

Film-Tech

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**MAXI-12XPC
AUTOMATION
MANUAL**

February 24, 1994

THIS MANUAL CONTAINS THE FOLLOWING INFORMATION OUTLINING THE INSTALLATION AND OPERATION OF THE MAXI-12XPC "MODEL C" AUTOMATION.

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THE REMAINING PAGES CONTAIN DRAWINGS DEPICTING THE MAXI-12XPC CONFIGURATIONS AND PERIPHERAL INFORMATION.

SHOULD YOU HAVE ANY QUESTIONS, PLEASE DO NOT HESITATE TO CONTACT US AT 201-267-8200.

WARRANTY INFORMATION

THIS PRODUCT IS COVERED BY A ONE YEAR WARRANTY. THE WARRANTY IS RESTRICTED TO PARTS ONLY AND LEFT TO THE DETERMINATION OF NEUMADE PRODUCTS IF THE PRODUCT FAILED DUE TO A DEFECTIVE PART OR ANOTHER TYPE OF DAMAGE.

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GENERAL MAXI-12XPC INFORMATION

GENERAL DESCRIPTION

The MAXI-12XPC system has been designed as a single projector automation unit. It can be used with a single 16mm, 35mm or 35/70mm projector system. Also with proper interface wiring it can be used as a two machine system with an additional MAXI-12XPC.

The wall mount MAXI-12XPC is contained in a metal cabinet which measures 17" wide x 16" high x 4.5" deep, and has a shipping weight of 25 lbs.

The MAXI-12XPC automation system uses momentary and alternate action pushbuttons to activate internal automation functions and modes of operation, and L.E.D.'s to indicate system status. Read enclosed instructions for a complete understanding of the various functions and indications.

INSTALLATION

1. Terminate wires to the proper terminal strip according to the designation sheets provided.
2. **DO NOT APPLY POWER.** Operate the manual (bypass) switches to be sure all outputs operate with their designated outputs. If not, correct as necessary.
3. Check ac voltage and termination. If proper, apply power. The c/o dowser will pulse closed and the unit will go into the stop mode. Run the automation to be sure it performs according to the operation instructions.

NOTE: As noted in the termination pages, the cue inputs may be triggered by external sources as well as cue boards plugged into the mother board. For testing, switches may be connected directly to these inputs to avoid having to initially provide multiple cue tape inputs to trigger internal automation functions.

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FEATURES

- The MAXI-12XPC controls: Projector Drive Motor, Lamphouse, Picture Changeover dowser, Exciter lamp, Intermission, Dimmer, Multiple sound functions, Curtain and Masking control.

- Included are heavy duty built-in control switches for local manual operation of the projector motor, lamphouse, changeover, exciter lamp, house lights, curtain, and masking.

- Modular circuit board design with plug-in relays for easy servicing.

- The MAXI-12XPC will accept cues at any point during the show for internal automation functions, any of the provided auditorium functions or a programmed intermission.

- A unique failsafe circuit assures the dowser is closed prior to lamp ignition, eliminating annoying pre-start flashes on the screen.

- Supplied with the "OPTICUE" cue detector/failsafe. Used in conjunction with the "OPTICUE 8" logic board. The "OPTICUE 8" board provides both random and sequential cue application.

- Dynamic cue memory remembers the last cue decoded by the cue logic board and re-executes the pulse to the corresponding line on c/o open, when restarting following a film break or unscheduled stop.

- LED indicators showing the status of the automation.

- Remote with alarm capabilities.

- Interlock capabilities built into automation with simple two wire interface.

- Non sequential operation. The "showend" function may be selected on any one of the seven matrix cue lines, allowing the operator the flexibility of how many cues can be used for any feature without having to sequence through all cue lines.

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- The MAXI-12XPC provides a programmable auxiliary relay output which can be used for slide projector operation. The relay operation and release can be programmed by means of a dip switch labeled "S6" on the 1-19 front panel relay board. The aux. relay is turned on, on power up and may be programmed to turn off with the press of the start button or on c/o open. The reactivation of this relay is also programmable. The operator can select whether the aux. relay will turn on instantaneously when the showend cue is sensed, or whether there will be a delay. The delay is adjustable from 1 to 100 seconds by means of a potentiometer labeled "R19" on the 1-19 board. (The delay starts from the point of the showend failsafe.) See drawing provided for complete information.

- The MAXI-12XPC provides the capability of operating both zipper and latch type cangeovers. A miniature slide switch labeled "S8" located on the 1-19 relay/front panel board allows switching between these two modes without having to rewire the system.

NOTE: Make sure the c/o mode select switch is in the proper mode before providing power to the c/o. If the switch is in the latch mode and the automation is powered, it provides constant closure to the c/o close output of the automation. This will burn out the c/o close coil on a zipper type cangeover in a short period of time. The automations are shipped with this switch in the "zipper" mode, unless Xetron provides the whole system or unless notified by the customer otherwise.

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FRONT PANEL DESCRIPTION

START MODE:

This switch selects in which mode the automation will start. If the switch is in the normal mode position (green LED), when the start button is pressed the motor and all other projector and initial auditorium functions will occur normally. The automation will switch into the feature mode where normal cues may be implemented.

If the switch is in the interlock position (yellow LED), the start button will put the automation into the "start the motor only" mode. When this mode is implemented, the unit will first check the condition of the interlock control line. If the line is not held to ground, the automation will start the motor only. When an interlock "start all" cue is sensed, the automation will start the lamp, all other projector functions and switch into the feature mode. See "interlock operating instructions" for complete details on interlock operation.

START:

This button is a momentary button that starts or resumes operation of the automation from any scheduled stops, intermissions or unscheduled film breaks.

STOP:

This momentary button stops or pauses the operation of the automation at any time during the program. If the automation is stopped using the stop button, the unit will restart in the same mode in which it was stopped. For example, if the showend cue had already been sensed and for some reason the operator stopped the automation before the showend failsafe, when the unit is restarted it will still expect to see the showend failsafe to properly complete the sequence. The stop button also resets the alarm in the event of a film break.

SHOWEND MODE:

This button is an alternate action pushbutton which selects the fashion in which the feature mode is terminated. If this button is in the "RUN" mode when the showend cue is sensed, the automation will close the dowser, turn off the xenon, turn off the exciter and provide the auditorium functions selected on the function matrix for this cue. The projector motor will continue to run until the film runs out and the failsafe drops.

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SHOWEND MODE (CONTINUED):

If the button is in the "INTERMISSION" mode when the showend cue is sensed, the automation will execute all projector and house functions as listed above and the projector motor will stop. When the automation is in this mode, the showend cue will also pulse the relay labeled "T1" on the mother board which can be used to start an intermission timer to automatically restart the automation after an intermission.

INTRLK FEED THROUGH:

This button is an alternate action button that makes or breaks the interlock connection to any machine following the one that the switch has been depressed. For example, if four machines are in a booth the standard interlock wiring for the **MAXI-12XPC** is to daisy chain all machines down the line. If the projectionist wishes to run two separate interlocked features, he should depress this button on machine two. This will break the chain between machines two and three therefore separating the four machines into two isolated pairs. (SEE INSTALLATION INSTRUCTIONS FOR PROPER TERMINATION OF INTERLOCK WIRING.)

START INDICATOR: (GREEN)

This LED is illuminated any time the automation is in a mode other than stop. When running normally, the indicator is on steady. If the unit is in interlock and another machine in the in the system has a film break, this indicator will start to blink indicating a state in which this automation is waiting for the fault on the other machine to be corrected.

STOP INDICATOR: (RED)

The stop indicator is illuminated any time the automation has been stopped by means of the stop button, the showend sequence or an unscheduled film break.

INTLK INDICATOR: (YELLOW)

Indicates that the interlock start mode has been selected.

NORMAL INDICATOR: (GREEN)

Indicates that the normal start mode has been selected.

INTERMISSION INDICATOR: (YELLOW)

Indicates that the intermission showend mode has been selected.

RUN INDICATOR: (GREEN)

Indicates that the run showend mode has been selected.

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INTRLK FEED THROUGH INDICATOR: (YELLOW)

Indicates whether the interlock bus continues on to the next machine or if it terminates at that machine. If the LED is illuminated the bus continues if it is not illuminated the bus terminates at that machine.

MANUAL (BYPASS) SWITCHES:

These switches are provided in parallel with the relay contacts. They can be used to control the projector and auditorium functions in the event of an automation failure.

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**OPTICUE
OPERATION INSTRUCTIONS**

OPTICUE8:

The opticue8 is a logic board that plugs directly into the mother board of the automation. This board Provides up to 8 different cues. Cues one through seven are connected to the seven upper lines of the function matrix located on the 1-19 mother board. Cue eight is dedicated to the interlock "start all" function. As was mentioned, when in the interlock start mode and the start button is pressed, only the motor starts. When cue eight is sensed, the automation runs through the rest of the projector functions and switches into the feature mode.

The OPTICUE 8 may be switched into one of two modes by means of a slide switch marked "s1" on the OPTICUE 8 logic board. Moving this switch toward the "R" on the board puts the board into the random cue mode. If the switch is in the "S" position on the board, the logic board is in the sequential mode. Description of mode characteristics is as follows:

RANDOM MODE

If the random mode is selected, the cues are placed on the film on consecutive frame lines. These cues are counted to select which matrix line will be sent a pulse. After the selected matrix line is pulsed the counter resets. In the random mode, the cue counter always starts from zero and pulses the line selected by the last series of counted cue tapes. The functions that occur on the selected matrix line, depends on how the customer sets up the diodes on that matrix line. To pulse matrix line #4 (the line at which the cue outputs start) one cue tape is placed on one frame line. To pulse matrix line #5 two cue tapes are placed on two consecutive frame lines. As many as 8 cue tapes may be placed on consecutive frame lines. Up to seven tapes will activate matrix lines. The output from eight cue tapes is dedicated to activate the feature mode when the automation is in the interlock mode.

SEQUENTIAL MODE

If the opticue 8 board is in the sequential mode, placing a single cue on a frame line will advance the cue counter one step and pulse the next matrix line. For example, if the automation is in the normal run mode, after the start button is pressed and the c/o opens, placing a single cue on a frame line will advance the cue counter to line 1 and pulse matrix line 4. Placing another single cue on the film will advance the counter to line 2 and pulse matrix line 5. The cue counter will sequence through cue lines in this fashion until it comes to the line that has been programmed for the showend line. The cue board will pulse the corresponding line and reset the cue counter awaiting the start of the next show.

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NOTE: If the automation is in interlock, and the opticue board is in the sequential mode, eight cue tapes must be placed on consecutive frame lines to trigger the automation into the feature mode (just as when the cue board is in the random mode). When the eight cues are counted the automation is triggered and the cue counter is reset, after which the cues are counted in sequence as mentioned above.

DYNAMIC CUE MEMORY: The opticue 8 logic board is designed with circuitry to retain the line count that occurred with the last cue sensed. This information is stored in memory and reimplimented on c/o open when the automation is restarted after a film break or unscheduled stop during the feature. For example, when the automation is started, the first functions to occur are the functions selected on "start" line. In seven seconds the functions on the "c/o open" matrix line will pulse. The automation waits until the first cue is sensed. When the first cue is sensed and decoded, the automation activates the appropriate functions on the selected line. In our example, dimmer dim, sound stereo and masking scope functions. The line on which these functions occurred is stored in memory. If there should be a film break or if the automation is stopped, when restarted the c/o open pulse is diverted to activate the last cue line selected by the cue logic board. Any function selected on that line will be re-executed. This automatically resets the house to the previous state before the interruption. The cue line information is retained until either changed by the sensing of another cue or by the sensing of the showend cue. If the showend cue is sensed, the cue memory bit is reset and the c/o open pulse is sent back to the c/o open matrix line. (Powering down and repowering the automation also resets the cue memory bit.)

