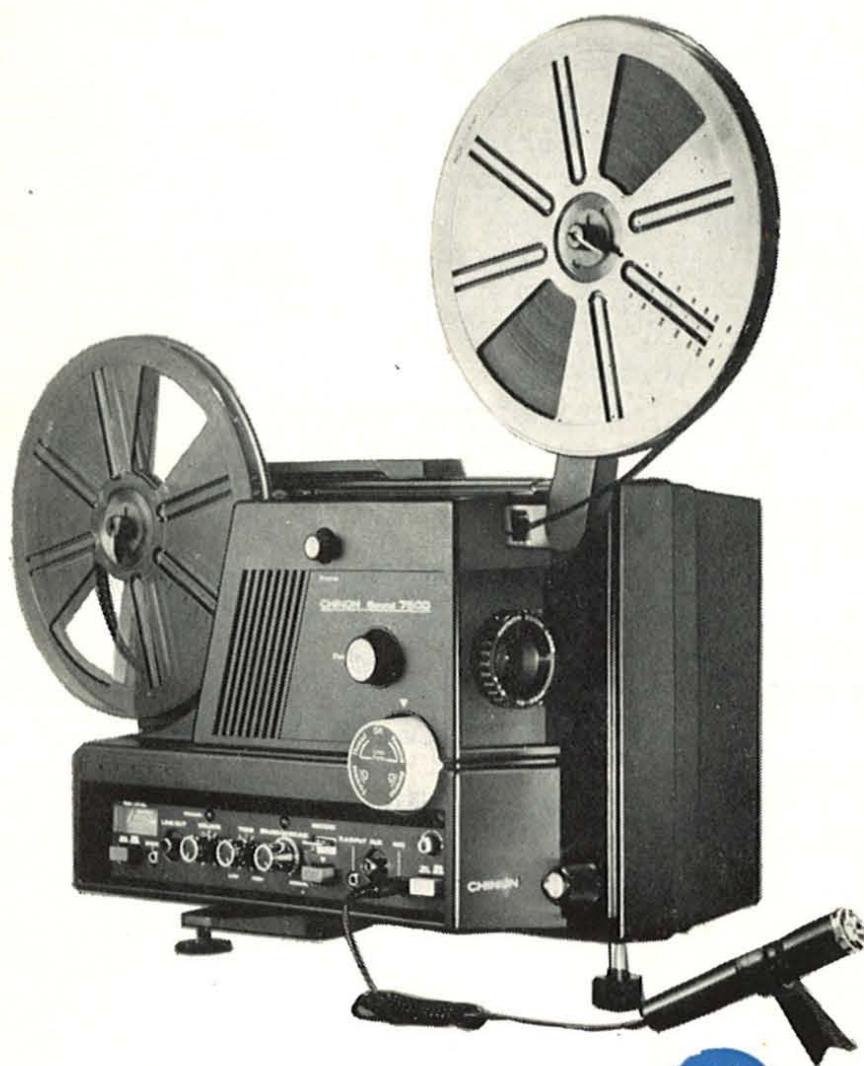


CHINON

Sound

7500

INSTRUCTION MANUAL



ENGLISH

IMPORTANT SAFEGUARDS

WHEN USING YOUR PHOTOGRAPHIC EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING:

