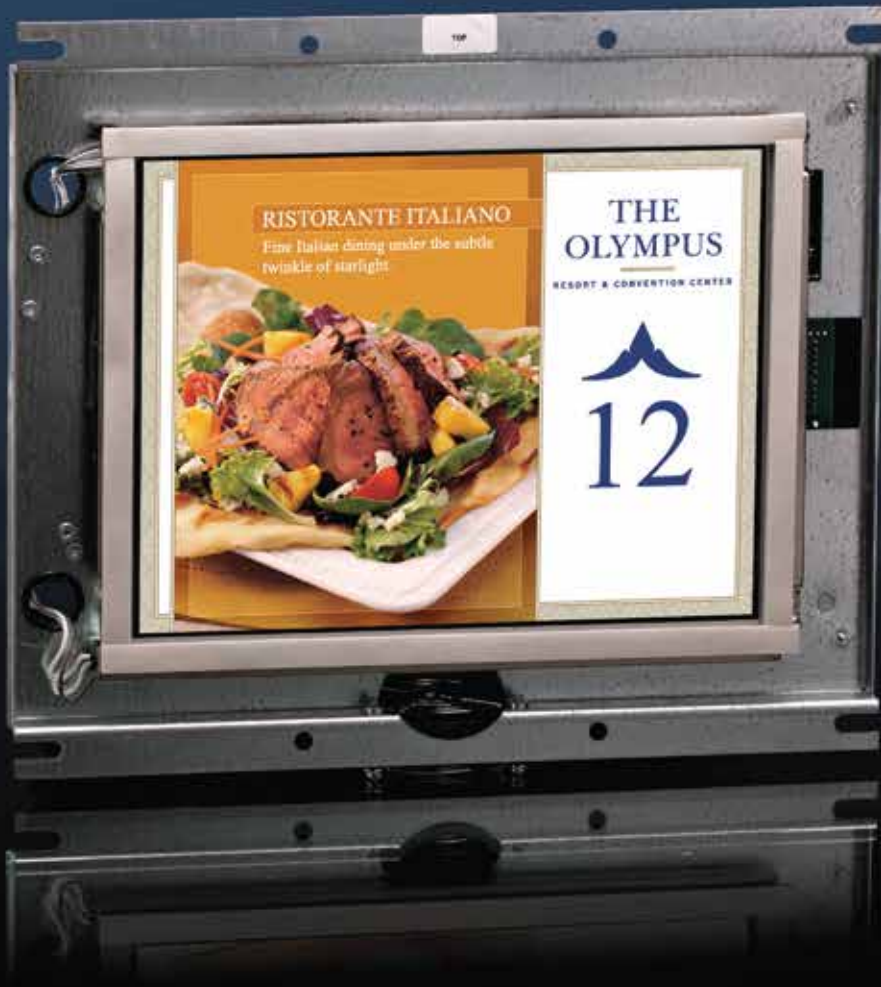# OX104-CX2
10.4" OTIS LUXURY PI SERIES - LIQUID CRYSTAL DISPLAY (LCD)

The Otis Luxury PI is the most flexible position indicator available. With the Luxury PI Designer software, you can customize your own position indicator by selecting background colors and textures, fonts, and arrow styles. This system is so flexible you can even determine where the display elements appear on the screen. In addition to design flexibility, the Otis Luxury PI can display floor, priority, and time-based messages.

