

CARVER

AMAZING LOUDSPEAKER SERVICE MANUAL

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Section 1

INTRODUCTION

This manual is intended for use by qualified, authorized personnel only.

Due to the unique and complex circuit designs of Carver Corporation, the following procedure is recommended to diagnose & repair problems with speed and accuracy.

The best way to figure out what is wrong is to learn what is working properly, in order to learn what is not, and to use the "process of elimination."

Upon locating the defective area, you then would use your own preferred troubleshooting skills.

The removal of parts for testing should be kept to an absolute minimum. "In-circuit" analysis should provide you with enough data to determine correct operation.

Refer to the design-history section of the service manual if you locate a part in the circuit that is not the same as the schematic. This section will be of great assistance to you in performing a correct repair.

At Carver Corporation, we continually strive for the most reliable, cost-efficient product available.

When updates and service bulletins are sent to you, please take the time to review them and insert them into the correct service manuals.

Section 2

SPECIFICATIONS

The Amazing Loudspeaker

Frequency response	25 Hz to 40 KHz (-3.0dB from reference level)
Impedance level	4.0 ohms resistive
Sensitivity	85dB at 1 meter/2.82 volts
Maximum SPL	113dB, symphonic music 110dB, rock music power
Cross-over	Ribbon operates from 100Hz-40'Hz Subwoofer augments ribbon below 100 Hz
Recommended power	300 watts minimum 1000 watts maximum
Finish	Ebony lacquer
Dimensions	Width: 30 inches Depth: 10 inches Height: 66 inches
Weight	112 pounds each (boxed)
Accessories	Sub-Bass Room Damper

The Amazing Loudspeaker

Silver Edition

Frequency response	25 Hz to 40 KHz (-3.0dB from reference level)
Impedance level	8.0 ohms resistive
Sensitivity	88.5dB at 1 meter/2.82 volts
Maximum SPL	119dB, symphonic music 116dB, rock music power
Crossover	Ribbon operates from 120-40KHz Subwoofer augments ribbon below 120 Hz
Recommended power	60 watts minimum 600 watts maximum
Finish	Ebony lacquer with gold and anthracite highlights -or- Natural Oiled Oak
Dimensions	Width: 27.5 inches Depth: 10 inches Height: 54 inches
Weight	75 pounds each (boxed)

The Amazing Loudspeaker

Platinum Edition

Frequency response	23 Hz to 40 KHz (-3.0dB from reference level)
Impedance level	8.0 ohms resistive
Sensitivity	89dB at 1 meter/2.82 volts
Maximum SPL	121dB, symphonic music 118dB, rock music power
Crossover	Ribbon operates from 120-40KHz Subwoofer augments ribbon below 120 Hz
Recommended power	60 watts minimum 750 watts maximum
Finish	Ebony lacquer with gold and anthracite highlights -or- Natural Oiled Oak
Dimensions	Width: 30 inches Depth: 10 inches Height: 66 inches
Weight	110 pounds each (boxed)



Section 3

Diagrams & Schematics

SPEAKERS

<i>ALS Crossover Schematic</i>	<i>9-10</i>
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<i>Final Assembly–Continuous Ribbon Wiring</i>	<i>25-26</i>
<i>Button-up–Left & Right</i>	<i>27-29</i>

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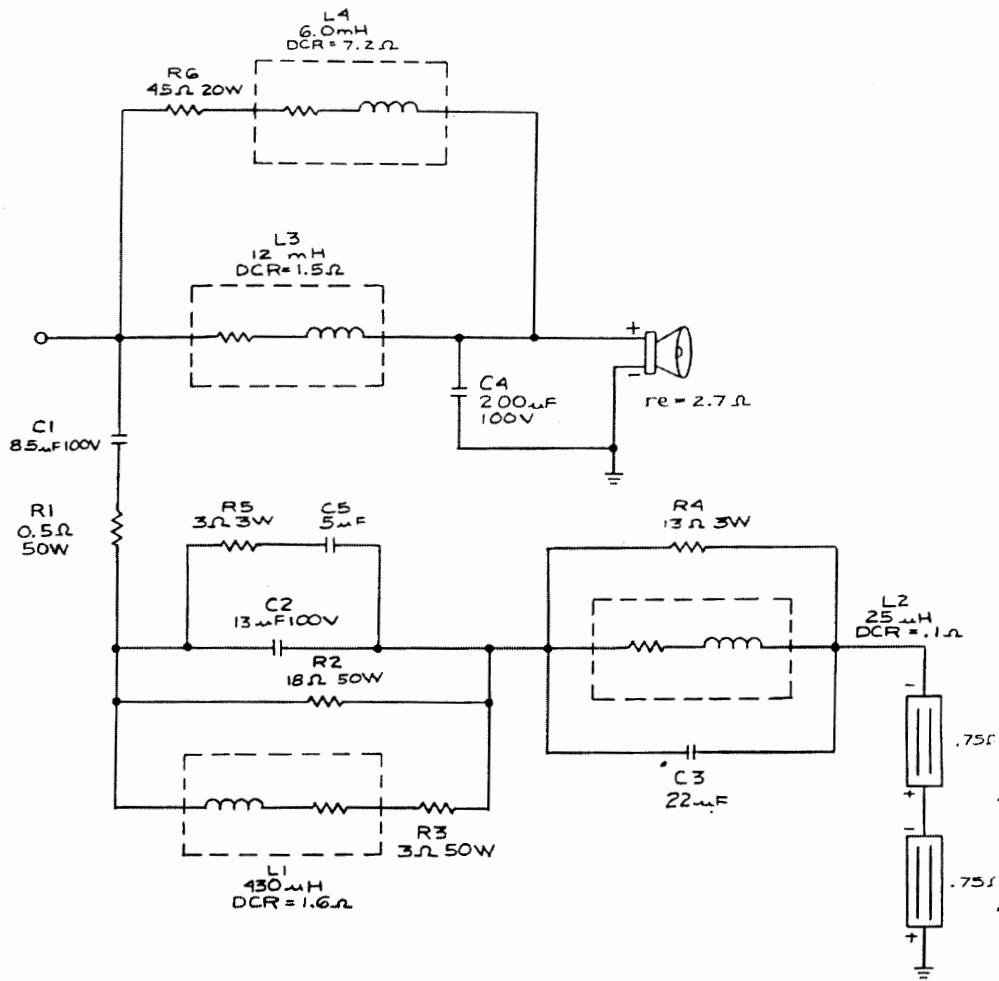
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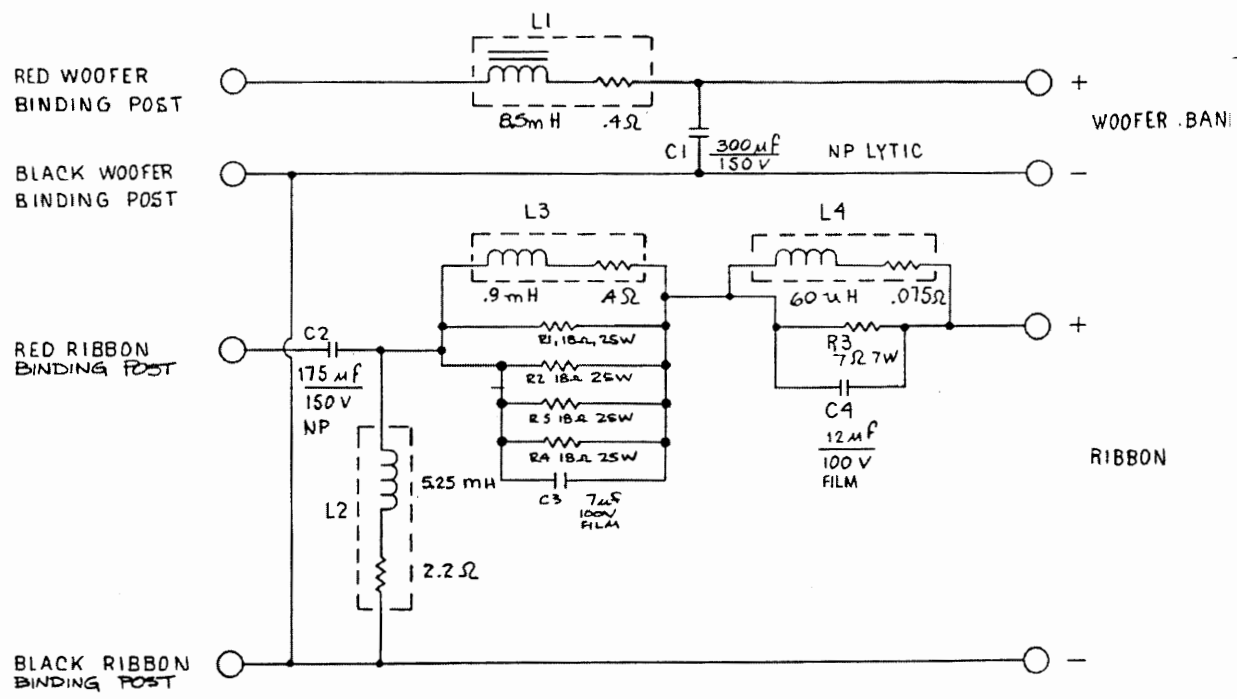
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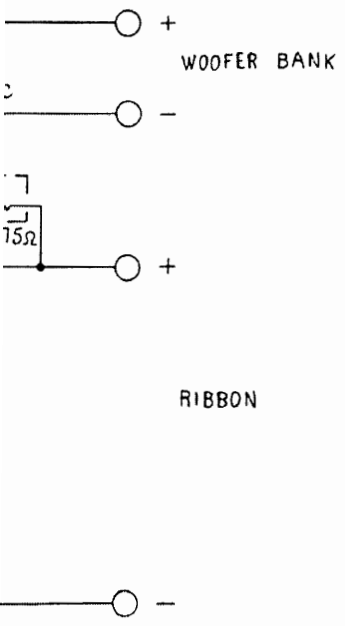
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	B	INCORPORATED ECO 887	11-16-8	<i>W</i>
	C	INCORPORATED ECO 921	1-17-9	<i>W</i>
	D	INCORPORATED ECO 950	2-9-9	<i>W</i>
	E	INCORPORATED ECO 960	2-14-9	<i>W</i>
	F	INCORPORATED ECO # 968	2-22-9	
	G	INCORPORATED ECO # 1011	3-30-9	
C-6	H	ADDED R2-9 18.2 25W CHANGE R1 FROM: 4.7 100W TO: 18.2 25W PER ECO # 1087	5-27-89	<i>W</i>



