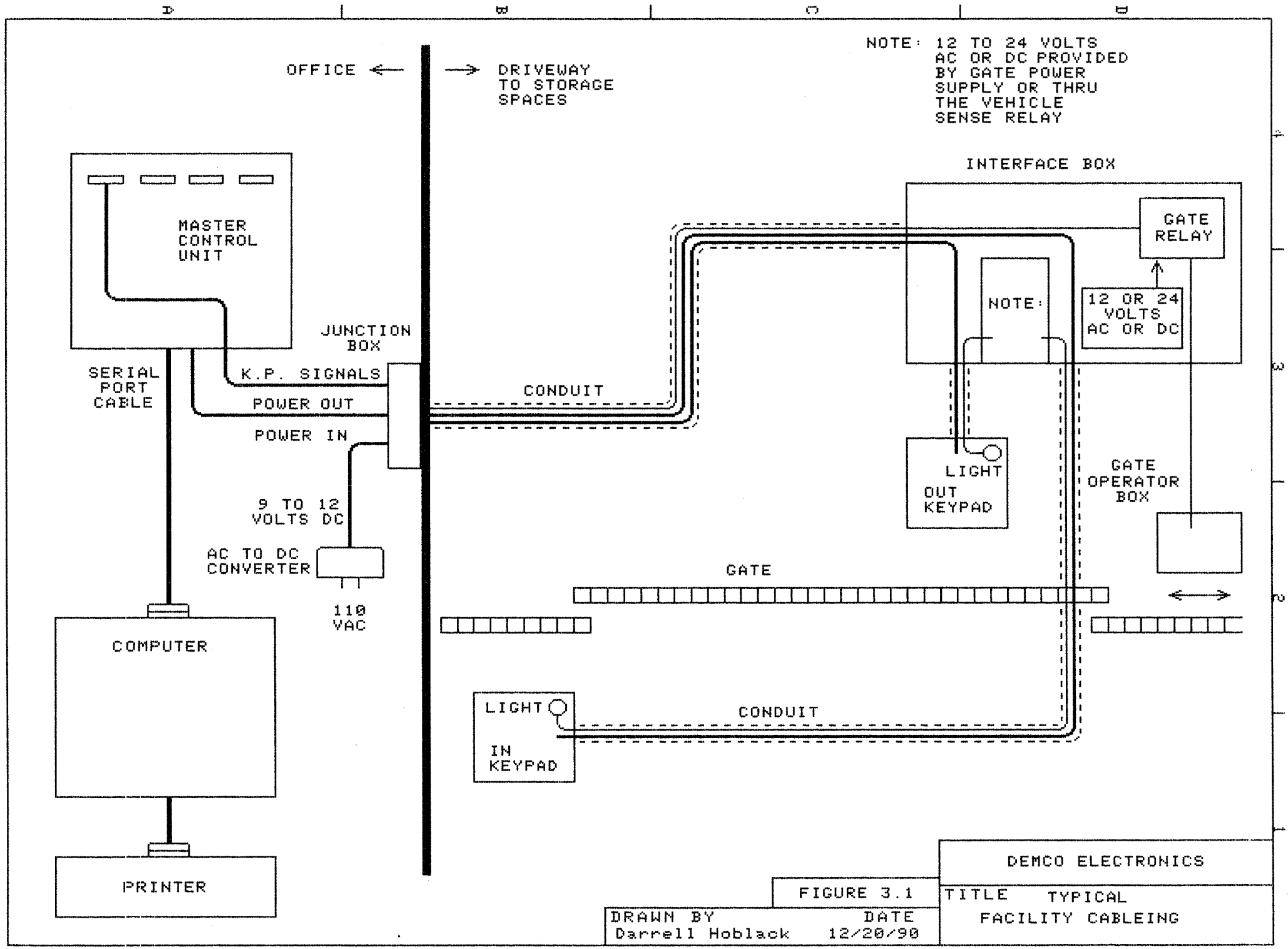
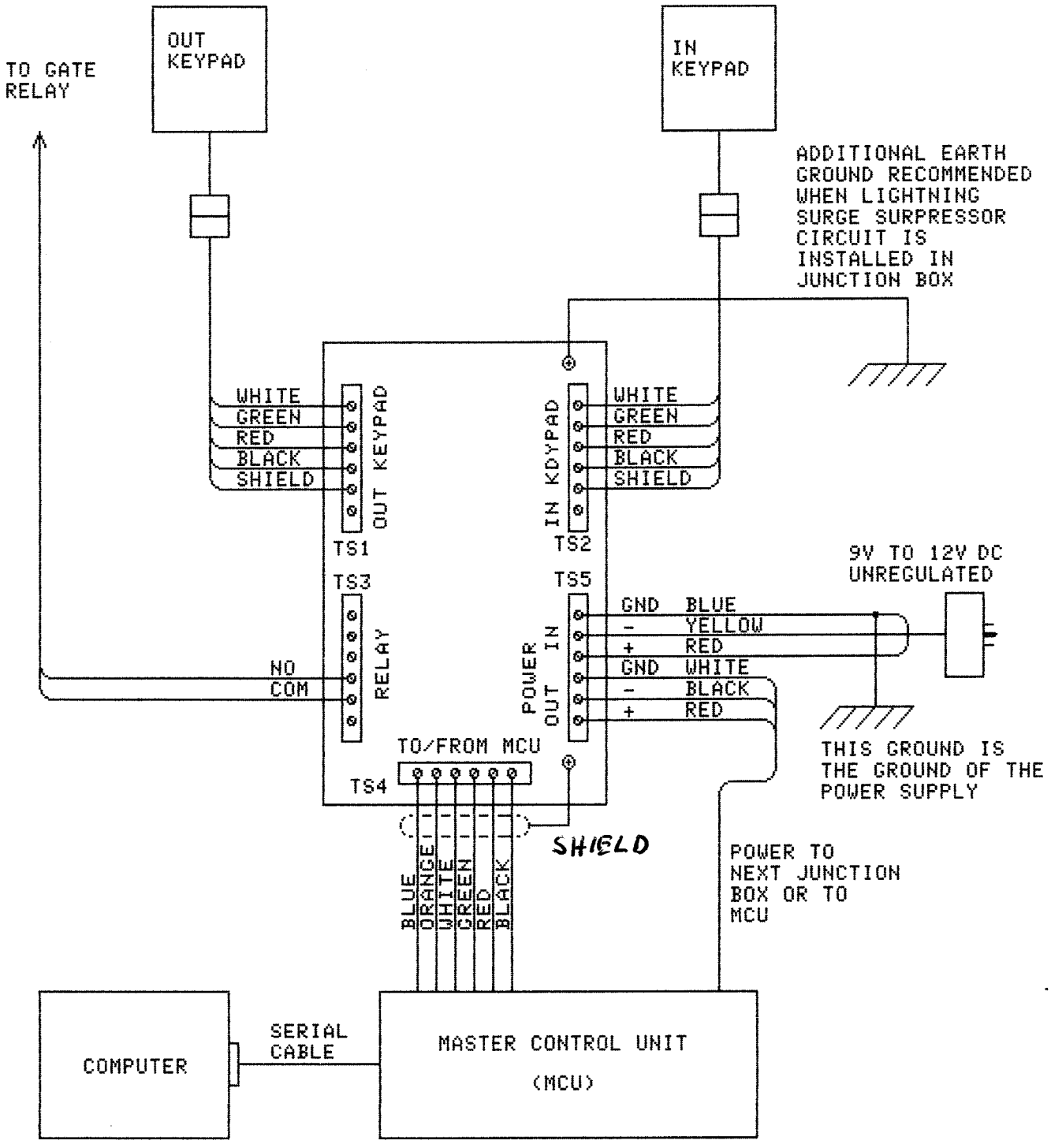

