

### Power Clipper Controllers 4-4050J/M Series Discontinuation Notice

We will soon be releasing our next generation product: Power Clipper 1020, which leverages our latest ARM based CPU. Therefore, the Power Clipper 465 model is being discontinued. For most customers the transition process should be straightforward with the added benefit of more performance from our newer CPUs. Note that the EtherCat protocol stack has changed but otherwise all software programming is compatible. For customers with additional packaging and systems needs we are recommending a transition to our newest line of modular controllers: CK3M. Please contact your local sales representative for more information about these products or any of Omron's industry leading line of programmable multi-axis controllers.

#### Product Discontinuation

Power Clipper

Model 4-4050J□□-□□□-□□□□□□

Model 4-4050M□□-□□□-□□□□□□



#### Recommended Replacement

Power Clipper 1020 (Under Development)

Model CK3C-□□□□□

Available now

Model CK3M Series

Model Power Brick LV



#### [ Final order entry date ]

March 31, 2022

#### [ Date of The Last Shipping ]

September 30, 2022

#### [ Scheduled date of maintenance close ]

September 30, 2029

#### [ Difference from discontinued product ]

| Recommended replacement | Body Color | Dimensions | Wire connection | Mounting Dimensions | Form Factor | Operation ratings | Operation methods |
|-------------------------|------------|------------|-----------------|---------------------|-------------|-------------------|-------------------|
| To 4-4150A□□-□□□-□□□□□□ | **         | **         | *               | **                  | **          | **                | *                 |
| CK3M Series             | **         | --         | --              | --                  | --          | *                 | *                 |
| Power Brick LV          | **         | --         | --              | --                  | --          | *                 | *                 |

\*\* : Compatible

\* : The change is a little/Almost compatible

-- : Not compatible

- : No corresponding specification

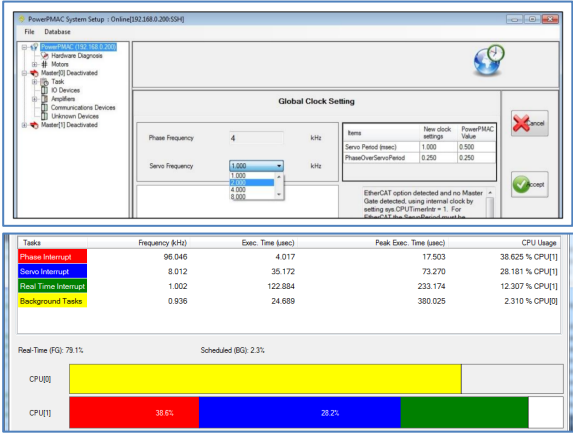
The following illustrations show the "from to" items for replacement product.

#### [ Wire Connection ]

| From 4-4050□□□-□□□-□□□□□□                          | To Model CK3C-□□□□□                                |
|--|--|
| RS-232 Serial Port (10 pin connection)             | Micro-USB USB to Serial Port (FTDI Windows Driver) |
| Power Clipper 1020 is limited to 2 Ethernet ports. |  |

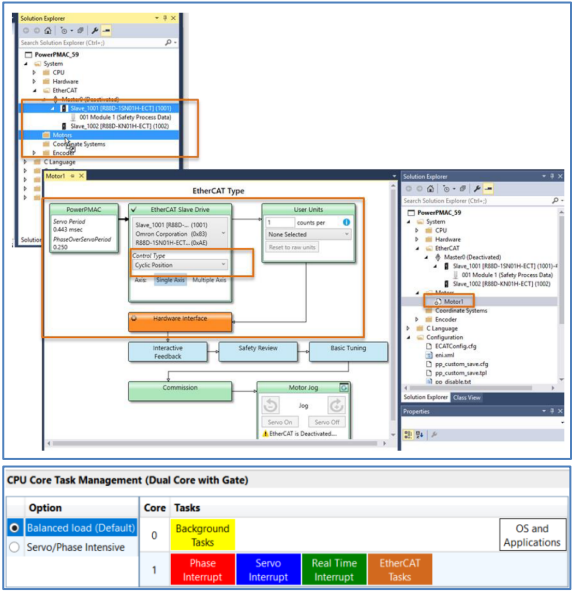
[ Operation Methods ]

