T	Jser	M	้ลท	บลใ
L		111	an	uai

Model: THN1C

Version: preliminary Issue Date: 28 Jan 2007

Written by:

Approved by:

Proprietary information of Golden Source Electronics Ltd., not to be disclosed without written authorization.

1.0 SYNOPSYS

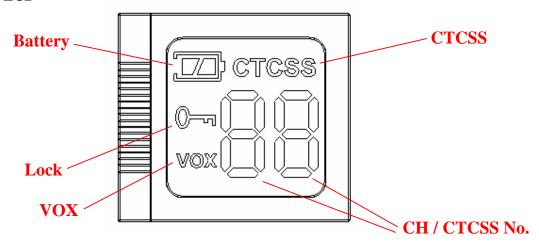
This document is for software design and test

2.0 FEATURE LIST

- UHF FM Transmission
- 0.5W Output Power
- Up to 3km range
- No license required
- 5 Buttons Operation
- 14 channels and 38 CTCSS code function
- 3 selectable Call Tone
- VOX feature 4 levels
- Electronics Volume 8 levels
- Channel BUSY (Rx) Indication (Luminance < Light Sensing threshold) –Red LED On
- Automatic Squelch function
- Low battery indication
- Backlight control from light sensing feature
- Button lock icon Flashing Display function
- Key tone function
- LCD backlight function Green for normal operation
- External AC-DC adaptor charger function
- Using rechargeable Li-ion battery

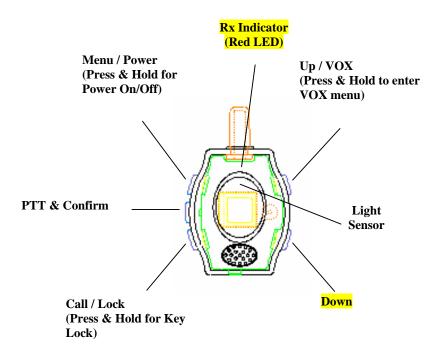
3.0 KEY and LCD

3.1 LCD



3.2 KEY DEFINITION

- "CALL/LOCK", CALL and LOCK key
- "PTT/CONFIRM", PTT Key
- "UP", Channel up or function scroll up in menu
- "DOWN", Channel down or function scroll down in menu
- "POWER/MENU", power on/off and menu key



Proprietary information of Golden Source Electronics Ltd., not to be disclosed without written authorization.

Preliminary 28 Jan 2007 Page 3 of 9

4.0 Operation

4.1 Power on

KEY	STATUS	LED	SPEAKER	LCD
POWER		Lit 5S	Power on	All screen
key pressed and hold 2S			TONE	light

• First time power on, the default setting as below table:

Item	Default
Channel	1
CTC code	0
Volume	5
VOX	5
Lock	Unlock

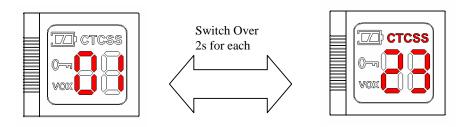
NOTE:

- If no event happened last 15 seconds, unit will be into standby mode.
- Normally power on, the last setting will be loaded automatically.

4.2 power off

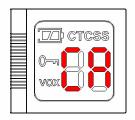
Key	Status	Backlight	speaker	LCD
POWER	Press and hold 2 S			
		off	Tone sounds	off

Display by STANDBY mode:



Call Signal Tx

Proprietary information of Golden Source Electronics Ltd., not to be disclosed without written authorization.



In bright circumstance, LED is not lit on receive. In dark circumstance, LED is lit on receive.

4.3 adjust volume by standby mode

4.3.1 Volume up

	1			
key	status	Backlight	speaker	LCD
"UP" key	Volume level increase	Lit 5S	Key tone	Display vol number
pressed	one level			
"UP" key	Volume level increase	Lit 5S	NO TONE	Display vol number
Press and hold	one level by 0.25S		except volume	
			level to max	

4.3.2 Volume down

key	status	Backlight	speaker	LCD
"DOWN" key pressed	Volume level decrease one level	Lit 5S	Key tone	Display vol number
"down" key Press and hold	Volume level decrease one level by 0.25S	Lit 5S	No tone except volume level to min	Display vol number

4.4 FUNCTION SETTING

Press "menu" key enter function setting when standby or receive mode

4.4.1 Channel setting

key	Status	backlight	speaker	LCD
"UP" or	Channel number	Lit 5S	Key tone	CH number
"DOWN" key	increase or decrease		sounds	displayed
pressed				
"up" or "down"	CH Num increased by	Lit 5S		CH number
key	0.5 S roundly			displayed
Pressed and hold				

Proprietary information of Golden Source Electronics Ltd., not to be disclosed without written authorization.

