

RS232C/LAN command list

MODEL : TH-98/86/75/65/55/49SQ1

2022/4/1
Panasonic Connect Co.,Ltd.

* Control / inquiry command may be disable depending on the model, software version, and menu settings.

TYPE	Function	Control Command		Inquiry Command			Range and kind of parameter Call-back	Explanation
		Transmission Command[:Parameters]	Standby	Transmission Command[:Parameters]	Reply Command[:Parameters]	Standby		
Basic Control	Power ON	PON	Avail	-	-	-	-	Power ON
	Power OFF	POF	-	-	-	-	-	Power OFF
	Power Status	-	-	QPW	QPW:*	Avail	0 / 1	0 : Standby (Off) 1 : Power ON (On)
	Input Change	IMS:***	-	QMI	QMI:***	Avail	HM1/HM2/DP1/DL1/DV1/SL1/PC1/NW1/UD1/MV1 * NW1 : (98/86SQ1 only) Main software version 4.0000 or later	HM1 : HDMI1 HM2 : HDMI2 DP1 : DisplayPort DL1 : DIGITAL LINK DV1 : DVI-D(DVI-D/SLOT select:DVI-D) SL1 : SLOT(DVI-D/SLOT select:SLOT) PC1 : PC NW1 : Screen Transfer UD1 : USB MV1 : MEMORY VIEWER In 4 input display, Input(Upper/left) is reply. In Picture in picture, Input(Main) is reply. In Picture by picture, Input(Upper-Left) is reply.
	Digital Link Input select for YFB Series	IMS:DL1***	-	QMI:DL1	QMI:DL1***	Not avail	HD1/HD2/PC1/PC2/SVD/VID (YFB100) HD1/ HD2/ PC1/ PC2 /VID (YFB200)	*YFB100/YFB200 Available when YFB100 is connected. HD1 : HDMI1 HD2 : HDMI2 PC1 : COMPUTER 1 PC2 : COMPUTER 2 SVD : S-VIDEO (* YFB100 only) VID : VIDEO
	Audio Volume	AVL:***	Not avail	-	-	-	000 - 100	Volume value
	Volume Up	AUU	Not avail	-	-	-	-	Volume Up
	Volume Down	AUD	Not avail	-	-	-	-	Volume Down
	Current Audio Volume	-	-	QAV	QAV:***	Avail	000 - 100	Volume value
	Audio Mute	AMT (:*)	Not avail	QAM	QAM:*	Avail	Control:(Toggle) 0 / 1	Toggle (Audio mute Off) / (Audio mute On)
	Video Mute	VMT (:*)	Not avail	QVM	QVM:*	Avail	Control:(Toggle) 0 / 1	Toggle (Video mute Off) / (Video mute On)
	Aspect Change	DAM (:****)	Not avail	QAS	QAS:****	Not avail	FULL / NORM / NATV / HFIT / VFIT / ZOOM / ZOM2	Toggle FULL / NORMAL / REAL / H FIT / V FIT / ZOOM1 / ZOOM2

P i c t u r e	Picture Adjustment	Picture Mode	VPC:MEN***	Not avail	QPC:MEN	QPC:MEN***	Not avail	VIV / NAT / STD / SUV / GRH / DCM	VIV : VIVID SIGNAGE NAT : NATURAL SIGNAGE STD : STANDARD SUV : SURVEILLANCE GRH : GRAPHIC DCM : DICOM
		Backlight	VPC:BLT***	Not avail	QPC:BLT	QPC:BLT***	Avail	000 ~ 100 DEF	0 ~ 100 DEF:SET SHIPPING VALUE Available when Power save is Off.
		Picture Contrast	VPC:PIC***	Not avail	QPC:PIC	QPC:PIC***	Avail	000 ~ 100 DEF	0 ~ 100 DEF:SET SHIPPING VALUE
		Black Level Brightness	VPC:BLK***	Not avail	QPC:BLK	QPC:BLK***	Avail	000 ~ 100 DEF	0 ~ 100 DEF:SET SHIPPING VALUE
		Color	VPC:COL***	Not avail	QPC:COL	QPC:COL***	Avail	000 ~ 100 DEF	0 ~ 100 DEF:SET SHIPPING VALUE
		Tint	VPC:TIN***	Not avail	QPC:TIN	QPC:TIN***	Not avail	000 ~ 100 DEF	0 ~ 100 DEF:SET SHIPPING VALUE
		Sharpness	VPC:SHP***	Not avail	QPC:SHP	QPC:SHP***	Avail	000 ~ 100 DEF	0 ~ 100 DEF:SET SHIPPING VALUE
		Enhance level	VPC:SHE*	Not avail	QPC:SHE	QPC:SHE*	Not avail	1 / 2	1: low 2: high
		Gamma	VWB:GMM**	Not avail	QWB:GMM	QWB:GMM**	Not avail	20 / 22 / 24 / 26	2.0 / 2.2 / 2.4 / 2.6
		Color Temperature	VPC:TMP***	Not avail	QPC:TMP	QPC:TMP***	Not avail	032 / 040 / 050 / 065 / 075 / 093 / 107 / NTV / U01 / U02	3200K ~ 10700K / NaTive / USER1 / USER2
		Red Gain	VWB:RGN****	Not avail	QWB:RGN	QWB:RGN****	Not avail	0000 ~ 0255	0 ~ 255 Available when Color Temperature is USER1 or USER2.
		Green Gain	VWB:GGN****	Not avail	QWB:GGN	QWB:GGN****	Not avail	0000 ~ 0255	0 ~ 255 Available when Color Temperature is USER1 or USER2.
		Blue Gain	VWB:BGN****	Not avail	QWB:BGN	QWB:BGN****	Not avail	0000 ~ 0255	0 ~ 255 Available when Color Temperature is USER1 or USER2.
Red Bias	VWB:RBS****	Not avail	QWB:RBS	QWB:RBS****	Not avail	-127 ~ 0000 ~ 0128	-127 ~ 128 Available when Color Temperature is USER1 or USER2.		

P i c t u r e	Picture Adjustment	Green Bias	VWB:GBS****	Not avail	QWB:GBS	QWB:GBS****	Not avail	-127 ~ 0000 ~ 0128	-127 ~ 128 Available when Color Temperature is USER1 or USER2.
		Blue Bias	VWB:BBS****	Not avail	QWB:BBS	QWB:BBS****	Not avail	-127 ~ 0000 ~ 0128	-127 ~ 128 Available when Color Temperature is USER1 or USER2.
		color management	VWB:CMF*	Not avail	QWB:CMF	QWB:CMF*	Not avail	0 / 1 / 2	0 : off 1 : 6-segment 2 : 12-segment
		6-segment color management select color	VWB:CML* **** **** ****	Not avail	QWB:CML*	QWB:CML* **** **** ****	Not avail	R / Y / G / C / B / M -127 ~ 0000 ~ 0127 -127 ~ 0000 ~ 0127 -127 ~ 0000 ~ 0127	Red / Yellow / Green / Cyan / Blue / Magenta TINT : -127 ~ 127 SATURATION : -127 ~ 127 VALUE : -127 ~ 127 Available when color management is 6-segment.
		6-segment color management reset	VWB:CMR	Not avail	-	-	Not avail	-	Available when color management is 6-segment.
		12-segment color management select color	VWB:CWL** **** **** ****	Not avail	QWB:CWL**	QWB:CWL** **** **** ****	Not avail	RR/R/RY/YY/YG/GG/GC/CC/CB/BB/BM/MM/MR -127 ~ 0000 ~ 0127 -127 ~ 0000 ~ 0127 -127 ~ 0000 ~ 0127	Red / Red-Yellow / Yellow / Yellow-Green / Green / Green-Cyan / Cyan / Cyan-Blue / Blue / Blue-Magenta / Magenta / Magenta-Red TINT : -127 ~ 127 SATURATION : -127 ~ 127 VALUE : -127 ~ 127 Available when color management is 12-segment.
		12-segment color management reset	VWB:CWR	Not avail	-	-	Not avail	-	Available when color management is 12-segment.
		Dynamic Contrast	VPC:DCO**	Not avail	QPC:DCO	QPC:DCO**	Not avail	00 ~ 10	0 ~ 10
		Color Enhancement	VPC:PAJ*	Not avail	QPC:PAJ	QPC:PAJ*	Not avail	0 / 1	OFF / ON
		Refine enhancer	VPC:SRC*	Not avail	QPC:SRC	QPC:SRC*	Not avail	0 / 1 / 2 / 3	OFF / Low / Mid / High
Gradation smoother	VPC:GRS*	Not avail	QPC:GRS	QPC:GRS*	Not avail	0 / 1	0 : off / 1 : on		
Memory function	Memory delete	VPF:DEL**	Not avail	-	-	-	01 ~ 06	Memory No.1 - Memory No.6	
	Memory load	VPF:LOD**	Not avail	-	-	-	01 ~ 06	Memory No.1 - Memory No.6	
	Memory name change	VPF:NAM** *...*	Not avail	QPF:NAM**	QPF:NAM** *...*	Not avail	01 ~ 06 space ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~	Memory No.1 - Memory No.6 Memory name(Max 20 Parameters)	

P i c t u r e	Memory function	Memory save	VPF:SAV** *...*	Not avail	-	-	-	01 ~ 06 space ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~	Memory No.1 - Memory No.6 Memory name(Max 20 Parameters)
		Memory state	-	-	QPF:STA	QPF:STA*****	Not avail	- / 0 (Memory No.1 - No.06)	Unused / Use
S o u n d	Sound Adjustment	Output Select	AAC:OUT***	Not avail	QAC:OUT	QAC:OUT***	Not avail	SPO / EXS / LNO	INTERNAL SPEAKERS / EXTERNAL SPEAKERS / AUDIO OUT
		Balance	AAC:BAL***	Not avail	QAC:BAL	QAC:BAL***	Not avail	-20 ~ 000 ~ +20(020)	-20 ~ 20 Available when Output Select is Not AUDIO OUT.
		Sound Mode	AAC:MEN***	Not avail	QAC:MEN	QAC:MEN***	Not avail	STD(AUT) / DYN / CLR	STANDARD / DYNAMIC / CLEAR Available when Output Select is Not AUDIO OUT.
		Bass	AAC:BAS***	Not avail	QAC:BAS	QAC:BAS***	Not avail	-20 ~ 000 ~ +20(020)	-20 ~ 20 Available when Output Select is Not AUDIO OUT.
		Treble	AAC:TRE***	Not avail	QAC:TRE	QAC:TRE***	Not avail	-20 ~ 000 ~ +20(020)	-20 ~ 20 Available when Output Select is Not AUDIO OUT.
		Surround	AAC:SUR***	Not avail	QAC:SUR	QAC:SUR***	Not avail	MON / OFF	ON / OFF Available when Output Select is Not AUDIO OUT.
		Auto Volume * (98/86SQ1 only) Main software version 4.0000 or later	AAC:ATV***	Not avail	QAC:ATV	QAC:ATV***	Not avail	OFF / LOW / MID / HIG	Off / Low / Middle / High
		Installation * (98/86SQ1 only) Main software version 4.0000 or later	AAC:IST***	Not avail	QAC:IST	QAC:IST***	Not avail	STD / WMT	Stand / Wall mounted

