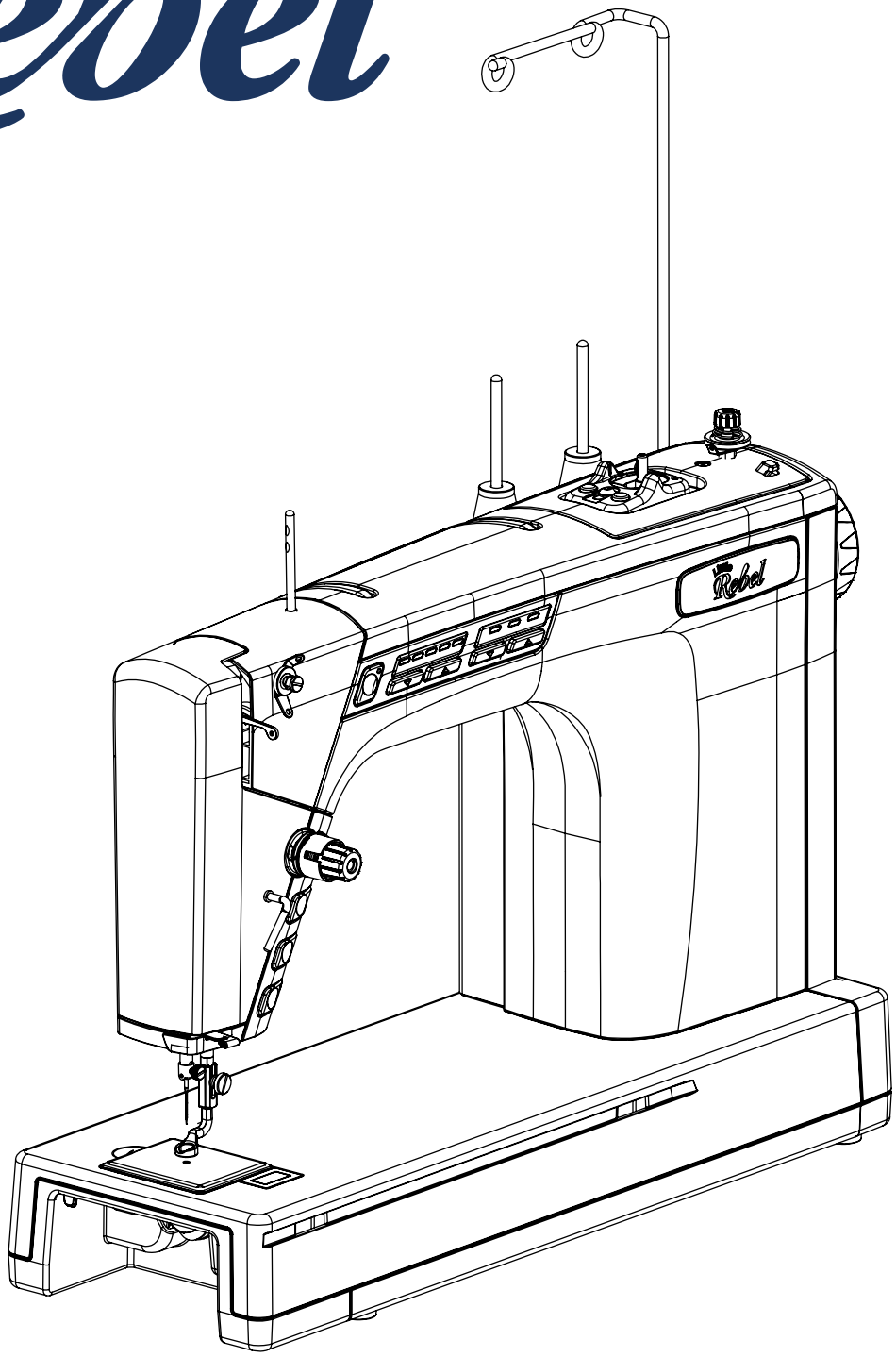
Little Rebel

Exploded Views



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Revision 1.4

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COMPANY

Little Rebel Exploded Views

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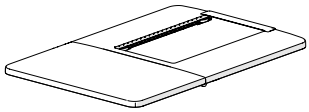
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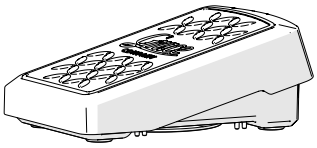
Main Box

Extension Table



SMP-09-17926

Foot Pedal



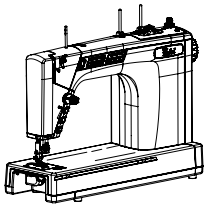
SMP-09-17957

Thread Mast



SMP-04-17686

Sewing Machine



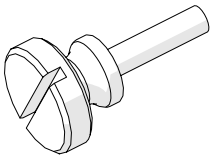
Installation Box (SMP-09-17914)

Power Cord



SMP-02-10845

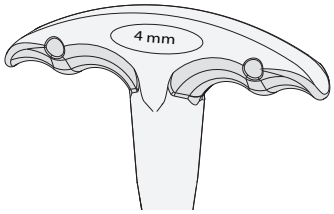
Thread Mast Screw
(x2) (+ x1 spare)



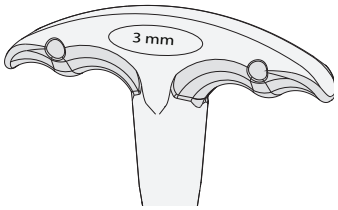
HDW-03-17681

Tool Box (SMP-09-17890)

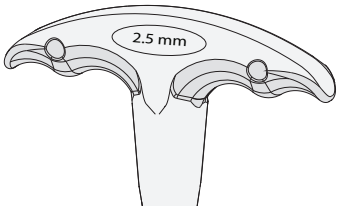
T-Handle Allen Wrench 4 mm



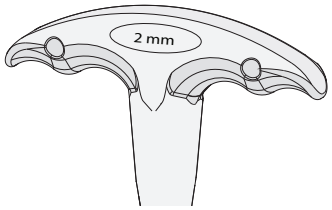
T-Handle Allen Wrench 3 mm



T-Handle Allen Wrench 2.5 mm

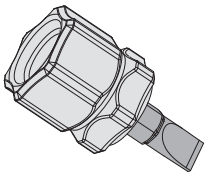


T-Handle Allen Wrench 2 mm

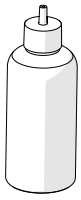


Tool Box (continued)

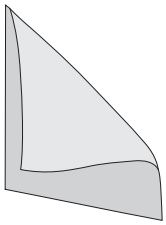
Flat Head Screwdriver



Oil Bottle



Alcohol Wipe



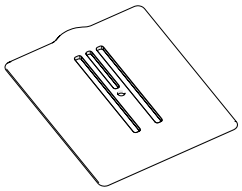
Accessory Box (SMP-09-17897)

Stitch Controller



SMP-09-17978

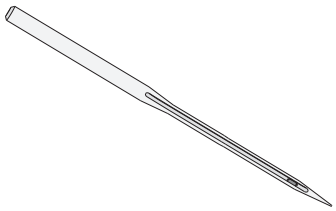
Quilting Plate



SMP-04-19055

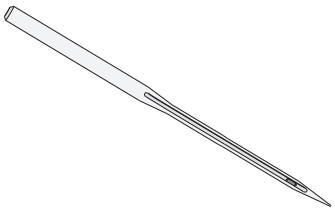
Misc. Container (inside Accessory Box) (SMP-09-23808)

Needle 10-Pack Size 18-110



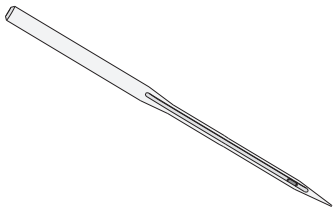
ACC-01-18213

Needle 10-Pack Size 16-100



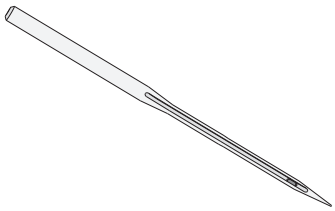
ACC-01-18214

Needle 10-Pack Size 14-90



ACC-01-18215

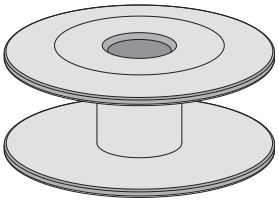
Needle 10-Pack Size 12-80



ACC-01-18216

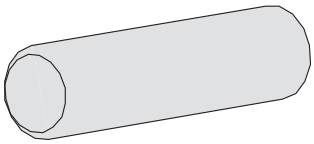
Misc. Container (inside Accessory Box) (continued)

M-Class Bobbin



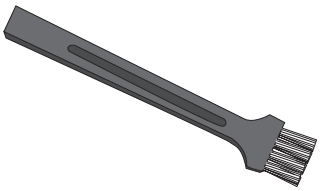
SMP-08-11023

Needle Magnet

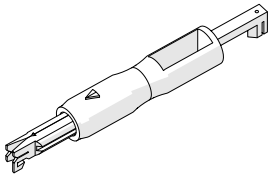


SMP-09-13837

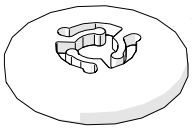
Lint Brush



Needle Threader

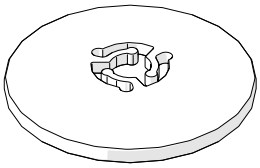


Spool Cap (small)



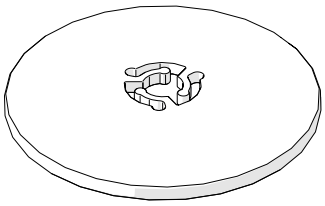
ACC-05-17894

Spool Cap (medium)



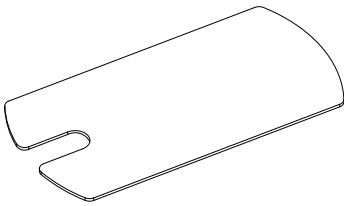
ACC-05-12413

Spool Cap (large)



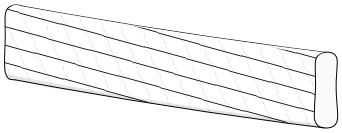
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Hopping Foot Height Tool

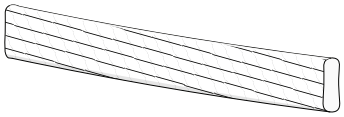


SMP-03-12171

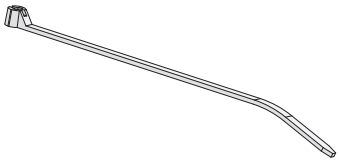
Thread Net 10 cm (x2)



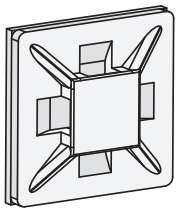
Thread Net 14 cm (x2)



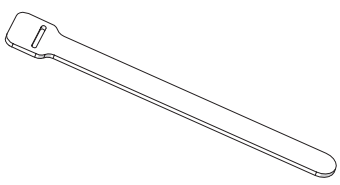
Zip Tie (x2)



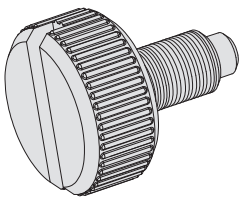
Zip Tie Mount (x2)



Velcro Cable Tie (x4)

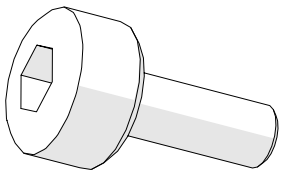


Thumb Screw M3 (needle bar spare)



HDW-03-15109

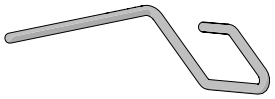
Foot Screw (presser bar spare)



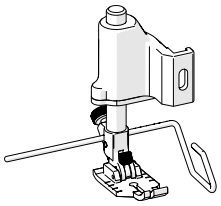
HDW-03-10966

Foot Storage Container (inside Accessory Box) (SMP-09-18052)

Seam Guide

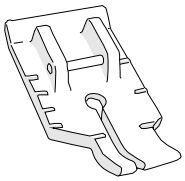


Presser Foot Holder (pre-installed)

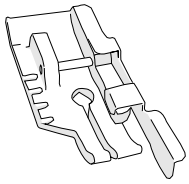


SMP-09-22219

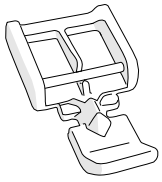
Quilter Foot



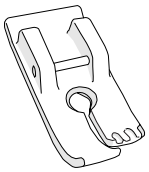
Quilter Foot w/ Edge Guide



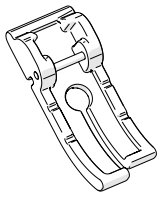
Zipper Foot



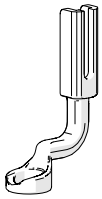
Scant 1/4" Foot
(pre-installed)



1/4" Foot

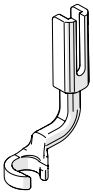


Standard Hopping Foot



SMP-04-10057

Sit Down Quilting Foot



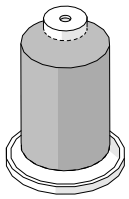
SMP-04-18028

Machine Training Panel Kit (SMP-09-17302)

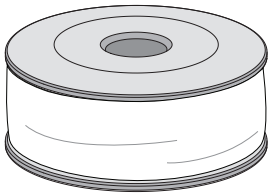
Sewing Machine Training Panel



Finesse Thread Cone (x3)

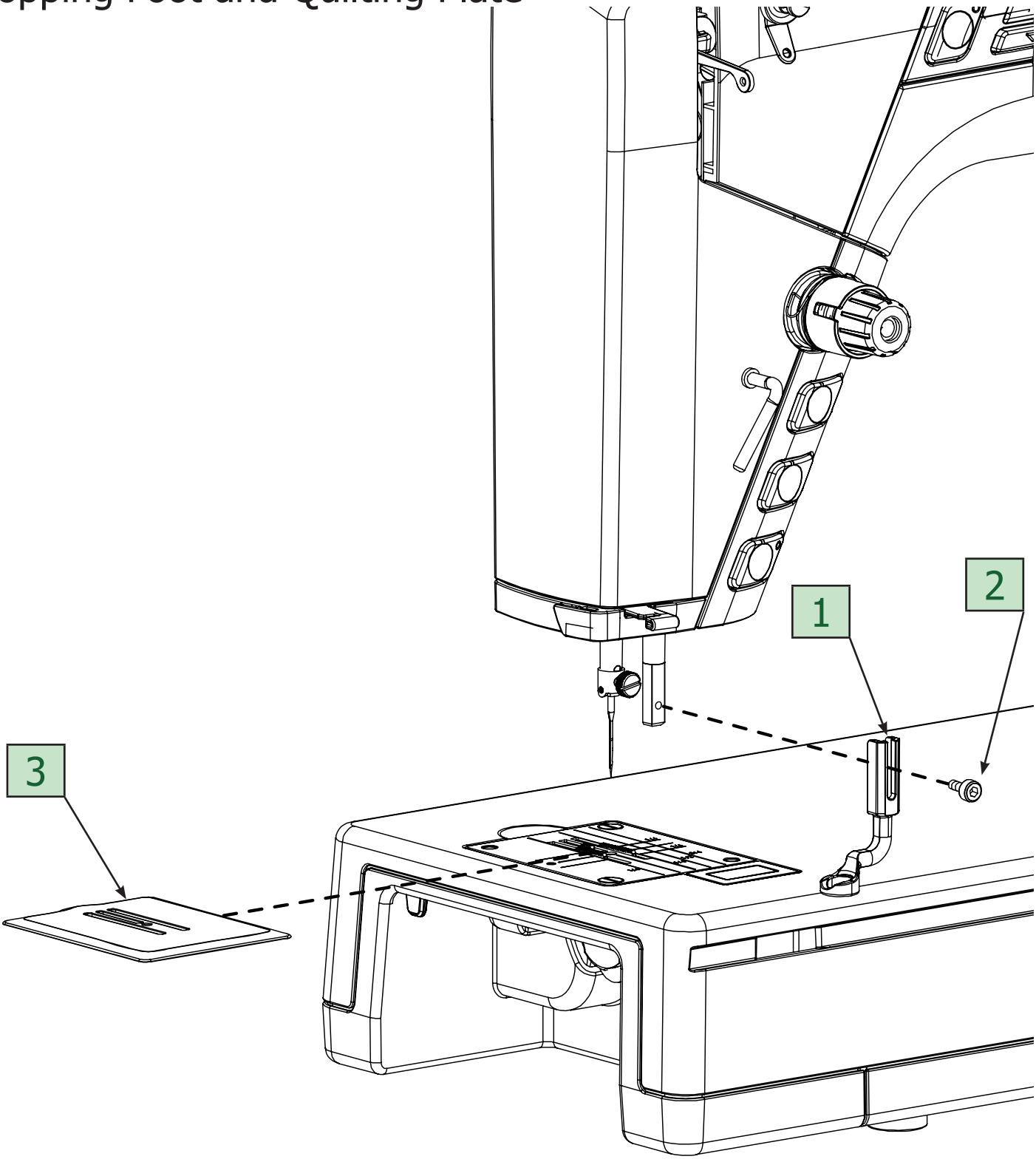


M-Class Bobbin (pre-wound, x2)



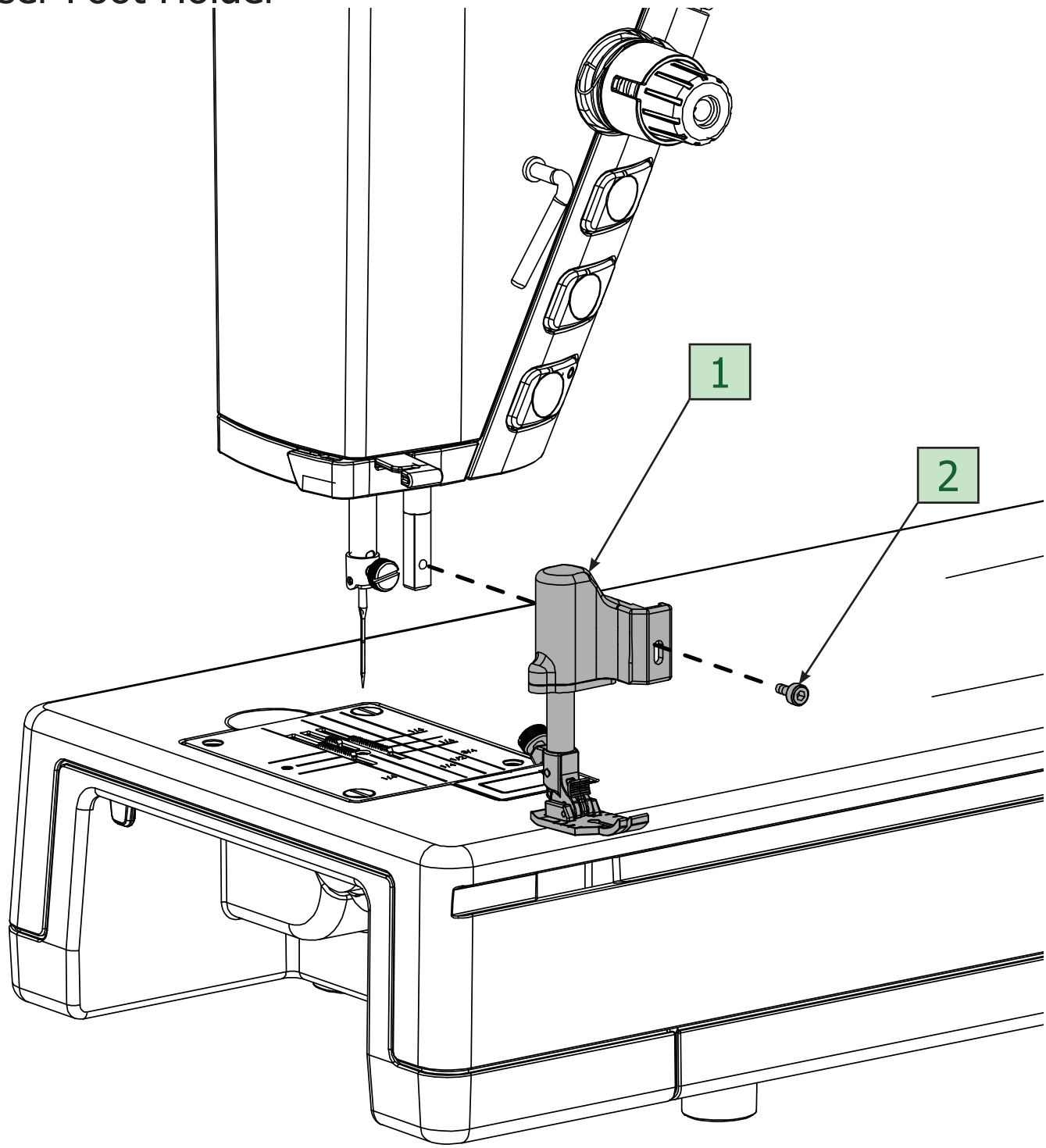
Peripherals

Hopping Foot and Quilting Plate



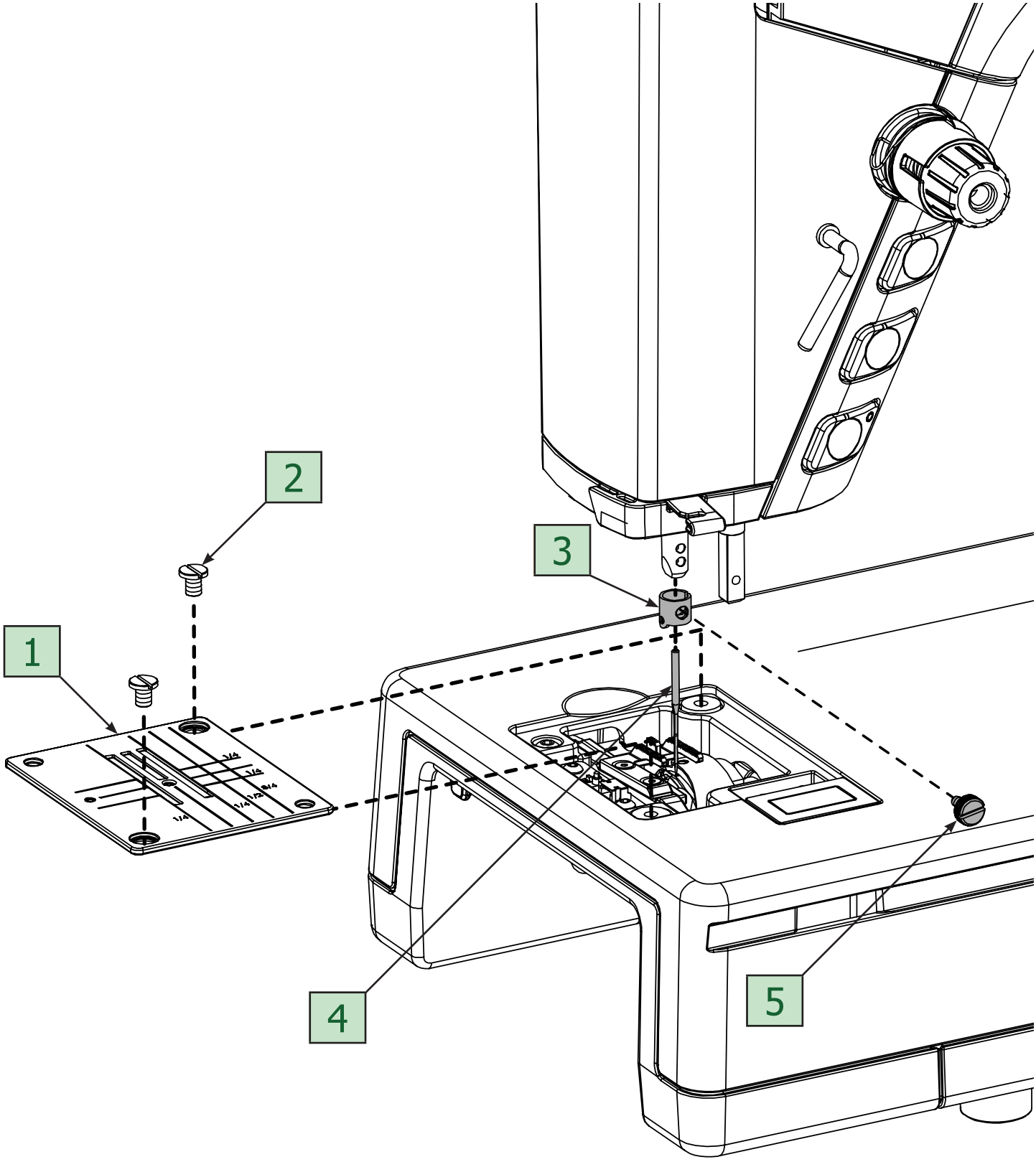
Item	QTY	Part #	Description (EN)	Serviceablility
1	1	04-10057	Standard Hopping Foot	CU
2	1	03-17660	Slotted Thumb Screw M3 X 8mm	CU
3	1	04-19055	Quilting Plate v2	CU
-	1	04-18028	Sit Down Quilting Foot (not shown)	CU

