

FORMAX[®]

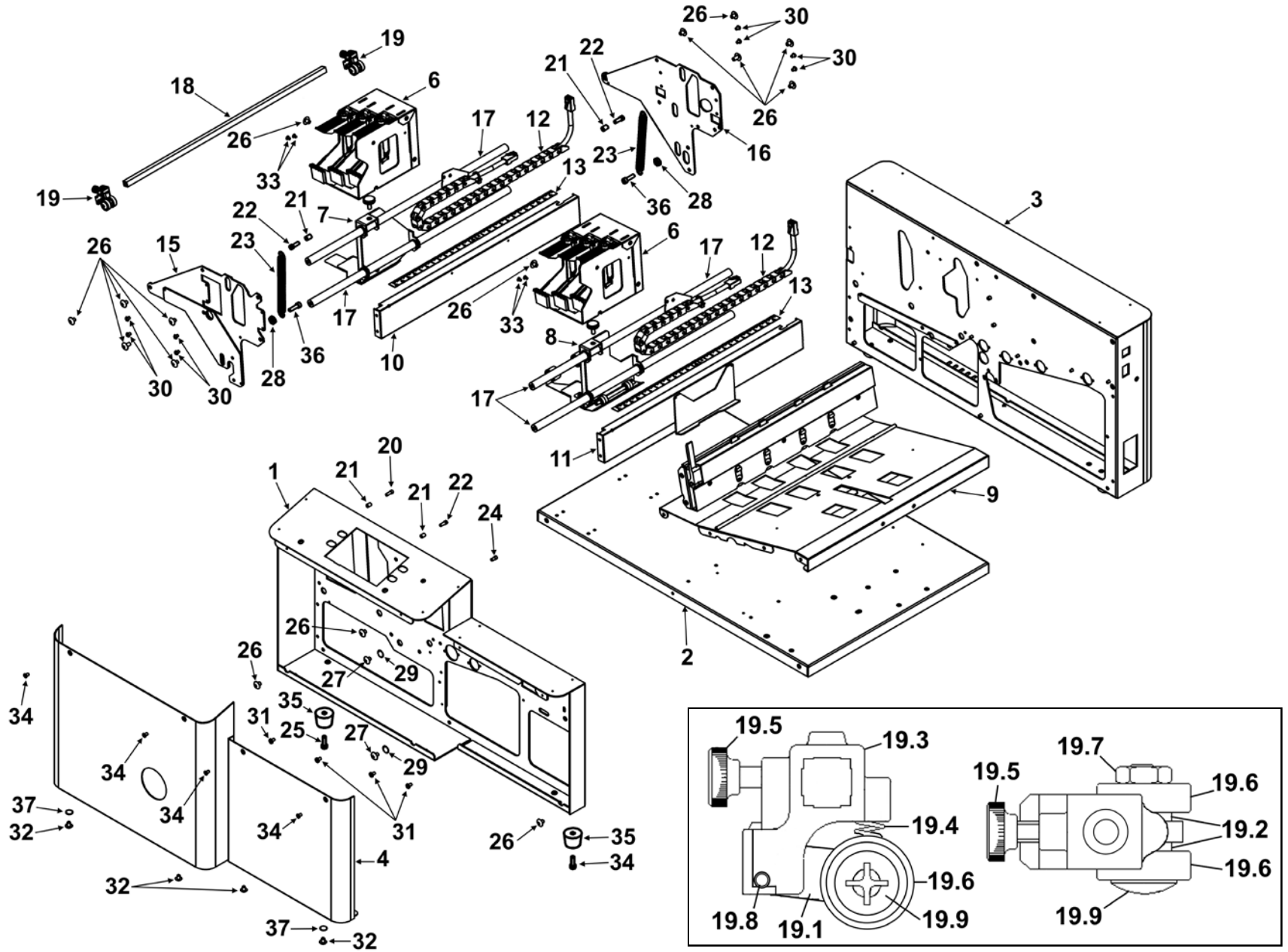
AP3
Address Printer

PARTS MANUAL
First Edition

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GROUP 1 EXTERNAL ASSEMBLY – OPERATOR SIDE

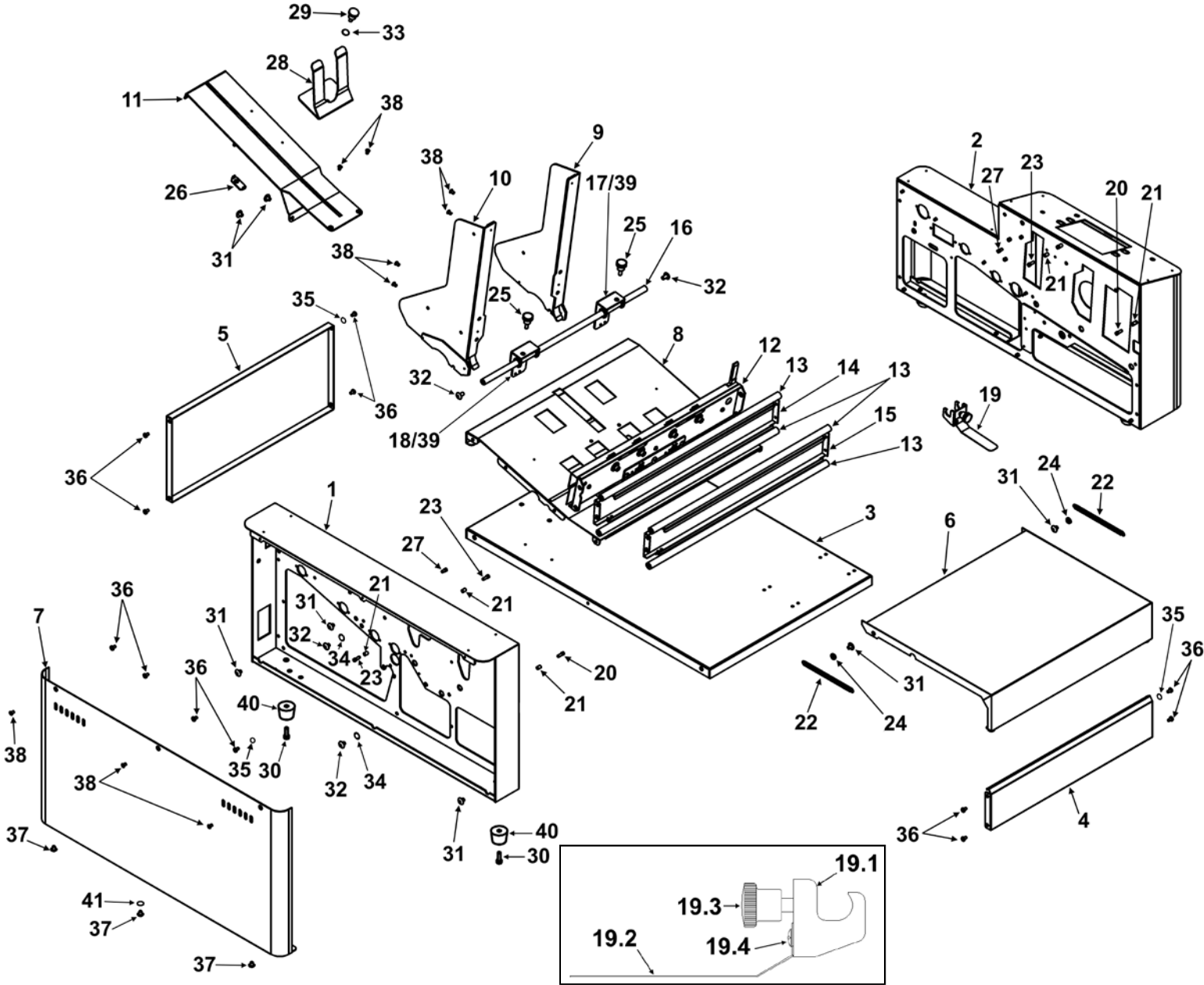


GROUP 1 EXTERNAL ASSEMBLY – OPERATOR SIDE

| KEY | PART NO. | DESCRIPTION | QTY |
|------|------------------|---|----------|
| 1 | 44E-100-08 | FRONT SIDE FRAME WELDMENT | 1 |
| 2 | 44E-100-18 | PRINTER BASE | 1 |
| 3 | 44E-100-04 | REAR SIDE FRAME WELDMENT | 1 |
| 4 | 44E-100-33 | FRONT SIDE FRAME COVER WELDMENT, RH | 1 |
| 5 | 44E-100-35 | FRONT SIDE FRAME COVER WELDMENT, LH | 1 |
| 6 | | 3-HEAD CARTRIDGE HOLDER ASSEMBLY (SEE GROUP 9) | 2 |
| 7 | | CLUSTER CARRIER ASSEMBLY, LH (SEE GROUP 8.1) | 1 |
| 8 | | CLUSTER CARRIER ASSEMBLY (SEE GROUP 8) | 1 |
| 9 | 44-100-21 | CENTER PLATE ASSEMBLY | 1 |
| 10 | | CABLE GUIDE ASSEMBLY, LH (SEE GROUP 6) | 1 |
| 11 | | CABLE GUIDE ASSEMBLY, RH (SEE GROUP 7) | 1 |
| 12 | 44-105-24 | CABLE CHAIN ASSEMBLY | 2 |
| 13 | 45-106-26 | SCALE POSITION DECAL | 2 |
| 14 | | METERING PLATE ASSEMBLY (SEE GROUP 5) | 1 |
| 15 | 44-105-08 | FRONT NEST SIDE FRAME WELDMENT | 1 |
| 16 | 44-105-04 | REAR NEST SIDE FRAME WELDMENT | 1 |
| 17 | 44-105-28 | CLUSTER ROD | 4 |
| 18 | 44-105-29 | EXIT WHEELS RAIL | 1 |
| 19 | 44-102-05 | EXIT WHEELS BLOCK ASSEMBLY (SEE INSET) | 2 |
| 19.1 | 44-102-06 | EXIT WHEELS ARM | 2 |
| 19.2 | 44-102-07 | EXIT WHEELS SPACER | 4 |
| 19.3 | 30-201-13 | EXIT WHEELS BLOCK | 2 |
| 19.4 | 71-120-09 | PNEUMATIC TUBE TILT SPRING | 2 |
| 19.5 | 90-104-09 | THUMBSCREW | 2 |
| 19.6 | 123-0035 | BEARING, NMB R-4HH | 4 |
| 19.7 | 123-0050 | HEX NUT, 10-32 | 2 |
| 19.8 | 123-1226 | DOWEL PIN, 3/32 x 7/16 | 2 |
| 19.9 | 123-1946 | SCREW, 10-32 x 3/4 PH, TRUSS HD., SS | 2 |

| KEY | PART NO. | DESCRIPTION | QTY |
|-----|-----------|---|-----|
| 20 | 20-100-36 | SCREW (STOPPER) | 2 |
| 21 | 20-100-37 | SPACER | 5 |
| 22 | 22-100-36 | SCREW (SPRING) | 3 |
| 23 | 41-120-22 | SPRING | 2 |
| 24 | 42-101-13 | 6-32 STUD | 1 |
| 25 | 123-0004 | SCREW, 10-32 x 5/8 SOC. HD. (FOR RUBBER FEET) | 2 |
| 26 | 123-0017 | SCREW, 10-32 x 1/4 PH, TRUSS HD. | 17 |
| 27 | 123-0024 | SCREW, 10-32 x 3/8 PH, TRUSS HD., SS | 2 |
| 29 | 123-0192 | HEX NUT, 6-32, SS | 2 |
| 29 | 123-0237 | STAR WASHER, #10 EXTERNAL TOOTH | 2 |
| 30 | 123-0461 | SCREW, 6-32 x 3/16 PH, RD. HD., SS | 8 |
| 31 | 123-0612 | SCREW, 10-32 x 1/4 PH, PAN HD. | 4 |
| 32 | 123-1136 | SCREW, 8-32 x 1/4 PH, TRUSS HD., SS | 4 |
| 33 | 123-1158 | SCREW, 4-40 x 3/16 PH, FL. HD. UNDERCUT, SS | 4 |
| 34 | 123-1178 | SCREW, 6-32 x 1/4 PH, FL. HD., UNDERCUT | 4 |
| 35 | 123-2122 | BUMPER, RECESSED, 1-1/16 x 7/8 (RUBBER FEET) | 2 |
| 36 | 123-2276 | SCREW, 6-32 x 1/2, HEX SOC. HD. CAP | 2 |
| 37 | 123-3072 | STAR WASHER, #8 EXTERNAL TOOTH | 2 |

