# REMOTE CONTROL SPECIFICATION



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## < HomePatrol-1 Remote Control Operation Specification >

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# < HomePatrol-1 Remote Control Operation Specification >

# **REVISION NOTE**

Version 0.01	Base Version
Version 0.02	(1) checksum method change
	(2) change Remote Command and Raw Data Output description order
Version 2.00	Version 0.02 -> Version 2.00
Version 2.01	(1) Add Hold status get command
	(2) service tag function ID -> Service Type ID
	(3) Add Service Type ID list
	(4) STATUS command, [att], Attenuation status (0: OFF / 1: ON)
	(5) Add "If all favorites lists and Full database status are set as OFF, and then exit program
	mode, Full database will be set as ON automatically."
	(6) Add audio feeding sequence illustrations.
Version 2.02	(1) Add new command
	(VOL/SQL/GATT/JPM/REC/MUTE/SAVOID/DAVOID/CAVOID)
Version 2.03	(1)Add [system_avoid]/[department_avoid][channel_avoid] to STATUS command.
	(2)Add REP Command
	(3)Add REP STATUS Command
Version 2.04	(1) add service type "other"
Version 2.05	(1) Add filter status of SFREQ command

## 1 GENERAL INTRODUCTION

These remote controls should be used by USB serial port.

## [ Remote Communication Format ]

Data Length : 8 bit
Parity Check : None
Code : ASCII
Flow Control : None

#### NOTE

1. Except Raw Data output is binary data output

## [ Format Of this document ]

#### <Sub Command>

Summary explanation of the function of the command

 $Controller \rightarrow Radio$  Command format  $Radio \rightarrow Controller$  Response format

#### **NOTE**

- 1. Error message isn't described in this document, but the scanner returns error message to the controller as follows.
  - 1) Command format error / Value error / Checksum error: ERR
  - 2) The command is invalid at the time : NG
- 2. In this document, ACK, NAK, CAN, EOT are character strings.

## [ Checksum ]

For audio feeding command and remote command, [SUM] (2 byte) will be added as the last parameter. [SUM] means checksum, and checksum method as next.

#### \*Checksum Method

For example: AUF[¥t]STS[¥t][SUM][¥r]

<u>Checksum target:</u> "AUF[¥t]STS[¥t]", <u>Calculate Process:</u> SUM = 0;

SUM += "A";

SUM += "U"

SUM += "S"; SUM += "[\frac{1}{2}t]"

# 2 FRAME ARCHITECTURE

Command	¥t	Sub Command	¥t	Command Information	¥t	Checksum	¥r
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# 3 COMMAND ABSTRACT

Command	Sub Command	Function	work mode
	STATUS	get current system status	scan mode
	PRG	enter program mode	scan mode
	EPG	exit program mode	program mode
	MODEL	get model name	all mode
	VERSION	get soft, DB, help version	all mode
	SHOLD	system hold on/off	scan mode
	DHOLD	department hold on/off	scan mode
	CHOLD	channel hold on/off	scan mode
	SNEXT	get next system	scan mode
	SPREV	get previous system	scan mode
	DNEXT	get next department	scan mode
	DPREV	get previous department	scan mode
	CNEXT	get next channel	scan mode
RMT	CPREV	get previous channel	scan mode
	HFAV	set Fav lists or Full database on/off	program mode
	SFREQ	control raw data monitor	raw data monitor mode
	VOL	Set/Read volume level	scan mode
	SQL	Set/Read squelch level	scan mode
	GATT	Set/Read Global attenuation status	scan mode
	JPM	Jump Mode (Scan mode/Replay mode)	scan mode/replay mode
	REP	Get previous/next audio and get pause	Replay mode
	REP_STATUS	Get replay mode status	Replay mode
	REC	Set/Read record on/off	scan mode
	MUTE	Set/Read mute on/off	scan mode
	SAVOID	Set/Read current system avoid on/off	scan mode
	DAVOID	Set/Read current department avoid on/off	scan mode
	CAVOID	Set/Read current channel avoid on/off	scan mode
	STS	get, set audio feeding function status	scan mode
AUF	INFO	get audio feeding file information	scan mode
	DATA	sent audio file data	scan mode