Presser Foot Holder



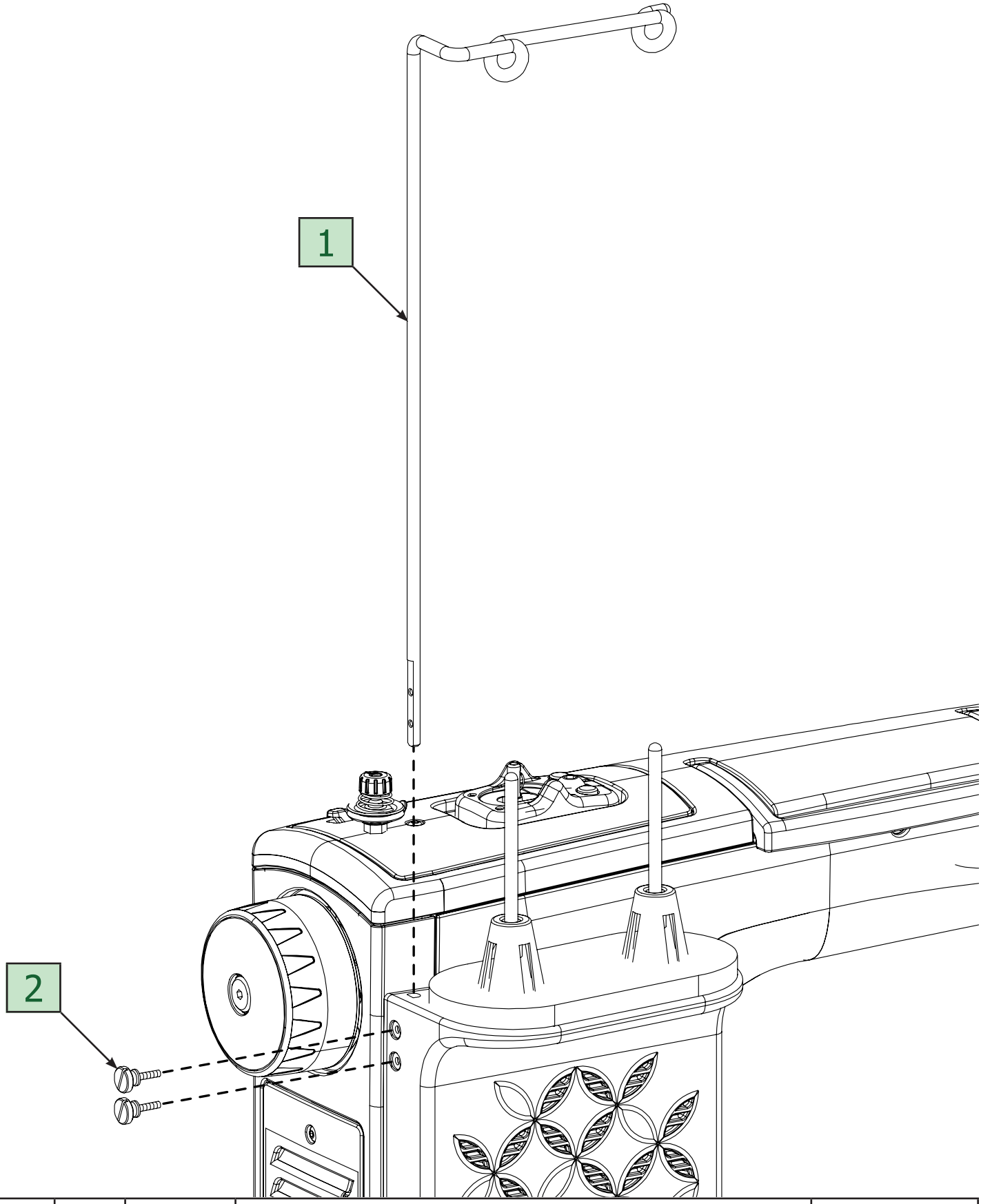
Item	QTY	Part #	Description	Serviceablilty
1	1	09-22219	Presser Foot Holder v2	CU
2	1	03-10966	SHCS M3 X 8mm	CU

Needle Plate and Needle



Item	QTY	Part #	Description	Serviceability
1	1	04-19054	Needle Plate v2	CU
2	2	03-10005	Needle Plate Screw	CU
3	1	04-22162	Needle Bar Thread Guide v2	CU
4	1	-	MR Needle (see Accessory Box for sizes)	CU
5	1	03-15109	Slotted Thumb Screw M3 X 4mm	Cu

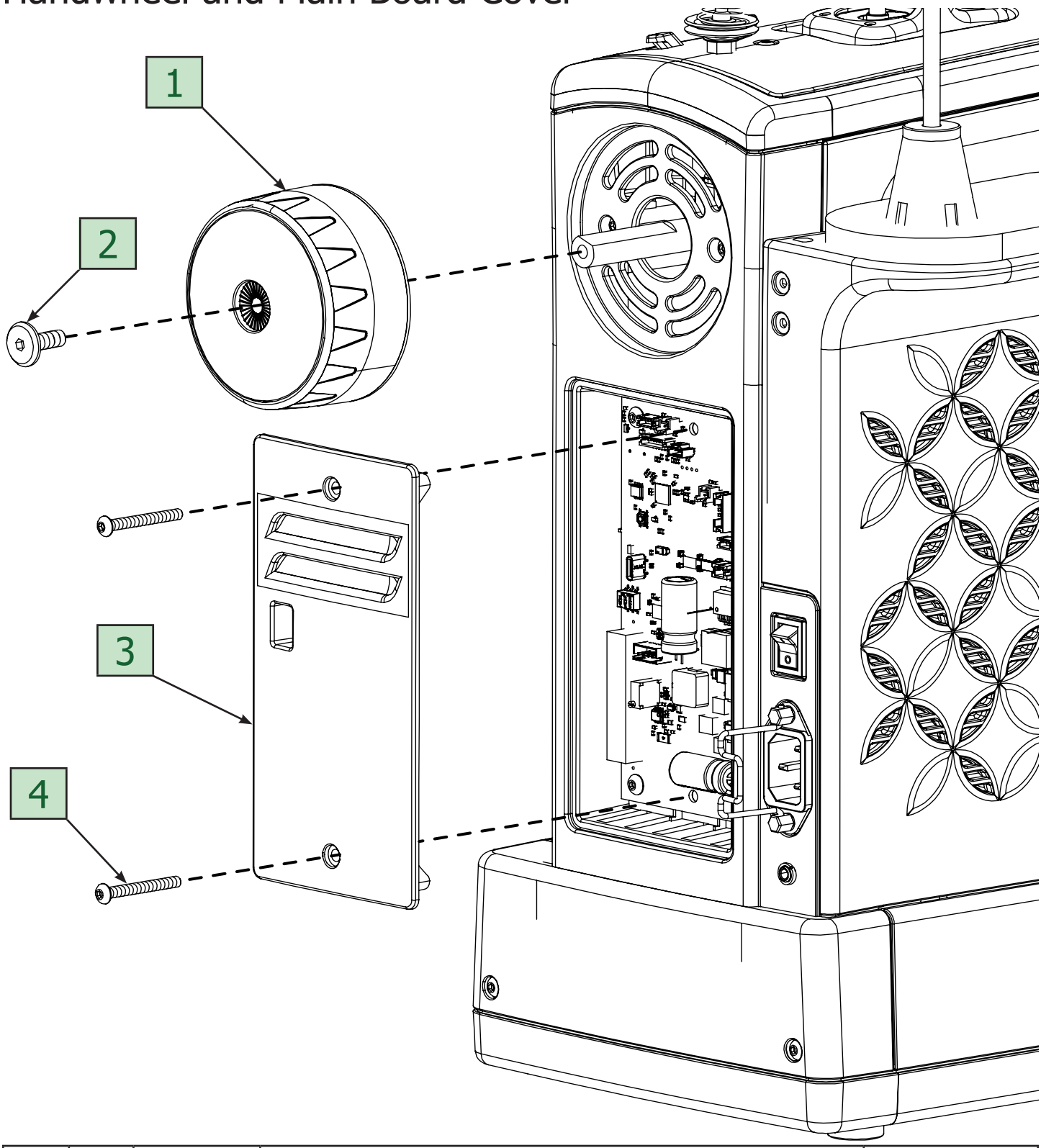
Thread Mast



Item	QTY	Part #	Description	Serviceability
1	1	04-17686	Thread Mast	CU
2	2	03-17681	Slotted Thumb Screw M3 X 12mm	CU

Plastic Covers

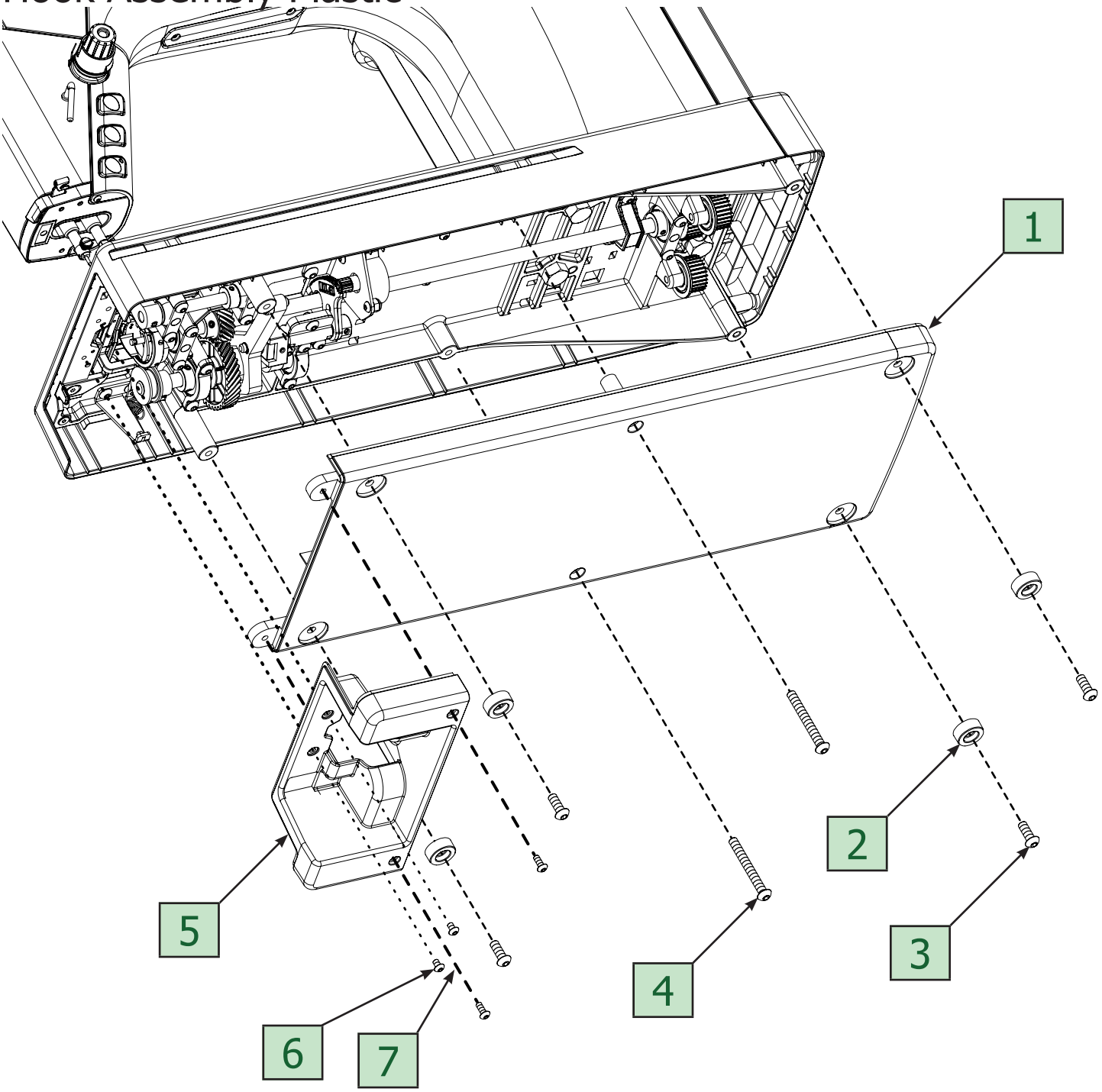
Handwheel and Main Board Cover



Item	QTY	Part #	Description	Serviceability
1	1	05-19236	Handwheel v2	CU
2	1	03-10975	Connector Bolt M6 X 20mm	CU
3	1	05-17658	Main Board Cover	CU
4	2	03-14738	SBHCS M4 X 35mm	CU

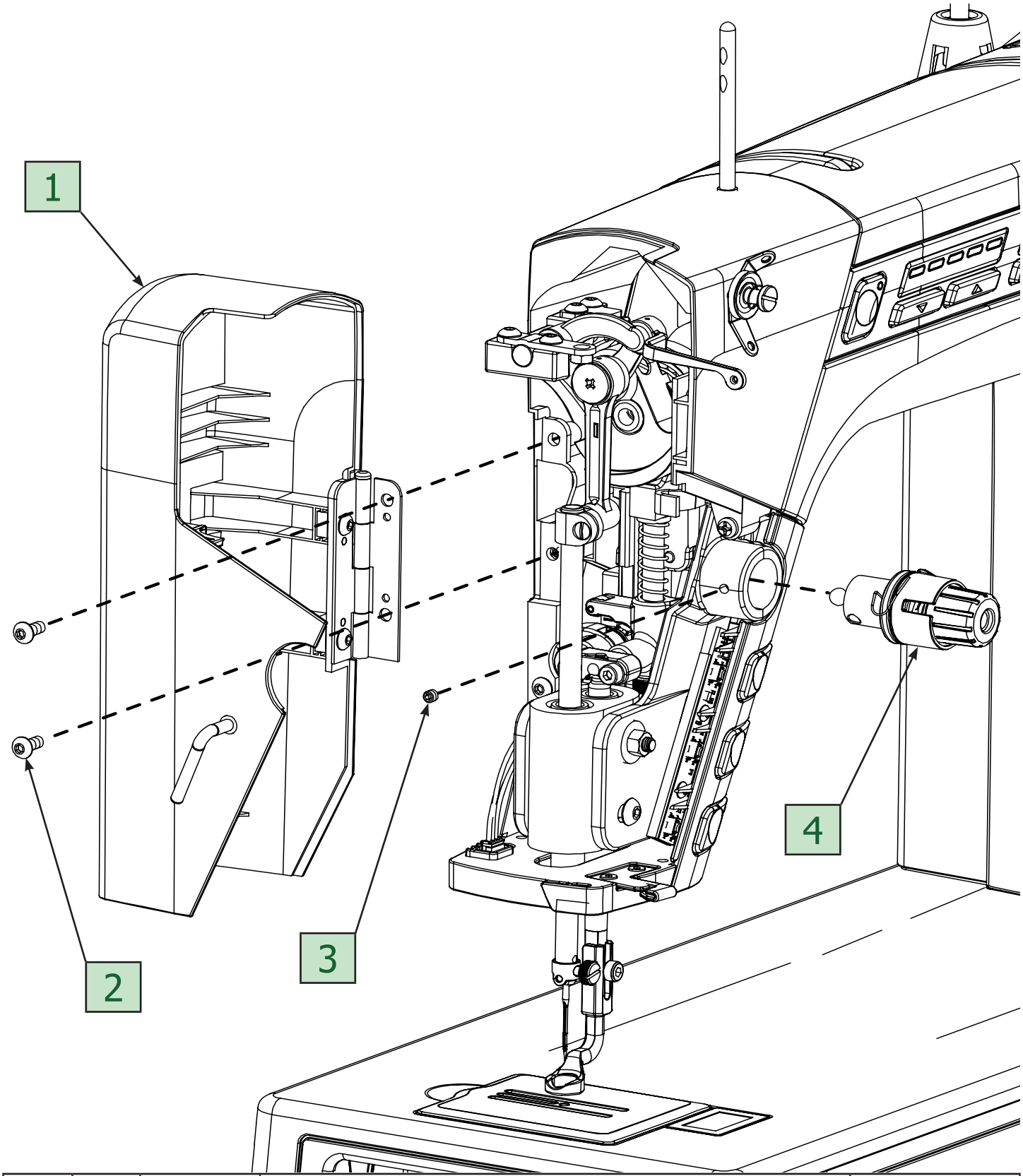
Bottom Plastic

Hook Assembly Plastic



Item	QTY	Part #	Description	Serviceability
1	1	05-17654	Bottom Plastic	CU
2	1	05-17655	Rubber Foot	CU
3	4	03-10974	SBHCS M6 X 16mm	CU
4	2	03-16523	SBHCS M6 X 50mm	CU
5	1	05-22170	Hook Assembly Plastic v2	CU
6	2	03-10968	SBHCS M4 X 6mm	CU
7	2	03-10012	SBHCS M4 X 10mm	CU

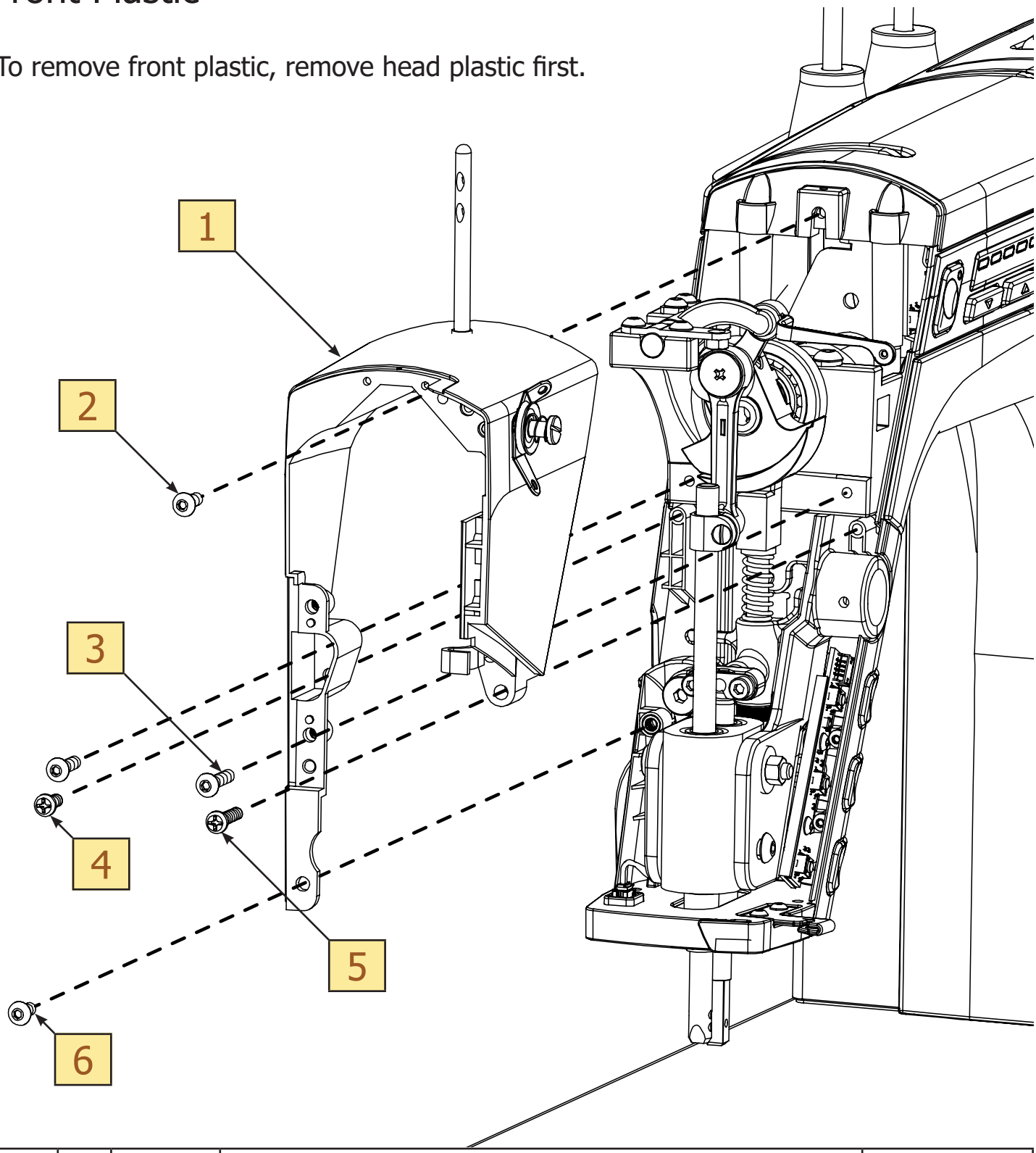
Head Plastic



Item	QTY	Part #	Description	Serviceability
1	1	09-22218	Head Plastic Assembly v2	CU
2	2	03-10012	SBHCS M4 X 10mm	CU
3	1	03-10016	Socket CSS M4 X 4mm (Cup Point Set Screw)	CU
4	1	09-17646	Thread Tensioner Assembly	CU

