

# FTDX5000 SERIES CAT OPERATION REFERENCE BOOK

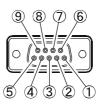
#### **O**VERVIEW

The CAT (Computer Aided Transceiver) System in the **FTDx5000** series provides control of frequency, VFO, memory, and other settings such as dual-channel memories and diversity reception using an external personal computer. This allows multiple control operations to be fully automated as single mouse clicks or keystroke operations on the computer keyboard.

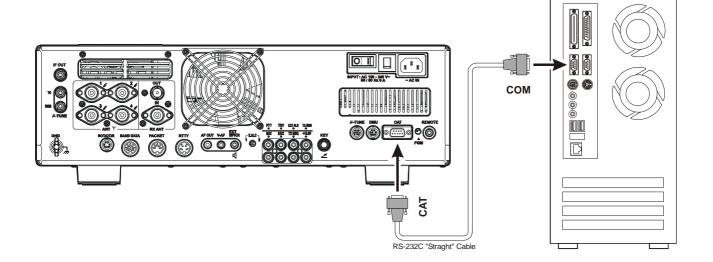
The **FTDx5000** series has a built-in level converter, allowing direct connection from the rear-panel **CAT** jack to the serial port of your computer without the need of any external boxes. You will need a serial cable for connection to the RS-232C (serial or COM port) connector on your computer. Purchase a *standard serial cable* (not the so-called "null modem" type), ensuring it has the correct gender and number of pins (some serial COM port connectors use a 9-pin rather than 25-pin configuration). If your computer uses a custom connector, you may have to construct the cable. In this case, refer to the technical documentation supplied with your computer for correct data connection.

Vertex Standard does not produce CAT System operating software due to the wide variety of personal computers and operating systems in use today. However, the information provided in this chapter explains the serial data structure and opcodes used by the CAT system. This information, along with the short programming examples, is intended to help you start writing programs on your own. As you become more familiar with CAT operation, you can customize programs later on for your operating needs and discover the true operating potential of this system.

#### **CAT JACK**



D 11	D 11	1/0	F
Pin No.	PIN NAME	1/0	Function
①	N/A	_	
2	SERIAL OUT	Output	Outputs the Serial Data from the
			transceiver to the computer.
3	SERIAL IN	Input	Inputs the Serial Data from the
			computer to the transceiver.
4	N/A		_
(5)	GND	_	Signal Ground
6	N/A	_	
7	RTS	Input	When the computer is not ready
			to receive data, this port goes to
			"L" for inhibit the transmit data
			from the transceiver.
8	CTS	Output	When the transceiver is not ready
			to receive data, this port goes to
			"L" for inhibit the transmit data
			from the computer.
9	N/A	_	_



#### CONTROL COMMAND

A computer control command is composed of an alphabetical command, various parameters, and the terminator that signals the end of the control command.

*Example*: Set the main band (VFO-A) frequency to 14.250000 MHz.

FA 14250000 ; ↑ ↑ ↑
Command Parameter Terminator

There is three for the **FTDx5000** Command as shown below:

**Set** command: Set a particular condition

(to the **FTDX5000**)

Read command: Reads an answer

(from the FTDX5000)

Answer command: Transmits a condition

(from the **FTDX5000**)

For example, note the following in the case of the FA command (Set the main band (VFO-A) frequency):

☐ To set the main band (VFO-A) frequency to 14.250000 MHz, the following command is sent from the computer to the transceiver:

"FA14250000;" (Set command)

☐ To read the main band (VFO-A) frequency, the following command is sent from the computer to the transceiver:

"FA;" (Read command)

☐ When the Read command above has been sent, the following command is returned to the computer:

"FA14250000;" (Answer command)

#### **Alphabetical Commands**

A command consists of 2 alphabetical characters.

You may use either lower or upper case characters. The commands available for this transceiver are listed in the "PC Control Command Tables" on the following pages.

#### **Parameters**

Parameters are used to specify information necessary to implement the desired command.

The parameters to be used for each command are predetermined. The number of digits assigned to each parameter is also predetermined. Refer to the "Control Command List" and the "Control Command Tables" to configure the appropriate parameters.

When configuring parameters, be careful not to make the following mistakes.

*For example*, when correct parameter is "**ISO+1000**" (IF SHIFT):

#### IS01000-

Not enough parameters specified (No direction (+) given for the IF shift)

#### IS0+100:

Not enough digits (Only three frequency digits given)

#### ISO\_+\_1000;

Unnecessary characters between parameters

#### IS0+10000;

Too many digits (Five frequency digits given)

**Note**: If a particular parameter is not applicable to the **FTDx5000**, the parameter digits should be filled using any character except the ASCII control codes (00 to 1Fh) and the terminator (;).

#### **Terminator**

To signal the end of a command, it is necessary to use a semicolon (;). The digit where this special character must appear differs depending on the command used.

## CONTROL COMMAND LIST

COMMAND	Function	SET	READ	Ans.	Al	COMMAND	Function	SET	READ	Ans.	Al
AB	VFO-A TO VFO-B	0	Х	Х	Х	MR	MEMORY READ	Х	0	0	Х
AC	ANTENNA TUNER CONTROL	0	0	0	0	MS	METER SW	0	0	0	0
AG	AF GAIN	0	0	0	0	MW	MEMORY WRITE	0	X	X	X
Al	AUTO INFORMATION	0	0	0	X	MX	MOX SET	0	0	0	0
AM	VFO-A TO MEMORY CHANNEL	0	X	X	X	NA	NARROW	0	0	0	0
AN	ANTENNA NUMBER	0	0	0	0	NB	NOISE BLANKER	0	0	0	0
BA	VFO-B TO VFO-A	0	X	X	Х	NL	NOISE BLANKER LEVEL	0	0	0	0
BC	AUTO NOTCH	0	0	0	0	NR	NOISE REDUCTION	0	0	0	0
BD	BAND DOWN	0	X	Х	Х	OI	OPPOSITE BAND INFORMATION	X	0	0	Х
BI	BREAK-IN	0	0	0	0	os	OFFSET (REPEATER SHIFT)	0	0	0	0
BP	MANUAL NOTCH	0	0	0	0	PA	PRE-AMP (IPO)	0	0	0	0
BS	BAND SELECT	0	X	Х	Х	PB	PLAY BACK	0	0	0	Х
BU	BAND UP	0	X	X	X	PC	POWER CONTROL	0	0	0	0
BY	BUSY	X	0	0		PL	SPEECH PROCESSOR LEVEL	0	0	0	0
		0	0	_	0	-			<u> </u>	_	
CA	CLASS-A CHANNEL UP/DOWN	_	X	O X	O X	PR PS	SPEECH PROCESSOR	0	0	0	O X
CH	CTCSS NUMBER	0	0	0	0		POWER SWITH  QMB STORE	0	O X	O X	X
			-	_	_	QI		<u> </u>			X
CO	CONTOUR	0	0	0	0	QR	QMB RECALL	0	X	X	$\overline{}$
CS	CW SPOT	0	0	0	0	QS	QUICK SPLIT	0	X	X	X
CT	CTCSS	0	0	0	0	RA	RF ATTENUATOR	0	0	0	0
DA	DIMMER	0	0	0	X	RC	CLAR CLEAR	0	X	X	Х
DN	DOWN	0	X	X	X	RD	CLAR DOWN	0	X	X	Х
DP	DISPLAY	0	0	0	0	RF	ROOFING FILTER	0	0	0	0
DS	DIMMER SWITCH	0	0	0	0	RG	RF GAIN	0	0	0	0
ED	ENCORDER DOWN	0	X	X	Х	RI	RADIO INFORMATION	X	0	0	0
EU	ENCORDER UP	0	X	X	X	RL	NOISE REDUCTION LEVEL	0	0	0	0
EX	MENU	0	0	0	0	RM	READ METER	X	0	0	0
FA	FREQUENCY VFO-A	0	0	0	0	RO	ROTATOR	0	0	0	Х
FB	FREQUENCY VFO-B	0	0	0	0	RS	RADIO STATUS	X	0	0	0
FR	FUNCTION RX	0	0	0	0	RT	CLAR	0	0	0	0
FS	FAST STEP	0	0	0	0	RU	CLAR UP	0	X	Х	Х
FT	FUNCTION TX	0	0	0	0	SC	SCAN	0	0	0	0
GT	AGC FUNCTION	0	0	0	0	SD	SEMI BREAK-IN DELAY TIME	0	0	0	0
ID	IDENTIFICATION	Х	0	0	X	SF	SUB-DIAL FUNCTION	0	0	0	0
IF	INFORMATION	X	0	0	0	SH	WIDTH	0	0	0	0
IS	IF-SHIFT	0	0	0	0	SM	S METER	X	0	0	0
KM	KEYER MEMORY	0	0	0	X	SQ	SQUELCH LEVEL	0	0	0	0
KP	KEY PITCH	0	0	0	0	SV	SWAP VFO	0	X	X	X
KR	KEYER	0	0	0	0	TS	TXW	0	0	0	0
KS	KEY SPEED	0	0	0	0	TX	TX SET	0	0	0	0
KY	CW KEYING	0	X	X	X	UL	UNLOCK	X	0	0	0
LK	LOCK	0	0	0	0	UP	UP	0	X	Х	Х
LM	LOAD MESSAGE	0	0	0	X	VD	VOX DELAY TIME	0	0	0	0
MA	MEMORY CHANNEL TO VFO-A	0	X	X	X	VF	VRF FILTER	0	0	0	0
MC	MEMORY CHANNEL	0	0	0	X	VG	VOX GAIN	0	0	0	0
MD	MODE	0	0	0	0	VM	[V/M] KEY FUNCTION	0	X	X	X
MG	MIC GAIN	0	0	0	0	VS	VFO SELECT	0	0	0	0
MK	MODE KEY	0	X	X	Х	VX	VOX	0	0	0	0
ML	MONITOR LEVEL	0	0	0	0	XT	TX CLAR	0	0	0	0

										10	L OOMINIAND TABLES
AB	VFC	)-Δ T	O VI	O-B							
Set	1	2	3	4	5	6	7	8	9	10	
1001	À	_		-	"	0	- '	0	9	10	
Dood	_	B	,	-	-		-		_	40	1
Read	1	2	3	4	5	6	7	8	9	10	
<u> </u>	_										
Answer	1	2	3	4	5	6	7	8	9	10	
AC	V VI	TENI	JA T	INF	R CO	NTP	ΩI				
Set	$\overline{}$			4				8		10	P1 0: Fixed P3 0: Tuner "OFF"
1 261	1 <b>A</b>	2 <b>C</b>	3 P1	P2	5 P3	6	7	°	9	10	P2 0: Fixed 1: Tuner "ON"
Read	_			_		,	-		_	40	2: Tuning Start
Reau	1	2	3	4	5	6	7	8	9	10	-
Ληοινος	Α	C	;		-		-		_	40	
Answer	1	2	3	4	5	6	7	8	9	10	
	Α	С	P1	P2	P3	;					
AG	ΛE	GAIN									
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band Receiver
1 261	A	G	P1	P2	P2	P2		, °	9	10	1: Sub (VFO-B) Band Receiver
Dood	+			<del>                                     </del>			,			40	P2 000 - 255
Read	1	2	3	4	5	6	7	8	9	10	
Λρονιοτ	Α	G	P1	,	-	_	-	_	_	4.0	
Answer	1	2	3	4	5	6	7	8	9	10	
	Α	G	P1	P2	P2	P2	;				
Al	ΔII.		IFOF	ΜΔΤ	TION						
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Auto Information "OFF"
1001	À	I	P1	-	"	0	- '	0	9	10	1: Auto Information "ON"
Read	1 1	2		,	-	_	7	0	0	10	This parameter is set to "0" (OFF) automatically when the transceiver is turned "OFF."
Neau		_	3	4	5	6		8	9	10	This parameter is set to 0 (011) automationly when the transceiver is turned 011.
A	Α	1	,	<b>.</b>	-	-	-	_	_		
Answer	1	2	3	4	5	6	7	8	9	10	
	Α	ı	P1	;							
AM	VEC	)_	O M	FM0	RY C	1VH,	INFI				
Set	1	2	3	4	5	6	7	8	9	10	
001	A	M		-	"	"	<u> </u>	-	3	10	
Read	1	2	3	4	5	6	7	8	9	10	
INEau	<u> </u>		3	4	3	0		0	9	10	-
Λροινος	<del>                                     </del>	_	_		-	_	-		_	40	1
Answer	1	2	3	4	5	6	7	8	9	10	
AN	AN'	TFNI	N A	UMB	FR						
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band P2 1: ANT "1" P3 1: ANT "1"
•••	A	N	P1	P2	<u>.</u>	Ť	i i	<u> </u>	<u> </u>		1: Sub (VFO-B) Band 2: ANT "2" 2: ANT "2"
Read	1	2	3	4	5	6	7	8	9	10	3: ANT "3" 3: ANT "3"
Incad	A	N	P1	;	"	0	- '	0	9	10	4: ANT "4" 4: ANT "4"
Angwor					-	_	7	,	_	10	5: ANT "RX" P4 0: ANT "RX" "OFF"
Answer	1	2	3	4	5	6	7	8	9	10	1: ANI "RX" "ON"
	Α	N	P1	P3	P4	,					
ВА	VFC	)-B 1	O VI	FO-A							
Set	1	2	3	4	5	6	7	8	9	10	
	В	A	:	Ė	Ť	Ť	Ė	Ť	Ť	<u> </u>	
Read	1	2	3	4	5	6	7	8	9	10	1
	Ė	<del>-</del>	۳	+	۲	۲	<del>'</del>	Ť	۳		
Answer	1	2	2	4	-	6	7	0	9	10	
Answer	1	2	3	+	5	6	7	8	1 3	10	
							1				
ВС	ΔII	TO N	ОТС	н							
Set	1 1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band Receiver
001	В	C	P1	P2		-	+'-	l °	1 3	10	1: Sub (VFO-B) Band Receiver
Pood	_			_	,		-		_	40	P2 0: Auto Notch "OFF"
Read	1	2	3	4	5	6	7	8	9	10	1: Auto Notch "ON"
Λ	В	C	P1	,	<del>  -</del>	<u> </u>	<del>  _</del>	_	-		
Answer	1	2	3	4	5	6	7	8	9	10	
	В	С	P1	P2	ļ ;						
BD	RΛΙ	ם חוי	(WO	J							
Set	1 DAI	2		$\overline{}$	5	6	7	8	9	10	P1 0: Main (VFO-A) Band
Joel	_		3	4	5	Ь	'	ď	Э	10	1: Sub (VFO-B) Band
Read	В	D	P1	,	-	-	-	_	_	4.0	
I Neau	1	2	3	4	5	6	7	8	9	10	
A .c : :	H-	-	-			-	-	_	-	-	
Answer	1	2	3	4	5	6	7	8	9	10	

BI	BRE	EAK-	IN									
Set	1	2	3	4	5	6	7	8	9	10	P1	0: Break-in "OFF"
	В	ı	P1	;								1: Break-in "ON"
Read	1	2	3	4	5	6	7	8	9	10		
	В	ı	;									
Answer	1	2	3	4	5	6	7	8	9	10		
	В	- 1	P1	;								
	В	ı	PT	į,								

BP	MAI	NUA	L NO	TCH								
Set	1	2	3	4	5	6	7	8	9	10	P1	0: Main (VFO-A) Band Receiver P3 When P2=0
	В	Р	P1	P2	P3	P3	P3	;			]	1: Sub (VFO-B) Band Receiver 000: OFF
Read	1	2	3	4	5	6	7	8	9	10	1 P2	0: Manual NOTCH "ON/OFF" 001: ON 1: Manual NOTCH LEVEL When P2=1
	В	Р	P1	P2	;							001 - 400 (NOTCH Frequency : x 10 Hz )
Answer	1	2	3	4	5	6	7	8	9	10		,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	R	Р	P1	P2	P3	Р3	Р3	-			1	

BS Set	BAI	ND S	ELEC	СТ							
Set	1	2	3	4	5	6	7	8	9	10	P1 00: 1.8 MHz 06: 18 MHz
	В	S	P1	P1	;						01: 3.5 MHz 07: 21 MHz
Read	1	2	3	4	5	6	7	8	9	10	02: - 08: 24.5 MHz 03: 7 MHz 09: 28 MHz
											03. 7 NH 2 03. 20 NH 2 04: 10 MHz 10: 50 MHz
Answer	1	2	3	4	5	6	7	8	9	10	05: 14 MHz 11: GEN

<b>BU</b> Set	BAI	ND U	Р								
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band
	В	U	P1	;							1: Sub (VFO-B) Band
Read	1	2	3	4	5	6	7	8	9	10	
Answer	1	2	3	4	5	6	7	8	9	10	

BY	BUS	SY									
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band BUSY "OFF"
											1: Main (VFO-A) Band BUSY "ON"
Read	1	2	3	4	5	6	7	8	9	10	P2 0: Sub (VFO-B) Band BUSY "OFF" 1: Sub (VFO-B) Band BUSY "ON"
	В	Υ	;								1.3ub (VI 0-b) Band B031 ON
Answer	1	2	3	4	5	6	7	8	9	10	
	В	Υ	P1	P2	;						]

