ICOM INSTRUCTIONS

CI-V LEVEL CONVERTER

CT-17

Thank you for purchasing an Icom CT-17 COMMUNICATION INTERFACE-V (CI-V) LEVEL CONVERTER. Up to 4 Icom CI-V transceivers or receivers can be controlled using the CT-17.

For maximum performance, please read these instructions thoroughly.

CONNECTIONS

CAUTION: Turn the power OFF when connecting to the transceiver (or receiver) and personal computer.

① Connect the supplied mini-plug cable to the transceiver (or receiver) and an RS-232C cable to your computer.
- An RS-232C cable must be purchased separately.

② Connect a regulated DC power to the [9-15 V DC IN] jack using the supplied DC power cable.

③ Turn the computer power ON. Set the same baud rate of your computer's RS-232C terminal for the connecting transceiver/receiver. Refer to your computer instruction manual.
- The standard Icom CI-V baud rate is 1200 bps.

④ Turn the transceiver and receiver power ON. Apply 9–15 V DC (20 mA) power to the CT-17.

NOTE: If the transceiver or receiver is set near the computer, computer noise may be received.

ADDRESS NUMBERS

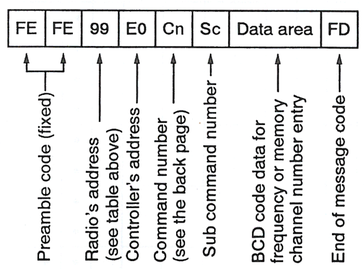
Address number of the transceiver/receiver is preset in set mode, address switch or address connector. The Icom standard address numbers are as follows:

Model	Address number	Model	Address number
IC-781	26	IC-R9000	2A
IC-775	46	IC-R7100	34
IC-765	2C	IC-R7000	08
IC-761	1E	IC-R72	32
IC-738	44	IC-1275A/E	18
IC-737/A	3C	IC-970A/E/H	2E
IC-736	40	IC-820H	42
IC-735	04	IC-575A/H	16
IC-729	3A	IC-475A/E/H	14
IC-728	38	IC-375A	12
IC-726	30	IC-275A/E/H	10
IC-725	28		
IC-707	3E	Controller	E0

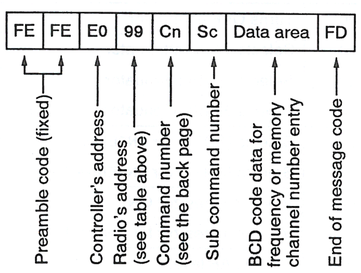
*Refer to the radio's instruction manual if your radio is not listed in the above table.

CI-V DATA FORMAT

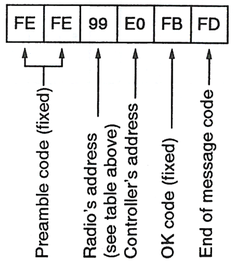
CONTROLLER TO RADIO



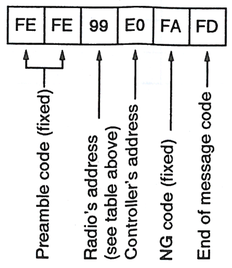
RADIO TO CONTROLLER



OK MESSAGE TO CONTROLLER



NG MESSAGE TO CONTROLLER



DATA EXAMPLE FOR FREQUENCY

Setting or reading 144.123456 MHz

Data area	=	56	34	12	44	01

Setting or reading 7.123456 MHz

Data area	=	56	34	12	07	00

SUB COMMAND TABLE

MODE DATA (Cn: 01/06)

Mode	Sub command	Passband data [pd]		
		Wide	Narrow*2	Middle*2
LSB	00	01	02	02
USB	01	01	02	02
AM	02	01	02	02
CW	03	01	02	02
RTTY	04	01	02	02
FM	05	01	02	02
Wide FM	06	—	—	
SSB*1	0500	—	—	

NOTE: Some modes are not available depending on radios.
*1IC-R7000 only.
*2Middle available for the IC-R9000 only, and "03" is used for "narrow."

MEMORY CHANNEL DATA (Cn: 08)

Sub command [mc]	Description
—	When no memory channel number is specified, the previously used channel is selected.
00–99	Selects specified memory channel.
0100–9999	Selects specified memory channel. [Example]: Mch 123 = 0123 Refer to the tables below for special channels.

SPECIAL CHANNELS (Cn: 08)

Special channels	Channel data
P1 (scan edge)	0100
P2 (scan edge)	0101
Call channel	0102

SPECIAL CHANNELS FOR IC-R9000/R7100 (Cn: 08)

Scan edge channel	Channel data		Scan edge channel	Channel data	
	IC-R9000	IC-R7100		IC-R9000	IC-R7100
0P1	1000	0900	5P1	1010	0910
0P2	1001	0901	5P2	1011	0911
1P1	1002	0902	6P1	1012	0912
1P2	1003	0903	6P2	1013	0913
2P1	1004	0904	7P1	1014	0914
2P2	1005	0905	7P2	1015	0915
3P1	1006	0906	8P1	1016	0916
3P2	1007	0907	8P2	1017	0917
4P1	1008	0908	9P1	1018	0918
4P2	1009	0909	9P2	1019	0919

Icom Inc.
1-1-32 Kamiminami, Hirano-ku, Osaka 547-0003 Japan

Count on us!

