PREFACE

There are three operation specifications for BC895XLT.This document is for Remote mode and described about RS-232C command definition.Others are for Conventional mode and for Trunking mode. See these documents if you want to know about any operation in Conventional mode or Trunking mode.

RS-232C Remote Mode Command Definition

?Communication Format?

BPS rate	:2400/4800/9600BPS
Start/Stop bit	:1bit,1bit
Data Length	:8bit
Parity Check	:None
Code	:ASCII
Flow Control	:None
Return Code	:Carriage Return only

*1 In case of controling with program, insert waiting time between commands.
*2 On remote mode,Enter Lock Switch is ignored even though it is ON.
*3 On Bit rate establishment mode,all commands are invalid.

Ver. 1.08
1998.4.6

?FORMAT OF THIS DOCUMENT?

COMMAND **NAME**

Summary explanation of the function of the command

Controller ? Radio

Command format

Radio ? Controller

Response format

? Error message isn't described in this document, but the unit sends error message to the controller as follows.

· Command format error / Value error : "ERR?"
· The command is invalid at the time: "NG?"
· Communication error
  Flaming error : "FER?"
  Overrun error : "ORER?"

Detailed explanation of the command

Effect of the command for the display of the unit.

COMMAND **A C**

Clear(Initialize)all memory.

Controller? Radio

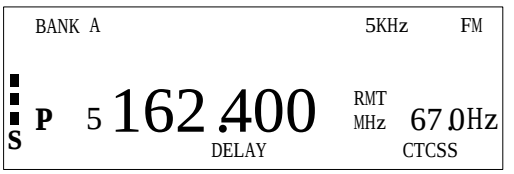
"AC?" ?"?" means "to hit the return key"
or "to send the return code".

Radio? Controller

"OK?"/"NG?"

This command instructs the unit to clear (initialize)all the memories.
All the memories are set for initial setting (Listed in Table1).
This command is valid at any time.
Note)There needs about 9 seconds execute time.

For example, display changes like this.
Before transmitting:



Transmit "**AC?**".
After transmitting:

While initializing, display "UnidEn".
End initializing:

Start from Channel Scanning(start channel is "1") by initial setting.
"**OK?**" is returned.

COMMAND **A R**

Confirm/Set AUTO RECORDING function ON/OFF.

Controller ? Radio

? "AR?" :Confirm AUTO Recoding function ON/OFF

? "ARN?"(ON)/"ARF?"(OFF)

Radio ? Controller

? "ARN?"(ON)/"ARF?"(OFF)

? "OK?"/"NG?"

This command instructs the unit to turn or confirm AUTO RECORDING function ON/OFF.

This command is valid on the

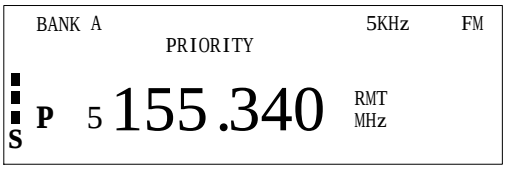
? SCAN STOP/MANUAL/ID MANUAL/ROTARY (only Pch signal receive)

? MANUAL/ID MANUAL/ROTARY (only Pch signal receive) MODE.

? No change on the display.

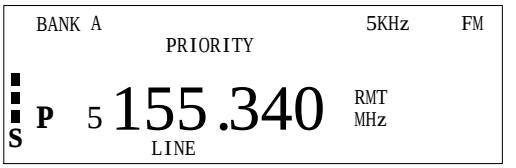
? For example, display changes like this.

Before transmitting:



Transmit **"ARN?"**.

After transmitting:



"OK?" is returned.

COMMAND **C C**

Confirm CTCSS DECODE condition.

Controller ? Radio

"CC?"

Radio ? Controller

"CCY?"(DECODE OK)/"CCN?"(DECODE NG)

This command instructs the unit to confirm CTCSS DECODE condition.

This command is valid at any time.

No Change on the display.

COMMAND **CD**

ON/OFF function which informs when CTCSS tone frequency is detected.

Controller ? Radio

? "CD?" :Confirm "CD" command active

? "CDN?"(ON)/"CDF?"(OFF)

Radio ? Controller

? "CDN?"(ON)/"CDF?"(OFF)

? "OK?"/"NG?"

While the funciton is ON, if CTCSS tone frequency is detected, the unit sends its CTCSS tone frequency number to the controller in the form of "CD???" (CTCSS tone frequency numbers are listed in Table2).

Example:

"CD01?" Detected CTCSS tone frequency number is "01"(indicates 67.0Hz).

This command instructs the unit to turn the function ON/OFF.

While the function is ON, the unit is monitoring the CTCSS detection status and informs if CTCSS tone frequency is detected.

This command is valid on the SCAN/MANUAL/LIMIT SEARCH/LIMIT SEARCH HOLD/ROTARY MODE.

? CTCSS detection function is turned ON/OFF with CDN/CDF. If you change the scanner mode after sending this command, you have to manually turn the CTCSS detection function ON/OFF.

Even though "CD" command is active, if CTCSS detection function isn't active, the unit sends no response.

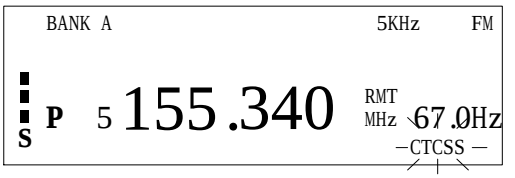
? No change on the display.

? For example, display changes like this.

