REPAIR PARTS

AVZC20 Heat Pump Inverter

AVZC200241AD
AVZC200241AE
AVZC200241AF
AVZC200241AG
AVZC200361AD
AVZC200361AE
AVZC200361AF
AVZC200481AD
AVZC200481AE
AVZC200481AF
AVZC200601AD
AVZC200601AE



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This manual is to be used by qualified technicians only.

This manual replaces RP-A4319B.

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Functional Parts List 3

Illustration and Parts ..... 4 - 13

Views shown are for parts illustrations only, not servicing procedures

Text Codes:

AR - As Required
NA - Not Available
NS - Not Shown
00000000 - See Note
QTY - Quantity Example (QTY 3) (If Quantity not shown, Quantity = 1)
M - Model Example (M1) (If M Code not shown, then part is used on all Models)

Expanded Model Nomenclature:

Example
M1 - Model#1
M2 - Model#2
M3 - Model#3

Goodman Company, L.P. is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

Warranty service must be performed by an authorized technician, using authorized factory parts. If service is required after the warranty expires, Goodman Company, L.P. also recommends contacting an authorized technician and using authorized factory parts.

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For assistance within the U.S.A. contact:
Homeowner Support
Goodman Company, L.P.
19001 Kermier Road
Waller, Texas 77484
877-254-4729-Telephone
713-863-2382-Facsimile

For assistance outside the U.S.A. contact:
International Division
Goodman Company, L.P.
19001 Kermier Road
Waller, Texas 77484
713-861-2500-Telephone
713-863-2382-Facsimile

Functional Parts

Part No:	Description:
0151R00097	3/4" BALL VALVE (M1, M2, M3, M4)
0151R00081	7/8" BALL VALVE (M5, M6, M7, M8, M9, M10, M11, M12)
0151L00021	ACCUMULATOR (M11, M12)
0151L00020	ACCUMULATOR (M5, M6, M7, M8, M9, M10)
0151L00019	ACCUMULATOR (M1, M2, M3, M4)
0151R00167	BASE VALVE 3/8"
3E600193-1	CAPACITOR (M11, M12)
4SA27011-1	CHECK VALVE (M5, M6, M7, M8, M9, M10)
4SA27006-1	CHECK VALVE
0156R00009	COMPRESSOR 2YC36MXD (M1, M2, M3, M4)
0156R00013	COMPRESSOR 2YC90FXD (M5, M6, M7, M8, M9, M10)
0156R00015	COMPRESSOR JT100GCVDW (M11, M12)
3P130357-15	CRANKCASE HEATER (M11, M12)
3EA74081-1	CURRENT SENSOR, CHR-6Z-E-X (M11, M12)
3P356931-1	FAN MOTOR
R3269031-3	FILTER, OIL SEPARATOR
3P381424-2	HIGH PRESSURE SWITCH
3S500031-1	MOTOR OPERATED VALVE BODY (M5, M6, M7, M8, M9, M10, M11, M12)
2P346080-1	NF PCB (M5, M6, M7, M8, M9, M10, M11, M12)
0151R00144	OIL SEPARATOR
0272R00985	PCB assy (M1, M2, M3)
0272R01535	PCB ASSY (M10)
0272R01534	PCB ASSY (M7)
0272R01533	PCB ASSY (M4)
0272R00997	PCB assy (M11, M12)
0272R00988	PCB assy (M5, M6)
0272R00991	PCB assy (M8, M9)
2P361564-1	PCB, FAN DRIVE, INVERTER (M11, M12)
3E750074-1	POWER CONDITIONER (M1, M2, M3, M4)
3P362914-1	POWER CONDITIONER (M11, M12)
3S481010-1	PRESSURE SENSOR
3S500032-1	PULSE MOTOR EXPANS EEV (M1, M2, M3, M4)
0151R00099	REVERSING VALVE (M1, M2, M3, M4)
0151R00101	REVERSING VALVE (M5, M6, M7, M8, M9, M10, M11, M12)
0130M00692	SHARED DATA (M7)
0130M00571	SHARED DATA
0130M00572	SHARED DATA
0130M00573	SHARED DATA
0130M00691	SHARED DATA (M4)
0130M00693	SHARED DATA (M10)
0130M00574	SHARED DATA
B1225022	Solenoid Coil
0130M00186	TERMINAL BLOCK
3P381576-1	THERMISTOR AMBIENT
3P381575-1	THERMISTOR ASSY
0130M00187	TRANSFORMER

