UNIDEN PROGRAMMING CONTROL CODES
FOR USE WITH UNIDEN SCANNERS

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1.1.REMOTE COMMAND (Ver1.06)

【Remote Communication Format】

BPS rate	: 2400/4800/9600/19200/38400/57600 bps
Start/Stop bit	: 1 bit, 1 bit
Data Length	: 8 bit
Parity Check	: None
Code	: ASCII
Flow Control	: None
Return Code	: Carriage Return only

*1 In case of controlling with program, insert waiting time between commands.
*2 On MENU mode, only key emulation commands is valid.
*3 The command to change the scanner setting may change a setup item except for the applicable setup item, too.
Most of these commands depend on the specifications of your Scanner.
Ex) "PM" command or "PR" command
*4 APCO P-25 is working as TYPE2.

【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.
1)Command format error / Value error : ERR[¥r]
2)The command is invalid at the time : NG[¥r]
3)Flaming error : FER[¥r]
4)Overrun error : ORER[¥r]

※ [¥r] means "to hit the Enter key" or "to send the Return code".
※ The ch bank or search No. assign to alphabet.
Ex) BANK1 :A BANK2 :B ---- BANK10 :J
※ The id list No. assign to alphabet.
Ex) LIST1 :A LIST2 :B ---- LIST10 :J

==========

<COMMAND AC>
Clear(Initialize) all memory.

==========

Controller → Radio
AC[¥r]

Radio → Controller
OK[¥r]

This command instructs the unit to clear all the memories.
All the memories are set for initial setting
This command is valid at any time.

Note) There needs about 10 seconds execute time.

Start from scanning(start channel: CH 1) by initial setting.

==========

<COMMAND AF>
Confirm/Set EDACS AFS(Agency, Fleet, SUBFLEET) ID Form mode ON/OFF .

==========

Controller → Radio
① AF[¥r] :Confirm AFS ID Form mode ON/OFF
② AFN[¥r] :AFS ID Form mode ON
AFF[¥r] :AFS ID Form mode OFF

Radio → Controller
① AFN[¥r] :AFS ID Form mode ON
AFF[¥r] :AFS ID Form mode OFF
② OK[¥r]

Note:
If you ass the Bank No.(A-J) at the end, you can select optional bank.
Ex) “AF A” or “AFN A”

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

==========

<COMMAND AL> Not Support
Confirm/Set Auto Light function ON/OFF .

==========

Controller → Radio
① AL[¥r] : Confirm Frequency Identification function ON/OFF
② ALN[¥r] : Auto Light function ON
ALF[¥r] : Auto Light function OFF

Radio → Controller
① ALN[¥r] :Auto Light ON / ALF[¥r] : Auto Light OFF
② OK[¥r]

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

==========

<COMMAND AR> Not Support
Confirm/set Tape out recording function ON/OFF

==========

Controller → Radio
① AR[¥r]　　:Confirm TAPE OUT recording Function ON/OFF
② ARN[¥r]　　:TAPE OUT recording Function ON
ARF[¥r]　　:TAPE OUT recording Function OFF

Radio → Controller
① ARN[¥r]　　:TAPE OUT recording Function ON
ARF[¥r]　　:TAPE OUT recording Function OFF
② OK[¥r]

==========

<COMMAND AT>
Confirm/Set ATT function ON/OFF .

==========

Controller → Radio
① AT[¥r]　　:Confirm ATT function ON/OFF
② ATN[¥r]　　:ATT ON
ATF[¥r]　　:ATT OFF

Radio → Controller
① ATN[¥r]　　:ATT ON
ATF[¥r]　　:ATT OFF
② OK[¥r]

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

==========

<COMMAND AP>
Confirm/ Set Apco card function Enable/Disable

==========

Controller → Radio
① AP[¥r]　　:Confirm Apco card function
② APN[¥r]　　:Enable Apco card function
APF[¥r]　　:Disable Apco card function

Radio → Controller
① APN[¥r]　　:Enable Apco card function
APF[¥r]　　:Disable Apco card function
② OK[¥r]

==========

<COMMAND AW>
Confirm/set Activity ID Window ON/OFF

==========

Controller → Radio
① AW @[¥r] :Confirm Activity ID Window ON/OFF
② AWN @[¥r] :Activity ID Window ON
AWF @[¥r] :Activity ID Window OFF
@:Bank No. (A-J)

Radio → Controller
① AWN @[¥r] :Activity ID Window ON
AWF @[¥r] :Activity ID Window OFF
@:Bank No. (A-J)
② OK[¥r]

==========

<COMMAND BA>
Confirm/Set BEEP ALERT feature ON/OFF .

==========

Controller → Radio
① Confirm BEEP ALERT ON or OFF
BA C ###[¥r] :Confirm BEEP ALERT ON/OFF for Channel of the memory
###:Channel No.(001 - 999, 000)
BA I $ &%[¥r] :Confirm BEEP ALERT ON/OFF for TALK GROUP ID
$ &%:ID Memory No.
$:Bank No. (A-J)
&:List No. (A-J)
%:Location No. (1-9,0) Note "0" is Location No.10
② Set BEEP ALERT
BAN C ###[¥r] :Set BEEP ALERT to ON for the Channel memory
BAF C ###[¥r] :Set BEEP ALERT to OFF for the Channel memory
###:channel No.(001 - 999, 000)
BAN I $ &%[¥r] :Set BEEP ALERT to ON for the ID memory
BAF I $ &%[¥r] :Set BEEP ALERT to OFF for the ID memory
$ &%:ID Memory No.
$:Bank No. (A-J)
&:List No. (A-J)
%:Location No. (1-9,0) Note "0" is Location No.10
③ ON/OFF function which informs ALERT condition when "BEEP ALERT" assigned signal is received or "BEEP ALERT" assigned Talk ID is reception
BAN[¥r] :The function which informs ALERT condition is ON
BAF[¥r] :The function which informs ALERT condition is OFF
④ Confirm the function which informs BEEP ALERT condition is ON/OFF
BA[¥r]

Radio → Controller

① BAN C ###[¥r] :BEEP ALERT of the Channel memory is ON
BAF C ###[¥r] :BEEP ALERT of the Channel memory is OFF
###:Channel No.(001 - 999, 000)
BAN I $ &%[¥r] :BEEP ALERT of the ID memory is ON
BAF I $ &%[¥r] :BEEP ALERT of the ID memory is OFF
$ &%:ID Memory No.
$:Bank No. (A-J)
&:List No. (A-J)
%:Location No. (1-9,0) Note "0" is Location No.10

② OK[¥r]

③ Informs when BEEP ALERT is sounded
BEEP ALERT OUT[¥r]

④ Informs the BEEP ALERT function ON/OFF condition
BAN[¥r] :The function which informs ALERT condition is ON
BAF[¥r] :The function which informs ALERT condition is OFF

==========

<COMMAND BC>
Confirm Base, Space, Offset Configuration

==========

Controller → Radio

BC @#[¥r]
@ : Bank No.(A-J)
# : Configuration No. (1,2,3)

Radio → Controller

BC @# %%%%%%%% $$$$ XXX[¥r]
@ : Bank No.(A-J)
# : Configuration No. (1,2,3)
%%%%%%%%: Base frequency
$$$$: Space frequency
(multiple of 5.0kHz : 0050,0100,0150,,,,, 1000)
(multipoe of 7.5kHz : 0075,0150,0225,,,,,,0975)
(multiple of 12.5kHz: 0125,0250,0375 ,,,,,1000)
XXX : Offset channel (380 - 759)

Example)
BC C1 01380000 0500 0380[¥r]
Bank No. : 3
Configuration No : 1
Base Frequency : 138.0000MHz
Space frequency : 50kHz
Offset channel : 380

==========

<COMMAND BL>
Confirm Battery Level.

==========

Controller → Radio
BL[¥r] :Confirm Battery Level

Radio → Controller
BAT @@@[¥r] @@@ :Battery voltage

Battery voltage ranges from a minimum value of "000" to a maximum value of "255".

< Formula >
Battery Level[v] = (3.2[v] * @@@)/255

==========

<COMMAND BP>
Confirm/Set BEEP output enable or disable .

==========

Controller → Radio
① BP[¥r] :Confirm BEEP output enable or disable
② BPN[¥r] :Set BEEP output to enable
BPF[¥r] :Set BEEP output to disable

Radio → Controller
① BPN[¥r] :BEEP is enable
BPF[¥r] :BEEP is disable
② OK[¥r] :Command OK

==========

<COMMAND BT>
Confirm/Set S-BIT function ON/OFF .

==========

Controller → Radio
① BT[¥r] :Confirm S-BIT function ON/OFF
② BTN[¥r] :S-BIT ON
BTF[¥r] :S-BIT OFF

Radio → Controller
① BTN[¥r] :S-BIT ON
BTF[¥r] :S-BIT OFF
② OK[¥r]

Note:
If you ass the Bank No.(A-J) at the end, you can select optional bank.
Ex) “BT A” or “BTN A”

This command instructs the unit to turn or confirm S-BIT function ON/OFF.

==========

<COMMAND BM>
Confirm/Set Battery low condition Monitor function ON/OFF .

==========

Controller → Radio
① BM[¥r] :Confirm Battery Low condition Monitor function ON/OFF
② BMN[¥r] :Set Battery Low condition Monitor function ON
BMF[¥r] :Set Battery Low condition Monitor function OFF

Radio → Controller
① BMN[¥r] :Battery Low condition Monitor function ON
BMF[¥r] :Battery Low condition Monitor function OFF
② OK[¥r] :Command OK
③ If the scanner detect Battery low, then the following will be sent.
BATT LO[¥r]
④ If the scanner recovery Battery level, then the following will be sent.
BATT OK[¥r]

==========

<COMMAND BS>
Confirm/Set Battery Save function ON/OFF .

==========

Controller → Radio
① BS[¥r] :Confirm Battery Save function ON/OFF
② BSN[¥r] :Set Battery Save function ON
BSF[¥r] :Set Battery Save function OFF

Radio → Controller
① BSN[¥r] :Battery Save function ON
BSF[¥r] :Battery Save function OFF
② OK[¥r] :Command OK

==========

<COMMAND CB>
Confirm/Select Chain SEARCH RANGES.

