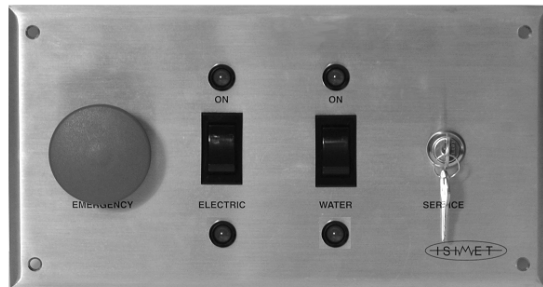


ISIMET

LA Series

**Utility Controller - Limited Application
Dual or Single Output Circuit Ver 4.4 pcb**



Application:

The LA Series Controller operates as a single or dual output controller where the application does not require the positive remote enabling authority or monitoring capabilities typically anticipated when specifying our Standard Utility Controller.

This unit is ideally suited for the classroom where the instructor's desk is the only workstation having utilities present or where restricted operation of a single utility, such as natural gas, is required.

Additionally, the LA Series integrates easily into the Utility Controller system, thus permitting a single source workstation to be controlled by one of the auxiliary output circuits at the controller.

Features:

Panic Button: Disengages the system-requiring key activation to re-engage.

Key Switch: Activates the system each time a circuit is to be engaged.

Control Switch: Activates a circuit with key activation or deactivates to OFF.

Panel Mounted LED: Indicates that System is Active.

Mounting Variations:

Casework: Wall Box is provided with flange to permit mounting from the outer casework surface.

Flush Wall Mount: Wall Box is provided with a wall mounting flange and hardware.

Remote Input: Ver 4.3 and greater only

The LA Series will accept two 24-vac input signal from a remote/integrated operating system permitting that system to deactivate the unit based on time sequencing or alarm notification.

LS-Line Of Sight: The RF Module can be integrated into the operating function of the 4.3 and later version pcb.

May, 2007

ISIMET LA Series Utility Controller

Installation, Maintenance, Operations, and Startup Instructions

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Patent 6,757,589 B1

Other Patents Pending

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Although the material contained herein has been carefully reviewed, **ISIMET, LLC** does not warrant it to be free of errors or omissions. **ISIMET** reserves the right to make corrections, updates, revisions, or changes to the information contained herein.

Warranty:

***ISIMET* will repair or replace any defective parts or workmanship of this product for a period of one year from date of installation. The P.C. Board has a two year limited warranty. Damage caused by incorrect installation or improper usage is not warranted. Failure to follow recommended installation, operation, and/or maintenance procedures listed in this manual may void product warranty. Recovery rights shall be limited to the total sum of the amounts paid for the product by the purchaser.**

EXTENDED WARRANTY:

***ISIMET* will extend the warranty of this product to a period of two years from date of installation when installation complies with all start up and routine maintenance procedures. Refer to Extended Warranty Policy.**

Limits of Liability:

***ISIMET's* liability shall be limited to costs of repair or replacement parts. The Laboratory Service Panel and Utility Controller are not intended for usage other than those expressly described in this manual. *ISIMET* shall not be liable for damage or injury caused by the improper use of the product.**

***ISIMET* does not warrant against or assume liability for failure of operation or lack of notification to secondary integrated monitoring systems. The system should be thoroughly tested and adjustments made at time of initial operation. Periodic testing should be conducted by the user to assure that all components function and operate according to specifications.**

Care should be taken in the installation of this product. *ISIMET* shall not be liable for damage or injury caused from the improper installation of the product.

Warranty is Subject to Compliance with Specific Installation Requirements.

