IRONCLAD Information Sheet

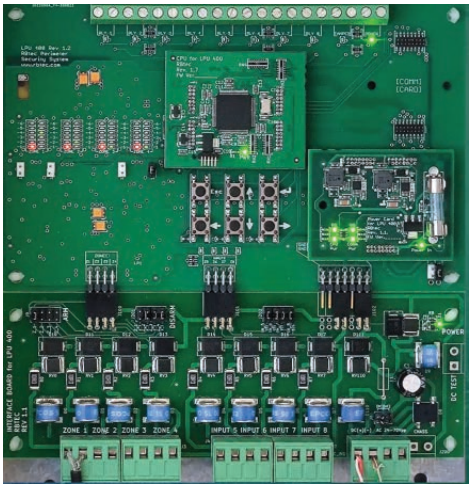
This should not be used as an instruction manual, it is a general guide for design. Installation manuals come with each kit.

The foundations of each IRONCLAD sensor kit are the following components:

- **The Processor**: Also referred to as the LPU or Local Processing Unit, along with a weatherproof case.
- **The Sensor Cable**: Can be obtained pre-cut in various lengths (75m, 150m and 300m) or trimmed to the needed length.
- **The End-of-Line Termination Unit**: A small box device signalling to the processor that the zone is ended.

Note: Coaxial cables do not come with the kits, but they are essential to many IRONCLAD sensor setups and enable flexible processor placement and gate applications.

Processor - LPU 400



The LPU is a local processor unit in a weatherproof enclosure.

Each LPU can be connected to up to 4 IRONCLAD sensor cables and monitor them as 4 separate zones.

The LPU features 8 dry contact relay outputs for simple integration and requires 12 - 48 V DC @ 200mA.

Sensor Cable (IRONCLAD)



The IRONCLAD sensor line cable is secured directly to the fence using stainless steel cable ties.

The fully passive sensor offers multiple sensitivity ranges, allowing it to be tailored to any specific application.

Each zone begins at the electronic processor (LPU) and ends at the termination unit (MCTR).

Call our Expert Sales Team for more information.

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Termination Unit (MCTR)



The end-of-line termination unit is installed at the end of each cable, defining the end of the zone. There is no need to return the sensor cable to the LPU.

Each zone begins at the electronic processor (LPU) and ends at the termination unit (MCTR).



Power Supply & Relay Outputs

The IRONCLAD processor requires 12-24 DC @ 0.5 Amp. Plan the power/relay cable route from the IRONCLAD processor(s) to the alarm panel.

There are 3 ways you can connect power/relay of the IRONCLAD processor on the fence with the alarm system.

A cable with 6-8 wires. The cable will carry the 2xDC pwer, 2x2 wired alarm relay outputs and 2x2 power/tamper indication.

If running a cable to the alarm panel isn't possible, you can use a wireless relay transmitter instead. Just ensure that DC power is available near the IRONCLAD/MICALERT processor.

For complete standalone setup, a wireless + solar power option is possible.

Accessories Available From First Fence

Swing Gate Kit: For Single & Double Gates. Non-sensitive cable for under the gate, plus two RB-RBMCTXT connection boxes.

Sliding Gate Kit: 10m non-sensitive cord reel, waterproof enclosure and x2 junction boxes.

Stainless Steel Twist Ties: One pack is needed for every 150 m (500 ft) of sensor cable.

Additional Accessories You May Need

Power Supply - 12-24vDC 1 Amp per processor.
Lead Wire - 6-8 wires between each processor and the alarm system. The amount of cable needed is the distance between the fence processor and the alarm system panel

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Protecting Different Types of Gates



Sliding Gates – For sliding gates, we offer a sliding gate kit that includes a spring-loaded roller. This roller is mounted next to the gate and extends or retracts a non-sensitive cable to bridge the gap between the moving gate and the fixed fence.



Swing Gates - For swing gates, no special equipment is needed because the sensor cable is flexible.

As per the illustration (left), run the cable from the fence, over the gate, and then loop it back to the fence.

To bypass the gate, splice the sensor cable to RG6 inside a conduit, then splice it back to the sensor cable on the other side using an RB-RBMCTXT box.

The dotted line shows the non-sensitive spliced cable (underground).

