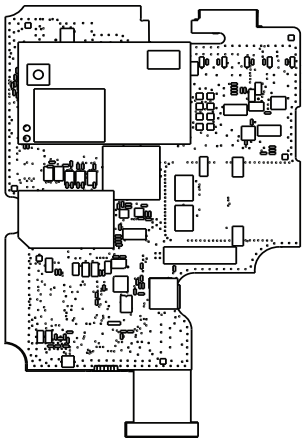
IMPASSA

TL8055LE-AU Dual Path IP/LTE Controller

V1.3 Installation Manual



Warning: installer please read carefully

Safety instructions

Read the safety information before you install the equipment.

Important: This equipment must be installed by a skilled person only. A skilled person is an installer with appropriate technical training. The installer must be aware of potential hazards during installation and measures available to minimize risks to the installer and other people.

- Before you install this equipment, disconnect all power sources (for example mains, battery, and telephone line) connected to the alarm panel.
- Install the equipment indoors in a non-hazardous environment where the following conditions are met:
  - Pollution degree - Maximum 2
  - Over voltages - Category II
- connections, and damage to conductor insulation.
- Internal wiring must be routed to prevent strain on wire and terminal connections, loose terminal connections, and damage to conductor insulation.
- Instruct the user that there are no user serviceable parts in this equipment. All equipment must be serviced by a skilled person.

Note to installers

The warnings on this page contain vital information. As the only individual in contact with system users, it is the installer's responsibility to bring each item in this warning to the attention of all users of this system.

System failures

This system has been carefully designed to be as effective as possible. There are circumstances, however, involving fire, burglary, or other types of emergencies where it may not provide protection. Any alarm system of any type may be compromised deliberately or may fail to operate as expected for a variety of reasons. Some, but not all, of the reasons may be:

Access by intruders

Intruders may enter through an unprotected access point, circumvent a sensing device, evade detection by moving through an area of insufficient coverage, disconnect a warning device, or interfere with or prevent the proper operation of the system.

Component failure

Although every effort has been made to make this system as reliable as possible, the system may fail to function as intended due to the failure of a component.

Compromise of radio frequency (wireless)

A device's signals may not reach the receiver under all circumstances, which could include: metal objects placed on or near the radio path, deliberate jamming or other inadvertent radio signal interference.

Criminal knowledge

This system contains security features which were known to be effective at the time of manufacture. It is possible for persons with criminal intent to develop techniques which reduce the effectiveness of these features. It is important that your security system be reviewed periodically to ensure that its features remain effective and that it is updated or replaced if it is found that it does not provide the protection expected.

Failure of replaceable batteries

This system's wireless transmitters have been designed to provide several years of battery life under normal conditions. The expected battery life is a function of the device environment, usage, and type. Ambient conditions such as high humidity, high or low temperatures, or large temperature fluctuations may reduce the expected battery life. While each transmitting device has a low battery monitor which identifies when the batteries need to be replaced, this monitor may fail to operate as expected. Regular testing and maintenance will keep the system in good operating condition.

Inadequate installation

A security system must be installed properly in order to provide adequate protection. Every installation should be evaluated by a security professional to ensure that all access points and areas are covered. Locks and latches on windows and doors must be secure and operate as intended. Windows, doors, walls, ceilings and other building materials must be of sufficient strength and construction to provide the level of protection expected. A reevaluation must be done during and after any construction activity. An evaluation by the fire and/or police department is highly recommended if this service is available.

Inadequate testing

Most problems that would prevent an alarm system from operating as intended can be found by regular testing and maintenance. The complete system should be tested weekly and immediately after a break-in, an attempted break-in, a fire, a storm, an earthquake, an accident, or any kind of construction activity inside or outside the premises. The testing should include all sensing devices, keypads, consoles, alarm indicating devices, and any other operational devices that are part of the system.

Insufficient time

There may be circumstances when the system will operate as intended, yet the occupants will not be protected from an emergency due to their inability to respond to the

warnings in a timely manner. If the system is remotely monitored, the response may not occur in time to protect the occupants or their belongings.

