

POWERMATIC[®]

Operating Instructions and Parts Manual CNC Routers

Models PM-2X2R and PM-2X4SP

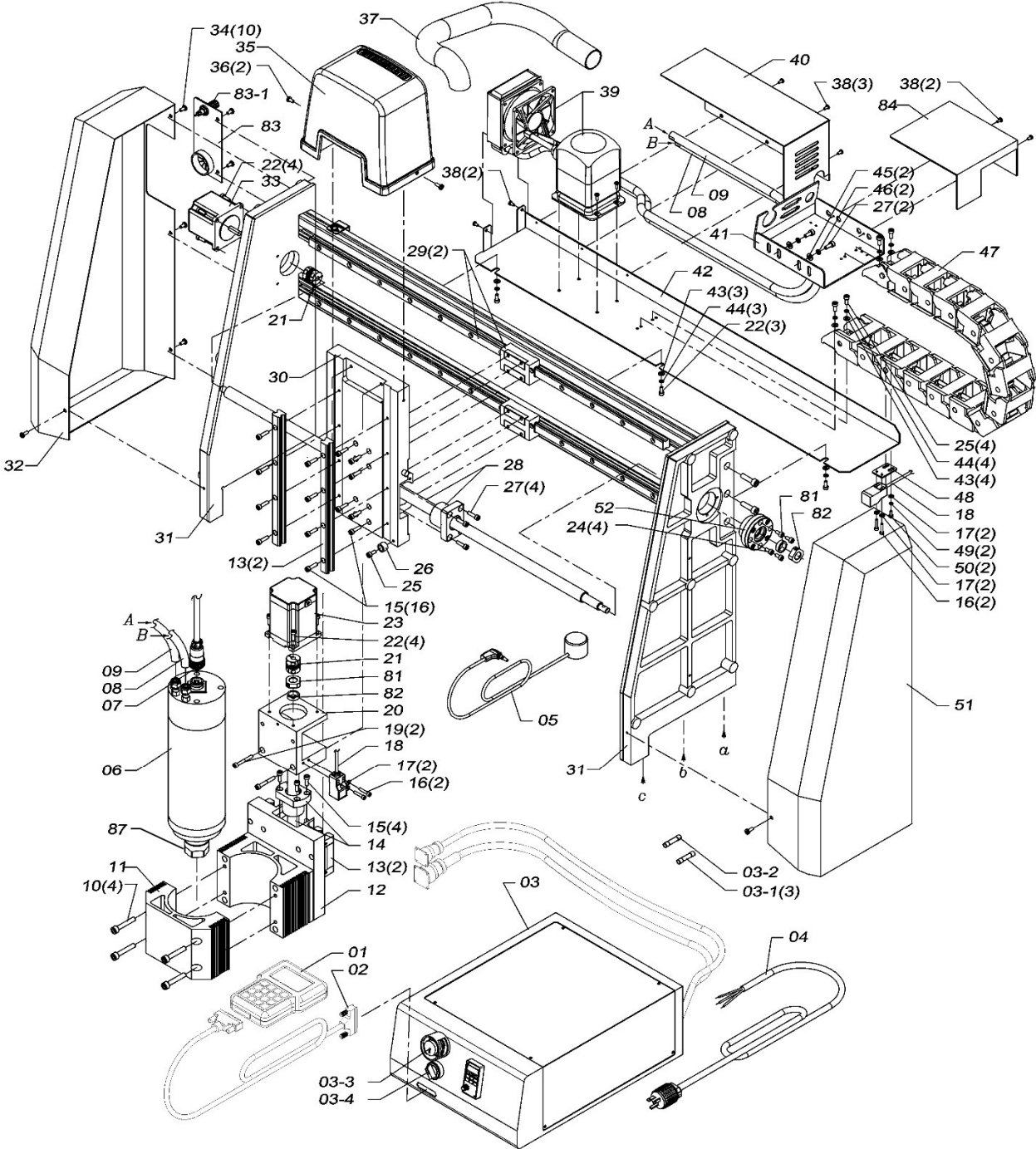
(router not included)



