

DAS 100L
CONTROL PANEL
INSTALLATION MANUAL

TABLE OF CONTENTS

1. GENERAL DESCRIPTION	P.2
2. STANDARD AND OPTIONAL PARTS LIST	P.2
3. FEATURE DEFINITIONS	P.3
4. TERMINAL DRAWING AND SPECIAL NOTES	P.4
5. TERMINAL & FUSE DESCRIPTION	P.5
6. HOW TO PROGRAM THE DAS 100L	P.6
7. CODE PAD PROGRAMMING EXAMPLES	P.7
8. PROGRAMMING INSTRUCTIONS	P.8-14
12. PROGRAMMING WORKSHEETS	P.15-16
15. SPECIFICATIONS & WARRANTY	P.17

RECT ALARM SUPPLIES VILLAWOOD NSW
SERVICE / TECHNICAL (02) 7244211 OR 008252213

SALES				
N.S.W.	VIC.	QLD.	S.A.	W.A.
(02) 7256955	(03) 5627622	(07) 2525512	(08) 3711683	(09) 3453644
	(03) 3832066			
TAS DISTRIBUTOR - GHE (003) 316533 (002) 342233				

**DAS 100L
INSTALLATION MANUAL**

General Description

The Das 100L is a versatile 6 zone security control. Its microcomputer design gives some of the most versatile, yet easy to use features available for most security applications today. Each of the six zones can be programmed to be one of eight different types including 24 Hour, Interior Follower, and Day zone. Each zone is individually annunciated and can be bypassed from the code pad. See page 9 for a description of all zone types.

Read the OPERATORS MANUAL before you begin the installation for the best overall description of how the DAS 100L functions. After installation of the security system, complete the information on page 1 of the operators manual and explain the system operation to all security system owners/operators.

Standard Parts List.

The DAS 100L is shipped with the parts listed below.

QUANTITY	PART DESCRIPTION	PART NO.
1	MASTER CONTROL PANEL W / O CODE PAD	FS
10	3.3K, 1/2 WATT E.O.L. RESISTORS	EOL-33
1	INSTALLATION MANUAL	IM-100L
1	OPERATORS MANUAL	OM-100L

Optional Parts List

The following parts are available for use with the DAS 100L.

OPTIONAL PARTS DESCRIPTION	PART NO.
6 LED REMOTE CODE PAD	FS4623
LCD ALPHA NUMERIC DISPLAY CODE PAD	FS4534
AC POWER SUPPLY 16.5V 1.5 AMP PLUG PACK	FS4402
PROGRAMMER WITH DIGITAL NUMERIC DISPLAY	FS4597
SMART PROGRAMMER WITH LCD DISPLAY	FS4610
12VDC 6AH BATTERY	FS4312

FEATURE DEFINITIONS

Secondary Exit Delay

Used most often for garage doors, this zone type is a second entry/exit delay zone that has its own delay times, independent of the standard entry/exit delay zone.

Auto Isolate Enable

When enabled in location 197, the 100L can be armed with zones violated, lacking a green "READY" light on the code pad. Under this condition, all zones that are not secure at the end of the exit delay will become isolated. All zone that become secured before the end of the exit delay will become active in the system.

Partial Arm (Entry Guard)

This unique home level arming allows you to remain inside your home and only arm areas that are not occupied. For example, Night Arming.

Group Isolate

Zones can be programmed to isolate as a group when the [Locations 244-249: **Assigning Special Characteristics For Zones** on page 14 of this manual.

Dynamic Battery Test

When enabled in location 203, the 100L can be programmed to perform a dynamic battery test for a selected duration, at the preselected time.

Quick Arm

If programmed in location 139, the 100L can be armed by entering a one button "Quick Arm" code which is [3].

Auto Arming

If programmed in location 202, the 100L will automatically arm the system at a specific time (locations 198-201), if it has not already been armed by a system user.

Chime Feature

If chime zones are selected, pressing the [1] from the code pad will enable this feature.

Smoke Detector Reset

If programmed in location 143, the [#] key on the code pad can be used to reset smoke detectors.

Auxiliary Outputs

The 100L has four auxiliary outputs that can be activated by ten different conditions (see locations 145-148).

Loop Response Time

The 100L has a programmable loop response time from 20mS up to 500mS (see location 180).

