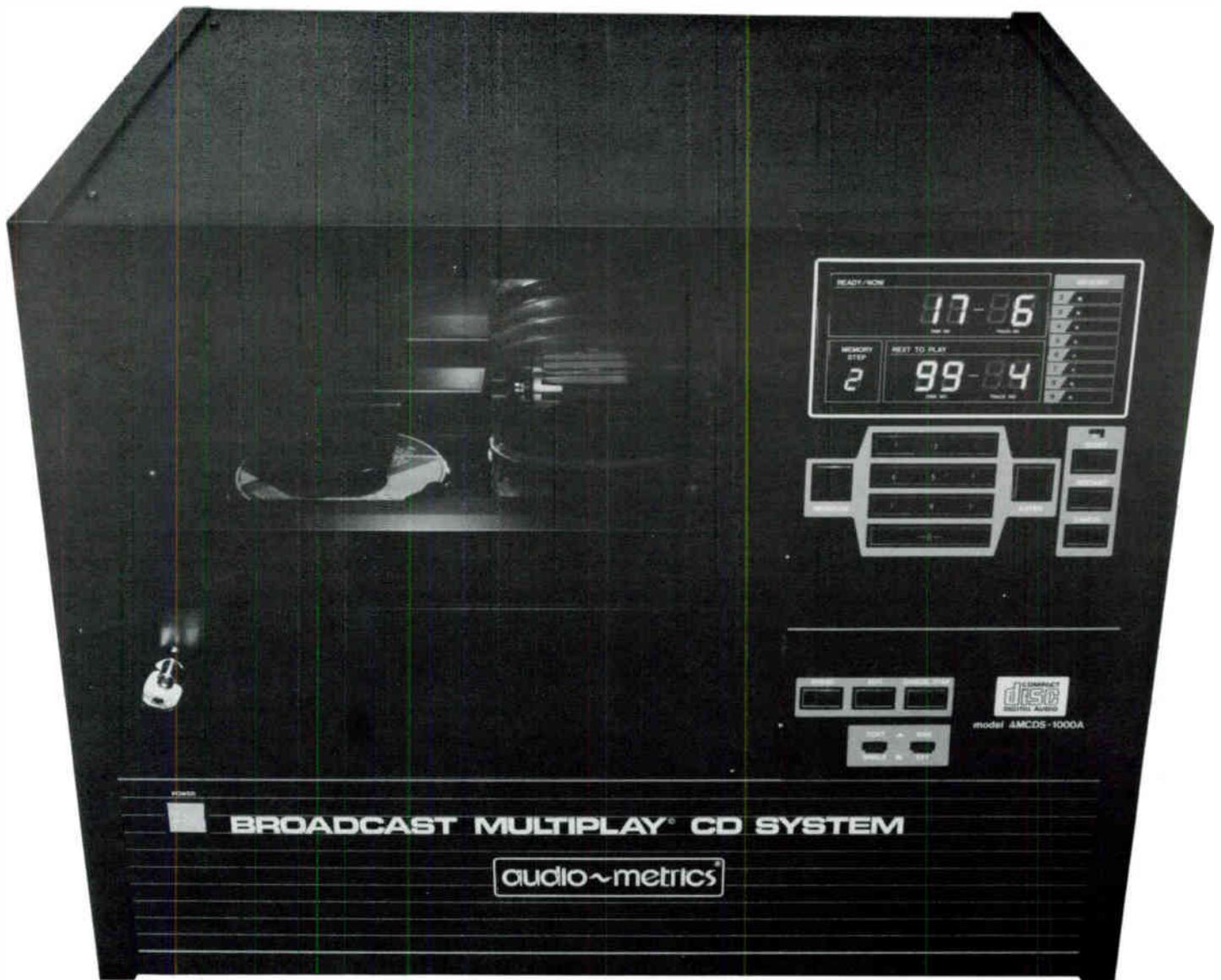# audio~metrics
AMCDS — 1000A PROGRAMMABLE CD PLAYER

- ● 100 Compact discs stored under lock and key.
- ● 1000 Songs promptly accessible in a small space.
- ● Back to back capability with 2nd player.
- ● Cues to music within 300 ms.

This unit might best be called a "Jukebox" due to its storage capabilities and mode of selection; however it is ruggedly built for commercial applications wherein continuous and trouble free use is required and demanded by broadcasters.

