R-10/16 Module Pinout Connections

GENERAL

All audio and control I/O connections to the R-10 console are made through 12-pin connectors with locking tabs that connect to mating connectors on the console main printed circuit board. There is one 12-pin connector per module position, located just under the top end of each module, and accessed by removing individual modules. The CR monitor module has one additional I/O connector (CT25) for the on-air tally, talkback and comm in links.

As supplied from the factory, the console requires no logic connections to function. Therefore an orderly installation begins with the audio wiring. Once proper audio operation is verified (i.e., no ground loops), proceed with the control wiring.

The supplied 12 pin connectors use crimp type pins. A crimp tool is supplied with the console. *Always be careful to double check pin numbering on the connector block and the wiring diagram before inserting the pin in the block.* A pin extractor tool is also included; it is handy to remove pins that have been inserted in the wrong connector block hole, or if rewiring or wiring repair is needed in the future.

Consoles are normally supplied with the first mic channel preprogrammed to mute the control room speakers, so you won't hear anything from the control room speakers or CUE if Channel 1 is turned ON. This mute can be reprogrammed (see dipswitch controlled functions, page 3-3).

The I/O connections can now be made. Note that a gap is provided at the back of the console for cable entry.

Refer to the Module I/O Pinout text to connect the console to your equipment. Recommended setup is to have all microphone inputs connected to the first channels (MM-10 type), with the remaining channels used as line inputs (SL-10s). Group input types together. For example, if you have three cart machines, connect them to the inputs of three successive SL-10 modules.

Key diagram showing back of typical 12-pin I/O connector plug, with pin numbers oriented as they would be seen while wiring. Beveled corners correspond to PCB mounted mating sockets.

```
12  9  6  3
11  8  5  2
10  7  4  1
```
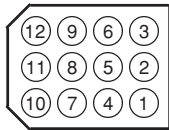
See Appendix drawing "Balanced and Unbalanced R-10 Console Connections" on page A-3 for connection details.

Refer to the Module I/O Connection Section and note that the audio signal connections follow a logical pattern. Pins are grouped in 4 groups (called pairs for this discussion) of 3 pins each (1-3, 4-6, 7-9, and 10-12). The first pin of each group (1, 4, 7, and 10) is audio common, or ground, for connection of shields. The next pin (2, 5, 8, and 11) is the low side for balanced signals, or ground for unbalanced signals. The third pin (3, 6, 9, and 12) is the high side for balanced signals, or the signal connection for unbalanced ones.

In the case of stereo signals, left is always assigned to the first (pins 1-3) or third (pins 7-9) pair of a connector, and right is always assigned to the second (pins 4-6) or fourth (pins 10-12) pair.

The console's microphone inputs are provided with insert points for external processing. If you do not wish to use these patch points, it will be necessary to bridge them at the appropriate connector(s) before signal will pass. See Mic Module Audio Connection text (below) for details.

The console's PROGRAM, AUDITION, TALKBACK and CONTROL ROOM (CR) outputs are electronically balanced, low source impedance; minimum load impedance is 600 ohms.

Once the signal wiring is complete, check that each item is correctly wired before continuing.

MONO MIC INPUT MODULE (MM-10)

Mic Module Audio Connections

Module input/output signal connections are made via dedicated 12–pin connectors mounted on the console's main printed circuit board directly underneath the top of each module. Connectors are accessed by removing individual modules. The key drawing to the left shows a typical connector.

Key diagram showing back of typical 12-pin I/O connector plug, with pin numbers oriented as they would be seen while wiring. Beveled corners correspond to PCB mounted mating sockets.

```
12  9  6  3
11  8  5  2
10  7  4  1
```
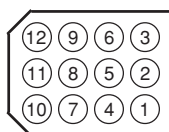
(CT1 thru 10, Main Printed Circuit Board)
    Pin 1 - MIC INPUT, SHIELD
    Pin 2 - MIC INPUT, LOW
    Pin 3 - MIC INPUT, HIGH
    Pin 4 - INSERT OUT, SHIELD
    Pin 5 - INSERT OUT, LOW
    Pin 6 - INSERT OUT, HIGH
    Pin 7 - INSERT IN, SHIELD
    Pin 8 - INSERT IN, LOW
    Pin 9 - INSERT IN, HIGH
     If you do not intend to use the insert patch loop, bridge pin 6
     to pin 9 to preserve the signal path.
    Pin 10 - N/C
    Pin 11 - N/C
    Pin 12 - N/C

Mic Module Dipswitch Controlled Functions

View of MM-10 PCB mounted 4-position dipswitch (SW3).
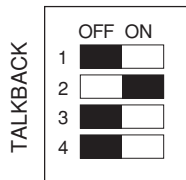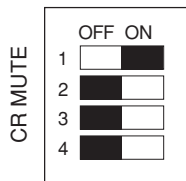
CR MUTE

	OFF	ON
1		■
2		■
3	■	
4	■	

TALKBACK

	OFF	ON
1	■	
2		■
3	■	
4	■	

Note that a position is ON when the righthand side of the rocker switch is pressed DOWN; a position is OFF when the lefthand side is DOWN.

