

## CASTLE MICRO OMEGA 8 - INSTALLATION PROCEDURE

### 1. FIXINGS

- 1.1 Remove the two fixing screws from the front cover and lift off the panel front.
- 1.2 Decide on the form of cable entry to be used and remove the appropriate knockouts.
- 1.3 Mount the panel chassis, first using the top slotted screw hole to mark the necessary fixing holes.
- 1.4 Using 3-core cable 1.0mm (min) mains cable, wire the panel mains supply input into an unswitched fused spur point which should be situated near to the panel.
- 1.5 NOTE: The panel must be connected to earth via the mains connector block. Failure to do so will impair the lightning and RFI protection circuits and invalidate the warranty.

### 2. ALARM CIRCUITS WIRING

- 2.1 Circuits 0-7 are wired using end of line (EOL) detection techniques. This means that only two cable cores are needed to achieve tamper monitoring and detector annunciation. This is achieved by wiring an 'A' diode across the NC contacts of say PIR 'A' and a 'B' diode across the second PIR. The tiny end of line module fits within the second passive.

#### REMEMBER:

If you are wiring door contacts or if you do not wish to use the A+B diodes in PIR detectors, simply use a CM.DPC module that converts the EOL wiring techniques to standard double-pole wiring. Boxed CM.DPC's may be mounted remotely from the Omega 8 conveniently by the detectors.

- 2.2 Decide on your cable runs and the location of the detection devices. Follow the wiring procedures in the drawings (Fig 1) and screw the cables securely into the appropriate zone terminal block.

### 3. SOUNDERS AND OUTPUT WIRING

- 3.1 AUXILIARY. This is a change over relay output and may be used to switch voltage to an auxiliary sounder or device, if required. This special output is used in conjunction with the Services Alarm zone option. (750mA max).
- 3.2 STROBE. This is a 12v -ve output, switched in alarm. Continues after bell time, until reset manually. (750mA max).
- 3.3 BELL. This is a 12v -ve output, switched in alarm. (750mA max).
- 3.4 HOLD OFF +VE. This is a fused output, and should be used to feed the SAB and all sounder/strobe +ve requirements. This output is approx. 1 volt above panel supply to provide adequate charge for SAB batteries.
- 3.5 12v -VE. Supplies -ve HOLD OFF to SAB.
- 3.6 S TAMP. SAB tamper return. This terminal MUST always be connected to +ve either via the +ve return from the tamper circuit in the SAB, or a direct link to hold off +ve on the PCB. Failure to do so will indicate tamper alarm.
- 3.7 SPKR. Loudspeaker output. An additional 16 ohm speaker may be connected here for remote sounder. Piezo buzzers may be connected, wiring +ve of buzzer to left-hand terminal of spkr pair.
- 3.8 INTRUDER. Signalling output. Provides a +ve in alarm to trip a communicator output. Remains live until reset manually. (100mA max).
- 3.9 PA. Signalling output. Provides a +ve in alarm to trip to communicator output. Remains live until reset manually. (100mA max).

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8

3.10 LINE SENSE. Use +VE from the communicator to provide a trigger for the line sense input.

3.11 + AND -. 12v output to supply communicator power. (500mA max).

#### 4. ADDITIONAL OUTPUTS

4.1 SWITCHED -VE AND +VE. Outputs for various switching needs. (250mA max).

4.2 LATCH FREEZE. For latching PIRs. Output goes Hi during walk test and at final set; goes Lo in alarm until reset. (250mA max).

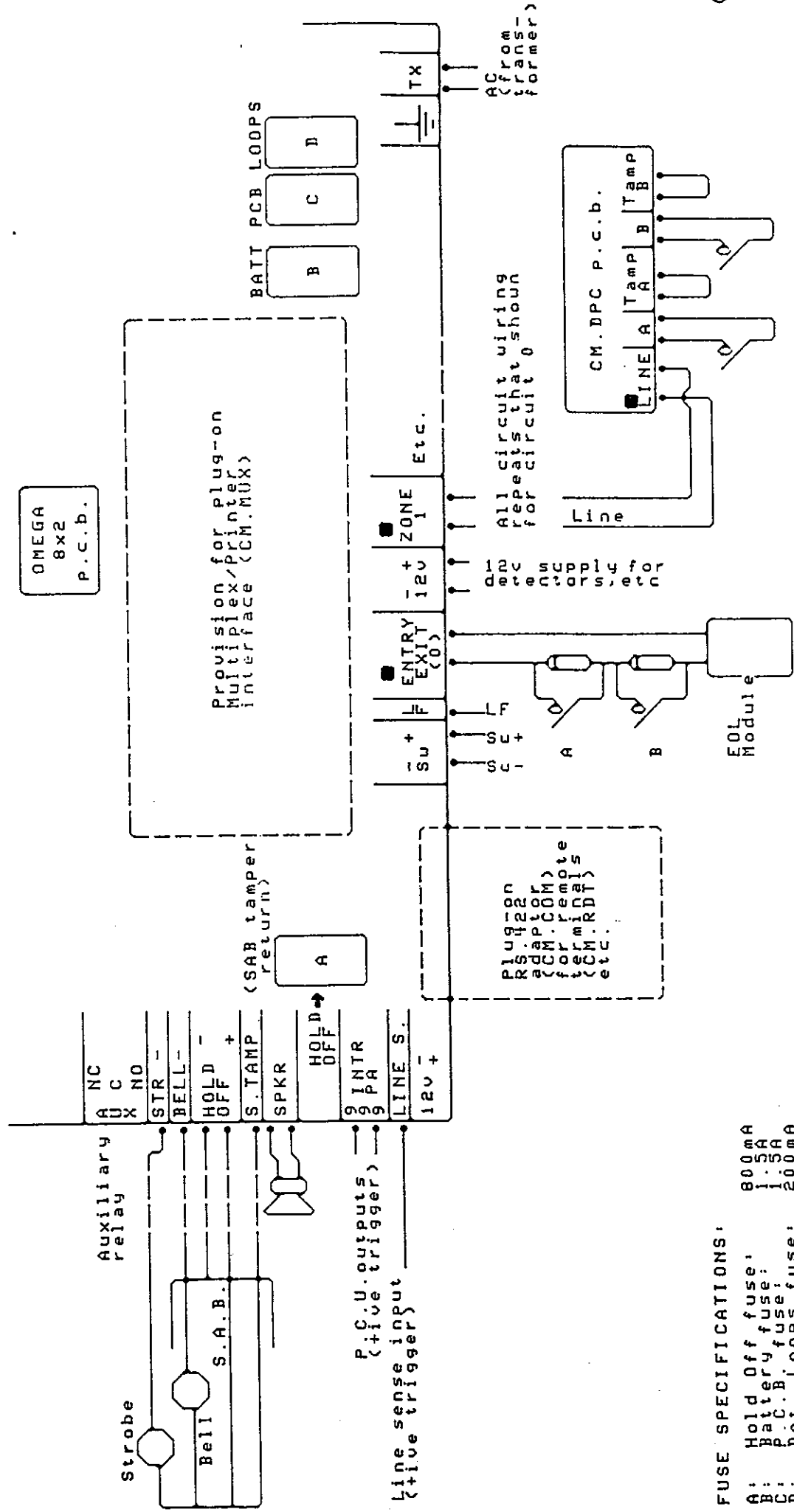
4.3 + AND -. Zone supply feeds for PIR and other detectors. (500mA max).

