

APPLICANT: MOTOROLA, INC.

FCC ID: IHDT6ZC1

INSTRUCTION MANUAL

A preliminary draft copy of the Users Manual follows:



**FX5000 Digital
Fixed Wireless Telephone**

Cover to be Designed





Welcome Thank you for selecting Motorola — *a world leader in communications technology.*
All Motorola wireless phones are designed and manufactured to meet Motorola's exacting specifications and world class quality standards. The *FX5000 Digital* fixed wireless phone is no exception. This personal phone withstands our rigorous durability tests including temperature, humidity, and a drop test.

- For any information about your wireless service, please call your service provider (Carrier).

Carrier's Name _____

Carrier's Phone Number _____

- You will need to have the following information when you inquire about your phone or service.

ESN Number _____

MSN Number _____

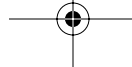
Model Number _____

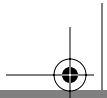
Wireless Phone Number _____

Warranty Expiration Date _____

Date of Purchase _____

Product Quality is yours with Motorola!





Wireless Operation Safety Information

IMPORTANT! Read This Information Before Using Your Wireless Telephone.

Exposure to Radio Frequency Signals

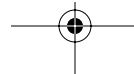
Your fixed wireless telephone is a radio transmitter and receiver. When it is ON, it receives and also sends out radio frequency (RF) signals.

European and International Agencies have set standards and recommendations for the protection of public exposure to RF electromagnetic energy.

- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1996
- Verband Deutscher Electringenieure (VDE) DIN-0848
- Directives of the European Community, Directorate General V in Matters of Radio Frequency Electromagnetic Energy
- National Radiological Protection Board of the United Kingdom, GS 11, 1998
- American National Standards Institute (ANSI) IEEE. C95.1-1992
- National Council on Radiation Protection and Measurements (NCRP). Report 86
- Department of Health and Welfare Canada. Safety Code 6

These standards are based on extensive scientific review. For example, over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the updated ANSI Standard.

The design of your phone complies with these standards when used normally. During operation the user must be at least 20 centimeters away from the antenna.





General Safety Information

Antenna Care

Use only the supplied or approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate FCC regulations.

Electronic Devices

Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals from your fixed wireless phone.

Pacemakers — The Health Industry Manufacturers Association recommends that a minimum separation of six inches (fifteen centimeters) be maintained between a fixed wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research.

Persons with pacemakers:

- Should **always** keep the phone more than six inches (fifteen centimeters) from their pacemaker when the phone is turned ON.
- If you have any reason to suspect that interference is taking place, turn your phone OFF immediately.

Hearing Aids — Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

Other Medical Devices — If you use any other personal medical device, consult the manufacturer of your device to determine if they are adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

Blasting Areas

Do not use your fixed wireless phone in an area where blasting operations are being performed.



General Safety Information

Potentially Explosive Atmospheres

Do not operate your phone when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include: fueling areas such as gasoline stations, below deck on boats, fuel or chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), areas where the air contains chemicals or particles, such as grain, dust, or metal powders.

Using External Antennas

Your *FX5000 Digital* telephone is equipped with an antenna which screws onto the transceiver. This antenna is intended for internal use, and will provide adequate operation under normal circumstances. If you elect to install an external antenna (not supplied by Motorola), you must take precautions to provide adequate lightning protection for the external antenna. Motorola assumes no liability if you elect to install an external antenna.

Please Save These Instructions

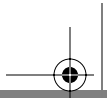




General Safety Information

Notes...





About Your New *FX5000 Digital* Telephone

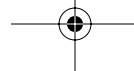
The *FX5000 Digital* fixed wireless phone is a convenient and efficient solution for providing residential telephone service in geographical areas where normal landline telephone service is either inadequate or not available.

The *FX5000 Digital* telephone consists of a base (containing a keypad and an internal wireless radio transceiver), a handset, and a power supply. After your Wireless Service Provider registers your phone for wireless service, simply plug the cord into any wall outlet and you are ready to place and receive calls. Since your *FX5000 Digital* telephone operates like a radio and uses the wireless telephone system, there is no need to have telephone wiring or jacks in your home.