There is a four position dipswitch on the printed circuit board of each MM-10 microphone input module. Positions 1 and 2 may be user-programmed as follows:

Position 1: CR MUTE - **This is normally pre-programmed at the factory on the leftmost MM-10 input module.** When activated, it automatically mutes the console's control room and cue speaker output whenever that input module is turned ON. This is to prevent feedback from the announcer's mic. This same control signal activates the opto-isolated on-air tally line located on the console's main printed circuit board (see "On-Air Tally Circuit" below).

Position 2: TALKBACK TO STUDIO - When activated, sends the module's signal to the console's talkback bus. When the talkback button (on the O-10 output module) is pushed, the signal is routed to the console's talkback output. Note the talkback feed is taken pre-fader, pre-ON/OFF, so it is not necessary for the module to be ON in order to talkback to the studio.

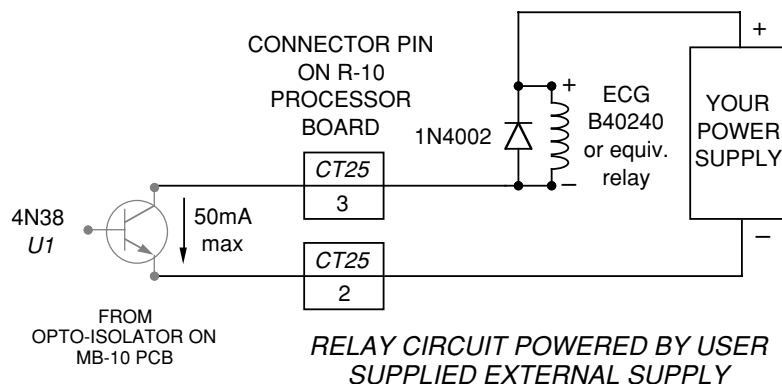DIPSWITCH positions (3) and (4) are not used.

Once the dipswitch settings have been made, check that each MM-10 input module dipswitch is correctly programmed before continuing.

On-Air Tally Circuit

For controlling "on-air" tally functions, an opto isolator is provided. The tally may be activated by any MM-10 input module ON switch programmed to mute CR. The opto transistor collector and emitter connections are available at a 12 pin connector (CT25) located just below the CR-10 monitor module's regular I/0 connector.

TYPICAL CONTROL ROOM ON-AIR TALLY CIRCUIT

USER-SUPPLIED RELAY TRIGGERED BY CONSOLE CR MUTE CIRCUIT

CONNECTOR PIN
ON R-10
PROCESSOR
BOARD

1N4002

ECG B40240 or equiv. relay

YOUR POWER SUPPLY

CT25 3

CT25 2

4N38 U1

50mA max

FROM OPTO-ISOLATOR ON MB-10 PCB

RELAY CIRCUIT POWERED BY USER SUPPLIED EXTERNAL SUPPLY
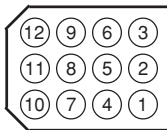
STEREO LINE INPUT MODULE (SL-10)

Line Module Audio Connections

Module input/output signal connections are made via dedicated 12–pin connectors mounted on the console's main printed circuit board directly underneath the top of each module. Connectors are accessed by removing individual modules.

Key diagram showing back of typical 12-pin I/O connector plug, with pin numbers oriented as they would be seen while wiring. Beveled corners correspond to PCB mounted mating sockets.

(CT1 thru 10, Main Printed Circuit Board)
Pin 1 - LINE INPUT LEFT, SHIELD
Pin 2 - LINE INPUT LEFT, LOW
Pin 3 - LINE INPUT LEFT, HIGH
Pin 4 - LINE INPUT RIGHT, SHIELD
Pin 5 - LINE INPUT RIGHT, LOW
Pin 6 - LINE INPUT RIGHT, HIGH
Pin 7 - START SWITCH
Pin 8 - LAMP COMMON
Pin 9 - STOP SWITCH
Pin 10 - START/STOP SWITCH COMMON
Pin 11 - STOP LAMP
Pin 12 - START LAMP

Line Module Control Ports

The following logic functions, listed by pin number, are available at the 12-pin I/O connector of each SL-10 stereo line input module:

   PIN 7: **START** - Provides a closure to START/STOP common pin (see below) when the module's START button is pressed. Used to start remote source machines (cart and tape machines, CD players, etc.).

   PIN 9: **STOP** - Provides a closure to START/STOP common pin (see below) when the module's STOP button is pressed. Used to stop remote source machines.

   PIN 10: **START/STOP COMMON**

   PIN 12: **START LAMP** - Used to power the indicator lamp in the module's START button. Power for the lamp comes from the remote machine hooked up to the module. NOTE: lamps are rated at 5 VDC (max).

   PIN 11: **STOP LAMP** - Used to power the indicator lamp in the module's STOP button. Power for the lamp comes from the remote machine hooked up to the module. NOTE: lamps are rated at 5 VDC (max).

   PIN 8: **LAMP COMMON** - Completes the power circuit for the module's remotely activated START/STOP switch indicator lamps.