**PLEASE NOTE:** The maximum power available from the Omega 8 is 1.5 amps.

## 5. INDICATIONS

|            |   |  |
|------------|---|--|
| 'd'        | = | day mode   |
| 'L'        | = | Telecom line fail                                    |
| 'F'        | = | mains fail   |
| 't'        | = | walk test mode                                       |
| '00 to 07' | = | zones  |
| '01A'      | = | zone 1 device A                                      |
| '01B'      | = | zone 1 device B                                      |
| '01'       | = | zone 1 normally open device                          |
| 8A         | = | box tamper/SAB return fault                          |
| 8B         | = | keypad tamper  |
| 09         | = | duress   |
| Status     | = | flashing = part guard<br>steady = full guard         |
| Tamper     | = | flashing = open circuit<br>steady = short circuit    |
| Alarm      | = | flashing = engineer reset<br>steady = customer reset |

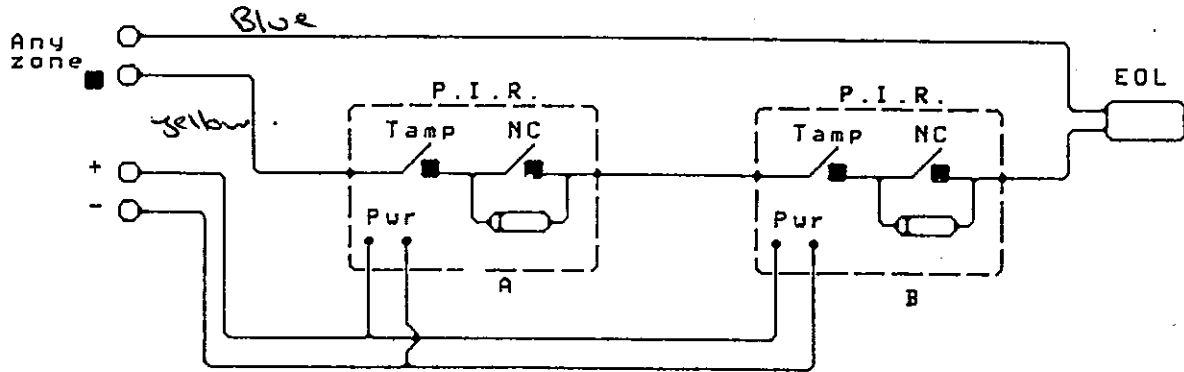
WIRING DIAGRAM FOR OMEGA 8X2



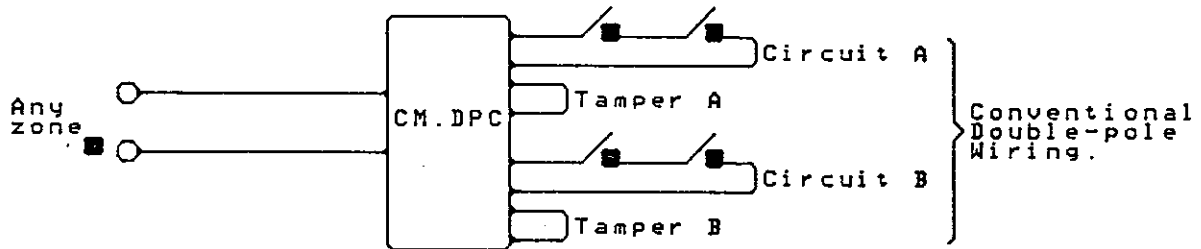
- FUSE SPECIFICATIONS:**
- A: Hold Off fuse: 800mA
  - B: Battery fuse: 1.5A
  - C: P.C.B. fuse: 1.5A
  - D: Det. Loops fuse: 200mA

