G A I - T R O N I C S   C O R P O R A T I O N

REPLACEMENT PARTS KIT

Model 12568-001
TS958 EPROM Kit

NOTE: Installation of this kit may require a programming change to the Model TS958. The mute attenuation and duration instructions included in this manual should replace Step 6 in Publication 42004-070.

WARNING: The Model TS958 Tone/Speech Generator can present a 110-220 shock hazard. Please use care when handling this device. Be sure that the AC power is not connected during this installation procedure. Also, to prevent an electrostatic discharge, a static dissipative field service kit must be used throughout this procedure.

Installation of Kit:

1. REMOVE POWER TO THE UNIT BEFORE INSTALLING THIS KIT. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY.

2. Remove the front cover by loosening the four (4) captive screws located on the corners of the TS958 cover.

3. Swing the cover open. Remove the ribbon cable from J2 on the Power Supply/Terminal P.C. Board Assembly. To remove the ribbon cable from J1 (older boards) or J2 (newer boards), push the latch eject levers to the side of the connector.

4. Remove the front panel completely by pulling the hinges out of the holes in the rear enclosure.

5. Remove the four (4) screws from the P.C.B. shield on the rear of the cover and set the P.C.B. shield aside.

6. Locate the EPROM, at the bottom center of the panel in the U6 socket. Using a DIP extractor, remove the old EPROM.

7. Note the notch at the bottom center of the U6 socket. Also, note the notch on the side of the new EPROM. To install the new EPROM, align the notches. Install manually, or using a DIP insertion tool.

8. Replace the four (4) screws and the P.C.B. shield on the rear of the front panel.

9. Align the hinges from the front panel to the rear enclosure and reinstall front panel.

10. Plug in the ribbon cable at J1 (older boards) or J2 (newer boards). Close unit. Tighten four captive screws in the four corners of the TS958 front panel.

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11. Resupply power to the unit, and reset to default parameters. This must be done to install new chip programming. To reprogram any parameters, refer to the installation manual shipped with the TS958.

6. Mute Attenuation and Duration

The mute feature serves two functions:

1) During speech messages, tones are automatically reduced by the amount programmed for mute attenuation. During speech messages, the tone muting is active for the length of the speech message. The tones return to full volume between speech messages;

2) When the mute input is activated, tones are reduced by the amount programmed in the Mute Attenuation section. Speech messages are suspended temporarily: speech messages will resume at the beginning of the message when the mute input is deactivated. **Activation of this mute input feature is accomplished by providing a contact closure on the unit's mute input.** For Page/Party stations to activate the mute feature (page override), additional equipment is required. For Centra-Page stations, the provision is included in the station and no additional equipment is required. During voice pages, tones will be audible just as they are during speech messages. This feature ensures that voice pages will be clearly heard over tones and that speech messages will not interfere with voice pages.

Mute attenuation sets the level to which tones are muted during the broadcast of programmed speech messages or live voice pages. The default setting is -7.0 dB; the setting can be changed as described in the programming instructions below. Eight different attenuation values are available. Refer to Figure 1 for additional information.

The **mute duration** value programmed is the same for all tones. A contact closure between TB2-20 and common (TB-22, -24, or -26) activates the mute function. The default setting for mute duration is "No Timeout." Voice pages are then made "over" the alarm tones and speech messages. Voice pages require additional equipment. Consult your GAI-Tronics representative for information.

Because the mute function partially disables alarm tones and suspends speech messages, the maximum length of time mute can be activated for a single contact closure can be limited to 75 seconds, preventing emergency tones from being muted too long. The mute function is active until the contact closure is removed or the programmed mute duration elapses. The user may resume page override by reactivating the contact closure, resetting the mute duration. The user may also choose "No Timeout" for the mute duration. This setting allows muting of alarm tones and suspending of speech messages for an unlimited length of time.

Attenuation (dB)	LED pattern 5 6 7
Tone off	□□□
-13.0	□□■
-9.0	□■□
-7.0	□■■
-5.0	■□□
-3.3	■□■
-2.0	■■□
-0.6	■■■

Figure 1. Mute Attenuation

Mute Attenuation and Duration Programming Instructions

1. Set S1 to CCOC. Indicator LEDs 4 through 7 will light in a pattern to designate the mute duration time. Figure 2 shows the duration time.

2. If the duration time needs to be changed, press program switches :
 • 1 to advance the time in 5 second intervals
 • 2 to advance the time in 50 second intervals
 (Note: mute duration will advance to maximum, then reset to zero).

3. After setting mute duration, press the Mode switch once to program mute attenuation. LEDs 5 through 7 will show the current attenuation level. Refer to Figure 1 to translate the LED pattern.

4. To change the attenuation, press programming switch 3 to advance the attenuation setting *(Note: the attenuation will advance to maximum, then reset to zero).*

5. Press the Mode switch to save the information. Observe LED sweeps for verification. Set S1 to OOOO.

NOTE: If a mute switch fails, through a short between contacts or a short on the mute switch interconnect cable, the maximum length of time muting will occur is limited to the time programmed (5 to 75 seconds). However, if "No Timeout" is selected for the mute duration, the muting will remain active until the short is removed.

Duration (seconds)	LED pattern 4567
No Timeout	□□□□
5	□□□■
10	□□■□
15	□□■■
20	□■□□
25	□■□■
30	□■■□
35	□■■■
40	■□□□
45	■□□■
50	■□■□
55	■□■■
60	■■□□
65	■■□■
70	■■■□
75	■■■■

Figure 2. Mute Duration

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.

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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.