ALBRECHT®

DB 271

Duo Band 2m / 70 cm
Hand Held Transceiver

ALBRECHT®

Introduction

Thanks for buying the ALBRECHT DB 271 transceiver.
This transceiver offers latest design, multi-functionality, stable performance and easy operation. Even if the transceiver has a lot of menu functions, the most basic functions can be found very easily and are self-explaining We believe you will be pleased with the high quality and dependable features for all your communication needs.

User Safety, Training, and General Information

READ THIS IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION BEFORE USING YOUR ALBRECHT DB 271 PORTABLE TWO-WAY RADIO.

Compliance with RF Energy Exposure Standards

Your ALBRECHT DB 271 two-way radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to radio frequency electromagnetic energy. This radio complies with the IEEE (FCC) and ICNIRP exposure limits for occupational/controlled RF exposure environment at duty cycles of up to 50% talk-50% listen and should be used for occupational use only. In terms of measuring RF energy for compliance with the
FCC exposure guidelines, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.

NOTE:

The approved batteries supplied with this radio are rated for a 5-5-90 duty cycle (5% talk-5% listen-90% standby), even though this radio complies with the FCC occupational RF exposure limits at duty cycles of up to 50% talk.

Your ALBRECHT DB 271 two-way radio Complies with the following of RF energy exposure standards and guidelines:

- United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub- part J
- American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1999 Edition
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998
- Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit no more than 50% of the time and always adhere to the following procedures:

Transmit and Receive

To transmit (talk), push the Push-To-Talk (PTT) button; to receive, release the PTT button.

Hand-held radio operation

Hold the radio in a vertical position with the microphone 5 cm away from the lips and let the antenna radiate free (not cover by hands) and farther away from your head.

Body-worn operation

Always place the radio in an ALBRECHT DB 271 approved clip, holder, holster, case, or body harness for this product. Use of non- ALBRECHT DB 271 -approved accessories may exceed FCC RF exposure guidelines.

Antennas & Batteries

- Use only ALBRECHT DB 271 approved, supplied antenna or ALBRECHT DB 271 approved replacement antenna.
- Unauthorized antennas, modifications, or attachments could damage the radio and may violate FCC or European regulations.
- Use only ALBRECHT DB 271 approved, supplied batteries or ALBRECHT DB 271 approved replacement batteries.
- Use of non- ALBRECHT DB 271 approved batteries may exceed FCC RF exposure guidelines.

Approved Accessories

For a list of ALBRECHT DB 271 approved accessories, see the accessories page of this user manual or visit the Albrecht website http://www.albrecht-online.de
Mic and Speaker accessories are conform with Alan/Albrecht/Midland Standard 2.5 / 3.5 mm!

Notices to the User

- Government law prohibits the operation of unlicensed radio transmitters within the territories under government control.
- Illegal operation is punishable by fine or imprisonment or both.
- Refer service to qualified technicians only.

WARNING:

It is important that the operator is aware of and understand hazards common to the operation of any transceiver. Explosive environments (such as gases, dust, fumes, etc.). Turn off your transceiver while talking on fuel, or while parked in gasoline service stations.
If you require this radio to be modified, please connect with your ALBRECHT DB 271 distributor.

FCC remarks:

This equipment has been tested and found to comply with the part 90 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the
following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC and European Licensing Requirements

Your radio must be properly licensed by Federal Communications Commission (or the corresponding national radio administration office in European countries) prior to use. Your ALBRECHT DB 271 wireless dealer can assist you in meeting these requirements. Your dealer will program each radio with your authorized frequencies, signaling codes, etc., and will be there to meet your communications needs as your system expands.

- In most countries, only licensed radio amateurs are allowed to use the radio with all offered features, but only on allocated amateur radio frequencies. The allowed frequency range limits may vary from country to country.

Precautions

Only qualified technicians are allowed to maintain this product.
Do not use the radio or charge a battery in explosive areas such as coal gas, dust, steam, etc.
Switch OFF the radio while refueling or parking at gas station.
Do not modify or adjust this radio without permission.
Do not expose the radio to direct sunlight over a long time, nor place it close to heating source. Do not place the radio in excessively dusty, humid areas, nor on unstable surfaces.

Safety:

It is important that the operator is aware of and understands hazards common to the operation of any radio.

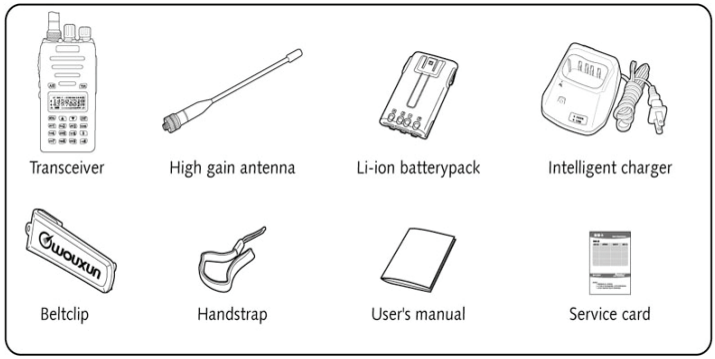
CE Conformity Declaration

Hereby, ALBRECHT DB 271 declares that this two-way radio is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
A copy of the DOC may be obtained through the following internet server:
http://www.hobbyradio.de
For radios sold in Germany and other EU member countries by Alan Electronics GmbH please see the attached (annex) declaration of Conformity of Albrecht brand version DB271

Unpacking and checking of your equipment

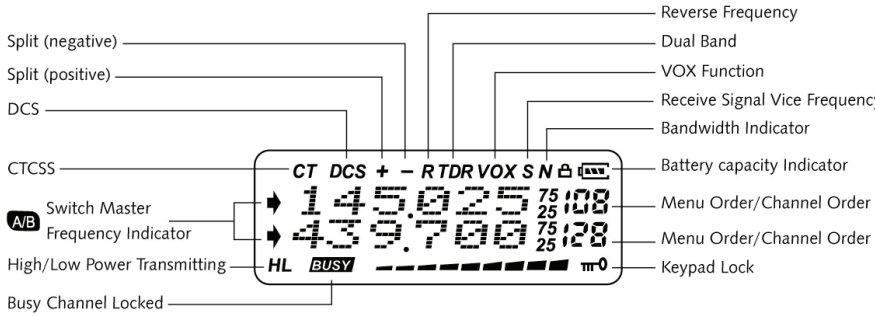
Carefully unpack the transceiver. We recommend that you identify the items in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, please notify your ALBRECHT DB 271 dealer.

Supplied accessories



Operation of the Radio
Getting started
LCD display

On the display you will see various indicators that show what function you have selected. Sometimes you may not recall what those indicators mean, or how to select them, in such a case, you can refer to the table below.



