FRS420 – User Instruction Guide – Content Draft
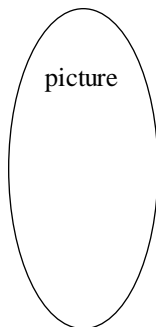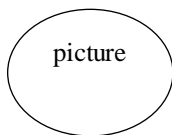
Controls

1) **On/Off/Volume** control

2) **PTT** button

3) **Call/Menu** button

4) **Up** button

5) **Down** button

6) **Accessory** jack

picture

LCD Display

picture

1) Channel Number – displays the FRS channel (1-14).

2) CTCSS Code Number – indicates the current sub-audible code selected (0-38)

3) SCAN – displays when the scan feature is active.

4) Vibrate Icon – displays when the vibrate feature is selected.

FCC Information

- 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 received, including interference that may cause undesired operation.
- Important: Changes or modifications to this unit not expressly approved by Uniden could void your authority to operate this unit. Your radio is set up to transmit a regulated signal on an assigned frequency. It is against the law to alter the settings inside the radio to exceed those limitations. Any adjustments to your radio must be made by qualified technicians.
- To be safe and sure:
  o Never open your radio's case
  o Never change or replace anything in your radio except the batteries.
- Your radio might cause TV or radio interference even when it is operating properly. To determine whether your radio is causing the interference, turn it off. If the interference goes away, your radio is causing it. Try to eliminate the interference by moving your radio away from the receiver. If you cannot eliminate the interference, the FCC requires that you stop using the radio.

Safety Guidelines

- Audio Accessories: Do not operate the radio with audio accessories at high volume levels. Hearing experts advise against continuous high volume operation. If you experience a ringing in your ears, reduce the volume level or discontinue use. Always make sure the radio is turned off before plugging audio accessories into the accessory jack.
- Hazardous Environments: Do not operate the radio in hazardous environments. Explosion or fire may result. Do not operate the radio near unshielded electrical blasting caps. Under certain conditions, radios can interfere with blasting operations and may cause an explosion. Turn your radio OFF to prevent accidental transmission when in a blasting area or in areas posted: "Turn off two-way radios." Construction crews often use remote control RF devices to set off explosives.
- Care and Safety: To clean the radio, use a soft cloth dampened with water. Do not use cleaners or solvents because they can harm the body of the unit and leak inside, causing permanent damage. Use a dry, lint-free cloth to clean the battery contacts. Do not submerge the unit in water. If the unit gets wet, turn it off and remove the batteries immediately. Dry the battery compartment with a soft cloth to minimize potential water damage. Leave the battery compartment cover off overnight to ensure complete drying. Do not use the radio until the unit is completely dry.

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Welcome

Congratulations on your purchase of the Uniden FRS420 Family Radio. This product is a lightweight, palm-sized radio with a unique Carabiner design allowing you to "clip" the radio to almost anything and carry it almost anywhere. Use it at shopping malls, amusement parks, or sporting events to stay in contact with family and friends, or in a neighborhood watch for vital communication. This compact, state-of-the-art device is equipped with the following features:

- o 14 Channels
- o 38 CTCSS Codes
- o Up to 2 mile range*
- o LCD Display
- o 5 Selectable Call Tone Alerts
- o Vibrate Alert for incoming calls
- o Channel Scan
- o Channel Monitor
- o Audible Low Battery Indicator
- o Supports Optional Headset Accessories
- o Supports Optional NiMH Battery Pack

Range may very depending on environmental and/or topographical conditions.

Optional Accessories

Your package contains the FRS420 radio, this reference guide, and a product registration card. You will need to purchase 3 AA Alkaline batteries in order to operate the unit. The following optional accessories may be purchased from your Uniden dealer or [need to add other means].

- o Earset Mic w/ PTT – #EM2468
- o Vox Headset Mic – #EMV2469
- o NiMH Battery Pack – #TBD
- o AC Wall Charger – #TBD
- o Car Charger – #TBD
- o Battery Covers – #TBD

Battery Installation

Your FRS420 radio uses 3 AA Alkaline batteries for power. To install the batteries:

1) Make sure your radio is OFF.

2) Remove the battery compartment door by sliding it down from the unit.

3) Install 3 AA Alkaline batteries (not included) into the battery compartment. Be certain to follow the + and – symbols in the compartment. Installing the batteries incorrectly will prevent the unit from operating.

4) Optional: Your FRS420 radio can be powered using an optional NiMH battery pack specifically designed for this model. Remove the alkaline batteries and install the battery pack by inserting into the battery compartment. Follow the instructions found with the NiMH accessory.

5) Replace the battery compartment door by pushing it up until it is secure.

Low Battery Alert

When the batteries in the unit are low, the unit will emit a "low battery" tone indication. Replace the batteries immediately to continue using the radio.

Using Your Radio

In order to get the most out of your new radio, read this reference guide completely before attempting to operate the unit.

Turning the Radio On and Adjusting Volume

1) Rotate the **on/off/volume** control clockwise to turn the unit ON and increase the speaker volume

2) Rotate the **on/off/volume** control counterclockwise to decrease the speaker volume and turn the unit OFF.

Adjusting the Sound (Key Beeps)

Your radio emits a beep each time one of the buttons is pressed. To turn this sound OFF, press **PTT** while turning on the radio. To turn this sound ON, press **PTT** while turning on the radio again.