GROUP 2 EXTERNAL ASSEMBLY – NON-OPERATOR SIDE

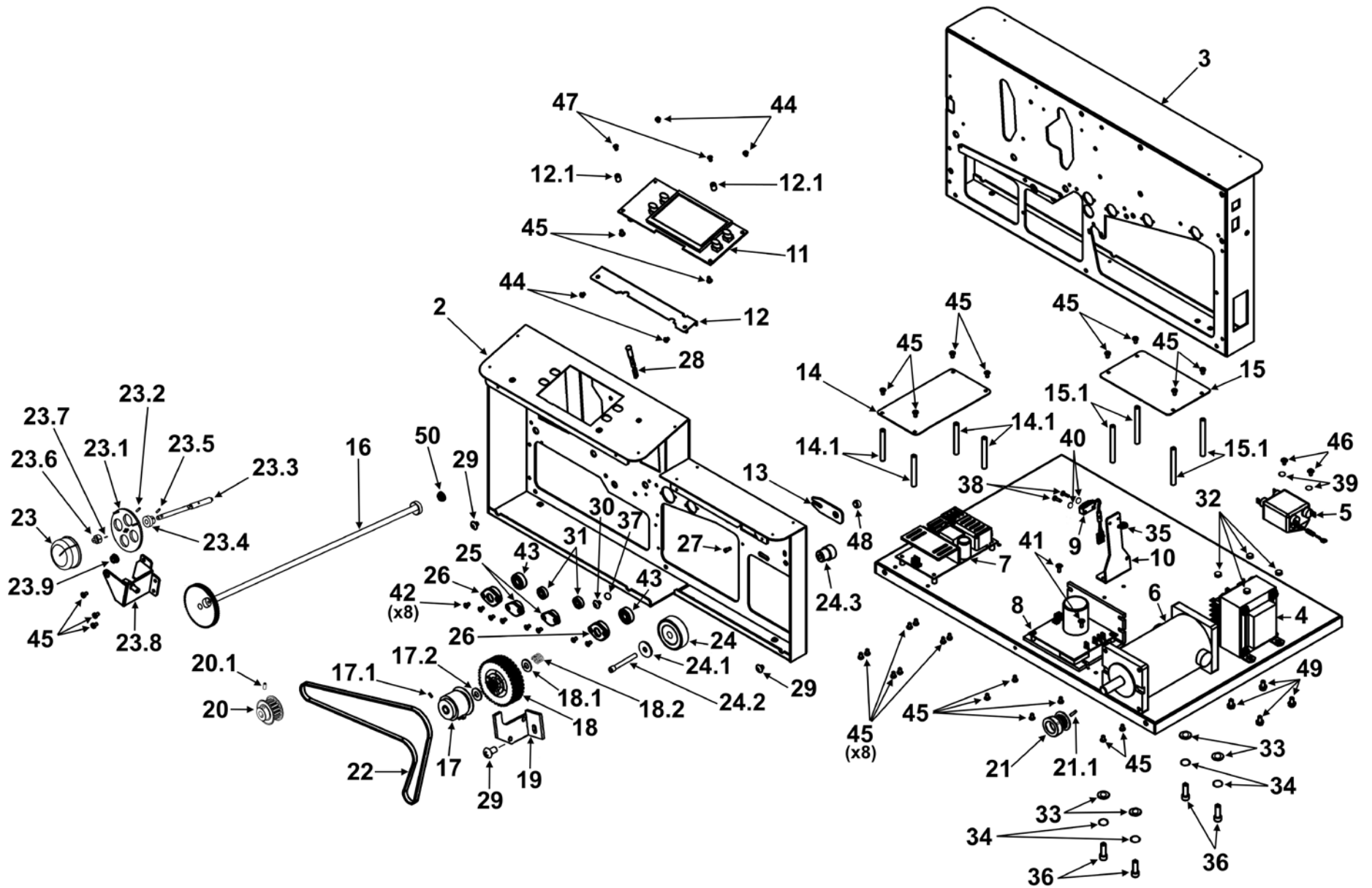


GROUP 2 EXTERNAL ASSEMBLY – NON-OPERATOR SIDE

| KEY | PART NO. | DESCRIPTION | QTY |
|------|------------------|---|----------|
| 1 | 44E-100-04 | REAR SIDE FRAME WELDMENT | 1 |
| 2 | 44E-100-08 | FRONT SIDE FRAME WELDMENT | 1 |
| 3 | 44E-100-18 | PRINTER BASE | 1 |
| 4 | 44E-100-22 | FRONT CLOSURE | 1 |
| 5 | 44E-100-23 | REAR CLOSURE | 1 |
| 6 | 44E-100-26 | TOP COVER WELDMENT | 1 |
| 7 | 44E-100-37 | REAR SIDE FRAME COVER | 1 |
| 8 | 44-100-21 | CENTER PLATE ASSEMBLY | 1 |
| 9 | 44-107-05 | PAPER GUIDE WELDMENT, RIGHT-HAND | 1 |
| 10 | 44-107-09 | PAPER GUIDE WELDMENT, LEFT HAND | 1 |
| 11 | 44-107-21 | MEDIA SUPPORT PLATE WELDMENT | 1 |
| 12 | | METERING PLATE ASSEMBLY (<i>SEE GROUP 5</i>) | 1 |
| 13 | 44-105-28 | PRINTHEAD CLUSTER ROD | 4 |
| 14 | | CABLE GUIDE ASSEMBLY, RH (<i>SEE GROUP 7</i>) | 1 |
| 15 | | CABLE GUIDE ASSEMBLY, LH (<i>SEE GROUP 6</i>) | 1 |
| 16 | 29-106-10 | SIDE GUIDE BAR | 1 |
| 17 | 36-107-18 | SIDE GUIDE HOLDER, LEFT-HAND | 1 |
| 18 | 36-107-19 | SIDE GUIDE HOLDER, RIGHT-HAND | 1 |
| 19 | 44-102-24 | RETAINER SPRING ASSEMBLY | 1 |
| 19.1 | 45-107-17 | BRACKET | 1 |
| 19.2 | 44-102-25 | RETAINER SPRING | 1 |
| 19.3 | 24-101-11 | THUMBSCREW, 10-32 THREAD | 1 |
| 19.4 | 123-0021 | SCREW, 4-40 x 1/8 PH, BTN. HD. | 2 |
| 20 | 20-100-36 | SCREW (STOPPER) | 2 |
| 21 | 20-100-37 | SPACER | 5 |
| 22 | 20-103-06 | SPRING | 2 |
| 23 | 22-100-36 | SCREW (SPRING) | 3 |
| 24 | 22-100-31 | SPACER, TOP COVER | 2 |
| 25 | 24-101-11 | THUMB SCREW, 10-32 | 2 |
| 26 | 35-211-19 | REAR MEDIA SUPPORT NUT | 1 |
| 27 | 42-101-13 | STUD, 6-32 | 2 |
| 28 | 42-107-17 | NARROW REAR MEDIA SUPPORT | 1 |
| 29 | 94-104-06 | KNOB | 1 |

| KEY | PART NO. | DESCRIPTION | QTY |
|-----|----------|---|-----|
| 30 | 123-0004 | SCREW, 10-32 x 5/8 SOC. HD. (FOR RUBBER FEET) | 2 |
| 31 | 123-0017 | SCREW, 10-32 x 1/4 PH, TRUSS HD. | 7 |
| 32 | 123-0024 | SCREW, 10-32 x 3/8 PH, TRUSS HD., SS | 4 |
| 33 | 123-0148 | WASHER, 7/16 OD x 0.200 ID x 1/32 | 1 |
| 34 | 123-0237 | STAR WASHER, #10 EXTERNAL TOOTH | 3 |
| 35 | 123-0252 | STAR WASHER, #6 EXTERNAL TOOTH | 3 |
| 36 | 123-0612 | SCREW, 6-32 x 1/4 PH, PAN HD. | 12 |
| 37 | 123-1136 | SCREW, 8-32 x 1/4 PH, TRUSS HD., SS | 3 |
| 38 | 123-1178 | SCREW, 6-32 x 1/4 PH, UNDERCUT, SS | 9 |
| 39 | 123-1789 | SNAP-IN FLANGE, 3/8" | 4 |
| 40 | 123-2122 | BUMPER, RECESSED, 1-1/16 x 7/8 (RUBBER FEET) | 2 |
| 41 | 123-3072 | STAR WASHER, #8 EXTERNAL TOOTH | 1 |