MASTER OUTPUT MODULE (O-10)

Output Module Audio Connections

Module input/output signal connections are made via a dedicated 12–pin connector mounted on the console's main printed circuit board, directly underneath the top of the module. The connector is accessed by removing the module. PROGRAM and AUDITION outputs are electronically balanced, low source impedance; minimum load impedance is 600Ω.

(CT11 "MSTR", Main Printed Circuit Board)
      Pin 1 - AUDITION OUTPUT LEFT, SHIELD
      Pin 2 - AUDITION OUTPUT LEFT, LOW
      Pin 3 - AUDITION OUTPUT LEFT, HIGH
      Pin 4 - AUDITION OUTPUT RIGHT, SHIELD
      Pin 5 - AUDITION OUTPUT RIGHT, LOW
      Pin 6 - AUDITION OUTPUT RIGHT, HIGH
      Pin 7 - PROGRAM OUTPUT LEFT, SHIELD
      Pin 8 - PROGRAM OUTPUT LEFT, LOW
      Pin 9 - PROGRAM OUTPUT LEFT, HIGH
      Pin 10 - PROGRAM OUTPUT RIGHT, SHIELD
      Pin 11 - PROGRAM OUTPUT RIGHT, LOW
      Pin 12 - PROGRAM OUTPUT RIGHT, HIGH

Key diagram showing back of typical 12-pin I/O connector plug, with pin numbers oriented as they would be seen while wiring. Beveled corners correspond to PCB mounted mating sockets.
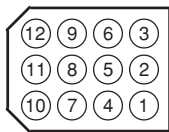
Output Module Dipswitch Controlled Functions

There is a four position dipswitch on the printed circuit board of the O-10 output module. It allows the user to switch the console's PROGRAM and AUDITION buses to mono mode. Positions 1 and 4 may be user-programmed as follows:

Position 1: AUD MONO - When activated, sums the left and right AUDITION channels and sends L+R to both channels.

Position 4: PGM MONO - When activated, sums the left and right PROGRAM channels and sends L+R to both channels.

DIPSWITCH positions (2) and (3) are not used.

View of O-10 PCB mounted 4-position dipswitch (SW3). Note that a position is ON when the righthand side of the rocker switch is pressed DOWN; a position is OFF when the lefthand side is DOWN.

Talkback Control

A control closure (activated by the module's momentary action TB switch) is provided at CT25 (CR-10 module Auxiliary Ports Connector) on the console's main processing board:
(CT25, Main Printed Circuit Board)
      Pin 8 - TB SW N.O.
      Pin 9 - TB SW COM

CONTROL ROOM MONITOR MODULE (CR-10)

Monitor Module Audio Connections

Connections are made via a dedicated 12–pin connector mounted on the console's main printed circuit board directly underneath the top of the module. The connector is accessed by removing the module.
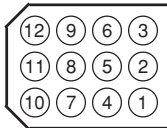(CT12 "CR", Main Printed Circuit Board)

Key diagram showing back of typical 12-pin I/O connector plug, with pin numbers oriented as they would be seen while wiring. Beveled corners correspond to PCB mounted mating sockets.

```
┌─────────────────┐
│ (12) (9) (6) (3)│
│ (11) (8) (5) (2)│
 (10) (7) (4) (1)│
└─────────────────┘
```

Pin 1 - CR OUTPUT LEFT, SHIELD
Pin 2 - CR OUTPUT LEFT, LOW
Pin 3 - CR OUTPUT LEFT, HIGH
Pin 4 - CR OUTPUT RIGHT, SHIELD
Pin 5 - CR OUTPUT RIGHT, LOW
Pin 6 - CR OUTPUT RIGHT, HIGH
  Control Room Output is electronically balanced, low source impedance; minimum load impedance is 600Ω.
Pin 7 - EXTERNAL LINE IN LEFT, SHIELD
Pin 8 - EXTERNAL LINE IN LEFT, LOW
Pin 9 - EXTERNAL LINE IN LEFT, HIGH
Pin 10 - EXTERNAL LINE IN RIGHT, SHIELD
Pin 11 - EXTERNAL LINE IN RIGHT, LOW
Pin 12 - EXTERNAL LINE IN RIGHT, HIGH

Monitor Module Auxiliary Ports

The following additional functions, listed by pin number, are available at a second 12-pin connector (CT25) located just beneath the module's primary (CT12) connector.
(CT25, Main Printed Circuit Board)

Pin 1 - SHIELD
Pin 2 - ON-AIR TALLY; emitter
Pin 3 - ON-AIR TALLY; collector
  On-Air Tally is an opto-isolated connection activated by mic input module ON switches that have been programmed to Mute CR. See page 3-3.
Pin 4 - COMM IN, SHIELD
Pin 5 - COMM IN, LOW
Pin 6 - COMM IN, HIGH
  The COMM port is used to feed an incoming communication link to the console. Its signal goes to CUE, CR and HDPN. It is used in conjunction with the console's Talkback output (below), and allows two-way intercom links between the control room and remote locations. Often this means connecting the station telco hybrid to the console's TB and COMM ports.

