



GAI-TRONICS®
A HUBBELL COMPANY

HUBBCOM™ Remote and Stainless-Steel Remote Stations

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General Information

This manual covers Model GRC600, HUBBCOM Remote Station and Model GRC600SS, Stainless Steel HUBBCOM Remote Station. Both remote stations function as access control devices and/or as remote audio/video monitoring stations. They operate in standalone configurations or as part of a HUBBCOM system. Use the GUDA (GAI-Tronics Universal Device Application) to configure specific features for the remote station. See the GAI-Tronics website at <https://www.gai-tronics.com> for system specifications, warranty information, and the GUDA.

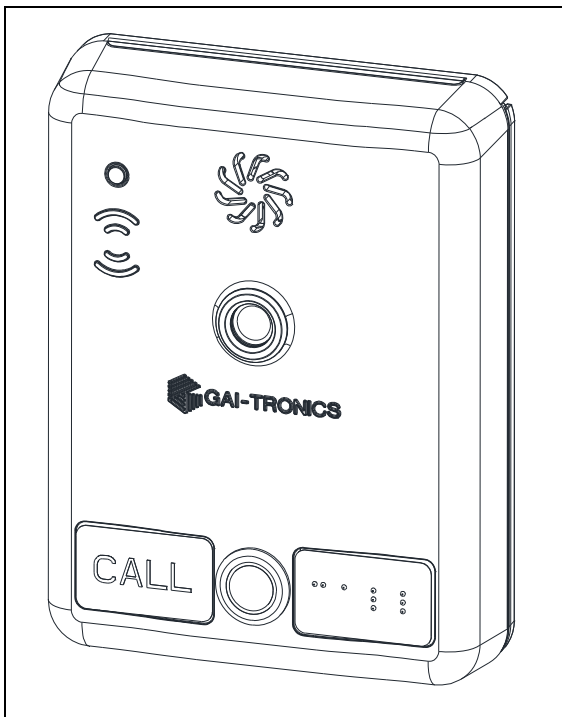
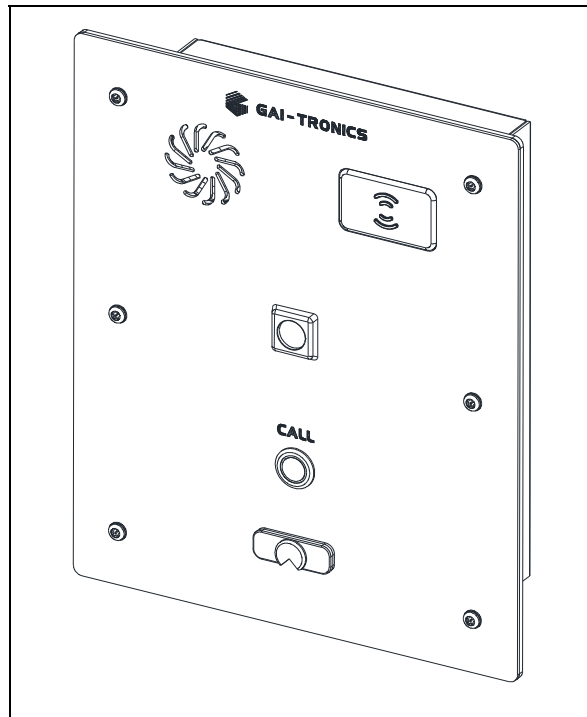


Figure 1. HUBBCOM Remote Station





Stainless Steel HUBBCOM Remote Station

Security Hardware



The HUBBCOM remote stations described in this manual are vandal resistant; with security screws attaching the front cover to the mounting plate/enclosure. Use a GAI-Tronics Model 233-001 Security screwdriver or Torx T-25 security head tip (sold separately) to install the Model GRC600SS station. Use a Torx T-10 security head screwdriver to install the Model GRC600 station.