WOOFER BANK

RIBBON

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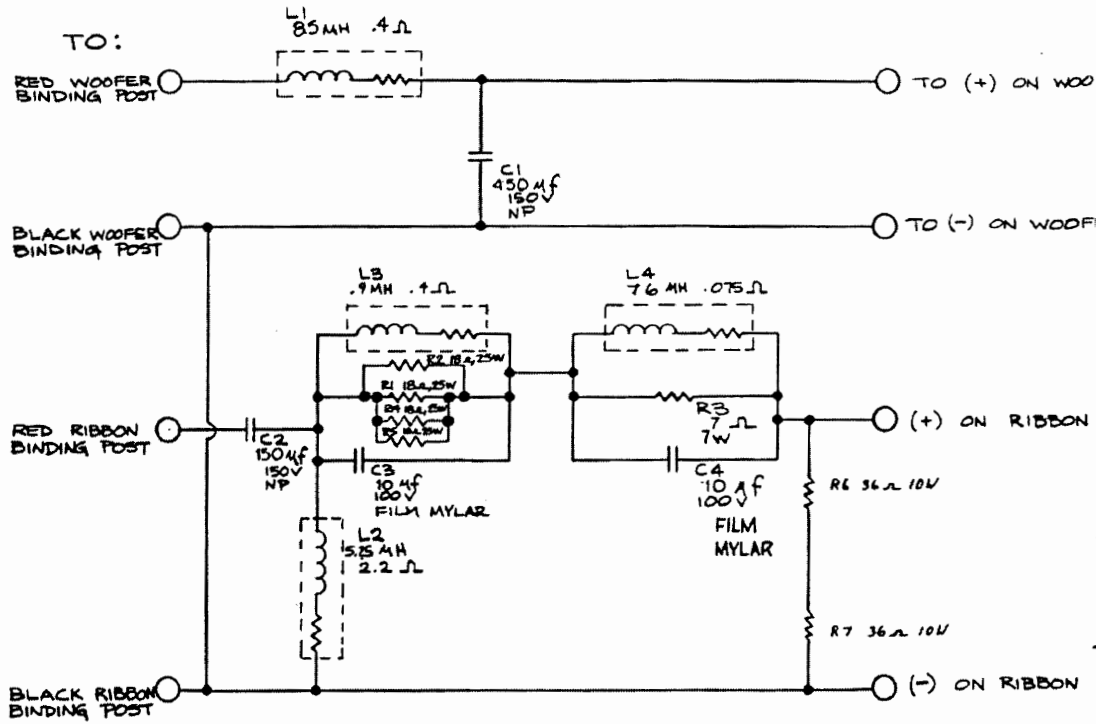
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PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES ± .001 ± .005 ± .01		CONTRACT NO		<h1 style="margin: 0;">CARVER</h1> <p style="margin: 0;">SCHEMATIC</p> <p style="margin: 0;">SILVER CROSSOVER (CHUANTAI)</p>
MATERIAL		APPROVALS	DATE	
FINISH		DRAWN <i>CY-M</i>	2-14-89	
DO NOT SCALE DRAWING		CHECKED <i>P. Gorman</i>	2-14-9	
		ISSUED		SIZE FSCM NO D
				DWG NO 605-00530-00
				REV H
				SCALE NONE SHEET 1 OF 1

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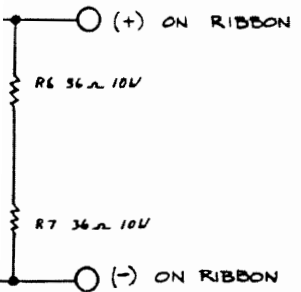
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DWG. NO. 605-00528-00		SH 1 of 1	REV D	1
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	2	REDRAWN	2-14-9	
	A	RELEASED TO PRODUCTION	2-20-9	
C-L	B	ADDED R2, A, S 18Ω, 25W CHANGED R1 FROM: 4.5Ω 25W TO: 18Ω, 25W PER ECO # 1087	5-22-89	<i>th</i>
C6	C	CHANGED L3 FROM .9MH, 4Ω TO .8MH, 3Ω PER ECO # 1098	5-23-89	<i>th</i>
C-L BC-5	D	CHANGED L3 FROM .8MH, 3Ω TO .9MH, 3Ω ADDED R6, R7 RES WV 36 OHM 10W	6-26-89	<i>th</i>

○ TO (+) ON WOOFER BANK

○ TO (-) ON WOOFER BANK



NOTES: UNLESS OTHERWISE SPECIFIED

QTY REQD	FRCH NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION		MATERIAL SPECIFICATION
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .005 ± .005 ± .005			CONTRACT NO		<h1>CARVER</h1> <p>SCHMATIC PLATINUM CROSSOVER</p>
MATERIAL			APPROVALS	DATE	
FINISH			DESIGNED BY P. GORMAN	2-13-9	
DO NOT SCALE DRAWING			CHECKED	ISSUED	
			SIZE	FRCH NO.	DWG. NO.
			D		605-00528-00
			SCALE		SHEET 1 OF 1

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NOTES: UNLESS OTHERWISE SPECIFIED.

① LOOP EXTRA TERMINAL CUP WIRES TOGETHER AND SECURE WITH A TYRAP.

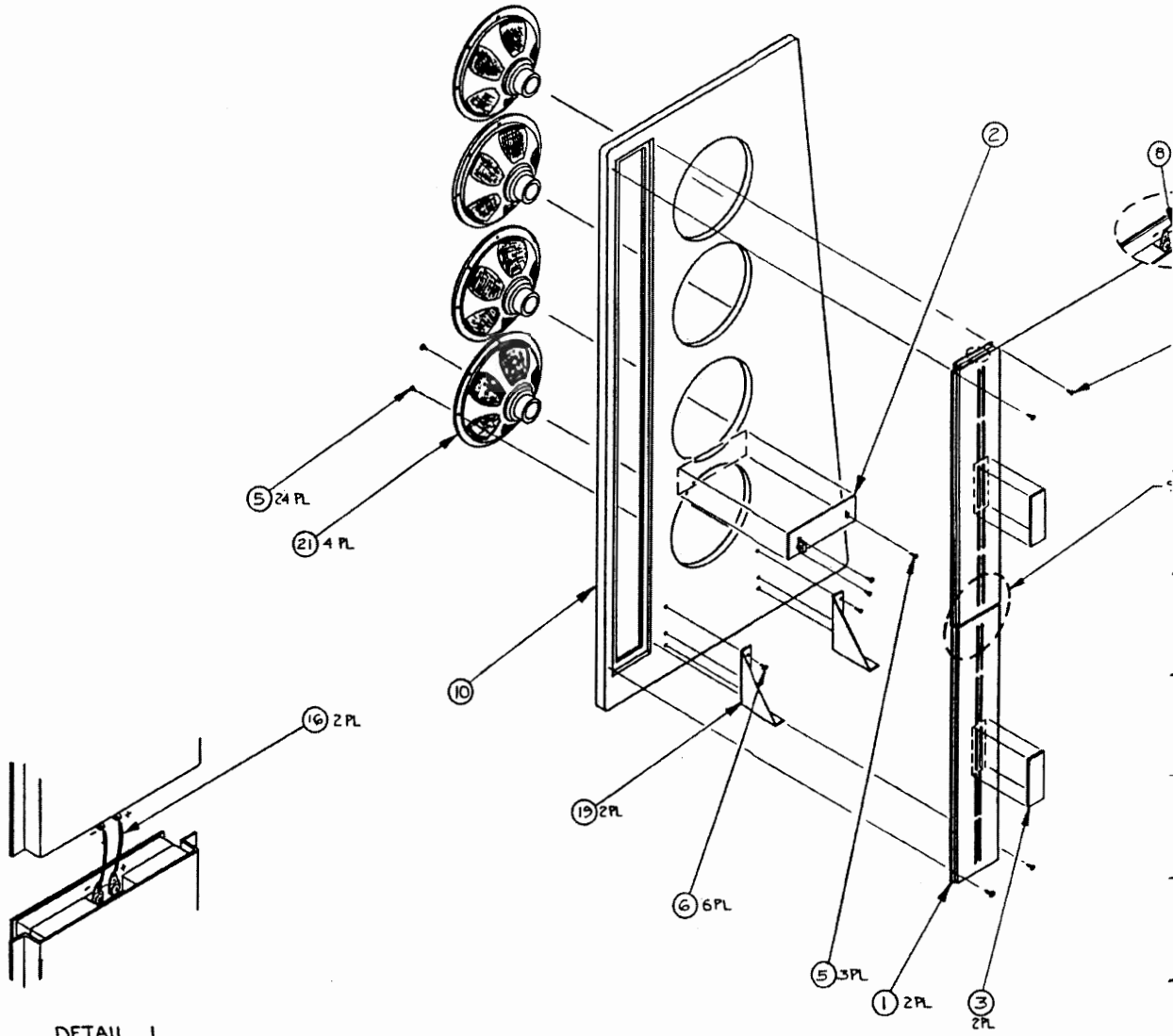
2. FOR ASSY. # 604-00372-00, F/A RIGHT,
REPLACE: 520-00004-01 WITH: 520-00003-01
520-10003-01 520-10001-00

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DETAIL 1
(SCALE 1/2)

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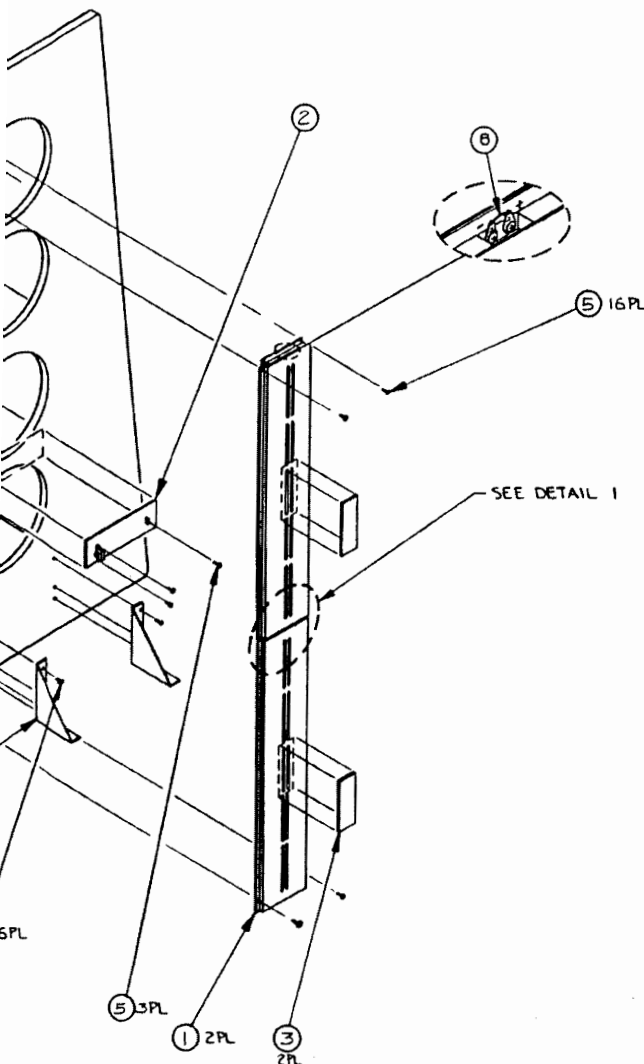
DWG NO 604-00371-00