Key diagram showing back of typical 12-pin I/O connector plug, with pin numbers oriented as they would be seen while wiring. Beveled corners correspond to PCB mounted mating sockets.
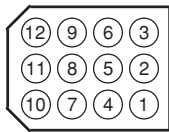
Pin 7 - TALKBACK SW SHIELD
Pin 8 - TALKBACK SW N.O.
Pin 9 - TALKBACK SW COM
This is a control closure activated by the O-10 output module's TB switch.
Pin 10 - TALKBACK OUTPUT, SHIELD
Pin 11 - TALKBACK OUTPUT, LOW
Pin 12 - TALKBACK OUTPUT, HIGH
When the TB switch is pressed, MM-10 input module signals that have been dipswitch-programmed for TB are sent to this electronically balanced output (low source impedance; minimum load impedance is 600Ω). See page 3-3.

VU METER ALIGNMENT

With the console in place on the counter top, check the VU meters for static, power-off alignment. If any adjustment is needed, raise the hinged meter bridge (by removing two phillips head screws on the lower flange of the meterbridge, just above the tops of the console modules) and note the meter adjusters located in the rear center of the meters. Alignment is accomplished by using a small flat blade screw driver to turn the adjusting screws until the meter reading is correct. Note that the screw should always be turned clockwise, and that correct adjustment is made when the meter is brought UP to the correct mark from downscale. Also *notice that the static zero position changes as the meter bridge is brought down to its normal position*. Make small incremental adjustments and return the meterbridge to operating position between adjustments; continue this procedure until the meter static zeroes are correct with the meterbridge in position.

Note that the VU meter lamps are replaceable from the back of the meter.

Unless VU meters are noticeably mis-aligned, this procedure (which can be a lengthy process) is normally NOT required.

COMPLETING THE INSTALLATION

Before connecting the console's AC power, turn all faders and level controls on the console and any monitor equipment connected to it down to minimum. In preparation for testing your installation, assign one stereo input channel to PGM and select PGM on the CR module.

The AC connector may now be connected; this will turn on the console. At this point the VU meters should be lit, and the LEDs of any assign switches that are down should be lit. Each mic input channel will have either its ON or OFF lamp lit. Stereo input module CUE LEDs may be lit. Turn all channels off (OFF and STOP buttons) and de-activate all CUE switches that are lit.

Turn the module you will begin testing with On by pressing the START button. If connected to a functioning source machine, the START switch indicator lamp should light. Make sure the channel is assigned to PGM and slowly move the fader up. You should see movement on the PGM meters.

If you have trouble at this or any other point in the installation test, turn to the section on troubleshooting, at the end of the technical section of the manual.

Press the CUE button for that channel and slowly turn up the CUE level control on the CR-10 module; you should hear the source material in the console's CUE speaker. Note that the channel fader and ON/OFF status have no effect on the volume of the CUE signal. When finished, turn down the CUE speaker level control.

Turn the console's CR level control to the 2 o'clock position, and slowly turn up the control room monitor amplifier; your source material should become audible. (If your power amplifier does not have input level controls, use external pads to allow a comfortable listening level with the console monitor pots set at 2 o'clock; this will assure optimal L—R tracking).

Monitor amplifier input gain settings are important; they should be adjusted to allow a comfortable listening level when the monitor module's CR level pot is set around 2 o'clock. If monitor amp input gains are set too high, you may find yourself continually running the CR level pot between 8 and 10 o'clock; this is the worst part of any potentiometer's attenuation range, and should be avoided.
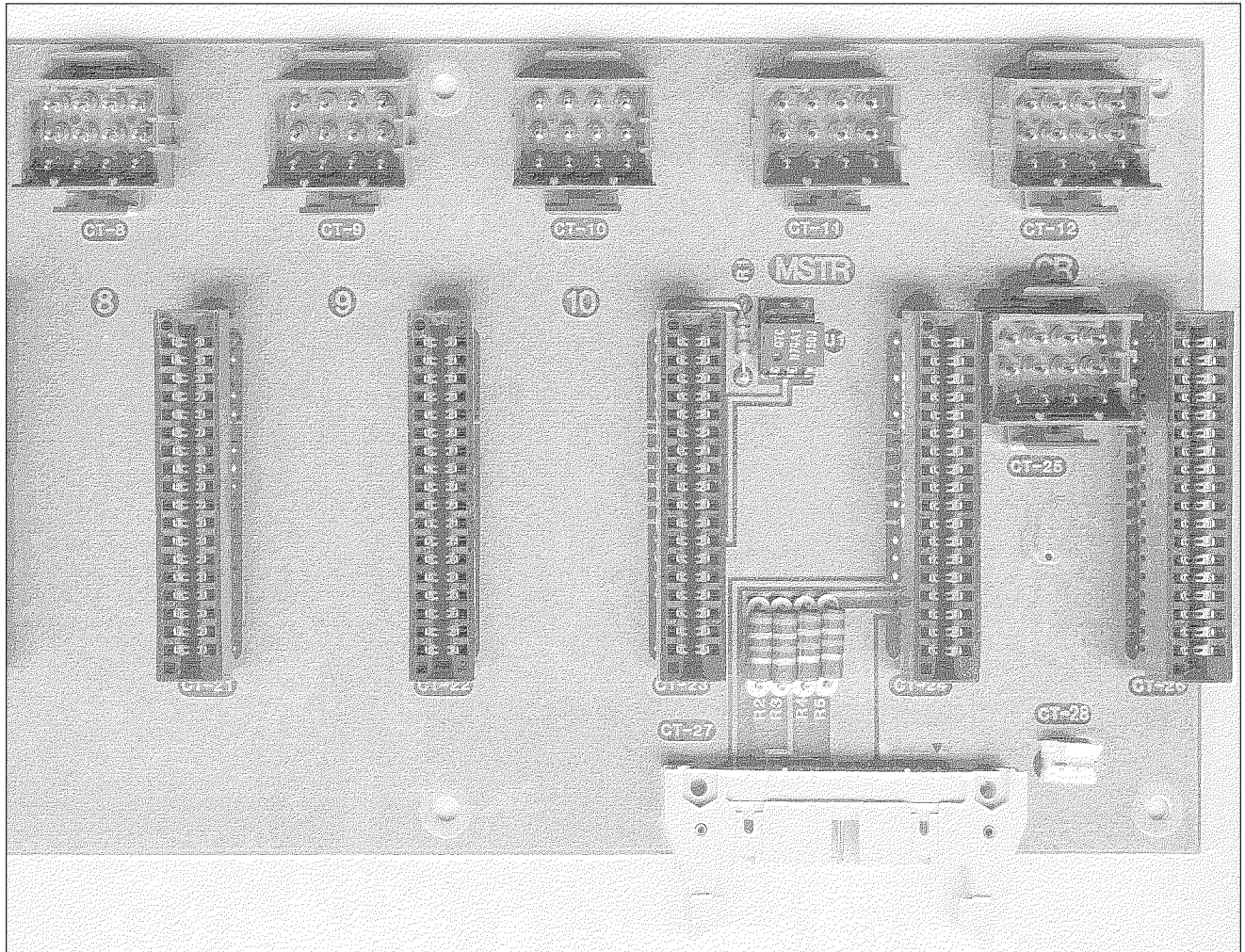
When finished, de-activate the PGM assign on the input module.

