



Preliminary issue

Mini TRACER/ M6 GSM/EXPANDER

TABLE OF CONTENTS MINI-TRACER

GENERAL INFORMATION	- 3-4 -
EXTRA FUNCTIONS AND FEATURES.....	- 5-6 -
- PROGRAMMING	- 7 -
INSTALLER SYSTEM PROGRAMMING:	
-SYSTEM OPTION REGISTERS	- 7 -
OPTION REGISTER 1.....	- 7 -
OPTION REGISTER 2.....	- 7 -
OPTION REGISTER 8.....	- 7 -
- ENTRY EXIT DELAY	- 7 -
- CHECK-IN INTERVAL	- 7 -
- SIREN DURATION	- 7 -
- REPEATER ALLOCATION	- 7 -
- WIRELESS EQUIPMENT CODING	- 8 -
SETTING AND DISPLAYING.....	- 8 -
SELF LEARNING THE CODE	- 8 -
- RESPONSE TELEPHONE NUMBERS	- 8 -
- RADIO TRANSMITTER/ TELE-COMMUNICATOR (SUBSCRIBER CODE)	- 8 -
- CIRCUIT (ZONE) OPTIONS	
WITH SIREN	- 9 -
OPEN/CLOSE	- 9 -
ALARM/RESTORE	- 9 -
PRESET PATTERNS A,B,C AND D	- 9 -
REPORTING	- 9 -
ALWAYS ACTIVE (24HR)	- 9 -
PRESET PATTERNS A,B,C AND D	- 9 -
ENTRY/EXIT	- 9 -
ACTIVE WIRELESS ZONES	- 9 -
WIRELESS SUPERVISION TEST	- 9 -
- EVENT MEMORY LOGGING/ DISPLAYING	- 9 -
INSTALLER KEYPAD PROGRAMMING:	
SETTING INDIVIDUAL KEYPAD ID NUMBER	- 10 -
LOCAL BLEEPER FUNCTION ENABLE	- 10 -
CHANGING INSTALLER PASSWORD	- 10 -
CHANGING SYSTEM ID OF THE KEYPAD	- 10 -
ERASING SYSTEM MEMORIES:	
ERASING (DEFAULTING) THE CONTROL PANEL MEMORY	- 10 -
ERASING (DEFAULTING) THE KEYPAD MEMORY	- 10 -
CONTROL PANEL MEMORY	- 10 -
SECTIONAL PERIMETER INTRUSION (SPI) SYSTEM	- 11 -
PRESET PATTERNS A,B,C, AND D	- 11 -
SENSITIVITY.....	- 11 -
ARMING	- 11 -
WIRELESS DETECTOR AND REMOTE CONTROL PROGRAMMING.....	- 12 -
WIRELESS ZONE SUPERVISION TEST	- 12 -
WIRELESS DETECTOR AND REMOTE CONTROL OPERATION.....	- 13 -
CONNECTIONS	- 14 -
CONNECTIONS 1:	
MAINS	- 15 -
BATTERY	- 15 -
KEYPADS	- 15 -
SECTIONAL PERIMETER INTRUSION (SPI) SYSTEM	- 15 -
RADIO TRANSMITTER ANTENNA	- 15 -
EXPANDER BOARD MODULE	- 15 -
RADIO RECEIVER FOR WIRELESS EQUIPMENT	- 15 -
REMOTE LED INDICATOR	- 15 -
NORMALLY OPEN / NORMALLY CLOSED ZONES	- 15 -
CONNECTIONS 2:	
END OF LINE RESISTORS	- 16 -
SECURITY LIGHTS	- 16 -
SIREN	- 16 -
BUZZER	- 16 -
KEY-SWITCH / WIRED PANIC BUTTON	- 16 -
TAMPER	- 16 -
SUMMARY OF ALL KEY PAD ENTRIES	Appendix A
NOTES	Appendix B

M 6
MINI - T R A C E R
GSM/Expander/Radio Alarm Control Panel
SEPTEMBER 2012

GENERAL FEATURES:

NOTE: M6 is the latter version of the Minitracer incorporating Auxiliary Expander and or GSM functions. All general alarm and programming procedures are the same. GSM and Expander can work together, Radio is separate from the two.

The "**MINI-TRACER**" is a microprocessor based ALARM PANEL designed to perform all the functions associated with the monitoring of alarm conditions, in both wired and wireless environment, and subsequent transmission by Radio to a REMOTE MONITORING CONTROL ROOM.

The "**MINI-TRACER**" **not only conforms with SAIDSA specifications but offers many more features which are not available in traditional alarm panels.**

The "**MINI-TRACER**" **is capable of reporting the condition of all 6 zones in one transmission giving the full current status of the alarm panel**

These features make the "**MINI-TRACER**" a versatile, efficient and most innovative ALARM CONTROL PANEL

- Supports 2 key pads and /or displays.
- **6 zones BOTH WIRED and /or 6 WIRELESS.**
- Arm/disarm and warning selection via **Keypad, Key-Switch or Remote Control**
- Normal or multi-user operation (4 partitions).
- Remembers all selections during power failures and **will resume from the last status.**
- Supervised alarm circuits/zones with end of line resistors (2k7).
- Programmable "**entry / exit delay**".
- Programmable siren activation on individual zones.
- **UHF RADIO transmitter.**
- Built-in battery 1.5 A charger for Stand-by 2.2 A/h battery (48 hrs autonomy on average installation)
- Buzzer output for auxiliary signals (arm, disarm, battery-low etc...).
- **EEPROM memory for retention of both options and code selections during "power-down".**
- Optional wired panic button
- Optional input for key-switch operation
- Programmable **silent PANIC alarm.**
- Programmable reporting of **battery low condition in each wireless sensor .**
- Programmable reporting of **system mains failure, mains restoral, system battery low and restoral.**
- Programmable reporting of **arm and disarm with user identification.**
- Programmable **Auto arming with optional entry-exit feature (hands free).**
- **Subscriber ID code and options fully programmable by the installer.**

- **TEST transmission can be sent to control room via the remote control or keypad.**
- Programmable "**check-in**" transmission from 1 to 250 hours.
- Four preset active levels "**A, B, C, or D**"
- Diagnostic for testing wireless devices.
- Easy programming and display of current options and settings .
- Programmable alarm reporting on individual zones.
- Each keypad can be switched off individually.
- Self Learning function for the Remote Control code and Wireless Detectors.
- Supports both Old and New report protocols and wireless codes.
- Quick setting of the four preset levels: "**A, B ,C or D**" to ARM
- Quick setting of the four preset levels: "**A, B ,C or D**" to WARN
- Keypad system security identification feature.
- Duress code.
- Tamper on Wireless Detectors
- Battery low on wireless detectors
- Wireless detectors Supervision
- Keypad wrong-code lockout
- 255 Event logging in non volatile memory.
- Zone "swinger" to automatically disable false triggering zones
- 6 sector perimeter expander interface, for SPI beams

GENERAL INFORMATION

The "MINI-TRACER" is capable of monitoring **BOTH WIRED and WIRE-LESS** detector circuits at the same time. A **REMOTE PANIC BUTTON** option is built in as a standard feature.

The "MINI-TRACER" will send an alarm/report whenever the following inputs are triggered:

- Any of the 6 wired active inputs.
- Any of the 6 wireless active inputs.
- Remote panic button.
- Supervisory signals such as:
 - battery low in the wireless sensors.
 - arm / disarm.
 - mains failure
 - mains restored
 - panic button
 - low battery in the system.
 - battery restored in system.
 - test transmission
 - Tamper & password change

For complete application flexibility the six wired inputs may be programmed to send an alarm whenever one of the following conditions occur:

- When the external circuit is opened (**Normally Closed circuit**).
- When the external circuit is closed (**Normally Open circuit**).
- Both when the external circuit is **Opened or Closed**.
(In this case it is possible to program any of the circuits as an "alarm circuit" or a "door entry monitoring circuit").
- When the trigger condition remains for longer than 15 sec (slow detection).

