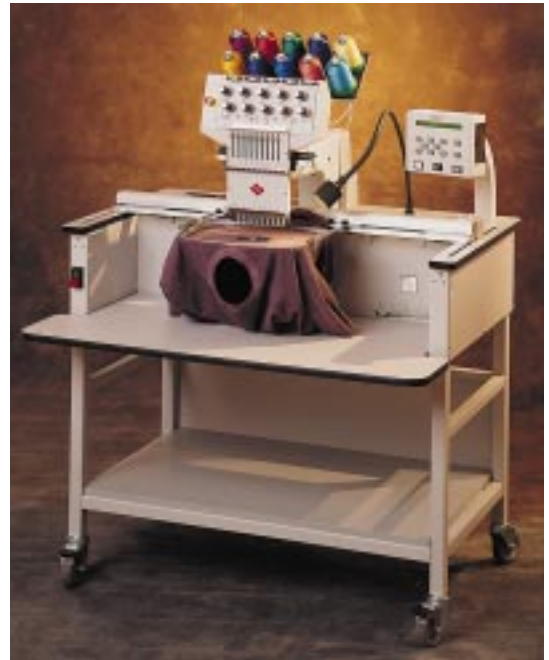


# Illustrated Parts Manual for the EMT 10 embroidery peripheral



- A Complete Illustrated Parts Manual
- Tubular
- 010405-01, 115V
- 010425-01, 230V
- **CE**

**Melco**   
Embroidery Systems

A Saurer Group Company

Part Number 110290-01, Revision F

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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 10T Sewing Peripherals. This manual represents both models of the product. The 115V model is identified as part number 010405-01. The 230V model is identified as part number 010425-01.

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.

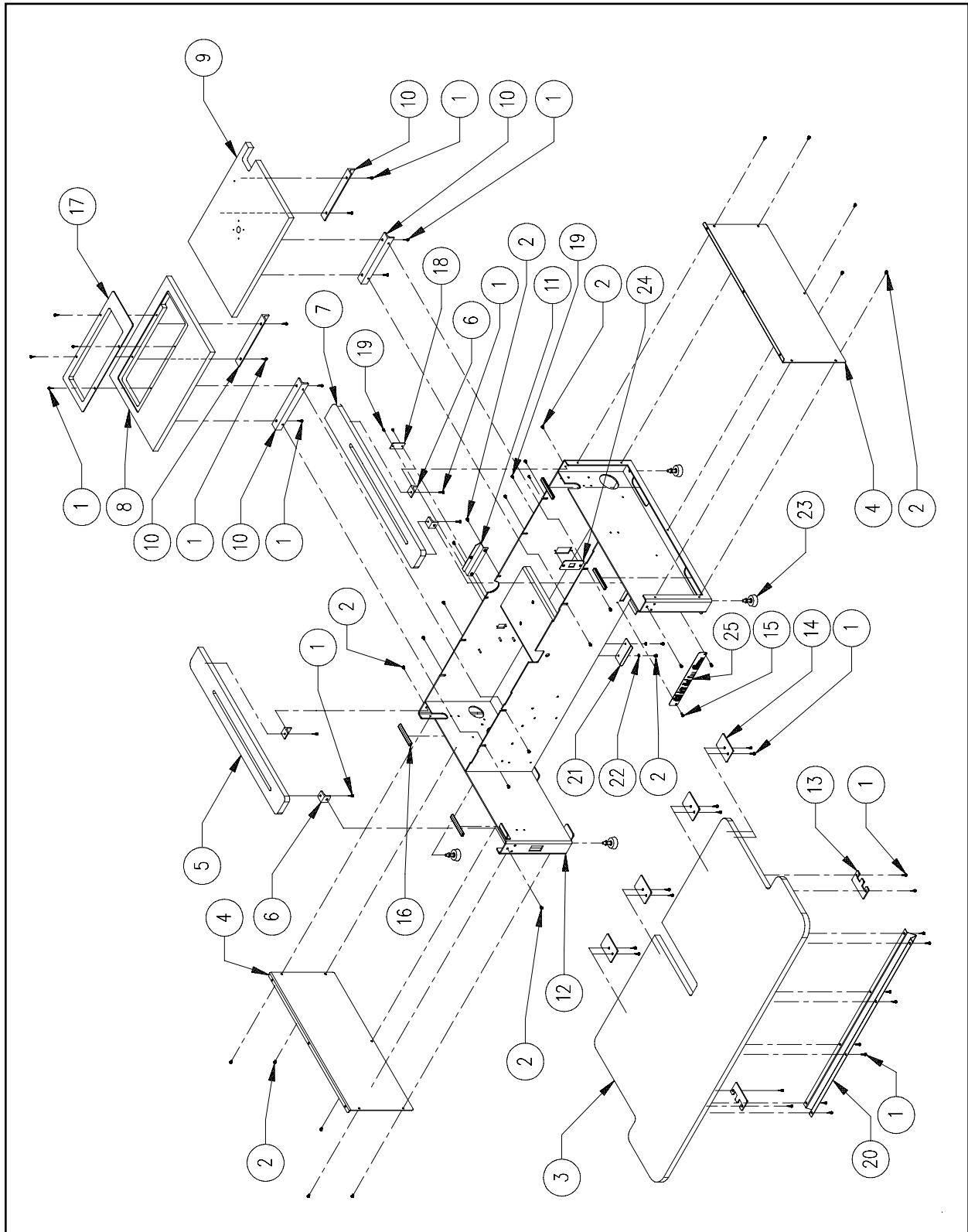
### **Index**

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



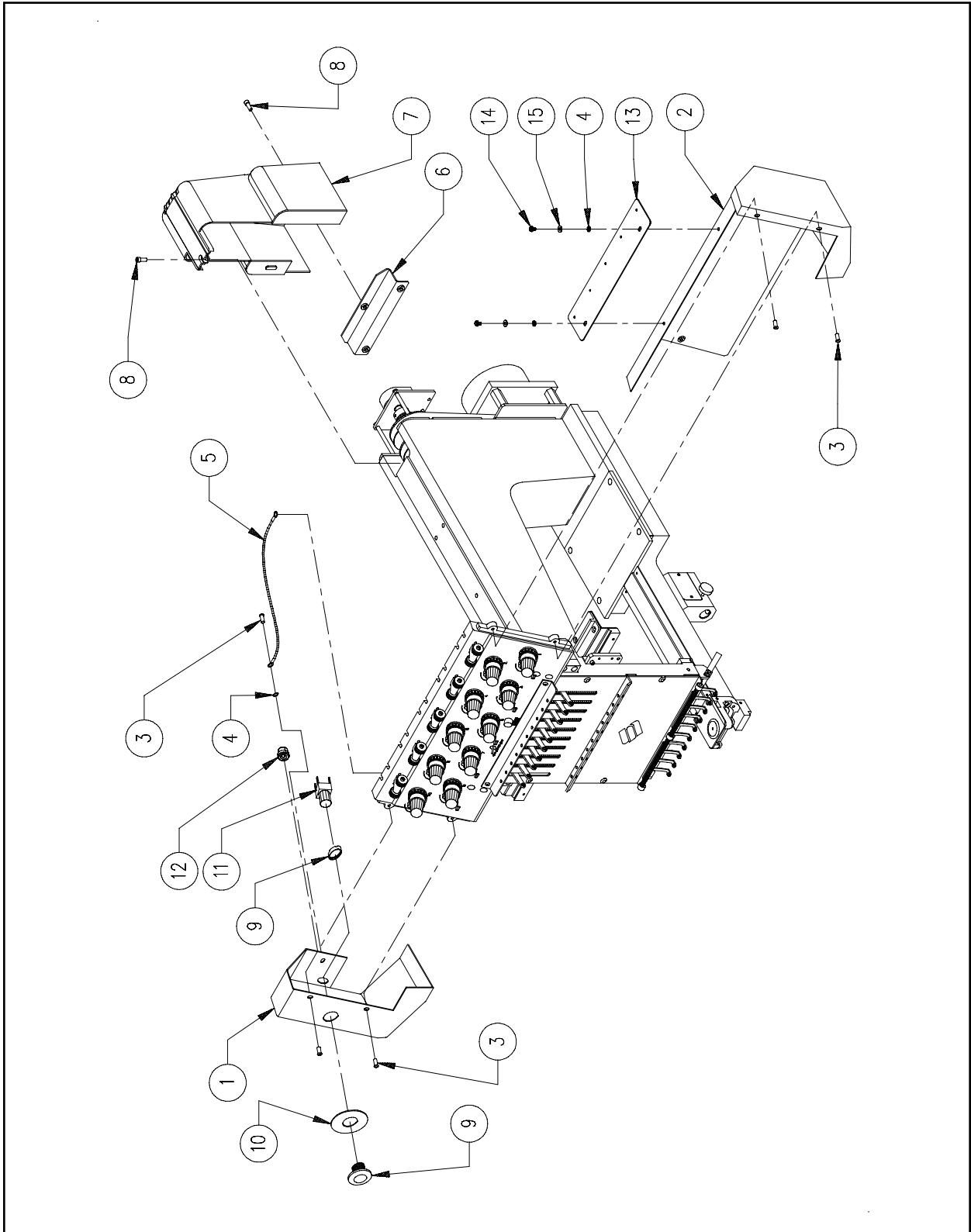
**Figure 1**



**Table Top/Machine Covers****Reference Figure 1**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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	009348-03	Table Top, Side, Right	
6	009344-01	Bracket, Angle, Table Top, Short	
7	010617-03	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	009814-02	Bracket, Mounting, Z-Cover	
12	009341-02	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	009851-01	Cover, LEDs	

# Sewing Head Covers

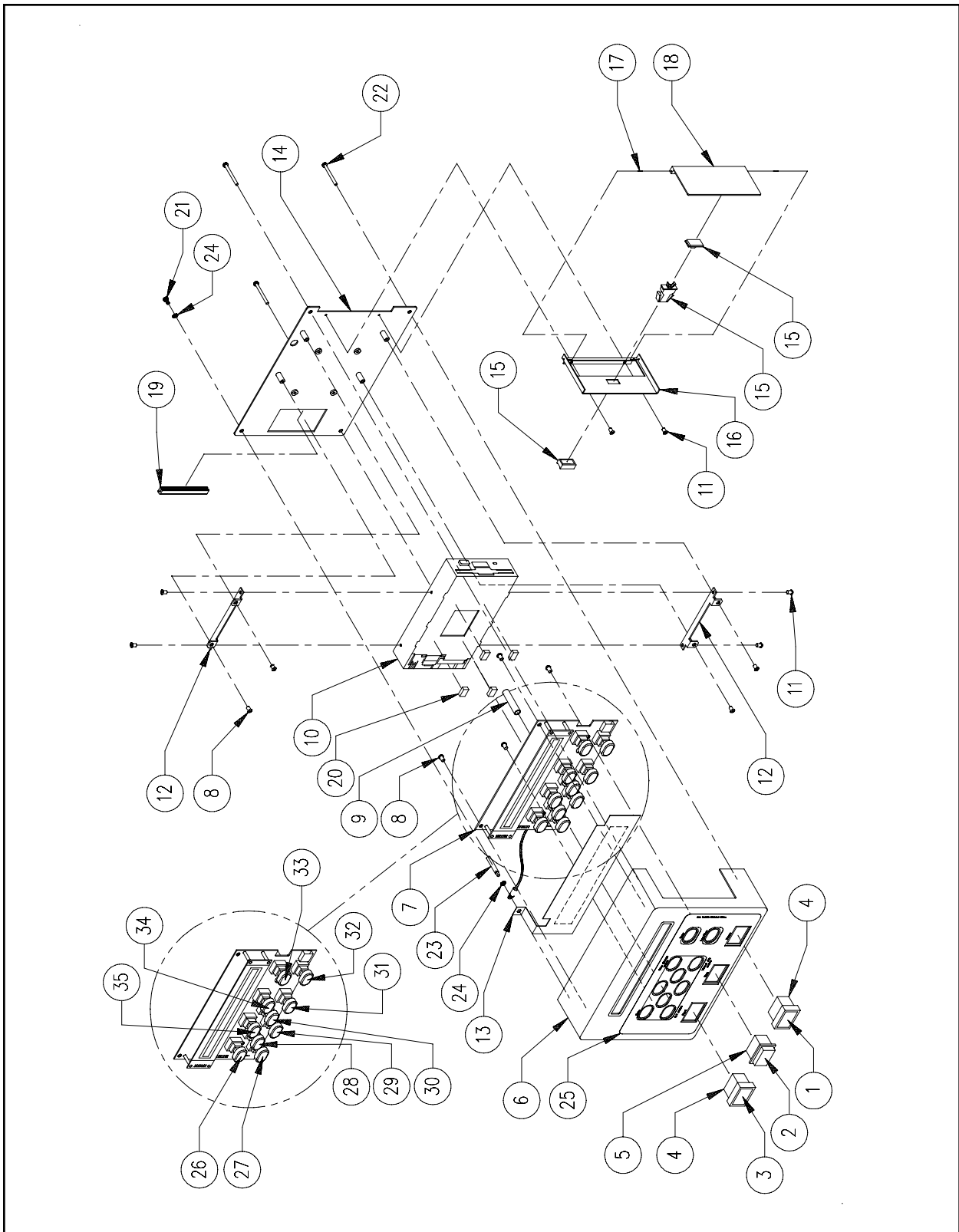


**Figure 2**

**Sewing Head Covers****Reference Figure 2**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	010109-02	Cover, Rear, Tensioner, Bracket, Left	
2	006564-02	Cover, Rear, Tensioner, Bracket, Right	
3	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
4	690713-38	Washer, Lock, External Star, #8	
5	009317-01	Cable, Ground, Pan, 4.75"	
6	009814-02	Bracket, Mounting, Z-Cover	(See Page 1-1)
7	010201-01	Cover, Z-Motor	
8	010171-14	Screw, Socket Head Cap, M4 x 0.7 x 14mm, Zinc Plate	
9	010104-01	Switch, E-Stop, 24mm	
10	010110-01	Plate, E-Stop	
11	010105-01	Switch, E-Stop Block, 24mm	
12	007852-01	Bushing, Strain Relief	
13	010622-02	Bracket, Tube, Thread	
14	003509-06	Screw, Button Head Socket, M4 x 0.7 x 6mm	
15	690439-04	Washer, Flat, M4	

# Keyboard (1 of 2)



**Figure 3**

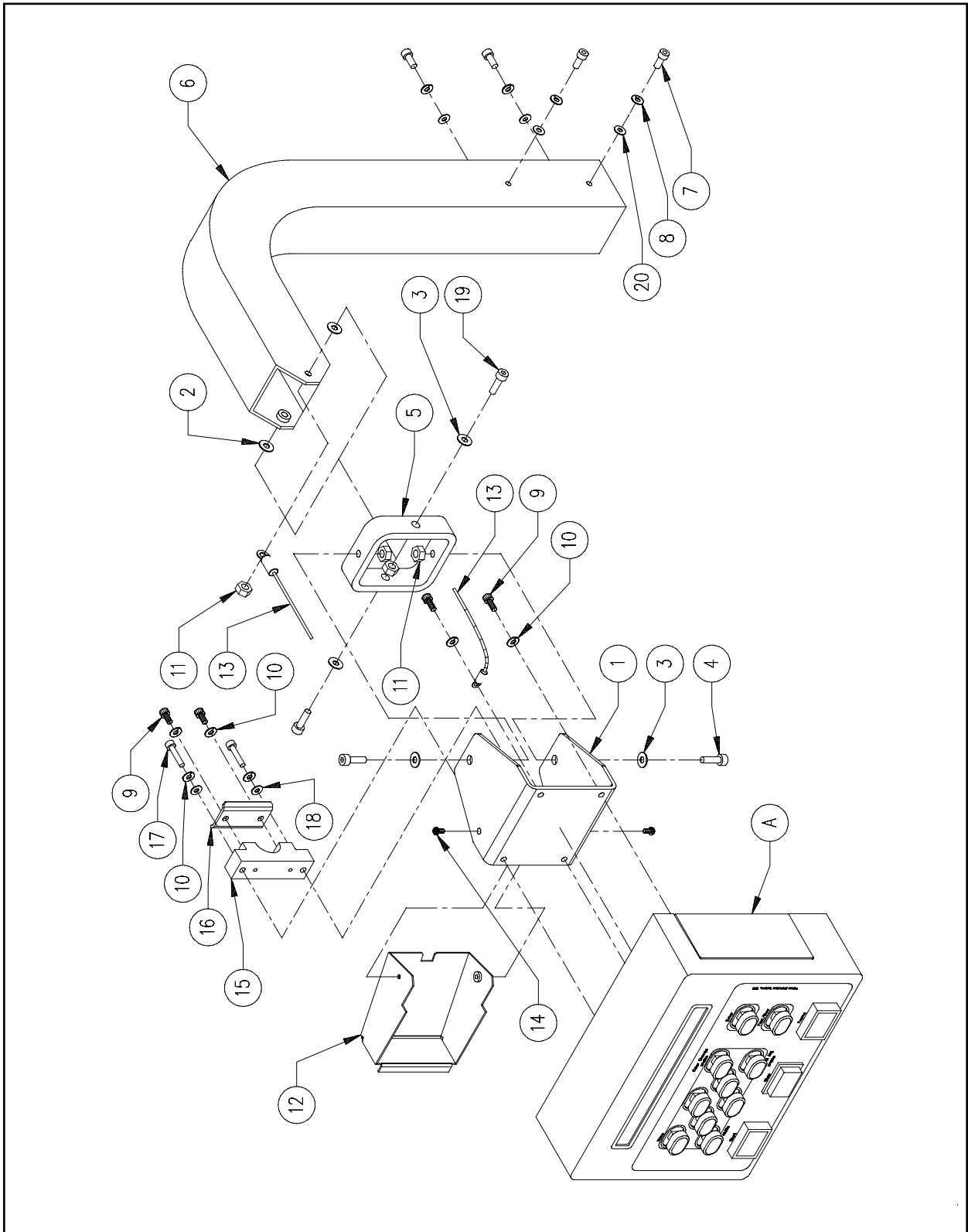
**Keyboard (1 of 2) (\*010612-01)****Reference Figure 3**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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	006558-06	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**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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	009343-02	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	005284-01	Nut, Hex, Lock, 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.

# Bobbin Winder

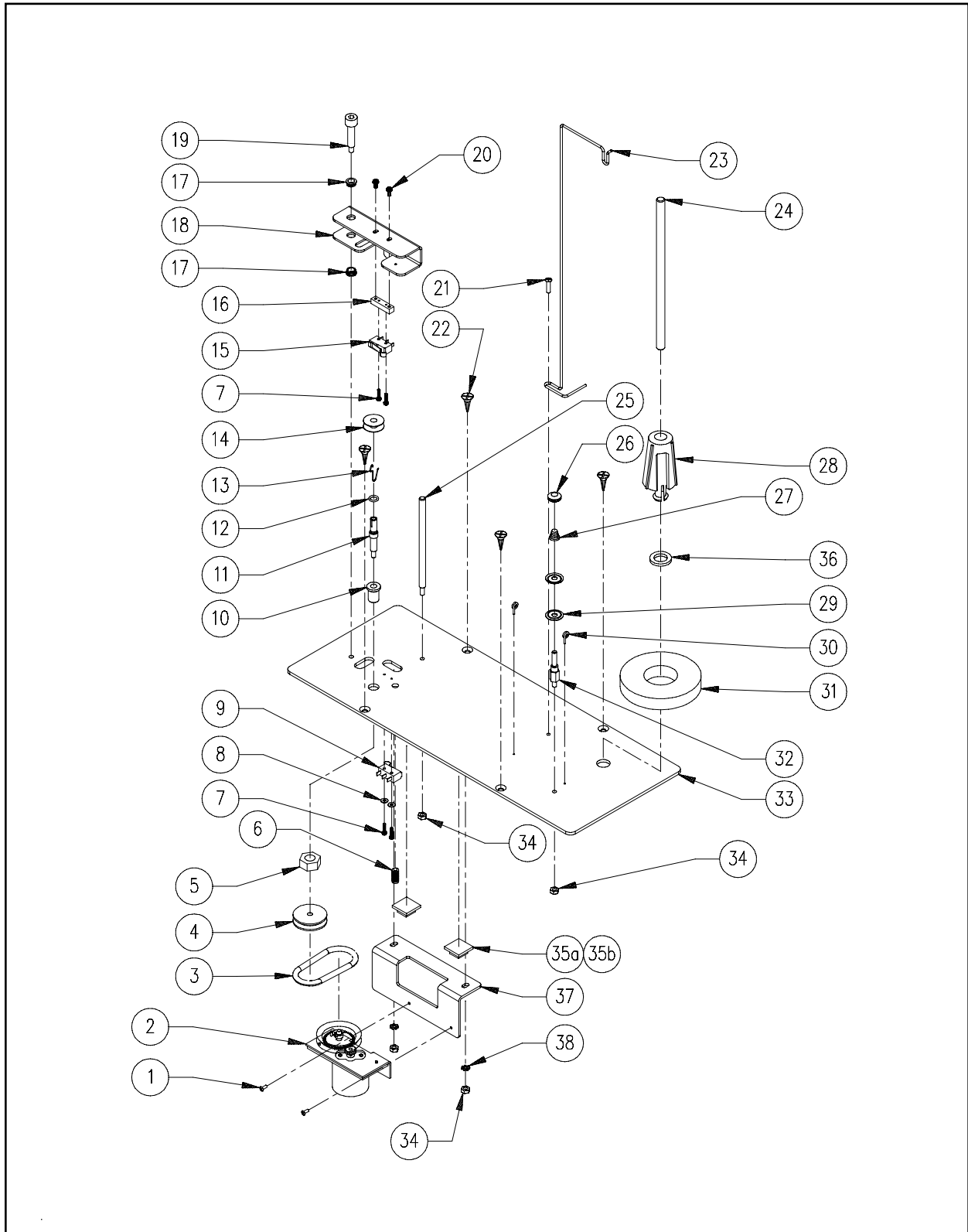


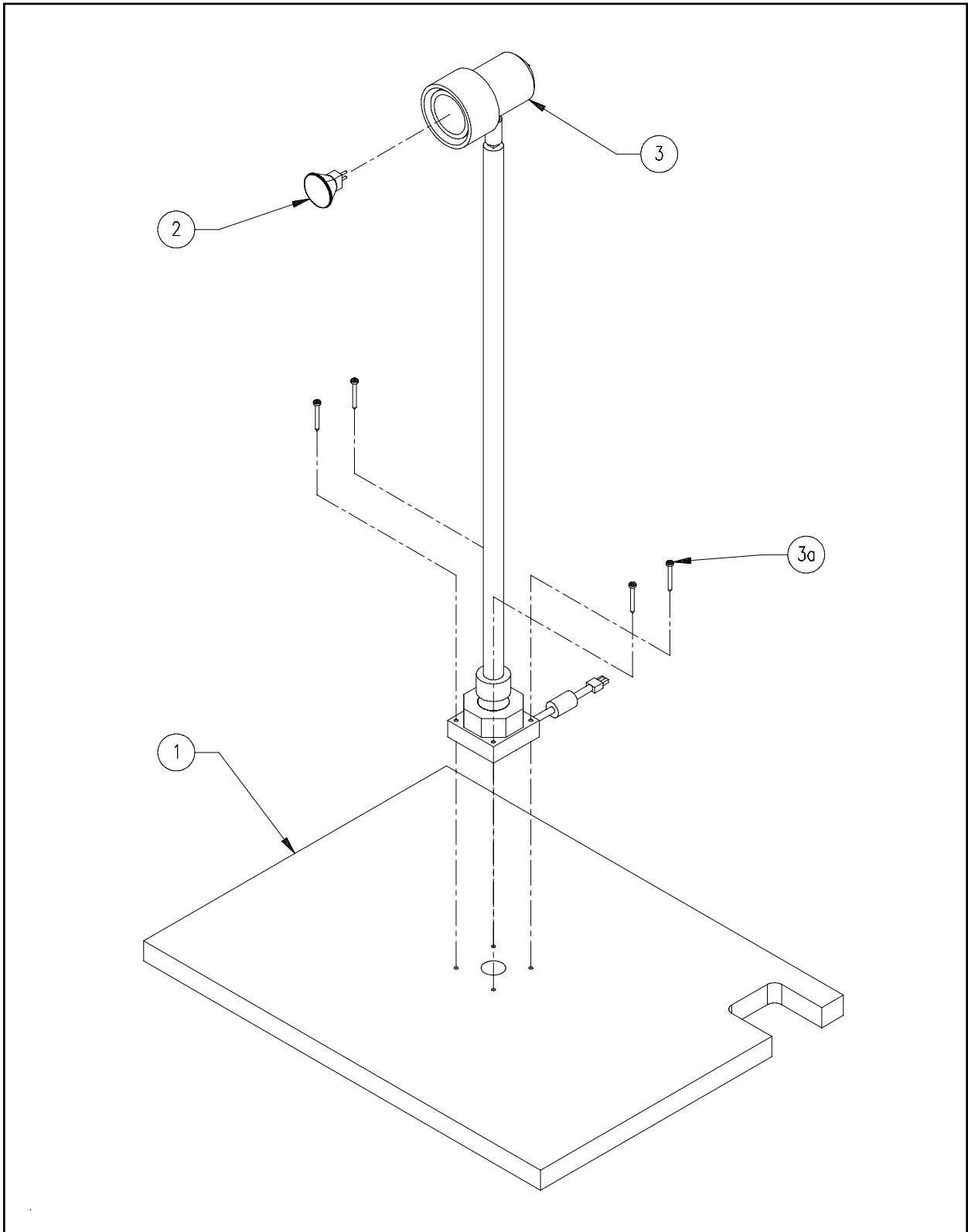
Figure 5



**Bobbin Winder****Reference Figure 5**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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, External Star, M4	

# Light Fixture

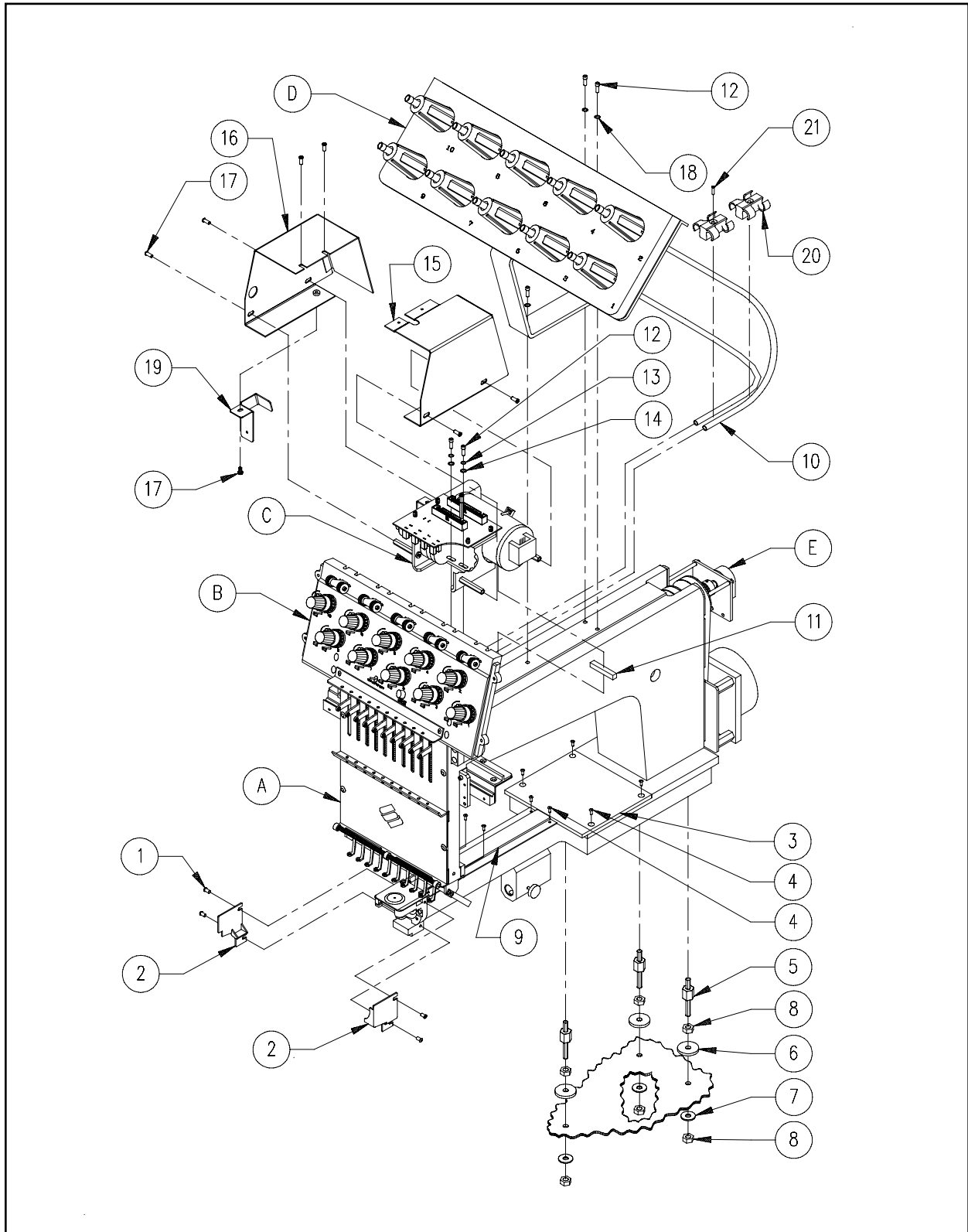


**Figure 6**

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<b>Light Fixture</b>			<b>Reference Figure 6</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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)	

