


Illustrated Parts Manual for the EMT 1 embroidery peripheral



- A Complete Illustrated Parts Manual
- Tubular
- 011043-01, 115V
- 011032-01, 230V
- 

Melco 
Embroidery Systems

A Saurer Group Company

Part Number 110343-01, Revision D

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Printed in the United States of America

Revision A, April 1997
Revision B, July 1997
Revision D, January 1998

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INTRODUCTION

Model and Serial Numbers

The contents of this manual must be understood by the user to ensure that the correct part for the correct machine model is selected.

Some equipment built by Melco containing the same "common" name may be identified by more than one model part number. In some cases, a different serial number sequence is also prevalent between two models of the same machine.

There are two models of the Melco EMT 1 Sewing Peripheral. This manual represents both models of the product. The 115V model is identified as part number 011043-01. The 230V model is identified as part number 011032-01.

Determine the model number of your machine before you use this manual to order parts. The machine MODEL number is located on the label that is placed on the lower right front of the chassis, directly above the voltage and signal identification plate.

Remember, although many parts are identical between the various embroidery peripheral models, this manual should only be used for identifying and ordering parts for the machines described above.

How To Use This Manual

The manual is divided into several sections, each containing a set of parts most common to each other, or to a function of the machine.

Figures

Accompanying each section is a figure showing the general area of the machine that is represented in that section. Parts are identified with letters and numbers in these figures. Letters contained in circles generally are used to refer the user to a different figure or section of the manual that identifies the assembly with more detail. Part numbers and part identifications of the numbers inside circles are found on the pages adjacent to the figure.

Item Numbers

All the numbers in circles on a diagram are listed in the first column of the parts listing accompanying that figure. Each item number in each figure is identified independently in hopes to help prevent any confusion that may occur by trying to "cross-reference" part numbers.

Part Numbers

The Melco part number is found in the second column of the parts list, directly in line with each item number from the first column.

Part Descriptions

Each part listed has a descriptive name in the third column of the parts listing. Hardware (such as screws, washers, etc.) are described by size in order to help the user to identify common hardware items that can be obtained by local sources if desired.

Index

Hardware not listed can be found by identifying a related part and referring to that page.

CAUTION: When purchasing hardware from a source other than Melco, it is the user's responsibility to ensure that such hardware is of sufficient quality and grade to meet or exceed Melco's original equipment hardware. Melco assumes no liability for the use of inadequate hardware that was purchased by and/or installed by other than an authorized Melco factory representative.

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Table Top/Machine Covers

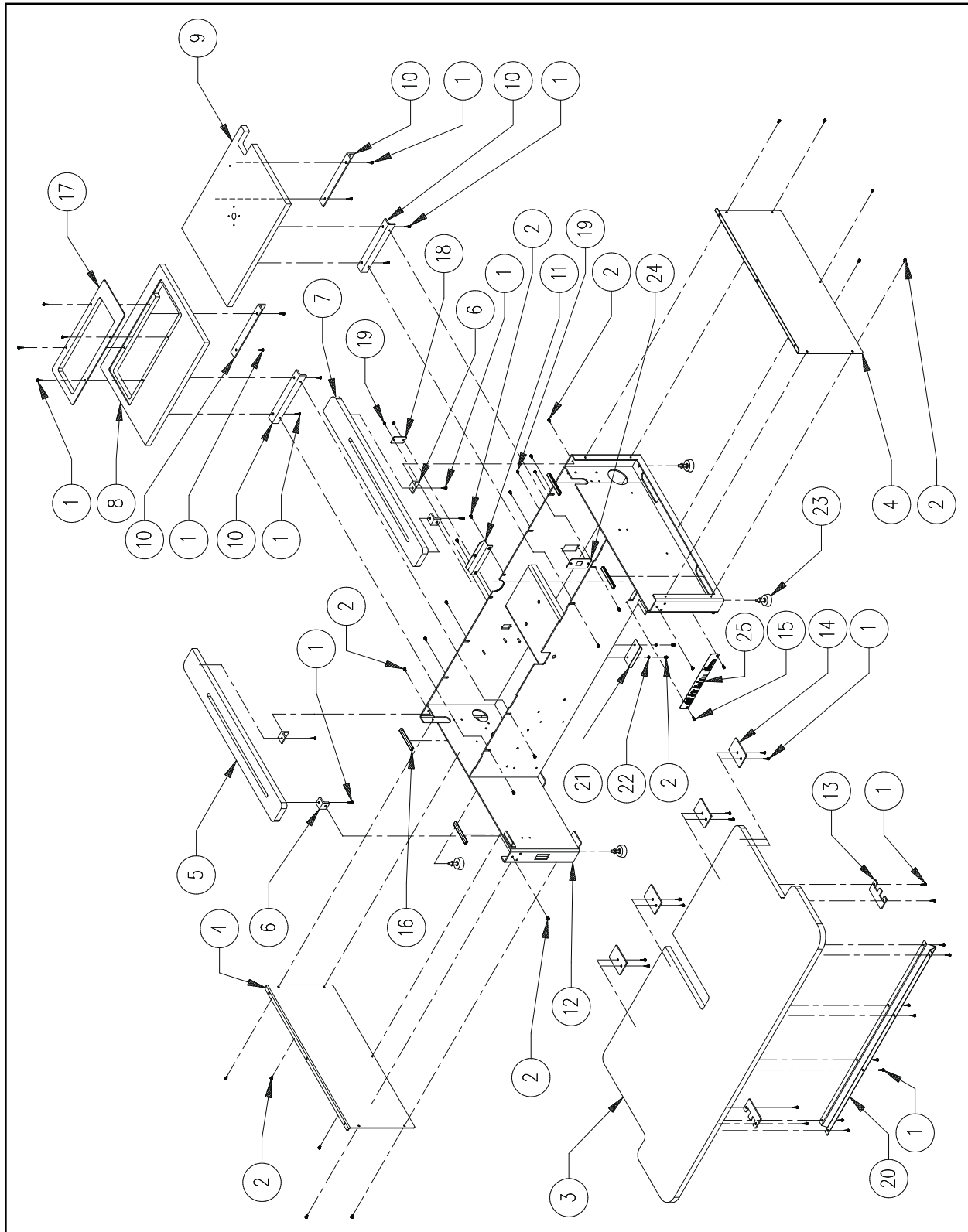


Figure 1

Table Top/Machine Covers			Reference Figure 1
Item No.	Part Number	Item Description	Comments
1	671910-10	Screw, Self-Tapping, Pan Head Phillips, #10 x 5/8"	
2	010309-10	Screw, Truss Head Phillips, M5 x 0.8 x 10mm	
3	009351-02	Table Top, Main	
4	009342-01	Cover, Side	
5	009348-02	Table Top, Side, Right	
6	009344-01	Bracket, Angle, Table Top, Short	
7	010617-02	Table Top, Side, Left	
8	009349-01	Table Top, Rear, Left	
9	009350-02	Table Top, Rear, Right	
10	009346-01	Bracket, Angle, Table Top, Long	
11	009814-01	Bracket, Mounting, Z-Cover	
12	009341-01	Frame, Assembly	
13	009361-01	Plate, Table Top, Locator, Side	
14	009362-01	Plate, Table Top, Locator, Rear	
15	010172-06	Screw, Socket Head Cap, M5 x 0.8 x 6mm, Zinc Plate	
16	010398-01	Trim, Hand Hold	
17	010437-01	Tray, Table	
18	010753-01	Plate, Cover, Switch	
19	009862-06	Screw, Pan Head Phillips, w/Star, M3 x 0.5 x 6mm	
20	005340-01	Stiffener, Table Insert	
21	010974-01	Support Tab, Main Table Top	
22	010167-05	Washer, Lock, External Star, M5	
23	009533-02	Pad, Leveling	
24	009955-01	Plate, Coupler	
25	011106-01	Cover, LEDs	

Sewing Head Covers

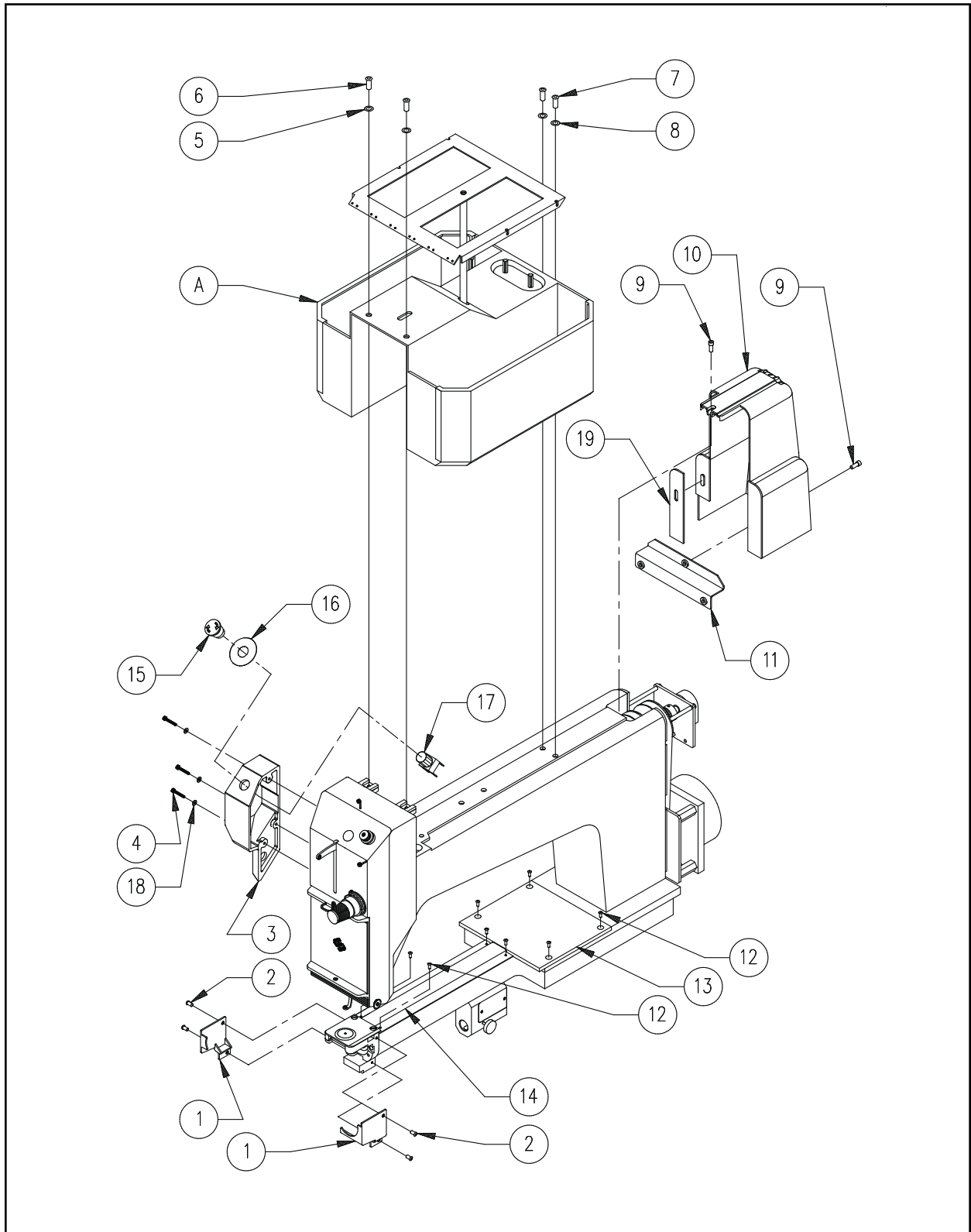


Figure 2

Sewing Head Covers**Reference Figure 2**

Item No.	Part Number	Item Description	Comments
A	-----	Thread Tree	(See Page 6-1)
1	006529-01	Set, Cover, Rotary Cover	
2	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6mm	
3	011124-01	Cover, E-Stop	
4	010170-20	Screw, Socket Head Cap, M3 x 0.5 x 20mm, Zinc Plate	
5	005033-01	Washer, Shoulder, Nylon, .156" ID x .188"	
6	003509-12	Screw, Button Head Socket, M4 x 0.7 x 12mm	
7	003509-20	Screw, Button Head Socket, M4 x 0.7 x 20mm	
8	690364-38	Washer, Flat, Nylon, #8	
9	010171-14	Screw, Socket Head Cap, M4 x 0.7 x 14mm, Zinc Plate	
10	010201-01	Cover, Z-Motor	
11	009814-01	Bracket, Mounting, Z-Cover	(See Page 1-1)
12	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
13	006034-21	Cover, Bed, Rear	
14	007526-01	Cover, Bed, Front	
15	010104-01	Switch, E-Stop, 24mm	
16	010110-01	Plate, E-Stop	
17	010105-01	Switch, E-Stop Block, 24mm	
18	690439-03	Washer, Flat, M3	
19	011190-01	Plate, Front, Z-Drive Cover	

Keyboard (1 of 2)

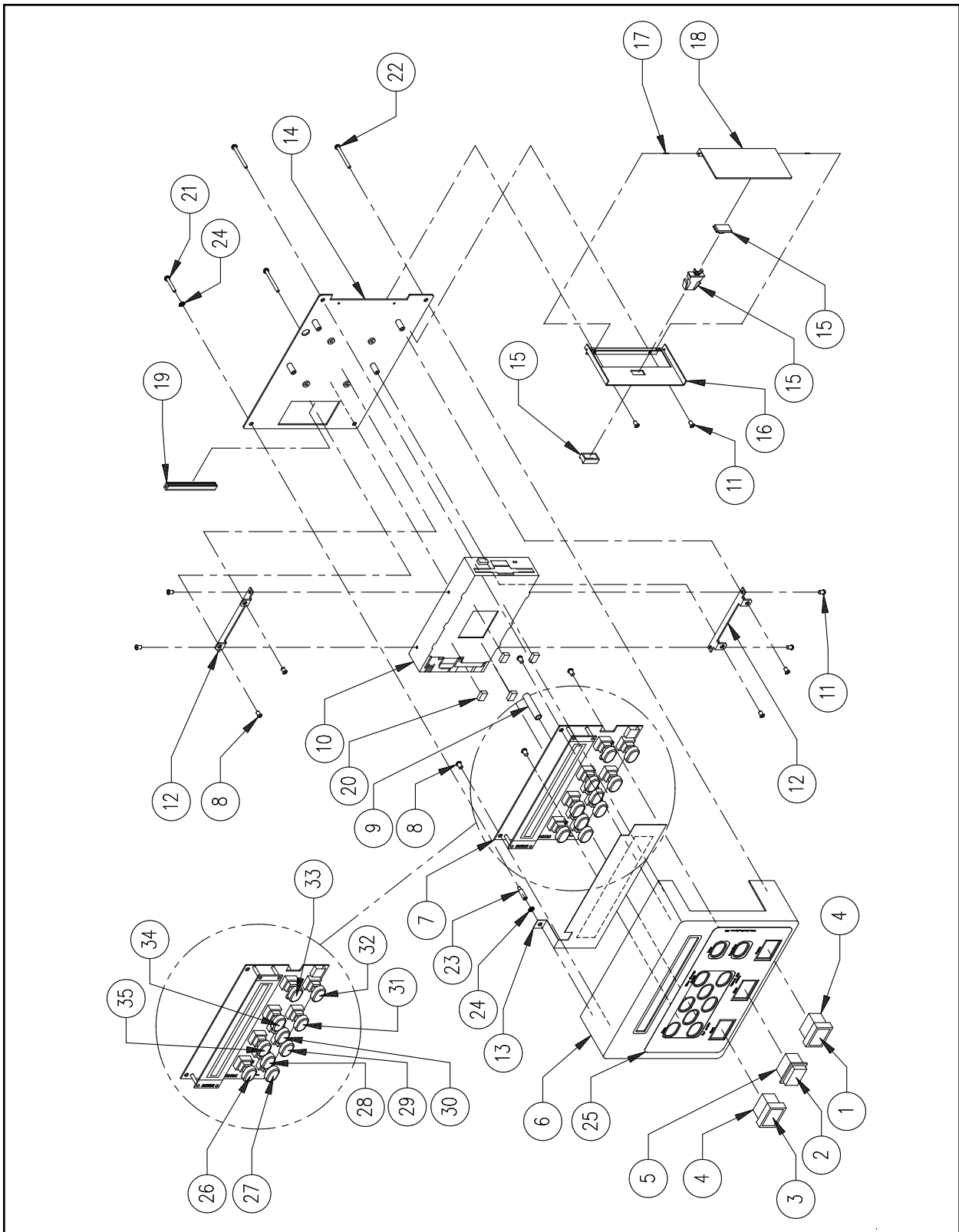


Figure 3

Keyboard (1 of 2) (*010612-01)**Reference Figure 3**

Item No.	Part Number	Item Description	Comments
1	009081-03	Lens, Pushbutton, Grey w/Legend	
2	009081-02	Lens, Pushbutton, Black w/Legend	
3	009081-01	Lens, Pushbutton, White w/Legend	
4	010339-01	Switch, Momentary, w/Full Guard	
5	010338-01	Switch, Pushbutton, Momentary	
6	010153-02	Cover, Operator Interface	
7	009448-04	PCB, EMT Operator Interface, Assembly	
8	004262-06	Screw, Pan Head Phillips, M4 x 0.7 x 6mm	
9	009878-01	Knob, Extension, Pot	
10	004243-01	Drive, Disk, 3-1/2"	
11	675310-01	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	
12	009391-01	Bracket, Mounting, Disk Drive	
13	011126-01	Tape, Static, LCD	
14	010348-02	Plate, Base, Operator Interface	
15	009389-01	Latch, Touch	
16	010349-01	Bracket, Enclosure, Disk Drive	
17	009390-01	Pin, Pivot, Door	
18	010199-01	Door, Disk Drive	
19	862294-01	Grommet, 3.3"	
20	005004-01	Pad, Cushion, Disk Drive	
21	004262-25	Screw, Pan Head Phillips, M4 x 0.7 x 25mm	
22	004262-40	Screw, Pan Head Phillips, M4 x 0.7 x 40mm	
23	008129-16	Standoff, M/F, M4 x 0.7 x 16mm	
24	010167-04	Washer, Lock, External Star, M4	
25	010918-01	Template, Panel	
26	009017-03	Keycap, Menu	
27	009017-04	Keycap, Alt	
28	009017-01	Keycap, Horizontal Arrow, Left	
29	009017-02	Keycap, Vertical Arrow, Down	
30	009017-01	Keycap, Horizontal Arrow, Right	
31	009017-05	Keycap, Jog	
32	009017-07	Keycap, Fast/Slow	
33	009017-08	Keycap, Enter	
34	009017-06	Keycap, Color Change	
35	009017-02	Keycap, Vertical Arrow, Up	

Note:

*The keyboard as a unit (part number 010612-01) is shown on pages 3-1 and 4-1. On this page only item 25 is excluded.

Keyboard (2 of 2)

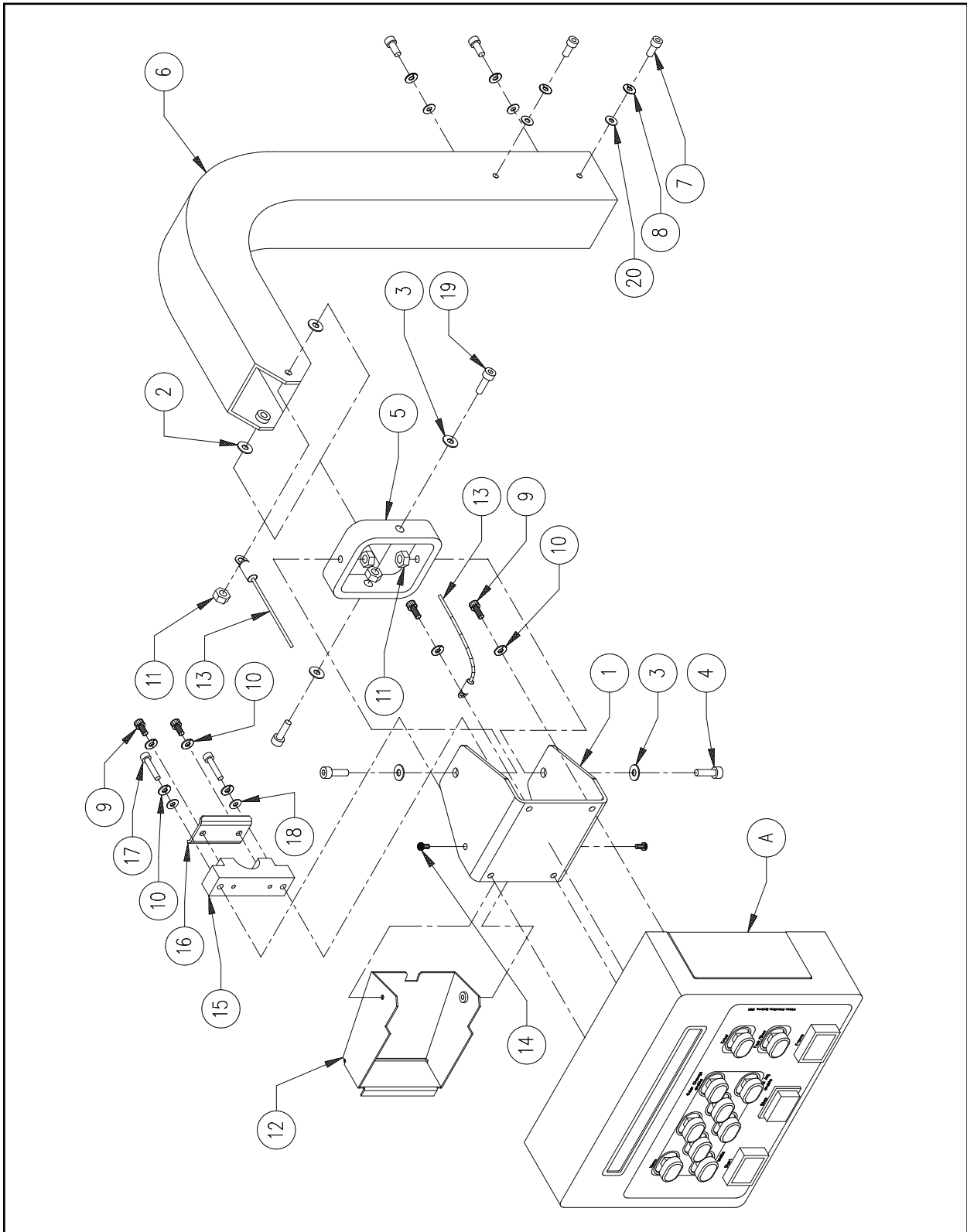


Figure 4

Keyboard (2 of 2) (*010612-01)**Reference Figure 4**

Item No.	Part Number	Item Description	Comments
A	-----	Keyboard	See Page 3-1
1	009392-01	Bracket, Mounting, Display	
2	690439-06	Washer, Flat, M6	
3	010535-01	Washer, Bellville, M6	
4	010173-16	Screw, Socket Head Cap, M6 x 1.0 x 16mm, Zinc Plate	
5	009393-01	Bracket, Pivot, Display	
6	009343-01	Pedestal, Control Interface	
7	010172-10	Screw, Socket Head Cap, M5 x 0.8 x 10mm, Zinc Plate	
8	690427-05	Washer, Lock, Split, M5	
9	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
10	690427-04	Washer, Lock, Split, M4	
11	010627-06	Nut, Hex, Low Profile, M6	
12	010721-01	Cover, Cable, Operator I/F	
13	011006-01	Cable, Ground, Braid, 6.5"	
14	004262-06	Screw, Pan Head Phillips, M4 x 0.7 x 6mm	
15	010928-01	Base, Strain Relief, Operator I/F	
16	010929-01	Plate, Strain Relief, Operator I/F	
17	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
18	690439-04	Washer, Flat, M4	
19	010173-20	Screw, Socket Head Cap, M6 x 1.0 x 20mm, Zinc Plate	
20	690439-05	Washer, Flat, M5	

Note: *The keyboard as a unit (part number 010612-01) is shown on pages 3-1 and 4-1. On this page only items 7, 8 and 20 are excluded.

Light Fixture

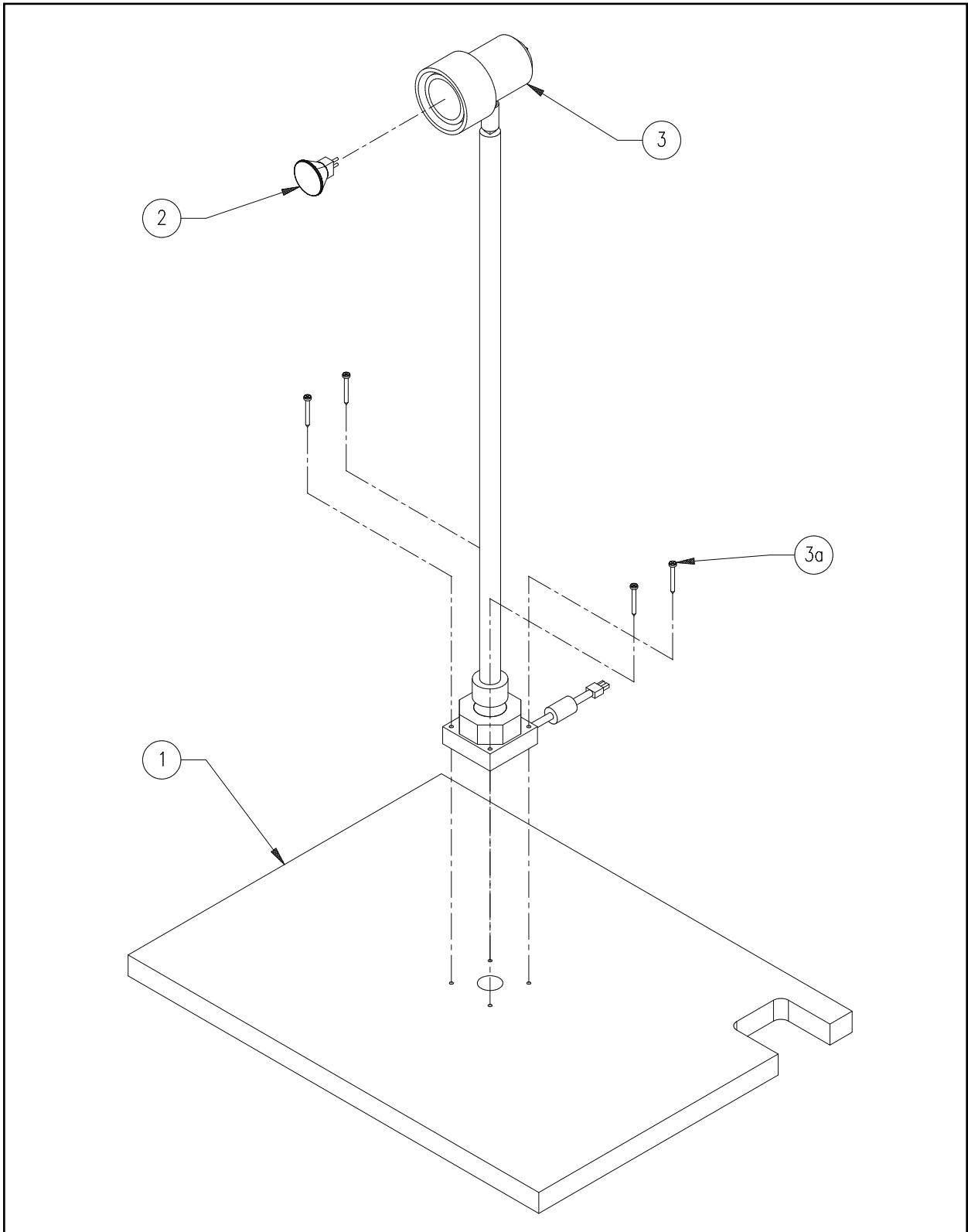


Figure 5

Light Fixture			Reference Figure 5
Item No.	Part Number	Item Description	Comments
1	009350-01	TableTop, Rear, Right	(see page 1-1)
2	011350-01	Bulb, 12V	
3	011349-01	Lamp, Flexible, w/Switch, 12V/12W	
3a	-----	Screw, Pan Head Phillips, Self-Tapping, #6 x 1.25" (part of item 3)	

Thread Tree

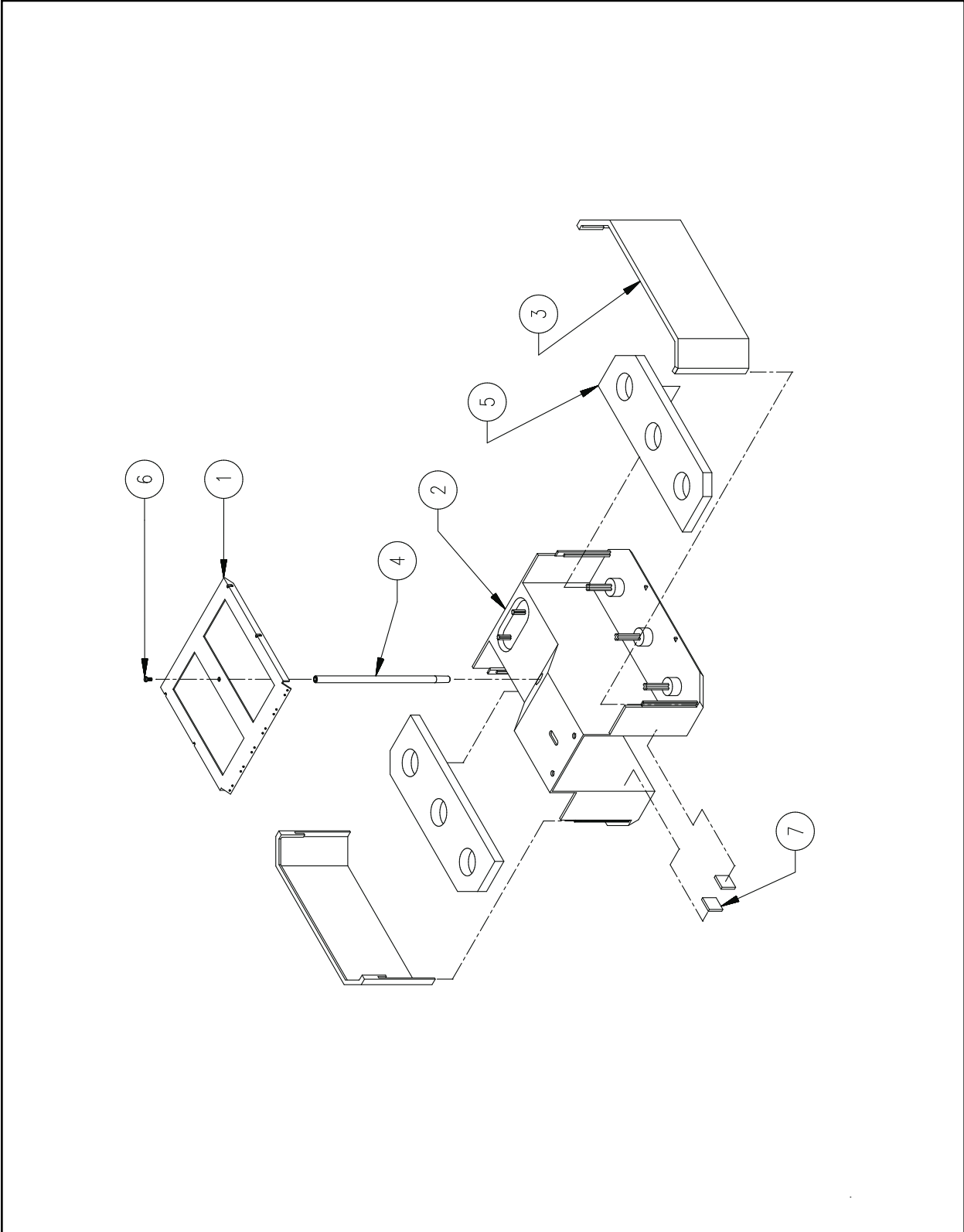


Figure 6

Thread Tree			Reference Figure 6
Item No.	Part Number	Item Description	Comments
1	003572-01	Spreader, Thread Tree	
2*	005014-21	Base, Thread Tree	
3	001994-01	Panel, Side	
4	002653-01	Support, Thread Tree	
5*	003526-01	Pad, Thread Holder	
6	004480-08	Screw, Truss Head Phillips, M5 x 0.8 x 8mm	
7	005004-01	Pad, Cushion, Side, Thread Tree Base	

