

IEX-IR

Intelligent Ethernet Expansion – Infrared

Reference Guide

Extending control to where you need it. The RTI-IEX-IR provides easy control to any remote location in the installation. With just a simple network cable connection it can give full IR output through an attached emitter to exactly where it's needed while utilizing the control processor's powerful customized program and communication via the network.

Key Features

- Localized control for IR exactly where it's needed
- Four independent adjustable IR signal outputs
- Compact size for easy mounting
- Built-in display for diagnostics
- Easy configuration in Integration Designer
- Web page setup

Product Contents

- RTI-IEX-IR device
- Power Supply Kit (5V, 2A)
- 4x IR emitters
- Rack mounts and screws
- DIN rail mount
- Small screwdriver for IR adjustment

Overview

Product Overview

FRONT PANEL



Pwr

- Power indicator

Link

- Shows connection to the Ethernet cabling and blinks to indicate communication

Port Status

- Each status LED blinks when IR is outputted from the relevant port

Info (screens controlled by pressing "Control" button)

- Screen 1



- MAC address (shown without colons)
- Current IP address

- Screen 2



- DHCP/Static status
- Current IP address

- Screen 3



- Infrared status

- Screen 4



- Running time since power on
- Firmware version

Control

- Steps through the screens on the info display

Reset

- Short press – reboots the device

- Four second (but less than ten) press – resets the network to DHCP
- Ten second (or more) press – restores the device to factory default settings

IR Output Level

- Each adjustment screw independently sets the output level of the IR signal

Program

- USB-C connection for the download of firmware updates although the more common and easier method is to do it via the network through Integration Designer

REAR PANEL



Power

- Use the supplied 12V 2A power supply and make sure the barrel connector is screwed completely into the connector

Output Ports

- Each port accepts a 3.5mm mono cable
- Supplied IR emitters or VIRSAMOUSE for best operation

LAN

- RJ45 connector suitable for 10/100/1000 Base-T

Module Expansion

- Planned future additional module feature support

Installation & Operation

MOUNTING

The IEX-IR can be located on a secure, flat surface or mounted horizontally or vertically using the mounting holes on the bottom of the enclosure together with the mounting plates (if needed). Screws are provided in the box and recommended to ensure no damage to the electronics from using incorrect length screws. It is also compatible with the VESA mount standard, and the WattBox enclosure.

For DIN rail mounting options, use the provided converter that attaches to the base of the IEX-IR.

POWERING THE IEX-IR

- Ethernet Port (Power over Ethernet): Connect a Cat-5/6 cable to a PoE compatible router/switch or a PoE injector.
- AC Adapter: Connect the included power supply (12VDC/2Amp) to the power jack on the IEX-IR making sure to screw the plug all the way into the socket on the IEX-IR for an accurate connection.

USB PORT - UPDATING FIRMWARE

The IEX-IR firmware is updated via the integrated USB port using a USB-A to USB-C cable (included). Check the RTI website to see if there is new firmware for the IEX-IR at:

[Firmware | Custom Automation | Remote Technologies, Inc.](#)

Firmware updates can be done either through Integration Designer or through the web page.

ETHERNET NETWORK CONNECTION

The IEX-IR Ethernet port provides communication with a 10/100/1000 Base-T Ethernet network (LAN) for control via an RTI XP series or KX3 or KX4 control processor. The port is compatible with Cat-5/6 cable with an RJ-45 termination (568B). The LINK light located on the front of the IEX-IR will be lit when connected to the LAN and flashes when there is network activity.

- 1) Connect to the Ethernet network - Connect a Cat-5/6 cable to the Ethernet network (LAN) and the IEX-IR will receive an IP address from the network router via DHCP.
- 2) Find the MAC address of the IEX-IR – press the Control button until it is shown on the screen (note that it will be in a simplified format without “.”).
- 3) In Integration Designer, click on the XP processor and add the IEX-IR as an expansion device.
- 4) Enter the MAC address of the IEX-IR into the configuration fields. This will allow the RTI system to locate the IEX-IR on the network.

NOTE:

- Setting a static IP address is unnecessary and not recommended. However, you can change IP address settings in *Integration Designer* and download this information into the IEX-IR via the USB port.
- If a static IP address is set and accidentally forgotten, a long press of the Control button will reset the unit back to the default DHCP again.

