



MAESTRO-1600DL

PROGRAMMING WORK SHEET

1. GENERAL GUIDANCE

Programming: All programming is carried out in the **Installer Mode**.

Installer Mode: In the disarmed state, enter [INSTALLER CODE]→[#]→[7]. The “victory” melody sounds and “Installer Mode” is displayed on the screen, confirming the mode transition.

Entering a Location: With “Installer Mode” displayed on the screen, press the location number required. The “victory” melody sounds and “Location” is displayed followed by the number selected.

Exit: You may press [#] at any stage to exit a location and save your changes.

LED Keypads: see note 2.

2. PROGRAMMING THE ALARM CONTROL PARAMETERS

LOCATION 01 - Installer Code

Code	Installer			
Default	1	6	0	0
New				



The default code must be changed at time of installation

LOCATION 02 - System Functions



This location uses a toggle key action - See Note 1 on last page

This location determines how the system will react under certain conditions

KEY	1	2	3	4	5	6	7	8
Default	1	1	0	0	0	0	0	0
New								

Table 1 List of programmable system functions

Key	Associated Function	State	Code Significance
[1]	Exit delay warning	1	Exit delay warning beeps enabled.
		0	Exit delay warning beeps will be disabled.
[2]	Entry delay warning	1	Entry delay warning beeps enabled.
		0	Entry delay warning beeps disabled.
[3]	Response to alarm from Quick-Action Key	1	The siren or bell will sound.
		0	A "silent alarm" will be activated.
[4]	PGM-1 output assignment	1	<u>COMM. FAIL</u> : PGM-1 pulls to ground for 4 seconds upon communication failure and then goes HIGH again.
		0	<u>ARM/DISARM</u> : PGM-1 pulls to ground upon arming and goes HIGH once the system is disarmed.
[5]	PGM-2 output assignment	1	<u>Courtesy light</u> : PGM-2 pulls to ground during exit/entry delays.
		0	<u>READY</u> : PGM-2 pulls to ground when the system is ready (all zones are secured).
[6]	PGM-3 output assignment	1	PGM-3 is adapted for smoke detector control.
		0	<u>Strobe</u> : PGM-3 pulls to ground upon alarm, and goes HIGH when the system is disarmed or armed
[7]	Zone expander	1	Installed: The system includes a zone expander.
		0	Not installed: The system does not include a zone expander.
[8]	Communicator reporting mode	1	The communicator reports to private telephone owners.
		0	The communicator reports to central stations

LOCATION 03 - Setting the System Timers

The settings in this location determine the timer duration for the tasks in table 2.

Timer	1		2		3		4		5		6		7		8	
Default	6	0	3	0	0	4	3	0	0	0	0	0	2	4	0	3
New																

Table 2. List of System Timers and their Tasks

Timer No.	Assignment	Duration	Functions
<1>	Entry delay timer	00 - 99 s	The time allowed to enter & disarm the system before activation
<2>	Exit delay timer	00 - 99 s	Permits leaving the premises before arming takes effect
<3>	Bell timeout	01 - 99 m	Determines how long the bell/siren will sound upon alarm
<4>	AC failure delay	01 - 99 m	Determines how long will an AC failure report be delayed
<5>	Event report	01 - 99 s	Determines delay before event is reported (excludes AC failure reports)
<6>	1st autotest delay	00 - 99 h	Delays the 1st autotest by the programmed number of hours
<7>	Autotest interval	00 - 99 h	Determines the time interval between consecutive autotests
<8>	Swinger shutdown	01 - 99	Number of alarm cycles allowed before a zone is temporarily disabled

LOCATION 04 - Zone Types (1 - 8)

This location defines the attributes of each zone.