CA	CLA	SS-	A								
Set	1	2	3	4	5	6	7	8	9	10	P1 0:CLASS-A ON/OFF
	С	Α	P1	P2	P2	P2	;				1: BIAS LEVEL
Read	1	2	3	4	5	6	7	8	9	10	P2 When P1=0 000: OFF
	С	Α	P1	;							001: ON
Answer	1	2	3	4	5	6	7	8	9	10	When P1=1
	С	Α	P1	P2	P2	P2	;				001 - 100

CH	CH/	ANNE	EL UI	P/DO	WN							
Set	1	2	3	4	5	6	7	8	9	10	P1	0: Memory Channel "UP"
	С	Н	P1	;								1: Memory Channel "DOWN"
Read	1	2	3	4	5	6	7	8	9	10		
Answer	1	2	3	4	5	6	7	8	9	10	1	

CN	СТС	CSS T	TONE	FR	EQU	ENC'	Υ				
Set	1	2	3	4	5	6	7	8	9	10	
	С	N	P1	P2	P2	;					1: Sub (VFO-B) Band Receiver
Read	1	2	3	4	5	6	7	8	9	10	P2 0 - 49: Tone Frequency Number
	С	N	P1	;							
Answer	1	2	3	4	5	6	7	8	9	10	
	С	N	P1	P2	P2	;					<u>]                                    </u>

					CTCSS To	ONE CH	IART				
00	67.0 Hz	09	91.5 Hz	18	123.0 Hz	27	162.2 Hz	36	189.9 Hz	45	229.1 Hz
01	69.3 Hz	10	94.8 Hz	19	127.3 Hz	28	165.5 Hz	37	192.8 Hz	46	233.6 Hz
02	71.9 Hz	11	97.4 Hz	20	131.8 Hz	29	167.9 Hz	38	196.6 Hz	47	241.8 Hz
03	74.4 Hz	12	100.0 Hz	21	136.5 Hz	30	171.3 Hz	39	199.5 Hz	48	250.3 Hz
04	77.0 Hz	13	103.5 Hz	22	141.3 Hz	31	173.8 Hz	40	203.5 Hz	49	254.1 Hz
05	79.7 Hz	14	107.2 Hz	23	146.2 Hz	32	177.3 Hz	41	206.5 Hz		_
06	82.5 Hz	15	110.9 Hz	24	151.4 Hz	33	179.9 Hz	42	210.7 Hz	_	_
07	85.4 Hz	16	114.8 Hz	25	156.7 Hz	34	183.5 Hz	43	218.1 Hz	_	_
08	88.5 Hz	17	118.8 Hz	26	159.8 Hz	35	186.2 Hz	44	225.7 Hz	_	_

СО	COL	NTOI	JR									
Set				4	F	_	7	0	0	40	D4	0: Main (VEO A) Band Bassiyar B2 When B2 0
Set	1	2	3	4	5	6	7	8	9	10	P1	0: Main (VFO-A) Band Receiver P3 When P2=0,
	С	0	P1	P2	P3	P3	;					1: Sub (VFO-B) Band Receiver 000: CONTOUR/APF "OFF"
Read	1	2	3	4	5	6	7	8	9	10	P2	0: CONTOUR/APF "ON/OFF" 001: CONTOUR "ON"
111000	$\overline{}$									-10	l	1: CONTOUR FREQUENCY 002: APF "ON"
	С	0	P1	P2	;							When P2=1,
Answer	1	2	3	4	5	6	7	8	9	10	l	01 - 40 (CONTOUR FREQUENCY)
1	С	0	P1	P2	P3	P3	:				i	100 ~ 4000 Hz
	L	U	[ ]	۲۷	rs	۲٥	,					100 1000112
00	0147	000	_									
CS	CW	SPC	) [									
Set	1	2	3	4	5	6	7	8	9	10	P1	0: OFF
	С	S	P1	:							1	1: ON
-				,							l	
Read	1	2	3	4	5	6	7	8	9	10	l	
1	С	S									1	
Answer			,	4	-	_	7	0	0	40	1	
Allswei	1	2	3	4	5	6	7	8	9	10		
	C	S	P1	;							l	
СТ	СТС	SS										
_					-	_	-		_	40	Б4	O. Maia (VEO A) Band Bandina
Set	1	2	3	4	5	6	7	8	9	10	P1	0: Main (VFO-A) Band Receiver
	C	Т	P1	P2	1:						l	1: Sub (VFO-B) Band Receiver
Read	1	2	3	4	5	6	7	8	9	10	P2	0: CTCSS "OFF"
Noau	-		_		٦	U	'	U	J	10	l	1: CTCSS ENC/DEC "ON"
	С	T	P1	;							1	2: CTCSS ENC "ON"
Answer	1	2	3	4	5	6	7	8	9	10	l	
						_		-			l	
	С	<u>T</u>	P1	P2	_ ;							
DA	DIM	MER	1									
Set	1	2	3	4	5	6	7	8	9	10	P1	00 - 15: VFD Backlight Brightness Level
1		_			_		_		P4	P4		00 - 15: Meter Brightness Level
	D	Α	P1	P1	P2	P2	P3	P3	P4	P4		00 - 15: OLE Brightness Level
Read	1	2	3	4	5	6	7	8	9	10		
1	D	Α	:								P4	00 - 15: ELCD (SM-5000) Brightness Level
<u> </u>	+-	_	<del></del>								l	
Answer	1	2	3	4	5	6	7	8	9	10		
1	lъ	Α	P1	P1	P2	P2	P3	P3	P4	P4	l	
Cot	_								_	_	i	
Set	11	12	13	14	15	16	17	18	19	20		
1	l ;										l	
Read	11	12	13	14	15	16	17	18	19	20	1	
Incad		12	13	14	13	10	17	10	19	20		
Answer	11	12	13	14	15	16	17	18	19	20	l	
	-		_								1	
1	1 .	l		l	1							
	;											
		DIM	N									
DN		DW	N									
		<b>DW</b>	<b>N</b>	4	5	6	7	8	9	10		
DN	MIC	2		4	5	6	7	8	9	10		
DN Set	MIC 1 D	2 <b>N</b>	3									
DN	MIC	2	3	4	5	6	7	8	9	10		
DN Set	MIC 1 D	2 <b>N</b>	3									
DN Set Read	1 D	2 <b>N</b> 2	3 ;	4	5	6	7	8	9	10		
<b>DN</b> Set	MIC 1 D	2 <b>N</b>	3									
DN Set Read	1 D	2 <b>N</b> 2	3 ;	4	5	6	7	8	9	10		
DN Set Read Answer	, MIC 1 D 1	2 N 2	3 ; 3	4	5	6	7	8	9	10		
DN Set Read Answer	, MIC 1 D 1	2 <b>N</b> 2	3 ; 3	4	5	6	7	8	9	10		
DN Set Read Answer	, MIC 1 D 1	2 N 2	3 ; 3	4	5	6	7	8	9	10	P1	0: World Clock Display *: This command does not acti-
DN Set Read Answer	, MIC 1 D 1	2 N 2 2	3 3 3	4	5	6	7	8	9	10	P1	1: Band Scope Display vates when the optional Data
DN Set Read Answer  DP Set	, MIC 1 D 1 1 DIS	2 N 2 2 PLAY 2 P	3 ; 3 3 P1	4 4 ;	5 5	6	7 7 7	8 8	9 9	10	P1	
DN Set Read Answer	, MIC 1 D 1 1 DIS 1 DIS 1 D 1	2 N 2 2 PLA 2 P	3 ; 3 3 P1 3	4	5	6	7	8	9	10	P1	1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display Managemnt Unit is not attached.
DN Set Read Answer  DP Set	, MIC 1 D 1 1 DIS	2 N 2 2 PLAY 2 P	3 ; 3 3 P1	4 4 ;	5 5	6	7 7 7	8 8	9 9	10	P1	1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display Managemnt Unit is not attached. 3: Log Book Display
DN Set Read Answer  DP Set Read	, MIC 1 D 1 1 DIS 1 D 1 D D 1 D D 1 D D D D D D D D D D	2 N 2 2 PLAY 2 P 2	3 ; 3 3 P1 3 ;	4 4 ;	5 5 5	6 6	7 7 7	8 8 8	9 9 9	10	P1	1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display Managemnt Unit is not attached. 3: Log Book Display 4: Temperature/SWR Display
DN Set Read Answer  DP Set	, MIC 1 D 1 1 DIS 1 D 1 D 1 D 1 D 1 D 1 D 1	2 N 2 2 PLA 2 P 2 P	3 ; 3 3 P1 3 ; 3	4 4 ; 4	5 5	6	7 7 7	8 8	9 9	10	P1	1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display
DN Set Read Answer  DP Set Read	, MIC 1 D 1 1 DIS 1 D 1 D D 1 D D 1 D D D D D D D D D D	2 N 2 2 PLAY 2 P 2	3 ; 3 3 P1 3 ;	4 4 ;	5 5 5	6 6	7 7 7	8 8 8	9 9 9	10	P1	1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display Managemnt Unit is not attached. 3: Log Book Display 4: Temperature/SWR Display
DN Set Read Answer  DP Set Read Answer	, MIC 1 D 1 1 DIS 1 D 1 D 1 D 1 D 1 D 1 D 1 D 1 D	2 N 2 2 PLAY 2 P 2 P 2 P	3 3 3 91 3 P1 3 P1	4 4 ;	5 5 5	6 6	7 7 7	8 8 8	9 9 9	10	P1	1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display
DN Set Read Answer  DP Set Read	, MIC 1 D 1 1 DIS 1 D 1 D 1 D 1 D 1 D 1 D 1 D 1 D 1 D 1	2 N 2 2 PLAY 2 P 2 P 2 P	3 3 3 91 3 P1 3 P1	4 4 ; 4	5 5 5	6 6	7 7 7	8 8 8	9 9 9	10	P1	1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display
DN Set Read Answer  DP Set Read Answer	MIC   1   D   1   D   1   D   D   1   D   D	2 N 2 2 PLAY 2 P 2 P 2 P P	3 ; 3 3 P1 3; 3 P1 8 SW	4 4 ; 4 ;	5 5 5 5	6 6 6	7 7 7 7	8 8 8	9 9 9	10 10 10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display
DN Set Read Answer  DP Set Read Answer	MIC   1	2 N 2 2 P 2 P 2 P 2 P	3 ; 3 3 P1 3 ; 3 P1 2 8 SW	4 4 ; 4 ; ITCH	5 5 5	6 6	7 7 7	8 8 8	9 9 9	10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF"
DN Set Read Answer  DP Set Read Answer  DS Set	MIC   1   D   1   D   1   D   D   1   D   D	2 N 2 2 P 2 P 2 P 2 P 2 P	3 ; 3 3 P1 3; 3 P1 3; 2 SW 3 P1	4 4 ; 4 ; ; ITCH 4 ;	5 5 5	6 6 6	7 7 7 7 7	8 8 8	9 9 9	10 10 10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display
DN Set Read Answer  DP Set Read Answer	MIC   1	2 N 2 2 P 2 P 2 P 2 P	3 ; 3 3 P1 3 ; 3 P1 2 8 SW	4 4 ; 4 ; ITCH	5 5 5 5	6 6 6	7 7 7 7	8 8 8	9 9 9	10 10 10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF"
DN Set Read Answer  DP Set Read Answer  DS Set	MICC   1	2 N 2 2 P 2 P 2 P 2 P 2 P 2 S 3	3; 3 3 7 3 P1 3; 3 P1 3 P1 3 P1 3 3	4 4 ; 4 ; ; ITCH 4 ;	5 5 5	6 6 6	7 7 7 7 7	8 8 8	9 9 9	10 10 10 10 10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF"
DN Set Read Answer  DP Set Read Answer  DS Set Read	MICC   1	2 N 2 2 P 2 P 2 P 2 S 2 S S	3; 3 3 7 3 P1 3; 3 P1 3; 3 P1 3;; 3;	4 	5 5 5 5 5 5	6 6 6	7 7 7 7 7	8 8 8 8	9 9 9 9	10 10 10 10 10 10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF"
DN Set Read Answer  DP Set Read Answer  DS Set	MICC   1	2 N 2 2 P 2 P 2 P 2 P 2 P 2 S 3	3; 3 3 7 3 P1 3; 3 P1 3 P1 3 P1 3 3	4 4 ; 4 ; ; ITCH 4 ;	5 5 5	6 6 6	7 7 7 7 7	8 8 8	9 9 9	10 10 10 10 10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF"
DN Set Read Answer  DP Set Read Answer  DS Set Read	MICC   1	2 N 2 2 P 2 P 2 P 2 S 2 S 2	3; 3 3 P1 3; 3 P1 3; 3 P1 3; 3 P1 3;	4 4 ; 4 ; 1TCH 4 ;	5 5 5 5 5 5	6 6 6	7 7 7 7 7	8 8 8 8	9 9 9 9	10 10 10 10 10 10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF"
DN Set Read Answer  DP Set Read Answer  DS Set Read	MICC   1	2 N 2 2 P 2 P 2 P 2 P 2 S 2 S S	3; 3 3 7 3 P1 3; 3 P1 3; 3 P1 3;; 3;	4 	5 5 5 5 5 5	6 6 6	7 7 7 7 7	8 8 8 8	9 9 9 9	10 10 10 10 10 10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF"
DN Set Read Answer  DP Set Read Answer  Read Answer  Answer	MIC   1   D	2 N 2 2 PLAY 2 P 2 P 2 P 2 S S 2 S S	3; 3 3 3 P1 3; 3 P1 3; 3 P1 3; 7 P1 P1	4 4 ; 4 ; 1TCH 4 ; 4	5 5 5 5 5 5	6 6 6	7 7 7 7 7	8 8 8 8	9 9 9 9	10 10 10 10 10 10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF"
DN Set Read Answer  DP Set Read Answer  DS Set Read Answer	MIC   1	2 N 2 2 PLA 2 P 2 P 2 P S 2 S S CORI	3; 3 3 91 3; 3 P1 3; 3 P1 3; 3 P1 DER	4 4 ; 4 4 ; TTCH 4 ; 4	5 5 5 5 5 5	6 6 6 6	7 7 7 7 7 7 7 7	8 8 8 8 8	9 9 9 9 9	10 10 10 10 10 10	P1	1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF" 1: DIMMER "ON"
DN Set Read Answer  DP Set Read Answer  Read Answer  Answer	MIC   1   D	2 N 2 2 PLAY 2 P 2 P 2 P 2 S S 2 S S	3; 3 3 3 P1 3; 3 P1 3; 3 P1 3; 7 P1 P1	4 4 ; 4 ; 1TCH 4 ; 4	5 5 5 5 5 5	6 6 6	7 7 7 7 7	8 8 8 8	9 9 9 9	10 10 10 10 10 10		1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF"
DN Set Read Answer  DP Set Read Answer  DS Set Read Answer	MICC   1	2 N 2 2 P P 2 P P 2 P P S S 2 S S CORI 2	3; 3 3 91 3; 3 P1 3; 3 P1 3; 3 P1 3; 7 3 P1 3 3 P1 3 3 P1 3 3 P1 3 R1 3 R1 3 R	4 4 ; 4 4 ; ITCH 4 ; 4 4 ;	5 5 5 5 5 5 5	6 6 6 6	7 7 7 7 7 7 7 7	8 8 8 8 8	9 9 9 9 9	10 10 10 10 10 10	P1	1: Band Scope Display vates when the optional Data 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF" 1: DIMMER "ON"
DN Set Read Answer  DP Set Read Answer  DS Set Read Answer  ED Set	MIC   1	2 N 2 2 P 2 P 2 P 2 P S 2 S S CORI 2 D	3; 3 3 91 3; 3 P1 3; 3 P1 3; 3 P1 3 P1 3 P1 3 P1	4 4 ; 4 4 ; ITCH 4 ; 4 4 ;	5 5 5 5 5 5 5 7 7 8	6 6 6 6 ;	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9	10 10 10 10 10 10 10	P1	1: Band Scope Display 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF" 1: DIMMER "ON"  0: MAIN ENCORDER 1: SUB ENCORDER
DN Set Read Answer  DP Set Read Answer  DS Set Read Answer	MICC   1	2 N 2 2 P P 2 P P 2 P P S S 2 S S CORI 2	3; 3 3 91 3; 3 P1 3; 3 P1 3; 3 P1 3; 7 3 P1 3 3 P1 3 3 P1 3 3 P1 3 R1 3 R1 3 R	4 4 ; 4 4 ; ITCH 4 ; 4 4 ;	5 5 5 5 5 5 5	6 6 6 6	7 7 7 7 7 7 7 7	8 8 8 8 8	9 9 9 9 9	10 10 10 10 10 10	P1	1: Band Scope Display 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF" 1: DIMMER "ON"  0: MAIN ENCORDER 1: SUB ENCORDER 2: MAIN Select
DN Set Read Answer  DP Set Read Answer  DS Set Read Answer	MIC   1	2 N 2 2 P 2 P 2 P 2 P S 2 S S CORI 2 D	3; 3 3 91 3; 3 P1 3; 3 P1 3; 3 P1 3 P1 3 P1 3 P1	4 4 ; 4 4 ; ITCH 4 ; 4 4 ;	5 5 5 5 5 5 5 7 7 8	6 6 6 6 ;	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9	10 10 10 10 10 10 10	P1	1: Band Scope Display 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF" 1: DIMMER "ON"  0: MAIN ENCORDER 1: SUB ENCORDER 2: MAIN Select 3: SUB Select
DN Set Read Answer  DP Set Read Answer  DS Set Read Answer  ED Set Read	MICC   1	2 N 2 2 P 2 P 2 P 2 P 2 S 2 S 2 S CORI 2 D 2	3; 3 3 91 3; 3 P1 3; 3 P1 3; 3 P1 3 P1 3 P1 3 P1	4 4 ; 4 ; ; ITCH 4 ; 4 ; P2 4	5 5 5 5 5 5 5 7 8	6 6 6 6 7 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8 8 8	9 9 9 9 9 9 9 9	10 10 10 10 10 10 10 10	P1	1: Band Scope Display 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF" 1: DIMMER "ON"  0: MAIN ENCORDER 1: SUB ENCORDER 2: MAIN Select
DN Set Read Answer  DP Set Read Answer  DS Set Read Answer  ED Set	MIC   1	2 N 2 2 P 2 P 2 P 2 P S 2 S S CORI 2 D	3; 3 3 91 3; 3 P1 3; 3 P1 3; 3 P1 3 P1 3 P1 3 P1	4 4 ; 4 4 ; ITCH 4 ; 4 4 ;	5 5 5 5 5 5 5 7 7 8	6 6 6 6 ;	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9	10 10 10 10 10 10 10	P1	1: Band Scope Display 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF" 1: DIMMER "ON"  0: MAIN ENCORDER 1: SUB ENCORDER 2: MAIN Select 3: SUB Select
DN Set Read Answer  DP Set Read Answer  DS Set Read Answer  ED Set Read	MICC   1	2 N 2 2 P 2 P 2 P 2 P 2 S 2 S 2 S CORI 2 D 2	3; 3 3 91 3; 3 P1 3; 3 P1 3; 3 P1 3 P1 3 P1 3 P1	4 4 ; 4 ; ; ITCH 4 ; 4 ; P2 4	5 5 5 5 5 5 5 7 8	6 6 6 6 7 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8 8 8	9 9 9 9 9 9 9 9	10 10 10 10 10 10 10 10	P1	1: Band Scope Display 2: AF Oscilloscope/Spectrum Analyzer Display 3: Log Book Display 4: Temperature/SWR Display 5: Rotator Display 6: Memory Channel List Display  0: DIMMER "OFF" 1: DIMMER "ON"  0: MAIN ENCORDER 1: SUB ENCORDER 2: MAIN Select 3: SUB Select