DISCLAIMER OF IMPLIED WARRANTY:

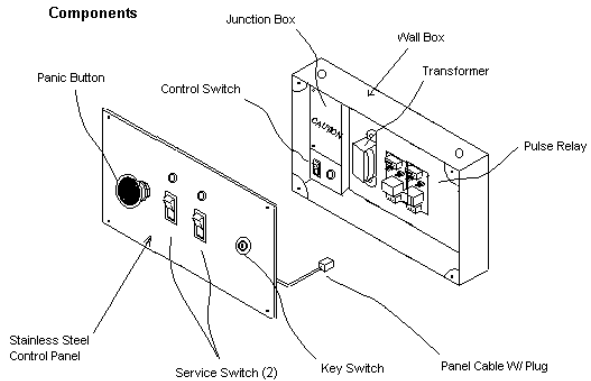
THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION HEREIN. SELLER DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OF THE GOODS OR OF THE FITNESS OF THE GOODS FOR ANY PURPOSE, AND BUYER AGREES THAT THE GOODS ARE SOLD "AS IS."

Printed in the United States of America.

Specifications:

Control Panel - Stainless Steel 16 gauge
 Wall Box – 16 gauge plated sheet metal

LA –1(1 or 2 Circuit) 6.0 X 11.875 X 4

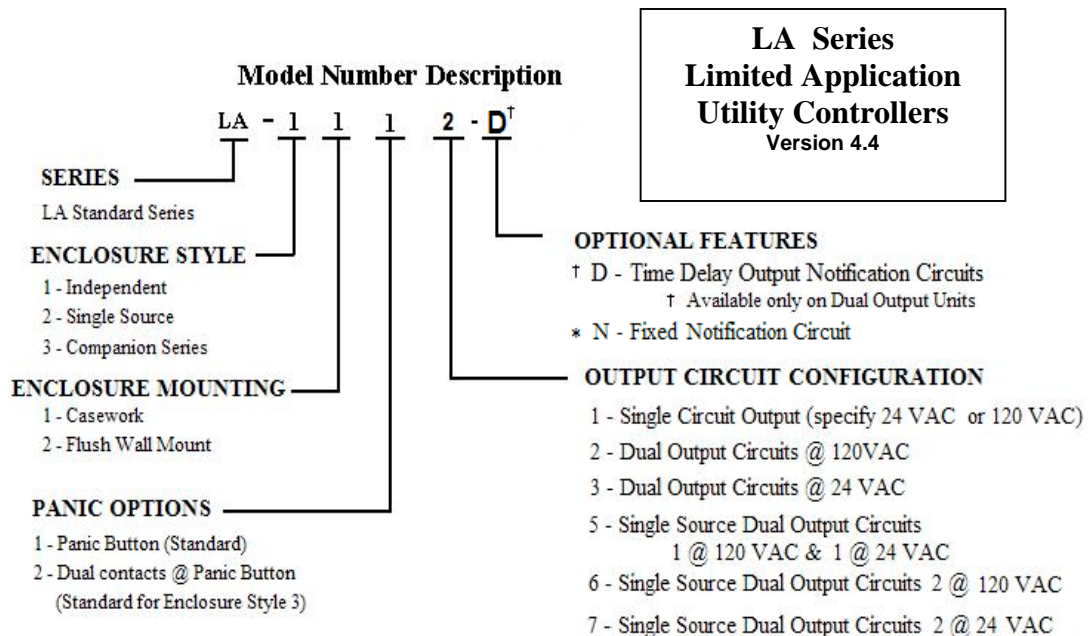


Styles:

Independent – Unit performs as either a single or dual circuit Controller of a Utility(s) with limit single isolated input remote enabling capability.

- All Standard Styles are provided with Panic Button Assembly.
- Transformer ratings are determined by actual application requirements.

