

Lost Audio GmbH & Sumatronic AG

B-DAB-760

DAB+ / FM Tuner Modul Conversion for Revox B760

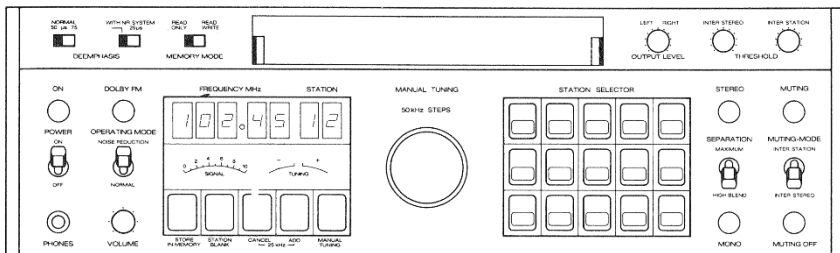


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1 DAB+/FM tuner

DAB and DAB+ are the new generation of radio technologies in which the radio signal is transmitted completely digitally. Even with difficult reception, you can listen to your favorite stations without any noise.

The B-DAB-760 has been designed to be as resistant as possible to any interference that occurs in everyday life thanks to sophisticated filter technologies. This means you can listen to the radio without interference even when reception is difficult.

The tuner receives DAB and DAB+ in frequency band III from 174 - 240 MHz and FM in frequency band II from 87.5 - 108 MHz. Programming is fully automatic, the stations are automatically recognized, stored and assigned the correct names for DAB. No names are assigned for FM; the RDS station name or RDS radio text can be displayed. Up to 250 stations can be stored for DAB/DAB+ and 250 stations for FM.

The tuner analog audio output signal is delivered as usual via the two pairs of cinch sockets to your usual hi-fi system. The volume of one output is fixed as usual, while the other can be adjusted on the front of the B760. No digital SP/DIF signal is available.

Enjoy the new way of listening to the radio.

2 General information

2.1 The rotary wheel

The centrally positioned rotary wheel is one of the distinctive features of this tuner. It therefore goes without saying that it is fully integrated into the operation, just like the original. However, this rotary wheel is not a pure rotary signal generator, as is usually the case with modern devices, but a meticulously designed analog frequency selector for the megahertz and kilohertz range. It is therefore only 99% possible to use this as a pure rotary encoder. This means that small jumps or repetitions can always occur in the megahertz alternation. You will sometimes notice that jumps or repetitions occur during operation. However, you will quickly get used to it and appreciate its use.

2.2 Alphanumeric display

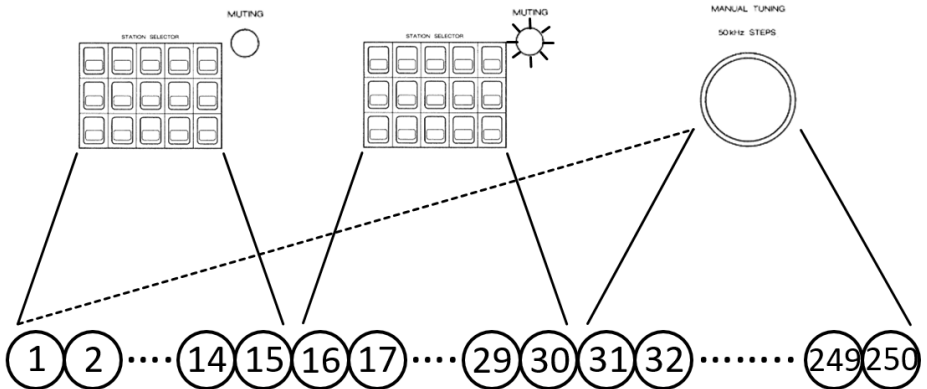
The new display can show letters, numbers and some special characters. However, to make it look as stylish as the original display, it is limited to 8 characters. This means that certain information is displayed in abbreviated form. Here, original design takes precedence over function. Thank you for your understanding.

2.3 Station memory system - pearlchains

Basically, all DAB+ and FM stations are stored in the system like a chain of pearls. One chain for DAB+ and one chain for FM. This means that there can never be a gap in this chain. The 15 or 30 direct selection buttons automatically point to the first 15 or 30 stations in the chain. This means, for example, that button 3 automatically points to the third station in these chains for DAB+ and FM. You cannot assign these direct selection buttons specifically. If you want to assign the direct selection buttons differently, the order of the stations in the station memory chain must be changed.

Gaps are automatically created for inserting stations or removed when a station is moved.