1. READ AND UNDERSTAND ALL INSTRUCTIONS.
2. CLOSE SUPERVISION IS NECESSARY WHEN ANY APPLIANCE IS USED BY OR NEAR CHILDREN. DO NOT LEAVE APPLIANCE UNATTENDED WHILE IN USE.
3. CARE MUST BE TAKEN AS BURNS CAN OCCUR FROM TOUCHING HOT PARTS.
4. DO NOT OPERATE APPLIANCE WITH A DAMAGED CORD OR IF THE APPLIANCE HAS BEEN DROPPED OR DAMAGED - UNTIL IT HAS BEEN EXAMINED BY A QUALIFIED SERVICEMAN.
5. DO NOT LET CORD HANG OVER EDGE OF TABLE OR COUNTER OR TOUCH HOT SURFACES.
6. IF AN EXTENSION CORD IS NECESSARY, A CORD WITH A SUITABLE CURRENT RATING SHOULD BE USED. CORDS RATED FOR LESS AMPERAGE THAN THE APPLIANCE MAY OVERHEAT. CARE SHOULD BE TAKEN TO ARRANGE THE CORD SO THAT IT WILL NOT BE TRIPPED OVER OR PULLED.
7. ALWAYS UNPLUG APPLIANCE FROM ELECTRICAL OUTLET WHEN NOT IN USE. NEVER YANK CORD TO PULL PLUG FROM OUTLET. GRASP PLUG AND PULL TO DISCONNECT.
8. LET APPLIANCE COOL COMPLETELY BEFORE PUTTING AWAY. LOOP CORD LOOSELY AROUND APPLIANCE WHEN STORING.
9. TO PROTECT AGAINST ELECTRICAL SHOCK, DO NOT IMMERSE THIS APPLIANCE IN WATER OR OTHER LIQUIDS.
10. TO AVOID ELECTRIC SHOCK HAZARD, DO NOT DISASSEMBLE THIS APPLIANCE, BUT TAKE IT TO A QUALIFIED SERVICEMAN WHEN SOME SERVICE OR REPAIR WORK IS REQUIRED. INCORRECT REASSEMBLY CAN CAUSE ELECTRIC SHOCK HAZARD WHEN THE APPLIANCE IS USED SUBSEQUENTLY.

SAVE THESE INSTRUCTIONS

NOMENCLATURE

1. Front Cover
2. Carrying Handle
3. Take-up Reel Clip
4. Horizontal Level Control
5. Sound Control Panel
6. Elevation Control
7. Main Switch
8. Focusing Knob
9. Frame Control Knob
10. Front Arm
11. Reel Clip
12. Recording Level Meter
13. Auto/Manual Recording Level Button
14. Monitor Jack
15. Line-out Jack
16. Volume Control Knob
17. "Manual" Warning Lamp
18. Tone Control Knob
19. Sound-on-Sound Control
20. Sound-on-Sound Recording Lamp
21. Record Button
22. Record Button Safety Lock
23. P.A. Input Jack
24. Aux Jack
25. Mic Jack
26. Speed Selector
27. Projection Speed Adjustment Knob
28. External Speaker Jack
29. Power Socket
30. Back Cover
31. Built-in Loudspeaker
32. Lamp Cover
33. Projector Lamp
34. Film Aperture Gate
35. Pressure Guide
36. Entrance to Film Gate
37. Zoom Lens

BEFORE OPERATION

(Except the model for U.S.A. and Canada)

CORRECT VOLTAGE

Ensure that the correct voltage is set at the mains selector by checking that the number indicated corresponds to your power supply (Fig. A). If the selector is incorrectly set, then remove the back cover by loosening the two retaining screws (Fig. B) and reconnect the terminal to the appropriate voltage. If the loud-speaker connection is accidentally displaced, do not forget to reconnect it before refitting the back cover (Fig. C).

CORE MAINS CABLE

1. The wires in the mains lead are coloured in accordance with the following code:
Blue—Neutral
Brown—Live
Green/Yellow—Earth
2. A fuse plug should be used for connection to the mains supply with the fuse recommended.
3. The equipment should be disconnected from the mains when not in use.

THE FOLLOWING IS APPLICABLE ONLY TO PROJECTORS SOLD IN ENGLAND

WARNING

1. Disconnect mains supply before removing back cover.
2. The equipment should be disconnected from the mains when not in use.
3. The equipment must be earthed.
The wires in the mains lead are coloured in accordance with the following code:
Blue—Neutral
Brown—Live
Green and Yellow—Earth

The wires in the mains lead must be connected to the terminals in the plug as follows:

Wire Colour

Green and Yellow E or $\frac{1}{\equiv}$ or Green
or Green and Yellow

Blue N or Black

Brown L or Red

The equipment should be protected by a 3 amp fuse, preferably by using a fused plug.