MINIMIZING YOUR CABLE RETURNS WITH THE CASTLE MICRO

1. WIRING 2 PASSIVES WITH TAMPER AND POWER ON ONE 4-CORE CABLE.

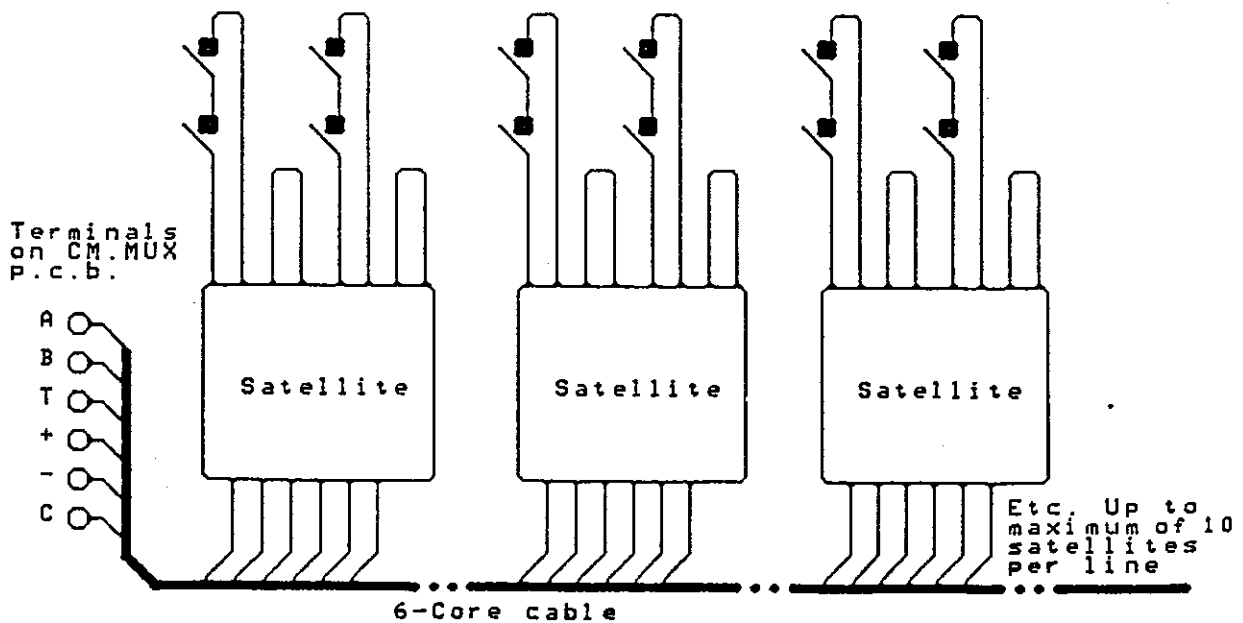


2. WIRING CONTACTS INTO TWO DOUBLE-POLE DETECTION CIRCUITS USING 4-CORE FEED TO CM.DPC MODULE.



By siting the CM.DPC Junction boxes remote from the panel, a 6-core cable can feed, for example, power (+ and -) and 4 Double-pole detection circuits; OR 6 Double-pole circuits. An 8-core cable could feed up to 8 Double-pole circuits. A simple and effective way of minimizing the number of cables that have to be returned to the Control Panel!!  
REMEMBER TOO THAT EACH CIRCUIT HAS ITS OWN INDICATION.

3. MULTIPLEX WIRING

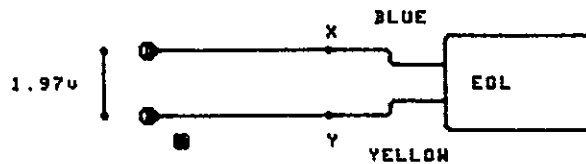


## UNDERSTANDING THE ADVANCED DETECTION TECHNIQUES OF THE OMEGA 8

The detection techniques described herein are identical for each of the eight circuit inputs on the OMEGA 8 (zones 0-7).

### 1. TAMPER DETECTION

With a closed loop and end-of-line (EOL) device present, the following voltages appear on the detection circuit terminals.



Voltage across terminals approx. 2v.

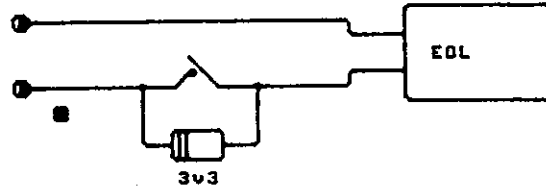
If X and Y are shorted the voltage drops to zero giving a 'tamper short' indication (LED steady).

If the wire is broken at X or Y the voltage rises to 12v giving a 'tamper open' indication (LED flashing).

If the EOL is inserted the WRONG WAY ROUND a tamper open will be signalled.

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## 2. DEVICE A + B DETECTION

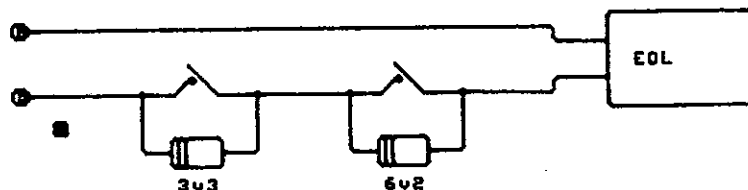


By inserting a 3v3 zener diode in series with the detection circuit return wire a voltage of approximately 5v is generated when switch A is open enabling the Panel to indicate (for example) 2A. The same is true of device B (6v2 zener diode) and, of course, A + B. A diagnostic table is given below.

| CONTACT OPEN | TYPICAL VOLTAGE | MAXIMUM | MINIMUM |
|--------------|-----------------|---------|---------|
| ALL closed   | 1.97            | 2.40    | 1.60    |
| A            | 4.60            | 5.60    | 3.40    |
| B            | 7.78            | 8.70    | 7.40    |
| A+B          | 9.96            | 10.60   | 9.00    |
| Tamp. short  | 0V              | 0.30    | 0V      |
| open         |                 | 12.00   | 10.70   |
| Mat. N/O     | 0.74            | 1.00    | 0.35    |

Control pcb voltage = 13.60

V ref. = 2.60v (ic 4 pin 5)





Exit/Entry wiring.  
 Zone OA = Final Door  
 Zone OB = Walkthrough Zone

## FAULTFINDING

### 1. TAMPER TRIPS ON ZONES 0-7

A re-occurring tamper alarm on zones 0-7 may be due to incorrect wiring or incorrect supply voltages. CHECK:

SYMPTOM: Tamper alarm when either A or B contacts opened.