NOTES:

1- The cue memory bit is not set until the first cue is sensed. If the automation is stopped before a cue, the c/o open line is pulsed normally.

2- The automation is hard wired to provide certain functions in the event of a film break or unscheduled stop during a feature. (Curtain close, lights bright and nonsync sound.) If the automation is stopped, to properly reset the auditorium, the proper functions must be placed on the previously selected cue line.

For example: envision that the feature cue had already passed and the auditorium was set with the house lights down, the masking flat and the sound stereo. If the operator wanted to change only the masking, the selected line for the masking change should contain all the functions that would be necessary to return the auditorium back to the proper settings if returning from a stop. In this case

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since only the masking is being changed, the masking change cue line should contain house lights dim, masking scope and sound stereo. (Remember that certain functions are hard wired to pulse in the event of an interruption). Having all these functions on the masking change line even though only the masking is being changed, will insure a proper return to the correct auditorium settings.

Opticue8 Cue line activation according to number of cue tapes:

Cue-1 [ONE CUE TAPE(random mode)]/[cue tape #1(sequential mode)]
Cue-2 [TWO CUE TAPES(random mode)]/[cue tape #2(sequential mode)]
Cue-3 [THREE CUE TAPES(random mode)]/[cue tape #3(sequential mode)]
Cue-4 [FOUR CUE TAPES(random mode)]/[cue tape #4(sequential mode)]
Cue-5 [FIVE CUE TAPES(random mode)]/[cue tape #5(sequential mode)]
Cue-6 [SIX CUE TAPES(random mode)]/[cue tape #6(sequential mode)]
Cue-7 [SEVEN CUE TAPES(random mode)]/[cue tape #7(sequential mode)]
Cue-8 [EIGHT CUE TAPES(random mode)]/[EIGHT TAPES(sequential mode)]

Cue line to matrix line correspondence is as follows:

Cue line #1 = matrix line #4
Cue line #2 = matrix line #5
Cue line #3 = matrix line #6
Cue line #4 = matrix line #7
Cue line #5 = matrix line #8
Cue line #6 = matrix line #9
Cue line #7 = matrix line #10
Cue line #8 = dedicated to activate feature mode when automation is in interlock.

NOTE: See cue line/function matrix chart for cue line and function identification and configuration information.

The only tape which will work with the OPTICUE8 is the OPTITAPE supplied exclusively by the XETRON dealer network.

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AUTOMATION OPERATION (NORMAL MODE/OPTICUE 8)

POWER UP - Turn on the power switch. A pulse will be provided to the power up line (line one) on the function matrix. The auditorium will be dressed according to the functions selected on that line.

Place all cues on the film according to automation mode, function selections and presentation desired.

Thread the projector with the academy leader in the aperture between the 7 & 8 foot mark. When the film is properly threaded through the failsafe, the automation is ready to start. (The automation will not start if the failsafe is down).

SHOW START - press the start button. The green LED above the start button will illuminate and a pulse will occur on (line 2) of the function matrix. The selected functions for that line will occur as well as the following sequence of events:

- a) Changeover dowser will close.
- b) Projector motor starts.
- c) Xenon Lamp will ignite.
- d) After seven seconds, picture changeover will open, the exciter lamp will come on and a pulse will be provided on (line 3) of the function matrix. The functions selected on that line will occur and the projector will continue to run until a programmed intermission or the end of show.

The automation is now in the feature mode. Cues corresponding to the remaining seven cue lines may be placed on the film at this time to accommodate sound, lighting or masking format changes.

NOTE: See cue line/function matrix chart for cue line and function identification and configuration information.

SHOWEND - On the **MAXI-12XPC** the showend function is selected by the same means as are the cue functions. The dip socket labeled P-16 is connected to the seven upper cue lines on the function matrix. The operator selects the line with which the automation is to switch into the "showend" mode. For example, if the operator selects line five (5) on P-16 for "showend mode". When #5 cue is detected, the automation will implement the auditorium functions selected for that line as well as switching into the "showend" mode. Placement of the diode jumper on "P16" corresponding to any of the cue lines will select that line for the "showend" function.

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SHOWEND - CONTINUED - The "showend" function has two modes, "RUN" and "INTERMISSION". The modes are selectable by means of an alternate action pushbutton on the front panel.

RUN MODE - If the automation is in the run mode, a cue detected on the line designated for showend, will turn off the xenon, close the dowser, turn off the exciter lamp and pulse all the auditorium functions that have been selected on that cue line. The motor will continue to run until the tail runs out of the projector and the failsafe drops. The red stop LED will illuminate.

INTERMISSION MODE - If the automation is in the intermission mode, a showend cue on the film will simultaneously stop the motor, turn off the xenon, close the dowser, turn off the exciter and pulse all the auditorium functions that have been selected on that cue line.

AFTER INTERMISSION RESTART - Restarting the presentation may be accomplished by use of an optional intermission timer or by pressing the start button. In both cases the chain of events is the same as in the **SHOW START** sequence.

FILM BREAK - If the film should break during operation, the machine will shut down, Xenon lamp will turn off, exciter lamp will turn off, house lights will come up, non-sync will turn on and the curtain will close. The alarm will sound indicating a film break.

- a) Press the stop button to reset the alarm.
- b) After repairing the film break, press the start button to continue the show.

NOTE: When the automation restarts, the auditorium functions will be set according to the functions selected on the last cue line decoded by the opticue decoder board. Be sure that the correct functions are selected on each matrix line to correctly reset the auditorium on the next c/o open pulse.

REMOTE OPERATION - If the system is to be operated from a remote unit, follow the same instructions as if the unit were being operated from the front panel.

OPERATIONAL NOTE - After the showend cue, an appropriate masking format cue can be placed on the film to reset the masking to the proper format should the feature masking format be different than that of the trailers. This cue can be placed approximately 5 feet after the showend cue.

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AUTOMATION OPERATION (INTERLOCK/OPTICUE 8)

POWER UP - Turn on the power switch. A pulse will be provided to the power up line (line one) on the function matrix. The auditorium will be dressed according to the functions selected on that line.

Place all cues on the film according to automation mode selections and presentation desired.

Thread the projector with the academy leader with the interlock "startall" cue (CUE #8) just before the first projector. When the film is properly threaded through the projectors and failsafes of each of the interlocked machines, the system is ready to start. (The system will not start if the failsafe on any of the involved machines is down).

SHOW START - Press the start button on the first machine. The machine will check the status of the interlock bus (which will be held to ground by the machines that are not yet started) and the green LED above the start button on that machine will start to blink. At this point interlock condition is established in this machine. Press the start button on each machine in this interlocked chain. When the start button on the last interlocked machine is pressed only the motors on all the machines in the system will start. The unit is now in the "interlock start motor only mode".

INTERLOCK "STARTALL" CUE: - When the motor starts, the interlock "startall" cue (which was placed just before the first projector) will trigger each automation in the chain in sequence. As the cue is detected by each of the machines, the following sequence of events will take place:

- A) The "start line", "line 2" on the matrix will be pulsed.
- B) Changeover dowser will close.
- C) Xenon Lamp will ignite.
- D) After seven seconds, picture changeover will open, the exciter lamp will come on and a pulse will be placed on (line 3 c/o open line) of the function matrix pulsing any function selected on that line. The projector will continue to run until a programmed intermission or the end of show.

The automation is now in the feature mode. Cues corresponding to the remaining seven programmable cue lines may be placed on the film at this time to accommodate sound, lighting or masking format changes.

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SHOWEND - On the **MAXI-12XPC** the showend function is selected by the same means as are the cue functions. The dip socket labeled P-16 is connected to the seven upper cue lines on the function matrix. The operator selects the line with which the automation is to switch into the "showend" mode. For example, if the operator selects line five (5) on P-16 for "showend mode". When #5 cue is detected, the automation will implement the auditorium functions selected for that line as well as switching into the "showend" mode. Placement of the diode jumper on "P16" corresponding to any of the cue lines will select that line for the "showend" function.

The "showend" function has two modes, **"RUN"** and **"INTERMISSION"**. The modes are selectable by means of an alternate action pushbutton on the front panel.

RUN MODE - If the automation is in the run mode, a cue detected on the line designated for showend, will turn off the xenon, close the dowsers, turn off the exciter lamp and pulse all the auditorium functions that have been selected on that cue line. Also at this point, the interlock status is suspended for this machine. (The interlock status for each machine is disengaged as the showend cue passes through each of the cue detectors.) The motor will continue to run until the tail runs out of the projector and the failsafe drops. The red stop LED will illuminate. Approx. 3 minutes after the showend failsafe, the interlock output of the automation pulls the interlock buss to ground. This delay is provided to allow enough time for all the machines in the chain to see the showend cue disengaging them from the buss before returning to the before show status (buss pulled to ground).

INTERMISSION MODE - It is not recommended that intermission mode be used when the automation is running interlock. If an intermission cue is placed on the film, the first machine will switch into intermission pulling the interlock buss down and the rest of the machines will be forced into the interlock wait state. This is not a showend type state and the machines in the wait state would continue from the point at which they were stopped rather than a restart as when returning from an intermission.

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FILM BREAK - If the film should break during operation, the machine will shut down, Xenon lamp will turn off, exciter lamp will turn off, house lights will come up, non-sync will turn on and the curtain will close. The alarm will sound only on the machine that encountered the film break. The faulted machine will pull the interlock buss to ground. This will suspend operations on all other machines on the common buss. The houses corresponding to these machines will be dressed as above and the start indicator will start to flash. This is to indicate that these machines did not shut down but are waiting for the film to be repaired and the system to be restarted.

- a) Press the stop button **only** on the machine that encountered the film break, to reset the alarm.
- b) After repairing the break, restart the show by pushing the start button on **that** machine only. The rest of the machines will resume operation automatically.

NOTE: When the automation restarts, the auditorium functions will be set according to the functions selected on the last cue line decoded by the opticue decoder board. Be sure that the correct functions are selected on each matrix line to correctly reset the auditorium on the next c/o open pulse.

REMOTE OPERATION - If the system is to be operated from a remote unit, follow the same instructions as if the unit were being operated from the front panel.

OPERATIONAL NOTE - When in the interlock mode, before the "interlock startall" cue and after the "showend" cue, cues may be placed on the film to set certain formats should some feature formats be different than that of the trailers. These cues should be placed approximately 5 feet from each other if multiple cues are used.

