

BOGEN®



AUTO-REVERSE CASSETTE TAPE PLAYER AND FM-STEREO/AM TUNER

Model CR100A

Specifications subject to change without notice.
© 1999 Bogen Communications, Inc.
Part No. 54-5070-02 Printed in Korea. 9909

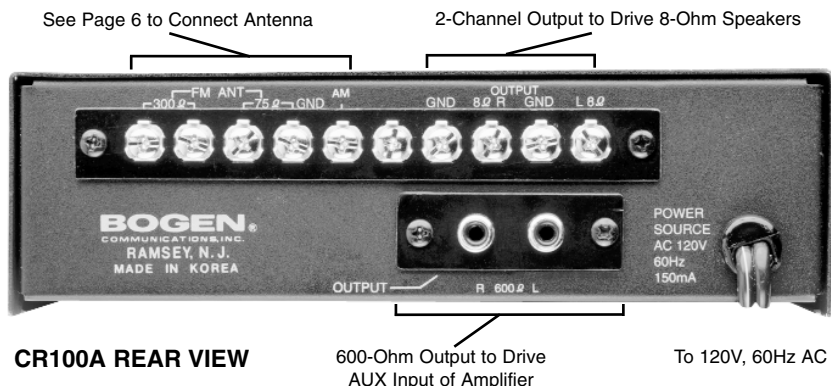
Description

The Bogen Model CR100A is a compact, integrated unit consisting of an auto-reversing cassette tape player and a FM-stereo/AM tuner*. The CR100A provides an economical source of background music for Bogen sound systems. The CR100A features:

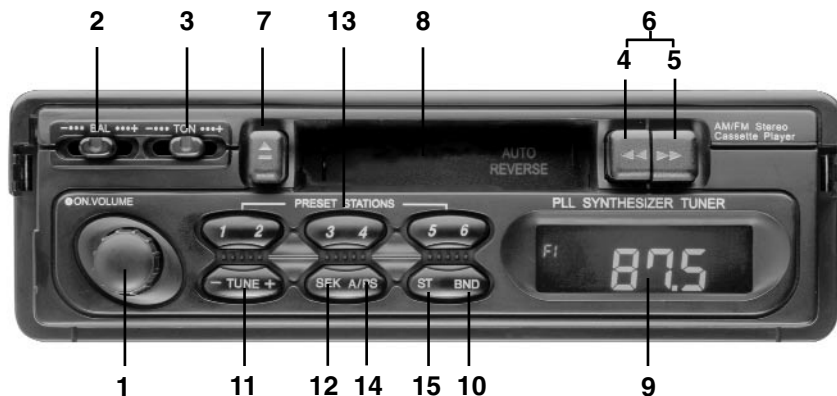
- Electronic quartz-locked PLL tuning system
- Built-in stereo
- 4 Selectable Bands (FM1, FM2, FM3, AM), with each band consisting of up to 6 stations
- Automatic Seek Control
- Auto Store/Preset Station Scanning
- LCD Digital Display

The CR100A operates on 120 volts, 60Hz AC. It incorporates a low-level, 600-ohm output, which will drive the auxiliary input of a public address amplifier. The unit can also drive 8-ohm loudspeakers directly with its internal stereo amplifier (one watt per channel). If desired, the CR100A may be mounted in a standard 19-inch equipment rack by means of the optional RK78 Rack Panel Kit.

* **Note:** MW is the international designation for AM



Controls and Functions



CR100A FRONT VIEW

Operating Instructions

1. On/Off Switch and Volume Control - To turn the unit on, rotate the knob clockwise until an audible click is heard. Further clockwise rotation will increase the volume level.

2. Balance Control - Move the slider control to obtain the most desirable stereo effect. To increase the sound level in the right speaker, move the slider control to the right. To increase the sound level in the left speaker, move the slider control to the left.

3. Tone Control - To increase the tone, move the slider control to the right. To decrease the tone, move the slider control to the left.

4. Rewind Button - To rewind, push the button marked ◀◀. To stop rewinding, press the button again.

5. Fast Forward Button - To fast forward, press the button marked ▶▶. To stop fast forwarding, press the button again.

6. Tape Program Selector - During cassette play, press the Fast Forward (▶▶) and Rewind (◀◀) buttons simultaneously and the reverse side of the tape will automatically play.

7. Eject Button - Press this button to eject the cassette tape.

8. Cassette Tape Door - Insert a cassette tape sideways with the tape side facing toward the right.

9. Digital Display - The display indicates station frequency and other functions.

10. Band Button - Each time the **BAND** switch is pressed, the radio frequency band will be switched in the following sequence: FM1, FM2, FM3, AM and then it will repeat the sequence.

11. Manual Tuning Button - Press the **UP (+)** side to tune into a higher frequency and press the **DOWN (-)** side to tune into a lower frequency. The frequency the unit is tuned to will be indicated by the Digital Display. The frequency will change continuously by keeping one of the buttons pressed down.

12. Seek Button - Automatic tuning is possible by pressing this button. Having selected the desired band, press the button to search for and tune in stations broadcasting at a higher frequency.

13. Preset Button (1,2,3,4,5,6) - It is possible to program up to six stations each on the FM1, FM2, FM3, and AM bands. Each preset switch has two functions, depending on how long it is pressed.

- To recall a preset station, press the preset switch for less than two seconds.
- To put the tuned in station into memory, press the preset switch for more than two seconds.