- \* Are the zener diodes round the correct way?
- \* Are you using 3v3 for A?; and 6v2 for B?
- \* Check voltages at circuit terminals and compare with table above.
- \* Remove system standby batteries, and ensure supply voltage (at circuit terminal supply blocks +/-) is 13.6-13.8v DC, STEADY, NOT FLUCTUATING.
- \* Ensure V ref voltage is 2.5-2.6v DC (ic 4 pin 5).
- \* Check screws + nuts securing voltage regulator are tight.

### SYMPTON: 8A TAMPER ALARM

- \* Panel microswitch open (click it open/closed a few times to wipe contacts).
- \* SAB tamper return not linked to +ve (via supply OR SAB).

## 2. PROGRAMMING THE TIMERS

With the panel in programming mode (display flashing 'P') key in '23 #' (display shows flashing '3'). The flashing figure denotes the time currently selected as exit time (ie 3 = 30 seconds).

To change this time, scroll the display by pressing '\*', until the number is shown that you wish to select, eg 6 = 1.5 minutes.

Then press '#' and display will flash 'P' and exit time has been changed. If you wish to confirm this, key in '23 #' and the display will flash '6' confirming your choice. Press '#' again to confirm your choice, or scroll to another number if you wish to change exit time.

## 1. TO ENTER THE PROGRAMMING MODE

### POWER UP

Power with battery supply first, connect the mains second, and then close MEM switch if Real Time Clock or Battery Ram PCB are fitted.

Upon powering up the panel, the display will flash 'A' and the tone will sound until the key is turned on and off, or the master customer code (1234, ENTER #) is entered. Do NOT enter code until 'A' is seen.

The panel will now display 'd' (day mode); or 'F' if powered on battery only. (If the monitor tone sounds (bip-bip) cancel with 3#).

Check the software issue in the panel by pressing 2 #. The display will scroll the issue (eg 2C4). The software issue may change periodically and therefore the display will scroll the issue currently in the panel.

### PROGRAMMING GUIDE

To enter programming mode, ensure the panel is in day mode and enter the engineer code (1111,#).

When in programming mode the display flashes 'P'. This is the program prompt. All normal functions are inhibited until the panel is returned to day mode by entering the engineer code again.

### PANEL OPTIONS

A wide choice of operational functions are available by simply changing the program options currently held in the panel memory - follow the simple instructions listed below:

Only change the options you require to suit your needs.  
For example, if you require an exit time of 30 seconds - do nothing, as that is the factory setting.

For option definitions, see Appendix at the back of this manual.

NOTE: If you get 'lost' in program mode just keep pressing key \* until the letter 'E' is displayed, then press # to return to the program prompt 'P'.

All the following timers may be programmed (as above) using Table A below:

```
Command 23 = exit time      (default 30 secs)
        24 = entry time    (   "    30 secs)
        31 = *signal inhibit (   "    10 secs)
        32 = *signal delay  (   "    20 secs)
```

TABLE A  
Seconds Table

```
0 = 0      5 = 60
1 = 10     6 = 90
2 = 20     7 = 120
3 = 30     8 = 180
4 = 40     9 = 255
```

The following timers may be programmed (as above) using Table B below:

```
Command 33 = bell time      (default 15 mins)
        34 = bell delay    (   "    0 mins)
        40 = auxiliary cut off(   "    1 min )
```

TABLE B  
Minutes Table

```
0 = 0      5 = 20
1 = 1      6 = 25
2 = 3      7 = 30
3 = 10     8 = 40
4 = 15     9 = endless
```

The RE-ARM timers may be programmed (as above) using Table C below:

Command 42 = re-arm (default = 3)  
 43 = re-arm auxiliary

TABLE C  
 Number of times the system  
 will re-arm before further  
 activations are ignored

0 = no re-arm

|       |            |
|-------|------------|
| 0 = 0 | 3 = 3      |
| 1 = 1 | 4 = 4      |
| 2 = 2 | 5 = always |

The panel will automatically isolate any zones still in fault condition, resetting the rest of the system.

The DOUBLE KNOCK timer may be programmed (as above) using Table D below:

Command 15 = double knock time

Table D

|   |   |           |
|---|---|-----------|
| 1 | 4 | 7         |
| 2 | 5 | 8 seconds |
| 3 | 6 |           |

### 3. PROGRAMMING MULTIPLE CHOICE OPTIONS

The MULTIPLE CHOICE options are a series of 8 options (0 to 7) which may be turned 'ON' or 'OFF' to change the operational characteristics of the Omega 8. Options that are 'ON' flash: options that are 'OFF' are steady.

How to turn options ON or OFF:

Key in 21 # .... to select the miscellaneous options ... display shows '0' .... this is the first option.

If required, turn the option 'ON' by pressing #. To turn 'OFF' press # again. (The # key toggles the option 'OFF' or 'ON').

Key in \* .... to advance to option '1'. (The \* key advances the system to the next option). Toggle option '1' with key # to turn 'ON' or 'OFF' as required.

Key in \* .... to advance to option '2'.

When all the zone options are selected to your requirements, scroll to 'E' with key \*. Key in # .... display shows 'P'. You are now back at the program prompt.

Command 21 = miscellaneous options

- 0 Silent PA (any PA activation is silent with communicator output only)
- 1 Multiple entry routes (all walk through zones selected will start entry timers in full and part guard)
- 2 Engineer reset (engineer only can reset panel after full alarm)
- 3 \*Services Alarm zone 5 isolated in day mode
- 4 \*User permitted to change customer access codes
- 5 \*Zone 5 configured as Services Alarm
- 6 Services Alarm not included in alarm log
- 7 Latch freeze invert (for Aritech detectors)
- E Exit from option

\* = selected in factory program

The EXIT ROUTE options may be programmed (as above).

As standard the panel is programmed to allow timed exit and entry. However, a wide choice is available as listed below. To select the procedure required key in '22 #' and follow the same format as mentioned above.

