



GAI-TRONICS®
A HUBBELL COMPANY

HUBBCOM™ Remote GRC600 Station

Quick Installation Guide

General Information

This guide covers the installation of the HUBBCOM Model GRC600 Remote Station. The Model GRC600 Remote Station is designed for use as an access control device and/or a remote audio/video monitoring station. It can function in a standalone configuration or as part of a HUBBCOM system. See the GAI-Tronics website at <https://www.gai-tronics.com> for system specifications, warranty information, and the GUDA (GAI-Tronics Universal Device Application).

Important Safety Instructions

- **Read, follow, and retain instructions**—All safety and operating instructions should be read and followed before operating the unit. Retain instructions for future reference.
- **Heed warnings**—Adhere to all warnings on the unit and in the operating instructions.
- **Attachments**—Attachments not recommended by the product manufacturer should not be used, as they may cause hazards.
- **Servicing**—Do not attempt to service this unit by yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- HUBBCOM Smart Controllers are designed for indoor use only.



Figure 1. HUBBCOM Remote Station



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. Class 2 circuit wiring must be performed in accordance with the NEC.

These enclosures must be installed by trained, qualified and competent personnel. 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.

GAI-TRONICS 3030 KUTZTOWN RD. READING, PA 19605 USA

610-777-1374 ■ 800-492-1212 ■ Fax: 610-796-5954

VISIT WWW.GAI-TRONICS.COM FOR PRODUCT LITERATURE AND MANUALS

**AANDACHT**

—Gebruik alleen 12 oder 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

The HUBBCOM Remote Station is surface mounted on a wall (indoor installations only) or on a (customer provided) weatherproof metallic two-gang electrical box (outdoor installations).

Safety Hardware

The HUBBCOM Remote Station described in this manual is vandal resistant. The front cover is attached to the mounting plate with security screws. A Torx T-10 security screwdriver is required to install the station.

Surface Mount (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).

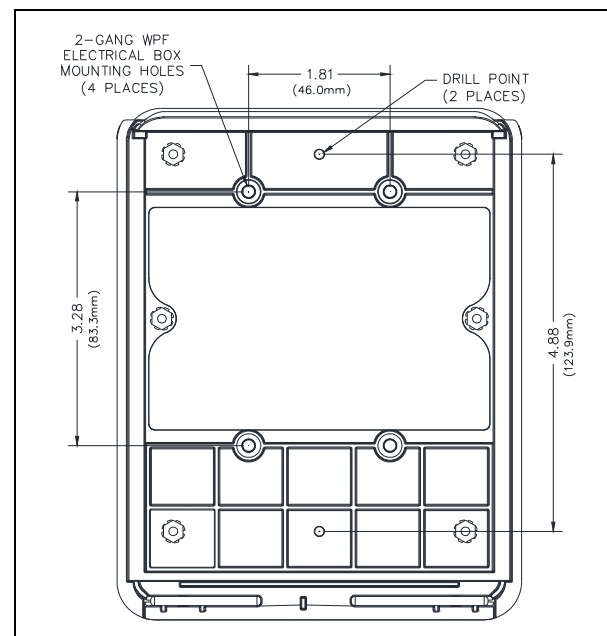


Figure 2. HUBBCOM Remote Station Back Plate

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.

Mounting on a Weatherproof Two-Gang Electrical Box (Exterior Installations)

NOTE: The HUBBCOM Remote Station is mounted 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.

Wiring

HUBBCOM Remote stations are equipped with terminal blocks that accept 20–26 AWG wires (see [Figure 3](#)).

NOTE: Two clamp-on ferrite cores are supplied with the unit; 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.