Front Plastic

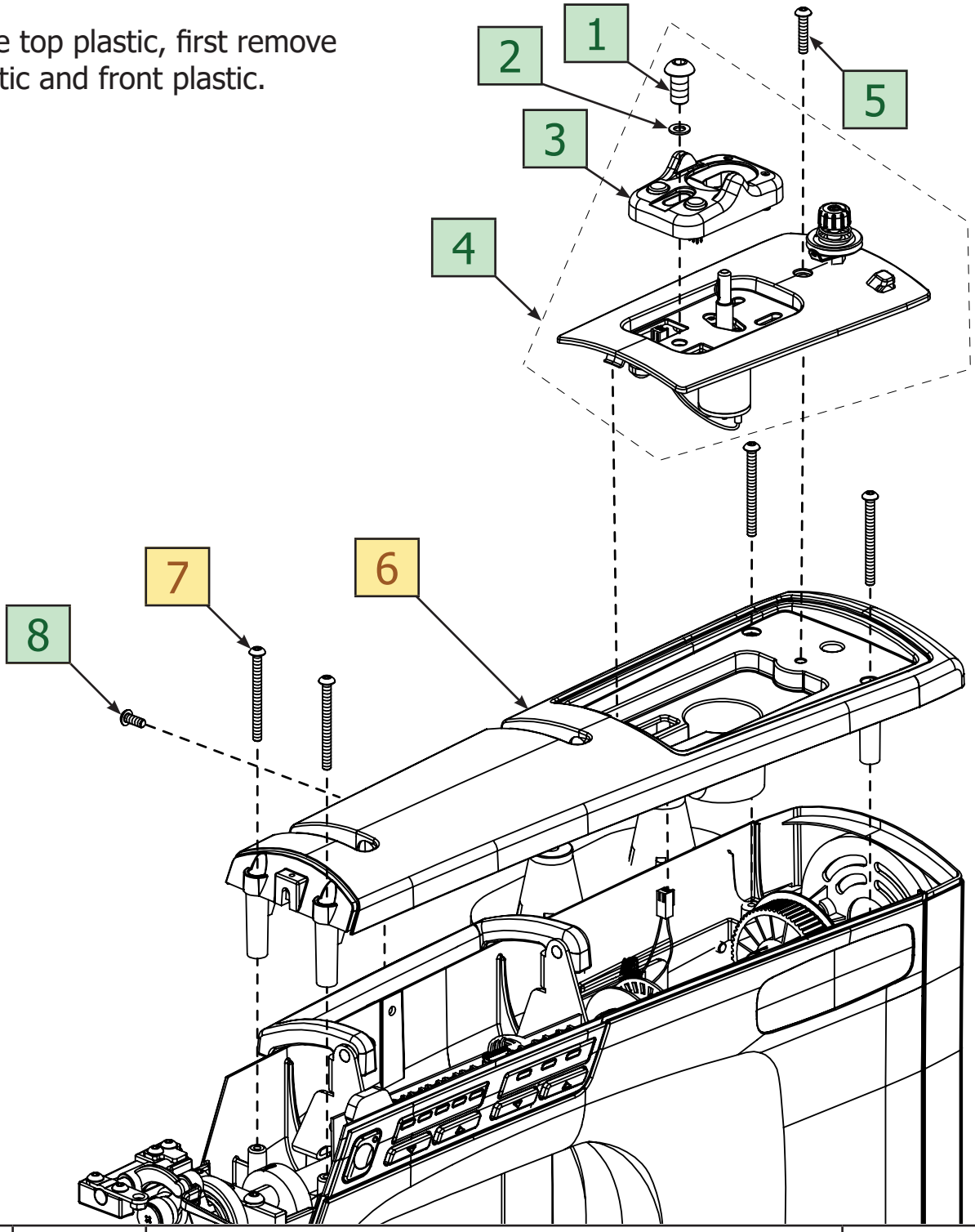
To remove front plastic, remove head plastic first.



Item	QTY	Part #	Description	Serviceability
1	1	09-22217	Front Plastic Assembly v2	DE
2	1	03-14247	SBHCS M4 X 12mm	DE
3	2	03-11661	SBHCS M4 X 20mm	DE
4	1	03-17644	Phillips PHTFS M4 X 12mm (Pan Head Thread Forming Screw)	DE
5	1	03-17645	Phillips PHTFS M4 X 20mm (Pan Head Thread Forming Screw)	DE
6	1	03-10012	SBHCS M4 X 10mm	DE

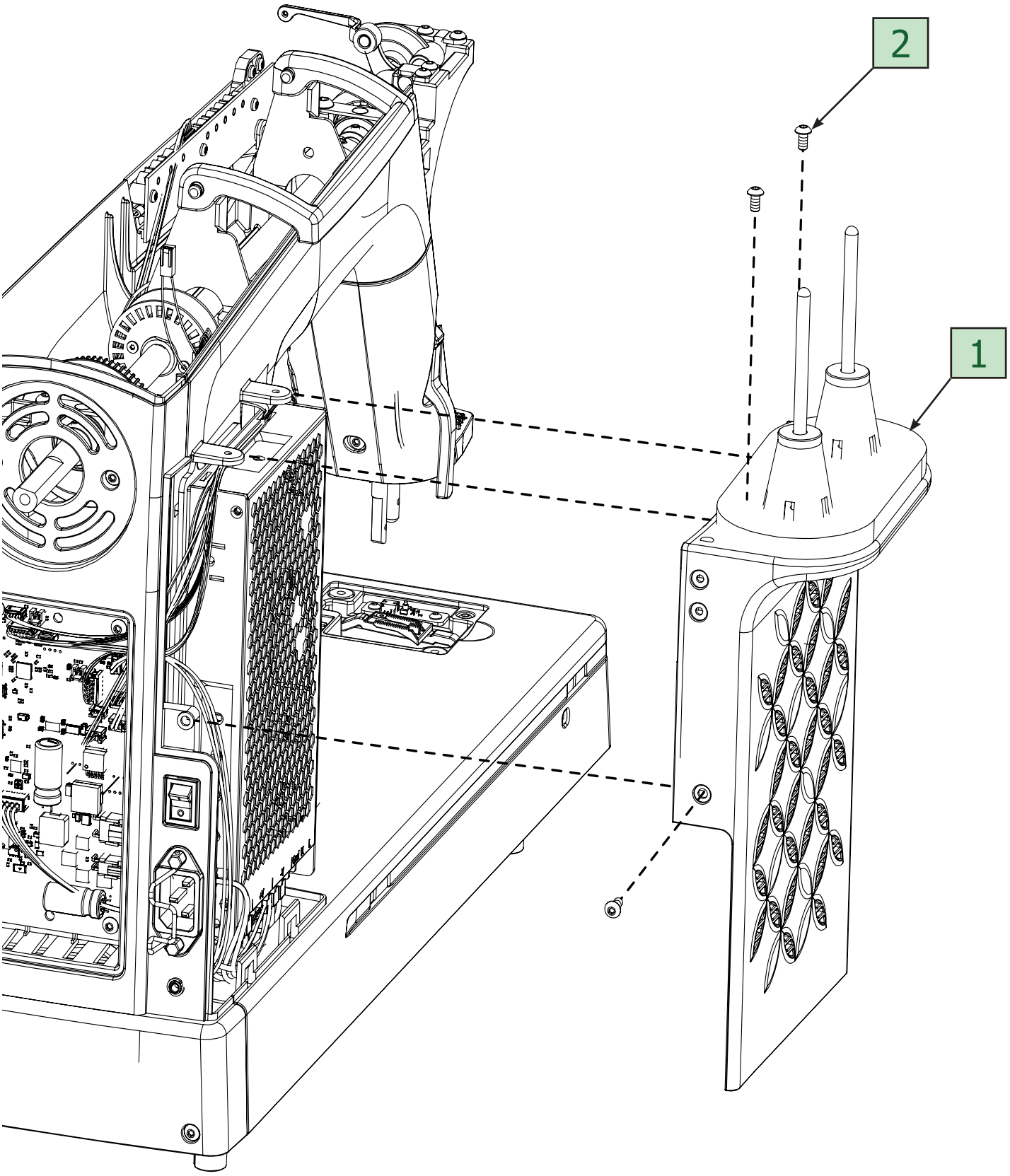
Top Plastics

To remove top plastic, first remove head plastic and front plastic.



Item	QTY	Part #	Description	Serviceablility
1	1	03-11983	SBHCS M5 20mm	CU
2	1	03-16349	Washer 5.45 ID X 9.8 OD X 0.9mm T	CU
3	1	09-16448	Bobbin Winder Top Assembly	CU
4	1	09-17633	Bobbin Winder Assembly	CU
5	1	03-11661	SBHCS M4 X 20mm	CU
6	1	05-17631	Top Plastic	DE
7	4	03-14824	SBHCS M4 X 45mm	DE
8	1	03-10012	SBHCS M4 X 10mm	CU

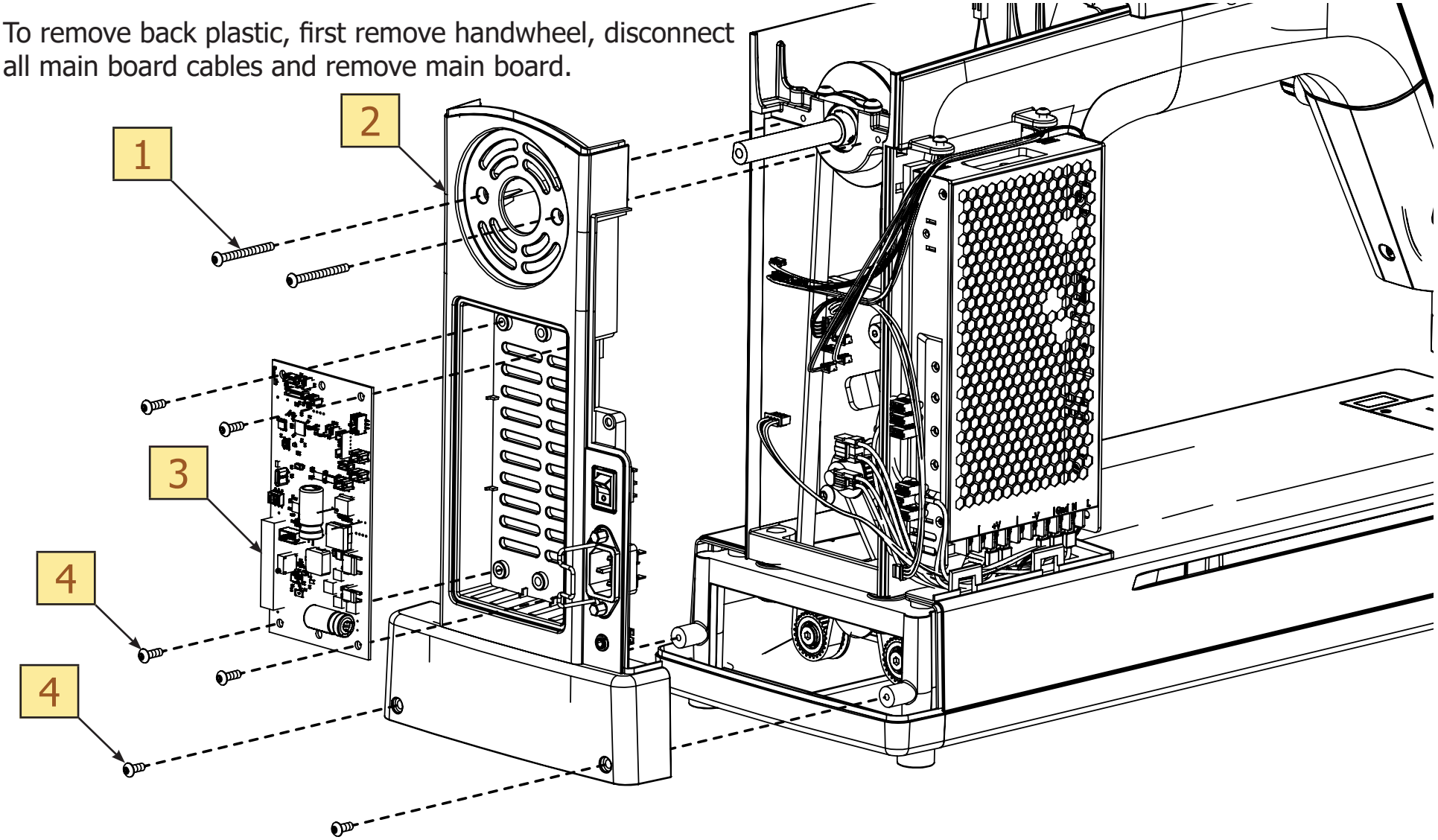
Power Supply Cover



Item	QTY	Part #	Description	Serviceablility
1	1	09-17628	Power Supply Cover Assembly	CU
2	3	04-10012	SBHCS M4 X 10mm	CU

Back Plastic

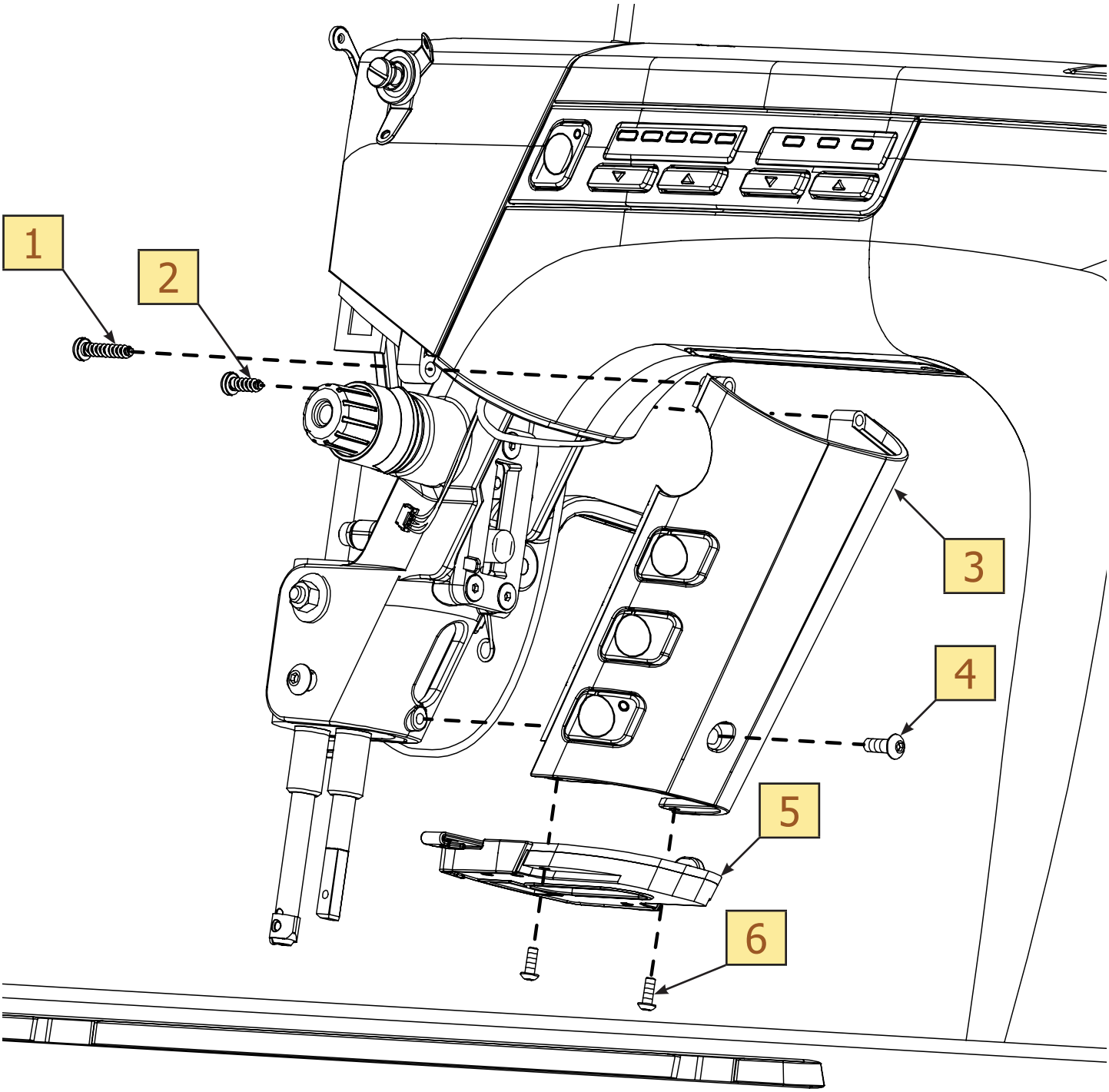
To remove back plastic, first remove handwheel, disconnect all main board cables and remove main board.



Item	QTY	Part #	Description	Serviceability
1	2	03-14893	SBHCS M4 X 40mm	DE
2	1	09-17621	Back Plastic Assembly (includes foot pedal port board)	DE
3	4	02-16721	Main Board v1.7	DE
4	6	03-14247	SBHCS M4 X 12mm	DE

Throat Plastic

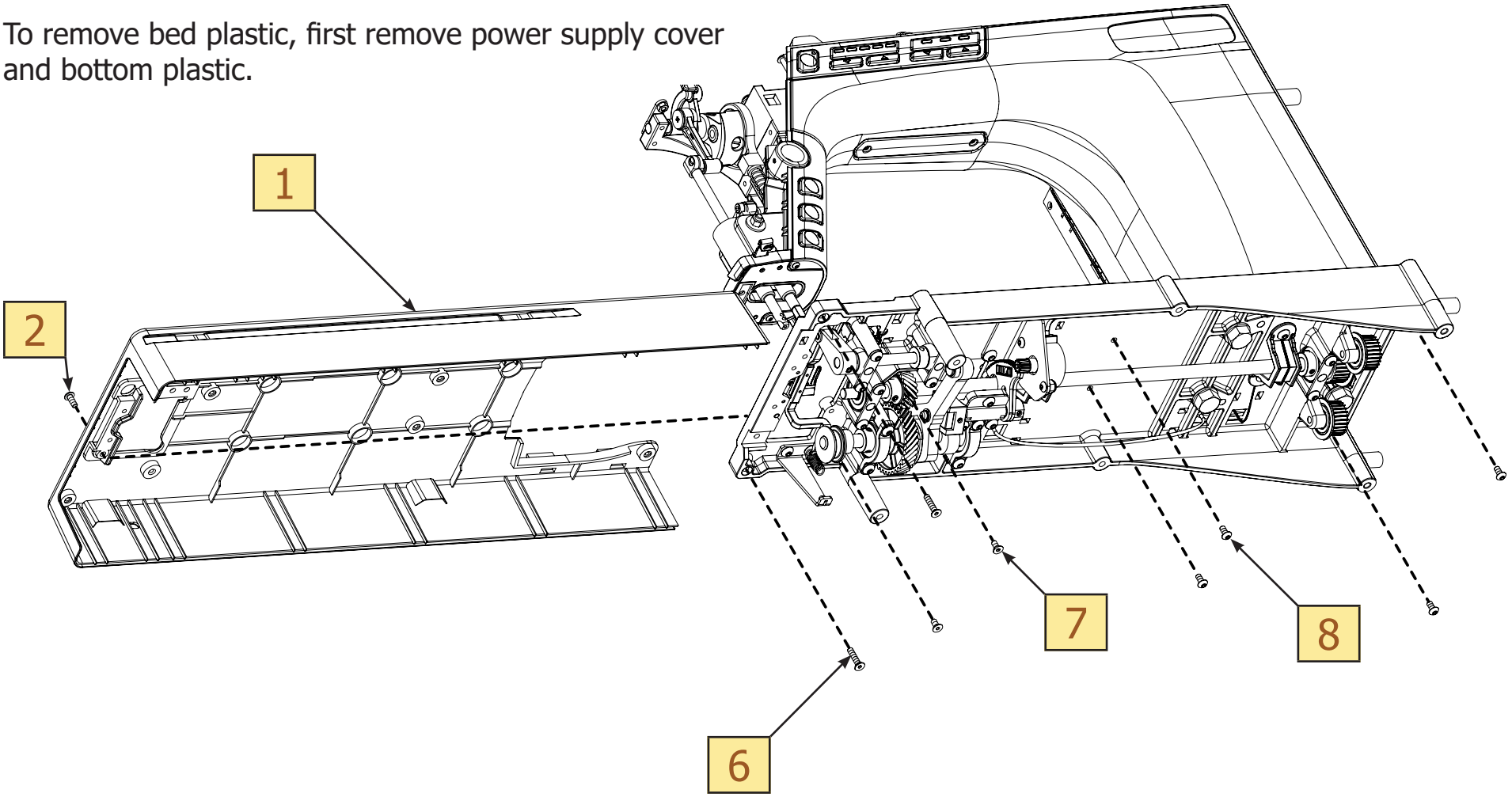
To remove throat plastic and needle light assembly,
first remove head plastic.



Item	QTY	Part #	Description	Serviceability
1	1	03-17645	Phillips PHTFS M4 X 20mm (Pan Head Thread Forming Screw)	DE
2	1	03-17644	Phillips PHTFS M4 X 12mm (Pan Head Thread Forming Screw)	DE
3	1	09-22215	Throat Plastic Assembly v2	DE
4	1	03-14247	SBHCS M4 X 12mm	DE
5	1	09-21755	Needle Light Assembly v2	DE
6	2	03-14003	SBHCS M3 X 8mm	DE

Bed Plastic

To remove bed plastic, first remove power supply cover and bottom plastic.



