1700 **iD** ALARM CONTROL SYSTEM

SYSTEMS FITTED
7-SEGMENT DISPLAYS

OPERATING INSTRUCTIONS

This information is relevant to systems fitted
with Issue 2.6 (or later) System Software

Castle Care-Tech Ltd.

1 Introduction

The Care-Tech 1700 control unit has been designed and manufactured in England to provide the facilities necessary to form the heart of a sophisticated alarm system for the protection of persons and property. Many of the facilities are programmed by the installing company, who will be able to advise you on the availability of certain of the features referred to in this manual.

The 1700 system consists of a central unit with up to three remote keypads to provide the control facility.

The Keypad:
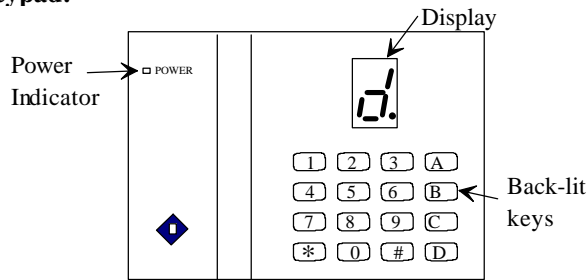
The system is powered from the mains supply, and is fitted with a rechargeable battery to ensure that the system continues to function normally, for a minimum of eight hours, during a mains power failure.

Before attempting to use the alarm system, please read and thoroughly familiarise yourself with these instructions.

1.1 USING THE SYSTEM - SUMMARY

For full details, refer to Section 2.

SETTING THE SYSTEM

Enter your four digit code (eg 1234) and * to set the system to 'PART' set 'B'

Enter your four digit code (eg 1234) and # to set the system to 'FULL' on

OR use the keyswitch (if fitted) to select 'FULL' or 'PART B' on.

SIMPLE SETTING THE SYSTEM (if enabled in programming)

Enter B and # (6 and # if no 'B' key on keypad) to set the system to 'PART' set 'B'

Enter C and # (9 and # if no 'C' key on keypad) to set the system to 'PART' set 'C'

Enter D and # (# twice if no 'D' key on keypad) to set the system to 'FULL'

UNSETTING THE SYSTEM

Enter your four digit code (eg 1234) followed by #

OR Switch key to 'OFF'

SILENCING AN ALARM

Enter your four digit code (eg 1234) followed by #

OR switch key to 'OFF'

Display will indicate cause of alarm

Note and investigate this cause, calling your alarm company if appropriate.

Press # (or turn key to 'FULL' and back to 'OFF') to return the system to normal 'day' mode

USING THE 'CHIME' FACILITY

Switch the 'Chime' on or off by pressing A and # (3 and # if no 'A' key on keypad)

1.2   Terms Used

Certain terms used to describe features and operation of the system may be unfamiliar, the principal ones are as follows:

DAY MODE	The 'normal' state of the alarm system whilst the premises are occupied, and the alarm switched 'OFF.' 'Personal Attack' facilities remain functional, and the system will continue to monitor itself for evidence of tampering. Also known as 'UNSET' or 'OPEN'
SWITCH ON	The action of activating, or 'SETTING' the alarm system, whether by use of the keypad or keyswitch.
SET	The condition of the alarm system when armed, after the switching on process has been completed - ie after the completion of the exit time. Also known as 'CLOSED.'
FULL SET	The condition of the alarm when the entire system is set
PART SET	The condition of the alarm system when a pre-programmed portion of the system is not armed - for example when setting the system at night whilst still in the premises. Two separate Part Setting areas are available.
EXIT TIME	The time delay permitted after switching the system on and before it becomes armed - during which you must leave the premises, and close the final exit door.
ENTRY TIME	The time delay permitted by the system after entering by the authorised route, and during which the system must be switched off, or an alarm will sound.
ENTRY-EXIT ROUTE	The portion of the alarm system linked to the Exit and Entry timers, through which exit and entry must be made.
ZONE or CIRCUIT	A division of the system which is separately identified in the indications at the control.
ZONE or CIRCUIT FAULT	Condition of one of the zones when one (or more) detectors are not clear, thus preventing the system from being 'set' - eg a door left open.
ZONE OMISSION	The facility to disable an individual zone (or zones) whilst setting the system
SYSTEM FAULT	An incorrect electrical condition which may impair the correct operation of the system - refer to these instructions for action required.

