

TEKK

International Incorporated

**X-700 Analog
Ruggedized**

**Handheld
Radio**



Tekk International Inc
1916 Linn St
North Kansas City, MO 64116
Tekk-Radios.com/X-700

Important RF Radiation Information:

This Tekk product is for occupational use ONLY and should only be used under work-related conditions. All users must be fully aware of the hazards of RF exposure and able to control their exposure thereto.

RF Radiation Safety

In order to ensure user health, experts from relevant industries including science, engineering, medicine and health work with international organizations to develop standards for safe exposure to RF radiation. These standards consist of:

- A. United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J;
- B. American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992;
- C. Institute of Electrical and Electronic Engineers (IEEE) C95. 1 – 1999;
- D. Intl. Commission on Non-Ionizing Radiation Protection 1998

FCC Regulations

The Federal Communication Commission, the FCC, requires that all radio communication products should meet the requirements set forth in the above standards before they can be marketed in the United States and that the manufacturer shall post an RF label on the product to inform users of operational instructions, so as to enhance their occupational health against exposure to RF energy.

Operational Instructions and Training Guidelines

To ensure compliance with the occupational RF energy exposure limits in the above standards and guidelines, users should transmit no more than 30% of the time and always adhere to the following procedures: Your radio radiates measurable RF energy only during transmitting (PTT - during talking) and not while receiving or during standby.

EU Regulatory Conformance

As certified by the qualified laboratory, the product is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC. Please note that the above information is applicable to EU countries only.

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**Check out our
full line of rugged
audio accessories!**



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Preparation

Battery Use and Care

The battery is not completely charged at the factory, so please charge it before using. After purchase, or extended storage (more than two months), the battery cannot reach its normal operating capacity. By repeating the charge/discharge two or three times, the operating capacity will increase to its normal capacity.



Safety Note: After fully charging, please remove radio and battery from the charger to avoid damage or overcharging.

Charging the battery

- 1) The temperature for charging should be between 41F (5°C) and 104F (40°C). The battery cannot be fully charged if out of this range.
- 2) Please clean the battery terminal when it is dusty or dirty.
- 3) Please turn off the radio power before charging.
- 4) Insert radio or battery in the charger. The charger's LED will:
 - A. Light **RED** while charging
 - B. Light **GREEN** when the battery is fully charged
 - C. **Blink RED** if the battery is over-discharged and needs slow charging. It should turn to solid Red in a few minutes. If the flashing continues more than 1 hour, replace the battery
- 5) Please replace with a new battery if it cannot recover normal capacity after fully charging.



INSTALLING THE BATTERY



REMOVING THE BATTERY

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Installing plug-in accessories

Headsets, Microphones and Bluetooth

The radio is equipped with a rubber cover over the audio and accessory jacks to prevent water, dust and other contaminants from entering the radio. The rubber cover can be “peeled” open and rotated 180 degrees so that it points down and is out of the way of the accessory plugs.

Ensure the volume is set low and plug in any appropriate TEKK accessory. Only after installing an ear worn headset, adjust the volume up to an appropriate level . . . always take care as the radio has enough audio power to be damaging to ear function.

Programming

The same connection as above is also used for programming certain special features of the radio. In most countries programming frequencies is reserved, by rule of law, for authorized dealers and specially trained technicians.

INSTALLING ACCESSORY PLUG



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Controls Diagram . . . Please



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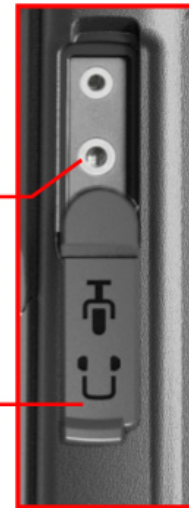
Review First

Before installing any audio accessory, be sure to turn down the volume.