Technical Specifications

Operating Power Requirements
12-24VDC 300mA @ 12VDC

Lightning Protection
2 Layer Surge Protection
Gas discharge devices are on all inputs/outputs and communication lines

Alarm Inputs
2/4 IRONCLAD sensor cable inputs
4 Intrusion and Line monitoring for accessories like magnets, contact, microwaves and motion detectors
1 Tamper Switch

Zone Status & Sensitivity Levels
8x Arm/Disarm via Jumper
Twenty-two levels of sensitivity per zone on board
500 levels of sensitivity via software
1 Power Outage Relay

Communication to PC
USB-C Input
Optional RS485 or IP

Alarm Outputs
8x Dry contact relays with contacts rated 1A @ 12VDC.
1x Tamper switch relay
1x Power Outage relay.

Connector
Sensor Input – 8x Screw terminal – Pair per zone.
Alarm Output – 8x Screw terminal – Pair per zone

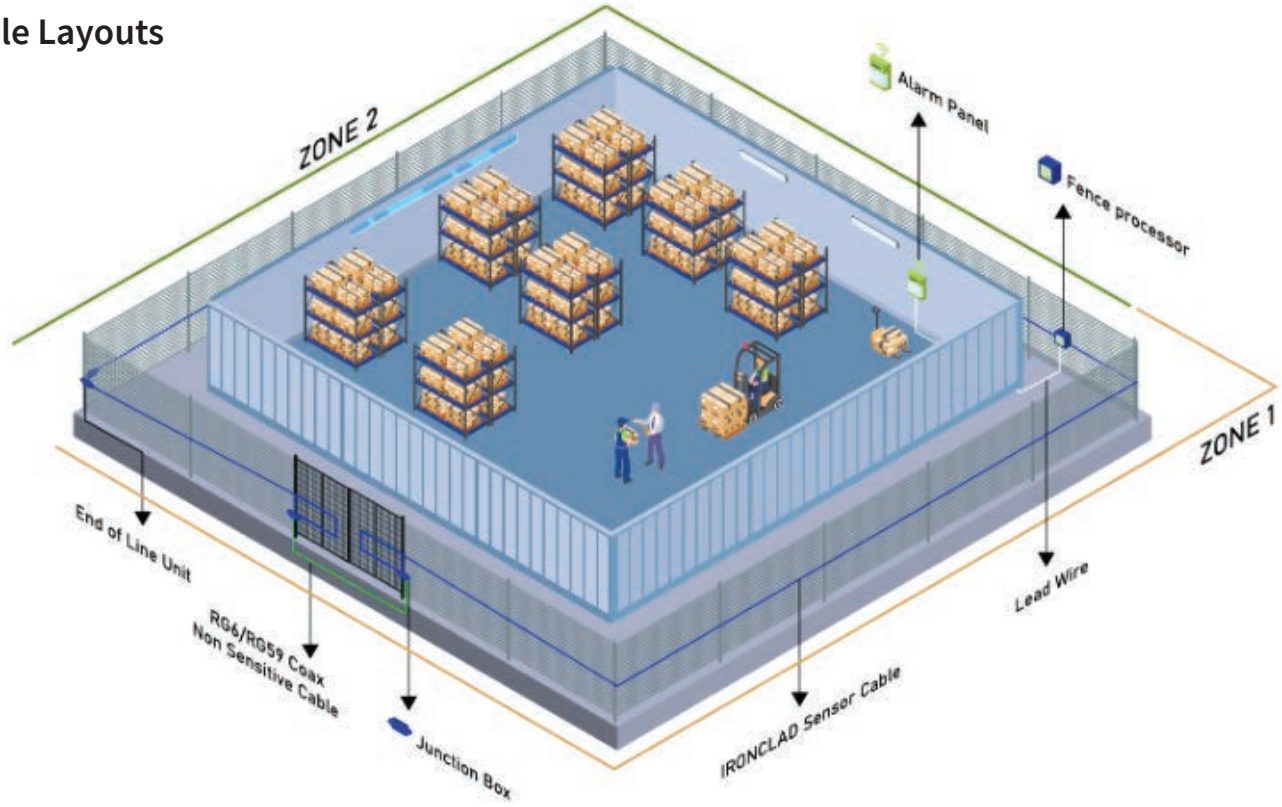
Cable
Outer Diameter – 1/4 Inch (6mm).
Color: Metallic Silver

