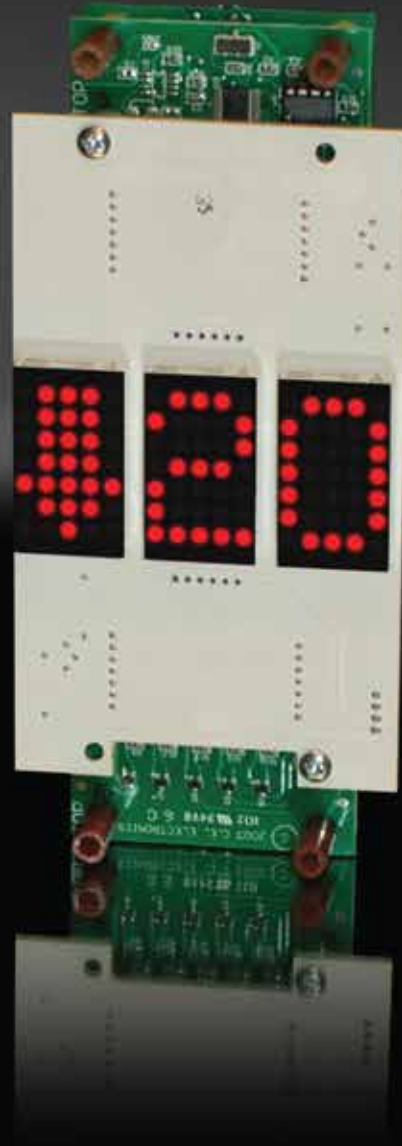# DV310-XXXXX
DOT MATRIX LED DIGITAL INDICATOR

DOT MATRIX
1" CHARACTERS

Dot Matrix LED digital indicator for floor position display, as well as car direction, if desired. Any alphanumeric or custom character can be displayed in either single digit with seperate "UP" and "DOWN" arrows. Double digit with single "UP/DOWN" arrow, or triple digit floor designations with no arrows.

TYPICAL APPLICATIONS:

> Hall stations
> Jamb mount

FEATURES:

> Low cost design
> Self contained unit
> Latched input
> Self testing
> Scrolling
> Passing chime output
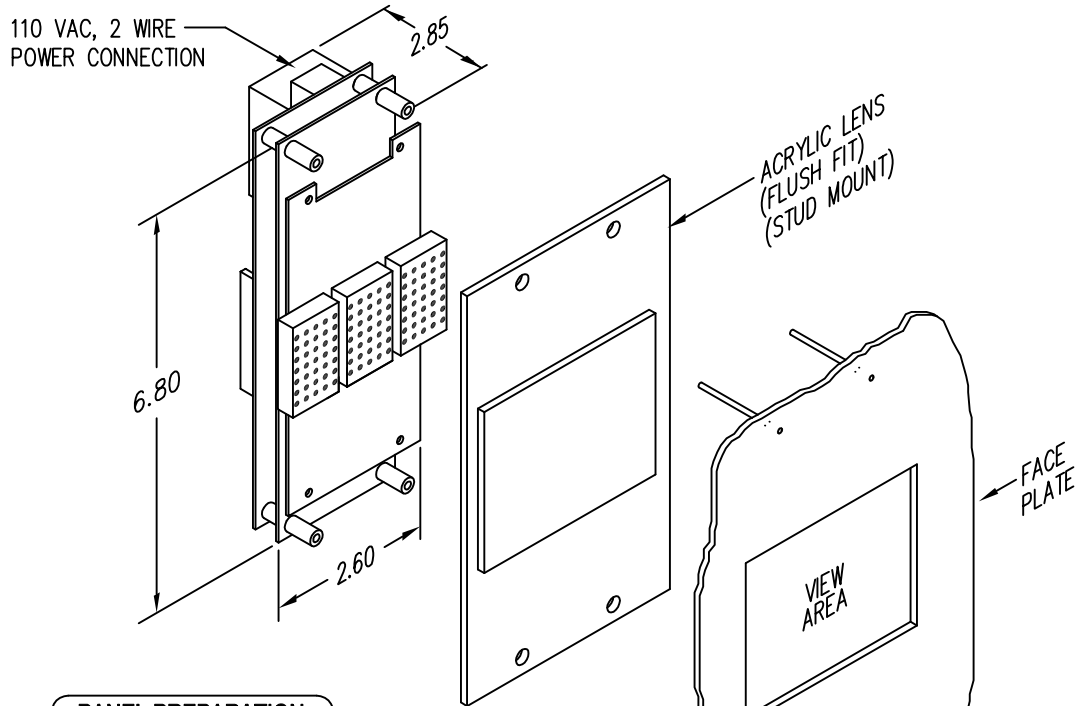> Error detection and correction feature
> UL listed

