

Appendix I Command Code Summary

User Commands

Touch-Tone Pad Test

(Pad Test Prefix) (sequence of up to 32 keys)

Autopatch

(Autopatch Prefix) (telephone number)

User Loadable Autodial Load

(Autodial Load/Erase Prefix)(Location)(Phone Number)
or (Autodial Load/Erase Prefix)*(Location)(Phone Number)
[phone number secured from readback]

User Loadable Autodial Erase

(Autodial Load/Erase Prefix) (Location)

User Loadable Autodial

(User Loadable Autodial Prefix) (Location)

Emergency Autodial

(Emergency Autodial Prefix) (Location)

Reverse Patch Activate (from phone only)

(Reverse Patch Command)#

Reverse Patch Answer

(Patch Utility Prefix)

Extending the Telephone Timer (from phone only)

(Telephone Timer Extend Command)#

Patch Hangup

(Patch Hangup Command)

Patch Custom Hangup Code

(Patch Utility Prefix) (any 3 keys except # or D)

Patch Redial

(Patch Utility Prefix) *

Patch Cover Tone

(Patch Utility Prefix) *2

Patch Timer Extend

(Patch Utility Prefix) *3

BCD or Fixed Frequency Link / Remote Base

(Link Prefix) 1	Link On Receive Only
(Link Prefix) 2	Link On Receive/Transmit
(Link Prefix) 3	Link Off
(Link Prefix) (mhtof)	Link Frequency
(Link Prefix) (m*htof)	Link Frequency

FC-900 Link / Remote Base

(Link Prefix) 1	Link 1 On Receive Only
(Link Prefix) 2	Link 1 Receive/Transmit
(Link Prefix) 3	Link 1 Off
(Link Prefix) 4	Link 2 On Receive Only
(Link Prefix) 6	Link 2 Off
(Link Prefix) *	Swap Link 1 / Link 2 Bands
(Link Prefix) 1 x	Link 1 Band Select
(Link Prefix) 4 x	Link 2 Band Select
x = 0 1240	7 420
1 10 meter	8 1280
2 2 meter	9 1290
3 220	A 1270 (±20 MHz)
4 440	B 1270 (±12 MHz)
5 430	C 1250
6 6 meter	
(Link Prefix) (mhtof)	Link 1 Frequency
(Link Prefix) (m*htof)	Link 1 Frequency
(Link Prefix) 1 (m*htof)	Link 1 Frequency
(Link Prefix) 4 (m*htof)	Link 2 Frequency
(Link Prefix) 1 *	Link 1 Power Interrogate
(Link Prefix) 1 * 1	Link 1 High Power
(Link Prefix) 1 * 0	Link 1 Low Power
(Link Prefix) 7 xx	CTCSS Select (00=off, 01-38=on)

S-Meter Readback

(S-Meter Command)

Demonstration / Bulletin Board

- (Demo Prefix) (0 - 8, *)
- (0 = Initial ID Message)
 - (1 = Forced ID Message)
 - (2 = Anxious ID Message)
 - (3 = Pending ID Message 1)
 - (4 = Pending ID Message 2)
 - (5 = Pending ID Message 3)
 - (6 = Special ID Message)
 - (7 = Bulletin Board Message 1)
 - (8 = Bulletin Board Message 2)
 - (* = Firmware Revision Announcement)

Unmuting Touch-Tone

(sequence)

Two-Tone Paging

- (2-Tone Paging Prefix)(A Group number)(A Tone number)(B Group number)
(B Tone number)
- (2-Tone Paging Prefix)(Group number)(Tone number) [group call]

Touch-Tone Access

(TT Access Mode Prefix) 0 [down]
(TT Access Mode Prefix) 1 [up]

Spare Audio Select

(Spare Audio Command)
knock down

User Function (Remote Control) Output Force and Interrogate

(UF Prefix) (Output number 1-8) (1 = on, 0 = off)
(UF Prefix) (Output number 1-8) Interrogate

Control Operator Commands

Macro Set Selection Commands

1	M1	Macro Set 1 Select	Selects Control Op Macro Set #1.
2	M2	Macro Set 2 Select	Selects Control Op Macro Set #2.
3	M3	Macro Set 3 Select	Selects Control Op Macro Set #3.
4	M4	Macro Set 4 Select	Selects Control Op Macro Set #4.
5	M5	Macro Set 5 Select	Selects Control Op Macro Set #5.

Repeater Enable / Disable Commands

00	RE	Repeater Enable	Enables repeater transmitter.
01	RD	Repeater Disable	Disables repeater transmitter.

Repeater Timer Commands

02	TE	Repeater Timer Enable	Enables repeater timeout timer.
03	TD	Repeater Timer Disable	Disables repeater timeout timer.
04	TL	Repeater Timer Long	Selects long timeout timer.
05	TS	Repeater Timer Short	Selects short timeout timer.
06	TC	Clear Repeater Timer	Cancels timeout condition, clears timer.
65	ZD	Zero Hang Time Disable	Disables zero hang time.
66	ZE	Zero Hang Time Enable	Enables zero hang time.

