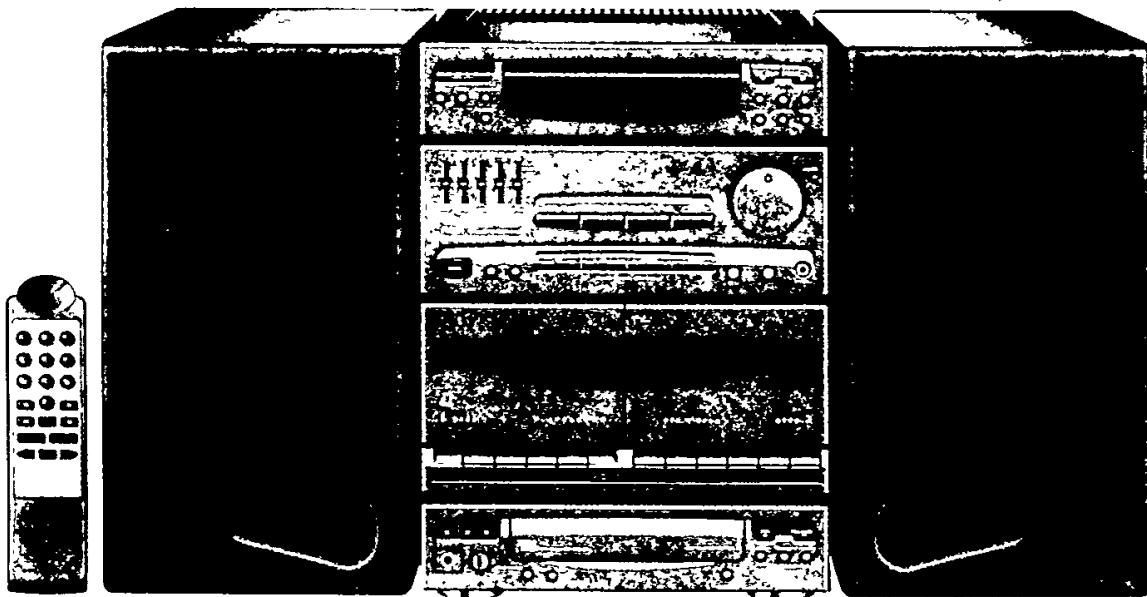


# PHILIPS

FW 21/FW 31 CD Mini System



- ⓐ Instructions for Use
- ⓑ Mode d'emploi
- ⓒ Bedienungsanleitung
- ⓓ Gebruiksaanwijzing
- ⓔ Instrucciones de manejo
- ⓕ Istruzioni per l'uso
- ⓖ Brugsanvisning
- ⓗ Bruksanvisning
- ⓓ Käyttöohje

**PHILIPS**



# INDEX

MEX Mexico

NCM

Es necesario que lea cuidadosamente su instructivo de manejo  
Garantía pagina 154



NOM

AUS Australia

Guarantee page 153

NZ New Zealand

Guarantee page 153

**DECLARACION DE CONFORMIDAD CON NORMAS**

El que suscribe, en nombre y representación de  
**Philips Singapore Pte. Ltd.**  
declara bajo su propia responsabilidad que el  
Equipo **Minisistema con reproductor de CD**  
Fabricado por **Philips Singapore Pte. Ltd.**  
En **Far East**  
Marca **Philips**  
Modelos **FW21/FW31**

Objeto de esta declaración cumple con la normativa  
siguiente  
Reglamento sobre Perturbaciones Radioeléctricas, Real  
Decreto 138/1989 Anexo V

Hecho en **Singapore 23-03-1992**  
Firma

*Loke Yoon Cheong*

Nombre **Loke Yoon Cheong**  
Función **Safety & Approval Manager**



GB English page 3

Illustrations pages 155-156

English

F Français page 19

Illustrations pages 155-156

Français

D Deutsch seite 35

Zeichnungen seiten 155-158

Deutsch

NL Nederlands pagina 52

Afbeeldingen pagina's 155-158

Nederlands

E Español página 73

Ilustraciones páginas 155-158

Español

I Italiano pagina 89

Illustrazioni pagine 155-158

Italiano

DK Dansk side 106

Illustration side 155-158

Dansk

S Svenska sida 121

Illustrationer sidorna 155-158

Svenska

SF Suomi sivut 136

Kuvat sivut 155-158

Suomi

# INSTALLATION

## ACCESSORIES

### Standard items:

- Remote control transmitter (1 x)
- Batteries (2x AAA size) for remote control transmitter
- Loudspeaker boxes (one pair)
- FM aerial wire 75 ohms (1x)
- AM loop antenna (1x)

### Available from your Philips dealer:

- Tripod for loudspeaker boxes (Type SBC 3855)

## INSTALLATION

- Unpack all parts and remove protective material.
- Insert the batteries into the remote control transmitter, as shown in the battery compartment (Fig. 4).
- Do not connect the unit to the mains before checking the mains voltage and before all other connections have been made.
- Do not cover any vents and make sure that there is a space of several centimetres around the unit for ventilation.

### CONNECTIONS (Fig. 2)

- A) Terminals for loudspeakers, minimum impedance 6 ohms. Attach loudspeaker cables to the unit (see Fig. 2 and 3).  
Left speaker: connect the red wire to terminal + L, the black wire to terminal - L.  
Right speaker: repeat the same procedure as for the left speaker.
- B) Terminal for FM 75 ohm aerial. The aerial wire supplied with the unit can be connected to this terminal. Adjust the position of the FM aerial for optimum reception. For good FM stereo reception use an FM outdoor antenna or connection to your house distribution system.
- C) AM antenna terminal. Connect the wires of the loop antenna to this terminal. Prepare antenna loop (see Fig. 6), adjust the position of the loop antenna for optimum reception.

- D) Aux/TV input. For connection of other sound sources (e.g. TV audio output).
- E) Voltage selector (not all versions). If your version has this selector, check that the setting corresponds with your local mains voltage.
- F) Program reset switch. To reset the unit to neutral. (Stored alarm times and preset stations will not be reset).
- G) Mains inlet. Do not connect the unit to the mains without having checked whether the voltage given on the type plate corresponds with the local mains voltage. If not, please consult your dealer. The type plate is on the rear of the unit.
- H) Phono Input (not on all versions). For external phono player.

### Important notes for users in the U.K.:

#### Mains Plug

This apparatus is fitted with an approved moulded 13 Amp plug.

To change a fuse in this type of plug proceed as follows:

- Remove fuse cover and fuse.
- Fix new fuse which should be a BS1362 5 A, A.S.T.A. or BSI approved type.
- Refit the fuse cover.

If the fitted plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place.

If the mains plug contains a fuse, this should have a value of 5 A. If a plug without a fuse is used, the fuse at the distribution board should not be greater than 5 A.

**Note:** The severed plug must be destroyed to avoid a possible shock hazard should it be inserted into a 13 A socket elsewhere.

#### How to connect a plug

This wires in the mains lead are coloured with the following code: blue = neutral (N), brown = live. (L)

As these colours may not correspond with the colour markings identifying the terminals in your plug, proceed as follows:

- Connect the blue wire to the terminal marked N or coloured black.
- Connect the brown wire to the terminal marked L or coloured red.
- Do not connect either wire to the earth terminal in the plug, marked E (or  $\perp$ ) or coloured green (or green and yellow).

Before replacing the plug cover, make certain that the cord grip is clamped over the sheath of the lead - not simply over the two wires.

**Copyright:** Recording and playback of material may require consent. See Copyright Act 1956 and The Performer's Protection Acts 1958 to 1972.

English

Français

Deutsch

Nederlands

Español

Italiano

Dansk

Svenska

Suomi

## Positioning the Loudspeakers

The best position can be found by experimenting. Bass reproduction is amplified by placing the speakers on the floor. Placing loudspeakers behind curtains, etc. has an unfavourable effect on treble reproduction. Try to keep the arrangement as symmetrical as possible.

