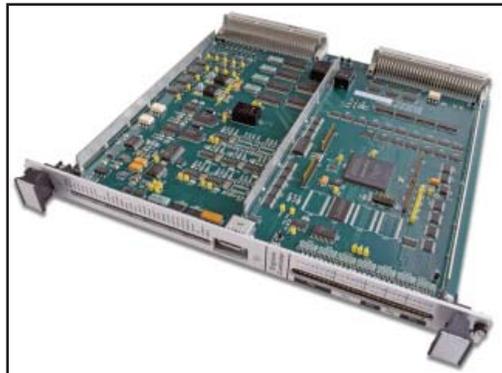




SPECTRUM

PARTS CATALOG

For all Spectrum models



OHIO
GRAVURE TECHNOLOGIES

SPECTRUM

This document is confidential, proprietary and the sole property of Ohio Gravure Technologies Inc (“Ohio GT”). This document shall be used by the customer only in connection with the use of Ohio GT products and only pursuant to Ohio GT’s Terms and Conditions of Sale and License.

Information in this manual is believed to be accurate on the publication date, but is subject to change without notice due to continuing product development. No part of the contents of this book may be reproduced or transmitted in any form or by any means without the written permission of Ohio Gravure Technologies Inc.

© 2015, 2017 Ohio Gravure Technologies Inc.

Ohio Gravure Technologies Inc
1241 Byers Road, Miamisburg,
OH 45342 USA

Email: sales@OhioGT.com
 service@OhioGT.com

Phone: 1-937-428-1700

Website: OhioGT.com

Gravostar Spectrum

Document number: 9420-0048

Publication Date: May 2017

Second Release



Contents

INTRODUCTION	1
About the Spectrum Engraver.....	1
Purpose Of Manual.....	1
About this manual	1
Document Conventions.....	2
Safety.....	2
PARTS LIST BY MACHINE AREA.....	13
Consumables	13
Electrical Enclosure	14
Electrical Enclosure	17
Bed and Vacuum	20
Carriage, including Front and Rear Operator Pods	26
Engrave Head	32
NUMERICAL PARTS LIST	35
D096592002 – Vital-Proof Clock Buffer Board	35
D100592025 – Master Head Amplifier.....	36
D100592026 – Slave Head Amplifier	37
D101592010 – Embedded Computer and Software	38
D103100091 – Stylus Tool Sensor	38
D1120-0052 - Belt, Poly V, 16 Rib, 1473 mm (58 inch), Main Drive Belt (Early Spectrums)	39
D1120-0055 – Belt, Poly V, 6 Rib, 1562 mm (61.5 inch), Main Drive Belt (Second Generation Spectrums) ..	39
D1120-0057 – Belt, Flat, 1540 mm (60.63 inch), Main Drive Belt (Third Generation/Current Spectrums) ..	40
D1120-0058 – Belt, Flat, 2125 mm (83.66 inch), Main Drive Belt for LF (Large Format) Spectrums	40
D1120-0060 – Timing Belt, Motorized Enclosures, Varying lengths based on machine type	40
D1120-0061 - Belt, Flat, 1520 mm (59.84 inch), Main Drive Belt (Current Spectrums with flywheel pulley) ..	41
D1575-0017 – Vacuum Hose Fitting.....	41
D1325-0144 – Coupling, Spider, Flexible.....	42

D1325-0145 – Coupling, Hub, Flexible	42
D1475-0027 – Vacuum Bag	43
D1645-0024 – Grease	43
D1820-0001 – Spindle Screw, Jaw Adjustment, 3-jaw Chucks	44
D1850-0147 – HexKey Wrench, 0.050 inch	44
D2090-0479 – Cable, Ethernet – for ethernet version of Vista camera	45
D2143-0964 – Pointing Device, Touchpad	45
D2143-0973 – FireWire, 0.5 Meter	46
D2143-0974 – FireWire Cable, 10 Meters	46
D2190-0038 – Touchscreen Display	47
D2215-0003 – Fan, 240 VAC	47
D2215-0041 – Fan, 24 VDC	48
D2365-0034 – Blower, Vacuum Motor	49
D2365-0127 – Motor, Main Cylinder Drive	50
D2465-0022 – Camera, Vista, FireWire	51
D2465-0023 – Camera, Vista, Ethernet	52
D2500-0119 – Uninterruptible Power Supply	53
D2545-0072 – Sensor, Photoelectric, Doors Closed	53
D2545-0083 – Data Interface Box – for Cylinder Diameter Measurement	54
D2580-0050 – Contactor	54
D2580-0064 – Opto-Isolator Module, 4 Channel, Output	55
D2580-0067 – Opto-Isolator Module, 4 Channel, Input	55
D2580-0076 – Relay, Safety, AC/DC 24V 50/60 Hz	56
D2725-0010 – Line Filter, Ultra High Attenuation, AC Power	56
D2735-0140 – Switch, Rocker Action, Power Switch (Early Spectrums)	57
D2735-0145 – Switch, Pushbutton Locking, Mushroom Head	58
D2735-0187 – Switch, Pushbutton, White Face (Rear control panel buttons on early generation)	59
D2735-0188 – Switch, Momentary Action, Pushbutton, Green Face	60
D2735-0190 – Switch, Magnetic, Coors Closed (Early Spectrums)	61
D2735-0193 – Switch, Rocker Action, Carriage Direction	61
D2735-0196 – Switch, Pushbutton, Stocks Open	62
D2735-0197 – Switch, Pushbutton, Cylinder Clean	62
D2735-0198 – Switch, Pushbutton, Stocks Close	63
D2735-0199 – Switch, Pushbutton, Unlock Stocks	63
D370201-01 – Torx Bit, T7	64
D370215-02 – Torque Driver, 20 cNm	64
D520091-04 – Focus Prox	64
D520092-01 – Shoe Out Prox	65
D520093-01 – Burr Cutter Prox	65
D520252-01 – Shoe In Prox	65
D520274-11 – Tip Cal Interface PCB	66

D520277-14 – Head Feedback Position Sensor Assembly	66
D520387-07 – Encoder PCB.....	67
D520482-02 –High Voltage Power Supply	68
D520483-02 – Low Voltage Power Supply	69
D520487-01 – Automated Engraver Controller PCB	70
D520487-04 – Automated Engraver Controller PCB	70
D520497-03 – Carriage Interface PCB	71
D520498-05 – Display with Touchscreen (Early Spectrums).....	71
D520523-04 – Head Interface Board – for FireWire Vista camera.....	72
D520523-05 – Head Interface Board – for Ethernet Vista camera	72
D520526-01 – DC Motor Controller PCB	73
D520536-01 – Strobe Limiter PCB.....	73
D560458-01 – Power Cable for Camera	74
D803101011 – Shoe Motor Assembly	74
D803101012 – Burr Cutter Motor Assembly.....	75
D803101013 – Focus Motor Assembly.....	75
D803751013 – Spectrum Optical Assembly	76
D803900042 – Engrave Head Air Filters.....	76
D817000072 – Enclosure Air Filter	77
D817320014 – Slip Clutch, Tailstock Leadscrew.....	77
D817400090 – Travel Stop	78
D817400103 – Expandable Vacuum Hose.....	78
D817400110 – Vacuum Hose	78
D817400127 – Sub-Carriage Leadscrew Bearing Block	79
D817400127 Rev A – Sub-Carriage Leadscrew Bearing Block	79
D817400128 – Sub-Carriage Bearing Block Plate	79
D817400144 – Vacuum Elbow	80
D817580022 – Strobe Assembly (Current production unit and replacement for previous)	80
D817580023 – Motor, Head Slide	81
D817594080 – FireWire Repeater.....	81
D818550001 – Motor Controller, Linear Motor, Programmed, Packaging and Decorative.....	82
D818550002 – Motor Controller, Servo, 1KW, Programmed, Packaging and Decorative	83
D818550003 – Motor Controller, AC Drive, 0.5 HP, Programmed, Packaging and Decorative.....	84
D818550012 - Motor Controller, Linear Motor, Programmed, Large Format	85
D818550013 - Motor Controller, Servo, 1KW, Programmed, Large Format.....	86
D818550014 - Motor Controller, AC Drive, 0.5 HP, Programmed, Large Format	87
D8XX592003 – Switch, Proximity, Head Down Sensor.....	88
D8XX592003-CT – Switch, Proximity, Head Down Sensor	88
D818592004 – Switch, Proximity, Home Prox.....	89
D818592005 – Switch, Proximity, Left Limit Prox	89
D818592006 – Switch, Proximity, Right Limit Prox	90

D818592007 – Switch, Proximity, Tailstock Limit Prox.....	90
D8XX592017 – Rotary Encoder, Bore for shaft mounting (For most machines before #1039).....	91
D818592025 – Motor, Tailstock Drive.....	92
D8XX592030 – Rotary Encoder, Integral Shaft (Machines #1039 and higher).....	92
D818594048-CT – Head Interface Cable.....	93
D821400022 – Rubber Travel Stop.....	93
D830592013 – Sensor, Proximity – Cylinder supports, cylinder present.....	94
D830592016 – Sensor, Proximity, Cylinder supports home.....	94
D830592018 – Assembly, Sensor, Photonic, for right cylinder end-seeking.....	95
D830592019 – Assembly, Sensor, Photonic, for left cylinder end-seeking.....	95
D830592021 – Switch, Proximity – Covers Open.....	96
D830592022 – Switch, Proximity – Covers Closed.....	96
D830592015 – Motor, DC – Enclosure drive.....	97
D830592032 – Encoder – Headstock/Tailstock Leadscrew.....	97
D830592034 – Motor, ?? – Cylinder Supports drive.....	98
D830592041 – Power Supply, 24 VDC – For Cylinder Diameter Measurement tool.....	98
D830592044 – LVDT, TIR Measurement.....	98
D830594119 – Cable, Coiled, Power for Cylinder Diameter Measurement.....	99
D830594120 – Cable, Coiled, For Cylinder Present prox on Cylinder Supports.....	99
D830594123 – Power Cable, Camera (Ethernet type).....	100

Introduction

About the Spectrum Engraver

The Spectrum engraver from OHIO Gravure Technologies is designed to reduce the amount of equipment down-time. Even the best designs do have occasional issues that may require replacement of parts. Use this manual to locate and identify parts when a failure occurs and a replacement is required. Use this information to contact the Service department at OHIO for acquiring the replacement piece.

Purpose Of Manual

This manual was written for Service personnel to accomplish the following requirements:

- ❖ Aid in the visual identification of parts on the Spectrum engraver.
- ❖ Provide an easy to use method of finding a part number.
- ❖ Simplify communications and reduce errors when it is necessary to order a replacement part.