Note:

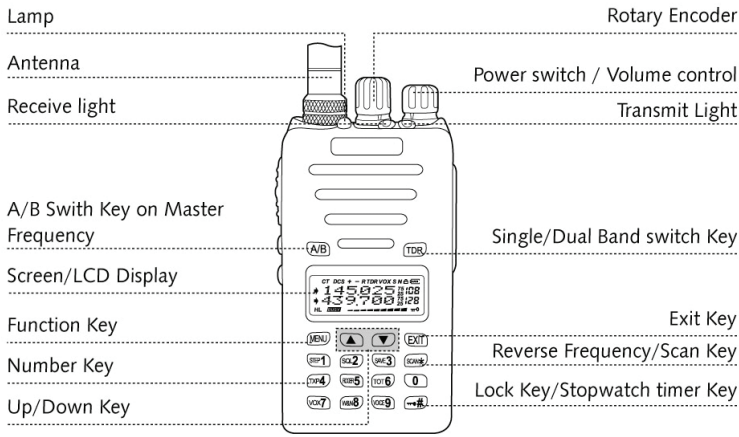
Batterypack power indicator (full)

Batterypack power indicator (exhausted)

Batterypack power indicator (remaining)

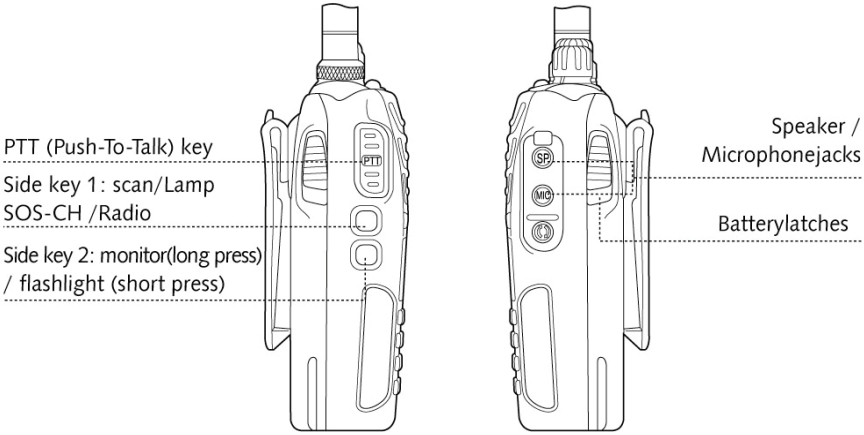
Receive signal meter

Description of transceiver



Note: Speedy switch on work mode (MENU + TDR)

Speedy re-start the transceiver (MENU + A/B)



Speed Search
Press UP or DOWN key to set each Function or Parameter, it can search quickly.

Single/Dual Band Switch
Press TDR key
Single Band -------Dual Band

Speedy Re-start Transceiver
In standby, press MENU+ A/B key, then LCD displays STEP .
Press MENU key to confirm, and then the transceiver re-starts.

A/B Switch
Press A/B key to select the master frequency. The frequency displaying arrowhead is the master frequency; the frequency without displaying arrowhead is vice frequency. The master frequency can be used for transmitting and receiving, and the vice frequency is only for receiving. When vice frequency receives, the screen displays "S".

SCAN key
Press slightly to set Reverse Frequency ON/OFF while press 2 seconds to active scan.

Side key 2
Press slightly to turn ON/OFF the lamp while press 2 seconds to set Squelch ON.

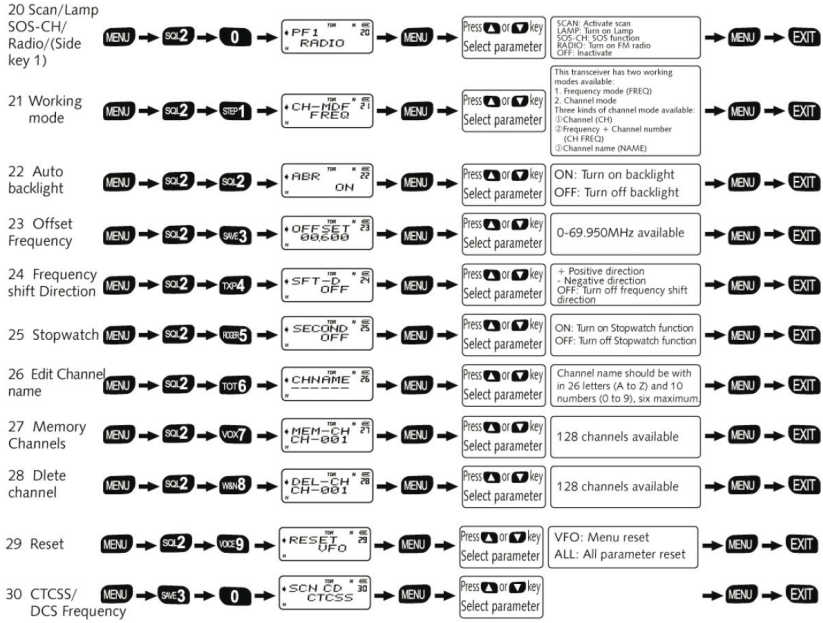
1750Hz Burst Tone
Sometimes, 1750Hz Burst tone is required to get access to repeater stations (most of the repeaters in Germany and Austria need this access tone). This transceiver has 1750Hz Burst tone to help you.

How to use 1750 Hz

In transmitting, press side key PF1 parallel to PTT key. The transceiver will transmit the 1750Hz Burst tone. The time pressing side key PF1 determines how long the 1750Hz Burst tone will be transmitted. Release side key PF1 to end transmitting 1750Hz Burst tone. Most repeaters only need ½ to 1 second.

