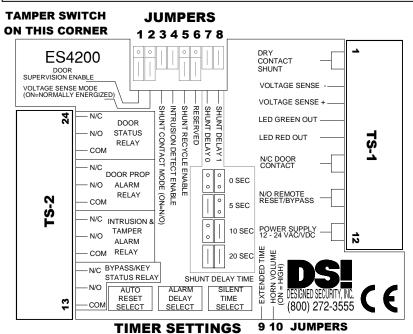
COMPONENT LOCATION DIAGRAM

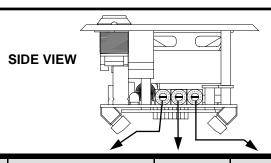


JUMPER	CONFIGURES			
1 Door Supervision (Part of Tamper circuit)	TS1-7&6 Door Inpu			
2 Voltage Sense Mode (Senses Lock Voltage as Valid User Input)	TS1-3&4 Voltage Sense Input			
3 Shunt Contact Mode (Senses Dry Contact as Valid User Input)	TS1-1&2 Shunt Contact Input			
4 Intrusion Detect Enable (Explained on reverse)	Intrusion or Free Access selection			
5 Shunt Recycle Enable (Explained on reverse)	Shunt Recycle feature selection			
6 RESERVED (Factory Diagnostic)	Factory Use Only Leave Jumper OFF			
7 & 8 Shunt Delay Timer (Set same as Lock Time)	Access Time prior to opening door			
9 Extended Time	Select Ext. Silent Time 03-90 Min.			
10 Horn Volume	Select 96db or 103db			

TAMPER CIRCUIT - Alarm is not reset with key.

- TAMPER SWITCH Switch is located on stand-off under spring steel actuator. (Cut cable tie to Enable switch)
- **DOOR SUPERVISION** Enable with Jumper 1. Requires resistors on Door Switch. (Schematic on reverse)

TIMER SETTINGS TABLE



SET	SILENT TIME SELECT (Extended Silent Time Jumper)		ALARM DELAY TIME	AUTO RESET TIME	
	NORMAL Jumper OFF	EXTENDED Jumper ON	SELECT	SELECT	
0	0 Sec	3 Min	0 Sec	0 Sec	
1	3 Sec	3.5 Min	3 Sec	3 Sec	
2	5 Sec	4 Min	5 Sec	5 Sec	
3	7 Sec	4.5 Min	7 Sec	7 Sec	
4	10 Sec	5 Min	10 Sec	10 Sec	
5	12 Sec	6 Min	12 Sec	12 Sec	
6	15 Sec	7 Min	15 Sec	15 Sec	
7	20 Sec	8 Min	20 Sec	20 Sec	
8	25 Sec	9 Min	30 Sec	30 Sec	
9	30 Sec	10 Min	45 Sec	45 Sec	
Α	35 Sec	20 Min	1 Min	1 Min	
В	45 Sec	30 Min	2 Min	2 Min	
С	1 Min	40 Min	3 Min	3 Min	
D	1.5 Min	50 Min	4 Min	4 Min	
E	2 Min	60 Min	5 Min	5 Min	
F	2.5 Min	90 Min	INFINITE	MANUAL	

ELECTRICAL SPECIFICATIONS								
	VOLTS	AMPS	N/O	N/C				
Power	12-24 VAC/DC	250mA	N/A					
Voltage Sense	12-24 VAC/DC	15mA						
Shunt Input	Dry (Jumper Selectable						
Bypass Input	Dry (√						
Door Input	Dry Contact			√				
Output Relays	Dry Contact	1 Amp@ 30 VDC	$\sqrt{}$	$\sqrt{}$				

MECHANICAL SPECIFICATIONS

- The ES4200 -K0 & K1 mounts flush in a 2.5" deep. 2-Gang electrical switch box.
- ES4200-K3 and -K4 (RIM hardware) requires a 2.5" deep, 3-Gang electrical switch box.

TROUBLESHOOTING TIPS

- Horn won't Reset
- Verify Tamper Switch is closed; Verify Door Supervision Jumper is correct for application; Check Door Contact Resistors are installed as per Step 1 if Door Supervision is enabled.
- LED always Green
- Normal condition when Jumper 4 is OFF; Verify Shunt Contact & Voltage Sense jumpers are correct for your application; Verify Key Switch is Vertical and Bypass Input is open.
- **Alarm when Door Opens**
 - Verify that S0&S1 Jumpers and Silent Time are set greater than 0 sec.; Verify Intrusion Jumper is set correctly for application.
- **Clicking Output Relays**
- Verify Jumper 6 (Reserved) is OFF.