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MAXI 12X SPARE PARTS LIST

- 1- 1-19 FRONT PANEL RELAY BOARD.
- 1- 1-34 AUTOMATION LOGIC BOARD.
- 1- 1-32 OPTICUES CUE LOGIC BOARD.
- 1- 1-35 BAG "25 PIECES" FUNCTION SELECTION DIODES FOR MATRIX.
- 10- 1-17 SPDT HIGH POWER RELAYS REF.K1-K10
- 12- XAK145-124 DPDT LOW POWER (DIP) RELAYS REF.K11-K21-T1
- 1- XAK-177 12VOLT 3.4AMP POWER SUPPLY
- 1- 2AMP FUSE 3AG-2AMP

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TERMINAL DESIGNATION WALL MOUNT MAXI PC AUTOMATION

TB5 (AC FEED)

- 1- LINE HOT
- 2- LINE NEUTRAL
- 3- LINE GROUND

TB6 (PROJECTOR AND HIGH POWER OUT)

- 1- MOTOR FEED
- 2- MOTOR OUT
- 3- AUX RELAY LOOP IN
- 4- AUX RELAY LOOP OUT
- 5- XENON FEED
- 6- XENON OUT
- 7- EXCITER FEED
- 8- EXCITER OUT
- 9- C/O COMMON
- 10- C/O OPEN
- 11- C/O CLOSE (latch or zipper)
- 12- CURTAIN COMMON
- 13- CURTAIN OPEN
- 14- CURTAIN CLOSE
- 15- MASKING COMMON
- 16- MASKING SCOPE
- 17- MASKING FLAT

TB7 (REMOTE AND PERIPHERAL INPUT/OUTPUT)

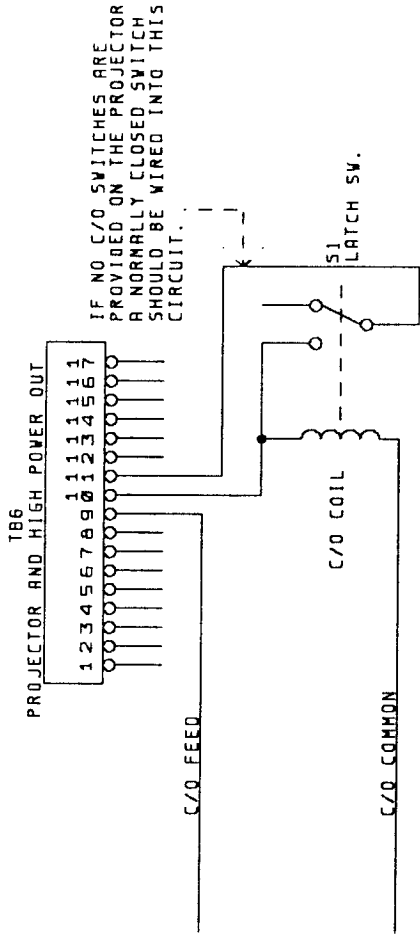
- 1- GROUND
- 2- REMOTE STOP IND.
- 3- REMOTE START IND.
- 4- REMOTE ALARM
- 5- REMOTE STOP SW.
- 6- GROUND
- 7- REMOTE START SW.
- 8- GROUND
- 9- FIRE INPUT
- 10- GROUND
- 11- FAILSAFE
- 12- SHOW END CUE
- 13- INTERLOCK "START ALL" CUE
- 14- INTERMISSION CUE
- 15- INTERLOCK IN
- 16- INTERLOCK OUT
- 17- GROUND
- 18- GROUND
- 19- GROUND
- 20- 12VDC OUT

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TB8 (SOUND AND LIGHT CONTROL OUTPUTS)

- 1- DIMMER SWITCHING COMMON
- 2- DIMMER DIM
- 3- DIMMER BRIGHT
- 4- DIMMER HALF/LIGHT
- 5- DIMMER PANIC
- 6- SOUND MONO/SR SWITCHING COMMON
- 7- SOUND SR
- 8- SOUND MONO
- 9- SOUND MAG/STEREO SWITCHING COMMON
- 10- SOUND STEREO
- 11- SOUND MAGNETIC
- 12- CHASSIS GROUND
- 13- SOUND ENABLE/MUTE SWITCHING COMMON
- 14- SOUND ENABLE
- 15- SOUND MUTE
- 16- CHASSIS GROUND
- 17- SOUND SPECIAL/NONSYNC SWITCHING COMMON
- 18- SOUND SPECIAL
- 19- SOUND NONSYNC
- 20- CHASSIS GROUND

LATCH TYPE C/O

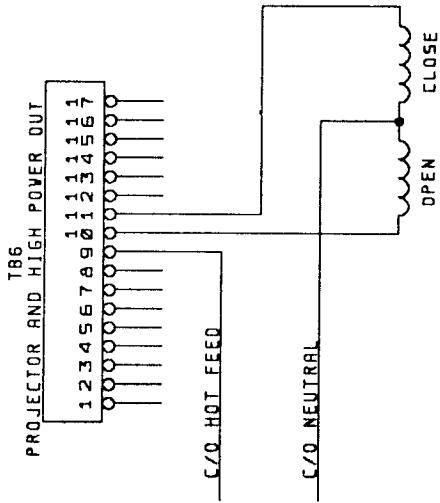


SAMPLE HOOKUP FOR A LATCH TYPE C/O. THE OPEN RELAY IS NORMALLY OPEN AND THE CLOSE RELAY IS NORMALLY CLOSED. THE OPEN RELAY PULSES THE C/O COIL WHICH ACTIVATES THE SWITCH AND LATCHES THE COIL. TO CLOSE THE DOWSER, THE NORMALLY CLOSED CONTACT ON THE C/O CLOSE RELAY IS OPENED WHICH BREAKS THE LATCH LOOP.

THE MANUAL BYPASS C/O CLOSE SWITCH ON THE AUTOMATION WILL NOT WORK IN THIS CONFIGURATION. MANUAL OPERATION SHOULD BE ACCOMPLISHED BY MEANS OF THE MANUAL SWITCHES ON THE PROJECTOR.

THE MANUAL OPEN SW. ON THE AUTO. IS FUNCTIONAL.

ZIPPER TYPE C/O



SAMPLE HOOKUP FOR A ZIPPER TYPE C/O. BOTH C/O RELAYS ARE NORMALLY OPEN, PROVIDING A PULSE TO ACTIVATE THE CORRESPONDING COIL.

THERE IS A SWITCH LABELED "S8" ON THE MAXI-12XPC THAT SELECTS WHETHER THE C/O CLOSE RELAY IS NORMALLY OPENED OR CLOSED.

PUT THE SWITCH IN THE "Z" POSITION FOR NORMALLY OPEN OPERATION. (ZIPPER TYPE C/O.)

PUT THE SWITCH IN THE "L" POSITION FOR NORMALLY CLOSED OPERATION. (LATCH TYPE C/O.)

NEUMADE PRODUCTS CORP. XETRON DIVISION
10 SADDLE RD.
CEDAR KNOLLS N.J. 07927

Title

C/O SAMPLE WIRING DIA. WALL MNT. MAXI-12XPC

Size Document Number

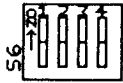
A 1-3332.5CH

REV

Date: December 1, 1983 Sheet of

S6 FUNCTION INFORMATION

SWITCH AND POT POSITION AS VIEWED FROM THE 1-19 BOARD.



AUX. RELAY ON/OFF MODE SELECT.

R19



AUX. RELAY ON DELAY ADJUST.

THE DIP SWITCH LABELED "S6" IS PROVIDED TO GIVE THE FLEXIBILITY OF BEING ABLE TO SELECT SEVERAL DIFFERENT MODES OF OPERATION FOR THE AUXILIARY RELAY.

AN EXPLANATION OF THE DIFFERENT MODES ACCORDING TO SWITCH SETTINGS IS AS FOLLOWS:

S6 - SW-1: SELECTS WHETHER THERE WILL BE A DELAY IN THE OPERATION OF THE AUXILIARY RELAY AT THE END OF THE SHOW. IF THE SWITCH IS ON, THERE WILL BE AN ADJUSTABLE DELAY OF 1 TO 100 SECONDS BEFORE THE AUX. RELAY TURNS ON AFTER THE SHOWEND FAILSAFE. THIS DELAY BEGINS FROM THE POINT OF THE FAILSAFE. THE DURATION OF THE DELAY IS ADJUSTABLE BY MEANS OF THE POT LABELED R-19 ON THE 1-19 BOARD. THE DELAY TIME IS INCREASED BY TURNING THE POT CLOCKWISE. IF THE SWITCH IS OFF, THE AUX. RELAY WILL TURN ON INSTANTANEOUSLY WHEN THE FAILSAFE DROPS.

S6 - SW-2: SELECTS WHETHER THE AUX. RELAY WILL TURN ON AT THE SHOWEND FAILSAFE OR WHEN THE SHOWEND CUE IS SENSED. IF THE SWITCH IS ON, THE AUX. RELAY WILL TURN ON WHEN THE SHOWEND CUE IS SENSED. THE RELAY WILL TURN ON AT THIS POINT WHETHER OR NOT A DELAY HAS BEEN SELECTED BY TURNING ON SW-1.

S6 - SW-3 NOT USED.

S6-SW-4: SELECTS WHETHER THE AUX. RELAY WILL TURN OFF WHEN THE START BUTTON IS PRESSED OR WHEN THE C/O OPENS. IF THE SWITCH IS ON, THE RELAY WILL TURN OFF WHEN THE START BUTTON IS PRESSED. IF THE SWITCH IS OFF THE RELAY WILL TURN OFF WHEN THE C/O DOWNSER OPENS.

S7 FUNCTION INFORMATION

SWITCH AND POT POSITION AS VIEWED FROM THE 1-19 BOARD.



THE SWITCH LABELED "S7" IS PROVIDED TO ALLOW THE OPERATOR TO SELECT THE FUNCTIONS THAT WILL OCCUR IN THE EVENT OF A FIRE INPUT INTO THE AUTOMATION.

ON THE MAXI-12XPC THERE IS AN INPUT THAT IF PULLED TO GROUND BY A FIRE ALARM SYSTEM, WILL GENERATE A PULSE. THIS PULSE MAY BE DEVERTED TO SPECIFIC FUNCTIONS BY MEANS OF INDIVIDUAL SWITCHES ON THE "S7" DIP SWITCH ON THE 1-19 BOARD.

WHEN THE SWITCH IS ON, THE CORRESPONDING FUNCTION IS SELECTED.

THE SWITCH TO FUNCTION DESIGNATION IS AS FOLLOWS:

- S7 - SW-1 = NONSYNC SOUND
- S7 - SW-2 = SOUND MUTE
- S7 - SW-3 = DIMMER PANIC (CHOOSE LIGHTS)

NOTE:

THE "DIMMER PANIC" OUTPUT IS AN OPEN COLLECTOR OUTPUT. THIS OUTPUT WILL PROVIDE A PULSE TO GROUND WHEN ACTIVATED. IT MAY BE USED TO PULSE THE PANIC INPUT OF A DIMMER AS LONG AS THE INPUT IS A "DC" PULSE TO GROUND INPUT. IF THE DIMMER USES AC RELAYS, THIS OUTPUT WILL HAVE TO BE CONNECTED TO THE DIMMER THROUGH RELAY CONTACTS.

THE OTHER TWO FUNCTION OUTPUTS ARE DERIVED FROM THE ACTUAL RELAY OUTPUTS ALREADY AVAILABLE ON THE 1-19 BOARD. CHECK DESIGNATION SHEETS TO DETERMINE OUTPUT LOCATIONS.

