SONY

DAB/FM DIGITAL RADIO

Operating Instructions

DAB
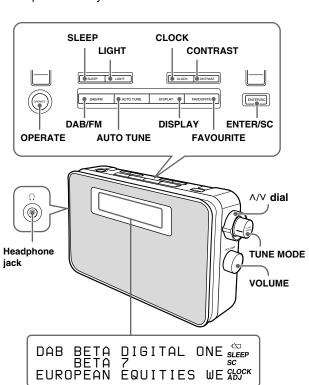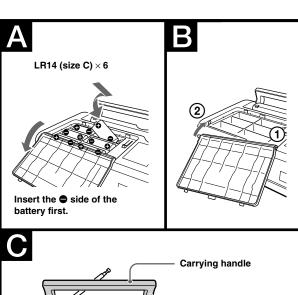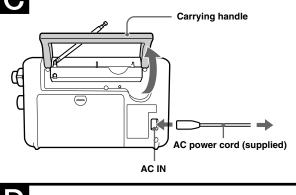*Digital Audio Broadcasting*

XDR-S20

eco info

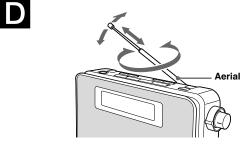Printed on 100% recycled paper using VOC (Volatile Organic Compound)-free vegetable oil based ink.

http://www.sony.net/

```
DAB BETA DIGITAL ONE   ∞
       BETA 7           SLEEP
EUROPEAN EQUITIES WE   SC
                       CLOCK
                       ADJ
```

A
LR14 (size C) × 6

Insert the ⊖ side of the battery first.

B
①
②

C
Carrying handle

AC power cord (supplied)

AC IN

D
Aerial

E
RESET button

WARNING

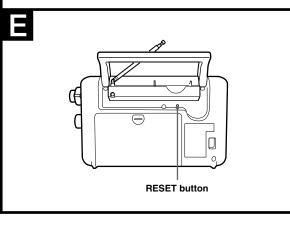**To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.**

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.
To reduce the risk of fire or electric shock, do not place objects filled with liquids, such as vases, on the apparatus.

Features

• DAB(Band-III)/ FM Digital Radio
• Large, full-dot LCD display with backlight and 3 lines of text information.
• Simple operation for station selection
• Enable to change station order
• 20 stations or services can be preset for DAB and 20 station presets for FM
• Sleep timer and clock display
• Stereo headphone jack
• AC or DC Operation

Choosing power sources
Installing Batteries (See fig. A)

1 Open the battery compartment at the rear of the unit.
2 Install six LR14 (size C) alkaline batteries (not supplied), observing polarity, and then close the lid.

Battery Life (Approx. hours)   (JEITA*)

When using	DAB	FM
Sony alkaline LR14 (size C)	12	48

* Measured by JEITA (Japan Electronics and Information Technology Industries Association) standards. The actual battery life may vary depending on the circumstance of the unit.

Knowing when to replace the batteries

When the batteries become weak, the sound becomes weak and distorted.
When the batteries are completely exhausted, "∞" appears on the display and the power is turned off.
When "∞" appears, replace all batteries with new ones. After the batteries are replaced, press **OPERATE** to turn the indication off.

Notes on replacing the batteries
• Do not take more than about 1 minutes to replace the batteries, otherwise the clock, any lists of receivable broadcasts for DAB scan, preset favourite stations and all settings will be initialized. Should that happen, set the functions again.
• If the batteries are replaced while the power is on, the unit may revert to the factory setting.

Notes on batteries
• Do not attempt to recharge dry batteries.
• Do not carry batteries with coins or other metallic objects. It can generate heat if the positive and negative terminals of the batteries are accidentally contacted by a metallic object.
• If you are not going to use the unit for a long time, remove the batteries to avoid damage from battery leakage and corrosion.
• Do not use different types of batteries at the same time.
• When you replace the batteries, replace all with new ones.

If the battery compartment lid comes off
(See fig. B)

The battery compartment lid is designed to come off when opened with excessive force. To put it back on, see the illustration.

① Insert the right hinge of the lid into the right hole of the unit.
② Insert the left hinge in the left hole of the unit.

Using House Current (See fig. C)

Connect the AC power cord (supplied) to the AC IN jack firmly, and plug it into a wall outlet.