P o s i t i o n	Position/Size Adjustment	Horizontal Position	DGE:HPO****	Not avail	QGE:HPO	QGE:HPO****	Not avail	-100 ~ 0000 ~ +100(0100)	H-Pos : -100 - 0000 - +100(0100)
		Horizontal Size	DGE:HSZ****	Not avail	QGE:HSZ	QGE:HSZ****	Not avail	-100 ~ 0000 ~ +100(0100)	H-Size : -100 - 0000 - +100(0100)
		Vertical Position	DGE:VPO****	Not avail	QGE:VPO	QGE:VPO****	Not avail	-100 ~ 0000 ~ +100(0100)	V-Pos : -100 - 0000 - +100(0100)
		Vertical Size	DGE:VSZ****	Not avail	QGE:VSZ	QGE:VSZ****	Not avail	-100 ~ 0000 ~ +100(0100)	V-Size : -100 - 0000 - +100(0100)
		Clock Phase	DGE:CLK**	Not avail	QGE:CLK	QGE:CLK**	Not avail	00 ~ 30	0 ~ 30
		Dot Clock	DGE:DCL**	Not avail	QGE:DCL	QGE:DCL**	Not avail	-5 ~ 00 ~ +5(05)	-5 ~ 5
		Overscan	DGE:OVS*	Not avail	QGE:OVS	QGE:OVS*	Not avail	0 / 1	OFF / ON
		Pos./Size Lump Setting	DGE:PSZ**** **** **** ****	Not avail	QGE:PSZ	QGE:PSZ**** **** **** ****	Not avail	-100 ~ 0000 ~ +100(0100), -100 ~ 0000 ~ +100(0100), -100 ~ 0000 ~ +100(0100), -100 ~ 0000 ~ +100(0100)	H-Pos : -100 - 0000 - +100(0100) H-Size : -100 - 0000 - +100(0100) V-Pos : -100 - 0000 - +100(0100) V-Size : -100 - 0000 - +100(0100)
		Auto Setup	DGE:ASU *	Not avail	QGE:ASU	QGE:ASU **	Not avail	Control: 1 Inquiry: OK NG OF NW	Control: 1 : Execution start Inquiry: OK : result OK NG : result NG OF : Un-performing or when not effective NW : adjusting
		PC auto setting	OSP:PAS*	Not avail	QSP:PAS	QSP:PAS*	Not avail	0 / 1	OFF / ON
setu p	Setup	Input lock	OSP:INL***	Not avail	QSP:INL	QSP:INL***	Not avail	OFF/HM1/HM2/DPI/DL1/DV1/SL1/PC1/NW1/UD1/ MV1/MUI * NW1 : (98/86SQ1 only) Main software version 4.0000 or later	OFF / HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / Screen Transfer / USB / MEMORY VIEWER / Multi input
		Off-timer function	OSP:OFT*	Not avail	QSP:OFT	QSP:OFT*	Not avail	0 / 1	OFF / ON
		No activity power off	SSU:NAO*	Not avail	QSU:NAO	QSU:NAO*	Not avail	0 / 1	OFF / ON

setu p	Setup	OSD Language	SSU:LNG***	Not avail	QSU:LNG	QSU:LNG***	Not avail	ENG / DEU / FRA / ITL(ITA) / ESP / USA / CHA / JPN / RUS	English (UK) / German / French / Italian / Spanish / English (US) / Chinese/Japanese / Russian
		Display Orientation	SSU:DOR*	Not avail	QSU:DOR	QSU:DOR*	Not avail	0 / 1 / 2	Landscape / Portrait / Auto
		Display Orientation(Actual orientation) * (98/86SQ1 only) Main software version 3.0000 or later	-	-	QSU:DOV	QSU:DOV*	Not avail	0 / 1	Landscape / Portrait
		Image rotation	SSU:IMR*	Not avail	QSU:IMR	QSU:IMR*	Not avail	0 / 1	Off / 180 degrees
		Maximum VOL level	OSP:MVL****	Not avail	QSP:MVL	QSP:MVL****	Not avail	0 / 1, 000 ~ 100	function : OFF / ON, volume : 0~100
		Button lock	OSP:BTL***	Not avail	QSP:BTL	QSP:BTL***	Not avail	OFF / MEN / ALL	OFF / MENU&ENTER / ON
		Controller User level	OSP:RCM*	Not avail	QSP:RCM	QSP:RCM*	Not avail	0 / 1 / 2 / 3	OFF / User1 / User2 / User3
		DVI-D/SLOT select	SSU:IDS***	Not avail	QSU:IDS	QSU:IDS***	Not avail	DV1/SL1	DV1 : DVI-D SL1 : SLOT When the parameter of each setting is DVI-D or SLOT, inputs not selected by DVI-D / SLOT select can be set for each setting but will not operate.
		USB select	SSU:SWU***	Not avail	QSU:SWU	QSU:SWU***	Not avail	MP1/MP2	MP1 : USBPort MP1 MP2 : USBPort MP2
		Quick input change mode	SSU:FIC*	Not avail	QSU:FIC	QSU:FIC*	Not avail	0 / 1	0 : OFF 1 : ON

setu p	Multi display settings	Multi Screen ON/OFF	MDC:*	Not avail	-	-	-	0 / 1	OFF / ON
		Multi Input ON/OFF	MDC:MID*	Not avail	QDC:MID	QDC:MID*	Not avail	0 / 1	OFF / ON Not available control command when input lock is Multi input.
		Display Type settings	MDC:MDY*	Not avail	QDC:MDY	QDC:MDY*	Not avail	0 / 1	0 : Multi Screen 1 : Multi Input
		Display Format	MDC:SDF*	Not avail	QDC:SDF	QDC:SDF*	Not avail	0 / 1 / 2	0 : 4 input display 1 : Picture in picture 2 : Picture by picture
		Multi Screen Setup Detail	MDC:EXP* ** ** *** *** ***	Not avail	QDC:EXP	QDC:EXP* ** ** *** *** ***	Not avail	0 / 1, 01 ~ 10, 01 ~ 10, 000 ~ 100, 000 ~ 100, 001 ~ 100	OFF / ON, Horizontal scale 1~10, Vertical scale 1~10, Bezel H adjustment 0~100, Bezel V adjustment 0~100, Location (A1~J10)
		4 input display Setup Detail	MDC:4IN* *** *** *** *** ***	Not avail	QDC:4IN	QDC:4IN* *** *** *** *** ***	Not avail	0 / 1 HM1/HM2/DP1/DV1/SL1/PC1 HM1/HM2/DP1/DV1/SL1/PC1 HM1/HM2/DP1/DV1/SL1/PC1 HM1/HM2/DP1/DV1/SL1/PC1 OFF / UPL / UPR / LOL / LOR / AI1 / AI2	OFF / ON Input(Upper/left) : HDMI1 / HDMI2 / DisplayPort / DVI-D / SLOT / PC Input(Upper/right) : HDMI1 / HDMI2 / DisplayPort / DVI-D / SLOT / PC Input(Lower/left) : HDMI1 / HDMI2 / DisplayPort / DVI-D / SLOT / PC Input(Lower/right) : HDMI1 / HDMI2 / DisplayPort / DVI-D / SLOT / PC Sound output : OFF / Upper/Left / Upper/Right / Lower/Left / Lower/Right / AUDIO IN1 / AUDIO IN2 Not available control command when input lock is Multi input.
		Picture in picture Setup Detail	MDC:PIP* * *** *** ***	Not avail	QDC:PIP	QDC:PIP* * *** *** ***	Not avail	0 / 1 0 / 1 / 2 / 3 HM1/HM2/DP1/DV1/SL1/PC1 HM1/HM2/DP1/DV1/SL1/PC1 OFF / MAN / SUB / AI1 / AI2	OFF / ON Sub picture location : Upper/Left / Upper/Right / Lower/Left / Lower/Right Input(Main) : HDMI1 / HDMI2 / DisplayPort / DVI-D / SLOT / PC Input(Sub) : HDMI1 / HDMI2 / DisplayPort / DVI-D / SLOT / PC Sound output : OFF / Main / Sub / AUDIO IN1 / AUDIO IN2 Not available control command when input lock is Multi input.
Picture by picture Setup Detail	MDC:PBP* * *** *** ***	Not avail	QDC:PBP	QDC:PBP* * *** *** ***	Not avail	0 / 1 0 / 1 HM1/HM2/DP1/DV1/SL1/PC1 HM1/HM2/DP1/DV1/SL1/PC1 OFF / IN1 / IN2 / AI1 / AI2	OFF / ON Picture location : Upper/Lower / Left/Right Input(Upper) / Input(Left) : HDMI1 / HDMI2 / DisplayPort / DVI-D / SLOT / PC Input(Lower) / Input(Right) : HDMI1 / HDMI2 / DisplayPort / DVI-D / SLOT / PC Sound output : OFF / Upper/(Left) / Lower/(Right) / AUDIO IN1 / AUDIO IN2 Not available control command when input lock is Multi input.		

setu p	Multi display settings	Multi input display position change	MDC:SDP*	Not avail	QDC:SDP	QDC:SDP*	0~3	<p>picture in picture</p> <p>0 : Upper/Left 1 : Upper/Right 2 : Lower/Left 3 : Lower/Right</p> <p>Picture by picture</p> <p>0 : Upper(Left) 1 : Lower(Right) 2~3 : Unsupported</p>
		Multi input display Input change	MDC:MIM + ***	Not avail	QDC:MIM+	QDC:MIM + ***	1~4 HM1 / HM2 / DP1 / DV1 / SL1 / PC1	<p>4 input display</p> <p>1 : Input(Upper/left) 2 : Input(Upper/right) 3 : Input(Lower/left) 4 : Input(Lower/right)</p> <p>Picture in picture</p> <p>1 : Input(Main) 2 : Input(Sub) 3~4 : Unsupported</p> <p>Picture by picture</p> <p>1 : Input(Upper) / Input(Left) 2 : Input(Lower) / Input(Right) 3~4 : Unsupported</p> <p>HDMI1 / HDMI2 / Display Port / DVI / SLOT / PC</p>
		Multi input Audio out change	MDC:MAO*	Not avail	QDC:MAO	QDC:MAO*	0~6	<p>4 input display</p> <p>0:OFF 1:Upper/left 2:Upper/right 3:Lower/left 4:Lower/right 5:AUDIO-IN1 6:AUDIO-IN2</p> <p>Picture in picture</p> <p>0 : OFF 1 : Main 2 : Sub 3 : AUDIO-IN1 4 : AUDIO-IN2 5~6 : Unsupported</p> <p>Picture by picture</p> <p>0 : OFF 1 : Input(Upper) / Input(Left) 2 : Input(Lower) / Input(Right) 3 : AUDIO-IN1 4 : AUDIO-IN2 5~6 : Unsupported</p>
		Multi Input Display Expansion	MDC:MTS*	Not avail	-	-	1 / 2 / 3 / 4	<p>Screen type : 4 input display</p> <p>1 : Input(upper/left) 2 : Input(upper/right) 3 : Input(lower/left) 4 : Input(lower/right)</p> <p>Screen type : Picture in picture</p> <p>1 : Input(main) 2 : Input(sub) 3 : Swap Input(main) and Input(Sub) 4 : Unsupported</p> <p>Screen type : Picture by picture</p> <p>1 : Input(Upper) / Input(Left) 2 : Input(Lower) / Input(Right) 3 : Swap Input(Upper / Left) and Input(Lower / Right) 4 : Unsupported</p>

