DygiZone
GJD910 Advanced Multi-function, 4 zone, security lighting controller and enunciator

INTRODUCTION
The DygiZone 4 zone security lighting controller works in conjunction with GJD's 4 Zone Expansion Unit and range of external detectors.

PACKAGE CONTENTS
1 x DygiZone 4 zone security lighting controller
2 x fixing screws
2 x wall plugs
1 x installation guide

POWERING UP THE DYGIZONE
After powering up the DygiZone controller with the battery removed:
- Each zone's status LEDs (red, yellow and green) and blue zone buttons will flash
- All LCDs icons will display on the screen

When installation is completed removing the backup battery tab will enable the clock to keep running in the event of power loss

NOTE: Press any button to clear the display. Alternatively, the display will clear automatically after 1 minute.

When the display clears, and if nothing is activated:
- The LCD displays the clock time (automatically defaults to 00:00 if the battery is not connected)
- The symbol M appears on the DygiZone which is configured as the master controller.

Note: The letter M does not appear when setting up a DygiZone as a slave controller.

- Each zone's status LEDs will display the zone's current programme state.

Note: The factory default setting is audible and automatic for all active zones (red and green status LEDs illuminated).

ZONE INDICATOR ICONS
For each of the 4 zones there are a set of sub-zone icons that appear above the respective zone's status LEDs.

Note: These icons will not be displayed until a detector on the system has triggered.

When a detector connected to the A1, A2 or A3 input of the Expansion Unit is triggered:

- The LCD will display the numbers 1,2 and 3 above the respective zone number.
- A circle will appear around the number that corresponds to the detector that has been triggered.

- The corresponding zone's button will illuminate.

Note: The numbers 1, 2 and 3 correspond to the Expansion unit inputs A1, A2 and A3 respectively.

Upon activation the circle will flash for 8 seconds and then will remain visible for a time duration equal to the setting of TIME MINS in the engineer programming. The numbers 1, 2 and 3 will also be visible for this time but will not flash. Once this time has elapsed, all the icons will clear from the LCD.

ZONE MODES & STATUS INDICATORS
Audible Mode: Beep or voice mode is activated and will sound on detector activation.

> **Status Icon:** Musical note icon for either voice or beep more. The microphone icon is only visible if voice mode is selected.
>
> **Status LED:** Red, constantly lit.

Automatic Mode: Works in conjunction with the photocells in the detectors. The external security lights will only be activated if it is dark, thereby saving energy.

> **Status Icon:** Stick figure icon
> **Status LED:** Green, constantly lit LED indicates mode selected.
> Yellow LED illuminates when the external lighting is activated.

Manual Override Mode: The external security light will now remain on irrespective of detector status - useful for barbecues or when working outside in the dark for long periods.

> Status Icon: Light bulb icon
> Status LED: Yellow, lit during light activation period.

Time Mode: External security lights will be illuminated as per the TIME 1 or Timer 2 options.

> **Status Icon:** Light bulb icon
> **Status LED:** Yellow, lit during light activation period.

Note: Zone status icons are only visible when the respective zone button is pushed. The icons are located in the top-centre of the LCD display.

INDIVIDUALLY SETTING ZONES
Each zone can be individually configured from the keypad by cycling through the available modes.

The configuration process is as follows:

- Press the button for zone you would like to configure. The zone's status LEDs and icons will be displayed.
- Press the button again to cycle through the different modes available until the desired mode is reached.

The modes appear in the following sequence:
- Audible & Automatic mode selected (Factory default)
- Automatic mode only selected
- Audible mode only selected
- Zone disabled
- Manual Override mode selected

Note: Sequence begins at the currently selected mode and will repeat.

DETECTION INFORMATION DISPLAY
LED Information and Text

- PIR text will flash for approximately 8 seconds for that zone
- The blue LCD back-light will come on for about 6 seconds during the trigger state and will remain on for approximately 6 seconds after the trigger has occurred.
- The text will display for a time duration equal to the setting of TIME MINS in the engineer programming.

Note: If another PIR activation occurs on any other zone then the text will be displayed for that new zone for the same pre-programmed time on duration.

RECORDING A VOICE MESSAGE
1. Press and hold the red button until the microphone symbol appears on the LCD.
2. Press the required zone button once and then release. As you release the zone button a horizontal bar with ten segments will appear below the microphone symbol on the LCD. This indicates the amount of recording time available where each segment is equivalent to one second. Therefore, a ten second message can be recorded.
3. Speak into the microphone on the front cover of the DygiZone to indicate location (e.g. patio area, front door, side garden, etc)
4. When you have finished speaking into the microphone quickly press the zone button again (there will be no audible beep)
5. The recorded message will now automatically play back. If you are satisfied with the message then do nothing. If you wish to re-record the message then repeat steps 1 to 5. You now need to set-up the recorded message for the appropriate zone.
6. Press and hold down the red button until the microphone symbol appears in the LCD and then release.
7. Now press and continue to hold down the zone button for which the voice message is to apply until an audible beep is heard. Release the zone button and the programming has been completed.

