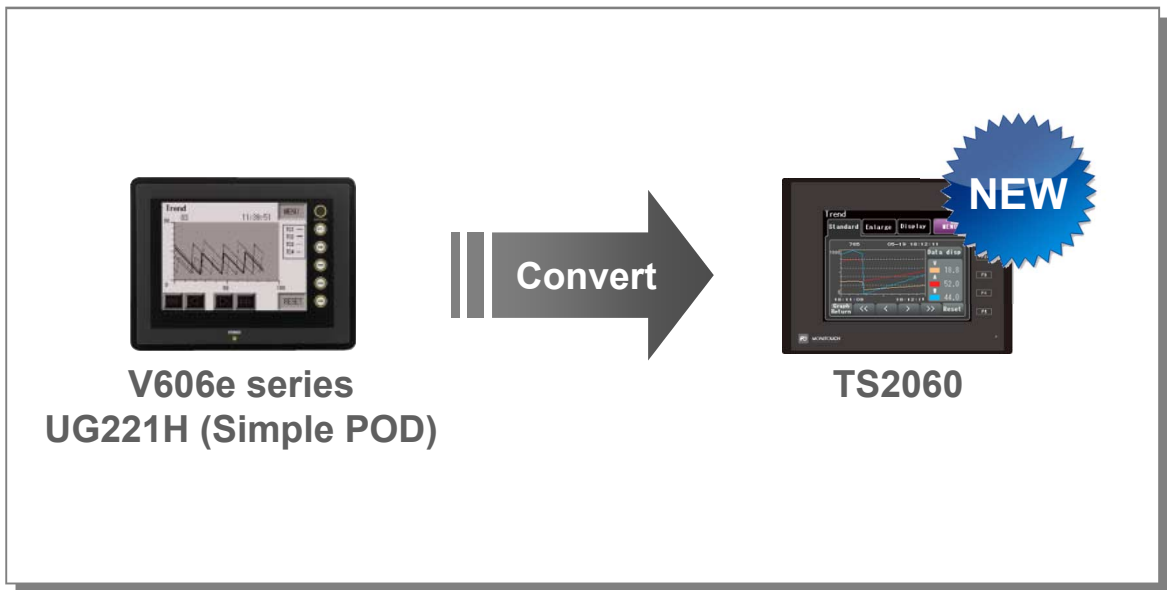


TECHNOSHOT

TS2060 Replacement Guidance

V606e
UG221H (Simple POD) > TS2060



- Model names of V606e/UG221H (Simple POD)


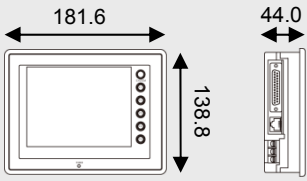
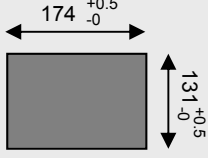
V606e□□0


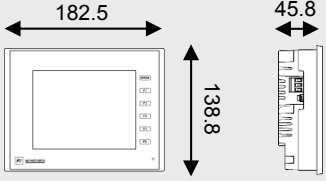
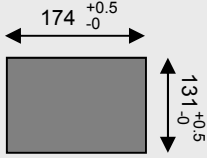
- 2: Built-in SRAM 128 KB
- 1: Without SRAM
- C: STN color LCD QVGA
- M: STN monochrome LCD QVGA

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		
Comm. 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
Front view		
External dimensions (mm)		
Panel cut-out (mm)		
Display device	TFT color	
Display color	Color: 32,768 colors/128 colors Mono.: 8shades of gray	
Display area	5.7-inch	
Resolution	320 × 240 dots	
Memory	FROM	2.5 MB
	SRAM	128 KB
Touch switch	Analog	
Comm. I/F	Serial	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)
Com. port position ^{*4}	Downside on the back side, down direction	
Power supply	24VDC	
PS terminal position ^{*5}	Upper right on the back side, right direction	
PS terminal form ^{*5}	For blade terminals, Slotted head screws	

*1 Only V606eC20/C606eM20

*2 When using the existing cable, use Hakko Electronics' conversion cable "MJ2-PLC".
When connecting with a Mitsubishi A series CPU or QnA series CPU, use the "V706-ACPU" cable.
When connecting with a Mitsubishi FX series CPU (FX1/FX2) or Hitachi Industrial Equipment Systems H series (RS-232C), use TS2060i with the optional unit "DUR-00". When using the existing cable, use Hakko Electronics' conversion cable "D9-D25".