## 4 COMMAND CONFIGURATION

## 4.1 Remote Command

#### <Sub Command STATUS>

Controller -> Radio

[1] RMT[¥t]STATUS[¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]STATUS[¥t][freq/tgid][¥t][mode][¥t][att][¥t][ctcss/dcs]

[\frac{\text{Yt}}{\text{[p25nac]}[\frac{\text{Yt}}{\text{[svc\_tag]}[\frac{\text{Yt}}{\text{[name1]}[\frac{\text{Yt}}{\text{[name2]}}}

[\frac{\text{Yt}}{\text{[name3][\text{Yt}][sql][\text{Yt}][mute][\text{Yt}][sig\_lev][\text{Yt}][name4][\text{Yt}][name5]

[system\_avoid][\text{\text{\$\ext{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exititt{\$\text{\$\exititt{\$\text{\$\exititt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$

## RMT[¥t]STATUS[¥t]NG[¥t][SUM][¥r]

#### FUNCTION:

Get current radio status.

#### PARAMETER:

[freq/tgid] Frequency or TGID

[mode] Modulation (AM/FM/NFM)

[att] Attenuation status (0: OFF / 1: ON)

[ctcss/dcs] CTCSS/DCS Status (0-231)

\*See CTCSS/DCS CODE LIST for the details of this code.

[p25nac] P25 NAC Status (0-FFF: 0-FFF / NONE: NAC None)

[svc\_tag] Service Type ID

\*See Service Type ID List for the details of this.

[name1] system name [name2] department name [name3] channel name

[sql] Squelch Status (0:CLOSE / 1:OPEN)

[mute] Mute Status (0:OFF / 1:ON)

[sig\_lev] Signal Level (0-4)
[name4] Favorites list name
[name5] Unit ID name

[system\_avoid] System Avoid status (0: Unavoid, 1: Avoid) [department\_avoid] Department Avoid status (0: Unavoid, 1: Avoid)

[channel\_avoid] Channel Avoid status (0: Unavoid, 1: Avoid)

#### NOTES:

This command can only be used in scan mode.

The frequency format in this command is MHz with decimal point same as the display frequency on radio. ( eg: 25.0000 )

If scanner doesn't display follow, status command sends blank data.

Department name / Channel name / Service type / Frequency, TGID / Modulation / ctcss,dcs / P25 NAC

#### <Sub Command PRG>

Controller -> Radio

[1] RMT[¥t]PRG[¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]PRG[¥t]OK[¥t][SUM][¥r] RMT[¥t]PRG[¥t]NG[¥t][SUM][¥r]

#### **FUNCTION:**

Enter the remote program mode.

NOTES:

This command can only be used in scan mode.

#### <Sub Command EPG>

Controller -> Radio

[1] RMT[¥t]EPG[¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]EPG[¥t]OK[¥t][SUM][¥r] RMT[¥t]EPG[¥t]NG[¥t][SUM][¥r]

#### **FUNCTION:**

Exit the remote program mode.

NOTES:

This command can only be used in remote program mode.

#### <Sub Command MODEL>

Controller -> Radio

[1] RMT[¥t]MODEL[¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]MODEL[¥t]HomePatrol-1[¥t][SUM][¥r]

#### FUNCTION:

Get the model name.

NOTES:

This command can be used in all modes.

## <Sub Command VERSION>

Controller -> Radio

[1] RMT[¥t]VERSION[¥t][SUM][¥r]

Radio -> Controller

#### **FUNCTION:**

Get software firmware version, database version, help file version.

## PARAMETER:

[F/W ver] firmware version
[D/B ver] HPDB version
[help ver] help file version

NOTES:

This command can be used in all modes.

#### <Sub Command SHOLD>

Controller -> Radio

- [1] RMT[¥t]SHOLD[¥t][SUM][¥r]
- [2] RMT[¥t]SHOLD[¥t][status][¥t][SUM][¥r]

Radio -> Controller

- [1] RMT[¥t]SHOLD[¥t][status][¥t][SUM][¥r]
- [2] RMT[¥t]SHOLD[¥t]OK[¥t][SUM][¥r] RMT[¥t]SHOLD[¥t]NG[¥t][SUM][¥r]

#### FUNCTION:

Set system hold status on/off.

PARAMETER:

[status] system hold status (ON/OFF)

NOTES:

This command can only be used in scan mode.

