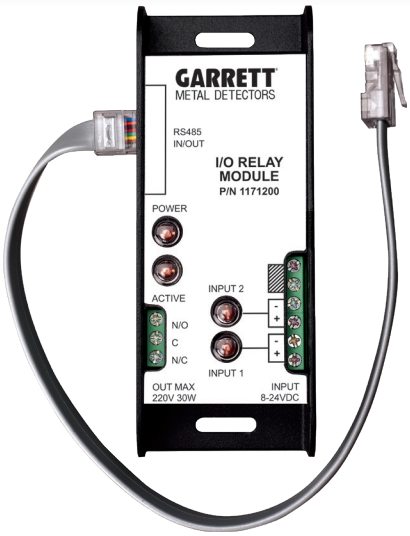
Quick Start Guide -
I/O Relay Module Installation

Made in the USA

For Paragon, PD 6500i, & Multi Zone Garrett Walk-Through Metal Detectors
Used with Part Number: 1171200

GARRETT



1.0 INSTALLATION

The Garrett Relay Module is intended for use with either the *Paragon*, *PD 6500i,* or *Multi Zone* walk-through metal detectors. The module can be configured to provide valuable feedback such as counting patrons and counting alarms using output signals. It is also capable of handling more complex applications like access control, remote monitoring, unmanned security stations, self-divesting, tailgate prevention, traps, etc. Inputs are available to allow for some limited manipulation to the walk-through metal detector.
Using a silver satin CAT 5 cable, the module can receive power and communicate through its connection to the metal detector. This allows a form C relay capable of carrying up 220V (AC or DC) and 30W with a normally open and normally closed contact to meet multiple security applications. There are two input connections that can handle input signals carrying 8-24VDC. The versatility of the module provides the option of installation inside the metal detector control cabinet, externally nearby or inside the equipment that is being controlled. Mounting holes and a Velcro strip adhered to the module are given for convenience. The module comes with a second RS485 port to allow a daisy chain connection to other Garrett devices. Screw terminals for connecting wires are conveniently located where disassembly is not required. LED indicators located on the front of the module show users when power is applied and when the relay is activated. There are also LEDs to show when the inputs are receiving signals.

1. Before physically installing the Relay module, you must first determine the desired mode of operation. There are four output settings to choose from and each setting is configured using a DIP switch configuration located inside the Relay Module behind the front cover. To remove the front cover, locate the 4 screws on the back of the module and remove them.

The response from the Relay Module is dependent on the Count Direction setting for the walkthrough metal detector. Ex. if the Count Direction is set to Forward Only, the Relay Module will not respond to activity that occurs in the Reverse direction.

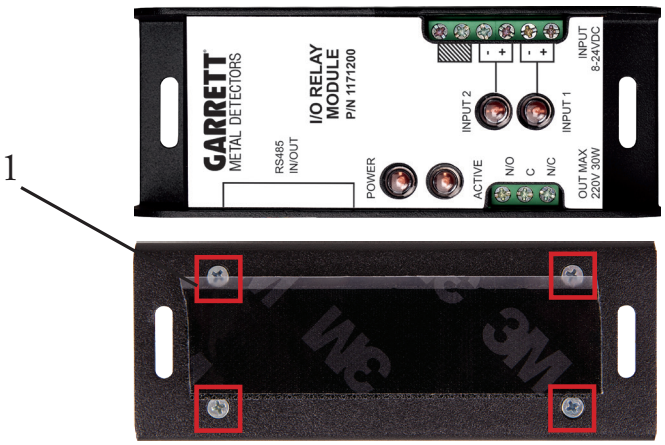
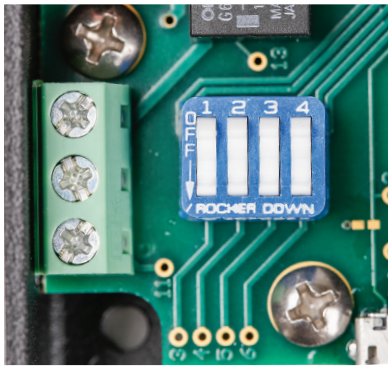


Figure 1

2. Notice on the inside cover there is a label with a table to help guide you in setting the desired mode of operation. Below describes the output capability and assumes inputs 1 and 2 are not used (or are in the OFF position).
Change the DIP switch settings using a small screw driver according to the positions indicated in the table to reach your desired operating mode. Push the switch away from the designated number to turn it "OFF". Use the text on the DIP switch component which indicates the direction of "OFF". The relay will close when activated and release when deactivated.
Setting #1 activates on alarm only if metal is detected while a patron passes and deactivates in 500ms (used for alarm counting)
Setting #2 activates on count as a patron passes through the detector and deactivates in 500ms (used for patron counting)
Setting #3 activates on alarm if metal is detected while a patron passes through the detector and deactivates when a patron passes without alarm (used for access control, remote monitoring, self-divesting, unmanned security stations, etc.)
Setting #4 activates as a patron passes and metal is not detected and will deactivate in 500ms or when alarm occurs whichever is first (used for access control, tailgate prevention, traps, etc.)