TAMPER	A fault existing in the wiring, or securing of the housing of part of the system, preventing normal operation.
PERSONAL ATTACK (PA)	An alarm generated deliberately, to summon assistance if being attacked, operative whether system is switched on or not. If remote signalling is fitted, the PA alarm may be silent.
REMOTE SIGNALLING	The facility (if fitted) for the system to automatically communicate by telephone line with a remote Central Monitoring Station to initiate a call to the police.

1.3   The Display

The 7-segment LED display indicates the condition of your alarm system. This will clearly show any information requiring your attention, as indicated in these instructions. The most important indications are as follows:

'Normal' Indications	
d	System in 'day' mode
. (full stop)	System is 'set'
d .	'Chime' is enabled
- (single 'bar')	Code accepted, whilst FULL setting the system
- flashing	As above, whilst being PART set.
Green LED (on keypad[s])	Mains supply healthy

'Fault' Indications	
d flashing	System is awaiting reset by engineer
Figure 1-20	A fault or alarm has originated on the zone numbered.
F-1 (alternating)	System tamper fault
F-2 (alternating)	Mains Failure
F-3 (alternating)	System voltage fault
F-4 (alternating)	Battery fault
F-5 (alternating)	Telecom Line Fault
F-7 (alternating)	Alarm generated at keypad

You will observe other indications whilst using the Manager Functions of the system, as itemised in Section 6 of this manual.

1.4   The Keypad

The 10 numeric keys are for entering your code for setting and unsetting the system, or entering other information when required. Four lettered keys (A,B,C,D) are provided on remote keypads. Functions available on these keys are available on alternative keys if these are not present. The # (YES) and * (NO) keys allow confirmation or cancelling of codes entered, also the choice of 'Full' or 'Part' setting the system. Always enter your code carefully and deliberately, never leaving more than 3 seconds between consecutive presses, or the system will reset itself. If the system does not immediately respond to your command, wait 3-4 seconds before trying again.

1.5   Operating Codes

There are three levels of access to the system as follows:

Code	Details of use	Factory pre-set	To change
USER	4 different codes may be programmed These enable the system to be set and unset.	1234	See 6.2
MANAGER	A single code must be programmed, to provide access to the 'Manager' menu only, so that additional functions may be used.	2222	See 6.3
ENGINEER	A single code is available to the installing company engineer to access the programming facilities of the system		

1.6   The Keyswitch

The keyswitch, if fitted, provides an alternative to the keypad for setting, unsetting or resetting the system. The keypad(s) and keyswitch may be used interchangeably.

1.7   Levels of setting

The system may be used in a variety of ways to maximise your security. These are:

FULL SET   The entire system is armed, and in the event of an intrusion, an alarm will be sounded, and (if fitted) a police call initiated.

PART SET   A pre-programmed portion of the system only is set. The system may provide a reduced level of warning outputs in this mode - eg no police call.
Two different 'Part' settings are provided (designated 'B' and 'C') to permit, for example, one setting to be used to set the downstairs at night, and the other to set upstairs and the garage during the day.
Part Set 'C' is available ONLY if programmed by the installing engineer.

CHIME   Provides a simple 'Chime' warning if a programmed zone is triggered whilst the premises are occupied.

Note that the areas pre-programmed for PART 'B', PART 'C' and CHIME may all be different, or overlap.

