

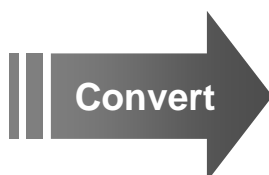
TECHNOSHOT

TS2060 Replacement Guidance

V606e
UG221H (Simple POD) > TS2060



**V606e series
UG221H (Simple POD)**



TS2060

- Model names of V606e/UG221H (Simple POD)


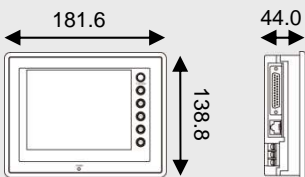
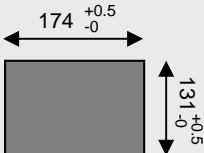
V606e□□0


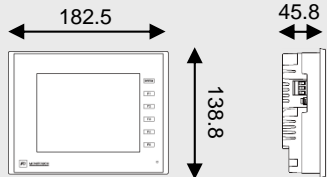
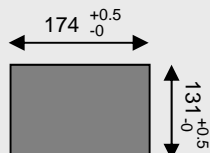
2: Built-in SRAM 128 KB
1: Without SRAM
C: STN color LCD QVGA
M: STN monochrome LCD QVGA

UG221H-□□4

R: Built-in SRAM 128 KB
E: Without SRAM
S: STN color LCD QVGA
L: STN monochrome LCD QVGA

- Main difference

V606e series/UG221H (Simple POD)		
V606eC/UG221H-S		V606eM/UG221H-L
Front view		
External dimensions (mm)		
Panel cut-out (mm)		
Display device	STN color	STN mono.
Display color	16 colors	8 shades of gray
Display area	5.7-inch	
Resolution	320 × 240 dots	
Memory	FROM	760 KB
	SRAM	128 KB ^{*1} / none
Touch switch	Analog	
Com. I/F	Serial	CN1: D-Sub25pin (female) Metric screw threads RS-232C/RS-422/485
		MJ1: Modular 8 pin RS-232C/RS-485 (2-wire)
Com. port position ^{*4}	Right hand on the back side, right direction	
Power supply	24VDC	
PS terminal position ^{*5}	Lower right on the back side, right direction	
PS terminal form ^{*5}	For spade/ring terminals, Cross-recessed head screws	

Recommended replacement models	
TS2060	
	
	
	
TFT color	
Color: 32,768 colors/128 colors Mono.: 8shades of gray	
5.7-inch	
320 × 240 dots	
2.5 MB	
128 KB	
Analog	
MJ2^{*2}: Modular 8 pin RS-232C / RS-422 (4-wire)/ RS-485 (2-wire)	
MJ1 ^{*3} : Modular 8 pin RS-232C / RS-485 (2-wire)	
Downside on the back side, down direction	
24VDC	
Upper right on the back side, right direction	
For blade terminals, Slotted head screws	

^{*1} Only V606eC20/C606eM20

^{*2} Our conversion cable "MJ2-PLC" is required

When Mitsubishi Electric A series CPU or QnA series is connected, "V706-ACPU" is required.

Mitsubishi Electric FX series CPU (FX1, FX2) and Hitachi Industrial Equipment Systems H series (RS-232C) cannot be connected to TS2060. When the PLCs are connected,

"TS2060" and optional unit "DUR-00" is required.

^{*3} TS2060 cannot power external devices. If V606e/UG221H powers external devices such as a barcode reader from the MJ1 port, please use other external power supply.

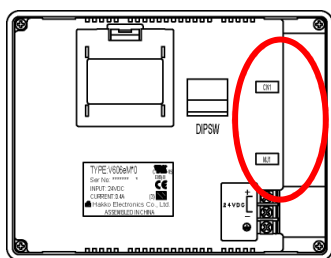
^{*4} For the details, please refer to page 3.

^{*5} For the details, please refer to page 4.

- Communication ports

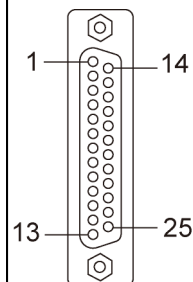
Both of the communication ports differ in form and the position. Please check the following and prepare communication cables.

- V606e/UG221H (Simple POD)



- CN1: A connector for RS-232C/RS-422/485 communication

CN1 D-sub 25 pin (female)	No.	Signals
	1	FG
	2	RS-232C SD
	3	RS-232C RD
	4	RS-232C RS
	5	RS-232C CS
	6	None
	7	SG
	8	None
	9	+5V
	10	0V
	11	None
	12	RS-422 +SD
	13	RS-422 -SD
	14	RS-422 +RS
	15	None
	16	None
	17	RS-422 -RS
	18	RS-422 -CS
	19	RS-422 +CS
	20	None
	21	None
	22	None
	23	None
	24	RS-422 +RD
	25	RS-422 -RD