#### CONTROL COMMAND TABLES

EU	ENC	CORI	DER	UP							
Set	1	2	3	4	5	6	7	8	9	10	
	Е	U	P1	P2	P2	;					1: SUB ENCORDER
Read	1	2	3	4	5	6	7	8	9	10	2: MAIN Select 3: SUB Select
											P2 01-99: Steps
Answer	1	2	3	4	5	6	7	8	9	10	·

EX	MEN	UV									
Set	1	2	3	4	5	6	7	8	nn	**	P1 : 001-176 (MENU Number)
	Е	Х	P1	P1	P1	P2	P2	~	P2	;	P2 : Parameter
Read	1	2	3	4	5	6	7	8	9	10	See Table 1 - Table 3
	Е	Х	P1	P1	P1	;					
Answer	1	2	3	4	5	6	7	8	nn	**	
	Е	Χ	P1	P1	P1	P2	P2	~	P2	;	

#### TABLE 1

P1	FUNCTION	P2	BYTE
001	MAIN-FAST-DELAY	0020~4000 (20msec/step)	4
002	MAIN-FAST-HOLD	0000~2000 (20msec/step)	4
003	MAIN-MID-DELAY	0020~4000 (20msec/step)	4
004	MAIN-MID-HOLD	0000~2000 (20msec/step)	4
005	MAIN-SLOW-DELAY	0020~4000 (20msec/step)	4
006	MAIN-SLOW-HOLD	0000~2000 (20msec/step)	4
007	TFT COLOR	0: COOL BLUE, 1: CONTRAST BLUE, 2: FLASH WHITE, 3: CONTRAST UMBER, 4: UMBER	1
008	DIMMER-METER	00~15	2
009	DIMMER-VFD	00~15	2
010	DIMMER-OLE	00~15	2
011	DIMMER-E.LCD	00~15	2
012	BAR DISPLAY SELECT	0: CLAR, 1: CW TUNE	1
013	SUB MTR PEAK HOLD	0: OFF, 1: 0.5, 2: 1.0, 3: 2.0 (sec)	1
014	ROTATOR START UP	0: 0°, 1: 90°, 2: 180°, 3: 270°	1
	ROTATOR OFFSET ADJ	-30~0 (P2 = 30~00) (2°step)	2
016	QMB MARKER LEVEL INDICATOR	0: DISABLE, 1: ENABLE	1
017		00000000000 ~ 111111111111 (see Page 9)	13
-	INDICATOR	0: VFD, 1: OEL	1
019	SELECT DY OUT LEVEL	0: PTN1, 1: PTN2	1
020	RX OUT LEVEL	000~100	3
021 022	TX OUT LEVEL BEACON TIME	000~100 OFF/001~255sec (0: OFF)	3
	NUMBER STYLE	0: 1290, 1: AUNO, 2: AUNT, 3: A2NO, 4: A2NT, 5: 12NO, 6: 12NT	1
023	CONTEST NUMBER	0.1290, 1. AUNO, 2. AUN1, 3. AZNO, 4. AZN1, 5. 12NO, 6. 12N1 0000~9999	4
024	CW MEMORY 1	0: TEXT, 1: MESSAGE	1
	CW MEMORY 2	0: TEXT, 1: MESSAGE	1
027	CW MEMORY 3	0: TEXT, 1: MESSAGE	1
028	CW MEMORY 4	0: TEXT, 1: MESSAGE	1
029	CW MEMORY 5	0: TEXT, 1: MESSAGE	1
	ANT SELECT	0: BAND, 1: STACK	1
031	BEEP LEVEL	000-100	3
032	CAT RATE	0: 4800, 1: 9600, 2: 19200, 3: 38400 (bps)	1
033	CAT TIME OUT TIMER	0: 10, 1: 100, 2: 1000, 3: 3000 (msec)	1
034	CAT RTS	0: DISABLE, 1: ENABLE	1
035	CAT DATA INDICATOR	0: DISABLE, 1: ENABLE	1
036	MEM GROUP	0: DISABLE, 1: ENABLE	1
037	QUICK SPLIT FREQ	-20 ~ +20 kHz (P2 = -20 ~ +00 ~ +20)	3
038	TRACKING	0: OFF, 1: BAND, 2: FREQ	1
039	TIME OUT TIMER	OFF/01~30min	2
040	TRV OFFSET (14MHz)	30: 30, 31: 31, 32: 32 ~ 44: 44, 45: 45, 46: 46 (MHz)	2
041	TRV OFFSET (28MHz)	30: 30, 31: 31, 32: 32 ~ 44: 44, 45: 45, 46: 46 (MHz)	2
042	TRV OFFSET (50MHz)	30: 30, 31: 31, 32: 32 ~ 44: 44, 45: 45, 46: 46 (MHz)	2
043	uTUNE DIAL STEP	0: DIAL STEP-2, 1: DIAL STEP-1, 2: OFF	1
044	MIC SCAN	0: DISABLE, 1: ENABLE	1
045	MIC SCAN RESUME	0: PAUSE, 1: TIME	1
046	FREQ ADJ	-25~0~+25 (P2 = -25 ~ +00 ~ +25)	3
047	AM LCUT FREQ	00: OFF, 01: 100Hz, ~, 19: 1000Hz (50Hz/step)	2
048	AM LCUT SLOPE	0: 6dB/oct, 1: 18dB/oct	1
049	AM HCUT FREQ	00: OFF, 01: 700Hz, ~, 67: 4000Hz (50Hz/step)	2
050	AM HCUT SLOPE	0: 6dB/oct, 1: 18dB/oct	1
051	AM MIC GAIN	MCVR/FIX(0~100) (P2 = 1000: MCVR, 0000~0100: FIX(0~100))	4
052	AM MIC SEL	0: FRONT, 1: DATA, 2: PC	1
053	CW LCUT FREQ	00: OFF, 01: 100Hz, ~, 19: 1000Hz (50Hz/step)	2
054	CW LCUT SLOPE	0: 6dB/oct, 1: 18dB/oct	1
055	CW HCUT FREQ	00: OFF, 01: 700Hz, ~, 67: 4000Hz (50Hz/step)	2
056	CW HCUT SLOPE	0: 6dB/oct, 1: 18dB/oct	1
057	F-KEYER TYPE	0: OFF, 1: BUG, 2: ELEKEY, 3: ACS	1
	F-CW KEYER	0: NOR, 1: REV	1
	R-KEYER TYPE	0: OFF, 1: BUG, 2: ELEKEY, 3: ACS	1
	R-CW KEYER	0: NOR, 1: REV	1
061	CW AUTO MODE	0: OFF, 1: 50M, 2: ON	1
	CW BFO	0: USB, 1: LSB, 2: AUTO	1
063	CW BK-IN	0: SEMI, 1: FULL	1
	CW WAVE SHAPE	0: 1, 1: 2, 2: 4, 3: 6 (msec)	1
065	CW WEIGHT	2.5~3.0~4.5 (P2 = 25~45)	2
066	CW FREQ DISPLAY	0: DIRECT FREQ, 1: PITCH OFFSET	1
067	PC KEYING	0: DISABLE, 1: ENABLE	1

