PART NO.

HITACHI

Technical Manual

EX

EX/50-5, EX800H-5

Hydraulic Excavator

Service Manual consists of the following separate Part No.
Technical Manual
Workshop Manual

MidWestTech | Hitachi EX750-5, EX800H-5 Excavator Troubleshooting Technical Service M... Order the manual at mid-west-tech.com >

SECTION 1
GENERAL

—CONTENTS—

Group 1 Specification

Specifications T1-1-1
Working Ranges/Transporting
Dimensions T1-1-5

Group 2 Component Specifications

Engine T1-2-1
Engine Accessories T1-2-4
Hydraulic Components T1-2-5
Filters T1-2-7
Electrical Components T1-2-8

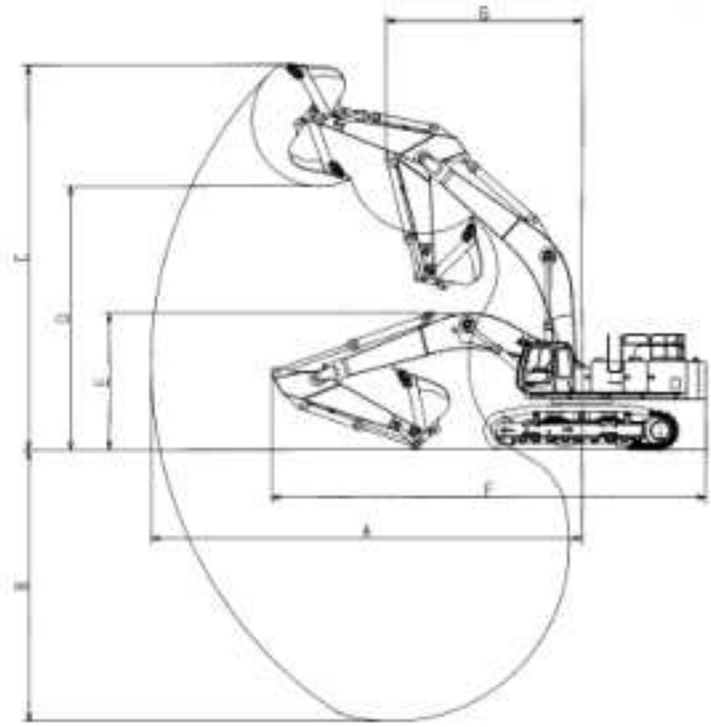
Group 3 Component Layout

Main Components T1-3-1
Electrical System (1) T1-3-2
Electrical System (2) T1-3-3
Electrical System (3) T1-3-4
Control Valve T1-3-6
Other Components T1-3-10

MidWestTech | Hitachi EX750-5, EX800H-5 Excavator Troubleshooting Technical Servi... Order the manual at mid-west-tech.com >

WORKING RANGES/ TRANSPORTING DIMENSIONS

(BACKHOE)



M162-11-004

Working Range (EX750-5, EX800H-5)