Shortcut operation sheet

Function order	Function name	Enter function set	Screen display	Select parameter	Selectable parameter explanation	Confirm	Return to standby
1	Setting frequency step	MENU → STEP 1	STEP 12.50K	MENU	Press ▲ or ▼ key Select parameter	7 kinds of frequency steps 5K/6.25K/10K/12.5K/25K /50K/100K	MENU	EXIT
2	Setting squelch level	MENU → SQL 2	SQL-LE 5	MENU	Press ▲ or ▼ key Select parameter	Squelch level from 0 to 9	MENU	EXIT
3	Setting batterypack savemode	MENU → SAVE 3	SAVE ON	MENU	Press ▲ or ▼ key Select parameter	ON: Turn on save function OFF: Turn off save function	MENU	EXIT
4	Selecting transmit power	MENU → TXP 4	TXP HIGH	MENU	Press ▲ or ▼ key Select parameter	H: High power (VHF 5W/UHF 4W) L: Low power (1W)	MENU	EXIT
5	Transmit voice prompt	MENU → ROGER 5	ROGER OFF	MENU	Press ▲ or ▼ key Select parameter	OFF: turn off this function,without any voice prompting BOT: press PTT, voice prompt when begin transmitting EOT: release PTT, voice prompt when end transmitting BOTH: press and release PTT,voice prompt	MENU	EXIT
6	Transmit overtimer	MENU → TOT 6	TOT 60	MENU	Press ▲ or ▼ key Select parameter	TOT has 40 levels in steps of 15 seconds. OFF: Turn off TOT	MENU	EXIT
7	Setting VOX	MENU → VOX 7	VOX OFF	MENU	Press ▲ or ▼ key Select parameter	VOX has levels from 1 to 10 OFF: Turn off VOX transmission	MENU	EXIT
8	Setting bandwidth	MENU → W&N 8	WN WIDE	MENU	Press ▲ or ▼ key Select parameter	WIDE: 25KHz NARR: 12.5KHz	MENU	EXIT
9	Voice Prompt	MENU → VOICE 9	VOICE ENGLISH					
10	Transmit overtime alarm	MENU → STEP 1 → 0	TOA 5	MENU	Press ▲ or ▼ key Select parameter	1 to 10 levels with 1 second each OFF: turn off TOA	MENU	EXIT
11	Setting Beep prompt	MENU → STEP 1 → STEP 1	BEEP ON	MENU	Press ▲ or ▼ key Select parameter	ON: Turn on Beep prompt function OFF: Turn off beep prompt function	MENU	EXIT
12	Power on display	MENU → STEP 1 → SQL 2	PONMSG OFF	MENU	Press ▲ or ▼ key Select parameter	OFF: Full screen display BATT: Battery voltage display MSG: WELCOME	MENU	EXIT
13	Busy Channel Lockout	MENU → STEP 1 → SAVE 3	BCL OFF	MENU	Press ▲ or ▼ key Select parameter	ON: Turn on BCL OFF: Turn off BCL	MENU	EXIT
14	Keypad Lock	MENU → STEP 1 → TXP 4	AUTOLK OFF	MENU	Press ▲ or ▼ key Select parameter	ON: Turn on Autolock OFF: Turn off Autolock	MENU	EXIT
15	Receiving CTCSS	MENU → STEP 1 → ROGER 5	R-CTC OFF	MENU	Press ▲ or ▼ key Select parameter	50 groups CTCSS (67.0Hz -254.1Hz) OFF: Turn off CTCSS	MENU	EXIT
16	Transmitting CTCSS	MENU → STEP 1 → TOT 6	T-CTC OFF	MENU	Press ▲ or ▼ key Select parameter	50 groups CTCSS (67.0Hz -254.1Hz) OFF: Turn off CTCSS	MENU	EXIT
17	Receiving DCS	MENU → STEP 1 → VOX 7	R-DCS OFF	MENU	Press ▲ or ▼ key Select parameter	105 groups DCS (D023N-D754N) OFF: Turn off DCS	MENU	EXIT
18	Transmitting DCS	MENU → STEP 1 → W&N 8	T-DCS OFF	MENU	Press ▲ or ▼ key Select parameter	105 groups DCS (D023N-D754N) OFF: Turn off DCS	MENU	EXIT
19	Scan mode	MENU → STEP 1 → VOICE 9	SC-REV TO	MENU	Press ▲ or ▼ key Select parameter	3 kinds of Scan modes TO: Time scanning mode CO: Carrier mode 1 scan SE: Carrier mode 2 scan	MENU	EXIT



How to operate

Menu Locked function

To avoid operating unnecessary menu items often, you can set Menu Locked function *on* through the programming software. This operation is proposed, if the radio shall be used by persons which are not familiar with the menu functions or in cases, where the radio shall be only used with restriction to most important functions to avoid risk of wrong adjustments.

See the following operation steps:

1. Setting password of switching Channel and frequency mode.
2. Set the working mode as Channel mode
3. Turn off operating menu under channel mode.

When you want to operate Menu functions, input the password you set, then switch to frequency mode.

NOTE:

- When the transceiver is on dual standby (TDR appears), the frequency that is displayed by the arrowhead is master (= primary status) frequency, the other one is vice (= secondary status) frequency. When vice frequency receives, the LCD displays " S ". In dual standby, the master frequency is used for transmission; the vice frequency only can be used for receiving.
- Master Frequency Setting: In dual standby, press A/B key to select the master frequency.

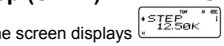
This transceiver with dual frequency and dual displaying function can display two different RX and TX frequencies at the same time under Frequency mode, while display two different channel frequencies and relative parameters at the same time under Channel mode.

- Under **Frequency/Channel** mode, Band A and B selectable through A/B key, if shows A, all the operating of channel or frequency is on band A, while shows B operating on band B.

- Under **Frequency mode**: the following 9 functions can be set respectively on both Band A and Band B- frequency step, output power, squelch level, channel bandwidth, CTCSS, DCS, Frequency shift direction, Offset frequency, and Channel displaying mode.

- Under **Channel mode**: setting following seven functions on both Band A and B is invalid: Stepping transmit output power, CTCSS, DCS, channel bandwidth, frequency step, frequency shift direction and Offset frequency.

Setting Frequency Step (STEP) ----- MENU 1

In standby, press MENU+1 , the screen displays 

Press MENU to enter, it shows “12.50K” press UP / DOWN to select the desired step, then press MENU to confirm, press EXIT return to standby.
This transceiver has seven frequency steps available: 5.00KHz, 10.00KHz, 12.50KHz, 25.00KHz, 50.00KHz and 100KHz.

Setting Squelch Level (SQL-LE) ----- MENU 2

This function means turn on the squelch when the signal is strong while turn off the squelch when the signal is weak. The best setting is the level, where noise on an unused channel just disappears. In most cases, a medium level around “5” is suitable. Setting the level too high may not allow to receive weak signals, while setting too low may receive noise or other not desired signal.

NOTE:

This transceiver has 10 (0~9) levels available, and 0 means turn on the squelch, from 1 to 9 levels shows different levels of noise reduction. Higher level, louder squelch. The intensity of receiving signal is accordingly higher.

In standby, press MENU+2 , the screen displays 

Press MENU to enter, it shows "5", press UP / DOWN to select the desired squelch level, then press MENU to confirm, press EXIT return to standby.

Setting Battery Save Mode (SAVE) --- MENU 3

To save battery, this function can turn off the not always used receiver circuits a certain time then turn on to check the signal again and so on.

In standby, press MENU+3 , the screen displays 

Press MENU to enter, it shows "ON", press UP / DOWN to select turn ON/OFF the battery save mode, press MENU to confirm, press EXIT return to standby.

Selecting Transmit Power (TXP) --- MENU 4

In Frequency mode, press MENU+4, the screen displays 

Press MENU to enter, it shows "HIGH", press UP / DOWN to select HIGH/LOW power, then press MENU to confirm, press EXIT return to standby.
This transceiver has appr. 5W and 1W output power selectable. Transmitting output power can switch high/low temporarily. In transmission, pressing the TDR key can switch the output

power (switch between high and low power). Before powering off, the output power is the switched one. It will resume the previous power after powering on again.

Setting Begin/End Transmitting Voice Prompt (ROGER Beep) --- MENU 5

This function means to select transmitting voice prompt way:

- OFF: turn off this function, without any voice prompting.
- BOT: press PTT, voice prompt when begin transmitting
- EOT: release PTT, voice prompt when end transmitting
- BOTH: press and release PTT, voice prompt

- In standby, press MENU+5 , the screen displays 

- Press MENU to enter, it shows "OFF", press UP / DOWN to select OFF/BOT/EOT/BOTH, then press MENU to confirm, press EXIT return to standby.

Transmit Over Timer (TOT) --- MENU 6

TOT is designed to prevent transmitting the transceivers too long. When operating time exceeds the preset time, it will stop transmitting and a warning sound can be heard.
This transceiver can be set in 40 levels with 15 seconds each, between 15 and 600 seconds.

In standby, press MENU+6 , the screen displays 

Press MENU to enter, it shows "60", press UP / DOWN to select the desired transmitting level, then press MENU to confirm, press EXIT return to standby.

