

# USTER® *HVI SPECTRUM*

## *Spare Parts Manual*

### HIGH VOLUME FIBER TEST SYSTEM



Date: May 2008  
Part Number: 255-450-00790

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# Spare Parts Catalog Introduction

The **USTER®** *HVI SPECTRUM* Spare Parts Catalog is provided to improve the process of identifying and ordering spare parts.

For easy identification, this catalog includes assembly drawings of the *HVI SPECTRUM* system and its components along with parts lists. The components are labeled with a circled number. These numbers correspond to the parts list either on the same page or the following page. To identify the part that you need:

- Locate the part in a drawing
- Note the circled number
- Refer to the parts table
- Find the article number that corresponds to the desired circled number

When ordering parts, contact the Import/Export Department by email at [UTUS.Spares@Uster.com](mailto:UTUS.Spares@Uster.com), or by fax at (865) 588-3270 and use the article numbers and descriptions listed in this catalog. Please include the serial number(s) for the specific instrument for which you are ordering.

If a description of a part number contains an asterisk (\*), that part is NOT available as a spare part. It is listed for illustrative purposes to show the location of spare parts that ARE available.

**Example:** The Elevator Assembly is not available as a spare part and the description will appear with an asterisk (\*), though individual pieces of this assembly are available as spare parts.

**Note:** *Compatible or later revisions of these parts/components may be substituted for those illustrated here.*

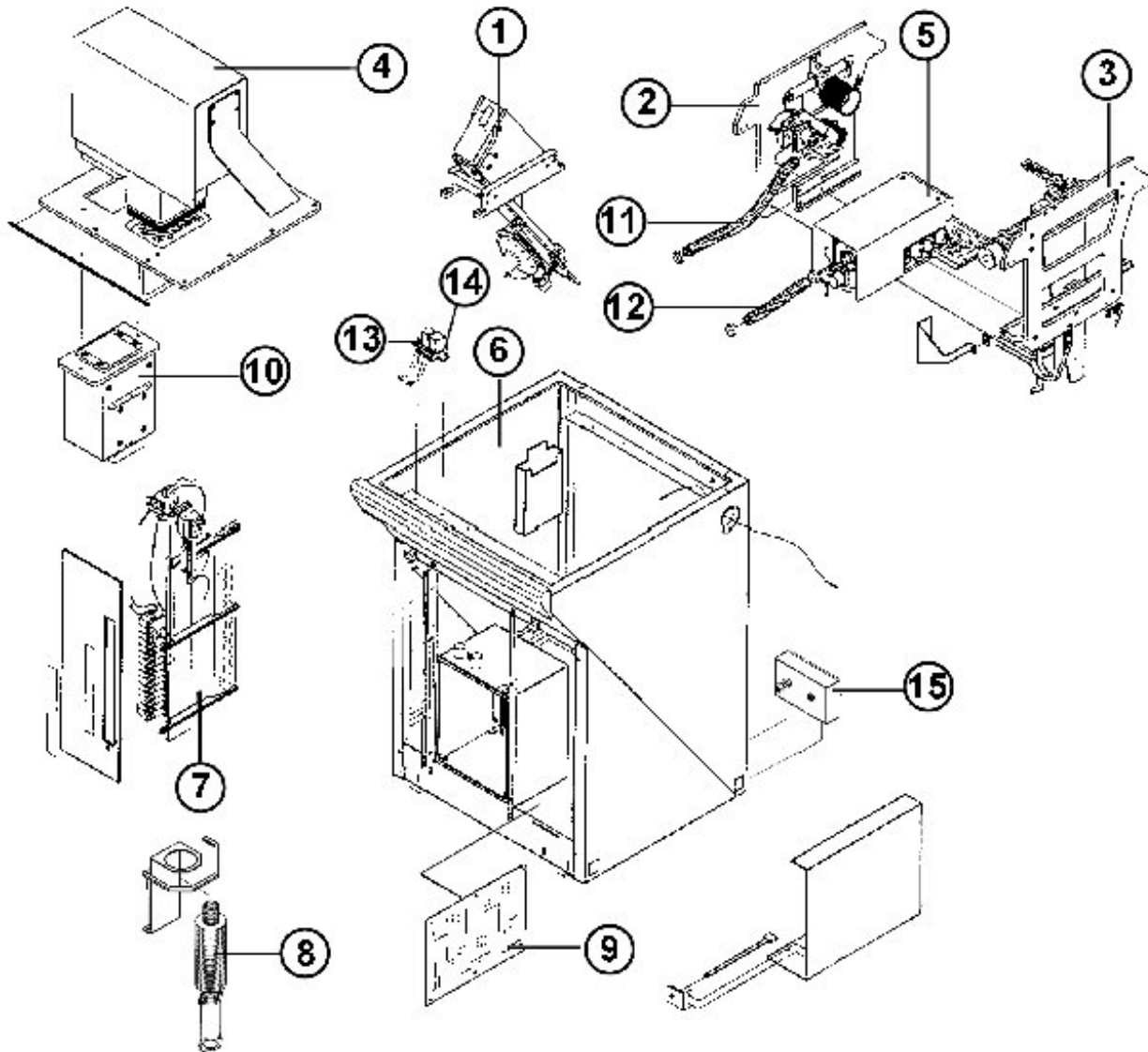
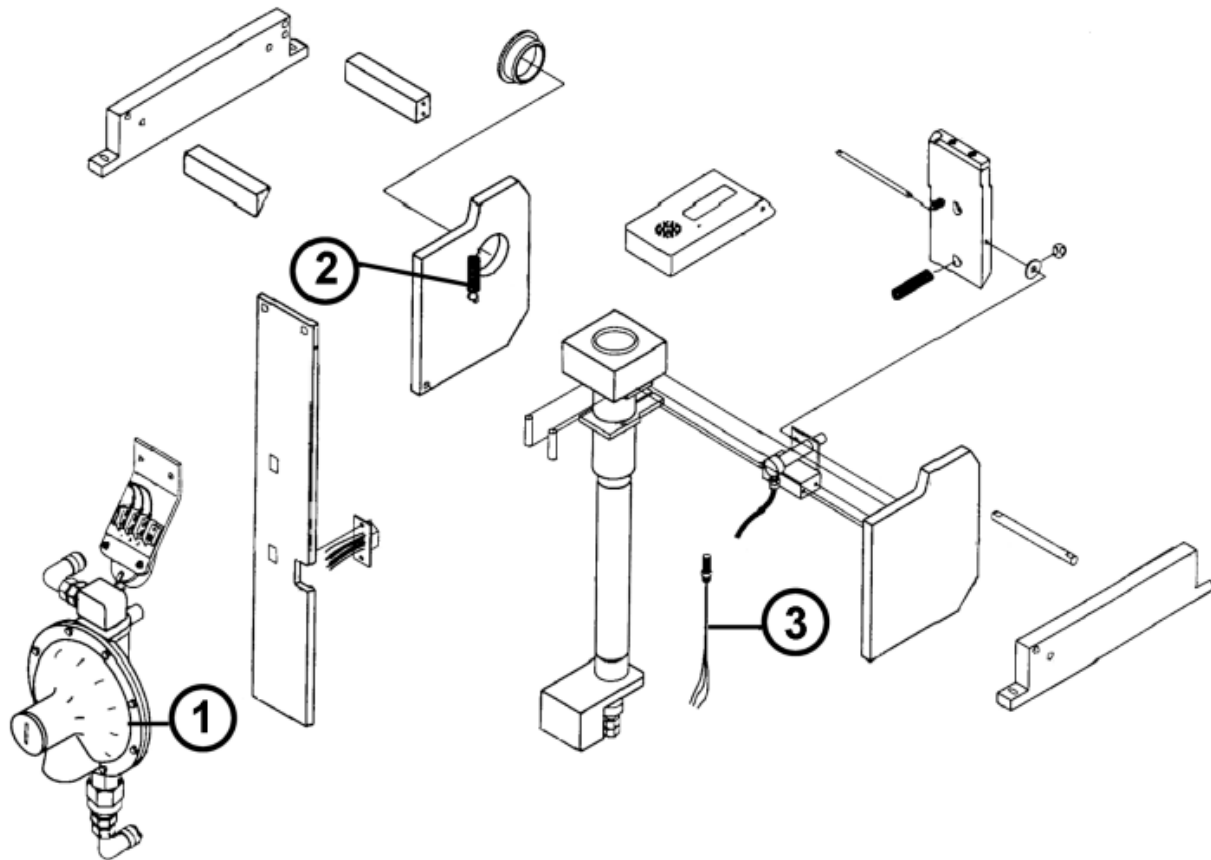


Figure 1: Length/Strength Micronaire Module

<b>Length/Strength Micronaire Module</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	*	Micronaire Head Assembly
2	*	Frame 1 Assembly
3	*	Frame 2 Assembly
4	*	Bezel Assembly
5	*	Length/Strength Assembly
6	*	Cabinet Assembly
7	*	Air System
8	256-899-00220	Muffler 2BX 1031
9	255-320-01660	Control Board Assembly with Adaptor
10	255-010-10131	Colorhead Assembly
11	256-750-00120	1 ¼" Vacuum Cleaner Hose x 12"
12	256-750-00120	1 ¼" Vacuum Cleaner Hose x 24"
13	255-320-01250	Brusher Relay Assembly
14	256-570-01070	24V DC 5A Relay
15	255-010-10900	Air Supply Box Assembly
**	256-570-00320	Interlock Switch
**	255-320-01440	Start Switch Assembly

\*Not available as spare part.

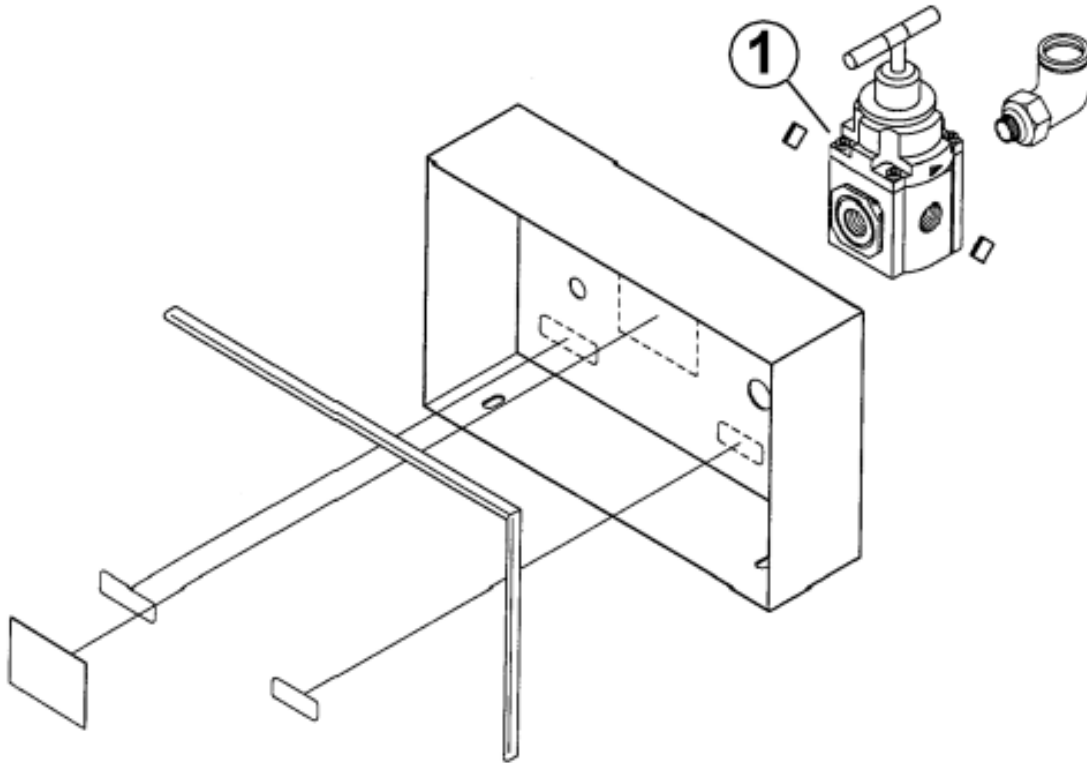
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**Figure 2: Micronaire Head Assembly**

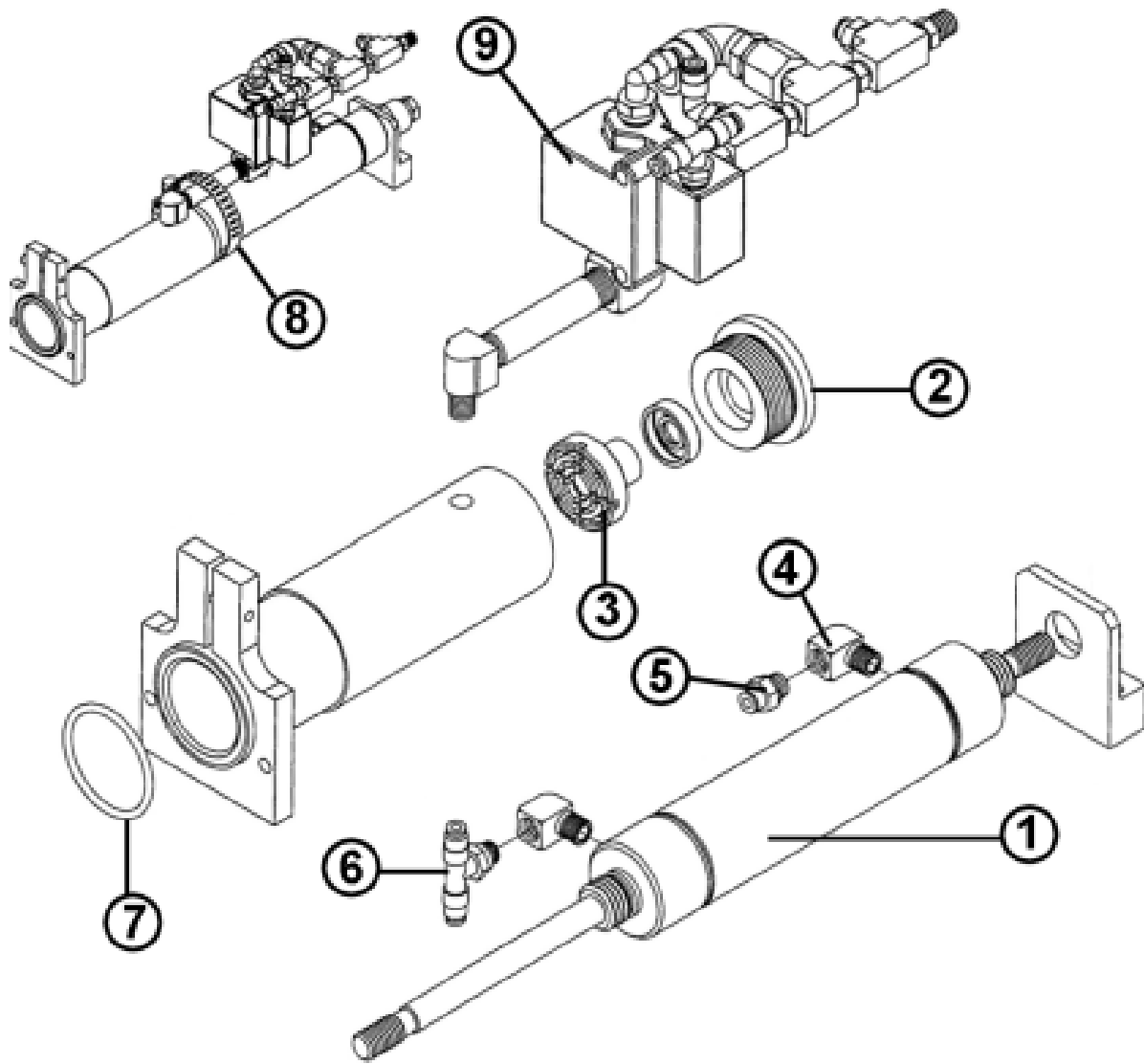
<b>Micronaire Head Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	255-010-10540	Gas Regulator Assembly
2	256-830-01650	Door Spring
3	255-320-01401	Micronaire Door Sensor Assembly





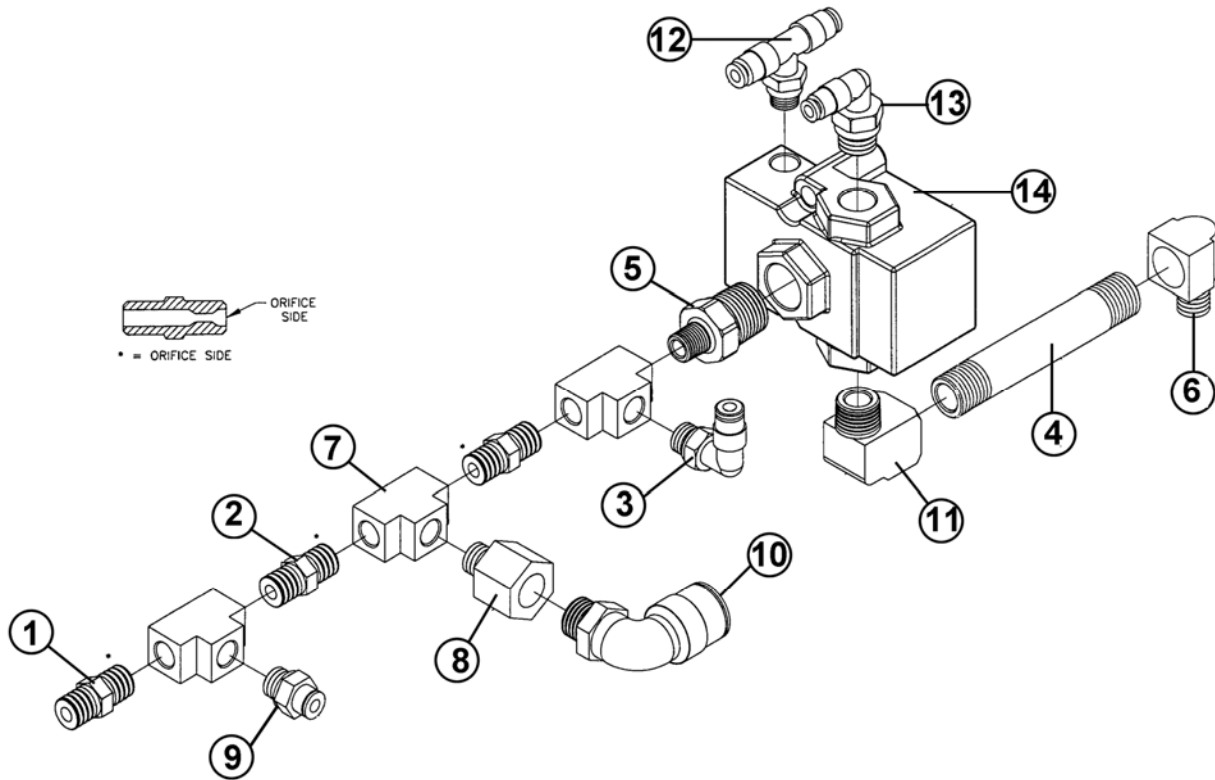
**Figure 3: Air Supply Box Assembly**

<b>Air Supply Box Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-780-00590	Norgren Regulator, R72G-2A7-RMN



