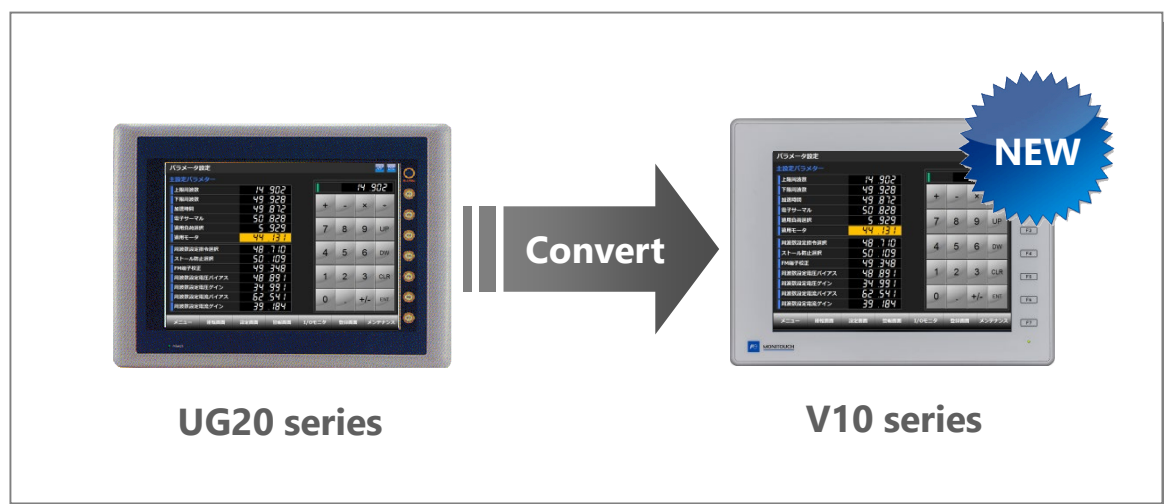


# MONITOUCH

## V10 Replacement Guidance [UG20 series]



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### List of Recommended Replacement Models

Following is a list of V10 replacement models for UG20 series. Please check the model of UG20 unit in use and select the recommended replacement model.