For example : You may require that the particular circuit calls the control room both when an alarm occurs and when it is restored, or that a particular circuit calls the control room both when a door is locked or unlocked.

The six wireless inputs work parallel to the wired inputs and therefore share all the available optional features such as:

- individual siren activation selection
- individual "warning only" selection
- individual "ENTRY/EXIT DELAY" selection
- individual "24 hrs" ready activation.

A great feature of the "MINI-TRACER" is the fact that it is fully programmable to suit every possible requirement. You can for instance define 4 levels each containing a set of zones which you will most likely select in everyday operation. You do not have to remember which set you normally arm or set to warning mode.

The "MINI-TRACER" will memorize the four patterns for you and so when arming the system, automatically step through these preset patterns allowing you to stop at the one you desire. These patterns may be changed at will by the installer or by the customer using the two buttons on the hand-held remote control. These preset levels can be "Quick selected". See "long-key" on table of key entries

ALL COMMANDS and INDICATIONS are performed / shown on up to 4 wall mounted Keypads / Display units .

The Key Pad / DISPLAY units can display the following information:

- the wired/wireless sensor which caused the alarm.
- the perimeter beam which was activated.
- which zone is set to 24hrs, armed or on warning.
- mains failure has occurred.
- system has triggered and the signal was sent to control room.
- the wired/wireless sensor which caused the warning signal.
- system armed / disarmed indication.
- Entry / exit delay activated.
- system battery is only 80 % charged.

The GREEN numeric display shows the Sector which was activated on the perimeter beams.

The RED numeric display shows the type of transmission which was sent to the control room e.g.:-

- Numbers **1 to 6** indicating the alarm Zone which was triggered.
- The letter "p" indicating panic button activation.
- The letter "t" indicating test transmission.
- The letter "b" indicating battery low in one of the wireless sensors.
- The letter "r" indicating that the system had a reset.
- The letter "h" indicating a warning or a call facility.
- The letter "u" indicating the system is not programmed yet.
- The letter "E" indicating a tamper condition is present.
- The letter " ? " indicates that the ID of the keypad is not the same as the ID of the Tracer
- The letter " j " indicates wireless Radio Frequency blocking.

The Key Pad is used to do the following:

- program the system's options.
- access the 4 preset patterns and if necessary change them.
- access each zone individually.
- change the user codes (10 different user codes per key pad).
- activate a panic alarm .
- activate a test signal.
- reset the system /alarm .
- Quick-setting one of four preset levels: "A , B , C or D" to ALARM or WARNING
- to activate / deactivate the perimeter Sectors.
- to send a panic signal

Combination of 2 keys pressed simultaneously will give different conditions, these are shown in **Appendix "A"**:

NOTE:

When arming the system if any of the zones are in open condition the system will sound the key pad bleeper 6 times before initializing the arming sequence.

During the arming sequence it is possible to cancel the operation by pressing ' 0 ' or shorten the delay by pressing '1'.

To stop the keypad beeping during a Mains Failure, push and hold the '0'.

Most COMMANDS are performed through a 2 CHANNEL HAND-HELD REMOTE CONTROL:

- arming and disarming of the system
- partial arming selection
- partial "warning only" selection
- programming of the 4 different patterns of arming
- panic button
- test transmission
- security lights

REPORTING OF AN ALARM TO A CONTROL ROOM

Reporting of an alarm is achieved in the following manner:

The system will transmit , via radio, 3 times at random intervals within 25 seconds

NOTE: After each Radio transmission the system is dormant for 12 seconds to allow all detectors to settle down. During this period the "running" LED on the key board will flash.

EXTRA FUNCTIONS / FEATURES:

1- STAND-ALONE OPERATION (No Key Pad) - "SNIPER"

SNIPER operation can be set where a **single Arm / Disarm level operation is needed. (Register 08 / bit 2)**

The remote control (All users) will arm only **"level A"** instantly

The Keypad can be removed after programming, leaving only remote control and/or Key-switch for Arming /Disarming.

2- ARM / DISARM CONFIRMATION

Re- transmission (confirmation) of Arming and Disarming signals can be selected (register 08 / bit 3, ON to Enable)

This is meant for business installations where the monitoring of arming status is crucial.

The arming status is sent again, randomly between 30 to 60 minutes, after it was initially Armed or Disarmed.

The confirmation is reported to the base-station as a -user 33- Arm/Disarm.

3- DURESS

In a life threatening situation. (When someone forces you to disarm your alarm panel at gun-point) you can make the alarm panel send a duress to the control room.

4- DURESS ACTIVATION WHEN USING A KEYPAD

Increment first digit of user code by one (1) when disarming the alarm panel.

I.e if ' 1 2 3 4 ## ' is normally pressed, press ' 2 2 3 4 ## ' for duress.

5- AUTO - ARMING

When auto -arming is selected (programmable for 2 hours or 15 minutes by installer) the system will arm itself if no movement or any other activations have been detected within the selected time period.

A second (Installer programmable) option is to enable the entry / exit zone (zone 1 - Wired only).

When the last activation was detected on zone 1 the system will arm itself at Level 'D' after the expiry time . In the event where any of the other zones was the last to be triggered the system will arm at Level 'A' after the time period expired.

This function is useful when you forget to arm your alarm system. The system will arm itself 15 min /2 hours after you have left the house or went to bed. The Auto arming option is set in option register "08" bit 8.

The End-user can then switch it on (TRIG A) or off (ORIG A)

Note: Entry / Exit will only function correctly if Zone 1 is the last zone triggered when you leave your premises.

Level 'A' will be the "at home /sleep" arming pattern and Level 'D' the "away" arming pattern.

The exit delay is always calculated to be double the entry delay

6- DISABLING THE KEY PADS

Each key pad can be disabled individually. To disable temporarily a key pad , enter the user 1 code. Press # for approximately 4 seconds followed by the D key. To re-enable the keypad repeat the operation.

REMEMBER THAT THE SECOND TIME THERE IS NO INDICATION FROM THE BUZZER ON THE KEYPAD

7- TAMPER (WIRELESS SENSORS ONLY)

Circuit that monitors illegal violation of alarm devices when the system is not armed. When it's triggered it will send a tamper condition to the control room and the "WL TBL" and "TRIGG" leds will be illuminated on the keypad with buzzer sounding. To cancel the above, enter the user code followed by ##.

8- WIRELESS ZONE SUPERVISION

This feature enables the MINI-TRACER to detect when a wireless passive is faulty (NOT REPORTING).

The user can program which wireless zone the MINI-TRACER must monitor.

Please note that the wireless passive must be enabled for supervision - pages 8 & 10 and

-See also the wireless detector instructions.

9- EVENT MEMORY LOG FACILITY

The MINI-TRACER-Combo is capable of storing the last 255 events in memory. The installer can view these events in case of the user not reporting to a control room. The log facility will display the day the event was recorded, the time and the reason for the event.

10- WIRELESS RF BLOCKING

MINI-TRACER will report a "System Tamper" if Radio Frequency blocking was detected on the system lasting longer then 30 seconds. This is to prevent intruders trying to "JAM" the system.

11- SPI PERIMETER BEAM

An extra 6 perimeter zones can be installed on the MINI-TRACER. The unit will detect an activation on the perimeter beam and sound an audible alarm. **This condition will not be reported to control the room.** Refer to the instruction of the SPI beam for installation and programming instructions.

12- RESPONSE / GUARD SUPERVISION

This features allows the control room to supervise all activities undertaken by the response officer.

For this purpose the MINI-TRACER uses a third remote control code .

On this special Officer remote control , button A will be the Panic button and button B will be "Guard Responded".

Please note that this feature is only active for 30 minutes after an alarm was triggered.

This Response code can only be stored by the **SELF-LEARNING** method and not **MANUALLY**

13- REPEATER SELECTION

There are two registers which need to be programmed:

The first sets the number of the repeater it will use to reach the control room.

