GRUNDIG

FINE ARTS

WORLD RECEIVER
YACHT BOY 400

Contents

GB

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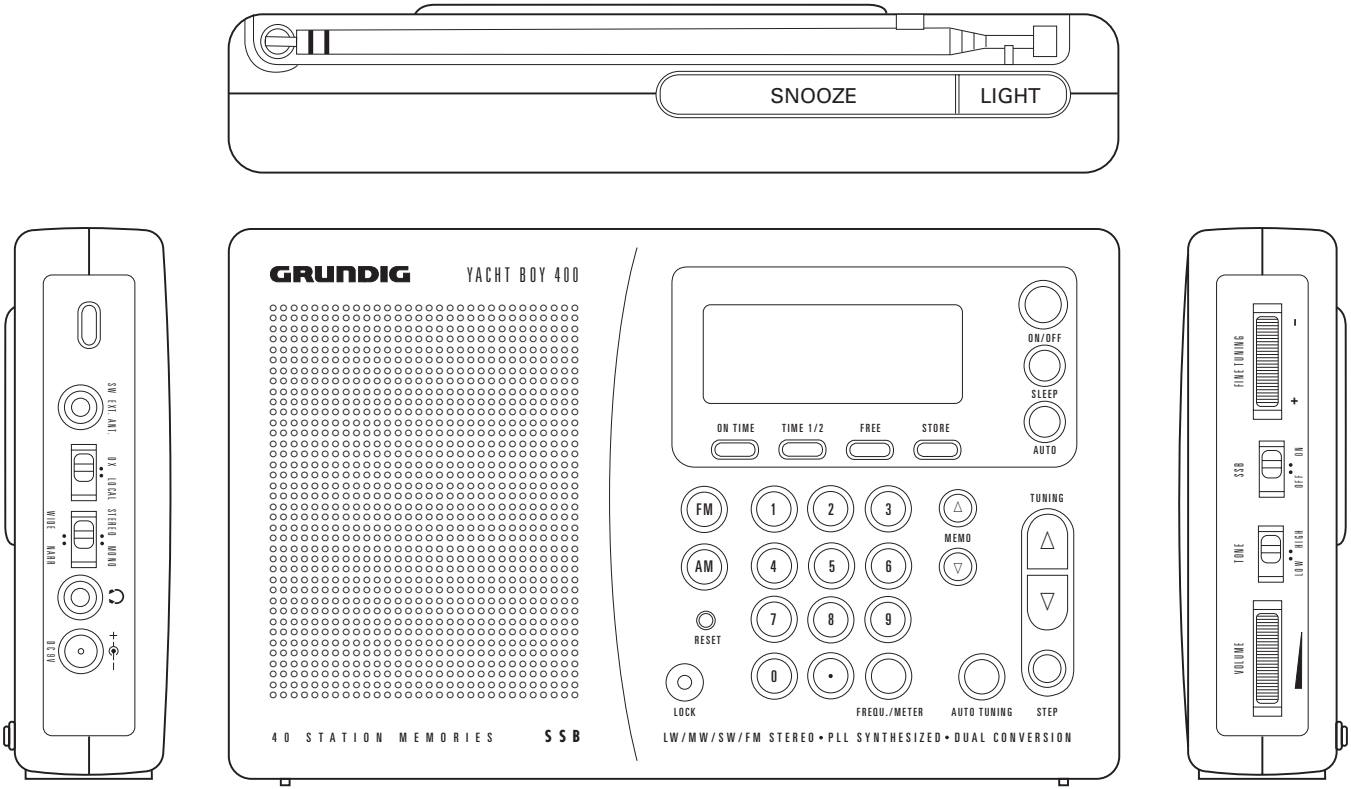
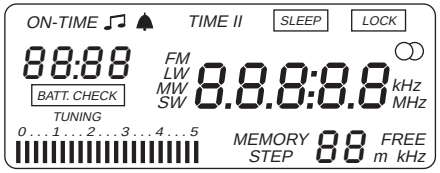
Your Unit at a Glance



Your Unit at a Glance

Display



Optimum read-off quality will be obtained when the set is brought into a tilted position. For this, use the swing-out support at the back of the unit.

ON-TIME **Wake-up time/switch-on time**
If ON-TIME is indicated, the wake-up time is shown below (in the left numeric block).

88:88 **Left numeric block**
a. With radio switched on:
1) Clock time indication (TIME I or TIME II).
2) Wake-up time indication (can be called up by pressing the ❍ AUTO button).
3) Sleep time indication.
b. With radio switched off: Wake-up time indication.

BATT. CHECK **Battery check**
When this indication appears, the batteries should be replaced.

TUNING **Tuning/field strength indication**
0...1...2...3...4...5
The reception quality corresponds to the length of the tuning bar.

♫ ♠ **Wake-up mode symbols**
You can select the wake-up mode (radio ♫ or sound signal ♠) by pressing the ❍ AUTO button.

TIME II **Time I/II**
You can select between two times (2 different time zones).
Indication of the respective time:
– In the left numeric block with the radio switched on.
– In the large numeric block with the radio switched off.

SLEEP **Sleept time**
A sleep time (operating time) is entered (10, 20, 30, 40, 50 or 60 minutes).
When entering the time, it will briefly be indicated in the left numeric block.