setu p	Portrait settings * (98/86SQ1 only) Main software version 3.0000 or later	Portrait display	DPR:* Not avail	QPR	QPR:* Not avail	0 / 1	OFF / ON	
		Inquiry about Portrait display setup	- -	QPR:DET	QPR:DET* **	Not avail	0 / 1, 01 / 03	OFF / ON, Number of displays 1 / 3
		Portrait display setup (Number of displays : 1)	DPR:D01* Not avail	QPR:D01	QPR:D01*	Not avail	0 / 1	OFF / ON
		Portrait display setup (Number of displays : 3)	DPR:D03* * *** **	QPR:D03	QPR:D03* * *** **	Not avail	0 / 1, 1 / 2 / 3, 000 ~ 100, 01 ~ 03	OFF / ON, Display format Mode 1 / Mode 2 / Mode 3, Bezel adjustment 0~100, Location 1 ~ 3
	Signal	Sync Signal Setting	SSG:SNC *** Not avail	QSG:SNC	QSG:SNC ***	Not avail	HAV / GRN / HVS	Available when PC is selected. Auto detection / On G(On Y) / Hvsync
		Cinema Reality 3:2 Pull Down	SSG:DCR* Not avail	QSG:DCR	QSG:DCR*	Not avail	0 / 1	OFF / ON
		Noise Reduction	SSG:NRS*** Not avail	QSG:NRS	QSG:NRS***	Not avail	OFF / AUT / LOW / MID / HIG	OFF / Auto / Low / Middle / High
		MPEG Noise Reduction	SSG:MNR*** Not avail	QSG:MNR	QSG:MNR***	Not avail	OFF / LOW / MID / HIG	OFF / Low / Middle / High
		Input resolution(XGA/WXGA signal)	SSG:XGN* Not avail	QSG:XGN	QSG:XGN*	Not avail	0 / 1 / 2 / 3 / 4	0 : AUTO 1 : 1024x768 2 : 1280x768 3 : 1360x768 4 : 1366x768
		Input resolution(SXGA+/WSXGA+ signal)	SSG:XGS* Not avail	QSG:XGS	QSG:XGS*	Not avail	0 / 1 / 2	0 : AUTO 1 : 1400x1050 2 : 1680x1050 Available when corresponding signal is input signal.
		Input resolution(UXGA/WUXGA signal)	SSG:XGU* Not avail	QSG:XGU	QSG:XGU*	Not avail	0 / 1 / 2	0 : AUTO 1 : 1600x1200 2 : 1920x1200 Available when corresponding signal is input signal.
		Signal Range	SSG:HRC*** Not avail	QSG:HRC	QSG:HRC***	Not avail	VID / FUL / AUT	(HDMI input) Video / FULL / Auto (DVI-D input) Video / FULL / Auto (Other input) not avail
		Component/RGB-IN Select	SSU:CMP*** Not avail	QSU:CMP	QSU:CMP***	Not avail	YBR / RGB	YBR Signal / RGB Signal Available when PC is selected.
YUV/RGB-IN Select	SSU:DYR*** Not avail	QSU:DYR	QSU:DYR***	Not avail	YUV / RGB / AUT	YUV Signal / RGB Signal / Auto Available when HDMI1/HDMI2/DisplayPort/DIGITAL LINK/DVI-D/SLOT is selected. Auto is Not available when DIGITAL LINK is selected.		

Signal	Input Level	VWB:ILV***	Not avail	QWB:ILV	QWB:ILV***	Not avail	-16 ~ 000 ~ +16(016)	-16 ~ 16
	FRAME CREATION (98/86/75SQ1 only)	VPC:FRC*	Not avail	QPC:FRC	QPC:FRC*	Not avail	0 / 1	OFF / ON
	Dynamic backlight control	SSG:DBC*	Not avail	QSG:DBC	QSG:DBC*	Not avail	0 / 1	OFF / ON
	EDID select	SSG:EID*	Not avail	QSG:EID	QSG:EID*	Not avail	0 / 1 / 2 / 3	0 : 4K/60p/SDR 1 : 4K/30p 2 : 2K 3 : 4K/60p/HDR
	Dynamic range	SSG:DNR*	Not avail	QSG:DNR	QSG:DNR*	Not avail	0 / 1 / 2 / 3	0 : Auto 1 : HDR(PQ) 2 : HDR(HLG) 3 : SDR
	Colour gamut	SSG:CLG*	Not avail	QSG:CLG	QSG:CLG*	Not avail	0 / 1 / 2	0 : Auto 1 : Native 2 : ITU-2020 emu.
Power on settings	Initial input	OSP:IIN***	Not avail	QSP:IIN	QSP:IIN***	Not avail	OFF /HM1/HM2/DP1/DL1/DV1/SL1/PC1/NW1/UD1/MV1/MUI * NW1 : (98/86SQ1 only) Main software version 4.0000 or later	OFF / HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / Screen Transfer / USB / MEMORY VIEWER / Multi input
	Initial Startup	OSP:ISU***	Not avail	QSP:ISU	QSP:ISU***	Not avail	LST PON STB	LST : Last memory(return to a front state) PON : ON STB : STANDBY
	Initial VOL level	OSP:IVL****	Not avail	QSP:IVL	QSP:IVL****	Not avail	0 / 1, 000 ~ 100	function : OFF / ON, volume : 0~100
	Power ON Screen Delay	OSP:POD**	Not avail	QSP:POD	QSP:POD**	Not avail	AT / 00 ~ 30	AT : Auto 0~30 : 0~30 seconds
	Information(No activity power off)	OSP:NAP*	Not avail	QSP:NAP	QSP:NAP*	Not avail	0 / 1	OFF / ON
	Information(Power management)	OSP:PMM*	Not avail	QSP:PMM	QSP:PMM*	Not avail	0 / 1	OFF / ON
Information(Display upside-down) * (98/86SQ1 only) Main software version 3.0000 or later	OSP:DUD*	Not avail	QSP:DUD	QSP:DUD*	Not avail	0 / 1	OFF / ON	

Input search	Input search	ISH:FNC***	Not avail	QSH:FNC	QSH:FNC***	Not avail	OFF / ALL / PRI / IDC	OFF / ALL inputs / Custom / Input detection
	1st search input	ISH:PRI***	Not avail	QSH:PRI	QSH:PRI***	Not avail	NON / HM1/HM2/DP1/DL1/DV1/SL1/PC1/UD1	NONE / HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / USB
	2nd search input	ISH:SCI***	Not avail	QSH:SCI	QSH:SCI***	Not avail	NON / HM1/HM2/DP1/DL1/DV1/SL1/PC1/UD1	NONE / HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / USB
	Detect digital input	ISH:DIN*** +	Not avail	QSH:DIN***	QSH:DIN***+	Not avail	***:HM1/HM2/DP1/DL1/DV1/PC1 +:0 / 1	HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / PC OFF / ON
	Changing delay	ISH:CGD**	Not avail	QSH:CGD	QSH:CGD**	Not avail	00 / 01 / 02 / 03 / 04 / 05 / 06 / 07 / 08 / 09 / 10	00 : OFF 01~10 : changing time(sec)
Failover / Failback	Input Change Mode Off	SBI:OFF (NON NON *)	Not avail	QBI	QBI:OFF NON NON *	Not avail	0	0: Disable (Auto switch back mode)
	Input Change Mode Quick	SBI:QIC (*** *** *)	Not avail	QBI	QBI:QIC *** *** *	Not avail	NON / HM1/HM2/DP1/DV1/SL1 NON / HM1/HM2/DP1/DV1/SL1 0 / 1	Primary backup input : (None) / HDMI1 / HDMI2 / DisplayPort / DVI-D / SLOT Secondary backup input : (None) / HDMI1 / HDMI2 / DisplayPort / DVI-D / SLOT Auto switch back mode : 0: Disable / 1 : Enable
	Input Change Mode Normal	SBI:NOR (*** *** *)	Not avail	QBI	QBI:NOR *** *** *	Not avail	NON / HM1/HM2/DP1/DL1/DV1/SL1/PC1/UD1 NON / HM1/HM2/DP1/DL1/DV1/SL1/PC1/UD1 0 / 1	Primary backup input : (None) / HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / USB Secondary backup input : (None) / HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / USB Auto switch back mode : 0: Disable / 1 : Enable
	Changing mode	SBI:CHM*	Not avail	QBI:CHM	QBI:CHM*	Not avail	2 / 1	High speed / Normal speed When [Quick] is selected, [Changing mode] can be adjusted.
	Backup Input Status	-	-	QBI:STS	QBI:STS * *** *	Not avail	0 / 1 NON / HM1/HM2/DP1/DL1/DV1/SL1/PC1/UD1 0 / 1 / 2	0: inactive / 1: active (Status) Main Input : HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / VIDEO / USB / MEMORY VIEWER 0: Main Input / 1: Primary Backup input / 2: Secondary Backup input (Current Input Status)
	Backup Input Signal Status	-	-	QBI:SIG	QBI:SIG * * *	Not avail	0 / 1 0 / 1 0 / 1	0 : no signal / 1 : not no signal (Main input) 0 : no signal / 1 : not no signal (Primary backup input) 0 : no signal / 1 : not no signal (Secondary backup input) When Input change mode is not Off
	Manual Switch Back	BIP:FSB	Not avail	-	-	Not avail	-	Enable when Input change mode is not Off and Auto switch back mode is Disable.

