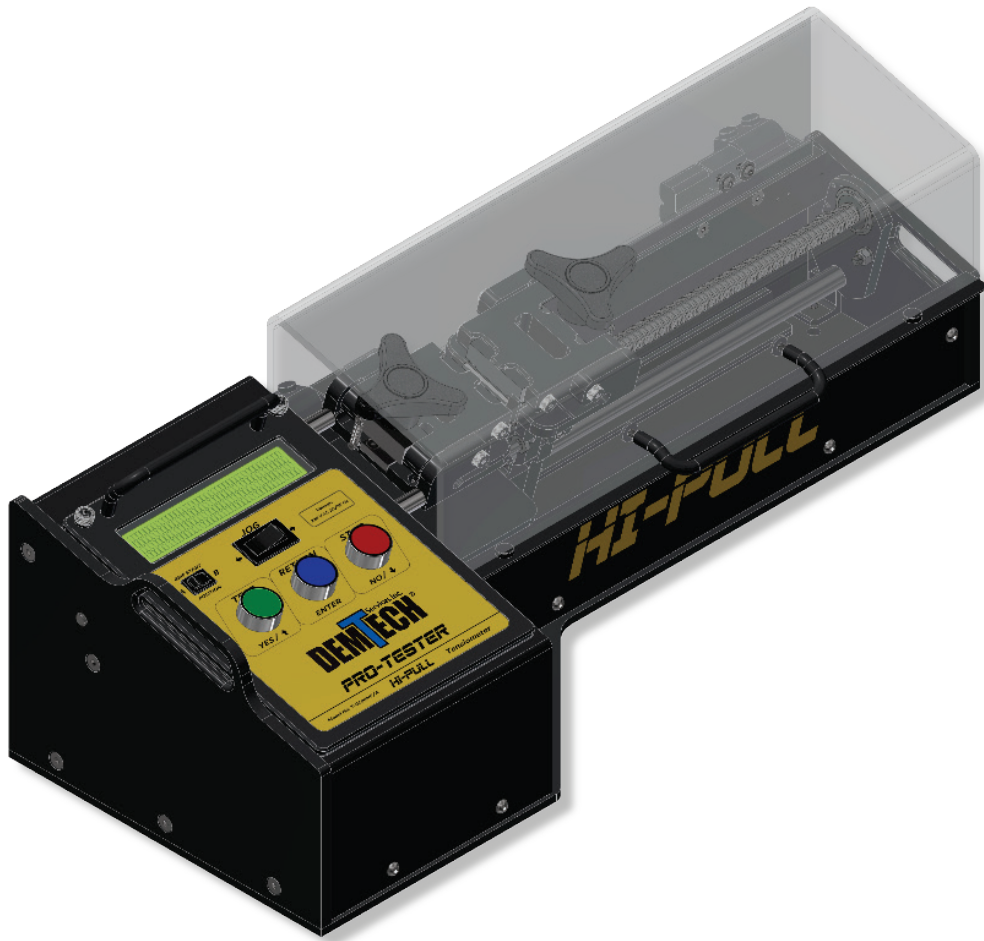




# Pro-Tester Hi-Pull



## Pro-Tester Hi-Pull Parts ID Manual

Model Number: T-0100HP/A

Revision: A

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**Scope of Manual:**

This manual contains diagrams and related parts lists to identify potential service/spare parts for your DEMTECH Services, Inc. Pro-Tester High-Pull™ Field Tensiometer.

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Manual Number: **T-PARTS ID MANUAL/PRO-TESTER HI-PULL, Revision: A**

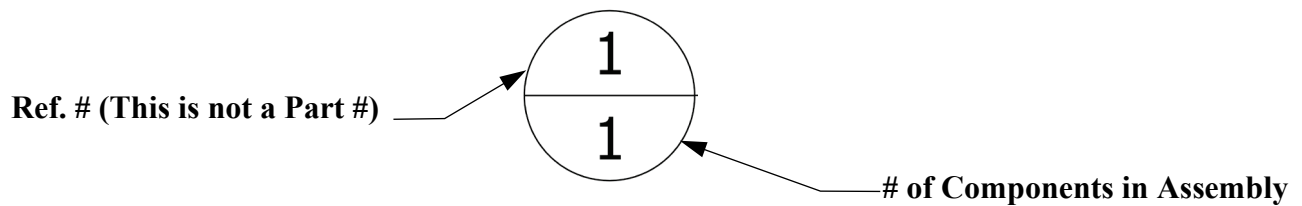
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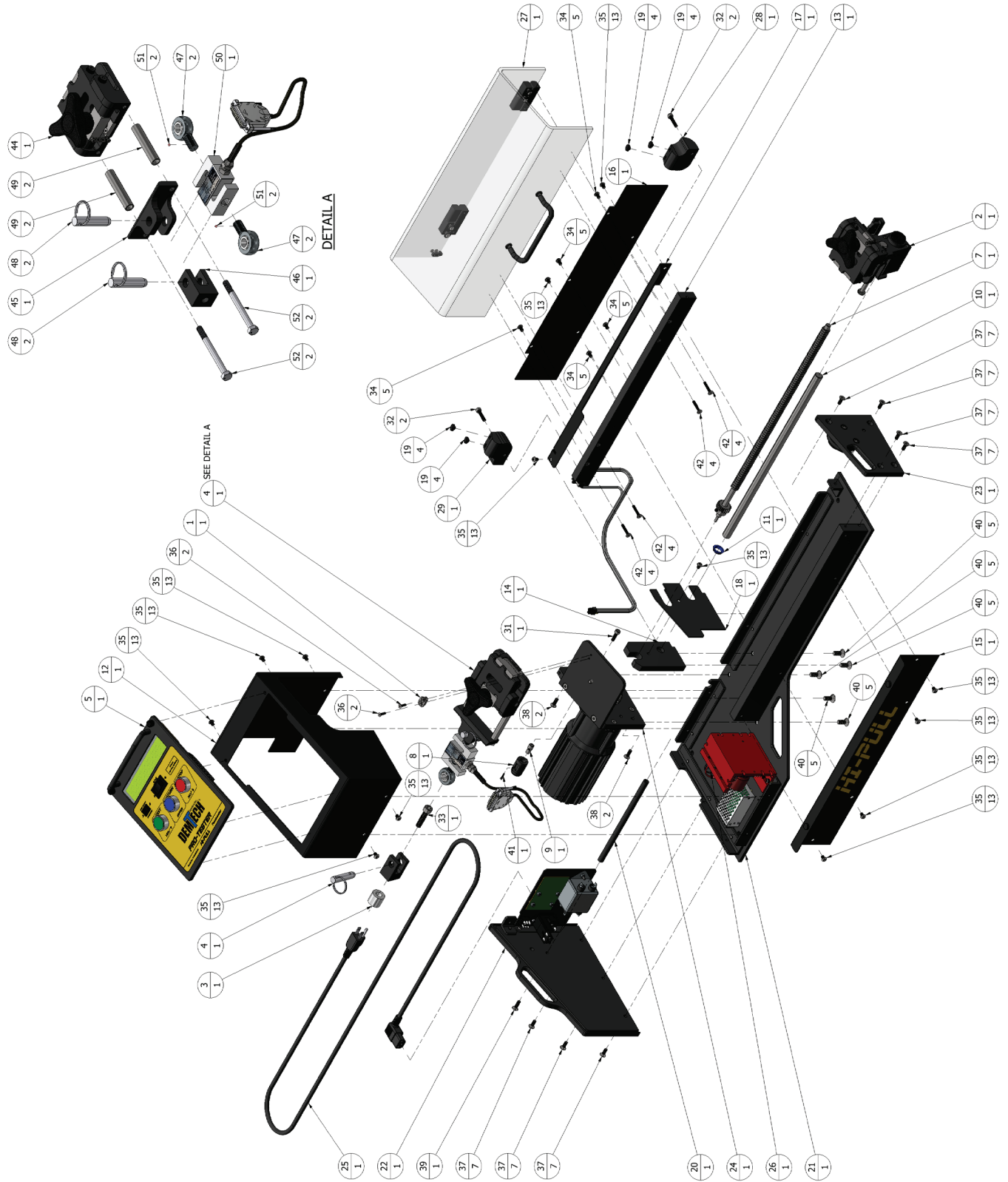
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# 1 Ordering Instructions

