DENON AVR control protocol

Application model : AVR-2308CI
Application terminal: RS-232C

Connector specification

Ⅰ. RS-232C

Connector type: DB-9pin female type, slave straight connection (DCE type)
(1pin : GND , 2pin : TxD , 3pin : RxD , 5pin : Common(GND) , 4,6,7,8,9pin : NC)
Communication format:

Synchronous system	: Tone step synchronization
Communication system	: A half duplex
Communication speed	: 9600bps
Character length	: 8 bits
Parity control	: None
Start bit	: 1 bit
Stop bit	: 1 bit
Communication procedure	: Non procedural
Communication data length	: 135 bytes (maximum)

Protocol specification
The following three data forms are defined.

      COMMAND : The message sent to a system(AVR) from a controller(Touch Panel etc.)
                     A command to a system is given from a controller.

      EVENT : The message sent to a controller (Touch Panel etc.) from a system (AVR)
                     The result is sent, when a system is operated directly and a state changes.
                     *The form of **EVENT** presupposes that it is the same as that of **COMMAND**.
                     Refer to the following table for the contents of **COMMAND and **EVENT**.

      RESPONSE : The message sent to a controller (Touch Panel etc.) from a system (AVR)
                     if the 'request command' (**COMMAND**+**?**+CR(0x0D)) has came from a controller.
                     The **RESPONSE** should be sent within 200ms of receiving the **COMMAND**.
                     *The form of **RESPONSE** presupposes that it is the same as that of **EVENT**.

Basic specification: The command by ASCII CODE, parameter expression
      *ASCII CODE which can be used is from 0x20 to 0x7F: the alphabet and the number of 0-9, and space (0x20), some signs,
                                       AND carriage return (0x0D) --- It is used only as a pause sign.

Command structure: COMMAND + PARAMETER + CR (0x0D)
      COMMAND: ASCII CODE of 2 characters
                 Ex.   SI : Select Input source
                        MS :   surround Mode Setting
                        MV :   Master Volume setting
                        PW :   system PoWer setting
      PARAMETER : ASCII CODE (up to 25 characters)
                 ex.   DVD : function name

                        SUPER STADIUM : surround mode name
                *Special Parameter--- ? : for request command

The example of a command   * <CR> is the meaning of 0x0D.

    SIDVD<CR> : Select Input source DVD

    MSSTEREO<CR> : surround Mode Set to STEREO

    MVUP<CR> : Master Volume UP

    PWON<CR> : system PoWer ON

    PWSTANDBY<CR> : system PoWer STANDBY

    SI?<CR> : Request command for now playing input source >> Return ***RESPONSE*** 'SI***<CR>'

Others

A) **COMMAND** is receivable also during transmission of **EVENT**.

B) Since CHANNEL VOLUME changes simultaneously when the SURROUND MODE changes, the value of the channel volume of all channels returns as **EVENT**.

C) CHANNEL VOLUME returns the data of ALL channels by the present SURROUND MODE also including an intact channel. In this case, the data of an intact channel is set to "50".

D) Since SURROUND MODE changes simultaneously when the INPUT source changes, the SURROUND MODE (and also the value of the channel volume of all channels , It described in B)) returns as **EVENT**.

E) When SURROUND MODE is the same in between INPUT source change before and after, **EVENT** of SURROUND MODE and CHANNEL VOLUME does NOT return.

F) Although **EVENT** of SURROUND MODE returns when the present SURROUND MODE is set up again, CHANNEL VOLUME does NOT return.

G) When SURROUND MODE is changed, before returning SURROUND MODE after change as **EVENT**, the present SURROUND MODE is returned.

H) The **RESPONSE** should be sent as opposed to the request command by all the commands with which an **EVENT** exists , not need to the another request commands(ex. SV command).

I) The **PARAMETER** (with **COMMAND** and **RESPONSE**, **EVENT**) of minimum level of MASTER VOLUME defines "99".

J) If the MASTER VOLUME & CHANNEL VOLUME set with 0.5dB step, the **PARAMETER** (with **COMMAND** and **RESPONSE**, **EVENT**) defines three ASCII characters as bellows.

```
    Ex.   MASTER VOLUME = +1.0dB :      MV81<CR>
                         +0.5dB :      MV805<CR>
                           0dB :      MV80<CR>
                         -0.5dB :      MV795<CR>
                         -1.0dB :      MV79<CR>
                           |            |
                        -79.5dB :      MV005<CR>
                        -80.0dB :      MV00<CR>
                         ---    :      MV99<CR>
```

   * At the **.0dB step, only uses two ASCII characters as **PARAMETER**, same as usual.

K) Four seconds later, please transmit the next **COMMAND** after transmitting a power on **COMMAND** (PWON) .

COMMAND and PARAMETER list

COMMAND	PARAMETER	function	example
PW	ON	POWER ON/STANDBY change	PWON<CR>
	STANDBY		PWSTANDBY<CR>
	?	Return PW Status	PW?<CR>
MV	UP	MASTER VOLUME UP/DOWN , direct change to **dB	MVUP<CR>
	DOWN		MVDOWN<CR>
	**	**:00 to 99 by ASCII , 80=0dB, 99=---(MIN)	MV80<CR>
	?	Return MV Status	MV?<CR>
CV	FL UP	CHANNEL VOLUME UP/DOWN , direct change to **dB	CVFL UP<CR>
	FL DOWN	---FRONT Lch	CVFL DOWN<CR>
	FL **	**:38 to 62 by ASCII , 50=0dB	CVFL 50<CR>
	FR UP		CVFR UP<CR>
	FR DOWN	---FRONT Rch	CVFR DOWN<CR>
	FR **	**:38 to 62 by ASCII , 50=0dB	CVFR 50<CR>
	C UP		CVC UP<CR>
	C DOWN	---CENTERch	CVC DOWN<CR>
	C **	**:38 to 62 by ASCII , 50=0dB	CVC 50<CR>
	SW UP		CVSW UP<CR>
	SW DOWN	---SUBWOOFERch	CVSW DOWN<CR>
	SW **	**:00,38 to 62 by ASCII , 50=0dB,00=OFF	CVSW 50<CR>
	SL UP		CVSL UP<CR>
	SL DOWN	---SURROUND Lch	CVSL DOWN<CR>
	SL **	**:38 to 62 by ASCII , 50=0dB	CVSL 50<CR>
	SR UP		CVSR UP<CR>
	SR DOWN	---SURROUND Rch	CVSR DOWN<CR>
	SR **	**:38 to 62 by ASCII , 50=0dB	CVSR 50<CR>
	SBL UP	---SURROUND BACK Lch (SBch 2SP)	CVSBL UP<CR>
	SBL DOWN		CVSBL DOWN<CR>
	SBL **	**:38 to 62 by ASCII , 50=0dB	CVSBL 50<CR>
	SBR UP	---SURROUND BACK Rch (SBch 2SP)	CVSBR UP<CR>
	SBR DOWN		CVSBR DOWN<CR>
	SBR **	**:38 to 62 by ASCII , 50=0dB	CVSBR 50<CR>