Before transmitting:

Transmit "**CDN?**".

After transmitting:



"**OK?**" is returned.

Start CTCSS DETECTION.

If CTCSS tone frequency is detected:

"**CD03?**"(indicates 74.4Hz) is returned.

COMMAND **C S**

confirm/Set CTCSS tone frequency.

Controller ? Radio

? “CS?” :Confirm CTCSS tone frequency

? “CS???” ??:CTCSS tone frequency number

(Listed in Table2)

Example:

“CS01?” Set CTCSS tone frequency number to “01”(indicates 67.0Hz).

Radio ? Controller

? “CS???” ??:CTCSS tone frequency number

? “OK?”/“NG?”

This command instructs the unit to set CTCSS tone frequency number to ?? .

This command is valid on the

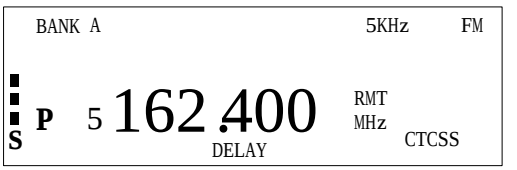
?SCAN STOP/MANUAL/PROGRAM CTCSS/ROTARY MODE.

?MANUAL/PROGRAM CTCSS/ROTARY(except Pch signal receive) MODE.

? No change on the display.

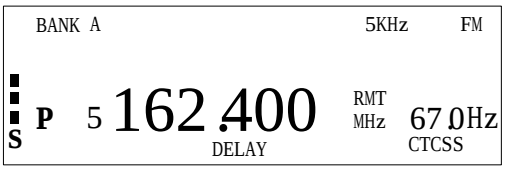
? For example,display changes like this.

Before transmitting:



Transmit “**CS01?**”.

After transmitting:



“**OK?**” is returned.

COMMAND **C T**

Confirm/Set CTCSS function ON/OFF.

Controller ? Radio

? “CT?”:Confirm CTCSS function ON/OFF

? “CTN?”(ON)/“CTF?”(OFF)

Radio ? Controller

? “CTN?”(ON)/“CTF?”(OFF)

? “OK?”/“NG?”

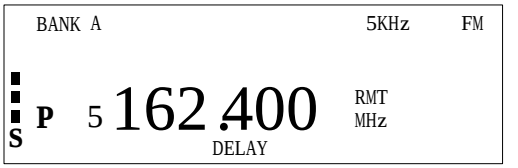
This command instructs the unit to turn or confirm CTCSS function ON/OFF.

This command is valid on the MANUAL/SCAN/ROTARY MODE.

? No change on the display.

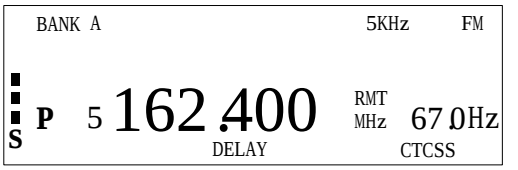
? For example, display changes like this.

Before transmitting:



Transmit “**CTN?**”.

After transmitting:



“**OK?**” is returned.

COMMAND **D L**

Confirm/Set DELAY function ON/OFF.

Controller ? Radio

? "DL?" :Confirm DELAY function ON/OFF

? "DLN?"(ON)/"DLF?"(OFF)

Radio ? Controller

? "DLN?"(ON)/"DLF?"(OFF)

? "OK?"/"NG?"

This command instructs the unit to turn or confirm DELAY function ON/OFF.

This command is valid on the MANUAL/LIMIT SEARCH/ LIMIT SEARCH HOLD/WX SCAN/WX SCAN HOLD/ID SEARCH/ ID SEARCH HOLD/ID SCAN/ID MANUAL MODE and on the SCAN MODE when scan is stopping.

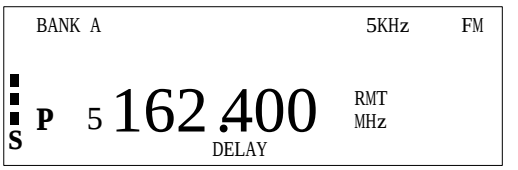
? No change on the display.

? For example, display changes like this.

Before transmitting:

Transmit "**DLN?**".

After transmitting:



"**OK?**" is returned.

COMMAND **D S**

Confirm/Set DATA SKIP function ON/OFF.

Controller ? Radio

? "DS?" :Confirm DATA SKIP function ON/OFF

? "DSN?"(ON)/"DSF?"(OFF)

Radio ? Controller

? "DSN?"(ON)/"DSF?"(OFF)

? "OK?"/"NG?"

This command instructs the unit to turn or confirm DATA SKIP function ON/OFF.

This command is valid on the SCAN/LIMIT SEARCH/ LIMIT SEARCH HOLD/AUTO STORE MODE.

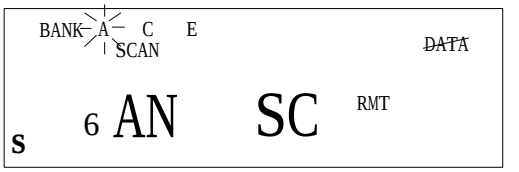
? No change on the display.

? For example, display changes like this.

Before transmitting:

Transmit "**DSN?**".

After transmitting:



"**OK?**" is returned.

COMMAND **L 0**

Confirm/Set LOCKOUT function ON/OFF.

Controller ? Radio

? "LO?" :Confirm LOCKOUT function ON/OFF

? "LON?"(ON)/"LOF?"(OFF)

Radio ? Controller

? "LON?"(ON)/"LOF?"(OFF)

? "OK?"/"NG?"

