



GAI-TRONICS® CORPORATION
A HUBBELL COMPANY

HUBBCOM™ GSC1000/GSC2000 Desktop/Wall-Mount Smart Controller Quick Installation Guide

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.

⚠ 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 NEC 725.55.

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 ⚠ —In 24 V dc systems: Under NO condition should this equipment be operated from a battery charger without the batteries connected.

In 24 V dc systems, most chargers have an unloaded output of 35 to 45 volts that can quickly damage the equipment designed for nominal 24 volts. The maximum battery voltage should never exceed the maximum specified input voltage.

⚠ WARNING ⚠ —Do not disconnect equipment while energized.
Ensure proper grounding to protective earthing.

General Information

This guide covers the installation of the HUBBCOM™ Desktop/Wall-Mount Smart Controller, Models GSC1000 and GSC2000. The Model GSC1000 Smart Controller is equipped with a handset and is only configured for horizontal (landscape) installations. The Model GSC2000 Smart Controller is not equipped with a handset and can be configured for vertical (portrait) or horizontal (landscape) use (see [Figure 1](#)). See the GAI-Tronics website at <https://www.gai-tronics.com> for, system specifications, warranty information, and the HUBBCOM™ Smart Controller Configuration App.

Service and Spare Parts

If the equipment requires service or spare parts, contact your Regional Service Center for assistance. If service is required, a return authorization number (RA#) will be issued. 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 GAI-Tronics' warranty policy. 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.

Installation

The HUBBCOM™ Model GSC1000 and Model GSC2000 can be wall mounted or used as desktop units.

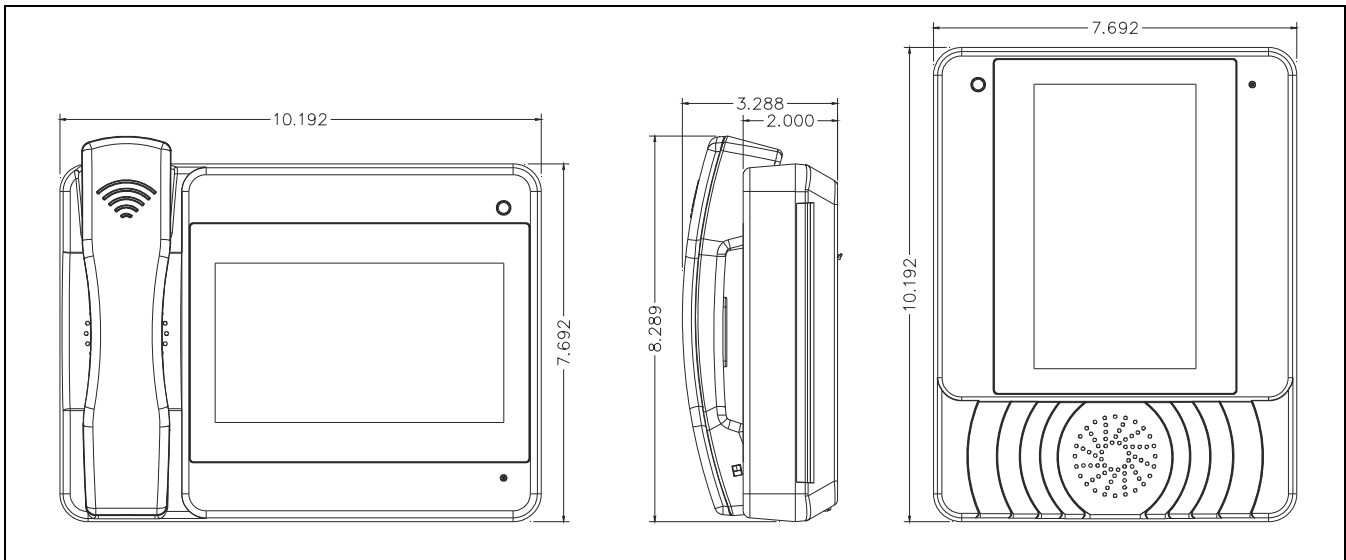


Figure 1. HUBBCOM™ Model GSC1000 (horizontal) and Model GSC2000 (vertical) Smart Controllers

Desktop Units

The HUBBCOM™ Smart Controller can be used as a desktop station by installing the included kickstand (see [Figure 2](#)). Handset units must be setup horizontally. Hands-free units can be configured vertically or horizontally (based on programming).

1. Remove the cable termination cover and set it aside.
2. Complete the necessary cable terminations as described in the [Wiring](#) section.
3. Route the terminated wires through the half round access holes and secure with a ty-wrap using the integrated anchors.
4. Replace the cable termination cover by hooking the two tabs into the slots and rotating the cover downward until it clicks into place.
5. Install the kickstand. The kickstand provides four positions in both orientations to suit the situation where it will be used (see [Table 1](#) and [Figure 4](#)).
 1. Determine the orientation of the unit.
 2. Insert one side of the kickstand with the flange properly oriented into the desired position in the rear cutout (see [Figure 4](#)).
 3. Press the other side into place and compress firmly to snap it into place.

