

RUNNER™ Series

Wired & Wireless Security Solutions

CROW
Electronic Engineering Ltd


CROW

Corporate Profile

The Crow Group designs and manufactures **since 1980** advanced security solutions for the worldwide security and the home automation markets.

The Crow Group provides innovative solutions for **residential and commercial** installations with an extensive range of wired and wireless security panels also with a broad portfolio of indoor and outdoor detectors.

Our products are commercialized worldwide by a dynamic network of distributors and sales offices to professional installers and central monitoring stations.

Continuous innovation at Crow is ensured by engineers dedicated to the integration of the latest technologies including on going communication challenges, interoperability and integration of automation, management systems, **wireless security products and cloud services.**

We proudly combine **creativity and expertise** to create world-class products and services with added value for our customers at maximum cost effectiveness while complying with the **highest standards of quality, technology, reliability** as well as **support and fast delivery.**

Content

1. RUNNER™ 4/8 & 8/16 Series 3

2. RUNNER™ 8/64 Series 7

3. Wireless Peripherals 11

4. Communications and Applications 29

1 RUNNER™ 4/8 & 8/16 Series

Runner™ 4/8 & 8/16 are based on the hybrid panel concept of the proven Runner™ Series. Runner™ 4/8 & 8/16 panels feature Two Way communication, optional integrated GSM/GPRS backup module and TCP/IP support. Runner™ 4/8 & 8/16 are built for performance and accuracy, providing complete harmony between the user and the panel while integrating the latest technology into a easy to use, yet highly sophisticated security solution.



RUNNER™ COMPACT



Runner™ 4/8

Runner™ 8/16

- Runner™ 4/8 and 8/16 versions available
- Up to 16 wireless or hardwired zones
- 2 true partitioned areas with separate arming
- Up to 100 users & 80 pendants
- Two way wireless transceiver and two way devices
- Compatibility with one way wireless devices and existing Runner™ modules, LCD and LED Icon keypads
- Automatic Arm/Disarm and Output Activation
- Access control and home automation features
- Call back option
- Available in kits for wireless application with built-in radio signal strength indicator (RSSI)
- Easy installation
- Easy rolling menu for friendly programming and fast operation
- Optional GSM/GPRS modem with CID text messaging and remote control features
- Designed to comply with EN-50131 standards and PD 6662:2004

Keypads for RUNNER™ 4/8 & 8/16 Series

LCD Keypads

LCD Multi-Language Keypads



- 2x16 Character two line
- Events display with time/date
- Backlit soft touch buttons with tone
- Multi-language support
- 3 Panic Emergency buttons
- Dimensions: 130mm X 85mm X 23mm
- Weight: 160gr

LED Icon Keypads

LED Keypads



- Slim LED Icon Keypads
- Memory viewing
- Backlit soft touch buttons with tone
- 3 Panic Emergency buttons
- Dimensions: 130mm X 75mm X 28mm
- Weight: 140gr

FW2-LCD KP

Two Way Wireless LCD Graphic Keypad



- Slim and elegant design with display
- Transmission method: alphanumerical keypad
- Data Protocol: Freewave2™ Two Way Protocol
- Modulation Type: GFSK
- Frequency Band: 868-869MHz / 916-917MHz with LBT
- Identification: unique ID serial number – 24 bit
- Indications: LCD Graphic Display
- Range in open space: 500m
- Functions: Arm, Disarm, Zone Bypass, Panic Alarm, Chime...
- Local programming mode
- Users: same users as configured in Runner2™ control panel
- Powered by 3 CR123 Lithium batteries
- Battery life up to 5 years
- Dimensions: 170mm x 170mm x 26mm
- Weight (incl. battery): 250gr

Accessories for RUNNER™ 4/8 & 8/16 Series

Two-Way Voice Board

The Two-Way Voice Board is an On-board module for storing recorded voice messages and listen-in.

- 4 min recording of alarm and control messages
- Local or via DTMF operation
- DTMF Decoder with voice option



Speech Programmer

- To record and personalize vocal messages into the Two-Way Voice Board
- Enable users to receive and listen dedicated messages

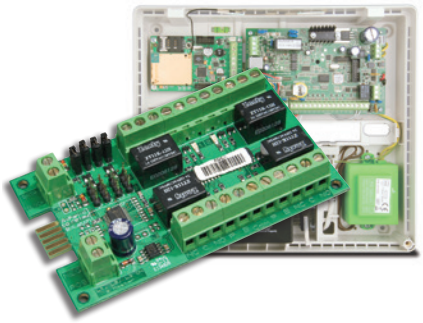


Output Relay Board Expander

The Relay board connects to the control panel main board via the 4 wire keypad BUS.

The Output Relay board provides 4 independent changeover relay contacts that can be used to interface to other devices such as garage doors, automatic gates, etc.

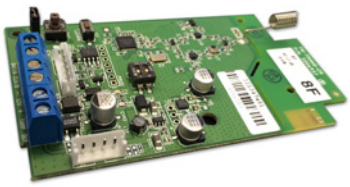
- 4 Relay Outputs
- Programmable via Bus



FW2-Tx/Rx

Two Way Transceiver/Receiver for Runner™

- Two Way Wireless Transceiver/Receiver Module
- Available in 868MHz or 916.5 MHz frequencies
- Plug & Play module
- Backward Compatible with all Freewave 1 Way Wireless devices
- Optional Plastic Housed version for remote fitting



D-LINK USB/RS232

The D-LINK USB is used for direct connection between Runner™ control panels and PC computer for Upload/ Download Software.