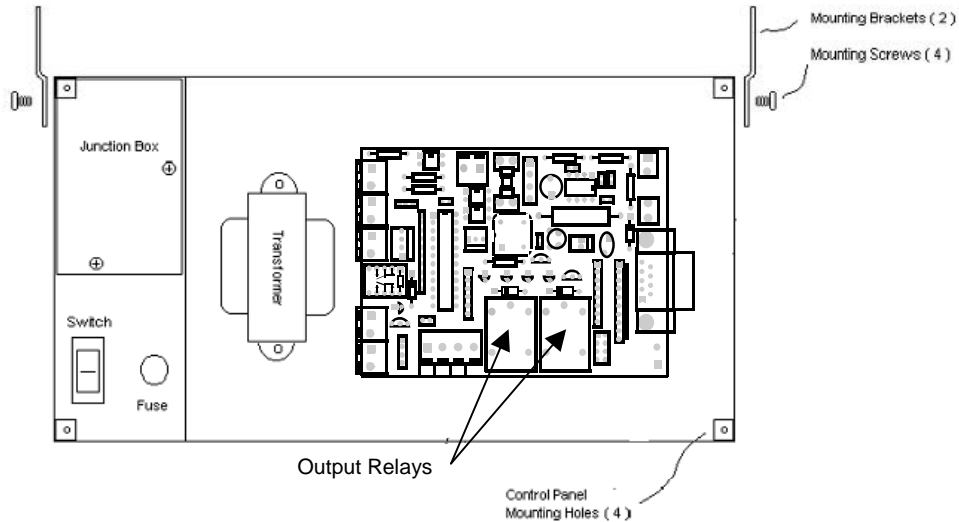
Styles	# Output Circuits	Fuse	Output Rating	Transformer	Relay Rating
LA – 1	2 @ 120 vac	15 amp	15 amp @ 120 vac Max.	1 amp @ 25 VCT	2 @ 7.5 amp @ 120 vac
LA – 1	1 @ 120 vac 1 @ 24 vac	15 amp	15 amp @ 120 vac	2 amp @ 25 VCT	1 @ 15 amp @ 120 vac 1 @ 1.5 amp @ 24 vac
LA – 1	2 @ 24 vac	5 amp	3 amp @ 24 vac	3 amp @ 25 VCT	2 @ 1.5 amp @ 24 vac



- Notification Output Circuits Standard on all Version 4.3 and later Dual Output Units
 Single Output Units require upgrade option.

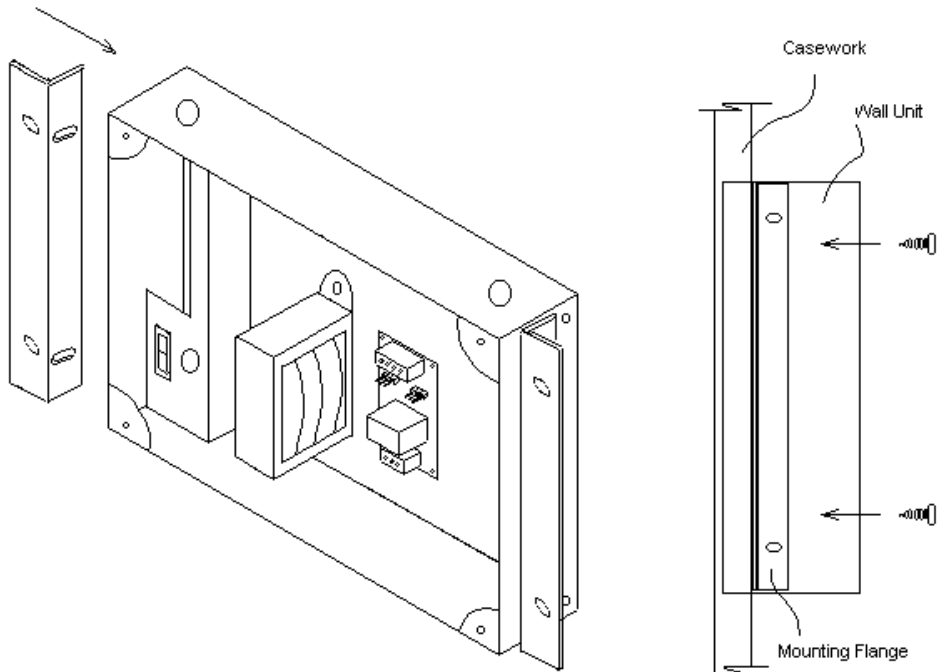
Remote Panic / "ems" / Alarm Input Terminals Standard on all Version 4.3 and later Units.