Table 1. Smart Controller Kickstand Positions

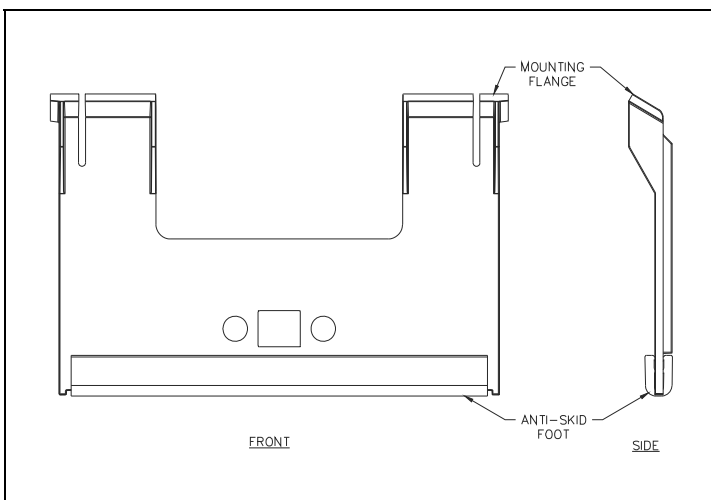


Figure 2. Smart Controller Kickstand

Orientation/ Position	Horizontal Models GSC1000 & GSC2000	Vertical Model GSC2000
1 (flange up)	75°	75°
2 (flange up)	60°	60°
2 (flange down)	45°	45°
3 (flange up)	30°	30°

Wall Mounting

HUBBCOM™ Smart Controllers can be wall mounted on a single or double gang electrical box or directly mounted to a wall surface using wall anchors or toggle bolts.

Single or double gang electrical box mounting:

1. Orient the wall-mount bracket (see [Figure 3](#)) over the electrical box with the small flanges on top and the large flanges on the bottom.
2. Use #8-32 flathead machine screws (not included) to attach the mounting bracket to the electrical box using holes A-A for a double gang (four screws), or B-B for a single gang electrical box (two screws).
3. Feed the cable(s) in the electrical box through the mounting bracket center hole.
4. Remove and discard the cable termination cover from the back of the unit.
5. Remove the two #8 × ½-inch mounting bracket screws from the bottom of the rear panel and set aside (see [Figure 4](#)).
6. Complete the necessary cable terminations per the instructions in the [Wiring](#) section below.
7. With the proper orientation for the unit's configuration, angle the unit to hook it onto the top flange brackets (D-D or E-E, see [Figure 4](#)), then rotate and slide it downward until it rests on the mounting bracket.
8. Secure the unit to the support bracket using the two #8 × ½-inch screws previously removed by screwing them into the unit's chassis through the holes in the bottom flanges.

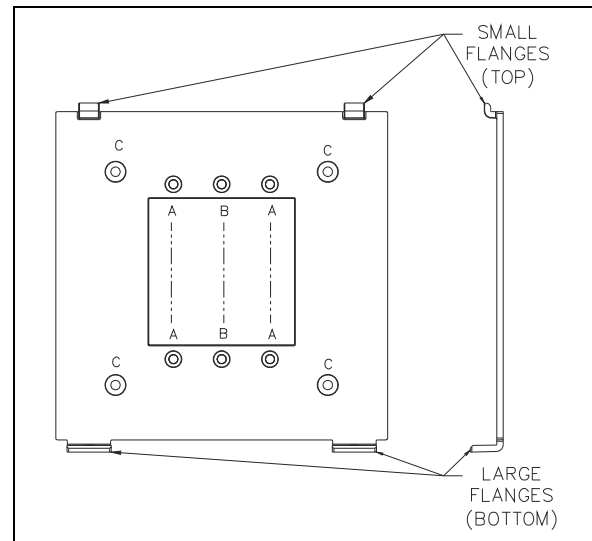


Figure 3. Smart Controller Wall-Mount Bracket

Surface mounting with toggle bolts or wall anchors:

1. Orient the support bracket on the wall with the small flanges on top and the large flanges on the bottom. Suggested mounting height is 48 inches from the floor to the bottom of the mounting bracket.
2. Mark the locations (C) for the four wall anchors or toggle bolts (not included) and the area in the center of the bracket where the cable(s) will come through the wall using the support bracket as a template (see [Figure 3](#)).
3. Drill the necessary holes for the toggle bolts or wall anchors and cut or drill a hole in the center area for the Smart Controller's cables.
4. Attach the mounting bracket to the wall using toggle bolts or wall anchors (not included).
5. Bring the cable(s) out through the support bracket center cutout.
6. Remove and discard the cable termination cover from the back of the unit.
7. Remove the two #8 × ½-inch mounting bracket screws from the bottom of the rear panel and set aside (see [Figure 4](#)).
8. Complete the necessary cable terminations per the instructions in the [Wiring](#) section below.
9. With the proper orientation for the unit's configuration, angle the unit to hook it onto the top flange brackets (D-D or E-E, see [Figure 4](#)), then rotate and slide it downward until it rests on the mounting bracket.
10. Secure the unit to the support bracket using the two #8 × ½-inch screws previously removed by screwing them up into the unit's chassis through the holes in the bottom flanges.