About This Manual

In this manual, we'll tell you how to assemble and install your *FX5000 Digital* telephone. We'll also provide easy step-by-step instructions on using your phone to make and receive calls, storing numbers in memory, and using the other features offered by your *FX5000 Digital* telephone.

Some photos representing AC plugs and antennas may differ from your actual unit. They are for illustrative purposes only.



Introduction

FX5000 Digital Telephone Major Components

The major components of your *FX5000 Digital* telephone are shown in the photo on the next page.

- **Handset** — Hold the handset to your ear like any normal telephone to carry on conversations.
- **Base** — Provides the dialing keypad and other function buttons, as well as a hang-up cradle for the handset.
- **Antenna** — Allows your *FX5000 Digital* telephone to send and receive radio signals to/ from the wireless telephone system.
- **Power Supply** — When plugged into an AC wall outlet, the power supply provides the DC electricity needed for your *FX5000 Digital* telephone to operate.

Introduction



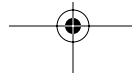
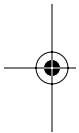


Introduction

Things You Should Know

Before assembling, installing, and using your *FX5000 Digital* telephone, here are a few things you should be aware of:

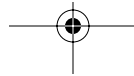
- Your *FX5000 Digital* telephone operates on the wireless telephone system. Before you can use your phone, make sure that your local Wireless Service Provider has registered your phone for wireless service. This includes programming your phone and providing you with a phone number.
- Your *FX5000 Digital* telephone must be installed in an area where it can adequately communicate with the wireless telephone system (by radio communications). This means that the location in which you wish to use your phone must be within the coverage area of the wireless telephone system. Your Wireless Service Provider can advise you as to whether you are in the coverage area.
- The Power Supply in your *FX5000 Digital* telephone is designed to withstand AC input power variations of up to 10%. If you suspect that your AC power varies more than this, you may choose to use an external surge protection device.
- To clean your phone, use a soft rag. **Do not** use alcohol or any other solvent.
- Please read *General Safety Information* before operating your phone.





Unpacking and Taking Inventory

Open the packaging and remove the contents. Your *FX5000 Digital* telephone package should contain the following items. If it does not, return the entire package to the dealer and exchange it for a new package.



Assembly

Installing the Handset

Plug one end of the coil cord into the handset and the other end into the base, as shown below. Then place the handset into the cradle on the base.



- 1** Connect coil cord to handset and base. Push each connector into receptacle until it "clicks" into place. Note that the connectors are keyed and can be plugged in only one way.
- 2** Place handset into cradle in base.

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Assembly

Attaching the Antenna

Locate the black rubber-coated antenna and attach it to the base as shown. Note that the antenna can be left straight or bent at a 90° angle, depending on whether you are using the phone on a horizontal surface (like a desk) or are going to wall mount the phone. For now, leave the antenna bent at a 90° angle as shown.



NOTE You may elect to purchase and install an external antenna (not available from Motorola). In this case, be sure to observe all manufacturer's recommendations regarding installation and lightning protection. In fact, you may wish to hire a professional to help you with the installation. Additionally, you may have to purchase an RF adapter to allow the antenna cable to connect to the transceiver. Be sure to read your Motorola warranty to determine the limits and liabilities imposed if you elect to use any hardware not approved by Motorola. Doing so may void your warranty.

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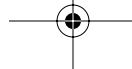
Assembly

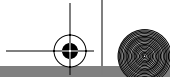
Installing the Power Supply

Connect the Power Supply cord as shown below. **Do not** connect the wall transformer to AC power at this time.



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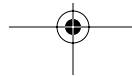




Overview

In this section, we will tell you how to mount your *FX5000 Digital* telephone (desktop or wall mounted) and how to plug your telephone into the AC outlet. Keep the following in mind when deciding where to position your telephone.

- Do not place the phone or power supply near water.
- Do not place the phone in direct sunlight to avoid possibly overheating the handset and transceiver.
- Be sure to keep children and pets away from the phone and power supply.
- Do not position the phone in close proximity to other electrical or electronic appliances (such as computers, microwave ovens, televisions, radios, etc.) to avoid possible electrical interference between the phone and the appliances.
- Installing the phone inside a metal building is not recommended, since it may reduce the signal quality of your phone.
- Do not dangle the phone by the DC power cord. Rest the phone on a table or other flat surface, or secure it to a wall as described in "Wall Mounting" on page 11.



