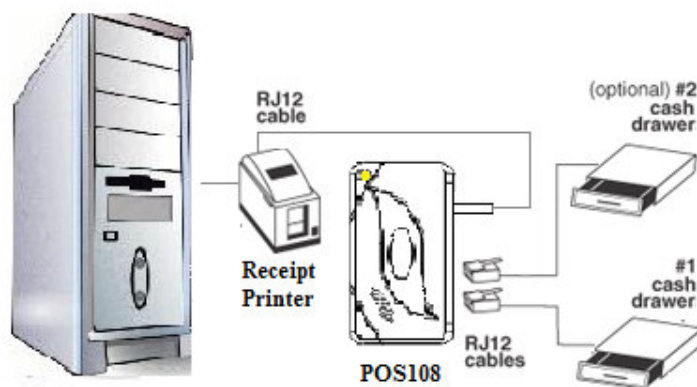**POS 108**

POS108 Cash Drawer Alarm option

The POS108 provides Retailers peace of mind with their employees. Thru selectable options, the POS108 can notify employees with an electronic buzzer if a cash drawer is left open for more then a selectable amount of time (15 - 40 seconds). The electronic buzzer can be selected to stay on for 60 second or stay on until all the drawers are closed. Most IBM, Star, Epson, Citizen and other compatible POS printers support two cash drawers but only provide one drawer connection. The unique design of the POS108 provides the retailer the option of connecting two cash drawers to one POS printer without the use of special cables. The POS108 also uses the same RJ12 cash drawer port off the POS printer for its power. No external power adaptors is required See Figure 1 for the Connection illustration. Note that Push Button on the POS108 has no effect on any Cash Drawer Alarm options.

The POS 108 also splits the cash drawer port of the POS printer to support 2 cash drawer port connections. (Only if the POS printer supports 2 cash drawers. See required pin out for POS cash drawer port Figure 4 and Table 4). The POS108 has Built-in Push Button and status LED. See Figure 4.
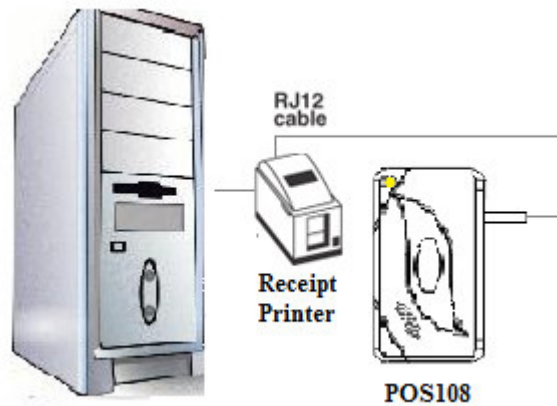

Figure 1:POS108 connection illustration for multiple cash drawers to one POS printer.

POS108 Printer Alarm option

The POS108 can also sound and electronic buzzer at the end of a printed receipt. The POS108 is ideal for restaurant kitchen or bar order printers and other service industries. It uses the same RJ12 cash drawer port off the printer for its power. The electronic buzzer is triggered by the cash drawer pulse function of the printer. No cash drawer is required. Two selectable options are available for the Printer Alarm. Option 1: Alarm will sound for a selected amount of time (1 to 10 seconds) when a receipt and then a drawer trigger option is printed. This Alarm can be silenced by pressing the Push Button located on the top of the POS108. See Figure 3.

Another printer Alarm option is that an Alarm is sounded when a receipt and the drawer trigger option is printed. This Alarm will stay on until the Push Button is pressed to silence the Alarm. See Figure 4 for the Push Button Location. Note that an External push button can be installed onto the POS108 if desired. See Figure 5 and table 5 to find the location of the External Push Button connector inside the POS108.

This configuration is available on most IBM, Star, Epson, Citizen and other compatible POS printers. See Figure 2 for configuration.

Figure 2:POS108 connection illustration for Pinter Alarm to POS printer.