About this manual

This manual is divided into three sections: Introduction/Safety, Parts List, and Parts Photographs. The Parts List provides a table with information on the parts number, description, general information, and a small picture of the part. The Parts Photographs has large pictures of each part in the Parts List.

The Parts List and Parts Photographs sections work together. Links in the Parts List open up the appropriate large photograph in the Parts Photographs.

NOTE: Please be aware that development on the Spectrum is on-going to ensure that the best possible results are produced by the Spectrum. Please be careful when reviewing a part in this manual that is matches the part on your engraver. In most cases, there are not multiple choices, but in some cases there are.

Document Conventions

This manual uses the following conventions:

BOLD type to indicate emphasis.

Italics to refer to other publications or documents.

Tip! To provide helpful hints on performing a maintenance procedure.

Note: to indicate important information pertaining to the procedure.

CAUTION: to indicate the potential for damage to equipment.

WARNING: to indicate conditions that may lead to personal injury.

Safety

OHIO GT equipment is built with the latest technology and is totally safe to operate when used in accordance with provided operation manuals. Improper use of the equipment or inexperienced personnel can lead to dangerous situations. Operating procedures affecting the safety of the equipment is forbidden.

The operator is responsible for

- Ensuring that no unauthorized personnel are working on the machine.
- Reporting any signs of change affecting safety to his supervisor or OHIO GT.
- Operating the machine in good condition only.

Modifications and changes affecting equipment safety are strictly forbidden. Every person operating or maintaining this unit must read and understand the complete operation manual. The correct usage includes following the manufacturer's recommendations for installation, operation and maintenance. Only authorized and trained personnel are allowed to service and install the machine. These people have been instructed about the possible dangers. The operator may perform preventive maintenance routines, provided the instructions are strictly followed.

All service and maintenance work must be performed while the machine is shut off. Safety covers, doors and flaps that are mounted for safety reasons are only to be removed or opened after the machine is shut off.

Use of Non-Original Parts

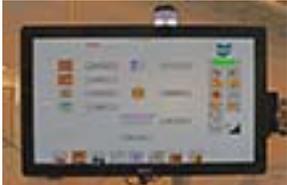
OHIO GT strongly recommends the use of original parts for repairing or replacing worn parts, and lubrication. OHIO GT cannot accept responsibility for machine damage or problems encountered due to use of non-authorized parts or material. Use of non-original parts during the warranty period will void the warranty.

Parts List by Machine Area

Consumables

OGT Part Number / Description	Comments	
D1475-0027 – Vacuum Bag	<p><i>Change every week!</i></p> <p>Included in the yearly consumables kit.</p>	
D1645-0024 – Grease	<p>Grease for the machine</p>	
D803900042 – Engrave Head Air Filters	<p><i>Replace every 2 weeks!</i></p> <p>Picture shows individual pieces. Part number is for a pack of 24 pieces.</p> <p>Included in the yearly consumables kit.</p>	
D817100072 – Enclosure Air Filter	<p>Cloth filter for the bottom of the electrical enclosure on the Spectrum.</p> <p>Not for Spectrum A (Auto) machines</p>	
D817400103 – Expandable Vacuum Hose	<p>Replace yearly.</p> <p>Included in the yearly consumables kit.</p>	

Electrical Enclosure

OGT Part Number / Description	Comments	
D093110010 – Fedora Operating System CD	Linux Operating Software. OS version must be identified.	
D100592025 – Master Head Amp, Complimentary Lateral	One used per machine	
D100592025 – Slave Head Amp, Complimentary Lateral	Two used per machine	
D101592010 – Embedded Computer and Software	Controls both Embedded and RTI functions. This version has an SSD. PC may be tower or industrial case design. For Fedora 20 and later	
D2143-0973 - Cable, Firewire, 0.5 Meter	Connected repeater to Embedded PC. Required for Spectrums using a FireWire Vista camera.	
D2190-0038 - Touchscreen Display		

OGT Part Number / Description	Comments	
D2215-0003 - Fan, 240 VAC	Enclosure fans on early Spectrums. Found on top of drive enclosure.	
D2215-0041 - Fan, 24 VDC	Card cage fans	
D817580032 – Motor Controller, Cylinder Motor Drive, Programmed * See Comments ->	Cylinder Drive Motor Controller. Verify this is the correct controller by looking at labeling on existing unit. It must read SOLOISTCP20-EXTSHUNT-DCT to choose this controller	
D817580033 – Motor Controller, Cylinder Motor, Programmed * See Comments ->	Cylinder Drive Motor Controller. Verify this is the correct controller by looking at labeling on existing unit. It must read SOLOISTCP20-EXTSHUNT to choose this controller	
D818550001 – Motor Controller, Linear Motor	Linear Drive Motor Controller. For Packaging and Decorative Spectrums.	

OGT Part Number / Description	Comments	
<p>D818550001 – Motor Controller, Linear Motor</p>	<p>Linear Drive Motor Controller. For Large Format Spectrums.</p>	
<p>D818550002 – Motor Controller, Cylinder Motor, Servo, Programmed</p>	<p>Cylinder Drive Motor Controller For Compact, Packaging, and Decorative Spectrums. This has been used on some Spectrums.</p>	
<p>D818550003 – Motor Controller, AC drive, Programmed D821550014– Motor Controller, AC drive, Programmed * See Comments -></p>	<p>Headstock/Tailstock Drive Motor Controller D818550003 is for Compact, Packaging, and Decorative Spectrums. D821550014 is for Large Format Spectrums.</p>	
<p>D2580-0064 - Opto-Isolator Module, 4-Channel, Output</p>		
<p>D2580-0074 - Opto-Isolator Module, 4-Channel, Input</p>		

Electrical Enclosure

OGT Part Number / Description	Comments	
<p>D2580-0076 - Relay, Safety, AD/DC, 23V 20/60HZ</p>	<p>For Emergency Stop loop</p>	
<p>D2725-000 - Line Filter, Ultra High-Attenuation, AP Power</p>		
<p>D2735-0145 - Swotch, Pushbutton Locking, Mushroom Head</p>	<p>Emergency Stop pushbutton</p>	
<p>D2735-0188 - Switch, Pushbutton, Momentary Action, Green Face</p>	<p>Power ON Switch</p>	
<p>D520482-02 - High Voltage Power Supply</p>		

OGT Part Number / Description	Comments	
D520483-02 – Low Voltage Power Supply		
D520487-01 – Automated Engrave Control board		
D520487-04 – Automated Engrave Control board		
D520274-11 – Tip Cal Interface board		
D817594080 – Firewire Repeater	Required for Spectrums using a Firewire Vista camera	
D2580-0050 – Contactor	Power ON Relay, K5	
D2500-0127 – Power Supply	24 VDC Switching Supply	No picture available

OGT Part Number / Description	Comments	
D520526-01 – DC Motor Controller Board	For driving cylinder supports	
D2580-0102 – Relay, 24 VDC, SPST	K3 and K4 for Autochucks	No picture available
D2580-0106 – Relay, 24 VDC, DPDT	K1 and K2 for Autochucks	No picture available
D2500-0128 – Power Supply, 60 VDC	60 VDC power supply for Auto Chucks, PS2 and PS3	No picture available
D830592041 – Power Supply, 24 VDC	Power supply for cylinder diameter measurement	
D2500-0119 – UPS, 220-240 VAC, 50-60 Hz	Uninterruptible Power Supply	
D2090-0479 – Cable, Ethernet	Connects Embedded PC to Vista camera. Required for Spectrums using Ethernet camera	
D2143-0479 – Ethernet Card, PCI	Installed in embedded PC. Use with Ethernet Vista camera	No picture available
D2143-0974 – Cable, Firewire, 10 m	Connects Repeater to Vista camera. Required for Spectrums using a Firewire Vista camera	

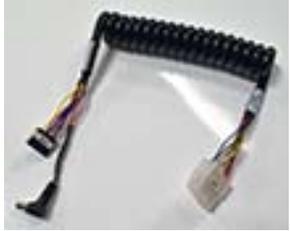
OGT Part Number / Description	Comments	
D096592002 – Vital-Proof Clock Buffer board	Mounted on the electrical panel	

Bed and Vacuum

OGT Part Number / Description	Comments	
D1120-0060 – Timing Belt	Length varies by machine type: Compact, Packaging, Décor	
D2365-0082 – Motor, AC	Tailstock Drive Motor on early Spectrums	
D818592025 - Motor, AC	Tailstock Drive Motor	No picture available
D2365-0034 – Blower, DC Motor	Vacuum motor	
D2545-0072 – Sensor, Photoelectric	Doors closed sensor	
D817320014 – Slip Clutch	Used on Headstock/Tailstock Leadscrew	

OGT Part Number / Description	Comments	
D818592004 – Switch, Proximity	Carriage Home prox	
D818592007 - Switch, Proximity	Tailstock Limit prox (non-symmetrical machines)	
D830592007 - Switch, Proximity	Stocks Home prox (symmetrical machines)	
D2735-0190 - Magnetic Switch	Doors closed sensor for Spectrum G machines (early machines)	
D830592013 - Switch, Proximity	Cylinder present sensor on the cylinder supports	
D830592021 - Switch, Proximity	Covers open	
D830592022 - Switch, Proximity	Covers closed	

OGT Part Number / Description	Comments	
D830592015 – Motor, DC	Motor for driving enclosures	
D830592032 – Encoder	Encoder for head and tailstock leadscrew	
D830592034 – Motor, 24 VDC	For driving cylinder supports	
D830592016 - Switch, Proximity	Cylinder supports home	
D830592027 – Motor, Brushless, DC	For driving headstock Autochuck	No picture available
D830592036 – Motor, Brushless, DC	For driving tailstock Autochuck	No picture available
D2545-0080 – Dial Indicator, Electronic	Cylinder diameter measurement, mounted on cylinder supports	
D830592041 – Power Supply, 24 VDC	+ / - 24 VDC supply PS4 for cylinder diameter measurement	

OGT Part Number / Description	Comments	
D2545-0083 – Data Interface Box	For cylinder diameter measurement	
D830594119 – Cable, Coiled	Power cable for cylinder diameter measurement	
D830594120 – Cable, Coiled	Cylinder Present prox on cylinder supports	
D1325-0144 – Coupling, Spider, Flexible	For cylinder supports. Fits into D1325-0145 coupling	
D1325-0145 – Coupling, Hub, Flexible	For cylinder supports. Used with D1325-0145 coupling	
D1120-0052 – Belt, Poly V, 1473 mm (58 inch), 16 Rib	Main drive belt for first generation Spectrums (also called Gravostar G)	