The second is if the unit itself becomes a repeater.

Only then will the MINI-TRACER operate as a simple Store-and-forward repeater provided the received signals from the nearby systems carry the same repeater address as the "I AM " value. See page 8

14- SWINGER ZONE DISABLE

If the same zone triggers more then 5 times during the same "armed" period the Super-Tracer automatically disables those zones until the next arming **or until 10 hours have expired since the last alarm triggered by the "swinger" zone.**

INSTALLER PROGRAMMING THE MINI-TRACER

THE TRACER IS ORIGINALLY PROGRAMMED WITH A "FACTORY DEFAULT" SET OF OPTIONS. ALTHOUGH THE "FACTORY" OPTIONS REFLECT THE CHOICE OF THE MAJORITY OF INSTALLERS AND END-USERS, PROPER OPERATION AND COMPLIANCE WITH SPECIFIC REQUIREMENTS CAN BE ACHIEVED THROUGH REPROGRAMMING. THE PROGRAMMABLE OPTIONS ARE DIVIDED INTO 4 SECTIONS: SECTIONS 1, 2, 3 AND 4 RELATE TO THE MAIN BOARD. SECTION 4 IS RELATES TO THE KEYPAD UNIT ITSELF.

- 1 - ENCODING THE WIRELESS DETECTORS AND REMOTE CONTROLS
- 2 - SYSTEM OPTION REGISTERS.
- 3 - SYSTEM ID, CODES AND TEL. NUMBERS
- 4 - CIRCUIT (ZONE) OPTION REGISTERS.
- 5 - KEYPAD LOCAL OPTION REGISTERS.



OPTIONS REGISTER NO. 1 1 0 0 0 # 0 1

ON = SIREN WITH PANIC BUTTON	OFF = SILENT PANIC BUTTON	● 1	FACTORY DEFAULT
ON = MULTI-USER OPERATION	OFF = NORMAL OPERATION	● 2	
ON = AUXIL. SIGNALS ON BUZZER & SIREN	OFF = AUXIL. SIGNALS ON BUZZER ONLY	● 3	
SPARE	SPARE	● 4	
ON = WIRELESS RF BLOCKING ENABLED	OFF = WIRELESS RF BLOCKING DISABLED	● 5	
ON = PERIMETER MASK LINKED TO ARM LEVEL	OFF = PERIMETER AND ARM MASKS NOT LINKED	● 6	
ON = ENABLE WARNING VIA REMOTE	OFF = DISABLE WARNING VIA REMOTE	● 7	
ON = SILENT ARM/DISARM ON KEY-PAD	OFF = AUDIBLE ARM/DISARM ON KEY-PAD	● 8	

NOTE: ● = ON
○ = OFF

OPTIONS REGISTER NO. 2 1 0 0 0 # 0 2

SPARE	SPARE	○ 1	FACTORY DEFAULT
ON = SEND VIA GSM	OFF = NO GSM	● 2	
ON = REPORT "BATTERY LOW" IN SENSORS	OFF = NO REPORT	● 3	
ON = REPORT ARM / DISARM SIGNALS	OFF = NO REPORT	● 4	
ON = REPORT SYSTEM BATTERY LOW	OFF = NO REPORT	● 5	
ON = REPORT SYSTEM MAINS FAILURE	OFF = NO REPORT	● 6	
SPARE	SPARE	● 7	
SPARE	SPARE	● 8	

OPTIONS (MODE) REGISTER NO.8 1 0 0 0 # 0 8

ON = USE KS INPUT WITH A KEY-SWITCH	OFF = USE KS INPUT FOR PANIC BUTTON	○ 1	FACTORY DEFAULT
ON = SNIPER OPERATION	OFF = TRACER OPERATION	○ 2	
ON = ARM/DISARM CONFIRMATION(REPEATED)	OFF = NO CONFIRMATION(REPEATED)	○ 3	
ON = SPARE	OFF = SPARE	○ 4	
ON = REPORT WIRELESS SUPERVISION	OFF = NO REPORT	○ 5	
SPARE	SPARE	○ 6	
ON = AUTO-ARM TIME - 2HRS	OFF = AUTO ARM TIME - 15 MINUTES	○ 7	
ON = AUTO ARM ENABLED	OFF = AUTO ARM - DISABLED	○ 8	

For the next 3 options you need to enter a value between 0 and 250.

- EXAMPLES: - To set the **entry-delay** to 35 seconds enter: 1 0 0 0 # 1 7 0 3 5 (sec)
 - To set the **check-in interval time** to 24 hours enter: 1 0 0 0 # 1 8 0 2 4 (hrs)
 - To set the **siren duration** to 4 minutes enter: 1 0 0 0 # 1 9 2 4 0 (sec)

ENTRY / EXIT DELAY VALUE (SEC)	1 0 0 0 # 1 7 0 3 5	FACTORY DEFAULTS	
CHECK-IN INTERVAL (HRS)	1 0 0 0 # 1 8 0 2 4		(35SEC)
SIREN DURATION (SEC)	1 0 0 0 # 1 9 2 4 0		(24HRS)
		(240SEC)	

N.B. - A CHECK-IN INTERVAL VALUE OF "0" WILL AUTOMATICALLY DISABLE THE OPTION (NO CHECKING-IN TRANSMISSION).
 - THE "EXIT" DELAY IS AUTOMATICALLY SET TO DOUBLE THE "ENTRY" DELAY

PROGRAMMING THE FIELD REPEATER NUMBER

Set the Repeater Number 1 0 0 0 # 2 0 # 1 REPEATER "1"

Display the Repeater Number 1 0 0 0 # 2 0 * THE CURRENT REPEATER NUMBER WILL BE INDICATED.

PROGRAMMING (CONTINUED)

SETTING / DISPLAYING DETECTOR/ REMOTE CONTROL CODES

TO PROGRAM THE DIP-SWITCH CODES OF THE DETECTORS AND REMOTE CONTROLS, ENTER THE INSTALLER CODE FOLLOWED BY THE "*" KEY. SELECT THE CODE YOU WANT TO CHECK /CHANGE WITH "1, A" or "1, B" THE CURRENTLY STORED CODE WILL BE DISPLAYED. USING ALL KEYS TOGGLE THE CORRESPONDING BIT/LED TO OBTAIN THE WANTED CODE. TO EXIT PRESS AND HOLD "*" AND "#" TOGETHER

NOTE:

○ = OFF
● = ON



action:

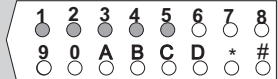
INSTALLER CODE

REG. NO.

SET DETECTORS/SENSOR CODE →

1 0 0 0 #

1 A



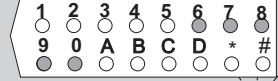
FOR 16 BIT CODES (SMART) USE ALL KEYS

FACTORY DEFAULT

SET REMOTE CONTROL CODE →

1 0 0 0 #

1 B



TO EXIT PRESS AND HOLD "*" AND # - THE DECIMAL VALUE OF THE CODE WILL BE SHOWN ON THE DISPLAY.
Note that code "C" cannot be entered manually but only through the self-learning process

SELF LEARNING THE WIRELESS CODES

Enter the self learning mode by entering:

SELF LEARNING THE REMOTE CONTROL AND DETECTORS CODES.

1 0 0 0 # 1 D

- 1- TRANSMIT CODE FROM SENSOR OR REMOTE CONTROL UNTIL CODE AND CHANNEL ARE MEMORIZED BY THE DISPLAY
- 2- TO STORE THE RECEIVED CODE AS **DETECTOR /SENSOR CODE**, PRESS "A" KEY ON THE KEYPAD
- 3- TO STORE THE RECEIVED CODE AS **REMOTE CONTROL CODE**, PRESS "B" KEY ON THE KEYPAD
- 4- TO STORE THE RECEIVED CODE AS THE **RESPONSE CODE**, PRESS "C" KEY ON THE KEYPAD

SUBSCRIBER I.D. SETTING (TRANSMITTER /CSID CODE)

This is the CUSTOMER i.d. NUMBER sent to the BASE STATION

(FIRST DIGIT)

(4TH DIGIT)

(1 TO 9999)

PROGRAM THE SUBSCRIBER ID →

1 0 0 0 #

1 C #

? ? ? ?