**Figure 4: Micronaire Cylinder Assembly**

<b>Micronaire Cylinder Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-770-00400	Bimba 174-DXDEW Air Cylinder
2	255-110-02810	775 Micronaire Cylinder Bushing
3	255-110-02800	775 Micronaire Piston
4	256-760-00420	1/8" Brass Street Elbow
5	256-760-00850	5/32 Tube – 1/8" NPT Male Connector
6	256-760-02560	Camozzi P6430 53-02 Fitting
7	256-800-00420	O Ring, AS568A OR223
8	256-830-02170	2" Diameter Hose Clamp
9	255-010-14130	Orifice Bridge Assembly - This part is a modification. (See pages 6 and 7)
	255-010-14170	Micronaire Kit



**Figure 5: Orifice Bridge Assembly**

<b>Orifice Bridge Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-760-00020	Precision Orifice .060 S.S.
2	256-760-00040	Precision Orifice .086 S.S.
3	256-760-00190	1/8" NPT Male Elbow Swivel <sup>5</sup> / <sub>32</sub> " Tube
4	256-760-00290	1/4" Brass Nipple (3)
5	256-760-02950	1/8" M 1/8" M Hex Brass Reducer
6	256-760-02940	1/8" x 1/4" CD SS Street Elbow
7	256-760-00460	1/8" Brass Square Pipe "Tee"
8	256-760-00480	1/4" to 1/8" Brass Adaptor
9	256-760-00850	<sup>5</sup> / <sub>32</sub> " Tube – 1/8" NPT Male Connector
10	256-760-02060	Swivel, Male 90 1/2" Tube 1/4" NPT
11	256-760-02500	1/4" Street Elbow M/F
12	256-760-02560	Camozzi P6430 53-02 Fitting
13	256-760-02930	Male Elbow Swivel <sup>5</sup> / <sub>32</sub> " , 1/4" NPT
14	256-780-00840	1/4" NPTG Air Valve4
**	256-860-00210	Loctite 565 Pipe Sealant w/TEF

\*\* Not shown

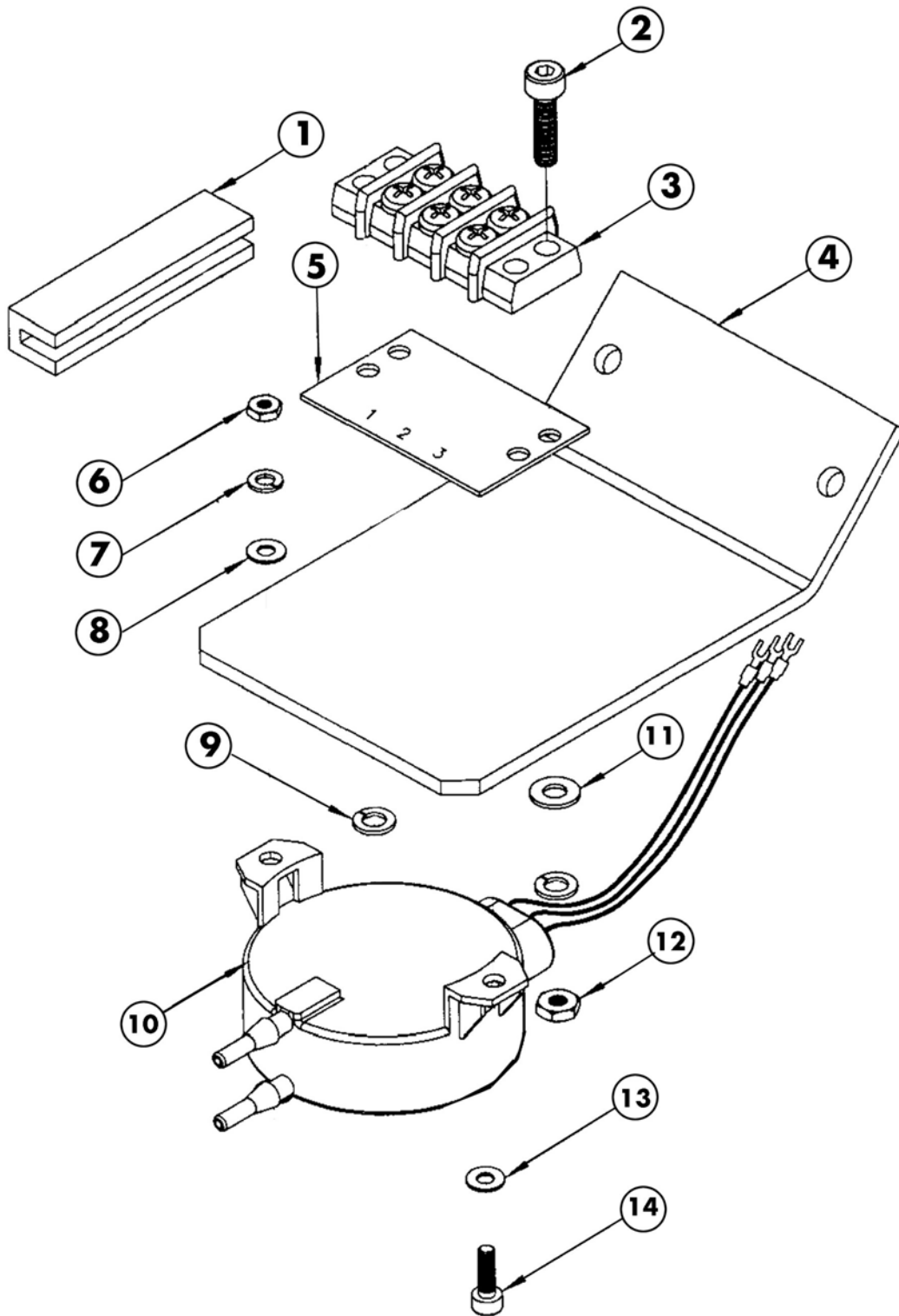


Figure 6: Pressure Transducer Terminal Assembly

<b>Pressure Transducer Terminal Assembly (255-010-12620)</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-899-00620	1/8" NPRENE Square Back U Channel
2	256-850-00590	M4, 0.70, SHCS 16mm Screw
3	256-640-00050	3 Position Barrier Terminal Block
4	255-200-10930	Transducer Mounting Bracket
5	256-640-00070	3 Position Marker Strip
6	256-850-00350	M3, 0.50, Hex, 5.5, 2.3 Nut
7	256-850-00240	3.3, SPLT, 5.8, 0.9 Washer
8	256-850-00040	3.3 Flat, 6.8, 0.6 Washer
9	256-850-00060	4.3, SPLT, 7.0, 0.9 Washer
10	255-320-01410	Pressure Transducer Assembly
11	256-850-01500	4.3, Flat, 12.0, 1.0 SS Washer
12	256-850-00310	M4, 0.70, Hex, 7.0, 3.0 Nut
13	256-850-00040	3.3 Flat 6.8, 0.6 Washer
14	256-850-00740	M3, 0.50, SHCS, 10mm Screw

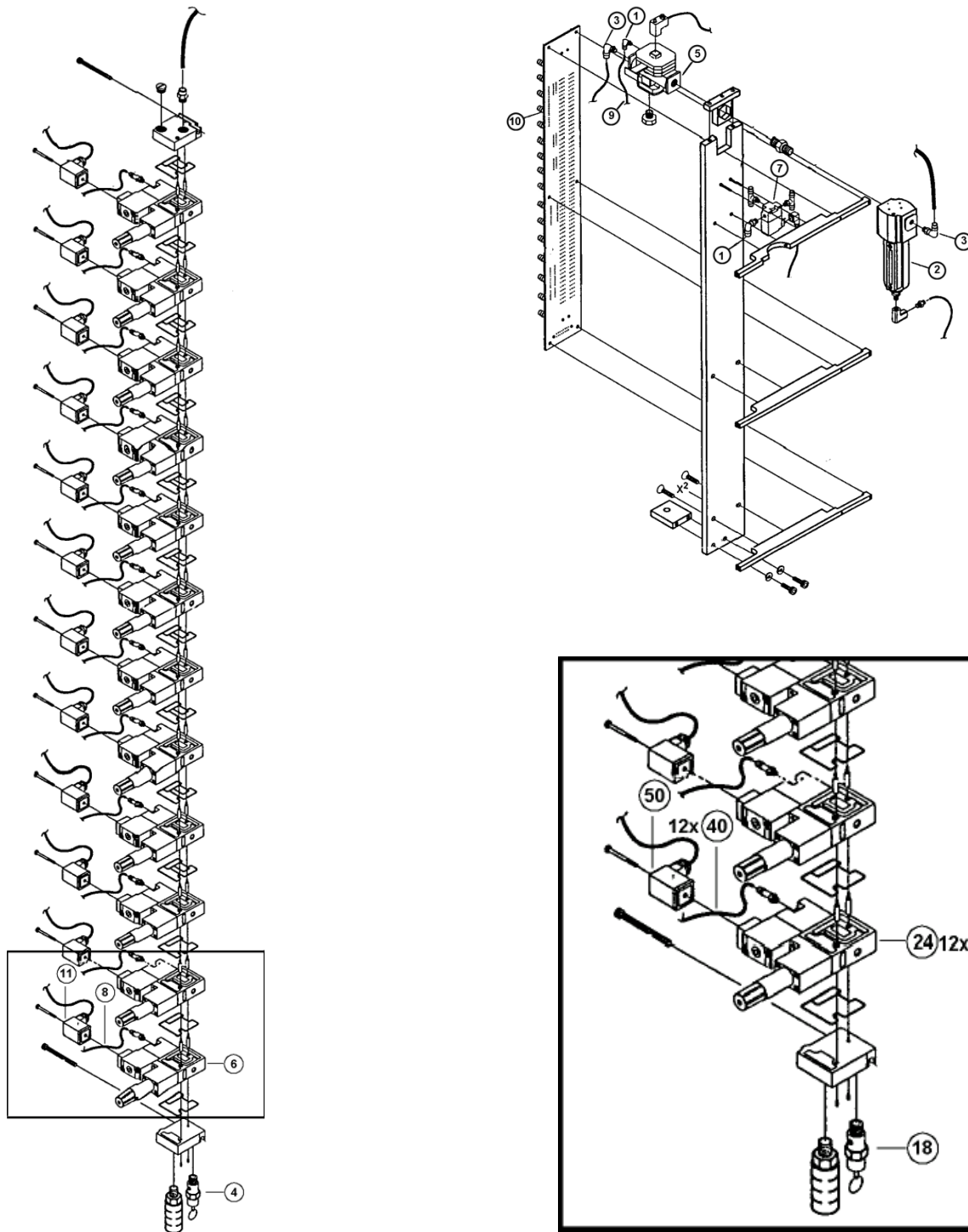
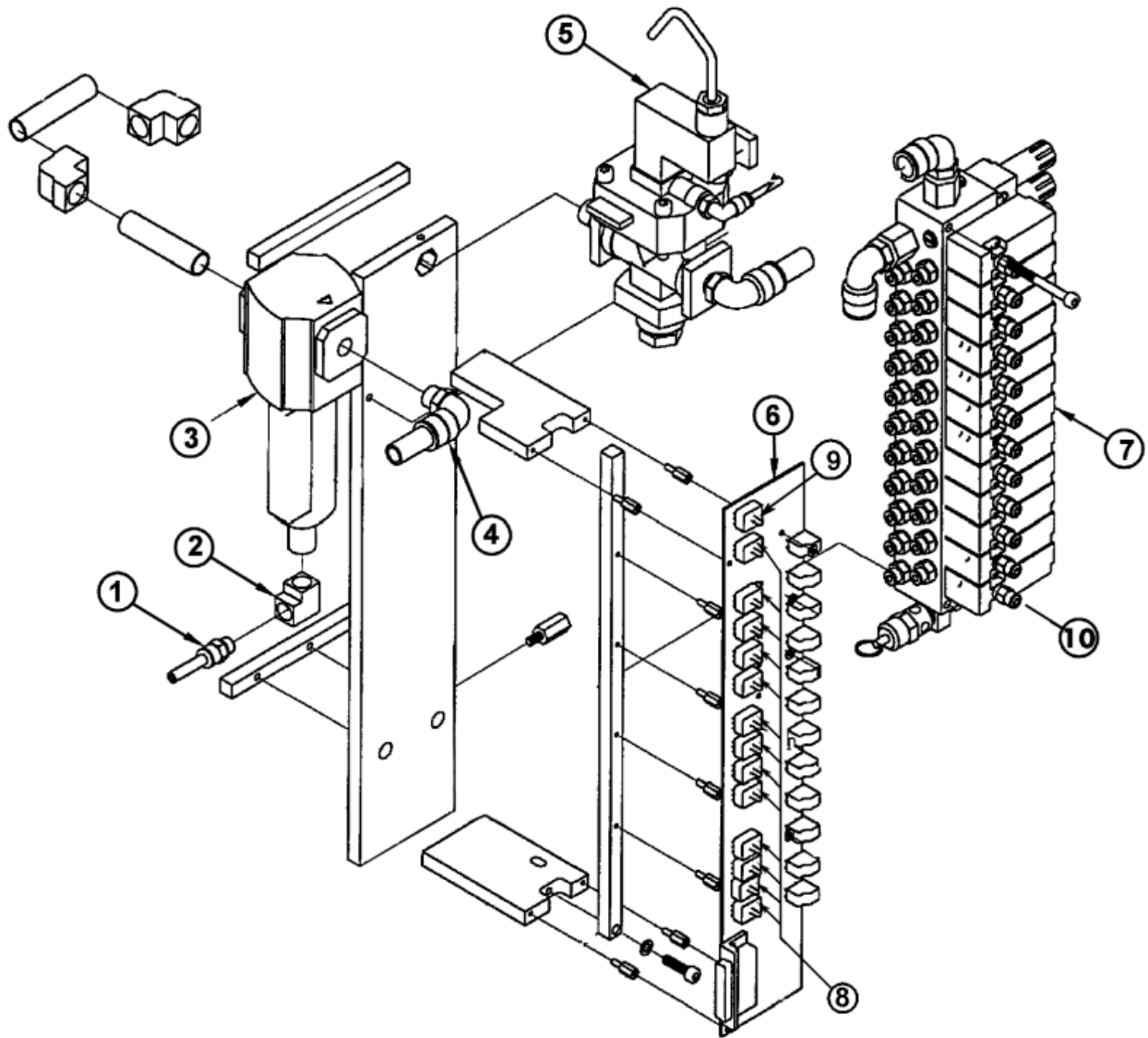


Figure 7: Air System with Micronaire



<b>Air System with Micronaire</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-760-00190	1/8" Male Elbow Swivel 5/32" Tube"
2	256-760-01841	Air Line Filter
3	256-760-02060	Male 90 1/2" Tube 1/4" NPT Swivel
4	256-760-02090	Valve, Pressure Relief Safety
5	256-780-00540	1/2" x 1/4 " Poppet Valve
6	256-780-00550	Solenoid Valve, #45AMAKDFBJ1KA
7	256-780-00560	Solenoid Valve, #35AAAADFBJ1KA
8	256-750-00280	Tubing, Freelin Wade 1J-156-08 12"/PC
9	256-750-00290	Tubing, Freelin Wade 1J-156-08 18"/PC
10	255-010-12440	Pressure Board Assembly
11	256-780-00600	Solenoid Coil
**	256-670-00760	Pressure Board to Control Board Cable

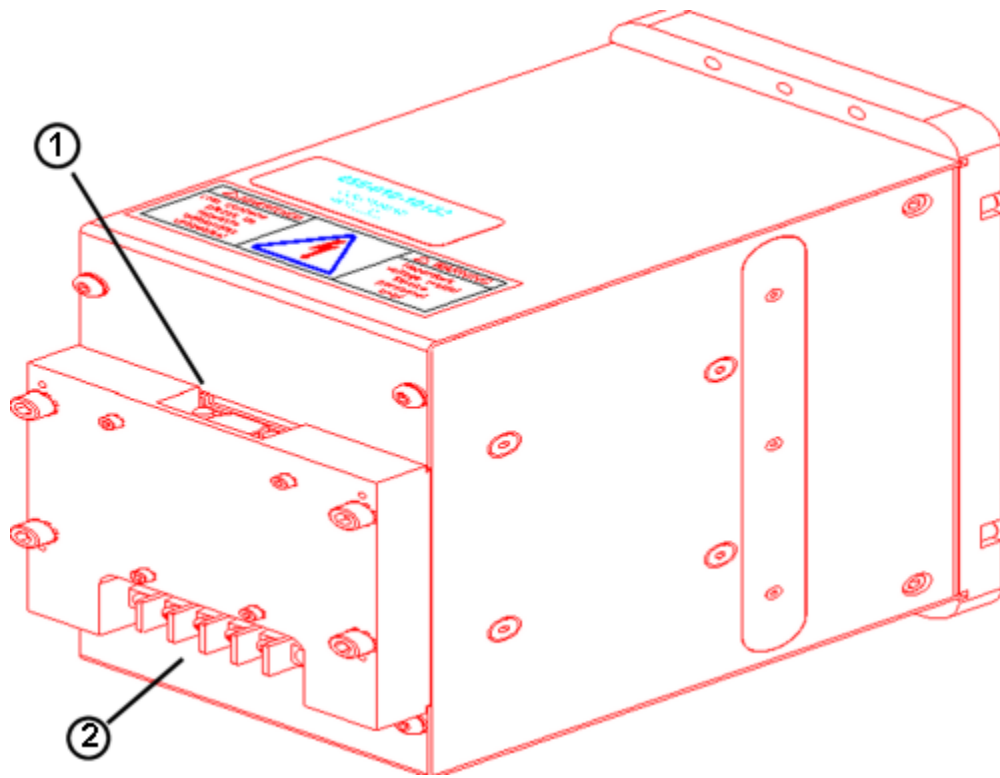
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**Figure 8: Air System with Micronaire II**

