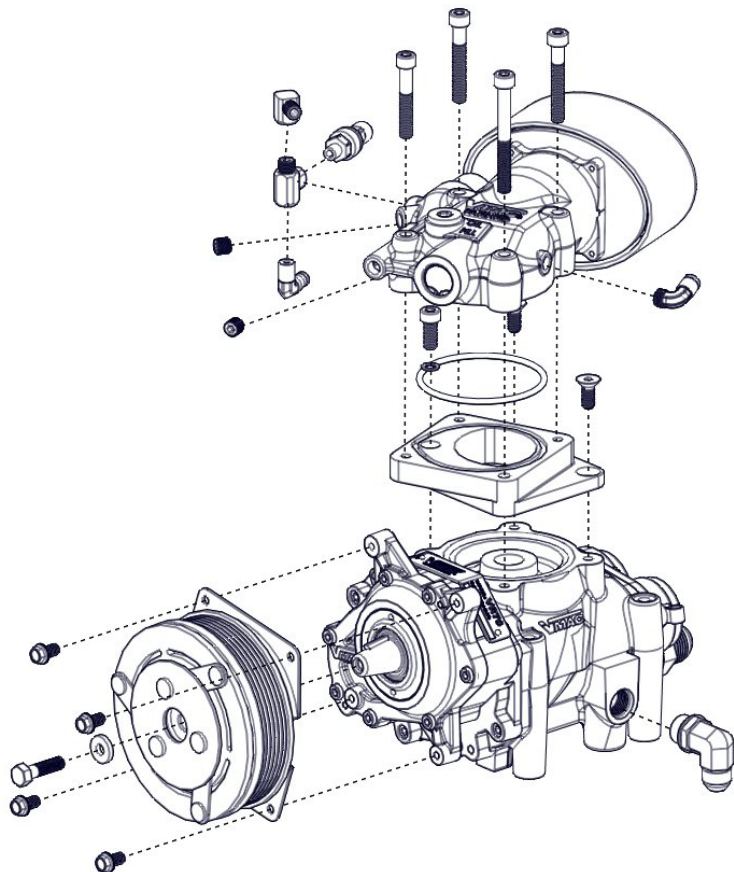


# ***UNDERHOOD***™ **40** AIR COMPRESSORS



## **Illustrated Parts List for VMAC System**

**V400003**

2010 – 2018 Mercedes Sprinter  
2010 – 2018 Freightliner Sprinter  
3.0L BlueTec V6 Diesel

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# Illustrated Parts List for VMAC System V40003

2018-2010 Mercedes Sprinter  
2018-2010 Freightliner Sprinter  
3.0L BlueTec V6 Diesel

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NOTE: Drawings are not to scale.

Document 1930337

## Changes and Revisions

Revision	Revision Details	Revised by	Checked by				Implemented
			Eng.		Tech.	Qual.	
			Mech.	Elec.			
A	ECN 17-246: ENGINEERING RELEASE	KRM	CJH	AJH	BDJ	AWG	09/MAR/2018
B	ECN 19-141: MODEL YEAR NOTES	CAM	KRM	N/A	DSB	TK	26/AUG/2019
C	ECN 22-060: FITTING UPDATE	TIK	GJM	N/A	RB	LEH	11/AUG/2022