# Sewing Head



**Figure 7**

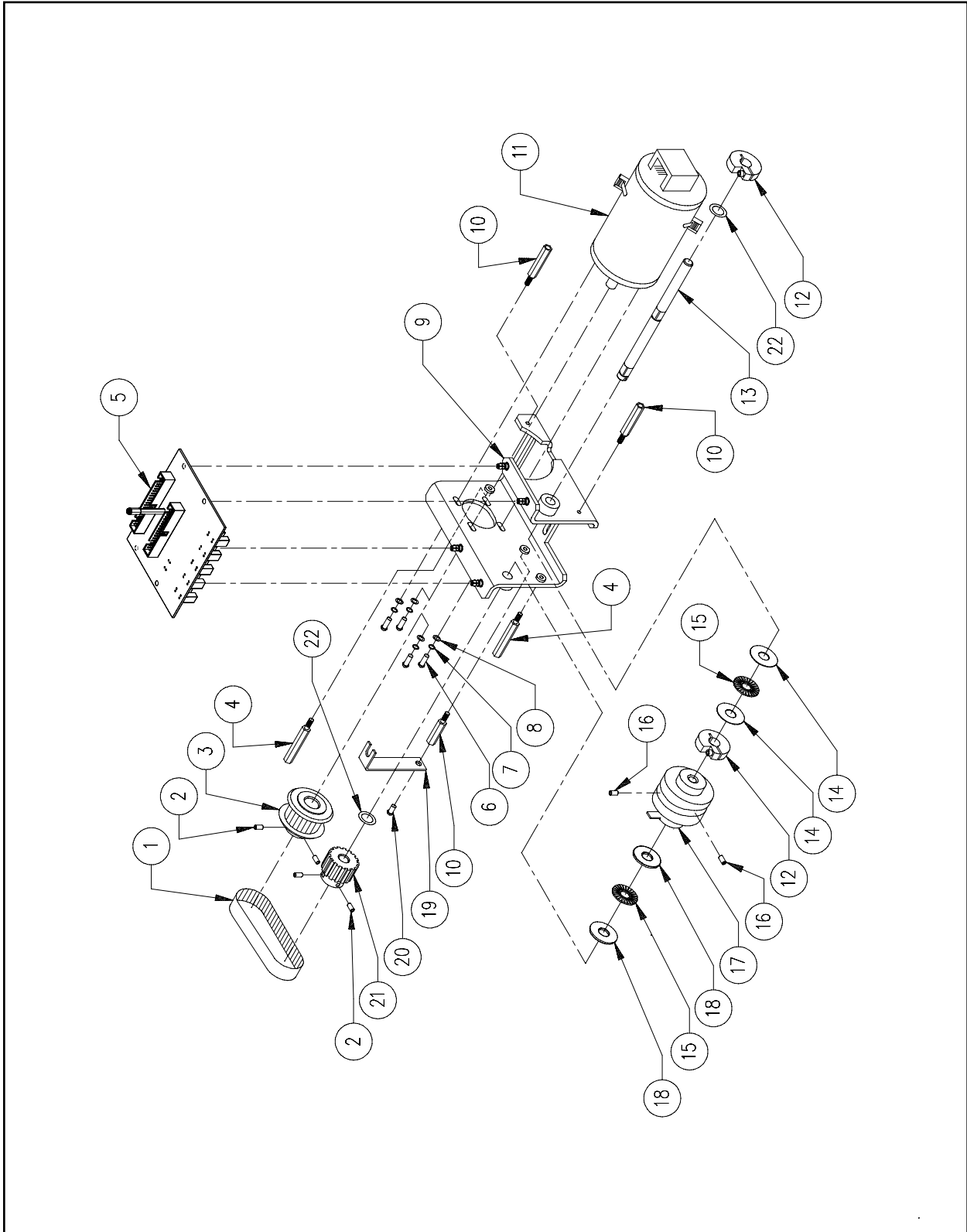
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**Sewing Head** **Reference Figure 7**


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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	-----	Needle Case	See Pages 10-1 & 11-1
B	-----	Thread Tensioner	See Page 13-1
C	-----	Color Change	See Page 8-1
D	-----	Thread Tree	See Page 9-1
E	-----	Z-Drive/Encoder	See Page 26-1
1	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6mm	
2	006529-01	Set, Cover, Rotary Hook	
3	006034-21	Cover, Bed, Rear	
4	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
5	008241-01	Pillar, Head, Support	
6	10547-08	Washer, Head	
7	690439-08	Washer, Flat, M8	
8	010178-08	Nut, Hex, M8	
9	007526-01	Cover, Bed, Front	
10	005704-01	Tubing, .125" ID x .187" OD	
11	004779-01	Key, Color Change Mount	
12	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
13	690427-04	Washer, Lock, Split, M4	
14	690439-04	Washer, Flat, M4	
15	010464-01	Cover, Drive, Color Change, Right	
16	010463-01	Cover, Drive, Color Change, Left	
17	009863-08	Screw, Pan Head Phillips, <sup>w</sup> /Star, M4 x 0.7 x 8mm	
18	690713-38	Washer, Lock, External Star, #8	
19	010479-02	Bracket, Support, Grabber Cover	
20	005707-01	Clip, Tubing	
21	001935-10	Screw, Flat Head Phillips, M3 x 0.5 x 10mm	

# Color Change



**Figure 8**

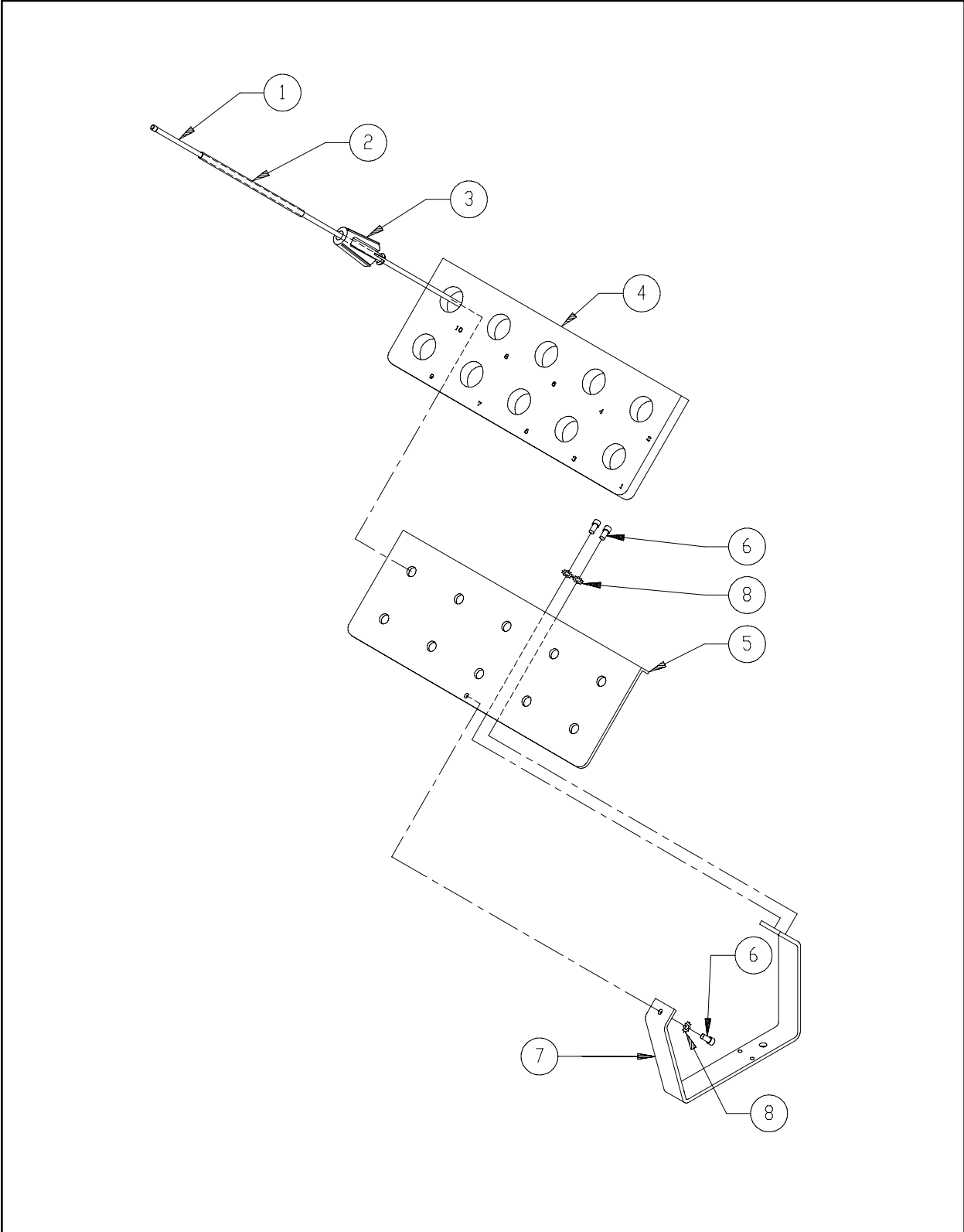
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**Color Change** **Reference Figure 8**


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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	003504-01	Belt, Timing, 39T, 1/5P	
2	670050-02	Screw, Set, Knurled Cup, 8-32 x 1/8"	
3	006855-01	Pulley, Timing, 1/5P, 12 Groove	
4	008129-35	Standoff, Hex, M-F, M4 x 0.7 x 35mm	
5	009411-02	PCB, EMT, Color Change, Assembly	
6	670174-08	Screw, Pan Head Phillips, 6-32 x 1/2 "	
7	690033-36	Washer, Lock, Split, #6	
8	690034-36	Washer, Flat, #6	
9	010623-01	Housing, Drive, Color Change	
10	008129-22	Standoff, Hex, M-F, M4 x 0.7 x 22mm	
11	006570-01	Motor, Color Change	
12	008062-01	Clamp, Split-Hub, 8mm ID	
13	006485-01	Shaft, Cam, Color Change	
14	007574-01	Washer, Thrust, 1.00mm Thick	
15	008061-01	Bearing, Thrust, 8mm	
16	001927-08	Screw, Set, Socket, M5 x 0.8 x 8mm	
17	007077-01	Cam, Color Change	
18	007573-01	Washer, Thrust, 2.75mm Thick	
19	006782-01	Bracket, Wire Guard	
20	004262-08	Screw, Pan Head Phillips, M4 x 0.7 x 8mm	
21	008060-01	Pulley, Timing, 5.08mmP, 16 Groove	
22	702876-05	Spacer, Precision, .313" ID x .01" Thick	

# Thread Tree



**Figure 9**



---

<b>Thread Tree</b>		<b>Reference Figure 9</b>	
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	006937-01	Tubing, Thread Tree, Assembly	
2	005703-01	Tube, Guide, Thread, Thread Tree, 9.7"	
3	005701-01	Seat, Cone, Thread, Thread Tree	
4	006482-01	Pad, Thread Tree	
5	006481-01	Plate, Thread Tree	
6	010172-10	Screw, Socket Head Cap, M5 x 0.8 x 10mm, Zinc Plate	
7	006798-02	Bracket, Support, Thread Tree	
8	690713-03	Washer, Lock, External Star, #10	

# Needle Case (1 of 2)

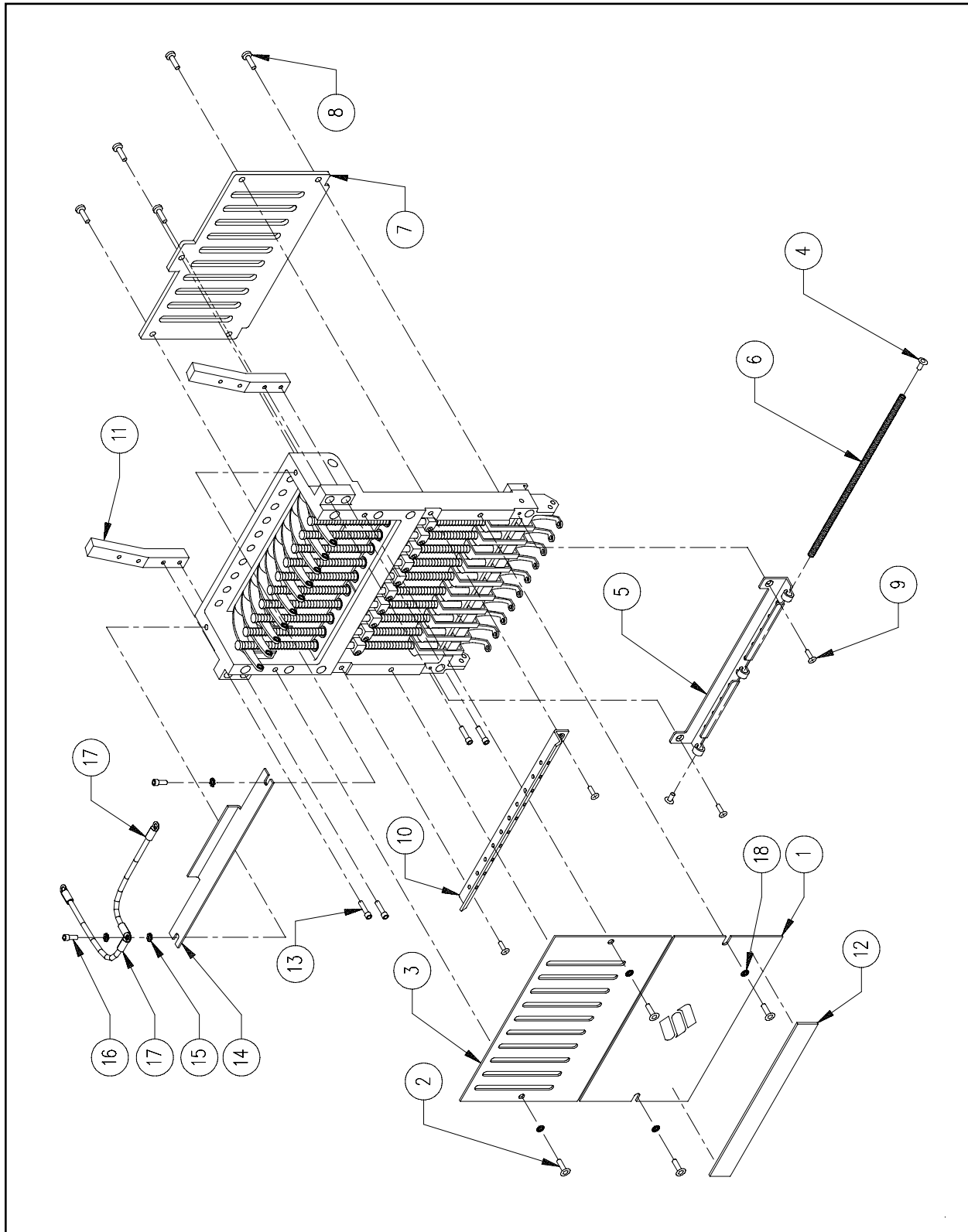
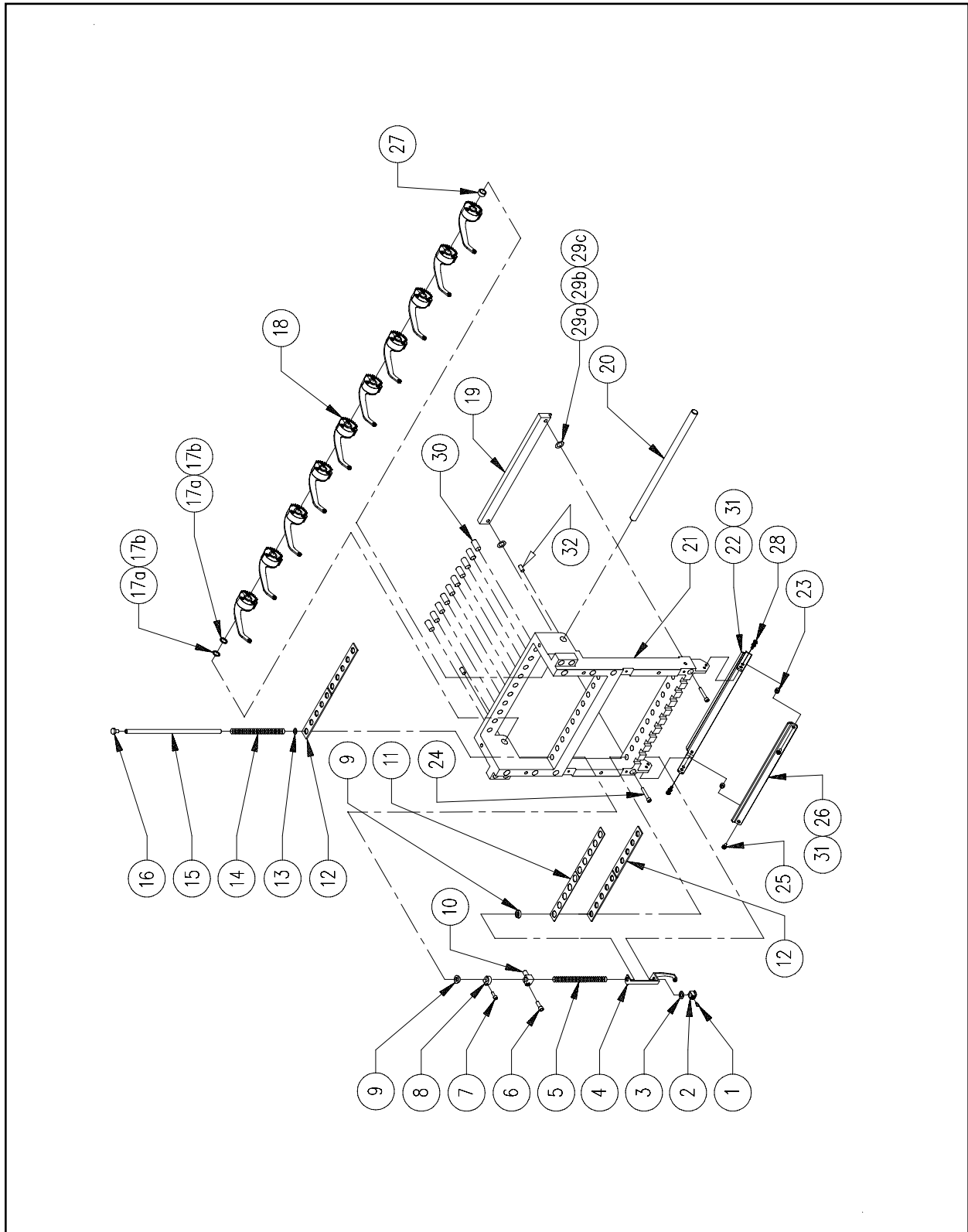


Figure 10

**Needle Case (1 of 2)****Reference Figure 10**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	007511-01	Cover, Needle Case, Lower	
2	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
3	007510-02	Cover, Needle Case, Upper	
4	003509-10	Screw, Button Head Cap, M4 x 0.7 x 10mm	
5	008483-01	Guide, Thread, Lower, w/Eyelet	
6	007519-01	Spring, Lower Thread Guide	
7	007503-01	Plate, Guide, Needle Bar	
8	001924-06	Screw, Cheese Head, Slotted, M4 x 0.7 x 6mm	
9	001935-06	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
10	008482-01	Guide, Thread, Middle, w/Eyelet	
11	007528-01	Support, Tensioner Bracket	
12	007527-01	Magnet, Thread Retaining	
13	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
14	006347-01	Blade, Sensor, Interruptor	
15	690713-38	Washer, Lock, External Star, #8	
16	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
17	009317-01	Cable, Ground, Pan, 4.75"	
18	690811-38	Washer, Lock, Internal Star, #8	

# Needle Case (2 of 2)



**Figure 11**

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**Needle Case (2 of 2)** **Reference Figure 11**

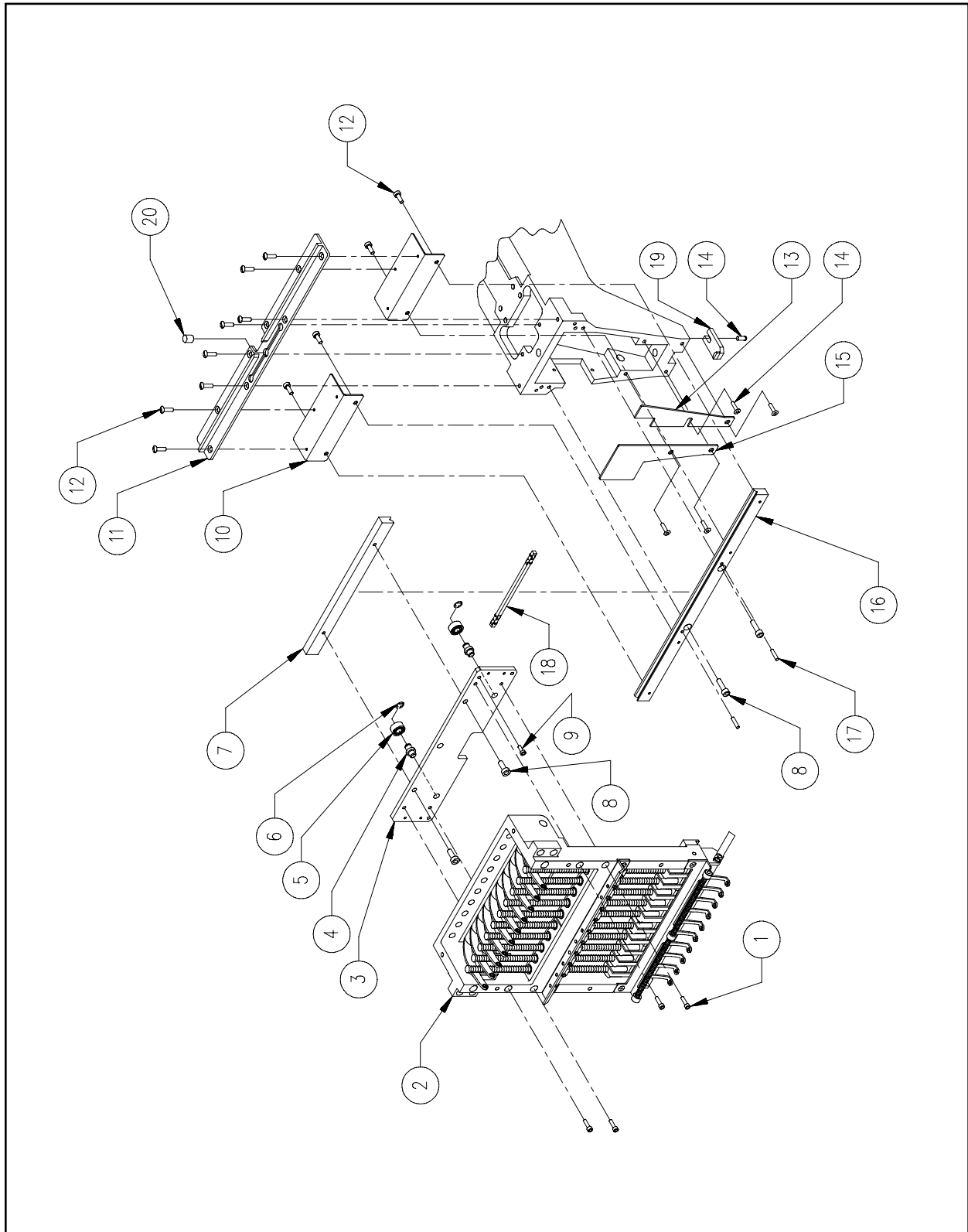

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Item No.	Part Number	Item Description	Comments
1	001828-01	Screw, Set, Needle Clamp	
2	001528-01	Clamp, Needle	
3	007591-01	Damper, Needle Clamp	
4	007924-01	Foot, Presser, Assembly	
5	001535-01	Spring, Presser Foot	
6	001922-08	Screw, Socket Head Cap, M3 x 0.5 x 8mm	
7	001922-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm	
8	001840-01	Clamp, Stop, Needle Bar	
9	005577-01	Damper, Needle Case	
10	007408-01	Stud, Connecting, Needle Bar	
11	007505-01	Shim, Needle Case	
12	007506-01	Felt, Needle Case	
13	005009-01	Washer, Flat, .260" ID x .420" OD x .03" Thick	
14	001537-01	Spring, Holding, Needle Bar	
15	001532-01	Bar, Needle	
16	002637-08	Screw, Socket Head Cap, Low Head, M5 x 0.8 x 8mm	
17a	702876-05	Spacer, Precision, .313" ID x .010" Thick	(Use as Required)
17b	702876-08	Spacer, Precision, .313" ID x .016" Thick	(Use as Required)
18	010360-01	Lever, Take-Up, Assembly	
19	10207	Rail, Guide, Lower	
20	007504-01	Shaft, Take-Up Lever	
21	007501-01	Case, 10 Needle	
22*	008474-01	Bracket, Grabber, Lower, Flared	
23*	002884-01	Spacer, Support, Velcro	
24	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
25	671855-08	Screw, Pan Head Slotted, M3 x 0.5 x 8mm	
26*	008472-01	Bar, Grabber	
27	007518-01	Spacer, Shaft, Take-Up Lever	
28	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
29a	700837-01	Spacer, Shaft, 1/4" ID x .002" Thick	(Use as Required)
29b	700837-02	Spacer, Shaft, 1/4" ID x .004" Thick	(Use as Required)
29c	700837-03	Spacer, Shaft, 1/4" ID x .006" Thick	(Use as Required)
30	662744-08	Pin, Dowel, .25" OD x .50"	
31*	008471-01	Velcro, Wiper, Pile, Flared	
32	001960-06	Screw, Set, Flat Point, M4 x 0.7 x 6mm	