#### <Sub Command DHOLD>

Controller -> Radio

- [1] RMT[¥t]DHOLD[¥t][SUM][¥r]
- [2] RMT[¥t]DHOLD[¥t][status][¥t][SUM][¥r]

Radio -> Controller

- [1] RMT[¥t]DHOLD[¥t][status][¥t][SUM][¥r]
- [2] RMT[¥t]DHOLD[¥t]OK[¥t][SUM][¥r] RMT[¥t]DHOLD[¥t]NG[¥t][SUM][¥r]

#### FUNCTION:

Set department hold status on/off.

PARAMETER:

[status] department hold status (ON/OFF)

NOTES:

This command can only be used in scan mode.

## <Sub Command CHOLD>

Controller -> Radio

- [1] RMT[¥t]CHOLD[¥t][SUM][¥r]
- $[2]\ RMT[\c t]CHOLD[\c t][status][\c t][SUM][\c t]$

Radio -> Controller

- [1] RMT[¥t]CHOLD[¥t][status][¥t][SUM][¥r]
- [2] RMT[¥t]CHOLD[¥t]OK[¥t][SUM][¥r] RMT[¥t]CHOLD[¥t]NG[¥t][SUM][¥r]

## FUNCTION:

Set channel hold status on/off.

PARAMETER:

[status] channel hold status (ON/OFF)

NOTES:

This command can only be used in scan mode.

#### <Sub Command SNEXT>

Controller -> Radio

[1] RMT[¥t]SNEXT[¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]SNEXT[¥t]OK[¥t][SUM][¥r] RMT[¥t]SNEXT[¥t]NG[¥t][SUM][¥r]

FUNCTION:

Get next system.

NOTES:

This command can only be used in scan mode.

## <Sub Command SPREV>

Controller -> Radio

[1] RMT[¥t]SPREV[¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]SPREV[¥t]OK[¥t][SUM][¥r] RMT[¥t]SPREV[¥t]NG[¥t][SUM][¥r]

**FUNCTION:** 

Get previous system.

NOTES:

This command can only be used in scan mode.

#### <Sub Command DNEXT>

Controller -> Radio

 $[1]\ RMT[\$t]DNEXT[\$t][SUM][\$r]$ 

Radio -> Controller

[1] RMT[¥t]DNEXT[¥t]OK[¥t][SUM][¥r] RMT[¥t]DNEXT[¥t]NG[¥t][SUM][¥r]

**FUNCTION:** 

Get next department.

NOTES:

This command can only be used in scan mode.

#### <Sub Command DPREV>

Controller -> Radio

[1] RMT[¥t]DPREV[¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]DPREV[¥t]OK[¥t][SUM][¥r] RMT[¥t]DPREV[¥t]NG[¥t][SUM][¥r]

FUNCTION:

Get previous department.

NOTES:

This command can only be used in scan mode.

#### <Sub Command CNEXT>

Controller -> Radio

[1] RMT[¥t]CNEXT[¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]CNEXT[¥t]OK[¥t][SUM][¥r] RMT[¥t]CNEXT[¥t]NG[¥t][SUM][¥r]

FUNCTION:

Get next channel.

NOTES:

This command can only be used in scan mode.

#### <Sub Command CPREV>

Controller -> Radio

[1] RMT[¥t]CPREV[¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]CPREV[¥t]OK[¥t][SUM][¥r] RMT[¥t]CPREV[¥t]NG[¥t][SUM][¥r]

**FUNCTION:** 

Get previous channel.

NOTES:

This command can only be used in scan mode.

#### <Sub Command HFAV>

Controller -> Radio

- $[1]\ RMT[\c yt]HFAV[\c yt][index][\c yt][SUM][\c yt]$
- [2] RMT[¥t]HFAV[¥t][index][¥t][status][¥t][SUM][¥r]

Radio -> Controller

- [1] RMT[\text{\text{Y}}]HFAV[\text{\text{Y}}][index][\text{\text{Y}}][status][\text{\text{Y}}][name][\text{\text{Y}}][SUM][\text{\text{\text{Y}}}]
- [2] RMT[¥t]HFAV[¥t][index][¥t]OK[¥t][SUM][¥r] RMT[¥t]HFAV[¥t][index][¥t]NG[¥t][SUM][¥r]

#### FUNCTION:

Get and set HPDB or favorites list load status.

