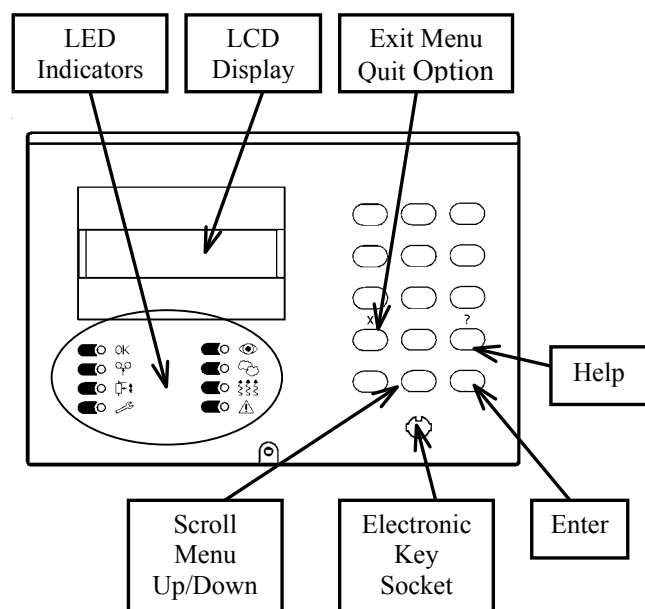


# Guardall BM5 Keypad User Manual

The Keypad acts as a low-level service aid. It provides advanced diagnostics in the chosen language and uses universal symbols to annotate the indicator LEDs.

The keypad supports 3 levels of users;

- Engineer – Has access to the full range of set up menus. Refer to the BM5 Engineering Manual (320702) for details. This is available free of charge from the Guardall Technical Hot Line, phone +44 (0)131 333 3802.
- User 2 – Has access to all features described in this guide
- User 3 – Can only Reset the BM5 after an alarm, change User 3 PIN number and the language displayed .



## LED Indications

|        |  |                              |
|--------|--|------------------------------|
| Green  |  | System functioning correctly |
| Green  |  | Record Soak active           |
| Green  |  | Alignment / Set-up mode      |
| Yellow |  | Service Engineer Required    |
| Red    |  | Pre-Alarm - investigate      |
| Red    |  | Smoke Alarm active           |
| Red    |  | Heat Alarm active            |
| Yellow |  | Fault signal                 |

Under normal operation the OK LED flashes.

## Wiring The Keypad

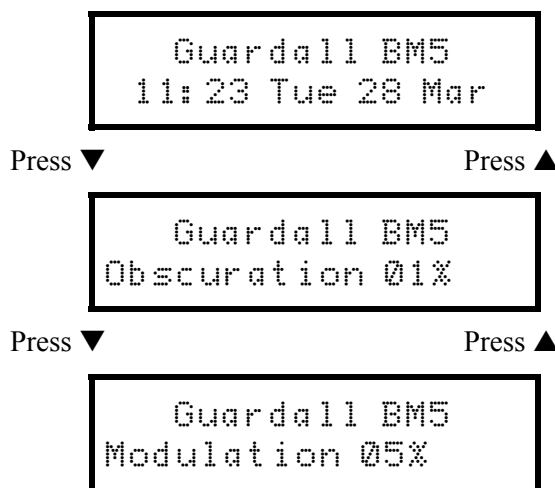
The keypad is wired to CN4 on the Receiver PCB by connecting terminal + to +, - to -, I to A and P to B.  
NOTE: On older Receiver PCBs (which do not have a plug on connector block and are marked issue 1 or 2 or 3 or 4 or A) some connections are reversed.  
Connect + to +, - to -, I to B and P to A.

## Electronic Key

An Electronic Key can be substituted for the User or Engineer PIN numbers. There is a maximum of three codes or keys per system.

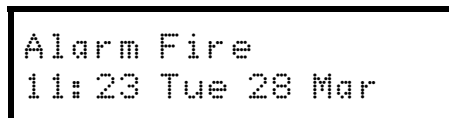
## LCD Display

One of three Rest Pages is normally displayed. Use the ▲▼ keys to select the message required.



## Alarm Display

If an alarm or fault occurs, the Guardall BM5 heading message is replaced as shown below.



The following messages may be displayed:

| Alarm Fire      | Highest Priority |
|-----------------|------------------|
| Alarm Heat      | ↓                |
| Pre-Alarm Fire  | ↓                |
| Pre-Alarm Heat  | ↓                |
| Signal Lost     | ↓                |
| Signal Increase | ↓                |
| Limit Exceeded  | ↓                |
| Fault           | Lowest Priority  |

Only the message that has the highest priority will be shown. Use the ▲▼ keys to display Obscuration, Modulation or Date and Time as required.

## Log On

For access to other keypad functions the User must Log On using a PIN or Electronic Key. The factory default PINs are:

- Engineer - 9999
- User 2 - 1111      ▪ User 3 - 2222

To change a PIN see *Keypad Menu, Option 02* below.

Enter the appropriate PIN. The display will show:

```
Guardall BM5
Enter - ** _ _
```

Then press ↵.

Alternatively, insert the Electronic Key.

If valid, the user is logged on. If an invalid PIN or Key is entered, the PIN error message is displayed.

```
Guardall BM5
Incorrect PIN
```

Press ✕ and try again.

If no key presses occur for 5 minutes the User will be logged off.

## Signal Status

The first page displayed after log on shows whether the signal (beam) is within the acceptable range of percentage compensation.

```
Signal OK
Comp'tion -06%
```

NOTE: As compensation is only slowly up-dated, this message may appear even if no signal is present.

