

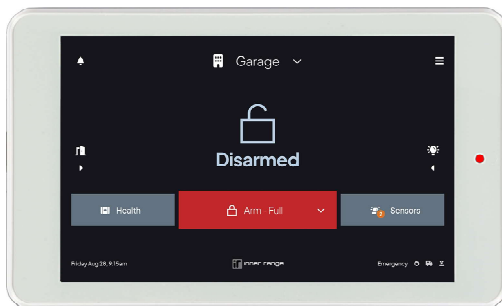


inner range

Inception 7" Touchscreen Interface

Part Number: IR-S-TS7W / IR-S-TS7B

Installation Manual



The Inner Range 7" Touchscreen is a user interface tailored for residential and small commercial applications. It is available in a white or black finish and features a high definition 7" IPS LCD touchscreen display and power indicator LED. A built-in tamper switch detects any attempt to open the case or remove it from the mounting plate or mounting surface. It supports user operations such as control of areas, doors & outputs, alarm annunciation and system activity review. It is currently compatible with the Inception platform.

Important Notes

1. CONTROLLER FIRMWARE COMPATIBILITY

Inception Controller Firmware must be V7.0.0 or later.

2. COMMUNICATIONS OPTIONS

At present, communications with the Inception Controller can only be via the RS485 LAN.

Ethernet LAN via hard-wired Ethernet or Wi-Fi is not currently available. The optional PoE Adapter, P/N: IR-S-STPOE can still be installed as a power supply option and to perform firmware updates.

3. POWER SUPPLY

Power can be supplied via one or both of the power supply input options regardless of which communications method is utilized:

- P1. RS485 LAN Port. Power is supplied from one of the following sources:
 - a) The RS485 LAN (If supply current is adequate & voltage drop not excessive). *See Note 4.*
 - b) A separate local battery-backed power supply. e.g. Inner Range 2A or 3A Power Supply installed nearby with compatible AC-DC Adapter in a suitable tamper-protected enclosure. *Refer to the Inner Range Integrator Catalogue for details & part numbers.*
- P3. PoE Port. Power is sourced from the optional PoE Adapter, P/N: IR-S-STPOE. (The PoE source device should be battery-backed or powered by a UPS)

4. CURRENT CONSUMPTION

The unit consumes a maximum of 7 Watts of power. e.g. 570mA @ 12VDC or 500mA @ 13.5VDC (Voltage measured at the Touchscreen power input terminals).

When powered from the RS485 LAN, this will limit the cabling distance from the Controller as follows:

- 21AWG (14/0.20mm): 20m - 18AWG (14/0.30mm): 40m - 16AWG (19/0.3mm): 70m

These figures assume no other devices are powered from that cable run.

A separate figure 8 cable of the appropriate gauge may be run for LAN+ & 0V along with the smaller gauge data cable to increase the cabling distance.

Note that current consumption increases with greater distances between the unit and the power supply or during AC Fail conditions. i.e. On longer cable runs or when running on battery power.

Parts List

- Inner Range 7" Touchscreen [White or Black].
- Wall Mounting Plate.
- 2 x Wall Anchors
- 2 x 6g x 30mm (1 3/16") Pan Head Screws.
- 4-way Pigtail Interface Cable. 30cm/12". (RS485 LAN)
- 5-way Pigtail Interface Cable. 30cm/12". (Zone Inputs/Auxiliary Output)
- 4 x 2k2 End-Of-Line (EOL) Resistors.

Optional Accessories

- Touchscreen PoE Adapter 18W. P/N: IR-S-STPOE

INSTALLATION

1. Choose an appropriate mounting location with a solid, flat, vertical surface.
2. Ensure the Touchscreen display will be at a suitable height for the intended users. **NOTE:** The Touchscreen must be installed horizontally with the front panel LED on the right-hand side.
3. Check that the mounting surface is free from any materials or irregularities which may distort the case.
4. Using the Wall Mounting Plate or the template provided on page 15 and noting the correct orientation, mark the:
 - a) Four mounting hole locations.
 - b) Tamper switch actuator screw location.
 - c) Cable entry cutout location.
5. Drill the required holes and install the required cabling. e.g. RS485 LAN cable, Ethernet cable, Zone &/or Auxiliary wiring. *See pages 5-8.*

NOTE: If the PoE Adapter is used, it will be located inside the wall cavity. Ensure that the cable entry hole is the same size as the hole in the Wall Mounting Plate.

