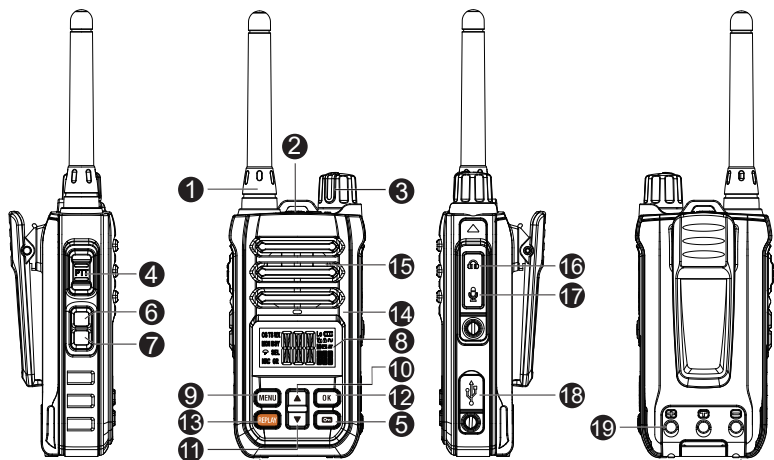


Radioddity X1

FRS USER MANUAL





I: Appearance

1. Antenna

- Professional 50Ω antenna

2. Indicator Light

- The LED lights up red when transmitting.
- The LED lights up green when receiving.

3. Power On/Off/Volume

4. PTT Button

- Press to talk.
- Release to listen.

5. Keypad Lock Button

- Short press: Acts as the Return key.
- Long press: Locks the keypad.

6. Side Button 1 :

- Short press: Toggles squelch.
- Long press: Starts scanning.

7. Side Button 2 - Smart Functions

Weather Forecast Function

- Long press Side Button 2 to enter Weather Forecast mode. The screen will display “WX,” and the radio will begin scanning weather channels.
- Short press Side Button 2 to stop scanning. The speaker enters monitor mode, allowing you to use the Up/Down keys to select and listen to Weather Channels 1-10.

WEATHER ALERT

- While monitoring a weather channel, short-press the Side Button 2 again to toggle WEATHER ALERT ON/OFF. You can select a specific channel to be used as the monitoring channel. If a different channel is selected later, the latest one becomes the new monitoring channel.
- When a 1050Hz weather alert tone is detected on the selected weather alert channel, the radio will sound an alarm. Even after switching back to the two-way radio mode, the display will continue to blink if the weather alert channel receives an alert.
- To exit the Weather Forecast mode, long press the button again.

8. Display

- Shows active functions and current state of operation.

9. MENU Button

- Short press: enter menu mode and use the UP and DOWN buttons to scroll through the available options.
- Long press: Confirms the selected menu option.

10. UP Button

- Short Press: Channel /Function up switching.
- Long Press: Fast upward channel cycling.

11. DOWN Button

- Short Press: Channel /Function down switching.
- Long Press: Fast down channel cycling.

12. OK Button

- Confirms selected function.

13. REPLAY Button

- Short press: Play back received communications.
- Long press: Activate the SOS local alarm. Press and hold again or press PTT to cancel the alarm.

14. Microphone

- For best performance, speak approximately 5cm distance from the built-in microphone.

15. Speaker

16. Earpiece Connector

- For data read/write and external K-headset connection.

17. Microphone Connector

- For data read/write and external K-headset connection.

18. Type-C Charging Connector

- Use the 5V adapter to charge the battery.

19. Desktop Charger Contact Pins

- The radio will automatically start charging when correctly inserted into the desktop charger.

II: DISPLAY



	Icon	Display declaration
1.		• Displays the current working channel.
2.		• Subtone group display • Display secondary menu
3.		• Open Scan(carrier scan)
4.		• Time Scan
5.		• Displays when monitoring is turned on

6.		- Displayed when the Busy Channel Lockout function is ON - Busy Channel Lockout beep icon blinks and transmission is disabled
7.		During weather forecast activation, the display will show "WX" when initiated.
8.		Displays when the radio is set to low power mode.
9.		When entering the weather function, "WX" will be displayed.
10.		- VOX function is active. - VOX function enables hands-free communication. Note: Excessive external noise can limit the effectiveness of this function.
11.		- Displays battery level and charging status. - When the battery is low, an empty battery icon flashes and a "di" sound is emitted. If the battery is not charged, the device will automatically power off.
12.		- Displays when the keypad is locked. - Flashing: Keypad locked (PTT still operational)
13.		Displayed when a CTCSS sub-tone has been set.
14.		Displays when playing back recorded communications.
15.		Displayed when a DCS sub-tone has been set.

III : GENERAL OPERATION

Charging

1: DTC Charging operation :

Place the radio into the desk charger to charge the battery. The Battery level on the display will indicate when fully charged.

