WK2
Water Resistant In-Wall Keypad

It's Under Control®

RTI

Product Contents

Contents within the box include the following items:
- One (1) WK2 glass keypad assembly
- One (1) Rear housing assembly
- Two (2) Mounting wings with screws
- One (1) MAC address card
- One (1) Drywall cutout template
- One (1) Quick reference guide

Safety Suggestions

Read and Follow Instructions. Read all safety and operating instructions before operating the unit.

Retain Instructions. Keep the safety and operating instructions for future reference.

Heed Warnings. Adhere to all warnings on the unit and in the operating instructions.

Heat. Keep the unit away from heat sources such as direct sunlight, radiators, heat registers, stoves, etc.

Power Sources. Connect the unit only to a Power over Ethernet (PoE) router/switch of the type described in this reference guide.

Water and Moisture. If the unit will be installed near water—for example, near a sink, in a bathroom, near a swimming pool etc.,—follow the instructions in this reference guide to ensure moisture does not damage the unit.

Object and Liquid Entry. Do not allow objects to fall or liquids to be spilled into the enclosure through openings.

Servicing. Do not attempt any service beyond that described in the operating instructions. Refer all other service needs to qualified service personnel.

Damage Requiring Service. The unit should be serviced by qualified service personnel when:
- The internal components have been exposed to fallen objects, spilled liquids or moisture.
- The unit does not appear to operate normally or exhibits a marked change in performance.
- The unit has been dropped or the enclosure has been damaged.

Limited Warranty

RTI warrants its products for a period of one (1) year (90 days only for included battery packs); or for a period of time compliant with local laws when applicable from the date of purchase from RTI or an authorized RTI distributor.

This warranty may be enforced by the original purchaser and subsequent owners during the warranty period, so long as the original dated sales receipt or other proof of warranty coverage is presented when warranty service is required.

Except as specified below, this warranty covers all defects in material and workmanship in this product. The following are not covered by the warranty:

Damage resulting from:

1. Accident, misuse, abuse, or neglect.
2. Failure to follow instructions contained in this Guide.
3. Repair or attempted repair by anyone other than Remote Technologies Incorporated.
4. Failure to perform recommended periodic maintenance.
5. Causes other than product defects, including lack of skill, competence or experience of user.
6. Shipment of this product (claims must be made to the carrier).
7. Being altered or which the serial number has been defaced, modified or removed.

Contacting RTI

For news about the latest updates, new product information, and new accessories, please visit our web site at: *www.rticorp.com*
For general information, you can contact RTI at:

Remote Technologies Incorporated
5775 12th Avenue East, Suite 180
Shakopee, MN 55379
Tel. (952) 253-3100
Fax (952) 253-3131

Service & Support

If you are encountering any problems or have a question about your RTI product, please contact RTI Technical Support for assistance (see the Contacting RTI section of this guide for contact details).

RTI provides technical support by telephone or e-mail. For the highest quality service, please have the following information ready, or provide it in your fax or e-mail.

- Your Name
- Company Name
- Telephone Number
- E-mail Address
- Product model and serial number (if applicable)

If you are having a problem with hardware, please note the equipment in your system, a description of the problem, and any troubleshooting you have already tried.

If you are having a problem with software, please note what version you have installed, the operating system on your PC, a description of the problem, and any troubleshooting you have already tried. If you are calling about a software or programming question or problem, please be at your computer when you place your call. This will considerably speed up the troubleshooting process.

Please do not return products to RTI without return authorization.

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC rules and Industry Canada license-exempt RSS standard(s) Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received including interference that may cause undesired operation.

FC **CE** **N27917**

DECLARATION OF CONFORMITY (DOC)
The Declaration of Conformity for this product can be found on the RTI website at: www.rticorp.com/declaration

WK2
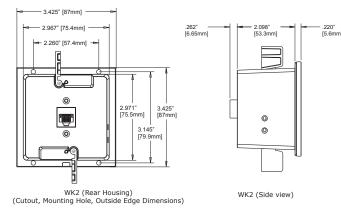### Water Resistant In-Wall Keypad

Quick Reference Guide

The WK2 Water Resistant In-Wall Controller has a clean, sleek design with an all glass exterior that is perfect in locations such as bathrooms. The solid state glass keypad utilizes capacitive touch for the fourteen programmable buttons. A bright OLED display provides two-way feedback for fast, intuitive control when used with an RTI XP series control processor.