setu
p

setu p	Screensaver	Screensaver ON/OFF	OSP:SCR*	Not avail	QSP:SCR	QSP:SCR*	Not avail	0 / 5	0 : stop 5 : operating
		Screensaver Mode	SSC:MOD*	Not avail	QSC:MOD	QSC:MOD*	Not avail	0 / 1 / 2 / 3 / 4	0:OFF 1:Interval 2:Time Designation 3:ON 4:Standby after Screensaver
		Interval Screensaver	SSC:INT**** ****	Not avail	QSC:INT	QSC:INT**** ****	Not avail	0000 ~ 2359, 0000 ~ 2359	Periodic time Operating time
		Time Designation Screensaver	SSC:TIM**** ****	Not avail	QSC:TIM	QSC:TIM**** ****	Not avail	0000 ~ 2359, 0000 ~ 2359	Start time Finish time
		Standby after Screensaver	SSC:AOF****	Not avail	QSC:AOF	QSC:AOF****	Not avail	0000 ~ 2359	Time of operation(hour:minute)
		Wobbling	OSP:WOB*	Not avail	QSP:WOB	QSP:WOB*	Not avail	0 / 1	OFF / ON
	Input label	Set Label for Current Input	SSU:ILA***	Not avail	QSU:ILA	QSU:ILA***	Not avail	INP / PCN / DV1 / DV2 / DV3 / BD1 / BD2 / BD3 / CTV / VCR / STB / SKP	reset input name(Except PC) / reset input name(for PC) DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (Skip)
		Set Label for EACH INPUT	SSU:ILA+++***	Not avail	QSU:ILA+++	QSU:ILA +++ ***	Not avail	+++ : HM1/HM2/DP1/DL1/DV1/SL1/PC1 *** : INP / PCN / DV1 / DV2 / DV3 / BD1 / BD2 / BD3 / CTV / VCR / STB / SKP	Input HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC Not SLOT : Label reset(input other than PC) / Label reset(PC input) DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / Skip SLOT : Label reset(INP) / Skip(SKIP)
	Audio input select	for Current Input	SAI: A+++	Not avail	QAI	QAI:V*** A+++	Not avail	*** HM1/HM2/DP1/DL1/DV1/SL1/PC1/NW1 +++ HM1/HM2/DP1/DL1/SL1/NW1/AI1/AI2/NAD * NW1 : (98/86SQ1 only) Main software version 4.0000 or later	HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / Screen Transfer HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / SLOT / Screen Transfer / AUDIO-IN1 / AUDIO-IN2 / NO AUDIO
		for EACH INPUT	SAI:V*** A+++	Not avail	QAI:V***	QAI:V*** A+++	Not avail	*** HM1/HM2/DP1/DL1/DV1/SL1/PC1/NW1 +++ HM1/HM2/DP1/DL1/SL1/NW1/AI1/AI2/NAD * NW1 : (98/86SQ1 only) Main software version 4.0000 or later	HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / Screen Transfer HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / SLOT / Screen Transfer / AUDIO-IN1 / AUDIO-IN2 / NO AUDIO
	Power management settings	Power Management Mode	SSU:ECS*	Not avail	QSU:ECS	QSU:ECS*	Not avail	0 / 1 / 2	CUSTOM / ON / Input detection
		No Signal Power Off	SSU:AOF*	Not avail	QSU:AOF	QSU:AOF*	Not avail	0 / 1	OFF / ON

setu p	Power management settings	HDMI1 Power Management	SSU:D1H*	Not avail	QSU:D1H	QSU:D1H*	Not avail	0 / 1	OFF / ON
		HDMI2 Power Management	SSU:D2H*	Not avail	QSU:D2H	QSU:D2H*	Not avail	0 / 1	OFF / ON
		DisplayPort Power Management	SSU:D1P*	Not avail	QSU:D1P	QSU:D1P*	Not avail	0 / 1	OFF / ON
		DIGITAL LINK Power Management	SSU:D1L*	Not avail	QSU:D1L	QSU:D1L*	Not avail	0 / 1	OFF / ON
		DVI-D Power Management	SSU:D1V*	Not avail	QSU:D1V	QSU:D1V*	Not avail	0 / 1	OFF / ON
		PC Power Management	SSU:DPM*	Not avail	QSU:DPM	QSU:DPM*	Not avail	0 / 1	OFF / ON
		Power Save	SSU:ECO*	Not avail	QSU:ECO	QSU:ECO*	Not avail	0 / 1	OFF / ON
		Extended standby mode	SSU:ESM*	Not avail	QSU:ESM	QSU:ESM*	Not avail	0 / 1	OFF / ON
		Changing delay	SSU:CGD**	Not avail	QSU:CGD	QSU:CGD**	Not avail	00 / 01 / 02 / 03 / 04 / 05 / 06 / 07 / 08 / 09 / 10	00 : OFF 01~10 : 切替時間(秒)
		HDMI-CEC settings	HDMI-CEC control	SHC:FNC*	Not avail	QHC:FNC	QHC:FNC*	Not avail	0 / 1	Disable / Enable
HDMI1 (change device)	SHC:HM1***		Not avail	-	-	-	NXT / PRE	Change to next device / Change to previous device	
HDMI1 (get device name)	-		-	QHC:HM1	QHC:HM1*...*	Not avail	space ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 ; : < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } -	Device name (Max 23 Parameters)	
HDMI2 (change device)	SHC:HM2***		Not avail	-	-	-	NXT / PRE	Change to next device / Change to previous device	
HDMI2 (get device name)	-		-	QHC:HM2	QHC:HM2*...*	Not avail	space ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 ; : < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } -	Device name (Max 23 Parameters)	
SLOT (change device) * (98/86SQ1 only) Main software version 3.0000 or later	SHC:SL1***		Not avail	-	-	-	NXT / PRE	Change to next device / Change to previous device	

setu p	HDMI-CEC settings	SLOT (get device name) * (98/86SQ1 only) Main software version 3.0000 or later	-	-	QHC:SL1	QHC:SL1*...*	Not avail	space ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } -	Device name (Max 23 Parameters)
		MENU code	SHC:MNC*	Not avail	QHC:MNC	QHC:MNC*	Not avail	1 / 2 / 3 / 4 / 5 / 6	1 / 2 / 3 / 4 / 5 / 6
		Display → Device	SHC:PTS***	Not avail	QHC:PTS	QHC:PTS***	Not avail	OFF / POF / PWR	"Disable" / "Power off" / "Power on / off"
		Device → Display	SHC:STP***	Not avail	QHC:STP	QHC:STP***	Not avail	OFF / PON / PWR	"Disable" / "Power on" / "Power on / off"
	Image settings | Startup image settings	Display setting	SCI:SIM*	Not avail	QCI:SIM	QCI:SIM*	Not avail	0 / 1	OFF / ON
		Image select	SCI:SCG*	Not avail	QCI:SCG	QCI:SCG*	Not avail	0 / 1	0 : Default image 1 : User image
	Image settings | No signal image settings	Display setting	SCI:NIM*	Not avail	QCI:NIM	QCI:NIM*	Not avail	0 / 1	OFF / ON
		Image select	SCI:NCG*	Not avail	QCI:NCG	QCI:NCG*	Not avail	0 / 1	0 : Default image 1 : User image
	Set up timer	Timer Setup Detail	TIM:PRG** * *** *** **** ***	Not avail	QIM:PRG**	QIM:PRG** * *** *** **** ***	Not avail	01 ~ 20, 0 / 1, SUN / MON / TUE / WED / THU / FRI / SAT / EVD / WDA / WEN / CUS, PON / POF, 0000 ~ 2359, HM1/HM2/DP1/DL1/DV1/SL1/PC1/NW1/UD1/MV1 /MUI * NW1 : (98/86SQ1 only) Main software version 4.0000 or later	Program number : 1~20, Function : OFF / ON, (*Inquiry Command reply, A lower parameter is not given when the upper setup is "OFF.") a day of the week : Sunday / Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Everyday / Weekday / Weekend / Custom (*Custom can't be set with Control Command. However, after setting, the day on the menu is "Custom".) (*The day of the inquiry response is "Custom" only if it doesn't apply to any of Monday through Weekend.) Action type : PON / POF, Time : hour, minute, Start-up input : HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / Screen Transfer / USB / MEMORY VIEWER / Multi input

setu p	Set up timer	Multiple day specification	TIM:PRC** * * * * * * * * * * *** **** ***	Not avail	QIM:PRC** * * * * * * * * * * *** **** ***	Not avail	01 ~ 20, 0 / 1, 0 / 1, 0 / 1, 0 / 1, 0 / 1, 0 / 1, 0 / 1, 0 / 1, 0 / 1, PON / POF, 0000 ~ 2359, HM1/HM2/DP1/DL1/DV1/SL1/PC1/NW1/UD1/MV1 /MUI * NW1 : (98/86SQ1 only) Main software version 4.0000 or later	Program number : 1~20, Function : OFF / ON, (*A lower parameter is not given when the upper setup is "OFF.") Monday : OFF / ON, Tuesday : OFF / ON, Wednesday : OFF / ON, Thursday : OFF / ON, Friday : OFF / ON, Saturday : OFF / ON, Sunday : OFF / ON, Action type : PON / POF, Time : hour, minute, Start-up input : HDMI1 / HDMI2 / DisplayPort / DIGITAL LINK / DVI-D / SLOT / PC / Screen Transfer / USB / MEMORY VIEWER / Multi Input	
	Date and time	Present Day	-	-	QIM:DAY	QIM:DAY***	Not avail	SUN / MON / TUE / WED / THU / FRI / SAT	(a day of the week): Sunday / Monday / Tuesday / Wednesday / Thursday / Friday / Saturday
		Present Time	-	-	QIM:NOW	QIM:NOW****	Not avail	0000 ~ 2359	Present time (hour:minute)
		DAY TIME	TIM:DAT**** ** ** ** **	Not avail	QIM:DAT	QIM:DAT**** ** ** ** **	Not avail	YYYY : 2018 ~ 2035 MM : 01 ~ 12 DD : 01 ~ 31 hh : 00 ~ 23 mm : 00 ~ 59	(Year) (Month) (Day) (Hour) (Minute) format is "YYYYMMDDhhmm "
		Clock Display	OSP:CLK*	Not avail	QSP:CLK	QSP:CLK*	Not avail	0 / 1	OFF / ON
		Synchronize display	TIM:SDM*	Not avail	QIM:SDM	QIM:SDM*	Not avail	0 / 1	Off / On
		Parent or child setting	TIM:PCS*	Not avail	QIM:PCS	QIM:PCS*	Not avail	0 / 1	Child / Parent
	Network settings	Serial Control	SCT:SEC***	Not avail	QCT:SEC	QCT:SEC***	Not avail	SE1 / DL1 / SL1	Serial in / DIGITAL LINK / SLOT
		Network Control	SSU:NCT*	Not avail	QSU:NCT	QSU:NCT*	Not avail	0 / 1	OFF / ON Setting to Off while connected with LAN might disconnect the connection.
		Auto Display Name	SSU:ADN*	Not avail	QSU:ADN	QSU:ADN*	Not avail	0 / 1	OFF / ON
		Display name	SSU:LDN *...*	Not avail	QSU:LDN	QSU:LDN *...*	Not avail	space ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } -	DISPLAY NAME(Max 8 Parameters)

