Illustra Insight Intelligent Frictionless Access Camera Installation and Configuration Guide







Notice

Please read this manual thoroughly and save it for future use before attempting to connect or operate this unit.

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Tyco Security Products

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Customer Service

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Note:For support (within 6 months of the product launching) please contact TycoAlsupport@jci.com. Troubleshooting documentation is available on the AD Support Portal - https://support.americandynamics.net/#/product/illustra-cameras.

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Warning

- This unit operates at Power over Ethernet IEEE 802.3bt Type 3 Class 5.
- Installation and service should be performed only by qualified and experienced technicians and comply with all local codes and rules to maintain your warranty.
- To reduce the risk of fire or electric shock, do not expose the product to rain or moisture.
- Wipe the camera with a dry soft cloth. For tough stains, slightly apply with diluted neutral detergent and wipe with a dry soft cloth.
- Do not apply benzene or thinner to the camera, which may cause the surface of the unit to melt or lens to fog up.
- · Recommended operating temperature is:
 - Satellite Camera Module: 14°F to 104°F (-10°C to 40°C).
 - Control Unit: 14°F to 104°F (-10°C to 40°C).

Overview

This Illustra Insight Facial Recognition camera Installation and Configuration Guide is a user manual which provides physical properties, installation, and configuration information of the cameras in Table 1 on Page 6.

Table 1 Product codes

Product Code	Model Name	Description	
II-AN00INT01	Illustra Insight	Illustra Insight 2MP camera	

The first portion of this guide contains information pertaining specifically to the aforementioned cameras.

• For the Illustra Insight 2MP camera, refer to Illustra Insight Intelligent Frictionless Access Camera on page 7.

The second portion of this guide contains information regarding the Illustra User Web Interface and the web configuration of the aforementioned cameras. Refer to Configuration on page 22 for procedural information pertaining to camera configuration.

Illustra Insight Intelligent Frictionless Access Camera

This chapter provides product features, installation procedures, and connection information regarding the Illustra Insight 2MP Facial Recognition camera.

Product overview

This chapter explains the features and installation of the Illustra Insight Facial Recognition Access Control camera. Product code and description of the camera is provided in the table below.

Table 2 Product code and description of the Illustra Insight camera

Product Code	Description	
II-AN00INT01	Illustra Insight 2MP Facial Recognition Access Control camera	

Installation

In the box

Check everything in the packing box matches to the order form and the packing slip. In addition to this guide, items below are included in the packing box:

- 1 x Illustra control unit
- 1 x Satellite camera module
- 1 x Quick Start Guide
- 1 x Torx bit
- 1 x Drill template
- 1 x 10m S/FTP CAT6 cable (Do **not** modify the cable)
- 2 x Cable clamp ferrites

Contact your dealer if any item is missing.

Installation Tools

• 1 x Drill

Quick Reference

- Default IP: 192.168.1.168 (DHCP enabled)
- Default Username and Password: admin / admin

Figure 3 Illustra control unit parts

Table 4 Illustra control unit parts descriptions

Part	Description
Α	Power Over Ethernet IEEE 802.3bt Network Connector (40W minimum)
В	OSDP Interface
С	Wiegand Interface
D	Satellite camera connector

Figure 5 Illustra Insight camera parts

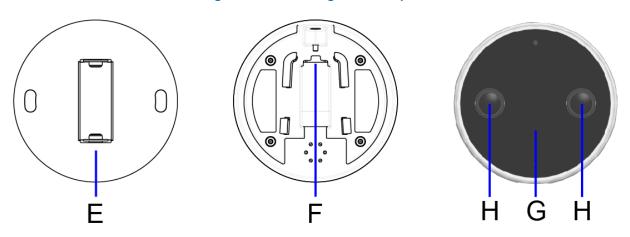


Table 6 Illustra Insight camera part descriptions

Part	Description
E	Wall Mounting Bracket
F	Location of the Satellite cable connection
G	Satellite camera module
Н	Lenses

Required items not included in the box (Camera 1 to the Server)

- 1 x Single port IEEE 802.3bt Injector (e.g. PoE60U-1BT) (40W minimum).
- 1 x Ethernet cable CAT5/6 from Injector output to the Illustra Control Unit.
- 1 x Ethernet cable CAT5/6 from Injector input to Facial Recognition Server Ethernet port.

Required items not included in the box (Additional number of cameras to the Server)

- 'N' x Single port IEEE 802.3bt Injector (e.g. PoE60U-1BT) (40W minimum).
- 1 x Port Gigabit Ethernet Switch.
- 'N' x Ethernet cable CAT5/6 from Injector output to the Illustra Control Unit.
- 'N' x Ethernet cable CAT5/6 from Injector input to Network Switch.
- 1 x Ethernet cable CAT5/6 from Network Switch to Facial Recognition Server Ethernet port.

Procedure 1 Satellite camera installation

IMPORTANT: The maximum distance between the camera module and the control unit is 10 meters and you must use the supplied CAT6 cable to ensure the best quality and performance.

Step Action

- To attach the satellite camera to a surface, place the mounting template on the surface at recommended height of 62" (5.2 foot / 1.6m / 1575mm) and drill holes that correspond to those identified on the template for mounting and cable tray purposes.
- 2 Place the mounting bracket onto the surface and align the holes on the mounting bracket with the holes on the surface and ensure that the bracket is level and the screws in place.

Note: The camera end of the CAT6 S/FTP cable in the wall should be passed through the bracket mounted on the wall and be plugged into the back of the satellite camera module (F) (Figure 2).

Place the camera onto the mounting bracket and set it at the desired angle +/- 20 degrees and use the Torx bit provided to tighten the security screw located at the top of the mounting bracket to securely attach and lock the camera to the mounting bracket.

Note:To be fully EMC/EMI compliant the installer/user needs clip the provided ferrites onto the Satellite Camera & Building cables after they have been passed through the conduit hole in the Illustra Control Unit enclosure box, the distance from the boot of the RJ45 connector is approximately 6 Inches (155mm) to allow a loop inside the box & the ferrites to sit in the free alongside the PCB's.

- End -

Procedure 2 Hardware setup

Step Action

To set up your Illustra Insight hardware, connect the Satellite Camera Module through its connector (F) (Figure 5) to the Satellite Camera Connector (D) (Figure 3) on the ICU with the 10m S/FTP CAT6 cable provided.

Note:To ensure the correct operation of the camera, alternative S/FTP CAT6 cables should not be used.

- 2 Connect the Illustra Control Unit to an IEEE 802.3bt power source (A). (40W minimum).
- Optional: Connect a Wiegand Interface (C) (Figure 3) or OSDP Interface (B) (Figure 3) for Access Control Integration.