RUNNER LINK™

TCP/IP GATEWAY

The Runner Link™ operates with Crow's Runner™ Control Panel Series. The Runner Link™ communicates alarm signals to the central station or to a PC via the TCP/IP network, using the dedicated Runner Link™ software.

The Runner Link™ provides full control, monitoring and configuration of Runner™ control panels Series via TCP/IP and its dedicated Upload/Download software.



RUNNER™ 4/8 & 8/16

Specification

Control Panel Type	Runner™ 4/8 & 8/16
RF Network Type	FW2 Two Way Protocol
Frequency Bands (MHz)	868-869 MHz / 916-917 MHz
Operating Range	500 meters open space
Zones Number	Up to 16 Wired or Wireless
Available Partitions	2
Installer and User Codes	1 installer code 1 super user 100 users
Control Devices	Wired LCD Multi-languages keypads Wired LED Keypads Built-in keypad (Runner™ Compact) Two-Way Wireless LCD keypad with user control capabilities. Two-Way Remote Control (Rolling Code)
Outputs	Runner™ 4/8: 2 wired outputs on board Runner™ 8/16: 4 wired outputs on board Up to 8 wired outputs with Optional Output Relay board Up to 8 wireless outputs with optional FW2-Transceiver
Arming Modes	Total, Stay, Latchkey, Duress, Bypass
Languages	English, French, Hebrew, German, Polish, Spanish, Portuguese, Dutch, Italian, Greek and Turkish.
Special Functions	Zones Bypass Walk Test Mode and RSSI signal check Events Memory (255 logs) Chime zones

COMMUNICATION

Capabilities	Built-in PSTN Dialer/Modem Optional TCP/IP module Optional GSM/GPRS Back Up Systems
Data Transfer to Local Computer	D-Link USB connection (direct) TCP connection (internal network)
Report Channels Type	3
Report Destinations	Private Phone Monitoring Station
Report Format	PSTN Voice Messages PSTN direct CID or SIA
Report Type to Private Phones	Require Optional Voice Board module Voice Messages (pre-recorded messages)-Messages can be modified locally DTMF Commands Capabilities
Ring Detection	Yes, Programmable
Remote Programming	Via PC software reachable by PSTN and TCP/IP

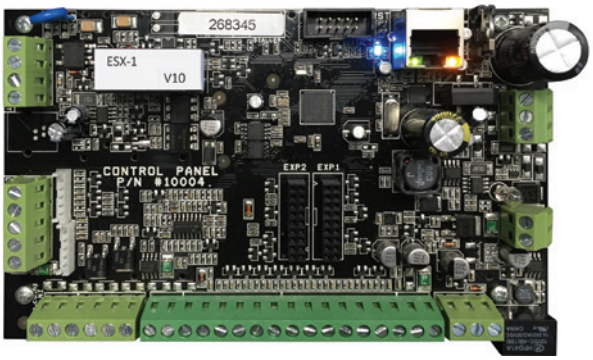
2 RUNNER™ 8/64 Series

Panel, Keypad & Expanders

Based on the familiar Runner platform, RUNNER™ 8/64 is simple to program from a keypad or our user friendly built in web browser upload/download.

R864M-1

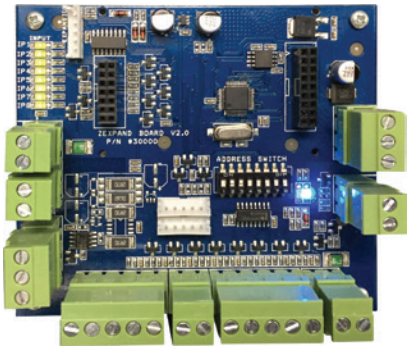
Main Board



- Expandable 8/16 inputs
- 4 way output with on board ethernet port, dialler & clean contact relay
- Supports up to 64 inputs, 32 outputs, 32 partitions, 32 keypads, 32 time schedules, 32 holidays
- 2000 users, 2000 events
- Simple 4 wire bus
- Supports up to 7 R864 EX-04 four output expander

R864EX-Z8 8/16

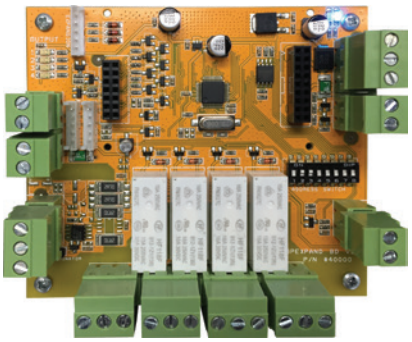
Input Zone Expander



- 8 individual zone inputs which are expandable to 16 zone inputs when using zone doubling
- Contains an on board tamper input for extra security in remote installations
- Simple dipswitch addressing system for single end of line or zone doubling wiring configuration of up to 64 zones
- Zone unsealed LED for each input to identify unsealed zones at the R864EX-Z8 board

R864EX-O4

4 output expander



- Contains 4 individual 10A 250VAC rated clean contact relays
- Outputs can be individually configured to suit your application & run up to 100m from the R864M-1 control panel on a single 4 wire bus
- Simple dipswitch addressing system for up to 32 outputs. LED for each output when relay is activated