## CONTROL COMMAND TABLES

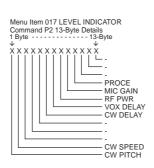
#### TABLE 2

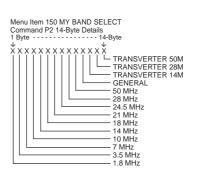
Part	100	
Description	BY	BYT
Description		1
Description		1
OFF   DAY, OUT   EVERY   ON-100   ON-		3
DOTS   DATA COST EVEL   DOS-100   DOS-1000 - SOUTH (SPENDING)		
1973   DAY OVS CREAT		3
077   PALVOY FRO		
DEF   PAIL CUT PREC   DO FF. 01 - 100 Mar.   DO FF. 01 - 100 Mar.   Gölfuchenen		4
OFF   PRINCIP SECRET   OFF   PRINCIP SECRET   OFF		3
Control   Cont		2
Control   Cont		1
OFF   PM MC SOPE		2
Description		1
Description		
Col.   Sept.   Sept.   Col.   Col.		4
DEC.   PRT ICHT PREC   DO OPT 0.1 (1002 - 1000 -		1
USA   PRT LOUT FREQ	/	4
DEST   PRIT LOUT FRED		4
0.64   PKT LCUT SLOPE		2
0.00   PRT HOUT FREQ		1
0.00		
1007   PKT DISP (SSS)		2
SSE   TEXT   STEP   SSE   SSOU SSOU -   D - SSOU -   D   COPUTA   COP		1
		5
080   RTYL CUT FREC	- 1	5
DOI:   RTTY LCUT SLOPE		2
OFFICE   O		
0.8.1   16 (Biboon)   0.8.1   16 (Biboon)		1
DOLARITY   DOLARITY   DOLARY   SERVICE   DOLARITY   DOLARY   DOLARITY   DOLARY   DOLARITY   DOLARY		2
O-NOR, 1: REV   O-NOR, 1: REV   O-NOR, 1: REV   O-NOR, 1: VPC-8   O-NOR, 1: VPC-9   O-NOR, 1: VPC-9		1
094   POLARITY   0. NOR. 1: REV   0. WO. 1: VIPO-B   0. WOR. 1:		1
0.95   RTTY OUT		1
1995   RTYY OUT LEVEL		1
1997   NTTY SHIFT		3
G89   STYT YONE		
1999   SSB LCUT FREQ   00. OFF, 01. 110 oF18   1000Hz (SoHzdrep)		1
100 SSB LCUT SLOPE		1
101   SSB HOUT FRED   00: OFF. 011.700 – 67. 4000 Pt. (50Hz/shep)		2
101   SSB HOUT FRED   00: OFF. 011.700 – 67. 4000 Pt. (50Hz/shep)		1
102   SSB HCUT SLOPE		2
103   SSB MIC SELECT   0. FRONT, 1: DATA, 2: PC   104   SSB TX-R3PF   0. 50. 3000, 1: 100-2000, 2: 200-2800, 3: 300-2700, 4: 400-2600(Hz), 5: 3000WB   105   SSB RX-CARRIER   -2001+2-0-4200 Hz (10Hz/sspp) (P2 = -200 - +000 + +200)   106   USB RX-CARRIER   -2001+2-0-4200 Hz (10Hz/sspp) (P2 = -200 + +000 + +200)   107   AGC-SLOPE   0. NORMAL, 1: SLOPE   0. NORMAL, 1: SLOPE   108   HEADPHONE MIX   0. SEPARATE, 1: COMBINE-1, 2: COMBINE-2   109   HEADPHONE MIX   0. SEPARATE, 1: COMBINE-1, 2: COMBINE-2   100   FOUT   0. ENABLE, 1: DISABLE   101   HEADPHONE MIX   0. SEPARATE, 1: COMBINE-2   102   MAIN-CONTOUR-LEVEL   0. ENABLE, 1: DISABLE   103   MAIN-CONTOUR-LEVEL   -40-0-20 (P2 = +40 + +00 - +20)   114   MAIN-CONTOUR-LEVEL   -40-0-20 (P2 = +40 + +00 - +20)   115   MAIN-CONTOUR-WIDTH   0. NARROW, 1: WIDE   116   MAIN-CW SLOPE   0. SEPER, 1: MEDIUM, 2: GENTLE   117   MAIN-PSK SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   118   MAIN-CW SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   120   MAIN-RY SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   121   MAIN-RY SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   122   MAIN-SS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   123   MAIN-SS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   124   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   125   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   126   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   127   MAIN-SS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   128   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   129   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   120   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   121   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   122   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   123   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   124   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   125   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   126   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   127   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   128   SUB-RYS SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE   129   SUB-RYS SLOPE		1
104   SSB-TX-RPF		1
105   LSB RX-CARRIER		_
USB RX-CARRIER		1
AGC-SLOPE		4
HEADPHONE MIX		4
HEADPHONE MIX		1
109   MAIN NS LEVEL		1
MAIN NB LEVEL		1
MAIN NB WIDTH		
MAIN-CONTOUR-LEVEL		3
MAIN-CONTOUR-WIDTH		3
11-NOTCH-WIDTH		3
11-NOTCH-WIDTH		2
115   MAIN-CW SLOPE   0: STEEP, I: MEDIUM, 2: GENTLE		1
116   MAIN-CW SLOPE   0: STEEP, 1: MEDIUM, 2: GENTLE		1
117   MAIN-PSK SLAPE		
MAIN-PSK SLOPE		1
119   MAIN-RTY SLAPE   0. SOFT, 1. SHARP   0. SOFT, 1. SHARP   120   MAIN-SSB SHAPE   0. STEEP, 1. MEDIUM, 2. GENTLE   121   MAIN-SSB SHAPE   0. SOFT, 1. SHARP   0. SOFT, 1. SHARP   122   MAIN-SSB SLOPE   0. STEEP, 1. MEDIUM, 2. GENTLE   123   SUB-CW SHAPE   0. SOFT, 1. SHARP   0. SOFT, 1. SHARP   124   SUB-CW SLOPE   0. STEEP, 1. MEDIUM, 2. GENTLE   125   SUB-PSK SHAPE   0. SOFT, 1. SHARP   0. SOFT, 1. SHARP   126   SUB-PSK SHAPE   0. SOFT, 1. SHARP   0. SOFT, 1. SHARP   127   SUB-RTY SHAPE   0. SOFT, 1. SHARP   0. SOFT, 1. SHARP   128   SUB-RTY SHAPE   0. SOFT, 1. SHARP   0. SOFT, 1. SHARP   129   SUB-SSB SHAPE   0. SOFT, 1. SHARP   0. SOFT, 1. SHARP   129   SUB-SSB SHAPE   0. SOFT, 1. SHARP   0. SOFT, 1. SHARP   130   SUB-SSB SHAPE   0. SOFT, 1. SHARP   0. SOFT, 1. SHARP   131   FIX 1. SMHz   1. 800MHz - 1. 999MHz 1 SHz / Step (P2 = 03500 - 03999)   132   FIX 3.5MHz   3.500MHz - 3.999MHz 1 SHz / Step (P2 = 03500 - 03999)   133   FIX 5.0MHz   3.599MHz - 5.499MHz 1 SHz / Step (P2 = 03500 - 03999)   134   FIX 7. 0MHz   7. 000MHz - 7. 299MHz 1 SHz / Step (P2 = 03500 - 07299)   135   FIX 10MHz   7. 000MHz - 7. 299MHz 1 SHz / Step (P2 = 07000 - 07299)   136   FIX 10MHz   7. 000MHz - 7. 14.499MHz 1 SHz / Step (P2 = 10100 - 10149)   136   FIX 14MHz   14. 000MHz - 10. 149MHz - 11. 4 Step (P2 = 10100 - 10149)   137   FIX 18MHz   18. 000MHz - 11. 499MHz 1 SHz / Step (P2 = 10000 - 1439)   138   FIX 21MHz   2. 10.00MHz - 11. 499MHz 1 SHz / Step (P2 = 10000 - 1439)   139   FIX 21MHz   2. 10.00MHz - 11. 499MHz 1 SHz / Step (P2 = 10000 - 1439)   141   FIX 50MHz   2. 1400MHz - 2. 14. 499MHz 1 SHz / Step (P2 = 10000 - 1439)   141   FIX 50MHz   2. 1400MHz - 2. 14. 499MHz 1 SHz / Step (P2 = 10000 - 1439)   141   FIX 50MHz   5. 0000MHz - 7. 14. 499MHz 1 SHz / Step (P2 = 10000 - 1449)   141		1
121   MAIN-RTY SLOPE		1
MAIN-SSB SHAPE	-	1
MAIN-SSB SHAPE		1
122   MAIN-SSB SLOPE   0. STEEP, 1: MEDIUM, 2: GENTLE		1
123   SUB-CW SLAPE		1
124   SUB-CW SLOPE		
125   SUB-PSK SLOPE   0: SOFT, 1: SHARP   0: SOFT, 1: SHARP   128   SUB-RTY SHAPE   0: SOFT, 1: SHARP   0: SOFT, 1: SOFT, 1: SHARP   0: SOFT, 1:		1
126   SUB-PSK SLOPE   0: STEEP, 1: MEDIUM, 2: GENTLE     127   SUB-RTY SHAPE   0: SOFT, 1: SHARP   0: SOFT, 1: SHARP     128   SUB-RTY SLOPE   0: STEEP, 1: MEDIUM, 2: GENTLE     129   SUB-SSB SHAPE   0: SOFT, 1: SHARP   0: SOFT, 1: SHARP     130   SUB-SSB SHAPE   0: SOFT, 1: SHARP   0: SOFT, 1: SHARP     131   FIX 1.8MHz   1.800MHz - 1.999MHz 1kHz /step (P2 = 01800 - 01999)     132   FIX 3.5MHz   3.500MHz - 3.3990MHz 1kHz /step (P2 = 03500 - 03999)     133   FIX 5.0MHz   5.250MHz - 3.499MHz 1kHz /step (P2 = 05250 - 05499)     134   FIX 7.0MHz   7.000MHz - 7.299MHz 1kHz /step (P2 = 07000 - 07299)     135   FIX 10MHz   10.100MHz - 10.149MHz 1kHz /step (P2 = 07000 - 07299)     136   FIX 14MHz   14.000MHz - 14.349MHz 1kHz /step (P2 = 14000 - 14349)     137   FIX 14MHz   14.000MHz - 14.349MHz 1kHz /step (P2 = 14000 - 14349)     138   FIX 21MHz   18.000MHz - 18.199MHz 1kHz /step (P2 = 10000 - 21449)     139   FIX 24MHz   21.000MHz - 21.449MHz 1kHz /step (P2 = 21000 - 21449)     139   FIX 24MHz   24.800MHz - 24.989MHz 1kHz /step (P2 = 20000 - 24989)     140   FIX 25MHz   28.000MHz - 25.999MHz 1kHz /step (P2 = 50000 - 53999)     141   FIX 50MHz   50.000MHz - 53.999MHz 1kHz /step (P2 = 50000 - 53999)     142   DIAL STEP   0: 1.1. SHZ, 2: 10Hz     143   DIAL CW FINE   0: DISABLE, 1: ENABLE     144   UP/DOWN STEP   0: 1.1. SHZ, 2: 10Hz     145   MC H STEP   0: 2.5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz     146   FM CH STEP   0: 5.1. SABLE   0: 10Hz, 1: 100Hz     147   AM DIAL LOCK   0: DISABLE, 1: ENABLE     148   FM DIAL LOCK   0: DISABLE, 1: ENABLE     149   FM DIAL STEP   0: 0: 0.00000000000000   0: 111111111111111111     150   PRMTRC EQ1 FREQ   0: 0.0FF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)     151   PRMTRC EQ1 FREQ   0: 0.0FF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 2000, 07: 2100, 08: 2200, 09: 2300		1
127   SUB-RTY SLOPE   0: SOFT, 1: SHARP   0: SOFT, 1: SOFT, 1: SHARP   0: SOFT, 1: SOFT, 1: SHARP   0: SOFT, 1: SHARP   0: SOFT, 1: SOFT, 1: SHARP   0: SOFT, 1: SOFT, 1: SHARP   0: SOFT, 1: SOF		1
127   SUB-RTY SLOPE   0: SOFT, 1: SHARP   0: STEEP, 1: MEDIUM, 2: GENTLE   0: SOFT, 1: SHARP   0: STEEP, 1: MEDIUM, 2: GENTLE   0: SOFT, 1: SHARP   0: STEEP, 1: MEDIUM, 2: GENTLE   0: SOFT, 1: SHARP   0: STEEP, 1: MEDIUM, 2: GENTLE   0: SOFT, 1: SHARP   0: STEEP, 1: MEDIUM, 2: GENTLE   0: STEEP, 1: MEDIUM, 2: STEEP, 2: STEEP, 2: STEEP, 3:		1
128   SUB-RTY SLOPE   0: STEEP, 1: MEDIUM, 2: GENTLE     129   SUB-SSB SLOPE   0: STEEP, 1: MEDIUM, 2: GENTLE     131   FIX		1
129   SUB-SSB SLOPE   0: SOFT, 1: SHARP   0: SOFT, 1: SHARP   0: SUB-SSB SLOPE   0: STEEP, 1: MEDIUM, 2: GENTLE   131   FIX   1.8MHz   1.800MHz   1.999MHz 1kHz /step (P2 = 01800 - 01999)   132   FIX   3.5MHz   3.500MHz   3.599MHz 1kHz /step (P2 = 03500 - 03999)   133   FIX   5.0MHz   5.250MHz   5.499MHz 1kHz /step (P2 = 03500 - 05499)   134   FIX   7.0MHz   7.000MHz   7.000MHz   7.299MHz 1kHz /step (P2 = 07000 - 07299)   135   FIX   1000MHz   10.1000MHz   10.10000MHz   10.100000MHz   10.10000MHz   10.100000MHz   10.100000MHz   10.1000000MHz   10.1000000MHz   10.1000000MHz   10.10000000MHz   10.1000000M		1
130   SUB-SSB SLOPE   0: STEEP, 1: MEDIUM, 2: GENTLE   1.800MHz - 1.999MHz 1kHz /step (P2 = 01800 - 01999)   132   FIX   3.5MHz   3.500MHz   3.599MHz 1kHz /step (P2 = 03500 - 03999)   133   FIX   5.0MHz   5.250MHz   5.459MHz 1kHz /step (P2 = 05250 - 05499)   134   FIX   7.0MHz   7.000MHz - 7.299MHz 1kHz /step (P2 = 07000 - 07299)   135   FIX   10MHz   10.100MHz - 10.149MHz 1kHz /step (P2 = 10100 - 10149)   136   FIX   14MHz   14.000MHz - 10.149MHz 1kHz /step (P2 = 11000 - 10149)   137   FIX   18MHz   18.000MHz - 18.199MHz 1kHz /step (P2 = 14000 - 14349)   138   FIX   21MHz   21.000MHz - 21.449MHz 1kHz /step (P2 = 12000 - 21449)   139   FIX   24MHz   24.800MHz - 24.499MHz 1kHz /step (P2 = 21000 - 21449)   139   FIX   24MHz   24.800MHz - 24.999MHz 1kHz /step (P2 = 28000 - 29699)   140   FIX   28MHz   28.000MHz - 29.699MHz 1kHz /step (P2 = 28000 - 29699)   141   FIX   50MHz   28.000MHz - 29.699MHz 1kHz /step (P2 = 28000 - 29699)   142   DIAL STEP   0: 1, 1: SHz, 2: 10Hz   10.104		1
131   FIX   1.8MHz		1
132   FIX   3.5MHz   3.500MHz   3.350MHz   3.450MHz		5
133   FIX   5.0MHz   5.250MHz   5.250MHz   5.499MHz   1kHz   step (P2 = 05250 - 05499)     134   FIX   7.0MHz   7.000MHz - 7.299MHz   1kHz   step (P2 = 10100 - 10149)     135   FIX   10MHz   10.100MHz - 10.149MHz   1kHz   step (P2 = 10100 - 10149)     136   FIX   14MHz   14.000MHz - 14.349MHz   1kHz   step (P2 = 18000 - 18149)     137   FIX   18MHz   18.000MHz - 18.199MHz   1kHz   step (P2 = 18000 - 18149)     138   FIX   21MHz   21.000MHz - 21.449MHz   1kHz   step (P2 = 18000 - 21449)     139   FIX   24MHz   24.800MHz - 24.498MHz   1kHz   step (P2 = 28000 - 24499)     140   FIX   28MHz   28.000MHz - 24.989MHz   1kHz   step (P2 = 28000 - 29699)     141   FIX   50MHz   50.000MHz - 53.999MHz   1kHz   step (P2 = 28000 - 29699)     142   DIAL STEP   0: 1, 1: 5Hz, 2: 10Hz     143   DIAL CW FINE   0: DISABLE, 1: ENABLE     144   UP/DOWN STEP   0: 1, 11: 5Hz, 2: 10Hz     145   AM CH STEP   0: 25, 1: 5, 2: 9, 3: 10, 4: 12.5kHz     146   FM CH STEP   0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz     147   AM DIAL LOCK   0: DISABLE, 1: ENABLE     148   FM DIAL STEP   0: 10, 1: 100Hz     149   FM DIAL STEP   0: 10, 1: 100Hz     150   MY BAND   0000000000000 - 111111111111111111   (see Page 9)     151   PRMTRC EQ1 FREQ   00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)     152   PRMTRC EQ1 EVEL   10-0-+10 (P2 = 10 ~ +00 ~ +10)     155   PRMTRC EQ2 EVEL   10-0-+10 (P2 = 10 ~ +00 ~ +10)     156   PRMTRC EQ2 BWTH   01-10     157   PRMTRC EQ2 BWTH   01-10     157   PRMTRC EQ2 BWTH   01-10     157   PRMTRC EQ3 FREQ   00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		
134   FIX   7.0MHz   7.000MHz - 7.299MHz 1kHz /step (P2 = 07000 - 07299)     135   FIX   10MHz   10.100MHz - 10.149MHz 1kHz /step (P2 = 10100 - 10149)     136   FIX   14MHz   14.000MHz - 14.349MHz 1kHz /step (P2 = 14000 - 14349)     137   FIX   18MHz   18.000MHz - 14.349MHz 1kHz /step (P2 = 18000 - 18199)     138   FIX   21MHz   21.000MHz - 21.449MHz 1kHz /step (P2 = 21000 - 21449)     139   FIX   24MHz   24.800MHz - 24.989MHz 1kHz /step (P2 = 21000 - 21449)     140   FIX   28MHz   28.000MHz - 29.699MHz 1kHz /step (P2 = 24800 - 24989)     141   FIX   50MHz   50.000MHz - 53.999MHz 1kHz /step (P2 = 28000 - 29699)     141   FIX   50MHz   50.000MHz - 53.999MHz 1kHz /step (P2 = 50000 - 53999)     142   DIAL STEP   0.1, 1.5 FIZ, 2.10Hz     143   DIAL CW FINE   0.1 DISABLE, 1: ENABLE     144   UP/DOWN STEP   0.1 MHz, 1: 100kHz     145   AM CH STEP   0.2, 5, 1.5, 2: 9, 3: 10, 4: 12.5kHz     146   FM CH STEP   0.5, 5, 1.6, 25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz     147   AM DIAL LOCK   0.1 DISABLE, 1: ENABLE     148   FM DIAL LOCK   0.1 DISABLE, 1: ENABLE     149   FM DIAL STEP   0.10, 11: 100Hz     150   MY BAND   0000000000000 - 11111111111111 (see Page 9)     151   PRMTRC EQ1 FREQ   00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)     152   PRMTRC EQ1 BWTH   01-10     154   PRMTRC EQ2 FREQ   00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 2000, 07: 1300, 08: 1400, 09: 1500 (Hz)     155   PRMTRC EQ2 BWTH   01-10     157   PRMTRC EQ3 FREQ   00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		5
135   FIX   10MHz   10.100MHz - 10.149MHz   1kHz / step (P2 = 10100 ~ 10149)     136   FIX   14MHz   14.000MHz - 13.495MHz   1kHz / step (P2 = 14000 ~ 18349)     137   FIX   18MHz   18.000MHz - 18.199MHz   1kHz / step (P2 = 18000 ~ 18199)     138   FIX   21MHz   21.000MHz - 21.449MHz   1kHz / step (P2 = 21000 ~ 21449)     139   FIX   24MHz   24.800MHz - 24.989MHz   1kHz / step (P2 = 24800 ~ 24989)     140   FIX   28MHz   28.000MHz - 29.899MHz   1kHz / step (P2 = 28000 ~ 29699)     141   FIX   50MHz   50.000MHz - 53.999MHz   1kHz / step (P2 = 28000 ~ 29699)     142   DIAL STEP   0: 1, 1: SHz, 2: 10Hz     143   DIAL CW FINE   0: DISABLE, 1: ENABLE     144   UP/DOWN STEP   0: 1MHz, 1: 100KHz     145   AM CH STEP   0: 2,5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz     146   FM CH STEP   0: 5, 1: 6, 25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz     147   AM DIAL LOCK   0: DISABLE, 1: ENABLE     148   FM DIAL LOCK   0: DISABLE, 1: ENABLE     149   FM DIAL STEP   0: 10, 1: 100Hz     150   MY BAND   0000000000000 ~ 111111111111111 (see Page 9)     151   PRMTRC EQ1 FREQ   00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)     152   PRMTRC EQ1 LEVEL   -10+10 (P2 = -10 - +00 ~ +10)     154   PRMTRC EQ2 FREQ   00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)     155   PRMTRC EQ2 LEVEL   -10+10 (P2 = -10 - +00 ~ +10)     156   PRMTRC EQ3 FREQ   00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300     157   PRMTRC EQ3 FREQ   00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300     157   PRMTRC EQ3 FREQ   00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300     158   PRMTRC EQ3 FREQ   00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300     157   PRMTRC EQ3 FREQ   00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300     158   PRMTRC EQ3 FREQ		5
136   FIX 14MHz		5
136   FIX 14MHz		5
137         FIX 18MHz         18.000MHz ~ 18.199MHz 1kHz /step (P2 = 18000 ~ 18199)           138         FIX 21MHz         21.000MHz ~ 21.449MHz 1kHz /step (P2 = 21000 ~ 21449)           139         FIX 24MHz         24.800MHz ~ 24.989MHz 1kHz /step (P2 = 24800 ~ 24989)           140         FIX 28MHz         28.000MHz ~ 29.699MHz 1kHz /step (P2 = 28000 ~ 29699)           141         FIX 50MHz         50.000MHz ~ 53.999MHz 1kHz /step (P2 = 50000 ~ 53999)           142         DIAL STEP         0: 1, 1: 5Hz, 2: 10Hz           143         DIAL CW FINE         0: DISABLE, 1: ENABLE           144         UP/DOWN STEP         0: 1MHz, 1: 100kHz           145         AM CH STEP         0: 2.5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz           146         FM CH STEP         0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz           147         AM DIAL LOCK         0: DISABLE, 1: ENABLE           148         FM DIAL LOCK         0: DISABLE, 1: ENABLE           149         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         000000000000000 ~ 111111111111111111111		5
138         FIX 21MHz         21.000MHz ~ 21.449MHz 1kHz /step (P2 = 21000 ~ 21449)           139         FIX 24MHz         24.800MHz ~ 24.989MHz 1kHz /step (P2 = 24800 ~ 24989)           140         FIX 28MHz         28.000MHz ~ 29.699MHz 1kHz /step (P2 = 28000 ~ 29699)           141         FIX 50MHz         50.000MHz ~ 53.999MHz 1kHz /step (P2 = 50000 ~ 53999)           142         DIAL STEP         0: 1, 1: 5Hz, 2: 10Hz           143         DIAL CW FINE         0: DISABLE, 1: ENABLE           144         UP/DOWN STEP         0: 1MHz, 1: 100kHz           145         AM CH STEP         0: 2.5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz           146         FM CH STEP         0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz           147         AM DIAL LOCK         0: DISABLE, 1: ENABLE           148         FM DIAL LOCK         0: DISABLE, 1: ENABLE           149         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         000000000000000 - 111111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)		5
139   FIX 24MHz   24.800MHz - 24.989MHz 1kHz /step (P2 = 24800 ~ 24989)     140   FIX 28MHz   28.000MHz - 29.699MHz 1kHz /step (P2 = 28000 ~ 29699)     141   FIX 50MHz   50.000MHz - 53.999MHz 1kHz /step (P2 = 50000 ~ 53999)     142   DIAL STEP   0: 1, 1: 5Hz, 2: 10Hz     143   DIAL CW FINE   0: DISABLE, 1: ENABLE     144   UP/DOWN STEP   0: 1MHz, 1: 100kHz     145   AM CH STEP   0: 2, 5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz     146   FM CH STEP   0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz     147   AM DIAL LOCK   0: DISABLE, 1: ENABLE     148   FM DIAL LOCK   0: DISABLE, 1: ENABLE     149   FM DIAL STEP   0: 10, 1: 100Hz     150   MY BAND   0000000000000 ~ 111111111111111 (see Page 9)     151   PRMTRC EQ1 FREQ   00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)     152   PRMTRC EQ1 BWTH   01-10     154   PRMTRC EQ2 FREQ   00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)     155   PRMTRC EQ2 EVEL   -10-0-+10 (P2 = -10 ~ +00 ~ +10)     156   PRMTRC EQ2 BWTH   01-10     157   PRMTRC EQ3 FREQ   00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		5
140     FIX 28MHz     28.000MHz ~ 29.699MHz 1kHz /step (P2 = 28000 ~ 29699)       141     FIX 50MHz     50.000MHz ~ 53.999MHz 1kHz /step (P2 = 50000 ~ 53999)       142     DIAL STEP     0: 1, 1: 5Hz, 2: 10Hz       143     DIAL CW FINE     0: DISABLE, 1: ENABLE       144     UP/DOWN STEP     0: 1MHz, 1: 100kHz       145     AM CH STEP     0: 2.5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz       146     FM CH STEP     0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz       147     AM DIAL LOCK     0: DISABLE, 1: ENABLE       148     FM DIAL LOCK     0: DISABLE, 1: ENABLE       149     FM DIAL STEP     0: 10, 1: 100Hz       150     MY BAND     0000000000000 ~ 1111111111111111 (see Page 9)       151     PRMTRC EQ1 FREQ     00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)       152     PRMTRC EQ1 LEVEL     -10~0~+10 (P2 = -10 ~ +00 ~ +10)       153     PRMTRC EQ2 BWTH     01-10       155     PRMTRC EQ2 EVEL     -10~0~+10 (P2 = -10 ~ +00 ~ +10)       156     PRMTRC EQ2 BWTH     01-10       157     PRMTRC EQ3 FREQ     00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		
141   FIX 50MHz   50.000MHz ~ 53.999MHz 1kHz /step (P2 = 50000 ~ 53999)     142		5
142         DIAL STEP         0: 1, 1: 5Hz, 2: 10Hz           143         DIAL CW FINE         0: DISABLE, 1: ENABLE           144         UP/DOWN STEP         0: 1MHz, 1: 100kHz           145         AM CH STEP         0: 2.5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz           146         FM CH STEP         0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz           147         AM DIAL LOCK         0: DISABLE, 1: ENABLE           148         FM DIAL LOCK         0: DISABLE, 1: ENABLE           149         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         00000000000000 - 111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 LEVEL         -10-0+10 (P2 = -10 - +00 - +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 EVEL         -10-0++10 (P2 = -10 - +00 - +10)           155         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05		5
143         DIAL CW FINE         0: DISABLE, 1: ENABLE           144         UP/DOWN STEP         0: 1MHz, 1: 100kHz           145         AM CH STEP         0: 2.5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz           146         FM CH STEP         0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz           147         AM DIAL LOCK         0: DISABLE, 1: ENABLE           148         FM DIAL LOCK         0: DISABLE, 1: ENABLE           149         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         00000000000000 - 111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 EVEL         -10-0-+10 (P2 = -10 - +00 - +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 - +00 - +10)           155         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		5
143         DIAL CW FINE         0: DISABLE, 1: ENABLE           144         UP/DOWN STEP         0: 1MHz, 1: 100kHz           145         AM CH STEP         0: 2.5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz           146         FM CH STEP         0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz           147         AM DIAL LOCK         0: DISABLE, 1: ENABLE           148         FM DIAL LOCK         0: DISABLE, 1: ENABLE           149         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         00000000000000 - 111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 EVEL         -10-0-+10 (P2 = -10 - +00 - +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 - +00 - +10)           155         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		1
144         UP/DOWN STEP         0: 1MHz, 1: 100kHz           145         AM CH STEP         0: 2.5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz           146         FM CH STEP         0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz           147         AM DIAL LOCK         0: DISABLE, 1: ENABLE           148         FM DIAL LOCK         0: DISABLE, 1: ENABLE           149         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         0000000000000 - 1111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           153         PRMTRC EQ2 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 EWTH         01-0-+10 (P2 = -10 ~ +00 ~ +10)           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		1
145         AM CH STEP         0: 2.5, 1: 5, 2: 9, 3: 10, 4: 12.5kHz           146         FM CH STEP         0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz           147         AM DIAL LOCK         0: DISABLE, 1: ENABLE           148         FM DIAL LOCK         0: DISABLE, 1: ENABLE           149         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         0000000000000 - 111111111111111111(see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		1
146         FM CH STEP         0: 5, 1: 6.25, 2: 10, 3: 12.5, 4: 20kHz, 5: 25kHz           147         AM DIAL LOCK         0: DISABLE, 1: ENABLE           148         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         00000000000000 - 1111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		1
147         AM DIAL LOCK         0: DISABLE, 1: ENABLE           148         FM DIAL LOCK         0: DISABLE, 1: ENABLE           149         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         00000000000000 – 1111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		
148         FM DIAL LOCK         0: DISABLE, 1: ENABLE           149         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         0000000000000 - 111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		1
149         FM DIAL STEP         0: 10, 1: 100Hz           150         MY BAND         0000000000000 - 1111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           153         PRMTRC EQ1 BWTH         0110           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF,01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		1
150         MY BAND         00000000000000 ~ 111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		1
150         MY BAND         00000000000000 ~ 111111111111111 (see Page 9)           151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		1
151         PRMTRC EQ1 FREQ         00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)           152         PRMTRC EQ1 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF, 01: 1500, 02: 1600, 03: 1700, 04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		14
152         PRMTRC EQ1 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           153         PRMTRC EQ1 BWTH         01-10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF,01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		2
153         PRMTRC EQ1 BWTH         01–10           154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10–0–+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01–10           157         PRMTRC EQ3 FREQ         00: OFF,01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		3
154         PRMTRC EQ2 FREQ         00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)           155         PRMTRC EQ2 LEVEL         -10-0-+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01-10           157         PRMTRC EQ3 FREQ         00: OFF,01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		
155         PRMTRC EQ2 LEVEL         -10-0~+10 (P2 = -10 ~ +00 ~ +10)           156         PRMTRC EQ2 BWTH         01~10           157         PRMTRC EQ3 FREQ         00: OFF,01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		2
156         PRMTRC EQ2 BWTH         01~10           157         PRMTRC EQ3 FREQ         00: OFF,01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		2
156         PRMTRC EQ2 BWTH         01~10           157         PRMTRC EQ3 FREQ         00: OFF,01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		3
157 PRMTRC EQ3 FREQ 00: OFF,01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300		2
		2
10: 2400, 11: 2500, 12: 2600, 13: 2700, 14: 2800, 15: 2900, 16: 3000, 17: 3100, 18: 3200 (Hz)	[ ]	1 -