This command instructs the unit to turn or confirm LOCKOUT function ON/OFF.

This command is valid on the

? MANUAL MODE

? MANUAL MODE /SCAN STOP MODE.

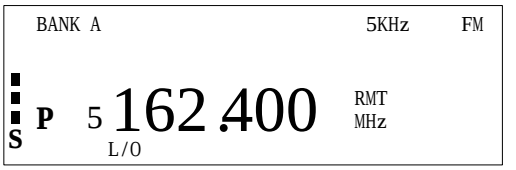
? No change on the display.

? For example, display changes like this.

Before transmitting:

Transmit "**LON?**".

After transmitting:



"**OK?**" is returned.

COMMAND **L L**

Confirm/Set lower edge frequency of LIMIT SEARCH.

Controller? Radio

? "LL?":Confirm lower edge frequency

? "LL?????????" ????????:Lower edge frequency

The order of the digits is

from 1GHz digit to 100Hz digit.

Example:

"LL03999875?" Set the lower edge frequency to "399.9875MHz".

Radio? Controller

? ? "LL?????????" The current lower edge frequency is ????????*100Hz.

This command instructs the unit to set the lower edge frequency of limit search to ????????*100Hz or confirm frequency.

? This command is valid at any time.

? This command is valid at any time and the operating mode changes to the MANUAL MODE after setting lower edge frequency.

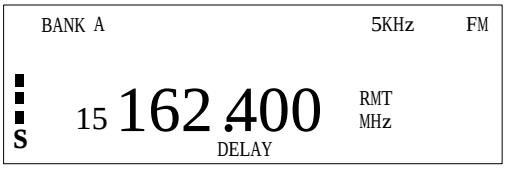
? No change on the display.

? For example, display changes like this.

Before transmitting:

Transmit "**LL03999875?**".

After transmitting:



Operating mode changes to the MANUAL MODE.

"**LL03999875?**"(indicates 399.9875MHz) is returned.

COMMAND **L U**

Confirm/Set upper edge frequency of LIMIT SEARCH.

Controller ? Radio

? “LU?”:Confirm upper edge frequency

? “LU?????????” ????????:upper edge frequency

The order of the digits is

from 1GHz digit to 100Hz digit.

Example:

“LU039998 75?” Set the upper edge frequency to

“399.9875MHz”.

Radio ? Controller

? ? “LU?????????” The current upper edge frequency

is ????????*100Hz.

This command instructs the unit to set the upper edge frequency to ????????*100Hz or confirm frequency.

? This command is valid at any time.

? This command is valid at any time and the operating mode changes to the MANUAL MODE after setting upper edge frequency.

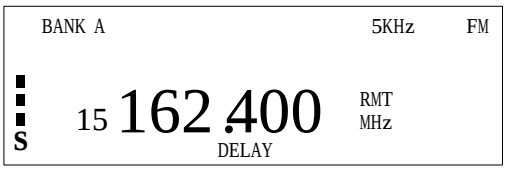
? No change on the display.

? For example, display changes like this.

Before transmitting:

Transmit “**LU039998 75?**”.

After transmitting:



Operating mode changes to the MANUAL MODE.

“**LU039998 75?**”(indicates 399.9875MHz) is returned.

COMMAND **MA**

Confirm/Set channel number of MANUAL MODE.

Controller ? Radio

? Confirm

"MA?"

? Set

"MA????" ???:channel number

Example:

"MA015?" Set the channel number to "15".

Radio ? Controller

?,?

"C??? F???????? T? D? L? A? R? N???"

??? :channel number

???????? :frequency

The order of the frequency digits are from 1GHz digit to 100Hz digit.

? :"N" or "F"(ON/OFF)

ex)TN/TF: trunking frequency/conventional frequency

DN/DF: delay on/off

LN/LF: lockout on/off

AN/AF: attenuation on/off (not supported)

RN/RF: auto recode function on/off

?? :"ctcss tone number

Example:

"C015 F03999875 TF DN LF AF N01?"

The current channel number is "15", and its conventional frequency is "399.9875MHz".

Delay function is ON, Lockout is OFF, Attenuation is OFF, CTCSS is 67.0HZ.

This command instructs the unit

? to send the current channnel number and its frequency.

? to set the receiving channel number to ??? .

This command is valid

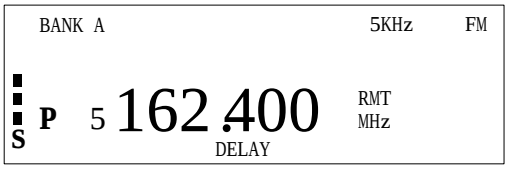
? on the MANUAL MODE/PROGRAM CTCSS/ROTARY and on the SCAN MODE when scan is stopping.

? at any time.

? No change on the display.

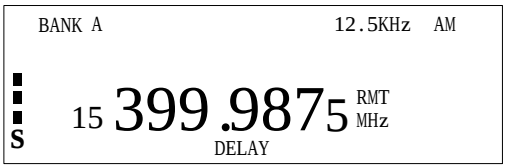
? For example, display changes like this.

Before transmitting:



Transmit "**MA015?**".

After transmitting:



"**C015 F03999875 TF DN LF AF RF N00?**" is returned.

COMMAND **M D**

Confirm the Scanner mode.

Controller ? Radio

"MD?"