GROUP 3 MECHANICAL – OPERATOR SIDE

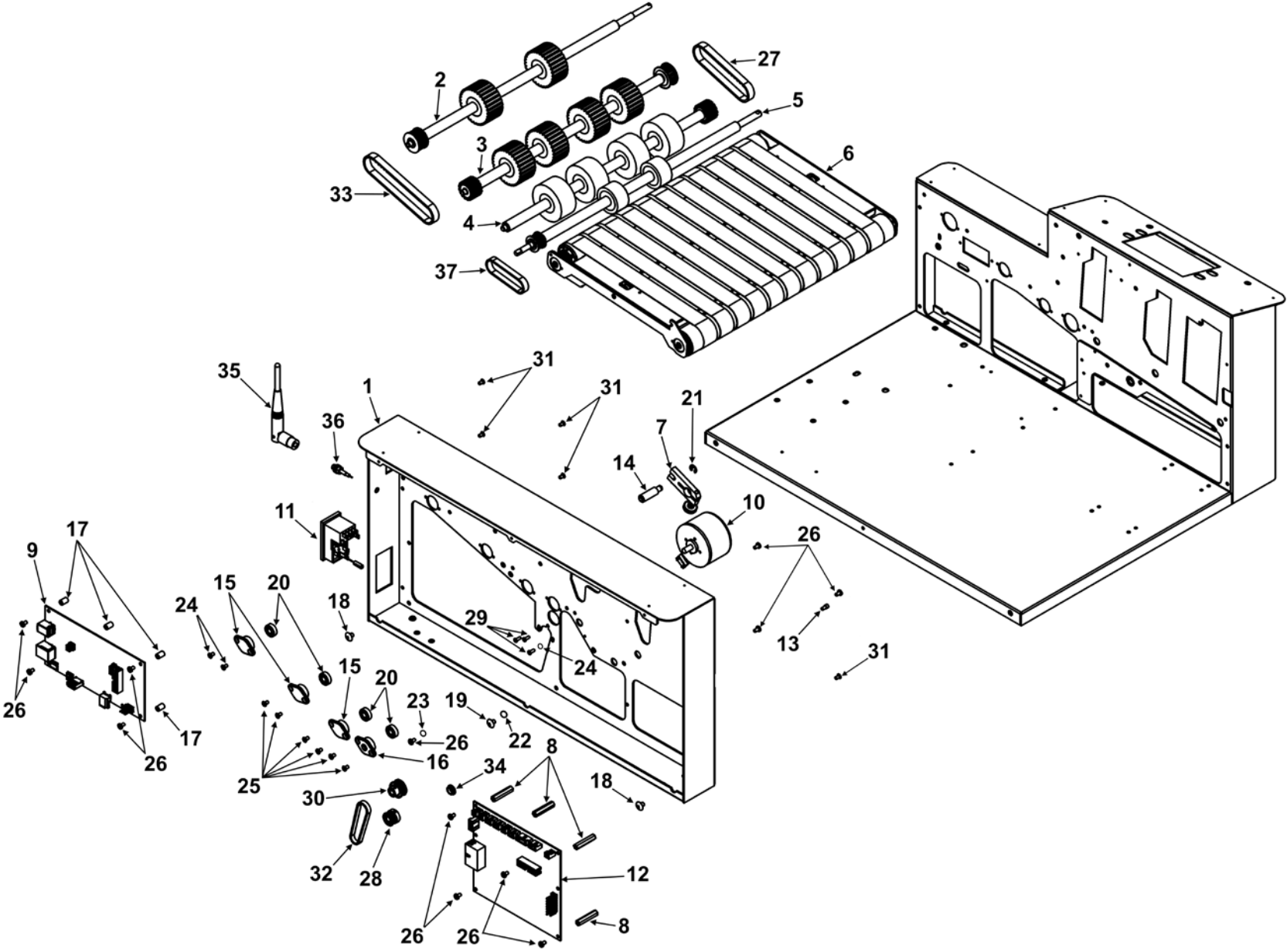


GROUP 3 MECHANICAL – OPERATOR SIDE

| KEY | PART NO. | DESCRIPTION | QTY |
|------|------------|--|-----|
| 1 | 44E-100-18 | PRINTER BASE | 1 |
| 2 | 44E-100-08 | FRONT SIDE FRAME WELDMENT | 1 |
| 3 | 44E-100-04 | REAR SIDE FRAME WELDMENT | 1 |
| 4 | 123-1562 | 130V-230V AC TRANSFORMER | 1 |
| 5 | 22-540-09 | FILTER ASSEMBLY | 1 |
| 6 | 36-500-09 | MOTOR ASSEMBLY | 1 |
| 7 | 123-1313T | 12V POWER SUPPLY | 1 |
| 8 | 44-565-10 | SPEED CONTROL | 1 |
| 9 | 44-500-14 | MEDIA SENSOR ASSEMBLY WIRE HARNESS | 1 |
| 10 | 44-102-11 | MEDIA SENSOR BRACKET | 1 |
| 11 | 36E-500-22 | TOUCHSCREEN CONTROL PANEL BOARD (INCLUDES BUTTONS) | 1 |
| 11.1 | 123-3195 | TOUCHSCREEN DISPLAY BUTTONS, OVAL, BLACK | 4 |
| 12 | 36E-100-44 | TOUCHSCREEN DISPLAY BRACKET | 1 |
| 12.1 | 36E-100-45 | DISPLAY STAND-OFF | 2 |
| 13 | 36-100-30 | TENSIONER BRACKET | 1 |
| 14 | 36-103-21 | POWER SUPPLY SHIELD | 1 |
| 14.1 | 36-103-22 | POWER SUPPLY SHIELD STUD | 4 |
| 15 | 36-103-25 | SPEED CONTROL SHIELD | 1 |
| 15.1 | 36-103-26 | SPEED CONTROL SHIELD STUD | 4 |
| 16 | | GEAR & ECC. CAM SHAFT ASSY. (SEE GROUP 14) | 1 |
| 17 | 36-500-19 | 12V CLUTCH ASSEMBLY | 1 |
| 17.1 | 123-1828 | DOWEL PIN, 3/21 DIA x 3/8, 18-8 SS | 1 |
| 17.2 | 27-102-10 | CLUTCH SUPPORT WASHER | 1 |
| 18 | 32-102-22 | CLUTCH PULLEY ASSEMBLY | 1 |
| 18.1 | 123-0312 | WASHER, PLASTIC, 5/16 x 1/2 x 0.030 | 1 |
| 18.2 | 29-103-08 | SPRING | 1 |
| 19 | 29-103-12 | CLUTCH BRACKET | 1 |
| 20 | 32-105-08 | PULLEY, 16XL GROOVES | 1 |
| 20.1 | 123-1956 | SET SCREW, 8-32 x 5/16, SOC. HD. | 1 |
| 21 | 65-303-01 | MOTOR PULLEY ASSEMBLY, 14 GROOVES | 1 |
| 21.1 | 123-1861 | SET SCREW, 10-24 x 1/4 CUP POINT | 1 |
| 22 | 123-3169 | BELT, NEOPRENE, 2MM (GT2) PITCH, 300 TEETH, 6 MM WIDE | 1 |
| 23 | 123-2747 | KNOB | 1 |
| 23.1 | 35-104-24 | BRAKE WHEEL | 1 |
| 23.2 | 123-0369 | SPRING PIN, 3/32 x 3/8 | 1 |
| 23.3 | 36-104-13 | GEAR SHAFT | 1 |

| KEY | PART NO. | DESCRIPTION | QTY |
|------|-----------|--|-----|
| 23.4 | 36-104-09 | DRIVE GEAR, 17 TEETH | 1 |
| 23.5 | 123-0695 | SPRING PIN, 3/32 x 1/2 | 1 |
| 23.6 | 45-104-08 | GEAR SHAFT COLLAR | 1 |
| 23.7 | 123-0322 | SET SCREW, 8-32 x 1/4 HEX SOC. CUP PT. | 1 |
| 23.8 | 36-104-11 | BRAKE BRACKET ASSEMBLY | 1 |
| 23.9 | 123-2659 | NYLON CLIP BEARING, 1/4" | 1 |
| 24 | 123-1368 | BEARING, 1628-2RS | 1 |
| 24.1 | 32-105-11 | WASHER | 1 |
| 24.2 | 123-0211 | SCREW, 1/4-20 x 1-1/4 SOC. HD. CAP | 1 |
| 24.3 | 32-105-12 | STUD | 1 |
| 25 | 90-103-50 | BALL BEARING HOUSING | 2 |
| 26 | 29-103-10 | BALL BEARING HOUSING | 2 |
| 27 | 42-101-13 | STUD, 6-32 x 1/4 | 1 |
| 28 | 44-500-19 | LED WIRE HARNESS ASSEMBLY | 1 |
| 29 | 123-0017 | SCREW, 10-32 x 1/4 PH, TRUSS HD. | 4 |
| 30 | 123-0024 | SCREW, 10-32 x 3/8 PH, TRUSS HD., SS | 1 |
| 31 | 123-0035 | BEARING, BALL | 2 |
| 32 | 123-0050 | HEX NUT, 10-32 | 4 |
| 33 | 123-0063 | WASHER, 5/8 OD x 9/32 ID x 1/16 | 4 |
| 34 | 123-0064 | LOCK WASHER, 1/4 | 4 |
| 35 | 123-0113 | PLASTIC TIE | 4 |
| 36 | 123-0182 | SCREW, 1/4-20 x 3/4, SOC. HD. CAP, HD | 2 |
| 37 | 123-0237 | STAR WASHER, #10 EXTERNAL TOOTH | 1 |
| 38 | 123-0241 | SCREW, 4-40 x 7/16 BIND HD., ZINC | 2 |
| 39 | 123-0252 | STAR WASHER, #6 EXTERNAL | 2 |
| 40 | 123-0261 | STAR WASHER, #4 EXTERNAL | 2 |
| 41 | 123-0274 | SCREW, 6-32 x 3/8 PH, TRUSS HD. | 2 |
| 42 | 123-0275 | SCREW, 6-32 x 1/4 PH, OVAL HD., COUNTRSNK. | 8 |
| 43 | 123-0384 | BEARING, BALL | 2 |
| 44 | 123-0461 | SCREW, 6-32 x 3/16 PH, RD. HD., SS | 4 |
| 45 | 123-0612 | SCREW, 6-32 x 1/4, PH, PAN HD. | 27 |
| 46 | 123-1135 | SCREW, 6-32 x 1/4 PH, TRUSS HD., SS | 2 |
| 47 | 123-1178 | SCREW, 6-32 x 1/4 PH, FL. HD. UNDERCUT, SS | 2 |
| 48 | 123-1704 | PEN NUT, 1/4-20, 0.56 THICK | 1 |
| 49 | 123-1761 | SCREW, 10-32 x 3/8 HEX HD., FINE THREAD | 4 |
| 50 | 123-2316 | CLIP BEARING, 5/16 x 0.375 | 1 |

**GROUP 4
MECHANICAL – NON-OPERATOR SIDE**

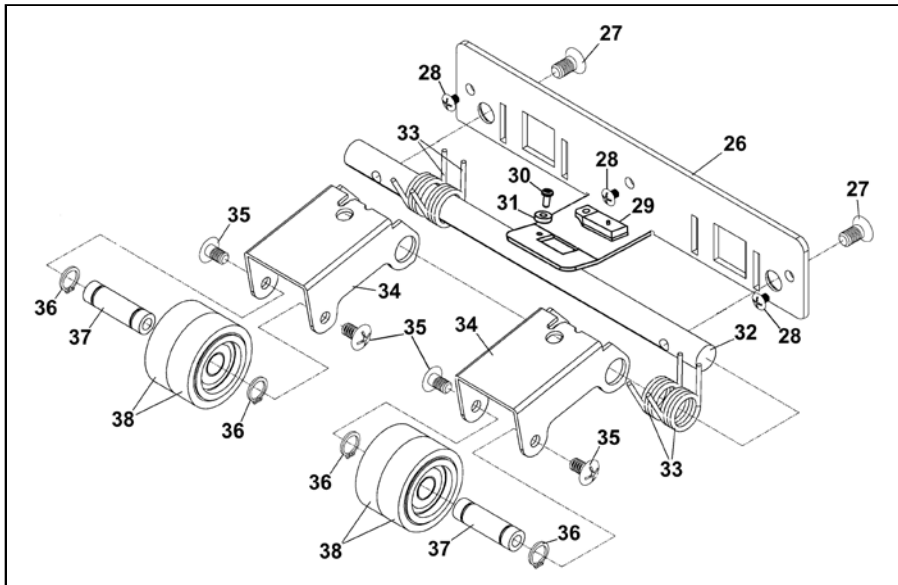
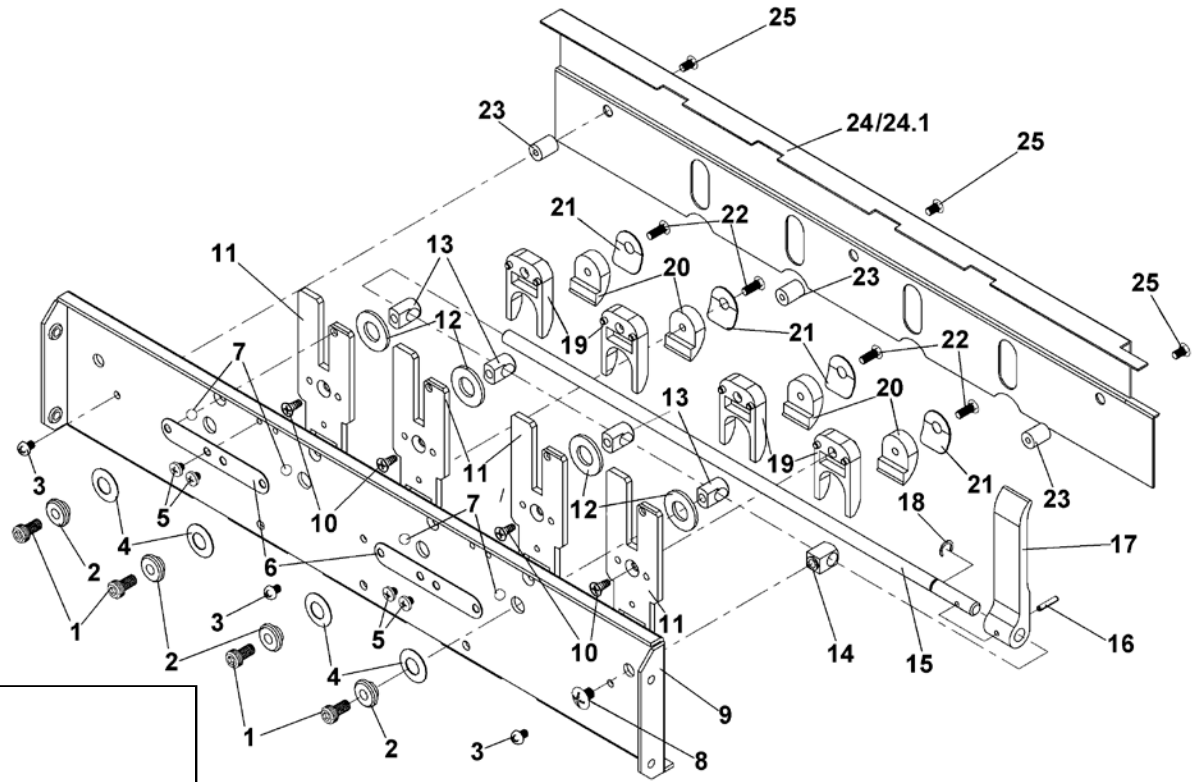


