

# **SECO-LARM<sup>®</sup>**

## **OPERATION MANUAL**

### ***ENFORCER<sup>®</sup>* 295**

## **ALARM CONTROL PANEL**



**MANUFACTURED BY  
SUPERIOR ELECTRONICS CORPORATION**

**MANUFACTURERS OF RELIABLE ALARM SYSTEMS AND ACCESSORIES**

**PROTECTED BY PATENTS IN USA AND TAIWAN, PATENTS PENDING IN UK, JAPAN AND KOREA.**

## TABLE OF CONTENTS

OUTSTANDING FEATURES .....	2
GENERAL INTRODUCTION .....	3
HOW YOUR <b>ENFORCER 295</b> CONTROL PANEL WORKS .....	3
INSTALLATION INSTRUCTIONS .....	5
COMPLETE WIRING DIAGRAM .....	10
COMPATIBLE WITH YOUR <b>ENFORCER 295</b> .....	11
SPECIFICATIONS .....	12

### OUTSTANDING FEATURES

- **5 Separate zone inputs.**

1. N.O. or N.C. (selectable) instant zone with exit delay.
2. N.C. instant zone with exit delay.
3. N.C. delay zone with entry and exit delays.
4. N.O. 24-hour panic zone with no entry and exit delays.
5. N.C. 24-hour tamper zone instant trigger no delays.

- **5 Zone shunting switches to correspond to the 5 zone inputs.** Shunt out any zone that is not working properly to prevent false alarms.

- **All inputs are super-high-transient protected.**

- **3 Adjustable timers.**

1. Entry delay timer adjustable from 1 sec to 45 sec.
2. Exit delay timer adjustable from 1 sec to 45 sec.
3. Alarm duration timer adjustable from 3 sec to 20 min.

- **9 Status LEDs.**

- 1-5. Individual zone status green LEDs. Indicates zone status for each of the five zones.
6. Total zone status green LED. Indicates total zone status of the five zones.
7. Arm/disarm/shunt status red LED. Indicates if alarm is armed, disarmed, or if a zone has been shunted.
8. Entry/Exit status yellow LED. Indicates if alarm is in entry or exit delay mode.
9. Primary power status red LED. Indicates if AC power is on or off.

- **All 9 status LEDs visible when cabinet is closed.**

- **2 Alert signals for entry and exit delay.**

1. Exit delay. A pulsed output during exit delay. Connect to a sounding device to indicate alarm in exit delay status.
2. Entry delay. A constant output during entry delay. Connect to a sounding device like the SECO-LARM SH-503HSH Musical Pre-alert to indicate alarm in entry delay status.

- **Patented Automatic Extended Exit Delay (A.E.E.D.).** Opening a switch/sensor connected to an exit delay zone before the exit delay elapses automatically extends the exit delay for as long as the switch/sensor remains open.

- **Fail-safe circuitry.** The alarm cannot be armed unless all switches and sensors connected to unshunted zones are in their non-violated state.

- **Phase-II continual protection.** To assure continuous protection, any input that remains triggered after the alarm duration has elapsed will shut down. All other inputs will remain armed and ready to sound the alarm if violated.

- **Multi-remote arm/disarm.** Allows for the installation of up to 10 arming/disarming devices.

- **Arm/disarm report output.** Sends 100 mA transistor ground signal to indicate alarm is armed or disarmed.

- **Tamper output.** Sends a 100mA transistor ground signal for as long as the tamper zone is activated.

- **Dry relay contact panic output (C. - N.O.).** Relay contacts close providing for activation of a dialer, pager, when the panic zone is activated.

- **Positive voltage ( 3 Amp) relay alarm output.** Powers signaling devices like a siren, bell, dialer, etc., during alarm conditions.

- **Works on 16V AC/DC with back-up battery input.**

- **Use with DC adapter or Class-II transformer.**

- **Regulated power supply and recharger.**

- **Heavy-duty, beige-colored steel cabinet.** Measures 8 1/2" X 3 1/8" X 11 7/16" (215W x 79H x 290L mm).

- **Detachable front cover of steel cabinet.** Allows for ease in installation.

- **2 tamper switches included.** Detects if steel cabinet front cover opened or cabinet removed from wall.

## GENERAL INTRODUCTION

Your **ENFORCER 295 CONTROL PANEL** is meticulously designed to provide its user the most complete protection, while not forgetting the need for ease of installation. The **ENFORCER 295** is designed to detect the presence of an intruder who gains unauthorised entry into your home, office, shop, or school. Once triggered, the **ENFORCER 295** will alert you, your neighbors, or even a central station, of the prowler and either scare him away or lead to his capture. Easy hook-up of fire protection devices is also possible.

To assure yourself of trouble-free protection and operation of the **ENFORCER 295**, please read the following instructions carefully.

## HOW YOUR ENFORCER 295 CONTROL PANEL WORKS

The **ENFORCER 295** responds to changes in the electrical circuitry that occur as the result of movement of strategically placed Magnetic Switches, Motion Detectors, Vibration Detectors, Panic Buttons, Fire/Smoke Detectors, or other types of Switches/Sensors that are connected to the inputs of the alarm. These changes activate relays in the **ENFORCER 295** and trigger the siren, bell, dialer, or other signalling devices connected to the Positive Voltage Relay Alarm Output. At the same time as the siren is sounding, depending on which zone has been triggered, a dry relay contact will close or a transistor ground signal will output, thus activating a dialer to dial a different set of numbers or transmitter, or signal a central station. The alarm remains triggered until the Auto Reset timing has elapsed or the Enforcer Control Panel is manually returned to normal. To manually reset the Alarm you must: (i) disarm the Enforcer Control Panel; (ii) locate the Switch/Sensor that has been triggered and reset it; (iii) rearm the Enforcer Control Panel.

