

ROYAL CANADIAN AIR FORCE



PART LIST

IGNITION HARNESS FOR
PRATT AND WHITNEY
ENGINES

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

25 FEB 57

LIST OF RCAF REVISIONS

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PART 1

INTRODUCTION

1 This Part List describes the parts for the ignition harness of all Pratt and Whitney Wasp engines.

2 The Part List is compiled of a Group Assembly Part List with Illustrations and a Numerical Part List.

3 The asterisk (*) precedes all parts that are non-procurable.

PART 2
PART LIST

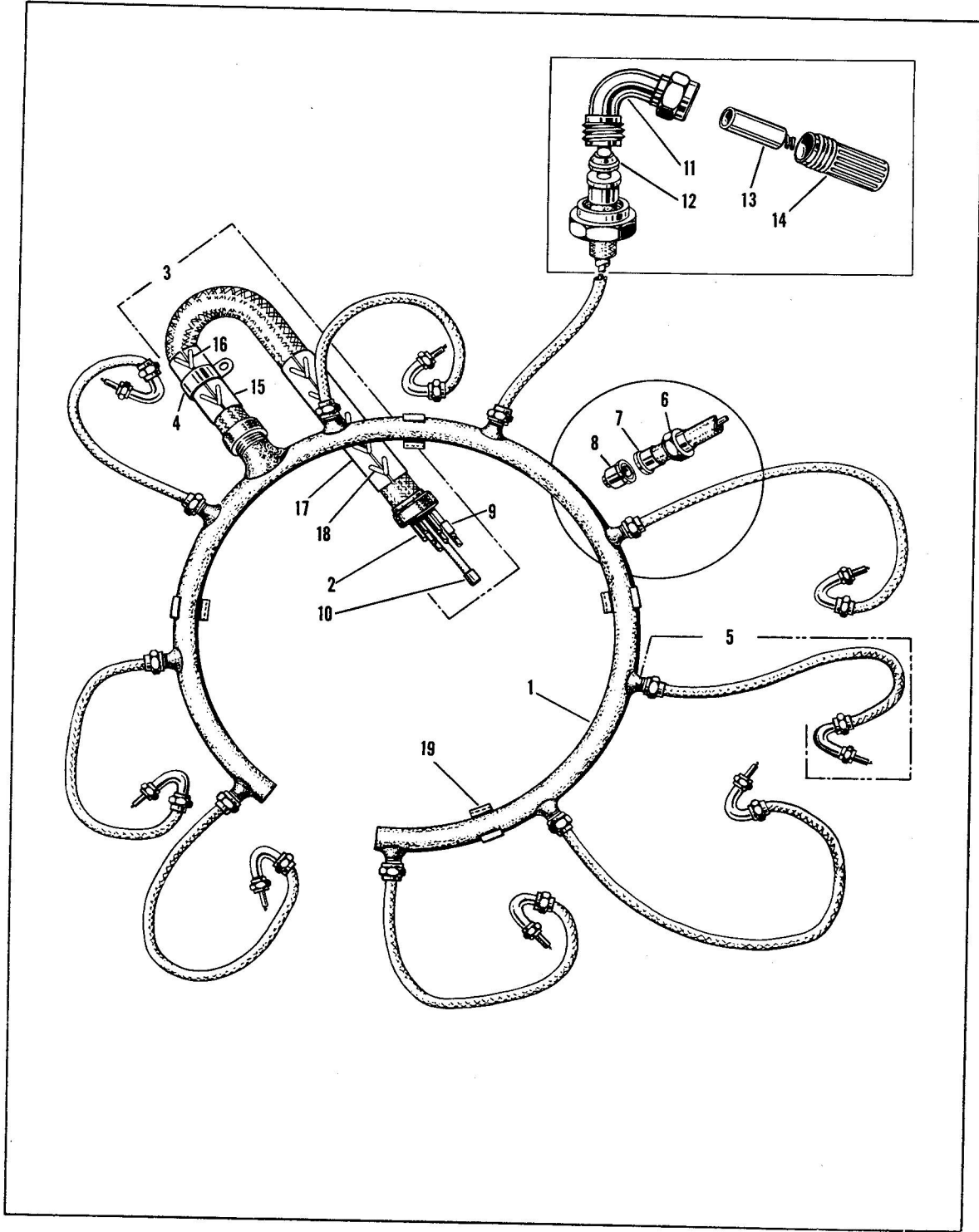


Figure 2-1 Ignition System (R985)

FIGURE and INDEX NUMBER	GROUP P&W R985 (WASP) ENGINES							Units Per Ass'y	Usage on Code		
	MAJOR ASSEMBLY IGNITION SYSTEMS										
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE	
2-1	165376								IGNITION HARNESS R985 (FRONT)		
									Cable Assembly - Radio shielding ignition front (replaces Part 90461 and 90480)	1	
-1	33688								Manifold - Front ignition (supersedes Part 90451)	1	
-2	123790								Cable - 7 m/m Ignition (replaces Part 37141 & 96121)	50 ft.	
									Conduit Assembly - Front manifold to magneto	1	
-3	90437								Conduit - Manifold to magneto	21 ft.	
	*33692								Nut - Conduit coupling	2	
	*88708								Ferrule - Coupling nut	2	
	*32370								Clamp Assembly - Magneto conduit	1	
	*35091								Clamp Assembly - Magneto conduit	1	
-4	37123								Screw - Round head No. 10-32 thd. x 3/4 in. long (magneto conduit clamp; P&W Part 12079)	1	
	AN520-10-12								Locknut - Fibre .375 hexagon x .190-32 thd. x .234 in. thick (magneto conduit clamp; P&W Part 11748)	1	
	AN365-1032A								Conduit Assembly - Manifold to sparkplug	9	
-5	92367								Conduit - Flexible .320 in. ID x .500 in. OD (manifold to sparkplug)	7 in.	
	*92370								Nut - .745 - .755 Hexagon head x .438 in. thick (sparkplug lead coupling)	2	
-6	92368								Ferrule - .521 - .527 ID x .630 - .365 OD x 3.10 in. long (conduit)	2	
-7	92369								Grommet - 7 m/m Wire (ignition cable)	9	
-8	32383								Grommet - .503 - .513 OD x .550 in. long (for AN-1 & -3 with SB9RU-3 magnetos)	9	
-8	96347								Tube - .253 - .273 ID x 14.875 - 15.125 in. long (plastic 5 m/m ignition cable; for AN-1 & -3 with SB9RU-3 magnetos)	9	
	99953								Gasket - 1.422 ID x 1.562 OD x .031 in. thick (ignition conduit and magneto)	1	
-9	14128								Marker - Ignition cable small (P&W Part 3708)	9	
	AN4028-7-1 thru 9								Ferrule - .292 ID x .312 OD x .500 in. long (ignition cable)	9	
-10	15893								Ferrule - .292 ID x .312 OD x .375 in. long (ignition cable; for AN-1 & -3 with SB9RU-3 magnetos)	9	
-10	47266								Sleeve - .200 - .208 ID x 2.500 in. long (waterproof sparkplug terminal; for AN-2 & -3 with SB9RU-3 magnetos)	9	
	96124								Elbow - Sparkplug shielded (supersedes Part 88734 & 92366)	9	
-11	185956								Grommet - Ignition cable	9	
	38674								Grommet - .345 - .355 ID x .200 - .206 in. long (ignition cable; for AN-1 & -3 with SB9RU-3 magnetos)	9	
-12	96125									9	