Motion detectors

Motion detectors can only detect motion within the designated areas as shown in their respective installation instructions. They cannot discriminate between intruders and intended occupants. Motion detectors do not provide volumetric area protection. They have multiple beams of detection and motion can only be detected in unobstructed areas covered by these beams. They cannot detect motion which occurs behind walls, ceilings, floors, closed doors, glass partitions, glass doors or windows. Any type of tampering whether intentional or unintentional such as masking, painting, or spraying of any material on the lenses, mirrors, windows or any other part of the detection system will impair its proper operation. Passive infrared motion detectors operate by sensing changes in temperature. However their effectiveness can be reduced when the ambient temperature rises near or above body temperature or if there are intentional or unintentional sources of heat in or near the detection area. Some of these heat sources could be heaters, radiators, stoves, barbecues, fireplaces, sunlight, steam vents, lighting and so on.

Power failure

Control units, intrusion detectors, smoke detectors and many other security devices require an adequate power supply for proper operation. If a device operates from batteries, it is possible for the batteries to fail. Even if the batteries have not failed, they must be charged, in good condition and installed correctly. If a device operates only by AC power, any interruption, however brief, will render that device inoperative while it does not have power. Power interruptions of any length are often accompanied by voltage fluctuations which may damage electronic equipment such as a security system. After a power interruption has occurred, immediately conduct a complete system test to ensure that the system operates as intended.

Security and insurance

Regardless of its capabilities, an alarm system is not a substitute for property or life insurance. An alarm system also is not a substitute for property owners, renters, or other occupants to act prudently to prevent or minimize the harmful effects of an emergency situation.

Smoke detectors

Smoke detectors that are a part of this system may not properly alert occupants of a fire for a number of reasons, some of which follow. The smoke detectors may have been improperly installed or positioned. Smoke may not be able to reach the smoke detectors, such as when the fire is in a chimney, walls or roofs, or on the other side of closed doors. Smoke detectors may not detect smoke from fires on another level of the residence or building. Every fire is different in the amount of smoke produced and the rate of burning. Smoke detectors cannot sense all types of fires equally well. Smoke detectors may not provide timely warning of fires caused by carelessness or safety hazards such as smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson. Even if the smoke detector operates as intended, there may be circumstances when there is insufficient warning to allow all occupants to escape in time to avoid injury or death.

Telephone lines

If telephone lines are used to transmit alarms, they may be out of service or busy for certain periods of time. Also an intruder may cut the telephone line or defeat its operation by more sophisticated means which may be difficult to detect.

Warning devices

Warning devices such as sirens, bells, horns, or strobes may not warn people or waken someone sleeping if there is an intervening wall or door. If warning devices are located on a different level of the residence or premise, then it is less likely that the occupants will be alerted or awakened. Audible warning devices may be interfered with by other noise sources such as stereos, radios, televisions, air conditioners, other appliances, or passing traffic. Audible warning devices, however loud, may not be heard by a hearing-impaired person.

Alarm.com LTE

This manual describes the Alarm.com modules used with the SCW9055/57 models.

Introduction to the Alarm.com modules

The following introductory sections identify the Alarm.com modules and offer a brief overview as to their capabilities.

LTE module TL8055LE-AU

The LTE module enables wireless reporting of all alarms and other system events from the DSC IMPASSA control panel using an all-digital, LTE wireless (cellular) network. The module can be used as the primary communication path for all alarm signaling, or as a backup to a telephone connection to the central monitoring station. The wireless alarm signaling and routing service is operated by Alarm.com. The LTE module also features integrated support for Alarm.com's home automation solution with built-in Z-Wave capabilities. Model TL8055LE-AU is a single communication channel using two technologies (cellular LTE/IP) for sending alarms to supervising station.

Note: Alarm.com's home automation solution with built-in Z-Wave capabilities is not UL/ULC evaluated.

Contact information

For additional information and support on Alarm.com modules, initial account setup, home automation, and all other Alarm.com products and services, please visit: www.Alarm.com/dealer or contact Alarm.com technical support at: 1-866-834-0470.

Compatibility

The TL8055LT-AU module is compatible with DSC IMPASSA panels: SCW9055G-433 and SCW9057G-433 V1.3+. Note that the 9055 version does not support two-way voice communication.