NOTE: 12 TO 24 VOLTS AC OR DC PROVIDED BY GATE POWER SUPPLY OR THRU THE VEHICLE SENSE RELAY
OFFICE
DRIVEWAY TO STORAGE SPACES
INTERFACE BOX
GATE RELAY
NOTE:
12 OR 24 VOLTS AC OR DC
MASTER CONTROL UNIT
JUNCTION BOX
SERIAL PORT CABLE
K.P. SIGNALS
POWER OUT
POWER IN
CONDUIT
LIGHT OUT KEYPAD
GATE OPERATOR BOX
9 TO 12 VOLTS DC
AC TO DC CONVERTER
110 VAC
GATE
COMPUTER
LIGHT IN KEYPAD
CONDUIT
PRINTER
DEMCO ELECTRONICS
FIGURE 3.1
TITLE TYPICAL FACILITY CABLEING
DRAWN BY Darrell Hoblack
DATE 12/20/90



DRAWN BY Darrell Hoblack	DATE 12/6/90	DEMCO ELECTRONICS
CHECKED BY	DATE	TITLE TYPICAL JUNCTION BOX WIRING
APPROVED	DATE	
SCALE	FIGURE 3.2	DRAWING NUMBER

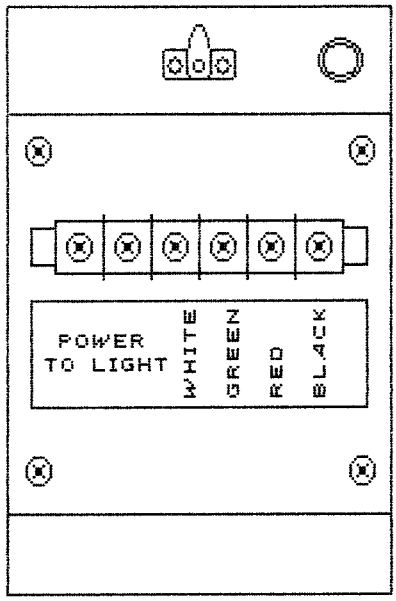
NOTES ON KEYPAD LIGHT:

1. THE POWER TO THE KEYPAD LIGHT CAN BE FROM 12 TO 24 VOLTS AC OR DC.

2. INSTALL THE PROPER RATED VOLATGE T-1 3/4 LIGHT.

3. CONNECT THE POWER TO THE LIGHT AT THE TERMINAL STRIP ONLY.

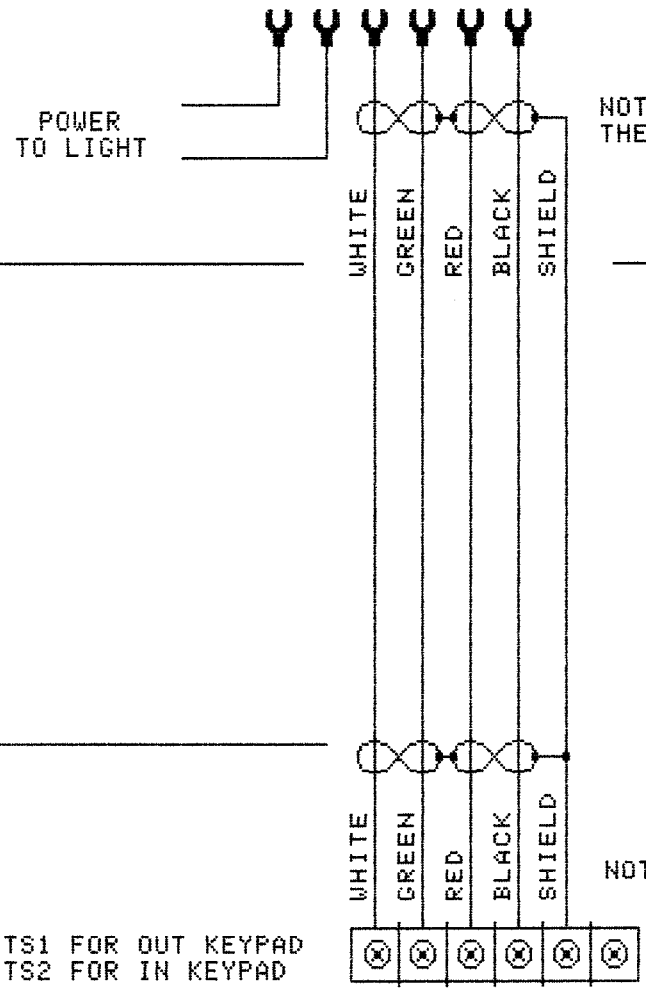
4. POWER TO THE LIGHT CAN BE SUPPLIED THROUGH THE VEHICAL SENSING SYSTEM.