Improving the reception
(See fig. D)

DAB Band-III/FM:
Extend the telescopic aerial and adjust the length and the angle for best reception.

Note
Adjust the direction of the aerial by holding the bottom of it. The aerial can be damaged when you move the aerial with excessive force.

Initial setting for the DAB

When the batteries are installed, or when the AC power cord is plugged in for the first time after purchase (or after resetting), the unit will automatically scan and create a list of receivable broadcasts.
If you wish to scan for the DAB broadcasts again, or when the unit is reset, do the following:

1 Adjust the aerial accordingly.
2 Press **OPERATE** to turn on the radio.
3 Press **DAB/FM** to select the DAB band.
4 Press **AUTO TUNE** for more than 2 seconds.
  "INIT SCAN INITIALIZE OK? PUSH ENTER KEY" appears in the display.
5 Press **ENTER/SC**.

No sound will be heard, and "<SCANNING>" appears in the display. DAB scan takes about 30 ~ 90 seconds. When finished, the unit receives the first service of the lowest ensemble stored by the DAB scan.

```
DAB INITIAL SCAN
   <SCANNING>
```

Notes
• If you do not operate within 65 seconds, the initial scan mode will be cancelled.
• If no broadcasts are found by the DAB scan, "SIGNAL NOT FOUND" appears in the display.

```
SIGNAL NOT FOUND
```

• To cancel the DAB scan halfway, press **AUTO TUNE**. Any services received before you cancel are added to the list of receivable services.
• If the batteries are removed for a certain period, the received history list will be deleted, requiring you to scan again.
• If you set the initial setting, any DAB services registered as **FAVOURITE** are erased.
• If you change the unit's location of use, or want to add a new service after the initial setting, press and release **AUTO TUNE**. "FULL SCAN" appears in the display and the unit will automatically scan and create a list of receivable services.

Setting the clock

"AM 12:00" (or "0:00") will blink in the display when the batteries are installed or the AC power cord is plugged in, and then **OPERATE** is pressed for the first time after purchase, or after resetting.

1 Press **CLOCK** to show the time set display.
2 Turn the ∧ (up)/∨ (down) to select "OFF" and press **ENTER/SC**.
  The hour indication starts blinking.
  Example: 12-hour system.

```
TIME SET
AM 12:00
```

3 Turn the ∧ (up)/∨ (down) to set the hour, and then press **ENTER/SC**.
  The minute indication starts blinking.
4 Turn the ∧ (up)/∨ (down) to set the minute, then press **ENTER/SC**.
  The clock starts operating, and ":" starts blinking.

Tips
• To set the current time rapidly, hold the ∧ (up)/∨ (down).
• To set the current time exactly to the seconds, adjust the minute function in step **4** and then press **ENTER/SC** to synchronize it with a time signal (such as the telephone time signal).
• The clock system varies depending on the model purchased. For example, in the 24-hour system, "0:00" is indicated as midnight, and "12:00" is indicated as noon.

Notes
• If you do not operate within 65 seconds while setting the clock, the clock setting mode will be cancelled.
• To cancel the clock setting mode halfway, press **CLOCK**.
• To show the current time as DAB is received, press **DISPLAY**.
  (See "Changing the display").

Setting the Clock Auto Adjustment Function

This function enables the built-in clock of this unit to automatically synchronize with any DAB data being received.

1 Press **CLOCK** to show the time set display.
2 Turn the ∧ (up)/∨ (down) to select "ON" and press **ENTER/SC**.

```
TIME SET
CLOCK AUTO ADJUST
   ON  OFF
```

  "**CLOCK ADJ**" lights and DAB data adjusts the clock as it is received.

Notes
• This function works only when receiving DAB data.
• If DAB is not available (depending on area), you can disable this function.
• If this function is active while adjusting the clock manually, DAB data will adjust the clock the next time the unit receives it.
• "**CLOCK ADJ**" appears only when receiving DAB data.

Operating the radio

The unit can receive DAB services and FM stations, both of which feature FAVOURITE and MANUAL modes - DAB services also feature ALPHABETICAL, NORMAL, ENSEMBLE, and LATEST modes.

