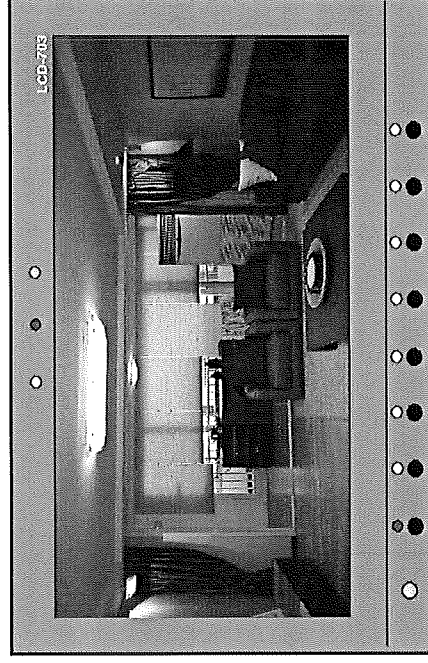




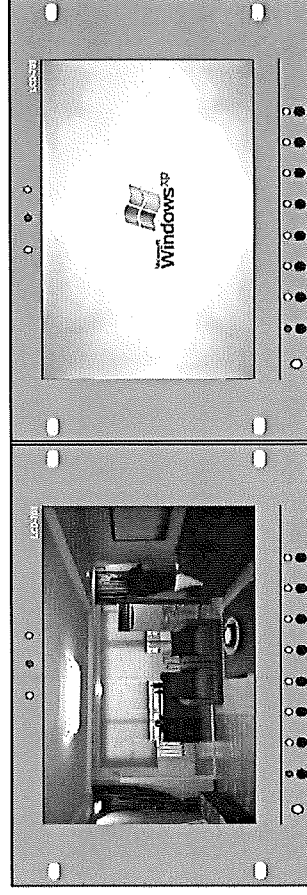
LCD-703HD Series
High Definition
7.0" TFT LCD Monitor

■ Display Panel

- Do not apply strong pressure to the LCD panel surface or subject it to strong impact. Doing so can cause the display panel glass to crack.
- Should the display panel ever become cracked, never touch any of the liquid inside the panel. Doing so can create the risk of skin inflammation.
- Should display panel liquid ever get into your mouth, immediately rinse your mouth out and contact your physician.
- Should display panel liquid ever get into your eyes or onto your skin, immediately rinse with clean water for at least 15 minutes and contact your physician.



Model : LCD-703HD (Stand Alone)



Model: LCD-703HD2 (19" Rack Mount unit)

www.totevision.com

ONE YEAR LIMITED WARRANTY

Important:

Retain original packing material for use in (1) shipping the equipment to our facility for service and (2) for use in shipping the equipment to an electronics recycle location at the end of the equipment's useful life.

ToteVision warrants to the original purchaser that this product is free from defects in workmanship and material under normal use and conditions for a period of one year from the date of original purchase, subject to the limitations below. Should service be required by reason of any defect or malfunction during the warranty period, ToteVision will repair or at its discretion replace this product, without charge (subject to verification of the defect or malfunction), upon delivery of this product to the Factory Service Center listed below with proof of date of purchase. During the one year warranty period, ToteVision will NOT repair or replace, free of charge, defective units WHICH ARE DEFECTIVE DUE TO ORDINARY WEAR AND TEAR, USER ABUSE, OR OTHER CAUSES NOT ARISING OUT OF MANUFACTURER'S DEFECTS IN MATERIALS OR WORKMANSHIP. This warranty is valid only if the product is used for the purpose for which it was designed. It does not cover:

- (1) products which have been damaged by negligence, misuse, accidents, abuse, acts of God, or units which have been modified or repaired by unauthorized persons,
 - (2) cracked or broken units or units damaged by excessive heat or cold, or units exposed to excessive UV light,
 - (3) products which have their serial numbers removed, altered or rendered illegible,
 - (4) the cost of shipping this product to the Factory Service Center.
- No warranty, expressed or implied, as to merchantability or fitness for a particular use is made beyond this Limited Warranty. ToteVision will not be liable for incidental or consequential damages or lost profits arising from product defects or malfunctions. This warranty is valid only in the United States of America and does not extend to owners of the product subsequent to the original purchaser. Any applicable implied warranties are also limited to one year and ToteVision will not be liable for consequential damages. Some states do not allow limitations on implied warranties or exclusions of consequential damages, so these restrictions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Returning This Product for Service