<b>Air System with Micronaire II</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-760-01500	Connector ¼" Tube to 1/8" NPT
2	256-760-00410	1/8" Brass Square Elbow
3	256-760-01841	Air Line Filter
4	256-760-02060	Swivel, Male 90 ½ Tube ¼" NPT
5	255-010-13260	Poppet Valve Assembly
6	255-300-02102	Pressure Board Assembly
7	255-010-13170	12 Piston Air Manifold Assembly
*8	256-790-00270	Pressure Transducer (Old Style Board)
8	256-790-00330	Pressure Transducer (New Style Board)
*9	256-790-00280	Pressure Transducer (Old Style Board)
9	256-790-00340	Pressure Transducer (New Style Board)
10	256-780-00700	Solenoid Valve

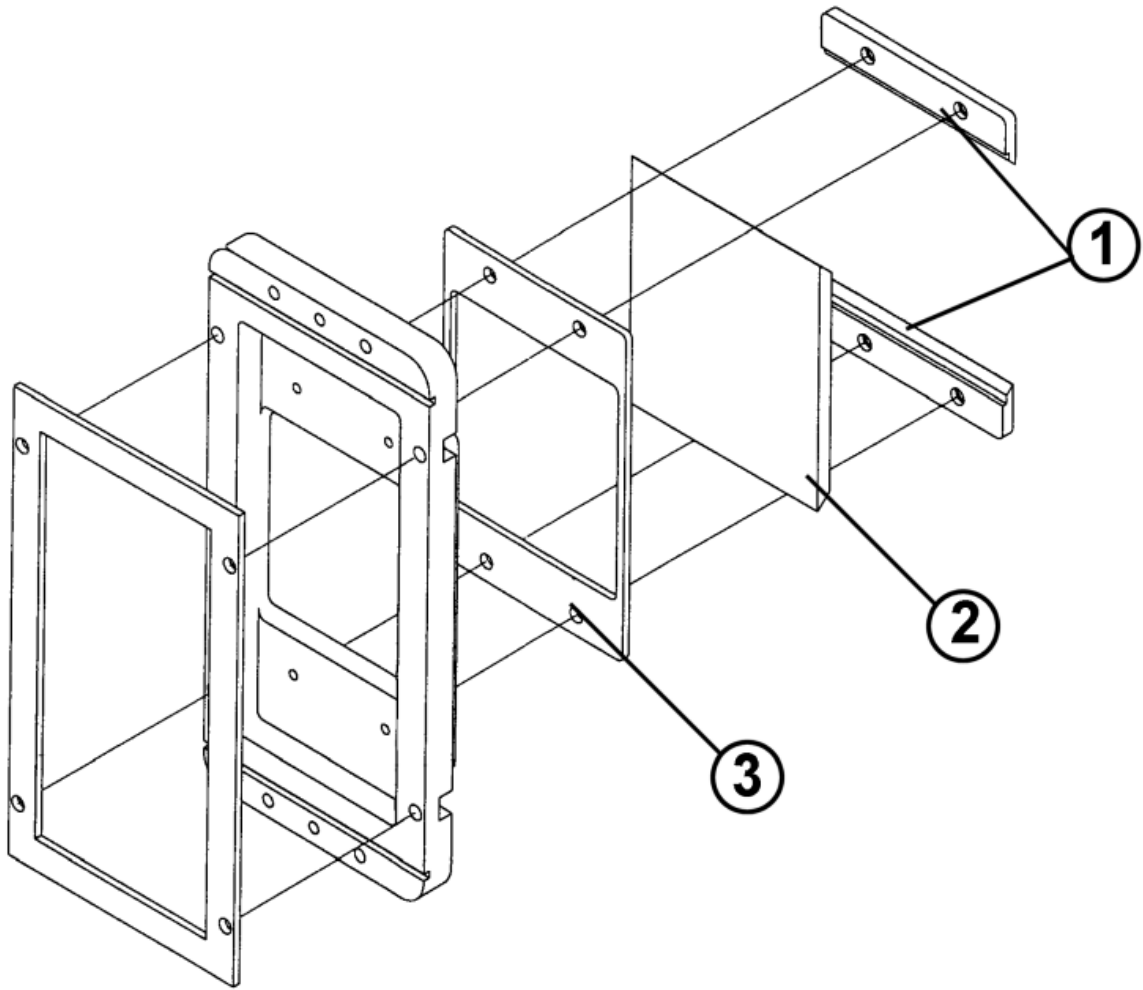
\* Not Available *(These items must be replaced with the new Pressure Transducer Board).*



**Figure 9: Colorhead Assembly**

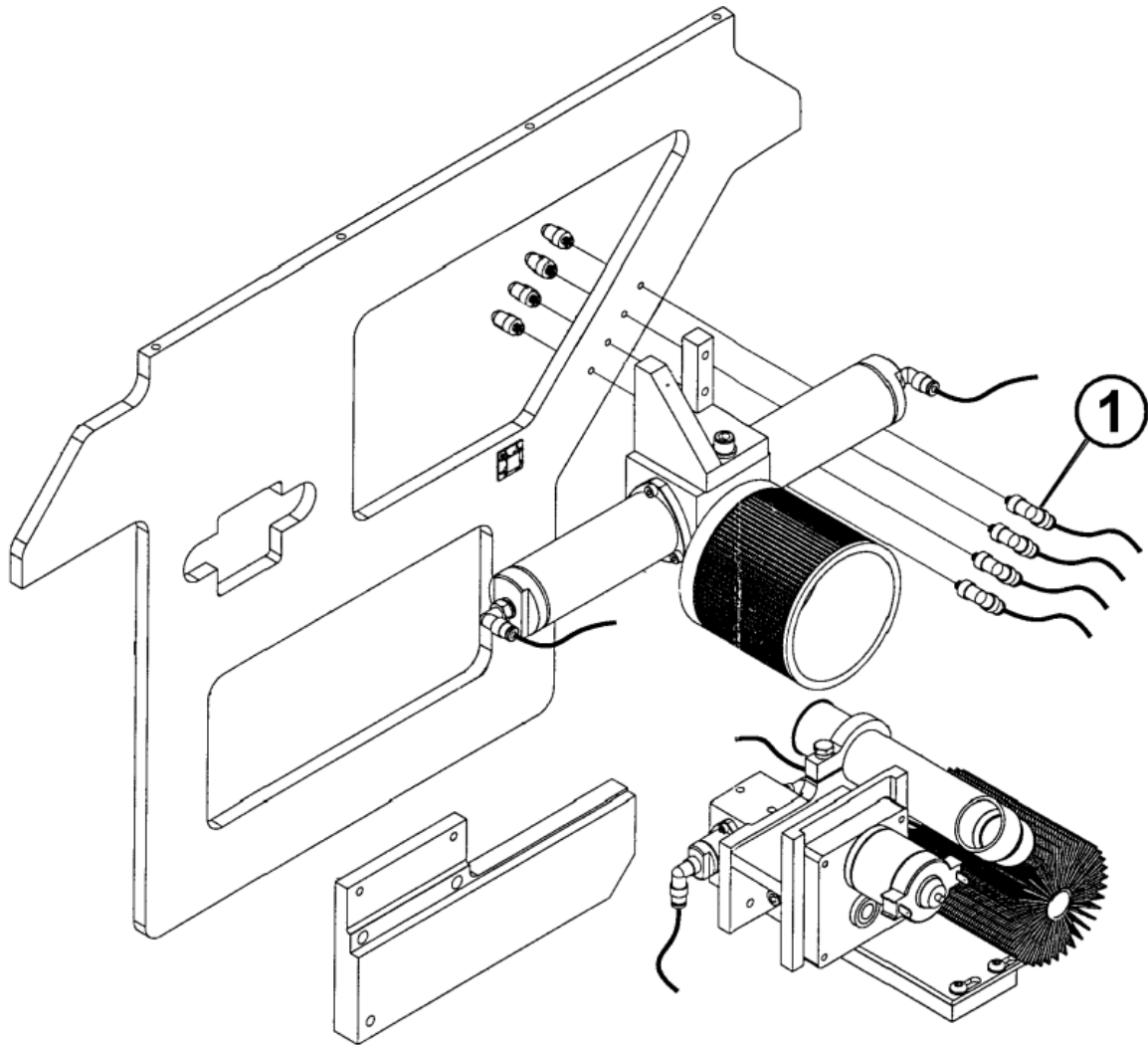
**NOTE:** The Colorhead Assembly is **NOT** field-serviceable, though the following items are available for replacement.

Colorhead Assembly		
Position	Part Number	Description
1	256-670-00720	Cable (VGA) (Colorhead to Framegrabber)
2	255-310-04840	Power Cable (Colorhead to Control Board)



**Figure 10: Flash Colorimeter Bezel Assembly**

<b>Flash Colorimeter Bezel Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	255-210-02272	Flash Colorimeter Glass Clamp
2	255-220-00150	Sample Glass
3	255-240-00700	Flash Colorimeter Glass Gasket



**Figure 11: Frame 1 Assembly**

<b>Frame 1 Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-760-01920	Camozzi 6520 53-32 Fitting

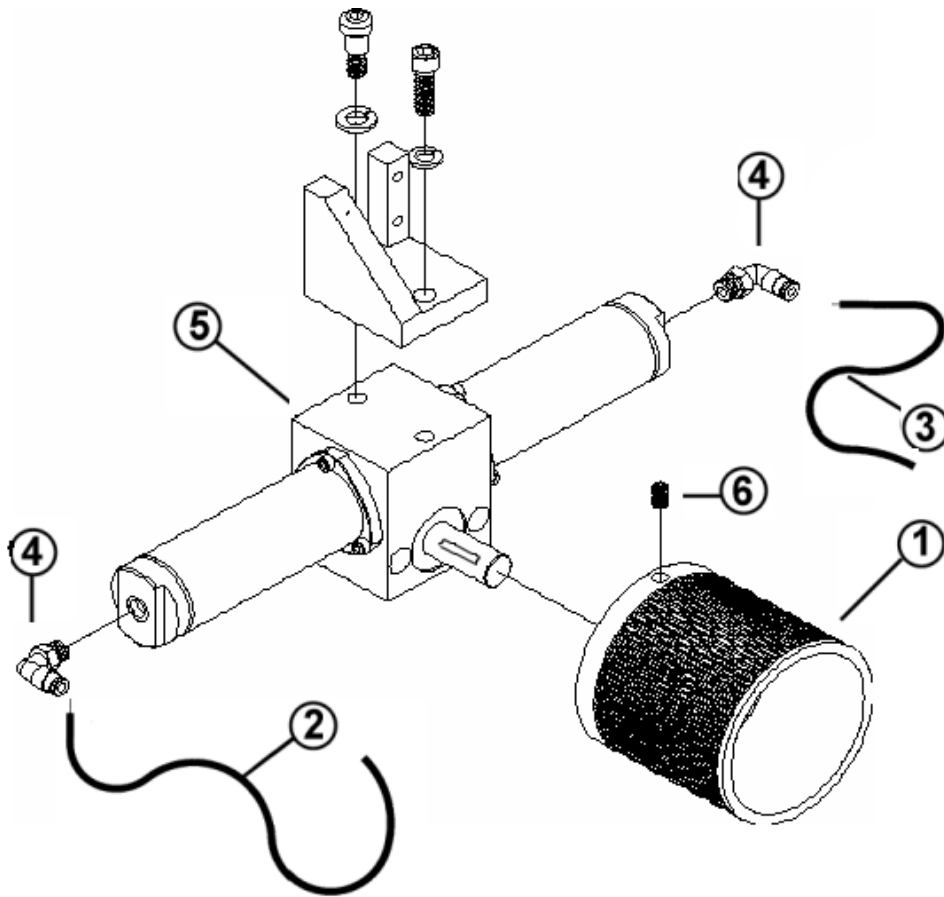
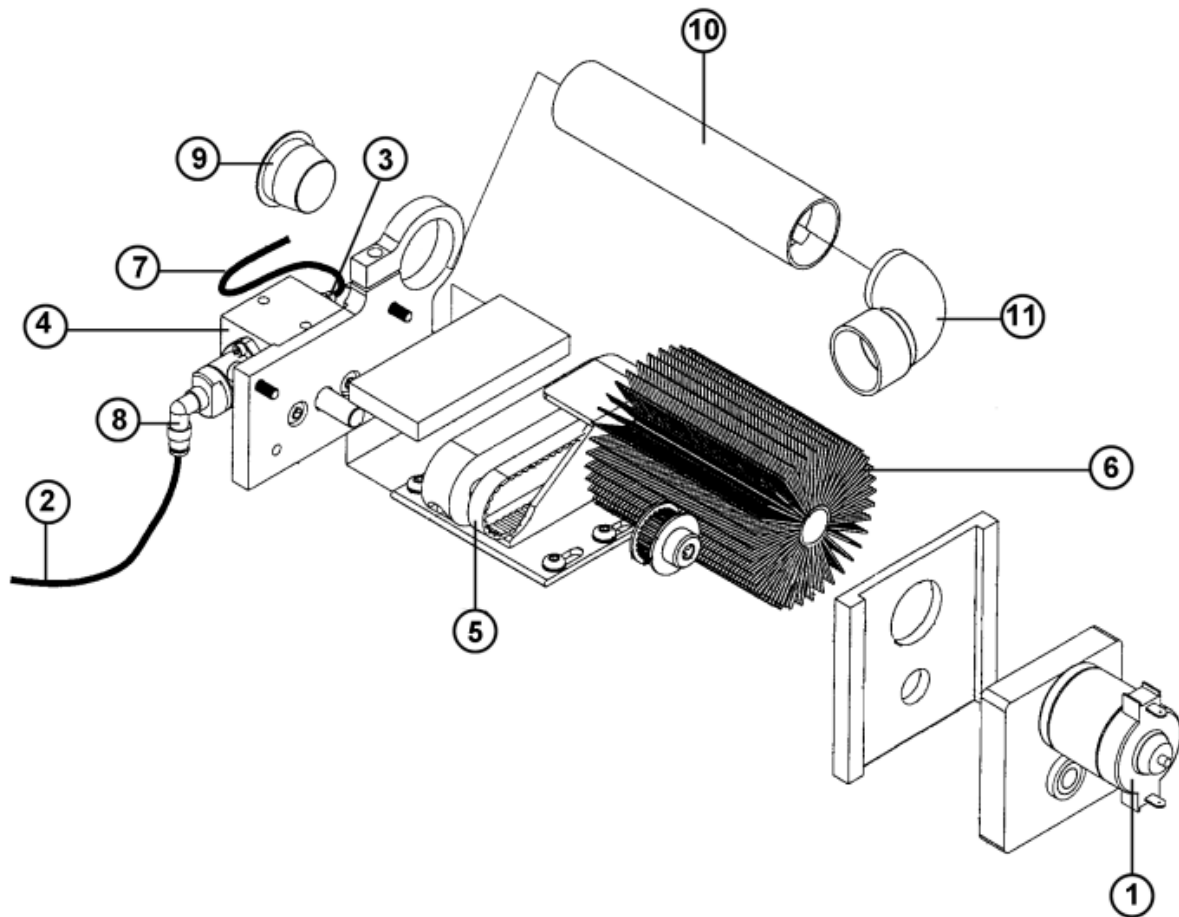


Figure 12: Card Assembly

Card Assembly		
Position	Part Number	Description
1	255-120-01001	Card <b>Note:</b> This replaces the old "two-piece hub" design
2*	256-750-00031	Plastic Tubing 5/32", <b>RED</b> 17.5"
3*	256-750-00031	Plastic Tubing 5/32", <b>RED</b> 6"
4	256-760-00190	Male Elbow, Swivel 5/32" Tube 1/8" NPT
5	256-770-00590	Bimba Rotary Actuator, 098360- B1R
6	256-850-03120	M6 x 1.0, 12mm, HSSS Cone Screw

\*Tubing should be cut to specified length. When Ordering, specify length.