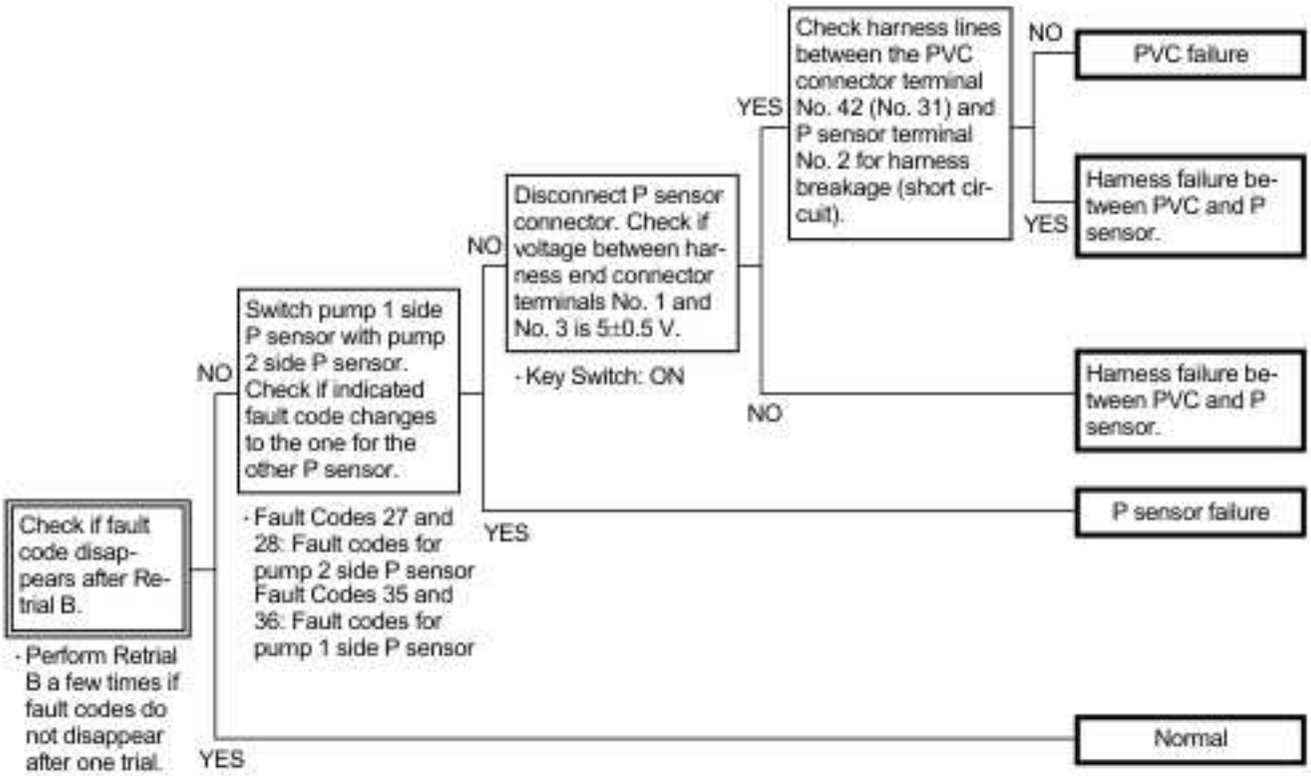
Item \ Category	8.25 m (27 ft 1 in) Boom			8.25 m (27 ft 1 in) H-boom	7.1 m (23 ft 4 in) BE-boom	
	3.60 m (11 ft 10 in) Standard Arm	4.40 m (14 ft 5 in) Semi-long Arm	5.40 m (17 ft 9 in) Long Arm	3.60 m (11 ft 10 in) H-arm	3.60 m (11 ft 10 in) H-arm	2.95 m (9 ft 8 in) BE-arm
A:Maximum Digging Reach mm (ft-in)	13990 (45'11")	14870 (48'9")	15700 (51'6")	13990 (45'11")	12800 (42'0")	12410 (40'9")
B:Maximum Digging Depth mm (ft-in)	8900 (29'2")	9680 (31'9")	10500 (34'5")	8900 (29'2")	7830 (25'8")	7260 (23'10")
C:Maximum Cutting Height mm (ft-in)	12500 (41'0")	13300 (43'7")	13500 (44'4")	12500 (41'0")	11720 (38'5")	11650 (38'3")
D:Maximum Dumping Height mm (ft-in)	8520 (27'11")	9200 (30'2")	9760 (32'0")	8520 (27'11")	7820 (25'8")	7790 (25'7")
E:Overall Height mm (ft-in)	* 4570 (15'0")	4570 (15'0")	4570 (15'0")	* 4570 (15'0")	* 4830 (15'10")	* 5040 (16'6")
F:Overall Length mm (ft-in)	14160 (46'5")	14160 (46'5")	14160 (46'5")	14160 (46'5")	13000 (42'8")	13180 (43'3")
G:Minimum Swing Radius mm (ft-in)	6360 (20'0")	6240 (20'6")	6730 (22'1")	6360 (20'0")	5380 (17'8")	5520 (18'1")

NOTE: Dimension E (Overall Machine Height) includes shoe lug height.