C.E. Electronics, Inc.
2107 Industrial Drive
Bryan, OH 43506
PH (419) 636-6705 FX (419) 636-2516
www.ceelectronics.com

DV310-XXXXX
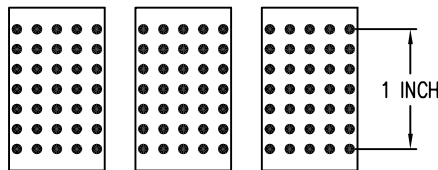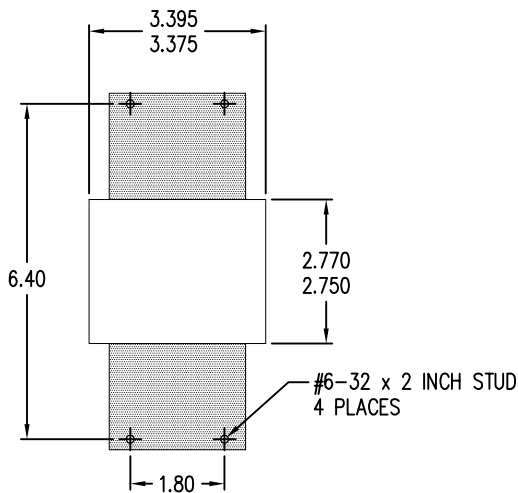Ver. 8 Rel. 8/7/2015

COMPETITOR
DOT MATRIX

DOT MATRIX LED DIGITAL INDICATOR

Dot matrix LED digital indicator for floor position display, as well as car direction, if desired. Any alphanumeric or custom character can be displayed in either single digit with separate "UP" and "DOWN" arrows. Double digit with single "UP/DOWN" arrow, or triple digit floor designations, with no arrows.

Typical Applications
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RENEWAL PARTS
RED Lens: # 104-3014
GRAY Lens # 104-6108
BLUE Lens # 104-9108

110 VAC, 2 WIRE POWER CONNECTION

2.85

ACRYLIC LENS (FLUSH FIT) (STUD MOUNT)

6.80

2.60

FACE PLATE

VIEW AREA

PANEL PREPARATION

3.395
3.375

6.40

2.770
2.750

1.80

#6-32 x 2 INCH STUD 4 PLACES

1 INCH

1 INCH CHARACTERS

TO ORDER: SPECIFY DV310 - X X X X X

COLOR:
"0" = MIXED
"R" = RED
"A" = AMBER
"G" = GREEN
"W" = WHITE
"B" = BLUE

NUMBER OF INPUTS:
"0" = 16 INPUT OR LESS
"1" = 31 INPUT
"M" = MICRO COMM

110VAC NOT REQUIRED FOR POWER SUPPLY ON MICRO COMM UNITS

LENS:
"R" = RED
"G" = GRAY
"B" = BLUE
"X" = NO LENS

SIGNAL FORMAT:
"1" = SINGLE LINE/FLOOR
"2" = BINARY
"3" = UNITS & TENS
"4" = GRAY CODE
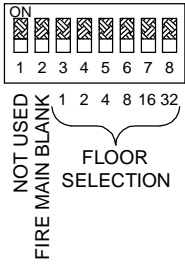"5" = INVERTED BINARY
"6" = SPECIAL
"X" = IF MICRO COMM