Zone	1	2	3	4	5	6	7	8
Default	1	1	1	1	1	1	1	1
New								

LOCATION 05 - Zone Types (9 - 16)

Applies only to systems fitted with zone expanders

9	10	11	12	13	14	15	16
0	0	0	0	0	0	0	0

Table 3. Zone Type & Attribute Codes

Zone Type	Code
Zone disabled	0
Instant	1
Delay, Type 1 (does not affect ready / not ready display)	2
Delay Type 2 (does affect ready / not ready display)	3
Follower type 1 (does not affect ready / not ready display)	4

Zone Type	Code
Follower type 2 (affects ready / not ready display)	5
24-hours: bell (arm / disarm)	6
24-hours: bell (arm) / buzzer (disarm)	7
Fire	8
Keyswitch	9



BE AWARE - Locations 6 - 13 use a toggle key action - See Note 1. on last page

For easy recognition, all toggle Key Zones are shown like this separated by double lines



LOCATION 06 - Silent/Audible Alarm (1 - 8)

Determines the silent/audible alarm status in each zone.

Zone/Key	1	2	3	4	5	6	7	8
Default	0	0	0	0	0	0	0	0
New								

0 Audible

1 Silent

LOCATION 07 - Silent/Audible Alarm (9 - 16)

Applies only to systems fitted with zone expanders

9	10	11	12	13	14	15	16
0	0	0	0	0	0	0	0

LOCATION 08 - Priority Zones (1 - 8)

This location indicates which zones are designated as priority

Zone/Key	1	2	3	4	5	6	7	8
Default	0	0	0	0	0	0	0	0
New								

1 Priority Zone

0 Non Priority Zone

LOCATION 09 - Priority Zones (9 - 16)

Applies only to systems fitted with zone expanders

9	10	11	12	13	14	15	16
0	0	0	0	0	0	0	0

Note: Priority zones cannot be bypassed

LOCATION 10 - Chime Zones (1 - 8)

LOCATION 11 - Chime Zones (9 - 16)

This location Indicates which zones are designated as chime zones expanders

Zone/key	1	2	3	4	5	6	7	8
Default	0	0	0	0	0	0	0	0
New								

Applies only to systems fitted with zone

9	10	11	12	13	14	15	16
0	0	0	0	0	0	0	0

1 Designated as a chime zone 0 Designated as a non-chime zone Two beeps sound whenever a "chime zone" is opened

LOCATION 12 - Perimeter Zones (1 - 8)

Indicates which zones are designated as perimeter / interior zones expanders

Zone/key	1	2	3	4	5	6	7	8
Default	0	1	1	1	1	1	1	1
New								

LOCATION 13 - Perimeter Zones (9 - 16)

Applies only to systems fitted with zone

9	10	11	12	13	14	15	16
1	1	1	1	1	1	1	1

1 Perimeter zone - active in the HOME mode 0 Interior zone - inactive in the HOME mode

3. COMMUNICATOR PARAMETER DEFINITIONS

LOCATION 14 - 1st Channel Telephone Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

The telephone number may not exceed 16 digits (including pauses)

To program pauses between dialed digits, the following entries are available

- [*] [1] Hex (B) Cue for pager.
- [*] [2] Hex (C) Wait 8 seconds or wait for dial tone (whichever comes first), and continue dialing.
- [*] [3] Hex (D) Wait 10 seconds for a dial tone and disengage the line if none is received.
- [*] [4] Hex (E) Wait 10 seconds and continue dialing.

LOCATION 15 - 1st Channel Backup Telephone Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

This number will only be called only if communication with the first priority telephone number fails

LOCATION 16 - Account Code - 1st Central Station

This account number identifies the subscriber to the central station

--	--	--	--

 To program a 3-digit account code, add a "0" as the last digit

LOCATION 17 - 2nd Channel Telephone Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

LOCATION 18 - 2nd Channel Backup Telephone Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

LOCATION 19 - Account Code - 2nd Central Station

--	--	--	--

 When programming a 3-digit account code, add a "0" as the last digit

LOCATION 20 - Dialing Method

This procedure determines whether Pulse or DTMF dialing will be used.

Default	1
New	

[1] DTMF

[2] Pulse

LOCATION 21 - Mark / Space Values

This procedure determines mark/space durations and ratios for pulse dialing.