Note: The following can be replaced as a factory built assembly:

*005915-21 Base, Thread Tree, w/Pad

Needle Case

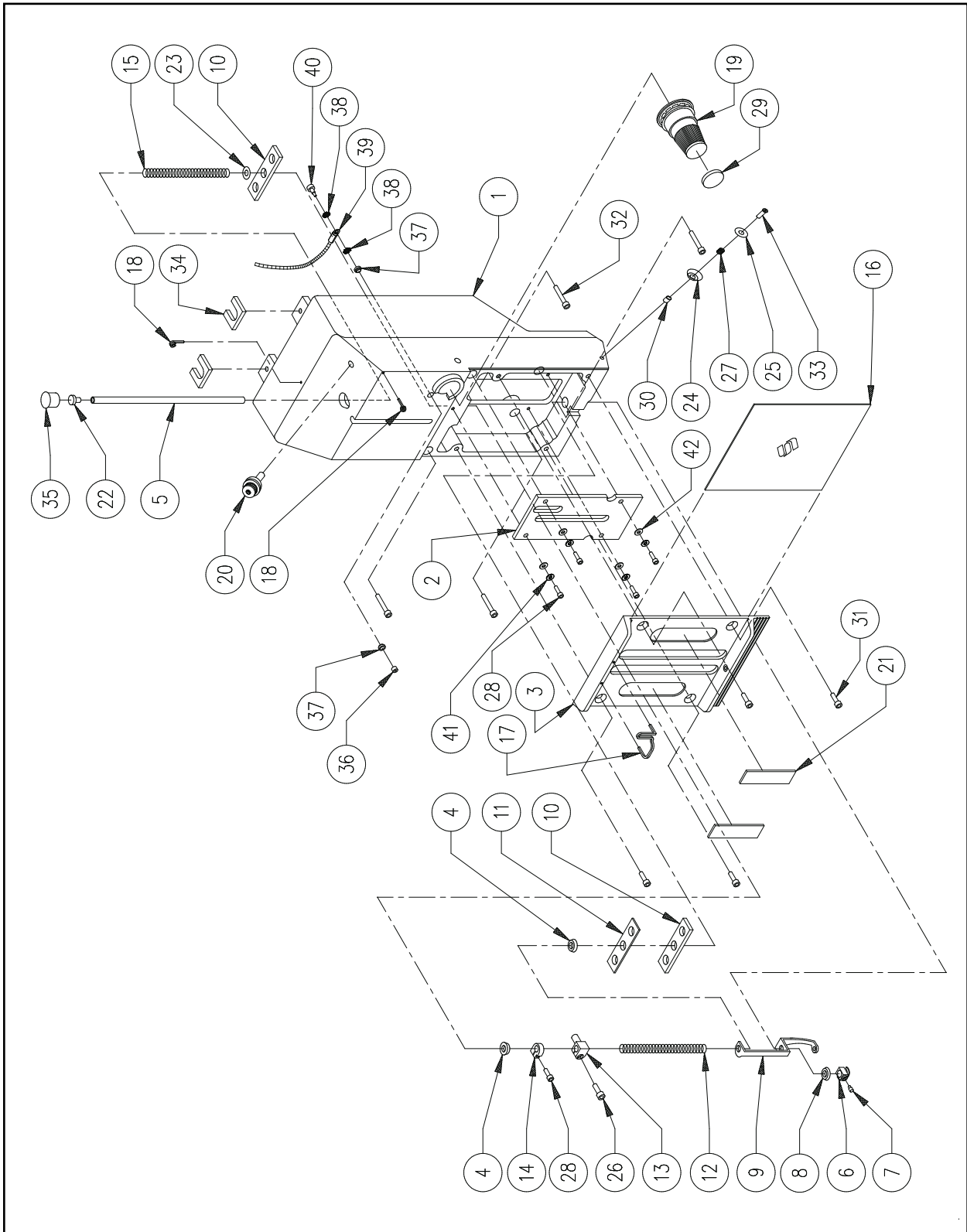


Figure 7

Needle Case		Reference Figure 7	
Item No.	Part Number	Item Description	Comments
1	011160-01	Case, Needle, Machined	
2	005019-01	Plate, Guide, Needle Bar	
3	005016-21	Cover, Needle Case	
4	005577-01	Damper, Needle Case	
5	001532-01	Bar, Needle	
6	001528-01	Clamp, Needle, Assembly	
7	001828-01	Screw, Set, Needle Clamp	
8	001988-01	O-Ring, Molded, Needle Bar	
9	005008-01	Foot, Presser, Assembly	
10	001830-01	Felt, Needle Case	
11	007505-01	Shim, Needle Case	
12	001535-01	Spring, Presser Foot	
13	002808-02	Stud, Connecting, Needle Bar	
14	001840-01	Clamp, Stop, Needle Bar	
15	001537-01	Spring, Holding, Needle Bar	
16	005017-21	Plate, Cover, Needle Case	
17	005032-01	Guide, Thread, Middle	
18	002897-01	Post, Guide	
19	007547-01	Tensioner, Thread, Main, Black, Assembly	(see page 8-1)
20	007530-01	Pretensioner, Assembly	(see page 8-1)
21	005028-01	Magnet, Cover, Needle Case	
22	010172-08	Screw, Socket Head Cap, M5 x 0.8 x 8mm, Zinc Plate	
23	004237-01	Washer, Flat, .257" ID x .03" Thick	
24	005299-01	Disk, Thread Suspender	
25	005300-01	Presser, Spring	
26	010170-08	Screw, Socket Head Cap, M3 x 0.5 x 8mm, Zinc Plate	
27	005421-01	Spring, Thread Suspender	
28	010170-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm, Zinc Plate	
29	003560-01	Tab, Tensioner	
30	005047-01	Spacer, Thread, Tie-off	
31	001926-12	Screw, Flat Head Socket, M4 x 0.7 x 12mm	
32	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
33	006558-08	Screw, Pan Head Phillips, M3 x 0.5 x 8mm, Zinc Plate	
34	005025-01	Pad, Cushion, Top, Thread Tree Base	
35	005024-01	Plug, Dome, .437" Dia.	
36	005010-01	Standoff, Fem., 4-40 ID x 3/16" OD x 1/8"	
37	005011-01	Washer, Shoulder, Nylon, .116" ID x .047"	
38	690713-34	Washer, Lock, External Star, #4	
39	005038-01	Harness, Jumper, Thread Break	
40	005620-01	Screw, Shoulder, 1/8" OD x .188", 4-40 Thread	
41	690427-03	Washer, Lock, Split, M3	
42	690439-03	Washer, Flat, M3	

Thread Tensioners

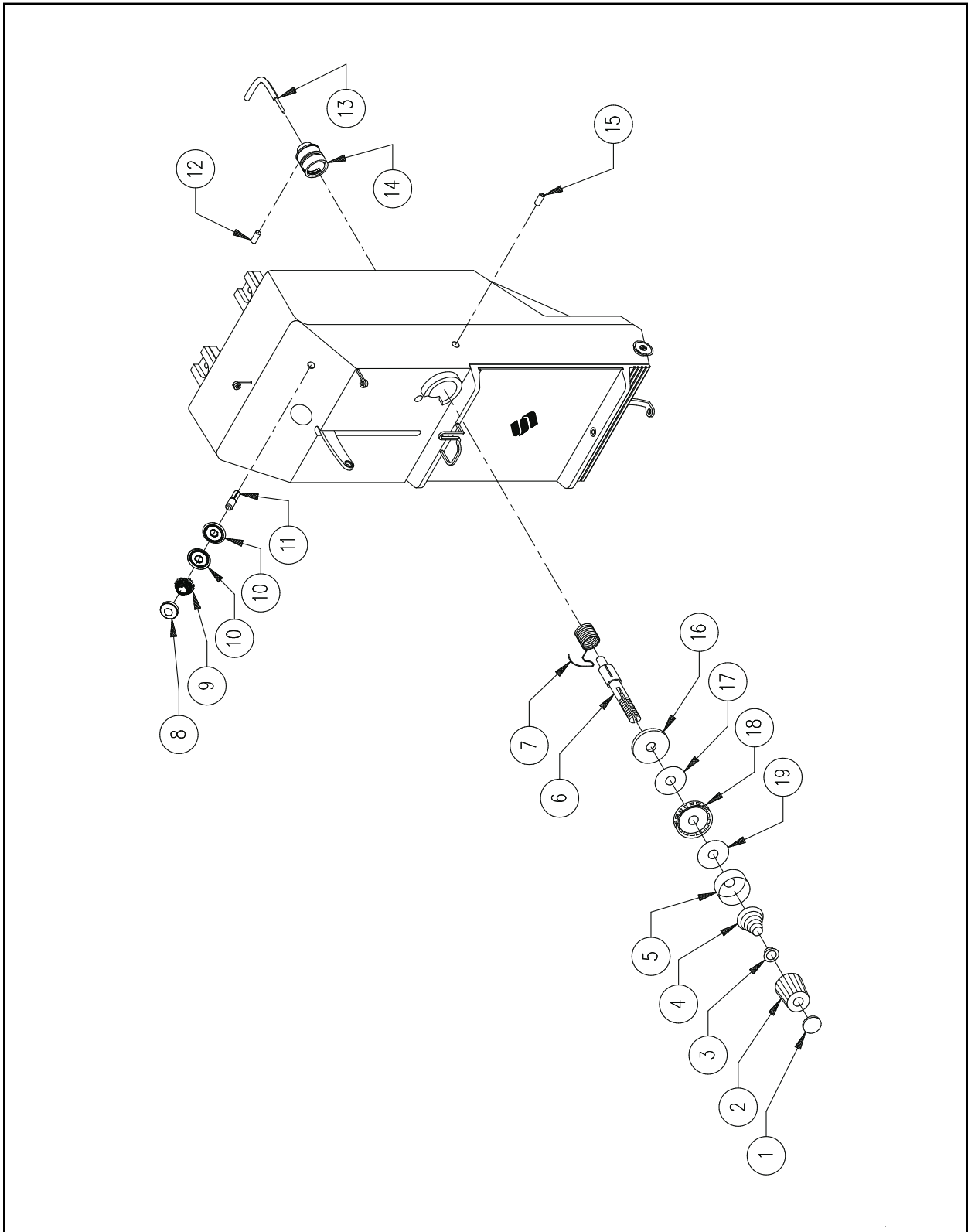


Figure 8

Thread Tensioners **Reference Figure 8**

Item No.	Part Number	Item Description	Comments
1*	003560-01	Tab, Tensioner	
2*	005197-01	Knob, Tensioner, Black, Assembly	
3*	005422-01	Cap, Spring	
4*	004854-01	Spring, Tensioner, Thread	
5*	005196-01	Base, Tensioner	
6*	004897-01	Post, Tensioner	
7*	007559-01	Spring, Check, Tensioner, Thread	
8•	007080-01	Knob, Adjust, Pretensioner, Plastic	
9•	003654-01	Spring, Pretensioner	
10•	005137-01	Disk, Pretensioner	
11•	007531-01	Post, Pretensioner	
12	004920-01	Screw, Set, Mounting Post	
13	011142-01	Harness, Thread Break/Jump Stitch	
14	011123-01	Mount, Tensioner Post	
15	001960-06	Screw, Set, Socket, Flat Point, M4 x 0.7 x 6mm	
16*	004908-01	Disk, Plastic	
17*	005198-02	Pad, Felt, .095" Thick	
18*	006474-01	Disk, Tensioner, Thread, Assembly	
19*	005198-01	Pad, Felt, .065" Thick	

Note: The following can be replaced as a factory built assembly:

- *007547-01 Tensioner, Thread, Main, Black, Assembly
- 007530-01 Pretensioner, Assembly

Arm and Bed

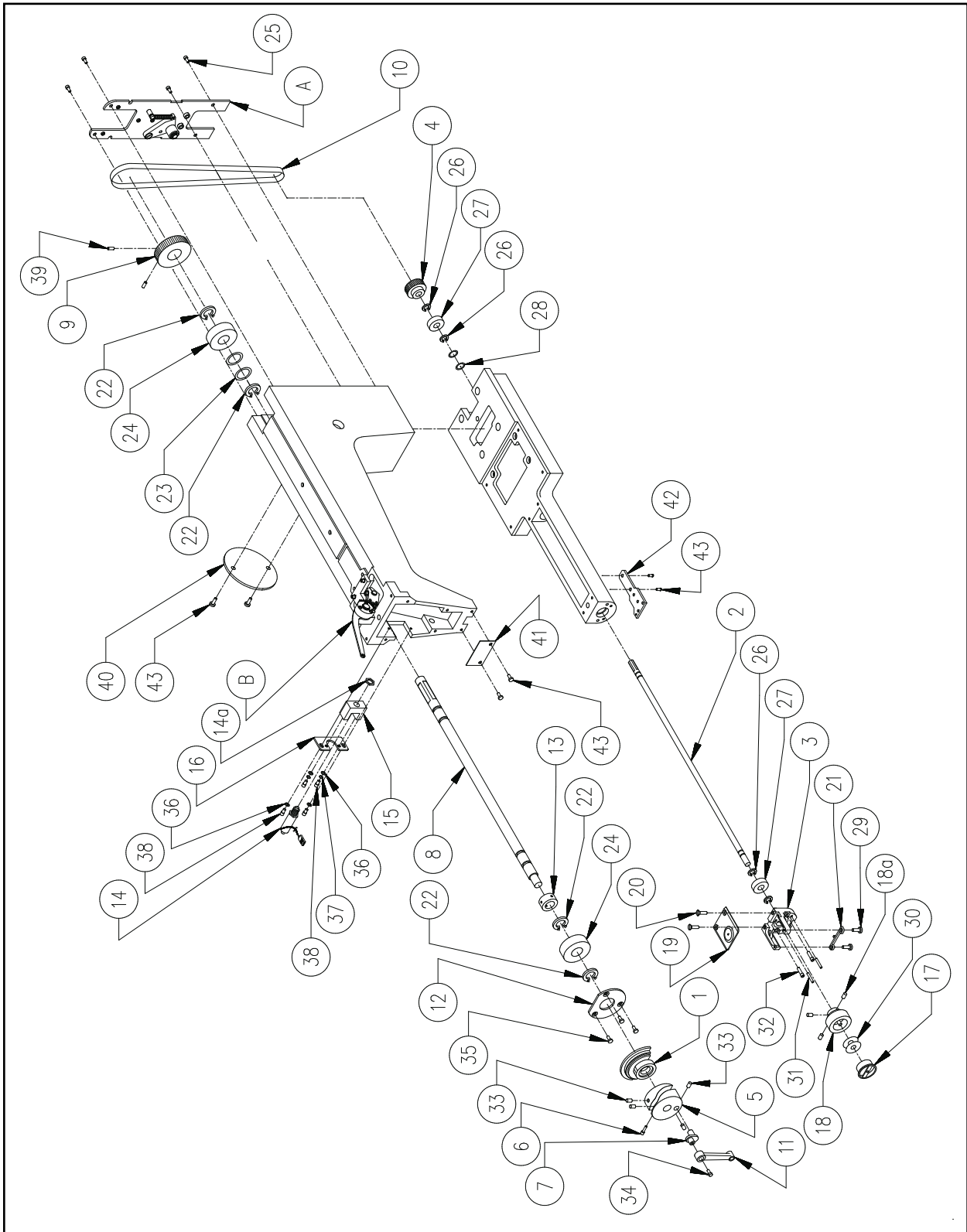


Figure 8

Arm and Bed			Reference Figure 8
Item No.	Part Number	Item Description	Comments
A	004504-01S	Bobbin Idler	See Page 11-1
B	-----	Take-Up Drive Lever	See Page 12-1
1	003539-01	Counterweight, Phase II	
2	003535-01	Shaft, Bobbin, Phase II	
3	006576-01	Bracket, Needle Plate	
4	001522-01	Pulley, Drive, Bobbin, Bottom, 16T, 1/5P	
5	003545-01	Cam, Drive, Take-Up Lever	
6	003546-01	Screw, Set, Cam	
7	002698-01	Rod, Crank, 90 Deg	
8	003532-01	Shaft, Arm	
9	001523-01	Pulley, Drive, Bobbin, Top, 32T, 1/5P	
10	002809-01	Belt, Timing, 1/5P, 104 Groove, 3/8" Wide	
11	001939-01	Rod, Connecting	
12	003531-01	Plate, Retainer, Bearing, Arm Shaft	
13	004261-01	Collar, Shaft, Headup	
14	001801-01	Solenoid, Jump Stitch	
14a	-----	Nut, Panel	(Included in Item #14)
15	001850-01	Bracket, Jump Stitch Solenoid	
16*	001851-01	Plate, Interface, Bracket, Solenoid	
17	004267-01	Case, Bobbin, Small	
18	009000-01	Hook, Rotary, Small Bobbin	
18a	341992-06	Screw, Rotary Hook	
19	006520-01	Plate, Needle, UTC	
20	004643-01	Screw, Needle Plate	
21	001916-01	Support, Rotary Hook	
22	003533-05	Ring, Retainer, External, Arm Shaft	
23	002697-09	Washer, Wave, 35mm OD	
24	002696-15	Bearing, Ball, Radial, 15mm ID	
25	001926-12	Screw, Flat Head Socket, M4 x 0.7 x 12mm	
26	003534-10	Ring, Retaining, External, Bobbin Shaft	
27	002696-08	Bearing, Ball, Radial, 8mm ID	
28	002697-03	Washer, Wave, 22mm OD	
29	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
30	761002-11	Thread, Bobbin, White	
31	002610-14	Pin, Spring, 3mm OD x 14mm	
32	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
33	001971-06	Screw, Set, Flat Point, M6 UNF x 6mm	
34	002637-10	Screw, Socket Head Cap, Low Head, M5 x 0.8 x 10mm	
35	001926-12	Screw, Flat Socket, M4 x 0.7 x 12mm	

Arm and Bed		Reference Figure 8	
Item No.	Part Number	Item Description	Comments
36	702946-30	Spacer, Shaft, .187" ID x .312" OD x .03" Thick	
37	690427-04	Washer, Lock, Split, M4	
38	010171-08	Screw, Socket Head Cap, M4 x 0.7 x 8mm, Zinc Plate	
39	001927-12	Screw, Set, Flat Point, M5 x 0.8 x 12mm	
40	003622-21	Cover, Solenoid	
41	005022-01	Plate, Cover, Arm	
42	006526-01	Bracket, Picker	
43	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	

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Reciprocator

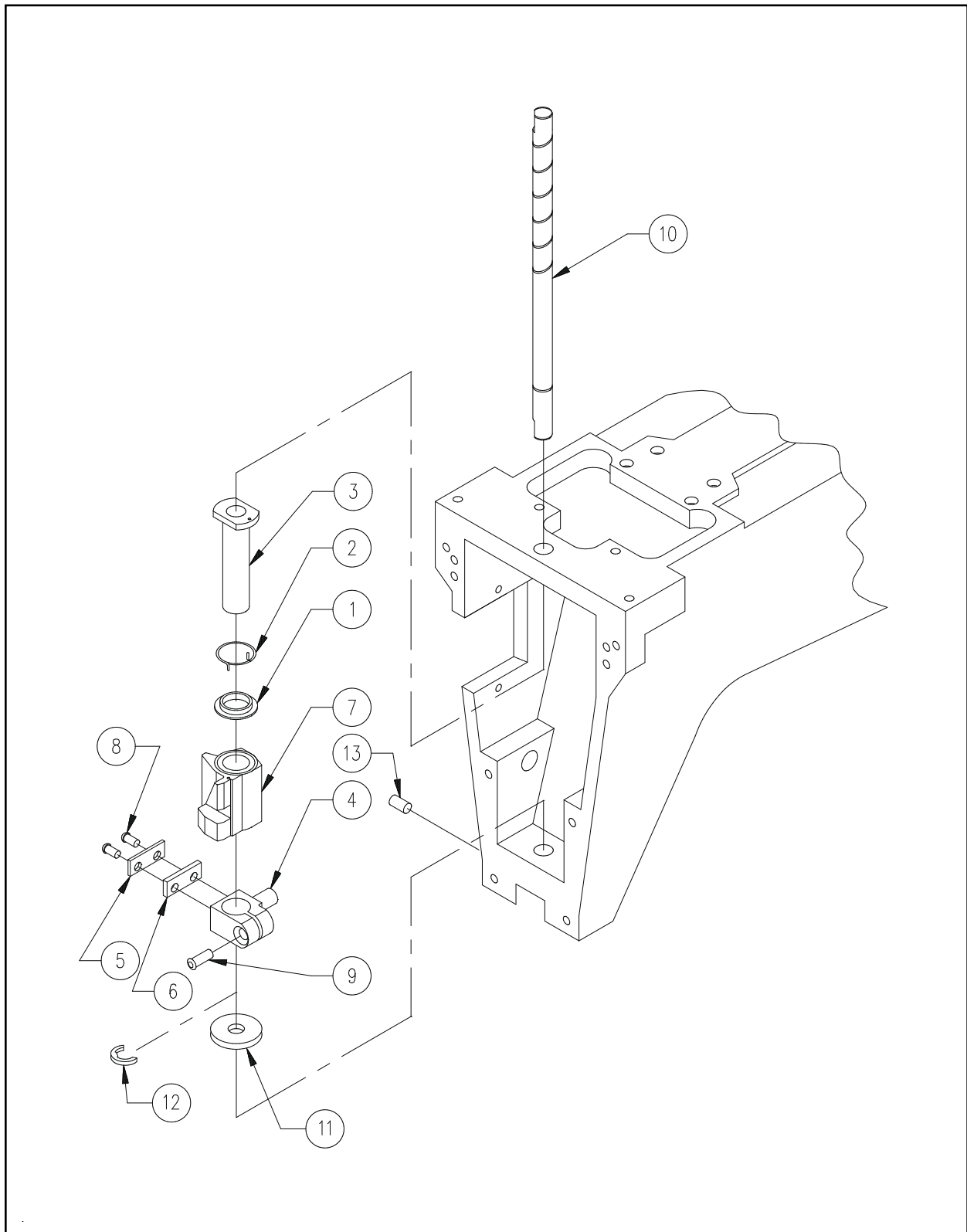


Figure 10

Reciprocator		Reference Figure 10	
Item No.	Part Number	Item Description	Comments
1*	007449-01	Bushing, Cradle, Spring	
2*	007448-01	Spring, Jump, Reciprocator	
3*	001865-01	Bushing, Shaft, Needle Bar	
4*	002807-01	Stud, Connector, Reciprocator	
5*	001842-01	Bracket, Stopper, Steel	
6*	004676-01	Bracket, Stopper, Delrin	
7*	004878-01	Reciprocator	
8	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
9	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
10	001858-01	Shaft, Guide, Needle Bar	
11	001875-01	Bearing, Shaft, Guide	
12	001955-18	Ring, Retainer, External, 5/16" ID	
13	004264-08	Screw, Set, Cone Point, M4 x 0.7 x 8mm	

Note: The following can be replaced as a factory built assembly:

*001990-015 Assembly, Reciprocator

Bobbin Idler

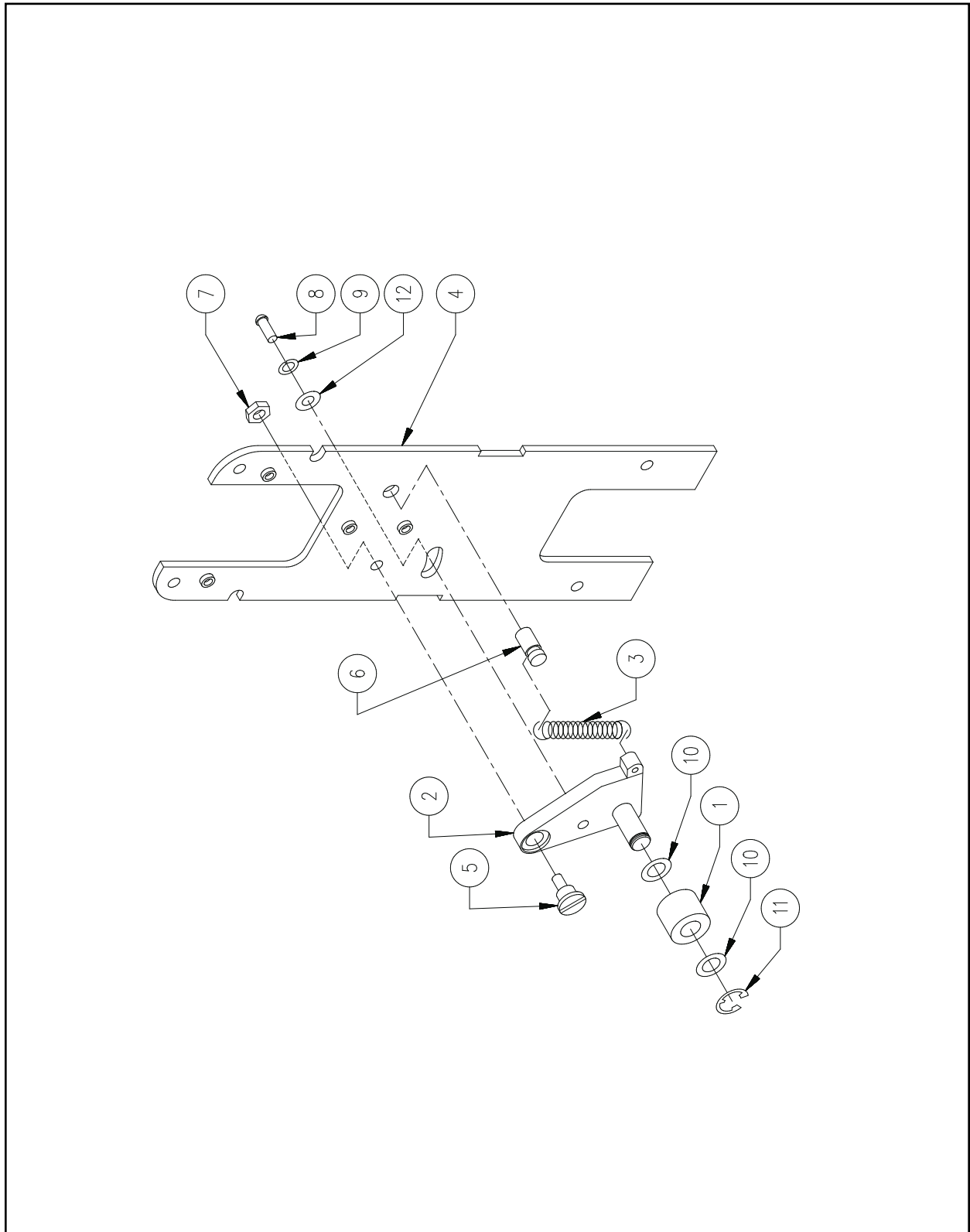


Figure 11

Bobbin Idler**Reference Figure 11**

Item No.	Part Number	Item Description	Comments
1	003593-01	Roller, Idler	
2	002817-01	Bar, Idler, Assembly	
3	002816-06	Spring, Idler	
4	003668-01	Cover, Rear	
5	003188-01	Screw, Shoulder, M5 x 7mm OD x 0.8mm	
6	660278-01	Stud, Press, 1/4" OD x 1/2"	
7	003543-05	Nut, Jam, Hex, M5	
8	672036-10	Screw, Button Head Cap, M5 x 0.8 x 10mm	
9	690427-05	Washer, Lock, Split, M5	
10	702876-08	Spacer, Shaft, 5/16" ID x .016" Thick	
11	001955-18	Ring, Retainer, External, 5/16" ID	
12	690439-05	Washer, Flat, M5	