OPERATION

VALID ACCESS / PROPPED DOOR OPERATION

ARMED STATE - Red LED (Green if Intrusion Detect is Off) VALID USER INPUT - Shunt or Voltage Sense Input

LED - Changes to Green

DOOR - Opened by user, Silent Timer begins DOOR - Closed by user, Returns to Armed State, or

SILENT TIME TIMER - expires, then

AUDIBLE WARNING - Beeps to alert user locally LED - Flashes Green

DOOR - Closed by user, returns to Armed State, or * **SHUNT RECYCLE** 2nd Valid User Input (*if enabled) SILENT TIME RESET - Silent Timer begins again

DOOR HELD/PROPPED - Alarm Delay Times out

LED - Flashes Red

AUDIBLE - Constant tone, Auto Reset Timer begins OUTPUT - Door Prop Alarm relay toggles

DOOR CLOSED - After Door Prop Alarm exists

AUDIBLE - On until Auto Reset (AR) Time expires

LED - Flashes Red for AR Time

OUTPUT - Relay held for duration of AR Time

INTRUSION OPERATION

ARMED STATE - Red LED

DOOR Opened by invalid entry

LED - Flashes Red

AUDIBLE - Constant tone, Auto Reset Timer begins OUTPUT - Intrusion/Tamper Alarm relay toggles

DOOR CLOSED

LED - Flashes for duration of AR Time AUDIBLE - Continues for duration of AR Time OUTPUT - Changed for duration of AR Time

REARM - After AR time expires OR by Manual reset

LED - Red (Armed State)

TAMPER OPERATION

ARMED STATE - Red LED (Door Supervision Enabled) **TAMPER** (Door circuit open/shorted, or if unit is removed from wall)

LED - Flashing Red

AUDIBLE - Constant tone

OUTPUT - Intrusion/Tamper Alarm relay toggles **RESET** - Door normal, and Tamper switch closed

LED - Red (Armed State)

FUNCTIONAL DESCRIPTION

INPUTS

The inputs are located on Terminal Strip –1 and include:

- Dry Shunt Input a N/O or N/C Dry Contact, selected using Shunt Contact Mode Jumper 3. See Step 3
- Voltage Sense Monitors the power wires on an electric lock (i.e.: Mag-lock or Door Strike). Senses change in voltage as valid user. See Step 3.
- Door a Closed Loop (N/C) Dry Contact which opens when the monitored door opens. See Step 1.
- Bypass Connect to a N/O Dry Contact from a remote location to bypass the unit. See Step 7.
- Power 12 to 24 VAC/DC @ 250 mA. The terminals are not polarity sensitive. See Step 5

TIMERS

- Silent Time "Open Door" Time 0-2.5 min. in standard mode, 3 - 90 min. in Extended mode (selected by Jumper 9).
- Alarm Delay "Warning" Time 0-5 min. and "Infinite." Local Beeping Warning Audible sounds during this time.
- Auto Reset "Alarm" Time 0-5 min. and Manual Reset. Constant Alarm Audible sounds during this time.
- Shunt Delay Valid Access Time prior to reset if Door is unopened. 0, 5, 10, or 20 seconds (set with Jumpers 7 & 8).

OUTPUTS

- Remote LED (located on TS-1) Output for a remote Bi-color LED, output follows LED on Face Plate.
- Door Contact Status follows the Door Contact Input, regardless of alarm or bypass condition.
- Door Prop Alarm Status changes state during a Door Prop (Door Held) Alarm condition.
- Intrusion/Tamper Alarm Status changes state during an Intrusion or Tamper Alarm condition.
- Bypass/Key Switch Status follows Bypass and Key inputs. Output contacts change state when power is lost.

OTHER FEATURES

Shunt Recycle -See Step 3. **Door Supervision -**See Step 1. Intrusion Detect -See Step 2. Loud Horn Volume -See Step 7.

Extended Silent Time -See Step 4.

Shunt Delay Timer -See Step 4.