- 1. If possible, please pack the unit in the original carton and protectors. If this is not possible, then insure proper packaging for good protection. You do not want your product to get damaged in-transit.
- 2. Enclose a photocopy of your dated sales receipt, credit card statement, or other proof of the date of purchase, a description of your complaint, your name, address and daytime telephone number. Do not use P.O. Box numbers since UPS cannot deliver to P.O. Boxes. Your warranty registration information must be on file in our office as a method of identification. If proof of original ownership is not in our records, and you are not able to show proof of purchase date, then the repair will be treated as "out-of-warranty" and you will be required to pay for repair and handling charges prior to the unit being returned to you.
- 3. Obtain a Return Authorization (RA) from ToteVision, ship the unit prepaid and insured to the ToteVision Service Center listed below. Enclose a description of your complaint, your name, company name, address, and daytime telephone number. If your unit needs service after the warranty period has expired, you will be advised of estimated repair charges. Send unit to:

TOTEVISION SERVICE CENTER, 1319 Dexter Avenue N., Suite 020, Seattle, WA 98109

As a precondition to receiving any of the benefits of this limited warranty, your completed warranty registration information must be on file in our office. IF YOUR INFORMATION IS NOT ON FILE WITH US, ALL WARRANTY CLAIMS WILL BE DENIED. TO PROTECT YOUR WARRANTY, MAIL YOUR REGISTRATION INFORMATION TODAY! Thoroughly test your unit before submitting it for warranty claim repair. Submission of a unit determined not defective will result in a charge to you of \$85.00 for testing and handling the unit. For further information: call (206) 623-6000 or fax (206) 623-6609

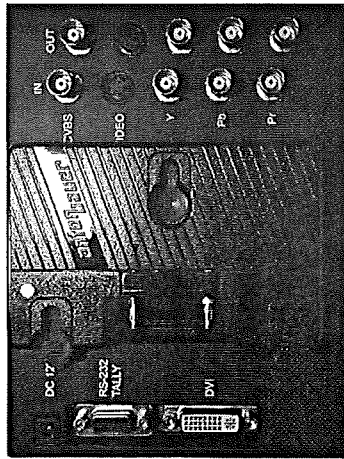
WARRANTY REGISTRATION

Protect your Warranty by completing and mailing this form to:

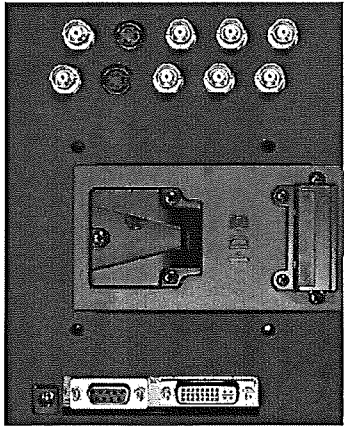
ToteVision, 1319 Dexter Avenue N. # 020, Seattle, WA 98109

Model Number: _____ Serial Number: _____
Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Telephone number: (_____) _____
Dealer: _____ Dealer City: _____ State: _____