Take-Up Drive Lever

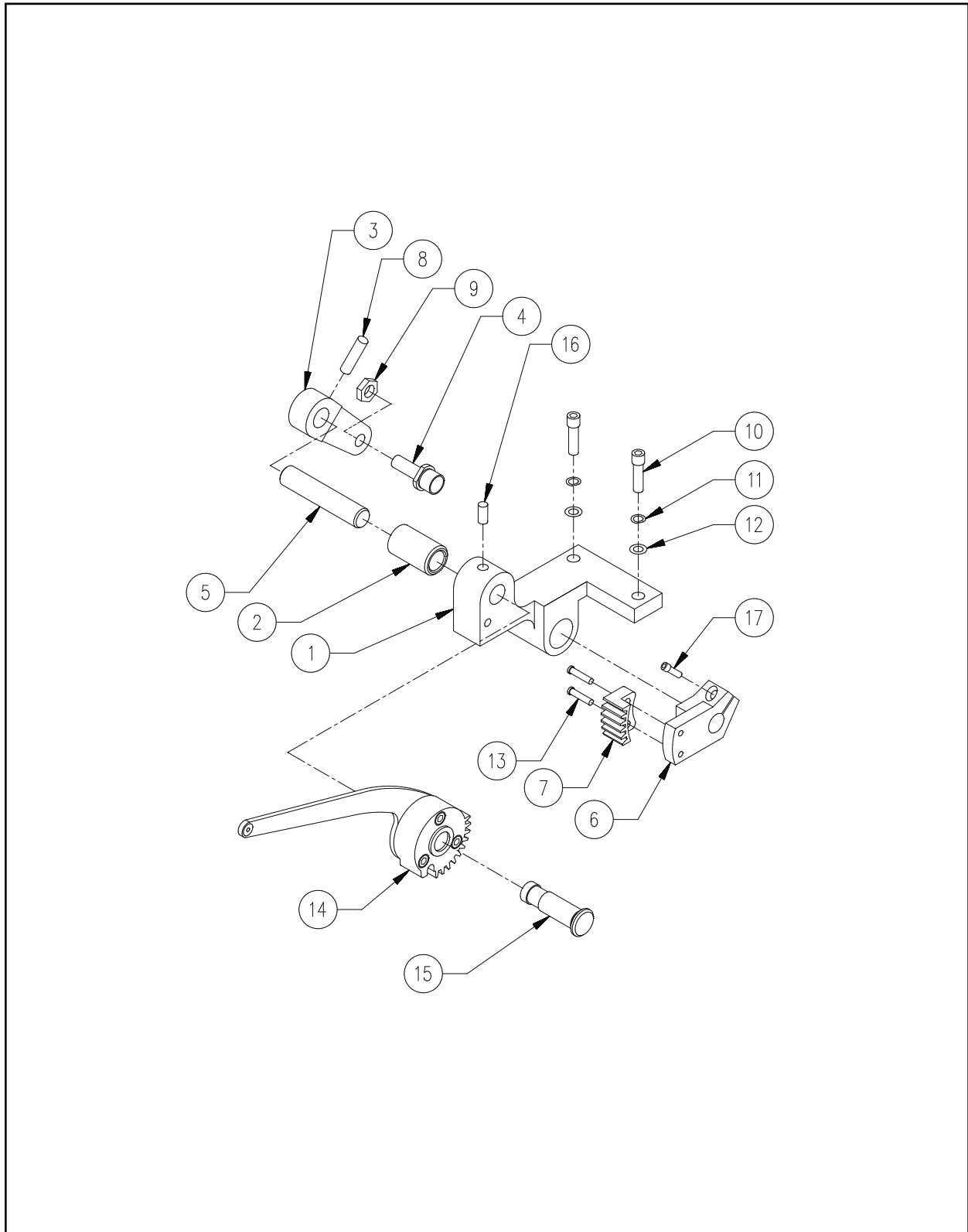


Figure 12

Take-Up Drive Lever**Reference Figure 12**

Item No.	Part Number	Item Description	Comments
1	005003-01	Base, Drive, Lever, Take-Up, PHS II	
2	001947-01	Bushing, Base, Drive, Lever, Take-Up	
3*	004821-01	Lever, Drive, Lever, Take-Up	
4	001983-01	Follower, Assembly	
5*	004820-01	Shaft, Drive, Lever, Take-Up	
6	001893-01	Case, Gear, Drive, Lever, Take-Up	
7	001894-01	Gear, Drive, Lever, Take-Up	
8*	660830-10	Pin, Groove, 1/8" OD x 5/8"	
9	003543-05	Nut, Jam, Hex, M5	
10	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
11	690427-04	Washer, Lock, Split, M4	
12	690439-04	Washer, Flat, M4	
13	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
14	001868-01	Assembly, Lever, Take-Up	
15	005021-01	Pin, Pivot, Take-Up Lever	
16	001960-04	Screw, Set, Flat Point, M4 x 0.7 x 4mm	

Note:

The following can be replaced as a factory built assembly:

*004768-01 Lever, Drive, Lever, Take-up, Assembly

Electronics Cage (1 of 2)

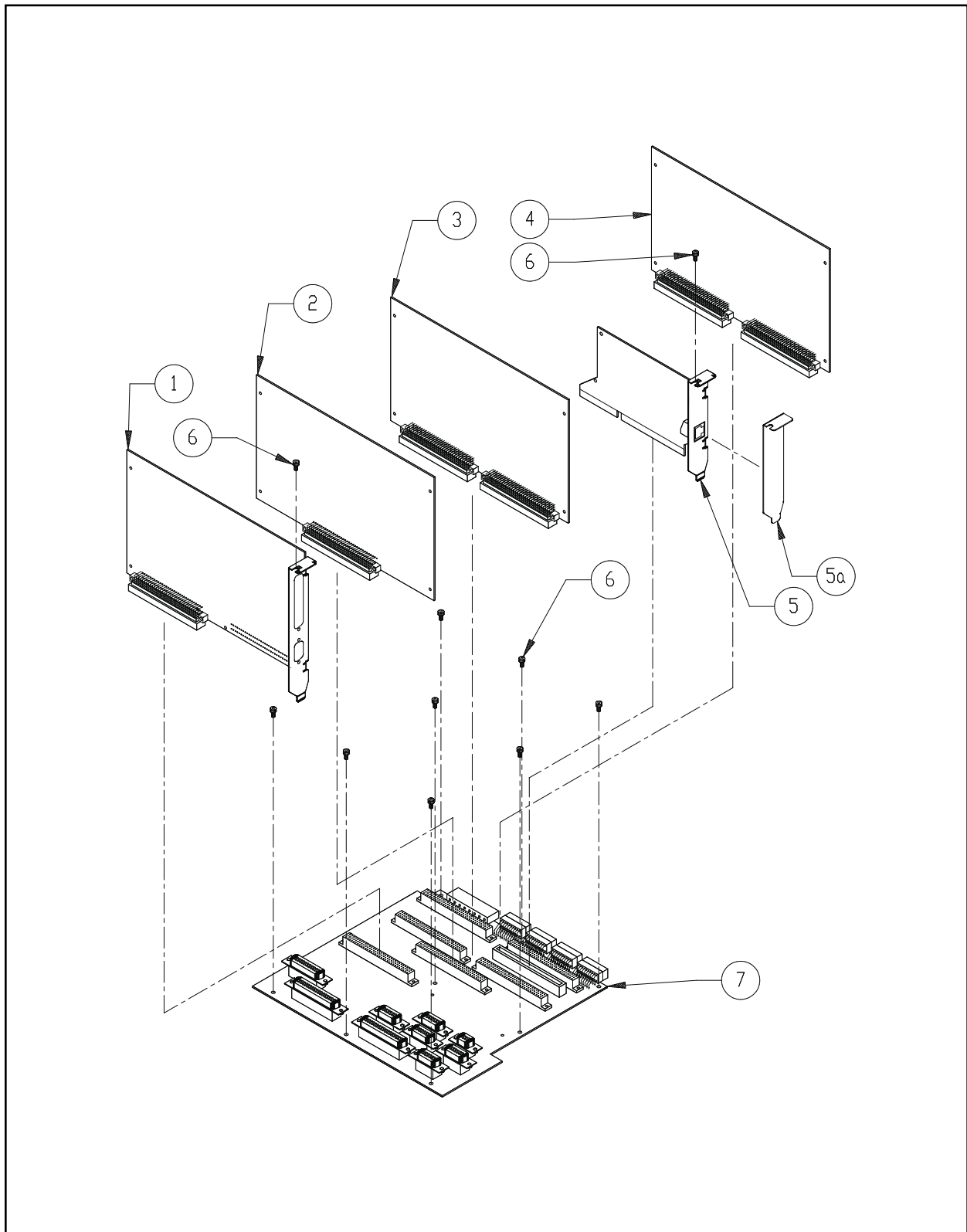


Figure 13

Electronics Cage (1 of 2)**Reference Figure13**

Item No.	Part Number	Item Description	Comments
1	009419-01	PCB, Motor Driver, Assembly	
2	009846-05	PCB, LV Drivers, Assembly	
3	009407-06	PCB, Interface, Assembly	
4	010872-05	PCB, CPU, Assembly	
5	010192-01	PCB, Network, Intel, Pro 10	(Option)
5a	010657-01	Bracket, Blank, PC	(used if item 5 not installed)
6	009862-10	Screw, Pan Head Phillips, w/Star, M3 x 0.5 x 10mm	
7	009423-02	PCB, Backplane, Assembly	

Electronics Cage (2 of 2)

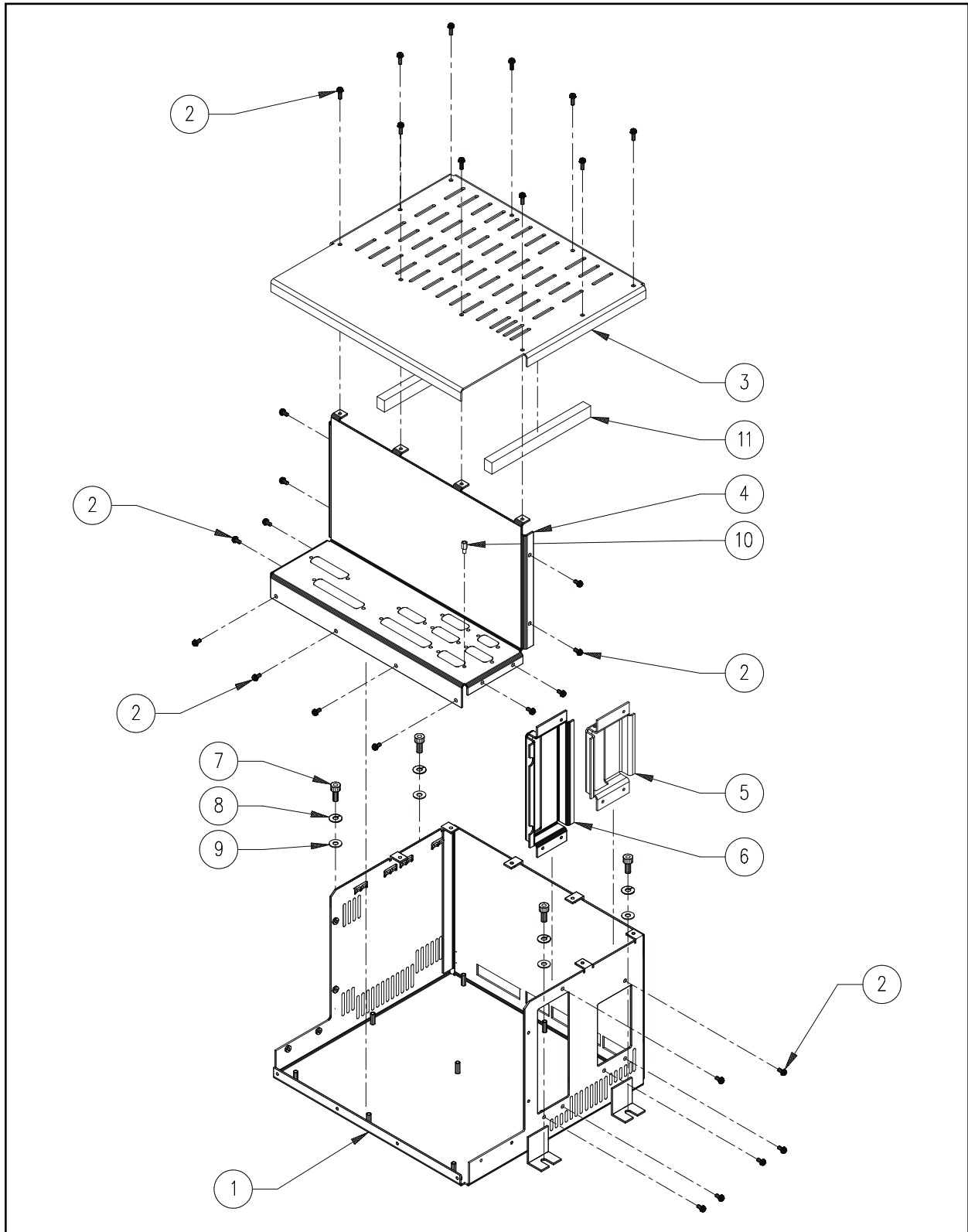


Figure 14

Electronics Cage (2 of 2)**Reference Figure 14**

Item No.	Part Number	Item Description	Comments
1	009835-01	Card Cage, Bottom Cover	
2	009862-06	Screw, Pan Head Phillips, w/Star, M3 x 0.5 x 6mm	
3	009833-01	Card Cage, Top Cover	
4	009848-01	Card Cage, Front Cover, Single Head	
5	009837-01	Bracket, Ethernet Card Connector	
6	009836-01	Bracket, Motor Board Connector	
7	010172-08	Screw, Socket Head Cap, M5 x 0.8 x 8mm, Zinc Plate	
8	690427-05	Washer, Lock, Split, M5	
9	690439-05	Washer, Flat, M5	
10	000609-01	Screwlock, 4-40 ID x 5/16"	(x18)
11	010545-01	Seal, Rubber, 3/8" x 1/2"	

Power Distribution

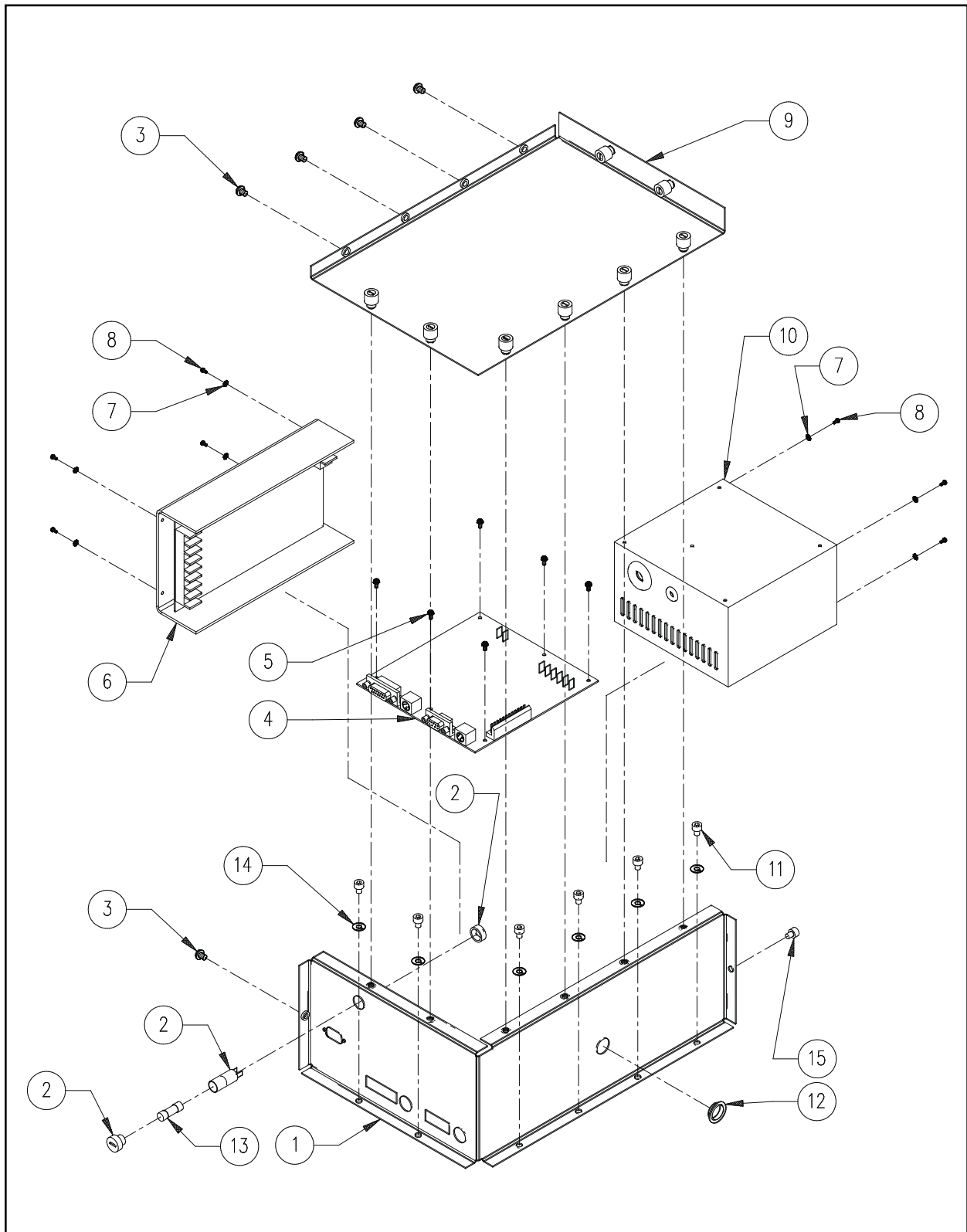


Figure 15

Power Distribution**Reference Figure 15**

Item No.	Part Number	Item Description	Comments
1	009959-03	Base, Power Box	
2	010340-01	Fuse, Holder	
3	010309-10	Screw, Truss Head Phillips, M5 x 0.8 x 10mm	
4*	009832-03	PCB, E-Stop, Assembly	
5	009862-10	Screw, Pan Head Phillips, w/Star, M3 x 0.5 x 10mm	
6	009881-01	Supply, Power, 24V/36V	
7	690713-36	Washer, Lock, External Star, #6	
8	670174-06	Screw, Pan Head Phillips, 6-32 x 3/8"	
9	009958-01	Cover, Power Box	
10	009978-01	Supply, Power, 200W, Computer	
11	010172-06	Screw, Socket Head Cap, M5 x 0.8 x 6mm, Zinc Plate	
12	010454-01	Grommet	
13	009874-05	Fuse, 5A, 125V, 5mm x 20mm	
14	690427-05	Washer, Lock, Split, M5	
15	010172-10	Screw, Socket Head Cap, M5 x 0.8 x 10mm, Zinc Plate	

Note:

*The following fuses are used on this pcb:

009875-63	Fuse, 6.3A, Fastblow, 5mm x 20mm
009874-02	Fuse, 2A, TD, 5mm x 20mm
009874-01	Fuse, 100mA, TD, 5mm x 20mm
009874-25	Fuse, 2.5A, TD, 5mm x 20mm
009874-32	Fuse, 32mA, TD, 5mm x 20mm
009874-50	Fuse, .5A, TD, 5mm x 20mm

X-Beam (1 of 2)

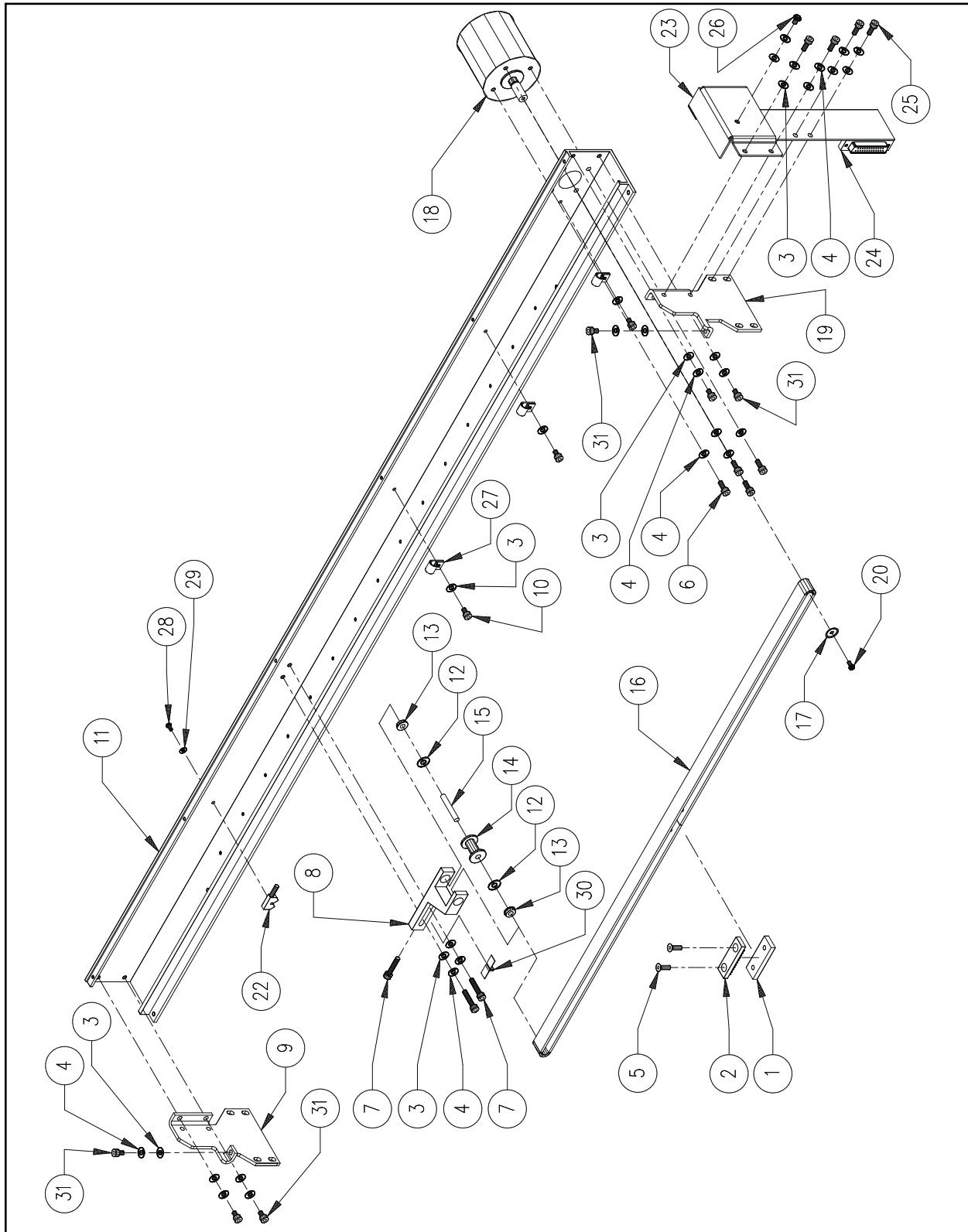


Figure 16

X-Beam (1 of 2)**Reference Figure 16**

Item No.	Part Number	Item Description	Comments
1	009476-01	Spacer, Belt	
2	009475-01	Clamp, Belt	
3	690439-04	Washer, Flat, M4	
4	690427-04	Washer, Lock, Split, M4	
5	001926-16	Screw, Flat Head Socket, M4 x 0.7 x 16mm	
6	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
7*	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
8*	009471-01	Block, Return	
9	009474-02	Bracket, Left	
10	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
11	009479-02	Extrusion, Base	
12*	690364-03	Washer, AIN	
13*	006416-01	Bearing, Ball, Radial, Flanged, 3/16" ID	
14*	010750-01	Pulley, Return	
15*	009466-01	Shaft, Return, X-Axis	
16	009467-02	Belt, X-Axis	
17	010477-02	Flange, Pulley, X-Axis Motor	
18	009462-01	Motor, X-Axis	
19	009473-02	Bracket, Right	
20	006558-06	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	
21	009862-08	Screw, Pan Head Phillips, *Star, M3 x 0.5 x 8mm	
22	010254-02	Sensor, X-Home, Assembly	
23	010896-01	Cover, X-Beam, PCB	
24	010359-02	PCB, X-Beam, X-Rack, Assembly	
25	010171-14	Screw, Socket Head Cap, M4 x 0.7 x 14mm, Zinc Plate	
26	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
27	340743-01	Clamp, Cable, Nylon, Black, .125" ID	
28	009862-06	Screw, Pan Head Phillips, *Star, M3 x 0.5 x 6mm	
29	690439-03	Washer, Flat, M3	
30*	010958-01	Velcro Pile, Dust Wiper	
31	010171-08	Screw, Socket Head Cap, M4 x 0.7 x 8mm, Zinc Plate	

Note: The following can be replaced as a factory built assembly:

*010941-01 Assembly, Idler, X-Axis, Belt

X-Beam (2 of 2)

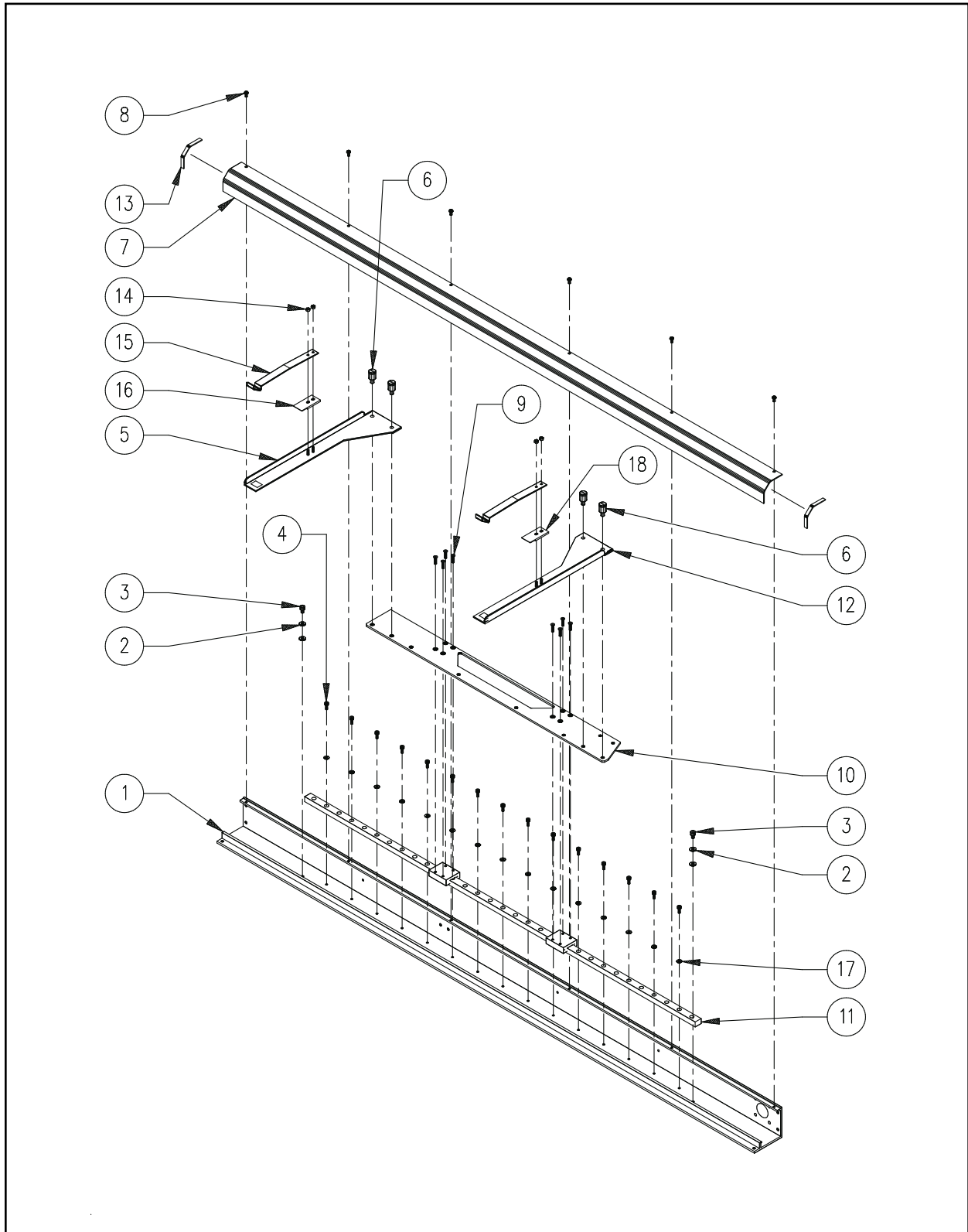


Figure 17

X-Beam (2 of 2)**Reference Figure 17**

Item No.	Part Number	Item Description	Comments
1	009479-02	Extrusion, Base	
2	690427-04	Washer, Lock, Split, M4	
3	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
4	010170-08	Screw, Socket Head Cap, M3 x 0.5 x 8mm, Zinc Plate	
5*	010618-01	Bracket, Tubular Frame, Left	
6	010410-03	Screw, Thumb, Knurl, 8mm	
7	009480-01	Extrusion, Cover	
8	010170-06	Screw, Socket Head Cap, M3 x 0.5 x 6mm, Zinc Plate	
9	001935-06	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
10	009478-01	Carriage, X-Axis	
11	009464-01	Rail, X-Drive	
12•	009395-01	Bracket, Tubular Frame, Right	
13	009889-01	Gasket, Rack, X-Axis	
14*•	003573-03	Nut, Nylock, M3	
15*•	010256-02	Clip, Spring, Tubular	
16*	008214-01	Locator, Left	
17	690427-03	Washer, Lock, Split, M3	
18•	008213-01	Locator, Right	

Note:

The following can be replaced as a factory built assembly:

- *010305-01 Bracket, Tubular, Left, Assembly
- 010306-01 Bracket, Tubular, Right, Assembly

