

Standard Reply® Technical Specifications

ENCLOSURE

Each wireless keypad is housed in a lightweight, compact, gray ABS plastic molded enclosure. Dimensions: 6.7" L x 3.1" W x 1.5" H. Weight: 6.5 ounces.

USER INPUT

Soft-touch sealed membrane switch panel with 12 tactile keys. Ten keys are numbered 1–10. Additional key markings include A–E on keys 1–5, and “Yes” and “No” on keys 1–2.

DISPLAY

Seven-segment LED visible even in reduced lighting conditions. Validates user input and indicates when the Base Station has accepted the response.

POWER AND POWER MANAGEMENT

Powered by a 9-volt alkaline battery and internally regulated to 5 volts for consistent performance throughout the life of the battery. Keypad is using power only when transmitting and acknowledging an entered response. Low battery is indicated by the rapidly flashing seven-segment LED display when about 100 responses are remaining. Battery provides sufficient power for 10,000+ responses before requiring replacement.

USER IDENTIFICATION

Each keypad has a unique radio frequency (RF) address between 1 and 250 (up to 2000) when multiple base stations are used with enabled software. Combining this “address” feature with a patented response verification routine provides additional security. Keypads operate independently of each other, and keypad addresses are programmable. Additionally, keypads may be password-enabled to protect configuration.

RF TECHNOLOGY

Proprietary radio communication system provides secure, barrier-free operation between keypads and their associated Base Station. User entries are acknowledged when received by the Base Station. Integrated error checking ensures accurate communication of responses and control functions. Separate frequencies are used to address/control the keypad and communicate key-presses to the Base Station.

A 216–220 MHz RF keypad receiver processes address/control signals from the Base Station’s transmitter. This receiver is dual conversion crystal referenced frequency modulated. A 345–369 MHz RF keypad transmitter sends key press information to the Base Station’s receiver. This transmitter is frequency synthesized and frequency modulated. Eight (8) channels are available to provide flexibility. Internal antennas are protected by the keypad housing.

APPLICATION SOFTWARE

Base Station requires ReplyPoll® or other application software to manage keypad data collection.

RANGE

The system is designed to provide reliable operation in an area 200 feet by 200 feet with standard omni-directional, quarter-wave whip antennas. Note: Range can vary due to a room's geometry and its RF propagation characteristics.

SPEED

The Base Station scans each keypad in sequence. Scan duration is 1/100th of a second. Within each brief time segment, the Base Station is able to simultaneously determine a keypad's identification and process its response information. This "look, listen, verify" routine is both intelligent and fast. Polling cycles are adjustable to optimize speed to group size. For example, a group of 50 keypads can be sampled every one-half second, whereas an audience of 2,000 per room/site can be sampled every 3 seconds.

CONTROL

Utilizes a high performance microprocessor and external permanent memory for storage of setup parameters and keypad addresses. Firmware is resident in the microprocessor chip, which can be replaced to facilitate easy upgrade during the life of the product.

CAPACITY

250 keypads per radio channel. 8 radio channels are available to support a maximum of 2,000 keypads per room/site. Adding keypads to an existing Base Station requires them to be set to new, unused addresses. No change is required on the Base Station when keypads of the same radio channel are added.

COMPLIANCE

FCC Rules and Regulations Part 15 certified. IC RSS121 certified. Covered by U.S. Patent No. 5,093,786, Re. 35,449, and 5,724,357. Other U.S. and foreign patents pending.

SYSTEM CONFIGURATION

A basic Reply® system consists of the following:

[1] CRS1200 Wireless Keypad per participant

[1] CRS930 Base Station for every 250 keypads of the same radio channel in a room.

ADDITIONAL SYSTEM COMPONENTS & ACCESSORIES

Base Station Model CRS930

Dimensions: 7.75" W x 6.375" D x 3.375" H.

Unit Weight: 2 pounds (3.5 pounds with cable and power supply).

Includes:

- Extendable whip antennas.
- 8 user-selectable channels.
- 35 foot long serial cable. Base Station connection: RJ45.
- PC connection: DB9.
- UL/CSA rated low voltage power supply.
- Input: 110-220 VAC. Output: 12 VDC. Current draw: less than 0.5 A.

Base Station Carry Case Model CRS899B2

Stores two (2) CRS930 Base Stations, up to 30 keypads, serial cables and power supplies in a die-cut foam insert for shock protection. Styled as a checked luggage piece. Includes four perimeter clasps and two molded places for locks. Weight (case and foam only): 13 pounds. Dimensions: 24.25" W x 19.5" D x 8.75" H.

Keypad Carry Case Model CRS899K50

Stores 50 keypads in a die-cut foam insert for shock protection. Styled as a checked luggage piece. Includes four perimeter clasps and two molded places for locks. Weight (case and foam only): 13 pounds. Dimensions: 24.25" W x 19.5" D x 8.75" H.

Pricing

System prices include Keypads, Base Station, Carry Case and Software. Purchaser is responsible for shipping cost and any taxes, fees and duties imposed by their state or country.

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| CRS250-WS | 250 keypad system | \$44,125.00 USD |
| CRS200-WS | 200 keypad system | \$35,875.00 USD |
| CRS150-WS | 150 keypad system | \$27,280.00 USD |
| CRS100-WS | 100 keypad system | \$18,685.00 USD |
| CRS050-WS | 50 keypad system | \$10,090.00 USD |
| CRS030-WS | 30 keypad system | \$6,445.00 USD |
| CRS020-WS | 20 keypad system | \$4,795.00 USD |
| CRS010-WS | 10 keypad system | \$3,145.00 USD |

If you would like to purchase a keypad system or replacement parts, please visit www.cpwireless.com/order.php.