



Entrex

Entrex Door Controls Inc.

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#ES-10

SWITCHING NETWORK

QUANTITY = 1

MADE IN CANADA



General Description

The Entrex Mdl. ES-10 Switching Network is a universal timer with many applications in the Automatic door industry, due to compatibility with most makes of door equipment, strikes/magnets, etc..

The outputs are Form 'C' , 5.0 amps, and feature adjustable on/off times. A 3-position switch selects the mode: Sequential (push -on, push-off); Timer mode with momentary inputs (push switch); Timer mode with continuous inputs (mats, motion detectors, etc.)

For door sequencing applications please use our ES-100C for one way, and EDS-15 for bi-directional.

Installation

The ES-10 is typically mounted as close as possible to the automatic door operator, preferably in a clean, dry location. It can be loosely tucked into the operator header, or fastened using the supplied double-sided tape.

DO NOT DRILL INTO THE CASE!

Mount the ES-10 with consideration given to accessibility of wiring and adjustments.

The terminal strip is accessible by removing the four Phillips machine screws holding cover. A wiring label is also found under the cover.

Feed all wires through the expandable water-tight connector. Once all wiring is complete, tighten expansion nut securely.

DO NOT ATTEMPT TO REMOVE CIRCUIT BOARD!

Wiring

Step 1 - Input Connections

Connect the normally open contacts of your *Activating device* to terminals 3 and 4. **Note:** The switch contacts **must** be **isolated!** This is especially true for

Radio Receivers which are typically 3-wire! Contact Entrex if in doubt.

Step 2 - Relay "A" Connections

Terminals 5 to 7 are Relay "A" contacts and are specifically intended for the Electric Strike or magnet. Usually the Common (#6), and N.O. (#7) terminals are used.

As shipped, these contacts are *DRY*, and protected by a single 5 amp fuse. They can however, also deliver *switched 24 VAC power* to the same terminals. To do this remove the single 5 amp fuse and along with another 5 amp fuse insert into the dual fuse position!

Note: Exercise caution with output leads - do not short together!

Step 3 - Relay "B" Connections

Terminals 8 to 13 are Relay "B" contacts, and are intended for connection to the door operator (and status monitor). Relay "B" is the *delayed* output, with delay adjustable from 0.5 to 15 seconds.

The door operator is normally connected to the Common(#9), and N.O. (#10) terminals. The auxiliary terminals #11 - #13 are available for a status monitor, door chime, etc..

Step 4 - Power Supply Connections

Once all other wiring connections have been made, the supply voltage - 24 VAC, can be connected to Terminals 1 and 2. Current draw is only 50 mA, so power can be obtained directly from the operator, if possible, or, from a separate 24VAC transformer. If you are powering the strike directly from the ES-10, you **must ensure the transformer used matches the strike requirements.**

See over for adjustments...

40-DRG00107

Adjustments

Mode Selector Switch

Position 1: Sequential (ratchet) mode. When the ES-10 is activated once, both relays pull in, Relay 1 times out, and Relay 2 stays held in until the ES-10 is activated a second time.

Position 2: Momentary Timer mode. This position is for momentary inputs only, such as Radio controls, wall switches, etc.. The timer cycles very precisely regardless of how long the input is activated.

Position 3: Continuous Timer mode. This position is for continuous type activators such as mats, motion detectors, etc.. Relay "B" will be held in indefinitely if the input is maintained indefinitely.

Potentiometer Adjustments

Delay on release (D.O.R.) timers are available on both Relay "A" and Relay "B", and are adjustable from 3 - 30 seconds.

Delay on operate (D.O.O.) is available on Relay "B" and is typically set at minimum (1/2 to 1 sec.) Adjustment is possible from 0.5 - 15 seconds max..

