



Service Manual HBM-ZX & VF Series



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Thank you for your purchase of the ISKCO HBM-ZX Series vibrator. This unit is designed to provide optimal performance in the placement of concrete when used properly. Prior to use of this vibrator, it is very important that this service manual be read and understood to ensure the proper operation and maintenance of the unit.

This service manual contains six (6) sections as follows:

- Specifications
- Operation
- Inspection
- Maintenance
- Important Reminders
- Warranty

Along with these sections, a current parts list and breakdown for the unit is included.

Specifications

The following are the specifications for unit. The specifications chart is based upon each unit being equipped with a 50 foot power cord. **VPM shown at "no load"**

Model	Input Voltage	Amp	Hp	V.P.M.	Head Dia. & Length	Head Weight (lbs.)	Amplitude	Force Output (lbs.)
HBM40VF	48	5.5	250W	14,400	1.69" x 13.39"	7	0.055"	445
HBM50VF	48	9	400W	14,400	2.05" x 15.35"	11	0.067"	858
HBM60ZX	48	13	500W	14,400	2.40" x 15.90"	16	0.075"	1301

Operation

Before operation of this unit, ensure that the proper power supply has been selected and extension cords (if used) are the correct size. This is critical to the life of the unit. Failure to provide the proper voltage to the vibrator can cause unnecessary damage and premature failure. The following guidelines will ensure the unit is operated properly.

- 1) Be sure the switch is in the OFF position
- 2) Insert the plug of the vibrator completely into the power unit or extension cord.
- 3) Turn unit ON and place in concrete.
NOTE: Do not turn off the unit while it is inserted in the concrete. Doing so may cause difficulty removing the unit from the concrete.
- 4) Move the vibrator in a pattern that will allow the area of influence of the vibration to overlap. Using the vibrator in this manner will greatly enhance the consolidation of the concrete.

Inspection

To ensure optimal performance, inspection of the unit must be performed before every operation.

Upon receiving the unit, inspect for any damage that may have occurred during shipment/transit. Claims for shipping damages must be filed with the carrier. ISKCO will not be liable for damages that occur during shipment of the product.

Before placing the unit into service or storage, inspection and service should be performed. The following is a checklist of areas for inspection.

- External Inspection
 - Cracks in the switch case or motor case of the vibrator
 - Cuts in the vibrator hose or power cord
 - Corroded or burned pins on the plug
 - Worn nose piece
 - Torn switch cover
- Internal Inspection
 - Check wiring for loose connections
 - Check fuses in the switch case
 - Check continuity of all wiring
 - Check continuity across switch

Maintenance

The two main areas of maintenance in the unit are electrical components and bearings.

When performing maintenance of the unit's electrical components:

- Replace all blown fuses.
- Clean the pins of the vibrator plug. Width of each pin should be approximately that of a dime.
- Tighten all loose connections. Replace wire connectors where necessary.

For bearing maintenance, the normal duration of operation before a bearing change is required is approximately 200-250 hours. A bearing change may be required prior to this approximate time frame. This can be determined by listening for abnormal sounds in the vibrator during operation.

- **NOTE:** Bearing replacement kits are available for all sizes of the HBM-ZX Series vibrators. In order to avoid unnecessary down time with the unit, it is recommended to keep a bearing replacement kit on hand.

Important Reminders

Improper use of the unit may result in damage and/or premature failure. The reminders listed below must be strictly followed to ensure the life of the unit.

- Never run the vibrator outside of the concrete for extended periods of time. The moisture of fresh concrete cools the vibrator. When the vibrator is run outside of concrete, heat is generated in the motor and will eventually cause the stator to fail.
- Do not place heavy objects on or drive over the power cord. If this occurs, it may cut the power cord or cause a voltage drop to the vibrator.
- Never pull the vibrator by the power cord. This can cause the wire to pull away from the plug or switch. It can also lead to vibrator failure or electrical shock.
- If the vibrator should stop suddenly or sound unusual during operation, turn it OFF immediately. Refer back to the Inspection and Maintenance sections of this manual for instruction. If further instruction is needed, contact the ISKCO Customer Service Department at 501.812.0220.

