

TECHNICAL NOTE

Maple Model(s)	Title	TN5117
-----------------------	--------------	---------------

HMI5104TH	Converting from the HMI5104TH to a HMI5100L, HMI5097DXL or HMI5121XL	
-----------	---	--

P/N: 0907-5117
Rev. 00 Date: 03/01/2017



Summary

This document details the steps necessary to transition from a HMI5104TH to a current HMI5000 model. Although the conversion, in most cases, is easy - the information below also outlines some of the notable differences between models.

Solution

Maple Systems offers several HMIs that provide an upgrade path for your HMI5104TH. For almost all conversions, the transition requires little effort.

When considering which particular HMI to replace your HMI5104TH, please note that not all replacement models are identical. The table below shows some hardware variances which may affect your decision:

	HMI5104TH	HMI5100L	HMI5097DXL	HMI5121XL
Display Resolution	800 x 600	800 x 480	1024 x 768	1024 x 768
Display Brightness (nits)	300	300	350	500
SD card slot	Yes	No	No	Yes
Audio	Line Out	No	No	No
Overlay/Enclosure Color	Black	Light Grey	Dark Grey	Dark Grey
Serial Ports	3 Com1[9P]: RS232 Com1[9S]: RS485 2/4W Com2[9P]: RS232 Com3[9S]: RS232 Com3[9S]: RS485 2W	2 Com1[9P]: RS232 Com1[9S]: RS485 2/4W Com3[9S]: RS485 2W*	3 Com1[9P]: RS232 Com2[9S]: RS485 2/4W Com3[9P]: RS232 2W* Com3[9S]: RS485 2W* CANbus	2 Com1[9P]: RS232 Com1[9S]: RS485 2/4W Com3[9S]: RS485 2W*
VESA mount	Yes	No	Yes	Yes

*- indicates either a different connector or pinout for that particular serial connection

Note: the table is not a complete specification for each product and is only intended to highlight important differences. For more detailed information, visit the [Support Center](#) on our website.

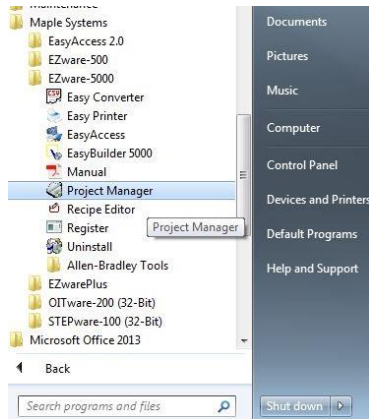
Software Conversion Procedure

Important: Please read this entire document before proceeding with the actual process.

1. Upload your HMI project from the HMI5104TH

Unless you have stored your HMI project in a PC, you may be required to upload the project from the HMI. Follow these simple steps to upload the HMI project.

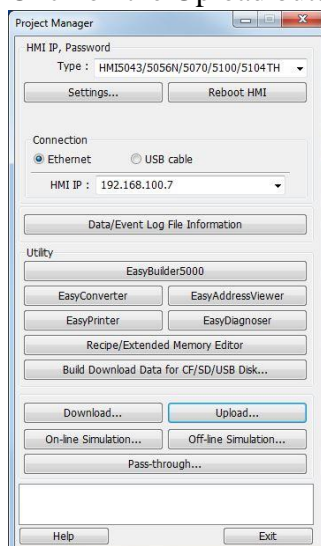
- With the EZware-5000 configuration software installed onto your PC, open the EZware-5000 folder, and click on the Project Manager app:



