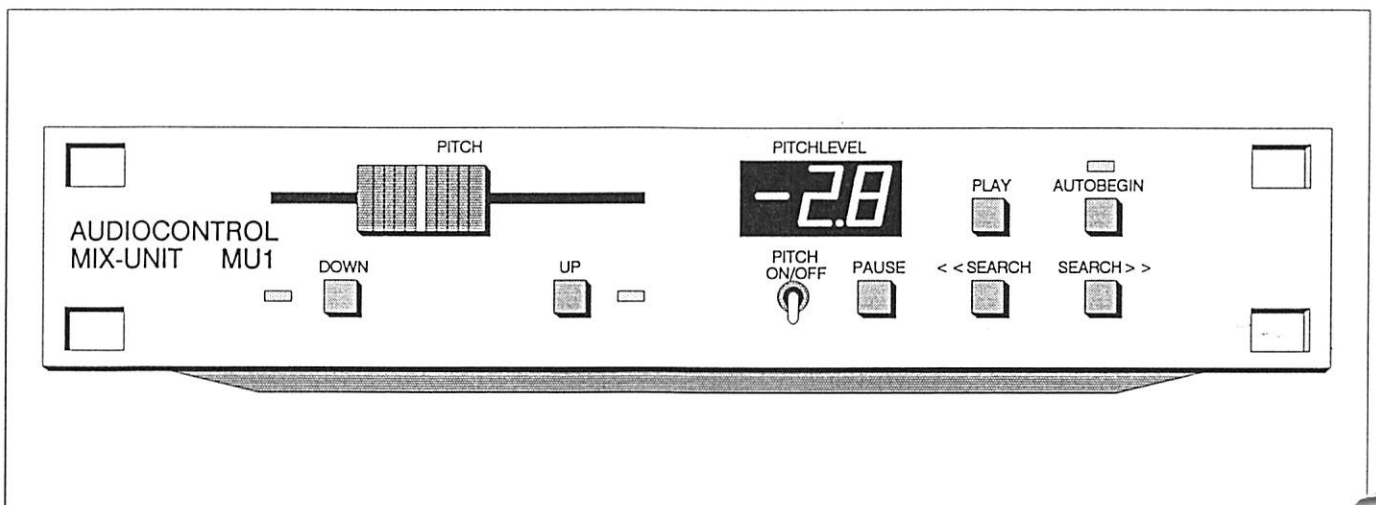


# SA / Audiocontrol MU 1

CD Mix Unit with Pitch Control

Technical Specifications



Front view of the MU 1.

## Introduction

Audiocontrol is a new company dedicated to the development and manufacturing of professional CD mixing equipment. Their products are marketed by the Stage Accompany International sales organisation.

Until recently, people behind Audiocontrol were employed as DJs/technicians. Playing CDs on existing professional CD-players they noticed that, in spite of the pitch control feature, they could not mix conveniently. The major problem was that they were not able to temporarily change the disc speed to quickly synchronise the rhythms of both tracks. With mixing however, this is absolutely necessary!

To solve this problem, the Mix Unit MU 1 was developed. As a unique feature of this device, the disc speed can be temporary highered or lowered with 2 % by means of simple UP and DOWN pushbuttons. This method operates even more convenient compared to the "handwork" method on conventional turntables!

## Description

The CD mix system comprises two parts: a modified frontloaded Philips CD Player (CD 210) and the Mix Unit MU 1, housed in a 9.5 inch enclosure. To enable to mix two CDs, two Mix Units can be easily connected to fit in a professional 19-inch rack. The unit can also be flush-mounted, for example near the mixing desk or the turntable(s).

The pitch can be controlled continuously between -7.0 % and +7.0 % using a 60 millimeter fader. Besides, the pitch can be temporary increased or decreased with 2.0 % using up/down buttons to quickly synchronise the rythms of both tracks. A pitch on/off switch can be used to bypass the pitch control. A pitch display has been provided with a readout accuracy of 0.1 %.

The autobegin function determines the modulation start of a track and can be used to play a track instantly after the push of a button. Start or cue points can be conveniently and accurately determined using the pause, play, and search functions.

The mechanical stability of the CD player is superior to most other CD players. Using the latest generation of CD player integrated circuits and mechanisms, the player provides fast access and minimal sensitivity to shocks and vibrations which is extremely important for professional use.

## Connections

The figure on the other side shows the various system parts and the connections that have to be made to have a complete system up and running: mains, audio, and control. Audio connections between the CD-players and the mixing desk are made through the unbalanced cinch or XLR output connectors. Control connections between the MU 1s and the CD-players are made through special 25-pins sub-D connectors.