SH 1

REV E

1

REV		DESCRIPTION	DATE	APPROVED
A		RELEASED	1-9-87	PM
B		SEE ECO# 613	1-14-87	PM
C		SEE ECO# 641	3-2-87	PM
E		SEE ECO 724 & 741	11-4-87	DM



ITEM	FORM NO.	PART OR IDENTIFYING NO.	INDUSTRY OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES		CONTRACT NO.	
MATERIAL		APPROVALS	DATE
FINISH		DRAWN P MCGUIRE	2-9-87
DO NOT SCALE DRAWING		CHECKED	
		ISSUED	
		SIZE	F8CM NO.
		D	DWG. NO. 604-00371-00
		SCALE 1/8	REV E
			SHEET 1 OF 2

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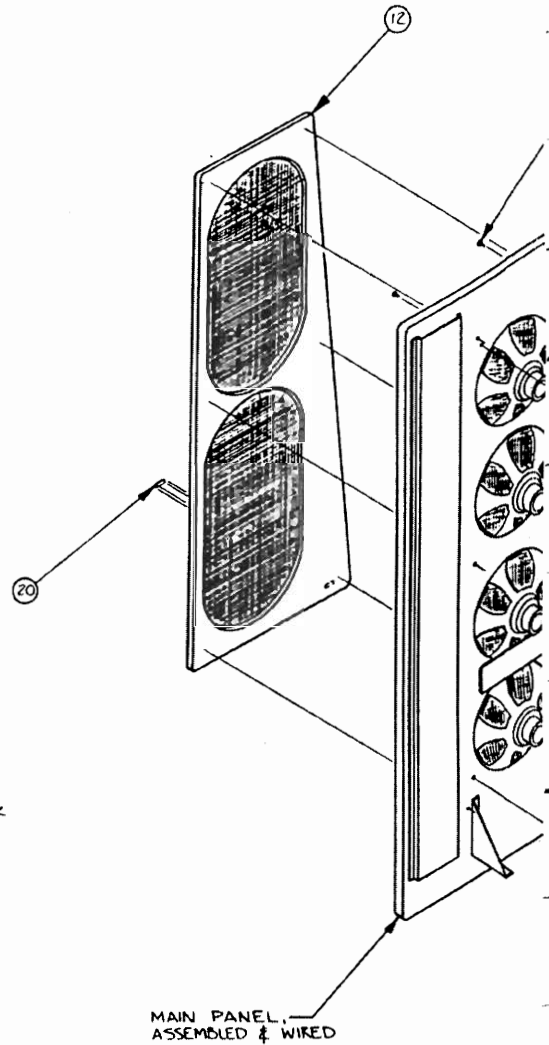
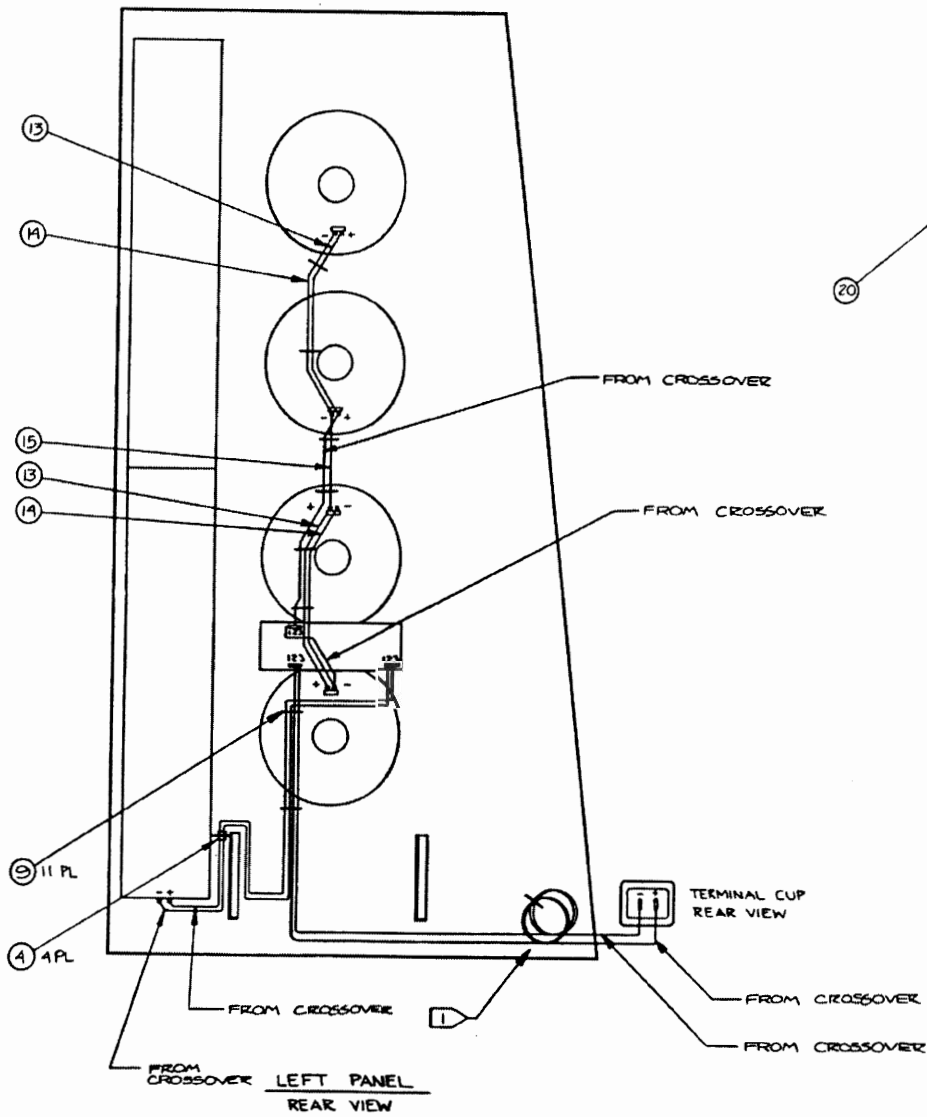
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WIRING INSTRUCTIONS



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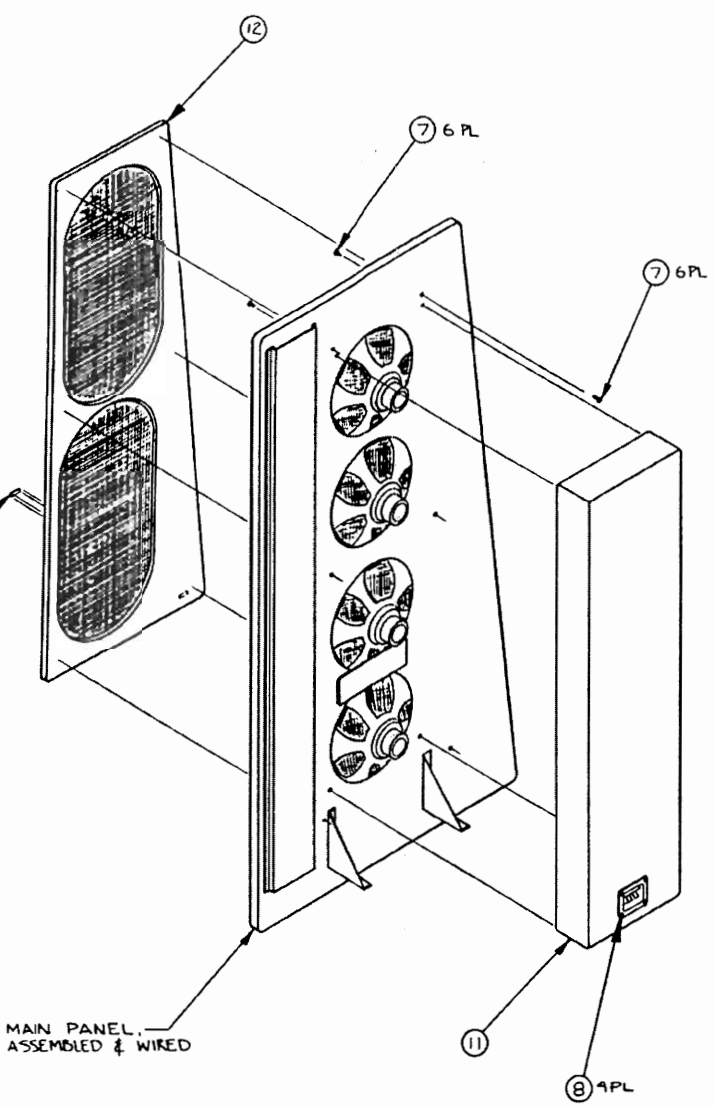
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DWG. NO. 604-00371-00		REV. 2	REV. E	1
REVISIONS			DATE	APPROVED
DATE	REV.	DESCRIPTION		