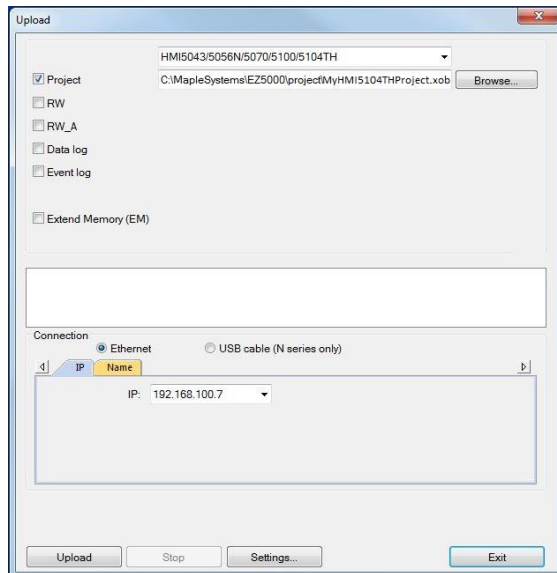
- Connect the HMI5104TH to your PC using either a crossover Ethernet cable or a 7431-0115 USB cable. Click on the *Settings* button to enter the correct Upload password (default: 111111). For Ethernet, enter the correct IP address of the HMI.

Note: to determine the IP address of the HMI, click on the small black left arrow located on the bottom right corner of the HMI screen. Four icons should appear—click on the Information icon to display the HMI network address.

Click on the Upload button:

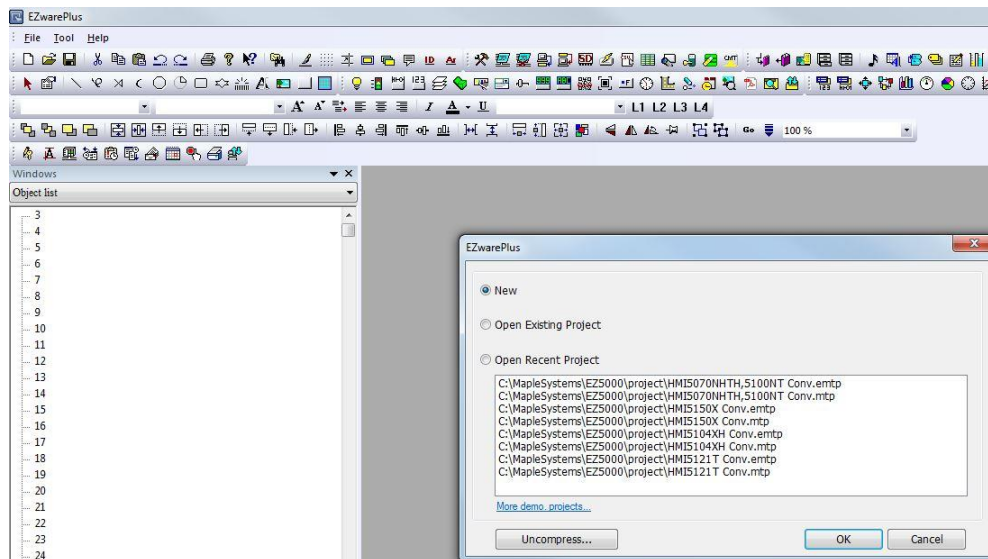


- Click the Project checkbox, make sure that the correct HMI model (HMI5104TH) is listed and enter a name (*.XOB) for the project you are about to upload. Then click the *Upload* button:



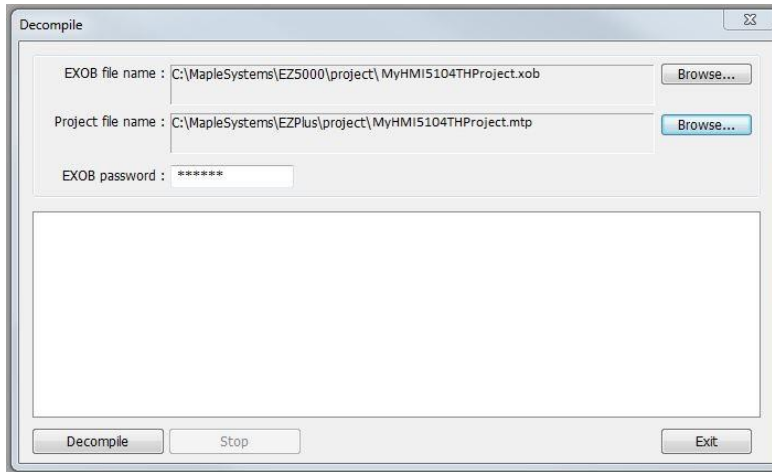
2. Decompile your project

Before you download the project into your new HMI, you must first decompile the project using EZwarePlus. Start EZwarePlus:



It is not necessary to start a New project, simply click on the *Cancel* button.