MV, CV COMMAND : "*" parameter uses two or three ASCII characters. (see page4 J) section)

COMMAND	PARAMETER	function	example
CV	**SB UP**	---SURROUND BACKch (SBch 1SP)	**CVSB UP\<CR\>**
	SB DOWN		**CVSB DOWN\<CR\>**
	SB **	**:00 to 99 by ASCII , 50=0dB	**CVSB 50\<CR\>**
	?	Return CV Status	**CV?\<CR\>**
MU	**ON**	OUTPUT MUTE ON/OFF change	**MUON\<CR\>**
	OFF		**MUOFF\<CR\>**
	?	Return MU Status	**MU?\<CR\>**
SI	**PHONO**	Select INPUT source	**SIPHONO\<CR\>**
	CD		**SICD\<CR\>**
	TUNER		**SITUNER\<CR\>**
	DVD		**SIDVD\<CR\>**
	TV/CBL		**SITV/CBL\<CR\>**
	VCR		**SIVCR\<CR\>**
	DVR		**SIDVR\<CR\>**
	V.AUX		**SIV.AUX\<CR\>**
	XM	(North America model Only)	**SIXM\<CR\>**
	IPOD		**SIIPOD\<CR\>**
	AUX		**SIAUX\<CR\>**
	?	Return SI Status	**SI?\<CR\>**
ZM	**ON**	MAIN-ZONE ON/OFF change at AVR-2308	**ZMON\<CR\>**
	OFF		**ZMOFF\<CR\>**
	?	Return ZM Status	**ZM?\<CR\>**
SR	**PHONO**	REC SELECT mode set , and select source	**SRPHONO\<CR\>**
	|	---The name of PARAMETER is	**|**
	IPOD	the same as that of the time of SI COMMAND.	**SRIPOD\<CR\>**
	SOURCE	REC SELECT mode cancel	**SRSOURCE\<CR\>**
	?	Return SR Status	**SR?\<CR\>**

CV **COMMAND** : "*" parameter uses two ASCII characters. (see page4 J) section)

COMMAND	PARAMETER	function	example
SD	**AUTO**	set AUTO mode (Priority:HDMI>>DIGITAL>>ANALOG)	**SDAUTO<CR>**
	HDMI	set force HDMI INPUT mode	**SDHDMI<CR>**
	DIGITAL	set force DIGITAL INPUT (Optical,Coaxial)mode	**SDDIGITAL<CR>**
	ANALOG	set force ANALOG INPUT mode	**SDANALOG<CR>**
	EXT.IN-1	---Set EXT.IN mode at AVR-2308	**SDEXT.IN-1<CR>**
	?	Return SD Status	**SD?<CR>**
DC	**AUTO**	set DIGITAL INPUT AUTO mode	**DCAUTO<CR>**
	PCM	set DIGITAL INPUT force PCM mode	**DCPCM<CR>**
	DTS	set DIGITAL INPUT force DTS mode	**DCDTS<CR>**
	?	Return DC Status	**DC?**
SV	**DVD**	VIDEO SELECT mode set , and select source	**SVDVD<CR>**
	TV/CBL		**SVTV/CBL<CR>**
	VCR		**SVVCR<CR>**
	DVR		**SVDVR<CR>**
	V.AUX		**SVV.AUX<CR>**
	SOURCE	VIDEO SELECT mode cancel	**SVSOURCE<CR>**
	?	Return SV Status	**SV?<CR>**
MS	**DIRECT**	Select SURROUND mode	**MSDIRECT<CR>**
	PURE DIRECT		**MSPURE DIRECT<CR>**
	STEREO		**MSSTEREO<CR>**
	STANDARD		**MSSTANDARD<CR>**
	DOLBY DIGITAL		**MSDOLBY DIGITAL<CR>**
	DTS SUROUND		**MSDTS SURROUND<CR>**
	NEURAL	(North America Model Only)	**MSNEURAL<CR>**
	7CH STEREO		**MS7CH STEREO<CR>**
	ROCK ARENA		**MSROCK ARENA<CR>**
	JAZZ CLUB		**MSJAZZ CLUB<CR>**

COMMAND	PARAMETER	function	example
MS	MONO MOVIE		MSMONO MOVIE<CR>
	MATRIX		MSMATRIX<CR>
	VIDEO GAME		MSVIDEO GAME<CR>
	VIRTUAL		MSVIRTUAL<CR>
	?	Return MS Status	MS?<CR>
	QUICK1	QUICK SELECT 1-3 MODE SELECT	MSQUICK1<CR>
	QUICK2		MSQUICK2<CR>
	QUICK3		MSQUICK3<CR>
	QUICK1 MEMORY	USER1-3 MODE MEMORY	MSQUICK1 MEMORY<CR>
	QUICK2 MEMORY		MSQUICK2 MEMORY<CR>
	QUICK3 MEMORY		MSQUICK3 MEMORY<CR>
	QUICK ?	Return MSQUICK Status	MSQUICK ?<CR>
VS	ASPNRM	Set Normal mode	VSASPNRM<CR>
	ASPFUL	Set FULL mode	VSASPFUL<CR>
	ASP?	Return VSASPECT Status	VSASP?<CR>
	SC48P	Set Resolution to 480p/576p	VSSC48P<CR>
	SC10I	Set Resolution to 1080i	VSSC10I<CR>
	SC72P	Set Resolution to 720p	VSSC72P<CR>
	SC10P	Set Resolution to 1080p	VSSC10P<CR>
	SC AUTO	Set Resolution to AUTO	VSSCAUTO<CR>
	SC?	Return VSSCALE Status	VSSC?<CR>