You can use the direct selection buttons to select stations 1 to 30, then use the rotary wheel to continue selecting through the station chain. However, the rotary wheel can also be used for stations 1 to 30.



2.4 Last listened station

The last station listened to on DAB+ and FM is always saved so that the same station can be heard again when the device is switched on. This storage is carried out approximately one minute after a station has been listened to continuously.

2.5 Stereo display and signal quality/strength

The DAB+ and FM tuner indicates for each station whether it is transmitted in mono or stereo. DAB+ also uses mono transmission, but this is not due to a lack of reception strength but to save data. With FM, mono reception is usually because the signal strength is too weak. The display for mono and stereo is generally very sluggish and is only updated every few seconds. The signal quality with the display in the pointer instrument is also only updated every few seconds.

Please note that with DAB+ the signal quality is displayed and not the signal strength. Even a very strong DAB+ signal can be poor due to reflection. Therefore for DAB+ the quality is displayed.

With FM, the quality cannot be measured, so the signal strength is displayed for FM.

3 Connecting the antenna

Find out whether you are using an active or passive antenna for DAB+/FM reception. If you are using an active antenna that must be supplied with 5V, it can be supplied with a maximum of approx. 30mA by the B-DAB-760 module. This supply voltage can be switched on or off via Settings in the DAB+ menu. This is only required for an active antenna and may only be activated in this case. To activate the supply voltage, please first read chapter 5 and then chapter 5.7 in the DAB+ section. The antenna power supply can only be switched on in the DAB+ menu, but then applies to DAB+ and FM together. The 5V power supply for the antenna **MUST** be switched on before the station search (DAB+ and FM), otherwise no stations will be found.

To connect the antenna, use the usual antenna socket on the B760 at the back left of the device, which is designed for 50 and 75 Ohm antennas. Always place your antenna on a metallic surface, for example the housing of the B760 or a piece of sheet metal that you have to hand. A metallic surface increases the reception strength. The antenna only needs to be placed close on it; it is not necessary to have electrical contact with the metal surface.

If you receive DAB+Cable via your cable network, you can use the sumaDAB DAB+Cable adapter to convert this signal into normal DAB+ signals and receive them with the DAB module. In this case, an antenna is not required. Cable reception is generally simple and problem-free.

UPC (Switzerland) and its partners currently offer DAB+Cable with around 90 radio stations on their cable networks.

4 Save, listen and customize DAB+ stations

When the DAB+/FM tuner is delivered, no stations are stored on it. To store the DAB+ stations, first switch on the device with the power switch on the far left by tilting it upwards. Now make sure that the device is in DAB+ mode. To do this, the second toggle lever from the left, which is originally labeled "OPERATING MODE", must be tilted downwards. Up would be FM, down is DAB+.

When the device is switched on, "DAB 760" is shown on the display for around 2 seconds, after which the last station listened to is played. If no stations are programmed, the display goes out completely.

4.1 DAB+ Sender automatisch speichern „SCAN“

You can now perform the automatic station search. The tuner does not have a manual tuning function, as this is not necessary with DAB+. DAB+ works differently to FM, where a single radio station is transmitted on each frequency. With DAB+, several radio stations are bundled into one package (known as an ensemble) and are transmitted on a single frequency. Therefore, direct tuning and thus the input of a station is not possible. As each radio station has a predefined name, it is not necessary to name radio stations by yourself.

To do this, press the "STORE IN MEMORY" button just below the display for about 5 seconds until the automatic station search starts. This is signaled by "AutoMEM" appearing on the display. Then immediately release the button. The function now searches through all 40 channels in band III and finds all available radio stations. It will also find stations that cannot be played because the reception is too weak. These can be deleted later. Manual retuning is therefore not necessary.

The channels are automatically counted from 0 to 40. The display is updated at fixed intervals. This can therefore mean that not every single channel is displayed. However, all channels are always scanned, even if they are not displayed.

Finally, all radio stations found are saved. A check is also made to ensure that this is not just a data service. The latter are not radio stations, therefore do not transmit music and are therefore automatically deleted during the saving process. It is therefore possible that more stations are displayed during the saving process than are saved at the end.

4.2 Listen to and changing DAB+ stations

As known from the B760, the first 15 stations can be selected directly using the 15 buttons on the right-hand side. Stations 16 to 30 can now also be selected directly by first pressing the "ADD" button below the display. The yellow "MUTING" lamp on the right-hand side now lights up. As long as this yellow lamp is lit, you are in the 16 to 30 mode of the direct selection buttons. To switch back to the range 1 to 15, press the "ADD" button again and the yellow "MUTING" lamp on the right will go out again. This function is only available if you have stored more than 15 stations.

