



SI005 LED Messaging Sign Installation & Operating Instructions

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Chapter 1—Introduction

The SI005 LED Messaging Sign provides ancillary annunciation of calls placed on the Tek-CARE®400 Nurse Call and Tek-CARE®500 Emergency Call systems. Annunciation is visual and can be accompanied by an optional tone. The SI005 sign acts like a pager: it receives a wireless transmission, and then clears the call after a programmed time.

If the nurse call system has been set up for manual text messaging, the SI005 sign can also provide this function.

The SI005 sign comes with standard default settings. Settings are changed by sending a coded manual text message to the sign. The SI005 sign's CAP code is pre-programmed at the factory. To reprogram CAP codes, run LS005 software (available separately) on a laptop computer. One LS005 software package may be used to reprogram multiple signs.

About This Manual

This manual is designed to assist with installation of this TekTone® product. Each component of the product is described with step-by-step instructions to facilitate hardware installation and software configuration.



Important: Please take all precautions against high voltage shock. This is a mains powered unit.



Important: Please use proper mounting techniques to accommodate a fixture that exceeds 8 pounds.

Theory of Operation

Like our radio pocket pagers, SI005 LED Messaging Signs use CAP codes to distinguish between signs. This allows calls to be sent to specific signs and pagers according to group and zone assignments.

Note: The SI005 sign's capabilities are limited by the system's capabilities.

An NC369 or NC365A/T Paging Transmitter sends a signal from the nurse call system to the SI005 sign. Therefore, if the system does not already include radio pocket paging, purchase an NC369 Paging Transmitter along with the sign.

Your TekTone® SI005 LED Messaging Sign has been pre-programmed at the factory and usually will not require reprogramming.

What's in the Box

The following are included in your SI005 package:

- SI005 LED Messaging Sign (see *Figure 1*).
- Mounting hardware.
- LS005 Programming Software CD & serial cable (if purchased, see *Figure 2*).

Features

- Alphanumeric LED Display.
- Display memory: 163,200 bytes.
- Message size: 37 characters.
- Wireless data input.
- Size: 28" long × 6.75" high
- Weight: 8.4 pounds.
- Character Height: Uppercase Letters: 3.75"
Lowercase Letters: 2.25"

Figure 1—SI005 LED Messaging Sign



Figure 3—Mounting the SI005 LED Messaging Sign

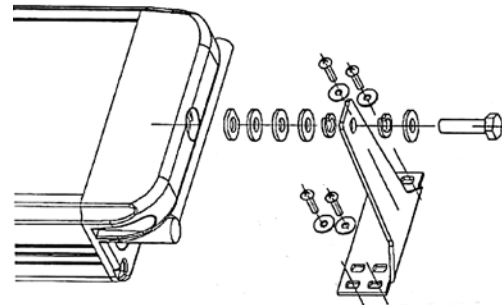
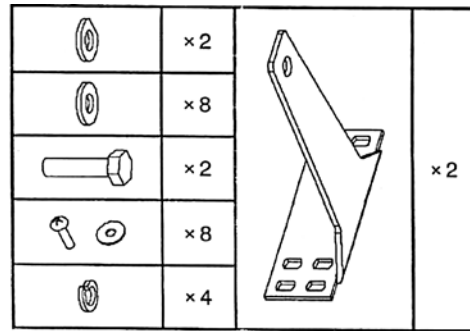