NEUMADE PRODUCTS CORP. XETRON DIVISION
10 SADDLE RD.
CEDAR KNOLLS N.J. 07927

Title

DIP SW. MODE/FUNCTION SETTING INFORMATION

Size Document Number

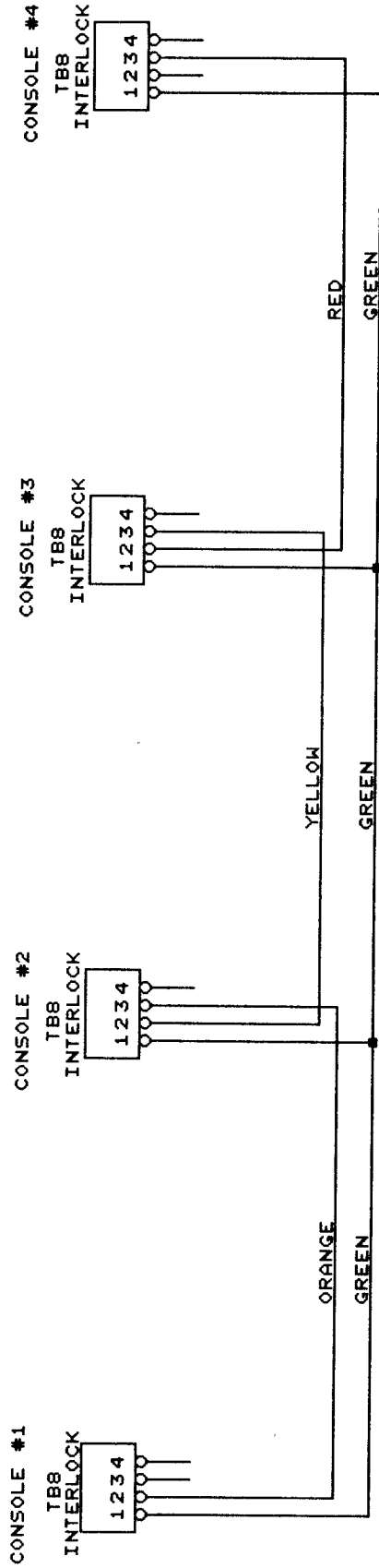
A 1-2432.SCH

Date: September 27, 1993 Sheet

REV

of

SAMPLE INTERLOCK WIRING FOR A FOUR MACHINE BOOTH CONSOLE MOUNT AUTOMATIONS TERMINALS ON 12X12 INTERFACE BOARDS



COLORS SHOWN FOR REFERENCE.

NOTES:

ALL GROUNDS ARE DIRECTLY TIED TOGETHER.

THE INTERLOCK OUTPUT OF EACH MACHINE IS TIED TO THE INTERLOCK INPUT OF THE FOLLOWING MACHINE.

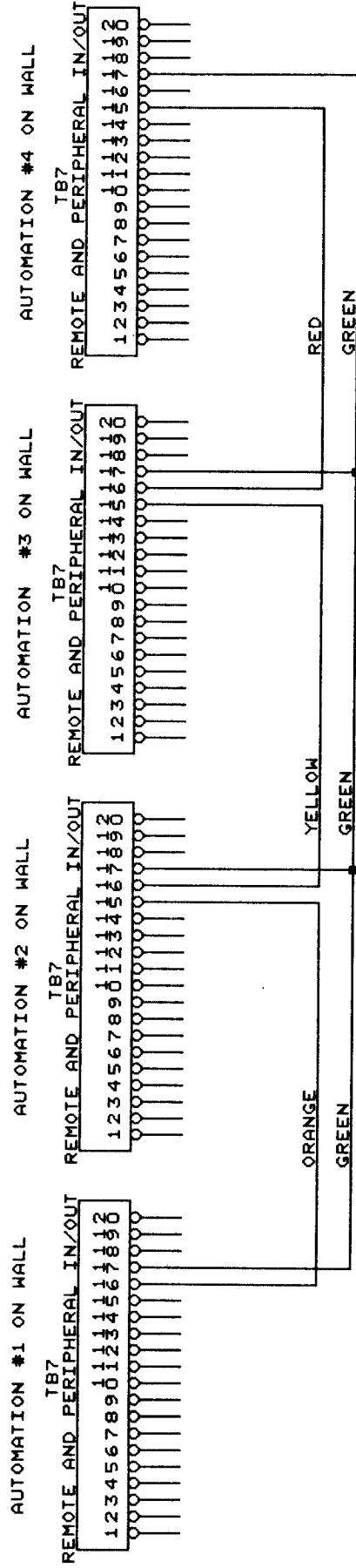
EXAMPLE:

#1 MACHINE INTERLOCK OUTPUT IS TIED TO THE INPUT ON MACHINE #2 AND THE OUTPUT OF MACHINE #2 IS TIED TO THE INPUT ON MACHINE #3. THIS PROTOCOL IS FOLLOWED FOR ALL THE MACHINES THAT ARE TO BE INTERLOCKED.

IF ALL THE INTERLOCK FEED THROUGH SWITCHES ARE ON, ALL THE MACHINES WILL BE CONNECTED TO A COMMON BUSS. IF THE I/A FEED THROUGH SWITCH IS TURNED OFF ON MACHINE #2 THE FOUR MACHINES WILL BE SPLIT UP INTO TWO GROUPS OF TWO MACHINES EACH.

NEUMADE PRODUCTS CORP. XETRON DIVISION	
10 SADDLE RD. CEDAR KNOLLS N.J. 07927	
Title	INTERLOCK INTERFACE CONSOLE MOUNT MAXI-12XPC
Size	Document Number
A	1-2532.5CH
Date: September 27, 1993	Sheet of

SAMPLE INTERLOCK WIRING FOR A FOUR MACHINE BOOTH WALL MOUNT AUTOMATIONS TERMINALS ON WALL MOUNT INTERFACE BOARDS



COLORS SHOWN FOR REFERENCE.

NOTES:

ALL GROUNDS ARE DIRECTLY TIED TOGETHER.

THE INTERLOCK OUTPUT OF EACH MACHINE IS TIED TO THE INTERLOCK INPUT OF THE FOLLOWING MACHINE.

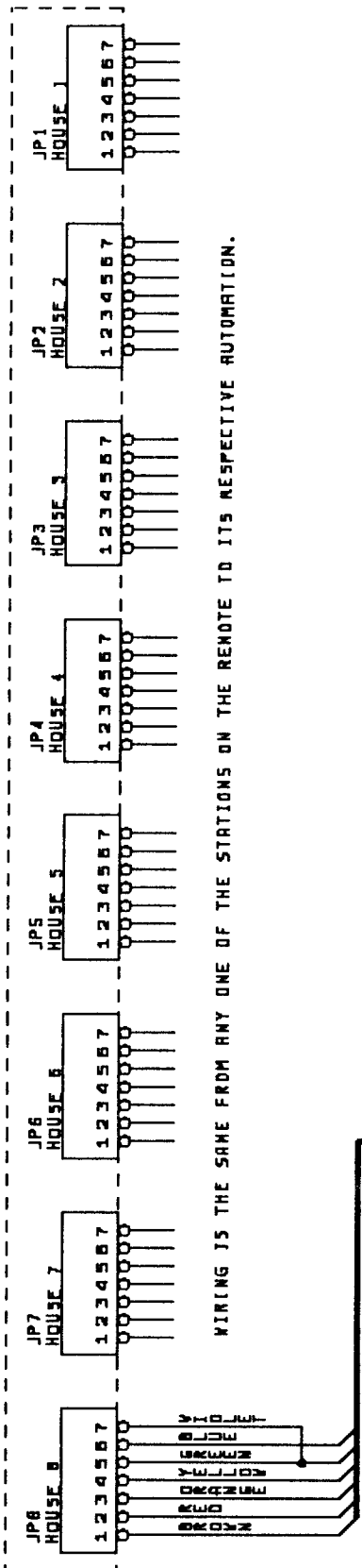
EXAMPLE:

#1 MACHINE INTERLOCK OUTPUT IS TIED TO THE INPUT ON MACHINE #2 AND THE OUTPUT OF MACHINE #2 IS TIED TO THE INPUT ON MACHINE #3. THIS PROTOCOL IS FOLLOWED FOR ALL THE MACHINES THAT ARE TO BE INTERLOCKED.

IF ALL THE INTERLOCK FEED THROUGH SWITCHES ARE ON, ALL THE MACHINES WILL BE CONNECTED TO A COMMON BUSS. IF THE I/L FEED THROUGH SWITCH IS TURNED OFF ON MACHINE #2 THE FOUR MACHINES WILL BE SPLIT UP INTO TWO GROUPS OF TWO MACHINES EACH.

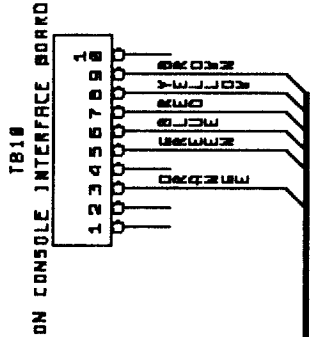
NEUMADE PRODUCTS CORP. XETRON DIVISION	
10 SADDLE RD. CEDAR KNOLLS N.J. 07927	
Title	
INTERLOCK INTERFACE WALL MOUNT MAXI-12XPC	
Size	REV
A	1-2632.SCH
Date: September 27, 1993	
Sheet	
of	

TERMINALS ON REMOTE (UP TO 8 STATIONS) AS VIEWED FROM REAR



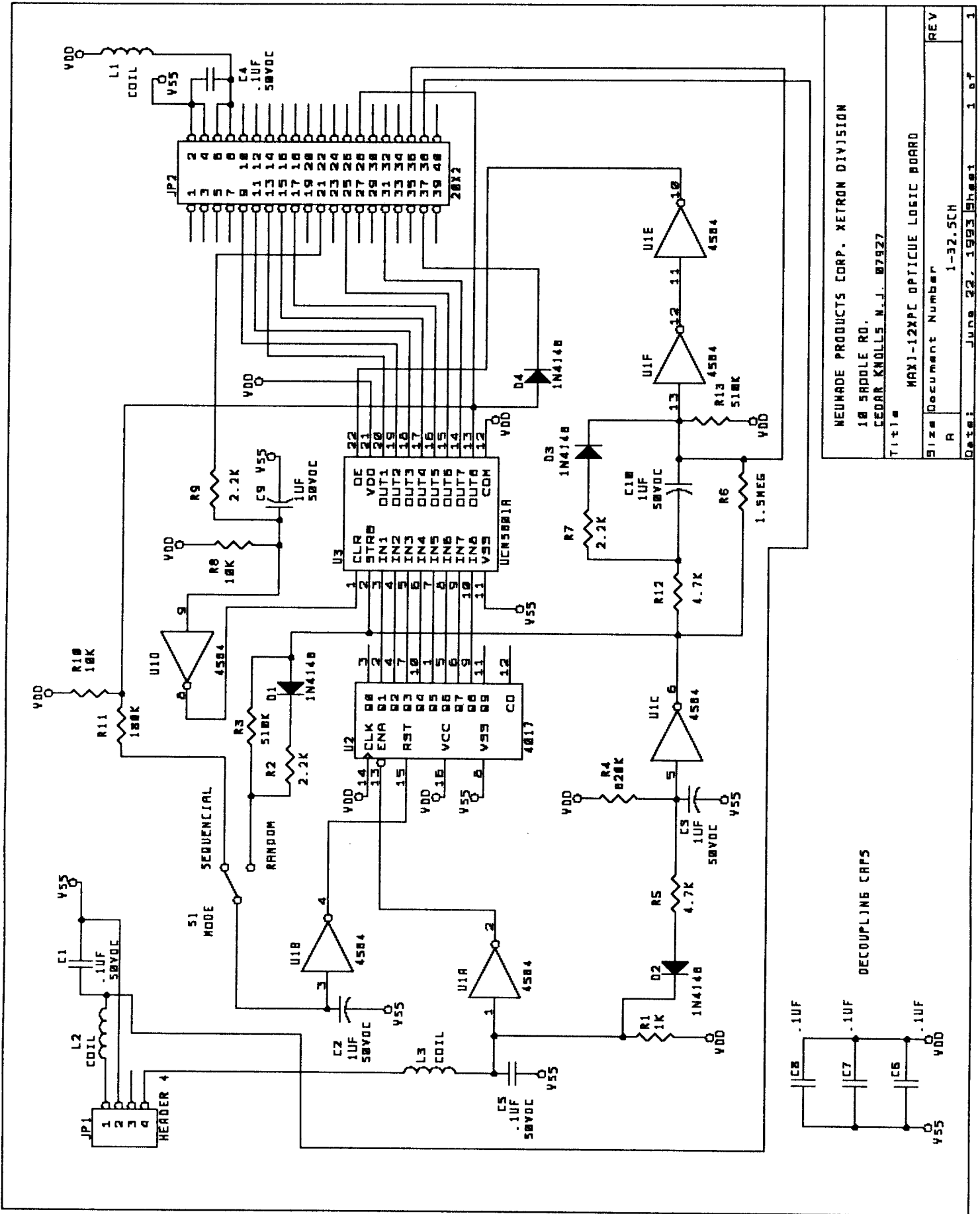
WIRING IS THE SAME FROM ANY ONE OF THE STATIONS ON THE REMOTE TO ITS RESPECTIVE AUTOMATION.