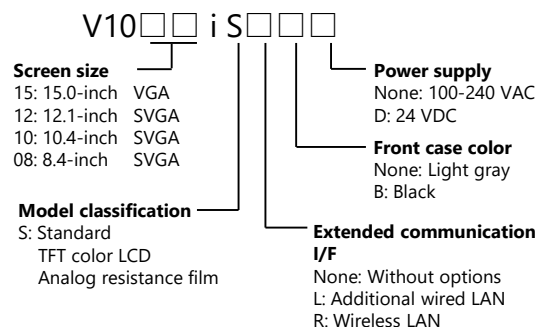
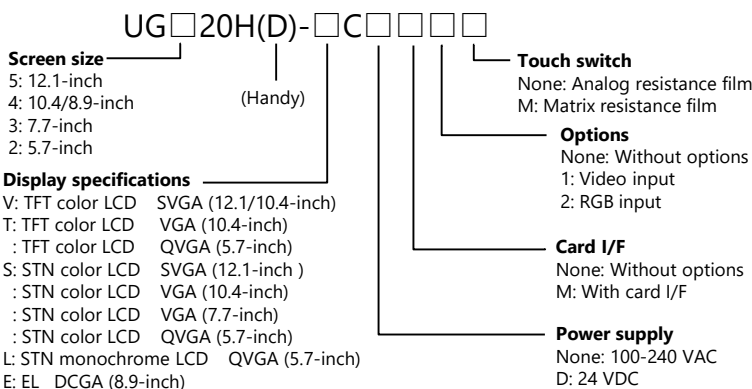
Size	UG20 model		V10 model		Refer to
	Light Gray	Black	Light Gray	Black	
12.1-inch SVGA	UG520H-VC1xx	UG520H-xC1xxD*1	V1012iS	V1012iSB	Page 3
	UG520H-SC1x				
	UG520H-VC4xx	UG520H-xC4xxD*1			
	UG520H-SC4x				
10.4-inch SVGA	UG420H-VC1xx	-	V1010iS	V1010iSB	Page 4
	UG420H-VC4xx	-	V1010iSD	V1010iSBD	
10.4-inch VGA With Video display With RGB display *2	UG420H-TC1x1	UG420H-TC1xxD*1	V1010iS	V1010iSB	Page 4
	UG420H-TC1x2				
	UG420H-TC4x1	UG420H-TC4xxD*1			
	UG420H-TC4x2				
10.4-inch VGA Without Video display Without RGB display	UG420H-TC1xx	UG420H-xC1xxD*1	V1010iSD	V1010iSBD	Page 5
	UG420H-TC4xx				
	UG420H-SC1x	UG420H-xC4xxD*1			
	UG420H-SC4x				
7.7-inch VGA	UG320H-SC4	-	If replaced with V10, the resolution will change from VGA to SVGA.		Page 5
7.7-inch VGA Handy model	UG320HD-SC4xx	-	If the same resolution model is required, use the V9 Lite model.		
8.9-inch DCGA	UG420H-EC1D*1	-	There are no handy models in the V10 series. Use V808CHx.		-
	UG420H-EC4D*1	-	There are no 8.9-inch models in the V10 series. Use V9080iCD that supports "GD-80E/V609E Compatibility Setting".		-
5.7-inch QVGA	UG221H-TC4x	UG221H-TC4D*1	There are no 5.7-inch models in the V10 series.  Use TS2060i which has the same size and resolution.		-
	UG221H-SC4x	UG221H-SC4D*1			
	UG221H-LC4x	UG221H-LC4D*1			
	UG220H-SC4	UG220H-SC4D*1			
	UG220H-LC4	UG220H-LC4D*1			
5.7-inch QVGA Simple POD	UG221H-SR4	UG221H-LE4 UG221H-LR4			-

\*1 The "D" in the model number means matrix resistance film model. The touch switches have been changed to analog resistance film in V10.

\*2 When using Video/RGB display, the resolution will be changed by replacing with V10. The Video/RGB display function of V10 is scheduled to be supported in spring 2025.

\* Models with few restrictions on use are described above list of recommended replacement models. It is also possible to replace UG20 with V10 other than the recommended model. Select the model according to your system.

### Model Description



- UG520H/UG420H-V → V10 Standard



UG520H-V  
UG520H-S



UG420H-V



V1012IS



V1010IS

Hardware Specifications

Item		UG520H/UG420H-V
Dimensions W x H x D (mm)	12.1-inch	334.0 x 270.0 x 95.8
	10.4-inch	310.0 x 240.0 x 92.3
Panel cut-out W x H (mm)	12.1-inch	313.0(+0.5/-0) x 246.2(+0.5/-0)
	10.4-inch	289.0(+0.5/-0) x 216.2(+0.5/-0)
Display device		TFT color/STN color
Display colors		128 colors
Resolution		800 x 600 dots
Touch switch		Analog resistance film Matrix resistance film
Communi- cation I/F	Serial	D-Sub 25-pin x1 : RS-232C / RS-422/485 Modular 8-pin x2 : RS-232C / RS-485
	Network	Communication unit: UG03I-x
Video		4 CH *4
External storage device		Dedicated memory card *5

V10 Standard
327.8 x 261.0 x 53.4
303.8 x 231.0 x 53.8
Same as on the left
TFT color
16.7 million colors *1
Same as on the left
Analog resistance film *2
D-Sub 9-pin x1 : RS-232C / RS-422/485 *3 Modular 8-pin x2 : RS-232C / RS-485
Communication unit: CUR-xx
Under development Scheduled to be released in spring 2025.
SD/SDHC/SDXC card USB flash drive

\*1 Only for displaying "picture" images, 3D parts, video / RGB input images and remote desktop window. All other content is displayed using 65,536 colors.