TYPICAL APPLICATIONS:

> Car operating panel
> Car transom

FEATURES:

> Passing chime output
> Live video (optional)
> Self testing
> Low profile
> Luxury Designer software
> Luxury Transfer software
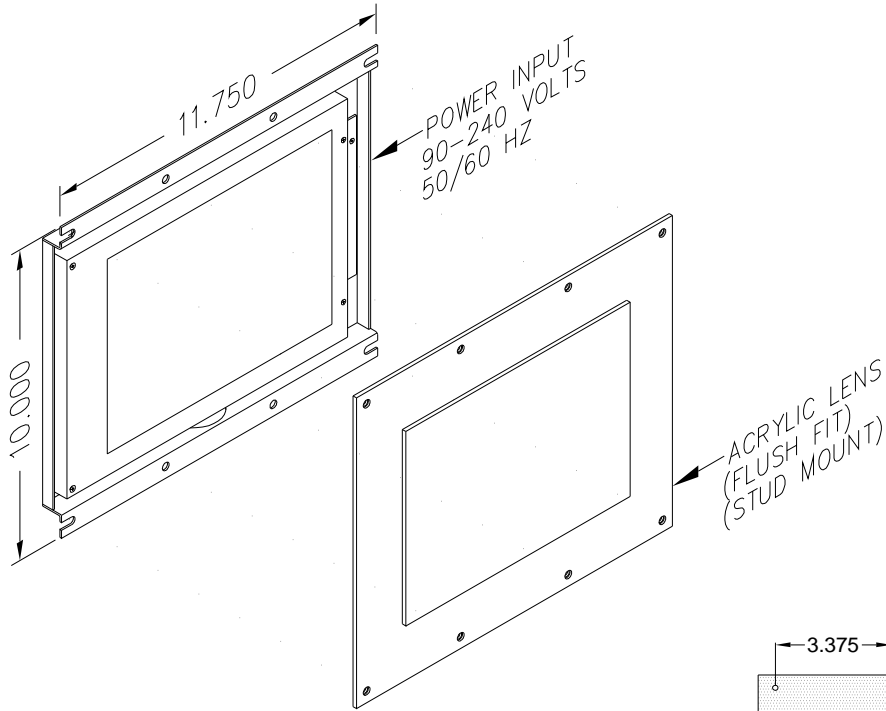> Otis RSL serial link input

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

OX104-CX2
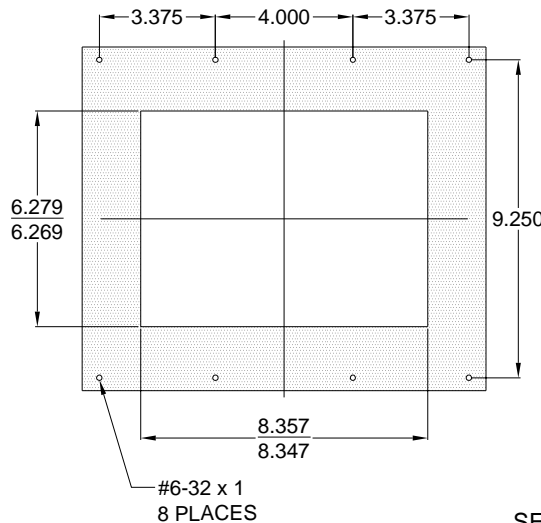Ver. 4 Rel. 2/21/2017

OTIS

10.4 INCH Standard Luxury PI - LIQUID CRYSTAL DISPLAY (LCD)

The Otis Luxury PI is the most flexible position indicator available. With the Luxury layout software, you can customize your own position indicator by selecting background colors and textures, fonts, and arrow styles. This system is so flexible you can even determine where the display elements appear on the screen. In addition to design flexibility, the Otis Luxury PI can display floor, priority, and time-based messages.

11.750

10.000

POWER INPUT
90-240 VOLTS
50/60 HZ

ACRYLIC LENS
(FLUSH FIT)
(STUD MOUNT)

UNIT IS 2-3/4 INCH DEEP

REMOTE AND AUXILIARY UNIT
2-1/8 INCH DEEP

3-1/2 DEEP BOX RECOMMENDED

Typical Applications
- Car-op panel
- Transom car

Features:
- Passing chime output
- Live video option
- Self testing
- Low profile
- Luxury designer software
- Luxury transfer software
- Otis RSL serial link input

3.375 — 4.000 — 3.375

6.279
6.269

9.250

8.357
8.347

#6-32 x 1
8 PLACES

TO ORDER: - OX104 - C X 2

SERIES:

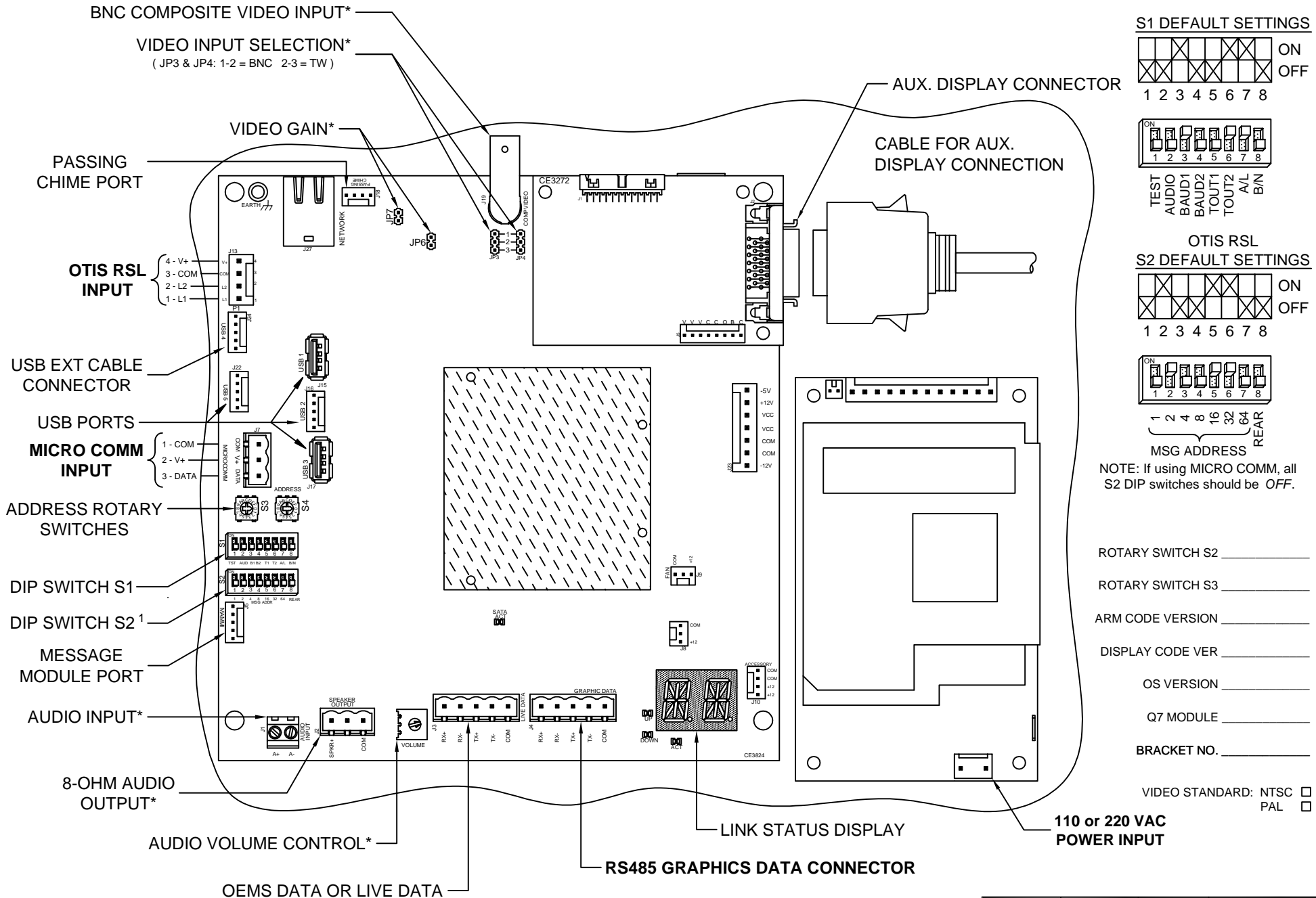"L" = MAIN
"V" = VIDEO
"A" = AUXILIARY PANEL LINK