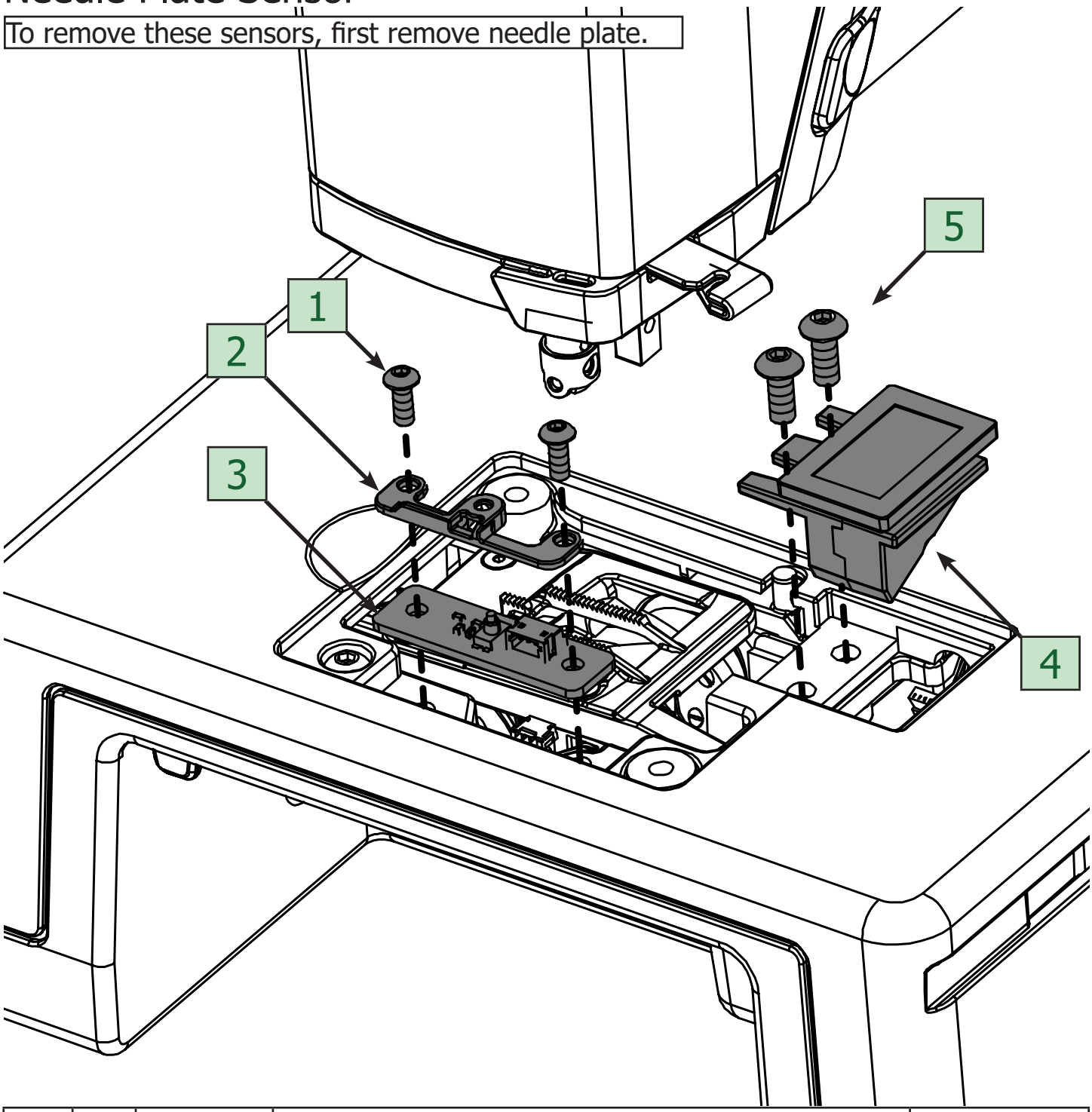
Item	QTY	Part #	Description	Serviceability
1	1	05-22206	Bed Plastic v2	DE
2	1	03-10012	SBHCS M4 X 10mm	DE
6	2	03-17614	Socket FHS M4 X 18mm (Flat Head Screw)	DE
7	1	03-12712	Socket FHS M4 X 8mm (Flat Head Screw)	DE
8	4	03-10175	SBHCS M4 X 8mm	DE

Electronics

Fabric Sensor

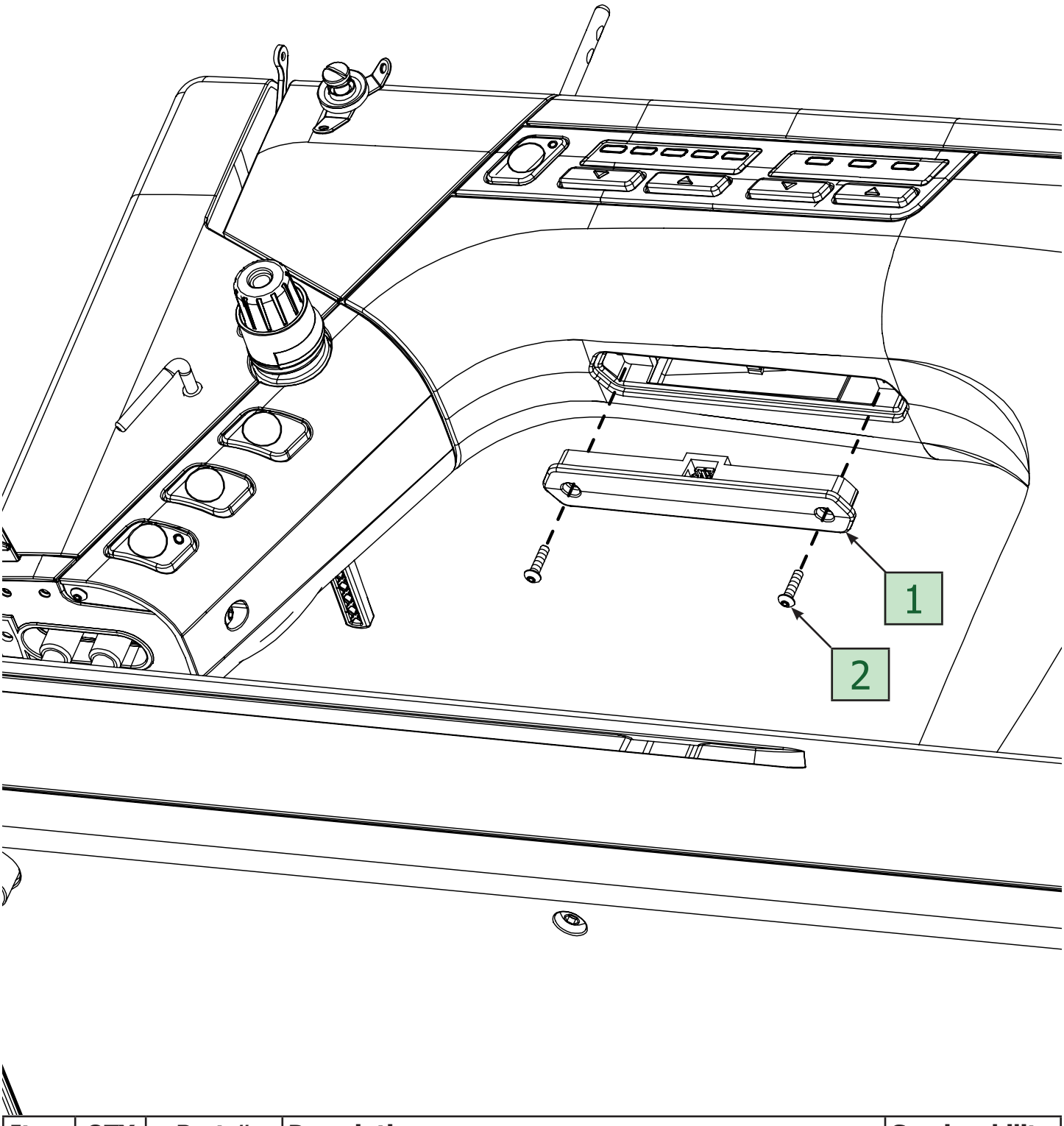
Needle Plate Sensor

To remove these sensors, first remove needle plate.



Item	QTY	Part #	Description	Serviceability
1	2	03-14003	SBHCS M3 X 8mm	CU
2	1	05-18978	Needle Plate Sensor Cover	CU
3	1	02-17613	Needle Plate Sensor Board	CU
4	1	09-22216	Fabric Sensor Assembly v3	CU
5	2	03-10012	SBHCS M4 X 10mm	CU

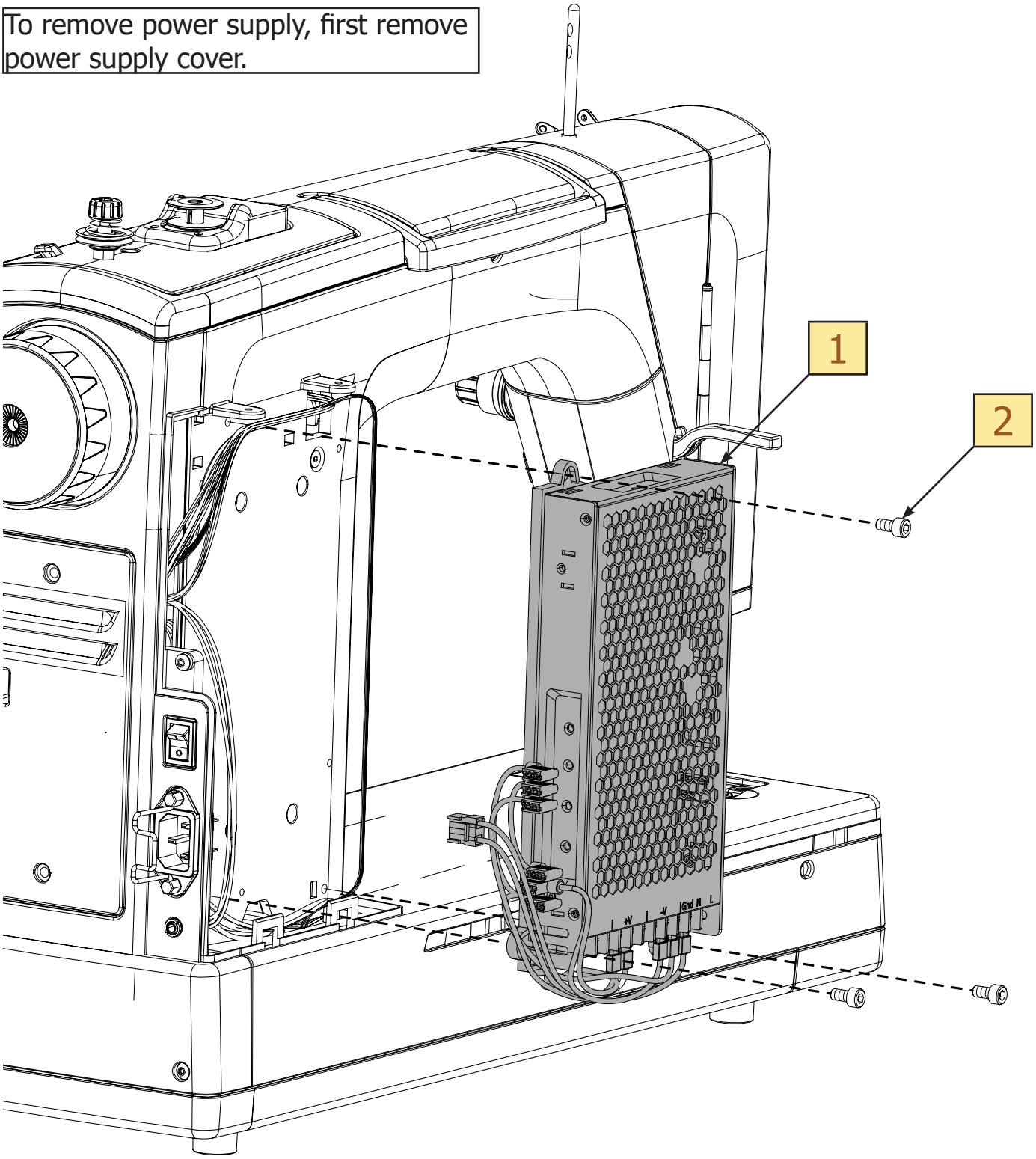
Throat Lights



Item	QTY	Part #	Description	Serviceability
1	1	09-17584	Throat Light Assembly	CU
2	2	03-11192	SBHCS M3 X 12mm	CU

Power Supply

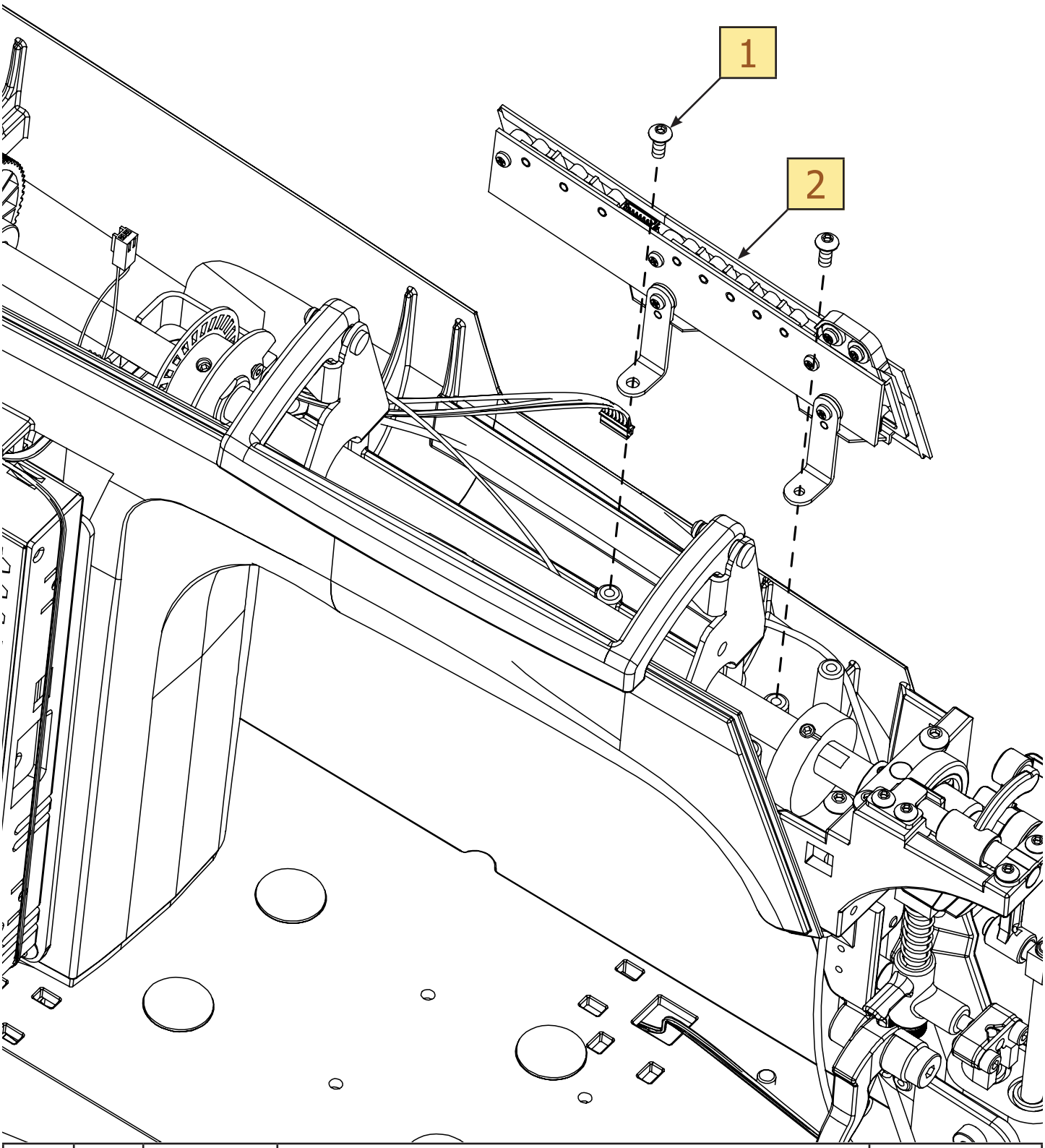
To remove power supply, first remove power supply cover.



Item	QTY	Part #	Description	Serviceability
1	1	09-17532	Power Supply Assembly SM13	DE
2	3	03-15031	SHCS M5 X 10mm	DE

Upper Buttons

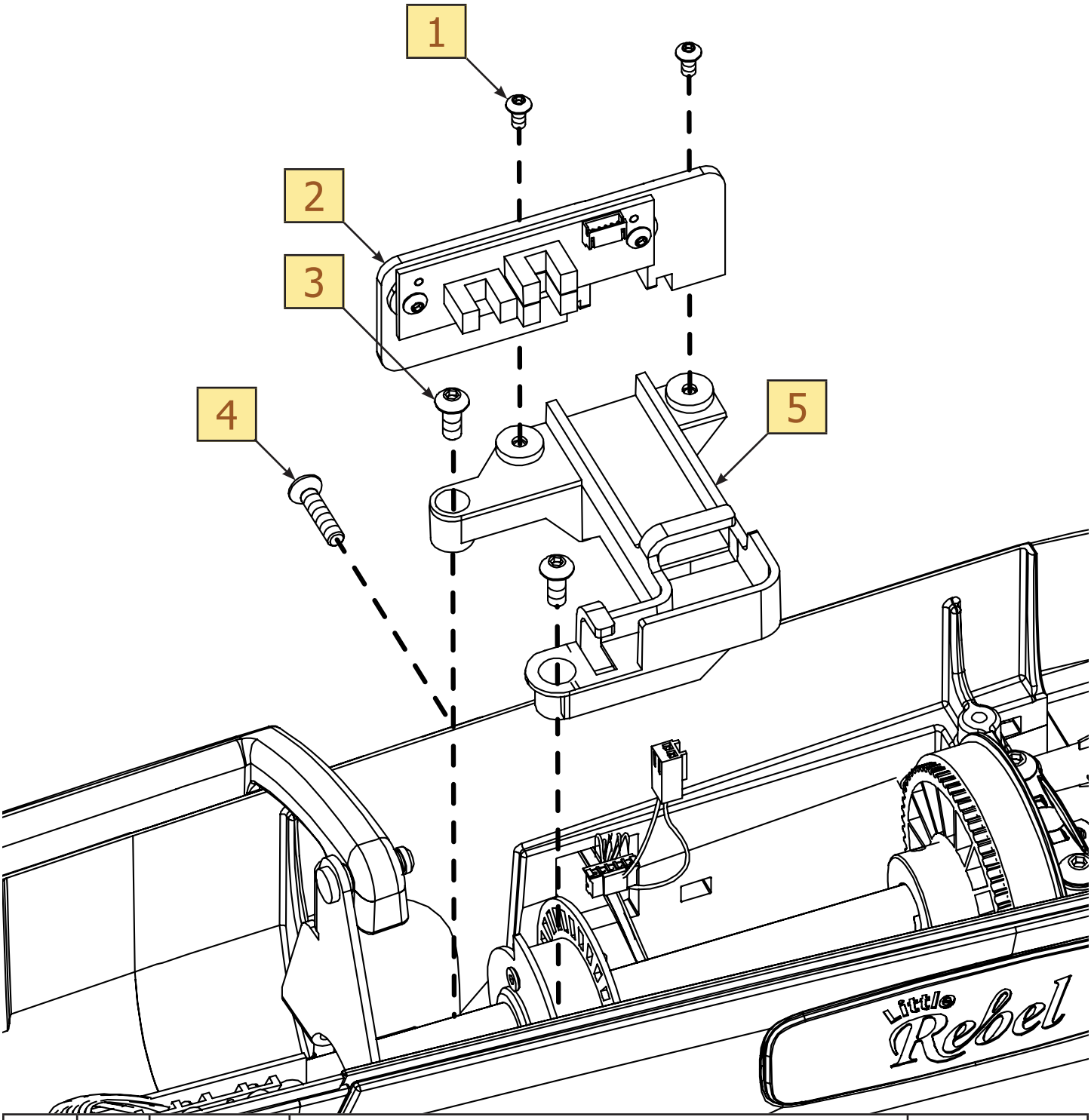
To remove upper button assembly, first remove head plastic, front plastic, and top plastic.