Features
- Solid state glass keypad with capacitive touch is water resistant.
- OLED display provides intuitive two-way feedback.
- Sleek, low-profile, glass exterior design.
- Integrated 10/100Base-T Ethernet port with Power-over-Ethernet.
- Integrated mounting wings for easy installation in retrofit installs.
- A metal conduit box is also available (separately) for new construction.
- RTI control processors and accessories provide voltage sensing, relays and advanced two-way control.

WK2 DIMENSIONS

3.425" [87mm]
2.967" [75.4mm]
2.260" [57.4mm]
.262" [6.65mm]
2.098" [53.3mm]
.220" [5.6mm]
2.971" [75.5mm]
3.425" [87mm]
3.145" [79.9mm]

WK2 (Rear Housing)
(Cutout, Mounting Hole, Outside Edge Dimensions)

WK2 (Side view)

Cutout (WxH): 2.967" (75.4mm) x 3.145"(79.9mm)
Outside edge (WxH): 3.425"(87mm) x 3.425"(87mm)
Depth in-wall (including Ethernet jack): 2.36"(59.95mm)

POWERING THE WK2

The WK2 is powered using Power-Over-Ethernet (PoE).

***IMPORTANT NOTES*:**
- An 802.3af compliant Power-over-Ethernet router/switch (Class #2) must be used to avoid potential performance issues or damage to the unit.
- The WK2 CANNOT be powered from an external power supply, an RTI CB8 connecting block or an RTI control processor.

COMMUNICATION AND CONTROL

ETHERNET PORT

The WK2 Ethernet Port provides communication with a 10/100 Base-T Ethernet network (LAN) using a Power-over-Ethernet (PoE) router/switch for control via an RTI XP series control processor. The port is compatible with Cat-5 cable with an RJ-45 termination
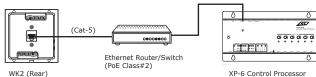
***IMPORTANT NOTES*:**
- The WK2 must be used with an RTI XP series control processor. It will not function as a standalone controller.
- There is a MAC address card included with the WK2, which will be used during the programming process to identify the unit.

ADDING THE WK2 TO THE ETHERNET NETWORK (LAN)

Wire the WK2 to the Ethernet network and the unit will power on. The network router will assign an IP address to the WK2 automatically and allow it to join the network.
- The WK2 is set to use DHCP by default.
- Network router must have DHCP enabled.

(Cat-5)

Ethernet Router/Switch
(PoE Class#2)

WK2 (Rear)

XP-6 Control Processor

CONFIGURING THE WK2 USING THE WEB INTERFACE

The WK2 web interface is accessible via a standard web browser and is used to set a static IP address and change the network "Host Name" of the unit.

***IMPORTANT NOTE*:**
- Setting a static IP address is NOT necessary and is generally discouraged. The WK2 will find the RTI control system automatically on the network so a static IP address is unnecessary.

If a static IP address must be used, visit the dealer section of rticorp.com, and go to the WK2 product support webpage for specific details on how to access the web interface and set the static IP address.

MOUNTING

MOUNTING HEIGHT

The recommended mounting height for the WK2 is between 54 inches (1.37m) and 60 inches (1.52m) from the bottom of the glass keypad.

REAR HOUSING INSTALLATION

Two mounting wings (included) may be used to secure the WK2 to drywall.

Alternate methods of mounting the rear housing include:
- A metal conduit box (sold separately) is available for new construction and installations that require a metal enclosure.
- Four screw holes located on the rear housing may also be used for mounting in situations where mounting wings are not possible (wood paneling, concrete etc). Visit the WK2 product support webpage for more information.
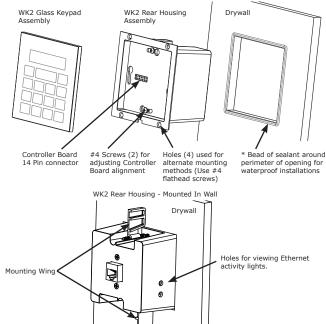
***IMPORTANT NOTES*:**
- Testing the WK2 power up and Ethernet activity MUST be done prior to applying the adhesive used to secure the unit during installation (see steps below). Once the adhesive is used, it will be very difficult to remove the WK2.