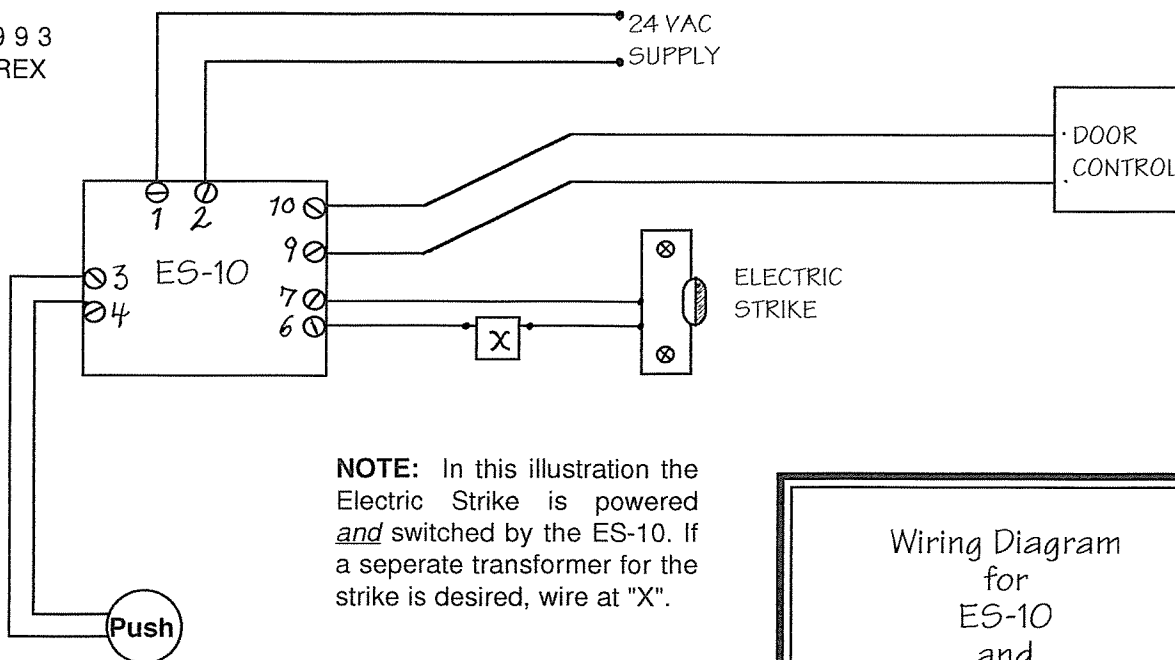
Specifications

Model.....	ES-10
Enclosure.....	ABS Flame retardant plastic
Colour.....	Black Std. Others opt.
Mounting.....	Double sided foam tape
Dimensions.....	2.5" x 4.7" x 1.4"
Operating Voltage	24 VAC +/- 15%
Current draw.....	50ma
Response Time	0.03 Seconds
Relay Outputs.....	#1 - Form 'C' dry, or, 24VAC switched power.
.....	#2 - Form 'C' dry.
Time Delays	D.O.O. 0.5-15 seconds D.O.R. 3.0-30 seconds