Important Safety Instructions



- **Read, follow, and retain instructions**—Read and follow all safety and operating instructions before operating the unit. Retain instructions for future reference.
- **Heed warnings**—Adhere to all warnings on the unit and in the operating instructions.
- **Attachments**—Do not use attachments not recommended by the product manufacturer, as they may cause hazards.
- **Servicing**—Do not attempt to service this unit. Opening or removing covers may expose dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

 **ATTENTION**  —Install equipment without modification and according to all applicable local, national, and international electrical codes. North America—Consult the National Electrical Code (NFPA 70), Canadian Standards Association (CSA 22.1), and local codes for specific requirements regarding your installation. Install Class 2 circuit wiring in accordance with the NEC.



Only trained, qualified, and competent personnel must install these enclosures. Installation must comply with state and national regulations, as well as safety practices for this type of equipment.

 **WARNING**  —Use only 12 or 24 V dc power supplies that conform to UL/CSA/CE Class II, Double Insulated supplies with over voltage and short circuit protection. Use only a dc source with a 50-watt maximum output or fuse the supply with a 2-amp fuse. EMI standards to Class B.

- **Onderhoud**—Probeer dit apparaat niet zelf te repareren. Het openen of verwijderen van afdekkingen kan u blootstellen aan gevaarlijke spanning of andere gevaren. Laat alle onderhoud over aan bevoegd onderhoudspersoneel.
- HUBBCOM Smart Controllers zijn alleen bedoeld voor gebruik binnenshuis.

 **AANDACHT**  —Gebruik alleen 12 of 24 VDC-voedingen die voldoen aan UL/CSA/CE Klasse II, dubbel geïsoleerde voedingen met overspanning en kortsluitbeveiliging. Gebruik alleen een DC-bron met een maximale output van 50 W of fuseer de voeding met een 2-ampère zekering. EMI-normen voor klasse B.

- **Dépannage**—N'essayez pas de réparer cet appareil vous-même. Ouvrir ou retirer les capots peut vous exposer à des tensions dangereuses ou à d'autres dangers. Confiez toute réparation à un personnel qualifié.
- Les contrôleurs intelligents HUBBCOM sont conçus pour une utilisation en intérieur uniquement.

 **ATTENTION**  —Utilisez uniquement des alimentations 12 ou 24 Vcc conformes à UL/CSA/CE Classe II, des alimentations à double isolation avec protection contre les surtensions et les courts-circuits. Utilisez uniquement une source cc avec une sortie maximale de 50 watts ou fusionnez l'alimentation avec un fusible de 2 ampères. Normes EMI à la classe B.

- **Manutenzione**—non tentare di riparare l'unità da soli. L'apertura o la rimozione dei coperchi potrebbero esporre a tensioni pericolose o altri rischi. Rivolgersi a personale qualificato per l'assistenza.
- Gli HUBBCOM Smart Controller sono progettati esclusivamente per uso interno.

⚠ AVVERTIMENTO ⚠—Utilizzare solo alimentatori a 12 o 24 V cc conformi a UL/CSA/CE Classe II, alimentatori a doppio isolamento con protezione da sovratensione e cortocircuito. Utilizzare solo una fonte di corrente continua con un'uscita massima di 50 watt o collegare l'alimentazione con un fusibile da 2 A. Standard EMI per la classe B.

- Mantenimiento—no intente reparar esta unidad por sí mismo. Abrir o quitar las cubiertas puede exponerlo a un voltaje peligroso u otros peligros. Remita todo el servicio a personal de servicio calificado.
- Los controladores inteligentes HUBBCOM están diseñados para uso en interiores solamente.

⚠ ADVERTENCIA ⚠—Utilice solo fuentes de alimentación de 12 o 24 V cc que cumplan con UL/CSA/CE Clase II, fuentes con doble aislamiento con sobretensión y protección contra cortocircuitos. Utilice solo una fuente de CC con una salida máxima de 50 vatios o fusione la fuente con un fusible de 2 amperios. Estándares EMI a Clase B.

Installation

Record the MAC address of the Model GRC600 or GRC600SS Remote Station before installation. Use the MAC address to configure the unit in the GUDA (including giving it a meaningful name).