OGT Part Number / Description	Comments	
D1120-0055 – Belt, Poly V, 1562 mm (61.5 inch), 6 Rib	Main drive belt for second generation Spectrums	
D1120-0057 – Flat Belt, 1540 mm (60.63 inch)	Main drive belt for third generation Spectrums (current production units)	
D1120-0058 – Flat Belt, 2125 mm (83.66 inch)	Main drive belt for Large Format Spectrums (current production units)	
D1120-0061 – Flat Belt, 1520 mm (59.84 inch)	Used on current generation Spectrums with flywheel pulley.	
D1820-0001 – Spindle, Operating, Hex, Femail	For independent jaws on 3-Jaw Chucks	

OGT Part Number / Description	Comments	
D2365-0127 – Motor, Servo	Cylinder Drive Motor	
D2485-0100 – Regulator, Pneumatic	Autochuck air filter	No picture available
D2545-0054 – Sensor, Proximity	Keyway Detector	No picture available
D520387-07 – Encoder Board		
D818592030 – Rotary Encoder, 6k/Rev, Integral Shaft D819592030 – Rotary Encoder, 6k/Rev, Integral Shaft D821592030 – Rotary Encoder, 6k/Rev, Integral Shaft See Comments ->	For machines 1039 and higher D818592030 for Packaging D819592030 for Décor D821592030 for Large Format	
D818592017 – Rotary Encoder, 6k/Rev, Bore-thru encoder for mounting on shaft D819592017 – Rotary Encoder, 6k/Rev, Bore-thru encoder for mounting on shaft D821592017 – Rotary Encoder, 6k/Rev, Bore-thru encoder for mounting on shaft See Comments ->	For most machines before 1039. D818592017 for Packaging D819592017 for Décor D821592017 for Large Format	
D830592004 – Valve, Pneumatic	Used on Autochuck	No picture available
D830592017 – Sensor, Proximity	Headstock AutoChuck tool UP	No picture available
D830592023 – Sensor, Proximity	Tailstock AutoChuck tool UP	No picture available
D830592017 – Sensor, Proximity	Headstock AutoChuck tool DOWN	No picture available

OGT Part Number / Description	Comments	
D830592027 – Motor, DC	Headstock AutoChuck drive motor	No picture available
D830592028 – Switch, Pneumatic	AutoChuck air pressure switch	No picture available
D830592029 – Sensor, Proximity	Tailstock AutoChuck tool DOWN	No picture available
D830592036 – Motor, DC	Tailstock AutoChuck drive motor	No picture available
D830592039 – Sensor, Proximity	Headstock AutoChuck jaws open sensor	No picture available
D830592040 – Sensor, Proximity	Tailstock AutoChuck jaws open sensor	No picture available

Carriage, including Front and Rear Operator Pods

OGT Part Number / Description	Comments	
D2143-0964 – Pointing Device, Touchpad		
D2735-0140 – Switch, Rocker Action, DPDT	Power ON button. Early generation machines	
D2735-0187 – Switch, White, Momentary Action, Pushbutton	Rear control panel buttons for Cylinder Clean, Stocks Open, Stocks Close, and Stocks Unlock. Early generation machines.	

OGT Part Number / Description	Comments	
D2735-0193 – Switch, Rocker Action, DPDT	Used for Carriage Direction on front and rear control panels.	
D2735-0196 – Switch, Printed, Momentary Action, Pushbutton	Stocks Open pushbutton	
D2735-0197 – Switch, Printed, Momentary Action, Pushbutton	Cylinder Clean pushbutton	
D2735-0198 -- Switch, Printed, Momentary Action, Pushbutton	Stocks Closed pushbutton	
D2735-0199 – Switch, Printed, Momentary Action, Pushbutton	Stocks Unlock pushbutton	
D520497-03 – Carriage Interface PCB		

OGT Part Number / Description	Comments	
D520498-05 – Display Englosure with Touchscreen	On the early model Spectrums	
D520536-01 – Strobe Limiter PCB	Standard on new units. Part of upgrade for older units.	
D817400090 – Travel Stop		
D817400103 – Expandable Vacuum Hose		
D817580022 – Upgrade, Replacement, Strobe Assembly	Replaces previous version of strobe. Standard on new Spectrums	
D818592005 – Switch, Proximity	Left Limit prox	
D830592005 – Switch, Proximity		

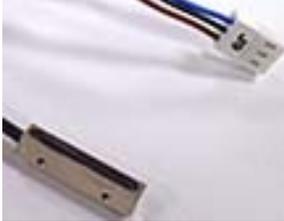
OGT Part Number / Description	Comments	
D818592006 – Switch, Proximity	Right Limit prox	
D830592006 – Switch, Proximity		
D819592003 – Switch, Proximity	Head Down Sensor for Décor machines except #1036, #1038 and later. See D819592003-CT for those machines	
D819592003-CT – Switch, Proximity	Head Down Sensor for Décor machines #1036, #1038 and later that use flexible cable carrier.	
D830592031 – Switch, Proximity	Head Fully Retract sensor	
D831592031 – Switch, Proximity	Head Fully Retract sensor	
D821400022 – Rubber Travel Stop		
D821592003 – Switch, Proximity	Head Down Sensor for LF machine #1022. See D82159200-CT for later LF machines.	

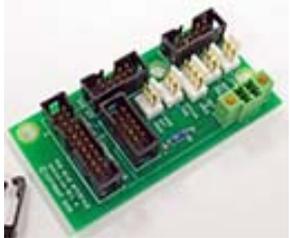
OGT Part Number / Description	Comments	
D821592003-CT – Switch, Proximity	Head Down Sensor for LF machines #1043 and later that use flexible cable carrier.	
D830592004 – Switch, Proximity	Carriage Home prox	
D830592018 – Assembly, Sensor, Photonic	Cylinder end seeking prox, right side of head	
D830592019 – Assembly, Sensor, Photonic	Cylinder end seeking prox, left side of head	
D830592044 – LVDT	TIR Measurement	
D817400127 – Sub-Carriage Leadscrew Bearing Block		

OGT Part Number / Description	Comments	
D817400127 Rev A – Sub-Carriage Leadscrew Bearing Block	Latest version of bearing block. Does not have slot of the previous version (see above).	
D817400128 – Sub-Carriage Leadscrew Bearing Block Plate		
D818594048-CT – Head Interface Cable		

Engrave Head

OGT Part Number / Description	Comments	
D103100091 – Switch, Optical	Stylus Tool Sensor, J10	
D103870xxx – Vision 3 Engrave Head Multi-Tune	Last 3 digits determine engrave head type and tunes	No picture available
D1575-0017 – Vacuum Hose Fitting, 1.25 inch	Connects hose D817400110 to the engrave head vacuum port. Replaces D1250-0025	
D1850-0147 – Hex Key Wrench, 0.050 inch		

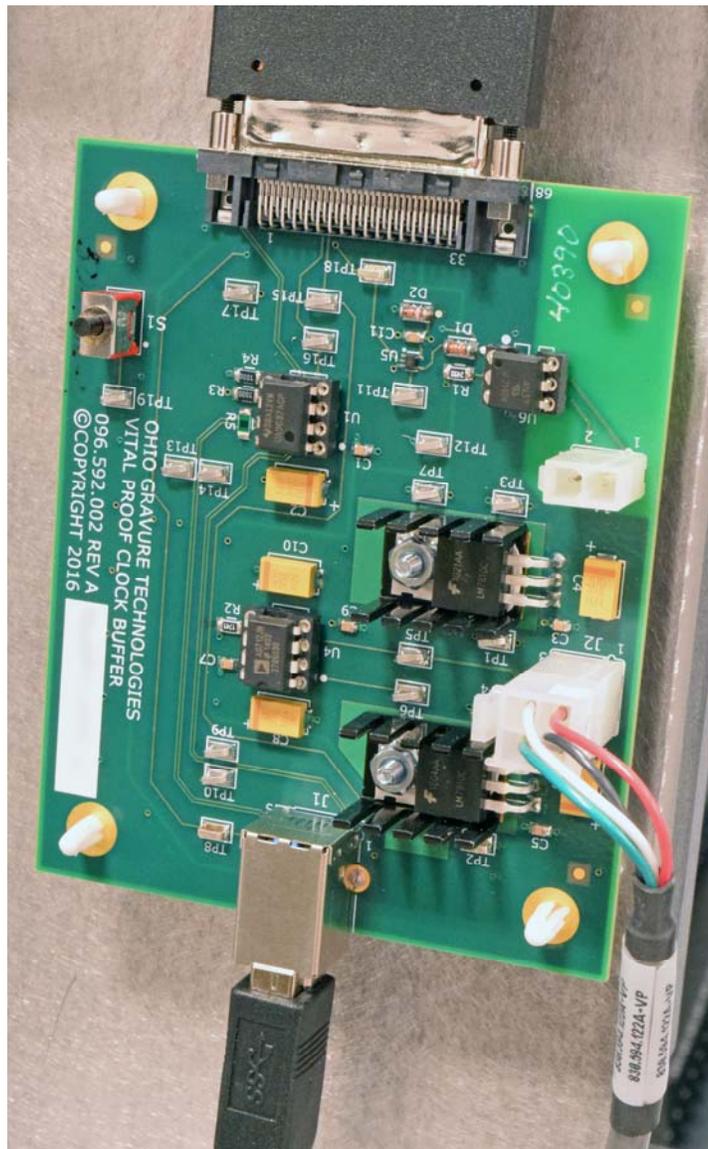
OGT Part Number / Description	Comments	
D2465-0022 – Vista Camera, Firewire	Firewire connection	
D2465-0023 – Vista Camera, Ethernet	Ethernet connection. Shown with cap over lens.	
D370201-01 – Bit, Torx Wrench, T7	Used for stylus clamping screws. Use with Torq Driver	
D370215-02 – Torque Driver, Preset, 20 cNm	Used for stylus clamping screws. Use with Torx bit	
D520091-04 – Switch, Proximity	Focus Prox, J8	
D520092-01 – Switch, Proximity	Shoe Out Prox, J9	
D520093-01 – Switch, Proximity	Burr Cutter Prox, J6	
D520252-01 – Switch, Proximity	Shoe In Prox, J7	

OGT Part Number / Description	Comments	
D520277-14 – Head Feedback Position Sensor Assembly	Includes probe and electronics box	 A black rectangular electronics box with a white label, connected to a white cable with a probe tip.
D520523-04 – Head Interface Board	Mounted on back of engrave head For Firewire camera	 A green printed circuit board (PCB) with various electronic components and connectors.
D520523-05 – Head Interface Board	Mounted on back of engrave head For Ethernet camera	 A green printed circuit board (PCB) with various electronic components and connectors, similar to the previous board but with different components.
D560458-01 – Power Cable, Camera		 A black power cable with a green connector on one end and a green connector on the other.
D803101011 – Shoe Motor Assembly		 A blue and silver motor assembly with a blue strap.
D803101012 – Burr Cutter Motor Assembly		 A silver and gold motor assembly with a gold-colored tip.