6. Install the Wall Mounting Plate using at least two suitable screws or bolts. (Two wall plugs and 6g x 30mm screws are provided for plasterboard/drywall mounting) Remember to insert the cabling through the cable entry cutout in the Wall Mounting Plate before fastening it to the mounting surface.
7. Secure the Tamper Switch Actuator to the mounting surface with a 4.8mm (10g) countersunk screw. Choose the screw material and length that will provide adequate grip and is appropriate for the mounting surface This ensures the actuator remains fixed if any attempt is made to prise the Touchscreen from the mounting service. *See page 15.*
8. Join any incoming wiring to the relevant Touchscreen Pigtail Interface Cable flying leads using appropriate jointing methods. *See pages 4-8.*

If used, connect the Ethernet cable to the PoE Adapter.

9. Connect the white Cable Header Sockets from the Pigtail Cables &/or PoE Adapter to the appropriate Headers on the rear of the Touchscreen. *See page 5.*
10. a) Position the Touchscreen over the Mounting Plate with the front panel LED on the right-hand side.
b) Place the Touchscreen on the Mounting Plate so that the four retaining tabs on the mounting plate engage with the four retaining slots in the rear of the Touchscreen.
Slide the Touchscreen to the right until the Touchscreen locking tab clicks into place on the Mounting Plate.

To remove the Touchscreen from the mounting plate, use a small flat-blade screwdriver to gently press down the locking tab on the rear edge of the Touchscreen at the right-hand end. At the same time, slide the Touchscreen to the left.

Wiring Joints

The Touchscreen is supplied with 4-way and 5-way flying-lead cables which provide the connections for the RS-485 LAN and any input &/or output devices required. The wires from the incoming LAN, detector &/or warning device cables must be joined to the flying leads of the Touchscreen cables in a secure and appropriate manner.

Cables and joints must be concealed to prevent tamper or damage.

Joints must be mechanically and electrically sound and comply with relevant wiring standards and regulations, using one of the following methods:

- Soldered and covered with a suitable insulating material.
- Clamped in a terminal block, crimp connector or wire joiner suitable for the wire gauges and types to be joined.

Door Control & Monitoring

An Inner Range Touchscreen can be used for the PIN code entry in Door access control operations when required for an associated Door.

Depending on system programming and User permissions, it may also be used to control other Doors in the system via the Door Control Menu.

However, note that the hardware control and monitoring of the associated Door must be wired to the Inception Controller or an Access Module. The inputs and the output on the Touchscreen cannot be used for this purpose.

Touchscreen Rear View

Shown with mounting plate removed.

Take care not to twist or bend the Touchscreen. Do not attempt to separate the front and rear halves of the Touchscreen case. If faulty, return to supplier for repair or replacement.

Locking Tab.

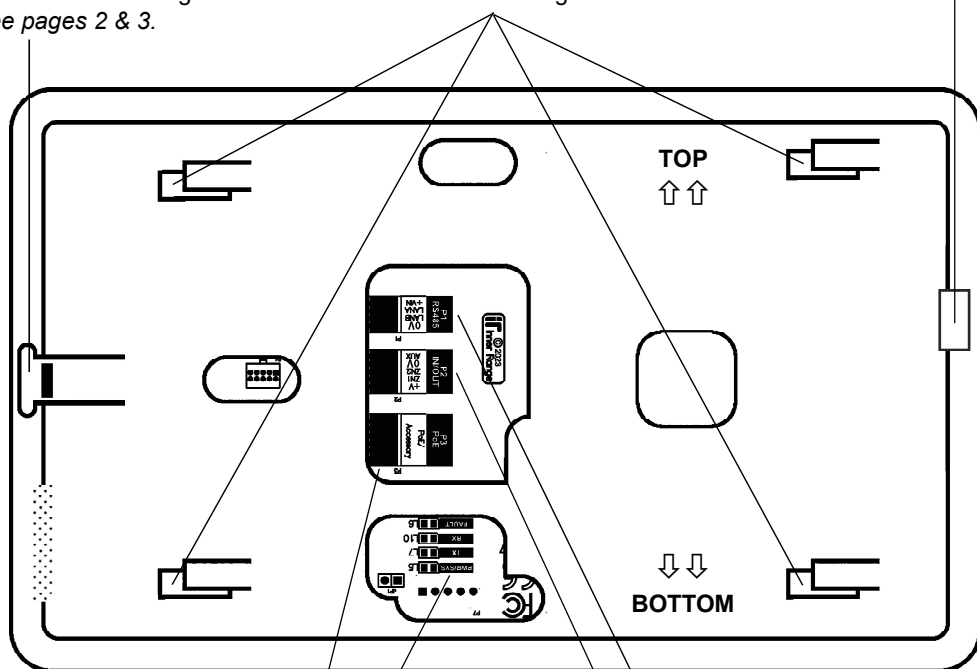
This tab engages with the edge of the Wall Mounting Plate.