PROGRAMMING THE IEX-IR

The system configuration that is created in Integration Designer 11.15 or higher is downloaded into the IEX-IR across the Ethernet network automatically. No direct programming of the IEX-IR is required unless the IP address configuration is adjusted (see NOTE above).

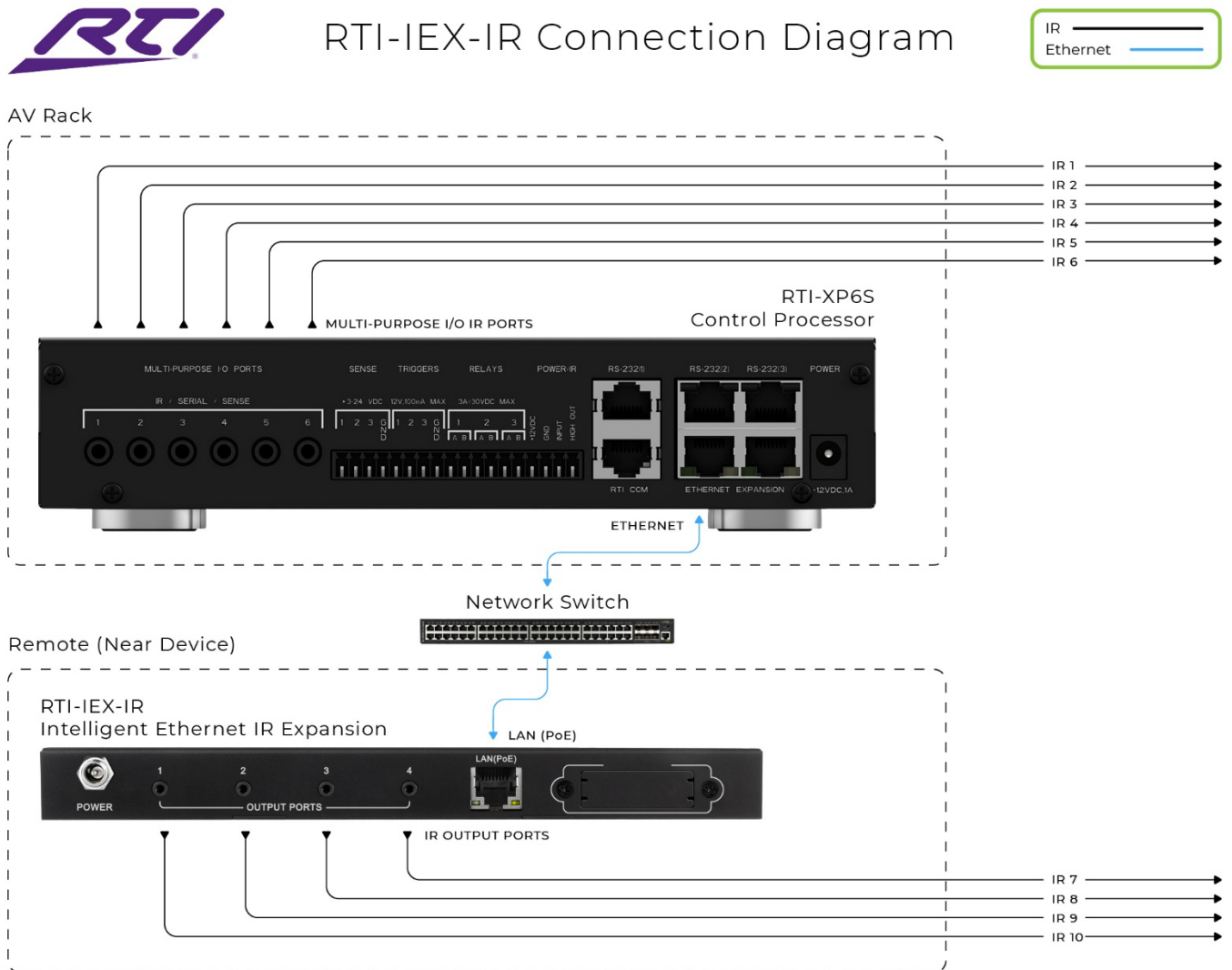
ADJUSTING IR OUTPUT GAIN

The IR output gain can be separately adjusted for each of the four output ports. If adjustment is needed,



rotate the IR output controls on the front of the IEX-IR using the included clockwise for higher output power, or counterclockwise for lower output power. This may be required if the device being controlled is sensitive to the power of IR emitters.