COMMAND	PARAMETER	function	example
PS	TONE DEFEAT ON	PARAMETER setting	PSTONE DEFEAT ON<CR>
	TONE DEFEAT OFF	TONE DEFEAT ON/OFF	PSTONE DEFEAT OFF<CR>
	TONE DEFEAT ?	Return PSTONE DEFEAT Status	PSTONE DEFEAT ?<CR>
	SB:MTRX ON	SURROUND BACK SP MODE set	PSSB:MTRX ON<CR>
	SB:NON MTRX		PSSB:NON MTRX<CR>
	SB:PL2xCINEMA		PSSB:PL2X CINEMA<CR>
	SB:PL2xMUSIC		PSSB:PL2X MUSIC<CR>
	SB:ON		PSSB:ON<CR>
	SB:OFF		PSSB:OFF<CR>
	SB: ?	Return PSSB: Status	PSSB: ?<CR>
	CINEMA EQ.ON	CINEMA EQ. ON/OFF	PSCINEMA EQ.ON<CR>
	CINEMA EQ.OFF		PSCINEMA EQ.OFF<CR>
	CINEMA EQ. ?	Return PSCINEMA EQ.Status	PSCINEMA EQ. ?<CR>
	MODE:MUSIC	CINEMA / MUSIC / GAME / PL mode change	PSMODE:MUSIC<CR>
	MODE:CINEMA	(This parameter can change DOLBY PL2,PL2x,NEO:6 mode.)	PSMODE:CINEMA<CR>
	MODE:GAME	---SB=ON:PL2x mode / SB=OFF:PL2 mode	PSMODE:GAME<CR>
	MODE:PRO LOGIC	--- GAME can change DOLBY PL2 & PL2x mode	PSMODE:PRO LOGIC<CR>
		--- PL can change ONLY DOLBY PL2 mode	
	MODE: ?	Return PSMODE: Status	PSMODE: ?<CR>
	ROOM EQ:AUDYSSEY	ROOM EQ mode direct change	PSROOM EQ:AUDYSSEY<CR>
	ROOM EQ:BYP.LR		PSROOM EQ:BYP.LR<CR>
	ROOM EQ:FLAT		PSROOM EQ:FLAT<CR>
	ROOM EQ:MANUAL		PSROOM EQ:MANUAL<CR>
	ROOM EQ:OFF		PSROOM EQ:OFF<CR>
	ROOM EQ ?	Return PSROOM EQ: Status	PSROOM EQ: ?<CR>
	BAS UP	BASS UP/DOWN , direct change to **dB	PSBAS UP<CR>
	BAS DOWN	**:00 to 99 by ASCII , 50=0dB	PSBAS DOWN<CR>
	BAS **	---AVR-2308 can be operated from -6 to +6(44 to 56)	PSBAS 50<CR>
	BAS ?	Return PSBAS Status	PSBAS ?<CR>

PS COMMAND : "*" parameter uses two ASCII characters. (see page4 J) section)

COMMAND	PARAMETER	function	example
PS	TRE UP	TREBLE UP/DOWN , direct change to **dB	PSTRE UP<CR>
	TRE DOWN	**:00 to 99 by ASCII , 50=0dB	PSTRE DOWN<CR>
	TRE **	---AVR-**2308** can be operated from -6 to +6(44 to 56)	PSTRE 50<CR>
	TRE ?	Return PSTRE Status	PSTRE ?<CR>
	DCO OFF	D.COMP direct change	PSDCO OFF<CR>
	DCO LOW		PSDCO LOW<CR>
	DCO MID		PSDCO MID<CR>
	DCO HIGH		PSDCO HIGH<CR>
	DCO ?	Return PSDCO Status	PSDCO ?<CR>
	LFE UP	LFE UP/DOWN , direct change to **dB	PSLEE UP<CR>
	LFE DOWN	**:00 to 99 by ASCII , 00=0dB, 10=-10dB	PSLFE DOWN<CR>
	LFE **	---AVR-**2308** can be operated from 0 to -10	PSLFE 10<CR>
	LFE ?	Return PSLFE Status	PSLFE ? <CR>
	EFF **	EFFECT LEVEL direct change to **dB **:00 to 99 by ASCII , 00=0dB, 10=10dB ---AVR-**2308** can be operated from 1 to 15	PSEFF **<CR> PSEFF **<CR>
	EFF ?	Return PSEFF Status	PSEFF ?<CR>
	DEL UP	DELAY UP/DOWN , direct change to ***dB	PSDEL UP<CR>
	DEL DOWN	***:000 to 999 by ASCII , 000=0ms, 300=300ms	PSDEL DOWN<CR>
	DEL ***	---AVR-**2308** can be operated from 0 to 300	PSDEL ***<CR>
	DEL ?	Return PSDEL Status	PSDEL ?<CR>
	AFD ON	AFDM ON/OFF	PSAFD ON<CR>
	AFD OFF		PSAFD OFF<CR>
	AFD ?	Return PSAFD Status	PSAFD ?<CR>

PS **COMMAND** : "*" parameter uses two or three ASCII characters. (see page4 J) section)

COMMAND	PARAMETER	function	example
PS	PAN ON	PANORAMA ON/OFF	PSPAN ON\<CR>
	PAN OFF		PSPAN OFF\<CR>
	PAN ?	Return PSPAN Status	PSPAN ?\<CR>
	DIM UP	DIMENSION UP/DOWN , direct change to **dB	PSDIM UP\<CR>
	DIM DOWN	**:00 to 99 by ASCII , 00=0,	PSDIM DOWN\<CR>
	DIM **	---AVR-2308 can be operated from 0 to 6	PSDIM **\<CR>
	DIM ?	Return PSDIM Status	PSDIM ?\<CR>
	CEN UP	CENTER WIDTH UP/DOWN , direct change to **dB	PSCEN UP\<CR>
	CEN DOWN	**:00 to 99 by ASCII , 00=0	PSCEN DOWN\<CR>
	CEN **	---AVR-2308 can be operated from 0 to 7	PSCEN 07\<CR>
	CEN ?	Return PSCEN Status	PSCEN ?\<CR>
	CEI UP	CENTER IMAGE UP/DOWN , direct change to **dB	PSCEI UP\<CR>
	CEI DOWN	**:00 to 99 by ASCII , 00=0.0	PSCEI DOWN\<CR>
	CEI **	---AVR-2308 can be operated from 0.0 to 1.0	PSCEI 10\<CR>
	CEI?	Return PSCEI Status	OSCEI ?\<CR>
	ATT ON	SW ATT ON/OFF	PSATT ON\<CR>
	ATT OFF		PSATT OFF\<CR>
	ATT ?	Return PSATT Status	PSATT ?\<CR>
	SWR ON	SW ON/OFF	PSSWR ON\<CR>
	SWR OFF		PSSWR OFF\<CR>
	SWR ?	Return PSSWR Status	PSSWR ?\<CR>
	RSZ S	ROOM SIZE direct change	PSRSZ S\<CR>
	RSZ MS		PSRSZ MS\<CR>
	RSZ M		PSRSZ M\<CR>
	RSZ ML		PSRSZ ML\<CR>
	RSZ L		PSRSZ L\<CR>
	RSZ ?	Return PSRSZ Status	PSRSZ ?\<CR>
	DELAY UP	AUDIO DELAY UP/DOWN , direct change to ***dB	PSDELAY UP\<CR>
	DELAY DOWN	***:000 to 999 by ASCII , 000=0ms, 200=200ms	PSDELAY DOWN\<CR>
	DELAY ***	---AVR-2308 can be operated from 0 to 200	PSDELAY 200\<CR>