Refer to the diagrams and related parts lists on the following pages to identify replacement parts for the Pro-Tester. To locate a part, find it visually on the exploded assembly diagram and note its Reference Number. Next refer to the assemblies parts list to identify the corresponding Part Number using the Reference Number. When ordering parts, be sure to specify the Part Number not the Reference Number. *'NS-Hardware'* refers to non-stock items, these parts are still available for order, please provide the part description to order NS-Hardware items.

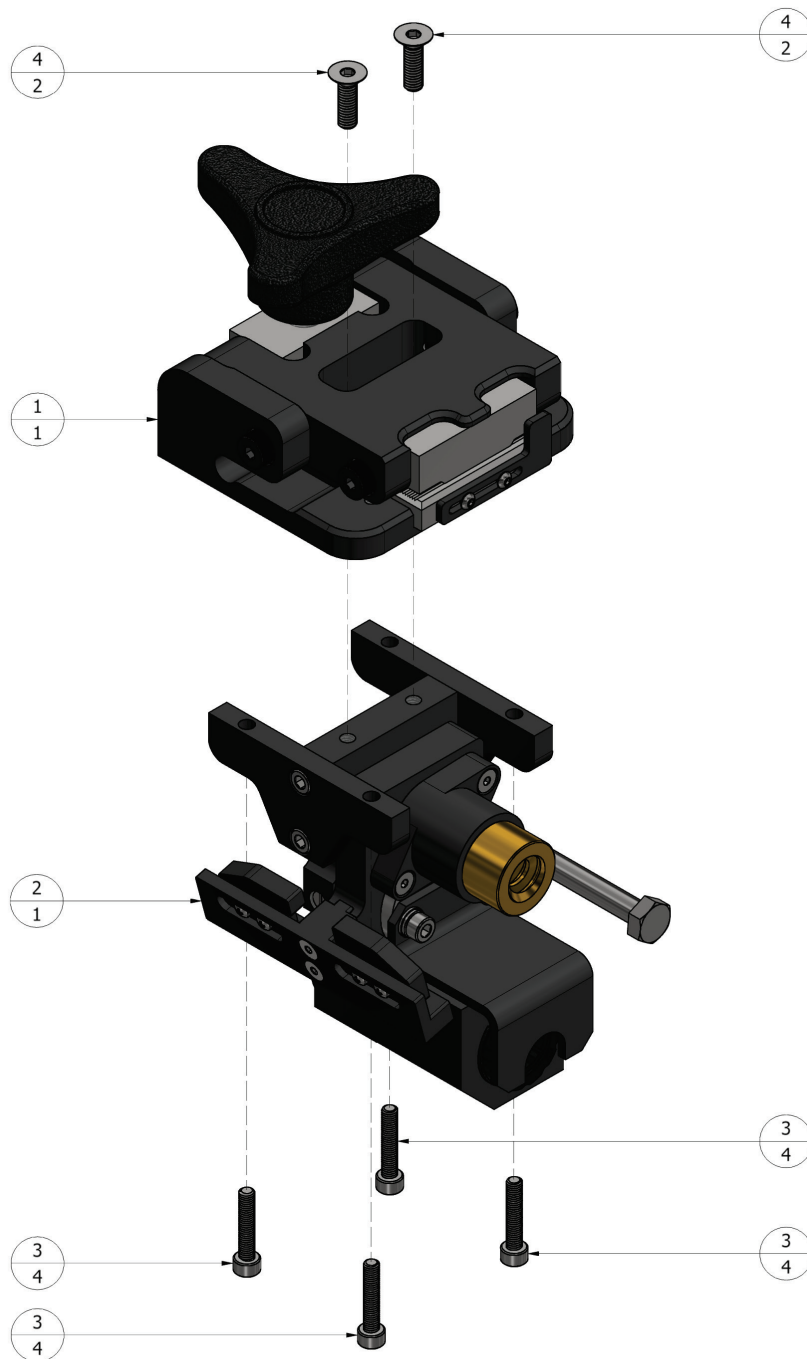




**1.1 T-0100HP/A – ASSY, PRO-TESTER HP FIELD TENSIOMETER  
(Parts ID)**

PARTS LIST			
REF. NO	PART NO	DESCRIPTION	QTY
1	T-009A	KEEPER, SAMPLE GRIP	1
2	T-022HPS/A	ASSEMBLY, SAMPLE GRIP SUB, HP	1
3	T-024SXL	SPACER, ROUND, .505" ID X 1.00" OD X .875" LONG, ALUMINUM	1
4	T-027HP/A	ASSEMBLY, GRIP TO STRAIN GAUGE, HI-PULL	1
5	T-028HP/A	ASSEMBLY, MAIN CONTROL PANEL, HI-PULL	1
6	T-040	OVERLAY, MAIN CONTROL PANEL	1
7	T-057HP/A	ASSEMBLY, GRIP DRIVE SCREW, HP	1
8	T-057M/A	ASSEMBLY, ROTARY ENCODER ISOLATION MOUNT	1
9	T-057S/A	ASSEMBLY, LEAD SCREW CLAMP SLEEVE	1
10	T-066	SHAFT, GUIDE, LINEAR BEARING	1
11	T-066G	GROMMET, SHAFT, 5/8" ID X 11/16" HOLE SNAP-IN, BLUE NYLON	1
12	T-072HP	HOUSING, MAIN CONTROL PANEL, HP	1
13	T-075C/A	ASSEMBLY, REAR BRACE, HI-PULL	1
14	T-081SE	SUPPORT, GUIDE SHAFT, END, SE	1
15	T-086HP/A	ASSEMBLY, FRONT COVER, HP	1
16	T-087LHP	COVER, LOWER REAR, HP	1
17	T-087UHP	COVER, UPPER REAR, HP	1
18	T-088HP	COVER, GEAR DRIVE, INSIDE, HP	1
19	T-100HP	BUMPER, PUSH-IN, 1/2" OD X 5/32" HIGH, BLACK SBR RUBBER	4
20	T-100SE	SHAFT, STIFFENER, SE	1
21	T-101HP/A	ASSEMBLY, MAIN BASE PLATE, HP	1
22	T-103SE/A	ASSEMBLY, LEFT SIDE PLATE, SE	1
23	T-105HP/A	ASSEMBLY, RIGHT SIDE PLATE, HP	1
24	T-109HP/A	ASSEMBLY, MOTOR SUPPORT PLATE, HP	1
25	T-111	CABLE, POWER, 6.56' POWER CORD BLACK NEMA 5-15P TO IEC 320-C13, RIGHT ANGLE SVT	1
26	T-112	CHOKE, AC MOTOR, 3 PHASE	1
27	T-112HP/A	ASSEMBLY, TENSIO METER COVER, HP	1
28	T-112HP/SL	STOP, COVER, LEFT, HP	1
29	T-112HP/SR	STOP, COVER, RIGHT, HP	1
30	T-399HP	PLATE, SERIAL, PRO-TESTER HP	1
31	NS-HARDWARE	SCREW, M6 X 1 X 20mm LONG, SOCKET HEAD CAP, 18-8 STAINLESS STEEL	1
32	NS-HARDWARE	SCREW, M6 X 1 X 25mm LONG, SOCKET HEAD CAP, 18-8 STAINLESS STEEL	2
33	NS-HARDWARE	SCREW, M10 X 1.5 X 40mm LONG, SOCKET HEAD CAP, 18-8 STAINLESS STEEL	1
34	NS-HARDWARE	SCREW, M6 X 1 X 10mm LONG, BUTTON HEAD CAP, 18-8 STAINLESS STEEL	5
35	NS-HARDWARE	SCREW, M6 X 1 X 8mm LONG, BUTTON HEAD SOCKET CAP, 18-8 STAINLESS STEEL	13
36	NS-HARDWARE	SCREW, M4 X 0.7 X 16mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	2
37	NS-HARDWARE	SCREW, M6 X 1 X 16mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	7
38	NS-HARDWARE	SCREW, M6 X 1 X 18mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	2
39	NS-HARDWARE	SCREW, M6 X 1 X 20mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	1
40	NS-HARDWARE	SCREW, M8 X 1.25 X 20mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	5
41	NS-HARDWARE	SCREW, 3-48 X 1/2" LONG, SOCKET HEAD CAP, 18-8 STAINLESS STEEL	1
42	NS-HARDWARE	SCREW, 10-32 X 1-1/8" LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	4
43	NS-HARDWARE	RIVET, 1/8" BLIND, DOMED HEAD, .126-.187" MATL THICK, 18-8 STAINLESS STEEL	2
44	T-022/A	ASSEMBLY, SAMPLE GRIP, TENSIO METER	1
45	T-023	BRACKET, STRAIN GAGE, GRIP ASSY	1
46	T-024	BRACKET, STRAIN GAGE, MOUNT	1
47	T-025	ROD END, STRAIN GAGE, MODIFIED	2
48	T-026	PIN, QUICK-RELEASE, RING-GRIP, 1/2" DIA X 1.3" GRIP LENGTH, ZINC PLATED STEEL	2
49	T-065HP	STANDOFF, STRAIN GAUGE BRACKET, HP	2
50	T-096HP/A	ASSEMBLY, TENSION/COMPRESSION LOAD CELL, 2,000 LB, HI-PULL	1
51	NS-HARDWARE	ADHESIVE, THREADLOCKING LIQUID, RED	2
52	NS-HARDWARE	BOLT, M8 X 1.25 X 90mm LONG, HEX HEAD CAP, CLASS 8.8, ZINC PLATED STEEL	2