GRC600

Surface mount the HUBBCOM remote station on a wall (indoor installations only) or on a (customer provided) weatherproof metallic two-gang electrical box (outdoor installations).

Surface Mounting (Indoor Installations Only)

1. Drill two holes through the mounting plate at the drill points (see Figure 1) and drill corresponding holes in the mounting surface.
2. Secure the mounting plate to the wall using (customer supplied) hardware.
3. Feed the Ethernet cable and all additional cables through the hole in the mounting plate.
4. Complete all necessary cable terminations (see the [Wiring](#) section).
5. Assemble the front cover to the mounting plate and secure it with the two included security screws.
6. Tighten the screws to 3–5 in·lb.

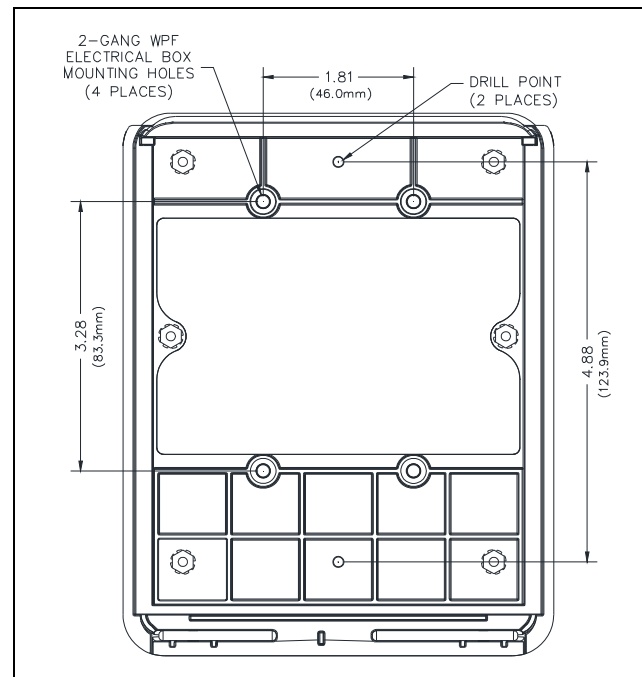


Figure 2. HUBBCOM Remote Station Back Plate

Weatherproof Two-Gang Electrical Box Mounting (Exterior Installations)

NOTE: Mount the HUBBCOM remote station on a (customer supplied) weatherproof metallic two-gang electrical box.

1. Install the two-gang electrical box in or on the mounting surface.
2. Place one of the supplied conduit box gaskets between the electrical box and the mounting plate.
3. Feed the Ethernet cable and all additional cables into the electrical box and through the gasket and mounting plate.
4. Assemble the mounting plate to the electrical box using the supplied #6-32 x 5/8-inch flat head screws (see [Figure 2](#)).
5. Complete all necessary cable terminations (see the [Wiring](#) section).
6. Assemble the front cover to the mounting plate and secure with the two included security screws.
7. Tighten the screws to 3–5 in·lb.

GRC600SS

Flush mount the stainless steel HUBBCOM remote station in a wall or communication tower using the included backbox or surface mount it with a GAI-Tronics Model 236 Series or Model 238-001 Stainless-Steel Surface-Mount Enclosure (sold separately).

Flush-Mount Installations

Use the supplied back box for flush mount installations or for installation in a GAI-Tronics Model 234 Series Communication Tower.

1. Remove tapered plugs from the rear cable entry holes in the backbox.
2. Feed the Ethernet cable and all additional cables through the two holes in the backbox.
3. Mount the back box to the structure using appropriate hardware (see [Figure 3](#) for cutout dimensions).
4. Complete all cable terminations (see the [Wiring](#) section).
5. Secure the unit to the backbox mounting flanges using the six security screws with washers provided.
6. Tighten the screws to 10–12 in·lb.