Z-Drive Encoder

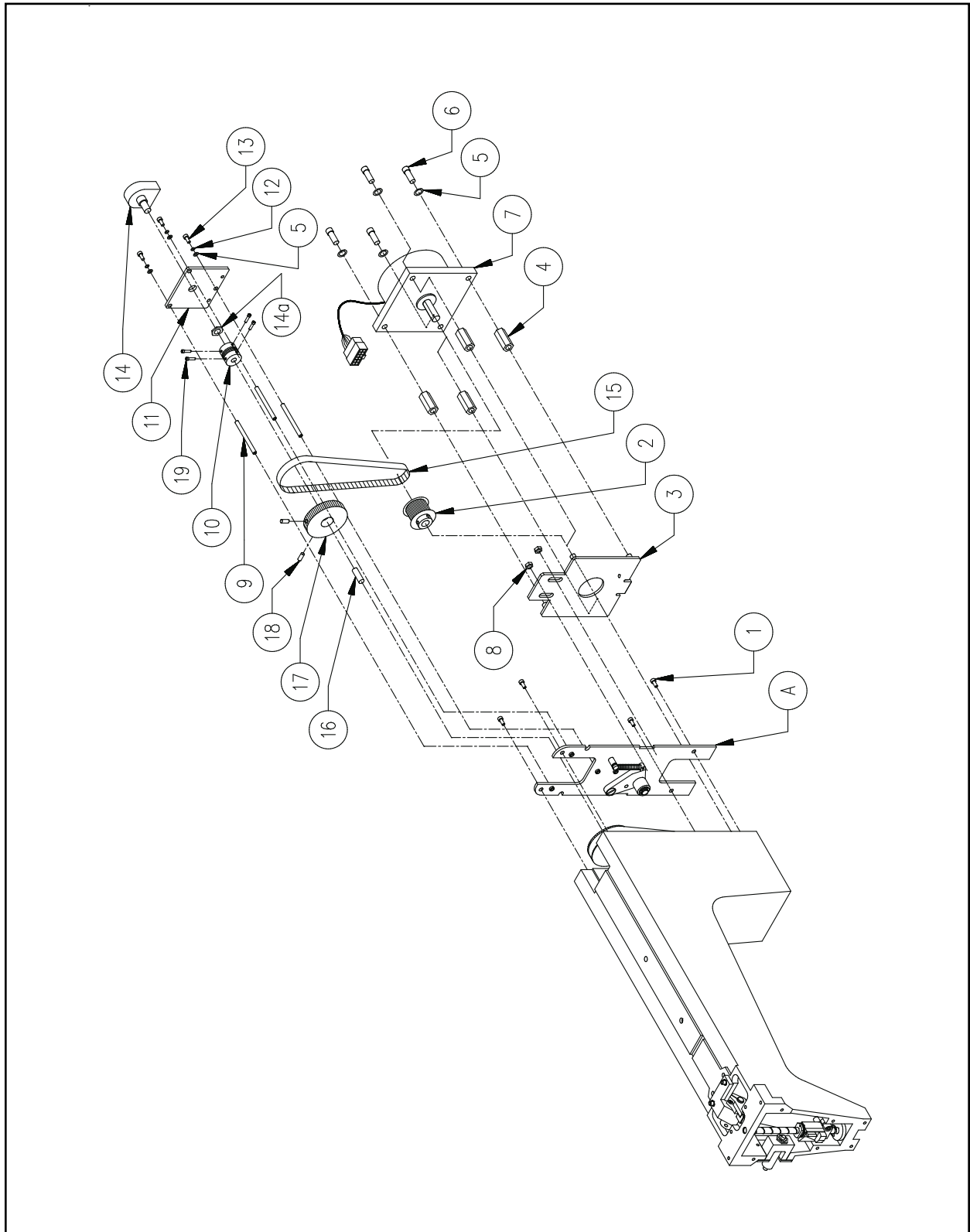


Figure 18

Z-Drive Encoder			Reference Figure18
Item No.	Part Number	Item Description	Comments
A	004504-01S	Bobbin Idler	See Page 11-1
1	001926-01	Screw, Flat Head Socket, M4 x 0.7 x 12mm	
2	340090-01	Pulley, 16T, 3/8" ID, w/Hub	
3	003667-01	Plate Mounting, Z-Drive Motor	
4	714399-16	Standoff, F/F, 1/2" Hex, 1/4-20 x 1"	
5	690439-04	Washer, Flat, M4	
6	670035-08	Screw, Socket Head Cap, 1/4-20 x 1/2"	
7	010694-01	Motor, Z-Drive	
8	005284-01	Nut, Lock, M6	
9	004829-01	Standoff, Encoder, M-F, M4 x 0.7 x 2.01"	
10	003553-01	Coupler, Shaft, Helical, 1/4" x 1/4"	
11	004730-01	Plate, Encoder	
12	690427-04	Washer, Lock, Split, M4	
13	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
14	004729-01	Encoder, Z-Axis	
14a	-----	Nut, Panel	(Included with Item #14)
15	344394-01	Belt, Timing, 80 Groove, 1/5P, 3/8" Wide	
16	662744-12	Pin, Dowel, 1/4" OD x .750"	
17	001523-01	Pulley, Drive, Bobbin, Top, 32T, 1/5P	
18	001927-12	Screw, Set, Flat Point, M5 x 0.8 x 12mm	
19	670068-06	Screw, Socket Head Cap, 6-32 x 3/8"	

Y-Drive

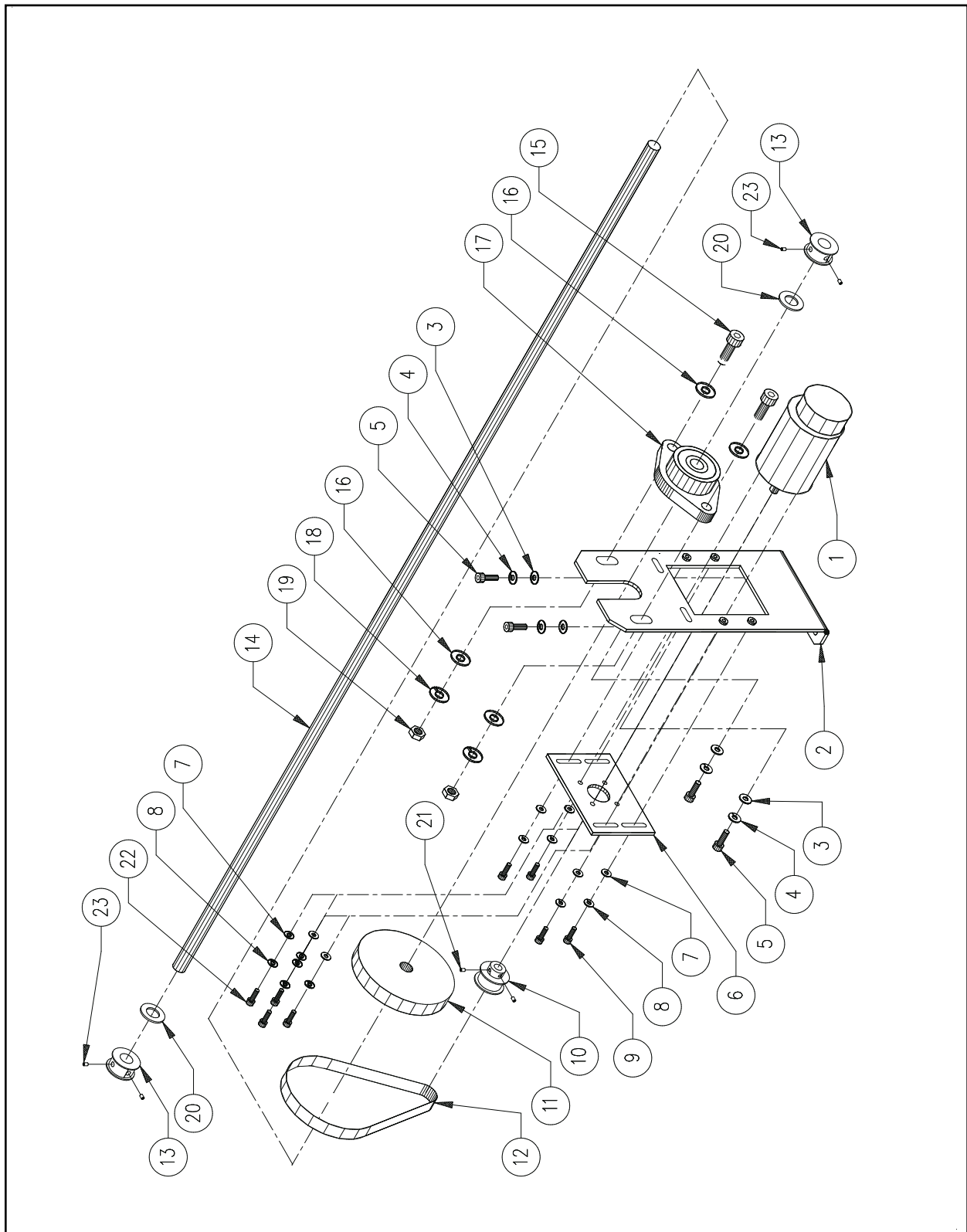


Figure 19

Y-Drive		Reference Figure 19	
Item No.	Part Number	Item Description	Comments
1	009463-01	Motor, Y-Axis	
2	009363-02	Plate, Motor Mount	
3	690439-05	Washer, Flat, M5	
4	690427-05	Washer, Lock, Split, M5	
5	010172-10	Screw, Socket Head Cap, M5 x 0.8 x 10mm, Zinc Plate	
6	009454-01	Plate, Motor Mount #2	
7	690439-04	Washer, Flat, M4	
8	690427-04	Washer, Lock, Split, M4	
9	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
10	004962-01	Pulley, Pinion, Y-Axis	
11	344349-01	Pulley, Drive	
12	010399-01	Belt, 80T, 1/5P	
13	011159-01	Pulley, Drive, Y-Rail	
14	009484-01	Shaft, Drive	
15	010174-25	Screw, Socket Head Cap, M8 x 1.25 x 25mm, Zinc Plate	
16	690439-08	Washer, Flat, M8	
17	343054-08	Bearing, Flange Cartridge, 2-Hole	
18	690427-08	Washer, Lock, Split, M8	
19	001963-09	Nut, Hex, M8	
20	009465-01	Washer, AIN	
21	005034-02	Screw, Set, Cup Point, M4 x 0.7 x 4mm	
22	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
23	670050-03	Screw, Set, Knurled Cup, 8-32 x 3/16"	

Left Y-Carriage

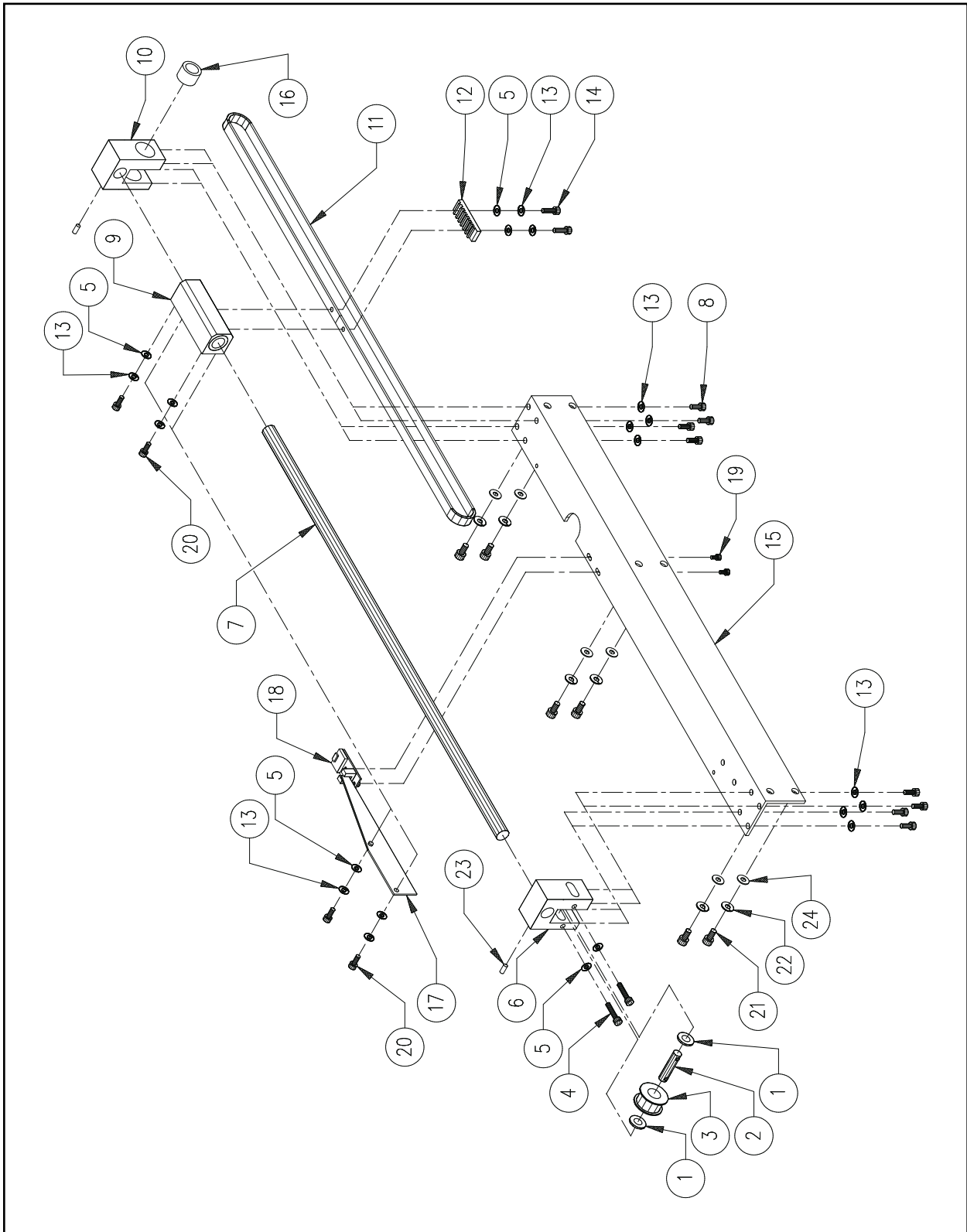


Figure 20

Left Y-Carriage**Reference Figure 20**

Item No.	Part Number	Item Description	Comments
1	009465-01	Washer, AIN	
2	009483-01	Shaft, Return	
3	005289-01	Pulley, Idler, Return, Assembly	
4	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
5	690439-04	Washer, Flat, M4	
6	009481-01	Block, Return, Y-Rack	
7	009486-01	Rail, Y-Carriage	
8	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
9	010198-01	Block, Carriage, Y-Axis	
10*	009482-01	Block, Drive	
11	010751-01	Belt, Y-Axis	
12	009890-01	Clamp, Y-Belt	
13	690427-04	Washer, Lock, Split, M4	
14	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
15	009485-04	Bracket, Mount	
16*	010740-02	Bearing, Roller, 1/2" ID x 1/2"	
17	009891-02	Flag, Y-Limit	
18	010277-02	PCB, Y-Limit, Assembly	
19	010170-06	Screw, Socket Head Cap, M3 x 0.5 x 6mm, Zinc Plate	
20	010171-08	Screw, Socket Head Cap, M4 x 0.7 x 8mm, Zinc Plate	
21	010172-10	Screw, Socket Head Cap, M5 x 0.8 x 10mm, Zinc Plate	
22	690427-05	Washer, Lock, Split, M5	
23	005034-01	Screw, Set, Cup Point, M4 x 0.7 x 6mm	
24	690439-05	Washer, Flat, M5	

Note:

The following can be replaced as a factory built assembly:

*010310-01 Block, Y-Drive, Rear, Assembly

Right Y-Carriage

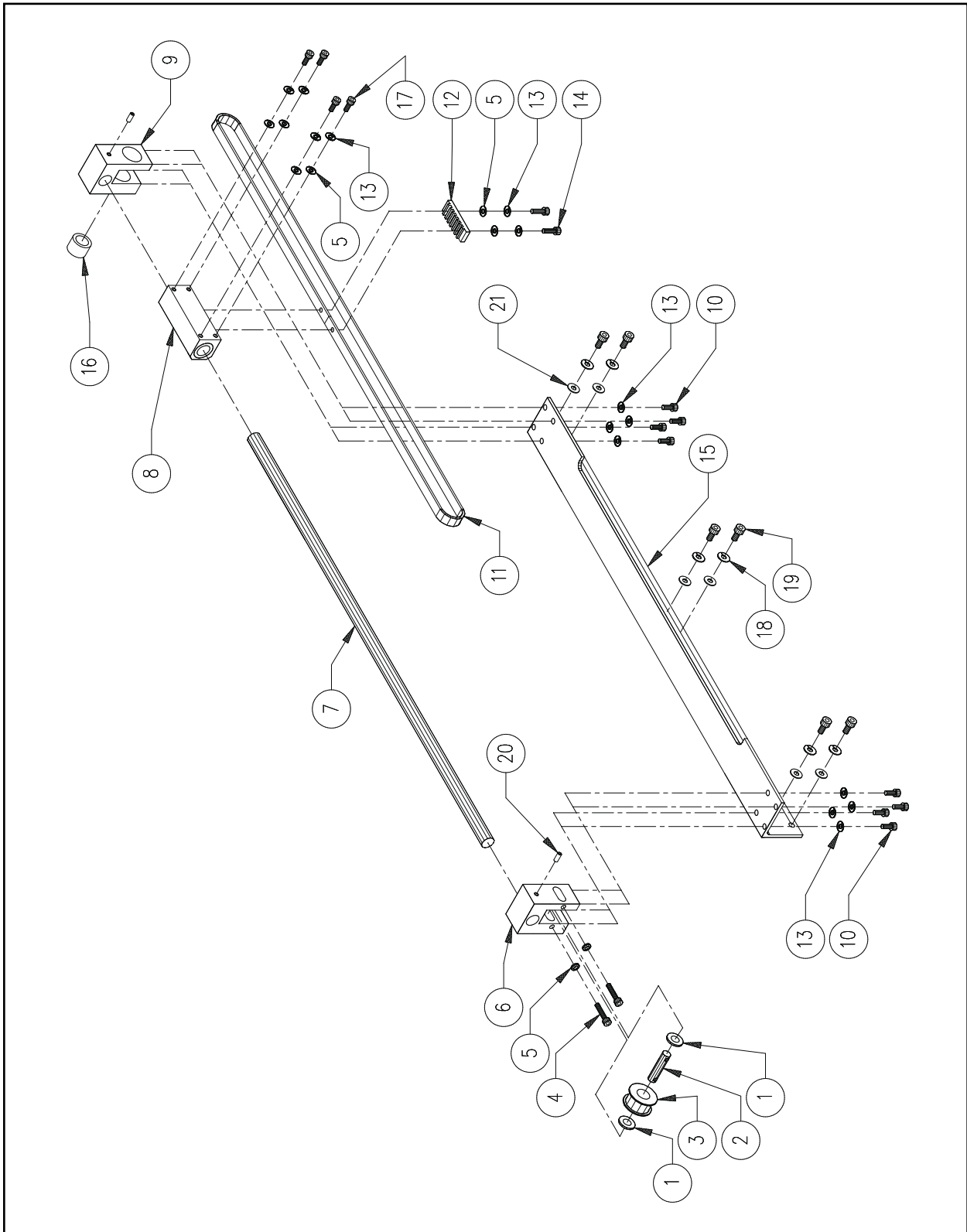


Figure 21

Right Y-Carriage**Reference Figure 21**

Item No.	Part Number	Item Description	Comments
1	009465-01	Washer, AIN	
2	009483-01	Shaft, Return	
3	005289-01	Pulley, Idler, Return, Assembly	
4	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
5	690439-04	Washer, Flat, M4	
6	009481-01	Block, Return, Y-Rack	
7	009486-01	Rail, Y-Carriage	
8	010198-01	Block, Carriage, Y-Axis	
9*	009482-01	Block, Drive	
10	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
11	010751-01	Belt, Y-Axis	
12	009890-01	Clamp, Y-Belt	
13	690427-04	Washer, Lock, Split, M4	
14	010171-14	Screw, Socket Head Cap, M4 x 0.7 x 14mm, Zinc Plate	
15	010361-03	Bracket, Mount, Right Rack	
16*	010740-02	Bearing, Roller, 1/2" ID x 1/2"	
17	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
18	690427-05	Washer, Lock, Split, M5	
19	010172-10	Screw, Socket Head Cap, M5 x 0.8 x 10mm, Zinc Plate	
20	005034-01	Screw, Set, Cup Point, M4 x 0.7 x 6mm	
21	690439-05	Washer, Flat, M5	

Note: The following can be replaced as a factory built assembly:

*010310-01 Block, Y-Drive, Rear, Assembly

Cap Frame Mounts

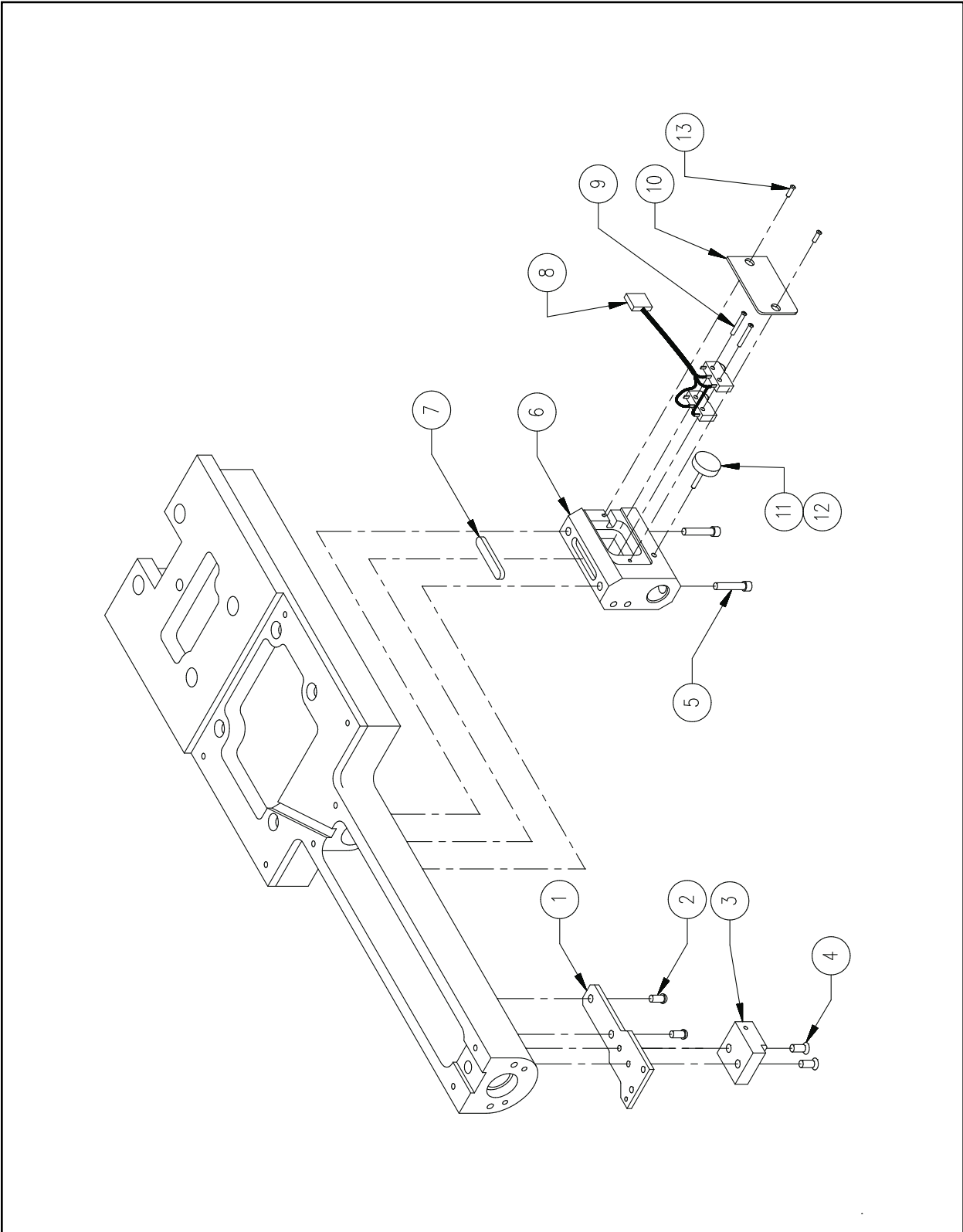


Figure 22

Cap Frame Mounts**Reference Figure 22**

Item No.	Part Number	Item Description	Comments
1	006526-01	Bracket, Picker	
2	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mmg	
3	006523-02	Mount, Dove Tail, Cap Frame	
4	001926-12	Screw, Flat Head Socket, M4 x 0.7 x 12mm	
5	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
6*	009861-01	Connector, Dual Cap Frame	
7	006525-01	Key, Shaft, 6mm x 6mm x 32mm	
8*	009031-01	Switch, Miniature, Cap Frame	
9*	003122-16	Screw, Pan Head Phillips, M2 x 0.4 x 16mm	
10*	009014-01	Cover, Cap Frame Bracket	
11	010172-10	Screw, Socket Head Cap, M5 x 0.8 x 10mm, Zinc Plate	
12	006538-01	Knob, Knurled, M5, Black	
13*	006558-06	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	

Note:

The following can be replaced as a factory built assembly:

*010186-02 Bracket, Cap Frame, Assembly

Harnesses (1 of 3)

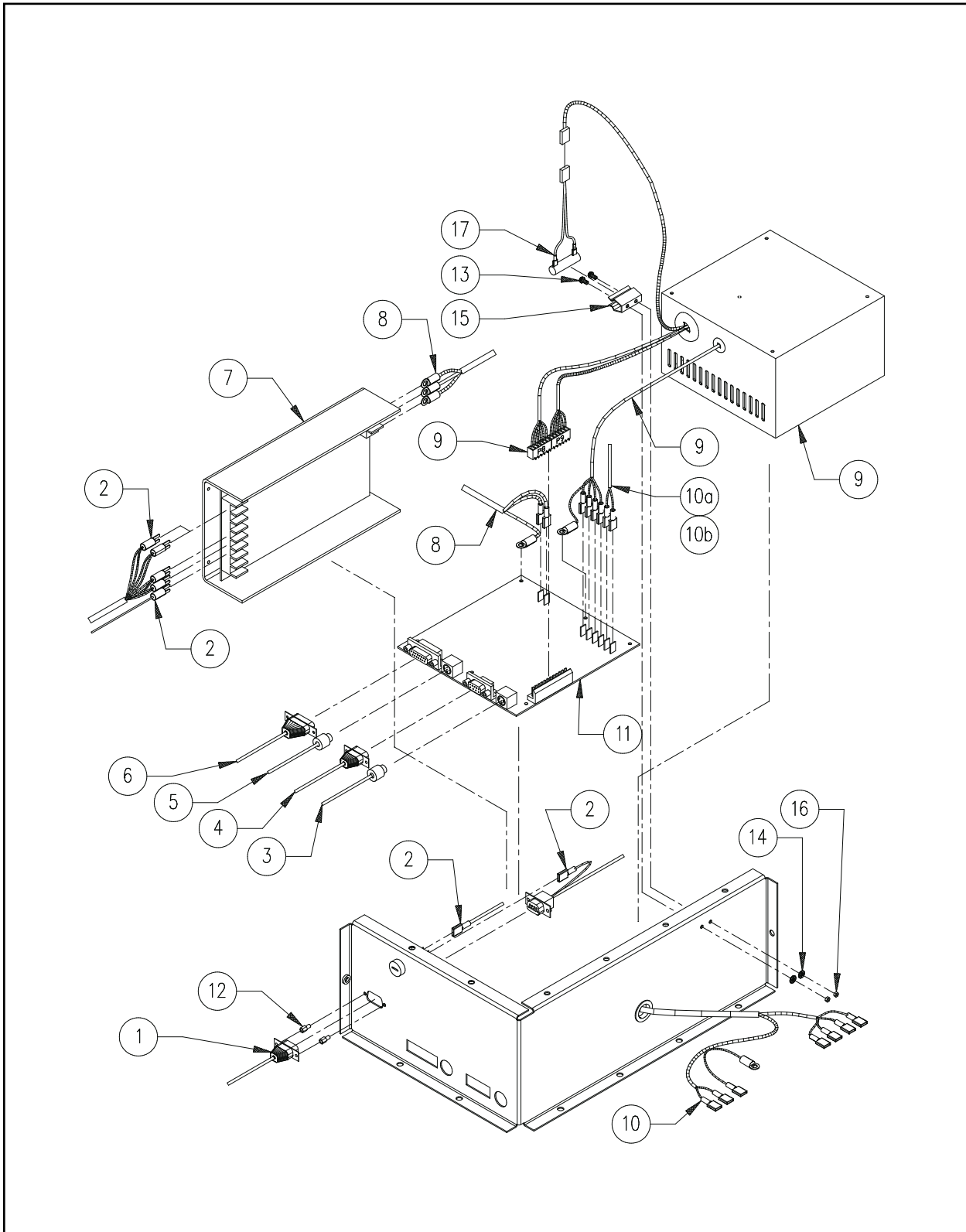


Figure 23

Harnesses (1 of 3)**Reference Figure 23**

Item No.	Part Number	Item Description	Comments
1	009961-01	Cable, Low Voltage Power	
2	010219-01	Harness, Output, LV DC	
3	009971-03	Cable, E-Stop	
4	010650-01	Harness, Interface, Bobbin Winder	
5	009963-01	Cable, Operator, Lamp	
6	009970-01	Cable, Power, Backplane	
7	009881-01	Supply, Power, 24V/36V	
8	010218-01	Harness, Power, LV AC	
9	009978-01	Supply, Power, 200W, Computer	
10a	010412-02	Harness, Circuit Breaker	(010043-01 only)
10b	010216-01	Harness, Circuit Breaker	(010032-01 only)
11	009832-02	PCB, E-Stop	
12	000609-01	Screwlock, 4-40 ID x 5/16"	
13	670131-04	Screw, Pan Head Phillips, 4-40 x 1/4", Zinc Plate	
14	690811-34	Washer, Internal Star, #4	
15	10040	Bracket, Load Resistor, Computer Power Supply	
16	680032-34	Nut, Hex, 4-40	
17	10035	Resistor, Load, Computer Power Supply	

Harnesses (2 of 3)