**1.2 T-0100HP/A – ASSY, PRO-TESTER HP FIELD TENSIO METER  
(Parts List)**

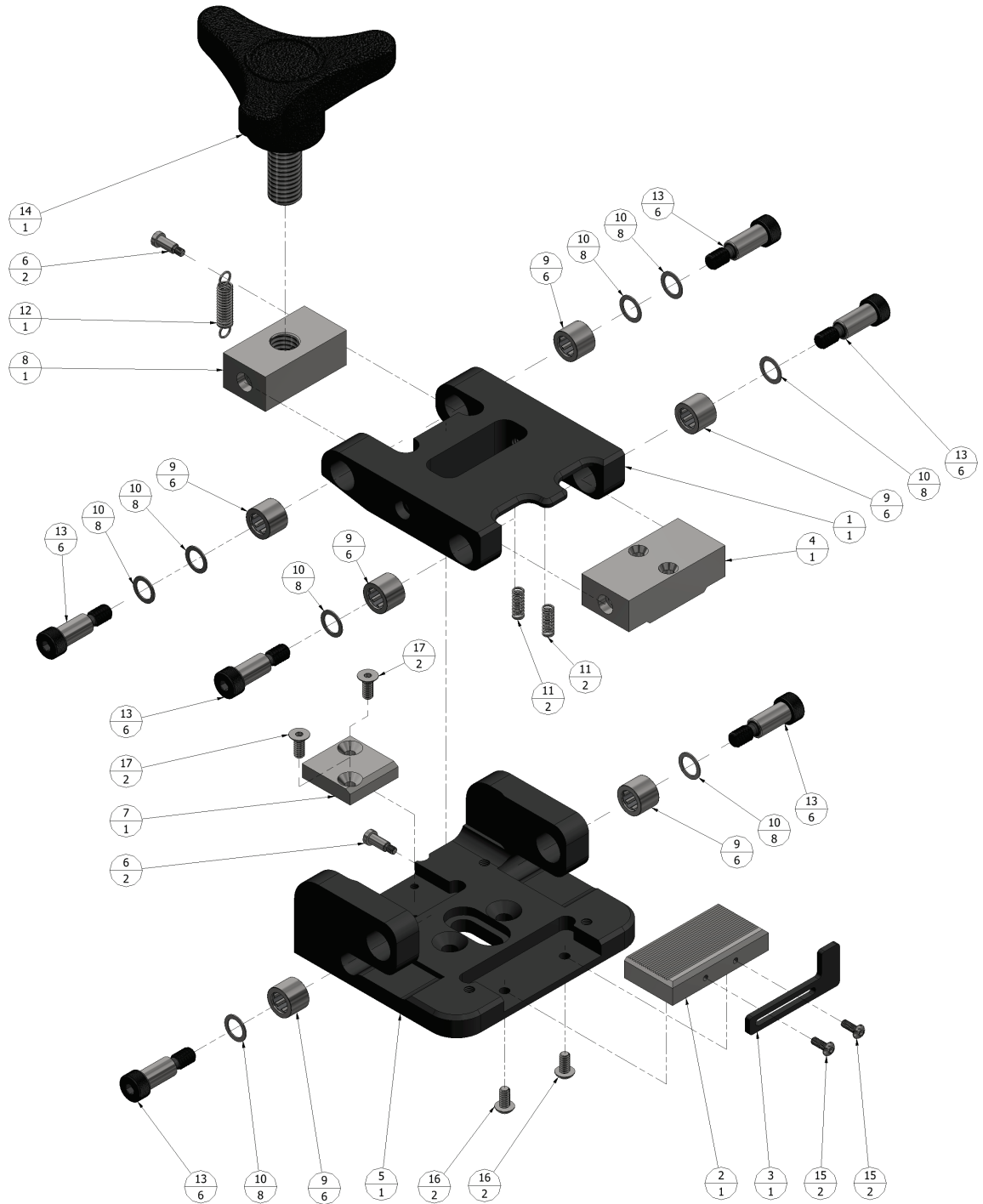


**1.3 T-022HPS/A – ASSY, SAMPLE GRIP SUB (Parts ID)**

PARTS LIST			
REF. NO	PART NO	DESCRIPTION	QTY
1	T-022/A	ASSEMBLY, SAMPLE GRIP, TENSIO METER	1
2	T-107HP/A	ASSEMBLY, SHAFT CARRIAGE PLATE, HP	1
3	NS-HARDWARE	SCREW, M5 X 0.8 X 25mm LONG, SOCKET HEAD CAP, 18-8 STAINLESS STEEL	4
4	NS-HARDWARE	SCREW, M6 X 1 X 20mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	2