Radio ? Controller

"MD???" ??:Current scanner mode nummer

(Listed in Table4)

This command instructs the unit to confirm the current scanner mode ?

This command is valid at any time.

No change on the display.

COMMAND **MU**

Confirm/Set status of speaker muting.

Controller ? Radio

? “MU?” :confirm MUTE control mode.

? “MU??” :confirm Mute ON/OFF condition.

? “MUN?” :Set mute ON(by force)mode.

“MUF?” :Set mute OFF(by force)mode.

“MUA?” :Set Auto mute control mode.

Radio ? Controller

? “MUN?” :Mute ON(by force)mode.

“MUF?” :Mute OFF(by force)mode.

“MUA?” :Auto mute control mode.

? “MU ON?” :Mute ON condition.

“MU OFF?” :Mute OFF condition.

? “OK?”/“NG?”

This command instructs the unit to set or confirm the status of speaker muting.

This command is valid at any time.

No change on the display.

COMMAND **P C**

Confirm/Set priority channel number of a bank.

Controller ? Radio

? Confirm

"PC ??" ?:bank

Example:

"PC A?" Confirm the priority channel number of "bank A".

? Set

"PC ?????" ?:bank ???:channel number

Example:

"PC A014?" Set the priority channel number of "bank A" to "14".

Radio ? Controller

?,?

"PC ?????" ?:bank ???:channel number

Example:

"PC A014?" The priority channel number of "bank A" is "14".

This command instructs the unit

? to send the priority channel number of the bank.

? to set the priority channel number of the bank.

This command is valid at any time and the operating mode

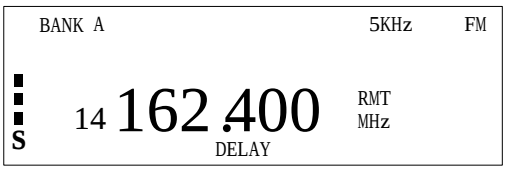
? doesn't change after transmitting.

? changes to the MANUAL MODE after setting the priority channel number.

? No change on the display.

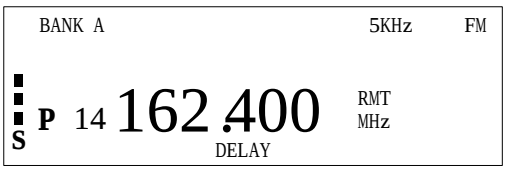
? For example, display changes like this.

Before transmitting:



Transmit "**PC A014?**".

After tramsmitting:



"**PC A014?**" is returned.

COMMAND **PM**

Read/write frequency of a channel.

Controller ? Radio

? Read

"PM????" ???:channel number

Example:

"PM014?" Read the frequency of "14CH".

? Write

"PM??? ?????????" ??? :channel number

????????:frequency

The order of the frequency digits are from 1GHz digit to 100Hz digit.

Example:

"PM014 03999875?" Set the frequency of "14CH" to "399.9875MHz".

Radio ? Controller

?,?

"C??? F???????? T? D? L? A? R? N??"

??? :channel number

???????? :frequency

? :"N" or "F" (ON/OFF)

ex) TN/TF: trunking frequency/conventional frequency

DN/DF: delay on/off LN/LF: lockout on/off

AN/AF: attenuation on/off (not supported)

RN/RF: auto recode function on/off

?? :"ctcss tone number

Example:

"C015 F03999875 TF DN LF AF N01?"

The current channel number is "15", and its frequency is "399.9875MHz" (programmed on CONVENTIONAL MODE).

Delay function is ON, Lockout is OFF, Attenuation is OFF, CTCSS is 67.0HZ.

This command instructs the unit

? to send the frequency of the channel.

? to set the frequency of the channel as designated.
(On the TRUNK MODE, this frequency must be the TRUNKING frequency.)

This command is valid at any time and the operating mode

? doesn't change after transmitting.

? changes to the MANUAL MODE after setting the frequency on the CONVENTIONAL MODE.
changes to the PROGRAM MODE after setting the frequency on the TRUNK MODE.

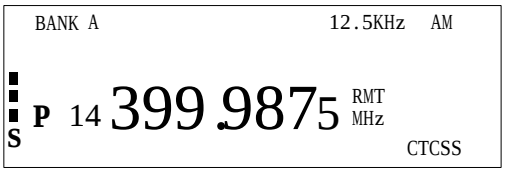
? No change on the display.

? For example, display changes like this.

Before transmitting:

Transmit "**PM014 039998752**".

After transmitting:



"**C014 F039998752 TF DF LF AF RF N00?**" is returned.

COMMAND **P R**

Confirm/Set PRIORITY function ON/OFF.

Controller ? Radio

? "PR?" : confirm priority function on/off

? "PRN?" : set priority function

"PRF?" : priority fuction OFF

Radio ? Controller

? "PRN?" (ON) / "PRF?" (OFF)

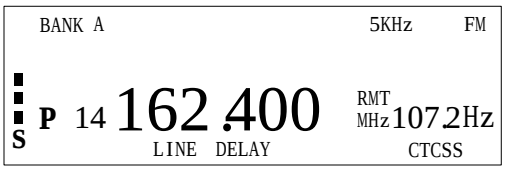
? "OK?" / "NG?"

This command instructs the unit to turn or confirm PRIORITY function ON/OFF.

This command is valid on the MANUAL / SCAN MODE.