See pages 2 & 3.

Retaining Slots (x4)

Engage with tabs in the Wall Mounting Plate.

Micro SD Card Slot



P3. PoE & Ethernet LAN

See page 6.

Status & Fault LEDs

See page 9.

P1. RS485 LAN

See page 6.

P2. Zone I/Ps & Aux O/P

See page 7 & 8.

Connection Terminals & Wiring

POWER AND LAN

LAN connection must be via the RS485 LAN, but there are three methods of connecting the power:

- 1) RS485 LAN. The connection is made via 4-core cable. (Twisted-pair is recommended)
- 2) Ethernet (PoE). The Touchscreen PoE Adapter is connected between a UPS-backed, PoE Ethernet Switch and the Touchscreen.
- 3) A local battery-backed power supply.

All power & LAN wiring (including Ethernet) must be concealed to prevent tamper or damage.

RS485 LAN

The RS485 LAN is connected using a 4-core or 6-core cable of 21AWG (14/0.20mm) minimum gauge.

Twisted pair cable is recommended, utilizing one pair for LAN A & LAN B and the other pair for LAN+ & 0V.

Other cable types may be used. *See below.*

* LAN+ is not connected if Touchscreen is powered from a separate battery-backed external Power supply.

Cabling Distances

POWER: Refer to Important Notes 3 & 4 on pages 1 & 2.

DATA: Data cabling distance from the Controller or from the RS485 LAN port on an Inner Range LAN extending product (e.g. LAN Isolator, Fibre Modem, CLOE or LAN Ethernet Bridge) should be no more than:

- 1500m (4900ft) with the recommended twisted-pair cable types.
- 100m (330ft) with non twisted-pair multicable cables.

For additional information on all aspects of RS485 LAN

cabling, refer to the 'Inception Controller Installation Manual', 'Inception LAN Installation Guide' and the 'System Hardware Design & Installation Guide'.

ETHERNET

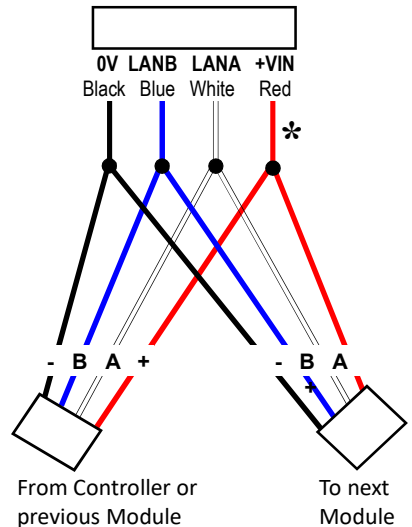
(Currently for Power & firmware updates only)

The PoE Adapter must be installed in a concealed location. e.g. Within the wall cavity, or in a tamper-protected enclosure adjacent to, or behind the Touchscreen.

- The 'Touchscreen' cable from the PoE Adapter is connected to the Touchscreen P3 ('PoE/Accessory') connector. *See p5.*
- The incoming PoE Ethernet LAN cable is connected to the PoE Adapter 'PoE' socket.

WIRELESS LAN (Not currently available)

Refer to the 'Commissioning' section of this manual.



ZONE INPUTS

Zone Input wiring is connected between the 'ZNn' and 0V terminals. The Inputs can be configured for EOL or non-EOL operation. EOL Resistors are typically 2k Ω / 2k Ω , but can be configured for other combinations. Inputs may be used for detection or control devices, such as a Door Reed Switch, Exit Button, PIR, etc.

On Zone Inputs that require End-of-line Resistors, they must be installed on the detection devices. Typical Detection devices with Normally Closed Alarm contacts and Normally Closed OR Normally Open Tamper Contacts are wired as shown.