#### **CONTROL COMMAND TABLES**

#### TABLE 3

P1	FUNCTION	P2	BYTE
158	PRMTRC EQ3 LEVEL	-10~0~+10 (P2 = -10 ~ +00 ~ +10)	3
159	PRMTRC EQ3 BWTH	01~10	2
160	P-PRMTRC EQ1-FREQ	00: OFF, 01: 100, 02: 200, 03: 300, 04: 400, 05: 500, 06: 600, 07: 700 (Hz)	2
161	P-PRMTRC EQ1-LEVEL	-10~0~+10 (P2 = -10 ~ +00 ~ +10)	3
162	P-PRMTRC EQ1-BWTH	01~10	2
163	P-PRMTRC EQ2-FREQ	00: OFF, 01: 700, 02: 800, 03: 900, 04: 1000, 05: 1100, 06: 1200, 07: 1300, 08: 1400, 09: 1500 (Hz)	2
164	P-PRMTRC EQ2-LEVEL	-10~0~+10 (P2 = -10 ~ +00 ~ +10)	3
165	P-PRMTRC EQ2-BWTH	01~10	2
166	P-PRMTRC EQ3-FREQ	00: OFF, 01: 1500, 02: 1600, 03: 1700,04: 1800, 05: 1900, 06: 2000, 07: 2100, 08: 2200, 09: 2300	2
		10: 2400, 11: 2500, 12: 2600, 13: 2700, 14: 2800, 15: 2900, 16: 3000, 17: 3100, 18: 3200 (Hz)	
167	P-PRMTRC EQ3-LEVEL	-10~0~+10 (P2 = -10 ~ +00 ~ +10)	3
168	P-PRMTRC EQ3-BWTH	01~10	2
169	FINAL BIAS	A(1~100%) (P2 = 0001~0100: A(1~100%))	4
170	TX MAX POWER	0: 10(20), 1: 20(50), 2: 50(100), 3: 100(200) (200W type)	1
171	TX PWR CONTROL	0: ALL MODE, 1: CARRIER	1
172	EXT AMP TX-GND	0: DISABLE, 1: ENABLE	1
173	EXT AMP TUNING PWR	0: 10(20), 1: 20(50), 2: 50(100), 3: 100(200) (200W type)	1
174	VOX SELECT	0: MIC, 1: DATA	1
175	ANTI VOX GAIN	000~100	3
176	EMERGENCY FREQ TX	0: DISABLE, 1: ENABLE	1





FA	FRF	-OUF	-NC)	Y VF	O-A						
Set	1	2	3	4	5	6	7	8	9	10	P1 00030000 - 60000000 (Hz)
1001	F		_	_	_	_	_				
	<u> </u>	Α	P1	P1	P1	P1	P1	P1	P1	P1	
	11	12	13	14	15	16	17	18	19	20	0
	;										
Read	1	2	3	4	5	6	7	8	9	10	0
	F	Α	;								
Answer	1	2	3	4	5	6	7	8	9	10	0
	F	Α	P1	P1	P1	P1	P1	P1	P1	P1	1
	11	12	13	14	15	16	17	18	19	20	
	<del>- ''-</del>	12	13	14	15	10	17	10	19	20	
	,										
FB	FRE	-OUF	-NC)	Y VF	O-B						
Set	1	2	3	4	5	6	7	8	9	10	P1 00030000 - 60000000 (Hz)
1000	F	В	P1	P1	P1	P1	P1	P1	P1	P1	<b>-</b>
	_	_		_	_	_	_				<del></del>
	11	12	13	14	15	16	17	18	19	20	
<u> </u>	;										4
Read	1	2	3	4	5	6	7	8	9	10	0
	F	В	;								
Answer	1	2	3	4	5	6	7	8	9	10	0
	F	В	P1	P1	P1	P1	P1	P1	P1	P1	1
	11	12	13	14	15	16	17	18	19	20	0
	:										
FR	FUN	ICTI	ON R	RX_							
Set	1	2	3	4	5	6	7	8	9	10	
	F	R	P1	;							1: Main (VFO-A) Band Receiver: Mute, Sub (VFO-B) Band Receiver: "OFF" 2: Main (VFO-A) Band Receiver: RX, Sub (VFO-B) Band Receiver: RX
Read	1	2	3	4	5	6	7	8	9	10	
	F	R	:								7
Answer	1	2	3	4	5	6	7	8	9	10	
7	F	R	P1	Ė	<u> </u>	<u> </u>	Ė				<u>-</u>
	<u>.                                    </u>	11		,							
FS	FAS	ST ST	ΈP								
Set	1	2	3	4	5	6	7	8	9	10	0 P1 0: VFO A "OFF" (SET Only) 4: VFO A "OFF", VFO B "OFF"
	F	S	P1								1: VFO A "ON" (SET Only) 5: VFO A "ON", VFO B "OFF"
Read	1	2	3	4	5	6	7	8	9	10	2: VFO B "OFF" (SET Only) 6: VFO A "OFF", VFO B "ON"
Incad	F	S		-	-	-	-	0	9	10	3: VFO B "ON" (SET Only) 7: VFO A "ON", VFO B "ON"
A 2011/01	_	_	,		-		-	_	_	4.0	_
Answer	1	2	3	4	5	6	7	8	9	10	
	F	S	P1	;							
FT	FUI	ICTI	ON T	Y							
Set	1	2	3	4	5	6	7	8	9	10	P1 0: TX Band = Main (VFO-A) Band ↔ Sub (VFO-B) Band (Toggle)
1001	F	T	P1	;	-	0		0	9	10	1: TX Band = Night (VFO-B) Band ↔ Main (VFO-A) Band (Toggle)
Dand	_				_	-	_	_	_		2: TX Band – Main (VFO-A) Band
Read	1	2	3	4	5	6	7	8	9	10	3: TX Band = Sub (VFO-B) Band
	F	Т	;								P2 0: TX Band = Main (VFO-A) Band
Answer	1	2	3	4	5	6	7	8	9	10	1: TX Band = Sub (VFO-B) Band
	F	Т	P2	ļ ;							
CT		O E: -	NOT	1011							
GT	_	C FU									. In
Set	1	2	3	4	5	6	7	8	9	10	
	G	Т	P1	P2	;						1: Sub (VFO-B) Band 1: AGC "FAST" 2: AGC "MID"
Read	1	2	3	4	5	6	7	8	9	10	1: AGC "FAST" 2: AGC "MID"
	G	Т	P1	;							2: AGC "MID" 4: AGC "AUTO-FAST"
Answer	1	2	3	4	5	6	7	8	9	10	
	G	Т	P1	P3	:						4: AGC "AUTO" 6: AGC "AUTO-SLOW"
					. ,						
ID	IDE	NTIF	<b>IC</b> AT	TION							
Set	1	2	3	4	5	6	7	8	9	10	P1 0362: FTDX5000
											7
Read	1	2	3	4	5	6	7	8	9	10	
	H	D		É	Ť	Ť	Ė	Ť	Ť		· <del> </del>
Answer	1	2	3	4	5	6	7	8	9	10	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	⊢⊹	D	P1	P1	P1	P1		l °	3	10	<u>~</u>
1		ו ו	171	121	121	121	1 .	1	1	I	

IF	INF	ORM	ATIC	N								
Set	1	2	3	4	5	6	7	8	9	10	P3 (	001-117 (Memory Channel) P2 VFO-A Frequency (Hz) Clarifier Direction +: Plus Shift, -: Minus Shift
Read	1 1	2 <b>F</b>	3	4	5	6	7	8	9	10	P4 (	Clarifier Offset: 0000 - 9999 (Hz) 0: RX CLAR "OFF"
Answer	1	2	3	4	5	6	7	8	9	10		0: TX CLAR "OFF" 1: TX CLAR "ON" MODE 1: LSB 2: USB 3: CW 4: FM 5: AM 6: FSK (RTTY-LSB)
	ı	F	P1	P1	P1	P2		P2	P2	P2		7: CW-R 8: PKT-L 9: FSK-R (RTTY-USB) A: PKT-FM
	11	12	13	14	15	16	17	18	19	20	P7 (	B: FM-N C: PKT-U 0: VFO 1: Memory 2: Memory Tune 3: Quick Memory Bank (QMB) 4: QMB-MT
	P2	P2	P2	P3	P3	P3		P3	P4	P5	P8 (	0: CTCSS "OFF" 1: CTCSS ENC/DEC 2: CTCSS ENC
	21 P6	22 <b>P7</b>	23 P8	24 P9	25 P9	<sup>26</sup>	27	28	29	30	P9: 1	one Number (See Page 5: "CTCSS Tone Chart") 00 ~ 49 0: Simplex 1: Plus Shift 2: Minus Shift
				113	113	1 10	,					·
IS	$\overline{}$	HIF1		_								
Set	1 	2 <b>S</b>	3 P1	-/ <b>+</b>	5 P2	6 P2	7 P2	8 P2	9	10		0:Main (VFO-A) Band Receiver 1: Sub (VFO-B) Band Receiver
Read	1	2	3	4	5	6	7	8	; 9	10		-1000 ~ +1000 Hz
rtodd	i	S	P1	;		-	,	-	-	10		
Answer	1	2	3	4	5	6	7	8	9	10		
	Ι	S	P1	-/+	P2	P2	P2	P2	;			
KM	KEY	/ER I	MEM	IORY	7							
Set	1	2	3	4	5	6	7	~	53	**		1 - 5 : Keyer Memory Channel Number
	K	M	P1	P2	P2	P2	-	~	P2	;	P2 I	Message Characters (up to 50 characters)
Read	1	2	3	4	5	6	7	8	9	10		n the message is complete, add the "}" character at the end to signify the termina-
Answer	<b>K</b>	<b>M</b>	P1 3	;	5	6	7	~	53	**		of the message.
Allower	K	M	P1	P2	P2	P2		~	P2	:	ex. K	(M CQ} ~_; (_: space)
145				-					. =	,		
KP		/ PIT			-		_	_	_	4.0	D4 /	00 75, 000 Hz 4050 Hz (40 Hz 04-z)
Set	1 <b>K</b>	2 <b>P</b>	3 P1	4 P1	5	6	7	8	9	10	PI	00 ~75: 300 Hz ~ 1050 Hz (10 Hz Step)
Read	1	2	3	4	5	6	7	8	9	10		
	K	Р	;									
Answer	1	2	3	4	5	6	7	8	9	10		
	K	Р	P1	P1	;							
KR	KEY	/ER										
Set	1	2	3	4	5	6	7	8	9	10		0: KEYER "OFF"
Read	K	R	P1	;	_		-	0	0	40		1: KEYER "ON"
Reau	1 <b>K</b>	2 <b>R</b>	3	4	5	6	7	8	9	10		
Answer	1	2	3	4	5	6	7	8	9	10		
	K	R	P1	;								
KS	KEV	/ SPI	FFD									
	1			4	5	6	7	8	9	10	P1 (	004 - 060 (WPM)
	K	S	P1	P1	P1	;						
Read	1	2	3	4	5	6	7	8	9	10		
Λρομίος	K	S	;	4	_		-			40		
Answer	1 <b>K</b>	2 <b>S</b>	3 P1	4 P1	5 P1	6	7	8	9	10		
						,						
KY		KEY									B :	4 1/ 1/ 1/ 1/12
Set	1 <b>K</b>	2 <b>V</b>	3 P1	4	5	6	7	8	9	10		1: Keyer Memory "1" Playback 6: Message Keyer "1" Playback 2: Keyer Memory "2" Playback 7: Message Keyer "2" Playback
Read	1 1	<b>Y</b>	3	4	5	6	7	8	9	10	(	3: Keyer Memory "3" Playback 8: Message Keyer "3" Playback
									,			4: Keyer Memory "4" Playback 9: Message Keyer "4" Playback 5: Keyer Memory "5" Playback A: Message Keyer "5" Playback
Answer	1	2	3	4	5	6	7	8	9	10	`	7. moodago Noyor o i laybaan
LK	LOC	CK										
Set	1	2	3	4	5	6	7	8	9	10		0: VFO A "OFF" (SET Only) 4: VFO A "OFF", VFO B "OFF"
	L	K	P1	;								1: VFO A "ON" (SET Only) 5: VFO A "ON", VFO B "OFF" 2: VFO B "OFF" (SET Only) 6: VFO A "OFF", VFO B "ON"
Read	1	2	3	4	5	6	7	8	9	10		2: VFO B 'ON" (SET Only) 7: VFO A 'ON", VFO B 'ON"
Answer	<b>L</b>	<b>K</b>	3	4	5	6	7	8	9	10		
Allowei	Ė	K	P1	:	-	U		٥	J	10		
				, ,						_		