ALPHABETICAL: To select a stored service in alphabetical order.
NORMAL: To select any of the stored services.
ENSEMBLE: To select a desired ensemble from the stored services. The ensemble label in the display.
FAVOURITE: To select your favourite stored service/stations. (See "Presetting your favourite services or stations").
If you have not registered a favourite yet, you cannot choose one.
MANUAL: To adjust the frequency incrementally.
LATEST: To select any of the last 10 stored services. As more services are selected, previously stored services are erased in chronological order. If there is no history of received services, this mode is unavailable.

1 Press **OPERATE** to turn on the radio.
  When the unit is turned on again, the last band you listened to is received.
2 Press **DAB/FM** repeatedly to select the desired band.
  Each press changes the band as follows:

  DAB → FM

3 Turn **TUNE MODE** ∧ (up) or ∨ (down) to select the desired mode.
  Each mode changes as follows.

  DAB: ALPHABETICAL → NORMAL → ENSEMBLE → FAVOURITE → MANUAL → LATEST

  FM: MANUAL → FAVOURITE

4 Turn the ∧ (up)/∨ (down) to tune to the desired service or station.
  Two short beeps sound when the lowest ensemble of DAB or the minimum frequency of FM is received during tuning.
5 Adjust the volume using **VOLUME**.

Note in FM usage
The channel step is set to 0.05 MHz on FM.

Notes in DAB usage
• Before receiving DAB broadcasts, one or more ensembles should be stored in the list by the DAB scan. (See "Initial setting for the DAB").
• If there are no services, you can choose only MANUAL mode.
• "< NO ENSEMBLE >" appears when the ensemble for the selected service cannot be received.

```
DAB BETA DIGITAL ONE
     BETA 7
  < NO ENSEMBLE >
```

• If a selected service finishes broadcasting, sound stops and "< NO SERVICE >" appears. In this case, turn the ∧ (up)/∨ (down) to select another service.
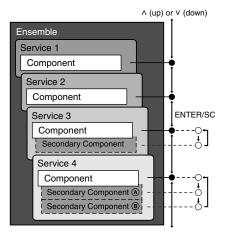
About the SC (Secondary Component)

If the selected primary component has a secondary component, "**SC**" blinks on the display.

```
DAB BETA DIGITAL ONE   ✓
     BETA 7
EUROPEAN EQUITIES WE   SC
```

Press **ENTER/SC** to receive the desired secondary component. "**SC**" appears while the secondary component is received.

Turn the ∧ (up)/∨ (down) or pressing **ENTER/SC** does the following:

Note
When the selected secondary component is finished, the unit returns automatically to the primary component.

Presetting your favourite services or stations
— Favourite mode
You can preset 20 services in DAB and 20 stations in FM.

Presetting services or stations
1 Follow steps **1** to **4** in "Operating the radio" and manually tune in to the broadcast you wish to preset.
2 Press **FAVOURITE**.
"SAVE FAVOURITE" appears in the display.
3 Turn the ∧ (up)/∨ (down) to select the favourite number to preset, then press **ENTER/SC**.
"STORED" appears for one second in the display and the service or station is stored. (DAB services are stored with a service label.)

Note
To preset another service or station, repeat these steps.
To change the preset service or station, tune in to the desired service or station and repeat steps **2** and **3**. The new service or station will replace the previous service or station.

Deleting from the Favourite Folder
1 Tune in to the band you wish to delete.
2 Hold down **FAVOURITE** for more than 2 seconds.
"DELETE FAVOURITE" appears in the display.
3 Press **ENTER/SC**.
When the favourite is deleted, the preceding favourite is received.

Tuning in to a preset service or station
1 Turn **TUNE MODE** ∧ (up) or ∨ (down) to select "FAVOURITE" and press **ENTER/SC**.
2 Turn the ∧ (up)/∨ (down) to select the desired preset favourite station.

Note
If you do not operate within 65 seconds during the above steps, the current mode will be cancelled.

Other useful functions
Setting the Sleep Timer
You can enjoy falling asleep to the radio using the built-in sleep timer that turns off the radio automatically after a preset duration.
1 Press **SLEEP**.
"SLEEP" and the timer setting appear.

```
SLEEP 60
```

If you press **SLEEP** while the unit is turned off, the unit is turned on.
2 Press **SLEEP** repeatedly to select the desired sleep timer setting. Each press changes the setting time as follows:

```
┌→ 60 → 45 → 30 → 15 → OFF ┐
└──────────────────────────┘
```

Two short beeps sound when the display returns to "SLEEP 60".
After about 3 seconds, "SLEEP" appears in the display when the duration time is set.
The unit automatically turns off when the duration time is passed.