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

\*008491-01 Grabber Bracket/Bar, Assembly

# Needle Case Linear Drive



**Figure 12**

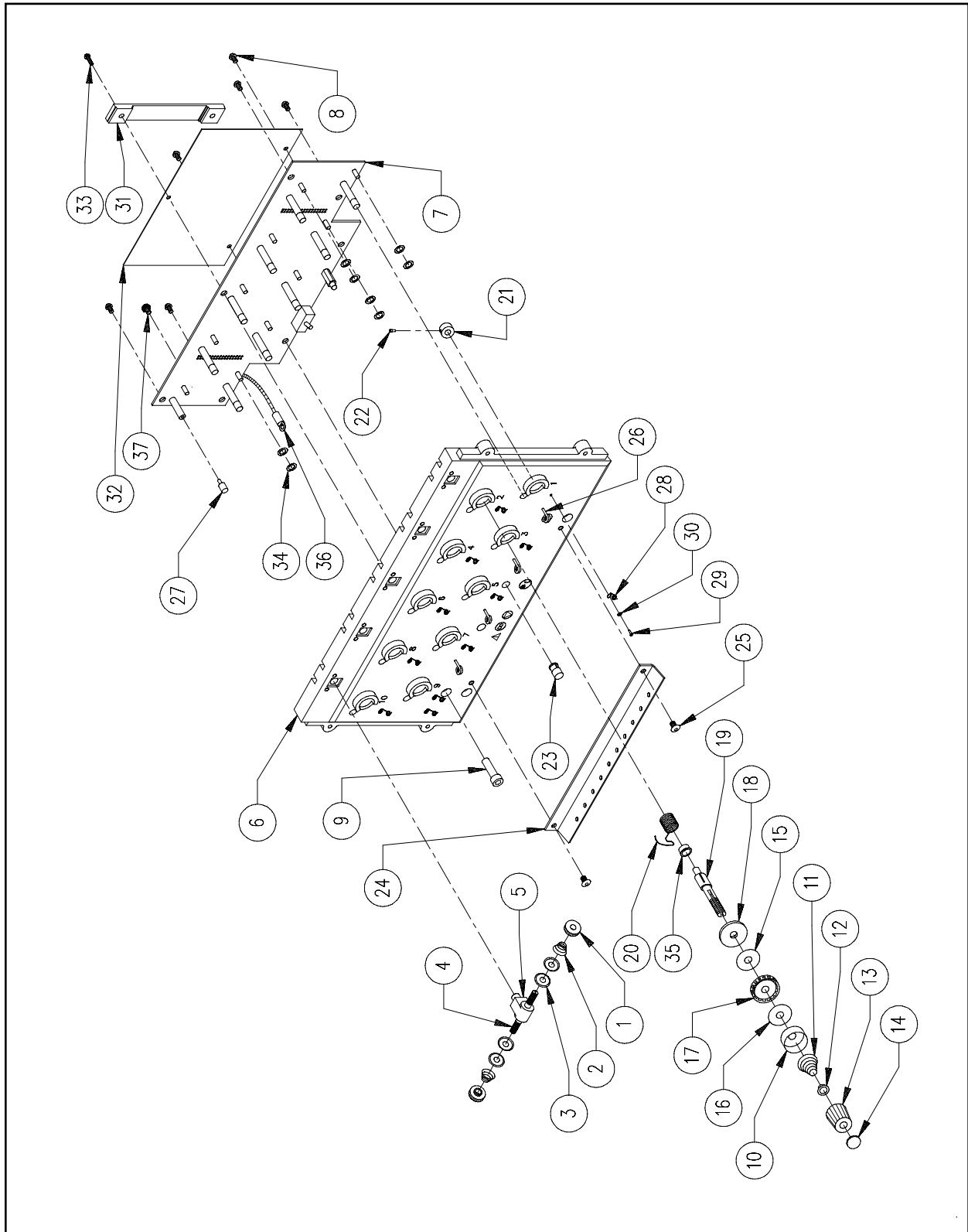
**Needle Case Linear Drive****Reference Figure 12**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
2	-----	Needle Case	See Pages 10-1 & 11-1
3*	007515-01	Plate, Bearing, Retainer	
4*	007516-01	Stud, Bearing, Retainer	
5	007517-01	Bearing, Radial, 4mm ID x 9mm OD	
6	007562-06	Ring, Retaining	
7	007520-01	V-Rail, Needle Case	
8	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
9	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
10	007546-01	Bracket, Support, Take-Up Lever Guide	
11	007507-01	Guide, Take-Up Lever	
12	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
13	007473-01	Cover, Front, Arm, Right	
14	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
15	007514-01	Cover, Front, Arm, Left	
16	007521-01	V-Rail, Arm	
17	002610-14	Pin, Spring, 3mm	
18	007522-01	Bearing, Cross-Roller	
19	001942-01	Plate, Position, Machined	
20	002821-01	Pad, Reservoir, Felt	

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

\*007558-01 Plate, Retainer, Bearing, Assembly

# Thread Tensioner



**Figure 13**



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**Thread Tensioner** **Reference Figure 13**

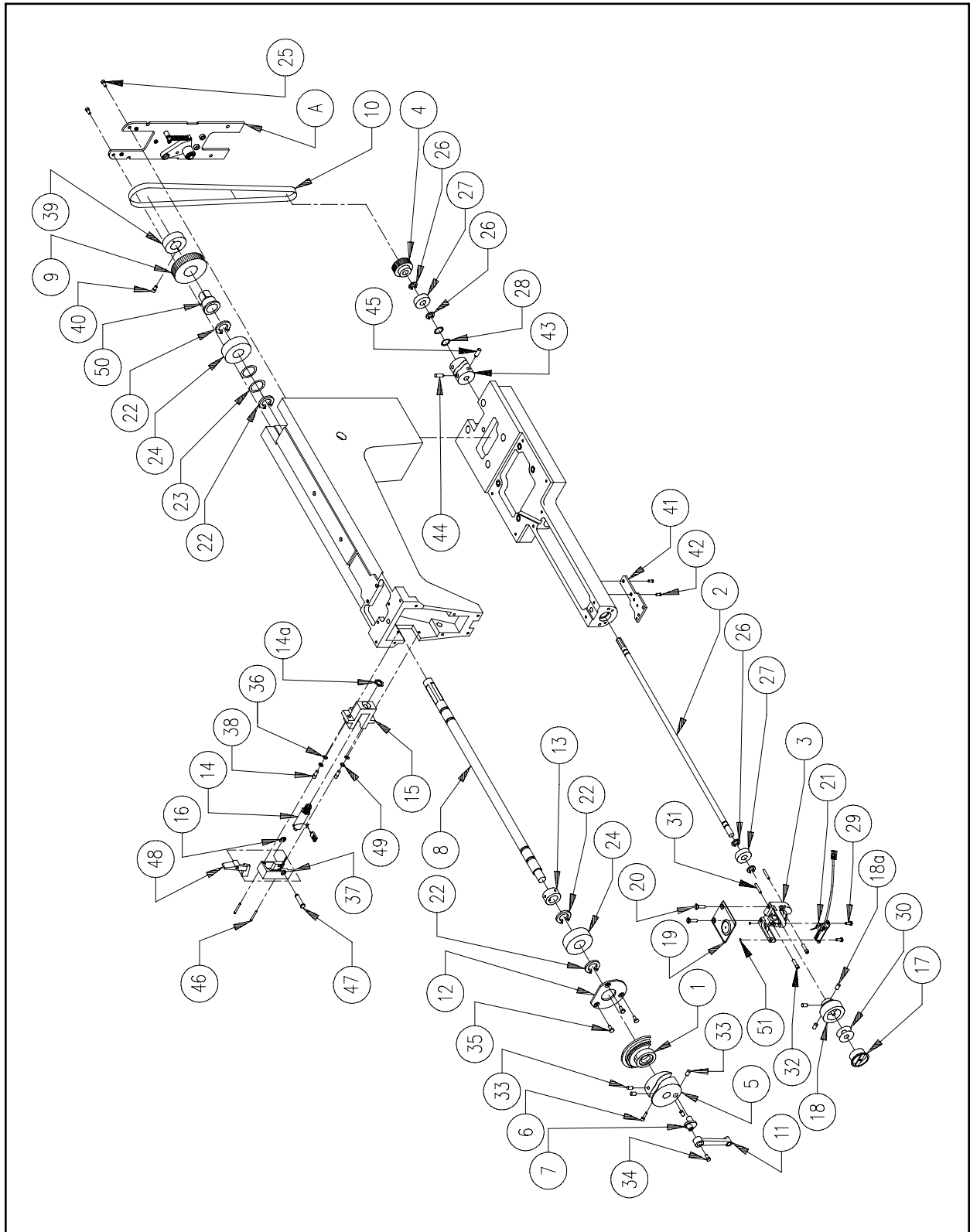

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Item No.	Part Number	Item Description	Comments
1•	007080-01	Knob, Adjust, Pretensioner, Plastic	
2•	003654-01	Spring, Pretensioner	
3•	005137-01	Disk, Pretensioner	
4•	007531-01	Post, Pretensioner	
5#	007524-01	Bracket, Pretensioner	
6#	009401-01	Bracket, Tensioner	
7#	009415-04	PCB, Thread Break, Assembly	
8#	001924-06	Screw, Cheese Head, Slotted, M4 x 0.7 x 6mm	
9	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
10*	005196-01	Base, Tensioner	
11*	004854-01	Spring, Tensioner, Thread	
12*	005422-01	Cap, Spring	
13*	005197-01	Knob, Tensioner, Black, Assembly	
14#	003560-01	Tab, Tensioner	
15*	005198-02	Pad, Felt, .095" Thick	
16*	005198-01	Pad, Felt, .065" Thick	
17*	006474-01	Disk, Tensioner, Thread, Assembly	
18*	004908-01	Disk, Plastic	
19*	004897-01	Post, Tensioner	
20*	007559-01	Spring, Check, Tensioner, Thread	
21#	007529-01	Collar, Tensioner, Assembly	
22#	001922-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm, Zinc Plate	
23#	010373-01	Cover, LED, Yellow	
24#	008481-01	Guide, Thread, Upper, Assembly	
25#	003509-06	Screw, Button Head Cap, M4 x 0.7 x 6mm	
26#	002897-01	Post, Guide	
27	007659-02	Standoff, M-F, 3/16" Round	
28#	008468-01	Pigtail	
29#	010568-01	Screw, Plastifast, 2-32 x 1/4"	
30#	690034-32	Washer, Flat #2	
31	010577-02	Clamp, Ribbon Cable, 3.31"	
32	010620-01	Insulator, Thread Break	
33	001924-10	Screw, Cheese Head Slotted, M4 x 0.7 x 10mm	
34	010917-01	Re-inforcement, Self-Adhesive	
35	011351-01	Bushing, Tensioner	
36#	009317-01	Cable, Ground, Pan, 4.75"	
37#	009863-10	Screw, Pan Head Phillips, ⁄Star, M4 x 0.7 x 10mm	

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

- \*007547-01 Tensioner, Thread, Main, Black, Assembly
- 007530-01 Pretensioner, Assembly
- #10153 Tensioner, EMT, Assembly (includes 007547-01 and 007530-01)

# Arm and Bed



**Figure 14**

<b>Arm and Bed</b>			<b>Reference Figure 14</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	004504-01S	Bobbin Idler	See Page 16-1
1	003539-01	Counterweight, Phase II	
2	003535-01	Shaft, Bobbin, Phase II	
3	005601-01	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*	005332-01	Pulley, Adjustable, 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	008395-01	Solenoid, Jump Stitch	
14a	-----	Nut, Panel	Included in Item #14
15	006561-01	Bracket, Jump Stitch Solenoid	
16•	001955-14	Ring, Retaining, External	
17	004267-01	Case, Bobbin, <sup>wo</sup> /Spring	
18	009000-01	Hook, Rotary, Small Bobbin	
18a	341992-06	Screw, Rotary Hook	
19	10246	Plate, Needle, Pocketed	
19a	006579-01	Plate, Needle, Raised	(not shown)
20	004643-01	Screw, Needle Plate	
21	010107-01	Sensor, Under Thread Control, Assembly	
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	003136-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
30	761002-11	Thread, Bobbin, White	
31	006390-12	Pin, Dowel, 3mm OD x 12mm	
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	

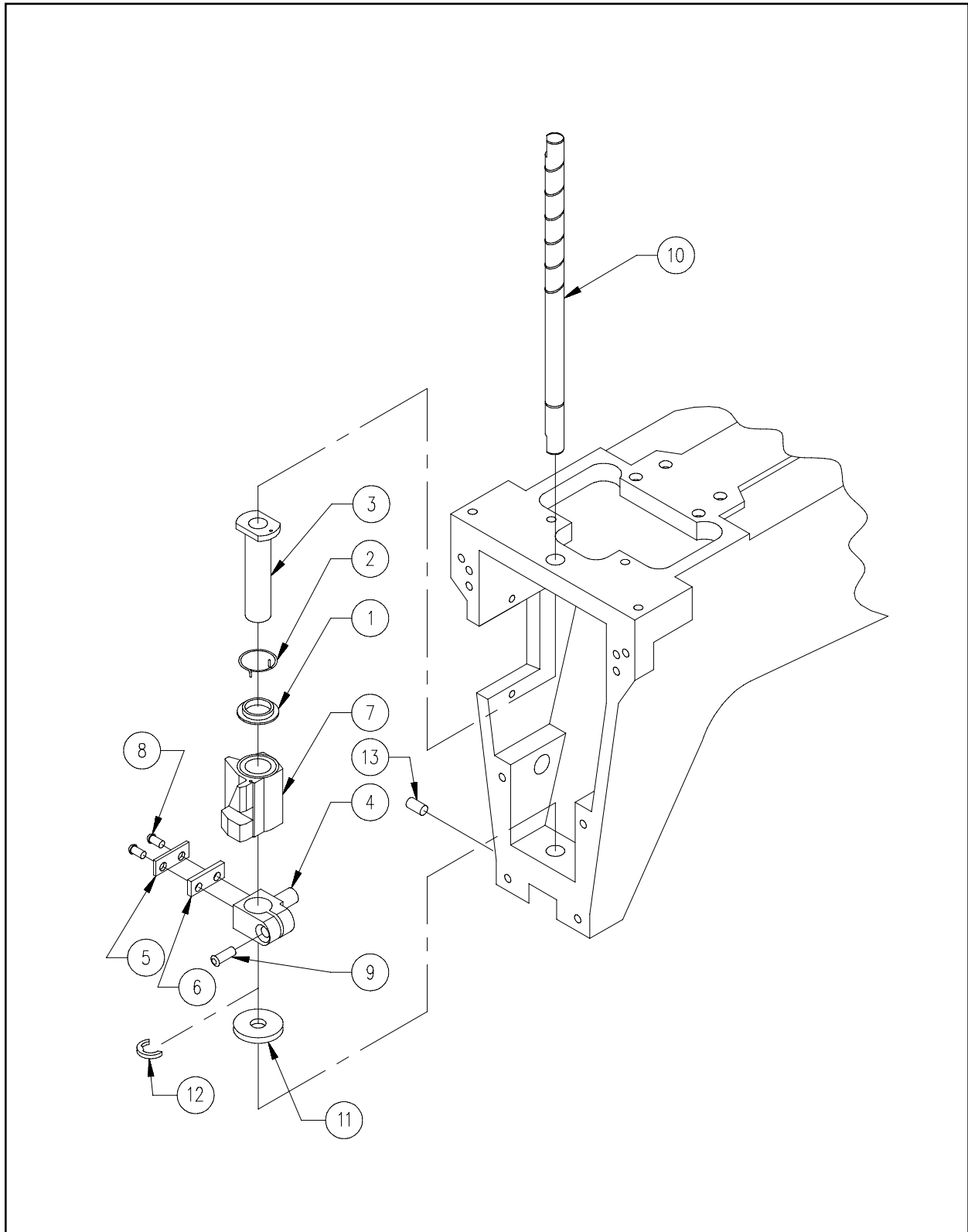
<b>Arm and Bed</b>		<b>Reference Figure 14</b>	
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
36	702946-30	Spacer, Shaft, .187" ID x .312" OD x .03" Thick	
37•	006560-01	Bracket, Latch	
38	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
39	002668-01	Collar, Support, Gear	
40	670038-10	Screw, Socket Head Cap, 10-32 x 5/8"	
41	006526-01	Bracket, Picker	
42	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
43	007257-01	Cam, Trimmer	(#up to s/n 17033)
	10183	Cam, Trimmer	(#s/n 17034 and above)
44	001927-10	Screw, Set, Flat Point, M5 x 0.8 x 10mm	
45	007272-10	Screw, Set, Cone Point, M5 x 0.8 x 10mm	
46	010170-20	Screw, Socket Head Cap, M3 x 0.5 x 20mm, Zinc Plate	
47•	006559-01	Pin, Latch	
48•	002876-21	Latch, Jump Stitch	
49	690427-04	Washer, Lock, Split, M4	
50*	005331-01	Pulley, Hub, Adjustable	
51	006549-03	O-Ring, .187" ID x .06" Thick	

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

- \*005191-01 Pulley, Adjustable, Assembly
- 007340-01 Bracket, Latch, Jump Stitch, Assembly
- #These serial numbers are for the head only, not the machine.

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# Reciprocator



**Figure 15**

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**Reciprocator** **Reference Figure 15**


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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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

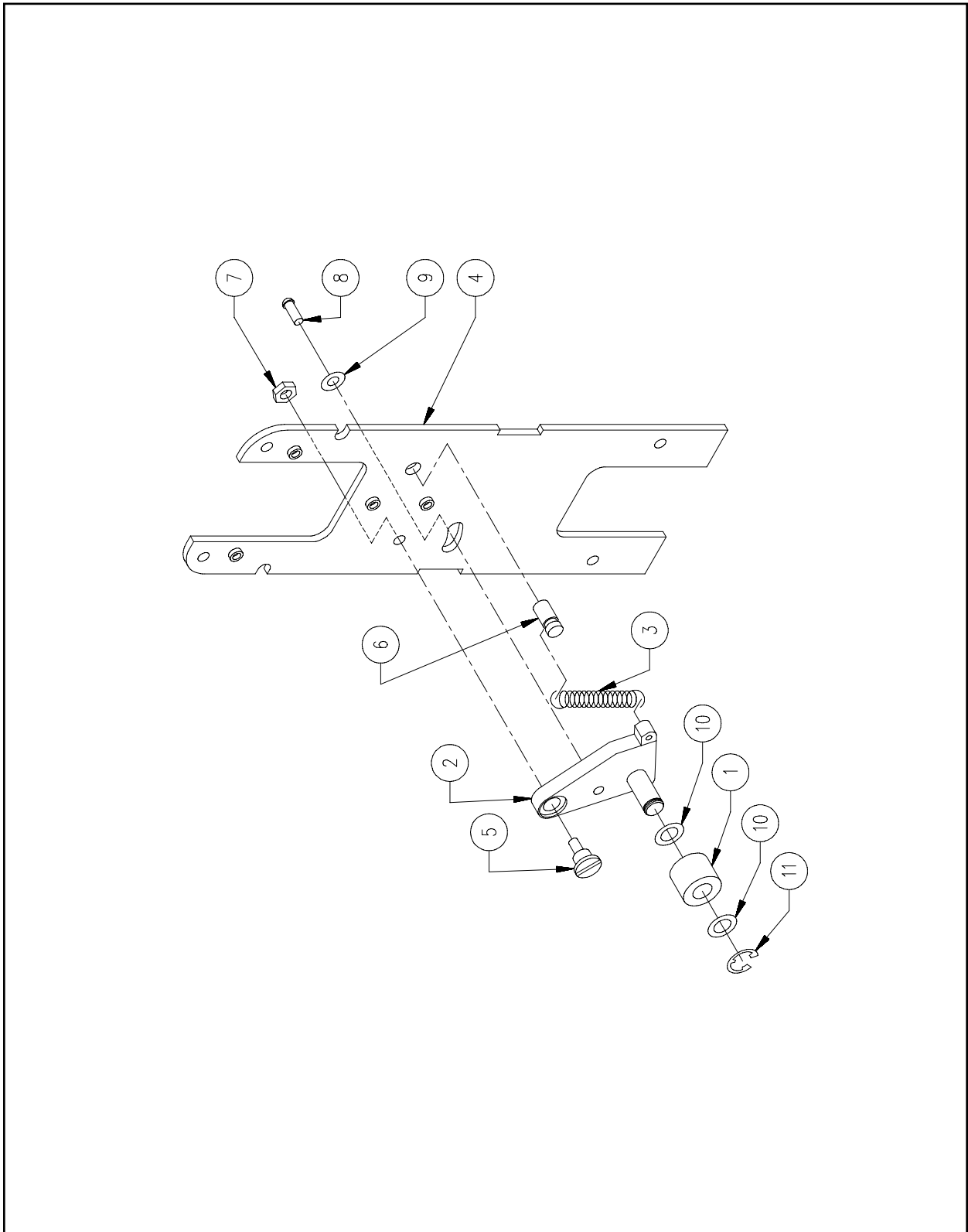


Figure 16



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**Bobbin Idler** **Reference Figure 16**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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

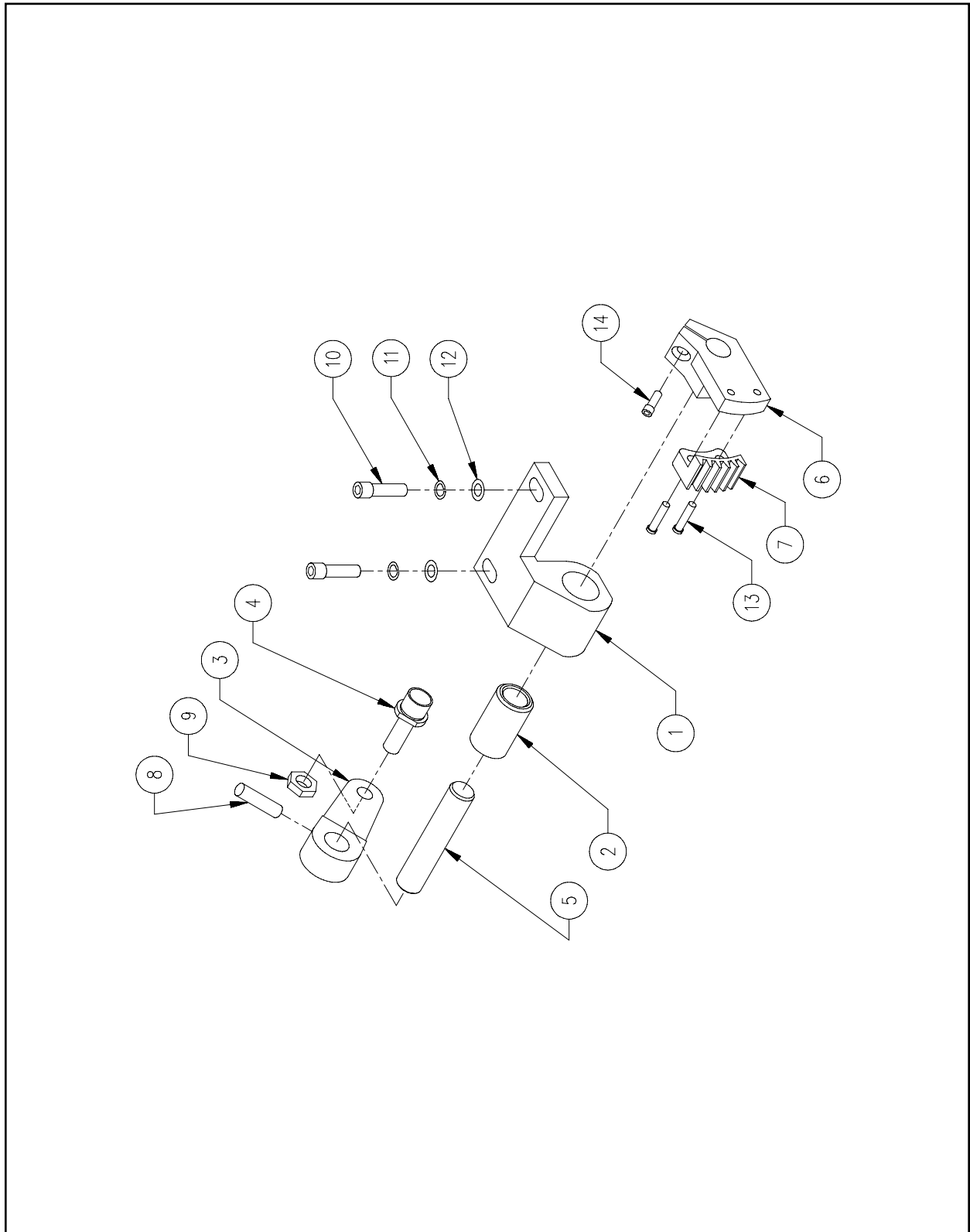


Figure 17

**Take-Up Drive Lever****Reference Figure 17**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	003567-01	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	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, 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	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	

Note:

The following can be replaced as a factory built assembly:

- \*005362-01 Assembly, Bushing, Take-Up Lever
- 004768-01 Lever, Drive, Lever, Take-up, Assembly