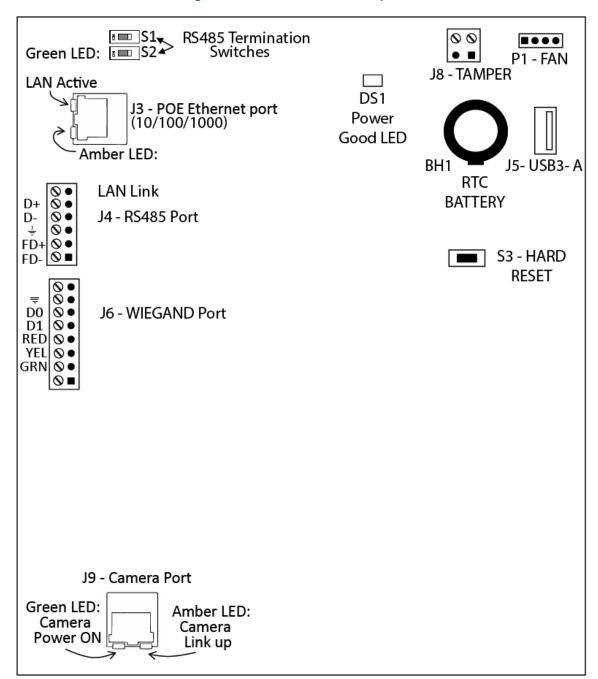


Figure 7 Control Panel Door Map Label

Figure 8 Wiegand Port Descriptions

Connector J6		Туре	Signal	Description
		No connection		
÷	$\bigcirc \bullet$	Ground	GND	Ground
D0	$\bigcirc \bullet$	Output	D0	Wiegand Data 0 Output
D1	$\bigcirc \bullet$	Output	D1	Wiegand Data 1 Output
RED	$\bigcirc \bullet$	Input	Red	Red LED Input
YEL	$\bigcirc \bullet$	Input	Yellow	Yellow LED Input
GRN	$\bigcirc \bullet$	Input	Green	Green LED Input
	$\bigcirc \bullet$	No connection		

Figure 9 RS485 / OSDP Port Descriptions

Connector J4		Туре	Signal	Description
	⊘ ■	No connection		
D+	$\bigcirc \bullet$	Bidirectional	TXD/RXD+	Half Duplex Tx / Rx+, Full Duplex Transmit Data+
D-	$\bigcirc \bullet$	Bidirectional	TXD/RXD-	Half Duplex Tx / Rx-, Full Duplex Transmit Data-
÷	$\bigcirc \bullet$	Ground	GND	Ground
FD+	$\bigcirc \bullet$	Input	RXD+	Full Duplex Receive Data+
FD-	$\bigcirc \bullet$	Input	RXD-	Full Duplex Receive Data-

Figure 10 Tamper Switch Descriptions

Connector J8		Туре	Signal	Description
	•	Ground	GND	Ground to Tamper Switch
	◎ ■	Input	IN	Input from Tamper Switch

Procedure 3 Network Configuration

Step	Action
1	To configure your Illustra Insight Camera network, access the camera web GUI using http:// <ipaddress></ipaddress>
2	From the View Selection, select Setup.
3	Select Network from the Setup menu and configure the network parameters as required.
4	Click Apply to apply the new network settings.
Note:	The camera then reboots

Streaming live video

The Illustra Insight Camera supports RTSP streaming of H.264 encoded live video. To use this feature, a video streaming client can be used. To access the live video, use the following URL: rtsp://<ipaddress>/live_video

Note: The <ipaddress> is the IP address of the Illustra Insight Camera.

Procedure 4 Capturing a raw snapshot

The Raw snapshot download button lets you save a snapshot of the FoV to file in RAW format. After you configure your camera settings, you can capture a raw snapshot in UYVY format.

Step	Action
1	Access the camera web GUI using http:// <ipaddress></ipaddress>
2	From the View Selection, select Setup.
3	Select System from the Setup menu and then select Raw Snapshot.
4	Click the Download button to capture a snapshot. The snapshot is automatically downloaded in approximately 3 seconds.
	- End -

Access control system interface

Option 1: Wiegand

The Control Unit implements a standard Wiegand Interface to interface to an Access Control System. By default, the camera is configured to output a MIFARE 32-bit compatible signal to communicate a card number via Wiegand.

Procedure 5 Configuring the Wiegand interface

Step	Action
1	Connect a standard Wiegand interface cable to the Wiegand Interface (C)
Note:	The hardware and firmware use the D0/D1 and RED, YELLOW, GREEN signals.
2	Access the camera web GUI using http:// <ipaddress>.</ipaddress>
3	From the View Selection, select Setup.
4	Select Frictionless Access from the Setup menu and then select Test.
5	Enter an example card number as a base 10 integer (e.g. 65005).
6	Click the Send button to send the card ID via Wiegand.
	- End -

If the target access control system is configured with the card numbers that are being sent, then the LED ring on the Camera Head will reflect the Access Granted/Access Denied status as indicated via the Wiegand RED and GREEN status lines.

Option 2: OSDP

Note:Firmware upgrade is required to support OSDP communication

The RS-485 connector / OSDP Interface (B) is for OSDP communication. Follow the same steps as on the previous page for OSDP Interface Integration.

Licensing

See www.illustracameras.com/insight for more information.

Camera firmware

The camera can be upgraded using firmware provided by Illustra.

All existing camera settings are maintained when the firmware is upgraded. You should only use firmware that has been provided by Illustra. Using any other firmware may cause a malfunction and damage the camera.

Procedure 6 Upgrading the camera firmware

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Maintenance from the Systems menu.
3	Select Browse.
4	Select Setup on the Web User Interface banner to display the setup menus.
5	Select Maintenance from the Systems menu.
6	Select Browse.
7	The Choose file to Upload dialog displays.
8	Navigate to the location where the firmware file has been saved.
9	Select the firmware file then select the Open button.
10	Select Upload.

Do not disconnect power to the camera during the upgrade process. The camera restarts automatically after the updates have been completed, this can take from 1 to 10 minutes. The Log in page displays.

- End -

Additional Resources

Technical Support

Region	E-mail	Number
NA/SA	video-support@jci.com	1-800-507-6268 / 1-800-392-2873
EMEA	video-support@jci.com	+800-2255-8926 / +31-475-352-722
APAC	video-support@jci.com	+800-2255-8926 / +31-475-352-722

Licensing

Region	E-mail	Number
NA/SA	licenses@tycoint.com	1-978-577-4000
EMEA	video-support@jci.com	+31 475-352-722
APAC	video-support@jci.com	+31 475-352-722

SSA Sales Worldwide: tspssa@tycoint.com

Network Topology

The Illustra Insight camera delivers video images and audio in real-time using the internet and intranet. It is equipped with an Ethernet RJ-45 network interface.

The following images illustra the network topologies of the camera.

Illustra Insight Camera Topology

Figure 11 Illustra Insight camera Network Topology Type I.