## CONTROLS

### ON THE UNIT (Fig. 1)

#### –TUNER, TIMER DISPLAY

- 1 **REMOTE CONTROL SENSOR**  
To receive signals from the remote control.
- 2 **Display**  
To indicate the functioning of the unit.
- 3 **TIMER button**  
To activate or deactivate Timer 1 and Timer 2.
- 4 **NEWS button**  
To activate the News feature.
- 5 **TIMER/NEWS Set button**  
To activate Timer or News time-setting mode.
- 6 **CLOCK SET**  
To activate time-setting mode.
- 7 **PRESET DOWN▼ button**  
To decrease the Tuner Preset number or to select in various set modes.
- 8 **PRESET UP▲ button**  
To increase the Tuner Preset number or to select in various set modes.
- 9 **TUNING◀ button**  
To tune the tuner to lower frequencies or to select in various set modes.
- 10 **TUNING▶ button**  
To tune the tuner to higher frequencies or to select in various set modes.
- 11 **BAND button**  
To select between FM, MW, LW ( not all versions).
- 12 **MONO button**  
To switch the tuner (FM only) to mono mode.
- 13 **AUTO PROG button**  
To activate the Auto Program feature.
- 14 **PROG button**  
To programme the presets.

#### – AMPLIFIER, SOURCE SELECTOR

- 15 **CD button**  
To switch to CD mode.
- 16 **TUNER button**  
To switch to Radio mode.
- 17 **TAPE button**  
To switch to Tape mode.

# CONTROLS

## 18 AUX/TV button

To switch to Aux mode (for external sources, e.g. TV sound)

## 19 Volume Knob

To adjust the volume. The standby indicator is incorporated in the volume knob.

## 20 POWER/STANDBY button

To switch the unit on or to standby mode.

## 21 GRAPHIC EQUALIZER (5 BAND)

To adjust tone colour.

## 22 DSC (Digital Sound Control)

(FW31 only)

- **JAZZ button:** Digital sound control optimises sound for jazz music.
- **POP button:** Digital sound control optimises sound for pop music.
- **CLASSIC button:** Digital sound control optimises sound for classical music.
- **FLAT button:** Clears digital sound control setting.

## 23 DBB button

To switch the Dynamic Bass Boost on and off for extra bass.

## 24 SPATIAL SOUND button

To switch the spatial sound effect on and off for wider stereo effect.

## 25 Headphone socket

Connection for headphones (impedance minimum 30 ohms).

The loudspeakers are switched off when using headphones.

## – TAPE DECK

## 26 Dolby B NR button (FW31 only)

To switch the Dolby Noise Reduction system on and off.

## 27 HIGH-SPEED DUBBING

To switch the high-speed dubbing on and off.

## 28 Controls DECK 1 (Playback)

- **PLAY▶ button:** to start playback.
- **◀◀ button:** to fast-rewind the cassette.
- **▶▶ button:** to fast-forward the cassette.
- **STOP▲ button:** to stop and eject the cassette.

## 29 Controls DECK 2

- **RECORD button:** to start recording.
- **PLAY▶ button:** to start cassette playback.
- **◀◀ button:** to fast-rewind the cassette.
- **▶▶ button:** to fast-forward the cassette.
- **STOP▲ button:** to stop and eject the cassette.
- **PAUSE button:** to interrupt recording or playback.

## – COMPACT DISC

30 CD Tray: for compact disc.

## 31 CD Controls

- **STOP■ button:** to stop the compact disc.
- **PLAY/PAUSE▶|| button:** to start or interrupt playback.
- **OPEN/CLOSE button:** to open or close the CD tray.
- **PREVIOUS/SEARCH◀◀ button:** to return to the start of a track, select a previous track or search for a passage during playback.
- **NEXT/SEARCH▶▶ button:** to select the next track and or search for a passage during playback.
- **REPEAT button:** to switch the "REPEAT" function on and off.
- **SCAN button:** to start "Introductory Play" of a CD.
- **SHUFFLE button:** to switch on the "Shuffle Play" or "Program Shuffle."
- **PROG/REVIEW button:** to make or review a program for CD.
- **CLEAR button:** to clear a program or a part of a program.
- **EDIT button:** to store the optimal number of tracks on a cassette when dubbing from a CD.

## – KARAOKE/MIC MIX (not all versions)

32 Microphone socket: Connection for microphone.

33 MIC MIX level control: to adjust mixing level for karaoke or microphone recording.

## REMOTE CONTROL (Fig. 4)

- 1 **CD button** – for selecting a compact disc player.
- 2 **TUNER button** – for selecting the tuner.
- 3 **AUX/TV button** – for other sound sources or TV.
- 4 **DSC button** – for selecting digital sound sources.
- 5 **NEWS button** – to activate and deactivate News mode.
- 6 **Previous ◀ / Next ▶ buttons** – for selecting preset stations and operating a CD player.
- 7 **Disc button** – for selecting the discs in a CD autochanger.
- 8 **TUNING ▼ / SEARCH ◀◀ / TUNING ▲ / SEARCH ▶▶ button** – for Tuner and CD player.
- 9 **SHUFFLE button** – for CD player.
- 10 **PLAY ▶ button** – for CD player.
- 11 **PAUSE button** – for CD player.
- 12 **VOLUME +/- button.**
- 13 **STOP ■ button** – for CD player.
- 14 **SLEEP button** – to activate and select sleep mode.
- 15 **TAPE button** – for selecting tape mode.
- 16 **BUZZER OFF button** – for switching buzzer off.
- 17 **STANDBY ⏻ button.**

### Using the Remote Control Unit

- Before using the remote control unit, always press the desired selection button CD, TAPE, TUNER or AUX/TV, to set the remote control unit in the relevant mode.

## OPERATION

### POWER STANDBY ON/OFF

When you first plug the unit into the mains, the unit will go into standby mode. The display will show the time.

- The time will flash until you set the clock. (See Timer and Clock function.)
- You can press any source selection button or the POWER/STANDBY button on the unit, or on the remote control to switch on the unit.
- The standby indicator on volume knob remains on and the time will be shown.
- When you press standby power on, the last sound source you selected will appear.
- Pull the mains plug out of the wall socket if you want to switch off the mains voltage completely.

### **Warning:**

The clock memory will be maintained for only ten minutes after the mains is switched off from the wall socket.

# AMPLIFIER

## AMPLIFIER

- Press CD, TUNER, TAPE or AUX/TV on the unit or the remote control to switch on the unit and at the same time select the required sound source.
  - The display will show the sound source you have selected.
- Adjust the volume with the VOLUME control or VOLUME+/- on the remote control.
- Set the tone colour with the 5-band graphic equalizer.
- Use Spatial Sound to create a wider stereo effect.
- For extra amplification of the bass press the DBB button.
- Press POWER/STANDBY to switch the unit to standby mode.

### AUTOMATIC SOURCE SELECTION

The unit is equipped with an automatic source selection function. If a button of a related function is pressed, it will automatically switch to the related source. For example, if the unit is in tuner mode and the tape play button is pressed, the source will automatically change to tape mode.

The automatic tuner-related buttons are: PRESET UP ▲, PRESET DOWN ▼, ◀ TUNING ▶, band selector (except in TIMER SET mode).

The automatic CD-related buttons are: CD PLAY/PAUSE, SCAN and SHUFFLE. When the POWER/STANDBY button is pressed, the display will show the sound source you have selected.

### DIGITAL SOUND CONTROL (DSC) (FW31 only)

The DSC feature creates a realistic atmosphere for the style of music you select using the latest digital sound technology. The unit offers the following DSC modes:

- Jazz: for that brassy bite of jazz at close quarters
- Pop: for the electric excitement of stadium pop
- Classic: for the dramatic depth of classical music in an auditorium
- Flat: for the subtle extension of the music's dimensions

- Press JAZZ, POP or CLASSIC on the unit or DSC button on the remote control to enhance the type of music you are listening to.
- Press FLAT to cancel the DSC mode.



# TUNER

## TUNER

### Note:

#### Tuner Grid

In some versions of this unit, the tuning step can be changed if required. In North and South America, the frequency step between adjacent channels in the "MW" is 10 KHz. In all other parts of the world, it is 9 KHz.

Your unit has been preset in the factory for correct operation in your area. For /21 version of this unit, the frequency step can be changed, if necessary.

- To change to 9KHz:
  - Switch the unit off with POWER/STANDBY.
  - Press BAND and ◀ TUNING buttons together and hold them down, then switch the mains power OFF. Disconnect the set from the mains to ensure that the tuning steps has been changed.
  - Reconnect the set and the unit is now set to 9 KHz.
- To change to 10KHz:
  - Switch the unit off with POWER/STANDBY.
  - Press BAND and TUNING ▶ buttons together and hold them down, then switch the mains power OFF. Disconnect the set from the mains to ensure that the tuning steps has been changed.
  - Reconnect the set and the unit is now set to 10 KHz.