\*2 It is not possible to press two points on the screen at the same time on V10. For two-point press, change the setting to use both a switch on the screen and a function switch.

\*3 When using the existing cable, use Hakko Electronics' conversion cable "D9-D25". When using Hakko Electronics' optional unit "UG00P-TC", use "TC-D9".

\*4 Only for UG520H-VCxx1, UG420H-VCxx1

\*5 When using UG520H-VCxM, UG420H-VCxM or Hakko Electronics' optional unit "UG00P-MR".

- UG420H-TCxx1/UG420H-TCxx2 → V10 Standard

The optional Video/RGB unit of V10 is scheduled to be released in spring 2025.

When using UG420H-TCxx1 to display video or using UG420H-TCxx2 to display RGB input, replace with V1010iS.

The screen resolution differs between UG420H-T and V1010iS.

UG420H-T: 640 x 480 → V1010iS: 800 x 600 dots

When converting the screen program from UG20 to V10, use automatic resizing feature of V-SFT. If the layout is changed, adjust it manually.



UG420H-TCxx1  
UG420H-TCxx2



V1010iS

+ Optional unit  
Under development

Hardware Specifications

Item		UG420H-TCxx1	UG420H-TCxx2	V10 Standard
Dimensions W x H x D (mm)		310.0 x 240.0 x 92.3		303.8 x 231.0 x 53.8
Panel cut-out W x H (mm)		289.0(+0.5/-0) x 216.2(+0.5/-0)		Same as on the left
Display device		TFT color		Same as on the left
Display colors		128 colors		16.7 million colors *1
Resolution		640 x 480 dots		800 x 600 dots *2
Touch switch		Analog resistance film Matrix resistance film		Analog resistance film *3
Communi- cation I/F	Serial	D-Sub 25-pin x1 : RS-232C / RS-422/485 Modular 8-pin x2 : RS-232C / RS-485		D-Sub 9-pin x1 : RS-232C / RS-422/485 *4 Modular 8-pin x2 : RS-232C / RS-485
	Network	Communication unit: UG03I-x		Communication unit: CUR-xx
Video		4CH	-	Under development Scheduled to be released in spring 2025.
RGB		-	1CH	Under development Scheduled to be released in spring 2025.
External storage device		Dedicated memory card *5		SD/SDHC/SDXC card USB flash drive

\*1 Only for displaying "picture" images, 3D parts, video / RGB input images and remote desktop window. All other content is displayed using 65,536 colors.

\*2 The resolution is SVGA. When converting the screen program, use automatic resizing feature of V-SFT. If the layout is changed, adjust it manually.

\*3 It is not possible to press two points on the screen at the same time on V10. For two-point press, change the setting to use both a switch on the screen and a function switch.

\*4 When using the existing cable, use Hakko Electronics' conversion cable "D9-D25". When using Hakko Electronics' optional unit "UG00P-TC", use "TC-D9".

\*5 When using UG420H-TCxM1, UG420H-TCxM2 or Hakko Electronics' optional unit "UG00P-MR".

**- UG420H-T/UG420H-S/UG320H-SC4 → V10 Standard**

The screen resolution differs between UG420H-T/UG420H-S/UG320H-SC4 and V10 Standard.  
 UG20: 640 x 480 → V10: 800 x 600 dots

If the same resolution model is required, use the V9 Lite model.

When converting the screen program from UG20 to V10, use automatic resizing feature of V-SFT. If the layout is changed, adjust it manually.

**Recommended Replacement Models**

Size	UG20 model		V10 model	
			Light gray	Black
10.4-inch VGA	UG420H-TC1xx	UG420H-xC1xxD*1	V1010iS	V1010iSB
	UG420H-SC1x			
	UG420H-TC4xx	UG420H-xC4xxD*1		
	UG420H-SC4x			
7.7-inch VGA	UG320H-SC4	-	V1008iSD	V1008iSBD

\*1 The "D" in the model number means matrix resistance film model. The touch switches have been changed to analog resistance film in V10.