RED for Transmit
GREEN for Receive
Flashing RED for Low Battery



Audio Jacks



Battery Lock Button

Rubber Protective Jack Cover

To Use A Headset:
Open cover at top
and rotate 180 degrees



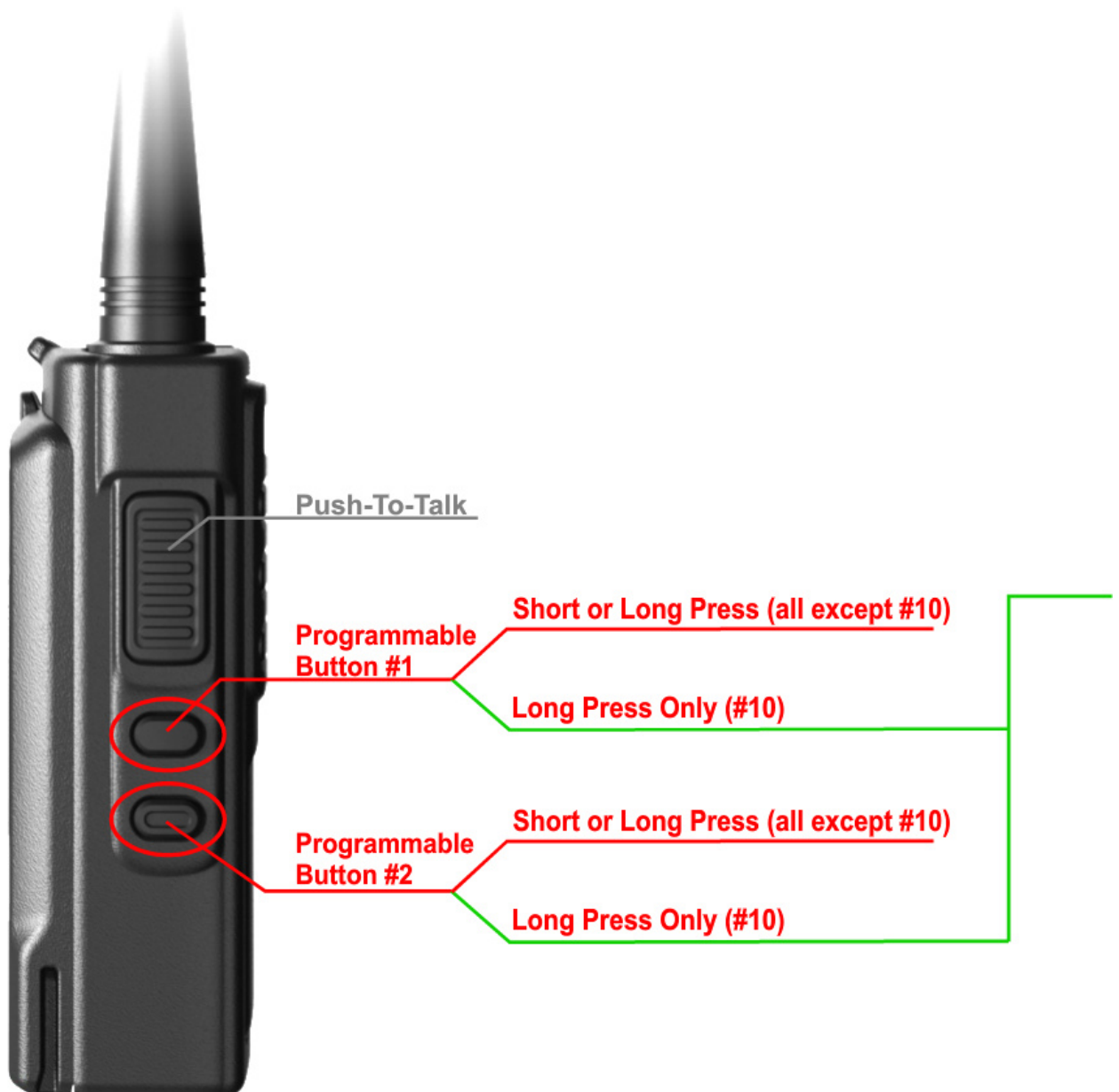
Available
HS-9000BH

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Programmable Buttons

To be pre-programmed to function by programmer.

The Authorized programmer for your radio can set one or both of the 2 programmable buttons to any of the functions in the chart.



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Button Features Chart

The Chart below shows the most used of many features.

