ISIMET **FLA Series**

Fire House Controller
Dual Output Circuit Ver 4.6 pcb

Installation, Operations, Start-up and Maintenance Instructions

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Application:
The FLA Series Controller operates as a dual output controller to operate fuel gas outlets as well as electrical devices located within the kitchen in a Fire Station. Input terminals equipped with a delay function will turn OFF all connected appliances when a notification signal is received for a fire or other emergency response.

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ISIMET FLA Series Utility Controller

Installation, Maintenance, Operations, and Startup Instructions

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Although the material contained herein has been carefully reviewed, **ISIMET** 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 Primary Operating 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.**

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.

Extended Warranty:
***ISIMET* will extend the warranty period of the products when installation complies with all start up procedures and that a factory authorized agent either performs or is in attendance during start-up of the system(s). Controllers, Companion and Accessory Panels will be extended to a period of five years from date of installation. Except for *ISIMET* FLA, DLA, RLA and other Units where automation systems are not common, Control System(s) must be interfaced with a building automation system or other *ISIMET* approved time sequencing control for "non-use" system shutdown. All operating components of the system must be *ISIMET* provided. Prescribed routine maintenance procedures must be performed per *ISIMET* recommendations.**

All Start-up and Routine Maintenance Documentation shall be per Factory Recommendation.
Further, required start-up and maintenance procedures must be performed as directed upon all affected systems. This warranty shall only become enforceable upon issuance of application specific Extended Warranty Document. A copy of this document should be maintained at all times at the location of the warranted systems.

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."

NOTE: Only qualified craftsmen licensed within the governing jurisdiction to perform the work associated with this installation should install and/or service this equipment.

Printed in the United States

Specifications:

Control Panel - Stainless Steel 16 gauge
9.875 X 16
9.875 X 18 * where 12 vdc output is provided

Wall Box – 16 gauge powder coated sheet metal
6.0 X 12.25 X 4.0
6.0 X 14.25 X4.0 * where 12 vdc output is provided
* all dimensions are in inches

Output Reset Switch: (Where Provided)
Reset Switches are specifically rated to accommodate output load requirements.

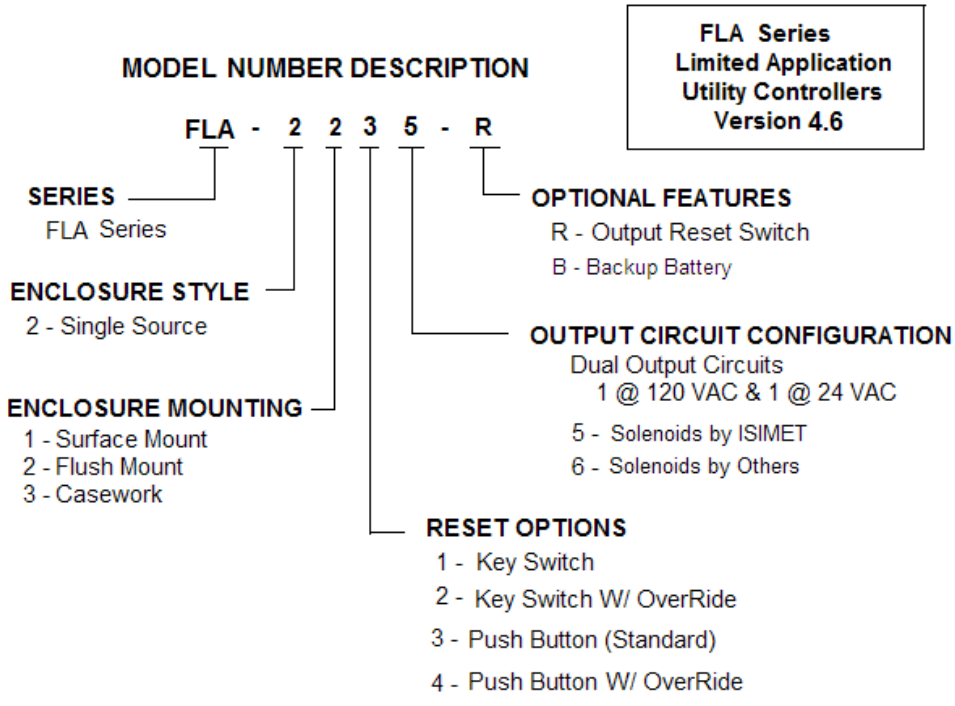
Style: Units are intended for use as a Safety Shut OFF for Kitchens in Fire Stations.