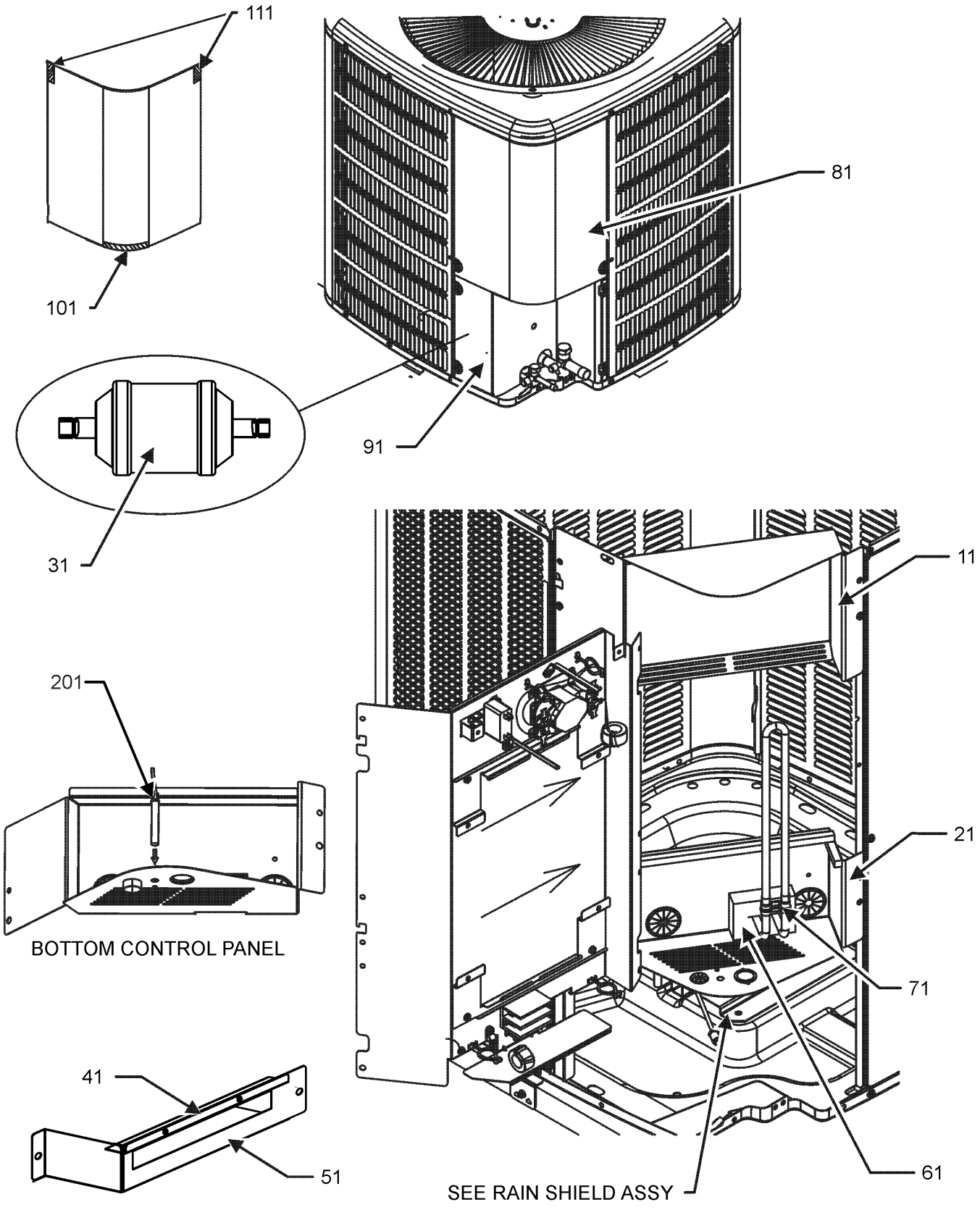
SPECIAL PARTS

0161R00086	CAP,GRILL
0161R00087	NAMEPLATE, AMANA LOGO
0361R00000	THERMAL GREASE

Expanded Model Nomenclature

M1 - AVZC200241AD
M2 - AVZC200241AE
M3 - AVZC200241AF
M4 - AVZC200241AG
M5 - AVZC200361AD
M6 - AVZC200361AE
M7 - AVZC200361AF
M8 - AVZC200481AD
M9 - AVZC200481AE
M10 - AVZC200481AF
M11 - AVZC200601AD
M12 - AVZC200601AE

Control Box Assembly



Control Box Assembly

Ref. No:	Part No:	Description:	Ref. No:	Part No:	Description:

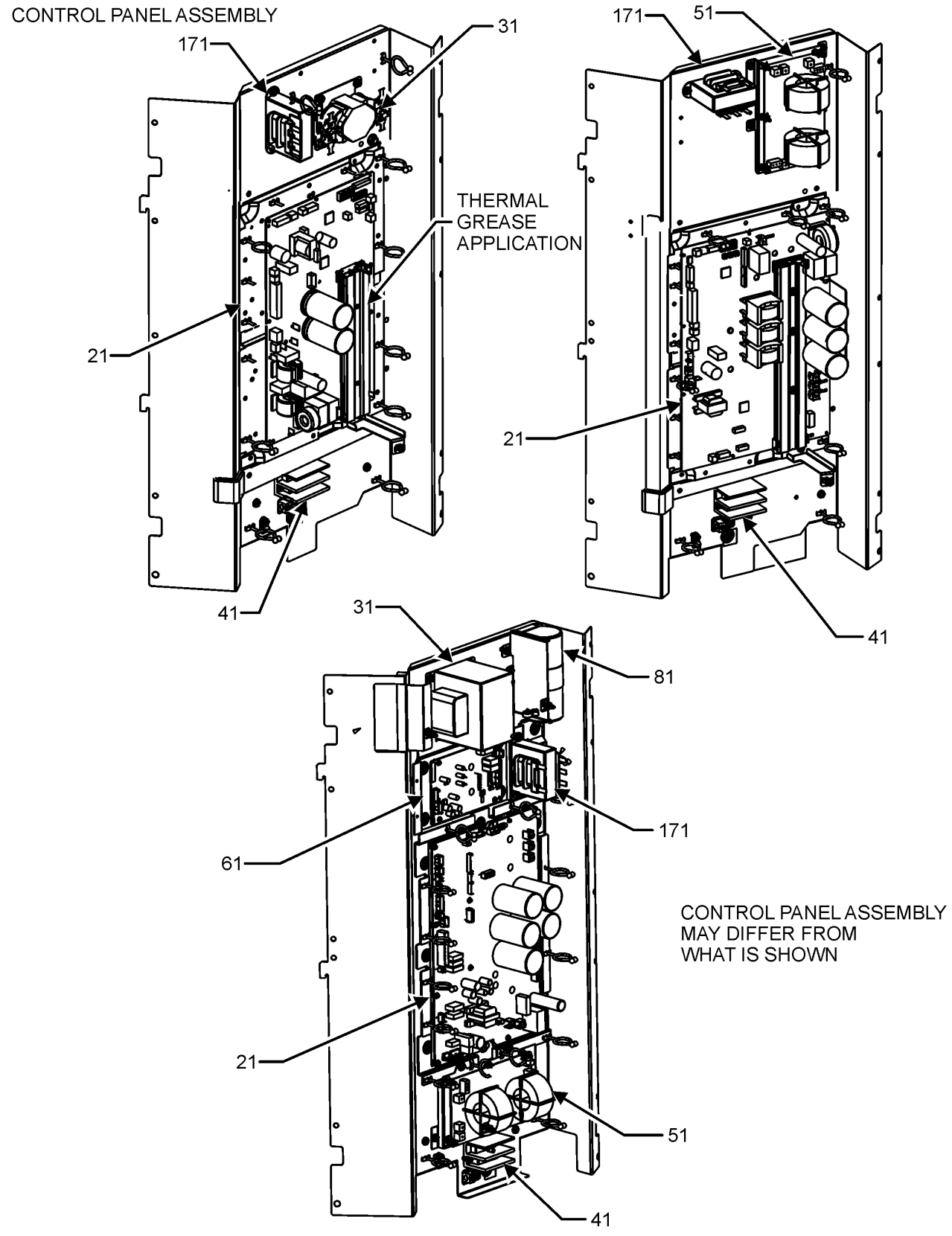
Image 1:

11	0121R00519PDG	TOP CONTROL PANEL (M11, M12)
11	0272R01007PDG	TOP CONTROL PANEL ASSY (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)
21	0121R00521PDG	CONTROL PANEL, BOTTOM
31	20485201	BI-FLOW FILTER DRIER
41	0121R00562	RAIN SHIELD COVER
51	0121R00563	Rain shield bracket
61	0154R00016	GASKET - CONTROL PANEL
71	4P305027-1	COOLING LOOP SEPARATOR (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)
81	0121R00380PDG	CONTROL COVER (M1, M2, M3, M4)
81	0121R00517PDG	CONTROL COVER (M5, M6, M7, M8, M9, M10, M11, M12)
91	0121R00379PDG	PANEL, LOWER ACCESS
101	0154R00023	GASKET, CONTROL PANEL COVER
111	0154R00017	GASKET - CONTROL PANEL (QTY 2)
201	3P381576-1	THERMISTOR AMBIENT
NS	0161R00086	CAP, GRILL
NS	0154R00015	GASKET - TOP CONTROL PANEL (QTY 2)
NS	0161R00087	NAMEPLATE, AMANA LOGO

Expanded Model Nomenclature

M1 - AVZC200241AD
M2 - AVZC200241AE
M3 - AVZC200241AF
M4 - AVZC200241AG
M5 - AVZC200361AD
M6 - AVZC200361AE
M7 - AVZC200361AF
M8 - AVZC200481AD
M9 - AVZC200481AE
M10 - AVZC200481AF
M11 - AVZC200601AD
M12 - AVZC200601AE