EXAMPLE CONNECTION DIAGRAM



Web Page Information

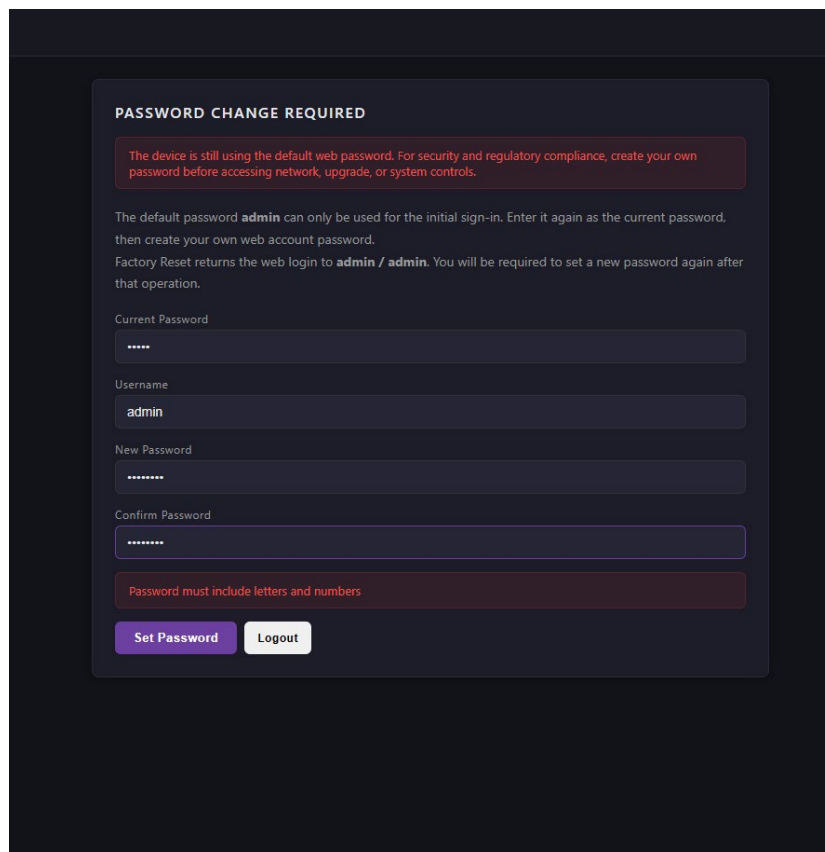
All these screens are accessed by typing in the IP address of the IEX-IR into a browser.

PASSWORD SCREEN

First login credentials are:

- Username: admin
- Password: admin

After this, user must create a new username and password.
Password must be at least 8 characters