Installation

Follow these guidelines during installation:

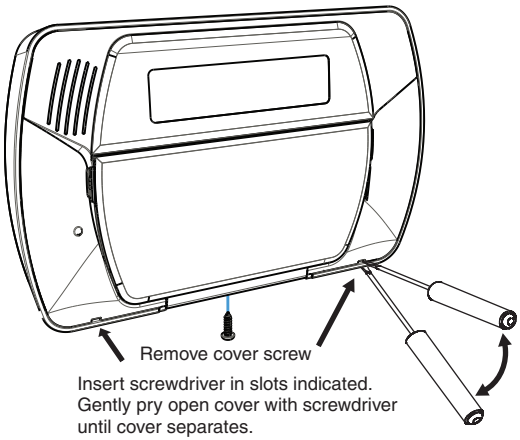
- Before affixing the panel to a wall, verify the LTE signal level at the installation location. On the IMPASSA panel, press and hold the 5 key for 2 seconds to view the LTE signal level. An installation location with a sustained signal level of two or more bars is recommended.
- Do not exceed the panel total output power when using panel power for the LTE module, hardwired sensors, and /or sirens. Refer to the specific panel installation instructions for details. Only one Alarm.com LTE module can be used per IMPASSA panel.
- The LTE module draws on average 100 mA during normal operation. In PowerSave mode, during or immediately following an AC power failure, the module will draw only 5mA on average (10mA with an image sensor daughterboard).
- To minimize potential interference with cellular signaling, avoid mounting the panel in areas with excessive metal or electrical wiring, such as furnaces or utility rooms.

UL/ULC installation requirements

For ULC Residential fire and burglary applications, the TL8055LE-AU$^{UL/ULC}$ can be used as a primary communication channel via Cellular, or as a back-up in conjunction with the Digital Alarm Communicator Transmitter (DACT). Test transmission every 24 hours is enabled on each channel.

For UL Residential fire and burglary applications, the TL8055LE-AU [UL/ULC] can be used as primary communication channel via Cellular, or as a back-up in conjunction with the DACT. (30 day test transmission is required on each channel).

Figure 1-1 Front view of IMPASSA panel



Power down

Before adding the TL8055LE-AU communicator to the IMPASSA panel, please follow the steps below to remove power from the panel.

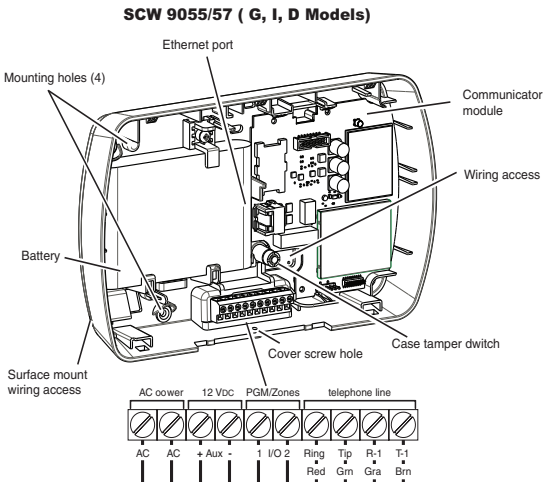
1. Disconnect the AC transformer from the wall.
2. Remove the front cover of the IMPASSA panel by following the instructions in Figure 1-1.
3. Remove the ribbon cable from the IMPASSA base so that you can remove the front cover completely.
4. Unplug the battery connector from the IMPASSA circuit board.

Module installation steps

If the panel came with the module pre-installed then only an LTE phone test is required. Otherwise, installation includes the following steps:

1. The module compartment can be found behind the front panel that swings down, to the right of the battery compartment as seen in the following figure.

Figure 1-2 Module compartment for IMPASSA panels



2. Mount the TL8055LE-AU and its back plastic housing to the wall using the screws provided. Pass both antenna cables through the back plastic and push the antenna ends into the module connectors to snap the antennas onto the module.
   a. For wall-mounted systems, fully uncoil both antenna cables and drop both antennas into the wall. Be sure to check signal strength before completing installation. If signaling is poor, relocate the primary antenna only to improve the signal strength.
   b. For table-mounted systems, it is acceptable to leave some of each cable uncoiled, but be sure to separate the antennas from each other and from the panel by approximately 1 foot. If signaling is poor, relocate the primary antenna only to improve the signal strength.
3. Connect the module to the panel via the 16 pin ribbon cable. The ribbon connector is located at the top of the module, near the antenna. On the panel, the ribbon connector is located directly across from the connector on the module.
4. Connect one end of the ethernet cable to the ethernet port on the communicator and connect the other end of the ethernet cable to the ethernet port on the router.
5. Snap the IMPASSA front plastic housing onto the back plastic houseing to complete the mounting of the panel.