setu p	Network settings	LAN Setup - Network Address	SSU:NET*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ** *	Not avail	QSU:NET	QSU:NET*** **	Not avail	000 ~ 255 0/1	IP address 1st BYTE 000 ~ 255 IP address 2nd BYTE 000 ~ 255 IP address 3rd BYTE 000 ~ 255 IP address 4th BYTE 000 ~ 255 SUB NET MASK 1st BYTE 000 ~ 255 SUB NET MASK 2nd BYTE 000 ~ 255 SUB NET MASK 1st BYTE 000 ~ 255 SUB NET MASK 2nd BYTE 000 ~ 255 Gateway address 1st BYTE 000 ~ 255 Gateway address 2nd BYTE 000 ~ 255 Gateway address 3rd BYTE 000 ~ 255 Gateway address 4th BYTE 000 ~ 255 DHCP OFF / DHCP ON
		LAN Setup - Command Port Number	SSU:LCP*****	Not avail	QSU:LCP	QSU:LCP*****	Not avail	01024~65535 (04352, 10000, 12000, 12004, 12006, 14000, 20000, 27250, 41794 are excluded.)	Command Port Number (1024~65535, followings are excluded : 4352, 10000, 12000, 12004, 12006, 14000, 20000, 27250, 41794)
		DIGITAL LINK Mode	SSU:DLM**	Not avail	QSU:DLM	QSU:DLM**	Not avail	AT/DL/EN/LR	Auto / DIGITAL LINK mode / Ethernet / LongReach
		DIGITAL LINK (Ethernet Control)	SSU:DLC*	Not avail	QSU:DLC	QSU:DLC*	Not avail	0 / 1	Disable / Enable
		DIGITAL LINK STATUS	-	-	QSU:DLS	QSU:DLS* * -** -**	Not avail	0 / 1 / 2 / 3 0 / 1 / 2 -00 ~ -99 -00 ~ -99	No connect / Digital Link / LPM / Ethernet No HDMI / HDMI(No HDCP) / HDMI(HDCP) Minimum Signal Quality Maximum Signal Quality
		AMX D.D.	SSU:ADD*	Not avail	QSU:ADD	QSU:ADD*	Not avail	0 / 1	OFF / ON
		Crestron ConnectedTM	SSU:CRV*	Not avail	QSU:CRV	QSU:CRV*	Not avail	0 / 1	OFF / ON
		Extron XTP	SSU:EXP*	Not avail	QSU:EXP	QSU:EXP*	Not avail	0 / 1	OFF / ON
		USB memory network settings	SSU:UNS*	Not avail	QSU:UNS	QSU:UNS*	Not avail	0 / 1	Prohibit / Permit
		LAN Control Protocol	OSP:LPN***	Not avail	QSP:LPN	QSP:LPN***	Not avail	LP1 / LP2	Protocol1 / Protocol2
Reset	SSU:LRT	Not avail	-	-	-	-			

setu p	USB media player settings	USB media player	SUS:UMP*	Not avail	QUS:UMP	QUS:UMP*	Not avail	0 / 1	Disable / Enable
		Schedule play function	SUS:SPF*	Not avail	QUS:SPF	QUS:SPF*	Not avail	0 / 1	Disable / Enable
		Video Playback Mode	SUS:VPB*	Not avail	QUS:VPB	QUS:VPB*	Not avail	0 / 1	Standard / Adjust
		Still picture rotation	SUS:STR*	Not avail	QUS:STR	QUS:STR*	Not avail	0 / 1 / 2	Landscape / Portrait / Exif information
		Resume play	SUS:RSP*	Not avail	QUS:RSP	QUS:RSP*	Not avail	0 / 1	OFF / ON
		Slide show duration	SUS:SSD***	Not avail	QUS:SSD	QUS:SSD***	Not avail	010 ~ 600	10 - 600 seconds (5 second unit)
		Play mode	SUS:SPM*	Not avail	QUS:SPM	QUS:SPM*	Not avail	0 / 1	Individual play / Synchronize play
		get Schedule play mode	-	-	QUS:CMS	QUS:CMS*	Avail	0 / 1	Normal mode / Schedule play mode (standby : Normal standby / Schedule wait standby)
	Memory viewer settings	Memory viewer function	SMS:MVF*	Not avail	QMS:MVF	QMS:MVF*	Not avail	0 / 1	Disable / Enable
		View	SMS:VIE***	Not avail	QMS:VIE	QMS:VIE***	Not avail	THU / LIS	Thumbnail / List
		Content select	SMS:CON***	Not avail	QMS:CON	QMS:CON***	Not avail	STL / VID / AUD / ALL / SAV / SAA / VAA	Picture / Video / Audio / All / Picture/Video / Picture/Audio / Video/Audio
		Sort type	SMS:TYP***	Not avail	QMS:TYP	QMS:TYP***	Not avail	DAT / NAM	Date / Name
		Sort order	SMS:ODR***	Not avail	QMS:ODR	QMS:ODR***	Not avail	ASD / DSD	Ascending / Descending
		Play method	SMS:RPT***	Not avail	QMS:RPT	QMS:RPT***	Not avail	NON / ONE / ALL / RAN / SEL / PRG	None / Repeat one file / Repeat all files / Random / Select / Program
		Picture duration	SMS:SSD***	Not avail	QMS:SSD	QMS:SSD***	Not avail	010 ~ 600	10 - 600 seconds (5 second unit)

setu p	Memory viewer settings	Auto display content info	SMS:INF*	Not avail	QMS:INF	QMS:INF*	Not avail	0 / 1	OFF / ON
		Auto display operation guide	SMS:GUI*	Not avail	QMS:GUI	QMS:GUI*	Not avail	0 / 1	OFF / ON
	Screen Transfer settings * (98/86SQ1 only) Main software version 4.0000 or later	Screen Transfer function	SSU:STF*	Not avail	QSU:STF	QSU:STF*	Not avail	0 / 1	Disable / Enable
		Cut in	SSU:STC*	Not avail	QSU:STC	QSU:STC*	Not avail	0 / 1	OFF / ON
		PIN code	SSU:STP*	Not avail	QSU:STP	QSU:STP*	Not avail	0 / 1	OFF / ON
	Function button settings	Function Group	OSP:KGR***	Not avail	QSP:KGR	QSP:KGR***	Not avail	INP / MEM / ACT	INPUT / MEMORY / ACTION & MENU(SHORTCUT)
		Function Button Settings	OSP:KFN* ***	Not avail	QSP:KFN*	QSP:KFN* ***	Not avail	1 - 6 (SHORT CUT) SIG / SSV / SUT / LNS / ECO / OSH / MLT / PRT / DZM / MSW / DID / HCO / PLE (INPUT) HM1/HM2/DP1/DL1/DV1/SL1/PC1/NW1/UD1/MV1 * PRT : (98/86SQ1 only) Main software version 3.0000 or later * NW1 : (98/86SQ1 only) Main software version 4.0000 or later	setup to FUNCTION KEY 1 - 6 (ACTION & MENU) SIG : Signal menu SSV : Screensaver menu SUT : Timer setup menu LNS : Network settings menu ECO : Power management settings menu OSH : AV Mute MLT : Multi display settings menu PRT : Portrait settings menu DZM : Digital zoom MSW : Multi display switching DID : Display ID & Display Name HCO : HDMI-CEC operation PLE : Playlist edit (INPUT) HM1 : HDMI1 HM2 : HDMI2 DP1 : DisplayPort DL1 : DIGITAL LINK DV1 : DVI-D SL1 : SLOT PC1 : PC NW1 : Screen Transfer UD1 : USB MV1 : MEMORY VIEWER
		Function guide Settings	OSP:KFG*	Not avail	QSP:KFG	QSP:KFG*	Not avail	0 / 1	OFF / ON
	OSD settings	Menu Position	SSU:OPS*	Not avail	QSU:OPS	QSU:OPS*	Not avail	1 / 2 / 3	1:Left(Landscape) / Upper(Portrait) 2:Center 3:Right(Landscape) / Lower(Portrait)
		Menu Display Duration	SSU:MDT***	Not avail	QSU:MDT	QSU:MDT***	Not avail	005 ~ 180	Timeout time of a menu display 5 - 180 seconds (5 second unit)
		On screen display	OSP:OSD*	Not avail	QSP:OSD	QSP:OSD*	Not avail	0 / 1	OFF / ON

setu p	OSD settings	OSD Transparency	SSU:MTL***	Not avail	QSU:MTL	QSU:MTL***	Not avail	000 ~ 100	Transmissivity of a menu 0 ~ 100% (10% unit)
		OSD memory * Main software version 4.0000 or later	SSU:OMY*	Not avail	QSU:OMY	QSU:OMY*	Not avail	0 / 1	OFF / ON
	Control settings	Display ID	-	-	QID:DID	QID:DID***	Not avail	000 ~ 100	Display ID
		Serial ID function	SID:SID*	Not avail	QID:SID	QID:SID*	Not avail	0 / 1	OFF / ON
		Serial Response(Normal)	SCT:RIN*	Not avail	QCT:RIN	QCT:RIN*	Not avail	0 / 1	OFF / ON
		Serial Response(ID all)	SCT:RIA*	Not avail	QCT:RIA	QCT:RIA*	Not avail	0 / 1	OFF / ON
		Serial ID Setup (Serial ID Function and Display ID)	SIF:***	Not avail	QIF	QIF:***	Not avail	0 / 1 000~100	OFF / ON Display ID
	Information Timing	No Signal Warning	SIT:NSW*	Not avail	QIT:NSW	QIT:NSW*	Not avail	0 / 1	0: Off /1:On On:display sends out the no signal warning.(QST:NSW*)
		No Signal Warning Timing	SIT:SWT**	Not avail	QIT:SWT	QIT:SWT**	Not avail	01 ~ 60	01 ~ 60 (minutes)
		Query status :No Signal Warning Timing	-	Not avail	QST:NSW	QST:NSW*	Not avail	0 / 1	1: No Signal Warning: 0: No waring for this function. *Reply "0" when No Signal Warning is set "OFF".
		Message of No Signal Warning (Auto) While RS-232C controls: message sent on the display automatically.	-	Not avail	-	QST:NSW*	Not avail	0 / 1	1: No Signal Warning: 0: No waring for this function.
		No Signal Error	SIT:NSE*	Not avail	QIT:NSE	QIT:NSE*	Not avail	0 / 1	0: Off /1:On On:display sends out the no signal error..(QST:NSE*)
		No Signal Error Timing	SIT:SET**	Not avail	QIT:SET	QIT:SET**	Not avail	01 ~ 90	01 ~ 90 (minutes)
		Query status :No Signal Error Timing	-	Not avail	QST:NSE	QST:NSE*	Not avail	0 / 1	1: No Signal Error 0: No error for this function. *Reply "0" when No Signal Error is set "OFF".
Message of No Signal Error Timing (Auto) While RS-232C controls: message sent on the display automatically.	-	Not avail	-	QST:NSE*	Not avail	0 / 1	1: No Signal Error 0: No error for this function.		