Command 22 = exit route options (Option indicated by \* is the one selected at power up)

- 0 \*Timed exit full and part
- 1 Timed full - quick set part
- 2 Terminated full and part
- 3 Terminated full - timed part
- 4 Terminated full - quick set part
- 5 Timed exit full/part
- 6 Timed full/quick
- 7 Terminated full/part
- 8 Terminated full/quick part

Note: Terminated exit relies on the final exit door being open and closed to terminate the exit tone and to set the system.

Command 44 = sounder options

- 0 Sounder continues after bell time
- 1 Reduced level for exit/entry sounder in part guard
- 2 Reduced level for tamper sounder in day
- 3 No external bell in part guard
- 4 Reduced level for sounder in part guard
- 5 Services Alarm to trigger internal sounder
- 6 Strobe ceases with bell time
- 7 Reduced sounder level overall
- E Press '#' to exit from command

For option definitions, see Appendix at the back of this manual.

## ZONE OPTIONS

Each of the five zones has its own individual 8 options that may be turned 'ON' or 'OFF'. Turning an option 'ON' or 'OFF' will change that zone's operation accordingly.

The programming technique is similar to multiple choice options:

Key in 431#... display shows 'C'.  
 Decide which zone you wish to reconfigure (say zone 1).  
 Key in 1#... display shows '0' (ie zone 1, option '0').  
 If required, turn option '0' 'ON' (or 'OFF' again) by pressing key#. (The # key toggles the option 'OFF' or 'ON').  
 Key in \*... to advance to option '1'. (The \* key advances onto the next option).  
 Toggle option '1' with # as required.  
 Key in \*... to advance to option '2'.

When the zone options are selected to your requirements, scroll to 'E' with key \* and then key #... display shows 'C'.

Now enter the next zone you wish to change or press key # to return to 'P'.

Command 431 = zone options.

- 0 Exit/entry walk-through zones
- 1 Dual knock (A+B = alarm)
- 2 Non-omit
- 3 Soak test (indicates only)
- 4 Double knock (used in conjunction with double knock timer, option '15').
- 5 Tamper omit with zone (when omitting zone, tamper on that zone is omitted too)
- 6 Tamper zone
- 7 PA zone
- 8 (Press '#' to exit from command)

For option definitions, see Appendix at the back of this manual.



**NOTE:** As standard, zone 0 is master exit/entry zone. Zone 7 is PA zone.

**REMEMBER:** Zone options that flash are 'ON'; zone options that are steady are 'OFF'.

Zone 0 MUST always have option '0' 'ON'.

Command 121 = part-guard omitted.

Any zone may be automatically omitted when the alarm is set in part-guard. Follow the zone selection procedure listed below:

Key in 121 #... display shows '0'.  
 Decide which zone(s) you wish to omit in part-guard (say zone 0 and zone 3).  
 Key in 0 #... display shows '0'.  
 Select zone 0 by pressing key # (the # key toggles the zone 'OFF' or 'ON')... display shows '0' flashing.  
 Key in \* to advance to zone 3 (the \* key advances onto the next zone).  
 Turn zone 3 on with key #... display shows '3' flashing.  
 Key in \* to advance to further zones.  
 Any time the letter 'E' is displayed (after zone 9, 19, 29, 39, 49) just press key # twice to return to the 'P' prompt.

Command 122 = monitor zones

Follow the same procedure as outlined under Command 121. (Monitor zones 'chime' in day mode).

Command 123 = mulitplex zones de-isolated.

Do NOT use this command unless the Omega 8 is used in conjunction with extension satellites.

Follow the same procedure as Command 121 but REMEMBER isolated zones FLASH; de-isolated zones are STEADY.

## 5. PROGRAMMING THE CUSTOMER ACCESS CODES

The Omega 8 has eight user codes. Code 1 is the master code allowing access into the customer test mode. Code 4 is the cleaner code.

Command 432.

Key in 432 #... display shows 'n'.  
 Key in 1 #... this is to change Code 1 ... display shows 'E'.  
 Key in your four-digit code ... key # ... display shows 'n'.  
 Key in 2 # ... this is to change Code 2 ... display shows 'E'.  
 Key in your four-digit code ... key # ... display shows 'n'. When all the codes are entered then key # to return to the program prompt.

**NOTE:** Codes that read identically forwards and backwards (eg 1221) will not be accepted, nor codes beginning with the same 2 digits of the engineer code. The display will show 'U' (unacceptable). Now key in an acceptable number.

ENGINEER CODE ... when 'n' is displayed, key in 11 # and follow the same procedure.

Command 434 will clear all codes from memory. USE WITH CAUTION.

## 6. ALARM LOG REVIEW

Command 321.

Key in 321 # ... display shows keyholder who turned system on ... display shows first zone to alarm ... key \* ... subsequent zone to alarm (if any) ... key \* ... display shows isolated zones ... display shows keyholder who turned system off ... display shows 3 bars (end of record) ... next record follows.

To abort log display, press #.

The letter 'A' for keyholder indicates the alarm auto-reset.

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Command 433 clears the log. USE WITH CAUTION.

**7. LOAD FACTORY PROGRAM**

Command 444 resets the Omega 8 to factory settings. EXCEPT the customer and engineer codes.

**8. TO EXIT FROM PROGRAM MODE**

Key in engineer code (1111) # ... display shows 'd'.

### ZONE EXPANSION USING THE CM.MUX PCB ON THE OMEGA 8

As standard, the OMEGA 8 has 8 detection circuits which, using end-of-line techniques, will provide separate indication of 16 NC detection devices AND 8 NO devices. Of course, more than one NC or NO device may be used in each circuit.

By plugging the CM.MUX pcb onto the lower Molex expansion pins the OMEGA 8 will support a further 80 zones!!

This is achieved by simply connecting remote zones (satellites) onto a common 6-wire 'BUS'. The OMEGA 8 signals each satellite in turn and the satellite reports if it is in alarm condition or not. The CLOCK line (C) is used to select each satellite and the ABT lines receive the data from the satellite and feed it into the OMEGA 8.