#### ***1.4 T-022HPS/A – ASSY, SAMPLE GRIP SUB (Parts List)***

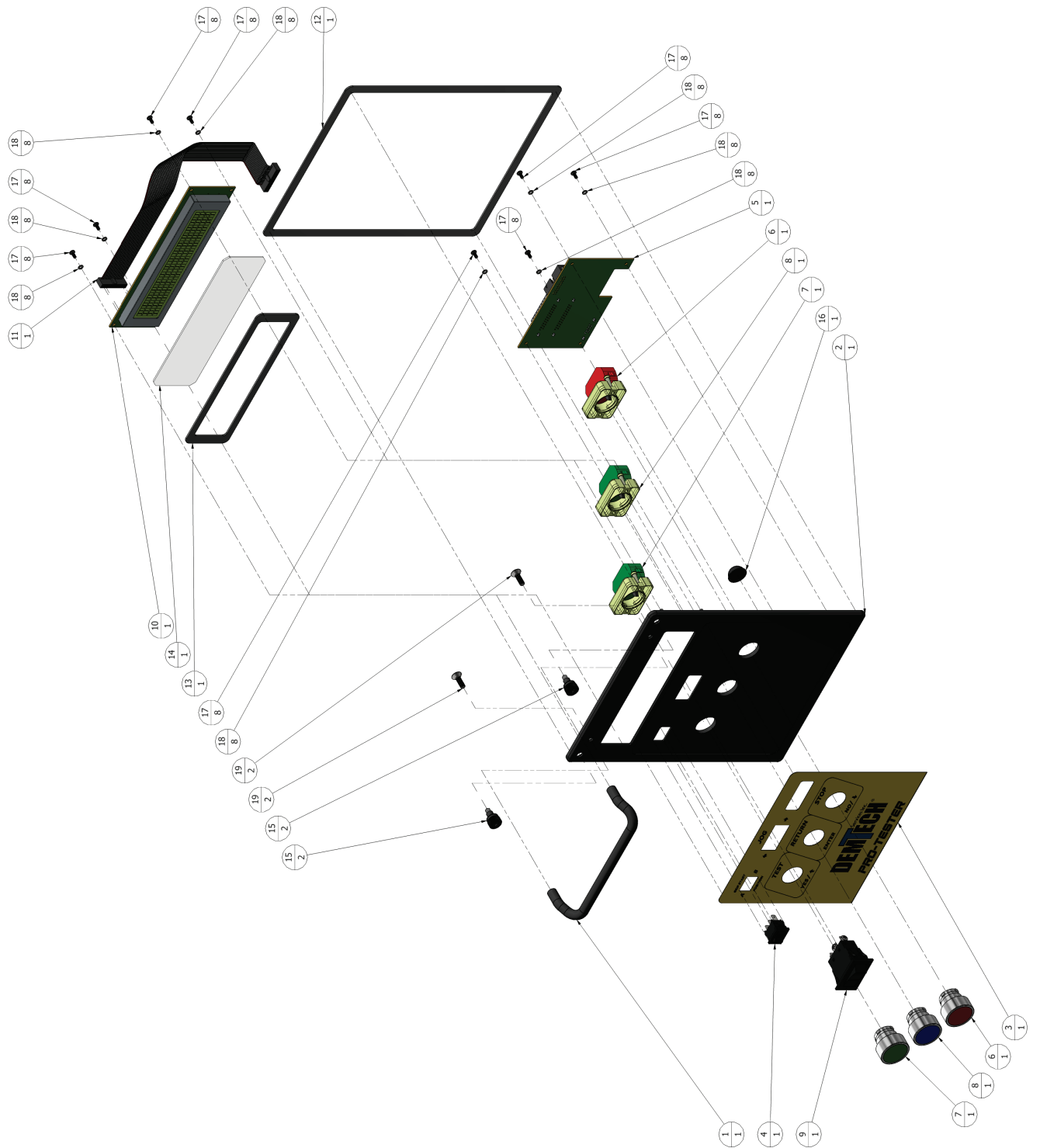




**1.5 T-022/A – ASSY, SAMPLE GRIP, TENSIOMETER (Parts ID)**

PARTS LIST			
REF. NO	PART NO	DESCRIPTION	QTY
1	T-005	JAW, SAMPLE GRIP, UPPER	1
2	T-006	GRIP, SAMPLE, LOWER	1
3	T-007	STOP, SAMPLE SIDE, ADJUSTABLE	1
4	T-008B	BLOCK, GRIPPER MOUNT, UPPER	1
5	T-009	JAW, SAMPLE GRIP, LOWER	1
6	T-009SB	SCREW, SHOULDER, 4mm DIA X 8mm LONG X M3 X 0.5 THREAD, LOW PROFILE, 18-8 STAINLESS STEEL	2
7	T-010	PAD, CLAMP SCREW, STRIKER	1
8	T-011	NUT, 1/2-13, UPPER JAW, SWIVEL	1
9	T-013	BEARING, GRIP ASSY, 5/16" ID X 1/2" OD X 3/8" LONG	6
10	T-015	SHIM, .314" ID X .438" OD X .020" THICK, 18-8 STAINLESS STEEL	8