Surface Mount Installations with GAI-Tronics Model 236 Series or Model 238-001 Enclosure

1. Install the surface-mount enclosure.
Refer to Pub. 42004-285 for the Model 236 Series or Pub. 42004-434 for the Model 238-001 backboxes for installation instructions (see the [Reference Documentation](#) section).
2. Remove and discard the backbox installed on the stainless-steel remote station.
3. Complete all cable terminations (see the [Wiring](#) section).
4. Secure the unit to the surface-mount enclosure using the six security screws and washers provided.
5. Tighten the screws to 10–12 in·lb.

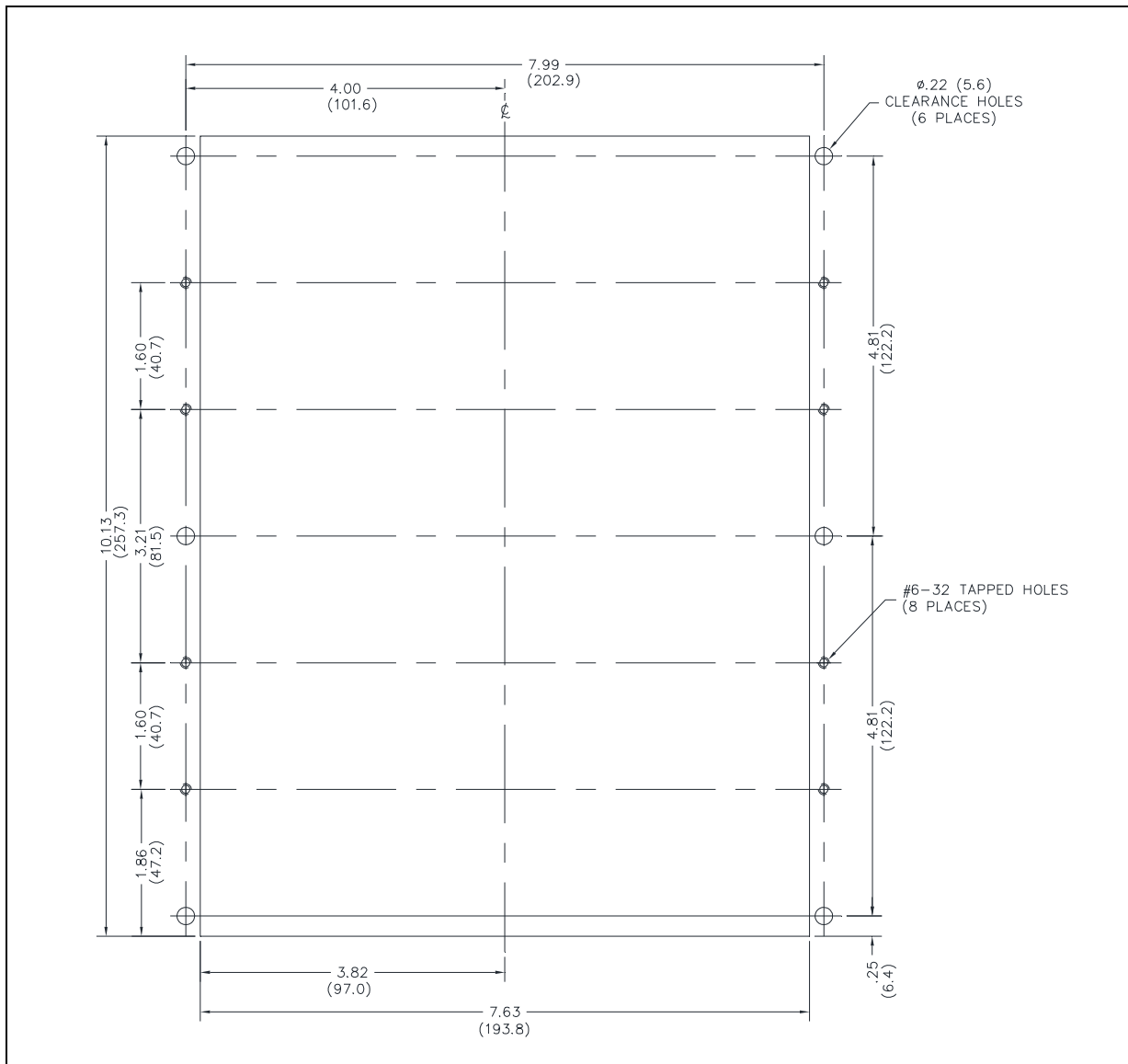


Figure 3. Cutout Detail for GRC600SS

Wiring

HUBBCOM remote stations have terminal blocks that accept 20–26 AWG wires (see [Figure 4](#)).