LOCK When this indication is visible, all buttons are locked, except
– the ❍ ON/OFF button (this can further be used to switch off the radio);
– the ⬭ SNOOZE button (the functions of this button are retained).

Your Unit at a Glance

∞ **Stereo**
Indication in the case of stereo broadcasts.

FM
LW
MW *kHz*
SW *MHz* Indication of the waveband (FM/LW/MW/SW) and the frequency.
The associated numeric value is indicated in the large numeric block.

8.8.8:8.8 **Large numeric block**
With the radio switched on: Frequency indication and special messages (e.g., Error).
With the radio switched off: Time 1 or time 2 (e.g., 2:04).

88 **Bottom numeric block**
With the radio switched off: Seconds indication.
With the radio switched on: See following description.

88 *FREE* **Free memory position**
Indicates the number of a free memory position.

MEMORY 88 **Memory position**
Indicates the number of the memory position on which the stored frequency is currently received.

STEP 88 *kHz* **Tuning step**
Indicates the width of the manual tuning steps in the AM wavebands (1, 5, 9 or 10 kHz).

88 *m* **Meter band indication**
Indicates the number of the meter band selected.

Front of Unit

Multifunction **display**
(Description see further up)

ON/OFF **On/off button**
For switching the unit on and off.
You can switch the unit off even if all buttons are locked (in LOCK position).

SLEEP **Sleep button**
For entering a time after which the unit is switched off (sleep time).
Initial value: 60 minutes. This value is decreased in steps of 10 minutes by repeatedly pressing this button.
The following order is run through:
60 → 50 → 40 → 30 → 20 → 10 → Radio off → Radio on for 60 min. → 50 ... .
Short pressure on the ❍ SLEEP button: Indication of the remaining sleep time for approx. 5 seconds in the display (left numeric block).

AUTO **AUTOMATIC button**
For switching between the three function modes:
– Wake-up with radio. The display indicates ♫.
– Wake-up with sound signal (also with switched-on radio). The display indicates ♠.
– Wake-up function off. When switching to this function, the display (left numeric block) indicates for approx. 5 seconds "-:--".

ON TIME **Switch-on time**
For calling up the wake-up time (in the left numeric block) when the radio is switched on.
For setting the wake-up time (switch-on time) (e.g., 7 . 3 0 ON-TIME = 7:30).

TIME 1/2 **Time I/II**
For selecting between Time I and Time II.
For setting and calling up the times I and II, e.g., 2 1 . 4 0 TIME I/II or TIME I/II 2 1 . 4 0 TIME I/II.

FREE **Free**
Indicates free memory positions in increasing order.
Two successive pressures on this button will clear occupied memory positions (e.g., 4 FREE FREE).

STORE **Store in memory**
You can store in memory up to 40 stations.
To avoid redundant storing, first check whether the currently received station has already been stored.
If the station has not yet been stored, enter the number of the desired memory position and store the station in memory by pressing the STORE button (e.g., 1 3 STORE).
If the selected memory position is not free, the indication will flash for approx. 5 seconds. The memory position will not be overwritten.

Two pressures on the button will overwrite occupied memory positions (e.g., 23 STORE STORE): The selected memory position is overwritten and occupied by the station currently tuned to.

FM **VHF**
For selecting the desired FM (VHF) band.
You will hear the last station tuned to in this waveband (Last Station Memory).
For clearing incorrect numeric entries.

AM **AM**
For switching to the AM wavebands.
Repeated pressures on this button will select the wavebands in the following order:
LW – MW – SW – LW – MW – etc.
You will hear the station last received in the respective waveband (Last Station Memory).
For clearing incorrect numeric entries.

RESET For clearing all stored data (memory positions, clock time).
For resetting an eventually blocked keyboard (e.g., after static charges).

LOCK **Key lock**
For locking all keys except the
❍ ON/OFF button (for switching off) and the
⬭ SNOOZE button.

⓪ ... ⑨, ⊙ **Numeric buttons and decimal point**
For direct numeric entries.
Two pressures on this button will clear incorrect numeric entries.

FREQU./METER For entering frequencies
(e.g., 1 0 7 . 7 FREQU./ METER = FM 107.7 MHz).
For entering meter bands
(e.g., 1 3 FREQU./METER = 13 m).

MEMO ▲ For calling up the memory positions 1 ... 40
(e.g., 2 0 MEMO ▲ = call-up of memory position 20).
Press once: Next higher memory position.
Press and keep pressed longer than 1 s: Automatic memory position selection in ascending order.
The automatic memory position select function stops for approx. 5 seconds on each memory position so that the station received on it can be checked. A further pressure on the MEMO ▲ button will terminate this function.

MEMO ▼ For calling up the memory positions (as with MEMO ▲).
Press once: Next lower memory position.
Press and keep pressed longer than 1 s: Automatic memory position selection in descending order.
The automatic memory position select function stops for approx. 5 seconds on each memory position so that the station received on it can be checked. A further pressure on the MEMO ▼ button will terminate this function.

TUNING ▲/▼ For manual step-by-step tuning in direction of higher or lower frequencies.
Keep button pressed: Frequency scan up or down.

