FDC Feidaxin Corporation

VHF/UHF FM TRANSCEIVER

FD-150A / 160A / 450A / 460A

Edited version of original manual

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FUNCTIONS AND FEATURES

1. VHF (136-174MHz)/UHF (400-470MHz)
2. 99 Channels
3. 25KHz/12.5KHz Compatibility
4. CTCSS/DCS
5. Hi/Lo power select (1W-5W)
6. Standby time: 120hr
7. Adjustable squelch level: 0-9
8. Computer/manual program

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UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the transceiver, we recommend that you identify the items listed in the following table before discarding the packing material, If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

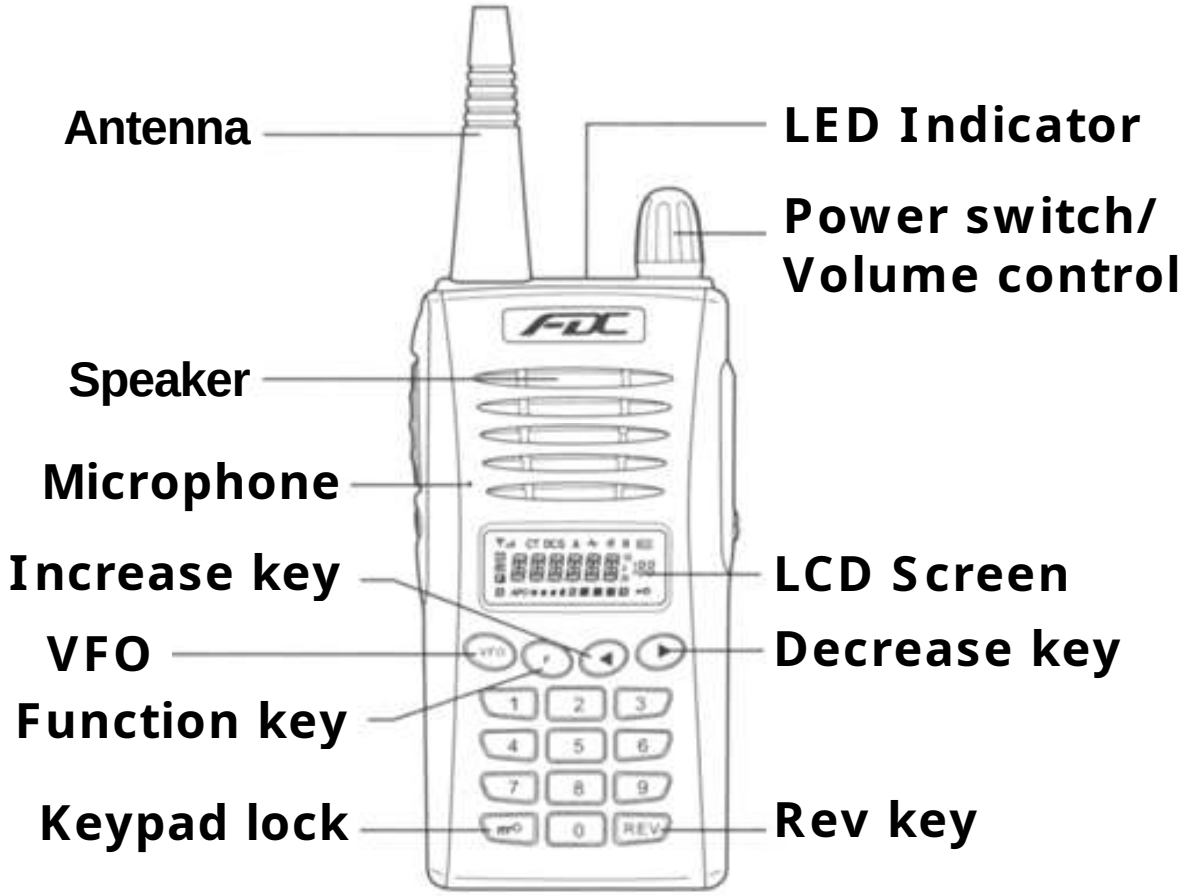
Supplied accessories

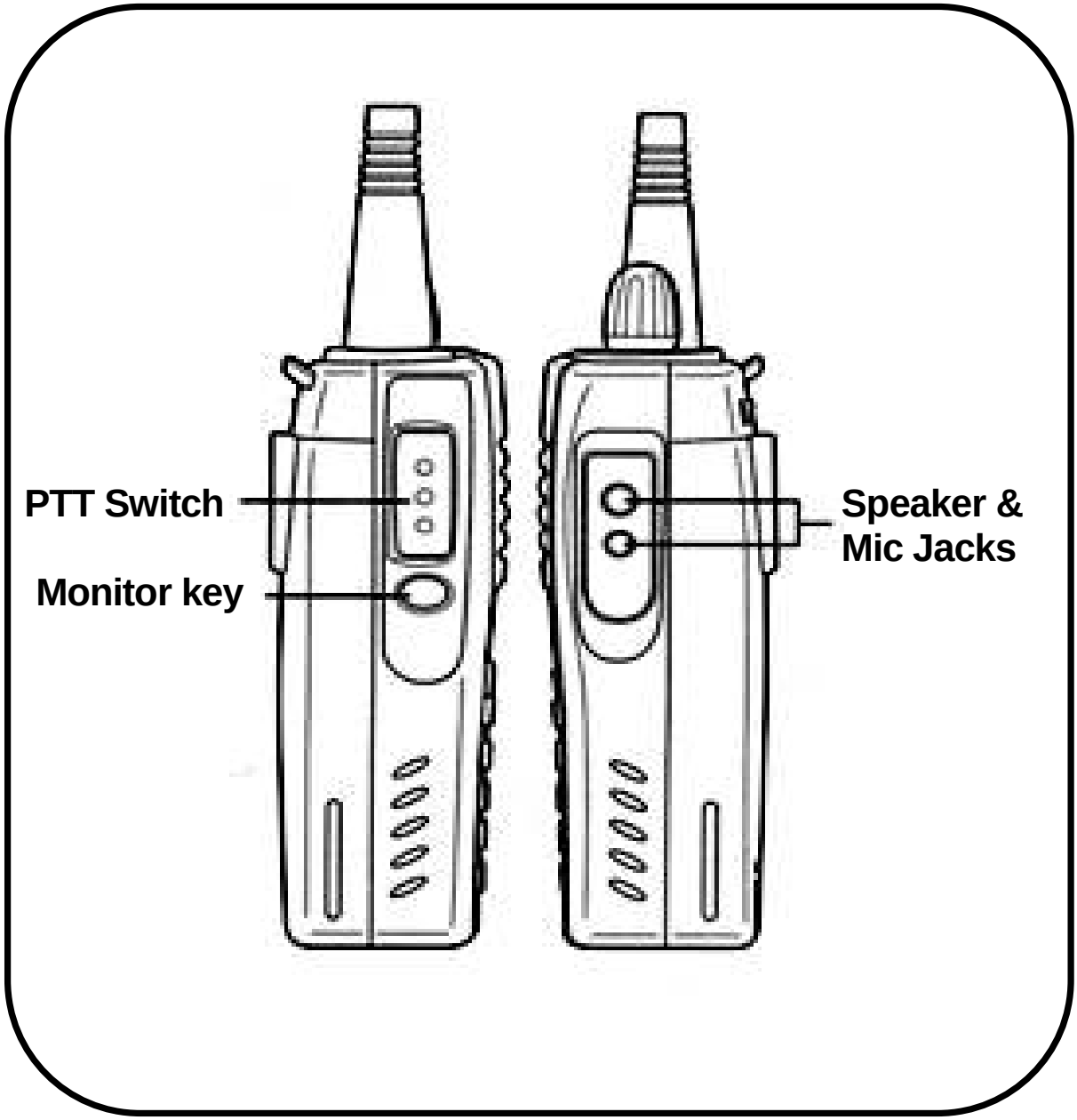
ITEM	***QUANTITY***
Antenna)	1
Battery pack	1
Battery charger	1
Belt clip	1
Instruction manual	1

Optional accessories

ITEM
Headset
Programming cable
Programming software
Car charger

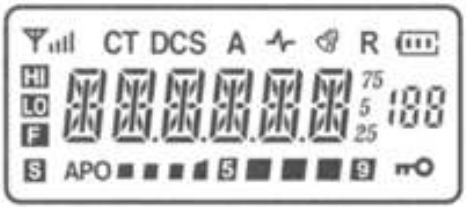
GETTING ACQUAINTED



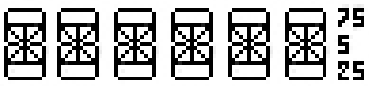


LCD DISPLAY

The locations of icons used in the LCD DISPLAY are shown in the diagram below, their meaning is explained in the table following.