Figure 2—LS005 Programming Software & Serial Cable



Figure 4—Factory Default Programming

Command	Default Setting	Description
GALEDBZ=	ON	The annunciation buzzer is on.
GALEDBZTM=	001	The buzzer tone length is 1 second.
GALEDBZTY=	2	The buzzer is three beeps.
GALEDDT=	OFF	The date display is off.
GALEDDTMD=	1	The date format is MMMM DD, YY.
GALEDLANG=	ENG	The date display is in English.
GALEDTM=	OFF	The time display is off.
GALEDTMD=	2	The current time is displayed after all messages have been scrolled.
GALEDTMSM=	0	The time stamp display is off.
GALEDMESG=	see description	The idle message is <i>TekTone - Communications for today...and tomorrow.</i>
GALEDCLRDY=	270	Each message automatically clears after 270 seconds (4½ minutes).
GALEDRESCM=	ON	A specific message can be cleared by sending a manual text message. To use, type reset and then type the message to be reset, or type the message and then type reset. The message can be in either lowercase or uppercase letters.
GALEDMGCT=	AU	Messages are stored in sequence with newest first. Holds 24 messages before overwriting oldest message.
GALEDSPEED=	3	The scroll speed is set at 3 (medium).
GALEDSHTM=	002	Hold each message for 2 seconds before displaying the next message.
GALEDMGTM=	003	Hold a non-scrolling message for 3 seconds before displaying the next message. This applies only to messages that are too short to scroll.

Chapter 2—Installation

Mounting

Refer to *Figure 3* to mount your SI005 sign using the included hardware. Attach the brackets to the mounting surface using anchors designed to support the weight of the sign.

Programming

Your TekTone® SI005 LED Sign has been pre-programmed at the factory and normally will not require reprogramming.

The sign's CAP code is also pre-programmed and marked on an attached label. If your system includes pocket paging, the sign's CAP code must not duplicate any pager's CAP code.

The SI005 LED Messaging Sign can be added to either a Tek-CARE®400 Nurse Call System or a Tek-CARE®500 Wireless Emergency Call System. To add the SI005 sign to your system, follow the same procedure used to add a pager to your system. That procedure is included in the manual for your system, which is available at www.tektone.com:

- IL843M Tek-CARE®400 Nurse Call System Installation Manual
- IL881 Tek-CARE®500 NC501ES Wireless Emergency Call System Manual
- IL880 Tek-CARE®500 NC501A Wireless Emergency Call System Manual
- IL815 Tek-CARE®500 NC501 Wireless Emergency Call System Manual
- IL888 NC369 Paging Transmitter Manual
- IL671 NC365A/T Paging Transmitter Manual

Programming

Programming commands can be sent to the SI005 sign using manual text messages. (See your system installation manual for instructions on sending a manual text message.)

For example, sending **GALEDBZ=OFF** as a text message to the sign turns SI005 sign's annunciation buzzer off. For all subsequent messages, the annunciation buzzer will be silent.

Figure 4 shows the programming commands that have been factory preset for the SI005 sign. *Figure 5* shows all the available programming commands and their possible settings.

Optional LS005 Programming Software

The SI005 sign's CAP code has been pre-programmed. If it is ever necessary to change the sign's CAP code due to a radio pocket paging conflict, or to have more than one CAP code per sign, use LS005 Programming Software (available separately) to make these changes.

The SI005 sign can be assigned any Pager ID up to 9999999, and each sign can be assigned up to six Pager IDs. Use this formula to convert the desired CAP code to its corresponding Pager ID:

$$\text{Pager ID} = ((\text{Sign's CAP code} * 8) + 10000).$$

For SI005 signs used with the Tek-CARE®400 nurse call system or the Tek-CARE®500 wireless emergency call system, choose a CAP code between 000 and 999. See *Figure 6* to determine the Pager ID of the CAP codes most commonly used with TekTone® pagers and SI005 signs.

Programming Notes

By default, the frequency of the SI005 sign is 457550000 Hz and the baud rate is 512. However, these values can be changed using the optional LS005 Programming Software.

Up to six Pager IDs can be assigned to the SI005 sign. The pager type can also be changed, but TekTone® recommends leaving the type as *Alpha*.