NOTE: Model GRC600 only: Two clamp-on ferrite cores are supplied with the Model GRC600 Remote Station; one white, one black. Run all wires terminating to terminal blocks TB1, TB2, and/or TB3 through the black ferrite core. Double wrap all the Ethernet wires around the white ferrite core. Install the clamp-on ferrite cores as close as possible to the terminal blocks. Do not use the ferrite cores with the Model GRC600SS Remote Station.

Ethernet/POE

Terminate the Ethernet cable to RJ-45 jack J1:

1. *Model GRC600 Only:* Double wrap the Ethernet cable with the white ferrite core as close as possible to the RJ-45 jack.
2. Insert the RJ-45 plug into the RJ-45 jack J1, on the PCBA.

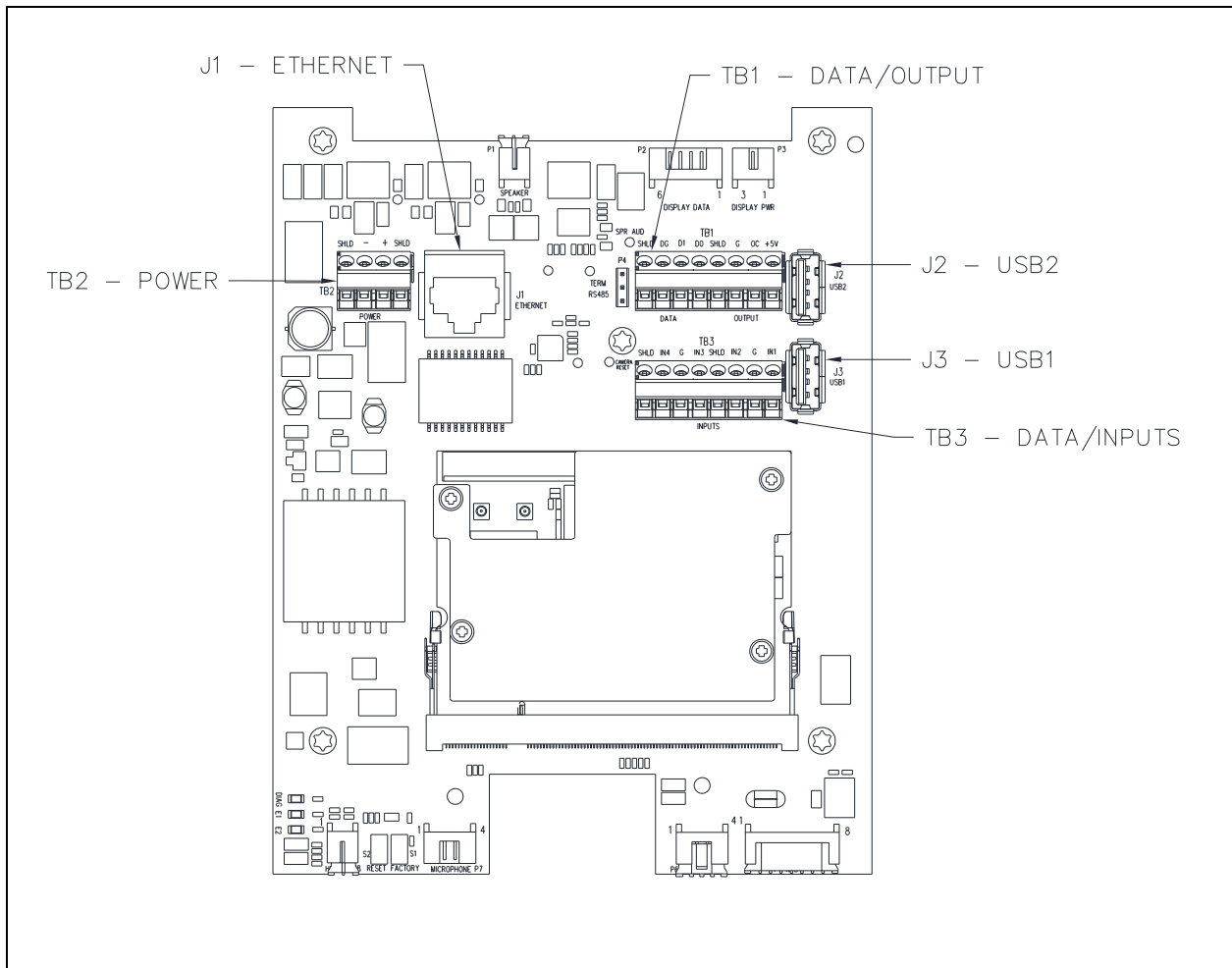


Figure 4. HUBBCOM Remote Station PCBA

Local Power (Optional)

Terminate the input power cable at terminal block TB2 if PoE (power over Ethernet) is not available:

1. Install appropriately sized ferrules onto the wire ends.
2. *Model GRC600 Only:* Install the black clamp-on ferrite core around all wires terminating to TB2 as close as possible to the terminal block.
3. Insert each wire into the correct terminal (See [Table 1](#)).

Table 1. Optional Local Power Termination Terminal Block TB2

Purpose	Pin	Label
Shield	1	SHLD
Power -	2	-
Power +	3	+
Shield	4	SHLD

Input Contacts

Terminate the input contacts at terminal block TB3:

NOTE: *Required:* Use shielded cable for outdoor installations when using Wiegand/clock data.

1. Install appropriately sized ferrules onto the wire ends.
2. *Model GRC600 Only:* Install the black clamp-on ferrite core around all wires terminating to TB3 as close as possible to the terminal block.
3. Insert each wire into the correct terminal (See [Table 2](#)).

Do NOT connect the cable shield to ground at the remote station.