PS **COMMAND** : "*" parameter uses two or three ASCII characters. (see page4 J) section)

COMMAND	PARAMETER	function	example
PS	NIGHT OFF	NIGHT MODE direct change	PSNIGHT OFF\<CR>
	NIGHT LOW		PSNIGHT LOW\<CR>
	NIGHT MID		PSNIGHT MID\<CR>
	NIGHT HI		PSNIGHT HI\<CR>
	NIGHT ?	Return PSNIGHT Status	PSNIGHT ?\<CR>
	RSTR OFF	AUDIO RESTORER direct change	PSRSTR OFF\<CR>
	RSTR MODE1		PSRSTR MODE1\<CR>
	RSTR MODE2		PSRSTR MODE2\<CR>
	RSTR MODE3		PSRSTR MODE3\<CR>
	RSTR ?	Return PSRSTR Status	PSRSTR ?\<CR>

PV **COMMAND** : "*" parameter uses two ASCII characters. (see page4 J) section)

COMMAND	PARAMETER	function	example
Z2	PHONO | IPOD	MULTI ZONE-2 mode set , and select source at AVR-2308 ---The name of PARAMETER is the same as that of the time of SI COMMAND.	Z2PHONO<CR> | Z2IPOD<CR>
	SOURCE	MULTI ZONE-2 mode cancel at AVR-2308	Z2SOURCE<CR>
	UP	MULTI ZONE-2 VOLUME UP/DOWN , direct change to **dB	Z2UP<CR>
	DOWN	at AVR-2308	Z2DOWN<CR>
	**	**:10 to 99 by ASCII , 80=0dB, 99=---(MIN)	Z280<CR>
	ON	MULTI ZONE-2 ON/OFF change at AVR-2308	Z2ON<CR>
	OFF		Z2OFF<CR>
	?	Return Z2 Status	Z2?<CR>
Z2MU	ON	ZONE2 OUTPUT MUTE ON/OFF change	Z2MUON<CR>
	OFF		Z2MUOFF<CR>
	?	Return Z2MU Status	Z2MU?<CR>
Z2CV	FL UP	ZONE2 CHANNEL VOLUME UP/DOWN , direct change to **dB	Z2CVFL UP<CR>
	FL DOWN	---FRONT Lch	Z2CVFL DOWN<CR>
	FL **	**:38 to 62 by ASCII , 50=0dB	Z2CVFL 50<CR>
	FR UP	ZONE2 CHANNEL VOLUME UP/DOWN , direct change to **dB	Z2CVFR UP<CR>
	FR DOWN	---FRONT Rch	Z2CVFR DOWN<CR>
	FR **	**:38 to 62 by ASCII , 50=0dB	Z2CVFR 50<CR>
	?	Return Z2CV Status	Z2CV?<CR>

Z2 *COMMAND* : "*" parameter uses two ASCII characters. (see page4 J) section)

Z2 *COMMAND* : Invalid at AVC-2308 for JAPAN

※ANALOG TUNER Control(AVR Mode Only)

COMMAND	PARAMETER	function	example
TF	**ANUP**	TUNER Frequency UP/DOWN	**TFANUP<CR>**
	ANDOWN		**TFANDOWN<CR>**
	AN****** **(6 digits)**	--- ****.** kHz at AM band (>050000 is AM.) ****.** MHz at FM band (<050000 is FM.)	**TFAN105000<CR>** **(1050.00kHz at AM)**
	AN?	Return TF Status	**TFAN?<CR>**
TP	**ANUP**	TUNER PRESET CH UP/DOWN , direct change to No.**	**TPANUP<CR>**
	ANDOWN		**TPANDOWN<CR>**
	AN(PRESET** **No.)**		**TPANA1<CR>** **(PRESET No."A1")**
	AN?	Return TP Status	**TPAN?<CR>**
	ANMEM	TUNER PRESET MEMORY	**TPANMEM<CR>**
TM		TUNER BAND , MODE Select	
	ANAM	---Band set to AM	**TMANAM<CR>**
	ANFM	---Band set to FM	**TMANFM<CR>**
	AN?	Return TM Status	**TMAN?<CR>**
	ANAUTO	---Tuning mode set to AUTO mode	**TMANAUTO<CR>**
	ANMANUAL	---Tuning mode set to MANUAL mode	**TMANMANUAL<CR>**

TF, TP, TM **COMMAND** : '*' parameters can NOT operate when INPUT source isn't TUNER.

※XM Control(North America model only)

COMMAND	*PARAMETER*	function	example
TF	**XMUP**	XM Channel UP/DOWN	**TFXMUP<CR>**
	XMDOWN		**TFXMDOWN<CR>**
	XM*** **(3 digits)**	--- ***:XM CH No.	**TFXM001<CR>** **(XM001 CH at XM)**
	XM?	Return TFXM Status	**TFXM?<CR>**
TP	**XMUP**	XM PRESET CH UP/DOWN , direct change to No.**	**TPXMUP<CR>**
	XMDOWN		**TPXMDOWN<CR>**
	XM**(PRESET No.)		**TPXMA1<CR>** **(PRESET No."A1")**
	XM?	Return TPXM Status	**TPXM?<CR>**
	XMMEM	XM PRESET MEMORY	**TPXMMEM<CR>**
XM	**?**	Return XM Status - CHANNEL NAME, ARTIST, TITLE, SIGNAL LEVEL	**XM?<CR>**

TF, TP, XM *COMMAND* : '*' parameters can NOT operate when INPUT source isn't XM.