# Grabber Motor

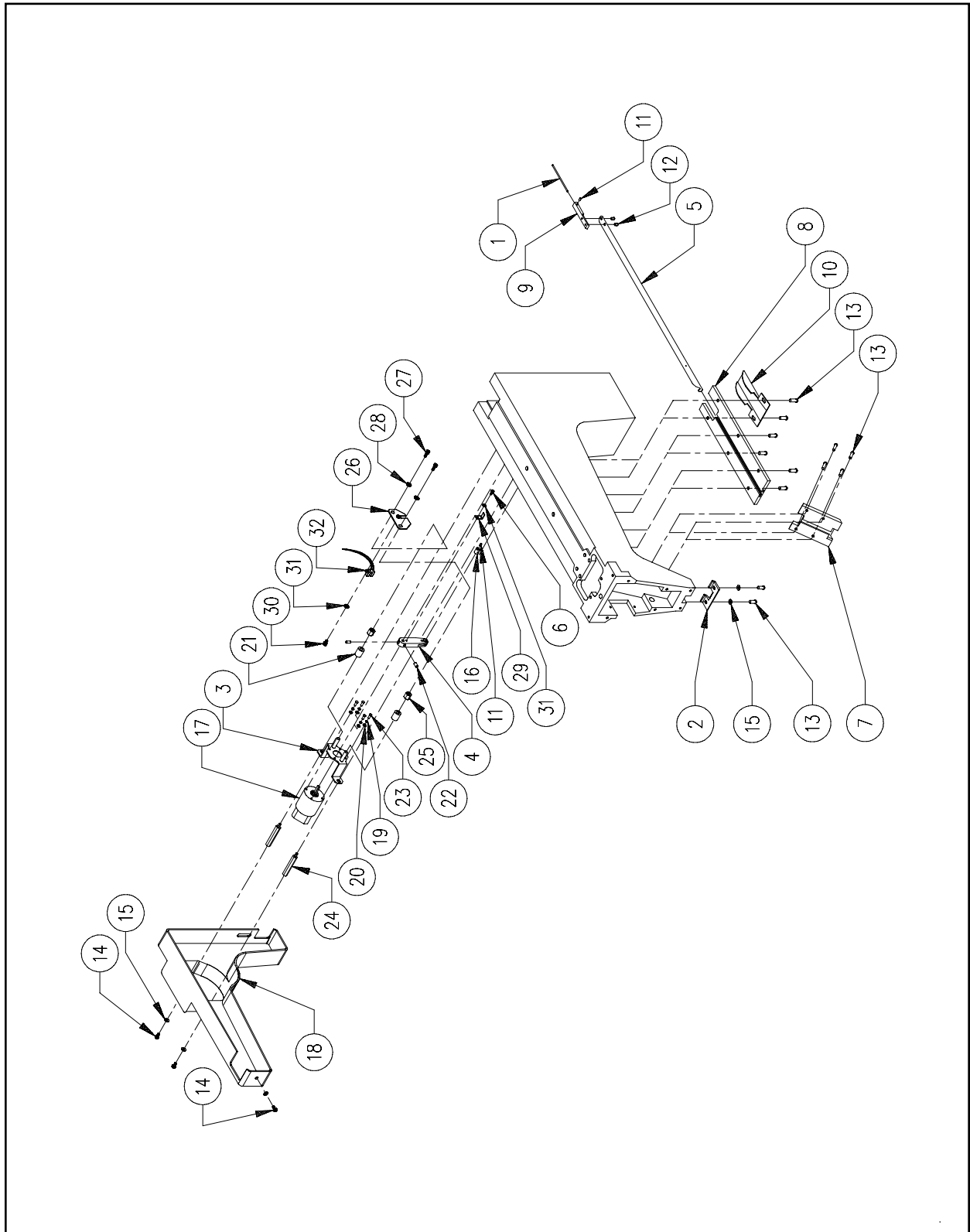


Figure 18

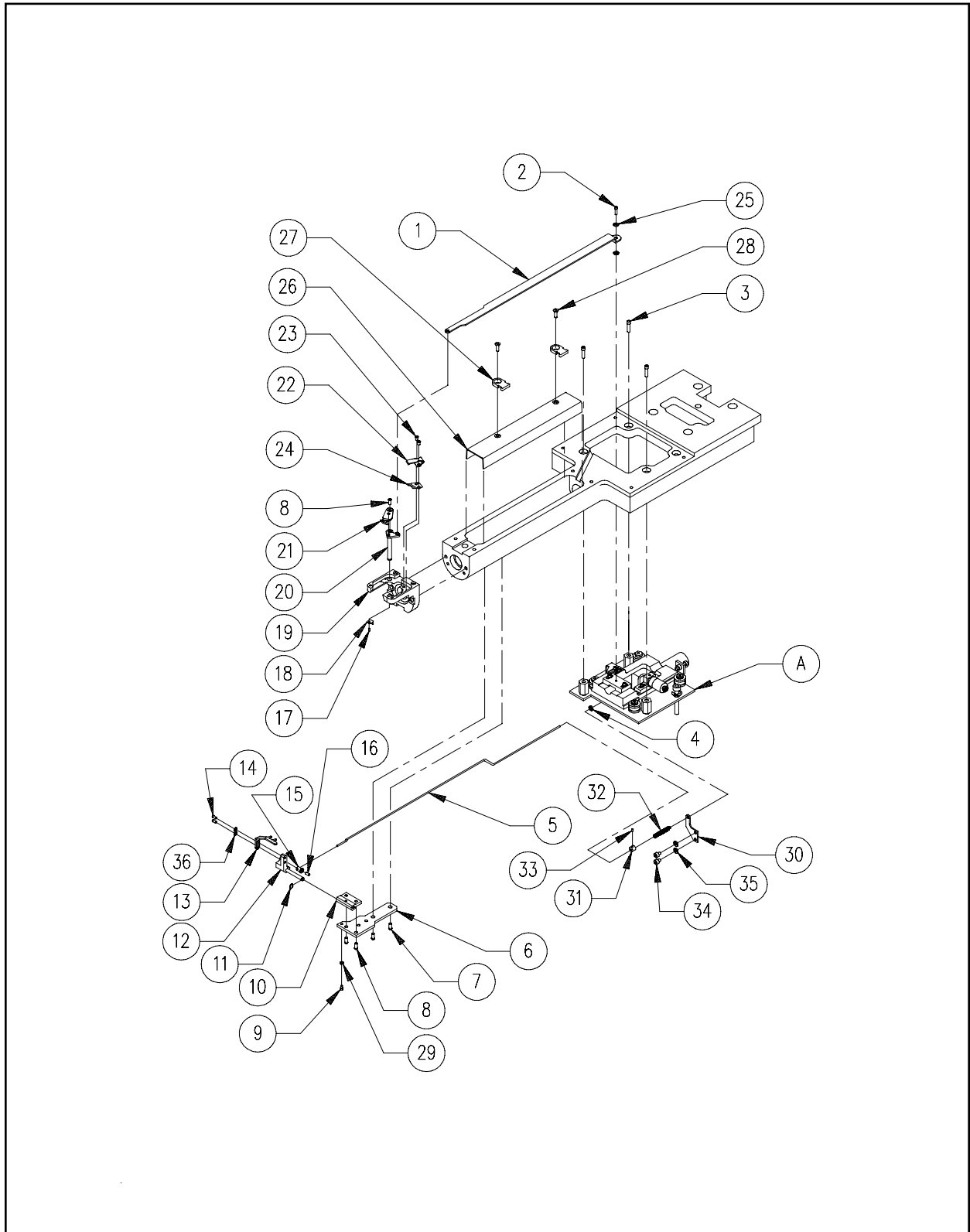
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**Grabber Motor** **Reference Figure 18**


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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	003185-01	Rod, Guide	
2	10156	Guide, Grabber	
3	003676-01	Bracket, Mounting, Grabber Drive	
4	003692-01	Arm, Drive, Grabber	
5	003586-01	Blade, Grabber	
6	003136-06	Screw, Button Head Cap, M3 x 0.5 x 6mm	
7	10157	Cover, Blade, Front	
8	003589-01	Cover, Blade, Top	
9	003590-01	Bracket, Transition	
10	003592-21	Cover, Blade, Rear	
11	001962-03	Screw, Set, Flat Point, M3 x 0.5 x 3mm	
12	670406-02	Screw, Button Head Cap, 4-40 x 1/8"	
13	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
14	010171-08	Screw, Socket Head Cap, M4 x 0.7 x 8mm, Zinc Plate	
15	690439-04	Washer, Flat, M4	
16	003155-01	Swivel, Wire	
17	010149-01	Motor/Encoder, Assembly	
18	010423-02	Cover, Drive, Grabber Motor	
19	690033-32	Washer, Lock, Split, #2	
20	690034-32	Washer, Flat, #2	
21	003176-01	Bumper, Motor Stop	
22	001960-04	Screw, Set, Flat Point, M4 x 0.7 x 4mm	
23	670174-04	Screw, Pan Head Phillips, 6-32 x 1/4"	
24	009894-48	Standoff, M/F, Hex, M4 x 0.7 x 48mm	
25	009893-14	Standoff, F/F, Hex, M5 x 0.8 x 10mm	
26	009816-01	Plate, Mounting, Grabber Home	
27	010172-08	Screw, Socket Head Cap, M5 x 0.8 x 8mm, Zinc Plate	
28	690427-05	Washer, Lock, Split, M5	
29	009817-01	Flag, Home, Grabber	
30	010170-08	Screw, Socket Head Cap, M3 x 0.5 x 8mm, Zinc Plate	
31	690427-03	Washer, Lock, Split, M3	
32	010380-01	Switch, Optical, Assembly	

# Cutter/Picker



**Figure 19**

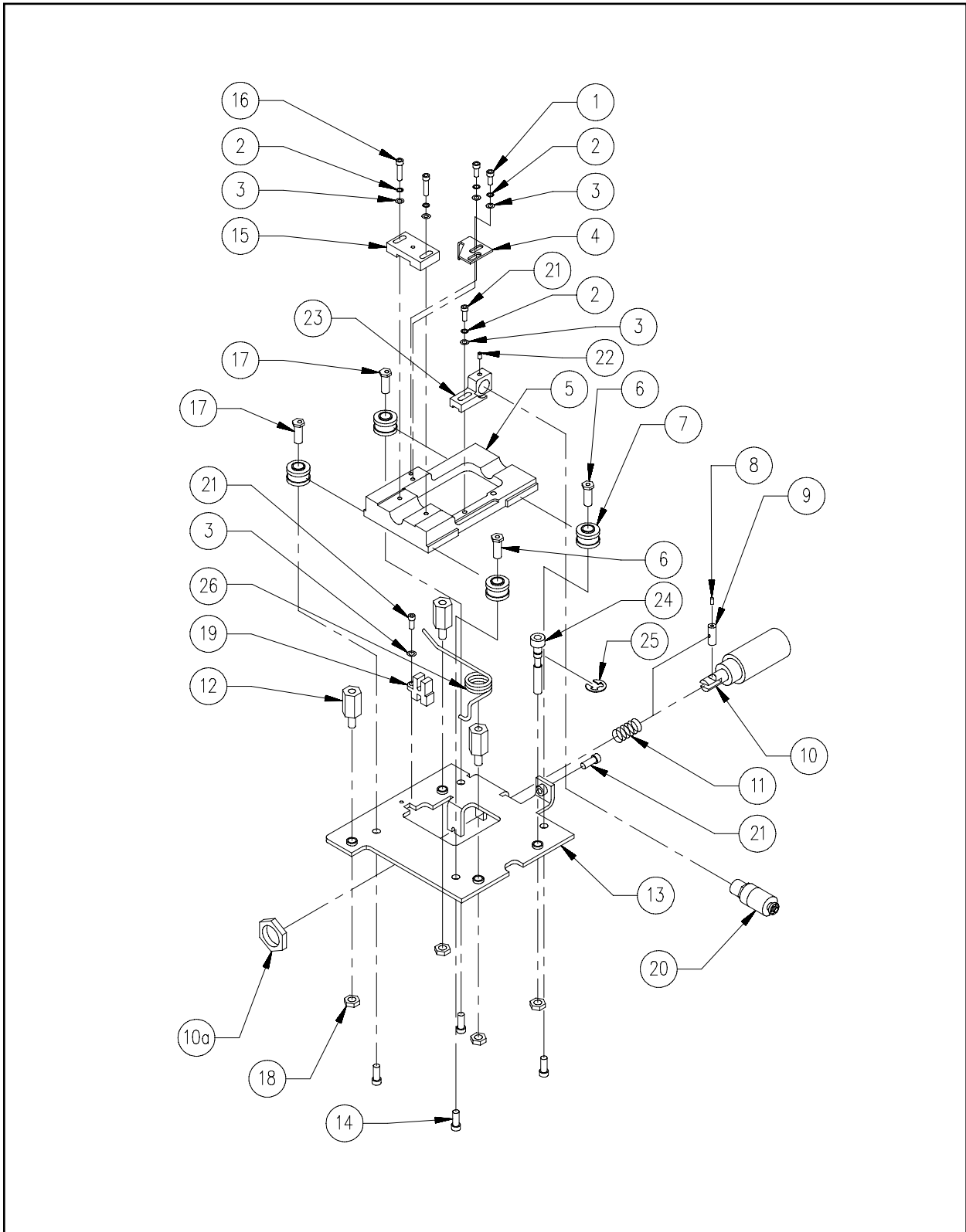
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**Cutter/Picker** **Reference Figure 19**


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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	007265-01	Trimmer Drive	See Page 20-1
1	010609-01	Link, Connecting	
2	003679-01	Screw, Shoulder, 4-40 x 1/8" OD x 1/8"	
3	010172-16	Screw, Socket Head Cap, M5 x 0.8 x 16mm, Zinc Plate	
4	690364-32	Washer, Flat, #2, .032" Thick	
5	010355-01	Link, Connecting, Picker	
6	006526-01	Bracket, Picker	
7	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
8	007443-06	Screw, Flat Head Socket, M3 x 0.5 x 6mm	
9	010170-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm, Zinc Plate	
10	003511-01	Mount, Picker	
11	001955-08	Ring, Retainer, External, .125"	
12	003141-01	Base, Picker	
13	005615-01	Picker	
14	010170-06	Screw, Socket Head Cap, M3 x 0.5 x 6mm, Zinc Plate	
15	003131-01	Pin, Swivel, Front	
16	001962-03	Screw, Set, Flat Point, M3 x 0.5 x 3mm	
17	006305-01	Screw, Cheese Head, M2 x 0.4 x 3mm	
18	003685-01	Clip, Fixing, Drive Arm	
19	005601-01	Bracket, Needle Plate	
20	005602-01	Arm, Drive, Movable Knife	
21	005617-01	Knife, Movable	
22	005600-01	Knife, Spring, Fixed	
23	003136-04	Screw, Button Head Socket, M3 x 0.5 x 4mm	
24	006671-01	Presser, Under Thread	
25	005098-01	Spacer, Shaft, .128" ID x .317" OD x .03" Thick	
26	006387-01	Bracket, Bed, Cable	
27	004550-01	Mount, Cable Tie	
28	001926-10	Screw, Flat Head Socket, M4 x 0.7 x 10mm	
29	010178-03	Nut, Hex, M3	
30	008465-01	Bracket, Spring, Mount	
31	008467-01	Collar, Picker	
32	010892-01	Spring, Picker, Front	
33	003123-03	Screw, Set, Cup Point, M3 x 0.5 x 3mm	
34	010170-06	Screw, Socket Head Cap, M3 x 0.5 x 6mm, Zinc Plate	
35	690427-03	Washer, Lock, Split, M3	
36	690811-34	Washer, Internal Star, #4	

# Trimmer Drive



**Figure 20**



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**Trimmer Drive** **Reference Figure 20**

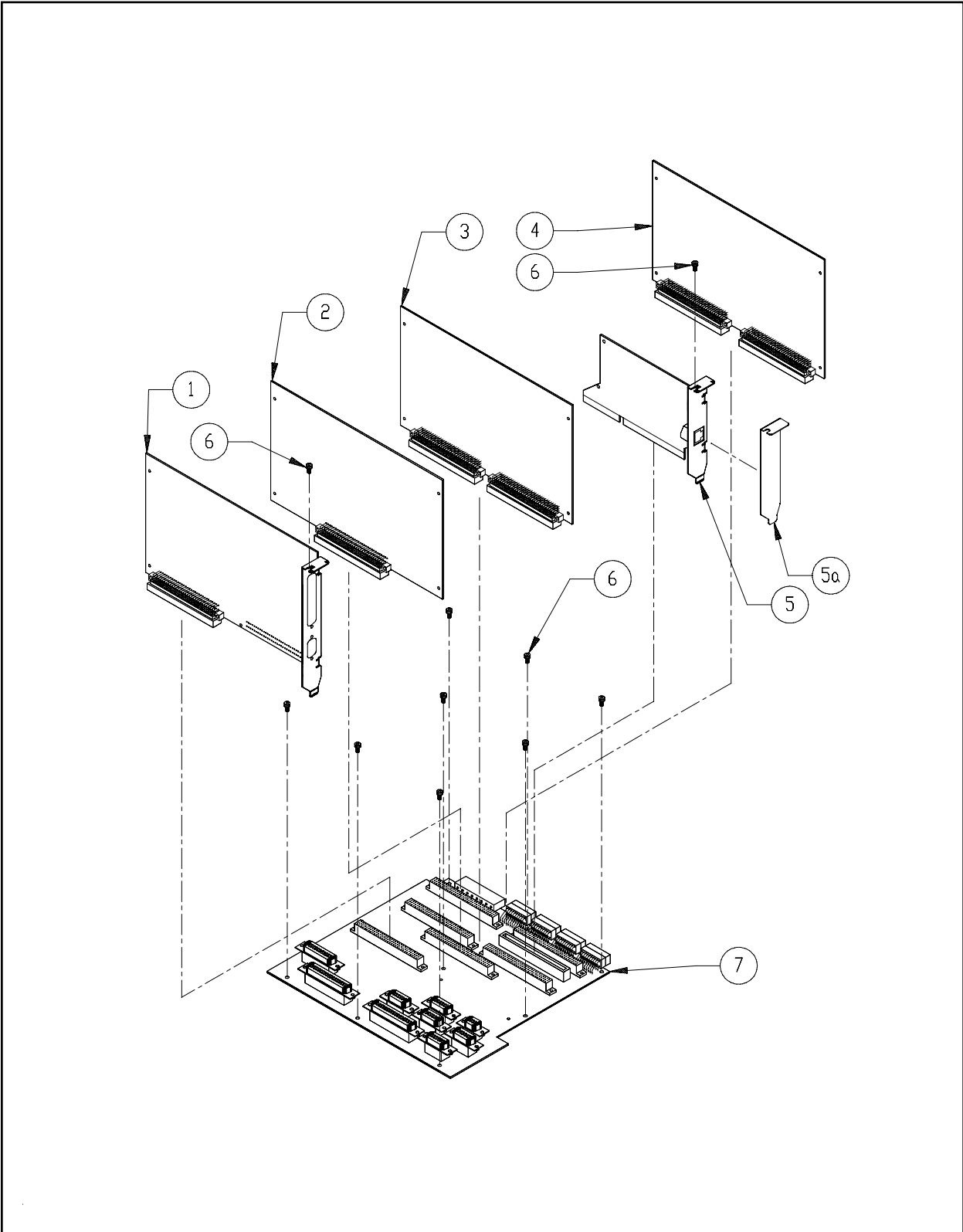

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Item No.	Part Number	Item Description	Comments
1	010170-06	Screw, Socket Head Cap, M3 x 0.5 x 6mm, Zinc Plate	
2	690427-03	Washer, Lock, Split, M3	
3	690439-03	Washer, Flat, M3	
4	010693-01	Bracket, Switch, Adjusting	
5	007258-01	Frame, Movable, Machined	
6	005661-01	Shaft, Roller, Movable Frame	
7	005669-01	Roller, Movable, Frame	
8	001962-06	Screw, Set, Flat Point, M3 x 0.5 x 6mm	
9	003627-01	Clamp, Swivel, Picker	
10*	007273-01	Picker, Solenoid, Assembly	
10a	-----	Nut, Panel, Solenoid	(Included with Item 10)
11	003686-01	Spring, Return, Solenoid	
12	004746-01	Standoff, 10mm Hex, M-F, M5 x 0.8 x 16mm	
13	007259-01	Bracket, Solenoid, Mounting	
14	670174-08	Screw, Pan Head Phillips, 6-32 x 1/2 "	
15	005609-01	Plate, Link Adjusting	
16	010170-14	Screw, Socket Head Cap, M3 x 0.5 x 14mm, Zinc Plate	
17	005661-02	Shaft, Roller, Movable Frame	
18	680430-05	Nut, Hex, M5	
19*	007264-01	Switch, Optical, Assembly	
20*	007262-01	Solenoid, Trimmer, Assembly	
21	010170-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm, Zinc Plate	
22	001962-03	Screw, Set, Flat Point, M3 x 0.5 x 3mm	
23	007255-01	Mount, Solenoid, Trimmer	
24	007256-01	Bolt, Adjuster, Trimmer	
25	001955-15	Ring, Retaining, External, .188 "	
26	009202-01	Spring, Trimmer Home	

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

\*007261-01 Trimmer, Picker, Solenoid, Opto, Assembly

# Electronics Cage (1 of 2)

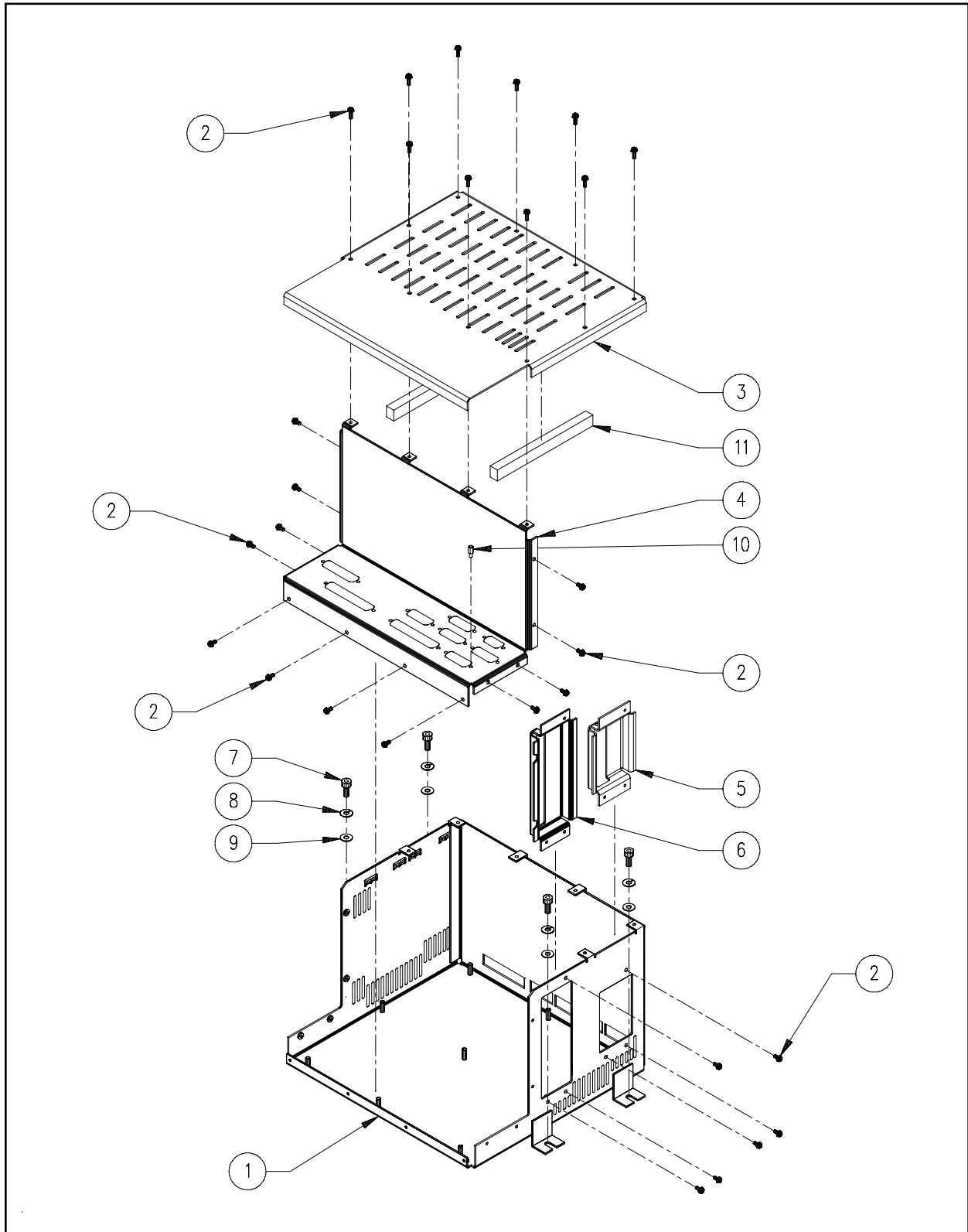


**Figure 21**

**Electronics Cage (1 of 2)****Reference Figure 21**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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)

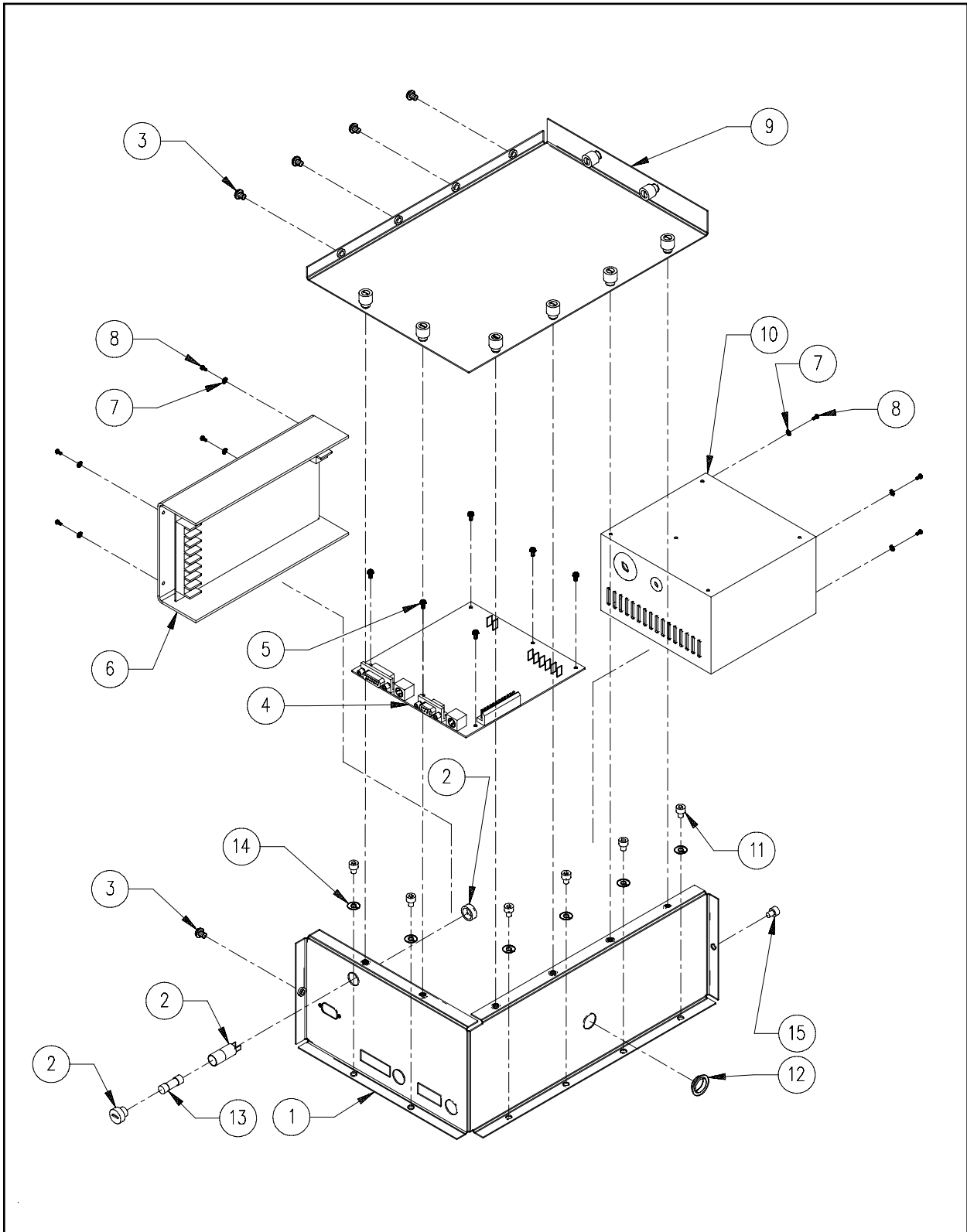


**Figure 22**

**Electronics Cage (2 of 2)****Reference Figure 22**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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	010172-12	Screw, Socket Head Cap, M5 x 0.8 x 12mm, 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 23**

**Power Distribution****Reference Figure 23**

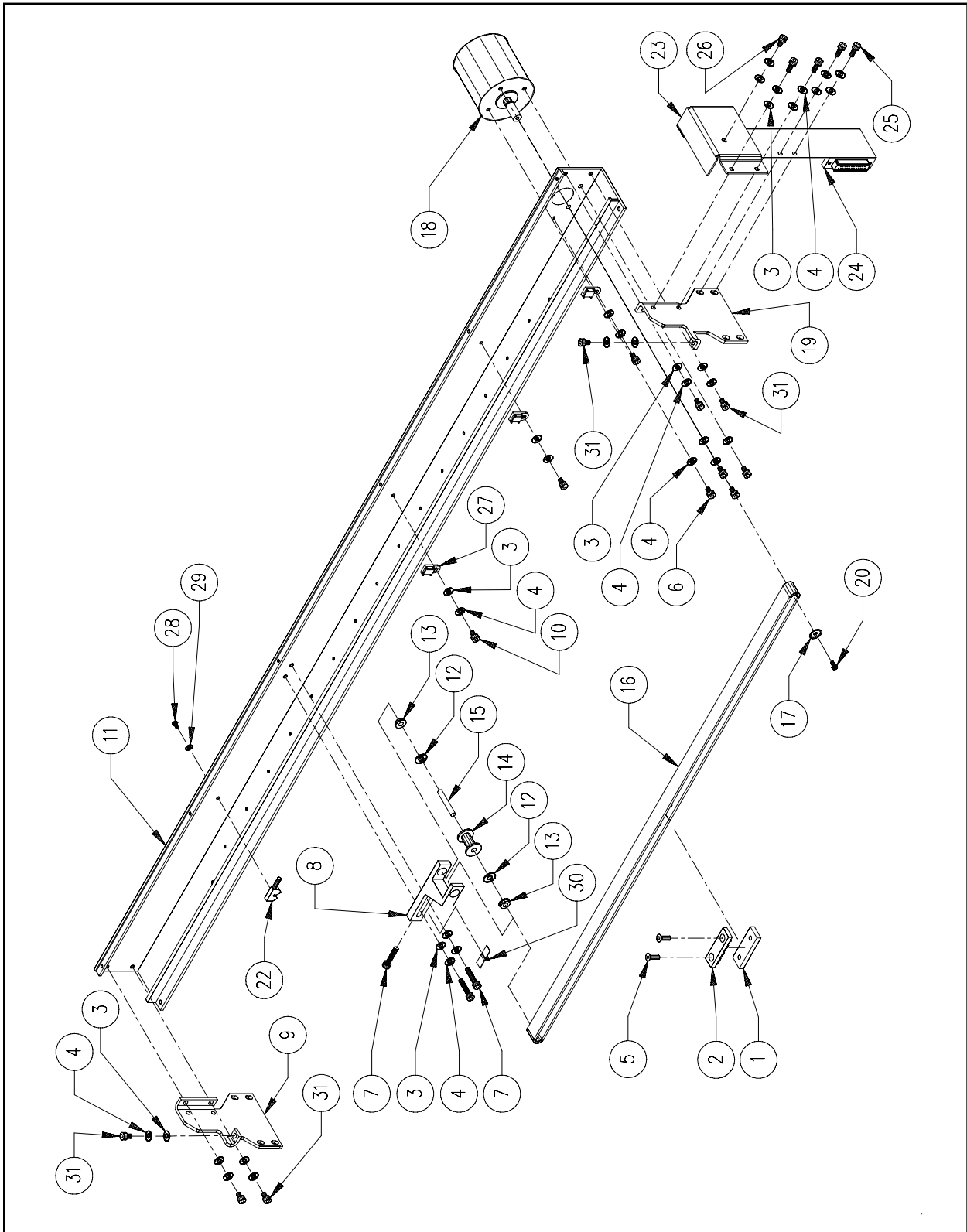
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	009959-03	Base, Power Box	
2	010340-01	Fuse, Holder	
3	010309-10	Screw, Truss Head Phillips, M5 x 0.8 x 10mm	
4*	009832-02	PCB, E-Stop	
5	009862-10	Screw, Pan Head Phillips, w/Star, M3 x 0.5 x 10mm	
6	009881-01	Supply, Power, 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 24**