==========

Controller → Radio
①CB[¥r] :Confirm SEARCH RANGES
②CB @%〇･･･[¥r] :Select SEARCH RANGES
@,%,〇,･･･ :bank name

<Example>
CB ACEGI[¥r]
Select "BANK A, C, E, G, I".

Radio → Controller
①､② CB @%〇･･･[¥r] @,%,〇,･･･ :bank name

<Example>
CB ACEGI[¥r] Selected SEARCH RANGEs are "BANK A, C, E, G, I".

This command instructs the unit to make designated SEARCH RANGEs be selected.
If your select bank is not any frequency programmed, the bank will be ignored.

==========

<COMMAND CC>
Confirm CTCSS/DCS decode condition

==========

Controller → Radio
① CC[¥r] :Confirm CTCSS/DCS decode condition

Radio → Controller
①CCY[¥r] :Decode OK / CCN[¥r] : decode NG

==========

<COMMAND CD>
Informs when CTCSS/DCS is decoded

==========

Controller → Radio
① CD[¥r] : Confirm CD command active or not
② CDN[¥r] : CD ON / CDF[¥r] : CD OFF

Radio → Controller
①CDN[¥r] or CDF[¥r]
②OK[¥r]

While the function is ON, if CTCSS/DCS is detected, the unit sends its
CTCSS/DCS No. to the controller in the form of CD###[¥r].
###: CTCSS/DCS No. are listed in Table(following end of this chapter)

==========

<COMMAND CS>
Confirm/set CTCSS/DCS

==========

Controller → Radio
① CS[¥r] :Confirm CTCSS/DCS No.
② CS###[¥r] :Set CTCSS/DCS No.
Example)
CS001[¥r] : Set 67.0Hz ctcss tone
CS000[¥r] : Clear CTCSS/DCS
③ CS###L[¥r] :Set tone lockout CTCSS/DCS No.
###: CTCSS/DCS No. are listed in Table
(following end of this chapter)

Radio → Controller
① CS###[¥r] : ###:CTCSS/DCS No.
CS###L[¥r] : ###:tone lockout CTCSS/DCS No.
② OK[¥r]
③ OK[¥r]

==========

<COMMAND CT>

Confirm/set CTCSS/DCS function ON or OFF

==========

Controller → Radio

① CT[¥r] :Confirm CTCSS/DCS function ON or OFF

② CTN[¥r] :CTCSS/DCS ON CTF[¥r] CTCSS/DCS OFF

CTS[¥r] :CTCSS/DCS SEARCH ON

Radio → Controller

①CTN[¥r] :CTCSS/DCS ON CTF[¥r] CTCSS/DCS OFF

CTS[¥r] :CTCSS/DCS SEARCH ON

②OK[¥r]

==========

<COMMAND DL>

Confirm/Set DELAY function ON/OFF.

==========

Controller → Radio

① DL[¥r] :Confirm DELAY function ON/OFF

② DLN[¥r] :2seconds delay ON

DLF[¥r] :Delay OFF

DLN ###[¥r] :Optional delay ON (Not supported (Option))

: delay timer setting

+1,+2,+4,+-,-2,-5,-10 NOTE) +- :INFINITE

<Example> DLN +2[¥r]

Radio → Controller

① DL +2[¥r] :Delay ON

DLF[¥r] :Delay OFF

② OK[¥r]

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

==========

<COMMAND DM>

Confirm/Set Apco25 Digital voice Monitor function ON/OFF.

==========

Controller → Radio

① DM[¥r] :Confirm Digital voice Monitor function ON/OFF

② DMN[¥r] :Set Digital voice Monitor function ON

DMF[¥r] :Set Digital voice Monitor function OFF

Radio → Controller

① DMN[¥r] :Digital voice Monitor function ON

DMF[¥r] :Digital voice Monitor function OFF

② OK[¥r] :Command OK

③ the scanner detect digital voice

P25+[¥r] : start digital voice / P25-[¥r] :end digital voice

④ the scanner detect encrypted digital voice

ENCRYPT ON[¥r]

==========

<COMMAND DS>
Confirm/Set DATA SKIP function ON/OFF .

==========

Controller → Radio
① DS[¥r] :Confirm DATA SKIP function ON/OFF
② DSN[¥r] :Data skip ON
DSF[¥r] :Data skip OFF

Radio → Controller
① DSN[¥r] :Data skip ON
DSF[¥r] :Data skip OFF
② OK[¥r]

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

==========

<COMMAND DV>
Confirm Digital voice reception status.

==========

Controller → Radio
DV[¥r]

Radio → Controller
DVN[¥r] :Detect Digital voice
DVF[¥r] :Undetect Digital voice.
This command instructs the unit to send whether the digital voice is detected or not.

==========

<COMMAND EA>
Confirm/set EDACS Emergency Alert function ON/OFF

==========

Controller → Radio
① EA @[¥r] :Confirm Emergency Alert function ON/OFF
② EAN @[¥r] :Emergency Alert function ON
EAF @[¥r] :Emergency Alert function OFF
@:Bank No. (A-J)

Radio → Controller
① EAN @[¥r] :Emergency Alert function ON
EAF @[¥r] :Emergency Alert function OFF
@:Bank No. (A-J)
② OK[¥r]

==========

<COMMAND EL>
Confirm/Set Enter Lock feature ON/OFF .

==========

Controller → Radio
① EL[¥r] :Confirm ENTER LOCK ON/OFF
② ELN[¥r] :Set ENTER LOCK to ON
ELF[¥r] :Set ENTER LOCK to OFF

Radio → Controller
① ELN[¥r] :ENTER LOCK is ON
ELF[¥r] :ENTER LOCK is OFF
② OK[¥r] :Command OK

==========

<COMMAND FB>
Confirm/Program fleet block on scanner.

==========

Controller → Radio
① FB & #[¥r] :Confirm Fleet Block size.
& :A-J Identifies the bank for this fleet block.
# :0-7 Identifies the Fleet map Block No.

② FB & # %%[¥r] :Program Fleet Block No
& :A-J Identifies the bank for this Fleet Block.
# :0-7 Identifies the Fleet map Block No.
%% :00-14 Block size indicator.

Radio → Controller
① FB & # %%[¥r] :Programmed fleet Block size.
& :A-J Identifies the bank for this fleet block.
# :0-7 Identifies the Fleet map block No.
%% :00-14 Block size indicator.
② OK[¥r]

==========

<COMMAND FI> Not Support
Confirm/Set Frequency Identification function ON/OFF .

==========

Controller → Radio
① FI[¥r] :Confirm Frequency Identification function ON/OFF
② FIN[¥r] :Frequency Identification ON
FIF[¥r] :Frequency Identification OFF

Radio → Controller
① FIN[¥r] :ON
FIF[¥r] :OFF
② OK[¥r]

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

```
==========================================================================================
  <COMMAND FP>
Confirm/ Program FIPS code / Enable All FIPS code mode

==========================================================================================
  Controller → Radio
       ① FP[¥r]                :Confirm FIPS code disable or enable
       ② FP $$ ######[¥r]      :Program FIPS code
          FP $$ 0[¥r]          :Clear FIPS code
                                  $$ :Fips code List No.(01-15)
                               ###### :Fips code No.(6digit)
       ③ FP $$[¥r]             :Confirm FIPS code of the optional List No.
                                  $$ :Fips code List No.(01-15)
       ④ FPN[¥r]               :Enable All FIPS code mode
          FPF[¥r]              :Disable All FIPS code mode
  Radio → Controller
       ① FPN[¥r]               :Enable All FIPS code mode
          FPF[¥r]              :Disable All FIPS code mode
       ② OK[¥r]                :Command OK
       ③ FIPS $$ ######[¥r]    :Informs Fips code No.
                                  $$ :Fips code List No.(01-15)
                               ###### :Fips code No.(6digit) or "------":not programmed
       ④OK[¥r]                 :Command OK

==========================================================================================
  <COMMAND IC>
  Confirm/Move/Program ID Memory No.

==========================================================================================
  Controller → Radio
       ① Confirm
             IC[¥r]
       ② Move ID memory
             IC @%[¥r]        @ :ID Scan list (A-J)
                              % :ID Location  (1-9,0)
                                   "0" is used to indicate "ID Location 10".
          <Example>
             IC A0[¥r]
            Move ID Memory No. to "ID Scan List A" and "ID Location 10".

       ③ Program Talk Group ID

       //// MOTOROLA TYPE1 ////

             IC @% &##-$$[¥r] or IC @% &###-$[¥r]
                   @% : ID Memory No.
                        @ :ID Scan List (A-J)  % :ID Location (1-9,0)
                   &##-$$ : Type1 ID
                             & :Block No.(0-9)
                             ## or ### :Fleet No.
                             $$ :Sub fleet No.
               <Example>
                 IC A0 001-05[¥r]     ID in ID memory "A10" is
```

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

>> PROGRAM MOTOROLA TYPE1 I-CALL ID <<

IC @% i#####[¥r]
@% :ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
i##### :I-CALL ID
<Example>
IC A0 i01234[¥r] ID in ID memory "A10" is "i01234".

>> PROGRAM MOTOROLA TYPE1 ALL I-CALL ID <<

IC @% i0[¥r]
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
i0 : ALL I-CALL ID Indication

//// MOTOROLA TYPE2 ////

IC @% ######[¥r]
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
: Type2 ID
<Example>
IC A0 001234[¥r] ID in ID memory "A10" is "1234".

>> PROGRAM MOTOROLA TYPE2 I-CALL ID <<

IC @% 7#####[¥r]
@% :ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
7##### :I-CALL ID
<Example>
IC A0 701234[¥r] ID in ID memory "A10" is "701234".

>> PROGRAM MOTOROLA TYPE2 ALL I-CALL ID <<

IC @% 700000 or IC @% i0[¥r]
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
700000 /i0 : ALL I-CALL ID Indication

//// LTR ////

IC @% %$$###[¥r]
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
%$$### : LTR Talk Group ID
% :Area code(0,1)
$$:Home Repeater No. (01-20)
:ID(000-254)
<Example>
IC A0 001064[¥r]
ID in ID memory "A10" is "Area code:0 Home Repeater No.:01 ID:64"

//// **EDACS** ////

IC @% &&-##$[¥r]
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
&&-##$: Edacs Talk Group ID
&& :Agency No. ## :Fleet No. $:SUBFLEET No.
<Example>
IC A0 01-025[¥r] AFS format
IC A0 000149[¥r] DECIMAL format
ID in ID memory "A10" is "AGENCY=01, FLEET=02, SUBFLEET=5"

>> PROGRAM EDACS PARTIAL ID <<
IC @% &&-[¥r] or IC @% &&-##[¥r]
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
&&-: Edacs Partial Talk Group ID(All Agency)
&&-##: Edacs Partial Talk Group ID(All Agency-Fleet)
&& :Agency No. ## :Fleet No.
<Example>
IC A0 01-[¥r]
IC A0 01-02[¥r]

>> PROGRAM EDACS I-CALL ID <<
IC @% i#####[¥r]
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
i##### :I-CALL ID
<Example>
IC A0 i01234[¥r] ID in ID memory "A10" is "i01234".

