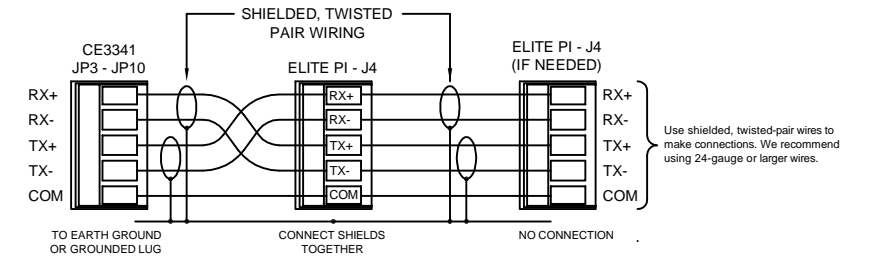


**SMARTMUX to ELITE PI and (if needed) to ELITE PI**



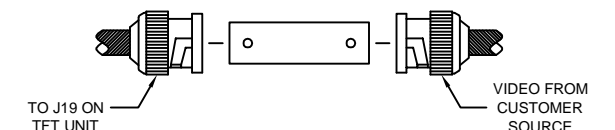
**STEPS TO TEST LINK FROM ELBNK TO ELITE PI**

NOTE: Test assumes the ELBNK to ELITE PI connections are complete.

- To test the output channel links, set S1, DIP switch 1 to **ON**.
- Use the table below to set the S5 DIP switches for the channel to test.
  - If the two-digit display shows Cn and then flashes between D1 and OK, go to Step 4.
  - If the two-digit display shows Cn and then flashes between D1 and --, go to Step 3.
- Unplug the connector from the output channel jack (JPn) and swap RX+ with TX+, swap RX- with TX-, and then plug the connector back into JPn.
  - If the two-digit display shows Cn and then flashes between D1 and OK, go to Step 4.
  - If the two-digit display still shows Cn and then flashes between D1 and --, contact C.E. Electronics Tech Support department at 419-636-6705, extn. 730.
- Return to Step 2 for any remaining outputs in use.
- After testing all of the outputs in use, set S1, DIP switch 1 to **OFF**.