Compact and easy to mount, these units are ideal for restaurants, bars, retail and other service industry applications.   Some of the features of POS108 include, a dual RJ12 female connector, status led, no external power supply required (power is provided by the printer) and a
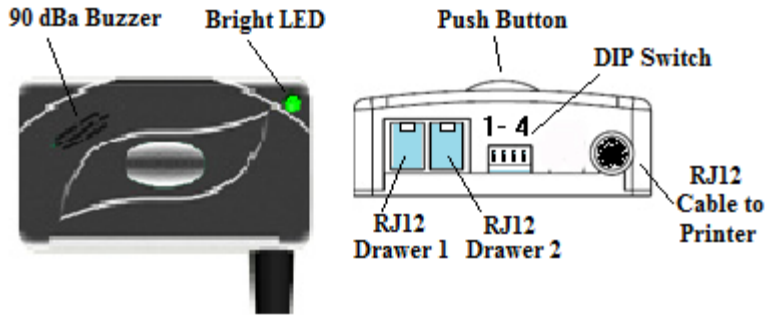
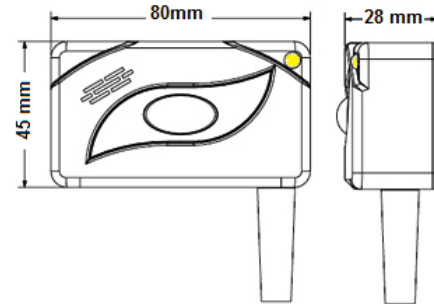*Figure 3: POS108 Connection Panel Layout*   *Figure 4: POS 108 Dimension Views*

Description:	SW # 1	SW# 2
Drawer Alarm option 1, Alarm will sound when cash drawer is left open for *XX* sec, Alarm will sound for 60 seconds and shut off. See Table 2 for value of *XX* (DEFAULT)	ON	ON
Drawer Alarm option 2, Alarm will sound when cash drawer is left open for *XX* sec, Alarm will sound until drawer is closed. See Table 2 for value of XX	ON	OFF
Printer Alarm option 1, Alarm will sound for only *XX* second(s) when the trigger for any drawer is sensed. (no cash drawer is required) Push Button to Silence Alarm. See Table 3 for value of *XX*	OFF	ON
Printer Alarm option 2, Alarm will sound when the trigger for any drawer is sensed. (no cash drawer is required) Push Button to Silence Alarm.	OFF	OFF

Table 1: POS108 Dip Switch 1 – 2 Definitions

Description:	SW # 3	SW # 4
Drawer Alarm option 1: Wait 15 Seconds before Alarm will sound . (DEFAULT)	ON	ON
Drawer Alarm option 1: Wait 20 Seconds before Alarm will sound.	ON	OFF
Drawer Alarm option 1: Wait 30 Seconds before Alarm will sound.	OFF	ON
Drawer Alarm option 1: Wait 40 Seconds before Alarm will sound.	OFF	OFF

Table 2: POS108 Dip Switch 3-4 **Cash Drawer Alarm Wait Timer for Option 1**

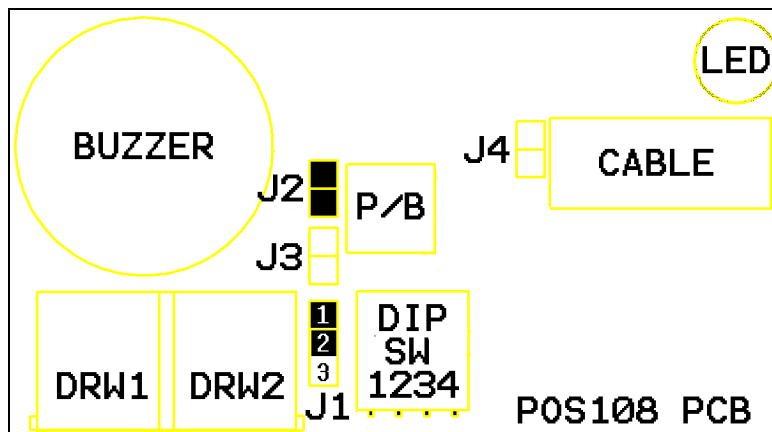| Description:	SW # 3	SW # 4
Printer Alarm option 1: Alarm will sound for 1 Second	ON	ON
Printer Alarm option 1: Alarm will sound for 2 Seconds	ON	OFF
Printer Alarm option 1: Alarm will sound for 4 Seconds	OFF	ON
Printer Alarm option 1: Alarm will sound for 10 Seconds	OFF	OFF

Table 3: POS108 Dip Switch 3-4 **Printer Alarm ON Timer for Option 1**

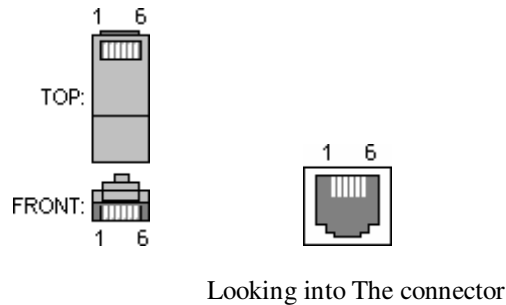| Pin Number	Drawer # 1 Signal Name	Drawer # 2 Signal Name	Direction
1	Frame Ground	Frame Ground	Ground
2	Drawer # 1 Sink Signal	Drawer # 2 Sink Signal	Input
3	Open Drawer Switch source pull up voltage	Open Drawer Switch source pull up voltage	PU Power
4	+ 24 VDC	+ 24 VDC	Power
5	Drawer # 2 Sink Signal	Drawer # 1 Sink Signal	Input
6	Open Drawer Status Switch	Open Drawer Status Switch	Input