>> PROGRAM EDACS ALL I-CALL ID <<

IC @% i0[¥r]
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
i0 : ALL I-CALL ID Indication

Radio → Controller
①,②
//// **Not Programmed ID** ////

IC @% ------[¥r]
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)

//// **MOTOROLA TYPE1** ////

IC @% &##-$$[¥r] or IC @% &###-$[¥r]
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
&##-$$: Type1 ID

```
                    & :Block No.(0-7)
                    ## or ### :Fleet No.
                    $$ :Sub fleet No.
        <Example>
          IC A0 001-05[¥r]     ID in ID memory "A10" is
                               "BLOCK=0, FLEET=1, SUBFLEET=5".

   >> MOTOROLA TYPE1 I-CALL ID <<
      IC @% i#####[¥r]
            @% :ID Memory No.
                 @ :ID Scan List (A-J)  % :ID Location (1-9,0)
            i##### :I-CALL ID
        <Example>
          IC A0 i01234[¥r]     ID in ID memory "A10" is "i01234".

   >> MOTOROLA TYPE1 ALL I-CALL ID <<

      IC @% i00000[¥r]
            @% : ID Memory No.
                 @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
         i00000 : ALL I-CALL ID Indication

//// MOTOROLA TYPE2 ////

      IC @% ######[¥r]
            @% : ID Memory No.
                 @ :ID Scan List (A-J)  % :ID Location (1-9,0)
         ###### : Type2 ID
      <Example>
            IC A0 001234[¥r]  ID in ID memory "A10" is "1234".

   >> MOTOROLA TYPE2 I-CALL ID <<

      IC @% 7#####[¥r]
            @% :ID Memory No.
                 @ :ID Scan List (A-J)  % :ID Location (1-9,0)
         7##### :I-CALL ID
        <Example>
          IC A0 701234[¥r]     ID in ID memory "A10" is "701234".

   >> MOTOROLA TYPE2 ALL I-CALL ID <<

      IC @% 700000[¥r]
            @% : ID Memory No.
                 @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
         700000 : ALL I-CALL ID Indication

//// LTR ////

      IC @% %$$###[¥r]
            @% : ID Memory No.
                 @ :ID Scan List (A-J)  % :ID Location (1-9,0)
         %$$### : LTR Talk Group ID
```

```
                % :Area code(0,1)
               $$ :Home Repeater No. (01-20)
              ### :ID(000-254)
      <Example>
            IC A0 001064[¥r]
              ID in ID memory "A10" is "Area code:0 Home Repeater No.:01 ID:64"
```

//// EDACS ////

```
      IC @% &&-##$[¥r]
            @% : ID Memory No.
                 @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
            &&-##$: Edacs Talk Group ID
                && :Agency No.     ## :Fleet No.   $ :SUBFLEET No.
        <Example>
          IC A0 01-025[¥r]    AFS format
          IC A0 000149[¥r]    DECIMAL format
              ID in ID memory "A10" is "AGENCY=01, FLEET=02, SUBFLEET=5"

   >> EDACS PARTIAL ID <<
      IC @% &&----[¥r]or  IC @% &&-##-[¥r]
            @% : ID Memory No.
                 @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
          &&----: Edacs Partial Talk Group ID(All Agency)
          &&-##-: Edacs Partial Talk Group ID(All Agency-Fleet)
                && :Agency No.     ## :Fleet No.
        <Example>
          IC A0 01----[¥r]
          IC A0 01-02-[¥r]

   >> EDACS I-CALL ID <<

      IC @% i#####[¥r]
            @% : ID Memory No.
                 @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
        i##### :I-CALL ID
        <Example>
          IC A0 i01234[¥r]    ID in ID memory "A10" is "i01234".

   >> EDACS ALL I-CALL ID <<

      IC @% i00000[¥r]
            @% : ID Memory No.
                 @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
        i00000 : ALL I-CALL ID Indication
```

③ OK[¥r]

==========

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

==========

Controller → Radio
① ID[¥r] : confirm "ID" command active
② IDN[¥r] : "ID" command ON
IDF[¥r] : "ID" command OFF

Radio → Controller
① IDN[¥r] : "ID" command ON
IDF[¥r] : "ID" command OFF
② OK[¥r]

While the function is ON, the reception ID and tuned frequency are returned by the following format when a radio receives ID and when the reception of ID is finished.

(1)ID Reception Starts

//// MOTOROLA TYPE1 ////

ID S &##-$$ %%%%%%%%[¥r] or ID S &###-$ %%%%%%%%[¥r]

&##-&& / &###-$:Motorola Type1 ID
& :Block No. ## / ### :Fleet No.
$$ / $:Subfleet No.
%%%%%%%% :Voice channel Frequency

<Example>
ID S 001-03 08510125[¥r]
ID reception starts on Block=0、Fleet=1, Subfleet=3
Voice channel Frequency: 851.0125MHz

>> MOTOROLA TYPE1 I-CALL ID RECEPTION START <<

ID S i##### %%%%%%%% I-CALL i$$$$$[¥r]
i##### :Individual Call ID1(Decimal format)
i$$$$$:Individual Call ID2(Decimal format)
%%%%%%%% :Voice channel Frequency

>> MOTOROLA TYPE1 PHONE CALL ID RECEPTION START <<

ID S i##### %%%%%%%% PHONE[¥r]

i##### :Phone Call ID(Decimal format)
%%%%%%%% :Voice channel Frequency

//// MOTOROLA TYPE2 ////

ID S @@@@@ %%%%%%%%[¥r]

@@@@@ :Talk group ID
%%%%%%%% :Voice channel Frequency

<Example>
ID S 001234 08510125[¥r] ID reception starts on "ID=1234".
Voice Channel Frequency:851.0125MHz

>> MOTOROLA TYPE2 I-CALL ID RECEPTION START <<

ID S 7##### %%%%%%%% I-CALL 7$$$$$[¥r]

7##### :Individual Call ID1(Decimal format)
7$$$$$:Individual Call ID2(Decimal format)
%%%%%%%% :Voice channel Frequency

>> MOTOROLA TYPE2 PHONE CALL ID RECEPTION START <<

ID S 7##### %%%%%%%% PHONE[¥r]

7##### :Phone Call ID(Decimal format)
%%%%%%%% :Voice Frequency

//// LTR ////

ID S %$$### %%%%%%%%[¥r]
%$$### : LTR Talk Group ID
% :Area code(0,1)
$$:Home Repeater No. (01-20)
:ID(000-254)
%%%%%%%% :Goto channel Frequency

<Example>
ID S 001064 08510250[¥r]
ID reception starts on "Area code:0 Home Repeater No.:01 ID:64".
Goto Channel Frequency:851.0250MHz

//// EDACS ////

ID S &&-##$ %%%%%%%%[¥r]

&&-##$:EDACS Talk Group ID
&& :Agency ## :Fleet No. $:SUBFLEET No.
%%%%%%%% :Working channel Frequency

<Example>
ID S 01-025 08510125[¥r] AFS format
ID S 000149 08510125[¥r] DECIMAL format

>> EDACS EMERGENCY ID RECEPTION START <<

ID S &&-##$ %%%%%%%% EMERGENCY[¥r]

&&-##$:EDACS Emergency ID
&& :Agency ## :Fleet No. $:SUBFLEET No.
%%%%%%%% :Working channel Frequency

>> EDACS PATCH CALL ID RECEPTION START <<

ID S &&-##$ %%%%%%%% PATCH ID @@-¥¥# @@-¥¥# @@-¥¥#[¥r]

```
                  &&-##$ :EDACS Patch ID
                              && :Agency  ## :Fleet No. $ :SUBFLEET No.
                 %%%%%%%% :Working channel Frequency
                  @@-¥¥# :Patch comprising talk groups ID
                            @@ :Agency  ¥¥ :Fleet No. # :SUBFLEET No.

   >> EDACS I-CALL ID RECEPTION START <<

      ID S i##### %%%%%%%% I-CALL[¥r]

                  i##### :EDACS I-CALL ID(Decimal format)
                 %%%%%%%% :Working channel Frequency
```

(2)ID reception ends

//// MOTOROLA TYPE1 ////

```
     ID E &##-$$ %%%%%%%%[¥r] or ID E &###-$ %%%%%%%%[¥r]

          &##-&& / &###-$ :Motorola Type1 ID
                          & :Block No.  ## / ### :Fleet No.
                          $$ / $  :Subfleet No.
                 %%%%%%%% :Control channel Frequency

     <Example>
        ID E 001-03 08510125[¥r]    ID reception ends on Block=0、
                                    Fleet=1, Subfleet=3
                                    Control channel Frequency:851.0125MHz

   >> MOTOROLA TYPE1 I-CALL & PHONE CALL RECEPTION END <<

      ID E i##### %%%%%%%%[¥r]

                    i##### :ID(Decimal format)
                   %%%%%%%% :Control channel Frequency
```

//// MOTOROLA TYPE2 ////

```
ID E @@@@@@ %%%%%%%%[¥r]

                    @@@@@@ :Talk group ID
                   %%%%%%%% :Control channel Frequency
       <Example>
       ID E 001234 08510125[¥r]   ID reception ends on "ID=1234".
                                  Control channel Frequency:851.0125MHz

   >> MOTOROLA TYPE2 I-CALL & PHONE CALL ID RECEPTION END <<

      ID E 7##### %%%%%%%%[¥r]

                    7##### :ID(Decimal format)
                   %%%%%%%% :Control channel Frequency
```

//// LTR ////

```
ID E %$$### %%%%%%%%[¥r]
            %$$### : LTR Talk Group ID
                     % :Area code(0,1)
                    $$ :Home Repeater No. (01-20)
                   ### :ID(000-254)
                 %%%%%%%% :Home channel Frequency
 <Example>
   ID E 001064 08510250[¥r]
          ID reception ends on "Area code:0 Home Repeater No.:01 ID:64".
                                          Home Channel Frequency:851.0250MHz
```

//// EDACS ////

```
ID E &&-##$ %%%%%%%%[¥r]
                  &&-##$ :EDACS Talk Group ID
                           &&:Agency  ##:Fleet No. $: SUBFLEET No.
                %%%%%%%% :Control channel Frequency
   <Example>
     ID E 01-025 08510125[¥r]     AFS format
     ID E 000149 08510125[¥r]     DECIMAL format

>> EDACS EMERGENCY ID RECEPTION END <<

ID E &&-##$ %%%%%%%%[¥r]

                &&-##$ :EDACS Emergency ID
                         &&:Agency  ##:Fleet No. $: SUBFLEET No.
              %%%%%%%% :Control channel Frequency

>> EDACS PATCH CALL ID RECEPTION END <<

ID E &&-##$ %%%%%%%%[¥r]
                &&-##$ :EDACS Patch ID
                           &&:Agency  ##:Fleet No. $: SUBFLEET No.
              %%%%%%%% :Control channel Frequency

>> EDACS I-CALL ID RECEPTION END <<

ID E i##### %%%%%%%%[¥r]
                i##### :EDACS I-CALL ID(Decimal format)
              %%%%%%%% :Control channel Frequency
```

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.