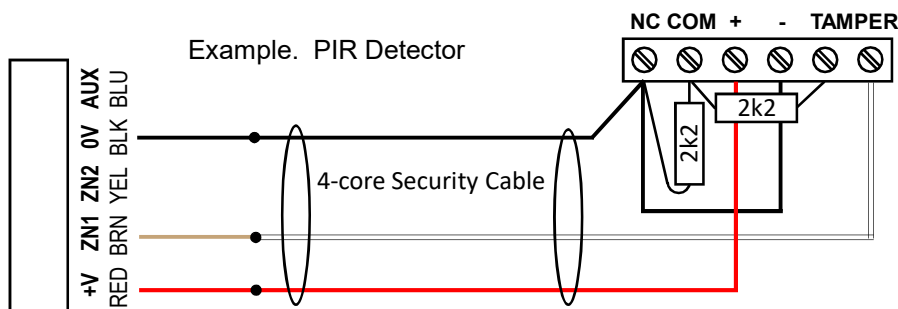
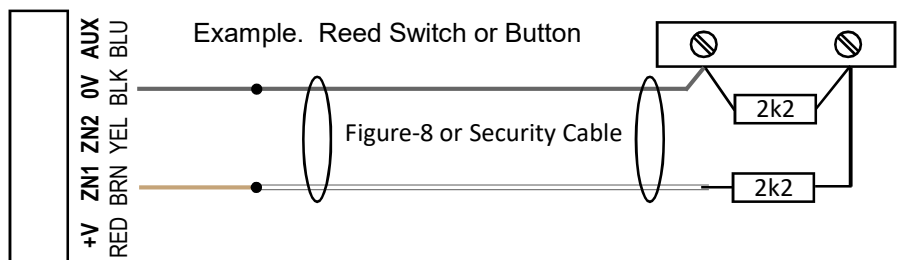
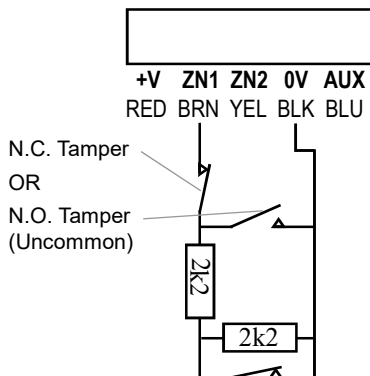
Depending on the detection device, security or figure 8 cable is used to connect the detection device to the 5-way pigtail cable provided with the Touchscreen. Wire joints must comply with local regulations &/or standards.

The current state of the Zone Inputs and the Tamper switch can be checked:

- From the Touchscreen via the 'Sensors' button.
- From the Inception browser 'State/Control' Menu.

Refer to the Inception Controller Installation Manual, Inception browser tool tips and the Touchscreen User Manual for further information.

Schematic Diagram



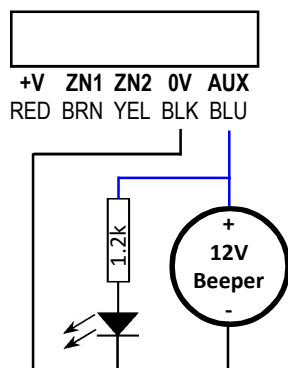
AUXILIARY OUTPUT ('AUX')

The Auxiliary output on the Touchscreen provides a switched 13.7VDC output at up to 50mA. It can be used to control low-current non-inductive loads directly (e.g. A piezo buzzer or LED) or heavier &/or inductive loads via a relay.

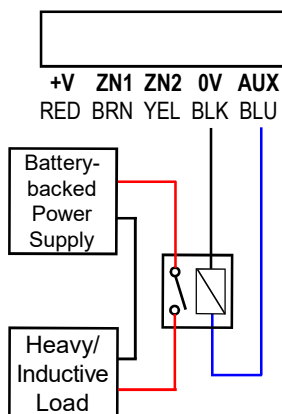
NOTES:

1. The AUX output is NOT an open collector output or a dry relay contact. When On, a 13.7V DC voltage is present on the 'AUX' terminal.
2. The output is designed to switch low-voltage, low-power loads. **See Specifications on p16.**
3. To control heavier &/or inductive loads, a relay must be used to switch power to the load from a separate battery-backed power supply as shown in the Relay Control diagram below.

LED/Beeper Control



Relay Control



e.g. Alarm sounder, Strobe, etc.

Front Panel LED

ON Touchscreen has power connected.

Status and Fault LEDs

See page 5 for location.