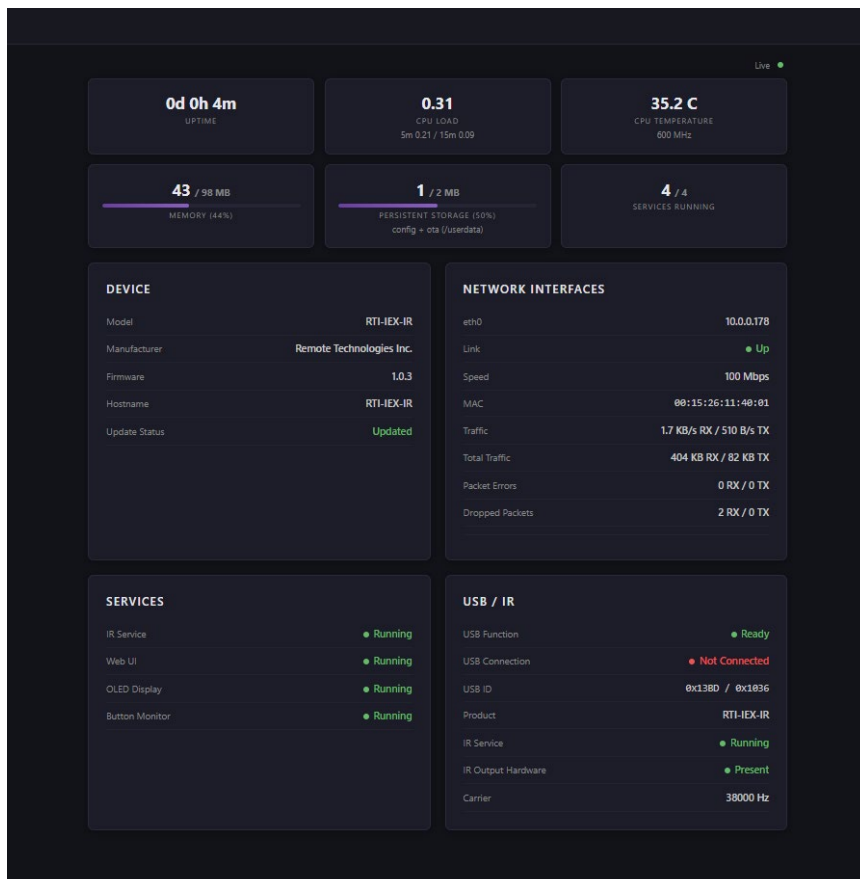


The screenshot shows a web interface for changing a password. At the top, a red banner reads "PASSWORD CHANGE REQUIRED". Below this, a message states: "The device is still using the default web password. For security and regulatory compliance, create your own password before accessing network, upgrade, or system controls." The interface includes four input fields: "Current Password" (with a hint "*****"), "Username" (with the value "admin"), "New Password" (with a hint "*****"), and "Confirm Password" (with a hint "*****"). A red error message below the fields states "Password must include letters and numbers". At the bottom, there are two buttons: "Set Password" (in red) and "Logout" (in grey).

DEVICE INFORMATION SCREEN

Use this screen as a general informational display of status for the IEX-IR.
The data covers useful information on:

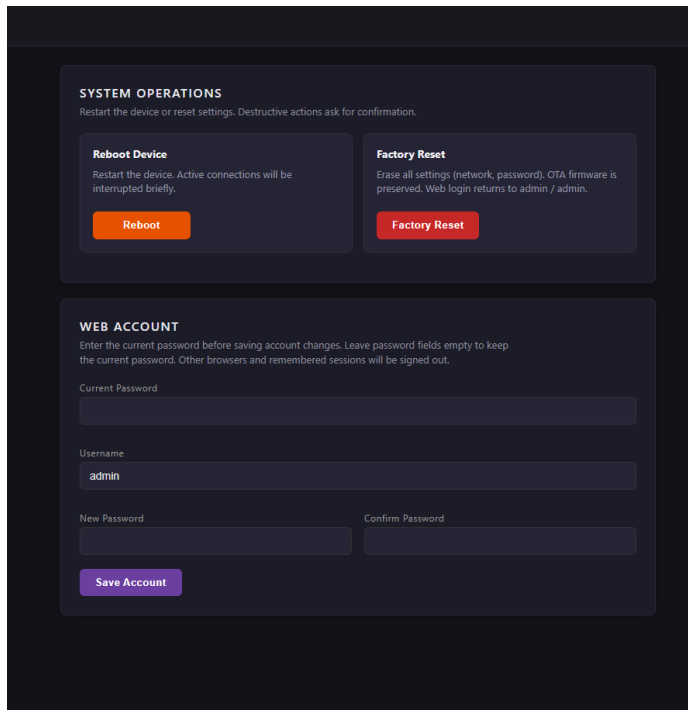
- Status
 - Uptime
 - CPU load (including historical info)
 - CPU temperature
 - Memory usage
 - Services
- Device
 - Basic information
 - Current firmware version
- Network Interfaces
 - IP address (also shown on IEX-IR display)
 - MAC address (also shown on IEX-IR display)
 - Traffic data
- Services
 - Running status
- USB / IR
 - Operating status



SYSTEM OPERATIONS SCREEN

This screen gives access to some features only necessary if the system has major problems.