#### PARAMETER:

[index] index(0-256); 0: HPDB 1-256: Favorites list

[status] load status (ON / OFF)

NOTES:

This command can only be used in remote program mode.

If the [index] is an invalid one, which means the favorites list does not exit, [status] and [name] will response with NULL.

If all favorites lists and Full database status are set as OFF, and then exit program mode, Full database will be set as ON automatically.

#### <Sub Command SFREQ>

Controller -> Radio

- [1] RMT[¥t]SFREQ[¥t][SUM][¥r]
- [2] RMT[¥t]SFREQ[¥t][freq][¥t][mode][¥t][att][¥t] [filter][¥t] [SUM][¥r]
- [3] RMT[¥t]SFREQ[¥t]START[¥t][SUM][¥r]
- [4] RMT[¥t]SFREQ[¥t]STOP[¥t][SUM][¥r]

Radio -> Controller

[2] RMT[¥t]SFREQ[¥t]OK[¥t][SUM][¥r] RMT[¥t]SFREQ[¥t]NG[¥t][SUM][¥r]

#### FUNCTION:

Control the raw data output function

## PARAMETER:

[freq] raw data out frequency( 1=1Hz)
[mode] Modulation (AUTO/AM/FM/NFM)
[att] global attenuation status (ON / OFF)

[filter] filter status (ON / OFF)

#### NOTES:

Controller -> Radio [1]: when use this command in scan mode, scanner will jump to the raw data output mode automatically. Other commands can only be used in raw data output mode.

Controller -> Radio [3] [4]: start and stop commands have no response.

#### <Sub Command VOL>

Controller -> Radio

- [1] RMT[¥t]VOL[¥t][vol level][¥t][SUM][¥r]
- [2] RMT[¥t]VOL [¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]VOL[¥t]OK[¥t][SUM][¥r] RMT[¥t]VOL[¥t]NG[¥t][SUM][¥r]

[2] RMT[¥t]VOL [¥t] [vol level][¥t][SUM][¥r]

#### **FUNCTION:**

Get and set volume level function.

#### PARAMETER:

[vol level] Volume Level (0~15)

#### NOTES:

This command can be used in all modes.

#### <Sub Command SQL>

Controller -> Radio

- $[1] \ RMT[\c Yt] SQL[\c Yt][\c sql\ level] [\c Yt][\c SUM] [\c Yt]$
- [2] RMT[¥t]SQL[¥t][SUM][¥r]

Radio -> Controller

- [1]  $RMT[\t t]SQL[\t t]OK[\t t][SUM][\t r]$   $RMT[\t t]SQL[\t t]NG[\t t][SUM][\t r]$
- [2] RMT[¥t]SQL [¥t][sql level][¥t][SUM][¥r]

#### **FUNCTION:**

Get and set squelch level function.

PARAMETER:

[sql level] Squelch Level (0~15)

NOTES:

This command can be used in all modes.

#### <Sub Command GATT>

Controller -> Radio

- [1] RMT[¥t]GATT[¥t][status][¥t][SUM][¥r]
- [2] RMT[¥t]GATT[¥t][SUM][¥r]

Radio -> Controller

- [1] RMT[¥t]GATT [¥t]OK[¥t][SUM][¥r] RMT[¥t]GATT [¥t]NG[¥t][SUM][¥r]
- [2] RMT[¥t]GATT [¥t][status][¥t][SUM][¥r]

#### FUNCTION:

Get and set global attenuation status function.

PARAMETER:

[status] Get and set status (ON or OFF)

NOTES:

This command can only be used in scan mode.

#### <Sub Command JPM>

Controller -> Radio

[1] RMT[¥t]JPM[¥t][Index][¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]JPM[¥t]OK[¥t][SUM][¥r] RMT[¥t]JPM[¥t]NG[¥t][SUM][¥r]

**FUNCTION:** 

Jump to Replay mode or Scan mode function.

PARAMETER:

[Index] Set mode index (SCN MODE / REP MODE)

SCN\_MODE : Scan Mode REP MODE : Replay Mode

NOTES:

This command can be used in all modes.

#### <Sub Command REP>

Controller -> Radio

[1] RMT[¥t]REP[¥t][status][¥t][SUM][¥r]

Radio -> Controller

[1] RMT[¥t]REC [¥t]OK[¥t][SUM][¥r]

RMT[¥t]REC [¥t]NG[¥t][SUM][¥r]

#### **FUNCTION:**

Get back/next audio.