NOTE: GROUND KEYPAD TO KEYPAD HOUSING OR EARTH GROUND.

THIS GROUND IS NOT INTENDED TO BE PROTECTION FOR LIGHTNING.

IF LIGHTNING PROTECTION IS REQUIRED, INSTALL KEYPADS WITH THE LIGHTNING PROTECTION PRINTED CIRCUIT BOARDS.



NOTE: SHIELD IS NOT USED AS THE GROUND. LEAVE UNTERMINATED.

KEYPAD HOUSING

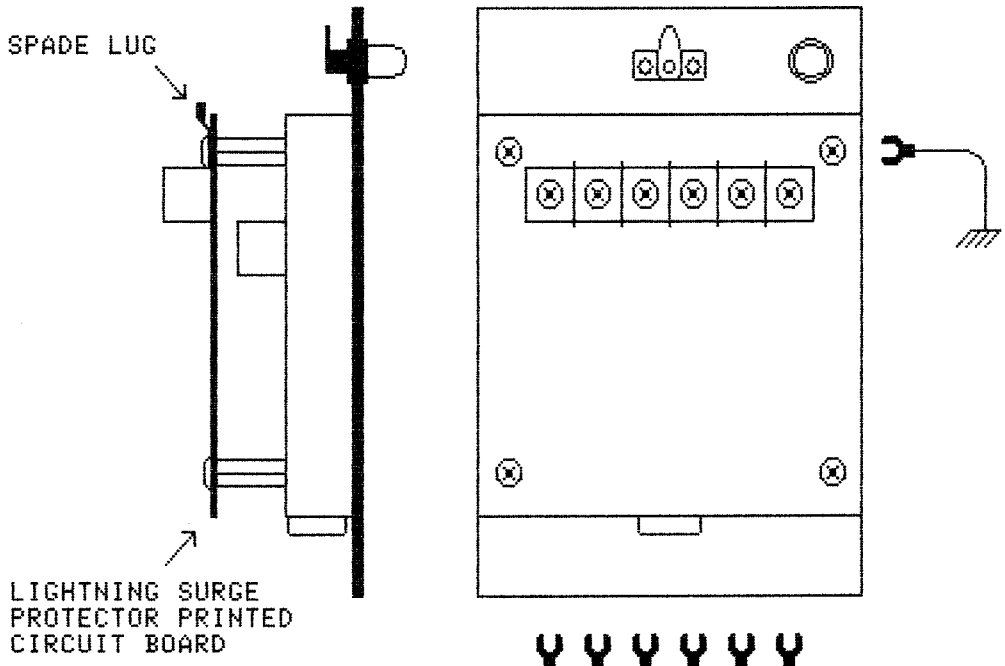
KEYPAD CABLE

JUNCTION BOX

NOTE: TERMINATE SHIELD AT JUNCTION BOX ONLY.

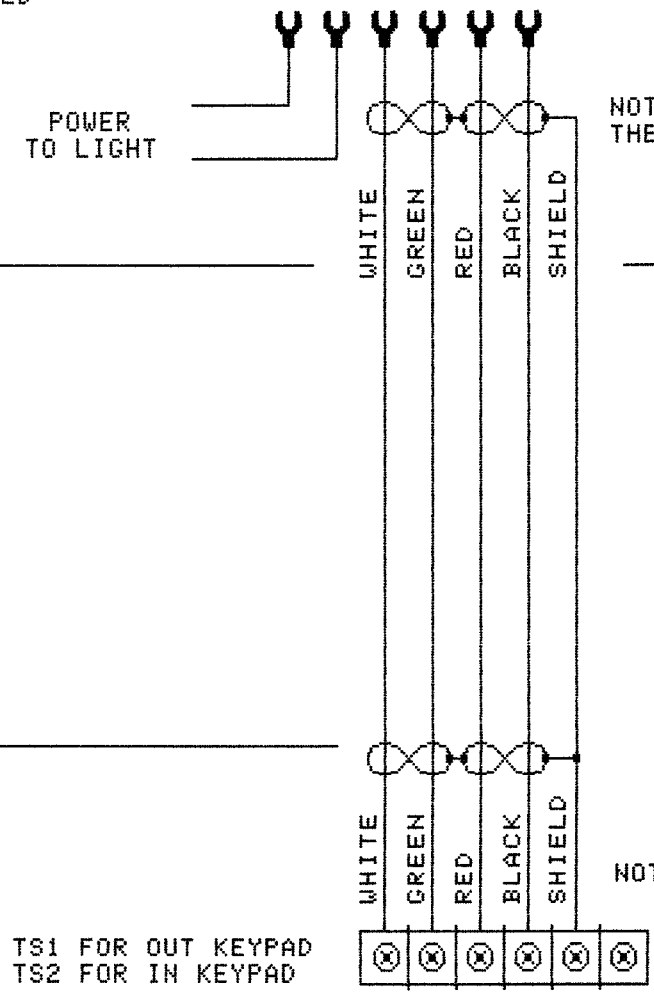
DRAWN BY Darrell Hoblack	DATE 12/3/91	DEMCO ELECTRONICS
CHECKED BY	DATE	TITLE: KEY PAD TO JUNCTION BOX CABLE INSTALLATION
APPROVED	DATE	
SCALE	FIGURE 3.3	DRAWING NUMBER

REAR VIEW



IMPORTANT:

THIS LIGHTNING SURGE PROTECTOR PRINTED CIRCUIT BOARD MUST BE CONNECTED TO TRUE EARTH GROUND.