- Reboot
 - This will help fix any minor issues and restarts the device restoring all features back to programmed state
- Factory Reset
 - Should only be used in extreme circumstances as it will revert to the initial firmware and erase any programming

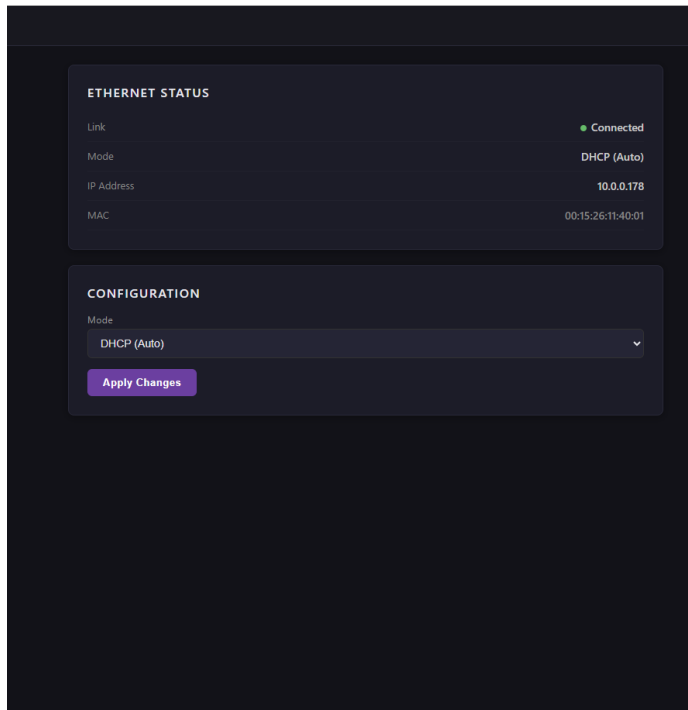


The screenshot shows a web interface with a dark theme. At the top, there's a header "SYSTEM OPERATIONS" with a subtitle "Restart the device or reset settings. Destructive actions ask for confirmation." Below this, there are two main sections. The first section, "Reboot Device", contains the text "Restart the device. Active connections will be interrupted briefly." and a red "Reboot" button. The second section, "Factory Reset", contains the text "Erase all settings (network, password), OTA firmware is preserved. Web login returns to admin / admin." and a red "Factory Reset" button. Below these sections is a "WEB ACCOUNT" section with the subtitle "Enter the current password before saving account changes. Leave password fields empty to keep the current password. Other browsers and remembered sessions will be signed out." It includes input fields for "Current Password", "Username" (pre-filled with "admin"), "New Password", and "Confirm Password", followed by a red "Save Account" button.

ETHERNET SCREEN

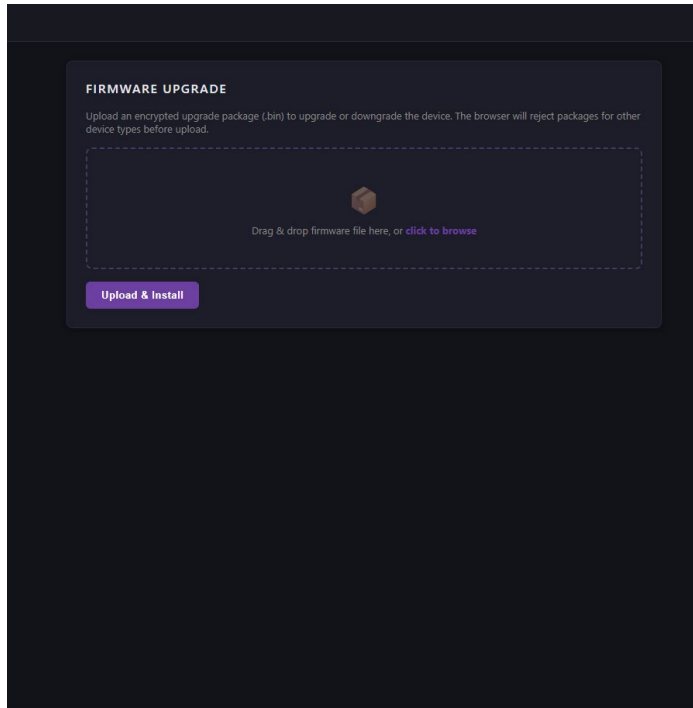
This screen gives access to some features only necessary if the system has major problems.

