



SURVIVAL FACTORS ATTACHMENT 1

Motorcoach Specifications

Palm Springs, CA

HWY17MH005

(8 pages)

REPORT #: WAR001
08/09/00

(P) WARRANTY
MCI FINAL VEHICLE RECORD

PAGE: 1
3:59 PM

MODEL * 102D3 *

SALES ORDER RELEASE NO. US967994

UNIT #: 48674 ADDENDUMS TO ABOVE ORDER RELEASE NO. DATE #5 96/06/18

=====

OPERATOR	! V.I.N. NO.	! FLEET NO.
HEBARAGI/LEMI BUS INC.	! [REDACTED]	!

=====

DATE DELIVERED	! INSPECTED BY	! OPERATOR'S NO.
06/12/96	!	! 2-53-[REDACTED]

=====

*** REGULAR ITEMS ***

!	MAKE	!MODEL,TYPE,B/M,BRAND!	SERIAL#
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ENGINE	! DETROIT DDEC	!6067GK28 (8L-1-502)	!06R0296639
TRANSMISSION	! ALLISON	!B500R	!6610011842
REAR AXLE	! ROCKWELL	!61143WX-210	!NKA96040194
DIFF. CARRIER (STATE RATIO)	! ROCKWELL	!4.30:1	!NKC96027523
FRONT AXLE	! ROCKWELL	!17101WX-299	!NKA96034858
MONITORS	! REI	!700182	!311066/306885
MONITORS	! REI	!700182	!306892/306916
MONITORS	! REI	!700182	!311078/299166
AIR COMPRESSOR	! BENDIX	!109426	!2C2096T
RADIATORS	! G&O MANUFACT	!6L-1-223	!46406 RAD
RADIATORS	! YOUNG	!6L-1-194	!2746068 CAC
RADIATORS	!	!EXIDE	!
AIR CONDITIONER COMPRESSOR	! CARRIER	!6GAA004B1035	!1196J02455
CONDENSER COIL	! CARRIER	!16J-4-1	!D9600181
EVAP+HEAT COIL-DRIVER	! CARRIER	!EM-16	!27-000226
CONDENSER FAN MOTOR	! RELIANCE	!16J-9-1	!V77B5943AC-RY
CONDENSER FAN MOTOR	! RELIANCE	!	!V77B5943AC-NY
C.H. MOTOR	! RELIANCE	!16L-8-5	!W78P3990AC-RY
ALTERNATOR	! DELCO	!1117863	!96E07
BATTERIES	! DELCO	!1118447	!96D29
STARTER	! DELCO	!1990418	!96D24
PASSENGER SEATS	! NATIONAL	!4210-A	!
DRIVER'S SEAT	! NATIONAL	!93-B	!
SIDE WALL	! HOLDS. VIGOR	!	!A416XA
PAINT CHART DRAWING NUMBER	! ALL WHITE	!	!
WHEELS	! FIRESTONE	!27833NC	!
MCI KEY CODE	! FA0853	!	!
LOCKSMITH CUTTING NO.	!	!32142	!
SIDE GLASS (ALL)	! S.G.	!14-E	!
MIS. ITEMS(LIGHTS,BLINDS ETC.)	!	!	!
SOUND SYSTEM	! PANASONIC	!700469	!17187
AUXILIARY P.A.	! REI	!700251	!323552
AUXILIARY P.A.	! REI	!700189	!50705839
R.A.C. PROCESSER	! REI	!700227	!312704
VCP	! REI	!700445	!14992

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*** ADDITIONAL ITEMS ***

!	MAKE	!MODEL,TYPE,B/M,BRAND!	SERIAL#
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PUBLIC ADDRESS	! REI	!700246	!314340
CLUTCH-FAN	! HORTON	!6L-6-371	!1770343 RH
CLUTCH-FAN	! HORTON	!	!1770391 LH
TIRE MANUFACTURER	! MICHELIN	!	!XZA PR 16

TIRE SIZE ! !12. 0 R 22.5 !

