Highpower H512 Power Supply

Deploy maglocks and automatic operators in a code compliant manner. Integrated logic takes away the guesswork.



The H512 is a **12 volt output power supply with integrated logic** that is designed to make it simple to create a code-compliant maglock setup.

A 22-position terminal block provides on-board logic that allows you to deploy maglocks and related hardware to NFPA 101 standards. It's now straightforward to integrate the required egress devices like PUSH TO EXIT buttons, REX motion sensors, switched crash-bars and access control without having to design the circuit.

The power supply also provides optional integration with automatic door operators when they are deployed in conjunction with maglocks. A normally open input for connecting access controls is provided.

The 12 volt output provides up to 2 amps to power maglocks and all related accessories. There is a Led-Acid backup battery circuit included for jurisdictions that allow battery backup on the maglock setup. The unit is furnished in a standard 12" x 12" electrical box with room for wiring, and knockout provisions for cable strain reliefs. There is also a connection for a normally open, held-closed fire alarm input.

Connections for automatic door operator push buttons and an **input for day-night operation** is included. Day operation requires just the press of an external request button to unlock the maglock and trigger the operator to open. Night operation requires the intervention of an access control to trigger the automatic operator.

LED status indicators on the power supply allow the installer to quickly debug circuit issues and find faulty accessory hardware.

The unit can be furnished from the factory with a heavy duty 3-prong electrical cable with pre-installed strain relief. Assembled in USA with foreign components.





H512 Full Functional Description

The H512 power supply provides a 12 volt output used to power maglocks, motion sensors and other devices. There is a 22 position terminal block that supports direct wiring of components to the supply and provides logic to properly implement the maglock system. There is also a 5 terminal auxiliary block that provides power and spare connection points. The H512 runs off a standard 120 VAC connection and can be furnished with a power line cord from the factory.

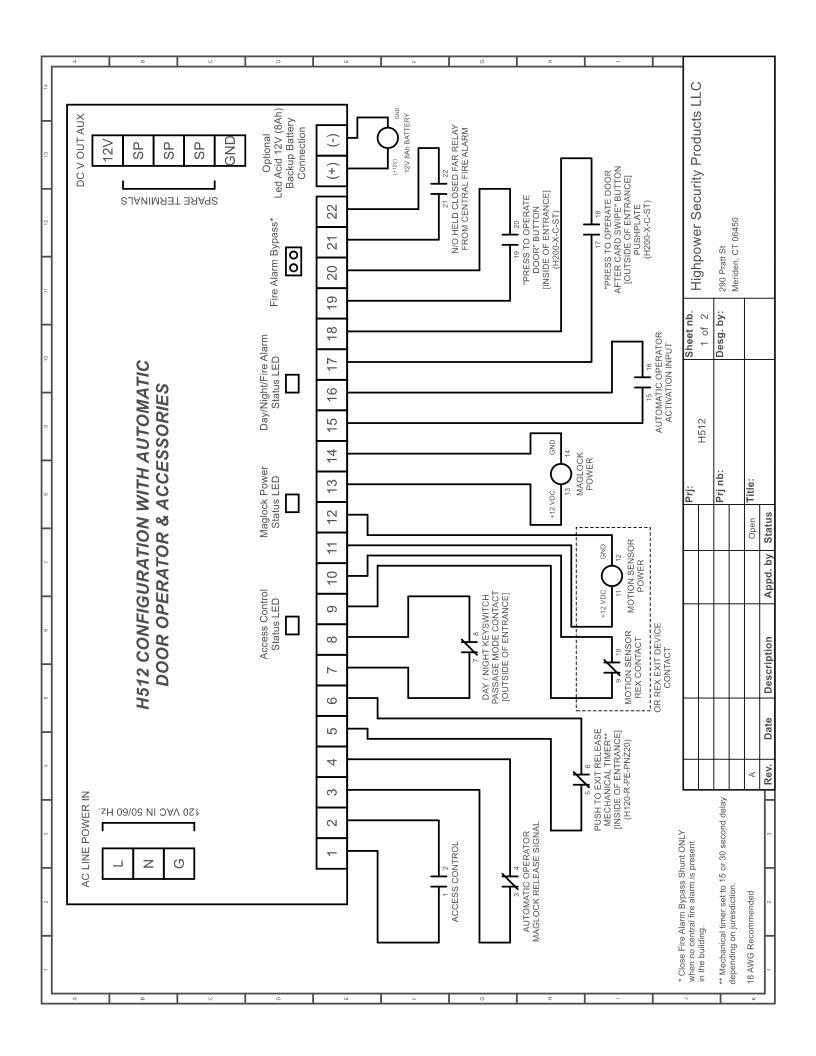
The H512 creates the circuit to make a code compliant maglock system (NFPA101) and also has additional logic that can integrate automatic door operators. An access control input is present in order to release the maglock. When the access control input is triggered, the maglock will unlock but will not operate the door automatically.