L1	RX.	Valid LAN packet received or LAN/System Fault indication. <i>See table below.</i>
L2	TX.	LAN packet sent or LAN/System Fault indication. <i>See table below.</i>
L3	FAULT.	ON: LAN Fault. <i>Refer to table below for details.</i> FLASHING -& L1 FLASHING: Hardware fault. Return for repair/replacement. -& L2 FLASHING: Firmware fault. Return for repair/replacement.
L4	PWR/SYS.	ON: Module starting up. FLASHING: Module is powered and firmware running OK.

L1	L2	EXPLANATION / REMEDY
ON	ON	Module is un-addressed. (Not communicating with the Controller)
ON	OFF	Too many Modules on the Network. Check limits and licencing.
OFF	ON	Module type unknown. Controller firmware upgrade required.
Flash	ON	Duplicate Module. Number already in use by module of the same type.
Flash	Flash	Module number selected is too big. Select a lower Module number that is not already in use or check limits and licencing.
ON	Flash	Module disabled.

Commissioning

NOTE: The Touchscreen Firmware must be V1.3.0 or later.

Check Inception Controller Details And Settings

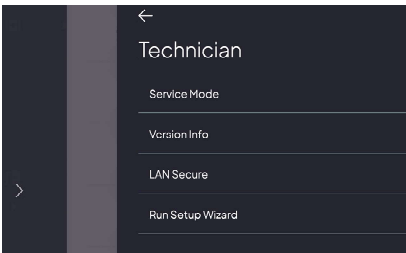
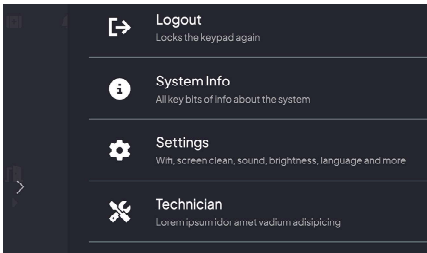
Open the Inception Controller browser and login as ‘Installer’, or a User with an “Installer” profile. Check firmware version and update if required. (System -> Firmware Update -> Update Controller)

Check the Hardware configuration page and make a note of any Touchscreens that are already present and their address numbers. (Configuration -> Hardware)

Access The Setup Wizard

When installation is complete, power up the Touchscreen and check that the red front panel LED is illuminated. If not illuminated, check the power connections. The Touchscreen will go through its startup routine which can take between 30 to 60 seconds. Depending on whether the Touchscreen is still in the factory default state, has previously been connected to a Controller, the LAN connection type and presence of other Touchscreens in the system, it may then show one of the following screens:

- 1) The Setup Wizard ‘Start’ screen. Go straight to ‘Establish LAN Connection’ on the next page.
- 2) The default user screen. (e.g. *The screen shown on page 1*) When this screen is displayed, Controller connection options and other settings can be configured by tapping on the Admin Menu icon in the top right corner of the screen. When the PIN pad is displayed, enter the Inception Installer PIN code, then press OK. Select ‘Technician’, then ‘Run Setup Wizard’ if required.
- 3) “Controller Connection Failed” message. This screen temporarily provides a ‘Technician Options’ button in the bottom right corner. Tap on this button to access the Technician Menu, then ‘Run Setup Wizard’. No login is required.



Establish LAN Connection

When the 'Setup' screen is displayed, press 'Start'.

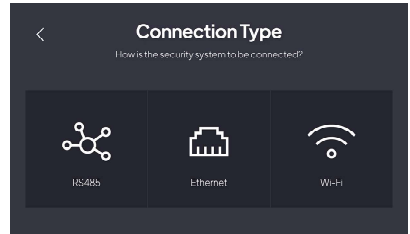
LAN CONNECTION TYPE

The 'Connection Type' screen will be displayed.

Use the connection icons to select the required LAN connection type:

- a) RS485. Select this option for RS485 LAN connection.
- b) Ethernet. NOT CURRENTLY AVAILABLE
- c) Wi-Fi. NOT CURRENTLY AVAILABLE.

When the desired connection type is selected, the first setup screen relevant to the connection type will be displayed.



a) RS485

MODULE NUMBER

The default Module Number is "1".

If this needs to be changed, a module number that is not in use will need to be selected.

Tap on the desired module number for module numbers 1 to 5, or 'Other' and enter the desired number for higher module numbers. Module numbers from 1 to 127 may be assigned.

When complete, select 'Connect to Controller'.

b) Ethernet NOT CURRENTLY AVAILABLE

ETHERNET DETAILS

This screen shows the current IP address and the MAC Address of the Touchscreen.