Table 2. Input Terminations—Terminal Block TB3

Purpose	Pin	Label
shield	1	SHLD
input four	2	IN4
ground	3	G
input three	4	IN3
shield	5	SHLD
input two	6	IN2
ground	7	G
input one	8	IN1

Wiegand Data/Output Contact

Terminate the output connections at terminal block TB1:

1. Install appropriately sized ferrules onto the wire ends.
2. *Model GRC600 Only:* Install the black clamp-on ferrite core around all wires terminating to TB1 as close as possible to the terminal block.
3. Insert each wire into the correct terminal of terminal block TB1 (See [Table 3](#)).

Table 3. Data/Output Contact Terminations—Terminal Block TB1

Purpose	Pin	Label
shield	1	SHLD
Wiegand/clock data	2	DG
Wiegand/clock data	3	D1
Wiegand/clock data	4	D0
shield	5	SHLD
output ground	6	G
open collector	7	OC
output power	8	+5V

USB1 and USB2

Terminate the USB cables at USB ports J2 and J3:

1. Install USB-A plugs onto the wire ends.
2. Insert the USB cables into the USB ports.
3. *Model GRC600 Only:* Install the black clamp-on ferrite core around the cable as close as possible to the installed USB plugs.

Configuration

Configure HUBBCOM remote stations using the GUDA (GAI-Tronics Universal Device Application). Refer to Pub. 42004-531 for the GUDA's installation and operation instructions to configure the remote station (see the [Reference Documentation](#) section).

1. Launch the GUDA software.
2. Click the refresh button next to the SELECT NETWORK INTERFACE field to refresh the list of active network adapters to perform a network discovery for devices.
3. Use the drop-down list to select a different network if the HUBBCOM™ device is on a different network accessed through another network adapter.
4. Click the FIND DEVICES button to locate available HUBBCOM™ devices.