AFTER ENTERING THE 4TH DIGIT THE NEW CODE IS AUTOMATICALLY STORED IN MEMORY

READ THE SUBSCRIBER ID →

1 0 0 0 #

1 C *



THE CURRENT SUBSCRIBER CODE WILL BE DISPLAYED ONE DIGIT AT THE TIME.

PROGRAMMING (CONTINUED)

CIRCUIT (ZONE) OPTION REGISTERS

Each of the 6 zones can be programmed to behave in different ways and perform different tasks. To do this there are several registers:

TO PROGRAM EACH REGISTER:

- 1- ENTER THE INSTALLER CODE FOLLOWED BY THE CORRESPONDING REGISTER NUMBER;
- 2- USING KEYS "1 to 6" TOGGLE THE CORRESPONDING LED (ON=1 OFF=0)

EXAMPLE 1:

- CHANGE PRESET LEVEL "A" FROM 1 & 2 ACTIVE TO 1 & 3 ACTIVE.
- ENTER: "1 0 0 0 # 0 A". THE CURRENT SETTING WILL BE SHOWN.
- ENTER "2" LED 2 WILL TURN OFF...
- ENTER "3" LED 3 WILL TURN ON
- CHECK THAT THIS IS CORRECT
- ENTER "*" TO EXIT

EXAMPLE 2:

- CHANGE CIRCUIT 6 NOT TO TRIP THE SIREN .
- ENTER: "1 0 0 0 # 0 5". THE CURRENT SETTING WILL BE SHOWN (ALL LEDS = ON).
- ENTER "6" LED NO 6 WILL SWITCH OFF.
- ENTER "*" TO EXIT



(REGISTER NAME)	(INSTALLER CODE)	(REG NO.)	1	2	3	4	5	6	ZONES
DETECTION TIME OFF= 0.5 Sec. ON=15 Sec.	1 0 0 0 #	0 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	○ ○ ○ ○ ○
SIREN ACTIVATION	1 0 0 0 #	0 5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	● ● ● ● ●
OPEN / CLOSE REPORTING	1 0 0 0 #	0 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	○ ○ ○ ○ ○
ALARM / RESTORE REPORTING	1 0 0 0 #	0 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	○ ○ ○ ○ ○
LEVEL "A" PRESET	1 0 0 0 #	0 A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	● ● ○ ○ ○
LEVEL "B" PRESET	1 0 0 0 #	0 B	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	● ● ● ○ ○
LEVEL "C" PRESET	1 0 0 0 #	0 C	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	● ● ● ● ○
LEVEL "D" PRESET	1 0 0 0 #	0 D	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	● ● ● ● ●
<i>(future expansion)</i>	1 0 0 0 #	1 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	○ ○ ○ ○ ○
ALARM REPORTING ZONE	1 0 0 0 #	1 4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	● ● ● ● ● ●
ALWAYS (24Hrs) ACTIVE ZONE	1 0 0 0 #	1 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	○ ○ ○ ○ ○
"ENTRY/EXIT DELAY" ZONE	1 0 0 0 #	1 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	○ ○ ○ ○ ○
ACTIVE WirelessL SUPERVISION ZONES	1 0 0 0 #	2 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	○ ○ ○ ○ ○

FACTORY DEFAULTS

EVENT MEMORY LOG

1 0 0 0 # 3 3

When not reporting to a control room, the user can view 255 events which occurred on the alarm panel. This feature displays the events and time between events as follows :

						ZONES ARMED
LOG NUMBER	DAY	HOUR	MINUTES	SECONDS	TYPE	
						ZONES TRIGGERED

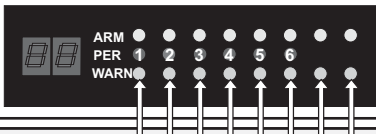
LIST OF ALARM TYPES :

- | | | |
|-----------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------|
| USE [A] TO GO TO PREVIOUS EVENT | 0 = Alarm
8 = System Mains Restore
D = Duress
d = System Disarmed | 6 = System Mains Fail
9 = System Battery Restore
T = Test/Cancel |
| USE [D] TO GO TO THE MORE RECENT EVENT | | 7 = System Battery Low
P = Panic
A = System Armed |

PROGRAMMING (CONT.) KEYPAD OPTION REGISTERS

ENTER THE INSTALLER CODE FOLLOWED BY A LONG "#" KEY AND THE NUMBER OF THE REGISTER YOU WANT TO MODIFY.
 NOTE: THE "#" MUST BE HELD DOWN UNTIL YOU HEAR A LONG BEEP.
 THE CURRENT CONTENT OF THE SELECTED REGISTER WILL BE DISPLAYED. USE BUTTONS 0 TO 8 TO CHANGE THE CORRESPONDING BIT TO OBTAIN THE DESIRED SELECTION. PRESS "#" TO EXIT.

NOTE:
 ○ = OFF
 ● = ON
 ◐ = UNUSED

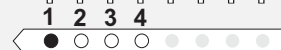


REGISTER NAME **INSTALLER CODE** **REG. NO.**

SET INDIVIDUAL key pad I.D. NUMBER

1 0 0 0 #

D



THE SUPER TRACER CAN ACCEPT UP TO 4 KEYPADS. FOR SPECIAL APPLICATIONS EACH KEYPAD CAN BE PROGRAMMED TO HAVE ITS OWN I.D. CODE. KEYPADS WITH THE SAME I.D. WILL OPERATE SIMILARLY.

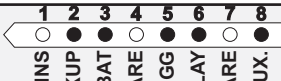


MORE THAN 1 SELECTION IS ALLOWED.
 e.g. If 1 & 2 were selected, the unit will respond to all commands addressed to key pads 1 & 2.

ENABLE LOCAL BLEEPER FUNCTIONS

1 0 0 0 #

3



NOTE: THIS REGISTER DEFINES WHICH CONDITIONS WILL ACTIVATE THE LOCAL BLEEPER.

MAINS: Mains Failure
BCKUP: System battery low
LO-BAT: Sensor battery low.

TRIGG: Alarm triggered.
DELAY: Entry Exit Delay
AUX: Key Beeps ON/OFF.

CHANGE INSTALLER CODE

1 0 0 0 #

C

0 ? ? ? ? #



NEW CODE (4 DIGITS)

CHANGE CODE OF USER 1 to 10(A)

1 0 0 0 #

C

X ? ? ? ? #



NEW CODE (4 DIGITS)



AFTER THE NEW CODE ENTRY, THE CODE WILL BE DISPLAYED ONE DIGIT AT THE TIME. ENTER "#" TO ACCEPT THE CODE AFTER IT HAS BEEN DISPLAYED. ANY OTHER KEY WILL REQUIRE THE NEW CODE TO BE RE-ENTERED.

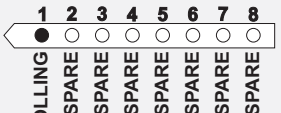
USER NO 1,2,3,4,5,6,7,8,9,A
(MULTI-USER MODE - 2,3,4,5 ONLY)

Note: IN MULTIUSER MODE USER 5 REPLACES USER 1 (no USER 1 rights are available in this mode)

ENABLE KEYPADS

1 0 0 0 #

1



NOTE: THIS REGISTER ENABLES THE COMMUNICATION BETWEEN THE SUPER TRACER AND KEYPADS.



CHANGE KEYPAD ID

1 0 0 0 #

4

? ? ? ? #



NEW CODE (4 DIGITS)

NOTE: THE KEYPAD ID IS THE SUBSCRIBER I.D. AS ON PAGE 8 REGISTER "4C".

