

PowerCom®

RF2



EmPower Audience Communication

-Advanced radio frequency (RF) technology

-Frequency Hopping Spread Spectrum

For Superior Range, Security, and Speed.

-Works with PowerCom® software

Applications and PowerPoint add-ins.*

-New Self-Paced testing feature without

Using external device like smart card.

-User-friendly Human Interface Device (HID)

Compatible with USB base station.

-Enhanced text messaging capability and can store up to 12 messages on its built in memory.

Technical Specifications

For

Wireless Keypad Model RF2

Enclosure

- Compact and rugged ABS blend case.
- Dimensions: 5.25 in x 2.2 in x 1 in (133.8 mm x 54.5 mm x 26.5 mm).
- Weight: Approx. 3.1 oz (88 grams) without batteries installed. Add 1.6 oz (45 grams) for 2 alkaline AA cells.
- Color: 3 tone (off-white, light gray, slate). [Custom color combination are available. Minimum or quantities and special term apply.]

User Identification

- Each Keypad has an RF device identity ("address") between 1-500 plus an RF Base Station identifier between 1-75.
 - Addresses may be automatically assigned or preset.
- Each Keypad also has a unique device serial number
 - Serial numbers are permanent and set at manufacturing.
- Both Address and serial number identifications are transmitted with each keypad's response.
- 'Log in' function permits secure user registration.

User Input

- Use current elastomeric keyboard, same color as current Reply Plus 19 Keyboard. Same epoxy coating.
 - 19 buttons in configuration, color, labeling as current Reply Plus model.
- Entries can be "speed scored" to 0.05 second (50 millisecond) resolution to identify group response sequence ("fastest finger") during competitive events.
- Audible keypress indicator can be enabled / disabled.

Display

- 2 line liquid crystal display (LCD) echoes user entries and displays messages from the Base Station. LCD features:
 - LED backlighting.
 - 12 characters per line. [Note: When in text mode, characters will scroll up to 140 characters.
 - In single-digit mode, edit so that a single character instead of a number can be displayed.
 - Ability to review asynchronous ("self-paced") responses on LCD.
 - Status icons to indicate battery level, response type, correct/incorrect response, login status, RF link activity, RF signal strength, keypad address #, RF Base Station identity #.

RF Technology

- Two-way RF Keypad uses license-free/license-license-exempt frequencies to:
 - Communicate keypresses to the Base Station
 - Receive control information from the Base Station.
 - Acknowledge keypad transmissions.
- Employs Fleetwood-engineered 2.4GHz frequency hopping spread spectrum (FHSS) transceivers.
 - FHSS offers excellent range, immunity to interference, and signal security.
 - Integrated Wi-Fi avoidance feature improves performance in high density wireless environments.
- Patented and proprietary radio protocol.
 - Creates a secure communications network between keypads and their associated Base Station.
 - Permits system to operate reliably in the presence of other RF devices (WLAN'S, PDA'S, phones, etc.),
 - Integrated error checking discriminates system signals from all other RF traffic to ensure data accuracy and enhance security.
- 75 RF Base Station identifiers are available to provide installation flexibility and system expansibility.
- Internal antenna is protected by the keypad enclosure.

Range

- Programmable RF power level offers long range operation and flexibility in installation.
- Power output is selectable by software. Designed to operate in an indoor area up to 650 ft x 650 ft (200m x 200m) at maximum US rated RF power level with a centrally placed base station. See Base station specs for details.
 - A room's geometry, radio propagation characteristics, and proximity to RF interferers can influence the actual range experienced.
 - Elevating the base station often results in a performance advantage.

Speed

- Polling rate is 200 keypads per second.
 - Multiple base stations may poll simultaneously.
- Time stamping can identify the speed and sequence of each keypad response.

Power and Power Management

- Powered by two replaceable alkaline AA batteries (not included)
- Battery life is ~100 hours depending on usage and features or battery shelf life, whichever comes first.
- Battery level is indicated on LCD. Also, keypad transmits battery level to the Base Station.

Communication Security

- A proprietary response verification protocol integral to the radio design provides a high degree of signal security.
- Frequency hopping and proprietary data communications are additional deterrents to clandestine interception.
- Audible keypad return to sound when a keypad leaves its Base Station's coverage zone.

Scalability

- Firmware resides in high performance microprocessor chips that can be reprogrammed via the RF link to facilitate easy in-field upgrade during the life of the product.
- Adding keypads to an existing system only requires them to be set to the channel identity of a Base Station and assigned an available address by either automatic or manual setting.

Compliance and Patents

- Must be fully compliant and certified for: FCC, IC, CE. (Leverage current certifications).
- RoHS and WEEE compliant.
- U.S. Patent Nos. 5,724,357; 6,021,119; 6,665,000. European Patent No. EP 0 697 773. Other U.S. and foreign patents and patents pending.

Warranty

- 24 month Limited Warranty.

Additional System Components and Accessories

PowerCom® RF2 Base Station Model (WRS971-DSI-H)

- Base Station is a compact USB stick styling that communicates with only the WRS7200-DSI and WRS7000-DSI keypad models.
- Dimensions 3.1" L x .9"W x 1"H.
- HID base, no drivers needed.
- Uses current base housings. [Clarification: Special color would require purchase of special colorant.]
- Require new labels-top, bottom (see Action items)
- Capacity: 500 keypads per RF Base Station identifier. 75 RF Base Station identifiers allow 37,500 pads per room.
- Speed: Default setting is 200 keypads per second. Polling rates as fast as one-half second are possible with smaller groups (ex. 100). Multiple Base Stations may poll simultaneously to collect responses from up to 37,500 keypads in 3 seconds.
- Connections: Attaches to the operator's PC by USB.
- Primary Power Source: USB. Current draw 70-130 mA.

Full Size Base Station Model (WRS970-DSI-H)

- A programmable interface to PC that communicates with only WRS7000-DSI Miniature keypad and only WRS7200-DSI Plus style pads. Not compatible with other products designed using WRS7200-XXX protocol.
- Dimensions 6.5" x 2.25" x 5"D (159mm x 57mm x 126mm).
- HID base, no drivers needed.
- Uses current base housings. [Clarification: Special color would require purchase of special colorant.]
- Require new labels-top, bottom (see Action items)
- Capacity: 500 keypads per RF Base Station identifier. 75 RF Base Station identifiers allow 37,500 pads per room.
- Display: LCD for viewing RF identity and diagnostics.
- Speed: Default setting is 200 keypads per second. Polling rates as fast as one-half second are possible with smaller groups (ex. 100). Multiple Base Stations may poll simultaneously to collect responses from up to 37,500 keypads.
- Connections: Attaches to the operator's PC by USB or Ethernet connection (USB cable included).
- Power Source: USB. Current draw 70-130 mA.
- Alternate Power Source: POE ("Power over Ethernet") using midspan and power injector.

API

- A 32 and 64 bit .net DLL API for Plus protocol. API's communicate only to the DSI family custom products [Clarification: Current Plus OCX will also be available to allow parallel communication with Reply Keypads using a separate Reply base station through the same DSI application software as appropriate.]
- All compiled DSI API's for this product to be licensed to DSI without royalty during the period of contract, to be used or distributed by DSI at its discretion. Post-contract licensing is per separate agreement and terms between Fleetwood and DSI.

Pricing

Suggested resale prices are available at www.powercomars.com.
Quantity and industry partner discounts are available through our preferred resellers.

All specifications and suggested resale prices are subject to change without prior notice.



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