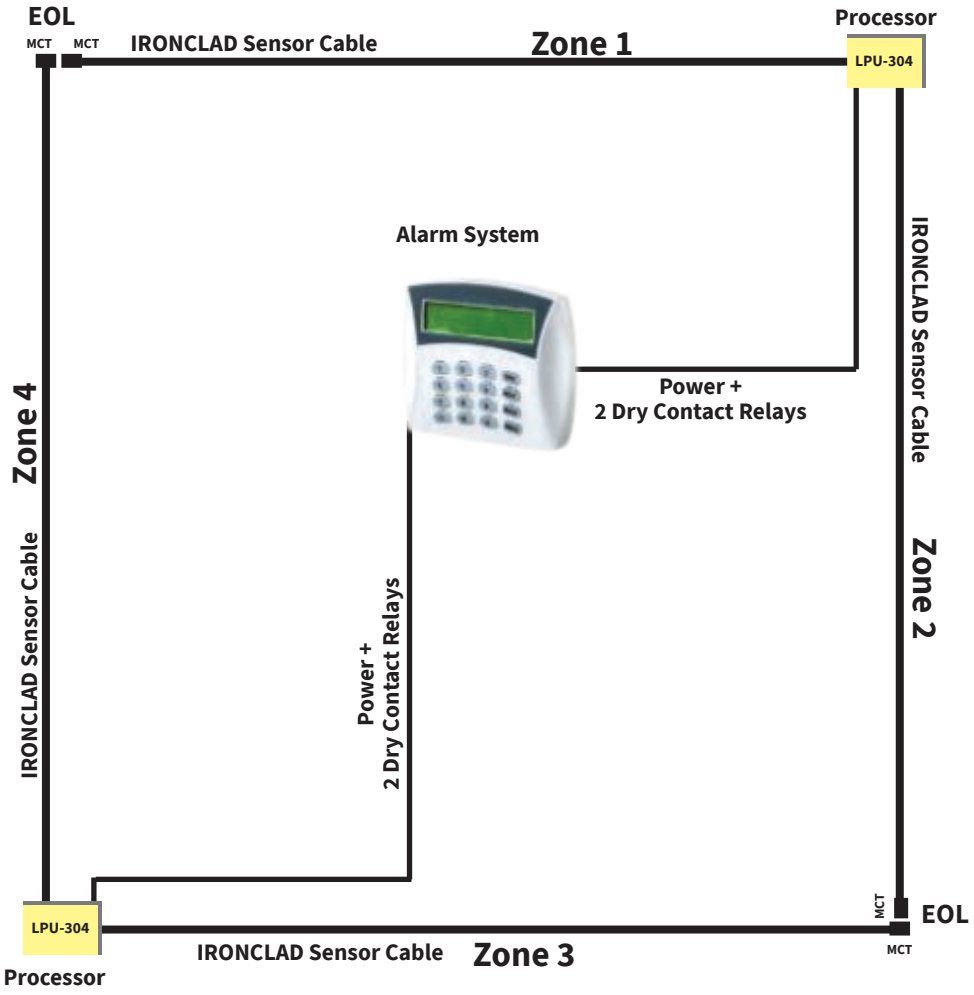
Enclosure
NEMA 4X, IP-66
9.5 x 7.5 x 2.75” (24 x 19.5 x 7.0cm)
Weight: 2.2 lbs. (1Kg)

Environment
Operating Temperature: – 40° to 221°F (-40° to 105°C)
Relative Humidity up to 98% non-condensing.

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Example Layouts





RBtec Perimeter Intrusion Detection System - SKUs

Single zone IRONCLAD kit 75m
Dual zone IRONCLAD kit 2 x75m (150m total)
Single zone IRONCLAD kit 150m
Dual zone IRONCLAD kit 2X150m (300m long)
Single zone IRONCLAD kit 300m
Dual zone IRONCLAD kit 2X300m (600m long)
Roll of 75m IRONCLAD
Roll of 150m IRONCLAD
RB-IROC300
LPU 402 Kit
LPU 404 Kit
End-of-line termination Unit
Connection Box
LPU 402
Local Analyzer Unit (Four Zone)
2 Zone Main Board
4 Zone Main Board
CPU Board
Power Management Board
Configuration + Tamper Board
Interfence Board for LPU404
Enclosure for LPU-400 Processing Unit
Stainless-steel ties
Gate connector - Plug Connector for swing gates
Sliding gate IRONCLAD Kit
Single swing gate kit
Double swing gate kit