It also provides a check box to enable the "Use Static IP" option. This option should be enabled when DHCP IP addressing is not available on the network or when the network has security features where the IP addresses of devices must be specified.

If this option is enabled the screen will be expanded to allow the IP address, Subnet Mask, Default Gateway and DNS Server details to be entered. The Static IP option should be implemented in consultation with your network system administrator.

When complete, tap on 'Next' to continue.

CONTROLLER IP ADDRESS AND MODULE NUMBER

IP Address: Enter the IP address of the Inception Controller. Tap in the address field and use the popup keyboard to enter the IP address.

Module Number: Enter the LAN Module Number for the Touchscreen as described for the RS485 connection above.

When complete tap on 'Connect To Controller'.

c) Wi-Fi NOT CURRENTLY AVAILABLE

WI-FI

The Wi-Fi network selection screen is displayed. A list of available Wi-Fi networks will be shown. Select the network for your Wi-Fi connection, or if the desired network is not displayed, tap on 'Add Network'. **NOTE:** Access to the Wi-Fi network may require the Touchscreen Wi-Fi MAC address to be allowed by your network system administrator.

You will be prompted for the network password, and if adding a network, the network name. Tap in the field and use the displayed keyboard to enter the data, tap on the tick button, then tap on 'Connect' when complete.

CONTROLLER IP ADDRESS AND MODULE NUMBER

Enter the IP address of the Inception Controller and the LAN Module Number for the Touchscreen as described under "Ethernet" above.

When complete tap on 'Connect To Controller'.

Troubleshooting

If the status shows "Controller Connection Failed", the Module has not enrolled on the LAN. This could be due to:

- A cabling and/or connection problem with the selected connection method.
- The number of Modules on the LAN exceeds the Inception Controller limit.
- A Module Number has been chosen that is already in use.
- The Inception Firmware Version does not support the Touchscreen.

Check the Status and Fault LEDs on the rear of the Touchscreen and refer to the table on p9.

Admin Options

Login to the Admin Menu as described earlier and select the desired option:

- a) System Info. Displays Controller information.
- b) Settings. Allows Touchscreen functional settings to be configured.
- c) Technician. Allows installation, service and maintenance settings to be configured.

a) System Information

Select 'System Info' to display the Controller Type, Controller serial number and QR code for connection to the Inception browser.

Tap on the Back Arrow when complete.

b) Settings

Select 'Settings' to display the Settings Menu. The following options are available:

- WI-FI

Select 'Wi-Fi' to access the Wi-Fi network selection screen described above.

- ETHERNET

Select 'Ethernet' to access the Ethernet Details screen described above.

- SCREEN CLEAN

A feature is provided to allow the screen to be temporarily disabled for 15 seconds to allow it to be cleaned with an appropriate soft cloth.

Select 'Screen Clean'.

Tap on the "Clean Screen" button. A countdown timer will be displayed, then return to the Screen Clean display when expired.

Tap on the Back Arrow when complete.

- SOUND

Select 'Sound'.

A slider is used to adjust the setting.

A 'Test' button is provided to check the setting.

Tap on "Save" when you are happy with the new setting.

Tap on the Back Arrow when complete.

- BRIGHTNESS

Select 'Brightness'.

A slider is used to adjust the setting.

The change occurs in real time as the slider is adjusted.

Tap on "Save" when you are happy with the new setting.

Tap on the Back Arrow when complete.

Technician Options

Login to the Admin Menu as described earlier, then select the 'Technician' option.

Select from the following options:

- a) Service Mode. Enable or disable the Inception Controller Service Mode.
- b) Version Info. View &/or update the Touchscreen firmware.
- c) LAN Secure. Secure the Inception LAN.
- d) Run Setup Wizard. Establish or change Controller connection type.

a) Service Mode

Select 'Service Mode' to enable or disable Service Mode on the Inception Controller.

The Touchscreen must be communicating with the Inception Controller.

Service mode is used to disable area alarm processing, sirens, alarm reporting and door DOTL feedback during the initial setup and ongoing maintenance of the Inception system.

Tap on 'Enable Service Mode' to enable service mode for 8 hours.

Tap on 'Disable Service Mode' to disable service mode instantly.

Refer to information on the Service Mode screen &/or in the Inception browser tool tips for more details.

b) Version Info

When the Touchscreen is up and running, the firmware version should be checked and updated if necessary. Firmware can be updated from the Internet connection or from a Micro SD Card.