Item	QTY	Part #	Description	Serviceability
1	1	09-22214	Upper Buttons Assembly v2	DE
2	2	03-10012	SBHCS M4 X 10mm	DE

Speed Sensor Board and Cable Tray

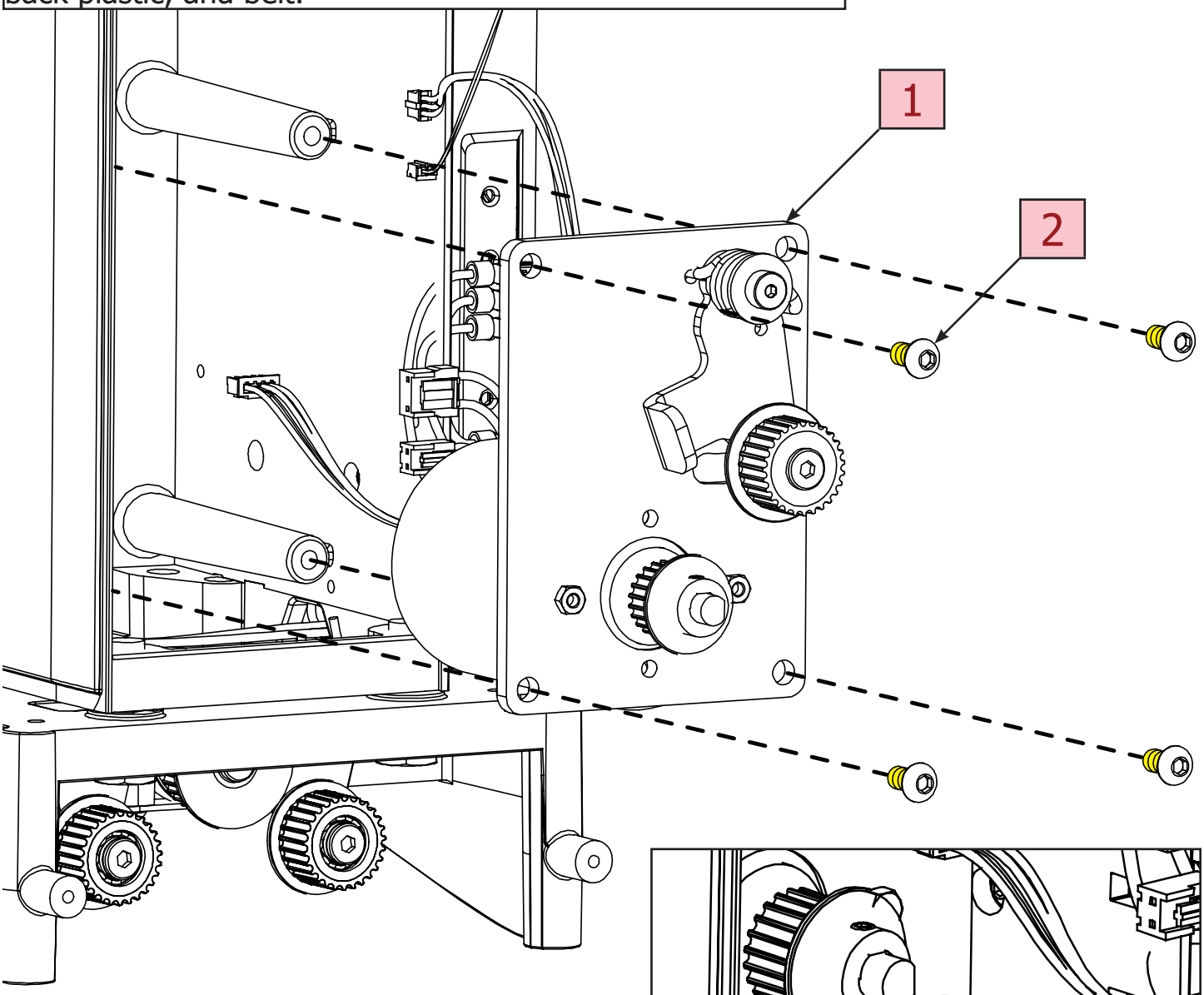
To remove speed sensor board, first remove head plastic, front plastic, and top plastic.
To remove cable tray, first remove all above components and power supply.

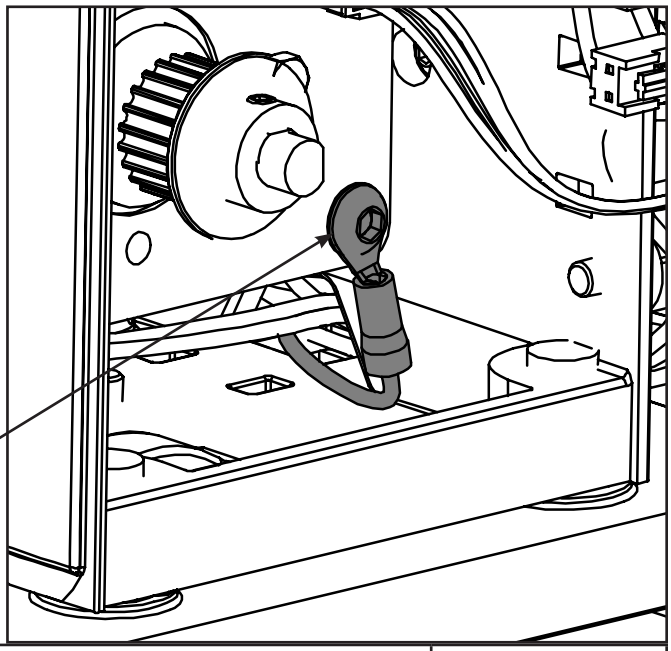


Item	QTY	Part #	Description	Serviceability
1	2	03-10177	SBHCS M3 X 6mm	DE
2	1	09-17543	Speed Sensor Board Assembly	DE
3	2	03-10012	SBHCS M4 X 10mm	DE
4	1	03-17614	Socket FHS M4 X 18mm (Flat Head Screw)	DE
5	1	05-17529	Upper Cable Tray	DE

Motor Plate Assembly

To remove motor plate assembly, first remove handwheel, back plastic, and belt.





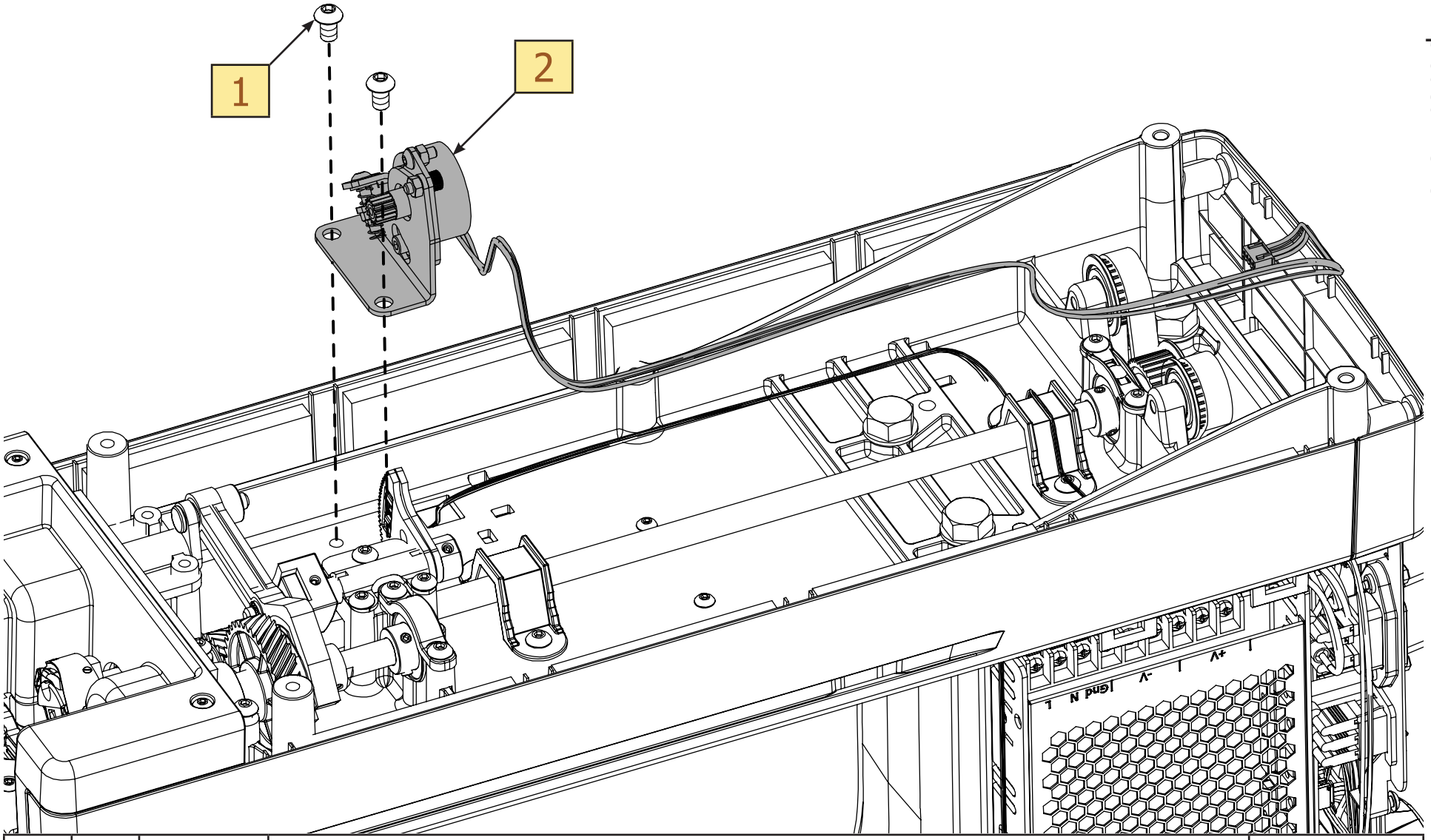
Note: Attach the ground cable to the motor plate.

Note: Add blue loctite to screws.

Item	QTY	Part #	Description	Serviceability
1	1	09-17536	Motor Plate Assembly SM13	DE
2	4	03-10974	SBHCS M6 X 16mm	DE

Stepper Motor

To remove stepper motor, first remove bottom plastic, power supply cover, and main board cover.



Item	QTY	Part #	Description	Serviceability
1	2	03-10124	SBHCS M6 X 10mm	DE
2	1	09-17508	Stepper Motor Assembly	DE

Main Board (see Back Plastic on pg. 19)

Needle Light Board (see Throat Plastic on pg. 20)

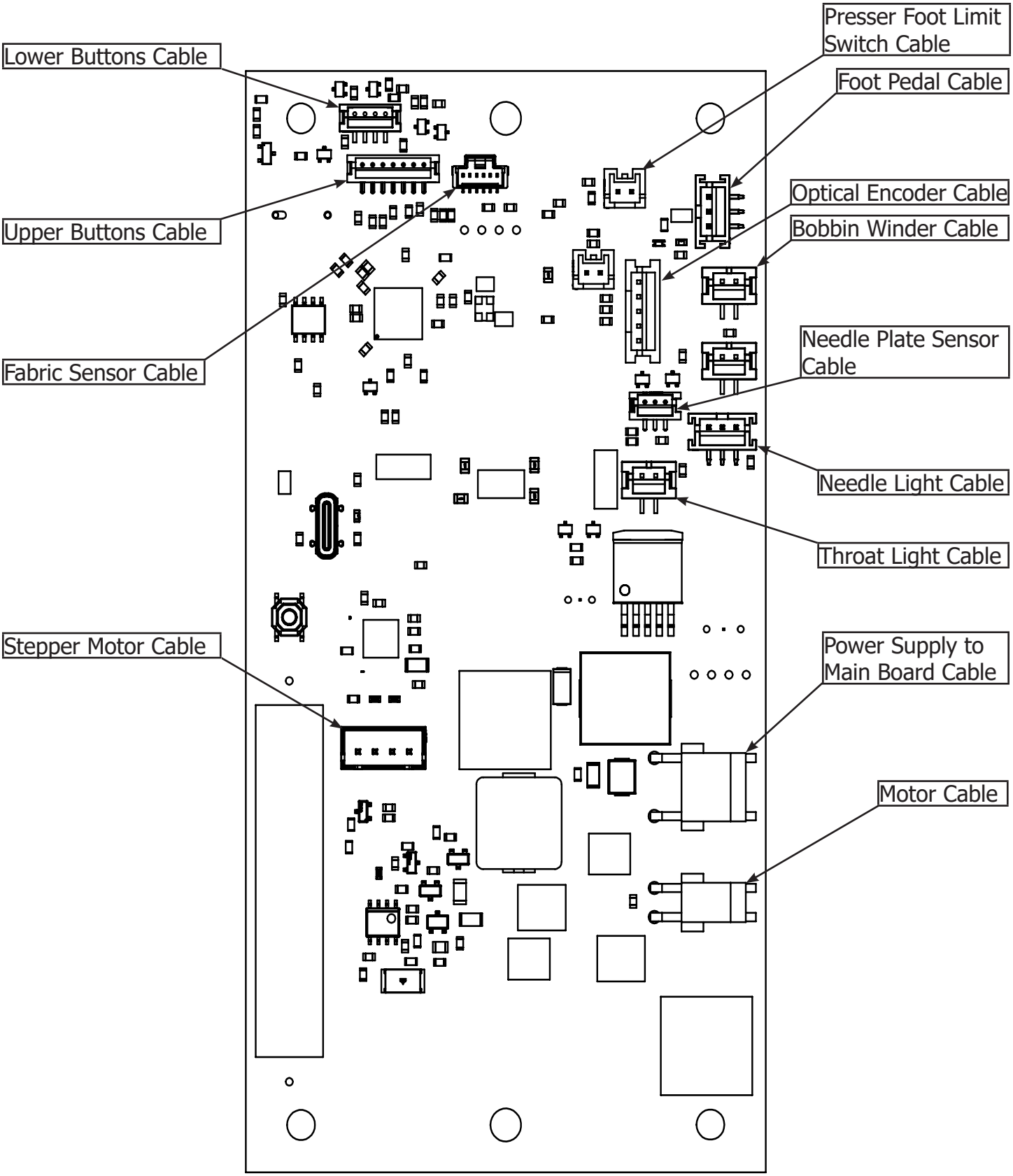
Lower Buttons (see Throat Plastic on pg. 20)

Bobbin Winder (see Top Plastic on pg. 17)

Foot Pedal Port Board (see Back Plastic on pg. 19)

Cables

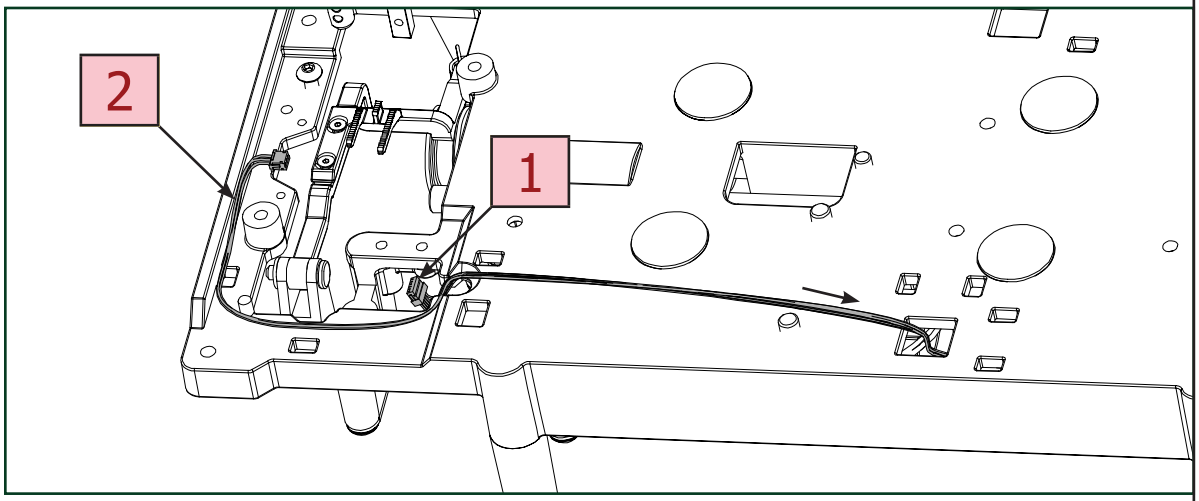
Main Board Diagram SM13

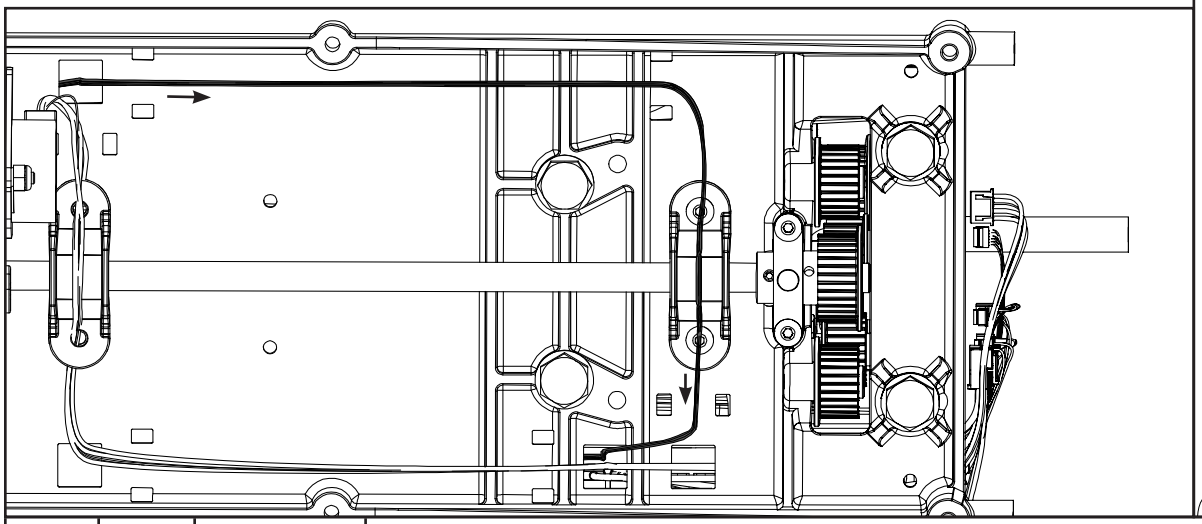


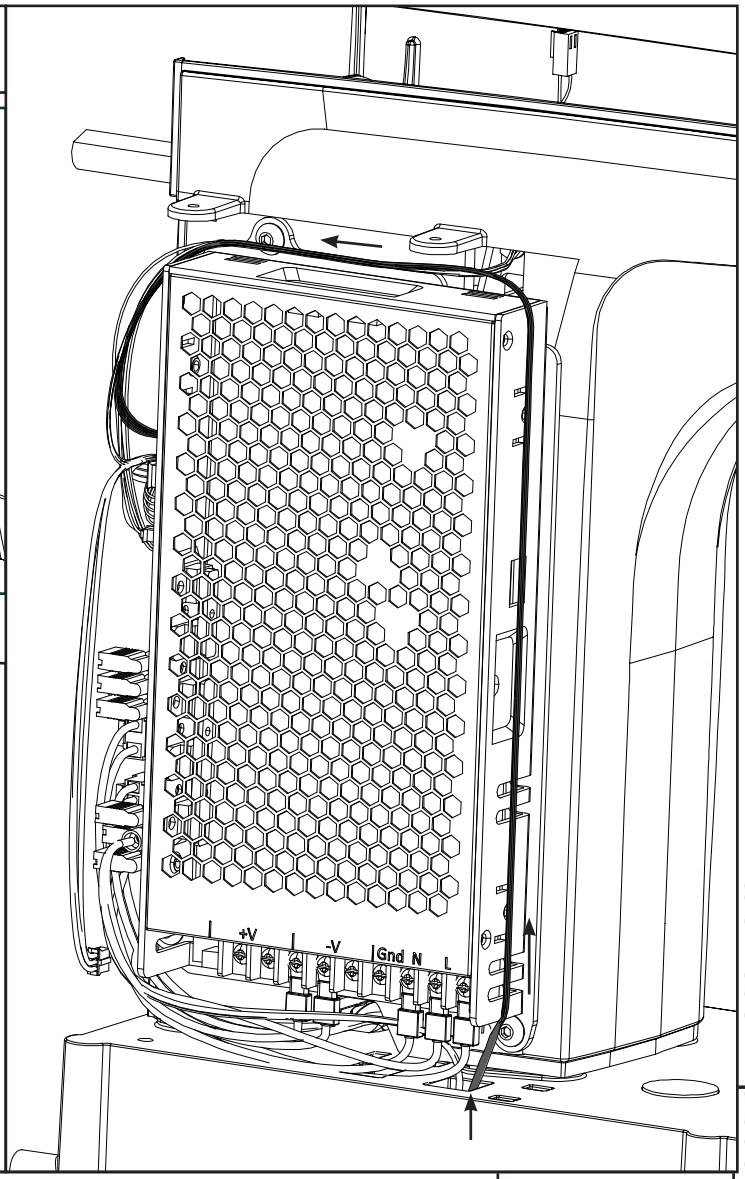
Fabric Sensor Cable

Needle Plate Sensor Cable

To remove these cables, first remove bottom plastic, hook assembly plastic, bed plastic, power supply cover, and main board cover.







Item	QTY	Part #	Description	Serviceability
1	1	02-17525	Fabric Sensor Cable	DI
2	1	02-17526	Needle Plate Sensor Cable	DI

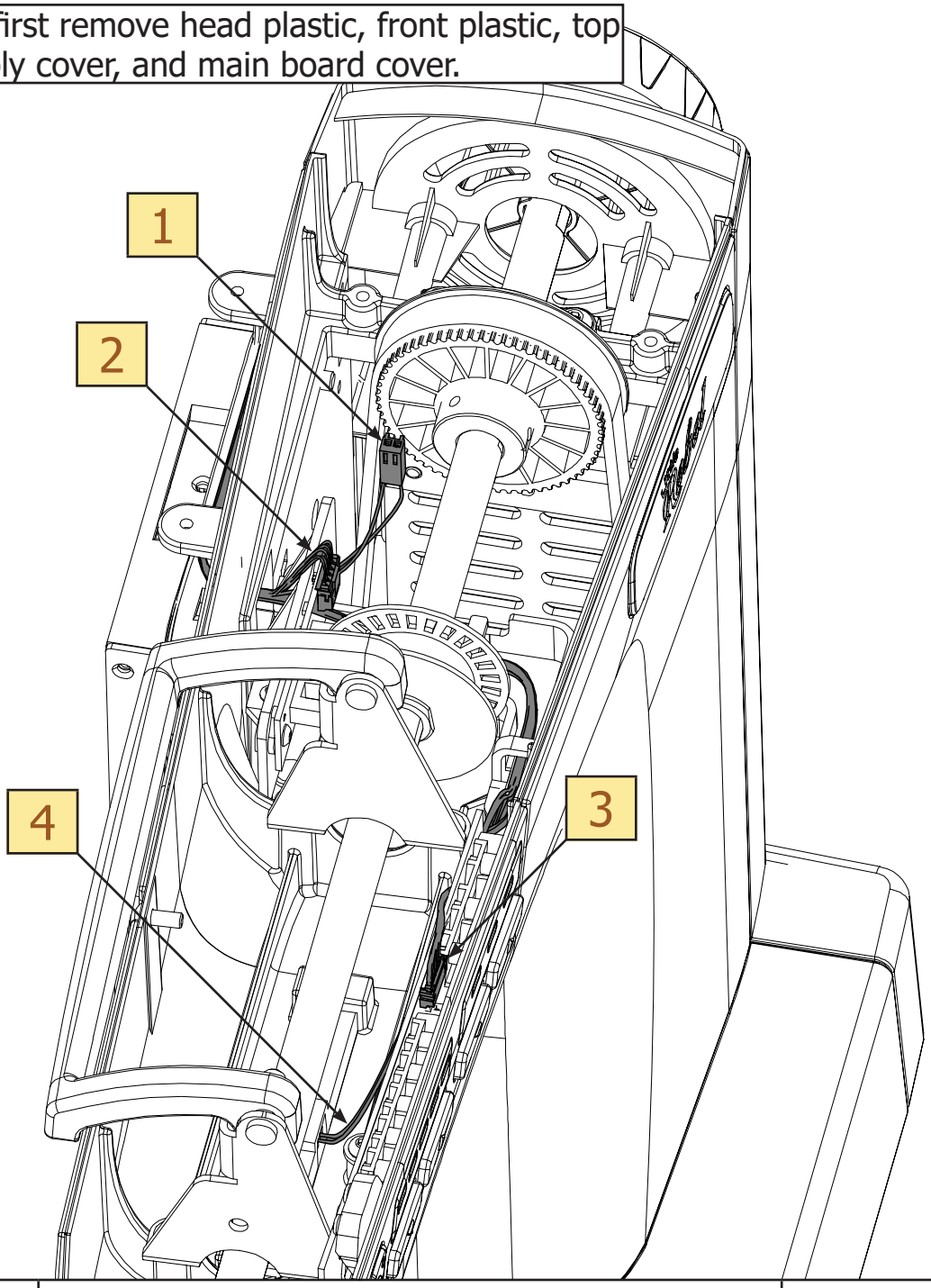
Bobbin Winder Cable

Optical Encoder Cable

Upper Buttons Cable

Throat Lights Cable

To remove cables, first remove head plastic, front plastic, top plastic, power supply cover, and main board cover.