Control Panel Assembly



Control Panel Assembly

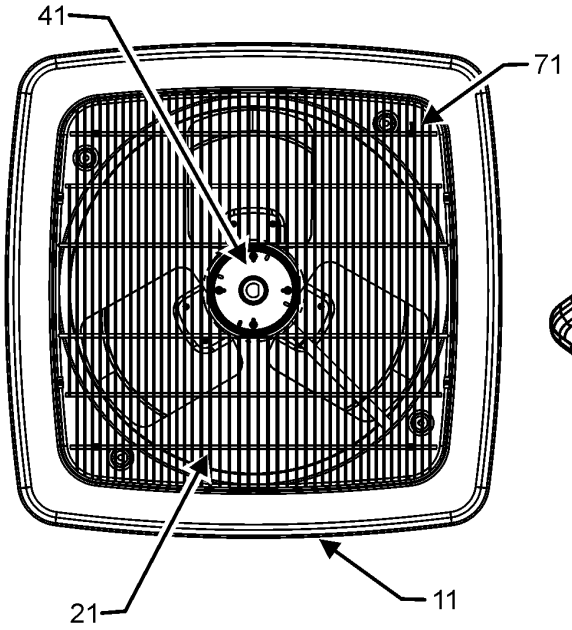
Ref. No:	Part No:	Description:
Image 1:		
21	0272R00985	PCB assy (M1, M2, M3)
21	0272R00988	PCB assy (M5, M6)
21	0272R00991	PCB assy (M8, M9)
21	0272R00997	PCB assy (M11, M12)
21	0272R01533	PCB ASSY (M4)
21	0272R01534	PCB ASSY (M7)
21	0272R01535	PCB ASSY (M10)
31	3E750074-1	POWER CONDITIONER (M1, M2, M3, M4)
31	3P362914-1	POWER CONDITIONER (M11, M12)
41	0130M00186	TERMINAL BLOCK
51	2P346080-1	NF PCB (M5, M6, M7, M8, M9, M10, M11, M12)
61	2P361564-1	PCB, FAN DRIVE, INVERTER (M11, M12)
81	3E600193-1	CAPACITOR (M11, M12)
171	0130M00187	TRANSFORMER
NS	3EA74081-1	CURRENT SENSOR, CHR-6Z-E-X (M11, M12)
NS	3P263839-1	FERRITE CORE
NS	0163M00075	FLANGE NUT, SERRATED
NS	0154R00018	GASKET - MOUNTING PANEL (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)
NS	0154R00019	GASKET - MOUNTING PANEL (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)
NS	0154R00024	GASKET, CONTROL PANEL (M11, M12)
NS	0154R00025	GASKET, CONTROL PANEL (M11, M12)
NS	0163M00092	SCREW, HWH, 10-24X.500,BZ,SLOT
NS	0130M00571	SHARED DATA
NS	0130M00572	SHARED DATA
NS	0130M00573	SHARED DATA
NS	0130M00574	SHARED DATA
NS	0130M00691	SHARED DATA (M4)
NS	0130M00692	SHARED DATA (M7)
NS	0130M00693	SHARED DATA (M10)
NS	0361R00000	THERMAL GREASE
NS	3P381575-1	THERMISTOR ASSY
NS	0130M00210	WIRE HARNESS (M5, M6, M7, M8, M9, M10)
NS	0130M00211	WIRE HARNESS (M5, M6, M7, M8, M9, M10)
NS	0130M00212	WIRE HARNESS (M11, M12)
NS	0130M00213	WIRE HARNESS (M11, M12)
NS	0130M00214	WIRE HARNESS (M11, M12)
NS	0130M00215	WIRE HARNESS (M11, M12)
NS	0130M00217	WIRE HARNESS (M11, M12)
NS	0130M00218	WIRE HARNESS (M11, M12)
NS	0130M00219	WIRE HARNESS (M11, M12)
NS	0130M00220	WIRE HARNESS (M1, M2, M3, M4)
NS	0130M00221	WIRE HARNESS (M1, M2, M3, M4)
NS	0130M00222	WIRE HARNESS (M1, M2, M3, M4)
NS	0130M00223	WIRE HARNESS (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)
NS	0130M00227	WIRE HARNESS
NS	0130M00188	WIRE HARNESS ASSY (M5, M6, M7, M8, M9, M10)
NS	0130M00189	WIRE HARNESS ASSY (M11, M12)
NS	0130M00194	WIRE HARNESS ASSY (M1, M2, M3, M4)
NS	0130M00195	WIRE HARNESS ASSY (M5, M6, M7, M8, M9, M10)
NS	0130M00201	WIRE HARNESS ASSY (M11, M12)
NS	0130M00202	WIRE HARNESS ASSY (M11, M12)
NS	0130M00206	WIRE HARNESS ASSY (M1, M2, M3, M4)
NS	0130M00225	WIRE HARNESS ASSY (M11, M12)

Expanded Model Nomenclature

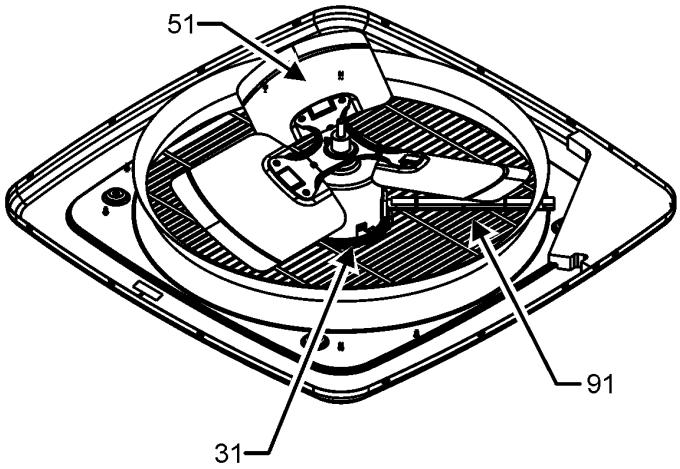
M1 - AVZC200241AD
M2 - AVZC200241AE
M3 - AVZC200241AF
M4 - AVZC200241AG
M5 - AVZC200361AD
M6 - AVZC200361AE
M7 - AVZC200361AF
M8 - AVZC200481AD
M9 - AVZC200481AE
M10 - AVZC200481AF
M11 - AVZC200601AD
M12 - AVZC200601AE

