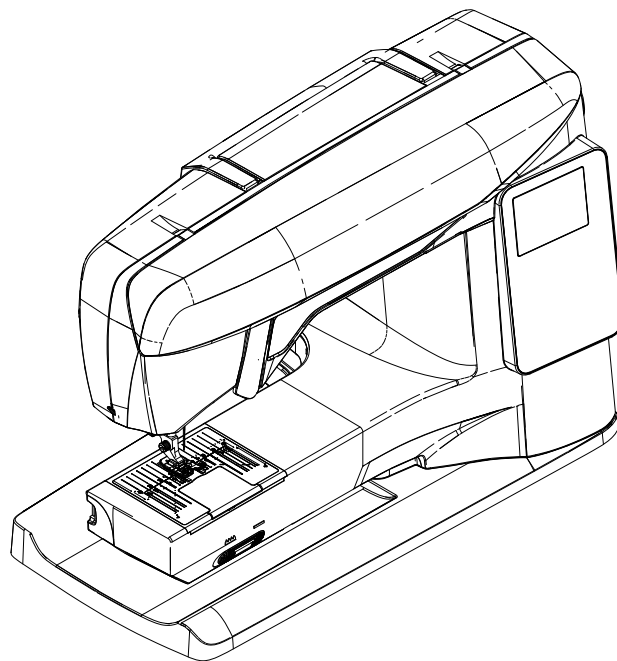


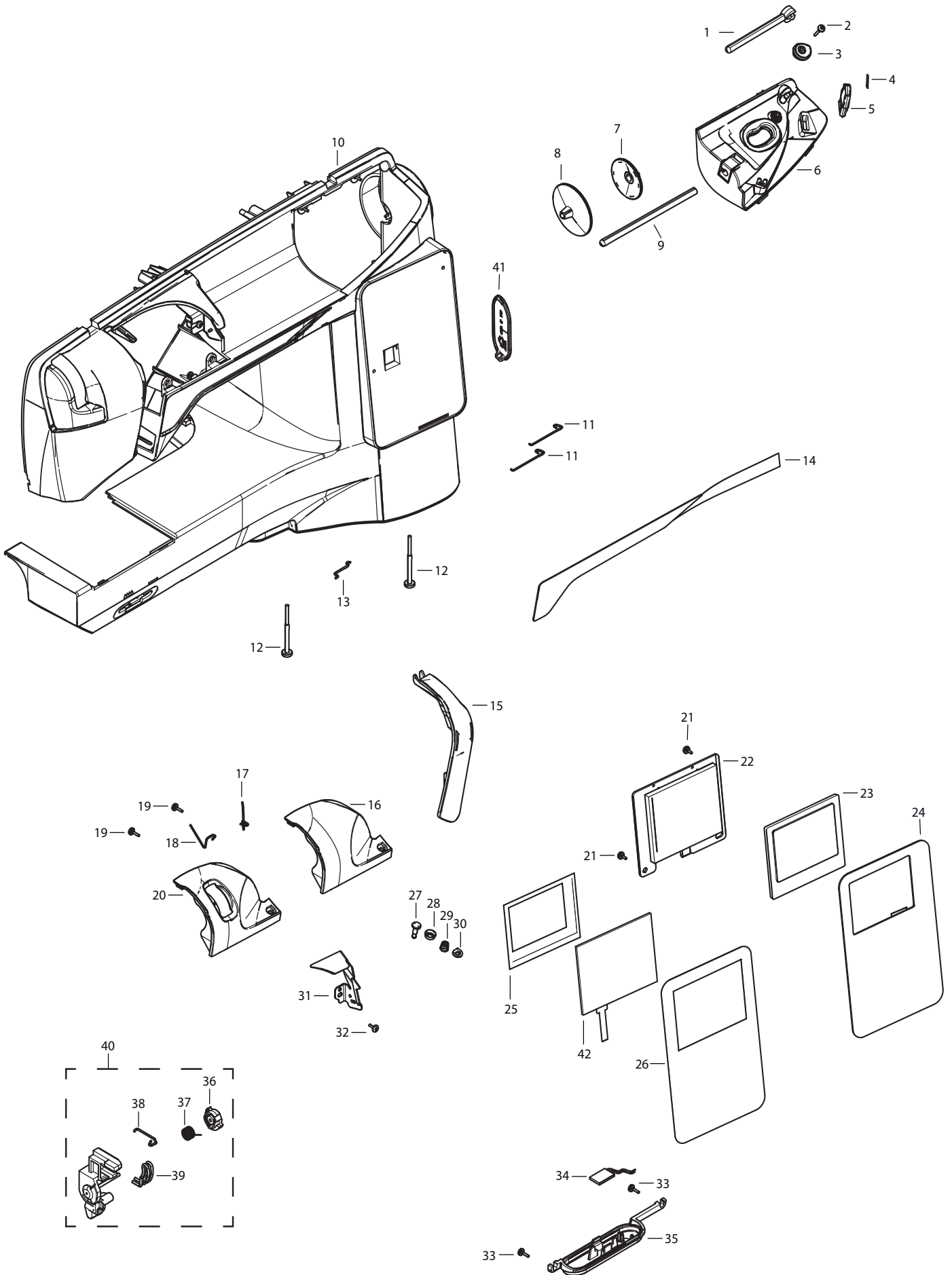
Parts list



Opal™ 690Q/670/650

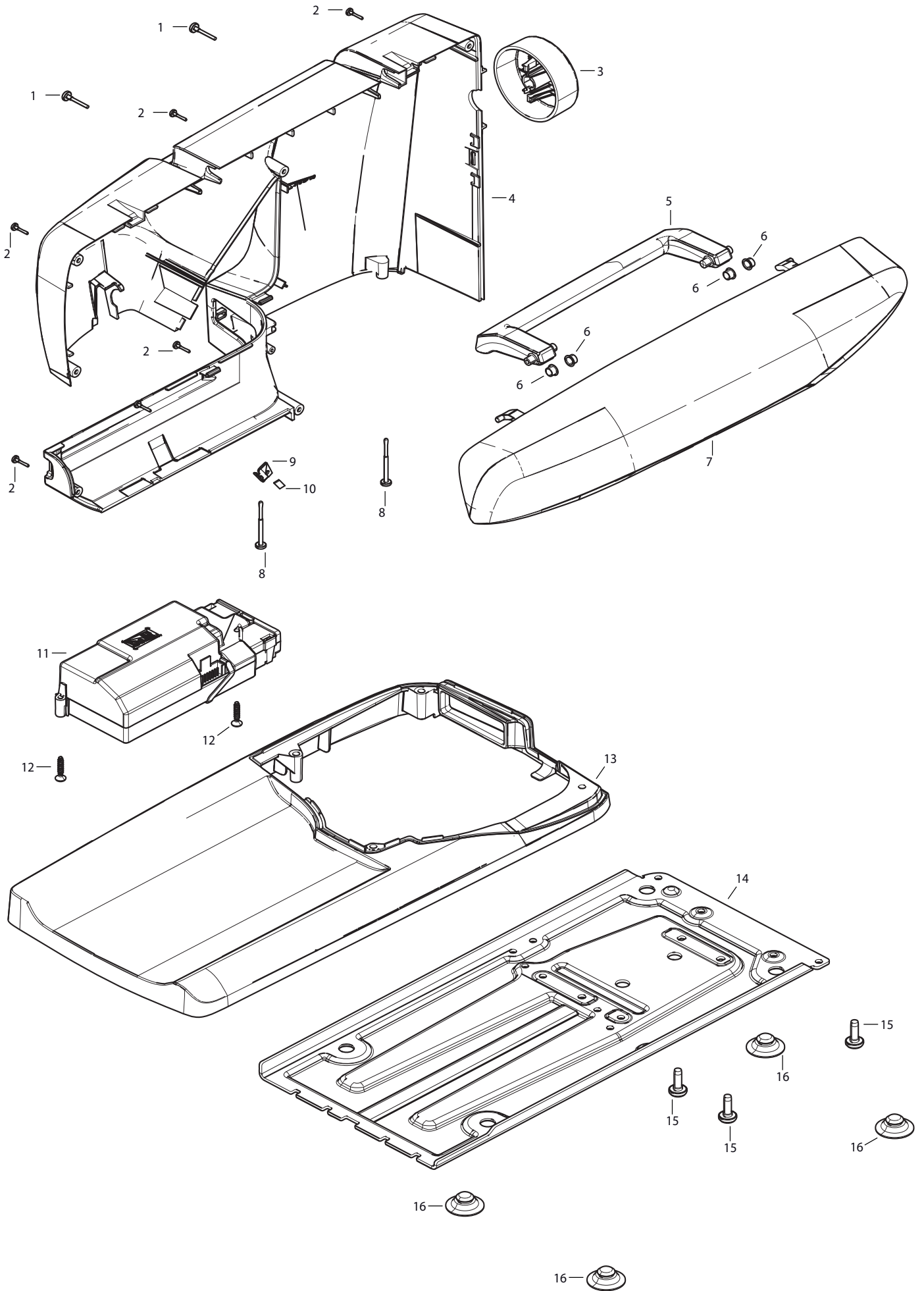
A

Opal



1	412960401	THREAD REEL PIN
2	411966803	SCREW
3	412979601	WINDING STOP
4	412423701	THREAD CUTTER
5	413022501	COVER THREAD KNIFE CPL WIN. AV.
6	413330001	COVER BOBBIN WINDING
7	413051602	SPOOL HOLDER 35MM
8	413051603	SPOOL HOLDER 45MM
9	412521001	REEL PIN
10	413320801	FRONT COVER 650
	413320802	FRONT COVER 670
	413320803	FRONT COVER 690Q
11	412558001	THREAD SUPPORT
12	411966812	SCREW 40*40 FZB TORX
13	413341401	THREAD SUPPORT
14	413334501	KEYBOARD OPAL 650
	413334401	KEYBOARD OPAL 670
	413384901	KEYBOARD OPAL 690Q
15	413331101	THREAD GUIDE
16	413331201	COVER THREAD TENSION OPAL 670 / 690Q
17	413346801	THREAD GUIDE
18	413346701	THREAD GUIDE
19	411966820	SCREW PT 30*10 FZB TORX
20	413329801	COVER THREAD TENSION OPAL 650
21	411966828	SCREW PT 30*6 FZB TORX
22	413327801	PCB ASSEMBLY LCD OPAL 650 /670
	413327802	PCB ASSEMBLY LCD OPAL 690Q
23	412977301	GLASS (OPAL 650)
24	413334301	KEYBOARD PANEL OPAL 650
25	68002273	BENEATH FOIL, TOCHPANEL (413339201 and 413337401 is replaced by 68002273)
26	413339101	TOP FOIL TOUCH PANEL OPAL 670
	413339102	TOP FOIL TOUCH PANEL OPAL 690Q
27	412982601	PIN, THREAD GUIDE
28	412549801	WASHER
29	412521401	SPRING
30	412982701	GLIDE PLATE
31	412981303	THREAD GUIDE CPL.
32	411966820	SCREW PT 30*10 FZB TORX
33	411966801	SCREW PT 30*7,5 FZB TORX
34	413325801	LED LIGHT ASSEMBLY
35	413346601	LED WINDOW
36	413004301	ADJUSTING SLEEVE
37	412519202	CHECK SPRING
38	413004501	THREAD CONTROL, THREAD SENSOR
39	412519301	THREAD GUIDE
40	413004004	THREAD SENSOR CPL.
41	413117501	USB COVER
42	68002273	TOUCH PANEL OPAL 670 / 690Q (413339201 and 413337401 is replaced by 68002273)

