



S01-051G

USER MANUAL

May 11, 2022

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1 VERSION HISTORY

Table 1 Revision history

Revision	Date	Modified By	Description
1.0	March 31, 2022	Tuan A. Pham	1 st Draft
1.1	April 1, 2022	Tuan A. Pham	Updated details
1.2	April 5, 2022	Tuan A. Pham	Updated section 2.4 & 2.5
1.3	April 6, 2022	Tuan A. Pham	Updated section 2.4 & 2.5
1.4	May 11, 2022	Tuan A. Pham	Fixed typo in section 2.4

2 USER MANUAL

2.1 PRODUCT DESCRIPTION

The module S01-051G is a PCB module which has an interface to connect to an external IR sensor and control external solenoid valve. The module has Bluetooth Low Energy (BLE) capability to be able to communicate with Phone Applications via BLE radio to configure the settings for valve control and provide collective device and sensor data.

The module can be powered via 6VDC battery or external power adapter (6VDC/24VAC).

2.2 PRODUCT INSTALLATION

The module S01-051G shall be installed in a plastic housing and secured inside its own chamber to provide complete protection from the various installation.

A 6VDC battery pack or/and external power adapter (6VDC/24VAC output) shall be connected to the product to provide power to the module.

2.3 PRODUCT OPERATION

Once powered, the module S01-051G will first search for the sensor and issue communication to the sensor via UART port if the sensor exists. The module can control an external valve connected to it, either basing on sensor detection or by remote control via Phone Application using BLE radio.

During its operation, the module monitors the power supplies to be able to notify user of different power modes and scenarios. In addition, the module also monitors user usage and user settings to be able to transfer the data to the Phone Application which is authorized by the module. The Phone Application will need to pass the module communication security to be able to have fully access to the module.

Once the module lost its power, the collective data will remain and store in non-volatile memory so they could be retrieved once the module is powered again.

2.4 REGULATORY INFORMATION

CANADA

ISED Regulatory Statements

IC: 125A-0068

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-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.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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;
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

USA

FCC Regulator Statements

FCC: AU792U22C01871

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Note: 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.

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.

FCC & ISED RF RADIATION EXPOSURE STATEMENT

This equipment complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment. To comply with FCC and ISED RF radiation exposure limits for general population, the antenna(s) used for this transmitter must be installed such that a minimum separation distance of 20 cm is maintained between the radiator (antenna) and all persons at all times and must not be co-located or operating in conjunction with any other antenna or transmitter.

LIMITED MODULAR APPROVAL (LMA)

This module is FCC Part 15.247/ ISED RSS-247 limited module. The module is limited to be used by the grantee in its own products, not intended for sale to third parties. The host device with this integrated limit modular approval shall ensure the radiated emissions and spurious emission comply with FCC part 15.247. The modular transmitter is only FCC authorized for the specific rule parts (i.e., FCC transmitter rules) listed on the grant, and the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. When the host is changed, additional test and certification may be required. The final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.

2.5 HOST PRODUCT LABELLING

This module is labeled with its own FCC ID and ISED Certification Number. If the FCC ID and ISED Certification Number are not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. In that case, the final end product must be labeled in a visible area with the following:

Contains FCC ID: AU792U22C01871

Contains IC: 125A-0068

This device complies with Part 15 of the FCC rules. Operating 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.

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