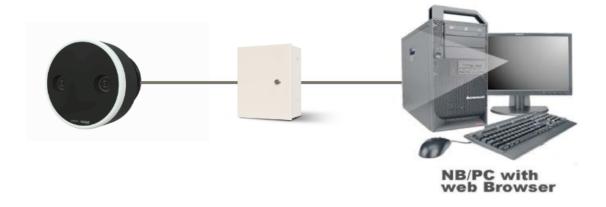
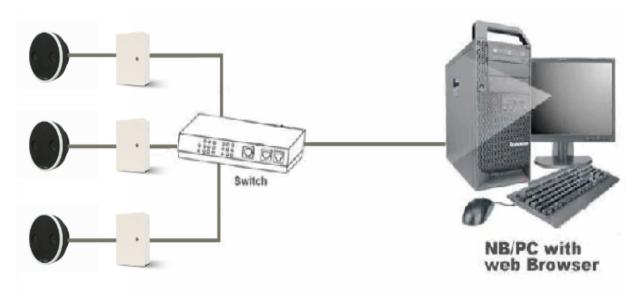


Figure 12 Illustra Insight cameras Network Topology Type II

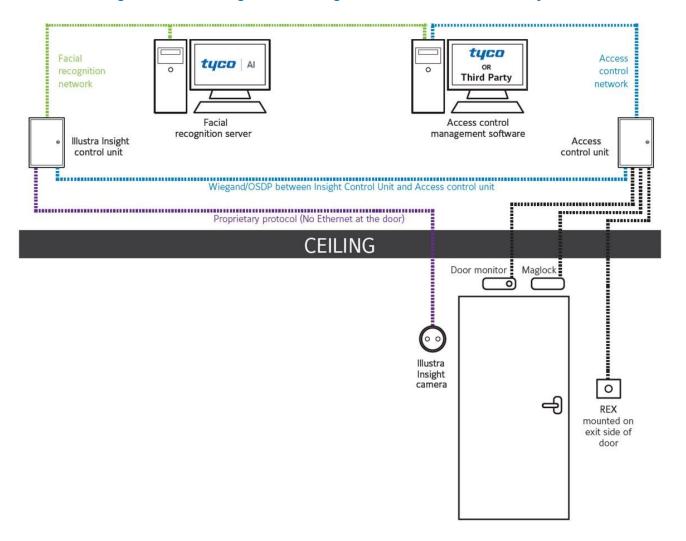


Note:Please check your server specification for camera connection limits.

Illustra Insight Camera Topology

The Illustra Insight camera control unit delivers video images and audio in real-time using a network connection. It is equipped with an Ethernet RJ-45 network interface.

Figure 13 Illustra Insight camera integration with an Access Control system.



Illustra Insight integrates with Tyco AI and access control solutions to deliver an intelligent frictionless access experience.

Tyco AI is a cerebral engine that goes beyond surveillance and access to enhance a security ecosystem. Propriety protocols are used to ensure secure communications between the Insight camera and Insight control unit.

Illustra Insight is designed for seamless integration with Johnson Controls access brands, CEM Systems, Software House and Kantech. It is also access control agnostic and can be interconnected via traditional and modern wiring protocols into any access system panel that has on-board Wiegand or OSDP.

Network Connection

Default IP Address

Since this is a network-based unit, an IP address must be assigned at the very first bootup. The default IP address of the unit is 192.168.1.168 and sub mask is 255.255.255.0.

However, if you have a DHCP server in your network, the unit obtains an IP address automatically from the DHCP server so that you do not need to change the IP address of the camera.

Note:If you assign the camera a Static IP address prior to DHCP being enabled, the camera first reboots for approximately 30 seconds and then remains accessible at its Static IP until it connects to a DHCP server.

- Connect to a PC directly: Directly connect the camera to a PC using a standard Ethernet cable. This requires POE switch or injector.
- Connecting a camera to a Local Area Network (LAN): To add the camera to an existing LAN, connect the camera to the POE hub or switch on your network.

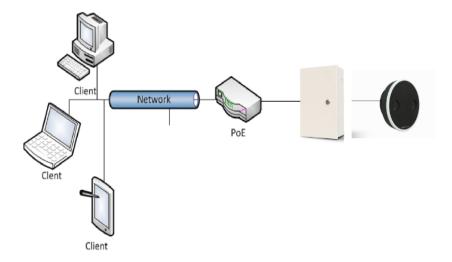


Figure 14 Network connection diagram

Default camera settings

The following table describes the default camera settings.

Network Settings	Defaults
DHCP	Enabled
Static IP Address	192.168.1.168
Default Username	admin
Default Password	admin

Procedure 7 Connecting from a computer

Step Action Ensure the camera and your computer are in the same subnet. Check if the network is available between the unit and the computer by pinging the default IP address. a Start a command prompt. b Type "Ping 192.168.1.168". If the message "Reply from..." appears, it means the connection is available. Start Internet Explorer and enter IP address: 192.168.1.168. A login window appears. In the window, enter the default user name: admin and password: admin to log in.

- End -

DHCP

On initial camera startup, and after a hardware factory reset, Dynamic Host Configuration Protocol (DHCP) is enabled by default and remains enabled until the camera receives either a DHCP address or is assigned a Static IP address.

Procedure 8 Enable DHCP

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select the TCP/IP tab in the Basic Configuration menu.
3	Select the Enable DHCP check box to enable DHCP and disable manual settings.
4	Select Apply to save the settings.

The camera searches for a DHCP server. If one is found it connects to that server. If no connection is made to a DHCP server within two minutes, the camera goes to the default IP address 192.168.1.168, but continues to search for a DHCP address.

Note:If you assign the camera a Static IP address prior to DHCP being enabled, the camera first reboots for approximately 30 seconds and then remains accessible at its Static IP until it connects to a DHCP server.

- End -

Procedure 9 Disable DHCP

Step Action Select Setup on the Web User Interface banner to display the setup menus. Select the TCP/IP tab in the Basic Configuration menu. Clear the Enable DHCP check box to disable DHCP and allow manual settings to be entered. The default setting is 'Enabled'. If Enable DHCP has been disabled:

- a Enter the IPv4 Address in the **IPv4 Address** text box in the form xxx.xxx.xxx.xxx.The default setting is '192.168.1.168'
- b Enter the Network Mask in the **Network Mask** text box xxx.xxx.xxx.xxx. The default setting is '255.255.255.0'
- c Enter the Gateway IP address in **Gateway** text box xxx.xxx.xxx.xxx.
- d Enter the Primary DNS Server in the **Primary DNS Server** text box xxx.xxx.xxx.xxx.
- 5 Select **Apply** to save the settings.