PARAMETER:

[status] Set status (NEXT, PREV, PAUSE and RESUME)

NOTES:

This command can only be used in replay mode.

#### <Sub Command REP STATUS>

Controller -> Radio

[1] RMT[¥t]REP\_STATUS[¥t][SUM][¥r]

Radio -> Controller

 $[1] RMT[\color=thm] RMT[\col$ 

#### **FUNCTION:**

Get replay status.

## PARAMETER:

[status] STOP or PLAY [freq/tgid] Frequency or TGID

[ctcss/dcs] CTCSS/DCS Status (0-231)

\*See CTCSS/DCS CODE LIST for the details of this code.

[p25nac] P25 NAC Status (0-FFF: 0-FFF / NONE: NAC None)

[svc\_tag] Service Type ID

\*See Service Type ID List for the details of this.

[name1]System name[name2]Department name[name3]Channel name[name4]Favorites list name[name5]Unit ID name

#### NOTES:

This command can only be used in replay mode.

#### <Sub Command REC>

Controller -> Radio

- [1] RMT[¥t]REC[¥t][status][¥t][SUM][¥r]
- [2] RMT[¥t]REC[¥t][SUM][¥r]

Radio -> Controller

- [1] RMT[¥t]REC [¥t]OK[¥t][SUM][¥r] RMT[¥t]REC [¥t]NG[¥t][SUM][¥r]
- [2] RMT[¥t]REC [¥t][status][¥t][SUM][¥r]

## FUNCTION:

Get and set recode status function.

#### PARAMETER:

[status] Get and set status (ON or OFF)

NOTES:

This command can only be used in scan mode.

#### <Sub Command MUTE>

Controller -> Radio

- [1] RMT[¥t]MUTE[¥t][status][¥t][SUM][¥r]
- [2] RMT[¥t]MUTE[¥t][SUM][¥r]

Radio -> Controller

- [1] RMT[¥t]MUTE[¥t]OK[¥t][SUM][¥r] RMT[¥t]MUTE[¥t]NG[¥t][SUM][¥r]
- [2] RMT[¥t]MUTE[¥t][status][¥t][SUM][¥r]

## FUNCTION:

Get and set mute status function.

## PARAMETER:

[status] Get and set status (ON or OFF)

#### NOTES:

This command can only be used in scan mode.

If setting of Default Mute is except "Permanent", scanner turns off setting of mute automatically.

## <Sub Command SAVOID>

Controller -> Radio

- [1] RMT[¥t]SAVOID[¥t][status][¥t][SUM][¥r]
- [2] RMT[¥t]SAVOID[¥t][SUM][¥r]

Radio -> Controller

- [1] RMT[¥t]SAVOID[¥t]OK[¥t][SUM][¥r] RMT[¥t]SAVOID[¥t]NG[¥t][SUM][¥r]
- [2] RMT[¥t]SAVIOD[¥t][status][¥t][SUM][¥r]

#### FUNCTION:

Get and set system avoid status function.

#### PARAMETER:

[status] Get and set status (ON or OFF)

#### NOTES:

This command can only be used in scan mode.

#### <Sub Command DAVOID>

Controller -> Radio

- [1] RMT[¥t]DAVOID[¥t][status][¥t][SUM][¥r]
- [2] RMT[¥t]DAVOID[¥t][SUM][¥r]

Radio -> Controller

- [1] RMT[¥t]DAVOID[¥t]OK[¥t][SUM][¥r] RMT[¥t]DAVOID[¥t]NG[¥t][SUM][¥r]
- [2] RMT[¥t]DAVIOD[¥t][status][¥t][SUM][¥r]

#### **FUNCTION:**

Get and set department avoid status function.

#### PARAMETER:

[status] Get and set status (ON or OFF)

NOTES:

This command can only be used in scan mode.

#### <Sub Command CAVOID>

Controller -> Radio

- [1] RMT[¥t]CAVOID[¥t][status][¥t][SUM][¥r]
- [2] RMT[¥t]CAVOID[¥t][SUM][¥r]

Radio -> Controller

- [1] RMT[¥t]CAVOID[¥t]OK[¥t][SUM][¥r] RMT[¥t]CAVOID[¥t]NG[¥t][SUM][¥r]
- [2] RMT[¥t]CAVIOD[¥t][status][¥t][SUM][¥r]

#### FUNCTION:

Get and set channel avoid status function.