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 *** TIRES *** !MAKE/TYPER!TIRE SERIAL # !MILEAGE SERIAL#
 =====
 RIGHT FRONT !MICH !GDZ55299L !
 LEFT FRONT !MICH !GDZ55392L !
 R.H. IN DUAL !MICH !GDZ55068L !
 R.H. OUT DUAL !MICH !GDZ55209L !
 L.H. IN DUAL !MICH !GDZ55348L !
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 08/09/00 MCI FINAL VEHICLE RECORD 4:00 PM
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 *** TIRES *** !MAKE/TYPER!TIRE SERIAL # !MILEAGE SERIAL#
 =====
 L.H. OUT DUAL !MICH !GDZ55550L !
 R.H. TRAILING !MICH !GDZ55448L !
 L.H. TRAILING !MICH !GDZ55275L !
 SPARE !MICH !GDZ55280L !
 REPORT #: WAR001 (P) WARRANTY PAGE: 3
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 OPTIONS/SPECIALS DESCRIPTION
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 P1.1.2.1 CHEMICAL TYPE LAV. W/WASH BASIN FACILITY
 P1.1.8 AUXILIARY RETENTION TANK
 P1.3.5.766 FLOOR COVERING-STEPWELL-RCA TR-766 GREY RIBBED
 P1.3.6.766 FLOOR COVERING - ENTRANCE AREA - R.C.A. TR-766 GREY RIBBED
 P1.3.7.766 FLOOR COVERING - DRIVER'S AREA - R.C.A. TR-766 GREY SMOOTH
 P1.3.8.766 FLOOR COVERING-CENTRE AISLE-R.C.A. TR-766 GREY SMOOTH
 P1.3.9.766 FLOOR COVERING - UNDER SEATS - R.C.A. TR-766 GREY SMOOTH
 P1.3.21.145 BASIC NON-FOAM BAC FAB ON SDWL-HOLDS.VIGOR A416XA LG SPRAY CAN EFFECT
 P1.3.27.145 NON-FOAM BAC FAB ON FULL WIDTH OF CEILING-HOLDS. VIGOR A416XA LG SPRAY
 P1.3.30.145 NON-FOAM BAC FAB ON EXTERIOR BTM PNLS OF PARCEL RACK-HOLDS. VGR A416XA
 P1.3.35 CARPET ON PASSENGER SIDE OF DR AND PASS MODESTY PANELS #5598 FIRTH COR
 P1.4.59 PASSENGER SIDE WINDOW BLINDS
 P1.4.71 DRIVER'S ARMREST
 P1.4.74 LOCKING DOOR FOR #1 R.H. PARCEL RACK COMPARTMENT
 =====

P1.6.14.2 36 UNIT FIRST AID KIT INCLUDING RUBBER GLOVES & RESPIRATOR
P1.7.25 ALL WHITE PAINT SCHEME
P1.11.2.2 MAINT CARD HLDR INST ON VERTICAL FACE OF DRIVERS PROTECTIVE PANEL
P1.14 BASIC KEYED ALIKE LOCK - ENTRANCE DOOR
P1.14.1 JUNCTION BOX WITH KEY LOCK
P1.14.5 FRT. SIDE SERVICE DOOR WITH KEY LOCK
P1.14.6 FUEL COMPT. FILLER DOOR WITH KEY LOCK
P1.14.8 ENGINE/SERVICE COMPARTMENT DOOR LOCKS
P3.1.20 DRIVER'S MAP LIGHT INSTALLED ON LH SIDE OF DRIVER
P3.3.34 SYSTEM 2000 ENTERTAINMENT SYSTEM W/VCP MOUNTED IN #1 R.H. PARCEL RACK
P3.3.38 SYSTEM 2000 AM/FM RADIO, PA SYSTEM & STEREO MULTIPLEX SYSTEM WITH CASS
P3.3.40 SYSTEM 2000 DRIVERS SPEAKERS WITH 3WAY SWITCH AND AUTO MUTE
P4.1.10 BRAKE DUST SHIELDS - TRAILING AXLE
P4.3.58 DETROIT DDEC SERIES 60 12.7 LITRE 400 HP ENGINE
P4.3.68.1 EXTENDED WARRANTY - ENGINES (DETROIT DIESEL)
P4.6.7.302 FACTORY SUPPLIED MICH. TIRES XZA PR 16 STEEL BELT RADIAL H RATING
P4.7.2.3 HUBODOMETER R.H. DRIVE AXLE IN MILES
P4.7.30.2 EXTENDED TRANSMISSION WARRANTY WITH RETARDER
P4.7.32 ALL. B500R AUTO. TRANSM/RETARDER AND TO INCLUDE TRANS. OIL TEMP. GAUGE
P4.7.33.6 REAR AXLE RATIO 4.30:1
P4.8.1 FUEL _____ - ENG. GOV. SPEED _____
P5.6.58 47 PASS W/LAV ARRANGEMENT-NAT MDL 4210-A CENTRE T-PED MNTED SEATS
P6.4.1.3539 HEADREST FACE-HOLDS. VIGOR A416XA LG SPRAY CAN EFFECT
P6.4.3.3542 SIDEXBOXING-HOLDS. VIGOR A426XA MOTTLED GREY PLAIN WITH PK/PP/GRN/BLUE
P6.4.4.3539 CUSHION&BAC FACE-HOLDS. VIGOR A416XA LG SPRAY CAN EFFECT
P6.5.2 EQUAL SEAT SPACING WITH LAVATORY
P6.5.3.26 AISLE END TRIM - CHARCOAL GREY - NATIONAL
P6.5.6.2 FOOTRESTS AND MOUNTING BRACKETS
P6.5.8.2 REVERSIBLE SEATS - NATIONAL
P6.5.28 42 INCH SEAT BACKS - NATIONAL MODELS
P6.5.37 TUFTING ON SEAT BACKS ONLY
P6.5.41.4 UPHOLSTERED SEAT BACKS IN FIRTH "CORD" CARPET
P6.6.2 CARD TABLE MOUNTING BRACKETS
P6.6.3.2 CARD TABLE STORAGE STRAPS MOUNTED ON CEILING
P6.6.4 CARD TABLE WITH ANTI-SKID SURFACE PADDING/NOSING AND CUP INSERTS
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OPTIONS/SPECIALS	DESCRIPTION
=====	=====
P6.9.1.3539	HEADREST FACE-HOLDS. VIGOR A416XA LG SPRAY CAN EFFECT
P6.9.3.3542	SIDEXBOXING-HOLDSWORTH VIGOR A426XA MOTTLED GREY PLAIN WITH PINK,PURPLE
P6.9.4.3539	CUSHION&BAC FACE-HOLDS VIGOR A416XA LG SPRAY CAN EFFECT
P6.10.6.3542	FOLD DOWN R.H. ARMREST ON NATIONAL MODEL DRIVER'S SEAT - HOLDSWORTH
S3.1.242	PROVISIONS FOR DAY-TIME RUNNING LAMPS
S3.4.47	AUTOMATIC FIRE ALARM WITH BUZZER IN LIEU OF BELL.