The alarm will automatically arm the moment the Exit Delay Period has elapsed. Depending on how much time you normally require to leave the premises, you can choose anywhere from 1 second to 45 seconds for the Exit Delay Period. If this is ever insufficient time for you to leave the guarded premises- -sometimes, with children, leaving within 45 seconds is just impossible- -all you have to do is trigger a Switch/Sensor connected to the Delay Zone or Instant Trigger Zones before the Exit Delay Period has elapsed. This will temporarily disarm the Enforcer Control Panel and keep it disarmed until the Switch/Sensor you triggered has been restored. Once restored, the Exit Delay Period of 1 second to 45 seconds, or however long you choose to adjust it, will then start again.

If you decide for a second time that the Exit Delay Period is insufficient- -if you have left something in the house--all you have to do is once again trigger a Switch/Sensor connected to the Delay Zone or Instant Trigger Zones (it could even be the Switch/Sensor you originally triggered) before the Exit Delay Period has elapsed. This will once again temporarily disarm the Enforcer Control Panel and keep it disarmed until the Switch/Sensor you triggered has been restored. The Exit Delay Period will start once again. This process can be repeated as often as you wish.

**This remarkable feature is SECO-LARM's patented Automatic Extended Exit Delay (A.E.E.D.). Only with SECO-LARM's patented A.E.E.D. can you stay in the protected area as long as you wish, even after the Enforcer Control Panel has begun to arm.**

In addition, the **ENFORCER 295** gives off two signals to remind you that the Exit Delay Period has begun. The first signal is the Exit Delay Reminder. This Alert Signal (a buzzing/beeping sound) begins the moment the Enforcer Control Panel has been armed and will continue until the Exit Delay Period has expired. This buzzing/beeping sound will continue even throughout the A.E.E.D. period.

The second signal is the Entry/Exit LED. This LED will begin to FLASH the moment the Enforcer Control Panel has been armed, and will continue until the Exit Delay Period has expired. This blinking/flashing will continue even through the A.E.E.D. period. With these two reminders, you can never forget to rearm the alarm by failing to reset the Switch/Sensor you triggered for the A.E.E.D..

If the **ENFORCER 295 CONTROL PANEL** is triggered after the Exit Delay Period has expired, a connected bell, siren, or other signaling device will be activated. The alarm will remain on until either the Auto Reset timing has elapsed or the Enforcer Control Panel is manually returned to normal. To manually reset the alarm, you must: (i) disarm the Enforcer Control Panel; (ii) locate the Switch/Sensor that has been triggered, which the Individual Zone Status LED will FLASH, and reset it; and (iii) rearm the Enforcer Control Panel. If the alarm remains ON until the Alarm Duration has elapsed, the zone that triggered the alarm (either the N.C./N.O. Instant, N.C. Instant, or N.C. Delay) shuts down and cannot again trigger the alarm until that zone is manually restored to its normal state (you will have to reset the Switch/Sensor that has been triggered). However, the other protective zones remain armed and ready to sound the **ENFORCER 295 CONTROL PANEL** if violated. This is called the **Phase-II Continual Protection**.

**IMPORTANT** The 24-Hour Panic Zone and Tamper Zone are not connected to **Phase-II** continual Protection. Thus,

unlike the Instant Zones or Delay Zone, both the 24-Hour Panic Zone and Tamper Zone will not shut down when the Auto Reset timing expires if the respective 24-Hour Panic Zone or Tamper Zone is not restored. If the sounding has extended after the Auto Reset timing, any time when the 24-Hour Panic Zone or Tamper Zone is restored, the respective output will stop immediately. Also the sounding device will stop sounding after the Auto Reset timing expires, only if the 24-Hour Panic Zone or Tamper Zone is restored before the Auto Reset timing expires.

**The 24 Hour Panic Zone and Tamper Zone have their respective outputs and also different output characteristics;**

**The 24 Hour Panic Zone** Regardless of whether either the alarm is armed or disarmed, when triggered, it has output from the Alarm Siren Output and Dry Relay Contact Output. If the 24 Hour Panic Zone is triggered and reset before the end of the Auto Reset timing, both outputs will activate for as long as the Auto Reset timing, but if triggered longer than the Auto Reset timing, both outputs will output as long as the 24 Hour Panic Zone is triggered and will stop once it resets.

**The Tamper Zone** When the alarm is disarmed, only the Tamper Output will output as long as the Tamper Zone is triggered. When the alarm is armed, both the Tamper Output and Alarm Siren Output will output. If the Tamper Zone triggers and resets before the Auto Reset timing is up, the Alarm Siren Output will output for the duration of the Auto Reset timing but the Tamper Output will stop once the Tamper Zone resets. If the Tamper Zone triggers longer than the Auto Reset timing, the Alarm Siren Output will stop once the Auto Reset timing expires, but the Tamper Output will output as long as the Tamper Zone is triggered.

When you return to the protected area, simply disarm the Enforcer Control Panel before the Entry Delay Period of the N.C. Delay Zone expires. Like the Exit Delay Period, the **ENFORCER 295 CONTROL PANEL** gives off two signals to remind you that the Entry Delay Period has begun. The first signal is the Pre-Alarm Warning. This Alert Signal (a constant buzzing sound or a musical melody if you connect a **SECO-LARM SH-503 MUSIC ALERT**) will begin the moment you trigger a Switch/Sensor connected to the Delay Zone (upon returning to the protected area) and will continue until the Entry Delay Period expires.

The second signal is the Entry/Exit LED. This LED will light up and stay ON the moment you trigger a Switch/Sensor connected to the Delay Zone (upon returning to the protected area) and will continue until the Entry Delay Period expires. With these two reminders, you can never forget to disarm the alarm.