DEFAULTING THE SYSTEM (ERASING MEMORIES)

ERASE KEYBOARD MEMORY

1 0 0 0 #

9

After this command the unit will reset to load the default values!



NOTE: THIS OPERATION WILL ERASE ALL PRESENT VALUES AND RESTORE THE FACTORY-DEFAULT VALUES INCLUDING KEYBOARD SETTINGS AND USER CODES !!

ERASE MEMORY IN CONTOL UNIT

1 0 0 0 #

0

After this command the unit will reset to load the default values!

NOTE: THIS OPERATION WILL ERASE ALL PRESENT OPTIONS AND RESTORE THE FACTORY-DEFAULT VALUES INCLUDING ZONE, OPTIONS, WIRELESS CODES ETC !!

ERASE BOTH CONTROL-UNIT AND KEY-BOARD MEMORIES

1 0 0 0 #

2

After this command the unit will reset to load the default values!

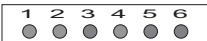
NOTE: THIS OPERATION WILL ERASE BOTH THE MEMORY IN THE KEY BOARD AND THE CONTROL UNIT AND RESTORE THE FACTORY-DEFAULT VALUES. IT COMBINES THE ABOVE 2 COMMANDS

PROGRAMMING (CONT.) S.P.I. (SECTIONAL PERIMETER INTRUSION) OPTION REGISTERS

An extra 6 perimeter beams may be connected to the new MINI-TRACER-Combo. (See SPI installation instructions)
 The unit will monitor these perimeter beams and indicate which beam was triggered. The activation of the beams will either sound locally or will report the activation to the control room using exclusively zone 6.
 The perimeter SECTORS are set up, tested and activated by following this procedure:

1- Connect , align and program each beam number

2- Manually or automatically define the number of sectors / beams installed as follows:

DEFINE INSTALLED SECTORS **1 0 0 0 # 2 5 1 2 3 4 5 6** 

Or AUTO ASSESS SECTORS **1 0 0 0 # 2 3** ... e.g. Only beam 1, 2, 3, 4, 5 and 6 are installed.

INSTALLER CODE

Wait for the display to show the sectors found then enter **#** to store the result or any other key to exit.

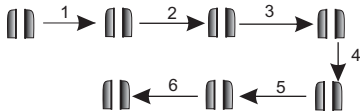
To test the perimeter connections do the following:

- 1- Enable/ activate all (6 in this case) available beams installed with: **1 1 1 1 # 0 1 2 3 4 5 6**
- 2- Enable testing mode as follows (in this mode no audible devices are activated and the faulty/ non aligned beams will be displayed **1 0 0 0 # 2 6**
- 3- Exit test mode by entering: **1 0 0 0 # 2 7** Or **1 1 1 1 # #**


Four preset perimeter selections may be pre-programmed to coincide with the arm/warn levels A,B,C & D.


(This is done as shown below)

If option 6 of register 01 (page 8) is set, a selection will be active when the corresponding arm/warn level is selected (e.g. You can have zones 1&2 (level "A") on armed and perimeter sectors 1,2 &3 on warning



LEVEL "A" PRESET **1 0 0 0 # 3 A 1 2 4 #** 

LEVEL "B" PRESET **1 0 0 0 # 3 B 3 4 #** 

LEVEL "C" PRESET **1 0 0 0 # 3 C 5 6 #** 

LEVEL "D" PRESET **1 0 0 0 # 3 D 1 2 4 #** 

Each segment may be programmed to have different response times (on interruption of the Infrared beam).


These times may vary from 0,3 Seconds to 20 Seconds. Use the table to select the response (interruption time before alarm)
 This is done using the USER 1 code.

SET SENSITIVITY LEVELS FOR EACH SECTOR OF THE PERIMETER ALARM **1 1 1 1 # 9**  ?  ? #

USER1 CODE

1=0.3 Sec	5= 2 Sec
2=0.5 Sec	6= 5 Sec
3=0.8 Sec	7=10 Sec
4=1.2 Sec	8=20 Sec

THE INSTALLER MAY FURTHERMORE PROGRAM THE FOLLOWING OPTIONS

OPTIONS (SPI MODE) REGISTER NO.9 **1 0 0 0 # 2 4** 

SPARE	SPARE	FACTORY DEFAULT
ON = USE COMMON OUTPUT (1) ON MASTER	OFF = USE INDIVIDUAL OUTPUTS	
ON = LIGHT RELAY FOR 20 MINUTES	OFF = LIGHT RELAY FOR 3 MINUTES	
ON = IF THREE BREAKS (SAME 3 BEFORE ALARM)	OFF = ANY 3 BREAKS	
ON = SYSTEM RESETS EVERY 3 HOURS	OFF = NO AUTO-RESETS	
SPARE	SPARE	
SPARE	SPARE	
ON = MASTER'S OUTPUT GOES LOW (1 - 6)	OFF = MASTER'S OUTPUT GOES HIGH (1 - 6)	

Each segment may be programmed to activate either on a single or multiple break(3). See SPI instructions for this option

To arm individual segment of the perimeters enter:

ARMING INDIVIDUAL PERIMETER SECTIONAL BEAMS **1 1 1 1 # 0 1 3 6 #**

"0" Indicates Perimeter detection active 

PROGRAMMING THE DETECTOR AND REMOTE CONTROL CODES

SELF LEARNING OF REMOTE CONTROL AND DETECTORS CODE.

Following is the procedure to program the Detectors and Remote Controls to operate properly with the MINI-TRACER:

- 1- program the sensors / detectors following the instructions supplied with each device keeping THE SAME code for all detectors.
- 2- program the ZONE number (function) according to your requirements (table 1- page6)
- 3- enter the self learning mode in the MINI-TRACER by entering: **1 0 0 0 # 1 D**

4- activate any of the programmed DETECTORS making sure that the MINI-TRACER displays the received code

5- press **A** to store/learn the DETECTOR's code

6- Re-enter the self learning mode in the MINI-TRACER by entering:

1 0 0 0 # 1 D

7- press any button on the REMOTE CONTROL until the MINI-TRACER displays the different code received.

5- press **B** to store / learn the REMOTE CONTROL code.

Using the same method a 3rd code may be stored using the **C** key to define the code used by an Armed Response officer to send a "standing" signal to base. Please note that this code cannot be entered manually (only by self-learn)

MANUALLY PROGRAMMING THE REMOTE CONTROL AND DETECTORS CODE.

- 1 - Enter the manual setting mode by entering: **1 0 0 0 # 1 A** for the Detectors code
or: **1 0 0 0 # 1 B** for the Remote Control code

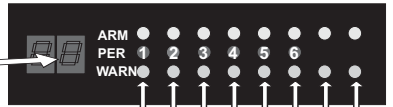


- 2 - set the desired code by toggling each bit of the code using keys 1 to #
(see TABLE)

BIT NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
KEY	1	2	3	4	5	6	7	8	9	0	A	B	C	D	*	#

- 3 - press ***** and **#** buttons together to store the code and exit .

- 4 - the decimal equivalent of the stored code will be displayed one digit at the time. Enter **#** to exit



INSTALLER CODE

SET DETECTORS CODE → **1 0 0 0 # 1 A**

REG. NO.

1 A 1 2 3 4 5 6 7 8
9 0 A B C D * #

SET REMOTE CONTROL CODE → **1 0 0 0 # 1 B**

1 2 3 4 5 6 7 8
9 0 A B C D * #

FACTORY DEFAULT

The new MINI-TRACER introduces a new Code structure known as "SMART CODE"

- which has many advantages to the old 10 bit code. These features are:
- 16 BITS = 65,535 CODE COMBINATIONS.
- multiple PARITY and CHECKSUM = each segment of the code has CHECK SUM and PARITY. which results in: - wider scope and applications , less duplicate codes and very reliable operation.



WIRELESS ZONE SUPERVISION TEST

(Please note: Both the "Wireless Zone supervision" option (Pg 8) and the active wireless zones (pg 10) need to be enabled by the installer before this function will work correctly.)



