CDL

CONTROLS & DRIVES LTD

The Industrial Automation Specialists

Technical Tip:

A Quick-Start Guide on Changing Parameters on an FR-D700/E700 Inverter

CDL Controls & Drives Ltd

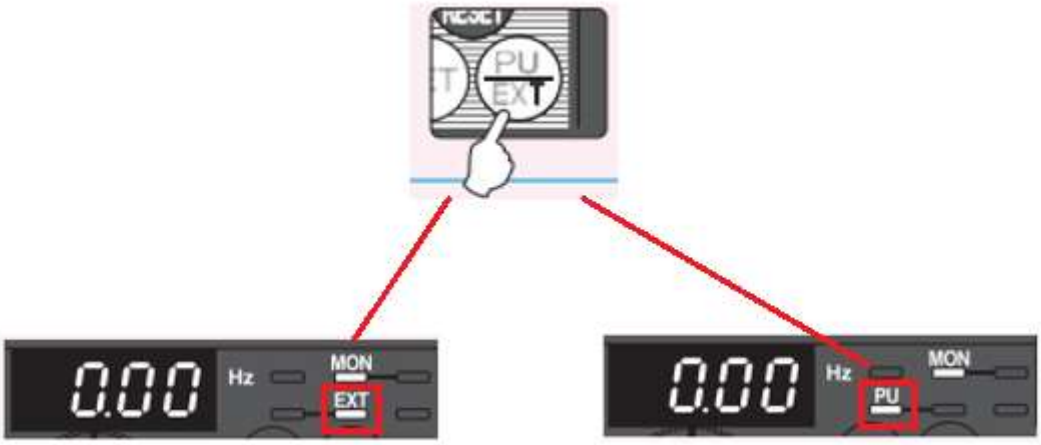
Part of the BPX Group

This Quick-Start guide will give you a helping hand at understanding how to parameterise the Mitsubishi inverter, and familiarise yourself with the parameter unit on the front of the drive.

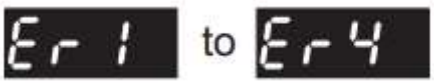
Out-of-the box, at power ON, the drive will be in **EXT** mode (External mode).

You will see both the **MON** and **EXT** indicators illuminated.

Press the **PU/EXT** button to flick through **Parameter Unit mode (PU)** and **External Mode EXT)**



PLEASE NOTE: In order to change parameters, the drive must be in PU mode and NOT running.
If the drive is in the wrong mode or running, then you are likely to see an error on the LCD display similar to below:



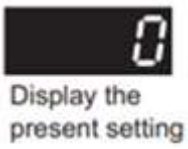
So, when in PU mode…

press the **'MODE'** button until the PRM LED is lit.

This will display 'P. 0', which is Parameter 0.

Now use the thumbwheel to go up to the Parameter you want to change and then Press **'SET'**.
(In this example, we will change parameter 79 to '2')

This will then show the variable within the parameter, in this case it is '0'.

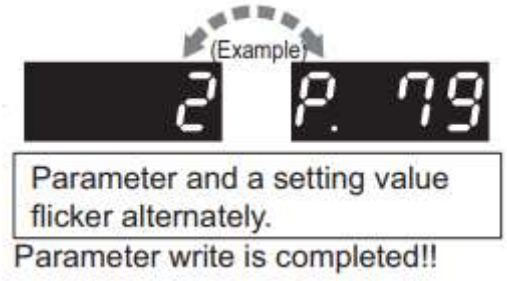


To change this variable within the parameter, use the thumbwheel. Clockwise to go up and anticlockwise to go down.

In this case, turn the thumbwheel clockwise until you get to '2'.

Then press **'SET'**.

The LCD screen will flicker between '2' and 'P. 79', which means that the parameter write is complete.



You have now successfully changed **Parameter. 79** from its initial value of **'0'** to **'2'**.

Parameter All Clear

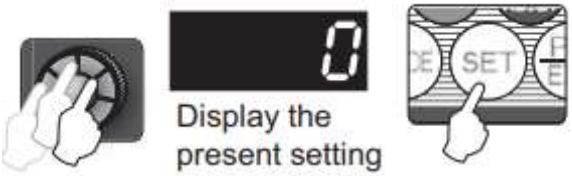
This parameter will revert the inverter back to its factory default settings.

Press **'MODE'** until the PRM LED is lit

Turn the thumbwheel anti-clockwise until it shows **'ALLC'** on the LCD display.

Press '**SET'.**

The LCD screen will display '0'. Turn the thumbwheel clockwise to '1' and then press **'SET'**.



The LCD display will flicker between **'ALLC'** and **'1'**, which means that **'1'** has been set inside parameter **'ALLC'**.

Now power-cycle the inverter.

At Power-ON, the inverter will have reverted to the Factory Default Settings.

Parameters

For the most common, basic applications, you will most likely need to set the parameters as shown below:

Parameter 1 – Maximum Frequency (Hz)

Parameter 2 – Minimum Frequency (Hz)

Parameter 7 – Acceleration Time (seconds)

Parameter 8 – Deceleration Time (seconds)

Parameter 9 – Electronic thermal O/L relay
Match the full load current (amps) of your motor in this parameter.

Parameter 19 – Base Frequency Voltage
Set this to the input voltage coming into the inverter from your supply.

Parameter 72 – PWM frequency selection
This parameter quietens down the motor noise. Gradually increasing this parameter reduces motor noise considerably.

Parameter 180 – RL Terminal Function Selection
Change to '5' as this will convert the RL terminal on the inverter to become you newly assigned JOG terminal