

# Film-Tech

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SECTION II

KT-44 Monitor

KT-44 MONITOR  
Section II  
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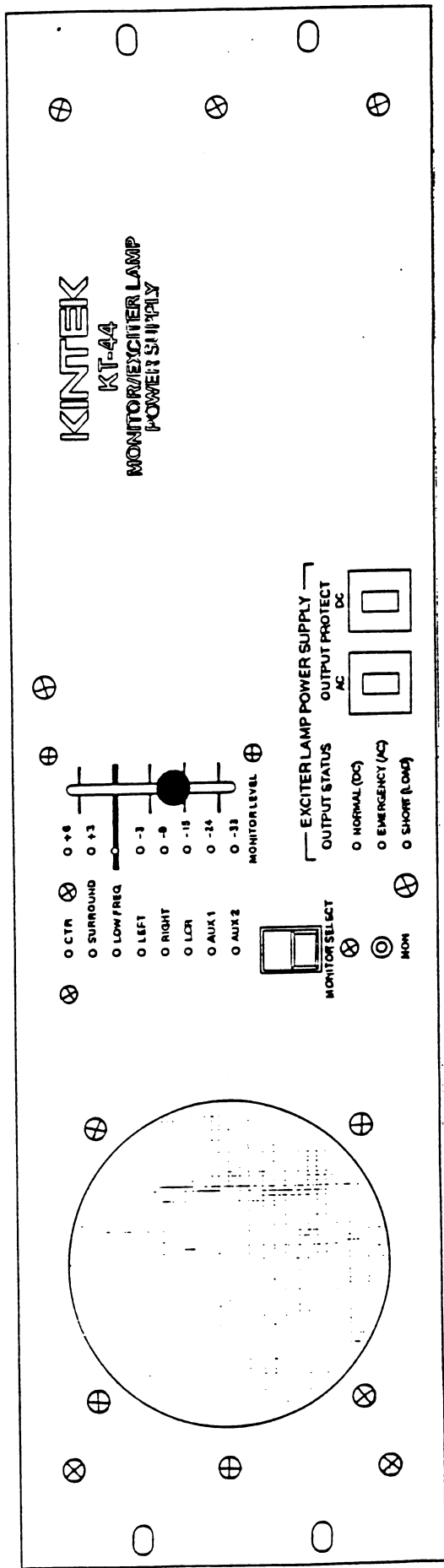


Figure 1 Front Panel

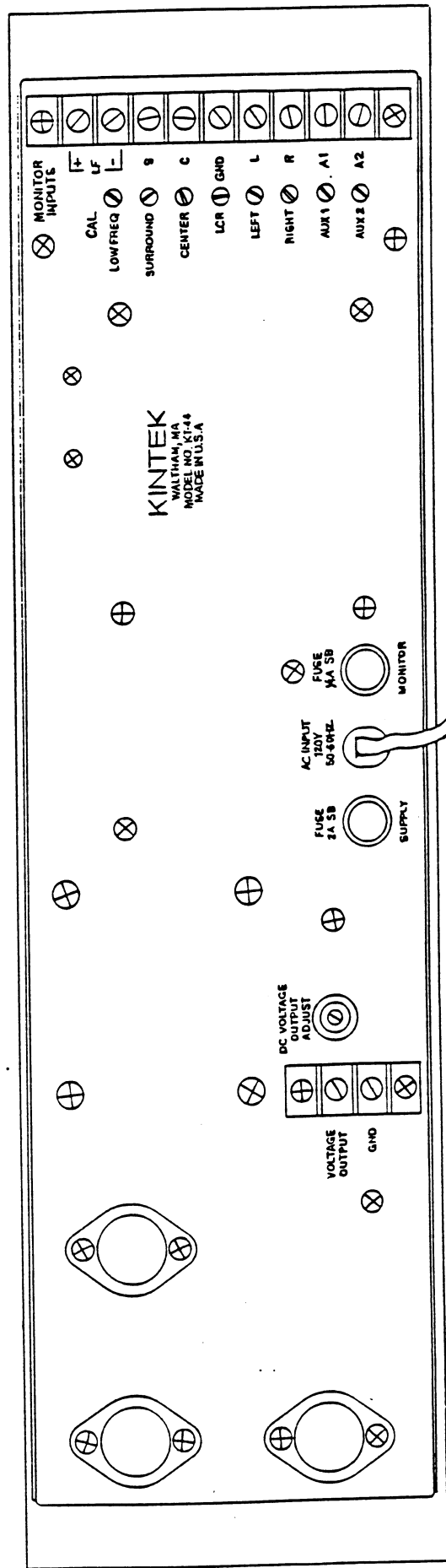


Figure 1A Back Panel

## KT-44 RACK MOUNT MONITOR/EXCITER SUPPLY

### 1.1 SPECIFICATIONS.

Output Voltage: 3.5 to 9.5 Volts DC.  
Output Current: 6 Amps.  
Power Requirements: 120 VAC, 50/60 Hz, 100 Watts.  
Dimensions: 5.25" X 19" X 5.5" (HxWxD).  
Weight: 10 lbs.

