

This is a Discontinued Product

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1-540-633-3545 or email us at support.kollmorgen.com
if assistance is required.



Industrial
Devices
Corporation

impulse
microstepping drive



The Only Microstepping Drive with:

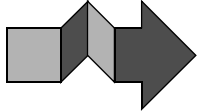
Open Loop Stall Detect™ (OLSD™)

Multi-Stepping™

Dynamic Smoothing™

Xtreme Smoothness™

Motion Node

**Quick
Setup** 
& Reference Guide

For more information refer to the Impulse User's Manual or contact:
Industrial Devices Corporation, 3925 Cypress Dr., Petaluma, CA 94954
(800) 747-0064 - FAX (707) 789-0175 - From outside the U.S. (707) 789-1000

web site: www.idcmotion.com

P/N PCW-5182 Version 1.0

CAUTION!

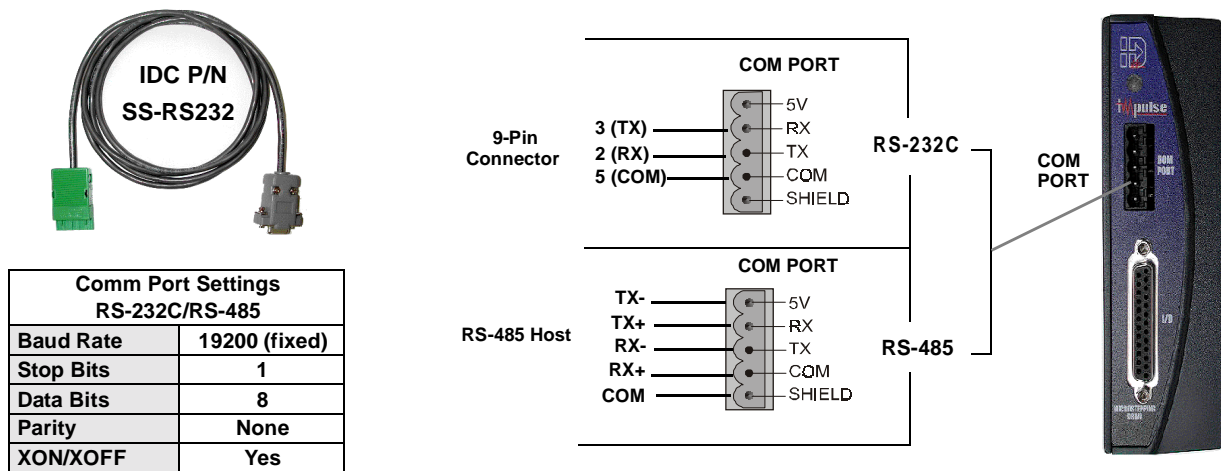
- Do not insert objects into the drive. High voltages could cause personal injury, and equipment could be damaged.
- Always ensure that power to your system is OFF before connecting a motor or attaching/adjusting a load.

1. Install Application Developer™ Software on Windows 95/98/NT/ME/2000

1. Place the IDC CD in your CD-ROM drive and click on the **Start** button.
2. Click on **Run**.
3. Type the following in the **Command Line** box that appears (replace "x" with your CD drive letter): `x:\App_Dev\Setupex.exe`
4. Click OK and follow the onscreen instructions.
5. Restart Windows (recommended).