Table 4: RJ12 Drawer 1 and Drawer 2 pin out

J1	Epson/Star/Citizen (Pin 1-2) Default	IBM Printer (Pin 2-3)
J2	Enable internal Buzzer (Closed) Default	Disable internal Buzzer (Open)
J3	Connector for External Buzzer +24VDC	
J4	Connector for External Push Button	

Table 5: Jumper location and description on the POS108 PCB

Figure 5: POS108 PCB Panel Layout

The drawer solenoid is connected to + 24 VDC and to the Drawer Sink Signal. Typically pins 2 & 4 is used for drawer # 1. The Drawer Status Switch is connected to an Open Drawer Switch source pull up voltage and the switch is closed only when the cash drawer is OPEN, typically pins 3 & 6. Special Note: The drawer trigger # 2 for most POS Printers connects to the solenoid using Pin 4 & 5. Since most cash drawers are wired to only use Pin 2 & 4, The POS108 is designed to support the same type of cash drawer in both Cash drawer port # 1 & # 2 See table 3 for pin out for both ports.

Looking into The connector

Figure 9: RJ12 Connector Pin out for Drawer Cable and POS108 Connector 1& 2

Note: The electronic Buzzer in the POS108 is powered POS printer RJ12 port.
A flashing LED indicates that an event is active (Drawer is Open or in a Timing Loop).

INSTALLATION:

- **Select Cash Drawer alarm or Printer Alarm using Dip switches 1 – 2 (Table 1)**
- **Select Time duration for the Selected Option Dip switches 2 – 3 (Table 2)**
- **Connect Cash Drawer (only applies to Cash Drawer Alarm Option)**
- **Connect RJ12 to POS printer Cash Drawer port and power up Printer**
- **Using Double sides adhesive Velcro mount POS108 where desired**
- **Test Alarm function using your application software.**

CONTENT INCLUDED:

1. Pos 108 Device
2. Black Velcro double sided adhesive strip.
3. CD Rom Manual.

WARRANTY:

2-year limited warranty for parts and Labor. Warranty is void if anyone other then the Manufacture's repair department or an authorized repair center services the POS108.

POS 108	
Selectable modes using Dip Switches	Cash Drawer Alarm (Until Drawer is closed) Cash Drawer Alarm (Until Drawer is closed or Max 1 Min. On) Print Receipt Alarm (Selectable 1 - 10 seconds On) Print Receipt Alarm (On until Push Button to Shut-off)
Power	Power from RJ12 cash drawer port on receipt printer
Current	10 - 100 mA typical current used by device only
Drawer Connectors	2 x RJ12 , Drawer 1 & Drawer 2
Dimensions	80 x 45 x 28.5 mm (WxDxH) 150 gm
RJ12 Cable Length	180 cm (6 Feet)
Humidity / Temp.	10% - 90% relative humidity , -20C to 55C
Printers Supported	Star/ Epson/ Citizen/ IBM and compatible printers with RJ12 drawer port (2 Drawer function is limited to Printer options)
Piezo Electric Buzzer	4.5 kHz @ 90 dBA at 30 cm, External Buzzer connection option
Drawer Triggers	The Drawers are triggered by the Cash Drawer pulse from the RJ12of Receipt Printer Cash Drawer port. (2 Drawer function is limited to Printer options)
Drawer Alarm	Alarm will sound if either drawers are left open manually or by the printer trigger. Cash Drawer must have an RJ12 cable with a drawer normally open switch for the Drawer Alarm to function
Printer Alarm	The printer alarm is triggered by the Cash Drawer pulse from the RJ12 of Receipt Printer Cash Drawer port. NO Drawer needed, External Push Button Connection option
Operating System	Not dependent on any operating system or software
Warranty	2 year

Table 6: Technical Specifications

Note: This equipment has been tested and found to comply with the limit for a class A digital device, pursuant to part 15 of the FCC rule. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates uses and can radiate radio frequency energy and interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Disclaimer

The Manufacture Makes no claims or warranties with respect to the content or accuracy of this publication or the product is describes, including warranties of fitness or merchantability for a particular purpose. The Manufacture Shall not be liable for any special, incidental or consequential damages, nor damages due to use or misuse born from integration into any mechanical, electrical or computer system. The Manufacture Is not responsible for the accuracy of any device connected to the POS108. The Manufacture Reserves the right to make any changes to this manual or product(s) without obligation to notify any person of such changes. Warranty is void if the case is opened by anyone other then The Manufacture's repair department or authorized repair center.