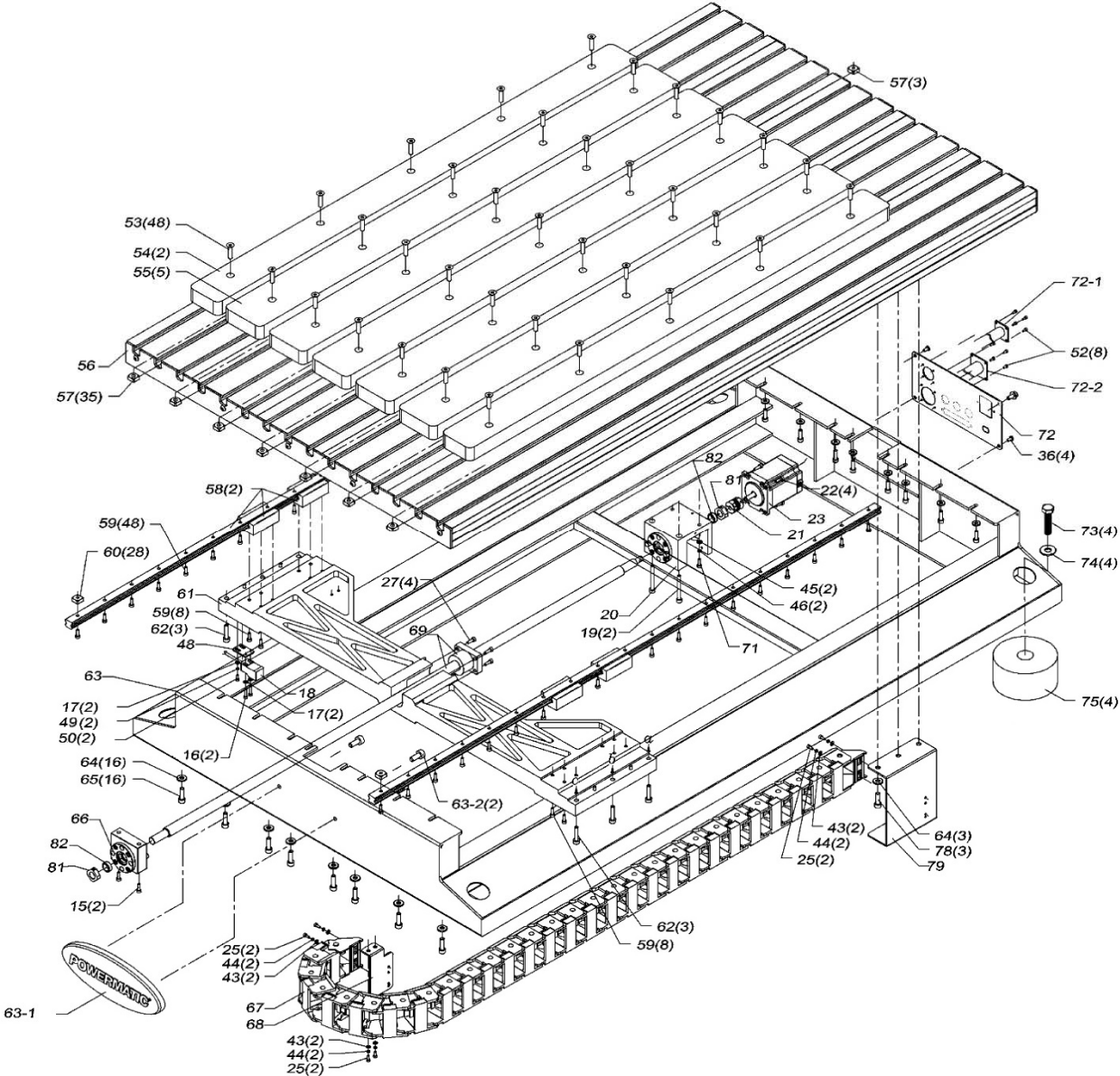
Powermatic
427 New Sanford Road
LaVergne, Tennessee 37086
Ph.: 1-855-336-4034
www.powermatic.com
cnc@powermatic.com