Power up

When the module has been fully connected to the panel via the ribbon cable, perform a full power cycle by following these steps:

1. Connect battery leads to the battery.
2. Plug the panel power transformer into the AC outlet.

It is important to plug in the battery before closing the IMPASSA, otherwise the panel will issue a “System Low Battery” message regardless of the battery voltage level.

Note: Power cycling will clear existing banners.

Enroll Alarm.com image sensor

1. Ensure batteries are removed from the sensor.
2. On the panel, enter the Interactive Services menu. Interactive Services can be accessed, via section [851] of Installer Programming.
3. Press [*][8] [Installer Code] [851].
4. Scroll to Image Sensor Setup and press [*].
5. Scroll to Learn Image Sensor and press [*]. The will display “Power up or reset I.S. now.”
6. Insert the batteries into the sensor. Wait approximately 20 seconds for the control panel screen to display: “I.S. [x] Added as Sensor [y].” The LED on the sensor will turn solid for 5 seconds, once the sensor has enrolled.
7. Perform another panel comm-test to ensure that Alarm.com receives the updated device equipment list. This will speed up the sensor initialization process.

- The zone serial number will be programmed automatically as FFFFXX into the next available slot in section [804][001]-[064] to indicate the zone is an image sensor. The last 2 digits XX are used to map the image sensor number and the range is 01-FF. For example, zone slot 12 is programmed with serial number FFFF03. This means image sensor 3 is assigned to actual zone slot 12.
- Zone type and attribute can be assigned in the installer menu, in a similar way as other regular zones.

LTE phone test (module registration)

To initiate module communication with Alarm.com and the LTE network for the first time, perform an “LTE phone test”. Note that the phone test can also be used at any time by the installer to force communication with Alarm.com. A phone test can also be completed through the Interactive Services menu. Perform a phone test by pressing and holding [3] for two seconds. To perform the phone test on an IMPASSA press [*][6] followed by the master code and [4].

The IMPASSA panel indicates when the LTE phone test has completed by activating the siren output on medium volume for 2 seconds followed by full volume for 2 seconds. However, if the phone test was initiated via the [3] key, or through the Interactive Services menu, the siren will not sound. All display lights and LCD pixels turn on. This indicates that Alarm.com has received and acknowledged the signal. This does not guarantee that the signal went through to a central station; it confirms that Alarm.com’s Network Operations Center received the signal. The central station should be contacted directly to verify that the signal was received on the correct account and that the central station routing settings have been set up correctly. If the signal does not go through to the Central Station, the panel will display a “Failure to Communicate” message. Double check the account’s Central Station Forwarding Settings on Alarm.com and contact technical support if the trouble persists.

Panel settings

Night arming

The IMPASSA panel has the ability to night arm, which arms the perimeter and restricts movement to designated interior areas. Night arming via the panel should be restricted to one of the five function keys. For more information on Night Arming and how to program the function keys, see the installation guide provided with the panel.

Central station and telephone line settings

Central Station and telephone line settings will be automatically configured through the CS Forwarding Settings page of the Dealer Site. The following are the panel settings that will be configured via the Dealer Site page and should not be configured in the panel:

Table 1-1 Panel settings

Section	Option	Description
015	7	Telephone line monitoring
301	--	Communication telephone numbers
302	--	Communication telephone numbers
303	--	Communication telephone numbers
305	--	Communication telephone numbers
310	--	System account number
350	1st Telephone Number	Communicator format options
350	2nd Telephone Number	Communicator format options
381	3	Reporting codes
381	7	Reporting codes
383	2	Telephone number backup options
383	8	Remote notification format

Two-way voice

Section [600] option [8] controls how the CS operator initiates the 2-way audio session. Set to ON for the session to be initiated by the operator. Set to OFF for the session to begin immediately after the siren turns off.

Note: The two-way voice feature was not evaluated by UL/ULC.

Zone attributes

Sections [101] through [164] control the attributes for each zone. Option [5] enables or disables Force Arming. If this option is set to OFF, the system cannot be armed if the zone is opened.

Note: Remote arming from Alarm.com will automatically prompt to bypass open zones that have the Bypass attribute enabled. Only compatible with IMPASSA V1.31+ and IMPASSA Communicator V181.5+.