Access / Control Commands

07	CA	Carrier Access / Control	Enables carrier access and control.
08	PC	CTCSS Control Op Command	Enables carrier access, CTCSS required for Control Operator Touch-Tone commands.
09	PU	CTCSS Control Op/User Cmd	Enables carrier access, CTCSS required for Control Op and User commands.
10	PL	CTCSS Access	CTCSS required for access and control.
52	ME	TT Access Mode Enable	Enables Touch-Tone Access Mode.
53	MD	TT Access Mode Disable	Disables Touch-Tone Access Mode.
61	KE	Kerchunker Filter Enable	Enables kerchunker filter.
62	KD	Kerchunker Filter Disable	Disables kerchunker filter.

User Command Enable / Disable Commands

11	CE	User Command Enable	Enables User Touch-Tone commands.
12	CD	User Command Disable	Disables User Touch-Tone commands.
41	TE	Pad Test Enable	Enables Touch-Tone Pad Test.
42	TD	Pad Test Disable	Disables Touch-Tone Pad Test.
63	TM	Touch-Tone Mute	Mutes Touch-Tone through the repeater.
64	TU	Touch-Tone Unmute	Unmutes Touch-Tone through the repeater.

Link Enable / Disable Commands

13	LE	Link Enable	Enables link / remote base.
14	LD	Link Disable	Disables link / remote base.

Autopatch / Autodial Commands

19	PE	Autopatch Enable	Enables Autopatch.
20	PD	Autopatch Disable	Disables Autopatch.
27	LE	Long Distance Enable	Enables Autopatch long distance.
28	LD	Long Distance Disable	Disables Autopatch long distance.
21	UE	User Autodial Enable	Enables User Loadable Autodialer.
22	UD	User Autodial Disable	Disables User Loadable Autodialer.
47	AU	User Autodial Unlock	Unlocks User Loadable Autodialer.

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48	AL	User Autodial Lock	Locks User Loadable Autodialer.
57	UU	User Autodial Unhide	Allows secured numbers to be read back.
58	UH	User Autodial Hide	Secures autodial numbers loaded w/option
23	EE	Emergency Autodial Enable	Enables Emergency Autodialer.
24	ED	Emergency Autodial Disable	Disables Emergency Autodialer.
60	NC	Dial Needing Click	Requires user click to initiate dialing.
59	XC	Dial Without Click	Enables dialing without user click.
68	NR	No Phone Number Readback	Disables phone number readback and enables dialing without user click.
25	PT	Patch Timer Enable	Enables patch timers.
26	PX	Patch Timer Disable	Disables patch timers.
49	TD	Cover Tone Disable	Disables patch cover tone.
50	TE	Cover Tone Enable	Enables patch cover tone - user selected.
51	TA	Cover Tone Always On	Enables patch cover tone for all patches.
43	-	Control Op Offhook	"Manually" takes phone offhook.
44	-	Control Op Onhook	Places phone onhook (hangup).

Reverse Patch Commands

45	XE	Reverse Patch Enable	Enables Reverse Patch.
46	XD	Reverse Patch Disable	Disables Reverse Patch.
54	R0	Reverse Patch Mode 0	Selects phone line control mode.
55	R1	Reverse Patch Mode 1	Selects automatic ringout after 5 sec.
56	R2	Reverse Patch Mode 2	Selects auto. ringout w/out answering.
67	R3	Reverse Patch Mode 3	Selects telephone access paging/phone line control.

ID Commands

29	P1	Pending ID 1	Selects Pending ID 1.
30	P2	Pending ID 2	Selects Pending ID 2.
31	P3	Pending ID 3	Selects Pending ID 3.
32	SP	Special ID	Selects Special ID.
33	RP	Rotate Pending IDs	Rotates Pending ID 1-2-3.
34	RS	Rotate Pending-Special IDs	Rotates Pending ID 1-2-3 - Special ID.

Tail Message Commands

35	T1	Tail Message 1	Selects Tail Message 1.
36	T2	Tail Message 2	Selects Tail Message 2.
37	T3	Tail Message 3	Selects Tail Message 3.
38	TF	Tail Message Off	Disables Tail Messages.

Alarm Enable / Disable Commands

00	RE	Alarm Enable	Enables site alarm.
15	AD	Alarm Disable	Disables site alarm.

Speech Synthesizer Commands

16	SE	Speech Enable	Enables speech synthesizer.
17	SD	Speech Disable	Disables (turns off) speech synthesizer.
39	SI	Allow Speech Interrupt	Speech halted by user signal.
40	SO	Force Speech Talkover	Speech overrides user signal.