GROUP 4 MECHANICAL – NON-OPERATOR SIDE

| KEY | PART NO. | DESCRIPTION | QTY |
|-----|------------|---|-----|
| 1 | 44E-100-04 | REAR SIDE FRAME WELDMENT | 1 |
| 2 | | REAR FEED SHAFT ASSEMBLY (<i>SEE GROUP 10</i>) | 1 |
| 3 | | MIDDLE FEED SHAFT ASSEMBLY (<i>SEE GROUP 11</i>) | 1 |
| 4 | | FRONT FEED SHAFT ASSEMBLY (<i>SEE GROUP 12</i>) | 1 |
| 5 | | PULL OUT ROLLER SHAFT ASSEMBLY (<i>SEE GROUP 13</i>) | 1 |
| 6 | 44-103-03 | CONVEYOR BODY ASSEMBLY (<i>SEE GROUP 14</i>) | 1 |
| 7 | | BRAKE ASSEMBLY (<i>SEE GROUP 12</i>) | 1 |
| 8 | 36-102-38 | STUD, PC BOARD SHIELD | 4 |
| 9 | 36-500-00 | MAIN PC BOARD | 1 |
| 10 | 36-500-12 | ENCODER ASSEMBLY | 1 |
| 11 | 36-500-36 | POWER ENTRY MODULE | 1 |
| 12 | 44-500-20 | I/O BOARD | 1 |
| 13 | 42-101-13 | STUD, 6-32 | 1 |
| 14 | 65-300-43 | STUD, BRAKE | 1 |
| 15 | 90-103-50 | BEARING HOUSING | 3 |
| 16 | 90-103-61 | BEARING HOUSING | 1 |
| 17 | 95-100-32 | PC BOARD SUPPORT | 4 |

| KEY | PART NO. | DESCRIPTION | QTY |
|-----|----------|--|-----|
| 18 | 123-0017 | SCREW, 10-32 x 1/4, PH, TRUSS HD., SS | 3 |
| 19 | 123-0024 | SCREW, 10-32 x 3/8 PH, TRUSS HD., SS | 1 |
| 20 | 123-0035 | BEARING | 4 |
| 21 | 123-0081 | TRUARC, 1/4" | 1 |
| 22 | 123-0237 | STAR WASHER, #10 EXTERNAL TOOTH | 1 |
| 23 | 123-0252 | STAR WASHER, #6 EXTERNAL TOOTH | 1 |
| 24 | 123-0261 | LOCK WASHER, #4 EXTERNAL TOOTH | 1 |
| 25 | 123-0275 | SCREW, 6-32 x 1/4 PH, OVAL HD. CNTRSNK, SS | 8 |
| 26 | 123-0612 | SCREW, 6-32 x 1/4 PH, PAN HD., SS | 12 |
| 27 | 123-0934 | BELT, TIMING 90XL037 | 1 |
| 28 | 123-0994 | PULLEY, 40 DP | 1 |
| 29 | 123-1023 | SCREW, 4-40 x 5/16. PH, RD. HD., SS | 3 |
| 30 | 123-1087 | PULLEY, 40 DP, 26 GROOVES | 1 |
| 31 | 123-1178 | SCREW, 6-32 x 1/4 PH, FL. HD. UNDERCUT, SS | 5 |
| 32 | 123-1331 | BELT, TIMING, 0.215", 75 GROOVES | 1 |
| 33 | 123-1564 | BELT, TIMING, 110XL041 | 1 |
| 34 | 123-2316 | BEARING, CLIP 5/16 x 0.375 | 1 |
| 35 | 123-2982 | WIFI ANTENNA | 1 |
| 36 | 123-2983 | ANTENNA BULKHEAD | 1 |
| 37 | 123-3054 | BELT, 0.200", (XL) PITCH, 30 TEETH, 5/16" WIDE | 1 |

GROUP 5 METERING PLATE ASSEMBLY

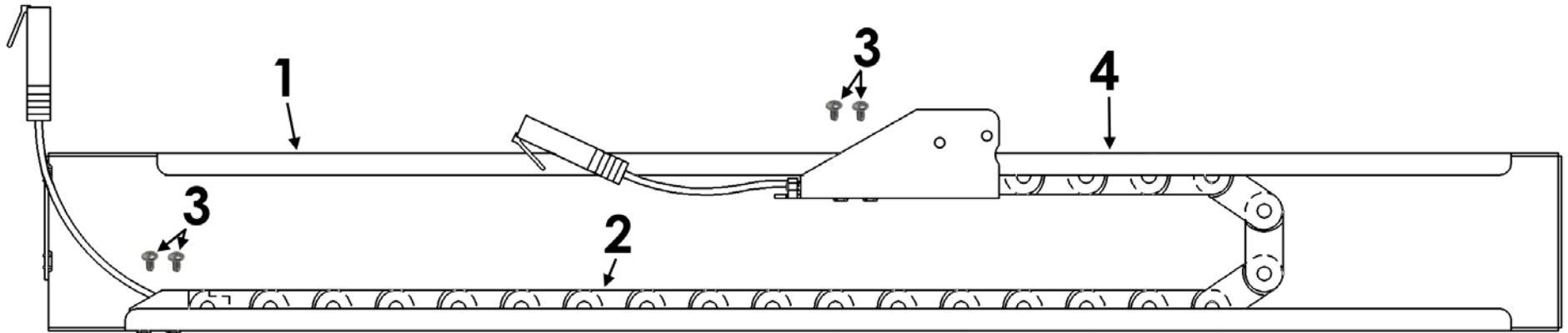


GROUP 5 METERING PLATE ASSEMBLY

| KEY | PART NO. | DESCRIPTION | QTY |
|--------------------------------|------------|--|-----|
| METERING PLATE ASSEMBLY | | | |
| 1 | 123-0185 | SCREW, 10-32 x 3/8, SOC. HD. CAP | 4 |
| 2 | 66-101-09 | SEPARATOR SPACER | 4 |
| 3 | 123-0461 | SCREW, 6-32 x 3/16 PH, RD. HD., ZINC | 3 |
| 4 | 123-0121 | DISC SPRING | 4 |
| 5 | 123-0127 | SCREW, 6-32 x 1/8 PH, PAN HD. | 4 |
| 6 | 21-121-03 | METERING HOLDER | 2 |
| 7 | 123-0347 | STEEL BALL, 0.187" DIA. | 4 |
| 8 | 123-0017 | SCREW, 10-32 x 1/4 PH, TRUSS HD. | 1 |
| 9 | 21-121-02 | METERING PLATE | 1 |
| 10 | 123-1310 | SCREW, #6 x 3/8, PH, FL. SELF-TAPPING, 18-8 SS | 4 |
| 11 | 21-121-12 | METERING FINGER | 4 |
| 12 | 123-0096 | WASHER, 3/8 ID x 3/4 od x 0.064, PLASTIC | 4 |
| 13 | 66-101-10 | SEPARATOR STUD | 4 |
| 14 | 66-101-07 | LOCKING LEVER STUD | 1 |
| 15 | 66-101-04 | SEPARATOR LOCKING BAR | 1 |
| 16 | 123-0327 | ROLL PIN, 3/32 x 7/16 | 1 |
| 17 | 66-101-05 | SEPARATOR LOCKING LEVER | 1 |
| 18 | 123-0169 | C-CLIP, 1/4" | 1 |
| 19 | 21-101-15 | METERING KNOB | 4 |
| 20 | 90-103-09S | METERING SEGMENT | 4 |
| 21 | 66-101-13 | SEPARATOR WASHER | 4 |
| 22 | 123-0751 | SCREW, 6-32 x 3/8 | 4 |
| 23 | 66-101-14 | SEPARATOR COVER STAND-OFF | 3 |
| 24 | 44E-108-08 | METERING PLATE COVER | 1 |
| 24.1 | 45-106-26 | SCALE POSITION DECAL | 1 |
| 25 | 123-1178 | SCREW, 6-32 x 1/4 PH, UNDERCUT SS | 3 |

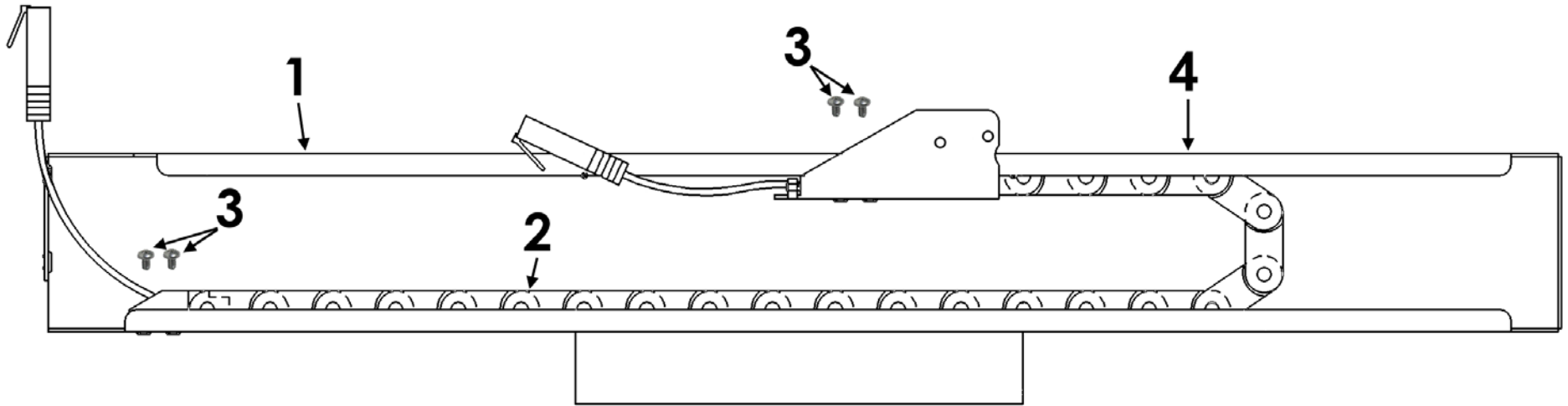
| KEY | PART NO. | DESCRIPTION | QTY |
|------------------------------------|-----------|---|-----|
| METERING ARM GUIDE ASSEMBLY | | | |
| 26 | 44-108-07 | METERING ARMS GUIDE | 1 |
| 27 | 123-0446 | SCREW, 8-32 x 5/16 PH, UNDERCUT, MS, SS | 2 |
| 28 | 123-1136 | SCREW, 8-32 x 1/4 PH, TRUSS HD, SS (SECURES METERING ARM GUIDE ASSEMBLY TO METERING PLATE ASSEMBLY) | 3 |
| 29 | 123-2033A | REFLECTOR | 1 |
| 30 | 123-0976 | SCREW, 4-40 x 3/16 PH, PAN HD., SS | 1 |
| 31 | 45-107-18 | SENSOR REFLECTOR SPACER | 1 |
| 32 | 27-302-11 | ARM GUIDE SHAFT | 1 |
| 33 | 21-122-08 | SPRING | 4 |
| 34 | 24-112-09 | ARM | 2 |
| 35 | 123-1135 | SCREW, 6-32 x 1/4 PH, TRUSS HD. | 4 |
| 36 | 123-0257 | RETAINING RING, TYPE SH | 4 |
| 37 | 21-122-06 | SHAFT | 2 |
| 38 | 97-115-02 | WHEEL ASSEMBLY | 4 |

**GROUP 6
LEFT-HAND CABLE GUIDE ASSEMBLY**



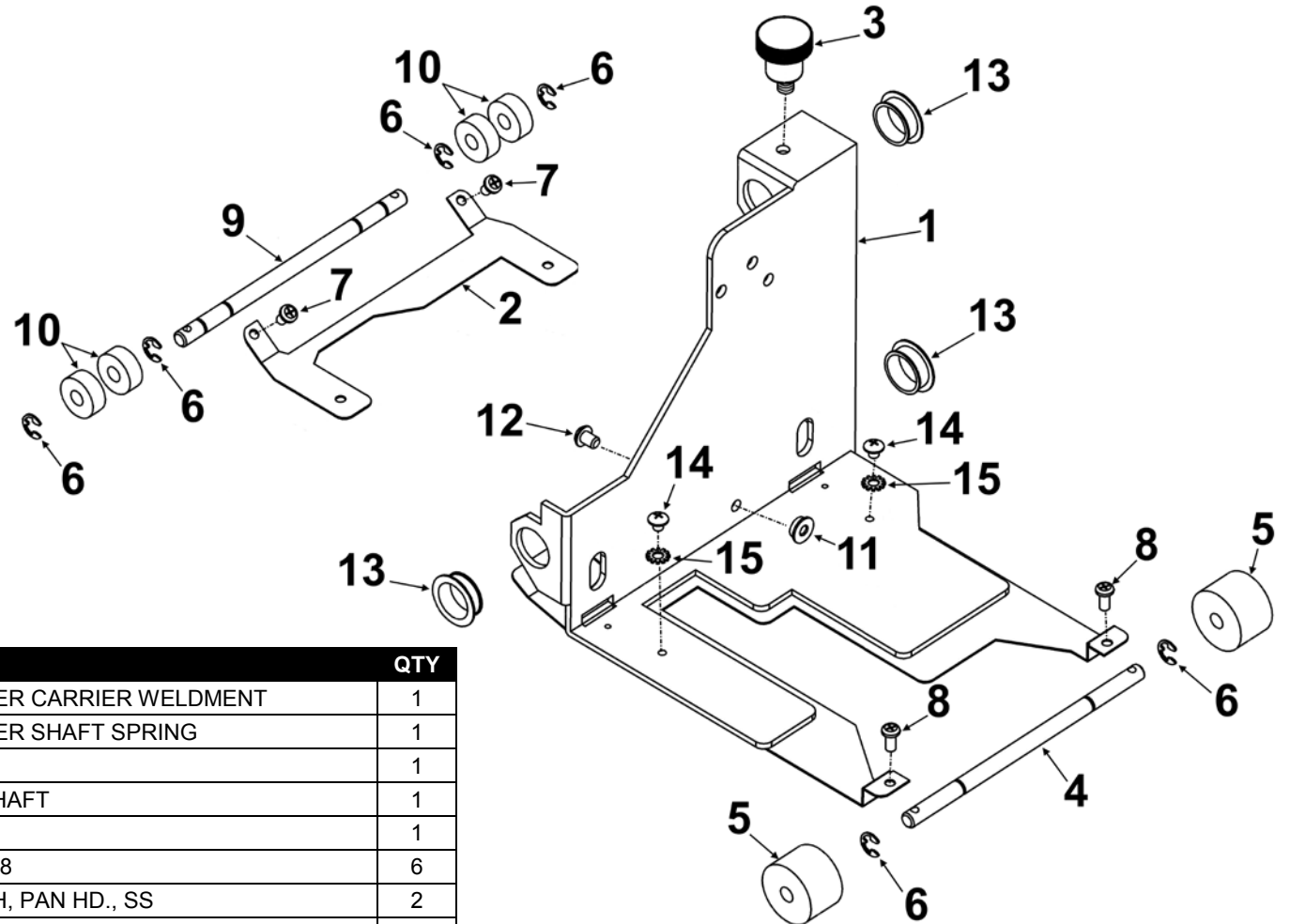
| KEY | PART NO. | DESCRIPTION | QTY |
|-----|-----------|--|-----|
| 1 | 44-105-22 | CABLE GUIDE WELDMENT | 1 |
| 2 | 44-105-24 | CABLE CHAIN ASSEMBLY <i>(INCLUDES CHAIN, CABLE AND BRACKET)</i> | 1 |
| 3 | 123-0978 | SCREW, 4-40 x 3/16 PH, PAN HD. SS | 4 |
| 4 | 45-106-26 | SCALE POSITION DECAL | 1 |