DRIVER OPTIONS:
USE OEMS-X ONLY IF 411 SYSTEM IS USING THE EMS OPTION
IF USING AN OEMS, PLEASE REFER TO EX104 MICRO COMM ELITE PAGE

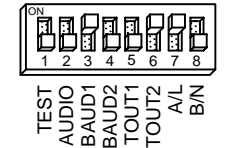| RELATED DRAWINGS	
DESCRIPTION	DRAWING NAME
PANEL PREP.	PP104-1
DETAIL DIM.	DD104-1

OTIS MAIN TFT

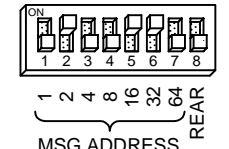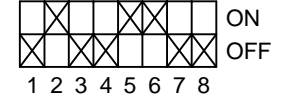* - ITEMS INSTALLED ON VIDEO VERSION ONLY

JOB# _____

BNC COMPOSITE VIDEO INPUT*

VIDEO INPUT SELECTION*
(JP3 & JP4: 1-2 = BNC   2-3 = TW)

AUX. DISPLAY CONNECTOR

CABLE FOR AUX.
DISPLAY CONNECTION

VIDEO GAIN*

PASSING
CHIME PORT

OTIS RSL
INPUT
- 4 - V+
- 3 - COM
- 2 - L2
- 1 - L1

USB EXT CABLE
CONNECTOR

USB PORTS

MICRO COMM
INPUT
- 1 - COM
- 2 - V+
- 3 - DATA

ADDRESS ROTARY
SWITCHES

DIP SWITCH S1

DIP SWITCH S2 [1]

MESSAGE
MODULE PORT

AUDIO INPUT*

8-OHM AUDIO
OUTPUT*

AUDIO VOLUME CONTROL*

OEMS DATA OR LIVE DATA

RS485 GRAPHICS DATA CONNECTOR

LINK STATUS DISPLAY

**110 or 220 VAC
POWER INPUT**

S1 DEFAULT SETTINGS

								ON
								OFF
1	2	3	4	5	6	7	8	

TEST AUDIO BAUD1 BAUD2 TOUT1 TOUT2 A/L B/N

OTIS RSL
S2 DEFAULT SETTINGS

								ON
								OFF
1	2	3	4	5	6	7	8	

1 2 4 8 16 32 64 REAR

MSG ADDRESS

NOTE: If using MICRO COMM, all
S2 DIP switches should be *OFF*.

ROTARY SWITCH S2 _____

ROTARY SWITCH S3 _____

ARM CODE VERSION _____

DISPLAY CODE VER _____

OS VERSION _____

Q7 MODULE _____

BRACKET NO. _____

VIDEO STANDARD: NTSC ☐
                 PAL ☐

[1] S2 FUNCTIONS CHANGE BASED ON RSL OR MICRO COMM USE.

S1 DIP SWITCH SETTINGS

DIP Switch 1 - Test Mode
    Off = Normal Run Mode
    On = The display will cycle up and down through all
        programmed floors (Front Side Only).

DIP Switch 2 - Audio Output
    Off = Audio Software Controlled
    On = Audio Enabled

DIP Switch 4, 3 - RS485 Configuration Link Baud Rate (Must match
    Transfer Program)

DS4	DS3	BAUD RATE
OFF	OFF	9600
OFF	ON	19200 (Default)
ON	OFF	38400
ON	ON	57600

DIP Switch 6, 5 - Watchdog Period (Length of time the PIC waits for a
    response from Elite Display before resetting the display)

DS6	DS5	Wait Period
OFF	OFF	One Minute
OFF	ON	Two Minutes
ON	OFF	Three Minutes (Default)
ON	ON	Never Reset Display

DIP Switch 7 - Converter Board Display Mode (does not affect TFT screen)
    Off = Scan Slot Data Displayed
    On = ASCII Data Displayed
        NOTE: Left Cube Dot = Priority Message Sent
                  Right Cube Dot = Door Strobe Active

DIP Switch 8 - Single/Multi-Car
    Off = Single Car - Standard MICRO COMM Links
    On = Multi-Car - Special 8-to-1 MICRO COMM Links Only!