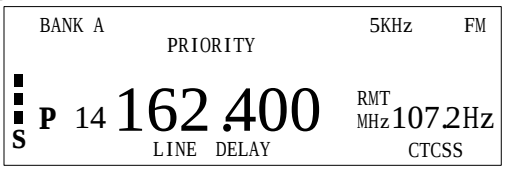
For example, display changes like this.

Before transmitting:



Transmit "**PRN?**".

After transmitting:



"**OK?**" is returned.

COMMAND **Q U**

ON/OFF function which informs when squelch condition changes.

Controller ? Radio

?“QU?” :confirm “QU”command active

?“QUN?”(ON)/“QUF?”(OFF)

Radio ? Controller

?“QUN?”(ON)/“QUF?”(OFF)

?“OK?”/“NG?”

While the function is ON, if the squelch condition becomes

·close to open, unit sends “+?” to the controller.

·open to close, unit sends “-?” to the controller.

This command instructs the unit to turn the function ON/OFF.

While the function is ON, the unit is monitoring the squelch condition and informs when it changes.

This command is valid at any time.

No change on the display.

COMMAND **R I**

ON/OFF function which informs when priority receiving condition changes.

Controller ? Radio

?“RI?” :confirm “RI”command active

?“RIN?”(ON)/“RIF?”(OFF)

Radio ? Controller

?“RIN?”(ON)/“RIF?”(OFF)

?“OK?”/“NG?”

While the function is ON,

·if the unit stops on the priority channel by priority receiving ,sends “PST?” to the controller.

·if the unit returns from the priority channel, sends “PRT?” to the controller.

This command instructs the unit to turn the function ON/OFF.

While the function is ON, the unit is monitoring the priority receiving condition and informs when it changes.

This command is valid at any time.

No change on the display.

COMMAND **R M**

Confirm Receiver modulation.

Controller? Radio

"RM?"

Radio? Controller

"RM ????" ???:Current Receiver modulation

ex)"RM AM?" AM

"RM NFM?" narrowband FM

"RM WFM?" wideband FM(not supported)

This command instructs the unit to confirm receiver modulation.

This command is valid at any time.

No change on the display.

COMMAND **S B**

Confirm/Select scan banks.

Controller ? Radio

?“SB?” :confirm scan banks

?“SB ???···?” ?,?,?,··· :bank name

Example:

“SB ACEGI?” Select “BANK A, BANK C, BANK E, BANK G, BANK I”.
(BANK B, BANK D, BANK F, BANK H, BANK J are not selected)

Radio ? Controller

???

“SB ???···?” ?,?,?,··· :bank name

Example:

“SB ACEGI?” Selected scan banks are “BANK A, BANK C, BANK E, BANK G, BANK I”.

This command instructs the unit to make designated scan banks be selected.

This command is valid at any time.

For example, display changes like this.

Before transmitting:

Transmit “**SB ACEGI?**”.

After transmitting:

“**SB ACEGI?**” is returned.

COMMAND **S G**

Read the signal strength.

Controller ? Radio

"SG?"

Radio ? Controller

"S??? F??????????" ??? :signal strength

???????? :frequency

Signal strength ranges from a minimum signal of "000" to a maximum signal of "255".

The order of the frequency digits are from 1GHz digit to 100Hz digit.

Example:

"S155 F03999875?" Receiving signal strength is "155", and its frequency is "399.9875MHz".

This command instructs the unit to send the current signal strength and its frequency.

This command is valid at any time.

No change on the display.

COMMAND **S Q**
Confirm squelch condition.
Controller ? Radio "SQ?" **Radio ? Controller** "+?": Now squelch is OPEN. "-?": Now squelch is CLOSE.
This command instructs the unit to send whether the squelch is OPEN or CLOSE. This command is valid at any time.
No change on the display.

COMMAND **S S**

Read all frequencies in search skip memory.
Register a frequency into search skip memory.

Controller ? Radio

? Read
"SS?"
? Register
"SS??????????" ????????:frequency
The order of the digits are
from 1GHz digit to100Hz digit.

Example:
"SS03999875?" Register 399.9875MHz into
search skip memory.

Radio ? Controller

? Read
"SS??????????SS??????????···?END?"
???????? ,???????? ,··· :frequencies
To inform the end of the response, the unit sends
"END?" at the end.

Example:
"SS01640000?SS03999875?···?END?"
Frequencies in search skip memory are
"164MHz","399.9875MHz",···.

? Register
"SS??????????" ????????:frequency

Example:
"SS03999875?" 399.9875MHz is registered.

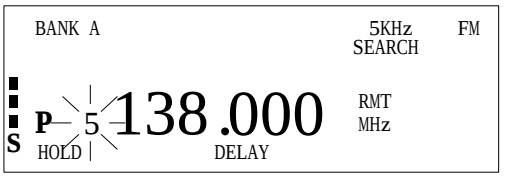
? If the frequency is already in search skip memory,
the unit sends "ON?" to the controller.

This command instructs the unit
? to send all the frequencies in search skip memory.
? to register a frequency into search skip memory.
This command is valid at any time.

? No change on the display.

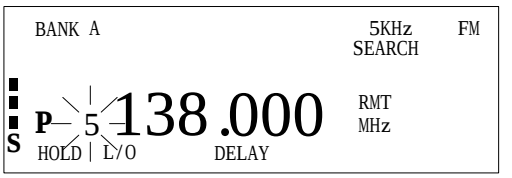
? For example, display changes like this.

Before transmitting:



Transmit "**SS013800000?**".

After transmitting:



"**SS013800000?**" is returned.

COMMAND **S T**

Confirm/Set frequency step.