2: USB-C cable charge:

Plug the USB-C cable to the radio's 5V connector. The battery level indicator on the display will show when the device is fully charged.

MENU FUNCTION SETTINGS

▲ Short press the MENU button to access all function settings

▲ SQUELCH

1. Press the **MENU** button and scroll **UP** or **DOWN** until "**SQL**" displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select a Squelch level from 0 to 9 (Default: 1)
4. Press the **OK** button to confirm selection.

NOTE: Level 9 provides the highest interference suppression but may reduce communication range. Level 0 fully opens the squelch, allowing all signals—faint or strong—to be heard. Choose a level that filters out weak signals while allowing clear communication to come through.

▲ Transmit CTCSS and DCS CODE SETTING

1. Press the **MENU** button and scroll **UP** or **DOWN** until "**TCS**" displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select CTCSS code (01-50) or DCS code group (104 options) or OFF. The default setting is OFF.
4. Press the **OK** button to confirm selection.

▲Receive CTCSS and DCS CODE SETTING

1. Press the **MENU** button and scroll **UP** or **DOWN** till “RCS” displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select CTCSS code (01-50) or DCS code group (104 options). The default setting is OFF.
4. Press the OK button to confirm selection.

▲REPLAY

1. Press the **MENU** button and scroll **UP** or **DOWN** till “RPL” displays.
 2. Press the **OK** button to enter the setting.
 3. Use the **UP** or **DOWN** buttons to select it On or Off. The default setting is OFF.
 4. Press the **OK** button to confirm selection.
- "On" indicates that communication recording is active. The  icon will display during playback of the recording.

Playback Recordings:

When the recording function is turned on, each recording is saved as a separate file. Short press the REPLAY button to display the list of recordings. Use the UP and DOWN keys to select a recording number for playback.

▲SCAN MODE

1. Press the **MENU** button and scroll **UP** or **DOWN** till “SCN” displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select OS or TS mode. The default setting is OS.

OS (Carrier Scan)

When a valid carrier signal is detected, the scan stops and remains on that channel for communication.

TS (Time Scan)

Briefly pauses (approximately 5 seconds) on an active channel before continuing the scan cycle.

4. Press the OK button to confirm selection.

▲NOISE REDUCTION CONTROL

1. Press the **MENU** button and scroll **UP** or **DOWN** till “NRC” displays.
 2. Press the **OK** button to enter the setting.
 3. Use the **UP** or **DOWN** buttons to select OFF, Level 1, Level 2, or Level 3.
- Level 1 provides weak noise reduction, while Level 3 offers the strongest effect. OFF disables the noise reduction function. The default setting is OFF.
4. Press the OK button to confirm selection.

▲Voice Activation Mode

1. Press the **MENU** button and scroll **UP** or **DOWN** till “VOX” displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select it On or Off. The default setting is OFF.
4. Press the OK button to confirm selection.

NOTE: When in voice-activated mode (VOX), the VX icon is displayed.

▲BUSY CH LOCKOUT

11. Press the **MENU** button and scroll **UP** or **DOWN** till “BSY” displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select it On or Off. The default setting is OFF.
4. Press the OK button to confirm selection.

NOTE: When set to ON, transmission via the PTT button is disabled while receiving a signal. The BSY icon will be displayed when Busy Channel Lockout is active.

▲ROGER BEEP

- 1.Press the **MENU** button and scroll **UP** or **DOWN** till “**ROG**” displays.
- 2.Press the **OK** button to enter the setting.
- 3.Use the **UP** or **DOWN** buttons to select it On or Off. The default setting is ON.
- 4.Press the OK button to confirm selection.

NOTE: When set to ON, a tone is played on the receiving end when the transmission is complete. If the Noise Reduction feature (NRC) is also enabled, the received ending tone becomes lower.

▲KEY BEEP

- 1.Press the **MENU** button and scroll **UP** or **DOWN** till “**BEE**” displays.
- 2.Press the **OK** button to enter the setting.
- 3.Use the **UP** or **DOWN** buttons to select it On or Off. The default setting is ON.
- 4.Press the OK button to confirm selection.

▲BACKLIGHT BRIGHTNESS

- 1.Press the **MENU** button and scroll **UP** or **DOWN** till “**DIM**” displays.
- 2.Press the **OK** button to enter the setting.
- 3.Use the **UP** or **DOWN** buttons to select Level 1, Level 2, or Level 3. Default: Level 3
- 4.Press the OK button to confirm selection.

▲BACKLIGHT TIME OUT

- 1.Press the **MENU** button and scroll **UP** or **DOWN** till “**ABL**” displays.
- 2.Press the **OK** button to enter the setting.
- 3.Use the **UP** or **DOWN** buttons to select 5s, 10s, 20s or On. The default setting is 10s.
- 4.Press the OK button to confirm selection.