**X-Beam (1 of 2)****Reference Figure 24**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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	010171-08	Screw, Socket Head Cap, M4 x 0.7 x 8mm, 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, w/Star, M3 x 0.5 x 8mm	
22	011073-01	Sensor, X-Home, Assembly	
23	010896-02	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	011336-01	Mount, Cable Tie, Nylon	
27a	340139-01	Tie, Cable, 3.1"	(not shown)
28	009862-10	Screw, Pan Head Phillips, w/Star, M3 x 0.5 x 10mm	
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	

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

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

# X-Beam (2 of 2)

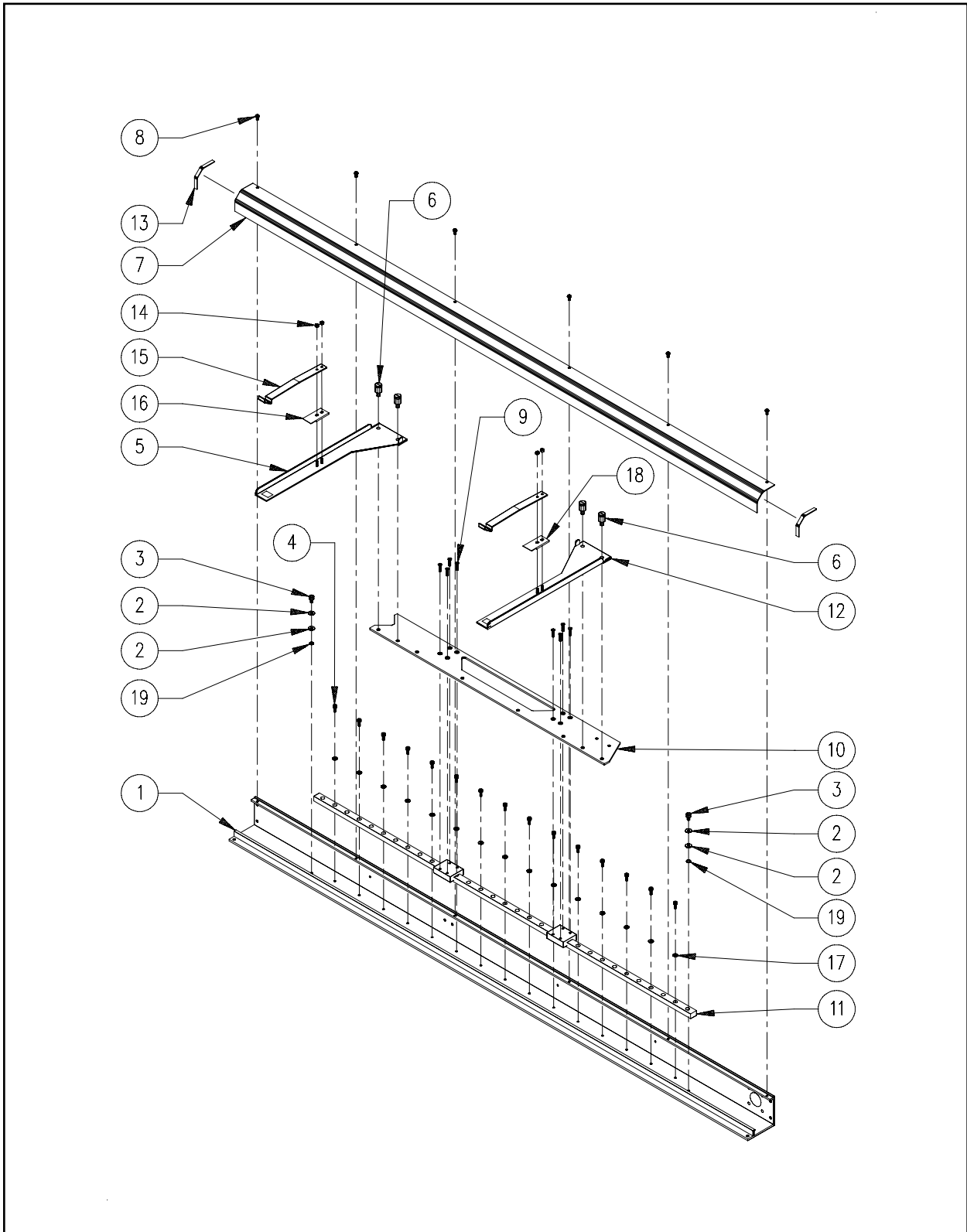


Figure 25

**X-Beam (2 of 2)****Reference Figure 25**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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	
9	005934-01	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
10	009478-02	Carriage, X-Axis Rack	
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	
19	702875-09	Spacer, Precision, 3/16" ID x .031" Thick	

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

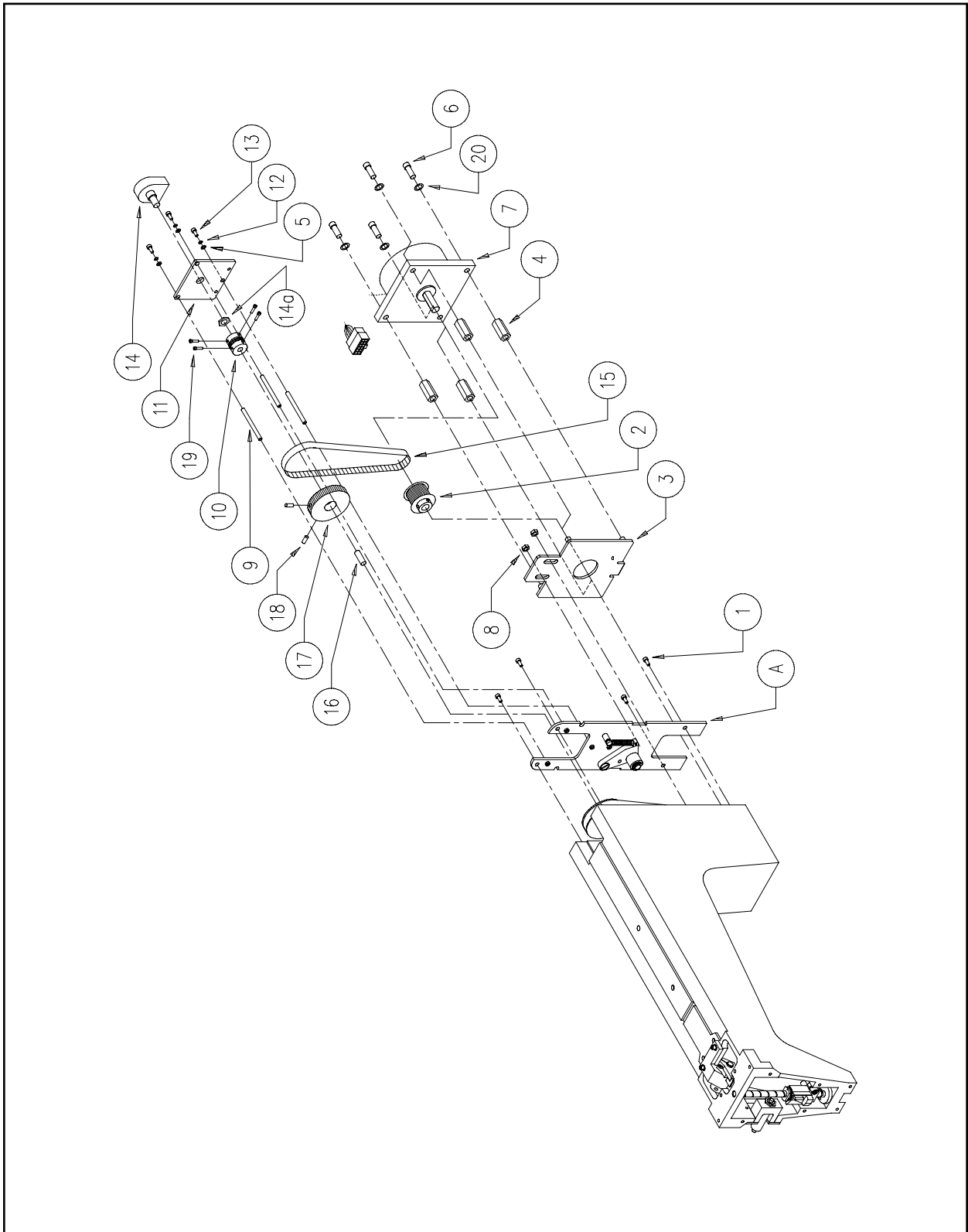


Figure 26

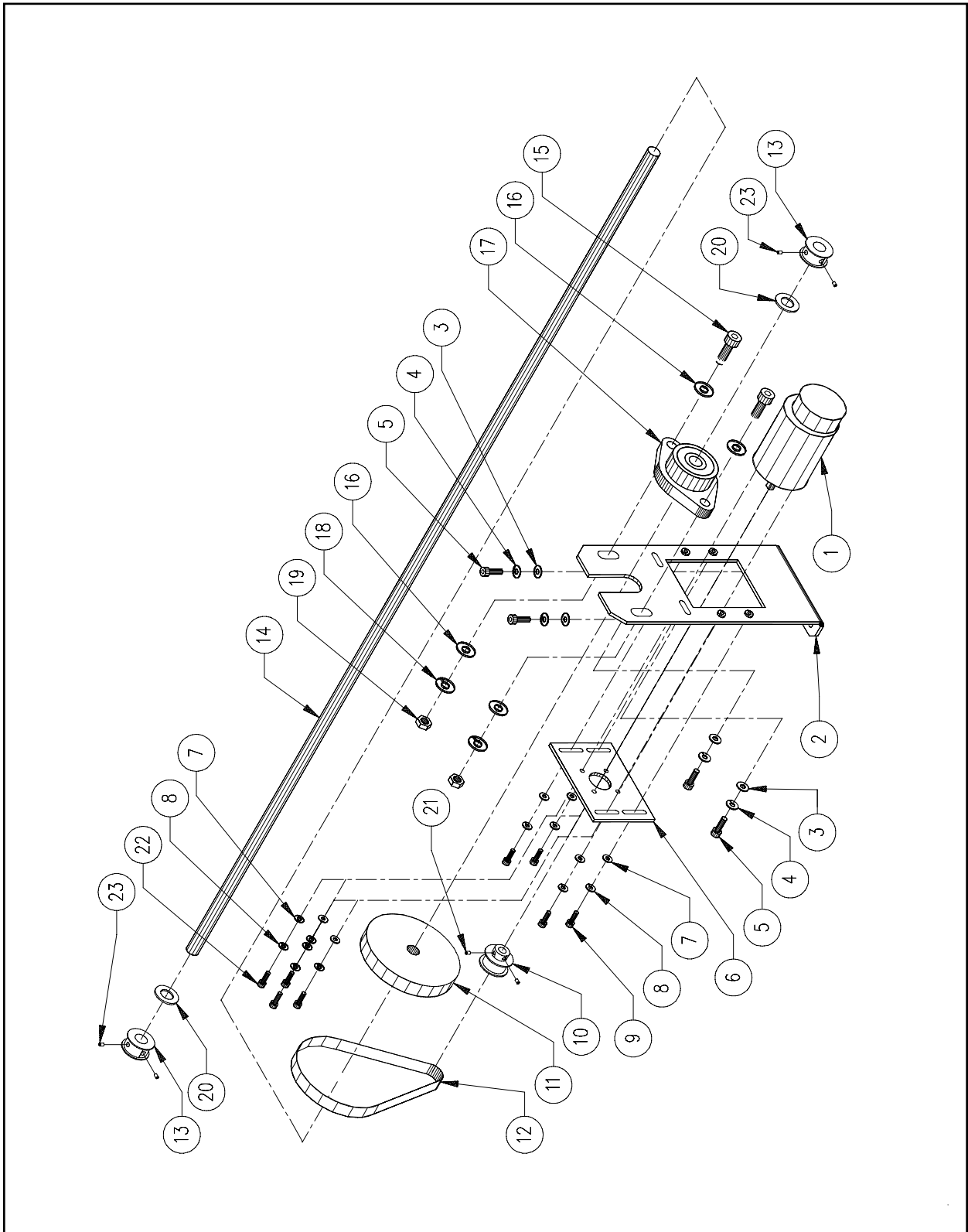
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**Z-Drive Encoder** **Reference Figure 26**


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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	004504-01S	Bobbin Idler	See Page 16-1
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	670035-10	Screw, Socket Head Cap, 1/4-20 x 5/8"	
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	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, 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"	
20	690033-04	Washer, Lock, Split, 1/4"	

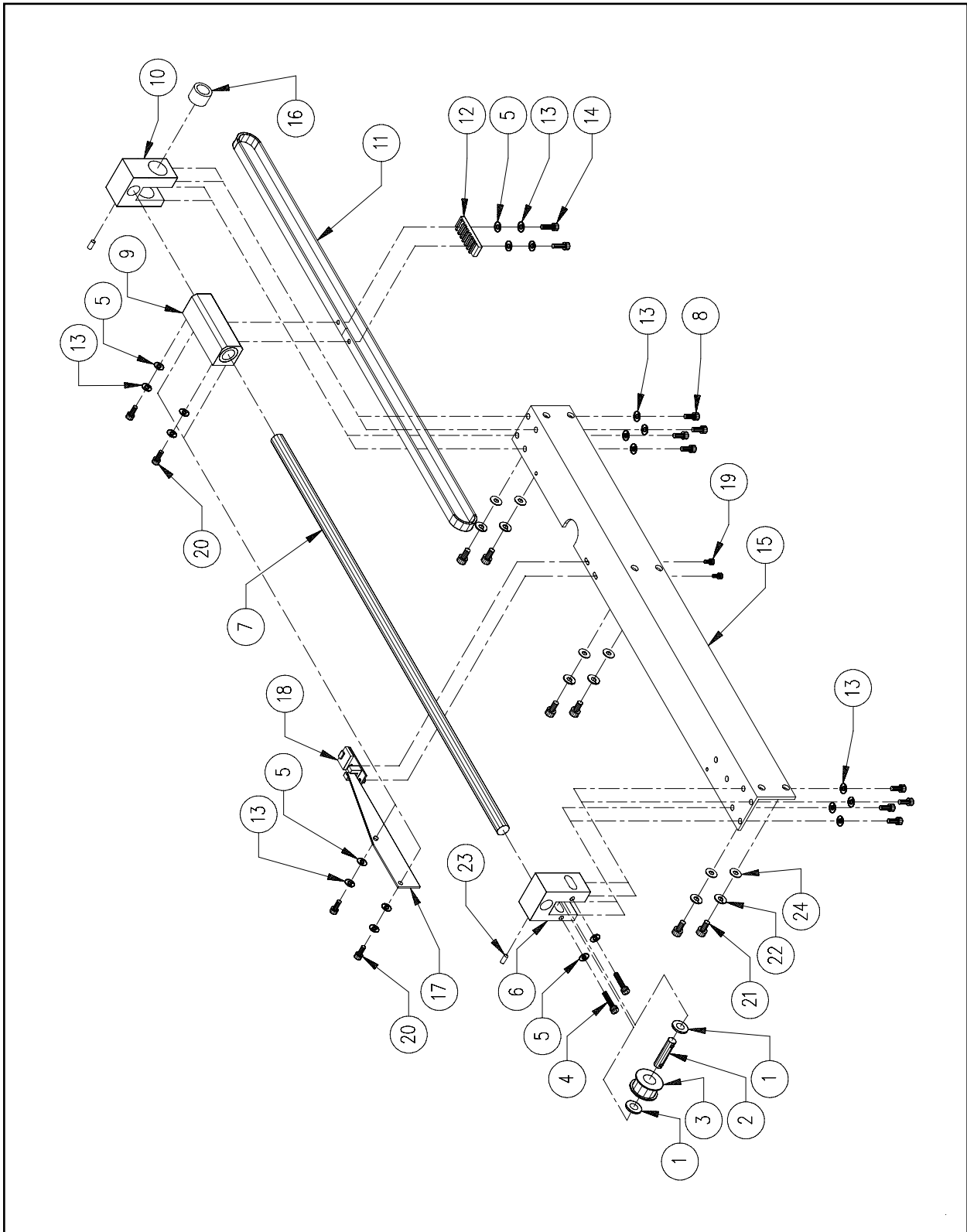
# Y-Drive



**Figure 27**

<b>Y-Drive</b>		<b>Reference Figure 27</b>	
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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" (Included with item 13)	

# Left Y-Carriage



**Figure 28**



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**Left Y-Carriage** **Reference Figure 28**

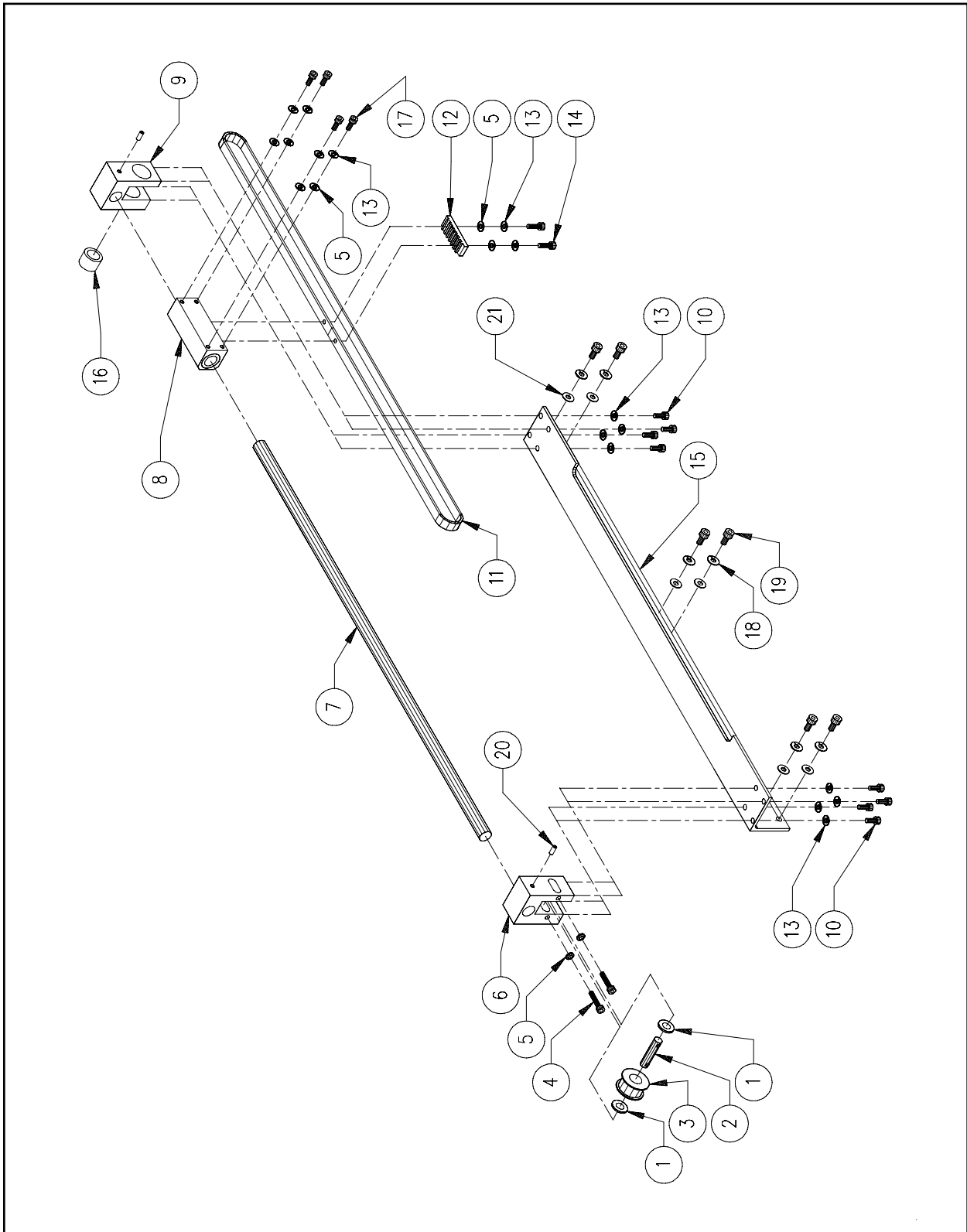

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Item No.	Part Number	Item Description	Comments
1	009465-01	Washer, AIN	
2	009483-01	Shaft, Return	
3	005289-01	Pulley, Idler, Return, Assembly	
4	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
5	690439-04	Washer, Flat, M4	
6	009481-01	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*	009482-02	Block, Drive	
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	009485-04	Bracket, Mount	
16*	010740-02	Bearing, Roller, 1/2" ID x 1/2"	
17	009891-02	Flag, Y-Limit	
18	010277-04	PCB, Y-Home, 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	001960-08	Screw, Set, Flat Point, M4 x 0.7 x 8mm	
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 29**

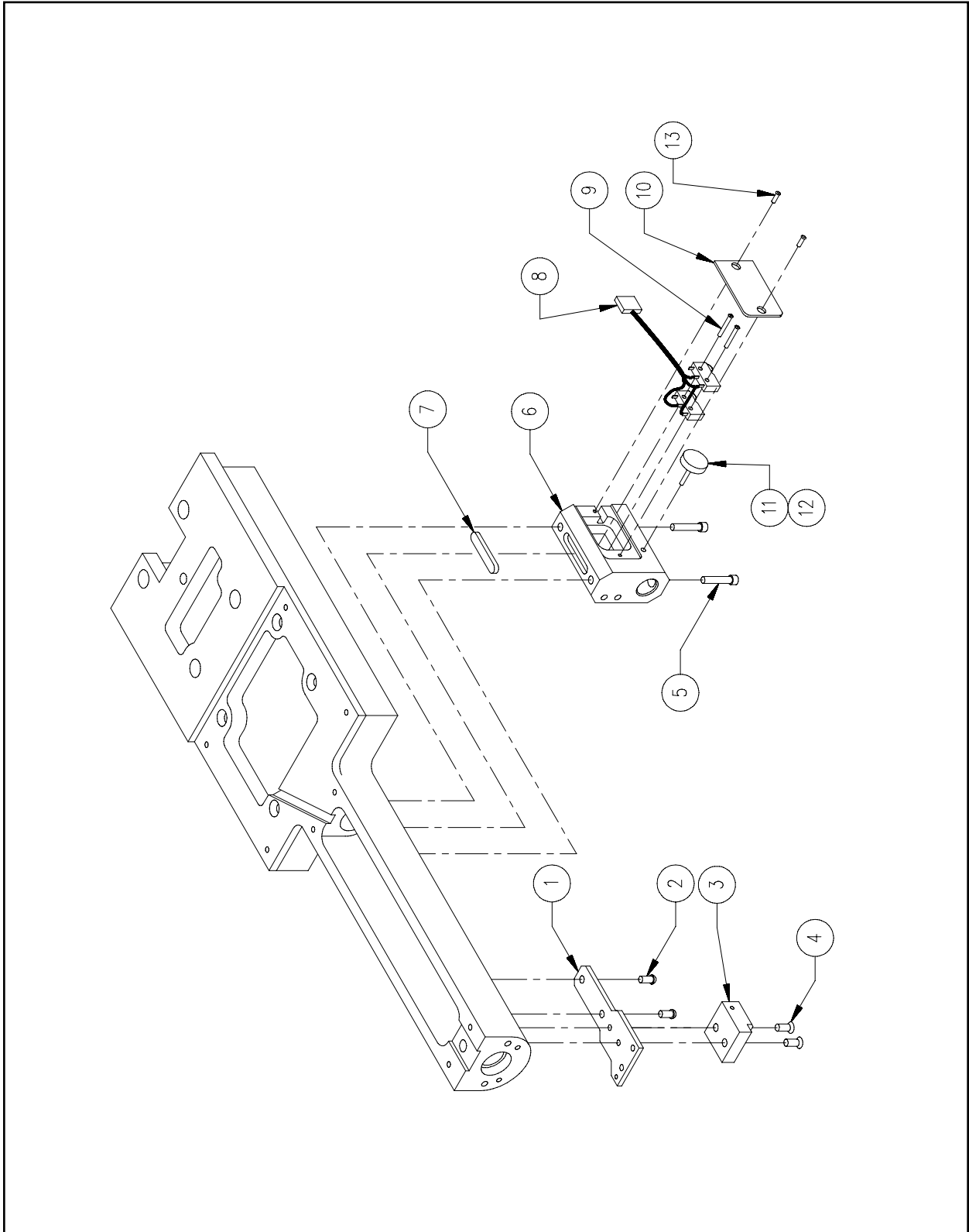
**Right Y-Carriage****Reference Figure 29**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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*	009482-02	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	001960-08	Screw, Set, Flat Point, M4 x 0.7 x 8mm	
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 30**