After disarming the **ENFORCER 295**, check the Total Zone Status LED and the Individual Zone Status LEDs to see if the alarm was triggered while you were away. The Total Zones Status LED will be OFF if the Enforcer Control Panel has been triggered and not restored, but if the alarm was triggered and was restored, the LED will be FLASHING. The 5 Individual Zone Status LEDs indicate each of the 5 zones. If any LED is OFF, it indicates that the corresponding zone had been triggered but not restored. If the LED is FLASHING, then the corresponding zone has been triggered and restored. If your alarm has been triggered, **SECO-LARM** recommends that you exercise extreme caution, as it is quite possible that the burglar/prowler is still in the premises. Perhaps the best thing to do is go across the street to your neighbors and ask them if they know what happened.

**If, while operating the ENFORCER 295, you find that any of the five zones is not functioning properly, or if you find it necessary to shut down any of the zones for whatever reason- -perhaps you are doing repair work on a door or window that is protected by a Switch/Sensor and you wish for the rest of the alarm to remain armed while you are doing the work- -all you have to do is disable the appropriate zone through switching of the respective DIP switches on the ENFORCER 295 Control Panel.**

Also, as an added convenience, whenever a zone is disabled, the particular Individual Zone Status LED will stay ON even if the zone has not been restored and the Arm/Disarm LED will FLASH if the alarm is disarmed. If the particular zone was triggered but then shunted, the Individual Zone Status LED will FLASH and Arm/Disarm LED will still continue FLASHING. Once the alarm is armed, the Arm/Disarm LED will remain ON because the Arm signal will override the Shunt signal. Afterwards, once the malfunctioning zone has been located and fixed- -or the repair work has been completed- -and you once again wish to use the disabled zone, simply move the appropriate Zone Disabling DIP Switch back to its original, operable position.

These five Zone Disabling DIP Switches are just another reason why your **ENFORCER 295** is perhaps the most complete, comprehensive, yet easy-to-use alarm control panel on the market today. With the Zone Disabling DIP Switches, you and your loved ones will never spend one moment without protection. No longer will you face the frightening possibility of having to disarm your entire alarm if a single zone is giving you trouble. In addition, you will never again waste precious hours waiting for a serviceman to show up at your home to make minor repairs. With the **ENFORCER 295**, just disable the malfunctioning zone(s)- -the zones that are working properly will still remain armed, thus protecting you -- and you can then leave your home safe in the knowledge that you are still protected by the **ENFORCER 295**.

# INSTALLATION INSTRUCTIONS

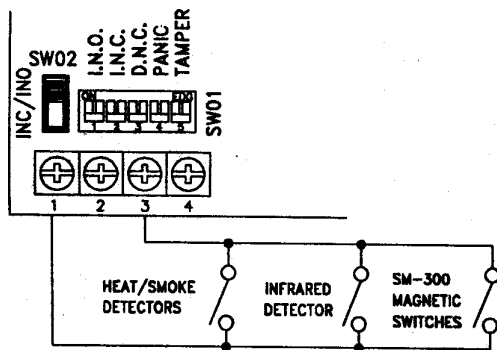
## TERMINALS

## WIRING INSTRUCTIONS

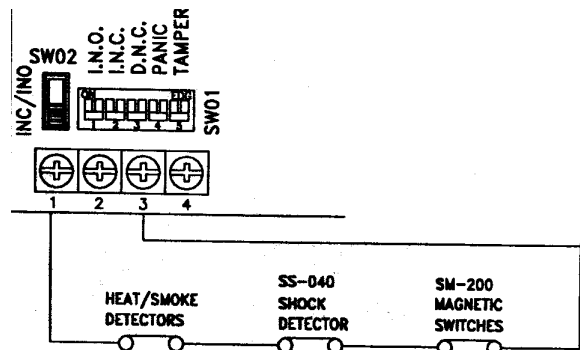
1 & 3

**N.C. or N.O. INSTANT ZONE INPUT** -- There are altogether 2 Instant Zone Inputs. This is the first Instant Zone Input and it can be switched to accept either Normally Closed (N.C.) or Normally Open (N.O.) Detectors/Contacts/Switches. The selection is done via the switch on the PCB labelled SW02. This switch is located directly above Terminal 1. Only a single type of device can be connected to this input at a time, i.e. if N.C. is selected, only N.C. devices can be connected or vice versa. N.C. devices MUST be wired in SERIES and N.O. devices MUST be wired in PARALLEL.

WHEN NORMALLY OPEN CIRCUIT IS USED



WHEN NORMALLY CLOSE CIRCUIT IS USED



2 & 3

**N.C. INSTANT ZONE INPUT** -- As many N.C. Switches/Sensors/Contacts as desired can be connected to this Instant Zone Input. The N.C. devices MUST be wired in SERIES.

3 & 4

**N.C. DELAY ZONE INPUT** -- Only N.C. devices can be connected to this Delay Zone Input. As many of the N.C. devices as desired can be connected to this input. The N.C. devices MUST be connected in SERIES.

**ENTRY/EXIT DELAY** -- Both the Entry and Exit Delay timings are adjusted separately by turning the indicated potentiometers. Turning the controls clockwise increases the delay time. Turning them counterclockwise decreases the delay time. The delay times are adjustable from approximately 1 second to 45 seconds.

**AUTOMATIC EXTENDED EXIT DELAY (A.E.E.D.)** -- A PATENTED feature of **SECO-LARM**'s which allows you to extend the Exit Delay Period past the 45-second limit. All you have to do is trigger a Switch/Sensor connected to the Delay Zone or Instant Zone before the Exit Delay Period has elapsed. The Enforcer Control Panel will remain inactive until the Sensor/Switch has been once again set. The Exit Delay Period of 45 seconds (or however long you choose to adjust) will then begin again.