### 1.2 FRONT PANEL.

4" speaker  
Stereo mini jack for optional remote speaker (disconnects the internal speaker).

MONITOR SELECT--push-push switch to select CTR(center), SURROUND, LOW FREQUENCY, LEFT, RIGHT, LCR(left/center/right) AUX 1, AUX 2. The selection is indicated by a light LED.

MONITOR LEVEL--slide control, -33 dB to +6 dB.

EXCITER SUPPLY STATUS: Normal(DC), Emergency(AC), Short(Load).

Three 3 LED's indicate the output status of the KT-44: green indicates normal DC output, yellow indicates that the unit has switched itself into emergency status, and red indicates low or no voltage on the output. When the unit has switched to emergency status, the exciter lamp is being powered by 5 volts AC; this would be a result of the loss of the direct current supply. If the current limit of 6 amps is exceeded, the red LED labeled "short" will light.

The current limit has been preset at the factory. The voltage can be adjusted using the potentiometer mounted on the back panel.

OUTPUT PROTECT AC: 10 Amp circuit breaker.

OUTPUT PROTECT DC: 10 Amp circuit breaker.

### 1.3 BACK PANEL.

MONITOR INPUTS--nine position barrier strip.

MONITOR LEVEL TRIM CONTROLS--correspond to the LEDS on the front panel.

FUSES-- 1/4 Amp Slow Blow(monitor), 2 Amp Slow Blow(supply).

DC VOLTAGE OUTPUT ADJUST: 3.5 to 9.5.

EXCITER SUPPLY OUTPUT: two position barrier strip.

### 1.4 CONNECTIONS.

1.4.1 MONITOR: All connections are secured to a nine position barrier-type terminal strip:

#### MONITOR INPUTS

LF +	Low Frequency(KT-90)
LF -	
S	Surround
C	Center
GND	Ground
L	Left
R	Right
A1	Auxiliary 1
A2	Auxiliary 2

1.4.2 EXCITER SUPPLY: All connections are secured to a two position barrier-type terminal strip:

Voltage Output  
GND(ground)

### 1.5 CALIBRATION.

NOTE: Before adjustments are made to the KT-44, the KT-700 Processor should be calibrated, all amplifiers should be turned ON, and Pink Noise should be running on the projector.

The monitor level trim controls are located on the back panel of the unit. The LOW FREQ trim is at the top of the string of trim pots.

Adjustment of the CENTER trim: Push the MONITOR SELECT button located on the front of the unit, until the CENTER LED lights up. The monitor select button is such that one push changes the setting one increment, therefore, you may have to push the button a couple of times to select the setting you desire. Adjust the CENTER trim until the -24 LED LEVEL INDICATOR is lit.

Repeat the procedure for the balance of the trim controls.

Figure 2

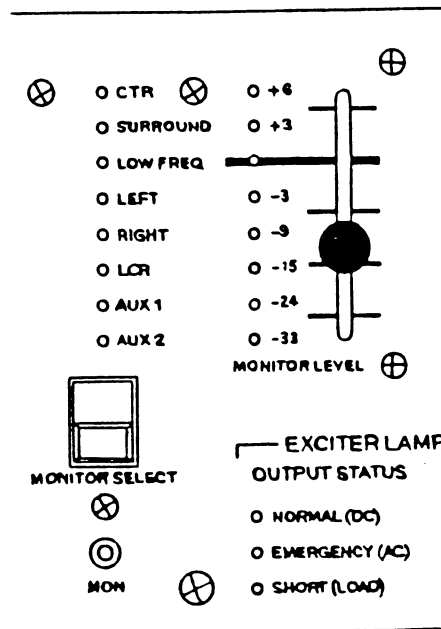
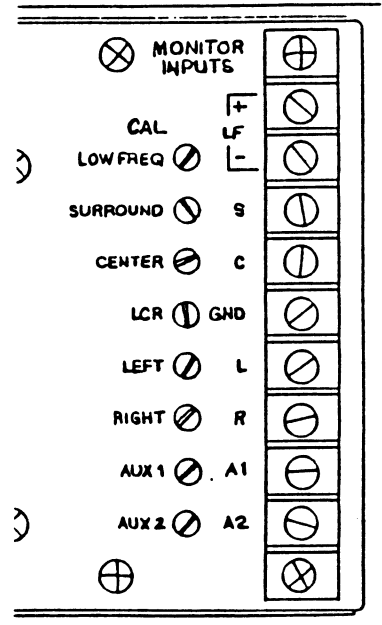


Figure 2A



Adjust the DC VOLTAGE OUTPUT ADJUST for the proper level to run the projector. Run lamps about 15% below the nominal rating to increase their life expectancy.