The model AMCDS — 1000A is equipped with a main microprocessor for system control and a sub-microprocessor for CD playback operations. The player holds 100 CDs and features automatic random access to disc and cut either through its self contained 8 step memory or by connection to an external programmer or computer.
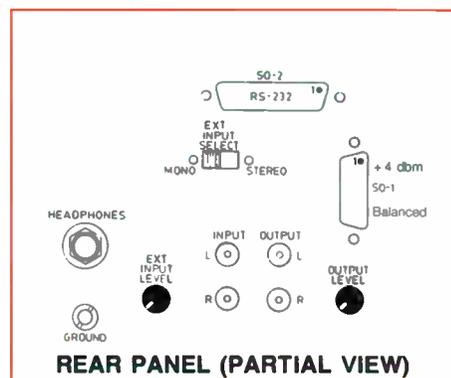
PRINTED IN U.S.A.

SPECIFICATIONS FOR AMCDS — 1000A CD MULTI-PLAY SYSTEM

Bit quantization:	16-bit, linear
Channels:	2 (stereo)
Frequency response:	20 to 20,000Hz +/− .5db
Distortion:	0.0032%
Dyamic range:	93db
S/N ratio:	96db
Channel separation:	90db
Headphone output:	28mW (16-bit maximum modulation)
Disc capacity:	100 discs
Typical Access:	28 seconds (from one disc to another)
Audio output:	10K Hi-Z adjustable to 2V RMS (RCA Jack)
	+ 4db 600 ohm balanced (15 pin Amphenol)
Cue-up to Audio:	Within 300ms
Power Requirement:	120VAC/50 to 60Hz 80 watts — 230VAC optional
Size:	22″ wide x 17½″ high x 17½″ deep
	(55.88cm x 44.45cm x 44.45cm)
Net weight:	80 pounds (36kg)
Operating modes:	AUTO or MANUAL
Front Panel Displays:	READY/NOW
	NEXT TO PLAY
	REMAINING TIME

A REMOTE CONTROL IS OPTIONALLY AVAILABLE TO CONTROL UP TO TWO AMCDS — 1000A

REAR PANEL (PARTIAL VIEW)

— — — — — — — — —

OPERATION DETAILS

The start command for the CD player comes from the optional, external programmer, via the RS-232C port. Therefore, in the AUTO mode all functions are controlled by the external programmer. The following front panel buttons on the CD player can be manually operated while in the AUTO mode: 'START', 'RESTART', 'CANCEL'. These can be used to override the programmer if required.

Also, the AMCDS — 1000A could be operated by a customer's own computer, provided the computer follows the established data flow format.

IN THE MANUAL MODE, DATA COMING UP THE RS-232C PORT WILL BE IGNORED and the CD player will operate with its front panel controls. There is an eight step internal memory which permits the user to pre-program up to 8 selections and have these selections play in sequence automatically or by starting each individual programmed cut by pushing the start button. This would permit live stations to use the CD player without an external programmer. A budget minded station could purchase a CD player, use it in a front-panel control situation and later purchase a remote control and additional CD player to complete the package for back to back operation.

THIS IS A PROFESSIONAL MACHINE, designed, built and field proven in commercial service. Over 2,000 units are in use in jukebox applications.

The software and electronic functions have been designed and specified by SMC, the largest automation manufacturer in the broadcast industry, to assure the CD player includes the features and abilities required by radio broadcasters.

— MANUAL FRONT PANEL CONTROLS —

BUTTONS/SWITCHES AND THEIR RELATED FUNCTIONS

POWER button
Power is turned on when pressed and locked into the ''in'' position

PROGRAM button
Pressed first to start programming operations

NUMBER buttons
There are ten (10) push buttons used to input program information

ENTER button
Final button to be pushed in programming after RNO & TNO are displayed

START button
In single play mode, press after green LED above button lights

PAUSE button
Pressing causes the audio to stop until start button is pushed.

CANCEL button
Puts the disc in play, back into the carousel

RESET button
Resets microprocessor in event of a ''lock up''

ERASE button
Erases the program memory, CD in play continues to end

CLEAR button
Clears display (''NEXT TO PLAY'') when operator errs in programming and then corrected programming can be re-entered

INSERT button
Used when requesting a selection to play before other programmed selections

EDIT button
Used to change the numbers ordered

CANCEL STEP button
Cancels the numbers programmed

AUTO/MANUAL select switch
1. When pushed IN — (AUTO MODE) machine will only react to data coming in from host computer via RS-232C port
2. In the OUT position (MANUAL MODE) the machine will operate to commands executed on front panel controls. Data coming up the RS-232C port will be ignored

CONT/SINGLE selection switch
1. During CONTINUOUS-PLAY operation, playback will continue as long as there are selections programmed into the unit.
2. During SINGLE-PLAY operation, programs can be selected sequentially and placed in the stand-by condition after cueing.
Playback of the selection starts when the START button is pressed.

BGM/EXT selection switch
1. During BGM operation, background music will begin automatically when all programmed selections have finished, and no new request are made.