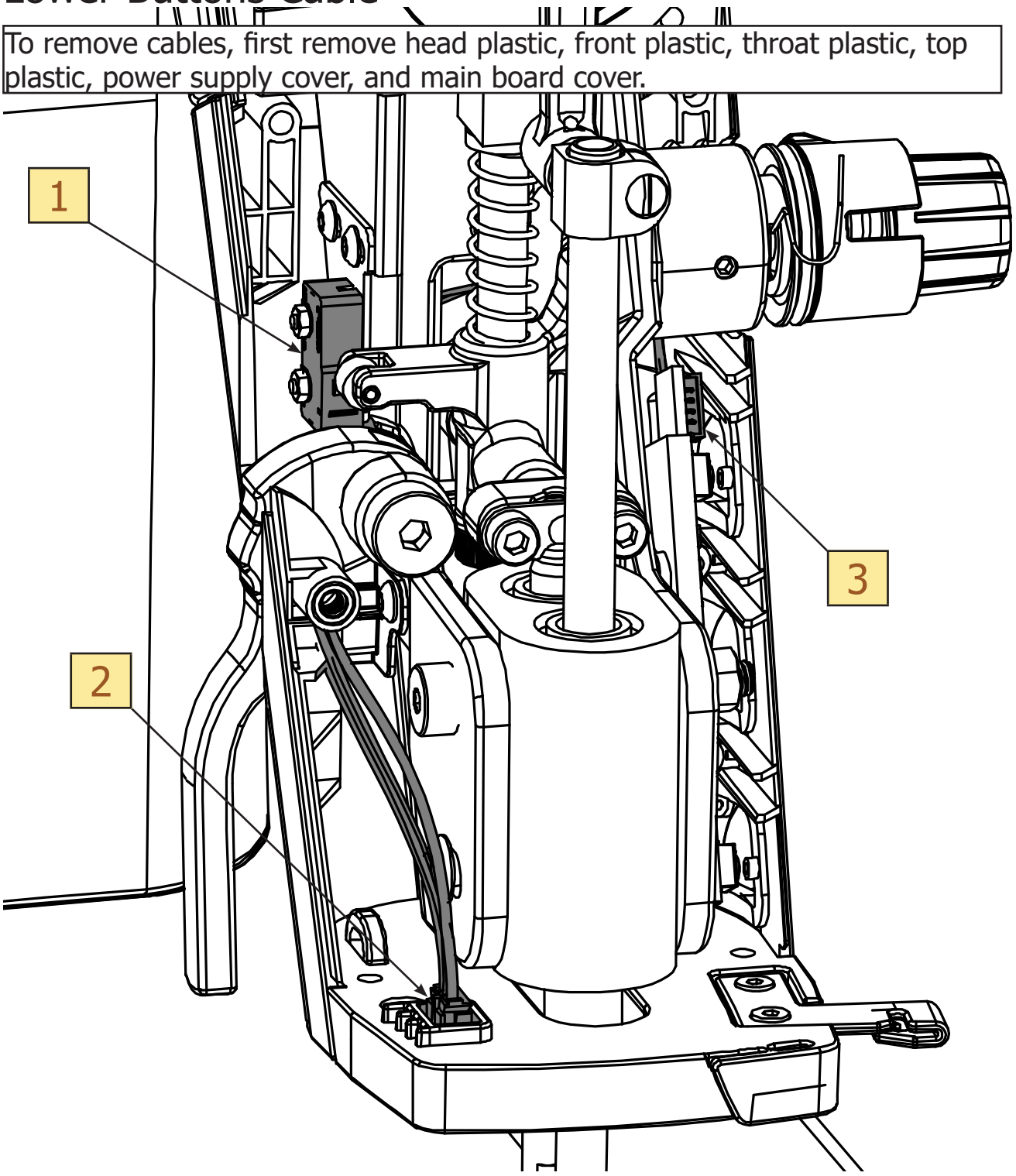
Item	QTY	Part #	Description	Serviceability
1	1	02-17625	Bobbin Winder Cable	DE
2	1	02-17547	Optical Encoder Cable	DE
3	1	02-17581	Upper Buttons Cable	DE
4	1	02-17580	Throat Light Cable	DE

Presser Foot Limit Switch Cable

Needle Light Cable

Lower Buttons Cable

To remove cables, first remove head plastic, front plastic, throat plastic, top plastic, power supply cover, and main board cover.



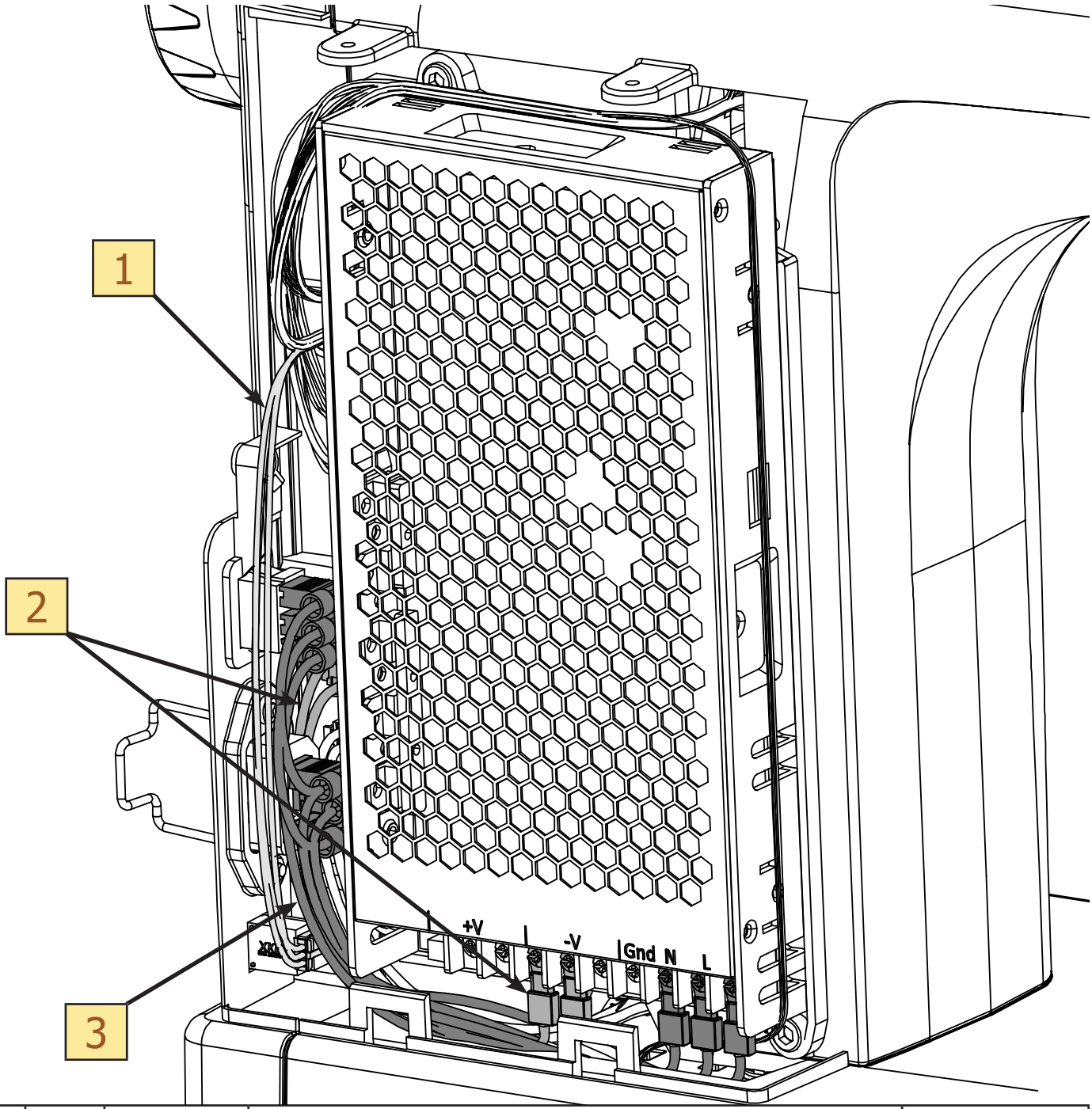
Item	QTY	Part #	Description	Serviceability
1	1	02-19421	Presser Foot Limit Switch Cable	DE
2	1	02-17625	Needle Light Cable	DE
3	1	02-17547	Lower Buttons Cable	DE

Power Cord to Power Supply Cable

Power Supply to Main Board Cable

Foot Pedal Board to Main Board Cable

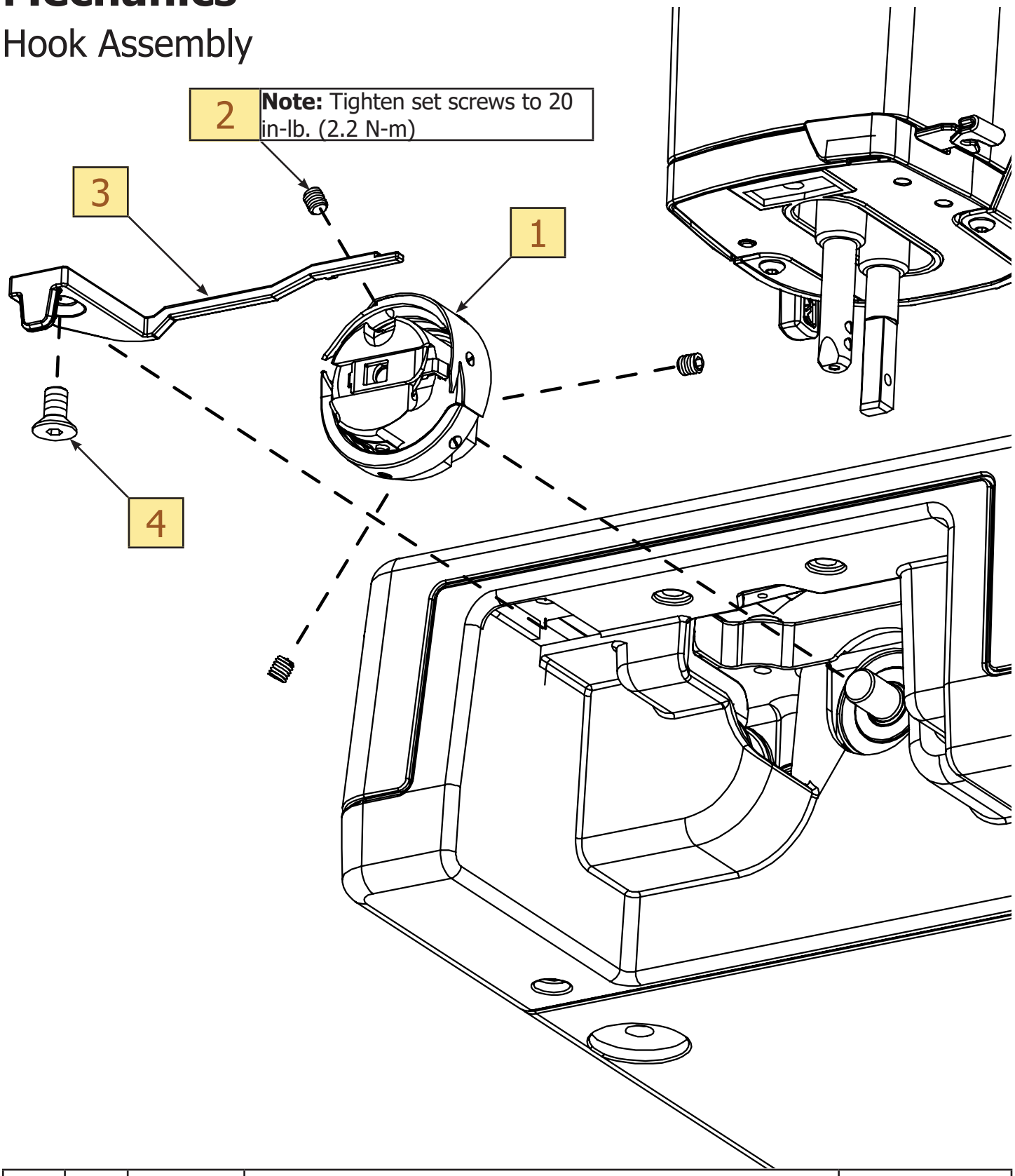
To remove cables, first remove power supply cover and main board cover.



Item	QTY	Part #	Description	Serviceability
1	1	02-18033	Foot Pedal Board to Main Board Cable	DE
2	1	02-17535	Power Supply to Main Board Cable	DE
3	1	02-17534	Power Cord to Power Supply Cable	DE

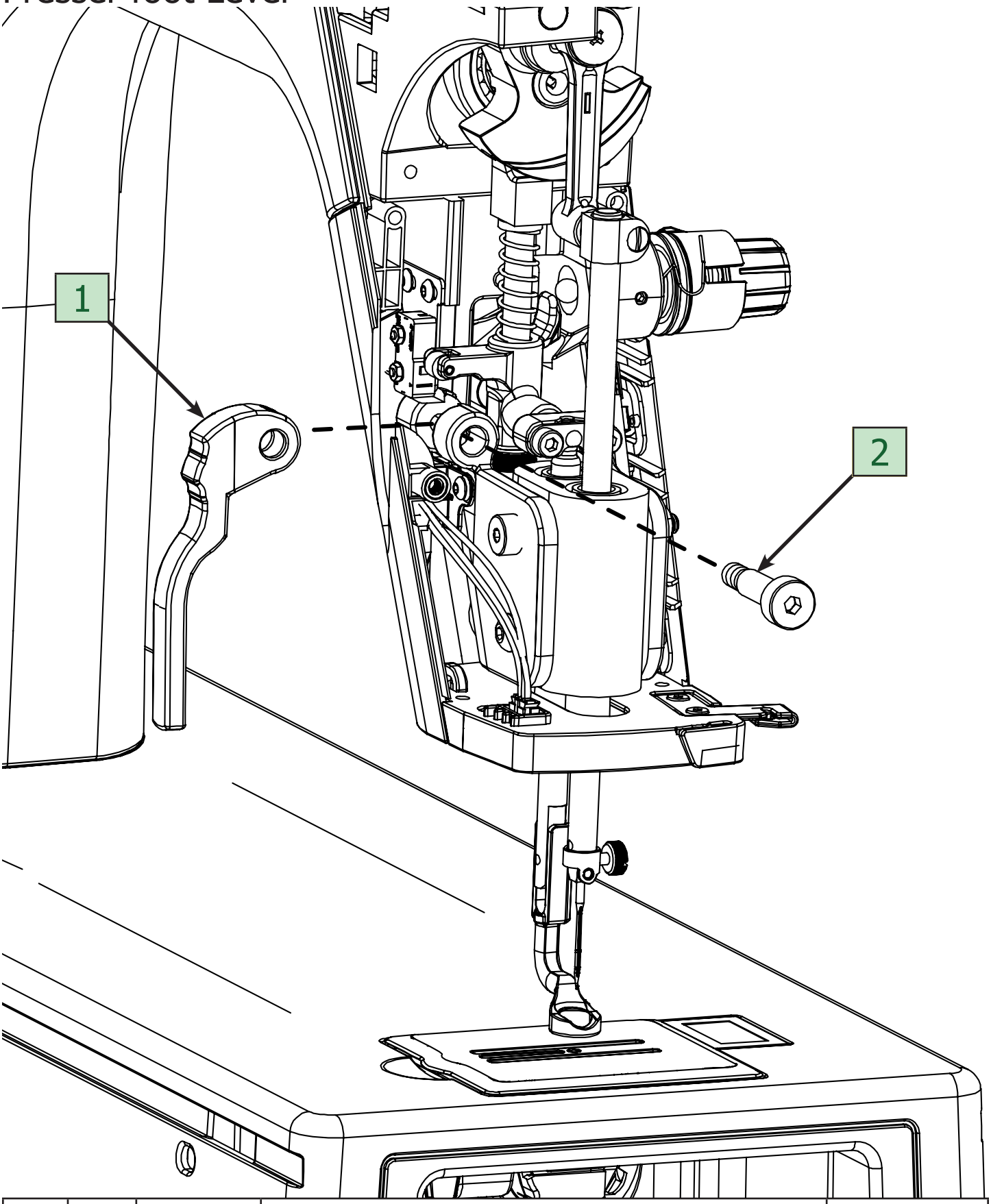
Mechanics

Hook Assembly



Item	QTY	Part #	Description	Serviceablility
1	1	09-19067	Hook Assembly	DE
2	3	03-10077	Hook Assembly Set Screw	DE
3	1	04-17659	Hook Holder SM13	DE
4	1	03-11740	Socket FHS M5 X 10mm (Flat Head Screw	DE

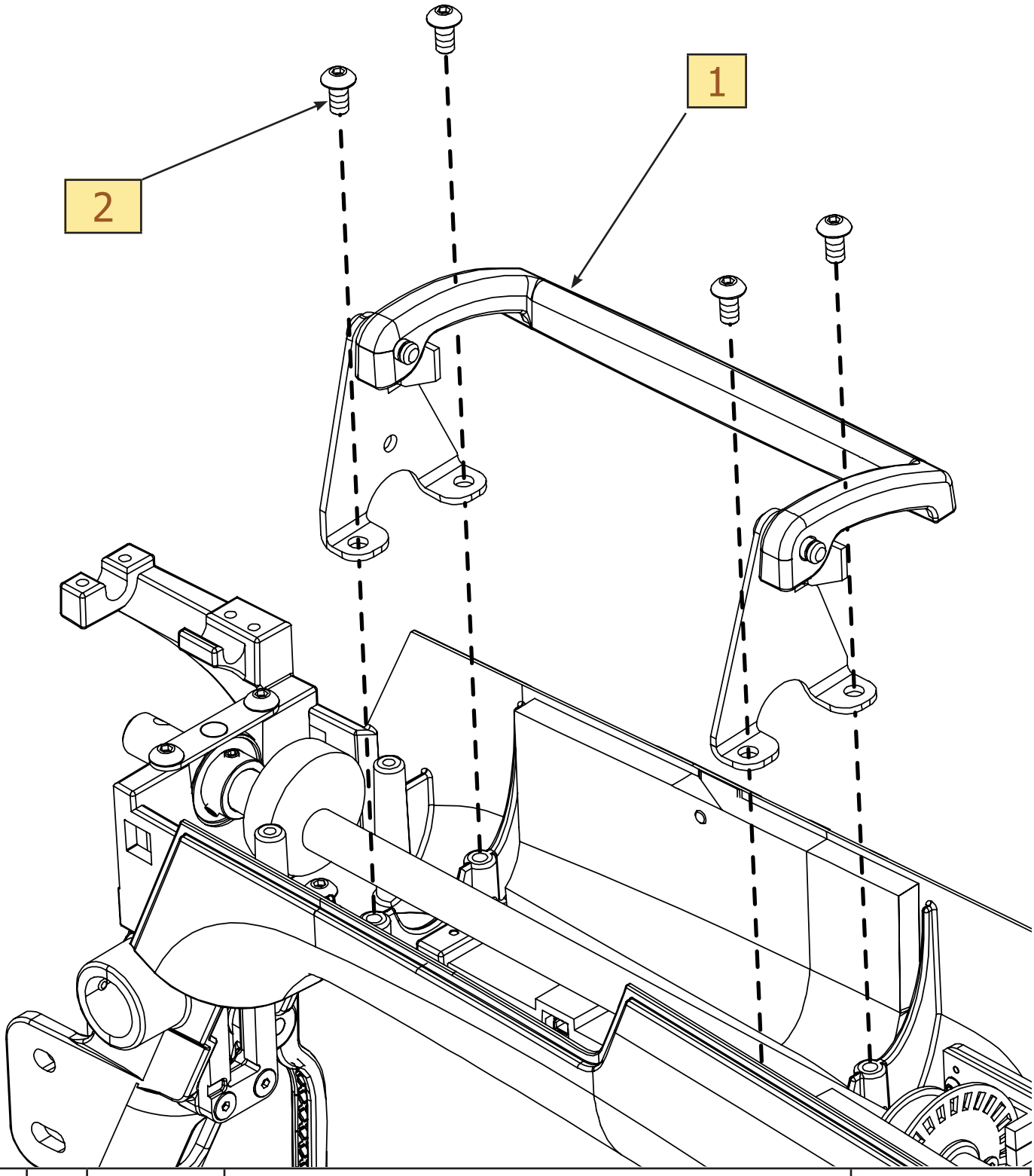
Presser foot Lever



Item	QTY	Part #	Description	Serviceability
1	1	09-22139	Presser Foot Lever v2	CU
2	1	03-17047	Shoulder Bolt 8 X 20mm, M6	CU

Carry Handle

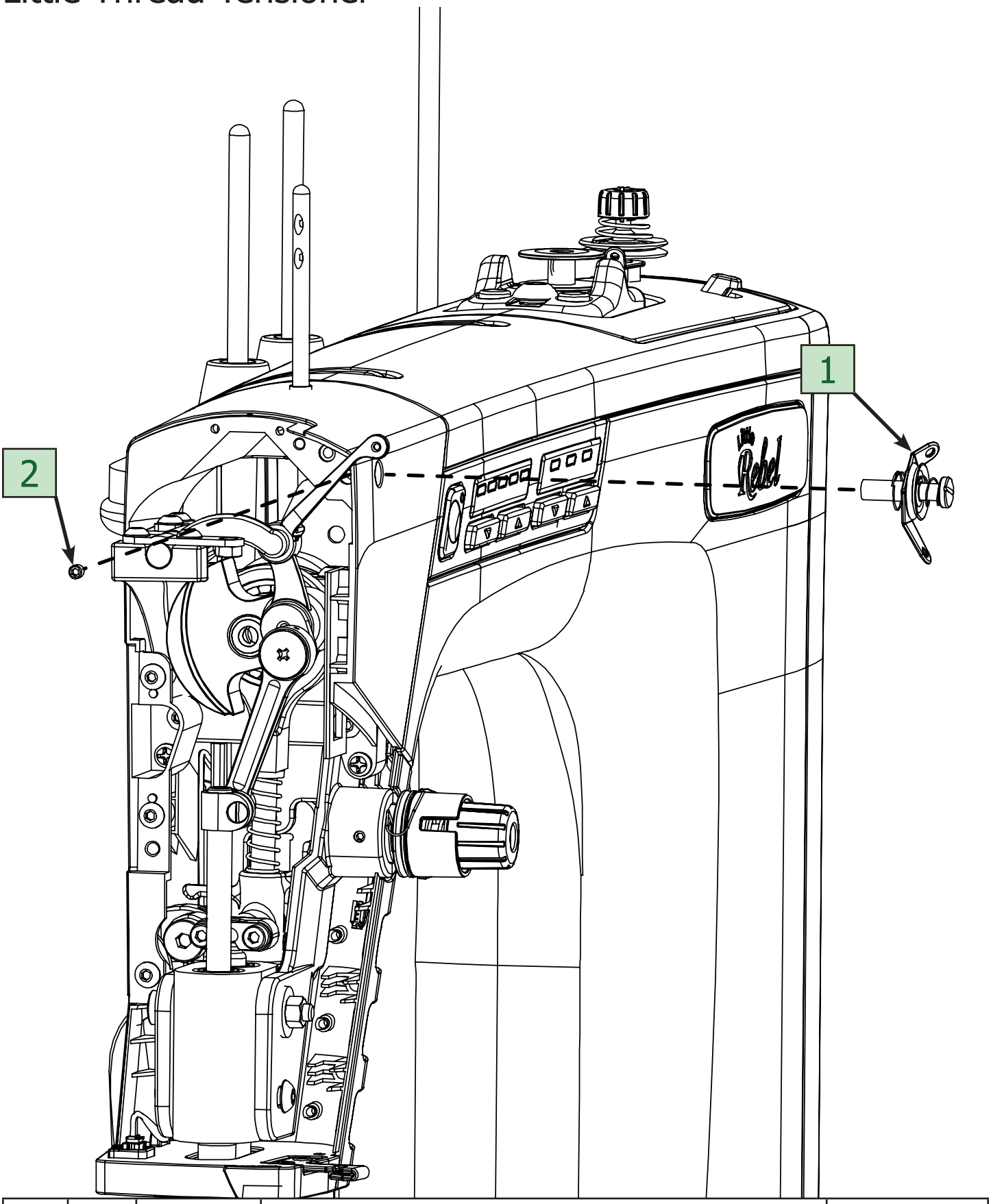
To remove carry handle, first remove head plastic, front plastic, and top plastic.