To change the Sleep Timer setting
Press **SLEEP** repeatedly to select the desired sleep timer setting even after the sleep timer has been activated.

To deactivate the Sleep Timer
Press **OPERATE** to turn off the unit before the setting time has elapsed, or press **SLEEP** repeatedly to set the sleep timer to "SLEEP OFF" in step **2**.
"SLEEP" disappears from the display.

To listen with headphones (not supplied)
Connect headphones to the ∩ (headphone) jack. The sound through the speaker will not be heard.

To adjust the LCD contrast
You can adjust the display between 15 different contrast levels.
1 Press **CONTRAST**.
"CONTRAST" and "▮" appear in the display. To increase contrast, move "▮" to the right.

```
CONTRAST
------▮------
```

2 Turn the ∧ (up)/∨ (down) to adjust contrast, and press **ENTER/ SC**.

Note
If you do not operate within 65 seconds, the contrast mode will be cancelled.

To illuminate the LCD
• Press **LIGHT** to select the backlight high, low or off.
• The first time you turn on the unit in AC operation, the backlight is set to high (default). Any change to this setting will be retained.
• When DC operation, the backlight will turn off automatically if no operation is performed for 30 seconds.
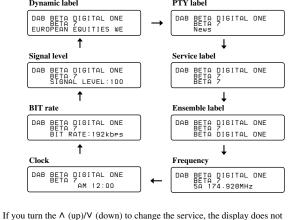
Scan tuning (FM only)
The unit will automatically scan FM.
1 Press **OPERATE** to turn on the radio.
2 Press **DAB/FM** to select the FM band.
3 Press **AUTO TUNE**.
Scanning starts from the frequency being tuned in. When a station is received, scanning pauses for 3 seconds and then continues.
4 When the unit tunes in to the desired station, press **AUTO TUNE** again to stop scanning.
5 If necessary, turn the ∧ (up)/∨ (down) to tune in to the station more precisely.
6 Adjust the volume using **VOLUME**.

Changing the display (DAB only)
To change the display mode, press **DISPLAY** during DAB reception. The selected display mode remains even if you turn the unit off and on again, or change the band.

A dynamic label can be up to 128 characters long. PTY, service and ensemble labels can be up to 16 characters long.

Each time you press **DISPLAY**, the bottom in a display changes as follows:

Dynamic label
```
DAB BETA DIGITAL ONE
    BETA 7
EUROPEAN EQUITIES WE
```
↑

Signal level
```
DAB BETA DIGITAL ONE
    BETA 7
    SIGNAL LEVEL:100
```
↑

BIT rate
```
DAB BETA DIGITAL ONE
    BETA 7
    BIT RATE:192kbps
```
↑

Clock
```
DAB BETA DIGITAL ONE
    BETA 7
    AM 12:00
```

PTY label
```
DAB BETA DIGITAL ONE
    BETA 7
    News
```
↓

Service label
```
DAB BETA DIGITAL ONE
    BETA 7
    BETA 7
```
↓

Ensemble label
```
DAB BETA DIGITAL ONE
    BETA 7
    BETA DIGITAL ONE
```
↓

Frequency
```
DAB BETA DIGITAL ONE
    BETA 7
    5A 174.928MHz
```

If you turn the ∧ (up)/∨ (down) to change the service, the display does not change.

Notes
• If there is no service label, no message will be displayed.
• If there is no dynamic label, "<NO DLS>" will appear.

PTY (Programme Type)
This function indicates services in programme type, such as NEWS, SPORTS of the PTY list, transmitted in the DAB.

If the received service or station does not transmit the programme type, "NO PTY Data" appears.

Programme type	Display
Undefined	None
News	News
Current Affairs	Current Affairs
Information	Information
Sport	Sport
Education	Education
Drama	Drama
Culture	Cultures
Science	Science
Varied	Varied Speech
Pop Music	Pop Music
Rock Music	Rock Music
Easy Listening Music	Easy Listening
Light Classical	Light Classics M
Serious Classical	Serious Classics
Other Music	Other Music
Weather	Weather & Metr
Finance	Finance
Children's programmes	Children's Progs
Social Affairs	Social Affairs
Religion	Religion
Phone In	Phone In
Travel	Travel & Touring
Leisure	Leisure & Hobby
Jazz Music	Jazz Music
Country Music	Country Music
National Music	National Music
Oldies Music	Oldies Music
Folk Music	Folk Music
Documentary	Documentary

To reset the unit (See fig. E)
Press this button with a pointed object when the radio fails to function properly. The clock settings, and the services and stations you have preset, etc., will revert to the factory preset.