TERMINAL DRAWING & SPECIAL NOTES

TERMINAL DESCRIPTION

TERMINAL NO.	DESCRIPTION
OP 1	Programmable Auxiliary Output Terminal. Current limited to 250 micro amps positive and 200 mA negative. This Auxiliary output is normally used to connect the negative lead of the strobe. The positive lead of the strobe can be connected to any of the positive terminals.
OP 2 - OP 4	Programmable Auxiliary Output Terminals. Current limited to 250 micro amps positive and 20 mA negative.
1	Connect one side of zone 1 loop. Other side of loop to common terminal 6. Open or short causes alarm.
2	Common (-) Terminal
3	Connect one side of zone 2 loop. The other side of loop to common terminal 6. Open or short causes alarm.
4 - 9	See Terminal Drawing and repeat the above sequence for zones 3-6.
10, 11, 12, 13	Connect code pad wires as follows; yellow to terminal 17, green to terminal 18, black to terminal 19, red to terminal 20. 70 metres maximum run with 7/020 cable, 120 metres maximum run with 14/020 cable Home run cable to each code pad.
14(-) & 15(+)	Siren driver output to speaker(s), (speaker rating should be 15 watt at 8 or 16 ohm, or 30/40 watt at 4, 8, or 16 ohms). If siren driver disable is selected in location 132, output becomes voltage output, 12VDC, 1 Amp maximum load.
16(-) & 17(+)	Smoke detector power 12VDC, 100 mA maximum (For those jurisdictions which allow the Priority zone to be used with smoke detectors.)
18(-) & 19(+)	Auxiliary power, regulated 12VDC, 500 mA maximum.
20	Earth Ground, connect to a cold water pipe or 6 to 10 foot driven rod.
21 & 22	AC input, connect a 16.5V 1.5 Amp Plug Pack.
Battery leads	Standby battery leads black(-) and red(+) connect to a 12VDC lead acid rechargeable battery. Do not connect to a dry cell battery.

FUSE DESCRIPTION

FUSE NO.	DESCRIPTION	
F1	1 AMP / Code pad	
F2	2 AMP / Siren Driver	
F3	1 AMP / Aux Power & Smoke Detector Power	

PROGRAMMING

The 100L can be placed into the "Program" mode by use of the new **FS4610 Smart Programmer**, or the original FS4597 programmer, or for Code Pad programming, by utilising the FS4534 LCD Code Pad (the preferred method) or the FS4623 LED Code Pad. These methods are described below.

Using a Programmer

The FS4610 Smart Programmer has been designed to make programming of the 100L simpler as well as more efficient for users. The FS4610 programmer features up to 4 resident standard programs to allow for separate system standardisation. Plug the optional model FS4610 programmer into the 4-pin male outlet marked "program" on the 100L P.C. Board.

Using The LCD Code Pad

The most straightforward method of Code Pad programming is to utilise the FS4534 LCD Code Pad in the programming mode. To access the programming mode enter [C] [0] [0], followed by the four digit "Go To Program" access code which is factory default [9] [0] [5] [0] (this code can be reprogrammed), and follow the Code Pad prompts.

Using The LED Code Pad

The 100L can also be programmed by the standard binary method of Code Pad programming described below. When the FS4623 LED Code Pad is used for programming, enter the factory default four digit "Go To Program" access code of [9] [7] [1] [3]. NOTE: The 100L must be disarmed to gain access to programming with this code. After entry of this code, the 100L will be in the "Program" mode, and the yellow LED's will display the data in location 000. The data is displayed using a Binary system. With this system the yellow zone 1 LED equals "1" when illuminated. The zone 2 LED equals "2" when illuminated. The zone 3 LED equals "4" when illuminated. The zone 4 LED equals "8" when illuminated. Thus if the data in location 000 is "9", the LED for zone 1 (=1) and zone 4 (=8) would be illuminated. By adding the two values together, (1+8=9) you would determine that the data in location 000 is "9". If the data in location 000 is "6", the LEDs for zone 2 (=2) and zone 3 (=4) would be added (2+4=6) indicating the data in that location to be "6". If no LED's are illuminated, the location contains a "0". To advance from location 000 through 255, press the [#] key. To go to a specific location, press the location number followed by the [#] key. The yellow LED's will then display the data in that location. Data is changed by entering a number 0 to 15 followed by [Review the examples in figure 1 on the following page.

Important Function Codes

[9]-[5]-[0]-[#] When in the program mode, this function code can be used to write original factory default codes into the 100L.
[9]-[3]-[0]-[#] This function code is used to exit the programming mode after it was accessed via the Code Pad.

!!! IMPORTANT !!!

Before programming the 100L for the first time, enter the "Go To Program Code" [9][7][1][3] from the Code Pad, followed by the factory default function code [9][5][0][#]. The panel defaults will now match this installation manual and you may begin programming the control panel. When using an optional plug-in programmer which automatically enters the programming mode, the only entry necessary is [9][5][0][#] to load factory defaults.

PROGRAMMING EXAMPLE - FIGURE 2

FS4597 PROGRAMMER - FIGURE 3

PROGRAMMING

LOCATIONS 000-003: PROGRAMMING THE MASTER ARM/DISARM CODE

Locations 000-003 contain master arm/disarm code (user number 1). Location 00 contains the first digit of the code; location 003 contains the fourth digit of the code. THE CODE MUST CONTAIN FOUR (4) DIGITS. The master code can then be used in the run mode to enter arm/disarm codes 1-7 (see page 40, ENTERING AND CHANGING THE MASTER CODE). The factory default code is [1][2][3][4].