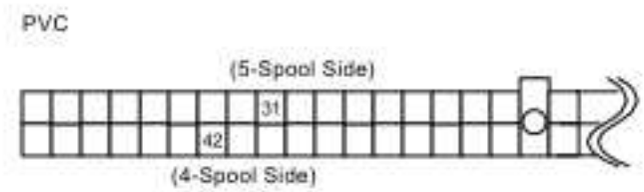
MidWestTech | Hitachi EX750-5, EX800H-5 Excavator Troubleshooting Technical Servi... Order the manual at mid-west-tech.com >

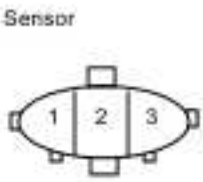
FAULT CODES 27, 28, 35, 36 (P Sensor Failure)

- Be sure to inspect wiring connections prior to troubleshooting.
- Fault codes 27 and 35 indicate the input from the P sensor is 4.75 V or more. Short circuit between the P sensor and PVC may be the cause.
  Fault codes 28 and 36 indicate the input from the P sensor is 0.25 V or less. Harness breakage between the P sensor and PVC may be the cause.



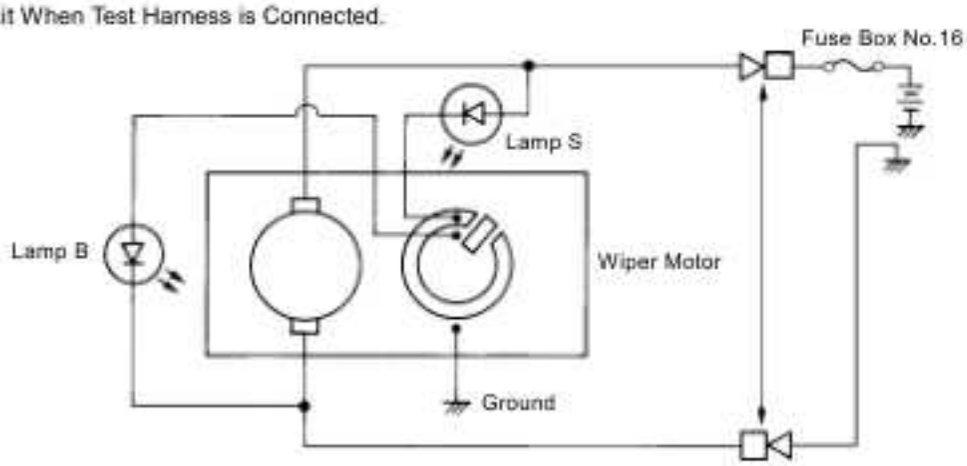
Harness End Connector (Open End Side)





MidWestTech | Hitachi EX750-5, EX800H-5 Excavator Troubleshooting Technical Servi... Order the manual at mid-west-tech.com >

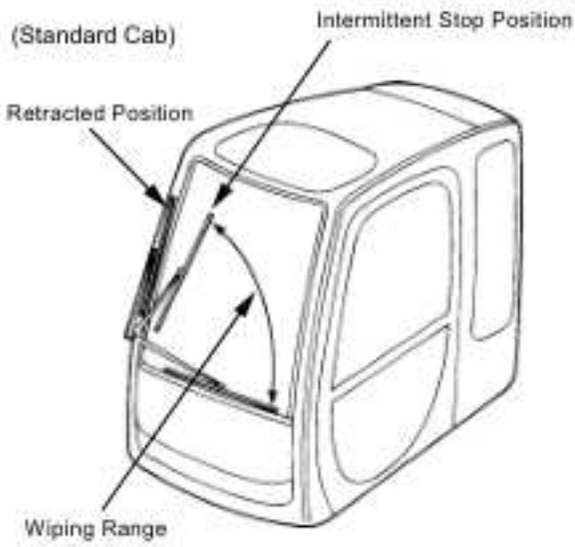
Electrical Circuit When Test Harness is Connected.



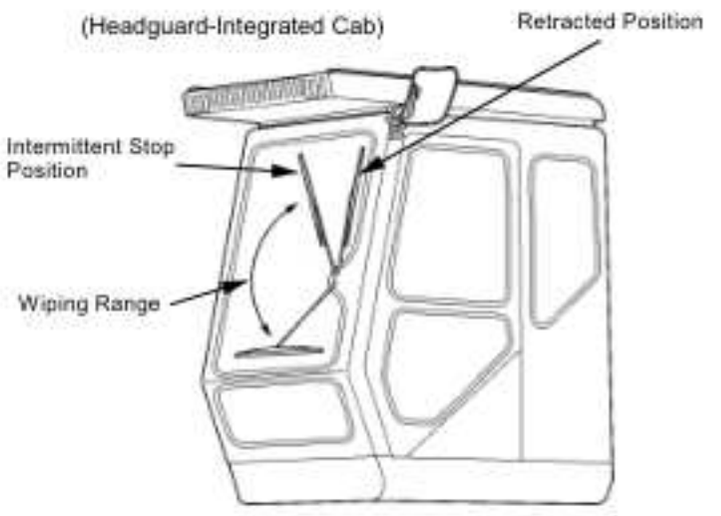
T157-07-04-002

Wiper's Operating Range

(Standard Cab)