Setting VOX (VOX) --- MENU 7

When you speak into the microphone, the transceiver can switch to transmit mode automatically (if VOX is activated).
As the VOX should check the voice, transmitting will be a little delaying, and the beginning first word or part of the word may not be transmitted.

- In standby, press MENU+7 , the screen displays 

- Press MENU to enter, it shows "OFF", press UP / DOWN to turn OFF VOX function or select VOX level (1~10), then press MENU to confirm, press EXIT return to standby.

NOTE: In higher VOX levels a higher speaking volume will be required to activate the transmitter. In noisy surroundings high vox levels may be necessary, while low level can be used in a quiet surrounding.

Setting Wide or Narrow Bandwidth (WN) --- MENU 8

The bandwidth of the radio (in transmit mode and receive mode) depends on the selection of normal (wide) and narrowband FM systems. All systems using 20 kHz channel spacing and higher systems normally use normal bandwidth, while systems with 12.5 kHz channel spacing are using reduced FM deviation limits and suitable reduced receiver channel bandwidth.

In standby, press MENU+8 , the screen displays 

Press MENU to enter, it shows "WIDE", press UP / DOWN to select WIDE/NARROW bandwidth, then press MENU to confirm, press EXIT return to standby.

Setting Voice Prompt (VOICE) --- MENU 9

In standby, press MENU+9 , the screen displays 

Setting Transmit Overtime Alarm (TOA) --- MENU 10

Turn on TOA function, when your transmission reached the preset TOT (transmit over time), the transceiver will alarm and TX indicator flash.

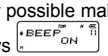
This transceiver can be set from 1 to 10 TOA level with 1 second each. 1 level means the transceiver prompt 1 second before transmitting reached to TOT.

- In standby, press MENU+10 , the screen displays 

- Press MENU to enter, it shows "5", press UP / DOWN to select OFF/1~10 Level, then press MENU to confirm, press EXIT return to standby.

Beep Prompting Function (BEEP) --- MENU 11

Beep prompting function is prompting the confirmed operation, wrong operation or malfunction.
We kindly suggest you to turn on this function to avoid any possible malfunction.

- In standby, press MENU+11 , the screen displays 

- Press MENU to enter, it shows "ON", press UP / DOWN to select turn ON/OFF the beep prompting function, then press MENU to confirm, press EXIT return to standby.

NOTE: If MENU (9) – Voice prompt function turn on, it will be priority.

Setting Power-on Message (PONMSG) --- MENU 12

The power on message of this transceiver as allowing:
OFF: Full display
BATT-V: display the current battery voltage
MSG: display "WELCOME"

- In standby, press MENU+ 1 2 , the screen displays 

- Press MENU to enter, it shows "OFF", press UP / DOWN to select OFF/BATT-V/MSG, then press MENU to confirm, press EXIT return to standby.

Busy Channel Locked (BCL) --- MENU 13

This function is to prevent possible interference of other communications on the channel. If you select BCL and the channel is occupied, and you press [PTT], the transceiver can not transmit. You can only transmit if the channel is free.

- In frequency mode, press MENU+ 1 3 , the screen displays 

- Press MENU to enter, it shows "OFF", press UP / DOWN to select ON/OFF this function, then press MENU to confirm,
- press EXIT return to standby.

Setting Keypad Locked (AUTOLK) --- MENU 14

This transceiver has Auto-lock and Manual-lock available.
ON: Turn on keypad locked function, it will locked automatically if there is not any operation within 15 seconds. Press # key more than 2 seconds to unlock the keypad.
OFF: Turn off auto-locked function.

NOTE: Manually lock: in standby press # key more than 2 seconds to lock keypad while press # key more than 2 seconds again to unlock.

- In standby, press MENU+ 1 4 , the screen displays 

- Press MENU to enter, it shows "OFF", press UP / DOWN select ON/OFF this function, then press MENU to confirm,
- press EXIT return to standby.

Setting Receiving CTCSS (R-CTCSS) --- MENU 15

Setting CTCSS/DCS can ignore the unwanted signals from other users working on the same frequency.
Only with the same CTCSS/DCS codes you can communicate with other partners.

- In Frequency mode, press MENU+ 8 , the screen displays 
- Press MENU to enter, it shows "OFF", press UP / DOWN to turn OFF this function or select 67.0Hz to 254.1Hz CTCSS code,
- then press MENU to confirm,
- press EXIT return to standby.

NOTE: This transceiver has 50 groups CTCSS, see appendix (1) CTCSS frequency sheet.

Setting Transmitting CTCSS (T-CTCSS) --- MENU 16

For certain repeater operations, it can be necessary to use a certain CTCSS tone always during your transmissions.

- In standby, press MENU+ 1 6 , the screen displays 
- Press MENU to enter, it shows "OFF", press UP / DOWN to turn OFF this function or select 67.0Hz to 254.1Hz CTCSS code,
- then press MENU to confirm,
- press EXIT return to standby.

NOTE: This transceiver has 50 groups CTCSS, see appendix (1) CTCSS frequency sheet.

Setting Receiving DCS (R-DCS) --- MENU 17

- In Frequency mode, press MENU+ 1 7 , the screen displays 
- Press MENU to enter, it shows "OFF",
- press UP / DOWN to turn OFF this function or select D023N to D754I DCS code,
- then press MENU to confirm,
- press EXIT return to standby.

NOTE: This transceiver has 105 groups DCS, see appendix (2) DCS frequency sheet. In it DXXXN (between D023N to D754N) means Positive code while DXXXI (between D023I and D754I) means Negative code.

Setting Transmitting DCS (T-DCS) --- MENU 18

- In Standby mode, press MENU+ 1 8 , the screen displays 
- Press MENU to enter, it shows "OFF",
- press UP / DOWN to turn OFF this function or select D023N to D754I DCS code,
- then press MENU to confirm,
- press EXIT return to standby.

NOTE: This transceiver has 105 groups DCS, see appendix (2) DCS frequency sheet. DXXXN (between D023N to D754N) means Positive code while DXXXI (between D023I and D754I) means Negative code.

Setting Scan Mode (SC-REV) --- MENU 19

This transceiver has three scan modes:

TO: When receiving signals, it will go on scanning without any operation within 5 seconds.
CO: It will stop scanning when receiving signals, while go on scanning after signal disappeared 3 seconds.
SE: When receiving signals it will stop scanning.

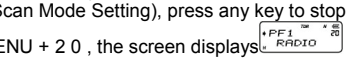
- In standby, press MENU+ 1 9 , the screen displays 
- Press MENU to enter, it shows "TO",

- press UP / DOWN to select TO/CO/SE scan mode,
- then press MENU to confirm,
- press EXIT return to standby.

Setting Scan / Lamp / SOS-CH / Radio Function on Side key 1 (PF1) -- MENU 20

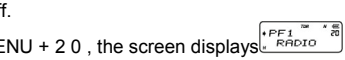
There are four functions available on the side key 1 of this transceiver:
SCAN: Scan function **LAMP: Lamp function** **SOS-CH: SOS function**
RADIO: FM radio function **OFF: Turn off functions**

1. Scan function:

- In standby mode, press Side key 1 enter to Scan mode (scan mode can be set through MENU 19 –Scan Mode Setting), press any key to stop scanning.
- In standby, press MENU + 2 0 , the screen displays 

- Press MENU to enter,
- press UP / DOWN to select SCAN, then press MENU to confirm,
- press EXIT return to standby.