Warranty

ISKCO, Ltd. warrants to the purchaser that the equipment to be delivered herein will be free from defects in material, workmanship, and title and will be of the kind and quality designated or described in the contract. The foregoing warranty is exclusive and in lieu of all other warranties whether written or implied (including any warranty of merchantability or fitness for purpose). If it appears within three (3) months from the date of shipping by the Company that the equipment delivered herein does not meet the warranties specified above and the purchaser notifies the Company promptly, the Company shall thereupon correct any defect, including non-conformance

with the specifications, at its option, either by repairing any defective part(s) or by making available at the Company's plant, a repaired or replacement part.

In no event will ISKCO, Ltd. be liable for business interruptions, loss of profits, personal injury, cost of delay, or for any other special, indirect, incident, or consequential losses, costs, or damages.

For assistance, contact the ISKCO Customer Service
Department
501.812.0220 (phone) 501.812.0770 (fax)
On the web at: www.iskco.com

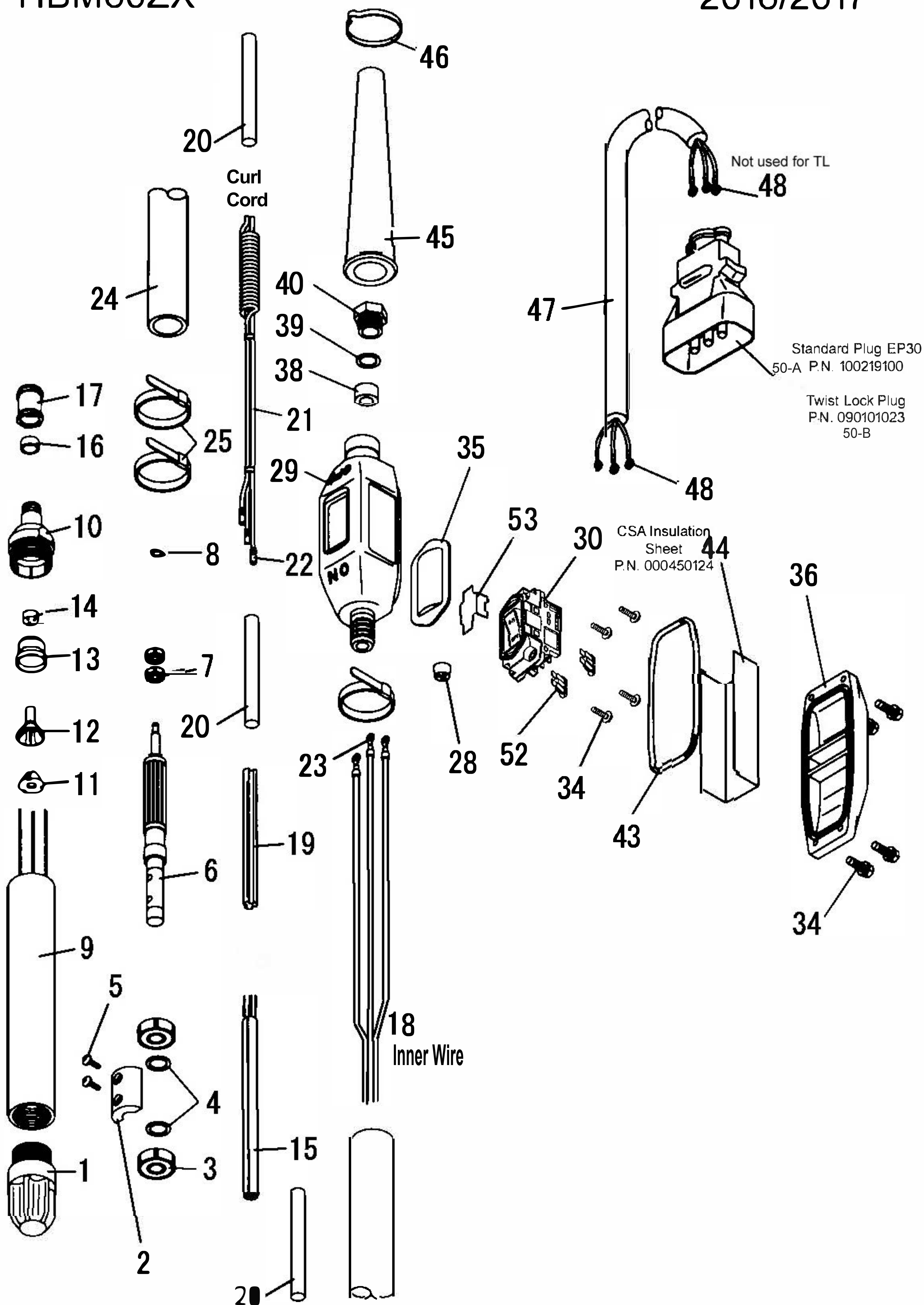
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HBM 60 ZX Parts List