- Status
 - Link – identifies status of the connection
 - Mode – DHCP / Static
 - IP Address
 - MAC
- Configuration
 - Mode – allows to change from DHCP to Static IP



FIRMWARE UPGRADE SCREEN

This will give an option to upgrade the firmware version, although it is recommended to use Integration Designer which will give an added benefit of informing when it needs upgrading as a new version is released.



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.

Accessories

Only use attachments/accessories specified by the manufacturer.

Heat

Keep the unit away from heat sources such as radiators, heat registers, stoves, etc., including amplifiers that produce heat.

Power

Unplug this apparatus during lightning storms or when unused for long periods of time.

Power Sources

Connect the unit only to a power source of the type described in the operating instructions, or as marked on the unit.

Power Sources

Connect the unit only to a power supply of the type described in the operating instructions, or as marked on the unit.

Power Cord Protection

Route power supply cords so that they are not likely to be walked on or pinched by items placed on or against them, paying particular attention to the cord plugs at power receptacles and at the point at which they exit from the unit.

Water and Moisture

Do not use the unit near water—for example, near a sink, in a wet basement, near a swimming pool, near an open window, etc.

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 power supply cord or the plug has been damaged.
- Objects have fallen or liquid has been spilled into the unit.
- The unit has been exposed to rain.
- 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.

Cleaning

To clean this product, lightly dampen a lint-free cloth with plain water or a mild detergent and wipe the outer surfaces. **NOTE:** Do not use harsh chemicals as damage to the unit may occur.

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. 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.

Industry Canada Compliance Statement

This device complies with 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.

Cet appareil est conforme avec Industrie Canada exempts de licence standard RSS (s). Son fonctionnement est soumis aux deux conditions suivantes:

1. Ce dispositif ne peut causer des interférences nuisibles.
2. Cet appareil doit accepter toute interférence reçue y compris des interférences qui peuvent provoquer un fonctionnement indésirable.



Declaration of Conformity (DoC)

The Declaration of Conformity for this product can be found on the RTI website at:
www.rticontrol.com/declaration-of-conformity

Contacting RTI, an AVPro Brand

For news about the latest updates, new product information, and new accessories, please visit our web site at: www.rticontrol.com

For general information, you can contact RTI at:

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RTISupport@avproglobal.com

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).

AVPro provides technical support by telephone or e-mail. For the highest quality service, please have the following information ready:

- 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.

Please do not return products to AVPro without return authorization.

Limited Warranty

AVPro Global Holdings, LLC warrants new products for a period of three (3) years (excluding consumables such as rechargeable batteries which are warranted for one (1) year) from the date of purchase by the original purchaser (end user) directly from AVPro Global Holdings, LLC (herein referred to as “AVPro”), or an authorized AVPro dealer.

Warranty claims may be initiated by an authorized AVPro dealer using the original dated sales receipt or other proof of warranty coverage. In the absence of the receipt of purchase from the original dealer, AVPro will provide warranty coverage extension of six (6) months from the date code of the product. Note: AVPro warranty is limited to the provisions set forth in this policy and does not preclude any other warranties offered by third parties who are solely responsible for those other warranties.

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

- Product purchased via unauthorized sellers or internet sites will not be serviced- regardless of purchase date.
- Damages caused by accident, misuse, abuse, neglect or acts of God.
- Cosmetic damage, including, but not limited to, scratches, dents and normal wear and tear.
- Failure to follow instructions contained in the Product Installation Guide.

- Damages due to products used in an application or environment other than that for which it was intended, improper installation procedures or adverse environmental factors such as incorrect line voltages, improper wiring, or insufficient ventilation.
- Repair or attempted repair by anyone other than AVPro or authorized service partners.
- Failure to perform recommended periodic maintenance.
- Causes other than product defects, including lack of skill, competence or experience of user.
- Damage due to shipment of this product (claims must be made to the carrier).
- Altered unit or altered serial number: defaced, modified or removed.

AVPro is also not liable for:

- Damages caused by its products or for failure of its products to perform, including any labor costs, lost profits, lost savings, incidental damages, or consequential damages.
- Damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation, commercial loss, any claim made by a third party or made on behalf of a third party.
- Loss of, or damage to, data, computer systems or computer programs.

AVPro's liability for any defective product is limited to repair or replacement of the product, at the sole discretion of AVPro. In cases where the warranty policy conflicts with local laws, the local laws will be adopted.

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