2. LAMP function:

- In standby mode, press Side key 1 to turn on the Lamp,
- press again to turn off.
- In standby, press MENU + 2 0 , the screen displays 

- Press MENU to enter, press UP / DOWN to select LAMP,
- then press MENU to confirm,
- press EXIT return to standby.

3. SOS-CH (SOS function):

In emergency, it can transmit the "wu...wu..." SOS signals to the outside through the appointed Channel or Frequency in Band A or Band B, meanwhile, the transceiver will sound "wu...wu..." and the light flashes. It will transmit signals every 5 minutes, lasting for 10 seconds each time.

- When transmitting SOS signal, press any key to exit.
- On the interval of transmitting, if carrier signal appears, it starts receiving, after the carrier signal disappears, the transceiver will go on transmitting SOS-CH (SOS function). Press any key to exit.

NOTE:
In case that SOS-CH frequency you set is not the master frequency: When entering SOS alarm function, the transceiver automatically will set SOS-CH on the master frequency, and will not resume.

- Please press A/B key to reset the master frequency.
- In standby, press MENU+20 , the screen displays 

,
- then press MENU to enter, press UP / DOWN to choose SOS-CH submenu, the screen displays 

.
- Press MENU again to confirm, press UP / DOWN to choose Band A or Band B, then press MENU to confirm, the transceiver sounds "wu...wu..." , meanwhile the RED/GREEN/FLASHLIGHT flashing, it means set SOS-CH function ON.

Through the above setting, in standby, press PF1 side key, to transmit SOS signal.

4. (FM BROADCAST-) RADIO function:

- Turn on the Radio: In standby mode, press Side key 1 to turn on. The screen displays 

, it will search the radio stations automatically when the green light flashing, and will stop until searched. You can listen the radio.

- Tune the radio stations: In Radio mode, press * key, the radio will tune the stations automatically and the green light flashing at the same time, it will stop tuning while searched the station. You can also press UP / DOWN to turn the radio stations.

- Store the radio stations: When searching the station, press MENU, the screen displays 

, then you can input any number key between 1 and 9 key . The station will be stored into the transceiver's chip, you can listen this station next time.

The transceiver has two groups radio-channels storable. When storing, the default is on the 1st group storage.

Example:

- if you want to store 88.1MHz into the 1st group Channel 8, just press MENU + 8 key.
- If you want to store this frequency into the 2nd group Channel 8, firstly, you should select the 2nd storage, press # key , the screen displays 

, then switch to the 2nd storage, then press MENU + 8 key to store into the 2nd group Channel 8.

For the stored station, under the Radio mode, press number key 1 to 9 to listen it. Use# key to select the stored stations in 1st and 2nd storage.

- Exit the Radio: Press Side key 1 again to exit the radio mode.

NOTE:
When you are listening to the radio, the current frequency or channel will be still working. Once receiving signals on the channel it will return to the transceiver mode. After signals disappeared for 5 seconds it will return to Radio mode.

- When you are listening to the radio, press EXIT key to check the standby frequency.
- Press PTT to transmit, 5 seconds later it will return to the Radio mode automatically.

Working mode (CH-MDF) --- MENU 21

This transceiver has two working modes available:

- **Frequency mode (FREQ)**
- **Channel mode**

Three kinds of **channel modes** are available:

- **① Channel (CH)**
- **② Frequency + Channel number (CH FREQ)**
- **③ Channel name (NAME)**

Only input the shift password can change Frequency mode into Channel mode, while change among the three kinds of channel mode is possible without entering password.

To set the shift password via DB 271 programming software

Valid or “unvalid” password can decide whether or not a user can select between the Frequency or Channel mode. With an “unvalid” password user can any time select between these modes, with a valid password user needs to know exactly this password, otherwise he cannot change the mode.
This is useful if a user shall only operate on certain channels which had been programmed by the service operator before. So such a user cannot make anything wrong- he can only use the channels which had been programmed for him.

Setting the password with **six times** the digit "0" is invalid (that means the shift password function is turned off.

Setting a password where the set is not full of digits "0" (less than 6 times “0”) is a valid possible password

.
Change radio from Frequency (FREQ) to Channel mode possible

- with “invalid” password: In standby, press MENU +21 , then press UP / DOWN to choose working mode press MENU to confirm.
- with “valid” password: In standby, press MENU +21 , then press UP / DOWN to choose working mode press MENU to confirm, the screen displays six short line  . Now enter the password, the transceiver shift to the selective mode.

NOTE:
Channel mode and channel name mode can be selected only after at least one channel and one named channel had been stored.

Setting Auto Backlight (ABR) --- MENU 22

- In standby, press MENU + 2 2 , the screen displays 
- Press MENU to enter, it shows "ON",
- press UP / DOWN to select ON/OFF auto backlight function,
- then press MENU to confirm, press EXIT return to standby.

Note:
When the function sets "ON" for opening the auto backlight, it means only when you press the number key, the backlight is opened. The backlight is closed when transmitting or receiving.

Shortcut Switch on Frequency Mode and Pure Channel Mode

In standby, press MENU + TDR key to switch the mode. Without password, you can switch it directly.
Otherwise, you have to input the password firstly.

Setting Offset Frequency (OFF-SET) --- MENU 23

Offset frequency means the difference between TX and RX frequency for Repeater Semiduplex operation. This transceiver's offset frequency range is between 0 to 69.950MHz. For amateur use, 600 kHz is standard on VHF, for commercials 4.6 MHz is standard on VHF. On UHF amateurs use different standards (7.6 MHz in Germany / Austria , 1.6 MHz in other European countries) and 10 MHz for commercial use.

- In standby mode, press MENU + 2 3 , the screen displays 
- Press MENU to enter, then press UP / DOWN to select offset frequency or input the offset frequency through key pad directly, press MENU to confirm, press EXIT return to standby.

Setting frequency shift direction and offset frequency only in Frequency mode, as for receiving and transmitting in different frequencies.

Operating steps:
1. Set the working frequency
2. Set the frequency shift direction and offset frequency.

Example: In frequency mode, the transceiver needs to work on receiving frequency 450.025MHz and transmitting frequency 460.026MHz

- In Frequency mode, input 430025
- then press MENU + 24+ MENU to select positive direction (+),
- press MENU+ EXIT ,
- then press MENU + 23 + MENU+ UP / DOWN to choose 10.000+ MENU+ EXIT , the frequency shift direction and offset frequency set.

The screen displays 

, press PTT to transmit and the screen displays 

. Release PTT the screen displays 

, it means receiving frequency is 

, and transmitting frequency is 

.

Setting Frequency shift direction (SFT-D) ---- MENU 24
Shift direction means that:

- The transmit frequency is higher than receive frequency. This is called positive offset (+).
- The transmit frequency is lower than receive frequency. This is called negative offset (-).
- Turn off frequency shift

Procedure:

- In standby mode, press MENU + 2 4 , the screen displays 

- Press MENU to enter, then press UP / DOWN to select +/-/OFF,
- then press MENU to confirm,
- press EXIT return to standby.