- End -

Procedure 10 Connecting to the camera using the static IP address

Step Action

- The camera attempts to obtain an IP Address from the DHCP Server. When no DHCP Server is available the camera is assigned a Static IP address of 192.168.1.168.
- 2 Open Microsoft Internet Explorer and enter the URL of the camera as 192.168.1.168. The camera sign in page displays.

Note:

The computer you use to configure the camera must have an IP address on the same subnet.

- End -

Procedure 11 Logging on to the camera web user interface

Step Action

- When you select the camera, the sign in page displays. Select your preferred language from the drop-down menu.
- 2 Enter the username in the **Username** text box. The default username is admin.
- 3 Enter the password in the **Password** text box. The default password is admin.
- 4 Select Log in.

Note: The first time that you access the camera or after a factory reset the following pop up window is visible: A pop up window that requests the user to **Define a Host ID.** Please refer to the Release Notes for further information on this.

5 The Live view page is visible. This displays the current view of the camera.

- End -

Procedure 12 Enabling the correct video orientation for a wall mounted camera

Step Action

- 1 Log on to the camera web user interface.
- 2 Select **Setup** on the camera web user interface banner to display the setup menus.
- 3 Select the **Picture Basic** tab from the **Basic Configuration** menu.
- 4 Select the required **Orientation** setting:

- Mirror
- Flip
- 5 The video pane updates to display the new settings.

- End -

Configuration

The following sections explain the how you can configure Illustra Insight camera using the Web User Interface.

Accessing the Illustra Insight Series Camera Web User Interface

Use the following procedure to access the camera Web User Interface.

Procedure 13 Logging in to the Camera

Step	Action
1	Refer to Network Connection on page 18 for details on how to connect the camera to your network or computer.
2	When you select the camera, the sign in page displays.
3	Select your preferred language from the drop-down menu. The default language is English.
4	Enter the default username and password when prompted - Username: admin, Password: admin.
5	Click Log in . The camera Web User Interface displays. The first time that you access the camera, or after a factory reset, you are prompted to Define a Host ID .
6	Once the above steps are complete, the Live view page is visible. This displays the current view of the camera.

Changing the Camera Web User Interface Language

Use the following procedure to change the language used in the camera Web User Interface.

Procedure 14 Change the Camera Web User Interface Language

Step Action

- Open the camera sign in page. If you are already logged in to the Web User Interface, select Log Off to display the sign in page.
- 2 Select your preferred language from the drop-down menu:
 - English
 - Arabic
 - Czech
 - Danish
 - German
 - Spanish
 - French
 - Hungarian
 - Italian
 - Japanese
 - Korean
 - Dutch
 - Polish
 - Portuguese
 - Swedish
 - Turkish
 - · Chinese Simplified
 - Chinese Traditional
 - Russian
 - Hindi

The default language is English.

- 3 Enter the Username.
- 4 Enter the Password.
- 5 Select Log in.

The camera web User Interface displays in the selected language.

- End -

Live menu

When you log in to the Illustra Web User Interface, the **Live** menu appears, as seen in Figure 15 on page 24.

Figure 15 Live menu page



Displaying the Live View Page

Display the live camera view page.

Procedure 15 Display Live View Page

Step	Action
1	Select Live in the Web User Interface banner. The Live view page displays.
2	Select a percentage from Scale to change the display size of the video pane:
	• 25%
	• 50%
	• 75%
	• 100%
	The default setting is 50%.

Accessing the Setup Menus from Live View

Setup menus within the Web User Interface are restricted by user account access levels. Refer to Appendix A: User Account Access on page 1 for details on the features which are available to each role.

Procedure 16 Access Setup Menus from Live View

Step Action

1 On the **Live** menu, click the **Setup** tab.

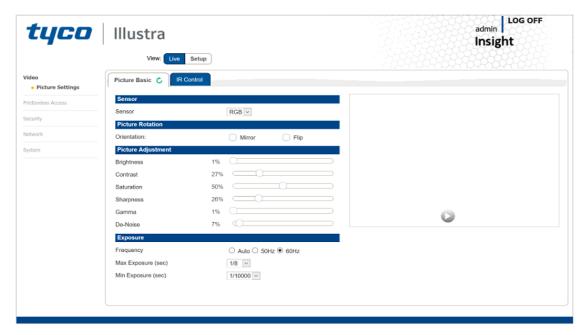
Note:When an admin user logs in for the first time the Liven menu displays. After this, on each login the Stream page on the Video menu displays.

- End -

Video Menu

When you select the **Video** menu, the **Picture Settings** page displays, as seen in Figure 16 on page 26.

Figure 16 Video Menu



The Video Menu provides access to the following camera settings and functions:

- Picture Settings
- IR Control

Picture Settings

Picture Basic

Adjust the picture; Sensor, Rotation, Picture Adjustment and Exposure.

Sensor

Choose sensor mode to display & configure corresponding picture settings.

Procedure 17 Select the sensor settings

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select the Picture Basic tab from the Video menu.
3	Select a Sensor option from the drop-down menu:
	• RGB

• IR

- End -

Picture Rotation

Configure the orientation and corridor mode settings. Both settings are optional.

Procedure 18 Configure the picture orientation

Step Action Select Setup on the Web User Interface banner to display the setup menus. Select the Picture Basic tab from the Video menu. Select the required Orientation setting: Mirror Flip Mirror and Flip settings are not selected by default. The video pane updates to display the new settings. Note:When wall mounting the Illustra Insight you should select Flip to correct the lens orientation.

Picture Adjustment

Adjust brightness, contrast, and saturation, sharpness, gamma, and de-noise of the image displaying on the video pane.

- End -

Procedure 19 Adjust the picture settings

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select the Picture Basic tab from the Video menu.
3	Select to start the video stream if it is not already active.
	The video pane displays the current camera view.
4	Use the slider bars to adjust:
	Brightness
	Contrast
	Saturation
	Sharpness
	• Gamma
	• De-Noise
	The values range from 1% to 100%. The video pane updates to display the new settings.
	- End -

Exposure

You can set the exposure setting to 50Hz or 60Hz or Auto.

Procedure 20 Configure the exposure settings

elect Setup on the Web User Interface banner to display the setup menus. elect the Picture Basic tab from the Video menu. elect to start the video stream if it is not already active.
elect to start the video stream if it is not already active.
·
land the Francisco and the butters to Auto-FOLI- as COLI-
elect the Frequency radio button to Auto , 50Hz or 60Hz . ne default setting is 60Hz.
elect the Max Exposure (sec) drop down menu.
elect the Min Exposure (sec) drop down menu.
9

IR Control

You can enable IR control and adjust its brightness.

IR Illuminator

When the camera is in B/W mode it can utilize or "see" near-IR illumination; something the human eye cannot do. This can be extremely powerful when the camera is paired with 850~950nm IR illuminators. With this combination a scene can be well lit with IR light that the camera can see but people cannot. This is great for areas where external lighting is not allowed or there is a need for covert security.