Default	1
New	

[1] 40/60

[3] 60/40

[2] 34/66

[4] 66/34

LOCATION 22 - Data Verification Method

This setting determines whether Double Round or Checksum verification will be used by the communicator.

Default	1
New	

[1] Double Round

[2] Checksum

LOCATION 23 - Data Transmission Rate

This location determines the data transmission rate

These settings are not valid if **low speed** pulse protocols has been selected in Location 24

Default	2
New	

[1] 10 pps

[3] 33 pps

[2] 20 pps

[4] 40 pps

LOCATION 24 - Protocol Type

This location selects the protocols used for information exchange with the central stations

00	1900/1400 Pulse	4X	Stratel old (X=No. of groups)	81	Robofon 1 - CCCC ØØEE
10	1800/2300 Pulse	50	Contact ID	82	Robofon 2 - CCCC EEØØ
20	Ademco express	60	Ademco Hi speed	83	Robofon 3 - ØØEE CCCC
21	4/2 DTMF	70	Scancom	84	Robofon 4 - EEØØ CCCC
3X	Stratel new (X=No. of groups)			85	Robofon 5 - ØØCCCCEE

Default	0	0
New		

CCCC	Customer Number
EE	Event

LOCATION 25- Report Destinations

This location determines the report destinations for various event groups

Group	1 st Zone alarms and restorals	2 nd Arm/disarm events	3 rd Maintenance events
Default	1	1	1
New			

- [0] None (no reporting)
 [1] 1st central station only
 [2] 2nd central station only
 [3] 1st & 2nd central station.

4. DEFINING THE EVENT CODES

LOCATION 26 - Alarms in Zones (1 - 8)

Event Codes are reported to the central stations by transmitting a 2-digit hexadecimal code. Available reporting formats are 3/1, 3/2, 4/1, 4/2 and 4/2 + checksum. Single digit codes must have a "0" suffix - e.g. 3 is entered as 30 and C as C0. **IMPORTANT! It is strongly recommended to program code "00" (no reporting) for each event that is not to be reported.**

Zone	1	2	3	4	5	6	7	8
Default	FF	FF	FF	FF	FF	FF	FF	FF
New								

LOCATION 27 - Alarms in Zones (9 - 16)

Applies only to systems fitted with zone expanders

9	10	11	12	13	14	15	16
FF	FF	FF	FF	FF	FF	FF	FF

LOCATION 28 - Restorals Zones (1 - 8)

In this location you assign event codes to restorals

Zone	1	2	3	4	5	6	7	8
Default	00	00	00	00	00	00	00	00
New								

LOCATION 30 - "System Armed" Reports

Registers 8 arming codes for up to 8 users

User	1	2	3	4	5	6	7	8
Default	00	00	00	00	00	00	00	00
New								

You can assign a different arm & disarm code to each user so that the central station can identify who arms/disarms the system

LOCATION 32 - Special Arming/Disarming Modes

Registers codes for reporting 8 special arming and disarming

Mode	1	2	3	4	5	6	7	8
Default	00	00	00	00	00	00	00	00
New								

Special Arming and Disarming Modes

1	Quick arming
2	Key on
3	Key off
4	Force arming
5	Ambush
6	Partial arming (one or more zones by-passed)
7	Disarming after an alarm
8	Home arming

LOCATION 34 - 2nd Grp of Maintenance Reports

This location registers codes for reporting the 2nd group of maintenance-related events.

Event	1	2	3	4	5	6	7	8
Default	00	00	00	00	00	00	00	00
New								

2nd Group of Maintenance Report Codes

1	Zone trouble
2	Fire zone trouble
3	Keypad bus error
4	Expander bus error
5	Keypad bus restoral
6	Expander bus restoral
7	Manual test
8	Auto-test

LOCATION 36 - 4th Grp of Maintenance Reports

This location registers codes for reporting the 4th group of maintenance-related events.