Setting Stopwatch Timer (SECOND) --- MENU 25

- In standby mode, press MENU + 25 , the screen displays 

- Press MENU to enter, it shows "OFF",
- then press UP / DOWN to turn ON/OFF this function,
- press MENU to confirm,
- press EXIT return to standby.

Using the stopwatch timer:

- When this function is ON, press # key to start counting, while press any key to stop.
- Press # key again to start counting.

NOTE:
Stop counting, press any key (except # key) to exit stopwatch timer function.

Channel name Edit (CHNAME) --- MENU 26

Conditions for Channel name:
1. Channel name should be within 26 letters (A to Z) and 10 numbers (0 to 9).
2. Channel name should be less than six length.

3. When selecting (-) means the bit is blank.

Procedure possible via:

- programming software via PC and programming cable or
- keypad of transceiver.

Conditions:
1. At least one channel should have been stored.
2. The transceiver should be in Channel mode.
3. Enter channel name edit, press UP key to select character while press DOWN key to select edit position.

Edit step:

- First set the work mode as NAME display way.
- Select the desired edit channel, press MENU+ 26 + MENU, the screen displays six '-' symbols,
- press UP to select characters and press DOWN , then press UP again to select the second and accordingly the next characters,
- after selecting the sixth character press MENU to confirm, press EXIT to exit.

The screen displays the channel name and also the channel number on top right corner.

Setting Memory Channels (MEM-CH) --- MENU 27:
Setting Co-channel (=common TX-RX frequencies, SIMPLEX) and Dis-channel (= different frequencies between TX and RX, SEMIDUPLEX)

In Frequency mode and in standby, you can input the desired storing frequencies and each parameter.

- press MENU + 27 , the screen displays 

- Press MENU to enter, then press UP / DOWN to select channel, then press MENU to store, a voice prompt means receiving frequency has been stored.
- Press EXIT to exit, the current channel is co-channel.
- If you need to store dis-channel, repeat the above operation, another voice prompt means sounds – transmitting stored.

Example: setting 450.025MHz as receiving frequency and 460.025MHz as transmitting frequency which stored in CH-20, then set as following:

- First procedure: In Frequency mode, input 450025 , MENU+ 27 + MENU , then press 20 or UP/DOWN to select CH-20, press MENU to confirm, voice prompt means receiving stored, then press EXIT.
- Second procedure: Input 460025 , MENU+ 27 + MENU + MENU, voice prompt means transmitting stored, then press EXIT .

The dis-channel is now stored, CH 20 works with different receiving and transmit frequency.

NOTES: If the stored channels need CTCSS/DCS codes, you should set them together with the stored frequencies before.
Manual store, in frequency mode, is only possible if the desired storing channel number is still empty. If a desired storing channel number is already occupied, it is only possible to add a transmit frequency to this channel. If the channel number shall be used to store a new TX+RX frequency, you must first delete this channel (see below).

Besides manual store, via programming software can also set the functions and parameters. It is recommended to let the service provider do these procedures with a programming cable (special version for DB 271 required!) and PC- it works much more easy and much faster than via display and key entries at the radio.

Deleting Channel (DEL-CH) ------ MENU 28

- In standby mode, press MENU + 28 , the screen displays 
- Press MENU to enter, then press UP / DOWN to select the desired deleted channel, then press MENU to confirm, the selected channel and message are deleted,
- press EXIT return to standby.

Setting Reset ---- MENU 29

This transceiver has two **resets** available - **VFO** and **ALL** messages.
When you use **RESET VFO**, all function parameters will return to default set.
When you use **RESET ALL**, the transceiver with all his settings will return to the factory default status.

1. MENU Reset (VFO):

- In standby mode, press MENU + 29, the screen displays 
- Press MENU to enter, and press UP / DOWN to select VFO, then press MENU ,the screen displays  , press MENU again to confirm, and the screen displays  .

After using the Reset function, the transceiver will auto power off and reboot again.

2. All messages Reset (ALL)

To avoid accidental reset by user, you can set the password of ALL messages Reset (ALL) for this transceiver through PC Programming software. All messages reset will only work after the right password is input. Please see the Programming software for the setting of password, 6 figures, while setting "000000" means canceling the password lock function.

ALL Reset (under password had been set to " 000000 ")

- In standby, press MENU + 29, the screen displays 
- Press MENU to enter, and press UP / DOWN to select ALL, press MENU , the screen displays  , then press MENU again to confirm.

The screen displays  . When the reset is finished, the transceiver will automatically turn off and reboot again.

ALL Reset (under valid password as "XXXXXX" (E.g.: 123456))

- In standby, press MENU + 29 , the screen displays 
- Press MENU to enter, and press UP / DOWN to select ALL, press MENU , the screen will displays  ,
- at this time input the six figure password (e.g.: 123456), the screen displays  , the transceiver will start resetting.

After reset is finished, transceiver will automatically turns off and  restart.

CTCSS/DCS Frequency Scan ------ MENU 30

This function is to scan all CTCSS or DCS frequencies to find if the transmitting party has the CTCSS or DCS frequencies to transmit. When CTCSS or DCS frequencies are not matched

between you and other members in the same group, you can use this function to find out CTCSS or DCS frequencies.

- When the transceiver is in receiving, press MENU + 23 , the screen displays 

- Press MENU to enter, the arrowhead points to "CTCSS". Press UP / DOWN select to scan CTCSS or DCS.
- And then press MENU to confirm, it starts scanning CTCSS/DCS frequencies.

NOTE:
This function can not work under the channel mode.
The function can not start up if there is no signal on the frequency.
Press UP / DOWN or turn code switch to reverse the scanning direction.

When identifying CTCSS or DCS frequencies, the identified frequency will displayed on the screen. In this moment, you can press MENU instead of present CTCS or DCS frequencies temporarily. If you need direct replacement, please enter CTCSS menu (Menu 15 & Menu 16) or DCS menu (Menu 17& Menu 18) to save and confirm.
Otherwise, the value will come back to the prior one after restoration.

Only when the radio is receiving a signal, the transceiver can enter CTCSS/DCS frequency to scan.

DTMF Encoding

MENU , UP, DOWN , EXIT keys are corresponding to A, B, C, D on DTMF
Please follow the below steps to dial up manually:

- Press PTT key to transmit.
- During transmission, press the DTMF key, and the corresponding DTMF tone is sent out.

NOTE: The transceiver transmits the corresponding tone, which can be monitored by the speaker.

ANI ID Code Edit, ANI ID Code Transmit, ANI ID Code Transmit Delay and Setting DTMF Sidetone

NOTE: The above functions in this transceiver only can be edited by our PC programming software.

ANI ID Code Edit

ANI ID Code can be edited by 6 digits, which is made up of A, B, C, D and 0-9.

ANI ID Code Transmit

Switch of ANI ID Code Transmit means that when you are communicating, press [PTT] key every time, the ANI ID CODE will be auto or manual transmitted. Selecting ON means automatically transmit, OFF means manually transmit.