Notifications

The following panel settings may alter the behavior of customer notifications:

Table 1-2 Panel settings

Section	Option	Description
015	4	If this option is ON, keyfob arming notifications will not be associated with a specific user
015	8	If this option is OFF, notifications will not be available for panel tampers. Set to ON to enable tamper notifications

Not supported

The following panel settings are either handled automatically or not supported and so any changes to them will be ignored:

Table 1-3 Panel settings

Sections	Options	Description
324-348	All	Custom reporting codes
377	Swinger Shutdown (Tampers and Rest)	Max. number of transmissions
377	Swinger Shutdown (Maint. And Rest)	Max. number of transmissions
600	1-7	2-way Audio control
601	All	2-way Audio control
609-611	All	Reporting codes

Panel settings automatically change

Some panel settings are changed automatically when the LTE module is connected to the control panel. These settings should not be altered. They are:

Table 1-4 Automatically changed panel settings

Section	Option	Value	Description
015	6	OFF	Master code is not changeable and must be OFF to ensure the module communicates the correct master code
016	8	OFF	Daylights saving time must be disabled to ensure panel time is accurate
024	5	OFF	Realtime clock must be disabled to ensure panel time is accurate
377	AC Failure Communication Delay	Random value between 001 and 030	AC Failure Communication Delay should be set between 001 and 030 to ensure notifications for power failures are received
377	Wireless Device Low Battery Transmission Delay	001	Wireless Device Low Battery Transmission Delay should be set to 001 to ensure notifications for low batteries are received
380	1	ON	Communications must be enabled so the module can communicate with the panel
380	2	OFF	System should transmit alarm restores immediately when the zone is restored
382	5	ON	Communications must be enabled so the module can communicate with the panel
382	6	OFF	AC Failure Transmission Delay should be in minutes
701	5	OFF	User Access Codes must be 4-digits

Clock: The LTE module sets the panel clock when it connects to Alarm.com and then updates it every 18 hours. It is important to select the correct panel time zone on the Alarm.com website, or the panel time will not be accurate. If a system is powered up before the customer account has been created, the time zone will default to Eastern Standard Time.

Troubleshooting: module status information

Module status information for verifying and troubleshooting the module connection status or errors can be found through the Interactive Services menus on the IMPASSA. To access these, press [*][8][Installer Code][851]. See the following table for potential module states.

Table 1-5 LTE module status

Idle	Most common state. Module is not actively sending data and no errors are present
Roaming	Roaming on partner network
SIM missing	The SIM card is missing.
PowerSave mode	AC power is down
Registering...	The module is trying to register on the LTE network
Connection error	The module is registered on the LTE network but cannot connect with Alarm.com. Contact Alarm.com technical support for more information
Radio error	Radio portion of the module is not operating correctly. Power cycle the panel and call Alarm.com technical support if the trouble persists
Server error	Identifies a server error. If it persists, the account may have been set up incorrectly

Connected	Currently connected and transmitting information to the Alarm.com servers
Connecting...	In the process of connecting to Alarm.com
Updating...	Updating signal level

In addition, some of the information can be retrieved via long key presses from the keypad. Press and hold the following panel keys for 2 seconds to display the given information on the panel display. Most messages are displayed for less than 30 seconds but can be cut short by pressing the 0 Key for 2 seconds.

Table 1-6 LTE module statuses

1 key	10-digit module serial number. This number is needed to create the Alarm.com customer account
2 key	Module firmware version. (e.g., 181a)
3 key	Initiate communication test. **Important**: This is a required test to correctly complete the installation
5 key	Wireless signal strength level and module status or error, if any. The panel will display the signal level in bars (0 to 5) and as a numerical value (0 to 31) followed by the connection mode (LTE). (See "LTE Module Statuses" in Table 2)
6 key	Battery voltage as read by the module, to two decimal places, and the AC power status. (e.g., Battery: 6.79v, AC Power OK)
8 key	LTE frequency used by the module: "High" = 1900MHz,2100MHz; "Low" = 850 MHz.

Improving wireless signal strength

As you make changes to the module location to improve signal strength, request updated signal readings to verify changes. To request an updated reading, press and hold the "5" key for 2 seconds.

Guidelines for optimal wireless signal strength:

- Install the module above ground level, as high up as possible within the structure.
- Install the module near or adjacent to an exterior-facing wall of the structure.
- Do not install the module inside a metal structure or close to large metal objects or ducts.
- Change the orientation or placement of the antennas and test to see if there is an improvement in signal strength. An optional external extension antenna (LTE-8ANTP) can also be added if required.

