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**To:** MT Sales US, MT Service US, MT Sales Canada, MT Service Canada, Distributor Sales, Distributor Service

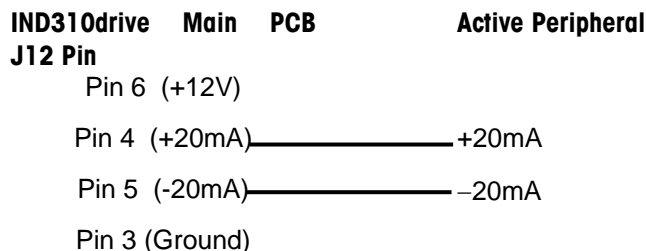
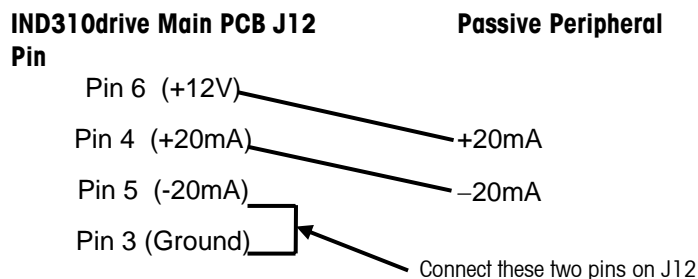
**Model:** IND310

## Communications Port Considerations

When using the Communications Ports on the Model IND310drive, there are a few things to consider at installation.

### 20mA CL

The 20 Milliamp Current Loop on Com 1 is passive. When interfacing to a passive external device such as a scoreboard, you need to supply Voltage to the loop by using the +12V on the port. Below is a diagram showing the wiring to both a passive and active device.



### RS232 on Com 1

When power is removed from the IND310, the RS232 output to Com Port 1 is set to a positive voltage (approximately +8 VDC) when power is re-applied. There are some printers on the market that monitor data reception and will interpret this voltage as bad data, causing the printer to print a continuous string of question marks (?). To eliminate this you must disable the “data reception error” feature in the printer. On the 8807 and 8857 printers, turn switch 1 **ON** in the printer. Note: The positive voltage returns to the negative operating voltage for RS232 as soon as a print command is initiated.

### Com 2: Transmission Mode Selection

Communication port 2 calls for the selection of RS232, RS422 (W-4 Jumper off) or RS485 (W-4 Jumper on) in setup. When you choose any of the choices you are selecting the mode for ASCII input to the port only. The outputs transmit simultaneously, which will allow interface to two products, such as a printer and a computer in Demand Mode, or a scoreboard and computer in Continuous Mode.

### Com 2: RS422/485 error after power loss in Software Version 2.02 and older.

It has been reported that if the power is lost to the IND310, the continuous output to Port 2, RS422/485 will not recover when power is restored. If you or your customer is experiencing this problem you need to do the following:

Enter setup and step through to the Com Port 2 settings. Scroll down to the RS232/RS422/RS485 selection and re-select your original choice. Now exit setup and communication will be restored. The next revision of software will correct this.