Assign the input channel, the CR module, and the VU meter select switch on the master output module to AUD; the source material should appear.

BE CAREFUL: LOUD SOUNDS IN THE HEAD-PHONES CAN DAMAGE YOUR HEARING!

Test the other channels, the headphone jack (if there is no audible source material at the headphone output; check to make sure input module CUE switches aren't activated; they will automatically interrupt headphone source monitoring), the TB output, and the COMM input, if one is used in your installation. Check any external logic and machine control functions.

This completes the R-10 console installation.

R-10 CONSOLE MAIN PRINTED CIRCUIT BOARD
RH end showing typical 12-pin connectors

Connectors 8, 9 and 10 are for the last 3 input modules of the console. Connector 14 ("MSTR") is for the O-10 Master Output Module, and Connectors 12 and 25 ("CR") are for the CR-10 Control Room Monitor Module. "U1" is the console's on-air tally opto-isolator circuit. Note connectors 1 thru 7 (not shown) are identical to CT-8, CT-9 and CT-10.

I/O CONNECTOR PIN NUMBER	MODULE				
	MM-10	**SL-10**	**O-10**	**CR-10**	
	CT1 THRU 10		CT11	CT12	CT25
1	MIC IN SH	LT IN SH	AUD OUT LT SH	CR OUT LT SH	SHIELD
2	MIC IN LO	LT IN LO	AUD OUT LT LO	CR OUT LT LO	ON-AIR TALLY EMITTER
3	MIC IN HI	LT IN HI	AUD OUT LT HI	CR OUT LT HI	ON-AIR TALLY COLLECTOR
4	INS OUT SH	RT IN SH	AUD OUT RT SH	CR OUT RT SH	COMM IN SH
5	INS OUT LO	RT IN LO	AUD OUT RT LO	CR OUT RT LO	COMM IN LO
6	INS OUT HI	RT IN HI	AUD OUT RT HI	CR OUT RT HI	COMM IN HI
7	INS IN SH	START SW	PGM OUT LT SH	EXT IN LT SH	TB SW SHIELD
8	INS IN LO	LAMP COMMON	PGM OUT LT LO	EXT IN LT LO	TB SW N.O.
9	INS IN HI	STOP SW	PGM OUT LT HI	EXT IN LT HI	TB SW COM
10	N/C	START/STOP COMMON	PGM OUT RT SH	EXT IN RT SH	TB OUT SH
11	N/C	STOP LAMP	PGM OUT RT LO	EXT IN RT LO	TB OUT LO
12	N/C	START LAMP	PGM OUT RT HI	EXT IN RT HI	TB OUT HI

R-10 CONSOLE I/O PINOUT SUMMARY TABLE

Line Selector Module Pinouts

Key diagram showing back of typical 12-pin I/O connector plug, with pin numbers oriented as they would be seen while wiring. Beveled corners correspond to PCB mounted mating sockets.

```
③ ② ①
⑥ ⑤ ④
⑨ ⑧ ⑦
⑫ ⑪ ⑩
```
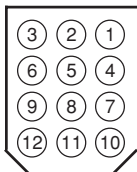
Line Preselector Inputs 1 & 2