FIGURE and INDEX NUMBER	GROUP P&W R985 (WASP) ENGINES							Units Per Ass'y	Usage on Code	
	MAJOR ASSEMBLY IGNITION SYSTEMS									
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE
2-1 (Cont'd)										
-13	82307							Connection - Sparkplug	9	
	96122							Packing - Sparkplug cable shielding (for AN-1 & -3 with SB9RU-3 magnetos)	9	
	59477							Contact - Sparkplug (for AN-1 & -3 with SB9RU-3 magnetos)	9	
-14	AN 4060-1							Cap - .625 -24 NS - 1 in. (protector thread spark-plug elbow; P&W Part 54364)	9	
-15	35851							Guard - Magneto conduit	1	
-16	35848							Lacing - Guard - Magneto conduit right (use with rubber guard)	1	
-16	11913							Lacing - Guard - Magneto conduit right (use with leather guard)	1	
-17	35850							Guard - Magneto conduit	1	
-18	35849							Lacing - Guard - Magneto conduit left (use with rubber guard)	1	
-18	11914							Lacing - Guard - Magneto conduit left (use with leather guard)	1	
	39377							Plate - Ignition manifold data (supersedes Part 90469)	1	
								IGNITION HARNESS R985 (REAR)		
2-1	165375							Cable Assembly - Radio shielded ignition rear (replaces Part 90456 & 90481)	1	
	33690							Manifold - Rear ignition (supersedes Part 90458)	1	
	14126							Gasket - 1.000 ID x 1.188 OD x .078 in. thick (ignition manifold)	1	
-2	123790							Cable - 7 m/m Ignition (replaces Part 37141 & 96121)	35 ft.	
	90440							Conduit Assembly - Rear manifold to magneto	1	
	92372							Conduit Assembly - Manifold to sparkplug for all cylinders except No. 5 & 7	7	
	*92370							Conduit - Flexible, .320 ID x .500 in. OD (manifold to sparkplug)	7 in.	
-6	92368							Nut - .745 - .755 Hexagon head x .438 in. thick (sparkplug lead coupling)	2	
-7	92369							Ferrule - .521 - .527 ID x .630 -.635 OD x .310 in. long (conduit)	2	
	92374							Conduit Assembly - Manifold to sparkplug (cylinder No. 5)	1	
	*92370							Conduit - Flexible .320 ID x .500 in. OD (manifold to sparkplug)	13 in.	
	92373							Conduit Assembly - Manifold to sparkplug (cylinder No. 6)	1	
	*92370							Conduit - Flexible .320 ID x .500 in. OD (manifold to sparkplug)	9 in.	
-8	32383							Grommet - 7 m/m Wire ignition cable	9	

FIGURE and INDEX NUMBER	GROUP P&W R985 (WASP) ENGINES							Units Per Ass'y	Usage on Code	
	MAJOR ASSEMBLY IGNITION SYSTEMS									
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE
2-1 (Cont'd)										
-8	96347							Grommet - .503 - .513 OD x .550 in. long (for AN-1 & -3 with SB9RU-3 magnetos)	9	
	9953							Tube - Plastic 5 m/m ignition cable (for AN-1 & -3 with SB9RU-3 magnetos)	9	
	10395							Clamp - Lead to suction pipe	1	
	14128							Gasket - 1.422 ID x 1.562 OD x .031 in. thick (ignition conduit & magneto)	1	
-9	AN4028-7-1							Marker - Ignition cable small (P&W Part 3708)	9	
	thru 9									
-10	15893							Ferrule - .292 ID x .312 OD x .500 in. long (ignition cable)	9	
-10	47266							Ferrule - .292 ID x .312 OD x .375 in. long (ignition cable for AN-1 & -3 with SB9RU-3 magnetos)	9	
	96124							Sleeve - .200 - .208 ID x 2.500 in. long (waterproof sparkplug; for AN-1 & -3 with SB9RU-3 magnetos)	9	
-11	185956							Elbow - Sparkplug shielded (supersedes Part 88743 & 92366)	9	
	38674							Grommet - Ignition cable	9	
-12	96125							Grommet - .345 - .355 ID x .200 - .206 in. long (ignition cable for AN-1 & -3 with SB9RU-3 magnetos)	9	
	82307							Connection - Sparkplug	9	
-13	96122							Packing - Sparkplug cable shielding (for AN-1 & -3 with SB9RU-3 magnetos)	9	
	59477							Contact - Sparkplug (for AN-1 & -3 with SB9RU-3 magnetos)	9	
-14	AN4060-1							Cap - .625 -24 NS - 1 in. (protector thread spark elbow; supersedes Part 39279; (P&W Part 54364)	9	
-17	35850							Guard - Magneto conduit (supersedes Part 32650)	1	
-18	35849							Lacing - Magneto conduit guard (use with rubber guard)	1	
-18	11914							Lacing - Magneto conduit guard (use with leather guard)	1	
	39377							Plate - Ignition manifold data (supersedes Part 90469)	1	
-19	36054							Brace Assembly - Ignition manifold	4	
	*36051							Brace - Ignition manifold	1	
	33105							Bolt - .438 Hexagon head x .250 -28 thd. x .500 in. long	1	
	AN363-428							Locknut - Fibre .438 hexagon head x .250 -28 thd. x .312 in. thick (ignition manifold brace screw; P&W Part 12856)	4	

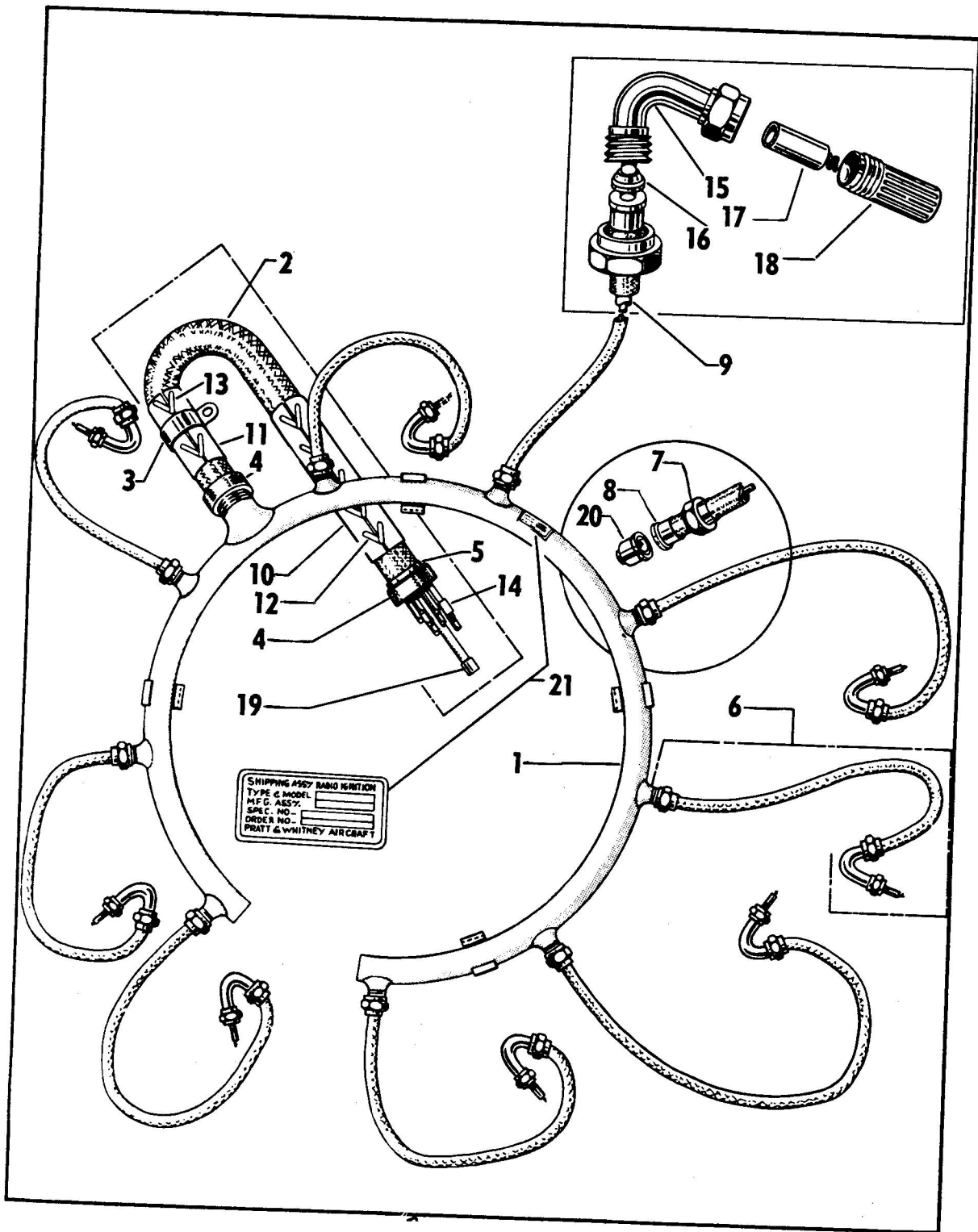


Figure 2-2 Ignition System - Front
R1340 (AN1-S3H1-S3H1G)