STEP For selecting the manual tuning steps (the respective waveband must have been selected).
LW 1 kHz or 9 kHz
SW 1 kHz or 5 kHz
MW 1 kHz or 9 kHz resp. 10 kHz
For selecting the tuning step 9 kHz or 10 kHz in the MW band, the unit must be switched off with the ❍ ON/OFF button.

AUTO TUNING **Automatic station tuning**
Press briefly: Automatic station tuning in direction of higher frequencies.
Keep pressed longer then 0.5 s: Automatic station tuning in direction of lower frequencies.

Top of Unit

Telescopic aerial
for FM and SW reception.

SNOOZE **Snooze button**
Press once to switch off the radio or the alarm function after wake-up. After five minutes, the wake-up function will be repeated (sound signal or radio).
Keep pressed the button longer than 2 seconds to switch off the wake-up function. The function will be retained for the following day(s).
If the SNOOZE button is not pressed, the sound signal will sound for 5 minutes or the radio play for 60 minutes. After that, the respective function will be switched off.

LIGHT **Display illumination**

Press this button to illuminate the display. After 10 seconds, the illumination will automatically be switched off.
The duration of the display illumination will be increased if any other button will be pressed within this 10-seconds period.
A pressure on the ❍ LIGHT button will immediately switch off the display illumination.

Your Unit at a Glance

Right Side of Unit

FINE TUNING **Fine tuning**
For fine tuning on SSB reception.

SSB **SSW on/off switch**
For switching on and off the SSB mode (Single Side Band reception).

SSB is especially used for amateur SW radio reception.

TONE **Tone control**

Two positions: HIGH (treble) and LOW (bass).

VOLUME **Volume control**

Left Side of Unit

SW EXT.ANT **Socket for external aerial**
Aerial connection for SW reception. For external aerial with 3.5 mm ø jack plug.

DX/LOCAL **Sensitivity switch**
Normal position is "DX" (distant reception).
If the signal is too strong resulting in reception interferences, set the switch to "LOCAL".

STEREO MONO **On FM: Mono/stereo switch.**
WIDE NARR **On AM: Wide/narrow switch.**
In the FM waveband, this switch is used to select between mono and stereo reception.
In the AM wavebands, the same switch is used for changing the bandwidth.

🎧 **Headphone/earphone socket**
For headphone or earphone with jack plug of 3.5 mm ø (32 Ohm impedance). Connecting a headphone disconnects the built-in loudspeaker. For this reason, the headphone must be disconnected if you wish to be woken up by the radio.

+⊖– **DC socket**
DC 9V
For connecting a commercial plug-in mains unit with coaxial plug (outer diameter 5.5 mm, inner diameter 2.1 mm; output voltage 9.0 V⎓; mains voltage 230 V∿, 50/60 Hz; neutral conductor connected to earth +⊖–).

Rear of Unit

Swing-out support
Swing out this support to bring the unit into a tilted position.
On the support there is an illustration showing the time zones of the earth.
Below the support there is the type plate of the unit.

Battery compartment
For six 1.5V batteries (IEC LR6, UM-3).

Aerials

Telescopic aerial

for FM and SW reception.

When the aerial base is completely retracted, the telescopic aerial can be tilted and swivelled into the position giving best reception.

For SW reception, fully extend the aerial and position it vertically.

Due to the much better propagation conditions in the evening and night hours with respect to daytime reception, interferences may occur during these hours.

These interferences can be reduced by partially pushing in the telescopic aerial.

Please note:
Touching the telescopic aerial will affect the FM and SW reception quality.

Ferrite rod aerial

for MW and LW reception (built-in).

Turn the unit about its vertical axis to find the position giving best reception.

Power Supply

Mains Operation

Only use a mains unit with the correct output voltage of 9V = and correct polarity +-⊖-– .

Connect the mains unit to the DC 9V socket. This disconnects the inserted batteries.

No responsibility can be accepted for damage due to incorrect mains operation.

Remove the batteries if you intend to operate the unit permanently on the mains!

Battery Operation

with six 1.5 Volt batteries, type IEC LR 6 / UM-3/AA.

We recommend the use of alkaline-manganese batteries with low mercury percentage or no mercury at all.

Disconnect the plug of the mains unit from the DC 9V socket.

Open the cover of the battery compartment (at back of unit).

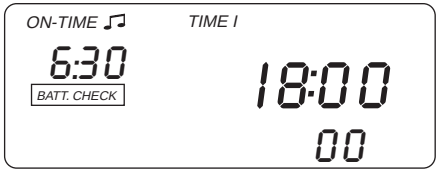
Insert batteries with correct polarity (see scheme above battery compartment).

Observe correct order of batteries when fitting them.

Battery Check

When the batteries get weak, the indication BATT. CHECK will flash in the display.

When the radio is switched on, it will switch off after a short time.



Attention

Remove exhausted batteries immediately from the unit!

If the unit is not to be used for long periods, also remove new batteries!

No responsibility can be accepted for damage caused by leaking batteries.

Protect the Environment!

Do not throw exhausted batteries in the household waste!
When buying new batteries, hand over the old ones to your radio dealer or a special collecting point.

Power Supply

Data Protection (Mains and Battery Operation)

The data stored in the station memory, the clock time, and the Last Station Memory are retained for approx. 10 minutes. You can calmly exchange the batteries without being afraid of loosing the stored data.