**Figure 13: Brush Assembly**



<b>Brush Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-700-00290	Motor, 24VDC, 1/4" Shaft
2	256-750-00031	Tubing, 5/32" OD, 3/32" ID, <b>RED</b> x 15" piece
3	256-760-01950	5/32" Male Connector Fitting
4	256-770-00570	Bimba Cylinder CPT-01202-A
**	256-810-01000	Bearing, MPB SR6FRHH
**	255-110-05750	Spacer
5	256-820-00650	Timing Belt, 3mm, 80 GR
6	256-899-00170	Brush
7	256-750-00031	Tubing, 5/32" OD, 3/32" ID, <b>RED</b> x 10.5" piece
8	256-760-01920	Camozzi 6520 53-32 Fitting
9	256-830-01680	CAPLUG #T-13X
10	255-110-04630	Vacuum Tube
11	255-140-01530	Vacuum Tube Elbow

\* Not Shown

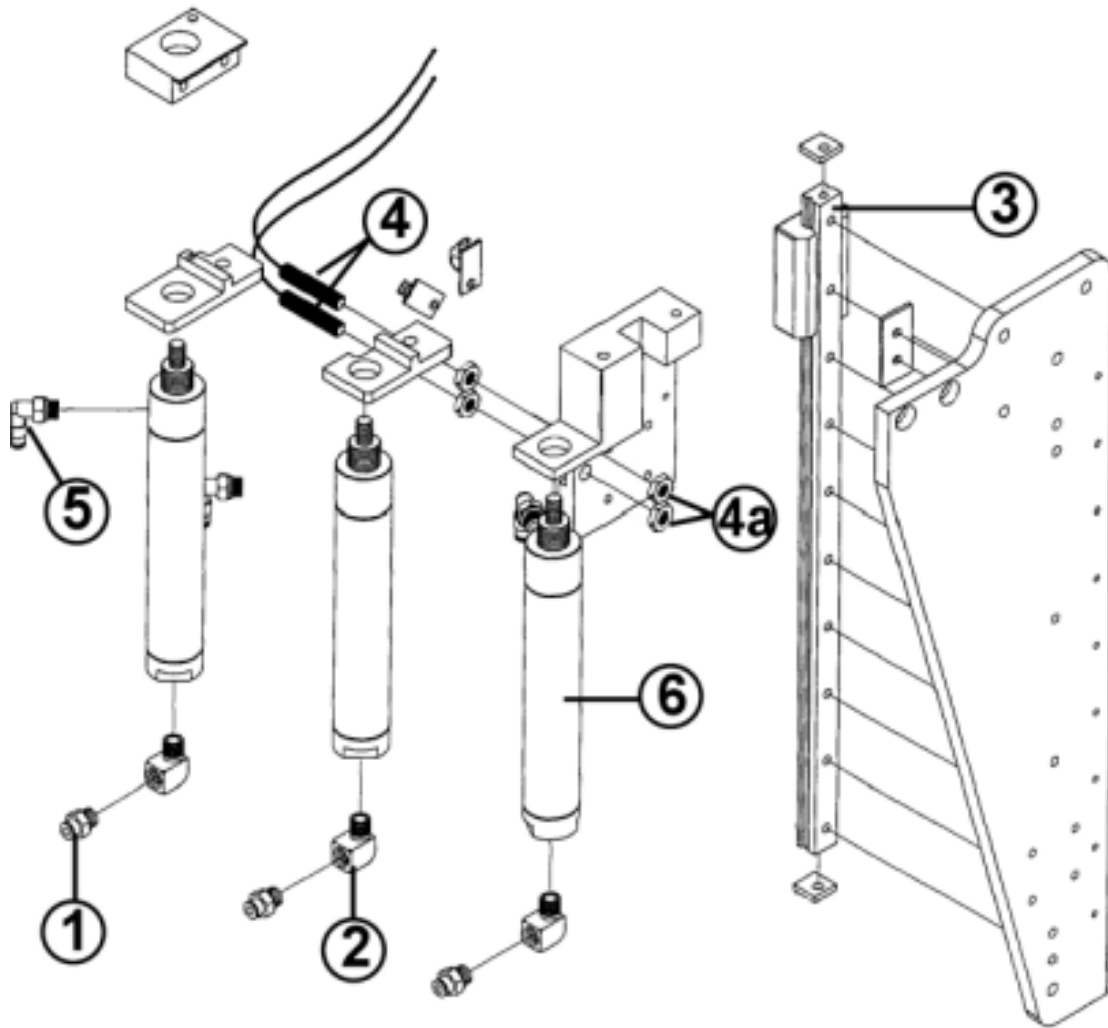


Figure 14: Elevator Assembly

<b>Elevator Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
**	256-670-00540	Elevator Sensor Cable
1	256-760-00850	Male Connector 5/32" Tube – 1/8" NPT
2	256-760-00420	1/8" Brass Street Elbow
3	255-260-00541	Vertical Slide
4	256-570-01100	Sensor, M8 Proximity
4a		Jam Nuts (supplied with sensor)
5	256-760-00190	Male Elbow Swivel 5/32" Tube, 1/8" NPT
6	256-770-00611	Bimba 094-D Cylinder

\* Not Shown

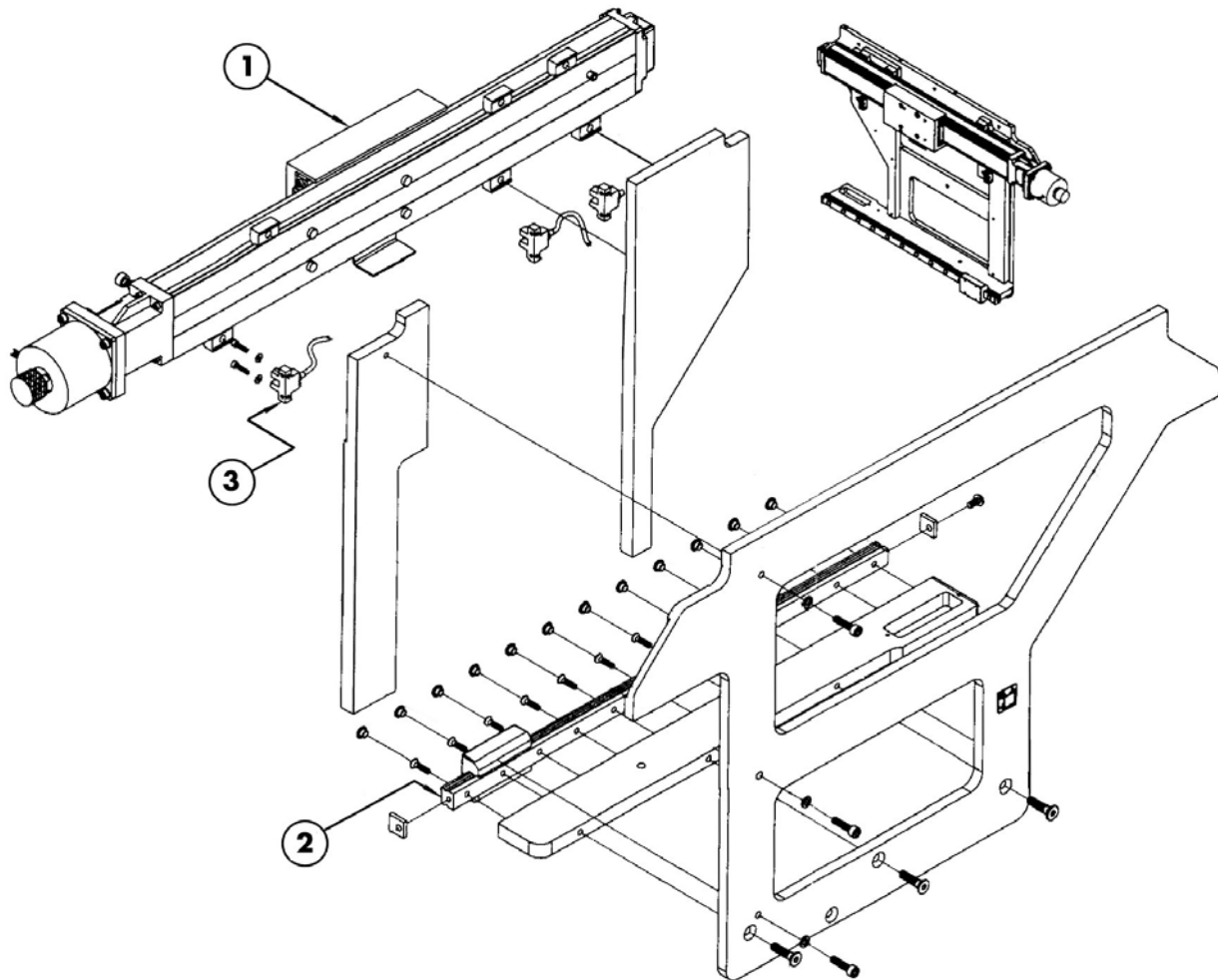


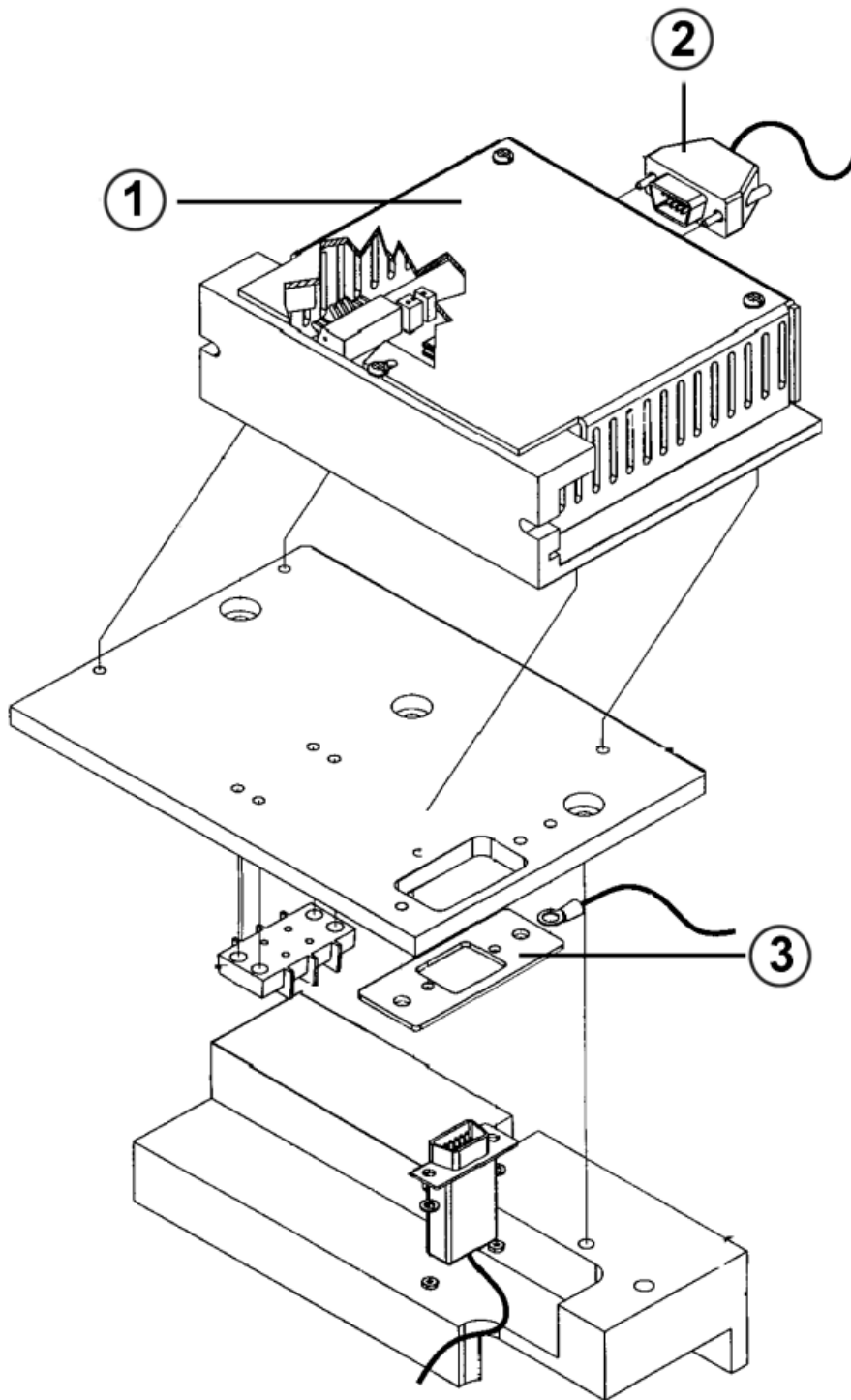
Figure 15: Actuator Frame Assembly



**IMPORTANT:**

**DO NOT** Disassemble the Horizontal Slide (item #2). This part cannot be reassembled!

<b>Actuator Frame Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	255-010-10573	Actuator Drive Assembly
2	255-260-00531	Horizontal Slide
3	256-570-01430	SWI, OPT, SP/ST, PN, 5-24V, RO 15A



**Figure 16: Motor Driver Assembly**

<b>Motor Driver Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-690-00760	Step Motor Driver
2	255-310-06050	Step Motor Driver Cable
3	255-200-13080	Motor Driver Connector Bracket

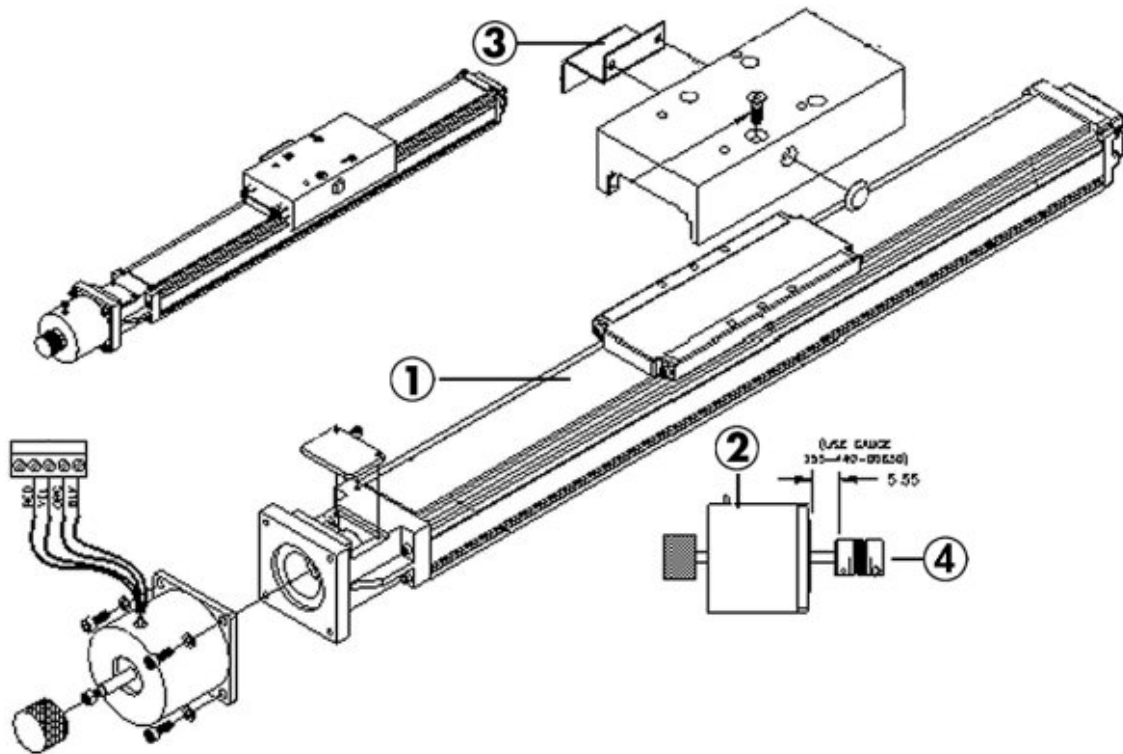
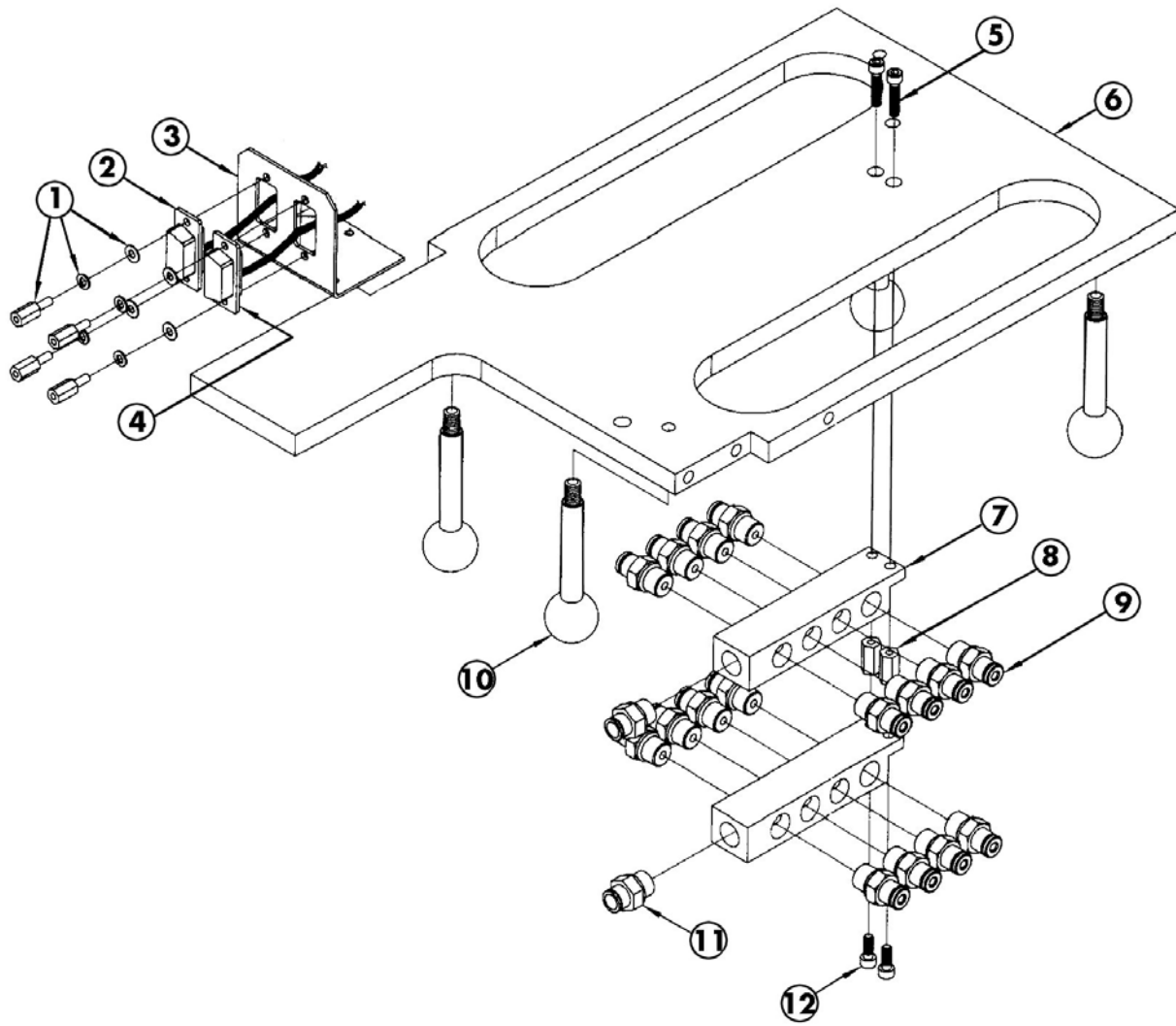