## 2.2 INPUTS

NOTE: When unattended the monitor will automatically return to Center.

Low frequency input (for subwoofers) impedance is more than 100K. The input is differential. Frequently subwoofers are driven by bridged amplifiers so that LF+ is connected to one speaker feed line and LF- is connected to the other speaker feed line, the loudspeaker itself is floating. This way both drive amplifiers can be monitored for noise and distortion at once (complete failure of one amp would still provide 1/2 signal on the monitor although the auditorium would not be fed). The differential input is also provided because some subwoofers (such as Kintek KT-90) are self powered at the speaker and have low level balanced 500 ohm audio pairs fed to the auditorium stage. In this case the unit monitors the feed line and it must be balanced because the subwoofer amp input is balanced. This input also can be fed unbalanced by connecting LF- to the feeding amplifiers ground.

All other inputs are 15K ohms input impedance or higher and are single ended. The grounds of all power amps must be connected together and connected to the common ground of the monitor amp.

## 2.3 SENSITIVITY

The sensitivity of the inputs is set for normal use to monitor the outputs of the power amps to the auditorium loudspeakers. If more sensitivity is required, such as in use with the Kintek KT-1023 biamp/monitor or when monitoring line level feeds, it would become apparent when calibrating, having insufficient gain on the trim pots 20 dB more gain can be switched in by switching dip switches to off position. The switches are located inside on the top end of rear panel board see fig. #5.

Both switches for Low frequency must be switched together to maintain balance. The switches in L.F. change gain 10 dB.

To raise sensitivity of Aux #2 open Jumper Y1.

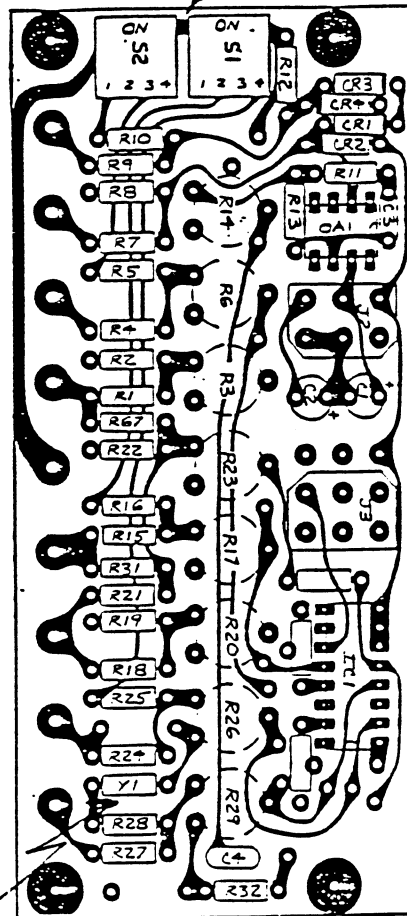


Figure 4

- S1-1 Aux 1
- S1-2 Left, Center, Right Mix
- S1-3 Right
- S1-4 Left
- S2-1 L.F. (Both must be
- S2-2 L.F. switched together)
- S2-3 Surround
- S2-4 Center

Switch assignments for sensitivity change. ON is low, OFF is high sensitivity

Figure 5

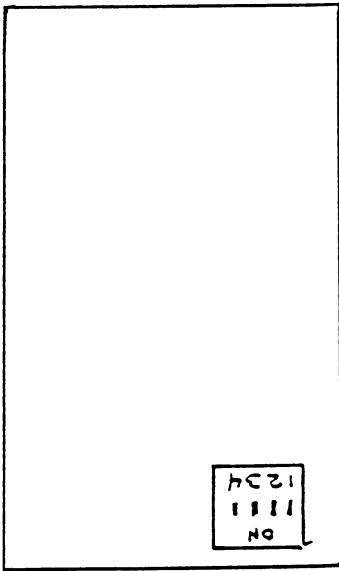


Location of switches and Y1 on rear connector board

#### 2.4 Selector Switch

When shipped from factory, the monitor selector switch can select all input positions. If not all inputs are connected it may be desirable to limit the number of monitor positions. This may be done by setting "dip" switches at bottom of front panel switch board.