OPTIONAL ACCESSORIES

ES440 Pushbutton; ES450 Key Switch; ES600 Annunciator

DESIGNED SECURITY INC 800 272 3555

www.dsigo.com Email: dsi@dsigo.com

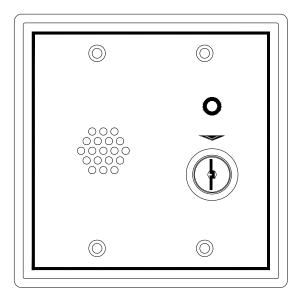
1402 Hawthorne St., Bastrop, Texas 78602



ES4200

DOOR MANAGEMENT ALARM INSTALLATION INSTRUCTIONS

FOLLOW THE STEP BY STEP CONFIGURATION FOR EASY INSTALLATION



ES4200-K1

The DEFAULT SETUP is for Access Controlled, and **Emergency Exit applications.**

- This unit may be connected to power and a closed-loop Door Input and be ready to work immediately for the Default application.
- A Voltage Sense input used with a Mag-Lock, and/or a N/C Dry Contact Shunt input will require additional jumper configuration (J2 and/or J3 respectively) and is covered in Step 3.
- The unit is easily configured for a stand-alone Door Prop application by removing the Intrusion Detection jumper. (LED will always be Green when Intrusion Detection is disabled.)

Timer Setting Defaults: (Step 4)

- Silent Time 5 seconds;
- Alarm Delay Time5 seconds
- Auto Reset Time5 seconds
- Shunt Delay 20 seconds

See text for Feature Description and Setup info.

TERMS USED IN THIS INSTRUCTION

N/C DOOR CONTACT - is a "closed-loop" circuit which goes open when the door is opened.

SHUNT INPUT - is a dry contact Valid User Input provided by an Access Control System or a PIR / REX device.

DMA - Door Management Alarm (i.e.: ES4200 series)

Normally Energized - in reference to a Mag-Lock or other locking device where power is removed to unlock.

Normally De-energized - in reference to a Door Strike or other locking device where power is applied to unlock.

FOR TROUBLE-FREE INSTALLATION. VERIFY EACH SETTING

STEP BY STEP Jumpers: ON= short 2 pins; OFF= one pin only.

DOOR, SUPERVISION, AND TAMPER

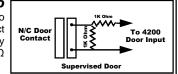
- Connect N/C Door Contact to TS1 7&8.
- If resistors are installed for **Door** Supervision:
 - A) place Jumper 1 ON and put resistors at door switch as shown in diagram.
 - B) If unused, leave Jumper OFF and use a closed-loop Door Switch circuit.

DOOR SUPERVISION EXPLAINED

Door Supervision allows the ES4200 to monitor the circuit from the Door Contact for open or shorted wires which may indicate tampering. (via two $1K\Omega$ resistors installed as shown)

2

4



- Tamper Alarm (cannot be reset or bypassed)
 - A) To Enable feature cut cable tie on Tamper Switch located on standoff (Component Location on reverse).

INTRUSION DETECTION

TIMER SETTINGS

enabled.

- A) Jumper 4 is **ON** for Access Control and Emergency Exit Only applications.
- B) Jumper 4 is OFF for Door Prop/Held applications without Access Control.

The **SHUNT DELAY TIMER** begins after a

Valid User input (prior to door being opened)

when timer expires. Cancels upon door opening.

and if door is not opened the DMA will reset

NOTE: If OFF, LED is Green except during a Door Prop Alarm. If OFF, Go to Step 4-Timer Settings. (Skip Step 3)

ACCESS CONTROL

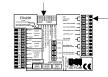
- **VOLTAGE SENSE** monitors Lock Power as "Valid User" input on TS1 (3&4)
 - A) If unused, Jumper 2 must be **OFF**.
 - B) If used, select: Normally Energized (Jumper 2 ON); or Normally De-Energized (Jumper 2 OFF)

VOLTAGE SENSE EXPLAINED

This input samples the voltage to a Mag Lock (J2 ON) or a Door Strike* (J2 OFF) and accepts a change in voltage as a valid user input. *Normally de-energized.

- SHUNT INPUT detects a Dry Contact input for each valid access. TS1 (1&2)
 - A) If unused, Jumper 3 must be **ON**
 - B) If used, Select:

Jumper 3 ON for N/O input; or Jumper 3 OFF for N/C input.