RESET Button

If, due to external interferences (caused by static charges of carpets, thunderstorms, etc.), the control electronics of your Yacht Boy 400 should receive bad information signals, or if no entries at all are possible, press the ❍ RESET button. This is to be found between the ❍ AM and the ❍ LOCK button.

For pushing this button, it is best to use a bent-up paper clip.

This releases the RESET impulse which in turn resets the unit to its initial programming state.

The stored data for the individual station memory positions, the clock time and the last station memory is cleared.

When the power supply is interrupted, the stored stations and menu options are retained for approx. 10 minutes.

For convenient operation, your Yacht Boy can be brought into a tilted position by the swing-out stand provided at its rear.

The type plate is to be found below this stand.
On the stand, there is an illustration showing the time zones of the world.

Button pressure times

Brief: less than 0.5 seconds.
Long: more than 0.5 seconds.

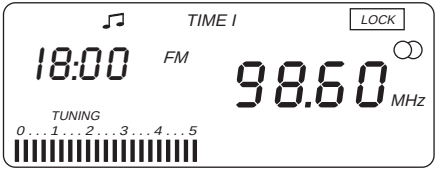
Switching On/Off and Locking

To switch the unit on and off, press the ❍ (ON/OFF) button (with the LOCK not being activated, see below).

Locking

With the unit being switched on or off, you can lock the function buttons at the front of the unit by pressing the ❍ LOCK button. The buttons are thus protected against inadvertent operation (indication LOCK in display).

To unlock the buttons, press the LOCK button once again.



Direct Entries

For entering numeric values, use the numeric buttons. These values are:

Frequencies, station position numbers (programming and calling up), SW meter bands, clock times, and switching times. For each data entry (pressure on a button), you dispose of up to approx. 5 seconds. When this time has elapsed, you must re-enter the whole numeric value.

To immediately correct bad entries which have not yet been concluded, press the FM or AM button, or press twice the "." button (decimal point) of the numeric buttons.

If you should make a bad entry or operation, the error message Error will appear in the display.

Display Illumination

Pressing the ⬭ LIGHT button switches on the display illumination for approx. 10 seconds.

If you press a button of the unit, this illumination time will be increased.

If you wish to immediately switch off the display illumination, press the ⬭ LIGHT button once again.

Volume and Tone

The volume
is adjusted with the VOLUME control.

The tone
is adjusted with the TONE switch.

LOW = Bass.
HIGH = Treble.

Waveband Selection

After switching on the unit with the ❍ ON/OFF button, it is ready for reception and you hear the station last tuned to.

FM
The FM (VHF) band is selected with the ❍ FM button.

AM
The AM bands are selected with the ❍ AM button.

The first pressure on the ❍ AM button switches to the station last received on one of the AM bands.

Each further pressure on the ❍ AM button steps through the AM bands in the order

LW → MW → SW → LW → MW → etc.

and you will hear the station last tuned to in the selected band.

Station Tuning

Switch the unit on with the ❍ ON/OFF button.

The display indicates the frequency tuned to – on FM in MHz, and on AM in kHz.

Frequency Tuning in the FM Band

Select the FM band.

You hear the station last tuned to in the FM band.

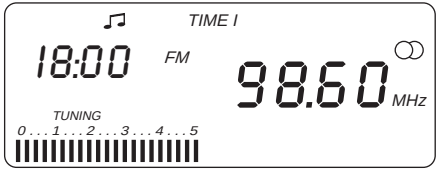
Manual tuning

Tune to the desired station by briefly pressing one of the buttons ⎔ TUNING ▲ or TUNING ▼.
Each button pressure will change the frequency by 50 kHz.
If the ⎔ TUNING ▲ or TUNING ▼ button is kept pressed, the frequency range will be sanned in 50 kHz steps at high speed until the respective button is released.

Automatic tuning (AUTO TUNING)

This frequency search is started by pressing the ❍ AUTO TUNING button.
Short presssure: Search is started in direction of higher frequencies.
Long pressure: Search is started in direction of lower frequencies.
The search function operates with 50 kHz steps.

The automatic search will stop as soon as it has found a station worthy of reception (of a signal strength sufficient for good reception). It then can be restarted with the ❍ AUTO TUNING button (brief or long pressure).



Frequency Tuning in the AM Bands

Select the AM range.

You will hear the station last tuned to in the respective AM band.

Selecting an AM band

Press the ❍ AM button repeatedly until the desired AM band is selected. This is indicated in the display. Each pressure on the button steps through the AM band in the order

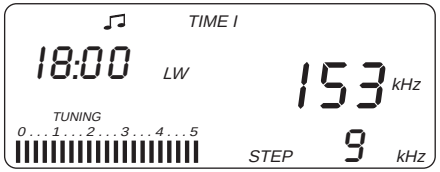
LW ⟶ MW ⟶ SW ⟶ LW ⟶ MW ⟶ etc.

Station Tuning

Adjusting the tuning steps

The tuning steps are adjusted with the ❍ STEP button.

With the unit switched on, you can switch between:
1 kHz or 9 kHz on LW
1 kHz or 5 kHz on SW
1 kHz or 9 resp. 10 kHz on MW.
The respective waveband must be selected.
Repeatedly press the ❍ STEP button until the desired tuning step value (e.g., in the figure, STEP 9KHZ) is indicated in the display.