4. For safety we recommend the warning label attached to the lead is not removed.

POWER SWITCH OPERATION

This switch is connected to the AC mains. Push the button to engage and the electrical power is turned on. When switching off, push the button again and this will disconnect the power. The main operation switch can only be operated when the power switch is in the "ON" position.

PREPARING FOR PROJECTION

1. Connect the A.C. Cord of the projector to the household power supply and the pilot lamp will light simultaneously. At the same time the Projection Lamp is being preheated (Fig. 1).
2. Lift up the Front Reel Arm (Fig. 2).
3. Set the Main Switch to the Forward position and the Projection Lamp will go on (Fig. 3).
4. Aim the projector at the screen and adjust the height of the projector with the Elevation Control. Next, fill the screen with the projected light by adjusting the Zoom Lens accordingly. Finally, adjust the Horizontal Level Control if necessary (Fig. 4).
5. Return the Main Switch to "Stop" (Fig. 5).

6. Attach the reels. The reel of film to be projected goes on the front, with the perforations on the right-hand side, and the empty Take-up Reel is mounted on the Take-up Reel Clip (Fig. 6).
 - ★ If the reel is correctly loaded, the film will come off the reel from the right-hand side. If the film comes off the reel from the left-hand side, the reel requires rewinding.
 - ★ The reels should lock in place when attached to the Reel Arms. If a reel does not securely lock in place, gently move the reel to and fro to allow the Reel Clip of the Reel Arm to properly engage in the reel.
7. To prepare your film for automatic threading, trim the leader of the film 3-4mm by using the Film Cutter, (supplied with the projector) (Fig. 7).

SOUND PROJECTION

1. Set the Speed Selector to desired speed (18 or 24 fps). Since 18 fps is normally used, the Speed Selector should be in the protruding position (Fig. 8).
Projection speed can be "fine tuned" to make up for any variance in the power supply.
2. Set the Main Switch to "THREAD" (Fig. 9).
3. Insert the leader of the film into the Film Gate entrance and the film will automatically attach itself to the Take-up Reel within 5 seconds (Fig. 10).
 - ★ Do not remove the Main Switch from the "THREAD" position until the film is properly taken up onto the Take-up Reel.

- ★ Use the special Take-up Reel which comes with your Chinon Sound 7500 Projector.
- 4. Set the Main Switch to the Forward position to turn on the Projection Lamp and commence projection of the film. (Fig. 11).
- 5. Adjust both the sharpness and the frame line of the picture by turning the focusing and framing controls (Fig. 12).
- 6. Adjust the sound volume by rotating the Volume Control Knob and select the most pleasing tone by adjusting the Tone Control Knob (Fig. 13).

If the picture jumps when running, turn the Main Switch to "LOOP FORM", and then reset it to the "FORWARD" position.

SILENT PROJECTION

Use exactly the same procedure as for sound projection, but without using the Sound Volume Control. The Volume Control should be at its minimum setting.

REVERSE PROJECTION

For amusing effects such as people and automobiles moving backwards, or a person jumping out of the water and on to a diving board, reverse projection may be used. To use, move the Main Switch to Reverse. When set to this reverse projection position, the sound amplifier will automatically be turned off, resulting in silent projection (Fig. 14).

REWINDING THE FILM

When the film is over, rewind the film onto its original reel by following the procedure outlined below.

1. Set the Main Switch to "Stop"
2. Insert the end of the film into the slit of the original reel (Fig. 15), making sure the film passes over the Rewind Roller.
The film should be inserted into the slit from the bottom so that the original reel can rotate counterclockwise (when the control panel faces you).
3. Set the Main Switch to "REWIND" (Fig. 16).

When rewinding, the Speed Selector may be set to 24 fps for a faster rewind.