Only ISIMET Companion Enclosures & Fittings may be used with 24 VAC Output Configurations



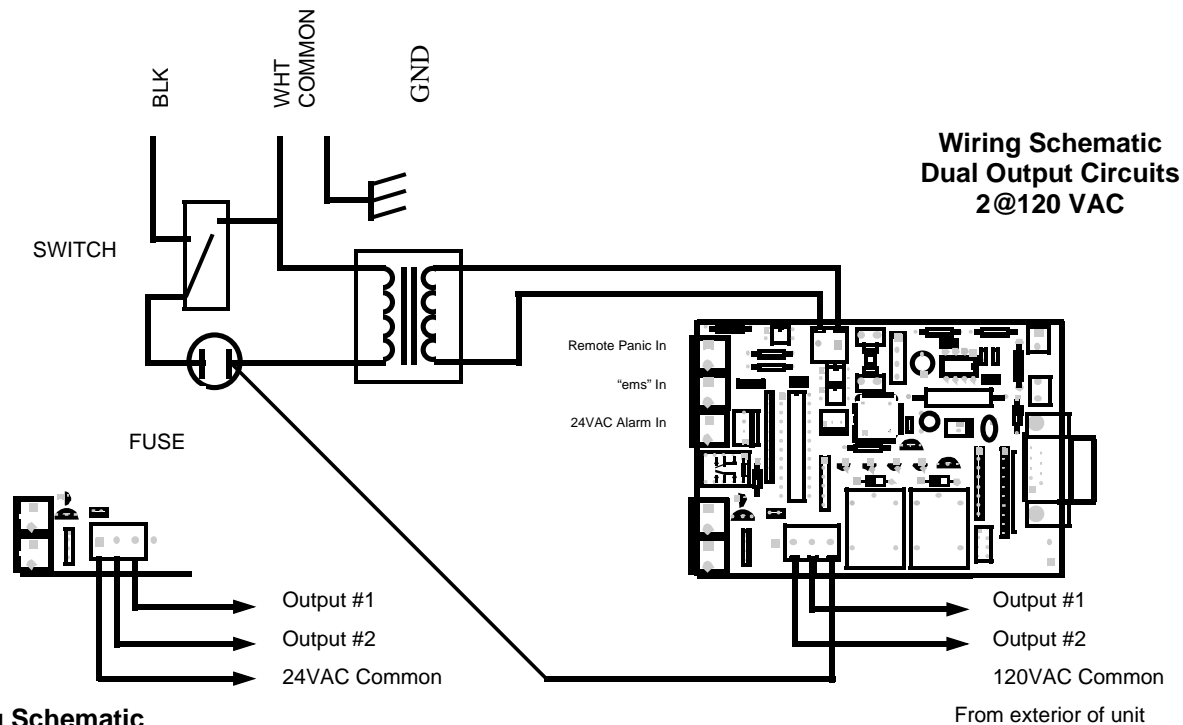
Mounting Instructions: Flush Wall Mount

Two mounting flanges with screws are provided with the unit. Attach flanges as shown above. Flanges can be affixed to any two corners of the unit. Then, fasten unit between two (2) wall studs. The face of the box should be even with the face of finished wall surface. After mounting unit, protect interior of box from construction debris.