**S5 - Channel Select for Two-Digit Display**

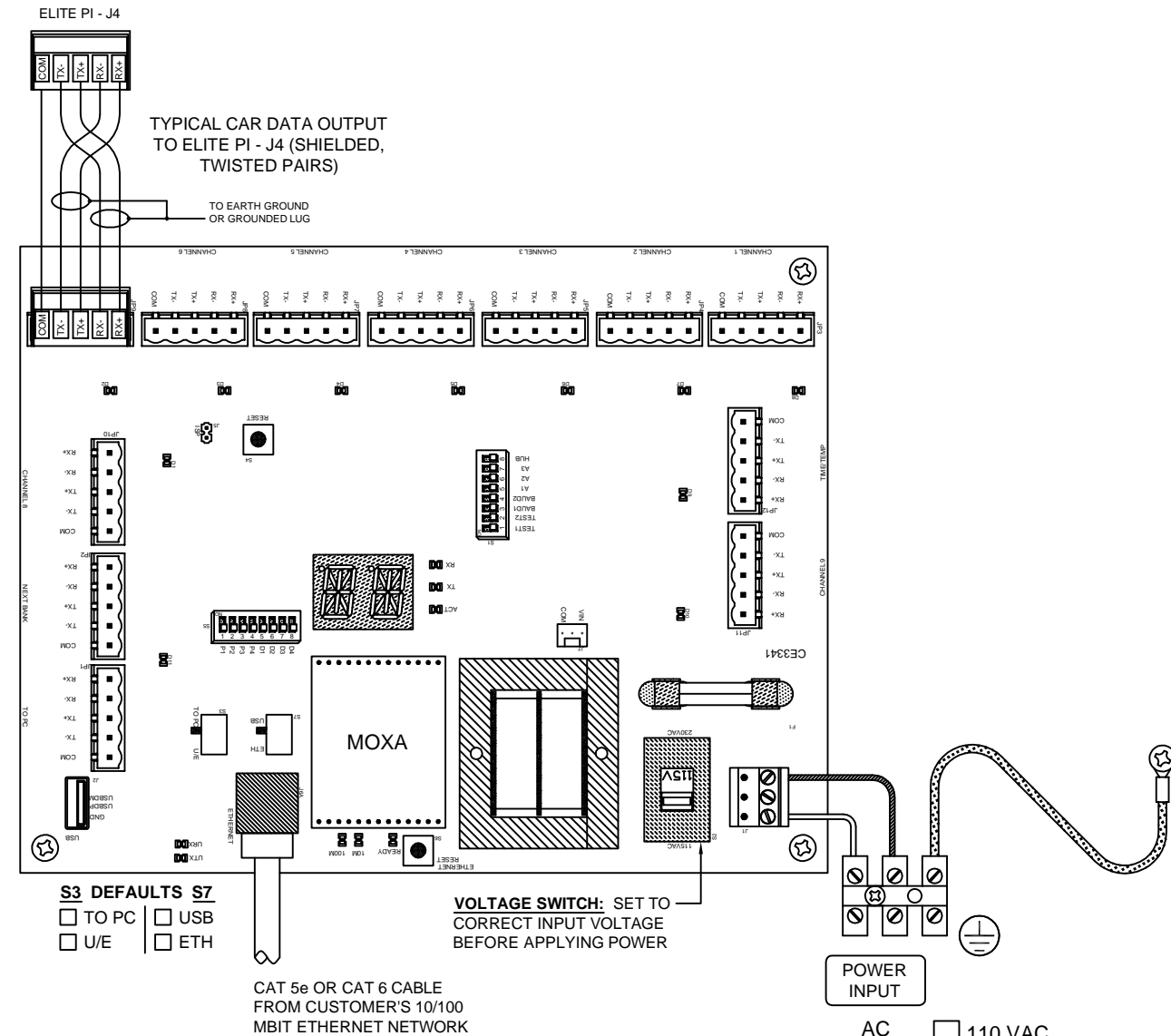
DS1 P1	DS2 P2	DS3 P3	DS4 P4	Port to Test (JPn)	Display (Cn)
OFF	OFF	OFF	OFF	Channel 1 - JP3	C1
ON	OFF	OFF	OFF	Channel 2 - JP4	C2
OFF	ON	OFF	OFF	Channel 3 - JP5	C3
ON	ON	OFF	OFF	Channel 4 - JP6	C4
OFF	OFF	ON	OFF	Channel 5 - JP7	C5
ON	OFF	ON	OFF	Channel 6 - JP8	C6
OFF	ON	ON	OFF	Channel 7 - JP9	C7
ON	ON	ON	OFF	Channel 8 - JP10	C8



\*COAX IS RECOMMENDED FOR VIDEO SIGNALS.

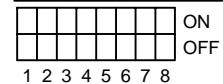
**ELBNK-BMX WITH MOXA AND VIDEO COUPLERS**

DATE DRAWN: 03/02/16	DRAWN BY: DAC	REQUESTED BY: TE	C.E. ELECTRONICS, INC. 2107 Industrial Drive Bryan, Ohio 43506 (419) 636-6705
BOARD NUMBER: N/A	LAST DATE REVISED: -	APPROVED BY: -	
PRODUCT: ELBNK with MOXA and Video Couplers			
DWG. NO. ELBNK-BMX_02			REV: -