Installation

Mounting Locations

Overview

Your *FX5000 Digital* telephone has been designed for use on a horizontal surface (like a desk) or a vertical surface (mounted to a wall). Both mounting methods are described below.

Desktop Mounting

You may place your phone on any horizontal surface, such as a desktop or counter top. Be sure to position your phone so that the DC power cord will reach a nearby electrical outlet. Note that the antenna should be positioned vertically as shown at right.



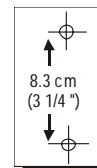
10

Installation

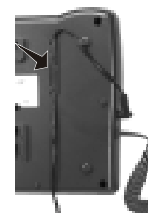
Wall Mounting

You may mount your phone on any vertical surface, such as a wall. Be sure to position your phone so that the DC power cord will reach a nearby electrical outlet. Note that the antenna should be positioned vertically as shown. Install two 3 mm or 1/8" screws (not supplied) per template and adjust them until the phone has been firmly attached to the wall.

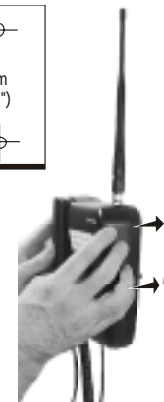
NOTE Before drilling holes to wall mount your phone, it is a good idea to plug in your phone (described in "Plugging into AC Power" on page 12) and verify that you are receiving a strong signal (as indicated by the LED on the base turning green) and you are able to place and receive calls.



- 1 Route the DC power cord to the back of the base and thread it through the cable retaining track as shown. The DC power cord should hang down from the bottom of the base.



- 2 Attach phone as shown.



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Installation

Plugging into AC Power

Your *FX5000 Digital* telephone is equipped with an AC-to-DC transformer that you plug into an AC electrical outlet with voltage according to transformer. Check transformer label.
Connect your telephone to AC power by plugging in the transformer to a nearby AC receptacle.



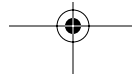
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Installation

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Controls and Indicators



1 Numeric Keypad


Used to enter call information.


2 Flash Button

This button is used to send a switch hook flash when a call is in progress.

3 Function Buttons

 and  Adjusts earpiece and ringer volume.

 Places a call to the last number called.

 Stores numbers into any of nine available memory locations.

4 LED Indicator

When GREEN, indicates that telephone is receiving wireless service and is operating normally. You may place and receive calls when the LED is GREEN and the signal strength is sufficient. If the signal strength is insufficient, move the base closer to a window.

When ORANGE, indicates that wireless service is available but you may experience noise during conversation and even have a call dropped.

When RED, indicates that telephone is not receiving wireless service and cannot place or receive calls. LED indicator also blinks in other situations, for example, when storing a telephone number or programming the phone.

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Controls and Indicators



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Operating Your Telephone

Overview

This section provides step-by-step instructions for operating your *FX5000 Digital* telephone, including how to turn your phone on and off, place calls, receive calls, and end calls. Also described are memory dialing, volume adjustments, and last number redial.

Whenever using your phone, keep the following in mind:

- Like a normal landline telephone, you will hear a dial tone when lifting your handset.
- To place a call, pick up the handset, enter the phone number and the call will be placed a few seconds after the last key is pressed.
- When finished with a call, you must either hang up the handset in the base, or use your finger to depress the hang-up button in the handset.
- Before using your phone, the AC transformer must be plugged in and the LED on the base must be GREEN. The base must also be placed in an area where the signal will be strong.
- If you lose AC electrical power, your *FX5000 Digital* phone will not operate. However, any phone numbers and other information you have stored in memory will be preserved.



Operating Your Telephone

Basic Operation

Turning Your Phone On and Off

Your *FX5000 Digital* telephone is on whenever the transformer is plugged into a powered AC electrical outlet and the DC power cord is plugged into the base. You can tell if your telephone is on (and operational) if the LED on the base is GREEN. (It may take a few seconds after first applying power for the LED to turn GREEN.)

How to Place a Call

1. **With power on, lift the handset and enter the number you wish to call by pressing the keypad buttons. As you press each button, make sure you hear a tone in the handset earpiece to confirm your entry.**
2. **The call will be placed a few seconds after the last key is pressed.**
3. **Begin the conversation when the called party answers.**

Note If you are dialing a number and an incoming call is received, you will hear the incoming call ringer in the handset earpiece. To answer the call, press **Flash**.