5 & 7

**N.O. 24-HOUR PANIC ZONE INPUT** -- Any number of Normally Open (N.O.) devices may be connected to this terminal. All devices MUST be wired in PARALLEL.

When the N.O. devices are connected to this input, a momentary or continued violation of the device connected to this input will cause sirens, dialer, pager, etc. connected to Terminals 15 & 16 and Terminals 17 & 18 to instantly sound (or activate) regardless of whether the **ENFORCER 295** is armed or disarmed. Panic buttons, wireless panic buttons, emergency switches, and other-type contacts should be connected to this input. **REMEMBER** that this Panic Zone is not connected to the Phase-II Continual Protection Circuit.

**NOTE:** When the N. O. device has been activated, both the Alarm Siren Output and Dry Relay Contact Alarm Output (Terminals 15 & 16 and Terminals 17 & 18, respectively) will have output. The duration of the output will depend on the setting of the Auto Reset timing, but if the N. O. device is activated longer than the Auto Reset timing, then the alarm will output as long as the N. O. device is activated.

**N.C. TAMPER ZONE INPUT** -- Any number of Normally Closed (N.C.) devices may be connected to this Tamper Zone Input. All devices **MUST** be wired in **SERIES**.

When the N.C. devices are connected to this input, a momentary or continued violation of a device connected to this input will cause the connected siren, dialer, pager, etc., to instantly sound (or activate) regardless of whether the **ENFORCER 295** is armed or disarmed. Tamper switches, and other-type contacts that need to be armed at all times should be connected to this input. The Tamper switches are used for bell boxes, remote plates, the central alarm enclosure, etc.. **REMEMBER** that this Tamper Zone is not connected to the Phase-II Continual Protection Circuit.

**NOTE:** If the alarm is in Disarmed status, when the Tamper Zone is activated, only Tamper Transistor Ground Output (Terminal 14) will output as long as the Tamper Zone is activated, but if the alarm is in Armed status, when the Tamper Zone is activated, both Tamper Output and Alarm Siren Output (Terminal 14 and Terminals 15 & 16) will output. Again, the Tamper Output will output as long as the Tamper Zone is activated but the Alarm Siren Output is based on the Auto Reset timing unless the Tamper Zone is activated longer than the Auto Reset timing. In that case, both output will stop once Tamper Zone resets.

	BURGLAR VOLTAGE RELAY O/P	PANIC DRY RELAY O/P	TAMPER GND. TR. O/P
PANIC ZONE	✓ 24 Hr	✓ 24 Hr	X
TAMPER ZONE	✓ AFTER ALARM FULLY ARMED	X	✓ 24 Hr W/O TIMER
BURGLAR ZONE	✓ AFTER ALARM FULLY ARMED	X	X

**ZONE DISABLING DIP SWITCHES** -- If any one or all of the 5 input loops (N.C. or N.O. Instant Zone, N.C. Instant Zone, Delay Zone, 24-Hour Panic Zone and Tamper Zone) are not working properly, move the respective switch to the ON position (see Fig. 1). This will disable the zone and will prevent any false alarms associated with this zone as long as the switch remains in the ON position. If you wish to once again use the zone or zones you disabled, simply move the switch to the OFF position (see Fig. 2).

FIG. 1

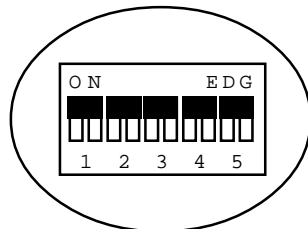
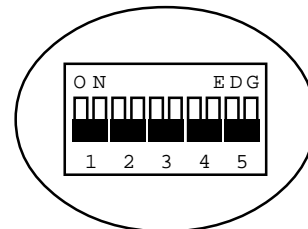


FIG. 2



**NOTE:** If any zones are not in use, use the jumper plate included. If the zone not in use is an N.C. Zone, the plate should be inserted between the input terminal and the common terminal but if the zone is an N.O. Zone (to complete the loop), then it will not be necessary to close the loop.

**IMPORTANT** If any zone becomes defective, or otherwise does not work properly, disable that zone by moving the appropriate Zone Disabling Switch to the ON position. The respective Green Individual Zone Status LED will stay ON all the time and the Arm/Disarm LED will FLASH continuously. Once this is done, immediately call your serviceman or installer to repair the defective zone. **DO NOT WAIT!**

**ISOLATING A DEFECTIVE ZONE** -- The Zone Disabling DIP Switches may be used to temporarily disable a zone(s) that has a defective detector or has been improperly wired. This way, the rest of the alarm system can remain armed and protect you while the defective zone(s) is being serviced.

1. To determine which zone(s) is defective, first set all Switches/Sensors/Contacts/ Detectors connected to all five zones to their normal (non-violated) state.
2. Note that if all five of the Individual Zone Status LEDs come ON, when you set all of the devices connected to their individual inputs, all zones are OK and nothing further must be done.
3. If, however, any of the five Individual Zone Status LEDs goes OFF, switch the respective Zone Disabling DIP Switch(es) to the ON position. This will disable the particular zone.

If this does not isolate the problem, consult with the **SECO-LARM** dealer from whom you purchased the **ENFORCER 295 CONTROL PANEL**.

8 & 7

**CONSTANT POWER OUTPUT** -- Provides a continuous direct current (DC) voltage (1.0 Amps max.) to power motion detectors, dialers, digital key pads, smoke detectors, passive infrared detectors, other devices that are part of the alarm system which require a constant power source. The output voltage is 12VDC out. Be sure that any devices connected to these terminals have a voltage rating equal to the output voltage of these terminals.