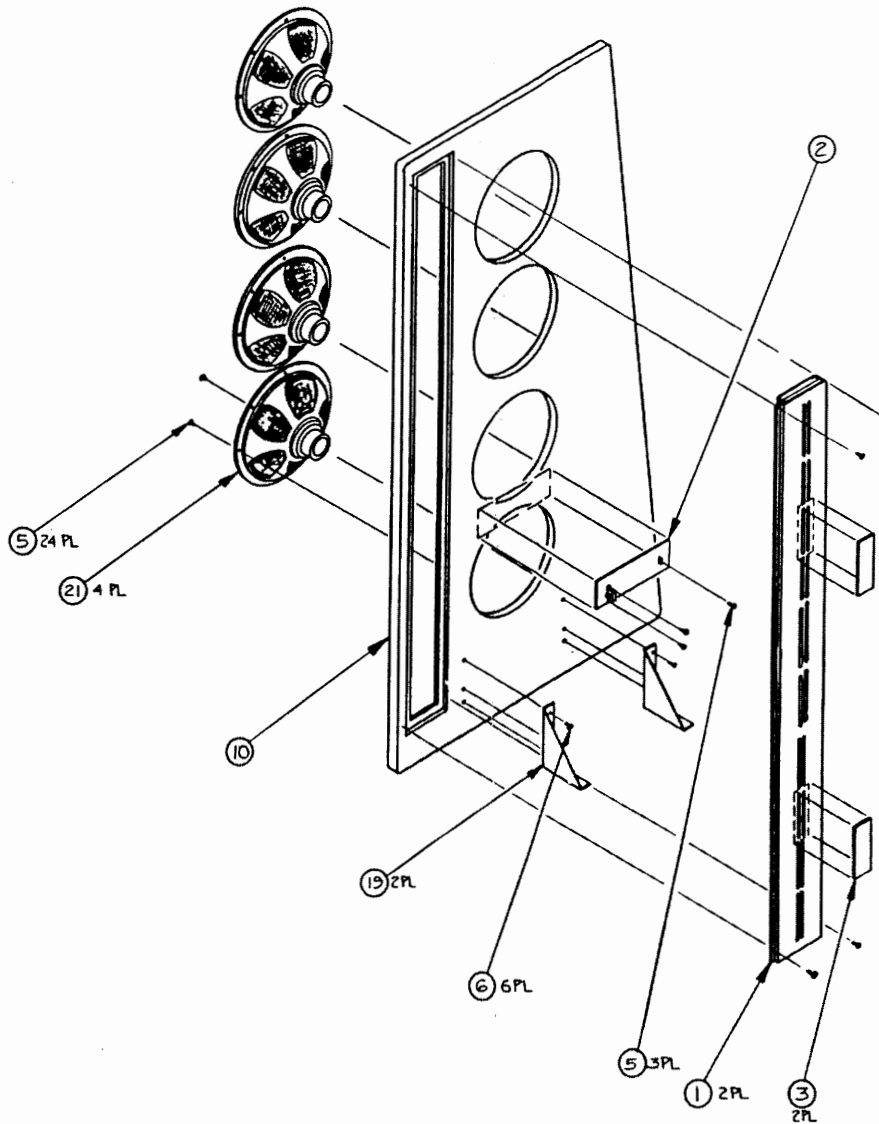
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QTY	FRGM	PART OR	NOMENCLATURE	MATERIAL
REQD	NO	IDENTIFYING NO	OR DESCRIPTION	SPECIFICATION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± ± ± FINISH		CONTRACT NO.		
		APPROVALS		
		DATE		
		DRAWN P MCGUIRE 2-9-87		
CHECKED				
ISSUED				
DO NOT SCALE DRAWING		SIZE / FRGM NO	DWG. NO.	REV.
		D	604-00371-00	E
		SCALE 1/8	SHEET 2 OF 2	

NOTES: UNLESS OTHERWISE SPECIFIED.

① LOOP EXTRA TERMINAL CUP WIRES TOGETHER AND SECURE WITH A TYRAP.

2. FOR ASSY. # 604-00372-00, F/A RIGHT,
REPLACE: 520-00004-01 WITH: 520-00003-01
520-10003-01 520-10001-00



DETAIL 1
(SCALE 1/2)

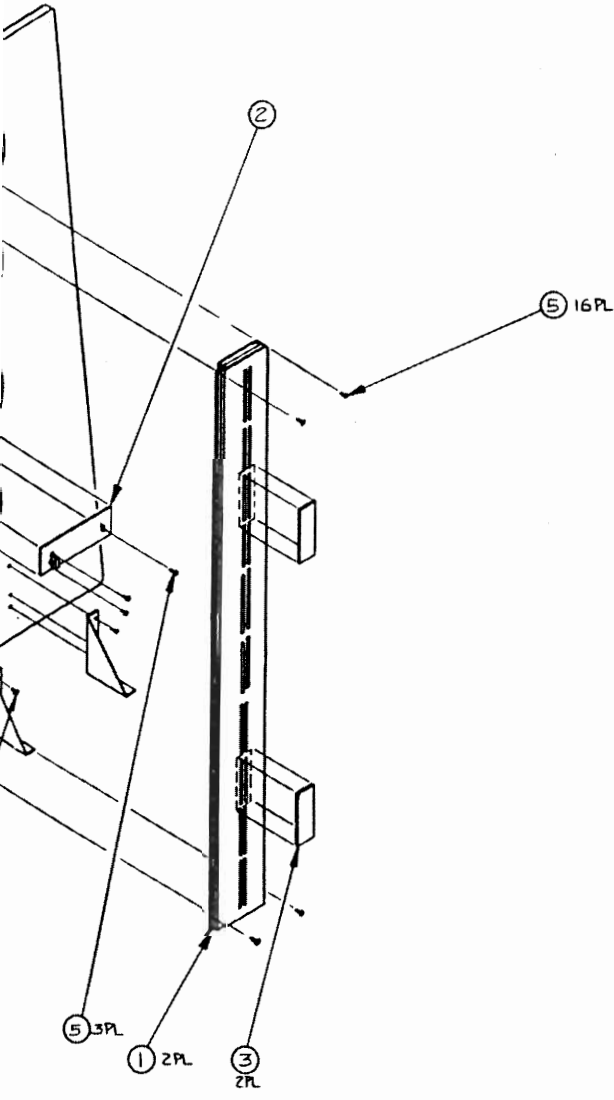
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DWG NO 604-00373-00		SH 1	REV E	1	
REVISIONS					
ZONE	REV	DESCRIPTION		DATE	APPROVED



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ITEM	PSCH NO	PART OR IDENTIFYING NO	MANUFACTURE OR DESCRIPTION
PARTS LIST			
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES</small> <small>SYMBOLS</small>		CONTRACT NO APPROVALS DATE DRAWN P MCGUIRE 2-9-87 CHECKED FINISH FORMED	
MATERIAL FINISH DO NOT SCALE DRAWING		<h1>CARVER</h1> FINAL ASSEMBLY, LEFT THE AMAZING LOUDSPEAKER	
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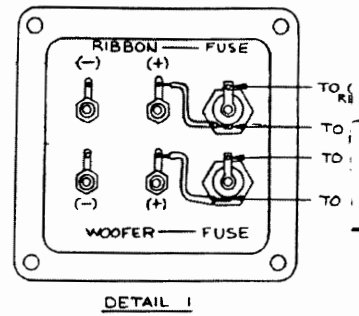
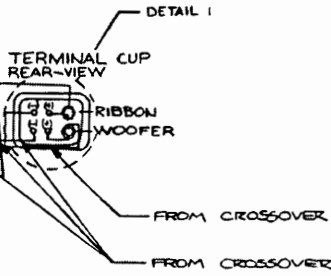
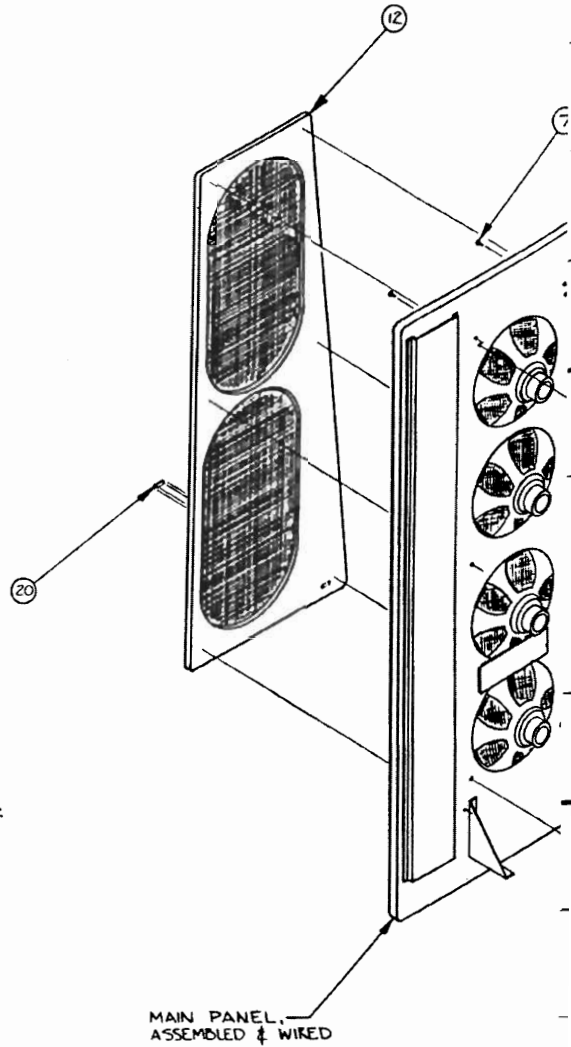
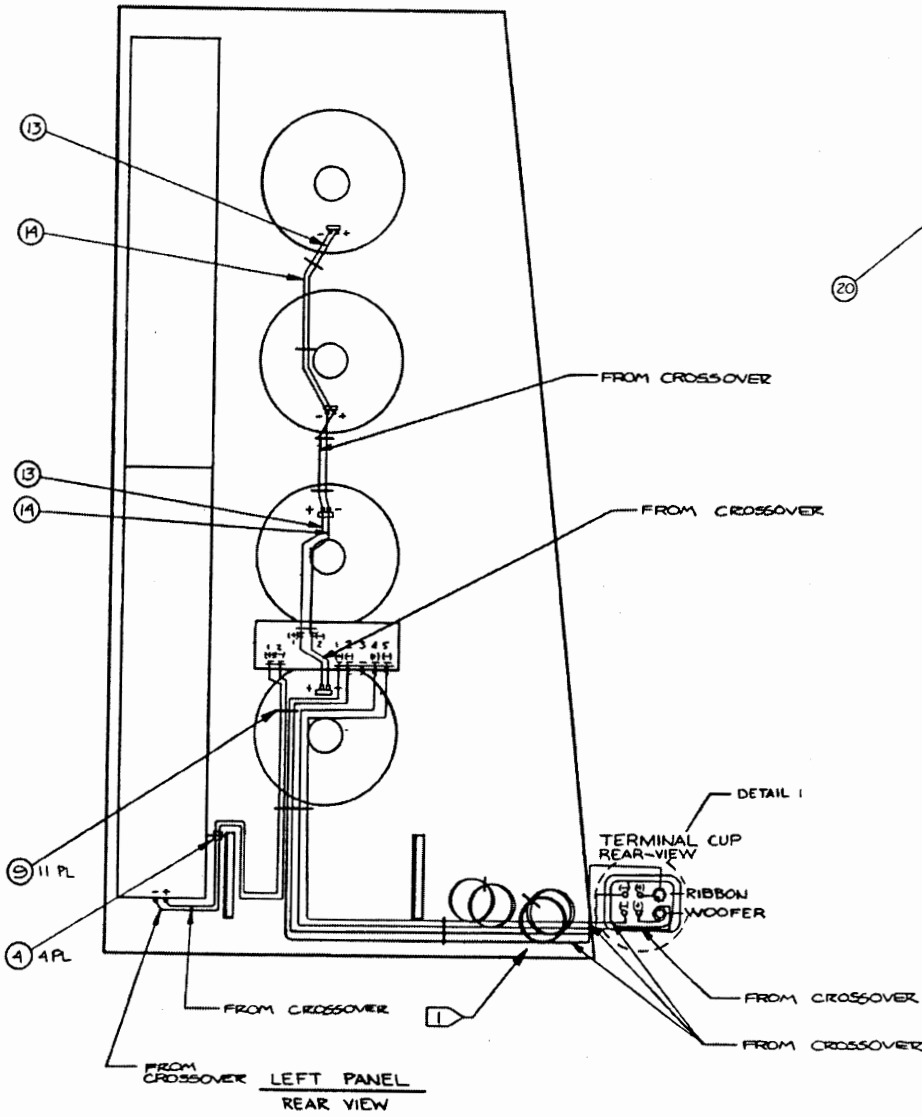
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WIRING INSTRUCTIONS