setu p	Information Timing	Temperature Warning	SIT:TPW*	Not avail	QIT:TPW	QIT:TPW*	Not avail	0 / 1	0: Off / 1:On On:display sends out the warning temperature..(QST:TO*)	
		Query status :Temperature warning	-	Not avail	QST:TO	QST:TO*	Not avail	0 / 1	1: "HIGH TEMPERATURE-MODE". *Please check the condition. 0: "NORMAL-MODE".	
		Message of Temperature warning(Auto) While RS-232C controls: message sent on the display automatically.	-	Not avail	-	QST:TO*	Not avail	0 / 1	1: "HIGH TEMPERATURE-MODE". *Please check the condition. 0: "NORMAL-MODE".	
	SLOT Settings	SLOT information (Versioin) * (98/86SQ1 only) Main software version 3.0000 or later	-	-	QSU:SIV	QSU:SIV *****	Not avail	(example) ***** : 31323334	***** : Version	
		SLOT power link	SSU:SPL*	Not avail	QSU:SPL	QSU:SPL*	Not avail	0 / 1	0 : OFF 1 : ON	
		SLOT standby	SSU:SSB*	Not avail	QSU:SSB	QSU:SSB*	Not avail	0 / 1	0 : OFF 1 : ON	
		SLOT forced termination	SSU:SOF	Not avail	-	-	-	-	SLOT forced off	
		SLOT power on	SSU:SON	Not avail	-	-	-	-	SLOT power on	
	O t h e r s	Others	Recall	DDS	Not avail	-	-	-	-	Recall
			Display ID / Display name	DDS:DID	Not avail	-	-	-	-	Display ID / Display name
Audio Mute			AOC:*	Not avail	-	-	-	0 / 1	MUTE OFF / MUTE ON	
OSD Clear			VDO	Not avail	-	-	-	-	OSD Clear	
digital zoom			DZM:*\n*\n*\n*	Not avail	QDZ	QDZ:*\n*\n*\n*	Not avail	0 / 1, 1 / 2 / 3 / 4, 1 / 2 / 3 / 4 / 5, 1 / 2 / 3 / 4 / 5	OFF / ON, Enlargement factor, display position(Horizontal), display position(Vertical)	
Off Timer			ZOT:**	Not avail	-	-	-	00 ~ 90	0~90(minutes)	
USB media player Skip to the next playback file			UMP:NXT	Not avail	-	-	Not avail	-	Play next content Available using USB media player	

Others	USB media player Skip to the previous playback file	UMP:PRE	Not avail	-	-	Not avail	-	Play previous content Available using USB media player
	USB media player Playback again from top of the file	UMP:RPY	Not avail	-	-	Not avail	-	Play top of the content Available using USB media player
	Inquiry about Signal Status of input signal	-	-	QST:SGS	QST:SGS*	Not avail	0 / 1 / 2	Signal Status information 0 : Valid signal 1 : No signal 2 : Unsupported signal
	Inquiry about Signal Frequency of input signal	-	-	QFR	QFR:H***.** V***.**	Avail	000.00 ~ 999.99, 000.00 ~ 999.99	Horizontal frequency Vertical frequency Displayed until the decimal point second place.
	Inquiry about Signal Frequency of input signal (Screen type : Multi input display - 4 input Display)	-	-	QFR	QFR: H***.** V***.** H***.** V***.** H***.** V***.** H***.** V***.**	Not avail	000.00 ~ 999.99 000.00 ~ 999.99 000.00 ~ 999.99 000.00 ~ 999.99 000.00 ~ 999.99 000.00 ~ 999.99 000.00 ~ 999.99 000.00 ~ 999.99	Input(Upper/Left) : H:Horizontal frequency V:Vertical frequency Input(Upper/Right) : H:Horizontal frequency V:Vertical frequency Input(Lower/Left) : H:Horizontal frequency V:Vertical frequency Input(Lower/Right) : H:Horizontal frequency V:Vertical frequency Displayed until the decimal point second place.
	Inquiry about Signal Frequency of input signal (Screen type : Multi input display - Picture in picture)	-	-	QFR	QFR: H***.** V***.** H***.** V***.**	Not avail	000.00 ~ 999.99 000.00 ~ 999.99 000.00 ~ 999.99 000.00 ~ 999.99	Input(Main) : H:Horizontal frequency V:Vertical frequency Input(Sub) : H:Horizontal frequency V:Vertical frequency Displayed until the decimal point second place.
	Inquiry about Signal Frequency of input signal (Screen type : Multi input display - Picture by picture)	-	-	QFR	QFR: H***.** V***.** H***.** V***.**	Not avail	000.00 ~ 999.99 000.00 ~ 999.99 000.00 ~ 999.99 000.00 ~ 999.99	Input(Upper)/Input(Left) : H:Horizontal frequency V:Vertical frequency Input(Lower)/Input(Right) : H:Horizontal frequency V:Vertical frequency Displayed until the decimal point second place.
	Inquiry about Signal Format of input signal	-	-	QSF	QSF:M***** ***	Avail	(MAX 20 Characters)	Signal format information
	Inquiry about Signal Format of input signal (Screen type : Multi input display - 4 input Display)	-	-	QSF	QSF: A***** B***** C***** D*****	Not avail	(example) A***** : A-1080/60p----- B***** : B-1080/60p----- C***** : C-1080/60p----- D***** : D-1080/60p----- -	Signal format information A : Input(Upper/Left) B : Input(Upper/Right) C : Input(Lower/Left) D : Input(Lower/Right)
	Inquiry about Signal Format of input signal (Screen type : Multi input display - Picture in picture)	-	-	QSF	QSF: A***** B*****	Not avail	(example) A***** : A-1080/60p----- B***** : B-1080/60p-----	Signal format information A : Input(Main) B : Input(Sub)
Inquiry about Signal Format of input signal (Screen type : Multi input display - Picture by picture)	-	-	QSF	QSF: A***** B*****	Not avail	(example) A***** : A-1080/60p----- B***** : B-1080/60p-----	Signal format information A : Input(Upper)/Input(Left) B : Input(Lower)/Input(Right)	

Others	Others	Inquiry about detail of DIGITAL LINK status			QST:DLD	QST:DLD * *** * _** _** _** _** _** _**	Not avail	0 / 1 / 2 / 3 000-225, <20 0 / 1 / 2 -00~-99 -00~-99 -00~-99 -00~-99 -00~-99 -00~-99	No connect / Digital Link / LPM / Ethernet (Est. Cable Length)(m) (*) No HDMI / HDMI(No HDCP) / HDMI(HDCP) ChannelA Signal Quality ChannelB Signal Quality ChannelC Signal Quality ChannelD Signal Quality Minimum Signal Quality Maximum Signal Quality (*)Est. Cable Length VS100RXFirmware :000>20(20mLAN)
		Inquiry about HDCP status	-	-	QST:DCP	QST:DCP***	Not avail	PRT / NON / ---	Protected / None / No signal
		Auto Command Send Setting	RCM:* *	Not avail	-	-	-	0 / 1 0 / 1 (1~2 / Number of parameters is 1 to 2.)	OFF / ON --- QSS (QSS command) OFF / ON --- QSS:STSERR (QSS:STSERR)
		Inquiry about Model Name	-	-	QMN	QMN: ** * **	Avail	98 / 86 / 75 / 65 / 55 / 49 U 18 / 19	Inch size UHD model Product of 2018 / 2019
		Inquiry about Model	-	-	QID	QID: ** **...* *	Avail	98 / 86 / 75 / 65 / 55 / 49 SQ1 J / W / C	Inch size model market
		Software Version Main MCU	-	-	QRV	QRV: * **** SF2H	Avail	*Example 1.0000 SQ1	Version model
		Software Version Sub MCU	-	-	QRV:STB	QRV:STB**.**	Avail	*Example 01.00	Version
		Software Version FE	-	-	QRV:FRE	QRV:FRE * .***	Not avail	*Example 0.203	Version
		Software Version EEPROM	-	-	QRV:EEP	QRV:EEP**.**	Avail	*Example 01.00	Version
		Software Version HDBaseT RX	-	-	QRV:HBT	QRV:HBT **.**.**	Avail	*Example 30.90.000C	Version
		Software Version FRC	-	-	QRV:FRC	QRV:FRC ****	Not avail	*Example 0100	(86/75 inch only) Version
		Serial number	-	-	QSN	QSN:*****	Avail	(ASCII 9~15 / 9 to 15 figures of the ASCII characters)	(Alphanumeric character)(capital letter of the alphabet)(Blank)'-(0x30-0x39,0x41-0x5a,0x20,0x2d)
		MAC Address * (98/86SQ1 only) Main software version 3.0000 or later	-	-	QMA	QMA:*****	Not Avail	0~9, A~F 12 figures	MAC Address
		LAN data Cloning - Write protect	LCL:WRP*	Not Avail	QCL:WRP	QCL:WRP*	Not Avail	0 / 1	OFF / ON
		SOS History	-	-	QSS	QSS:**. **. **. **. **. **	Avail	00~FF. 00~FF. 00~FF. 00~FF. 00~FF. 00~FF	Number of times First time SOS classification 2nd SOS classification 3n time SOS classification 3n+1st SOS classification 3n+2nd SOS classification
Inquiry about SOS Status	-	-	QSS:STS	QSS:STS***	Avail	NON / ERR / EXT	NON : no SOS history ERR : SOS generating EXT : SOS history exists		

Protocol

■ SERIAL terminal connection

Communication parameters

Signal level	RS-232C compliant
Synchronization method	Asynchronous
Baudrate	9600 bps
Parity	None
Character length	8 bits
Stop bit	1 bit
Flow control	None

type of cable : straight cable

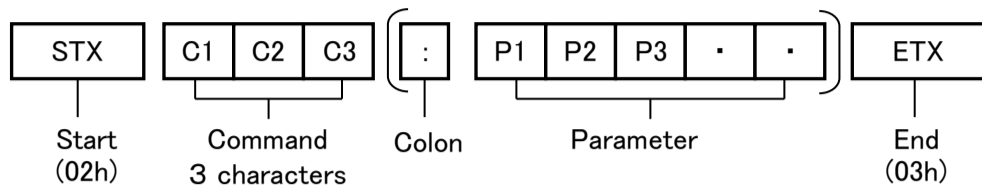
Signal names for SERIAL IN terminal:

Pin No.	Signal Name
②	RXD
③	TXD
④	DTR
⑤	GND
⑥	DSR
⑦	(Shorted in this set)
⑧	(Shorted in this set)
⑨	NC

These signal names are those of computer specifications.

Basic format for control data:

The transmission of control data starts with a STX signal, followed by the command, the parameters, and lastly an ETX signal in that order. If there are no parameters, the colon ":" does not need to be sent.



