GS15/25/50-ANT Placement and Installation Instructions

The GS15/25/50-ANT series of high gain remote antennas enables the installer to position the antenna for optimal signal strength independent of the GS3060 mounting location. The GS15-ANT is intended for indoor use only and is equipped with a 15ft. coaxial cable. The GS25-ANT and GS50-ANT are intended for outdoor use or in large indoor open areas (high elevations). The GS25-ANT and GS50-ANT are equipped with 25ft. and 50ft. coaxial cables respectively.

Antenna Installation Guidelines

Consider the following when selecting an antenna mounting location:

- Position the GS25/50-ANT antennas as high as possible to avoid obstructions.
- Position the antenna away from possible sources of electrical interference
- If the signal strength is poor try relocating the antenna until high signal strength is achieved
- When installing indoors, ensure the antenna is in a physically secure location within the protected area, to avoid tampering
- Ensure the antenna is mounted vertically
- Secure the bracket to the wall using suitable screws
- Route the cable down to the intended location of the GS3060 unit
- Use the full length of the antenna cable supplied; do not cut or splice the cable
- Secure the cable with suitable cable clips at less than 1ft spacing
- If turning the cable through a 90° corner then ensure the bend radius is greater than 1 in. (25.4mm) for the GS15-ANT and greater than 2 in. (50.8mm) for the GS25/GS50-ANT antennas
- Coil excess cable close to the GS3060 unit. Ensure the coil diameter is not less than 6 in. (152.4mm) for the GS15-ANT and not less than 12 in. for the GS25/GS50-ANT antennas
- For the GS25/GS50-ANT, the antenna element (white fiberglass section) should not be placed up against a wall or similar structure.
  - Clamp the base of the antenna firmly around the heat shrink area.
  - Do not over tighten the bracket, damage to the antenna base may result (refer to external antenna photos on the next page)
- If the GS25/GS50-ANT is outside the protected area:
  - Protect the antenna and antenna cable with an alarm initiating device connected to the alarm system (e.g., motion sensor)
  - Ensure the alarm initiating device is armed when the alarm system is armed
  - Protect the antenna cable and alarm initiating device cable with rigid metal conduit, electrical metallic tubing, by concealing the cables within the building structure or locating them within the field of the alarm initiating device.

Specifications

	GS15-ANT	GS25-ANT	GS50-ANT
Antenna Type	Dual-band Dipole	Dual-band Collinear	Dual-band Collinear
Polarization	Vertical	Vertical	Vertical
Frequency (MHz)	824-893 & 1850-1990	824-893 & 1850-1990	824-893 & 1850-1990
Azimuth Beamwidth	Omni-directional	Omni-directional	Omni-directional
Elevation Beamwidth (3dB)	60°	40°	40°
VSWR (max.)	2:1	2:1	2:1
Impedance	50 Ohms	50 Ohms	50 Ohms
Total Weight, including cable (lb/grams)	1lb/450g	2.3lb/1kg	4.3lb/1.9kg
Antenna Length/Diameter	8.2in.(208mm)/0.46in.(12mm)	15in.(381mm)/0.79in(20mm)	15in.(381mm)/0.79in(20mm)
Coaxial Cable			
Cable Length (ft/m)	15ft (4.6m)	25ft (7.5m)	50ft (15.2m)
Connector type	SMA (Male)	SMA (Male) on free cable end	SMA (Male) on free cable end
Jumper Cable			
Cable Length	5 in.(127 mm)	5 in.(127 mm)	5 in.(127 mm)
Connector types	SMA (female) to MMCX (Male)	SMA (female) to MMCX (Male)	SMA (female) to MMCX (Male)

WARNING: These instructions shall be used in conjunction with the GS3060 Installation Manual. Disconnect power and telephone lines during the installation of the GS15-ANT, GS25-ANT or GS50-ANT antennas. The GS15-ANT, GS25-ANT and GS50-ANT antennas shall be used only in conjunction with the supplied coaxial cable. The GS15-ANT, GS25-ANT and GS50-ANT antennas shall be installed by service persons only. Use caution when installing the GS25-ANT and GS50-ANT antennas near power lines, there is a high risk of electric shock.