2017

Ref #	Description	Qty	Part Number
1	Nose HBM 60ZX	1	200445000
2	Eccentric Weight HBM 60ZX	1	200446000
3	Bearing 6304JR2LLHC3	2	401161000
4	Washer M20.5 x 30	2	301637000
5	Bolt M8 x 30 Socket Rnd Hd (HBM only)	2	100400142
6	Rotor HBM 60ZX	1	301638000
7	Bearing 609zzC3	2	511606090
8	Retaining Ring S9	1	432100090
9	HBM 60 ZX Motor Body (w/Stator)	1	100727000
10	Hose Joint HBM 60 ZX	1	200054000
11	Lead Wire Guide HBM60ZX (Cone)	1	300006000
12	Lead Wire Guide HBM60ZX (Cone Cap)	1	300008000
13	Terminal Boot Cap (Metal)	1	200038000
14	Stator/Lead Wire Foam Guide HBM40-60ZX & VF	1	300161000
15	Sector Tube R6.5 x 3.5 (All HBM's)	3	300187000
16	Rubber Ring M13 x 17 (All HBM's)	1	300010000
17	Hose Connector Extension (non CSA)	1	200061000
1--17	HBM 60ZX Head Assy Complete	1	100710000
18	HBM Inner Wire MTW (per ft)	length	343161245
19	Head Wire Guide (hose)	1	300012000
20	Heat Shrink Tube 3/4" x 9")	3	800004060
21	Curl Cord 1.5 meter (HBM non CSA)	1	301437000
22	Butt Splice Blue SSC	6	491614001
23	#8 Ring Blue SSC	3	491614002
24	Hose HMB-Z 21 x 36 (Per Foot)	1	338102136
25	Hose Band M38 W-14	3	470320380
28	Inner Wire Guide HBM (Switch)	1	310961231
29	Switch Case HBM-ZX/VF (new) non CSA	1	301725000
30	Switch HBM (W/Fuse)	1	500158000
34	Bolt M5 x 25 SUS	8	500174000
35	Switch Packing HBM	1	310661241
36	Switch Case Cover HBM-ZX (new)	1	301724000
38	Rubber Ring M15 x 22 (HBM)	1	301643000
39	Compression Washer M15.5 x 22	1	310861231
40	Compression Nut M15.5	1	310461231
43	Seal Ring HBM (new)	1	301721000
44	Insulation Sheet HBM (non CSA)	1	310861241
45	Cord Support Boot (HBM)	1	331861253
46	Clamp Band N46	1	570300460
47	Cord 12/3 (Per FT)	length	099991005
48	#8 Ring Yellow SSC (3-TL / 6-STD)	6 or 3	491210001
	(For part #48 if using twist lock plug only 3 req.)		
50a	EP-30 Plug (Standard)	1	100219100
50b	Twist-Loc Plug (Male 2811)	1	090101023
52	Fuse Blade Type 30Amp	2	555200160
53	Teflon Sheet HBM	1	301751000
28--53	Power Cord Assy(No Plug) non CSA	1	341060152
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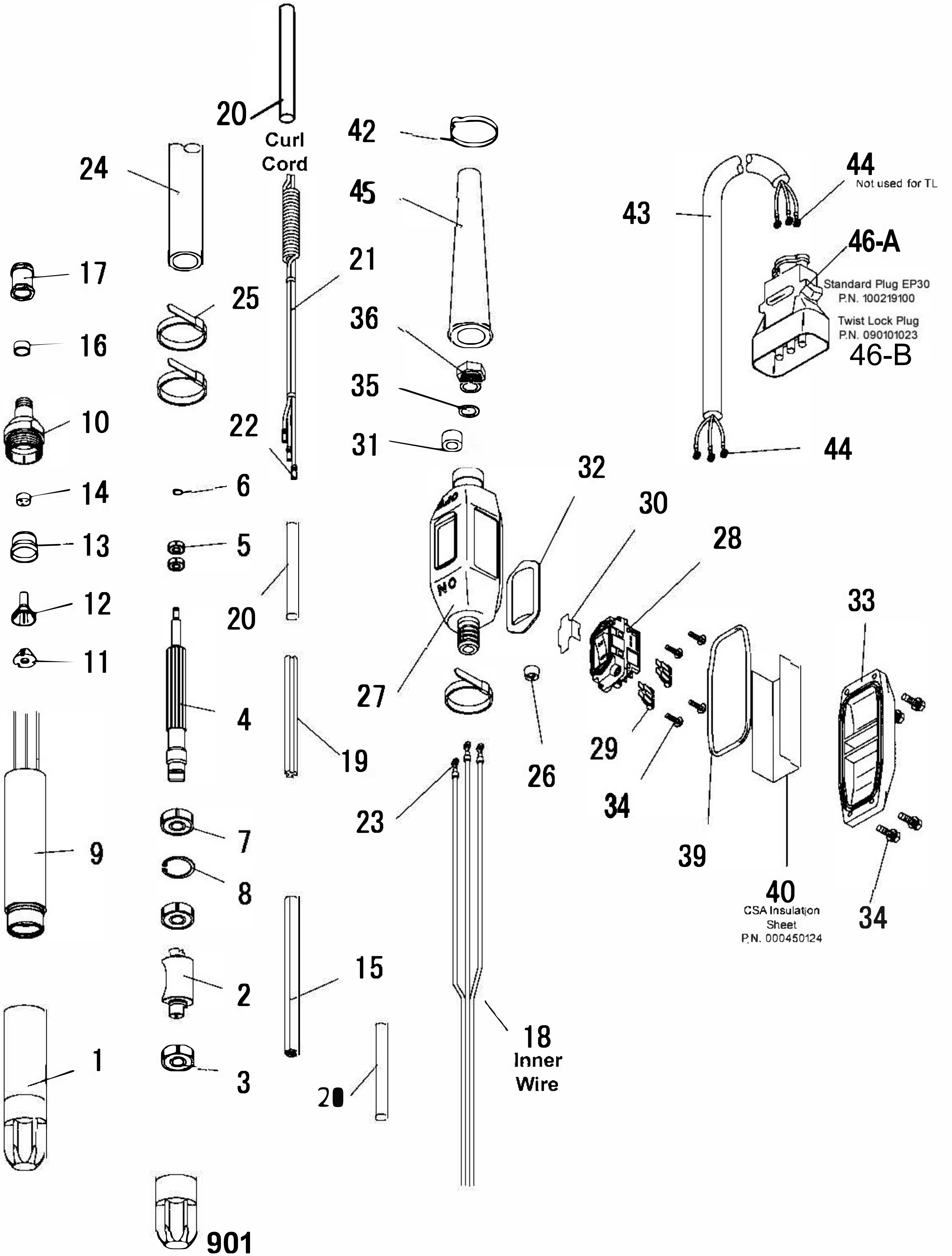