**GROUP 7
RIGHT-HAND CABLE GUIDE ASSEMBLY**



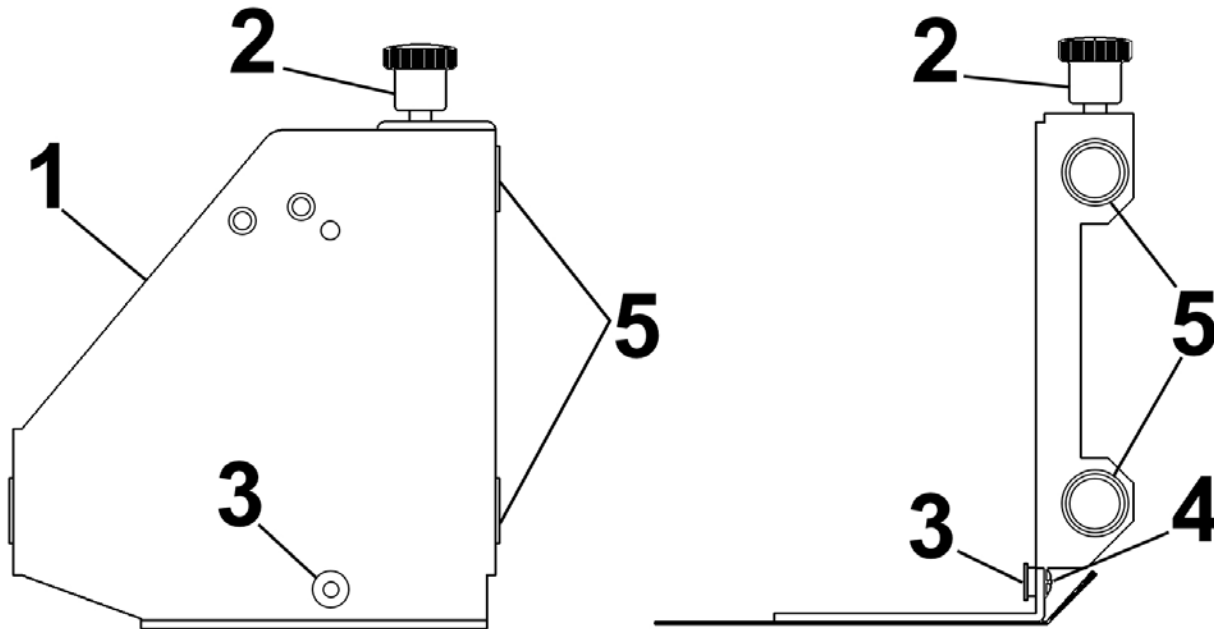
| KEY | PART NO. | DESCRIPTION | QTY |
|-----|-----------|--|-----|
| 1 | 44-105-21 | CABLE GUIDE WELDMENT | 1 |
| 2 | 44-105-24 | CABLE CHAIN ASSEMBLY <i>(INCLUDES CHAIN, CABLE AND BRACKET)</i> | 1 |
| 3 | 123-0978 | SCREW, 4-40 x 3/16 PH, PAN HD. SS | 4 |
| 4 | 45-106-26 | SCALE POSITION DECAL | 1 |

GROUP 8 3-HEAD CARTRIDGE CARRIER



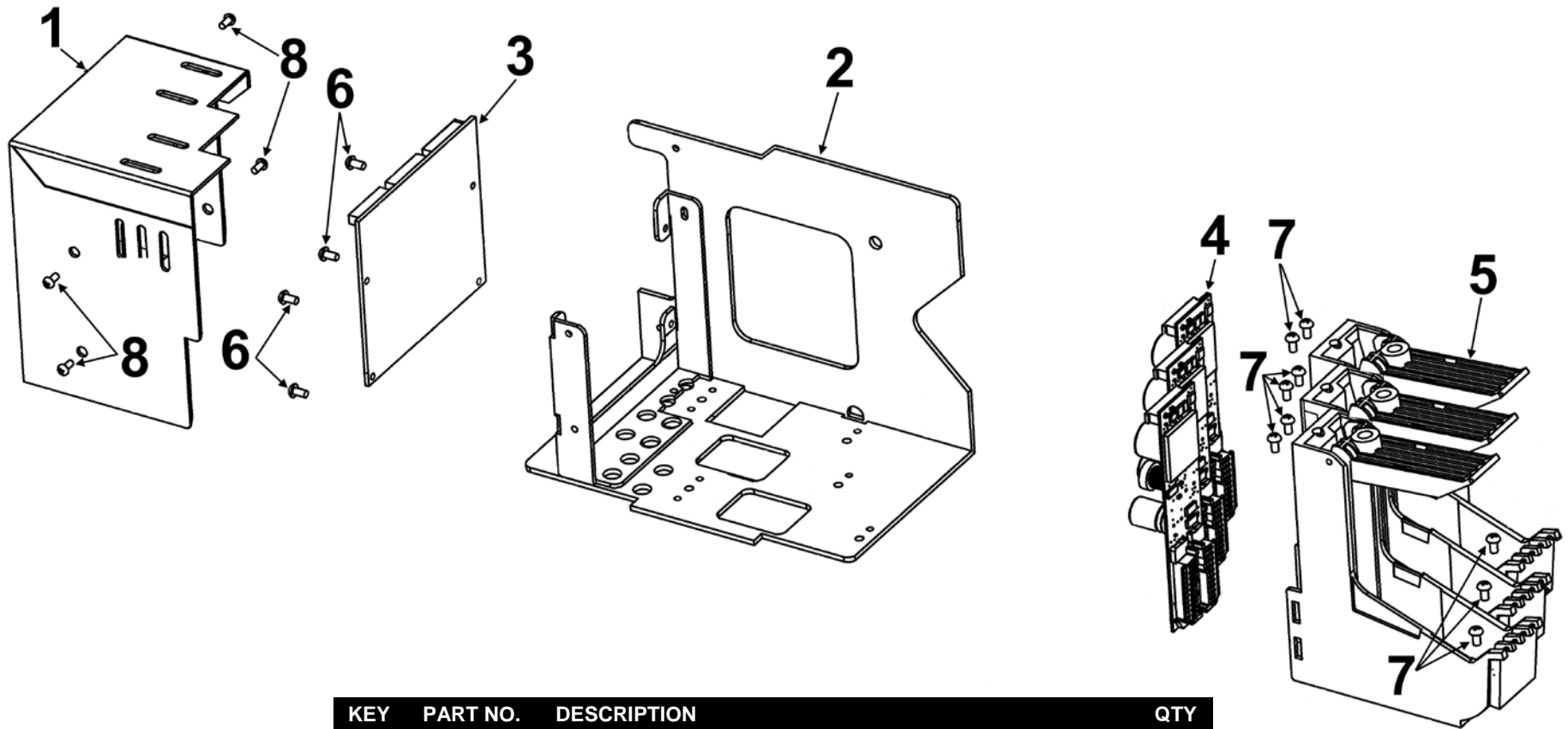
| KEY | PART NO. | DESCRIPTION | QTY |
|-----|-----------|---|-----|
| 1 | 44-106-07 | 3-CARTRIDGE CLUSTER CARRIER WELDMENT | 1 |
| 2 | 44-106-24 | 3-CARTRIDGE CLUSTER SHAFT SPRING | 1 |
| 3 | 95-105-19 | KNOB | 1 |
| 4 | 44-106-22 | 3-CARTRIDGE EXIT SHAFT | 1 |
| 5 | 21-144-00 | WHEEL ASSEMBLY | 1 |
| 6 | 123-0080 | 3/16 TRUARC, #5133-18 | 6 |
| 7 | 123-0978 | SCREW, 4-40 x 3/16 PH, PAN HD., SS | 2 |
| 8 | 123-0976 | SCREW, 4-40 x 1/4 PH, PAN HD. | 2 |
| 9 | 44-106-23 | 3-CARTRIDGE SHAFT | 1 |
| 10 | 123-0078 | BEARING, NMB R3ZZ | 4 |
| 11 | 44-106-26 | CARTRIDGE POSITIONING BUTTON | 1 |
| 12 | 123-0675 | SCREW, 6-32 x 3/16 PH, FH, UNDERCUT, SS | 1 |
| 13 | 123-2700 | BEARING CLIP | 3 |
| 14 | 123-1340 | SCREW, 4-40 x 1/8 PH, TRUSS. HD., SS | 2 |
| 15 | 123-0261 | STAR WASHER, #4 EXTERNAL | 4 |

GROUP 8.1
LEFT-HAND 3-HEAD CARTRIDGE CARRIER



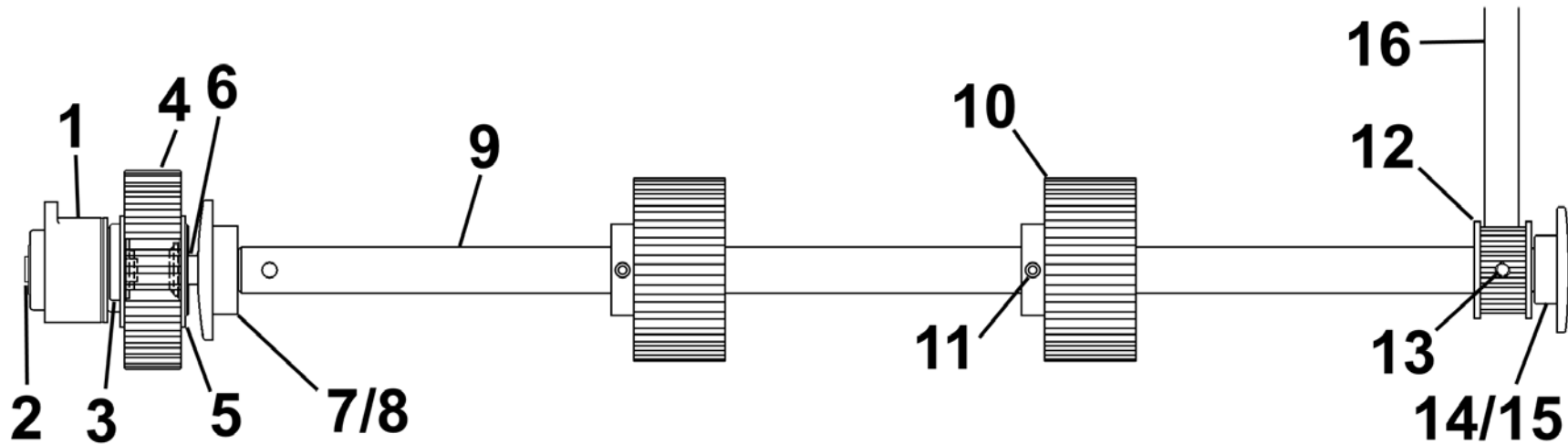
| KEY | PART NO. | DESCRIPTION | QTY |
|-----|-----------|--|-----|
| 1 | 44-106-11 | 3-CARTRIDGE CLUSTER CARRIER WELDMENT, LH | 2 |
| 2 | 95-105-19 | KNOB | 2 |
| 3 | 44-106-26 | CARTRIDGE POSITIONING BUTTON | 1 |
| 4 | 123-0461 | SCREW, 6-32 x 3/16 PH, RD. HD., ZINC | 1 |
| 5 | 123-2700 | BEARING CLIP | 3 |