Item	QTY	Part #	Description	Serviceability
1	1	09-17562	Carry Handle Assembly	DE
2	4	03-10073	SBHCS M5 X 10mm	DE

Little Rebel Exploded Views

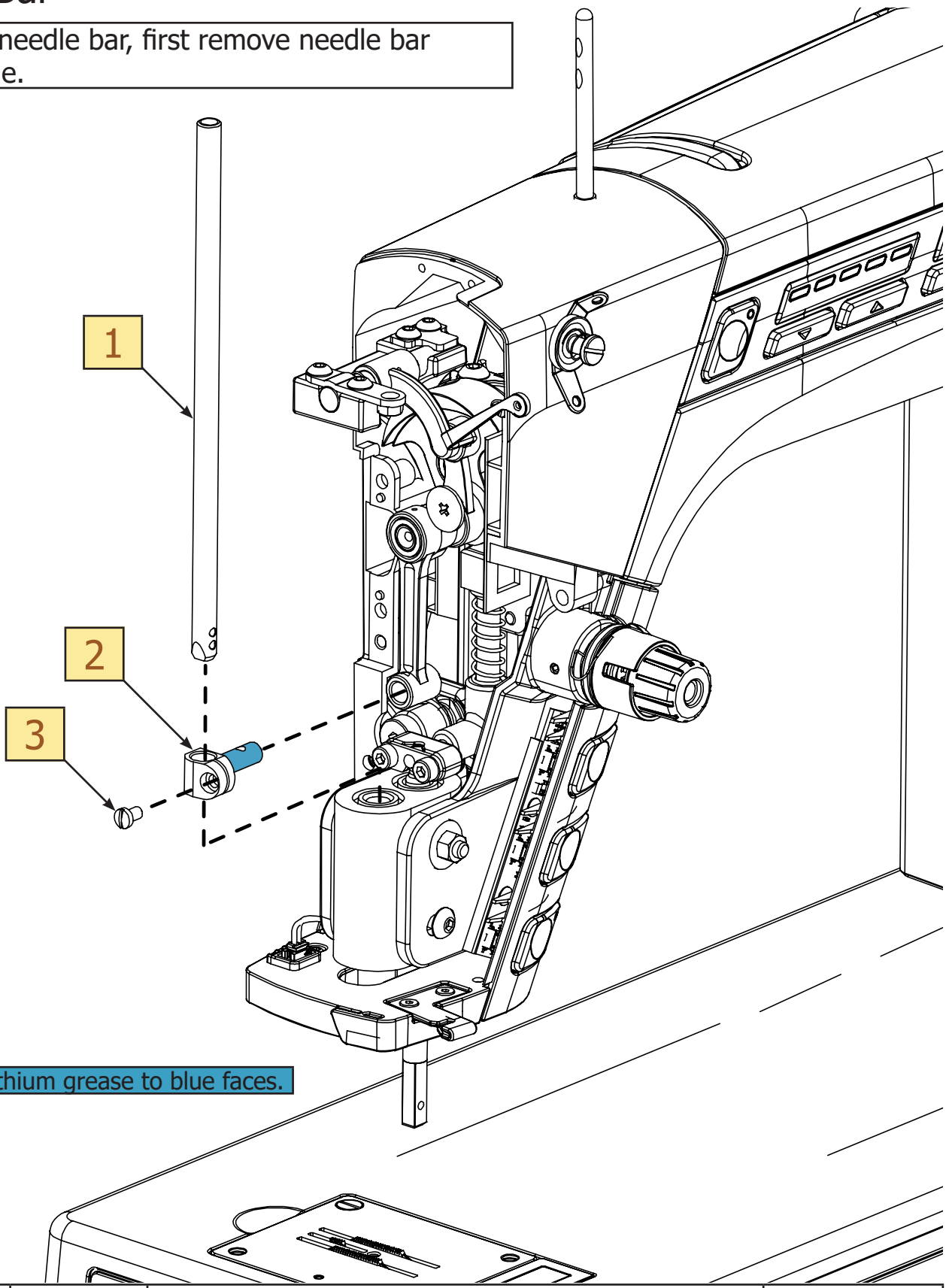
Little Thread Tensioner



Item	QTY	Part #	Description	Serviceability
1	1	08-10015	Little Thread Tension Assembly	CU
2	1	03-10016	Socket CSS M4 X 4mm	CU

Needle Bar

To remove needle bar, first remove needle bar thread guide.



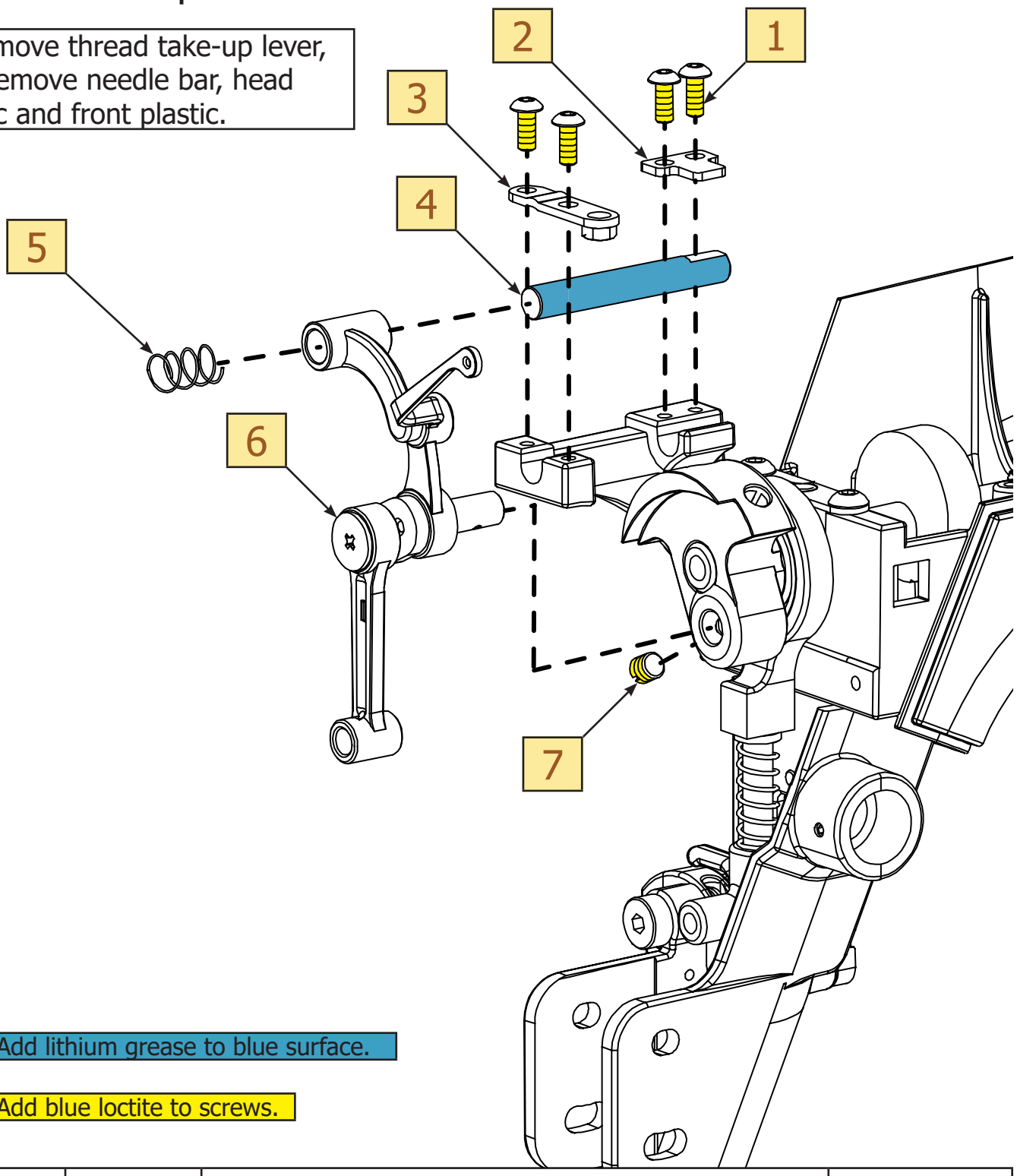
Note: Add lithium grease to blue faces.

Item	QTY	Part #	Description	Serviceability
1	1	04-17503	Needle Bar 170mm	DE
2	1	04-10054	Needle Rod Holder	DE
3	1	03-10055	Slotted Fillister Head Screw M3.56 X 6mm	DE

Little Rebel Exploded Views

Thread Take-up Lever

To remove thread take-up lever, first remove needle bar, head plastic and front plastic.



Note: Add lithium grease to blue surface.

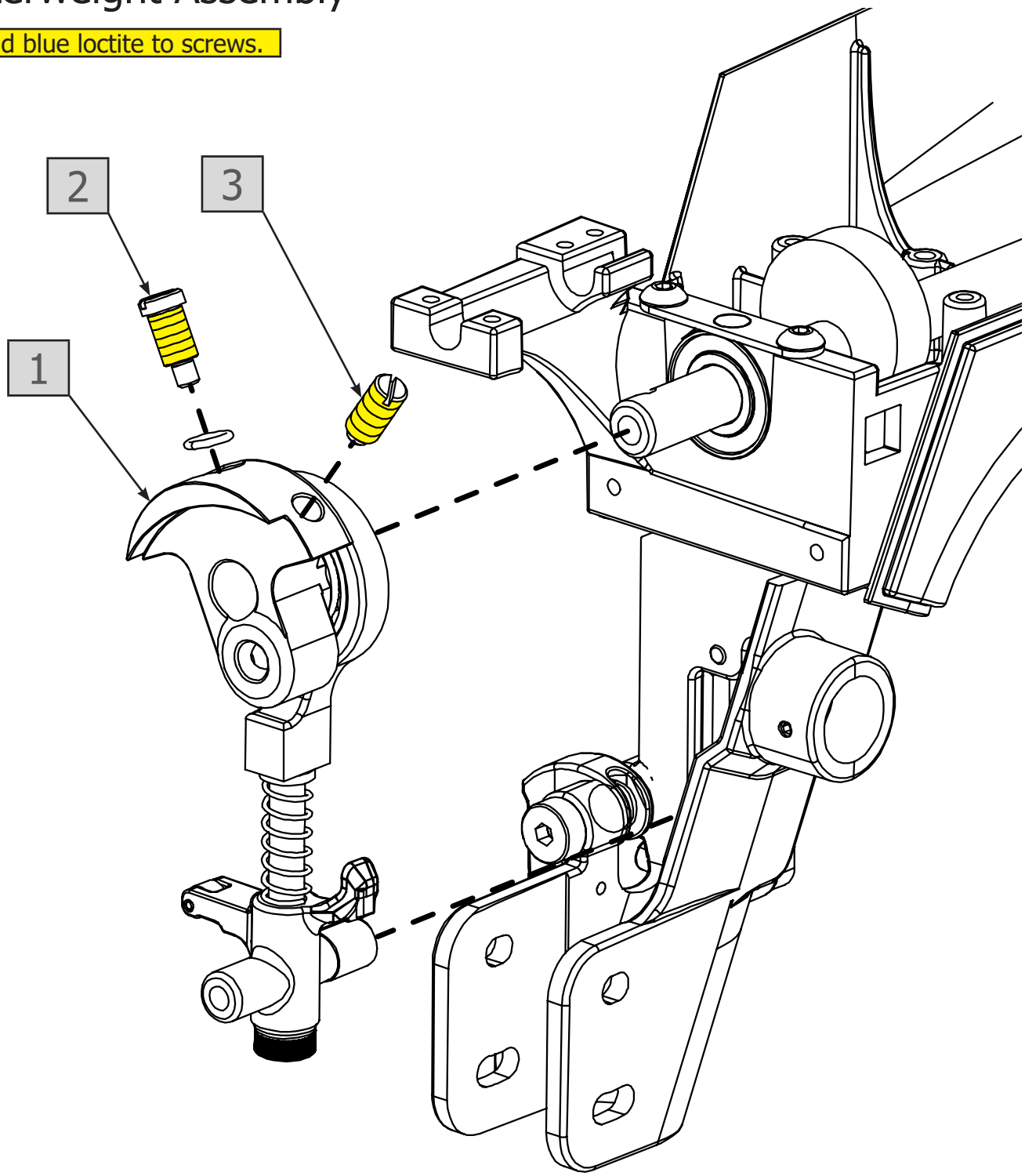
Note: Add blue loctite to screws.

Item	QTY	Part #	Description	Serviceability
1	4	03-10012	SBHCS M4 X 10mm	DE
2	1	04-11713	Thread Take-up Lever Clamp Right	DE
3	1	04-12131	Front Take-up Lever Clamp	DE
4	1	04-11523	Thread Take-up Crank Pin	DE
5	1	03-11463	Thread Take-up Lever Spring	DE
6	1	08-10044	Thread Take-up Lever Assembly	DE
7	1	03-10025	Slotted FSS 4-40 x .25 in (6mm) (Flat Set Screw)	DE

40

Counterweight Assembly

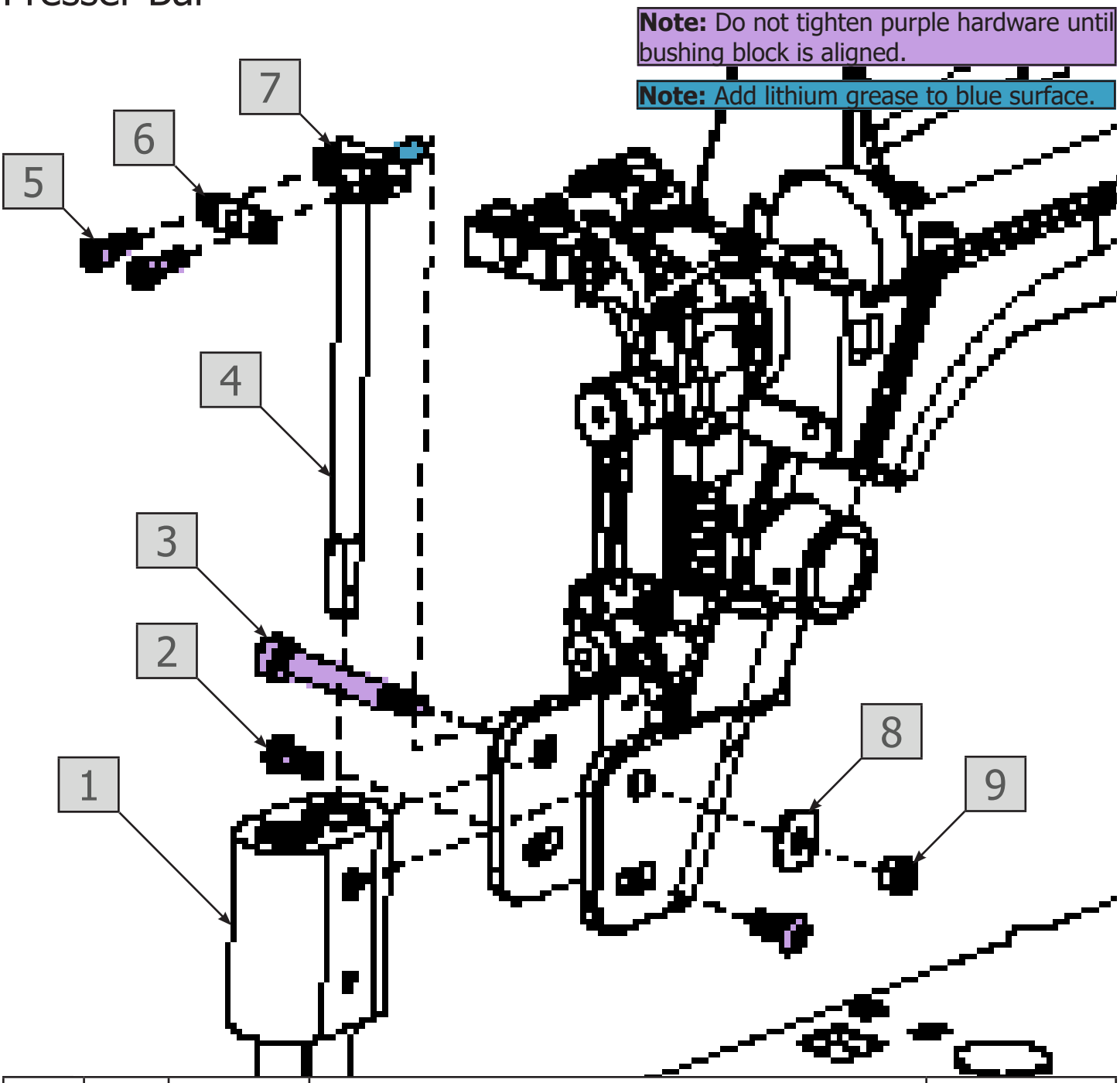
Note: Add blue loctite to screws.