LM	LOA	AD M	ESS	AGE							
Set	1	2	3	4	5	6	7	8	9	10	P1 0: DVS P2 When P1=0 When P1=1
	L	M	P1	P2	;						1: P. B 0: DVS (Recording Stop) 0: P.B (Recording St
Read	1	2	3	4	5	6	7	8	9	10	1: DVS (CH "1" Recording Start/Stop) 1: P.B (Recording St 2: DVS (CH "2" Recording Start/Stop)
ļ	L	M	P1	;							3: DVS (CH "3" Recording Start/Stop)
Answer	1	2	3	4	5	6	7	8	9	10	4: DVS (CH "4" Recording Start/Stop) 5: DVS (CH "5" Recording Start/Stop)
	L	M	P1	P2	<u>;</u>						3. DVG (GT 3 Necording Start/Stop)
MA	MEI	MOR	Y CH	IANN	IEL T	O VI	FO-A				
Set	1	2	3	4	5	6	7	8	9	10	
L	M	Α	;								
Read	1	2	3	4	5	6	7	8	9	10	
Anguer	_			4	_	_	-	_		40	
Answer	1	2	3	4	5	6	7	8	9	10	
					l						
МС	MEI	MOR	Y CH	IANN	IEL						
Set	1	2	3	4	5	6	7	8	9	10	P1 001 - 117: Memory Channel Number
Dead	M	С	P1	P1	P1	;					001 - 099: Regular Memory Channel 100: P1L
Read	1 <b>M</b>	2 <b>C</b>	3	4	5	6	7	8	9	10	101: P1U
Answer	1	2	3	4	5	6	7	8	9	10	116: P9L
Allower	м	C	P1	P1	P1			- 0	- 3	10	117: P9U
						,					
MD				MOE							
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band 1: Sub (VFO-B) Band
Read	M	D	P1	P2	;	_	7	0		10	P2 MODE 1: LSB 2: USB 3: CW 4: FM 5: AM 6: FSK (RTTY-LSB)
Reau	1 <b>M</b>	2 <b>D</b>	3 P1	4	5	6		8	9	10	7: CW-R 8: PKT-L 9: FSK-R (RTTY-USB) A: PKT-FM
Answer	1	2	3	4	5	6	7	8	9	10	B: FM-N C: PKT-U
7 11 10 11 01	М	D	P1	P2	:		,			10	
					,						
MG Set		GAI	<b>N</b>	4	-	-	7	8	9	10	P1 000 - 255
Set	1 <b>M</b>	2 <b>G</b>	P1	P1	5 P1	6		8	9	10	P1 000 - 255
Read	1	2	3	4	5	6	7	8	9	10	
	М	G	-		_						
Answer	1	2	3	4	5	6	7	8	9	10	
	М	G	P1	P1	P1	;					
MK	MOI	DE K	FY								
Set	1	2	3	4	5	6	7	8	9	10	P1 KEY 0: LSB
	М	K	P1	;							1: USB
Read	1	2	3	4	5	6	7	8	9	10	2: CW 3: AM / FM
											4: FM / FM
Answer	1	2	3	4	5	6	7	8	9	10	5: RTTY
											6: PKT
ML	MOI	NITO	R LE	VEL							
Set	1	2	3	4	5	6	7	8	9	10	P1 0: MONI "ON/OFF"
	M	L	P1	P2	P2	P2	;				1: MONI Level P2 When P1=0
Read	1	2	3	4	5	6	7	8	9	10	000: MONI "OFF"
A = = : : : :	M	L	P1	;							001: MONI "ON"
Answer	1	2	3 D1	4	5	6	7	8	9	10	When P1=1 001 - 255
	M	L	P1	P2	P2	P2					
MR	MEI	MOR	Y CH	IANN	IEL F	READ	)				
Set	1	2	3	4	5	6	7	8	9	10	P1 Memory Channel Number P2 Memory Channel Frequency (Hz)
Desi											P3 Clarifier Direction +: Plus Shift, -: Minus Shift Clarifier Offset: 0000 - 9999 (Hz)
Read	1	2	3	4	5	6	7	8	9	10	P4 0: RX CLAR "OFF" 1: RX ČLÁR "ON"
Answer	<b>M</b>	<b>R</b>	P1 3	P1 4	P1 5	; 6	7	8	9	10	P5 0:TX CLAR "OFF" 1: TX CLAR "ON" P6 MODE 1: LSB 2: USB 3: CW 4: FM 5: AM 6: FSK (RTTY-LSB)
Allowei	M	R	9 P1	P1	5 P1	P2	P2	P2	P2	10 P2	P6 MODE 1: LSB
	11	12	13	14	15	16	17	18	19	20	B: FM-N C: PKT-U
	P2	P2	P2	P3	P3	P3	P3	P3	P4	P5	P7 0: VFO 1: Memory P8 0: CTCSS "OFF" 1: CTCSS ENC/DEC 2: CTCSS ENC
	21	22	23	24	25	26	27	28	29	30	P9: Tone Number (See Page 5: "CTCSS Tone Chart") 00 ~ 49
	P6	P7	P8	P9	_	P10	$\overline{}$				P10 0: Simplex 1: Plus Shift 2: Minus Shift

MS	MET	ΓER:	SW									
Set	1	2	3	4	5	6	7	8	9	10	P1	0: COM
	М	S	P1	;								1: ALC
Read	1	2	3	4	5	6	7	8	9	10		2: PO 3: SWR
	М	S	;									4: ID
Answer	1	2	3	4	5	6	7	8	9	10		5: VDD
	М	S	P1	·;								

MW	MEI	MEMORY CHANNEL WRITE														
Set	1	2	3	4	5	6	7	8	9	10	P1 Memory Channel Number P2 Memory Channel Frequency (Hz)					
	М	W	P1	P1	P1	P2	P2	P2	P2	P2	P3 Clarifier Direction +: Plus Shift, -: Minus Shift					
	11	12	13	14	15	16	17	18	19	20	Clarifier Offset: 0000 - 9999 (Hz) P4 0: RX CLAR "OFF" 1: RX CLAR "ON"					
	P2	P2	P2	P3	P3	P3	P3	P3	P4	P5	P5 0:TX CLAR "OFF" 1: TX CLAR "ON"					
	21	22	23	24	25	26	27	28	29	30	P6 MODE 1: LSB 2: USB 3: CW 4: FM 5: AM 6: FSK (RTTY-LSB)					
	P6	P7	P8	P9	P9	P10	;				7: CW-R 8: PKT-L 9: FSK-R (RTTY-USB) A: PKT-FM					
Read	1	2	3	4	5	6	7	8	9	10	B: FM-N C: PKT-U P7 0: (Fixed)					
											P8 0: CTCSS "OFF" 1: CTCSS ENC/DEC 2: CTCSS ENC					
Answer	1	2	3	4	5	6	7	8	9	10	P9: Tone Number (See Page 5: "CTCSS Tone Chart") 00 ~ 49					
											P10 0: Simplex 1: Plus Shift 2: Minus Shift					

MX	MO	X SE	T									
Set	1	2	3	4	5	6	7	8	9	10	P1 0: MOX "OFF"	
	М	Х	P1	;							1: MOX "ON"	
Read	1	2	3	4	5	6	7	8	9	10		
	N	Х	;									
Answer	1	2	3	4	5	6	7	8	9	10		
	N	Х	P1	;								

NA	NAF	RRO	W								
Set	1	2	3	4	5	6	7	8	9	10	
	M	Α	P1	P2	;						1: Sub (VFO-B) Band Receiver
Read	1	2	3	4	5	6	7	8	9	10	P2 0: OFF 1: ON
	N	Α	P1	;							] 1. 01
Answer	1	2	3	4	5	6	7	8	9	10	7
	N	Α	P1	P2	;						1

NB	NOI	SE E	BLAN	IKER	STA	TUS						
Set	1	2	3	4	5	6	7	8	9	10	P1	0: Main (VFO-A) Band Receiver
	N	В	P1	P2	;						]	1: Sub (VFO-B) Band Receiver
Read	1	2	3	4	5	6	7	8	9	10	] P2	0: Noise Blanker "OFF" 1: Noise Blanker "ON"
	N	В	P1	;							]	2: Noise Blanker (Wide) "ON"
Answer	1	2	3	4	5	6	7	8	9	10	1	· /
	N	В	P1	P2							1	

NL	NOI	SE E	BLAN	IKER	LEV	/EL					
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band Receiver
	N	L	P1	P2	P2	P2	;				1: Sub (VFO-B) Band Receiver
Read	1	2	3	4	5	6	7	8	9	10	P2 000 - 255
	N	L	P1	;							
Answer	1	2	3	4	5	6	7	8	9	10	
	N	L	P1	P2	P2	P2	;				1

NR	NOI	SE F	REDU	ICTIC	ON							
Set	1	2	3	4	5	6	7	8	9	10	P1	0: Main (VFO-A) Band Receiver
	N	R	P1	P2	;						]	1: Sub (VFO-B) Band Receiver
Read	1	2	3	4	5	6	7	8	9	10	] P2	0: Noise Reduction "OFF" 1: Noise Reduction "ON"
	Ν	R	P1	;							]	1. Noise Reduction ON
Answer	1	2	3	4	5	6	7	8	9	10	]	
	N	R	P1	P2	;							

OI	OPF	<u> </u>	IFR	AND	INF	<u>ORM</u>	AHC	N			
Set	1	2	3	4	5	6	7	8	9	10	P1 Current Memory Channel P2 VFO-B Frequency (Hz)
											P3 Clarifier Direction +: Plus Shift, -: Minus Shift
Read	1	2	3	4	5	6	7	8	9	10	Crarifier Offset: 0000 - 9999 (Hz) P4 0: RX CLAR "OFF" 1: RX CLAR "ON"
	0	ı	;								P5 0:TX CLAR "OFF" 1: TX CLAR "ON"
Answer	1	2	3	4	5	6	7	8	9	10	P6 MODE 1: LSB 2: USB 3: CW 4: FM 5: AM 6: FSK (RTTY-LSB)
	0	ı	P1	P1	P1	P2	P2	P2	P2	P2	
	11	12	13	14	15	16	17	18	19	20	B: FM-N C: PKT-U P7 0: VFO 1: Memory
	P2	P2	P2	P3	P3	P3	P3	P3	P4	P5	P8 0: CTCSS "OFF" 1: CTCSS ENC/DEC 2: CTCSS ENC
	21	22	23	24	25	26	27	28	29	30	P9: Tone Number (See Page 5: "CTCSS Tone Chart") 00 ~ 49
	P6	P7	P8	P9	P9	P10	;				P10 0: Simplex 1: Plus Shift 2: Minus Shift