Procedure 21 Enable / disable IR Control

Use the slider bars to adjust the Brightness.

The values range from 1% to 100%.

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select the IR Control tab from the Video menu.
3	Select the Enabled check box to enable IR Control .
	OR
	Clear the Enabled check box to disable IR Control . The default setting is 'Disabled'.
	- End -
Proc	edure 22 Adjust the IR Control brightness Action
Step	ACTION
1	
	Select Setup on the Web User Interface banner to display the setup menus.

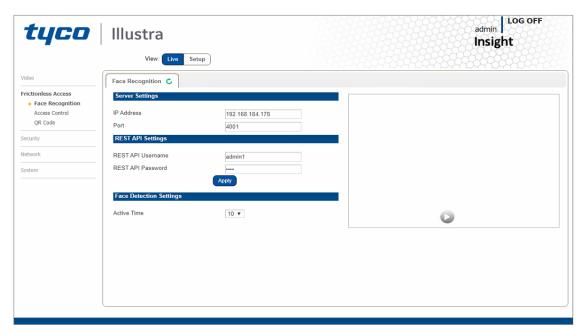
28 8200-1923-02 A0

- End -

Frictionless Access

When you select the **Frictionless Access** menu, the **Face Recognition** page displays, as seen in Figure 17 on page 29.

Figure 17 Frictionless Access



The Frictionless Access Menu provides access to the following camera settings and functions:

- Face Recognition
- Access Control
- QR Code

Frictionless Access

Face Recognition

You can view and edit the TycoAl facial server IP address, 4001 port, REST API settings and Face Detection settings.

Server Settings

You can view and edit the TycoAl facial server IP address and 4001 port.

Procedure 23 View or edit the TycoAl facial Server settings

Step Action

Select Frictionless Access on the Web User Interface banner. The Face Recognition options are now visible.

The Server IP Address and Port numbers are now visible.

- 2 Select the **IP Addres**s text box to enter an IP address.
- 3 Select the **Port** text box to enter the port number.

- End -

REST API Settings

REST API are the credentials the user would have configured during the TycoAI server initial configuration. These are required to enable event communication between TycoAI and the camera.

Procedure 24 Configure REST API Settings

Step	Action
1	Select Frictionless Access on the Web User Interface banner. The Face Recognition options are now visible.
2	Select the REST API Username text box to enter a username.
3	Select the REST API Password text box to enter a password.
4	Select the Apply button and then OK to save the settings.
-	- End -

Face Detection Settings

You can view and edit the server settings and REST API settings. You can also select the Face Detection Settings active time.

Procedure 25 Configure Face Detection Settings

Step	Action
1	Select Frictionless Access on the Web User Interface banner. The Face Recognition options are now visible.
2	Select the Active Time drop down menu to select a value.
	Note: Active time is the smoothing time for an active person. When a person has been identified, it is the number of seconds before that person will be looked for again.
	The values range from 3 to 10 seconds.
	- End -

Access Control

You can enable or disable access control and select an Wiegand or OSDP interface.

Procedure 26 Enable / disable Access Control

Step	Action
1	Select Frictionless Access on the Web User Interface banner. The Face Recognition options are now visible.
2	Select the Access Control tab from the Frictionless Access menu.

3 Select the **Enabled** check box to enable or disable Access Control.

Note: When you disable Accesss Control then you cant configure the Wiegand and OSDP settings.

- End -

Procedure 27 Set the Access Control interface to Wiegand or OSDP

Step Action

- Select **Frictionless Access** on the Web User Interface banner. The Face Recognition options are now visible.
- Select the Access Control tab from the Frictionless Access menu.
- 3 Select the **Enabled** check box to enable or disable Access Control.
- 4 Select an option from the **Interface** drop-down menu.
 - Wiegand
 - OSDP

- End -

Procedure 28 Configure the Wiegand access control settings

Step Action

- Select **Frictionless Access** on the Web User Interface banner. The Face Recognition options are now visible.
- Select the Access Control tab from the Frictionless Access menu and then select the Wiegand tab to view the Wiegand options.
- 3 Select the **Card Number Length** drop-down menu and select an option.
- 4 Select the **Output Base converter** drop-down menu and select an option. This is set to hex or decimal for the camera to consider what format the card id is accepted.
- Select the **Reversed** check box to enable or disable the playout of the binary bit stream if the Access Control System requires it.

- End -

Procedure 29 Configure the OSDP settings

Step Action

- 1 Select **Frictionless Access** on the Web User Interface banner. The Face Recognition options are now visible.
- Select the Access Control tab from the Frictionless Access menu and then select the OSDP tab to view the OSDP options.
- 3 Select the **Address [2 hex digits**] drop-down menu and select an option.
- 4 Select the **Mode** drop-down menu and select an option.
- 5 Select the **Secure Key [32 hex digits]** and enter the secure key.

- End -

QR Code

Real time extraction of QR codes from the live video image. You can use QR codes for visitor recognition and auto enrolment.

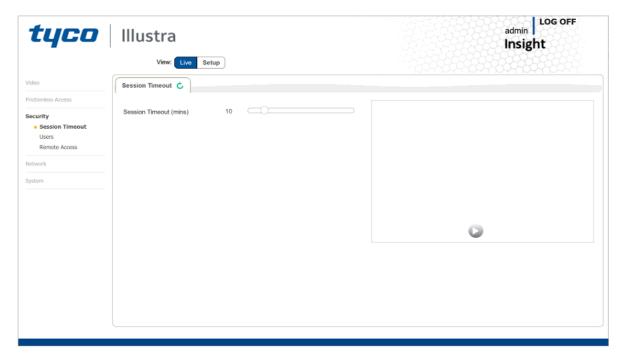
Procedure 30 Enable / Disable the QR Code

Step	Action
1	Select Frictionless Access on the Web User Interface banner. The Face Recognition options are now visible.
2	Select the QR Code tab from the Frictionless Access menu.
3	Select the Enabled check box to enable or disable the QR code.

Security

When you select the **Security** menu, the **Sessions Timeout** page appears, as seen in Figure 18 on page 33.

Figure 18 Security menu



The Event Menu provides access to the following camera settings and functions:

- Session Timeout
- Users
- · Remote Access

Session Timeout

Session timeout specifies the number of minutes that a web session can remain idle before it is automatically terminated.

Procedure 31 Set a Session Timeout time

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Session Timeout from the Security menu. The Session Timeout tab displays.
3	Use the slider bar to select the Session Timeout (mins) . The default setting is 15 minutes.
	- End -

Users

In this section you are able to add a user, change a user password and a delete user account.

Note:The default Username is **admin** and the default Password is **admin**. To maintain security the password on the admin account should be changed.

View Current User Accounts

View a list of the current user accounts assigned to the camera.