Warranty

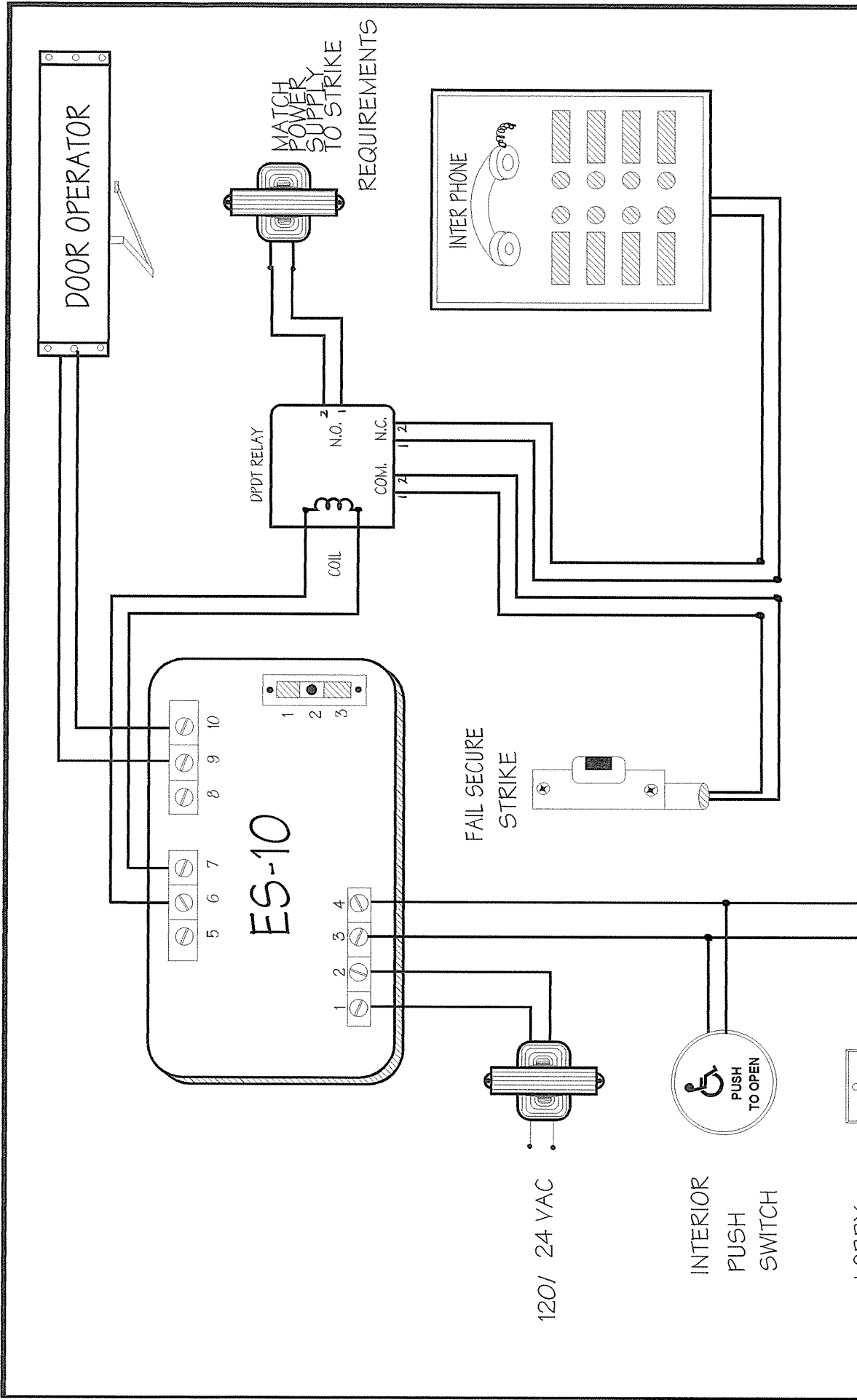
Entrex International Ltd. guarantees the ES-10 to be free from manufacturing defects for 12 months from date of sale. If during the first 12 months the ES-10 fails to perform correctly, it may be returned prepaid to our factory where it will be repaired or replaced (at our discretion) without charge. Except as stated herein, Entrex extends no warranties expressed or implied regarding function, performance or service.

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NOTE: In this illustration the Electric Strike is powered and switched by the ES-10. If a separate transformer for the strike is desired, wire at "X".