Then click Tool...Decompile:



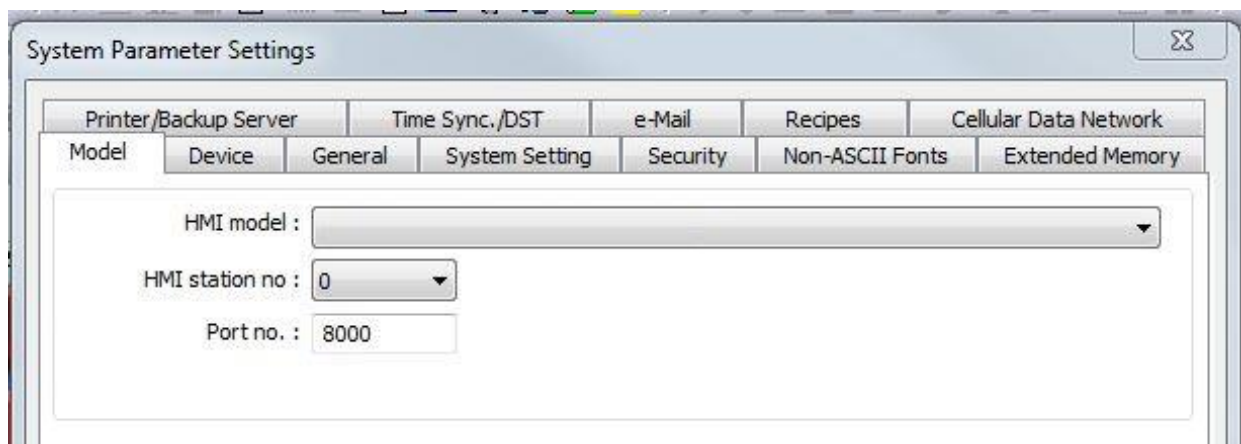
Locate your uploaded HMI project using the *Browse* button in the EXOB file name section. By default, EZwarePlus saves the new file in the same directory but you may want to click on the *Browse* button in the Project file name section to relocate the new file in your EZPLUS\PROJECT directory.

Now click on the *Decompile* button. After the “succeeded” text appears, click on the *Exit* button.

3. Open your *.MTP project file in EZwarePlus

Now click File...Open. Locate the *.MTP project file that you created in the last step and then click the *Open* button.

The project opens and, in addition, displays the System Parameter Settings window:



Select from the HMI model pull-down box the correct HMI model that you are using.

Then click the *OK* button.

- A popup window appears:



- There are four options for resizing the project.

1. *Resize pop-up windows*: this option enables EZwarePlus to resize or expand all of the windows in the project to match the screen resolution of the HMI.

2. *Resize objects*: if checked, this option will also resize or expand all of the objects displayed in the window screens of the project to match the resolution of the HMI.

3. *Resize keyboard windows*- this option resizes the popup windows used for the numeric and ASCII keypads to an appropriate size for the new HMI.

4. *Resize function key objects*- this option resizes each function key of the keypads as well.

In general, it is best to select all of the options above for a ‘best fit’ to the new HMI screen size. If in doubt, simply try various settings and save the results as different project filenames, then go through your screens and see which selection best meets your needs.

- Click *OK*. Now you can proceed to save, compile, and download the project into your new HMI.