- **Accurate Pitch Control**  
Variable between -7% and +7%, 0.1% accuracy
- **Speed Up/Down Buttons**  
Temporary 2% higher or lower disc speed
- **Autobegin Feature**  
Track automatic in start position and stand-by

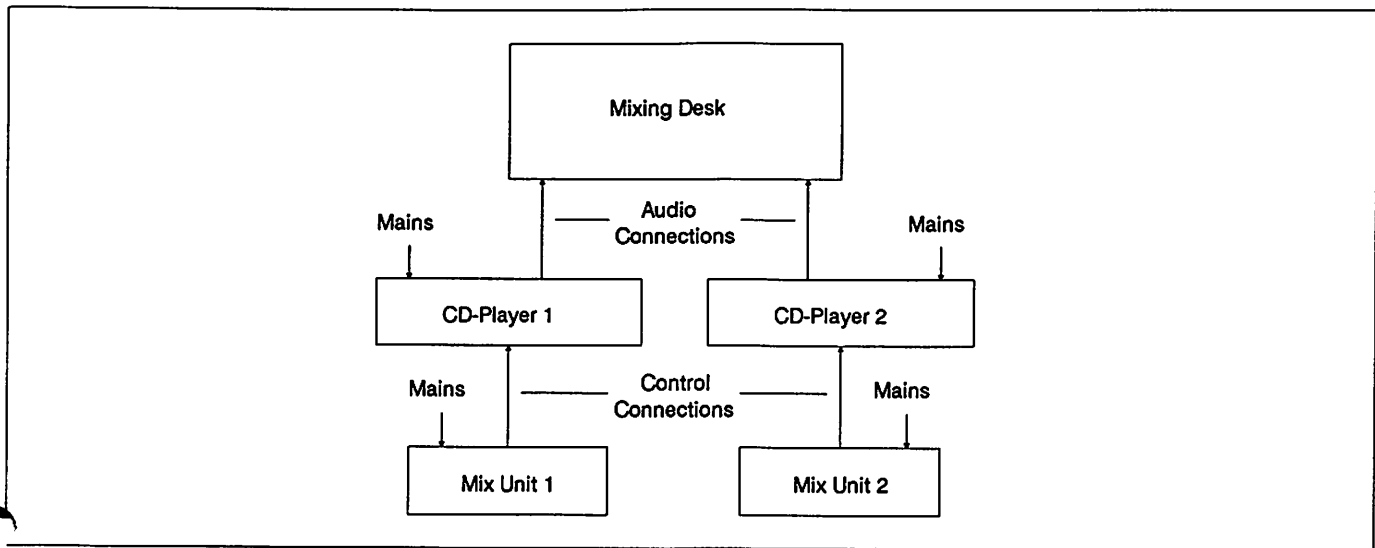


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MU 1 CD mix system block diagram with connections

## MU 1 Technical Specifications

The technical specifications of the MU 1 are as follows:

### Functions

Pitch control:	-7.0 % to +7.0 %
Pitch control accuracy:	0.1 %
Pitch readout display:	2 digits
Readout accuracy:	0.1 %
Pitch on/off:	0 position
Autobegin:	Track automatic in start position and stand-by
Up/down:	Temporary highering and lowering of speed with 2 %
Play:	Play or replay a track
Pause:	Interrupt playing a track
Search:	Search a particular passage

### Cabinet

Dimensions (h x w x d):	44 x 241 x 191 mm
Weight:	1.6 kg approx.
Housing:	9.5 inch rack mount, 1 unit high, 7.5-inch deep (19 cm)

## CD 210 Technical Specifications

The technical specifications of the CD 210 (CD-player) are as follows:

### Typical audio performance

Frequency range:	2 Hz - 20 kHz
Amplitude linearity:	+/- 0.02 dB (20 Hz - 20 kHz)
Phase linearity:	+/- 5 degrees (20 Hz - 20 kHz)
Dynamic range:	90 dB (20 Hz - 20 kHz)
Signal/noise ratio:	100 dB (20 Hz - 20 kHz)
Channel separation:	100 dB (1 kHz)
Total harmonic distortion:	0.015 % (1 kHz)
Wow and flutter:	Quartz crystal precision
D/A conversion:	Four times oversampling (176.4 kHz) with digital filter and two 16-bit D/A-converters

Audio output level: 2 Vrms

### Power supply

Power consumption:	18 W approx.
Safety requirements:	IEC 65

### Cabinet

Dimensions (h x w x d):	86 x 360 x 300 mm
Weight:	3.5 kg approx.



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