When the desired method is chosen and setup, select 'Version Info'.

The current firmware versions are displayed along with buttons to initiate a firmware update via

‘Internet’ or ‘SD Card’.

NOTE: The Touchscreen firmware cannot be updated over the Inception RS485 LAN.

If only accessing the screen to view firmware version information, tap on the Back Arrow or Exit (X) icon when complete.

- INTERNET OVER ETHERNET LAN

To update via the Internet over Ethernet LAN, the PoE Adapter must be connected as described on page 6. Check that the Ethernet connection is established.

Tap on the ‘Internet’ option.

The Touchscreen will automatically check for a newer firmware version.

The display will either indicate that you are already on the latest firmware version, or if not, will perform the update and restart.

- INTERNET OVER WI-FI

To update via the Internet over Wi-Fi, a Wi-Fi connection must first be established as described previously. When a Wi-Fi connection is established, follow the instructions for “Internet Over Ethernet LAN” above.

- MICRO SD CARD

To update the firmware from a Micro SD Card, the firmware update file must first be downloaded from the ‘Products’ pages on the Inner Range website, loaded onto the card and the card inserted in the Micro SD Card slot on the left-hand edge of the Touchscreen. *See diagram on page 5.*

NOTES: 1) Firmware files must be in the base directory of the SD Card and in the format *.sfz.

2) Only newer firmware versions can be installed. Firmware cannot be downgraded.

With the Micro SD Card installed, tap on the ‘SD Card’ option.

The display will show one or more available update files. Tap on the ‘Install’ button for the file you wish to use for the update. The display will show the progress of the update then the Touchscreen will restart.

c) LAN Secure

When new Modules are added to the system LAN, a LAN Secure operation should be performed.

NOTES:

- 1) All Modules on the LAN, including the Touchscreen, will briefly disconnect and reconnect.
- 2) This operation can also be performed from the Inception browser on the ‘Hardware Test’ page.

Select ‘LAN Secure’.

Tap on the ‘Send LAN Secure’ button.

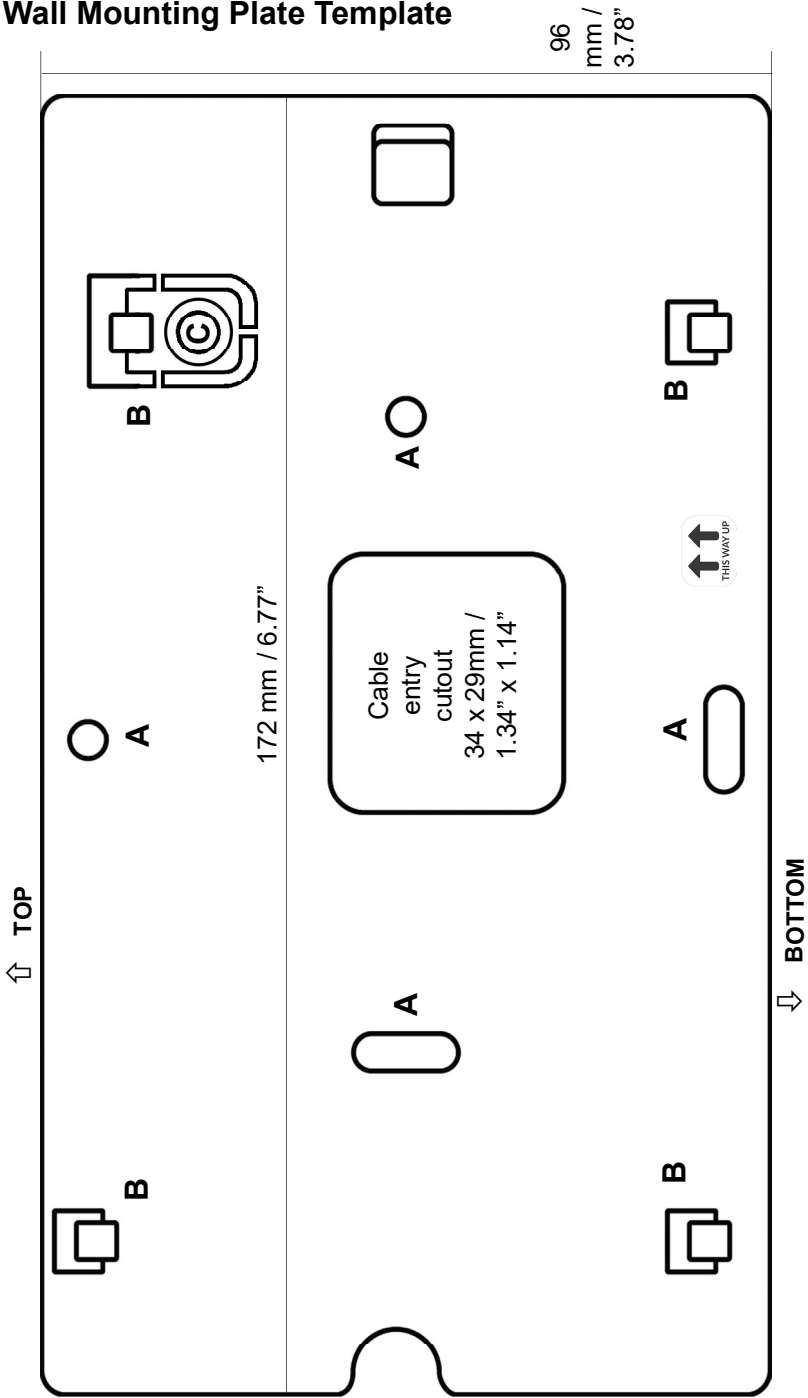
The LAN Secure operation will be performed and the display will return to the default user display.

