6-3 Key-lock Function

The Key Lock function avoids unwanted, incorrect, or unauthorized operation of the keys and dial.
Two types of locking are available: Quick Lock which can be activated easily, and Normal Lock which is difficult to unlock.

6-3-1 Key-lock procedure

- **Quick Lock**
  Hold down the [FUNC] key to switch the function ON/OFF.
  While the Normal Lock is active, the icon appears on the LCD.

- **Normal Lock**
  Press the dial three times while holding down the [BANK/BAND] key to switch the function ON/OFF.
  While the Normal Lock is active, the icon appears on the LCD.

CAUTION

- To release the Key-lock function, you must use the same method you used to activate the lock. If you do not do this, the lock cannot be released.

6-3-2 Available operations while the Key-lock is active

Volume adjustment: You can adjust the volume level by rotating the dial.

Squelch adjustment: You can adjust the squelch level by rotating the dial while holding down the [MONI] key.

6-4 Tone Squelch/Reverse Tone Squelch Function

The Tone Squelch/Reverse Tone Squelch system sends almost inaudible low-frequency signals (CTCSS tones) by radio waves and has the receiver detect the presence or frequency of the signals, so that only audio of a specified communication can be heard from the receiver speaker.
The Tone Squelch function opens the squelch when the received tone frequency matches with the frequency specified by the DJ-X30.
If you specify the tone frequency of the communication you want to listen to in advance, the squelch opens only when that tone frequency is received.
The Reverse Tone Squelch function opens the squelch when the received tone frequency does not match with the frequency specified by the DJ-X30.

1 Rotate the dial to tune to the channel on which the CTCSS (Tone Squelch/Reverse Tone Squelch) system is used.

2 Press the [FUNC] key to display the F icon on the LCD.

3 Press the [TONE SCAN] key several times. For Tone Squelch select the T icon when it is illuminated. For Reverse Tone Squelch, select the icon when it is blinking.

4 Rotate the dial to select the CTCSS tone frequency and press the [FUNC] key.

For more information, refer to "Table of Available CTCSS Tones" (☞P. ••).
When the Tone Squelch function is ON, the SQ icon appears on the LCD and the squelch opens when a signal of the specified tone is received.
When the Reverse Tone Squelch function is ON, the SQ icon appears on the LCD and the squelch closes when a signal of the specified tone is received.

5 To deactivate the Tone Squelch/Reverse Tone Squelch function, press the [FUNC] key and then press the [TONE SCAN] key several times until "OFF" appears on the LCD. Then, press the [FUNC] key.

CAUTION

- You should always set the normal squelch level properly even when the Tone Squelch function is used. If the normal squelch remains open, the Tone Squelch operation will require a long time.

6-5 Descrambling Function

The Descrambling function returns scrambled voice to normal reception. Note that the DJ-X30T/E does not have this function. This feature is available only for the E version.

1 Tune to a signal using analog-inversion scrambling.

2 Press the [FUNC] key to display the F icon on the LCD.

3 Press the TONE SCAN key several times until "SCR" appears on the LCD.

4 Select a decode No. by rotating the dial.

Select a number from 0 to 28 where you can hear clear audio output. Pressing the [FUNC] key allows you to descramble the voice using the specified decode No. and to change the frequency at the same time.

5 To deactivate the Descrambling function, press the [FUNC] key and then press the TONE SCAN key until "OFF" appears on the display. Then, press the [FUNC] key.

MEMO

- Use of the Descrambling function may be prohibited in some jurisdictions. Check local regulations before use.

6-6 Tone Scan Function

The Tone Scan function automatically detects a CTCSS tone frequency in the received signals.

1 In VFO mode, tune to the channel you want to scan for the tone frequency.

2 While holding down the [TONE SCAN] key, rotate the dial until "TONE" appears on the LCD.

3 Release the [TONE SCAN] key.

Scanning starts. Tone frequencies being scanned for are displayed one by one on the LCD. When a matching tone is detected, the receiver beeps, the SQ icon and the tone frequency appear on the LCD, and scanning stops.