GROUP 9 3-HEAD CARTRIDGE HOLDER ASSEMBLY



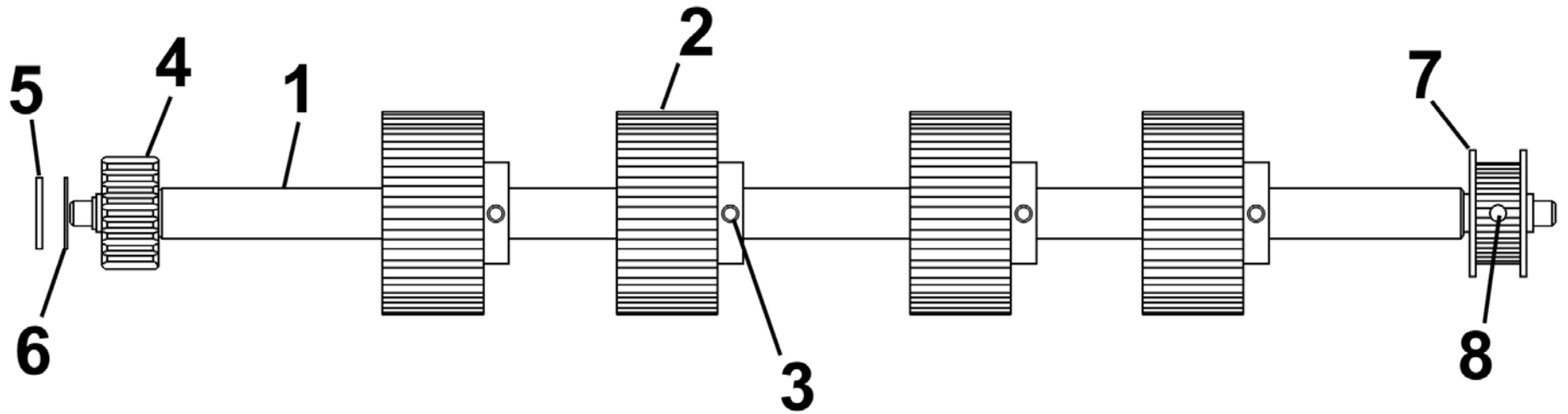
| KEY | PART NO. | DESCRIPTION | QTY |
|-----|-----------|---|-----|
| 1 | 44-106-19 | 3-HEAD CARTRIDGE CLUSTER CLOSURE | 2 |
| 2 | 44-106-15 | 3-HEAD CARTRIDGE CLUSTER BODY WELDMENT | 2 |
| 3 | 44-500-30 | 3-HEAD PEN DRIVER INTERFACE PC BOARD | 2 |
| 4 | 123-1900 | PEN DRIVER PC BOARD | 6 |
| 5 | 123-2898 | CARTRIDGE HOLDER (INCLUDES PEN DRIVER PC BOARD MOUNTING BLOCKS AND 2 MOUNTING SCREWS) | 6 |
| 6 | 123-0976 | SCREW, 4-40 x 1/4 PH, PAN HD. | 8 |
| 7 | 123-0978 | SCREW, 4-40 x 3/16 PH, PAN HD., SS | 18 |
| 8 | 123-1323 | SCREW, 4-40 x 3/16 PH, TRUSS HD., SS | 8 |

GROUP 10 REAR FEED SHAFT



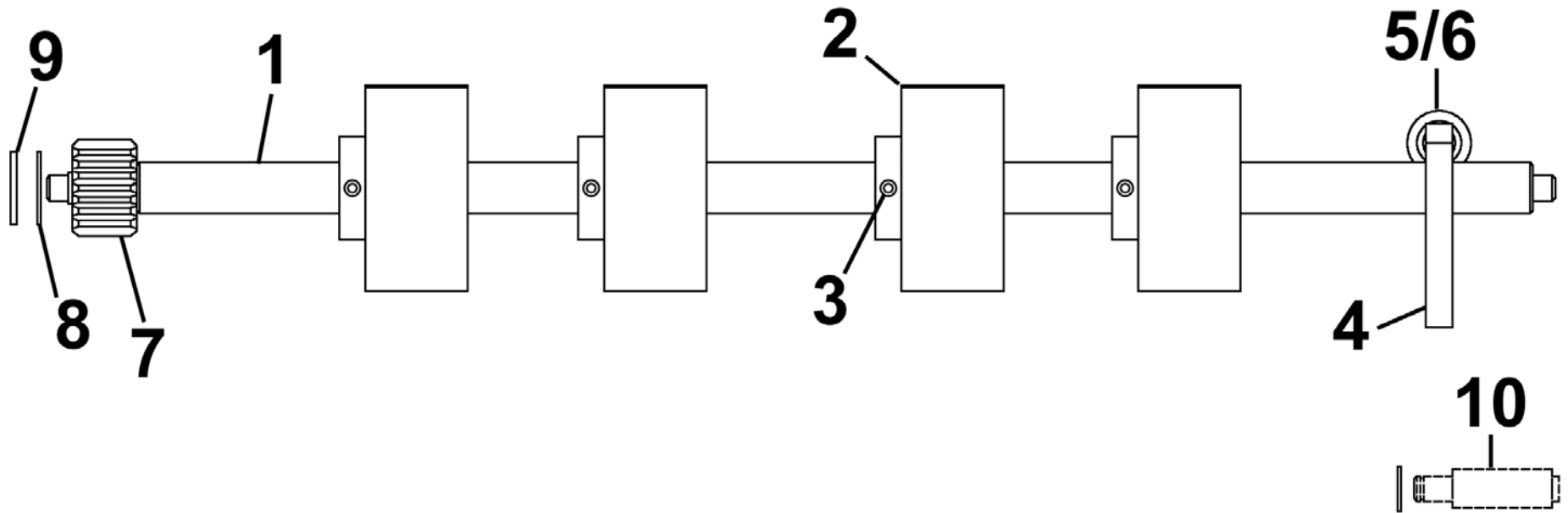
| KEY | PART NO. | DESCRIPTION | QTY |
|-----|------------|---|-----|
| 1 | 36-500-19 | 12V CLUTCH ASSEMBLY | 1 |
| 2 | 123-1828 | DOWEL PIN, 3/21 DIA x 3/8, 18-8 SS | 1 |
| 3 | 27-102-10 | CLUTCH SUPPORT WASHER | 1 |
| 4 | 32-102-22 | CLUTCH PULLEY ASSEMBLY | 1 |
| 5 | 123-0312 | WASHER, 5/16 x 1/ x 0.30, PLASTIC | 1 |
| 6 | 29-103-08 | SPRING | 1 |
| 7 | 29-103-10 | BEARING HOUSING | 1 |
| 8 | 123-0384 | BEARING, NMB 608ZZ | 1 |
| 9 | 44-101-05 | REAR FEED SHAFT | 1 |
| 10 | 90-102-21C | FEED ROLLER ASSEMBLY (SERRATED TREAD) | 2 |
| 11 | 123-1861 | SET SCREW, 10-24 x 1/4, CUP PT. | 2 |
| 12 | 29-103-11 | PULLEY, 16-GROOVES | 1 |
| 13 | 123-0322 | SET SCREW, 8-32 x 1/4, HEX SOC. CAP PT. | 1 |
| 14 | 90-103-50 | BEARING HOUSING | 1 |
| 15 | 123-0035 | BEARING, NMB R-4HH | 1 |
| 16 | 123-1564 | BELT, TIMING 110XL041 | 1 |

GROUP 11 MIDDLE FEED SHAFT



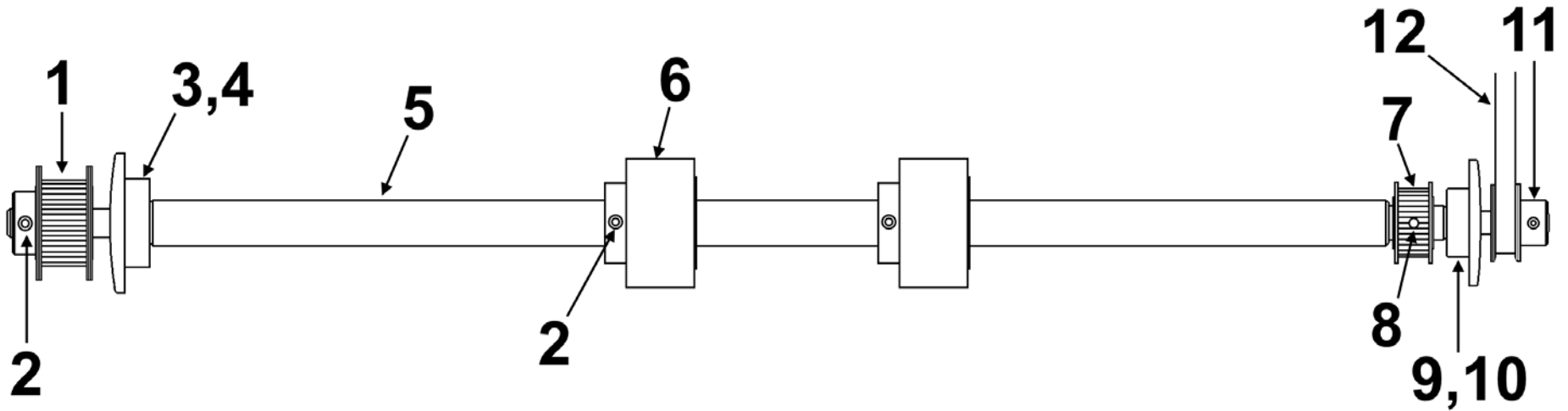
| KEY | PART NO. | DESCRIPTION | QTY |
|-----|------------|---|-----|
| 1 | 21-113-01 | MIDDLE FEED SHAFT WITH INNER RACE | 1 |
| 2 | 90-102-21C | FEED ROLLER ASSEMBLY (SERRATED TREAD) | 4 |
| 3 | 123-1861 | SET SCREW, 10-24 x 1/4 CUP PT. | 4 |
| 4 | 94-105-04 | PULLEY ASSEMBLY, 16 GROOVES (NUMBERS FACE WASHERS) | 1 |
| 5 | 123-0567 | WASHER, SS | 1 |
| 6 | 63-105-15 | WASHER, SS | 1 |
| 7 | 123-0991 | PULLEY, 16XL037 x 0.563 W x 3/8 ID | 1 |
| 8 | 123-0322 | SET SCREW, 8-32 x 1/4, HEX SOC. CAP PT. | 1 |