### Note:

In some version, the above procedure will switch the "LW" ON and OFF.

## TUNING

- Press TUNER on the unit.
- Select the tuning range with the BAND button.
- Press ◀ TUNING/TUNING ▶ for 0.5 seconds or more, then release the button.
  - The tuner will automatically search for the first transmitter of sufficient strength.
  - Repeat this procedure if you wish to select another station.
- To tune to weak stations, briefly depress ◀ TUNING ▶ continuously until you read the correct frequency or the reception is at its optimum.
- Switch to MONO if there is interference noise during FM stereo reception.

## PRESETTING STATIONS

You can preset thirty stations in the memory. When you tune to a preset station, the memory allocation number (1-30) appears next to the frequency on the display.

## AUTOMATIC PROGRAMMING OF PRESET STATIONS

- Hold down AUTO PROG for one second and release the button.
  - The display shows "Auto Program."
  - Thirty stations are now stored automatically in the memory.
  - If less than thirty FM stations of sufficient strength are found, the unit will also scan the medium-wave (MW) and if necessary long-wave (LW) bands to store stations in the rest of the memory locations. (The long-wave band is not in all versions.)
- Press AUTO PROG again if you want to stop the automatic programming.

## MANUAL PROGRAMMING OF PRESET STATIONS

- Press PROG on the unit.
  - "Program" will start to flash on the display.
- Select the tuning range with the BAND button.
- Tune to the desired station as described under *Tuning*.
- Switch the tuner to mono if the noise level is too high (i.e., if the station is too weak for stereo reception.)
- Press PRESET UP ▲ or PRESET DOWN ▼ to assign a number (1- 30) to the preset station.
- Press PROG again.
  - The frequency, preset number and stereo setting are now entered in the memory.
- Repeat this procedure to store other frequencies and presets in the memory.



## TUNING TO PRESET STATIONS

- Select a number between 1 and 30 by pressing PRESET UP ▲ or PRESET DOWN ▼ on the unit or PREVIOUS ◀/NEXT ▶ on the remote control.
  - The preset number, frequency and waveband will appear on the display.
  - The unit will tune to the displayed station.

## COMPACT DISC

Use compact discs bearing the symbol below. In addition to the conventional 12cm CDs, 8cm CDs can be used without an adaptor.



Bear in mind the following points since any dirt, scratches or warping of the disc can cause broken or intermittent sound and also noise.

- To remove the disc from its case lift it out by holding the disc's centre with your forefinger and the outside of the disc with your thumb.(Fig.5c)
- When holding the discs, take care not to touch the playing surface.
- Store the discs in their cases. Return them to their cases with the label surface facing up and push down lightly on the label surface.
- Do not place discs in the following locations:
  - near a heating device or a place where the temperature is high;
  - on a seat or on the dashboard of a vehicle which is exposed to direct sunlight, since these areas can become very hot;
  - in damp or dusty areas.
- Do not write on the label surface using a ballpoint pen or hard pencil and do not stick labels on this surface.
- Wipe away any fingerprints or dust on the playing surface of a disc using a soft cloth. Bear in mind the following points:
  - always wipe from the inside toward the outside of the disc;
  - do not use conventional record cleaners, anti-static agents, benzene, thinners or other solvents.

# COMPACT DISCS

## MUSIC CALENDER (FW31 only)

The 15-track music calender always shows the tracks of a disc or programme which are still to be played. It works in all modes (shuffle, programme, scan...). In stop mode, all tracks of the disc or of the programme are shown. If the number of tracks in a disc exceeds 15, the "+" symbol lights up.

## PLAY, PROGRAM AND SEARCH FUNCTIONS

### Inserting the disc

- Press CD (or any of the related buttons) on the unit or remote control.
- Press OPEN/CLOSE on the unit.
- Insert a CD, *printed side up*, in the tray (Fig. 5b).
- Press OPEN/CLOSE, to close the tray.
  - "Reading" will appear on the display, then the CD's total number of tracks and total playing time will appear.

### Playing the entire disc

- Press PLAY/PAUSE ►|| on the unit or PLAY ► on the remote control.
  - Playback starts with the first track.
  - The display shows the current track number and its elapsed playing time.
  - When all the tracks have been played, the CD player stops and the total number of tracks and total playing time are shown on the display.
- To stop playback, press STOP ■ on the unit or remote control.
- To interrupt playback, press PLAY/PAUSE ►|| on the unit or PAUSE on the remote control.
- To resume playback, press PLAY/PAUSE ►|| on the unit again or PLAY ► on the remote control.

### Note:

Instead of pressing the OPEN/CLOSE button after inserting the disc, you can also press the PLAY ► button.

- The CD tray will close and start playback.

## Playing in a desired order (Program)

You can store up to twenty tracks in the memory.

- Press ◀◀ SEARCH or SEARCH ▶▶ to locate a particular track.
- When you have found the correct track number, press PROG/REVIEW to store it in the memory.
  - The display will show the number of programmed tracks and the total playing time of the music programme.
- Repeat this procedure to select other tracks that you wish to programme into the memory.
  - If the unit is in Normal "Play," "Shuffle," and "Scan" modes, you can programme the current tracks.
- Press PROG/REVIEW to append the track number to the programme.
  - When twenty titles have been selected, "FULL" will appear on the display.
- Press PLAY/PAUSE ►|| to start the Programme Play function.
  - If a programme is available "Program Play" will be displayed.
  - If the unit is in "Program Play," "Program Shuffle," or "Program Scan" modes, then programming is not possible. The display will show "Go to Stop."
- To review the tracks which you have programmed, press and hold down PROG/REVIEW for two seconds.
  - The programmed tracks will be displayed. If no programme is available, "No Program Active" will be displayed.
  - You can even review a programme during "Program Play."
- To erase a particular programmed track, press and hold down PROG/REVIEW for two seconds.
  - The review of all the tracks in the programme will begin.
  - When the track that you want to erase appears in the display, press CLEAR.
- To clear all programmed tracks, press CLEAR.
  - "Program Cancelled" will appear on the display.

# COMPACT DISCS

## Note:

- Clear track is possible only in CD stop mode.
- If you press CLEAR or EDIT during playback, "Go To Stop" will appear on the display.
- If you press PROG/REVIEW, CLEAR or EDIT during Program Shuffle or Program Scan, "Go To Stop" will appear on the display.
- Opening and closing the CD tray will also cancel the programme.

## Introductory Play

- Press SCAN.
- The first ten seconds of each track on the disc will be played. (The seconds are counted down in the display.)
- Press PROG/REVIEW when you recognise a track which you wish to programme into the memory
  - The display shows the number of programmes, the total playing time, and the track numbers on the disc.
- If you press PLAY/PAUSE ►|| or SCAN again during scan mode, then the unit will resume play mode.

## Shuffle Play

You can play all the tracks in a random order.

- Press SHUFFLE on the unit or remote control.
- The tracks will be played in random order.
- Press PROG/REVIEW when you recognise a track which you wish to programme into the memory.
- To resume normal play mode, press SHUFFLE again.
- You can even shuffle a programme (Program Shuffle Mode).
- If you open the CD tray, the shuffle function will be cancelled.

## Repeat Play

If at any time you wish to listen to a disc or programme over and over again, the REPEAT function will allow you to do so.

- Press REPEAT on the unit.
  - The repeat status changes from "Repeat Off," to "Repeat ON."
- Repeat ON: the contents of the CD or program will be replayed after the last track of the CD or programme.
- Press STOP ■, OPEN/CLOSE or REPEAT to cancel the repeat function.

## Previous and Next Functions

- Press ◀◀ SEARCH briefly on the unit or PREVIOUS ◀◀ on the remote control during normal playback; Playback will be interrupted and the track repeated from the beginning. If you wish to repeat one of the previous tracks, press these buttons several times until the desired track number appears on the display.
- Press SEARCH ▶▶ briefly on the unit or NEXT ▶▶ on the remote control during normal playback; Playback will be interrupted and the next track played. If you wish to skip several tracks, press these buttons several times until the desired track number appears on the display.
  - If ◀◀ SEARCH or SEARCH ▶▶ on the unit is pressed and held down, the disc will be played in rapid search mode.
  - You can listen to passages on a track when you hear the tracks played at above normal speed in rapid search mode. When you recognise the desired passage, release the button to resume playback.