OGT Part Number / Description	Comments	
D803101013 – Focus Motor Assembly	Focus Motor for Vista System	
D803751013 – Optical Assembly	Includes camera D2465-0022	
D817400110 – Vacuum Hose	For early Spectrum machines 127 mm in length	
D830100051 – Vacuum Hose	For Spectrum Auto machines 114 mm in length	
D817400144 – Vacuum Elbow	Connects to the vacuum tube directly off the engrave head	
D830594123 – Power Cable, Camera	For Ethernet Vista camera	

Parts Photographs

D096592002 – Vital-Proof Clock Buffer Board



Shown on the machine

D100592025 – Master Head Amplifier



D100592026 – Slave Head Amplifier

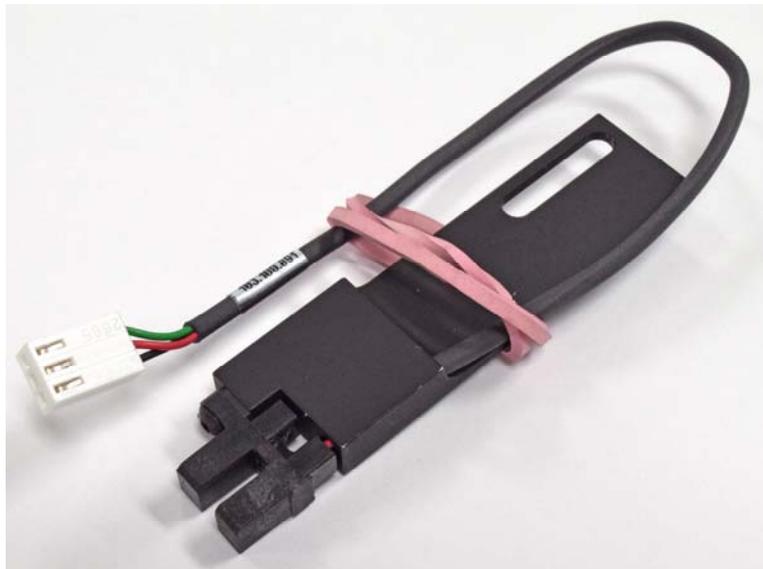


D101592010 – Embedded Computer and Software



Shown in place

D103100091 – Stylus Tool Sensor



D1120-0052 - Belt, Poly V, 16 Rib, 1473 mm (58 inch), Main Drive Belt (Early Spectrums)

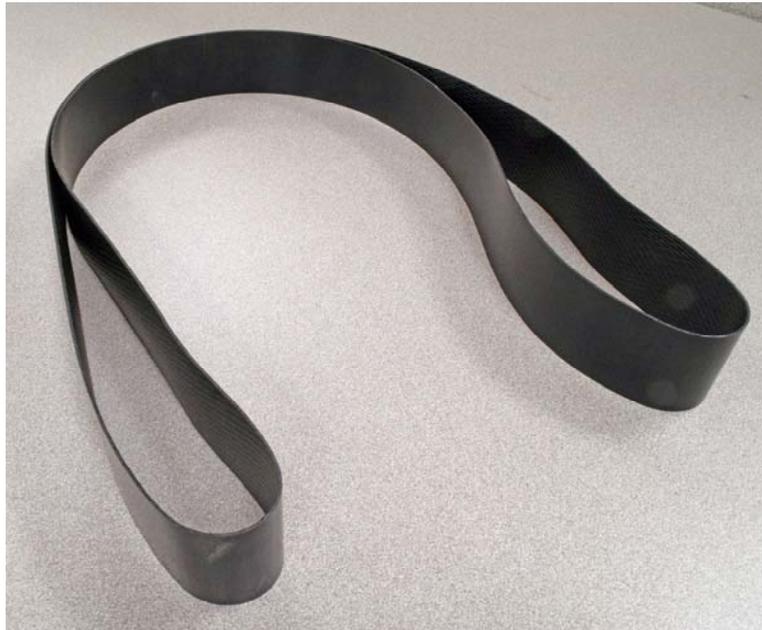


D1120-0055 – Belt, Poly V, 6 Rib, 1562 mm (61.5 inch), Main Drive Belt (Second Generation Spectrums)



D1120-0057 – Belt, Flat, 1540 mm (60.63 inch), Main Drive Belt (Third Generation/Current Spectrums)

D1120-0058 – Belt, Flat, 2125 mm (83.66 inch), Main Drive Belt for LF (Large Format) Spectrums



D1120-0060 – Timing Belt, Motorized Enclosures, Varying lengths based on machine type



D1120-0061 - Belt, Flat, 1520 mm (59.84 inch), Main Drive Belt (Current Spectrums with flywheel pulley)