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15.3.1 PM-2X4SP Assembly I – Exploded View



15.3.2 PM-2X4SP Assembly II – Exploded View

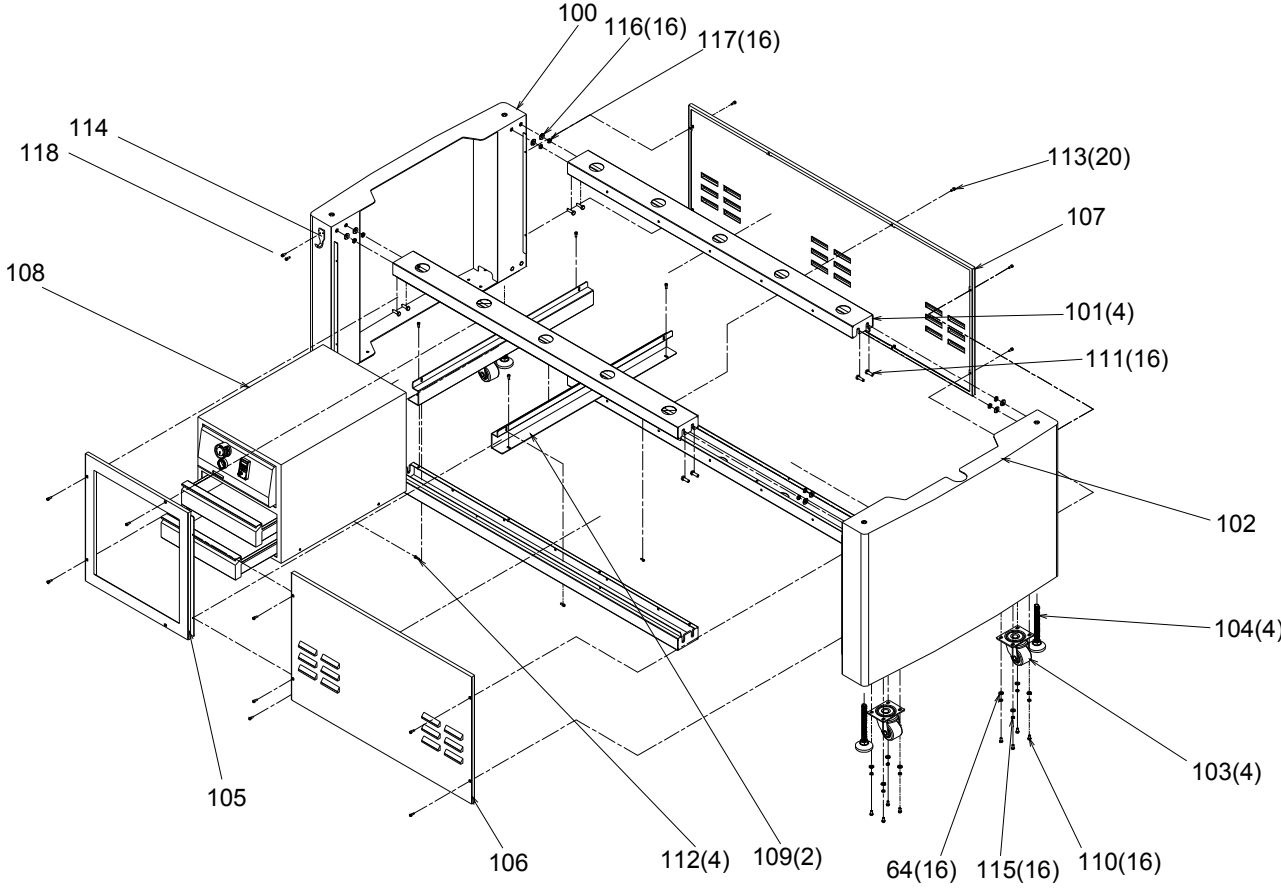


15.3.3 PM-2X4SP Assemblies – Parts List

| Index No | Part No | Description | Size | Qty |
|----------|------------|------------------------------|---------------------------------|-----|
| 1 | PM2X2R-1 | Handheld Controller | RichAuto-A11E | 1 |
| 2 | PM2X2R-2 | Controller Cable | VW-1/30V/80°C | 1 |
| 3 | PM2X4SP-3 | Electric Cabinet Assembly | | 1 |
| 3-1 | PM2X2R-3-1 | Fuse | 10A | 3 |
| 3-2 | PM2X2R-3-2 | Fuse | 3A | 1 |
| 3-3 | PM2X2R-3-3 | E-Stop Switch | E2R1RAB | 1 |
| 3-4 | PM2X2R-3-4 | Power Switch | A204F-2E20QHGU | 1 |
| 4 | PM2X2R-4 | Power Cord | 14AWGx3Cx2100L, Plug NEMA 6-20P | 1 |
| 5 | PM2X2R-5 | Tool Touch-Off Puck | | 1 |
| 6 | PM2X4SP-6 | Router Spindle | 2.2kW/7.5A/24000rpm | 1 |
| 7 | PM2X4SP-7 | Motor Cable | FT1-17AWGx4C | 1 |
| 8 | PM2X4SP-8 | Coolant Tube In | Ø10 x 1350L mm | 1 |
| 9 | PM2X4SP-9 | Coolant Tube Out | Ø10 x 1350L mm | 1 |
| 10 | TS-1503081 | Hex Socket Head Cap Screw | M6-1.0x35L | 4 |
| 11 | PM2X4SP-11 | Front Spindle Holder | | 1 |
| 12 | PM2X4SP-12 | Rear Spindle Holder Assembly | | 1 |
| 13 | PM2X2R-13 | Z-Axis Linear Guide | 15x13x220L | 2 |
| 14 | PM2X2R-14 | Z-Axis Ball Screw | M16xPitch5 ,L=282.5 | 1 |
| 15 | TS-1501051 | Hex Socket Head Cap Screw | M4-0.7x16L | 20 |
| 16 | F005235 | Hex Socket Head Cap Screw | M3-0.5x16L | 6 |
| 17 | TS-1550011 | Flat Washer | Ø3.2x7x0.5t | 10 |
| 18 | PM2X2R-18 | Limit Switch | DA-1805N0 | 3 |
| 19 | TS-1502101 | Hex Socket Head Cap Screw | M5-0.8x45L | 4 |
| 20 | PM2X2R-20 | Z-Axis Motor Seat | | 2 |
| 21 | PM2X2R-21 | Coupling | SCT-20C | 3 |
| 22 | TS-1501041 | Hex Socket Head Cap Screw | M4-0.7x12L | 15 |