EXTERNAL LOUD-SPEAKER

An external loud-speaker with a maximum output of 12W (for the model to U.S.A. and Canada, 15W for other countries) (twice that of the loudspeaker built-in to your sound projector) may be connected to the projector for even better sound quality. Moreover, if the external loudspeaker is placed near the screen, highly realistic effects are possible.

To use an external loud-speaker, connect it to the Loud-Speaker Jack of the projector (Fig. 17).

- When using an external loud speaker, other than that specially designed for your Chinon Sound 7500 Projector, use a RCA type (for the model to U.S.A. and Canada, DIN Type for other countries) jack adapter if necessary.
- The external loud-speaker should have an impedance of 8-16 Ω . To avoid possible damage to the amplifier of your sound projector, do not use a model with an impedance of less than 8 Ω .

RECORDING

Before attempting to record, please read this section carefully.

- Ordinarily, when the Record Button is depressed, previously recorded material on the film will be erased, and only the new recorded material will remain.
- Additional sound effects or narration can be added to the film during projection without erasing the material previously recorded by using the sound on sound system of your projector.
- Ordinary recording should first be mastered before attempting the more sophisticated technique of sound on sound recording.

AUTOMATIC OR MANUAL ADJUSTMENT OF RECORDING LEVEL

- For beginners, it would be wise to set the Auto/Manual Recording Level Control Button to the Auto (protruding) position. When this is done, the ALC (Automatic Level Control) circuit will automatically adjust low or high sounds to the correct level for successful recording.
- Advanced amateurs will enjoy using the manual adjustment of the recording level in order to effect subtle changes or eliminate background noise.

MIC JACK AND AUX JACK

- The microphone is plugged into the Mic Jack and used for recording narration, live music, or sound effects. The microphone should be held away from the sound projector to eliminate the possibility of picking up noise.
- For noise-free recording from a tape recorder, radio, or phonograph, connect the instrument directly to your sound projector's Aux Jack.

- For recording a narration without mistakes, first record it on a tape recorder and then connect the tape recorder to your projector.

RECORDING FOR THE FIRST TIME

Beginners can practice on about 5 meters of film (unexposed film may also be used).

WITH A MICROPHONE

1. Insert the microphone plug into the Mic Jack of the projector (Fig. 18).
2. Set the Sound on Sound Knob to “NORMAL” (Fig. 19).
3. Set the Auto/Manual Recording Level Control Button to the “AUTO” (protruding position) (Fig. 20).
4. Rotate the Main Switch clockwise to the Forward position (Fig. 21).
5. While pushing down on the Record Safety Lock, simultaneously push in on the Record Button (Fig. 22).
6. Commence recording by observing the following:
 - Hold the microphone 10 centimeters or more away from the mouth.
 - If the indicator needle of the Recording Level Meter moves in accordance with one's voice, recording is correct.
 - To ascertain proper recording, monitor with an earphone (Fig. 23).
 - Do not handle the microphone roughly while recording.

7. Cease recording by observing the following (Fig. 24).
 - Push in on the Record Button to disengage it, and it will return to its former position, ending the recording.
 - If the Main Switch is moved off the (Forward) position, recording will automatically cease.

MANUAL RECORDING LEVEL CONTROL WITH A MICROPHONE

1. Set the Auto/Manual Recording Level Control Button to the "MANUAL" (depressed) position (Fig. 25).
2. Push in on the Record Button (Fig. 26).
 - Keep the main switch at the "Stop" position.
 - Both the Recording Level Meter and the Manual Warning Lamp will illuminate.
3. Set the Volume Control Knob to its lowest position, and then while speaking into the microphone, slowly rotate the Volume Control Knob clockwise until the indicator needle of the Recording Level Meter fluctuates to its maximum position without entering the red area of the meter scale (Fig. 27).
4. Rotate the Main Switch clockwise (to the right) to the Forward position (Fig. 28).