ANI ID Code Transmit Delay

ANI ID Code Transmit Delay means when you are communicating, press [PTT] key every time to delay transmit ANI ID Code automatically.
The longest time of ANI ID Code auto transmit delay is 3seconds, which is divided into 30 levels and 100ms per level.

Setting DTMF Sidetone

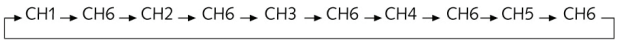
DTMF sidetone gives you the opportunity to switch on or off the speaker and hear the relative DTMF tone when transmit DTMF.

There are 4 options on setting sidetone:

- Key Tone: In transmitting, press number key to open the sidetone.
- ANI ID Code Transmit Sidetone: Opening sidetone when the transceiver transmits ANI ID code.
- Key tone + ANI ID Code Transmit Sidetone: In transmitting, opening side tone by number key or during transmitting ANI ID code.
- Turn off Sidetone: In encoding, all sidetone turns off.

Setting Priority Scan Function

If you want to monitor the other frequency and check the certain preferred frequency at the same time, you can set Priority scan function.
Example: Scan six channels: CH1, CH2, CH3, CH4 and CH5 as the common scanned channel, and CH6 set as the priority scanned channel. Scanning sequence as following chart:



If the transceiver checks the signal on "Priority Channel", it will switch this signal to the speaker
Select the priority channels via programming software.

Setting Reverse Frequency function

When using reverse frequency function, the transmitting and receiving frequency of transceiver will interchange, and the CTCSS and DCS encode and decode will interchange either.
Operating reverse frequency function:

- In standby mode, press * key to turn on the reverse frequency function; press * key again to turn off.
- In Frequency Mode: If the menu setting turns on
- If your transceiver permits reset

The editing method of the above two functions: via software

Low-voltage battery Voice Prompt

When the battery pack has low voltage, the transceiver will sound “low battery pack”, and the LED will flash every 5 seconds and a “click” sounds.

Transmit Overtime Prompt

When transceiver transmits beyond the limited time, there will be a sound warning for transmit overtime and the radio will stop transmitting. Release and press PTT to transmit again.

Adding scanning channel

Channel scan only according to scan list which had been added.
Edit method: Strictly via programming software.

Wire clone function

Using wireclone	Switch sourceradio on, after you have connected the targetradio to the sourceradio via the cloningcable, push the [MONI] key and the sourceradio starts cloning.	LED is flashing red during cloning. LED goes out in case of successful cloning. LED glows continuous red in case of cloning failure.
	Targetradio	LED is flashing green during cloning. LED will switch OFF when cloning complete.

Working with Repeater

This transceiver has two working modes while working with repeater.
Frequency mode working with repeater or **Channel mode** working with repeater

Frequency mode working with repeater

- Press A/B key to choose band A, set the TX frequency and sub-tones which need to work with the repeater.
- Press A/B key to choose band B, set the RX frequency (if the repeater has TX sub-tones, you can also add sub-tones in band B).
- Press MENU + TDR , frequency mode working with repeater set. The TDR disappeared but the screen displays " 🔒 ".
- And then press A/B key again, the setting is finished.

Channel mode working with repeater

- Edit the TX & RX frequency and sub-tones on the channel which need to work with repeater.
- In channel mode, and call out the above edited channel, press A/B to set this channel as the current one.

How to use the intelligent charger

- Insert the AC cable plug into the outlet (AC: 90-240V), the charger indicator will flash, it means enter charging standby .
- Insert the battery / radio into the charger, the RED indicator turns on, it means charging, while GREEN indicator turns on, it means fully charged.

NOTE:
When inserting an exhausted battery pack into the charger, it will pre-charge the battery pack in trickling charge, meanwhile, the RED light flashing and lasts 10 to 20 minutes, then enter normally charging with RED light on, it will turn to GREEN when fully charged.
Tricking charge the exhausted battery pack in case to protect the Li-ion battery.

Trouble Shooting

Please check carefully if your transceiver has problems by following this chart.
If you maintain to have trouble you can reset your transceiver and very often this will eliminate your problem.

Problem	Solution
Cannot power on, no power	**1.** The battery may exhausted, pls change the new battery or re-charge. **2.** The battery install incorrect, pls take out the battery and re-install.
Battery life not long	**1.** The battery life is over, pls change a new battery. **2.** Not charging completely, be make sure fully charged before take out.
Receive light turn on but no sounds	**1.** Make sure the volume is highest **2.** Make sure the CTCSS/DCS code is the same with other members.
Keypad do not work	**1.** Make sure the keypad is locked or not. **2.** Make sure any other key stuck.
In standby, it will auto-transmit without pressing PTT	Make sure VOX function is ON or not, and its level is set too low or not.

Problem	Solution
Some functions can not be stored	Make sure work in Channel mode. Some functions can be set only via programming software in Channel mode.
Receive other groups sign al while communicating	Pls change another CTCSS/DCS code of your group.

Annex

List of selectable parameters

Appendix 1

CTCSS									
1	67.0	11	94.8	21	131.8	31	171.3	41	203.5
2	69.3	12	97.4	22	136.5	32	173.8	42	206.5
3	71.9	13	100.0	23	141.3	33	177.3	43	210.7
4	74.4	14	103.5	24	146.2	34	179.9	44	218.1
5	77.0	15	107.2	25	151.4	35	183.5	45	225.7
6	79.7	16	110.9	26	156.7	36	186.2	46	229.1
7	82.5	17	114.8	27	159.8	37	189.9	47	233.6
8	85.4	18	118.8	28	162.2	38	192.8	48	241.8
9	88.5	19	123.0	29	165.5	39	196.6	49	250.3
10	91.5	20	127.3	30	167.9	40	199.5	50	254.1

Appendix 2

DCS									
1	D023N	16	D074N	31	D165N	46	D261N	61	D356N
2	D025N	17	D114N	32	D172N	47	D263N	62	D364N
3	D026N	18	D115N	33	D174N	48	D265N	63	D365N
4	D031N	19	D116N	34	D205N	49	D266N	64	D371N
5	D032N	20	D122N	35	D212N	50	D271N	65	D411N
6	D036N	21	D125N	36	D223N	51	D274N	66	D412N
7	D043N	22	D131N	37	D225N	52	D306N	67	D413N
8	D047N	23	D132N	38	D226N	53	D311N	68	D423N
9	D051N	24	D134N	39	D243N	54	D315N	69	D431N
10	D053N	25	D143N	40	D244N	55	D325N	70	D432N
11	D054N	26	D145N	41	D245N	56	D331N	71	D445N
12	D065N	27	D152N	42	D246N	57	D332N	72	D446N
13	D071N	28	D155N	43	D251N	58	D343N	73	D452N
14	D072N	29	D156N	44	D252N	59	D346N	74	D454N
15	D073N	30	D162N	45	D255N	60	D351N	75	D455N
76	D462N	82	D516N	88	D606N	94	D645N	100	D723N
77	D464N	83	D523N	89	D612N	95	D654N	101	D731N
78	D465N	84	D526N	90	D624N	96	D662N	102	D732N
79	D466N	85	D532N	91	D627N	97	D664N	103	D734N
80	D503N	86	D546N	92	D631N	98	D703N	104	D743N
81	D506N	87	D565N	93	D632N	99	D712N	105	D754N