   Discs number 0 through 99 are played in sequence, starting always from disc number 0
2. During EXT operation, EXT audio input will be played in the same manner outlined above.

NOTE: The following DISC REPLACEMENT and MANUAL OPERATION buttons are placed inside of the cabinet to prevent mal-operations.

DISC REPLACEMENT button
Discs can be replaced by using this button. When this button is pressed once, a small Red LED to the side lights up, and the unit automatically prepares itself for disc replacement operation.

When the Green LED next to the button lights, the unit is ready for disc replacement.

Use the ten-key pad to input desired disc address number (RNO).
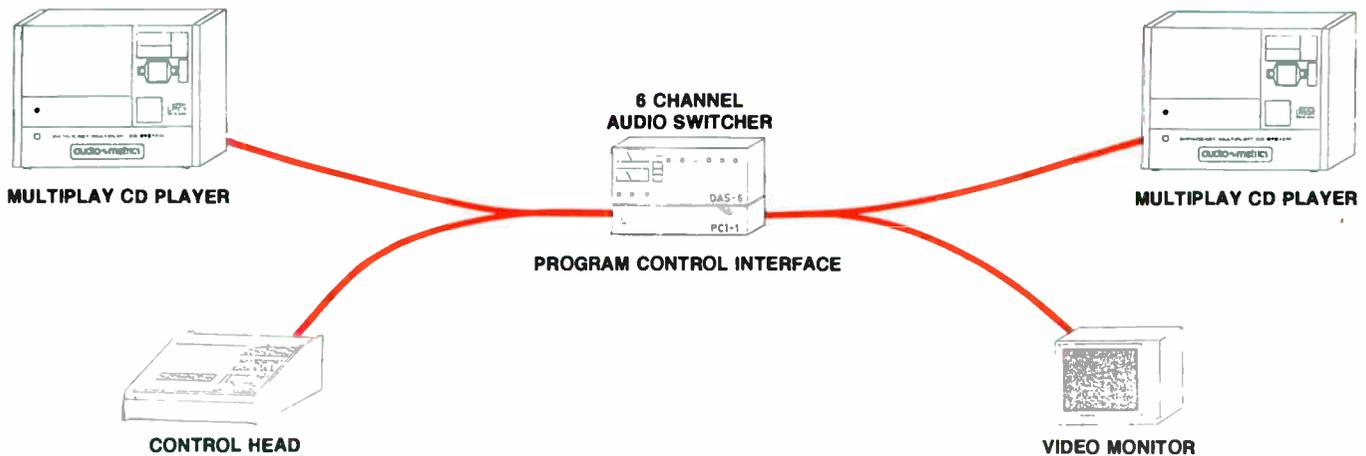
MANUAL OPERATION button
Used for listening to new CDs which have yet to be installed.
When this button is pressed once, a small Red LED to the side lights up, and the unit automatically prepares itself for manual operation.

When the Green LED next to the manual button lights, the unit is ready for manual operation.

Specify the desired track number (TNO) from the ten-key pad.

AUTOMATION

6 CHANNEL AUDIO SWITCHER

MULTIPLAY CD PLAYER

DAS-6

PCI-1

PROGRAM CONTROL INTERFACE

MULTIPLAY CD PLAYER

CONTROL HEAD

VIDEO MONITOR

AUTO MODE OPERATION — In the AUTO mode the AMCDS — 1000A is controlled by an external programmer, the SMC-CDP (Live Assist/Music Retrieval). This programmer provides the required DISC and CUT data to the AMCDS — 1000A, which in turn, will send the following data back to the programmer:

1) Standby Status, indicating that correct disc and cut are ready and cued;
2) The time of the selected cut in both minutes and seconds;
3) A time pulse once each second, after the cut has been started;
4) An EOM detected from the CD's subcode, at the end of the audio cut. (Note that the placement of this subcode may be one or more seconds after the actual end of audio, therefore it is not useful for an 'AUX' in stepping the programmer to the 'NEXT-TO-PLAY' step.)

— — — — — — — — —

DETAILS ON THE SMC PROGRAMMER UNIT

- 6 source capacity. Will handle up to 4 CD players, or 6 Carousels. All random access.
- 2,000 Event Memory
- CRT Display.
- Live assist type control head, using fiber optic link between control head and main chassis. Additional control heads may be used, optional.
- Non battery memory retention so no cumbersome battery backup is required.
- Time functions are available as an option that will provide up to 100 clock steps.
- Can be used as a stand alone programmer in full auto, semi-auto or live assist modes.
- Built in cue and monitor outputs. Provision for EXT monitor input.
- Has Silence sense, Dual metering and balanced line output, 600 ohm at +8 to +24 dbm.