Antenna Placement Test

Perform an antenna placement test using the GS3060 with the supplied antenna before installing the replacement antenna as follows:

1. Power up the unit using the battery
2. **GS15-ANT** - Place the unit in a location which gives the best signal strength
   GS25/GS50-ANT - Place the unit in a location suitable for mounting an external antenna.
3. Monitor the Green LEDs to determine if signal strength is adequate (refer to the GS3060 Installation Manual for details). Reposition the GS3060 as required to obtain optimal signal strength

NOTE: The GS3060 module does not need to be activated to show signal strength indication.

GS15-ANT/GS25-ANT/GS50-ANT Connection to the GS3060 Unit

Once the optimum mounting location has been determined for peak signal strength the antenna should now be connected to the GS3060 module. This process is described in the following steps:

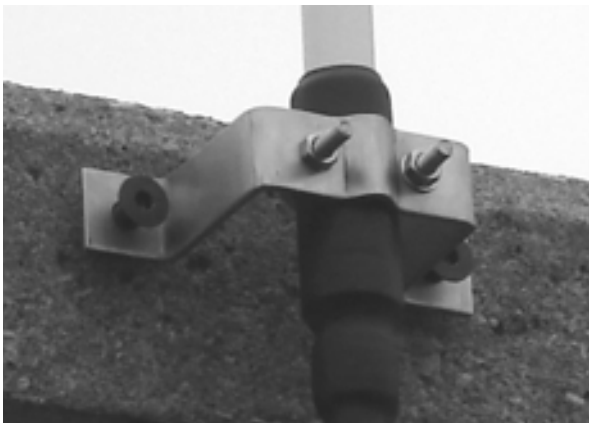
1. Remove the front cover of the GS3060 unit (see Step 1 photo).
2. Disconnect the existing antenna. Place a screwdriver between the antenna connector and the radio header, then twist the screwdriver to pry the connector off (see Step 2 photo).
3. Detach the existing antenna from the GS3060 case by removing the securing nut on the base of the antenna (see Step 3 photo).
4. Remove the left-hand-side knock-out plate from the top face of the GS3060 case using a screw driver and a pair of pliers (see Step 4 photo).
5. Insert and secure cable strain relief clamp, ensure screws are on the outside of the case facing forward (see Step 5 photo).
6. Feed the free end of the antenna cable through the cable clamp. Ensure enough cable is fed through so that the cable end is easily accessible.

   NOTE: For the GS25-ANT and GS50-ANT secure the 5 in. jumper cable on to the end of the antenna cable (see Step 6 photo), ensure the connection is finger tight.
7. Pull the antenna cable back through the cable clamp so that the hub of the connector (this is the part of the connector with the largest diameter) is inline with the jaws of the cable clamp (see Step 7 photo).
8. Tighten the clamp screws so that the cable is firmly clamped in position. Connect the plug connector on the jumper cable on to the radio module socket connector. Ensure the plug clicks securely into place (see Step 8 photo).
9. Place the supplied black plastic stud into the hole on the case where the existing antenna was mounted (see Step 9 photo).
10. Secure the front cover back on to the GS3060 unit (see Step 10 photo).

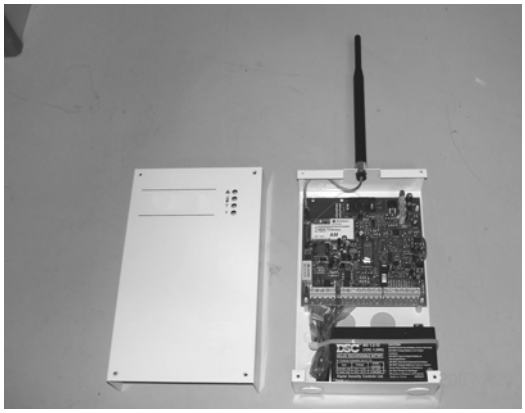
GS15-ANT/GS25-ANT/GS50-ANT Antenna Placement Confirmation

Once the antenna is connected to the GS3060 module it should be retested in the proposed location to verify the signal strength of the GS3060 is acceptable. If the performance is found to be unacceptable then experiment placing the antenna in other locations until acceptable performance is achieved.