### VMAC – Vehicle Mounted Air Compressors

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## 1. Kit Pack List

Item #	Part #	Qty	Description
1	P130012	1	COMP, VR40, FRT INLET, HORZ DISCH
2	4800685	1	ASSY, BRACKET, SPRINTER 3.0L
3	9230074	1	ASSY, MAIN, WHASP TANK
4	1610361	1	BELT, K060461
5	1800231	1	PULLEY, CRANK, VR LITE, SPRINTER, 3.0L
6	4800691	1	AIR FILTER, ASSEMBLY, V300003
7	4800684	1	INTAKE ASSEMBLY
8	4800709	1	ASSEMBLY, REMOTE MUFFLER
9	1201012	1	GUARD, CLUTCH, VR40
10	3560246	1	THROTTLE, VR40, SPRINTER
11	3550986	1	INTERFACE PANEL, VR40
12	3550987	1	CONTROL MODULE, VR40
13	3550985	1	HARNESS, VR40 CONTROL
14	3550988	1	HARNESS, VR40 POWER
15	3550989	1	HARNESS, VR40 PRESSURE
16	3550990	1	HARNESS, VR40 TEMPERATURE
17	4800790	1	SYS ID & OP INSTR, V400003
18	3801254	1	FASTENER PACK, V400003
19	1770118	1	HOSE, CRIMPED, 3/4" X 118"
20	1810118	1	HOSE, CRIMPED, 3/8" X 118"
21	1772022	1	HOSE, CRIMPED, 3/4" X 22"
22	1812030	1	HOSE, CRIMPED, 3/8" X 30"
23	A700094	1	OIL, VR, 4L, HIGH PERFORMANCE
24	1930335	1	MANUAL, OWNERS, VR40
25	1930336	1	MANUAL, INSTALLATION, V400003
26	1930337	1	ILLUSTRATED PARTS LIST, V400003

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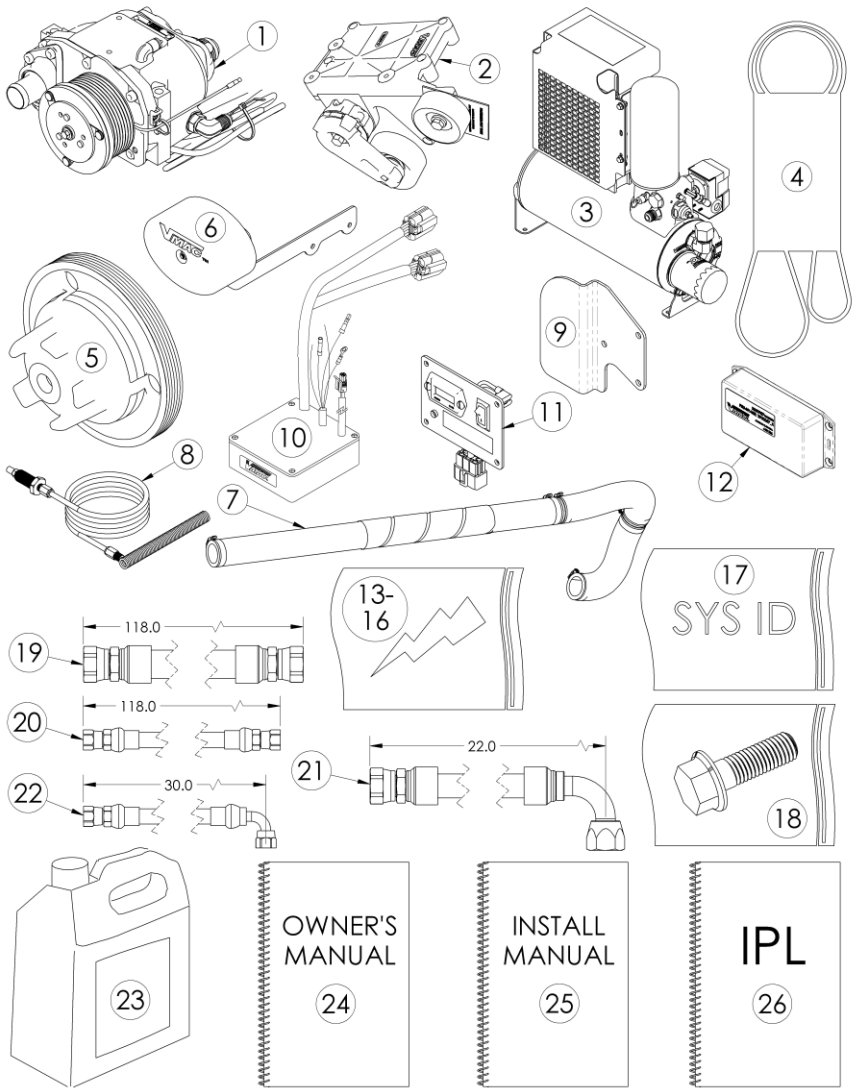