Figure 6

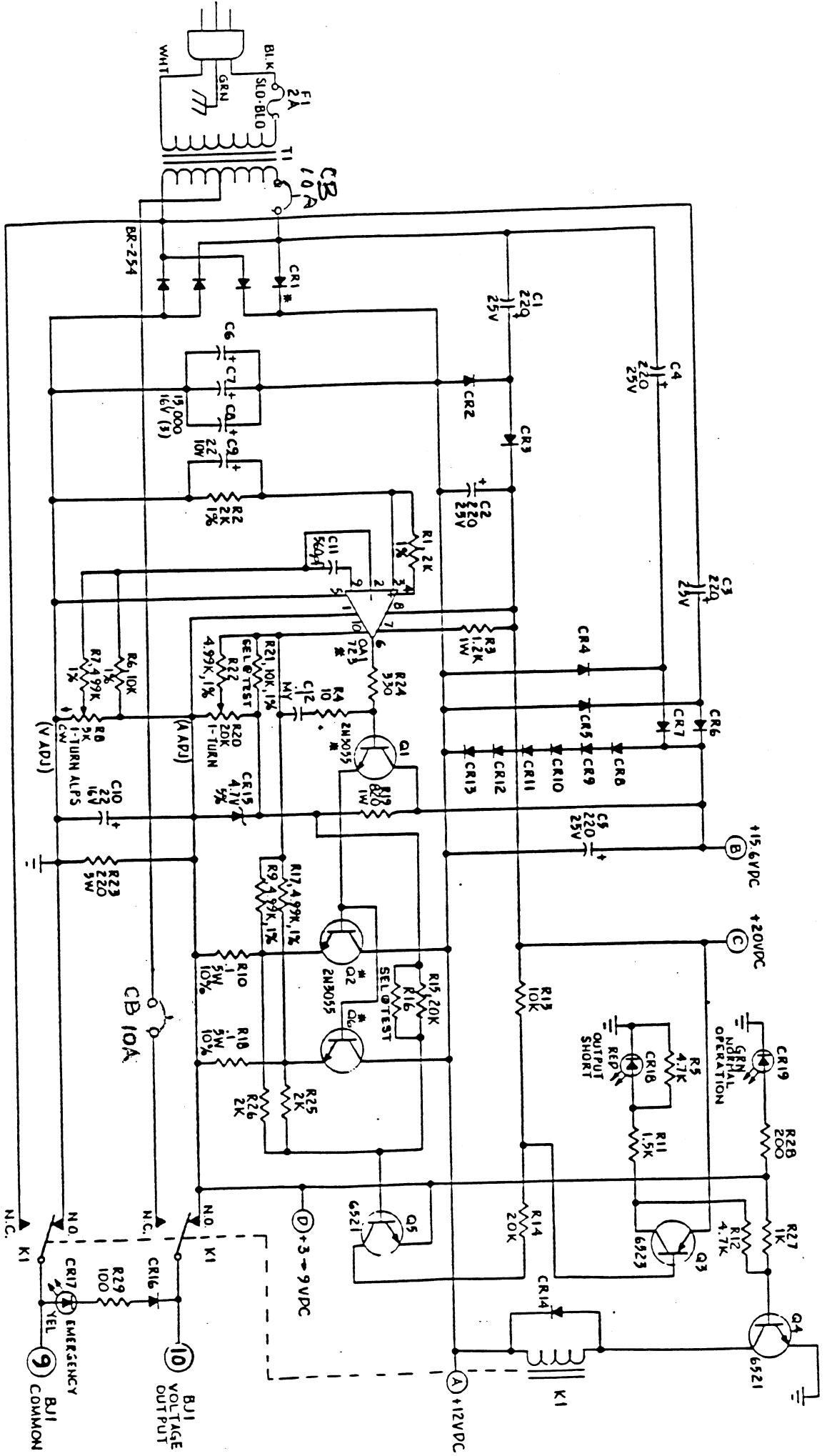


Front panel  
switch board.

Figure 7

	Switch 1	Switch 2	Switch 3
Center	off	off	off
Surround	on	off	off
Low frequency	off	on	off
Left	on	on	off
Right	off	off	on
LCR	on	off	on
Aux 1	off	on	on
Aux 2	on	on	on

Truth table for monitor select dip switch. The configuration indicates the last position from the bottom that can be monitored when stepping through selections.



NOTES:  
 1. UNLESS OTHERWISE SPECIFIED:  
 A. ALL RESISTORS ARE EXPRESSED IN OHMS AND  
 ARE 1/4W 1%.  
 B. ALL CAPACITORS ARE EXPRESSED IN MICROFARADS.  
 CALL DIODES ARE IN CIRCLES.  
 2. # INDICATES HEATSINK ON DEVICE.  
 3. KI RELAY SHOWN DE-ENERGIZED.

Figure 1  
 Schematic KT- 44 Exciter Supply Section