COLORS ARE SHOWN FOR REFERENCE.



7 CONDUCTOR 22 GAUGE CABLE (SUPPLIED BY CUSTOMER)

NEURADE PRODUCTS CORP. XETRON DIVISION	
Title	
4 STATION REMOTE WITH MAXI-12XPC IN CONSOLE	
Size	Document Number
A	XAK19132
Date:	September 28, 1973 Sheet 1 of 1



NEUMADE PRODUCTS CORP. XETRON DIVISION
 18 SADDLE RD.
 CEDAR KNOLLS N.J. 07927

DECOUPLING CAPS

Title MAX1-12XPC OPTICUE LOGIC BOARD

Size Document Number 1-32.5CH

REV A

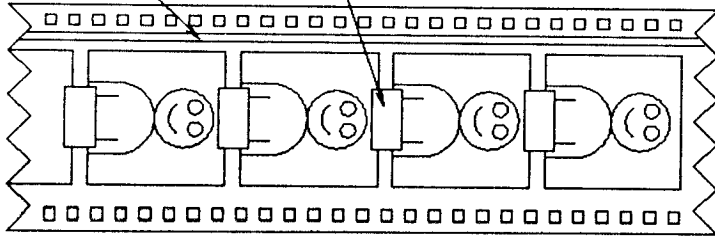
Date: June 22, 1983 Sheet 1 of 1

FILM VIEWED AS IF ENTERING THE GATE.

SOUND TRACK ON OUTSIDE OF FILM

CUE PLACED ON FRAME LINE OF FILM.
WHEN OPTICUE IS IN THE RANDOM MODE,
THE FOUR CUES SHOWN WOULD PULSE MATRIX
LINE #7 ON MAXI-12XPC.

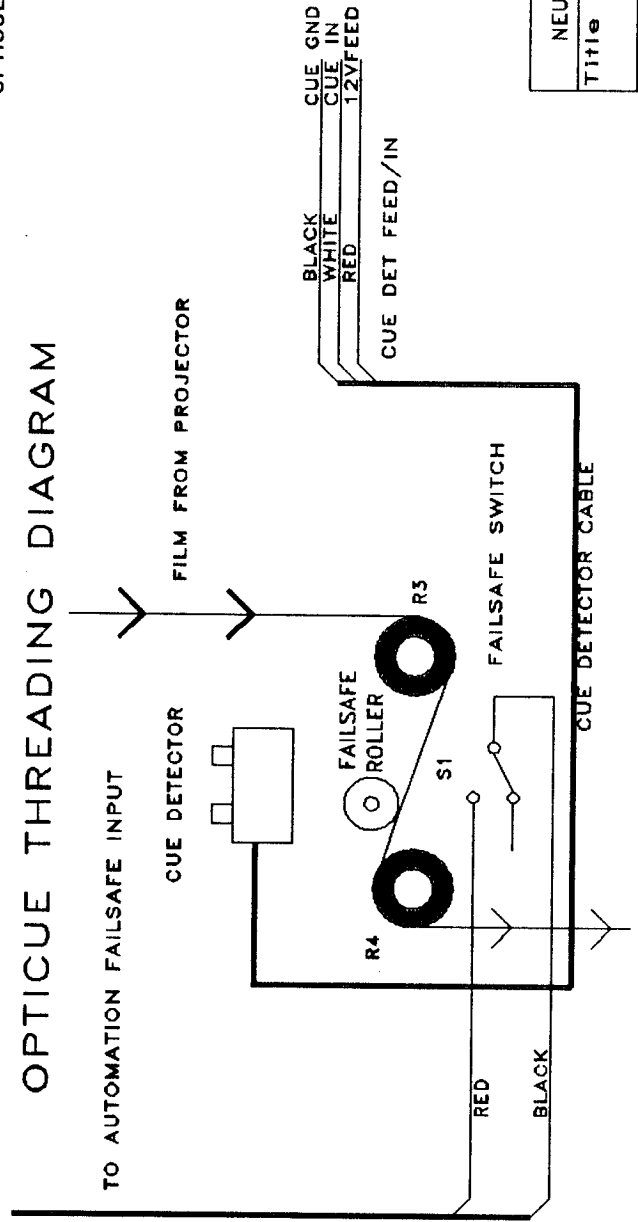
WHEN IN THE SEQUENTIAL MODE,
ONLY ONE CUE IS PLACED ON ANY FRAME LINE
TO ADVANCE THE CUE COUNTER ONE LINE
AND PULSE THE CORRESPONDING LINE.



SEE INSTRUCTIONS FOR INTERFACE OF CUE DETECTOR TO OPTICUE LOGIC BOARD.

SEE DWG #XAK19432.SCH FOR CONSOLE MOUNT OPTICUE TERMINATION INFORMATION.
SEE DWG #XAK19532.SCH FOR WALL MOUNT OPTICUE TERMINATION INFORMATION.

OPTICUE THREADING DIAGRAM



NEUMADE PRODUCTS CORP. XETRON DIVISION

Title OPTICUE 8 CUE PLACEMENT DIAGRAM

Size Document Number XAK-154

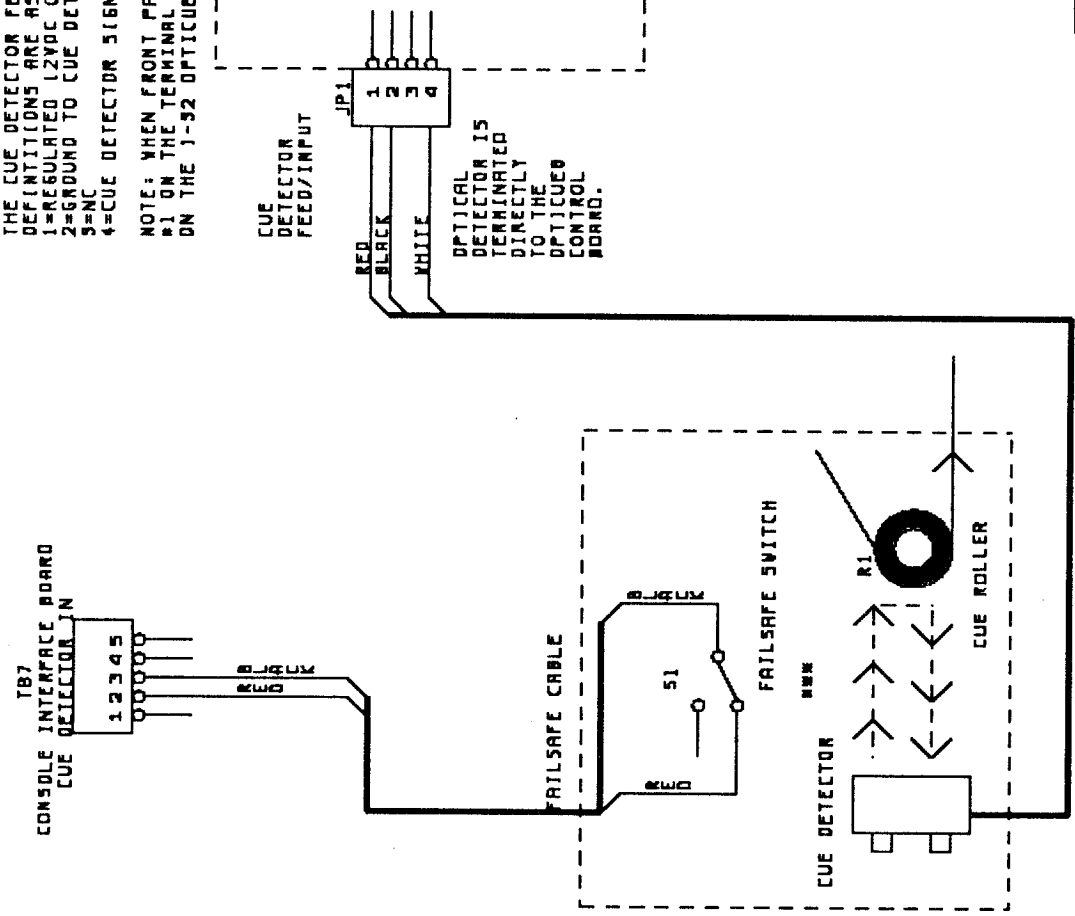
Date: September 13, 1990 Sheet 1 of 1

TEN SADDLE RD. CEDAR KNOLLS N.J. TEL.(201)267-8200 FAX.(201)267-4903

THE CUE DETECTOR FEED/INPUT DEFINITIONS ARE AS FOLLOWS:
 1=REGULATED 12VDC OUT TO CUE DETECTOR.
 2=GROUND TO CUE DETECTOR.
 3=NC
 4=CUE DETECTOR SIGNAL IN.

NOTE: WHEN FRONT PANEL IS PIVOTED DOWN, #1 ON THE TERMINAL BLOCK IS ON THE RIGHT, ON THE 1-32 OPTICUES BOARD.

OPTICUES CONTROL BOARD
 SEE DWG. #1-32.SCH FOR COMPLETE SCHEMATIC



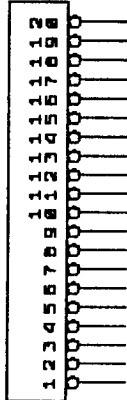
NEUNARDE PRODUCTS CORP. XETRON DIVISION	
10 SADDLE RD. CEDAR KNOLLS N.J. 07927	
Title OPTICUES/MAXI-12XPC/OPTICUES IN CONSOLE	
Size A	Document Number XAK19432.SCH
REV A	Date: December 8, 1993 Sheet 6 of 6

THE CUE DETECTOR FEED/INPUT DEFINITIONS ARE AS FOLLOWS:
 1=REGULATED 12VDC OUT TO CUE DETECTOR.
 2=GROUND TO CUE DETECTOR.
 3=NC
 4=CUE DETECTOR SIGNAL IN.