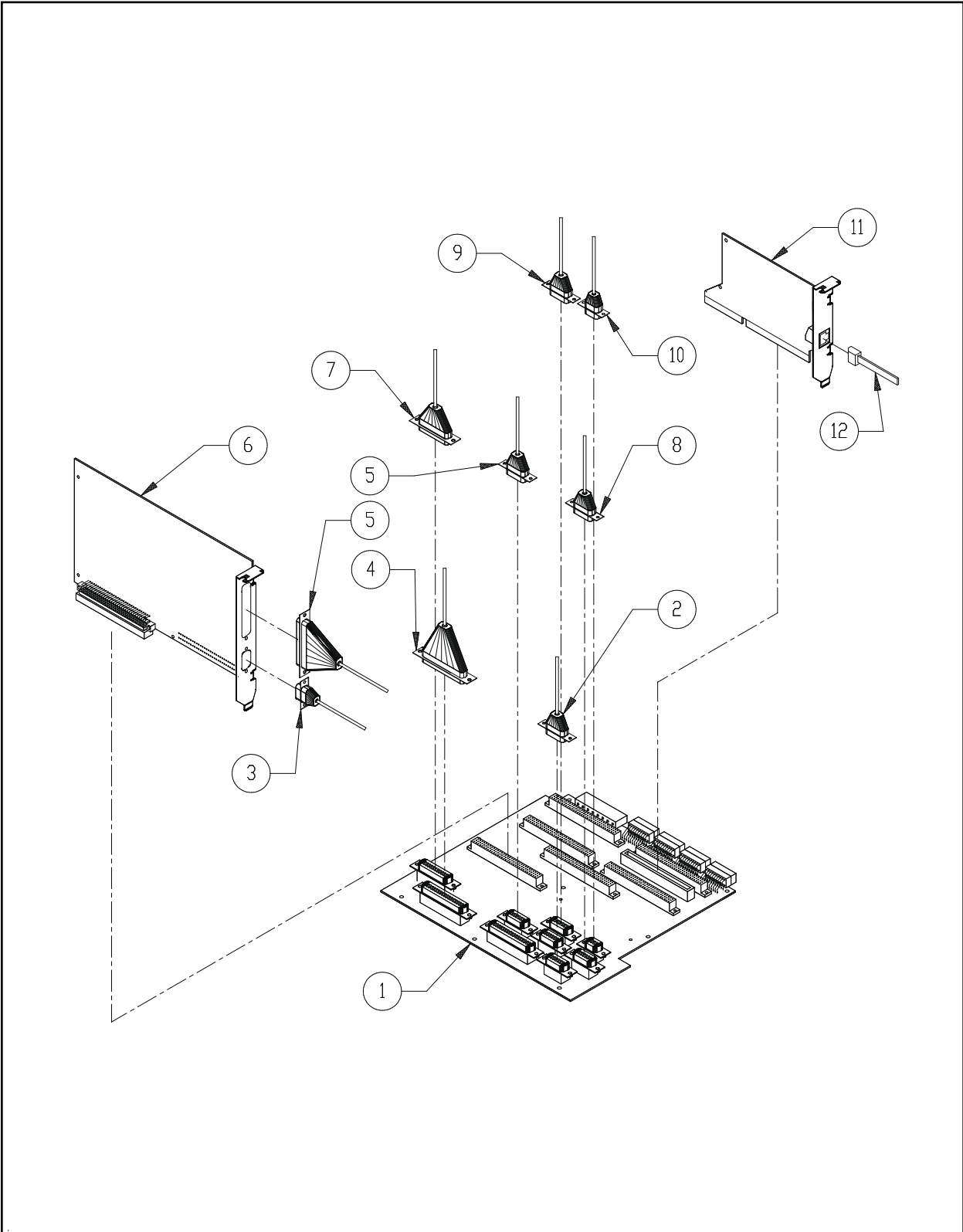


Figure 24

Harnesses (2 of 3)**Reference Figure 24**

Item No.	Part Number	Item Description	Comments
1	009423-02	PCB, Backplane, Assembly	
2	009970-01	Cable, Power, Backplane	
3	009961-01	Cable, Low Voltage Power	
4	010992-01	Cable, Floppy Drive	
5	010523-02	Harness, X-Axis Collector	
6	009419-01	PCB, Motor Drive, Assembly	
7	011087-01	Harness, Keyboard/Display	
8	009968-01	Harness, Y-Z Axis	
9	011092-01	Harness, Head	
10	009969-02	Cable, Jump Stitch	
11	010192-01	PCB, Network, Intel, Pro 10	
12	010369-01	Cable, Ethernet, Network, Interface	

Harnesses (3 of 3)

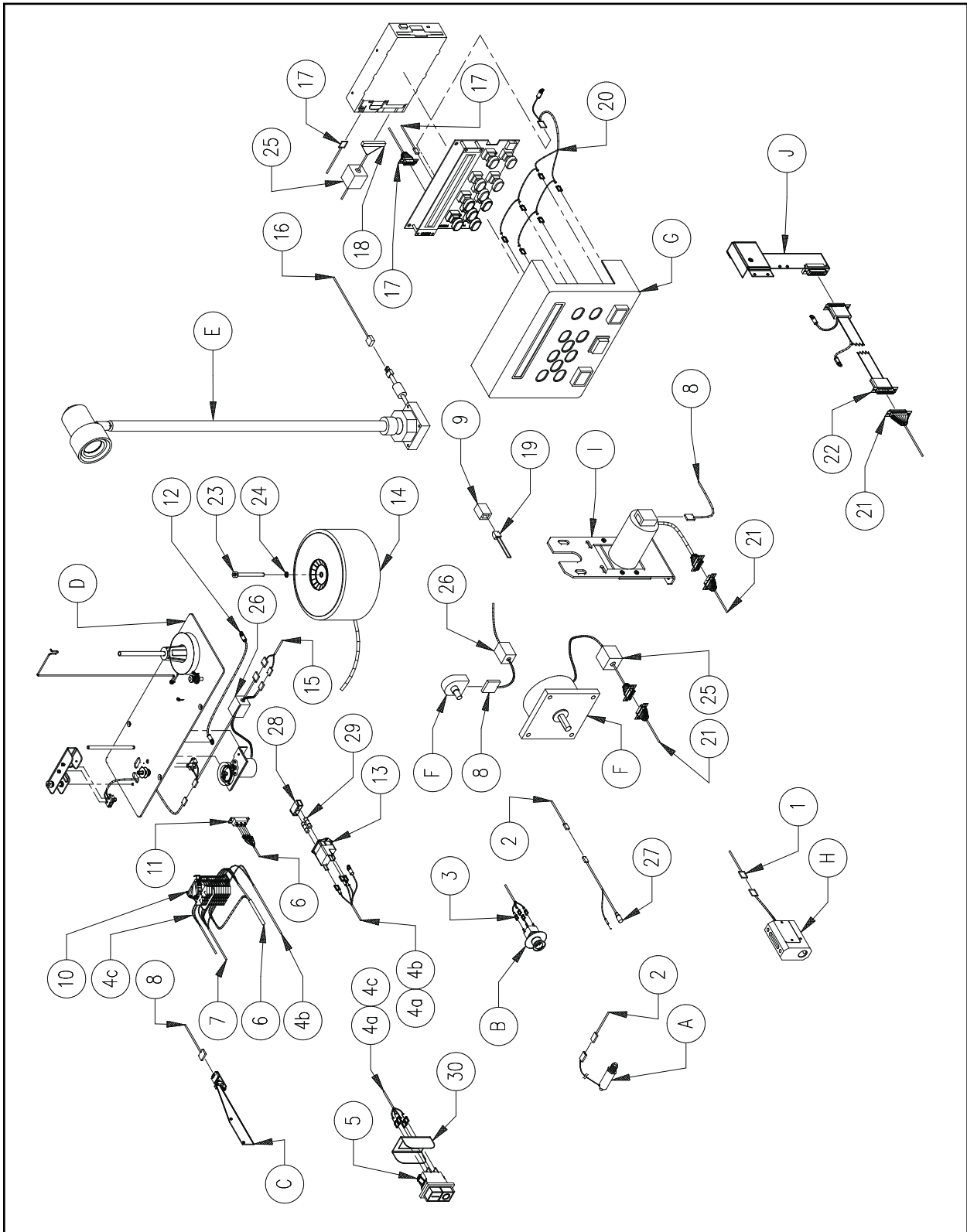


Figure 25

Harnesses (3 of 3)**Reference Figure 25**

Item No.	Part Number	Item Description	Comments
A	-----	Jump Stitch	(See page 9-1)
B	-----	E-Stop Switch	(See page 2-1)
C	-----	Y-Limit Flag	(See page 20-1)
D	-----	Bobbin Winder (Option)	(See page 26-1)
E	-----	Light Fixture	(See page 5-1)
F	-----	Z-Motor/Encoder	(See page 18-1)
G	-----	Keyboard	(See page 3-1 & 4-1)
H	-----	Cap Frame Mounts	(See page 22-1)
I	-----	Y-Drive Motor	(See page 19-1)
J	-----	X-Beam	(See page 16-1 & 17-1)
1	011038-01	Harness, Hatswitch	
2	011110-01	Cable, Jump Stitch, TB, CC	
3	009971-03	Cable, E-Stop	
4a	010412-02	Harness, Circuit Breaker	(010043-01 only)
4b	010214-02	Harness, Entry Module	(010032-01 only)
4c	010216-01	Harness, Circuit Breaker	(010032-01 only)
5	009879-04	Breaker, On/Off, 4A	
6	010215-01	Harness, Voltage Switch	(010032-01 only)
7	-----		(part of item 17)
8	009968-01	Harness, Y-Z Axis	
9	000434-02	Coupler, In-Line, 6 Position	
10	009976-01	Block, Terminal, Assembly	(010032-01 only)
11	005696-01	Switch, Voltage, Selector	(010032-01 only)
12	010761-01	Cable, Grounding, 3"	(Option D)
13	010682-01	Power Entry Module, Filtered, 6A	
14	010414-01	Transformer, Power, 400VA, 110VAC	(010032-01 only)
15	010650-01	Harness, Interface, Bobbin Winder	(Option, see D above)
16	009963-01	Cable, Operator, Lamp	
17	009918-02	Harness, Keyboard/Display	
18	010992-02	Cable, Floppy Drive	
19	010369-01	Cable, Ethernet, Network, Interface	
20	009913-02	Harness, Start/Stop/Frame	
21	010523-01	Harness, X-Axis Collector	
22	009967-02	Cable, X-Axis Flex	
23	010173-60	Screw, Socket Head Cap, M6 x 1.0 x 60mm, Zinc Plate	
24	690427-06	Washer, Lock, Split, M6	
25	009311-01	Ferrite, Split, Large	
26	009311-03	Ferrite, Split, Medium	
27	011142-01	Harness, Thread Break/Jump Stitch	

Harnesses (3 of 3)**Reference Figure 25**

Item No.	Part Number	Item Description	Comments
28	009090-01	Fuse, Holder, 500W PDU	
29a	010162-05	Fuse, 5A, 250VAC	(see Note)
29b	010162-25	Fuse, 2.5A, 250VAC	(see Note)
30	10173	Guard, Switch	

Note:

Each of these fuses are as follows:

29a	Time-Lag, High Interrupt, 5mm x 20mm	(011043-01 only)
29b	Time-Lag, High Interrupt, 5mm x 20mm	(011032-01 only)

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Bobbin Winder

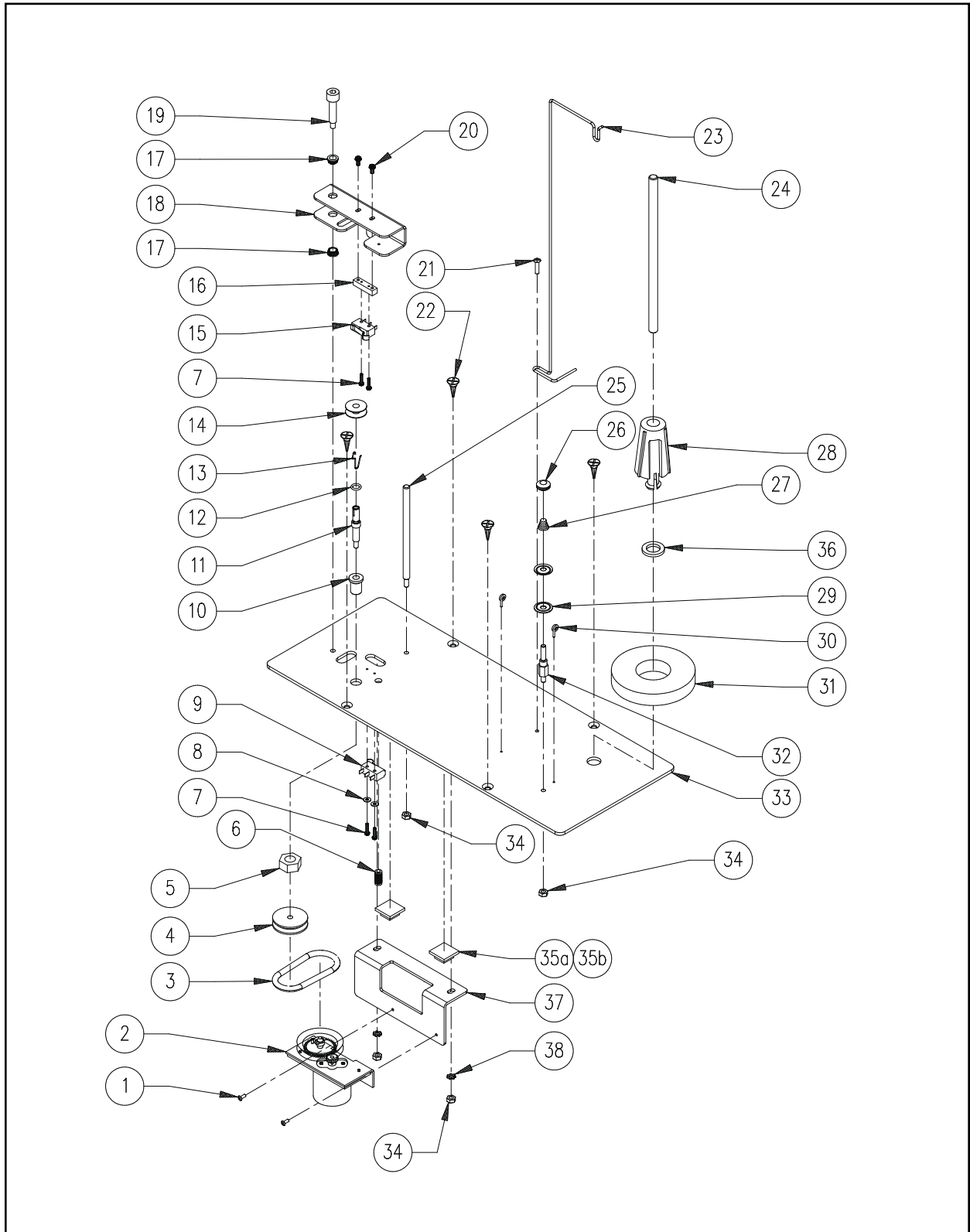


Figure 26

Bobbin Winder (009381-03)**Reference Figure 26**

Item No.	Part Number	Item Description	Comments
1	006558-04	Screw, Pan Head Phillips, M3 x 0.5 x 4mm	
2	011022-01	Motor, Modified, Winder	
3	010625-04	O-Ring, 2-7/16" ID x 3/16" Dia.	
4	009686-01	Hub, Shaft, Arm, Winder	
5	010627-08	Nut, Hex, Low Profile, M10	
6	005875-02	Plunger, Ball, 1/4-20, 7lbs.	
7	003122-10	Screw, Pan Head Phillips, M2 x 0.4 x 10mm	
8	690034-32	Washer, Flat, #2	
9	010630-01	Switch, Winder, On/Off, Assembly	
10	010628-01	Bushing, Shaft, Bobbin Winder	
11	009685-02	Shaft, Arm, Winder	
12	005738-08	O-Ring, 3/16" ID x 5/16" OD x 1/16" Thick	
13	009688-01	Spring, Shaft, Arm, Winder	
14	008499-01	Bobbin, Aluminum	
15	010371-01	Switch, Full, Bobbin, Assembly	
16	009821-01	Block, Mounting, Switch	
17	007905-01	Grommet, Actuator Lever	
18	010626-02	Lever, Actuator, Bobbin Winder	
19	674395-16	Screw, Shoulder, Hex Socket, 1/4" Dia. x 1.00"	
20	006558-06	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	
21	004262-06	Screw, Pan Head Phillips, M4 x 0.7 x 6mm	
22	010281-04	Screw, Flat Head Phillips, Wood, #10 x 1/2"	
23	009372-01	Guide, Thread, Winder	
24	009373-01	Post, Thread, Winder	
25	009380-01	Post, Bobbin, Storage	
26	007080-01	Knob, Adjust, Pretensioner, Plastic	
27	010735-01	Spring, Tensioner	
28	005701-01	Seat, Cone, Thread	
29	006385-01	Disc, Tensioner	
30	002897-01	Post, Guide	
31	009379-01	Pad, Cone, Thread	
32	009376-01	Post, Tensioner, Winder	
33	009374-02	Plate, Base, Winder	
34	001963-05	Nut, Hex, M4	
35a	340138-01	Holder, Cable Tie, .75" Square	
35b	340139-01	Tie, Cable, 3.1"	(not shown)
36	011112-01	Washer, Neoprene	
37	009375-01	Bracket, Base, Winder	
38	010167-04	Washer, Lock, External Star, M4	

Cap Frame Drive

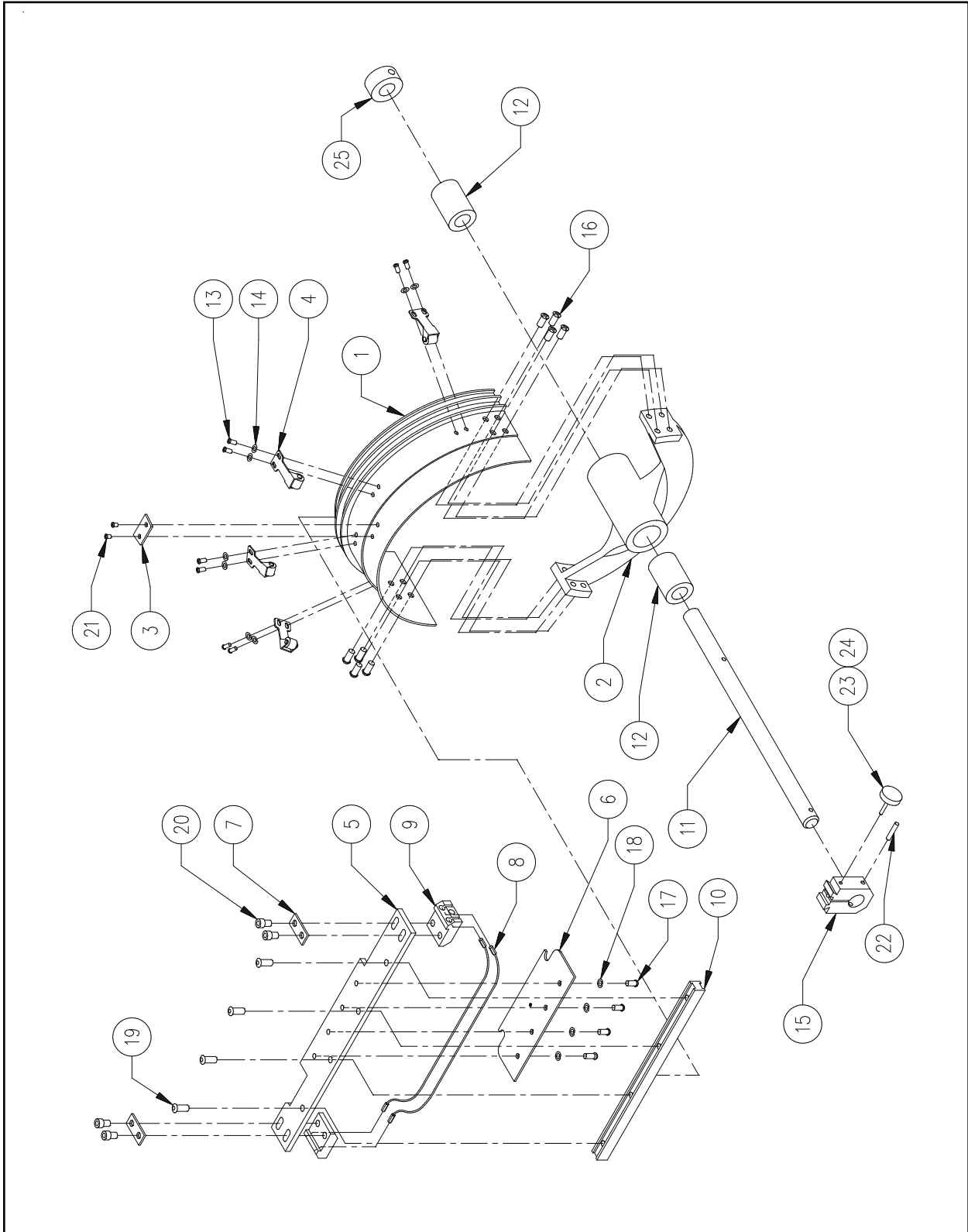


Figure 27

Cap Frame Drive**Reference Figure 27**

Item No.	Part Number	Item Description	Comments
1*	452732-01	Ring, Drive, Cap Frame	
2*	006496-01	Hub, Cap Driver, Phase II	
3*	552912-01	Locator, Cap Frame	
4*	004229-01	Clip, Roller, Cap Frame Driver, Assembly	
5*	454861-01	Bracket, Drive	
6•	554862-01	Mount, Drive Ring	
7*	552915-01	Washer, Flat, Rectangle	
8*	402913-01	Cable, Drive Ring	
9*	452916-01	Bracket, Cable	
10*	442917-01	Bar, Guide	
11•	006522-01	Shaft, Cap Frame	
12*	005342-08	Bearing, Sleeve, Frelon	
13*	670131-03	Screw, Pan Head Phillips, 4-40 x 3/16 "	
14*	690034-34	Washer, Flat, #4	
15•	006521-01	Mount, Male, Cap Frame	
16*	672982-06	Screw, Pan Head Phillips, 8-32 x 3/8 "	
17	670174-04	Screw, Pan Head Phillips, 6-32 x 1/4 "	
18	690033-36	Washer, Lock, Split, #6	
19*	670267-06	Screw, Button Head Cap, 8-32 x 3/8 "	
20*	670149-06	Screw, Socket Head Cap, 8-32 x 3/8 "	
21*	670131-02	Screw, Pan Head Phillips, 4-40 x 1/8 "	
22	660830-10	Pin, Groove, 1/8" OD x 7/8 "	
23#	010172-16	Screw, Socket Head Cap, M5 x 0.8 x 16mm, Zinc Plate	
24#	006538-01	Knob, Knurled, M5, Black	
25	342872-08	Collar, Shaft, 1/2 " ID	

Note:

The following can be replaced as a factory built assembly:

- *006667-01 Ring, Drive, Sub-Assembly
- 006541-01 Ring, Drive, Assembly (includes 006667-01)
- #007401-01 Screw, Thumb, 16mm Lg, Assembly

Melco Cap Frame

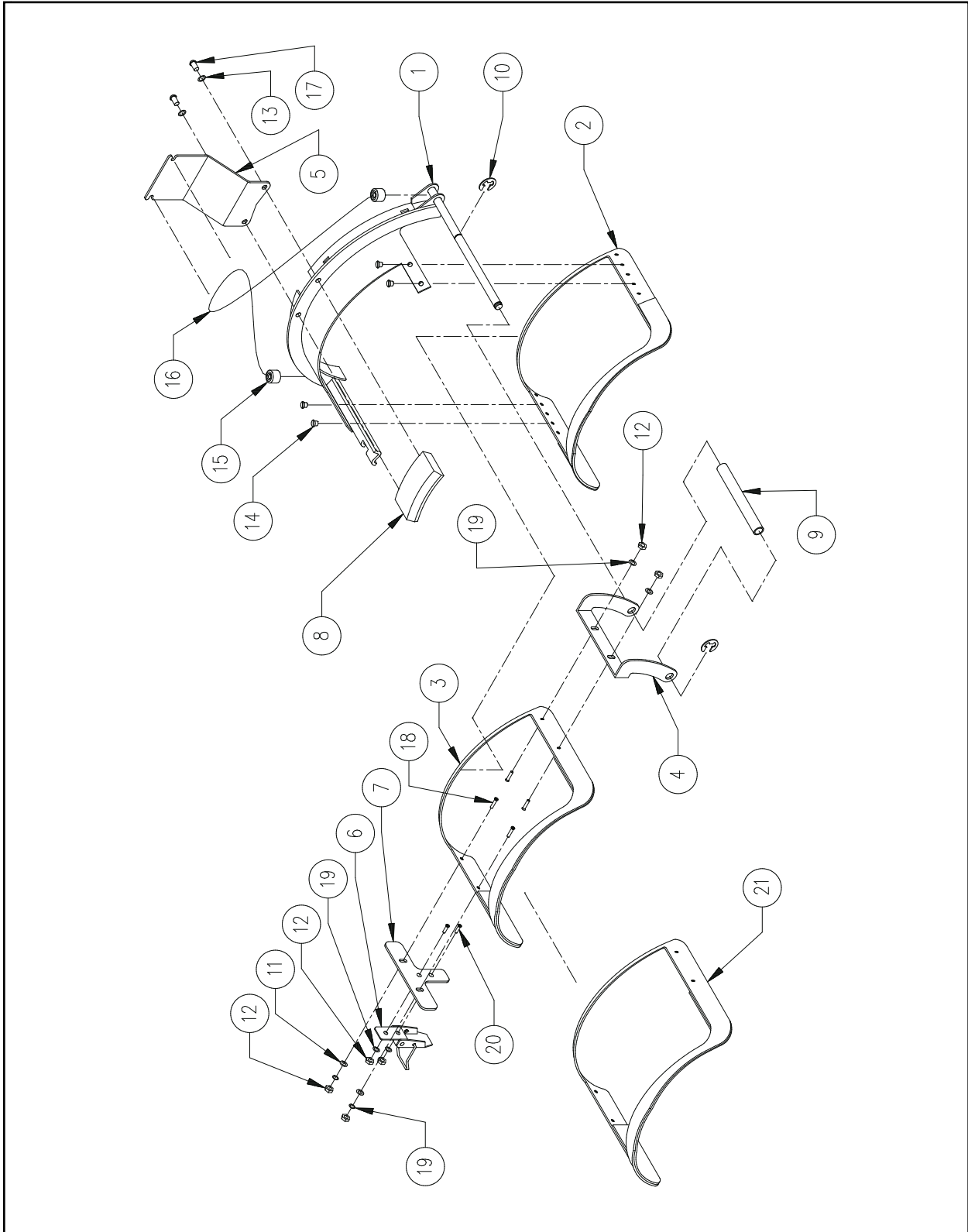


Figure 28

Melco Cap Frame**Reference Figure 28**

Item No.	Part Number	Item Description	Comments
1	004938-01	Base, Cap Frame, Assembly	
2#	006010-01	Frame, Lower, w/Rubber, 6-Panel	
3*	005949-01	Strap, Clamping, 72mm, 6-Panel	
4*•	002629-01	Bracket, Hinge	
5	005071-01	Holder, Cord, Visor Clamp	
6*•	005487-01	Catch, Pull	
7*•	005486-01	Bracket, Latch	
8	004904-01	Block, Locator, Brim	
9	002632-01	Spacer	
10	004240-01	Ring, Retainer, E-Style	
11*•	690439-03	Washer, Flat, M3	
12*•	680430-03	Nut, Hex, M3	
13	690033-36	Washer, Lock, Split, #6	
14	004963-01	Screw, Special, Cap Frame	
15	005068-01	Terminal, Shock Cord	
16	005073-01	Cord, Shock, Cap Frame	
17	670174-06	Screw, Pan Head, Phillips, 6-32 x 3/8"	
18*•	006019-01	Screw, Flat Head Phillips, M3 x 0.5 x 8mm	
19*•	003128-03	Washer, Lock, Split, M3	
20*•	005934-01	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
21•	005948-01	Strap, Clamping, 82mm, 6-Panel	

Note:

The following can be replaced as a factory built assembly:

- *007199-01 Strap, Clamping, 72mm, 6-Panel, Assembly
- 007198-01 Strap, Clamping, 82mm, 6-Panel, Assembly
- #006674-01 Cap Frame, Adjustable, 6-Panel (includes 007198-01 and 007199-01)

Melco Cap Frame Gauge

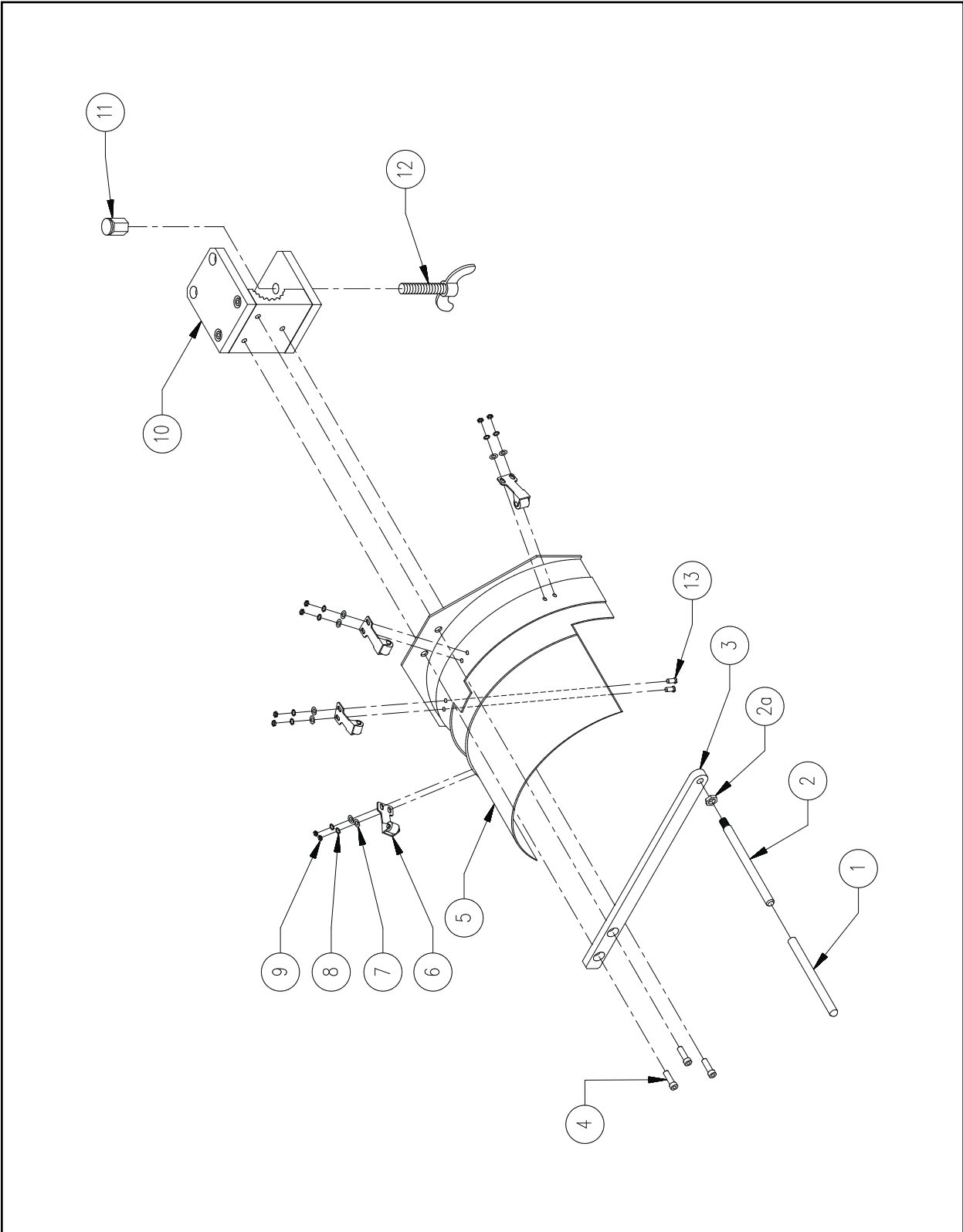


Figure 29

Melco Cap Frame Gauge**Reference Figure 29**

Item No.	Part Number	Item Description	Comments
1*	005100-01	Shaft Cover, Frame Holder	
2*	004958-01	Shaft, Frame Holder, Gauge Set	
2a*	680032-04	Nut, Hex, 1/4-20	
3*	004957-01	Bracket, Frame Holder, Gauge Set	
4#	670038-08	Screw, Socket Head Cap, 10-32 x 1/2 "	
5#	005051-01	Gauge, Cap Frame, Weldment	
6#	004229-01	Clip, Roller, Cap Frame Driver, Assembly	
7#	690034-34	Washer, Flat, #4	
8#	690033-34	Washer, Lock, Split, #4	
9#	680032-34	Nut, Hex, 4-40	
10#	004949-01	Block, Mounting, Cap Gauge, Assembly	
11•	004952-01	Nut, Swivel, 3/8-16	
12•	004950-01	Screw, Thumb, Wing-Head, 3/8-16 x 1.5 "	
13#	670828-06	Screw, Flat Head Socket, 4-40 x 3/8 "	