On the outside of the building, pressing a button will trigger the automatic operator to open the door. There are two modes of operation for the operator, which is controlled by a key-switch at the outside of the building. In day mode, the maglock is deenergized and the automatic operator triggers when the external button is pressed. In night mode, the lock is energized and the button that triggers the operator is disabled until the access control is used. The access control will deenergize the maglock and allow the automatic operator button to trigger the operator. The key-switch can be used to put the entrance in an unlocked passage mode.

On the inside of the entrance, there are several accessories. A request-to-exit motion sensor or an exit device with a switch can be used to break the power to the maglock on egress from the inside of the building. There is also a provision for a mechanical release device (with timer) to release the maglock, required by code, in the case that the first release fails. This device is a button labelled PUSH TO EXIT. Additionally, on the inside of the entrance, there is usually a larger pushbutton that is labelled PRESS TO OPERATE DOOR that will not only deenergize the maglock but also trigger the automatic door operator to open the door, no matter the state of the day/night mode keyswitch, allowing free egress at all times. If using a motion sensor, walking up to the door will unlock the maglock but will not automatically trigger the automatic operator, unless the operator trigger button at the inside of the entrance is actuated. The motion sensor can also be replaced optionally by an exit device that employs an internal switch that cuts the power to the maglock when the exit device is actuated.

The power supply will provide 12v power to both the motion sensor and the maglock. In jurisdictions that allow a battery backup of maglocks for security, an optional backup battery charging circuit is present on the power supply which will maintain a Led Acid battery. This is usually a 12 volt 4AH or 8AH battery but larger batteries can be used. This battery will automatically provide power to the system when the main power goes offline. Not all jurisdictions allow the battery backup function. Consult with your local authority to determine if this is allowed.

There is a fire alarm relay input on terminals 21 and 22 of the logic terminal block. If the building has a central fire alarm system, this system must provide a normally open relay that is held closed during times of normal status. During a fire event, this relay will open which directly cuts the power to the maglock. If the building has a central fire alarm system, an authorized service person must make and test this connection to the system. If the building does not have a central fire alarm system, then either a jumper must be installed across terminals 21 and 22 or the Fire Alarm Bypass shunt must be closed to ensure that the maglock will be powered. It is against code to not implement the fire system connection in buildings that have a central fire alarm system.



H512 Without an Automatic Door Operator

The H512 can also be used to easily implement a standard maglock installation with access control, that does not include the automatic door operator logic. The second wiring diagram omits the automatic door operator circuitry. In this configuration, the power supply will provide power to the maglock, will provide the optional battery backup circuit and will give you compliant logic for a standard maglock installation utilizing the egress devices.

The H512 creates the circuit to make a code compliant maglock system (NFPA101). An access control input is present in order to release the maglock. When the access control input is triggered, the maglock will deenergize.

There are two modes of operation for the operator, which is controlled by a keyswitch at the outside of the building. In day mode, the maglock is deenergized by the key-switch. In night mode, the lock is energized until the access control is used. The access control will deenergize the maglock. The key-switch can be used to put the entrance in an unlocked passage mode.

On the inside of the entrance, there are several accessories. A request-to-exit motion sensor or an exit device with a switch can be used to break the power to the maglock on egress from the inside of the building. There is also a provision for a mechanical release device (with timer) to release the maglock, required by code, in the case that the first release fails. This device is a button labelled PUSH TO EXIT. If using a motion sensor, walking up to the door will unlock the maglock allowing free egress. The motion sensor can also be replaced optionally by an exit device that employs an internal switch that cuts the power to the maglock when the exit device is actuated.

The power supply will provide 12v power to both the motion sensor and the maglock. In jurisdictions that allow a battery backup of maglocks for security, an optional backup battery charging circuit is present on the power supply which will maintain a Led Acid battery. This is usually a 12 volt 4AH or 8AH battery but larger batteries can be used. This battery will automatically provide power to the system when the main power goes offline. Not all jurisdictions allow the battery backup function. Consult with your local authority to determine if this is allowed.

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