#### PARAMETER:

[status] Get and set status (ON or OFF)

NOTES:

This command can only be used in scan mode.

## 4.2 Audio Feeding

Audio feeding work only in scan mode, and will feeding the inner record audio file only.

When audio feeding enable, REPLAY and USER REC function will be disable.

When one audio record file is send successfully, and it will be deleted from INNER REC folder.

#### <Sub Command STS>

Controller -> Radio

- [1] AUF[¥t]STS[¥t][SUM][¥r]
- [2] AUF[¥t]STS[¥t][status][¥t][SUM][¥r]

Radio -> Controller

- [1] AUF[¥t]STS[¥t][status][¥t][SUM][¥r]
- [2] AUF[¥t]STS[¥t]OK[¥t][SUM][¥r]

AUF[¥t]STS[¥t]NG[¥t][SUM][¥r]

#### **FUNCTION:**

Use this sub command to get the audio feeding function status. And also can set the audio feeding function enable or disable.

#### PARAMETER:

[status]

audio feeding function status (ON/OFF)

NOTES:

This command can only be used in scan mode.

#### <Sub Command INFO>

Controller -> Radio

- [1] AUF[¥t]INFO[¥t][SUM][¥r]
- [2] AUF[¥t]INFO[¥t]ACK[¥t][SUM][¥r]

AUF[\text{\tiny{\tiny{\tiny{\tiny{\text{\tiny{\tin}\tiny{\tiny{\tiny{\tiny{\tiny{\tiny{\tiny{\tiny{\tiny{\tiny{\ti

AUF[\frac{\pmathbf{t}}{\pmathbf{t}}]INFO[\frac{\pmathbf{t}}{\pmathbf{t}}]CAN[\frac{\pmathbf{t}}{\pmathbf{t}}][SUM][\frac{\pmathbf{r}}{\pmathbf{t}}]

Radio -> Controller

 $[1] \ AUF[\$t]INFO[\$t][file\_name][\$t][file\_size][\$t][timestamp][\$t][SUM][\$r]$ 

 $AUF[\c yt]INFO[\c yt][\c yt]$ 

AUF[¥t]INFO[¥t]NG[¥t][SUM][¥r]

#### **FUNCTION:**

To get the audio record file information in INNER REC folder.

#### PARAMETER:

[file\_name] audio record file name that will be send

[file size] audio record file size

[timestamp] audio record file time stamp

#### NOTES:

This command can only be used in scan mode.

This command works when Audio Feeding Function is set as ON by STS command.

When no audio file can be send in INNER REC folder, response with all [¥t].

#### <Sub Command DATA>

Controller -> Radio

- [1] AUF[¥t]DATA[¥t][SUM][¥r]
- [2] AUF[¥t]DATA[¥t]ACK[¥t][SUM][¥r]

AUF[¥t]DATA[¥t]NAK[¥t][blk\_num][¥t][SUM][¥r]

AUF[\text{\tint{\text{\tint{\text{\tin}\text{\ti}\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}}}\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}\tint{\texi}}}\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tex

Radio -> Controller

- [1] AUF[¥t]DATA[¥t][blk\_num][¥t][data][¥t][SUM][¥r]
- [2] AUF[¥t]DATA[¥t]EOT[¥t][SUM][¥r] AUF[¥t]DATA[¥t]CAN[¥t][SUM][¥r]

#### FUNCTION:

Get the audio record file data.

#### PARAMETER:

[blk\_num] data block number (1-255)

[data] one block data( 4096 byte ), for last block, remainder byte will be send.

## NOTES:

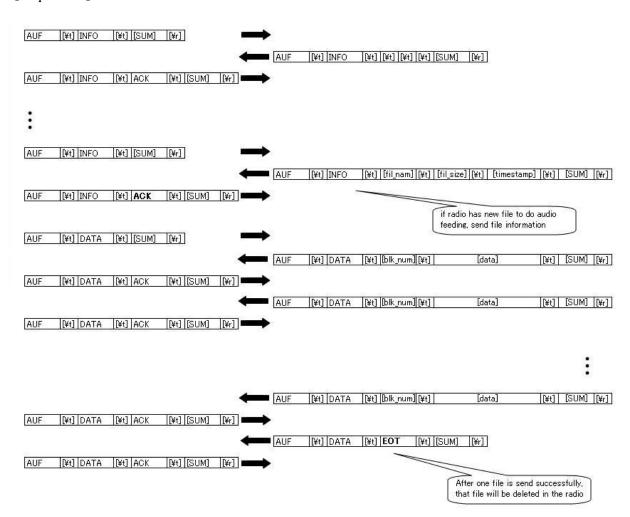
This command can only be used in scan mode.