Long / Short Press	Sample of Functions*	Feature
	Unassigned	1
Both	Auto Dial (DTMF encode)	2
Both	Monitor The Channel	3
Both	Scan (Default: Button 1 Short Press)	4
Both	Adjust Hi/Low Power Level	5
Both	Leave Network	6
Both	Frequency Reverse	7
Both	Vox	8
Both	Squelch Off (Default: Button 2 Short Press)	9
Long Only	Squelch Off Momentary	10
Both	Channel Lock	11
Both	Battery Level	12
Both	Voice: Channel Number	13
Both	Emergency Alarm (Long Press Recommended)	16
Both	Adjust Squelch Level (0-9)	18
Both	Adjust VOX Level (1-10)	19
Both	Volume UP	26
Both	Volume DOWN	27
	*More Dealer Usable Functions	
	shown in programming software	

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Specials For Current Users!

Trade-In and/or Upgrade Specials several times per year:

Many times, when it is time to purchase new batteries, replace older radios or to add needed security features . . . it is best to check with us about any current Upgrade and Trade-In specials. You won't be disappointed.

DMR Digital Radios may add security you need in the future:

Our new line of DMR Digital radios can work with most older radios but also have their unique "Digital" mode that is much harder to monitor by outsiders.

Next time you need batteries or repairs . . . think about a very special upgrade offer you can receive by phone or email!



**D-200 DMR
Digital Radio**

**D-600 DMR
Digital Radio**

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Radio Operations

Channel Selection / Turn on the Radio

Rotate the Volume On/Off knob to the ON position to begin operations. The LED light should blink **GREEN**.

Select the appropriate channel for your current need, keeping in mind that the X-700 channel selector shows 16 channels.

LED light

The LED will show **RED** during transmit and **GREEN** during receive. Additionally, the LED will *blink RED* continuously when the battery is low.

Alert Tones (Programmable feature)

Alert Tones, and the buttons that turn them on and off, are programmable by your system administrator who will also inform you which alerts and buttons are in operation. Used properly, these tones will benefit operations.

Channel Open to TX: When a call you receive finishes, your radio will give you 2 quick beeps. You are clear to transmit after hearing the tones.

Talk Delay: When you press the PTT, a fast set of tones is heard . . . begin speaking after the tones. This feature can send your radio's ID to system.

Emergency Alert: If you send an Emergency Alert, the other radios in the system will begin Beeping loudly to notify of emergency .

Monitor the Channel and Check the Volume

Your system administrator may program one of the side buttons to allow listening to the current channel (monitoring) this also allows you to check the volume setting.

Transmitting

Press the PTT button to transmit. The LED will light **RED** during transmit. Talk in a normal voice and do not "crowd" the microphone. A distance of 1 to 3 inches should be maintained between your lips and the microphone. Check the diagram for the exact location of the microphone.

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Radio Operations Continued

Receiving

Release the PTT. The LED will light **GREEN** while receiving. The X-700 can only receive when the PTT is not being pressed.

DTMF Encode and Decode

Each channel can be programmed with it's own DTMF code, and one of the programmable buttons can be programmed to send the code.

Emergency Alarm (Programmable feature)

If enabled by your system administrator, pressing the assigned button will open loud alert tone signals in the other radios in the system.

The logo for TEKTRONIX, featuring the word "TEKTRONIX" in a stylized, bold, cyan font with a white outline, set against a dark blue background.

Scan Features

Scan List

You can create a list of the channels in the radio to be “scanned” in various ways. A programmable button must be set up to turn the feature on and off. When the radio receives a call while in the scan mode, it can automatically switch to transmit on the received channel if you respond to the call quickly.

Starting and Stopping Scan

You can select a pre-programmed button to start the scanning or select a scan channel manually. Once scanning begins, you will hear a confirming tone and then the LED will begin to blink **RED**.

Stop the scanning by pressing the assigned button or by changing the channel.

Priority Scan

The scan will listen to the Priority Channel in between each of the other channels in the list.

Answering a call during Scan

When the scanning “stops” on an incoming call, the user can return the call automatically without having to change the selector knob to the received channel.

The user must return the call within a pre-set time limit, or scanning will resume. The pre-set time limit is called the “Signal Hold Time” and is set by the system administrator.

The logo for TEKK is located in the bottom right corner of the page. It consists of the word "TEKK" in a bold, blue, sans-serif font, oriented vertically. The letters are white with a blue outline, and the background behind the text is a dark blue vertical bar.