Precautions
• Operate the unit only on the power sources specified in "Specifications". For battery operation, use six LR14 (size C) alkaline batteries. For AC operation, use only the supplied AC power cord. Do not use any other type of AC power cord.
• The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
• Use the unit within a temperature range of 0°C to 40°C (32°F to 104°F). If it is used in temperatures higher than this range, numbers may appear in the display which have nothing to do with the frequency being received. If it is used in temperatures lower than this range, the numbers displayed may change very slowly. (These irregularities will disappear and there will be no damage to the unit when the unit is used in the recommended temperature range.)
• The nameplate indicating operating voltage, etc. is located on the bottom exterior.
• Avoid exposure to temperature extremes, direct sunlight, moisture, sand, dust or mechanical shock. Never leave in a car parked in the sun.
• Should any solid object or liquid fall into the unit, disconnect the AC power cord and remove the batteries, and have the unit checked by a qualified personnel before operating it any further.
• In vehicles or buildings, radio reception may be difficult or noisy. Try listening near a window.
• Since a strong magnet is used for the speakers, keep away personal credit cards using magnetic coding or spring-wound watches from the unit to prevent possible damage from the magnet.
• To clean the casing, use a soft cloth dampened with a mild detergent solution.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

If you have any questions or problems concerning your unit, please consult your nearest Sony dealer.

Troubleshooting
Should any problem persist after you have made the following checks, consult your nearest Sony dealer.

Display is dim, or no indication is displayed.
• The unit is being used in extremely high or low temperatures or in a place with excessive moisture.

Very weak or interrupted sound, or unsatisfactory reception.
• If you are in a building, listen near a window.

A station or service cannot be received when a FAVOURITE button is pressed.
• The station or service has not been preset.
• Another station or service is preset. Preset the station or service again.

The preset services and stations may be initialized, if a maintenance service is performed.
Please keep a copy of your settings in case you want to preset them again.

Specifications
Time display

UK	12-hour system
Other countries/regions	24-hour system

Frequency range

Band	Frequency	Channel step
DAB (Band-III)	174.928 - 239.200 MHz	
FM	87.5 - 108 MHz	0.05 MHz

DAB (Band-III) frequency table (MHz)

No.	Channel	Frequency	No.	Channel	Frequency
1	5A	174.928	20	9D	208.064
2	5B	176.640	21	10A	209.936
3	5C	178.352	22	10B	211.648
4	5D	180.064	23	10C	213.360
5	6A	181.936	24	10D	215.072
6	6B	183.648	25	11A	216.928
7	6C	185.360	26	11B	218.640
8	6D	187.072	27	11C	220.352
9	7A	188.928	28	11D	222.064
10	7B	190.640	29	12A	223.936
11	7C	192.352	30	12B	225.648
12	7D	194.064	31	12C	227.360
13	8A	195.936	32	12D	229.072
14	8B	197.648	33	13A	230.784
15	8C	199.360	34	13B	232.496
16	8D	201.072	35	13C	234.208
17	9A	202.928	36	13D	235.776
18	9B	204.640	37	13E	237.488
19	9C	206.352	38	13F	239.200

Speaker:
Approx. 9.2 cm (3.6 in) dia. 8 Ω
Power output:
0.8 W (at 10 % harmonic distortion)
Output:
∩ (headphone) jack (ø 3.5 mm, stereo mini jack)
Power requirements:
230 V AC, 50Hz
9 V DC, six LR14 (size C) alkaline batteries
Dimensions:
Approx. 281 × 161 × 76.5 mm (w/h/d)
(Approx. 11 ⅛ × 6 ⅜ × 3 ⅛ inches) incl. projecting parts and controls
Mass:
Approx. 1,750 g (3 lb 13.8 oz) incl. batteries
Supplied accessories:
AC power cord (1)

Design and specifications are subject to change without notice.

eco info

Lead-free solder is used for soldering. Halogenated flame retardants are not used in printed wiring boards.