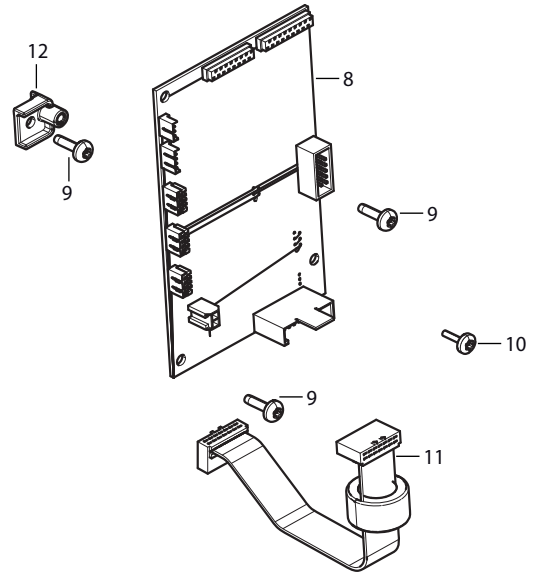
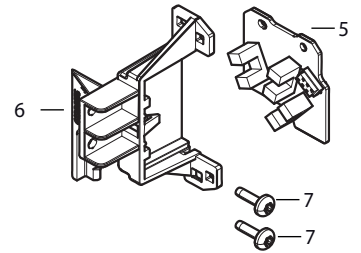
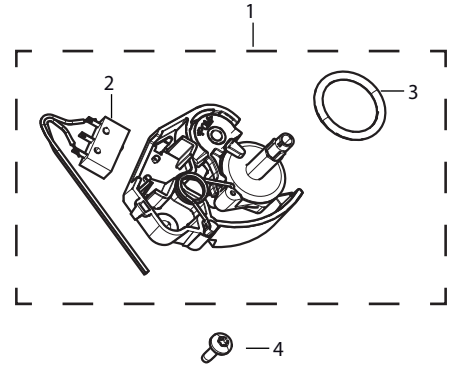
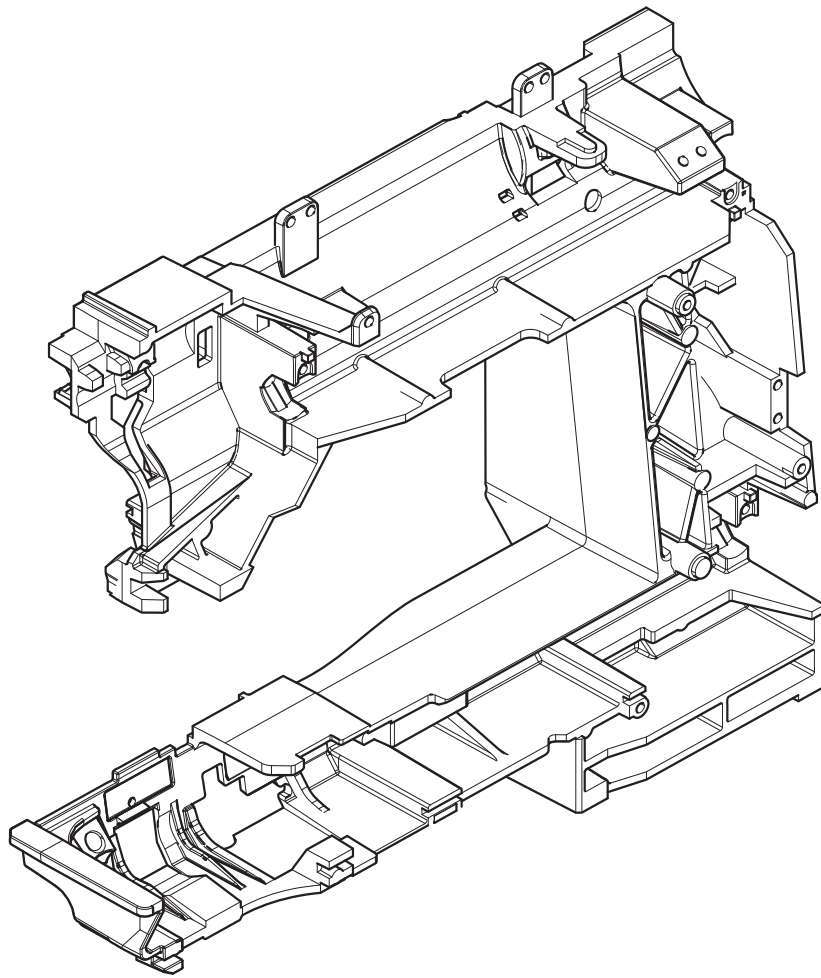
B



1	411966810	SCREW PT 40*20 FZB TORX
2	411966803	SCREW PT 30*12 FZB TORX
3	412954601	HAND WHEEL
4	413320901	BACK COVER OPAL 650 / 670
	413320902	BACK COVER OPAL 690Q
5	412683401	HANDLE
6	412700001	BUSHING
7	413342401	LID OPAL 650
	413342402	LID OPAL 670
	413342403	LID OPAL 690Q
8	411966812	SCREW PT 40*40 FZB TORX
9	413347201	KNIFE HOLDER
10	412423701	THREAD CUTTER
11	413390102	PWR SUPPLY
12	411967105	SCREW PT FS 40*20 FZB TORX
13	413328801	BOTTOM COVER
14	413203301	BOTTOM PLATE
15	412056001	SCREW TAPTITE M5*14 TORX
16	412305001	FOOT

C

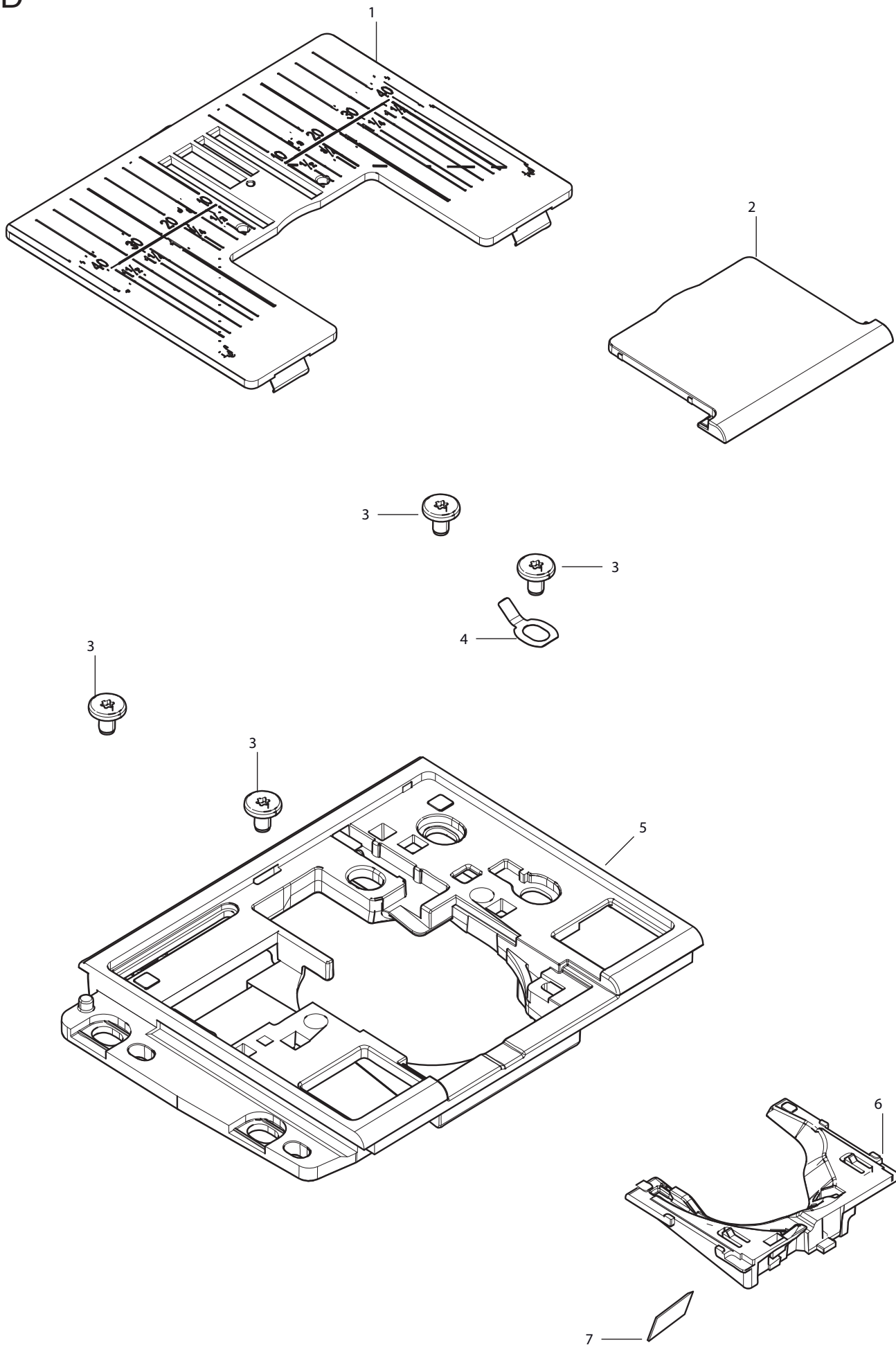
Opal



1	412955501	BOBBIN WINDER
2	413049101	MICRO SWITCH CPL.
3	412305503	O-RING
4	412056006	SCREW TAPTITE M4*12 TORX
5	412986401	SENSOR BOARD ASS.
6	412985502	HOLDER
7	412056006	SCREW TAPTITE M4*12 TORX
8	413329045	CONTROL BOARD OPAL 650
	413329046	CONTROL BOARD OPAL 670
	413380345	CONTROL BOARD OPAL 690Q
9	412056006	SCREW TAPTITE M4*12 TORX
10	412056006	SCREW PT 40*10 FZB TORX
11	412349703	CABLE TRANSF - CONTROL BOARD
12	413340301	HOLDER MAIN BOARD