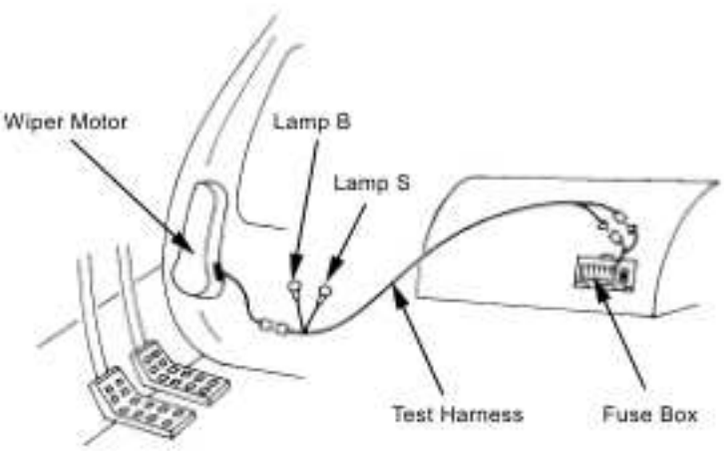
(Headguard-Integrated Cab)



T157-07-04-003

T162-05-04-007

Test Harness Connection



T157-07-04-004

MidWestTech | Hitachi EX750-5, EX800H-5 Excavator Troubleshooting Technical Servi... Order the manual at mid-west-tech.com >

MidWestTech | Hitachi EX750-5, EX800H-5 Excavator Troubleshooting Technical Service Manual | Publication EX750-5-TM

Attach to Vol.No.TT162E-01

EX750-5 EX800H-5 CAB HARNESS 2(EX750-5 : Machines produced in May 1997 or after
EX800H-5: Serial No.005199 or after)