Unconfigured devices appear with the factory default name: HUBBCOM-MAC-ADDRESS.

5. Double click the desired device or select it and click CONNECT to access the device's configuration pages.
6. Enter a meaningful device name.
7. Click the APPLY button.

NOTE: Only inputs one and two can initiate telephone calls.

Service and Spare Parts

Contact a regional service center for assistance if the equipment requires service or spare parts. An RA# (return authorization number) will be issued for required service. Ship equipment prepaid to GAI-Tronics with an RA# and a purchase order number. Repairs or a replacement are made in accordance with GAI-Tronics' warranty policy if the equipment is under warranty. Please include a written explanation of all defects to assist our technicians in their troubleshooting efforts. Call 800-492-1212 inside the USA or 610-777-1374 outside the USA for help with identifying the nearest regional service center.

Reference Documentation

GAI-Tronics publications are located on the GAI-Tronics website at <https://www/gai-tronics.com>.

GAI-TRONICS Universal Device Application	42004-531
236-001 Series Surface Mount Enclosure.....	42004-285
238-001 Series Stainless Steel Surface Mount Enclosures	42004-434

Specifications

Electrical

Power Consumption

Network Power PoE/PoE+, IEEE 802.23af
Local Power 12–24 V dc, 10 W

Ethernet

Cable Category 5e or better
Speed..... up to 1000 Mbps

USB (Quantity 2)

Cable shielded
Speed..... USB 2.0

Card Reader Interface

Cable 3-wire, untwisted, shielded
Protocol Wiegand

Generic Inputs/Outputs

Inputs 4, voltage-free dry contact
Outputs 1, open collector, 125 mA @ 5 V dc (maximum)

User Interface

GRC600

Activation Control pushbutton with LED ring
Speaker Audio..... 8 Ω, 2 W
Microphone digital microphone
Status Indication..... 3 Color LED
RFID Card..... Wiegand 26-bit H10301 proximity card
NFC Card.....NXP MiFare Classic 1K EV1 ISO14443A
NXP MiFare DESFire 4K EV1
NXP MiFare Ultralight EV1

GRC600SS

Activation Control pushbutton with LED ring
Speaker Audio..... 8 Ω, 2 W
Microphone analog microphone
RFID Card..... Wiegand 26-bit H10301 proximity card
NFC Card.....NXP MiFare Classic 1K EV1 ISO14443A
NXP MiFare DESFire 4K EV1
NXP MiFare Ultralight EV1

Mechanical

GRC600

Construction..... black engineered plastic
Dimensions 6.73 H × 5.19 W × 1.57 D in (131.9 × 171.0 × 39.9 mm)
Weight..... 1.2 lb (0.54 kg)

GRC600SS

Construction

- Front Panel..... 14-gauge (0.075-inch) type 304 brushed stainless steel
- Backbox 16-gauge (0.060-inch) steel with black polyurethane finish

Dimensions

- Front Panel..... 12.0 H × 10.0 W in (304.8 × 254.0 mm)
- Backbox 10.06 H × 8.43 W × 2.50 D in (255.6 × 214.1 × 63.5 mm)

Cutout for mounting back box 10.13 H × 7.63 W in (257.3 × 193.8 mm)

Weight..... 6.0 lb (2.7 kg)

Environmental

Temperature Range..... -35 °C to 66 °C (-31 °F to 150 °F)
 NEMA 3R/IP54

Approvals

EMC..... CFR 47 Part 15B Class B
 ICES-003 Class B

Safety EN 62368-1/UL62368-1
 Exposure Assessment Risk EN62311

Card Reader Module CFR 47 Part 15C
 Radio Equipment Directive 2014/53/EU (RED)

RSS-210, Issue 9 of Innovation, Science, and Economic Development, Canada

CE Mark

FCC STATEMENTS

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.