11	T-016	SPRING, COMPRESSION, .180" OD X .563" FREE LENGTH X .026" WIRE DIA, ZINC PLATED STEEL MUSIC WIRE	2
12	T-017	SPRING, EXTENSION, .240" OD X .750" FREE LENGTH X .029" WIRE DIA, STEEL MUSIC WIRE	1
13	T-018	SCREW, SHOULDER, 5/16" DIA X 5/8" LONG X 1/4-20 THREAD, ALLOY STEEL	6
14	T-019	KNOB, THREE LOBE, BLACK THERMOPLASTIC, 1/2"-13 X 1.18" LONG MALE STUD	1
15	NS-HARDWARE	SCREW, M3 X 0.5 X 8mm LONG, BOTTON HEAD CAP, 18-8 STAINLESS STEEL	2
16	NS-HARDWARE	SCREW, M4 X 0.7 X 8mm LONG, BOTTON HEAD CAP, 18-8 STAINLESS STEEL	2
17	NS-HARDWARE	SCREW, M4 X 0.7 X 10mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	2

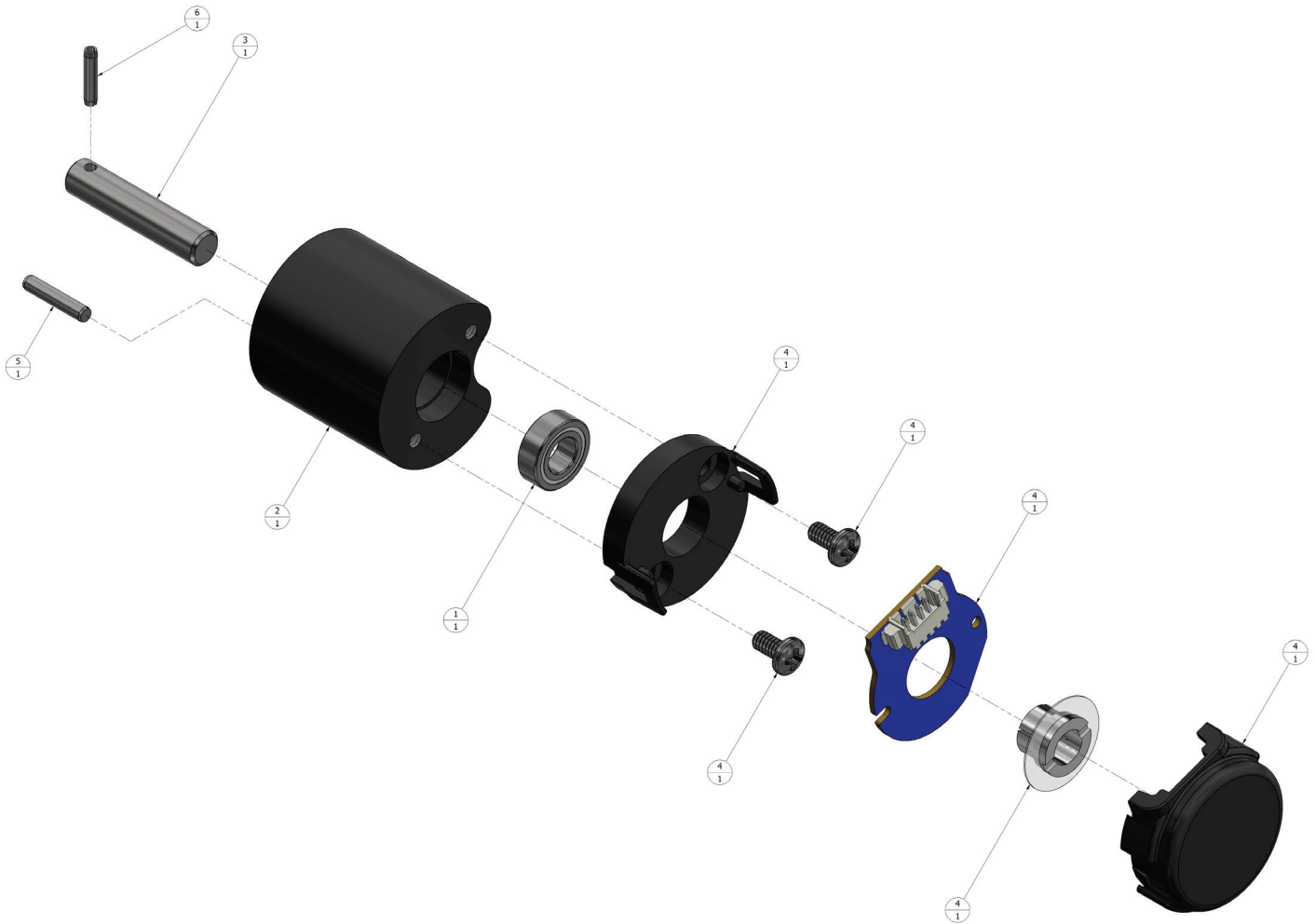
### ***1.6 T-022/A – ASSY, SAMPLE GRIP, TENSIOMETER (Parts List)***