When the Main Switch is moved, the Record Button will automatically be disengaged, so as soon as the film begins to move, push in on the Record Button once again.

RECORDING FROM A TAPE RECORDER OR SIMILAR SOURCE

1. Plug the recording cord into the Aux Jack of your Chinon Projector and the appropriate jack (LINE OUT, MONI, EXT. SP., etc.) of your tape recorder, radio, or phonograph (Fig. 29).
2. Since the output of tape recorders, radios, and similar sources vary from model to model, the Volume Control of the external source (e.g. tape recorder) should be used for adjusting volume. To do so, turn the Main Switch to "Stop", plug in an earphone and monitor by depressing the Record Button. While monitoring, adjust the Volume Control of the external source until the recording level is sufficiently loud and clear. The above applies when recording with the Recording Level Control set to AUTO.

When setting the Recording Level Control to MANUAL the following procedure applies:

- a) Set the Main Switch to "Stop".
 - b) Set the Volume Control of your Chinon sound projector to the MIDWAY point (the 12:00 o'clock position).
 - c) Plug earphone into the Monitor Jack of the projector.
 - d) Depress Record Button.
 - e) While monitoring, adjust the Volume Control of the tape recorder, exercising care that the indicator needle of the Recording Level Meter does not enter the red zone of the scale (Fig. 30).
3. Rotate the Main Switch clockwise to the Forward position (Fig. 31).
 4. Reset the Record Button to the RECORD (recessed) position (Fig. 32).

RECORDING DURING PROJECTION

The Record Button can be depressed, and recording commenced, at any point during projection. Moreover, the Record Button can be instantly disengaged at any point during projection by merely pushing it in once again.

ERASING

To erase a previously recorded film without recording, proceed as follows:

1. Disconnect the cord of the microphone, tape recorder, or other source from the sound projector.
2. Set the Auto/Manual Recording Level Control Button to the MANUAL (recessed) position (Fig. 33).
3. Rotate the Volume Control Knob completely counterclockwise (toward "LOW") (Fig. 34).
4. Set the Sound on Sound Knob to "NORMAL". (Fig. 35).
5. Start the projector and depress the Record Button (Fig. 36).

SOUND MIXING

A microphone and tape recorder can be connected to the sound projector for simultaneous recording of a narration and background music, for example. Of course, in such a case, care must be taken that the background music does not overpower the narration. For best results, proceed as follows:

1. Connect the tape recorder to the Aux Jack, and the microphone to the Mic Jack (Fig. 37).

2. Set the Sound on Sound Knob to "NORMAL" (Fig. 38).
3. Adjust the volume of the tape recorder.
4. Start the tape recorder and begin the narration while monitoring with the earphone. Readjust the volume of the tape recorder, if necessary, to blend well with the narration (Fig. 39).
5. Commence recording.

SIMPLE MIXING METHOD WITH ONE MICROPHONE

Play a tape recorder as background music (without connecting it to the projector) and speak into the microphone for the narration. The music or narration can be emphasized simply by placing the microphone closer to one source than the other. Although this is not a perfect system and some background noise may be picked up, the beginner may wish to start with such a simple system.

SOUND ON SOUND RECORDING

The sound on sound system is used to add narration, background music, or sound effects to a film without erasing the previously recorded material. However, if one makes a mistake with the sound material added to the original recording, the mistake can not be erased without simultaneously erasing the original recording. Therefore, careful practice is necessary.

If the original recording level is very low to begin with, an additional recording may cancel out the original, so exercise care.

If you record a narration on a narration the result may be garbled so that neither is understood. Therefore, avoid such an attempt.