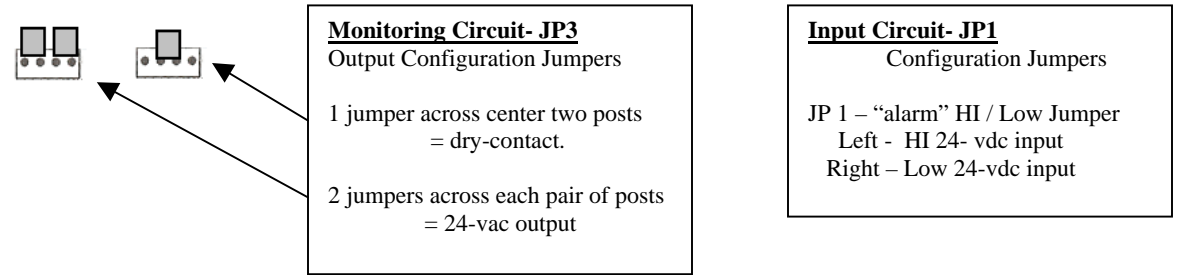


Mounting Instructions: Casework Mount

Two casework mounting flanges with screws are provided with unit. Holes are slotted to permit adjustments for variations in cabinet material thickness. Attach flanges as shown in figure above. Make cutout in desired location in casework to permit wall unit to pass easily into opening. From within the cabinet fit into opening and fasten unit to back of casework. Face of wall box should be even with face of cabinet. After mounting unit, protect interior of box from construction debris.



**Wiring Schematic
Dual Output Circuits
2@24 VAC**



Installing the Electrical Conduit

Knockout holes for connecting the electrical conduits are located at the top left and right of the Wall Box.

- Connect rigid conduit for the required 120 VAC electrical service.
- Connect conduit for the operating power to the upper left top of the enclosure at the junction box.
- Connect conduit for the operating power for the output to the upper right top of the enclosure.

Wiring the Unit

Important!

Verify that the electrical supply is disconnected prior to connecting wiring to the Utility Controller.

To wire the Controller:

1. Remove the junction box cover.
2. Make final connections to the 120 VAC electrical service to wiring within the junction box. Verify that line wiring (Black), neutral (White), and ground wire (Green) are correctly connected. Minimum recommended wire size is 14 AWG.
3. Replace the junction box cover before activating or testing the unit.

Dual Output Wiring Configurations:

Dual Output units are factory configured to permit two 120-VAC or two 24-VAC outputs. Single Output units do not utilize the second circuit. Refer to drawings on page 5 for specifics. Do not attempt to modify the unit to accept other than voltage outputs as specified for the unit. To replace a PC Board not configured correctly for a specific application, contact the factory or a local representative.

Connection of the Wall Panel Plug

The Version 4.3 and later PC Boards are equipped with a 9 pin d-sub connector which permits direct connection of the Wall Panel Plug onto the board.

Optional Input Control circuit:

“ems” Input: Either 24-vdc -vac active HI will disable the operation of the unit.

Alarm Input: Either 24-vac/vdc active HI or 24-vdc only active LOW. Refer to jumper configuration chart above. Make connection of this optional wiring at CON 4.

Optional Remote Panic Input Connection:

An optional input from an ISIMET Remote Panic Assembly can be connected to the PCB at CON 4-a.

Optional Panic Output Terminal:

A configurable Panic output is active at CON 5. See configuration chart and location of this connector on page 5. A second connector provides a dry-contact terminal as shown in figures on page 5.

Important!

All local electrical codes must be followed when connecting the conduit to the service panel and making wiring connections.

Do not install wiring or cable for integrated systems, remote panic assemblies or other interface wiring within conduit for either 24-vac control or 120-vac line voltage. Each wiring system including outputs should be housed in independent conduit and not bundled with wiring for other systems. Failure to comply with these wiring specifics may create transient voltage at the pc board and cause system malfunction and/or failure.

Installing the Wall Panel

- Remove protective cover from the Wall Box.
- Verify that Unit is wired with Junction box cover in place.
- Holding panel in front of box, insert plug onto circuit header on PCB.
- Turn Power **ON**. (Verify that switch illuminates.)
- Affix panel to box using four (4) 8-32 stainless screws provided with panel.

CAUTION! Do not install the panel until all wall finishes are complete.