NO.	SIZE	COLOR	CIRCUIT FROM	CIRCUIT TO	COMENT
1	0.5	LOr	E c/u 1	RELAY/H 3	CAVS
2	0.5	BW	E c/u 2	V c/u 11	CAVS
3	0.5	BY	E c/u 3	V c/u 5	CAVS
4	0.5	W	E c/u 4	ENG/H	AV Seald
8	0.5	YR	E c/u 8	ENG/H	CAVS
9	0.5	BR	E c/u 9	V c/u 4	CAVS
10	0.5	BL	E c/u 10	V c/u 12	CAVS
11	0.5	B	E c/u 11	ENG/H	AV Seald
14	0.5	BrY	E c/u 14	RELAY/H 2	CAVS
15	0.5	LW	E c/u 15	Max.Flow Change SW 1	CAVS
16	0.5	GOr	E c/u 16	Max.Flow Change SW 3	CAVS
17	0.5	OrL	E c/u 17	RELAY/H 1	CAVS
18	0.5	OrB	E c/u 18	RELAY/H 1	CAVS
19	0.5	BG	E c/u 19	ENG/H	CAVS
20	0.5	RG	E c/u 20	Cut Off Press. Change SW 2	CAVS
21	0.5	WG	E c/u 21	ENG/H	CAVS
22	0.5	WG	E c/u 22	(21)	CAVS
23	0.5	WR	E c/u 23	Eng.Control Dial 5	CAVS
24	0.5	BrY	E c/u 24	FUSE 2	CAVS
25	0.5	B	E c/u 25	Floor GND	CAVS
26	0.5	BrB	E c/u 26	(39)	CAVS
28	0.5	YL	E c/u 28	Max.Flow Change SW 3	CAVS
29	0.5	BrG	E c/u 29	Cut Off Press. Change SW 3	CAVS
30	0.5	W	E c/u 30	RELAY/H 1	CAVS
31	0.5	RW	E c/u 31	Quick Idle SW(Fe)	CAVS
32	0.5	YB	E c/u 32	Quick Idle SW(Hi)	CAVS
33	0.5	LY	E c/u 33	ENG/H	CAVS
34	0.5	GB	E c/u 34	ENG/H	CAVS
35	0.5	WB	E c/u 35	ENG/H	CAVS
36	0.5	WB	E c/u 36	(35)	CAVS
37	0.5	BrY	E c/u 37	(24)	CAVS
38	0.5	B	E c/u 38	(25)	CAVS
39	0.5	RB	E c/u 39	FUSE 6	CAVS
42	0.5	W	(233)	ENG/H	CAVS
45	0.5	RY	(240)	ENG/H	CAVS
101	1.25	B	E c/u 101	Floor GND	CAVS
102	0.5	BrW	E c/u 102	RELAY/H 3	CAVS
103	0.5	Br	E c/u 103	ENG/H	CAVS
104	0.5	R	E c/u 104	ENG/H	CAVS
105	1.25	B	E c/u 105	(101)	CAVS
106	0.5	BrW	E c/u 106	(102)	CAVS
107	0.5	Or	E c/u 107	ENG/H	CAVS
108	0.5	Y	E c/u 108	ENG/H	CAVS
201	0.5	BW	V c/u 1	ENG/H	CAVS
202	0.5	BG	V c/u 2	ENG/H	CAVS
203	0.5	BrR	V c/u 3	ENG/H	CAVS
206	0.5	BL	V c/u 6	Dr.EX 3	CAVS
207	0.5	RB	V c/u 7	Dr.EX 2	CAVS
208	0.5	BY	V c/u 8	ENG/H	CAVS
209	0.5	WB	V c/u 9	ENG/H	CAVS
210	0.5	BrG	V c/u 10	ENG/H	CAVS
213	0.5	BG	V c/u 13	Dr.EX 1	CAVS
215	0.5	BP	V c/u 15	Dr.EX 4	CAVS
216	0.5	LOr	V c/u 16	ENG/H	CAVS
217	0.5	LB	V c/u 17	ENG/H	CAVS
218	0.5	BY	V c/u 18	ENG/H	CAVS
220	0.5	GrL	V c/u 20	RELAY/H 1	CAVS
221	0.5	BY	V c/u 21	RELAY/H 1	CAVS
222	0.5	YB	V c/u 22	ENG/H	CAVS
223	0.5	WL	V c/u 23	D10-A	CAVS
224	0.5	LG	V c/u 24	ENG/H	CAVS
225	0.5	LW	V c/u 25	ENG/H	CAVS
227	0.5	GrR	V c/u 27	RELAY/H 1	CAVS
228	0.5	BR	V c/u 28	RELAY/H 1	CAVS
229	0.5	Or	V c/u 29	ENG/H	CAVS
230	0.5	WR	V c/u 30	ENG/H	CAVS
231	0.5	GB	V c/u 31	ENG/H	CAVS
232	0.5	G	V c/u 32	ENG/H	CAVS
233	0.5	W	V c/u 33	ENG/H	CAVS
234	0.5	GOr	V c/u 34	ENG/H	CAVS
235	0.5	RW	V c/u 35	ENG/H	CAVS
236	0.5	Y	V c/u 36	EX3-1 2	CAVS
237	0.5	YG	V c/u 37	FUSE 8	CAVS
238	0.5	B	V c/u 38	(25)	CAVS
239	0.5	BrY	V c/u 39	(24)	CAVS
240	0.5	RY	V c/u 40	ENG/H	CAVS
241	0.5	G	V c/u 41	ENG/H	CAVS
242	0.5	RG	V c/u 42	ENG/H	CAVS
243	0.5	RY	V c/u 43	ENG/H	CAVS