d) Run Setup Wizard

Select this option to run the Setup Wizard described on pages 11 & 12.

This may be necessary if a different Controller connection method is to be implemented or changes to the network have occurred.

Wall Mounting Plate Template



A Mounting Holes. (x4)

B Retaining Tabs. (x4)

C Tamper Switch Actuator Screw Hole.

The retaining tabs engage with slots on the rear of the case. See pages 3 & 4.

NOTES:

- 1) Touchscreen must be mounted horizontally.
- 2) The front panel LED is on the right-hand side.

Electrical Specifications

Power Supply Input:	11 to 14V DC.	
Operational Current	@12VDC.	@13.25VDC
Peak Operational Current:	570mA	500mA
Typical idle current -Blank screen:	90mA	80mA
-Screen on:	170mA	150mA
Max. idle current (Max. brightness):	200mA	180mA
Beeper ON @max volume:	Add 50 mA	

NOTE: Current increases if voltage at the unit’s RS485 LAN+/0V terminals is lower.
i.e. On a longer cable run or when running on battery power.

PoE Power:	6W RMS	10W PEAK
+V Output:	11 to 14VDC (dependant on supply source) at up to 50mA max. PTC protected (self-resetting).	
Auxiliary Output:	11 to 14VDC (dependant on supply source) at up to 50mA max. PTC protected (self-resetting).	
Electrical compliance:	RCM & CE. FCC ID: 2ASIN-IRSTS7X. IC 25850-IRSTS7X. HVIN IR-S-TS7W.	
Display:	7" IPS LCD. 1024 x 600 pixels.	
Touch Panel:	Capacitive 5 point multi-touch G+P (Float Glass + Plastic Cover Surface)	

Physical Specifications

Dimensions. Complete Product:	Width: 192mm / 7.56"	Height: 116mm / 4.57"
Mounting Plate:	Width: 172mm / 6.77"	Height: 96mm / 3.78"
Depth including mounting plate:	16mm / 0.63"	
Weight including mounting plate:	325g / 11.5oz	
Enclosure material:	Polycarbonate.	
Installation environment:	0º to 49º C (32º to 120º F) @15 to 85% relative humidity (non condensing). For Indoor use only.	
Environmental Compliance:	ROHS & W.E.E.E.	

Disclaimer & Acknowledgement

- 1. The manufacturer &/or its agents take no responsibility for any damage, financial loss or injury caused to any equipment, property or persons resulting from the correct or incorrect use of the system or its peripherals. The purchaser assumes all responsibility in the use of the system and its peripherals.
- 2. While every effort has been made to ensure the accuracy of this manual, the manufacturer assumes no responsibility or liability for any errors or omissions. Due to ongoing development, this manual is subject to change without notice.

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. 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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

ISED Statement

- English: This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

- French: Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux CNR exempts de licence d'Innovation, Sciences et Développement économique Canada. Le fonctionnement est soumis aux deux conditions suivantes :

(1) Cet appareil ne doit pas causer d'interférences.

(2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé.

Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.