Radioddity X1 Pro GMRS Radio
User Manual

Appearance

1: Antenna

- Professional 50Ω antenna.

2: Flashlight

3: Indicator Light:

- Red: Transmitting.
- Green: Receiving.

4: Power/Volume Knob

5: PTT (Push-to-Talk) Key:

- Press and hold to transmit (Indicator turns red).
- Release to receive.

6: Side Button 1:

- Short press: Toggle Flashlight ON/OFF.
- Long press: Activate Scanning.

7: Side Button 2:

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 Side Button 2 again.

8: Speaker

9: Microphone

- Position the MIC approximately 5cm from your mouth when speaking.

10: Display

11: 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.

12: UP Button

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

13: DOWN Button

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

14: OK Button

- Confirms selected function.

15: SQL Button:

- Press the SQL key, then use the Up or Down key to select the squelch level. The squelch level ranges from 0 to 9.
- A higher squelch level reduces the chance of interference, but it may also slightly reduce the communication range.
- At level 0, the speaker remains open at all times.
- The default setting is level 1. After selecting the desired level, press the SQL key again to confirm.

16: REPLAY Button

- Short press: Access and play recorded voice files.
- Long press: Activate SOS Emergency Call.

17: Keypad Lock Button

- Short press: Exit current mode/menu.
- Long press: Lock or unlock the keypad.

18-19: Earpiece Connector

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

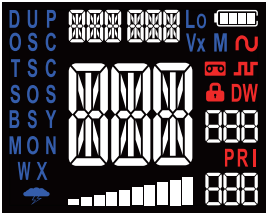
20: USB-C Charging Connector

- Use the 5V adapter to charge the battery.

21: Desktop Charging Contacts

- Compatible with the optional desktop charging cradle (sold separately)

Display



Icon	Display declaration
	• Displays the current working channel
	• Sub-tone group display • Display secondary menu
SOS	• Emergency alarm function
OSC	• Scan mode: Open Scan (Carrier Scan)
TSC	• Scan mode: Time-Operated Scan
MON	• Monitor function is active
BSY	• Busy Channel Lockout is active • If a signal is present, the icon flashes and transmission is prohibited

	• Weather (WX) function is active
	• Operating at Low Power
	• Weather mode is active
	• VOX (Voice Operated Transmit) is active • Allows hands-free operation; may trigger in noisy environments
	• 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
	• Displays when the keypad is locked • Flashing: Keypad locked (PTT still operational)
	• Analog Sub-tone (CTCSS) is active
	• Displayed during voice recording playback
	• Digital Sub-tone (DCS) is active

General Operation

Transmitting Signals

1. Select the desired channel using the **UP** or **DOWN** buttons.
2. Press and hold the **PTT** button.
3. Speak normally into the microphone from a distance of 5–7cm.
4. Release the **PTT** button to end transmission and listen for replies.

Charging

1. **Desktop Cradle Charging:** Place the radio into the standard charging cradle. The battery bar will animate to show progress until fully charged.
2. **USB-C Charging:** Plug a USB-C cable into the radio's USB port to charge.

Menu Settings

▲Short press the **MENU** button to access all function setting.

▲POWER

Navigate until POW is displayed. Options: HI (High), ME (Medium), LO (Low). Press OK, select with UP/DOWN, and confirm.

▲RECEIVE CTCSS/DCS

1. Press the MENU button and scroll **UP** or **DOWN** until **“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) or OFF. The default setting is OFF.
4. Press the **OK** button to confirm selection.

▲TRANSMIT CTCSS/DCS

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.

▲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.
When ON is selected, will display  icon.

Playback:
When the recording function is enabled and audio files have been saved, short press the REPLAY key to display the number of recordings. Use the Up or Down key to select a recording number and play it back.

Recording Rules

1. Maximum number of recordings: This device can store up to 20 recordings.
2. Single recording time limit: Each recording can be up to 1 minute long.
3. Auto-overwrite rule: Once the total number of recordings reaches 20, any new recording will automatically overwrite the oldest one to save space.

Important note: The above rules mean recordings will not be stored indefinitely and cannot be exported. Please listen to your recordings promptly!

▲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.

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.

▲DUPLEX MODE

Enable Repeater Mode. When ON, channels 23–30 are added according to the Repeater Frequency Table.

▲NRC (Noise Reduction)

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.

▲VOX

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 VOX mode, the VX icon is displayed.

▲BUSY CH LOCKOUT

1.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 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.