Choosing a Channel

Your radio has 14 channels and 38 CTCSS codes you can use to talk to others. In order to
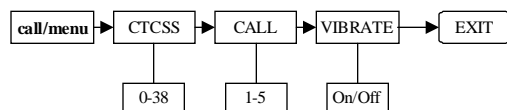
speak to someone, each of you must be set to the same channel and CTCSS code.

To choose a channel:
Press the **Up** or **Down** button to increment or decrement the channel number displayed.

Navigating through the Menu

To access the advanced features of the FRS420, your radio has a Menu function.

```
call/menu → CTCSS → CALL → VIBRATE → EXIT
               ↓       ↓       ↓
             0-38     1-5    On/Off
```

1) To enter the Menu, press and hold the **call/menu** button for 1 second until the CTCSS code flashes.
2) Additional presses of the **call/menu** button will advance through the menu until exiting to "normal" operating mode.
3) Other methods of exiting the menu function are:
   a. Press and hold the **call/menu** button for 1 second again.
   b. Press **PTT.**
   c. Wait 10 seconds until unit automatically returns to "normal" mode.

Choosing a CTCSS Code

Each of the FRS channels 1-14 may have any one of the codes 0-38 selected. Code "0"

indicates no CTCSS code selected and your radio can receive a signal regardless of the code settings of the transmitting radio.

1) Enter the Menu. The CTCSS code on the LCD display will flash.

2) Press the **Up** or **Down** button to increment or decrement the code number displayed.

3) Exit the Menu to return to "normal" mode.

Talking on Your Radio

To talk to others using the radio:

1) Press and hold the **PTT** button and speak in a clear, normal voice about 2-3 inches away from the microphone. To avoid cutting off the first part of your transmission, pause slightly after pressing the **PTT** button before you start talking.

2) When you are finished speaking, release the **PTT** button

Transmitting a Call Alert Tone:

Your FRS420 radio is equipped with 5 selectable call tones that will be transmitted when the **call/menu** button is momentarily pressed.

To select a call tone:
1) Enter the Menu and then press the **call/menu** button once. The letters CA

will show on the display along with the current call tone number (1-5).
2) Press the **Up** or **Down** button to increment or decrement the number to the desired call tone. Each tone will be heard through the speaker.
3) Exit the Menu.

To transmit the selected call alert tone, momentarily press the **call/menu** button. The selected tone will automatically be transmitted for a fixed length of time. Note: Do not hold the **call/menu** button down as this will enter the Menu mode.

Vibrate Alert for Incoming Calls

Your FRS420 radio is equipped with a vibrator that can be used for notification of an incoming call alert from other Uniden radios equipped with the same feature.

To select the vibrate alert:
1) Enter the Menu and then press the **call/menu** button twice. The VIBRATE icon on the LCD display will be shown along with ON or OF indicating the vibrate alert feature status.
2) Press either the **Up** or **Down** button to toggle the feature On or OFF.
3) Exit the Menu.

Channel Scan Feature

Your FRS420 radio has a channel scan feature that allows you to easily scan all 14 channels. When an active channel is detected, the unit

will pause on that channel until the channel is clear. Then after a 4 second delay, the unit will continue scanning. Pressing **PTT** while the scan is paused on a channel will allow you to transmit on that channel.

To turn on channel scanning:
Press and hold either the **Up** or **Down** button until the SCAN icon on the display is shown. The channel number on the display will be rapidly cycling through the channels.

To turn off channel scanning:
Press and hold the **Up** or **Down** button until the SCAN icon on the display is off.

LCD Backlight

The LCD back light will automatically be turned on with any key press except **PTT** and **call**. The LCD display will be illuminated for 5 seconds before turning off.

Auto Squelch Feature

The FRS420 radio is equipped with an automatic squelch system which shuts off weak transmissions and unwanted noise due to terrain conditions or if you have reached your range limit.

To temporarily disable the Auto Squelch and listen to the selected channel, rapidly press the **PTT** button twice. The channel will remain open for 4 seconds before the Auto Squelch re-engages or you repeat the double **PTT** key press.

Automatic Power Save Feature

Your radio has a unique circuit designed to dramatically extend the life of the batteries. If there is no transmission within 5 seconds, your radio switches to the Power Save mode. The radio is still able to receive transmissions in this mode.

Specifications

Description

Channels	14
CTCSS Codes	38 Sub-Audible Tones
Operating Frequency	UHF 462.550-467.725 MHz
Power Source	3AA Alkaline Batteries or custom NiMH Battery Pack
Output Power	500mW ERP maximum
Battery Life	45 Hours (5/5/90 duty cycle)

Channel Frequency Chart (Mhz)

Channel	Frequency	Channel	Frequency
1	462.5625	8	467.5625
2	462.5875	9	467.5875
3	462.6125	10	467.6125
4	462.6375	11	467.6375
5	462.6625	12	467.6625
6	462.6875	13	467.6875
7	462.7125	14	467.7125

CTCSS Chart (Hz)

Code	Frequency (Hz)	Code	Frequency (Hz)	Code	Frequency (Hz)
0	Disabled	13	103.5	26	162.2
1	67.0	14	107.2	27	167.9
2	71.9	15	110.9	28	173.8
3	74.4	16	114.8	29	179.9
4	77.0	17	118.8	30	186.2
5	79.7	18	123.0	31	192.8
6	82.5	19	127.3	32	203.5
7	85.4	20	131.8	33	210.7
8	88.5	21	136.5	34	218.1
9	91.5	22	141.3	35	225.7
10	94.8	23	146.2	36	233.6
11	97.4	24	151.4	37	241.8
12	100.0	25	156.7	38	250.3