LS005 Software Direct Connect

1. Connect the included DB9 serial cable from the serial port on a PC to the serial port on the SI005 sign.
2. Boot up the PC and power on the SI005 sign.
3. Insert the LS005 CD and double-click *Ledsignprm*.
4. The programming screen will load (see *Figure 7*).
5. Click the **READ** button and confirm that the settings are read from the SI005 sign.
6. Make desired changes, and then click the **WRITE** button to commit those changes to the SI005. Confirm that the settings are written to the SI005 sign.
7. Unplug the serial cable from the PC and the SI005 sign.
8. Cycle power to the SI005 sign. All changes should now be committed.

System Testing

To test the SI005 LED Messaging Sign:

1. Place a call on the system.
2. Verify that the call is received by the SI005 sign, and clears after the preset time period (default setting is 270 seconds).
3. If using manual text messaging, send a specific message using the Tek-CARE®400 or Tek-CARE®500 system's message editor.
4. Verify that the test message is received by the SI005 sign, and clears after the preset time period (default setting is 270 seconds).

Figure 5—Programming Commands

Feature	Command	Settings	Description
Buzzer On/Off	GALEDBZ=	ON, OFF	Turns the annunciation buzzer on or off.
Buzzer Time	GALEDBZTM=	001–999	Length of buzzer tone in seconds.
Buzzer Type	GALEDBZTY=	0–9	Changes the buzzer tone. Select a number from 0–9.
Set the Date	GALEDDATE=	YYMMDD	YY = year 00–99; MM = month 01–12; DD=day 01–31.
Date On/Off	GALEDDT=	ON, OFF	Turns date display on or off.
Date Format	GALEDDTMD=	0–9	Selects the date format. 0 = DD-MMM-YY. 1 = MMMM DD, YY. 2 = MM/DD/YY. 3 = DD/MM/YY. 4= MM-DD-YY. 5 = DD-MM-YY. 6 = MM.DD.YY. 7 = DD.MM.YY. 8 = MM DD YY. 9 = DD MM YY.
Date Language	GALEDLANG=	ENG, FRA	Selects the language used to display the date. ENG = English. FRA = France.
Set the Time	GALEDTIME=	HHmmSS	HH = hour 00–23; mm = minute 00–59; SS = second 00–59.
Time On/Off	GALEDTM=	ON, OFF	Turns time display on or off.
Current Time Display	GALEDTMD=	1, 2	1 = display current time after every message. 2 = display current time after all messages have been displayed.
Time Stamp Display	GALEDTMSM=	0, 1, 2	Selects the time stamp display (format is HH:MM in military time) 0 = Off (no time stamp). 1 = time stamp at the beginning of a message. 2 = time stamp at the end of a message.
Idle Message	GALEDMESG=	up to 50 characters	Changes the idle message. Enter up to 50 alphanumeric characters & spaces.
Delete All Messages	GALEDELALL		Clears all displayed messages, and then displays the idle message.
Auto Clear Delay	GALEDCLRDY=	000–999	001–999 automatically clears each message after the chosen number of seconds. 000 = disables this function.
Clear by “Reset” command	GALEDRESCM=	ON, OFF	If ON, a specific message can be cleared by sending a manual text message. To use, type <i>reset</i> and then type the message to be reset, or type the message and then type <i>reset</i> . The message can be in either lowercase or uppercase letters.
Message Counter	GALEDMGCT=	AU, 01, 24	AU= Automatic. Messages are stored in the order received, with the newest first. Holds 24 messages before overwriting the oldest message. 01= Use just one message slot for any capcode and function bit. This means there are 6 CAP codes, and 4 function bits per CAP code, for a total of 24 message slots. In this option, send each message to that specific message slot to replace that particular message; the other slots remain unchanged. 24 = Send each CAP code and the function will locate its message slot, messages come in the order sent for each slot.
Scroll Speed	GALEDSPEED=	1–5	Changes the message scrolling speed from 1 (slow) to 5 (fast). A message scrolls only if it is too long to be displayed all at once.
Message Hold Time	GALEDSHTM=	XXX	001–999 seconds. Select the time to hold each message before displaying the next message.
Non Scroll Hold Time	GALEDMGTM=	000–999	000–999 seconds. Selects the holding time for a non-scrolling message. This is the time that elapses before displaying the next message, and applies only to messages that are too short to scroll.