Figure 1 - Kit Pack List

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## 2. Fastener Pack, 3801254

Item #	Part #	Qty	Description
1	3801255	1	FAST PACK, MAIN BKT, V400003
1.1	1540495	2	BOLT, SHCS, M8 X 1.25 X 100, G12.9
1.2	1540248	1	BOLT, SHCS, M8 X 1.25 X 35
1.3	1540530	2	BOLT,SHCS,M8 X 1.25 X 55, G12.9 PLT
1.4	1540550	2	BOLT,SHCS,M8 X 1.25 X 50, G12.9 PLT
1.5	1540204	1	BOLT, SHCS, M8 X 1.25 X 25
1.6	1400388	1	SPACER
1.7	1500689	3	SCREW,BHSC,PL,M6X1X8MM
2	3801031	1	FASTENER PACK, HOSE ROUTING
2.1	2200147	6	CLAMP, C.R.I., 2"
2.2	1540495	1	BOLT, SHCS, M8 X 1.25 X 100, G12.9
2.3	1560407	1	NUT, NYLOCK, M8
2.4	1400387	1	SPACER
2.5	1570305	1	WASHER, FLAT G5, 5/16
2.6	1560516	3	NUT, M6 X 1.0 FL PL
2.7	1520642	3	BOLT, HHCS, M6 X 1.0 X 16MM FL
2.8	4900209	1	CONN, STEEL, #6 MJIC, BULKHEAD
2.9	4900170	1	CONN, STEEL, #12JIC - #12JIC BULKHEAD
2.10	5000178	1	CONNECTOR, BRASS BULKHEAD, 1/8
2.11	5000012	2	CONNECTOR, BRASS NPT-POLY, 1/8-1/4
2.12	4900117	1	JIC 90 DEG STEEL, SWIVEL, 3/8 – 3/8
3	3801033	1	FASTENER PACK, AIR FILTER BRACKET
3.1	1540549	2	BOLT,SHCS,M6 X 1 X 18,PLATED,G12.9
3.2	1560438	2	NUT, NYLOCK, M6
3.3	1570491	4	WASHER, FLAT, M6, PLATED
4	3801036	1	FASTENER PACK, TEFLON HOSE
4.1	1700570	25.0	TUBE, TEFLON, PTFE, 1/4"OD
4.2	1700570	140.0	TUBE, TEFLON, PTFE, 1/4"OD
4.3	2200039	10	TIE, NYLON MD, 7"
4.4	1700581	150.0	LOOM, SPLIT PLASTIC, 1/4, HIGH TEMP
4.5	1700613	30.0	SPIRAL WRAP, 1/2" ID, BLACK
4.6	1700584	30.0	SPIRAL WRAP, 1" OD, BLACK