FIGURE and INDEX NUMBER	GROUP P&W R1340 (WASP) ENGINES							Units Per Ass'y	Usage on Code	
	MAJOR ASSEMBLY IGNITION SYSTEM (AN1-S2H1-S2H1G)									
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE
								FRONT IGNITION HARNESS R1340 (AN1-S3H1-S3H1G)		
2-2	90455							Cable Assembly - Radio shielded ignition front (for use with SB9RN magnetos; supersedes Part 47422 & 84464)	1	
-1	39780							Manifold - Front ignition radio shielding	1	
-2	90442							Conduit Assembly - Front manifold to magneto (incorporated in Part 90455)	1	
	*33692							Conduit - Manifold to magneto 24 in.	1	
	231628							Clamp Assembly - Magneto conduit	1	
	*231629							Clamp - Magneto conduit	1	
	36873							Washer - Plain .219 ID x .500 OD x .188 in. thick	1	
	12079							Screw - Round head No. 10-32 thd. x .750 in. long (AN 520-10-12)	1	
	11748							Locknut - Fibre .375 hexagon head No. 10-32 thd. x .234 in. thick (AN 365-1032A)	1	
	*35091							Clamp Assembly Complete - Magneto conduit	1	
-3	37123							Clamp Assembly - Magneto conduit	1	
	12079							Screw - Round head No. 10-32 thd. x .750 in. long (AN 520-10-12)	1	
	11748							Locknut - Fibre .375 hexagon head No. 10-32 thd. x .234 in. thick (AN 365-1032A)	1	
-4	88708							Nut - Conduit coupling	2	
-5	32370							Ferrule - Coupling nut	2	
-6	92384							Conduit Assembly - Manifold to sparkplug	9	
	*92370							Conduit - Flexible .320 ID x .500 OD x 7 in. (manifold to sparkplug)	1	
-7	92368							Nut - .750 Hexagon head x .438 in. thick (sparkplug lead coupling)	2	
-8	92369							Ferrule - .524 ID x .633 OD x .310 in. long (conduit)	2	
-9	123790							Cable - 7 m/m ignition x .605 in. long (supersedes Part 37141)	1	
-10	35850							Guard - Magneto conduit (supersedes Part 32650)	1	
-11	35851							Guard - Magneto conduit (supersedes Part 32651)	1	
-12	35849							Lacing - Guard magneto conduit left (supersedes Part 11914)	1	
-13	35848							Lacing - Guard magneto conduit right (supersedes Part 11913)	1	
-14	3708							Marker - Ignition cable large (AN 4028-7-1 thru 9)	9	
-15	92366							Elbow - sparkplug shielding 70° (supersedes Part 88734)	9	
-16	38674							Grommet - Ignition cable	9	
-17	82307							Connector - Sparkplug (supersedes Part 29793)	9	
	59477							Contact - Sparkplug & spring (for use with Part 82307)	9	

FIGURE and INDEX NUMBER	GROUP P&W R1340 (WASP) ENGINES							Units Per Ass'y	Usage on Code	
	MAJOR ASSEMBLY IGNITION SYSTEM (AN1-S2H1-S2H1G)									
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE
2-2 (Cont'd)										
	59482							Collar - Sparkplug terminal waterproof (for use with Part 59477 in replacement Part 82307)	9	
-18	54364							Cap - Protector .625 in. - 24 thd. (AN 4060-1)	9	
-19	15893							Ferrule - .292 ID x .312 OD x .500 in. long (ignition cable)	9	
-20	32383							Grommet - 7 m/m Ignition cable	9	
	14128							Gasket - 1.422 ID x 1.562 OD x .031 in. thick (ignition conduit to magneto)	1	
-21	39377							Plate - Ignition manifold data	1	

FIGURE and INDEX NUMBER	GROUP P&W R1340 (WASP) ENGINES							Units Per Ass'y	Usage on Code	
	MAJOR ASSEMBLY IGNITION SYSTEM (AN1-S2H1-S2H1G)									
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE
								IGNITION HARNESS R1340 REAR (AN1-3H1-S3H1G)		
2-3	90459							Cable Assembly - Radio shielded ignition rear (for use with SB9RN magnetos; supersedes Part 47423 & 84465)	1	
-1	33690							Manifold - Radio shielding ignition rear	1	
-2	90438							Conduit Assembly - Rear manifold to magneto (incorporated in Part 90459)	1	
	*33692							Conduit - Manifold to magneto 10 in.	1	
-4	88708							Nut - Magneto conduit coupling	2	
-5	32370							Ferrule - Coupling nut	2	
-6	92378							Conduit Assembly - Manifold to sparkplug	7	
	92379							Conduit Assembly - Manifold to sparkplug	1	
	92380							Conduit Assembly - Manifold to sparkplug	1	
	*92370							Conduit - Flexible .320 ID x .500 OD x 6 in. (manifold to sparkplug)	1	
-7	92368							Nut - .750 Hexagon head x .438 in. thick (sparkplug lead coupling)	2	
-8	92369							Ferrule - .524 ID x .633 OD x .310 in. long (conduit)	2	
-9	123790							Cable - 7 m/m x .425 in. long ignition (supersedes Part 37141)	1	
-10	35850							Guard - Magneto conduit (superseded Part 32650)	1	
-12	35849							Lacing - Guard magneto conduit left (supersedes Part 11914)	1	
-14	3708							Marker - Ignition cable large (AN 4028-7-1 thru 9)		
-15	92366							Elbow - Sparkplug shielded 70° (supersedes Part 88734)	9	
-16	38674							Grommet - Ignition cable	9	
-17	82307							Connector - Sparkplug (supersedes Part 29783)	9	
	59477							Contact - Sparkplug and spring (for use with Part 59482 in replacement of Part 82307)	9	
	59482							Collar - Sparkplug terminal waterproof (for use with Part 59477 in replacement of Part 82307)	9	
-18	54364							Cap - Protector .625 in. -24 thd. (AN 4060-1)	9	
-19	15893							Ferrule - .292 ID x .312 OD x .500 in. long (ignition cable)	9	
-20	32383							Grommet - 7 m/m ignition cable	9	
	10395							Clip - Ignition lead to oil suction pipe	1	
	36054							Brace Assembly - Ignition manifold	4	
	*36051							Brace - Ignition manifold	1	
	*33105							Bolt - .438 Hexagon head x .250-28 thd. x .500 in. long	1	
	12856							Locknut - Fibre .438 hexagon head x .250-28 thd. x .312 in. thick (ignition manifold brace; AN 365-428)	4	

FIGURE and INDEX NUMBER	GROUP P&W R1340 (WASP) ENGINES							Units Per Ass'y	Usage on Code		
	MAJOR ASSEMBLY IGNITION SYSTEM (AN1-S2H1-S2H1G)										
	PART NUMBER	1	2	3	4	5	6			7	NOMENCLATURE
2-3 (Cont'd)											
-21	39377								Plate - Ignition manifold data		
	14126								Gasket - 1.000 ID x 1.188 OD x .078 in. thick (ignition manifold)	1	
	14128								Gasket - 1.422 ID x 1.562 OD x .031 in. thick (ignition conduit to magneto)	1	
	12724								Screw - .500 hexagon head x .3125-18 thd. x .500 in. long (manifold shielding)	5	