You can use the central wheel to search for stations. Simply start turning it and search for the desired station. Turn it to navigate forwards or backwards through the chain of stored stations, depending on the direction of rotation. While turning, only the station to be searched for is displayed, but not selected. You can recognize this by the fact that a dot appears on the far right side of the display. As soon as you stop turning the wheel for approx. 1.5 seconds, the selected station is set, the dot on the far right side disappears and the station sounds after a few seconds.

The direct selection buttons do not need to be assigned separately. They automatically point to the respective station in the internal chain of stored stations. Button 2, for example, automatically points to the station that was saved in second place in the station chain during the search.

You can select all stored stations with these two variants.

4.3 Changing the DAB+ stations order

The stations are always saved alphabetically during the automatic saving process. (Exceptions may occur with stations whose short name is "32", for example. These are sorted by "32", but displayed as "Radio 32"). You can change this sorting at will. To do this, use the empty list on the last page. Make a note of your personal list and the order of the stations you would like to have. This is very helpful as no station numbers can be displayed during the sorting process. Start with the channel you want to have in first place, then the second place, then the third place and so on. In this way, you create the new order of the station chain in ascending order based on your list.

If you want to swap two stations, for example the station from position 30 to position 5, then first move the station from position 30 to position 5, and only then the station from position 6 (which was previously position 5) to position 31. The position numbers are not displayed, you always use the existing station names as a guide.

Proceed as follows:

1. Briefly press the "STORE IN MEMORY" button below the display. The display now shows "MENU DAB"
2. Turn the wheel clockwise to select the first option "STA SORT"
3. To start the sorting process, press "MANUAL TUNING". A single dot appears on the left of the display.
4. Now use the wheel (or the direct selection buttons 1-15) to select the station you want to move. As soon as a station is set, two dots appear from the left in addition to the station name. The station can be changed several times until you are sure. (ATTENTION: Direct selection buttons 16-30 do not work in this mode)
5. Press "ADD" to confirm this station. The display disappears and three dots appear on the left.
6. Now use the wheel or the direct selection buttons 1-15 to select where the station should be moved to. The station that is still in the target position is moved to the rear. Stations are never overwritten or deleted. Gaps are always automatically closed or created immediately.
7. Press "ADD" again to complete the process. The display goes out and a single dot appears on the left.
8. Now you can repeat steps 4-7 as often as you like until all the stations have been moved as you would like them to be.
9. When you have finished moving, press "MANUAL TUNING" to complete the entire sorting process.
10. Then press "STORE IN MEMORY" to exit the menu, save everything and return to normal listening mode.

Points and their meaning as an overview

- . Wait to select the station to be moved.
- .. A station has been set that can be moved.
- ... The station to be moved has been selected, now the system waits until the destination is entered.
- A position has been entered where the station is moved to.

In rare cases, if the station name itself has a dot in its name, the dots may be displayed incorrectly. Do not let this confuse you. After a few operations, you will have this under control by heart.

4.4 Delete DAB+ stations individually

You can delete each stored station individually. To do this, proceed as follows:

1. Briefly press the "STORE IN MEMORY" button below the display. The display now shows "MENU DAB"
2. Turn the wheel clockwise to select the first option "STA SORT"
3. Now press "MANUAL TUNING". A single dot appears on the left side of the display. This single dot on the left side means that it is ready to select the station to be moved or deleted.
4. Now select the station to be deleted using the rotary wheel or the direct selection buttons. As soon as a station is set, two dots appear from the left side in addition to the station name. The station can be changed several times until you are sure.
5. Now press "CANCEL" to delete this station. "deleted" appears briefly in the display, after which it disappears again as a single dot.
6. Now you can repeat steps 4-5 as often as you like until all the stations you wanted to delete have been deleted.
7. When you have finished deleting, press "MANUAL TUNING" to complete the entire deletion process.
8. Then press "STORE IN MEMORY" to exit the menu, save everything and return to normal listening mode.

You will have noticed that moving stations and deleting stations are carried out in the same menu. You can also combine these actions.

4.5 Delete all DAB+ stations

If you want to delete all stored DAB+ stations, press the "STATION BLANK" button for 5 seconds in normal listening mode until "deleted" appears. All stored DAB+ stations are then deleted, meaning that the direct selection buttons are also empty.

4.6 DAB+ dual channel

If a station is broadcast as a dual channel, the left and right channels transmit a different program, for example different languages. This will be displayed when you display the technical data, but you will of course also hear this immediately. You can switch between the left and right channels using the "STATION BLANK" button. Your amplifier must then be switched to mono mode, otherwise only one channel will be used. Press this button several times to achieve this:

- Left channel only
- Right channel only
- Back to stereo mode

ATTENTION: This option is only available if a channel is broadcast as a dual channel.