※iPod Extended Control

COMMAND	PARAMETER	function	example
IP	90	"Cursor Up" Control	IP90<CR>
	91	"Cursor Down" Control	IP91<CR>
	92	"Cursor Left" Control	IP92<CR>
	93	"Cursor Right" Control	IP93<CR>
	94	"Enter (Play/Pause)" Control	IP94<CR>
	9A	"Play/Pause" Control	IP9A<CR>
	9C	"Stop" Control	IP9C<CR>
	9D	"Skip Plus" Control	IP9D<CR>
	9E	"Skip Minus" Control	IP9E<CR>
	9F	"Manual Search Plus" Control(ASD-1R Only)	IP9F<CR>
	9G	"Manual Search Minus" Control(ASD-1R Only)	IP9G<CR>
	9H	"Repeat One" Control	IP9H<CR>
	9I	"Repeat All" Control	IP9I<CR>
	9J	"Repeat Off" Control	IP9J<CR>
	9K	"Shuffle Songs" Control	IP9K<CR>
	9L	"Shuffle Album" Control	IP9L<CR>
	9M	"Shuffle Off" Control	IP9M<CR>
	9N	"MENU" Control	IP9N<CR>
	9P	Switch the "Browse Mode" Control(ASD-1R Only)	IP9P<CR>
	9Q	Switch the "Remote Mode" Control(ASD-1R Only)	IP9Q<CR>
	9V	"Shuffle On" Control	IP9V<CR>
	9W	Toggle Switch "Browse Mode/Remote Mode" Control	IP9W<CR>
	9X	"Page Up" Control	IP9X<CR>
	9Y	"Page Down" Control	IP9Y<CR>
IPA		Return Onscreen Display Information List	IPA<CR> (Return IPA0-IPA9)
IPE		Request Onscreen Display Information List(iPOD) (UTF-8 CODE Character)	IPE<CR> (Return IPE0-IPE9. Refer to Page 29)

※Cursol/Enter/Menu(Setup)

COMMAND	PARAMETER	function	example
MN	CUP	"Cursor Up" Control	MNCUP<CR>
	CDN	"Cursor Down" Control	MNCDN<CR>
	CLT	"Cursor Left" Control	MNCLT<CR>
	CRT	"Cursor Right" Control	MNCRT<CR>
	ENT	"Enter" Control	MNENT<CR>
	RTN	"RETURN" Control	MNRTN<CR>
	MEN ON	"GUI Menu ON" Control	MNMEN ON<CR>
	MEN OFF	"GUI Menu OFF" Control	MNMEN OFF<CR>

※Remote Lock/Panel Lock

COMMAND	PARAMETER	function	example
SY	REMOTE LOCK ON	REMOTE CONTROL LOCK ON/OFF	SYREMOTE LOCK ON<CR>
	REMOTE LOCK OFF		SYREMOTE LOCK OFF<CR>
	PANEL LOCK ON	PANEL BUTTON(Except MASTER VOL.)CONTROL LOCK ON	SYPANEL LOCK ON<CR>
	PANEL+V LOCK ON	PANEL BUTTON & MASTER VOL. CONTROL LOCK ON	SYPANEL+V LOCK ON<CR>
	PANEL LOCK OFF	PANEL BUTTUM & MASTER VOL. CONTROL LOCK OFF	SYPANEL LOCK OFF<CR>

EVENT(or RESPONSE) and PARAMETER list

EVENT	PARAMETER	function	example
PW	ON	POWER ON/STANDBY change	PWON<CR>
	STANDBY		PWSTANDBY<CR>
MV	**	MASTER VOLUME change , **:00 to 99 by ASCII 98 = +18dB(MAX) 80 = 0dB 00 = -80dB 99 = ---(MIN)	MV80<CR>
CV	FL **	CHANNEL VOLUME change , **:00,38 to 62 by ASCII 62 = +12dB(MAX) 50 = 0dB 38 = -12dB(MIN) 00 = OFF (define ONLY SWch in DIRECT mode.)	CVFL 50<CR>
	FR **		CVFR 50<CR>
	C **		CVC 50<CR>
	SW **		CVSW 50<CR>
	SL **		CVSL 50<CR>
	SR **		CVSR 50<CR>
	SBL **	(at SBch 2SP)	CVSBL 50<CR>
	SBR **	(at SBch 2SP)	CVSBR 50<CR>
	SB **	(at SBch 1SP)	CVSB 50<CR>
MU	ON	OUTPUT MUTE ON/OFF change	MUON<CR>
	OFF		MUOFF<CR>
SI	PHONO	INPUT source change	SIPHONO<CR>
	CD		SICD<CR>
	TUNER		SITUNER<CR>
	DVD		SIDVD<CR>
	TV/CBL		SITV/CBL<CR>
	VCR		SIVCR<CR>
	DVR		SIDVR<CR>
	AUX		SIAUX<CR>
	V.AUX		SIV.AUX<CR>

RES. : NOT returns '' parameters as RESPONSE.

The PARAMETER of MV, CV EVENT : Uses two or three ASCII characters. (see page4 J) section)

EVENT	PARAMETER	function	example
SI	XM	(North America model Only)	SIXM<CR>
	IPOD		SIIPOD<CR>
ZM	ON	MAIN-ZONE ON/OFF change	ZMON<CR>
	OFF		ZMOFF<CR>
SR	PHONO | IPOD	REC SELECT source change ---The name of PARAMETER is the same as that of the time of SI COMMAND.	SRPHONO<CR> | SRAUXIPOD<CR>
	SOURCE	REC SELECT mode cancel	SRSOURCE<CR>
SD	AUTO	INPUT mode change	SDAUTO<CR>
	HDMI		SDHDMI<CR>
	DIGITAL		SDDIGITAL<CR>
	ANALOG		SDANALOG<CR>
	EXT.IN-1	---Set EXT.IN mode at AVR-2308	SDEXT.IN-1<CR>
DC	AUTO	DIGITAL INPUT mode change	DCAUTO<CR>
	PCM		DCPCM<CR>
	DTS		DCDTS<CR>
SV	DVD	VIDEO SELECT mode source change	SVDVD<CR>
	TV/CBL		SVTV/CBL<CR>
	VCR		SVVCR<CR>
	DVR		SVDVR<CR>
	V.AUX		SVV.AUX<CR>
	SOURCE		SVSOURCE<CR>