2 Using the System

2.1 Setting the System

2.1.1 Setting the System with the Keypad

Step	Action	Response	Display
a	Verify that all doors, etc. are closed, and that 'd' is displayed		'd'
b	Enter your 4-digit code, followed by # if the system is to be FULL set, or * if to be PART ('B') set.	Acceptance of code will be confirmed by display showing a single 'bar' (flashing if PART set). After a few seconds, a steady tone will commence.	'-' (flashing if PART set)
c	Leave the building by the specified route. To set the system silently (eg at night if part of the family is asleep): press * within 2 seconds of completing step b.	Continuous tone sounds. Tone will be aborted.	'-' (flashing if PART set)
d	If a detector is in fault condition, eg a door is opened If this detector is part of the exit route, you may continue, ensuring that all doors are closed behind you; otherwise correct the fault before attempting to leave the building	The tone will become intermittent When closed, the tone will become steady once more.	The display will indicate the number of a detection zone in fault condition
e	Close the Final exit door	Tone will cease when timer expires	'.'
f	When door is fully secure, press 'Push to Set' button (if fitted)	Tone will cease immediately	
g	The system may be programmed for the external strobe to flash briefly to confirm that the system is set.		
h	If the tone does not cease at the pre-set time	A fault exists, re-enter the building, switch off the alarm and correct the fault before trying again.	

2.1.2   Setting the System using the Keyswitch (if fitted)

Step	Action	Response	Display
a	Verify that all doors, etc. are closed, and that 'd' prompt is displayed		'd'
b	Insert your key and turn from the 'OFF' position to the 'FULL' or 'PART' ('B') on position, as required. If the keyswitch has been left in an 'ON' position by switching off with the keypad, switch to 'OFF' first, then proceed as above.	Acceptance of code will be confirmed by display showing a single 'bar' (flashing if PART set). After a few seconds, a steady tone will commence.	'-' (flashing if PART set)
c	Remove your key and leave the building by the specified route. To set the system silently (eg at night if part of the family is asleep): press * within 2 seconds of completing step b.	Continuous tone sounds. Tone will be aborted.	'-' (flashing if PART set)
d	Then proceed as described for using the keypad.		

2.1.3   Setting the system to Part Set 'C'

This facility is available only if programmed by the installing engineer.

Step	Action	Response	Display
a	Press C, followed by # If no 'C' key, use 9 #	Acceptance of code will be confirmed by display showing a single 'bar' (flashing if PART set). After a few seconds, a steady tone will commence.	'-' flashing
b	Leave the area to be protected by the system	Wait for the tone to silence.	'.'

It is possible to adjust the zones on which Part Set 'C' operates, as described at 6.4

2.2   Omitting Individual Zones

This facility is available only if programmed by the installing engineer.

Whilst the continuous exit tone is sounding, press the number of the zone you wish to omit, followed by '#' - repeating for additional zones if required (up to 3). The number of the omitted zone with be displayed, and the last number will remain on the display until the system sets.

2.3   Unsetting the System

NOTE: deviating from the prescribed ENTRY-EXIT route before switching the system off will cause an alarm.

2.3.1   Unsetting the system with the Keypad

Step	Action	Response	Display
a	Enter the building by the prescribed route only	Intermittent tone will commence	'.'
b	Enter your 4-digit code, followed by #	The tone will cease	'd'

2.3.2   Unsetting the system with the Keyswitch (if fitted)

Step	Action	Response	Display
a	Enter the building by the prescribed route only	Intermittent tone will commence	'.'
b	Insert your Key and turn from On to OFF. If the keyswitch is already in the 'OFF' position, first turn it to 'FULL' then return to 'OFF'	The tone will cease	'd'

2.4   Action Following an Alarm

2.4.1   Cancelling a daytime alarm

An alarm may occur whilst the system is 'unset' by deliberate action (ie operating a Personal Attack switch) or by the effects of a Fire, or a wiring fault. In this event:

Step	Action	Response	Display
a	Enter your 4-digit code, followed by # OR: Insert your Key and turn from 'OFF' to 'FULL' and back to 'OFF'	The alarm will silence	Will show the number of the zone initiating the alarm, or a code indicating the nature of a system fault (see 1.3)
b	Note the information shown on the Display, investigate the cause, and advise your alarm company of any action required.		
c	Reset the system by pressing the # key (OR turn Key from 'OFF' to 'ON' and back again.)		'd' - if 'd' is flashing, reset by the alarm company is required, and the system cannot be used until this is done. (see 2.4.3)

NOTE: a FIRE alarm signal will pulse on and off every two seconds to distinguish it from an intruder alarm.