SIGNAL VOLTAGE:
"A" = POSITIVE 6-20VDC, 6-24VAC
"B" = POSITIVE 24-48VDC, 24-48VAC
"C" = 120VAC
"D" = POSITIVE 125VDC
"E" = NEGATIVE 6-20VDC
"F" = NEGATIVE 24-48VDC
"G" = NEGATIVE 125VDC
"X" = IF MICRO COMM
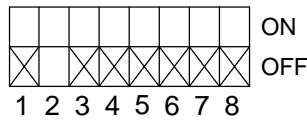PLEASE CONSULT FACTORY FOR SPECIAL VOLTAGE

DVXX0-XM

JOB# _____

S3 DIP SWITCH DETAIL

ON
1 2 3 4 5 6 7 8
1 2 4 8 16 32

NOT USED
FIRE MAIN BLANK
FLOOR SELECTION

S3 DEFAULT SETTINGS

ON
OFF
1 2 3 4 5 6 7 8

ROTARY SWITCH S1 _____

DRIVER BOARD# _____

CODE VERSION _____

DISPLAY BOARD# _____

CODE VERSION _____

FLOORS: _____

CE3092

J2
MICRO COMM INPUT
1 COM
2 V+
3 DATA

R5 — 64
R4 — REAR
R3 — FA

32 16 8 4 2 1 FM MB
S3

S2

S1
0123456789ABCDEF

SELF-TEST JACK

ROLL RATE ADJUSTMENT

J1
PASSING CHIME

CE2051

TOP TOP TOP

EEPROM U4
DV220
CE3006

CE2051
DV210
CE3006

CE2183
DV310
CE3006
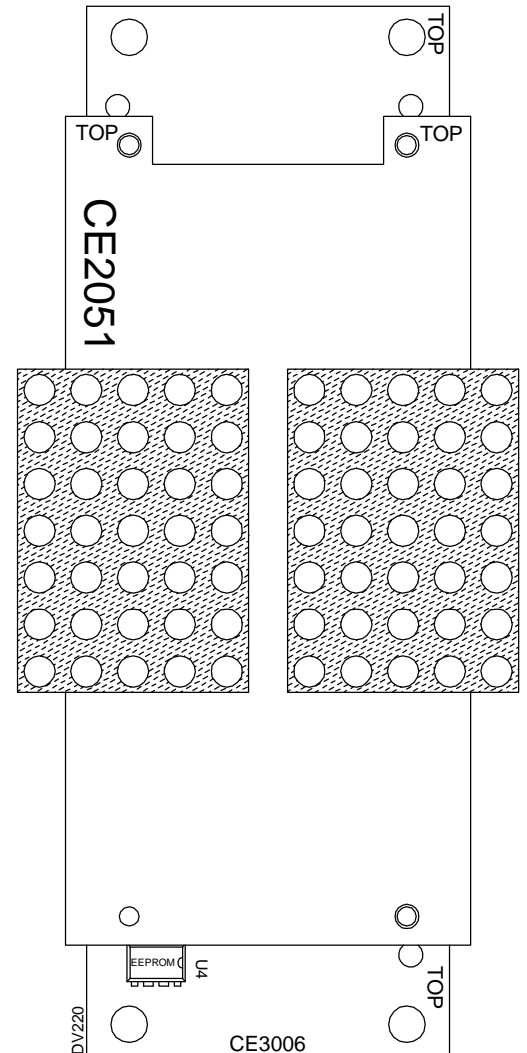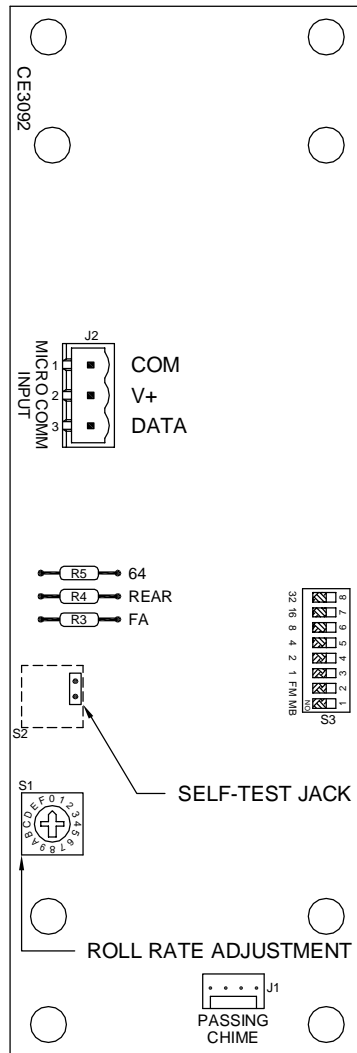
To SELF-TEST display unit, short the two pins on the S2 header and release.
   NOTE: If S2 is a rotary switch, set it to "F" and back to 0 to self-test.