4 Scanning continues endlessly if a matching tone frequency is not found in the received signals. To quit scanning, press any one of the [FUNC], [TONE SCAN], [MW V/P/M], or [BANK BAND] keys. The receiver returns to VFO mode.

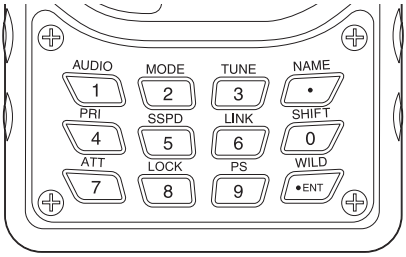
7. Useful Functions/Operations When Key Pad is Installed

Installing the key pad in the DJ-X30 enables the following:

1. **Direct input of desired frequencies from the key pad.**
2. **Volume adjustment from the key pad**
3. **Selection of memory channels and Set mode items**
4. **Function enhancement by pressing the key pad keys while holding down the [FUNC] key.**

7-1 Basic Key Pad Operation

The key pad is arranged as shown below.



To directly input a desired frequency

Example 1 : To input 450.250 MHz
Press the PRI 4, SSPD 5, SHIFT 0, NAME •, MODE 2, and SSPD 5 keys in this order and then press the WILD •ENT key.

Example 2 : To input 0.702 MHz (702 kHz)
Press the NAME •, ATT 7, SHIFT 0, and MODE 2 keys in this order and then press the WILD •ENT key.

If you input a wrong frequency, rotate the dial to redo the input from the beginning.

7-2 Memory Naming Function

You can name the memory channel programmed in the Memory mode by using up to 6 alphanumeric characters, and symbols in total.

• Registering a memory name

1 Press the MW V/P/M key to switch to Memory mode.

2 Tune to the memory channel you want to name.

3 Press the [FUNC] key to display the F icon on the LCD.

4 Press the NAME key.

The frequency is displayed on the upper right of the LCD, and the cursor starts blinking on the left of the LCD.

5 Select characters by operating the keys and dial as follows.

Key operations for the Memory Naming function

FUNC	Determines the memory name.
Dial	Selects a character.
TONE SCAN	Moves the cursor to the right.
MW V/P/M	Clears all characters which have been input.
BANK BAND	Moves the cursor to the left.

• The following table lists available characters.

0	0	A	A	N	N	a	a	n	n	!	!	,	.	_	_
1	1	B	B	O	O	b	b	o	o	"	"	/	/	`	`
2	2	C	C	P	P	c	c	p	p	#	#	¯	:	{	{
3	3	D	D	Q	Q	d	d	q	q	$	$	¯	;	|	|
4	4	E	E	R	R	e	e	r	r	%	%	(	<	}	}
5	5	F	F	S	S	f	f	s	s	&	&	-	=	¯	^
6	6	G	G	T	T	g	g	t	t	'	'	)	>		Space
7	7	H	H	U	U	h	h	u	u	(	(	?	?		
8	8	I	I	V	V	i	i	v	v	)	)	@	@		
9	9	J	J	W	W	j	j	w	w	*	*	[	[		
		K	K	X	X	k	k	x	x	+	+	¥	¥		
		L	L	Y	Y	l	l	y	y	,	,	]	]		
		M	M	Z	Z	m	m	z	z	-	-	´	´		

6 Press the [FUNC] key.
The memory name is registered.

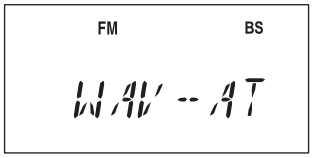
MEMO
Clearing a registered memory name
• Follow the steps 1 through 4 above, press the MW/V(P)/M key in step 5, and then press the [FUNC] key. The selected memory name is cleared.

7-3 Reception Mode Switching Function

You can manually select the modulation type you want to use to receive signals.

1 Press the [FUNC] key to display the F icon on the LCD.

2 Press the MODE/2 key.
"WAV-AT" appears on the LCD.



3 Select the reception type by rotating the dial or pressing the MODE/2 key.

Description of reception modes

AT	The main reception mode assigned to the frequency is selected automatically.
AM	Amplitude modulation: Mainly used for AM radio broadcasting, shortwave broadcasting, and aviation radio.
FM	Frequency modulation: Used for amateur radio or specified low-power radio communications.
WFM	Frequency modulation: An FM system used for such applications as FM radio broadcasting or relay broadcastin where high audio quality is required. This type is called Wide FM to differentiate it from the FM mode for communication.