**Cap Frame Mounts****Reference Figure 30**

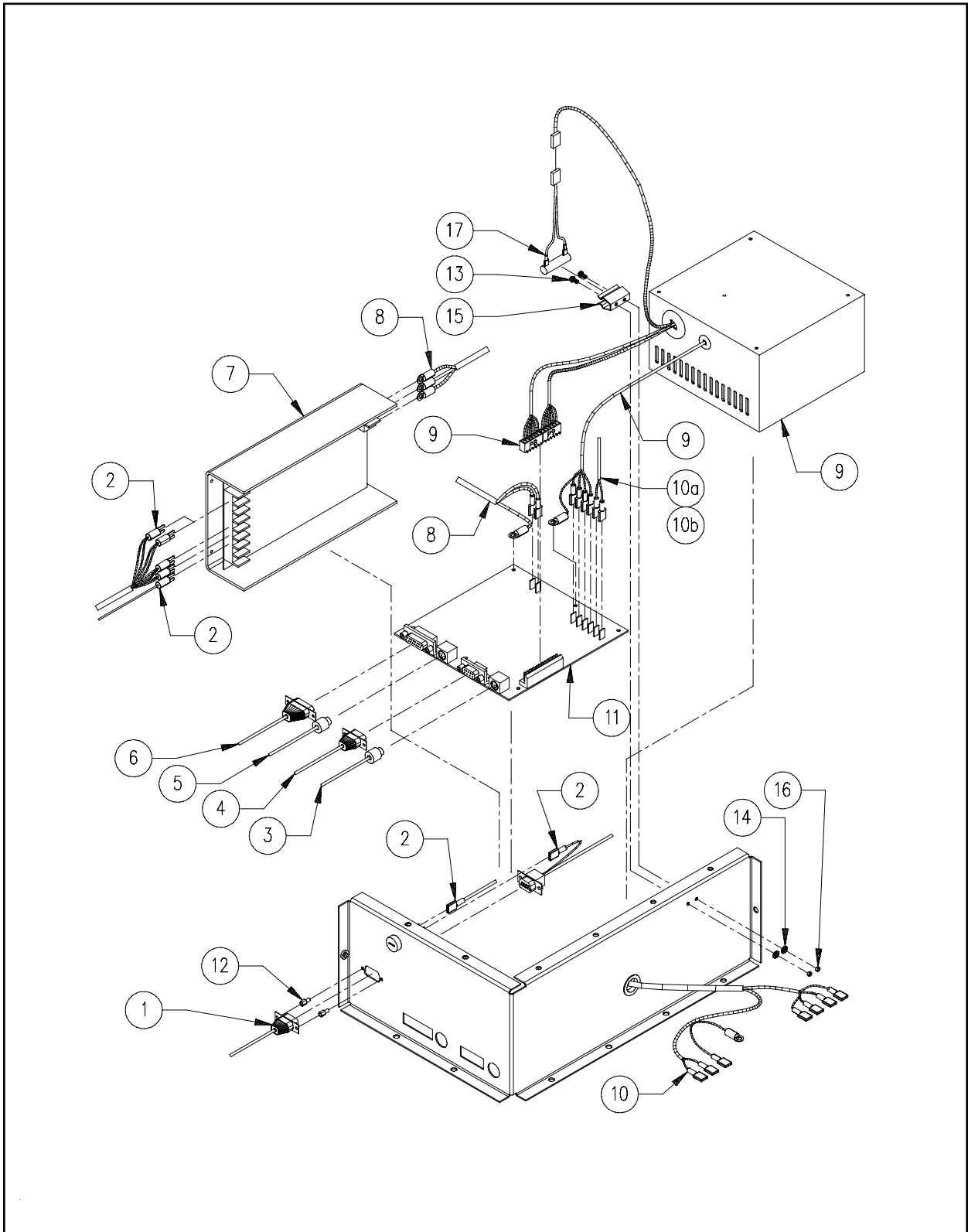
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	006526-01	Bracket, Picker	
2	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mmg	
3	006523-02	Mount, Dove Tail, Cap Frame	
4	001926-12	Screw, Flat Head Socket, M4 x 0.7 x 12mm	
5	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 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

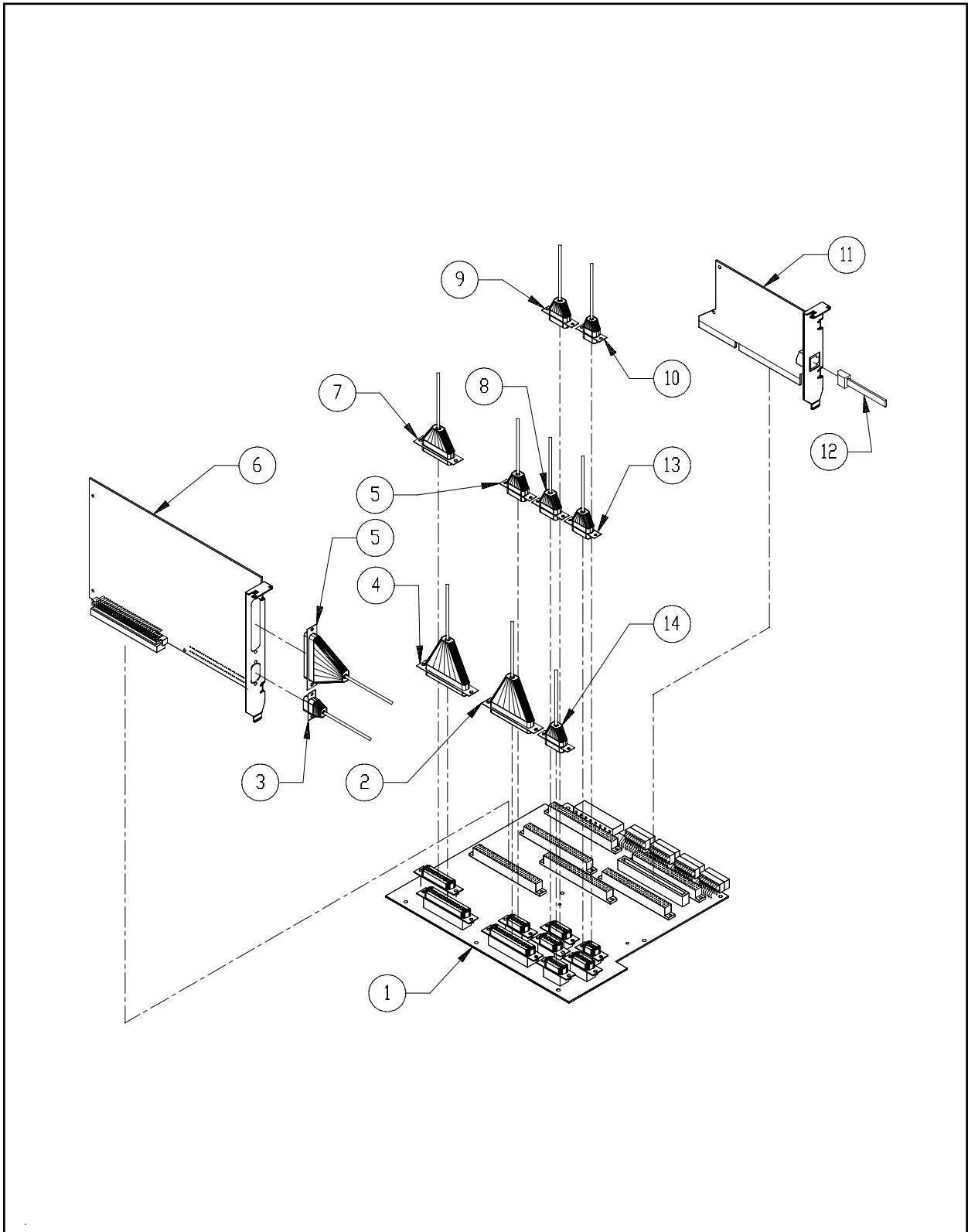
## Harnesses (1 of 3)



**Figure 31**

<b>Harnesses (1 of 3)</b>			<b>Reference Figure 31</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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	(010405-01 only)
10b	010216-01	Harness, Circuit Breaker	(010425-01 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)



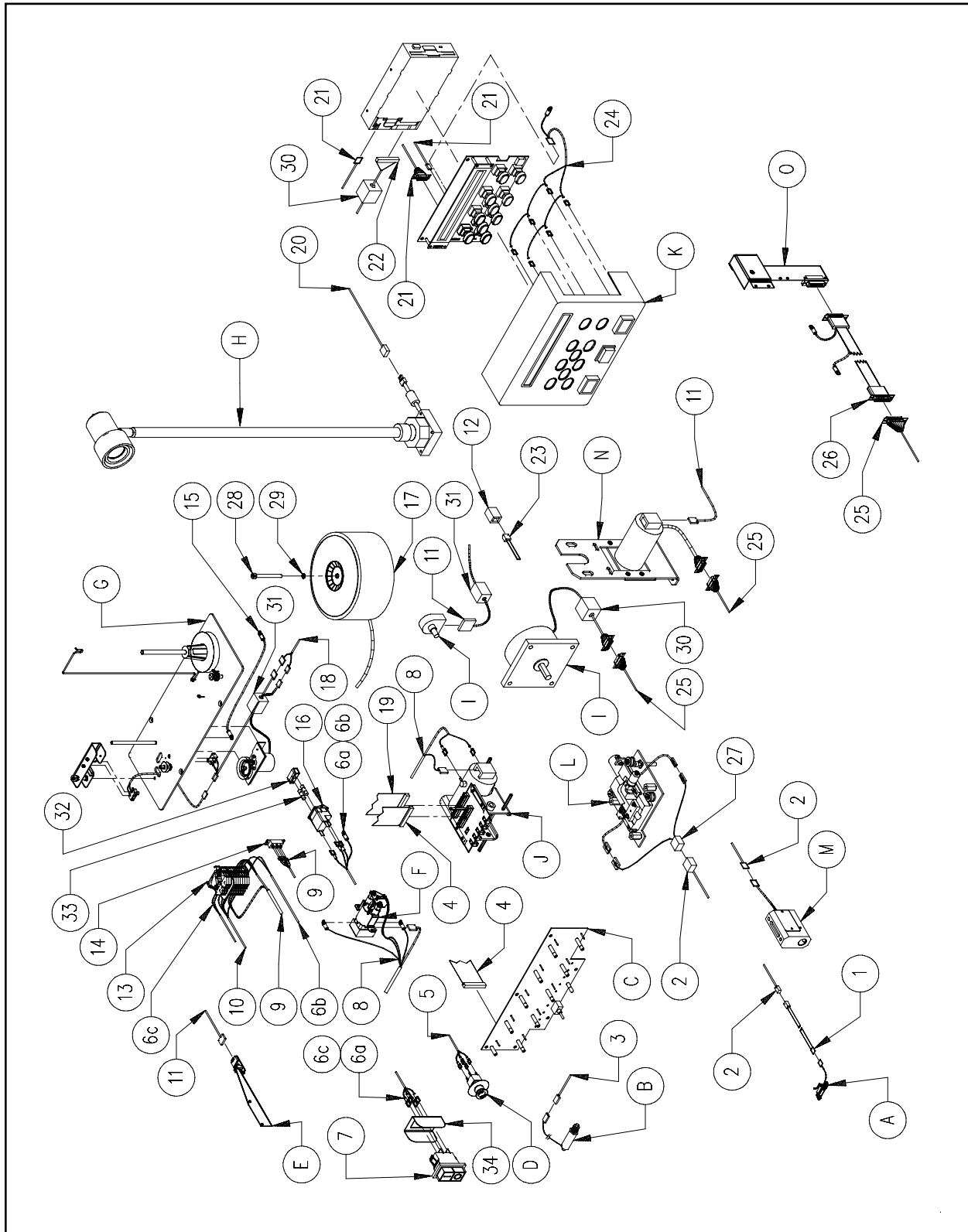
**Figure 32**



**Harnesses (2 of 3)****Reference Figure 32**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	009423-02	PCB, Backplane, Assembly	
2	010951-01	Cable, Thread/Color Change	
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	010952-01	Harness, Color/Grabber-Encoder/Motor	
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	
13	009968-01	Harness, Y-Z Axis	
14	009970-01	Cable, Power, Backplane	

# Harnesses (3 of 3)



**Figure 33**

**Harnesses (3 of 3)****Reference Figure 33**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	-----	Under Thread Control	(See page 14-1)
B	-----	Jump Stitch	(See page 14-1)
C	-----	Thread Tensioner	(See page 13-1)
D	-----	E-Stop Switch	(See page 2-1)
E	-----	Y-Limit Flag	(See page 28-1)
F	-----	Grabber Motor	(See page 18-1)
G	-----	Bobbin Winder	(See page 5-1)
H	-----	Light Fixture	(See page 6-1)
I	-----	Z-Motor/Encoder	(See page 26-1)
J	-----	Color Change	(See page 8-1)
K	-----	Keyboard	(See page 3-1)
L	-----	Trimmer Drive	(See page 20-1)
M	-----	Cap Frame Mounts	(See page 30-1)
N	-----	Y-Drive Motor	(See page 27-1)
O	-----	X-Beam	(See page 24-1)
1	009972-01	Harness, Bed, Under Thread Control	
2	009910-05	Harness, Head	
3	009969-02	Cable, Jump Stitch	
4	011094-02	Cable, Jumper, Thread Break	
5	009971-03	Cable, E-Stop	
6a	010412-02	Harness, Circuit Breaker	(010405-01 only)
6b	010214-02	Harness, Entry Module	(010425-01 only)
6c	010216-01	Harness, Circuit Breaker	(010425-01 only)
7	009879-04	Breaker, On/Off, 4A	
8	010952-01	Harness, Color/Grabber-Encoder/Motor	
9	010215-01	Harness, Voltage Switch	(010425-01 only)
10	-----		(part of item 17)
11	009968-01	Harness, Y-Z Axis	
12	000434-02	Coupler, In-Line, 6 Position	
13	009976-01	Block, Terminal, Assembly	(010425-01 only)
14	005696-01	Switch, Voltage, Selector	(010425-01 only)
15	011006-01	Cable, Ground, Braid, 6.5"	
16	010682-01	Power Entry Module, Filtered, 6A	
17	010414-01	Transformer, Power, 400VA, 110VAC	(010425-01 only)
18	010650-01	Harness, Interface, Bobbin Winder	
19	010951-01	Cable, Thread/Color Change	
20	009963-01	Cable, Operator, Lamp	
21	009918-02	Harness, Keyboard/Display	
22	010992-02	Cable, Floppy Drive	
23	010369-01	Cable, Ethernet, Network, Interface	
24	009913-02	Harness, Start/Stop/Frame	
25	010523-02	Harness, X-Axis Collector	
26	010922-01	Cable, X-Axis Flex	

**Harnesses (3 of 3)****Reference Figure 33**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
27	007261-01	Trimmer, Picker, Solenoid, Opto, Assembly	
28	010173-60	Screw, Socket Head Cap, M6 x 1.0 x 60mm, Zinc Plate	
29	690427-06	Washer, Lock, Split, M6	
30	009311-01	Ferrite, Split, Large	
31	009311-03	Ferrite, Split, Medium	
32	009090-01	Fuse Holder, 500W PDU	
33a	010162-05	Fuse, 5A, 250VAC	(see Note)
33b	010162-25	Fuse, 2.5A, 250VAC	(see Note)
34	10173	Guard, Switch	

**Note:**

Each of these fuses are as follows:

33a-Time Lag, High Interrupt, 5mm x 20mm (010405-01 only)

33b-Time Lag, High Interrupt, 5mm x 20mm (010425-01 only)

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# Cap Frame Drive

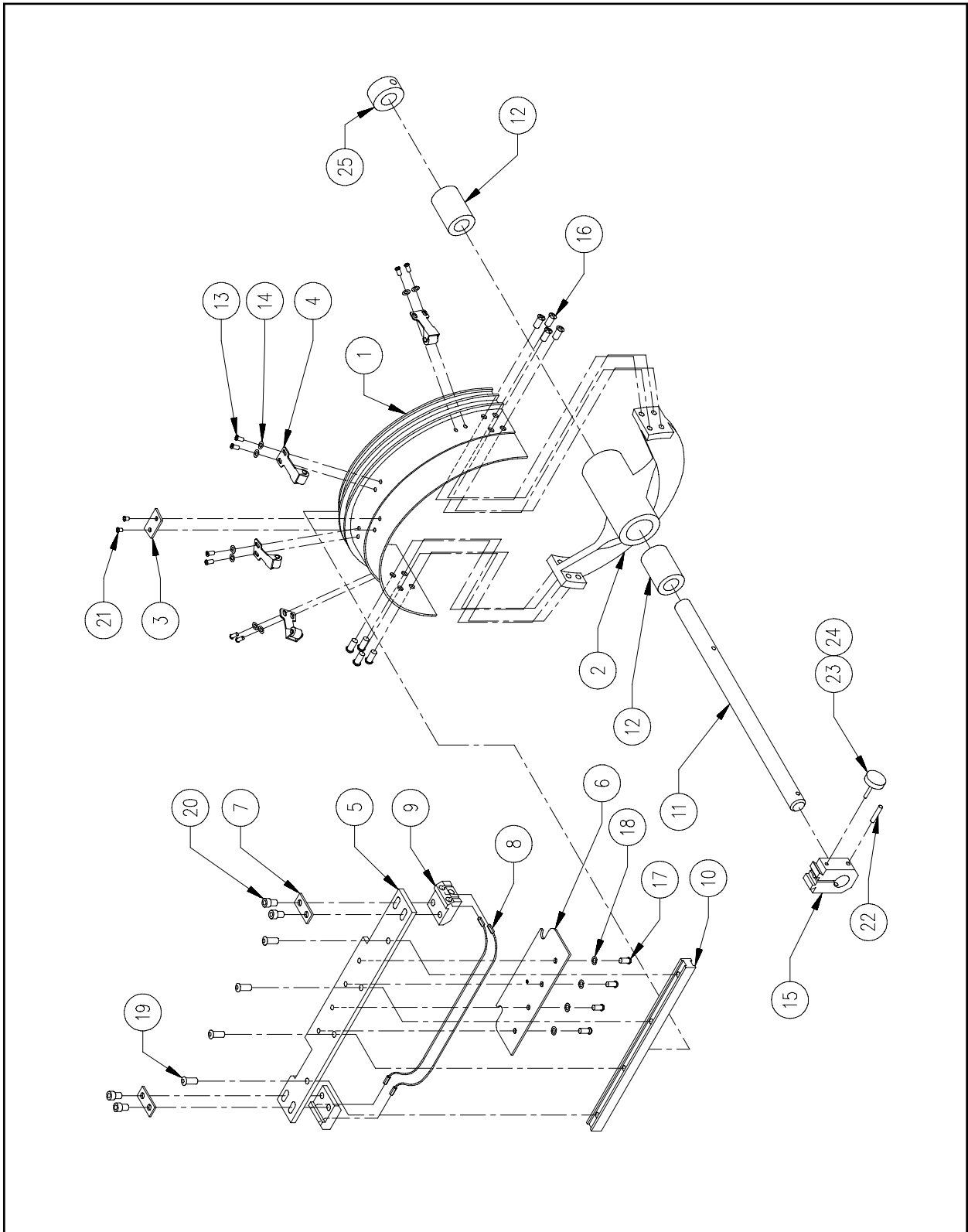


Figure 34

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**Cap Frame Drive** **Reference Figure 34**

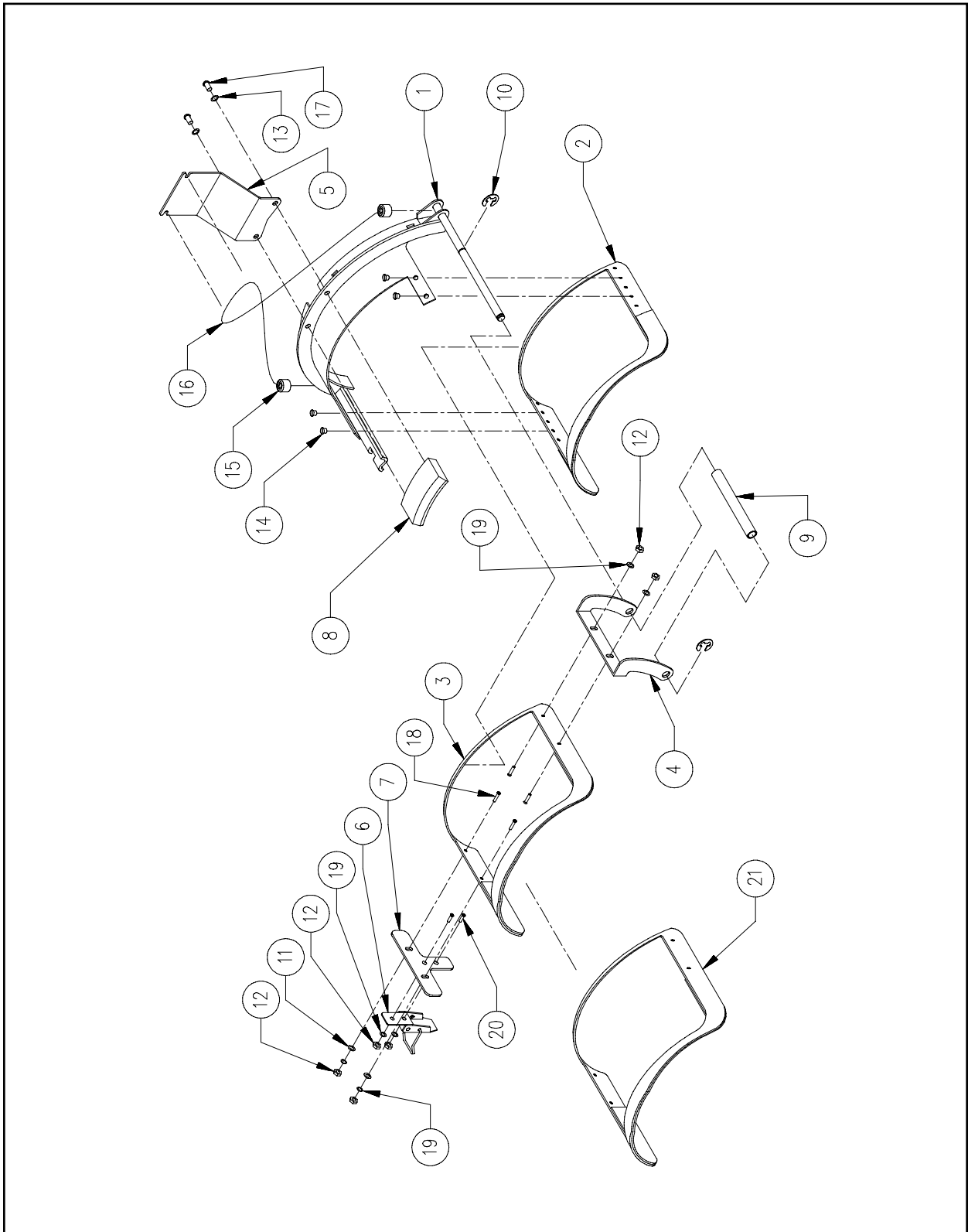

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Item No.	Part Number	Item Description	Comments
1*	452732-01	Ring, Drive, Cap Frame	
2*	006496-01	Hub, Cap Driver, Phase II	
3*	552912-01	Locator, Cap Frame	
4*	004229-01	Clip, Roller, Cap Frame Driver, Assembly	
5*	454861-01	Bracket, Drive	
6•	554862-01	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 35**



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**Melco Cap Frame** **Reference Figure 35**

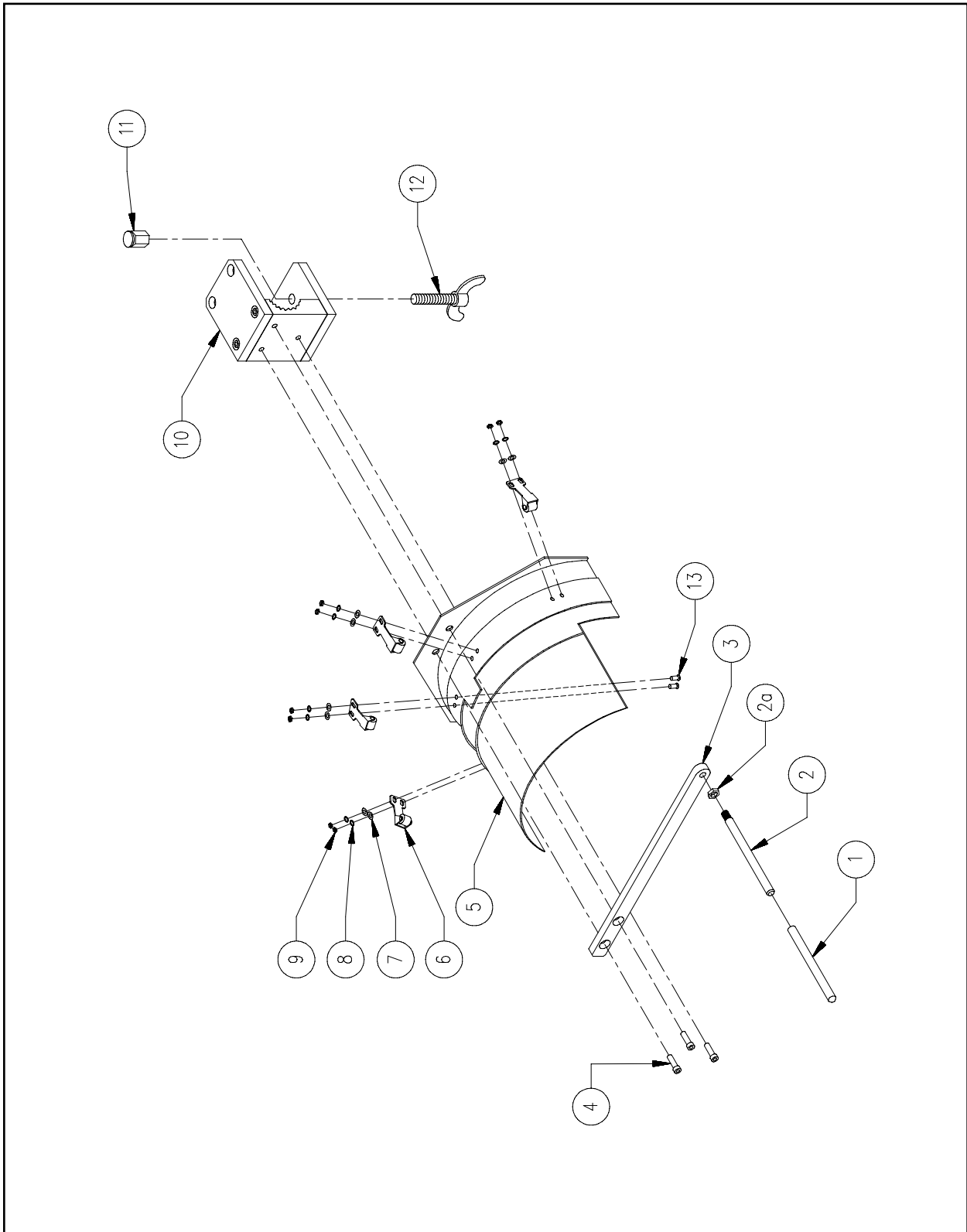

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Item No.	Part Number	Item Description	Comments
1	004938-01	Base, Cap Frame, Assembly	
2#	006010-01	Frame, Lower, w/Rubber, 6-Panel	
3*	005949-01	Strap, Clamping, 72mm, 6-Panel	
4*•	002629-01	Bracket, Hinge	
5	005071-01	Holder, Cord, Visor Clamp	
6*•	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 36**

**Melco Cap Frame Gauge****Reference Figure 36**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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)