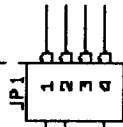
NOTE: WHEN FRONT PANEL IS PIVOTED DOWN, #1 ON THE TERMINAL BLOCK IS ON THE RIGHT. ON THE J-52 OPTICUES BOARD.

OPTICUES CONTROL BOARD SEE DWG. #1-32.5CH FOR COMPLETE SCHEMATIC

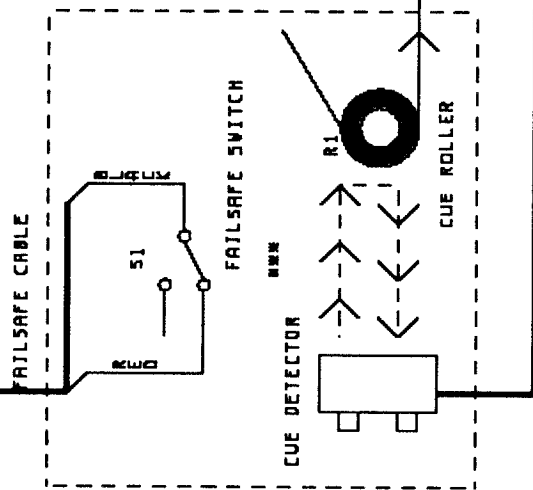
JPG6 REMOTE AND PERIPHERAL INPUT/OUTPUT LOCATED IN 12XPC AUTOMATION BOX MOUNTED ON WALL.



RED
BLACK
WHITE



OPTICAL DETECTOR IS TERMINATED DIRECTLY TO THE OPTICUES CONTROL BOARD.



CUE DETECTOR CABLE

NEURADE PRODUCTS CORP. XETRON DIVISION
 10 SADDLE RD.
 CEDAR KNOLLS N.J. 07927

Title OPTICUES/WALL MNT. MAX(12XPC/OPTICUES

Size Document Number XAK15532.5CH
 REV A

Date: December 8, 1993 Sheet 9 of 9

THEATRE *

SAMPLE MATRIX CONFIGURATION

AVAILABLE FUNCTIONS AND PLUG DESIGNATIONS

	SOUNDING CUE LINE	LIGHTS DIM	LIGHTS HALF	LIGHTS BRIGHT	CURTAIN OPEN	CURTAIN CLOSE	MASKING SCRIPT	MASKING FLAT	SOUND ON	SOUND STEREO	SOUND MONO	SOUND MUTE	SOUND ENABLE	SOUND RATE	SOUND SPECIAL	SOUND MONO/STEREO
	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1
MATRIX LINE 1 POWER UP PULSE								*					*			
MATRIX LINE 2 START MUTE PULSE																
MATRIX LINE 3 C/O OPEN PULSE		*	*		*					*						
MATRIX LINE 4 CUE #1		*					*									
MATRIX LINE 5 CUE #2 PULSE			*							*						
MATRIX LINE 6 CUE #3 PULSE	*			*		*		*								*
MATRIX LINE 7 CUE #4 PULSE																
MATRIX LINE 8 CUE #5 PULSE																
MATRIX LINE 9 CUE #6 PULSE																
MATRIX LINE 10 CUE #7 PULSE																

THIS DRAWING DEPICTS THE DIODE SETUP THE AUTOMATION IS SHIPPED WITH.

THIS DIODE CONFIGURATION WILL PROVIDE THE FOLLOWING PRESENTATION:

POWER UP (HOUSE DRESS) - C/O CLOSE, LIGHTS BRIGHT, CURTAIN CLOSE, SOUND ENABLE AND SOUND MONO/STEREO.

START - ND FUNCTIONS.

C/O OPEN (PREVIEWS) - LIGHTS HALF, CURTAIN OPEN, SOUND MONO.

CUE #1 (FEATURE) - LIGHTS DIM, SOUND STEREO.

CUE #2 (CREDITS) - LIGHTS HALF.

CUE #3 (SHOWEND) - C/O CLOSE, LIGHTS BRIGHT, CURTAIN CLOSE, MASKING FLAT AND SOUND MONO/STEREO.

THEATRE •

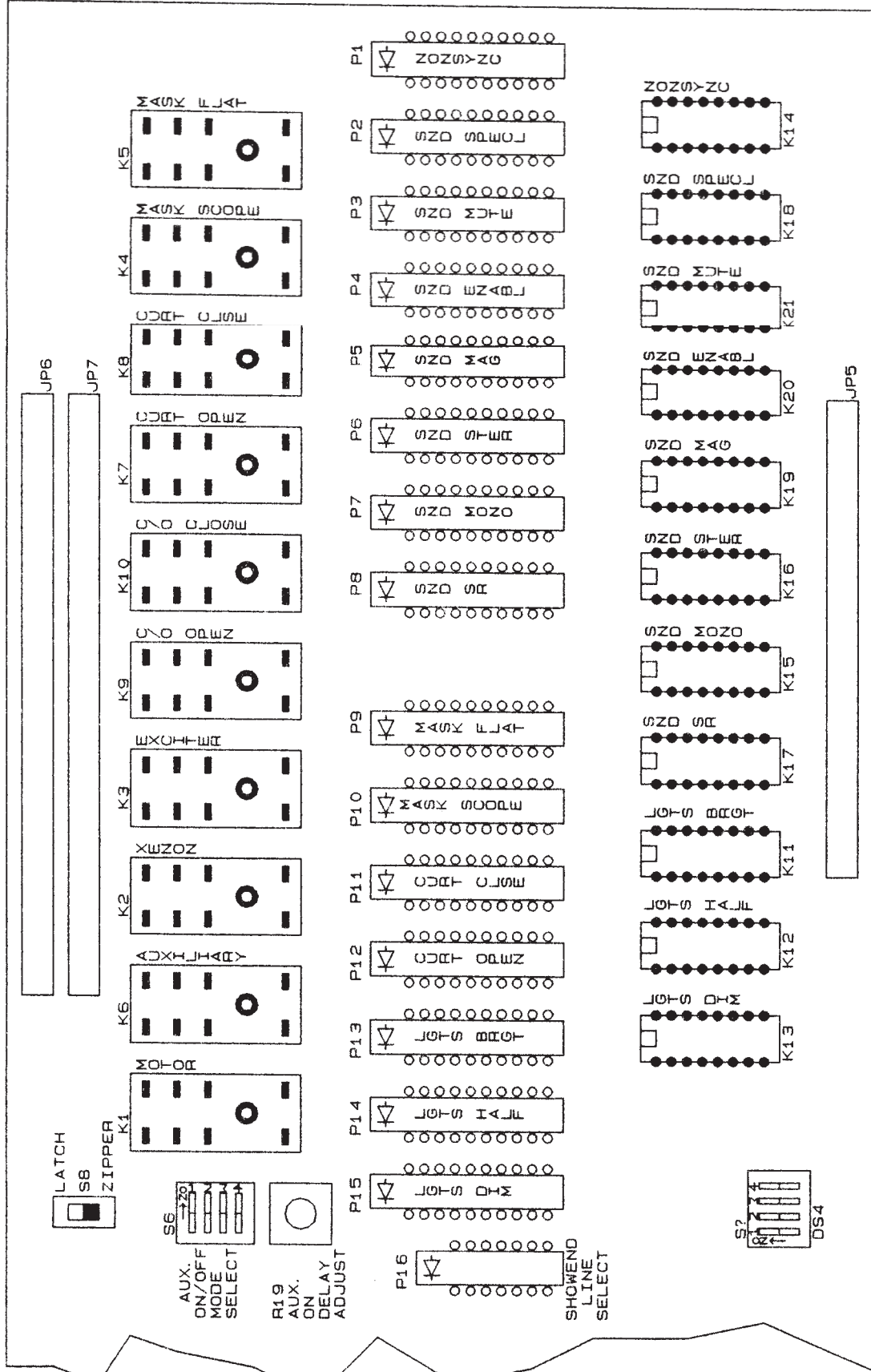
AVAILABLE FUNCTIONS AND PLUG DESIGNATIONS

	SHUTTER CUE LINE	LIGHTS DOWN	LIGHTS UP	LIGHTS DOWN	LIGHTS UP	CURTAIN OPEN	CURTAIN CLOSE	MASKING SCENE	MASKING FLAT	SOUND ON	SOUND OFF	SOUND STEREO	SOUND MAGNETIC	SOUND ENABLE	SOUND NOTE	SOUND SPECIAL	SOUND MONITOR
PULSE LINES	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	
MATRIX LINE 1 PULSE UP																	
MATRIX LINE 2 START BOTTOM PULSE																	
MATRIX LINE 3 CUE UP PULSE																	
MATRIX LINE 4 CUE 01 PULSE																	
MATRIX LINE 5 CUE 02 PULSE																	
MATRIX LINE 6 CUE 03 PULSE																	
MATRIX LINE 7 CUE 04 PULSE																	
MATRIX LINE 8 CUE 05 PULSE																	
MATRIX LINE 9 CUE 06 PULSE																	
MATRIX LINE 10 CUE 07 PULSE																	

NEUMANN PRODUCTS CORP., KETRON DIVISION
 78 SHIPLE RD.
 LEBON, N.J. 07032
 TITLE: MATRIX PROGRAM DOCUMENTATION CHART
 Draw Number: 9
 DATE: 10/11/68
 BY: HATCHART, SCH

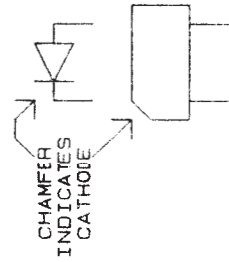
USE THIS CHART TO DOCUMENT THE MATRIX PROGRAMMING FOR EACH THEATRE.

PHYSICAL LAYOUT MATRIX SECTION 1-19 FRONT PANEL/RELAY BOARD.



THE FUNCTION TO MATRIX LINE PROGRAMMING IS ACCOMPLISHED BY MEANS OF DIODE JUMPERS THE DWG. BELOW ILLUSTRATES THE PROPER DIRECTION FOR THE DIODE BLOCKS TO BE PLUGGED INTO THE MATRIX SOCKETS.

DIODE IDENTIFICATION



PLUG DIODE INTO SOCKET WITH THE CHAMFERED END FACING THE SAME WAY AS THE CATHODE ON THE DIODE SYMBOL ON TOP OF THE MATRIX SOCKET.

DIP SWITCH SETTING INFORMATION

THERE ARE TWO DIP SWITCHES TO SET VARIOUS FUNCTION MODES.