Figure 17: Actuator Drive Assembly

Actuator Drive Assembly (255-010-10573)		
Position	Part Number	Description
1	255-010-14491	Actuator Assembly
2	256-700-00511	ST, MOT, N, 1230
3	255-200-13310	Star Sensor Activator
4	256-810-01540	Coupler for Star Actuator





**Figure 18: Base Assembly**

<b>Base Assembly (255-010-12063)</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
*	255-010-10573	Length/Strength Actuator Drive Assembly
1	256-720-00140	Screw Lock Kit
2	255-310-04833	Analog Board to Bulkhead Cable
3	255-200-13300	Connector Bracket
4	255-310-05630	Breaker Sensor Cable Assembly
5	256-840-01180	6-32, SHCS 5/8" Screw
6	255-100-10724	Length/Strength Base
7	256-760-02780	8 Port 1/8 NPT Manifold
8	256-840-02990	6-32 Hex, 0.500, 0.250 STF
9	256-760-02470	1/8" Tube x 1/8" NPT Male Connector
10	256-830-01850	WGL-O Gear Lever
11	256-760-01500	1/4" Tube to 1/8" NPT Connector
12	256-840-01160	6-32, SHCS 3/8" Screw

\* Refer to Actuator Frame Assembly (Figure 15)

**Note:** This Base Assembly is used in both the Breaker 1 and Breaker 2 Assemblies.

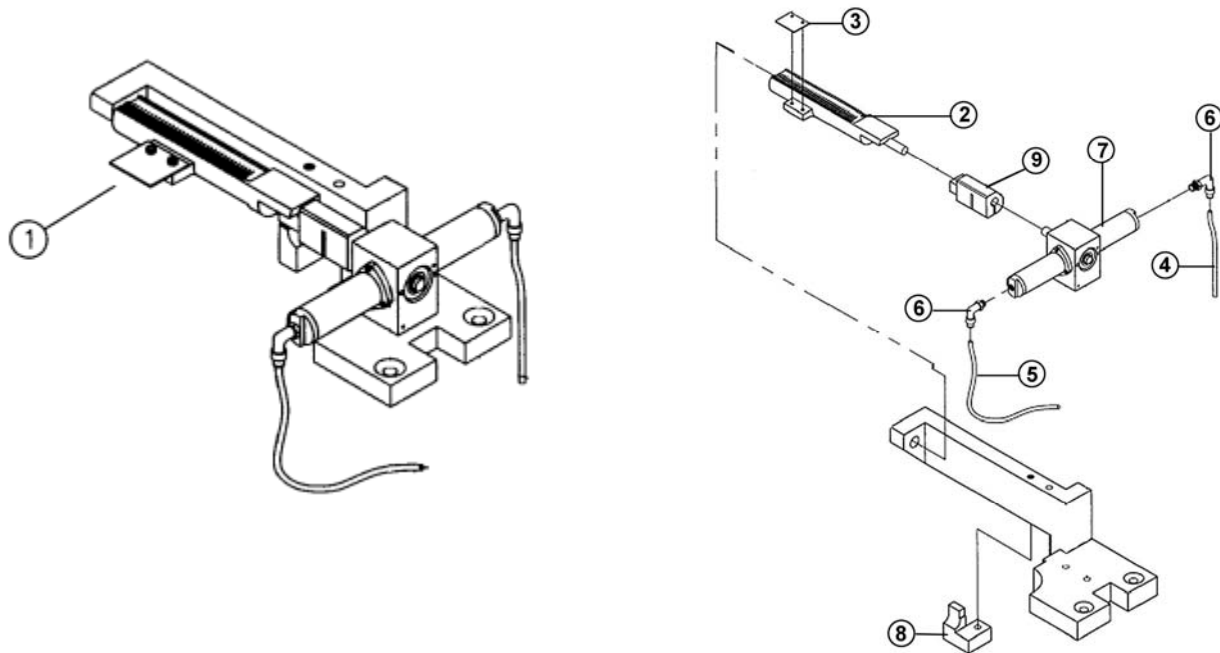


Figure 19: Comb Holder Assembly

Comb Holder Assembly		
Position	Part Number	Description
1	255-010-10741	Comb Holder Assembly w/screws and washers
2	255-010-10750	Comb Assembly
3	255-200-10022	Length Standard <b>(Not Used as of July 2002)</b>
4*	256-750-00030	Plastic Tubing 5/32" <b>RED</b> 3"
5*	256-750-00030	Plastic Tubing 5/32" <b>RED</b> 5"
6	256-760-01920	Camozzi 6520 53-32 Fitting
7	256-770-00600	Rotary Act, Bimba #PT-006180-B1R
**	255-010-12800	<b>Comb Holder Repair Kit Includes:</b> 1 Comb Assembly 1 Coupler 1 Bimba Pneuturn
8	255-100-11003	Comb Stop
9	255-100-10890	Comb Coupler

\*Tubing should be cut to specified length. When Ordering, specify length.

\*\* Not Shown

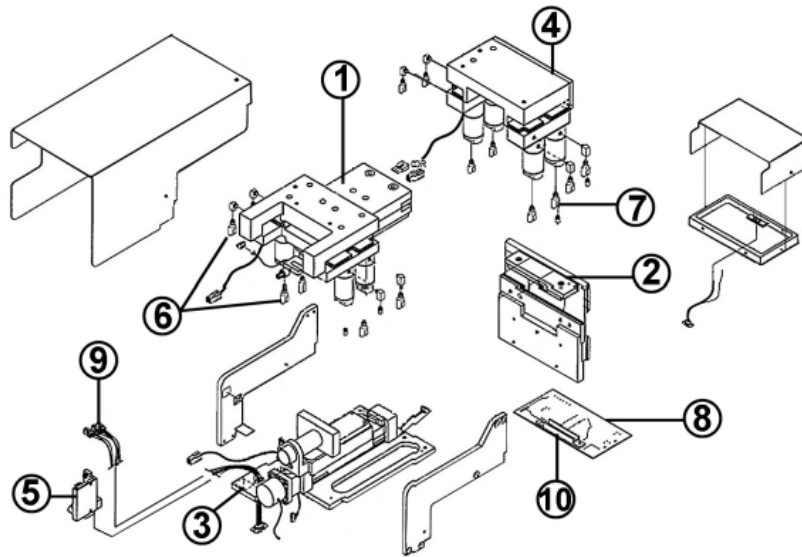
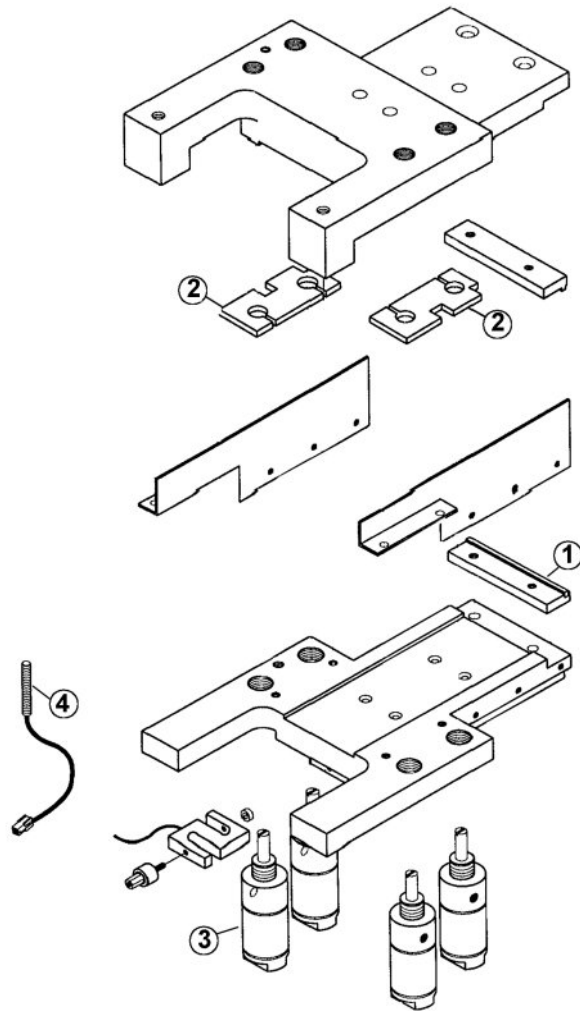


Figure 20: Breaker Assembly, Version 1

<b>Breaker Assembly, Version 1 (255-010-10810)*</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	*	Rear Jaw Assembly
2	*	Optics Assembly
3	*	Base Assembly
4	*	Front Jaw Assembly
5	*	Length/Strength Stepper Motor Driver Assembly
6	256-760-02580	Swivel "Y" Fitting, 1/8" tube x 1/8" NPT
7	256-760-02570	Swivel "Y" Fitting, 5/32" tube x 1/8" NPT
8	255-300-02290 255-300-02361	Analog Board Assembly (used w/V1 Breaker) Analog Board Assembly (used w/V2 Breaker)
9	255-310-05630	Breaker Sensor Cable Assembly
10	256-520-00160	Photo Diode
**	—	Detector D5.230m
**	255-010-13850	Version 1-Version 2 Breaker Upgrade Kit <i>(requires exchange of Version 1 breaker)</i>

\* Not available as spare part.

\*\* Not Shown



**Figure 21: Rear Jaw Assembly**

<b>Rear Jaw Assembly (255-010-11033)</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	255-130-01501	Jaw Bottom Moveable Assembly
2	255-240-00880	Length/Strength Jaw Gasket
3	255-140-01640	Breaker Air Cylinder, Mod
4	255-310-05640	Jaw Position Sensor Cable Assembly

**Note:** This Rear Jaw Assembly is used in both the Breaker 1 and Breaker 2 Assemblies.

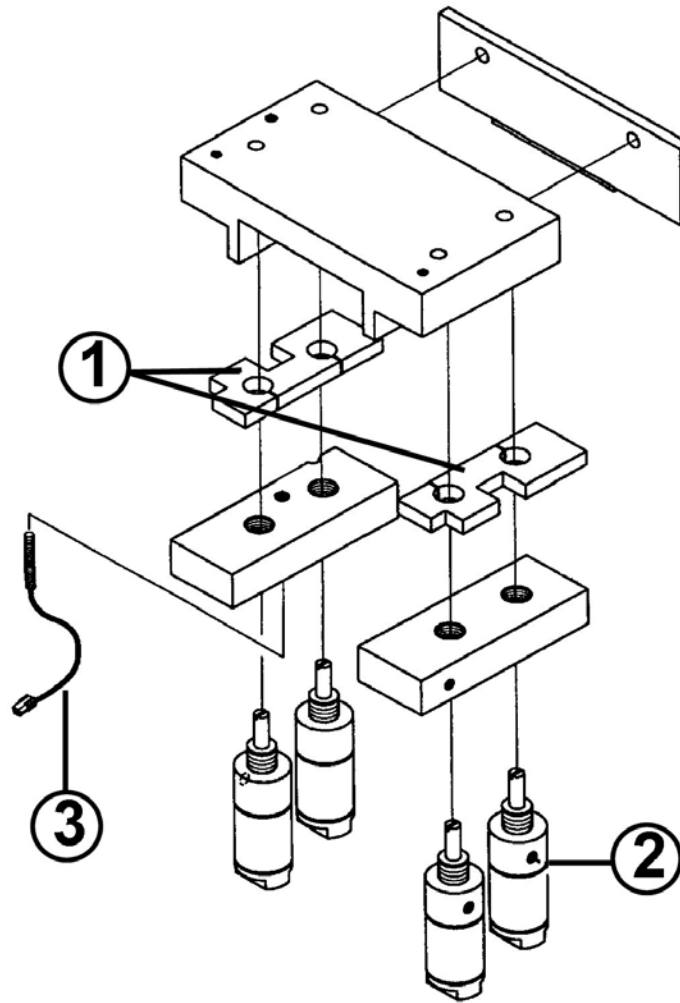


Figure 22: Front Jaw Assembly

Front Jaw Assembly (255-010-12092)		
Position	Part Number	Description
1	255-240-00880	Jaw Gasket
2	255-140-01640	Breaker Air Cylinder, Mod
3	255-310-05640	Jaw Position Sensor Cable Assembly

**Note:** This Front Jaw Assembly is used in both the Breaker 1 and Breaker 2 Assemblies.

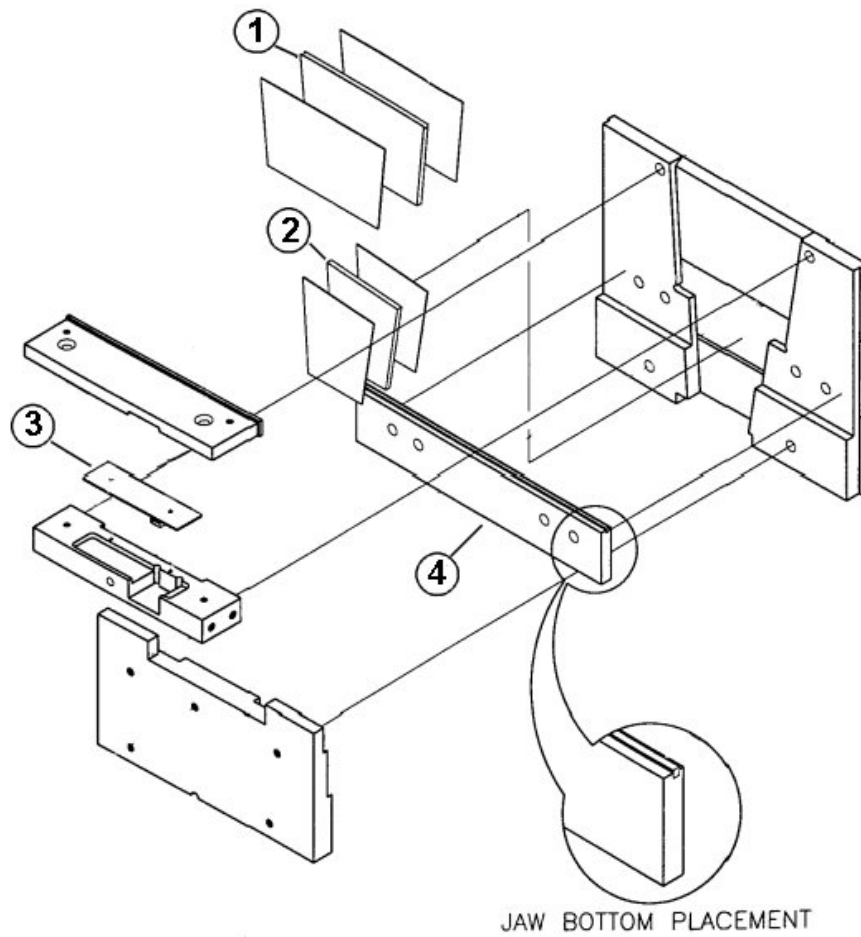
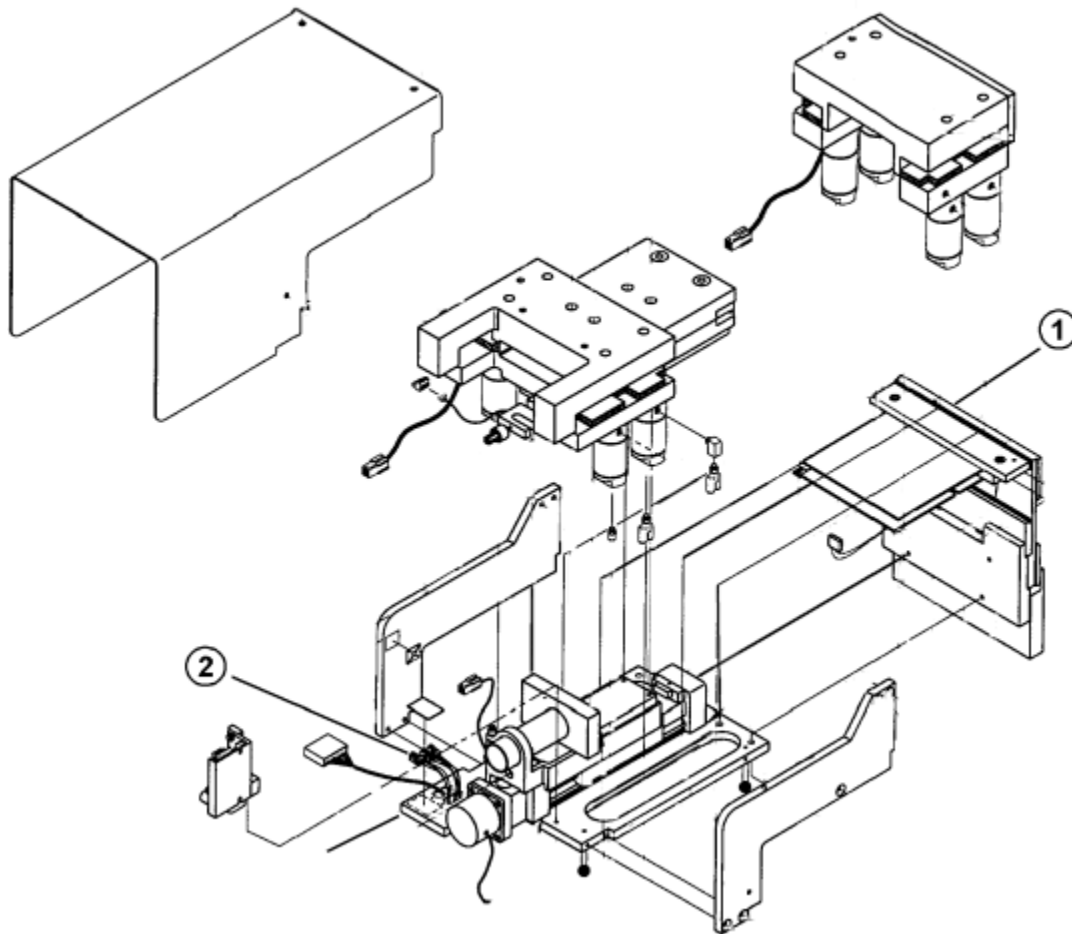