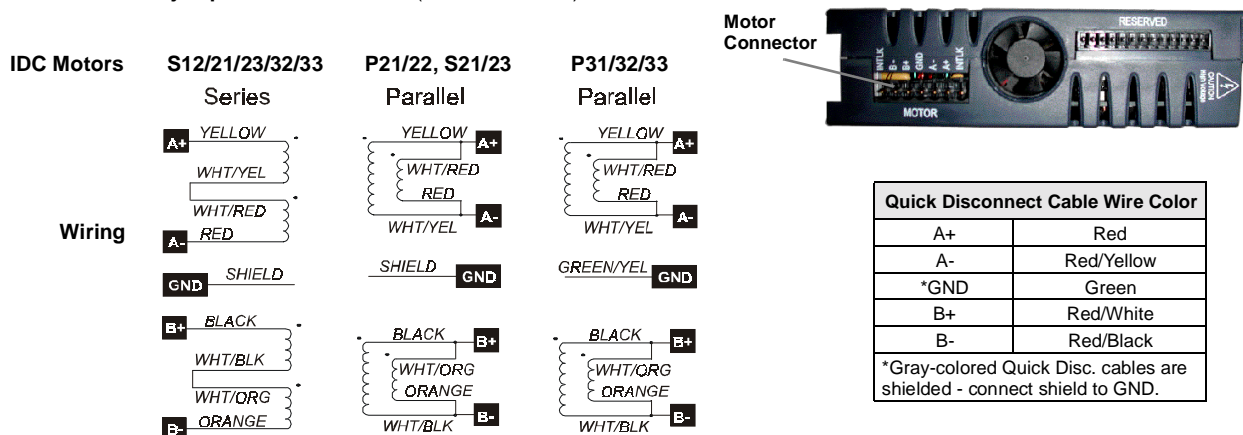
2. Connect Your PC/Host to Impulse COM PORT (RS232/485)

- Refer to drawings below when making connections.
- Use IDC cable P/N SS-RS232 for making trouble-free RS-232 connections.



3. Connect Your Motor

- An **Interlock jumper** must be installed (INTLK to INTLK).



4. Apply Power

- There is no ON/OFF switch on the Impulse.
- Input voltage must be in the range of 120 VAC \pm 10%, single phase, 50/60 Hz, 500 VA max @ 4 Amps. Operation outside these specifications will result in reduced performance, cause drive faults, or permanently damage the drive.
- Apply AC power by plugging the power cord (included) into the connector on top of the Impulse and into the power source.
- When power is applied, the LED on front of the drive should turn steady red and remain that way until the motor is PROBED in Application Developer Project Wizard. If flashing red lights are present see Diagnostic LED Indications below.



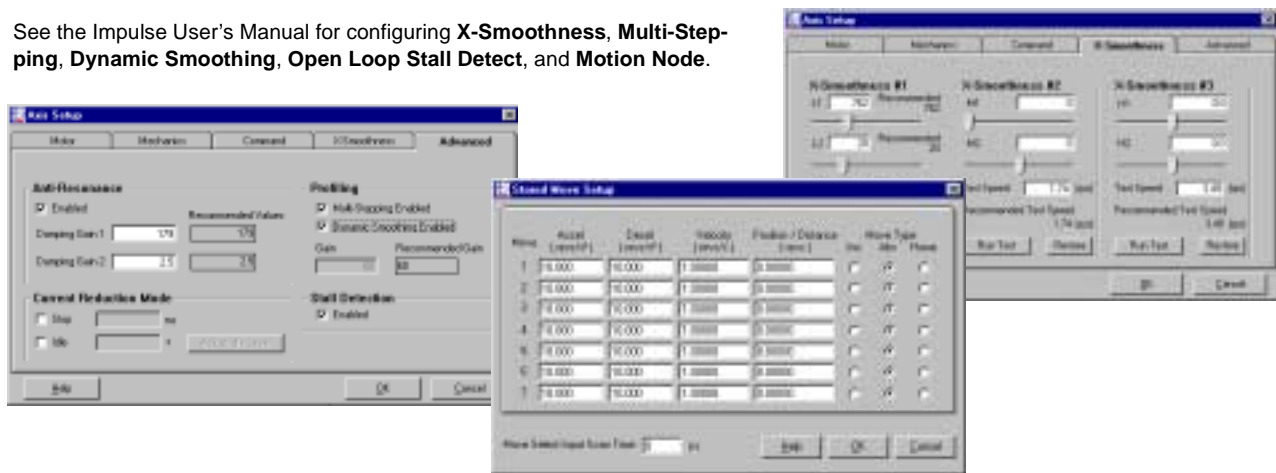
5. Use Application Developer Project Wizard

- Start **Application Developer**.
- Select **Project Wizard**.
- Follow the **Project Wizard** through the entire setup procedure until you have clicked on the **Finish** button.
- You should now see a **solid green LED** indicator on the front panel of the Impulse, and the motor should have torque.