8 & 9

**MULTI-REMOTE ARM/DISARM** -- A momentary closure across Terminals 8 & 9 will arm or disarm the **ENFORCER 295** (depending on which state it was in just prior to the momentary closure). These terminals are not supervised. It is recommended that tamper switches be used on all remote plates outside of the protected area (like those installed outside the house). You can use any number of Key Lock Switches, Digital Key Pads, Coded Transmitter/Receivers, etc. The devices you use **MUST** have Normally Open (N.O.) contacts (SPST switches or relay contacts) and **MUST** be of the momentary type. We recommend the use of the **SECO-LARM SS-129-TC Remote Plate with Tamper Switch** and the **SECO-LARM SS-095 SPST Momentary Key Lock Switch**.

**FAIL-SAFE** -- The **ENFORCER 295** CANNOT be armed until ;

- (i) ALL devices connected to the (2) Instant Zones, Delay Zone, 24-Hour Panic Zone, Tamper Zone are in the non-violated state, OR,
- (ii) Those zones that are violated are disabled by the Zone Disabling DIP Switches.

**NOTE**

The Total Zone Status LED will either be ON or Flashing (the zone was triggered during the last time the alarm was armed) with the Arm/Disarm Status LED either ON or FLASHING (at least one of the zones has been disabled) when all functional protective Detectors and Sensors are in a non-violated state. If the Total Zones Status LED does not come ON or FLASH when you try to arm the alarm, check the protective circuits to find the Detectors/Sensors that are not properly set.

	LED STATUS		
	ON	FLASH	OFF
AC POWER RED LED	AC POWER ON	—————	AC POWER OFF
EXIT/ENTRY YELLOW LED	ENTRY	EXIT	NORMAL
ARM/DISARM RED LED	ARM	ZONE SHUNT	DISARM
TOTAL ZONE GREEN LED	ALL ZONE OK	ALARM TRIGGER	ANY ZONE NOT OK
INDIVIDUAL ZONE GREEN LED	ZONE OK	ZONE TRIGGERED	ZONE NOT OK

8 & 10

**ALERT SIGNALS FOR EXIT AND ENTRY** -- The **ENFORCER 295** provides for 2 different types of signals: PRE-ALARM WARNING and EXIT DELAY REMINDER. The PRE-ALARM signal is a constant output from Terminals 8 & 10 during the Entry Delay Period. Connection of a **SECO-LARM SH-503 MUSIC ALERT** which plays "Home-Sweet-Home", or any other type of electronic (non-mechanical) sounding device connected to these terminals, will produce an audible signal until power is disconnected (Entry Delay Period has expired). A pulsed signal is produced during the Exit Delay that will result in an ON/OFF beeping (buzzing) during the Exit Delay Period. The maximum current drawn by the device connected to Terminals 8 & 10 must not exceed 100mA.

**ENTRY/EXIT STATUS LED** (Not to be confused with Total Zone Status LED) -- Up to 100mA worth of LEDs may be connected to Terminals 8 & 10 for an additional reminder during the Entry Delay Period and Exit Delay Period, but each LED MUST have a 1K ohm current-limiting resistor in SERIES at either one of the LED terminals. (The current draw of Musical Alert or Buzzer connected has to be considered) In addition, do not forget that your **ENFORCER 295** already comes equipped with an Entry/Exit LED, and your Entry/Exit LED will continue to FLASH even during Automatic Extended Exit Delay (A.E.E.D.) Period. The Entry/Exit LED will be ON (steady) during the Entry Delay Period. The Entry/Exit LED will be FLASHING during the Exit Delay Period. The Entry/Exit LED will be OFF at all other times.

8 & 11 **TOTAL ZONE STATUS LED** -- Up to 100mA worth of LEDs may be connected to these terminals but each LED MUST have a 1K ohm current-limiting resistor in SERIES at either one of the LED terminals. The LED will be OFF when any protective Detector or Sensor connected to the alarm's (2) Instant Zones, Delay Zone, 24-Hour Panic Zone and Tamper Zone is sending a "trigger" signal to the alarm. The LED will be ON only when ALL protective Detectors or Sensors connected to all five of the Zones are in their stand-by mode (non-triggered and normal). The LED will be FLASHING if any one of the zones has been triggered. In addition, do not forget that your **ENFORCER 295** already comes equipped with a Total Zone Status LED.

8 & 12 **ARM/DISARM STATUS LED** -- Up to 100mA worth of LEDs may be connected to these terminals, but each LED MUST have a 1K ohm current-limiting resistor in SERIES at either one of the LED terminals. The LED will be OFF when the **ENFORCER 295** is DISARMED, and ON when ARMED. If the Arm/Disarm Status LED is FLASHING, it reflects that at least one of the zones has been disabled. In addition, do not forget that your **ENFORCER 295** already comes equipped with one Arm/Disarm Status LED.

8 & 13 **ARM/DISARM REPORT OUTPUT** -- Up to 100mA transistor ground output. It can connect to a central station to indicate the status of the alarm.

8 & 14 **TAMPER OUTPUT** -- Terminals 8 & 14 provide up to 100mA transistor ground output only when the Tamper Zone has been triggered and will output for as long as the Tamper Zone is triggered. This ground signal can be used to trigger a dialer, transmitter or signal a central station.

15 & 16 **POSITIVE VOLTAGE 3A RELAY ALARM OUTPUT (Alarm Siren Output)** -- Terminals 15 & 16 provide a Positive Voltage to provide DC power for devices that are activated only during alarm conditions. Such devices include sirens, bells, pagers, dialers, or other electrical and electronic devices that draw a total of less than 3 Amp. The output stops after the alarm is reset (manually or automatically) or power is cut.