Operation of the Unit:

Insert the key provided with the unit into the key switch on the wall panel. With either panel service switch ON, engage the key switch. That circuit will activate and the panel Green LED will illuminate to indicate that the service is active. After turning the switch OFF, it will be necessary to re-engage the key switch in order to reactivate the service.

Pressing the panic button will deactivate the service, requiring re-engagement of the key switch to again reactivate service. If the unit is provided with Red LED's then all lights should illuminate with Panic, and Red LED's with loss of “ems” with output circuit active.

We recommend that switches on the unit be left OFF when service is not required.

Equipment Maintenance

- ❑ The LA Series Controller should have semi-annual inspections.
- ❑ **ISIMET** recommends turning OFF the service switch when the unit is not intended for operation.
- ❑ **ISIMET** recommends that you periodically conduct a brief test of the system to verify that the output circuit performs as intended.
- ❑ If examination of the unit indicates tampering, **ISIMET** recommends that you first review the installation and wiring portions of this manual prior to placing the unit in service.
- ❑ **ISIMET** recommends that when solenoids are operated by the unit, the piping systems be thoroughly flushed and cleaned and tested for leaks prior to placing the system into use. Periodic testing of these solenoids will assure that the piping system continues to function properly.

If you have any questions regarding the operation and maintenance of the Utility Controller, please contact an **ISIMET** Service Representative.

The enclosure has a NEMA 1 rating. It is not intended for use in wet areas. Exercise caution to prevent exposure of the interior compartment of the enclosure to moisture. If moisture is present within the enclosure, **ISIMET** recommends that the control switch be turned OFF, power be disconnected from the unit until the source of the moisture is determined, and all moisture is removed from the compartment.

The electronic controller (PCB) is sensitive to dust and other air-borne particles. Do not expose the interior compartment of the enclosure to dust. During the semi-annual inspection, if duct or other material is present, **ISIMET** recommends that you remove all foreign matter before operating the unit.

If the Unit fails to operate, **ISIMET** recommends that you check the power supply to the unit. With the control switch in the ON position, it should be illuminated if power is on to the unit. If not, check the service breaker.

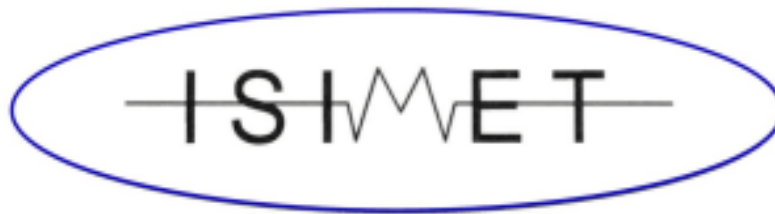
If the control switch is illuminated, check the fuse at fuse holder. If the fuse is not damaged and the unit still does not function, contact **ISIMET** or your local Service Representative.

If the unit still fails to operate, we recommend that you contact your local Service Representative.

CAUTION:

ISIMET DOES NOT recommend that service to emergency and/or safety devices, such as emergency showers and eyewashes, be controlled by the Utility Controller System or Solenoids. Such devices are intended to operate independent of restrictive authority operation, as is the case with the design of this unit. **ISIMET** makes available components for the monitoring of such safety devices. Please contact **ISIMET** regarding any questions regarding the type of application.

***ISIMET* believes that sole and local authority means that the primary operator or the instructors should have the sole authority to start and stop the utility services within the immediate area of use during normal usage. This should distinguish this type of operating environment from that where a single emergency shut-down device is located remotely from the areas of use. As an example, the *ISIMET* system is not specifically intended for use in applications where a master shut-down and re-instate device is located away from areas of normal use. *ISIMET's* opinion is that in such cases there is risk that the operator of the system during re-start may inadvertently activate utilities in an unoccupied area that is remote from the present occupancy, thus creating the risk of fire or where the utility is fuel gas.**



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