102D SERIES MAINTENANCE MANUAL

COACH SPECIFICATIONS

August 2000 Date

Intro-1 Page

GENERAL DATA

The data below includes only general information on coach models covered by this manual.

VEHICLE LENGTH: (102DL3) Over Bumpers	45'-6 ¹ / ₄ " (13.87 m)
VEHICLE LENGTH: (102D3) Over Bumpers	40'-6 ³ / ₈ " (12.35 m)
VEHICLE HEIGHT: (102D3 & 102DL3) Top of Roof Hatch	136.92" (3477.8 mm)
VEHICLE HEIGHT: (102DLS3) Top of Roof Hatch	139.92" (3554 mm)
VEHICLE WIDTH: (102D3 & 102DL3)	102" (2590.8 mm)
TURNING RADIUS: (102DL3)	
RH TURN (At Front Bumper)	45'-0" (13.71 m)
LH TURN (At Front Bumper)	46'-6" (14.17 m)
RH TURN (At Tire)	41'-0" (12.50 m)
LH TURN (At Tire)	42'-9" (13.03 m)
TURNING RADIUS: (102D3)	
RH TURN (At Front Bumper)	44'-8" (15.37 m)
LH TURN (At Front Bumper)	44'-9" (15.37 m)
RH TURN (At Tire)	40'-9" (15.37 m)
LH TURN (At Tire)	40'-9" (15.37 m)
WHEELBASE: (102DL3) Front Axle to Drive Axle Centers	318" (8077.2 mm)
WHEELBASE: (102D3) Front Axle to Drive Axle Centers	279" (7087 mm)
FRONT AXLE TRACK:	85.6" (2174 mm)
REAR AXLE TRACK: (Center of Dual Wheels)	76.6" (1946 mm)
TRAILING AXLE TRACK:	85.6" (2174 mm)
GROSS VEHICLE WEIGHT: (102D3 & 102DL3)	44,400 lbs. (20,139.8 kg)
APPROXIMATE PAYLOAD CAPACITY: (102DL3)	12,750 lbs. (12358.3 kg)
APPROXIMATE PAYLOAD CAPACITY: (102D3)	11,500 lbs. (12358.3 kg)
FUEL CAPACITY: (Standard Tank)	192 Gal. U.S. (726.7 liters)
COOLING SYSTEM CAPACITY: (With Series 60, Caterpillar or Cummins Installations)	28 Gal. U.S. (106 liters)
STEERING SYSTEM CAPACITY:	7.5 Qts. U.S. (7.1 liters)
TIRE SIZE: (Minimum)	"H" Rated

See the capacity schedule in Section 10 for further information on engine, transmission and rear axle lube capacities.