**HIGH CURRENT OPTIONAL DEVICES** -- If you want to connect devices that draw more than 3 Amps or require AC voltage (for example, floodlights, solenoid-driven locking devices, video equipment, etc...) you will need to use external relay. A DC relay may be connected to Terminals 15 & 16. Then connect the devices to the external relay's contacts. (Be sure that the total current through Terminals 15 & 16 does not exceed 3 Amps., and that the external relay's contacts have a sufficient rating for the devices you want to connect.)

**AUTOMATIC RESET** -- The alarm outputs will automatically reset after the Auto Reset timing has elapsed. The duration is adjustable from about 3 seconds to 20 minutes by turning the indicated potentiometer. Turning it clockwise increases the duration. Turning it counterclockwise decreases the duration. **The ENFORCER 295 CONTROL PANEL** has the AUTO RESET preset at 3 minutes.

**PHASE-II CONTINUAL PROTECTION** -- After the Alarm Duration has expired, the zone that triggered the alarm is shut down and cannot again retrigger the alarm until that zone is restored to its normal (non-violated) state. However, the other protective zones remain armed and ready to sound the alarm if violated. Note that the 24-Hour Panic Zone and Tamper Zone are not a part of the Phase-II Continual Protection Circuit, and will always continue to protect your home even if the other zones have been disarmed.

**SIREN TEST SWITCH** (not included) -- Test the bell, siren, strobe light, or other devices connected to Terminals 15 & 16. Connect a Normally Open (N.O.) SPST momentary contact switch between Terminal 16 and the Red Wire on the PCB. Pushing the switch momentarily provides Positive Voltage from the Red Wire on the PCB and allows current to flow through devices connected to Terminal 15. Releasing the switch breaks the power connection and shuts off the current flow.



17 & 18  
N.O. - C

**DRY RELAY CONTACT ALARM OUTPUT (PANIC)** -- Dry relay output contacts are provided for activating dialer, pagers, and other equipment. On activation, the relay contacts CLOSE between Terminals 17 and 18. The relay contacts are each rated at 3 Amps 12VDC. The output resets after the alarm is reset (manually or automatically) or power is cut.

**NOTE:** The Dry Relay Contact Alarm Output will only output when the Panic Zone is activated. The duration of the output will depend on the Auto Reset timing that has been set.

19 & 20

**AC/DC PRIMARY POWER INPUT** -- The primary power source for the **ENFORCER 295 CONTROL PANEL** can be either AC or DC. The input voltage supply must be rated within a range of DC 16VDC to 20VDC.

**AC POWER SUPPLY** -- If AC power is desired, connect a CLASS-II TRANSFORMER such as **SECO-LARM's** model ST-1216-20 or ST-1216-35 to these terminals. The minimum VA rating depends on whether a back-up battery is used and also on the total current drawn from Terminals 7 & 8 and Terminals 15 & 16. Determine the TOTAL current requirements of all optional devices connected to Terminals 7 & 8 (Constant Power Output) and Terminals 15 & 16 (Positive Voltage Relay Alarm Output).

**DC POWER SUPPLY** -- If DC power is desired, connect a DC power supply to these terminals. The minimum output current rating of the power supply depends on whether a back-up battery is used and also on the total current drain from Terminals 7 & 8 and Terminals 15 & 16. The use of a 16VDC Adapter is acceptable if the current rating is sufficient and a stand-by battery of the same voltage rating is also used. Determine the TOTAL current requirements of all optional devices connected to Terminals 7 & 8 and Terminals 15 & 16.

**RED AND BLACK WIRE ON THE PCB** -- The back-up battery will be connected directly to these two wires. The Red Wire will be connected to the Positive terminal of the battery while the Black Wire is connected to the Negative terminal of the battery.

**AUTOMATIC RECHARGE** -- With either AC or DC primary power connected, the **ENFORCER 295** will automatically recharge the stand-by battery as necessary.