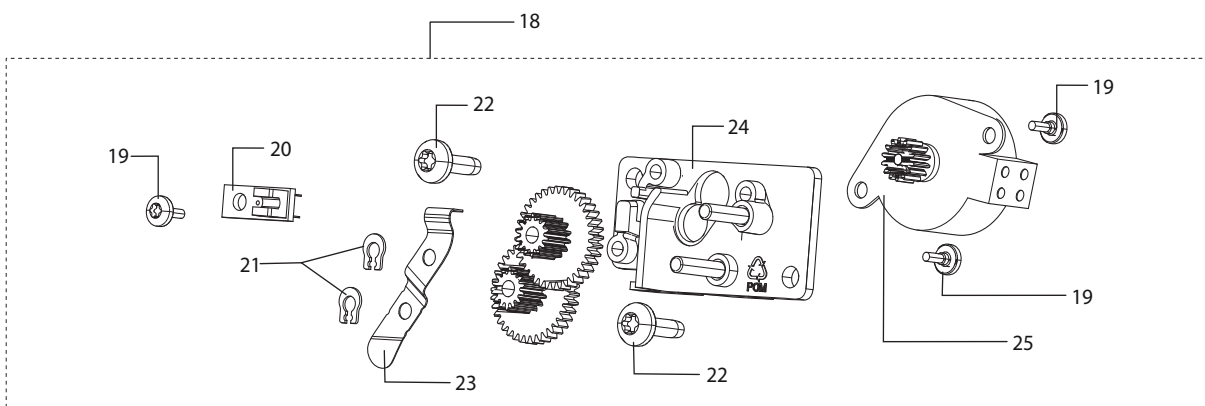
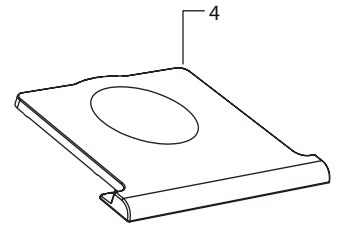
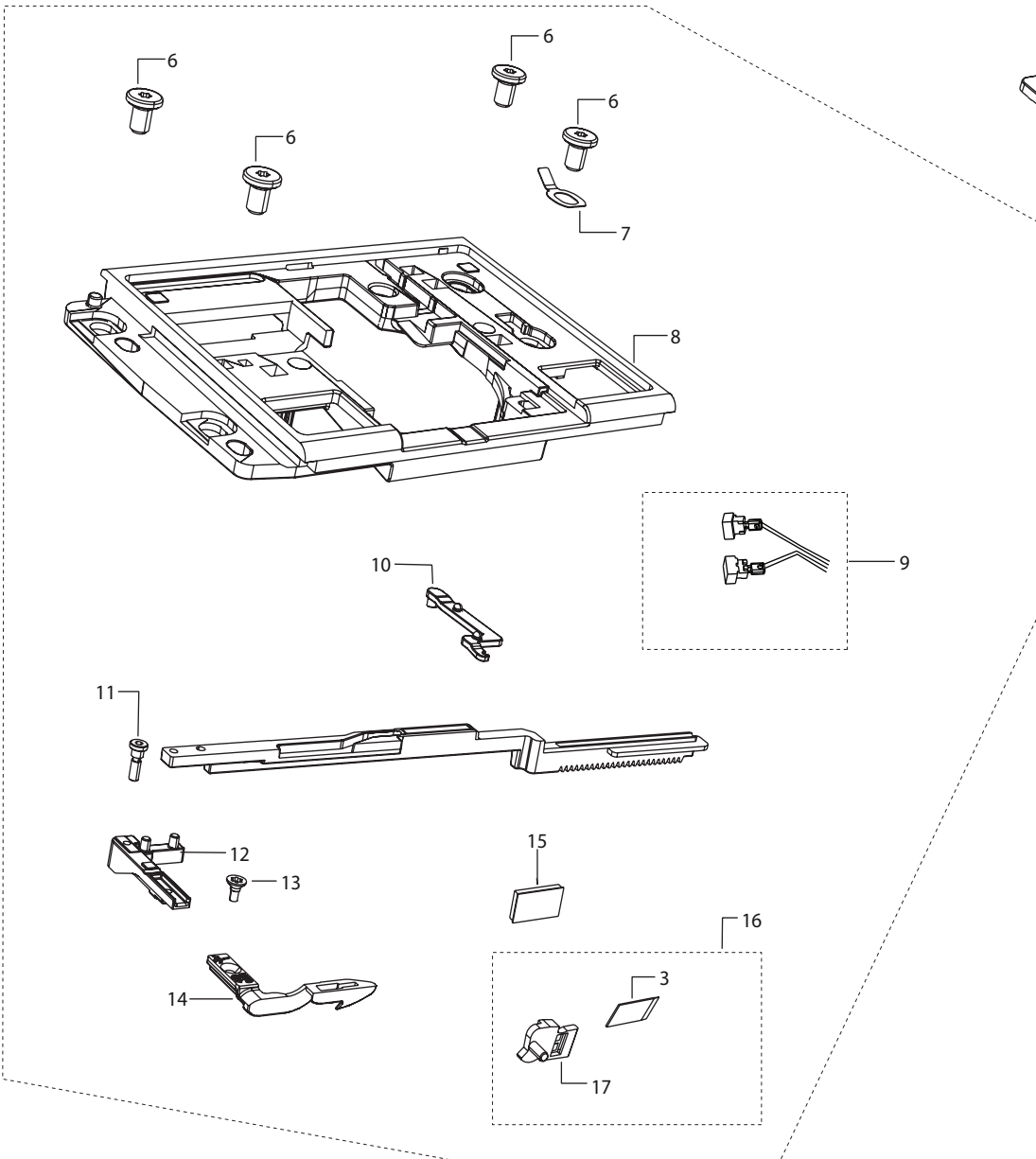
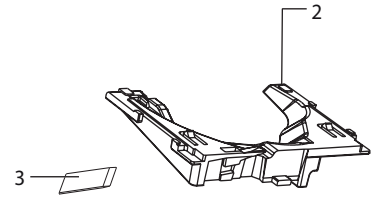
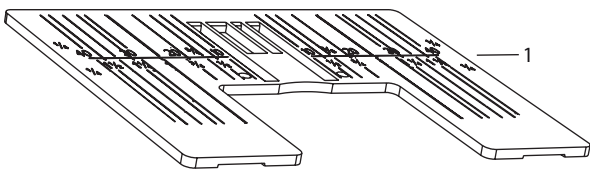
D

Opal



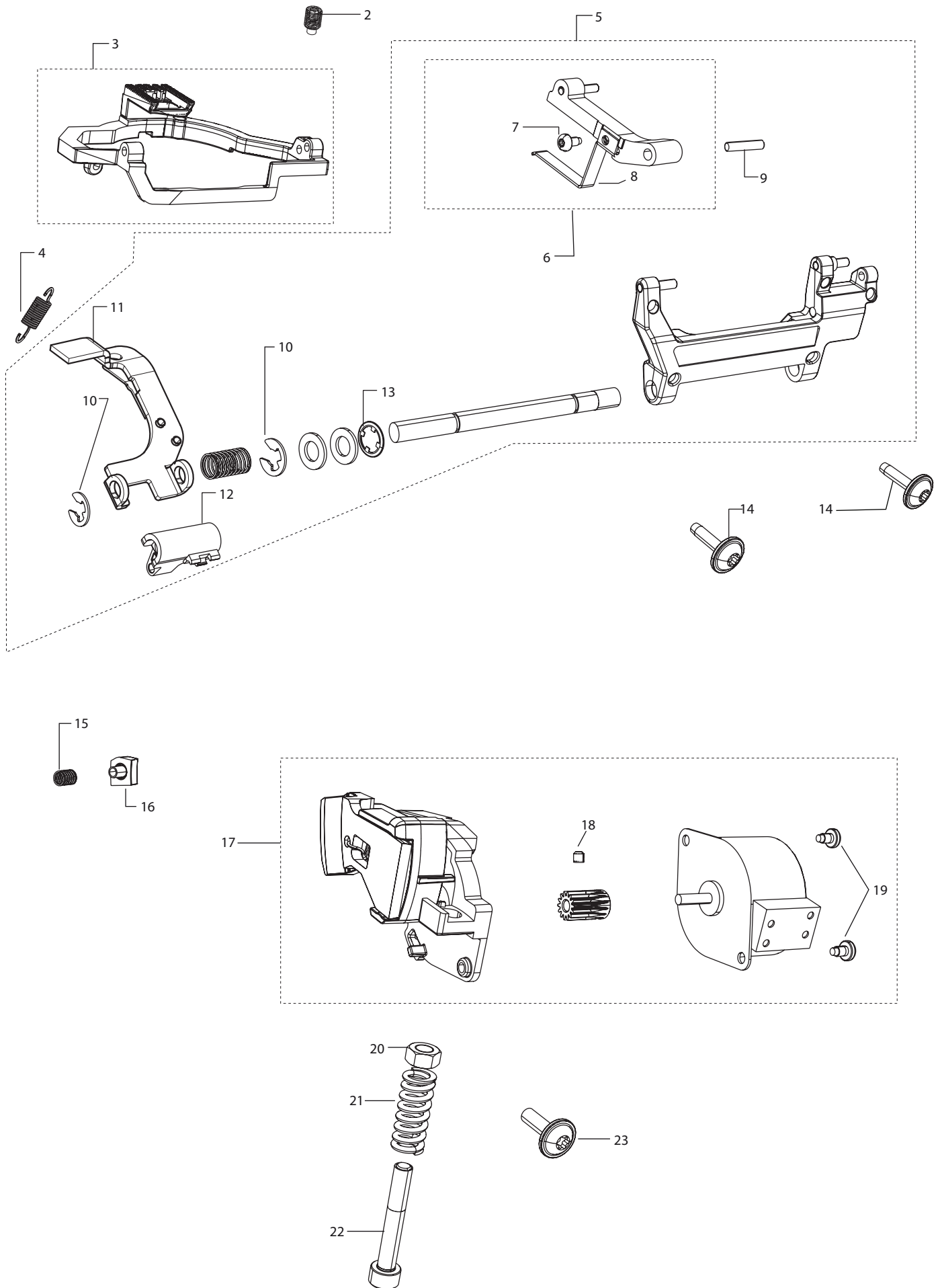
1	412964204	STITCH PLATE HV INCH/MM
2	412963901	BOBBIN COVER
3	412287903	SCREW
4	412997701	ESD SPRING STITCH PLATE
5	412964105	HOOK COVER
6	413025601	BOBBIN CASE HOLDER CPL
7	412423701	THREAD CUTTER

