

RADIO MIXING BOARDS:

Each channel has an individual **volume** control. A **Master volume** controls the overall level of all the channels. **VU meters** visually monitor signal levels.

Input Sources:

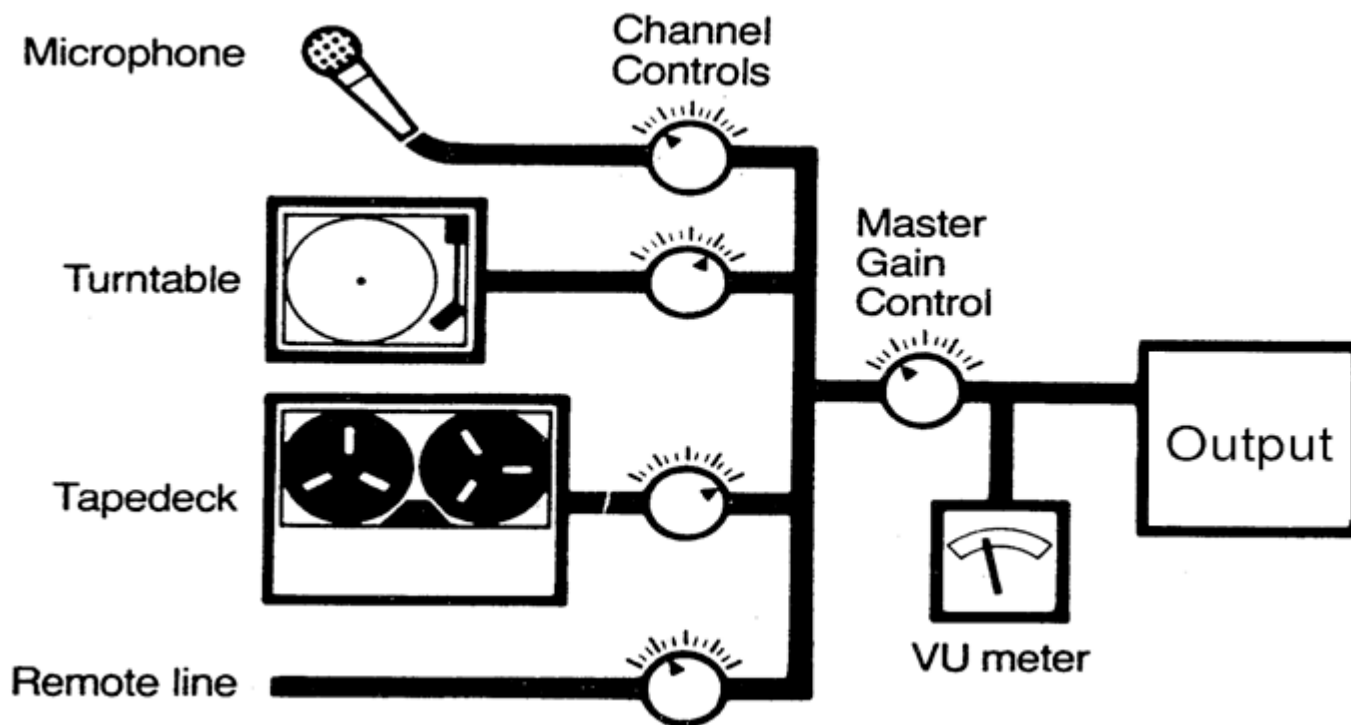
- a. Microphones
- b. Turntables
- c. CD/DAT/MP3
- d. RR /cassette

Output Paths:

- a. Monitor speakers
- b. Cue / Audition
- c. Program "Over Air"
- d. Other device inputs

To activate a channel:

1. Select an **Input** source
2. Select an **Output** path
3. Turn channel **ON**
4. Set **Volume** level



RECORDING AUDIO LEVELS:

- **ANALOG RECORDING RULE**: Always try to get as **hot** a signal as possible, without distortion or exceeding the “0” **VU** level on the meter. If you exceed the “0” **VU** limit, analog is **forgiving** (it averages signal input levels).
- The goal on a **VU meter** is always try to get “as **close to red** without going **over** like “**The Price is Right**”
- Avoid signals “**running in the red**” (too hot!)
- Avoid signals “**running in the mud**” (too low!)
- Experiment to find a happy medium between the two.
- The same applies for **LED's** - try not to exceed the “0” **VU** level indication mark. **Red LED's** indicate **peak** levels
- **Analog** is a copy. **Digital** is a clone (**binary zeros and ones: 0000011**).
- **DIGITAL RECORDING RULE**: Never exceed “0” **VU**. The signal will **clip** (cut-off the top end of a waveform) and is sonically **unforgiving**. Set the level to allow for sufficient **headroom** and to avoid clipping.
- “0” **VU** on the mixing board is referenced (preset) to the computer’s audio inputs at **-18dBfs** (decibels at full scale). This allows 18dB of headroom before clipping.

BROADCAST AUDIO CORPORATION (6) Channel Mixer

- Each channel has **Input & Output** select switches, a channel volume **fader** and an **On/Off** switch. **Pan** control (L&R spatial reference) is located at the base of the **fader**.
- **Inputs** are your sound sources (turntable, cassette, microphone, CD player, mp3 player) and are labeled next to each button.
- **Outputs** are where you send your signal to (program, audition, or cue). Radio mixing boards generally have three output selections:
- **PGM** – (program) the signal is sent (out) “live” over the air (to broadcast)
- **AUDITION** – the signal is sent (out) to hi-fidelity speakers allowing better cueing sound quality. “Audition” can also be used for production work while broadcasting “live.”
- **CUE** – the signal is sent (out) to small, low-fidelity board speakers and is used as a quick source reference.
- The **Output** switches: **PGM**, **MONO**, and **CUE** are active. **Audition** and **Utility** switches are not. To engage the **CUE** function, slide the **fader** down until you hear it “click.”

BROADCAST AUDIO CORPORATION

(6) Channel Mixer

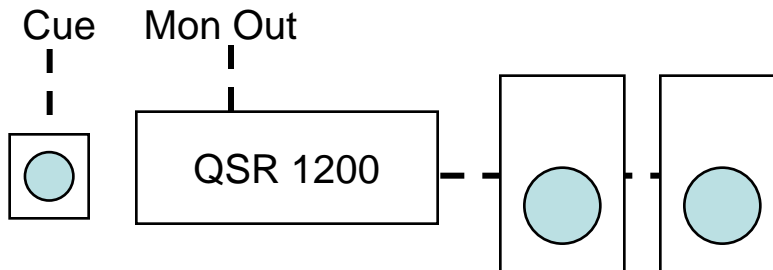
INPUT selections are **hard-wired** directly to their source:

- Channel-1 = **(A) microphone**
 - Channel-2 = **(B) cassette deck**
 - Channel-3 = **(A) CD-1, (B) TT-1**
 - Channel-4 = **(A) CD-2, (B) TT-2**
 - Channel-5 = **(A) VCR (B) PC**
 - Channel-6 = **(A) RR**
- To activate a channel**
1. Select the **input** source
 2. Select an **output** path
 3. Turn channel switch **ON**
 4. Set **volume** to **-60dB**
- The left pair of **VU meters** is used for **stereo**, while the right **VU meter** is used for **mono** source monitoring. Both can work independently.
 - The switches and volume dials in between, control **Output** and **headphone** source options (**PGM-Mono-Cue**). **Aux** is not used.
 - Source options for **Mono** are located to the right of the **Mono VU meter**.