Note:

The following can be replaced as a factory built assembly:

- *004956-01 Holder, Frame, Gauge Set, Assembly
- #005050-01 Gauge, Cap Frame, Assembly
- 004949-01 Block, Mounting, Cap Gauge, Assembly (part of Item 10)

Wide Angle Cap Frame (1 of 7)

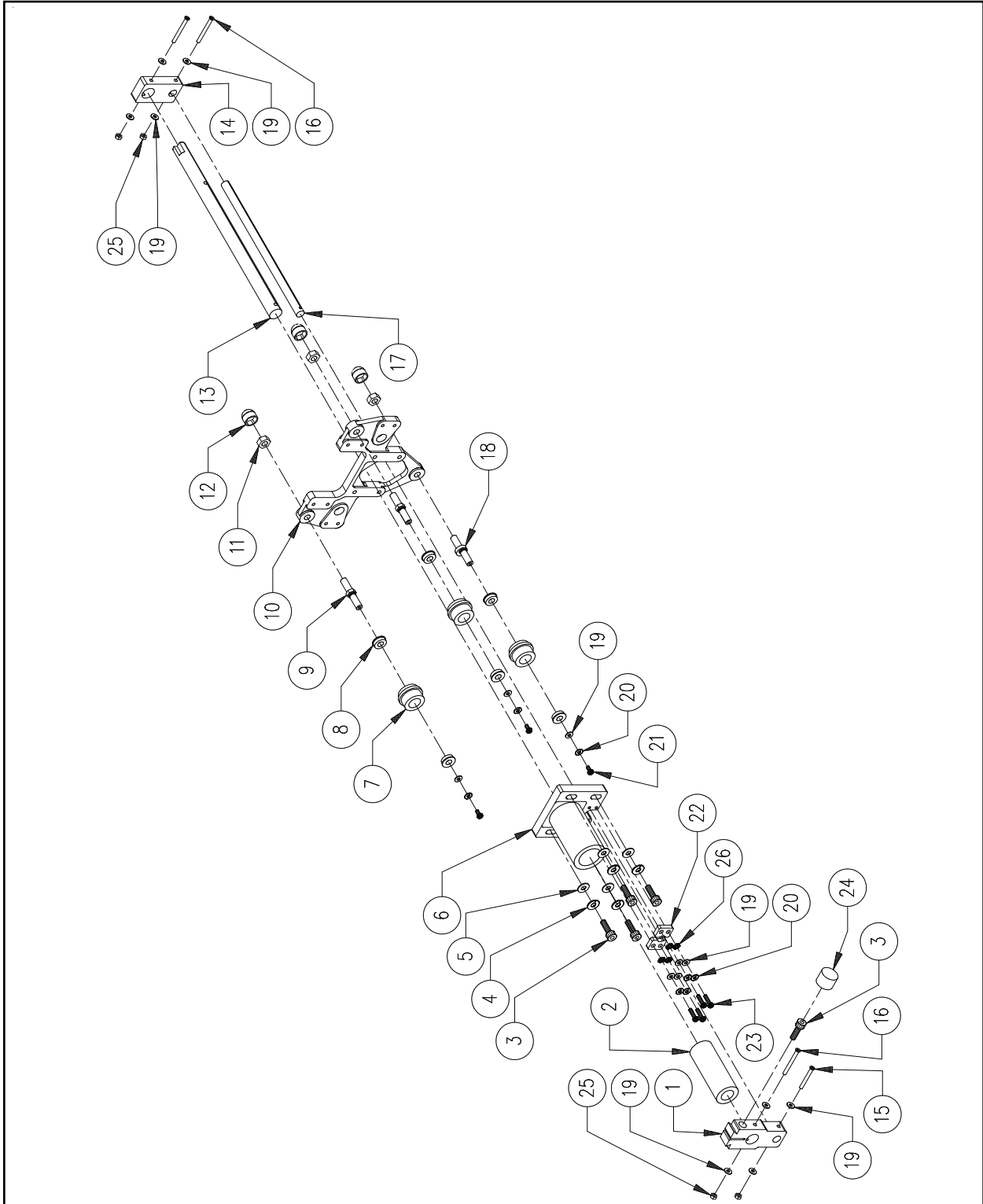


Figure 30

Wide Angle Cap Frame (1 of 7)**Reference Figure 30**

Item No.	Part Number	Item Description	Comments
1	009602-03	Mount, Front, Drive Ring	
2	009618-01	Bearing, Linear	
3	010172-16	Screw, Socket Head Cap, M5 x 0.8 x 16mm, Zinc Plate	
3a*	010468-01	Wrench, Hex, 4mm	(see Note) (not shown)
4	690427-05	Washer, Lock, Split, M5	
5	690439-05	Washer, Flat, M5	
6	009594-01	Housing, Bearing	
7	009597-01	Roller, Drive Ring	
8	009623-01	Bearing, Flanged	
9	009599-02	Shaft, Roller	
10	009601-01	Base, Drive Ring	
11	680430-06	Nut, Hex, M6	
12	006913-06	Cover, Cap, Hex, M6	
13	010099-02	Shaft, Drive Ring	
14	009596-02	Support, Shaft, Rear	
15	006558-25	Screw, Pan Head Phillips, M3 x 0.5 x 25mm	
16	006558-30	Screw, Pan Head Phillips, M3 x 0.5 x 30mm	
17	009615-02	Shaft, Guide, Drive Ring	
18	009598-02	Shaft, Roller, Eccentric	
19	690439-03	Washer, Flat, M3	
20	690427-03	Washer, Lock, Split, M3	
21	675310-01	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	
22	009595-02	Pad, Guide, Shaft	
23	010170-16	Screw, Socket Head Cap, M3 x 0.5 x 16mm	
24	006538-03	Knob, Knurled, Black, M5	
25	003573-03	Nut, M3, Locking	
26	010167-03	Washer, External Star, M3	

Note: *Used with Item 3 and supplied with the Wide-Angle Cap Frame Option

Wide Angle Cap Frame (2 of 7)

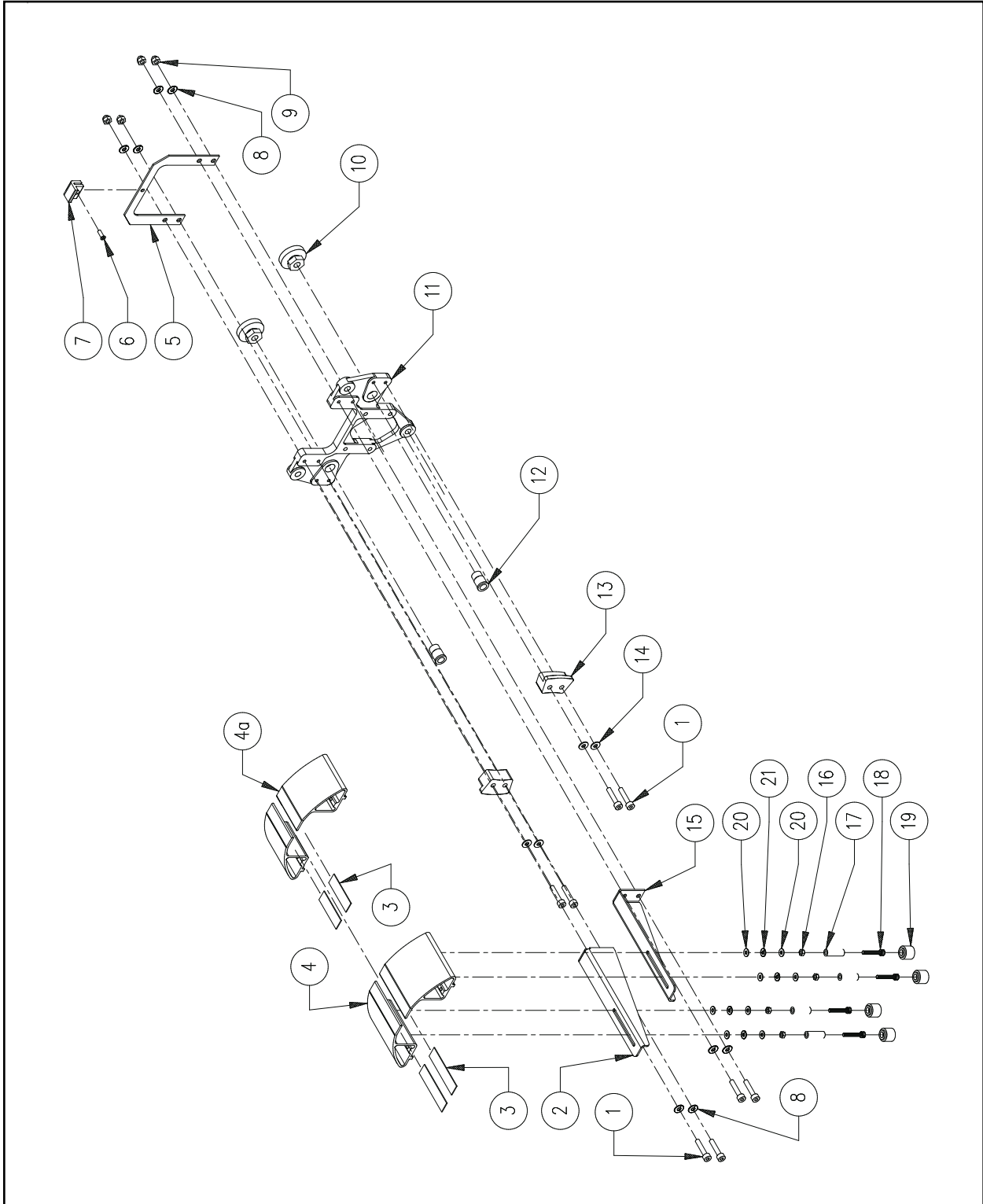


Figure 31

Wide Angle Cap Frame (2 of 7)**Reference Figure 31**

Item No.	Part Number	Item Description	Comments
1	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
2	011057-01	Bracket, Support, Left Hand	
3	011062-01	Tape, Adhesive, 2.25"	
4*	009604-01	Support, Cap, Large, Machined	
4a*	10773	Support, Cap, Small, Machined	
5	009621-01	Bracket, Holder, Bar	
6	010406-08	Screw, Flat Head Phillips, M2.5 x 0.4 x 8mm	
7	009857-02	Pad, Holder, Bar	
8	690427-04	Washer, Lock, Split, M4	
9	010407-04	Nut, Acorn, M4	
10	009659-01	Lock, Shaft, .25" ID	
11	009601-01	Base, Drive Ring	
12	009616-01	Nipple, Support, Tensioner Disk	
13	009600-02	Pad, Support, Cylinder	
14	010668-01	Washer, Flat, Fender, M4	
15	011056-01	Bracket, Support, Right Hand	
16	680430-03	Nut, Hex, M3	
17	700134-12	Spacer, Nylon, .14" ID x .25" OD x .75"	
18	010170-30	Screw, Socket Head Cap, M3 x 0.5 x 30mm, Zinc Plate	
19	006538-03	Knob, Knurled, Black, M3	
20	006303-04	Washer, Plain, Type 3	
21	690427-03	Washer, Lock, Split, M3	

Note: *When replacing items 4 or 4a item 3 must also be replaced and trimmed to fit

Wide Angle Cap Frame (3 of 7)

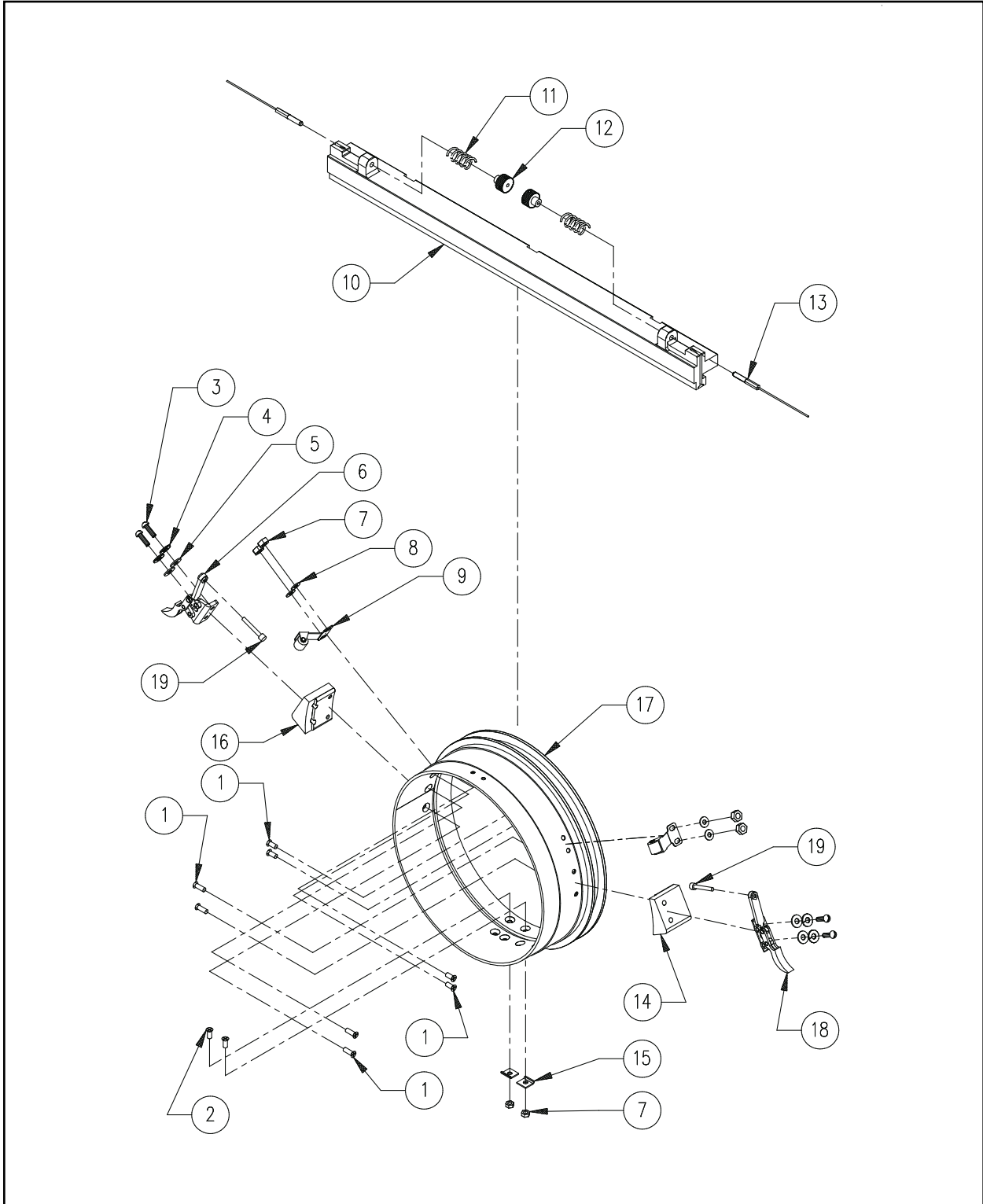


Figure 32

Wide Angle Cap Frame (3 of 7)**Reference Figure 32**

Item No.	Part Number	Item Description	Comments
1	005934-08	Screw, Flat Head Phillips, M3 x 0.5 x 8mm	
2	005934-01	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
3	001924-10	Screw, Cheese Head, Slotted, M4 x 0.7 x 10mm	
4	690427-04	Washer, Lock, Split, M4	
5	690439-04	Washer, Flat, M4	
6	009624-02	Clamp, Hold Down, Left Hand	
7	680430-03	Nut, Hex, M3	
8	690439-03	Washer, Flat, M3	
9	004229-01	Clip, Roller, Assembly	
10	009608-02	Bracket, Drive Ring	
11	009625-01	Spring, Compression	
12	009610-01	Nut, Tensioner, Drive Ring	
13	009626-01	Cable, Drive Ring, Assembly	
14	011058-01	Bracket, Clamp, Right Hand	
15	009811-01	Washer, Holder, Cable	
16	011059-01	Bracket, Clamp, Left Hand	
17	009619-02	Cylinder, Drive Ring	
18	009624-01	Clamp, Hold Down, Right Hand	
19	674900-10	Screw, Hex Head, 8-32 x 5/8"	

Wide Angle Cap Frame (4 of 7)

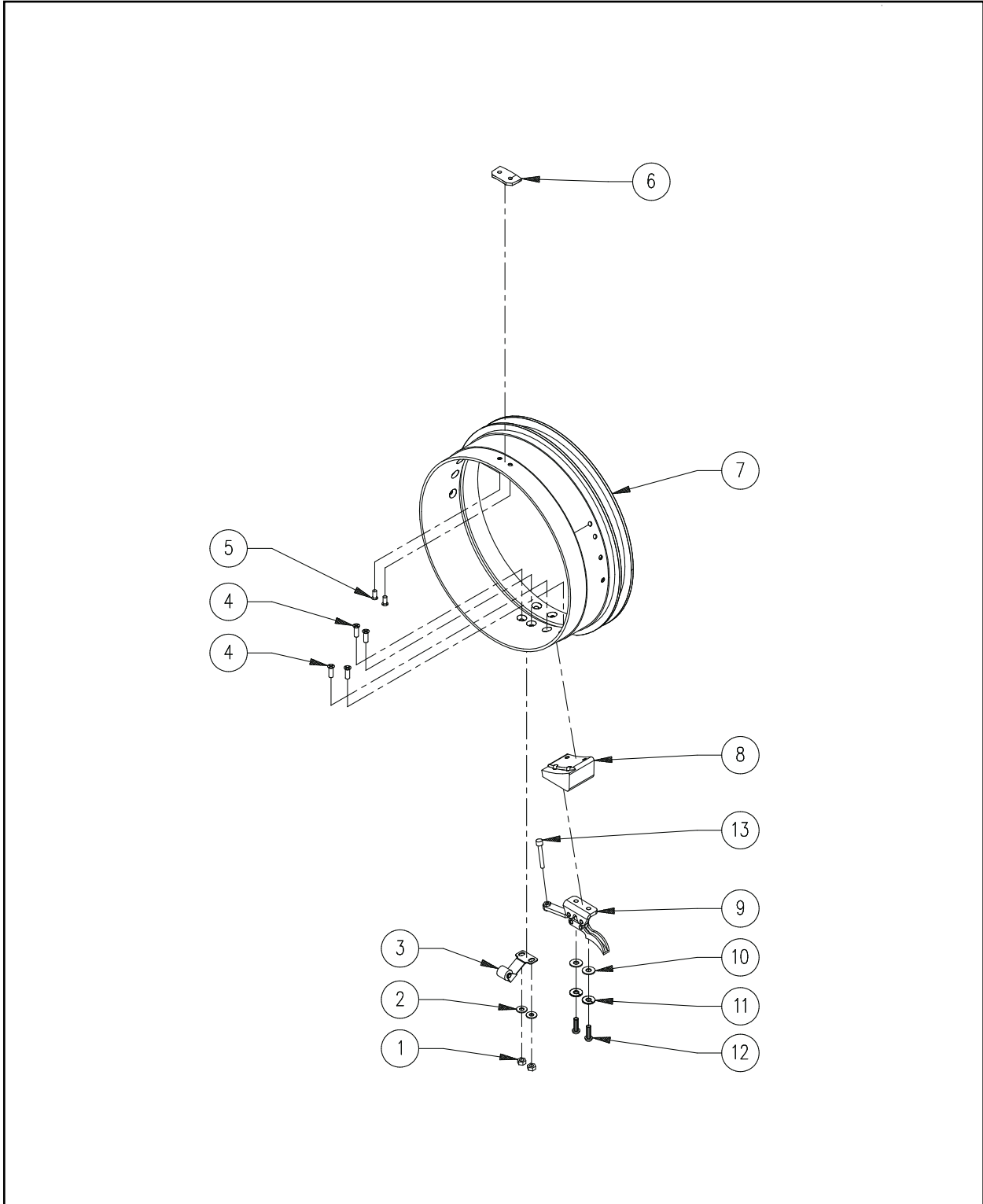


Figure 33

Wide Angle Cap Frame (4 of 7)**Reference Figure 33**

Item No.	Part Number	Item Description	Comments
1	680430-03	Nut, Hex, M3	
2	690439-03	Washer, Flat, M3	
3	004229-01	Clip, Roller, Assembly	
4	005934-08	Screw, Flat Head Phillips, M3 x 0.5 x 8mm	
5	010406-04	Screw, Flat Head Socket, M2.5 x 0.4 x 4mm	
6	009620-01	Locator, Drive Ring	
7	009619-02	Cylinder, Drive Ring	
8	011059-01	Bracket, Clamp, Left Hand	
9	009624-02	Clamp, Hold Down, Left Hand	
10	690439-04	Washer, Flat, M4	
11	690427-04	Washer, Lock, Split, M4	
12	001924-10	Screw, Cheese Head, Slotted, M4 x 0.7 x 10mm	
13	674900-10	Screw, Hex Head, 8-32 x 5/8"	

Wide Angle Cap Frame (5 of 7)

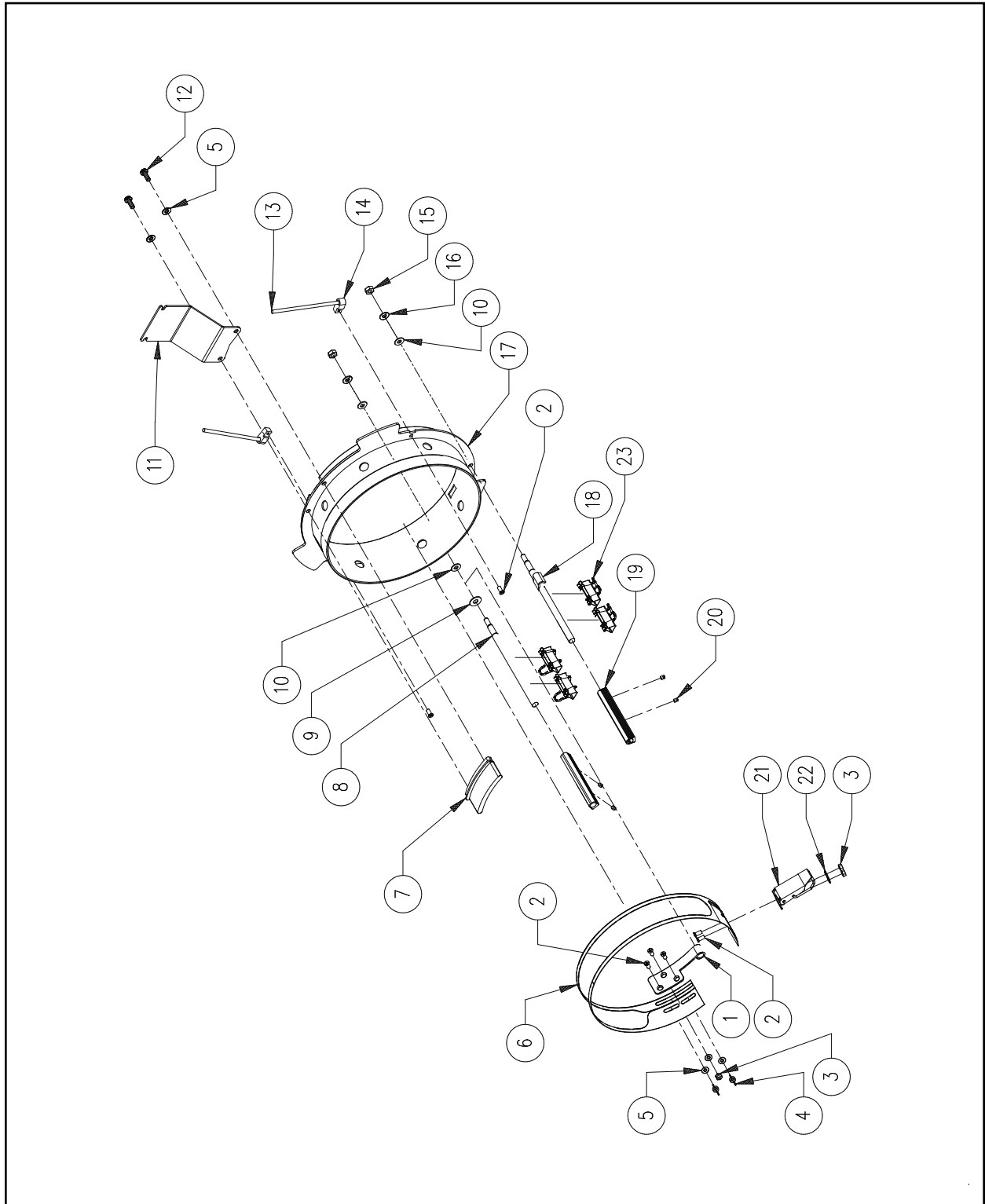


Figure 34

Wide Angle Cap Frame (5 of 7)**Reference Figure 34**

Item No.	Part Number	Item Description	Comments
1	010074-01	Hinge, Cap Frame	
2*•	010133-06	Screw, Small Flat Head, M3 x 0.5 x 6mm	
3*	680430-03	Nut, Hex, M3	
4*	006021-01	Nut, Wing, M3	
5*•	690439-03	Washer, Flat, M3	
6*	010151-01	Strap, Clamping, Cap Frame, w/Rubber	
7•	010191-02	Locator, Brim, Cap Frame	
8•	010075-01	Post, Cap Frame	
9•	690439-05	Washer, Flat, M5	
10•	690439-04	Washer, Flat, M4	
11•	005071-02	Holder, Visor	
12•	010170-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm, Zinc Plate	
13*	005073-01	Cord, Shock, Cap Frame	
14•	010079-01	Bracket, Strap, Rubber	
15•	001963-05	Nut, Hex, M4	
16•	690427-04	Washer, Lock, Split, M4	
17*	010077-01	Weldment, Cap Frame, w/Rubber	
18•	010078-02	Post, Cap Frame, Weldment	
19•	010081-02	Holder, Clip	
20•	001960-03	Screw, Set, Flat Point, M4 x 0.7 x 3mm	
21*	005487-01	Latch, Takigen	
22*	690427-03	Washer, Lock, Split, M3	
23•	009682-02	Clip, Cap Frame	

Note:

The following can be replaced as a factory built assembly:

- *010093-01 Cap Frame, Wide-Angle, Melco, Assembly
- 010540-02 Cap Frame, Wide-Angle, Sub-Assembly

Wide Angle Cap Frame (6 of 7)

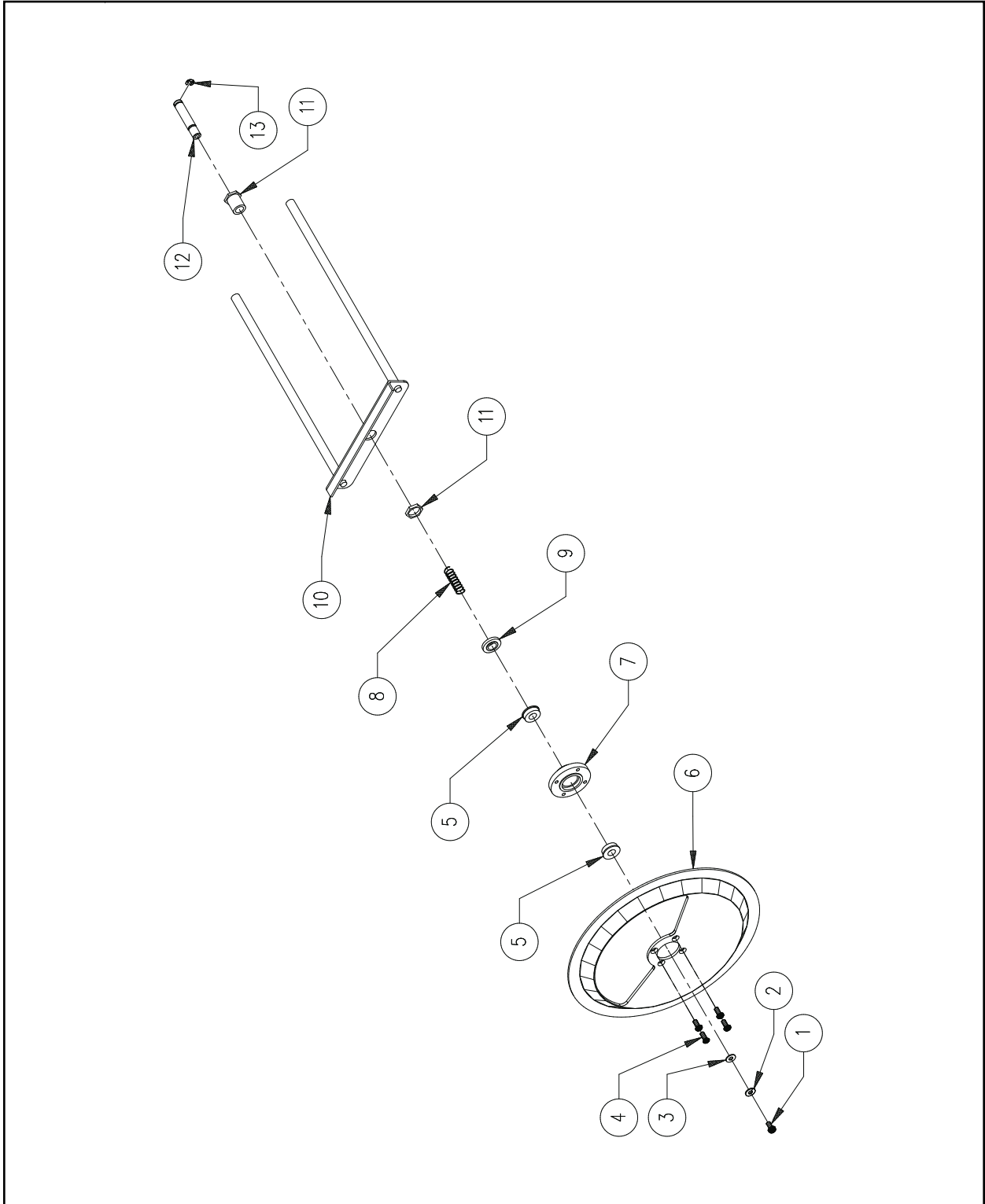


Figure 35

Wide Angle Cap Frame (6 of 7)**Reference Figure 35**

Item No.	Part Number	Item Description	Comments
1*	675310-01	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	
2*	690427-03	Washer, Lock, Split M3	
3*	690439-03	Washer, Flat, M3	
4*	010133-06	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
5*	009623-01	Bearing, Flanged, 6mm ID x 12mm OD	
6*	009613-01	Tensioner Disk	
7*	010096-02	Tensioner Disk Hub	
8*	009622-01	Spring, Compression	
9*	009812-02	Washer, Support, Spring	
10*	009606-01	Tensioner Disk Support	
11	009658-01	Bearing, Panel, 1/4" ID	
12*	009614-01	Tensioner Disk Shaft	
13*	001955-17	Retainer Ring	