Specifications

Transmitter Part
RF Output Power: 7W/5W/0.5W
Frequency: 462-467MHz
Adjacent Channel Power: 60dB @ 12.5KHz
Transmission current: ≤1200mA
Receiver Part
Receive Sensitivity: 0.25μV (12dB SINAD)
Adjacent Channel Selectivity: ≥55dB@12.5KHz
Inter Modulation and Rejection: ≥55dB@12.5KHz
Conducted Spurious Emission: ≤-57dB@12.5KHz
Rated Audio Power Output: 1W @8 ohms
Receive current: ≤380mA
Rated Audio Distortion: ≤5%
NOTE: All specifications may be modified without prior notice or liability.

Appendix 1: CTCSS Tone Frequency Table

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	69.4	49	229.1
10	94.8	20	131.8	31	186.2	40	159.8	50	254.1

Appendix 2: DCS Code Table

No	code	No	code	No	code	No	code	No	code	No	code
1	023	10	053	19	116	28	155	37	225	46	261
2	025	11	054	20	122	29	156	38	226	47	263
3	026	12	065	21	125	30	162	39	243	48	265
4	031	13	071	22	131	31	165	40	244	49	266
5	032	14	072	23	132	32	172	41	245	50	271
6	036	15	073	24	134	33	174	42	246	51	274
7	043	16	074	25	143	34	205	43	251	52	306
8	047	17	114	26	145	35	212	44	252	53	311
9	051	18	115	27	152	36	223	45	255	54	315

No	code	No	code	No	code	No	code	No	code	No	code
55	325	64	371	73	452	82	516	91	627	100	731
56	331	65	411	74	454	83	523	92	631	101	732
57	332	66	412	75	455	84	526	93	632	102	734
58	343	67	413	76	462	85	532	94	654	103	743
59	346	68	423	77	464	86	546	95	662	104	754
60	351	69	431	78	465	87	565	96	664		
61	356	70	432	79	466	88	606	97	703		
62	364	71	445	80	503	89	612	98	712		
63	365	72	446	81	506	90	624	99	723		

Appendix 3: GMRS Channels

Channel Number	GMRS Frequency MHz	Fixed Privacy	Band Width	TX Power
1	462.5625		Narrow or Wide	Medium/Low
2	462.5875		Narrow or Wide	Medium/Low
3	462.6125		Narrow or Wide	Medium/Low
4	462.6375		Narrow or Wide	Medium/Low
5	462.6625		Narrow or Wide	Medium/Low
6	462.6875		Narrow or Wide	Medium/Low
7	462.7125		Narrow or Wide	Medium/Low
8	467.5625		Narrow	Low
9	467.5875		Narrow	Low
10	467.6125		Narrow	Low
11	467.6375		Narrow	Low
12	467.6625		Narrow	Low
13	467.6875		Narrow	Low
14	467.7125		Narrow	Low
15	462.5500		Narrow or Wide	High/Medium/Low
16	462.5750		Narrow or Wide	High/Medium/Low
17	462.6000		Narrow or Wide	High/Medium/Low
18	462.6250		Narrow or Wide	High/Medium/Low
19	462.6500		Narrow or Wide	High/Medium/Low
20	462.6750		Narrow or Wide	High/Medium/Low
21	462.7000		Narrow or Wide	High/Medium/Low
22	462.7250		Narrow or Wide	High/Medium/Low

Appendix 4: Repeater Channels

Channel Number	GMRS Frequency MHz	Fixed Privacy	Band Width	TX Power
23	RX 462.5500/TX 467.5500		Narrow or Wide	High/Medium/Low
24	RX 462.5750/TX 467.5750		Narrow or Wide	High/Medium/Low
25	RX 462.6000/TX 467.6000		Narrow or Wide	High/Medium/Low
26	RX 462.6250/TX 467.6250		Narrow or Wide	High/Medium/Low
27	RX 462.6500/TX 467.6500		Narrow or Wide	High/Medium/Low
28	RX 462.6750/TX 467.6750		Narrow or Wide	High/Medium/Low
29	RX 462.7000/TX 467.7000		Narrow or Wide	High/Medium/Low
30	RX 462.7250/TX 467.7250		Narrow or Wide	High/Medium/Low

Appendix 5: NOAA Weather Channels

Channel Number	WX Frequency MHz	Channel Number	WX Frequency MHz
1	162.5500	6	162.5000
2	162.4000	7	162.5250
3	162.4750	8	161.6500
4	162.4250	9	161.7750
5	162.4500	10	163.2750

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 and Separation Distance

SAR tests are conducted using standard operating positions accepted by FCC with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new model is an available for sale to the public, it must be tested and certified to the FCC that is does not exceed the exposure limit established by the FCC. Tests for each product are performed in positions and locations as required by the FCC. For body worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with and accessory designated for this product or when used with and accessory that contains no metal. To maintain compliance with FCC RF exposure guidelines, hold the transmitter and antenna at least 1 inch (2.5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away from the face.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.