14. P.SCAN (Auto Memory) Button - The **P.SCAN** switch has two functions, depending upon how long it is pressed.

1) Pressing the **P.SCAN** switch for less than two seconds, the radio will automatically tune to the next preset channel, pause for five seconds, and repeat. This process will continue until the **P.SCAN** button is pressed again.

2) Pressing the **P.SCAN** switch for more than two seconds, the radio will automatically tune and store radio stations into each of the preset channels.

- While pressing the **P.SCAN** switch, the output is muted.
- By keeping the **P.SCAN** switch pressed for more than two seconds, the next preset channel is displayed on the channel indicator and the displayed frequency will increase.
- Up to six stations are preset using channels 1 to 6.
- When **P.SCAN** presetting is completed, the unit will tune in the station stored into channel 1.

15. MO/ST Button - Press the switch so the **ST** indicator lights to receive stereo programs. In case there is disturbing noise during a stereo broadcast or the broadcast is received under bad conditions, press the **MO/ST** button again (the **ST** indicator light goes out) to listen to the program in **MONO**.

Operations

RADIO OPERATION

1. Turn the unit on by turning the Volume control knob clockwise.
2. Select either FM1, FM2, FM3, or AM mode.
3. Tune to a desired station, manually or automatically, with the Manual tuning, Seek or Preset buttons.
4. Adjust the Volume and Balance controls to your liking.
5. The stereo indicator light is on the Digital display when FM stereo broadcast is being received.
6. To turn off the unit, rotate the volume control knob counterclockwise until you hear a click.

TAPE OPERATION

1. Insert a cassette into the cassette door with the tape side facing to the right.
2. Adjust the Volume and Balance controls to your liking.
3. To Fast Forward/Rewind the tape, push to lock either one of the Fast Forward (▶▶) or Rewind (◀◀) buttons. To release the locking mode, lightly press the button that is not locked. In the locked Fast Forward mode, should the tape reach the end, the unit will automatically start to play the other side of the tape. In the locked Rewind mode, should the tape reach the end, the unit will automatically begin playing the cassette on the side being rewound.
4. To reverse and listen to the other side of the tape, push the FF (▶▶) and REV (◀◀) buttons at the same time.
5. To remove the tape, press Eject.

STORING STATION PRESETS

1. Tune in the station to be stored using Seek or Manual tuning.
2. Press the Preset switch (1 to 6) on the station that you want to store for at least two seconds. Meanwhile, audio output is muted for approximately two seconds and the corresponding channel number will be displayed. When the sound returns, the station has been properly stored.
3. Release the Preset switch when sound returns.
4. If the Preset switch is released before sound returns, the station will not be stored and the previous stored station will remain instead.

NOTE: Storing stations during cassette tape playback is not possible.

Important Routine Maintenance

To avoid the need for frequent servicing, we strongly recommend periodic cleaning of the tape head, capstans, and pinch rollers. This will also ensure high-quality reproduction of programmed material. The unit should be cleaned after every 20 to 30 hours of operation. A high-quality cassette cleaning cartridge can be used, however, if one is not readily available, proceed as follows:

1. Saturate a cotton swab with isopropyl alcohol.
2. While holding the cassette door open, locate the tape head (to the right of the opening and toward the center of the unit).
3. Clean the tape head, capstans and pinch rollers with the cotton swab.
4. Allow parts to dry before operating the unit.

Important Antenna Information

The CR100A is designed for connection to various antenna systems as described below.

CAUTION: *For external use antennas, use No. 8 AWG aluminum wire, or larger, as ground wires for both mast and lead-in, and secure to building structure with insulators spaced 4 to 6 feet apart. Mount antenna discharge unit as closely as possible to where the lead-in enters the building structure.*

FM Line Antenna. The CR100A line cord functions as an internal FM Line Antenna for receiving FM broadcasts. For improved reception, particularly in weak signal areas, or for tuners mounted in consoles or racks, installation of the included 'T' wire (dipole) antenna may be necessary.

External FM Antenna. If installing a standard 300-ohm antenna system, connect the two wires from the 'T' antenna to the screw terminals marked 300-ohm. At the same time, remove any jumper wires connected to these terminals. If conditions require the use of a coaxial transmission line, such as RG-11 or RG-59, connect the coaxial transmission line to the screw terminals marked 75-ohm. Always disconnect any jumper wire connected to the 300-ohm terminals when using external FM antenna.

Specifications

FM Tuner Section

Frequency	87.5MHz-108MHz
Usable Sensitivity	10dB
Frequency Response	30Hz-15KHz
Signal/Noise Ratio	60dB
Stereo Separation	35dB (at 1KHz)

AM Tuner Section

Frequency Range	522KHz-1620KHz
Sensitivity	30dB

Cassette Deck Section

Tape Speed	4.75 cm/Sec.
Wow and Flutter	0.35% (at 3KHz)
Fast Winding Time	185 Sec. (C-60)
Frequency Response	100Hz-8KHz
Stereo Separation	40dB
Signal/Noise Ratio	54dB

Audio Section

Power Output-Stereo	1W @ 8-ohm
System Output	600-ohm
Operating Voltage	120V AC/60Hz NOM
Dimensions (WxHxD)	7 1/4" x 2 1/8" x 9 1/4"



50 Spring Street, Ramsey, NJ 07446
Tel. 201-934-8500 / Fax: 201-934-9832 / www.bogen.com