R864-KP1 & R864-KP1-P

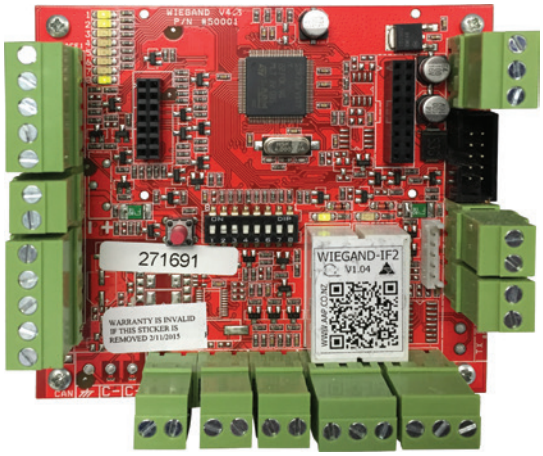


- Blue backlit full english text LCD keypad for RUNNER™ 8/64 series
- Multi function with assignable buttons & optional inbuilt proximity reader for access control and simple arm/disarm
- Up to 32 areas can be armed globally or individually from each R864-KP1 or R864-KP1-P
- Each keypad has an input that can be used as a zone or as a dialler listen-in function

RUNNER™ 8/64 Series

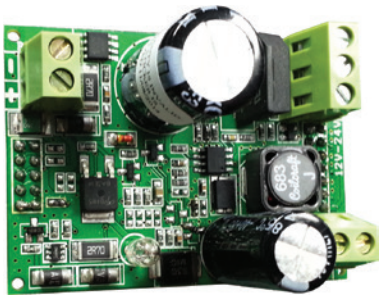
Accessories for Access Control Integration

R864-W-IF2 Access control module



- Supports proprietary Wiegand 40 bit & HID 26 bit
- Interfaces up to 2 proximity reader/keypads with the RUNNER™ 8/64 control system for security and access control integration
- Users can swipe a tag or enter a code to allow electronic access of pedestrian doors, garage doors and gates
- Functionality also includes system arm/disarm, lighting control, user logging and much more.
- Features 2 programmable inputs for electronic lock monitoring, exit buttons, emergency exit buttons, reed switches and alarm sensors and an on board tamper input for security when the R864-W-IF2 is mounted remotely

R864 - PSU2



- 13.8VDC plug in power supply module with battery charging and dynamic load test
- Plugs into the R864EX-Z8, R864EX-O4 & R864-W-IF2 (WIEGAND-IF2) modules for 13.8VDC 2A max power
- Ideal for powering auxillary Runner 8/64 accessories in remote locations
  while saving cabinet real estate (Requires 16VAC 1.5A transformer)
- AC fail and battery low remote monitoring via the R864M-1 control panel

Reader/Keypad



- The RUNNER™ 8/64 supports 3 main reader/keypad options
- Arm and/or Disarm
- Pedestrian door, garage door and gate control
- Programmable LED indication to follow R864M-1 output status
- Selectable exit/entry delay beeps
- Proprietary wiegand 40 bit protocol
- Users can assignment to selected reader/keypads for permitted or restricted access
- Programable access to time schedules and number of entries
- Tags/cards can be badged to open the specified door while disarming the system at the same time
- Tags/cards can also be double badged to arm the system when exiting

RUNNER™ 8/64

Specification

Control Panel Type	RUNNER™ 8/64
RF Network Type	FW2 Two Way Protocol
Frequency Bands (MHz)	868-869 MHz / 916-917 MHz
Operating Range	500 meters open space
Zones Number	Up to 64 wired or wireless zones
Available Partitions	32
Installer and User Codes	1 installer code 1 super user 2000 users
Control Devices	Wired Full LCD Keypads Wired ICON LED Keypads Two-Way Remote Control (Rolling Code)
Proximity Readers	Wigand Interface
Outputs	Up to 32 wired outputs (4 on main board R864M-1 and up to 28 with 7 expander boards R864EX-04)
Arming Modes	Total, Stay ,Latchkey, Duress, Bypass, Time Zone
Languages	English , French, Hebrew, German, Polish, Spanish Portuguese, Dutch, Italian, Greek, and Turkish
Special functions	Zone Bypass Walk Test mode and RSSI signal check Events Memory 10000 + logs Chime Zones Voice messages Web page upload/download Mobile application

COMMUNICATION

Capabilities	Built-in PSTN dialer Built-in TCP/IP Optional 3G/GPRS Backup Module (connection to Expansion Port of Main Board R864M-1)
Data Transfer to Local Computer	Ethernet port connection direct or remote
Report Channels Type	3 - TCP/IP, GSM/GPRS, PSTN
Report Destinations	3 - Phone, Monitoring station, Mobile App.
Report Format	PSTN voice messages, PSTN CID & SIA GSM voice messages, SMS, GPRS TCP/IP CID & SIA, Mobile App.
Report Type to Private Phones	Require Optional Voice Board module Voice Messages (pre-recorded messages)-Messages can be modified locally DTMF Commands Capabilities
Ring Detection	Yes, Programmable
Remote Programming	Via PC web page

RUNNER™ Series 4/8, 8/16 & 8/64

Specification Overview

Control Panel Type	RUNNER™ 4/8	RUNNER™8/16	RUNNER™ 8/64
Number of On-Board Zones	4/8	8/16	8/16
Total Zones Supported	8	16	64
Hardwired Zone	8	16	64
Wireless Zone Expansion	8	16	64
Number of Hardwired Keypads	8	8	32
Number of Wireless Keypads	1	1	--
Number of Wireless Transceivers	1	1	1
Number of Wireless Repeaters	1	1	1
On-Board PGM Outputs	2	4	4
Number of Outputs Expansion	2 X 4	2 X 4	7 X 4
Number of Access Code	100	100	2000
Number of Partitions	2	2	32
Panel Event Buffer	256	256	2000
Phone Line Supervision	Yes	Yes	Yes
Siren Supervision	Yes	Yes	Yes
Bell Output	Yes	Yes	Yes
SMS Command and Control	Yes	Yes	Yes
Upload/Download Support	Yes	Yes	Yes
Cellular Alarm Verification	Yes	Yes	Yes
Battery Required	Yes	Yes	Yes