==========

<COMMAND IL>
Read L/O ID memory.
Register an ID into L/O ID memory.
Delete an ID from L/O ID memory.

==========

Controller → Radio

① Read

IL###[¥r]　　### : Lockout Memory No.(001 - 200)

② Register

//// MOTOROLA TYPE 1 ////

ILR &##-$$[¥r] / ILR &###-$[¥r]

&##-&& / &###-$:Motorola Type1 ID
& :Block No. ## / ### :Fleet No.
$$ / $:Subfleet No.

ILR i#####[¥r]　　i##### :MOTOROLA TYPE1 I-CALL ID

<Example>

ILR 001-03[¥r]
ILR i01234[¥r]

//// MOTOROLA TYPE2 ////

ILR @@@@@@[¥r]　　@@@@@@ :MOTOROLA TYPE2
ILR 7#####[¥r]　　7##### :MOTOROLA TYPE2 2 I-CALL ID

<Example>

ILR 024106[¥r]
ILR 701234[¥r]

//// LTR ////

ILR %$$###[¥r]

%$$### : LTR Talk Group ID
% :Area code(0,1)
$$:Home Repeater No. (01-20)
:ID(000-254)

<Example>

ILR 001064[¥r]

//// EDACS ////

ILR &&-##$[¥r]

&&-##$:EDACS Emergency ID
&&:Agency ##:Fleet No. $: SUBFLEET No.

ILR i#####[¥r]　　i##### :EDACS I-CALL ID

<Example>

ILR 01-011[¥r]
ILR i01234[¥r]

>> EDACS BLOCKOUT <<

ILR &&-[¥r]　ALL Agency lockout　　&&: Agency No
ILR &&-##[¥r]　ALL Agency-Fleet lockout　　##: Fleet No.

<Example>
ILR 02-[¥r]
ILR 02-01[¥r]

③ Delete

//// MOTOROLA TYPE 1 ////

ILD &##-$$[¥r] / ILD &###-$[¥r]

&##-&& / &###-$:Motorola Type1 ID
& :Block No. ## / ### :Fleet No.
$$ / $:Subfleet No.

ILD i#####[¥r] i##### :MOTOROLA TYPE1 I-CALL ID

<Example>
ILD 001-03[¥r]
ILD i01234[¥r]

//// MOTOROLA TYPE2 ////

ILD @@@@@@[¥r] @@@@@ :MOTOROLA TYPE2
ILD 7#####[¥r] 7##### :MOTOROLA TYPE2 2 I-CALL ID

<Example>
ILD 024106[¥r]
ILD 701234[¥r]

//// LTR ////

ILD %$$###[¥r]
%$$### : LTR Talk Group ID
% :Area code(0,1)
$$:Home Repeater No. (01-20)
:ID(000-254)

<Example>
ILD 001064[¥r]

//// EDACS ////

ILD &&-##$[¥r]
&&-##$:EDACS Emergency ID
&&:Agency ##:Fleet No. $: SUBFLEET No.

ILD i#####[¥r] i##### :EDACS I-CALL ID

<Example>
ILD 01-011[¥r]
ILD i01234[¥r]

>> EDACS BLOCKOUT <<

ILD &&-[¥r] ALL Agency lockout &&: Agency No
ILD &&-##[¥r] ALL Agency-Fleet lockout ##: Fleet No.

<Example>
ILD 02-[¥r]
ILD 02-01[¥r]

Radio → Controller

① Read

///// NOT REGISTERED LOCKOUT ID MEMORY /////

```
        IL ------[¥r]

//// MOTOROLA TYPE 1 ////
        IL &##-$$[¥r] /  IL &###-$[¥r]

                &##-&& / &###-$ :Motorola Type1 ID
                        & :Block No.  ## / ### :Fleet No.
                        $$ / $  :Subfleet No.
        IL i#####[¥r]           i##### :MOTOROLA TYPE1 I-CALL ID
    <Example>
        IL 001-03[¥r]
        IL i01234[¥r]

//// MOTOROLA TYPE2 ////
        IL @@@@@@[¥r]          @@@@@@ :MOTOROLA TYPE2
        IL 7#####[¥r]          7##### :MOTOROLA TYPE2 2 I-CALL ID
    <Example>
        IL 024106[¥r]
        IL 701234[¥r]

//// LTR ////

        IL %$$###[¥r]
                %$$### : LTR Talk Group ID
                        % :Area code(0,1)
                        $$ :Home Repeater No. (01-20)
                        ### :ID(000-254)
    <Example>
        IL 001064[¥r]

//// EDACS ////
        IL &&-##$[¥r]
              &&-##$ :EDACS Emergency ID
                        &&:Agency  ##:Fleet No. $: SUBFLEET No.

        IL i#####[¥r]           i##### :EDACS I-CALL ID
    <Example>
        IL 01-011[¥r]
        IL i01234[¥r]

>> EDACS BLOCKOUT <<
        IL &&----[¥r]    ALL Agency lockout
        ILD &&-##-[¥r]  ALL Agency-Fleet lockout
                         &&:Agency  ##:Fleet No.
    <Example>
        IL 02-[¥r]
        IL 02-01-[¥r]
```

② Register

If the ID is registered into L/O ID memory, the unit sends OK[¥r] to the controller.
If the ID is already in L/O ID memory, sends ON[¥r].
If L/O ID memory is full, sends FULL[¥r].

③ Delete

If the ID is deleted from L/O ID memory, the unit sends OK[¥r] to the controller. If the ID isn't in L/O ID memory, sends OFF[¥r].

==========

<COMMAND IR>

Confirm/Set I-call ID Reception function

==========

Controller → Radio

① IR @[¥r] :Confirm I-CALL ID Reception function
@:Bank No. (A-J)

② IRN @[¥r] :Set I-CALL ID Reception to ON mode
IRF @[¥r] :Set I-CALL ID Reception to OFF mode
IRY @[¥r] :Set I-CALL ID Reception to ONLY mode
@:Bank No. (A-J)

Radio → Controller

① IRN @[¥r] :I-CALL ID Reception is ON mode
IRF @[¥r] :I-CALL ID Reception is OFF mode
IRY @[¥r] :I-CALL ID Reception is ONLY mode
@:Bank No. (A-J)

② OK[¥r]

==========

<COMMAND IS>

Confirm/Select ID scan lists.

==========

Controller → Radio

① IS[¥r] :Confirm ID scan list name

② IS @%○･･･[¥r] :Select ID scan list

@,%,○,･･･ :ID scan list No. (A-J)

<Example>

IS ACE[¥r] Select "LIST A, LIST C, LIST E".
(LIST B, LIST D are not selected)

Radio → Controller

①、②

IS @%○･･･[¥r] @,%,○,･･･ : ID scan list name

<Example>

IS ACE[¥r] Selected ID scan lists are "LIST A, C, E".

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

==========

<COMMAND KEY>

Work as if a key were pushed.

==========

Controller → Radio

KEY○○[¥r]　　○○:KEY Emulate Code (see Following Table)

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

<Example>

KEY06H[¥r]

This command is used instead of hold press of [L/O] key.

KEY02 6[¥r]

This command is used instead of press of [6] key.
So this command is used instead of hold press of [6] key.

Radio → Controller

OK[¥r]

Key Emulate Code:

KEY00: [RSM]	KEY01: [SCAN]
KEY02: [0]-[9]	KEY03: [.]
KEY04: [E/SELECT]	KEY05: [PRI]
KEY06: [L/O]	KEY07: [HOLD/MAN]
KEY08: [LIGHT/KEYLOCK]	KEY09: [SEARCH]
KEY10: [SERVICE]	KEY11: [MENU/BACK]
KEY12: [TRANSFER]	KEY13: [TRUNK]

KEY14: not used (reserved)
KEY15: [ROTARY UP]
KEY16: [ROTARY DOWN]

==========

<COMMAND LCD>

Confirm a character strings on LCD.

==========

Controller → Radio

LCD[¥r] / LCD#[¥r] #: Line number (1～4)

Radio → Controller

<Example1>

```
LCD1 [     P C 101    ][                ]
LCD2 [ 852.2875 NFM   ][                ]
LCD3 [956.            ][    _           ]   '-' : CURSOR POINT
LCD4 [Bank 2          ][                ]
```

<Example2>

```
LCD1 [MENU            ][                ]
LCD2 [1:SERVICE OPTION][****************]   '*' : Reverse character
LCD3 [2:SCAN OPTION   ][                ]
LCD4 [3:SYSTEM OPTION ][                ]
```

<Example3>

```
LCD1 [SCAN + P C 001  ][####            ]
LCD2 [ 511.9950 NFM   ][                ]
LCD3 [Bank  1234567890][      #         ]
LCD4 [Bank 1          ][                ]   '#' : Blinking character
```

"SCAN" and Selected Bank "1" is blinking.