Installer programming

Table 1-7 Installer programming

Menu	Description
Installer Programming	Press [*][8] [Installer Code] [851] to enter Interactive Services menu
--LTE Module Status	Scroll down through the various LTE module information screens
---Radio	Signal level, connection status, roaming status, and errors (if any)
---LTE Freq.	LTE frequency used by the module
---SN	Module serial number. Needed to create or troubleshoot an Alarm.com account
---SIM Card	SIM card number. Sometimes needed to troubleshoot an account.
---Version	LTE module firmware version and sub-version. Example: 181a; 181 = module firmware version, a = subversion
---Advanced - Network	For Alarm.com use only
--Z-Wave Setup[2]	This menu is used to add, remove, and troubleshoot Z-Wave devices and networks. To control Z-Wave devices via the Alarm.com website and smart phone apps, you will also need to enable Z-Wave services on the account

Menu	Description
Installer Programming	Press [*][8] [Installer Code] [851] to enter Interactive Services menu
--Number of Z-Wave Devices[2]	The total number of Z-Wave devices currently known to the HSPA module
---Add Z-Wave Device[2]	Press [*] to enter Z-Wave Add Mode. Make sure the device being added is powered up and within 3 to 6 feet of the IMPASSA panel. Refer to the manufacturer's instructions for button presses required to enroll devices
---Remove Z-Wave Device[2]	Press [*] to remove an existing Z-Wave device, or to "reset" a Z-Wave device that was previously learned into a different Z-Wave network. Previously enrolled devices must be reset before they can be enrolled into the module
---Z-Wave Home ID2	Press [*] to query the Z-Wave network Home ID. If the ID is 0, verify that the module has communicated with Alarm.com and that the Alarm.com account is set up for Z-Wave.
---Image Sensor Setup1	An image sensor daughterboard is required to enable image sensor capabilities on the module. This menu is only active if an image sensor daughterboard is connected
---Learn Image Sensor[1]	Press [*] to enter Add Mode. Enroll the image sensor by inserting batteries or resetting
---Delete Image Sensor[1]	Press [*] and scroll to the image sensor to delete. Press [*] to delete
---Image Sensor Settings[1]	Press [*] and scroll to the image sensor of interest. Press [*]
----Image Sensor #[x][1]	[x] is the sensor ID. Press [*] to view information on this image sensor.
-----[Power Information][1]	Gives information on the image sensor's battery level and power status
-----Signal[1]	Signal strength of the communication between image sensor and image sensor daughterboard
-----Test PIR[1]	Press [*] to put the image sensor in PIR Test Mode
-----PIR Sensitivity[1]	Press [*] to view current selection. Scroll down to view sensitivity levels. Press [*] to select
-----Rules[1]	Displays whether rules are confirmed
-----MAC[1]	MAC address of image sensor
-----Version[1]	Image sensor daughterboard version
-----Last Talk[1]	Last image sensor talk time
---Extended Range Option	Press [*] to enable/disable extended range
---Communications Test	Press [*] to perform ADC communication test
User Functions	Press [*] [6] [Master Access Code] to enter User Functions menu. Then scroll to Interactive Services
--LTE Module Status	See Installer Programming section
---Radio	See Installer Programming section
---LTE Freq.	See Installer Programming section
--SN	See Installer Programming section
---SIM card	See Installer Programming section
---Version	See Installer Programming section
---Advanced - Network	See Installer Programming section
--Z-Wave Setup[2]	See Installer Programming section
---Number of Z-Wave Devices[2]	See Installer Programming section
---Add Z-Wave Device[2]	See Installer Programming section
---Remove Z-Wave Device[2]	See Installer Programming section
---Z-Wave Home ID[2]	See Installer Programming section
--Image Sensor Setup[1]	See Installer Programming section
---Image Sensor #[x][1]	See Installer Programming section
----[Power Information][1]	See Installer Programming section
----Signal[1]	See Installer Programming section

Menu	Description
Installer Programming	Press [*][8] [Installer Code] [851] to enter Interactive Services menu
----Test PIR[1]	See Installer Programming section
--Communication Test	See Installer Programming section

[1] An interactive Alarm.com account with an image sensor service plan is required for image capabilities and features.

[2] Refer to the Home Automation installation instructions and guides on the Alarm.com Dealer Site for more information on Z-Wave enrollment and troubleshooting.