<Unit with battery pack bracket>

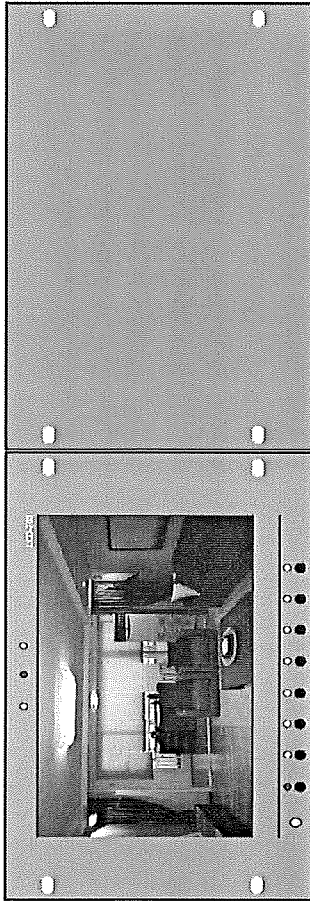


LCD-703HDA Kit

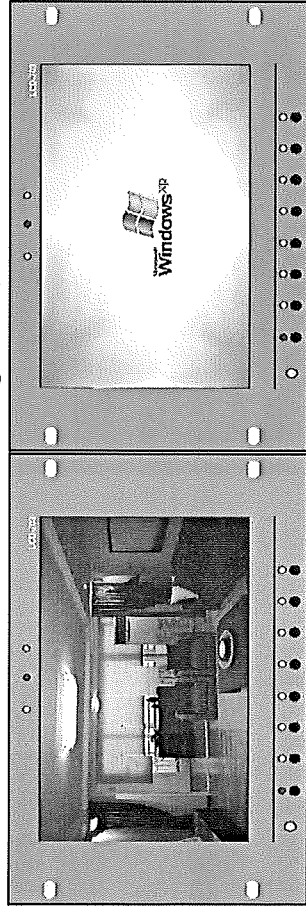


LCD-703HDV Kit

<19" STANDARD RACK MOUNT>

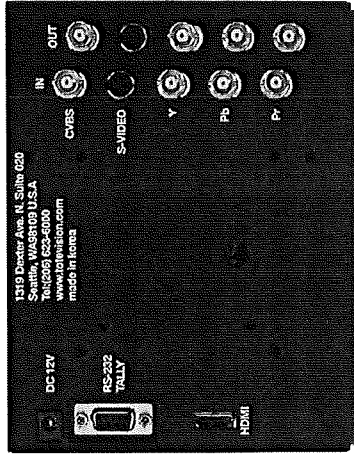
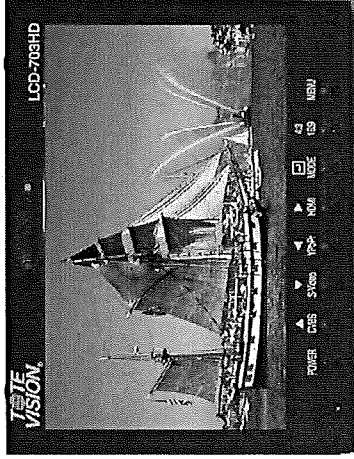


LCD-703HD1 (single unit)



LCD-703HD2 (two units)

The LCD-703HD Series features our completely digital million pixel TFT LCD high resolution screen, excellent color reproduction. Analog signals are digitized using an advanced 10 bit process with 4x over sampling and adaptive 5 line comb filter plus exacting color space conversion. Video is scaled to fit on screen in the highest resolution using a state of the art triple gate technology LCD panel that incorporates with precision Gamma correction to produce the best images available.



- High Resolution 7.0 inch wide screen 800xRGBx480 Dots with 1.2 million pixels
- Ultra low power consumption using 24 long life LED back lights
- Runs 6 hours on optional 2200 mAh rechargeable battery(model: BP-563C)
- Durable metal enclosure with 75mm VESA pattern and ¼-20 mounting pad
- Triple gate technology antireflective/antiglare coated TFT LCD
- 100% digital processing high resolution scaling of all images
- Analog signals converted to 10 bit digital
- Wide viewing angle - 130° horizontal and 120° vertical provides superior visibility
- 350 candelas per square meter (cd/m²) luminance produces enhanced image quality
- 300:1 ratio of contrast between black and white luminance values with response rates less than 22 ms results in excellent quality for motion images
- Video loss detection, under scan feature
- 4:3 and 16:9 screen aspect ratios
- Automatic NTSC/PAL format detection
- Standard inputs:
 - Composite Video PAL/NTSC with BNC loop output
 - S-Video IN / OUTPUT
 - HDMI INPUT
 - RS-232 and TALLY INPUT
 - HD/SD Component YPrPb with BNC loop out
 - 2.1mm (+)center pin D.C. power jack
- Easy to see three color TALLY indicators
- Blue Screen for color adjustment
- Adjustment Settings Memory
- Includes ¼-20 mounting pad

Display (Viewing Area)	7" (6.0" x 3.6")
Resolution (Pixels)	800 H x RGB x 480 V
Dot Pitch	0.1905mm x 0.1905mm
Brightness	350 cd/m ²
System	NTSC/PAL auto recognition
Inputs	1 Composite, 1 Component HD/SD in/OUT, S-Video IN/OUT, HDMI or DVI
Dimensions	6.85"(W) x 5.24"(H) x 1.38"(D)
Approx. net weight	0.7 Kgs(1.54lbs) (with Remote)
Power Consumption	DC 12V 400 mA (runs @ 5~20 VDC)

1. Overview

The LCD-703HD Series represents a state of art LCD display technology in broadcast and professional video applications. This is a low cost free standing monitor and is constructed with 75mm VESA pattern and ¼"-20 mounting pad or flanges for 19" Rack mount option.