DRAWN BY Darrell Hoblack	DATE 12/3/91	DEMCO ELECTRONICS
CHECKED BY	DATE	TITLE
APPROVED	DATE	KEY PAD TO JUNCTION BOX CABLE INSTALLATION
SCALE	FIGURE 3.4	WITH LIGHTNING SURGE PROTECTOR PCB

NORMAL MCU TO JUNCTION BOX CABEL

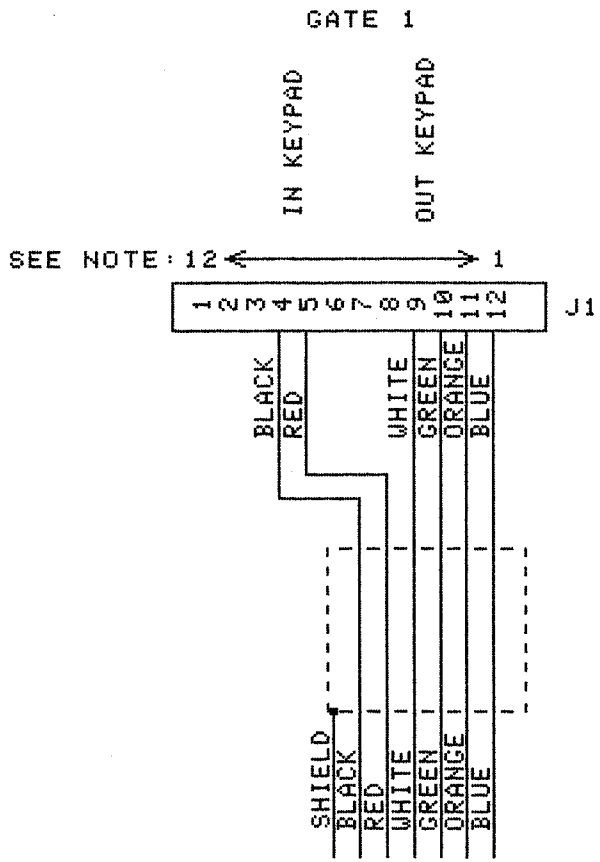


FIGURE 3.5A

NOTE: DO NOT FOLLOW THE PIN NUMBERS ON THE AMP PLUG. THE NUMBERS SHOULD READ AS PIN 1 ON THE LEFT, AND PIN 12 ON THE RIGHT

MCU WIRING FOR IN AND OUT KEYPADS TO HAVE DIFFERENT TIME PERIODS

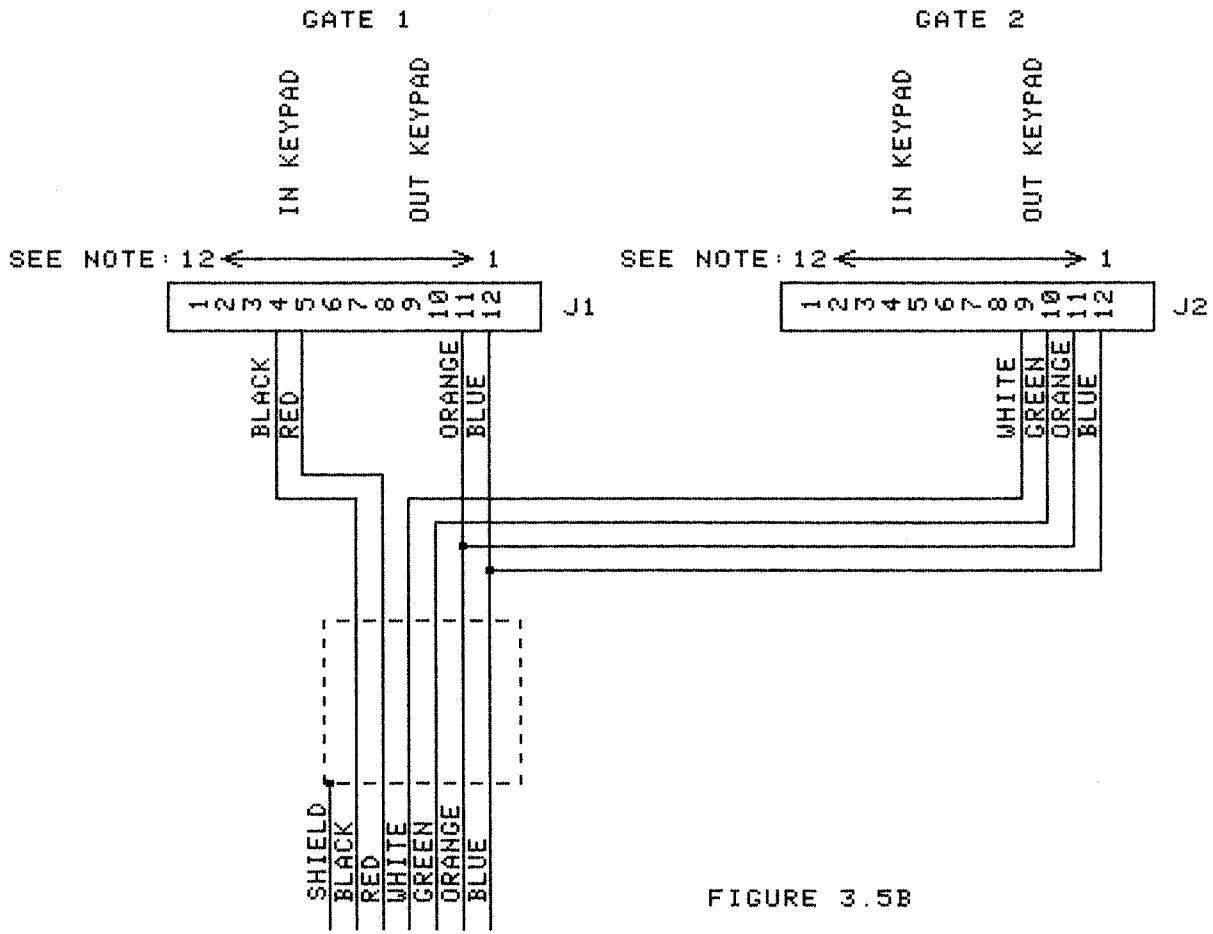


FIGURE 3.5B

DRAWN BY Darrell Hoblack	DATE 6/19/91	DEMCO ELECTRONICS
CHECKED BY	DATE	TITLE WIRING THE IN AND OUT KEYPADS FOR DIFFERENT TIME PERIODS
APPROVED	DATE	
SCALE	FIGURE 3.5	DRAWING NUMBER