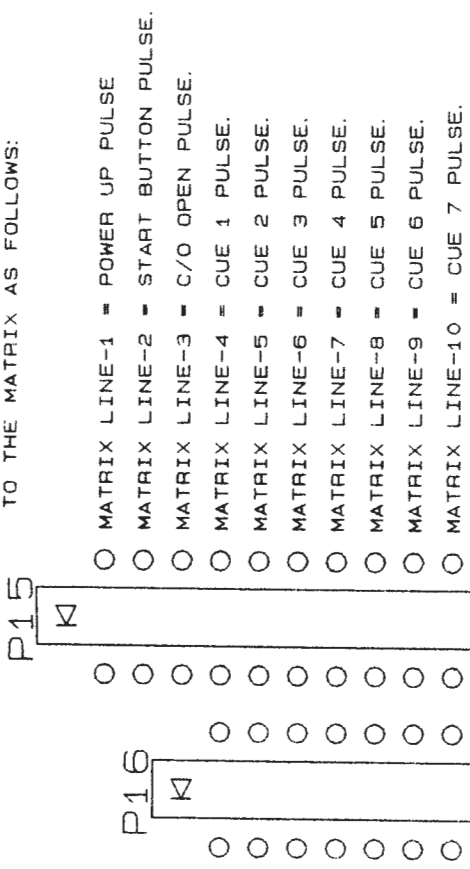
"S6" SETS THE MODES OF OPERATION FOR THE AUX. RELAY.

"S7" SELECTS THE FUNCTIONS THAT WILL OPERATE IN THE EVENT OF A FIRE INPUT TO THE AUTOMATION.

SEE DWG. #1-2432 FOR SWITCH, MODE AND FUNCTION SETTING INFORMATION.

MATRIX LINE DESIGNATIONS

THE PULSE LINES ARE CONNECTED TO THE MATRIX AS FOLLOWS:



SHOWEND LINE SELECT
LIGHTS DIM

NOTES:

DIODE SYMBOL SIDE OF PLUG IS LINE-1 TYPICAL.

P15 AND P16 ARE SHOWN TO ILLUSTRATE THE RELATIONSHIP OF THE SHOWEND SELECT SOCKET TO THE 7 CUE LINES ON THE MATRIX. THE SHOWEND SELECT SOCKET (P16) IS CONNECTED ONLY TO THE 7 PROGRAMMABLE CUE LINES.

THE LINE IN WHICH THE DIODE PLUG IS INSERTED IS SELECTED TO BE THE SHOWEND LINE.

FOR EXAMPLE IF THE DIODE PLUG IS INSERTED IN TO MATRIX LINE #6 (ON THE SHOWEND LINE SELECT SOCKET), CUE #3 WILL SWITCH THE AUTOMATION INTO SHOWEND MODE.

THERE ARE TWO MODES OF OPERATION FOR THE CUE LOGIC BOARD. SEQUENTIAL AND RANDOM.

IN THE SEQUENTIAL MODE, INDIVIDUAL CUES ARE PLACED ON THE FILM ON THE FRAME LINE. AS EACH SINGLE TAPE IS SENCED, THE CUE COUNTER ADVANCES ONE LINE. PULSES THAT LINE AND WAITS FOR THE NEXT CUE TAPE TO BE SENCED. THIS SEQUENCE CONTINUES UNTIL THE SHOWEND LINE IS REACHED. WHEN THE SHOWEND LINE IS REACHED, THE CORRESPONDING LINE IS PULSED AND THE COUNTER IS RESET AWAITING THE START OF THE NEXT SHOW.

IN THE RANDOM MODE, ANY CUE MAY BE USED ANY NUMBER OF TIMES IN ANY ORDER. CUES ON BOTH SIDES OF THE SELECTED SHOWEND LINE MAY BE USED WITHOUT AFFECTING THE SELECTED SHOWEND LINE. PLACING A CUE TAPE NUMBER CORRESPONDING TO THE SELECTED SHOWEND CUE LINE WILL TRIGGER THE SHOWEND MODE.

MATRIX SOCKETS ARE LABELED ACCORDING TO THE FUNCTION RELAY THEY OPERATE. THE RELAYS ARE LABELED IN CORRESPONDENCE WITH THE WALL AND CONSOLE MOUNT OUTPUT DESIGNATION SHEETS PROVIDED. RELAY FUNCTION INFORMATION IS PROVIDED AS A GUIDE FOR THE INSTALLER AND USER. ANY EXTRA RELAY OUTPUTS MAY BE USED FOR ANY FUNCTION NEEDED BY THE CUSTOMER.

CERTAIN DIP RELAY OUTPUTS ARE TIED TOGETHER AS BLOCKS. THE BLOCK CONNECTION PROTOCOL IS AS FOLLOWS:

- BLOCK-1 = NONSYNC. SOUND SPECIAL, COMMON.
- BLOCK-2 = SOUND MUTE, SOUND ENABLE, COMMON.
- BLOCK-3 = MAGNETIC, STEREO, COMMON.
- BLOCK-4 = MONO, SOUND SR, COMMON.

NEUMADE PRODUCTS CORP. XETRON DIVISION

10 SADDLE RD.

GEDAR KNOLLS, N.J. 07927

Title

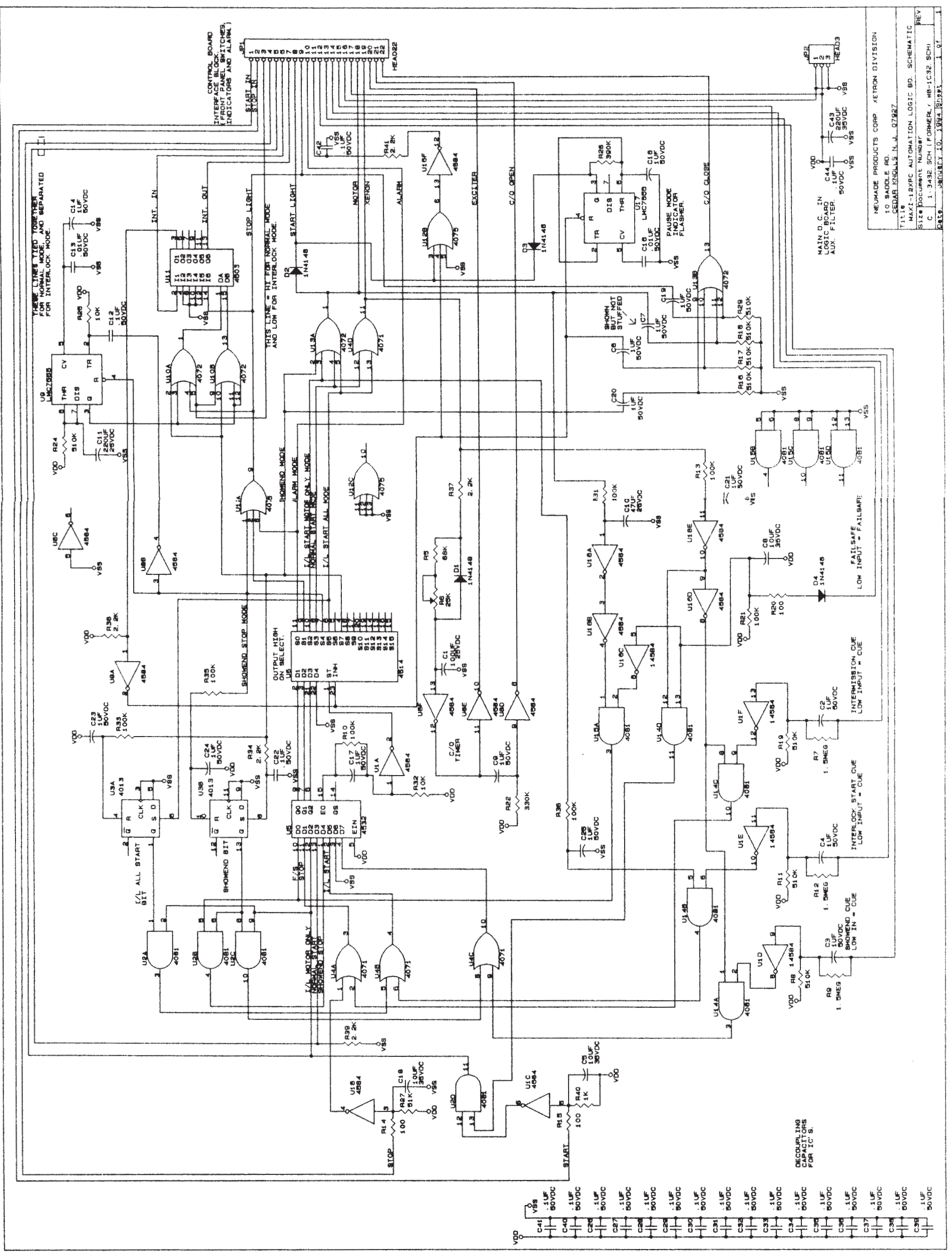
PHYSICAL LAYOUT/MATRIX OPERATION INFO. 12XPC

Size Document Number

B 1-2232 SCH

Date: February 24, 1994 Sheet of

REV



CONTROL BOARD
INTERFACE BLOCK
(INDICATORS AND ALARMS)

THESE LINES ZERO TOGETHER
FOR NORMAL MODE, AND SEPARATED
FOR INTERLOCK MODE.

THIS LINE - HI FOR NORMAL MODE
AND LOW FOR INTERLOCK MODE.

START LIGHT

STOP LIGHT

ALARM

EXCITER

C/O OPEN

C/O CLOSE

PAUSE MODE
INDICATOR
FLASHER.

SHOWING
BUT NOT
STUFFED

INTERMISSION CUE
LOW INPUT = CUE

INTERLOCK START CUE
LOW IN = CUE

INTERMISSION CUE
LOW INPUT = CUE

FAILSAFE
LOW INPUT = FAILSAFE

DECOUPLING
CAPACITORS
FOR IC'S.