**GROUP 12
FRONT ROLLER SHAFT**



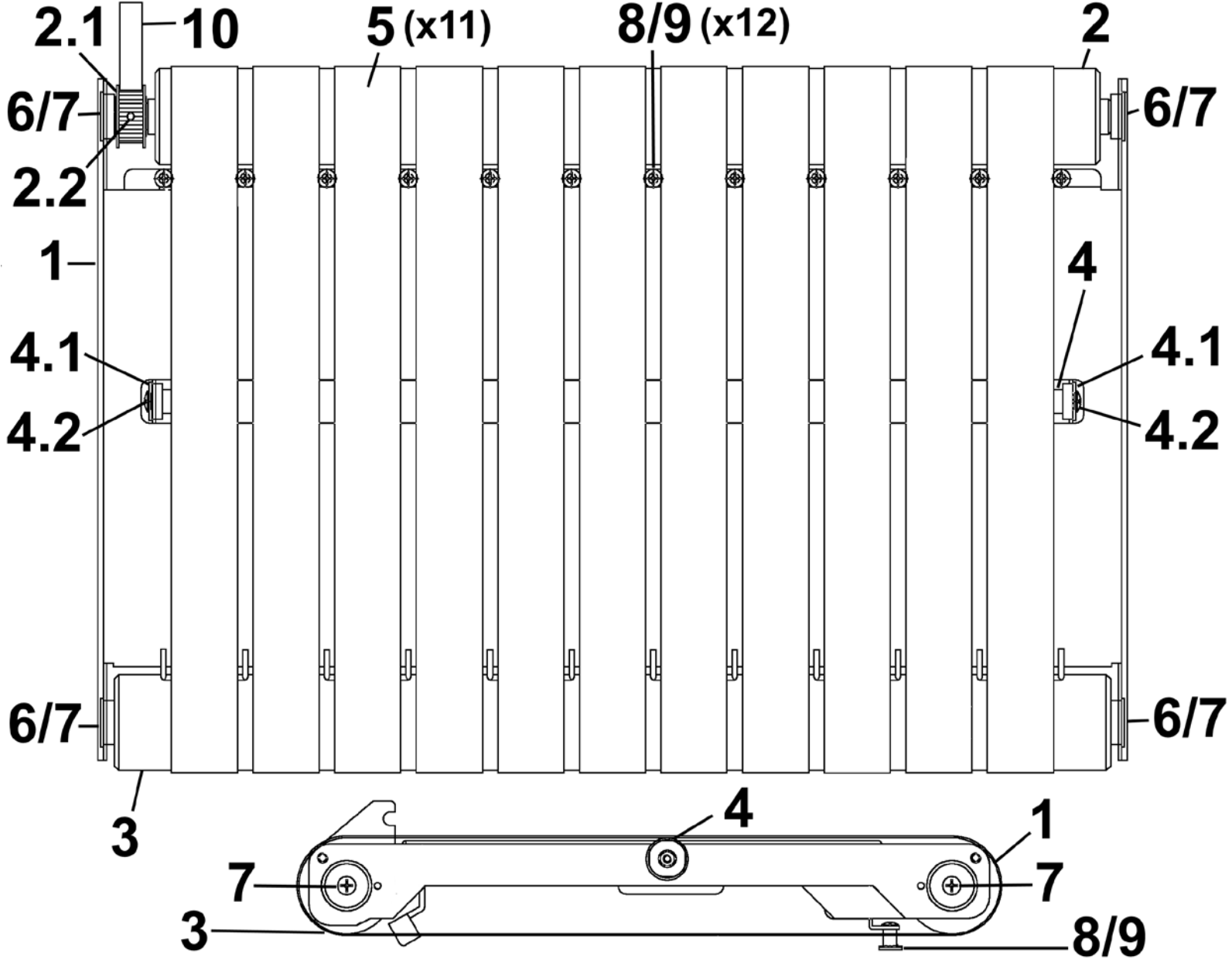
| KEY | PART NO. | DESCRIPTION | QTY |
|-----|-----------|---|-----|
| 1 | 21-114-01 | FRONT FEED SHAFT w/INNER RACE | 1 |
| 2 | 90-102-21 | FEED ROLLER (SMOOTH TREAD) | 4 |
| 3 | 123-1861 | SET SCREW, 10-24 x 1/4 CUP PT. | 4 |
| 4 | 36-101-09 | BRAKE | 1 |
| 5 | 63-108-05 | BRAKE THUMBSCREW | 1 |
| 6 | 63-108-09 | FEED ROLLER BRAKE SPRING | 1 |
| 7 | 94-105-04 | PULLEY ASSEMBLY, 16 GROOVES (NUMBERS FACE WASHERS) | 1 |
| 8 | 63-105-15 | WASHER, SS | 1 |
| 9 | 123-0567 | WASHER, SS | 1 |
| 10 | 65-300-43 | BRAKE STUD | 1 |

**GROUP 13
PULL OUT ROLLER SHAFT ASSEMBLY**



| KEY | PART NO. | DESCRIPTION | QTY |
|-----|-----------|--|-----|
| 1 | 32-105-08 | PULLEY, 16XL GROOVES | 1 |
| 2 | 123-1956 | SET SCREW, 8-32 x 5/16, SOC. HD. | 3 |
| 3 | 29-103-10 | BEARING HOUSING | 1 |
| 4 | 123-0384 | BEARING, NMB 608ZZ | 1 |
| 5 | 36-102-05 | PULL-OUT ROLLER SHAFT | 1 |
| 6 | 56-101-17 | PULL-OUT ROLLER | 2 |
| 7 | 20-106-09 | PULLEY ASSEMBLY, 12 XL GROOVES | 1 |
| 8 | 123-0036 | ROLL PIN, 3/32 x 5/8 | 1 |
| 9 | 90-103-61 | BEARING HOUSING | 1 |
| 10 | 123-0035 | BEARING, NMB R-4HH | 1 |
| 11 | 123-1087 | PULLEY, 40 DP, 26 GROOVES (INCLUDES SET SCREW) | 1 |
| 12 | 123-1331 | BELT, 0.218 W, 40 DP, 75 GROOVES | 1 |

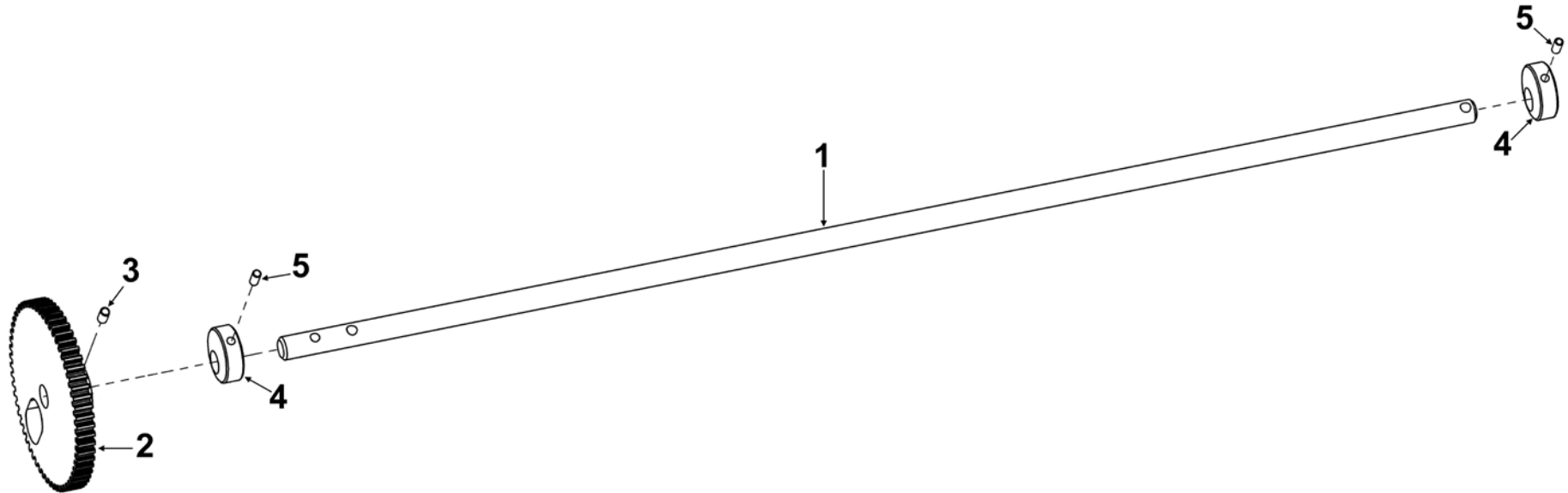
GROUP 14
EXIT CONVEYOR ASSEMBLY



**GROUP 14
EXIT CONVEYOR ASSEMBLY**

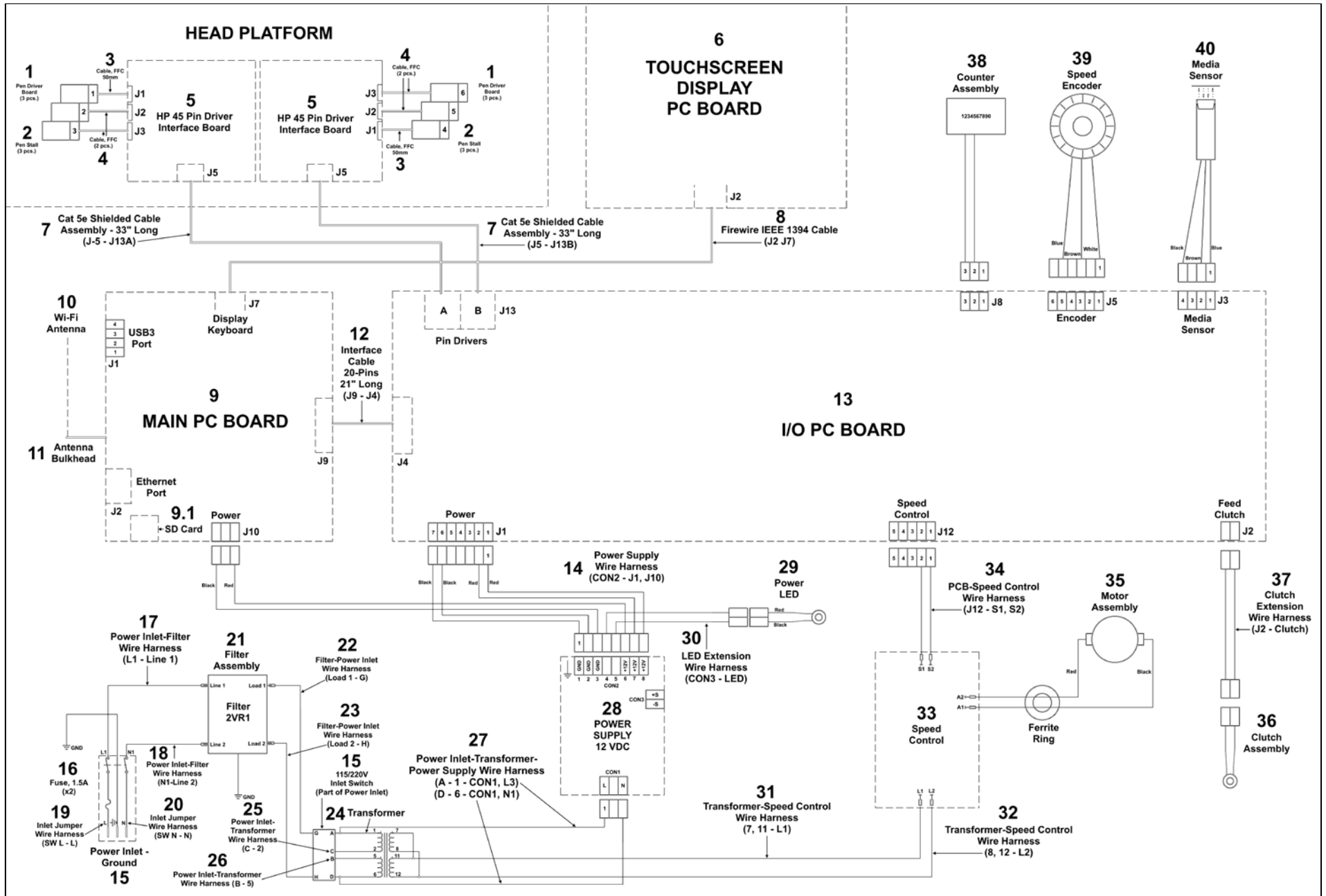
| KEY | PART NO. | DESCRIPTION | QTY |
|------------|-----------------|--|------------|
| 1 | 44-103-04 | CONVEYOR BODY WELDMENT | 1 |
| 2 | 44-103-16 | CONVEYOR DRIVE ROLLER ASSEMBLY | 1 |
| 2.1 | 71-122-06 | PULLEY, 12 XL GROOVES | 1 |
| 2.2 | 123-0036 | ROLL PIN, 3/32 x 5/8 | 1 |
| 3 | 44-103-10 | CONVEYOR EXIT ROLLER ASSEMBLY | 1 |
| 4 | 44-103-21 | CONVEYOR INTERMEDIATE ROLLER | 1 |
| 4.1 | 123-2254 | BEARING | 2 |
| 4.2 | 123-1135 | SCREW, 6-32 x 1/4 PH, TRUSS HD. | 2 |
| 5 | 44-103-20 | CONVEYOR BELT | 11 |
| 6 | 123-1064 | BEARING | 4 |
| 7 | 123-0446 | SCREW, 8-32 x 5/16 PH, UNDERCUT | 4 |
| 8 | 21-103-03 | BELT GUIDE PIN | 12 |
| 9 | 123-0612 | SCREW, 6-32 x 1/4 PH, PAN HD. | 12 |
| 10 | 123-3054 | BELT,0.200" (XL) PITCH, 30 TEETH, 5/16" WIDE | 1 |

GROUP 15 GEAR AND ECCENTRIC CAM SHAFT



| KEY | PART NO. | DESCRIPTION | QTY |
|-----|-----------|----------------------------------|-----|
| 1 | 44-104-05 | GEAR & ECCENTRIC CAM SHAFT | 1 |
| 2 | 44-104-21 | GEAR, 24 TEETH, 24P | 1 |
| 3 | 123-0034 | ROLL PIN | 1 |
| 4 | 44-104-14 | ECCENTRIC CAM ASSEMBLY | 2 |
| 5 | 123-1956 | SET SCREW, 8-32 x 5/16, SOC. HD. | 2 |