4. Differences between EZware-5000 and EZwarePlus

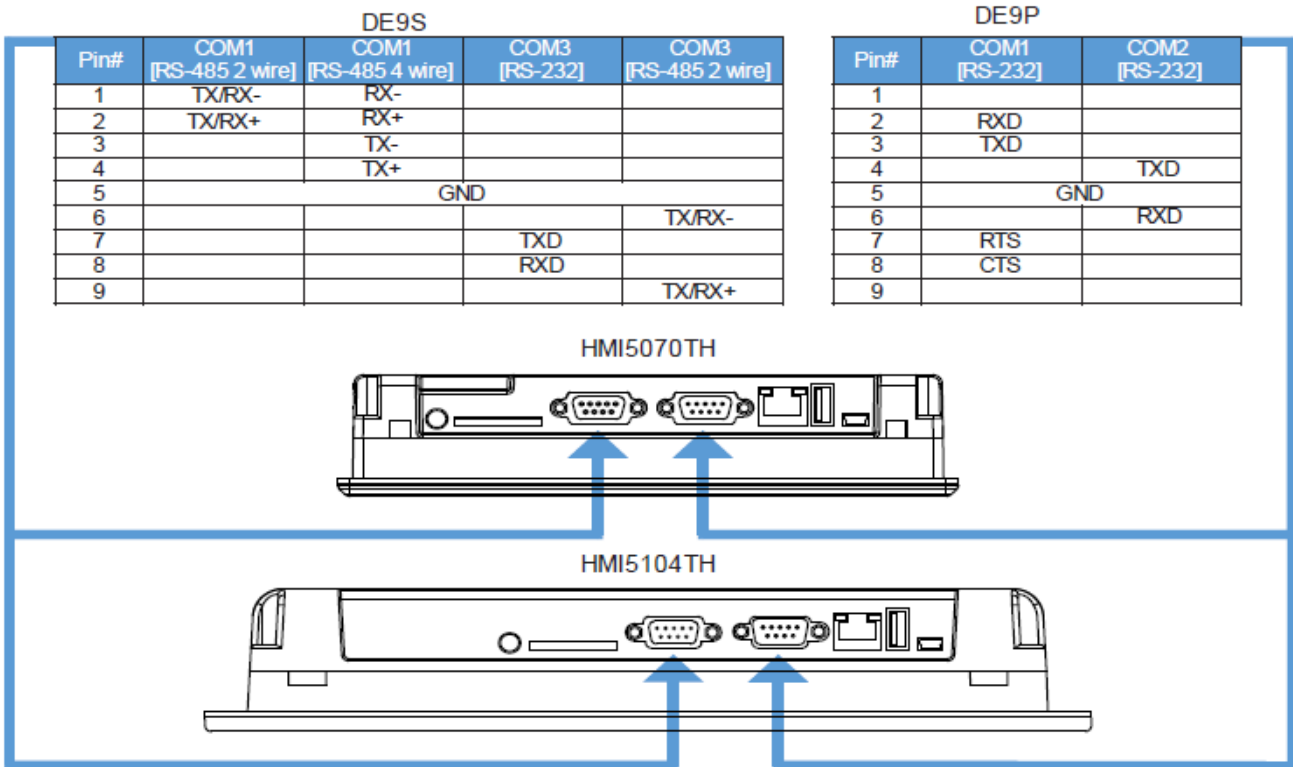
Although you generally should have little trouble transitioning to the new EZwarePlus software and HMIs, there are some incompatibilities that may affect you. EZware-5000 had a feature called SOE (Sequence of Events) which is not supported in EZwarePlus. In addition, there are a few communications drivers for obsolete PLCs in EZware-5000 that are no longer supported in EZwarePlus. As with any transition, it is best to review each screen and the general operation of the new HMI to ensure that it is performing as expected in your application.

Note: For more information on how to download a project file into the HMI5000s, consult the [HMI5000 Series Programming Manual](#) or the *Help* files that are included with the EasyBuilder-5000 configuration software.