ROTARY SWITCH SETTINGS

Rotary Switch S3 - Used for USB transfers. Default setting is 0.
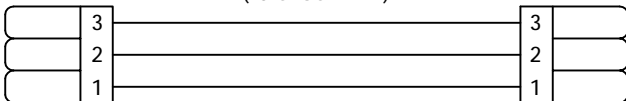
Rotary Switch S4 - Unit Address

    This switch sets the address of the Elite PI unit. The default is
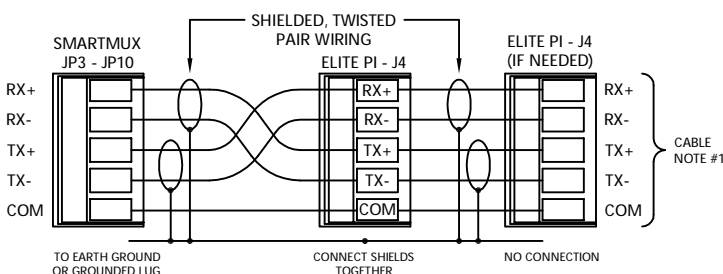   address 1, which is switch setting 0.

    NOTE: This address must match the Transfer program setting.

S4	Unit Address	S4	Unit Address	S4	Unit Address	S4	Unit Address
0	1	4	5	8	9	C	13
1	2	5	6	9	10	D	14
2	3	6	7	A	11	E	15
3	4	7	8	B	12	F	16

MICRO COMM LINK
(18-GAUGE WIRE)

SMARTMUX to ELITE PI and (if needed) to ELITE PI

NOTE: Shields **MUST** be grounded to controller/earth ground lug

S2 DIP SWITCH SETTINGS - when using MICRO COMM input

ARRIVAL ARROWS & DESTINATIONS DS1 - DS7 set the unit's floor number.

DS7 (64)	DS6 (32)	DS5 (16)	DS4 (8)	DS3 (4)	DS2 (2)	DS1 (1)	FLOOR NUMBER
OFF	OFF	OFF	OFF	OFF	OFF	OFF	CAR UNIT
OFF	OFF	OFF	OFF	OFF	OFF	ON	FLOOR 1
OFF	OFF	OFF	OFF	OFF	ON	OFF	FLOOR 2
OFF	OFF	OFF	OFF	OFF	ON	ON	FLOOR 3
:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:
ON	ON	ON	ON	ON	OFF	ON	FLOOR 125
ON	ON	ON	ON	ON	ON	OFF	FLOOR 126
ON	ON	ON	ON	ON	ON	ON	NOT USED

Switch 8 sets the unit as front or rear. DS8 OFF - Front Unit DS8 ON - Rear Unit

VIDEO TEST MODE
Video test mode uses a combination of DIP switch and rotary switch settings. Please write down the initial setting of the S3 and S4 rotary switches before starting this process.

Entering Video Test Mode
Set DIP switch 1 to OFF, then set S3 and S4 to position F. Next, set DIP switch 1 to ON. The Live Video Adjustment menu will appear on the screen with Brightness highlighted.

Choosing Item to Adjust
The highlighted item is the current selection. To choose a different item to adjust, set S3 as shown below:

S3	Adjustment	S3	Adjustment
F	Brightness	B	Video Standard
E	Contrast	A	Vertical Stretch
D	Color	9	Default
C	Tint	8	Original

Making Adjustments
Highlight the item to change and turn S4 for the best display quality.