Event	1	2	3	4	5	6	7	8
Default	00	00	00	00	00	00	00	00
New								00

LOCATION 29 - Restorals Zones (9 - 16)

Applies only to systems fitted with zone expanders

	9	10	11	12	13	14	15	16
	00	00	00	00	00	00	00	00

LOCATION 31 - "System Disarmed" Reports

Registers disarming codes for up to 8 users

	1	2	3	4	5	6	7	8
	00	00	00	00	00	00	00	00

LOCATION 33 - 1st Grp of Maintenance Reports

Registers codes for reporting the first group of modes maintenance-related events

	1	2	3	4	5	6	7	8
	00	00	00	00	00	00	00	00

1st Group of Maintenance Report Codes

1	AC failure
2	Low battery
3	Siren fuse failure
4	Aux. Fuse failure
5	AC restoral
6	Battery restoral
7	Siren fuse restoral
8	Aux. Fuse restoral

LOCATION 35- 3rd Grp of Maintenance Reports

This location registers codes for reporting the 3rd group of maintenance-related events.

	1	2	3	4	5	6	7	8
	00	FF	FF	FF	00	00	00	00

3rd Group of Maintenance Report Codes

1	Alarm cancellation
2	Quick-action alarm (key "B")
3	Quick-action alarm (key "A")
4	Quick-action alarm (key "C")
5	Accessed by remote terminal
6	Arming from a remote terminal
7	Disarming from a remote terminal
8	By-passing from a remote terminal

4th Group of Maintenance Reports


1	Wireless low battery	5	Expander module tamper
2	Wireless supervision alert	6	Fire zone shutdown
3	Wireless transmitter tamper alert	7	Communicator restore
4	Wireless channel jamming	8	Reserve (undefined)

5. DEFINING ID AND REMOTE CONTROL CODES

LOCATION 37 - Downloader's ID

Registers the Downloader's ID code which the remote computer must use to identify itself


ID	Downloader					
Default	1	2	3	4	5	6
New						

 The default code must be changed upon installation

LOCATION 38 - Control Panel's ID

Registers the control panels ID code required by the remote computer

ID	Control Panel			
Default	1	2	3	4
New				

 The default code must be changed upon installation

LOCATION 39 - Remote Control by Computer

Note: This location uses a toggle action.

Permits or denies programming to be performed by remote computer

Key	1	2	3	4	5	6	7	8
Default	1	1	1	1	1	1	1	1
New								

Table 5 List of Remotely Executable Functions

Key	Function Name	Control Code Significance			
1	Arming the system	1	Permitted	0	Forbidden
2	Disarming the system	1	Permitted	0	Forbidden
3	Bypassing zones	1	Permitted	0	Forbidden
4	Programming account numbers	1	Permitted	0	Forbidden
5	Programming telephone numbers	1	Permitted	0	Forbidden
6	Upload from memory	1	Permitted	0	Forbidden
7	Download into memory	1	Permitted	0	Forbidden
8	Remote control	1	Enabled	0	Disabled

LOCATION 40 - Remote Control by Telephone

Note: This location uses a toggle action.

Permits/denies remote programming by telephone

5-2. List of Remotely Executable Functions

Key	1	2
Default	1	1
New		

Key	Function	Control Code Significance	
1	Arming the system	1 - Permitted	0 - Forbidden
2	Programming Tel. Nos.	1 - Permitted	0 - Forbidden

LOCATION 41 - Reset to Factory Defaults

Enter [INSTALLER CODE]. This process resets the system default codes, i.e. the master code to - 1 2 3 4, and the installer code to - 1600. In addition, locations 3 - 13, and location 01 are also reset to the default codes. **Location 02 is not reset.**

NOTES

Note 1

Toggle Key Zones:

Toggle between 0 and 1 by successively pressing the key that represents the required zone or function. Zones 9 - 16 are linked in **ascending** order to keys 1 - 8 on the keypad.

For easy recognition, Toggle Key Zones are shown separated by double lines



Note 2

Applies only to LED Keypads

1 means that the corresponding zone LED is **on**

0 means that the corresponding zone LED is **off**.

Additional Notes