

Visonic PowerMaster (PG2) 10, 30 & 33 Overview

Introduction

This article applies to the PowerMaster PG2 Wireless alarm systems and should not be confused with the Powermax wireless systems which use a different wireless technology. The two systems are not compatible with each other.

As an aside, the PowerMaster has several advantages over the PowerMax system, and a couple of disadvantages. The main PowerMaster advantages are, in no particular order, increased battery life, superior self monitoring capabilities*, increased wireless range, and easier enrolment and set-up**. The disadvantages are that the PowerMaster system has to connect to a 3rd party server for monitoring, and that PowerMaster equipment in general is slightly more expensive, the exception being the CAM-PIRs which represent good value for money compared to the PowerMax cameras.

** Currently, the PowerMax system can be self monitored with the addition of the Powerlink2 module without the need for connection to a 3rd party server. In order for the PowerMax/Powerlink2 combination to send e-mails it has to connect to Visonic's server. Visonic are in the process of shutting this server down. The PowerMaster system requires connection to a PowerManage server which carries an annual cost (£36 as of 2016). When connected to a PowerManage server the system can be fully controlled and video on demand obtained. Additionally the server sends push notifications, emails, SMS and MMS message on selected events.*

*** Enrolment can be by activation or by ID. Devices can be pre-enrolled and will only become active when the batteries are fitted.*

The PowerMaster wireless alarm is a true 2-way system and uses PG2 technology. It is based around 3 control panels – the PowerMaster 10, PowerMaster 30 and PowerMaster 33. The essential differences of the control panels are outlined in the table below.

	PowerMaster 10	PowerMaster 30	PowerMaster 33
Part Sets	1	1	1
Partitions	3	3	3
Built-in Keypad	Yes	Yes	No, works with KP-250 two-way keypad
Ability to customise zone text	Yes, custom zones only	Yes, custom zones only	Yes, custom zones only
Upload / Download enabled	PSTN/GPRS	PSTN/GPRS	PSTN/GPRS
Verification	Sequential & Visual	Sequential & Visual	Sequential & Visual
Email	Yes, via GPRS	Yes, via GPRS	Yes, via GPRS
Sensor LED indication	Alarm, range, open zone, memory	Alarm, range, open zone, memory	Alarm, range, open zone, memory

Voice dialler	Yes, no speech	Yes	Yes, no speech
Central station communicator	Yes	Yes	Yes
PGM Output	1 volt free	1	1 volt free
Built in internal siren	Yes	Yes	Yes
Log Events	250	1000	1000
CPU Battery	4.8V 1300Aph	7.2v 1.3Aph (9.6v in no siren kit)	4.8V 1300Aph
Voice prompts	No	Yes	No
2 way voice capable	No	Yes	No
GSM/SMS	Optional, internal	Optional, internal	Optional, internal
GPRS	Optional, internal	Optional, internal	Optional, internal
PowerLink	Powerlink 3	Powerlink 3	Powerlink 3
Keyfobs	8	32	32
Two Way Keypad	8	32	32
Wireless Siren	4 (internal or external)	8 (internal or external)	2 (internal or external)
Sensor wakeup	On arming and programmable	On arming and programmable	On arming and programmable
Compatible with Wired External Siren	No	Yes (with expander module)	Yes (with expander module)
Peripheral battery life	Up to 8 years	Up to 8 years	Up to 8 years
PIR-Camera Compatible	Yes, up to 10	Yes, up to 10	Yes, up to 10
Power supply	Internal 230VAC	Internal 230VAC	Internal 230VAC
User Codes	8	48	48
Prox Tags	8 (with prox keypad)	32 (with prox keypads)	32 (with prox keypad)
Wireless Zones	30	64	64
Wired Zones	1	1 as standard (2 with Zone expander module)	1

DD243Compliant	Yes	Yes	Yes
EN-50131	Grade 2	Grade 2	Grade 2
Technology	PowerG 2 way	PowerG 2 way	PowerG 2 way
Range	50-100m internal	50-100m internal	50-100m internal
Frequency	868 Frequency hopping (4 bands)	868 Frequency hopping (4 bands)	868 Frequency hopping (4 bands)

The PowerMaster wireless alarm system is a true 2-way system, which essentially means that the devices on the system communicate with the control panel such that not only are the signals from the devices received by the panel but also the devices are controlled and their parameters set from the control panel. This feature makes the installation a lot easier in that once the device has been enrolled to the control panel, all the set-up is carried out at the control panel.

We supply the majority of our kits without any of the devices being pre-enrolled. Some kits may have all or some of the devices pre-enrolled; in this case the un-enrolled devices will be marked U/L to indicate that they have not been enrolled to the panel and will thus have to be manually enrolled. Enrolling devices is very easy and is described later.

Compatibility

PowerMaster systems are frequency and country specific, and each device has a specific frequency, country code and device type code. For example the UK version of the MC-302E door contact has a code 868-1:010. The 868 is the frequency, the -1 is the UK country code and the 010 is the device type. The control panels also have a frequency and country code (868-1: in the UK), and the device type 'ANY' which means that the panel is compatible with any device having the same frequency and country code. In addition to the above codes, each device has a unique ID in the form YYY-XXXX where the YYY is the device type and the XXXX is a unique device number. No two devices can have the same YYY-XXXX number.

All the PowerMaster equipment we supply is the latest version, UK specific, and operates on the 868MHz frequency.

Devices

All the devices listed below are compatible with any of the PowerMaster control panels. The number of particular devices which can be connected varies between control panels – refer to the table above.