2.4.2   Unsetting following an Alarm

An automatic timer is fitted to the system to silence the external bell or sounder after a pre-set time to minimise annoyance to neighbours, etc. but may have been programmed for the internal sounders to remain live after this has taken place. The system may be reset before or after this action.

Step	Action	Response	Display
a	Enter your 4-digit code, followed by # OR insert your Key and turn to 'OFF'	The alarm will silence, if not done automatically	Will show the number of the zone initiating the alarm, or a code indicating the nature of a system fault (see 1.3)
b	Note the information shown on the Display, investigate the cause, and advise your alarm company of any action required.		
c	Reset the system by pressing the # key (OR turn Key from 'OFF' to 'ON' and back again.)		'd' If 'd' is flashing, reset by the alarm company is required, and the system cannot be used until this is done. (see 2.4.3)

2.4.3   Engineer Reset

If your system is programmed to require reset by the installing engineer following an alarm, the display will show a FLASHING 'd' and it will not be possible to re-use the system until this is done. Whilst in this mode, each time you enter your code, a special four digit "anticode" will show on the display, one character at a time.

Under certain circumstances, your Installing Company, or Central Monitoring Station may permit you to reset the system without an Engineer being present. Under these circumstances, quote this "anti-code" - stating that your system has a 'Castle Care-Tech 1000 Series Panel,' and you will be given a special code to enter to reset your system for use. This special code will be valid for one occasion only.

2.5   Use of 'SIMPLE SET' facility

You may set the system using two keys only, as follows (the full code is required to unset): NOTE: This facility is only available if programmed by the installing engineer.

Function:	Simple set	Alternative if no lettered keys
PART set 'B'	Press B #	Use 6 #
PART set 'C'	Press C #	Use 9 #
FULL set	Press D #	Use # #

2.6 Using the 'Chime' Facility

You may switch part of the system to provide warning of an intruder in the building whilst it is occupied, without restricting your freedom of movement.

Step	Action	Response	Display
a	Press A, followed by # (Use 3# if no 'A' key)	Chime now active	'd.'
b	Intruder triggers programmed zone	System' Chimes'	Shows number of zone in which intruder is moving
c	Intruder moves to another zone	System 'Chimes'	Number updates
d	Press #		Resets to 'd.'
e	Press A, followed by # (Use 3# if no 'A' key)	Chime now inactive	'd'

It is possible to adjust the zones on which 'Chime' operates, as described at 6.4

3 Additional Keypad Facilities

3.1 Keypad Personal Attack Alarm

If switching off the system under duress, it is possible to initiate a Personal Attack alarm by pressing the '3' and '9' keys simultaneously. This facility is available at all times.

The alarm is reset as described at 2.4

NOTE the alarm may be programmed to be SILENT if a Police Call Unit is fitted to the system.

3.2 Keypad Alerts

These facilities are available only if programmed by the installing engineer.

3.2.1 Just in Case Timer

If you are nervous about answering the door to a stranger, the 'Just in Case' timer may first be set by entering '**1***' A 60 second time period will begin, during which the alarm control will 'beep' every few seconds. Once you are satisfied that the caller poses no threat, the timer may be cancelled, by using your normal 4-digit code. If this is not done, the system will generate an alarm at the expiry of the time period. This alarm will NOT be transmitted to an alarm central station.

3.2.2 Fire Alarm

The keypad may be used as a fire alarm call point by entering "**7***" This will cause an alarm to sound, pulsing on and off at two-second intervals. This alarm will NOT be transmitted to an Alarm Central Station.

4 Reviewing Time and Date setting

On pressing the * key alone whilst the system is in normal mode (ie display showing 'd'), the current time and date setting will be displayed, two characters at a time, in the form:

HH MM DD MM

ie   HOURS MINUTES DAY MONTH shown sequentially.

eg   14 30 18 07 would indicate 2.30 pm, 18th July. To adjust this setting, refer 6.5

5   System Faults

5.1   System Tamper Fault (F-1)

This indicates a fault in the wiring which requires attention by the alarm company.