EVENT	PARAMETER	function	example
MS	DIRECT	SURROUND mode change	MSDIRECT<CR>
	PURE DIRECT		MSPURE DIRECT<CR>
	STEREO		MSSTEREO<CR>
	MULTI CH IN		MSMULTI CH IN<CR>
	MULTI CH IN +PL2x C		MSM CH IN+PL2X C<CR>
	MULTI CH IN +PL2x M		MSM CH IN+PL2X M<CR>
	MULTI CH DIRECT		MSMULTI CH DIRECT<CR>
	MULTI CH DIRECT +PL2x C		MSM CH DRCT+PL2X C <CR>
	MULTI CH DIRECT +PL2x M		MSM CH DRCT+PL2X M <CR>
	MULTI CH PURE D		MSMULTI CH PURE D<CR>
	MULTI CH PURE D +PL2x C		MSM CH PURE D+PL2X C <CR>
	MULTI CH PURE D +PL2x M		MSM CH PURE D+PL2X M <CR>
	MULTI CH IN 7.1		MSMULTI CH IN 7.1<CR>
	M DIRECT 7.1		MSM DIRECT 7.1<CR>
	M CH PURE D 7.1		MSM CH PURE D 7.1<CR>
	DOLBY PRO LOGIC		MSDOLBY PRO LOGIC<CR>
	DOLBY PL2 CINEMA		MSDOLBY PL2 C<CR>
	DOLBY PL2 MUSIC		MSDOLBY PL2 M<CR>
	DOLBY PL2 G		MSDOLBY PL2 G<CR>
	DOLBY PL2x C		MSDOLBY PL2X C<CR>
	DOLBY PL2x M		MSDOLBY PL2X M<CR>
	DOLBY PL2x G		MSDOLBY PL2X G<CR>
	DOLBY DIGITAL		MSDOLBY DIGITAL<CR>
	DOLBY D EX		MSDOLBY D EX<CR>
	DOLBY D +PL2x C		MSDOLBY D+PL2X C<CR>
	DOLBY D +PL2x M		MSDOLBY D+PL2X M<CR>

EVENT	PARAMETER	function	example
MS	DTS NEO:6 C		MSDTS NEO:6 C<CR>
	DTS NEO:6 M		MSDTS NEO:6 M<CR>
	DTS SURROUND		MSDTS SURROUND<CR>
	DTS ES DSCRT6.1		MSDTS ES DSCRT6.1<CR>
	DTS ES MTRX6.1		MSDTS ES MTRX6.1<CR>
	DTS+NEO:6		MSDTS+NEO:6<CR>
	DTS+PL2x C		MSDTS+PL2X C<CR>
	DTS+PL2x M		MSDTS+PL2X M<CR>
	DTS96/24		MSDTS96/24<CR>
	5CH STEREO		MS5CH STEREO<CR>
	7CH STEREO		MS7CH STEREO<CR>
	ROCK ARENA		MSROCK ARENA<CR>
	JAZZ CLUB		MSJAZZ CLUB<CR>
	MONO MOVIE		MSMONO MOVIE<CR>
	MATRIX		MSMATRIX<CR>
	VIDEO GAME		MSVIDEO GAME<CR>
	VIRTUAL		MSVIRTUAL<CR>
	NEURAL	(North America model Only)	MSNEURAL<CR>
	QUICK1	QUICK SELECT mode change	MSQUICK1<CR>
	QUICK2		MSQUICK2<CR>
	QUICK3		MSQUICK3<CR>
	QUICK0	---User 1(or User 2 or User 3) Change User OFF	MSQUICK0<CR>
VS	ASPNRM	ASPECT setting change	VSASPNRM<CR>
	ASPFUL		VSASPFUL<CR>
	SC48P	SCALER setting change	VSSC48P<CR>
	SC10I		VSSC10I<CR>
	SC72P		VSSC72P<CR>
	SC10P		VSSC10P<CR>
	SCAUTO		VSSCAUTO<CR>

EVENT	PARAMETER	function	example
PS	**TONE DEFEAT ON**	TONE DEFEAT ON/OFF change	**PSTONE DEFEAT ON\<CR\>**
	TONE DEFEAT OFF		**PSTONE DEFEAT OFF\<CR\>**
	SB:MTRX ON	SURROUND BACK MODE change	**PSSB:MTRX ON\<CR\>**
	SB:NON MTRX		**PSSB:NON MTRX\<CR\>**
	SB:PL2xC		**PSSB:PL2X CINEMA\<CR\>**
	SB:PL2xM		**PSSB:PL2X MUSIC\<CR\>**
	SB:ON		**PSSB:ON\<CR\>**
	SB:OFF		**PSSB:OFF\<CR\>**
	SB:ESDSCRT		**PSSB:ESDSCRT\<CR\>**
	SB:ESMTRX		**PSSB:ESMTRX\<CR\>**
	CINEMA EQ.ON	CINEMA EQ. ON/OFF Change	**PSCINEMA EQ.ON\<CR\>**
	CINEMA EQ.OFF		**PSCINEMA EQ.OFF\<CR\>**
	MODE:PL2X C	CINEMA / MUSIC / GAME / PL mode change	**MODE:PL2X C\<CR\>**
	MODE:PL2X M		**MODE:PL2X M\<CR\>**
	MODE:PL2X G		**MODE:PL2X G\<CR\>**
	MODE:PL2 C		**MODE:PL2 C\<CR\>**
	MODE:PL2 M		**MODE:PL2 M\<CR\>**
	MODE:PL2 G		**MODE:PL2 G\<CR\>**
	MODE:PRO LOGIC		**MODE:PRO LOGIC\<CR\>**
	MODE:NEO:6 C		**MODE:NEO:6 C\<CR\>**
	MODE:NEO:6 M		**MODE:NEO:6 M\<CR\>**
	ROOM EQ:AUDYSSEY	ROOM EQ mode direct change	**PSROOM EQ:AUDYSSEY\<CR\>**
	ROOM EQ:BYP.LR		**PSROOM EQ:BYP.LR\<CR\>**
	ROOM EQ:FLAT		**PSROOM EQ:FLAT\<CR\>**
	ROOM EQ:MANUAL		**PSROOM EQ:MANUAL\<CR\>**
	ROOM EQ:OFF		**PSROOM EQ:OFF\<CR\>**
	BAS **	BASS change	**PSBAS 00\<CR\>**
	TRE **	TREBLE change	**PSTRE 00\<CR\>**

EVENT	PARAMETER	function	example
PS	DCO OFF	D.COMP change	PSDCO OFF<CR>
	DCO MID		PSDCO MID<CR>
	DCO LOW		PSDCO LOW<CR>
	DCO MID		PSDCO MID<CR>
	DCO HIGH		PSDCO HIGH<CR>
	LFE **	LFE change	PSLFE 10<CR>
	EFF **	EFFECT LEVEL change	PSEFF **<CR>
	DEL ***	DELAY change	PSDEL ***<CR>
	AFD ON	AFDM change	PSAFD ON<CR>
	AFD OFF		PSAFD OFF<CR>
	PAN ON	PANORAMA change	PSPAN ON<CR>
	PAN OFF		PSPAN OFF<CR>
	DIM **	DIMMENSION change	PSDIM **<CR>
	CEN **	CENTER WIDTH change	PSCEN 07<CR>
	CEI **	CENTER IMAGE change	PSCEI 10<CR>
	ATT ON	SW ATT change	PSATT ON<CR>
	ATT OFF		PSATT OFF<CR>
	SWR ON	SW ON/OFF change	PSSWR ON<CR>
	SWR OFF		PSSWR OFF<CR>
	RSZ S	ROOM SIZE change	PSRSZ S<CR>
	RSZ MS		PSRSZ MS<CR>
	RSZ M		PSRSZ M<CR>
	RSZ ML		PSRSZ ML<CR>
	RSZ L		PSRSZ L<CR>