DIP switch 1 (MB) has no function with this unit.

The Micro Comm driver must be programmed to send messages with the level required
   to activate the features listed below.

  - To blank the display during a fire main (level three) message, turn on DIP switch 2 (FM).

  - To blank the display during a fire alternate (level two) message, remove resistor R3 (FA) from the board.

  - Do not program a floor value for Floor 63 if the Fire Blanking feature is required.

DIP switches 3-8 off is an all call using travel signals. DIP switches 3-8 on and resistor R5 (64) removed is an all call using arrival signals.

The floor address switches setup the display arrows as arrival (hall) arrows. Refer to the "S3 DIP SWITCH DETAIL" and turn on the floor address switches whose value adds up to the desired floor. For example, to display the arrows only when the unit is at floor 19, turn on switches 3, 4, and 7 (values 1, 2, and 16: 1+2+16=19). The Micro Comm driver must be set up to send arrival information.

To operate this unit as a rear lantern, remove resistor R4 (REAR) from the board. NOTE: The Micro Comm driver must be sending the MC2000 data stream to use this feature. Call Tech Support at 419-636-6705 for more information.

NOTE: MUST BE USED WITH A CLASS 2 POWER SUPPLY.
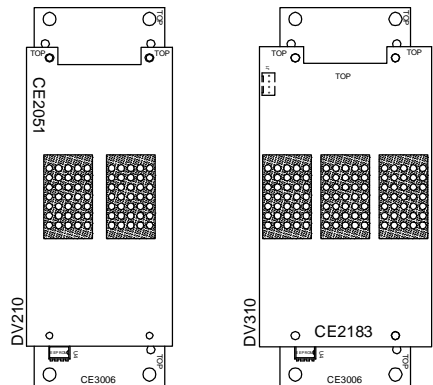
DATE DRAWN: 07/11/05	DRAWN BY: DAC	REQUESTED BY: DV	C.E. ELECTRONICS, INC.
BOARD NUMBER: 3092, 3006	LAST DATE REVISED: 02/01/07	APPROVED BY:	2107 Industrial Drive Bryan, Ohio 43506 (419) 636-6705
PRODUCT: DVXXX-XM VERTICAL DOT MATRIX DISPLAY		DWG. NO. DVXXX-XM_01	REV: A