NO.	SIZE	COLOR	CIRCUIT FROM	CIRCUIT TO	COMENT
244	0.5	YL	V c/u 44	ENG/H	CAVS
246	0.5	YG	V c/u 46	(37)	CAVS
247	0.5	B	V c/u 47	(25)	CAVS
248	0.5	BrY	(239)	V c/u 48	CAVS
301	1.25	B	V c/u 101	(101)	CAVS
302	0.5	BrR	V c/u 102	FUSE 9	CAVS
303	0.5	GY	V c/u 103	D20-K	CAVS
306	0.5	RB	V c/u 106	ENG/H	CAVS
309	1.25	B	V c/u 109	(101)	CAVS
310	0.5	BrR	V c/u 110	(302)	CAVS
312	0.5	OrL	V c/u 112	ENG/H	CAVS
314	0.5	RL	V c/u 114	ENG/H	CAVS
317	0.5	GOr	(234)	ENG/H	CAVS
355	0.5	BrR	(302)	ENG/H	CAVS
362	0.5	BW	RELAY/H 3	FUSE 3	CAVS
364	Seald	Wire	(101)	ENG/H	AVS
401	0.5	RL	RELAY/H 1	D16-A	CAVS
402	0.5	WY	RELAY/H 1	ENG/H	CAVS
403	0.5	GL	RELAY/H 1	ENG/H	CAVS
404	0.5	BrW	RELAY/H 1	Auto-Lub./Con.19	CAVS
406	0.5	P	RELAY/H 1	Limit SW 2	CAVS
407	0.5	WB	RELAY/H 1	ENG/H	CAVS
408	0.5	L	RELAY/H 1	ENG/H	CAVS
409	0.5	G	RELAY/H 1	ENG/H	CAVS
410	0.5	WL	RELAY/H 1	ENG/H	CAVS
429	0.5	YG	RELAY/H 2	(237)	CAVS
434	0.5	YL	RELAY/H 2	Eng.Control Dial 1	AVS
435	0.5	YR	RELAY/H 2	Eng.Control Dial 3	AVS
438	0.5	YW	RELAY/H 2	Eng.Control Dial 2	CAVS
439	0.5	R	RELAY/H 2	FUSE 1	CAVS
440	0.5	YG	RELAY/H 3	(237)	CAVS
443	0.5	Or	RELAY/H 3	D20-A	CAVS
446	0.5	Br	RELAY/H 2	ENG/H	CAVS
447	0.5	RG	RELAY/H 2	ENG/H	CAVS
500	5	B	RELAY/H 5	Floor GND	AVS
501	3	B	(500)	ENG/H	AVS
515	0.85	BrB	ENG/H	FUSE 5	CAVS
531	3	R	ENG/H	Key SW 1	AVS
534	3	RW	FUSE 18 +	Key SW 4	AVS
535	2	RB	D6-A	Key SW 5	AVS
536	2	BW	FUSE 4 +	Key SW 6	AVS
537	2	RW	D6-K	ENG/H	AVS
548	8	W	FUSE 11 +	ENG/H	AV
549	2	RB	(535)	FUSE 5 +	AVS
550	0.5	R	(531)	RELAY/H 2	CAVS
552	0.5	RW	(537)	RELAY/H 2	CAVS
553	3	RG	FUSE 11	RELAY/H 5	AVS
557	0.85	Y	ENG/H	RELAY/H 3	CAVS
558	2	RL	ENG/H	RELAY/H 4	AVS
562	2	R	ENG/H	RELAY/H 4	AVS
563	2	R	(562)	Light on the Cab+	AVS
564	2	B	(500)	Light on the Cab-	AVS
566	2	RW	FUSE 18	RELAY/H 4	AVS
568	0.5	P	Horn SW(Fe)	RELAY/H 3	CAVS
569	0.5	B	Horn SW(Mi)	(501)	CAVS
570	1.25	RG	RELAY/H 4	ENG/H	CAVS
572	0.5	L	FUSE 13	RELAY/H 2	CAVS
593	0.5	LY	ENG/H	RELAY/H 2	CAVS
595	0.85	BrR	FUSE 20	Room Lamp	CAVS
596	0.5	LgW	Speaker R+	RADIO FM 3	CAVS
597	0.5	LgB	Speaker R-	RADIO FM 9	CAVS
598	0.5	LgY	Speaker L+	RADIO FM 4	CAVS
599	0.5	LgR	Speaker L-	RADIO FM 10	CAVS
600	0.5	B	(500)	RADIO FM 7	CAVS
602	0.5	R	(439)	RADIO FM 6	CAVS
610	0.85	WY	FUSE 7	Air Con./C 1	CAVS
611	3	R	(531)	FUSE 1 +	AVS
612	5	W	(548)	FUSE 10 +	AVS Diesel Hydr. 8
613	3	W	(548)	FUSE 12 +	AVS Diesel Hydr. 8
614	3	W	(548)	FUSE 16 +	AVS
620	1.25	Br	FUSE 19	RELAY/H 4	CAVS
621	0.5	BrR	(595)	RADIO FM 2	CAVS
625	2	W	(548)	FUSE 14 +	AVS
630	0.85	L	FUSE 15 +	Key SW 3	CAVS
631	0.5	Y	FUSE 15	Ether SW 1	CAVS
632	0.5	YL	ENG/H	Ether SW 2	CAVS
633	0.5	Sb	RELAY/H 3	ENG/H	CAVS
634	0.5	W	(548)	RELAY/H 3	CAVS