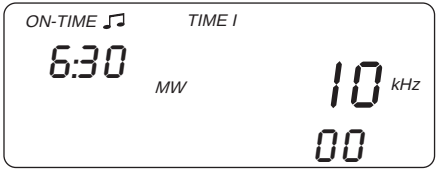
With the unit switched off, you can switch between the tuning steps 9 kHz and 10 kHz (for USA radio stations) in the MW band.

If the unit is not yet switched off, do this.
Press the AM button, then repeatedly press the ❍ STEP button until the desired step value is indicated in the display.
After approx. 5 seconds, the display will indicate again the clock time.

You can switch between 5 kHz and 10 kHz tuning steps

– as soon as the AM button has been pressed after switching off the unit,
– until you switch the unit on again.

This is a precaution to avoid accidental tuning step switching.



When activating the automatic tuning mode, the unit automatically switches to the higher tuning step. However, the 9 kHz or 10 kHz choice in the MW band is retained.

Manual tuning

– Tune to the desired station by briefly pressing on the ❍ TUNING▲ or TUNING▼ button.
  Each pressure on the button performs a tuning step of the value adjusted for the respective waveband (FM: 50 kHz, AM: see chapter "Adjusting the tuning steps").
– When keeping pressed the ❍ TUNING▲ or TUNING▼ button, the respective waveband will be scanned at high speed with the tuning steps selected for it. Releasing the pressed button will stop scanning.

Automatic tuning (AUTO TUNING)

This frequency search is started by pressing the ❍ AUTO TUNING button.
Short presssure: Search is started in direction of higher frequencies.
Long pressure: Search is started in direction of lower frequencies.

The search function operates with the tuning steps

9 kHz on LW,
5 kHz on SW,
9 or 10 kHz on MW.

If a lower step value has been adjusted, the unit will automatically select the tuning steps indicated above. For 9 kHz/10 kHz switching on MW, see chapter "Adjusting the tuning steps", page 16.

The automatic search will stop as soon as it has found a station with sufficient field strength for good reception. It can then be restarted with the ❍ AUTO TUNING button (brief or long pressure).

Station Tuning with the Numeric Buttons

(Direct frequency entry)

For this, the frequency of the station you wish to tune to must be known. You can find these frequencies in station tables or radio guides. You can enter the frequency in MHz or kHz, or as meter band on SW.

Confirm the entries with the ❍ FREQU./METER button.

On FM: MHz indication.
On AM: kHz indication.

Examples:

Desired frequency	Entry order
99.00 MHz	99. → ❍ FREQU./METER button
99.00 MHz	99.0 → ❍ FREQU./METER button
99.00 MHz	99.00 → ❍ FREQU./METER button
99.10 MHz	99.1 → ❍ FREQU./METER button
99.10 MHz	99.10 → ❍ FREQU./METER button
99.10 MHz	99.100 → ❍ FREQU./METER button
7000 kHz	7000 → ❍ FREQU./METER button

It is absolutely necessary to enter the decimal point, even if no further figures follow. The decimal point is the indication that the entry is made in MHz. Without decimal point, the entry is interpreted as kHz entry.

Entering a Meter Band

Entering a meter band on SW

Entered numbers below 100 with subsequent confirmation by the ❍ FREQU./METER button are interpreted as wavelength in meter for SW.

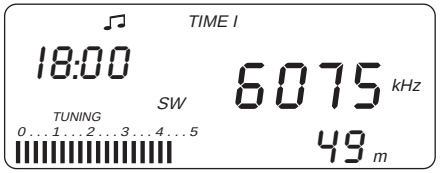
If the entry is valid, a frequency next to the band centre will be tuned to in the case of radio bands, and the beginning of the respective SW band in the case of amateur bands.

See table on page 19.

It is possible to enter the following meter bands:
10, 11, 12, 13, 15, 16, 17, 19, 20, 22, 25, 30, 31, 40, 41, 49, 60, 75, 80, 90.

Entry example for the 49-m band:

Numeric buttons 4 9, button ❍ FREQU./METER ⟶ 6075 kHz (= Deutsche Welle).



Indication of the current band on SW

In the case of direct frequency entry or SW frequency scanning (within a m-band):
The selected band is permanently indicated.

In the case of direct frequency entry or manual tuning:
If the frequency tuned to lies within one of the above indicated bands, this band will permanently be indicated in the display.

If the entry made is invalid, the indication "Error" appears for approx. 5 seconds in the display.

Entering a Meter Band

Band (m)	Lower cut-off frequecy (kHz)	Radio station* or band centre
90-m tropic	3200	3300
80-m amateur	3500	
75-m radio	3900	3955
60-m tropic	4750	4905
49-m radio	5950	6075
40-m amateur	7000	
41-m radio	7100	7200
31-m radio	9500	9635
30-m amateur	10100	
25-m radio	11650	11845
22-m radio	13600	13700
20-m amateur	14000	
19-m radio	15100	15320
16-m radio	17550	17705
17-m amateur	18065	
15-m amateur	21000	
13-m radio	21450	21690
12-m radio	24890	
11-m radio	25650	25820
10-m amateur	28000	

* Not all radio stations are broadcasting 24 hours the day and during all seasons a programme on this frequency. For this reason, consider the different broadcasting times.

Storing, Calling Up, and Clearing

What Can You Store?