Figure 23: Optics Assembly, Version 1

Optics Assembly, Version 1		
Position	Part Number	Description
1	255-220-00120	FIBROGRAPH 730 Source Lens
2	255-220-00140	FIBROGRAPH 730 Sensing Lens
3	255-300-02320	LED Array Board
4	255-130-01451	Jaw Bottom Fixed Assembly

**Note:** Optics Assembly, Version 1 is within Breaker Assembly, Version 1.



**Figure 24: Breaker Assembly, Version 2**

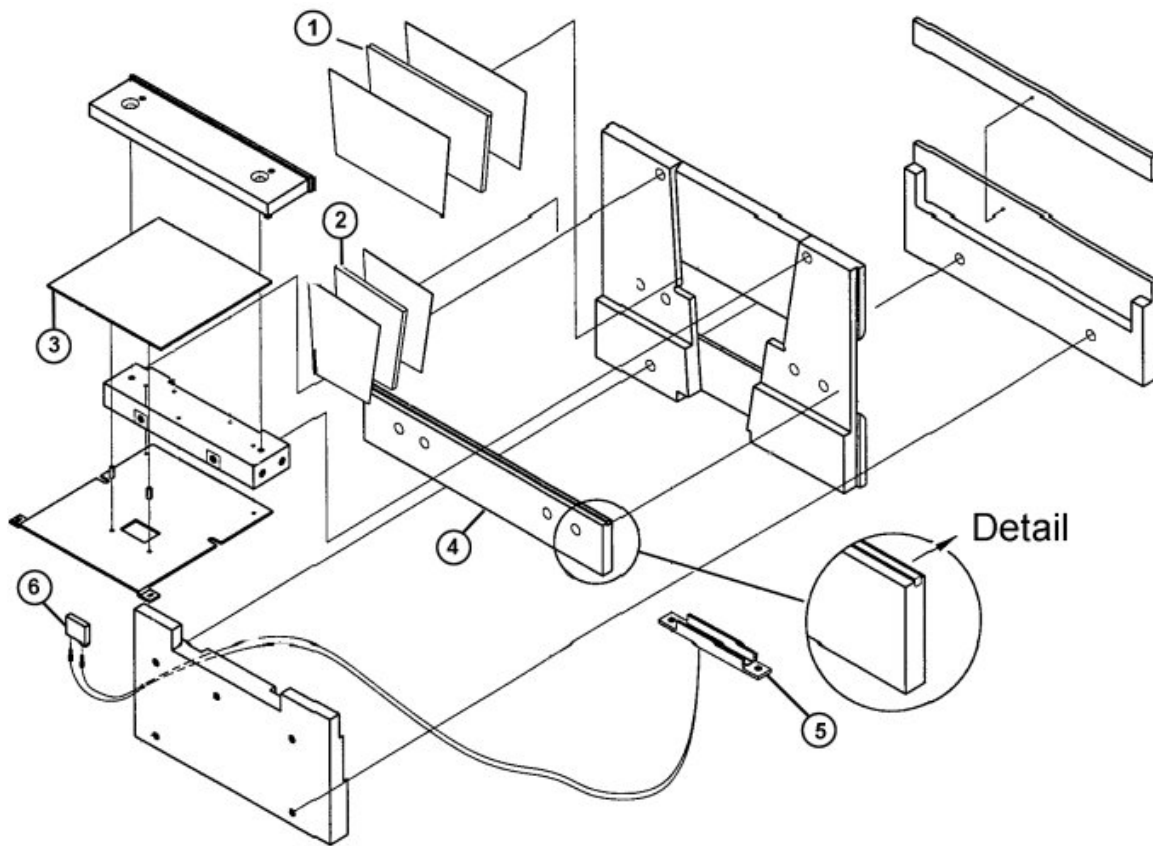
Breaker Assembly, Version 2 (255-010-10812)		
Position	Part Number	Description
1	*	Optics Assembly 2
2	255-310-05630	Sensor Cable
**	255-010-13850	<b>THK</b> Breaker Upgrade Kit (includes Breaker, Cable, Hoses, and Connectors). <i>Requires breaker exchange.</i>

\* Not available as spare part.

\*\* Not shown – Upgrade from Version 1 to Version 2

**Note:** See Breaker Assembly, Version 1 for complete list of spare parts.





**Figure 25: Optics Assembly , Version 2**

Optics Assembly, Version 2		
Position	Part Number	Description
1	255-220-00120	<i>FIBROGRAPH 730</i> Source Lens
2	255-220-00140	<i>FIBROGRAPH 730</i> Sensing Lens
3	255-300-02361	LED Array/Analog Board Assembly
4	255-130-01451	Jaw Bottom Fixed Assembly
5	255-320-01490	Photo Diode Assembly
6	256-620-02860	Con, 02, V, FR, 254mm 1 ROW House

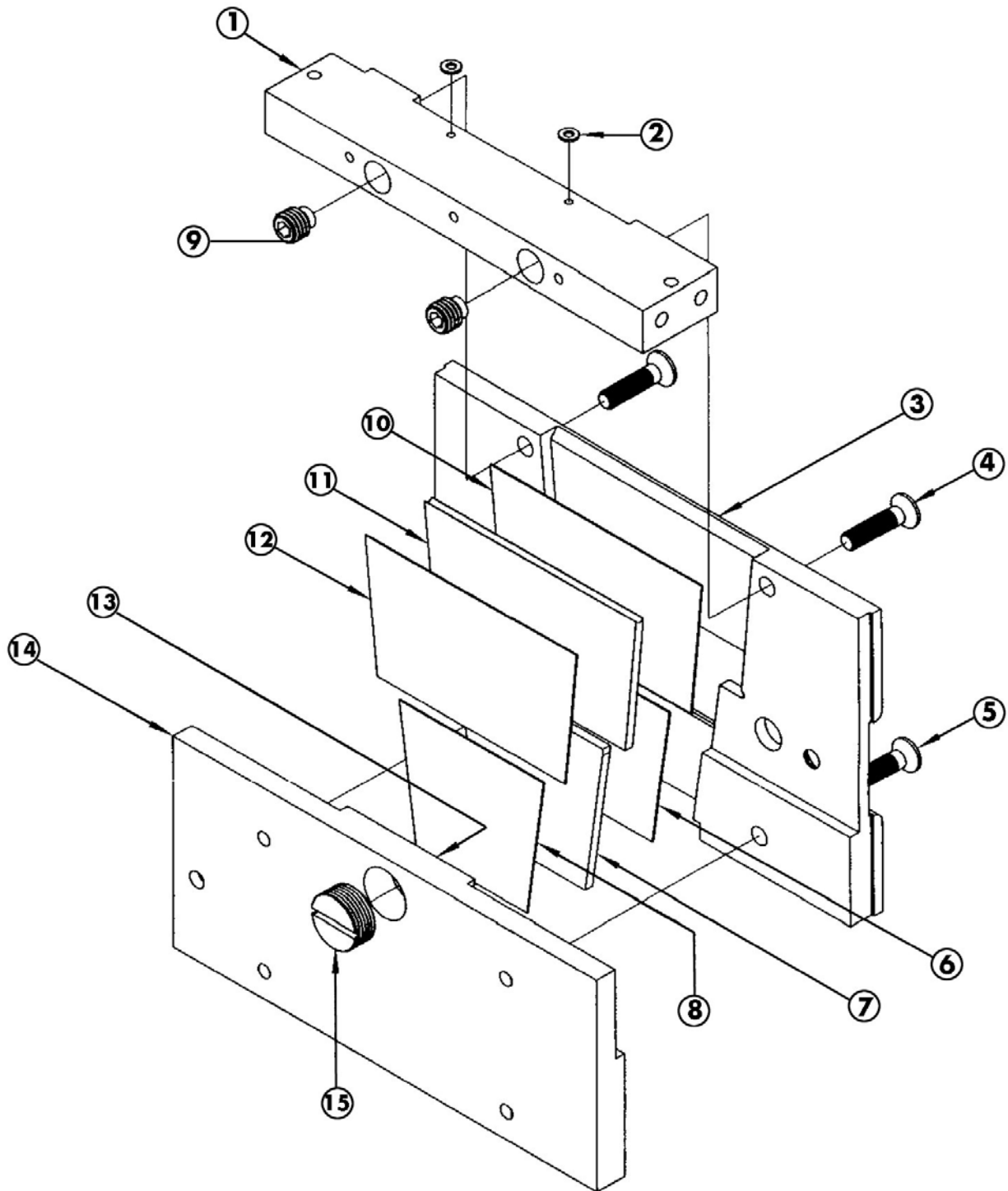


Figure 26: Optics Assembly (Newest Version)

<b>Optics Assembly 255-010-11043</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	255-100-10671	Optics Back Top
2	256-840-01800	0.127, <i>FIBROGRAPH 730</i> , 0.312, 0.047 Washer
3	255-100-10671	Optics Front
4	256-850-01060	M6, 1.00, FHSCS, 25mm Screw
5	256-850-01430	M6, 1.00, FHSCS, 20mm Screw
6	255-200-07670	<i>FIBROGRAPH 730</i> Optics Shim 1
7	255-220-00140	<i>FIBROGRAPH 730</i> Sensing Lens
8	255-210-02290	Optics Shim 1
9	256-850-03100	M10, 1.50, HSSS, 10mm SSNT Screw
10	255-200-07680	<i>FIBROGRAPH 730</i> Optics Shim 2
11	255-220-00120	<i>FIBROGRAPH 730</i> Source Lens
12	255-210-02300	Optics Shim 2
13	256-860-00070	RTV Silicone Clear Adhesive Seal
14	255-100-10702	Optics Bottom Back
15	256-830-02210	¾" – 20, 332, SS/FRELON Plug

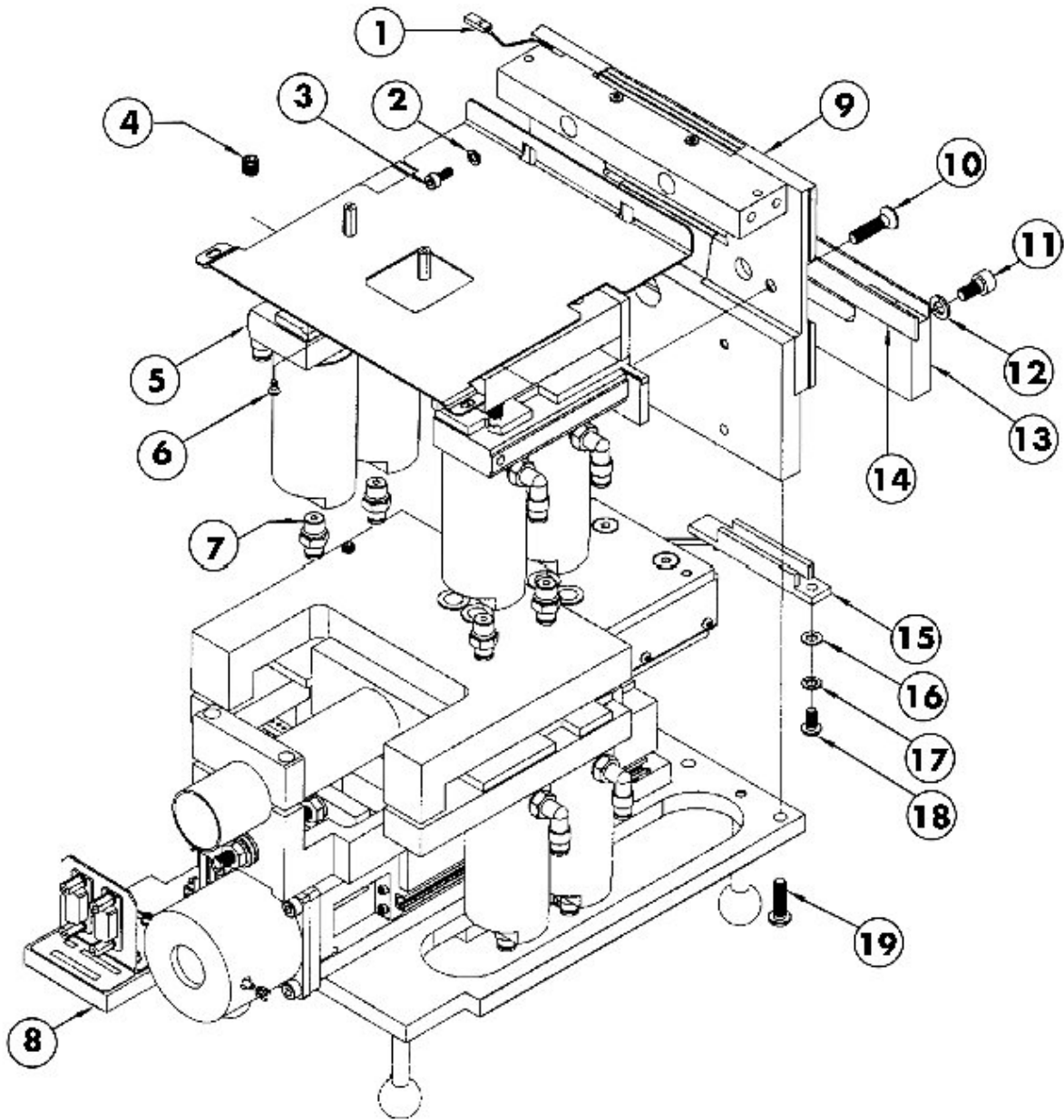
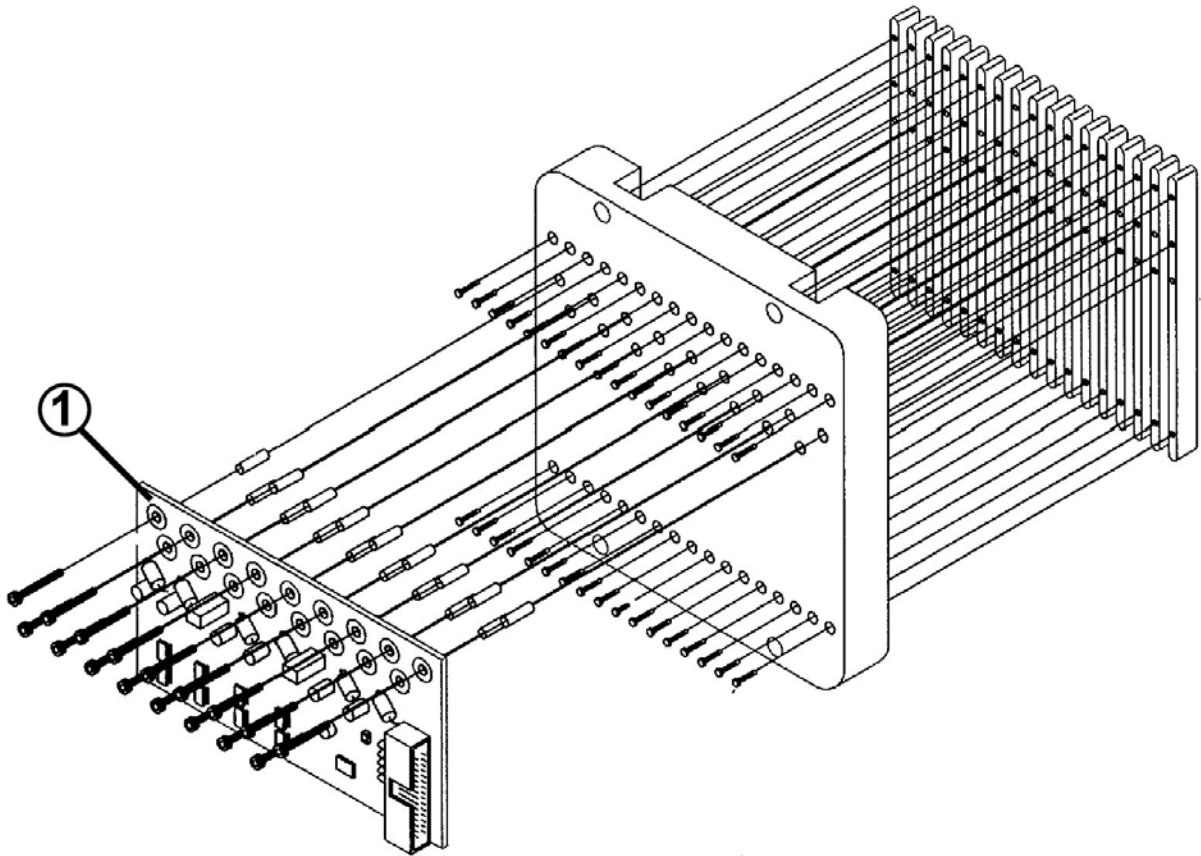


Figure 27: Breaker Assembly (Newest Version)