This command works when Audio Feeding Function is set as ON by STS command.

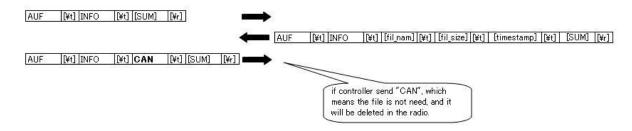
When one file sends finish, EOT will be send to Controller that indicate one file send complete.

And that audio file will be deleted from INNER REC folder.

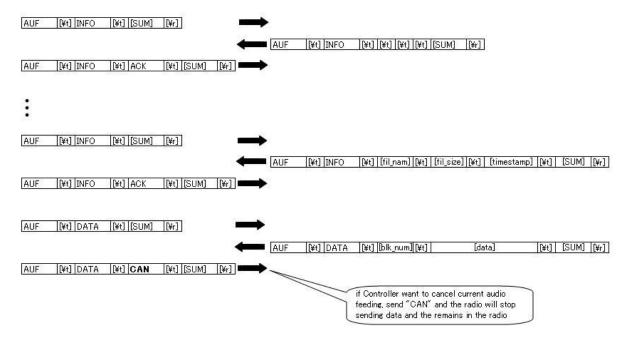
## [Sequence 1]



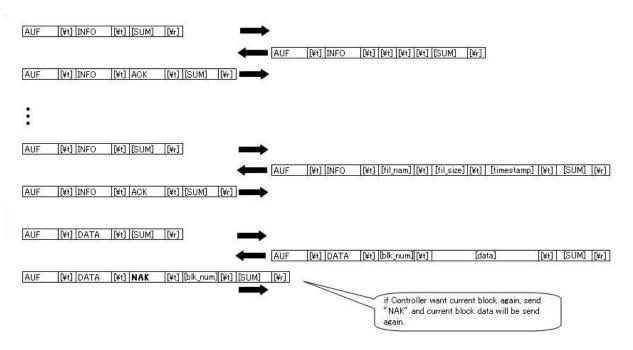
## [Sequence 2]



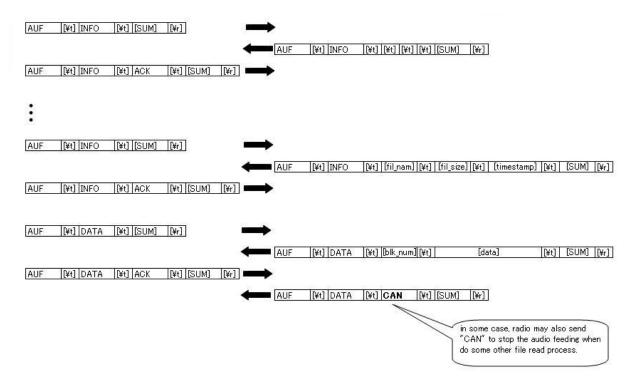
## [Sequence 3]



## [Sequence 4]



## [Sequence 5]



# 4.3 Raw Data Output

Discriminator A/D sampling raw data (10 bit signed data) will be output by the radio. 10 bit data will be divided into High byte and Low byte, see data format in next table.