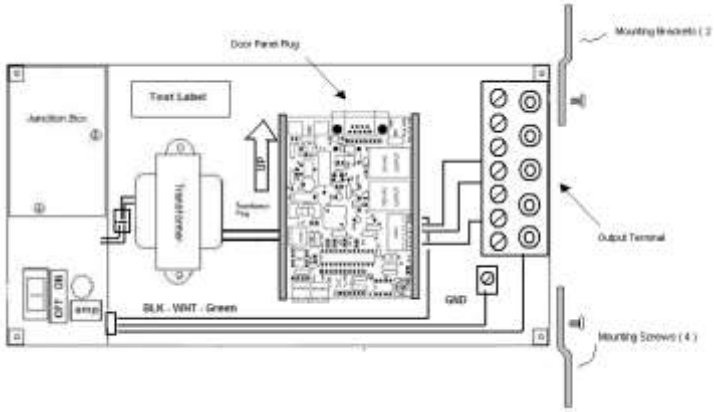
Single Source – Unit provides an Operation Station with control over up to two solenoid valves to operate fuel gas as well as 120-vac convenience outlets. A single switch controls all output circuits.

- All Standard Styles are provided with Panic Button Assembly and Push Button Reset.
- A 10 amp, fused, 120 vac circuit is available to operate the wall plug at the gas range
- Units may be ordered with Keyed Reset.
- Optional Alarm OverRide Switch allows users to Stop an Alarm Signal from turning OFF the Unit.
- A Remote Operator can be added in order to control an outdoor gas grill.
- 3 amp Transformer ratings.

Styles	# Output Circuits	Panel Fuse	120 V Output Fuse	Pcb Fuse 1	Relays	Solenoid Outputs
FLA –2XX5	1 @ 120 vac 1 @ 24 vac	15 amp	10 amp	3 amp	10 amp @ 120 vac 2 amp @ 24 vac	2 @ 0.2 amp @ 120 vac 2 @ 1 amp @ 24 vac
FLA –2XX6	1 @ 120 vac 1 @ 24 vac	15 amp	10 amp	3 amp	10 amp @ 120 vac 1.5 amp @ 24 vac	1 @ 1.5 amp @ 120 vac 1 @ 1.5 amp @ 24 vac

Output fuse on PCB, FUSE 1 is Slow Blow. PCB circuit fuse, FUSE 3 is 500 mA Fast Acting
120 V Output fuse is Fast Acting
Transformer Rating – 3 amp





Mounting Instructions: Flush Wall Mount

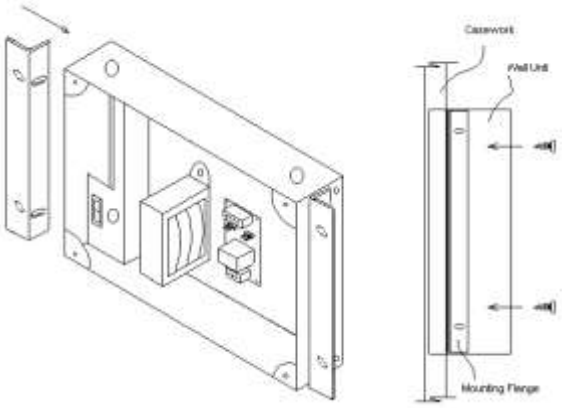
Two mounting flanges with screws are provided with the unit. Attach flanges as shown. Flanges can be affixed to any two corners of the unit. Then, fasten unit between two (2) wall studs. The face of the box should be even with the face of finished wall surface. After mounting unit, protect interior of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

CAUTION: Provided mounting hardware must be used.