Wi-Fi operating frequency range 2.412–2.462 GHz (US and Canada)

NFC operating frequency13.56MHz (US and Canada)

RFID operating frequency 125KHz (US and Canada)

Canadian Statements: This device contains license-exempt transmitter(s) that comply with the 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, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

DÉCLARATIONS CANADIENNES: CET APPAREIL CONTIENT DES ÉMETTEUR (S) EXEMPTÉS DE LICENCE QUI SONT CONFORMES AU RSS (S) INNOVATION, SCIENCE ET DÉVELOPPEMENT ÉCONOMIQUE CANADA

LE FONCTIONNEMENT EST SOUMIS AUX DEUX CONDITIONS SUIVANTES:

- (1) CET APPAREIL PEUT NE PAS PROVOQUER D'INTERFÉRENCE ET
- (2) CE DISPOSITIF DOIT ACCEPTER TOUTE INTERFÉRENCE, Y COMPRIS LES INTERFÉRENCES QUI PEUVENT CAUSER UN FONCTIONNEMENT INDÉSIRABLE DU DISPOSITIF.

Warranty

Equipment. GAI-Tronics warrants for a period of one (1) year from the date of shipment, that any GAI-Tronics equipment supplied hereunder shall be free of defects in material and workmanship, shall comply with the then-current product specifications and product literature, and if applicable, shall be fit for the purpose specified in the agreed upon quotation or proposal document. If (a) Seller's goods prove to be defective in workmanship and/or material under normal and proper usage, or unfit for the purpose specified and agreed upon, and (b) Buyer's claim is made within the warranty period set forth above, Buyer may return such goods to GAI-Tronics nearest depot repair facility, freight prepaid, at which time they will be repaired or replaced, at Seller's option, without charge to Buyer. Repair or replacement shall be Buyer's sole and exclusive remedy. The warranty period on any repaired or replacement equipment shall be the greater of the ninety (90) day repair warranty or one (1) year from the date the original equipment was shipped. In no event shall GAI-Tronics warranty obligations with respect to equipment exceed 100% of the total cost of the equipment supplied hereunder. Buyer may also be entitled to the manufacturer's warranty on any third-party goods supplied by GAI-Tronics hereunder. The applicability of any such third-party warranty will be determined by GAI-Tronics.

Services. Any services GAI-Tronics provides hereunder, whether directly or through subcontractors, shall be performed in accordance with the standard of care with which such services are normally provided in the industry. If the services fail to meet the applicable industry standard, GAI-Tronics will re-perform such services at no cost to buyer to correct said deficiency to Company's satisfaction provided any and all issues are identified prior to the demobilization of the Contractor's personnel from the work site. Re-performance of services shall be Buyer's sole and exclusive remedy, and in no event shall GAI-Tronics warranty obligations with respect to services exceed 100% of the total cost of the services provided hereunder.

Warranty Periods. Every claim by Buyer alleging a defect in the goods and/or services provided hereunder shall be deemed waived unless such claim is made in writing within the applicable warranty periods as set forth above. Provided, however, that if the defect complained of is latent and not discoverable within the above warranty periods, every claim arising on account of such latent defect shall be deemed waived unless it is made in writing within a reasonable time after such latent defect is or should have been discovered by Buyer.

Limitations / Exclusions. The warranties herein shall not apply to, and GAI-Tronics shall not be responsible for, any damage to the goods or failure of the services supplied hereunder, to the extent caused by Buyer's neglect, failure to follow operational and maintenance procedures provided with the equipment, or the use of technicians not specifically authorized by GAI-Tronics to maintain or service the equipment. **THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES AND REMEDIES, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

Return Policy

If the equipment requires service, contact your Regional Service Center for a return authorization number (RA#). Equipment should be shipped prepaid to GAI-Tronics with a return authorization number and a purchase order number. If the equipment is under warranty, repairs or a replacement will be made in accordance with the warranty policy set forth above. Please include a written explanation of all defects to assist our technicians in their troubleshooting efforts.

Call 800-492-1212 (inside the USA) or 610-777-1374 (outside the USA) for help identifying the Regional Service Center closest to you.