NOTE) '+' : ↑ / '-' : ↓ / Lo: L/O / [redacted] :P

NOTE) All the above responses aren't influenced by the screen mask feature.

==========

<COMMAND LL>

Confirm/Set lower edge frequency of CHAIN SEARCH.

==========

Controller → Radio

① LL[¥r] :Confirm the lower edge frequency of the current SEARCH RANGE
LL #[¥r] :Confirm the lower edge frequency of the selected SEARCH RANGE.
#: SEARCH RANGE No. (A,B,....J)

② LL@@@@@@@@[¥r] :Set the lower edge frequency of the current SEARCH RANGE
LL@@@@@@@@ #[¥r] :Set the lower edge frequency of the selected SEARCH RANGE

@@@@@@@@ :Lower edge frequency
The order of the digits is from 1 GHz digit
to 100 Hz digit.
:SEARCH RANGE No. (A,B....J)

<Example>

LL08510125 A[¥r]

Set the lower edge frequency to "851.0125 MHz"
for the SEARCH RANGE "A".

Radio → Controller
① ② LL@@@@@@@@ #[¥r]
The current lower edge frequency is @@@@@@@@*100 Hz.
#: SEARCH RANGE No (A,B,.... J)

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

==========

<COMMAND LM>
Confirm/Set LCD screen mask feature ON/OFF .

==========

Controller → Radio
① LM[¥r] :Confirm LCD screen mask ON/OFF
② LMN[¥r] :Set LCD screen mask to ON
LMF[¥r] :Set LCD screen mask to OFF

Radio → Controller
① LMN[¥r] :LCD screen mask is ON
LMF[¥r] :LCD screen mask is OFF
② OK[¥r] :Command OK

==========

<COMMAND LO>
Confirm/Set LOCKOUT function ON/OFF.

==========

Controller → Radio
① LO[¥r] :Confirm LOCKOUT function ON/OFF
② LON[¥r] :Lockout ON
LOF[¥r] :Lockout OFF

Radio → Controller
① LON[¥r] :Lockout ON
LOF[¥r] :Lockout OFF
② OK[¥r]

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

==========

<COMMAND LT>
Confirm/Set Back Light HIGH/OFF/MEDIUM.

==========

Controller → Radio
① LT[¥r] :Confirm Back Light HIGH/OFF/MEDIUM
② LTN[¥r] :Back Light HIGH
LTF[¥r] :Back Light OFF
LTD[¥r] :Back Light MEDIUM

Radio → Controller

① LTN[¥r] :Back Light HIGH
LTF[¥r] :Back Light OFF
LTD[¥r] :Back Light MEDIUM
② OK[¥r]

This command instructs the unit to turn or confirm Back Light HIGH/OFF/MEDIUM.

==========

<COMMAND LU>
Confirm/Set upper edge frequency of CHAIN SEARCH.

==========

Controller → Radio

① LU[¥r] :Confirm the upper edge frequency of the current SEARCH RANGE
LU #[¥r] :Confirm the upper edge frequency of the selected SEARCH RANGE
#: SEARCH RANGE No. (A,B,....J)

② LU@@@@@@@@[¥r] : set the upper edge frequency of the current SEARCH RANGE
LU@@@@@@@@ #[¥r] : set the upper edge frequency of the selected SEARCH RANGE

@@@@@@@@ :Upper edge frequency
The order of the digits is from 1 GHz digit
to 100 Hz digit.
:SEARCH RANGE No(A,B....J)

<Example>
LU09560000 A[¥r]
Set the upper edge frequency to "956.0000MHz"
for the SEARCH RANGE "A".

Radio → Controller

① ② LU@@@@@@@@ #[¥r]
The current upper edge frequency is @@@@@@@@*100 Hz.
#:SEARCH RANGE No. (A,B,....J)

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

==========

<COMMAND MA>
Confirm the channel No. of SCAN HOLD MODE or SCAN STOP MODE.
Move to the optional channel No. of SCAN HOLD MODE.

==========

Controller → Radio

① Confirm
MA[¥r]
② Move to
MA@@@[¥r] @@@ : channel No. (001-999, 000(=1000))

<Example>
MA015[¥r] Move to the channel No. "15".

Radio → Controller
①,②
C@@@ F%%%%%%% T# D# L# A# R# N$$$ [¥r]
@@@ :Channel No.
%%%%%%% :Frequency
The order of the frequency digits are from 1 GHz digit to 100 Hz digit.
:N or F(ON/OFF)
ex)TN/TF :Trunking frequency / conventional frequency
DN/DF :Delay ON/OFF
LN/LF :Lockout ON/OFF
AN/AF :Attenuator ON/OFF
RN/RF :Auto record function ON/OFF
$$$:CTCSS/DCS TONE No. are listed in Table (following end of this chapter)

<Example>
C015 F04060125 TF DN LF AF N000[¥r]
The current channel No. is "15",
and its conventional frequency is "406.0125 MHz".
Delay function is ON, Lockout is OFF,
Attenuation is OFF
CTCSS is not programmed.

==========

<COMMAND MD>
Confirm the Scanner mode.

==========

Controller → Radio
MD[¥r]

Radio → Controller
MD@@[¥r] @@ :Current scanner mode No.(See following Table)

This command instructs the unit to confirm the current scanner mode 。
>>>> Scanner Mode Number <<<<
00 :Scan mode
01 :SCAN HOLD MODE
02 :CHAIN Search mode
03 :CHAIN Search Hold mode
04 :Service Search mode
05 :Service Search Hold mode
06 :Transfer mode
07 :Auto Store mode
08 :Control Store mode (Not used)
09 :manual frequency mode
10 :ID search mode
11 :ID search hold mode
12 :ID scan mode
13 :ID SCAN HOLD MODE
14 :Edacs ID search mode
15 :Edacs ID search hold mode
16 :Edacs ID scan mode

17 :Edacs ID SCAN HOLD MODE
18 :LTR ID search mode
19 :LTR ID search hold mode
20 :LTR ID scan mode
21 :LTR ID SCAN HOLD MODE

==========

<COMMAND MU>
Confirm/Set status of speaker muting.

==========

Controller → Radio
① MU[¥r] :Confirm MUTE control mode.
② MU?[¥r] :Confirm ON/OFF condition.
③ MUN[¥r] :Set MUTE ON(by force)mode.
MUF[¥r] :Set MUTE OFF(by force)mode.
MUA[¥r] :Set AUTO MUTE control mode.
Radio → Controller
① MUN[¥r] :MUTE ON(by force)mode.
MUF[¥r] :MUTE OFF(by force)mode.
MUA[¥r] :AUTO MUTE control mode.
② MU ON[¥r] :MUTE ON condition.
MU OFF[¥r] :MUTE OFF condition.
③ OK[¥r]

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

==========

<COMMAND PC>
Confirm/Set priority channel No. of a bank.

==========

Controller → Radio
① Confirm
PC @[¥r] @ :Bank No.(A - J)

<Example>
PC A[¥r] Confirm the priority channel of "Bank A".
② Set
PC @%%%[¥r] @ :Bank No.(A-J) %%% :Channel No.(001 - 999, 000)

<Example>
PC A014[¥r] Set the priority channel of "Bank A" to "14".

Radio → Controller
①,②
PC @%%%[¥r] @ :Bank No.(A - J) %%% :Channel No. (001 - 999, 000)

<Example>
PC A014[¥r] The priority channel of "Bank A" is "14".

==========

<COMMAND PI>
Confirm/Set Priority Talk ID Memory Location

==========

Controller → Radio

① Confirm Priority ID location
PI @[¥r] @ : ID list No. (A-J)

<Example>
Confirm priority Location of List "A" in current Trunk Bank
PI A[¥r]

Set Priority ID location
②PI @#[¥r] @ : ID List No. (A-J) # : ID location No. (1-9,0)

<Example>
PI A1[¥r] set priority to List "A", Location "1"

Radio → Controller
① PI @# %%%%%%[¥r] @ : ID List No (A-J) # : ID location No. (1-9,0)
%%%%%% : Talk Group ID
<Example>
PI A1 001234[¥r]
Priority of List "A" is location "1" ID:001234
② OK[¥r]

==========

<COMMAND PM>
Read / Program a channel frequency

==========

Controller → Radio
① Read
PM@@@[¥r] @@@ : Channel No. (001-999, 000(=1000))
<Example>
PM014[¥r] Read the frequency of "14CH".
② Program
PM@@@ %%%%%%%%[¥r] or PM@@@T%%%%%%%%[¥r]
@@@ :Channel No.(001-999, 000) T: Trunking ch flag
%%%%%%%% :Frequency
The order of the frequency digits are from 1 GHz digit to 100 Hz digit.
PM command initialize delay mode, attenuator and auto record, because DL,AT and AR commands is commanded after commanding PM command.

<Example 1> program 406.0125MHz to Channel No.14
PM014 04060125[¥r] Set the frequency of "14CH" to "406.0125 MHz".
<Example 2> program 29.0050MHz to Channel No.14
MA014[¥r] Move to channel No.14
ST 5K[¥r] Change program step
PM014 00290050[¥r] Set the frequency of "14CH" to "29.0050 MHz".

Radio → Controller
①,②
C@@@ F%%%%%%% T# D# L# A# R# N$$$ [¥r]

@@@ :Channel No. (001-999, 000)
%%%%%%% :Frequency
# :N or F(ON/OFF)
ex)TN/TF : trunking / conventional frequency
DN/DF : Delay ON/OFF
LN/LF : Lockout ON/OFF
AN/AF : Attenuator ON/OFF
RN/RF : Auto record function ON/OFF
$$$:CTCSS/DCS TONE No. are listed in Table
(following end of this chapter)

<Example>
C015 F04060125 TF DN LF AF RF N000[¥r]
CH No :CH15 FREQUENCY :"406.0125 MHz"(conventional)
DELAY :ON LOCKOUT :OFF
ATTENUATOR :OFF CTCSS :00.0 Hz.

==========

<COMMAND PR>
Confirm/Set PRIORITY function ON/OFF .

==========

Controller → Radio
① PR[¥r] :Confirm priority function ON/OFF
② PRN[¥r] :Set priority function
PRF[¥r] :Priority function OFF
PR+[¥r] :Set Priority Plus function

Radio → Controller
① PRN[¥r] :Priority is ON
PRF[¥r] :Priority is OFF
PR+[¥r] :Priority Plus is ON
② OK[¥r]

This command instructs the unit to turn or confirm PRIORITY(and Plus) function ON/OFF.