Mounting Instructions: Casework Mount

Two 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.

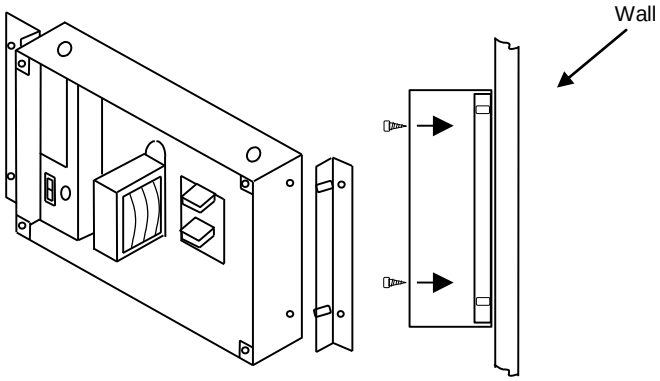
CAUTION: Provided mounting hardware must be used.

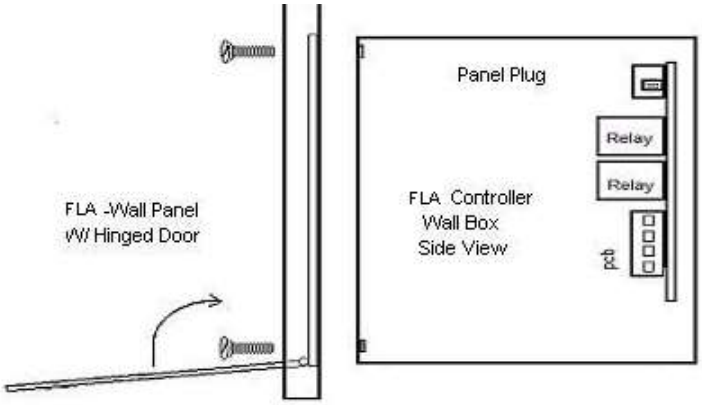


Mounting Instructions: Surface Mount

In order to surface mount the unit, it is necessary to attach the provided brackets to the rear of the housing. Care should be taken to verify that the mounting means securely fastens the unit to the wall surface. A stainless skirt is provided in order to conceal the wall box from view.