Over time, as the lens gets dirty, the Guardall BM5 adjusts to compensate for the reduction in the strength of the signal. When the compensation limit is approached a warning is displayed:

```
Clean Lenses
Comp'tion -46%
```

If the limit is exceeded (fixed at -50% and 20%) a fault will be signalled and the following displayed.

```
Limit Exceeded
Comp'tion -51%
```

The lens and housing must be cleaned to restore the signal to the initial strength and the signal voltage re-fixed. NOTE: This fault condition cannot be cleared until the signal voltage has been re-fixed. This requires Engineer level system access.

## Keypad Menus

Only the options available to the User are displayed.

After a few seconds the display changes to the Main Menu from the Signal Status page. Press ▼ to move down and view the available menu options. To move back up, use ▲.

To select a menu option key in it's number.

To exit from an option, return to a previous menu or log out, press ✕ .

To get help in entering data, press ?

### Option 01 - Reset (All Users)

This will clear latched Alarm or Fault conditions provided the cause of the condition has been cleared. It is functionally identical to other reset methods described in the Engineering Manual.

```
Reset Done
```

If the Compensation Limit has been exceeded the following will appear and the Fault Light will stay on.

```
Not Available
Limit Exceeded
```

Engineer level access is now required to Reset the signal voltage after cleaning the lenses.

### Option 02 - Change PIN (All Users)

All 3 users may select their own PIN (4 to 6 digits) or Electronic Key.

The Engineer also has control of User 2 and User 3 PINs and will see:

```
1=Own
2=User 2
```

Press ▼

Press ▲

```
3=User 3
```

User 2 also has control over User 3 PIN and will see:

```
1=Own  
3=User 3
```

Key in the number to select the required User PIN.

As User 3 can only change their own PIN this option menu is not displayed.

All Users will now see:

```
New PIN  
Enter -
```

Enter the new PIN followed by ↵ or insert an electronic key.

The display will change to:

```
Re-enter PIN  
Enter -
```

Re-enter PIN, or key to validate the change. After a few seconds press ✕ to return to the main menu. Log out (Press ✕ ) and log in again to check the PIN has been allocated.

If the PIN is invalid, or already used the following is displayed for a few seconds.

```
New PIN  
Not Available
```

When the “New PIN” menu re-appears, try again.

If different PINs are entered the following is displayed for a few seconds.

```
New PIN  
Does not match
```

Try again.

#### Option 04 - View Log (Not User 3)

The Log holds up to 10 events with their time & date. When entered, the most recent event is displayed.

```
01/01/00 11:28  
Alarm Fire
```

Use the ▲ key to view previous events and the ▼ key to return to more recent ones. Note the log rolls over so having just entered the menu pressing ▼ will go to the oldest event stored.

|                |                |             |
|----------------|----------------|-------------|
| Alarm Heat     | Pre-Alarm Heat | Signal Lost |
| Alarm Fire     | Pre-Alarm Fire | Reset       |
| Fault Power    | Soak On        | Soak Off    |
| Limit Exceeded | Limit Reset    | Watchdog    |
| Test Heat      | Test Fire      |             |

#### Option 05 - View Threshold (Not User 3)

Use the ▲▼ keys to view the threshold settings. These are only configurable by the Engineer using menu 40. With default settings they appear as follows:

```
Fire 40%  
Fire Pre 15%
```

Press ▼

Press ▲

```
Fire Pre 15%  
Heat Off
```

Press ▼

Press ▲

```
Heat Off  
Heat Pre Off
```

Press ▼

Press ▲

```
Heat Pre Off  
Fault 85%
```

Press ▼

Press ▲

```
Signal Lost 85%  
Compensation 50%
```

#### Option 06 - Set Date (Not User 3)

The current Date will be displayed.

```
Date Set to  
Sat 02 Jan 2000
```

To change it press ↵

```
Date  
Enter DDMMYYYY
```

Enter as Day, Month, Year (e.g.07072000).

If valid, you will be returned to the Date set to menu.

If invalid, the following error message will be displayed.

Out of Range  
Limit = n to nn

Try again when “Date Enter” re-appears.

Press **X** to return to the main menu.

#### Option 07 - Set time (Not User 3)

The current Time will be displayed.

Clock set to  
00:22

To change press ↵

Clock  
Enter HH:MM

Enter the Time as Hour, and Minutes in 24hr clock format (e.g. 0555 → 05:55).

If valid, you will be returned to the “Clock set to” menu. If invalid, the following will be displayed.

Out of Range  
Limit = n to nn

Try again when the “Clock Enter” menu re-appears.

Press **X** to return to the main menu.

#### Option 08 - Fire Alarm Test (Not User 3)

The following is displayed.

Test On Fire

Check the following:

- Receiver System and Keypad Fire LEDs are on.
- The Smoke (Fire) Relay is activated.
- “Test Fire” message is recorded in the Log.

A Reset (01) is required after the Fire Test.

Press **X** to return to the main menu.

#### Option 09 - Heat Test (Not User 3)

The following is displayed.

Test On Heat

Check the following:

- System and Keypad Heat LEDs are on.
- Output relay configured for Heat is activated.
- A “Test Heat” message is recorded in the Log.

A reset (01) is required after the Heat test.

Press **X** to return to the main menu.

#### Option 10 - LED Test (Not User 3)

The following is displayed.

LED Test On

Check the following:

- LEDs on the Keypad will be alternately pulsed.
- The Receiver LEDs will be pulsed.

Note: The Fault LED will show only short flashes and the fault output relay will also be pulsed.

Press **X** to return to the main menu.

#### Option 99 - Set Language (All Users)

The default language is English.

1 English  
2 Francais

Press ▼

Press ▲

3 Deutsch  
4 Italiano

Press ▼

Press ▲

5 Espanol

Press **1, 2, 3, 4** or **5** to select the desired language. The display will automatically return to the main menu in the new language.

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