ICON	*EXPLANTION*
	Signal scan indicator
A	Signal strength indicator
	Turn speaker on / off
	Turn sound on / off
R	Reverse frequency
HI	High power output
LO	Low power output
S	Battery save
	Keypad Lock
	Battery level indicator
CT	CTCSS
DCS	DCS

 Displays the working frequency and other function selections

 Displays the memory channel number in MR mode

 Displays the power output while transmitting

BASIC OPPERATION

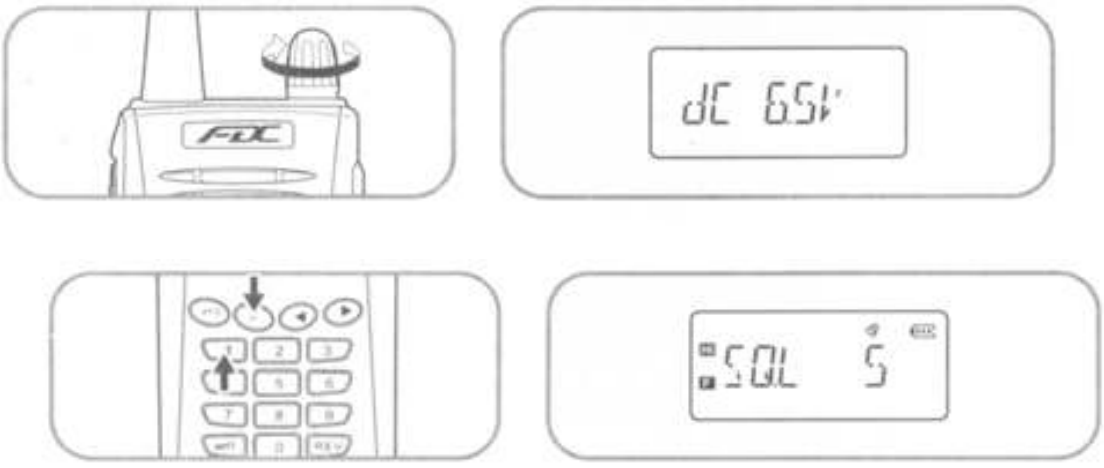
Installing the Antenna

Screw the antenna into the SMA connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.

Power switch/Volume control

To switch the transceiver ON, turn the knob clockwise until you hear a click, further rotation increases the sound level. ***The LCD display will briefly show the battery voltage level.***

Turn knob counterclockwise to decrease the sound level, or until it clicks to switch the transceiver OFF.



Transmitting

To call a station, press and hold the PTT switch, then speak into the microphone using your normal voice. Release the PTT switch to receive.

- The transmit indicator light is **Red** when transmitting and **Green** when receiving a signal.

Operating modes

There are two basic operating modes for this radio **VFO/MR mode** and **Channel Only mode**.

a) In **VFO/MR mode** you have all frequencies available to you.

b) In **MR mode** you program memory channels which are then available for quick access

General

Use [**VFO**] key to abort MENU or changes.

Use [**PTT**] switch to confirm changes on [F] settings.

Full charge is 7.1V -Light changes from red to green on cradle.

DC LO comes on at 5.5V

Approx. charge time from **DC LO** 1200 mA battery is 10Hr.

PROGRAMMING WITH THE KEYPAD IN VFO MODE

Switch the transceiver ON, then press [**VFO**] key to select either **MR** (Memory Mode) or **VFO** (Frequency Mode).

- ***Note:*** To key in a specific frequency or program a memory channel you must be in **VFO** mode.

Function keys:

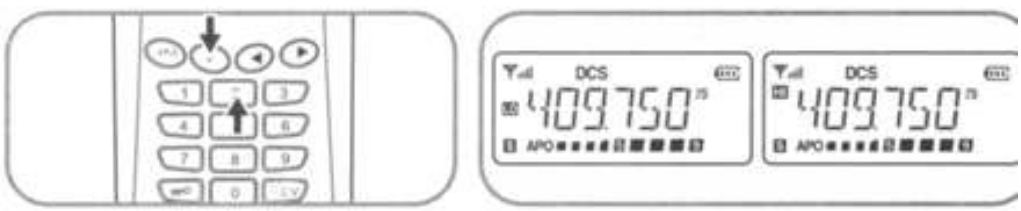
1. Squelch

Press [**F**] + [**1**] key sequence to display squelch level, the factory default level is 5. Use [◀] + [▶] keys to adjust the squelch level (0-9).

