

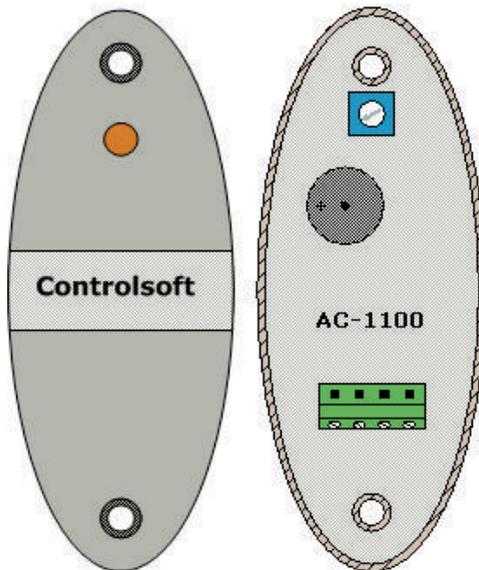
Introduction

The AC-1100 is a proximity reader for Controlsoft® 125kHz proximity cards and tags and is available in black. A piezo buzzer and a tri-colour LED indicate reader status to make the device very easy to use.

The reader circuitry is encased in a durable, waterproof resin, making it suitable for both internal and external use.

Step 1: Prepare the installation

The reader can be mounted against any surface (a metal surface will reduce the read range) and in any orientation. A template is provided to mark the position of the required holes. Drill the holes, plug the mounting holes (if required) and feed the cable through the cable entry hole.



2 Set the RS485 Address

Step 2: Set the RS485 Address

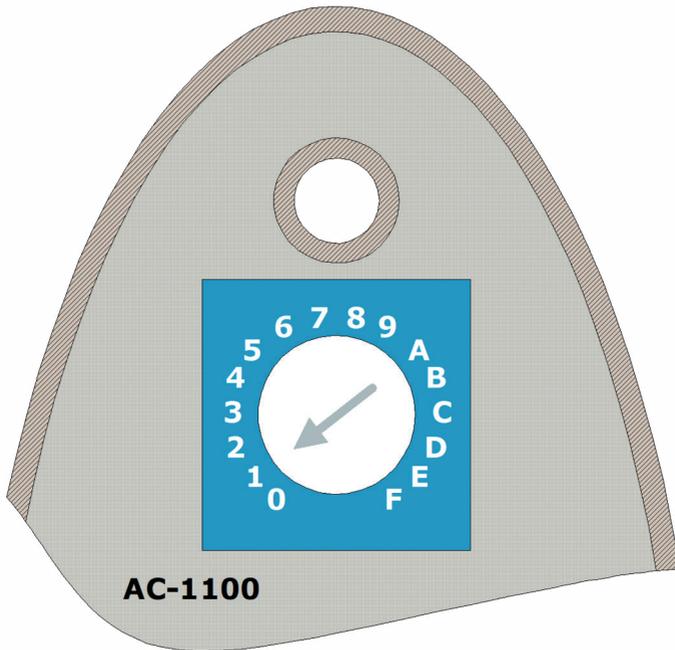
The reader communicates with the iNet™ ACU via an RS485 bus. Each device on the RS485 bus must be assigned with a unique address. The RS485 bus supports up to 16 devices, so the reader has a 16 position rotary switch marked '0' to 'F'.

The table below shows how the switch position relates to the address:

Rotary Switch	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
RS485 Address	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

For further information on RS485 Bus Addressing, please refer to the iNet Installation Instructions.

Always keep a record of the address used to avoid duplication.



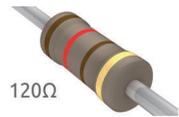
Step 3: Connect the RS485 Bus

Connect the reader to the RS485 bus as shown in the diagram below. The maximum length of the RS485 bus is 1000 metres end to end.

For RS485 connections we recommend using Belden 8723 or equivalent. This is a 2 twisted pair cable, with each pair screened. DO NOT use CAT5 or CAT6 cables for RS485 connections.

Note: the RS485 '+' and '-' connections must be run on either side of the same twisted pair (e.g. Green and White).

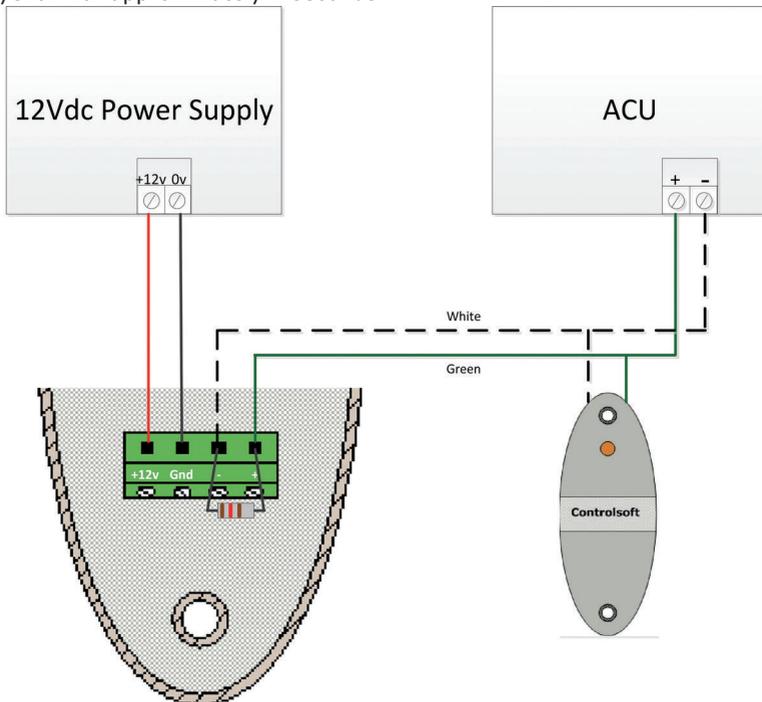
If the reader is at the end of the RS485 bus, then a network termination resistor (120 ohms) must be fitted between the RS485 '+' and '-' connection at the reader terminal blocks. The 3 coloured bands on a 120 ohm resistor are Brown, Red and Brown.



Step 4: Connect Power

The reader requires 12Vdc power at 100 mA for normal operation.

Whenever power is first supplied to the reader, the piezo buzzer sounds and the LED flashes yellow for approximately 2 seconds.



Step 5: Mount the Reader

Mount the reader using the screws supplied. To provide additional protection to the terminal blocks and rotary switch, we recommend that you seal around the reader using a mastic or similar sealant.

Step 6: Test

To ensure that the reader is operating correctly, check that:

- 1 The LED is flashing green (normal wait state).
 - 2 An 'allowed card' swiped at the reader causes a double beep and a solid green LED for approximately 3 seconds (allow state).
 - 3 A 'denied card' swiped at the reader causes a double beep and a solid red LED for approximately 3 seconds (deny state).
- If the LED flashes orange, there is a communication problem to the ACU. Check that the ACU is operating normally, that the reader is connected to the ACU and the power supply, and that the RS485 address is unique.
 - If the LED and/or buzzer remain on permanently, the reader is experiencing operational problems. Check that the reader has adequate power and that it is correctly connected to the ACU.

Caution:

The "crossed out wheeled bin" logo on Controlsoft products indicates that this product should not be disposed of via the normal household waste stream.

To prevent possible harm to the environment or human health, please separate this product from other waste streams. For further information, contact your local government office or the retailer where you purchased product.

This information only applies to customers in European Union.

For other countries, please contact your local government to investigate the possibility of recycling your product.





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