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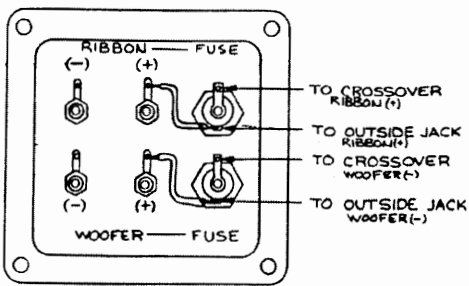
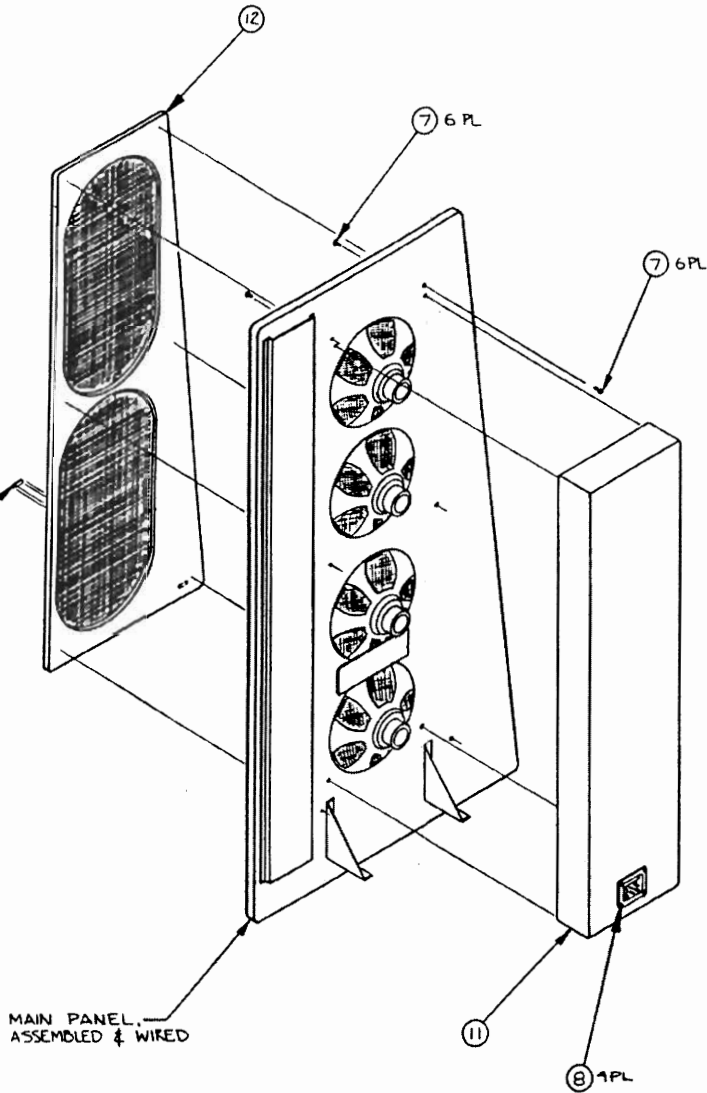
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

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QTY	FRCH	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES		CONTRACT NO.		
MATERIAL		APPROVALS	DATE	<h1 style="margin: 0;">CARVER</h1> <p style="margin: 0;">FINAL ASSEMBLY, THE AMAZING LOUDSPEAKER</p>
FINISH		DRAWN P MCGUIRE	2-9-87	
DO NOT SCALE DRAWING		CHECKED	REVISED	
		SCALE 1/8"	SHEET 2 OF 2	

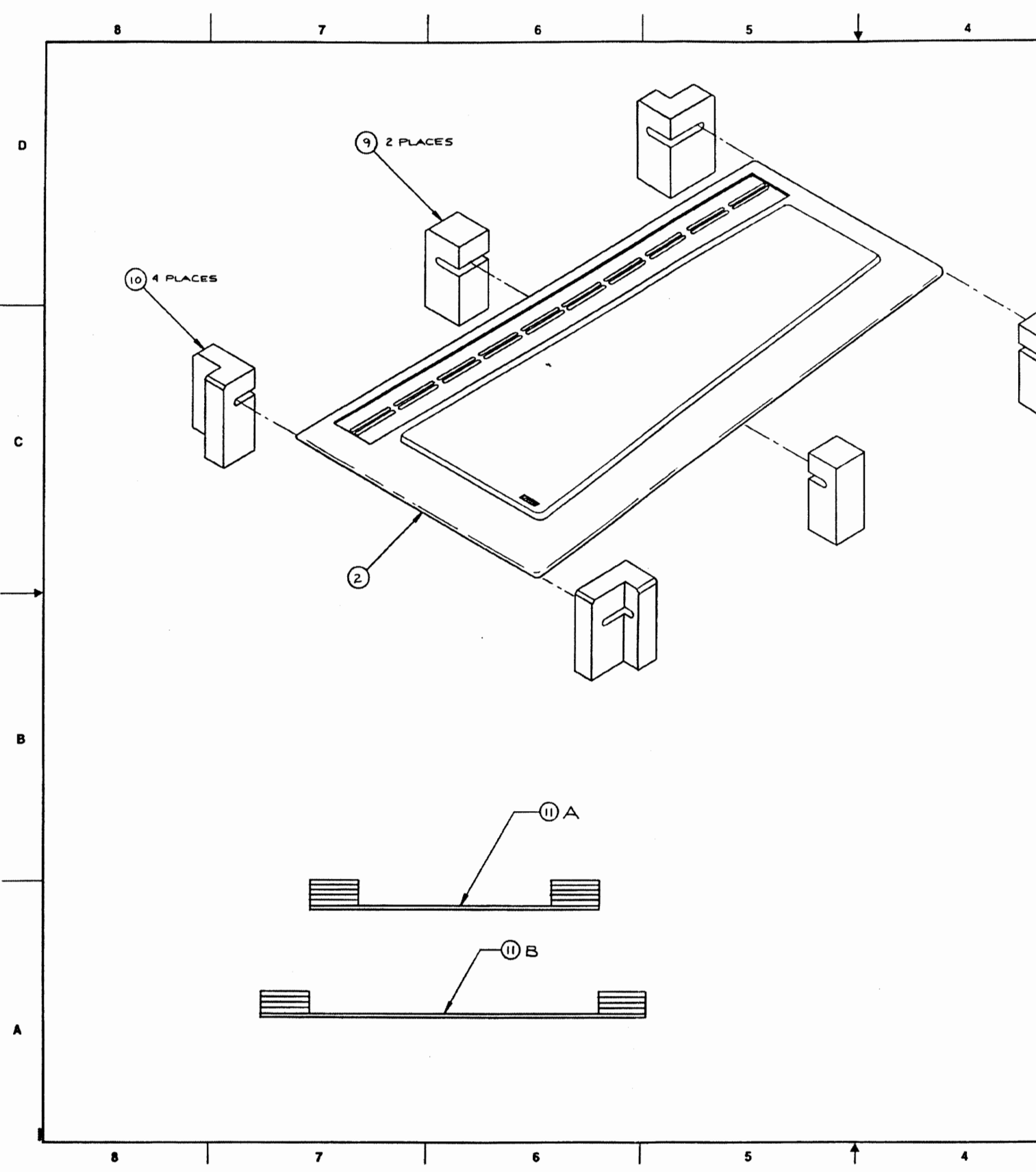
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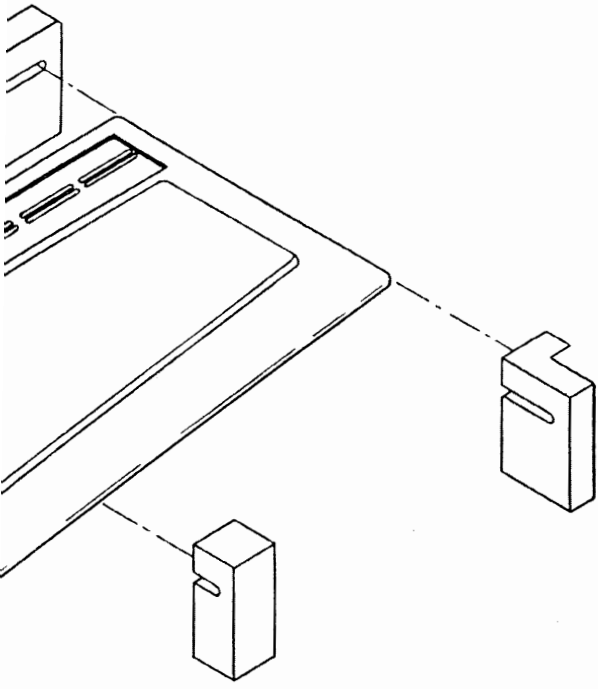
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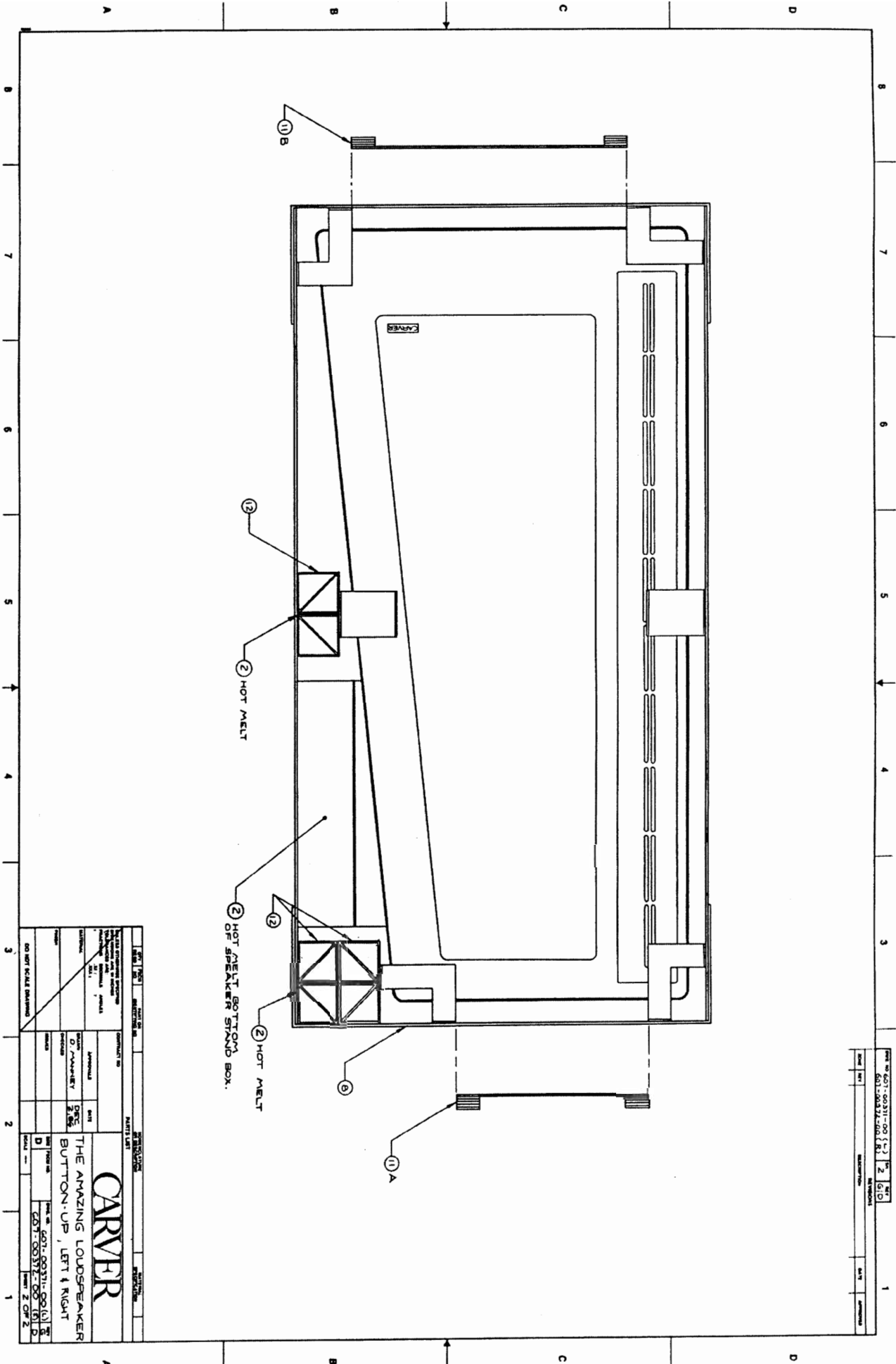
DWG NO 607-00371-00 (L) 607-00372-00 (R)		SM 1	REV GID	1
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
-	A	RELEASE TO PRODUCTION	3-2-67	DGM
-	BC	ECO# 612 (LEFT ONLY) ECO# 610 (BOTH)	3-2-67	DGM
-	GD	SEE ECO'S 696, 707, 714, 741	11-11-67 B.C.	