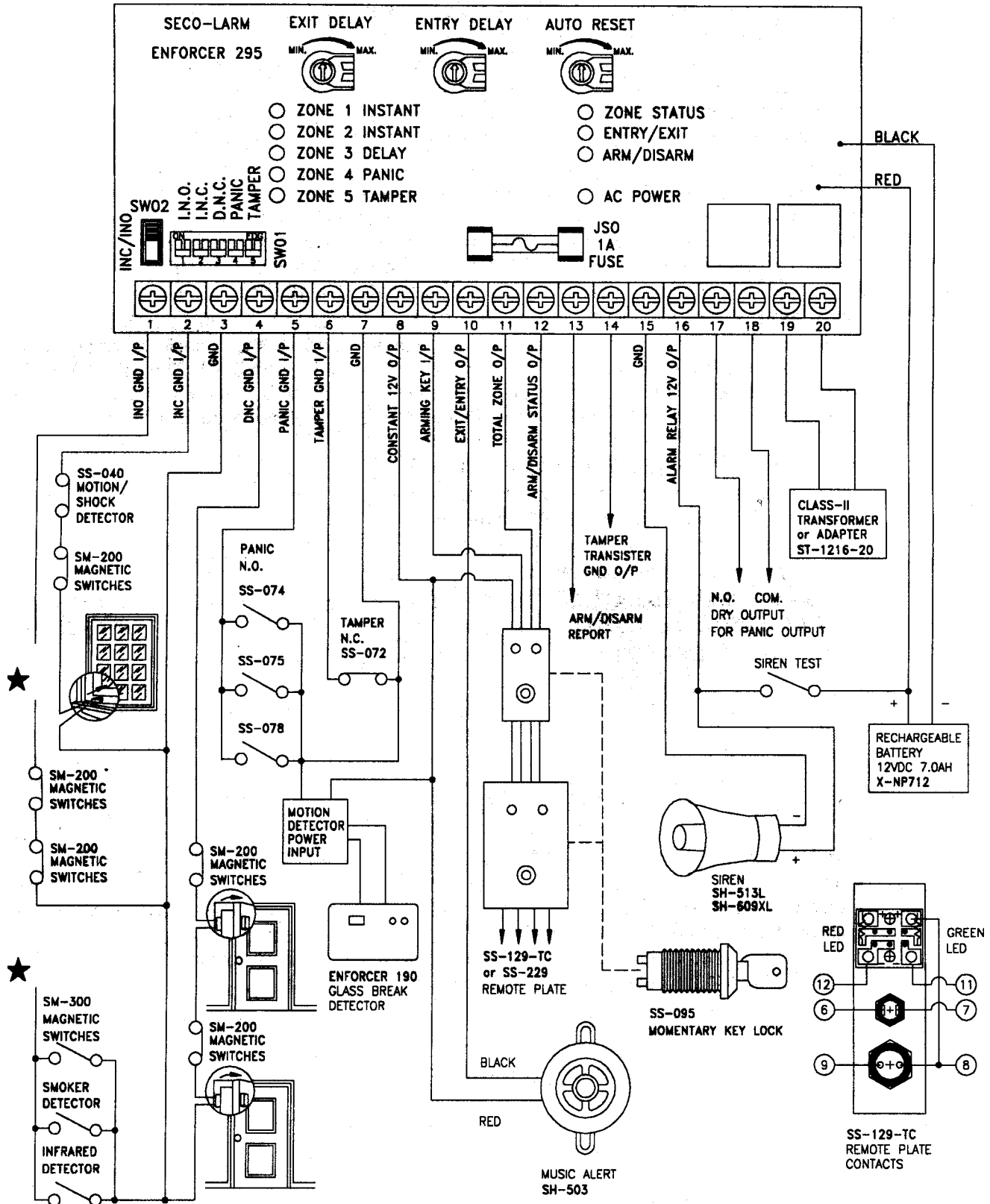
**PRIMARY POWER INDICATOR** -- This Red LED is located on the PCB and will be ON when either AC or DC power is connected to the Terminals 19 & 20 of the **ENFORCER 295 CONTROL PANEL**.

**RECHARGEABLE BATTERY** -- Provides stand-by power in case the primary source is interrupted. Use a good quality rechargeable battery (GEL-type recommended). The battery must be rated at the same voltage as the primary power input voltage and must have an Amp-Hour rating sufficient to power the entire system in the event of primary power failure.

**MINIMUM AMP-HOUR (AH) RATING** -- To determine the minimum AH rating for your particular system, compute (add) the total current requirements of all devices connected to Terminals 7 & 8 and Terminals 15 and 16. Then divide this total by 2 and add 0.1 to the result. This is the minimum required AH rating of the back-up battery used in your system. Don't forget, if you add additional devices, you may need a larger battery. **SECO-LARM** suggest that you should use the model **X-NP712**.

**BATTERY TEST** -- Unplug the transformer or disconnect the wire going to Terminal 20. Connect a volt meter to the Red (+) and Black (-) Wire and read the voltage. Press the Bell Test switch and read the voltage. If the voltage drops by more than 20% of the original reading, replace the battery. If the voltage drops by 10% to 20%, the battery is weak (nearly worn-out) and may not provide reliable power when needed. Replace the battery or check it at least every two weeks.

# COMPLETE WIRING DIAGRAM



★ FOR TERMINAL 1 ONLY, EITHER NORMALLY CLOSE LOOP OR NORMALLY OPEN LOOP CAN BE CHOSEN VIA SW02.

## SECO-LARM COMPONENTS COMPATIBLE WITH YOUR ENFORCER 295

**ENFORCER 190 GLASS BREAK DETECTOR**—One of the most convenient audio-discriminator for glass break protection on the market today. Provides protection for windows and glass doors within a 15' radius. Does not require special wire's for wiring.

**SH-503 MUSIC ALERT**—Plays a musical melody as soon as power is supplied. Use it as a Pre-Alarm sounder to replace the standard buzzer, as a door bell, or whenever you need an audible signalling device. Off-white color makes it extremely attractive. Measurements: 1-1/16" x 1-1/16" (27 D x 27 H mm).

**SH-609XL, SH-513L, SH-533L, SH-563L SIRENS**—High-quality, all-solid-state sounding devices that are both compact and weatherproof—mount both indoors or outdoors.

**SH-609XL** contain SECO-LARM's PATENTED HEAT SINK, with this remarkable device, the siren can continue to sound for SEVERAL HUNDRED HOURS and still work without a problem. **SH-609XL**—Ear-piercing 128dB, 1.2 Amp. Aluminum trumpet with high-impact ABS rear housing; **SH-513L, SH-533L, SH-563L**—One, three, or six tone siren, respectively. Ear-piercing 128dB, 1.4 Amp.

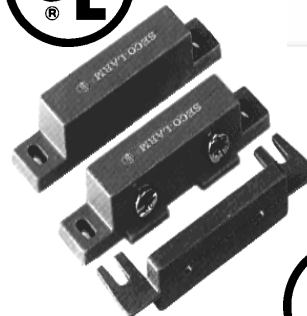
**SL-126 EMERGENCY STROBE LIGHT**—Use both indoors and outdoors to scare off intruders and alert neighbors to the danger. High-powered, "U"-type, Xenon-bulb flash is visible for miles. The flash rate is more than one per second. Clear dome lens. Other lenses in red, amber, and blue are also available.

**SS-040UL VIBRATION DETECTOR**—Used for detecting sudden movement against glass, windows, solid walls, ceilings, cabinets, skylights, safes, and virtually all other areas vulnerable to forced entry. Adjustable contact pressure sensitivity to reduce false alarms, tamper-proof, dust-proof, silver contacts. Standby status is Normally Closed. Rated 0.5A at 25VDC. Easy installation.