- The squelch function is designed to block out background noise when no transmission is being received.

2. HI / LO Power Level

Press [**F**] **+** [**2**] key sequence to display current power output setting, use [◀] / [▶] keys to select power level desired. Press PTT switch to accept any change and exit.



- ***Note:*** Selecting the LOWEST power required for clear communication will decrease the power usage and extend the battery life.

3. Auto-Scan

Press [**F**] **+** [**3**] key sequence to start auto-scan of memory channels, scans in both VFO and MR modes.

- ***Note:*** Auto-scan will scan each frequency or programmed memory channel from the lowest to the highest. Pressing any key except the MONITOR or PTT key will stop auto-scan and return to the frequency or memory channel at which you initially started the scan.
- Pressing the **MONITOR** key will pause the scan for 5 seconds and then continue.
- Pressing the **PTT** switch will stop the scan at the current frequency or memory channel being scanned.

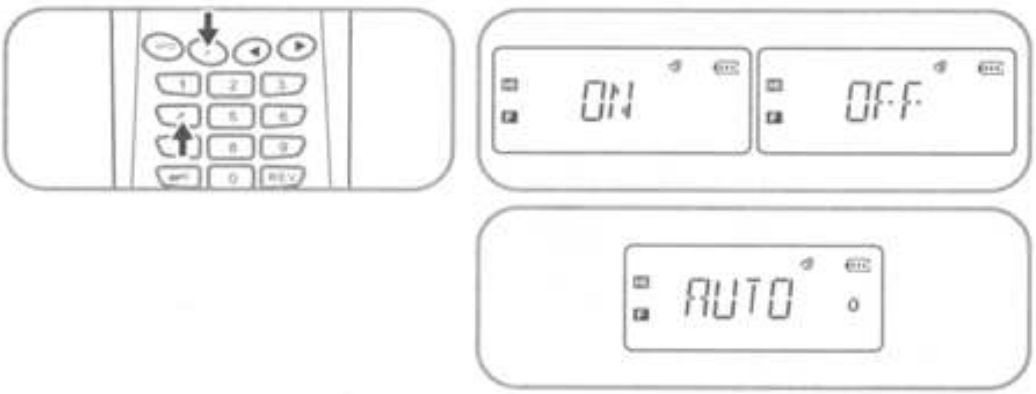
4. Manual Scan

Use [◄] / [►] keys to scan manually.

1. In **VFO** mode frequency increments according to preset step amount (see item # 13).
2. In **MR** mode frequency increments by programmed memory channels.
3. Press PTT switch to exit scan mode.

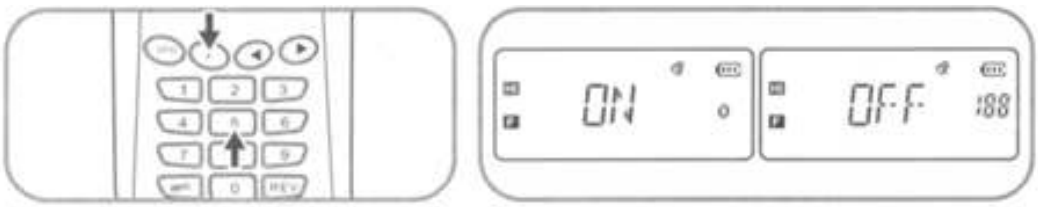
5. Backlight

Press [**F**] **+** [**4**] key sequence to view backlight setting, use [◄] **/** [►] keys to select desired backlight setting ON / OFF / AUTO. Press PTT switch to accept selected setting and exit.



6. Beep

Press [**F**] + [**5**] sequence to view Beep setting. Use [◄] / [►] keys to select either ON or OFF. Press PTT switch to accept selected setting and exit.



7. Auto Lock Keypad **(See item #12 to unlock)**

Press [**F**] + [**6**] key sequence to view the current setting. Use the [◄] / [►] keys to select either AUTO or MANUAL. Press PTT switch to accept selected setting and exit.

Note: Auto lock locks keypad after 20 seconds idle time.