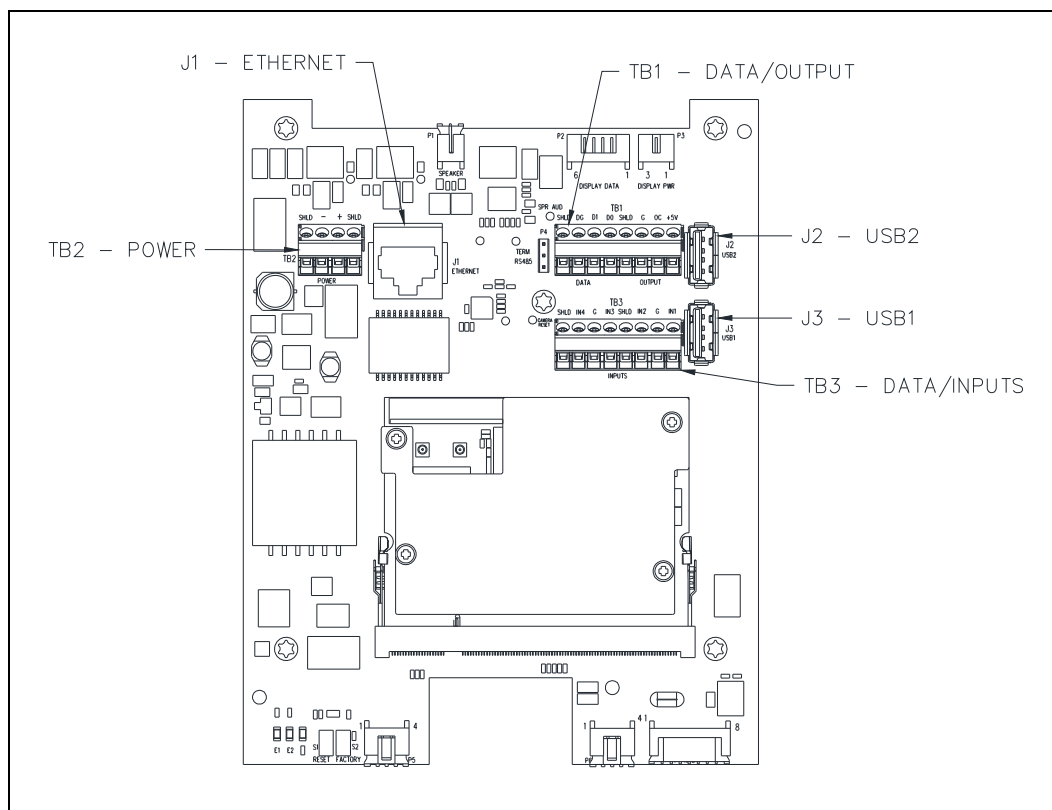


Figure 3. HUBBCOM Remote Station PCBA

Ethernet/POE

Terminate the Ethernet cable to RJ-45 jack J1:

1. 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.

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. 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](#)).

Data/Output Contact

Terminate the output connections at terminal block TB1:

1. Install appropriately sized ferrules onto the wire ends.
2. 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 2](#)).

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. Install the black clamp-on ferrite core around cable.

Input Contacts

Terminate the input contacts at terminal block TB3:

NOTE: Shielded cable must be used for outdoor installations when using Wiegand/clock data.

1. Install appropriately sized ferrules onto the wire ends.
2. 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 3](#)).
Do NOT connect the cable shield to ground at the remote station.

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 if service is required. Equipment must be shipped prepaid to GAI-Tronics with a return authorization number and a purchase order number. Repairs or a replacement will be 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 regional service center closest to you.

Table 1. Optional Local Power Termination
Terminal Block TB2

Purpose	Term Block-Pin	Label
shield	1	SHLD
power -	2	-
power +	3	+
shield	4	SHLD

Table 2. Data/Output Contact Termination
Terminal Block TB1

Purpose	Term Block Pin	Label
shield	1	SHLD
data ground	2	DG
data one	3	D1
data zero	4	D0
shield	5	SHLD
output ground	6	G
open collector	7	OC
output power	8	+5V

Table 3. Input Terminations
Terminal Block TB3

Purpose	Term Block Pin	Label
Wiegand/clock data	1	DG
Wiegand/clock data	2	D1
Wiegand/clock data	3	D0
input four	4	IN4
ground	5	GND
input three	6	IN3
ground	7	GND
input two	8	IN2
ground	9	GND
input one	10	IN1

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 D0, D1, and DG

Generic Inputs/Outputs

Inputs	4, dry contact
Outputs.....	1, open collector, 125 mA maximum

User Interface

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

Mechanical

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)

Environmental

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

Approvals

EMC	EN 55032 CISPR 32 Class B
.....	EN 55035 CISPR 35 Immunity
.....	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

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.

Wi-Fi operating frequency range	2.412–2.462 GHz (US and Canada)
NFC operating frequency	13.56MHz (US and Canada)
RFID operating frequency	125KHz (US and Canada)

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.