You can programme up to 40 station memory positions (memory positions 1 ... 40) in random order, also mixed from the 4 wavebands FM-MW-LW-SW.
You can store in memory each frequency tuned to.

Checking the Reception Frequency

You can check whether a frequency is already stored on one of the memory positions.
Tune to the desired frequency.
Press the ⬭ STORE button a long time.
The indication "MEMORY" appears in the display. The unit checks whether the frequency is already stored.
If yes, the display indicates "MEMORY" and the number of the memory position on which the frequency is stored.
If no, the indication "MEMORY" disappears from the display.

Creating/Overwriting a Memory Position

Tune to the station concerned.

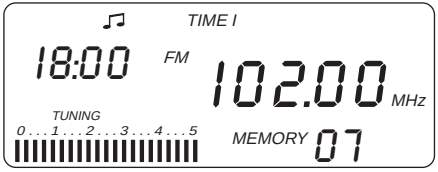
Check whether the frequency is already stored in memory.

Enter the number of the desired memory position with the numeric buttons (the number appears in the display).

Press the ⬭ STORE button (within 5 seconds).

If the memory position is free,
– the display indicates "MEMORY", the number of the selected memory position, and the frequency of the station tuned to.

If the memory position is alread occupied,
– the frequency indication flashes in the display. The indications "MEMORY" and the number of the selected memory position remain steady.
– If you press the ⬭ STORE button a second time within 5 seconds, the memory position will be overwritten, otherwise it remains unchanged.



Calling Up Stored Stations

Direct entry

Enter the number of the desired memory position.

Briefly press the ❍ MEMO ▲ or MEMO ▼ button.

If the memory position is occupied,
– the unit automatically tunes to the station in the respective waveband.
– The display indicates the frequency of the station.
– The display indicates "MEMORY" and the number of the memory position.

If the memory position is free,
the display indicates for approx. 5 seconds "MEMORY", the number of the memory position, and "FREE".

Memo buttons

A short pressure on the ❍ MEMO ▲ button calls up the next higher memory position. The unit automatically tunes to the corresponding station in the correct waveband.

A short pressure on the ❍ MEMO ▼ button calls up the next lower memory position. The unit automatically tunes to the corresponding station in the correct waveband.

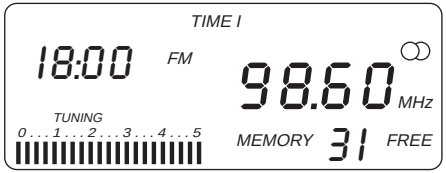
Long pressure on the ❍ MEMO ▲button:
– All occupied memory positions are scanned in ascending order.
– Each station remains tuned to for approx. 5 seconds before the unit goes to the next one.
– A further pressure on the ❍ MEMO ▲ button stops scanning.

Long pressure on the ❍ MEMO ▼ button:
– All occupied memory positions are scanned in descending order.
– Each station remains tuned to for approx. 5 seconds before the unit goes to the next one.
– A further pressure on the ❍ MEMO ▼ button stops scanning.

Indicating Free Memory Positions

A pressure on the ⬭ FREE button will indicate the first free memory position in the display.

Each further pressure on the ⬭ FREE button will indicate the next free memory position in upward direction.



Clearing a Memory Position

Enter the number fo the desired memory position with the numeric buttons (the number is indicated in the large numeric block in the display).

Press the ⬭ FREE button.

If the memory position is free,
– the display indicates "MEMORY", the number of the selected memory position, and "FREE".

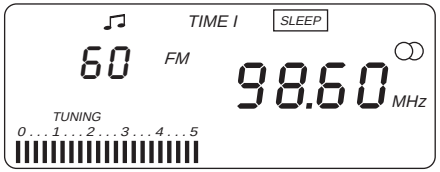
If the memory position is occupied,
– the display indicates "MEMORY" and the number of the selected memory position.
– The frequency indication is flashing in the display.

If you press the ⬭ FREE button within 5 seconds a second time, the contents of the memory position will be cleared.

Going to Sleep to Music

You can enter a time period (60 minutes max.), after which the radio switches automatically off.

Press the ❍ SLEEP button.
When the radio was switched off, it will be switched on. The further procedure is independent of whether the radio was switched off or not.
The switch-on period (period until the radio is switched off) is 60 minutes.
The display indicates for approx. 5 seconds the remaining switch-on period.
It indicates in addition SLEEP to signal that the "automatic switch-off function" is activated.



Repeated pressures on the ❍ SLEEP button will reduce the switch-on period in steps of 10 minutes.
Each time the ❍ SLEEP button is pressed, the display indicates for approx. 5 seconds the remaining switch-on time.
When pressing the ❍ SLEEP button has reduced the switch-on period to 0 second, the unit switches off. A further pressure on the ❍ SLEEP button switches the radio on again and the initial switch-on time of 60 minutes is selected.
Repeated pressures on the ❍ SLEEP button give the following order:
60 → 50 → 40 → 30 → 20 → 10 → off → 60 → 50 → ...
The numbers indicate the minutes left till the automatic switch-off.

When the programmed switch-on period has elapsed, the unit is switched off and the SLEEP indication goes out.

Checking the switch-on time:

Briefly press the ❍ SLEEP button.
The display indicates the time left till the automatic switch-off.