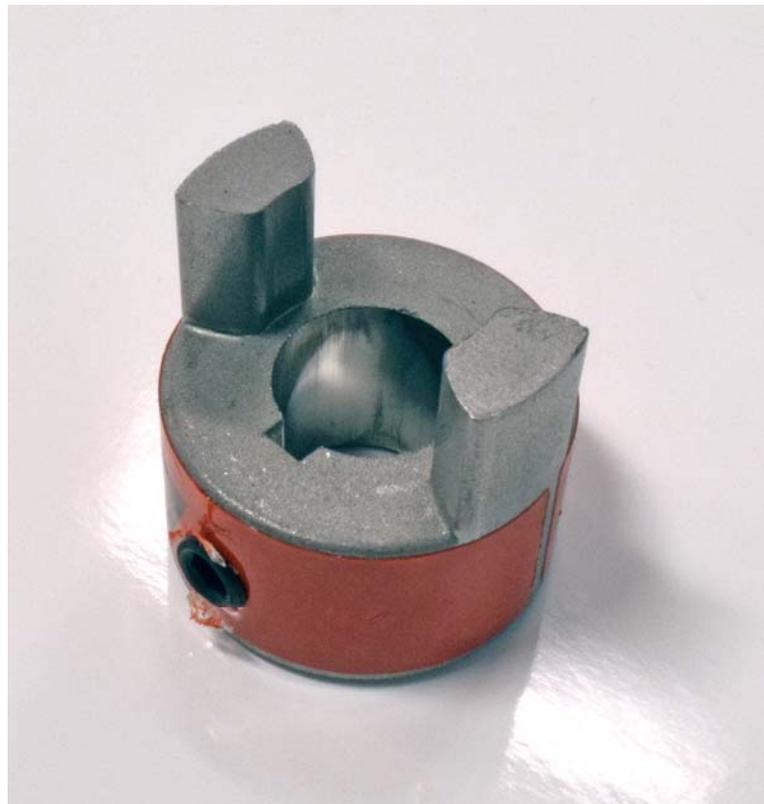
D1575-0017 – Vacuum Hose Fitting



D1325-0144 – Coupling, Spider, Flexible



D1325-0145 – Coupling, Hub, Flexible



D1475-0027 – Vacuum Bag



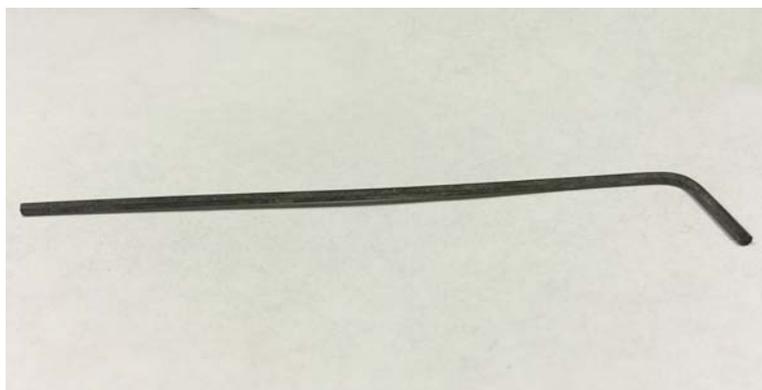
D1645-0024 – Grease



D1820-0001 – Spindle Screw, Jaw Adjustment, 3-jaw Chucks



D1850-0147 – HexKey Wrench, 0.050 inch



D2090-0479 – Cable, Ethernet – for ethernet version of Vista camera



D2143-0964 – Pointing Device, Touchpad



D2143-0973 – FireWire, 0.5 Meter



D2143-0974 – FireWire Cable, 10 Meters



D2190-0038 – Touchscreen Display



D2215-0003 – Fan, 240 VAC



D2215-0041 – Fan, 24 VDC



D2365-0034 – Blower, Vacuum Motor



D2365-0127 – Motor, Main Cylinder Drive



D2465-0022 – Camera, Vista, FireWire

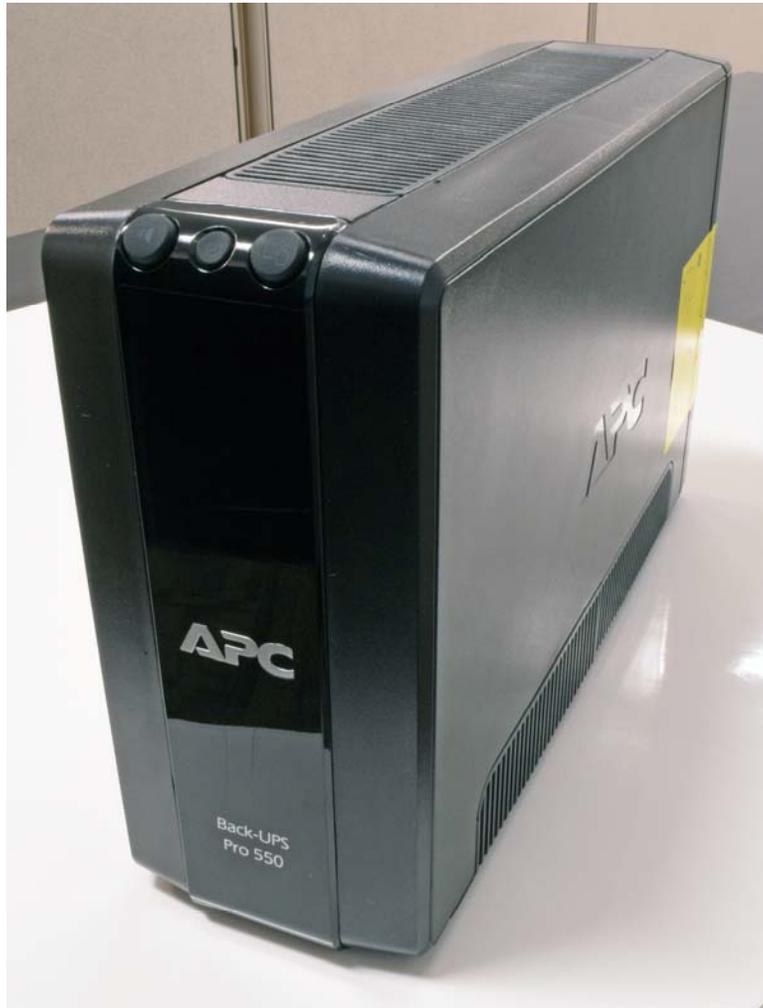


D2465-0023 – Camera, Vista, Ethernet



Shown with cap over lens

D2500-0119 – Uninterruptible Power Supply



D2545-0072 – Sensor, Photoelectric, Doors Closed



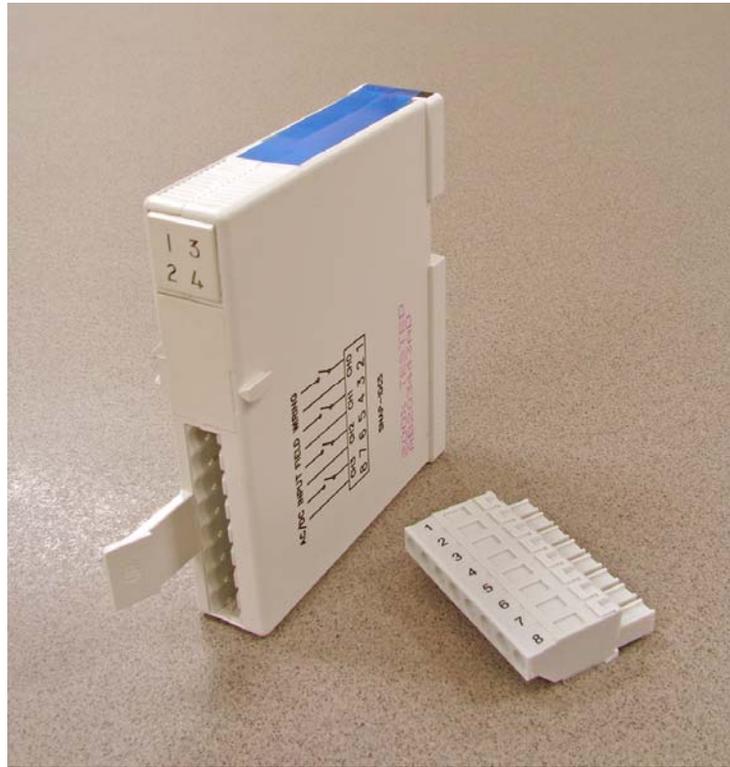
D2545-0083 – Data Interface Box – for Cylinder Diameter Measurement



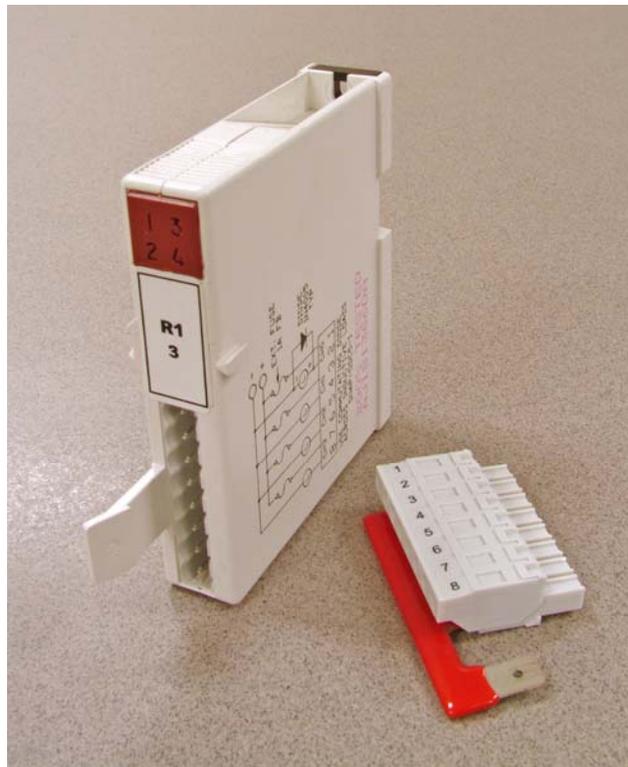
D2580-0050 – Contactor



D2580-0064 – Opto-Isolator Module, 4 Channel, Output



D2580-0067 – Opto-Isolator Module, 4 Channel, Input



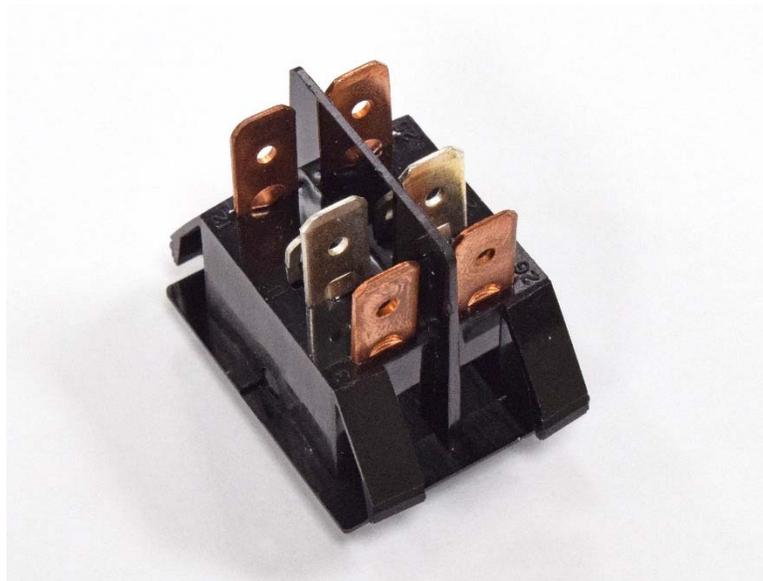
D2580-0076 – Relay, Safety, AC/DC 24V 50/60 Hz



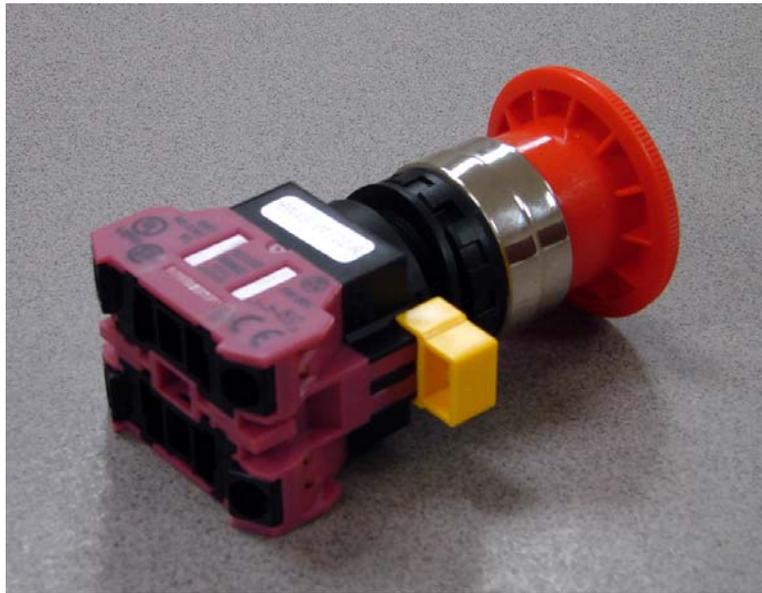
D2725-0010 – Line Filter, Ultra High Attenuation, AC Power



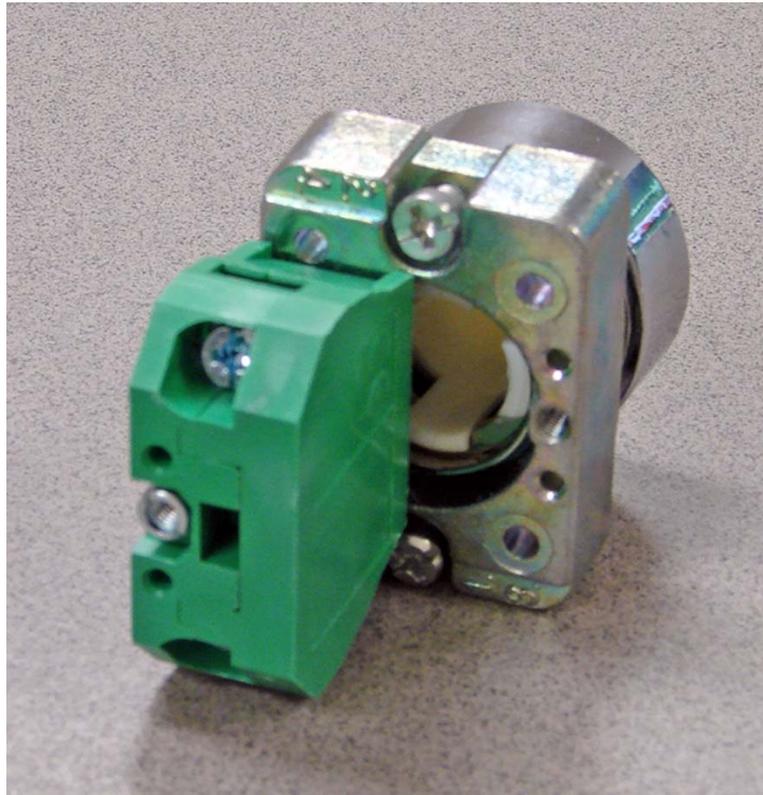
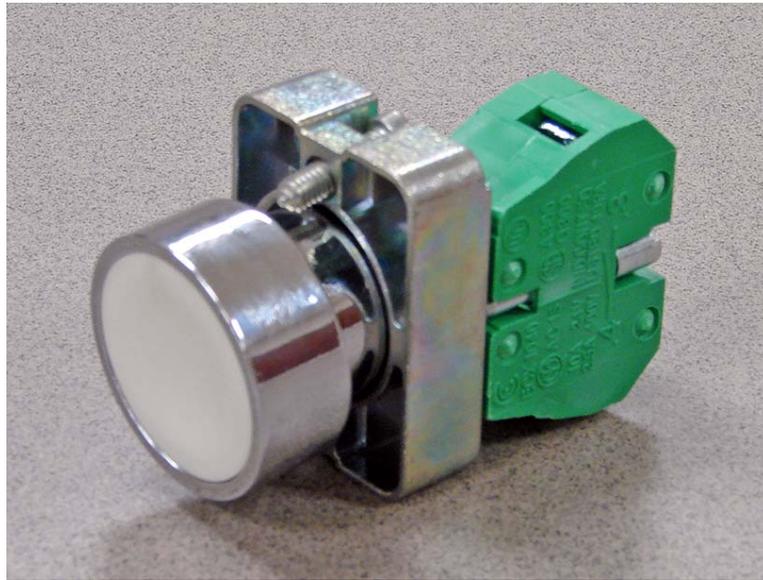
D2735-0140 – Switch, Rocker Action, Power Switch (Early Spectrums)