Ratings and specifications

Table 1-8 Rating and specifications

Compatibility	IMPASSA panels with software versions 1.3 and later
Input voltage	4 VDC (supplied by compatible control panel)
Standby current	150 mA
Alarm current	400 mA
Operating temperature	14 to 131°F (-10 to 55° C)
Storage temperature	-30 to 140°F (-34 to 60° C)
Max. relative humidity	90% non-condensing
Cellular network	LTE
Dimensions	(H x W) 3.25 x 4.25 in. (8.23 x 10.80 cm)

Regulatory information

Note: For UL/ULC applications, the temperature rating is 0-49° C and the maximum relative humidity rating is 85% RH.

Changes or modifications not expressly approved by DSC can void the user's authority to operate the equipment. 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 in to an outlet on a circuit different from that which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

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

Under Industry Canada regulations, this radio transmitter only operates using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to others, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subimême si le brouillage est susceptible d'en compromettre le fonctionnement.

Industry Canada statement

Note: This Equipment, SCW9055(D)(I)-433, SCW9057(D)(I)-433 meets the applicable Industry Canada Terminal Equipment Technical Specifications.This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment

Note: The Ringer Equivalence Number (REN) for this terminal equipment is 0.1. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all devices does not exceed five. L'indice d'équivalence de la sonnerie (IES) sert à indiquer le nombre maximal de terminaux qui peuvent être raccordés à une interface téléphonique. La terminaison d'une interface peut consister en une combinaison quelconque de dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

Certification Number: IC: 160A-9057G

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC/ISED Canada wireless notice

This equipment complies with FCC and ISED Canada radiation expos-ure limits set forth for an uncontrolled environment. The antenna should be installed and operated with minimum distance of 20 m between the radiator and your body. The antenna(s) used for this trans-mitter must not be co-located or operating in conjunction with any other antenna or transmitter, except as described in this user manual.

Cet appareil est conforme aux limites d'exposition aux rayonnements de la IC pour un environnement on contrôlé. L'antenne doit être installé de façon à garder une distance minimale de 20 centimètres entre la source de rayonnements et votre corps. L'antenne (s) utilisée pour cet émetteur ne doit pas être situé ou opérant en conjonction avec une autre antenne ou émetteur, sauf tel que décrit dans ce mode d'emploi. Antenna gain must be below/Gain de l'antenne doit être ci-dessous:

Carrier	Frequency band (MHz)	Antenna gain (dBm)
LTE Verizon	700 (B13)	6.94
	AWS1700 (B4)	6.00

Warning: To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20cm or more must be maintained between the antenna of this device and persons during device operation.

For UL/ULC Listed installation the products are intended to be installed in accordance with the following:

A. NFPA 70, "National Electrical Code."
B. NFPA 72, "National Electrical Code."
C. UL 1641, "Installation and Classification of Residential Burglar Alarm Systems."
E. CSA C22.1 - Canadian Electrical Code, Part 1.
F. CAN/ULC-S540 - Standard for the Installation of Residential Fire Warning Systems
G. CAN/ULC-S310 - Standard for the Installation and Classification of Residential Burglary Alarm Systems.
H. Local Authorities Having Jurisdiction (AHJ).
I. Manufacturer's Installation Instructions.

For UL Residential Fire and Burglary installastions, the TL8055LE-AU is listed as a sole means of communication or as a back up when used in conjunction with a POTS line (dialer).

Notes for using Private, Corporate and High Speed Data Networks when using TL8055LE-AU: Network access and domain access policies shall be set to restrict unauthorized network access, and “spoofing” or “denial of service” attacks. Select the internet service providers that have redundant servers/systems, back-up power, routers with firewalls enabled and methods to identify and protect against “denial of service” attacks (i.e., via “spoofing”). For ULC Residential Fire and Burglary installations the TL8055LE-AU is lis-ted as a sole means of communication or as a back-up when used in conjunction with a POTS line (dialer).

RCM compliance notice

The regional variant of the TL880LT used in Australia and New Zealand is the TL880LE-AU.

The TL880LE-AU operates on the following frequency bands:

LTE Bands 1, 3, 5, 8, 9, 18(26), 19, 28

UMTS Bands 1, 5, 6, 19, 8

Z-wave: 921 4MHz, 919.8MHz

Image Sensor Radio: 916MHz, 918MHz, 920MHz, 922MHz, 924MHz

The TL880LE-AU is intended to be used as a wireless communicator in home security and automation systems.