Clearing the switch-on period prematurely:

Switch off the unit with the ❍ ON/OFF button or press the ⬭ SNOOZE button.

Here too, each entry step (button pressure) must be completed within a period of 5 seconds.
You can enter clock times no matter whether the unit is switched on or off.
There are several possible methods for entering clock and switching times.

Examples:

Clock time	Possible entries
1st example: Clock time 6.30	6.30
	06.30
2nd example: Clock time 15.00	15.
	15.00
3rd example: Clock time 0.15	.15
	0.15
	00.15

Setting the Clock (TIME I)

Setting TIME I with the help of a reference clock.

Example TIME I: 6.30 h

The display must indicate TIME I.

Enter the clock time with the numeric buttons immediately before the reference clock changes from 6.29.59 to 6.30.00. The period between the last entry and 6.30.00 must not exceed 5 seconds.

Press the ⬭ TIME I/II button at the moment when the reference clock jumps from 6.29.59 to 6.30.00. When pressing the ⬭ TIME 1/2 button, the clock is started exactly to the second and the minutes indication will flash.

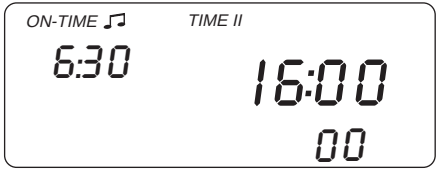
Setting the Clock (TIME II/Clock Time II)

For setting TIME II follow the same steps, except that the display must indicate TIME II.

As the seconds of TIME II are running synchronously with the seconds of TIME I, it is not necessary to wait until the minute changes.

Clock Time Indication (TIME I/II)

You can switch between the indications of the two clock times by pressing the ⬭ TIME I/II button (no numeric entry beforehand).



Automatic Switch-On/Wake-Up Function

Your radio allows you to enter a wake-up time (switch-on time).

When selecting the function "Wake-up with radio", you will hear the last received radio station.
The switching times refer to the clock time (TIME I or TIME II) indicated in the display.

Example:

You have entered the local time (e.g., CET or CEST) as TIME I.
TIME II stands for a second time zone (e.g. Greenwich Mean Time /GMT).
You have entered 14.00 h as switch-on (wake-up) time and activated the wake-up function.
If the display indicates TIME I, the unit will be switched on at 14.00 h local time;
if the display indicates TIME II, the unit will be switched on at 14.00 h of the second time zone.

Entering a Switch-On Time

Switch on the radio.

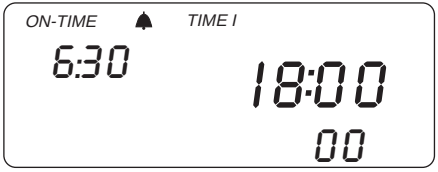
Enter the desired switch-on (wake-up) time with the numeric buttons 0 ... 9.

Press the ⬭ ON TIME button to store the entered switch-on time in memory.

The switch-off time is automatically set to one hour after the switch-on time.

Select the desired wake-up mode by repeated pressures on the ❍ AUTO button.

♫ = Wake-up with radio programme.
You hear the station last tuned to.
♠ = Wake-up with sound signal.
The radio is muted and you hear a sound signal instead.
This function is also possible with the radio switched on, e.g., to remind you at a date.
-:-- = Wake-up function switched off.



Checking the Entered Switch-On Time

When the radio is switched off, the display indicates the switch-on time and the wake-up mode.

Wake-Up with Radio/Automatic Switch-On

Select "Wake-up with radio" (symbol ♫ in display) with the ❍ AUTO button.

Adjust the wake-up time.

Before switching off the radio, tune to the station and adjust the volume with which you wish to be woken up.
Switch off the radio.

Automatic Switch-On/Wake-Up Function

At the programmed time, the radio is automatically switched on.
If no button is pressed, the radio will play for about 60 minutes and then is switched off automatically.

If you press the ⬭ SNOOZE button, the radio is switched off for 5 minutes and the ♫ symbol is flashing in the display. You can repeat this snooze function as often as desired.

If you press the ⬭ SNOOZE button longer than 2 seconds, the radio is completely switched off. The ♫ symbol is permanently indicated. The wake-up function is repeated next day.

Wake-Up with Sound Signal (Date Reminder)

Select "Wake-up with sound signal" (symbol ♠ in display) with the ❍ AUTO button.

Adjust the wake-up time.

"Wake-up with signal sound" is possible, if
– the radio is switched off (wake-up),
– the radio is switched on (date reminder).
  The radio is automatically switched off and the sound signal is started.

If no button is pressed, the sound signal will last 5 minutes.

If you press the ⬭ SNOOZE button, the alarm sound will be switched off for about 5 minutes and the ♠ symbol is flashing in the display. The snooze function can be repeated as often as desired.

If you press the ⬭ SNOOZE button for more than 2 seconds, the alarm sound is completely switched off. The ♠ symbol is permanently visible and the wake-up function will be repeated next day.

Clearing the Wake-Up Function

Switch off the wake-up function with the ❍ AUTO button (the symbols ♫ and ♠ must disappear from the display).

When the radio is switched off

– ON-TIME is not visible in the display.
– The indication -:-- appears instead of the programmed wake-up time in the left numeric block in the display.