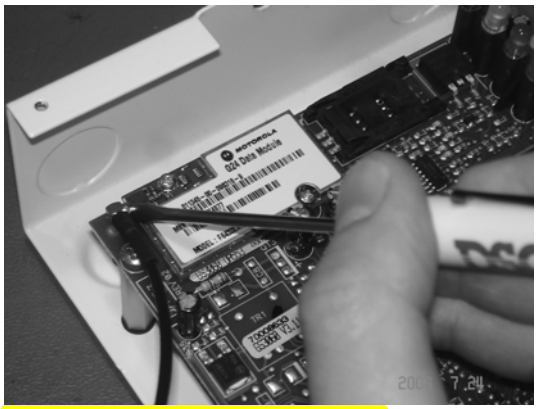
GS25-ANT / GS50-ANT Antenna Installation



Antenna Connection to the GS3060 Unit

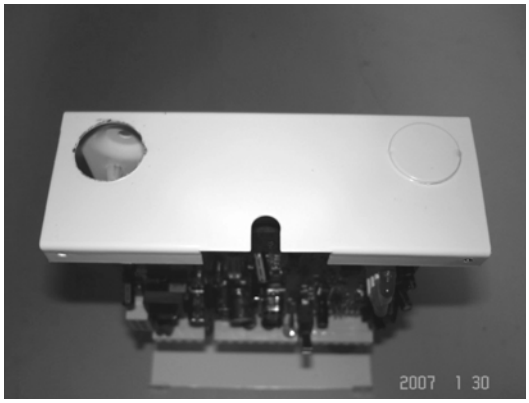


Step 1 - Remove front cover

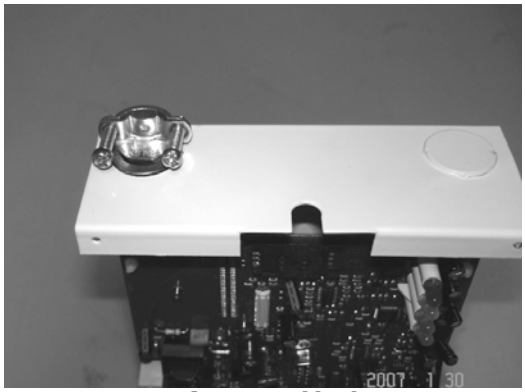


Step 2 - Disconnect existing antenna

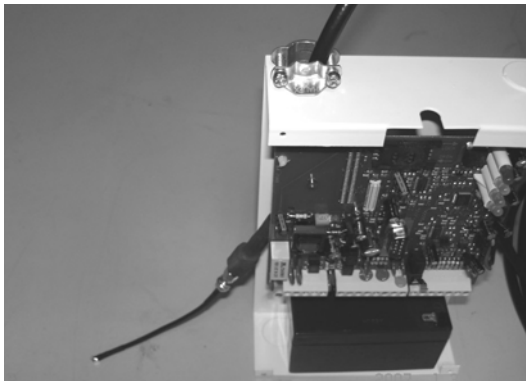
Step 3 - Detach existing antenna



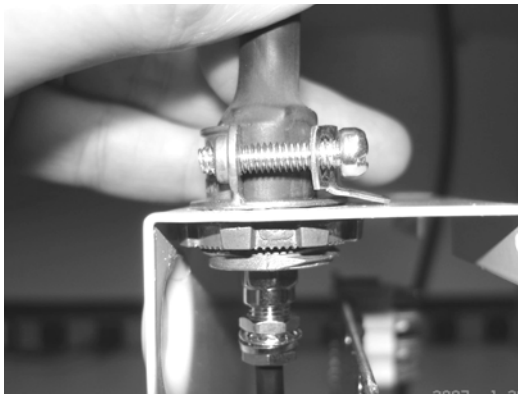
Step 4 - Remove left knock-out on top face