4 Press the [FUNC] key to complete the setting.

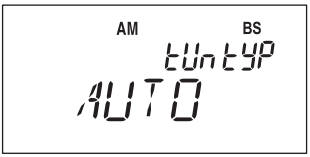
7

7-4 Shortwave Tuning Function

The Shortwave Tuning function is used to manually adjust the sensitivity of the reception when the shortwave bar-antenna is used.
Use this function when you have difficulty hearing a shortwave broadcast.
The default is set to "AUTO". In most cases, it is unnecessary to change the setting. Use this function when shortwave broadcast signals are difficult to receive with the AUTO setting.

1 Press the [FUNC] key to display the F icon on the LCD.

2 Press the TUNE 3 key.
"tUntyp" appears on the LCD.



3 Press the TUNE 3 key again.
"TLEVEL" appears on the LCD with a number above it.

4 Rotate the dial to adjust the sensitivity so that you can hear audio signals clearly.

5 Press the [FUNC] key to complete the setting.

CAUTION

- The distance travelled by radio waves in the shortwave band varies depending on the time of day, season, and frequency. Receiving signals in this frequency band inherently requires a large antenna. Consequently, you can receive only strong signals with the small antenna included with the DJ-X30.

7-5 Priority Monitoring Function

The Priority Monitoring function monitors two channels alternately, so that you can catch signals of one frequency effectively while receiving the signals of the other frequency. After receiving signals of the main channel for 5 seconds (*1), the DJ-X30 monitors the priority channel for 0.5 seconds to see if there are any signals being sent.
This function is useful when you set your favorite channel as a main channel, and set a channel of interest as a priority channel.

1 In Memory mode, program the priority channel in advance (☞P. ••)

2 Tune to the main channel, and press the [FUNC] key to display the F icon on the LCD.

3 Press the PRI 4 key.

"PRI" appears on the left of the LCD.
When the DJ-X30 monitors the priority channel, the 👁 icon is displayed.
When the DJ-X30 receives signals on the priority channel, a beep sounds. The reception continues until the signals sent from the priority channel stop (*2).

4 To cancel the Priority Monitoring function, press any one of the [FUNC], TONE SCAN, MW V/P/M, or BANK BAND keys.

MEMO

- When no data is programmed to the priority channel, the Priority Monitoring function is disabled.
- Scanning is disabled while the Priority Monitoring function is ON.
- The channel to be used for Priority Monitoring can be selected from the bank for priority channels by using the "Priority channel selection" of the Set mode (☞P. ••).
- Since the DJ-X30 monitors the priority channel every 5 seconds (*1), the audio of the main channel is momentarily interrupted at this interval. Although this phenomenon is conspicuous in particular for constant signals such as a broadcast, this is not a receiver failure.

*1 The interval at which the priority channel is monitored can be changed in Set mode via the "Priority Monitoring interval setting" (☞P. ••).

*2 The time for which priority channel signal reception is stopped can be changed in Set mode via the "Priority Monitoring duration setting" (☞P. ••).

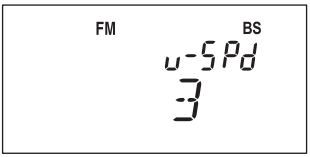
7-6 Scan Speed Switching Function

The Scan Speed Switching function changes the scan speed.
Set the scan speed faster to receive strong signals only or to scan quickly, and set the speed slower to receive weak signals.

1 Press the [FUNC] key to dispay the F icon on the LCD.

2 Press the SSPD 5 key.

A number is displayed. By rotating the dial, you can adjust the speed in five levels.



The scan speed is adjusted as follows:

1: Slowest ⟷ 5: Fastest

When "v-SPd"is displayed, you can change the scan speed for the following scan modes:

- VFO scan
- Preset scan (AM/FM radio)
- Programmed scan

When the SSPD 5 key is pressed again, "M-SPd" is displayed.
In this state, you can change the scan speed for the following scan modes.