GROUP 16 WIRING DIAGRAM



GROUP 16 WIRING DIAGRAM

| KEY | PART NO. | DESCRIPTION | QTY |
|-----|------------|---|-----|
| 1 | 123-1900 | PEN DRIVER BOARD | 3 |
| 2 | 123-2898 | PEN STALL/CARTRIDGE HOLDER (INCLUDES PEN DRIVER PC BOARD MOUNTING BLOCKS AND 2 MOUNTING SCREWS) | 3 |
| 3 | 123-2736 | FFC CABLE, 50 mm | 2 |
| 4 | 123-2737 | FFC CABLE, 100 mm | 4 |
| 5 | 44-500-30 | PEN DRIVER INTERFACE BOARD (3-HEAD) | 2 |
| 6 | 36E-500-22 | TOUCHSCREEN DISPLAY BOARD (INCLUDES BUTTONS) | 1 |
| 7 | 44-105-24 | CAT 5E SHIELDED CABLE ASSY. 33" LONG (J5 - J13A) and (J5 - J13B) | 2 |
| 8 | 123-2882 | FIREWIRE IEEE 1394 CABLE (J2 - J7) | 1 |
| 9 | 36-500-00 | MAIN PROCESSOR BOARD | 1 |
| 9.1 | 36E-500-50 | PROGRAMMED SD CARD | 1 |
| 10 | 123-2982 | WIFI ANTENNA | 1 |
| 11 | 123-2983 | ANTENNA BULKHEAD | 1 |
| 12 | 44-500-22 | INTERFACE CABLE, 20-PIN, 22" LONG (J9 - J4) | 1 |
| 13 | 44-500-20 | I/O BOARD | 1 |
| 14 | 36-500-08 | 12V POWER SUPPLY WIRE HARNESS (CON2 - J1, J10) | 1 |
| 15 | 36-500-36 | POWER INLET | 1 |
| 16 | 123-1244 | FUSE, 1.6A, 250V | 2 |
| 17 | 36-500-01 | POWER INLET-FILTER WIRE HARNESS (L1 - LINE 1) | 1 |
| 18 | 36-500-02 | POWER INLET-FILTER WIRE HARNESS (N1 - LINE 2) | 1 |
| 19 | 36-500-34 | POWER INLET -JUMPER WIRE HARNESS (SW L - L) | 1 |
| 20 | 36-500-37 | POWER INLET-JUMPER WIRE HARNESS (SW N - N) | 1 |
| 21 | 22-540-09 | FILTER ASSEMBLY | 1 |
| 22 | 44-500-03 | FILTER-POWER INLET WIRE HARNESS (LOAD 1 - G) | 1 |
| 23 | 44-500-04 | FILTER-POWER INLET WIRE HARNESS (LOAD 2 - H) | 1 |
| 24 | 123-1562 | 130V-230V AC TRANSFORMER | 1 |

| KEY | PART NO. | DESCRIPTION | QTY |
|--|-----------|--|-----|
| 25 | 44-500-33 | POWER INLET- TRANSFORMER WIRE HARNESS (C - 2) | 1 |
| 26 | 44-500-32 | POWER INLET- TRANSFORMER WIRE HARNESS (B -5) | 1 |
| 27 | 44-500-05 | POWER INLET-TRANSFORMER-POWER SUPPLY WIRE HARNESS (A - 1 - CON 1, L3), (D - 6 - CON 1, N1) | 1 |
| 28 | 123-1313T | 12 VDC POWER SUPPLY | 1 |
| 29 | 44-500-19 | LED POWER INDICATOR | 1 |
| 30 | 36-500-21 | LED EXTENSION WIRE HARNESS | 1 |
| 31 | 44-500-07 | TRANSFORMER-SPEED CONTROL WIRE HARNESS (7, 11 - L1) | 1 |
| 32 | 44-500-06 | TRANSFORMER-SPEED CONTROL WIRE HARNESS (8, 12 - L2) | 1 |
| 33 | 44-565-10 | SPEED CONTROL | 1 |
| 34 | 44-500-11 | PC BOARD-SPEED CONTROL WIRE HARNESS (J12 - S1, S2) | 1 |
| 35 | 36-500-09 | MOTOR ASSEMBLY | 1 |
| 36 | 36-500-19 | 12V CLUTCH ASSEMBLY | 1 |
| 37 | 44-500-13 | CLUTCH EXTENSION WIRE HARNESS (J2-CLUTCH) | 1 |
| 38 | 44-500-18 | COUNTER ASSEMBLY (TO J8) | 1 |
| 39 | 36-500-12 | SPEED ENCODER (TO J5) | 1 |
| 40 | 44-500-14 | MEDIA SENSOR (TO J3) | 1 |
| POWER CORDS AND USB, ETHERNET CABLES (*NOT SHOWN) | | | |
| * | 123-0635 | 100-115V POWER CORD, 6 FT. DOMESTIC/JAPAN | 1 |
| * | 123-0735 | 220V POWER CORD, EUROPE | 1 |
| * | 123-2187 | 220V POWER CORD, CHINA | 1 |
| * | 123-2407 | 220V POWER CORD, UK | 1 |
| * | 123-1895 | USB CABLE, 10 FT. | 1 |
| * | 123-2525 | ETHERNET CABLE, 10 FT. | 1 |

CONSUMABLES, NORMAL WEAR AND SPARE PARTS

| PART NO. | DESCRIPTION | QTY PER PRINTER |
|-------------------------|---|--------------------|
| MECHANICAL PARTS | | |
| 123-3169 | BELT, NEOPRENE, 2MM (GT2) PITCH, 300 TEETH, 6 MM WIDE (MAIN DRIVE BELT) | 1 |
| 123-1564 | BELT, TIMING, 110XL041 (REAR TO MIDDLE FEED ROLLER SHAFTS) | 1 |
| 123-0934 | BELT, TIMING 90XL037 (MIDDLE TO FRONT FEED ROLLER SHAFTS) | 1 |
| 123-1331 | BELT, 0.218 W, 40 DP, 75 GROOVES (ENCODER TO PULL OUT ROLLER SHAFT) | 1 |
| 123-3054 | BELT, 0.200" (XL) PITCH, 30 TEETH, 5/16" WIDE (EXIT CONVEYOR TO PULL OUT ROLLER SHAFT) | 1 |
| 29-103-10 | BALL BEARING HOUSING (REAR FEED AND PULL-OUT ROLLER SHAFTS) | 1 |
| 123-0384 | BEARING, NMB 608ZZ | 1 |
| 90-103-50 | BEARING HOUSING | 5 |
| 90-103-61 | BEARING HOUSING (PULL-OUT ROLLER SHAFT) | 2 |
| 123-0035 | BEARING, NMB R-4HH | 7 |
| 90-103-09S | METERING SEGMENT (METERING PLATE ASSEMBLY) | 4 |
| 123-2898 | INK CARTRIDGE HOLDER (INCLUDES PEN DRIVER PC BOARD MOUNTING BLOCKS AND 2 MOUNTING SCREWS) | 6 |
| 123-0078 | BEARING, NMB R3ZZ (PRINthead CARTRIDGE CARRIER) | 8 |
| 21-144-00 | WHEEL ASSEMBLY (PRINthead CARTRIDGE CARRIER) | 4 |
| 90-102-21 | FEED ROLLER (SMOOTH TREAD) (FRONT FEED ROLLER SHAFT) | 4 |
| 90-102-21C | FEED ROLLER ASSEMBLY (SERRATED TREAD) (REAR FEED SHAFT) | 6 |
| 123-1861 | SET SCREW, 10-24 x 1/4 CUP PT. (FRONT AND REAR FEED ROLLER SHAFTS) | 10 |
| 56-101-17 | PULL-OUT ROLLER | 2 |
| 123-1956 | SET SCREW, 8-32 x 5/16, SOC. HD. | 2 |

| PART NO. | DESCRIPTION | QTY PER PRINTER |
|---|---|--------------------|
| ELECTRICAL PARTS | | |
| 123-1313T | 12 VDC POWER SUPPLY | 1 |
| 44-565-10 | SPEED CONTROL | 1 |
| 123-1562 | 130V -230V AC TRANSFORMER | 1 |
| 123-1244 | FUSE, 1.6A, 250V | 2 |
| 123-1900 | HP PEN DRIVER PC BOARD | 1 |
| 123-2898 | PEN STALL/CARTRIDGE HOLDER (INCLUDES PEN DRIVER PC BOARD MOUNTING BLOCKS AND 2 MOUNTING SCREWS) | 4 |
| 123-2736 | RIBBON CABLE, 50 mm | 2 |
| 123-2737 | RIBBON CABLE, 100 mm | 4 |
| 36-500-19 | 12V CLUTCH ASSEMBLY | 1 |
| 36-500-00 | MAIN PC BOARD | 1 |
| 36-500-09 | MOTOR ASSEMBLY | 1 |
| 36-500-12 | ENCODER | 1 |
| 36-500-36 | POWER INLET | 1 |
| 36E-500-22 | TOUCHSCREEN DISPLAY BOARD (INCL. BUTTONS) | 1 |
| 36E-500-50 | PROGRAMMED SD CARD | 1 |
| 44-500-14 | MEDIA SENSOR | 1 |
| 44-500-20 | I/O BOARD | 1 |
| 44-500-30 | PEN DRIVER INTERFACE BOARD (3 HEAD) | 2 |
| POWER CORDS AND USB, ETHERNET CABLES | | |
| 123-0635 | 100-115V POWER CORD, 6 FT. DOMESTIC/JAPAN | 1 |
| 123-0735 | 220V POWER CORD, EUROPE | 1 |
| 123-2187 | 220V POWER CORD, CHINA | 1 |
| 123-2407 | 220V POWER CORD, UK | 1 |
| 123-1895 | USB CABLE, 10 FT. | 1 |
| 123-2525 | ETHERNET CABLE, 10 FT. | 1 |

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| 123-0017 | 1 | 26 | 123-0275 | 4 | 25 | 123-1136 | 5 | 28 |
| 123-0017 | 2 | 31 | 123-0312 | 3 | 18.1 | 123-1158 | 1 | 33 |
| 123-0017 | 3 | 29 | 123-0312 | 10 | 5 | 123-1178 | 1 | 34 |
| 123-0017 | 4 | 18 | 123-0322 | 3 | 23.7 | 123-1178 | 2 | 38 |
| 123-0017 | 5 | 8 | 123-0322 | 10 | 13 | 123-1178 | 3 | 47 |
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| 123-0024 | 1 | 27 | 123-0327 | 5 | 16 | 123-1178 | 5 | 25 |
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| 123-0034 | 15 | 3 | 123-0384 | 10 | 8 | 123-1313T | 3 | 7 |
| 123-0035 | 1 | 19.6 | 123-0384 | 13 | 4 | 123-1313T | 16 | 28 |
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| 123-0121 | 5 | 4 | 123-0695 | 3 | 23.5 | 123-1828 | 10 | 2 |
| 123-0127 | 5 | 5 | 123-0735 | 16 | -- | 123-1861 | 3 | 21.1 |
| 123-0148 | 2 | 33 | 123-0751 | 5 | 22 | 123-1861 | 10 | 11 |
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| 123-0182 | 3 | 36 | 123-0976 | 5 | 30 | 123-1861 | 12 | 3 |
| 123-0185 | 5 | 1 | 123-0976 | 8 | 8 | 123-1895 | 16 | -- |
| 123-0192 | 1 | 28 | 123-0976 | 9 | 6 | 123-1900 | 9 | 4 |
| 123-0211 | 3 | 24.2 | 123-0978 | 6 | 3 | 123-1900 | 16 | 1 |
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| 123-0252 | 3 | 39 | 123-1064 | 14 | 6 | 123-2122 | 1 | 35 |
| 123-0252 | 4 | 23 | 123-1087 | 4 | 30 | 123-2122 | 2 | 40 |
| 123-0257 | 5 | 36 | 123-1087 | 13 | 11 | 123-2187 | 16 | -- |
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| 123-2659 | 3 | 23.9 | 29-103-11 | 10 | 12 | 42-101-13 | 1 | 24 |
| 123-2700 | 8 | 13 | 29-103-12 | 3 | 19 | 42-101-13 | 2 | 27 |
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| 123-2882 | 16 | 8 | 32-102-22 | 10 | 4 | 44-100-21 | 2 | 8 |
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| 123-2982 | 16 | 10 | 32-105-11 | 3 | 24.1 | 44-102-06 | 1 | 19.1 |
| 123-2983 | 4 | 36 | 32-105-12 | 3 | 24.3 | 44-102-07 | 1 | 19.2 |
| 123-2983 | 16 | 11 | 35-104-24 | 3 | 23.1 | 44-102-11 | 3 | 10 |
| 123-3054 | 4 | 37 | 35-211-19 | 2 | 26 | 44-102-24 | 2 | 19 |
| 123-3054 | 14 | 10 | 36-100-30 | 3 | 13 | 44-102-25 | 2 | 19.2 |
| 123-3072 | 1 | 37 | 36-101-09 | 12 | 4 | 44-103-03 | 4 | 6 |
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