The programmed wake-up time remains stored in memory.

Special Functions on AM

SSB Mode (Amateur Radio Reception)

SSB reception is an additional function to "normal" radio reception. It allows you to listen to amateur transmissions (mostly speech). In most cases, these are transmitted in the SSB mode (Single Side Band).

Proceed as follows:

Switch the unit on and select a SW amateur band (see table in chapter "Entering a Meter Band").

Set the switch STEREO MONO
WIDE NARR

to NARR(OW). Set the SSW switch ton ON.
Use the ❍ STEP button to adjust the tuning step to 1 kHz.

Set the TONE switch to HIGH.

Use the ⏀ TUNING ▲ and TUNING ▼ buttons to slowly scan the band step by step for SSB stations.

When doing this, consider that the carrier is suppressed on SSB broadcasts.
This means that reception is only possible when the transmitter is actually broadcasting (mostly in speech).
The TUNING indication is of great help when searching SSB stations.

The TUNING indication deflects in the rythm of the speech.

As soon as a station is found – the speech is still unintelligible – tune to best possible reception with the help of the FINE TUNING control.

When arriving at the limit of the finetuning range, it may be necessary to switch to the next tuning range by means of the ⏀ TUNING ▲ and TUNING ▼ buttons.

If you wish to terminate reception of SSB stations, do not forget to switch back to normal radio reception:

DX LOCAL switch to DX.
SSB switch to OFF.
STEREO MONO WIDE NARR switch to STEREO.
TONE switch as desired.

Interferences

If interferences should occur in the AM bands (MW, LW, SW), you can optimize reception with the FINE TUNING control.

Specification

Power Supply

By six 1.5 V batteries (IEC LR 6).
External supply: By a commercial 9 V DC mains unit (see connecting socket).

Output Power

600 mW (via built-in loudspeaker).

Built-in Aerials

Telescopic aerial for FM and SW.
Ferrite rod aerial for MW and LW.

Connecting Sockets

For external voltage supply: DC 9V.
Coaxial socket (outer diameter 5.5 mm, inner diameter 2.1 mm).
Neutral concuctor connected to chassis +-⊖-- .

For earphone/headphone ∩.
Socket for jack plug of 3.5 mm ø,
32 Ohm impedance.

For external aerial EXT ANT.
Socket for jack plug of 3.5 mm ø,
for shortwave reception.

Specification

Wavebands

FM:	875 ... 108 MHz
SW:	1.711 ... 30 MHz
	3.95 ... 26,1 MHz (Yacht Boy 400 IB)
MW:	520 ... 1710 kHz
	527 ... 1606 kHz (Yacht Boy 400 IB)
LW:	144 ... 353 kHz
	149 ... 283 kHz (Yacht Boy 400 IB)

Tuning Steps

FM: 50 kHz

SW: 1 kHz / 5 kHz

MW: 1 kHz / 9 bzw. 10 kHz

LW: 1 kHz / 9 kHz

Fine tuning on SSB: ± 1 kHz

Intermediate Frequencies

FM: 10.7 MHz

AM: ZF 1: 55.85 MHz, ZF 2: 455 kHz

Receivable SW bands

Band	Frequency (kHz)		
90-m tropical	3200	–	3400 (not with YB 400 IB)
80-m amateur	3500	–	3800 (not with YB 400 IB)
75-m radio	3900	–	4000
60-m tropical	4750	–	5060
49-m radio	5950	–	6200
41-m radio	7100	–	7300
40-m amateur	7000	–	7099
31-m radio	9500	–	9900
30-m amateur	10100	–	10150
25-m radio	11650	–	12050
22-m radio	13600	–	13800
20-m amateur	14000	–	14350
19-m radio	15100	–	15600
17-m amateur	18065	–	18170
16-m radio	17550	–	17900
15-m amateur	21000	–	21449
13-m radio	21450	–	21850
12-m amateur	24890	–	24990
11-m radio	25650	–	26100
10-m amateur	28000	–	29700 (not with YB 400 IB)

Dimensions: approx. 180 x 120 x 37 mm^3 (width x hight x depth)
Weight: approx. 590 g

Subject to technical alterations and alterations in styling.
E. and O. E.

Specification

Hints – Prescriptions

Use only a soft cloth which picks up dust to clean the cabinet. Do not use aggressive polishes or cleaning agents. Do not expose the set to temperatures above 60°C. In the case of defects, consult your specialized dealer. Protect the unit against any moisture (e.g. dripping or splashing).

The unit meets the CEE regulations concerning interference radiation.

The unit complies with the safety regulations according to VDE 0860/ BS 415 and thus with the international safety regulations according to IEC65.

Radio Stations

Deutsche Welle
D-50588 Köln

Radio Austria International
A-1136 Wien
Würzburggasse 30

Swiss Radio International
CH-3000 Bern 15
Giacomettistr. 1

Radio Nederland
P. O. Box 222
NL-1200 JG Hilversum

Radio France Internationale
116 av. du Pres. Kennedy
F 75786 Paris Cedex 16

Radiotelevisione Italiana
Viale Mazzini 14
I-00195 Roma

BBC London External Services
Bush House
London WC2B 4PH

Radio Moscow
Pjatnizkaja 25
Moskva Russische Föderation

Radio Exterior de Espana
P. O. Box 156.202
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