EVENT	PARAMETER	function	example
PS	DELAY ***	AUDIO DELAY change, ***:000 to 999 by ASCII ---AVR-2308 : 200=200ms (MAX) 　　　　　　　100=100ms, 000=0ms	PSDELAY 200<CR>
	NIGHT OFF	NIGHT MODE change	PSNIGHT OFF<CR>
	NIGHT LOW		PSNIGHT LOW<CR>
	NIGHT MID		PSNIGHT MID<CR>
	NIGHT HI		PSNIGHT HI<CR>
	RSTR OFF	AUDIO RESTORER change	PSRSTR OFF<CR>
	RSTR MODE1		PSRSTR MODE1<CR>
	RSTR MODE2		PSRSTR MODE2<CR>
	RSTR MODE3		PSRSTR MODE3<CR>

EVENT	*PARAMETER*	function	example
Z2	**PHONO** | **IPOD**	MULTI ZONE-2 source change ---The name of PARAMETER is the same as that of the time of SI COMMAND.	**Z2PHONO\<CR\>** | **Z2IPOD\<CR\>**
	SOURCE	MULTI ZONE-2 mode cancel	**Z2SOURCE\<CR\>**

	**	MULTI ZONE-2 VOLUME change , **:10 to 99 by ASCII
		    98 = +18dB(MAX)
		    80 = 0dB
		    10 = -70dB
		    99 = ---(MIN)
			Z280\<CR\>

	ON	MULTI ZONE-2 ON/OFF change	**Z2ON\<CR\>**
	OFF		**Z2OFF\<CR\>**
Z2MU	**ON**	ZONE2 OUTPUT MUTE ON/OFF change	**Z2MUON\<CR\>**
	OFF		**Z2MUOFF\<CR\>**
Z2CV	**FL ****	**:38 to 62 by ASCII , 50=0dB	**Z2CVFL 50\<CR\>**
	FR **	**:38 to 62 by ASCII , 50=0dB	**Z2CVFR 50\<CR\>**

The *PARAMETER* of Z2 *EVENT* : Uses two ASCII characters. (see page4 J) section)

The *PARAMETER* of Z2 *EVENT* : Invalid at AVC-2308 for JAPAN

ANALOG TUNER Control(AVR Model Only)

EVENT	PARAMETER	function	example
TF	AN****** (6 digits)	TUNER Frequency change --- ****.** kHz at AM band ****.** MHz at FM band	TFAN105000<CR> (1050.00kHz at AM)
TP	AN**(PRESET No.)	TUNER PRESET change to No.**	TPANA1<CR> (PRESET No."A1")
TM		TUNER BAND , MODE change	
	ANAM	---Band set to AM	TMANAM<CR>
	ANFM	---Band set to FM	TMANFM<CR>
	ANAUTO	---Tuning mode set to AUTO mode	TMANAUTO<CR>
	ANMANUAL	---Tuning mode set to MANUAL mode	TMANMANUAL<CR>

※XM Control(North America model only)

EVENT	PARAMETER	function	example
TF	**XM*** (3 digits)	--- ***:XM CH No.	**TFXM001<CR>** **(XM001 CH)**
TP	**XM**(PRESET No.)	XM PRESET change to No.**	**TPXMA1<CR>** **(PRESET No."A1")**
XM	**CH NAME ******** (8 digit)**	XM CH NAME change	**TMCH NAME 20 on 20<CR>**
	ARTIST ************** (16 digit)**	XM ARTIST NAME change	**TMARTIST EMINEM <CR>**
	TITLE ************** (16 digit)**	XM TITLE NAME change	**TMTITLE JUST LOSE IT <CR>**
	XMID ****** (8 digit)**	XM RADIO ID(XM000 Selected)	**TMXMID J3JU703B<CR>**
	SIGNAL GOOD	XM ANTENNA SIGNAL STATUS change	**TMSIGNAL GOOD<CR>**
	SIGNAL WEAK		**TMSIGNAL WEAK<CR>**
	SIGNAL MARGINAL		**TMSIGNAL MARGINAL<CR>**
	SIGNAL NOSIGNAL		**TMSIGNAL NOSIGNAL<CR>**

※iPod Extended Control

EVENT	*PARAMETER*	function	example
IPA		Onscreen Display Information is Answered By the IPA Command.	
	0	Display Line1 Information	**IPA0***************_???<CR>**
	1	Display Line3 Information	**IPA1※*************_???<CR>**
	2	Display Line4 Information	**IPA2※*************_???<CR>**
	3	Display Line5 Information	**IPA3※*************_???<CR>**
	4	Display Line6 Information	**IPA4※*************_???<CR>**
	5	Display Line7 Information	**IPA5※*************_???<CR>**
	6	Display Line8 Information	**IPA6※*************_???<CR>**
	7	Display Line9 Infromation ---ASD-3N/3W Connect Display Information is blank	**IPA7※*************_???<CR>**
	8	Display Line10 Information	**IPA8#*************_???<CR>**

	9	Display Line11 Information	**IPA9***************_???<CR>**
			
			*:Character Length MAX96
			_:Null
			?:Exclusion(The character after Null should be disregarded)
			※:Cursor Infomation Data(1Byte)
			  Bit1:Playable Music=1
			  Bit2:Display Only=1
			  Bit3:Don't Care
			  Bit4:CURSOR SELECT=1
			  Bit5-8:Don't Care
			#:iPod dock Information Data(1Byte)
			  Bit1:Unkown=1
			  Bit2:ASD-1R=1
			  Bit3:ASD-3N/3W=1
			  Bit4-8:Don't Care

EVENT	PARAMETER	function	example
IPA			**\<example1-for ASD-1R\>** **IPA0Artist??????????????????\<CR\>** **IPA1※ Ana Caram_????????????\<CR\>** **IPA2※ Badi Assad_???????????\<CR\>** **IPA3※ Christy Baron_????????\<CR\>** **IPA4※ Marta Gomez_??????????\<CR\>** **IPA5※ Rebecca Pidgeon_??????\<CR\>** **IPA6※ Sara K_???????????????\<CR\>** **IPA7※ Valerie Joyce_????????\<CR\>** **IPA8# SFL Songs RPT All_???\<CR\>** **IPA9　[2/ 6]_?????????\<CR\>** **\<example2-for ASD-1R\>** **IPA0Now Playing iPod_???????\<CR\>** **IPA1※ A HARD DAY'S NIGHT._??\<CR\>** **IPA2※ /The Beatles_?????????\<CR\>** **IPA3※_???????????????????????\<CR\>** **IPA4※ A HARD DAY'S NIGHT_???\<CR\>** **IPA5※ 00:04_??????????????\<CR\>** **IPA6※_???????????????????????\<CR\>** **IPA7※_???????????????????????\<CR\>** **IPA8# SFL Songs RPT All_???\<CR\>** **IPA9_???????????????????????\<CR\>**