5.2   Mains Failure (F-2)

This indicates a break in the mains supply to the alarm control equipment. A battery back up supply is provided which should enable the system to continue functioning normally for a minimum of 8 hours. In the event of the failure being prolonged, the alarm company should be advised.

5.3   System Voltage Fault (F-3)

This indicates that a fault has occurred in the system power supply or battery charging circuits, and should be reported to the alarm company.

5.4   Battery Fault (F-4)

This indicates a faulty or disconnected stand-by battery in the system, which should be reported to the installing company.

5.5   Telecom Line Fault (F-5)

If a remote signalling device is fitted to your system, a fault on the Telecom line whilst the system is unset, will cause the alarm to respond with a continuous 'chirping' tone. You may cancel this warning by entering your code, followed by # (or by switching the keyswitch on and off again). The warning will NOT repeat in the event of an intermittent fault, unless the system has been set and unset in the meantime.

6 Manager Functions

6.1 Accessing Manager Functions

Step	Action	Display
a	Ensure that the system is in normal mode	'd'
b	Enter Manager Code (factory pre-set 2222) followed by #	'E' flashing (The Manager prompt)
	The system is now in 'Manager mode' and provides access to the following functions: Set User Codes Set Manager Code Walk Test Bell Test Display Logs	
c	To return to normal (day) mode, press *	'd'

6.2 Setting User Codes

Step	Action	Display
a	Decide which code is to be changed, and ensure that 'Manager prompt' is showing.	'E' flashing
b	Enter 1, followed by the number of the code to be changed, and # - eg to change Code No: 3, enter 13#	'.' flashing
c	Enter your required 4-digit code, slowly and deliberately.	'E' flashing
d	To DELETE a code, enter 0000 NOTE: it is NOT possible to delete Code No. 1	
e	Return to normal (day) mode by pressing *	'd'

6.3 Setting the Manager Code

Step	Action	Display
a	Ensure that 'Manager prompt' is showing.	'E' flashing
b	Enter 15, followed by #	'.' flashing
c	Enter your required 4-digit code, slowly and deliberately.	'E' flashing
d	NOTE: it is NOT possible to delete the Manager code	

6.4 Zone Selection

The zones on which 'Chime' monitoring is operative and on which Part Set 'C' functions may be adjusted as follows:

6.4.1 Chime

Step	Action	Display
a	Ensure that Manager prompt is showing	'E' flashing
b	Enter 4, followed by zone number, and # - eg 41# for zone 1, or 412# for zone 12	'1' flashing if the zone is active, steady if not.
c	Enter 0 to change setting	
d	Press *	'E' flashing

6.4.2 Part Set 'C'

Step	Action	Display
a	Ensure that Manager prompt is showing	'E' flashing
b	Enter 5, followed by zone number, and # - eg 51# for zone 1, or 512# for zone 12	'1' flashing if the zone is active, steady if not.
c	Enter 0 to change setting	
d	Press *	'E' flashing

6.5 Setting Time and Date

Step	Action	Display
a	Ensure that 'Manager prompt' is showing	'E' flashing
b	Enter 70#	'.'
c	Enter HOURS, as for example 14#	'.'
d	Enter MINUTES, as for example 30#	'.'
e	Enter DATE, as for example 18#	'.'
f	Enter MONTH, as for example 07#	'E' flashing - returned to 'Manager prompt.'

In this example, the system has been set to 2.30 pm 18th July. The setting may be reviewed by pressing the '*' key whilst the 'd' prompt is displayed..

6.6 Testing the System:

6.6.1 Walk Test

This function enables you to test that all the detectors are working correctly, without generating an alarm.