From 4-4050□□□-□□□-□□□□□□



| Tasks               | Frequency (kHz) | Exec. Time (μsec) | Peak Exec. Time (μsec) | CPU Usage       |
|---------------------|-----------------|-------------------|------------------------|-----------------|
| Phase Interrupt     | 96.046          | 4.017             | 17.503                 | 38.625 % CPU[1] |
| Servo Interrupt     | 8.012           | 35.172            | 73.270                 | 28.181 % CPU[1] |
| Real Time Interrupt | 1.002           | 122.884           | 233.174                | 12.307 % CPU[1] |
| Background Tasks    | 0.936           | 24.689            | 380.025                | 2.310 % CPU[0]  |

To 4-4150A□□-□□□-□□□□□□



| Option                  | Core | Tasks   |
|-------------------------|------|---|
| Balanced load (Default) | 0    | Background Tasks  |
| Servo/Phase Intensive   | 1    | Phase Interrupt, Servo Interrupt, Real Time Interrupt, EtherCAT Tasks |

Default EtherCAT Type Changed to Acontis on Power Clipper 1020 allowing full IDE 4 functionality.  
(Can be reverted to EtherLab for backwards compatibility.)  
Power Clipper 1020 allows multi-core task control.

OMRON Corporation

Industrial Automation Company

2

## [ Product Discontinuation and Recommended Replacement ]

### 4-4050J□□-□□□-□□□□□□ & 4-4050M□□-□□□-□□□□□□ Part Number

| Power Clipper Controller |   |   |   |   |   |  |  |   |   | A |  | B |   | D |  | E |  | G |   | H |  | I |  | K |  | L |  |
|--------------------------|---|---|---|---|---|--|--|---|---|---|--|---|---|---|--|---|--|---|---|---|--|---|--|---|--|---|--|
| 4                        | - | 4 | 0 | 5 | 0 |  |  | 0 | - |   |  | 0 | - |   |  |   |  | 0 | - |   |  |   |  | 0 |  |   |  |

**A**

J - Opt. J 1 GHz  
465 Dual-Core CPU

M - Opt. M 1.2 GHz  
465 Dual-Core CPU

**B**

A - 1 GB RAM & 1 GB Flash  
B - 1 GB RAM & 4 GB Flash  
D - 2 GB RAM & 1 GB Flash  
E - 2 GB RAM & 4 GB Flash

**D E**

00 - No Additional Ethernet/EtherCAT Option  
10 - 2nd Ethernet Port  
31 - 2nd Ethernet or EtherCAT Port with I/O Only  
32 - 2nd Ethernet or EtherCAT Port with I/O and 4 Servo Axes  
33 - 2nd Ethernet or EtherCAT Port with I/O and 8 Servo Axes  
35 - 2nd Ethernet or EtherCAT Port with I/O and 16 Servo Axes  
39 - 2nd Ethernet or EtherCAT Port with I/O and 32 Servo Axes  
3J - 2nd Ethernet or EtherCAT Port with I/O and 64 Servo Axes

For EtherCAT more than 64 Servo axes, contact factory

**H**

0 - No Options  
1 - Opt. 12  
4 Analog Input and  
1 Filtered PWM Out

**G**

0 - No Options  
Standard JEXPA & JEXPB Stack Short pins  
&  
Standard right angle box header connectors short pins

3 - Opt. EX  
JEXPA & JEXPB Stack long pins (Solder side)

5 - Opt. EX & Opt. C3 (BREAKOUT BOARD OPT)  
Opt - EX JEXPA & JEXPB Stack long pins (Solder side)  
&  
Opt - C3 Right Angle box header with long pins (Solder side)

**I**

0 - No Options  
1 - Opt. 11A\*\*  
Hi-Speed Dig. Out  
PWM Laser Control

**Communication Options**

**Other Options**

**Factory Assigned Options**

00 - No Additional\* Options  
xx - Factory assigned digits  
for Additional\* Options

**CPU / Memory Options**

**\*\* PWM Laser Control is:** Controllable TTL signals include PWM width, PWM frequency, Laser On/Off, and First Pulse Suppression. Typically C02 and YAG lasers can be directly controlled with this option. Refer to detailed specifications to verify compatibility with actual laser hardware

### CK3C-□□□□□ Part Number

• CK3C-AX□□□□□

CPU type:  
3:A7 Dual-core

Memory Size:  
0: Axis Expansion (out of AJ685 scope)  
1: 1GB RAM & 1GB Flash

Additional Options:  
100: 1x 1000 Base-T Ethernet Port  
201: 2x 1000 Base-T Ethernet Ports, 4x 16-bit Analog Inputs, 1x Additional Analog Output  
211: 1x 1000 Base-T Ethernet Port, 4x 16-bit Analog Inputs, 1x Additional Analog Output, EtherCAT  
Master with I/O Expansion License  
231: 1x 1000 Base-T Ethernet Port, 4x 16-bit Analog Inputs, 1x Additional Analog Output, EtherCAT  
Master with I/O and 8 Servo Axis Expansion License

Embedded Option:  
[blank]: Standard Pins  
E: Extended Embedded Pins

**NOTES:**

- Power Clipper 1020s replacing part numbers with 1 GB Flash will receive 1 GB RAM and 1 GB Flash. UMAC 1020 CPUs replacing part numbers with 4 GB Flash will receive 2 GB RAM and 4 GB Flash.