Controller ? Radio

?“ST?” :confirm frequency step

?“ST?????????” ???????:frequency step

The order of the digits are

from 1MHz digit to 1Hz digit.

?This order is different from

it in other commands.

“ST00000000?” Set frequency step to “default”step.

Example:“ST00005000?” Set frequency step to 5kHz.

Radio ? Controller

? ST?????????” ???????:frequency step

ex)00000000:default step

00005000:5KHz step

00012500:12.5KHz step

00025000:25KHz step

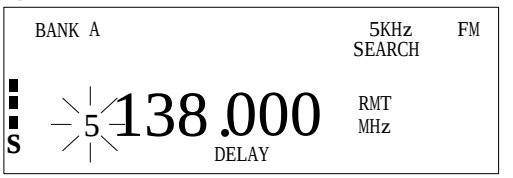
?“OK?”/“NG?”

This command instructs the unit to set frequency step. This command is valid on the MANUAL/LIMIT SEARCH/LIMIT SEARCH HOLD/AUTO STORE/ROTARY MODE.

? No change on the display.

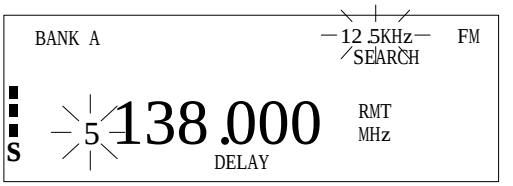
? For example, display changes like this.

Before transmitting:



Transmit “**ST00012500?**”.

After transmitting:



“**OK?**” is returned.

COMMAND **R F**

Confirm/Tune the commanded frequency.

Controller ? Radio

?“RF?????????(?)?” ????????: tune frequency

The order of the digits are

from 1GHz digit to100Hz digit.

Example:

“RF039998 75?” tuned receiver to 399.9875MHz

if you wish to comfirm the tuned frequency for this command response,a“?”code add after the commanded frequency.

?“RF?” :confirm tuned frequency

Radio ? Controller

?“OK?”/“NG?” or “ RF?????????”

? “ RF?????????”

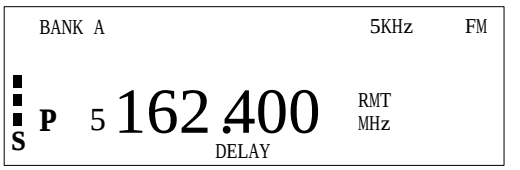
This command can be instantly tuned to a commanded frequency.

This command is valid on MANUAL/ROTARY MODE.

? No change on the display.

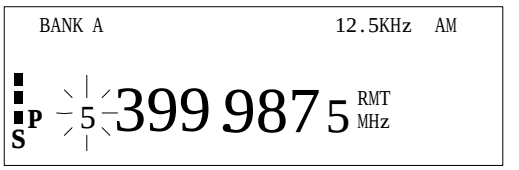
? For example,display changes like this.

Before transmitting:



Transmit “**RF039998 75?**”.

After transmitting:



“**OK?**”is returned.

COMMAND **V R**

Confirm the version of CPU.

Controller ? Radio

"VR?"

Radio ? Controller

"VR?.???" ?.??: The version of CPU

Example:

"VR1.10?" The version of CPU is 1.10.

This command is valid at any time.

No change on the display.

COMMAND W I

Read the window voltage.

Controller ? Radio

“WI?”

Radio ? Controller

“W??? F??????????” ??? :window voltage

???????? :frequency

Window voltage ranges from a minimum value of “000” to a maximum value of “255”.

The order of the frequency digits are from 1GHz digit to 100Hz digit.

Example:

“W155 F03999875?” Window voltage is “155”, and its frequency is “399.9875MHz”.

This command instructs the unit to send the current window voltage and its frequency.

This command is valid at any time.

No change on the display.

COMMAND **I C**

Confirm/Set ID memory number.

Controller ? Radio

? Confirm

"IC?"

? Set

"IC ???" ?:ID Scan List

?:ID Location

"0" is used to indicate "ID Location 10".

Example:

"IC A0?" Set ID memory number to

"ID Scan List A" and "ID Location 10".

Radio ? Controller

?,?

·TYPE 1

"IC ?? ¦??-???" ? :ID Scan List

or "IC ?? ¦???-??" ? :ID Location

¦ :Block No.

??:Fleet No.

??:Sub Fleet No.

Example:

"IC A0 001-05?" ID in ID memory "A10" is

"BLOCK=0,FLEET=1,SUB FLEET=5".

·TYPE 2

"IC ?? ???????" ??????:ID

Example:

"IC A0 001234?" ID in ID memory "A10" is "1234".

This command indicates the unit

? to send current ID memory number and its ID.

? to set ID memory number as designated.

This command is

? valid on the ID MANUAL MODE and ID SCAN MODE when scan is stopping.

? valid on the ID MANUAL/ID SCAN/ID SEARCH/ID SEARCH HOLD/ID LOCKOUT REVIEW MODE.

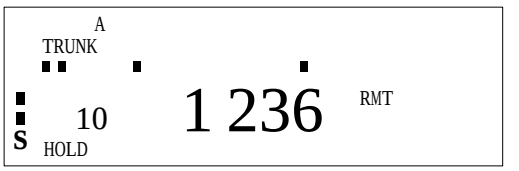
? No change on the display.

? For example, display changes like this.

Before transmitting:

Transmit "**IC A0?**".

After transmitting:



"**IC A0 001236?**" is returned.