On the CM.MUX there are FOUR 'BUS' lines. Each line is able to support up to 10 satellites (codes 0 to 9). The CLOCK line is common to all four lines.

#### **WIRING THE SATELLITE IS SIMPLE!!**

1. Connect a 6-core cable to the +- ABTC terminals of LINE 1 on the CM.MUX pcb. If detectors are to be powered on the same supply pair, take the + and - cable to the supply terminals on the main pcb.
2. Site the satellites at a convenient point to the detectors you wish to connect into them.
3. Run the 6-core cable to the first satellite and connect the wires into the +-ABTC terminals. Wire all the satellites in parallel.
4. Code each satellite to a different number (0123 etc) using the coding plug and pins.

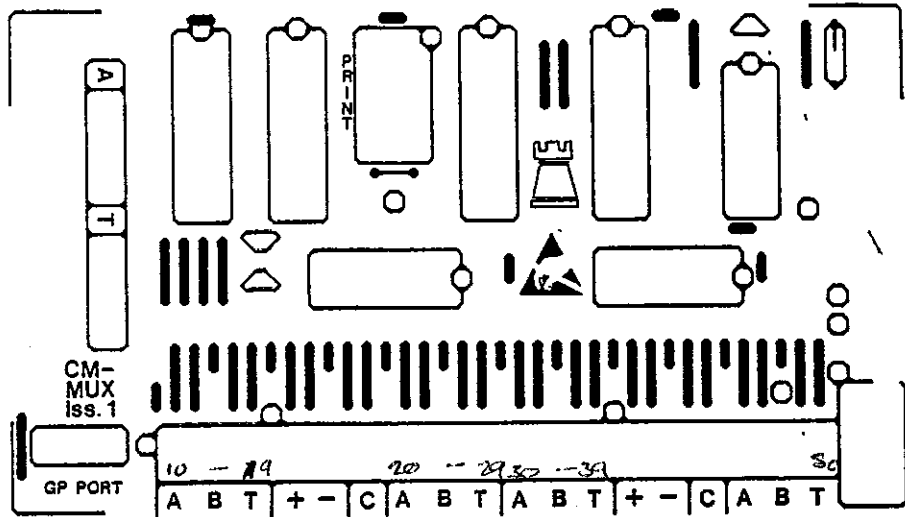
**REMEMBER: DISCONNECT ALL POWER BEFORE PLUGGING CM.MUX ONTO OMEGA 8 PCB.**



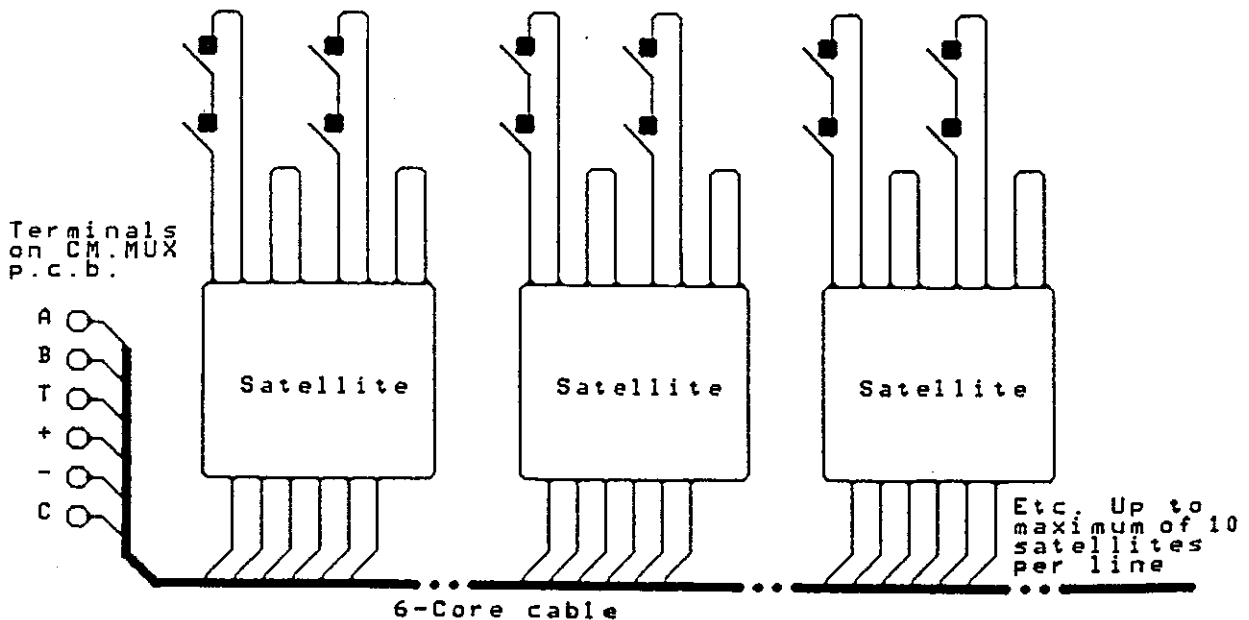
North Street, Winkfield, Nr. Windsor, Berks. SL4 4SY  
 Telephone: Winkfield Row (0344) 886446 (5 lines).  
 Telex: GECOMS G 8951182 Fax: 0344 890024.

II.MUX.OM8.02

OMEGA 8 - ZONE EXPANSION



MULTIPLEX WIRING



5. Wire in your detectors AFTER checking that each satellite works correctly.
6. When the last satellite is coded return to the OMEGA 8 to perform a simple functional test.

#### PROGRAMMING THE SATELLITES IS EASY!!

1. Make sure the CM.MUX is correctly plugged onto the OMEGA 8 and that it is correctly aligned on the expansion pins, ie with the terminal block facing the bottom of the Panel.
2. Double check that your satellite 'BUS' wiring is correct.
3. Power up the OMEGA 8. Key in '1234#' to get the Panel into 'day' mode. (If the alarm sounds key in '1234# - you've probably left the Panel microswitch open!)
4. Put the Panel into 'program' mode (1111#).