JOB# _____

DH210

DH310

DH220

DH320

TOP   CE3031A1
TOP   CE3031A1
TOP   CE3000C
TOP   CE3000C

DV210
DV220
DV310

TOP   CE2183
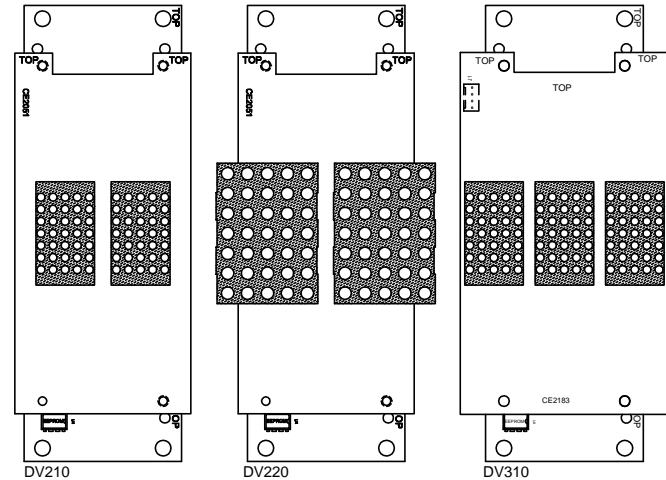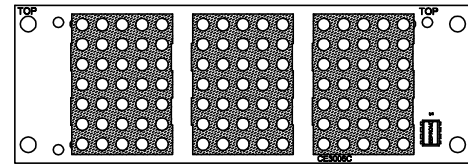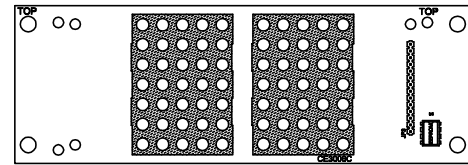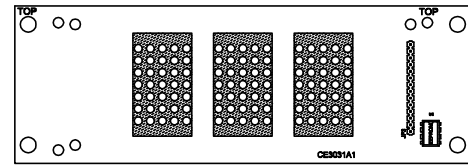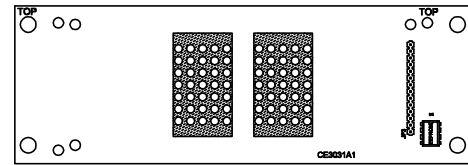
SCROLL RATE:
0 = NO SCROLL
1 = FAST SCROLL
F = SLOW SCROLL

SELF-TEST JACK:
SHORT PINS TO TEST
SHORT PINS TO STOP TEST

OPTIONAL CHIME PORT

S1
S2
J5
PASSING CHIME
32-63
R6
J3
ISO6
ISO5
ISO4
ISO3
ISO2
ISO1
ISO7
ISO8
R5
R4
R3
R2
R1
R11
J2
R7
R8
D U 16 15
31 17
CE2123E
110VAC INPUT
N/C
JP1

115 VAC INPUT

SIGNAL VOLTAGE
(FROM CONTROLLER)