4.7 Updating the DAB+ station name

With DAB+, the station names are assigned automatically as they are transmitted by the station. However, if a station was not received well enough during the save process, errors may occur in the name. It is also possible that a station has changed its DAB+ display name. In this case, you can press the "MANUAL TUNING" button below the display for 5 seconds while listening to this station until the text "Re Store" appears on the display. Do not be disturbed by the fact that the technical data of the DAB station is displayed within these 5 seconds. When "Re Store" appears, all the data for this station has been re-read and saved.

4.8 Displaying data on the DAB+ station being played

If you want to display the technical data for the station you are currently listening to, proceed as follows. In principle, the station should be audible for 30-40 seconds so that the tuner has received all the technical data and can then also display it. Briefly tap the "MANUAL TUNING" button below the display. The following station data will now scroll through the display in sequence.

ATTENTION: The radio text may be changed by the station during this process, which may interrupt this display and show the radio text.

- Bit rate of the station - BR in kilobits per second
- Quality of the signal - QTY 0-100
- Audio channels: Mono, Stereo, Joint Stereo, Dual Channel
- Channel name - e.g. 5D
- Transmission frequency - e.g. 180.064 MHz

4.9 Displaying DAB+ radio text

The DAB radio text can be set in the settings so that it is not displayed at all, only once after each change or constantly. You can have the text displayed again at any time if such a text has been received. To do this, briefly press the "CANCEL" button below the display. The radio text is then scrolled through once.

To change this setting, read the following chapters 5 and 5.1.

5 Settings menu „MENU DAB“

You already know the first point of the settings, sorting and deleting channels. Now all the other settings are explained individually. During these settings, the signal quality in the pointer instrument and the stereo lamp are not updated. Depending on the setting, the pointer instrument also drops to the value 0, as the display can be adjusted. This is normal behavior.

To access the Settings menu, press the "STORE IN MEMORY" button. To edit an individual menu item, navigate to this menu item using the rotary wheel.

With the exception of sorting and deleting in the first menu item, the following button functions now apply to all settings:

- Button 1: Decrease the value or to the left
- Button 5: Increase the value or to the right
- Button 15: Display the current value of this setting

“STORE IN MEMORY“ = Save settings, exit menu

“CANCEL“ = Do not save settings, exit menu

(The settings are only set temporarily, until the next time you switch off)

5.1 Switching radio text on and off „RADIOTXT“

If a DAB+ station transmits radio text, the following display options can be selected:

- No display of the radio text "DISABLED"
- Each time the text changes, it is scrolled through once and then the station name is displayed again "ONCE oCH"
- The radio text is always displayed and scrolled through endlessly until a new radio text is broadcast, after which it is scrolled through endlessly again "ENABLED"

5.2 Volume DAB+ „VOLUME“

Here you can set the basic volume of the DAB+ tuner so that it matches all other sources perfectly. The values 0 to 16 can be set.

5.3 Equalizer DAB+ „EQUALIZE“

Here you can select one of the predefined equalizer settings that apply to all DAB+ radio stations and that you like.

- Disable „DISABLED“
- Bass boost „BASS BST“
- Jazz „JAZZ“
- Live „LIVE“
- Vocal „VOCAL“
- Acoustic „ACOUSTIC“

5.4 Cut + „CUT PLUS“

Many stations mark their radio station names with a + at the end, for example SRF3+. In this way, radio stations encoded with DAB+ can be distinguished from those with DAB.

As almost all stations have a + at the end of their name because they use the new standard, this information is more useless than helpful. This option can be used to suppress the + at the end of the name.

- The + is left as it is „NO CUT +“
- The + is cut off „CUT +“

5.5 Headroom „HEADROOM“

The headroom setting allows experts to set the headroom for the tuner. There is usually no need to make any changes here, 0 should usually be fine. However, if radio stations are transmitted unusually loudly, the expert can make adjustments here.

Values from 0dB to -12dB can be set.

5.6 DRC „DRC“

DRC stands for Dynamic Range Control and is only used by a few radio stations. This setting influences the dynamic range of the broadcast radio signal. If the option is activated, the radio station can use this, otherwise not.

- Dynamic Range Control activated „DRC ON“
- Dynamic Range Control deactivated „DRC OFF“

5.7 Antenna power supply „ANT PWR“

If you are using an active antenna that requires a 5V supply, this can be supplied directly from the DAB+ tuner with the required voltage of 5V maximum approx. 30mA. You can switch this supply voltage on or off here.