LOCATIONS 004-027: PROGRAMMING THE ARM/DISARM CODE FOR USERS 2 THRU 7

Locations 004-023 contain the arm/disarm codes for user numbers 2 thru 7. Location 004 contains the first digit of the code #2, and location 007 contains the fourth digit of code #2. THESE CODES MUST CONTAIN FOUR (4) DIGITS. To disable a code, PROGRAM a "15" as the first digit of the code. These codes can be changed in the RUN mode using the master code.

LOCATIONS 028-031: PROGRAMMING THE "GO TO PROGRAM" ACCESS CODE

Locations 028-031 contain the "Go To Program" access code. Location 028 contains the first digit of the code and location 031 contains the fourth digit of the code. THE CODE MUST CONTAIN FOUR (4) DIGITS. With the DAS 100L disarmed, the "Go To Program" access code can be used to enter the program mode. To disable the "Go To Program" access code, program a "15" in location 028. The factory default setting is [9][7][1][3].

LOCATIONS 032-074: RESERVED

LOCATION 075: PROGRAMMING THE ENTRY DELAY TIME

Location 075 contains the number of 10 second increments in the entry delay. The entry delay can be programmed in 10 second increments from 10 to 150 seconds ("1" = 10 seconds through "15" = 150 seconds). For example, programming a "2" in this location will produce an entry delay of 20 seconds. (Note: A "0" entry is treated as 0 seconds). Programming a "6" in this location will produce an entry delay of 60 seconds. Factory default is 30 seconds.

LOCATION 076: PROGRAMMING THE EXIT DELAY TIME

Location 076 contains the number of 10 second increments in the exit delay. The exit delay can be programmed in 10 second increments from 10 to 150 seconds ("1" = 10 seconds through "15" = 150 seconds). For example, programming a "2" in this location will produce an exit delay of 20 seconds. (Note: A "0" entry is treated as 0 seconds). Programming a "6" in this location will produce an exit delay of 60 seconds. Factory default is 60 seconds.

LOCATION 077: PROGRAMMING THE SIREN SHUTDOWN/RECYCLE TIMEOUT

Location 077 contains the number of 2 minute increments in the automatic cutoff time. The automatic cutoff time can be programmed in 2 minute increments from 2 to 30 minutes ("1" = 2 min thru "15" = 30 min). For example, programming a "2" in this location will produce an automatic cutoff time of 4 minutes. Programming a "6" in this location will produce an automatic cutoff time of 12 minutes.

LOCATIONS 078-083: PROGRAMMING THE ZONE TYPES

Locations 078 through 083 contain a number identifying the characteristics of each of the 8 zones. Location 078 corresponds to zone 1 and location 083 corresponds to zone 8. Each zone will factory default according to the programming worksheet. To program zone characteristics other than the default values, program a number from "1" to "9" based on the characteristics in the list on the following page.

NUMBER	ZONE CHARACTERISTICS DESCRIPTION
"1"	DAY ZONE - A trip on a Day zone will produce an instant alarm when armed and activate the code pad sounder when disarmed.
"2"	24 HOUR - A trip on a 24 Hour zone will produce an instant alarm when the DAS 100L is armed or disarmed.
"3"	ENTRY/EXIT - A trip will start entry delay. The lack of a trip during exit delay will enable the "Automatic Bypass" or "Instant" mode if so programmed.
"4"	INTERIOR DELAY - A trip on Interior Delay zone will initiate an entry delay. It will be ignored during exit delay and when disarmed. This zone type is used with the "Automatic Bypass/Instant" mode.
"5"	HANDOVER - Interior zone that follows delay zones. It can be bypassed before arming, or automatically bypassed in the "Automatic Bypass/Instant" mode if so programmed.
"6"	INSTANT - Produces an instant alarm when tripped in the armed mode, ignored when disarmed.
"7"	NOT USED
"8"	PRIORITY - A short on a Priority zone type will sound the siren/bell whether the system is armed or disarmed. Priority zones cannot be bypassed.
"9"	SECONDARY DELAY - A secondary delay zone works like an interior delay zone but has its own independent delay time (see locations 178-179).

LOCATIONS 084 - 128: RESERVED

LOCATION 129: PROGRAMMING FOR SILENT PANIC/HOLD-UP

Location 129 is used to silence the audible output for a panic/hold-up alarm. Programming a "1" in this location will silence the audible output during a panic/hold-up alarm. If this location contains a "0", the DAS 100L will have an audible panic/hold-up output.

LOCATION 130: LIMITED SIREN

Location 130 is used to limit the sirens to one output per zone during a single arming cycle. The following table will indicate the value to be programmed in location 130 to give the 100L the desired characteristics. Factory default is "1", once per zone for the siren.