Top and Side Panel Assembly

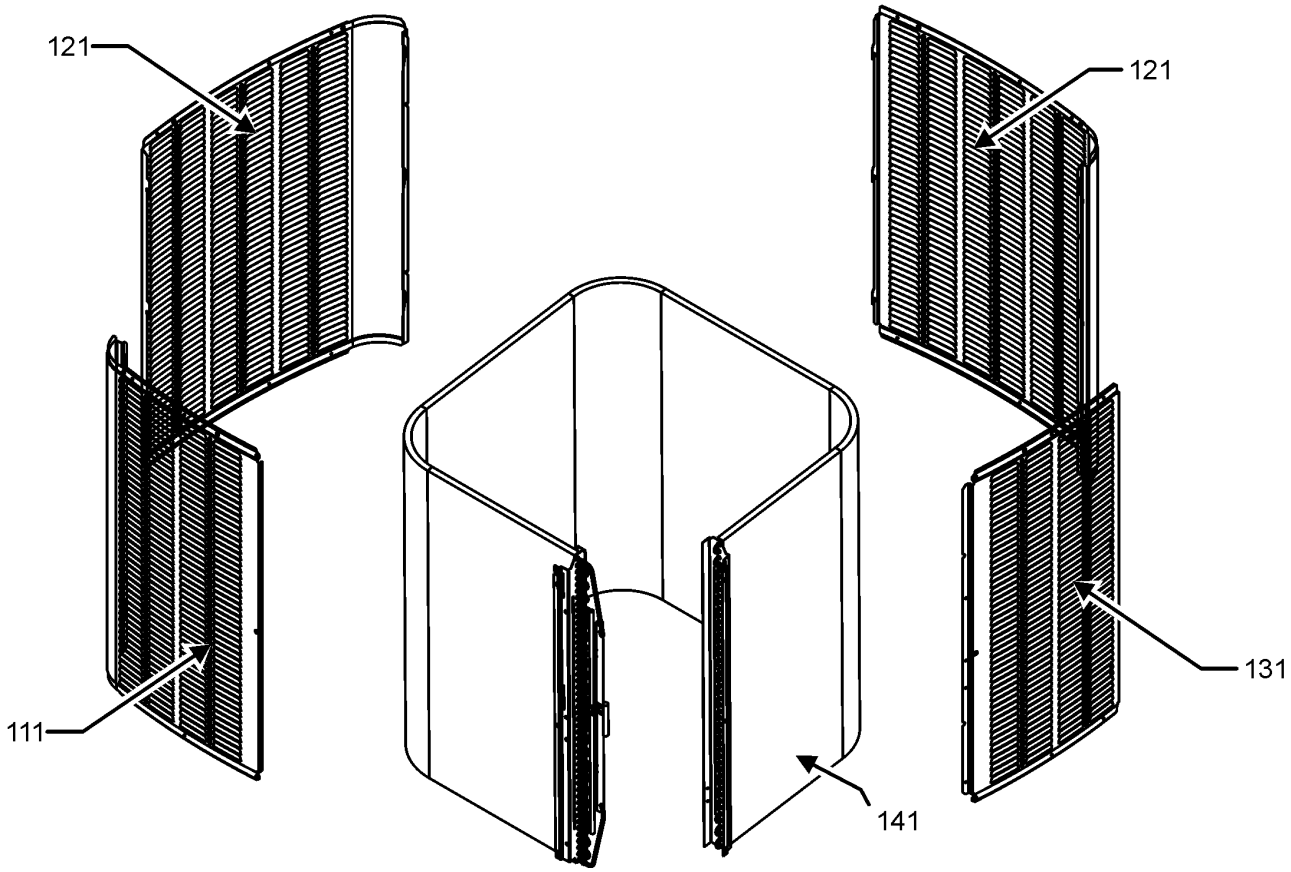
TOP PANEL ASSEMBLY
TOP VIEW



TOP PANEL ASSEMBLY
BOTTOM VIEW



LOUVER PANEL ASSEMBLY



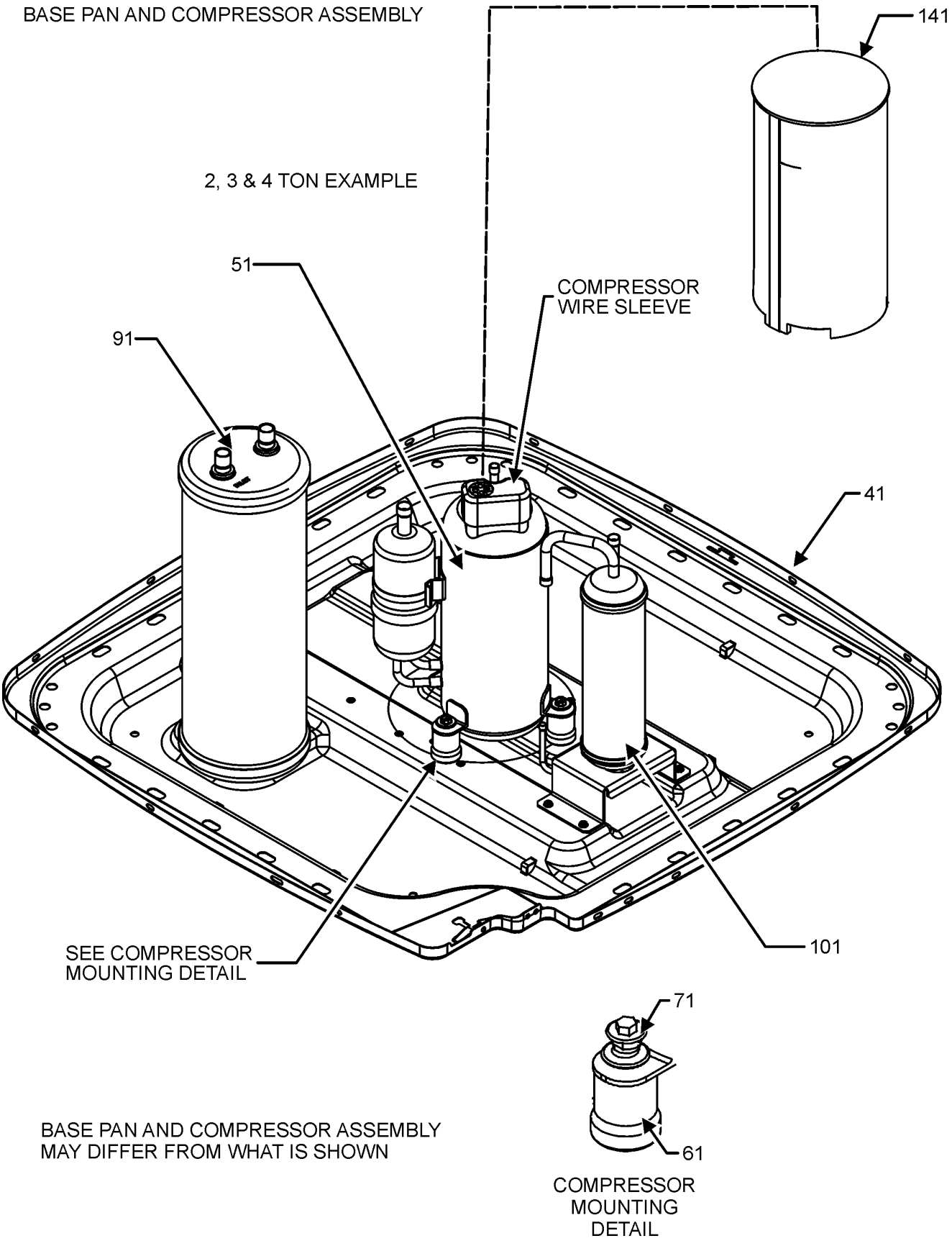
Top and Side Panel Assembly

Ref. No:	Part No:	Description:
Image 1:		
11	0121R00013PDG	PANEL, VENTURI 35"
21	0152R00016	GRILLE, WIRE 35" TOP
31	3P356931-1	FAN MOTOR
41	M0280801	HEX NUT (QTY 4)
51	10625738	FAN BLADE 26" ALUM CCW
71	0163M00003P	SCREW #10 X 1/2, A, SLOT, SR, BLACK (QTY 8)
91	0163M00385	CONDUIT-FLEXIBLE
111	0121R00363LG	PANEL 1, BENT LOUVER ASSY (M1, M2, M3, M4)
111	0121R00513LG	PANEL 1, BENT LOUVER ASSY (M5, M6, M7, M8, M9, M10, M11, M12)
121	0121R00364LG	PANEL 2, BENT LOUVER ASSY (M1, M2, M3, M4)