Procedure 32 View User Accounts

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Users from the Security menu.
	The current user accounts assigned to the camera display.
	- End -

Add User

Add a new user account to allow access to the camera.

Procedure 33 Add a User

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Users from the Security menu.
3	Select the Add User tab.
4	Enter a User Name in the Name text box.
	The username must contain between 5 and 32 characters.
5	Enter a password in the Password text box.
6	Enter the same password in the Confirm Password text box.
7	Select Apply to save the settings.
	The new user account is now visible in the Users list on the Users tab.
	- End -

Changing the User Accounts Password

Change the password of an existing user account.

Procedure 34 Change User Password

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Users from the Security menu.
3	Select the Change Password tab.
4	Select the user account from the Name drop-down menu.
5	Enter the current password for the user account in the Current Password text box.
6	Enter the new password for the user account in the New Password text box.
	The password is case sensitive and can contain alphanumeric characters with a length of between 5 and 32 characters.
7	Enter the same new password in the Confirm New Password text box.
8	Select Apply to save the settings.

Delete a User Account

Delete a user account from the camera.

Note:The default 'admin' account cannot be deleted.

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Users from the Security menu.
	The Users tab displays.
3	Select to delete the corresponding user account.
	You will be prompted to confirm the deletion.
4	Select OK to delete.
	OR
	Select Cancel.

Remote Access

In this section you can enable or disable SSH.

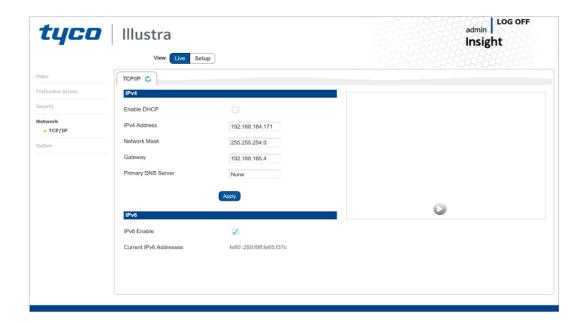
Procedure 36 Enable or disable SSH

Action
Select Setup on the Web User Interface banner to display the setup menus.
Select Remote Access from the Security menu.
Select the Enabled check box to enable or disable SSH.
-

Network Menu

When you select the **Network** menu, the **TCP/IP** page displays, as seen in Figure 19 on page 37.

Figure 19 Network Menu



The Network Menu provides access to the following camera settings and functions:

• TCP/IP

TCP/IP

Configure the IPv4 and IPv6 settings on the camera.

IPv4

Configure the IPv4 settings for the camera.

Note:When you perform a factory reset or reboot the unit searches for the last known IP address. If this is not available it reverts to the default IP address of 192.168.1.168. This could result in duplicate IP addresses.

Procedure 37 Configure the IPv4 Settings

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select TCP/IP from the Network menu.
3	Select the Enable DHCP check box to enable DHCP and disable manual settings.
	OR
	Deselect Enable DHCP to disable DHCP and allow manual settings to be entered.
	The default setting is 'Disabled'.
4	If Enable DHCP has been disabled:
	a Enter the IPv4 Address in the IPv4 Address text box in the form xxx.xxx.xxx. The default setting is '192.168.1.168'
	b Enter the Network Mask in the Network Mask text box xxx.xxx.xxx.xxx. The default setting is '255.255.255.0'
	c Enter the Gateway IP address in Gateway text box xxx.xxx.xxx.xxx.
	d Enter the Primary DNS Server in the Primary DNS Server text box xxx.xxx.xxx.xxx.
5	Select Apply to save the settings.

IPv6

Enable IPv6 on the camera.

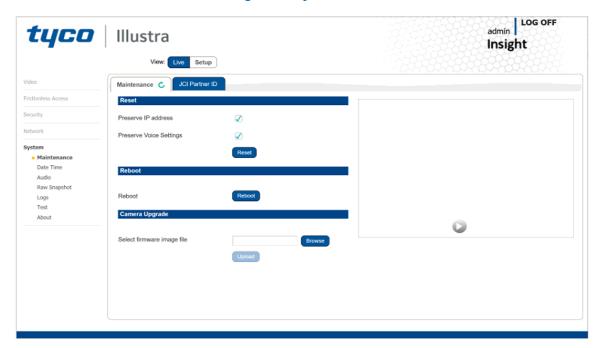
Procedure 38 Enable/Disable IPv6

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select TCP/IP from the Network menu.
3	Select the IPv6 Enable check box to enable IPv6 on the camera.
	OR
	Deselect the IPv6 Enable check box to disable IPv6 on the camera.
	The default setting is 'Enabled'.
	If IPv6 is enabled the Link Local and DHCP address displays beside 'Current IPv6 Addresses' if available.
	- End -

System

When you open the **System** menu, the **Maintenance** page appears, as seen in Figure 20 on page 39.

Figure 20 System Menu



The System Menu provides access to the following camera settings and functions:

- Maintenance
- Date Time
- Audio
- Raw Snapshot
- Logs
- Test
- About

Maintenance

The Maintenance menu lets you to restore the camera settings to factory default, reboot the camera and apply a firmware upgrade. You can also apply the JCI partner ID.

Reset

To perform a physical reset of the camera, refer to the chapter regarding your camera model in this guide.

Note: Network settings can be retained if required.

Procedure 39 Resetting the Camera

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Maintenance from the System menu.
3	Select the Preserve IP address check box to retain the current network settings during the camera reset.
	OR
	Deselect the Preserve IP address check box to restore the default networking settings.
	The default setting is 'Enabled'.
4	Select the Preserve Voice Settings check box to retain retain audio settings including audio licence and voice packs.
	OR
	Deselect the Preserve Voice Settings check box to restore the default audio settings including audio licence and voice packs.
	The default setting is 'Enabled'.
5	Select Reset.
	You will be prompted to confirm the camera reset.
	 Select OK to confirm. The Web User Interface will display a "Camera Resetting" page with a progress bar showing the reboot progress.
	 When the camera is restarted it will take 2 - 3 minutes until it is online and ready to be accessed and controlled.
	OR
	Select Cancel.
6	The Log in page displays.

Reboot

You can perform a physical reset of the camera.

Procedure 40 Reboot the Camera

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Maintenance from the System menu.
3	Select Reboot .
	You will be prompted to confirm the camera reboot.
4	Select OK to confirm.
	The Web User Interface will display a "Camera Rebooting" page with a progress bar showing the reboot progress.
	When the camera is restarted it will take 2 - 3 minutes until it is online and ready to be accessed and controlled.

- End -

OR

Select Cancel.

5 The Log in page displays.

- End -

Camera Firmware Upgrade

The camera can be upgraded using firmware provided by Illustra.

Note: All existing camera settings are maintained when the firmware is upgraded.



Caution

You should only use firmware that has been provided by Illustra. Using any other firmware may cause a malfunction and damage the camera.