#	SW1	SW2	SW3	SW4	Close on	Release on
1	OFF	OFF	OFF	OFF	ALARM	500ms
2	OFF	OFF	OFF	ON	COUNT	500ms
3	OFF	OFF	ON	OFF	ALARM	CLEAN
4	OFF	OFF	ON	ON	CLEAN	500ms

Table 1



3. Below describes the input capability of the I/O Relay Module. When SW 2 on the DIP switch is set to "ON", Settings #1-4 will not release the relay until an input signal is received on INPUT 2. This can be used if the operation mode selected requires a manual release of the relay instead of releasing it after 500ms or after a Clean pass. This can be helpful if other steps are required prior to allowing a patron through the checkpoint. When SW 1 on the DIP switch is set to "ON", the detector is allowed to receive input signals that notify the detector to change the Pace Light color on the left and right panels. This function can be enabled through the Relay menu on the touch pad of the detector. Once enabled, the pace lights will change from green to red by default. When Input 1 receives a signal between 8-24VDC, it will turn the pace lights from red to green. The time it takes for the pace lights to change back to red is selectable within the Relay menu. Additional settings for the Relay module can now be viewed by entering technicians diagnostic code on the keypad which can be found in the metal detector user manual.
Note: The Relay function menu will only be present when an IO Relay Module is connected to the metal detector with the silver RS485 cable.

SW1	SW2	SW3	SW4	Close on	Release on
	ON	OFF	OFF	ALARM	INPUT 2
	ON	OFF	ON	COUNT	INPUT 2
	ON	ON	OFF	CLEAN	INPUT 2

Table 2

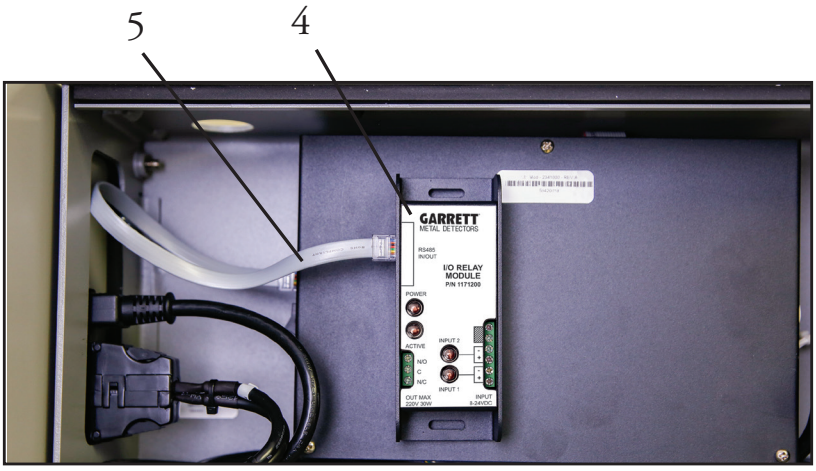
SW1	SW2	SW3	SW4	INPUT 1
OFF				DISABLED
ON				NOTIFY DETECTOR

Table 3

4. Once the DIP switch settings are configured, replace the cover with the screws used in step 1. Connect the wires (16-24AWG) to the green screw down terminal on the side of the module using a small #1/8" or 3.5mm slotted screw driver. Use the label description, N/O, COMMON and N/C to determine how you want the output signal to communicate to your input device. Use the label description INPUT 1 or INPUT 2, + or – to determine how the input signal will manipulate the walk-through metal detector.

5. Power off the walk-through that will be used with this module. Remove the adhesive backing on the Velcro located on the back of the module. Open the access door of the detection unit and adhere the module onto the panel of the control boards inside the detector head. The adhesive back and the two slotted mounting holes can also be used to install elsewhere as desired.

6. Locate the RJ45 connection on the left side behind the control board panel and connect the silver CAT 5 cable to the metal detector. The other end of the RJ45 connector should already come connected to the RS485 IN/OUT connection on the side of the module. If the module is located in an alternate location, make sure the module is connected to the walk-through with a CAT 5 cable.



7. Power on the walk-through and test functionality according to the configuration setting established in step 2. and/or step 3. The red POWER LED should illuminate indicating the module is ready for use. The ACTIVE LED will illuminate when the relay has activated and stop illuminating when the relay is deactivated. The INPUT 1 and INPUT 2 LEDs will illuminate when an input signal is received.