6. Axis Setup - Advanced Features

- See the Impulse User's Manual for configuring **X-Smoothness**, **Multi-Stepping**, **Dynamic Smoothing**, **Open Loop Stall Detect**, and **Motion Node**.



7. Using an IDC FP100 or FP220 Keypad

- If you are using an IDC Keypad to configure your Impulse, see the Impulse User's Manual for details and menu descriptions.

8. Reference (see Impulse User's Manual for details)

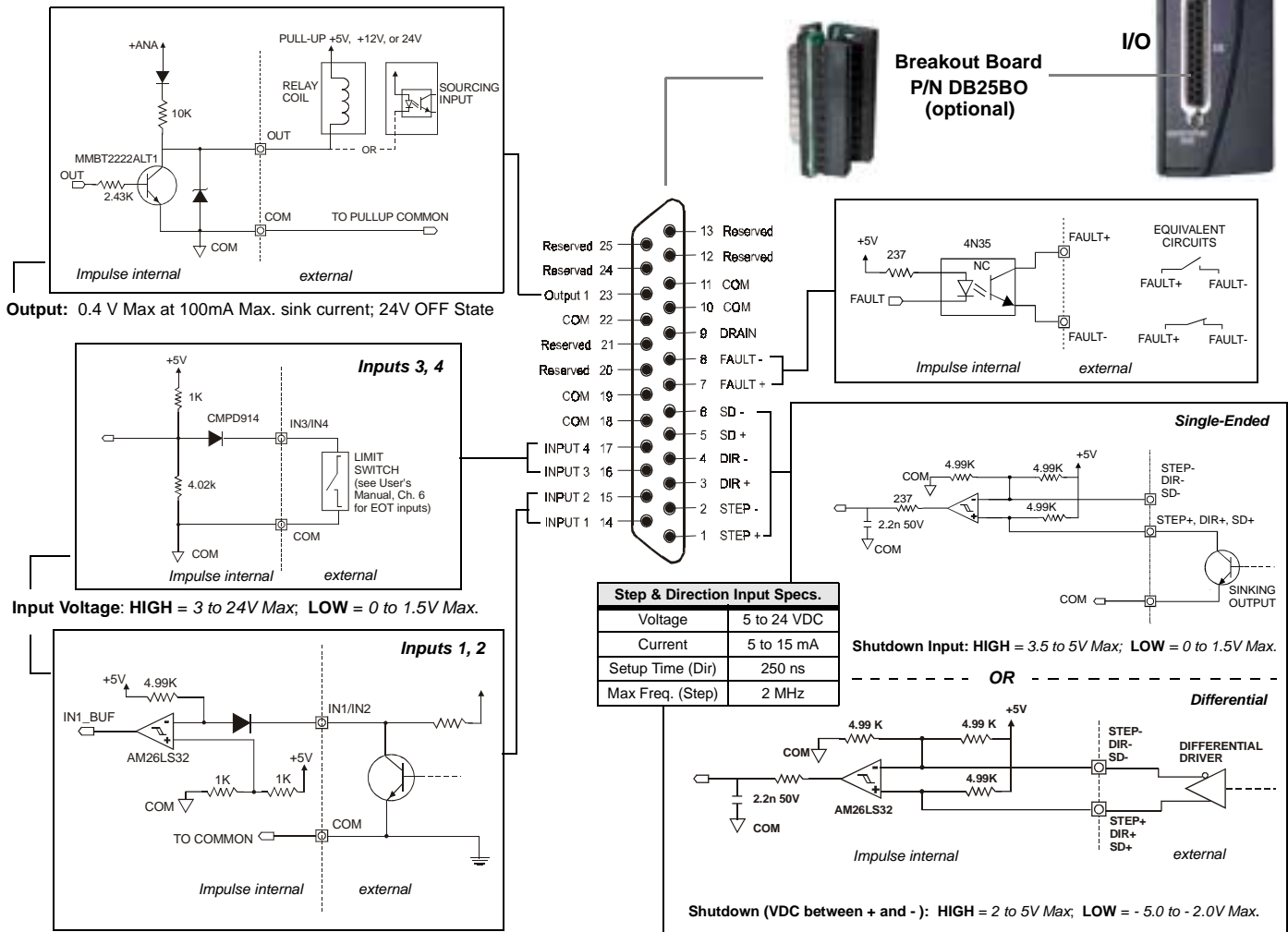
| Environmental & Mounting Specifications |
|--|
| Operating Ambient Temperature: 0 to 50° C @ 4 Amps |
| Storage Temperature: -40 to 80° C |
| Not intended for use in humidity above 95% (non-condensing), or at altitudes greater than 3,048 meters [10,000 ft.]. |
| Heat Dissipation @ 4 A (typical): 32 W |
| Leave 6 in. above and below drives for airflow and wiring. |
| Leave 0.1 in. between drives for easier mounting. |
| Air supplied to the Impulse must be uncontaminated. |