Technical Data

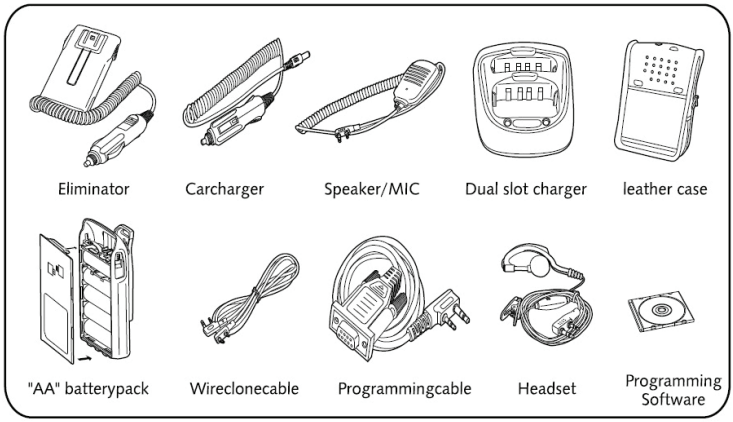
Default Frequency Ranges (can be different depending on countries or areas of sales):
76-108 MHz (FM broadcast radio receiver)

136-174MHz & 350-470MHz (Rx / Tx), 136-174MHz & 400-480MHz (Rx / Tx),
136-174MHz & 420-520MHz (Rx / Tx), 136-174MHz & 400-470MHz (Rx / Tx),
Microphone socket:.....2.5 mm conform to Albrecht/ Alan/ Midland Standard
Speaker socket:.....3.5 mm conform to Albrecht/Alan/ Midland Standard

Memorychannels: ……128 channels
Operating Voltage:……7.4V
Operating Temperature:……-30°C to + 60°C
Working Mode:……Co-channel (Simplex) or Dis-channel Semiduplex
Output Power:VHF: ……5W / UHF:4W
Modulation:……F3E(FM)
Max. Frequency Deviation:……≤ ±5KHz
Spurious Radiation:……< -60dBc
Frequency Stability:……±2.5 ppm
Receive Sensitivity:……< 0.2uV
Audio Output power:……≥ 500mW
Dimension: ……58 X 105 X 39 (mm)
Weight:……250g

NOTE: Specifications are subject to change without notice.

Optional accessories



Disclaimer

Alan Electronics GmbH endeavors to achieve best accuracy and completeness of this manual, but we are not liable for any possible omission and printing errors. All the above specifications are subject to change by our factory without prior notice.

Legal Notes

Legal notes and general information

This amateur hand held radio complies to the minimum requirements of the EU directives 2004/108/EG (EMC), the harmonized EU standards EN 301 783-2 (commercial available amateur radio products , EN 301 489-1 und-15 (EMC) und EN 60950-1:2006 (safety and LVD -directive 73/23/EWG) and is marked with the CE logo + Alert sign.

Following conditions apply:

In all European countries this transceiver is subject to national amateur radio regulations. It may be used only by persons, who have obtained a valid amateur radio licence.
Radio amateurs are only allowed to use this radio on assigned amateur radio frequencies within the 2 m or 70 cm bands, even if this radio should be able to switch other adjacent frequencies. National regulations may exist for environmental RF protection and must be applied by the operator.
It is not allowed to use this radio for any other purpose except amateur radio.

If this radio shall be used in a configuration with other accessory items or amplifiers, the radio amateur is responsible to keep the radiations within the legal limits of his licence class, especially he has to follow the rules and standards of the above mentioned EU directive and technical standards, especially EN 301 783-2. It may be necessary to add separate harmonics filters when combining to amplifiers or SWR meters or antenna switching devices.

Alan Electronics GmbH

European warranty regulations

The distributor, dealer or retail shop where You bought the radio warrants to the original retail purchaser of this product that should this product or any part of it, under normal use and conditions, be proven defective in material or workmanship within 2 years from the date of original purchase, such defect(s) will be repaired or replaced with new or reconditioned product without charge for parts and repair labour. To obtain repair or replacement within the terms of this warranty, the product is to be delivered with proof of warranty coverage (e.g. a copy of Your bill of sale), specification of defect(s), to the distributor, dealer or his authorized repair partner.

Liability for communications range of this product is disclaimed. The warranty does not apply to any product or part there of which, has suffered or been damaged through alteration, improper installation, mishandling, misuse, neglect, accident, or by removal or defacement of the factory serial number label(s). The warranty does not apply to accessory parts or problems caused through not authorised or not recommended accessories like other than the supplied microphone, external antennas, external power supplies and over voltage caused through external power supplies, lightning or over voltage defects via antenna or other cables, broken or damaged acrylic glass windows and cabinet parts.

ALBRECHT®

CE

We hereby declare that our product: 2m / 70 cm Hand Held Radio

DB 271 incl. Battery/Charger/Power accessories

satisfies all technical regulations applicable to the product within the scope of EU Council Directives and harmonized European Standards:

EU- Directives : 73 / 23 / EEC, 2004 / 108 / EG and 99 / 5 EC ;
European Standards EN 301 489 -1 V 1.8.1, EN 301 489 -15 V 1.2.1,
EN 301 783 -2 V.1.1.1,
EN 60 950 - 1 : 2006
All essential radio test suites have been carried out.

Alan Electronics GmbH
Daimlerstr. 1 k
63303 Dreieich
GERMANY

This declaration is issued under the sole responsibility of the manufacturer according to the procedure of Annex III R&TTE directive.

Basing on this declaration, the amateur radio may be used only by authorized persons having a valid amateur radio license, and only for the purpose of amateur radio service in the dedicated frequency ranges.

Note: the latest valid issue of this Declaration of Conformity, as well as all other information about this radio and possible restrictions of use, can be downloaded any time from our public internet server under:

http://www.hobbyradio.de

Contact person: Wolfgang Schnorrenberg

Place and date of issue:
Dreieich, 09. 09. 2010

(Signature)
Dipl.-Phys. Wolfgang Schnorrenberg
Alan Electronics GmbH

Where to find service hints and service documentation

The complete technical documentation is updated regularly. You can download the latest versions of user manuals, technical documents and conformity declaration, as well as service hints or FAQ's any time from our server under

http://www.hobbyradio.de

If you should have a problem, please have a look to the service hints or frequently asked questions (FAQ) before You send Your Hand held radio back to the service centre. Our homepage will provide the latest information about using the radio.

Disposal and Recycling of Electronics Waste

This Duoband Hand Held Radio has been produced according to the European ROHS directive and does no more contain certain banned hazardous substances. Please dispose defective and no more usable electronic items only via officially allowed collecting points.
The new European WEEE directive does no more allow to dispose items via household trash. Please contribute to the efficient recycling of used electronic items!

Technical information hotline:

Technical inquiries	01805- 012204 (14 Cent/min, mobile phone charges may be different)
e-mail	alan-service@ps-tech.de
Service- Fax	06103-9481-60
Repair inquiries, spare parts orders	06103 9481-22
Returns and repair shipments:	Alan Electronics GmbH, Daimlerstr. 1 k, D-63303 Dreieich
Technical Homepage	www.service.alan-electronics.de
Product Homepage	www.alan-electronics.de