==========

<COMMAND QU>
ON/OFF function which informs when squelch condition changes.

==========

Controller → Radio
①QU[¥r]:Confirm QU command active
② QUN[¥r] :QU command ON
QUF[¥r] :QU command OFF

Radio → Controller
① QUN[¥r] :QU command is ON
QUF[¥r] :QU command is OFF

②OK[¥r]

While the function is ON, if the squelch condition becomes
·Close to open, unit sends +[¥r] to the controller.
·Open to close, unit sends -[¥r] 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.

==========

<COMMAND RF>
Confirm/Tune the commanded frequency.

==========

Controller → Radio
① RF@@@@@@@@[¥r] or RF@@@@@@@@?[¥r]
RF@@@@@@@@ $$$[¥r] or RF@@@@@@@@? $$$[¥r]
@@@@@@@@ : Tuned frequency
$$$(optional) : frequency round step
5K / 6.25K / 7.5K / 10K / 12.5K / 25K / 50K / 100K / AUTO
The order of the digits are from 1 GHz digit to 100 Hz digit.

<Example>
RF04060125[¥r] tuned receiver to 406.0125 MHz
RF00290050[¥r] tuned receiver to 29.0100MHz(rounded with default step)
RF00290050 5K[¥r] tuned receiver to 29.0050MHz(rounded with 5K step)
if you wish to confirm the tuned frequency for this command response,
a "?" code add after the commanded frequency.

② RF[¥r] :confirm tuned frequency

Radio → Controller
① OK[¥r] or RF@@@@@@@@[¥r]
② RF@@@@@@@@[¥r]
@@@@@@@@ : Tuned frequency

This command can be instantly tuned to a commanded frequency .

==========

<COMMAND RG>
Confirm /Set EDACS ID Range mode.

==========

Controller → Radio

① Confirm ID Range mode
RG[¥r]
② Set ID Range mode
RG @@-[¥r] @@ : EDACS id (Agency:00-15)
RG @@-##[¥r] @@ : EDACS id (Agency:00-15)
: EDACS id (Fleet:00-15)
<Example>

RG 01-[¥r] or RG 01-01[¥r]

③ Clear ID Range mode
RGF [¥r]

Radio → Controller
① RGN[¥r] :Range mode ON
RGF[¥r] :Range mode OFF
② OK[¥r]
③ OK[¥r]

==========

<COMMAND RI>
ON/OFF function which informs when priority receiving condition changes.

==========

Controller → Radio
① RI[¥r] :Confirm "RI" command active
②RIN[¥r] :Activate "RI" command
RIF[¥r] :Inactivate "RI" command

Radio → Controller
①RIN[¥r] : "RI" command is ACTIVE
RIF[¥r] : "RI" command is INACTIVE
② OK[¥r]
While the function is ON,
・if the unit stops on the priority channel by priority receiving, sends PST[¥r] to the controller.
・if the unit returns from the priority channel, sends PRT[¥r] 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.

==========

<COMMAND RM>
Confirm/Set Receiver modulation .

==========

Controller → Radio
① RM[¥r] :Confirm Receiver modulation
② RM @@@[¥r] :Set Receiver modulation
@@@ : Receiver modulation
ex)RM AM[¥r] AM RM NFM[¥r] Narrow band FM
RM WFM[¥r] Wide band FM RM FM[¥r] FM
RM AUTO[¥r] Set Default modulation

Radio → Controller
①RM @@@[¥r] @@@:Current Receiver modulation
ex)RM AM[¥r] AM RM NFM[¥r] Narrow band FM
RM WFM[¥r] Wide band FM RM FM[¥r] FM
RM ---[¥r] Not programmed frequency(OMHz)

② OK[¥r]
This command instructs the unit to confirm receiver modulation.

==========

<COMMAND SB>
Confirm/Select scan banks.

==========

Controller → Radio
①SB[¥r] :Confirm scan banks
② SB @%〇･･･[¥r] :Select scan banks
@,%,〇,･･･ :bank name

<Example>
SB ACEGI[¥r]
Select "BANK A, C, E, G, I".

Radio → Controller
①､② SB @%〇･･･[¥r] @,%,〇,･･･ :bank name

<Example>
SB ACEGI[¥r] Selected scan banks are "BANK A, C, E, G, I".

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

==========

<COMMAND SG>
Read the signal strength

==========

Controller → Radio
① SG[¥r] :Confirm signal strength
Radio -> Controller
①S$$$ F########[¥r] $$$:A/D voltage value of Strength meter(0-255)
########:tuned frequency

<Example>
S147 F08510125[¥r]
Note)
Voltage = (MicomVcc * $$$)/255 ex) Vcc:3.2V $$$=147 (3.2 * 147)/255 =1.84V

==========

<COMMAND SI>
Confirm Scanner Information

==========

Controller → Radio
SI[¥r]

Radio → Controller
SI @@@@@@@@,%%%%%%%%%%,&&&[¥r]
@@@@@@@@ :Alphanumeric model Name/No.
%%%%%%%%%% :Alphanumeric ESN No.(Not used)
&&& :Remote Command Version.

<Example>
SI BC296D,0000000000,106
This is the information string sent by the scanner to PC

==========

<COMMAND SQ>
Confirm squelch condition.

==========

Controller → Radio
SQ[¥r]

Radio → Controller
+[¥r] :Now squelch is OPEN.
-[¥r] :Now squelch is CLOSE.
This command instructs the unit to send whether the squelch is OPEN or CLOSE.

==========

<COMMAND SS>
Read a frequency in search skip memory.
Register a frequency into search skip memory.

==========

Controller → Radio
① Read
SS### ### : Search Skip Memory No. (001-200)
② Register
SS@@@@@@@@[¥r] @@@@@@@@ : Frequency
The order of the digits are from 1 GHz digit to 100 Hz digit.
<Example>
SS04060125[¥r] Register 406.0125 MHz into search skip memory.

Radio → Controller
① Read
SS@@@@@@@@[¥r] @@@@@@@@ : Frequency

<Example>
SS04060125[¥r]
Frequencies in search skip memory are "406.0125 MHz"
② Register
SS@@@@@@@@[¥r] @@@@@@@@ : Frequency
<Example>
SS04060125[¥r] 406.0125 MHz is registered.

※ If the frequency is already in search skip memory,
the unit sends ON[¥r] to the controller.