FOR SUCCESSFUL SOUND ON SOUND RECORDING FOLLOW THE PROCEDURE OUTLINED BELOW

1. Set the Auto/Manual Recording Level Control Button to the "AUTO" (protruding position).
2. Move the Sound on Sound Knob completely counterclockwise (to the left) (Fig. 40).
3. Rotate the Main Switch clockwise to the Forward position (Fig. 41).
4. Depress the Record Button at the point in the film where you wish to do sound on sound recording. When this is done, the original sound track will no longer be heard (Fig. 42).
5. Adjust the Sound on Sound Knob to a suitable recording level by slowly rotating the knob clockwise. Normally, setting the knob to an approximately 11:00 o'clock position will result in a favorable recording level; to lower the level, rotate knob counterclockwise. Moving the Sound on Sound Knob to the right (clockwise) will result in an increase in the recording level. If the knob is moved all the way to the "NORMAL" position, normal recording will occur, erasing the original recording and leaving only the new recording (Fig. 43).
6. Upon completion of sound on sound recording, rotate the Sound on Sound Knob completely to the left and disengage the Record Button. If the Sound on Sound Knob is then reset to its former position, sound on sound recording can be started again merely by pushing in on the Record Button (Fig. 44).

FADE-IN/FADE-OUT TECHNIQUE

To intersperse additional sound within the original sound in a natural manner the following Fade-in/Fade-out technique may be employed:

1. Rotate the Sound on Sound Knob completely counterclockwise, and depress the Record Button (Fig. 45).
2. Gently rotate the Sound on Sound Knob clockwise (with the additional sound source connected to the projector) until it comes to the "NORMAL" position and continue recording (erasing the original sound).
3. Next, when you wish to have the original sound gradually fade back in, rotate the Sound on Sound Knob gently counterclockwise until it comes to a stop. This can be repeated to intersperse additional sound within the original recording (Fig. 46).

THE LINE OUT JACK

When connecting the sound projector to an amplifier and external loud-speaker combination, the Line Out Jack is used. For copying the sound track of your film, a tape recorder is plugged into this jack. When using an external amplifier and loud-speaker, proceed as follows:

1. Connect the Line Out Jack of the projector with the AUX (Line In) jack of the external amplifier (Fig. 47).
2. Connect the amplifier to the external speaker.
3. Adjust volume with the volume control of the amplifier.

PA INPUT JACK

The PA Input Jack can serve three useful purposes:

- The projector can be used as a public address system by plugging in the microphone and adjusting the volume of the projector (Fig. 48).
- The microphone can be plugged into the PA Input Jack and used for narration during projection completely independent of the recording system.
- Silent movies can be made to come to life by adding narration in the above manner, or by connecting a tape recorder for sound effects. When a tape recorder is used, volume should be adjusted by the volume control of the tape recorder (Fig. 49).

MAINTENANCE

PROJECTOR CARE

A. REPLACING PROJECTOR LAMP

Disconnect AC cord. Allow lamp to cool before changing it. Set the Main Switch of "Stop". To remove front cover: 1. Raise the Reel Arm. 2. Hold both sides of front cover and, using thumbs against projector body for leverage, pull off cover. Loosen the two screws on top of the lamp cover, then slide the lamp cover to the left and pull it off over the screw heads (Fig. 50). Push up the lamp retaining spring (Fig. 51). Grasp the lamp base between thumb and forefinger and remove by pulling it towards you with a firm, even movement.

Use only a DNE 150-watt 120-volt tungsten-halogen (for the model to U.S.A. and Canada, 150-watt 15-volt quartz halogen for other countries) replacement lamp. Grasp the new lamp by the base only and insert it into the socket as shown in Fig. 52. Push it in all the way and lock it in position with the lamp retaining spring. Slide the lamp cover in place over the screw heads and tighten the screws. Replace front cover by inserting three pins on cover into corresponding holes in projector and pressing cover in until all three pins snap into place.

DO NOT TOUCH LAMP. Handle it by the base or the outside of reflector only. If the lamp is accidentally touched, wipe away all fingerprints.

(Except the model for U.S.A. and Canada)

Push down the lamp retaining spring. Take out the lamp and then carefully disconnect it from the socket. When replacing with a new lamp, reverse the above procedure. Make sure to place the notch of the lamp base to the cut-out part of the lamp holder.