**ELBNK BOX**

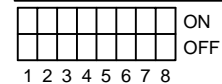
**S5 DEFAULT SETTINGS**



**S5 DETAIL**



**S1 DEFAULT SETTINGS**



**S1 DETAIL**



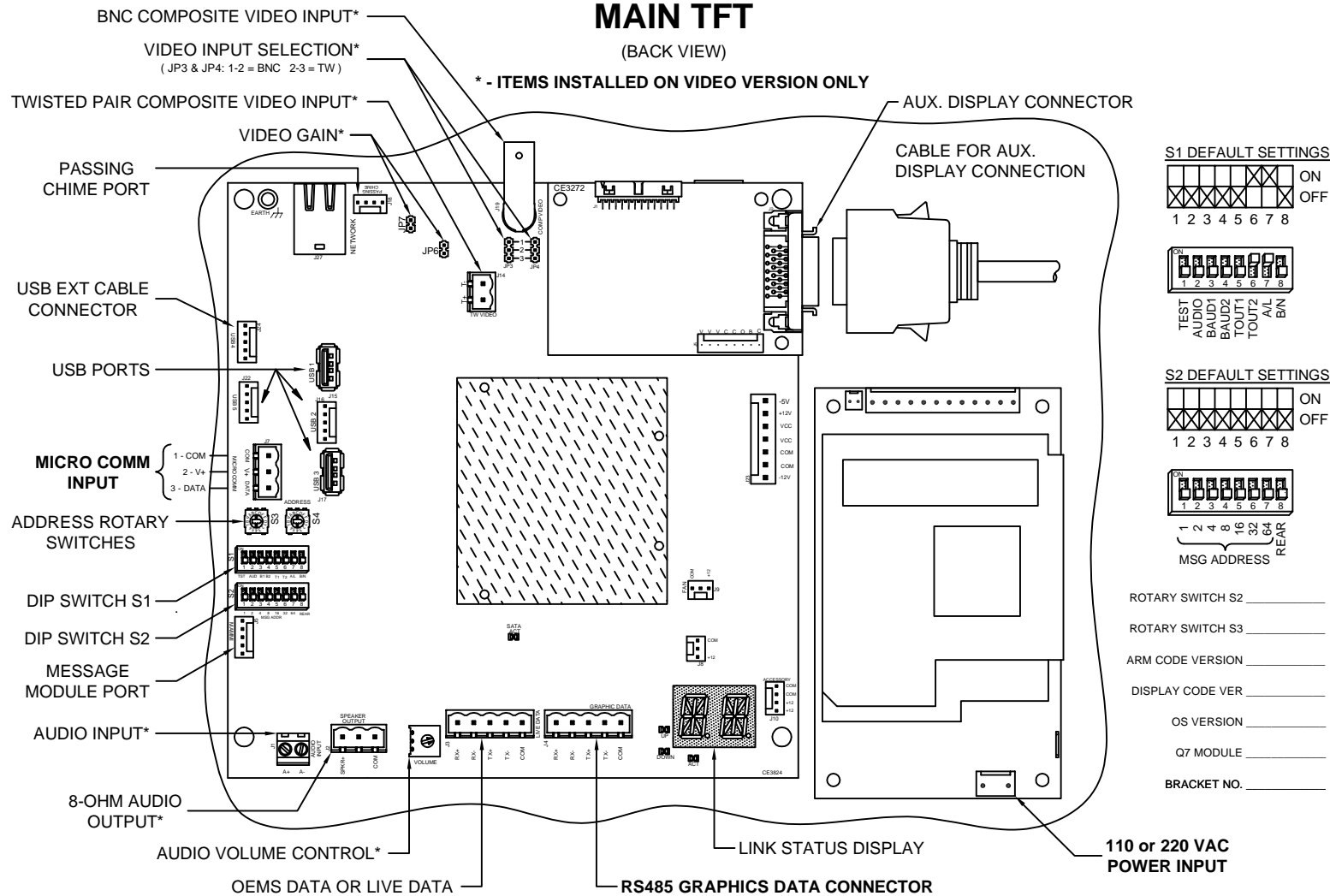
CODE VERSION \_\_\_\_\_

BOARD VERSION CE3341 \_\_\_\_\_

# MAIN TFT

(BACK VIEW)