Note: The following can be replaced as a factory built assembly:

*010094-01 Tensioner, Disk, Assembly

Wide Angle Cap Frame (7 of 7)

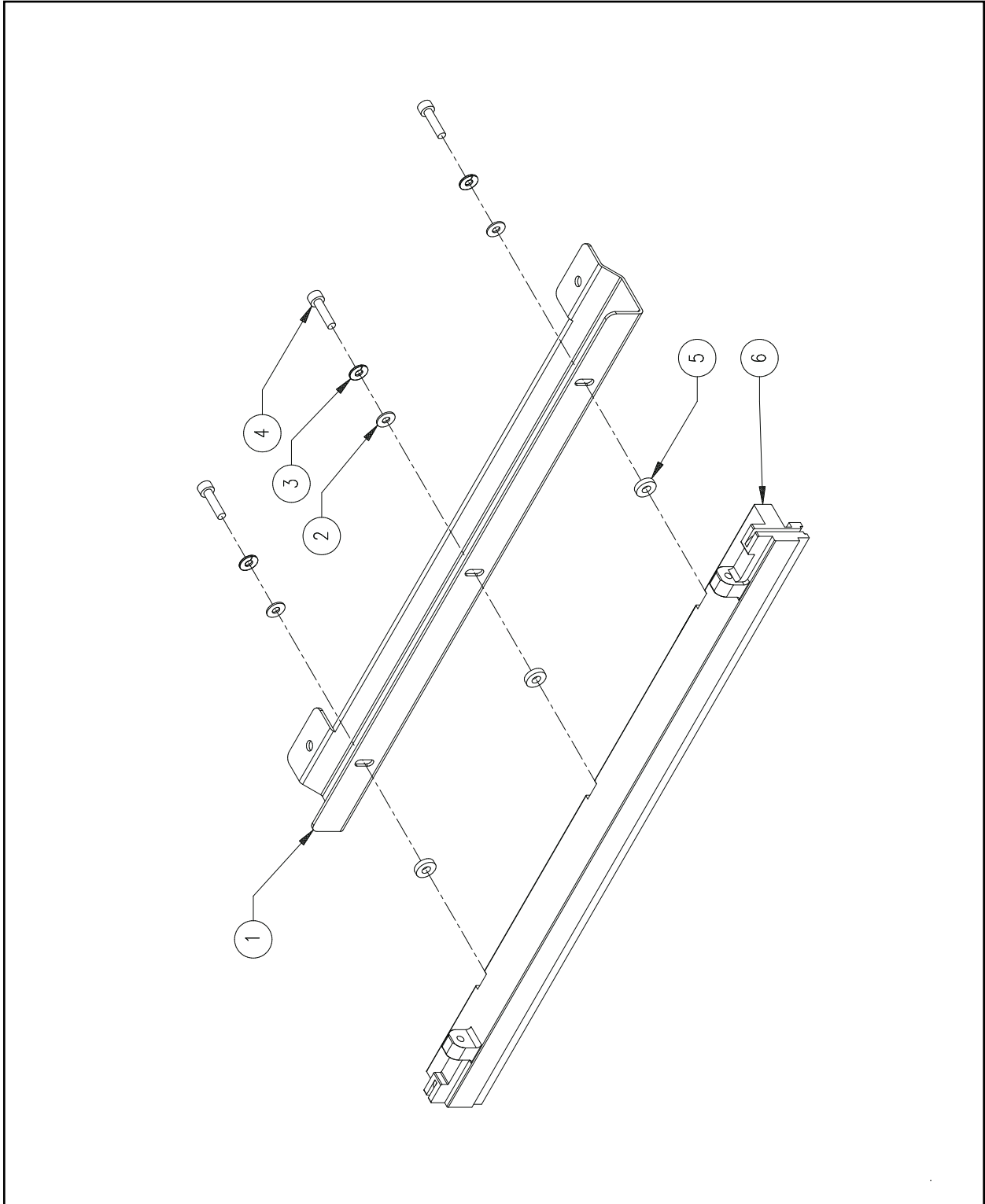


Figure 36

Wide Angle Cap Frame (7 of 7)**Reference Figure 36**

Item No.	Part Number	Item Description	Comments
1	010097-02	Bracket, Interface, Cap Frame	
2	690439-04	Washer, Flat, M4	
3	690427-04	Washer, Lock, Split, M4	
4	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
4a*	010701-02	Wrench, L-Hex, 3mm, Short Arm	(see Note) (not shown)
5	010658-01	Spacer, Interface, Wide Angle Cap Frame	
6	009608-01	Bar, Drive Ring	

Note: *Used with Item 4 and supplied with the Wide-Angle Cap Frame Option

Wide Angle Cap Frame Gauge

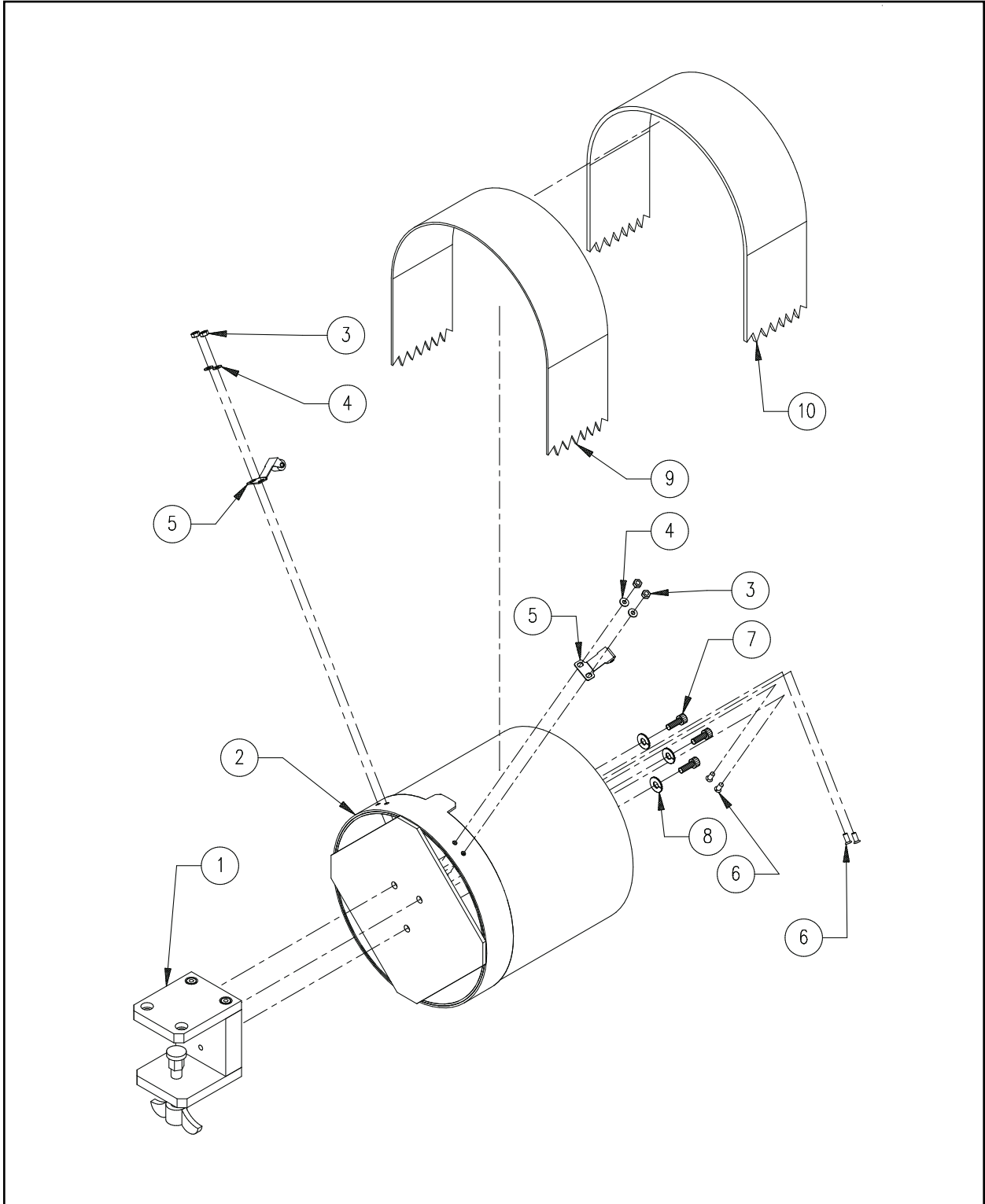


Figure 37

Wide Angle Cap Frame Gauge**Reference Figure 37**

Item No.	Part Number	Item Description	Comments
1*	004949-01	Block, Mount, Cap Gauge	
2*	010196-01	Cylinder, Gauge	
3*	680430-03	Nut, Hex, M3	
4*	690439-03	Washer, Flat, M3	
5*	004229-01	Clip, Roller, Assembly	
6*	006558-08	Screw, Pan Head, Slotted, M3 x 0.5 x 8mm	
7*	670038-06	Screw, Socket Head Cap, 10-32 x 3/8"	
8*	690033-03	Washer, Lock, Split, #10	
9	010467-01	Strap, Rubber, Gauge, 2.38" x 18.00" x .0625" Thick	
10	010973-01	Strap, Rubber, Gauge, 2.38" x 18.00" x .125" Thick	

Note:

The following can be replaced as a factory built assembly:

*010195-01 Gauge, Cap Frame, Wide-Angle

Tubular Hoops (1 of 2)

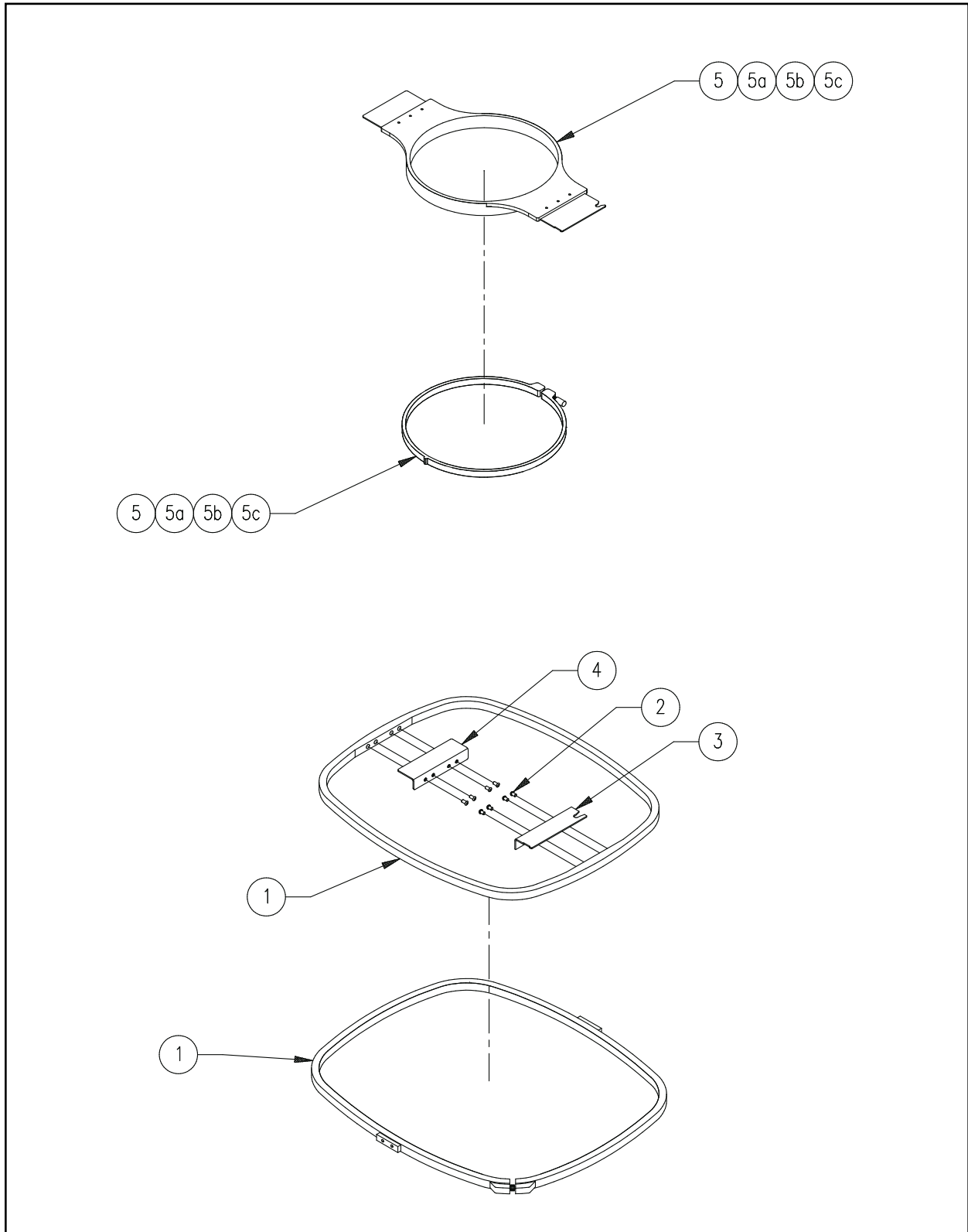


Figure 38

Tubular Hoops (1 of 2)**Reference Figure 38**

Item No.	Part Number	Item Description	Comments
1*	006454-01	Hoop, 36cm x 30cm, w/Insert	
2*	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6mm	
3*	008253-01	Bracket, Tubular, I/F, Right	
4*	008254-01	Bracket, Tubular, I/F, Left	
5	10214	Hoop, Tubular, 22cm, w/Interface Brackets	
5a	10215	Hoop, Tubular, 18cm, w/Interface Brackets	
5b	10216	Hoop, Tubular, 15cm, w/Interface Brackets	
5c	10217	Hoop, Tubular, 12cm, w/Interface Brackets	

Note: The following can be replaced as a factory built assembly:

*010942-01 Hoop, Tubular, 36cm x 30cm, Assembly

Tubular Hoops (2 of 2)

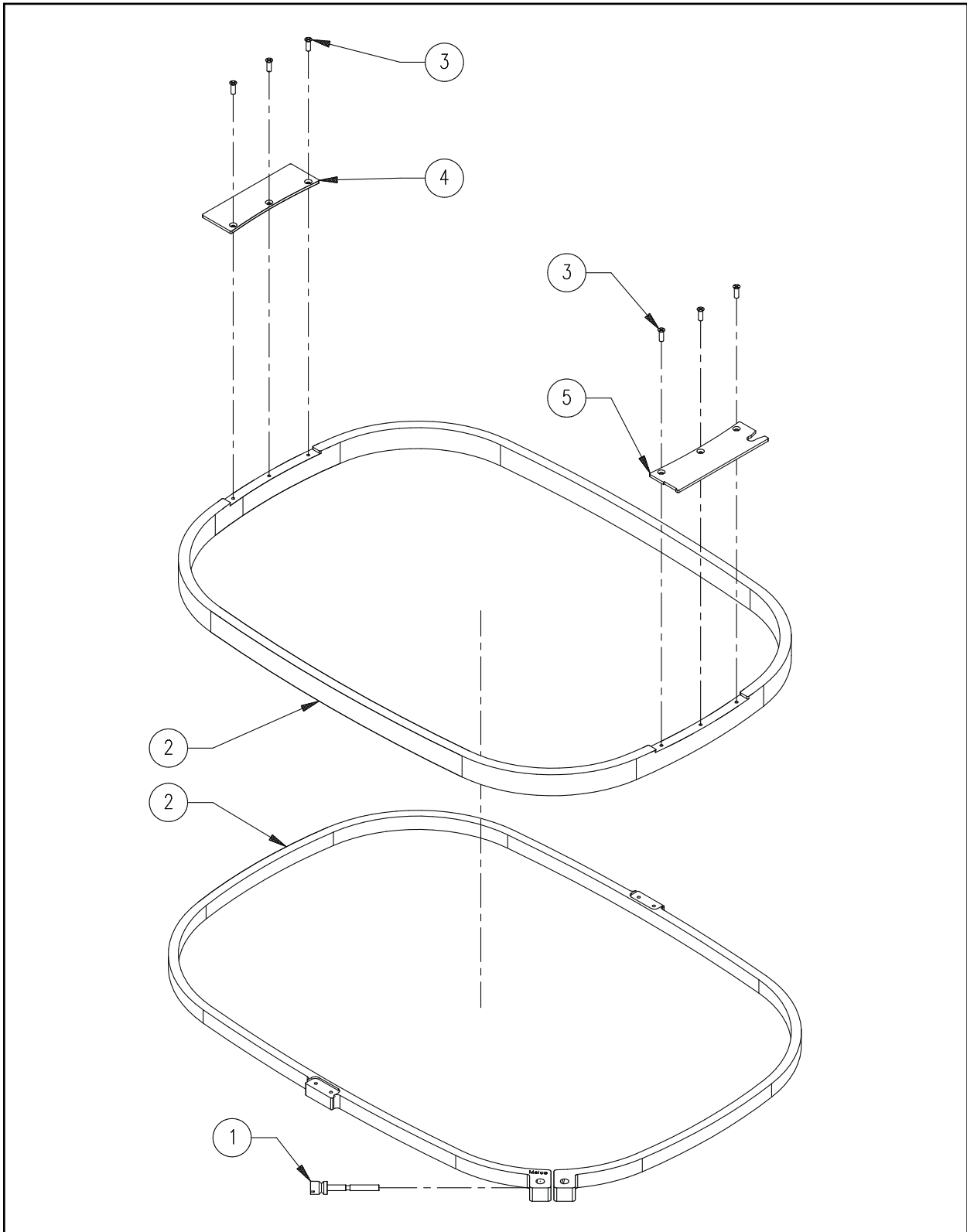


Figure 39

Tubular Hoops (2 of 2)**Reference Figure 39**

Item No.	Part Number	Item Description	Comments
1*	005576-01	Hoop, Screw/Barrel Nut, Assembly	
2*	010194-03	Hoop, Oval, 44cm x 30cm	
3*	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6mm	
4*	010447-02	Bracket, Tubular Hoop, Left	
5*	010446-02	Bracket, Tubular Hoop, Right	

Note: The following can be replaced as a factory built assembly:

*010204-01 Hoop, Tubular, Oval, 44cm x 30cm, Assembly

Mobile Cart

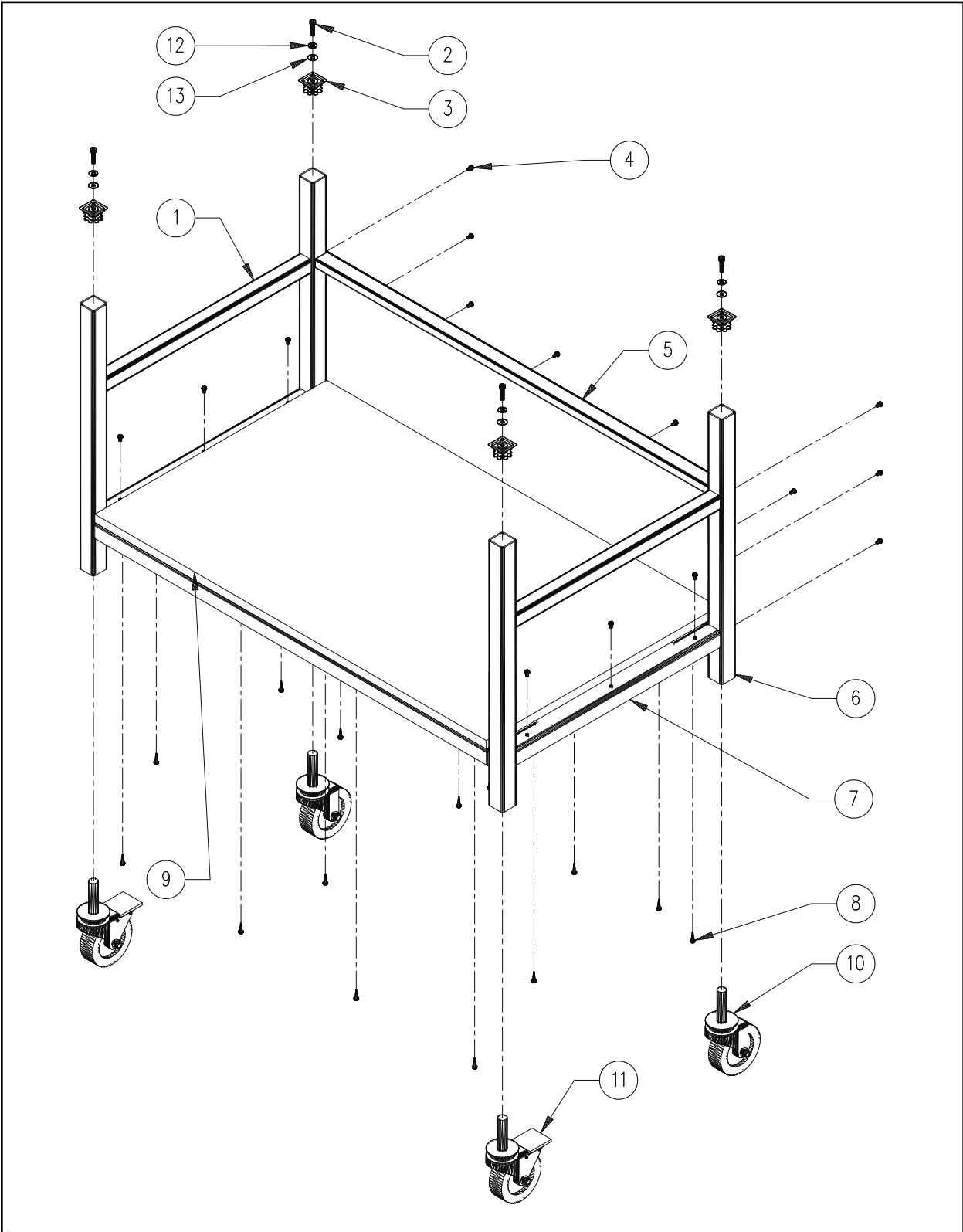


Figure 40

Mobile Cart **Reference Figure 40**

Item No.	Part Number	Item Description	Comments
1*	010743-01	Frame, Cart, End, Left	
2*	670035-16	Screw, Socket Head Cap, 1/4-20 x 1"	
3*	009987-01	Adapter, Threaded, Square Tube, 1/4-20	
4*	010309-10	Screw, Truss Head Phillips, M5 x 0.8 x 10mm	(15)
5*	009854-01	Brace, Cart	
6*	009853-01	Frame, Cart, End, Right	
7*	009855-01	Frame, Cart, Lower	
8*	671910-10	Screw, Pan Head Phillips, Self-Tapping, #10 x 5/8"	(14)
9*	009856-01	Shelf, Cart	
10*	010469-01	Castor, ^w /Brake	
11*	009989-01	Castor, ^w /Brake	
12*	690033-04	Washer, Lock, Split, 1/4"	
13*	690034-04	Washer, Flat, 1/4"	

Note: The following can be replaced as a factory built assembly:

*009988-01 Cart, Assembly

Hoop Interface

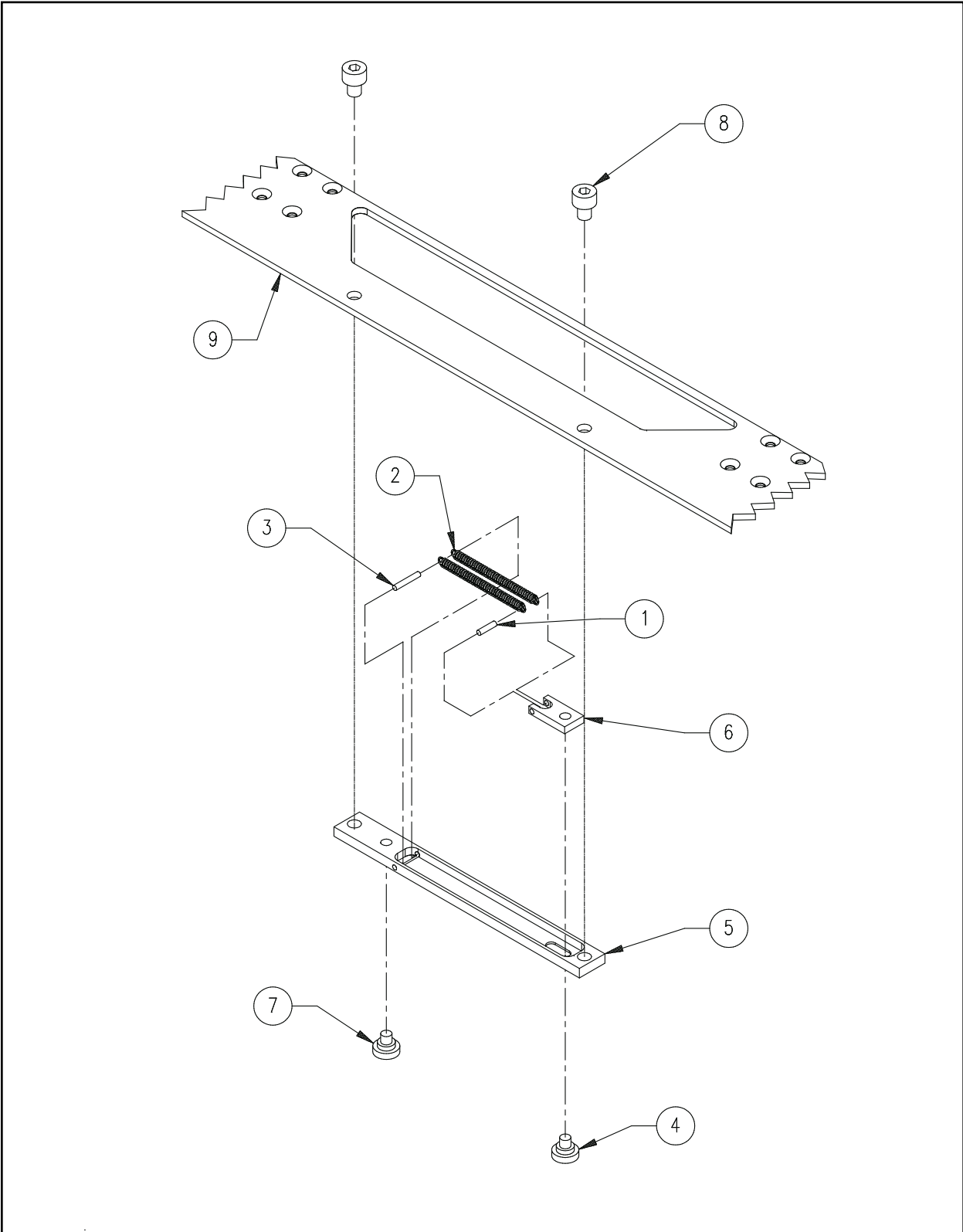


Figure 41

Hoop Interface		Reference Figure 41	
Item No.	Part Number	Item Description	Comments
1*	010378-08	Pin, Roll, 2mm x .315"	
2*	010379-01	Spring, Extension, .125" OD x 1.75"	
3*	010378-12	Pin, Roll, 2mm x .472"	
4*	010376-01	Locator, Movable Interface, Pin Type	
5*	010374-01	Block Interface, Pin Type	
6*	010375-01	Slide Interface, Pin Type	
7*	010377-01	Locator, Fixed Interface, Pin Type	
8*	010172-08	Screw, Socket Head Cap, M5 x 0.8 x 8mm, Zinc Plate	
9	009478-02	Carriage, X-Axis Rack	

Note: The following can be replaced as a factory built assembly:

*010395-01 Interface, Hoop, Pin Type, Assembly

Sash Frame

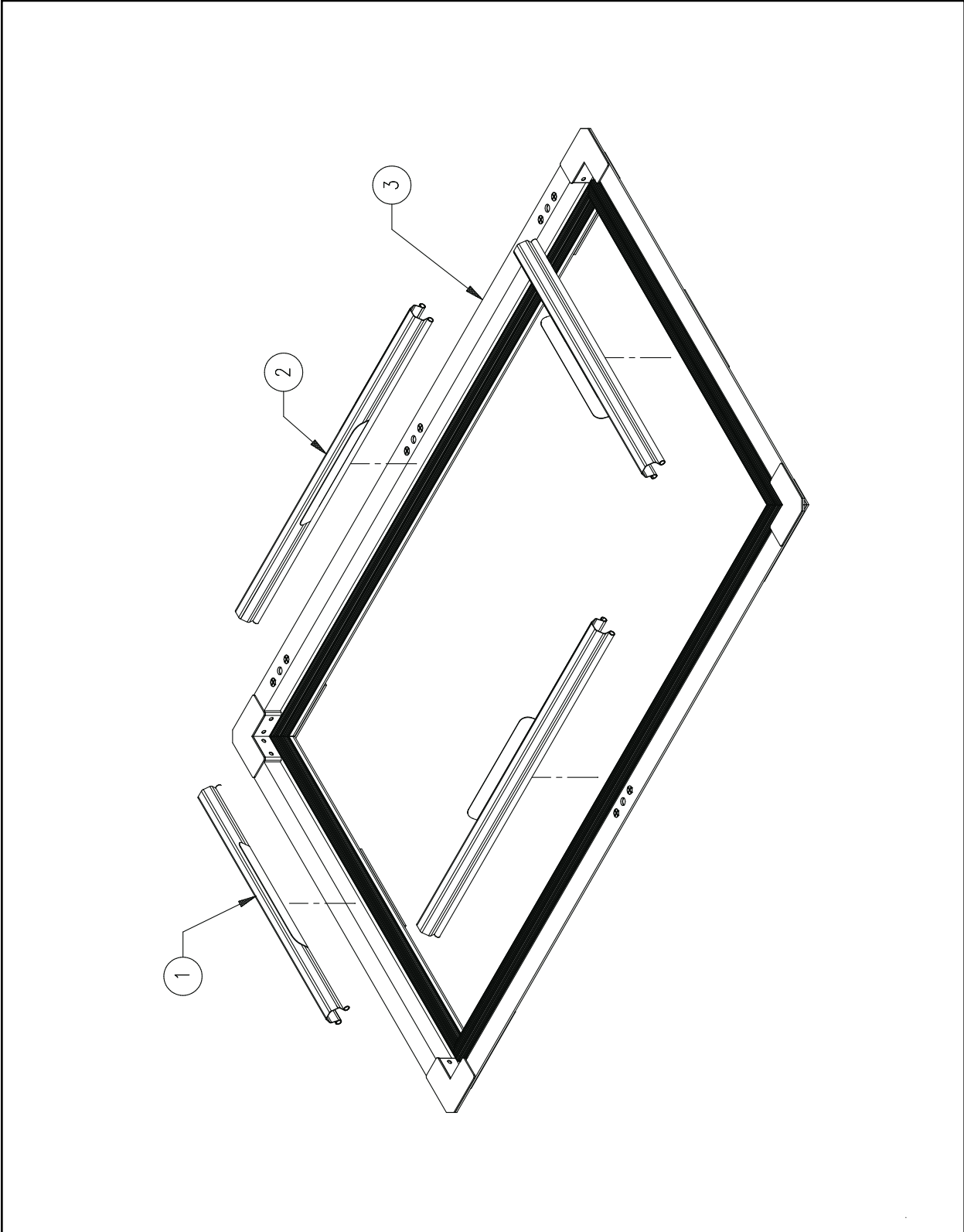


Figure 42

Sash Frame**Reference Figure 42**

Item No.	Part Number	Item Description	Comments
1*	007598-01	Clip, Border Frame, 220mm	
2*	008177-01	Clip, Border Frame, 300mm	
3*	010764-01	Sash Frame, EMT 10T, Assembly	

Note:

The following can be replaced as a factory built assembly:

*010452-01 Option, Sash Frame, EMT 10T, Assembly

Sash Hoops (21cm, 25cm)

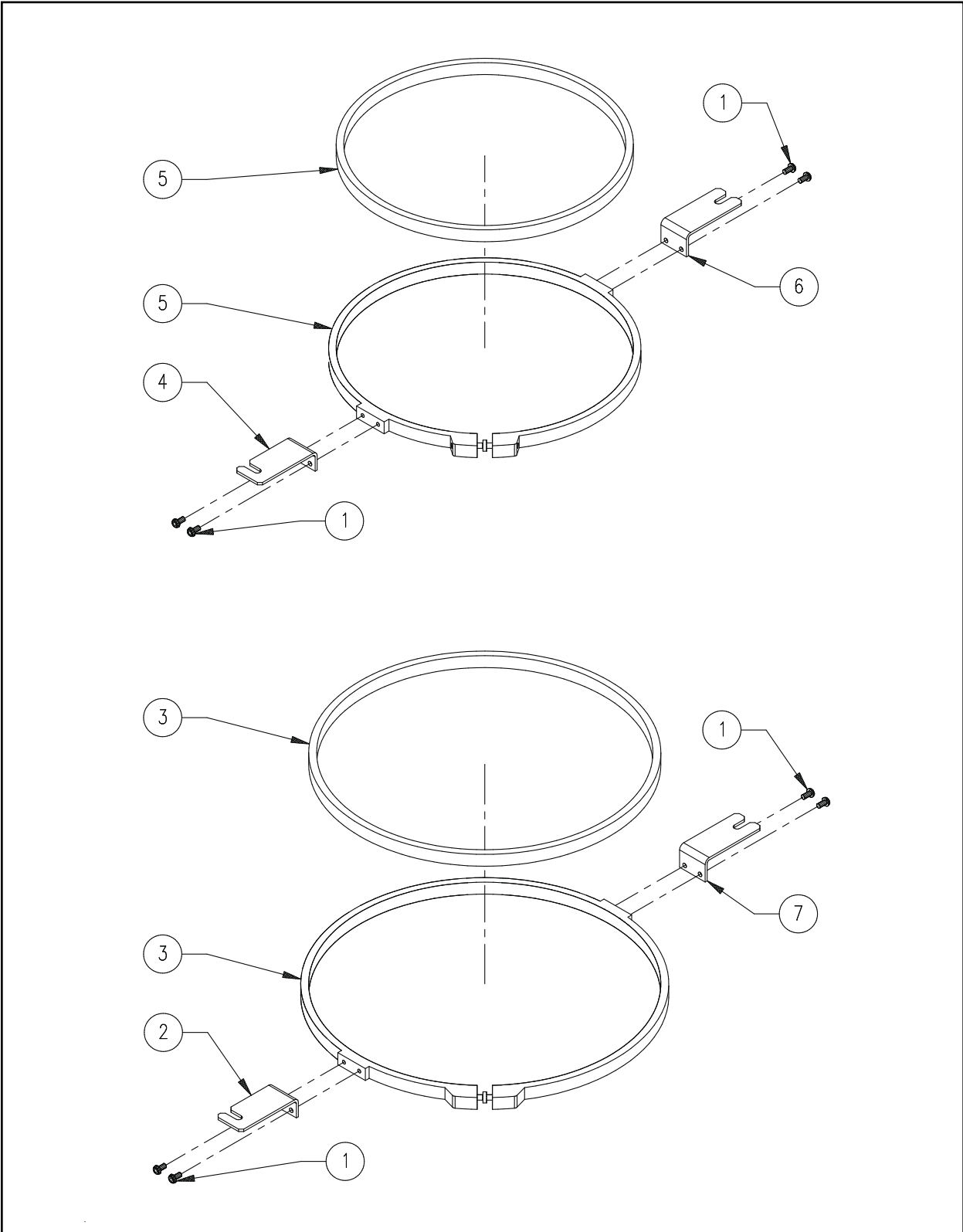


Figure 43

Sash Hoops (21cm, 25cm)**Reference Figure 43**

Item No.	Part Number	Item Description	Comments
1*•	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6mm	
2*	010756-02	Bracket, Front, 25cm Hoop	
3*	007592-01	Hoop, 25cm, w/Arms	
4•	010759-02	Bracket, Front, 21cm Hoop	
5•	005404-01	Hoop, 21cm, w/Arms	
6•	010758-02	Bracket, Rear, 21cm Hoop	
7*	010755-02	Bracket, Rear, 25cm Hoop	

Note: The following can be replaced as a factory built assembly:

- *010757-01 Hoop, Sash, Round, 25cm
- 010760-01 Hoop, Sash, Round, 21cm

Adapter, Threaded, Square Tube, 1/4-20	40-2	Belt, Timing, 1/5P, 104 Groove, 3/8" Wide.....	9-2
Assembly, Lever, Take-Up.....	12-2	Belt, Timing, 80 Groove, 1/5P, 3/8" Wide.....	18-2
Bar, Drive Ring.....	36-2	Belt, X-Axis	16-2
Bar, Guide	27-2	Belt, Y-Axis	20-2-21-2
Bar, Idler, Assembly	11-2	Block Interface, Pin Type.....	41-2
Bar, Needle.....	7-2	Block, Carriage, Y-Axis.....	20-2-21-2
Base, Cap Frame, Assembly.....	28-2	Block, Drive	20-2-21-2
Base, Drive Ring.....	30-2-31-2	Block, Locator, Brim.....	28-2
Base, Drive, Lever, Take-Up, PHS II	12-2	Block, Mount, Cap Gauge.....	37-2
Base, Power Box.....	15-2	Block, Mounting, Cap Gauge, Assembly.....	29-2
Base, Strain Relief, Operator I/F	4-2	Block, Mounting, Switch	26-2
Base, Tensioner	8-2	Block, Return	16-2
Base, Thread Tree	6-2	Block, Return, Y-Rack.....	20-2-21-2
Bearing, Ball, Radial, 15mm ID	9-2	Block, Terminal, Assembly	25-2
Bearing, Ball, Radial, 8mm ID	9-2	Bobbin, Aluminum	26-2
Bearing, Ball, Radial, Flanged, 3/16" ID.....	16-2	Brace, Cart.....	40-2
Bearing, Flange Cartridge, 2-Hole	19-2	Bracket, Angle, Table Top, Long	1-2
Bearing, Flanged	30-2	Bracket, Angle, Table Top, Short.....	1-2
Bearing, Flanged, 6mm ID x 12mm OD	35-2	Bracket, Base, Winder	26-2
Bearing, Linear	30-2	Bracket, Blank, PC.....	13-2
Bearing, Panel, 1/4" ID.....	35-2	Bracket, Cable.....	27-2
Bearing, Roller, 1/2" ID x 1/2"	20-2-21-2	Bracket, Clamp, Left Hand.....	32-2-33-2
Bearing, Shaft, Guide	10-2	Bracket, Clamp, Right Hand	32-2
Bearing, Sleeve, Frelon	27-2	Bracket, Drive.....	27-2
Belt, 80T, 1/5P.....	19-2	Bracket, Drive Ring.....	32-2
		Bracket, Enclosure, Disk Drive.....	3-2

Bracket, Ethernet Card Connector.....	14-2	Bracket, Support, Right Hand.....	31-2
Bracket, Frame Holder, Gauge Set.....	29-2	Bracket, Tubular Frame, Left.....	17-2
Bracket, Front, 21cm Hoop.....	43-2	Bracket, Tubular Frame, Right.....	17-2
Bracket, Front, 25cm Hoop.....	43-2	Bracket, Tubular Hoop, Left.....	39-2
Bracket, Hinge.....	28-2	Bracket, Tubular Hoop, Right.....	39-2
Bracket, Holder, Bar.....	31-2	Bracket, Tubular, I/F, Left.....	38-2
Bracket, Interface, Cap Frame.....	36-2	Bracket, Tubular, I/F, Right.....	38-2
Bracket, Jump Stitch Solenoid.....	9-2	Breaker, On/Off, 4A.....	25-2
Bracket, Latch.....	28-2	Bulb, 12V.....	5-2
Bracket, Left.....	16-2	Bushing, Base, Drive, Lever, Take-Up.....	12-2
Bracket, Load Resistor, Computer Power Supply.....	23-2	Bushing, Cradle, Spring.....	10-2
Bracket, Motor Board Connector.....	14-2	Bushing, Shaft, Bobbin Winder.....	26-2
Bracket, Mount.....	20-2	Bushing, Shaft, Needle Bar.....	10-2
Bracket, Mount, Right Rack.....	21-2	Cable, Drive Ring.....	27-2
Bracket, Mounting, Disk Drive.....	3-2	Cable, Drive Ring, Assembly.....	32-2
Bracket, Mounting, Display.....	4-2	Cable, E-Stop.....	23-2, 25-2
Bracket, Mounting, Z-Cover.....	1-2-2-2	Cable, Ethernet, Network, Interface.....	24-2-25-2
Bracket, Needle Plate.....	9-2	Cable, Floppy Drive.....	24-2-25-2
Bracket, Picker.....	9-3, 22-2	Cable, Ground, Braid, 6.5".....	4-2
Bracket, Pivot, Display.....	4-2	Cable, Grounding, 3".....	25-2
Bracket, Rear, 21cm Hoop.....	43-2	Cable, Jump Stitch.....	24-2
Bracket, Rear, 25cm Hoop.....	43-2	Cable, Jump Stitch, TB, CC.....	25-2
Bracket, Right.....	16-2	Cable, Low Voltage Power.....	23-2-24-2
Bracket, Stopper, Delrin.....	10-2	Cable, Operator, Lamp.....	23-2, 25-2
Bracket, Stopper, Steel.....	10-2	Cable, Power, Backplane.....	23-2-24-2
Bracket, Strap, Rubber.....	34-2	Cable, X-Axis Flex.....	25-2
Bracket, Support, Left Hand.....	31-2	Cam, Drive, Take-Up Lever.....	9-2

Cap, Spring	8-2	Connector, Dual Cap Frame	22-2
Card Cage, Bottom Cover	14-2	Cord, Shock, Cap Frame	28-2, 34-2
Card Cage, Front Cover, Single Head	14-2	Counterweight, Phase II	9-2
Card Cage, Top Cover	14-2	Coupler, In-Line, 6 Position.....	25-2
Carriage, X-Axis	17-2	Coupler, Shaft, Helical, 1/4" x 1/4"	18-2
Carriage, X-Axis Rack	41-2	Cover, Bed, Front	2-2
Case, Bobbin, Small	9-2	Cover, Bed, Rear.....	2-2
Case, Gear, Drive, Lever, Take-Up	12-2	Cover, Cable, Operator I/F	4-2
Case, Needle, Machined.....	7-2	Cover, Cap Frame Bracket	22-2
Castor, w/Brake	40-2	Cover, Cap, Hex, M6.....	30-2
Castor, wo/Brake	40-2	Cover, E-Stop	2-2
Catch, Pull	28-2	Cover, LEDs	1-2
Clamp, Belt	16-2	Cover, Needle Case	7-2
Clamp, Cable, Nylon, Black, .125" ID.....	16-2	Cover, Operator Interface	3-2
Clamp, Hold Down, Left Hand.....	32-2-33-2	Cover, Power Box.....	15-2
Clamp, Hold Down, Right Hand	32-2	Cover, Rear	11-2
Clamp, Needle, Assembly.....	7-2	Cover, Side.....	1-2
Clamp, Stop, Needle Bar	7-2	Cover, Solenoid	9-3
Clamp, Y-Belt.....	20-2-21-2	Cover, X-Beam, PCB	16-2
Clip, Border Frame, 220mm	42-2	Cover, Z-Motor.....	2-2
Clip, Border Frame, 300mm	42-2	Cylinder, Drive Ring.....	32-2-33-2
Clip, Cap Frame	34-2	Cylinder, Gauge	37-2
Clip, Roller, Assembly	32-2-33-2, 37-2	Damper, Needle Case	7-2
Clip, Roller, Cap Frame Driver, Assembly	27-2, 29-2	Disc, Tensioner	26-2
Clip, Spring, Tubular.....	17-2	Disk, Plastic	8-2
Collar, Shaft, 1/2" ID.....	27-2	Disk, Pretensioner.....	8-2
Collar, Shaft, Headup	9-2	Disk, Tensioner, Thread, Assembly	8-2
		Disk, Thread Suspender.....	7-2

Door, Disk Drive	3-2	Guard, Switch	25-3
Drive, Disk, 3-1/2"	3-2	Guide, Thread, Middle	7-2
Encoder, Z-Axis.....	18-2	Guide, Thread, Winder.....	26-2
Extrusion, Base	16-2-17-2	Harness, Circuit Breaker	23-2, 25-2
Extrusion, Cover.....	17-2	Harness, Entry Module	25-2
Felt, Needle Case	7-2	Harness, Hatswitch.....	25-2
Ferrite, Split, Large	25-2	Harness, Head.....	24-2
Ferrite, Split, Medium.....	25-2	Harness, Interface, Bobbin Winder	23-2, 25-2
Flag, Y-Limit	20-2	Harness, Jumper, Thread Break.....	7-2
Flange, Pulley, X-Axis Motor	16-2	Harness, Keyboard/Display	24-2-25-2
Follower, Assembly.....	12-2	Harness, Output, LV DC	23-2
Foot, Presser, Assembly	7-2	Harness, Power, LV AC	23-2
Frame, Assembly	1-2	Harness, Start/Stop/Frame	25-2
Frame, Cart, End, Left	40-2	Harness, Thread Break/Jump Stitch	8-2, 25-2
Frame, Cart, End, Right.....	40-2	Harness, Voltage Switch	25-2
Frame, Cart, Lower	40-2	Harness, X-Axis Collector	24-2-25-2
Frame, Lower, ^w /Rubber, 6-Panel.....	28-2	Harness, Y-Z Axis	24-2-25-2
Fuse, 2.5A, 250VAC.....	25-3	Hinge, Cap Frame	34-2
Fuse, 5A, 125V, 5mm x 20mm	15-2	Holder, Cable Tie, .75" Square.....	26-2
Fuse, 5A, 250VAC.....	25-3	Holder, Clip.....	34-2
Fuse, Holder.....	15-2	Holder, Cord, Visor Clamp.....	28-2
Fuse, Holder, 500W PDU	25-3	Holder, Visor	34-2
Gasket, Rack, X-Axis	17-2	Hook, Rotary, Small Bobbin.....	9-2
Gauge, Cap Frame, Weldment.....	29-2	Hoop, 21cm, ^w /Arms	43-2
Gear, Drive, Lever, Take-Up.....	12-2	Hoop, 25cm, ^w /Arms	43-2
Grommet	15-2	Hoop, 36cm x 30cm, ^w /Insert.....	38-2
Grommet, 3.3"	3-2		
Grommet, Actuator Lever.....	26-2		

Hoop, Oval, 44cm x 30cm.....	39-2	Knob, Tensioner, Black, Assembly.....	8-2
Hoop, Screw/Barrel Nut, Assembly	39-2	Lamp, Flexible, w/Switch, 12V/12W	5-2
Hoop, Tubular, 12cm, w/Interface Brackets	38-2	Latch, Takigen	34-2
Hoop, Tubular, 15cm, w/Interface Brackets	38-2	Latch, Touch.....	3-2
Hoop, Tubular, 18cm, w/Interface Brackets	38-2	Lens, Pushbutton, Black w/Legend.....	3-2
Hoop, Tubular, 22cm, w/Interface Brackets	38-2	Lens, Pushbutton, Grey w/Legend.....	3-2
Housing, Bearing.....	30-2	Lens, Pushbutton, White w/Legend	3-2
Hub, Cap Driver, Phase II.....	27-2	Lever, Actuator, Bobbin Winder.....	26-2
Hub, Shaft, Arm, Winder	26-2	Lever, Drive, Lever, Take-Up	12-2
Key, Shaft, 6mm x 6mm x 32mm	22-2	Locator, Brim, Cap Frame	34-2
Keycap, Alt	3-2	Locator, Cap Frame	27-2
Keycap, Color Change	3-2	Locator, Drive Ring	33-2
Keycap, Enter	3-2	Locator, Fixed Interface, Pin Type.....	41-2
Keycap, Fast/Slow	3-2	Locator, Left.....	17-2
Keycap, Horizontal Arrow, Left.....	3-2	Locator, Movable Interface, Pin Type.....	41-2
Keycap, Horizontal Arrow, Right.....	3-2	Locator, Right.....	17-2
Keycap, Jog.....	3-2	Magnet, Cover, Needle Case.....	7-2
Keycap, Menu.....	3-2	Motor, Modified, Winder	26-2
Keycap, Vertical Arrow, Down.....	3-2	Motor, X-Axis	16-2
Keycap, Vertical Arrow, Up.....	3-2	Motor, Y-Axis	19-2
Knob, Adjust, Pretensioner, Plastic ...	8-2, 26-2	Motor, Z-Drive.....	18-2
Knob, Extension, Pot.....	3-2	Mount, Dove Tail, Cap Frame	22-2
Knob, Knurled, Black, M3	31-2	Mount, Drive Ring.....	27-2
Knob, Knurled, Black, M5	30-2	Mount, Front, Drive Ring.....	30-2
Knob, Knurled, M5, Black	22-2, 27-2	Mount, Male, Cap Frame	27-2
		Mount, Tensioner Post.....	8-2
		Nipple, Support, Tensioner Disk.....	31-2
		Nut, Acorn, M4.....	31-2

Nut, Jam, Hex, M5.....	11-2-12-2	PCB, Motor Driver, Assembly.....	13-2
Nut, Swivel, 3/8-16	29-2	PCB, Network, Intel, Pro 10	13-2, 24-2
Nut, Tensioner, Drive Ring	32-2	PCB, X-Beam, X-Rack, Assembly	16-2
O-Ring, 2-7/16" ID x 3/16" Dia.....	26-2	PCB, Y-Limit, Assembly.....	20-2
O-Ring, 3/16" ID x 5/16" OD x 1/16" Thick	26-2	Pedestal, Control Interface	4-2
O-Ring, Molded, Needle Bar.....	7-2	Pin, Dowel, 1/4" OD x .750"	18-2
Pad, Cone, Thread	26-2	Pin, Groove, 1/8" OD x 5/8"	12-2
Pad, Cushion, Disk Drive	3-2	Pin, Groove, 1/8" OD x 7/8"	27-2
Pad, Cushion, Side, Thread Tree Base	6-2	Pin, Pivot, Door	3-2
Pad, Cushion, Top, Thread Tree Base	7-2	Pin, Pivot, Take-Up Lever	12-2
Pad, Felt, .065" Thick.....	8-2	Pin, Roll, 2mm x .315"	41-2
Pad, Felt, .095" Thick.....	8-2	Pin, Roll, 2mm x .472"	41-2
Pad, Guide, Shaft.....	30-2	Pin, Spring, 3mm OD x 14mm	9-2
Pad, Holder, Bar	31-2	Plate Mounting, Z-Drive Motor.....	18-2
Pad, Leveling.....	1-2	Plate, Base, Operator Interface	3-2
Pad, Support, Cylinder	31-2	Plate, Base, Winder	26-2
Pad, Thread Holder	6-2	Plate, Coupler	1-2
Panel, Side	6-2	Plate, Cover, Arm	9-3
PCB, Backplane, Assembly	13-2, 24-2	Plate, Cover, Needle Case.....	7-2
PCB, CPU, Assembly.....	13-2	Plate, Cover, Switch.....	1-2
PCB, E-Stop.....	23-2	Plate, E-Stop	2-2
PCB, E-Stop, Assembly	15-2	Plate, Encoder	18-2
PCB, EMT Operator Interface, Assembly.....	3-2	Plate, Front, Z-Drive Cover.....	2-2
PCB, Interface, Assembly.....	13-2	Plate, Guide, Needle Bar	7-2
PCB, LV Drivers, Assembly	13-2	Plate, Interface, Bracket, Solenoid	9-2
PCB, Motor Drive, Assembly.....	24-2	Plate, Motor Mount	19-2
		Plate, Motor Mount #2	19-2
		Plate, Needle, UTC	9-2

Plate, Retainer, Bearing, Arm Shaft.....	9-2	Rail, Y-Carriage	20-2-21-2
Plate, Strain Relief, Operator I/F	4-2	Reciprocator	10-2
Plate, Table Top, Locator, Rear	1-2	Resistor, Load, Computer Power Supply	23-2
Plate, Table Top, Locator, Side.....	1-2	Ring, Drive, Cap Frame	27-2
Plug, Dome, .437" Dia.....	7-2	Rod, Connecting	9-2
Plunger, Ball, 1/4-20, 7lbs.....	26-2	Rod, Crank, 90 Deg	9-2
Post, Bobbin, Storage.....	26-2	Roller, Drive Ring.....	30-2
Post, Cap Frame.....	34-2	Roller, Idler	11-2
Post, Cap Frame, Weldment.....	34-2	Sash Frame, EMT 10T, Assembly	42-2
Post, Guide	7-2, 26-2	Screw, Needle Plate.....	9-2
Post, Pretensioner.....	8-2	Screw, Rotary Hook.....	9-2
Post, Tensioner	8-2	Screw, Set, Cam.....	9-2
Post, Tensioner, Winder	26-2	Screw, Set, Needle Clamp	7-2
Post, Thread, Winder.....	26-2	Screw, Shoulder, 1/8" OD x .188", 4-40 Thread	7-2
Power Entry Module, Filtered, 6A.....	25-2	Screw, Special, Cap Frame.....	28-2
Presser, Spring	7-2	Screw, Thumb, Knurl, 8mm.....	17-2
Pretensioner, Assembly.....	7-2	Screw, Thumb, Wing-Head, 3/8-16 x 1.5"	29-2
Pulley, 16T, 3/8" ID, w/Hub.....	18-2	Screwlock, 4-40 ID x 5/16"	14-2, 23-2
Pulley, Drive.....	19-2	Seal, Rubber, 3/8" x 1/2"	14-2
Pulley, Drive, Bobbin, Bottom, 16T, 1/5P.....	9-2	Seat, Cone, Thread	26-2
Pulley, Drive, Bobbin, Top, 32T, 1/5P.....	9-2, 18-2	Sensor, X-Home, Assembly.....	16-2
Pulley, Drive, Y-Rail	19-2	Set, Cover, Rotary Cover	2-2
Pulley, Idler, Return, Assembly.....	20-2-21-2	Shaft Cover, Frame Holder	29-2
Pulley, Pinion, Y-Axis.....	19-2	Shaft, Arm	9-2
Pulley, Return	16-2	Shaft, Arm, Winder.....	26-2
Rail, X-Drive	17-2	Shaft, Bobbin, Phase II	9-2

Shaft, Cap Frame	27-2	Spring, Holding, Needle Bar	7-2
Shaft, Drive	19-2	Spring, Idler	11-2
Shaft, Drive Ring	30-2	Spring, Jump, Reciprocator.....	10-2
Shaft, Drive, Lever, Take-Up.....	12-2	Spring, Presser Foot.....	7-2
Shaft, Frame Holder, Gauge Set	29-2	Spring, Pretensioner	8-2
Shaft, Guide, Drive Ring.....	30-2	Spring, Shaft, Arm, Winder.....	26-2
Shaft, Guide, Needle Bar.....	10-2	Spring, Tensioner.....	26-2
Shaft, Return	20-2-21-2	Spring, Tensioner, Thread	8-2
Shaft, Return, X-Axis.....	16-2	Spring, Thread Suspender	7-2
Shaft, Roller	30-2	Standoff, Encoder, M-F, M4 x 0.7 x 2.01 "	18-2
Shaft, Roller, Eccentric.....	30-2	Standoff, F/F, 1/2 " Hex, 1/4-20 x 1 "	18-2
Shelf, Cart.....	40-2	Standoff, Fem., 4-40 ID x 3/16" OD x 1/8"	7-2
Shim, Needle Case	7-2	Standoff, M/F, M4 x 0.7 x 16mm.....	3-2
Slide Interface, Pin Type.....	41-2	Stiffener, Table Insert.....	1-2
Solenoid, Jump Stitch.....	9-2	Strap, Clamping, 72mm, 6-Panel	28-2
Spacer.....	28-2	Strap, Clamping, 82mm, 6-Panel	28-2
Spacer, Belt	16-2	Strap, Clamping, Cap Frame, w/Rubber.....	34-2
Spacer, Interface, Wide Angle Cap Frame	36-2	Strap, Rubber, Gauge, 2.38" x 18.00" x .0625" Thick	37-2
Spacer, Nylon, .14" ID x .25" OD x .75"	31-2	Strap, Rubber, Gauge, 2.38" x 18.00" x .125" Thick	37-2
Spacer, Shaft, .187" ID x .312" OD x .03" Thick	9-3	Stud, Connecting, Needle Bar	7-2
Spacer, Shaft, 5/16" ID x .016" Thick.....	11-2	Stud, Connector, Reciprocator.....	10-2
Spacer, Thread, Tie-off	7-2	Stud, Press, 1/4" OD x 1/2"	11-2
Spreader, Thread Tree.....	6-2	Supply, Power, 200W, Computer....	15-2, 23-2
Spring, Check, Tensioner, Thread.....	8-2	Supply, Power, 24V/36V	15-2, 23-2
Spring, Compression.....	32-2, 35-2	Support Tab, Main Table Top	1-2
Spring, Extension, .125" OD x 1.75"	41-2		

Support, Cap, Large, Machined.....	31-2	Tensioner Disk Hub	35-2
Support, Cap, Small, Machined.....	31-2	Terminal, Shock Cord	28-2
Support, Rotary Hook.....	9-2	Thread, Bobbin, White	9-2
Support, Shaft, Rear.....	30-2	Transformer, Power, 400VA, 110VAC	25-2
Support, Thread Tree.....	6-2	Tray, Table	1-2
Switch, E-Stop Block, 24mm	2-2	Velcro Pile, Dust Wiper.....	16-2
Switch, E-Stop, 24mm.....	2-2	Washer, AIN	16-2, 19-2-21-2
Switch, Full, Bobbin, Assembly	26-2	Washer, Bellville, M6	4-2
Switch, Miniature, Cap Frame	22-2	Washer, Flat, Fender, M4.....	31-2
Switch, Momentary, w/Full Guard.....	3-2	Washer, Flat, Rectangle	27-2
Switch, Pushbutton, Momentary	3-2	Washer, Holder, Cable.....	32-2
Switch, Voltage, Selector.....	25-2	Washer, Lock, Split, M4.....	9-3
Switch, Winder, On/Off, Assembly.....	26-2	Washer, Neoprene.....	26-2
Tab, Tensioner	7-2-8-2	Washer, Plain, Type 3.....	31-2
Table Top, Main.....	1-2	Washer, Shoulder, Nylon, .116" ID x .047"	7-2
Table Top, Rear, Left.....	1-2	Washer, Support, Spring.....	35-2
Table Top, Rear, Right.....	1-2	Washer, Wave, 22mm OD	9-2
Table Top, Side, Left	1-2	Washer, Wave, 35mm OD	9-2
Table Top, Side, Right	1-2	Weldment, Cap Frame, w/Rubber.....	34-2
TableTop, Rear, Right	5-2	Wrench, Hex, 4mm	30-2
Tape, Adhesive, 2.25"	31-2	Wrench, L-Hex, 3mm, Short Arm	36-2
Tape, Static, LCD	3-2		
Template, Panel.....	3-2		
Tensioner Disk	35-2		
Tensioner Disk Shaft.....	35-2		
Tensioner Disk Support.....	35-2		
Tensioner, Thread, Main, Black, Assembly.....	7-2		