D



1	412964204	STITCH PLATE HV INCH/MM
2	413025601	BOBBIN CASE HOLDER CPL
3	412423701	THREAD CUTTER
4	412963901	BOBBIN COVER
5	412964005	HOOK COVER CPL. CUT. AND SENS.
6	412287903	SCREW
7	412997701	ESD SPRING, STITCH PLATE
8	412964105	HOOK COVER
9	413101503	CABLE ASS.BOBBIN SENSOR
10	413007301	FETCHER UPPER THREAD
11	413010001	GUIDE PIN
12	413072201	CONNECTING PART, FETCHER
13	412280501	SCREW, COUNTERSUNK
14	413007101	FETCHER
15	413116701	THREAD BRAKE
16	413047301	KNIFE HOLDER CPL.
17	413007701	KNIFE HOLDER
18	413007402	STEPPING MOTOR CPL.
19	411966828	SCREW PT 30*6 FZB TORX
20	413072501	CUT SENSOR ASS.
21	735612440	COMPRESSION RINGS Ø3
22	412056006	SCREW TAPTITE M4*12 TORX
23	413007601	GUIDE GEAR RACK
24	413007502	MOTOR PLATE CPL.
25	413004601	STEPPING MOTOR

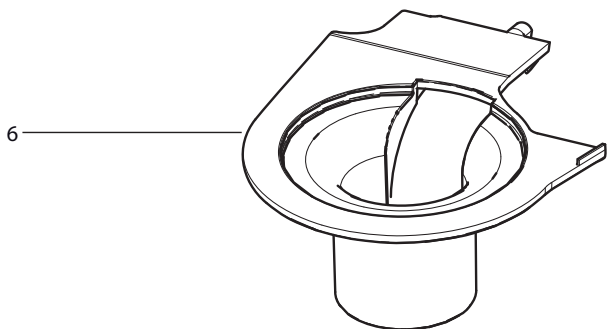
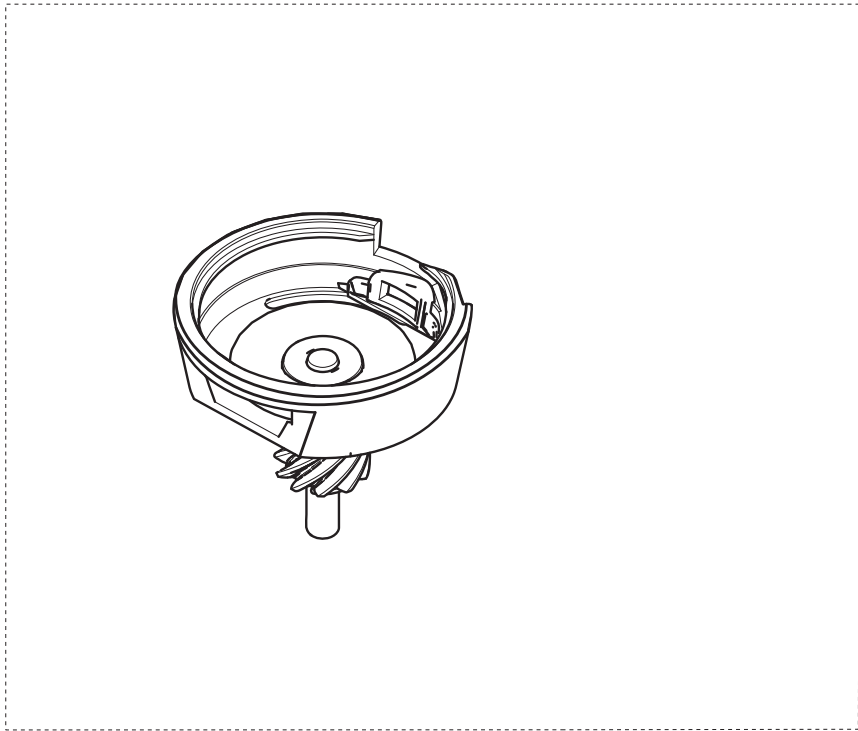
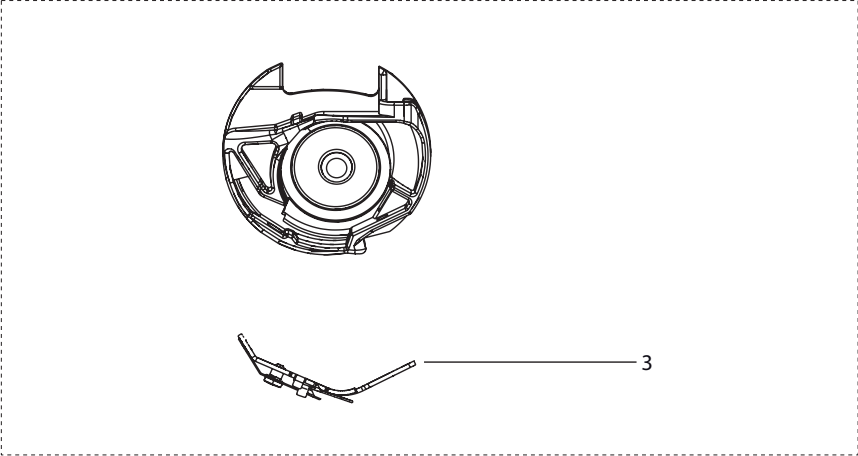
E



2	413201201	ADJUSTMENT SCREW, FEEDER
3	413201301	FEED DOG CPL.
4	413006802	TENSION SPRING, FRAME FEED DOG
5	413269013	CARRIGE FEED CPL.
6	412961602	LINK, CARRIAGE FEED CPL.
7	412056004	SCREW TAPTITE M3*6 TORX
8	412961501	SPRING, FEED
9	412316023	INA PIN NRB 4*19,8 0-2UM
10	735310920	SNAP RING E-5
11	413200901	LEVER FEED LIFT CPL.
12	413034201	INSERT, LEVER FEED LIFT
13	412368001	LOCK WASHER
14	413169401	COLLAR SCREW TT TORX 4*14
15	412961701	SPRING, SLIDING BLOCK
16	412961801	BLOCK, GUIDE
17	412963501	STEPPING MOTOR UNIT, FEED
18	411968703	SET SCREW FLAT, M3*3 TORX
19	412056011	SCREW TAPTITE M3*5 TORX
20	413025401	NUT M5*0,5
21	412963601	SPRING
22	412963701	SCREW BALANCE ADJUSTMENT
23	413034402	COLLAR SCREW M4*10, LEFT HAND