This unit consumes extremely low power and the monitor can be powered for over 6 hours with a 2200 mAH battery.

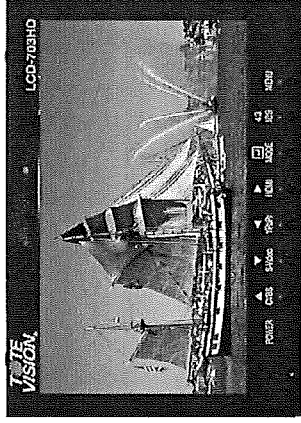
The 1.2-million pixel TFT screen has 130 degree viewing angles and incorporates 24 bit completely digital signal processing to provide excellent image reproduction. All SMPTE/ITU High Definition and Standard Definition digital video standards and signal types are accepted and displayed on this model.

All video formats are scaled to fit on screen in the highest resolution using a state of the art triple gate technology LCD panel that incorporates with precision Gamma correction. Additional features include, three LED tally, setup memory, Blue Gun, and on screen menu access for all adjustment and selection functions.

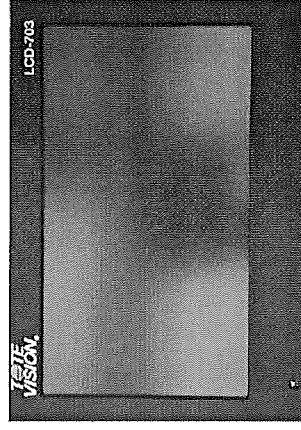
Features

High Definition display	capable of displaying more than 1000 TV lines resolution. Standard definition is internally up converted to High Definition. All signals remain completely digital to provide the most exact images available.
Standard Inputs	<ul style="list-style-type: none"> Analog component Y/P/B (3 BNC with loop out) (ITU-BT601/607) Analog composite PAL/NTSC auto detect (BNC with loop out) (SMPTE170M) Y/C (S-Video) (4 Pin Mini-din with loop out) HDMI or DVI (depending on version)
Durable metal enclosure	Protection for all connections and controls with strategically placed ventilation for use in harsh environments
Display Multiple Screen Formats and Frame Rates	<ul style="list-style-type: none"> 720x480-60i, 576-50i, (Interlaced), 720x480-60p, 576-50P, (Progressive) 1280x720 - 50/60P (Progressive) 1920x 1080 - 50/ 60i (Interlaced), 1920x 1035 - 60i (Interlaced) 1920x 1080 - 50/ 60P (Progressive)
Memory Function	Adjustment Settings Memory stored on shutdown and recalled when power is applied
Blue Gun Screen	Use for adjustment to SMPTE color Bars
TALLY (DB-9)	Three LEDs (Amber, Red, Green) produce 7 different tally indications
RS-232 (DB-9)	Control by external devices via network