The MINI-TRACER is capable of reporting a faulty wireless detector.
To display the faulty (non reporting) wireless detector press and hold the ***** key until it beeps

WIRELESS ZONE SUPERVISION →



An "F" is shown on the display.



WIRELESS DETECTORS and REMOTE CONTROL operation

Using wireless sensors is simple provided you are aware of the following facts:

1 - The operating range may vary widely from one installation and location to another. The position of the radio receiver is therefore critical and must be chosen accordingly.

2- Each installation requires two exclusive I.D. Codes :

- a DETECTOR CODE for sensors and detectors and...
- a REMOTE CONTROL CODE for the hand held remote controls
an optional 3rd CODE (RESPONSE) may be used to indicate to the control room that armed response is on site

- Each code has two parts: **IDENTIFICATION** and **FUNCTION**

IDENTIFICATION : This is the part that makes that device recognizable by the system.
The MINI-TRACER recognizes a 16 BIT code known as **Smart-Code**.

FUNCTION : This is the part of the code which defines the function which that device has e.g. ZONE number (for detectors) or arm/disarm, panic, test (for remote controls). The functions are determined by a 4 bit configuration. See table 1 and 2

NOTE:

- A wireless sensor transmits an alarm condition only for a short period of time (2 - 4 Seconds)
- To save power the sensors are designed not to transmit if continuous movement is detected.
- A detector will only transmit if either a 30 seconds (test mode) or 3 minutes (normal mode) has elapsed from the last detection.

Although each code and function can be programmed individually IT IS EASIER TO PROGRAM THE DETECTOR and THE REMOTE CONTROL FIRST and then program the code into the MINI-TRACER unit using the self learning method. (see page 7)

FUNCTION selection of the DETECTORS CODE

Table 1

BIT SETTING: 4 3 2 1	FUNCTION WHEN ACTIVATED	BIT SETTING: 4 3 2 1	FUNCTION WHEN ACTIVATED
0 0 0 0	WARNING (1 SEC ON BLEEPER)	1 0 0 0	ZONE 1
0 0 0 1	PANIC ACTIVATED	1 0 0 1	ZONE 2
0 0 1 0	DURESS	1 0 1 0	ZONE 3
0 0 1 1	not used	1 0 1 1	ZONE 4
0 1 0 0	KEYPAD RELAY 1	1 1 0 0	ZONE 5
0 1 0 1	KEYPAD RELAY 2	1 1 0 1	ZONE 6
0 1 1 0	not used		
0 1 1 1	not used		

To program the sensors and detectors see the instructions supplied with each device

FUNCTION selection of the REMOTE CONTROL CODE

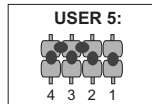
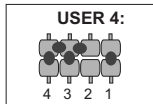
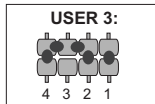
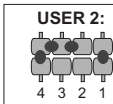
Table 2

BRIDGE NO. 1=ON 0=OFF 4 3 2 1	FUNCTION WHEN ACTIVATED	APPLICATION	BRIDGE NO. 1=ON 0=OFF 4 3 2 1	FUNCTION
0 0 0 0	WARNING (1 SEC ON BLEEPER)	DOOR BELL/POOL WARNING	1 0 0 0	ARM/DISARM Remote Control USER 2
0 0 0 1	PANIC ACTIVATED	EMERGENCY / MEDICAL ASSISTANCE	1 0 0 1	not used
0 0 1 0	ARM/DISARM (USER1)	TURN SYSTEM ON OR OFF	1 0 1 0	ARM/DISARM Remote Control USER 3
0 0 1 1	TEST TRANSMISSION	CHECK IF THE SYSTEM IS WORKING	1 0 1 1	not used
0 1 0 0	ARM ONLY (to "D" level)		1 1 0 0	ARM/DISARM Remote control USER 4
0 1 0 1	DISARM ONLY		1 1 0 1	not used
0 1 1 0	not used		1 1 1 0	ARM/DISARM Remote Control USER 5
0 1 1 1	not used		1 1 1 1	not used

Remote Control may have up to four buttons and each button may be programmed to carry out a specific task
The standard unit supplied has only two buttons 1= Panic, 2=Arm/Disarm.

CONFIGURATION OF REMOTE CONTROLS IN MULTI-USER MODE:

In MULTI-USER MODE Each user must have a remote control with button 2 set as shown below and in table 2
(Button 1 for Panic = Channel 1)
(Button 2 ARM /DISARM USER X)



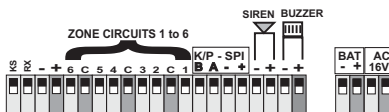
**Solder Bridges on
Back of Remote Control!**
1= Solder On
0= Solder Off

CONNECTIONS

Installing the "MINI-TRACER" is very simple. The connections are easy to read and understand. Connect the battery, the external transformer and wire up the different zone circuits and audible devices such as the buzzer and siren. These connections are as follows :

1 - ALARM CIRCUIT CONNECTIONS:

There are 6 inputs available on the **MINI-TRACER. (ZONES CIRCUITS 1 to 6)**
For proper operation a 2.7 KOhm resistor is required at the end of each zone (last detector)



Any zone will trigger if it is shorted to Ground or +12V. The Inputs have both lightning and short circuit protection. There is +12V on the "C" inputs between zones 5 & 6, 4 & 3, and 2 & 1.

2- KEYPAD / DISPLAY: 4 wires are required to connect remote display units. They are :

(A) Transmitted data line , (B) Received data line, (Negative supply) and (Positive 12v supply)

3- SIREN: 12 Volts DC- 1Amp is available between connectors (neg) & (pos) to operate the siren.

4- BUZZER: 12 Volts DC - 1 Amp is available between (neg) & (pos) to operate an optional buzzer.

5- AC - SUPPLY: A 220/16 Volts AC, 800 mA TRANSFORMER supplies power to the charger and on the panel terminals "AC 16V". This input is protected against lightning .(15W max)

6- BATTERY CONNECTIONS: A 2.2 Amp/hr, 12V stand-by battery must be connected between (NEGATIVE) and (POSITIVE). Accidental reversal of the battery connections is protected by a crowbar polarity protection device which will blow the safety fuse. It may therefore be necessary to change the BATTERY and OUTPUT fuses after connecting the battery incorrectly. The unit is NOT GUARANTEED for damages caused by REVERSE / INCORRECT connections.

7- KEY-SWITCH / PANIC INPUT [KS]: The [KS] input is programable for Arming/Disarming or Panic.

To Arm / Disarm with a Key-switch, use the normally open contacts of a momentary key-switch.

Register 08 / bit 1 (see programming section) must be programmed ON for Key-switch operation (OFF for panic).

The normally open contact of the key-switch is connected to 12v Positive "+" and "KS".

To use the [KS] input for hardwired panic buttons (normally open), program Register 08 / bit 1 as OFF.

Panic buttons are connected in parallel between 12V Positive "+" and "KS".

8- S.P.I. PERIMETER BEAM CONNECTIONS: The 4 wires to the Master unit of the SPI perimeter alarm system are connected to the same inputs as the remote keypad. (A) for transmitted data line (B) for the received data line. (-) for negative supply (+) for positive 12V DC supply.

Special components have been used to protect the key pad and detector power supply from short circuits.

The characteristic of these devices is such that on excessive current they will heat up and TEMPORARELY SHUT DOWN .

Only once the short has been removed will they slowly recover to their initial value.

THE MAXIMUM CURRENT TO KEYPADS AND SENSOR CIRCUITS IS LIMITED TO 700mA FOR EACH.