VERIFY ANY UNUSED FEATURES ARE SET CORRECTLY FOR YOUR APPLICATION

6

OUTPUTS (FORM-C)

DOOR STATUS RELAY TS2-

22,23,24 changes state when the

Door Input changes. Used to monitor

DOOR PROP ALARM RELAY

TS2-19.20.21 changes state when a

door is held open beyond the Silent

FORCED DOOR/TAMPER

ALARM RELAY TS2-16,17,18

ADDITIONAL OUTPUT INFORMATION

To combine multiple outputs, connect N/O

contacts in parallel, or N/C contacts in series.

See diagrams at right. The use of any/all Outputs

DSI's ES600 (4/8/12) Zone Annunciator series,

and Custom Annunciator Panels, offer a turn-key

solution for remote monitoring. (such as Security,

If Power is removed from the ES4200, each

contacts will appear as if an alarm or bypass condition exists.

ADDITIONAL FEATURES

Nursing, or Management stations, etc.)

Open or a Normally Closed Dry contact.

changes state when a door is forced or a tamper

BYPASS/KEY SWITCH STATUS RELAY TS2-

13,14,15 changes state during Bypass (TS1 9&10) and

Key Switch Inputs. Used to monitor for changes in

Each of the Output functions offers the availability of monitoring a Normally

Each contact's state will change to follow the status of the monitored

contact in it's normal state (powered), will change state. Example: Door Status will appear as if the door has been opened: Alarm and Bypass

condition exists (Door Supervision/Tamper Switch).

and Alarm Delay time, combined.

changes in Door Contact status.

SHUNT INPUT EXPLAINED

This input from a PIR or Access Control system provides user validation.

- SHUNT RECYCLE (see description below)
 - A) Jumper 5 is ON
 - B) Jumper 5 is OFF



/-----

SHUNT RECYCLE EXPLAINED

When Shunt Recycle is Enabled (ON), a Shunt Contact or Voltage Sense Input during the Alarm Delay warning period (beeping) will reset the Silent Time Timer. Shunt Recycle gives the User the ability to Hold the door indefinitely by repeating a valid input during each Alarm Delay warning. When disabled, only a Key or Bypass input will reset the DMA.

ALARM DELAY SELECT begins on the expiration of the Silent Timer. Warning Alarm sounds locally to alert user.

- A) Turn dial to **SET** # on table (see reverse) for the time you want the Warning (beeping) alarm to sound (prior to triggering the Door Prop Alarm Horn and Relay).
- A) Shunt Delay works only with Intrusion Detection AUTO RESET TIME SELECT is the minimum time the Horn, LED and Relays are on following an alarm condition.

NOTE: Alarm will continue for as long as the door is open.

A) Turn the dial to **SET** Timer (0 seconds to 5 minutes, or Manual).

BYPASS TS1 (9&10) input, to N/O contact to remotely Bypass or Reset the

Bypass status.

is optional.



__ N/O

To Monitoring Equip

To Monitoring Equip

ES4200

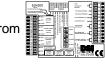
VOLTAGE SENSE MODE (ON=NORMALLY ENERGIZED)

N/C DOOR PROI

⊕ P N/C INTRUSION A NO TAMPER ALARM

MO STATUS REL

REMOTE LED to TS1 (5&6). (from DSI ES450 with Bi-color LED)



HORN VOLUME - Jumper 10 is used to set the volume of the

OFF = 96db



sounder. ON = 103db



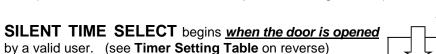
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www.dsigo.com Email: dsi@dsigo.com

POWER

to TS1 11&12. Not polarity sensitive.

5







POWER - Connect 12-24 VAC/DC



800 272 3555

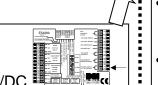
SEE TABLE ON REVERSE •

A) Timer has **two ranges** selected with **Jumper 9**;

by a valid user. (see Timer Setting Table on reverse)

B) See table on Back Plate for Jumper 7&8 setting detail.

- Normal 0 seconds to 2.5 minutes (Jumper OFF)
- Extended 3 minutes to 90 minutes (Jumper ON)
- B) After selecting appropriate range, turn dial to **SET** # for the Silent Time period desired for your application.





COMPONENT LOCATION INFO ON REVERSE