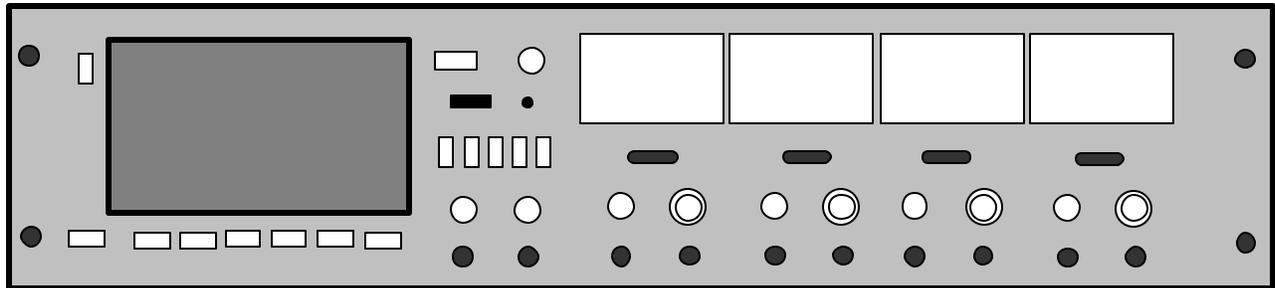
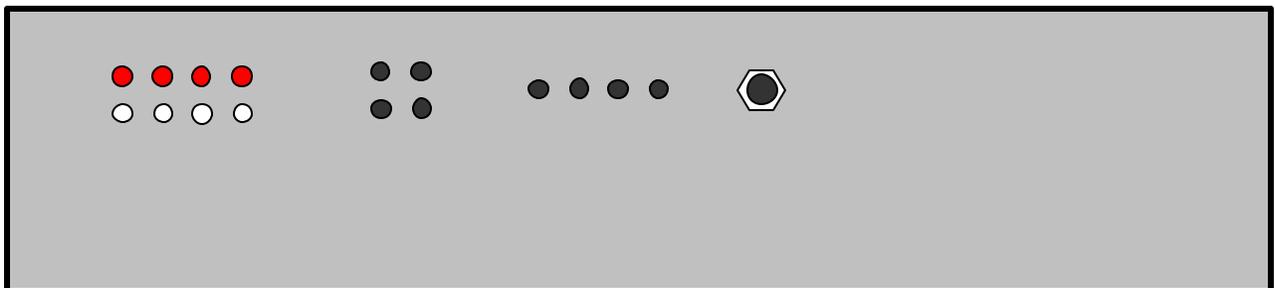


# ARIA STUDIOTRACK III R504

4-Channel Multi-Track Recorder



Front Panel



Rear Panel

The ARIA STUDIOTRACK III 504 is a high-quality multi-track cassette recorder capable of producing professional musical recordings and demo tapes. It is recommended for rack-mounting in a standard 18" equipment rack, or can be used as a stand-alone unit on a desktop.

All user inputs and control surfaces are on the front of the unit, providing easy access while recording. Standard ¼" jacks are used for inputs and headphones. Multiple RCA outputs on the rear of the unit allow for mix monitoring, separate track monitoring, effects loops and master mixes. A footswitch jack is provided for punch-in recording.

Each channel has an individual VU Meter to monitor recording and playback levels, reducing the possibility of distortion during tracking. A pitch knob adjusts the speed of pre-recorded material to match the tuning of different instruments.

Recorded channels can be "bounced" to other tracks, allowing more than four tracks to be recorded in a single mix. Individual or multiple tracks can be monitored "solo" to listen to a performance without background instruments.

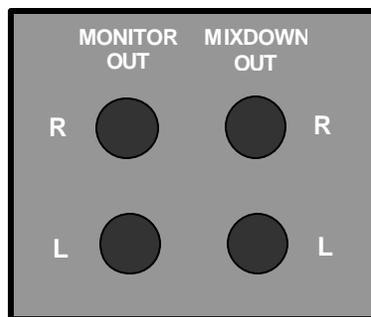
# ARIA STUDIOTRACK III R504

4-Channel Multi-Track Recorder

## Setup Connections

The Aria Studiobook III R504 is designed to be rack-mounted in a standard 18" rack. The unit requires 110V AC power. Make all audio connections before applying power to the unit.