-Units with more than 16 axes of EtherCAT now will only have 16 Axes of EtherCAT. If more is needed, consult with ODT Factory.

-As Custom P/Ns require customer approval, no equivalent part number can be recommended at this time.

| Product Discontinuation | Suggested Replacement    |
|-------------------------|--------------------------|
| 4-4050JD0-000-000000    | CK3C-AX1100              |
| 4-4050JD0-000-010000    | CK3C-AX1201              |
| 4-4050JD0-000-011000    | Contact Customer Support |
| 4-4050JD0-000-300000    | CK3C-AX1100E             |
| 4-4050JD0-000-310000    | CK3C-AX1201E             |
| 4-4050JD0-000-500000    | CK3C-AX1100E             |
| 4-4050JD0-000-510000    | CK3C-AX1201E             |
| 4-4050JD0-100-010000    | CK3C-AX1201              |
| 4-4050JD0-100-500000    | CK3C-AX1201E             |
| 4-4050JD0-310-000000    | CK3C-AX1211              |
| 4-4050JD0-310-010000    | CK3C-AX1211              |
| 4-4050JD0-310-500000    | CK3C-AX1211E             |
| 4-4050JD0-310-511000    | Contact Customer Support |
| 4-4050JD0-320-000000    | CK3C-AX1231              |
| 4-4050JD0-320-001000    | Contact Customer Support |
| 4-4050JD0-320-010000    | CK3C-AX1231              |
| 4-4050JD0-320-500000    | CK3C-AX1231E             |
| 4-4050JD0-320-511000    | Contact Customer Support |
| 4-4050JD0-330-000000    | CK3C-AX1231              |
| 4-4050JD0-330-010000    | CK3C-AX1231              |
| 4-4050JD0-330-510000    | CK3C-AX1231E             |
| 4-4050JD0-350-000000    | CK3C-AX1231              |
| 4-4050JD0-350-010000    | CK3C-AX1231              |
| 4-4050JD0-390-000000    | CK3C-AX1231              |
| 4-4050JE0-000-011000    | Contact Customer Support |
| 4-4050JE0-000-500000    | 4-4050AB100-500000       |
| 4-4050JE0-000-510000    | 4-4050AB201-500000       |
| 4-4050JE0-320-500000    | 4-4050AB231-500000       |
| 4-4050JE0-330-510000    | 4-4050AB231-500000       |
| 4-4050JE0-390-510000    | 4-4050AB231-500000       |

| Product Discontinuation | Suggested Replacement    |
|-------------------------|--------------------------|
| 4-4050MD0-000-000000    | CK3C-AX1100              |
| 4-4050MD0-330-311000    | Contact Customer Support |
| 4-4050MD0-330-510000    | CK3C-AX1231E             |
| 4-4050MD0-350-010000    | CK3C-AX1231              |
| 4-4050MD0-3J0-011000    | Contact Customer Support |
| 4-4050ME0-000-000000    | 4-4050AB100-000000       |
| 4-4050ME0-320-010000    | 4-4050AB231-000000       |
| 4-4050ME0-320-510000    | 4-4050AB231-500000       |
| 4-4050ME0-350-010000    | 4-4050AB231-000000       |
| 4-4050ME0-390-510000    | 4-4050AB231-500000       |
| 4-4050ME0-3J0-510000    | 4-4050AB231-500000       |
| 4-4050ME0-3J0-511000    | Contact Customer Support |
| 9-4050JD0-000-5100E0    | Contact Customer Support |
| 9-4050JD0-000-A00000    | Contact Customer Support |

| Rev | Description | Date     | Prepared By | Approved By |
|-----|-------------|----------|-------------|-------------|
| A   | Released    | 4/5/2021 | EH          | RN          |

Specifications and prices in this product news are as of the issue date and are subject to change without notice. Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, product specifications, instructions, and manuals for precautions and necessary information when using products