5. Each satellite now needs to be ENABLED:

Key in '123#' (multiplex zones isolated option).

Display shows a flashing '1'.

Key in the first satellite number - normally 10.

Display shows flashing '10' (ie zone 10 is currently isolated).

Press '#'.

Display shows steady '10' (ie zone 10 is now DE-isolated).

Press '\*' to scroll to the next zone you wish to de-isolate.

Display shows flashing '11'.

Press '#' (this de-isolates the zone).

Press '\*' to scroll to the next zone - AND SO ON until the last satellite on the system is de-isolated (ENABLED).

Finally, scroll (\*) to 'E' then press '#' twice to return to 'program' mode.

6. Exit from 'program' mode (1111#).
7. Now turn the OMEGA 8 ON and OFF again. ALL the satellites will now be ENABLED, and the Panel may well give a Tamper Alarm if any zone is not linked out - or the satellite microswitch is not depressed.
8. Put the OMEGA 8 into WALK TEST mode (1# 1234# 5#).
9. Any zones in Alarm condition will now show on the display, and by opening the various circuits they may all be tested. Opening the detection circuit on zone 10A will display '10A'. Opening the tamper circuit on zone 10A will display '10AT'.
10. To exit from WALK TEST press '#' twice.

#### **FAULTFINDING**

1. Check your wiring carefully.
2. Has the CM.MUX 800mA fuse been blown?
3. Are all the satellites correctly coded to different numbers?
4. Are the satellite detection circuits linked out if not in use?
5. Are the satellites ENABLED correctly?
6. Have you ENABLED a non-existent satellite?
7. Is your 'BUS' wiring correct?
8. If using long cable runs, are the detectors powered separately; if not, have they adversely affected the satellite 12v supply?
9. Do you have any earth faults? (Measure between 12v- (0v) and earth, reading should be less than 0.5v).

### OMEGA 8 REAL TIME CLOCK AND BATTERY BACK UP RAM (CM. RTC)

By plugging this module into the RAM socket the Castle Micro may be programmed to include date and time information in the activation and alarm logs. The on-board battery ensures the contents of RAM (i.e. logs, time, program options etc.) are not lost at power-down, and may be transferred from one panel to another.

To install the CM.BBR (battery back up RAM only) or CM RTC (battery and clock), remove all power from the Omega 8, gently ease the RAM chip from its socket in the top left hand corner of the Omega 8 and plug it into the socket on the add on module. **BE SURE TO PLUG IT IN THE CORRECT WAY ROUND.** Connect the battery link on the module. Plug the module carefully into the Omega 8 RAM socket making sure all of the legs are plugged in and not bent or missing the socket.

Power may now be restored to the Omega 8 and normal operations resumed.

Please note: The RAM battery is supplied flat, and it will take at least 8 hours to re-charge. When removing a module with program memory in it take care not to short any of the legs together; opening the 'wirelock' will remove power from the module and result in a loss of memory.

When powering up the Omega 8 it will inspect the RAM for stored program and if it finds it uncorrupted will display a steady 'A'. Enter the valid code for that program to return to day mode (or turn the keyswitch on and off). If the Omega 8 does not find an uncorrupted program in the RAM it will load the standard factory program and display a flashing 'A'. Enter '1234' to return to day mode.



## PROGRAMMING THE CM.RTC

Command 14 '#'                    Display shows '00'  
                                   Scroll with '\*'    '02' for 1986  
     '03' for 1987  
     '00' for 1988 = Leap Year  
     '01' for 1989  
     '02' for 1990  
     '03' for 1991

Press '#'                            Display will show any pattern of  
     digits.  
     Scroll DAY  
     01 = Monday  
     02 = Tuesday  
     03 = Wednesday  
     04 = Thursday  
     05 = Friday  
     06 = Saturday  
     07 = Sunday

NB: 00 does not relate to any day

Press '#'                            Display shows '00'. Scroll MONTH  
     01 = January : 12 = December

Press '#'                            Display shows '00'. Scroll DAY DATE

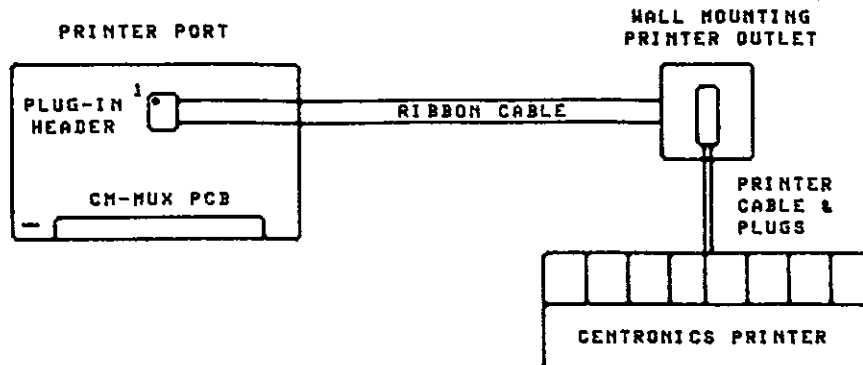
Press '#'                            Display shows '00'. Scroll HOURS

Press '#'                            Display shows 'P'. Programming  
     complete.

\*Display may show any pattern of digits initially, but upon  
 pressing '\*' you may scroll through the number sequence.

NB: Whilst the time and date is being CHANGED (and not just  
 reviewed) the clock STOPS.  
 The clock re-starts when the MINUTES are entered.

## PRINTER FACILITY ON THE OMEGA 8



The Omega 8 print facility requires fitting of a CM.MUX PCB. Remove all power to the Omega 8-mains and battery. Plug the CM.MUX onto the lower molex pins on the Omega 8 PCB. ENSURE correct alignment of the pins and that the terminal blocks to the bottom of the panel.