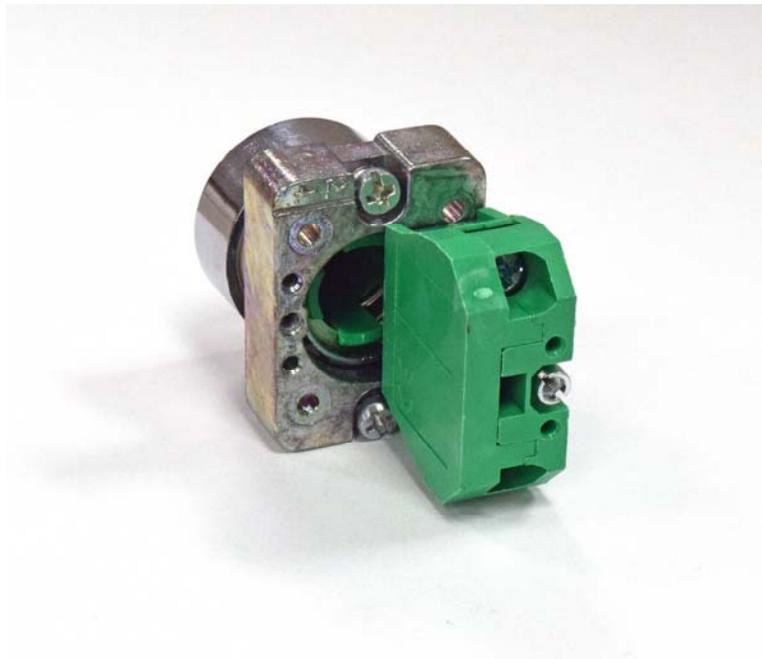
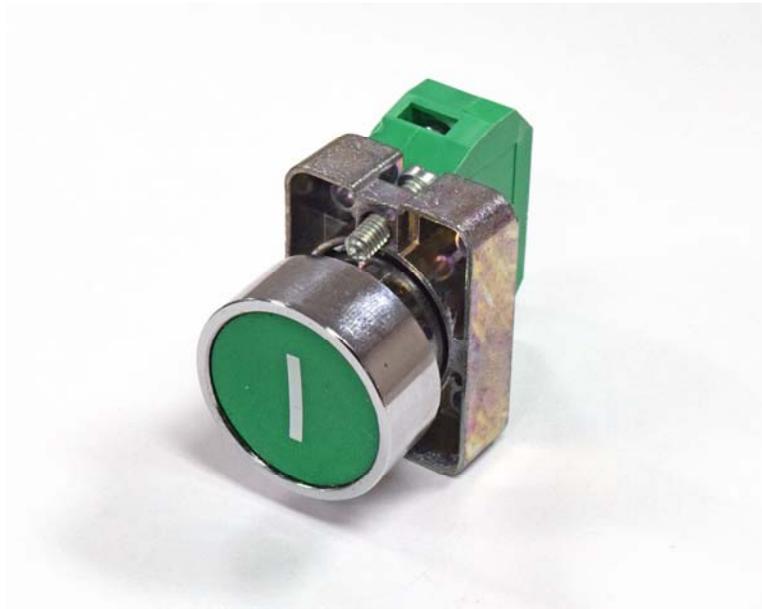
D2735-0145 – Switch, Pushbutton Locking, Mushroom Head



D2735-0187 – Switch, Pushbutton, White Face (Rear control panel buttons on early generation)



D2735-0188 – Switch, Momentary Action, Pushbutton, Green Face



D2735-0190 – Switch, Magnetic, Coors Closed (Early Spectrums)



D2735-0193 – Switch, Rocker Action, Carriage Direction



D2735-0196 – Switch, Pushbutton, Stocks Open



D2735-0197 – Switch, Pushbutton, Cylinder Clean



D2735-0198 – Switch, Pushbutton, Stocks Close



D2735-0199 – Switch, Pushbutton, Unlock Stocks



D370201-01 – Torx Bit, T7



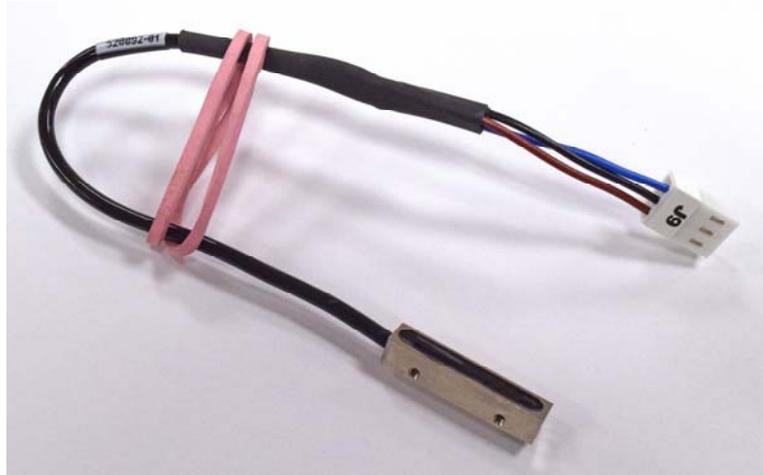
D370215-02 – Torque Driver, 20 cNm



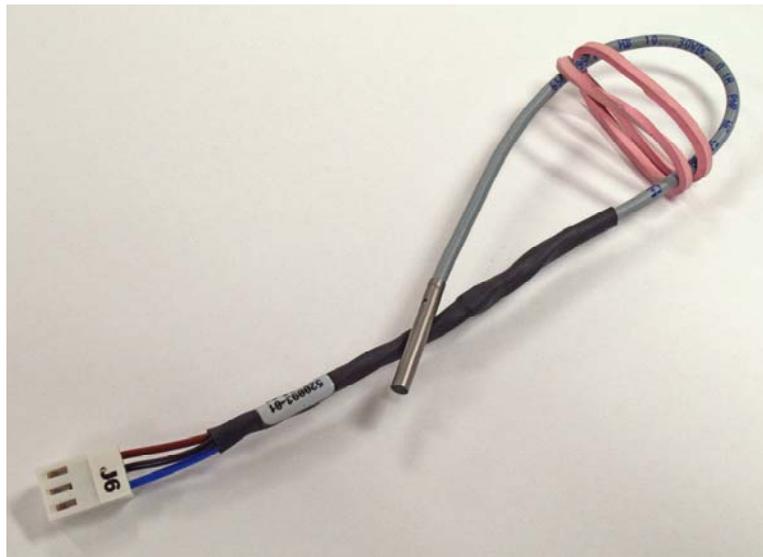
D520091-04 – Focus Prox



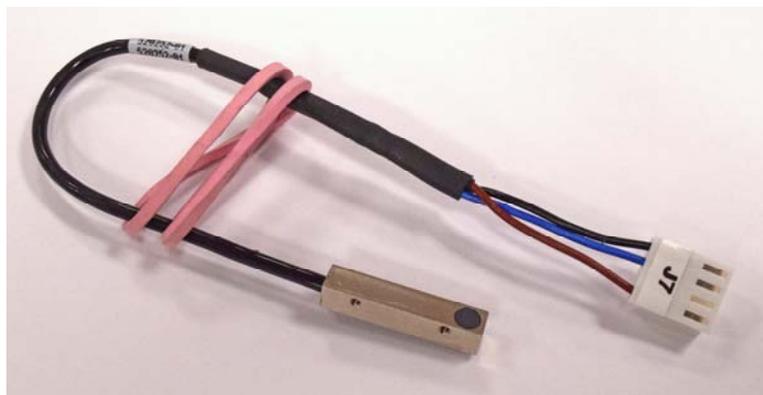
D520092-01 – Shoe Out Prox



D520093-01 – Burr Cutter Prox



D520252-01 – Shoe In Prox



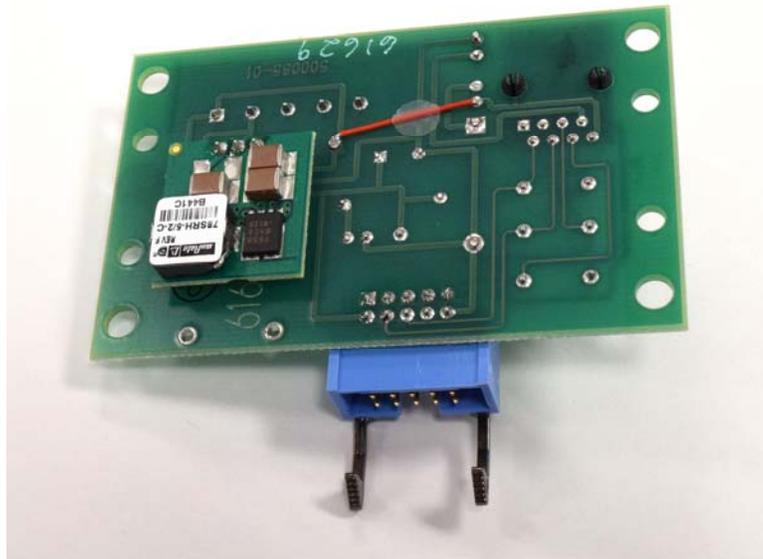
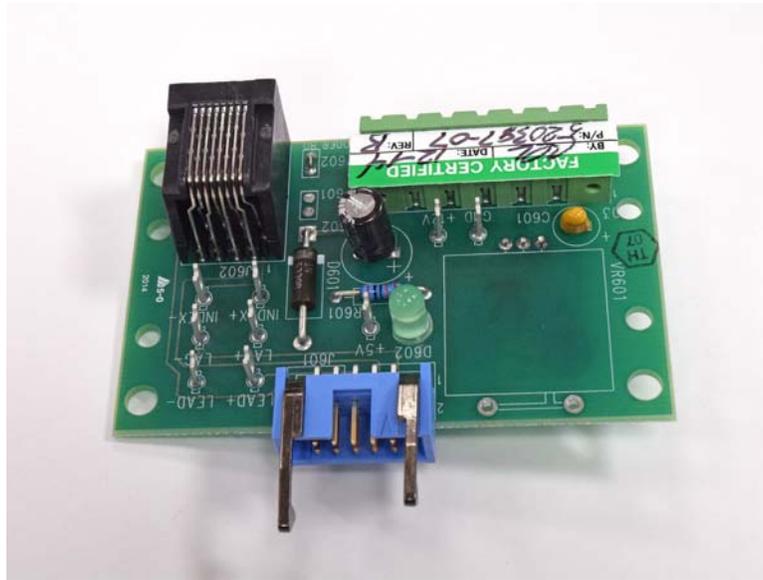
D520274-11 – Tip Cal Interface PCB