Limited warranty

Digital Security Controls warrants the original purchaser that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use. During the warranty period, Digital Security Controls shall, at its option, repair or replace any defective product upon return of the product to its factory, at no charge for labour and materials. Any replacement and/or repaired parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The original purchaser must promptly notify Digital Security Controls in writing that there is defect in material or workmanship, such written notice to be received in all events prior to expiration of the warranty period. There is absolutely no warranty on software and all software products are sold as a user license under the terms of the software license agreement included with the product. The Customer assumes all responsibility for the proper selection, installation, operation and maintenance of any products purchased from DSC. Custom products are only warranted to the extent that they do not function upon delivery. In such cases, DSC can replace or credit at its option.

International warranty

The warranty for international customers is the same as for any customer within Canada and the United States, with the exception that Digital Security Controls shall not be responsible for any customs fees, taxes, or VAT that may be due.

Warranty procedure

To obtain service under this warranty, please return the item(s) in question to the point of purchase. All authorized distributors and dealers have a warranty program. Anyone returning goods to Digital Security Controls must first obtain an authorization number. Digital Security Controls will not accept any shipment whatsoever for which prior authorization has not been obtained.

Conditions to void warranty

This warranty applies only to defects in parts and workmanship relating to normal use. It does not cover:

- damage incurred in shipping or handling;
- damage caused by disaster such as fire, flood, wind, earthquake or lightning;
- damage due to causes beyond the control of Digital Security Controls such as excessive voltage, mechanical shock or water damage;
- damage caused by unauthorized attachment, alterations, modifications or foreign objects;
- damage caused by peripherals (unless such peripherals were supplied by Digital Security Controls);
- defects caused by failure to provide a suitable installation environment for the products;
- damage caused by use of the products for purposes other than those for which it was designed;
- damage from improper maintenance;
- damage arising out of any other abuse, mishandling or improper application of the products.

Items not covered by warranty

In addition to the items which void the Warranty, the following items shall not be covered by Warranty: (i) freight cost to the repair centre; (ii) products which are not identified with DSC's product label and lot number or serial number; (iii) products disassembled or repaired in such a manner as to adversely affect performance or prevent adequate inspection or testing to verify any warranty claim. Access cards or tags returned for replacement under warranty will be credited or replaced at DSC's option. Products not covered by this warranty, or otherwise out of warranty due to age, misuse, or damage shall be evaluated, and a repair estimate shall be provided. No repair work will be performed until a valid purchase order is received from the Customer and a Return Merchandise Authorisation number (RMA) is issued by DSC's Customer Service.

Digital Security Controls's liability for failure to repair the product under this warranty after a reasonable number of attempts will be limited to a replacement of the product, as the exclusive remedy for breach of warranty. Under no circumstances shall Digital Security Controls be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of the product or any associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property. The laws of some jurisdictions limit or do not allow the disclaimer of consequential damages. If the laws of such a jurisdiction apply to any claim by or against DSC, the limitations and disclaimers contained here shall be to the greatest extent permitted by law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so that the above may not apply to you.

Disclaimer of warranties

This warranty contains the entire warranty and shall be in lieu of any and all other warranties, whether expressed or implied (including all implied warranties of merchantability or fitness for a particular purpose) And of all other obligations or liabilities on the part of Digital Security Controls Digital Security Controls neither assumes responsibility for, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

This disclaimer of warranties and limited warranty are governed by the laws of the province of Ontario, Canada.

Digital Security Controls recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

Installer's lockout

Any products returned to DSC which have the Installer's Lockout option enabled and exhibit no other problems will be subject to a service charge.

Out of warranty repairs

Digital Security Controls will at its option repair or replace out-of-warranty products which are returned to its factory according to the following conditions. Anyone returning goods to Digital Security Controls must first obtain an authorization number. Digital Security Controls will not accept any shipment whatsoever for which prior authorization has not been obtained.

Products which Digital Security Controls determines to be repairable will be repaired and returned. A set fee which Digital Security Controls has predetermined and which may be revised from time to time, will be charged for each unit repaired.

Products which Digital Security Controls determines not to be repairable will be replaced by the nearest equivalent product available at that time. The current market price of the replacement product will be charged for each replacement unit.

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WARNING: DSC recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this SOFTWARE PRODUCT to fail to perform as expected.

Tech Support: 1-800-387-3630 (Canada & U.S.) or 905-760-3000
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