IXM INGUIDE
Quick Start Guide

SENSE 2
TOUCH 2
MYCRO
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In the Box

IXM INSTALL KIT

- Dolphin Crimps (qty 12)
- Wall Mounting Screws (qty 4)
- Metal Mounting Plate Screw (qty 1)
- Metal Mounting Plate
- Snubber Diode
- Micro USB Extension Cable (4 ft/1.2m)
- Hex Key
- Dolphin Crimps (qty 12)
- USB Cover Screw (qty 1)
- Gangue Box Mounting Screws (qty 2)
- Wired Back Cover
- Earth Ground Wire
- Ferrite Core
- (Selected variants only)
- SENSE 2 & TOUCH 2 Only
Getting Started

1 Remove the Mounting Plate, Wired Back Cover and Screws from the IXM INSTALL KIT.

2 Install the Mounting Plate at the desired location (Invixium recommends 120-130 cms from the floor to the bottom of the device).

3 Make the necessary connections to the Wired Back Cover (refer to Get Wired Pages).

4 Unscrew and remove the Temporary Back Cover from the IXM device and connect the Wired Back Cover using the same screws.

5 Hang your IXM device on the Mounting Plate and secure it on the bottom with the screw provided.
## Get Wired Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACP</td>
<td>Access Control Panel</td>
<td>RLY</td>
<td>Relay</td>
</tr>
<tr>
<td>COM</td>
<td>Common</td>
<td>RX</td>
<td>Receiver</td>
</tr>
<tr>
<td>DAC</td>
<td>Door Access Control</td>
<td>SGND</td>
<td>Signal Ground</td>
</tr>
<tr>
<td>DSP</td>
<td>Door Strike Power</td>
<td>SPI</td>
<td>Specific Purpose Input</td>
</tr>
<tr>
<td>EGND</td>
<td>Earth Ground</td>
<td>SPO</td>
<td>Specific Purpose Output</td>
</tr>
<tr>
<td>GND</td>
<td>Ground</td>
<td>TX</td>
<td>Transmitter</td>
</tr>
<tr>
<td>LED</td>
<td>Light Emitting Diode</td>
<td>WDATA</td>
<td>Wiegand Data</td>
</tr>
<tr>
<td>NC</td>
<td>Normally Closed</td>
<td>WGND</td>
<td>Wiegand Ground</td>
</tr>
<tr>
<td>NO</td>
<td>Normally Open</td>
<td>VIN+</td>
<td>Power (12VDC)</td>
</tr>
<tr>
<td>PoE</td>
<td>Power over Ethernet</td>
<td>VIN-</td>
<td>Power Ground</td>
</tr>
</tbody>
</table>

### Top Connector

1. 3. 5. 7. 9. 11. 13. 15. 17. 19. 2. 4. 6. 8. 10. 12. 14. 16. 18. 20.

### Bottom Connector

1. 3. 5. 7. 9. 11. 13. 15. 17. 19. 2. 4. 6. 8. 10. 12. 14. 16. 18. 20.
## Get Wired Top Connector