3 Wireless Peripherals

Security Detectors
Safety Devices
Sounders



Freewave2™ Wireless Accessories (868 MHz/916.5 MHz)

Security Detectors



FW2-Neo
Pet immune PIR detector



FW2-PIR-CRT
Two Way Wireless curtain PIR detector



FW2-MAG
Magnetic Door & Window Contact



FW2-RMT
4-Button Keyfob Remote Control



FW2-EDS 3000 AM
Two Way Wireless Double PIR and Anti-Masking Outdoor Detector



FW2-GBD
Glass Break detector

Safety Devices



FW2-SMK
Smoke detector



FW2-Flood
Flood sensor



FW2-Panic Watch
Water-resistant pendant transmitter

Sounders



FW2-Neptune
Outdoor Sounder



FW2-VESTA
Internal Sounder

The Runner™ Series was designed in compliance with EN-50131 Grade II Class 2 and PD 6662:2004, C-tick and FCC Part15.

Security Detectors

FW2-Neo

FW2-PIR-CRT

FW2-MAG

FW2-RMT

FW2-EDS 3000 AM

FW2-GBD



FW2-Neo

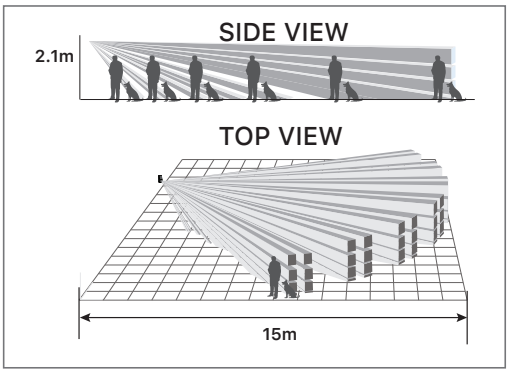
Two Way Wireless PET Immune PIR Detector

FW2-Neo is fully supervised low current Two Way Wireless PIR detectors, including the advanced Freewave2™ Two way protocol for secure and reliable system operation.

These motion detectors have a unique ID code and includes APS (Automatic Power Saving) mechanism for extending battery life.

The advanced protocol of FW2-Neo includes series of messages for full communication administration (Supervision, Tamper, Low Batt.) as well as test transmission signals (Communication, Tamper, Alarm).

Detection Pattern





FW2-Neo
Two Way Wireless
PET Immune PIR Detector

SPECIFICATION

Detection Method	Quad Element PIR
Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Supervision, Low Battery
LED Indications	Green LED: PIR detection Red LED during alarm
Range in open space	500 m
Tamper Switch	Front cover removal & Back tamper
Supervision Time	7 min by default (programmable between 1 to 30 min)
Optimal installation height	1.8m to 2.4m
Current Draw	Standby: ~7µA Receive: ~29mA Transmit: ~38mA
Transmit power	~ 14dBm
Power Supply	Lithium 3V battery type CR123 / Size 2/3AA
Battery Life	Up to 5 years
Operating Temperature	-10°C to +50°C
Dimensions	123mm x 62mm x 38mm
Weight (inc. battery)	120 gr



FW2-PIR-CRT

Two Way Wireless curtain PIR detector

FW2-PIR-CRT is the ultimate solution to protect glass walls, windows and doors by creating a mirror optics blocking curtain pattern with a user selectable coverage of 4-6m or 6-8m.

FW2-PIR-CRT is fully supervised low current Two Way Wireless PIR detector, including the advanced Freewave2™ Two way protocol for secure and reliable system operation.

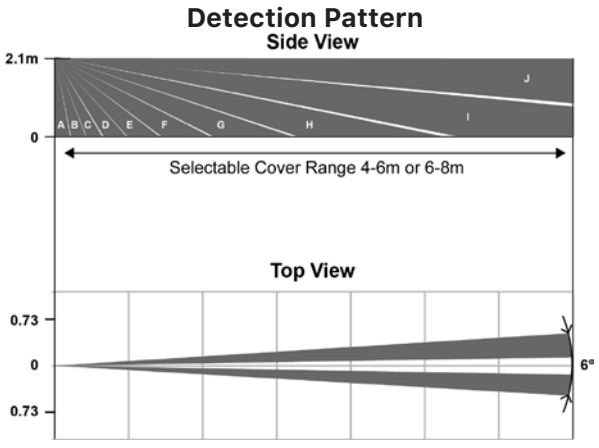
This motion detector has a unique ID code and includes APS (Automatic Power Saving) mechanism for extending battery life.

The advanced protocol of FW2-PIR-CRT includes series of messages for full communication administration (Supervision, Tamper, Low Batt.) as well as test transmission signals (Communication, Tamper, Alarm).