The voice message mode can be confirmed by pressing the zone button once. A microphone symbol will appear on the LCD if audible mode has been pre-selected.

Note 1: The normal default status for sensor activation is an audible beep (i.e. one beep for zone 1, two beeps for zone 2, etc.)

Note 2: It is possible to mix both audible beeps and recorded messages (e.g. zone 1 could be in beep and zone 2 could be in recorded voice playback.)

To change from a voice message to a beep, repeat steps 6 & 7.

ENGINEER PROGRAMMING
Whichever zone requires adjustment, press and hold down that zone button until the programming options show on the LCD display.

Use the red button to cycle through the available options until the one to be adjusted is reached. The settings for that option can then be adjusted by using the up button. Once the required setting is obtained, press the red button to confirm it. Repeat the above process until all changes have been completed then press any Zone button to exit programming.

If buttons are pressed for 30 seconds the DygiZone will automatically exit the programming mode.

SELECTING NUMBER OF ACTIVE ZONES
1. Press and hold down the zone 1 button, this will enter programming mode.
2. The zone number will already be selected and can be changed using the up button
3. Press the red button to confirm the number of zones

Notes: Unused zones will be cleared (i.e. no LCD information will be displayed and there will be no illuminated LEDs). An audible beep will be heard if any of the unused zone buttons are pressed, but no action will be taken.

4. Press zone 1 button to exit the programming mode.

SETTING TIME ON FOR LIGHTS
When a detector on a zone set to the automatic mode (green led) is triggered during the hours of darkness, the lights for that zone will activate. The lights will stay active for a time duration equal to the setting of TIME MIS in the engineer programming. This time can be set to 1, 2, 3, 4, 5, 8, 12, 16 or 24 minutes using the red and up buttons. Once the desired value is set, simply press any of the zone buttons to exit the engineer programming.

SETTING DETECTOR SENSITIVITY (Pulse Count)
The number of times a detector must trigger (pulse count) before the DygiZone reacts is selected by adjusting the setting of PULSE in the engineer programming. This can be set at 1, 2 or 3 using the red and up buttons. Once the desired value is set, simply press any of the zone buttons to exit the engineer programming.

Note: When using a DygiZone with GJD detectors where the pulse count is set on the detector itself, ensure that the detector pulse count is set to 1. This will apply to D-TECT, ELITE, and Opal RFX detectors, but does not apply to the Opal XL detector.

MODE SETTINGS
One of five modes can be programmed for each zone.

Mode 1 - 24hr = Lights operate day and night with detection when auto is selected

Mode 2 - Link (Zone 1) = Detectors on zone 1 also activate lights on zone 2 when auto is selected

Mode 2 - Link (Zone 2) = Detectors on zone 2 also activate lightings on zone 1 when auto is selected

Mode 2 - Link (Zone 3) = Detectors on zone 3 also activate lights on zone 4 when auto is selected

Mode 2 - Link (Zone 4) = Detectors on zone 4 also activate lights on zone 3 when auto is selected

Mode 3 - 24+L = Outside light will operate day and night with detection according to the Link settings above

Mode 4 -STD = Outside lights will only operate at night with detection. Detectors on that zone will only operate that zone.

Mode 5 - ALL = All lights on all zones that have Mode 5 selected are activated at night with detection from any zone with Mode 5 selected. Any zones with ALL selected will be treated as a group.

TSEC OUTPUT
When using the audible output mode, the T output on the GJD Expansion Unit will provide a 12 V positive switched signal for a time duration equal to the setting of TSEC in the engineer programming. This can be set at 1, 5, 10, 20 or 30 seconds using the red and up buttons. Once the desired value is set, simply press any of the zone buttons to exit the engineer programming.

SETTING THE CLOCK DISPLAY
The clock display format can be adjusted using the CLOCK setting in the engineer programming. It can be set to 12, 24 or OFF using the red and up buttons. Once the desired setting is reached, simply press any of the zone buttons to exit the engineer programming.

Note 1: AM and PM symbols will appear beside the displayed time accordingly when 12 hr format is selected

Note 2: Any zone times being used will display the time in the selected format.

SETTING THE CLOCK
The LCD clock is set using the UP and RED buttons in the engineer programming. The clock format must first be set to 24hr mode then the following method is used:
1. Press and hold down any zone button until the engineer programming is displayed
2. Press the red button six times and the hour digits will begin to flash.
3. Set the hours by using the up button then press the red button.
4. The minute digits will now begin to flash. Set the minutes using the UP button then press the red button
5. Exit the engineer programming pressing any of the zone buttons. The time will now display on the LCD clock.