RADIO MINI-TRACER CONNECTIONS(1)

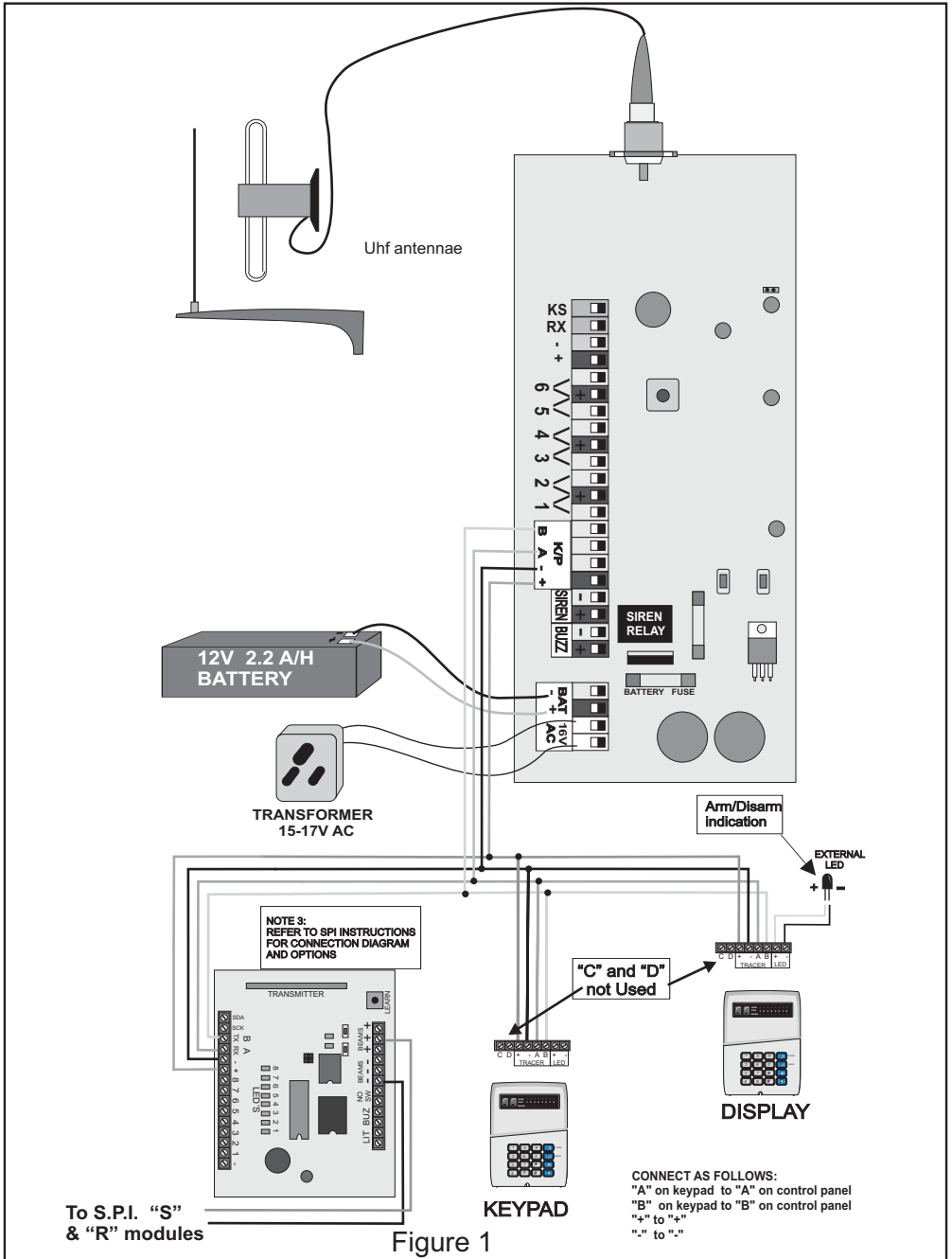


Figure 1

GSM M 6 CONNECTIONS (2)

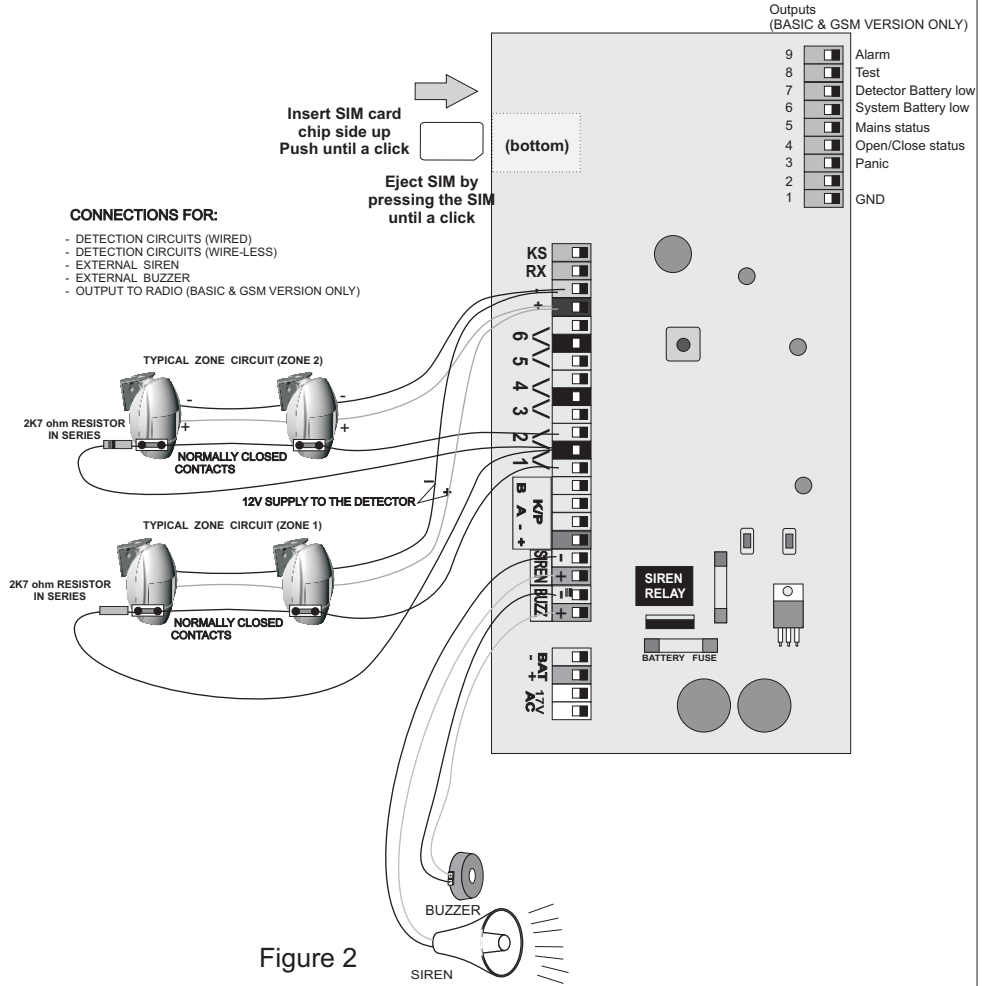


Figure 2

END OF LINE TERMINATION

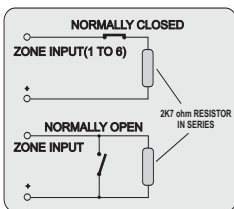
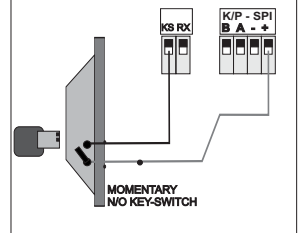


Diagram 2

KEY SWITCH CONNECTIONS



Summary of ALL Key-Pad entries

PROGRAMMING THE SPECIFIC KEYPAD OPTIONS (ONLY AVAILABLE THROUGH THE INSTALLER PASSWORD

1000 #-># 1 = ENABLE LOCAL KEYPAD	1000 #-># 9 = CLEAR EEPROM ON LOCAL KP
1000 #-># 3 = SET LOCAL BEEPER FUNCTIONS ON KP	1000 #-># D = SET KEYPAD NUMBER
1000 #-># 4 = CHANGE KEYPAD SYSTEM ID	

