

Installation Sheet

XN-300 UHF Card Reader

These instructions are for AWID's Model XN-300 switchplate-type reader, using compatible UHF credentials from AWID.

Parts List

- | | | |
|---------------------------------|-------------------------------|------------------------------|
| (a) 1 Installation Sheet XN-300 | (b) 1 Model XN-300 Reader | (c) 2 #6-32x1" machine screw |
| (d) 1 2mm Allen Wrench | (e) 2 M3x0.5x6 – Cover Screws | |

Preparation

Reader Location: Select the reader's mounting location. The XN-300 Reader may be screwed to a single-gang utility box, to a wall or other surfaces. Mounted on a metal surface, the read range may be reduced.

DC Power Supply: Separate – independent from any other device. Dedicated – only this reader connected to the power supply. Do not draw the reader's power from the system's controller. Nominal 12 volts DC supply to the reader. Current capacity, 1 ampere or more. Regulated DC output.

Cable: To the system's panel: 4 conductors from the reader to the panel (2 wires for DC power, and 2 wires for Wiegand data). 22 gauge. Overall 100% shield for both power and data. 500 feet maximum length.

- The reader's **Black** wire must be connected to *both* the DC power supply's Negative terminal and the panel's Ground terminal.
- If the DC power supply is close to the reader, run two 22 gauge cables – 2 wires for DC power, and 3 wires for Wiegand data. Both cables must be overall-shielded and earth-grounded.
- Conduit: If cables are pulled through metal conduit, the conduit should be earth-grounded (like the cables).

Procedure

1. **Connector** – Cut off the 10-pin connector from the end of the reader's cable. Discard the connector.
2. **Switching Between Wiegand Mode and OSDP Mode -**
 - a) Connect the TX (violet) cable to the RX (orange) cable of the RS-232 interface (wires coming out of the reader), then power on the reader.
 - b) The reader will emit two long beeps, and a red light will flash, indicating that the mode has been switched.
 - c) After switching, disconnect the TX cable from the RX cable and restart (power cycle) the reader to complete the process.
 - Wiegand Mode: 6 beeps, followed by all lights flashing, then a steady blue light.
 - OSDP Mode: 3 beeps, followed by a solid green light, then alternating between green and blue lights for one minute.
3. **Remove Back plate** – Using the supplied Allen Wrench, remove the cover screw located on the bottom of the reader. Separate the metal back plate from the reader. (Figure 1)



Figure 1

4. **Install Back Plate** – Feed the Access Control wiring through the Back Plate. Line up the Back Plate with a single gang junction box or flat surface. Have the cover screw hole located on the bottom of the plate and fasten with the provided screws. (Figure 2)



Figure 2

5. **Wire Connections** –

Wiegand mode - Connect the reader's wires to the cable(s) for power and data. Connect the reader's Ground **black**, Data-0 **green**, Data-1 **white**, Shield **gray** and last +DC Power **red**. Secure all unused wires (Figure 3).

OSDP mode – Connect the reader's wires to the cable(s) for power and data. Connect the reader's Ground **black**, RS-485 B+ **green**, RS-485 A- **white**, Shield **gray** and last +DC Power **red**. Secure all unused wires (Figure 4).

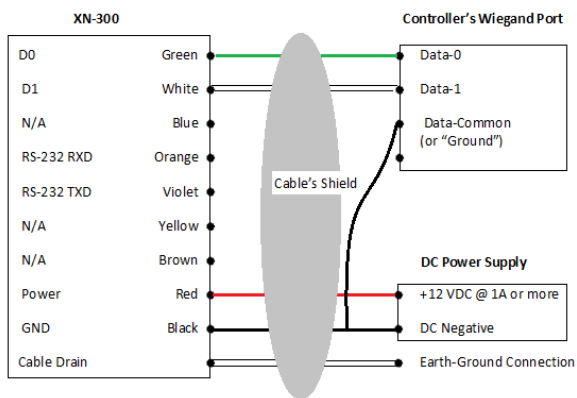


Figure 3

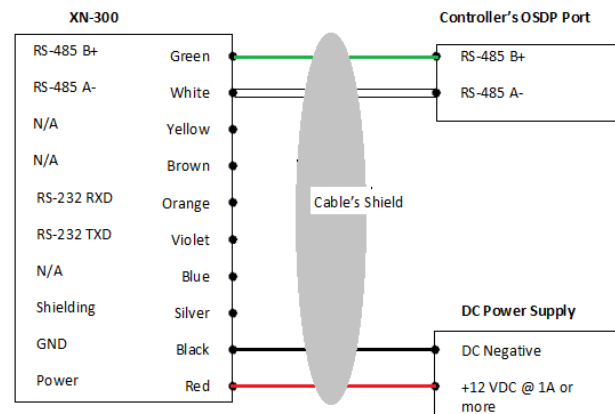


Figure 4

6. **Install Reader** – Feed the reader's cable through the Back plate. Hinge the XN-300 from the top and pivot securely into place. (Figure 5) Install the reader onto back plate ensuring it is flush with the mounting surface. Secure the reader to the back plate with the Cover Screw.



Figure 5

7. **Reader Test** – When power is applied to the XN-300, the LED initializes to steady-blue for standby, and the beeper sounds. With every presentation of an AWID UHF card to the reader, the LED changes color momentarily, and the beeper sounds briefly.
8. **System Test** – Wire the reader to the system's controller. Program the code for the AWID UHF card or tag into the host system, with full priority, all doors groups, and all time zones. Present the card or tag to the reader. Observe door unlock or gate opening, indicating "Access Granted" by the system.