COMMAND **I D**

ON/OFF function which informs when ID reception starts or ends.

Controller ? Radio

? “ID?” :confirm “ID” command active

? “IDN?”(ON)/“IDF?”(OFF)

Radio ? Controller

? “IDN?”(ON)/“IDF?”(OFF)

? “OK?”/“NG?”

While the function is ON, when the ID reception starts or ends, the unit sends back as follows:

(1) ID reception starts

· TYPE 1

“ID S ¦??-???” ¦ :Block No.

or “ID S ¦???-??” ??:Fleet No. ??:Sub Fleet No.

Example:

“ID S 001-03?” ID reception starts on “Block=0? FLEET=1, SUB FLEET=3”.

· TYPE 2

“ID S ???????” ??????:ID

Example:

“ID S 001234?” ID reception starts on “ID=1234”.

(2) ID reception ends

· TYPE 1

“ID E ¦??-???” ¦ :Block No.

or “ID E ¦???-??” ??:Fleet No. ??:Sub Fleet No.

· TYPE 2

“ID E ???????” ??????:ID

This command instructs the unit to turn the function ON/OFF.

While the function is ON, the unit is monitoring the status of the ID reception and informs when it starts or ends.

This command is valid at any time.

No change on the display.

COMMAND **I L**

Read all IDs in L/O ID memory.
Register an ID into L/O ID memory.
Delete an ID from L/O ID memory.

Controller ? Radio

? Read
"IL?"

? Register
·TYPE 1
"ILR ¦??-???" ¦ :Block No.
or "ILR ¦???-??" ??:Fleet No. ??:Sub Fleet No.
·TYPE 2
"ILR ???????" ??????:ID

? Delete
·TYPE 1
"ILD ¦??-???" ¦ :Block No.
or "ILD ¦???-??" ??:Fleet No. ??:Sub Fleet No.
·TYPE 2
"ILD ???????" ??????:ID

Radio ? Controller

? Read
(1)TYPE 1
"IL???-???IL¦???-??···?END?"
??¦?·····:Block No.
??,??,···:Fleet No.
??,??,···:Sub Fleet No.
To inform the end of the response, the unit sends "END?" at the end.

Example:
"IL001-05?IL1123-3?···?END?"
Locked out IDs in L/O ID memory are "001-05","1123-3",··· .

(2)TYPE 2

"IL???????IL???????···?END?" ??????,??????,·?·:
ID

Example:

"IL001234?IL005678?···?END?"

Locked out IDs in L/O ID memory are
"1234","5678",··· .

? Register

If the ID is registered into L/O ID memory, the unit sends "**OK?**" to the controller.

If the ID is already in L/O ID memory, sends "**ON?**".

If L/O ID memory is full, sends "**FULL?**".

? Delete

If the ID is deleted from L/O ID memory, the unit sends "**OK?**" to the controller.

If the ID isn't in L/O ID memory, sends "**OFF?**".

This command instructs the unit

? to send all the IDs in L/O ID memory.

? to register an ID into L/O ID memory.

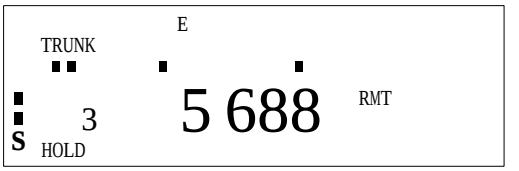
? to delete an ID from L/O ID memory.

This command is valid on all of the TRUNK MODE(?,?,?).

? No change on the display.

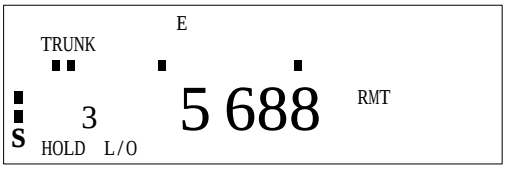
? For example, display changes like this.

Before transmitting:



Transmit "**ILR 005688?**".

After transmitting:



"**OK?**" is returned.

? Display changes oppositely against ?.

COMMAND **I S**

Confirm/Select ID scan lists.

Controller ? Radio

? “IS? :confirm ID scan list name

? “IS ???···?” ?,?,?,··· :ID scan list name

Example:

“IS ACE?” Select “LIST A,LIST C,LIST E”.

(LIST B,LIST D are not selected)

Radio ? Controller

???

“IS ???···?” ?,?,?,··· :ID scan list name

Example:

“IS ACE?” Selected ID scan lists are

“LIST A”,“LIST C”,“LIST E”.

This command instructs the unit to make designated ID scan lists be selected.

This command is valid on all of the TRUNK MODE.

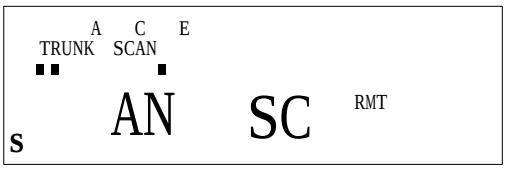
? No change on the display.

? For example, display changes like this.

Before transmitting:

Transmit “**IS ACE?**”.

After transmitting:



“IS ACE?” is returned.

COMMAND **KEY**

Work as if a key were pushed.

Controller ? Radio

"**KEY???**" ??:KEY COMMAND NUMBER
(Listed in Table3)

* When use [0]-[9] or [A]-[J] key, use in the form of below.

"**KEY02 ??**" ?:0-9

"**KEY21 ??**" ?:A-J

* To indicate "Hold Press" of each key, add "**H**" to each command.