Intrusion Detectors

Internal

- Next PG2 PIR – a standard PIR with a 12 metre detection range
- Next K9 PG2 PIR Pet Tolerant – a pet friendly version of the above
- Tower 32 PG2 Dual Technology (DT) PIR
- Tower 32 PG2 Dual Technology (DT) PIR Pet Tolerant

- Tower 30AM PG2 PIR Anti-Masking
- Clip PG2 PIR Curtain
- CAM-PIR PG2
- CAM-PIR K9 PG2 Pet Tolerant
- Vanishing Magnetic Contact – slim-line profile
- MC302E Magnetic Contact (White or Brown) – with hard-wired input
- SD304 Shock sensor – with magnetic contact

External

- Tower 20 PG2 PIR
- Tower 20 CAM PIR

Safety devices

- PG2 Smoke Detector
- PG2 Smoke & Heat Detector
- PG2 Carbon Monoxide (CO) Detector
- One Button Panic Device
- Two Button Panic Device

Arming devices

- K235 Keyfob
- KP250 Two-way Keypad
- KP160 Touch-screen Arming Station (White or Black)
- MC140 Remote Arming Keypad with Proximity reader (C/w 3 Chicklets)
- Proximity tag (Chicklet)

Sounders

- SR740 Wireless sounder
- SR740 Hex wireless sounder (hexagonal cover)
- SR720 Internal Wireless Sounder

Communication

- Powerlink 3 Broadband module
- GSM350 GSM/GPRS Communicator
- USB Programming Kit

Repeaters/Expanders

- Repeater
- Expansion Board (PowerMaster 30 & Powermax Complete panels only)

Enrolling (registration)

Devices can be enrolled (registered) by activating the device at the enrolment stage or by entering the devices ID (the YYY-XXXX number). We have found that it is generally easier to enrol the devices using the ID.

It should also be noted that each control panel has a unique Panel ID. When a device is enrolled onto a control panel, the device internally records the ID of the panel it is enrolled to. This means that once a device has been enrolled to a control panel it cannot be enrolled to another control panel – even though the second control panel will accept its ID. In order to un-enrol a device from a control panel such that it can be enrolled onto another it must firstly be deleted from its original control panel and then the device needs to be reset by removing its battery and re-inserting the battery. The device can then be enrolled onto another control panel. The second control panel will obviously have to have the same frequency/country combination.

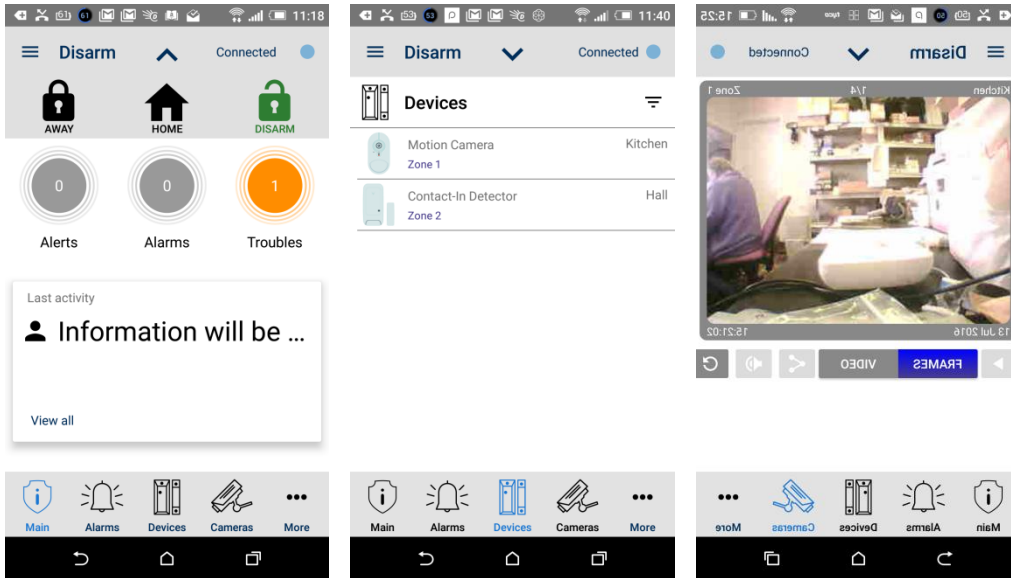
When a device is enrolled onto the control panel, the panel recognises what sort of device it is and will then present device specific options. For example after the MC-302 has been enrolled the panel will display it as a Contact Sens(or). The zone it is assigned to can then be specified, its location chosen from a pre-configured list and whether 'Chime' is enabled/disabled. This is followed by a further DEV SETTINGS menu which give the device specific options – Alarm LED, Reed Switch #1, Input #1. The functions of the options are explained in the device's installation instructions. Different device types will have different Device Settings.

Remote Monitoring

All the PowerMaster systems can be managed and their status viewed by the end-user via an 'APP' (Visonic-GO) available for android and Apple devices. In order to implement remote monitoring the PowerMaster system has to be connected to a remote PowerManage server via the broadband module (Powerlink 3) or the GSM/GPRS module (GSM350PG2). There is an annual charge (£36 per year as of 2016) for the monitoring service. However, we can offer the first 12 months monitoring free with certain products. Once connected to the server, the APP can set/unset the alarm in home/away mode, view the devices on the system and their status, capture images from connected cameras. The server can send event-triggered emails, SMS messages, push notifications for selectable events, and captured still/video from connected cameras.

Connecting the PowerMaster system to the PowerManage server is a seamless process and only requires a connection into a router and a couple of settings on the PowerMaster control panel. There is no requirement for port forwarding or knowledge of networking.

The images below show screenshots of the Visonic-GO APP on an android phone.



The main page (above left) shows one trouble, which is actually a low battery alert – we didn't have the back-up battery fitted at the time.