<table>
<thead>
<tr>
<th>Wire Color</th>
<th>Wire</th>
<th>Label</th>
<th>Pin(s)</th>
<th>Wire Color</th>
<th>Wire</th>
<th>Label</th>
<th>Pin(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Red</td>
<td>White/Red</td>
<td>RLY_NC</td>
<td>1</td>
<td>Orange/Yellow</td>
<td>Orange/Yellow</td>
<td>SPO_1</td>
<td>2</td>
</tr>
<tr>
<td>Grey</td>
<td>Grey</td>
<td>RLY_COM</td>
<td>3</td>
<td>Yellow/Green</td>
<td>Yellow/Green</td>
<td>SPO_2</td>
<td>4</td>
</tr>
<tr>
<td>Grey/Red</td>
<td>Grey/Red</td>
<td>RLY_NO</td>
<td>5</td>
<td>Green/Orange</td>
<td>Green/Orange</td>
<td>SPO_3</td>
<td>6</td>
</tr>
<tr>
<td>Brown</td>
<td>Brown</td>
<td>ACP_LED1</td>
<td>7</td>
<td>Black/Orange</td>
<td>Black/Orange</td>
<td>SPO_GND</td>
<td>8</td>
</tr>
<tr>
<td>Yellow</td>
<td>Yellow</td>
<td>ACP_LED2</td>
<td>9</td>
<td>Yellow/Cyan</td>
<td>Yellow/Cyan</td>
<td>SPI_1</td>
<td>10</td>
</tr>
<tr>
<td>Black/Yellow</td>
<td>Black/Yellow</td>
<td>ACP_LED_GND</td>
<td>11</td>
<td>Cyan/Brown</td>
<td>Cyan/Brown</td>
<td>SPI_2</td>
<td>12</td>
</tr>
<tr>
<td>White/Purple</td>
<td>White/Purple</td>
<td>DAC_IN1</td>
<td>13</td>
<td>Brown/Yellow</td>
<td>Brown/Yellow</td>
<td>SPI_3</td>
<td>14</td>
</tr>
<tr>
<td>Purple/Yellow</td>
<td>Purple/Yellow</td>
<td>DAC_IN2</td>
<td>15</td>
<td>Black/Cyan</td>
<td>Black/Cyan</td>
<td>SPI_GND</td>
<td>16</td>
</tr>
<tr>
<td>Blue/White</td>
<td>Blue/White</td>
<td>DAC_IN3</td>
<td>17</td>
<td>Orange</td>
<td>Orange</td>
<td>DAC_OUT</td>
<td>18</td>
</tr>
<tr>
<td>Black/White</td>
<td>Black/White</td>
<td>DAC_GND</td>
<td>19</td>
<td>Purple</td>
<td>Purple</td>
<td>DAC_DSP</td>
<td>20</td>
</tr>
</tbody>
</table>
## Get Wired Bottom Connector

<table>
<thead>
<tr>
<th>Wire Color</th>
<th>Wire Color</th>
<th>Label</th>
<th>Pin(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Orange/White</td>
<td>VIN+</td>
<td>1</td>
</tr>
<tr>
<td>Black</td>
<td>Purple/White</td>
<td>VIN-</td>
<td>3</td>
</tr>
<tr>
<td>Green/Yellow</td>
<td>Black/Red</td>
<td>EGND</td>
<td>5</td>
</tr>
<tr>
<td>RJ45 Receptacle</td>
<td>Blue</td>
<td>TCP/IP</td>
<td>9,11,13,15,17,19</td>
</tr>
<tr>
<td></td>
<td>Blue/Black</td>
<td>RS232_RX</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Black/Green</td>
<td>RS232_TX</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Green/White</td>
<td>SGND</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>White/Black</td>
<td>RS485+ (B)</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Green/White</td>
<td>RS485- (A)</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>White/Black</td>
<td>WDATA_IN0</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Green</td>
<td>WDATA_IN1</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>WDATA_OUT0</td>
<td>16</td>
</tr>
<tr>
<td>Pattern</td>
<td>White/Black</td>
<td>WDATA_OUT1</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Black/Green</td>
<td>SGND</td>
<td>20</td>
</tr>
</tbody>
</table>
Earth Ground

For protection against Electrostatic Discharge, Invixium recommends the use of a ground connection between each IXM device to a high quality Earth Ground available at the install site.

Connect to Earth Ground in one of two ways:

1 EGND wire (Green/Yellow) from the Wired Back Plate

or

2 Loose Earth Ground wire direct to the mounting plate using one of the wall mounting screws (as shown). Ensure that the lug is secured tightly for contact between the device and the mounting plate.

Ensure all Earth Ground connections are made to each device prior to turning on the power.
Power It Up

When using an external power supply, ensure that the regulated, filtered and dedicated power source (Safety tested, FCC/IC/CE certified) provides a minimum of 1.5A @ 12 VDC.

When using PoE, an IEEE 802.3af compliant Active Midspan Injector is required (sold separately). Refer to table for Invixium recommended PoE Injector specs. Full PoE deployments should include a centralized PoE PSE. Both IEEE 802.3af power transmission modes (A and B) are supported. Invixium recommends the use of battery back up or a UPS with built-in surge protection.

Note: MYCRO models do not support PoE. SENSE 2 and TOUCH 2 models support PoE as well as PoE+.

WARNING: Product Warranty is void if improper power (under or over) is supplied to the device.