ONE LINE PER FLOOR

BINARY

COMMON

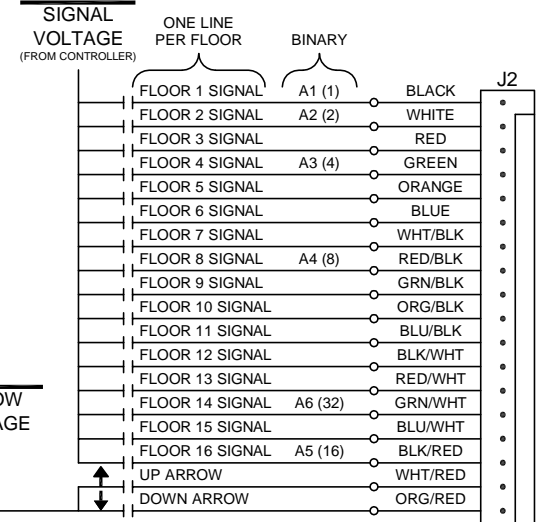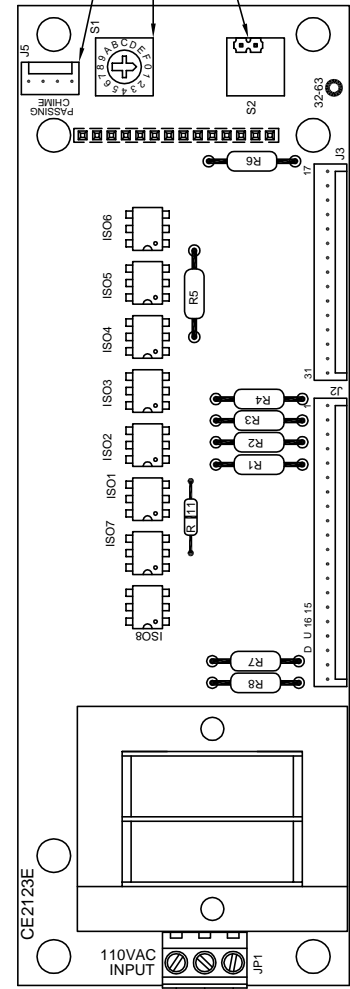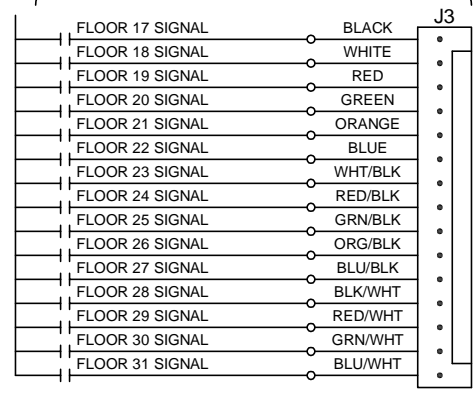|			J2
FLOOR 1 SIGNAL	A1 (1)	BLACK	
FLOOR 2 SIGNAL	A2 (2)	WHITE	
FLOOR 3 SIGNAL		RED	
FLOOR 4 SIGNAL	A3 (4)	GREEN	
FLOOR 5 SIGNAL		ORANGE	
FLOOR 6 SIGNAL		BLUE	
FLOOR 7 SIGNAL		WHT/BLK	
FLOOR 8 SIGNAL	A4 (8)	RED/BLK	
FLOOR 9 SIGNAL		GRN/BLK	
FLOOR 10 SIGNAL		ORG/BLK	
FLOOR 11 SIGNAL		BLU/BLK	
FLOOR 12 SIGNAL		BLK/WHT	
FLOOR 13 SIGNAL		RED/WHT	
FLOOR 14 SIGNAL	A6 (32)	GRN/WHT	
FLOOR 15 SIGNAL		BLU/WHT	
FLOOR 16 SIGNAL	A5 (16)	BLK/RED	
UP ARROW		WHT/RED	
DOWN ARROW		ORG/RED	

ARROW VOLTAGE

ARROW COMMON

BLU/RED
RED/GRN

SEE NOTE ( ) BELOW

ONLY USED FOR ONE LINE PER FLOOR ABOVE 16 FLOORS

		J3
FLOOR 17 SIGNAL	BLACK	
FLOOR 18 SIGNAL	WHITE	
FLOOR 19 SIGNAL	RED	
FLOOR 20 SIGNAL	GREEN	
FLOOR 21 SIGNAL	ORANGE	
FLOOR 22 SIGNAL	BLUE	
FLOOR 23 SIGNAL	WHT/BLK	
FLOOR 24 SIGNAL	RED/BLK	
FLOOR 25 SIGNAL	GRN/BLK	
FLOOR 26 SIGNAL	ORG/BLK	
FLOOR 27 SIGNAL	BLU/BLK	
FLOOR 28 SIGNAL	BLK/WHT	
FLOOR 29 SIGNAL	RED/WHT	
FLOOR 30 SIGNAL	GRN/WHT	
FLOOR 31 SIGNAL	BLU/WHT	

NOTE A: THE SIGNAL AND ARROW COMMONS ARE TIED TOGETHER ON THE DRIVER BOARD. IF ARROW SOURCE IS DIFFERENT THAN SIGNAL SOURCE, CONTACT TECH SUPPORT AT 419-636-6705 FOR FURTHER INFORMATION.

NOTE B: THE SIGNAL AND ARROW COMMONS HAVE BEEN SEPARATED BY THE FACTORY.