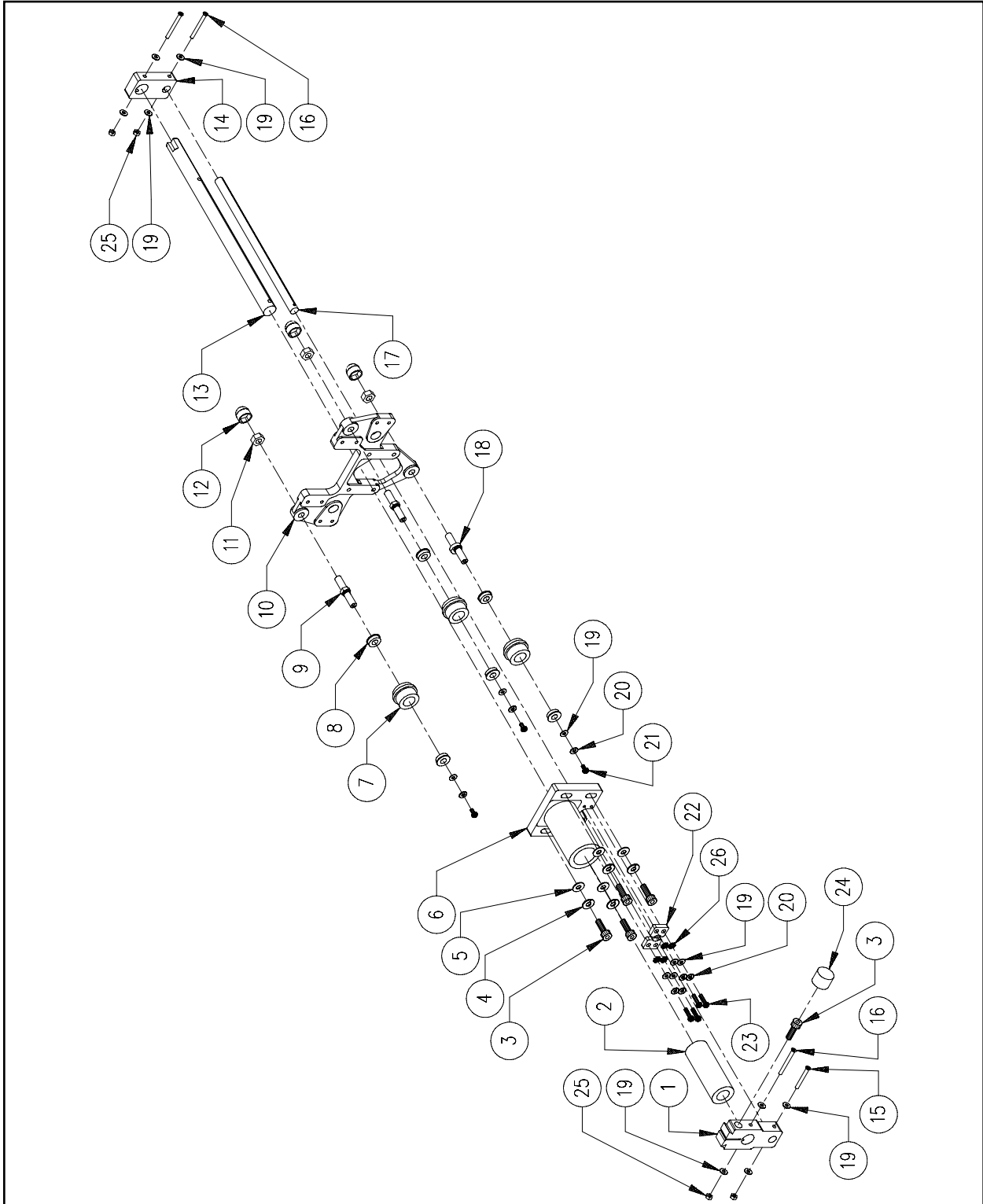


Figure 37

**Wide Angle Cap Frame (1 of 7)****Reference Figure 37**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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)

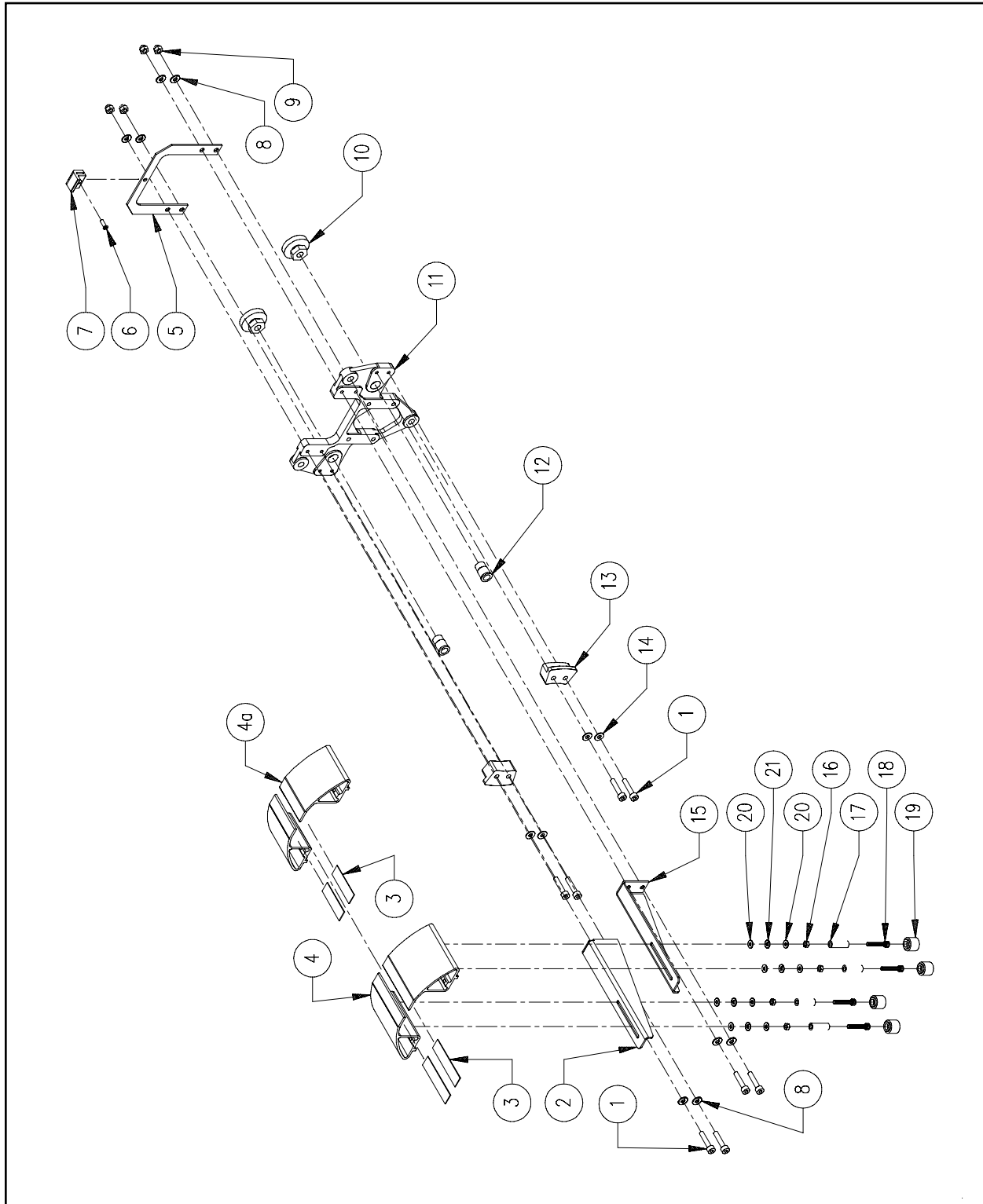


Figure 38

**Wide Angle Cap Frame (2 of 7)****Reference Figure 38**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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)

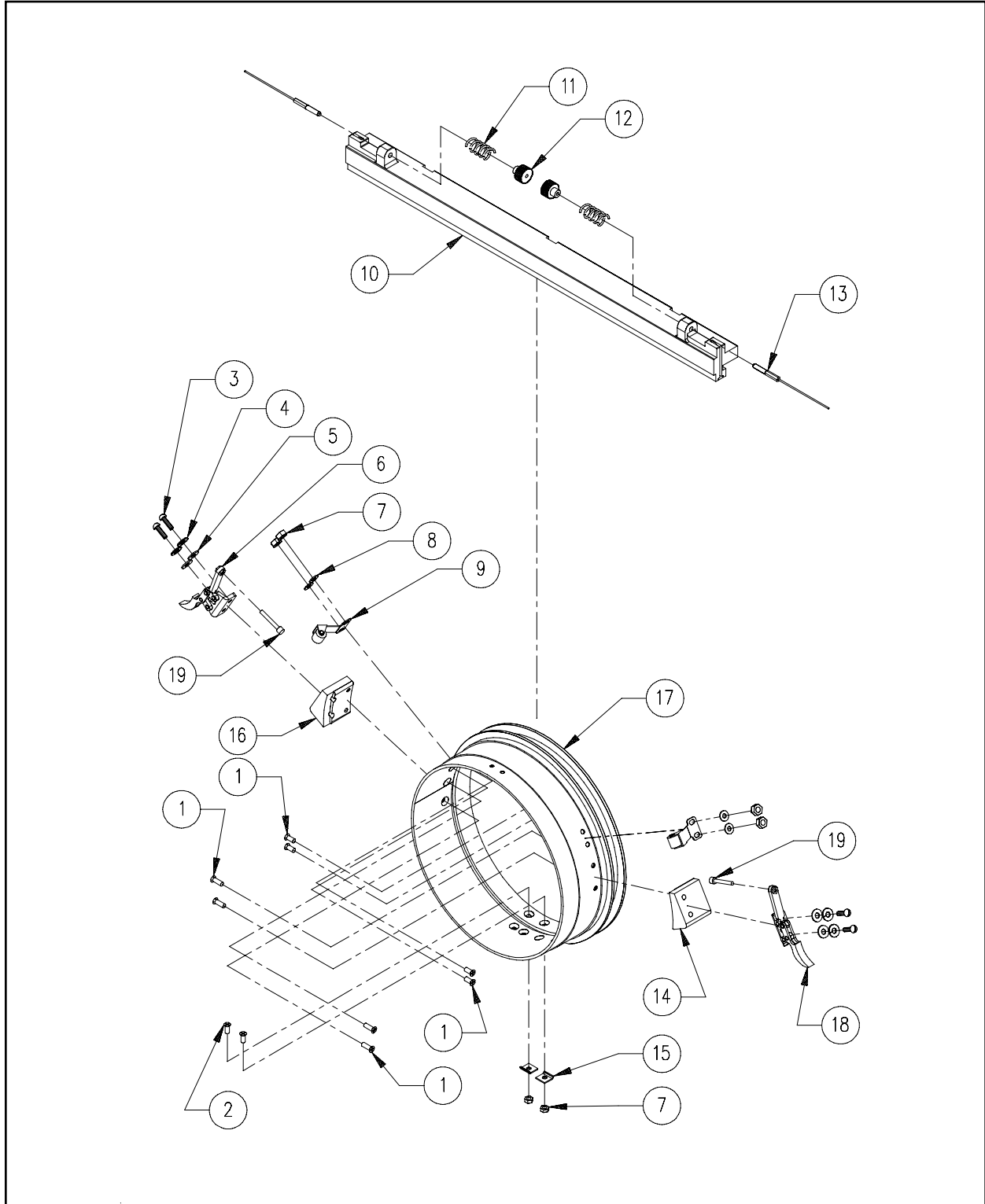


Figure 39



**Wide Angle Cap Frame (3 of 7)****Reference Figure 39**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
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)

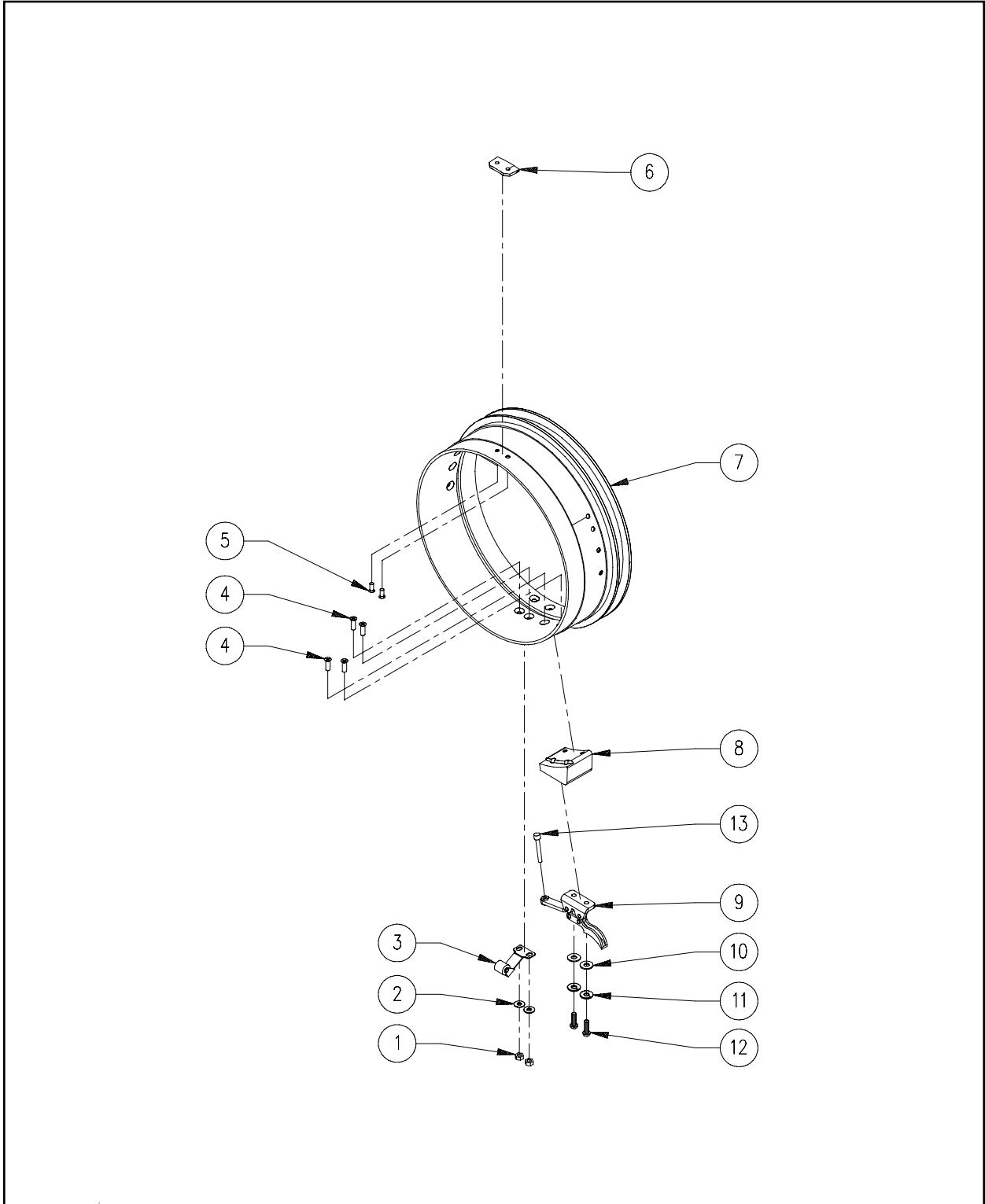


Figure 40

**Wide Angle Cap Frame (4 of 7)****Reference Figure 40**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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, Zinc Plate	
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)

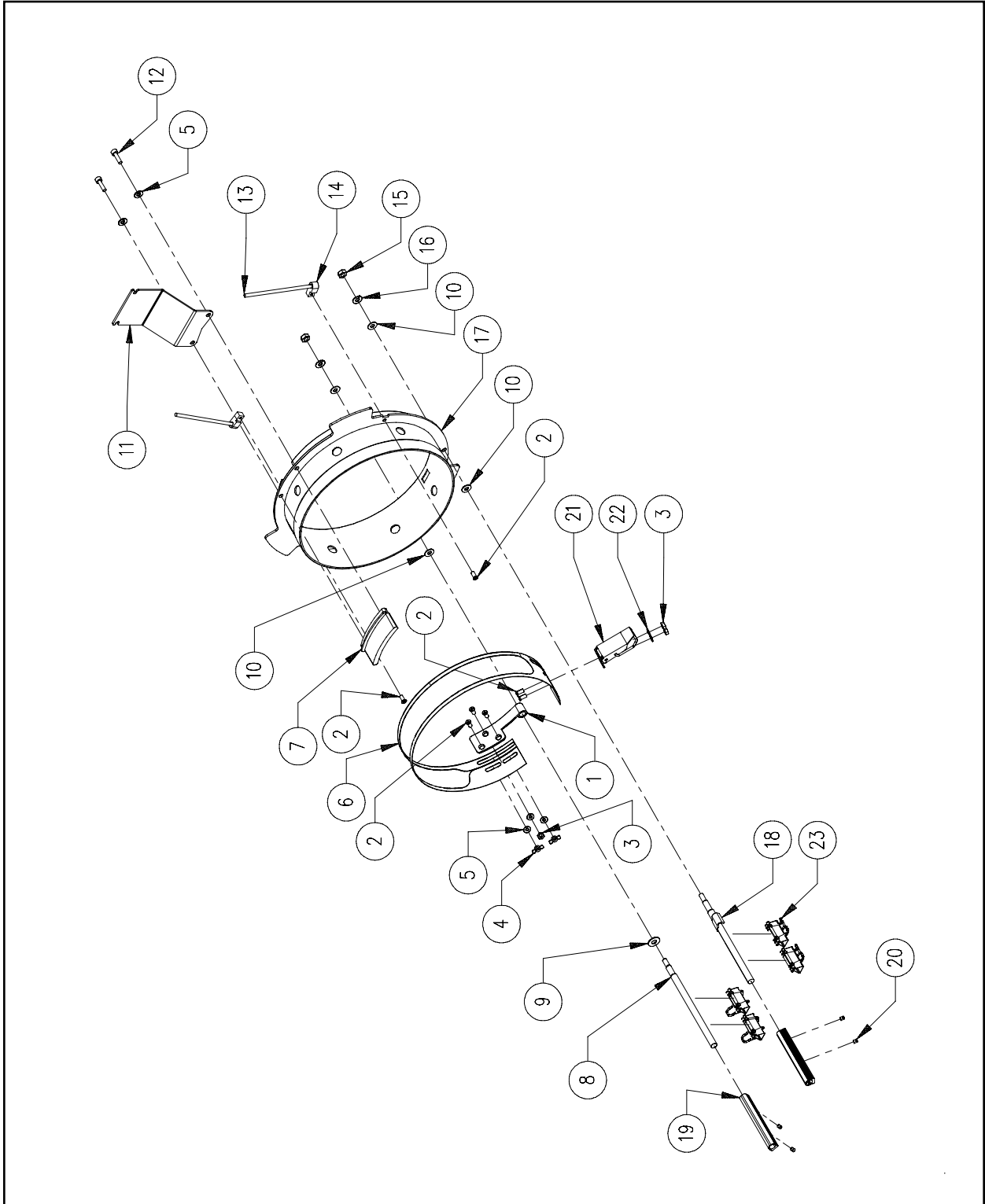


Figure 41

**Wide Angle Cap Frame (5 of 7)****Reference Figure 41**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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)

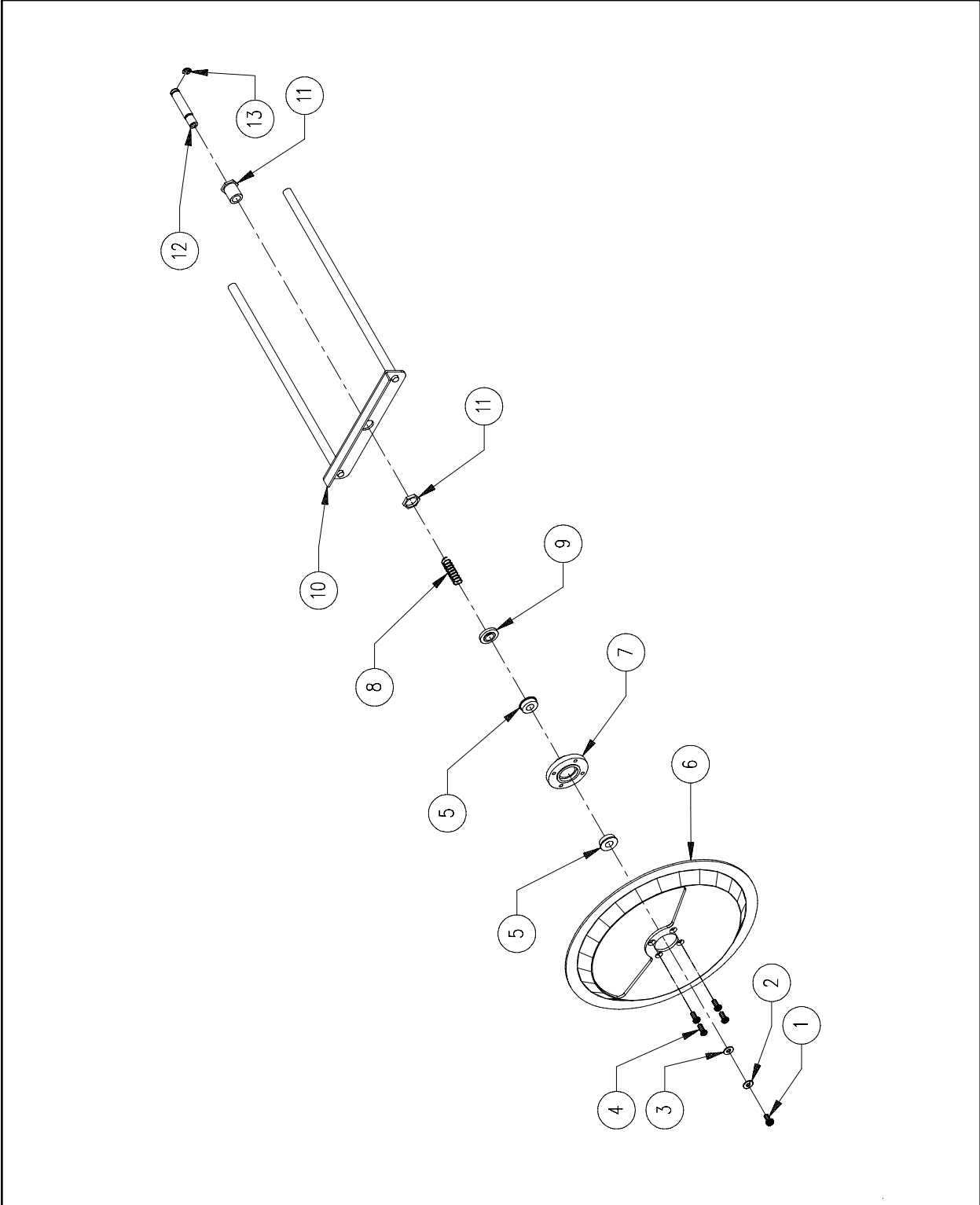


Figure 42

**Wide Angle Cap Frame (6 of 7)****Reference Figure 42**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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)

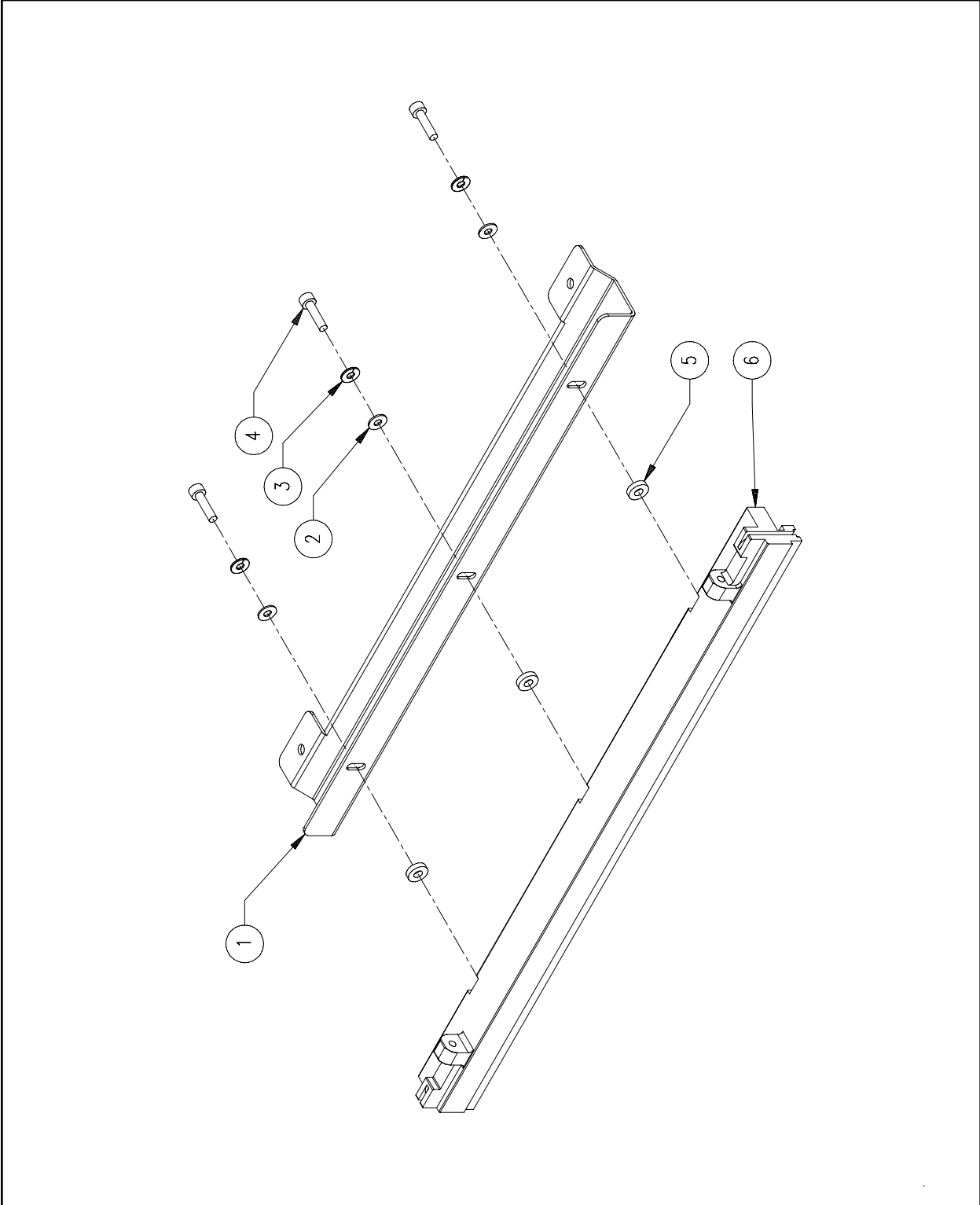


Figure 43



**Wide Angle Cap Frame (7 of 7)****Reference Figure 43**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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	009608-02	Bar, Drive Ring	