| Diagnostic LED Indications | |
|----------------------------|-----------------------|
| LED Signal | Indication |
| Green (steady) | Normal Operation |
| Green - Slow Flash | Shutdown |
| Green - Quick Flash | Regen Dump |
| Flashing Green | Drive Disabled |
| Red (steady) | Motor Not Probed |
| 1 Flash Red | Stalled |
| 2 Flashes Red | Undervoltage Fault |
| 3 Flashes Red | Overvoltage Fault |
| 4 Flashes Red | Overcurrent Fault |
| 5 Flashes Red | Interlock Fault |
| 6 Flashes Red | Overtemperature Fault |
| 7 Flashes Red | EEPROM Checksum Fault |

Connecting Digital I/O, Step/Direction/Shutdown Inputs, and Fault Outputs

Application Notes

1. If using IDC P/N SS-I/O or SS-I/O-6 cable, cut one end of the cable if necessary (see table below for SS-I/O cable color-code). If you are making your own cable, or are using a non-IDC indexer, refer to the Impulse I/O Schematics and the 25-pin Connector drawing below.
2. Use a shielded cable, and **connect the shield only at the Impulse**. Pin 9 is provided for the SHIELD connection.
3. IDC offers a 25-pin screw-terminal breakout board (P/N DB25BO shown below) to add convenience and flexibility to your application. Terminals on the breakout board match the pins of the 25-pin connector on the Impulse.
4. When wiring TTL signals to other manufacturer's indexers, the Step TTL command signal from the controller should be wired to **Step +**, the Direction signal to **Dir +**, and the Shutdown signal to **SD + (Step -, Dir -, and SD - should not be connected)**. Remember, drive and controller **COMMONS** must be connected.
5. Activating the **Shutdown** input disables the drive amplifier and de-energizes the motor. When this input is **OFF** the drive is enabled and the motor is energized.
6. The open collector **Fault Output** turns **ON** when any one of the LED-indicated conditions occur (see LED Indications table on next page). The output stays ON while the LED flashes.
7. **Step & Direction Input Voltage:** External current-limiting resistor required for 12 and 24 V power supply connections (560 ohm, 1/4 W for 12 V; 1.3 K for 24 V supply).



| IDC Cable P/N: SS-I/O/SS-I/O-6 | | | | | | | | |
|--------------------------------|----------------|-------------|-----|----------------|--------------|-----|----------------|--------------|
| Pin | Impulse Signal | Wire Color | Pin | Impulse Signal | Wire Color | Pin | Impulse Signal | Wire Color |
| 1 | STEP + | Brown | 10 | COM | Gray | 19 | COM | Black/White |
| 2 | STEP - | Red | 11 | COM | White | 20 | Reserved | Red/Black |
| 3 | DIR + | Orange | 12 | Reserved | Black | 21 | Reserved | Orange/Black |
| 4 | DIR - | Pink | 13 | Reserved | Brown/White | 22 | COM | Yellow/Black |
| 5 | SD + | Yellow | 14 | INPUT 1 | Red/White | 23 | Output 1 | Green/Black |
| 6 | SD - | Green | 15 | INPUT 2 | Orange/White | 24 | Reserved | Gray/Black |
| 7 | FAULT + | Light Green | 16 | INPUT 3 | Green/White | 25 | Reserved | Pink/Black |
| 8 | FAULT - | Blue | 17 | INPUT 4 | Blue/White | | | |
| 9 | Drain | Violet | 18 | COM | Violet/White | | | |

Note: Cable SHIELD is internally connected to the DB25 metal housing.