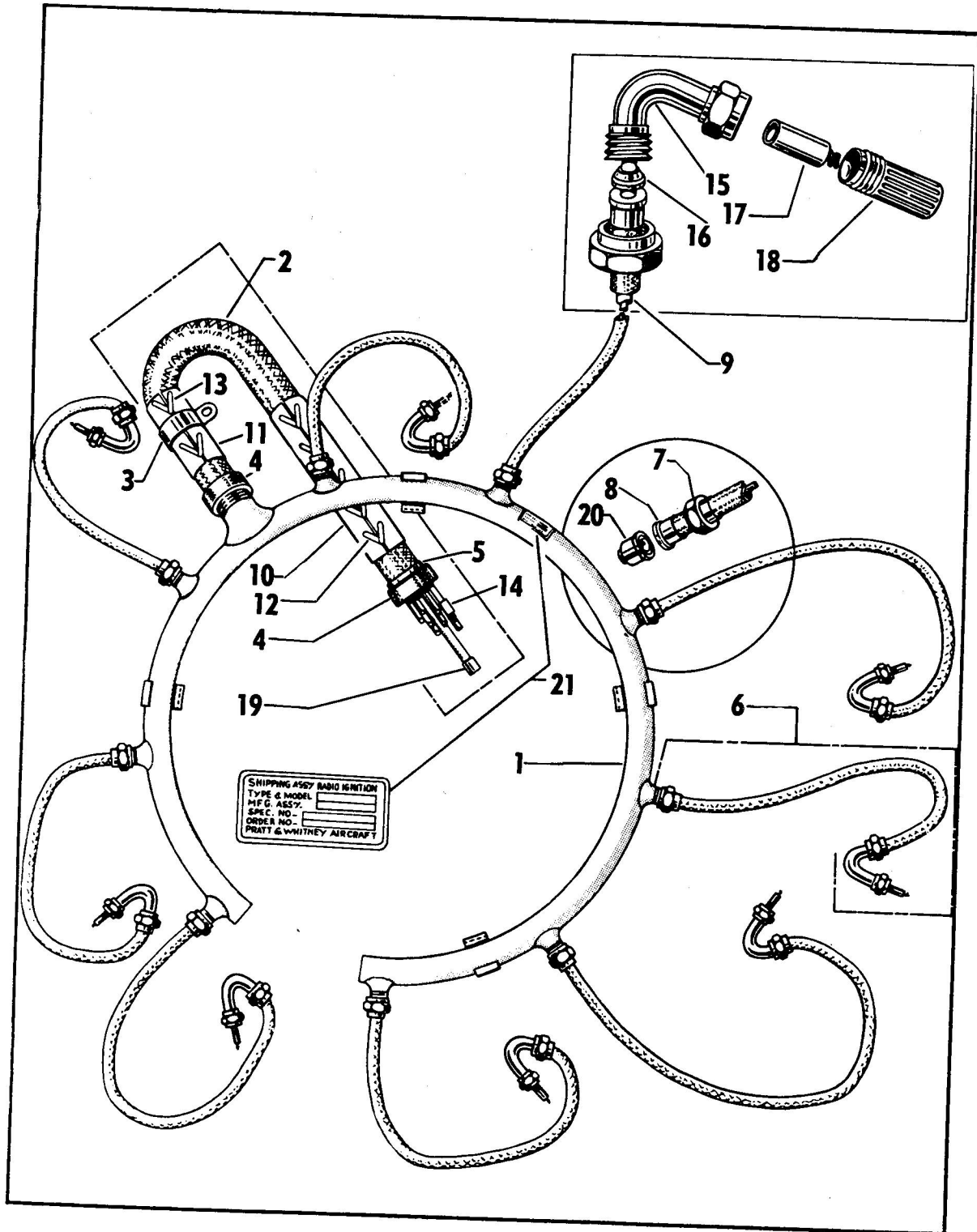


Figure 2-4 Ignition System - Front - R1340 (S1H2)

FIGURE and INDEX NUMBER	GROUP P&W R1340 (WASP) ENGINES							Units Per Ass'y	Usage on Code		
	MAJOR ASSEMBLY IGNITION SYSTEMS (SIH2)										
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE	
									IGNITION HARNESS R1340 FRONT (SIH2)		
2-4	231612								Cable Assembly - Rubber molded radio shielded ignition (for use with SB9RN-4 magnetos)	1	
-1	39780								Manifold - Front ignition radio shielding	1	
-2	231618								Conduit Assembly - Front manifold to magneto (incorporated in Part 231612)	1	
	*231621								Conduit - Manifold to magneto (incorporated in Part 231618)	1	
	*231627								Clamp Assembly Complete - Magneto to conduit (incorporated in Part 231618)	1	
	231628								Clamp Assembly - Magneto conduit	1	
	*231629								Clamp - Magneto conduit	1	
	36873								Washer - Plain .219 ID x .500 OD x .188 in. thick	1	
	12079								Screw - Round head No. 10-32 thd. x .750 in. long (AN520-10-12)	1	
	11748								Locknut - Fibre .375 hexagon head No. 10-32 thd. x .234 in. thick (AN 365-1032A)	1	
	*35091								Clamp Assembly Complete - Magneto	1	
-3	37123								Clamp Assembly - Magneto conduit	1	
	12079								Screw - Round head No. 10-32 thd. x .750 in. long (AN520-10-12)	1	
	11748								Locknut - Fibre .375 hexagon head No. 10-32 thd. x .234 in. thick (AN365-1032A)	1	
-4	88708								Nut - Conduit coupling	2	
-5	*231623								Ferrule - Coupling nut (incorporated in Part 231618)	2	
-6	231616								Conduit Assembly - Manifold to sparkplug (incorporated in Part 231612)	9	
	*231619								Conduit - Flexible manifold to sparkplug	1	
-7	92368								Nut - .750 Hexagon head x .438 in. thick (sparkplug lead coupling)	2	
										2	
-8	231622								Ferrule - Shoulder conduit		
-9	123790								Cable - 7 m/m Ignition x .605 in. long (supersedes Part 37141)	1	
-15	185956								Elbow - Sparkplug shielded 70°	9	
-16	38674								Grommet - Ignition cable	9	
-17	82307								Connector - Sparkplug (supersedes Part 29783)	9	
	59477								Contact - Sparkplug and spring (for use with Part 59482 in replacement of Part 82307)	9	
	59482								Collar - Sparkplug terminal waterproof (for use with Part 59477 in replacement of Part 82307)	9	
-18	54364								Cap - Protector .625 in. - 24 thd. (AN4060-1)	9	
-19	15893								Ferrule - .292 ID x .312 OD x .500 in. long (ignition cable)	9	

FIGURE and INDEX NUMBER	GROUP P&W R1340 (WASP) ENGINES							Units Per Ass'y	Usage on Code		
	MAJOR ASSEMBLY IGNITION SYSTEMS (SIH2)										
	PART NUMBER	1	2	3	4	5	6			7	NOMENCLATURE
2-4 (Cont'd)											
-20	32383								Grommet - 7 m/m Ignition cable	9	
	14128								Gasket - 1.422 ID x 1.562 OD x .031 in. thick (ignition conduit to magneto)	1	
-21	231626								Plate - Ignition manifold data (incorporated in Part 231612)	1	

FIGURE and INDEX NUMBER	GROUP P&W R1340 (WASP) ENGINES							Units Per Ass'y	Usage on Code		
	MAJOR ASSEMBLY IGNITION SYSTEMS (SIH2)										
	PART NUMBER	1	2	3	4	5	6			7	NOMENCLATURE
									IGNITION HARNESS R1340 REAR (SIH2)		
2-5	231611								Cable Assembly - Rubber molded radio shielded ignition rear (for use with SB9RN-4 magnetos)	1	
-1	33690								Manifold - Radio shielding ignition rear	1	
-2	231617								Conduit Assembly - Rear manifold to magneto (incorporated in Part 231611)	1	
	*231620								Conduit - Manifold to magneto (incorporated in Part 231617)	1	
-5	*231623								Ferrule - Coupling nut (incorporated in Part 231617)	2	
-4	88708								Nut - Magneto conduit coupling	2	
-6	231613								Conduit Assembly - Manifold to sparkplug (incorporated in Part 231611)	7	
	*231619								Conduit - Flexible manifold to sparkplug	1	
-7	92368								Nut - .750 Hexagon head x .438 in. thick (sparkplug lead coupling)	2	
-8	*231622								Ferrule - Shoulder conduit	2	
	231615								Conduit Assembly - Manifold to sparkplug (incorporated in Part 231611)	1	
	231614								Conduit Assembly - Manifold to sparkplug (incorporated in Part 231611)	1	
-9	123790								Cable - 7 m/m x .425 in. long ignition (supersedes Part 37141)	1	
-15	185956								Elbow - Sparkplug shielded 70° (incorporated in Part 231611)	9	
-16	38674								Grommet - Ignition Cable	9	
-17	82307								Connector - Sparkplug (supersedes Part 29783)	9	
	59477								Contact - Sparkplug and spring (for use with Part 59482 in replacement of Part 82307)	9	
	59482								Collar - Sparkplug terminal waterproof (for use with Part 59477 in replacement of Part 82307)	9	
-18	54364								Cap - Protector .625 in. - 24 thd. (AN4060-1)	9	
-19	15893								Ferrule - .292 ID x .312 OD x .500 in. long (ignition cable)	9	
-20	32383								Grommet - 7 m/m Ignition cable	9	
	231625								Clip - Ignition lead to oil suction pipe (incorporated in Part 231611)	1	
	36054								Brace Assembly - Ignition manifold	4	
	*36051								Brace Ignition manifold	1	
	*33105								Bolt - .438 Hexagon head x .250-28 thd. x .500 in. long	1	
	12856								Locknut - Fibre .438 Hexagon head x .250-28 thd. x .312 in. thick (ignition manifold brace; AN 365-428)	4	