TECHNICAL SPECIFICATIONS

Detection Method	PYRO Element with Mirror Optics
Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Supervision, Low Battery, Keep Alive (every 7 minutes - configurable)
LED Indications	Green LED: During Pairing Red LED: During alarm
Range in open space	500 m
Tamper Switch	Yes
Supervision Time	7 min by default (programmable between 1 to 30 min)
Optimal installation height	1.8m to 2.4m
Current Draw	Standby: ~11µA Receive: ~24mA Transmit: ~45mA
Transmit power	~ 14dBm
Power Supply	Lithium 3V battery type CR123 / Size 2/3AA
Battery Life	Up to 5 years
Operating Tempera-ture	-10°C to +55°C
Dimensions	124mm x 31mm x 37mm
Weight (inc. battery)	120 gr



FW2-MAG

Two Way Wireless Door/Window Magnetic Contact

The FW2-MAG is an advanced magnetic contact sensor with integrated RF transceiver designed to be a fully supervised low-current device. A built-in reed switch and/or an external wired input may be applied in this device.

To maximize security, an 8.2K end-of-line resistor is monitored on the external wired input.

FW2-MAG uses smart message control, which verifies that all messages are successfully transmitted, so that no intrusion event will be uninformed to the system. Each FW2-MAG has a unique factory set ID code (24bit) which by registration is set into memory of the paired Freewave2™ Transceiver, enabling more secured communication and devices to be remotely controlled from a specific transceiver.



SPECIFICATION

Detection Method	Internal reed switch or External magnet device
Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Supervision, Low Battery
External Input	Up to 15m with 8.2Kohm EOL resistor
LED Indications	Green/Red during pairing Red for each transmission
Range in open space	500 m
Tamper Switch	Front cover removal & Back tamper
Supervision	7 min by default (programmable between 1 to 30 min)
Current Consumptions	Standby: ~3µA Receive: ~29mA Transmit: ~38mA
Transmit power	~10dBm
Power Supply	Lithium 3V battery type CR123 / Size 2/3AA
Battery Life	Up to 5 years
Operating temperature	-10°C to +55°C
Dimensions	97mm x 22mm x 21mm
Weight (inc. battery)	40 gr

FW2-RMT

Two Way Wireless Remote Pendant

The FW2-RMT is a two way wireless remote pendant wich offers the convenience of arming / disarming your alarm system securely.

- Slim and elegant design
- 4 independent and programmable buttons
- 5 programmable functions
- Unique ID number
- Available in grey or white color



SPECIFICATION

Transmission Method	4 independent and programmable buttons
Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
LED Indications	Red LED during transmission and Arm confirmation Green LED for Disarm confirmation
Range in open space	150m
Current Consumptions	Standby: <1 µA Transmission: ~30 mA
Battery	Lithium 3V Size CR2032
Battery life	Up to 5 years
Operating Temperature	-10ºC to +55ºC
Dimensions	87mm x 38mm x 12mm
Weight (incl. battery)	20 gr

FW2-EDS-3000 AM

Two Way Wireless Double PIR and Anti-Masking Outdoor Detector

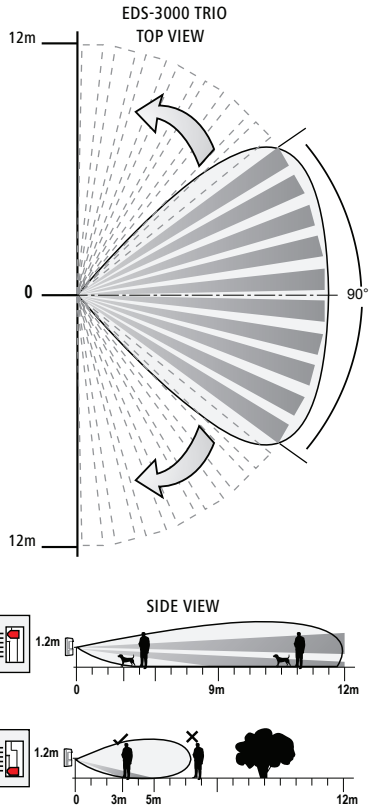


- Dual Quad Element Pyro sensor
- Anti-Masking
- Coverage detection pattern of 90° adjustable within 180°
- Heavy duty polycarbonate housing
- Sealed electronics and optics
- Automatic temperature compensation
- User selectable sensitivity levels
- Superior filtering against sun and white light
- Up to 55 kg Pet immunity
- IP55 rated

SPECIFICATION

Detection Method	Double PIR
WA Detection Pattern	90° with 30 zones detection
Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Supervision, Low Battery
Detection Range	Configurable from 3m to 12m
Warm up Period	30 Sec (±0.5sec)
LED Indications	Red LED during pairing, alarm and transmission
Range in open space	500 m
Tamper Switch	Front cover removal & Back tamper
Supervision Time	7 min by default (programmable between 1 to 30 min)
Optimal installation height	1.2m
Current Draw	Standby: ~11µA Receive: ~24mA Transmit: ~45mA
Transmit power	~ 14dBm
Weatherproofing	All openings with gasket and sealed Protection against water and dust
Operating voltage	4 batteries 1.5V type AA
Battery Life	Up to 5 years
Operating Tempera-ture	-25°C to +55°C
Dimensions	200mm x 86mm x 80mm
Weight (inc. battery)	500 gr