INVIXIUM recommended PoE Injector Specs

<table>
<thead>
<tr>
<th>Input Voltage</th>
<th>90-264 VAC, 60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Current</td>
<td>0.4 A @ 100 VAC</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>48 VDC</td>
</tr>
<tr>
<td>Output Current</td>
<td>0.32 A</td>
</tr>
<tr>
<td>Power</td>
<td>15.36 Watt</td>
</tr>
</tbody>
</table>
Ethernet and Wi-Fi

For Ethernet communication, a specific range of allowable IP addresses can be set for improved security.

For Wi-Fi communication on TOUCH 2 (selected models only), 802.11 b/g/n protocols are supported. DHCP is enabled as a factory default. WEP, WPA and WPA2 encryption options are available.
RS-485 Configuration

For RS-485 networks, ensure that IXM devices are wired in a daisy chain configuration, up to a maximum of 31 devices. At a baud rate of 9600 bps, make certain that the maximum cable length is not longer than 1200 m (4000 ft).

R = 120 ohms for Standard RS-485 Cabling
R = 100 ohms for CAT5/6 Cabling
Serial Communication and USB

For Serial Communication, IXM devices are equipped with RS-232 and USB capabilities.

Refer to Get Wired Bottom Connector page for RS-232 connections.

The USB port can be used to connect a Flash Drive via Micro USB OTG cable and perform functions like upgrading firmware, downloading transaction logs and configuration files.

The USB port can also be used to connect to a PC running IXM WEB via Micro USB cable.
Wiegand

IXM devices have the option to use the Standard 26-bit Wiegand format or a Custom Wiegand format (up to 512 bits) to suit any Access Control System.

All IXM devices are set to Standard 26-bit format as a factory default.

*Flex Fields can be Facility Code, Job Code or Company ID Code.
ACP Connections

Top Connector LED
ACP_LED1
ACP_LED2
ACP_LED_GND

Bottom Connector Wiegand
WDATA_OUT0
WDATA_OUT1
WGND

TCP TOUCH 2

ACP_LED1
ACP_LED2
ACP_LED_GND
WDATA_OUT0
WDATA_OUT1
WGND

ACP_LED signals can be used if available on the Access Control Panel. IXM devices support up to 2 wires + GND for LED status.
Max Relay rating = 2A @ 24VDC

NOTE: A separate power supply is required for the door strike.
Max Relay rating = 2A @ 24VDC

NOTE: A separate power supply is required for the door strike
Max Relay rating = 2A @ 24VDC
Device can supply 500mA@12V

NOTE: This connection diagram is valid for TOUCH 2 and SENSE 2 only
Enrollment Best Practices

- **Preferred Fingers**
- **Pressure**
  - Too Low
  - Too High
  - Good
- **Position**
- **Rotation**
- **Condition**
  - Dry
  - Wet
  - Good
1. Proper finger placement is crucial for good enrollment score and faster authentication.

2. Place your finger straight on the sensor as shown below, while covering the sensor with the top third of your finger as shown on the previous page.

Finger Placement Best Practices

- Incorrect
- Correct
Card Placement

1. The location of the card reader on Invixium devices depends on the product model.
2. For MYCRO and SENSE 2, the card reader is located above the sensor cavity, while for TOUCH 2 the card reader is located below the sensor cavity.
3. See below for the correct card placement while using the MYCRO, SENSE 2 and TOUCH 2.
Software Installation

1 Go to www.invixium.com >> IXM WEB >> Get IXM WEB.

2 You will be redirected to ixmweb.invixium.com. Click on the IXM WEB Tab. Provide the required details and Click “Submit”. An email with the latest IXM WEB package will be sent to the email ID provided.

3 Extract the compressed file and run IXM WEB.exe.

4 INVIXIUM recommends to select Install option for rapid installation.

5 When installation is complete, click Exit. IXM WEB icon is now on the desktop.

6 Run IXM WEB to launch in default web browser.

7 Contact support@invixium.com in case of any issues.
This is a Quick Start Guide. For a detailed guide please refer the Invixium Installation Guide.

For technical or customer support issues, please contact your Local Authorized Reseller first.

Visit the Customer Portal for more Invixium resources at www.invixium.com/support

Contact Invixium Support at:

- support@invixium.com
- +1 844 INVIXIUM (468 4948)
- invixium_support

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