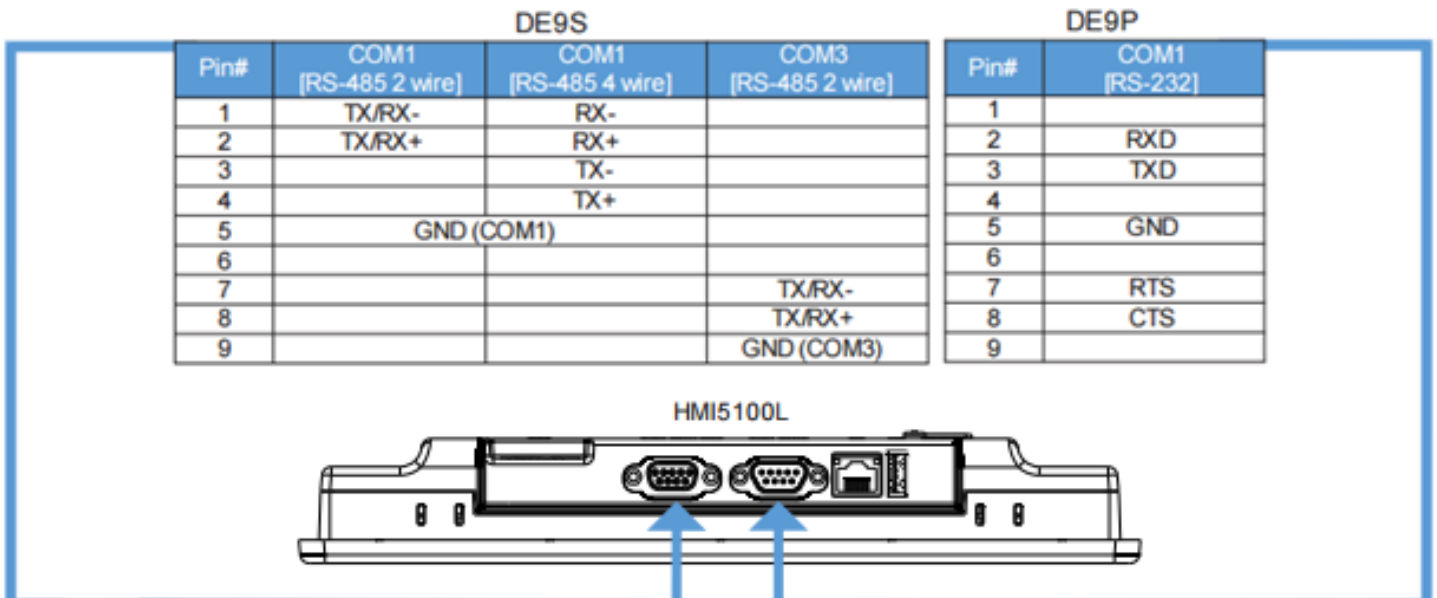
Serial Pinouts:

Converting from a HMI5104TH to a HMI5100L

HMI5104TH



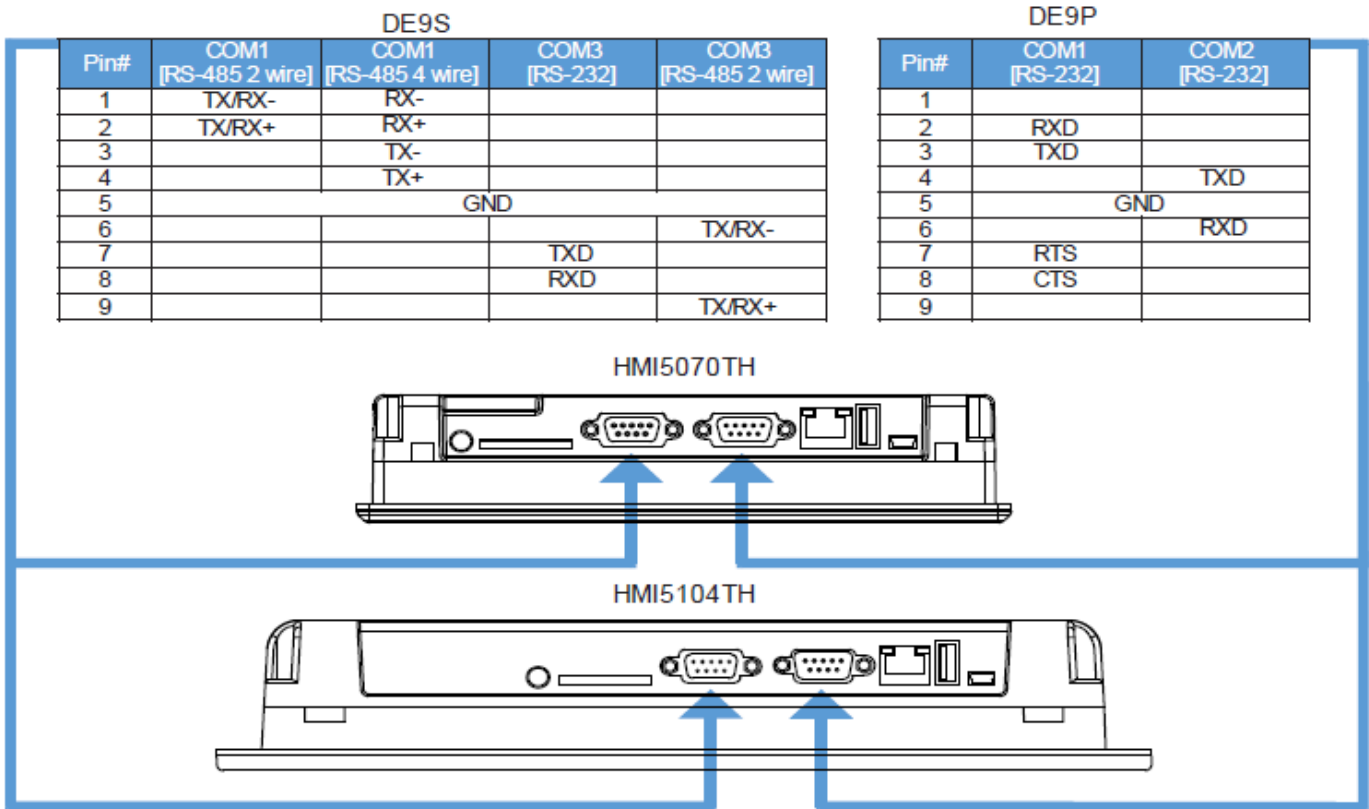
HMI5100L



Serial Pinouts:

Converting from a HMI5104TH to a HMI5097DXL

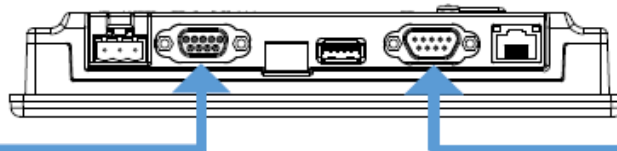
HMI5104TH



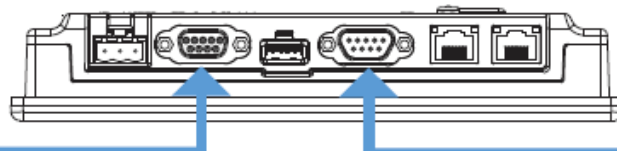
Serial Port Pinouts (cont.)

DE9S					DE9P		
Pin#	COM2 [RS-485 2 wire]	COM2 [RS-485 4 wire]	COM3 [RS-485 2 wire]	CAN Bus (XL/DXL only)	Pin#	COM1 [RS-232]	COM3 [RS-232] (DL/DXL only)
1	TX/RX-	RX-			1		
2	TX/RX+	RX+			2	RXD	
3		TX-			3	TXD	
4		TX+			4		
5	GND				5	GND	
6			TX/RX-		6		
7				CAN_L	7	RTS	TXD
8				CAN_H	8	CTS	RXD
9			TX/RX+		9	GND	