(CT3, LS-50 load sheet dwg)

Pin 1 - LINE 2 LEFT INPUT, SHIELD
Pin 2 - LINE 2 LEFT INPUT, LOW
Pin 3 - LINE 2 LEFT INPUT, HIGH
Pin 4 - LINE 2 RIGHT INPUT, SHIELD
Pin 5 - LINE 2 RIGHT INPUT, LOW
Pin 6 - LINE 2 RIGHT INPUT, HIGH
Pin 7 - LINE 1 LEFT INPUT, SHIELD
Pin 8 - LINE 1 LEFT INPUT, LOW
Pin 9 - LINE 1 LEFT INPUT, HIGH
Pin 10 - LINE 1 RIGHT INPUT, SHIELD
Pin 11 - LINE 1 RIGHT INPUT, LOW
Pin 12 - LINE 1 RIGHT INPUT, HIGH

Line Preselector Inputs 3 & 4

(CT2, LS-50 load sheet dwg)

Pin 1 - LINE 4 LEFT INPUT, SHIELD
Pin 2 - LINE 4 LEFT INPUT, LOW
Pin 3 - LINE 4 LEFT INPUT, HIGH
Pin 4 - LINE 4 RIGHT INPUT, SHIELD
Pin 5 - LINE 4 RIGHT INPUT, LOW
Pin 6 - LINE 4 RIGHT INPUT, HIGH
Pin 7 - LINE 3 LEFT INPUT, SHIELD
Pin 8 - LINE 3 LEFT INPUT, LOW
Pin 9 - LINE 3 LEFT INPUT, HIGH
Pin 10 - LINE 3 RIGHT INPUT, SHIELD
Pin 11 - LINE 3 RIGHT INPUT, LOW
Pin 12 - LINE 3 RIGHT INPUT, HIGH

Line Preselector Inputs 5 & 6

(CT1, LS-50 load sheet dwg)

Pin 1 - LINE 6 LEFT INPUT, SHIELD
Pin 2 - LINE 6 LEFT INPUT, LOW
Pin 3 - LINE 6 LEFT INPUT, HIGH
Pin 4 - LINE 6 RIGHT INPUT, SHIELD
Pin 5 - LINE 6 RIGHT INPUT, LOW
Pin 6 - LINE 6 RIGHT INPUT, HIGH
Pin 7 - LINE 5 LEFT INPUT, SHIELD
Pin 8 - LINE 5 LEFT INPUT, LOW
Pin 9 - LINE 5 LEFT INPUT, HIGH
Pin 10 - LINE 5 RIGHT INPUT, SHIELD
Pin 11 - LINE 5 RIGHT INPUT, LOW
Pin 12 - LINE 5 RIGHT INPUT, HIGH

Line Preselector Output

(CT4, LS-50 load sheet dwg)

Pin 1 - LEFT OUTPUT, SHIELD
Pin 2 - LEFT OUTPUT, LOW
Pin 3 - LEFT OUTPUT, HIGH
Pin 4 - RIGHT OUTPUT, SHIELD
Pin 5 - RIGHT OUTPUT, LOW
Pin 6 - RIGHT OUTPUT, HIGH
Pin 7 - AUDIO COMMON

Tape Remote Module Pinouts

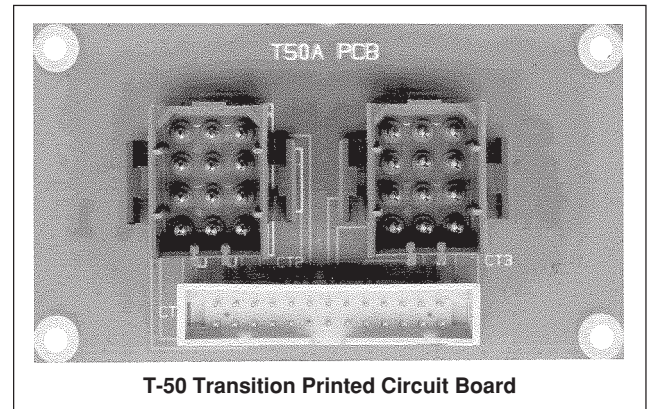## Tape Remote Switches 1-3

(CT2, T-50 Transition PCB)