Note: If the power is removed for more than a few hours, the clock display will be reset to 00:00. All other devices setting will remain as they were prior to power down.

WALK TEST
Walk test mode has to be selected for each zone that is being walk tested. In this mode, as each detector is activated, the audible beep will sound & the relevant zone & PIR number is displayed on the LCD.

The external lights connected to that zone will turn on for 4 seconds each time a beam is crossed. Each zone has to be tested individually.

Walk test can be selected using the following method:
1. Hold down the button for zone you wish to test until the engineer programming appears
2. Press the red button 8 times so that a flashing hand icon is visible
3. Press the up button to select walk test mode

The zone button will begin to flash and the red and green LEDs for that zone will illuminate.

To exit walk test mode press the red button once. Alternatively, the DygiZone will automatically cancel the walk test more 5 minutes after the last trigger.

PRE-SET LIGHT ON/OFF TIMES FOR INDIVIDUAL ZONES
Each zone can be programmed to automatically switch the external lights on & off at pre set times, The on & off times must be in the same day as each other (i.e. they must not cross 00:00). Each zone has two programmable times (T1 & T2) which are set using the following method:
1. Hold the button for the zone you wish to set the timers for until the engineer programming appears.
2. Press the red button 9 times so that the clock hours are flashing and T1 ON is displayed
3. Set the hours by using the up button then press the red button

PRE-SET LIGHT ON/OFF TIMES FOR INDIVIDUAL ZONES

1. The minute digits will now begin to flash. Set the minutes using the up button then press the red button.
2. Repeat steps 3 & 4 for the T1 OFF time and again for the T2 ON & OFF times if required.
3. Press any zone button to exit the programming.

Note: If the times are not required, they should both be set to 01:00 for on and off times (default setting).

LOCKING THE KEY PAD

Locking the key pad prevents accidental programme or setting changes.

To lock - press and hold down zone buttons 1 and 4 at the same time: a single beep will be heard and the spanner symbol on the keypad will flash to confirm that the key pad is locked.

To unlock - repeat the action and two beeps will be heard. and the spanner symbol will disappear.

DEFAULT SETTINGS

To return the DygiZone to its default settings:
1. Press and hold down any zone button until the engineer programming is displayed.
2. Press the red button 16 times so that DEFAULT is flashing.
3. Press the up button to rest the default settings.

The default settings are:
- Zones active = 4
- Light on time = 1 minute
- Pulse count = 1
- T seconds = 5
- Clock mode = 24hr
- Mode = 4

POWER UP RESET

This would normally be initiated by a qualified electrician or security systems installer.

To reset the DygiZone, remove the backup battery and power and then while holding zone buttons 1 & 4. re-apply the power.

The clock will be reset and the programming will revert to default setting. All the zones will be set to audible and auto modes (i.e. the red and green LEDs will be lit on all 4 zones).

Note: After a full systems reset, any detectors connected to the GJD expansion unit will not activate for 2 to 3 minutes.

DYGIZONE SLAVE CONTROLLERS (Optional)

Up to four additional DygiZone controllers can be connected to the system, additional Expansion Units or power supplies may be required to provide the 12 V supply. Only the Master controller can be used to set the programme options, but different voice messages can be recorded on the remotely located Slave controllers. The keypad can also be locked on the Slave controllers otherwise the slaves will mimic the Master.

Changing a button selection on the Master DygiZone will instantly change the settings on the Slave controllers.

Changing a button selection on any of the Slave controllers will instantly change the setting on that Slave and Master, the settings on other Slaves will change within one minute.