## Monitor and Mix Connections

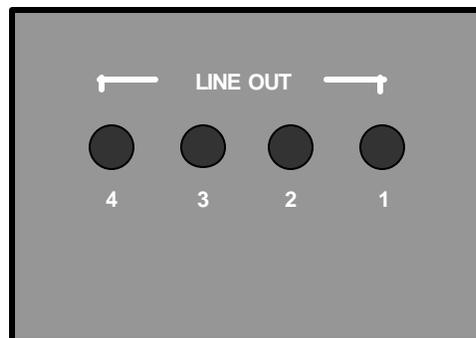


**MONITOR and MIX Connections**

Connect MONITOR OUT to a local monitoring system or power amplifier for monitoring playback during recording. MONITOR OUT is an optional connection.

Connect MIXDOWN OUT to a final recording device such as a computer, MiniDisc recorder, or tape recorder.

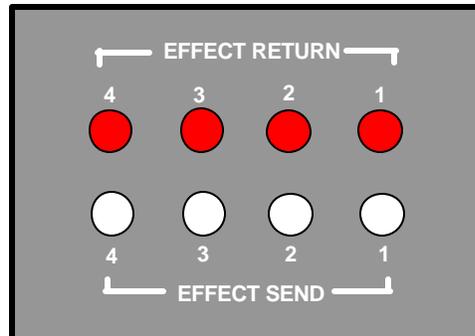
## Line Out Connections



The LINE OUT connections provide an RCA line-level output for each channel. These are useful if you want to output each channel separately, instead of outputting a stereo mix.

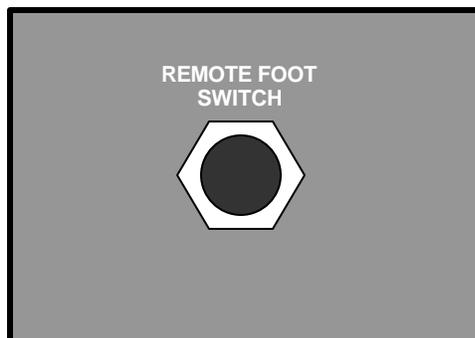
# ARIA STUDIOTRACK III R504

## 4-Channel Multi-Track Recorder



**Effects Loop Connections**

The EFFECT RETURN and EFFECT SEND connections are normally connected. The unit ships with normally closed “U-Joint” connections. To use outboard effects such as reverb, compression or delay, remove the “U-Joint” connection, and connect the EFFECT SEND to the input of the effect. Then return the signal from the effect to the EFFECT RETURN.



**Foot Switch Connection**

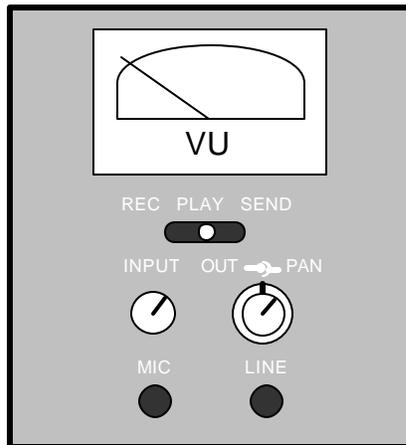
The Remote Foot Switch is a ¼” connection designed for “punch-in” during recording. The connection is for a momentary contact, normally open switch. When closed, this switch activates the record function of the unit, and begins recording on all channels that are in record mode.

When all audio connections are made, plug the unit into a standard wall socket or filtered power connection.

# ARIA STUDIOTRACK III R504

4-Channel Multi-Track Recorder

## Front Panel Connections



Each channel has Front Panel connections which are designed to be easy to view and access.

The VU Meter displays input and playback levels.

The **REC PLAY SEND** switch chooses the function of each channel:

- **REC** arms the channel for recording. When record is pressed, or punched-in from the foot switch, this channel will begin to record.
- **PLAY** disarms the channel for recording, and monitors playback. When in this mode, the channel can not be recorded over. **When in PLAY mode, the recording on that channel is safe. It will not be recorded over when recording other tracks.**
- **SEND** routes the channel for bouncing tracks to a different channel.

The **OUT-PAN** knob is two controls in one. The middle knob is the output level for mixdown or playback during recording. The outer knob pans the channel to the left or right.

