



Technical Specifications for Wireless Keypad Model WRS8200

Enclosure

- High-impact plastic, sleek compact design.
- Dimensions: 2.83 in W x 4.33 in H x 1 in D (72 mm x 110 mm x 19 mm).
- Weight: Approx. 5 oz (140 grams) with installed battery.
- Color: Glossy black top, black textured bottom.

User Identification

- Each keypad has a unique device serial number. Serial numbers are permanent and set at manufacturing.
- Each keypad also has an RF device identity (“address”) that is automatically assigned by the Base Station.
- Serial number identification is transmitted with each keypad’s response.
- Chip card support for secure user registration and data logging.

User Input

- Full color, configurable touch LCD displays only the desired keys / buttons for each question. Input via preformatted and custom keys / buttons. Full alphanumeric input capability by onscreen QWERTY keyboard or SMS-style texting. Moment-to-moment response capability by onscreen slider (configurable).
- Touch surface input via finger or stylus.
- Offline operation allows inputs in self-paced response mode.
- Entries can be “speed scored” to 0.05 second (50 millisecond) resolution to identify group response sequence (“fastest finger”) during competitive events.

Display

- 65,000 color 3.2 inch QVGA backlit LCD displays all user interface information and system diagnostics. LCD is able to display:
 - Question information and response input buttons / areas.
 - Logos and images with each question or as a background.
 - Polling results after a polling question.
 - Customizable power-up “splash” screen.
 - Status icons indicate battery level, login status, RF link activity and signal strength, message status, menu access, presenter notification (Alert).
- Red/green LED shows charging status.

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 (200 m x 200 m) at maximum RF power level. (See Base Station specs.)

A room’s geometry, radio propagation characteristics, and proximity to RF interferers can influence the actual range experienced.

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 manufacturers-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 RF Base Station identifiers are available to provide installation flexibility and system expansibility.
- Internal antenna is protected by the keypad

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 (200 m x 200 m) at maximum RF power level. (See Base Station specs.)

Range (Continued)

A room's geometry, radio propagation characteristics, and proximity to RF interferers can influence the actual range experienced.

Speed

- Polling rate is 100 keypads per 500 ms. 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 1300mAh Lithium Polymer battery (included).
- Battery life is 16 hours typical usage or battery shelf life, whichever comes first.
- Charge using charge rack unit
- 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.
- Audible keypad return reminder and Ping (Keypad Find) function.

Scalability

- Firmware resides in high performance microprocessor chip that can be reprogrammed via the USB link to facilitate easy in-field upgrade during the life of the product.
- Adding keypads to an existing system only requires them to join to the base identity of the Base Station, up to the base limit.

Compliance and Patents

- Call for details regarding these and other regulatory certifications: FCC , IC , CE .
- 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

- 1 YEAR Limited Warranty. Call for details.

Additional System Components and Accessories

Reply® Ativa Base Station Model WRS971-A

- Base Station in miniature USB Stick styling that communicates with Reply® Ativa keypads.
- Controlled by application software* (purchased separately).
- Dimensions: 3.1"L x .9"W x .57"H.

- RF Type: Proprietary FHSS (spread spectrum, frequency hopping). Creates a secure network with keypads and offers immunity to interference. 4 programmable RF power level settings provide regulatory compliance and installation flexibility. 7 programmable WiFi avoidance settings offer enhanced performance in high density RF environments.
- Capacity: 500 keypads per RF Base Station identifier. 31 RF Base Station identifiers allow 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). 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.
- Primary Power Source: USB. Current draw 70-130 mA.

Reply® Ativa Base Station Model WRS970-A

- A compact and programmable interface to your PC that communicates with Reply® Ativa keypads.
- Controlled by application software* (purchased separately).
- Size: 6.3 in x 2.3 in x 5 in (159 x 57 x 126 mm).
- Display: LCD for viewing RF identity and diagnostics.
- RF Type: 5 RF power level settings. including maximum range.
- Connections: Ethernet in addition to USB.
- Alternate Power Source: POE ("Power Over [Reminder: Base stations do not include accessories such as software* and carrycases. These items are priced separately.]

Modular Carrycases

- Wide variety available, ranging from compact ballistic nylon bags to ruggedized shipping cases with perimeter clasps.
- Keypads and base stations purchased separately.
- *Refer to Accessories Price Sheet for additional details.*

Application Software

- *Base Station requires application software to operate system.
- Contact your reseller for specifications and pricing of the application software they offer with Reply® systems.



The Reply® Ativa Audience Response Systems are designed and assembled in the USA by our quality certified American Manufacturer.

reply  Wireless Interactive Technology

Infowhyse GmbH
Hermann-Ehlers-Strasse 8
61231 Bad Nauheim, Germany
Phone: +49 (6032) 9259280
Fax: +49 (6032) 92592829
Website: www.replysystems.com
Email: sales@infowhyse.com