## Note:

- If you have a programme, you can also select tracks within the programme.

# COMPACT DISCS

## RECORDING FROM DISC

### Manual Recording

- Insert a disc into the CD tray.
- Press STOP  $\blacktriangle$  on DECK 2.
- Insert a blank tape into the compartment with the open side downward and the full spool on the left. (See Fig. 5d)
- Close the cassette door.
- To dub with DOLBY NR, set DOLBY B NR on. (FW31 only)
- Press PAUSE first and then RECORD on DECK 2.
- Play the required CD track.
- Release PAUSE on DECK 2.

### Note:

- You can record a programme by following the steps above.

### Dubbing a CD – with Edit Features

When using the EDIT button, you can edit a CD with a maximum of 20 titles to fit the selected length of a cassette.

There are two edit modes you can use:

- **ADVANCED mode:** the unit determines the number of playable tracks which can fit on one side of the tape and inserts five-second pauses between the tracks. When one side is full, the CD pauses, allowing you to flip the cassette to the other side to continue recording.
- **OPTIMAL mode:** the unit determines the optimal combination of playable tracks which can fit on one side of the tape and inserts five-second pauses between the tracks. When one side is full, the CD pauses, allowing you to flip the cassette to the other side to continue recording.

### Using the Edit function

- Press the EDIT button.
  - The display shows “ADVANCED”, “OPTIMAL” and “EXIT” when you press  $\blacktriangleleft$  SEARCH  $\blacktriangleright$  to select one of the edit modes.
- Press EDIT to confirm your selection.
  - The display shows tape length C60.
- Use  $\blacktriangleleft$  SEARCH  $\blacktriangleright$  to find the appropriate tape length.
- Press EDIT to select one of the tape lengths.
- Press RECORD button to start dubbing.

### Note:

- The edit function always starts with the first track on the CD or program, regardless of which track you select.
- To cancel edit during dubbing, press STOP  $\blacksquare$  or OPEN/CLOSE on the CD player.

# CASSETTE DECKS


## CASSETTE DECKS

### GENERAL INFORMATION

**Copyright:** Recording is permissible insofar as copyright or other rights of third parties are not infringed.

- Recording is only possible with DECK 2.
- The tape in the cassette is secured at both ends with leader tape. At the beginning and end of the cassette, nothing will be recorded for six to seven seconds.
- For recording, cassettes of IEC type I and IEC type II should preferably be used. The unit adjusts automatically to the type used.
- The recording level is set automatically, regardless of the position of VOLUME.
- Accidental erasure can be prevented by breaking the small tab in the top left-hand corner of the back of the cassette. (see Fig.5e ) This protection can be reversed with a piece of adhesive tape.
- Store the cassettes at room temperature and do not put them too close to magnets and transformers, for example, TVs and loudspeaker boxers.

### DOLBY NOISE REDUCTION (NR) SYSTEM (FW31 Only)


The Dolby NR system is manufactured under license from Dolby Laboratories Licensing Corporation. The word 'Dolby' and the  symbol are trademarks of Dolby Laboratories Licensing Corporation.

- The system is switched on and off with Dolby B NR button. A cassette recorded with the Dolby Noise Reduction system must also be played back in the Dolby NR mode. If you forget to operate the DOLBY B NR button, the treble may be reproduced too strongly or too faintly.


#### **Note:**

The Dolby NR button has no influence during dubbing. An original cassette recorded with Dolby NR automatically produces a copy with Dolby NR.

### INSERTING A CASSETTE

- Press STOP  on DECK 1 or DECK 2.
- The cassette door opens.
- Insert the cassette into the compartment with the open side downwards and the full spool on the left.
- Close the cassette door.

### RECORDING FROM OTHER SOUND SOURCES

- Press TUNER, CD or AUX/TV to select the sound source.
- Place a cassette in DECK 2.
- To record with the Dolby NR system, switch DOLBY NR on. (FW31 only)
- Press RECORD to start the recording.
- The "RECORD" segment on the display lights up.
- When the tape has reached its end, the tape stops and the display goes out.
- To interrupt recording, press PAUSE.
- To continue recording, press PAUSE again.
- Press STOP  if you want to stop the recording before the end of the tape.

#### **Caution:**

During recording, it is not advisable to fast-rewind, or fast-forward your tape in DECK 1.

### DUBBING CDs

(Please refer to the section entitled *Dubbing a CD* under **COMPACT DISC**)

# CASSETTE DECKS

## DUBBING CASSETTES

- Place the cassette you want to dub in DECK 1 and the blank cassette in DECK 2.
- Make sure that both cassettes have their full spools on the left.
- Press HIGH-SPEED DUBBING if you want to dub at high speeds.
- Press RECORD on DECK 2.
- Press PLAY on DECK 1 to start the dubbing.
- When the tape reaches its end, dubbing stops.
- The RECORD and PLAY buttons will automatically be released.
- If you want to dub the other side of the cassette, flip both cassettes over to continue dubbing.

## PLAYBACK

### Playback of one cassette

- Press TAPE on the unit or remote control.
- Place the cassette in DECK 1 or DECK 2.
- If it is a Dolby NR cassette, set DOLBY NR to ON. (FW31 only)
- Press PLAY ► to start playback.
- Playback stops when the tape reaches the end.
- Press STOP ▲ if you want to stop playback before the end of the tape.

### Note:

- PLAY ► of DECK 1 has priority over PLAY ► of DECK 2.
- If you press PLAY ► on DECK 1 while DECK 2 is in play mode, playback on DECK 2 will stop to allow playback on DECK 1 to begin.

### Continuous playback of two cassettes

- Press TAPE on the unit or remote control.
- Place the cassettes in DECK 1 and DECK 2.
- For Dolby NR cassettes, switch DOLBY NR to ON. (FW31 only)
- First press PLAY ► on DECK 1, then PLAY ► on DECK 2.
- Playback begins with DECK 1 and then continues with DECK 2.
- Press STOP ▲ if you want to stop playback before the end of the tape in DECK 1 or DECK 2.

## WINDING THE TAPE

- Press ►► to fast-forward the tape.
- Press ◀◀ to fast-rewind the tape.
- Press STOP ▲ to stop fast-forward or fast-rewind, or before the end of the tape.

### Note:

- If you press ◀◀ or ►► buttons when the cassette ends are reached, the buttons will not pop up. This means that the decks remain in operation. To prevent this, press STOP ▲ when the cassette ends are reached in the ◀◀ and ►► operations.)

## MICROPHONE MIXING (KARAOKE)

### (Not all versions)

Sing along with the desired source!

- Connect a microphone to the microphone socket.
- Press CD, TUNER, TAPE or AUX/TV to select the desired source.
- Play the selected source and sing into the microphone.

### Note:

- To prevent acoustical feedback characterized by a loud howling sound, adjust the microphone mix level control to the minimum before you plug in the microphone.
- After you have plugged in the microphone, adjust the microphone mix level control to the volume that you want.
- If you do not intend to record via the microphone, unplug the microphone to avoid accidentally mixing with other recording sources.

### Recording the mixed sound

When mixing your voice with CD, TUNER or AUX/TV, you can record the mixed sound on a cassette in DECK 2.

### Note:

- Recording through a microphone in tape mode is not possible.



# TIMER AND CLOCK FUNCTION

## TIMER AND CLOCK FUNCTION

### Setting the Clock

The unit has a clock which can be set to a 12-hour or 24-hour mode. You can set the clock in any mode, even during power standby.

- Press CLOCK SET.
  - The display will show the current day.
- Press PRESET UP ▲ or PRESET DOWN ▼ to set the correct day.
- Press CLOCK SET again.
  - “Clock” will appear on the display, followed by the clock format: 12-HOUR or 24-HOUR.
- Press PRESET UP ▲ or PRESET DOWN ▼ to set your preferred mode.
- Press CLOCK SET again to store in the memory.

### For the 12-hour format:

The display will show “AM 00:00” or “PM 00:00”. “AM” and “PM” will flash. “00” is the current hour and the current minute.

- Press ◀ TUNING or TUNING ▶ to change the flashing position.
- Press PRESET UP ▲ or PRESET DOWN ▼ to change the figures to the correct time.
- Press CLOCK SET.
  - The display will show the setting of the clock.

### If you select the 24-hour format:

The display will show “00:00”. “00” is the current hour and the current minute.