| 23 | PM2X2R-23 | Stepper Motor | TK268D-02A5 | 2 |
| 24 | TS-1501011 | Hex Socket Head Cap Screw | M4-0.7x6L | 4 |
| 25 | TS-1501031 | Hex Socket Head Cap Screw | M4-0.7x10L | 9 |
| 26 | PM2X2R-26 | Rubber Pad | Ø12x8 mm | 1 |
| 27 | TS-1502031 | Hex Socket Head Cap Screw | M5-0.8x12L | 10 |
| 28 | PM2X2R-28 | X-Axis Ball Screw | M16xPitch10,L=795 | 1 |
| 29 | PM2X2R-29 | X-Axis Linear Guide | 15x13x700L | 2 |
| 30 | PM2X2R-30 | X-Axis Slide Seat | | 1 |
| 31 | PM2X2R-31 | X-Axis Moving Gantry | | 1 |
| 32 | PM2X2R-32 | Left Side Cover | | 1 |
| 33 | PM2X2R-33 | Stepper Motor | TK266D-02A5 | 1 |
| 34 | TS-1501011 | Hex Socket Head Cap Screw | M4-0.7x6L | 12 |
| 35 | PM2X2R-35 | Top Housing | | 1 |
| 36 | PM2X2R-36 | Truss Head Phillips Screw | M4-0.7x10L | 6 |
| 37 | PM2X4SP-37 | Flex Tube | Ø40x500L | 1 |
| 38 | TS-1531012 | Round Head Phillips Screw | M3-0.5x6L | 5 |
| 39 | PM2X4SP-39 | Liquid Coolant System | | 1 |
| 40 | PM2X4SP-40 | Coolant System Cover | | 1 |
| 41 | PM2X2R-41 | X-Axis Drag Chain Seat Upper | | 1 |
| 42 | PM2X2R-42 | X-Axis Drag Chain Seat Lower | | 1 |
| 43 | TS-1550021 | Flat Washer | Ø4.2x10x0.8t | 13 |
| 44 | TS-2361041 | Lock Washer | M4 | 13 |
| 45 | TS-1550031 | Flat Washer | Ø5.2x12x1.0t | 4 |
| 46 | TS-2361051 | Lock Washer | M5 | 4 |
| 47 | PM2X2R-47 | X-Axis Drag Chain | A0450.21 KR52-658mm | 1 |
| 48 | PM2X2R-48 | Limit Switch Fixed Plate | | 2 |
| 49 | TS-2361031 | Spring Washer | M3 | 4 |
| 50 | TS-1520021 | Hex Socket Head Cap Screw | M3-0.5x6L | 10 |
| 51 | PM2X2R-51 | Right Side Cover | | 1 |
| 52 | PM2X2R-52 | X Axis Bearing Seat Assembly | | 1 |
| 53 | TS-1514041 | Hex Socket Flat Head Screw | M6-1.0x25L | 35 |
| 54 | PM2X4SP-54 | MDF Spoil Strip, Side | 1235x65x25.4 mm | 2 |
| 55 | PM2X4SP-55 | MDF Spoil Strip, Middle | 1235x80x25.4 mm | 5 |

