Reply® Plus

reply®

Advanced Radio Frequency (RF) Technology

Frequency Hopping Spread Spectrum for Superior Range, Security, and Speed

Several Response Input Modes including Multi-Character, Multiple Choice, Moment-to-Moment

Technical Specifications

for

Wireless Keypad Model WRS7200

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). *[Note: Custom color combinations are available. Minimum order quantities and special terms apply.]*

User Identification

- Each keypad has an RF device identity ("address") between 1-500 plus a RF base identifier ("channel") between 1-31.
  - ➢ 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 may be transmitted with each keypad's response.
- 'Log in' function permits secure user registration.

User Input

- 19 enamel coated elastomeric keys.
  - ➢ Ten keys numbered 0-9 plus a "SYM" key allow entry of simple or sophisticated responses up to 12 characters in length (ex. -1/2*345.067).
  - ➢ Three 'soft' keys coordinate with response options shown in the display. The selections are programmable by software and include several options for simplified voting (e.g., Yes No, True False, Yes Abs No, etc.)
  - ➢ "Send", "Alert", "Search/Scan", "Clear", and "Power" keys provide additional functions.
- 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:
  - ➢ Electroluminescent backlighting.
  - ➢ 12 characters per line.
  - ➢ Status icons to indicate battery level, response type, correct/ incorrect response, login status, RF link activity, RF signal strength, keypad address #, channel #.

RF Technology

- Two-way RF keypad uses eligible license-free / license-exempt frequencies to:
  - ➢ Communicate key presses to the Base Station.
  - ➢ Receive control information and messages from the Base Station.
  - ➢ Acknowledge keypad transmissions. *[Note: Response acknowledgment is one of several advantageous features found in products using patented Reply® technology.]*
- Employs Fleetwood-engineered 2.4 GHz 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 Reply® systems to operate reliably in the presence of other RF devices (WLANs, PDAs, phones, etc.).
  - ➢ Integrated error checking discriminates system signals from all other RF traffic to ensure data accuracy and enhance security.
- 31 channel identities are available to provide installation flexibility and system expansibility.
- Internal antenna is protected by the keypad enclosure.

Range

- Power output is selectable by software. Designed to operate in an indoor area up to 650 ft x 650 ft (200 m x 200 m).
- 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, permitting collection of up to 15,500 keypads in 3 seconds.
- 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 varies according to use. Estimate replacement after approx. 150 hours of operation.
- Battery level is indicated on LCD. Also, keypad transmits battery level to the Base Station.

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.
- Alarm can be enabled to sound when a keypad leaves its Base Station's coverage zone.

Scalability

- Firmware resides in high performance microprocessor chips that can be reprogrammed to facilitate easy 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

- Call for status and details regarding these and other regulatory certifications: FCC , IC , CE .
- U.S. Patent Nos. Re. 35,449; 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

- 2 YEAR Limited Warranty. Call for details.

System Configuration

A basic Reply® Plus system consists of...

- One Reply®WRS7200 Wireless Keypad per participant
- One Reply® WRS970 Base Station per 500 keypads of the same radio channel in a room, and
- One copy of value-added application software.

Optional accessories (purchased separately) include carrycases for keypads and base stations, power over ethernet devices for remote base station placement, and lanyards. Training, on-site technical support, and similar 'for fee' services are also extra.

Additional System Components and Accessories

Base Station Model WRS970

- A compact and programmable interface to your PC.
- Controlled by application software* (purchased separately).
- Dimensions: 6.25 in 2.25 in x 5 in (159 mm x 57 mm x 126 mm).
- Unit Weight: Approx. 9 oz (255 gm).
- Capacity: 500 keypads per channel identity. 31 available channel identities allows 15,500 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 or less). Multiple Base Stations may poll simultaneously to collect responses from up to 15,500 keypads in 3 seconds.
- Connections: Attaches to the operator's PC by USB or Ethernet connection. (USB cable included.)
- Primary Power Source: USB. Current draw 70-130 mA.
- Alternate Power Source: POE ("Power Over Ethernet") using midspan and power injector. Call for details.
- Does not include accessories such as software* and carrycases. These additional items are priced separately.

Modular Carrycases

Several Models Available

- Ruggedized shipping cases with perimeter clasps.
- Styled as suitcase or wheeled luggage items.
- Keypads and base stations purchased separately.
- Refer to Accessories Price Sheet for additional details.

Application Software

- * Base Station requires application software to manage keypad data collection.
- Multiple titles are available to conduct surveys, delegate voting, group decision making, market research, classroom learning, and other advanced applications.
- Contact your reseller for specifications and pricing of the application software they offer with Reply® systems.

Pricing

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

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

FLEETWOOD

Fleetwood Group, Inc.
P.O. Box 1259
Holland, Michigan 49422-1259

Phone: (616) 396-1142 or (800) 257-6390 Fax: (616) 820-8301
Website: www.replysystems.com E-mail: sales@fleetwoodgroup.com

Founded on, and dedicated to, Christ and Christian business principles.

02/21/2008