- Supply voltage switched on „+5V ON“
- Supply voltage switched off „+5V OFF“

ATTENTION: If the antenna is drawing too much current or there is a short circuit, "+5V FAIL" is shown on the display and the power supply is automatically switched off. The power supply is only switched on again when the device is switched on again using the power switch.

5.8 Meter factor „METER F“

To ensure that the signal quality indicator always displays the correct value, the voltage for full scale 10 can be set here. Correct with buttons 1 or 5 until the pointer instrument is exactly at full scale 10. Due to ageing, not all pointer instruments are equally sensitive. If the full deflection is no longer reached, the pointer instrument must be checked.

Values from 0 to 254 can be set.

5.9 Test tone „TESTTONE“

You can only navigate through the various test tones using buttons 1 and 5. This is not an actual option that can be saved. This is only a temporary setting to test the audio outputs.

- Test signals switched off
- Noise on both channels
- Sine 1kHz left channel
- Sine 1kHz right channel
- Sine 1kHz both channels

5.10 FactoryReset „FA RESET“

To reprogram the DAB+/FM tuner from scratch, the entire memory content can be deleted. All settings and all DAB+ and FM stations will be deleted.

To do this, press button 1 five times in succession in the "FA RESET" menu item, then "RESET" appears in the display. As soon as "done" appears, everything is deleted and you must switch the device off and on again using the main switch.

The following additional functions are available in the "FactoryReset" menu:

- Button 14: Displays the number of preset stations in DAB and FM
- Button 15: Displays the version of the software version

5.11 Exiting the settings Menu

You can exit this menu at any time while you are working on the settings without saving. To do this, simply press the "CANCEL" button. The menu is exited and the station name is displayed again. It is **IMPERATIVE** that you then switch the device off and on again using the main switch! If you do not do this, the settings will remain active until the next restart.

Everything can also be discarded when sorting and deleting.

Press the "STORE IN MEMORY" button to exit the menu and save all settings.

6 Save, listen and customize FM stations

When the DAB+/FM tuner is delivered, no stations are stored on it. To store the FM stations, first switch on the device with the power switch on the far left by tilting it upwards. Now make sure that the device is in FM mode. To do this, the second toggle lever from the left, which is originally labeled "OPERATING MODE", must be tilted upwards. Up is FM, down would be DAB+.

6.1 Saving FM stations automatically „SCAN“

You can now start the automatic station search. To do this, press the "STORE IN MEMORY" button just below the display for about 5 seconds until the automatic station search starts. This is signaled by "AutoMEM" followed by "Search" on the display. Release the button immediately. The function now searches through all FM frequencies and you can watch live as all frequencies are scanned from bottom to top. If a station is found, it will be saved. Several options can be changed in the FM settings to achieve the optimum result, so that not too many stations are stored that cannot be heard or too few stations are found. As soon as the automatic search process is complete, "END" is briefly displayed and then the first station found is tuned in. The stations are sorted in ascending order of frequency.

During the search process, frequencies may sometimes be displayed incorrectly. Do not be put off by this, the search will still function normally and correctly.

You can add or delete individual stations manually at any time.

6.2 Adding FM stations manually

If you want to add channels manually, proceed as follows:

1. Briefly press the "STORE IN MEMORY" button below the display. The display will now show "MENU FM"
2. Turn the wheel clockwise to select the second option "MAN STOR"
3. Press the "MANUAL TUNING" button
4. The display shows "MAN TUNE" and after 2 seconds the frequency appears
5. As soon as you turn the wheel, the frequency is changed and you can hear it. Tune to the desired station
6. Now press "ADD" to add the station. The station is added after the last stored station. "added" appears briefly on the display.

7. Repeat steps 4-5 as often as you like until all stations have been added
8. Then exit this mode by pressing the "MANUAL TUNING" button
9. Exit the Settings menu by pressing the "STORE IN MEMORY" button

You can recognize manual mode by the fact that the blue "NOISE REDUCTION" lamp lights up.

6.3 Listen to and change FM stations

As known from the B760, the first 15 stations can be selected directly using the 15 buttons on the right-hand side. Stations 16 to 30 can now also be selected directly by first pressing the "ADD" button below the display. The yellow "MUTING" lamp on the right-hand side now lights up. As long as this yellow lamp is lit, you are in the 16 to 30 mode of the direct selection buttons. To switch back to the range 1 to 15, press the "ADD" button again and the yellow "MUTING" lamp on the right will go out again. This function is only available if you have stored more than 15 stations.