UG420H-TC  
UG420H-SC



UG320H-SC4



V1010iS



V1008iS

**Hardware Specifications**

Item		UG20	V10 Standard
Dimensions W x H x D (mm)	10.4-inch	310.0 x 240.0 x 92.3	303.8 x 231.0 x 53.8
	7.7-inch	230.0 x 175.0 x 66.1	235.0 x 180.0 x 48.7
Panel cut-out W x H (mm)	10.4-inch	289.0(+0.5/-0) x 216.2(+0.5/-0)	Same as on the left
	7.7-inch	220.5(+0.5/-0) x 165.5(+0.5/-0)	
Display device		TFT color/STN color	TFT color
Display colors		128 colors	16.7 million colors *1
Resolution		640 x 480 dots	800 x 600 dots *2
Touch switch		Analog resistance film Matrix resistance film	Analog resistance film *3
Communication I/F	Serial	D-Sub 25-pin x1 : RS-232C / RS-422/485 Modular 8-in x2 : RS-232C / RS-485	D-Sub9-pin x1 : RS-232C / RS-422/485 *4 Modular 8-pin x2 : RS-232C / RS-485
	Network	Communication unit: UG03I-x	Communication unit: CUR-xx
External storage device		Dedicated memory card *5	SD/SDHC/SDXC card USB flash drive

\*1 Only for displaying "picture" images, 3D parts, video / RGB input images and remote desktop window. All other content is displayed using 65,536 colors.

\*2 The resolution is SVGA. When converting the screen program, use automatic resizing feature of V-SFT. If the layout is changed, adjust it manually.

\*3 It is not possible to press two points on the screen at the same time on V10. For two-point press, change the setting to use both a switch on the screen and a function switch.

\*4 When using the existing cable, use Hako Electronics' conversion cable "D9-D25". When using Hako Electronics' optional unit "UG00P-TC", use "TC-D9".

\*5 When using UG420H-SCxM or Hako Electronics' optional unit "UG00P-MR".

## - Configuration Software

Model	Software	OS	Transferring cable *1
UG20	V-SFT-5	Windows Vista (32bit, 64bit) Windows 7 (32bit, 64bit) Windows 8 (32bit, 64bit)	- LAN cable *2 - UG00C-T1 or V-CP (MJ to Dsub9) manufactured by Hakko Electronics Co., Ltd.
V10	V-SFT-6 Supported with version 6.2.0.0 or later	Windows 8.1 (32bit, 64bit) Windows 10 (32bit, 64bit) Windows 11(64bit)	- USB cable (USB mini-B to USB-A) - LAN cable *3 - UG00C-T1 or V-CP (MJ to Dsub9) manufactured by Hakko Electronics Co., Ltd.

\*1 The screen program can be transferred via SD card/USB flash drive when using V10 and dedicated memory card when using UG20.

\*2 Available when UG031-Ex is installed on the UG20 unit.

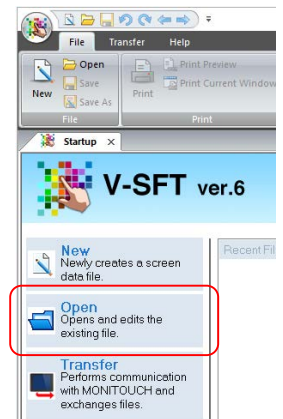
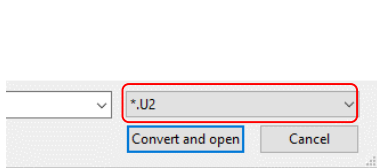
\*3 LAN connector of V10 supports Auto-MDIX. Straight/crossover cables can be used with or without HUB.

