

## Objective

A Brief Guide to using the PDB (Parker Drive Basic) software v1.3 for communications to the AC10 drive.

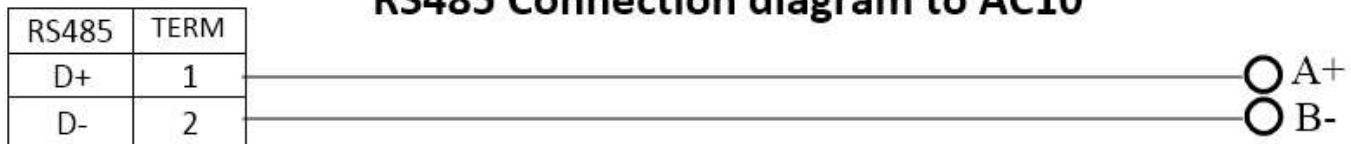
For serial communications to the AC10, this requires a RS485 converter. We recommend the US Converters USB-RS478 Converter part number XS885. It is available from [www.usconverters.com](http://www.usconverters.com)

Using a twisted pair cable, connect pin 1 (T/R+) to the A terminal and pin 2 (T/R-) to the B terminal.

## Wiring the RS485 converter to the AC10 drive.



### RS485 Connection diagram to AC10



## PDB Setup

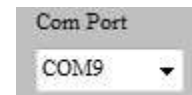
Set up the communications in PDB by click on the **Protocol** icon.

Set the communication parameters as shown. The communication settings must match those set in the AC10 parameters F900 – F904.

When selecting the **COM** make sure the window displays **COMx** and not just a number without the word **COM**. If the correct **COM** port number is not in the pull down list, just enter it on the main window as show here.



This is a valid port selection:



This is a bogus port selection:



If you have questions, please call the Product Support Group at (704) 588-3246.

## Set the drive parameters as shown:

**F900** = Inverter Address, range 1 – 255. **Recommended setting is 1**

**F901** = Modbus Mode. 1 = ASCII mode, 2 = **RTU mode**. **Set to 2.**

**F903** = Parity Check. **0 = no check**, 1 = Odd parity, 2 = Even parity. **Set to 0.**

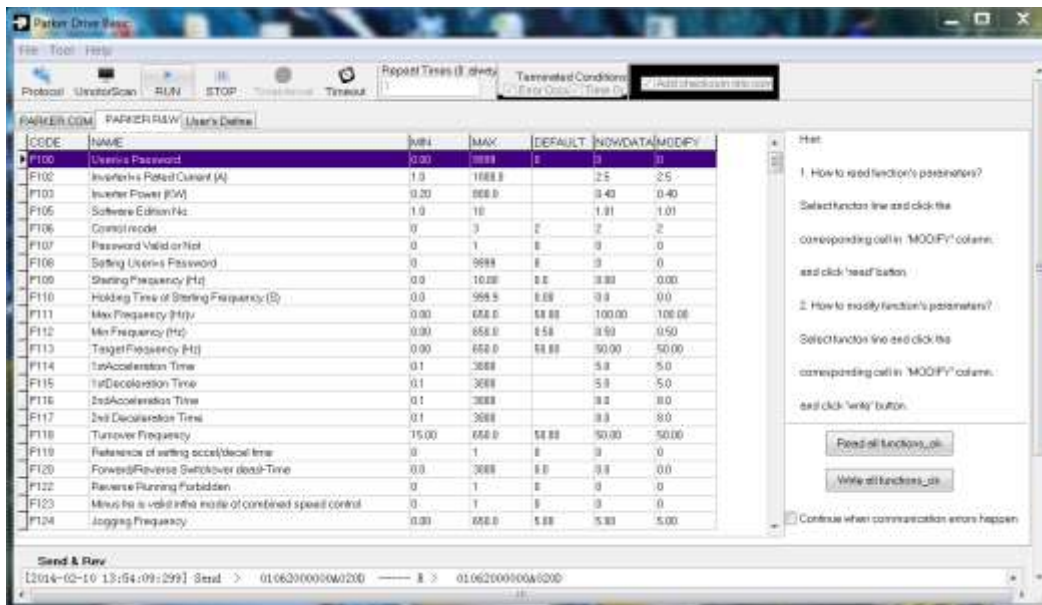
**F904** = Baud Rate. 9600 = 3, 57,600 = 6. **Set to 3.**

Click **OK**.