Procedure 41 Upgrade Camera Firmware

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Maintenance from the System menu.
3	Select Browse.
	The Choose file to Upload dialog displays.
4	Navigate to the location where the firmware file has been saved.
5	Select the firmware file then select the Open button.
6	Select Upload.
	The file transfer will begin. Do not disconnect power to the camera during the upgrade process. The camera restarts automatically after the updates have been completed, this can take from 1 to 10 minutes. The Log in page displays.
	- End -

Procedure 42 Applying a JCI partner ID

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Maintenance from the System menu and then select the JCI Partner ID.
3	Select the Apply button to aplly the Partner ID.
	- End -

Date / Time

Set the date and time on the camera.

Note:When first powered up out of the box the camera synchronises with the date and time on the PC that is used to access the GUI.

Procedure 43 Configuring the Date and Time

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select the Date Time from the System menu.
3	Select the Time 24-hour check box to enable the 24-hour clock.
	Or
	Deselect the Time 24-hour check box to enable the 12-hour clock.
	The default setting is '24-hour'.
4	Select the Date Display Format from the drop-down menu:
	• DD/MM/YYYY
	• MM/DD/YYYY
	• YYYY/MM/DD
	The default setting is 'YYYY/MM/DD'.
5	Select the Time Zone from the drop-down menu.
	The default setting is '(GMT-05:00) Eastern Time (US & Canada)
6	Select the Set Time setting by selecting the radio buttons:
	• Manually
	• via NTP
	The default setting is 'Manually'.
7	If you select Manually in step 5:
	a Select the Date (DD/MM/YYYY) using the drop-down menus.
	b Select the Time (HH:MM:SS) using the drop-down menus.
8	If you select via NTP in step 5:
	a Enter the NTP Server Name in the text box.

- End -

Audio

You can configure the audio output, upload audio and stored audio clips, as well as configure Audio Video Synchronization on this tab. Audio packs are sold separately and must be purchased prior to configuring audio.

Procedure 44 Configure Audio

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Audio from the System menu.

3 Select the **Enable Audio** check box to enable the audio input settings.

Or

Clear the **Enable Audio** check box to disable audio input settings.

The default setting is 'Disabled'.

4 Use the slider bar to select the **Volume**.

Values range from 1 to 100.

The default setting is 72.

- End -

Procedure 45 Configure voice licenses

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Audio from the System menu and then select the Audio License tab.
3	Select the voice that you want to use from the Voices drop-down menu.
	- End -

Procedure 46 Upload a voice pack

Different voice packs are available for the unit. These voice packs are grouped by geographical areas to provide an optimal set.

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Audio from the System menu and then select the Audio License tab.
3	Under the Upload Voice Pack heading select Browse .
	The Choose file dialog displays.
4	Navigate to the location where the audio file has been saved.
	Select the audio file then select the Open button.
5	Select Upload.
6	You will be prompted to confirm that you would like to upload the audio file.
	Select OK to confirm the upload.
	Or
	Select Cancel.
	- End -

Procedure 47 Upload a voice license

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Audio from the System menu and then select the Audio License tab.
3	Under the Upload Voice License heading select Browse .

The Choose file dialog displays.

4 Navigate to the location where the audio file has been saved.

Select the audio file then select the Open button.

- 5 Select **Upload**.
- 6 You will be prompted to confirm that you would like to upload the audio file.

Select **OK** to confirm the upload.

Or

Select Cancel.

- End -

Raw Snapshot

Procedure 48 Upload a voice license

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Raw Snapshot from the System menu.
3	Under the Download button to capture a snapshot.
	The snapshot is automatically downloaded.
	- End -

Logs

Information is provided on system and boot logs created by the camera.

System Log

The system log gives the most recent messages from the unix/var/log/messages file. Information will include the following:

- Messages about system behavior such as process startup/shutdown.
- Warnings about recoverable problems that processes encounter.
- Error messages where processes encounter problems they cannot fix; note that this does not mean that the process will not continue to work, only that it encountered an issue it could do nothing about.

Procedure 49 Download System Log

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Logs from the System menu.
3	Select the System Log Download button to view the logs.
4	Select Refresh to refresh the log for the most up-to-date information.

- End -

Application Log

Application logs provide important information for our support team to investigate possible issues.

Procedure 50 Download Application Log

Step	Action
1	Select Setup on the Web User Interface banner to display the setup menus.
2	Select Logs from the System menu.
3	Select the Application Log Download button to view the logs.
4	Select Refresh to refresh the log for the most up-to-date information.
	- End -

Test

Procedure 51 Testing the LED

Step	Action			
1	Select Setup on the Web User Interface banner to display the setup menus.			
2	Select Test from the Systems menu to view the Test tab.			
3	Select the Test button to test the LED.			
	Note: The camera runs a light sequence to validate that the LED's are working.			
	- End -			
Proc Step	edure 52 Testing the Audio Action			
	edure 52 Testing the Audio			
	edure 52 Testing the Audio Action			
	edure 52 Testing the Audio Action Select Setup on the Web User Interface banner to display the setup menus.			
Step 1 2	edure 52 Testing the Audio Action Select Setup on the Web User Interface banner to display the setup menus. Select Test from the Systems menu to view the Test tab.			

About

The About menu provides the following camera information:

- MAC Address
- Firmware Version

Appendix A: Using Media Player to View RTSP Streaming

Note: This appendix is provided for user instruction only. Tyco Security Products does not support or is not responsible for any error caused during the use of third party software used for RTSP playback.

Procedure 53 Viewing RTSP Stream through Media Player

Step Action

You can use Media Player to view live video in real time from the camera.

- Select Media then Open Network Stream.
- 2 Enter the IP address of the camera stream in the **Network URL** text box in the following format to view Stream 1.
 - Stream 1: rtsp://IP_Address/live_video

For example: rtsp://192.168.1.168:554/live_video

3 Select **Play**. The live video stream displays.

- End -

Appendix B: Camera Defaults

The below table details the defaults for the Web User Interface.

