

Imo iDrive EDX Quick Start Guide

Always read the full instruction manual before using *iDrive*.
This quick start guide is to assist in installing and running the *iDrive* to verify that the *iDrive* and motor are working properly. Starting, stopping and speed control will be from the keypad. If your application requires external control or special system programming, consult the *iDrive* EDX instruction manual supplied with your inverter.

Step 1 - Before applying power to your *iDrive*

Please refer to Chapter One (Preface) and Chapter Two (Safety Precautions) of the *iDrive* EDX instruction manual. Verify drive is installed in accordance with the procedures as described in Chapter Three (Environment and installation). If something is suspected of being abnormal, do not apply power to the drive until qualified personnel have corrected the situation. (Failure to do so could result in death or serious injury.)

- Check inverter and motor nameplates to determine that they have the same power and voltage ratings. Ensure that full load motor current does not exceed that of the inverter.
- With power OFF, remove the terminal covers to expose the motor and power terminals.
 - A. Verify that AC power is wired to L1(L), L2, and L3(N) .
 - B. Verify that motor leads are connected to T1, T2, and T3 .
 - C. If a brake module is necessary, please connect terminal voltage of the braking unit to P and N of the inverter. Never connect a resistor directly to *iDrive* terminals P and N.

Step 2 - Apply power to your *iDrive*

Apply AC power to the drive and observe the keypad display. The 7-segment LED display should show power voltage (ie 220) for 3~5 seconds and then show the Frequency Command (Hz), factory set at 5.00. (Frequency Command shown on 7-segment display should be flashing, ie inverter output OFF.)

Step 3 - Check low speed motor rotation direction without load from keypad.

- Press **RUN/STOP** key. 7-segment display will indicate 00.0 to 05.0. This number is the frequency output value. The display will now become solid (not blinking) because the inverter output is ON.
- Check the operating direction of the motor.
IF the direction of the motor is incorrect:
Press **RUN/STOP** key, turn off the AC power supply. When the power indicator LED is off, change over motor connections T1 and T2 for example.
Apply the power again, and then check the motor direction by pressing **RUN/STOP** key.
- If rotation is correct press **RUN/STOP** key again.
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Step 4 - Check full speed at 50Hz / 60Hz

- Increase the frequency with \square , keys, press DATA/ENT to save this frequency.
- Set frequency to 50Hz / 60Hz according to the above.
- Press **RUN/STOP** key; check that the motor accelerates smoothly to full speed.
- Press **RUN/STOP** key; check that the motor decelerates smoothly to zero speed.

Step 5 - Other settings

For other functions, please refer to *iDrive* EDX user manual.

Example:

- Frequency Upper Limit (Hz)..... P. 4-9
- Frequency Lower Limit (Hz).....P. 4-9
- Acceleration time (s)..... P. 4-10
- Deceleration time (s)..... P. 4-10
- Control mode (Vector, V/F).....P. 4-10
- Motor rated current (A).....P. 4-13

Step 6 - Vector Mode Settings

If *iDrive* is required to run in Vector Mode (A06 = 001), the motor parameters need to be set.

The required data should found on the motor rating plate. (Motor kW = 0.75 □ HP)

The parameters to set for vector operation are:

- Motor Rated Current (Amps) (b09) See page 4-13
- Motor Rated Voltage (Volts) (b10) See page 4-13
- Motor Rated Frequency (Hz) (b11) See page 4-13
- Motor Rated Power (KW) (b12) See page 4-13
- Motor Rated Speed (RPM) (b13) See page 4-13
- Additional Vector Mode Settings to adjust for optimum performance are:
- Torque boost gain (b14) See page 4-13
- Slip compensation gain (b15) See page 4-14
- Low Frequency Voltage Compensation (b16) See page 4-14

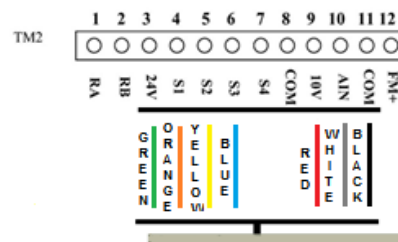
Wiring Your Start/Stop/Fwd/Rev/Speed control POD.

Before wiring make sure all power is isolated to the iDrive!

Below is the colour of wire, and terminal to connect to:

- Green – 3 (24v)
- Orange – 4(S1)
- Yellow – 5(S2)
- Blue – 6(S3)
- Red – 9(10v)
- White – 10(AIN)
- Black – 11(COM)

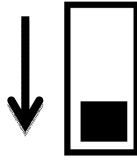
Control signal terminal block description



REMOTE CONTROL POD



Check The PNP/NPN switch is set to the downwards position, at PNP,



The PNP/NPN Switch will engage the Multi-function Input, The switch itself is located above the Green terminals, to the right. There are 2 switches, the PNP/NPN switch is the right switch.

After wiring the control POD These Parameters will need to be set,

To do this make sure the Motor is Stopped,

Press the “DSP/FUN” button, and using the UP & DOWN arrows find “A12”, Press “DATA/ENT”, and using the UP & DOWN arrows change the Parameter to “001” Then press the “DATA/ENT” button to save the parameter,

Now press the “DSP/FUN” button, to show “B00”, Using the up & Down arrows find “B90”, Press “DATA/ENT”, and using the UP & DOWN arrows change the parameter to “002”, Then press the “DATA/ENT” button to save the parameter,

Now press “DSP/FUN” button twice to show “A12”,

Now use the UP & DOWN arrows to find “A00”, Press “DATA/ENT” and using the UP & DOWN arrows Change the Parameter to “001” Then press the “DATA/ENT” button to save the parameter,

Now use the UP & DOWN arrows to find “A01”, Press “DATA/ENT” and using the UP & DOWN arrows Change the Parameter to “002” Then press the “DATA/ENT” button to save the parameter,

Now using the UP & DOWN arrows find “A12”, Press “DATA/ENT”, and using the UP & DOWN arrows change the Parameter to “000” Then press the “DATA/ENT” button to save the parameter,

Now press the “DSP/FUN” button until the Frequency is being shown, the Frequency should now be controlled by your Remote POD, Turn the Switch to “FWD” to Turn the motor Forwards, then change the switch to “Rev” To turn the motor in the opposite direction,

To change the Acceleration time,

Press the “DSP/FUN” button on display, use the UP & DOWN arrows to find “A04”, Press “DATA/ENT” and using the UP & DOWN arrows Change the time to what you require “e.g 5 seconds is 05.0” Then press the “DATE/ENT” button to save the parameter, Then Press “DSP/FUN” button to resume operation,

To change the Deceleration time,

Press the “DSP/FUN” button on display, use the UP & DOWN arrows to find “A05”, Press “DATA/ENT” and using the UP & DOWN arrows Change the time to what you require “e.g 5 seconds is 05.0” Then press the “DATE/ENT” button to save the parameter, Then Press “DSP/FUN” button to resume operation,

You should now be up and running, If you have any problems please call on 01623 720 730.



Setting Notes :