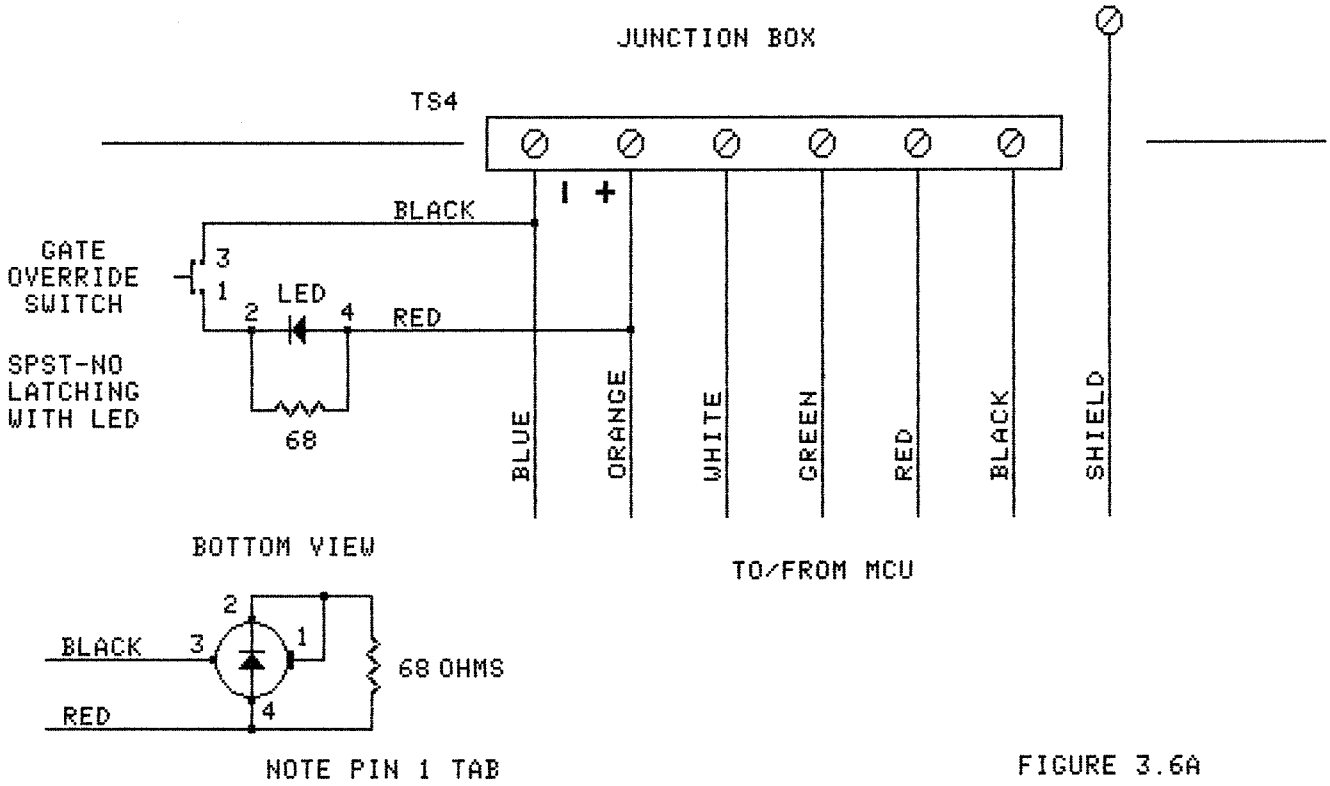


FIGURE 3.6A

Important: When using the gate override switch provided by Demco, use the wiring diagram above (Fig. 3.6A) to wire the switch.