| Index No | Part No | Description | Size | Qty |
|----------|-------------|---|------------------|-----|
| 56 | PM2X4SP-56 | Table Assembly | 1594x145.3x40 mm | 1 |
| 57 | PM2X2R-57 | Square Nut 3 | M6-1.0 | 38 |
| 58 | PM2X4SP-58 | Y-Axis Linear Guide | 15x13x1420L | 2 |
| 59 | TS-1501061 | Hex Socket Head Cap Screw | M4-0.7x20L | 64 |
| 60 | PM2X2R-60 | Square Nut 2 | aM4-0.7 | 48 |
| 61 | PM2X2R-61 | Y-Axis Slide Seat | | 1 |
| 62 | TS-1503061 | Hex Socket Head Cap Screw | M6-1.0x25L | 6 |
| 63 | PM2X4SP-63 | Base | | 1 |
| 63-1 | PM2x2R-63-1 | Powermatic Logo | 242x89x15 | 1 |
| 63-2 | TS-0207041 | Socket HD Cap Screw | 1/4"-20UNCx 3/4L | 2 |
| 64 | TS-1550041 | Flat Washer | M6 | 35 |
| 65 | TS-1503051 | Hex Socket Head Cap Screw | M6-1.0x20L | 16 |
| 66 | PM2X4SP-66 | Y-Axis Bearing Seat | | 1 |
| 67 | PM2X4SP-67 | Y-Axis Drag Chain | L=1551 | 1 |
| 68 | PM2X2R-68 | Y-Axis Drag Chain Fixed Plate A | | 1 |
| 69 | PM2X4SP-69 | Y-Axis Ball Screw | | 1 |
| 71 | TS-1502051 | Hex Socket Head Cap Screw | M5-0.8x20L | 2 |
| 72 | PM2X2R-72 | Base Rear Plate | | 1 |
| 72-1 | PM2x2R-72-1 | Cable A For 110v Power Cable | | 1 |
| 72-2 | PM2x2R-72-2 | Cable B For Step Motor/Sensor | | 1 |
| 73 | F009506 | Hex Cap Screw | M10-1.5x45L | 4 |
| 74 | PM2X2R-74 | Washer | Ø10.2x25x2t | 4 |
| 75 | PM2X2R-75 | Table Foot | | 4 |
| 78 | TS-1503041 | Hex Socket Head Cap Screw | M6-1.0x16L | 3 |
| 79 | PM2X2R-79 | Y-Axis Drag Chain Fixed Plate B | | 1 |
| 81 | PM2x2R-81 | Locking Nut | | 4 |
| 82 | PM2x2R-82 | Spacer | | 4 |
| 83 | PM2x2R-83 | Cable Entry Plate | | 1 |
| 83-1 | PM2x2R-83-1 | Tool Touch-off Receptacle | N1535 | 1 |
| 84 | PM2x2R-84 | X Axis Drag Chain Seat Cover | | 1 |
| 85 | JHL610-901 | Hex Wrench | 2x60L mm | 1 |
| 86 | PM2X4SP-86 | Open End Wrench | 30x21 mm | 2 |
| 87 | PM2X4SP-87 | Collet Nut | ER20 | 1 |
| | PM2X2R-HP1 | Hardware Package 1 (not shown) (see sect.7.4 to identify) | | |
| | PM2X2R-HP2 | Hardware Package 2 (not shown) (see sect.7.4 to identify) | | |
| | PM2X2R-HP3 | Hardware Package 3 (not shown) (see sect.7.4 to identify) | | |