\* - ITEMS INSTALLED ON VIDEO VERSION ONLY



**S1 DEFAULT SETTINGS**

ON	OFF	ON	OFF	ON	OFF	ON	OFF
1	2	3	4	5	6	7	8

**S2 DEFAULT SETTINGS**

ON	OFF	ON	OFF	ON	OFF	ON	OFF
1	2	3	4	5	6	7	8

**MSG ADDRESS**

1	2	3	4	5	6	7	8
16	32	64	REAR				

- ROTARY SWITCH S2 \_\_\_\_\_
- ROTARY SWITCH S3 \_\_\_\_\_
- ARM CODE VERSION \_\_\_\_\_
- DISPLAY CODE VER \_\_\_\_\_
- OS VERSION \_\_\_\_\_
- Q7 MODULE \_\_\_\_\_
- BRACKET NO. \_\_\_\_\_

### S1 DIP SWITCH SETTINGS

DIP Switch 1 - Test Mode  
Off = Normal Run Mode  
On = Test Mode. 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 (Default)
OFF	ON	19200
ON	OFF	38400
ON	ON	57600

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

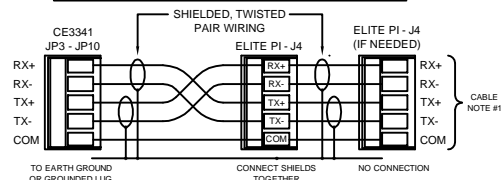
DS6	DS5	Wait Period
OFF	OFF	One Minute
OFF	ON	Two Minutes
ON	OFF	Three Minutes (Default)
ON	ON	Never Reset Display

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 Present  
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!

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



### S2 DIP SWITCH SETTINGS

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	ON	ON	FLOOR 1
OFF	OFF	OFF	OFF	ON	ON	ON	FLOOR 2
OFF	OFF	OFF	ON	ON	ON	ON	FLOOR 3
...	...	...	...	...	...	...	...
ON	ON	ON	ON	OFF	ON	ON	FLOOR 125
ON	ON	ON	ON	ON	OFF	ON	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

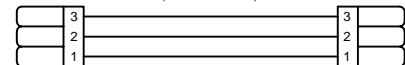
### ROTARY SWITCH SETTINGS

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
0	1
2	3
4	5
6	7
8	9
10	11
12	13
14	15
16	17

### MICRO COMM LINK

(18-GAUGE WIRE)



### CABLE NOTES:

- Use shielded, twisted-pair wires to make connections. We recommend using 24-gauge or larger wires.
- Use one wire of a twisted pair or a separate wire for common.
- The audio input cable should be a shielded, twisted pair cable.
- BNC composite video cable - 75-ohm RG6 recommended.
- Twisted pair video cable - Unshielded twisted-pair wire recommended.

### 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 will reset the display to the factory default settings, and Original will cancel any changes made and restore 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