VALUE	DESCRIPTION
0	SIRENS NOT LIMITED
1	SIREN ONCE PER ZONE

LOCATION 131: PARTIAL MODE SECURITY FEATURE

Program an "8" in location 131 to enable the Partial Arm security feature. The Partial Mode security feature is the requirement to enter a full four digit code to disarm from Partial Mode. The automatic "Instant Arming" can also be enabled in this location. Programming a "1" in this location will cause the control to automatically enter the "Instant" mode and bypass interior follower zones if a fault is not detected on an entry/exit zone during the exit delay. Programming a "3" in this location (Automatic Bypass), will make interior follower zones bypass if a fault is not detected on an entry/exit zone, yet will not change the status of the entry/exit zone. If this location contains a "0", these features are disabled.

LOCATION 132: BUILT-IN SIREN DRIVER / 1 AMP VOLTAGE OUTPUT

The built-in siren driver has a steady sound (for Priority zone type), and a yelp sound (for Burglary and Panic). Factory default is "0", enabling this feature. If the built-in siren driver is NOT to be used, take the following procedure. First, remove the jumper on the PC board. Next, program a "1" in location 132. Finally, replace the jumper in the voltage position. Terminals 21 & 22 will now output 1 Amp at 12VDC. The Fire, Panic, and Burglary options for the Auxiliary Outputs can be programmed for momentary, or to follow the siren. Programming a "2" in location 132 will cause the Fire, Panic, or Burglary auxiliary outputs to activate for 10 seconds each time a Fire, Panic, or Burglary activates. Programming a "0" in location 132 will cause the Burg and Panic outputs to activate when the yelping siren is on and the Fire Auxiliary output to activate when the steady siren is on.

LOCATION 133: L.E.D. EXTINGUISH FEATURE

Code pad LEDs (with the exception of the A.C. LED) will be extinguished after 60 seconds of code pad inactivity, if a "1" is programmed in location 133. The LEDs will become illuminated immediately upon a keypress or alarm condition.

LOCATION 134: RESERVED

LOCATION 135: POWER UP CONDITION

If a "1" is programmed in location 135, the 100L will power-up disarmed if there is a total power shutdown and battery failure. If a "2" is programmed, it will power up armed. If this location contains a "0", the DAS 100L will maintain the condition it was in at power down. A watchdog circuit reset will cause the 100L to reset to the selected condition.

LOCATION 136: POWER UP DELAY

If a one "1" is programmed in location 136, the DAS 100L will not delay 60 seconds before accepting open or short inputs from any zone. If a "0" is programmed, sensors on all zones are allowed 60 seconds to stabilise at power-up, or after exiting the program mode. After 60 seconds, the 100L will once again accept loop opens or shorts as an alarm condition. This 60 second period will also be initiated after a watchdog circuit reset condition.

LOCATION 138: NO ARMING WITH A ZONE BYPASSED

If a "1" is programmed in location 138, the DAS 100L will not arm with any zone bypassed. If programmed with a "0", all burglary zones can be bypassed, and the DAS 100L can still be armed.

LOCATION 139: PROGRAMMING THE QUICK ARM DIGIT

The DAS 100L can be programmed to "Quick Arm" with the digit [3] byprogramming a "1" in location 139. A "0" in this location will disable this feature.

LOCATION 140-141: RESERVED FOR FUTURE USE

LOCATION 142: SIREN/BELL TEST FEATURE

The siren/bell can be programmed to activate upon different conditions. Using the chart below, add the values of the desired condition(s) and program the sum of those values in location 142. When the siren/bell is activated by pressing the [1] and [7] keys simultaneously, it can be silenced by entering an arm/disarm code.

VALUE	DESCRIPTION
1	Activation by pressing [1] and [7] keys simultaneously
2	Momentary activation at arming
4	Momentary at end of exit delay

LOCATION 143: SMOKE POWER RESET AND/OR FIRE ALARM VERIFICATION

Programming a "1" in location 143 will cause the 100L (when in the disarmed state) to interrupt the smoke detector power each time the [#] button is pressed. If this location contains a "0", the smoke detector power will reset only after the [#] button is pressed when the corresponding LED(s) for zones designated as "Priority" are on steady for alarm or blinking for trouble. Programming a "2" in this location will enable the "Fire Alarm Verification" feature. When the "Fire Alarm Verification" feature is enabled, a smoke detector will be powered down and reset automatically after the first trip, waiting for a second trip within a 30 minute time frame (thus verifying a fire alarm condition) before creating an alarm.

LOCATION 144: RESERVED FOR FUTURE USE

LOCATION 145-148: PROGRAMMING THE AUXILIARY OUTPUTS

The 100L has 4 auxiliary outputs located on terminals 1 thru 4 on the control PC board. These outputs can be activated by 10 different conditions. To utilise the outputs, program a number from "0" to "9" in locations 145 to location 148 according to the desired characteristics listed on the following page. Output 1 is terminal 1 and output 4 is terminal 4.