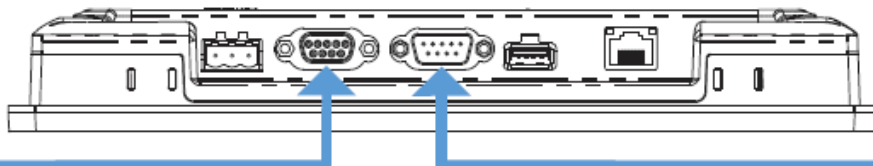
HMI5070NL



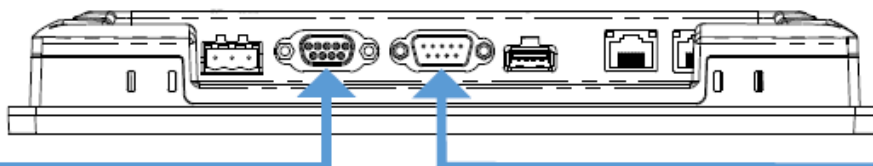
HMI5070DL



HMI5097XL, HMI5097NXL



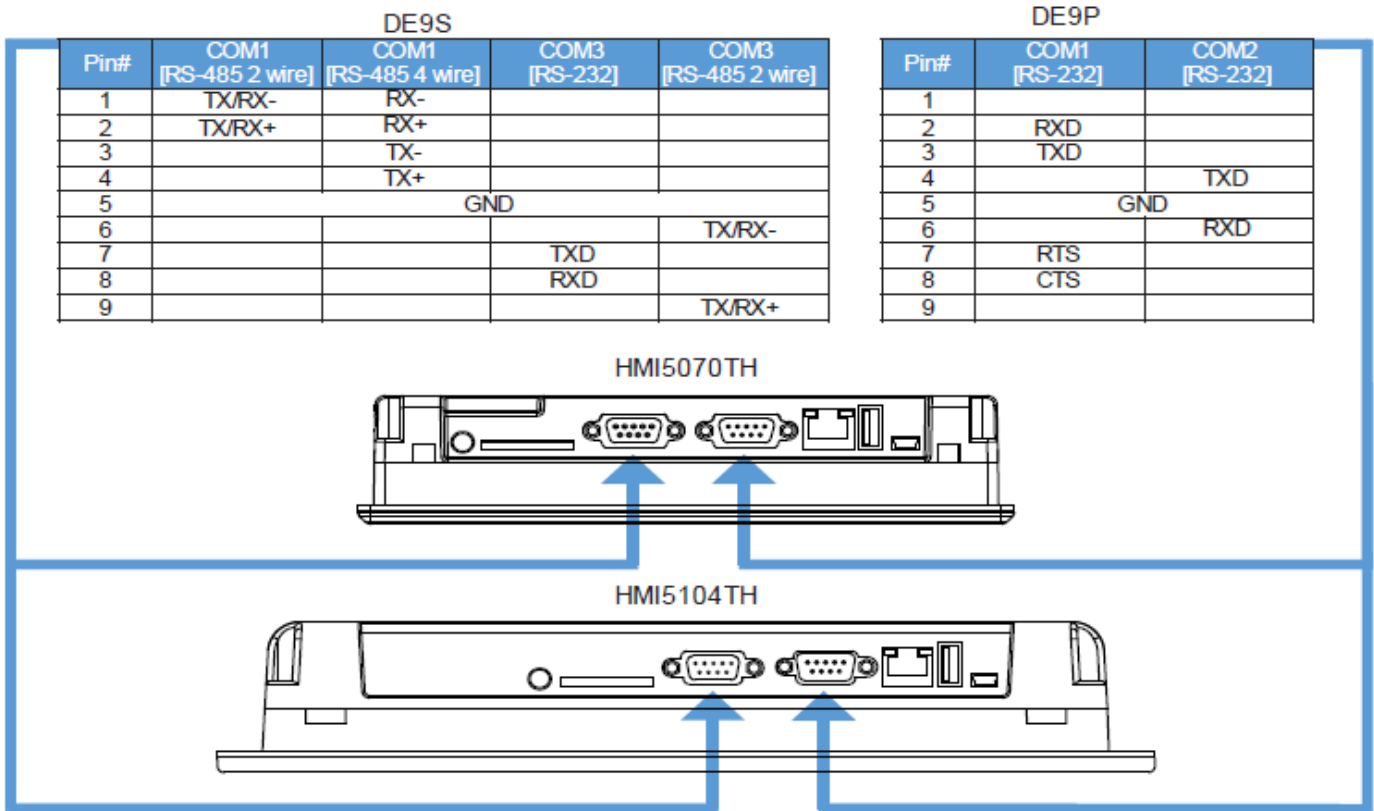
HMI5097DXL



Serial Pinouts:

Converting from a HMI5104TH to a HMI5121XL

HMI5104TH



HMI5121XL