Operating Your Telephone

How to Receive a Call

When you hear the ring tone indicating an incoming call, lift the handset to your ear and begin the conversation.

How to End a Call

When you are finished with your conversation, hang up the handset in the base.

Note If you wish to place another call right away, you may simply press and release the hang-up button in the handset. You will hear the dial tone and you may dial a new number for the next call.

Redialing Last Number Called

This feature allows you to press a single button to automatically place a call to the last phone number you called (either placed by entering the number from the keypad or recalled from memory).

1. With power on, lift the handset, then press and release **(RDL)**.
2. You will hear the ring tone in the handset earpiece.
3. Begin the conversation when the called party answers.

Operating Your Telephone

Using Memory Dialing

Storing Numbers in Memory

Your phone provides nine memory locations (designated by location numbers 1, 2, through 9) in which to store frequently called phone numbers. Each memory location accepts up to 20 digits.

1. Press **(STO)**. LED indicator will blink red and green.
2. Enter the phone number you wish to store (up to 20 digits).
3. Press **(STO)**.
4. Enter a location number (e.g., **(1)**, **(2)**, etc.).

Note If you store a phone number in a memory location where a number is already stored, the new number will permanently overwrite the old number.

You can abort the store process by pressing the Flash key



Operating Your Telephone

Placing Calls from Memory

1. With power on, lift the handset.
2. Press and hold the associated digit key (1 through 9). You will hear the tone associated with the key and the call will be placed a few seconds after the sound changes to a distinctive tone.
3. You will hear the ring tone in the handset earpiece.
4. Begin the conversation when the called party answers.

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Operating Your Telephone



Making Volume Adjustments

Adjusting the Earpiece Volume

The loudness of the audio you hear from the handset earpiece while in a conversation can be adjusted to seven volume levels.

To increase the volume level — While in a call, press and release the  button to increase the volume level one step.

To decrease the volume level — While in a call, press and release the  button to decrease the volume level one step.

Note You may also adjust the transceiver audio tones when not in a call. Simply lift the handset and press  or  (as described above).

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Operating Your Telephone

Adjusting the Ringer Volume

The loudness of the ringer tone you hear from the base to alert you of an incoming call can be adjusted to seven volume levels.

To increase the volume level — With the handset in the base, press and release the  button to increase the volume level one step. You will hear a tone to indicate the volume level.

To decrease the volume level — With the handset in the base, press and release the  button to decrease the volume level one step. You will hear a tone to indicate the volume level.



Operating Your Telephone

Advanced Call Features

Your phone supports the advanced call features: call waiting, call forwarding and 3-way call.

These features are dependent on your Service Provider. Please contact your Service Provider for details on how to use these features.





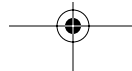
Troubleshooting

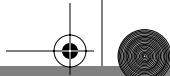
Overview

If you have problems placing or receiving calls, try to locate your difficulty in the following troubleshooting table and follow the instructions to remedy the problem. If you still are having problems, contact your Wireless Service Provider.

Troubleshooting Table

<i>Symptom</i>	<i>Remedy</i>
You cannot make or receive calls	<ul style="list-style-type: none"> • Make sure that your phone's power supply is plugged into an AC outlet. • Make sure that the AC power in your house or office is on. • Have you obtained wireless service?
You hear static or intermittent voice during conversations	<ul style="list-style-type: none"> • Try moving the location of your phone. • Be sure the antenna is in a vertical position.





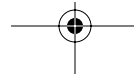
Technical Specifications

Technical Specifications

The following table lists the technical specifications for your *FX5000 Digital* telephone.

General	
Dimensions	19.3 cm x 19.1 cm x 6.6 cm (excluding antenna)
Weight	1.1 Kg
Operating Temperature	0° C to +40° C
RF Connection	TNC
Input/Output Impedance	50 ohms nominal

Power Supply	
Input Voltage	90 to 240 VAC
Input Frequency	50 to 60 Hz
Output Voltage	7.5 VDC
Output Current	900 mA
Protection	Output are short-circuit protected and isolated from input until 3000 V






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