Detection Pattern

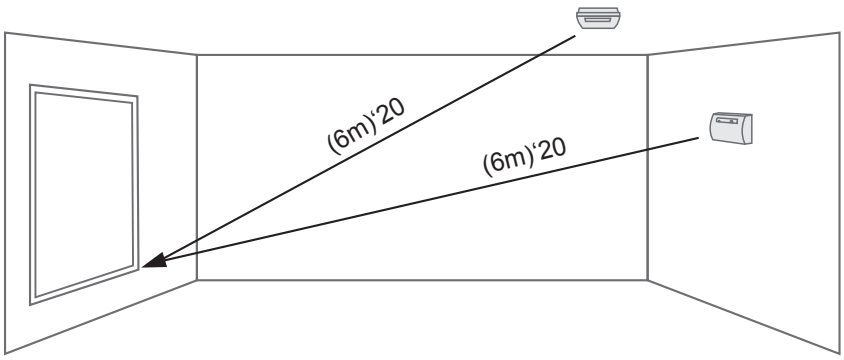


FW2- GBD

Two Way Wireless Glass Break Detector

- Omni – directional 360° coverage
- Maximum detection range for plate, tampered and laminated
- Low current Technology
- Sends alarm, tamper, supervision and Low battery condition alert





SPECIFICATION

Detection Method	Omni directional Electret microphone
Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Supervision, Low Battery
LED Indications	Red LED during pairing, alarm and transmission
Alarm Period	4 seconds
Range in open space	500 m
Coverage Area	Wide Angle 3-6m radius
Tamper Switch	Front cover removal & Back tamper
Supervision	7 min by default (programmable between 1 to 30 min)
Current Draw	Standby: ~11µA Receive: ~24mA Transmit: ~45mA
Power Supply	Lithium 3V battery type CR123 / Size 2/3AA
Battery Life	Up to 5 years
Operating temperature	-10°C to +55°C
Dimensions	85mm x 53mm x 21mm
Weight (inc. battery)	40 gr

Safety Detectors

FW2-SMK
FW2-Flood
FW2-Panic Watch



FW2-SMK

Two Way Wireless Smoke Detector



The FW2-SMK is a two way wireless photoelectric smoke detector using low current technology.

The detector automatically compensates for long-term environmentally induced changes to maintain a constant smoke sensitivity. When the drift compensation has reached its high or low limit of adjustment, the detector will go into the trouble state.

SPECIFICATION

Detection Method	Photoelectric Smoke Detector
Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Supervision, Low Bat
LED Indications	Red LED during pairing and alarm
Tamper Switch	Removal protection
Communication Range in open space	500m
Current Consumption	Standby: ~5µA Average: ~15µA Maximum: ~400mA
Detection Sensitivity	2.3+1.2%/ft
Alarm Sound Level	85 db at 3 m (10 feet)
Audible Warning	Built-in horn beeps ones Test mode Or Alarm
Test mode / activation	Beeper test & Alarm transmission test
EMI rejection	up to 2 GHz > 10 V/m
Battery	Battery pack of 2 Lithium 1.5V, Size: AA
Battery Life	Up to 3 years
Operating Tempera-ture	-10°C to +55°C
Dimensions	115mm x 40mm
Weight (incl. battery)	200gr

FW2-FLOOD

Two Way Wireless Flood Sensor

The FW2-Flood is an advanced flood sensor with integrated RF transceiver designed to be a fully supervised low-current device.

The FW2-Flood is a part of the Freewave2™ which is a supreme wireless line of devices that uses a two way RF transceiver combined with the intelligent Freewave2™ protocol.

A built-in terminal connection for an external wired sensor applies in this device.

FW2-Flood uses smart message control, which verifies that all messages are successfully transmitted.

Each FW2-Flood has a unique ID code set into the memory of the paired control panel, for more secured communication.



SPECIFICATION

Detection Method	External golden contacts pins device
Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Supervision, Low Bat
LED Indications	Green/Red during pairing Red during alarm and transmission
Tamper Switch	Font Cover and Removal
Communication Range in open space	500m
Current Consumptions	Standby: ~3 µA Receive: ~29 mA Transmit: ~38 mA
Battery	Lithium. 3V Type: CR123A Size:2/3AA
Battery Life	Up to 5 years
Low Battery	~2.4Vdc
Transmit power	~10dBm
Tamper Switch	Front Cover Removal
Operating temperature	-10°C to +55°C
Dimensions	97mm x 22mm x 21mm
Weight (inc. battery)	40 gr



FW2-PANIC WATCH

Two Way Wireless Panic Device

The FW2-Panic Watch is an advanced water-resistant pendant transmitter with single-button press-and-hold activation and ergonomic design to wear on a regular basis as any wristwatch or necklace

.

- Water resistant
- Supplied with wristband and necklace
- Single button activation
- Lithium battery operated
- Ideal for assisted living installations
- Can be worn in the shower or bathroom
- Necklace included



SPECIFICATION

Transmission Method	Push Button
Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Supervision, Low Bat
LED Indications	Red LED during transmission
Communication Range in open space	500m
Current Consumptions	Standby: < 1µA Transmission: 25±3mA
Battery	Soldered CR2016
Battery Life	Up to 5 years
Operating temperature	-10°C to +55°C
Weight (inc. battery)	20 gr

Sounders

FW2-Vesta
FW2-Neptune





FW2-Vesta

Two Way Wireless Indoor Sounder



The FW2-Vesta is the ideal two way wireless indoor sounder for your premises particularly if outdoor sounders are prohibited or if extra intrusion alert is required.

Fully standalone, this sounder is cable free installation and do not require any AC power.

The sounder's two-way communication maintains continual supervised communication with the control panel.