EVENT	PARAMETER	function	example
IPA			**\<example1-for ASD-3N/W\>** **IPA0Artist?????????????????\<CR\>** **IPA1※Ana Caram_????????????\<CR\>** **IPA2※Badi Assad_???????????\<CR\>** **IPA3※Christy Baron_????????\<CR\>** **IPA4※Marta Gomez_??????????\<CR\>** **IPA5※Rebecca Pidgeon_??????\<CR\>** **IPA6※Sara K_??????????????\<CR\>** **IPA7※_????????????????????\<CR\>** **IPE8# SFL On RPT All_???\<CR\>** **IPA9 [2/ 6]_?????????\<CR\>** **\<example2-for ASD-3N/W\>** **IPA0Now Playing iPod_???????\<CR\>** **IPA1※ A HARD DAY'S NIGHT._??\<CR\>** **IPA2※ /The Beatles_?????????\<CR\>** **IPA3※_??????????????????????\<CR\>** **IPA4※ A HARD DAY'S NIGHT_???\<CR\>** **IPA5※ 00:04_??????????????\<CR\>** **IPA6※_??????????????????????\<CR\>** **IPA7※_??????????????????????\<CR\>** **IPE8# SFL On RPT All_???\<CR\>** **IPA9_???????????????????????\<CR\>**

EVENT	PARAMETER	function	example
IPE		Onscreen Display Information(iPOD) is Answered By the IPA Command.	
	0	Display Line1 Information	IPE0**************_???<CR>
	1	Display Line3 Information	IPE1※*************_???<CR>
	2	Display Line4 Information	IPE2※*************_???<CR>
	3	Display Line5 Information	IPE3※*************_???<CR>
	4	Display Line6 Information	IPE4※*************_???<CR>
	5	Display Line7 Information	IPE5※*************_???<CR>
	6	Display Line8 Information	IPE6※*************_???<CR>
	7	Display Line9 Information ---ASD-3N/3W Connect Display Information is blank	IPE7※*************_???<CR>
	8	Display Line10 Information	IPE8#*************_???<CR>

	9	Display Line11 Information	IPE9**************_???<CR>
			
			*:UTF-8 CODE Character(MAX95byte)
			_:Null
			?:Exclusion(The character after Null
			    should be disregarded)
			※:Cursor Infomation Data(1Byte)
			  Bit1:Playable Music=1
			  Bit2:Display Only=1
			  Bit3:Don't Care
			  Bit4:CURSOR SELECT=1
			  Bit5-8:Don't Care
			#：iPod dock Information Data(1Byte)
			  Bit1：Unkown=1
			  Bit2:ASD-1R=1
			   Bit3:ASD-3N/3W=1
			  Bit4-8:Don't Care
			
			 ************_?????:96byte Fixed

EVENT	PARAMETER	function	
IPE			**\<example1-for ASD-1R\>** **IPE0Artist??????????????????\<CR\>** **IPE1※ Ana Caram_????????????\<CR\>** **IPE2※ Badi Assad_???????????\<CR\>** **IPE3※ Christy Baron_????????\<CR\>** **IPE4※ Marta Gomez_??????????\<CR\>** **IPE5※ Rebecca Pidgeon_??????\<CR\>** **IPE6※ Sara K_???????????????\<CR\>** **IPE7※ Valerie Joyce_????????\<CR\>** **IPE8# SFL Songs RPT All_???\<CR\>** **IPE9 [2/ 6]_?????????\<CR\>** **\<example2-for ASD-1R\>** **IPE0Now Playing iPod_???????\<CR\>** **IPE1※ A HARD DAY'S NIGHT._??\<CR\>** **IPE2※ /The Beatles_?????????\<CR\>** **IPE3※_?????????????????????\<CR\>** **IPE4※ A HARD DAY'S NIGHT_???\<CR\>** **IPE5※ 00:04_?????????????\<CR\>** **IPE6※_?????????????????????\<CR\>** **IPE7※_?????????????????????\<CR\>** **IPE8# SFL Songs RPT All_???\<CR\>** **IPE9_?????????????????????\<CR\>**

EVENT	*PARAMETER*	function	
IPA			**<example1-for ASD-3N/R>** **IPE0Artist?????????????????<CR>** **IPE1※ Ana Caram_????????????<CR>** **IPE2※ Badi Assad_???????????<CR>** **IPE3※ Christy Baron_????????<CR>** **IPE4※ Marta Gomez_??????????<CR>** **IPE5※ Rebecca Pidgeon_??????<CR>** **IPE6※ Sara K_???????????????<CR>** **IPE7※_????????????????????<CR>** **IPE8# SFL On RPT All_???<CR>** **IPE9 [2/ 6]_?????????<CR>** **<example2-for ASD-3N/R>** **IPE0Now Playing iPod_???????<CR>** **IPE1※ A HARD DAY'S NIGHT._??<CR>** **IPE2※ /The Beatles_?????????<CR>** **IPE3※_????????????????????<CR>** **IPE4※ A HARD DAY'S NIGHT_???<CR>** **IPE5※ 00:04_??????????????<CR>** **IPE6※_????????????????????<CR>** **IPE7※_????????????????????<CR>** **IPE8# SFL On RPT All_???<CR>** **IPE9_?????????????????????<CR>**

※Remote Lock/Panel Lock

EVENT	PARAMETER	function	example
SY	REMOTE LOCK ON	REMOTE CONTROL LOCK ON/OFF	SYREMOTE LOCK ON<CR>
	REMOTE LOCK OFF		SYREMOTE LOCK OFF<CR>
	PANEL LOCK ON	PANEL BUTTON(Except MASTER VOL.)CONTROL LOCK ON	SYPANEL LOCK ON<CR>
	PANEL+V LOCK ON	PANEL BUTTON & MASTER VOL. CONTROL LOCK ON	SYPANEL+V LOCK ON<CR>
	PANEL LOCK OFF	PANEL BUTTUM & MASTER VOL. CONTROL LOCK OFF	SYPANEL LOCK OFF<CR>