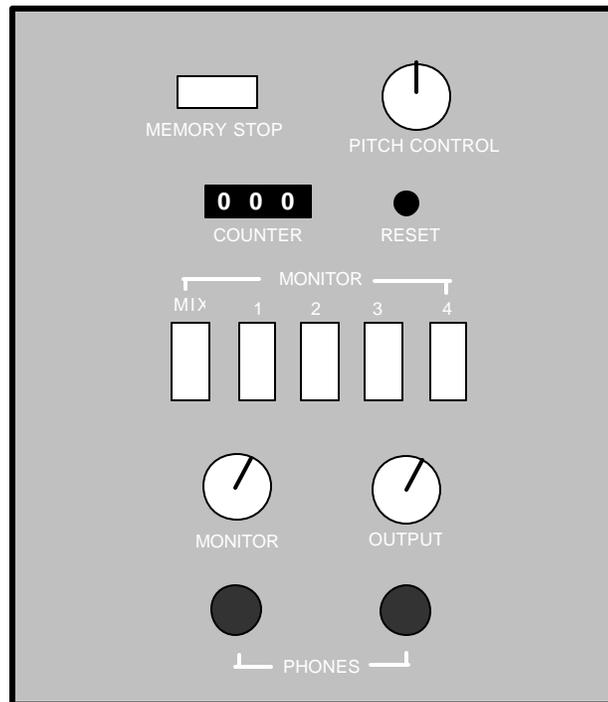
Each channel provides a ¼" unbalanced line-level (guitar or bass) input and a ¼" mic-level input. Connect microphones to the **MIC** input, and line-level signals to the **LINE** Input. Never connect a line-level input to the **MIC** input, as distortion may occur.

Adjust the input volume by applying a signal (playing your instrument or talking into your microphone) and turning the **INPUT** knob until the VU meter begins to bounce around. Levels in the red zone are subject to distortion, so it is good to have the average needle position somewhere in the middle.

# ARIA STUDIOTRACK III R504

4-Channel Multi-Track Recorder

## Monitoring and Output Controls



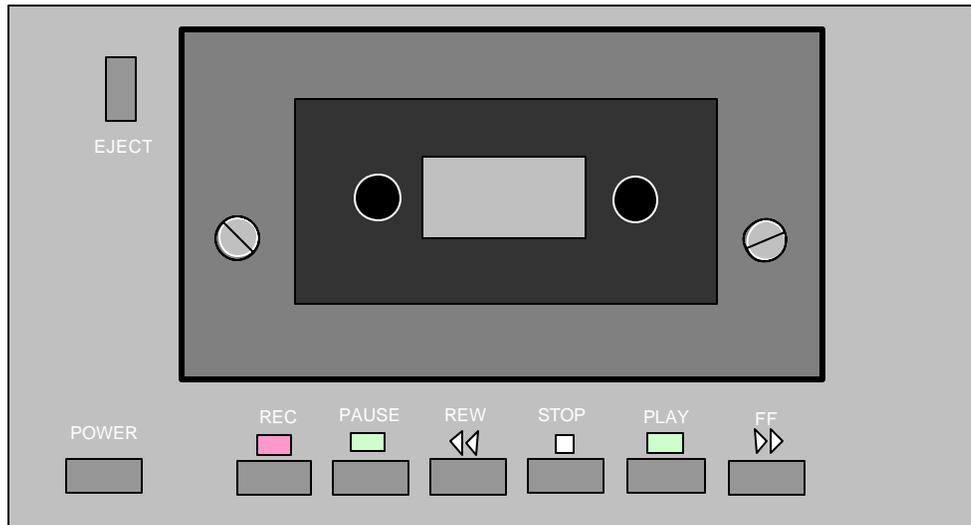
The monitoring and output control section determines what you hear during playback, and how loud the volume is. This section also includes controls for pitch and counter.

- **PITCH CONTROL** changes the speed of the tape to adjust for minor pitch corrections of different instruments.
- **COUNTER** shows the position of the tape.
- **RESET** returns the counter to 000.
- **MEMORY STOP** causes the rewind function to stop at 000, and not continue rewinding to the beginning of the tape.
- The 4 **MONITOR** buttons choose which channel(s) you are monitoring, or choose the **MIX** button to hear all channels.
- The **MONITOR** knob adjusts the volume of the headphone monitoring.
- The **OUTPUT** knob adjusts the volume of the **MIX OUT** on the back of the unit.
- The **PHONES** jacks are two stereo headphone outputs for individual monitoring.

# ARIA STUDIOTRACK III R504

4-Channel Multi-Track Recorder

## Tape Transport Section



The Tape Transport section controls playback and recording of the tape, and power to the unit. It uses standard transport buttons :

- **POWER** turns on AC power to the unit
- **EJECT** ejects the tape. EJECT will not function while the tape is moving.
- **STOP** stops the tape transport, including playback and recording.
- **REW** rewinds the tape. If **MEMORY STOP** is enabled, the tape will stop rewinding at 000.
- **FF** fast-forwards the tape.
- **PAUSE** releases the tape transport for playback or recording. Releasing the **PAUSE** button when the recorder is armed for recording begins the recording.
- **PLAY** starts playback of the tape transport. If **PAUSE** has been pressed, the transport will wait to begin playback until **PAUSE** is released.
- **REC** arms the unit for recording. When the tape is stopped, **REC** must be pressed in conjunction with **PLAY** to arm the system.
- The **FOOT SWITCH** input on the rear of the unit causes the unit to go into REC mode during playback.