121	0121R00514PLG	PANEL 2, BENT LOUVER ASSY (M5, M6, M7, M8, M9, M10, M11, M12)
131	0121R00365LG	PAINTED LOUVER PANEL 3 ASSY (M1, M2, M3, M4)
131	0121R00515LG	PAINTED LOUVER PANEL 3 ASSY (M5, M6, M7, M8, M9, M10, M11, M12)
141	0201R00505	COIL TBG, 36.38xL, 22mm CTC (M1, M2, M3, M4)
141	0201R00550	COIL TBG, 39.85xL .22mm CTC (M11, M12)
141	0201R00508	COIL TBG, 39.85xL, 22mm CTC (M5, M6, M7, M8, M9, M10)
NS	0121R00480	ADAPTER PLATE (M1, M2, M3, M4)
NS	0121R00482	ADAPTER PLATE (M5, M6, M7, M8, M9, M10, M11, M12)

Expanded Model Nomenclature

M1 - AVZC200241AD
M2 - AVZC200241AE
M3 - AVZC200241AF
M4 - AVZC200241AG
M5 - AVZC200361AD
M6 - AVZC200361AE
M7 - AVZC200361AF
M8 - AVZC200481AD
M9 - AVZC200481AE
M10 - AVZC200481AF
M11 - AVZC200601AD
M12 - AVZC200601AE