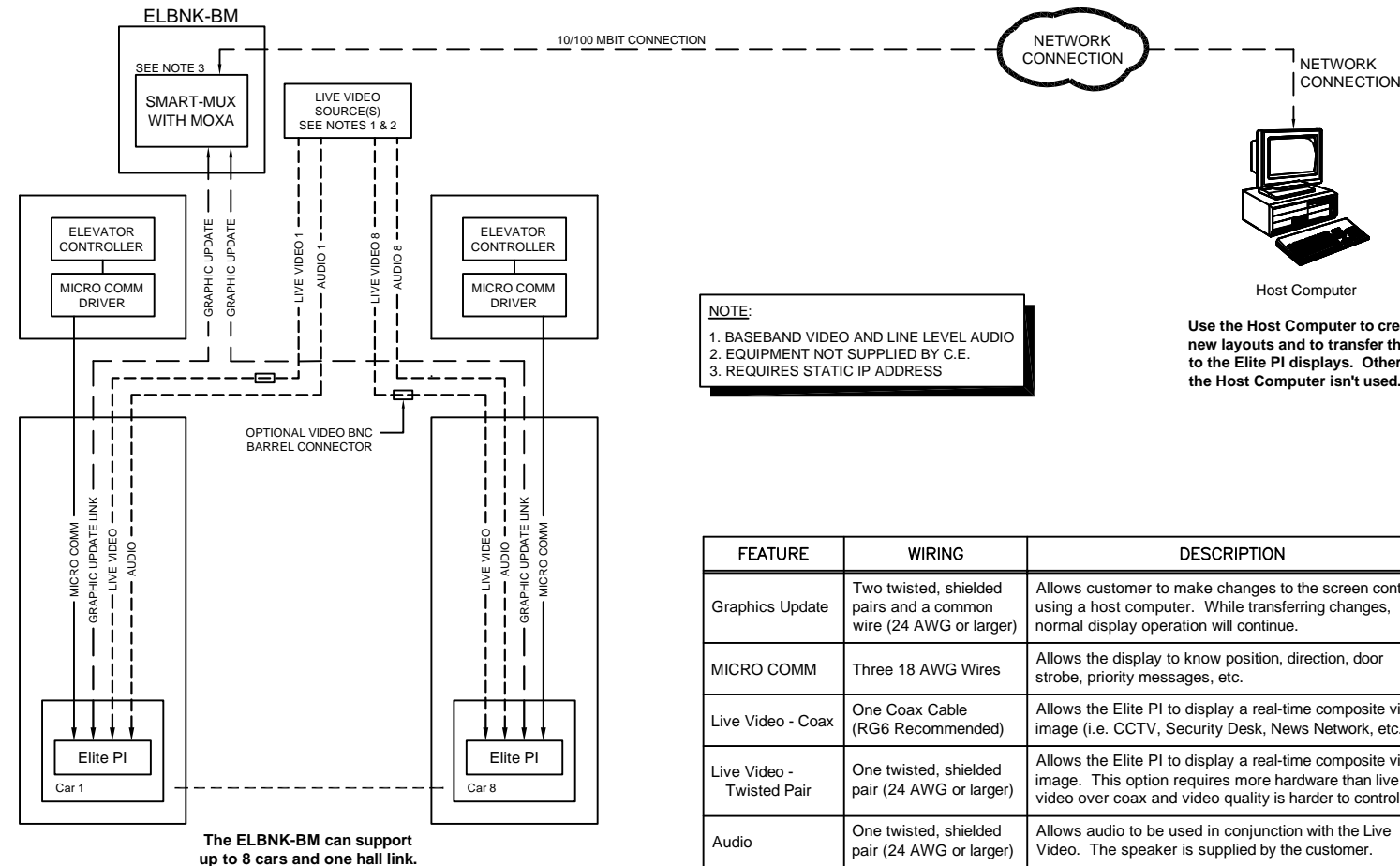
JP7 and JP6 control the video gain. Use a shunt to short the pins of the switches as shown in the table below (OFF = No Shunt, ON = Shunt):

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

### Adjusting Audio Volume

If audio is needed, connect an 8-ohm speaker to J1 on the converter board. Set the volume by adjusting Volume pot R2 (3/4-turn pot). Adjust the pot clockwise to increase the volume.

# ELITE PI SYSTEM DIAGRAM



**NOTE:**  
1. BASEBAND VIDEO AND LINE LEVEL AUDIO  
2. EQUIPMENT NOT SUPPLIED BY C.E.  
3. REQUIRES STATIC IP ADDRESS

FEATURE	WIRING	DESCRIPTION
Graphics Update	Two twisted, shielded pairs and a common wire (24 AWG or larger)	Allows customer to make changes to the screen content using a host computer. While transferring changes, normal display operation will continue.
MICRO COMM	Three 18 AWG Wires	Allows the display to know position, direction, door strobe, priority messages, etc.
Live Video - Coax	One Coax Cable (RG6 Recommended)	Allows the Elite PI to display a real-time composite video image (i.e. CCTV, Security Desk, News Network, etc.)
Live Video - Twisted Pair	One twisted, shielded pair (24 AWG or larger)	Allows the Elite PI to display a real-time composite video image. This option requires more hardware than live video over coax and video quality is harder to control.
Audio	One twisted, shielded pair (24 AWG or larger)	Allows audio to be used in conjunction with the Live Video. The speaker is supplied by the customer.