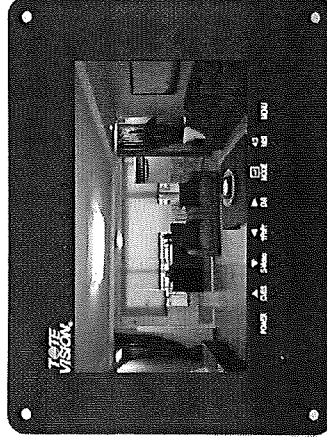
Model numbers of LCD-703HD Series



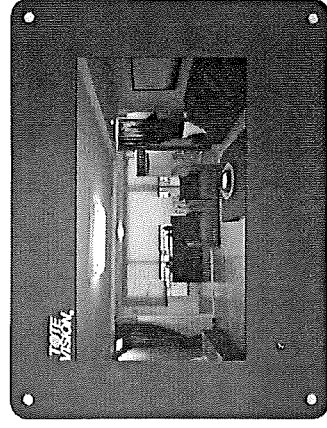
LCD-703HD



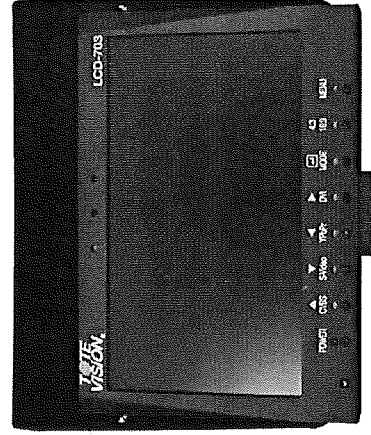
LCD-703HDX



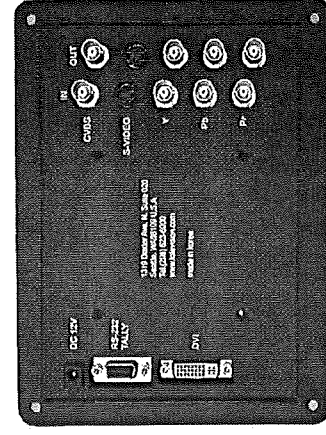
LCD-703HD Kit



LCD-703HDLX



SS-703 (Sun shield)



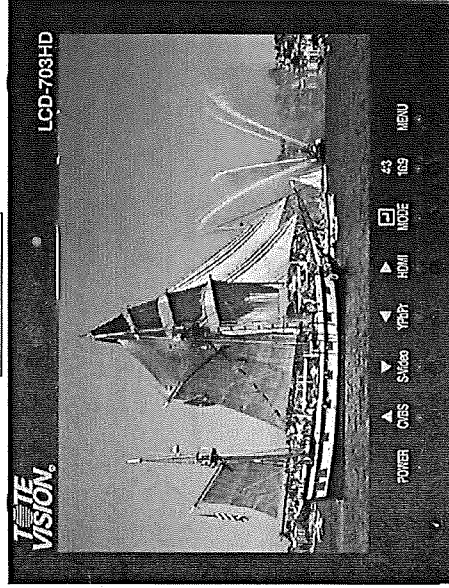
LCD-703HDL back

Applicable signal format

Signals	Frames per Second	Aspect Ratio	Active Lines	Scanning Method	Input
525-60i	30/29.97	4:3/16:9	483	Interlaced	CVBS, Y/C, YPrPb
480i	60/59.94/50	4:3/16:9	483	Interlaced	CVBS, Y/C, YPrPb
625-50i	25	4:3/16:9	576	Interlaced	CVBS, Y/C, YPrPb
480P	60/59.94/50/30/29.97 /25/24/23.976	16:9	483	Progressive	YPrPb, HDMI
720P	60/59.94/50/30/29.97 /25/24/23.976	16:9	720	Progressive	YPrPb, HDMI
1035i	60/59.94	16:9	1080	Interlaced	YPrPb, HDMI
1080i	60/59.94/50/48/47.96	16:9	1080	Interlaced	YPrPb, HDMI
1080P	30/29.97/25/24/23.976	16:9	1080	Progressive	YPrPb, HDMI

Switch Settings, Functions and Indicators

Tally Indicators



CVBS, S-Video, YPrPb and HDMI select input source and LED on when active.

Mode : select under scan or normal mode

Note: Tapping any active input signal toggles BLUE GUN On/Off.

Signal selection is active when Blue Gun is on.

Tap active selection to turn off.

Electrical Specifications

Display (Viewing Area)	7" (6.0"(H) x 3.6"(V) (152.4mm x 91.44mm)
Viewing Angles	130°(H) x 120°(V)
Resolution (RGB Dots)	800(H) x RGB x 480(V) (1.2 million pixels)
Contrast Ratio	300:1
Gamma	2.2
Luma Linearity	Typical +/- 3% with 5 ire increments (0 to 10 ire)
Dot Pitch	0.1905mm (H) x 0.1905mm (V)
Pixel Response	22ms average
Screen Refresh Rate	50/60 Frames per second
Backlight Type / Life	LED / 20,000 to 30,000 Hours Estimated Life
Brightness	350 cd/m ²
System	NTSC/PAL auto recognition
Inputs	Analog Component (YPrPb / YCrCb / Y R-y B-y) (3 BNC) Analog Composite (BNC) S-Video (Y/C) (4 pin mini din female) HDMI, RS-232/TALLY (DB-9 Female) S-Video (Y/C) (4 pin mini din female)
Active Outputs	Available when power is applied
Passive Outputs	Component Video (3 BNC) Composite Video (BNC)