D520277-14 – Head Feedback Position Sensor Assembly



D520387-07 – Encoder PCB



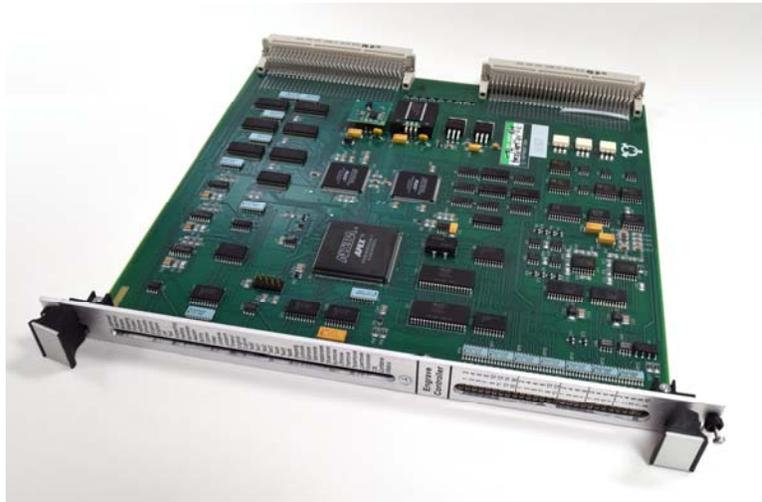
D520482-02 –High Voltage Power Supply



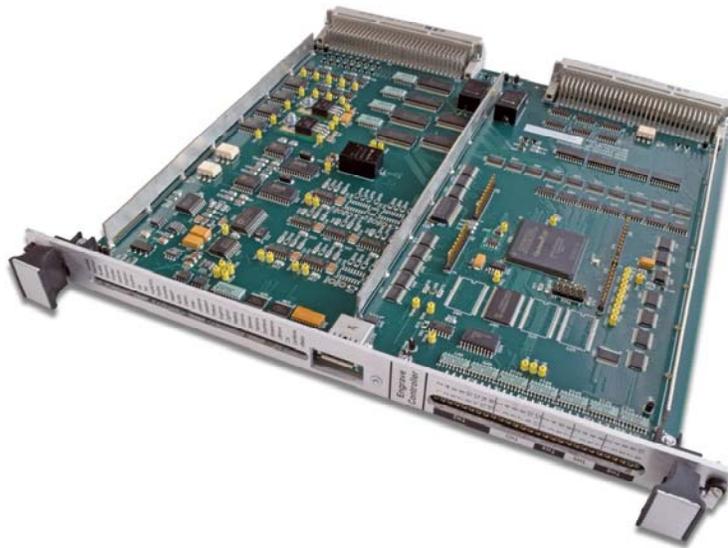
D520483-02 – Low Voltage Power Supply



D520487-01 – Automated Engraver Controller PCB

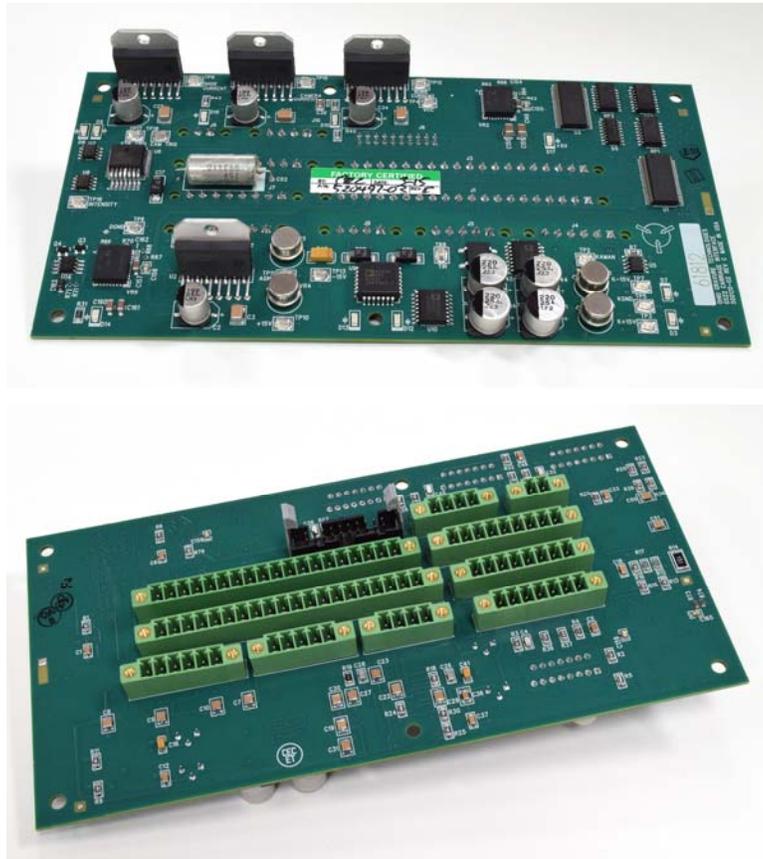


D520487-04 – Automated Engraver Controller PCB



Shown with board stiffeners

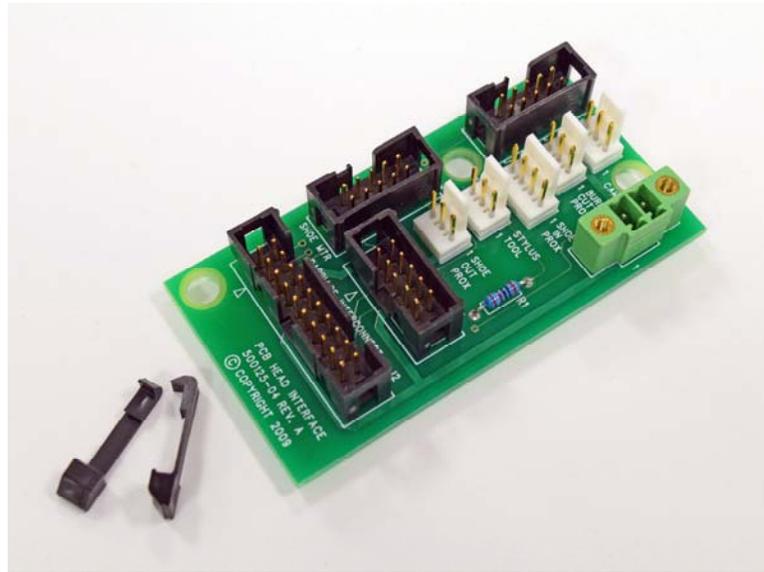
D520497-03 – Carriage Interface PCB



D520498-05 – Display with Touchscreen (Early Spectrums)