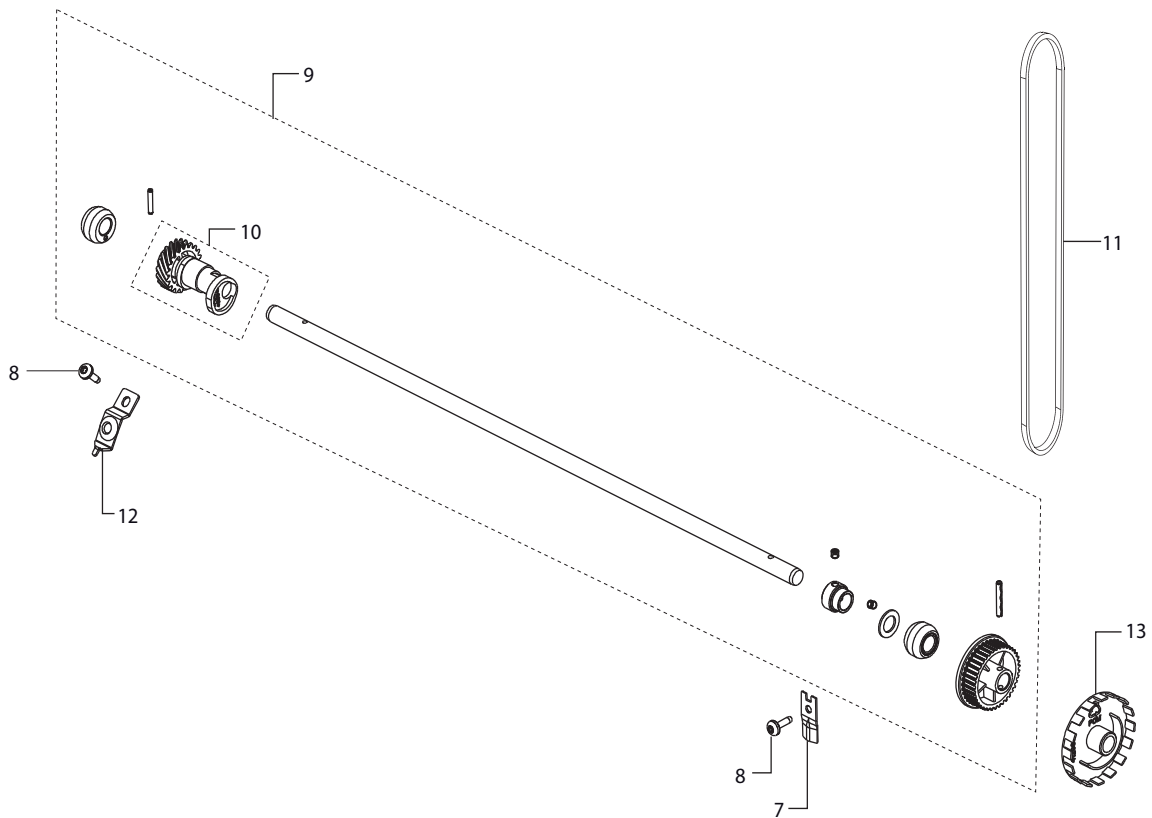
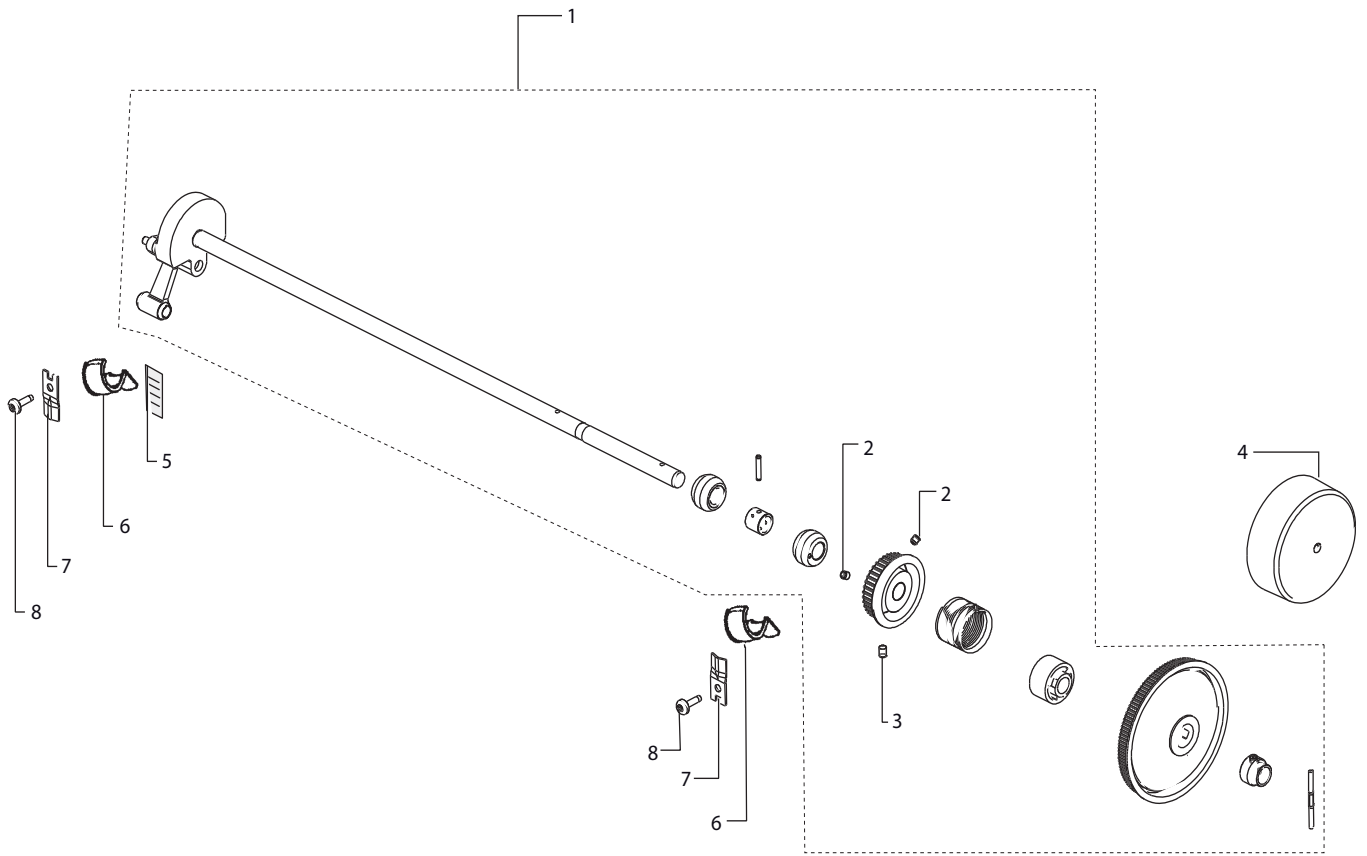
F

Opal



1	413182545	BOBBIN HV, GREEN
2	413058903	BOBBIN CASE CPL.
3	412471601	THREAD TENSION CPL.
4	68016090	HOOK CPL WITH SHAFT
5	412930101	SPRING, HOOK
6	412964502	DUST COVER
7	728528705	SCREW M4*8

G

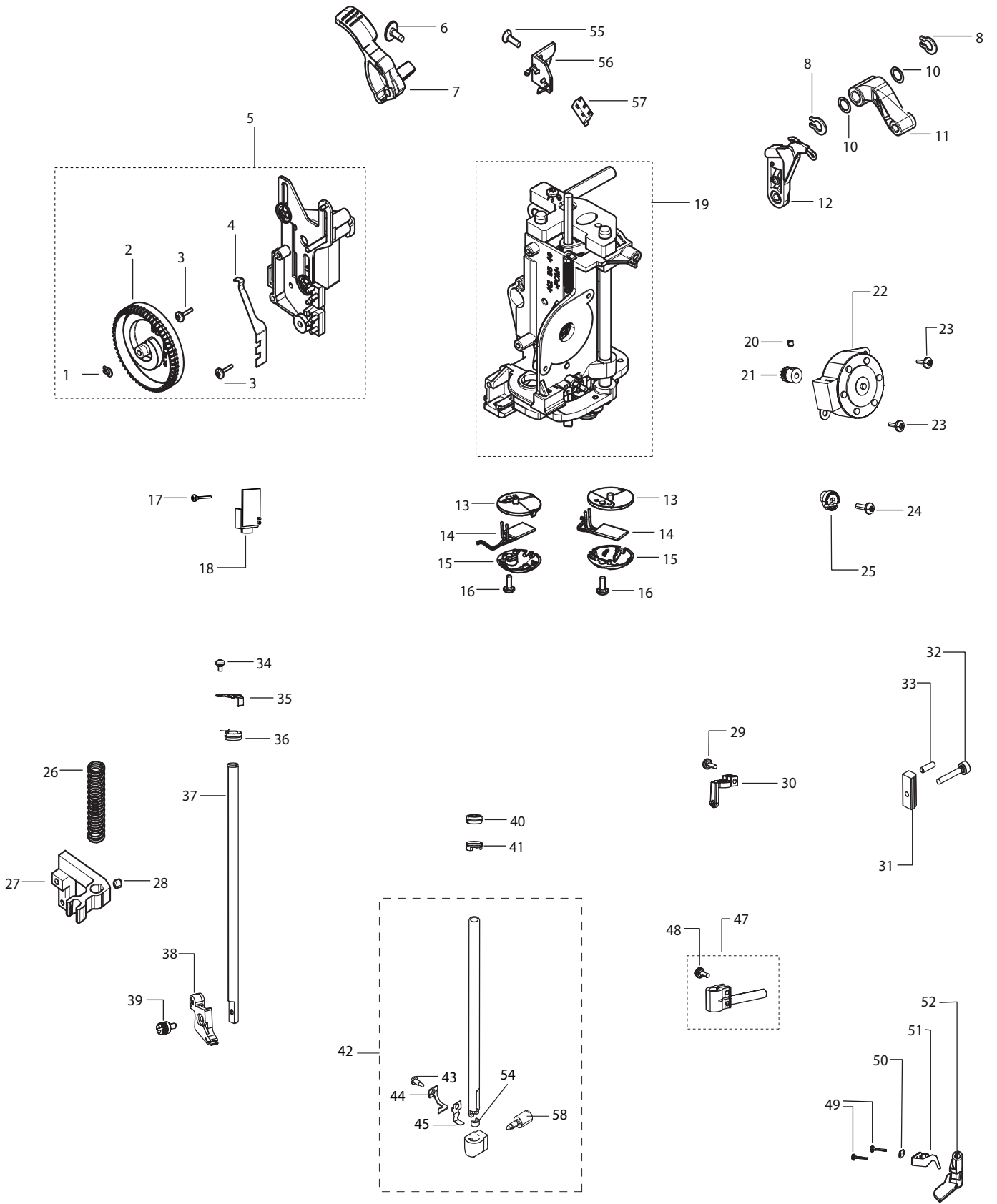


1	412966713	UPPER SHAFT CPL.
2	411968706	SET SCREW FLAT, M4*4 TORX
3	411968807	SET SCREW POINTED M4*6 TORX
4	412954601	HAND WHEEL
5	412687601	GROUND TAPE
6	412558401	ABSORBER
7	412328401	CLAMP
8	412056006	SCREW TAPTTITE M4*12 TORX
9	412967904	LOWER SHAFT CPL. 200 BOX
10	412964403	ECCENTRIC FEED CPL. (BOX)
11	413020301	COG BELT UPPER-LOWER SHAFT
12	412318101	CLAMP LOWER SHAFT
13	412968101	SHIELD, REVOLUTION INDICATOR