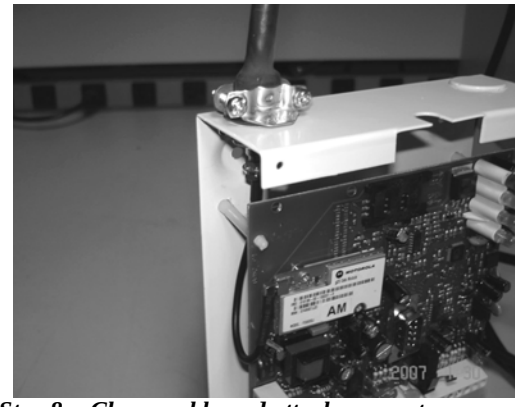
Step 5 - Insert and secure cable clamp



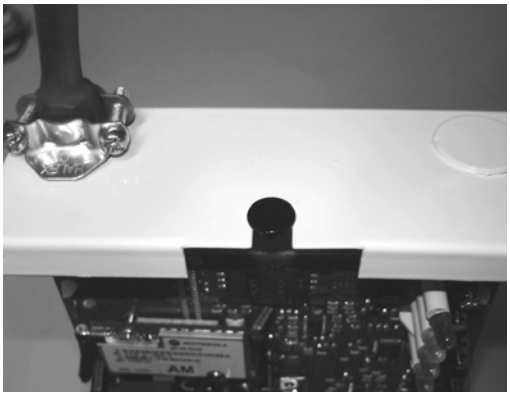
Step 6 - Attach jumper cable to antenna cable end



Step 7 - Tighten clamp on metal hub



Step 8 - Clamp cable and attach connector



Step 9 - Place plastic hole stud in position

Step 10 - Replace front cover

FCC COMPLIANCE STATEMENT

CAUTION: Changes or modifications not expressly approved by Digital Security Controls could void your authority to use this equipment. This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio 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:

- Re-orient the receiving antenna
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock # 004-000-00345-4.

IMPORTANT INFORMATION

This equipment complies with Part 68 of the FCC Rules. On the side of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this number must be provided to the Telephone Company.

GS3060 Product Identifier	US: F53MO00BGS3060
REN:	0.0B
USOC Jack:	RJ-31X

Telephone Connection Requirements

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

Ringer Equivalence Number (REN)

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local Telephone Company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format. US: AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

Incidence of Harm

If this equipment GS3060 causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the Telephone Company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

Changes in Telephone Company Equipment or Facilities

The Telephone Company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the Telephone Company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

Equipment Maintenance Facility

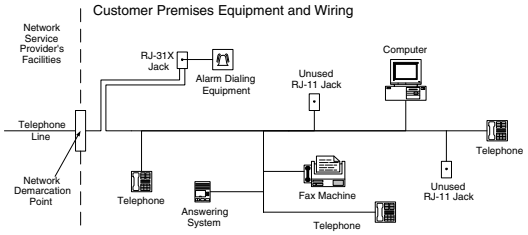
If trouble is experienced with this equipment for repair or warranty information, please contact the facility indicated below. If the equipment is causing harm to the telephone network, the Telephone Company may request that you disconnect the equipment until the problem is solved. This equipment is of a type that is not intended to be repaired by the end user.

DSC c/o APL Logistics, 757 Douglas Hill Rd., Lithia Springs, GA 30122

Additional Information

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

Alarm dialling equipment must be able to seize the telephone line and place a call in an emergency situation. It must be able to do this even if other equipment (telephone, answering system, computer modem, etc.) already has the telephone line in use. To do so, alarm dialling equipment must be connected to a properly installed RJ-31X jack that is electrically in series with and ahead of all other equipment attached to the same telephone line. Proper installation is depicted in the figure below. If you have any questions concerning these instructions, you should consult your telephone company or a qualified installer about installing the RJ-31X jack and alarm dialling equipment for you.



Industry Canada Compliance Statement

This Equipment 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 that Industry Canada approved the equipment. The Ringer Equivalence Number (REN) for this terminal equipment is 0.0. 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 5.

Cet équipement est conforme aux spécifications techniques applicables aux équipements terminaux d'Industrie Canada. Ceci est confirmé par le numéro d'enregistrement. L'abréviation IC précédant le numéro d'enregistrement signifie que l'enregistrement a été effectué sur la base de la Déclaration de conformité indiquant que le produit est conforme aux spécifications techniques d'Industrie Canada. Ceci n'implique pas que le produit ait été approuvé par Industrie Canada. Le nombre équivalent de sonneries (REN) de cet appareil terminal est 0.0. Le REN attribué à chaque équipement terminal fournit une indication sur le nombre maximum de terminaux pouvant être connectés sur une interface téléphonique. La terminaison sur une interface peut constituer en n'importe quelle combinaison d'appareils, à la condition seulement que la somme des Nombres équivalents de sonneries de tous les appareils ne soit pas supérieure à 5.

This Class B digital apparatus meets all requirements of the Canadian interference-causing equipment regulations. Cet appareil numérique de la Classe B respecte toutes les exigences de règlement sur le matériel brouilleur du Canada.

The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

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.

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