PROGRAM DIGIT	ACTIVATION ON	NOTES
"0"	BURGLARY ALARM	MOMENTARY OUTPUT
"1"	FIRE ALARM	MOMENTARY OUTPUT
"2"	PANIC ALARM/DURESS	MOMENTARY OUTPUT
"3"	ARMED STATE	LATCHED OUTPUT
"4"	ARMED WITH BYPASS	LATCHED OUTPUT
"5"	AC POWER	LATCHED OUTPUT
"6"	LOW BATTERY	LATCHED OUTPUT
"8"	TAMPER ALARM	LATCHED OUTPUT
"10"	NOT USED	NOT USED
"11"	STROBE	LATCHED OUTPUT
"12"	ENTRY	LATCHED OUTPUT
"13"	EXIT	LATCHED OUTPUT
"14"	STATUS LED	LATCHED OUTPUT
"15"	NOT USED	NOT USED

LOCATIONS 149: INVERTING THE AUXILIARY OUTPUTS

The auxiliary outputs of the 100L are normally POSITIVE (+) going NEGATIVE (-). They can be changed to a normally NEGATIVE (-) going POSITIVE (+) by programming the appropriate number in location 149. Auxiliary output 1 has a value of "1", Auxiliary output 2 has a value of "2", Auxiliary output 3 has a value of "4", and Auxiliary output 4 has a value of "8". The values for the outputs that you wish to change to NEGATIVE going POSITIVE must be added together and the total programmed in location 149. For example, if you wished to make outputs 2 ="2" and 3 ="4" NEGATIVE going POSITIVE, you would program "6" (2+4=6) in location 149. {NOTE: CURRENT LIMITED TO 250 MICRO AMPS POSITIVE AND 20 mA NEGATIVE}.

VALUE	OUTPUT INVERSION	VALUE	OUTPUT INVERSION
0	NO AUX INVERTED	8	INVERT AUX 4 OUTPUT
1	INVERT AUX 1 OUTPUT	9	INVERT AUX 1 & 4 OUTPUT
2	INVERT AUX 2 OUTPUT	10	INVERT AUX 2 & 4 OUTPUT
3	INVERT AUX 1 & 2 OUTPUT	11	INVERT AUX 1, 2 & 4 OUTPUT
4	INVERT AUX 3 OUTPUT	12	INVERT AUX 3 & 4 OUTPUT
5	INVERT AUX 1 & 3 OUTPUT	13	INVERT AUX 1, 3 & 4 OUTPUT
6	INVERT AUX 2 & 3 OUTPUT	14	INVERT AUX 2, 3 & 4 OUTPUT
7	INVERT AUX 1, 2 & 3 OUTPUT	15	INVERT AUX 1, 2, 3 & 4 OUTPUT

LOCATIONS 150 - 152: RESERVED

LOCATION 153: PROGRAMMING THE CLOCK, CURRENT MONTH

Location 153 contains the current month. The month must be programmed using a number from "1" to "12". This location must be programmed when using the maintenance code feature (see location 167).

LOCATION 154: PROGRAMMING THE CLOCK, CURRENT YEAR - TENS DIGIT

Location 154 contains the current year - tens digit. If the current year is 1994, this location should contain a 9, which is the tens digit of the current year.

LOCATION 155: PROGRAMMING THE CLOCK, CURRENT YEAR - ONES DIGIT

Location 155 contains the current year - ones digit. If the current year is 1994, this location should contain a "4", which is the ones digit of the current year. If the current year is 1995, this location should contain a "5", which is the ones digit of the current year.

LOCATION 156: PROGRAMMING THE CLOCK, CURRENT DAY OF THE MONTH - TENS DIGIT

Location 156 contains the current day of the month - tens digit. If the current day of the month is the 5th (05), this location should contain a "0", which is the current day of the month - tens digit. If the current day of the month is the 26th, this location should contain a "2".

LOCATION 157: PROGRAMMING THE CLOCK, CURRENT DAY OF THE MONTH - ONES DIGIT

Location 157 contains the current day of the month - ones digit. If the current day of the month is the 5th (05), this location should contain a "5", which is the current day of the month - ones digit. If the current day of the month is the 26th, this location should contain a "6".

LOCATION 158: PROGRAMMING THE CLOCK, CURRENT HOUR - TENS DIGIT

Location 158 contains the current hour - tens digit. The time is entered in 24 hour time. If the current time is 5:25 PM, the 24 hour time is 17:25, so this location should contain a "1", which is the current hour - tens digit. If the current time is 9:36 AM, the 24 hour time is 09:36, so this location should contain a "0".

LOCATION 159: PROGRAMMING THE CLOCK, CURRENT HOUR - ONES DIGIT

Location 159 contains the current hour - ones digit. The time is entered in 24 hour time. If the current time is 5:25 PM, the 24 hour time is 17:25, so this location should contain a "7", which is the current hour - ones digit. If the current time is 9:36 AM, the 24 hour time is 09:36, and this location should contain a "9".