OS	OFF	SET	(RE	PEA	TER	SHIF	T)				
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band
	0	S	P1	P2	;						1: Sub (VFO-B) Band
Read	1	2	3	4	5	6	7	8	9	10	P2 0: Simplex 1: Plus Shift
	0	S	P1	;							2: Minus Shift
Answer	1	2	3	4	5	6	7	8	9	10	★: FM mode only
	0	S	P1	P2	:						1
PA	PRE	-AM	IP (IF	PO)							
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band Receiver
	Р	Α	P1	P2	;						1: Sub (VFO-B) Band Receiver P2 0: IPO 1
Read	1	2	3	4	5	6	7	8	9	10	1: AMP 1
	Р	Α	P1	;							2: AMP 2
Answer	1	2	3	4	5	6	7	8	9	10	3: IPO 2
	Р	Α	P1	P2	;						
00	DI A	V D	101/								
PB		Y B			T -	-	_	_	-		TD4 0 DV0 D0 WI D4 0
Set	1	2	3	4	5	6	7	8	9	10	P1 0: DVS P2 When P1=0 When P1=1 1: P.B 0: DVS (Recording Stop) 0: P.B (Playback Stop)
Deed	Р	В	P1	P2	;						1: DVS (CH "1" Playback Start) 1: P.B (Playback Start)
Read	1	2	3	4	5	6	7	8	9	10	2: DVS (CH "2" Playback Start)
A	Р	В	P1	;							3: DVS (CH "3" Playback Start)
Answer	1	2	3	4	5	6	7	8	9	10	4: DVS (CH "4" Playback Start) 5: DVS (CH "5" Playback Start)
	Р	В	P1	P2	;						5. DVS (CH 5 Flayback Start)
PC	POI	NFR	COL	NTRC	וו						
Set	1	2	3	4	5	6	7	8	9	10	P1 000 - 255
1001	P	C	P1	P1	P1	:	<i>'</i>	0	9	10	1 1 000 200
Read	1	2	3	4	5	6	7	8	9	10	-
Incad	P	C			3	-		0	9	10	-
Answer	1	2	3	4	5	6	7	8	9	10	-
Allowei	P	C	P1	P1	P1		/	0	9	10	-
	P	C	PI	PI	PI	,					
PL	SPE	ECH	l PR	OCE	SSO	R LE	VEL				
Set	1	2	3	4	5	6	7	8	9	10	P1 000 - 255
1	Р	L	P1	P1	P1						
Read	1	2	3	4	5	6	7	8	9	10	1
Troda											-
	Р	L	;	4	5	6	7	8	9	10	
Answer	<b>P</b>	<b>L</b>	;	4 P1	5 P1	6	7	8	9	10	
	Р	L	;	4 P1	5 P1		7	8	9	10	
Answer	1 P	2 L	; 3 P1	_	P1	;	7	8	9	10	
Answer	1 P	2 L	; 3 P1 I PR	P1	P1	;	7	8	9	10	P1 0: Speech Processor "OFF"
Answer	P 1 P	L 2 L	; 3 P1	P1	P1	; R					1: Speech Processor "ON"
Answer	P 1 P	L 2 L	; 3 P1 I PR	P1 OCE	P1	; R					
Answer PR Set Read	P 1 P	L 2 L ECH 2 R	; 3 P1 <b>PR</b> 3 P1	P1  OCE:	P1 SSO	; <b>R</b>	7	8	9	10	1: Speech Processor "ON"
Answer PR Set	P 1 P 1 P 1	2 L 2 ECH 2 R	; 3 P1 I PR 3 P1 3	P1  OCE:	P1 SSO	; <b>R</b>	7	8	9	10	1: Speech Processor "ON"
Answer PR Set Read	P 1 P SPE 1 P 1 P	2 L 2 ECH 2 R 2 R	; 3 P1 3 P1 3 ; 3	P1 OCE: 4 ; 4	5 5	; R 6	7	8	9	10	1: Speech Processor "ON"
Answer  PR Set Read Answer	P 1 P 1 P 1 P 1 P	2 L 2 R 2 R 2 R	; 3 P1 3 P1 3 ; 3 P1	P1  OCE:  4  ;  4  ;	5 5 5	; R 6	7	8	9	10	1: Speech Processor "ON"
Answer  PR Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P	L 2 L 2 R 2 R 2 R 2 R	; 3 P1 3 P1 3 ; 3 P1 SWI	P1  OCE: 4 ; 4 ; TCH	<b>SSO</b> 5 5 5	; R 6 6	7 7 7	8 8	9 9	10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
Answer  PR Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 R 2 R	; 3 P1 3 P1 3 ; 3 P1 <b>SW</b> I	P1  OCE  4  ;  4  ;  TCH  4	5 5 5	; R 6	7	8	9	10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P	L 2 L 2 R 2 R 2 R 8 VER 2 S	; 3 P1 3 P1 3; 3 P1 <b>SWI</b> 3 P1	P1  OCE:  4  ;  4  ;  TCH  4 ;	5 5 5 5	; R 6 6 6	7 7 7	8 8 8	9 9 9	10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
Answer  PR Set Read Answer	P 1 P 1 P P 1 P 1 P 1 P 1 P 1 P 1 P 1 P	L 2 L 2 R 2 R 2 R 2 R 2 R 2 R 2 R 2 R 2	; 3 P1 3 P1 3; 3 P1 SWI 3 P1 3	P1  OCE  4  ;  4  ;  TCH  4	<b>SSO</b> 5 5 5	; R 6 6	7 7 7	8 8	9 9	10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read	P 1 P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P	L 2 L 2 R 2 R 2 R 2 R S S S	; 3 P1 3 P1 3; 3 P1 SWI 3 P1 3;	P1  OCE:  4  ;  4  ;  TCH  4  ;	5 5 5 5	; R 6 6	7 7 7 7	8 8 8	9 9 9	10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer	P 1 P 1 P P 1 P 1 P 1 P 1 P 1 P 1 P 1 P	L 2 L 2 R 2 R 2 R 2 R S 2 S 2	; 3 P1 3 P1 3 ; 3 P1 SWI 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 ; 3 ; 3 ; 3 ; 3 ; 3 ; 3 ; 3 ; 3	P1  OCE  4  ;  4  ;  4  ;  TCH  4  4  4	5 5 5 5	; R 6 6 6	7 7 7	8 8 8	9 9 9	10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read	P 1 P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P	L 2 L 2 R 2 R 2 R 2 R S S S	; 3 P1 3 P1 3; 3 P1 SWI 3 P1 3;	P1  OCE:  4  ;  4  ;  TCH  4  ;	5 5 5 5	; R 6 6	7 7 7 7	8 8 8	9 9 9	10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L EECH 2 R 2 R 2 R 2 R 2 S 2 S 5 S	; 3 P1 3 P1 3; 3 P1 3 P1 3 P1 3 P1 3 P1	P1  OCE:  4  ;  4  ;  TCH  4  ;  4  ;	5 5 5 5	; R 6 6	7 7 7 7	8 8 8	9 9 9	10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer	P 1 P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P P 1 P	L 2 L EECH 2 R 2 R 2 R 2 S 2 S S S S S S S S S S S	; 3 P1 P1 3 P1 3 P1 3 P1 3 P1 3 P1 0 0 0	P1  OCE: 4 ; 4 ;  TCH 4 ; 4 ;	P1	; R 6 6 6	7 7 7 7 7 7 7	8 8 8 8 8	9 9	10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 R 2 S S S S S S S S S S S	; 3 P1 3 P1 3; 3 P1 3 P1 3 P1 3 P1 3 P1	P1  OCE:  4  ;  4  ;  TCH  4  ;  4  ;	5 5 5 5	; R 6 6	7 7 7 7	8 8 8	9 9 9	10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 R S 2 S S S S S S S S S S	; 3 P1 3 P1 3; 3 P1 3 P1 3 P1 3 P1 3 P1	P1  OCE:  4 ; 4 ;  TCH 4 ; 4 4 ;	P1	; R 6 6 6 6	7 7 7 7 7 7 7	8 8 8 8 8	9 9 9 9	10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 R 2 S S S S S S S S S S S	; 3 P1 3 P1 3; 3 P1 3 P1 3 P1 3 P1 3 P1	P1  OCE: 4 ; 4 ;  TCH 4 ; 4 ;	P1	; R 6 6 6	7 7 7 7 7 7 7	8 8 8 8 8	9 9	10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set Read	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 R S 2 S S 2 S S S S S S S	; 3 P1 3 P1 3; 3 P1 SWI 3 P1 3 P1 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 P1	P1  OCE:  4  ;  4  ;  TCH  4  ;  4  4  ;	P1	; R 6 6 6 6	7 7 7 7 7 7 7 7 7	8 8 8 8 8 8	9 9 9 9 9 9 9	10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 R S 2 S S S S S S S S S S	; 3 P1 3 P1 3; 3 P1 3 P1 3 P1 3 P1 3 P1	P1  OCE:  4  ;  4  ;  TCH  4  ;  4  4  4  ;	P1	; R 6 6 6 6	7 7 7 7 7 7 7	8 8 8 8 8	9 9 9 9	10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set Read	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 R S 2 S S 2 S S S S S S S	; 3 P1 3 P1 3; 3 P1 SWI 3 P1 3 P1 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 P1	P1  OCE:  4  ;  4  ;  TCH  4  ;  4  4  ;	P1	; R 6 6 6 6	7 7 7 7 7 7 7 7 7	8 8 8 8 8 8	9 9 9 9 9 9 9	10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set Read	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 R S 2 S S 2 S S S S S S S	; 3 P1 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 P1	P1  OCE  4  ;  4  ;  TCH  4  ;  4  4  4  ;	P1	; R 6 6 6 6	7 7 7 7 7 7 7 7 7	8 8 8 8 8 8	9 9 9 9 9 9 9	10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 S 2 S S S S S S S S S S S	; 3 P1 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 P1	P1  OCE  4  ;  4  ;  TCH  4  ;  4  4  4  ;	P1	; R 6 6 6 6	7 7 7 7 7 7 7 7 7	8 8 8 8 8 8	9 9 9 9 9 9 9	10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 S 2 S S S B ST 2 I 2 2 S B RE	; 3 P1 3 P1 3 ; 3 P1  SWI 3 P1 3 ; 3 P1  CORE 3 ; 3 3	P1  OCE  4  ;  4  ;  TCH  4  ;  4  L	\$\frac{5}{5}\$ \$\	; R 6 6 6 6	7 7 7 7 7 7 7 7	8 8 8 8 8 8	9 9 9 9 9	10 10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L EECH 2 R 2 R 2 R 2 S 2 S S S B ST 2 I 2 2 S B RE 2	; 3 P1 3 P1 3 ; 3	P1  OCE  4  ;  4  ;  TCH  4  ;  4  L	\$\frac{5}{5}\$ \$\	; R 6 6 6 6	7 7 7 7 7 7 7 7	8 8 8 8 8 8	9 9 9 9 9	10 10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L EECH 2 R 2 R 2 R S 2 S S S S B ST 2 I 2 C R R R R R R R R R R R R R R R R R R	; 3 P1 3 P1 3 ; 3 ; 3 ; 3	P1  OCE  4  ;  4  ;  TCH  4  ;  L  4	\$\frac{5}{5}\$ \$\	; R 6 6 6 6 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9	10 10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L EECH 2 R 2 R 2 R S 2 S S S S B ST 2 I 2 C R R R R R R R R R R R R R R R R R R	; 3 P1 3 P1 3 ; 3 ; 3 ; 3	P1  OCE  4  ;  4  ;  TCH  4  ;  L  4	\$\frac{5}{5}\$ \$\	; R 6 6 6 6 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9	10 10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"
PR Set Read Answer  PS Set Read Answer  QI Set Read Answer	P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1	L 2 L 2 R 2 R 2 R 2 S 2 S S S B ST 2 I 2 2 R R 2 R 2 R 2 R 2 R 2 R 2 R 2 R	; 3 P1 3 P1 3 ; 3 P1 6 6 6 7 7 8 7 8 7 8 7 8 7 8 7 8 8 8 8 8	P1  OCE  4  ;  4  ;  TCH  4  ;  L  4	\$\frac{5}{5}\$ \$\	; R 6 6 6 6 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9	10 10 10 10 10 10 10 10	1: Speech Processor "ON" 2: Microphone Equalizer "ON"

		_
	COMMAND	IARIFS
CONTROL	COMMAND	IADLLO

	_										
QS	QUI	CK S	<b>PLI</b>	Γ							
Set	1	2	3	4	5	6	7	8	9	10	
	Q	S	;								
Read	1	2	3	4	5	6	7	8	9	10	
Answer	1	2	3	4	5	6	7	8	9	10	_
RA	RE	\TTF	NUZ	TOR							
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band Receiver
	R	A	P1	P2	:	-					1: Sub (VFO-B) Band Receiver
Read	1	2	3	4	5	6	7	8	9	10	P2 0: OFF
	R	Α	P1	;							- 1: 6 dB 2: 12 dB
Answer	1	2	3	4	5	6	7	8	9	10	3: 18 dB
	R	Α	P1	P2	;						
D0		D 0									
RC Set		R C			-		-	_		10	T
Set	R R	2 <b>C</b>	3	4	5	6	7	8	9	10	-
Read	1	2	3	4	5	6	7	8	9	10	-
INCau	-		3	4	3	0	1	0	9	10	-
Answer	1	2	3	4	5	6	7	8	9	10	1
,	<u> </u>			+	Ť	۲	,	-	Ť	"	1
RD	CLA	R M	INUS	OF	FSE1						
Set	1	2	3	4	5	6	7	8	9	10	P1 0000 - 9999 (Hz)
	R	D	P1	P1	P1	P1	;				
Read	1	2	3	4	5	6	7	8	9	10	
_	_										
Answer	1	2	3	4	5	6	7	8	9	10	
RF	ROO	FIN	G FI	LTEF	?						
Set	1	2	3	4	5	6	7	8	9	10	P1 P2 0: AUTO P3 1: 15 kHz 8: 300 Hz (Main)
	R	F	P1	P2		_		_	Ť		0: Main (VFO-A) 1: 15 kHz 2: 6 kHz 9: AUTO - 600 Hz (Main)
Read	1	2	3	4	5	6	7	8	9	10	Band Receiver 2: 6 kHz 3: 3 kHz A: AUTO - 300 Hz (Main)
1	R	F	P1	:		_			Ť		1: Sub (VFO-B) 3: 3 kHz 4: AUTO - 15 kHz Band Receiver 4: 600 Hz (Main) 5: AUTO - 6kHz
Answer	1	2	3	4	5	6	7	8	9	10	5: 300 Hz (Main) 6: AUTO - 3 kHz
	R	F	P1	P3	:						7: 600 Hz (Main)
											·
RG	_	GAIN									
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band Receiver 1: Sub (VFO-B) Band Receiver
Read	R	G	P1	P2	P2	P2	,	-	_	10	P2 000 - 255
Reau	R R	2 <b>G</b>	3 P1	4	5	6	7	8	9	10	-
Answer	1	2	3	4	5	6	7	8	9	10	-
Allowei	R	G		P2		_		0	9	10	-
						<b>'</b>					<u> </u>
RI	RAI	DIO II	NFO	RMA	TION						
Set	1	2	3	4	5	6	7	8	9	10	P1 0:Hi-SWR 7: MAIN RX P2 0: OFF
											1: MIC-EQ 8: SUB RX 1: ON 2: CLASS-A
Read	1	2	3	4	5	6	7	8	9	10	2. CLASS-A 3: REC
<u> </u>	R	1	P1	;							4: PLAY
Answer	1	2	3	4	5	6	7	8	9	10	5: MAIN TX
	R	ı	P1	P2	;						6: SUB TX
RL	NOI	SE R	EDI	JCTI	ON L	EVF	L				
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band Receiver
1	R	L	P1	P2	P2	:	<u> </u>		<u> </u>	· •	1: Sub (VFO-B) Band Receiver
Read	1	2	3	4	5	6	7	8	9	10	P2 01 - 15
L	R	L	P1	;							
Answer	1	2	3	4	5	6	7	8	9	10	]
	R	L	P1	P2	P2	;					<u> </u>
DM	D=-	D :-		_							
RM		ND M									Di o Di i di di di METERI
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Depends of the front panel's METER knob 1: S Meter (Main) 5: PO Meter
Bood					<del>  _</del>		_		_	40	2: S Meter (Sub) 6: SWR Meter
Read	1 D	2	3 P1	4	5	6	7	8	9	10	- 3: COMP Meter 7: ID Meter
Answer	<b>R</b>	<b>M</b>	91 3	,	F	_	7	8	9	10	4: ALC Meter 8: VDD Meter
VII2MAI	R	M	9 P1	P2	5 P2	6 P2	7	0	9	10	P2 0 - 255
	ı D	171	1 T	「∠	「∠	1 2	,				1

#### CONTROL COMMAND TABLES

RO         ROTATOR           Set         1         2         3         4         5         6         7         8         9         10         P1         0: OFF           Read         1         2         3         4         5         6         7         8         9         10         Respect of the control of the c	
Set         1         2         3         4         5         6         7         8         9         10         P1         0: OFF           Read         1         2         3         4         5         6         7         8         9         10         R         P1         0: OFF         1: Counter Clockwise         2: Clockwise         3: SPEED 1 % DOWN         4: SPEED 1 % DOWN         4: SPEED 1 % UP         DOWN         4: SPEED 1 % UP         DIRECTION (0 - 450)         P3         SPEED (0 - 100 %)         SPEED (0 - 100 %)         P3         P3         P3         P3         P3         P3         P3         P3         P3         P3 </td <td></td>	
Read	
Read 1 2 3 4 5 6 7 8 9 10 R O ; Answer 1 2 3 4 5 6 7 8 9 10 R O P1 P2 P2 P2 P3 P3 P3 ;  Set 1 2 3 4 5 6 7 8 9 10 Read 1 2 3 4 5 6 7 8 9 10 R O P1 P2 P2 P3 P3 P3 P3 ;  Set 1 2 3 4 5 6 7 8 9 10 Read 1 2 3 4 5 6 7 8 9 10 Read 1 2 3 4 5 6 7 8 9 10 Read 1 2 3 4 5 6 7 8 9 10 Read 1 2 3 4 5 6 7 8 9 10 R S ; Answer 1 2 3 4 5 6 7 8 9 10	
Read 1 2 3 4 5 6 7 8 9 10 Answer 1 2 3 4 5 6 7 8 9 10 Read 1 2 3 4 5 6 7 8 9 8 10 Read 1 2 3 4 5 6 7 8 9 8 10 Read 1 2 3 4	
R O ;	
Answer 1 2 3 4 5 6 7 8 9 10 P2 DIRECTION (0 - 450)  R O P1 P2 P2 P2 P3 P3 P3 ; P3 SPEED (0 - 100 %)  RS RADIO STATUS  Set 1 2 3 4 5 6 7 8 9 10 P1 SEED (0 - 100 %)  Read 1 2 3 4 5 6 7 8 9 10 P1 SEED (0 - 100 %)  Read 1 2 3 4 5 6 7 8 9 10 P1 SEED (0 - 100 %)  Answer 1 2 3 4 5 6 7 8 9 10	
R O P1 P2 P2 P3 P3 P3 ; P3 SPEED (0 - 100 %)  RS RADIO STATUS  Set 1 2 3 4 5 6 7 8 9 10 P1 0: NORMAL MODE  Read 1 2 3 4 5 6 7 8 9 10 R S ;  Answer 1 2 3 4 5 6 7 8 9 10	
RS	
Set         1         2         3         4         5         6         7         8         9         10         P1         0: NORMAL MODE           Read         1         2         3         4         5         6         7         8         9         10           Answer         1         2         3         4         5         6         7         8         9         10	
Set         1         2         3         4         5         6         7         8         9         10         P1         0: NORMAL MODE           Read         1         2         3         4         5         6         7         8         9         10           Answer         1         2         3         4         5         6         7         8         9         10	
Read 1 2 3 4 5 6 7 8 9 10  R S ;  Answer 1 2 3 4 5 6 7 8 9 10	
Read     1     2     3     4     5     6     7     8     9     10       R     S     ;         Answer     1     2     3     4     5     6     7     8     9     10	
R S ;	
Answer 1 2 3 4 5 6 7 8 9 10	
Answer 1 2 3 4 5 6 7 8 9 10	
[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [	
RT CLAR	
Set 1 2 3 4 5 6 7 8 9 10 P1 0:RX Clarifier "OFF"	
R T P1 ; 1: RX Clarifier "ON"	
Read   1   2   3   4   5   6   7   8   9   10	
Answer 1 2 3 4 5 6 7 8 9 10	
R T P1 :	
RU RX CLARIFIER PLUS OFFSET	
Set 1 2 3 4 5 6 7 8 9 10 P1 0000 - 9999 (Hz)	
R U P1 P1 P1 ;	
Read 1 2 3 4 5 6 7 8 9 10	
Answer 1 2 3 4 5 6 7 8 9 10	
SC SCAN	
S C P1 ; 1: Scan "ON" (Upward) 2: Scan "ON" (Downward)	
Read   1   2   3   4   5   6   7   8   9   10   2. Stall ON (Downward)	
Answer 1 2 3 4 5 6 7 8 9 10	
S C P1 :	
3 6 11 1 ,	
SD CW BREAK-IN DELAY TIME	
Set 1 2 3 4 5 6 7 8 9 10 P1 0020 - 5000 (mS)	
Read 1 2 3 4 5 6 7 8 9 10	
S D ;	
S D ;	
S D ;	
S D ;	
S D ;	
S   D   ;	
S D ;	
S   D   ;	
S   D   ;	
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S   D   ;	
S   D   ;	
S   D   ;	
S   D   ;	
S   D   ;	
S   D   ;	
S   D   ;	0
S   D   ;	
S	00
S   D   ;	00
S   D   ;	00
S	00 00 00
S	00 00 00
S   D   ;	00 00 00 00 0 10: [500]
S D	00 00 00 00 0 10: [500]
S D	00 00 00 00 0 0 10: [500]
S	00 00 00 00 0 10: [500] 0 0 10: 500
S	00 00 00 00 0 10: [500] 0 0 10: 500
S D	00 00 00 00 00 010: [500] 00 00 10: 500
S	00 00 00 00 0 10: [500] 0 0 10: 500
S	00 00 00 00 0 10: [500] 0 0 10: 500
S	00 00 00 00 0 10: [500] 0 0 10: 500