### SMARTMUX-8 SWITCH FUNCTIONS

### S3 and S7 SLIDE SWITCH SETTINGS

Slide Switches S3 and S7 select the active PC Input connection

S3	S7	Active Input Connection
TO PC	USB	JP1 - TO PC - Connects as noted on reverse
TO PC	ETH	JP1 - TO PC - Connects as noted on reverse
U/E	USB	J2 - USB - Connects to PC using a standard USB cable (10-ft. max)
U/E	ETH	J6A - ETHERNET - Must have optional Ethernet board installed (Network Enabler Administration software is used on the PC for the Virtual Serial Port)

### S5 DIP SWITCH SETTINGS

DIP Switches 1, 2, 3, 4 - Test Port Address - Selects Port to use for Port Test

DS1 P1	DS2 P2	DS3 P3	DS4 P4	Port Selected
OFF	OFF	OFF	OFF	Channel 1 - JP3
ON	OFF	OFF	OFF	Channel 2 - JP4
OFF	ON	OFF	OFF	Channel 3 - JP5
ON	ON	OFF	OFF	Channel 4 - JP6
OFF	OFF	ON	OFF	Channel 5 - JP7
ON	OFF	ON	OFF	Channel 6 - JP8
OFF	ON	ON	OFF	Channel 7 - JP9
ON	ON	ON	OFF	Channel 8 - JP10
OFF	OFF	OFF	ON	Time/Temp - JP12
ON	OFF	OFF	ON	Bank Channel - JP11

DIP Switches 5, 6, 7, 8 - Display Address to use for Port Test

DS5 D1 (1)	DS6 D2 (2)	DS7 D3 (4)	DS8 D4 (8)	Display Address
OFF	OFF	OFF	OFF	Display 1
ON	OFF	OFF	OFF	Display 2
OFF	ON	OFF	OFF	Display 3
...	...	...	...	...
OFF	ON	ON	ON	Display 15
ON	ON	ON	ON	Display 16

### S1 DIP SWITCH SETTINGS

DIP Switches 1, 2 - Run Mode

DS1 Test1	DS2 Test2	UNIT RUN MODE
OFF	OFF	Normal Operating Mode
ON	OFF	Port/Display Test Mode: Sends out test packets to the Port/Address specified on S5. Display shows "D1" then "OK" for success or "--" for failure.
OFF	ON	Alternating Output Test: Sends an alternating 255 and 0 out to the port (meter checks).
ON	ON	Factory Test Mode: Used at the factory for initial board tests.

### DIP Switches 3, 4 - Baud Rate

DS3 Baud1	DS4 Baud2	BAUD RATE - NOTE: Elite Pi display and PC Transfer application must also be set to the same baud rate
OFF	OFF	9600 - Factory Default
ON	OFF	19200
OFF	ON	38400
ON	ON	57600

### DIP Switches 5, 6, 7, 8 - Board Address

DS5 A1	DS6 A2	DS7 A3	DS8 HUB	ADDRESS - NOTE: The PC Transfer app must also be set to use this address
OFF	OFF	OFF	OFF	Bank 1 - Factory Default
ON	OFF	OFF	OFF	Bank 2
OFF	ON	OFF	OFF	Bank 3
ON	ON	OFF	OFF	Bank 4
OFF	OFF	ON	OFF	Bank 5
ON	OFF	ON	OFF	Bank 6
OFF	ON	ON	OFF	Bank 7
ON	ON	ON	OFF	Bank 8
OFF	OFF	OFF	ON	Hub 1
ON	OFF	OFF	ON	Hub 2