▲BATTERY SAVE

- 1.Press the **MENU** button and scroll **UP** or **DOWN** till “**BAT**” displays.
- 2.Press the **OK** button to enter the setting.
- 3.Use the **UP** or **DOWN** buttons to select it On or Off. The default setting is ON.
- 4.Press the OK button to confirm selection.

NOTE:Turning Battery Save “On” will not affect the power output setting

▲RESET

- 1.Power on while simultaneously pressing the PTT + Menu buttons till “**RES**” displays.
- 2.Radio automatically reboots after several seconds.

Hidden Function:

- 1.Enter High Power Mode:

Power on the radio while simultaneously pressing both side keys and the OK key. A beep will sound to confirm activation.

- 2.Switch to Low Power Mode:

While in High Power Mode, repeat the same key combination (both side keys + OK key) during power-on. A second beep will sound, and “LO” will appear on the display to indicate Low Power Mode.

- 3.After a Factory Reset:

The device defaults to Low Power mode (no “LO” display), but the actual output power remains reduced.

Appendix: CTCSS/DCS TABLE

50 group CTCSS frequency :

1	67	11	97.4	21	136.5	31	192.8	41	165.5
2	71.9	12	100	22	141.3	32	203.5	42	171.3
3	74.4	13	103.5	23	146.2	33	210.7	43	177.3
4	77	14	107.2	24	151.4	34	218.1	44	183.5
5	79.7	15	110.9	25	156.7	35	225.7	45	189.9
6	82.5	16	114.8	26	162.2	36	233.6	46	196.6
7	85.4	17	118.8	27	167.9	37	241.8	47	199.5
8	88.5	18	123	28	173.8	38	250.3	48	206.5
9	91.5	19	127.3	29	179.9	39	259.4	49	212.9
10	94.8	20	131.8	31	186.2	40	159.8	50	254.1

104 group DCS available for selection.

No	code	No	code	No	code	No	code	No	code	No	code
1	023	21	125	41	245	61	356	81	506	101	732
2	025	22	131	42	246	62	364	82	516	102	734
3	026	23	132	43	251	63	365	83	523	103	743
4	031	24	134	44	252	64	371	84	526	104	754
5	032	25	143	45	255	65	411	85	532		
6	036	26	145	46	261	66	412	86	546		
7	043	27	152	47	263	67	413	87	565		
8	047	28	155	48	265	68	423	88	606		
9	051	29	156	49	266	69	431	89	612		
10	053	30	162	50	271	70	432	90	624		
11	054	31	165	51	274	71	445	91	627		
12	065	32	172	52	306	72	446	92	631		
13	071	33	174	53	311	73	452	93	632		
14	072	34	205	54	315	74	454	94	654		
15	073	35	212	55	325	75	455	95	662		
16	074	36	223	56	331	76	462	96	664		
17	114	37	225	57	332	77	464	97	703		
18	115	38	226	58	343	78	465	98	712		
19	116	39	243	59	346	79	466	99	723		
20	122	40	244	60	351	80	503	100	731		

FRS FREQUENCY TABLE :

U.S. FRS/GMRS Channels and Frequencies (22 Channels)							
CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)
1	462.5625	7	462.7125	13	467.6875	19	462.6000
2	462.5875	8	467.5625	14	467.7125	20	462.6500
3	462.6125	9	467.5875	15	462.5750	21	462.7000
4	462.6375	10	467.6125	16	462.6250	22	462.7250
5	462.6625	11	467.6375	17	462.6750		
6	462.6875	12	467.6625	18	462.5500		

Function name correspondence table :

Abbreviation	Full name	Functional Description
SQL	SQUELCH	SQUELCH
BAT	Battery Save	Battery Save
ABL	Auto BackLight	Auto BackLight
DIM	Display Illumination Modulation	Display Illumination Modulation
BEE	KEY BEEP	KEY BEEP
ROG	ROGER BEEP	End reminder tone
BSY	BUSY CH LOCKOUT	BUSY CH LOCKOUT
VOX	VOX	VOX
NRC	NRC	Receive noise reduction
SCN	SCAN MODE	SCAN MODE
RPY	REPLAY	Recording playback
ENC	CTCSS/DCS(TX)	CTCSS/DCS(TX)
DEC	CTCSS/DCS(RX)	CTCSS/DCS(RX)

FCC compliance statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference including received interference that may cause undesired operation.

The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 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 RF Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. Do not use this device when the antenna shows obvious damages.

Hold this transmitter approximately 25 mm away from your face and speak normal with the antenna pointed up and away. Use the supplied belt clip for body-worn configuration as other accessories may not comply to the limits.