H

Opal 650

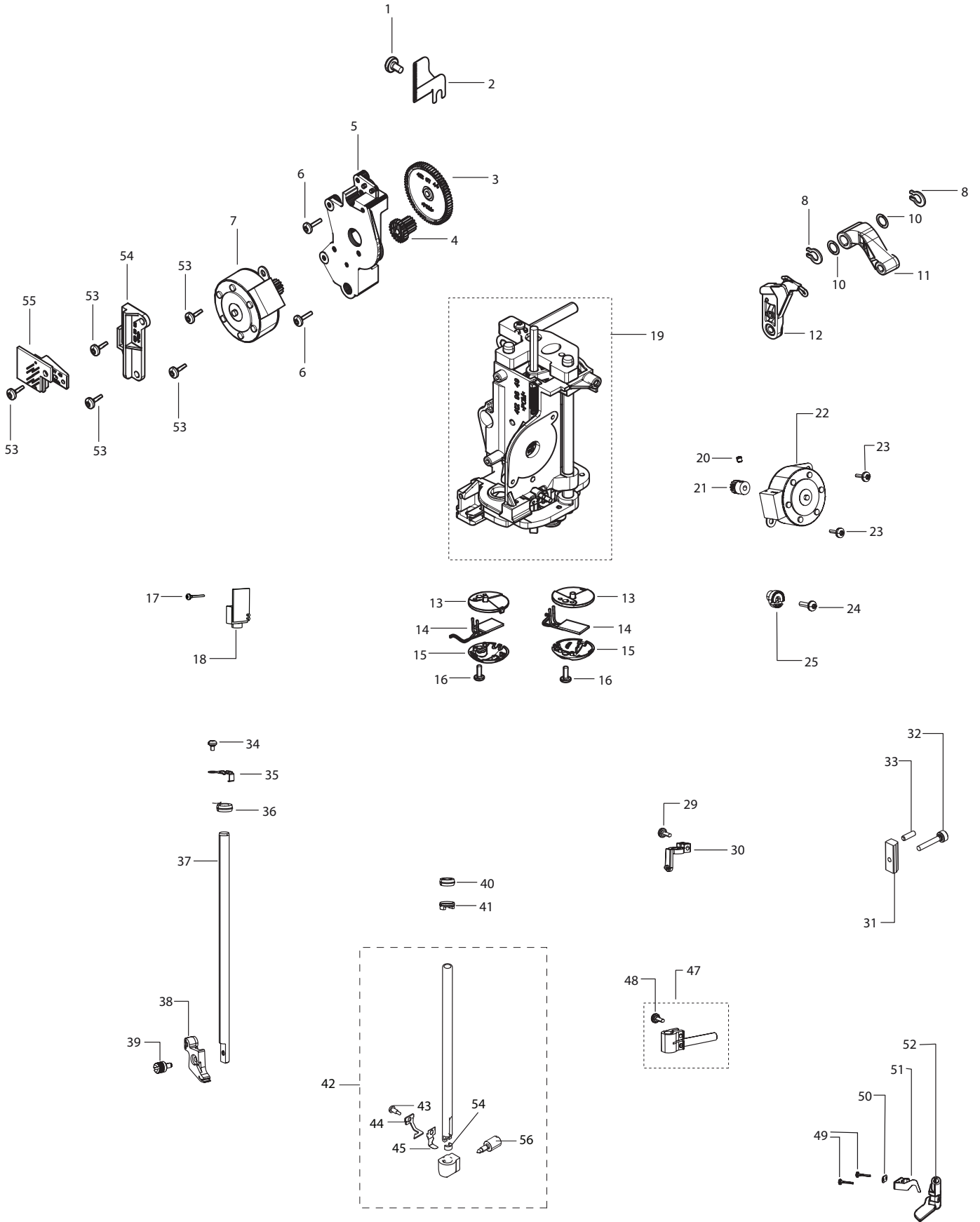
Opal



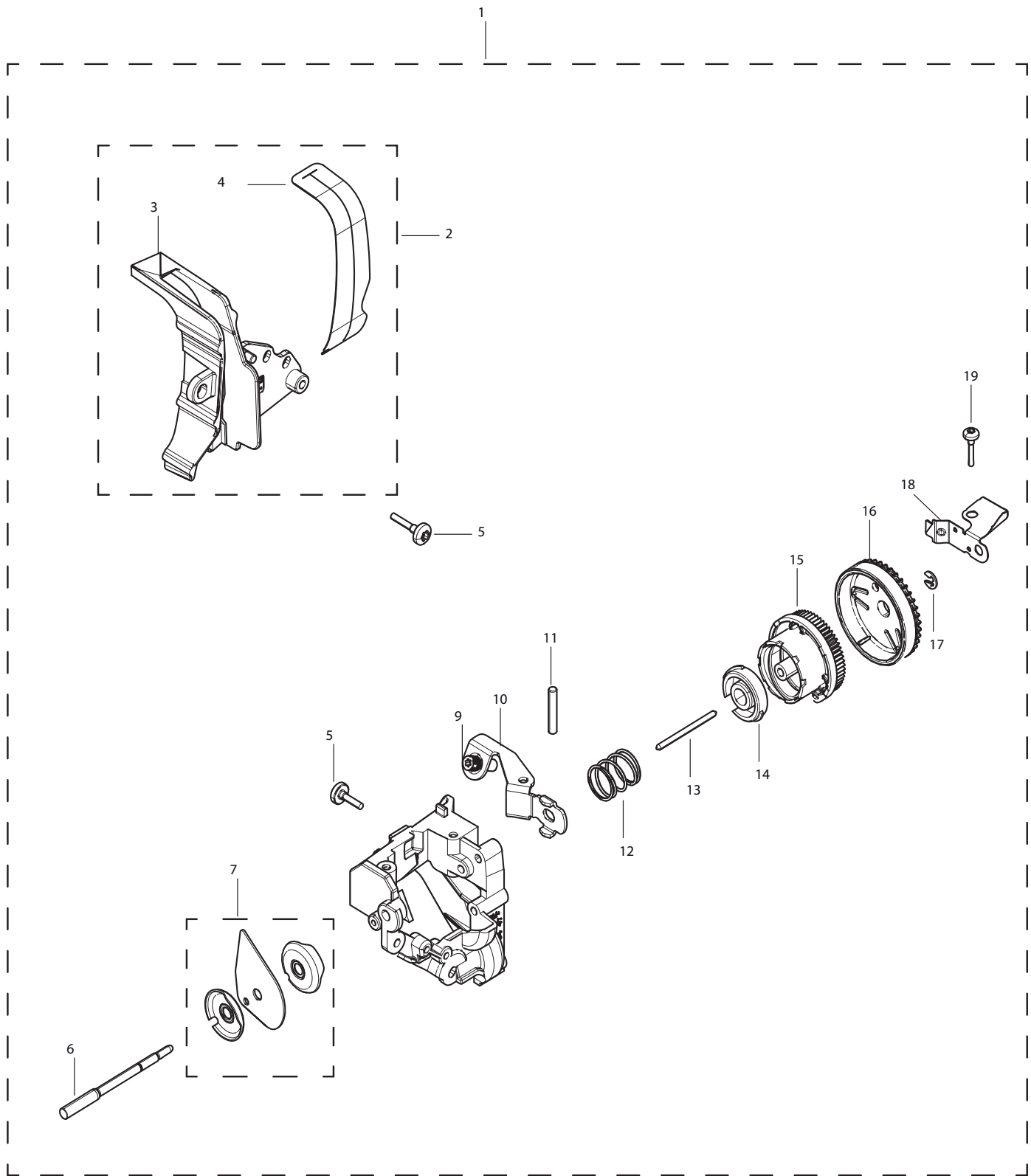
1	735612440	COMPRESSION RING 3MM
2	413337901	ADJUSTING DIAL
3	411966820	SCREW 30*10 FZB TORX
4	413338001	SPRING, ADJUSTING DIAL
5	413337601	MECH. PRESSER FOOT PRESSURE CPL
6	412281904	SCREW FLANGE M4*10
7	413337201	PRESSER FOOT LIFTER, CPL
8	735615340	COMPRESSION RINGS Ø6
10		SPRING WASHER
11	413047401	LINK
12	413300302	TAKE UP LEVER CPL
13	413343601	LED HOLDER
14	413325801	LED LIGHT ASSEMBLY
15	413343701	LED HOUSE
16	412211404	SCREW M3*10 TORX
17	411966821	SCREW PT 18*10 FZB TORX
18	413031002	BUTTONSENS. CONN. ASS.
19	413244201	SEWING HEAD CPL.
20	411968703	SET SCREW FLAT,M3*3 TORX
21	413057201	GEAR Z-Z
22	412993905	STEPPING MOTOR
23	411966828	SCREW PT 30*6 FZB TORX
24	412211404	SCREW M3*10 TORX
25	412966501	CALIBRATION KNOB
26	412685102	SPRING, PRESSERBAR
27	413162801	PRESSER BAR GUIDE
28	411968706	SETSCREW FLAT M4*4 TORX
29	413019001	SCREW K 30*8 PT WN 1452 S
30	412993501	STROKE LIMITER
31	412966601	WEDGE
32	725522805	SCREW M3*16 INSEX
33	728522205	SOCKET SET SCREW FLAT POINT
34	412211401	SCREW M3*4 TORX
35	413060301	CLIPS, GABLE LOWER
36	412500601	BEARING
37	412285403	PRESSER BAR AVANTI
38	412411201	HOLDER, PRESSERFOOT
39	412409701	SCREW PRESSERSHAFT
40	412501501	BEARING 10/6,35-4
41	412504701	LOCKING DEVICE
42	68003680	NEEDLE BAR CPL.
43	68002284	SCREW THREAD LEADER
44	68008796	THREAD GUIDE
45	413304201	THREAD LOCK, NEEDLE HOLDER
47	412993603	CROSS HEAD CPL.
48	412211404	SCREW FS M3*10 FZB TORX
49	411966825	SCREW PT 16*8 FZB TORX
50	412876701	WASHER, NEEDLE THREADER
51	413238402	NEEDLE THREADER
52	412876801	HOLDER, NEEDLE THREADER
54	68016246	CLAMPING PIECE
55	411967212	SCREW TAPTTITE FS M4x12 TORX
56	413340401	BRACKET MICRO SWITH
57	413049104	MICROSWITH CPL.
58	413373001	SCREW, NEEDLE HOLDER