Example:

"KEY02 6H?" According to Table3, "KEY02" corresponds to "[0]-[9]" key, and designated number is "6", and "H" is added at the last.
So this command is used instead of hold press of "[6]" key.

Radio ? Controller

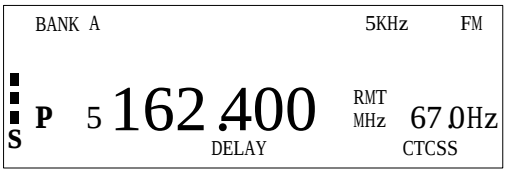
"OK?"/"NG?"

* When use [ALERT/REMOTE] key("KEY17"), no response from the unit because this key makes the unit be out of REMOTE MODE.

These commands instruct the unit to behave as if a key on the scanner's front panel were pushed.
These commands are valid at any time.

For example, display changes like this.

Before transmitting:



Transmit "**KEY00?**".

After transmitting:

Start scanning.

"**OK?**" is returned.

Table1:Initial Setting (on REMOTE MODE)

No.	ITEM	Initial Setting	Remark
1	CH Memory	000.000MHz	All 300 channels
2	Channel Lockout	Locked out	All 300 channels
3	Delay for Channel	Off	All 300 channels
4	Delay for WX	Off	
5	Delay for Search	Off	Limit Search
6	PRIORITY	Off	
7	Priority Channels	The first channel in each Bank	1,31,61,91,121,151, 181,211,241,271CH
8	DATA Skip	On	Scan,Limit Search, Auto store
9	Search Limit	Lower:000.000MHz Upper:000.000MHz	
10	Start Mode	From CH Scanning on Conventional Mode	CH 1
11	Search Skip Memory	000.0000MHz	All Clear(20CH)
12	Selected Scan Bank	Bank A-J	
13	CTCSS	Off	
14	CTCSS Tone Frequency	000.0Hz	All 300 channels
15	CTCSS DETECTION	Off	
16	ROTARY TUNER	CH Mode	
17	FREQ LED	Off	
18	CHAN LED	On	
19	LOCK LED	Off	
20	Back Light	Bright	
21	RS232C BIT RATE	* No change	
22	REMOTE Function	* On	

*: different from it on LOCAL MODE

Table2:CTCSS Tone Frequency Number

Number	Frequency	Number	Frequency
00	000.0Hz	20	131.8Hz
01	67.0Hz	21	136.5Hz
02	71.9Hz	22	141.3Hz
03	74.4Hz	23	146.2Hz
04	77.0Hz	24	151.4Hz
05	79.7Hz	25	156.7Hz
06	82.5Hz	26	162.2Hz
07	85.4Hz	27	167.9Hz
08	88.5Hz	28	173.8Hz
09	91.5Hz	29	179.9Hz
10	94.8Hz	30	186.2Hz
11	97.4Hz	31	192.8Hz
12	100.0Hz	32	203.5Hz
13	103.5Hz	33	210.7Hz
14	107.2Hz	34	218.1Hz
15	110.9Hz	35	225.7Hz
16	114.8Hz	36	233.6Hz
17	118.8Hz	37	241.8Hz
18	123.0Hz	38	250.3Hz
19	127.3Hz		

Table3:KEY COMMAND NUMBER

COMMAND	KEY CORRESPONDS TO THE COMMAND
KEY00	[SCAN]
KEY01	[MANUAL]
KEY02	[0]-[9]
KEY03	[.]
KEY04	[E] (ENTER)
KEY05	[PRI]
KEY06	[L/O]
KEY07	[HOLD?]
KEY08	[LIMIT?]
KEY09	[SRC]
KEY10	[WX]
KEY11	[DATA]
KEY12	[DELAY]
KEY13	[TRUNK]
KEY14	[DIM]
KEY15	[STEP]
KEY16	[AUX]
KEY17	[ALERT/REMOTE]
KEY18	[SEND]
KEY19	[AUTO]
KEY20	[CTCSS]
KEY21	[A]-[J]
KEY22	[FREQ/CHAN]
KEY23	[LOCK]

Table 4: Scanner Mode

Number	Scanner mode name
00	Channel memory SCAN mode
01	MANUAL mode
02	LIMIT search mode
03	LIMIT search HOLD mode
04	Weather(WX) scan mode
05	Weather(WX) scan HOLD mode
06	PROGRAM trunking frequency mode
07	ID SEARCH mode
08	ID SEARCH HOLD mode
09	ID SCAN mode
10	ID MANUAL mode
11	ID LOCKOUT REVIEW mode
12	SEARCH CONTROL CHANNEL mode
13	PROGRAM CTCSS mode
14	Weather(WX) ALERT mode
15	Frequency SEND mode
16	AUTO STORE mode
17	ROTARY tuned frequency mode

? ? ? ?

1997.12.12 (VER1.06)

? ? ? ?	? ? ? ?
COMMAND CS ? ? CTCSS ? ? ? ? ? ? ? ROTARY MODE ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	NSC ? ? ? ? ? ? ?

1998.3.24 (VER1.07)

? ? ? ?	? ? ? ?
COMMAND VR (CPU ? VERSION ? ?)? ? ? ?	NSC ? ? ? ? ?

1998.4.6 (VER1.08)

? ? ? ?	? ? ? ?
COMMAND CD ? ? ? ? ? ? ?	? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?
PREFACE ? ? ? ?	? ? ? ? ? ? 3 ? ? ? ? ? ? ? ? ? ? ? ?