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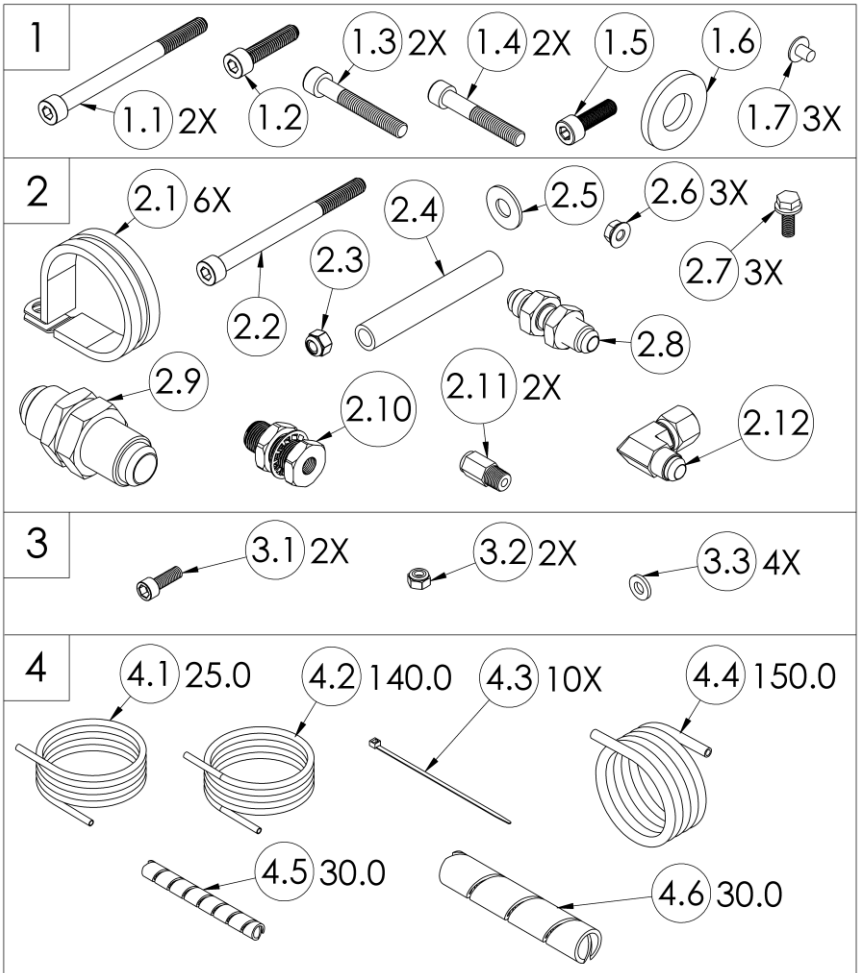


Figure 2 - Fastener Pack

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### 3. Compressor Assembly, P130012

Assembly sub-components listed below

Item #	Part #	Qty	Description
1	4900226	1	CONN, STEEL, #12 MJIC X #8 MORB
2	P200048	1	CLUTCH, COMPLETE, 8 GROOVE, 3.35
3	9230071	1	SPACER, INPUT SHAFT, VR40
4	3200520	1	PIN, FIELD COIL
5	2200250	1	TIE MOUNT, HEAT STABILIZED NYLON
6	1500623	1	SCREW,PT HD,PL F-THRD 6-32 X 1/4"
7	4900045	1	PLUG, STEEL HEX SAE/O-RING PORT
8	4900176	1	CONN, STEEL, 90, #6 JIC - #6 ORB
9	3550682	1	PROBE, ASSY, THERMISTOR, SHORT
10	5000020	1	ELBOW, BRASS NPT-POLY, 1/8-1/4
11	2200164	1	TIE, NYLON, BLACK, 8"