Broadcast Audio System 6-IV



Room: MU116



RAMKO RESEARCH (Model xL41s),

(4) Channel Mixer

- Ramko uses **LED's** (Light Emitting Diodes) instead of **VU meters** to monitor signal strength. **Green** indicate low to normal signal levels, **yellow** indicates somewhat stronger signals and **red** indicates signal peaks (too hot).
- Uses **rotary dials** instead of faders:
- Channels 1 through 3 have two **INPUT** source select switches: **(A)** or **(B)**. Channel-4 has one input on **(A)** and **eight** input sources tied to **(B)**.
- Below the input switch is the channel **On/Off** switch.
- To use the **Cue** function, turn the dial counter-clockwise until it “clicks.”
- The **power** switch for board is located top, upper right – across from LED displays. It also controls **Cue** volume. The **Cue speaker** is mounted behind the **On-Off / volume** dial.

INPUT selections are **hard-wired** directly to their source:

Channel-1 **(A)** mic. **(B)** unused

Channel-2 **(A)** TT-1 **(B)** CD-1

Channel-3 **(A)** TT-2 **(B)** CD-2

Channel-4 **(A)** PC **(B)** tied to [1] cassette [2] VCR [3] RR2 [4-8] unused

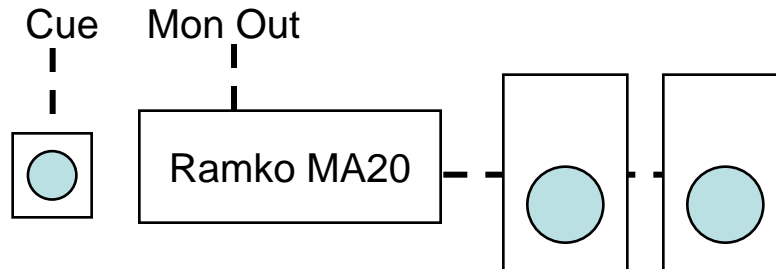
OUTPUT selections are made using the rotary dial mounted on the upper right-hand side of the board. Volume control for board output is below.

- The board **On/Off** switch is located above the output control section.
- Headphone monitoring & volume is located beneath the OUTPUT section.
- A ¼” female **phone** jack is mounted in the RT front corner for headphone use.