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COMMAND TABLE

Command Cn	Command Sc	Description	IC-781	IC-775	IC-765	IC-761 IC-751A	IC-738/736 IC-737/A	IC-728/729 IC-725/726	IC-735	IC-707		IC-970	IC-820H	IC-275/475 IC-575/1275	IC-271/471 IC-1271		IC-R9000	IC-R7100	IC-R7000	IC-R72	IC-R71
00	—	Transfers frequency	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
01	md pd	Transfers mode	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
02	—	Reads frequency edges	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
03	—	Reads frequency	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
04	—	Reads mode	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
05	—	Sets frequency	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
06	md pd	Selects mode	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
07	—	Selects VFO mode	•	•	•	•	•	•	•	•		•	•	•	•					•	•
	00	Selects VFO A	•		•		•	•	•	•		•	•	•							
	01	Selects VFO B	•		•		•	•	•	•		•	•	•							
	A0	A=B	•		•		•	•		•		•	•								
	B0	A/B (or MAIN/SUB)	•	•								•	•								
	B1	MAIN=SUB		•																	
	C0	Dualwatch OFF	•	•																	
	C1	Dualwatch ON	•	•																	
	D0	MAIN band access										•	•								
	D1	SUB band access										•	•								
	E0 wn	Selects front window																•			
08	—	Selects MEMORY mode	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
	mc	Selects memory channel	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
09	—	Memory write	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•
0A	—	MEMO►VFO	•	•	•	•	•	•	•	•		•	•	•	•					•	•
0B	—	Memory clear	•	•	•			•				•	•	•			•	•	•	•	
0C	—	Reads offset frequency										•	•	•	•						
0D	—	Sets offset frequency										•	•	•	•						
0E	00	Scan stop	•	•	•		•	•		•		•	•	•			•	•		•	
	01	Scan start	•	•	•		•	•		•		•	•	•						•	
	02	Starts programmed scan	•														•	•		•	
	03	Starts ⊿f scan	•														•				
	04	Starts auto memory write scan															•	•		•	
	12	Starts fine programmed scan	•																		
	13	Starts fine ⊿f scan	•																		
	22	Starts memory scan	•														•	•		•	
	23	Starts selected number memory scan	•														•	•		•	
	24	Starts selected mode memory scan															•	•			
	42	Starts priority scan (or window scan)															•	•			
	A0	Unfixes center freq. for ⊿f scan	•														•				
	AA	Fixes center freq. for ⊿f scan	•														•				
	A1	Sets ±2.5 kHz for ⊿f freq. width	•														•				
	A2	Sets ±5 kHz for ⊿f freq. width	•														•				
	A3	Sets ±10 kHz for ⊿f freq. width	•														•				
	A4	Sets ±20 kHz for ⊿f freq. width	•														•				
	A5	Sets ±50 kHz for ⊿f freq. width	•														•				

Command Cn	Command Sc	Description	IC-781	IC-775	IC-765	IC-761 IC-751A	IC-738/736 IC-737/A	IC-728/729 IC-725/726	IC-735	IC-707		IC-970	IC-820H	IC-275/475 IC-575/1275	IC-271/471 IC-1271		IC-R9000	IC-R7100	IC-R7000	IC-R72	IC-R71
0E	B0	Sets the selected number as non effective for a memory channel.	•														•	•		•	
	B1	Sets the selected number as effective for a memory channel.	•														•	•		•	
	B2	Sets the scan number for a selected number memory scan.	•														•	•			
	C0	Turns OFF the VSC function															•	•			
	C1	Turns ON the VSC function															•	•			
	D0	Selects [∞] for scan resume															•	•			
	D1	Selects [OFF] for scan resume															•	•			
	D2	Selects [B] for scan resume															•				
	D3	Selects [A] for scan resume															•	•			
0F	00	Turns OFF the split function	•	•	•		•	•		•		•	•								
	01	Turns ON the split function	•	•	•		•	•		•		•	•								
	10	Selects simplex										•	•								
	11	Selects −duplex										•	•								
	12	Selects +duplex										•	•								
10	00	Selects minimum tuning step		10			10			•							10	100		10	
	01	Selects tuning step 1		1k			1k			•							100	1k		1k	
	02	Selects tuning step 2		2k			2k										1k	5k		2k	
	03	Selects tuning step 3		3k			3k										5k	10k		3k	
	04	Selects tuning step 4		4k			4k										9k	12.5		4k	
	05	Selects tuning step 5		5k			5k										10k	20k		5k	
	06	Selects tuning step 6		6k			6k										12.5	25k		6k	
	07	Selects tuning step 7		7k			7k										20k	100		7k	
	08	Selects tuning step 8		8k			8k										25k			8k	
	09	Selects tuning step 9		9k			9k										100			9k	
	10	Selects tuning step 10		10k			10k													10k	
11	00	Turns OFF attenuator															•	•			
	10	Selects 10 dB attenuator															•				
	20	Selects 20 dB attenuator															•	•			
	30	Selects 30 dB attenuator															•				
12	00	Selects [ANT1] (or ANTENNA OFF)		•			•										•				
	01	Selects [ANT2] (or ANTENNA ON)		•			•										•				
13	00	Voice synthesizer ON															•	•		•	
	01	Voice synthesizer for freq. only															•	•		•	
14	01	Selects AF level															•	•			
	02	Selects RF gain															•	•			
	03	Selects squelch level															•	•			
15	01	Reads squelch condition															•	•		•	
	02	Reads S-meter level															•	•			
17	—	Electronic keyer input		•																	