8. TOT (Time of Transmission)

Press [**F**] + [**7**] key sequence to view TOT setting. Use [◄] / [►] keys to select desired setting OFF to 90 sec. Press PTT switch to accept selected setting and exit.

- ***Note:*** Transmission will terminate at the selected setting and sound an audible tone. Re-keying PTT switch will reinitiate TOT.

9. Duplex Offset Frequency

Press [**F**] + [**8**] key sequence to view the TX/RX offset for the currently displayed frequency. Key in the desired offset frequency and then press the PTT switch to accept the value and exit. (E.g. “00600” for 0.600MHz offset)

(The selection range is 00.000 to 99.995 MHz).

10. CTCSS/DCS Receive

a) For **CTCSS** coding press [**F**] **+** [**9**] key sequence to view the setting for the current frequency. Use [◄] **/** [►] keys to select the CTCSS frequency value desired. Press PTT switch to accept selected setting and exit. (*See table at end of document for CTCSS values*)

b) To use **DCS** coding Press [**F**] **+** [**9**] **+** [**F**] sequence to view the setting for the current frequency. Use [◄] **/** [►] keys to select the DCS frequency value desired then press [**VFO**] key to set DCS Normal/Inverse option. Press PTT switch to accept selected settings and exit. (*See table at end of document for DCS values*)

11. CTCSS/DCS Transmit

a) For **CTCSS** coding press [**F**] **+** [**0**] key sequence to view the setting for the current frequency. Use [◄] **/** [►] keys to select the CTCSS frequency value desired. Press PTT switch to accept selected setting and exit. (See table at end of document for CTCSS values)

b) To use **DCS** coding Press [**F**] + [**0**] + [**F**] sequence to view the setting for the current receive frequency. Use [◄] / [►] keys to select the DCS frequency value desired then press [**VFO**] key to set DCS Normal/Inverse option. Press PTT switch to accept selected settings and exit. (See table at end of document for DCS values)

12. Lock/Unlock Keypad

Press and hold [*🔑] key for 2 seconds to toggle the keypad lock/unlock setting. (see also Auto Lock item #7)

13. Step (Sets the minimum frequency increment)

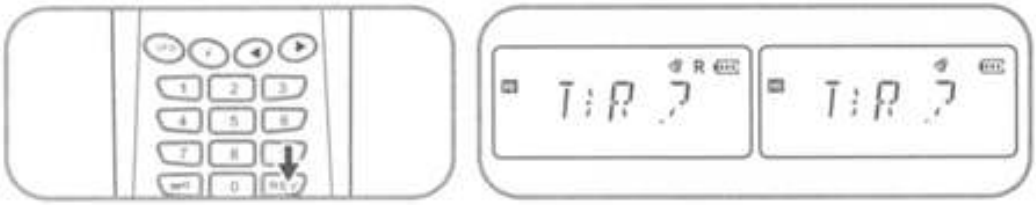
Press [**F**] + [*🔑] key to display current step setting. Use [◄] / [►] keys to select the desired STEP increment of 5k, 6.25k, 10k, 12.5k, or 25k. Press PTT switch to accept selected settings and exit.

14. Simplex – Duplex

Press [F] + [REV] key sequence to view settings for currently displayed frequency. Use [◄] / [►] keys to select either “**S**” simplex operation, or for duplex operation select either “**+**” for positive offset or “**-**“for negative offset. Press PTT to accept selected setting and exit. (*See item #9 for offset value. E.g. 00.600MHz*)

15. Duplex Reverse Frequency

Press and hold [**REV**] key for 2 sec. to interchange TX and RX frequencies.



MEMORY CHANNELS

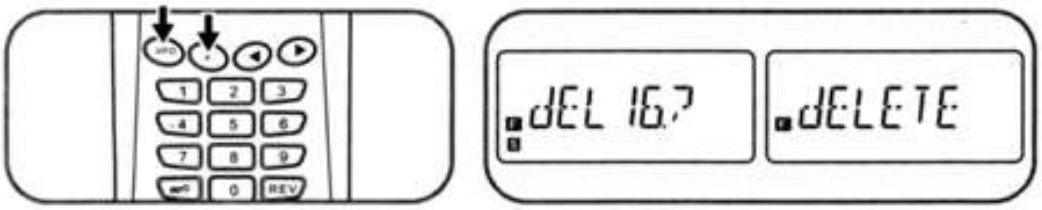
In MR mode you use programmed memory channels, eliminating the need setup each time. You can store frequencies and settings in up to 99 different memory channels on this transceiver.