Wiring Diagram
for
ES-10
and
Electric Strike Application



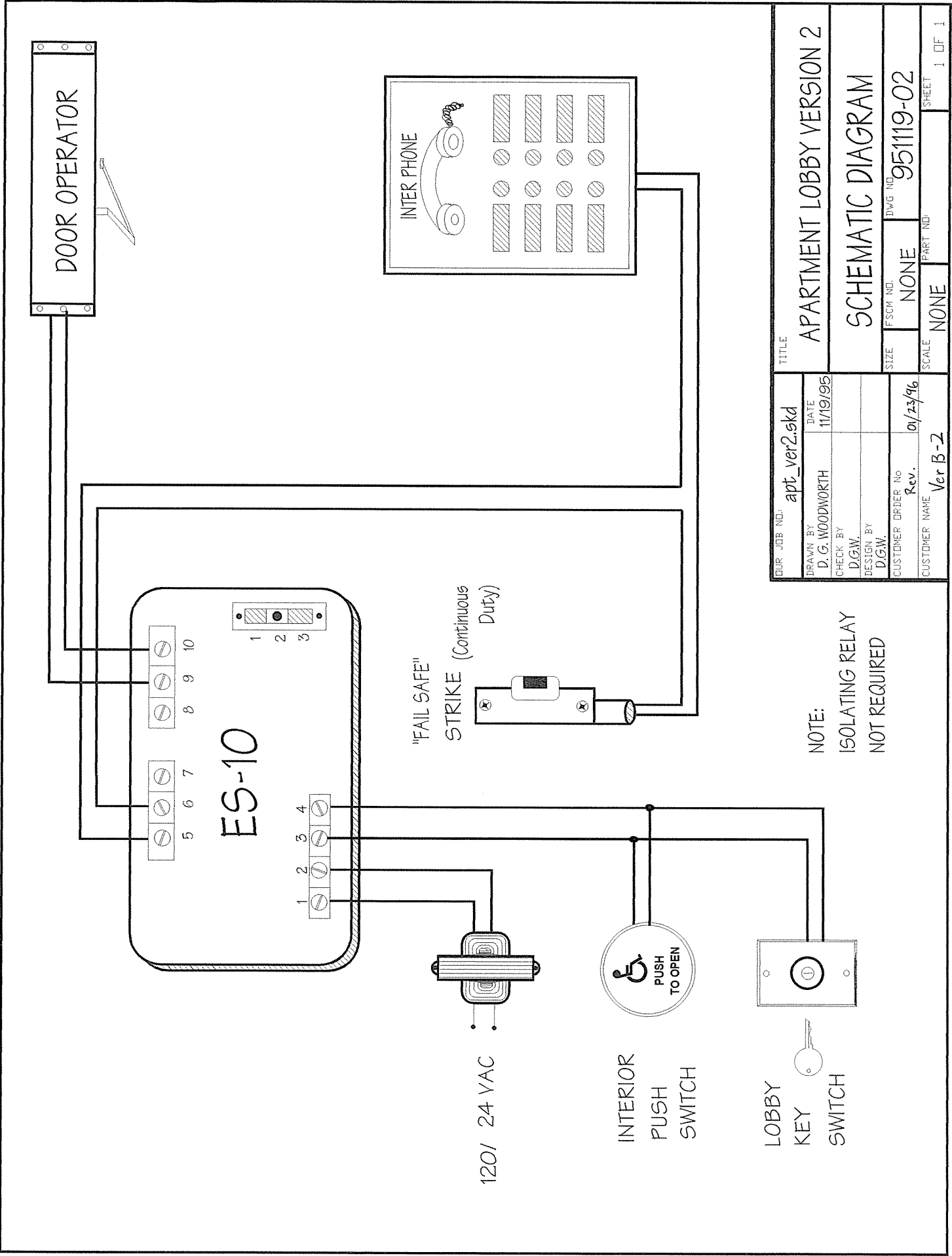
DOOR JOB NO.	apt_ver1.skd	TITLE	APARTMENT LOBBY VERSION 1
DRAWN BY	D. G. WOODWORTH	DATE	11/19/95
CHECK BY	D.G.W.	DESIGN BY	D.G.W.
CUSTOMER ORDER No	Revised 01/23/96	SIZE	NONE
CUSTOMER NAME	ORIGINAL DWG VERSION "B"	DWG NO.	951119-01
		SCALE	NONE
		PART NO.	
		SHEET	1 OF 1