NO.	SIZE	COLOR	CIRCUIT FROM	CIRCUIT TO	COMMENT
640	0.85	YW	FUSE 17	ENG/H	CAVS
644	0.85	B	Melice Alarm SW1	(500)	CAVS
645	0.85	YL	Melice Alarm SW2	ENG/H	CAVS
650	0.5	GW	(675)	ENG/H	CAVS
651	0.5	YW	Auto-Lub./C 14	Auto-Lub. Alarm SW 3	CAVS
652	0.5	OrW	Auto-Lub./C 9	Auto-Lub. Alarm SW 2	CAVS
654	0.5	RW	Auto-Lub./C 17	Auto-Lub. Alarm SW 4	CAVS
656	0.5	WR	Auto-Lub./C 6	Auto-Lub. Interval SW 4	CAVS
658	0.5	RG	Auto-Lub./C 8	RELAY/H 3	CAVS
661	0.5	GW	Auto-Lub./C 11	(675)	CAVS
662	0.5	LW	Auto-Lub./C 12	Auto-Lub. Interval SW 2	CAVS
663	0.5	YR	Auto-Lub./C 13	Auto-Lub. Interval SW 3	CAVS
664	0.5	WL	Auto-Lub./C 1	ENG/H	CAVS
667	0.5	RL	Auto-Lub./C 4	ENG/H	CAVS
668	0.5	LY	Auto-Lub./C 18	RELAY/H 3	CAVS
671	0.5	B	Auto-Lub./C 21	(25)	CAVS
675	1.25	GW	RELAY/H 4	FUSE 10	CAVS
676	1.25	Y	RELAY/H 4	ENG/H	CAVS
677	0.5	WL	ENG/H	D10-K	CAVS
678	0.5	WL	(677)	D11-K	CAVS
679	0.5	G	ENG/H	D11-A	CAVS
681	0.5	BrR	(302)	D9-K	CAVS
682	0.5	OrL	(312)	D9-A	CAVS
684	0.5	BrB	(515)	D12-K	CAVS
685	0.5	B	(500)	D12-A	CAVS
686	0.5	WG	(21)	Resistor 2	CAVS
687	0.5	WB	(35)	Cut Off Press. Change SW 1	CAVS
690	0.5	YW	(439)	Eng.Control Dial 4	CAVS
691	0.5	B	(25)	Eng.Control Dial 6	CAVS
692	0.5	Y	(557)	Eng.Control Dial 7	CAVS
693	0.5	WB	(35)	Eng.Control Dial 8	CAVS
694	0.5	WG	(21)	Eng.Control Dial 10	CAVS
700	0.5	WY	Blower Main Relay 1	(618)	CAVS
701	0.5	G	Blower Main Relay 2	Air Con./C 2	CAVS
702	1.25	RW	Blower Main Relay 3	Blower Motor 2	CAVS
703	2	Br	Blower Main Relay 4	FUSE 12	AVS
706	1.25	B	Blower Hi Relay 3	(500)	CAVS
707	1.25	BR	Blower Hi Relay 4	Blower Motor 1	CAVS
708	0.5	WY	Blower Hi Relay 1	(706)	CAVS
709	0.5	YL	Blower Hi Relay 2	Air Con./C 5	CAVS
712	1.25	B	Blower Mid Relay 2-3	(706)	CAVS
713	1.25	LR	Blower Mid Relay 3-4	Blower Resistor 2	CAVS
714	0.5	WY	Blower Mid Relay 2-1	(706)	CAVS
715	0.5	L	Blower Mid Relay 2-2	Air Con./C 4	CAVS
718	1.25	B	Blower Mid Relay 1-3	(706)	CAVS
719	1.25	WR	Blower Mid Relay 1-4	Blower Resistor 3	CAVS
720	0.5	WY	Blower Mid Relay 1-1	(706)	CAVS
721	0.5	W	Blower Mid Relay 1-2	Air Con./C 3	CAVS
724	1.25	W	Compress. Relay 3	ENG/H	CAVS
725	1.25	Br	Compress. Relay 4	(703)	CAVS
726	0.5	WY	Compress. Relay 1	(706)	CAVS
727	0.5	BrW	Compress. Relay 2	Dual Press. SW2	CAVS
730	0.5	P	Air Con./C 6	Dual Press. SW1	CAVS
731	0.5	LG	Air Con./C 21	Strcs.Servo Motor 1	CAVS
732	0.5	GR	Air Con./C 22	Strcs.Servo Motor 2	CAVS
733	0.85	B	Air Con./C 14	(706)	CAVS
734	1.25	B	Blower Resistor 4	(706)	CAVS
735	1.25	BR	Blower Resistor 1	(707)	CAVS
736	0.5	BrR	Bkt.Servo Motor 5	Air Con./C 13	CAVS
737	0.5	Or	Bkt.Servo Motor 3	Air Con./C 11	CAVS
738	0.5	Lg	Bkt.Servo Motor 4	Air Con./C 23	CAVS
739	0.5	BG	Bkt.Servo Motor 2	Air Con./C 18	CAVS
740	0.5	RY	Bkt.Servo Motor 1	Air Con./C 17	CAVS
741	0.5	BrR	A/M Servo Motor 5	(736)	CAVS
742	0.5	RW	A/M Servo Motor 3	Air Con./C 10	CAVS
743	0.5	GW	A/M Servo Motor 4	Air Con./C 16	CAVS
744	0.5	BL	A/M Servo Motor 2	Air Con./C 20	CAVS
745	0.5	RL	A/M Servo Motor 1	Air Con./C 19	CAVS
746	0.5	BrR	Thermister 1	(736)	CAVS
747	0.5	PG	Thermister 2	Air Con./C 9	CAVS
750	0.85	BW	FUSE 4	ENG/H	CAVS
751	2	RW	FUSE 19 +	(534)	CAVS