Default and Original Settings
Default resets the display to the factory default settings. Original cancels any changes made and restores the values stored before entering Video Test mode. Highlight the item to use, turn S4 in either direction, and wait five seconds. The display will reset to the default or previous settings.

Exiting Video Test Mode
To save the new video settings and exit Video Test, set DIP switch 1 to OFF. Reset S3 and S4 to the values recorded before starting the process.

Video Gain
JP7 and JP6 control the video gain. Use a shunt to short the pins of the jumpers as shown in the table below (OFF = No Shunt, ON = Shunt):

JP7	JP6	VIDEO GAIN
OFF	OFF	No Gain (Default)
OFF	ON	Lowest Gain
ON	OFF	| | |
ON	ON	Highest Gain

Adjusting Audio Volume
If you need audio, connect an 8-ohm speaker to J2 on the Elite PI board. Set the volume by adjusting Volume pot R2 (3/4 turn pot). Adjust the pot clockwise to increase the volume.

CABLE NOTES:
1) Use shielded, twisted pair wires. We recommend using 24-gauge or larger wires. NOTE: Connect shields to controller/earth ground.
2) Use one wire of a twisted pair or a separate wire for common.
3) The audio input cable should be a shielded, twisted pair cable.
4) BNC composite video cable - 75 ohm RG6 recommended.
5) Twisted pair video cable - Unshielded twisted-pair wire recommended Baluns required - C.E.# V23501P02

The serial link must contain the following Otis data at the specified addresses for the display to work properly. Select the RSL Data address by setting S2, DIP switches 1-6 using the binary number for the desired address. The board reads five continuous addresses beginning with the address determined by the DIP switch setting. For example, if the DIP switch is set to address 50 (default), the board reads the bits at addresses 50-54.

DIP switch address - selected by the S2 DIP switch on the unit (Default 50):
    Bit 1 - FDO   Front Door Open   >>>>>>   Either of these will activate the play voice strobe,
    Bit 2 - RDO   Rear Door Open   >>>>>>   but also control which lantern inputs are read.
    Bit 3 - Not Used
    Bit 4 - LPT   Landing Passing Tone   Passing Chime

DIP switch address +1 (Default 51):
    Bit 3 - CUML   Car Up Motion Lamp   Travel Up Arrow
    Bit 4 - CDML   Car Down Motion Lamp   Travel Down Arrow

DIP switch address +2 (Default 52):   Priority
    Bit 1 - SESL   Fire Hat Jewel in COP   1
    Bit 2 - FSL/RFSL   Fire Service Lamp   2
    Bit 3 - FNDG/RNDG   Front/Rear Nudging   3
    Bit 4 - ISCL   Independent Service Lamp   4

DIP switch address +3 (Default 53):
    Bit 1 - OLS   Overload Lamp   5
    Bit 2 - Available   Message Six   6
    Bit 3 - Available   Message Seven   7
    Bit 4 - Available   Message Eight   8

DIP switch address +4 (Default 54):
    Bit 3 and Bit 4 contain Lantern UP and Lantern DOWN data when the arrival arrow address on S3 is set to zero and S2 DIP switches 7 & 8 are set to *OFF*.

    To get the arrival data from a different address, use rotary switch S3 and S2 DIP switches 7 & 8. Rotary switch S3 provides the four lowest bits and S2 DIP switches 7 & 8 provide the highest two bits of a 6-bit address. For example, to use address 20, set rotary switch S3 to 4 and set S2 DIP switch 7 (16) to *ON* (4 + 16 = 20). To use address 44, set rotary switch S3 to *C* (12) and set S2 DIP switch 8 (32) to *ON* (12 + 32 = 44). The unit reads bits 3 & 4 of the designated address to determine the arrival data.

NOTE: At DIP switch address +1 and +4, bits 1 and 2 are not used. Also, the messages listed at DIP switch address +2 and +3 are the default messages, but any signal can be used to trigger a message at the corresponding bit location.

For destination-based systems, please contact C.E. Electronics Customer Service (419-636-6705) for more information.