*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.

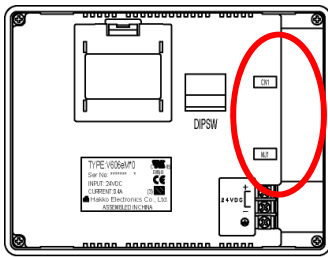
*4 For the details, please refer to page 3.

*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

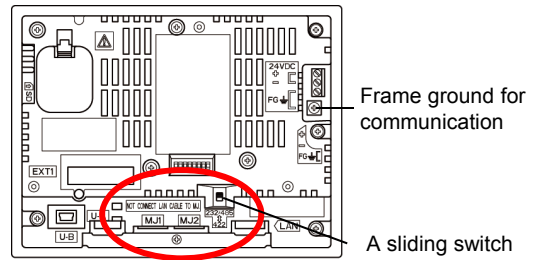
CN1 D-sub 25 pin (female)	No.	Signals
	1	FG
	2	RS-232C SD
	3	RS-232C RD
	4	RS-232C RS
	5	RS-232C CS
	6	None
	7	SG
	8	None
	9	+5V
	10	0V
	11	None
	12	RS-422 +SD
	13	RS-422 -SD
	14	RS-422 +RS
	15	None
	16	None
	17	RS-422 -RS
	18	RS-422 -CS
	19	RS-422 +CS
	20	None
	21	None
	22	None
	23	None
	24	RS-422 +RD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

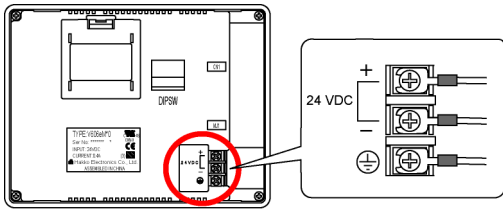
MJ1 RJ-45	No.	Signals
	1	RS-485 +SD/RD
	2	RS-485 -SD/RD
	3	None
	4	None
	5	SG
	6	SG
	7	RS-232C RD
	8	RS-232C SD

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.

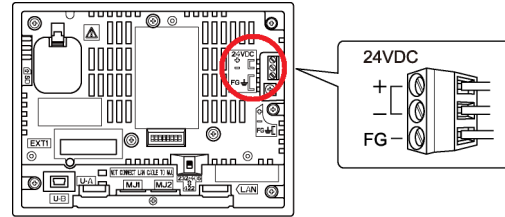
- V606e/UG221H (Simple POD)



· Power cable specifications

Power cables, frame ground wires: 16 to 14 AWG

- TS2060



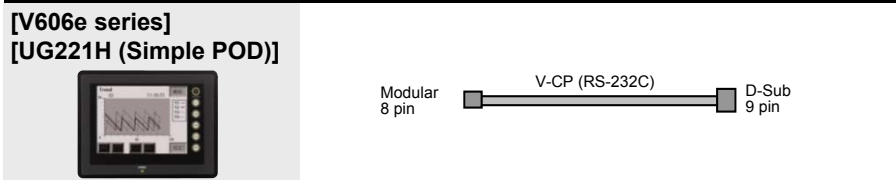
*** It requires to tighten screws of the power supply terminal with a flat head screwdriver.**

Recommended flat head screwdriver :
Phoenix Contact SZS 0.6 x 3.5

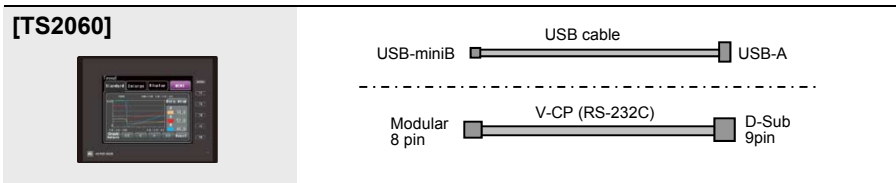
· Power cable specifications

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



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) / 10 (32bit, 64bit)



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.

For details, refer to the TS2060 File Conversion Manual.

* The indicated recommended model for replacement can be used with minimal restrictions. Please note that other models not described here can also be used; make a selection according to your system requirements.

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