Installation Sheet (Wiegand Interface)
XK-3640 UHF Card & PIN Reader

These instructions are for AWID's Model XK-3640 reader, using compatible UHF credentials from AWID.

Parts List
(a) 1 Installation Sheet for XK-3640
(b) 1 Model XK-3640 Reader/Keypad
(c) 2 #6-32 × 1" machine screw (for single-gang utility box)

Preparation

Reader Location: Select the reader's mounting location. The XK-3640 Reader may be screwed to a single-gang utility box like a cover plate, or to a wall or other surface. On a metal surface, read range is reduced about 20%. The XK-3640 Reader may be installed indoors or outdoors, but needs protection from direct rain or snow.

DC Power Supply: DC power for this reader is usually supplied from the +DC and Ground terminals of the Wiegand reader port on the system's panel. If this is not possible, use an independent power supply. Power may be shared with other readers if the supply has sufficient current capacity. The power supply should be nominal +12 volts DC (as low as +5 volts is OK); 1 ampere capacity; linear-rated; regulated DC output.

Cable to Controller and Power Supply: 4 conductors from reader to the system (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.

- If the DC power supply is independent from the panel's reader port, 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).

Programming

The XK-3640 reader is shipped with the keypad's output set for buffered 26-bit output, and its facility (site) code set at 000. These two features can be programmed at your shop before you go to the installation site. Just connect DC power from a bench supply or from a 9 volt or 12 volt battery to the **red and black** wires. Start either programming routine with DC **removed** from the XK-3640 unit. Keep the unit fully assembled.

- **Keypad's Output Format**
  1. While the DC power is disconnected . . . press and hold the **4** key if format is to be 4-bit data burst; or hold the **8** key for 8-bit data burst, or hold the **2** key for 26-bit buffered data.
  2. With the **4** or **8** or **2** key still pressed in, connect the DC power. Within 3 seconds there is a beep sequence, and the LED changes to standby-red.
  3. Now release the pressed key. The change in keypad output format has been saved.
- **Facility Code in Keypad's 26-bit Buffered Output**
  1. Connect the DC power. Watch the unit's LED. While it is amber, slowly enter the 10-digit password **9 1 4 3 6 9 8 8 0 0**; end with #. Press each key solidly. There is a short beep during each keystroke.
  2. Within 3 seconds, enter the facility code's **3 digits** (between 000 and 255); end with #.
  3. There is a long beep and the LED color changes to standby-red. The facility code has been saved.

Programming can be done also on an installed XK-3640. The keypad's **format** can be changed anytime to any of the three formats, and the 26-bit's **facility code** can be changed to any value between decimal 000 and 255. Programming for **Operation Mode** (mix of card read and/or PIN) is done only in the host system's software.

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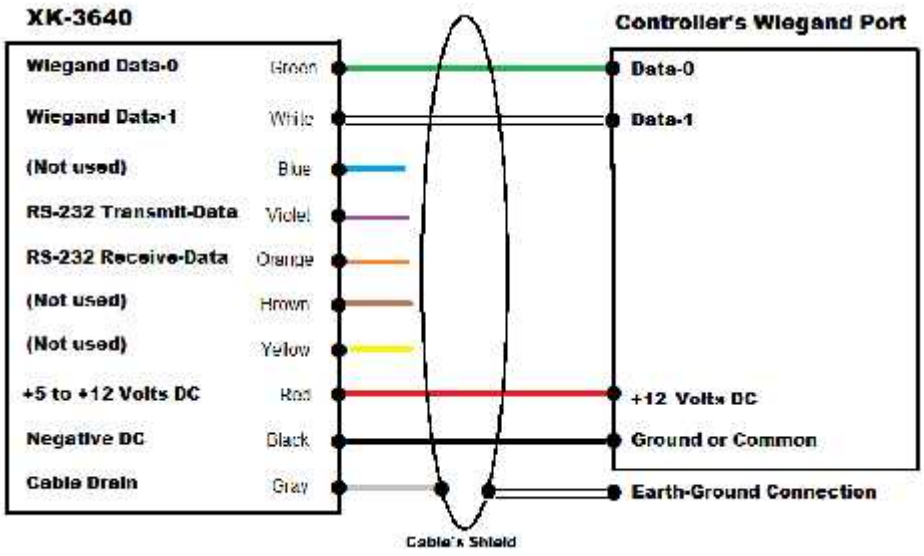
Procedure

1. Connector – Cut off the white 10-pin connector from the end of the reader's cable. Discard the connector.
2. Open the Reader – Snap open the reader's front frame by inserting a wide screwdriver blade in the slot at the bottom edge of the frame. Twist the blade gently. Do not remove the keypad assembly.
3. Wire Connections – Connect the reader's wires to the cable(s) for power and data.
   a. First, connect **black** to the panel port's Ground terminal, and, if separate, to the power supply Negative.
   b. Connect **green** to the Data-0 terminal. Connect **white** to the Data-1 terminal.
   c. Connect the **gray** drain wire to the shield of the connecting cable.
   If power and data are in separate cables, connect all three drain/shields together near the reader.
   d. At the end of the cable(s) near the panel (and near the power supply, if separate), connect the **shield** to a verified earth-ground.
   e. Last, connect **red** to the DC Positive terminal.



4. Reader Mounting – Feed the reader's cable through the utility box or the wall's cable opening. Fasten the reader to the utility box or the wall, with screws through the holes inside the open reader. Use the supplied screws for mounting on a utility box. When mounting is finished, snap the cover frame on the reader.
5. Reader Test – When power is applied to the XK-3640, the LED initializes to steady-red 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. Read range with a compatible AWID card is up to 6 inches.
6. System Test – Wire the reader to the system's controller. Program the code for the AWID UHF card or keytag into the host system, with full priority, all doors groups, and all time zones. Present the card or keytag to the reader. Observe door unlock or gate opening, indicating "Access Granted" by the system.

The UL 294 performance levels to comply with are as follows:

Destructive Attack	Line Security	Endurance	Standby Power
I	I	IV	I