LOCATION 160: PROGRAMMING THE CLOCK, CURRENT MINUTES - TENS DIGIT

Location 160 contains the current minutes - tens digit. The time is entered in 24 hour time. If the current time is 5:25 PM, the 24 hour time is 17:25, so location 160 should contain a "2", which is the current minutes - tens digit. If the current time is 9:36 AM, the 24 hour time is 09:36, and this location should contain a "3".

LOCATION 161: PROGRAMMING THE CLOCK, CURRENT MINUTES - ONES DIGIT

Location 161 contains the current minutes - ones digit. The time is entered in 24 hour time. If the current time is 5:25 PM, the 24 hour time is 17:25, so this location should contain a "5", which is the current minutes - ones digit. If the current time is 9:36 AM, the 24 hour time is 09:36, and this location should contain a "6".

LOCATIONS 162 - 177: RESERVED

LOCATION 178: PROGRAMMING THE SECONDARY ENTRY DELAY (ZONE TYPE 9)

Location 178 contains the number of 10 second increments in the exit delay. The exit delay can be programmed in 10 second increments from 10 to 150 seconds ("1" = 10 seconds through "15" = 150 seconds). For example, programming a "2" in this location will produce an exit delay of 20 seconds. (Note: A "0" entry is treated as 0 seconds). Programming a "6" in this location will produce an exit delay of 60 seconds. Factory default is 60 seconds.

LOCATION 179: PROGRAMMING THE SECONDARY EXIT DELAY (ZONE TYPE 9)

Location 179 contains the number of 10 second increments after arming, before trips will be recognised on a zone type 9. The exit delay can be programmed in 10 second increments from 10 to 150 seconds ("1" = 10 seconds thru "15" = 150 seconds). (Note: A "0" entry is treated as zero (0) seconds). If the exit delay time in this location is less than that of location 076, this secondary delay will follow the amount of time in location 076.

LOCATION 180: PROGRAMMING THE LOOP RESPONSE TIME

Location 180 is used to program the loop response time for all zones programmed as fast loop response in locations 186-193. The response time is equal to 20 milliseconds times the number programmed in this location ("1" = 20 milliseconds and "5" = 100 milliseconds). If this location contains a "0", the loop response time will be 500 milliseconds.

LOCATIONS 181-185: RESERVED FOR FUTURE USE

LOCATIONS 186-191: ASSIGNING SPECIAL CHARACTERISTICS FOR ZONES 1-6

Locations 186-191 are used to assign individual characteristics for each of zones 1-6. These locations can be used to enable or disable the chime feature, bypass feature, and fast loop response for each of the individual zones 1-6. To enable the features, enter a binary number according to the following chart.

VALUE	CHARACTERISTIC	VALUE	CHARACTERISTIC
0	NO FEATURE SELECTED	8	CHIME ENABLE
1	FAST LOOP RESPONSE (see location 180)	9	FAST LOOP RESPONSE CHIME ENABLE
2	ZONE ISOLATE CAPABILITY	10	ZONE ISOLATE CAPABILITY CHIME ENABLE
3	FAST LOOP RESPONSE ZONE ISOLATE CAPABILITY	11	FAST LOOP RESPONSE ZONE ISOLATE CAPABILITY CHIME ENABLE

LOCATIONS 192-196: RESERVED FOR FUTURE USE

LOCATION 197: AUTO ISOLATE

Programming a "1" in location 197 will allow the DAS 100L to be armed without all the zones secure (no "Ready" LED illuminated). Any zones that are not secure at the end of the exit delay will be automatically bypassed, while zones that are secure will be armed. Factory default is "0", Force Arming disabled.

LOCATIONS 198-201: AUTOMATIC ARMING TIME

Locations 198-201 contain the time of an automatic arming, if automatic arming is enabled in location 202. The time is entered as 24 hour (military) time beginning with location 198.

LOCATION 202: AUTOMATIC ARMING

Programming a "1" in location 202 will enable Automatic arming. The time of the arming is programmed in location 198-201. If automatic arming is enabled, the code pad sounder will activate for 50 seconds before automatically arming. If the sounder is silenced by entering a valid arm/disarm code during the 50 second time frame, the panel will not automatically arm. If the sounder is still on at the end of the 50 seconds, the control will arm. Any zones not secure will be bypassed when automatic arming is used.

LOCATION 203: DYNAMIC BATTERY TEST

The number programmed in location 203 determines the number of minutes the 100L will perform dynamic battery testing during each 24 hour period. The Battery test is preformed at 6:00 AM. Programming a "0" in this location will disable this feature.

LOCATIONS 204-243: RESERVED FOR FUTURE USE

LOCATIONS 244-249: ASSIGNING PARTIAL ARM / GROUP ISOLATE FOR ZONES 1 - 6

Locations 244-249 are used to assign Partial arm and Group isolate zone characteristics for zones 1 through 6. Location 244 is for zone 1 and location 249 is for zone 6. Each zone can have any or all of the following characteristics regardless of the zone type selected in locations 159-166 excluding Fire zones, which cannot have Isolate Capability enabled. Factory default is "8" for each of these locations partial mode and Group Isolate disabled.