- Memory scan
- Preset scan (TV)

3 Press the [FUNC] key to complete the selection.

MEMO

- When the scan speed is too fast, scanning may not stop at some signals.

7

7-7 Group Setting/Checking Function

During the Memory scan, the banks used for the scan can be grouped as desired.

Up to nine groups can be set. Each group corresponds to keys AUDIO 1 through PS 9. The following procedures are possible only when there are already programmed memory channels in the banks.

7-7-1 Setting a group

1 Press the MW V/P/M key to switch to Memory mode.

2 Press the BANK BAND key to select a bank to include in a group.

3 Hold down the key of a desired group number (AUDIO 1 through PS 9 until "GRP-on" appears on the LCD and the receiver beeps.

If the bank has already been included in the group, "GRP-of" appears and the bank is excluded from the group.

4 To add other banks to the group, repeat the above steps 2 and 3.

Example of group setting

To include banks 01 and 03 in group 5

(1) In Memory mode, select bank 01.

(2) Hold down the SSPD 5 key.

Check that a beep sounds and that "GRP-on" appears on the LCD. If "GRP-of" appears, the bank is excluded from the group. In such a case, hold down the SSPD 5 key again to add the bank to the group.

(3) Select bank 03.

As in step (2), hold down the SSPD 5 key and check that "GRP-on" appears.

7-7-2 Checking banks in a group

You can view all banks registered in a group.

1 **Press the [FUNC] key to display the F icon on the LCD.**

2 Press the LINK 6 key.
"GroUP1" appears on the LCD. The last character "1" indicates the group number.

3 **Press the key of the group number (AUDIO 1 through PS 9) that you want to view the banks of.**

4 **By rotating the dial, you can see the banks registered in the group one by one.**

5 **Press the [FUNC] key to finish checking.**

7

7-8 Audio Quality Switching Function

The Audio Quality Switching function switches the audio quality of the received signals. Use this function as necessary. Audibility may also vary depending on the reception mode (modulation type).

1 **Press the [FUNC] key to display the F icon on the LCD.**

2 **Press the ATT 7 key.**
"AFtonE" appears on the LCD.

3 **Rotate the dial to switch the audio quality.**
The audio quality is switched between "LOW" and "HIGH".

4 **Press the [FUNC] key to complete the selection.**

7-9 Frequency Shift Function

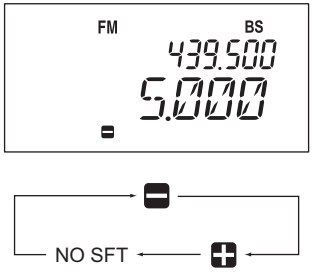
The Frequency Shift function switches from the frequency currently being received to another frequency with the press of a single key. For example, communication with a repeater (relay) uses both sending (uplink) and receiving (downlink) frequencies. The Frequency Shift function allows you to receive signals of both frequencies alternately by switching between them with a press of a key.

7-9-1 Setting the Frequency Shift function

1 Press the [FUNC] key to the display F icon on the LCD.

2 Press the SHIFT/0 key to select the direction of the frequency shift.

Every time you press the SHIFT/0 key, the display changes in the order shown on the right.



3 Rotate the dial to set the frequency tuned by the shift.

You can change the frequency in steps of 1MHz by rotating the dial while holding down the BAND key.

4 Press the [FUNC] key to complete the setting.

MEMO

- Normally, communication via a repeater can be received by tuning to the downlink frequency (the frequency which the repeater uses to resend the received signal).
- When this function is used, the base-station signals are relatively strong and can be received easily. The mobile-station signals, however, are not so strong and can be heard only within the coverage area.

7-9-2 Operation procedure

1 The DJ-X30 receives the shift frequency while the SHIFT 0 key is pressed.

CAUTION

• Scanning is disabled while the SHIFT 0 key is pressed.

To cancel the Frequency Shift function, press the [FUNC] key to display the F icon on the LCD. Hold down the SHIFT 0 key until "NO SFT" appears, and then press the [FUNC] key again.