FIGURE and INDEX NUMBER	GROUP P&W R1340 (WASP) ENGINES							Units Per Ass'y	Usage on Code		
	MAJOR ASSEMBLY IGNITION SYSTEMS (SIH2)										
	PART NUMBER	1	2	3	4	5	6			7	NOMENCLATURE
2-5 (Cont'd)											
-21	231626								Plate - Ignition manifold data (incorporated in Part 231611)	1	
	14126						1.000		Gasket - ID x 1.188 OD x .078 in. thick (ignition manifold)	1	
	14128						1.422		Gasket - ID x 1.562 OD x .031 in. thick (ignition conduit to magneto)	1	
	12724						.500		Screw - Hexagon head x .3125-18 thd. x .500 in. long (manifold shielding)	5	

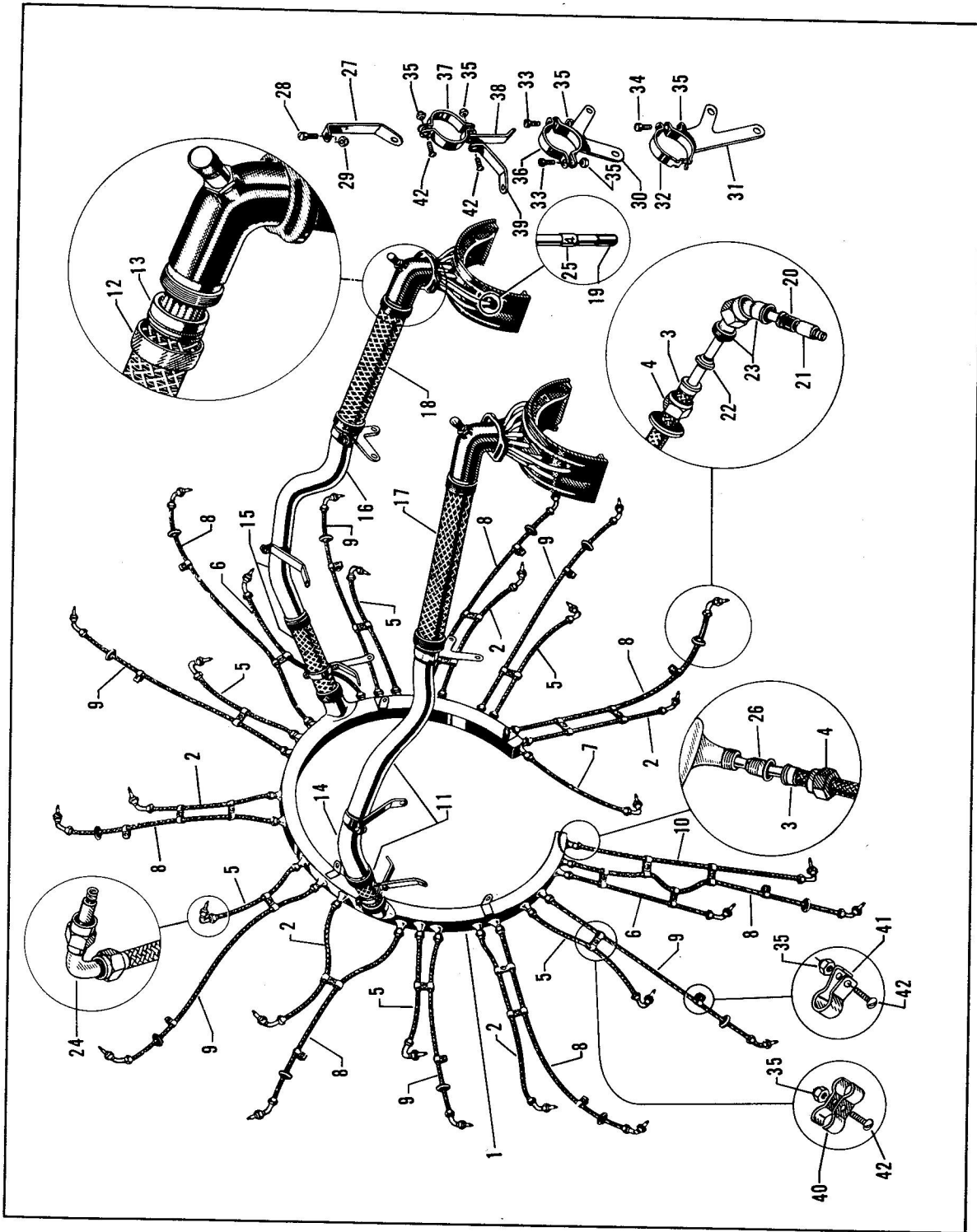


Figure 2-6 Ignition System - R 1830 (90C and 90D)

FIGURE and INDEX NUMBER	GROUP P&W 1830 (WASP) ENGINES							Units Per Ass'y	Usage on Code		
	MAJOR ASSEMBLY IGNITION SYSTEMS (90C & 90D)										
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE	
2-6	90471	Cable	Assembly						- Radio shielded ignition (supersedes Part 35332, 85174, 53071 or 47469) for -43, -65, -90C & -90D only)	1	
-1	90452	Manifold	- Ignition	(enameled)						1	
	30565	Manifold	- Ignition	(plated)						1	
	18183	Spacer	- Plain	.375 in. ID x .625 OD - .500 in. thick (manifold screw)						4	
	97491	Screw	- Drilled	.500 hexagon head x .3125-18NC thd. x 1.000 in. long (manifold attaching; supersedes Part 18193)						4	
-2	92389	Conduit	Assembly	- Manifold to sparkplug (cylinders No. 1, 5, 7, 11 and 13 front; for use with plate or enameled manifold - supersedes Part 88722 enameled type and Part 39275 plated type; for -43, -65, -90C & -90D only)						5	
	*92370	Conduit	- Flexible	.320 ID x .500 in. OD (manifold to sparkplug)						11 in.	
-3	92369	Ferrule	- .521 - .527 ID x .630 - .635 OD x .310 in. long (sparkplug conduit)							2	
-4	92368	Nut	- .745 - .755 Hexagon head x .438 in. thick (conduit coupling; for -43, -65, -90C & -90D)							2	
	92401	Sleeve	- .440 ID x 1.000-1.250 in. long (sparkplug conduit spring for -43, -65, -90C, -90D only)							1	
	77549	Sleeve	- .438 ID x .563 OD x 3.000 in. long (spark- plug conduit)							1	
-5	92390	Conduit	Assembly	- Manifold to sparkplug (cylinders No. 2, 4, 6, 10, 12, and 14 front; for use with plated or enameled manifold - supersedes Part 88723 enameled type or Part 42387 plated type; for -43, -65, -90C & -90D only)						6	
	*92370	Conduit	- Flexible	.320 ID x .500 in. OD (manifold to sparkplug)						8 in.	
-6	92391	Conduit	Assembly	- Manifold to sparkplug (cylinders No. 3 and 9 front; for use with plated or enameled manifold - supersedes Part 88709 enameled type or Part 42388 plated type; for -43, -65, -90C and -90D only)						2	
	*92370	Conduit	- Flexible	-.320 ID x .500 in. OD (manifold to sparkplug)						12 in.	