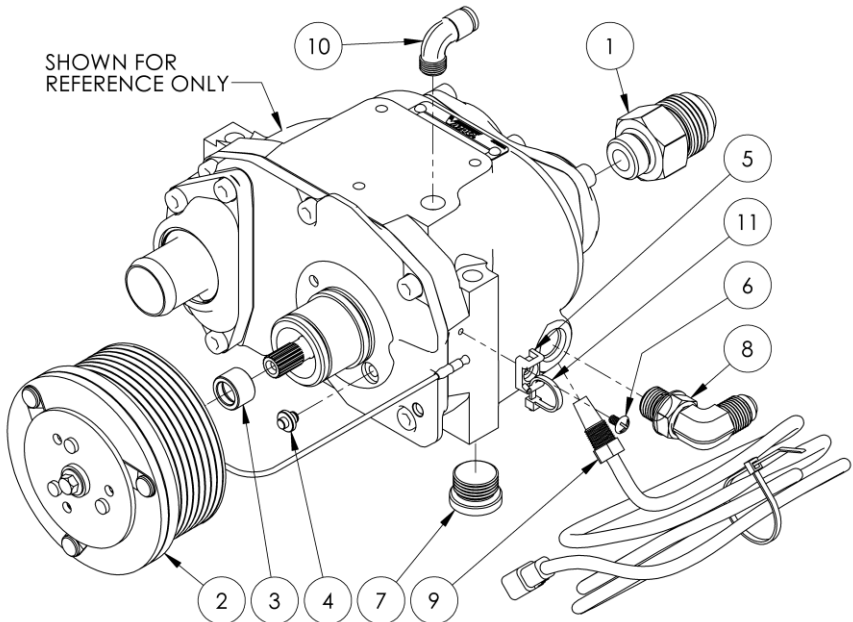


Figure 3 - Compressor Assembly

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#### 4. Main Bracket Assembly, 4800685

Assembly sub-components listed below

Item #	Part #	Qty	Description
1	1100209	1	BRACKET, MAIN, MB SPRINTER
2	1520538	1	BOLT, HHCS, FLHD, M10 X 1.50 X 35
3	1400309	1	SPACER, IDLER, 10 MM BOLT
4	1300040	1	IDLER, SERP, 6-RIB BACK, 76MM
5	3300036	1	TENSIONER 7C3Z-6B209-D

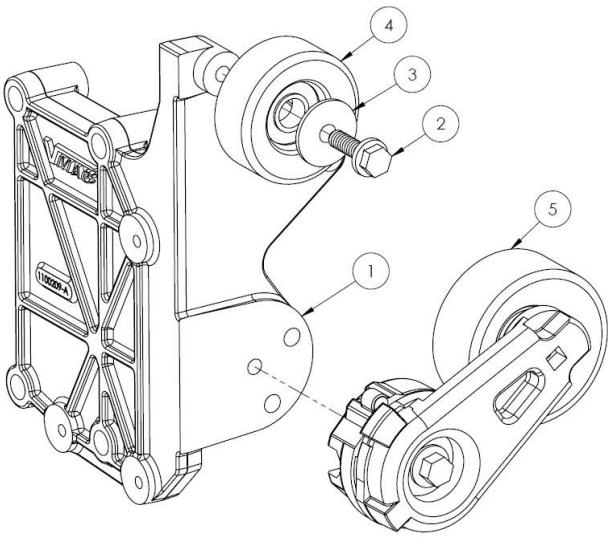


Figure 4 - Main Bracket Assembly

## 5. WHASP Tank Assembly, 9230074

Assembly sub-components listed below

Item #	Part #	Qty	Description
1	9230072	1	ASSY, SHROUD AND DECAL
2	3600079	1	OIL SEPARATOR, SPIN-ON
3	9200039	1	OIL FILTER, VR 3.250 SHORT
4	4900164	1	CAP, STEEL, #12JIC
5	3501294	1	SWITCH, PRESSURE, 50-175PSI
6	4300039	1	PIPE FTG, PLUG SKT HEAD, 3/8
7	4500104	1	MUFFLER, SINTERED EXHAUST, 1/8"
8	3600171	1	VALVE, MODIFIED (3600167)
9	4900106	1	PLUG, STEEL, #5 ORB, HEX (VITON-O)
10	3600054	1	VALVE, SAFETY 200 PSI
11	A700061	1	PYREX WINDOW KIT
12	4900175	1	CONN, STEEL, #6 JIC - #8 ORB
13	1200852	1	PLATE, MOUNT, FILTER END
14	1200847	1	PLATE, MOUNT, BOLT ON
15	1520601	4	BOLT, HHCS FL PL, M8 X 1.25 X 12
16	6000719	1	SHROUD, FAN, WHASP TANK
17	3501290	1	FAN, PULLER, 7.5"
18	4900128	1	FITTING, 12ORB -12JIC, STEEL
19	5000140	1	ELBOW, BRASS, FORGED, 90DEG, 1/8 PIPE
20	3600123	1	VALVE, CHECK, 1/8 NPT
21	5000212	1	CONNECTOR, BRASS, FNPT-POLY, 1/8-1/4
22	1520590	8	BOLT, HHCS, M6 X 1.0 X 14 FL PL
23	1560516	4	NUT, M6 X 1.0 FL PL
24	4900260	1	FTG, 90, #12MORB-#12MJIC, VITON
25	4900046	1	CONN, STL, 3/4-16 O-RING TO 1/2 TUBE