Select the **Timeout** window and enter 100.

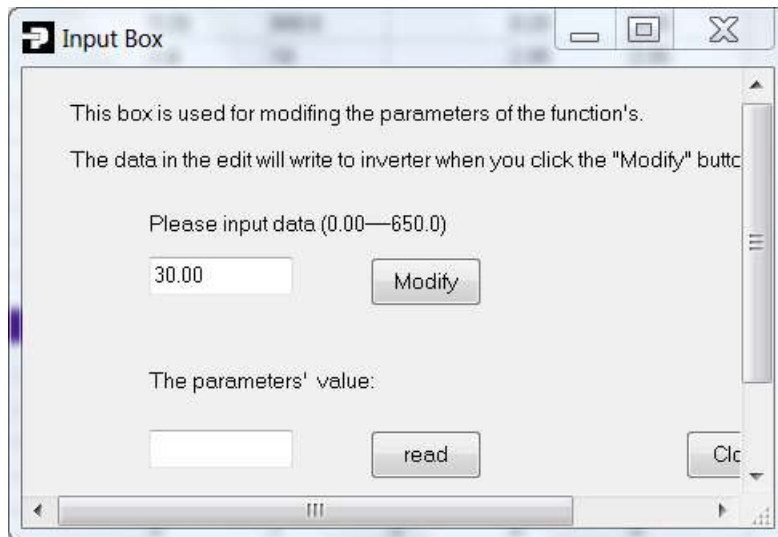


You can modify and monitor parameters by clicking on the **Parker R&W** tab.



To modify a parameter click on the **Modify** tab. A dialogue box will open as shown in the next picture.

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You can read the current value of the parameter by click on the **read** button. To change a value simply enter the value into the top text box and click **Modify**.

**Note:** To make the changes in PDB permanent, you must set F219 to 0 **first** via the MMI keypad, then exit from this menu, then make your changes. Then set F219 back to 1 via the MMI keypad after the changes were made.

**Note:** If you are communicating over Modbus write 3 to Register 0x2001 first to save the changes. Then make your changes or modifications. Then write 4 to Register 0x2001.

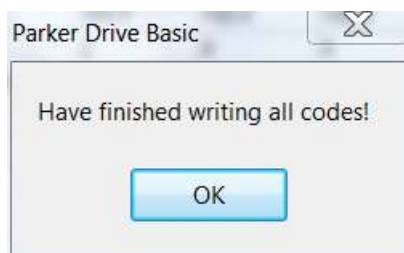
### **If you want to back up a drives parameters**

1. Click on the **Parker R&W** tab.
2. Check the box ☒ Continue when communication errors happen
3. Click on the **Read all Functions\_ok** button. Once PDB has finished reading all the parameters click on **File** and **Export Functions** or press Ctrl and E. Name the configuration file. It has to be *limited to 8 characters in length* and the extension has to have an extension **".DBF"**. If there is an existing file present with the same delete the file first, as the file will not get over written. Also check the date and the time on the file to make sure it is the correct one.

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**To install backed up parameters (Download parameters into a drive)**

1. Click on **Parker R&W** tab.
2. Check the box ☒ Continue when communication errors happen
3. **Note:** Ensure **F219** is set to 0 in the drive (this will save the parameters on a power cycle). This MUST be done first, before the parameters are written to. Set **F219 = 0** in the MMI and then make sure you exit this menu.
4. To install the backed up parameters into a new drive click on **File** and **Import Functions** or press **Control** and **I**. Select the configuration file **xxxxx.DBF**, which you want to install.
5. Ensure **F219** is set to **0** in the configuration, you are installing.
6. Click on the **Write all Functions\_ok** button
7. When PDB has finished it show the dialogue box above. Click OK to finish.



8. In the MMI, set **F219 = 1**

**Note:**

If you want to view or print the parameters on the files that were **Exported**, change the extension to XLS or CSV.

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