Ramko Research xL41S



Room: MU117-118

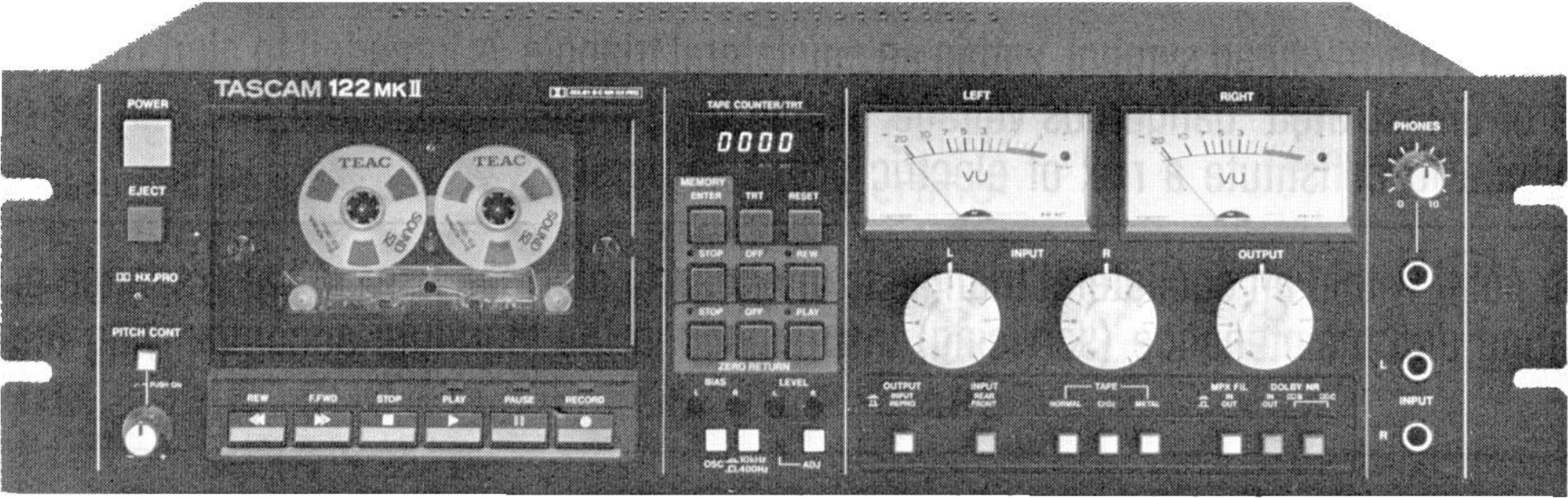


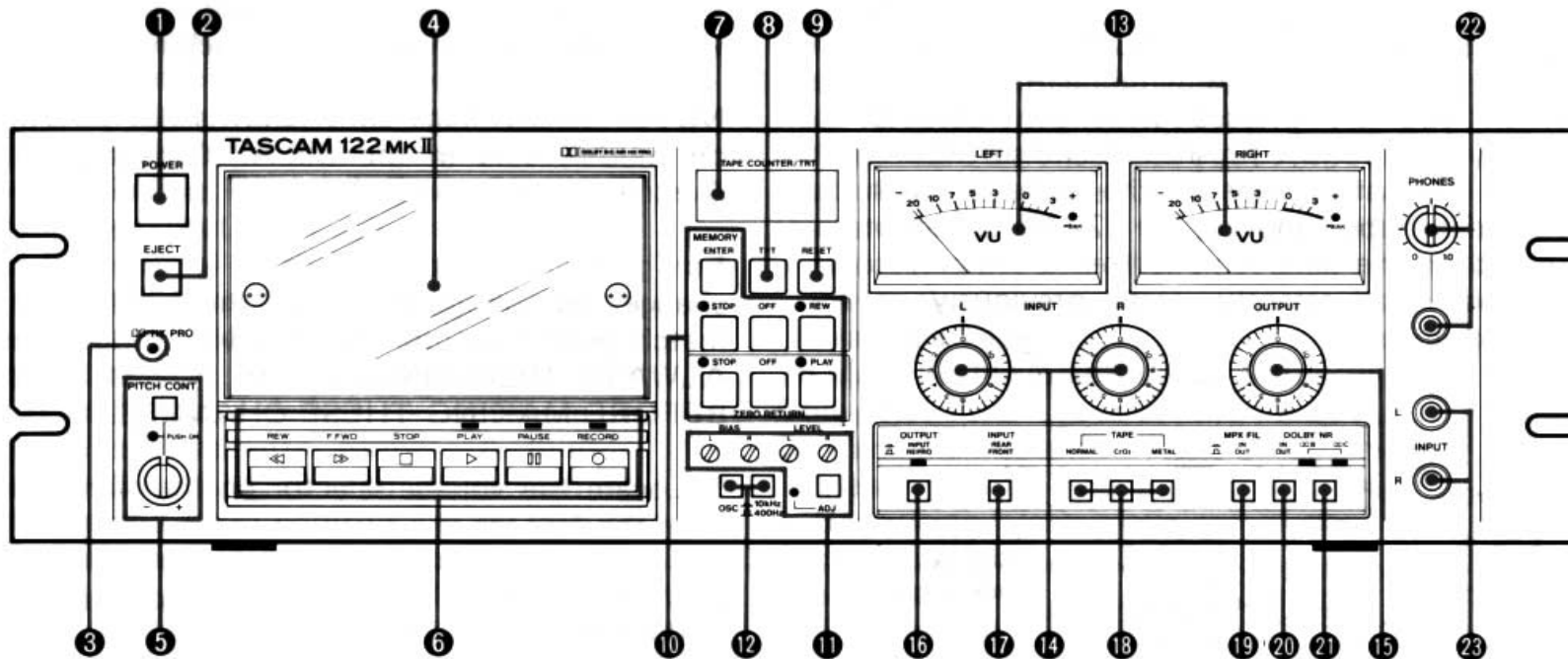
TASCAM Cassette Recorder / Player [Model 122Mk-II]