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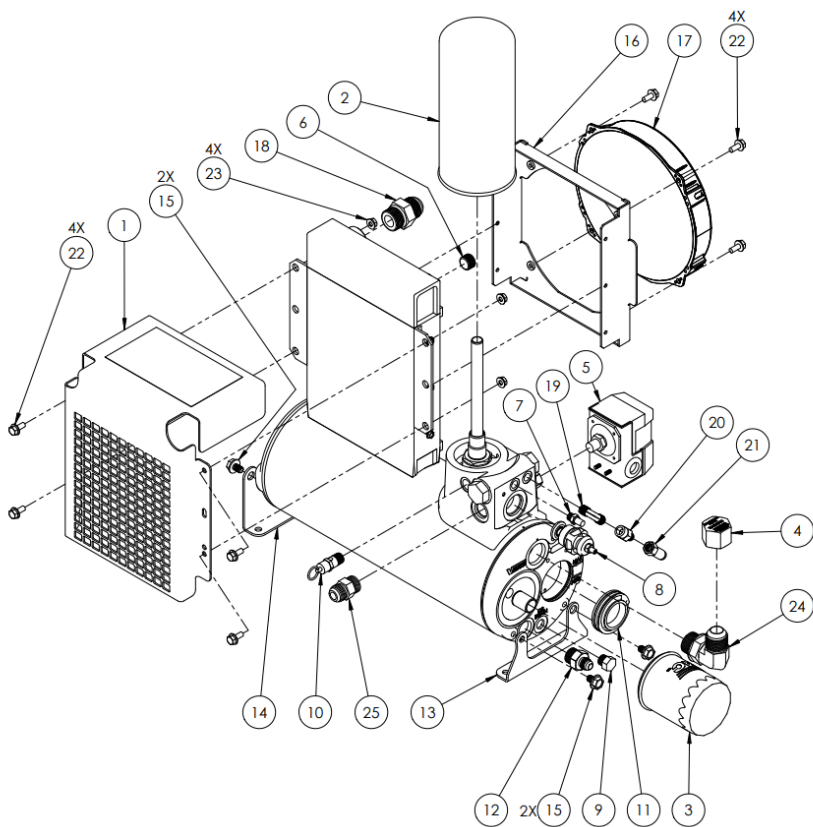


Figure 5 - WHASP Tank Assembly

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## 6. Air Filter Assembly, 4800691

Assembly sub-components listed below

Item #	Part #	Qty	Description
1	1200829	1	BRACKET, AIR FILTER
2	1540538	2	BOLT, SHCS, PL, M6 X 1.0 X 14
3	1570491	2	WASHER, FLAT, M6, PLATED
4	4800686	1	ASSEMBLY, AIR FILTER