# ARIA STUDIOTRACK III R504

## 4-Channel Multi-Track Recorder

### Using the Unit for Multi-Track Recording

The ARIA STUDIOTRACK III can be used to make high-quality multi-track recordings.

#### Example 1, Simultaneously record 3 tracks at once

Input a Drum Machine to Channel 1

Input a Bass Player to Channel 2

Input a Guitar Player to Channel 3

Set the input switch on channels 1, 2, and 3 to **REC**

Set the input switch on channel 4 to **PLAY**

Set the levels on tracks 1, 2, and 3 by playing the instrument, and turning the input knob so that the VU meter is at an acceptable level.

Reset the tape counter to 000 by pressing **RESET**

Place the unit in memory stop mode, by pressing the **MEMORY STOP** button.

Press **PAUSE**

Simultaneously press **REC** and **PLAY**.

The **REC** and **PLAY** buttons illuminate, and the unit is armed for recording, but does not start.

Connect stereo headphones to the two headphone jacks, and adjust the volume to a comfortable level by using the **MONITOR** knob.

When you are ready to record, press the **PAUSE** button. The tape mechanism begins. Wait to begin playing, leaving room for the un-recordable tape leader at the beginning of the tape.

Press the **RESET** button just before you begin to play your song.

Begin playing your song. The unit will record each track separately.

When you are finished playing, press **STOP** to stop the tape mechanism.

Press **REW**, and the tape will rewind to 000 (in memory stop mode)

Switch channels 1, 2, and 3 to **PLAY** mode, then press **PLAY** to hear the playback. Adjust the mix by turning the **OUTPUT** knobs on each track. For a stereo effect, pan each channel left or right using the **PAN** knobs.

# ARIA STUDIOTRACK III R504

## 4-Channel Multi-Track Recorder

### **Example 2**, Bounce 3 tracks to one track

Record a song as in Example 1, leaving track 4 unrecorded.

Press **STOP**, then **REW** to return the tape to the beginning of the song.

Press **PLAY** on the tape transport to start playback.

Use the **OUTPUT** knobs of each channel to get a good mix. Set **PAN** controls to center.

NOTE: Each channel is a MONO channel. Therefore **PAN** controls should be set to the center when bouncing tracks.

Switch channels 1, 2, and 3 to **SEND**, and switch channel 4 to **REC**

(You will be **SEND**ing the 3 channels to be **REC**orded on Track 4)

When you are ready to bounce tracks, press **PAUSE**, then simultaneously press **REC** and **PLAY** on the tape transport. To start recording, press **PAUSE** again. Monitor the recording with headphones

Wait until the song finishes, and rewind the tape.

Switch channel 4 into **PLAY** mode, and press the **MONITOR** button for track 4. This puts track 4 in “Solo” mode.

(NOTE: The same function can be accomplished by turning the **OUTPUT** knob of track 4 to an acceptable level, and turning channels 1, 2, and 3 **OUTPUT** knobs all the way down to zero.)

Listen to the playback on Channel 4 to be sure the mix and pan is right. If it needs tweaking, start from the top again.

When you have bounced tracks 1, 2, and 3 over to track 4, you may record new material on tracks 1, 2, and 3. Track 4 remains as the mix of tracks 1, 2, and 3.

**Remember, switching a track to **PLAY** mode prevents that track from being recorded. It is a “safety” switch to prevent accidentally erasing the track.**

Tracks can be bounced as many times as you like. However to prevent sound degradation, it is recommended that tracks only be bounced once. In the example above, track 4 should not be sent to another track. Using this method, your 4-track recorder can produce a high-quality mix with as many as 7 different takes.

# **ARIA STUDIOTRACK III R504**

**4-Channel Multi-Track Recorder**

## **Mixing-Down Tracks to a Master Copy**

When you have recorded, bounced, mixed and panned each track, you should output the mix to a “master” recording. The master can be recorded on a Computer, MiniDisc Recorder, tape recorder, or any device which records audio.

On the rear of the unit are the MIXDOWN OUT jacks. Use these outputs to connect to your master recording device.

Be sure all tracks are in PLAY mode, and begin playback. Record the master mix with your computer or other recording device. Adjust the recording volume on the recording device, and use the OUTPUT knob on the front of the unit to control the output volume of the 4-track recorder.

With a master mix, your song can quickly be duplicated for your friends and fans, or made into a CD.