B. Cleaning the film aperture gate and the projection lens

FILM APERTURE GATE:

1. Disconnect the projector from the mains supply.
2. Set the main switch to the "Stop" position and remove the front cover by pulling it towards you.
3. Turn the focusing knob to move the projection lens to the right.
4. Slide the film pressure guide plate (located above the focusing knob) to the right to open the film aperture gate. Clean the film

gate with the brush supplied. To reset the guide plate, turn the main switch to the right (Fig. 53).

PROJECTION LENS:

1. To clean the projection lens, first pull the focusing knob towards you then remove the projection lens from the projector (Fig. 54).
2. To replace the projection lens again reverse the above procedure.

The projection lens is set properly if it moves horizontally when turning the focusing knob.

C. Replacement of the fuse (Except the model for U.S.A. and Canada)

1. Disconnect the projector from the mains supply.
2. Take off the back cover by removing the two retaining screws. Be careful not to disconnect the loudspeaker cord from the body when removing the back cover (Fig. 55).
3. Remove the old fuse and replace with a new one.

SPECIFICATIONS

Format

Super 8 and single 8 magnetic or silent movie film

Reel Capacity

600 ft (180 m)

Film Threading

Automatic

Projection Speed

18 and 24 fps forward and reverse projection with speed adjustment control

Operation

DC servo-motor electronically controlled

Lens

F1.3 15-30 mm

Projection Lamp

DNE Type 120V-150W tungsten lamp for U.S.A. and Canada

15V-150W two pin mirror condensor tungsten halogen lamp for other countries

Voltage

120V for U.S.A. and Canada

220/240/250V

110/120/127V (for other countries)

Frequency

50/60 Hz

Total Power Consumption

230W

Amplifier

Completely transistorized (2 IC's, 8 transistors, 14 diodes, and 2 LED's)

Microphone Input

3.5 ϕ Mini Jack

Auxiliary Input

RCA Type Jack 300mV 1M Ω for U.S.A. and Canada

DIN Type Jack 300mV 1M Ω for other countries

Recording Control

Auto and Manual Recording Level Control with Auto/Manual switch, Manual Recording Warning Lamp

Recording Level Meter

Built-in

Sound on Sound System

Adjustable Volume Control, Sound Fade Control, Warning Lamp

Tone Control

Built-in

Public-Address Microphone

Volume Control and Sound Mixing on play back

Line Out

RCA Type Jack for U.S.A. and Canada
DIN Type Jack for other countries

Extension

RCA Type Jack (8-16 Ω) for U.S.A. and Canada
DIN Type Jack (8-16 Ω) for other countries

Output Power

Built-in Loud-Speaker, 16 Ω 6W Max. for U.S.A. and Canada

Built-in Loud-Speaker 16 Ω 7.5W Max. for other countries

External Loud-Speaker, 8 Ω 12W Max. for U.S.A. and Canada

External Loud-Speaker 8 Ω 15W Max. for other countries

Monitor

Monitoring by earphone

Built-in Speaker

10cm ϕ , 16 Ω 7.5W max.

Pilot Lamp

Built-in Pilot Lamp on Main Switch

Dimensions

340 (L) x 245 (H) x 180 (W) mm

13.39" (L) x 9.65" (H) x 7.09" (W)

Weight

7.5 kg. (16.5 lbs.) for U.S.A. and Canada

8.8 kg. (19.36 lbs.) other countries

(Standard Accessories) (Optional Accessories)

- Microphone
- Earphone
- Reel
- Film cutter
- AC cord
- Cleaning brush
- External loud-speaker (W-15)
- Microphone extension cord
- Recording cord for the model to U.S.A. and Canada
- Dust cover
- Auto-loading reel
- Daylight screen with speaker

Because we continually strive to improve our products,
we may change specifications without prior notice.

Chinon International Corporation
Tokyo, Japan

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