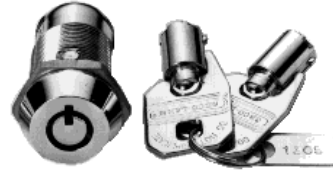
**SM-200, SM-300 MAGNETIC SWITCHES**—Easily installed. Opening of doors and windows will move magnet, allowing SPST contacts to Open (**SM-200**) or Close (**SM-300**), activating the security system. Millions of operations, Max. 0.5A at 25VDC.

**SS-202 FOIL CONNECTOR**—Double-blocked and strongly self-adhering—mount directly on glass for fast, reliable foil connection. Special nickel-plated clips and screws provide maximum protection against corrosion. Each block has a lip on the side to protect the foil from slipping to the side, thus reducing ground shorts.

**SS-075 EMERGENCY/PANIC BUTTON**—This push button instantly activates the **ENFORCER 295** in an emergency. For personal use as a counter, table, or bedside switch. SPST N.O. momentary contact. Rated 0.5A at 120VAC.



**SS-095 ROUND KEY LOCK SWITCH**—This Momentary Key Lock Switch is pick resistant, providing maximum security. Patented silver-plated “SEESAW” contacts assure a good and stable contact every time—even after years of use. Durable Fiber-Bakelite Base with terminal dividers, make the **SS-095** difficult to break and highly resistant to heat. Contacts rated at 125VAC, 10 Amps.



**SS-129-TC REMOTE PLATE**—Use in conjunction with the **SS-095** to make the installation look more attractive and to provide greater protection for the **SS-095**. Comes with an N.C. Tamper Switch to sound the alarm if someone attempts to remove the plate. Stainless Steel. Includes 2 LEDs and 1 “D”-type mounting hole for a perfect fit.



**ST-1216-20 CLASS-II TRANSFORMERS**—The ideal devices for powering your **ENFORCER 295**. **ST-1216-20** is 16V, 20VA.

## SPECIFICATIONS:

**EXIT DELAY:** On N.C. Delay, N.O./N.C. Instant, N.C. Instant Zones; adjustable from 1 to 45 seconds **ENTRY DELAY:** On N.C. Delay zone only; adjustable from 1 to 45 seconds **AUTOMATIC RESET:** Adjustable from 3 seconds to 20 minutes **N.C. INSTANT ZONE:** With Exit Delay only, instantly triggers alarm **N.C. OR N.O. INSTANT ZONE:** With Exit Delay only, instantly triggers alarm **24-HOUR PANIC ZONE:** No Entry/Exit Delays, instantly triggers alarm; remains armed even when other zones are disarmed; not connected to Phase II Protection **N.C. 24-HOUR TAMPER ZONE:** Instant trigger, no delays. When disarmed, tamper zone output only. When armed, has both tamper zone output and siren relay output. **ARMING/DISARMING:** Multi-remote; momentary contact **DRY RELAY CONTACT PANIC OUTPUT:** C-N.O. Dry Relay contact (3A max.) for activating dialers, pagers, etc.. **POSITIVE VOLTAGE ALARM RELAY OUTPUT:** N.O. contact that provides Positive Voltage (3A max.) for powering bells, sirens and other alarm signalling devices **CONSTANT OUTPUT:** 12VDC, 1A (max.), regulated **ARM/DISARM/SHUNT STATUS RED LED:** **ON**-System Armed; **FLASHING**-Shunt; **OFF**-System Disarmed **ARM/DISARM/SHUNT STATUS OUTPUT:** Powers up to 10 LEDs but each LED requires its own 1Kohm current-limiting resistor **TOTAL ZONE/MEMORY STATUS GREEN LED:** **ON**-All zones OK; **FLASHING**-Zone/s had been triggered; **OFF**-Zone/s had been triggered by not restored **TOTAL ZONE/MEMORY STATUS LED OUTPUT:** Powers up to 10 LEDs, but each LED requires its own 1Kohm current-limiting resistor **5 INDIVIDUAL ZONE/MEMORY STATUS LEDs:** **ON**-Respective zone is OK; **FLASHING**-Respective zone had been triggered; **OFF**-Respective zone had been triggered but not restored **ENTRY/EXIT STATUS YELLOW LED:** **ON**-Entry Delay; **FLASHING**-Exit Delay **ENTRY/EXIT SIGNAL OUTPUT:** Powers up to 10 LEDs, but each LED requires its own 1Kohm current limiting resistor **ARM/DISARM (DIALER) STATUS REPORT OUTPUT:** Link-up with Central Station; HI-Disarmed; LO-Armed **TAMPER ZONE OUTPUT:** Transistor ground output, 100mA (max.) **PRIMARY POWER STATUS RED LED:** **ON**-Power exists; **OFF**-No power **TEMPERATURE RANGE:** -40°F to +149°F (-20°C to +65°C) **CURRENT DRAIN:** Only 80mA when system is Armed but not triggered **POWER REQUIREMENT:** AC / DC **RECHARGEABLE BATTERY:** 12VDC, 2.6 - 7.0AH **DIMENSIONS:** 8-1/2" x 3-1/8" x 11-7/16" (215W x 79H x 290L mm) **UNIT NET WEIGHT:** 4.29lb (1.95Kg)

For more information concerning the above products, or for further information concerning any of **SECO-LARM**'s other fine products, please contact your local **SECO-LARM** dealer.

The **SECO-LARM** policy is one of continual development and improvement. For that reason, **SECO-LARM** reserves the right to change specifications without notice.

**OEM MANUFACTURERS SINCE 1971**  
**ENFORCER IS A REGISTERED TRADEMARK of SECO-LARM.**