Table 21 Camera Defaults

Tab	Item	Default		
Picture Basic				
	Orientation	OFF		
	Brightness	50%		
	Contrast	50%		
	Saturation	50%		
	Sharpness	50%		
	Gamma	50%		
	De-Noise	50%		
	Exposure	60Hz		
IR Control				
	Enabled	Off		
	Brightness	100%		
Face Recognition	1			
	IP Address	-		
	Port	-		
	Rest API username	-		
	Rest API Password	-		
Access Control				
	Enabled	Selected		
	Interface	Wiegand		
	Card Number Length			
	Output Base Converter			

Tab	Item	Default	
	Reversed		
QR Code			
	Enabled	Selected	
Session Timeout			
	Session Timeout (mins)	15	
Users			
Add Users			
	Name	Unspecified	
	Role	admin	
	Password	Unspecified	
	Confirm Password	Unspecified	
Change Passwor	d		T
	Name	admin	
	Current Password	Unspecified	
	New Password	Unspecified	
	Confirm New Password	Unspecified	
TCP/IP			
	Enable DHCP	ON	
	IPv4 Address	192.168.1.168	
	Network Mask	255.255.255.0	
	Gateway	Unspecified	
	Primary DNS	Unspecified	
Maintenance			
	Reserve IP Address		
	Reboot	Unspecified	
	Select Firmware file image	Unspecified	

Tab	Item	Default	
Date Time			
	Camera Time	N/A	
	Time 24 hour	Selected	
	Date Display Format	YYYY/MM/DD	
	Time Zone	GMT-05:00) Eastern Time US and Canada)	
	Set Time	via NTP	
	NTP Server Name	Unspecified	
Audio			
	Enable Audio	Disabled (Subject to license)	
	Volume	50%	
Audio License			
	Voices	-	
	Upload Voice Pack	Unspecified	
	Upload Voice License	Unspecified	
Link			
	Data Bits	8	
	Stop Bits	1	
	Parity	None	
	Baud	9600	
OSDP			
	OSDP Address	0	
	Secure Key Enable	Selected	
	Secure Key		
Raw Snapshot			
	Download	N/A	
Logs			
	System Log	N/A	
	Aplication Log	N/A	

Tab	Item	Default	
Test			
	Led		
	Audio		
Model			

Appendix C: Technical Specifications

The table below lists technical specifications of the Illustra Insight 2MP camera.

General Features				
Model Type	Illustra Insight Intelligent Frictionless Access Camera			
Model No.	II-AN00INT01			
Housing Color	Satelite Camera Module: Black Control Unit: Beige			
Power	Power over Ethernet IEEE 802.bt Type 3 Class 5 (Max Draw: 40W)			
	Physical Features			
Dimensions (H x W x D)	Satelite Camera Module: 4.1 x 4.1 x 2.2 in (104 x 104 x 56mm) Control Unit: 10.2 x 7.3 x 4.3 in (260 x 187 x 109mm)			
Operating Temperature	Satelite Camera Module: - 0.37kg Control Unit: - 2.2kg			
Weight	Satelite Camera Module: - 4°F to 104°F (- 20°C to 40°C) Control Unit: - 25°F to 104°F (- 31.8°C to 40°C)			
Humidity	0 to 90% Non Condensing			
Plenum Rated - Control Unit	Yes			
IP Rating	Satelite Camera Module: IP40 Control Unit: IP40			
	Configuration Management			
Web Browsers	IE9 & above, Firefox, Safari, Chrome			
Security	Secure Boot; TLS 1.2 (256 bit cipher minimum); Role-Based Access Control			
	Regulatory			
Safety	EN62368-1			
Emissions	FCC CFR 47 Part 15 Class A; EN55032 Class A; ICES-003			
Fire Plenum Rated	UL-2043; CAN / ULC S142			
Immunity	EN50130-4; EN 61000-3-2; EN 61000-3-3			
Environment	RoHS, WEEE			
Network				
Ethernet Interface	10/100/1000Mbps (Base T), RJ45, Auto-Negotiation			
Supported Protocols	TCP/IP. IPV4, TCP, UDP, HTTP, DHCP, DNS, DDNS, RTP, TLS, RTSP, ICMP, Unicast, NTP, WS-Security, CIDS, FTSP, UPnP, SIP			
Satellite Camera Connection	Cat6 Shielded patch cable, Max distance 10 meters, dd proprietary protocol			
Access Control Interface 1	Wiegand (D0, D1, LED Rd, Yel, Gn) Cable Type - Belden 6543PA or equivalent			

Access Control Interface 2	OSDP V2 (RS485 Half Duplex) Cable Type - Belden 82723 or equivalent			
Operational				
Video Compression	H.264 & MJPEG			
Max Frame Rate	2MP @ 20fps			
Resolution & Aspect Ratio	1920x1080 (1080p) 16:9 Stereo or 3840x1080			
Video Streams	Single or Dual Concatenated			
Imager	Progressive Scan, CMOS, 1/3.2" 13MP (4:3)			
Image Orientation Settings	None, Mirror, Flip, Flip & Mirror			
Lens Type	Fixed, Fixed Iris / Aperture 2.8mm			
Focus Control	Fixed			
Minimum Illumination Lens Aperature	F2.8			
Field of View (HxV)	85° / 63°			
Shutter Speed	1/4 - 1/10,000			
IR Illumination	Yes			
IR Distance	2 metres			
IR Filter wavelength	850nm			
Dynamic Range	69dB			
Day/Night	Dual Concatenated only			
Privacy Zones	3			
ONVIF Compliant	No			
Video Intelligence Analytics	No			
Motion Detection Zones	No			
Face Detection	No			
Face Recognition	Through Tyco Al or Cloud Service			
Turnstyle Mode	Yes			
Analogue Input / Output	No			
Analogue Video Output	No			
Audio	Bi-Directional Full Duplex			
Simultaneous Users	3			
Supported Languages	English, Arabic, Czech, Danish, German, Spanish, French, Hungarian, Italian, Japanese, Korean, Dutch, Polish, Portuguese, Swedish, Turkish,			

Chinese Simplified, Chinese Traditional, Russian, Hindi, Russian

Standards and Compliance

CE Marking

Hereby, American Dynamics declares that this equipment, if used according to the instructions, is in compliance with the essential requirements and other relevant provisions of the RTTE Directive 1999/5/EC. For use in all countries of the EU.

A Declaration of Conformity exists for the Illustra Insight readers. You can obtain a copy from Illustra.

Address:

Illustra,

6600 Congress Avenue

Boca Raton, FL 33487 U.S.A.

In case of alteration of the product, not agreed to by us, this declaration will lose its validity.

This symbol indicates proof of conformity to applicable European Economic Community Council directives and harmonized standards published in the official journal of the European Communities.



FCC Digital Device Limitations

Radio and Television Interference

This equipment has been tested and found to comply with the limits for a digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and television reception.

Note:Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment and could create a hazardous condition.

Canadian Radio Emissions Requirements

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numerique de la classe A est conform à la norme NMB-003 du Canada.

UL Standards Compliance

The Insight Reader has been testing to the requirements of UL-2043 and CAN/ULC-S142 and test results have determined that the Insight is suitable for installation in air-handling spaces per these requirements.

Safety	EN 62338-1		
	FCC CFR 47 Part 15 Class A		
Emissions	ICES-003		
	EN 55032 Class A		
	EN 50130-4		
Immunity	EN 61000-3-2		
	EN 61000-3-3		
Fire Diagram Dating	UL-2043		
Fire Plenum Rating	CAN/ULC S142		
Enclosure	IP4x		
	RoHS		
Environmental	WEEE		

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