

# DS1 Dispenser Security

## DS1-SP-A, and DS1-DP-A Installation Instructions



**WARNING:** This product **MUST** be installed by qualified personnel only. It must be installed in compliance with local and national electrical codes and intrinsic safety standards. ICS is not responsible for damages or losses resulting from misuse or incorrect installation of this product.

The DS1 dispenser security module is used in fuel site dispensers to prevent fuel theft, tampering, or skimming of dispensers. The module mounts inside the dispenser electronics cabinet and has sensors that mount to the dispenser door. If either door is opened, the DS1 will disconnect power to the dispenser, preventing theft. It can also be used to activate a light or alarm when triggered. The DS1 may be reset by cycling power to the dispenser circuit breaker. Please read through the instructions completely before beginning installation.

### I. PARTS IDENTIFICATION:

1. The DS1 consists of the main electronics module and 2 door switches with mounting plates. The package also contains (1) alcohol cleaning swab and (4) #6 self drilling screws for switch mounting.

### II. INSTALLATION:

1. Disconnect power from the dispenser at the circuit breaker.
2. The DS1 module is mounted at the bottom of the dispenser's electronics cabinet. Mount the module to the dispenser using wire ties close to the incoming power conduit.
3. Connect the DS1 module wires to the dispenser using the wiring diagram on the back of this page. Cap off any unused wires.
4. The door switches will be mounted to the door lock brackets at the upper left of each door (See Fig. 1). Route the door switch wires through the dispenser so that the wires are out of the way. Zip tie the wires as needed.
5. Use the included alcohol wipe to clean the sides of the door lock brackets. This will allow the adhesive tape to make a strong bond.
6. To mount the first door switch, close the cabinet door on the opposite side of the dispenser and lock it.
7. Remove the backing from the adhesive tape on the back of the DS1 door switch bracket. Carefully position the switch assembly onto the door lock bracket so that the switch is depressed. Once the bracket is in the correct position, press the adhesive onto the door lock bracket.
8. Verify that the door switch is in the correct location by opening and closing the cabinet door and making sure that the switch clicks when the door is closed. When you are confident that the switch is in the correct position, secure it to the bracket using the included self drilling screws.
9. Now repeat steps 6-8 for the opposite cabinet door.
10. Re-apply power to the dispenser.
11. The DS1 module is now installed. Please proceed to testing on the back of this page.

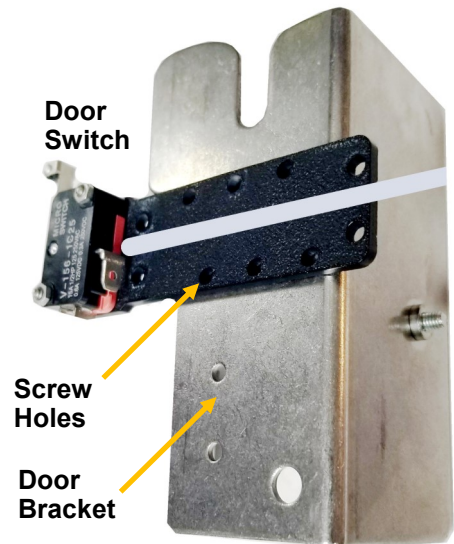


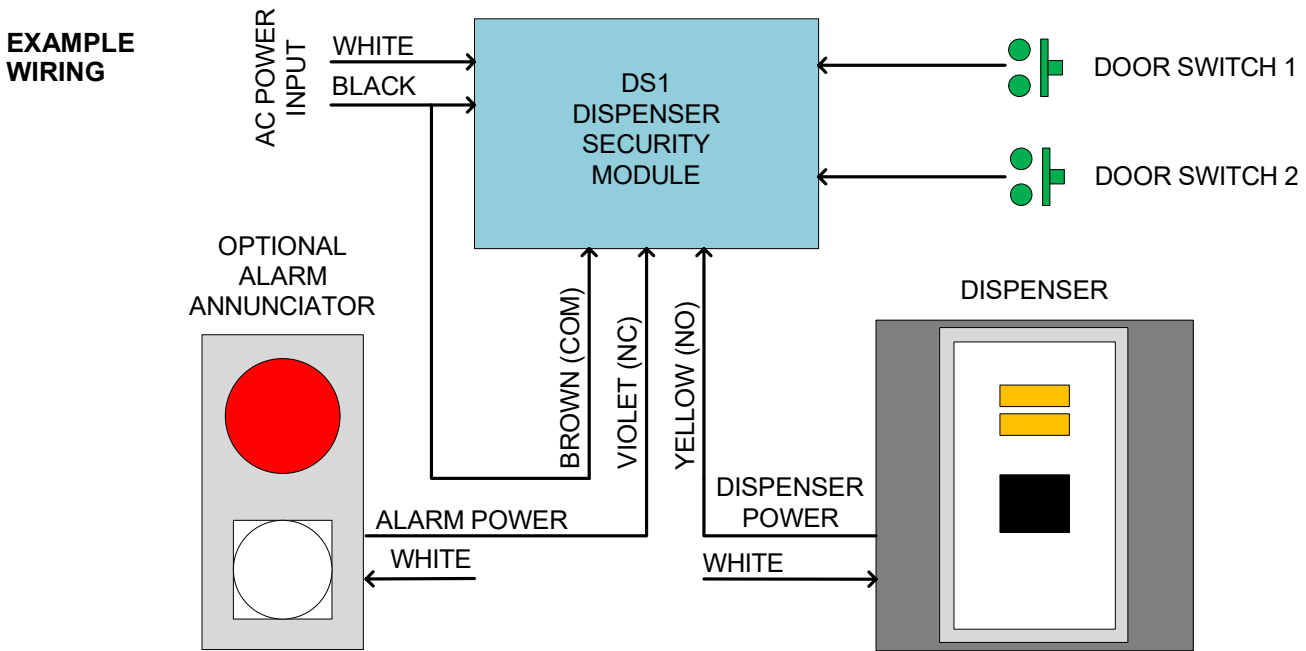
Fig. 1

### Fig. 2 — Wiring Connections:

- |           |                                       |
|-----------|---------------------------------------|
| 1. Black  | 110VAC HOT or 220VAC L1               |
| 2. White  | 110VAC Neutral or 220VAC L2           |
| 3. Brown  | Relay Common (Connect to AC HOT)      |
| 4. Violet | Relay N.C. (Open when DS1 is armed)   |
| 5. Yellow | Relay N.O. (Closed when DS1 is armed) |

**III. TESTING:**

1. Connect power to the DS1 module. Once the module powers on, it will wait for both doors to close before arming and applying power to the dispenser. Close both doors now to arm the DS1.
2. Verify that the dispenser powers on when the doors are closed. If so, the DS1 is now armed. If not, check the mounting of the door switches to make sure that both are activated.
3. Open one of the dispenser doors and verify that power is shut off. The DS1 is now triggered. Closing the doors again will not re-apply power. If the dispenser does not shut off, check the DS1 wiring again using the diagram below.
4. Cycle the circuit breaker off and on to reset the DS1 module. Now repeat step 3 above with the other door to make sure that both doors will trigger correctly.
5. Installation is now complete.



SPECIFICATIONS	
Operating Voltage:	90 VAC to 260 VAC
Operating Temperature Range:	-40 to 150 degrees F.
Current Draw:	< 0.25A @ 120 VAC
Relay Type	SPDT
Relay Current Rating	30 Amps @ 120VAC

PART NUMBERS	
Model Number:	Description:
DS1-SP-A	Dispenser Security Module, Single Pole Output
DS1-DP-A	Dispenser Security Module, Double Pole Output

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