NOTES:

1. NOT ALL ITEMS ON THE MASTER PARTS LIST ARE RECORDED ON THIS DRAWING.

ITEM	QTY	FRAC NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	QUANTAL SPECIFICATION
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XX' XX.X' X'			CONTRACT NO		<h1 style="margin: 0;">CARVER</h1> <p style="margin: 0;">THE AMAZING LOUDSPEAKER BUTTON - UP, LEFT & RIGHT</p>
MATERIAL			APPROVALS	DATE	
FINISH			DRAWN D. MANNEY	DEC 1, 67	
DO NOT SCALE DRAWING			CHECKED	ISSUED	
			SIZE	FRAC NO	DWG NO. 607-00371-00 (L) 6 607-00372-00 (R) D
			SCALE	SHEET 1 OF 2	



Part No.	601-00311-00 (S)	Rev.	2
Part No.	601-00312-00 (R)	Rev.	1
Part No.	601-00313-00 (D)	Rev.	1

Part No.	601-00311-00 (S)	Rev.	2
Part No.	601-00312-00 (R)	Rev.	1
Part No.	601-00313-00 (D)	Rev.	1

CARVER
 THE AMAZING LOUSPEAKER
 BUTTON-UP, LEFT & RIGHT
 SPEAKER STAND

Section 4

TROUBLE-SHOOTING AND DISASSEMBLY

☛ No music

If no music is coming from the speaker panel, first check the fuse. If it is defective, replace it with the same type (MDL-4, ALS), (MLD-3.2, Silver), or (MDL-4, Platinum).

The full-range ribbon speakers used in the ALS consist of two 30-inch ribbons, connected in series, with a jumper connected across the top speaker terminals and covered with a foam strip. The speakers also have a foam pad installed on the back of each panel to assist in high frequency damping.

☛ Lack of high-frequency reproduction

If the problem is high-frequency reproduction, this could be caused by either of the ribbon panels, due to their series connection. The easiest way to test the panels is to loosen the top ribbon from the panel and install a jumper between the center terminals of the ribbons. If you now have music emanating from the lower ribbon, then the top ribbon has suffered an open connection and needs to be replaced. If you still have no sound emanating from the ribbons after installing the jumper, then the bottom ribbon is to be replaced.

☛ High-frequency "buzz"

When the complaint is a high frequency "buzz," then the ribbons should be suspect. The best way to locate the defective driver is to connect the speaker to a high-power amplifier in the power range of 700 watts or more, and play a piano passage to as loud a volume as is reasonable. This not only will identify the driver that is defective, it also will pin-point the area on the ribbon that is resonating. Try to tighten the ribbon panel screws to stop the "buzz." If this does not remove it, then you'll have to replace the driver.

☛ Replacing the ribbons

If the ribbons require replacement, please be sure to note the polarity of the cross-over leads to terminal connections. The ALS's 30-inch ribbons are wired **OUT-OF-PHASE** with respect to the Red Lead from the cross over being connected to the Black Terminal on the ribbon.

Ribbons on the Silver and Platinum Editions are wired **IN-PHASE** to the cross-over; that is, the Red Lead from the cross-over connects to the Red Terminal on the 48-inch or 60-inch ribbons.

The Silver and Platinum series *Amazing Loudspeaker* is the same basic configuration with a major difference—the ribbon (48-inch for the Silver, 60-inch for the Platinum) is a one-piece assembly with four runs of ribbon material connected in series. This run is connected by way of two PCB's located at the top and bottom of the ribbon panel.

If there is a lack of sound coming from them, please check the tightness of the PCB-ribbon mounting. If this should somehow become loose, it will prevent the circuit from being completed. If everything appears to be okay—with respect to connections—then the defective ribbon panel should be replaced. These ribbons are wired **IN-PHASE** with the cross-over.

☛ Access to woofers or cross-over

To gain access to the woofers or to the cross-over, the recommended disassembly method is to lay the speaker face down and remove the front grill screws. Once these are removed, stand the speaker upright. This is to prevent damage to the finish on the front face of the speaker panel. Loosen input cup from rear grill assembly, then remove the screws to the rear grill cloth and remove the cloth. The rear of the woofers and the cross-over are now exposed.

☛ Excessive cross-over damage

If you should find excessive cross-over damage and decide to replace the cross-over, you may need to replace the cross-over in the "good" speaker also so that the system has a "matched pair."

☛ Lack of sub-bass frequencies

One open woofer could cause the lack of sub-bass frequencies from the panel (in the ALS). The woofers are connected in a series/parallel combination; that is, if one woofer should open circuit, then two woofers will now be silent. Jump around the woofers (the terminals together) to find the open one. In the unlikely event of all woofers being soundless, this would most likely be caused by a defective cross-over.

The woofers used in the Silver and Platinum ALS are connected in parallel and are wired **OUT-OF-PHASE** with respect to the Red Lead from the cross-over being connected to the Black Terminal of the woofer.

If the surround on the sub-woofers are not making good contact around the whole woofer basket, then it may be reattached using any non-acid-based glue such as silicone.

If you do find it necessary to replace any of the woofers, the speaker will have to be "broken-in" again. That is, the overall reproduction will not be optimum until the replacement woofer has played for about ten hours, at which time the resonance of that drive will have lowered to its correct frequency.

To reassemble, remember to install the rear grill cloth first so that you will be able to replace the front grill.

#6 Apply final wax using the wax-and-shine impregnated cloth. This final step will render the original defect essentially invisible, and will restore the ultimate luster.

➤ **ALTERNATE METHOD FOR RESTORING DEEP GOUGE THAT HAS EXPOSED BARE WOOD**

#1 Clean area with alcohol or acetone.

#2 Use high gloss touch-up pen, Testor's® or an equivalent. Apply only to scratch itself. Allow to dry.

#3 Apply Meguiar's #7 and buff to gloss using soft cloth or polishing towel. This will render defect essentially invisible at a normal viewing distance in normal lighting.

Section 5

APPENDICES

Appendix A

PARTS ORDERING

Please provide the model numbers of the units involved when ordering genuine CARVER replacement parts.

Also provide the CARVER part number and the generic part number to confirm the correct part needed.

The Carver Part Department is open from Monday through Friday, 7:00 a.m. to 4:45 p.m. PST.

The following phone number is to be used for *part orders only!* Technical assistance is *not* available on this line.

1-800-433-0547

Or if you prefer to FAX in your part order, please use the following phone number.

1-206-775-9180

From time to time, when it is necessary, we may substitute for the original part ordered, due to circuit revisions or part availability.

Random deviation from the original CARVER designated part is not recommended!

Complete PCB replacement is not recommended. You must have prior approval for warranty repair should PCB replacement be necessary.

Appendix B

PARTS LISTS

AMAZING LOUDSPEAKER ASSEMBLY

NOTE: Parts listed are for one ALS unless otherwise noted.