Step	Action	Response	Display
a	Ensure that 'Manager prompt' is showing.		'E' flashing
b	Enter 20 and #		'.'
c	Commence test by triggering one of detectors on the system.	System will 'Chime' once as detector is triggered	The zone number corresponding with that detector will be displayed
d	Continue to trigger additional detectors	System will 'Chime' once as each detector is triggered	The zone number corresponding with that detector will be displayed, and will 'scroll' (alternate) with all zones which have previously triggered
e	At end of testing		Numbers of ALL zones triggered will be scrolling on display, even though some (or all) are now clear.
f	Press *	Returns to manager mode	'E' flashing

6.6.2 Bell and Strobe Test

Step	Action	Response	Display
a	Ensure that 'Manager prompt' is showing.		'E' flashing
b	Enter 60 and #	External alarm bell (or siren) will sound and strobe flash	'1' flashing
c	Press *	Sounder silenced, system returns to manager mode	'E' flashing

6.7　Displaying System Logs

The system logs contain a history of events relevant to the operation and maintenance of the system, divided in to 'Alarm' events, 'Trouble' events and 'Activations'. These are stored in chronological order, and are displayed commencing with the most recent.

Step	Action	Display
a	Ensure that 'Manager prompt' is showing.	'E' flashing
b	Enter 30 and #	Display will show a character dependant upon the type of the most recent log entry - see details below.
c	Press # or 0	Advances to next part of log entry
	If '0' is used, information displayed will include time and date for this entry, if '#' is used, this information will be by-passed.	
d	Continue to press # (or 0) and read information logged	'.' indicates end of a log entry
e	Pressing # (or 0) moves to next log entry	Continue as above.
f	Pressing * (whilst '.' showing) aborts	'E' flashing

6.7.1　Activation Records

If the initial character of a log entry is 'A' the entry is an '**A**ctivation' - ie a S etting or Unsetting event. The information recorded is as follows:

	S:	Records system being **S**ET
OR	U:	Records system being **U**NSET

Figure (0,1,2,3 or 4):　Setting (or unsetting) was performed by:
0 = 　Keyswitch or Simple set
1,2,3 or 4 = 　number of PIN code used.

If the record is a Setting event, additional information will follow:

	F:	If was **F**ULL set
OR	P:	If was **P**ART 'B' set
OR	9:	If was PART 'C' set

o, followed by a figure, records the number of any circuits **o**mitted
. (full stop)　Identifies the end of record - scroll to next entry (with #) or exit (with *).

eg:　A S 2 F o 4 o 5 .　Records the system being **S**et by code holder **2**, in **F**ull guard, **o**mitting circuits **4** and **5**
A U 0　Records the system being **U**nset by the Keyswitch

6.7.2 An Alarm or Trouble record

If the initial character of a log entry is '**a**' the entry records an **a**larm event, a 't' records a **t**rouble event. The information recorded is as follows:

Figure: Shows the number of the alarm circuit triggering the alarm

OR Letter 'F' alternating with Figure: Shows that alarm originated from a system fault, identified as follows:

F-1	System (SAB or BOX) tamper
F-2	Mains Failure
F-3	Over or Under Volts
F-4	Battery Fault
F-5	Telecom Line Fault
F-6	System Re-start
F-7	Keypad generated alarm

This information will be displayed thus:

a 2   Records an **a**larm created on circuit **2**

t 7   Records a **t**amper fault on circuit **7**, whilst system unset.

t F-4 Records a battery fault.

6.7.3 Display of Time and Date

If scrolled through a log record with '0' key, the system will additionally indicate the Time and Date associated with that event, in the format

HH MM DD MM

ie   HOURS MINUTES DAY MONTH shown sequentially, two characters at a time.

eg   14 30 18 07 would indicate 2.30 pm, 18th July

6.7.4 Printing logs

By using the command 31# whilst the 'Manager prompt' is showing, the log will be output to a printer connected to the system. The printer connections should be fitted by your installing engineer. The system is compatible with many standard IBM PC-compatible 'Centronics' parallel type printers, such as Datec DP1014.0400K, Seiko DPU40, Epson P40, etc. Owing to the wide variations in software driving requirements, it is not possible for the 1700 system to correctly drive all types of printer.

The printer should NOT be left connected to the system when 'off line' or not in use.

Note: Castle Care-Tech Ltd. reserve the right to change the specification of this system at any time in the interests of product improvement

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INSTRUCT-32