CAUTION: Provided mounting hardware must be used





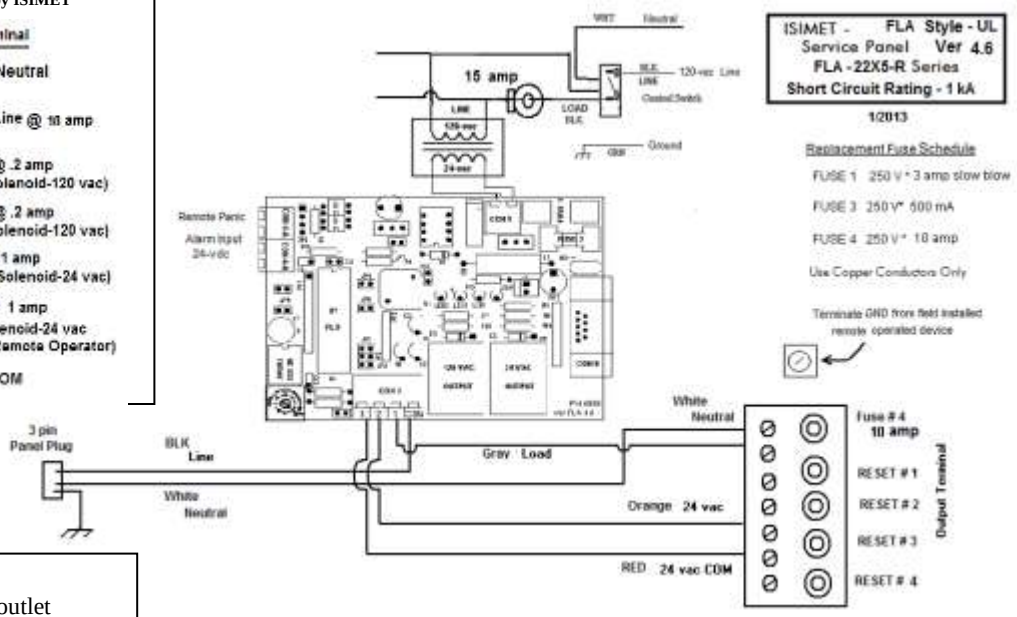
Mounting the Wall Panel

- Verify that Unit is wired with junction box cover in place.
- With the Door open, position the Wall Panel over the Wall Box as shown.
- Holding panel in front of box, affix panel to box using four (4) 8-32 stainless screws
- Close the panel and lock.

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

Wiring Schematics

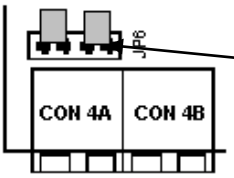
Where Solenoids are provided by others or by ISIMET within a S-Series Enclosure.	24 or 120 vac Solenoids are provided by ISIMET
Output Terminal	Output Terminal
1 - 120-vac Neutral	1 - 120-vac Neutral
2 - 120-vac Line @ 10 amp	2 - 120-vac Line @ 10 amp
3 - 120-vac @ 1.5 amp (Gas Solenoid-120 vac)	3 - 120-vac @ .2 amp (Gas Solenoid-120 vac)
4 - Not Used	4 - 120-vac @ .2 amp (Gas Solenoid-120 vac)
5 - Not Used	5 - 24-vac @ 1 amp (Gas Solenoid-24 vac)
6 - 24-vac @ 1.5 amp (Gas Solenoid-24 vac Remote Operator)	6 - 24-vac @ 1 amp (Gas Solenoid-24 vac Remote Operator)
7 - 24-vac COM	7 - 24-vac COM



NOTE:
Connect circuit for 120-vac Range outlet @ Posts 1 and 2 where required by application.

Circuit Board (pcb) Configurations

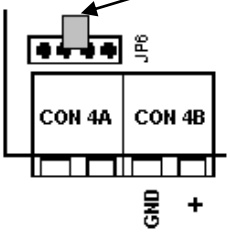
NOTE:
The PCB may be provided with a microchip processor (not shown). Do not attempt to remove this processor or it's adapter PCB.

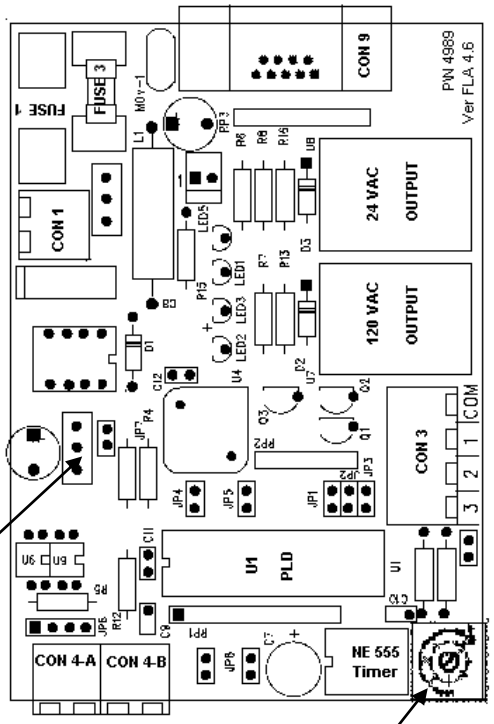


Alarm Input- JP6
Configuration Jumpers @ Alarm Input @ CON 4.B

2 jumpers across each pair of posts = dry-contact input

1 jumper across center two posts = vdc input





Place Jumper @ JP7 if Alarm Input is 5vdc, Remove if 24vdc or dry-contact @ Alarm Input

Adjust dial to shorten or lengthen Alarm Delay Timing.