CARVER P/N	DESCRIPTION	QTY	NOTE
601-00526-00	Speaker Crossover	1	
601-00451-00	Ribbon, 30-inch	2	
618-00001-00	Woofers, 12-inch Honeycomb	4	
601-00452-00	Speaker Stand	1	
520-00004-01	Speaker Panel Left	1	
520-00003-01	Speaker Panel Right	1	
520-10002-01	Grill, Rear, Left and Right	1	
520-10003-01	Grill, Front Left	1	
520-10001-01	Grill, Front Right	1	
512-10614-00	Logo, Gold	1	
151-03102-00	Screw, Woofer & Ribbon	32	
151-03156-00	Screw, Stand to Panel	6	
151-03162-00	Screw, Grill (F & B)	12	
151-23160-00	Bolt, Stand Bracket	4	
152-10004-00	Nut, Stand Bracket	4	
507-00028-01	Bracket, Stand to Panel	2	
106-20001-00	Feet, Adjustable Glide	2	
152-50001-00	Feet, "T" nut	2	
105-00001-00	Foam (5.8-in. x 2.1-in.) (rear)	2	
403-40020-00	Foam (4½x1½x1½)(top)	1	

BOX & PACKING FOR THE ALS

CARVER P/N	DESCRIPTION	QTY	NOTE
532-10012-00	Plastic Bag	1	
532-20023-00	Box (top)	1	
532-20024-00	Box (bottom)	1	
532-30016-00	Foam, Center Block	2	
532-30018-00	Foam, Corner Block	4	
990-20026-00	Owner's Manual	1	

Amazing Loudspeaker

CROSSOVER ASSEMBLY

PART LIST	REV.L 8/6/87	P/N 601-00526-00		
CARVER P/N	DESCRIPTION	REF	NOTES	
<i>See note below</i>	.5 ohm 50W	R1		
<i>See note below</i>	14 ohm 50W	R2		
<i>See note below</i>	3 ohm 50W	R3		
255-30012-00	8.2 ohm 3W	R4		
255-50010-00	3 ohm 5W	R5		
253-90045-00	45 ohm 20W	R6		
205-00075-00	85 μ F/100VNP	C1		
204-00049-00	13 μ F/100V	C2,3		
205-00070-00	200 μ F/100VNP	C4		
204-00047-00	5 μ F/100V	C5		
616-00007-00	430 μ H choke	L1		
616-00015-00	50 μ H choke	L2		
616-00014-00	11mH choke	L3		
616-00012-00	6.0mH choke	L4		
115-30006-00	Spkr. Binding Cup			
105-40006-00	Fuseholder Pnl. Mt.			
315-12006-00	Fuse MDL 4			

Note: ALTERNATE PARTS
 (May be combined for specific value part)

253-90051-00	(2) 1 ohm 25W	R1		
253-90076-00	(2) 28 ohm 25W	R2		
253-90059-00	(2) 6 ohm 25W	R3		
205-00076-00	(1) 60 μ F/100VNP			
205-00077-00	(1) 25 μ F/100VNP	C1		

Amazing Loudspeaker

SILVER EDITION ASSEMBLY

NOTE: Parts listed are for one ALS unless otherwise noted.

NOTE: This listing is for parts common to all versions

CARVER P/N	DESCRIPTION	QTY	NOTE
601-00454-00	Ribbon, 48-inch	2	
601-00531-00	Speaker Stand	1	
520-10026-01	Grill, Rear Left	1	
520-10025-01	Grill, Rear Right	1	
512-10613-00	Logo, Silver	1	
151-03102-00	Screw, Woofer & Ribbon	28	
151-03156-00	Screw, Stand to Panel	6	
151-03162-00	Screw, Grill (F & B)	11	
151-23160-00	Bolt, Stand Bracket	4	
152-10004-00	Nut, Stand Bracket	4	
507-00028-01	Bracket, Stand to Panel	2	
106-20001-00	Feet, Adjustable Glide	2	
152-50001-00	Feet, "T" nut	2	
105-00001-00	Foam (5.80-in. X 2.10-in.)(rear)	2	

BOX & PACKING

532-10012-00	Plastic Bag	1	
532-20027-00	Box, Top	1	
532-20026-00	Box, Bottom	1	
532-30016-00	Foam, Center Block	2	
532-30018-00	Foam, Corner Block	4	
990-20058-00	Owner's Manual	1	

Amazing Loudspeaker SILVER EDITION ASSEMBLY (Black)

NOTE: This part list is for separate models

CARVER P/N	DESCRIPTION	QTY	NOTE
520-00010-01	Speaker Panel, Black (L)	1	
520-00011-01	Speaker Panel, Black (R)	1	
520-10004-01	Grill, Front(L)	1	
520-10007-01	Grill, Front(R)	1	
601-00530-00	Crossover, "CT" Series	1	"CT"
618-00002-00	Woofers, 12-inch "CT" Series	3	"CT"
601-00529-00	Crossover, "T" Series	1	"T"
618-00003-00	Woofers, 12-inch "T" Series	1	"T"
507-10008-00	Bracket, Woofer Adapter	12	See below

Amazing Loudspeaker SILVER OAK EDITION ASSEMBLY

CARVER P/N	DESCRIPTION	QTY	NOTE
520-00022-01	Speaker Panel, Oak (L)	1	
520-00021-01	Speaker Panel, Oak (R)	1	
520-10004-02	Grill, Front Oak (L)	1	
520-10007-02	Grill, Front Oak (R)	1	
601-00530-00	Crossover, "CT" Series	1	"CT"
618-00002-00	Woofers, 12-inch "CT" Series	3	"CT"
601-00529-00	Crossover, "T" Series	1	"T"
618-00003-00	Woofers, 12-inch "T" Series	3	"T"
507-10008-00	Bracket, Woofer Adapter	12	See Below

NOTE: Bracket used on some units to allow "T" Series speakers to fit in panels cut for "CT" Series speakers.

Amazing Loudspeaker PLATINUM EDITION ASSEMBLY

NOTE: Parts listed are for one ALS unless otherwise noted.

CARVER P/N	DESCRIPTION	QTY	NOTE
601-00528-00	Speaker Crossover	1	
601-00453-00	Ribbon, 60-inch	1	
618-00003-00	Woofers, 12-inch "T" Series	4	
601-00452-00	Speaker Stand	1	
520-10028-01	Grill, Rear Left	1	
520-10027-01	Grill, Rear Right	1	
512-10613-00	Logo, Silver	1	
151-03102-00	Screw, Woofer & Ribbon	32	
151-03156-00	Screw, Stand to Panel	6	
151-03162-00	Screw, Grill (F & B)	12	
151-23160-00	Bolt, Stand Bracket	4	
152-10004-00	Nut, Stand Bracket	4	
507-00028-01	Bracket, Stand to Panel	2	
106-20001-00	Feet, Adjustable Glide	2	
152-50001-00	Feet, "T" nut	2	
105-00001-00	Foam (5.80" X 2.10") (rear)	2	

BOX & PACKING

532-10012-00	Plastic Bag	1	
532-20023-00	Box, Top	1	
532-20024-00	Box, Bottom	1	
532-30016-00	Foam, Center Block	2	
532-30018-00	Foam, Corner Block	4	
990-20059-00	Owner's Manual	1	

Amazing Loudspeaker PLATINUM EDITION ASSEMBLY

CARVER P/N	DESCRIPTION	QTY	NOTE
520-00014-01	Speaker Panel, Black (L)	1	
520-00015-01	Speaker Panel, Black (R)	1	
520-10003-01	Grill, Front Left	1	
520-10001-00	Grill, Front Right	1	

Amazing Loudspeaker PLATINUM OAK EDITION ASSEMBLY

CARVER P/N	DESCRIPTION	QTY	NOTE
520-00024-01	Speaker Panel Oak Left	1	
520-00023-01	Speaker Panel Oak Right	1	
520-10003-02	Grill, Front Left	1	
520-10001-02	Grill, Front Right	1	

Amazing Loudspeaker

PLATINUM CROSSOVER ASSEMBLY (Beta 9)

PART LIST	REV.E	P/N 601-00528-00
CARVER P/N	DESCRIPTION	REF NOTE
253-90072-00	18 ohm 25W	R1,2
253-50027-00	7 ohm 7W	R3
253-90072-00	18 ohm 25W	R4,5
253-90078-00	36 ohm 10W	R6,7
205-00120-00	450 μ F/150VNP	C1
205-00117-00	150 μ F/150VNP	C2
205-00088-00	10 μ F/100V	C3,4
616-00074-00	8.5mH	L1
616-00075-00	5.25mH	L2
616-00076-00	0.9mH	L3
616-00078-00	76 μ H	L4
115-30008-00	Terminal Cup	
105-40006-00	(2) Fuse Holder	
315-14006-00	(2) Fuse (MDQ-4)	

Note: ALTERNATE PARTS
(May be combined for specific value part)

253-90090-00	4.7 ohm 100W	R1, 2, 4, & 5
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NOTE: R1,R2,R4,R5 may be a single 4.7 ohm 100W resistor

Appendix C

DESIGN HISTORY

Engineering Change Orders for Model ALS CROSSOVER ASSEMBLY

P/N 601-00526-00

- ECO #: TCO 14** DATE: 12/11/86
REASON FOR CHANGE: Part Change
PROCEDURE: C4 can be either
 Qty(2) 100 μ F/100VNP P/N 205-00071-00
or Qty(1) 200 μ F/100VNP P/N 205-00070-00
- ECO #: 639** DATE: 3/ 3/86
REASON FOR CHANGE: To change the crossover from Rev A to Rev B.
PROCEDURE: REV.B. See the crossover part list.
- ECO #: 662** DATE: 4/ 7/87
REASON FOR CHANGE: Crossover components are overheating at high power levels.
PROCEDURE: REV.C. Add a heatsink to R6, and see the crossover part list.
- ECO #: 667** DATE: 4/13/87
REASON FOR CHANGE: Tonal Balance not quite right.
PROCEDURE: REV.D. See crossover part list.
- ECO #: 677** DATE: 5/ 7/87
REASON FOR CHANGE: To improve tonal balance.
PROCEDURE: REV.E. See crossover part list.
- ECO #: 685** DATE: 5/ 7/87
REASON FOR CHANGE: To improve Tonal Balance, and to correct resistor over dissipation (heat).
PROCEDURE: REV.F. See crossover part list.
- ECO #: 710** DATE: 7/ 2/87
REASON FOR CHANGE: To improve tonal balance.
PROCEDURE: REV.G. See crossover part list.
- ECO #: 724** DATE: 8/13/87
REASON FOR CHANGE: To correct error on Bill of Materials.
PROCEDURE: REV.H. No effect on Assembly.

ECO #: 741

DATE: 11/ 1/87

REASON FOR CHANGE: To change part description.

PROCEDURE: REV.J. No effect on Assembly.

ECO #: 745

DATE: 11/ 6/87

REASON FOR CHANGE: To provide protection for the crossover and ribbon.

PROCEDURE: REV.K. Add a fuseholder pnl.mt. and a MDX 5 fuse to the input cup.