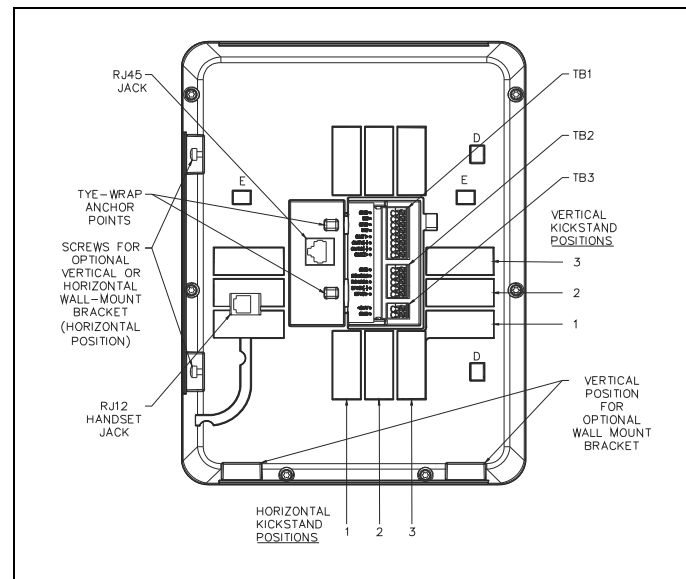


Figure 4. HUBBCOM™ Smart Controller—Rear View

Wiring

Hubbcom™ Smart Controllers are equipped with quick release terminal blocks that accept 16–24 AWG wires. Wires can be released from the terminal block by pressing the quick release button above the terminal.

Handset

1. Plug the RJ-12 handset connector into the RJ-12 jack on the back of the unit.
2. **Wall-mount installations**—Tuck the handset cord into the channel provided for it to provide strain relief for the RJ-12 plug.

RTU Input/Output

Terminal Block TB1 is for optional RTU I/O (Remote Terminal Unit Input/Output) functionality. Complete the following steps to terminate the RTU I/O cables:

1. Install appropriately sized ferrules onto the wire ends.
2. Insert each wire into the correct quick release terminal (see [Table 2](#)).

RS-485 and External Speaker Connections

Terminal Block TB2 is for optional RS-485 and external speaker connections. Complete the following steps to terminate the RS-485 and external speaker connections:

- NOTE:** External 24 V dc power is required for stations with external speaker hook-ups.
1. Install appropriately sized ferrules onto the wire ends.
 2. Insert each wire into the correct quick release terminal (see [Table 3](#)).

Ethernet

1. Terminate the Category 5 or better Ethernet cable with an RJ-45 plug per standard T568B.
2. Plug the Ethernet cable into RJ-45 jack J4 on the back of the Smart Controller (See [Figure 4](#)).

24 V DC Power

24 V dc power can be used in place of POE and must be used for units requiring an external speaker hook-up. Complete the following steps to terminate the 24 V dc power source to the smart controller:

1. Install ferrules onto the wire ends.
2. Insert each wire into the correct quick release terminal (see [Table 4](#)).

Approvals

Compliance to Standard.....FCC CFR 47 Part 15

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

Table 2. Terminal Block TB1—RTU I/O

Purpose	Term-Block Pin	Label
RTU Input One Ground	TB1-1	GND
RTU Input One	TB1-2	IN1
RTU Input Two Ground	TB1-3	GND
RTU Input Two	TB1-4	IN2
RTU Output 1 +	TB1-5	OUT1+
RTU Output 1 –	TB1-6	OUT1(-)
RTU Output 2 –	TB1-7	OUT2(-)
RTU Output 2 +	TB1-8	OUT2+

Table 3. Terminal Block TB2—RS-485 and External Speaker

Purpose	Term-Block Pin	Label
RS485 Ground	TB2-1	GND
RS485 B	TB2-2	RS485B
RS485 A	TB2-3	RS485A
External Speaker –	TB2-4	SPKR–
External Speaker +	TB2-5	SPKR+

Table 4. Terminal Block TB3—24 V DC Power

Purpose	Term-Block Pin	Label
24 V dc Positive	TB3-1	+24V
Ground	TB3-2	GND

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.

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