## - Screen Program Conversion

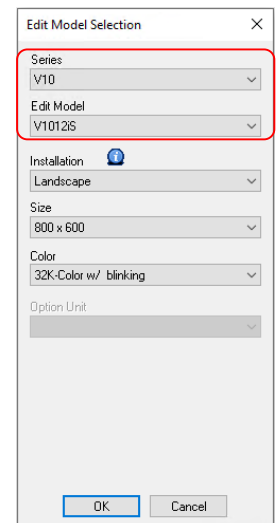
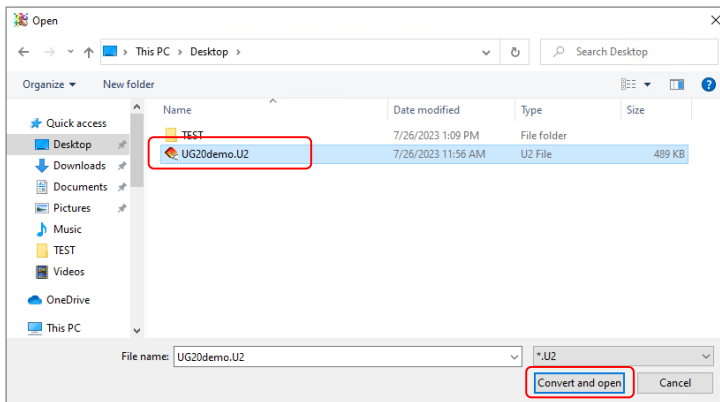
The screen program can be converted from UG20 to V10 using V-SFT-6 (configuration software for V series).

### - Conversion procedures

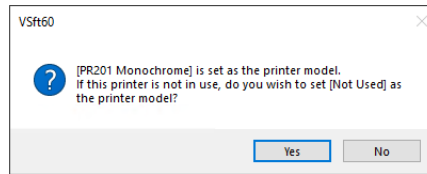
1. Start V-SFT and click [Open] in the Startup menu or [Open] in the [File] menu. The screen program file can also be opened by dragging it onto V-SFT-6. If using this method, proceed to step 4.
2. Change the file extension to [\*.U2] in the [Open] dialog.



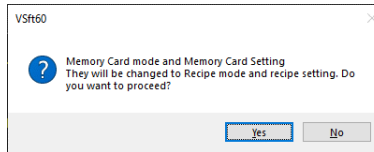
3. Select the UG20 series screen program file and click [Convert and open]. The [Edit Model Selection] dialog appears.
4. Select the V10 series model and click [OK].



- The dialog on the right may be displayed.  
When connecting to a printer : Click [Yes]  
When not connecting to a printer : Click [No]

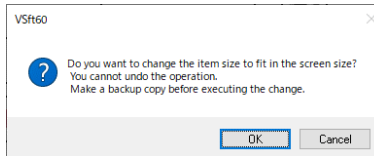


- The dialog on the right may be displayed.  
Click [Yes].



\* The data conversion in the storage device is required. Refer to the Memory Card Mode Conversion Manual.

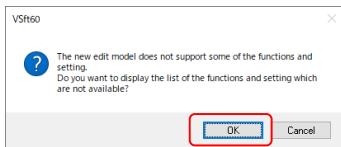
- When converting the program with different resolution, the dialog shown to the right will appear.  
When enlarging parts: Click [Yes]  
When not enlarging parts: Click [No]



\* If the layout is changed, adjust it manually.

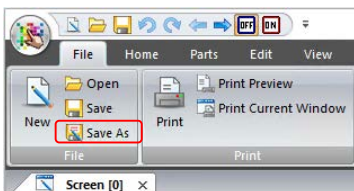
- The following dialog may be displayed.  
Click [Yes] to display the error check window and check the functions and setting which are not available.  
Check [solution] and modify it.

If the same warning message appears even in the UG20 screen program before conversion, the warning does not affect the program and you can use it without modification.



Error Check				
		0 Error	2 Warning	
Category	Location	Explanation	Solution	
Warning	Overlap Library [7]	Normal Overlap	Overlap larger than the screen is created.	Set the overlap
Warning	Overlap Library [8]	Normal Overlap	Overlap larger than the screen is created.	Set the overlap

- The screen program converted to V10 series is displayed on V-SFT. Name and save the file.



**The converted V10 screen program cannot be converted back to the UG20 screen program. Confirm the operation with the V10 series unit before use.**