SPECIFICATION

Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
Indications	Red LED during pairing and transmission
Range in open space	500m
Sound Pressure Level	More than 100dB
Siren Tone	Yelp
Frequency Range	2700 ±500 Hz
Current consumption	Standby: 110uA ±10uA@ Battery operation Alarm: Average: 400mA @ Battery operation. Max: 600mA peak@ Battery operation.
Power Supply current limitation	Up to 1A
Maximum Power	Average: 3W
Siren Alarm Period	2 min/15 min (According the status of Dipswitch#4)
Low Battery Level	2.8V
Low Battery Indication	LED Flash @ Arm/Disarm (According the status of Dipswitch 2&3)
Arm/Disarm Indication	LED Flash : Arm-1, Disarm-3 LED Flash with Beeps : Arm-1, Disarm-3 (According the status of Dipswitch 2&3)
Supervision	Sync signal every 1 min.
Tamper Switch	Normally Closed. After power up the Tamper will activate only after the second opening and then Activate the Piezo for 2 min or till reset by the C.P.
Power Supply Voltage	1 x Lithium battery 3.6V / Size D
Battery Life	Up to 5 Years (Based on 2 min Piezo operation/month)
Material	External Box: ABS. (2mm thick).
Operating temperature	-10°C to +55°C
Dimensions	155mm x 100mm x 48mm
Weight (Without Battery)	400 gr

FW2-Neptune

Two Way Wireless Ultra Slim Outdoor Sounder



The FW2-Neptune is a wireless outdoor sounder combining high performance reliability, fast cable free installation and elegant design.

The FW2-Neptune is fully supervised, provides visual and audio notifications of intrusions, fire alarms, low battery voltage, and communication interferences.

The slim design of the FW2-Neptune makes it discreet but highly effective.

SPECIFICATION

Data Protocol	Freewave2™ Two Way Protocol
Modulation Type	GFSK
Frequency Band	868-869MHz / 916-917MHz
Identification	Unique ID serial number – 24 bit
Range in open space	500m
Sound Pressure Level	105dB
Siren Tone	Yelp
Frequency Range	2700 ± 500 Hz
Indications	Flash LED during transmission (Arm/Disarm), activation and low battery
Flash Light	Power LED (90 Lumens)
Current consumption	Standby: 110uA ±10uA@ Battery operation 20mA±2mA@12V DC operation Alarm: Average: 950mA @ Battery operation Max: 1.8A peak@ Battery operation Average: 200mA @ 12V DC operation Max: 1.2A peak @ 12V DC operation
Power Supply current limitation	Up to 1.8A
Siren Alarm Period	2 min/15 min (programmable)
Arm/Disarm Indication	LED Flash : Arm-1 Disarm-3 LED Flash with Beeps : Arm-1 Disarm-3
Supervision	Sync signal every 1 min
Tamper Switch	Normally Closed
Power Supply Voltage	9V÷15V DC or Battery 3.6V /14Ah Lithium or both.
Battery Life	Up to 5 Years (Based on 2 min Piezo operation/month)
Low Battery Level	2.8V
Material	External Box: P.C. (3mm thick).
Case Protection Level	IP 43 - Plastic PC with UV protection. Conformal coated circuit board
Operating temperature range	-30°C to +70°C
Dimensions	310mm x 205mm x 75mm
Weight (Without Battery)	1.2 Kg

4 Communications and Applications



R4816-IP MODULE for RUNNER™

IP Module for RUNNER™ & Smart Phone Mobile Application

This new app works with your existing RUNNER control panel when connected to the dedicated IP MODULE.

The IP MODULE is an Universal PSTN to LAN reporting module for monitoring over internet. This module converts any Contact-ID signs for your older analogue dialer, into the newer internet reporting protocols and smart phone push notifications and it can be upgraded to the latest app software by using the IAP software on Arrowhead website and the latest IP Module software.

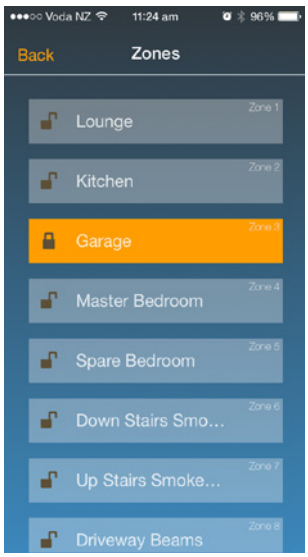
By using this module, you will be able to give to Runner panels a newer dimension and propose to all of your customers advanced features likes:

- Receive Push Notification for Alarm activations, Battery low, Mains Fail & Panic alarms
- One touch Remote Arm and Disarm of Alarm System
- Output Control (turn on lights & heats, open garage doors & gates) up to 8 different devices
- View Inputs (see movement around the home, as different detectors are triggered)
- Check past memory events (see when and who Disarm/Arm the system last, 16 memory events)
- One App can manage and control multiple site
- Customize the App with photos and Input/Output names

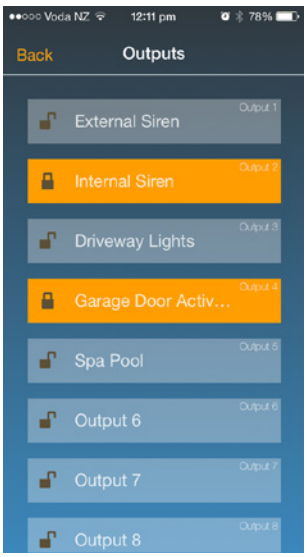
The Mobile Application is available both on Google Play store for Android devices and on Apple Store for IOS devices.