This command instructs the unit
①to send all the frequencies in search skip memory.
②to register a frequency into search skip memory.

```
================================================================================
  <COMMAND ST>
  Confirm / set frequency step

================================================================================
  Controller → Radio
        ① ST[¥r]        :Confirm frequency step
        ② ST ###[¥r]    :Set frequency step
                            ###: 5K / 6.25K / 7.5K / 12.5K / 25K / 50K / 10K / 100K / AUTO
  Radio → Controller
        ① ST ###[¥r]    :Inform frequency step
                            ###: 5K / 6.25K / 7.5K / 12.5K / 25K / 50K / 10K / 100K
        ② OK[¥r]

================================================================================
  <COMMAND TA>
  Confirm / Program alpha tag name

================================================================================
  Controller → Radio
        ① Confirm alpha tag name
            TA C ###[¥r]          :Confirm channel tag name
                                          ### :Channel No.(001 - 999, 000)
            TA B $[¥r]            :Confirm bank tag name
                                          $ :Bank No.(A - J)
            TA L $ &[¥r]          :Confirm ID LIST tag name
                                          $ :Bank No.(A - J) &:list No.(A - J)
            TA I $ &%[¥r]         :Confirm TALK ID tag name
                                          $ :Bank No.(A - J) &:list No.(A - J)
                                          % :Location No.(0 - 9)
            TA S $[¥r]            :Confirm SEARCH RANGE tag name
                                          $: SEARCH RANGE No.(A - J)
        ②  Program alpha tag name

               The ASCII CODE of 0x20 to 0x7F can be used for a alpha name.
            TA C ### @@@@@@@@@@@@@@@@[¥r]         :Program channel tag name
                          ### :Channel No.(001 - 999, 000)
                          @@@@@@@@@@@@@@@@ :Alpha tag name (Max. 16igit)
            TA B $ @@@@@@@@@@@@@@@@[¥r]           :Program bank tag name
                          $ :Bank No.(A - J)
                          @@@@@@@@@@@@@@@@ :Alpha tag name (Max. 16igit)


            TA L $ & @@@@@@@@@@@@@@@@[¥r]         :Program ID LIST tag name
                          $ :Bank No.(A - J) &:list No.(A - J)
                          @@@@@@@@@@@@@@@@ :Alpha tag name (Max. 16igit)

            TA I $ &% @@@@@@@@@@@@@@@@[¥r]        :Program TALK ID tag name
                          $ :Bank No.(A - J)  &:List No.(A - J)
                          % :Location No.(0 - 9)
                          @@@@@@@@@@@@@@@@ :Alpha tag name (Max. 16igit)

            TA S $ @@@@@@@@@@@@@@@@[¥r] : Program SEARCH RANGE tag name
```

```
                        $ :SEARCH RANGE No.(A - J)
                        @@@@@@@@@@@@@@@@ :Alpha tag name (Max. 16igit)
      ③  Clear alpha tag name
          TA C ### [¥r]       :Clear channel tag name
                                ### :Channel No.(001 - 999, 000)
          TA B $ [¥r]         :Program bank tag name
                                $ :Bank No.(A - J)
          TA L $ & [¥r]       :Clear ID LIST tag name
                                $ :Bank No.(A - J) &:list No.(A - J)
          TA I $ &% [¥r]      :Clear TALK ID tag name
                                $ :Bank No.(A - J)  &:List No.(A - J)
                                % :Location No.(0 - 9)
          TA S $ [¥r]        : Clear SEARCH RANGE tag name
                                $ :SEARCH RANGE No.(A - J)

  Radio → Controller
      ① Informs alpha tag name
          TA C ### @@@@@@@@@@@@@@@@[¥r]       :Program channel tag name
                        ### :Channel No.(001 - 999, 000)
                        @@@@@@@@@@@@@@@@ :Alpha tag name (Max. 16igit)
          TA B $ @@@@@@@@@@@@@@@@[¥r]         :Program bank tag name
                        $ :Bank No.(A - J)
                        @@@@@@@@@@@@@@@@ :Alpha tag name (Max. 16igit)
          TA L $ & @@@@@@@@@@@@@@@@[¥r]       :Program ID LIST tag name
                        $ :Bank No.(A - J)  & :List No.(A - J)
                        @@@@@@@@@@@@@@@@ :Alpha tag name (Max. 16igit)
          TA I $ &% @@@@@@@@@@@@@@@@[¥r]      :Program TALK ID tag name
                        $ :Bank No.(A - J)  &:List No.(A - J)
                        % :Location No.(0 - 9)
                        @@@@@@@@@@@@@@@@ :Alpha tag name (Max. 16igit)
          TA S $ @@@@@@@@@@@@@@@@[¥r]         :Program SEARCH RANGE tag name
                        $ :SEARCH RANGE No.(A - J)
                        @@@@@@@@@@@@@@@@ :Alpha tag name (Max. 16igit)
      ②③OK[¥r]

================================================================================
  <COMMAND TB>
   Confirm/Set Trunking bank ON/OFF

================================================================================
  Controller → Radio
      ①TB[¥r]             Confirm Active trunk Bank ON or OFF
      ②TB #[¥r]           Confirm optional trunk bank ON or OFF
                            #  : Bank No.(A-J)
      ③TBN #[¥r]          Set Trunking Bank to ON
                            #  : Bank No.(A-J)
        TBF #[¥r]         Set Trunking Bank to OFF
                            #  : Bank No.(A-J)

  Radio → Controller
      ①,②

      TB # @@@@@ %[¥r]
```

```
                        # :Active/Optional Trunking Bank
                        @@@@ :Trunking Type
                                E2-800(Motorola Type2 800MHz)
                                E2-900(Motorola Type2 900MHz)
                                E2-VHI(Motorola Type2 VHI)
                                E2-UHF(Motorola Type2 UHF)
                                TYPE1 (Motorola Type1)
                                EDCS WIDE (WIDE BAND EDACS)
                                EDCS NARROW (NARROW BAND EDACS)
                                EDCS SCT
                                LT    (LTR)
                        %     : Trunking bank ON or OFF
                                N: Trunking ON
                                F: Trunking OFF

      <Example> TB A E2-800 N[¥r]
              Active Bank: "A" Trunk Type: MOTOROLA TYPE2 800MHz TRUNK ON

      ③ OK[¥r]

================================================================================
  <COMMAND TC>
  Confirm/Set Trunking with "CONTROL CH ONLY MODE" ON/OFF.

================================================================================
  Controller → Radio
      ①  Confirm "CONTROL CH ONLY MODE" is ON or OFF
          TC @[¥r]          @ :Bank No.
      ② Set "CONTROL CH ONLY MODE" to ON or OFF
          TCN @ ##[¥r]        :Set "CONTROL CH ONLY MODE" to ON
                              @  :Bank No.
                              ## :CH assignment plan(optional) P1,P2,P3,P4
                                  P1: Plan1  P2: Plan2  P3: Plan3  P4: Plan4

                  <Example>
                          TCN A P1[¥r]

          TCF @[¥r]     : set "CONTROL CH ONLY MODE" to OFF

Radio → Controller
      ① TCN @ ##[¥r]          : "CONTROL CH ONLY MODE" is ON
                                      @ :Bank No.
                                      ## :CH assignment plan(optional) P1,P2,P3,P4
                                          P1: Plan1  P2: Plan2  P3: Plan3  P4: Plan4
                    <Example>    TCN A P1[¥r]  or TCN A[¥r]

        TCF @[¥r] "CONTROL CH ONLY MODE" is OFF

      ② OK[¥r]
```

```
==========================================================================
  <COMMAND TD>
  Confirm/Set Tone Detection function ON/OFF .
==========================================================================
  Controller → Radio
        ① TD[¥r]        :Confirm Tone Detection function ON/OFF
           TDN[¥r]      :Tone Detection function ON
           TDF[¥r]      :Tone Detection function OFF

  Radio → Controller
        ① TDN[¥r]       :Tone Detection function ON
           TDF[¥r]      :Tone Detection function OFF
        ② OK[¥r]
Note:
        If you ass the Bank No.(A-J) at the end, you can select optional bank.
        Ex) "TD A" or "TDN A"
        This command instructs the unit to turn or confirm Tone Detection function ON/OFF.

==========================================================================
  <COMMAND TG>
  Program Talk Group ID
==========================================================================
  Controller → Radio
        ① TG ? @%[¥r]          :Confirm Programmed Talk Group IDs
                                   ? :Bank No.(A-J)
                                   @:ID Scan list(A-J)
                                   %:ID Location (1-9,0)
        ② Program Talk Group IDs
        //// MOTOROLA TYPE1 ////
              TG ? @% &##-$$[¥r] or TG ? @% &###-$[¥r]
                     ?  : Bank No.(A-J)
                     @% : ID Memory No.
                           @ :ID Scan List (A-J)  % :ID Location (1-9,0)
                     &##-$$ : Type1 ID
                              & :Block No.(0-7)
                              ## or ### :Fleet No.
                              $$ :Sub fleet No.
                <Example>
                  TG A A0 001-05[¥r]   ID in ID memory "BANK A-A10" is
                                       "BLOCK=0, FLEET=1, SUBFLEET=5".
                  TG A A0 0127-3[¥r]   ID in ID memory "BANK A-A10" is
                                       "BLOCK=0, FLEET=127, SUBFLEET=3".

           >> PROGRAM MOTOROLA TYPE1 I-CALL ID <<
                TG ? @% i#####[¥r]
                       ?  : Bank No.(A-J)
                       @% :ID Memory No.
                             @ :ID Scan List (A-J)  % :ID Location (1-9,0)
                       i##### :I-CALL ID
                  <Example>
                    TG A A0 i01234[¥r]   ID in ID memory "BANK A-A10" is "i01234".

           >> PROGRAM MOTOROLA TYPE1 ALL I-CALL ID <<
```

TG ? @% i0[¥r]
? : Bank No.(A-J)
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
i0 : ALL I-CALL ID Indication

//// MOTOROLA TYPE2 ////

TG ? @% ######[¥r]
? : Bank No.(A-J)
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
: Type2 ID
<Example>
TG A A0 001234[¥r] ID in ID memory "BANK A-A10" is "1234".

>> PROGRAM MOTOROLA TYPE2 I-CALL ID <<

TG ? @% 7#####[¥r]
? : Bank No.(A-J)
@% :ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
7##### :I-CALL ID
<Example>
TG A A0 701234[¥r] ID in ID memory "BANK A-A10" is "701234".

>> PROGRAM MOTOROLA TYPE2 ALL I-CALL ID <<

TG ? @% 700000 or TG ? @% i0[¥r]
? : Bank No.(A-J)
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
700000 /i0 : ALL I-CALL ID Indication

//// LTR ////

TG ? @% %$$###[¥r]
? : Bank No.(A-J)
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
%$$### : LTR Talk Group ID
% :Area code(0,1)
$$:Home Repeater No. (01-20)
:ID(000-254)
<Example>
TG A A0 001064[¥r]
ID in ID memory "BANK A-A10" is "Area code:0 Home Repeater No.:01 ID:64"