The direct selection buttons do not need to be assigned separately. They automatically point to the respective station in the internal chain of stored stations. Button 2, for example, automatically points to the station that is stored in second place in the station chain.

You can also use the central wheel to search for stations. Simply start turning it and search for the desired station. As you turn the wheel, only the frequency of the station to be found is displayed, but not selected. You can recognize this by the fact that a dot appears on the far right of the display. As soon as you stop turning the wheel for approximately 1.5 seconds, the selected station is set and the dot on the far right disappears.

You can select all saved stations with these two variants.

6.4 Changing the FM stations order

During the automatic storage process, the stations are always stored in ascending order of the frequency. However, you can change this as you wish. If you want to rearrange the stations, start with the station you want to have in the first position, then the second position, then the third position and so on. This is how you create the new order of the station chain in ascending order.

If you want to swap two stations, for example the station from position 30 to position 5, first move the station from position 30 to position 5, and only then move the station from position 6 (which was previously position 5) to position 31. The position numbers are not displayed, you always orient yourself of the frequencies of the stations.

Proceed as follows:

1. Briefly press the "STORE IN MEMORY" button below the display. The display now shows "MENU FM"
2. Turn the wheel clockwise to select the first option "STA SORT"
3. To start the sorting process, press "MANUAL TUNING". A single dot appears on the left of the display.
4. Now use the wheel (or the direct selection buttons 1-15) to select the station you want to move. As soon as a station is set, two dots appear from the left in addition to the station name. The station can be changed several times until you are sure. (ATTENTION: Direct selection buttons 16-30 do not work in this mode)
5. Press "ADD" to confirm this station. The display disappears and three dots appear on the left.
6. Now use the wheel or the direct selection buttons 1-15 to select where the station should be moved to. The station that is still in the target position is moved to the rear. Stations are never overwritten or deleted. Gaps are always automatically closed or created immediately.
7. Press "ADD" again to complete the process. The display goes out and a single dot appears on the left.
8. Now you can repeat steps 4-7 as often as you like until all the stations have been moved as you would like them to be.
9. When you have finished moving, press "MANUAL TUNING" to complete the entire sorting process.
10. Then press "STORE IN MEMORY" to exit the menu, save everything and return to normal listening mode.

Points and their meaning as an overview

- . Wait to select the station to be moved.
- .. A station has been set that can be moved.
- ... The station to be moved has been selected, now the system waits until the destination is entered.
- A position has been entered where the station is moved to.

When displaying the frequencies, these themselves also have dots, which is unfortunately distracting. Don't let this confuse you. After a few operations you will have it under control by heart. Just stubbornly follow the instructions.

6.5 Delete FM stations individually

You can delete each stored station individually. To do this, proceed as follows:

1. Briefly press the "STORE IN MEMORY" button below the display. The display now shows "MENU FM"
2. Turn the wheel clockwise to select the first option "STA SORT"
3. Now press "MANUAL TUNING". A single dot appears on the left side of the display. This single dot on the left side means that it is ready to select the station to be moved or deleted.
4. Now select the station to be deleted using the rotary wheel or the direct selection buttons. As soon as a station is set, two dots appear from the left side in addition to the station name. The station can be changed several times until you are sure.
5. Now press "CANCEL" to delete this station. "deleted" appears briefly in the display, after which it disappears again as a single dot.
6. Now you can repeat steps 4-5 as often as you like until all the stations you wanted to delete have been deleted.
7. When you have finished deleting, press "MANUAL TUNING" to complete the entire deletion process.
8. Then press "STORE IN MEMORY" to exit the menu, save everything and return to normal listening mode.

You will have noticed that moving stations and deleting stations are carried out in the same menu. You can also combine these actions.

6.6 FM manual operation

You are familiar with manual mode from the B760, where you can easily and conveniently set an FM frequency using the rotary wheel and then listen to it. This manual mode is also available here in FM mode.

To do this, press the "MANUAL TUNING" button and "MAN TUNE" will immediately appear in the display and after 2 seconds the set frequency. As soon as you turn the wheel, the frequency is changed and you can hear it. You can recognize manual mode by the blue "NOISE REDUCTION" lamp lighting up.

You can exit manual tuning mode by pressing a direct selection button again.

ATTENTION: There is a gap of 9 ticks between 108,000 and 87,500. The reason for this is that the B760 started at 87,000 MHz, but this tuner starts at 87,500 MHz. Therefore, 9 ticks are unused when turning.

6.7 Delete all FM stations

If you want to delete all stored FM stations, press the "STATION BLANK" button for 5 seconds in normal listening mode until "deleted" appears. All stored FM stations are then deleted, meaning that the direct selection buttons are also empty.