Logic Low Courtesy Tone Select

70	CT	Select Courtesy Tone 0	No tone
71	CT	Select Courtesy Tone 1	Bumblebee
72	CT	Select Courtesy Tone 2	Yellow Jacket
73	CT	Select Courtesy Tone 3	Shooting Star
74	CT	Select Courtesy Tone 4	Comet

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75	CT	Select Courtesy Tone 5	Stardust
76	CT	Select Courtesy Tone 6	Dunce Cap
77	CT	Select Courtesy Tone 7	Piano Chord
78	CT	Select Courtesy Tone 8	Boop
79	CT	Select Courtesy Tone 9	Beep

Initialize Command

18	-	Reset	Initializes controller, loads Macro Set 1.
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Programming Commands

Morse	Speech			
*1000	*1100	Initial ID	II	20
*1001	---	Forced CW ID	FI	12
*1002	*1102	Anxious ID	AI	12
*1003	*1103	Pending ID 1	P1	24
*1004	*1104	Pending ID 2	P2	24
*1005	*1105	Pending ID 3	P3	24
*1006	*1106	Special ID	SI	48
*1007	*1107	Tail Message 1	T1	8
*1008	*1108	Tail Message 2	T2	8
*1009	*1109	Tail Message 3	T3	8
*1010-9	*1110-9	Autodial 0-9 Service	E0-E9	6
*1020	*1120	Phone Answer	PH	16
*1021	*1121	Phone Hangup	HG	8
*1022	*1122	Alarm	AL	8
*1023	*1123	Bulletin Board #1	B1	32
*1024	*1124	Bulletin Board #2	B2	32
---	*1125	Patch Dialing Prefix	DX	6

Tone Parameters

*2000(speed)	Morse Code Speed	speed = 12-30 wpm
*2010(pitch)	Morse Code Pitch	pitch = 0-3000 Hz
*2020(pitch)	Cover Tone Pitch	pitch = 0-3000 Hz

Courtesy Tone Selection

*3001(ct)	CT SEL Logic High Tone	ct = 0-9	CT
*3002(ct)	Link Tone	ct = 0-9	CT

Timers

*4000(period)	Repeater Timeout Long	(≈30-1799 sec)	TL
*4001(period)	Repeater Timeout Short	(≈15-1799 sec)	TS
*4002(period)	Phone Answer Delay	(≈10-≈60 sec)	PA
*4003(period)	Autopatch Timer	(0, ≈60-1799 sec)	AP
*4004(period)	User Autodial Timer	(0, ≈60-1799 sec)	AU
*4005(period)	Emergency Autodial Timer	(0, ≈60-1799 sec)	AE
*4006(period)	Patch Activity Timer	(0, ≈30-1799 sec)	AA
*4007(period)	Patch Timer Extend Timer	(0, ≈30-1799 sec)	TX
*4008(period)	Tail Message Timer	(≈60-1799 sec)	TM
*4009(period)	Touch-Tone Access Timer	(0, ≈30-1799 sec)	TA
*4010(period)	Hang Timer	(≈750-≈5000 ms)	HT
*4011(period)	Spare Audio Timer	(0, ≈30-≈1799 sec)	SP
*4012(period)	ID Timer	(amateur - 360 sec, commercial - 540 or 1140 sec)	ID
*4013(period)	Ringout Timer	(≈10 - 120 sec)	RO
*4014(period)	Mode 3 Paging Talkout Timer	(≈10 - 60 sec)	TK
*4015(period)	Alarm Timer	(0, ≈10 - 1799 sec)	AL

Command Code Prefixes

*5000(prefix)	Control Operator Command	CMD
*5001(prefix)	User Function Logic Output	CMD
*5002(prefix)	Emergency Autodial	CMD
*5003(prefix)	User Loadable Autodial	CMD
*5004(prefix)	Autopatch	CMD
*5005(prefix)	Link / Remote Base	CMD
*5006(prefix)	User Autodial Load / Erase	CMD
*5007(prefix)	Demo / Bulletin Board	CMD
*5008(command)	Reverse Patch (from phone only)	CMD
*5009(command)	Spare Audio	CMD
*5010(prefix)	Patch Utilities	CMD
*5011(command)	Patch Hangup	CMD
*5012(prefix)	Two-Tone Paging	CMD
*5013(prefix)	Touch-Tone Access Mode Up/Down	CMD
*5014(command)	S-Meter Readback	CMD
*5015(prefix)	Extended User Autodial (Bank 1)	CMD
*5016(prefix)	Extended User Autodial Load/Erase	CMD
*5017(command)	Telephone Timer Extend Command	CMD
*5019(prefix)	Touch-Tone Pad Test	CMD

Emergency Autodial Numbers

*520x(telephone number) x = location 0 - 9 Phone Number

Misc. Selections

*5400	Touch-Tone patch signalling	TT
*5401	Dial Pulse signalling	DP
*5402	Enable control over repeater receiver	EC
*5403	Disable control over repeater receiver	DC
*5404	Phone line not shared	PLU
*5405	Phone line shared	PLS
*5406	UF Low True	FL
*5407	UF High True	FH
*5408	Serial Transfer High True	STH
*5409	Serial Transfer Low True	STL

Store Macro Sets

*5911	Store Macro Set #1	MACRO
*5912	Store Macro Set #2	MACRO
*5913	Store Macro Set #3	MACRO
*5914	Store Macro Set #4	MACRO
*5915	Store Macro Set #5	MACRO