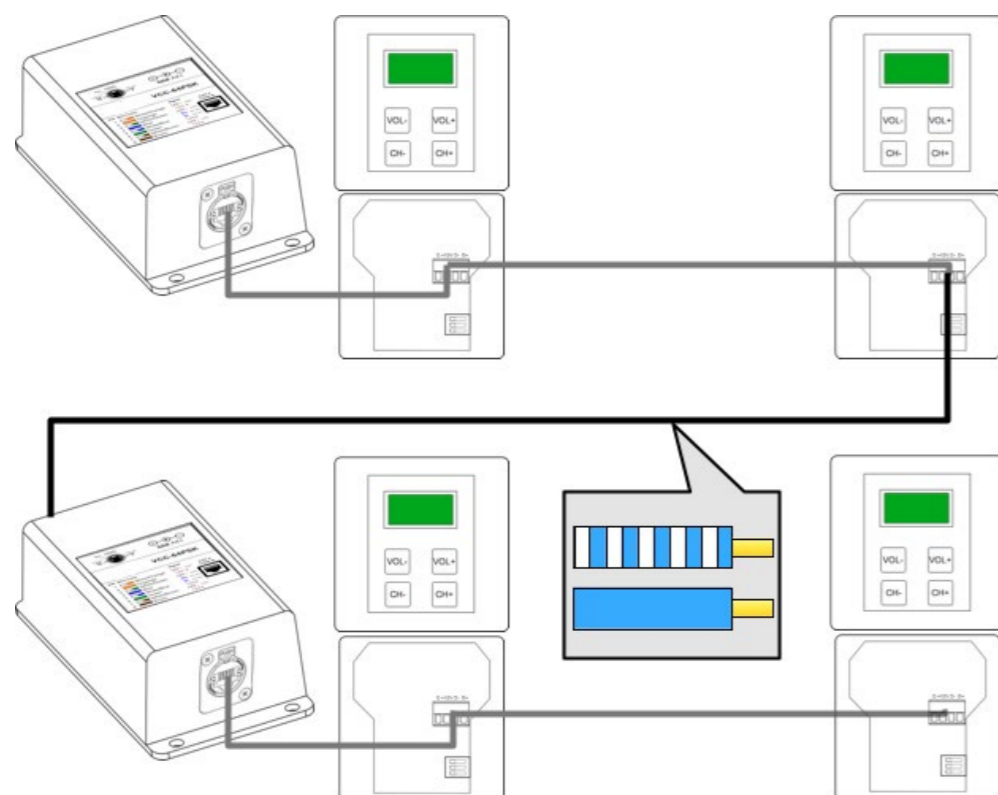
The following table shows the maximum recommended distances for the buses installed with the VCC-64 PSK. The type of cable used for the calculations is a two-wire-type copper conductor. The values shown can be used as a planning guide, with the final calculations appropriate in each case being the responsibility of the installer.

The table sets out the maximum distances, taking into account the maximum consumption of the VCC-64 units and the use of CAT5 cabling.

Max. distance	No. VCC-64 units
100 m	10
200 m	8
300 m	5
500 m	3
800 m	2

Table 5: Maximum bus distance:

IMPORTANT NOTE: The distance limitation is due to the copper wire section used in the CAT5 and not in the power supply provided. If more VCC-64 units are required, various VCC-64 PSK units must be used connected to the bus, up to a maximum distance of 1000 m. Each section will be limited as in the table above. The supply voltage at any point on the bus must not be less than 9 V DC.



6. MECHANICAL VIEWS

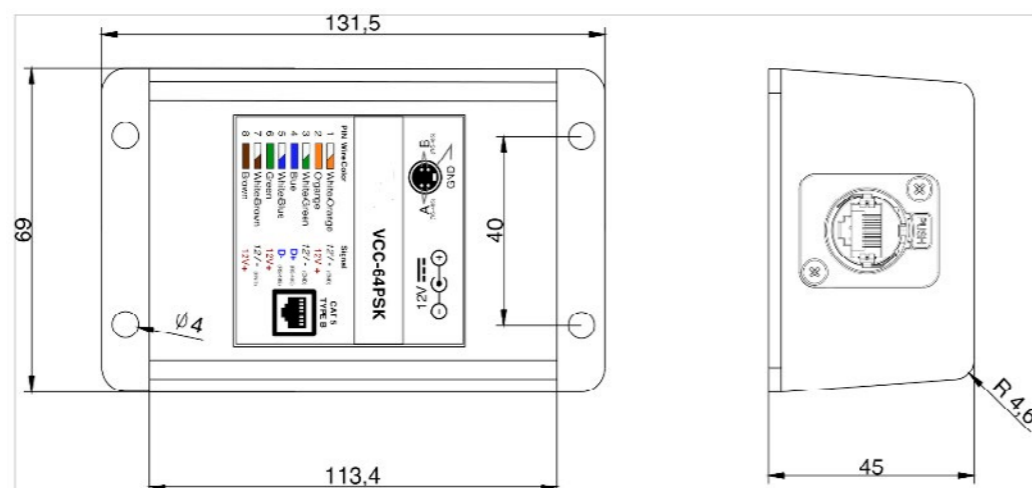


Illustration 7: Mechanical views

7. MAINTENANCE INSTRUCTIONS

The equipment requires limited periodic maintenance. The frequency of maintenance should be adjusted according to the device installation conditions. The minimum recommended frequency is once a year.

Procedure:

- Clean the device's air inputs and outputs using a vacuum cleaner.
- Check the device's connections.

Precautions:

- For cleaning, use only a soft, non-shedding cloth.
 - Do not use sprays, solvents or abrasive substances.
 - Do not spray cleaners directly on the device.
- When performing maintenance work,
 - disconnect the device from any external power supply.
 - Disconnect all external devices.
- Keep the product away from liquids.



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VCC-64PSK

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