**1.7 T-028HPS/A – ASSY, MAIN CONTROL PANEL (Parts ID)**

PARTS LIST			
REF. NO	PART NO	DESCRIPTION	QTY
1	T-028H	HANDLE, 3/8" ROUND, 5-1/2" LONG X 1-3/4" TALL X 10-32 THD, OFFSET, BLACK ANODIZED ALUMINUM	1
2	T-039	PANEL, MAIN CONTROL, TENSIO METER	1
3	T-040	OVERLAY, MAIN CONTROL PANEL	1
4	T-041	A/B SWITCH, SPDT, 10A, ON/ON, ROCKER, BLACK	1
5	T-043HP	ASSEMBLY, MAIN CONTROLLER PC BOARD, HI-PULL	1
6	T-046	STOP SWITCH, 22mm METAL PUSHBUTTON, NORMALLY CLOSED, RED	1
7	T-047	TEST SWITCH, 22mm METAL PUSHBUTTON, NORMALLY OPEN, GREEN	1
8	T-048	RETURN SWITCH, 22mm METAL PUSHBUTTON, NORMALLY OPEN, BLUE	1
9	T-049	JOG SWITCH, SPDT, 15A, MOM/OFF/MOM, ROCKER, BLACK	1
10	T-050	ASSEMBLY, LCD CHARACTER DISPLAY, PRO-TESTER	1
11	T-050.1	CABLE, RIBBON, LCD, PRO-TESTER	1
12	T-051	GASKET, CONTROL PANEL, SEALING	1
13	T-052	GASKET, LCD DISPLAY, SEALING	1
14	T-053	WINDOW, LCD DISPLAY, PROTECTIVE	1
15	T-054	FASTENER, 10-32 FLARE-IN CAPTIVE, SPRING RETRACTED	2
16	NS-HARDWARE	BUMPER, 3/4" OD X 3/8" HIGH, ADHESIVE BACKED, BLACK POLYURETHANE RUBBER	1
17	NS-HARDWARE	SCREW, 4-40 X 1/4" LONG, PAN HEAD PHILLIPS, 18-8 STAINLESS STEEL	8
18	NS-HARDWARE	WASHER, #4 REGULAR SPLIT LOCK, 18-8 STAINLESS STEEL	8
19	NS-HARDWARE	SCREW, 10-32 X 5/8" LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	2

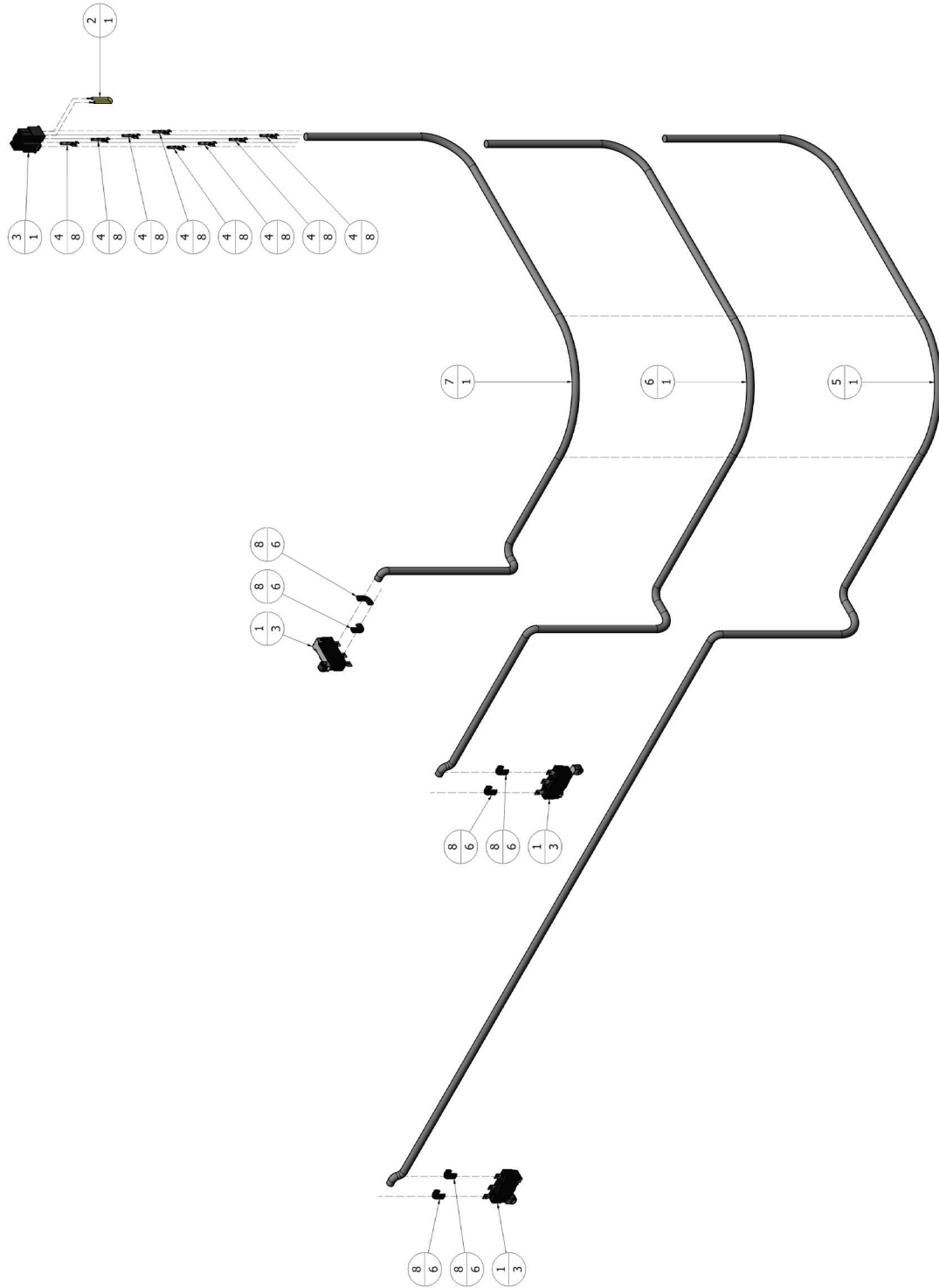
### ***1.8 T-028HPS/A – ASSY, MAIN CONTROL PANEL (Parts List)***



**1.9 T-057M/A – ASSY, ROTARY ENCODER ISOLATION MOUNT  
(Parts ID)**

PARTS LIST			
REF. NO	PART NO	DESCRIPTION	QTY
1	T-057B	BEARING, 3/16" ID X 3/8" OD X 1/8" WIDE, ABEC-5, STAINLESS STEEL	1
2	T-057M	MOUNT, ROTARY ENCODER, ISOLATION	1
3	T-057P	PIN, ROTARY ENCODER WHEEL	1
4	T-095SE	ROTARY ENCODER, 100 PPR, 3/16" BORE	1
5	NS-HARDWARE	PIN, DOWEL, 2mm OD X 10mm LONG, 18-8 STAINLESS STEEL	1
6	NS-HARDWARE	PIN, SPRING, 1/16" OD X 5/16" LONG, 18-8 STAINLESS STEEL	1