FIGURE and INDEX NUMBER	GROUP P&W 1830 (WASP) ENGINES							Units Per Ass'y	Usage on Code	
	MAJOR ASSEMBLY IGNITION SYSTEMS (90C and 90D)									
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE
2-6 (Cont'd)										
-7	92392							Conduit Assembly - Manifold to sparkplug (cylinder No. 8 front; for use with plated or enameled manifold - supersedes Part 88720 enameled type or Part 40113 plated type; for -43, -65, -90C and -90D only)	1	
	*92370							Conduit - Flexible .320 ID x .500 in. OD (manifold to sparkplug)	11 in.	
-8	92386							Conduit Assembly - Manifold to sparkplug (cylinder No. 1, 3, 5, 7, 9, 11 and 13 rear; for use with plated or enameled manifold - supersedes Part 88712 enameled type or Part 39838 plated type - uses Part 92400 clamp only; for -43, -65, -90C and -90D only)	7	
	92370							Conduit - Flexible .320 ID x .500 in. OD (manifold to sparkplug)	24 in.	
-9	*92370							Conduit - Flexible .320 ID x .500 in. OD (manifold to sparkplug)	20 in.	
	92387							Conduit Assembly - Manifold to sparkplug (cylinder No. 2, 4, 6, 10, 12 and 14 rear; for use with plated or enameled manifold - supersedes Part 88717 enameled type or Part 39839 plated type used Part 92400 clamp only; for -43, -65, -90C and 90D only)	6	
-10	92388							Conduit Assembly - Manifold to sparkplug (cylinder No. 8 rear; for use with plated or enameled manifold - supersedes Part 88721 enameled type or Part 39835 plated type; for -43, -65, -90C and 90D only)	1	
	*92370							Conduit - Flexible .320 ID x .500 in. OD (manifold to sparkplug)	20 in.	
-11	90446							Conduit and Pipe Assembly - Magneto to manifold left hand (for use with enameled manifold)	1	
	39590							Conduit Assembly - Magneto to manifold left hand (for use with plated manifold)	9 in.	
-12	*12936							Conduit - 1 3/8 in. ID x 5/8 in. OD (magneto to manifold; use Part AS 100027 or P&W Part 84134 wire)	1	
	90436							Nut - 1 7/8-18 NEF-3 (conduit coupling - magneto to manifold conduit; for use with enameled manifold)	1	
	12940							Nut - 1 7/8-18 ID x 5/8 in. thick (conduit coupling - magneto to manifold conduit; for use with plated manifold)	1	

FIGURE and INDEX NUMBER	GROUP P&W 1830 (WASP) ENGINES							Units Per Ass'y	Usage on Code	
	MAJOR ASSEMBLY IGNITION SYSTEMS (90C & 90D)									
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE
2-6 (Cont'd)										
-13	12938							Ferrule - Magneto to manifold conduit	1	
	96121							Cable - 5 m/m Ignition high tension	225 ft.	
	123790							Cable - 7 m/m Ignition high tension (supersedes Part 40002 or 37141)	225 ft.	
-14	39059							Pipe - Magneto to manifold conduit left hand	1	
-15	90447							Conduit and Pipe Assembly - Magneto to manifold right hand (for use with enameled manifold)	1	
	32488							Conduit and Pipe Assembly - Magneto to manifold right hand (for use with plated manifold)	1	
	*12936							Conduit - 1 3/8 in. ID x 1 5/8 in. OD (magneto to manifold right hand; use Part AS100027 or P&W Part 84134 wire)	9 in.	
-16	28128							Pipe - Magneto to manifold conduit	1	
-17	90439							Conduit Assembly - Magneto to manifold pipe left hand (for use with enameled manifold)	1	
	39844							Conduit Assembly - Magneto to manifold pipe left hand (for use with plated manifold)	1	
	*12936							Conduit - 1 3/8 in. ID x 1 5/8 in. OD (magneto to manifold pipe)	13 in.	
-18	*90441							Conduit Assembly - Magneto to manifold pipe right hand (for use with enameled manifold)	1	
	35493							Conduit Assembly - Magneto to manifold right hand pipe (for use with plated manifold)	1	
	*12936							Conduit - 1 3/8 in. ID x 1 5/8 in. OD (magneto to manifold pipe)	12 in.	
-19	47266							Ferrule - Ignition cable	28	
	96122							Packing - Sparkplug cable shielding (for 5 m/m cable only; for -43, -65, -90C & -90D only)	28	
-20	59482							Collar - Sparkplug terminal waterproof (for 7 m/m cable only; for -43, -65, -90C & -90D only)	28	
	96124							Sleeve - .200-.208 ID x 2.500 in. long (waterproof sparkplug terminal; for 5 m/m cable only; for -43, -65, -90C & -90D only)	28	
-21	59477							Contact - Sparkplug spring (for -43, -65, -90C & -90D only)	28	
	99953							Tube - .253-.273 ID x 14.875-15.125 in. long plastic (5 m/m ignition cable; for -43, -65, -90C & -90D only)	28	

FIGURE and INDEX NUMBER	GROUP P&W 1830 (WASP) ENGINES							Units Per Ass'y	Usage on Code	
	MAJOR ASSEMBLY IGNITION SYSTEMS (90C & 90D)									
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE
2-6 (Cont'd)										
-22	38674							Grommet - 7 m/m Ignition cable (for -43, -65, -90C & -90D only)	28	
	96125							Grommet - .345-.355 ID x .200-.206 in. long (5 m/m ignition cable; for -43, -65, -90C & -90D only)	28	
-23	187158							Elbow - 110° (supersedes Part 88733, 80151 or 92365)	20	
-24	185956							Elbow - 70° (supersedes Part 88734, 78643 or 92366)	8	
	89643							Elbow - 70° (for use with plated manifold; for -90C only)	8	
-25	AN4028-7-1 thru 14							Marker - Sparkplug leads (for -43, -65, -90C & 90D only; P&W Part 17774)	2 sets	
-26	32383							Grommet - 7 m/m Ignition cable	28	
	96347							Grommet - 5 m/m Ignition cable	28	
	AN4060-1							Cap - .625-24 NS-1 in. (sparkplug elbow; supersedes Part 54363 or 39279 for -43, -65, -90C & -90D only; P&W Part 54364)	28	
-27	28155							Brace - Magneto to manifold conduit	2	
-28	4230							Screw - Fillister head drilled .250-28 NF thd. x .531 in. long (magneto to manifold conduit brace)	2	
-29	12856							Nut - Fibre .438 hexagon head x .250-28 thd. x .312 in. thick (magneto to manifold conduit brace)	2	
-30	28645							Clamp and Bracket Assembly - Right hand magneto to manifold conduit (supersedes Part 39377)	1	
	*25709							Clamp - Magneto to manifold conduit	1	
	*28639							Bracket - Magneto to manifold conduit	1	
-31	48220							Support Assembly - Left hand magneto to manifold conduit (supersedes Part 39709; for -43, -65, -90C & -90D)	1	
	*48219							Clamp - Magneto to manifold conduit (supersedes Part 25709; for -43, -65, -90C & -90D)	1	
	*28217							Bracket - Magneto to manifold conduit (supersedes Part 39708; for -43, -65, -90C & -90D)	1	
-32	48218							Clamp - Magneto to manifold conduit support (supersedes Part 25710; for -43, -65, -90C & -90D only)	1	
-33	282							Screw - Fillister head drilled .190-32 NF thd. x .438 in. long (magneto to manifold conduit support clamps)	2	

FIGURE and INDEX NUMBER	GROUP P&W 1830 (WASP) ENGINES							Units Per Ass'y	Usage on Code	
	MAJOR ASSEMBLY IGNITION SYSTEMS (90C & 90D)									
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE
2-6 (Cont'd)										
-34	219							Screw - Fillister head drilled .190-32 thd. x .625 in. long (magneto to manifold left hand; supersedes Part 282; for -43, -65, -90C & -90D)	1	
-35	11748							Nut - Fibre .375 hexagon head x .190-32 thd. x .234 in. thick (manifold conduit support clamps)	34	
	90469							Plate - Data (for use with enameled manifold; for -43, -65, -90C & -90D only)	1	
	39377							Plate - Data (for use with plated manifold; for -43, -65, -90C & -90D only)	1	
	58585							Terminal Assembly - Booster cable (supersedes Part 72434)	2	
	28366							Terminal - Booster cable	1	
	15893							Ferrule - 188 ID x .312 OD .500 in. long x .312 (booster connection)	1	
	123790							Cable - 7 m/m Booster cable (supersedes Part 40002 or 37141)	1 ft.	
-36	25710							Clamp - Magneto to manifold conduit support (for -43, -65, -90C & -90D only)	1	
-37	41182							Clamp - Manifold pipe to magneto	4	
-38	41181							Support - Manifold pipe to magneto clamp	2	
-39	42389							Support - Magneto to manifold conduit clamp (cylinders No. 8 and 9 rear sparkplug conduits)	2	
-40	54834							Clamp - Sparkplug conduit (supersedes Part 29895)	40	
-41	92400							Clamp - Sparkplug conduit (all rear sparkplug conduits except cylinder No. 8)	13	
-42	AN520-10-10							Screw - Round head .190-32 thd. x .625 in. long (sparkplug conduit clamps; P&W Part 10024)	37	