CAUTION:
If Alarm Input is 24vdc or jumpers @ JP6 are set to "dry-contact", placing a Jumper @ JP 7 will cause damage to the pcb.

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.

Output Wiring Configurations:

Output Style 5-R: Units are configured to permit two 24-vac and two 120-vac outputs.
Output Style 5: Units are configured to permit one 24-vac and one 120-vac output.
Output Style 6-R: Units are factory configured to permit one 24-vac and one 120-vac output.

Additionally, a single 120-vac output rated at 10 amps for connection of a Gas Range Electric Outlet is provided. 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.

Backup Battery is intended for use where 12-vdc Latching Solenoids are utilized for fuel gas services.

Optional Input Control circuit:

A 5-vdc or 24-vac/vdc Alarm Input will turn OFF all outputs. An integral timing function permits the user to set a delay of up to five (5) minutes from time the signal is received until the system is turned OFF. This feature will avoid cancelled alarms from shut down of the kitchen. Optionally this input may be configured in order to utilize a dry-contact from the Alarm Signal source. Refer to circuit board configuration on page 5.

Optional Remote Panic Input Connection:

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

Connection of the Wall Panel Plug:

The Unit is equipped with a 9 pin d-sub connector

- Turn counter-clockwise the two retaining clips at the top of the Panel, and open.
- Insert plug onto circuit header on PCB.
- Turn Power **ON**.
- Close the panel and lock.

CAUTION! Do not install the panel until all wall finishes are complete. Verify that the plug is configured correctly. Incorrect insertion will prevent operation of unit.

Important!

All local codes must be followed when installing the unit and connected outputs and 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. Only

qualified craftsmen licensed within the governing jurisdiction to perform the work associated with this installation should install and/or service this equipment.

Operation of the Unit:

CAUTION: Having outlets such as Gas Outlets Open when Services are activated can result in injury or death. Verify that these outlets are closed prior to activating the unit.

With the panel service switch ON, press the Service Button. The circuits will activate and the panel Green LED will illuminate to indicate that the services are active. After turning the switch OFF, it will be necessary to re-press the Service Button in order to reactivate the services.

After turning the switch OFF, it will be necessary to press the service button in order to reactivate the service. The Red LED below the switch will illuminate when the services are OFF.

Pressing the panic button will deactivate the services, requiring re-press of the Service Button to again reactivate service. All Panel lights should illuminate with Panic.

Receipt of an Alarm Signal will deactivate the services. If the Unit is provided with the OverRide Switch and the Alarm circuit is set for delay response, pressing the OverRide Button will stop the Shutdown of service. If not, all Panel LEDs will illuminate and all output circuits will turn OFF. If the Alarm Signal is withdrawn before the time elapses then services will continue to operate once the Service Button is pressed.

If no OverRide Switch is provided, after Alarm Timing elapses all Panel LEDs will illuminate and all output circuits will turn OFF. If timing is set to "0" this OFF will occur immediately

NOTICE: If OverRide is accomplished, the Service Button should be pressed to cancel OverRide. Where units are provided with a Key Switch in lieu of the standard Service Button the engaging this switch results in the same function as the Service Button.

Once in Panic or Alarm Modes the Service Button must be pressed in order to reactivate service. The Alarm Signal must be withdrawn prior to reactivation.

Equipment Maintenance:

- The FLA Series Controller should have semi-annual inspections.
- **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 dust 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, pcb LED 1 should illuminate. If not, check the service breaker.

If the fuse is not damaged and the unit still does not function, contact **ISIMET** or your local Service Representative.

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