Feed through the printer cable attachment taking care not to damage the small pins on the dil header plug. Plug the Dil header into the print socket with Pin 1 to top left.

### 1. CONNECTING THE PRINTER

- 1.1 Ensure the printer is OFF.
- 1.2 Plug the printer cable into the printer connection port.
- 1.3 Turn the printer ON.

The power for the printer is taken from the Control Panel, thus batteries are not required.

The printer is now ready to print out either the Alarm or the Activation log.

### 2. PRINTING THE LOGS

- 2.1 The Panel should be in 'Program' mode. The display will show 'P'.

### 3. THE ALARM LOG

- 3.1 Key in 3, 2, 1, \*
- 3.2 The display shows 'Pr'  
The printer will now print the Alarm log.

#### 4. THE ACTIVATION LOG

4.1 Key in 3, 2, 2,\*

4.2 The display shows 'Pr'

The printer will now print the Activation log.

NB: To escape from printing at any time, press '#'.  
The printer will cease after a complete report.

#### UNDERSTANDING THE PRINT OUT

##### 5. THE ALARM LOG

The print out may contain the following information:

|                |   |
|----------------|---|
| 2              | This indicates the following is in Alarm log.   |
| 06: 21: 20: 10 | Month, day, hour, minutes; ie June 21 20:10 hours.  |
| 02 04          | Zones omitted.  |
| AF3 03B 01A    | This is the most recent alarm; first three digits are: who set the system, what status the system was set to, who cancelled the alarm. The following digits are 1st, 2nd, 3rd to alarm etc. |
| 06: 21: 19: 50 |   |
| 02 04          | Repeat for the second most recent alarm and so on.  |
| 1FA 02T        |   |

## 6. THE ACTIVATION LOG

The print out may contain the following information:

```

6                This indicates that the following is the
                  Activation log.

02 04           Zones omitted.

1 - 21: 17: 30  First digit: who set the system; following
                  digits: day, hour, minutes when system set.

3 - 22: 08: 15  First digit: who unset the system;
                  following digits: day, hour, minutes when
                  system unset.

```

**COMMAND 431\*** will print a table of the zone options selected (the zone option byte) in this format:

```

1 = option selected
0 = option not selected

```

. . . . .

Zone No. 7 6 5 4 3 2 1 0 Options

```
00  0 0 0 0 0 0 0 1
```

```
01  0 0 0 0 0 0 0 0
```

```
02  0 0 0 0 0 0 0 0
```

. . . . .

```

0 = entry exit zone      4 = double knock
1 = dual knock          5 = tamper omit
2 = non omit            6 = tamper zone
3 = soak test           7 = PA zone

```

**COMMAND 121\*** WILL PRINT ALL ZONES OMITTED IN PART GUARD

122\* WILL PRINT ALL MONITOR ZONES

123\* WILL PRINT ALL ISOLATED ZONES

## OMEGA 8 - GENERAL PURPOSE PORT CONNECTIONS

### LOCATION

The GP Port is a 10 pin right angled connector situated on the lower left hand side of the CM.MUX PCB that plugs onto the lower molex pins on the Omega 8 main PCB.

### OPERATION

The GP Port outputs are normally 0v switching to 5v when active. This conforms to the specification of most digital communicators.

Do not short the outputs together or apply 12v to them or the output chip may be destroyed.

Any loads requiring switching from the GP Port must be done by using auxiliary transistor driven relays.

### CONNECTION

The GP Port loom plugs onto the GP Port as shown below with the brown wire to the right (Pin 1).

The appropriate wires should be connected into the communicator terminal block.

| GP PORT<br>PIN NO. | RIBBON CABLE<br>COLOUR | FACILITY  | COMMUNICATOR<br>TERMINAL |
|--------------------|------------------------|-----------|--------------------------|
| 1                  | Brown                  | 0v        | 0v                       |
| 2                  | Red                    | 12v+      | 12v+                     |
| 3                  | Orange                 | Zone 2    | #                        |
| 4                  | Yellow                 | Zone 1    | #                        |
| 5                  | Green                  | Auxiliary | #                        |
| 6                  | Blue                   | Set       | #                        |
| 7                  | Mauve                  | PA        | #                        |
| 8                  | Grey                   | Intruder  | #                        |
| 9                  | White                  | 5v+       | Do <u>NOT</u> use        |
| 10                 | Black                  |           |                          |

\* DO NOT connect 12v+ to communicator if it is powered from a separate mains supply.

\* Connect to the appropriate start input on Digi-Com as required by central station.

9 7 5 3 1  
 • • • • •  
 • • • • •  
 10 8 6 4 2  
 GP Port

**GENERAL PURPOSE PORT**

The following outputs are available (software 2C0 onward)

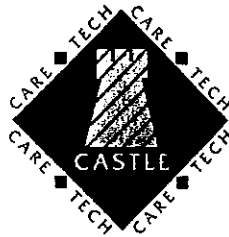
|       |           |       |           |    |       |   |
|-------|-----------|-------|-----------|----|-------|---|
| Pin 1 | OV        | Pin 6 | Set/unset | 9  | 00000 | 1 |
| Pin 2 | +12v      | Pin 7 | PA        | 10 | 00000 | 2 |
| Pin 3 | Zone 2    | Pin 8 | Intruder  |    | 4     |   |
| Pin 4 | Zone 1    | Pin 9 | +5v       |    |       |   |
| Pin 5 | Auxiliary |       |           |    |       |   |

**8. UNDERSTANDING THE CODES****8.1 Who set the system:**

0 = Set by key  
 1 = Code number 1  
 2 = Code number 2  
 3 = Code number 3  
 4 = Cleaner code  
 5 = Code number 5  
 6 = Code number 6  
 7 = Code number 7  
 8 = Code number 8  
 A = Alarm cancelled by Auto Reset.

**STATUS**

Zone in alarm  
 A = Device A  
 B = Device B  
 T = Tamper  
  
 F = Full On  
 P = Part On  
 BD = 'Day' Mode



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