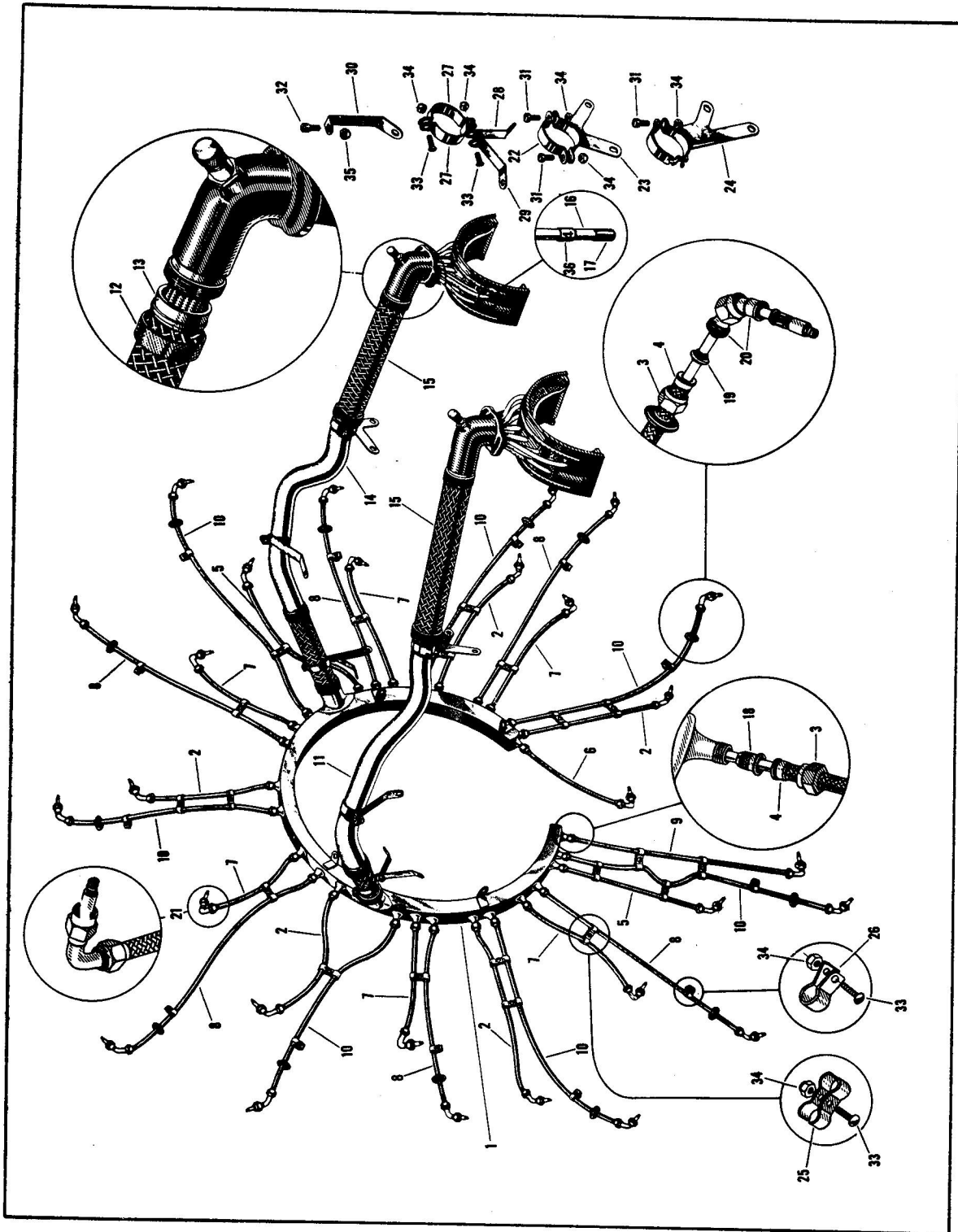


Figure 2-7 Ignition System - R1830 (92)

FIGURE and INDEX NUMBER	GROUP P&W 1830 (WASP) ENGINES							Units Per Ass'y	Usage on Code
	MAJOR ASSEMBLY IGNITION SYSTEMS (92)								
	PART NUMBER	1	2	3	4	5	6 7		
2-7	90462	Cable	Assembly	-	Radio shielded ignition (for use with Bosch magnetos; supersedes Part 44805)			1	
	39511	Cable	Assembly	-	Radio shielded ignition (for use with Scintilla magnetos)			1	
-1	30565	Manifold	-	Ignition plated				1	
-2	92389	Conduit	Assembly	-	Manifold to sparkplug (cylinders No. 1, 5, 7, 11 and 13 front; supersedes Part 88722 and 39275)			5	
	*92370	Conduit	-	Flexible .320 in. ID x .500 in. OD (manifold to sparkplug)				11 in.	
-3	92368	Nut	-	.745 - .755 Hexagon head x .438 in. thick (sparkplug conduit coupling)				2	
-4	92369	Ferrule	-	.521 - .257 ID x .630 - .635 OD x .310 in. long (sparkplug conduit)				2	
	*92401	Sleeve	-	.440 ID x 1.000 - 1.250 in. long (conduit spring sizing)				1	
-4	77549	Sleeve	-	.438 ID x .563 OD x 3.000 in. long (sparkplug conduit)				1	
	90448	Conduit and Pipe	Assembly	-	Magneto to manifold left hand			1	
-5	92391	Conduit	Assembly	-	Manifold to sparkplug (cylinders No. 3 and 9 front; supersedes Part 88709 and 42388)			2	
	*92370	Conduit	-	Flexible .320 in. ID x .500 in. OD (manifold to sparkplug)				12	
-6	92392	Conduit	Assembly	-	Manifold to sparkplug (cylinder No. 8 front; supersedes Part 88720 and 40113)			1	
	*92370	Conduit	-	Flexible .320 ID x .500 in. OD (manifold to sparkplug)				11 in.	
-7	92390	Conduit	Assembly	-	Manifold to sparkplug (cylinders No. 2, 4, 6, 10, 12 and 14 front; supersedes Part 88723 and 42387)			6	
	*92370	Conduit	-	Flexible .320 ID x .500 in. OD (manifold to sparkplug)				8 in.	
-8	92387	Conduit	Assembly	-	Manifold to sparkplug (cylinders No. 2, 4, 6, 10, 12 and 14 rear; supersedes Part 88717 and 39839)			6	
	*92370	Conduit	-	Flexible .320 ID x .500 in. OD (manifold to sparkplug)				20 in.	
-9	92388	Conduit	Assembly	-	Manifold to sparkplug (cylinder No. 8, rear; supersedes Part 88721 and 39835)			1	
	*92370	Conduit	-	Flexible .320 ID x .500 in. OD (manifold to sparkplug)				20 in.	
-10	92386	Conduit	Assembly	-	Manifold to sparkplug (cylinders No. 1, 3, 5, 7, 9, 11 and 13 rear; supersedes Part 88712 and 39838)			7	