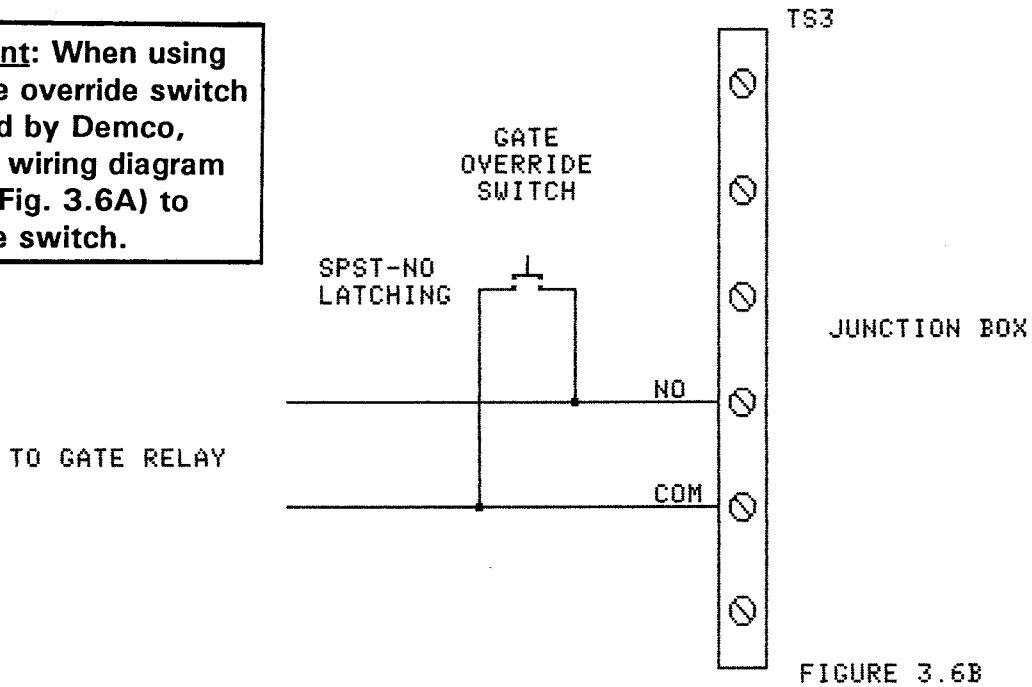
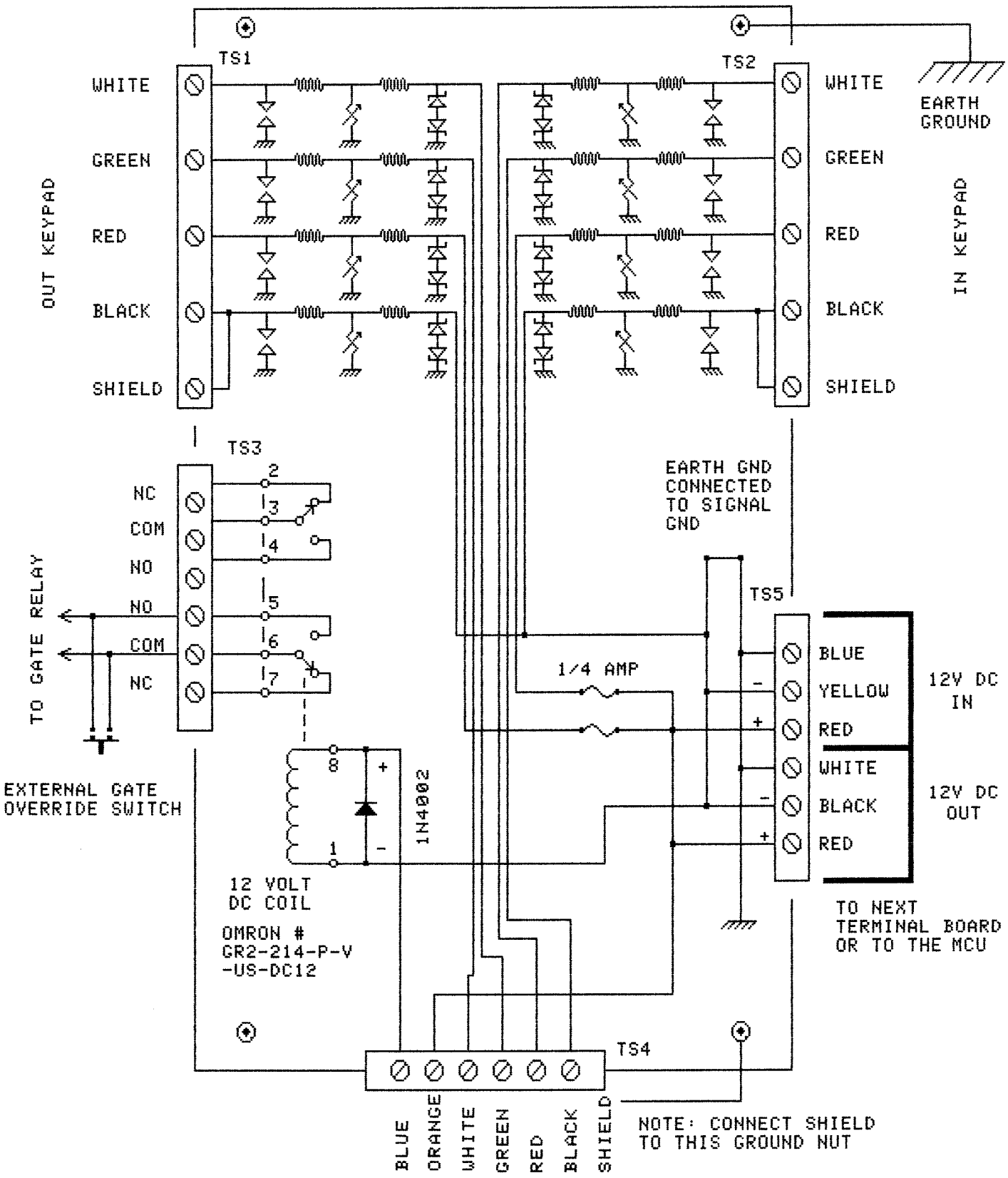


FIGURE 3.6B

DRAWN BY Darrell Hoblack	DATE 12/20/90	DEMCO ELECTRONICS
CHECKED BY	DATE	TITLE GATE OVERRIDE SWITCH INSTALLATION
APPROVED	DATE	
SCALE	FIGURE 3.6	DRAWING NUMBER



DRAWN BY Darrell Hoblack	DATE 2/28/91	DEMCO ELECTRONICS
CHECKED BY	DATE	TITLE GCU-102A JUNCTION BOX SCHEMATIC
APPROVED	DATE	
SCALE	FIG 3.7	DRAWING NUMBER GCU-102A