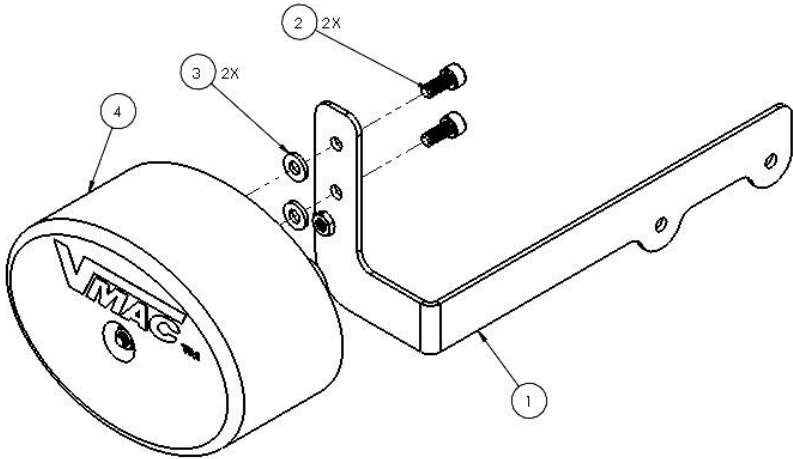


Figure 6 – Air Filter Assembly

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## 7. Air Filter Assembly, 4800686

Assembly sub-components listed below

Item #	Part #	Qty	Description
1	3600066	1	COVER, AIR FILTER, PLASTIC
2	3600037	1	FILTER ELEMENT, PAPER
3	9230016	1	WELDMENT, REMOTE AIR FILTER
4	1500584	1	STUD, FULL THREAD, PL, M6 X 1.0 X 65
5	1560523	1	NUT, JAM, PL, M6X 1.0
6	1560438	1	NUT, NYLOCK, M6
7	1570038	1	WASHER, FLAT SAE, 1/4

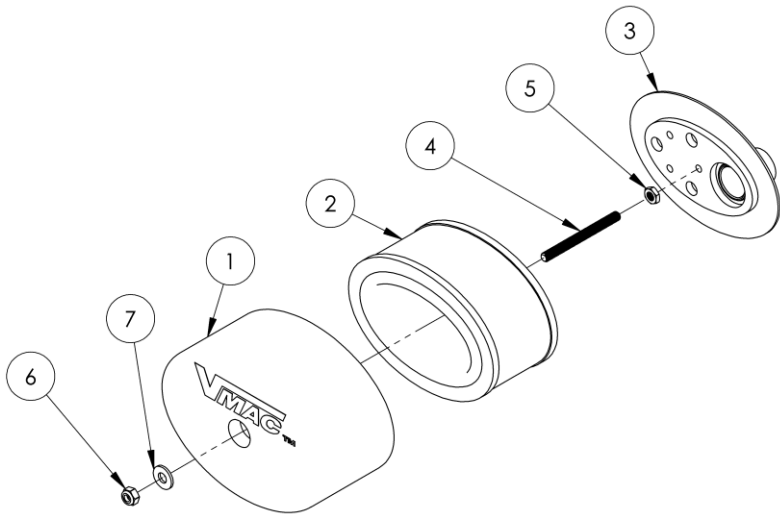


Figure 7 – Air Filter Assembly

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## 8. Wiring Harnesses

Item #	Part #	Qty	Description
1	3550985	1	HARNESS, VR40 CONTROL
2	3550988	1	HARNESS, VR40 POWER
3	3550989	1	HARNESS, VR40 PRESSURE
4	3550990	1	HARNESS, VR40 TEMPERATURE