15.4.1 PM-2X4S Stand Assembly – Exploded View



15.4.2 PM-2X4S Stand Assembly – Parts List

| Index No | Part No | Description | Size | Qty |
|----------|------------|--|-------|-----|
| 64 | TS-1550041 | Flat Washer | M6 | 16 |
| 100 | PM2x2S-100 | Front Panel | | 1 |
| 101 | PM2x4S-101 | Cross Brace | | 4 |
| 102 | PM2x2S-102 | Rear Panel | | 1 |
| 103 | PM2x2S-103 | Swivel Caster | | 4 |
| 104 | PM2x2S-104 | Leveling Foot | | 4 |
| 105 | PM2x2S-105 | Open Side Frame | | 1 |
| 106 | PM2x4S-106 | Right Side Panel | | 1 |
| 107 | PM2x4S-107 | Left Side Panel | | 1 |
| 108 | PM2x2S-108 | Tool Cabinet Assembly | | 1 |
| 109 | PM2x2S-109 | Tool Cabinet Brace | | 2 |
| 110 | TS-1482021 | Hex Cap Screw | M6x12 | 16 |
| 111 | TS-1490041 | Hex Cap Screw | M8x25 | 16 |
| 112 | TS-1501031 | Socket HD Cap Screw | M4x10 | 4 |
| 113 | TS-1481031 | Socket HD Cap Screw | M5x12 | 20 |
| 114 | PM2x2S-114 | Controller Hook | | 1 |
| 115 | TS-2361061 | Lock Washer | M6 | 16 |
| 116 | TS-1550061 | Flat Washer | M8 | 16 |
| 117 | TS-2361081 | Lock Washer | M8 | 16 |
| 118 | TS-2171012 | Phillips Pan Hd Machine Screw | M4x6 | 2 |
| | PM2X2S-HP | Stand Hardware Package (includes # 64,110,111,114-118) | | |