Item	QTY	Part #	Description	Serviceablilty
1	1	09-22213	Counterweight Assembly v2	GR
2	1	03-10023	Crank Screw (orientation)	GR
3	1	03-10024	Crank Screw (securing)	GR

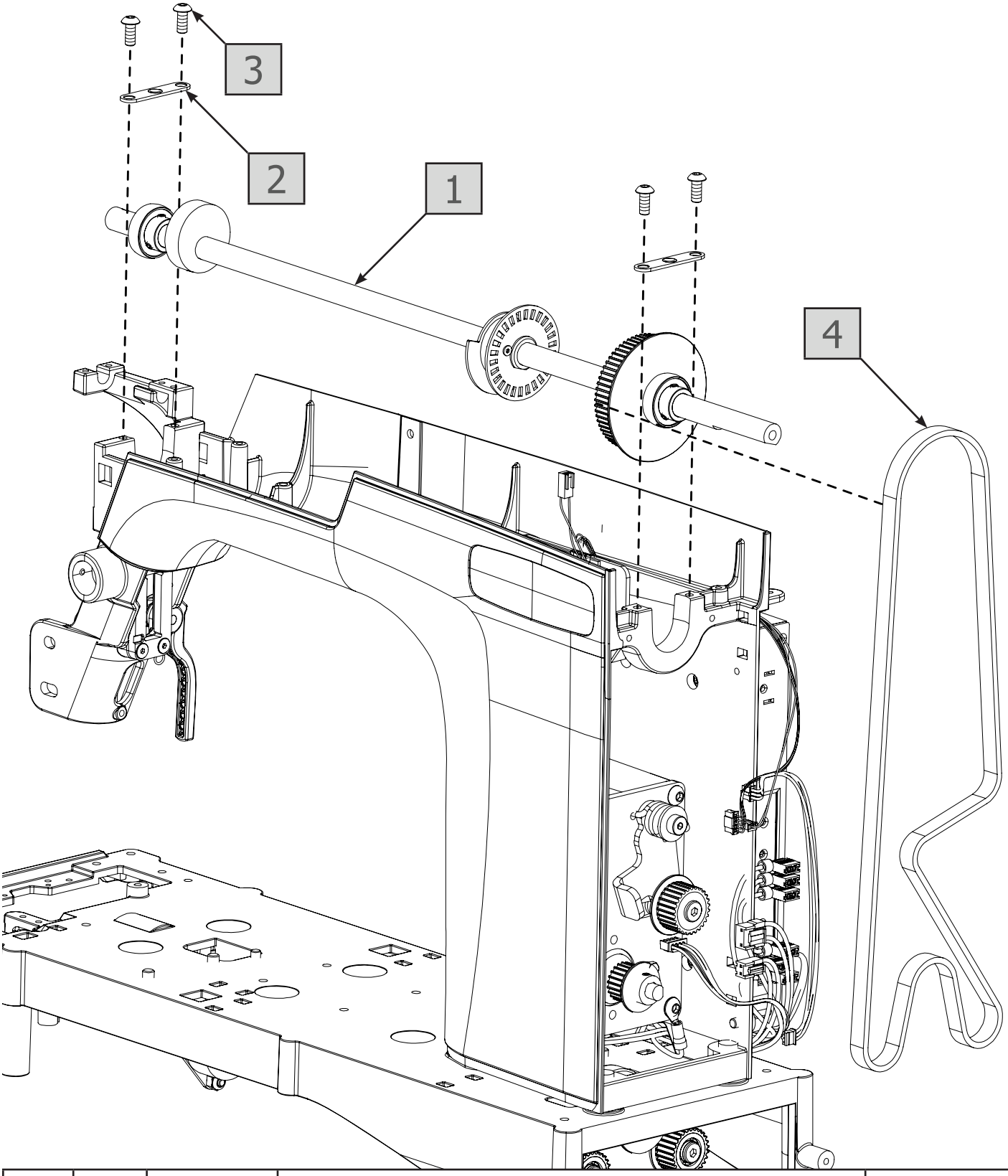
Bushing Block

Presser Bar



Item	QTY	Part #	Description	Serviceabililty
1	1	09-17558	Bushing Block Assembly	GR
2	2	03-11387	SBHCS M5 X 12mm	GR
3	1	03-17559	Shoulder Bolt 6 X 34mm, M5	GR
4	1	04-22181	Presser Bar v2	GR
5	2	03-10455	SHCS M4 X 12mm	GR
6	1	04-17374	Press Bar Yoke Clamp	GR
7	1	04-17817	Press Bar Yoke v2 SM16	GR
8	1	03-15017	Washer M5, Regular	GR
9	1	03-15885	Hex Nut M5	GR

Top Shaft

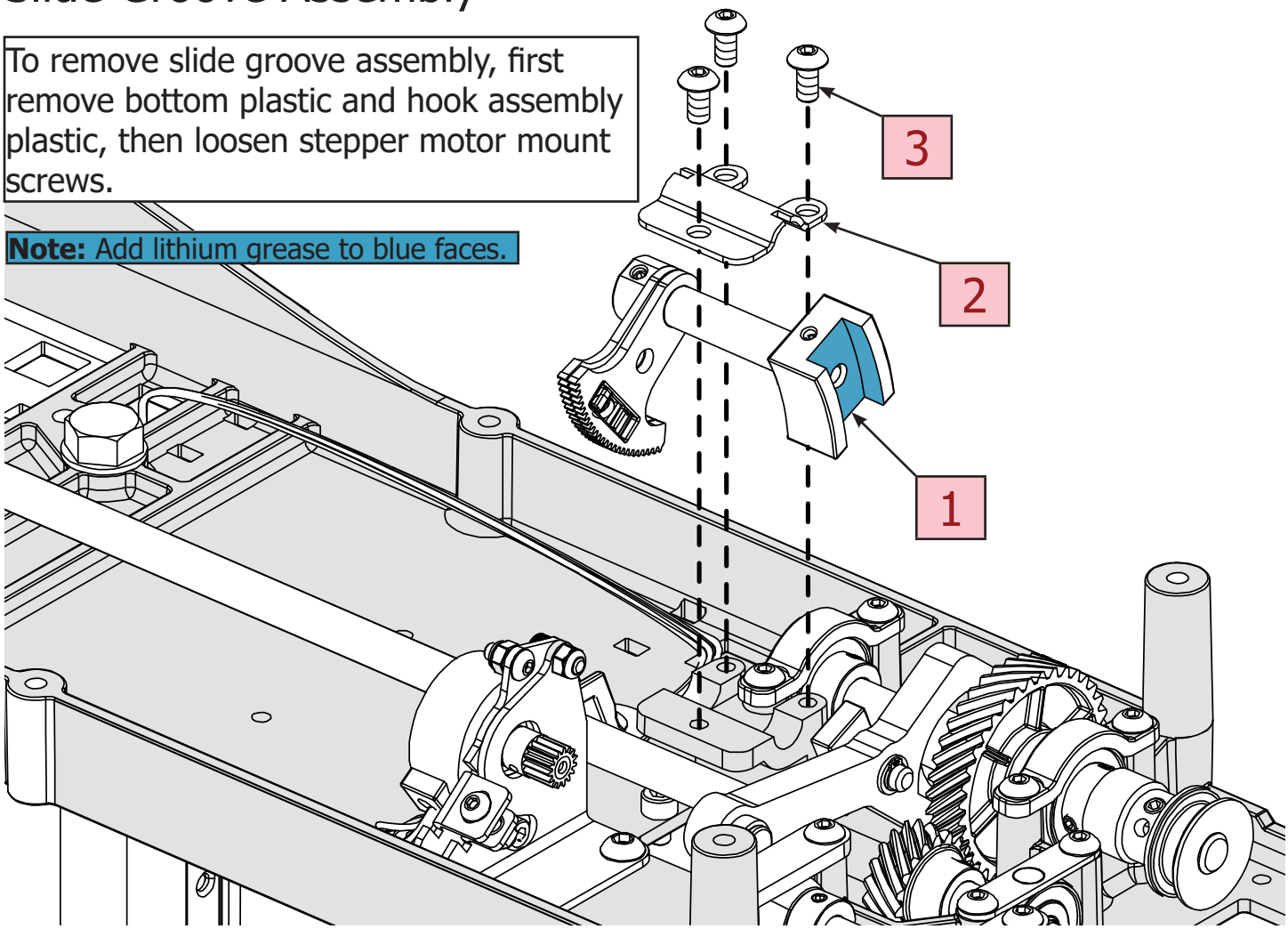


Item	QTY	Part #	Description	Serviceablilty
1	1	09-17550	Top Shaft Assembly	GR
2	2	04-10067	12mm Bearing Clamp 1.5mm T	GR
3	4	03-11387	SBHCS M5 X 12mm	GR
4	1	08-11145	HTD 3M Timing Belt 801mm	GR

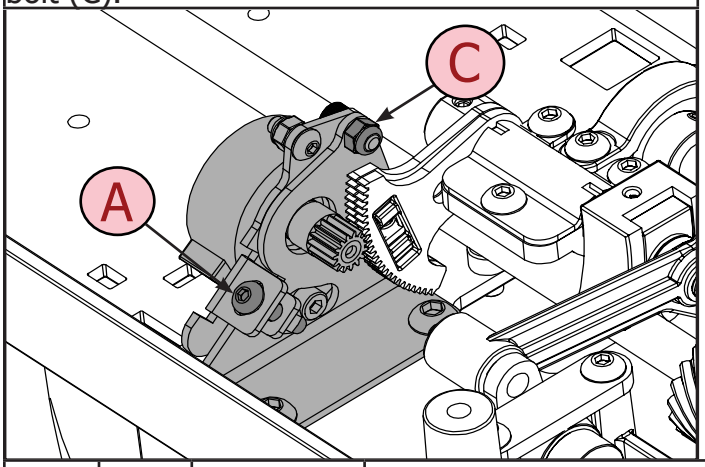
Slide Groove Assembly

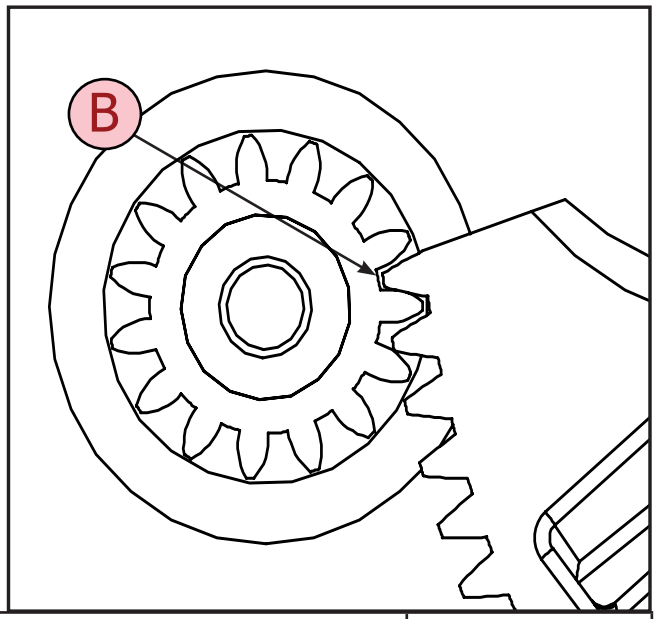
To remove slide groove assembly, first remove bottom plastic and hook assembly plastic, then loosen stepper motor mount screws.

Note: Add lithium grease to blue faces.



Note: Upon reassembly, tighen the compression screw (A) until only a small gap (B) remains between the gears. Then tighten upper shoulder bolt (C).

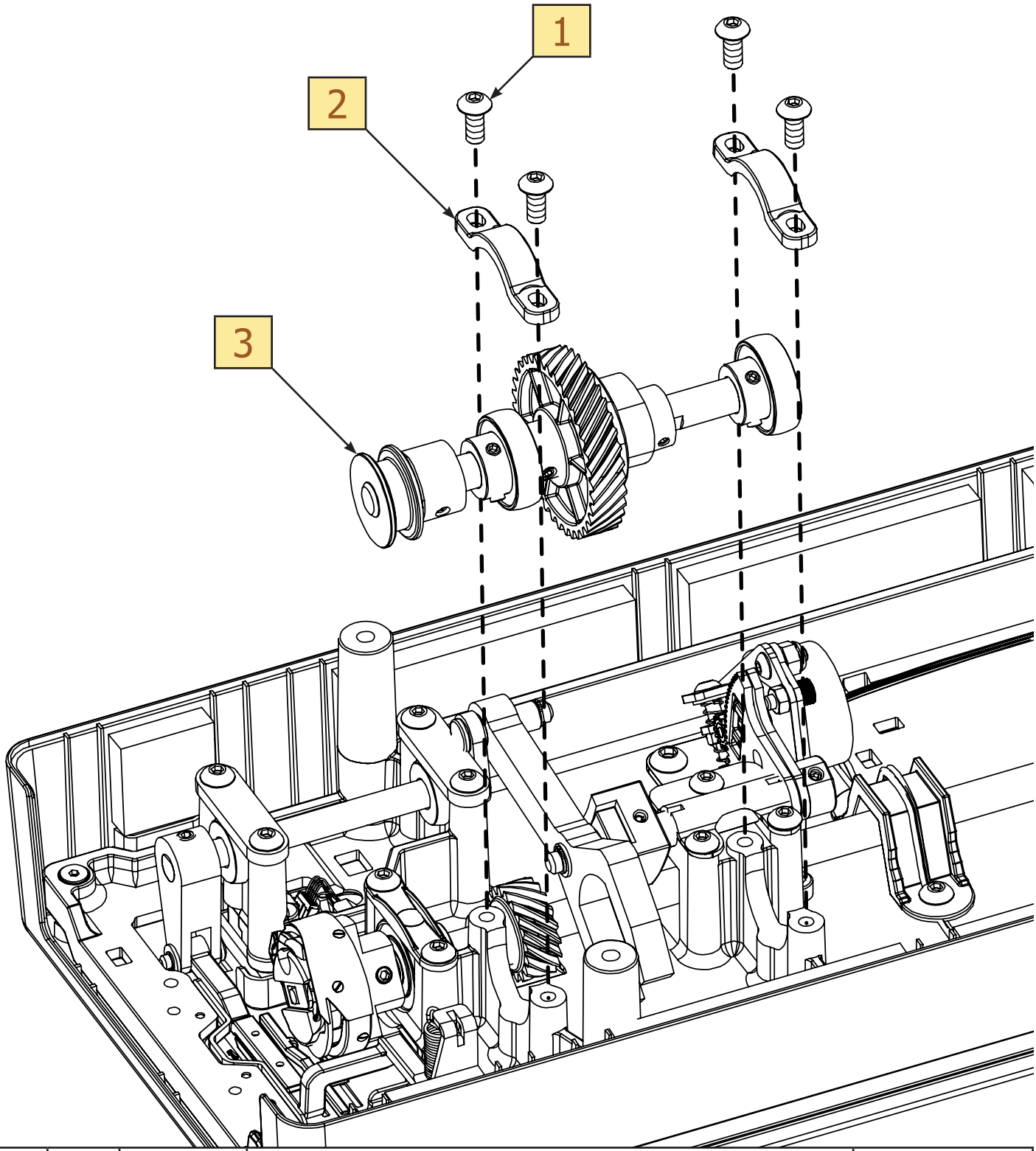




Item	QTY	Part #	Description	Serviceablility
1	1	09-17519	Slide Groove Assembly	DI
2	1	04-17413	Slide Groove Bushing Clamp	DI
3	3	03-10073	SBHCS M5 X 10mm	DI

Raising Feed Dog Shaft

To remove raising feed dog shaft, first remove bottom plastic and hook assembly plastic.

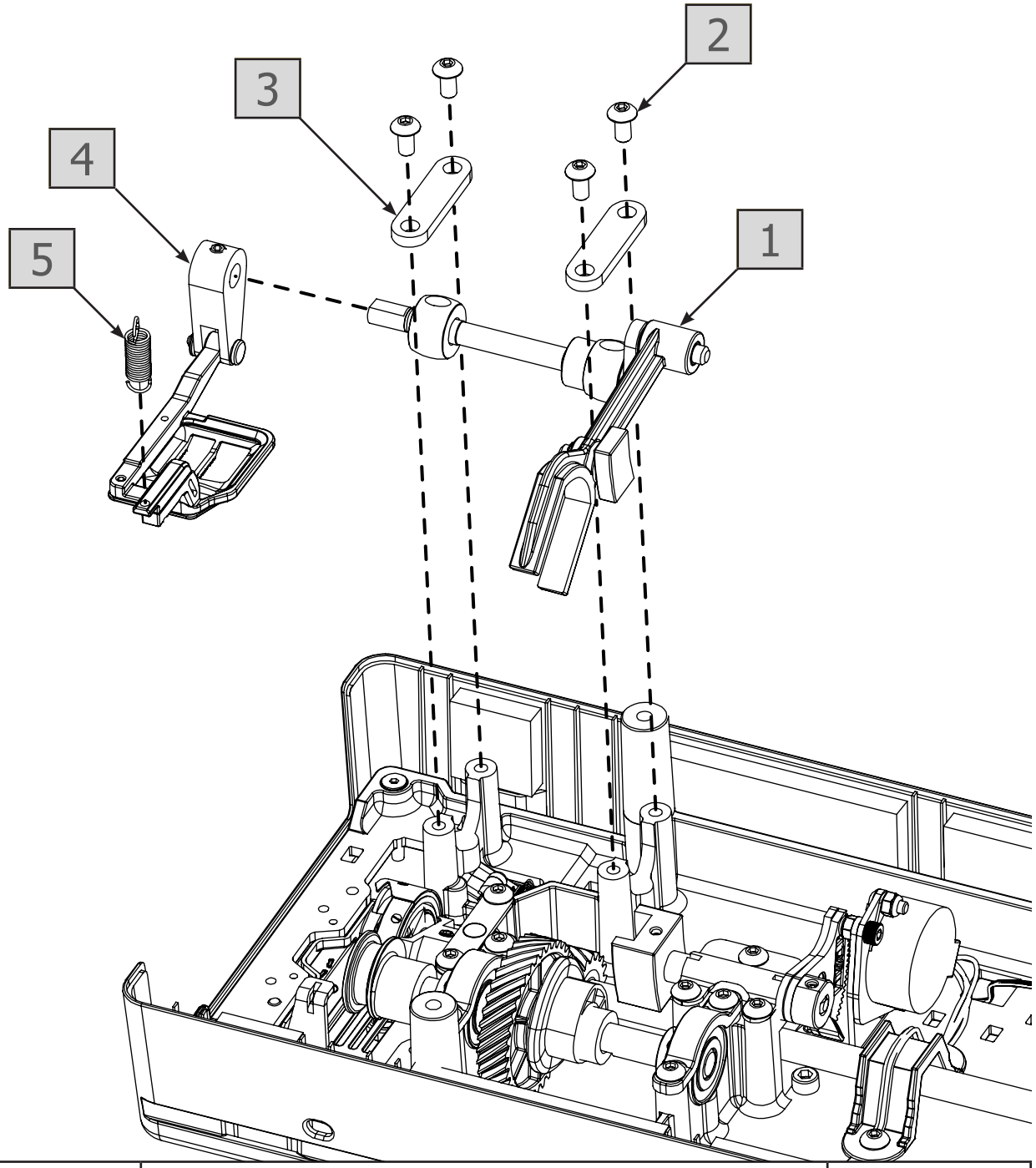


Item	QTY	Part #	Description	Serviceablility
1	4	03-10073	SBHCS M5 X 12mm	DE
2	2	03-17412	Plastic Bearing Clamp	DE
3	1	09-22211	Raising Feed Dog Shaft Assembly v2	DE

Advancing Feed Dog Shaft

Feed Bar Assembly

To remove feed bar and advancing feed dog shaft, first remove bottom plastic, hook assembly plastic, and raising feed dog shaft.

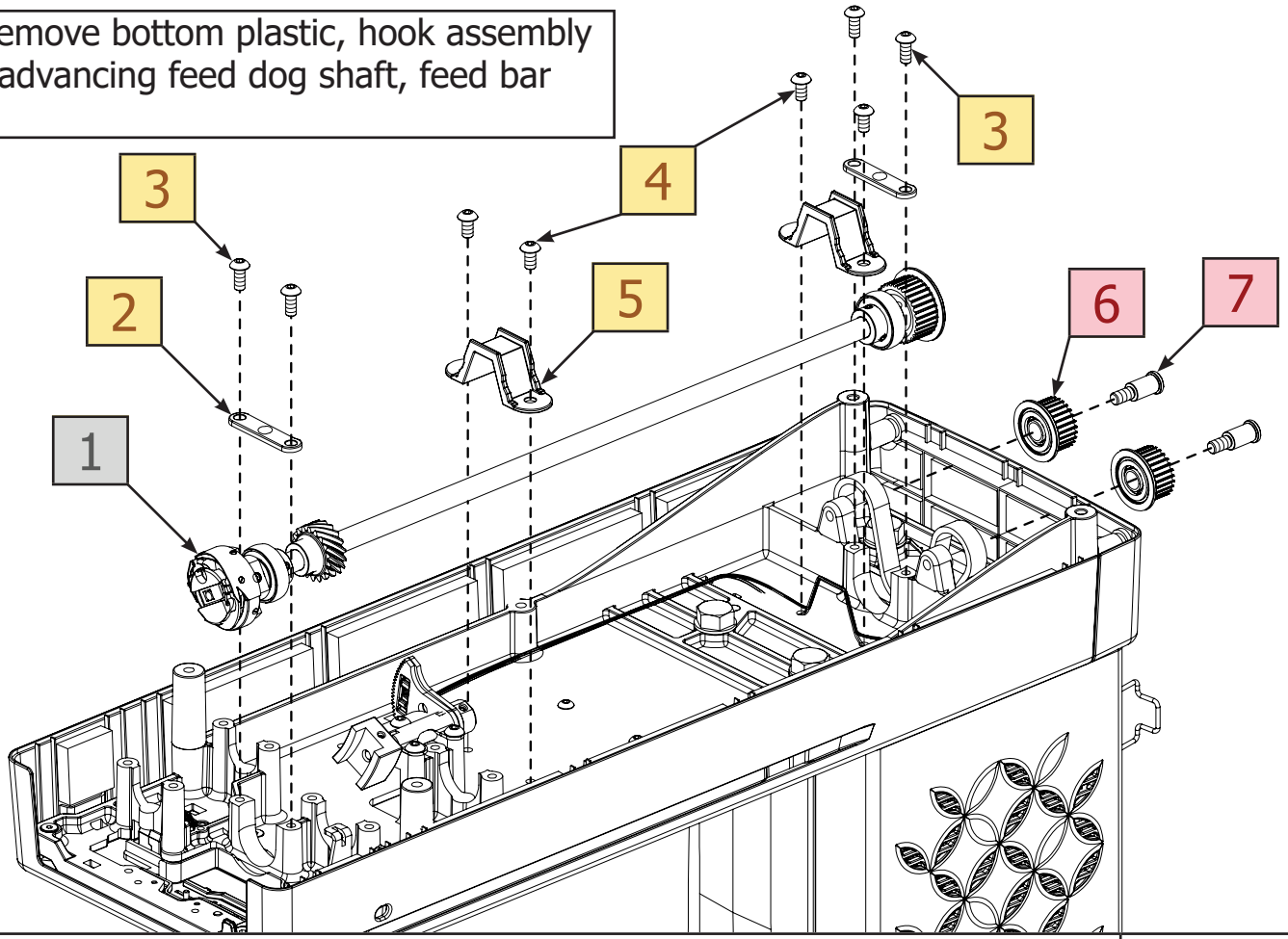


Item	QTY	Part #	Description	Serviceablility
1	1	09-17522	Advancing Feed Dog Shaft Assembly	GR
2	2	03-10073	SBHCS M5 X 10mm	GR
3	2	05-17414	8mm Shaft Bushing Clamp	GR
4	1	09-22140	Feed Bar Assembly v2	GR
5	1	03-17389	Feed Dog Spring	GR

Bottom Shaft Assembly

Idler Pulleys

To remove bottom shaft, first remove bottom plastic, hook assembly plastic, raising feed dog shaft, advancing feed dog shaft, feed bar assembly, and stepper motor.



Item	QTY	Part #	Description	Serviceablility
1	1	09-17511	Bottom Shaft Assembly	GR
2	2	04-10067	12mm Bearing Clamp 1.5mm T	DE
3	4	03-11387	SBHCS M5 X 12mm	DE
4	4	03-10073	SBHCS M5 X 10mm	DE
5	2	05-17527	Wire Routing Bracket	DE
6	2	04-14173	HTD Idler Pulley	DI
7	2	03-15728	Idler Pulley Axle M6 X 10mm	DI

Appendix

Torque Specifications Table

Screw Size	Torque Spec [Nm]	Torque Spec [in lb]	Torque Spec [ft lb]
M3	1.35	12.0	1.0
M4	3.10	27.6	2.3
M5	6.15	54.0	4.5
M6	10.5	92.4	7.7
M8	26.0		19.0
M10	51.0		37.0
M12	89.0		65.0