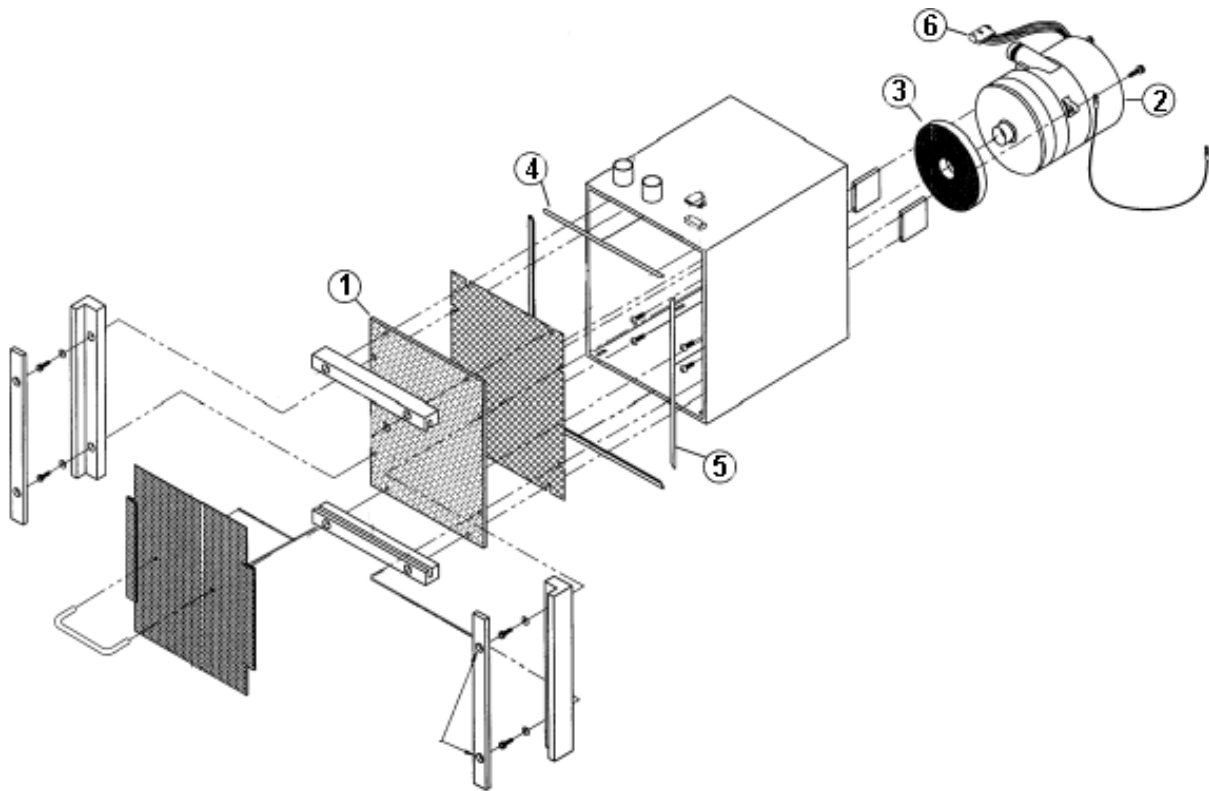
<b>Breaker Assembly (255-010-10812)</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-620-02860	02, V, FR, 265mm 1 Row Housing Connector
2	256-850-00060	4.3, SPLT, 7.0, 0.9 Washer
3	256-850-02910	M4, 0.70, SHCS, 10mm Screw
4	256-850-02080	M8, 1.25, HSSS, 8MM, <b>BLACK</b> Screw
5	255-010-12092	Front Jaw Assembly
6	256-850-01050	M3, 0.50, FHSCS, 6mm Screw
7	256-760-01500	1/8" Tube x 1/8" NPT Male Connector
8	255-010-11033	Rear Jaw Assembly
9	255-010-11043	Optics Assembly
10	256-850-01060	M6, 1.00, FHSCS, 25mm Screw
11	256-850-00210	M6, 1.00, SHCS, 12mm Screw
12	256-850-00390	6.3, SPLT 11.0, 1.6 Washer
13	255-100-13920	Optics Front Bottom Cover
14	256-860-00050	1/8" x 1/2" x 185mm Adhesive Backed Strip Tape
15	255-320-01490	Photo Diode Assembly
16	256-850-01170	5.2, BLVL, 10.0, 0.25 Washer
17	256-850-00090	5.1, SPLT, 8.8, 1.1 Washer
18	256-850-01360	M5, 0.80, BHCS, 10mm SS Screw
19	256-850-02760	M6, 1.00, BHCS, 20mm Screw



**Figure 28: Lint Moisture Assembly**

<b>Lint Moisture Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	255-300-02121	Lint Moisture Board
**	256-670-00570	Moisture Cable

\*\*Not Shown



**Figure 29: Lint/Waste Box Assembly**

Lint Waste Box Assembly		
Position	Part Number	Description
1	255-120-00970	Fur Filter
2	255-010-12520	Blower Assembly
3	255-240-00720	Seal
4*	256-899-00380	Cut, "P" Gasket, 9.75" PC
5*	256-899-00380	Cut, "P" Gasket, 11" PC
6	255-320-00890	Power & Vacuum Switch Assembly

*\*Gasket must be cut to fit. Specify length when ordering.*

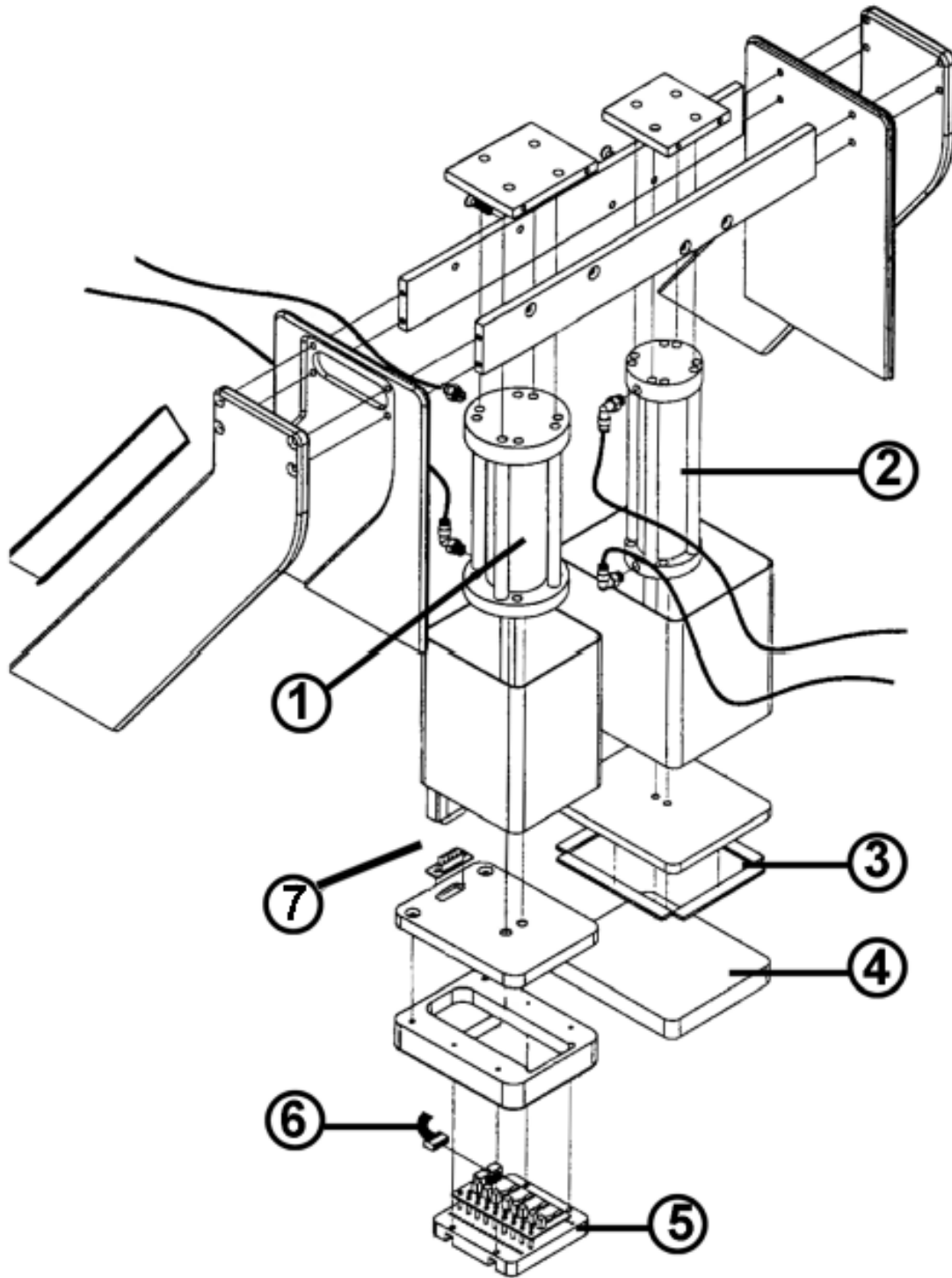
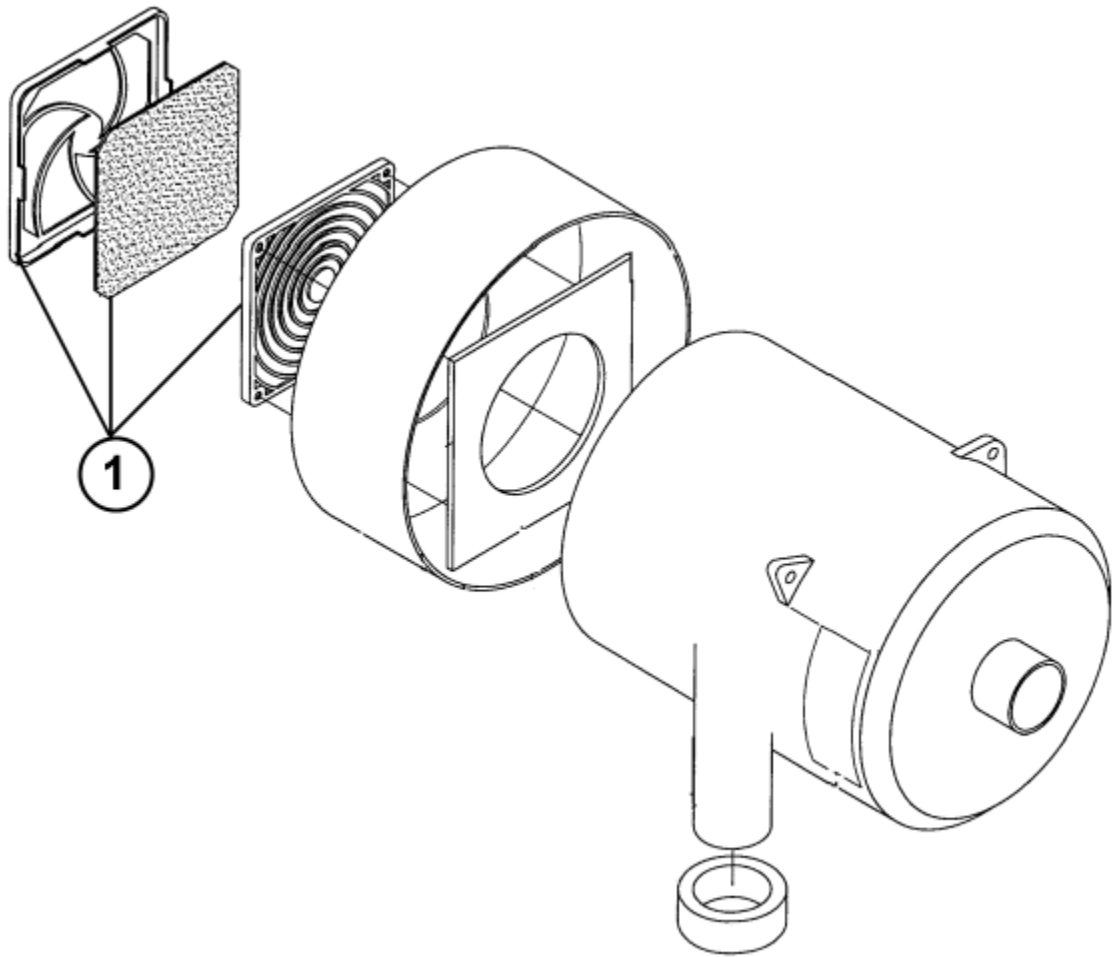


Figure 30: Bezel Assembly



<b>Bezel Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-770-00661	Bimba Cylinder Flat FT-315.75-4CEM
	255-010-15180	Moisture/Color Hand O-Ring Replacement Kit
2	256-770-00670	Bimba Cylinder Flat FT-176-4CEM
	255-010-15170	Sampler Hand O-Ring Replacement Kit
3	256-860-00060	MTG Tape Scotch 110 .5" Wide
4	255-240-00710	Sampler Hand Pad
5	255-320-01340	Lint Moisture Board Assembly
6	255-310-05540	Moisture Sensor Cable
7	256-670-00570	DB15M-DB15F 3.0M Shield Card/ Moisture Cable
2 - 3 - 4	255-010-12570	Bimba Cylinder Kit



**Figure 31: Blower Assembly**

<b>Blower Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-710-00030	5C033 Fan Media Filter

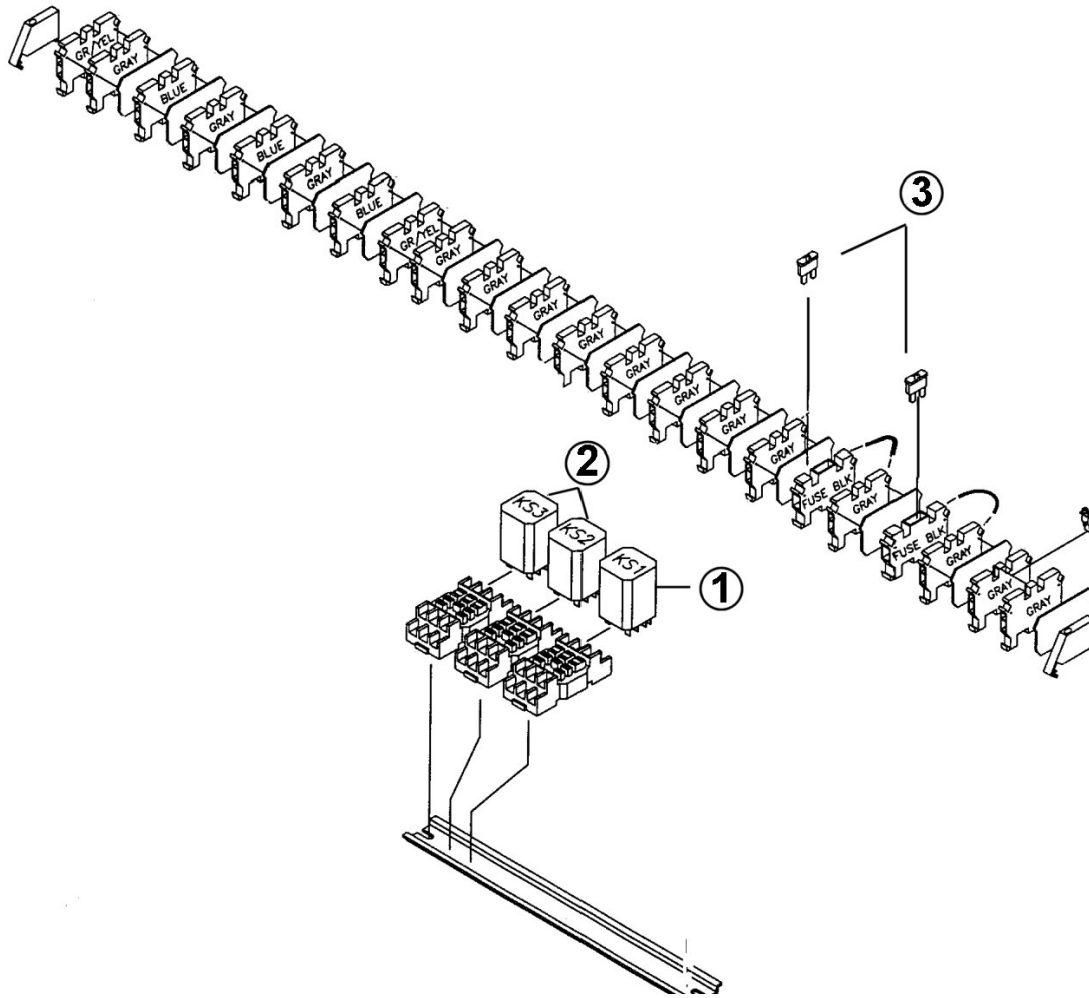
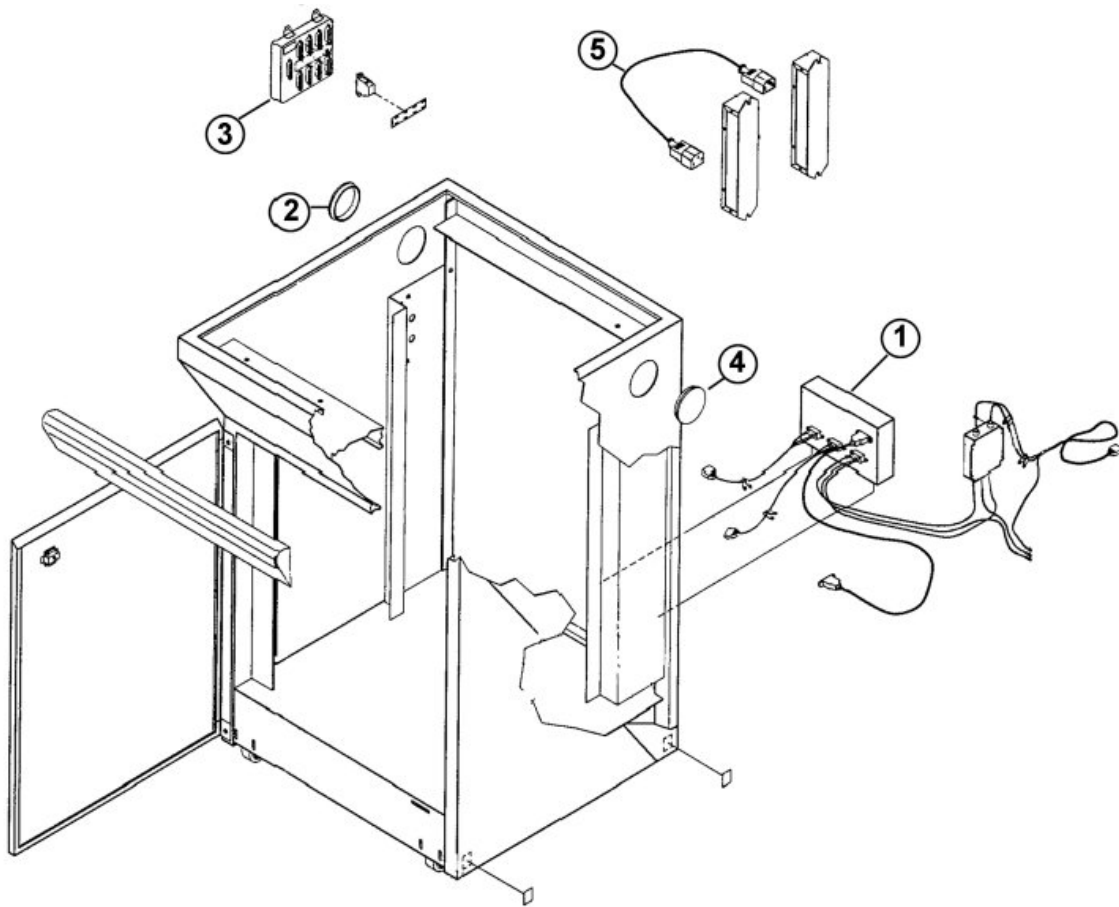