- Press ◀ TUNING or TUNING ▶ to change the flashing position.
- Press PRESET UP ▲ or PRESET DOWN ▼ to change the figures to the correct time.
- Press CLOCK SET.
  - The display will show the setting of the clock.

### Note:

During clock setting, pressing any of the Automatic Source Selection button will cancel the time setting. Whatever is being displayed will be the new time.

## ALARM FUNCTION

### TIMER 1 and TIMER 2

- Once only alarm: for example, 9.00 AM. After that the timer is switched off.
- Daily alarm: for example, 12.30 PM every day.
- Weekday alarm: every weekday between Monday and Friday, for example 7.30 AM.
- Weekend alarm: every day of the weekend (i.e. Saturday and Sunday), for example, 11.00 AM.

### News Function

- On and off at a specified time (every hour).
- After the news time is over, the news function is turned off and has to be re-set if the news is to be switched on the next hour.
- To reset the News function, press the News button again.
- The News flag will appear on the display.

## ALARM SETTING

### For TIMER 1, TIMER 2 and NEWS

- Press TIMER/NEWS SET.
  - “NEWS” will appear on the display.
- Press PRESET UP ▲ or PRESET DOWN ▼ to select TIMER 1, TIMER 2 and NEWS.
- Press TIMER/NEWS SET again.

### For TIMER 1 and TIMER 2

- The display will show “Select Source” and “BUZZER”.
- Press PRESET UP ▲ or PRESET DOWN ▼ to select an alarm mode: BUZZER, TUNER or CD.
  - If you select TUNER, “Preset: 01” (“01” is the current selected preset) will appear.
  - If you select CD, “Track 01” will appear.
- Press PRESET UP ▲ or PRESET DOWN ▼ to select a preset or a track.
- Press TIMER/NEWS SET again.
  - “ONCE” will appear on the display.
- Press PRESET UP ▲ OR PRESET DOWN ▼ to select one of the following: Once, Daily, Weekend or Weekday.
- Press TIMER/NEWS SET again.



# TIMER AND CLOCK FUNCTION

- The display will scroll "Start Time" and show the current time set by you; that is, either in the 12-hour or 24-hour format. (For example, "AM 08.00", "AM" flashes or "22:30" and "2" flashes.)
- Press ◀ TUNING or TUNING ▶ to set the position.
  - The chosen position will flash.
- Press PRESET UP ▲ or PRESET DOWN ▼ to select the correct setting.
- Press TIMER/NEWS SET again to store the start time.
- The display will scroll "Stop Time" and show the current time set by you; that is, either in the 12- hour or 24- hour format.
- Press ◀ TUNING or TUNING ▶ to set the position.
  - The chosen position will flash.
- Press PRESET UP ▲ or PRESET DOWN ▼ to select the correct setting.
- Press TIMER/NEWS SET again to store the stop time.
- If the source selected is CD and there is no disc in the tray, the source will automatically change to TUNER. The last selected station will be activated.
- Repeat the above procedure to set TIMER 2.
- To activate TIMER (see ALARM ACTIVATE/DEACTIVATE)


## For BUZZER

- If you select BUZZER, you need not select Stop Time. The BUZZER will sound for one minute.

## ALARM ACTIVATE/DEACTIVATE

If the timer is not activated:

- Press TIMER.
  - The display will show the start time of TIMER 1 and its flag.
  - TIMER1 is now active and its flag illuminated.
- Press TIMER again.
  - The display will show the start time of TIMER 2 and its flag.
  - TIMER2 is now active and its flag illuminated.
- Press TIMER again.
  - The flags of TIMER 1 and TIMER 2 will appear on the display.
  - TIMER 1 and TIMER 2 are now active.

- If the source selected is BUZZER, then the BUZZER flag  will also appear. (FW31 only)
- To switch off the timers, press TIMER again.
- The display will show "OFF".

## For NEWS

- "Select News Station" and preset and frequency of current preset station will appear on the display. You have to enter a pre-selected station.
- Press PRESET UP ▲ or PRESET DOWN ▼ to select from the preset stations.
- Press TIMER/NEWS SET again.
  - The display will scroll "Start News" and display ":00". ("00" is the current minute.)
  - You have to select the minute to activate the news alarm.
- Press ◀ TUNING or TUNING ▶ to select the required position.
  - The chosen position will flash.
- Press PRESET UP ▲ or PRESET DOWN ▼ to select the correct setting.
- Press TIMER/NEWS SET again.
  - The display will show "Stop News" and display ":00" ("00" is the current minute).
- Press ◀ TUNING or TUNING ▶ to select the required position.
  - The chosen position will flash.
- Press PRESET UP ▲ or PRESET DOWN ▼ to select the required position.
- Press TIMER/NEWS SET again to store in the memory.

## NEWS

- Press NEWS.
  - The NEWS flag will appear on the display.
- Press NEWS again to switch off the news timer function.

## ALARM ACTIVATION

When the alarm time is reached, the function currently being used will pause. The unit will switch to alarm activation mode.

# TIME AND CLOCK FUNCTION

## Note:

- When the alarm is activated in standby mode (with the exception of BUZZER alarm), the volume will be lowered slightly and slowly increasing the volume at a interval of 8 seconds.
- This will continue for about 5 minutes and will be cancelled if any automatic source buttons on the set or on the remote control is pressed.
- If you are recording at the time the alarm is activated, the alarm function will be cancelled.
- When the alarm is activated, the volume control will be adjusted automatically.
- If one alarm is already active, it will be cancelled when the second alarm is activated.


When the stop time is reached, the alarm will be cancelled and the unit will be returned to its previous state before the alarm was activated.

## CANCEL ALARM

- Press any of the automatic source selection buttons to cancel the alarm.

## REPEAT ALARM (SNOOZE)

Switch off the alarm temporarily from buzzer in standby mode.

- Press any of the function buttons (except BUZZER OFF) on the remote control.
  - The buzzer is temporarily switched off.
  - It will come on again after ten minutes.
  - The BUZZER flag  will blink during REPEAT ALARM.
- To cancel the REPEAT ALARM mode, press BUZZER OFF on the remote control or leave the standby mode.


## SLEEP (on Remote Control)

This unit has a built-in sleep function. This function enables you to listen to the unit before you fall asleep. You need not switch the unit to standby mode, as this will take place automatically. The SLEEP button can be found on the remote control.

## SLEEP ON

- Press SLEEP once.
  - The display will show "SLEEP" followed by "60 MIN."
- Press SLEEP again to select the other times: 30 min, 10 min, or OFF.
  - The display will show the sleep time, for example, "30" to indicate that you have chosen to have the unit switched off after 30 minutes.

## SLEEP OFF

- Press STANDBY  on the remote control to put the unit into standby mode.
  - The sleep setting will be cancelled.

# MAINTENANCE

## MAINTENANCE

### THE SYSTEM

- A chamois leather slightly moistened with water is sufficient for cleaning the housing of the unit and the enclosures.
- Do not use cleaning agents containing alcohol, spirits, ammonia or abrasives.

### THE CD PLAYER

- Keep the CD tray free of dust using a clean cloth.

### THE CDs

- Never write on the printed side of a CD.
- Do not attach any stickers to a CD.
- Keep the shiny surface of a CD clean. Use a soft lint-free cloth and always wipe the CD in a straight line from centre to edge. (Fig. 5a)
- Never use cleaning agents for conventional records and grease solvents or abrasives to clean CDs.

### THE CASSETTE DECKS

- To ensure good recording and playback quality, clean the heads A and B, the capstans C and pressure rollers D (Fig. 5f) after every 15 hours of operation.
- For this use a cleaning cassette or a piece of cotton wool dipped in alcohol.
- The mechanism must *not* be lubricated!

### FAULTS AND THEIR LIKELY CAUSES

- If a fault occurs, first check the points listed below before sending the unit for repair. If the remedies fail to help, consult your dealer.

### PROBLEMS WITH THE CD PLAYER

- The CD is not inserted properly with the printed side facing up.
- The CD is dirty, badly scratched or warped.
- Because of large temperature differences, condensation has formed on the lens of the laser. This disappears after some time.

### PROBLEMS WITH THE CASSETTE DECKS

These are mainly caused by dust and dirt on the heads. See whether cleaning them helps.