HBM 50 VF Parts List

2017

Ref #	Description	Qty	Part Number
1	Nose HBM 50 VF	1	200944000
2	Eccentric Weight HBM 50 VF	1	200941000
3	Bearing 6302JR2LLHC3	2	401067000
4	Rotor, HBM 50 VF	1	300151100
5	Bearing 607ZZC3	2	511606070
6	Retaining Ring S7	1	432100070
7	Bearing 6202JR2LLHC3	1	401065000
8	Retaining Ring R35	1	432200350
9	HBM 50 VF Motor Body (w/Stator)	1	101433000
10	Hose Joint HBM 50Z-VF	1	200053000
11	Lead Wire Guide HBM 50Z-VF (Cone)	1	300005000
12	Lead Wire Guide HBM 50Z-VF (Cone Cap)	1	300007000
13	Terminal Boot Cap (Metal) HBM50Z-VF	1	200037000
14	Stator/Lead Wire Foam Guide HBM40-60ZX & VF	1	300161000
15	Sector Tube R6.5 x 3.5 (All HBM's)	3	300187000
16	Rubber Ring M13 x 17 (All HBM's)	1	300010000
17	Hose Connector Extension (non CSA)	1	200061000
901	HBM 50 VF Nose	1	600873000
1--17	HBM 50 VF Head Assy Complete	1	100557000
18	HBM Inner Wire MTW (per ft)	length	343161245
19	Head Wire Guide (hose)	1	300012000
20	Heat Shrink Tube 3/4" x 9")	3	800004060
21	Curl Cord 1.5 meter (HBM non CSA)	1	301437000
22	Butt Splice Blue SSC	6	491614001
23	#8 Ring Blue SSC	3	491614002
24	Hose HMB-Z 21 x 36 (Per Foot)	1	338102136
25	Hose Band M38 W-14	3	470320380
26	Inner Wire guide (switch)	1	310961231
27	Switch Case HBM-ZX/VF (new) non CSA	1	301725000
28	Switch HBM (W/Fuse)	1	500158000
34	Bolt M5 x 25 SUS	8	500174000
32	Switch Packing HBM	1	310661241
33	Switch Case Cover HBM-ZX (new)	1	301724000
31	Rubber Ring M15 x 22 (HBM)	1	301643000
35	Compression Washer M15.5 x 22	1	310861231
36	Compression Nut M15.5	1	310461231
39	Seal Ring HBM (new)	1	301721000
40	Insulation Sheet HBM (non CSA)	1	310861241
45	Cord Support Boot (HBM)	1	331861253
42	Clamp Band N46	1	570300460
43	Cord 12/3 (Per FT)	length	099991005
44	#8 Ring Yellow SSC (3-TL / 6-STD)	6 or 3	491210001
	(If using twist lock plug only 3 req)		
46A	EP-30 Plug (Standard)	1	100219100
46B	Twist-Loc Plug (Male 2811)	1	090101023
29	Fuse Blade Type 30Amp	2	555200160
30	Teflon Sheet HBM	1	301751000
27-46	Power Cord Assy(No Plug) non CSA	1	341060152
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HBM40VF/50VF (ZX, 2014 and earlier)