DRIVER BOARD CE2123 _____

VERT DISPLAY BOARD CE_____   ROTARY SWITCH S1 _____

HORIZ DISPLAY BOARD CE_____   CODE VERSION _____

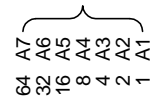**Competitor Series**
Discrete Input Dot Matrix Displays

DATE DRAWN: 04/24/07	DRAWN BY: DAC	REQUESTED BY: DV	C.E. ELECTRONICS, INC.
BOARD NUMBER: 2123	LAST DATE REVISED: -	APPROVED BY:	2107 Industrial Drive Bryan, Ohio 43506 (419) 636-6705
PRODUCT: DISCRETE DOT MATRIX DISPLAYS		DWG. NO. DM_2123_3006_3031	REV: -

BINARY FLOOR CHART

1000000 _____

0111111 _____	0101111 _____	0011111 _____	0001111 _____
0111110 _____	0101110 _____	0011110 _____	0001110 _____
0111101 _____	0101101 _____	0011101 _____	0001101 _____
0111100 _____	0101100 _____	0011100 _____	0001100 _____
0111011 _____	0101011 _____	0011011 _____	0001011 _____
0111010 _____	0101010 _____	0011010 _____	0001010 _____
0111001 _____	0101001 _____	0011001 _____	0001001 _____
0111000 _____	0101000 _____	0011000 _____	0001000 _____
0110111 _____	0100111 _____	0010111 _____	0000111 _____
0110110 _____	0100110 _____	0010110 _____	0000110 _____
0110101 _____	0100101 _____	0010101 _____	0000101 _____
0110100 _____	0100100 _____	0010100 _____	0000100 _____
0110011 _____	0100011 _____	0010011 _____	0000011 _____
0110010 _____	0100010 _____	0010010 _____	0000010 _____
0110001 _____	0100001 _____	0010001 _____	0000001 _____
0110000 _____	0100000 _____	0010000 _____	0000000 _____

INSTALLATION GUIDE

1. MAKE SURE THE INPUT RESISTORS ARE FULLY SEATED IN THEIR SOCKETS.

2. CONNECT 115VAC TO THE OUTER TERMINALS OF CONNECTOR J1. THE CENTER TERMINAL HAS NO CONNECTION.

3. SHORT THE TWO PINS OF S2 (TEST JACK) TOGETHER. THE DISPLAY WILL CYCLE THROUGH THE FLOOR DATA. THIS SHOWS WHAT FLOOR MARKINGS WILL BE DISPLAYED AND ALLOWS ADJUSTMENT OF THE SCROLL RATE AND OPTIONAL PASSING CHIME VOLUME.

4. MAKE SURE THE SIGNAL CABLE(S) IS PLUGGED INTO THE DRIVER BOARD CORRECTLY.

5. CONNECT THE SIGNAL CABLE(S) TO THE CONTROLLER. THE VOLTAGE AND DC POLARITY ARE MARKED ON THE REVERSE SIDE. THE UNIT WORKS LIKE A LIGHT BULB; IT NEEDS VOLTAGE FROM COMMON TO THE SELECTED INPUT.

6. IF THE INPUT IS DC AND YOU SUSPECT THE POLARITY IS WRONG, PUT THE SELECTED FLOOR WIRE TO COMMON AND COMMON TO THE SELECTED FLOOR INPUT. IF THE UNIT DISPLAYS THE FLOOR, CONTACT TECH SUPPORT.

7. IF THE INPUT FORMAT IS SINGLE LINE PER FLOOR, ONLY ONE WIRE SHOULD HAVE VOLTAGE PRESENT (WITH REFERENCE TO COMMON) AT ANY TIME.

8. IF THE UNIT DOES NOT SEEM TO WORK PROPERLY, RECHECK THE ABOVE STEPS. IF THE PROBLEM CONTINUES, RECORD THE SERIAL NUMBER FROM THE WHITE LABEL ON THE UNIT AND EXACTLY WHAT THE UNIT DISPLAYS AT EACH FLOOR, THEN CONTACT TECH SUPPORT AT 419-636-6705.

DATE DRAWN: 04/24/07	DRAWN BY: DAC	REQUESTED BY: DV	C.E. ELECTRONICS, INC.
BOARD NUMBER: N/A	LAST DATE REVISED: -	APPROVED BY:	2107 Industrial Drive Bryan, Ohio 43506 (419) 636-6705
PRODUCT COMPETITOR SERIES BINARY FLOOR CHART		DWG. NO. COMP_BINCHART_TJ	REV: -