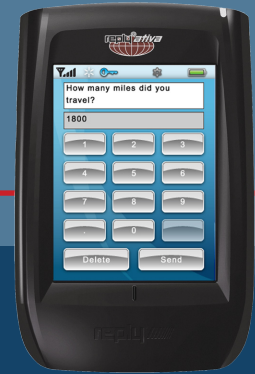


# Reply<sup>®</sup> Ativa

## reply<sup>®</sup>



### Advanced Radio Frequency (RF) Technology

#### Full Color, Configurable Touch Display

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

#### 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.

##### 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<sup>®</sup> 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<sup>®</sup> 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 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 (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.

## 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.

## System Configuration

*A basic Reply® Ativa system consists of...*

- One Reply® Ativa Wireless Keypad per participant
- One Reply® Ativa Base Station per 500 keypads
- One copy of value-added application software.
- Keypad recharging rack

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

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

## 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 mm x 57 mm 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 Ethernet") using midspan power injector. Call for details.

[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.
- 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](http://www.replysystems.com). Quantity and industry partner discounts are available through our preferred resellers.



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](http://www.replysystems.com)  
E-mail: [sales@fleetwoodgroup.com](mailto:sales@fleetwoodgroup.com)

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