Pin 1 - SWITCH 1, LED CATHODE
Pin 2 - SWITCH 2, LED CATHODE
Pin 3 - SWITCH 3, LED CATHODE
Pin 4 - SWITCH 1, LED ANODE
Pin 5 - SWITCH 2, LED ANODE
Pin 6 - SWITCH 3, LED ANODE
Pin 7 - SWITCH 1, COMMON
Pin 8 - SWITCH 2, COMMON
Pin 9 - SWITCH 3, COMMON
Pin 10 - SWITCH 1, NORMALLY OPEN
Pin 11 - SWITCH 2, NORMALLY OPEN
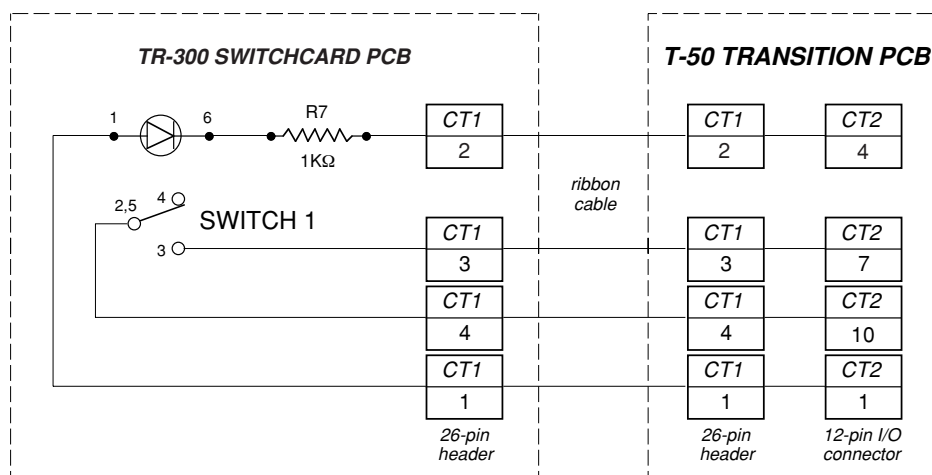Pin 12 - SWITCH 3, NORMALLY OPEN
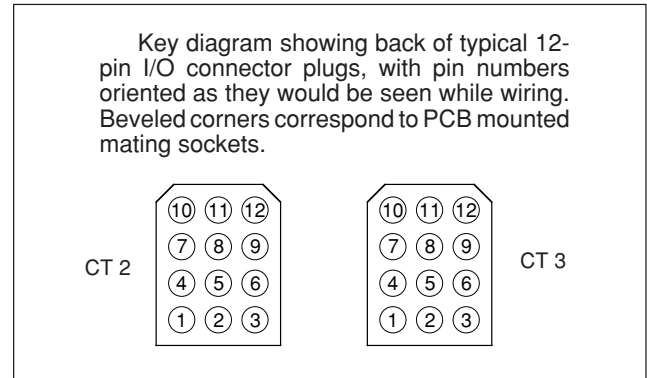
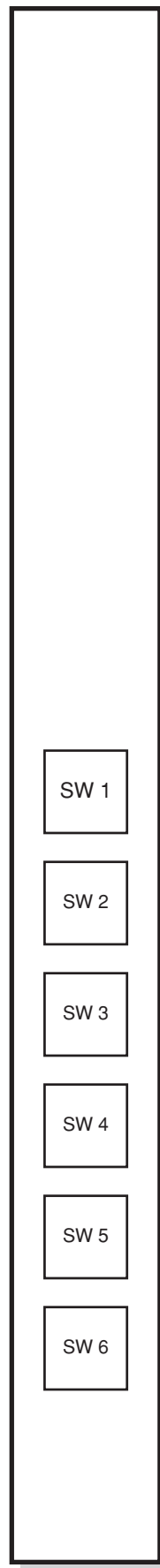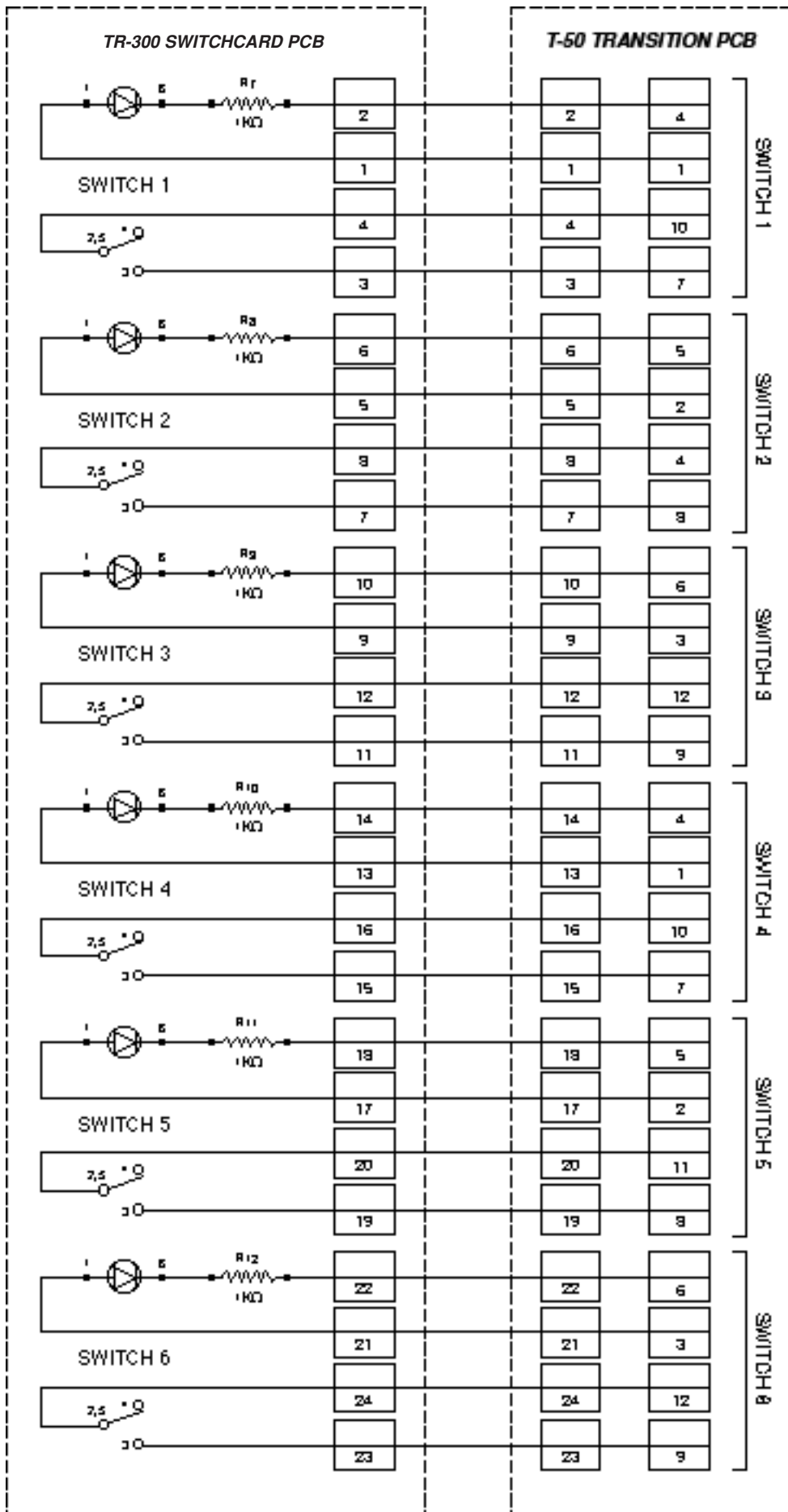## Tape Remote Switches 4-6