Opal

Opal 690Q / 670



1	412211410	SCREW M4 X 6 TORX
2	412973901	SHIELD, PRESSERFOOT SERVO
3	412974401	GEAR, SERVO SEC
4	412974301	GEAR, SERVO PRIM
5	412974201	GEAR HOUSING SERVO
6	411966820	SCREW 30*10 FZB TORX
7	413005902	STEP MOTOR P-FOOT PRESSURE
8	735615340	COMPRESSION RINGS Ø6
9	413048902	LEVER, THREAD RELEASER
10	412001301	SPRING WASHER
11	413047401	LINK
12	413300302	TAKE UP LEVER CPL
13	413343601	LED HOLDER
14	413325801	LED LIGHT ASSEMBLY
15	413343701	LED HOUSE
16	412211404	SCREW M3*10 TORX
17	411966821	SCREW PT 18*10 FZB TORX
18	413031002	BUTTONSENS. CONN. ASS.
19	413244201	SEWING HEAD CPL.
20	411968703	SET SCREW FLAT,M3*3 TORX
21	413057201	GEAR Z-Z
22	412993905	STEPPING MOTOR
23	411966828	SCREW PT 30*6 FZB TORX
24	412211404	SCREW M3*10 TORX
25	412966501	CALIBRATION KNOB
26	412685102	SPRING, PRESSERBAR
27	413162801	PRESSER BAR GUIDE
28	411968706	SETSCREW FLAT M4*4 TORX
29	413019001	SCREW K 30*8 PT WN 1452 S
30	412993502	STROKE LIMITER
31	412966601	WEDGE
32	725522805	SCREW M3*16 INSEX
33	728522205	SOCKET SET SCREW FLAT POINT
34	412211401	SCREW M3*4 TORX
35	413060301	CLIPS, GABLE LOWER
36	412500601	BEARING
37	412285403	PRESSER BAR AVANTI
38	412411201	HOLDER, PRESSERFOOT
39	412409701	SCREW PRESSERSHAFT
40	412501501	BEARING 10/6,35-4
41	412504701	LOCKING DEVICE
42	68003680	NEEDLE BAR CPL.
43	68002284	SCREW THREAD LEADER
44	68008796	THREAD GUIDE
45	413304201	THREAD LOCK, NEEDLE HOLDER
47	412993603	CROSS HEAD CPL.
48	412280504	SCREW FS M3*10 FZB TORX
49	411966825	SCREW PT 16*8 FZB TORX
50	412876701	WASHER, NEEDLE THREADER
51	413238402	NEEDLE THREADER
52	413053601	HOLDER, NEEDLE THREADER
53	413019001	SCREW K30 X 8PT WN 1452 S
54	68016246	CLAMPING PIECE
55		ESS CARD SEWING HEAD
56	413373001	SCREW, NEEDLE HOLDER HV

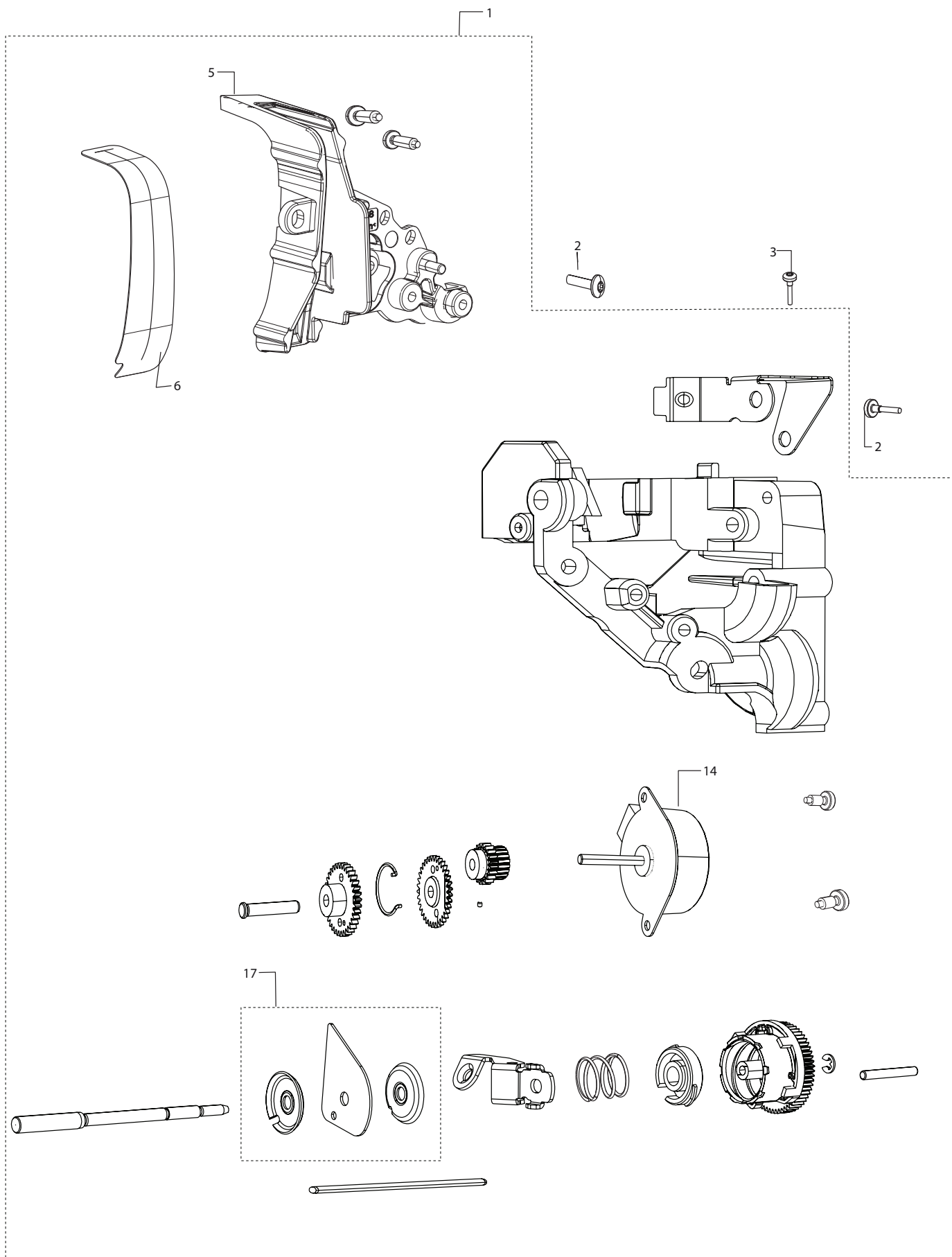


1	412940207	THREAD TENSION ASS
2	413232203	SHIELD, TAKE UP LEVER ASS.
3	413334201	SHIELD TAKE UP LEVER
4	413218502	SEALING, TAKE UP LEVER
5	412056006	SCREW PT 40*10 FZB TORX
6	413056003	SHAFT, THREAD TENSION
7	413106402	THREAD DISK KIT
9	412962801	ADJUSTING SCREW, FEED DOG
10	412940501	RELEASE LEVER, THREAD TENSION
11	412316010	INA PIN
12	413159501	COMPRESSION SPRING, THREAD TENS.
13	413113201	PIN
14	412741701	NUT, THREAD TENSION
15	413059101	INTERMEDIATE GEAR, FIXED
16	413046802	ADJUSTING DIAL HV
17	735310620	LOCK WASHER 2.3
18	412940603	CONTACT SPRING THREAD TENSION
19	411966820	SCREW 30*10 FZB KOMBITORX

K

Opal 690Q / 670

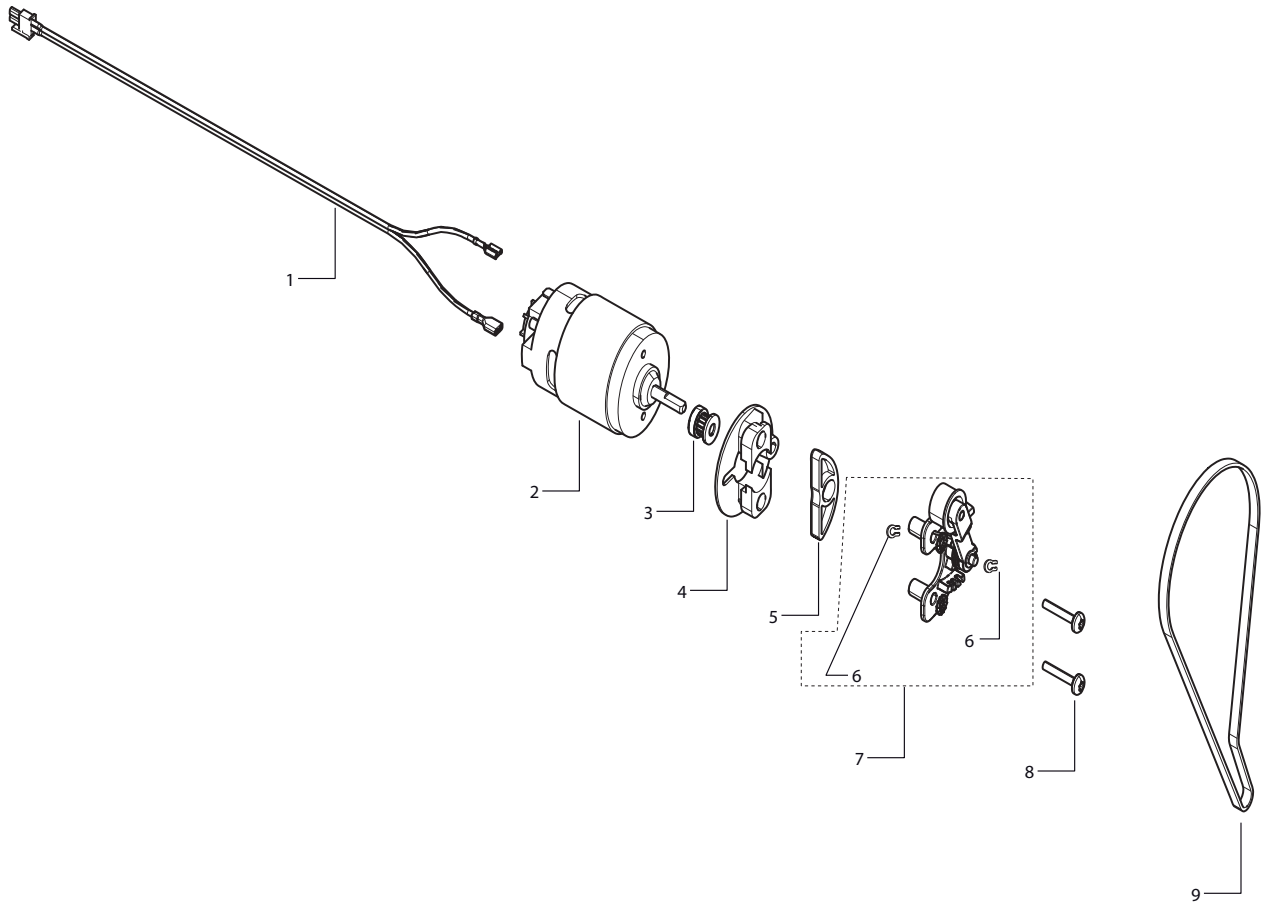
Opal



1	412940203	THREAD TENSION ASS
2	412056006	SCREW TAPITTE TORX M4*12
3	411966803	SCREW PT 30*12 FZB TORX
5	413334201	SHIELD, TAKE UP LEVER ASS.
6	413218502	SEALING, TAKE UP LEVER
14	412993903	STEPPING MOTOR
17	413106402	THREAD DISK KIT