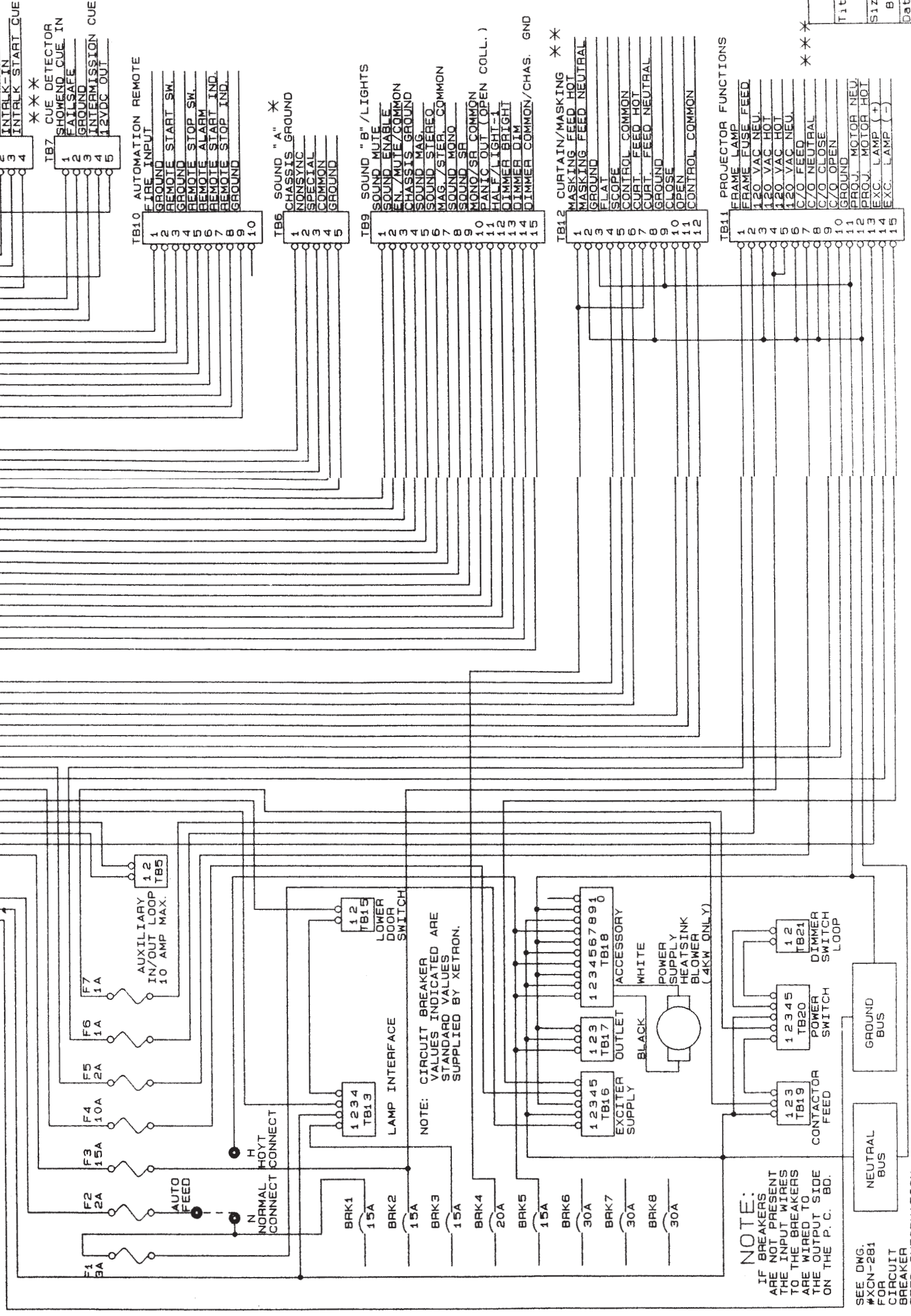
MAIN D.C. IN
LOGIC BOARD
AUX. FILTER

NEUMAID PRODUCTS CORP. AETRON DIVISION
10 SADDLE RD.
CEDAR KNOLLS, N.J. 07927
Title: MAXI-12KPC AUTOMATION LOGIC BD. SCHEMATIC
Size: Document Number
C 1-3432 SCH (FORMERLY MB-1C32 SCH)
REV 1.07

NOTES

IMPORTANT
THIS DWG. REPRESENTS THE SCHEMATIC OF THE REV. B VERSION XCN-227 CONSOLE INTERFACE BOARD.

NOTE: FUSE VALUES MAY VARY ACCORDING TO EQUIPMENT SPECIFIED. CHOOSE FUSES ACCORDING TO LOAD.



NOTE: CIRCUIT BREAKER VALUES INDICATED ARE STANDARD VALUES SUPPLIED BY XETRON.

NOTE:
IF BREAKERS ARE NOT PRESENT TO THE INPUT WIRES TO THE BREAKERS ARE WIRING TO THE OUTPUT SIDE ON THE P. C. BD.

SEE DWG. #XCN-281 FOR CIRCUIT BREAKER FEED INFORMATION

TB'S 3, 4, 6, 7, 8, 9, 10 ARE USED FOR INTERFACE OF THE AUTOMATION FUNCTIONS FROM THE MAXI 12X AUTOMATION.

IF ANOTHER AUTOMATION IS USED, THE INTERFACE TO THE HOUSE FUNCTIONS WILL BE DERIVED FROM THE OUTPUT TERMINALS OF THAT AUTOMATION, UNLESS SPECIFIED BY THE CUSTOMER THAT THEY WOULD LIKE THE AUDITORIUM FUNCTIONS INTERFACED TO THESE BLOCKS.

* THE SOUND FUNCTION RELAY OUTPUTS HAVE BEEN SPLIT UP INTO 4 SEPARATE BLOCKS.

BLOCK-1 = N/S. SPECIAL. COMMON.
BLOCK-2 = MUTE. ENABLE. COMMON.
BLOCK-3 = MAG. STEREO. COMMON.
BLOCK-4 = MONO. SR. COMMON.

EACH BLOCK IS PROVIDED WITH 2 NORMALLY OPEN CONTACTS AND A COMMON. THE OUTPUTS ARE LABELED FOR REFERENCE ONLY. ANY UNUSED SOUND BLOCKS MAY BE USED FOR OTHER FUNCTIONS, AS LONG AS THE FUNCTIONS CAN SHARE A COMMON.

* * * CURTAIN AND MASKING AC FEEDS AS WELL AS CONTROL OUTPUTS ARE PROVIDED FOR CUSTOMERS WHO CHOOSE TO TERMINATE ALL AUDITORIUM WIRING AT THE CONSOLE.

* * * THESE INPUTS ARE PROVIDED IN THE EVENT THAT A CUE DETECTOR OTHER THAN THE OPTICUE WITH THE BUILT IN DECODER IS USED. OUTPUT FROM EXTERNAL CUE DETECTOR MUST BE CLEAN PULL TO GROUND PULSE.

* * * * * THE FRAME AND CHANGEOVER FEEDS HAVE BEEN SEPARATED TO FACILITATE THE USE OF LOW OR HIGH VOLTAGE TYPES.

FRAME LAMP CONNECTIONS:
FOR 120 VOLT FRAME LAMP JUMPER #'S 2 AND 4 TB11 AND CONNECT FRAME LAMP TO #1 TB11.

FOR 12 VOLT FRAME LAMP WITH FUSE IN LINE SIDE OF TRANSFORMER, JUMPER #'S 2 AND 4 TB11 CONNECT ONE SIDE OF TRANSFORMER PRIMARY TO #1 TB11 AND THE OTHER SIDE OF TRANSFORMER PRIMARY TO #3 TB11. CONNECT THE SECONDARY OF THE TRANSFORMER TO THE FRAME LAMP.

CHANGEOVER CONNECTIONS:

FOR 120 VOLT "ZIPPER" TYPE CHANGEOVERS JUMPER #'S 5 AND 7 TB11. CONNECT C/O COIL COMMON TO #8 TB11. CONNECT THE CLOSE COIL TO #9 TB11 AND THE OPEN COIL TO #10 TB11.

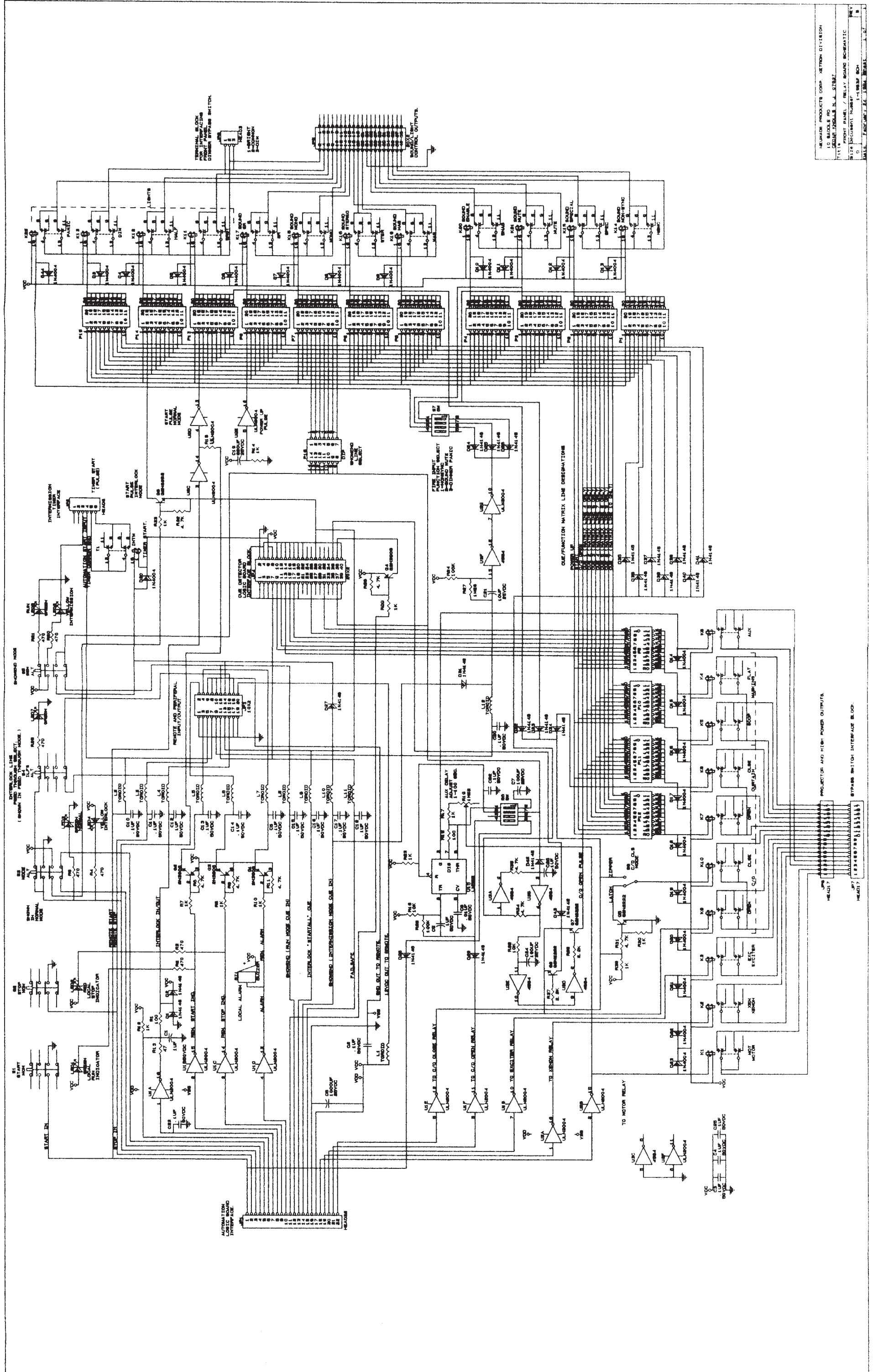
FOR LOW VOLTAGE TYPE CHANGEOVERS CONNECT THE 120 VOLT INPUT OF THE C/O POWER SUPPLY TO #5 AND 6 TB11. CONNECT THE D.C. (+) OUTPUT OF THE SUPPLY TO #7 TB11. CONNECT THE (-) OF THE SUPPLY DIRECTLY TO THE C/O AS DIRECTED BY THE SUPPLIER. CONNECT THE CLOSE INPUT OF THE CHANGEOVER SYSTEM TO #9 TB11. CONNECT THE OPEN INPUT OF THE C/O SYSTEM TO #10 TB11.

NOTE: CONNECTING THE C/O IN THIS MANNER WILL PROVIDE A POSITIVE PULSE TO THE OPEN AND CLOSE INPUTS OF THE C/O CONTROL.

NEUMADE PRODUCTS CORP. XETRON DIVISION

Title	XCN-227 BD WITH 12X (1-19) OUTPUTS
Size	B
Document Number	XCN-365.SCH
REV	B

Date: February 5, 1993 Sheet of



HEWLETT PACKARD COMPANY - METRO DIVISION
 10 BAYVIEW RD
 CREEK HILLS, N.J. 07827
 TITLE: FRONT PANEL / RELAY BOARD SCHEMATIC
 DATE: 1-1-83
 DRAWN: J. J. ...
 CHECKED: ...
 APPROVED: ...