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

# Wide Angle Cap Frame Gauge

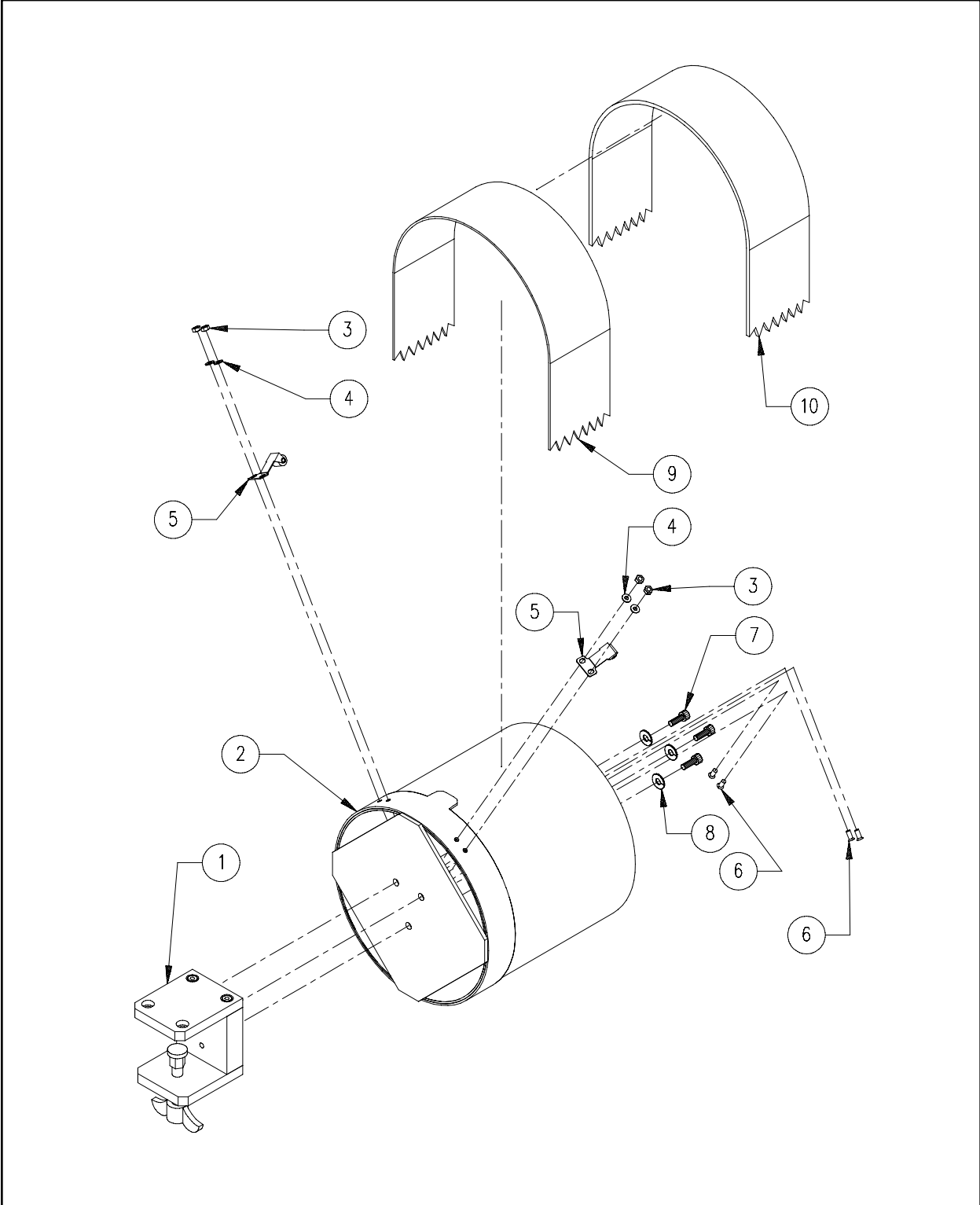


Figure 44

**Wide Angle Cap Frame Gauge****Reference Figure 44**

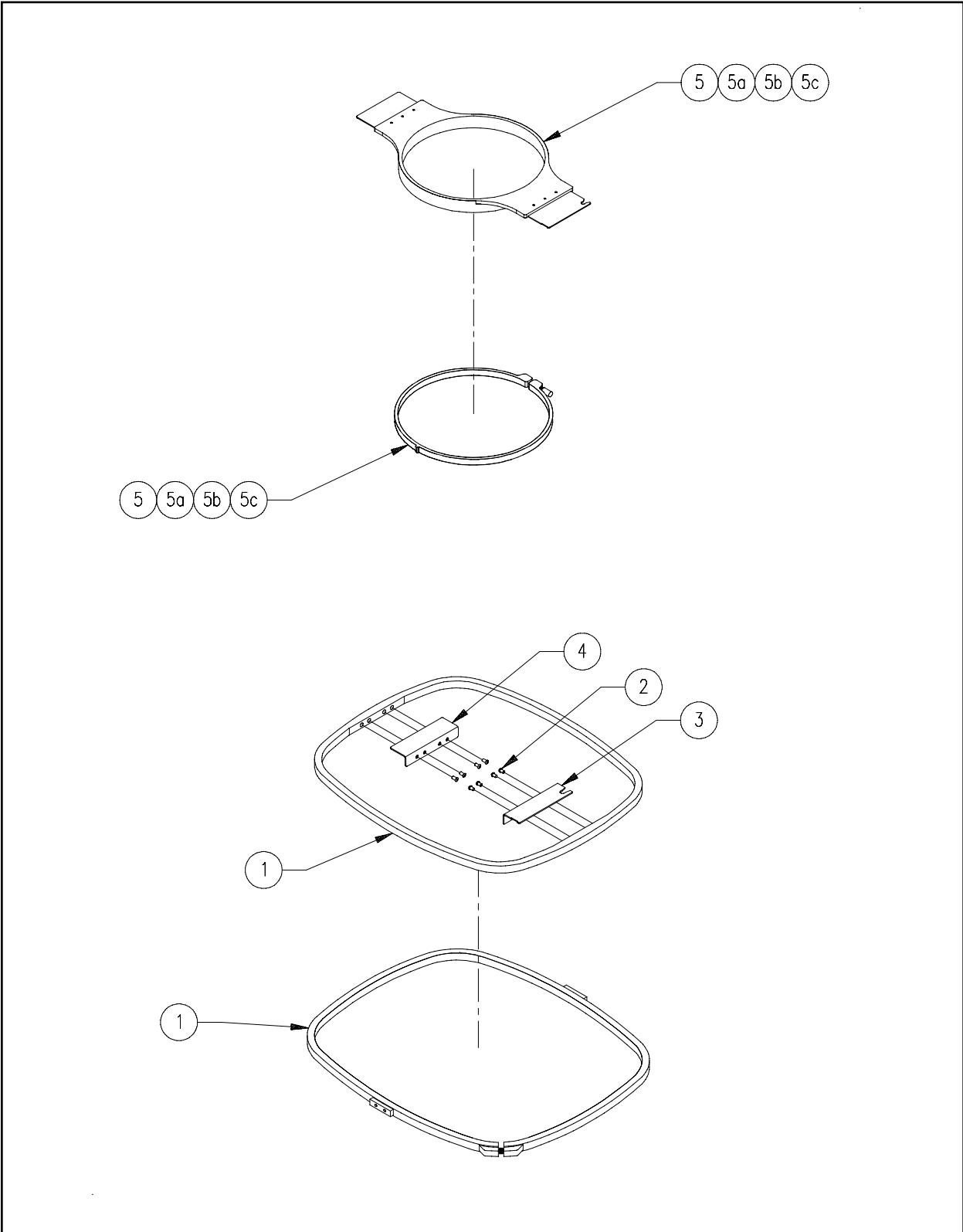
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	004949-01	Block, Mount, Cap Gauge	
2*	010196-01	Cylinder, Gauge	
3*	680430-03	Nut, Hex, M3	
4*	690439-03	Washer, Flat, M3	
5*	004229-01	Clip, Roller, Assembly	
6*	006558-08	Screw, Pan Head, Slotted, M3 x 0.5 x 8mm	
7*	670038-06	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 45**

**Tubular Hoops (1 of 2)****Reference Figure 45**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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)

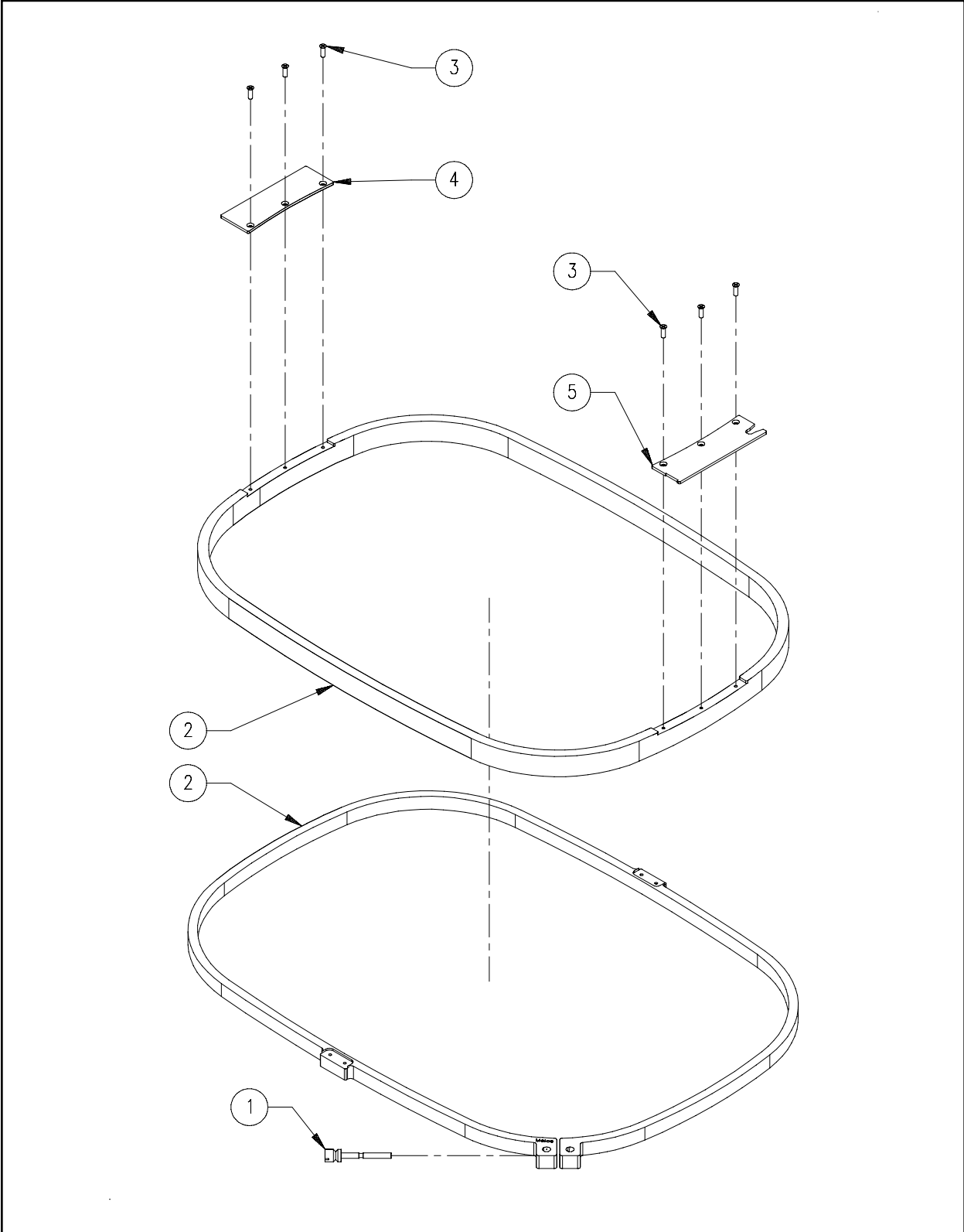


Figure 46

**Tubular Hoops (2 of 2)****Reference Figure 46**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	005576-01	Screw/Barrel Nut, Hoop, Assembly	
2*	010194-03	Hoop, Oval, 44cm x 30cm	
3*	001935-08	Screw, Flat Head Phillips, M3 x 0.5 x 8mm	
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

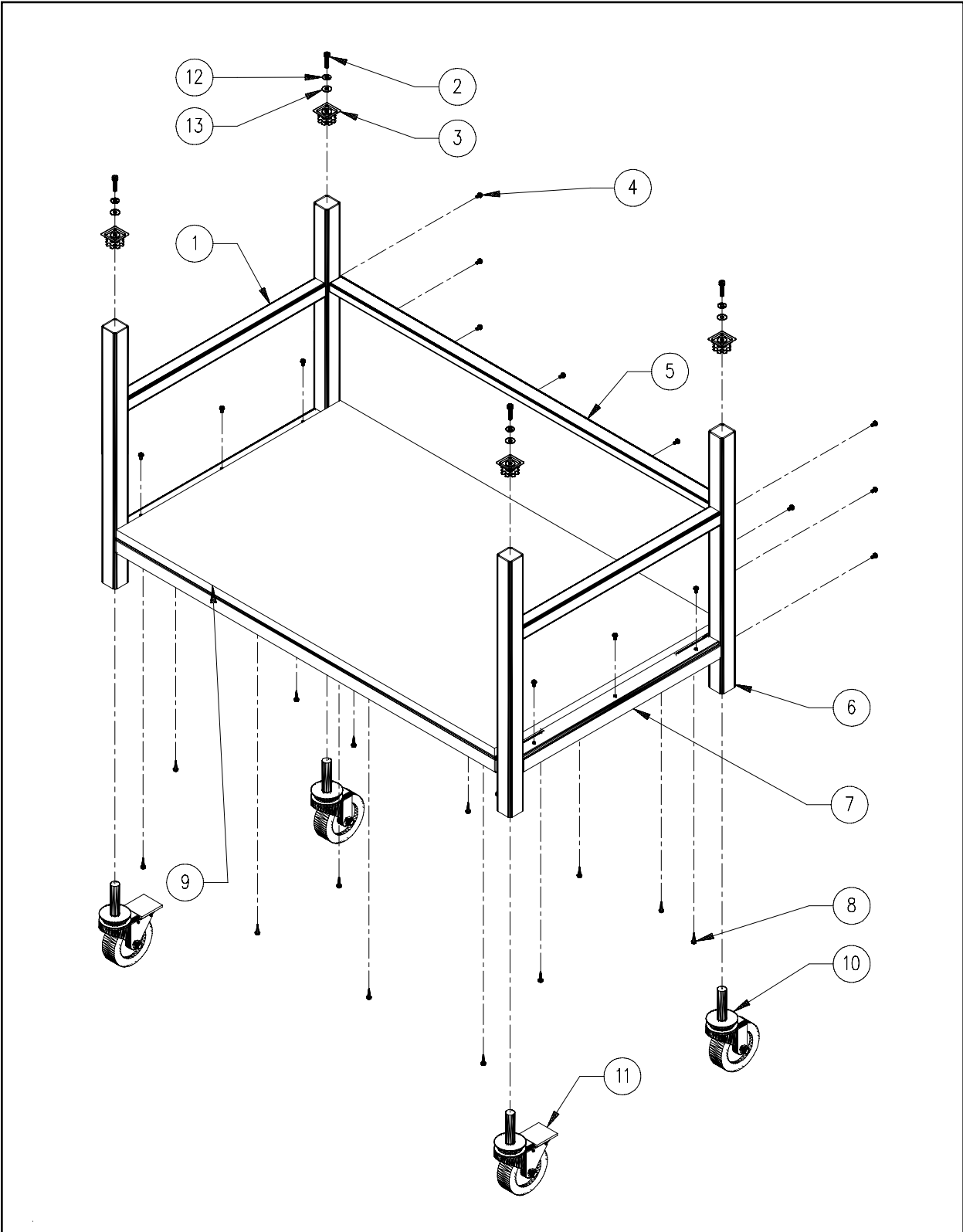


Figure 47



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**Mobile Cart** **Reference Figure 47**


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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, <sup>w</sup> /Brake	
11*	009989-01	Castor, <sup>w</sup> /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

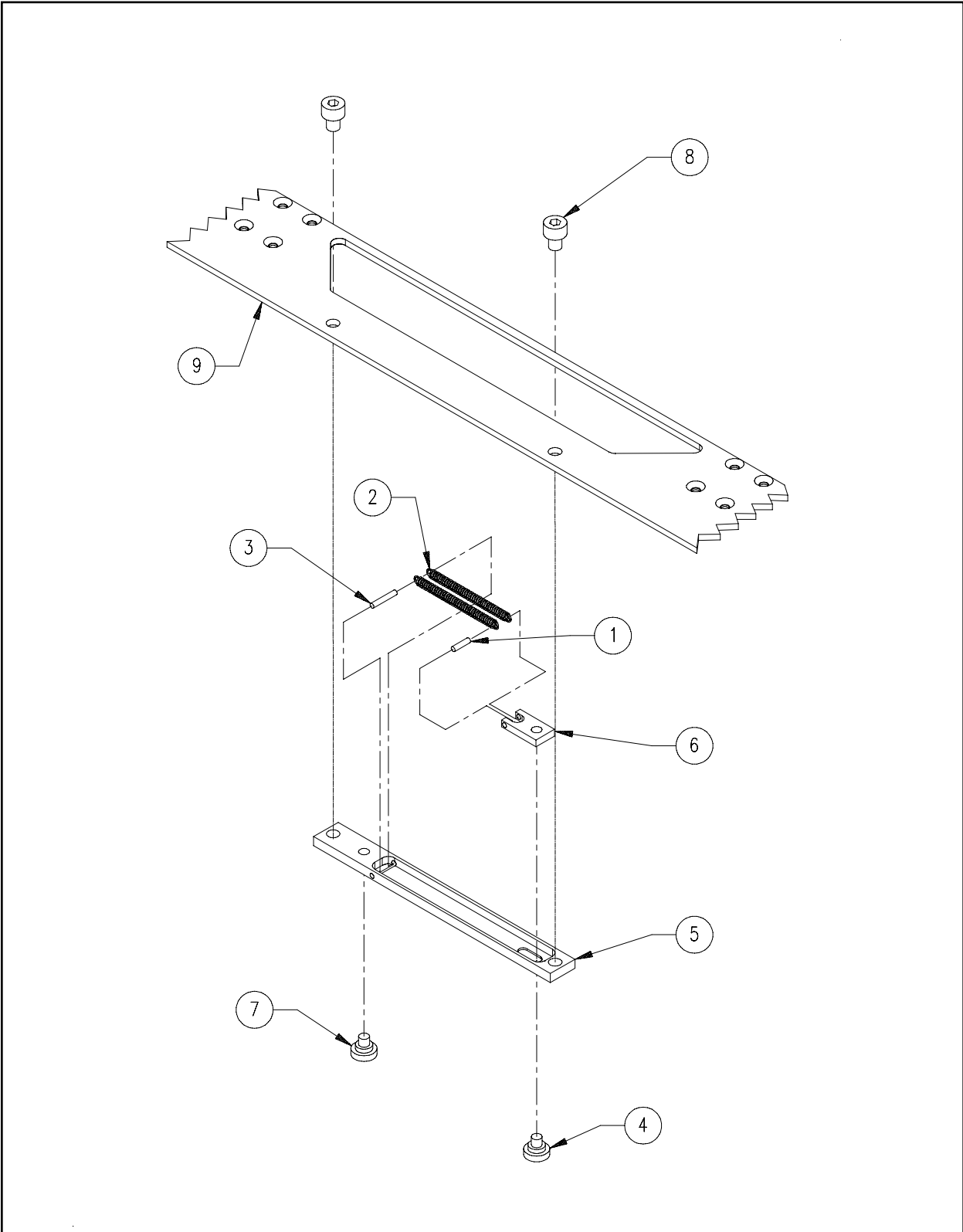


Figure 48

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**Hoop Interface** **Reference Figure 48**


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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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

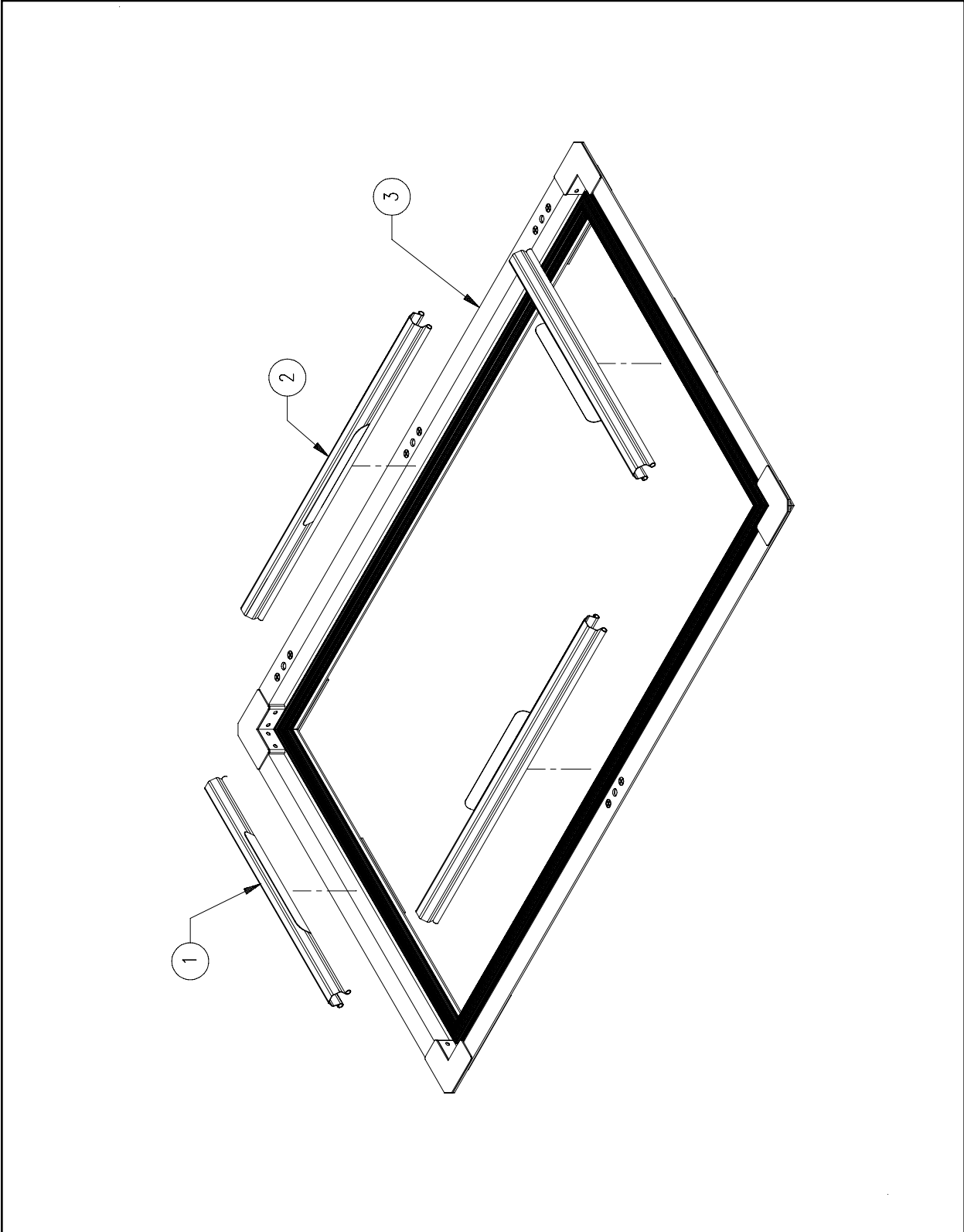


Figure 49

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**Sash Frame** **Reference Figure 49**

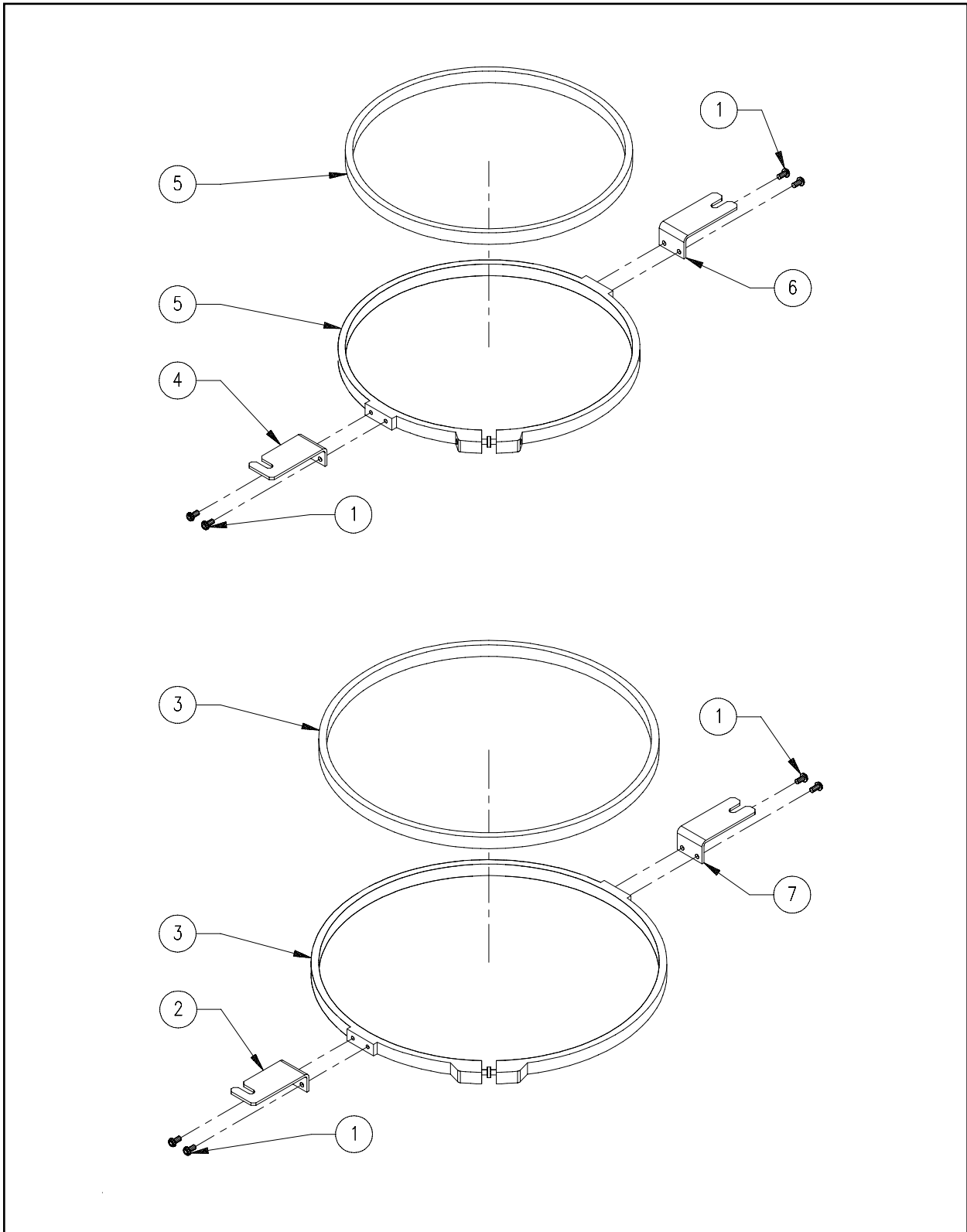
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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1*	007598-01	Clip, Border Frame, 220mm	
2*	008177-01	Clip, Border Frame, 300mm	
3*	010764-02	Sash Frame, EMT 10T, Assembly	

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

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

## Sash Hoops (21cm, 25cm)



**Figure 50**

**Sash Hoops (21cm, 25cm)****Reference Figure 50**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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

**A**

Adapter, Threaded, Square Tube, 1/4-20 .....	47-2
Arm, Drive, Grabber .....	18-2
Arm, Drive, Movable Knife .....	19-2

**B**

Bar, Drive Ring .....	43-2
Bar, Grabber .....	11-2
Bar, Guide .....	34-2
Bar, Idler, Assembly .....	16-2
Bar, Needle .....	11-2
Base, Cap Frame, Assembly .....	35-2
Base, Drive Ring .....	37-2, 38-2
Base, Drive, Lever, Take-Up, PHS II .....	17-2
Base, Picker .....	19-2
Base, Power Box .....	23-2
Base, Strain Relief, Operator I/F .....	4-2
Base, Tensioner .....	13-2
Bearing, Ball, Radial, 15mm ID .....	14-2
Bearing, Ball, Radial, 8mm ID .....	14-2
Bearing, Ball, Radial, Flanged, 3/16" ID .....	24-2
Bearing, Cross-Roller .....	12-2
Bearing, Flange Cartridge, 2-Hole .....	27-2
Bearing, Flanged .....	37-2
Bearing, Flanged, 6mm ID x 12mm OD .....	42-2
Bearing, Linear .....	37-2
Bearing, Panel, 1/4" ID .....	42-2

Bearing, Radial, 4mm ID x 9mm OD .....	12-2
Bearing, Roller, 1/2" ID x 1/2" .....	28-2, 29-2
Bearing, Shaft, Guide .....	15-2
Bearing, Sleeve, Frelon .....	34-2
Bearing, Thrust, 8mm .....	8-2
Belt, 80T, 1/5P .....	27-2
Belt, Timing, 1/5P, 104 Groove, 3/8" Wide .....	14-2
Belt, Timing, 39T, 1/5P .....	8-2
Belt, Timing, 80 Groove, 1/5P, 3/8" Wide .....	26-2
Belt, X-Axis .....	24-2
Belt, Y-Axis .....	28-2, 29-2
Blade, Grabber .....	18-2
Blade, Sensor, Interruptor .....	10-2
Block Interface, Pin Type .....	48-2
Block, Carriage, Y-Axis .....	28-2, 29-2
Block, Drive .....	28-2, 29-2
Block, Locator, Brim .....	35-2
Block, Mount, Cap Gauge .....	44-2
Block, Mounting, Cap Gauge, Assembly .....	36-2
Block, Mounting, Switch .....	5-2
Block, Return .....	24-2
Block, Return, Y-Rack .....	28-2, 29-2
Block, Terminal, Assembly .....	33-2
Bobbin, Aluminum .....	5-2
Bolt, Adjuster, Trimmer .....	20-2
Brace, Cart .....	47-2



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