(CT3, T-50 Transition PCB)

Pin 1 - SWITCH 4, LED CATHODE
Pin 2 - SWITCH 5, LED CATHODE
Pin 3 - SWITCH 6, LED CATHODE
Pin 4 - SWITCH 4, LED ANODE
Pin 5 - SWITCH 5, LED ANODE
Pin 6 - SWITCH 6, LED ANODE
Pin 7 - SWITCH 4, COMMON
Pin 8 - SWITCH 5, COMMON
Pin 9 - SWITCH 6, COMMON
Pin 10 - SWITCH 4, NORMALLY OPEN
Pin 11 - SWITCH 5, NORMALLY OPEN
Pin 12 - SWITCH 6, NORMALLY OPEN

Key diagram showing back of typical 12-pin I/O connector plugs, with pin numbers oriented as they would be seen while wiring. Beveled corners correspond to PCB mounted mating sockets.

T-50 Transition Printed Circuit Board

26-pin header ("CT1") on T-50A PCB (mounted on bottom of mainframe at righthand end) accepts ribbon cable connector from TR-300 tape remote module PCB (mounted on module).

TYPICAL CIRCUIT – #1 of 6 shown

TR-300 SWITCHCARD PCB

T-50 TRANSITION PCB

SWITCH 1
SWITCH 2
SWITCH 3
SWITCH 4
SWITCH 5
SWITCH 6

TAPE REMOTE MODULE

SW 1
SW 2
SW 3
SW 4
SW 5
SW 6

SL-10 START/STOP SWITCH INDICATOR LAMPS

R-10/16 console SL-10 stereo line input module START/STOP switches are designed to operate as tallyback indicators from the remote source machines that they control. This means the indicator lamps in the switches are energized by the external machines themselves.

Eight lamp bulbs are included with your R-10 console for use in those SL-10 modules requiring a tallyback function. Note these lamps need +5VDC from the external source machine to light up; they will each draw about 60mA from that source.

The lamps may be installed by simply removing the lens cap from the associated START or STOP switches (lift directly up on the cap; it will snap out) and installing the bulb into the switch lamp socket.

The lamp connections are made via individual module 12-pin I/O connectors:

I/O PIN #	FUNCTION	CONNECT TO
8	COMMON	+5VDC
12	ON TALLY ("START")	REMOTE "ON" LAMP
11	OFF TALLY ("STOP")	REMOTE "OFF" LAMP

Key diagram showing back of typical 12-pin I/O connector plug, with pin numbers oriented as they would be seen while wiring. Beveled corners correspond to PCB mounted mating sockets.
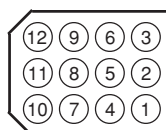
Additional indicator lamps are available from Audioarts if required. Consult factory (tel 315-455-7740; fax 315-454-8104) for details.

BALANCED & UNBALANCED R-10 CONSOLE CONNECTIONS

CONSOLE INPUT

Balanced Source Output

RED

BLK

SHIELD

BALANCED INPUT

R-10 CONSOLE INPUTS

Unbalanced Source Output

RED

BLK

SHIELD

UNBALANCED INPUT

CONSOLE INPUT

Tie low (black) and shield together at source end

CONSOLE OUTPUT

SSM 2142

H

L

SH

BALANCED OUTPUT

R-10 CONSOLE OUTPUTS

CONSOLE OUTPUT

SSM 2142

H

L

SH

+

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UNBALANCED OUTPUT