ECO #: 766

DATE: 1/14/88

REASON FOR CHANGE: To correct the value of the fuse

PROCEDURE: REV.L. Change the fuse from MDX 5 to MDL 4.

Engineering Change Orders for Model ALS SILVER CROSSOVER ASSEMBLY

P/N 601-00529-00 and 601-00530-00

- ECO #: 887 DATE: 11/16/88
REASON FOR CHANGE: Error in parts list.
PROCEDURE: REV.B. Change R3.
- ECO #: 922 DATE: 1/17/89
REASON FOR CHANGE: To make the Silver Speakers easier to use.
PROCEDURE: REV.C. Change R2, C3, L1. Add R4, R5, C4, L3, L4.
- ECO #: 931 DATE: 1/26/89
REASON FOR CHANGE: Fuse too large for proper woofer protection.
PROCEDURE: REV.D. Change fuse from MDQ 4 TO MDL 3.2.
- ECO #: 949 DATE: 2/ 9/89
REASON FOR CHANGE: Optimize crossover design.
PROCEDURE: REV.E. Change R2, C3, L1. Delete R4, R5, C4, L3, L4.
- ECO #: 960 DATE: 2/14/89
REASON FOR CHANGE: Optimize crossover design.
PROCEDURE: REV.F. Change R1, R2, R3, C1, C2, C3, L1, L2. Add C4, L3, L4, L5.
- ECO #: 968 DATE: 2/22/89
REASON FOR CHANGE: Optimize crossover design.
PROCEDURE: REV.G. Change L1.
- ECO #: 1011 DATE: 3/30/89
REASON FOR CHANGE: Optimize crossover design.
PROCEDURE: REV.H. Change R1, R3, C1, C2, C3, C4, L1, L2, L3, L4. Delete R2, L5.
- ECO #: 1058 DATE: 5/ 5/89
REASON FOR CHANGE: Change to more reliable fuseholder.
PROCEDURE: REV.I. See the crossover parts list.
- ECO #: 1087 DATE: 5/22/89
REASON FOR CHANGE: 4.7 ohm 100W resistor difficult to source.
PROCEDURE: REV.J. Change R1. Add R2, R4, R5.

Amazing Loudspeaker

SILVER CROSSOVER ASSEMBLY (The Evolution, to REV.E)

NOTE: Last version to require use of the ECS₁ with speakers (REV.E).
ECS used in speakers up to S/N 639.

REV.C 1/16/89

REV.D 1/26/89

REV.E 2/ 9/89

P/N 601-00529-00 "T" Series
P/N 601-00530-00 "CT" Series

CARVER P/N	DESCRIPTION	REF	NOTE
253-50042-00	2 ohm 10W	R1	
253-90084-00	5 ohm 50W	R2	REV.C
253-90082-00	2 ohm 75W	R2	REV.E
253-90081-00	1 ohm 50W	R3	
	<i>NOTE: R3 is used on "CT" Series only!</i>		
253-40057-00	12 ohm 5W 5%	R4	REV.C
	Omitted	R4	REV.E
253-90083-00	1.2 ohm 20W	R5	REV.C
	Omitted	R5	REV.E
205-00102-00	47 μ F/100VNP	C1	
205-00102-00	47 μ F/100VNP	C2	
205-00067-00	5 μ F/100VNP	C3	
204-00088-00	10 μ F/100V	C3	REV.C
205-00067-00	5 μ F/100VNP	C3	REV.E
205-00115-00	22 μ F/100VNP	C4	REV.C
	Omitted	C4	REV.E
616-00063-00	10mH	L1	
616-00067-00	4.0mH	L1	REV.C
616-00063-00	10mH	L1	REV.E
616-00061-00	2.5mH	L2	
616-00065-00	1.5mH	L3	REV.C
	Omitted	L3	REV.E
616-00066-00	22 μ H	L4	REV.C
	Omitted	L4	REV.E
	Terminal Cup		
105-40005-00	Fuse Holder		
315-14006-00	Fuse MDQ 4		
315-12008-00	Fuse MDL 3.2		REV.D

1. Electronic Speaker Control System

Amazing Loudspeaker

SILVER CROSSOVER ASSEMBLY (The evolution, REV.E to REV.J)

NOTE: Used without ECS₁ (can be used with ECS-U).

REV.E 2/09/89
REV.F 2/15/89

REV.G 2/22/89
REV.H 3/30/89

REV.I 5/05/89
REV.J 5/22/89

CARVER P/N	DESCRIPTION	REF	NOTE
253-90052-00	3 ohm 25W	R1	REV.F
253-90090-00	4.7 ohm 100W	R1	REV.H
253-90072-00	18 ohm 25W	R1	REV.J
253-90082-00	2 ohm 75W	R2	REV.E
253-80001-00	0.47 ohm 15W	R2	REV.F
	Omitted	R2	REV.H
253-90072-00	18 ohm 25W	R2	REV.J
253-30035-00	22 ohm 3W	R3	REV.F
253-50027-00	7 ohm 7W	R3	REV.H
	Omitted	R4	REV.E
253-90072-00	18 ohm 25W	R4	REV.J
	Omitted	R5	REV.E
253-90072-00	18 ohm 25W	R5	REV.J
205-00117-00	200 μ F/150VNP	C1	REV.F
205-00119-00	300 μ F/150VNP	C1	REV.H
205-00066-00	75 μ F/150VNP	C2	REV.F
205-00118-00	175 μ F/150VNP	C2	REV.H
205-00067-00	5 μ F/100VNP	C3	REV.E
204-00090-00	15 μ F/100V	C3	REV.F
204-10007-00	7 μ F/100V	C3	REV.H
	Omitted	C4	REV.E
205-00115-00	22 μ F/100VNP	C4	REV.F
204-10012-00	12 μ F/100V	C4	REV.H
616-00063-00	10mH	L1	REV.E
616-00070-00	2.1mH	L1	REV.F
616-00073-00	2.9mH	L1	REV.G
616-00074-00	8.5mH	L1	REV.H
616-00069-00	5mH	L2	REV.F
616-00075-00	5.25mH	L2	REV.H
	Omitted	L3	REV.E
616-00068-00	1mH	L3	REV.F
616-00076-00	0.9mH	L3	REV.H
	Omitted	L4	REV.E
616-00071-00	26 μ H	L4	REV.F
616-00077-00	60 μ H	L4	REV.H
616-00072-00	0.8mH	L5	REV.F
	Omitted	L5	REV.H
105-40006-00	Fuse Holder		REV.I
315-14006-00	Fuse MDQ 4		REV.G

1. Electronic Speaker Control System

Engineering Change Orders for Model ALS PLATINUM CROSSOVER ASSEMBLY

P/N 601-00528-00

ECO #: 1055

DATE: 5/ 5/89

REASON FOR CHANGE: To correct parts list.

PROCEDURE: REV.B. No effect on Assembly.

ECO #: 1087

DATE: 5/22/89

REASON FOR CHANGE: 4.5 ohm 25W resistor difficult to source.

PROCEDURE: REV.C. Change R1. Add R2, R4, R5.

ECO #: 1098

DATE: 5/23/89

REASON FOR CHANGE: Optimize frequency response.

PROCEDURE: REV.D. Change L3.

ECO #: 1142

DATE: 6/26/89

REASON FOR CHANGE: Optimize frequency response.

PROCEDURE: REV.E. Change L3. Add R6, R7.

Amazing Loudspeaker

PLATINUM CROSSOVER ASSEMBLY (The evolution, REV.A to REV.E)

P/N 601-00528-00

REV.B 5/5/89

REV.C 5/22/89

REV.E 6/26/89

REV.D 5/23/89

CARVER P/N	DESCRIPTION	REF	NOTE
253-90053-00	4.5 ohm 25W	R1	
253-90072-00	18 ohm 25W	R1,2	REV.C
253-50027-00	7ohm 7W	R3	
253-90072-00	18 ohm 25W	R4,5	REV.C
253-90078-00	36 ohm 10W	R6,7	REV.E
205-00120-00	450 μ F/150VNP	C1	
205-00117-00	150 μ F/150VNP	C2	
205-00088-00	10 μ F/100V	C3,4	
616-00074-00	8.5mH	L1	
616-00075-00	5.25mH	L2	
616-00076-00	0.9mH	L3	
616-00072-00	0.8mH	L3	REV.D
616-00076-00	0.9mH	L3	REV.E
616-00078-00	76 μ H	L4	
105-40006-00	(2) Fuse Holder		
315-14006-00	(2) Fuse MDQ4		

Appendix D

Service Bulletins

PLEASE ATTACH SERVICE BULLETINS TO THIS SECTION
TO ENSURE PROPER REPAIR IN THE FUTURE.

NOTE: Regarding The CARVER Amazing Loudspeaker SILVER EDITION

☛ Potential Problem: Incorrect Fuse Value

It has come to our attention that a potential problem may exist with the *Silver Edition Amazing Loudspeakers*. The loudspeakers were shipped from our factory with an incorrect fuse value which may cause overheating and/or loudspeaker damage if driven continuously with amplifiers capable of delivering 1200 watts or more.

For continued fire protection, the following modification must be made on **ALL** speakers —S/N 525CT and below.

Replace the fuses with an MDL-3.2 amp or a 3.0 amp slow-blow equivalent.

A kit has been prepared for this modification and enough have been sent to the dealers who had received the speakers involved. The kit includes:

- 1) Two labels for the rear of each speaker changing the fuse size
- 2) Two fuses to replace the current fuses
- 3) A new owner's manual stating the change of maximum power handling from 1200 watts to 600 watts per channel
- 4) A new warranty certificate expanding the warranty to three years parts and labor.

The warranty is in effect **only** if purchased from an authorized CARVER Dealer.

The name CARVER, the CARVER logo, Amazing Loudspeaker, Tonegan "T Series", Chuan Tai "CT Series", and ALS are trademarks of CARVER Corporation.

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Rain Dance is a trademark of Borden, Inc.

Simoniz is a trademark of First Brands Corporation

Testor's is a trademark of the Testor Corporation.

CARVER CORPORATION
SERVICE BULLETIN

Service Bulletin # ALS-SCT-1

Model ALS SILVER

Serial # 203CT + *below*

Reason: FUSE TOO LARGE FOR PROPER WOOFER PROTECTION

Procedure:

FUSE WAS A MDG4 SLO-BLO CHANGE TO MDL3.2 SLO-BLO

Delete: QTY1, 315-14006-00 MDG4

Add: QTY1, 315-12008-00 MDL3.2

SERVICE APPROVAL

ENGINEERING APPROVAL

Robert M. Long

4/17/89

DATE