Partial Arm

This unique home level arming allows you to remain inside your home and only arm areas that are not occupied. To enable Partial Arm zones, programmed the zone(s) that you wish to be monitored (armed) with a "2", all remaining zone will become isolated in the partial mode. Pressing a two "2" at the code pad a waiting five (5) seconds will arm the 100L in Partial Arm, to disarm the partial mode press the "2" digit or your four digit code by enabling the partial mode security feature in location 131. **Note:** The Partial Arm (Entry Guard) Entry time will follow your Primary entry time.

Group Isolate

Zones can be programmed to isolate as a group when [be enabled in conjunction with the Partial mode feature. Programming a "4" in these locations will enable the selected zone to be part of the group isolate.

VALUE	CHARACTERISTIC
2	PARTIAL MODE (Monitored / Armed in partial mode)
4	GROUP ISOLATE ZONE (Isolated by pressing [
6	PARTIAL MODE (Monitored / Armed in partial mode) GROUP ISOLATE ZONE (Isolated by pressing [

LOCATIONS 250-255: RESERVED FOR FUTURE USE

ARM/DISARM CODES 1 - 15

LOCATION	PAGE	DESCRIPTION	DATA 1	DATA 2	DATA 3	DATA 4	"DEFAULT"
000-003	8	USER #1 ARM/DISARM CODE					"1-2-3-4"
004-007	8	USER #2 ARM/DISARM CODE					"15" DISABLED
008-011	8	USER #3 ARM/DISARM CODE					"15" DISABLED
012-015	8	USER #4 ARM/DISARM CODE					"15" DISABLED
016-019	8	USER #5 ARM/DISARM CODE					"15" DISABLED
020-023	8	USER #6 ARM/DISARM CODE					"15" DISABLED
024-027	8	USER #7 ARM/DISARM CODE					"15" DISABLED
028-031	8	"GO TO PROGRAM" ACCESS CODE					"9-7-1-3"

PROGRAMMING OPTIONS

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
075	8	PRIMARY ENTRY DELAY OPT=("0" THRU "15") 10 SEC INC		"2" 20 SECONDS
076	8	PRIMARY EXIT DELAY OPT=("0" THRU "15") 10 SEC INC		"6" 60 SECONDS
077	8	SIREN CUTOFF TIME OPT=("0" THRU "15") 2 MIN INC		"4" 8 MINUTES

ZONE TYPES FOR ZONES 1 - 6

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
078	8	ZONE #1 - ZONE TYPE		"3" ENTRY/EXIT
079	8	ZONE #2 - ZONE TYPE		"5" HANDOVER
080	8	ZONE #3 - ZONE TYPE		"6" INSTANT
081	8	ZONE #4 - ZONE TYPE		"6" INSTANT
082	8	ZONE #5 - ZONE TYPE		"6" INSTANT
083	8	ZONE #6 - ZONE TYPE		"6" INSTANT
084-085	8	RESERVED		RESERVED

PROGRAMMING OPTIONS

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
128	9	RESERVED		"0" DISABLED
129	9	SILENT CODE PAD PANIC		"0" AUDIBLE
130	9	SIREN LIMITATION		"1"
131	9	PARTIAL ARM SECURITY FEATURE "8" enable		"0" DISABLED
132	10	BUILT-IN SIREN DRIVER / 1 AMP VOLTAGE OUTPUT		"0" SIREN
133	10	L.E.D. EXTINGUISH ENABLE		"0" DISABLED
134	10	RESERVED		"6" ATTEMPTS
135	10	POWER UP CONDITION		"0" LAST CON
136	10	POWER UP DELAY		"1" DISABLED
137	10	RESERVED		RESERVED
138	10	NO ARMING WITH A ZONE ISOLATED		"0" DISABLED
139	10	QUICK ARM DIGIT Digit [3]		"0" DISABLED
140-141	10	RESERVED		RESERVED
142	10	BELL TEST CONTROL		"0" DISABLED
143	11	SMOKE POWER RESET AND/OR FIRE ALARM VERIFICATION		"0" DISABLED
144	11	RESERVED		RESERVED

AUXILIARY OUTPUT OPTIONS

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
145	11	AUX PIN #1		"11" STROBE
146	11	AUX PIN #2		"0" BURG ALARM
147	11	AUX PIN #3		"3" ARMED LED
148	11	AUX PIN #4		"14" READY LED
149	11	AUXILIARY OUTPUT INVERSION		"0" DISABLED