6.8 Switching FM reception to mono

If the reception strength is not sufficient, noise may occur in stereo mode. You can use the "STATION BLANK" button to permanently set the station you are currently listening to mono until the next switchover. If the tuner always switches to stereo too early, you can adjust the signal-to-noise ratio threshold for stereo in the settings in chapter 0. After selecting a new station, stereo is automatically activated again.

6.9 Display FM RDS radio text

The FM RDS radio text can be set in the settings so that it is not displayed at all, only once after each change or permanently. You can restart the display of the radio text at any time (except when set to display the RDS name) by briefly pressing the "CANCEL" button below the display. The radio text is then scrolled through once. If set to display the RDS name, this would constantly compete with the radio text and both would overwrite each other. For this reason, the radio text is not read in and cannot be displayed with "CANCEL".

To change this setting, read the following chapters 7 and 7.1

7 Settings menu „MENU FM“

You are already familiar with the first two points of the settings, sorting and deleting stations and adding stations manually. Now all the other settings are explained individually. During these settings, the signal quality in the pointer instrument and the stereo lamp are not updated.

To access the settings menu, press the "STORE IN MEMORY" button. To edit an individual menu item, navigate to this menu item using the rotary wheel.

With the exception of sorting and deleting in the first menu item and adding in the second menu item, the following button functions now apply to all settings:

- Button 1: Decrease the value or to the left
- Button 5: Increase the value or to the right
- Button 15: Display the current value of this setting

“STORE IN MEMORY“ = Save settings, exit menu

“CANCEL“ = Do not save settings, exit menu

(The settings are only set temporarily, until the next time you switch off)

7.1 RDS „RDS“

RDS is the Radio Data System, which transmits further information in addition to the music. This is the name of the radio station on the one hand and the slightly longer radio text on the other. You can now decide here what should be displayed. Generally, when you select the stored FM station, the frequency is displayed first and only when this RDS data has been received correctly is it displayed instead of the frequency.

- No display of RSD data, the frequency remains "DISABLED"
- Display of the station name "RDS NAME". ATTENTION: Some radio stations often change this text to display the current song name and artist as well.
- Each time the long radio text changes, it is scrolled through once and then the frequency is displayed again "RDS TXT1".
- The long radio text is always displayed and scrolled through endlessly until a new radio text is broadcast, after which it is scrolled through endlessly "RDS TXTe".

7.2 Volume FM „VOLUME“

Here you can set the basic volume of the FM tuner so that it matches all other sources perfectly. The values 0 to 16 can be set.

7.3 Equalizer FM „EQUALIZE“

Here you can select one of the predefined equalizer settings that apply to all FM radio stations and that you like.

- Disable „DISABLED“
- Bass boost „BASS BST“
- Jazz „JAZZ“
- Live „LIVE“
- Vocal „VOCAL“
- Acoustic „ACOUSTIC“

7.4 S/N ratio threshold for stereo „STE THD“

Sets the threshold of the signal-to-noise ratio when the tuner should switch between mono and stereo. Values from 0 to 9 can be set. The default value is 4.

7.5 Channel search – threshold detection „RSSI THD“

Sets the threshold when the automatic station search should be stopped based on the signal strength. Values from 0 to -100 dBm can be set. This setting is only used for automatic station programming of FM stations. The default value is 20.

7.6 Channel search – S/N ratio „NSE THD“

Sets the signal-to-noise ratio threshold at which the automatic station search should be stopped. Values from 0 to 12 can be set. This setting is only used for automatic station programming of FM stations. The default value is 9.

7.7 Channel search – store threshold „MIN LVL“

Threshold value when the station is actually stored during the automatic FM station search.

During the station search, the tuner stops based on the upper two values and remains and optimizes itself. After 1-2 seconds, the value is measured again and if this threshold is exceeded, the station is actually stored automatically, otherwise the search continues. Values from 0 to 100 can be set, the default value is 20.

7.8 Exiting the settings menu

You can exit this menu at any time while you are working on the settings without saving. To do this, simply press the "CANCEL" button. The menu is exited and the station name is displayed again. It is IMPERATIVE that you then switch the device off and on again using the main switch! If you do not do this, the settings will remain active until the next restart.

Everything can also be discarded when sorting and deleting.

Press the "STORE IN MEMORY" button to exit the menu and save all settings.

8 Troubleshooting

8.1 Display shows „+5V FAIL“

The supply voltage for an active antenna is switched on, but there is either a short circuit in the antenna cable or the antenna requires too much current. Please check the technical data of your antenna.