APARTMENT LOBBY VERSION 1

SCHMATIC DIAGRAM

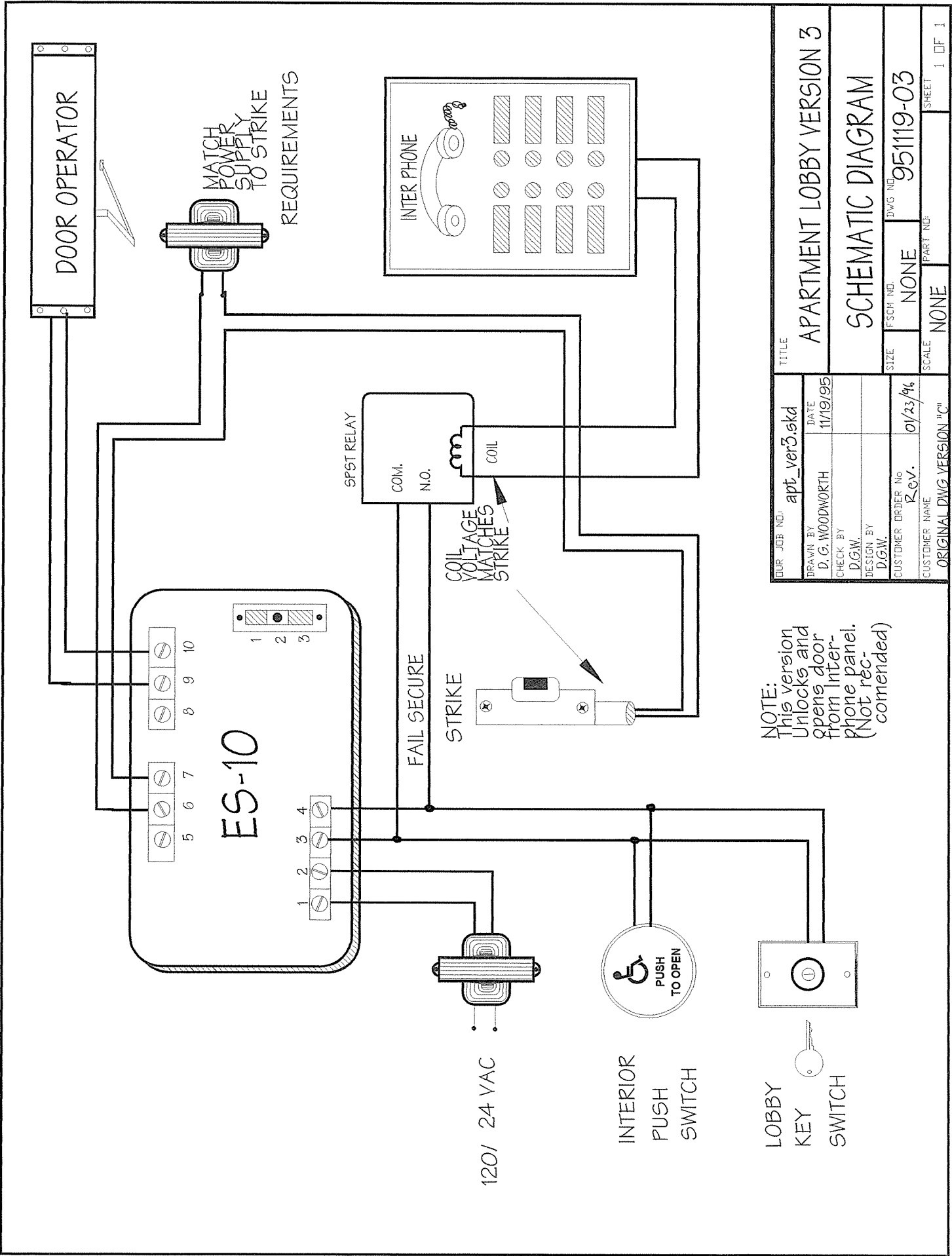
951119-01

1 OF 1



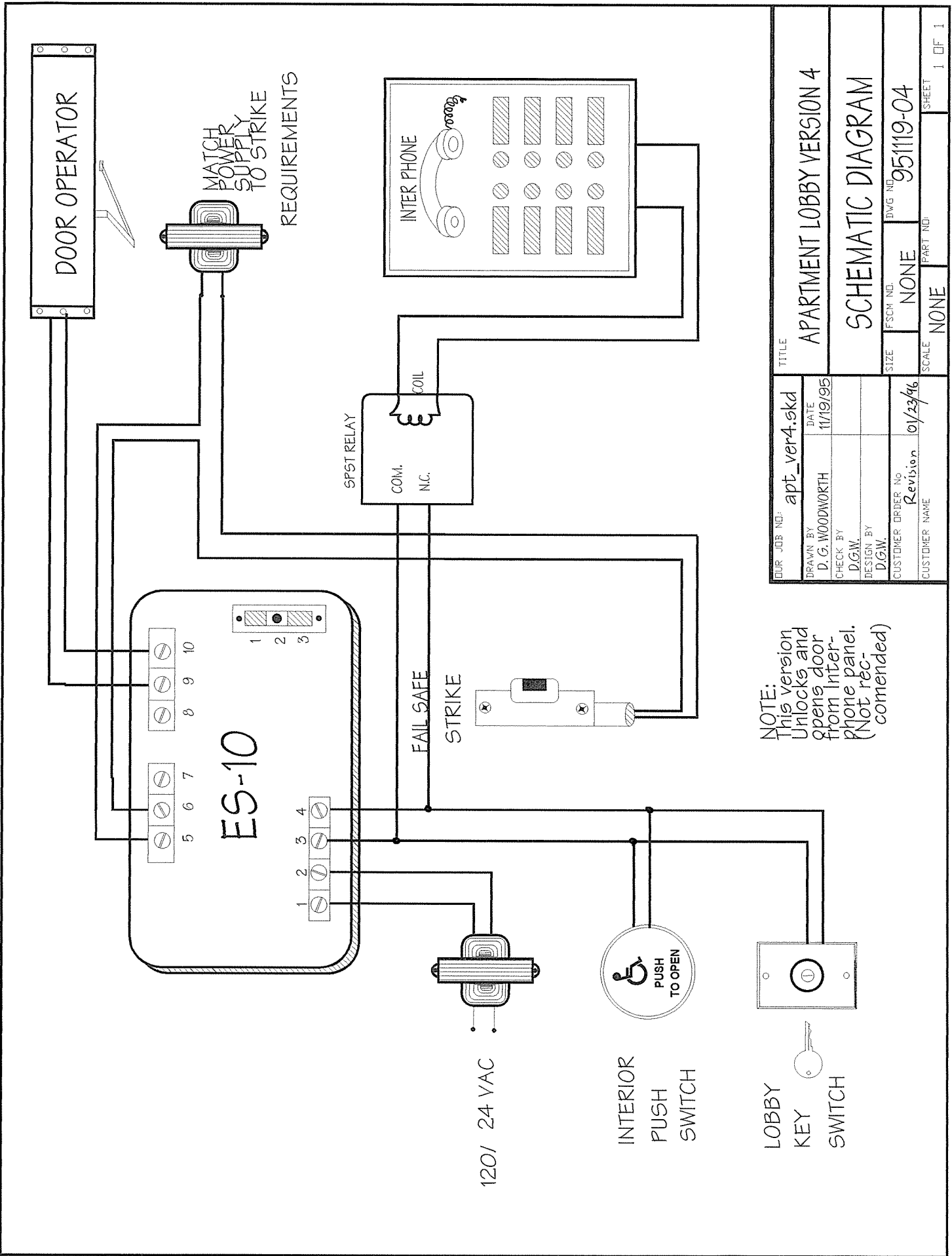
OUR JOB NO:	apt_ver2.skd	TITLE	APARTMENT LOBBY VERSION 2
DRAWN BY	D. G. WOODWORTH	DATE	11/19/95
CHECK BY	D.G.W.	F.SCM NO.	NONE
DESIGN BY	D.G.W.	DWG NO.	951119-02
CUSTOMER ORDER No	Rev.	SCALE	NONE
CUSTOMER NAME	Ver B-2	PART NO.	NONE
		SHEET	1 OF 1

NOTE:
ISOLATING RELAY
NOT REQUIRED



NOTE:
 This version
 unlocks and
 opens door
 from inter-
 phone panel.
 (Not rec-
 ommended)

OUR JOB NO:	apt_ver3.skd	TITLE	APARTMENT LOBBY VERSION 3
DRAWN BY	D. G. WOODWORTH	DATE	11/19/95
CHECK BY	D.G.W.	SIZE	NONE
DESIGN BY	D.G.W.	DWG NO	951119-03
CUSTOMER ORDER NO	Rev.	F.SCH NO	NONE
REV.	01/23/96	SCALE	NONE
CUSTOMER NAME	ORIGINAL DWG VERSION "C"	PART NO	NONE
		SHEET	1 OF 1



NOTE:
 This version
 Unlocks and
 opens door
 from inter-
 phone panel.
 (Not rec-
 ommended)

OUR JOB NO: apt_ver4.skd		TITLE	
DRAWN BY	DATE	APARTMENT LOBBY VERSION 4	
D. G. WOODWORTH	11/19/95	SCHEMATIC DIAGRAM	
CHECK BY		SIZE	DWG NO
D.G.W.		NONE	951119-04
DESIGN BY		SCALE	PART NO
D.G.W.		NONE	NONE
CUSTOMER ORDER NO	Revision	DATE	SHEET
		01/23/96	1 OF 1
CUSTOMER NAME			