L

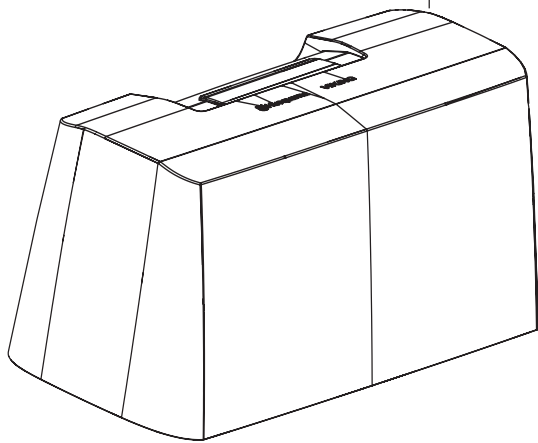
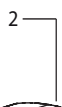
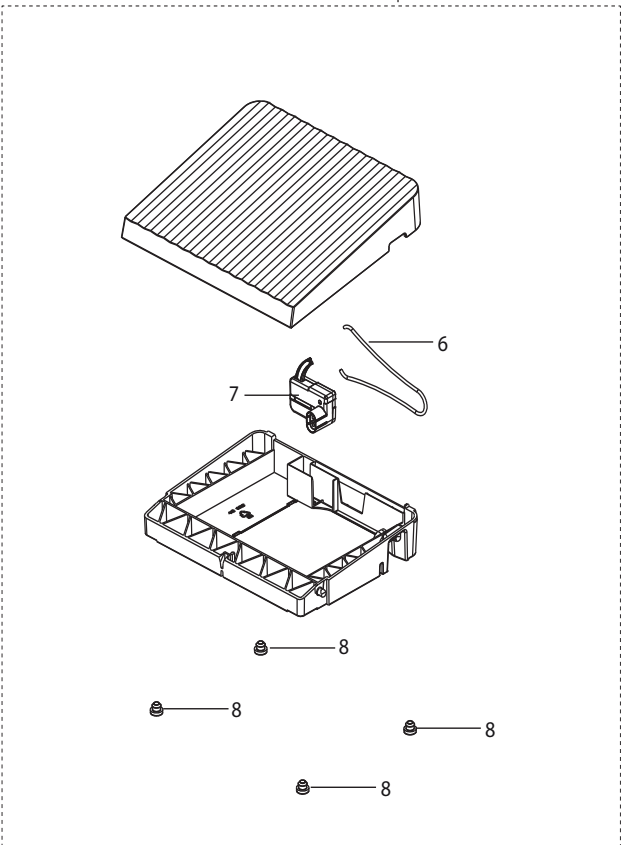
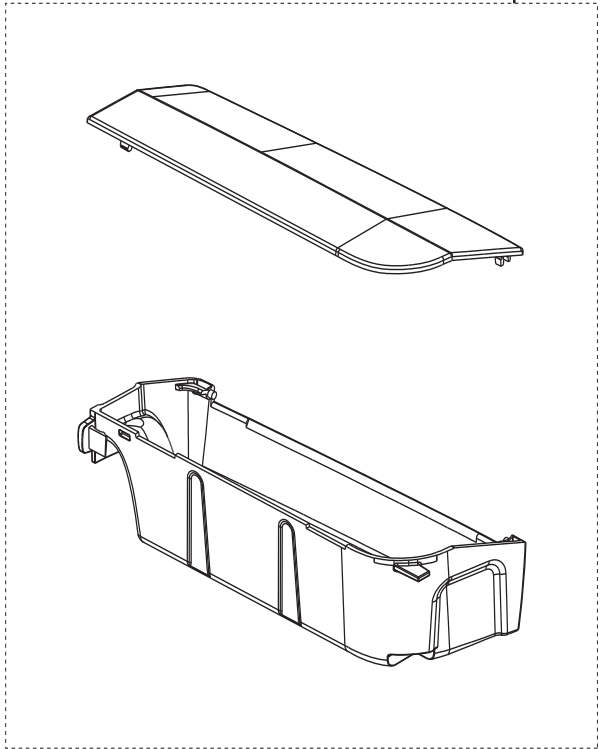
Opal



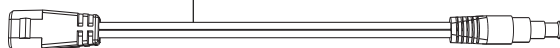
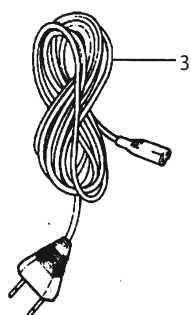
1	413056901	CABLE MAIN MOTOR
2	9233011191000	ENGINE DOMEL
3	412353302	DRIVING WHEEL MOTOR 350,400,500
4	412999902	RUBBER DAMPER, MOTOR
5	413317201	SPACER BLOCK MOTOR
6	735613640	COMPRESSION RINGS Ø4
7	412971902	BELT STRETCHER CPL.
8	412211415	SCREW M4*20 TORX
9	413020201	COG BELT MOTOR

M

Opal

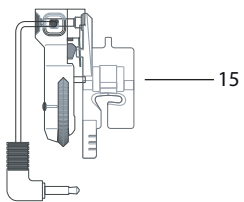
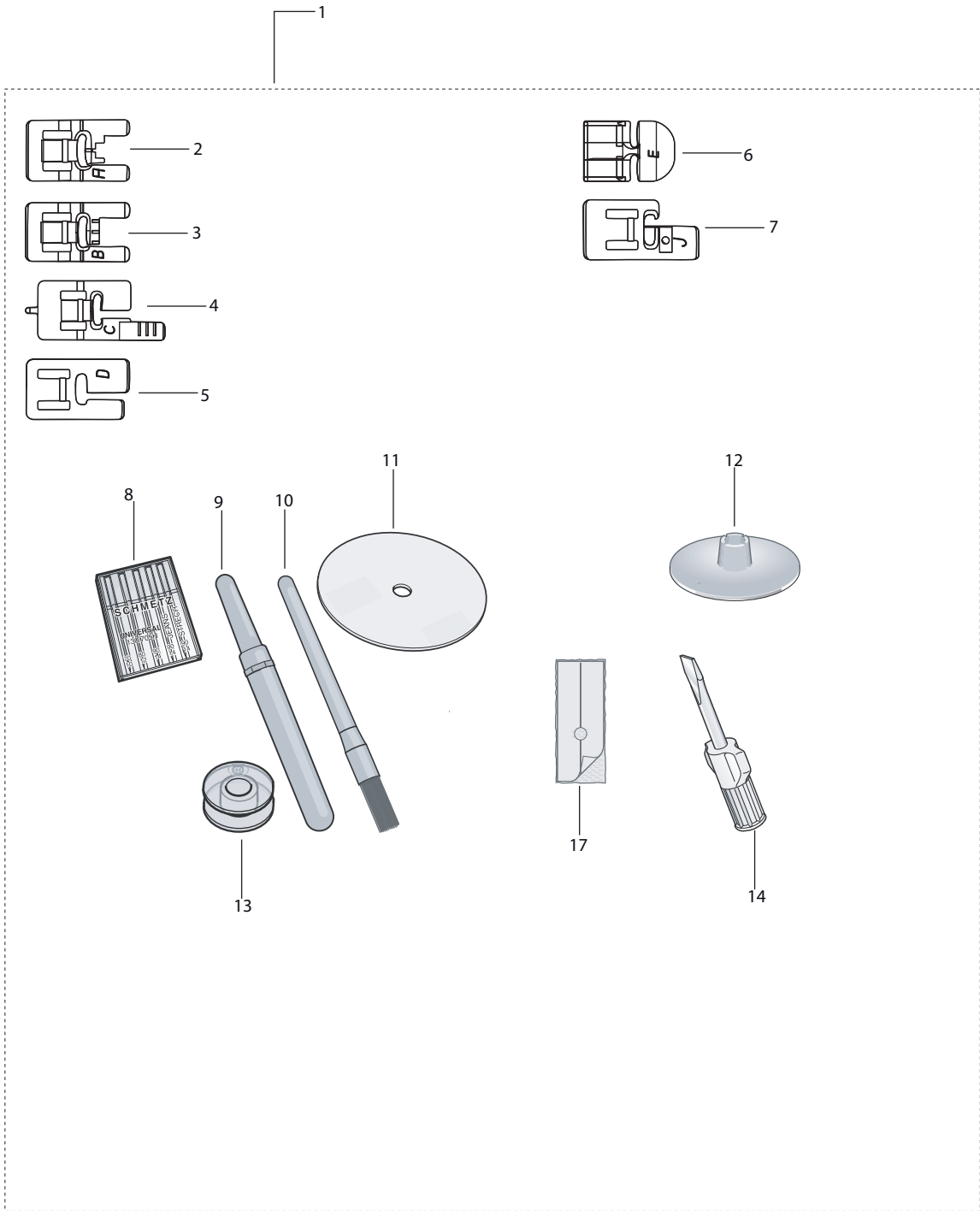


POWERCORD



1	412983902	ACCESSORIES BOX CPL. 650/670
	412983901	ACCESSORIES BOX CPL. 690Q
2	413336301	HARD COVER CPL.
3	412157801	NET CABLE 220V
	412157903	NET CABLE 120V
	412158002	NET CABLE GB
		NET CABLE AU
4	413021501	FOOTCONTROL CABLE
5	412314102	FOOTCONTROL CPL.
6	412159801	SPRING
7	412318901	SPEED CONTROL UNIT
8	412184501	FOOT

N



1	413021625	STD. ACC.CPL. Opal 650
	413021626	STD.ACC. CPL. Opal 670
		STD.ACC. CPL Opal 690Q
2	412764001	PRESSER FOOT A 7MM
3	413113646	PRESSER FOOT B CPL.
4	412785345	BUTTONHOLE PRESSER FOOT C
5	412380445	BLIND HEM FOOT D
6	412801545	ZIPPER PRESSER FOOT
7	412380645	EDGING PRESSER FOOT J. PIN PAC
8	620098796	NEEDLES
9	401539901	SEAM RIPPER
10	413190401	BRUSH
11	412610701	FELT PAD
12	413051601	SPOOL HOLDER 22MM
13	413182545	BOBBINS
14	412381501	SCREW DRIVER
15	412815102	BUTTONHOLE SENSOR FOOT CPL.
16	412693401	STYLUS, BLACK OPAL 670
	412693413	STYLUS OPAL 690Q
17	412827401	GLIDE PLATE