//// EDACS ////

TG ? @% &&-##$[¥r]
? : Bank No.(A-J)
@% : ID Memory No.
@ :ID Scan List (A-J) % :ID Location (1-9,0)
&&-##$: Edacs Talk Group ID

```
                    && :Agency No.(00-15) ## :Fleet No.(00-15) $ :SUBFLEET No.(0-7)
            <Example>
              TG A A0 01-025[¥r]  AFS format
              TG A A0 000149[¥r]  DECIMAL format
                  ID in ID memory "BANK A-A10" is "AGENCY=01, FLEET=02, SUBFLEET=5"

      >> PROGRAM EDACS PARTIAL ID <<
          TG ? @% &&-[¥r] or  TG ? @% &&-##[¥r]
                ?  : Bank No.(A-J)
                @% : ID Memory No.
                     @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
                &&-: Edacs Partial Talk Group ID(All Agency)
              &&-##: Edacs Partial Talk Group ID(All Agency-Fleet)
                    && :Agency No.(01-15)   ## :Fleet No.(00-15)
            <Example>
              TG A A0 01-[¥r]
              TG A A0 01-02[¥r]
      >> PROGRAM EDACS I-CALL ID <<

          TG ? @% i#####[¥r]
                ?  : Bank No.(A-J)
                @% : ID Memory No.
                     @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
            i##### :I-CALL ID    #####:(00001-16383)
            <Example>
              TG A A0 i01234[¥r]  ID in ID memory "BANK A-A10" is "i01234".

    >> PROGRAM EDACS ALL I-CALL ID <<

          TG ? @% i0[¥r]
                ?  : Bank No.(A-J)
                @% : ID Memory No.
                     @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
                i0 : ALL I-CALL ID Indication

Radio → Controller
    ①
    //// MOTOROLA TYPE1 ////
          TG ? @% &##-$$[¥r] or TG ? @% &###-$[¥r]
                 ? : Bank No.(A-J)
                @% : ID Memory No.
                     @ :ID Scan List (A-J)  % :ID Location (1-9,0)
               &##-$$ : Type1 ID
                        & :Block No.(0-9)
                        ## or ### :Fleet No.
                        $$ :Sub fleet No.
            <Example>
              TG A A0 001-05[¥r]  ID in ID memory "BANK A-A10" is
                                  "BLOCK=0, FLEET=1, SUBFLEET=5".

      >> MOTOROLA TYPE1 I-CALL ID <<
          TG ? @% i#####[¥r]
                 ? : Bank No.(A-J)
```

```
            @% :ID Memory No.
                  @ :ID Scan List (A-J)  % :ID Location (1-9,0)
            i##### :I-CALL ID
      <Example>
        TG A A0 i01234[¥r]  ID in ID memory "BANK A-A10" is "i01234".


>> MOTOROLA TYPE1 ALL I-CALL ID <<

    TG ? @% i00000[¥r]
            @% : ID Memory No.
                  @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
        i00000 : ALL I-CALL ID Indication

//// MOTOROLA TYPE2 ////

    TG ? @% ######[¥r]
             ? : Bank No.(A-J)
            @% : ID Memory No.
                  @ :ID Scan List (A-J)  % :ID Location (1-9,0)
        ###### : Type2 ID
    <Example>
           TG A A0 001234[¥r]  ID in ID memory "BANK A-A10" is "1234".

>> MOTOROLA TYPE2 I-CALL ID <<

    TG ? @% 7#####[¥r]
             ? : Bank No.(A-J)
            @% :ID Memory No.
                  @ :ID Scan List (A-J)  % :ID Location (1-9,0)
        7##### :I-CALL ID
      <Example>
        TG A A0 701234[¥r]  ID in ID memory "BANK A-A10" is "701234".

>> MOTOROLA TYPE2 ALL I-CALL ID <<

    TG ? @% 700000[¥r]
             ? : Bank No.(A-J)
            @% : ID Memory No.
                  @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
        700000 : ALL I-CALL ID Indication

//// LTR ////
    TG ? @% %$$###[¥r]
             ? : Bank No.(A-J)
            @% : ID Memory No.
                  @ :ID Scan List (A-J)  % :ID Location (1-9,0)
        %$$### : LTR Talk Group ID
               % :Area code(0,1)
              $$ :Home Repeater No. (01-20)
             ### :ID(000-254)
    <Example>
           TG A A0 001064[¥r]
```

```
          ID in ID memory "BANK A-A10" is "Area code:0 Home Repeater No.:01 ID:64"
//// EDACS ////

        TG ? @% &&-##$[¥r]
                 ? : Bank No.(A-J)
                 @% : ID Memory No.
                      @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
                 &&-##$: Edacs Talk Group ID
                     && :Agency No.     ## :Fleet No.    $ :SUBFLEET No.
          <Example>
            TG A A0 01-025[¥r]  AFS format
            TG A A0 000149[¥r]  DECIMAL format
                ID in ID memory "BANK A-A10" is "AGENCY=01, FLEET=02, SUBFLEET=5"

   >> EDACS PARTIAL ID <<
        TG ? @% &&----[¥r]       or  TG ? @% &&-##-[¥r]
                 ? : Bank No.(A-J)
                 @% : ID Memory No.
                      @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
              &&----: Edacs Partial Talk Group ID(All Agency)
              &&-##-: Edacs Partial Talk Group ID(All Agency-Fleet)
                      && :Agency No.     ## :Fleet No.
          <Example>
            TG A A0 01----[¥r]
            TG A A0 01-02-[¥r]
   >> EDACS I-CALL ID <<

        TG ? @% i#####[¥r]
                 ? : Bank No.(A-J)
                 @% : ID Memory No.
                      @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
            i##### :I-CALL ID
          <Example>
            TG A A0 i01234[¥r]  ID in ID memory "BANK A-A10" is "i01234".

   >> EDACS ALL I-CALL ID <<
        TG ? @% i00000[¥r]
                 ? : Bank No.(A-J)
                 @% : ID Memory No.
                      @ :ID Scan List (A-J)  %  :ID Location (1-9,0)
            i00000 : ALL I-CALL ID Indication
② OK[¥r]
```

```
================================================================================
  <COMMAND TR>
   Set Trunking on a bank of channels.

================================================================================
  Controller → Radio
        TR & # %%%%%%%% $$$$ ??? X[¥r]
                          & : A-J For bank selection.
                          # : 1,2,3,4,5,6,7,8,9 Trunking type.
                                  1:Type1, 2:Type2-800, 3:Type2-900, 4:Type2-UHF, 5:Type2-VHF,
                                  6:WIDE BAND EDACS, 7:NARROW BAND EDACS, 8:EDACS SCAT, 9:LTR
                          %%%%%%%%
                                  Base frequency (Motorola UHF/VHF band only).
                          $$$$
                                  Spacing (Motorola UHF/VHF band only)
                                  The multiple of  5.0 kHz: 0050*n(1-20)
                                  The multiple of 12.5 kHz: 0125*n(1-8)
                                  The multiple of  7.5 kHz  0075*n(1-13)
                          ??? (option)
                                  Offset Channel(Motorola UHF/VHF band only)
                                  380～759
                          X (option)
                                  Base Configuration No.
                                  1 or 2 or 3

  Radio → Controller
        OK[¥r]

================================================================================
  <COMMAND TS>
  Confirm/Set Trunking function ON/OFF in the Search.

================================================================================
  Controller → Radio
        ① TS @[¥r]      :Confirm Trunking function in the search mode ON/OFF
                               @ :Bank No.(A-J)
        ② TSF @[¥r]     :Set Trunking function in the search mode function OFF
           TSN @ ##[¥r] :Set Trunking function in the search mode ON
                               @  :Bank No.(A-J)
                               ## :CH assignment plan(optional) P1,P2,P3,P4
                                   P1: Plan1  P2: Plan2  P3: Plan3  P4: Plan4
                  <Example>
                          TSN A P1[¥r]

  Radio → Controller
        ① TSF[¥r]       :Trunking function in the search mode OFF
           TSN @ ##[¥r] :Trunking function in the search mode ON
                               @  :Bank No.
                               ## :CH assignment plan(optional) P1,P2,P3,P4
        ② OK[¥r]
```

==========

<COMMAND VR>
Confirm the version of the Product.

==========

Controller → Radio
VR[¥r]

Radio → Controller
VR@ .@@[¥r] @ .@@ : The version of the Product

<Example>
VR1.00[¥r] The version of the Product is 1.00

Note)This value is not the version No. of the software.

==========

<COMMAND WA>
ON/OFF function which informs when the alert message receives.

==========

Controller → Radio
① WA[¥r] :Confirm WA command active
② WAN[¥r] :WA command is ON, and WX alert ON
WAF[¥r] :WA command OFF, and Wx alert OFF

Radio → Controller
① WAN[¥r] :WA command is ON
WAF[¥r] :WA command is OFF

② OK[¥r] : Command OK
While the function is ON, when detect the same or wx alert,
the unit sends the alert message to the controller:

==========

<COMMAND WI>
Read the window voltage.

==========

Controller → Radio
WI[¥r]

Radio → Controller
W@@@ F%%%%%%%%[¥r] @@@ :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 1 GHz digit to 100 Hz digit.

<Example>
W155 F04060125[¥r] Window voltage is "155", and its frequency is "406.0125 MHz".

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

CTCSS/DCS No.Table

No.		No.		No.		No.	
000/	CTCSS/DCS not programmed						
001/	CTCSS: 67.0	011/	CTCSS: 97.4	021/	CTCSS: 136.5	031/	CTCSS: 192.8
002/	CTCSS: 71.9	012/	CTCSS: 100.0	022/	CTCSS: 141.3	032/	CTCSS: 203.5
003/	CTCSS: 74.4	013/	CTCSS: 103.5	023/	CTCSS: 146.2	033/	CTCSS: 210.7
004/	CTCSS: 77.0	014/	CTCSS: 107.2	024/	CTCSS: 151.4	034/	CTCSS: 218.1
005/	CTCSS: 79.7	015/	CTCSS: 110.9	025/	CTCSS: 156.7	035/	CTCSS: 225.7
006/	CTCSS: 82.5	016/	CTCSS: 114.8	026/	CTCSS: 162.2	036/	CTCSS: 233.6
007/	CTCSS: 85.4	017/	CTCSS: 118.8	027/	CTCSS: 167.9	037/	CTCSS: 241.8
008/	CTCSS: 88.5	018/	CTCSS: 123.0	028/	CTCSS: 173.8	038/	CTCSS: 250.3
009/	CTCSS: 91.5	019/	CTCSS: 127.3	029/	CTCSS: 179.9		
010/	CTCSS: 94.8	020/	CTCSS: 131.8	030/	CTCSS: 186.2		

No.		No.		No.		No.	
039/	DCS: 23	049/	DCS: 54	059/	DCS: 125	069/	DCS: 165
040/	DCS: 25	050/	DCS: 65	060/	DCS: 131	070/	DCS: 172
041/	DCS: 26	051/	DCS: 71	061/	DCS: 132	071/	DCS: 174
042/	DCS: 31	052/	DCS: 72	062/	DCS: 134	072/	DCS: 205
043/	DCS: 32	053/	DCS: 73	063/	DCS: 143	073/	DCS: 212
044/	DCS: 36	054/	DCS: 74	064/	DCS: 145	074/	DCS: 223
045/	DCS: 43	055/	DCS: 114	065/	DCS: 152	075/	DCS: 225
046/	DCS: 47	056/	DCS: 115	066/	DCS: 155	076/	DCS: 226
047/	DCS: 51	057/	DCS: 116	067/	DCS: 156	077/	DCS: 243
048/	DCS: 53	058/	DCS: 122	068/	DCS: 162	078/	DCS: 244

No.		No.		No.		No.	
079/	DCS: 245	089/	DCS: 274	099/	DCS: 356	109/	DCS: 445
080/	DCS: 246	090/	DCS: 306	100/	DCS: 364	110/	DCS: 446
081/	DCS: 251	091/	DCS: 311	101/	DCS: 365	111/	DCS: 452
082/	DCS: 252	092/	DCS: 315	102/	DCS: 371	112/	DCS: 454
083/	DCS: 255	093/	DCS: 325	103/	DCS: 411	113/	DCS: 455
084/	DCS: 261	094/	DCS: 331	104/	DCS: 412	114/	DCS: 462
085/	DCS: 263	095/	DCS: 332	105/	DCS: 413	115/	DCS: 464
086/	DCS: 265	096/	DCS: 343	106/	DCS: 423	116/	DCS: 465
087/	DCS: 266	097/	DCS: 346	107/	DCS: 431	117/	DCS: 466
088/	DCS: 271	098/	DCS: 351	108/	DCS: 432	118/	DCS: 503

No.		No.		No.		.	
119/	DCS: 506	129/	DCS: 627	139/	DCS: 732		
120/	DCS: 516	130/	DCS: 631	140/	DCS: 734		
121/	DCS: 523	131/	DCS: 632	141/	DCS: 743		
122/	DCS: 526	132/	DCS: 654	142/	DCS: 754		
123/	DCS: 532	133/	DCS: 662				
124/	DCS: 546	134/	DCS: 664				
125/	DCS: 565	135/	DCS: 703				
126/	DCS: 606	136/	DCS: 712				
127/	DCS: 612	137/	DCS: 723				
128/	DCS: 624	138/	DCS: 731				