It is recommended that the DygiZone which will be used the most should be configured as the Master.
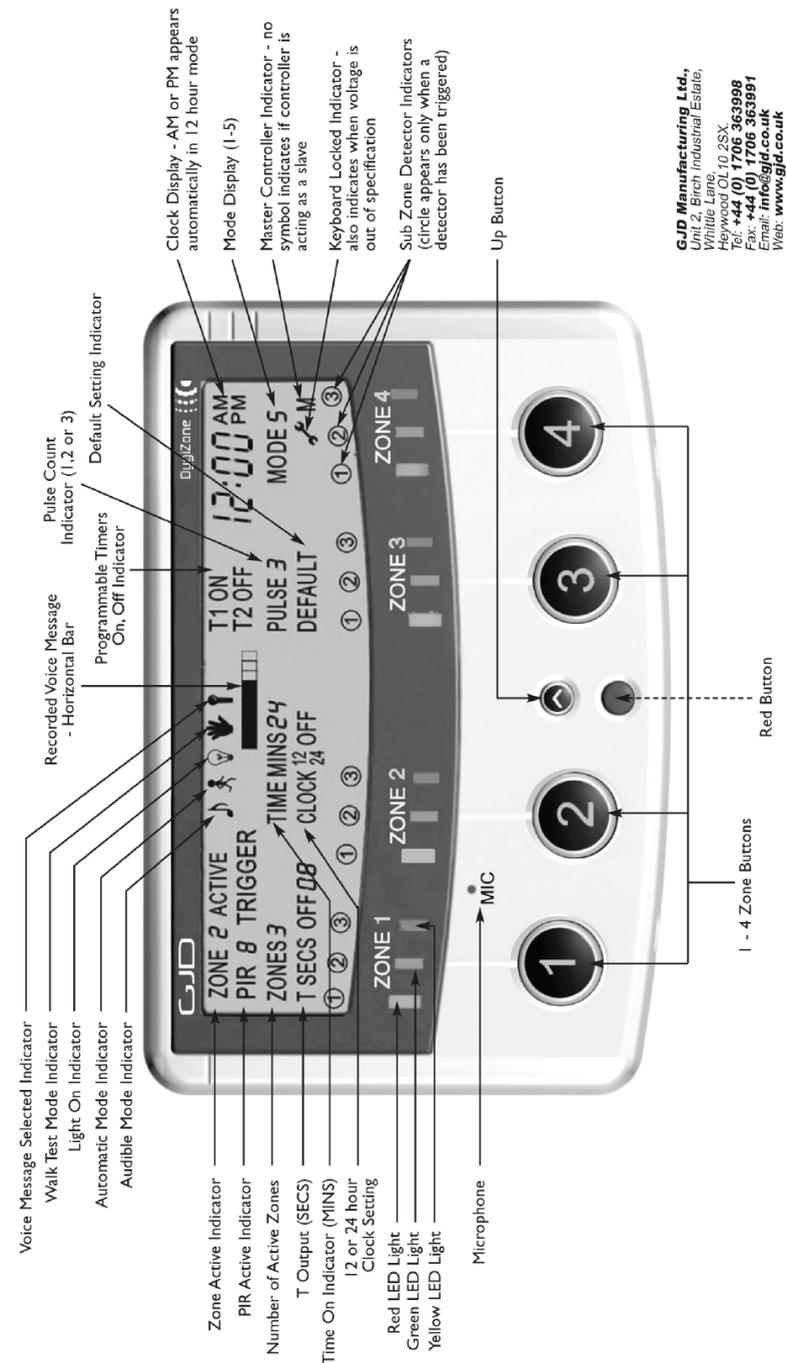
MAINTENANCE MODE

The spanner icon flashes when the keypad is locked and is steady when the supply voltage to the DygiZone is outside the specification (i.e. below 9 V or more than 14 V.)

IMPORTANT: If the keypad is not locked and the spanner icon is showing steady, please call a maintenance engineer.

Supply	12 V DC @ 20 mA standby, 100 mA triggered with messages
Display	Blue back-lit LCD display showing real time clock, detector activation and zone status

Back-lit LCD brightness can be adjusted using the trim pot. Engineer adjustment only. |
| Audible | Internal warning tine with individual tones for each zone or selectable 10 second voice recordable messages for each zone.

Internal speaker volume can be adjusted using the trim pot. Engineer adjustment only |
Control	Four individual zone buttons for selecting zone status and programming options
System Configuration	Normally 1 Master and 1 Slave DygiZone. Additional Slaves can be added if required. Requires GJD Expansion Units.
Timer Control	Two individual on/off times per zone
Mounting	Indoor use only. Mount ina clean dry location. Can be mounted on a standard single or double flush back box.
Temperature	-10º C to +55ºC
Dimensions	134 W x 87 H x 30D
Weight	190g NET, 260g GROSS
Certification	CE

Displays & Controls

Labels (left side, top to bottom):
- Clock Display - AM or PM appears automatically in 12 hour mode
- Mode Display (1-5)
- Master Controller Indicator - no symbol indicates if controller is acting as a slave
- Keyboard Locked Indicator - also indicates when voltage is out of specification
- Sub Zone Detector Indicators (circle appears only when a detector has been triggered)
- Up Button
- Pulse Count Indicator (1,2 or 3)
- Default Setting Indicator
- Recorded Voice Message - Horizontal Bar
- Programmable Timers On, Off Indicator
- Red Button
- I - 4 Zone Buttons

Labels (bottom):
- Voice Message Selected Indicator
- Walk Test Mode Indicator
- Light On Indicator
- Automatic Mode Indicator
- Audible Mode Indicator
- Zone Active Indicator
- PIR Active Indicator
- Number of Active Zones
- T Output (SECS)
- Time On Indicator (MINS)
- I2 or 24 hour Clock Setting
- Red LED Light
- Green LED Light
- Yellow LED Light
- Microphone

4 ZONE EXPANSION UNIT WIRING DIAGRAM