FIGURE and INDEX NUMBER	GROUP P&W 1830 (WASP) ENGINES							Units Per Ass'y	Usage on Code	
	MAJOR ASSEMBLY IGNITION SYSTEMS (92)									
	PART NUMBER	1	2	3	4	5	6 7			NOMENCLATURE
2-7 (Cont'd)										
	*92370							Conduit - Flexible .320 in. ID x .500 in. OD (manifold to sparkplug)	24 in.	
-11	28127							Pipe - Manifold to magneto conduit left hand	1	
	*12936							Conduit - 1 3/8 ID x 1 5/8 in. OD (magneto to manifold left hand)	9 in.	
-12	90436							Nut - Magneto to manifold conduit coupling (for use with enameled manifold)	2	
	12940							Nut - Magneto to manifold conduit coupling (for use with plated manifold)	2	
-13	12938							Ferrule - Magneto to manifold conduit	2	
	90447							Conduit and Pipe Assembly - Magneto to manifold right hand	1	
-14	90444							Pipe - Magneto to manifold conduit	1	
	28128							Pipe - Magneto to manifold conduit	1	
	*12936							Conduit - 1 3/8 ID x 1 5/8 in. OD (magneto to manifold right hand)	9 in.	
-15	90435							Conduit Assembly - Magneto to manifold (for use with enameled manifold)	2	
	20666							Conduit Assembly - Magneto to manifold (for use with plated manifold)	2	
	*12936							Conduit - 1 3/8 in. ID x 1 5/8 in. OD (magneto to pipe)	10 in.	
-16	123790							Cable - 7 m/m Ignition (supersedes Part 37141)	225 ft.	
	82307							Connection - Sparkplug (supersedes Part 29783)	28	
	28366							Terminal - Booster cable	2	
	15893							Ferrule - .312 OD x 1/2 in. long	2	
	84134							Wire - Safety - Magneto to manifold conduit	3 ft.	
	77061							Tag - Conduit compound application	1	
-17	47266							Ferrule - Ignition cable	28	
	90469							Plate - Data - Ignition manifold (for use with enameled manifold)	1	
	39377							Plate - Data - Ignition manifold (for use with plated manifold)	1	
-18	32383							Grommet - Ignition cable	28	
-19	38674							Grommet - Ignition cable	28	
-20	92365							Elbow - Sparkplug shielded (supersedes Part 88733; for use with enameled manifold)	20	
	80151							Elbow - Sparkplug shielded (supersedes Part 39421; for use with plated manifold)	20	
-21	92366							Elbow - Sparkplug shielded (supersedes Part 88734; for use with enameled manifold)	8	
	78643							Elbow - Sparkplug shielded (supersedes Part 39274; for use with plated manifold)	8	
	54364							Cap - .625 - 24 NS-1 in. (sparkplug connection shipping)	28	
-22	25710							Clamp - Magneto to manifold pipe	2	

FIGURE and INDEX NUMBER	GROUP P&W 1830 (WASP) ENGINES							Units Per Ass'y	Usage on Code		
	MAJOR ASSEMBLY IGNITION SYSTEMS (92)										
	PART NUMBER	1	2	3	4	5	6			7	NOMENCLATURE
2-7 (Cont'd)											
-23	28645								Clamp and Bracket Assembly - Right hand (magneto to manifold pipe)	1	
	*25709								Clamp - Magneto to manifold conduit	1	
	*28639								Support - 1 1/2 in. OD (magneto to manifold conduit)	1	
-24	25763								Clamp and Bracket Assembly - Left hand (magneto to manifold pipe)	1	
	*25709								Clamp - Magneto to manifold conduit	1	
	*25708								Bracket - Conduit	1	
-25	54834								Clamp - Sparkplug lead (supersedes Part 29895)	40	
	92400								Clamp - Sparkplug lead (use with Part 92370 conduit)	13	
	30576								Clamp - Sparkplug lead (use with Part 29894 conduit)	13	
-26	41182								Clamp - Manifold pipe to magneto	4	
-27	41181								Support - Manifold pipe to magneto clamp	2	
-28	42389								Support - Magneto to manifold conduit clamp	2	
-29	28155								Support - Magneto conduit long	2	
-30	18183								Spacer - 3/8 in. ID x 5/8 in. OD x 1/2 in. thick (ignition manifold)	4	
	18193								Screw - 1/2 Hexagon head drilled x 5/16 - 18 thd. x 1.000 in. long (ignition manifold)	4	
-31	282								Screw - Fillister head No. 10-32 thd. x 21/32 in. long (ignition clamps)	4	
-32	4230								Screw - Fillister head 1/4 - 28 thd. x 17/32 in. long (ignition clamps)	2	
-33	AN520-10-10								Screw - Fillister head No. 10-32 thd. x 5/8 in. long (ignition clamps; P&W Part 10024)	37	
-34	11748								Nut - Fibre insert No. 10-32 thd. x 15/64 in. thick (ignition clamp screws)	41	
-35	12856								Nut - Fibre insert 1/4-28 thd. x 5/16 in. thick (ignition clamp screws)	2	
-36	AN4028-7-1 thru 14								Marker - Ignition cable (P&W Part 17774)	2 sets	
	58585								Terminal Assembly - Booster cable	2	
	28366								Terminal - Booster cable	1	
	15893								Ferrule - .312 OD x 1/2 in. long (booster connection)	1	

Part 3

NUMERICAL PART LIST

PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
AN365-1032A	Lock Nut-Fibre	*231623	Ferrule
AN363-428	Locknut	231625	Clip
AN4028-7-1		231626	Plate - Data
Thru 9	Marker	*231627	Clamp Assembly
AN4028-7-1		231628	Clamp Assembly
Thru 14	Marker	*231629	Clamp
AN4060-1	Cap	*25708	Bracket
AN520-10-10	Screw	*25709	Clamp
AN520-10-12	Screw	25710	Clamp
10395	Clamp	25763	Clamp & Bracket Assembly
11748	Locknut	28127	Pipe
11913	Lacing	28128	Pipe
11914	Lacing	28155	Support
12079	Screw	282	Screw
123790	Cable	28366	Terminal
12724	Screw	*28639	Support
12856	Nut	28645	Clamp & Bracket Assembly
*12936	Conduit	30565	Manifold
12938	Ferrule	30576	Clamp
12940	Nut	*32370	Ferrule
14126	Gasket	32383	Grommet
14128	Gasket	32488	Conduit & Pipe Assembly
15893	Ferrule	*33105	Bolt
165375	Cable Assembly	33688	Manifold
165376	Cable Assembly	33690	Manifold
18183	Spacer	*33692	Conduit
18193	Screw	*35091	Clamp Assembly
185956	Elbow - 70°	35493	Conduit Assembly
187158	Elbow - 110°	35848	Lacing
20666	Conduit Assembly	35849	Lacing
219	Screw	35850	Guard
231611	Cable Assembly	35851	Guard
231612	Cable Assembly	*36051	Brace
231613	Conduit Assembly	36054	Brace Assembly
231614	Conduit Assembly	36873	Washer
231615	Conduit Assembly	3708	Marker
231616	Conduit	37123	Clamp Assembly
231617	Conduit Assembly	38674	Grommet
231618	Conduit Assembly	39059	Pipe
*231619	Conduit	39377	Plate Data
*231620	Conduit	39511	Cable Assembly
*231621	Conduit	39590	Conduit Assembly
*231622	Ferrule	39780	Manifold

PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
39844	Conduit Assembly	90452	Manifold
41181	Support	90455	Cable Assembly
41182	Clamp	90459	Cable Assembly
4230	Screw	90462	Cable Assembly
42389	Support	90469	Plate - Data
47266	Ferrule	90471	Cable Assembly
*48217	Bracket	92365	Elbow
48218	Clamp	92366	Elbow
*48219	Clamp	92367	Conduit Assembly
48220	Support Assembly	92368	Nut
54364	Cap	92369	Ferrule
54834	Clamp	*92370	Conduit Flexible
58585	Terminal Assembly	92372	Conduit Assembly
59477	Contact	92373	Conduit Assembly
59482	Collar	92374	Conduit Assembly
77061	Tag	92378	Conduit Assembly
*77549	Sleeve	92379	Conduit Assembly
78643	Elbow	92380	Conduit Assembly
80151	Elbow	92384	Conduit Assembly
82307	Connection	92386	Conduit Assembly
84134	Wire - Safety	92387	Conduit Assembly
*88708	Nut	92388	Conduit Assembly
89643	Elbow - 70°	92389	Conduit Assembly
90435	Conduit Assembly	92390	Conduit Assembly
90436	Nut	92391	Conduit Assembly
90437	Conduit Assembly	92392	Conduit Assembly
90438	Conduit Assembly	92400	Conduit Assembly
90439	Conduit Assembly	*92401	Clamp
90440	Conduit Assembly	96121	Sleeve
*90441	Conduit Assembly	96122	Cable
90442	Conduit Assembly	96124	Packing
90444	Pipe	96125	Sleeve
90446	Conduit and Pipe Assembly	96347	Grommet
90447	Conduit and Pipe Assembly	97491	Grommet
90448	Conduit and Pipe Assembly	99953	Screw
			Tube