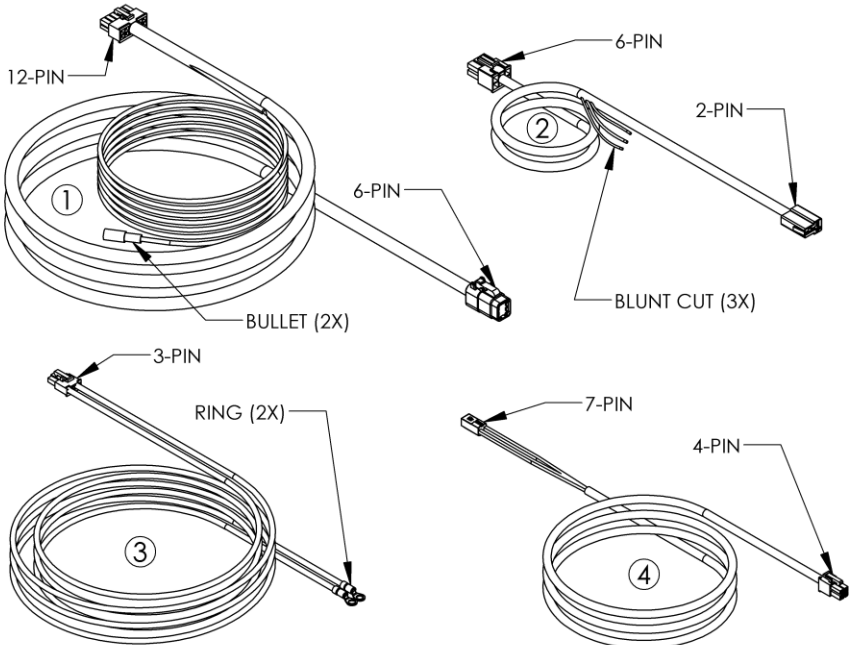


FIGURE 8 – Wire Harness Identification

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## 9. Accessory Products

Parts listed below are not included with kit - Order through your VMAC dealer

Part #	Description
<b>REGULAR SERVICE KITS</b>	
A700263	200 HOUR SERVICE KIT - VR40 <i>Oil, air and oil filters, next service decal</i>
A700264	400 HOUR SERVICE KIT - VR40 <i>200 hour kit components + coalescing filter, safety valve, blowdown muffler</i>
<b>INSTALLATION HELPER AND REPAIR KITS</b>	
3801095	FASTENER PACK, BULKHEAD FTGS <i>Fittings to route #6 &amp; #12 hoses and 1/4" PTFE tubes through bulkheads or floors</i>
A700224	ACCESSORY PACK, REMOTE MUFFLER <i>Tubing and fittings to relocate WHASP blowdown muffler through bulkheads or floors</i>
A700268	KIT, PTFE TUBE, SCAVENGE <i>Generic parts kit for scavenge tube replacement</i>
A700265	INTERFACE EXTENSION, VR40, 10' <i>Electrical extension harness for user interface panel</i>
<b>INDIVIDUAL FITTINGS</b>	
5000158	ELBOW, BRASS 45 DEG NPT-POLY 1/8-1/4 <i>45° 1/8 MNPT – 1/4" push connect fitting</i>
5000020	ELBOW, BRASS NPT-POLY, 1/8-1/4 <i>90° 1/8 MNPT – 1/4" push connect fitting</i>
5000012	CONNECTOR, BRASS NPT-POLY, 1/8-1/4 <i>Straight 1/8 MNPT – 1/4" push connect fitting</i>
4900117	JIC 90 DEG STEEL, SWIVEL, 3/8 -3/8 <i>90° #6 MJIC - #6 FJIC swivel fitting</i>
4900043	ELBOW, STEEL JIC/JIC SWIVEL, 3/4 <i>90° #12 MJIC - #12 FJIC swivel fitting</i>
<b>AIR HANDLING AND STORAGE</b>	
A700007	HOSE REEL, DRESSED, 1/2 X 50 <i>Auto-retract, 1/2" ID x 50' long hose, 1/2 NPT connections</i>
A800070	AFTERCOOLER, ELIMINATOR70, 70CFM <i>Cools and dries discharge air, 12V fan, 3/4 NPT connections</i>
A700151	FILTER-REGULATOR-LUBRICATOR <i>Conditions discharge air, 3/4 NPT connections, tool oil not included</i>
A300045	TANK, AIR RECEIVER 6 GAL C/W FTGS <i>6 gal wing tank, includes fittings, safety + drain valves, 3/4 NPT ports</i>
A300047	TANK, AIR RECEIVER 10 GAL C/W FTG <i>10 gal surface mount tank, includes fittings, gauge, safety + drain valves, 3/4 NPT ports</i>
A300010	TANK, WING 35 GAL C/W FTG <i>35 gal wing tank, includes fittings, gauge, safety + drain valves, 1 1/2 NPT ports</i>

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