Operation:

- Turn **Power ON**.
- Press **Eject** button under **Power** switch to load tape.
- Press **Reset** button to set counter to "0."
- Make sure **Pitch Control** switch is **OFF**.
- **Transport controls** are located underneath cassette bay (**Rewind-Fast Forward-Stop-Play-Pause-Record**)
- **Yellow** buttons (bottom right) select tape type.
- **Green** buttons select Dolby NR (type B or C).
- Press **Output** switch **IN** for **Input/Record** or leave switch **OUT** to **Repro/Play**.
- Press the **Input** source switch **In** to select the hard-wired connection to the mixing board (**Rear**). Leaving the switch **Out** selects (**Front**) which allows access to a set of auxiliary **1/4" input** jacks.
- Press **Rec & Pause** buttons together to enter **Record mode** (used to set input gain levels).
- Set **Input Gain** controls between 6 and 7.5.
- Press **Play** to roll tape and begin recording.
- Press **Stop**, then **Rewind** to review recording.
- Make sure you release the **Output** switch (out) to **Repro**.
- Set playback **Output Gain** between 6 and 7.5.

TASCAM Cassette Recorder / Player Model 122Mk-II





TASCAM 122 MK II CASSETTE TAPE RECORDER

- | | |
|------------------------------------|-----------------------------------|
| 1. Power button | 13. VU meters |
| 2. Eject button | 14. Input level controls |
| 3. Pitch control LED | 15. Output level control |
| 4. Transport window | 16. OUTPUT (Input / Repro) |
| 5. Pitch controls | 17. INPUT (rear / front) |
| 6. Transport controls | 18. Tape bias (normal-CrOx-metal) |
| 7. Counter LED window | 19. MPX (in / out) |
| 8. Counter function button | 20. Dolby NR (in / out) |
| 9. Counter Reset button | 21. Dolby (type B & C) |
| 10. Counter programming | 22. Phones (volume & 1/4" input) |
| 11. Bias & level controls | 23. INPUT (1/4" L & R) |
| 12. Oscillator (1kHz / 400Hz tone) | |

Tascam CD 401 CD Player

- Open transport (with **open /close** switch)
- Place CD in tray
- Use keypad to select track:
- Press **+10** to sequentially step through higher digits (i.e. 10 - 20 - 30)
- Press "**Pause**" to put selection in "**standby**"
- Press "**On**" to play
- On audio mixer select either **CD-1** or **CD-2**
- Set board channel output to **PGM** (RM 116 only)
- Set channel fader / dial to 60%.
- Turn board channel **ON**
- Always check volume levels before recording.

Technics Direct-Drive Turntable Model SL 1200 Mk2

Components:

- Pitch adjustment - set to middle position (2 | 2)
- Speed set either at 33 or 45 Rpm
- Power Switch (stays on)
- Tone Arm w/needle (transducer) - be gentle!
- **Cue** disk by placing tone arm in the guard band of the selected track.
- Press **Play** and listen until you hear the first note / sound. Press **Stop**.
- Manually rotate the disk with you hand counter-clockwise about 1/4 turn (prevents WOW).
- On audio mixer select either **TT-1** or **TT-2**
- Set board output to **PGM**
- Set channel fader / dial to 60%.
- Turn board channel **ON**.
- Press **Play**.
- Always check volume levels before recording

DEMAG (Erasing a tape)

- Rewind tape to one side of take-up reel
- Hold "Demag" device a few inches from the tape
- Press button on device while rotating in a circular fashion over the tape (Do Not Release the Button).
- Repeat procedure on other side
- Slowly pull device away from tape (about 12 inches) and then release the "On" button (this avoids introducing clicks to the tape).