Base Pan and Compressor Assy



Base Pan and Compressor Assy

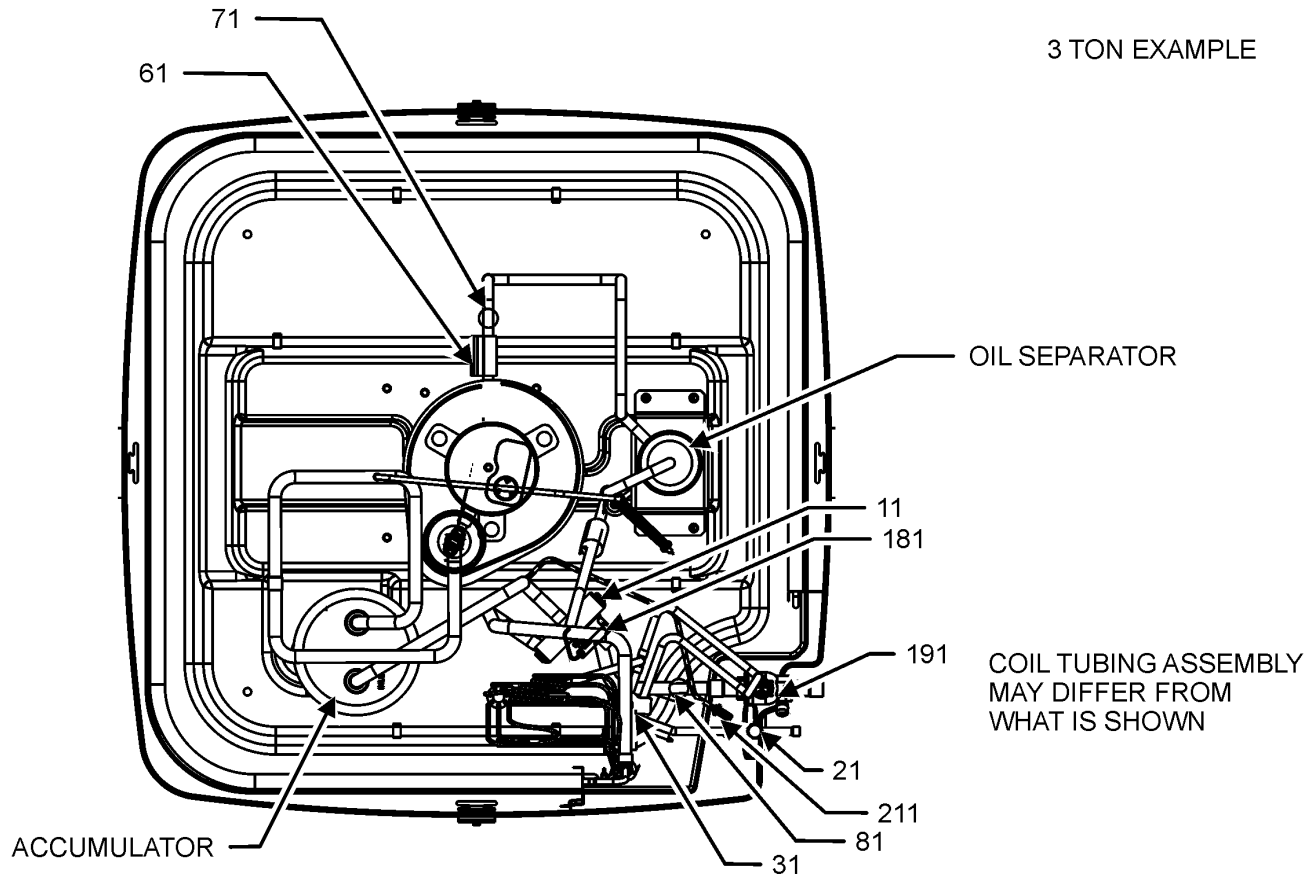
Ref. No:	Part No:	Description:
Image 1:		
41	0121R00007PDG	BASE PAN, 35.5"
51	0156R00009	COMPRESSOR 2YC36MXD (M1, M2, M3, M4)
51	0156R00013	COMPRESSOR 2YC90FXD (M5, M6, M7, M8, M9, M10)
51	0156R00015	COMPRESSOR JT100GCVDW (M11, M12)
61	0164M00027	RUBBER GROMMET (M5, M6, M7, M8, M9, M10, M11, M12)
61	0164M00028	RUBBER GROMMET (M1, M2, M3, M4)
71	0163R00018	SCREW-SHOULDER TF (M5, M6, M7, M8, M9, M10, M11, M12)
71	0163R00020	SCREW-SHOULDER TF (M1, M2, M3, M4)
91	0151L00019	ACCUMULATOR (M1, M2, M3, M4)
91	0151L00020	ACCUMULATOR (M5, M6, M7, M8, M9, M10)
91	0151L00021	ACCUMULATOR (M11, M12)
101	0151R00144	OIL SEPARATOR
141	0160M00007	COMPRESSOR BLANKET (M1, M2, M3, M4)
141	0160M00008	COMPRESSOR BLANKET (M5, M6, M7, M8, M9, M10)
141	0160M00009	COMPRESSOR BLANKET (M11, M12)
NS	0163R00023	ACCUMULATOR, NUT
NS	0159R00012	COMPRESSOR WIRE HARNESS (M1, M2, M3, M4)
NS	0159R00013	COMPRESSOR WIRE HARNESS (M5, M6, M7, M8, M9, M10)
NS	0159R00014	COMPRESSOR WIRE HARNESS (M11, M12)
NS	3P130357-15	CRANKCASE HEATER (M11, M12)
NS	R3269031-3	FILTER, OIL SEPARATOR