Settings

Squelch Adjustment (Programmable Option)

Tightening the squelch setting can reduce or limit noise in analog mode and in digital mode can filter out weak or distant transmissions when the user is sure they need to receive only stronger signals.

One side button can be programmed as a shortcut for this feature.

High / Low Power Setting (Programmable Option)

When in default High Power mode, the X-700 transmits the maximum distance while drawing more current. Selecting Low Power mode can maximize battery life, but the transmission distance will be shorter. Press the assigned button to switch between high and low power settings.

One side button can be programmed as a shortcut for this feature.

Battery Status (Programmable Option)

Pressing the assigned button for battery status will report in “voice” mode: The voice will report the current voltage of the battery’s output. Example, a full battery would report as “8 . . . 4” meaning 8.4 volts, normal for a full battery. A voice report of “6 . . . 7”, 6.7 volts would be VERY low and below that the battery voice report simply says “Please recharge”.

Beeps and Tones OFF (Programmable feature)

Pressing the assigned button for “Tones Off” will silence all button response tones. Pressing the button again will restore the tones.

One side button can be programmed as a shortcut for this feature.

VOX (Voice operated TX, a Programmable Option)

Available, but not recommended for most systems. See system administrator for more information if needed.

One side button can be programmed as a shortcut for this feature.

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Trouble-shooting

When things go wrong . . .

Of course the first thing to do when something goes wrong is to contact your system administrator. In addition to the Battery, the “electro-mechanical” parts of your radio are the most susceptible to problems. These include the: Speaker, Microphone, PTT Button and Audio Jacks.

We are here . . . call us, email us or fill out our web form.

Between 8:00 AM and 5:00 PM USA Central Time, Tekk endeavors to give live response every time you call.

Phone: 800-521-8355

Email: sales@Tekk-Radios.com

Web: Tekk-Radios.com

Guide: For the X-700, Tekk-Radios.com/X-700

Experiencing a Problem? - Try this first . . .		
1	No Power	Battery may be drained or defective. If sure that the battery is charged, try exchanging batteries with a working radio.
2	The battery life is very short after charging.	This may indicate the battery can no longer hold a charge. Try a different charger if possible, and replace if the battery still will not hold a normal charge.
3	Cannot talk to others in your work group.	Check channel, privacy code and encryption settings when sure you are within talking distance of your system or group.
4	You hear traffic on you channel that you are sure is not from your system or group.	Check to make sure you are not in “monitor” mode. Also, another system may be using your same settings, you may need to change code or encryption settings.

The logo for Tekk, featuring the word "TEKK" in a bold, blue, stylized font with a white outline, set against a dark blue background.

Privacy Code Reference

These codes are for Analog only. For Digital, use Encryption.

CTCSS Codes by Numeric Order / Hertz			
1-67.0	14-103.5	27-159.8	40-199.5
2-69.3	15-107.5	28-162.2	41-203.5
3-71.9	16-110.9	29-165.5	42-206.5
4-74.4	17-114.8	30-167.9	43-210.7
5-77.0	18-118.8	31-171.3	44-218.1
6-79.7	19-123.0	32-173.8	45-225.7
7-82.5	20-127.3	33-177.3	46-229.1
8-85.4	21-131.8	34-179.9	47-233.6
9-88.5	22-136.5	35-183.5	48-241.8
10-91.5	23-141.3	36-186.2	49-250.3
11-94.8	24-146.2	37-189.9	50-254.1
12-97.4	25-151.4	38-192.8	
13-100.0	26-156.7	39-196.6	

DCS Codes in Numerical Order								
23	71	143	225	266	356	452	532	664
25	72	145	226	271	364	454	546	703
26	73	152	243	274	365	455	565	712
31	74	155	244	306	371	462	606	723
32	114	156	246	311	411	464	612	731
36	115	162	245	315	412	465	624	732
43	116	165	251	325	413	466	627	734
47	122	172	252	331	423	503	631	743
51	125	174	255	332	431	506	632	754
53	131	205	261	343	432	516	645	
54	132	212	263	346	445	523	654	
65	134	223	265	351	443	526	662	

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