NO.	SIZE	COLOR	CIRCUIT FROM	CIRCUIT TO	COMENT
756	0.5	LY	ENG/H	(33)	CAVS
758	0.5	RW	(235)	ENG/H	CAVS
759	0.5	RY	(243)	ENG/H	CAVS
760	0.5	G	(241)	ENG/H	CAVS
762	0.5	WB	(35)	ENG/H	CAVS
763	0.5	RW	(235)	EX3-1 1	CAVS
764	0.5	RY	(243)	EX3-1 3	CAVS
765	0.5	LR	EX3-2 2	EX3-2 3	CAVS
766	3	R	FUSE 16	Aux.+	AVS
767	3	B	(500)	Aux.-	AVS
768	0.5	R	(766)	D7-K	CAVS
769	0.5	B	(767)	D7-A	CAVS
804	2	W	ENG/H	FUSE 14	AVS
823	1.25	RW	ENG/H	RELAY/H 4	CAVS
829	0.5	B	(500)	Limit SW 1	CAVS
831	0.5	YL	D16-K	ENG/H	CAVS
832	0.5	YL	D17-K	(831)	CAVS
833	0.5	LY	D17-A	(756)	CAVS
834	0.5	W	D18-K	(24)	CAVS
835	0.5	B	D18-A	(500)	CAVS
836	0.5	GY	Buzzer	(303)	CAVS
837	0.5	YG	Buzzer	(237)	CAVS
850	0.5	WB	(35)	Cut Off Press. Change SW 4	CAVS
851	0.5	WB	(35)	ENG/H	CAVS
852	0.5	LW	(225)	ENG/H	CAVS
853	0.5	Or	Max.Flow Change SW 2	ENG/H	CAVS
854	0.5	Or	Max.Flow Change SW 4	(853)	CAVS
855	0.5	Or	Max.Flow Change SW 5	(853)	CAVS
856	0.5	RG	(20)	Resistor 1	CAVS
857	0.5	Or	D21-K	(853)	CAVS
858	0.5	LW	D21-A	(852)	CAVS
864	0.5	RG	Signal Line	(20)	CAVS
865	0.5	WB	Ground Line	(887)	CAVS
866	0.85	R	ENG/H	(766)	CAVS

Order the manual at mid-west-tech.com >