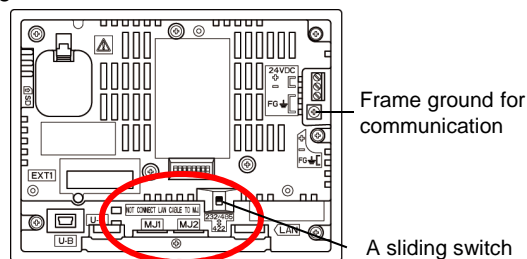


- MJ1: A connector for RS-232C/RS-485 communication

MJ1 RJ-45	No.	Signals
	1	RS-485 +SD/RD
	2	RS-485 -SD/RD
	3	+5V
	4	+5V
	5	SG
	6	SG
	7	RS-232C RD
	8	RS-232C SD

Please connect frame ground wires for communication to the terminal for frame ground.

- TS2060



- MJ2: A connector for RS-232C/RS-422/485 communication

Please switch RS-422 (4-wire: down) and RS-232C/RS-485 (2-wire: up) by the sliding switch.

MJ2 RJ-45	No.	Sliding switch	Signals
	1	Up	RS-485 +SD/RD
		Down	RS-422 +SD
	2	Up	RS-485 -SD/RD
		Down	RS-422 -SD
	3	-	None
	4	-	None
	5	-	SG
	6	-	SG
	7	Up	RS-232C RD
		Down	RS-422 +RD
	8	Up	RS-232C SD
		Down	RS-422 -SD

Please connect frame ground wires for communication to the terminal for frame ground.

- MJ1: A connector for RS-232C/RS-485 communication

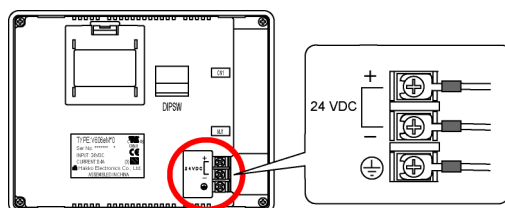
MJ1 RJ-45	No.	Signals
	1	RS-485 +SD/RD
	2	RS-485 -SD/RD
	3	None
	4	None
	5	SG
	6	SG
	7	RS-232C RD
	8	RS-232C SD

Please connect frame ground wires for communication to the terminal for frame ground.

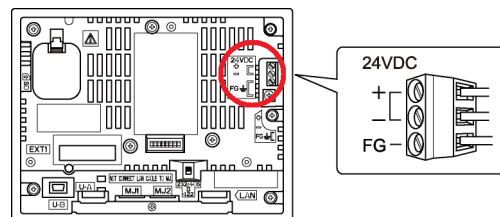
- Power supply terminals

Both of the power supply terminals differ in form. If the power cable is connected to the power supply terminal with spade/ring terminals, it requires to process the terminals of the cable.

- V606e/UG221H (Simple POD)



- TS2060



*It requires to tighten screws of the power supply terminal with a flat head screwdriver.

Recommended flat head screwdriver :
Phoenix Contact SZS 0.6 x 3.5

- Power cable specifications

Power cables, frame ground wires: 16 to 14 AWG

- Power cable specifications

When the cable is directly connected to the power supply terminal

Power cable:
18 to 14 AWG
Stranded/solid cable (1.0 to 1.6 mm in diameter)
FG wire:
20 to 14 AWG
Stranded/solid cable (0.8 to 1.6 mm in diameter)

When the cable is connected to the power supply terminal with blade terminals

Recommended blade terminal:
AI 0.75-6 GY, AI 1-6 RD,
AI 1.5-6 BK
(Phoenix Contact)

Recommended crimping tool:
CRIMPFOX 6
(Phoenix Contact)

- Screen program transfer

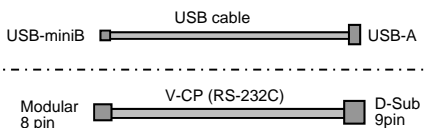
[V606e series]
[UG221H (Simple POD)]



V-SFT-5 (Ver. 5)

Windows 98SE / NT4.0 / Me / 2000 /
XP / XP 64 Edition / Vista (32bit, 64bit) /
7 (32bit, 64bit) / 8 (32bit, 64bit) /
8.1 (32bit, 64bit)

[TS2060]



V-SFT-6 (Ver. 6.0.16.0 or later)

Windows XP / XP 64 Edition /
Vista (32bit, 64bit) / 7 (32bit, 64bit) /
8 (32bit, 64bit) / 8.1 (32bit, 64bit) /
10 (32bit, 64bit)

- Screen program conversion

It is possible to convert screen programs of V606e/UG221H (Simple POD) to the programs of TS2060 with V-SFT-6 (configuration software). Open the screen programs of V606e/UG221H (Simple POD) on V-SFT-6, click [System Setting] and then [Edit Model Selection], and change [Edit Model] to TS2060.

*We recommend models less restricted in use in this document. Because it is possible to replace your HMI with models other than the recommended one, please select models depending on your system.