***1.10 T-057M/A – ASSY, ROTARY ENCODER ISO MOUNT  
(Parts ID)***

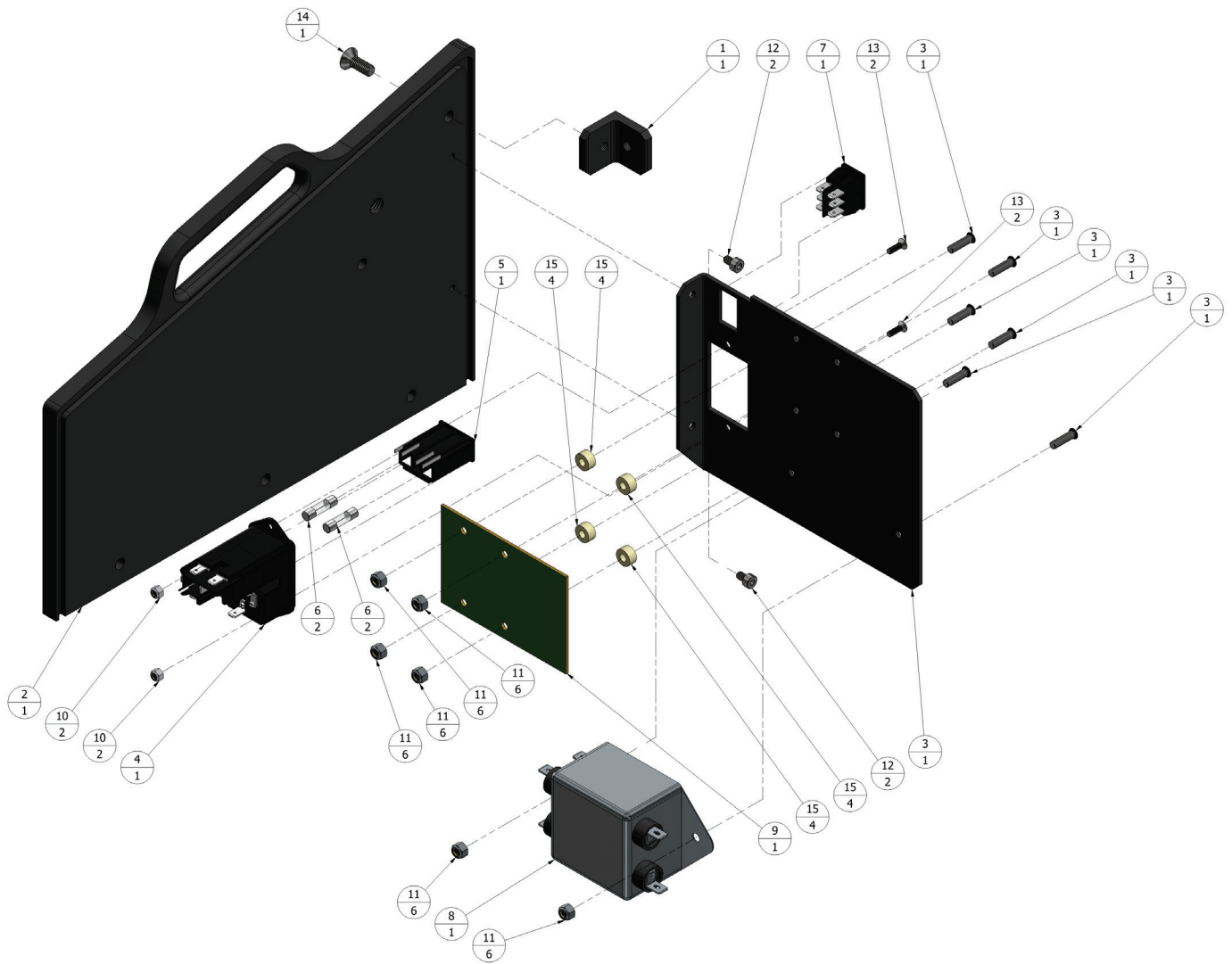


**1.11 T-075CSC/A – ASSY, CABLE, REAR BRACE SWITCHES  
(Parts ID)**

PARTS LIST			
REF. NO	PART NO	DESCRIPTION	QTY
1	T-063HP	SWITCH, SUBMINIATURE, SEALED, SNAP-ACTION, HINGE ROLLER LEVER	3
2	NS-HARDWARE	WIRE, HOOKUP, 24 (7/32) AWG, PVC INSULATED, YELLOW, 1"	1
3	NS-HARDWARE	CONNECTOR, RECEPTACLE, 2 ROW X 4 PLACE X 3mm PITCH, MICRO-FIT	1
4	NS-HARDWARE	TERMINAL, CRIMP, 20-24 AWG, TIN PLATED, MICRO-FIT	8
5	NS-HARDWARE	CABLE, 2 CONDUCTOR, 22 (7/30) AWG, BLACK/RED, GRAY PVC JACKET, 40" LONG	1
6	NS-HARDWARE	CABLE, 2 CONDUCTOR, 22 (7/30) AWG, BLACK/RED, GRAY PVC JACKET, 27" LONG	1
7	NS-HARDWARE	CABLE, 2 CONDUCTOR, 22 (7/30) AWG, BLACK/RED, GRAY PVC JACKET, 24" LONG	1
8	NS-HARDWARE	TUBING, SHRINK, 2.5mm ID X 0.15mm WALL, BLACK POLYOLEFIN	6