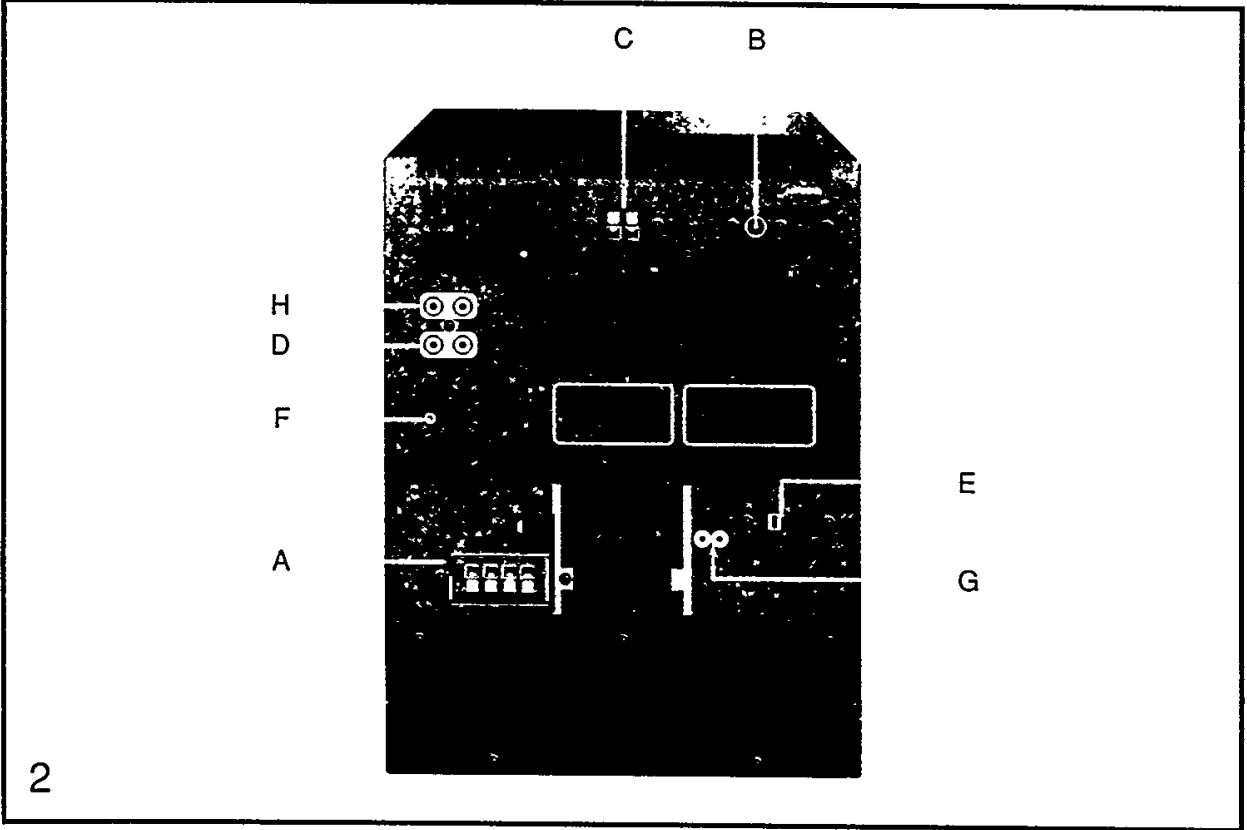
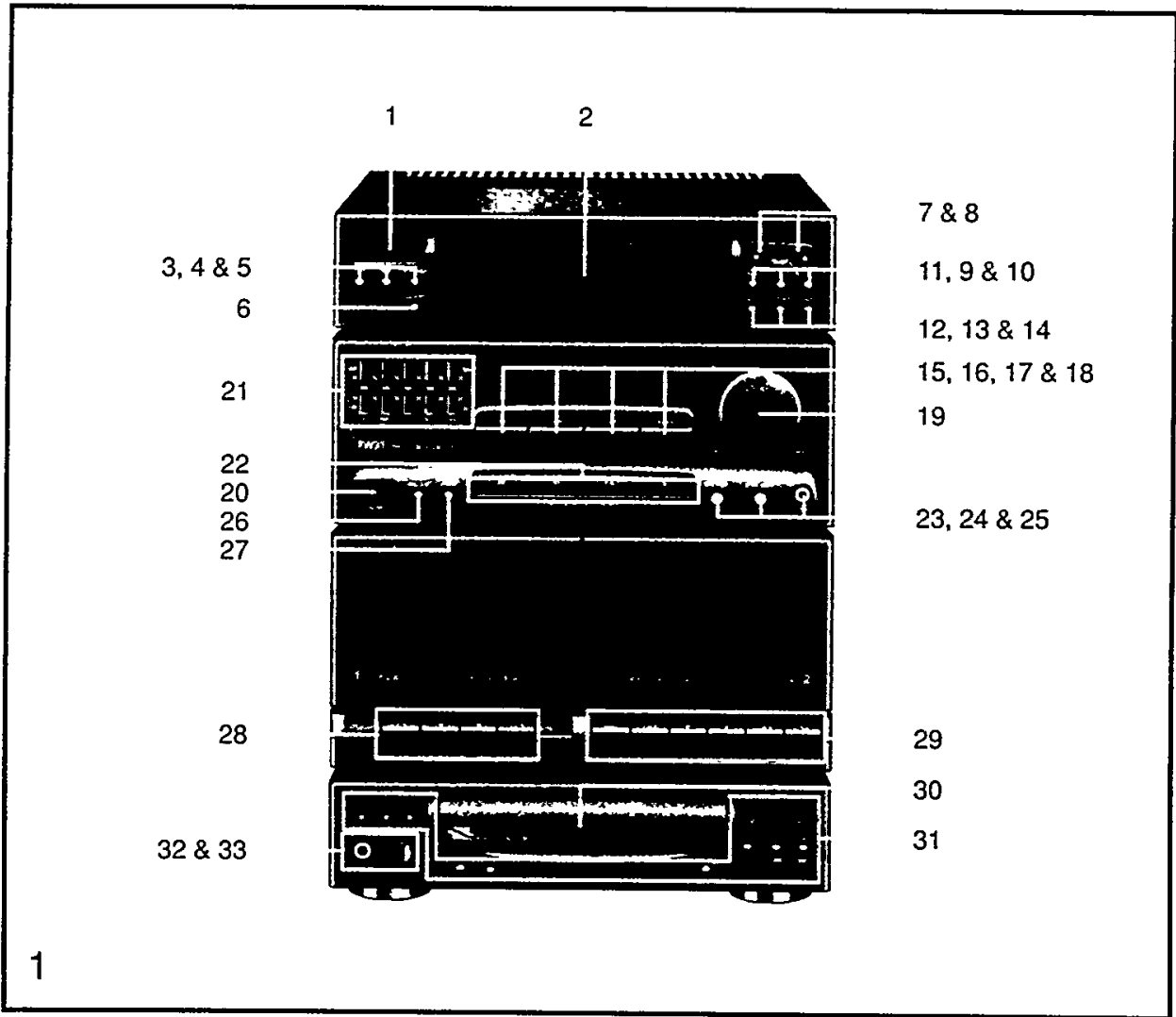
### PROBLEMS WITH THE WHOLE SYSTEM