## \*Data Format

	<b>b</b> 7	<b>b6</b>	<b>b</b> 5	b4	<b>b3</b>	<b>b2</b>	b1	<b>b</b> 0
H	1	0	0	bit9	bit8	bit7	bit6	bit5
L	0	0	0	bit4	bit3	bit2	bit1	bit0

#### 5 **ATTACHMENT**

## CTCSS/DCS CODE LIST

*NONE / SEARCH			
MODE	CODE	MODE	CODE
NONE / All	0	SEARCH	127

## \*CTCSS

MODE	CODE
CTCSS 67.0Hz	64
CTCSS 69.3Hz	65
CTCSS 71.9Hz	66
CTCSS 74.4Hz	67
CTCSS 77.0Hz	68
CTCSS 79.7Hz	69
CTCSS 82.5Hz	70
CTCSS 85.4Hz	71
CTCSS 88.5Hz	72
CTCSS 91.5Hz	73
CTCSS 94.8Hz	74
CTCSS 97.4Hz	75
CTCSS 100.0Hz	76
CTCSS 103.5Hz	77
CTCSS 107.2Hz	78
CTCSS 110.9Hz	79

80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96

CTCSS 179.9Hz	97
CTCSS 183.5Hz	98
CTCSS 186.2Hz	99
CTCSS 189.9Hz	100
CTCSS 192.8Hz	101
CTCSS 196.6Hz	102
CTCSS 199.5Hz	103
CTCSS 203.5Hz	104
CTCSS 206.5Hz	105
CTCSS 210.7Hz	106
CTCSS 218.1Hz	107
CTCSS 225.7Hz	108
CTCSS 229.1Hz	109
CTCSS 233.6Hz	110
CTCSS 241.8Hz	111
CTCSS 250.3Hz	112
CTCSS 254.1Hz	113
C1C33 234.1HZ	113

\*DCS

MODE	CODE	DCS 223	163	DCS 446	199
DCS 023	128	DCS 225	164	DCS 452	200
DCS 025	129	DCS 226	165	DCS 454	201
DCS 026	130	DCS 243	166	DCS 455	202
DCS 031	131	DCS 244	167	DCS 462	203
DCS 032	132	DCS 245	168	DCS 464	204
DCS 036	133	DCS 246	169	DCS 465	205
DCS 043	134	DCS 251	170	DCS 466	206
DCS 047	135	DCS 252	171	DCS 503	207
DCS 051	136	DCS 255	172	DCS 506	208
DCS 053	137	DCS 261	173	DCS 516	209
DCS 054	138	DCS 263	174	DCS 523	210
DCS 065	139	DCS 265	175	DCS 526	211
DCS 071	140	DCS 266	176	DCS 532	212
DCS 072	141	DCS 271	177	DCS 546	213
DCS 073	142	DCS 274	178	DCS 565	214
DCS 074	143	DCS 306	179	DCS 606	215
DCS 114	144	DCS 311	180	DCS 612	216
DCS 115	145	DCS 315	181	DCS 624	217
DCS 116	146	DCS 325	182	DCS 627	218
DCS 122	147	DCS 331	183	DCS 631	219
DCS 125	148	DCS 332	184	DCS 632	220
DCS 131	149	DCS 343	185	DCS 654	221
DCS 132	150	DCS 346	186	DCS 662	222
DCS 134	151	DCS 351	187	DCS 664	223
DCS 143	152	DCS 356	188	DCS 703	224
DCS 145	153	DCS 364	189	DCS 712	225
DCS 152	154	DCS 365	190	DCS 723	226
DCS 155	155	DCS 371	191	DCS 731	227
DCS 156	156	DCS 411	192	DCS 732	228
DCS 162	157	DCS 412	193	DCS 734	229
DCS 165	158	DCS 413	194	DCS 743	230
DCS 172	159	DCS 423	195	DCS 754	231
DCS 174	160	DCS 431	196		
DCS 205	161	DCS 432	197		
DCS 212	162	DCS 445	198		

## Service Type ID LIST

ID	Service Type	ID	Service Type
1	Multi-Dispatch	25	EMS-Talk
2	Law Dispatch	26	Transportation
3	Fire Dispatch	27	non
4	EMS Dispatch	28	non
5	non	29	Emergency Ops
6	Multi-Tac	30	Military
7	Law Tac	31	Media
8	Fire-Tac	32	Schools
9	EMS-Tac	33	Security
10	non	34	Utilities
11	Interop	35	non
12	Hospital	36	non
13	Ham	37	Corrections
14	Public Works	208	Custom 1
15	Aircraft	209	Custom 2
16	Federal	210	Custom 3
17	Business	211	Custom 4
18	non	212	Custom 5
19	non	213	Custom 6
20	Railroad	214	Custom 7
21	Other	215	Custom 8
22	Multi-Talk	216	Racing Officials
23	Law Talk	217	Racing Teams
24	Fire-Talk		