Mechanical Specifications

	LCD-703HD	LCD-703HD2	LCD-703HDL
Dimensions (mm)	174x133x35	241x133x35	215x175x35
Approx. Weight(gm)	850	2,000	1,000
Power Consumption	5-20 VDC, Approx. 5 Watts		
Operating Temperature	-20° C to 60° C Ambient		
Storage Temperature	-30° C to 80° C		

Standard Accessories

- Remote Control
- User manual

Optional Accessories

- Custom tote bag, model TB-703

LCD Panel Cleaning

When cleaning the LCD Panel it is very important to use non-abrasive and ammonia free cleaning agents and a clean micro fiber cloth, or cheese cloth. Do not use paper towels. Paper towel fibers are coarse and may scratch the surface of the LCD screen. Paper towels may also leave streaks on the surface. Antistatic and fingerprint resistant cleaning agents are recommended.

Operational Setup

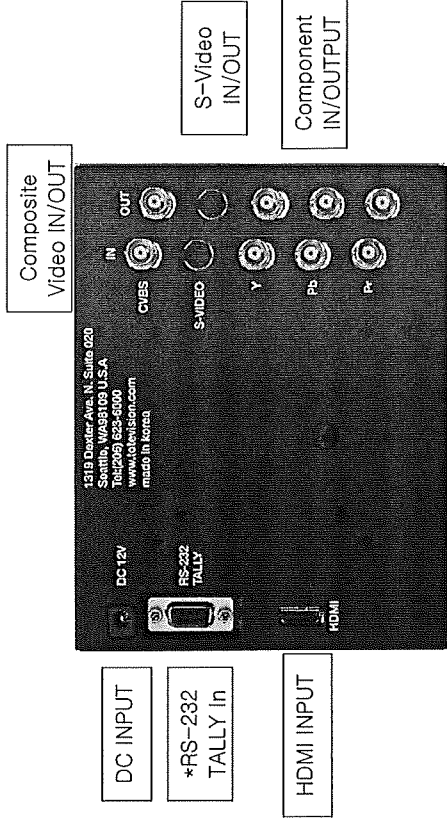
1. Unpack the LCD-703HD and accompanying remote control. Physically inspect for any damage that may have occurred during shipping. Should there be any damage, immediately contact ToteVision at 206-623-6000.
2. Connect required cables for signal input and output. Please note that power must be applied to the LCD-703HD for the S-Video outputs to be activated. All BNC connectors should be rated for 75Ω.
3. Plug the power supply into the A.C. source. Please note that power can be supplied from a variety of DC sources, such as batteries or vehicle power. Input power range is 5.0 to 20 Volt D.C. In operation, the LCD-703HD draws approx. 0.4 amp. @ 12VDC.
4. Turn on the LCD-703HD by tapping the power switch located on the front of the unit.
5. LEDs indicate selected signal source. It becomes bright if there is video loss.

MENU ACCESS

1. Press "MENU" key to access MENU on screen.
2. Press ▲/▼ to move cursor to desired menu icon.
3. Press ↵ to select the menu.
4. Press "MENU" key again to exit menu.
5. Press MENU + YPrPb for color calibration. (only works for component input), (color bar pattern is recommended)
6. Blue only feature will be working when pressing CVBS or S-Video key. (key toggle for normal/Blue only feature)

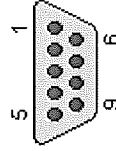
Input Connectors

- * Composite Video Inputs comply with SMPTE-170M
- * Component Inputs comply with ITU-BT.601/656
- * BNC Output always active regardless of Power ON/OFF
- * S-Video Output is active when power is ON.



* 9pin D-Sub Connector pin assignment
RS-232 /TALLY pin configuration

	5	4	3	2	1
RS-232	GND	NC	T/X	R/X	NC



	9	8	7	6
TALLY	GND	Green	RED	Yellow

TALLY SYSTEM - The tally system on the LCD-703HD is accessed via the DB-09 connector on the back of the unit labeled 'RS-232/TALLY'. The system works by closing the contacts between the ground pin and the corresponding LED pin. The system is self powered, **DO NOT GIVE POWER TO THE PINS.**