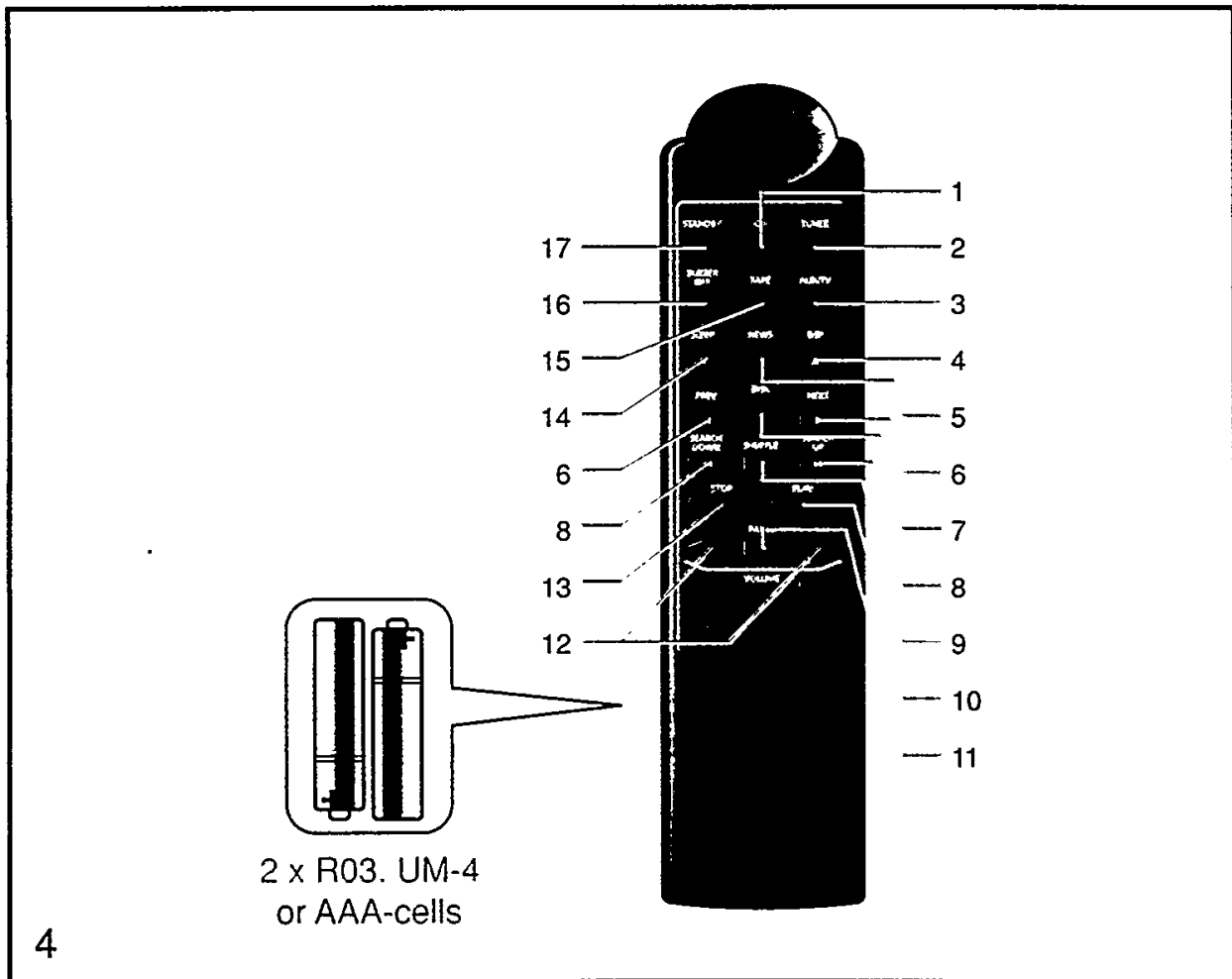
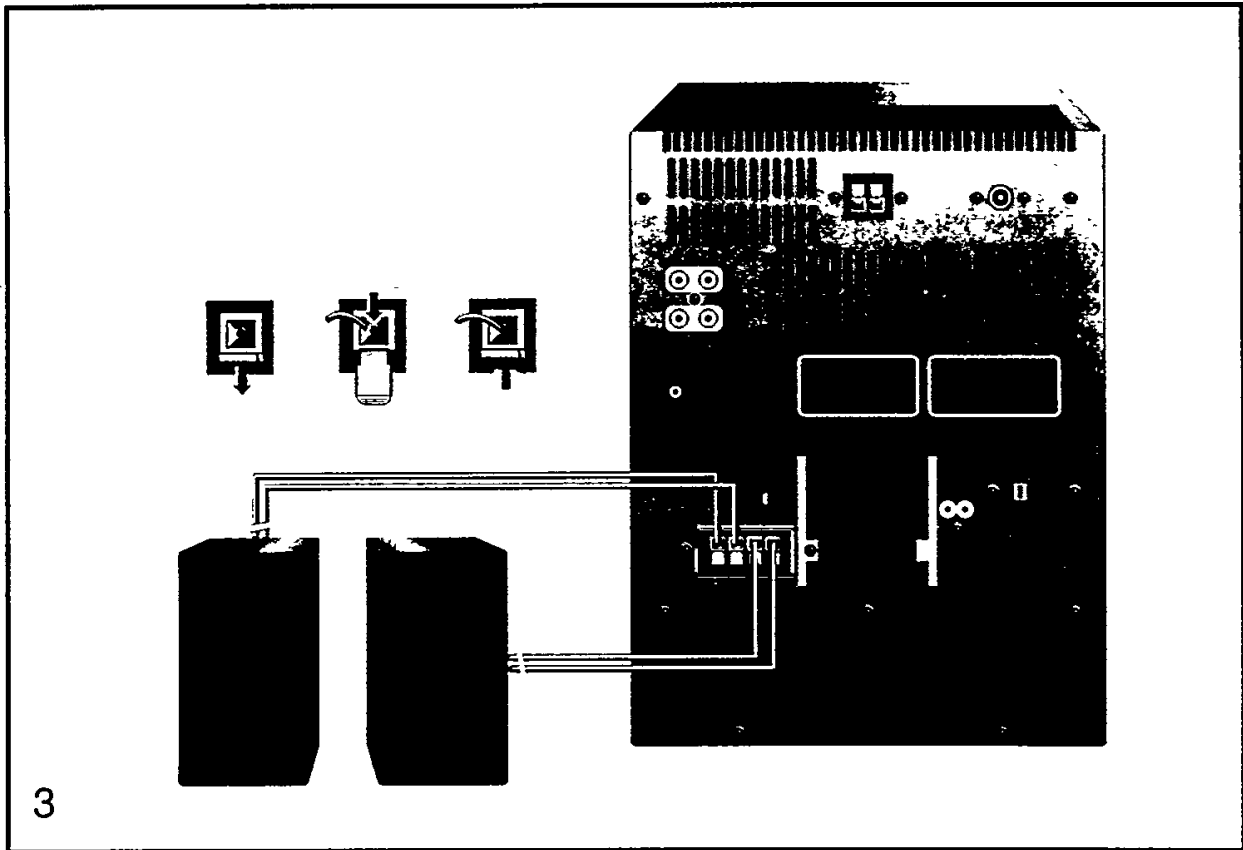
Electrostatic charge may cause unexpected symptoms. See whether these symptoms disappear if you take the mains lead out of the wall socket and plug it in again after a short period.

This unit complies with the radio interference requirements as laid down in EC (European Community) regulations.