Disconnect the antenna cable from the B760, switch it off and on again and check that the error message does not reappear.

8.2 Display shows „no RS232“

The communication connection between the two built-in circuit boards is faulty. The ribbon cable is the communication link between these boards. Check that the plugs are firmly seated at both ends. Attention, this check can only be carried out on an open device by a specialist.

8.3 No reception with active antenna

An active antenna has an integrated signal amplifier. This requires power in order to function. Active antennas that require 5V and a maximum of 30mA can be supplied with power directly from the DAB+/FM tuner module by activating the power supply in the DAB menu. Check whether your antenna is designed for 5V max. 30mA and whether the power supply is activated.

9 Technical data

DAB Frequency range: 174 - 240 MHz
 DAB Frequency band: III
 DAB Channels: 5A – 13F
 DAB Sensitivity: -99dBm

FM Frequency range: 87.50 – 108.00 MHz
 FM Frequency band: II
 FM Sensitivity: -106dBm

Broadcast type: DAB, DAB+ and FM
 Antenna connection B760: Belling-Lee-socket for 50 or 75 Ohm
 Phantom power antenna: 5V \pm 10%, max. 30mA

10 Warranty

The warranty is valid for 24 months from the date of purchase.

Your first point of contact for servicing is your specialist dealer.

If they are unable to help you, please contact the sales partner.

11 Support & questions

On the website www.M-DAB.ch you will find many helpful answers and contact details.

Instructions version 1.00
 suitable to firmware: 1.00
 suitable to hardware: T1.5 D1.1
 December 2023

12 General

When disposing of the circuit boards, the local laws on the disposal of electronics must be observed.



Declaration of conformity:

You can find these under:
www.M-DAB.ch

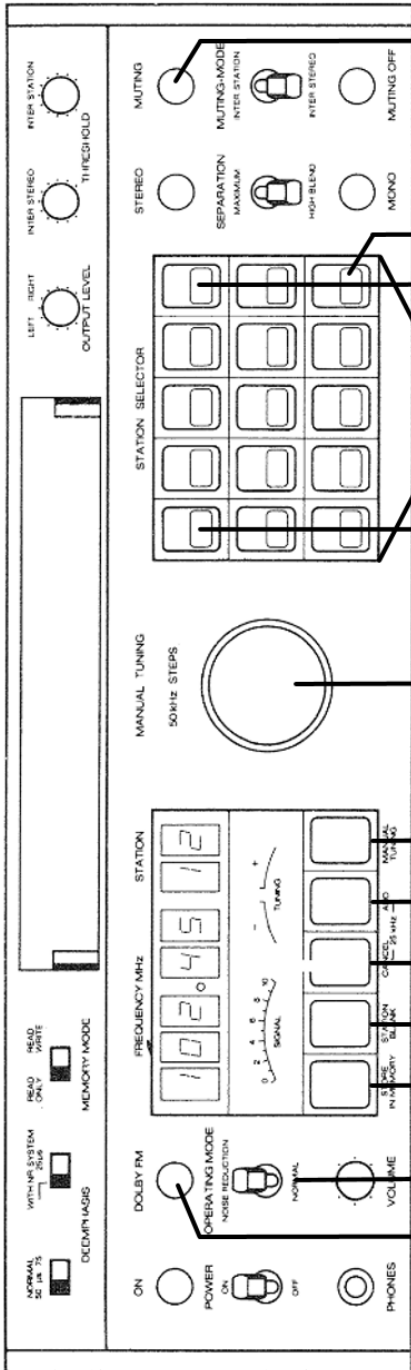
My personal station list

DAB

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
- 12. _____
- 13. _____
- 14. _____
- 15. _____
- 16. _____
- 17. _____
- 18. _____
- 19. _____
- 20. _____
- 21. _____
- 22. _____
- 23. _____
- 24. _____
- 25. _____
- 26. _____
- 27. _____
- 28. _____
- 29. _____
- 30. _____

FM

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
- 12. _____
- 13. _____
- 14. _____
- 15. _____
- 16. _____
- 17. _____
- 18. _____
- 19. _____
- 20. _____
- 21. _____
- 22. _____
- 23. _____
- 24. _____
- 25. _____
- 26. _____
- 27. _____
- 28. _____
- 29. _____
- 30. _____



Direct selection buttons 1-15 / 16-30

Display configured value

Increase configured value

Direct selection buttons

Decrease configured value

Navigation in menu
Navigation stations

DAB: TechData
FM: Manual mode

Switching Direct selection buttons

Display radio text
Exiting menu

Delete all stations

Start menu / Store

FM/DAB

FM manual mode