1. *Programming a memory channel*

In the VFO mode Select desired frequency and settings you require, then press the [**F**] **+** [**VFO**] key sequence. The LCD displays "SAVE--?". Use the [◄] / [►] keys, or key in the desired value, to navigate to the desired memory channel. Press PTT switch to store the settings and exit.

2. *Selecting a memory channel*

Select the MR mode using the [**F**] key, then use the [◄] / [►] keys scroll to, or key in the desired two digit value of, the channel you wish to use.



CHANNEL ONLY MODE

Chanel only mode is an operating mode where you **ONLY** use pre-programmed frequencies and settings.

a) It works the same as MR mode in VFO/MR mode.

b) It uses only **CHANNELS** for simplicity of operation and **does not** display any frequency information.

c) The CHANNELS are the memory *channels* programmed in VFO/MR mode.

d) CHANNELS have to be programmed in VFO mode per instruction in MEMORY CHANELS above

Entering Chanel Only Mode

To enter, or exit from, Channel Only mode start with the transceiver off. Press [**F**] and hold the key while rotating the power switch/volume control to turn ON.

DELETING SETTINGS

Deleting a memory channel

a) Select the desired memory channel to delete.

b) Turn the transceiver OFF.

c) Press and hold the [**VFO**] key turn the transceiver ON.

d) The LCD displays "DEL--?".

e) Press the [**VFO**] key again to delete the selected channel and exit the delete mode.

Deleting all settings

a. Switch the transceiver OFF, and press [**F**] **+** [**MONITOR**] key, then turn the power switch/volume control on.

b. Rotate the power switch/volume control to switch the transceiver ON and hold for 2 seconds. LCD display shows "SET".

c. Input the password by digit keypad: **6668** and press PTT key to complete the deletion. LCD display shows "ERASE".

d. Finish deleting all storing information.

CTCSS TABLE

67.0	85.4	107.2	136.5	165.5	186.2	210.7	254
69.3	88.5	110.9	141.3	167.9	189.9	218.1	
71.9	91.5	114.8	146.2	171.3	192.8	225.7	
74.4	94.8	118.8	151.4	173.8	196.6	229.1	
77.0	97.4	123.0	156.7	177.3	199.5	233.6	
79.7	100.0	127.3	159.8	179.9	203.5	241.8	
82.5	103.5	131.8	162.2	183.5	206.5	250.3	
50 Groups of CTCSS (H^z)							

DCS TABLE

023	065	132	205	255	331	413	465	612	723
025	071	134	212	261	332	423	466	624	731
026	072	143	223	263	343	431	503	627	732
031	073	145	225	265	346	432	506	631	734
032	074	152	226	266	351	445	516	632	743
036	114	155	243	271	356	446	523	*645	754
043	115	156	244	274	364	452	526	654	
047	116	162	245	306	365	454	532	662	
051	122	165	246	311	371	455	546	664	
053	125	172	251	315	411	462	565	703	
054	131	174	252	325	412	464	606	712	
104+1 Groups of DCS									

FD-150A / 160A / 450A /460A Quick Reference

Mode Select	[VFO]	(direct-input/channel)
TX/RX Freq. Reverse	[REV]	press & hold
Keypad Lock/Unlock	[ ]	press & hold
UP	[ ]	
Down	[ ]	
TX Tone*	[F][0]	CTCSS [F] DCS [VFO] inv.DCS
Squelch Level	[F][1]	0-9
RF Output Hi/Low	[F][2]	hi/low
Auto-Scan	[F][3]	
Backlight Control	[F][4]	auto/on/off
Keypad Beep	[F][5]	on/off
Auto Keypad Lock	[F][6]	auto/manual
TX Timeout	[F][7]	off-90sec
Repeater Offset**	[F][8]	00.000MHz
RX Tone Squelch* [	F][9]	CTCSS [F] DCS [VFO] inv.DCS
Frequency Steps	[F][ ]	5, 10, 6.25, 12.5, 25
Simplex Duplex**	[F][REV]	“S”, ”+”, “ –“
Store Memory*	[F][VFO]	channel ##
Channel Only Display	Hold [F] & Power On	
Clear Single Channel	Select Channel & Power off, Hold [VFO] & Power on,	
Toggle VFO / Memory	[VFO]	

*Set in VFO Mode