Available on the Android Market

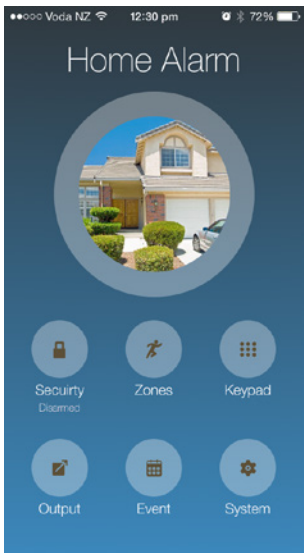
Available on the App Store



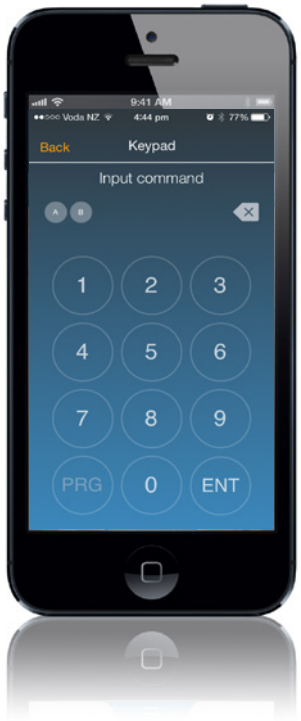
Safety



Home Automation



Security



R4816-4G IP MODULE

The R4816-4G-IP MODULE consists of a standard IP-MODULE with the plug in 4G Cellular card fitted. It is predominantly designed for cellular monitoring but can work as a wired Ethernet system as the primary reporting path with Cellular as the back-up path or as Cellular as the primary reporting path.

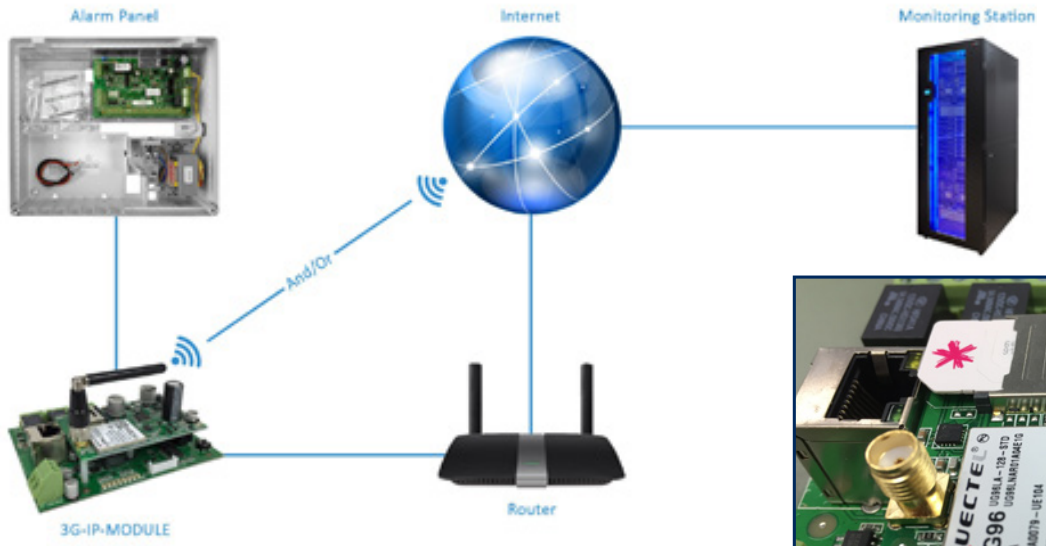
It supports IP Monitoring and personal monitoring via text or emails.

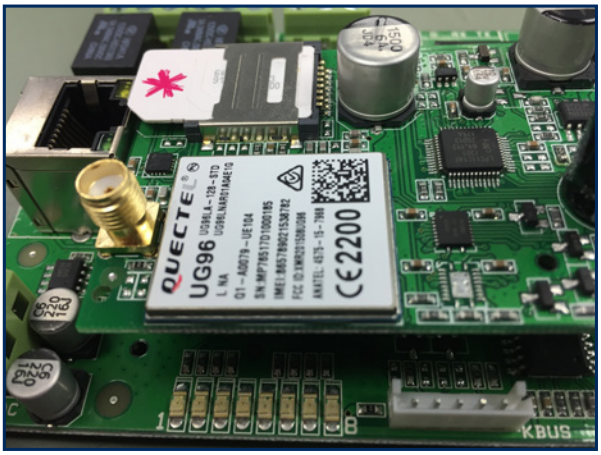
Dual Path monitoring

- Universal LAN to PSTN reporting module.
- Primary cellular or cellular back up function
- Contact ID Monitoring.
- Personal SMS Monitoring
- CSV, Patriot LS-30 & AAP Encrypted

Technical specifications

- The 4G-IP MODULE converts Contact ID signals to data for monitoring over IP.
- The unit is fitted with an Ethernet port & a SIM module for Ethernet only, cellular only or backup cellular monitoring purposes, in the form of custom text or email messages.
- These include Mains failure, batter failure, zone activations, panic, fire, restores & more.
- Output control & 2 x input control via SMS.
- All information is programmed into the 4G-IP-MODULE via a built in web browser.
- Allowing monitoring for new & existing systems to be programmed off site.
- The 4G-IP-MODULE talks directly to the desired monitoring station with no intermediate host and no ongoing hardware charges.
- Batter backed up from the alarm panel
- Field updateable for future firmware upgrades.
- Primary Ethernet, primary cellular or cellular backup.





The Crow Group

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