Figure 32: Din Rail Assembly

Din Rail Assembly		
Position	Part Number	Description
1	256-570-00620	Relay 24V AC DPST 3mm Gap
2	256-570-00630	Relay 24V DC DPST 3mm Gap
3	256-590-00510	7.5 Amp Flat Auto Fuse



**Figure 33: Cabinet Assembly**

<b>Cabinet Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	255-010-10890	Power Entry Module Assembly
2	256-720-00300	Snap Bushing (Heyco SB2461)
3	256-730-01310	Interface, 8 Port RS232 DB25
4	256-830-00410	Cabinet Hole Plug
5	256-670-00600	CRD, Power, 18AWG, 03, IECM-IECF

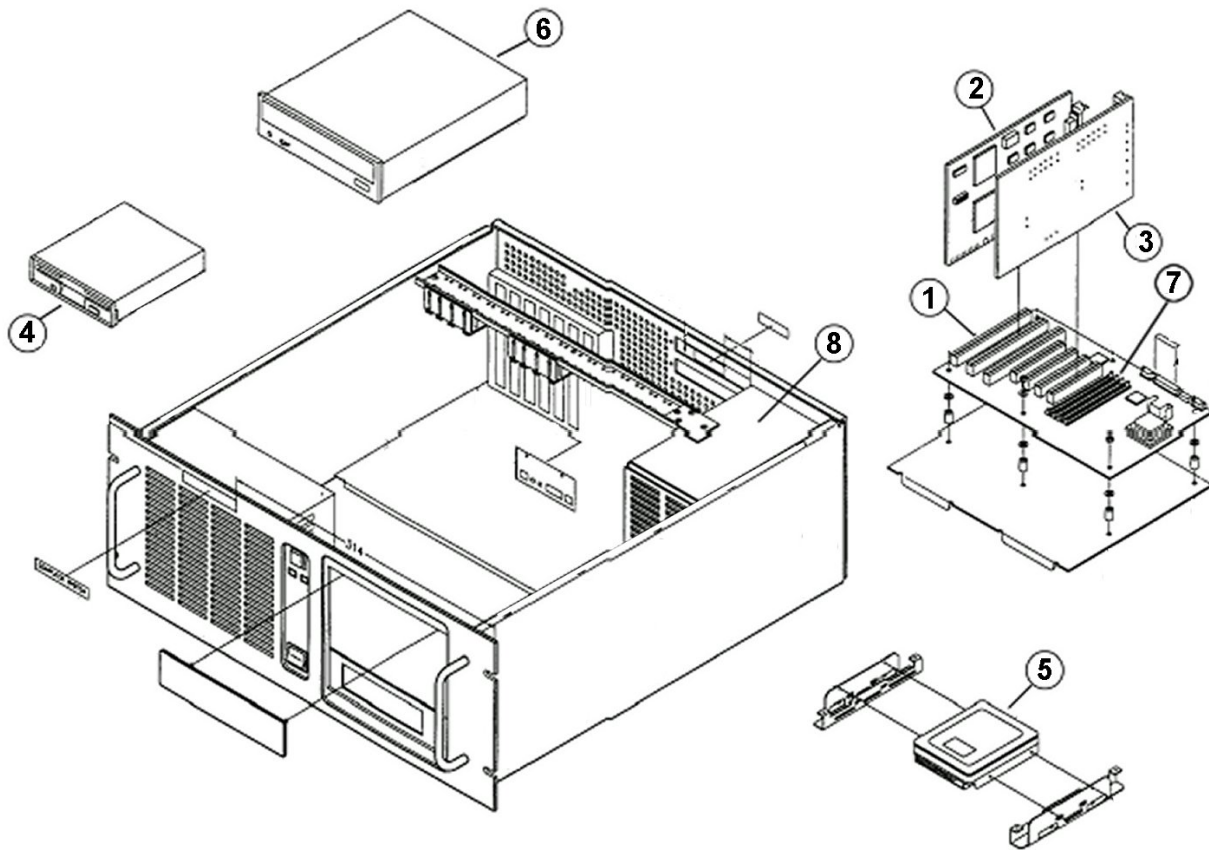


Figure 34: Computer Assembly

Computer Assembly		
Position	Part Number	Description
1	255-320-01611	Motherboard Assembly with CPU and Memory
2	256-690-00482	PCI 8 Port Serial I/O PCB
3	256-690-00800	PCB AGP Video Graphics Accel
4	256-730-00630	3.5 HD FL DRTC 1.44 w/o Kit Black
5	256-730-00592	HDW, HDRIVE, 3.5" ATA/IDE
6	256-730-01820	DVD-RW Internal IDE HDW
7	256-730-01570	RAM DIMM, 128MB 16x72 SDRAM
8	256-680-00461	PWS, Switch, Multi 350W
**	255-300-02301	Frame Grabber Board

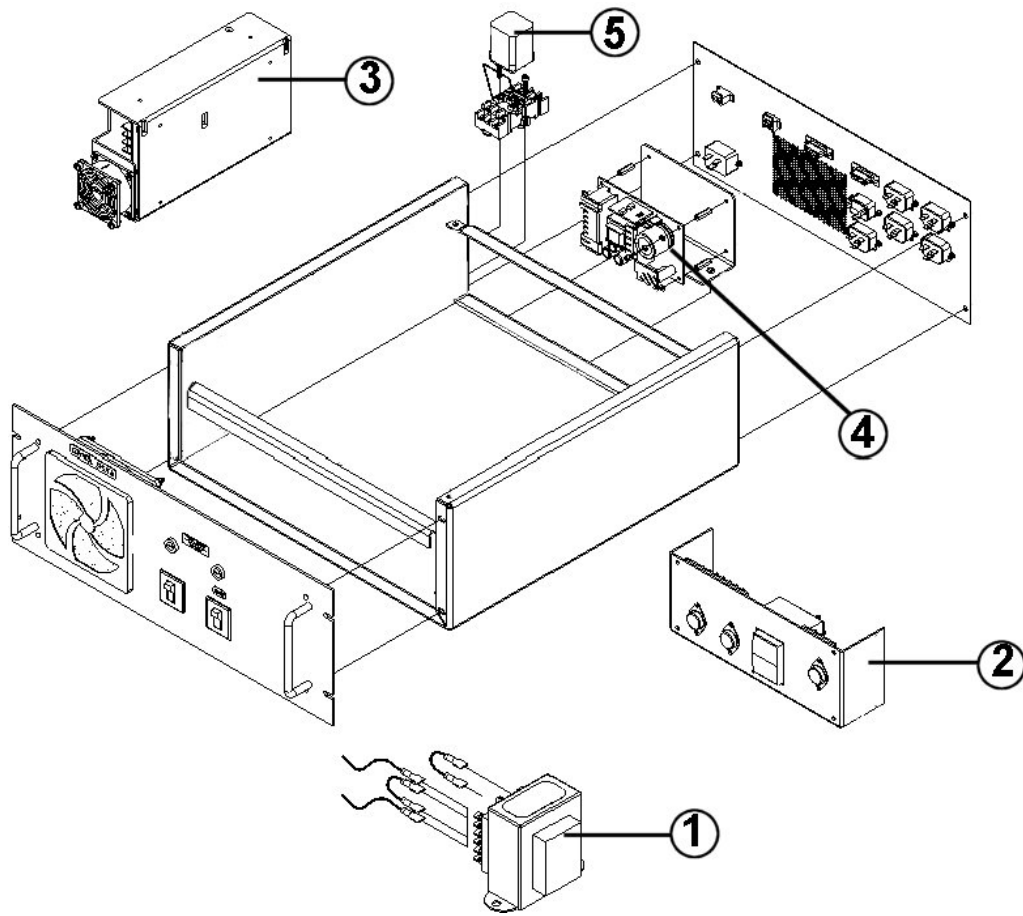
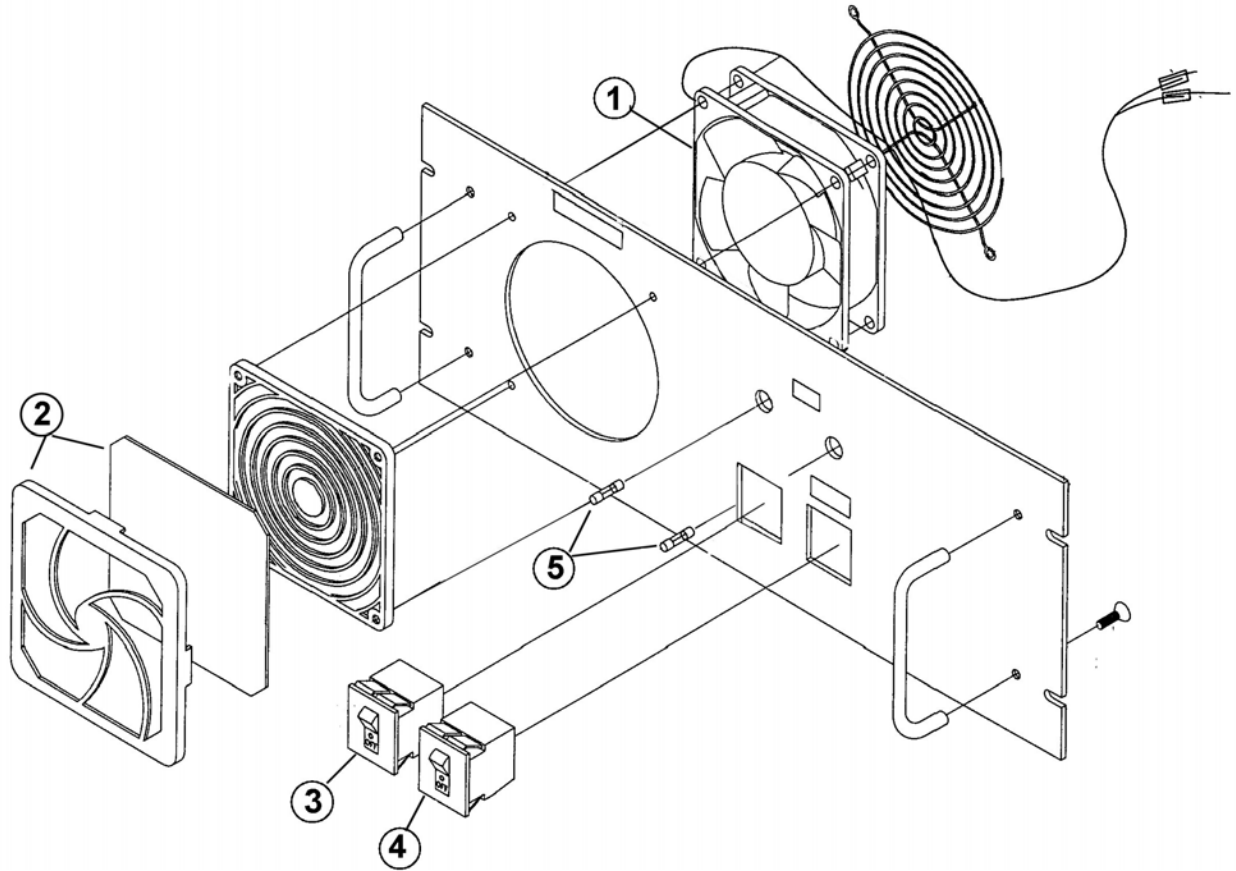


Figure 35: Control System

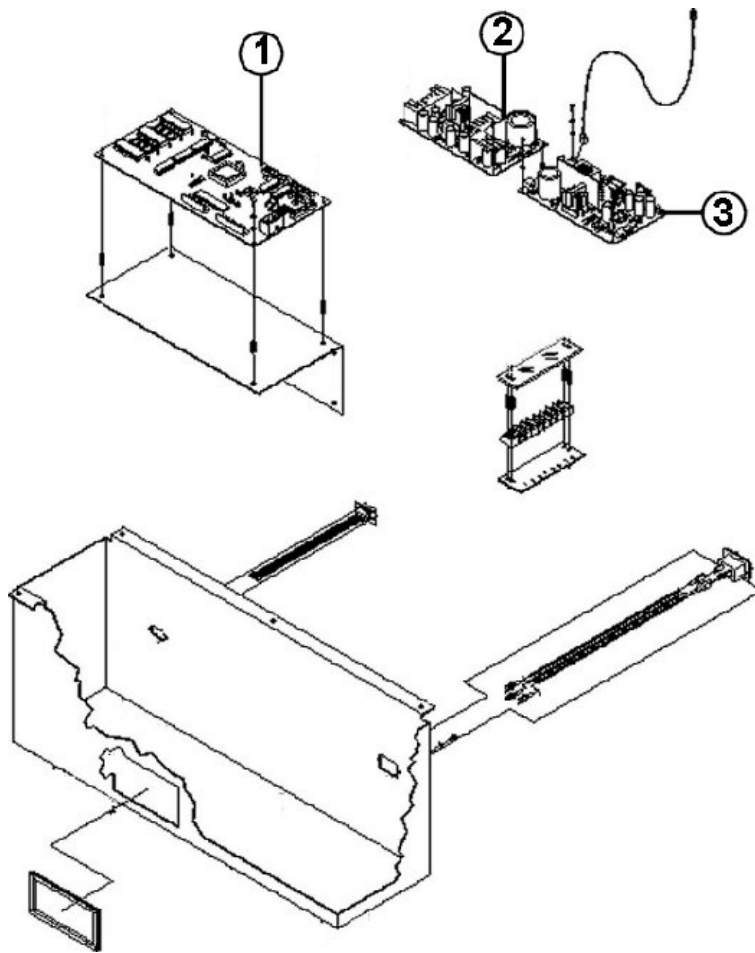
Control System		
Position	Part Number	Description
1	256-610-00190	Transformer 230V to 24V
2	255-320-01240	15V & 5V Power Supply Assembly
3	256-680-00331	24V Power Supply
	255-010-14110	Power Supply Upgrade Kit that includes Cooling Fan
4	256-680-00410	12V 5.4 Amp Power Supply
5	256-570-00620	Relay 24V AC DPST 3mm Gap (KS1+KS4)
**	256-570-00630	Relay 24V DC (KS2+KS3)



**Figure 36: Control System Front Panel Assembly**

<b>Control System Front Panel Assembly</b>		
<b>Position</b>	<b>Part Number</b>	<b>Description</b>
1	256-710-00040	Globe Fan, D47-B15A-05W3-000, 24 Volt DC
2	256-710-00050	5CO32 Fan Guard for 4C918 Fan
3	256-590-00190	4 Amp Magnetic Circuit Breaker
4	256-590-00500	15 Amp Magnetic Circuit Breaker
5	256-590-00600	Fuse 100MA/250V





**Figure 37: UV Module Control Box Assembly**

UV Module Control Box Assembly (255-010-10850)		
Position	Part Number	Description
1	255-300-02340	Mini-controller Circuit Board Assembly
2	256-680-00400	PWS, Auto 24DC, 64R8VA
3	256-680-00421	PWS, Auto 5/+15/-15, 50VA
*	255-200-13160	Power Supply Adapter Plate

\* The Power Supply Adapter Plate needs to be ordered whenever a 5/+15/-15 Power Supply is ordered.

**Note:** These items are for the optional 380 UV Module.



<b>Standard Accessories</b>	
<b>Part Number</b>	<b>Description</b>
256-730-01580	Non Touch Screen Monitor
256-730-01351	IBM Flat Screen Monitor
256-730-01480	Balance (power supply adaptor) w/balance PB602-S
256-680-00540	PB602-S Power Supply
256-680-00550	Balance Power Supply
255-010-12580	HP Color Inkjet Printer Kit
255-010-03040	Pressure Calibration Standard Assembly
255-130-00140	Optical Calibration Filter Holder Assembly
256-730-01511	Solidtek Keyboard with Touch Pad Feature
256-890-01210	Color Ink Cartridge
256-890-01220	Black and White Ink Cartridge
256-890-01200	Printer Paper
255-010-12870	Brush/Card Cleaner Assembly
256-899-00170	Brush (Individual)
256-730-01291	Windows 98
256-730-01990	Windows XP Professional
256-899-00120	Slicker Brush #454
256-890-00030	Upland Short Weak HVI Cotton
256-890-00070	Upland Long Strong HVI Cotton
256-890-01170	American Pima Long Strong HVI Cotton
256-890-00810	CAL Cotton, GU (Low MIC)
256-890-01150	CAL Cotton, AU (High MIC)

**Note:** Color and Trash calibration tiles must be ordered directly from the USDA.

Please refer to the official USDA order form for more detailed information about ordering options and pricing information. Regional Service Centers, Local Service Stations, and customers are instructed to order the Color and Trash Calibration Tiles directly from the following website link:

<http://www.ams.usda.gov/cnstandards>

or mailing address:

**Standards Preparation and Distribution Section  
 Cotton Division, AMS  
 U.S. Department of Agriculture  
 3275 Appling Road  
 Memphis, TN 38133**

<b>Repair Kit</b>			
<b>Part Number</b>	<b>Description</b>	<b>Part Number</b>	<b>Kit Contents</b>
255-010-12810	Jaw Assemblies: (Rear & Front)	255-130-01450 255-130-01501 255-240-00880 256-770-00560	Jaw Bottom Fixed Assembly Jaw Bottom Moveable Assembly Gasket, Jaw Cylinder, Bimba 170.5-D Modified

<b>Optional "UV" Module Accessories</b>	
<b>Part Number</b>	<b>Description</b>
255-320-01460	Pre-amp Board
256-610-00030	Inverter Ballast
256-890-00010	Lamps
255-230-00040	Left Hinge Spring
255-230-00050	Right Hinge Spring

<b>Optional Accessories</b>	
<b>Part Number</b>	<b>Description</b>
255-010-05981	Bar Code Reader
255-320-01051	Temperature & Humidity Sensor



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