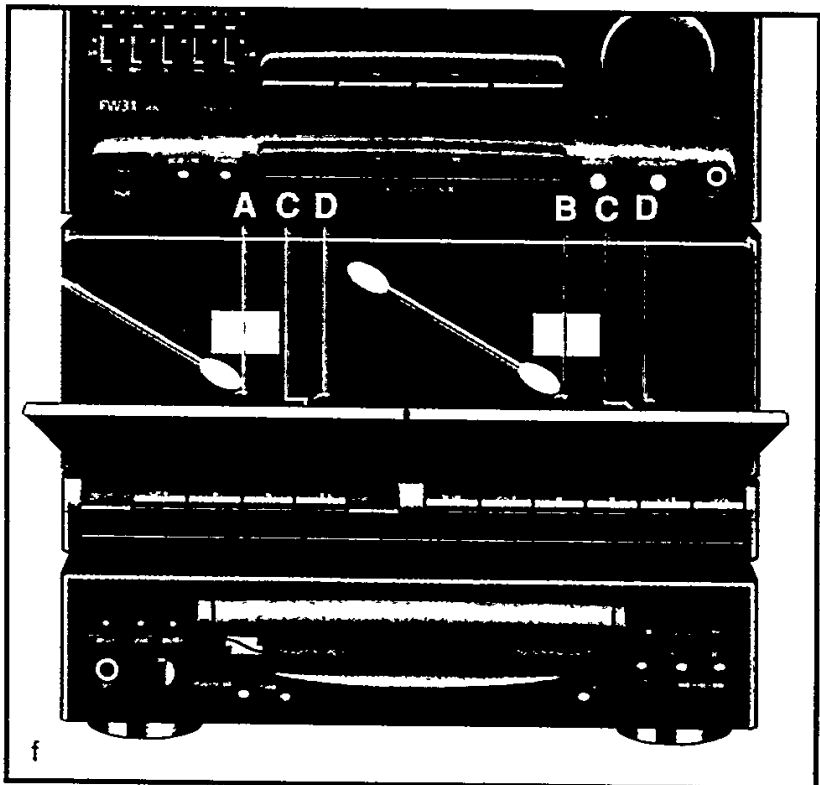
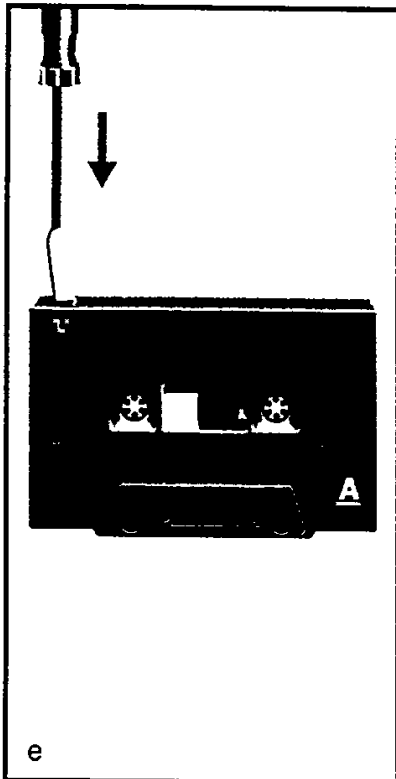
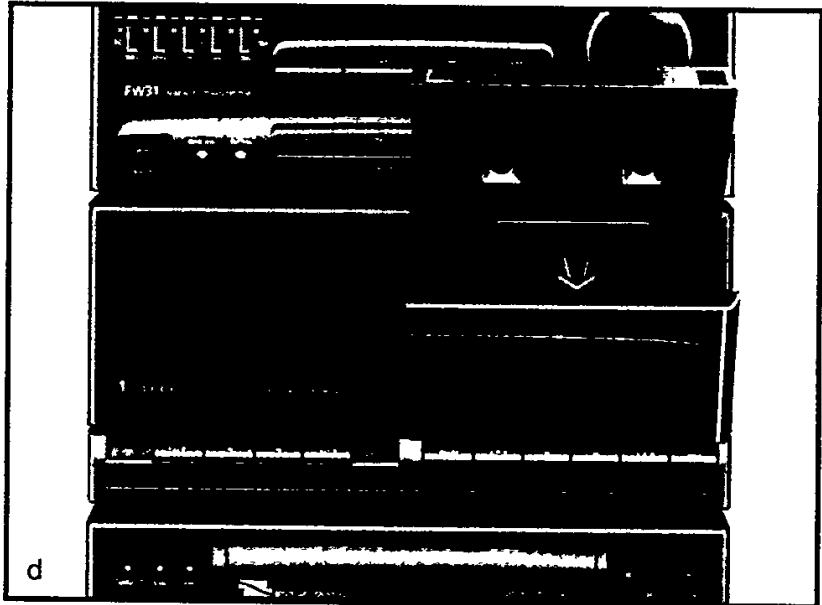
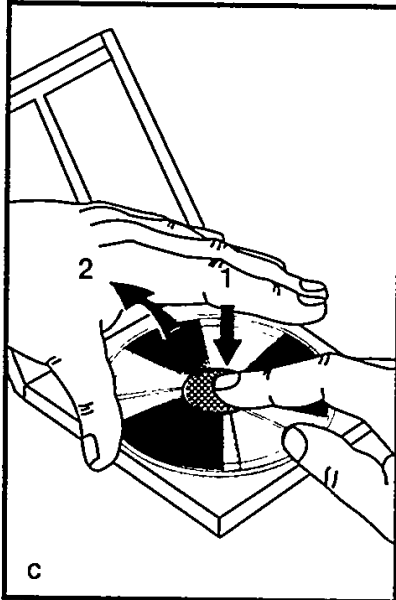
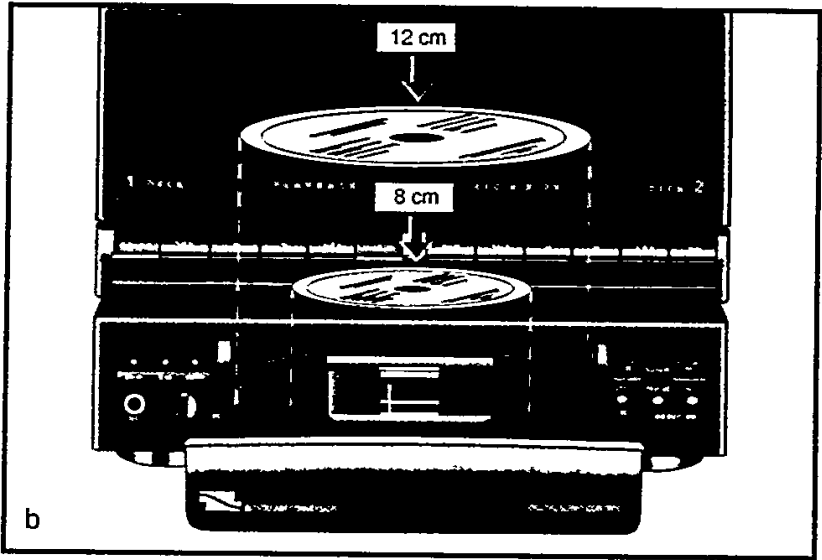
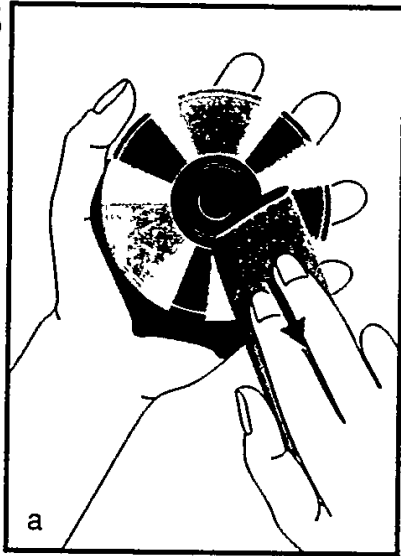
**Caution:** Invisible laser radiation when open and interlocks defeated. Avoid exposure to beam.







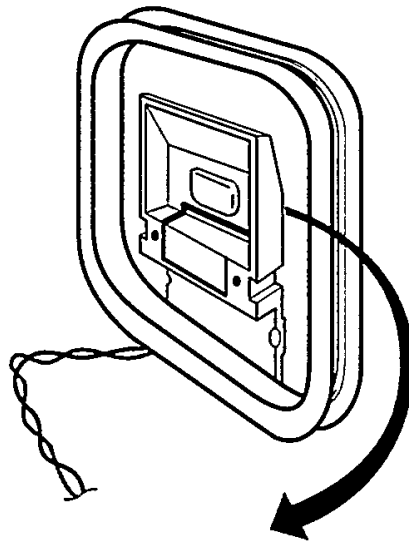
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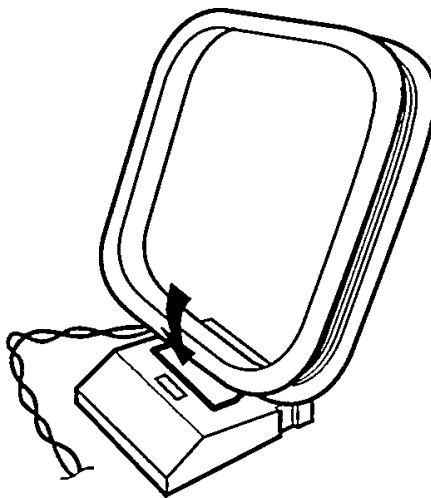


## AM Loop Antenna Connection

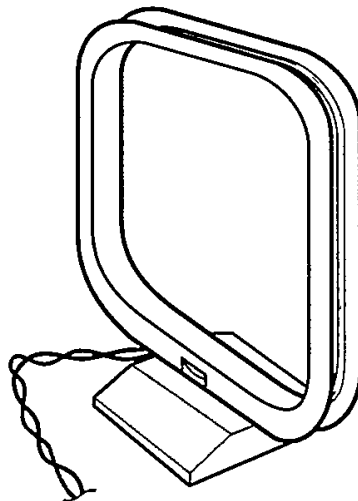
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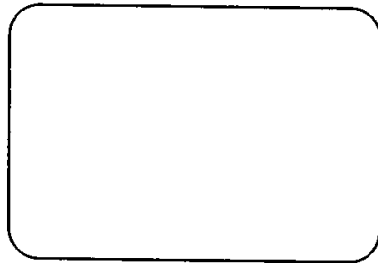
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**FW21**  
**FW31**



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