

## BALDOR INVERTERS

When replacing a Baldor inverter, DC Power Supply, or a Spindle Controller card, it needs to be "Zero-Balanced" to the machine. Machines with On Rigid-Tapping in particular, the control sets the RPM and direction by supplying a precise 0 (zero) to 10VDC control voltage through pins 4 (four) and 6 (six) at the control Molex plug hanging on the right side of the inverter. A NEGATIVE 0 (zero) to 10 VDC is sent to reverse the direction. In this way, in Rigid Tapping, the spindle motor can rapidly be reversed and ramped up and down. If the control voltage, at idle is not exactly 0 (zero) VDC, then it is likely that the inverter will interpret it as a command to move in one direction or another at a slower speed.

ZERO BALANCE - Power "ON", inverter connected properly, and SPINDLE OFF, (**NOT in Orientation Hold**) type the following on the inverter display pad:

| TYPE: | DISPLAY:                         |
|-------|----------------------------------|
| - - - | "OFF MOTOR SPEED REMOTE 0 RPM"   |
| LOCAL | "STOP MOTOR SPEED LOCAL 0 RPM"   |
| PROG  | "PRESS ENTER FOR PRESET SPEEDS"  |
| ↓↓    | "PRESS ENTER FOR LEVEL 2 BLOCKS" |
| ENTER | "PRESS ENTER FOR OUTPUT LIMITS"  |
| ↓↓↓   | "PRESS ENTER FOR AUTO TUNING"    |
| ENTER | "CALC PRESETS P: NO"             |
| ↑     | "CMD OFFSET TRM P: PRESS ENTER"  |
| ENTER | "PRESS ENTER TO START THE TEST"  |
| ENTER | "TEST PASSED PRESS ENTER"        |
| RESET | "CMD OFFSET TRM P: PRESS ENTER"  |
| RESET | "PRESS ENTER FOR AUTO TUNING"    |
| RESET | "PRESS ENTER FOR PRESET SPEEDS"  |
| ↑↑↑↑  | "PRESS ENTER FOR INPUT"          |



|         |  |
|---------|--|
| ENTER   | "OPERATING MODE P: FADAL SPECIAL"                          |
| ↑↑↑     | "ANA CMD OFFSET P: XX.X%" (Note: XX.X is the Offset value) |
| RESET   | "PRESS ENTER FOR INPUT"                                    |
| RESET   | "PRESS ENTER FOR PRESET SPEEDS"                            |
| DISPLAY | "STOP MOTOR SPEED LOCAL 0 RPM"                             |
| LOCAL   | "OFF MOTOR SPEED REMOTE 0 RPM"                             |

If the "ANA CMD OFFSET" value reads any value other than 0.0%, then the "Zero Balance Offset Trim" has been set.