PROGRAMMING TIMER OPTIONS

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
150-152	12	RESERVED		RESERVED
153	12	MONTH OF THE YEAR (JANUARY = "1" DECEMBER = "12")		"UNDEFINED"
154	12	CURRENT YEAR - TENS DIGIT (1994 = "9")		"UNDEFINED"
155	12	CURRENT YEAR - ONES DIGIT (1994 = "4")		"UNDEFINED"
156	12	DAY OF THE MONTH - TENS DIGIT (25TH = "2")		"UNDEFINED"
157	12	DAY OF THE MONTH - ONES DIGIT (25TH = "5")		"UNDEFINED"
158	12	CURRENT HOUR - TENS DIGIT		"UNDEFINED"
159	12	CURRENT HOUR - ONES DIGIT		"UNDEFINED"
160	12	CURRENT MINUTE - TENS DIGIT		"UNDEFINED"
161	12	CURRENT MINUTE - ONES DIGIT		"UNDEFINED"
162-177	12	RESERVED		RESERVED

PROGRAMMING OPTIONS

LOCATION	PAGE	DESCRIPTION	DATA	"DEFAULT"
178	13	SECONDARY ENTRY DELAY OPT= ("0" THRU "15") 10 SEC INC		"6" 60 SECONDS
179	13	SECONDARY EXIT DELAY OPT= ("0" THRU "15") 10 SEC INC		"6" 60 SECONDS
180	13	LOOP RESPONSE TIME OPT= ("0" THRU "15") 20 m/ SEC INC		"0" DISABLED
181-185	13	RESERVED		RESERVED
186	13	ZONE #1 - SPECIAL CHARACTERISTICS		"6"
187	13	ZONE #2 - SPECIAL CHARACTERISTICS		"6"
188	13	ZONE #3 - SPECIAL CHARACTERISTICS		"6"
189	13	ZONE #4 - SPECIAL CHARACTERISTICS		"6"
190	13	ZONE #5 - SPECIAL CHARACTERISTICS		"6"
191	13	ZONE #6 - SPECIAL CHARACTERISTICS		"6"
192-196	13	RESERVED		RESERVED
197	13	AUTO ISOLATION		"0" DISABLED
198	13	AUTO ARM TIME HOURS - TENS DIGIT		"2"
199	13	AUTO ARM TIME HOURS - ONES DIGIT		"2"
200	13	AUTO ARM TIME MINUTES - TONES DIGIT		"0"
201	13	AUTO ARM TIME HOURS - ONES DIGIT		"0"
202	13	AUTO ARM ENABLE		"0" DISABLED
203	14	DYNAMIC BATTERY TEST DURATION		"0" DISABLED
204-243	14	RESERVED		RESERVED
244	14	PARTIAL ARM / GROUP ISOLATE FOR ZONE 1		"8"
245	14	PARTIAL ARM / GROUP ISOLATE FOR ZONE 2		"8"
246	14	PARTIAL ARM / GROUP ISOLATE FOR ZONE 3		"8"
247	14	PARTIAL ARM / GROUP ISOLATE FOR ZONE 4		"8"
248	14	PARTIAL ARM / GROUP ISOLATE FOR ZONE 5		"8"
249	14	PARTIAL ARM / GROUP ISOLATE FOR ZONE 6		"8"
250-255	14	RESERVED		RESERVED

SPECIFICATIONS

OPERATING POWER	16.5 VAC 1.5 AMP Plug Pack
AUXILIARY POWER	12 VDC Regulated 500 mA
LOOP RESISTANCE	300 Ohms Maximum
BUILT-IN SIREN DRIVER	4 Ohms Max
LOOP RESPONSE	Selectable 20mS to 500ms
OPERATING TEMPERATURE	32 to 120 degrees F
KEYPAD DIMENSIONS	5.50" Wide 4.25" High .850" Deep
METAL ENCLOSURE DIMENSION	11.25" Wide 11.25" High 3.50" Deep
SHIPPING WEIGHT	9 lbs.

WARRANTY STATEMENT

DIRECT ALARM SUPPLIES GUARANTEES THIS PRODUCT AGAINST DEFECTIVE PARTS AND WORKMANSHIP FOR TWENTY-FOUR (24) MONTHS FROM DATE OF PURCHASE. IF ANY DEFECT APPEARS DURING THE WARRANTY PERIOD RETURN IT TO DAS, POSTAGE PREPAID. THE UNIT WILL BE REPAIRED AND RETURNED. DAS ASSUMES NO LIABILITY FOR CONSEQUENTIAL OR INDIRECT DAMAGE AND ACCEPTS NO RESPONSIBILITY FOR REPAIRING DAMAGE TO THE PRODUCT CAUSED BY MISUSE, CARELESS HANDLING, OR WHERE REPAIRS HAVE BEEN MADE BY OTHERS.

NO OTHER GUARANTEE, WRITTEN OR VERBAL, IS AUTHORIZED BY OR ON BEHALF OF DIRECT ALARM SUPPLIES, VILLAWOOD NSW.

**DIRECT ALARM SUPPLIES
69 CHRISTINA RD
VILLAWOOD NSW AUSTRALIA
PHONE (02) 7256389
FAX (02) 7257155**