INSTALLATION USING MOUNTING WINGS:

1. Use the included cut-out template to mark and cut the opening in the wall.
2. ***Test WK2 power up and activity.*** Pull Ethernet cable though wall opening and plug it in to test the WK2 power up and activity. Activity LED lights are viewable through two rear housing holes (see diagram below).
3. Remove the glass keypad from the rear housing assembly by pulling apart gently - DO NOT twist or tilt the glass keypad side to side during removal.
4. Install the mounting wings on to the rear housing. Place a mounting wing on the rear housing in the appropriate orientation (see diagram), aligned with the screw hole, insert the screw and tighten until the screw protrudes from mounting wing slightly. Repeat for mounting wing on opposite side.
5. ***For waterproof installations (optional):*** Test fit rear housing assembly in wall opening and remove. Seal along the edge of the wall opening with a bead of silicone or paintable latex sealant. (* See diagram below)
6. Place rear housing assembly (glass keypad removed) in the wall opening and align, then tighten the mounting wing screws until snug - DO NOT over-tighten.

WK2 Rear Housing Installation - Front view

WK2 Glass Keypad Assembly

WK2 Rear Housing Assembly

Drywall

Controller Board 14 Pin connector

#4 Screws (2) for adjusting Controller Board alignment

Holes (4) used for alternate mounting methods (Use #4 flathead screws)

* Bead of sealant around perimeter of opening for waterproof installations

WK2 Rear Housing - Mounted In Wall

Drywall

Mounting Wing

Holes for viewing Ethernet activity lights.

GLASS KEYPAD INSTALLATION

Once the WK2 rear housing assembly is mounted in the wall, the glass keypad is installed. Follow steps closely for installations where moisture may be present.
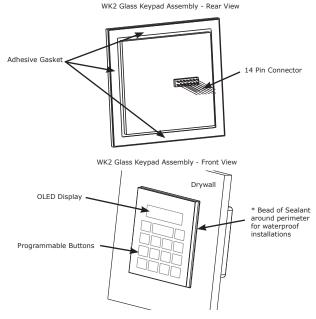
***IMPORTANT NOTES*:**
- The glass keypad to rear housing alignment MUST be done prior to applying the adhesive that is used to secure the unit during final installation (see steps below). Once the adhesive is used, it will be very difficult to adjust the WK2.

INSTALLATION STEPS:

1. ***Inspect glass keypad to rear housing alignment.*** Install the glass keypad on to the rear housing assembly by carefully aligning and inserting the 14 pins into the connector located on the controller board. All sides of the glass keypad should be equal distance from the rear housing edges. If the sides are not aligned, remove the glass keypad and adjust the two #4 screws anchoring the controller board to the rear housing (see rear housing installation diagram). Re-install glass keypad, re-inspect and repeat these steps until aligned properly.
2. Remove adhesive gasket release liner, located on the backside of glass keypad along the outside edge.
3. Carefully align pins on backside of glass keypad with controller board connector, level and center glass keypad then press into place until flush with rear housing.
4. Press the outside edge of the glass keypad until the adhesive gasket seats to the rear housing lip.
5. ***For waterproof installations (optional):*** After the glass keypad is installed, apply a bead of sealant around the outside perimeter of the glass keypad. (* See diagram below)

WK2 Glass Keypad Installation

WK2 Glass Keypad Assembly - Rear View

Adhesive Gasket

14 Pin Connector

WK2 Glass Keypad Assembly - Front View

Drywall

OLED Display

Programmable Buttons

* Bead of Sealant around perimeter for waterproof installations

PROGRAMMING THE WK2

The WK2 is programmed using the RTI Integration Designer Programming Software. The WK2 system file will be downloaded to the unit via the XP processor - no direct download to the WK2 is required.

UPDATING FIRMWARE

The WK2 firmware is not user-upgradeable.