MASTER CONTROL UNIT (MCU) PARTS LAYOUT

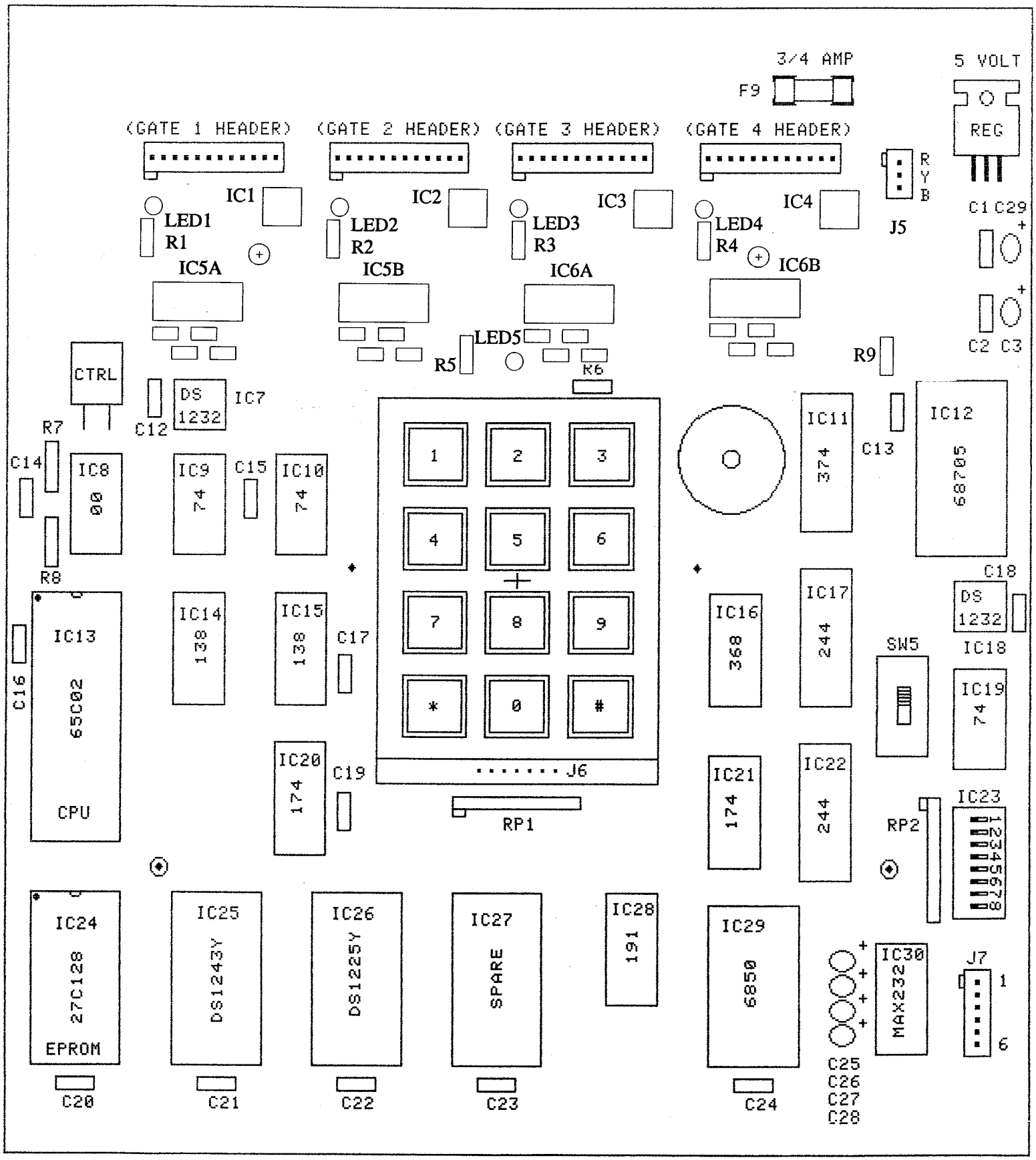


FIGURE 3.8

USE THIS DIAGRAM WHEN THE OUTPUT OF THE VEHICAL SENSE SYSTEM HAS ONLY A SPDT OUTPUT

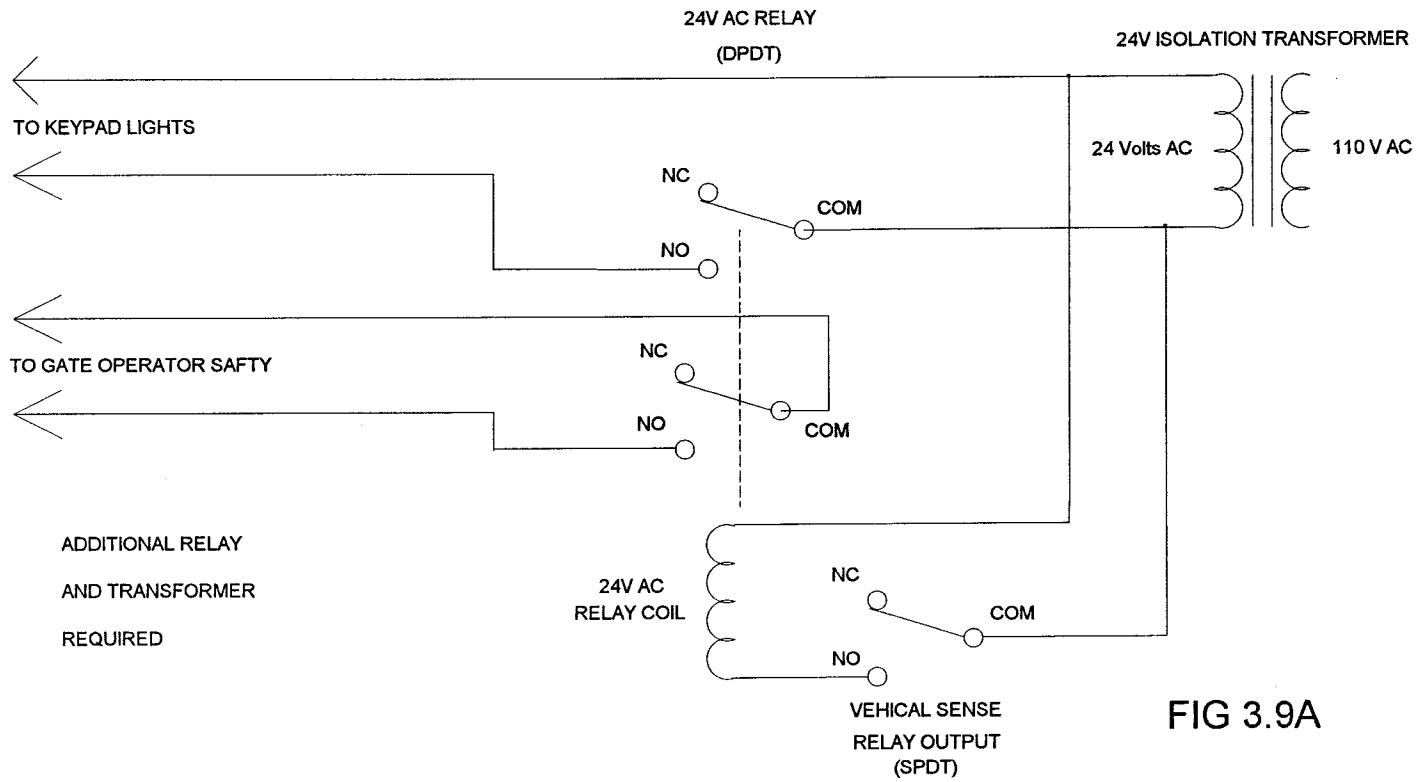


FIG 3.9A

USE THIS DIAGRAM WHEN THE OUTPUT OF THE VEHICAL SENSE SYSTEM HAS A DPDT OUTPUT

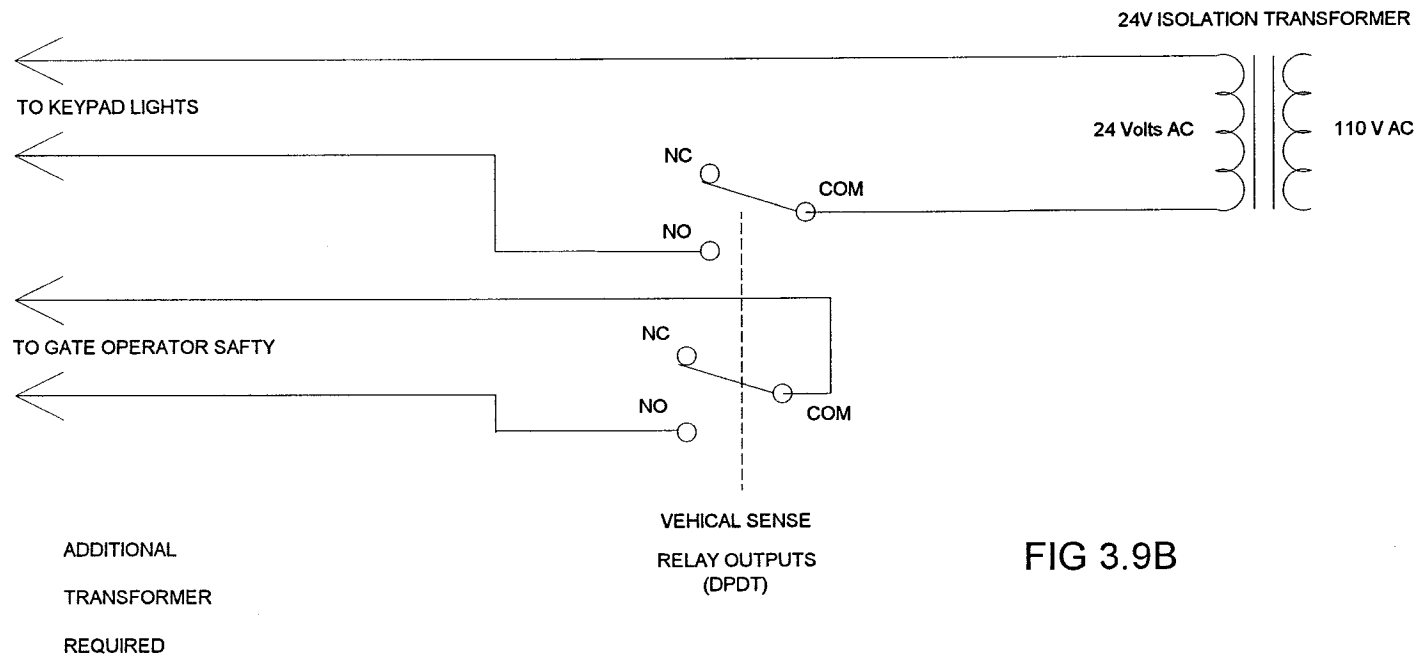


FIG 3.9B

DRAWN BY	DATE	Demco Electronics
CHECKED BY	DATE	
APPROVED BY	DATE	TITLE VEHICAL SENSE WIRING
SCALE	FIG 3.9	DRAWING NUMBER

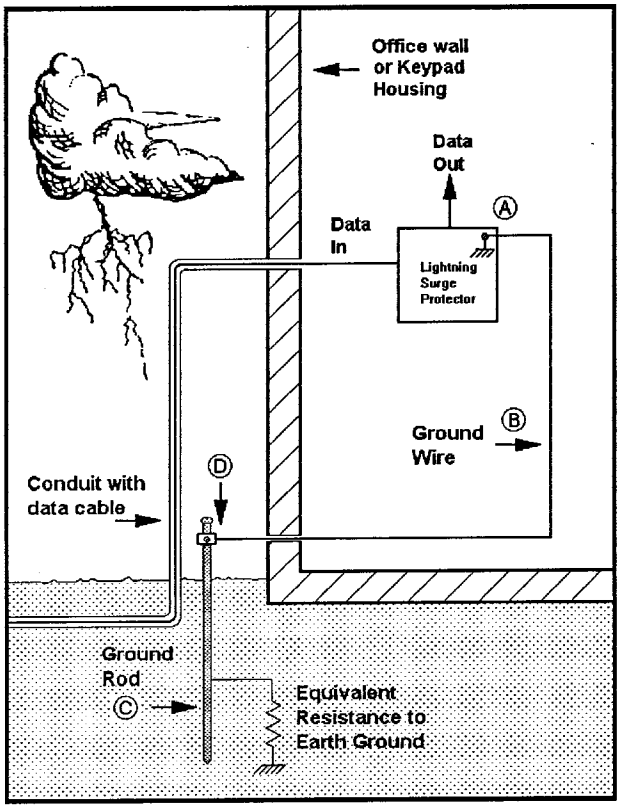
Minimum Earth Ground Requirements

Each lightning-protected **Junction Box** has surge protector components built onto the printed circuit board (PCB). Each lightning-protected **Keypad** has a Lightning Surge Protector printed circuit board mounted onto its back. Each keypad and each junction box must be directly connected to a true earth ground.

There is an earth ground symbol near the top-right mounting screw of the junction box PCB and keypad surge protector PCB. This mounting screw is used to connect the PCB to a true earth ground.

Use a spade lug to connect a 12 gauge (or heavier) solid copper wire to the mounting screw. Make sure the wire is securely clamped into the lug and does not exceed 6 feet in length.

Connect the other end of the solid copper wire to a ground rod or copper/steel water pipe. Do not connect to plastic pipes, or to pipes of any material carrying natural gas. Thoroughly clean the ground rod or water pipe and use a grounding clamp specifically made for the rod or pipe to ensure a good electrical bond.



Typical Ground Installation:

A ground rod is defined as an 8 feet long steel/copper-clad rod 5/8 inch in diameter. This rod must be hammered into the earth, leaving only enough exposed rod to connect the clamp. Ground rods and clamps are available from any electrical contractor supply house for about $15.00 per set (one rod and one grounding clamp).

DO NOT run the ground wire through the same conduit as the wires that you are protecting. Route the protected output wires (clean wires) away from the input and ground wiring that carries the transient current.

DO NOT use the gate operator motor's ground as a lightning surge protector ground, unless the gate operator has its own ground rod, as described above.

If supplied, plug the AC/Modem surge protector into the AC outlet in the office. Disconnect the telephone line from the rear of the facility computer (modem), and connect this line into the receptacle at the bottom of the surge protector marked "LINE". Connect the phone line provided with the surge protector into the bottom receptacle of the surge protector marked "EQUIPMENT", and the other end into the rear of your facility computer (modem) marked "LINE IN". Plug the facility computer system's power distribution strip into the top receptacle, and the AC/DC power adapter for the Demco Gate Access Control System into the bottom receptacle.

Demco Electronics 10516 Grevillea Ave. Inglewood, Ca. 90304