PROGRAMMING THE OPTION REGISTERS (ONLY THROUGH TO THE INSTALLER PASSWORD)

1000 # 0 1 = SET OPTIONS 1 OF THE SYSTEM	1000 # 1 A = SET DIP SW OF SYSTEM
1000 # 0 2 = SET OPTIONS 2 OF THE SYSTEM	1000 # 1 B = SET DIP SW OF REMOTE
1000 # 0 3 = SPARE	1000 # 1 C # = PROG CUSTOMER ID CODE
1000 # 0 4 = SET DET. DELAY FOR EACH ZONE.	1000 # 1 C * = DISP CUSTOMER ID CODE
1000 # 0 5 = SET SIREN ACTIVATION.	1000 # 1 D = SELF LEARNING MODE ("0"=EXIT)
1000 # 0 6 = SET OPEN / CLOSE REPORTING	1000 # 2 0 # = PROGRAM "NEXT" REPEATER Number
1000 # 0 7 = SET ALM / RESTORE REPORTING	1000 # 2 0 * = DISPLAY "NEXT" REPEATER Number
1000 # 0 8 = MODE REGISTER	1000 # 2 1 # = PROGRAM the REPEATER Number
1000 # 0 9 = ERASE EEPROM IN THE CONTOLUNIT	1000 # 2 1 * = DISPLAY the REPEATER Number
1000 # 0 A = SET LEVEL A	1000 # 2 2 = PROGRAM ACTIVE WIRELESS SENSOR (SUPERVISION)
1000 # 0 B = SET LEVEL B	1000 # 2 3 = AUTO ASSESS ACTIVE PERIMETER BEAMS (SPI)
1000 # 0 C = SET LEVEL C	1000 # 2 4 = PROGRAM SPI MASTER OPTIONS
1000 # 0 D = SET LEVEL D	1000 # 2 5 = PROGRAM ACTIVE PERIMETER BEAMS (SPI)
1000 # 1 3 = TRANSMITTER INHIBIT TIME	1000 # 2 9 = ERASE EEPROM IN BOTH KEYPAD AND THE CONTOLUNIT
1000 # 1 4 = ALARM REPORTING ZONES	1000 # 3 3 = DISPLAY ALARM LOG FILE
1000 # 1 5 = PERMANENT ACTIVE ZONE	1000 # 3 A = SET PERIMETER PATTERN "A"
1000 # 1 6 = ENTRY/EXIT DELAY	1000 # 3 B = SET PERIMETER PATTERN "B"
1000 # 1 7 = ENTRY/EXIT DELAY VALUE	1000 # 3 C = SET PERIMETER PATTERN "C"
1000 # 1 8 = CHECK-IN TIME	1000 # 3 D = SET PERIMETER PATTERN "D"
1000 # 1 9 = SIREN DURATION	

CHANGING PASSWORDS (USING THE DEFAULT / EXISTING PASSWORDS)

HOW THE INSTALLER CAN CHANGE PASSWORDS

1000 #-># C 0 [PASSWORD] = INSTALL PASSWORD
 1000 #-># C 1 [PASSWORD] = USER 1 PASSWORD
 1000 #-># C 2 [PASSWORD] = USER 2 PASSWORD
 1000 #-># C 3 [PASSWORD] = USER 3 PASSWORD
 1000 #-># C 4 [PASSWORD] = USER 4 PASSWORD
 1000 #-># C 5 [PASSWORD] = USER 5 PASSWORD
 1000 #-># C 6 [PASSWORD] = USER 6 PASSWORD
 1000 #-># C 7 [PASSWORD] = USER 7 PASSWORD
 1000 #-># C 8 [PASSWORD] = USER 8 PASSWORD
 1000 #-># C 9 [PASSWORD] = USER 9 PASSWORD
 1000 #-># C A [PASSWORD] = USER 10 PASSWORD

HOW USER-1 (MASTER) CAN CHANGE PASSWORDS

1111 #-># 1 [PASSWORD] = USER 1 PASSWORD
 1111 #-># 2 [PASSWORD] = USER 2 PASSWORD
 1111 #-># 3 [PASSWORD] = USER 3 PASSWORD
 1111 #-># 4 [PASSWORD] = USER 4 PASSWORD
 1111 #-># 5 [PASSWORD] = USER 5 PASSWORD
 1111 #-># 6 [PASSWORD] = USER 6 PASSWORD
 1111 #-># 7 [PASSWORD] = USER 7 PASSWORD
 1111 #-># 8 [PASSWORD] = USER 8 PASSWORD
 1111 #-># 9 [PASSWORD] = USER 9 PASSWORD
 1111 #-># A [PASSWORD] = USER 10 PASSWORD

HOW USERS 2,3,4 & 5 CAN CHANGE THEIR OWN PASSWORDS

2222 #-># = CHANGE PASSWORD USER 2	3333 #-># = CHANGE PASSWORD USER 3
4444 #-># = CHANGE PASSWORD USER 4	5555 #-># = CHANGE PASSWORD USER 5

CHOOSING ARM / WARN LEVELS IN MULTI-USER MODE

2222 # A = ARM LEVEL B (USER 2)	2222 ## = DISARM LEVEL B (USER 2)
3333 # A = ARM LEVEL C (USER 3)	3333 ## = DISARM LEVEL C (USER 3)
4444 # A = ARM LEVEL D (USER 4)	4444 ## = DISARM LEVEL D (USER 4)
5555 # A = ARM LEVEL A (USER 5)	5555 ## = DISARM LEVEL A (USER 5)
2222 # [Y] B = WARNING MULTIPLE ZONES (ONLY WITHIN THE MASK)	2222 # [Y] A = ARMING MULTIPLE ZONES (ONLY WITHIN THE MASK)

CHOOSING ARM / WARN LEVELS AND DISARMING IN NORMAL MODE

1111 # [Z] A = ARM SET BY USER 1	1111 # [Z] B = WARN SET BY USER 1	1111 ## = DISARM SYSTEM
2222 # [Z] A = ARM SET BY USER 2	2222 # [Z] B = WARN SET BY USER 2	2222 ## = DISARM SYSTEM
3333 # [Z] A = ARM SET BY USER 3	3333 # [Z] B = WARN SET BY USER 3	3333 ## = DISARM SYSTEM
4444 # [Z] A = ARM SET BY USER 4	4444 # [Z] B = WARN SET BY USER 4	4444 ## = DISARM SYSTEM

DUAL KEY OPERATIONS AVAILABLE TO THE USER

[A&0] -> [A&0] = DISABLE AUTO-ARMING
 [A&1] -> [A&1] = ENABLE AUTO-ARMING
 [* & #] -> [* & #] = SEND PANIC SIGNAL
 [1&3] -> [1&3] = MEDICAL
 [4&6] -> [4&6] = SEND TEST SIGNAL

OTHER KEY OPERATIONS AVAILABLE TO THE USER

A -> A = SET ARM LEVEL A
 B -> B = SET ARM LEVEL B
 C -> C = SET ARM LEVEL C
 D -> D = SET ARM LEVEL D
 * & A -> * & A = SET WARN-LEVEL A
 * & B -> * & B = SET WARN-LEVEL B
 * & C -> * & C = SET WARN-LEVEL C
 * & D -> * & D = SET WARN-LEVEL D

???? # 0 [Y] # = SET PERIMETER BEAM MASK
 1111 #-># D = DISABLE/ENABLE THIS KEYPAD
 1111 # 9 [Y] [Y] SET RESPONSE VALUE FOR SECTORS IN THE SPI

NOTES:

A->A Means: Press and hold the A key until it beeps
 [*&A ->*&A] Means: Press and hold the * and the A keys until it beeps
 [Y] Means: Any COMBINATIONS OF numbers 1,2,3,4,5,6,7 or 8
 [Z] Means: any A, B, C, D key or any combination of 1,2,3,4,5,6,7 or 8 keys
 [*] Denotes the value when the correct password has been entered
 [7&9] Means: Press BOTH KEYS (7&9) at the same time