***1.12 T-075CSC/A – ASSY, CABLE, REAR BRACE SWITCHES  
(Parts List)***

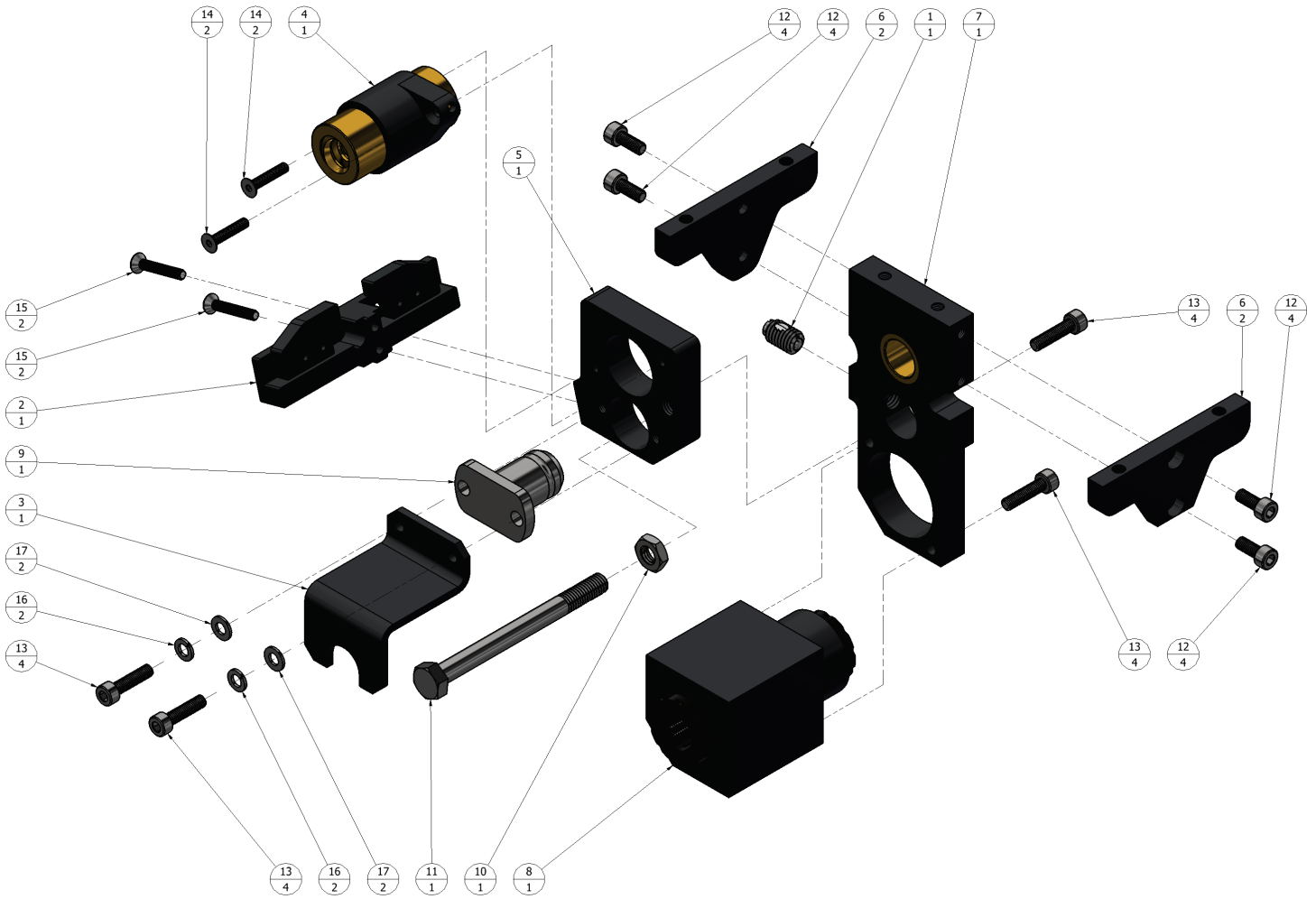




**1.13 T-103SE/A – ASSY, LEFT SIDE PLATE (Parts ID)**

PARTS LIST			
REF. NO	PART NO	DESCRIPTION	QTY
1	T-071	ANGLE, MOUNTING, 1" X 1" X 1" LONG	1
2	T-074SE	PLATE, LEFT SIDE, END, SE	1
3	T-089SE	BRACKET, POWER INPUT MODULE, SE	1
4	T-090	POWER ENTRY MODULE, PANEL MOUNT	1
5	T-091	FUSE DRAWER, POWER ENTRY MODULE	1
6	T-091F	FUSE, 5mm DIA X 20mm LONG, 250VAC, 5A	2
7	T-092	POWER SWITCH, DPDT, 12A, MOM/OFF/MOM, ROCKER, BLACK	1
8	T-093	FILTER, MAIN AC POWER INPUT	1
9	T-111A	PRINTED CIRCUIT BOARD, INTERCONNECT, PRO-TESTER	1
10	NS-HARDWARE	NUT, HEX, M3 X 0.5 X 5.5mm WIDE X 4mm HIGH, NYLON-INSERT LOCK, ZINC PLATED STEEL	2
11	NS-HARDWARE	NUT, HEX, M4 X 0.7 X 7mm WIDE X 5mm HIGH, NYLON-INSERT LOCK, ZINC PLATED STEEL	6
12	NS-HARDWARE	SCREW, M4 X 0.7 X 6mm LONG, SOCKET HEAD CAP, 18-8 STAINLESS STEEL	2
13	NS-HARDWARE	SCREW, M3 X 0.5 X 10mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	2
14	NS-HARDWARE	SCREW, M6 X 1 X 16mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	1
15	NS-HARDWARE	SPACER, ROUND, .166" ID X .375" OD X .188" LONG, NATURAL NYLON	4

### ***1.14 T-103SE/A – ASSY, LEFT SIDE PLATE (Parts List)***



***1.15 T-107HP/A – ASSY, SHAFT CARRIAGE PLATE, HP (Parts ID)***

PARTS LIST			
ITEM	PART NO	DESCRIPTION	QTY
1	T-064	PLUNGER, BALL, 3/8"-16 X .625" LONG, W/ LOCK, 18-8 STAINLESS STEEL	1
2	T-077AHP/A	ASSEMBLY, LIMIT SWITCH STOP MOUNT BRACKET, HP	1
3	T-077ASE	GUIDE, SCREW PLATE, SHAFT	1
4	T-077CHP/A	ASSEMBLY, DUAL BRONZE NUT HOUSING, HP	1
5	T-077HP	PLATE, CARRIAGE DRIVE, SCREW, HP	1
6	T-078HP	BRACE, LOWER GRIP JAW, HP	2
7	T-078SE/B	PLATE, CARRIAGE SLAVE, SHAFT, SE, W/ BUSHING	1
8	T-079/A	ASSEMBLY, LINEAR BEARING MOUNT HOUSING	1
9	T-084	POST, DRIVE PLATE, DETENT	1
10	NS-HARDWARE	NUT, HEX JAM, M8 X 1.25 X 13mm WIDE X 4mm HIGH, 18-8 STAINLESS STEEL	1
11	NS-HARDWARE	BOLT, M8 X 1.25 X 90mm LONG, HEX HEAD MACHINE, PARTIALLY THREADED, 18-8 STAINLESS STEEL	1
12	NS-HARDWARE	SCREW, M5 X 0.8 X 12mm LONG, SOCKET HEAD CAP, 18-8 STAINLESS STEEL	4
13	NS-HARDWARE	SCREW, M5 X 0.8 X 20mm LONG, SOCKET HEAD CAP, 18-8 STAINLESS STEEL	4
14	NS-HARDWARE	SCREW, M4 X 0.7 X 20mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	2
15	NS-HARDWARE	SCREW, M4 X 0.7 X 25mm LONG, FLAT HEAD SOCKET CAP, 18-8 STAINLESS STEEL	2
16	NS-HARDWARE	WASHER, M5 REGULAR SPLIT LOCK, 18-8 STAINLESS STEEL	2
17	NS-HARDWARE	WASHER, M5 FLAT, 5.3mm ID X 10mm OD X 1.0mm THICK, 18-8 STAINLESS STEEL	2

### ***1.16 T-107HP/A - ASSY, SHAFT CARRIAGE PLATE, HP (Parts List)***