Figure 6—CAP Code to Pager ID Conversion Table
for the CAP codes most commonly used with TekTone® pagers

CAP Code	Pager ID	CAP Code	Pager ID	CAP Code	Pager ID	CAP Code	Pager ID	CAP Code	Pager ID
400	13200	420	13360	440	13520	460	13680	480	13840
401	13208	421	13368	441	13528	461	13688	481	13848
402	13216	422	13376	442	13536	462	13696	482	13856
403	13224	423	13384	443	13544	463	13704	483	13864
404	13232	424	13392	444	13552	464	13712	484	13872
405	13240	425	13400	445	13560	465	13720	485	13880
406	13248	426	13408	446	13568	466	13728	486	13888
407	13256	427	13416	447	13576	467	13736	487	13896
408	13264	428	13424	448	13584	468	13744	488	13904
409	13272	429	13432	449	13592	469	13752	489	13912
410	13280	430	13440	450	13600	470	13760	490	13920
411	13288	431	13448	451	13608	471	13768	491	13928
412	13296	432	13456	452	13616	472	13776	492	13936
413	13304	433	13464	453	13624	473	13784	493	13944
414	13312	434	13472	454	13632	474	13792	494	13952
415	13320	435	13480	455	13640	475	13800	495	13960
416	13328	436	13488	456	13648	476	13808	496	13968
417	13336	437	13496	457	13656	477	13816	497	13976
418	13344	438	13504	458	13664	478	13824	498	13984
419	13352	439	13512	459	13672	479	13832	499	13992

Figure 7—LS005 Programming Screen

The screenshot shows the LS005 Programming Screen with the following settings:

- Frequency:** Range Of Frequency: 400-499MHz (12.5K); Frequency Of Pager: 4575500 00Hz
- Baud Rate:** 512 bps
- Signal Polarity:** Normal
- Language:** English
- Sequential Lock:** 0 Sec
- Capcode (Decimal Address) settings:**
 - Capcode #1: 1234567, ON, Fun Bit: A Alpha, B Alpha, C Alpha, D Alpha
 - Capcode #2: 1234562, OFF, Fun Bit: A Alpha, B Alpha, C Alpha, D Alpha
 - Capcode #3: 1234563, OFF, Fun Bit: A Alpha, B Alpha, C Alpha, D Alpha
 - Capcode #4: 1234564, OFF, Fun Bit: A Alpha, B Alpha, C Alpha, D Alpha
 - Capcode #5: 1234565, OFF, Fun Bit: A Alpha, B Alpha, C Alpha, D Alpha
 - Capcode #6: 1234566, OFF, Fun Bit: A Alpha, B Alpha, C Alpha, D Alpha

Buttons: Write, Read, Ready

Factory Pre-Programming

Your TekTone® SI005 LED Messaging Sign has been pre-programmed at the factory and normally will not require reprogramming.

Unless otherwise programmed, the SI005 will automatically receive calls and text messages from the paging transmitter connected to the nurse call system or wireless emergency call system. Your system integrator will have programmed your system according to your instructions.

Manual Text Messaging

Your nurse call system or wireless emergency call system can send manual text messages to the SI005 sign in the same way that it sends them to radio pocket pagers.

Just like a pager, the SI005 LED Messaging Sign has been assigned a CAP code. To send a manual text message to the SI005 sign, follow these steps:

1. Move through your menus to the nurse call system's text messaging screen.
2. Select the SI005 sign's CAP code from the group of Staff / Areas / Devices.
3. Enter a default message, or type a new custom message.
4. Click the **SEND** button, or press the **ENTER** key on the keyboard.
5. The text message will begin scrolling on the SI005 LED Messaging Sign for the preset time period (270 seconds, by default).