HBM 40 VF Parts List

2017

Ref #	Description	Qty	Part Number
1	Nose HBM 40 VF	1	201298000
2	Eccentric Weight HBM 40 VF	1	201296000
3	Bearing 6202JR2LLHC3	2	401065000
4	Rotor, HBM 40 VF	1	300149100
5	Bearing 625ZZC3	2	511606250
6	Retaining Ring S5	1	432100050
7	Bearing 6002LLHC3	1	402184000
8	Retaining Ring R32	1	432200320
9	HBM 40 VF Motor Body (w/Stator)	1	101434000
10	Hose Joint HBM 40Z-VF	1	200051000
11	Lead Wire Guide HBM 40Z-VF (Cone)	1	300157000
12	Lead Wire Guide HBM 40Z-VF (Cone Cap)	1	300159100
13	Terminal Boot Cap (Metal) HBM40Z-VF	1	200059000
14	Stator/Lead Wire Foam Guide HBM40-60ZX & VF	1	300161000
15	Sector Tube R6.5 x 3.5 (All HBM's)	3	300187000
16	Rubber Ring M13 x 17 (All HBM's)	1	300010000
17	Hose Connector Extension (non CSA)	1	200061000
901	HBM 40 VF Nose	1	600871000
1-17	HBM 40 VF Head Assy Complete	1	100549000
18	HBM Inner Wire MTW (per ft)	length	343161245
19	Head Wire Guide (hose)	1	300012000
20	Heat Shrink Tube 3/4" x 9"	3	800004060
21	Curl Cord 1.5 meter (HBM non CSA)	1	301437000
22	Butt Splice Blue SSC	6	491614001
23	#8 Ring Blue SSC	3	491614002
24	Hose HMB-Z 21 x 36 (Per Foot)	1	338102136
25	Hose Band M38 W-14	3	470320380
26	Inner Wire Guide HBM (Switch)	1	310961231
27	Switch Case HBM-ZX/VF (new) non CSA	1	301725000
28	Switch HBM (W/Fuse)	1	500158000
34	Bolt M5 x 25 SUS	8	500174000
32	Switch Packing HBM	1	310661241
33	Switch Case Cover HBM-ZX (new)	1	301724000
31	Rubber Ring M15 x 22 (HBM)	1	301643000
35	Compression Washer M15.5 x 22	1	310861231
36	Compression Nut M15.5	1	310461231
39	Seal Ring HBM (new)	1	301721000
40	Insulation Sheet HBM (non CSA)	1	310861241
45	Cord Support Boot (HBM)	1	331861253
42	Clamp Band N46	1	570300460
43	Cord 12/3 (Per FT)	length	099991005
44	#8 Ring Yellow SSC (3-TL / 6-STD)	6 or 3	491210001
	(If twist lock plug 3 req)		
46-A	EP-30 Plug (Standard)	1	100219100
46-B	Twist-Loc Plug (Male 2811)	1	090101023
29	Fuse Blade Type 30Amp	2	555200160
30	Teflon Sheet HBM	1	301751000
27-46	Power Cord Assy(No Plug) non CSA	1	341060152
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