SM	S-M	ETF	RRF	ADII	NG						
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band S-meter
55.	<u> </u>		٣	<u> </u>	Ť	Ť	<u> </u>	Ť	Ť		1: Sub (VFO-B) Band S-meter
Read	1	2	3	4	5	6	7	8	9	10	P2 000 - 255
Nodu	S	M	P1		3	0	'	٥	9	10	-
Answer		_		,	-	_	7	0		10	-
Allswei	1	2	3	4	5	6	7	8	9	10	-
	S	M	P1	P2	P2	P2	į,				
00	001	151.6	N 111	L E \ / E	-,						
SQ				LEVE							The case with the case of the
Set	1	2	3	4	5	6	7	8	9	10	P1 0: Main (VFO-A) Band Receiver 1: Sub (VFO-B) Band Receiver
	S	Q	P1	P2		P2	;				P2 000 - 255
Read	1	2	3	4	5	6	7	8	9	10	1 2 333 233
	S	Q	P1	;							4
Answer	1	2	3	4	5	6	7	8	9	10	
	S	Q	P1	P2	P2	P2	;				
SV	CM	AP V	F0								
Set					-		-	_		40	1
Set	S S	2	3	4	5	6	7	8	9	10	-
Dood	_	V	;		_		_	_		40	-
Read	1	2	3	4	5	6	7	8	9	10	-
Λ ν σ		_	_	<del> </del>	-	_	<u> </u>	_	_		-
Answer	1	2	3	4	5	6	7	8	9	10	-
TS	TXV	V									
Set	1	2	3	4	E	6	7	8	9	10	P1 0:TXW "OFF"
Set	T	S	9 P1	- 4	5	р	/	ď	9	10	1:TXW "OFF"
Dood	-			,	_		_	_		40	1.17.00
Read	1	2	3	4	5	6	7	8	9	10	-
A	Т	S	;	<u>.</u>	_	_			_		4
Answer	1	2	3	4	5	6	7	8	9	10	
	T	S	P1	;							
TY	TY	SFT									
TX Set	TX S		3	1	5	6	7	8	a	10	P1 0: RADIO TX "OFF" CAT TX "OFF"
<b>TX</b> Set	1	2	3 D1	4	5	6	7	8	9	10	P1 0: RADIO TX "OFF" CAT TX "OFF" 1: RADIO TX "OFF" CAT TX "ON"
Set	1 <b>T</b>	2 <b>X</b>	P1	;							P1 0: RADIO TX "OFF" CAT TX "OFF" 1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
	1 <b>T</b>	2 <b>X</b> 2	P1 3		5	6	7	8	9	10	1: RADIO TX "OFF" CAT TX "ON"
Set Read	1 T 1 T	2 X 2 X	P1 3 ;	; 4	5	6	7	8	9	10	1: RADIO TX "OFF" CAT TX "ON"
Set	1 T T 1	2 X 2 X 2	P1 3 ;	; 4 4							1: RADIO TX "OFF" CAT TX "ON"
Set Read	1 T 1 T	2 X 2 X	P1 3 ;	; 4	5	6	7	8	9	10	1: RADIO TX "OFF" CAT TX "ON"
Set Read Answer	1 T T T T T	2 X 2 X 2 X	P1 3 ; 3 P1	; 4 4 ;	5	6	7	8	9	10	1: RADIO TX "OFF" CAT TX "ON"
Set Read	1 T T T T T	2 X 2 X 2 X	P1 3 ; 3 P1	; 4 4	5 5 <b>ATUS</b>	6	7	8	9	10	1: RADIO TX "OFF" CAT TX "ON"
Set Read Answer	1 T 1 T T T T T	2 X 2 X 2 X	P1 3 ; 3 P1	; 4 4 ; K STA	5	6	7	8	9	10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set	1 T 1 T 1 T	2 X 2 X 2 X	P1 3 ; 3 P1 <b>OCI</b> 3	; 4 ; <b>K ST</b> /4	5 5 <b>ATUS</b> 5	6	7 7	8 8	9 9	10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Set Read Answer	1 T 1 T 1 T	2 X 2 X 2 X UNI 2 2	P1 3 ; 3 P1 OCI 3	; 4 4 ; K STA	5 5 <b>ATUS</b>	6	7	8	9	10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read	1 T 1 T T T T T T T T T T T T T T T T T	2 X 2 X 2 X .UNI 2 L	P1 3 ; 3 P1 •OCI 3	; 4 ; <b>K ST/</b> 4	5 5 5 5 5	6 6	7 7 7	8 8 8	9 9 9	10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set	1 T 1 T T T T T T T T T T T T T T T T T	2 X 2 X 2 X . UNI 2 2 L 2	P1 3 ; 3 P1 OCI 3 ; 3	; 4 ; <b>K ST</b> A 4	5 5 <b>ATUS</b> 5	6	7 7	8 8	9 9	10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read	1 T 1 T T T T T T T T T T T T T T T T T	2 X 2 X 2 X .UNI 2 L	P1 3 ; 3 P1 •OCI 3	; 4 ; <b>K ST/</b> 4	5 5 5 5 5	6 6	7 7 7	8 8 8	9 9 9	10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read	1 T 1 T T T T T T T T T T T T T T T T T	2 X 2 X 2 X . UNI 2 L 2 L	P1 3 ; 3 P1 OCI 3 ; 3	; 4 ; <b>K ST</b> A 4	5 5 5 5 5	6 6	7 7 7	8 8 8	9 9 9	10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer	1 T 1 T T 1 T U 1 U U	2 X 2 X 2 X . UNI 2 L 2 L	P1 3 ; 3 P1 OCI 3 ; 3	; 4 ; <b>K ST</b> A 4	5 5 5 5 5	6 6	7 7 7	8 8 8	9 9 9	10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Set Read Answer  UL Set Read Answer	1 T 1 T T 1 T U 1 U U U U MIC	2 X 2 X 2 X .UNI 2 L 2 L	P1 3 ; 3 P1 OCI 3 3 ; 3 P1	; 4 ; <b>K ST</b> / 4 4 ;	5 5 5 5 5	6 6 6	7 7 7 7	8 8 8	9 9 9	10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Set Read Answer  UL Set Read Answer	1 T 1 T T T U 1 U U MIC 1	2 X 2 X 2 X 	P1 3 ; 3 P1 3 ; 3 P1 3	; 4 ; <b>K ST</b> / 4 4 ;	5 5 5 5 5	6 6 6	7 7 7 7	8 8 8	9 9 9	10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer	1 T 1 T T T T U 1 U U U U U U U U U U U	2 X 2 X 2 X .UNI 2 L 2 L 2 L P	P1 3 ; 3 P1 3 ; 3 P1 3 ; ;	; 4 4;; K ST/4 4 ;	5 5 5 5 5	6 6 6	7 7 7 7 7	8 8 8	9 9 9	10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer	1 T 1 T T T T U 1 U U U U U U U U U U U	2 X 2 X 2 X .UNI 2 L 2 L 2 L P	P1 3 ; 3 P1 3 ; 3 P1 3 ; ;	; 4 4;; K ST/4 4 ;	5 5 5 5 5	6 6 6	7 7 7 7 7	8 8 8	9 9 9	10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read	1 T 1 T 1 T T 1 U 1 U	2 X 2 X 2 X X 2 X X . UNI 2 2 L 2 L 2 L P 2 P 2	P1 3 3 ; 3 P1 3 ; 3 3 P1	; 4 4 ; ; <b>K ST</b> , 4 4 ; 4	5 5 5 5 5	6 6 6	7 7 7 7 7 7 7	8 8 8 8 8	9 9 9 9	10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer	1 T 1 T 1 T 1 U 1 U 1 U	2 X 2 X 2 X .UNI 2 L 2 L 2 L 2 P 2	P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1	; 4 4;; <b>K ST</b> /4 4 4 4 4	5 5 5 5 5 5	6 6 6	7 7 7 7 7 7 7	8 8 8 8 8	9 9 9 9	10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer	1 T 1 T 1 T 1 U 1 U 1 U	2 X 2 X 2 X .UNI 2 L 2 L 2 L 2 P 2	P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1	; 4 4 ; ; <b>K ST</b> , 4 4 ; 4	5 5 5 5 5 5	6 6 6	7 7 7 7 7 7 7	8 8 8 8 8	9 9 9 9	10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer	1 T 1 T 1 T 1 U 1 U 1 U	2 X 2 X 2 X .UNI 2 L 2 L 2 L 2 P 2	P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1	; 4 4;; <b>K ST</b> /4 4 4 4 4	5 5 5 5 5 5	6 6 6	7 7 7 7 7 7 7	8 8 8 8 8	9 9 9 9	10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer	1 T 1 T 1 T 1 U 1 U 1 U 1 U 1 U	2 X 2 X 2 X 2 L 2 L 2 L 2 L 2 2 L 2 2 C 2 2 2 4 4 4 4 4 5 4 4 4 4 4 4 4 4 4 4 4 4 4	P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 4 P1	; 4 4;; <b>K ST</b> , 4 4 ; <b>TIME</b>	5 5 5 5 5 5	6 6 6	7 7 7 7 7 7 7	8 8 8 8	9 9 9 9 9	10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer	1 T 1 T 1 T 1 U 1 U 1 U 1 U	2 X 2 X 2 X 2 L 2 L 2 L 2 L 2 2 L 2 2 L 2 2 2 2 4 4 4 4 5 6 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8	P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 4 P1 4 P1 4 P1	; 4 4; ; K ST/4 4 4 ; TIME	5 5 5 5 5 5	6 6 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8	9 9 9 9 9	10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer  VD Set	1 T 1 T 1 T 1 U 1 U 1 U 1 U 1 V V V V	2 X 2 X 2 X 2 X 2 X X 2 L 2 L 2 L 2 L 2	P1 3 ; 3 P1 3 ; 3 P1 3 ; 3 P1 4 P1	; 4 4;; K ST/4 4 ; TIME 4 P1	5 5 5 5 5 5 5 7	6 6 6 6 P1	7 7 7 7 7 7 7 7 7 7 ;	8 8 8 8 8 8	9 9 9 9 9	10 10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer  VD Set	1 T 1 T T T T T T T T T T T T T T T T T	2 X 2 X 2 X 2 X 2 X 2 X 2 X 2 X 2 X 2 X	P1 3 ; 3 P1 3 ; 3 P1 4 P1 3 ; 3 P1 3 P1 3 P1 3 P1 3 P1 3 P1 3	; 4 4;; K ST/4 4 ; TIME 4 P1	5 5 5 5 5 5 5 7	6 6 6 6 P1	7 7 7 7 7 7 7 7 7 7 ;	8 8 8 8 8 8	9 9 9 9 9	10 10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer  VD Set Read Answer	1 T 1 T 1 T 1 U 1 U 1 U 1 U 1 V V V	2 X 2 X 2 X 2 X 2 X 2 X 2 X 2 X 2 X 2 X	P1 3 ; 3 P1 3 P1	; 4 4;;  K ST/4 4 4 ;  TIME 4 P1 4	5 5 5 5 5 5 5 5 5	6 6 6 6 P1 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9 9	10 10 10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer  VD Set Read Answer	1 T 1 T 1 T 1 U 1 U 1 U 1 V V V V V	2 X 2 X 2 X .UNI 2 L 2 L 2 L 2 P 2 D D 2	P1 3 3 3 P1 3 3 P1 3 3 P1	; 4 4; ;  K ST/4 4 ; ;  4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	5 5 5 5 5 5 5 5 5 5 5	6 6 6 6 6 6 6 P1 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9 9	10 10 10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer  VD Set Read Answer	1 T 1 T 1 T 1 U 1 U 1 U 1 V V V V V	2 X 2 X 2 X 2 X 2 X 2 X 2 X 2 X 2 X 2 X	P1 3 3 3 P1 3 3 P1 3 3 P1	; 4 4; ;  K ST/4 4 ; ;  4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	5 5 5 5 5 5 5 5 5 5 5	6 6 6 6 6 6 6 P1 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9 9	10 10 10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)
Read Answer  UL Set Read Answer  UP Set Read Answer  VD Set Read Answer	1 T 1 T 1 T 1 U 1 U 1 U 1 V V V V V	2 X 2 X 2 X .UNI 2 L 2 L 2 L 2 P 2 D D 2	P1 3 3 3 P1 3 3 P1 3 3 P1 TER 3	; 4 4; ;  K ST/4 4 ; ;  4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	5 5 5 5 5 5 5 5 5 7 7 7 7 7 7 7 7 7 7 7	6 6 6 6 6 6 6 P1 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9 9	10 10 10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)  P1 0: PLL "Lock" 1: PLL "Unlock"  P1 0020 - 5000 mS (20 mS multiples)  P1 0: Main (VFO-A) Band Receiver P3 +: Plus Shift
Read Answer  UL Set Read Answer  UP Set Read Answer  VD Set Read Answer	1	2 X 2 X 2 X 2 X 2 X	P1 3 ; 3 P1 3 ; 3 P1 S P1	; 4 4;;  K ST/4 4 ;  TIME 4 P1 4 P1	5 5 5 5 5 5 5 5 7 7 7	6 6 6 6 6 6 6 6 P1 6 P1	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8 8	9 9 9 9 9 9	10 10 10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)  P1 0: PLL "Lock" 1: PLL "Unlock"  P1 0020 - 5000 mS (20 mS multiples)  P1 0: Main (VFO-A) Band Receiver P3 +: Plus Shift 1: Sub (VFO-B) Band Receiver —: Minus Shift
Read Answer  UL Set Read Answer  UP Set Read Answer  VD Set Read Answer	1 T 1 T T T T T T T T T T T T T T T T T	2 X 2 X 2 X 2 X 2 X	P1 3 3 3 P1 3 3 P1 3 3 P1 TER 3	; 4 4 ;   K ST/ 4 4 ;   TIME 4 P1 4	5 5 5 5 5 5 5 5 5 7 7 7 7 7 7 7 7 7 7 7	6 6 6 6 6 6 6 6 P1 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8 8	9 9 9 9 9 9	10 10 10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)  P1 0: PLL "Lock" 1: PLL "Unlock"  P1 0020 - 5000 mS (20 mS multiples)  P1 0: Main (VFO-A) Band Receiver 1: Sub (VFO-B) Band Receiver P2 0: OFF P4 0 - 9 (Step)
Read Answer  UL Set Read Answer  UP Set Read Answer  VD Set Read Answer	1	2 X 2 X 2 X 2 X 2 L 2 L 2 L 2 D 2 D 2 D 2 D 7 FFIL 2 F	P1 3 3 3 P1 3 3 P1 TER 3 P1	; 4 4 ;;  K ST/ 4 4 ;  TIME 4 P1 4 P1	5 5 5 5 5 5 5 5 5 7 7 7 7 7 7	6 6 6 6 6 6 6 6 6 P1 6 P1	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9 9	10 10 10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)  P1 0: PLL "Lock" 1: PLL "Unlock"  P1 0: Main (VFO-A) Band Receiver 1: Sub (VFO-B) Band Receiver 1: Sub (VFO-B) Band Receiver P4 0 - 9 (Step) 1: ON P5 000 - 255
Read Answer  UL Set Read Answer  UP Set Read Answer  VD Set Read Answer	1	2 X 2 X 2 X 2 X 2 X 2 L 2 L 2 L 2 D 2 D 2 D 2 D 2 FFIL 2 FF 2	P1 3 3 3 P1 3 3 P1 S P1 S P1 S P1 3 S P1 S P1	; 4 4 ;;  K ST/ 4 4 ;  TIME 4 P1 4 P1	5 5 5 5 5 5 5 5 5 7 7 7 7 7 7	6 6 6 6 6 6 6 6 6 P1 6 P1	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8	9 9 9 9 9 9 9	10 10 10 10 10 10 10 10	1: RADIO TX "OFF" CAT TX "ON" 2: RADIO TX "ON" CAT TX "OFF" (Answer)  P1 0: PLL "Lock" 1: PLL "Unlock"  P1 0: Main (VFO-A) Band Receiver 1: Sub (VFO-B) Band Receiver 1: Sub (VFO-B) Band Receiver P4 0 - 9 (Step) 1: ON P5 000 - 255

# CAT (Computer Aided Transceiver) OPERATION

VG	VO	(GA	IN								
Set	1	2	3	4	5	6	7	8	9	10	P1 000 - 255
	٧	G	P1	P1	P1	;					
Read	1	2	3	4	5	6	7	8	9	10	
	٧	G	;								
Answer	1	2	3	4	5	6	7	8	9	10	
	٧	G	P1	P1	P1	;					

VM	VFC	)-A T	О МІ	EMO	RY C	HAN	INEL			
Set	1	2	3	4	5	6	7	8	9	10
	٧	M	;							
Read	1	2	3	4	5	6	7	8	9	10
Answer	1	2	3	4	5	6	7	8	9	10

VS	VFO SELECT													
Set	1	2	3	4	5	6	7	8	9	10	P1 0: VFO-A			
	٧	S	P1	;							1: VFO-B			
Read	1	2	3	4	5	6	7	8	9	10				
	٧	S	;											
Answer	1	2	3	4	5	6	7	8	9	10				
	٧	S	P1	;										

VX	VOX STATUS												
Set	1	2	3	4	5	6	7	8	9	10	P1 0: VOX "OFF"		
	٧	Х	P1	;							1: VOX "ON"		
Read	1	2	3	4	5	6	7	8	9	10			
	>	Х	;										
Answer	1	2	3	4	5	6	7	8	9	10			
	٧	Х	P1	;									

XT	TX CLAR													
Set	1	21	3	4	5	6	7	8	9	10	P1 0: TX CLAR "OFF"			
	Х	Т	P1	;							1: TX CLAR "ON"			
Read	1	2	3	4	5	6	7	8	9	10				
	Х	Т	;											
Answer	1	2	3	4	5	6	7	8	9	10				
	Х	Т	P1	;										



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