Model: THN1C

4.4.2 CTC code setting

Key	status	Backlight	speaker	LCD
"MENU"	Into CTC setting	Lit 5S	Key tone	CTC digit flash
Pressed				
"UP" or	CTC digit increment	Lit 5S	Key tone	CTC digit flash
"DOWN"	or decrement one digit			
pressed				
"UP" or	CTC digit increment	Lit 5S	Key tone	CTC digit flash
"DOWN"	or decrement one			and change
pressed and	digit by 0.5S			continuously
hold				

4.4.3 CALL TONE SETTING

KEY	STATUS	BACKLIGHT	SPEAKER	LCD
"MENU" pressed	Entry CALL TONE setting	Lit 5S	current CALL TONE	display "C" and CALL TONE number
"UP" or "DOWN" pressed	Increment or decrement CALL TONE	Lit5S	Selected CALL TONE	display "C" and CALL TONE number

4.4.4 CHANNEL SCAN

KEY	STATUS	LED	SPEAKER	LCD
"MENU"	Enter Channel scan	Lit 5S	KEY TONE	Display
Key pressed				Channel
				number and
				"SC"
				alternative
"UP" or	Channel number increase	Lit 5S	KEY TONE	Scanning
"DOWN"	or decrease scanning			channel
key pressed				number

4.4.5 CTCSS SCAN

Preliminary 28 Jan 2007 Page 6 of 9

Model: THN1C

KEY	STATUS	LED	SPEAKER	LCD
"PTT"	Enter CTCSS scan	Lit 5S	KEY TONE	CTCSS
Key pressed				Flash and display CTC digit and "SC" alternative
"UP" or "DOWN"	CTC digit increase or decrease while Scanning	Lit 5S	KEY TONE	Scanning CTC digit
Key pressed				

Note:

When scanned signal, display scanned CTC digit 5S, then, continue scanning. When CALL key pressed, quit function setting. Enter call function

4.4.6 VOX LEVEL SETTING

KEY	STATUS	LED	SPEAKER	LCD
In standby	Enter VOX setting	Lit 5S	KEY TONE	" Vox " Flash
mode,	mode			and display
press and				current
hold "UP"				threshold level
key 2S				tineshold level
"UP" or "DOWN " KEY pressed	VOX level increase or decrease	Lit 5S	KEY TONE When VOX level reach MAX or MIN level, sounds warning tone	"Yox " Flash and display current threshold level
"UP" or "DOWN " Key pressed and hold	VOX level increase or decrease one level by 0.5S	Lit 5S	NO KEY TONE When VOX level reach MAX or MIN level, sounds warning tone	"Yox " Lit and display current level

Note:

When CALL key pressed, quit function setting and enter call function. When PTT/MENU key pressed, quit function setting and keep current setting.

Note:

If no event happened last 10 seconds, unit will be into standby mode.

In function setting mode, VOX in void

Proprietary information of Golden Source Electronics Ltd., not to be disclosed without written authorization.

Preliminary 28 Jan 2007 Page 7 of 9

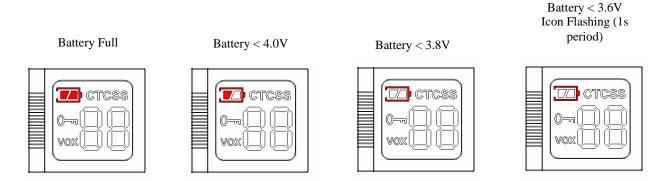
Model: THN1C

5.0 KEY LOCK and UNLOCK

KEY	STATUS	LED	SPEAKER	LCD
LOCK pressed and hold exceed 2S	Lock or Unlock	Lit 5S	Two Lock Tone	Flash or Disappear

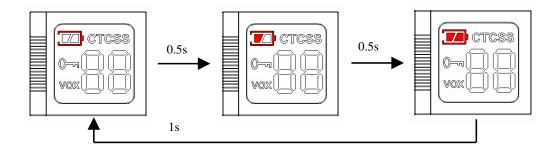
In locked state, only PTT and CALL/LOCK key available, other keys in void.

6.0 LOW BATTERY INDICATION



Battery < 3.5V: Unit off

7.0 CHARGE INDICATION



Preliminary 28 Jan 2007 Page 8 of 9

Warning:

Changes or modifications to this unit not expressly approved by the party responsible for compliance will void the user's authority to operate the equipment. Any change to the equipment will void FCC grant.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television 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:

- --Reorient or relocate the receiving antenna.
- --Increase the separation between the equipment and receiver.
- --Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- --Consult the dealer or an experienced radio/TV technician for help.

The equipment compliance with FCC radiation exposure limit set forth for uncontrolled environment

Preliminary 28 Jan 2007 Page 9 of 9