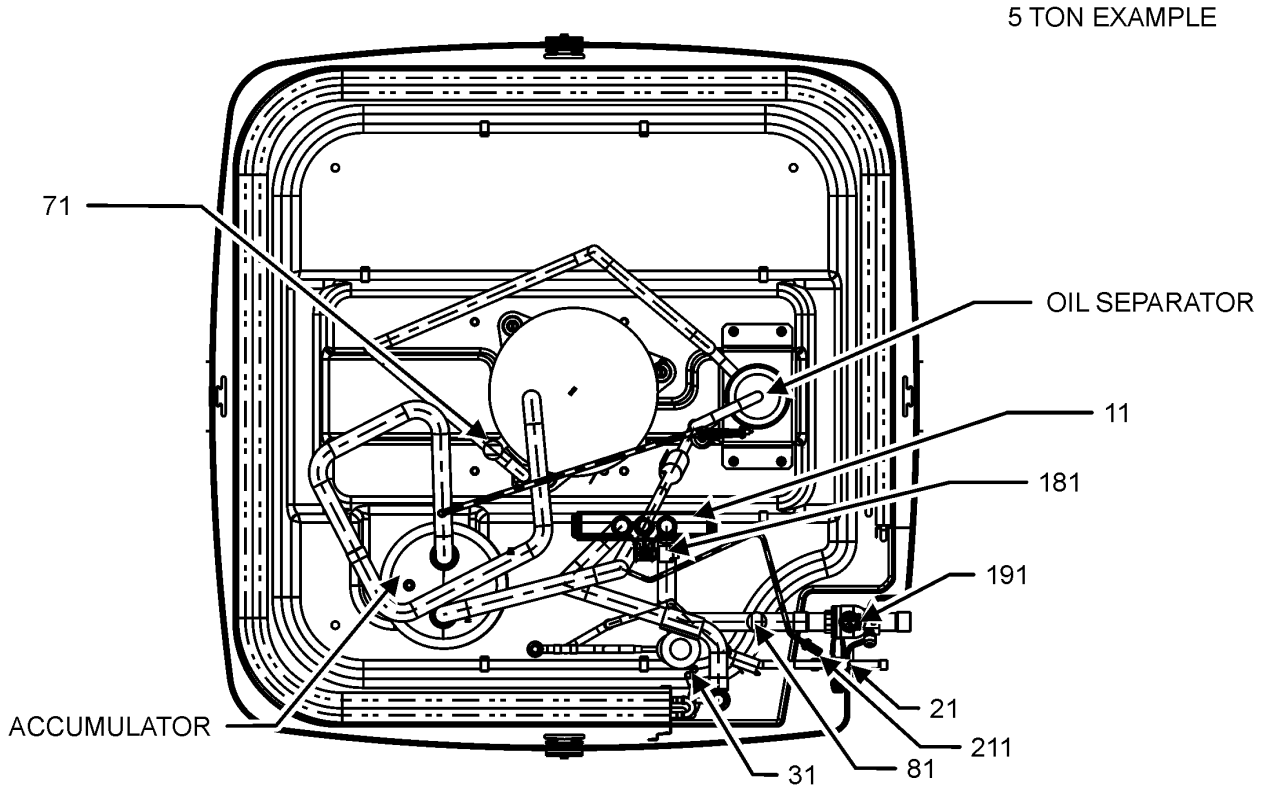
Expanded Model Nomenclature

M1 - AVZC200241AD
M2 - AVZC200241AE
M3 - AVZC200241AF
M4 - AVZC200241AG
M5 - AVZC200361AD
M6 - AVZC200361AE
M7 - AVZC200361AF
M8 - AVZC200481AD
M9 - AVZC200481AE
M10 - AVZC200481AF
M11 - AVZC200601AD
M12 - AVZC200601AE

Tubing Assembly

COIL TUBING ASSEMBLY





Tubing Assembly

Ref. No:	Part No:	Description:	Ref. No:	Part No:	Description:
Image 1:					
11	0151R00099	REVERSING VALVE (M1, M2, M3, M4)			
11	0151R00101	REVERSING VALVE (M5, M6, M7, M8, M9, M10, M11, M12)			
21	0151R00167	BASE VALVE 3/8"			
31	3P381420-1	EV COIL (M5, M6, M7, M8, M9, M10, M11, M12)			
31	3S400083-1	MOTOR OPERATED VALVE COIL (M1, M2, M3, M4)			
61	4PA17856-4	THERMISTOR HOUSING TUBE			
71	3P381424-2	HIGH PRESSURE SWITCH			
81	3S481010-1	PRESSURE SENSOR			
181	0130M00409	REVERSING VALVE CABLE			
191	0151R00097	3/4" BALL VALVE (M1, M2, M3, M4)			
191	0151R00081	7/8" BALL VALVE (M5, M6, M7, M8, M9, M10, M11, M12)			
211	B1787000	VALVE CORE			
NS	4SA27006-1	CHECK VALVE			
NS	4SA27011-1	CHECK VALVE (M5, M6, M7, M8, M9, M10)			
NS	3S500031-1	MOTOR OPERATED VALVE BODY (M5, M6, M7, M8, M9, M10, M11, M12)			
NS	4PA38890-1	MOUNTING SPRING,THERMISTOR (QTY 4)			
NS	R3269031-7	OIL RETURN FILTER (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)			
NS	3S500032-1	PULSE MOTOR EXPANS EEV (M1, M2, M3, M4)			
NS	0130M00409	REVERSING VALVE CABLE			
NS	B1225022	Solenoid Coil			
NS	4PA55176-1	WATER PROOF CAP			

Expanded Model Nomenclature

M1 - AVZC200241AD
M2 - AVZC200241AE
M3 - AVZC200241AF
M4 - AVZC200241AG
M5 - AVZC200361AD
M6 - AVZC200361AE
M7 - AVZC200361AF
M8 - AVZC200481AD
M9 - AVZC200481AE
M10 - AVZC200481AF
M11 - AVZC200601AD
M12 - AVZC200601AE