D520523-04 – Head Interface Board – for FireWire Vista camera



D520523-05 – Head Interface Board – for Ethernet Vista camera



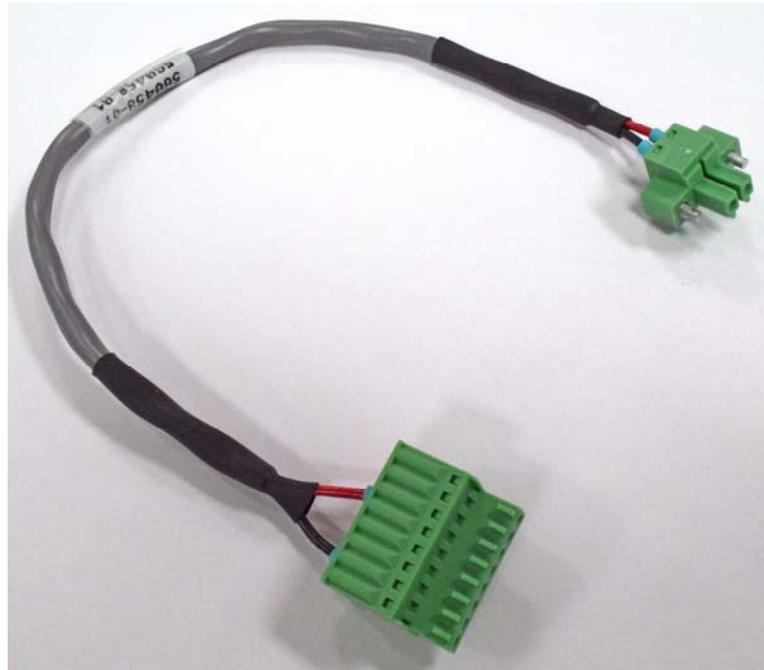
D520526-01 – DC Motor Controller PCB



D520536-01 – Strobe Limiter PCB



D560458-01 – Power Cable for Camera



D803101011 – Shoe Motor Assembly



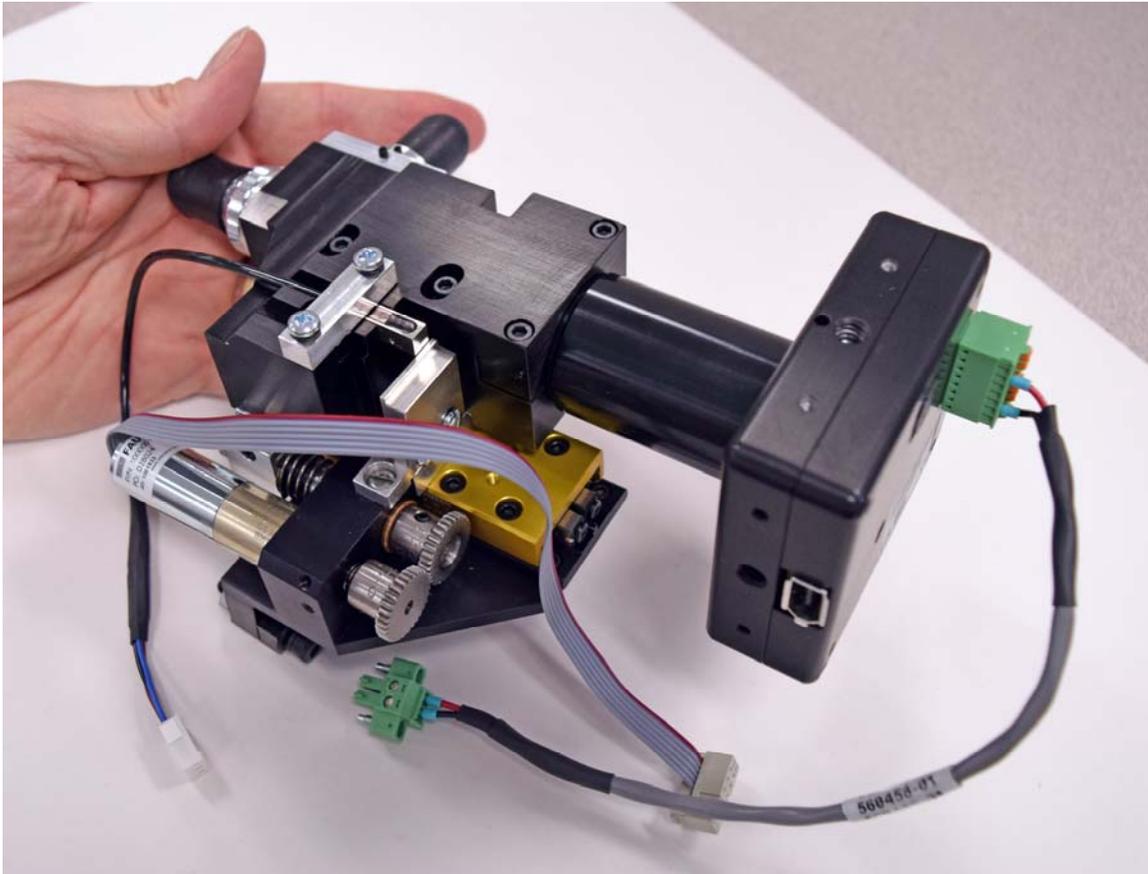
D803101012 – Burr Cutter Motor Assembly



D803101013 – Focus Motor Assembly



D803751013 – Spectrum Optical Assembly

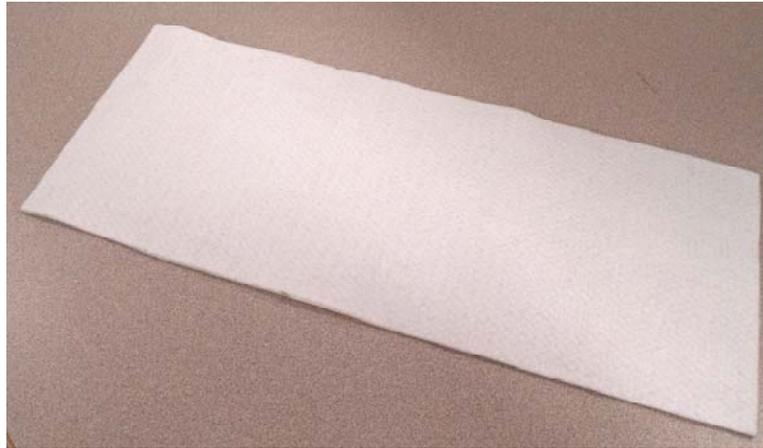


Showing Firewire camera

D803900042 – Engrave Head Air Filters



D817000072 – Enclosure Air Filter



D817320014 – Slip Clutch, Tailstock Leadscrew



D81740090 – Travel Stop



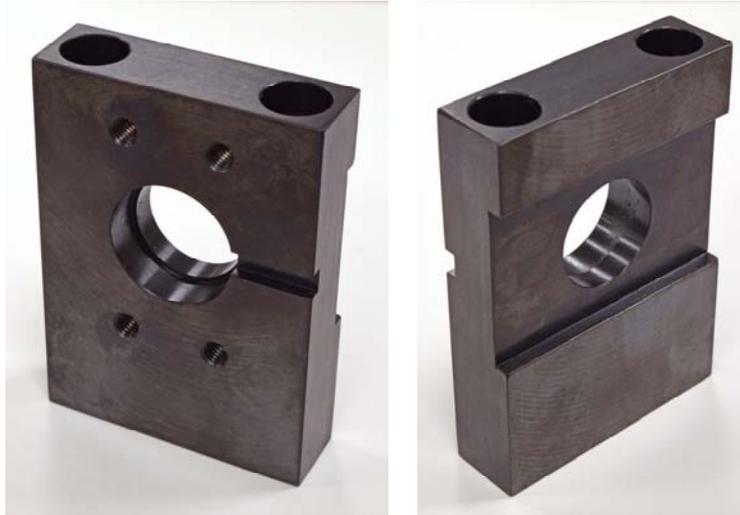
D817400103 – Expandable Vacuum Hose



D817400110 – Vacuum Hose



D817400127 – Sub-Carriage Leadscrew Bearing Block



D817400127 Rev A – Sub-Carriage Leadscrew Bearing Block



D817400128 – Sub-Carriage Bearing Block Plate



D817400144 – Vacuum Elbow



D817580022 – Strobe Assembly (Current production unit and replacement for previous)



D817580023 – Motor, Head Slide



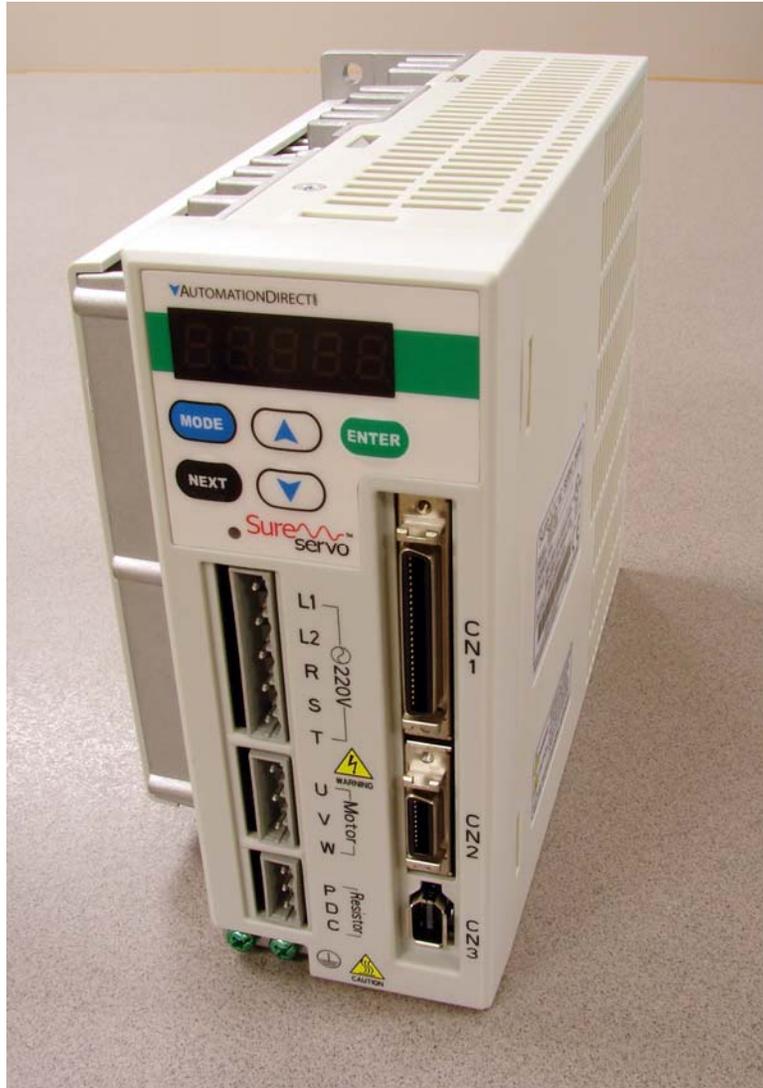
D817594080 – FireWire Repeater



D818550001 – Motor Controller, Linear Motor, Programmed, Packaging and Decorative



D818550002 – Motor Controller, Servo, 1KW, Programmed, Packaging and Decorative



D818550003 – Motor Controller, AC Drive, 0.5 HP, Programmed, Packaging and Decorative



D818550013 - Motor Controller, Servo, 1KW, Programmed, Large Format



D818550014 - Motor Controller, AC Drive, 0.5 HP, Programmed, Large Format



D8XX592003 – Switch, Proximity, Head Down Sensor

XX changes based on machine type as follows:

18 is for Packaging Spectrum

19 is for Decorative Spectrum

21 is for Large Format Spectrum

Used on machines without flexible cable carrier on the carriage.



D8XX592003-CT – Switch, Proximity, Head Down Sensor

XX changes based on machine type as follows:

18 is for Packaging Spectrum

19 is for Decorative Spectrum

21 is for Large Format Spectrum

Used on machines #1036, #1038, and later that use flexible cable carrier.



D818592004 – Switch, Proximity, Home Prox



D818592005 – Switch, Proximity, Left Limit Prox



D818592006 – Switch, Proximity, Right Limit Prox



D818592007 – Switch, Proximity, Tailstock Limit Prox



D8XX592017 – Rotary Encoder, Bore for shaft mounting (For most machines before #1039)

XX changes based on machine type as follows:

18 is for Packaging Spectrum

19 is for Decorative Spectrum

21 is for Large Format Spectrum



D818592025 – Motor, Tailstock Drive



D8XX592030 – Rotary Encoder, Integral Shaft (Machines #1039 and higher)

XX changes based on machine type as follows:

18 is for Packaging Spectrum

19 is for Decorative Spectrum

21 is for Large Format Spectrum



D818594048-CT – Head Interface Cable



D821400022 – Rubber Travel Stop



D830592013 – Sensor, Proximity – Cylinder supports, cylinder present



D830592016 – Sensor, Proximity, Cylinder supports home



D830592018 – Assembly, Sensor, Photonic, for right cylinder end-seeking



D830592019 – Assembly, Sensor, Photonic, for left cylinder end-seeking



D830592021 – Switch, Proximity – Covers Open



D830592022 – Switch, Proximity – Covers Closed



D830592015 – Motor, DC – Enclosure drive



D830592032 – Encoder – Headstock/Tailstock Leadscrew



D830592034 – Motor, ?? – Cylinder Supports drive



D830592041 – Power Supply, 24 VDC – For Cylinder Diameter Measurement tool



D830592044 – LVDT, TIR Measurement



D830594119 – Cable, Coiled, Power for Cylinder Diameter Measurement



D830594120 – Cable, Coiled, For Cylinder Present prox on Cylinder Supports



D830594123 – Power Cable, Camera (Ethernet type)



-- END --