00	10	20	30	40	50	60	70										
00	DE	0	@	P	p	01	SH	D1	!	1	A	Q	a	q			
02	SX	D2	"	2	B	R	b	r	03	EX	D3	#	3	C	S	c	s
04	ET	D4	\$	4	D	T	d	t	05	EO	NK	%	5	E	U	e	u
06	AK	SN	&	6	F	V	f	v	07	BL	EB	'	7	G	W	g	w
08	BS	CN	(	8	H	X	h	x	09	HT	EM	)	9	I	Y	i	y
0A	LF	SB	*	:	J	Z	j	z	0B	HM	EC	+	:	K	[	k	[
0C	CL	→	<	L	¥	I	I	0D	CR	←	=	M	] m]				
0E	SO	T	>	N	^	n	^	0F	SI	|	?	O	_	o	_		

(Example)

Power on

Character STX P O N ETX

Binary

02 50 4F 4E 03

Picture+85

Character STX V P C : P I C O 8 5 ETX

Binary

02 56 50 43 3A 50 49 43 30 38 35 03

Notes:

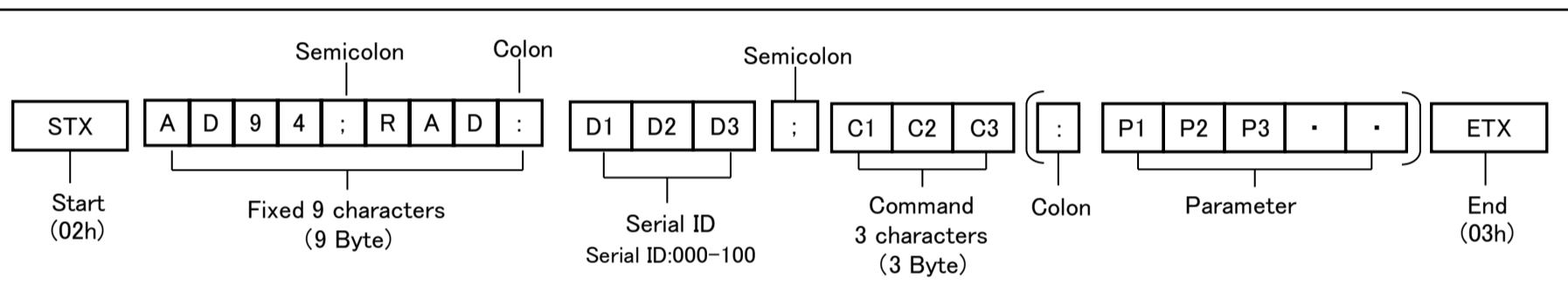
- If an incorrect command is sent, this unit will reply an "ER401" command to the computer.
- If customer send multiple commands, be sure to wait for the response for the first command to come before sending the next command.
- The length of the Parameters are different for each command.
- With the power off (stand-by mode), this display responds to "PON"/"QPW" command only.
- Running the Read user image of image settings, this unit will reply an "ER401" command to the computer.

<When sending command with Display ID>

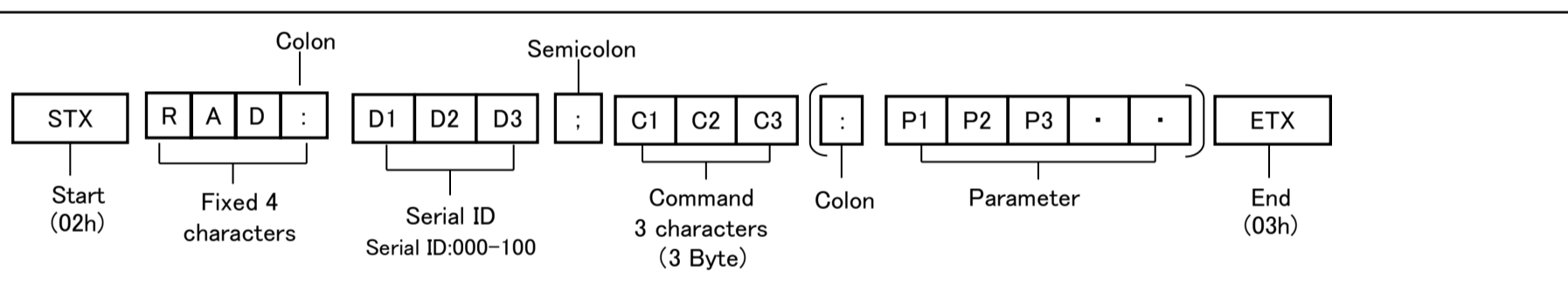
- When sending command with Display ID, set [Options] - [Serial ID function] to "on".
- If Display ID is "0", any ID number in command is acceptable to control. However, the inquiry command is inoperable.
- If serial ID in command is "000", it is acceptable regardless of Display ID of target display. However, the inquiry command is inoperable.
- If a command is sent with serial ID, a response will be sent to the computer only in the following cases.
 - When [display ID and serial ID] is not 0: the display ID needs to match the serial ID.

How to send to add "Serial ID" (Serial Control Only)

Serial ID Format	<STX>AD94:RAD:<NUM1><NUM2><NUM3>:*****<ETX> (ex.) Serial ID = 1 <STX>AD94:RAD:001:PON<ETX>
or	<STX>RAD:<NUM1><NUM2><NUM3>:*****<ETX> (ex.) Serial ID = 1 <STX>RAD:001:PON<ETX>



or



- "AD94:RAD:" or "RAD:" is fixed characters when sending command with ID.
- Serial ID is 3 characters and specified with Display ID which will be controlled.
 - If Display ID is 1, Serial ID is 001.
 - If Display ID is 15, Serial ID is 015.

通信規約

■ シリアル端子接続

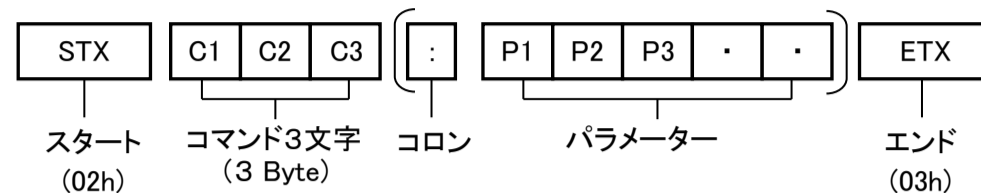
通信条件

信号レベル	RS-232C準拠
同期方式	調歩同期 (非同期)
ボーレート	9600 bps
パリティなし	なし
キャラクター長	8 ビット
ストップビット	1 ビット
フロー制御	なし

ケーブル種 : ストレート

基本フォーマット :

データは、「STX」、「コマンド」、「パラメーター」、「ETX」の順に送信してください。パラメーターを必要としないコマンドを送信する場合は、コロン (:) を付け不要としないでください。



シリアル入力端子の信号名 :

ピン No.	信号名
②	RXD
③	TXD
④	DTR
⑤	GND
⑥	DSR
⑦	(本体側で短絡)
⑧	(本体側で短絡)
⑨	NC

これらの信号名はコンピュータ仕様のもので、

00	10	20	30	40	50	60	70										
00	DE	0	@	P	p	01	SH	D1	!	1	A	Q	a	q			
02	SX	D2	"	2	B	R	b	r	03	EX	D3	#	3	C	S	c	s
04	ET	D4	\$	4	D	T	d	t	05	EO	NK	%	5	E	U	e	u
06	AK	SN	&	6	F	V	f	v	07	BL	EB	'	7	G	W	g	w
08	BS	CN	(	8	H	X	h	x	09	HT	EM	)	9	I	Y	i	y
0A	LF	SB	*	:	J	Z	j	z	0B	HM	EC	+	:	K	[	k	[
0C	CL	→	<	L	¥	I	I	0D	CR	←	=	M	] m]				
0E	SO	T	>	N	^	n	^	0F	SI	|	?	O	_	o	_		

(コマンド例)

電源オンコマンド

キャラクタ STX P O N ETX

バイナリ

02 50 4F 4E 03

ピクチャー+85設定

キャラクタ STX V P C : P I C O 8 5 ETX

バイナリ

02 56 50 43 3A 50 49 43 30 38 35 03

その他

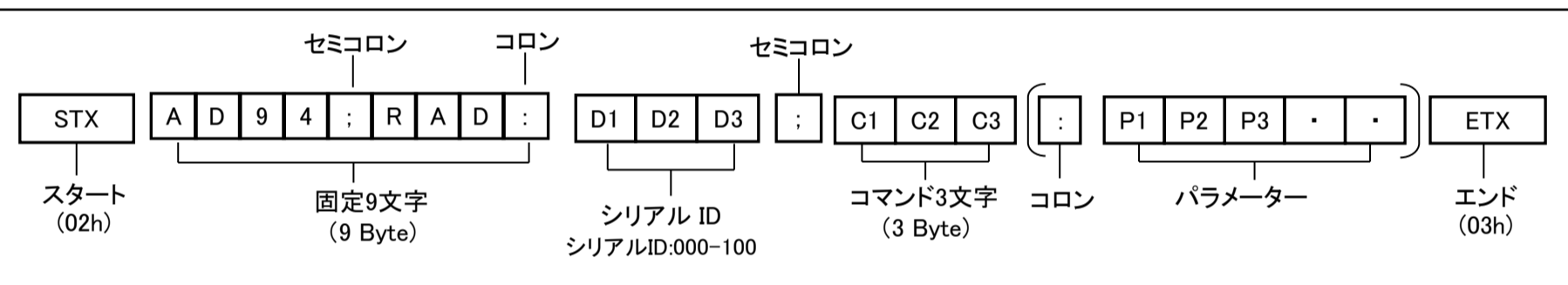
- 間違ったコマンドを受信すると、「ER401」という応答コマンドを返信します。
- 複数コマンドで制御する場合は、送信側が本機の応答を受け取ってから、次のコマンドを送信することを想定しています。
- パラメータの長さはコマンドごとに異なります。
- 電源「スタンバイ」状態 (リモコンで電源「切」) 中は「PON」「QPW」コマンド以外の動作は保証されません。
- イメージ設定のユーザーイメージ読み込み中にコマンドを受信すると、「ER401」という応答コマンドを返信します。

<ID付コマンドで制御する場合>

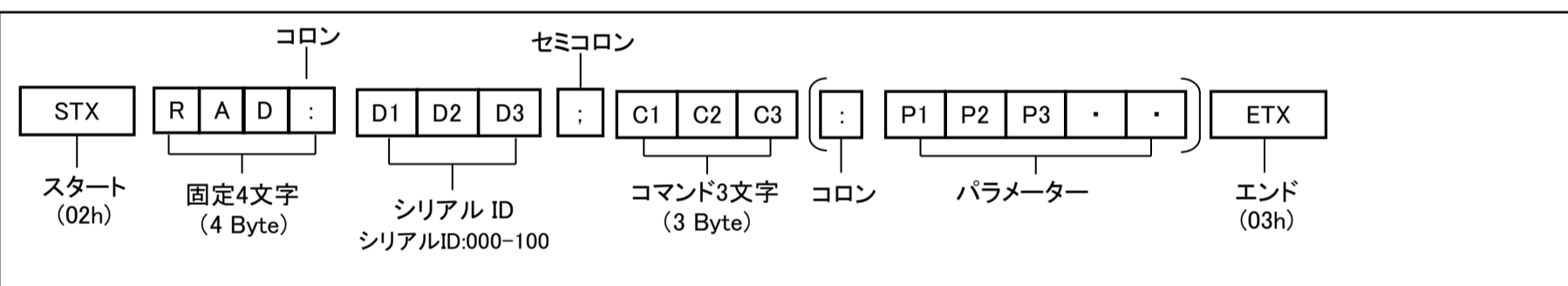
- シリアルID付で制御する場合は、「Options」メニューの「Serial ID function (シリアルID制御)」をオンに設定してください。
- ディスプレイIDが0の場合、コマンドに付与するシリアルIDはどのような数字でも制御します。但し、問合せコマンドは動作不可です。
- 送信するコマンドのシリアルIDを"000"とすると、ディスプレイIDに関係なく制御します。但し、問合せコマンドは動作不可です。
- ID付コマンドを送信した場合、以下の時のみコンピューターへの応答を返します。
 - ディスプレイID、シリアルID が0以外の場合: ディスプレイIDとシリアルID が一致した時

ID付コマンドフォーマット (シリアル制御 のみ)

Serial ID Format	<STX>AD94:RAD:<NUM1><NUM2><NUM3>:*****<ETX> (例) Serial ID = 1の場合 <STX>AD94:RAD:001:PON<ETX>
または	<STX>RAD:<NUM1><NUM2><NUM3>:*****<ETX> (例) Serial ID = 1の場合 <STX>RAD:001:PON<ETX>



または



- "AD94:RAD:" または "RAD:" は、シリアルID付きコマンドを送る場合に必要固定文字列です。
- シリアルIDには、制御したいディスプレイのディスプレイIDを3文字で指定します。
 - ディスプレイID が 1 の場合、シリアルIDは 001 になります。
 - ディスプレイID が 15 の場合、シリアルIDは 015 になります。

■Control via LAN

The communication differs whether [Options] - [LAN control protocol] is set to [Protocol 1] or [Protocol 2].

<When [LAN control protocol] is set to [Protocol 1].>

• When the WEB control administrator privileges password has been set (Protect mode)
Connection method

1. Obtain the display's IP address and the port number (Default is 1024), and request connection to the display. (The IP address and the port number can be obtained from menus. For details, see the manual.)
2. The display responds.

Data part	Space	Mode	Space	Random number part	Last terminal symbol
[FPPC] [CONTROL] (ASCII character string)	0x20	[F1]	[F1]	[[zzzzzzzz]] (ASCII code hex number)	(CR)
10bytes	1byte	1byte	1byte	8bytes	1byte

3. Hash the following data with the MD5 algorithm, and generate a 32-byte hash value. [zzzzzzzzzyyyyyy]
zzzzzzzz : 8-byte random number obtained in step 2
yyyyyy : WEB control administrator privileges user password

Command transmission method
Transmit in the following command format.

Header	Control symbol	Data part	Control symbol	Last terminal symbol
Hash value	(STX)	Control command (ASCII character string)	(ETX)	(CR)
32bytes	0x02	1byte	0x03	0x0d

Control symbol	Data part	Control symbol	Last terminal symbol
(STX)	Control command (ASCII character string)	(ETX)	(CR)
1byte	1byte	1byte	1byte

• When the WEB control administrator privileges password has not been set (Non protect mode)
Connection method

1. Obtain the display's IP address and the port number (Default is 1024), and request connection to the display.
2. The display responds.

Data part	Space	Mode	Last terminal symbol
[FPPC] [CONTROL] (ASCII character string)	0x20	[F0]	[[zzzzzz]] (CR)
10bytes	1byte	1byte	1byte

Command transmission method
Transmit in the following command format.

Control symbol	Data part	Control symbol	Last terminal symbol
(STX)	Control command (ASCII character string)	(ETX)	(CR)
1byte	1byte	1byte	1byte

Control symbol	Data part	Control symbol	Last terminal symbol
(STX)	Control command (ASCII character string)	(ETX)	(CR)
1byte	1byte	1byte	1byte

<When [LAN control protocol] is set to [Protocol 2].>

• When the WEB control administrator privileges password has been set (Protect mode)
Connection method

1. Obtain the display's IP address and the port number (Default is 1024), and request connection to the display.
2. The display responds.

Data part	Space	Mode	Space	Random number part	Last terminal symbol
[FNT] [CONTROL] (ASCII character string)	0x20	[F1]	[F1]	[[zzzzzzzz]] (ASCII code hex number)	(CR)
9bytes	1byte	1byte	1byte	8bytes	1byte

3. Hash the following data with the MD5 algorithm, and generate a 32-byte hash value. [xxxxxx:yyyyy:zzzzzzzz]
xxxxxx : WEB control administrator privileges user name
yyyyy : Above administrator privileges user password
zzzzzzzz : 8-byte random number obtained in step 2

Command transmission method
Transmit in the following command format.

Header	Data part	Last terminal symbol
Hash value	[F0] [F0] Control command (ASCII character string)	(CR)
32bytes	1byte 1byte	0x0d

Header	Data part	Last terminal symbol
[F0] [F0]	[F0] Control command (ASCII character string)	(CR)
1byte 1byte	1byte 1byte	1byte

• When the WEB control administrator privileges password has not been set (Non protect mode)
Connection method

1. Obtain the display's IP address and the port number (Default is 1024), and request connection to the display.
2. The display responds.

Data part	Space	Mode	Last terminal symbol
[FNT] [CONTROL] (ASCII character string)	0x20	[F0]	[[zzzzzz]] (CR)
9bytes	1byte	1byte	1byte

Command transmission method
Transmit in the following command format.

Header	Data part	Last terminal symbol
[F0] [F0]	[F0] Control command (ASCII character string)	(CR)
1byte 1byte	1byte 1byte	0x0d

Header	Data part	Last terminal symbol
[F0] [F0]	[F0] Control command (ASCII character string)	(CR)
1byte 1byte	1byte 1byte	1byte

(Note)

When setting to [Protocol 1], the response in the case that sent the inquiry command is omitted the first four characters of command.
Example:

	Control Command		Inquiry Command	
	Transmission Command	Reply Command	Transmission Command	Reply Command
Protocol 1	IMS:HMI	IMS	OMI	OMI:HMI
	—	—	OPW	OPW:1
Protocol 2	VPC:PIC100	WPC	QPC:PIC	QPC:PIC100
	IMS:HMI	IMS	OMI	HMI
	—	—	OPW	1
	VPC:PIC100	WPC	QPC:PIC	PIC100

For more details of the control via LAN, please obtain from the following web site.
<https://panasonic.net/cns/prodisplays/>

■LAN経由制御

[Options] メニューの「LAN control protocol」の設定が「Protocol1」か「Protocol2」かによって通信内容が異なります。

<「LAN control protocol」の設定が「Protocol1」の場合>

• WEB制御アドミニストレータ権限パスワード設定時（プロテクトモード)
接続方法

1. ディスプレイのIP アドレスとポート番号を取得してディスプレイへ接続を要求してください。(IPアドレスとポート番号は、メニューから確認できます。詳細は取扱説明書を参照してください)
2. ディスプレイからの応答があります。

データ部	空白	モード	空白	乱数部	終端記号
[FPPC] [CONTROL] (ASCII文字列)	0x20	[F1]	[F1]	[[zzzzzzzz]] (ASCIIコード16進数)	(CR)
10バイト	1バイト	1バイト	1バイト	8バイト	1バイト

3. MD5アルゴリズムを用いて、以下のデータから32バイトのハッシュ値を生成してください。 [zzzzzzzzzyyyyyy]
zzzzzzzz : 手順2で取得した8バイトの乱数
yyyyyy : WEB 制御のアドミニストレータ権限ユーザーのパスワード

コマンド送信方法
以下のコマンド形式で送信してください。

ヘッダー	制御記号	データ部	制御記号	終端記号
ハッシュ値	(STX)	制御コマンド (ASCII文字列)	(ETX)	(CR)
32バイト	0x02	1バイト	0x03	0x0d

制御記号	データ部	制御記号	終端記号
(STX)	制御コマンド (ASCII文字列)	(ETX)	(CR)
1バイト	不定長	1バイト	1バイト

• WEB制御アドミニストレータ権限パスワード非設定時（非プロテクトモード)
接続方法

1. ディスプレイのIP アドレスとポート番号を取得してディスプレイへ接続を要求してください。
2. ディスプレイからの応答があります。

データ部	空白	モード	空白	乱数部	終端記号
[FPPC] [CONTROL] (ASCII文字列)	0x20	[F0]	[F0]	[[zzzzzz]] (ASCIIコード16進数)	(CR)
10バイト	1バイト	1バイト	1バイト	1バイト	1バイト

コマンド送信方法
以下のコマンド形式で送信してください。

制御記号	データ部	制御記号	終端記号
(STX)	制御コマンド (ASCII文字列)	(ETX)	(CR)
1バイト	不定長	1バイト	1バイト

制御記号	データ部	制御記号	終端記号
(STX)	制御コマンド (ASCII文字列)	(ETX)	(CR)
1バイト	不定長	1バイト	1バイト

<「LAN control protocol」の設定が「Protocol2」の場合>

• WEB制御アドミニストレータ権限パスワード設定時（プロテクトモード)
接続方法

1. ディスプレイのIP アドレスとポート番号を取得してディスプレイへ接続を要求してください。
2. ディスプレイからの応答があります。

データ部	空白	モード	空白	乱数部	終端記号
[FNT] [CONTROL] (ASCII文字列)	0x20	[F1]	[F1]	[[zzzzzzzz]] (ASCIIコード16進数)	(CR)
9バイト	1バイト	1バイト	1バイト	8バイト	1バイト

3. MD5アルゴリズムを用いて、以下のデータから32バイトのハッシュ値を生成してください。 [xxxxxx:yyyyy:zzzzzzzz]
xxxxxx : WEB 制御のアドミニストレータ権限ユーザー名
yyyyyy : 上記アドミニストレータ権限ユーザーのパスワード
zzzzzzzz : 手順2で取得した8バイトの乱数

コマンド送信方法
以下のコマンド形式で送信してください。

ヘッダー	データ部	終端記号
ハッシュ値	[F0] [F0] 制御コマンド (ASCII文字列)	(CR)
32バイト	1バイト 1バイト	0x0d

ヘッダー	データ部	終端記号
[F0] [F0]	[F0] 制御コマンド (ASCII文字列)	(CR)
1バイト 1バイト	1バイト 1バイト	1バイト

• WEB制御アドミニストレータ権限パスワード非設定時（非プロテクトモード)
接続方法

1. ディスプレイのIP アドレスとポート番号を取得してディスプレイへ接続を要求してください。
2. ディスプレイからの応答があります。

データ部	空白	モード	終端記号
[FNT] [CONTROL] (ASCII文字列)	0x20	[F0]	[[zzzzzz]] (CR)
9バイト	1バイト	1バイト	1バイト

コマンド送信方法
以下のコマンド形式で送信してください。

ヘッダー	データ部	終端記号
[F0] [F0]	[F0] 制御コマンド (ASCII文字列)	(CR)
1バイト 1バイト	1バイト 1byte	0x0d

ヘッダー	データ部	終端記号
[F0] [F0]	[F0] 制御コマンド (ASCII文字列)	(CR)
1バイト 1バイト	1byte 1byte	1byte

(お知らせ)

「Protocol2」で、問い合わせコマンドを送信した場合の応答は、コマンドの先頭4文字を省略したものを返信します。
例:

	制御コマンド		問い合わせコマンド	
	送信コマンド	応答	送信コマンド	応答
Protocol 1	IMS:HMI	IMS	OMI	OMI:HMI
	—	—	OPW	OPW:1
Protocol 2	VPC:PIC100	WPC	QPC:PIC	QPC:PIC100
	IMS:HMI	IMS	OMI	HMI
	—	—	OPW	1
	VPC:PIC100	WPC	QPC:PIC	PIC100

LAN経由制御に関するより詳細な説明は、以下のサポートサイトより入手してください。
業務用ディスプレイ【まかせなサイト】 <https://panasonic.biz/cns/prodisplays/>