ENGINE DATA

Model	Series 60	Cummins	Caterpillar
Type	4 Cycle	4 Cycle	4 Cycle
No. of Cylinders	6	6	6
Bore (Inches)	5.12	4.92	4.92
Bore (mm)	130	125	125
Stroke (Inches)	6.3	5.78	5.5
Stroke (mm)	160	147	140
Compression Ratio (Turbo)	15:1	16:1	16:1
Total Displacement (Cubic Inches)	775	661	628
Total Displacement (Liters)	12.7	10.8	10.3
No. of Main Bearings	7	7	7

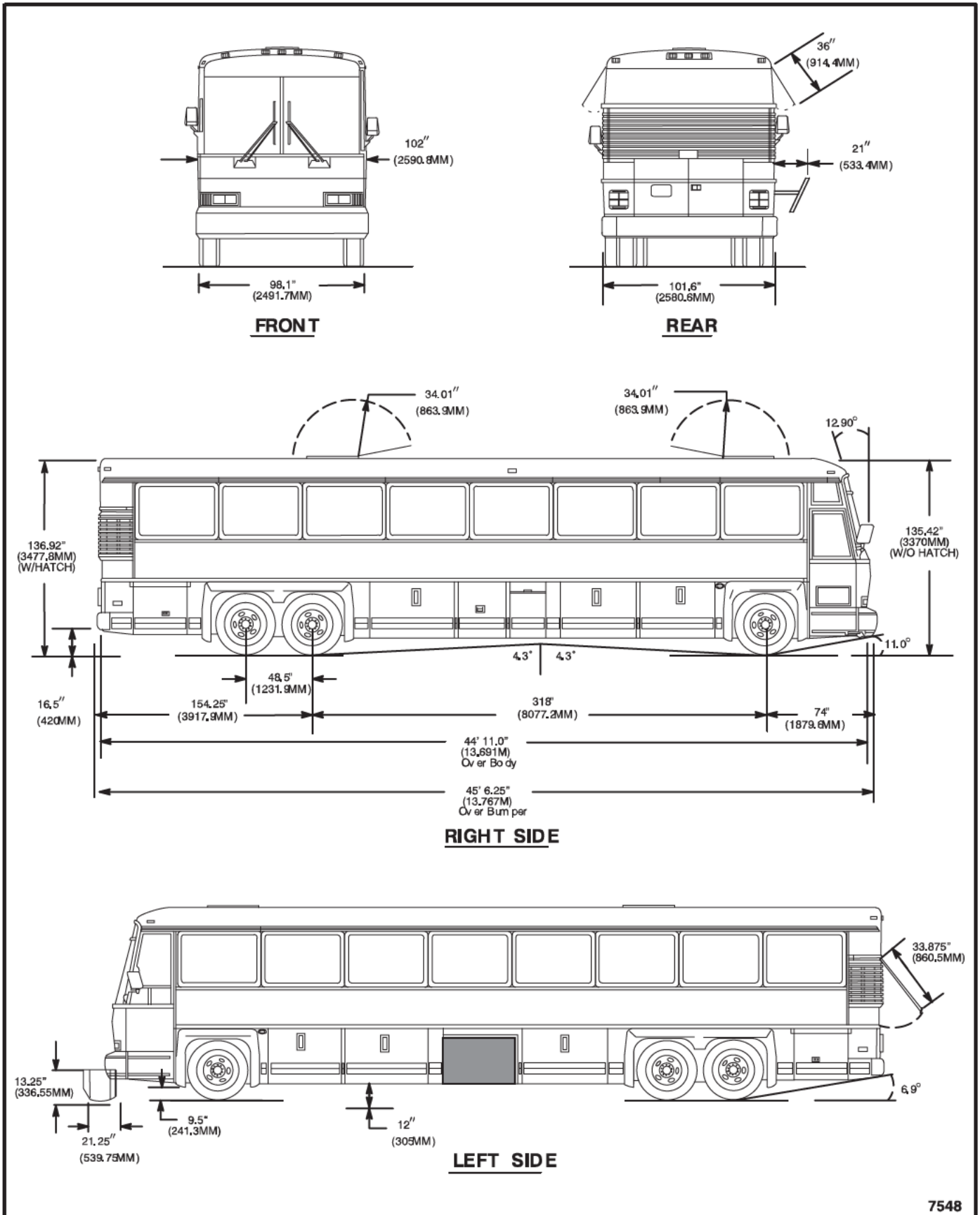
102D SERIES MAINTENANCE MANUAL

COACH SPECIFICATIONS



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Figure 1 102DL3 Model Body and Door Clearance Diagram

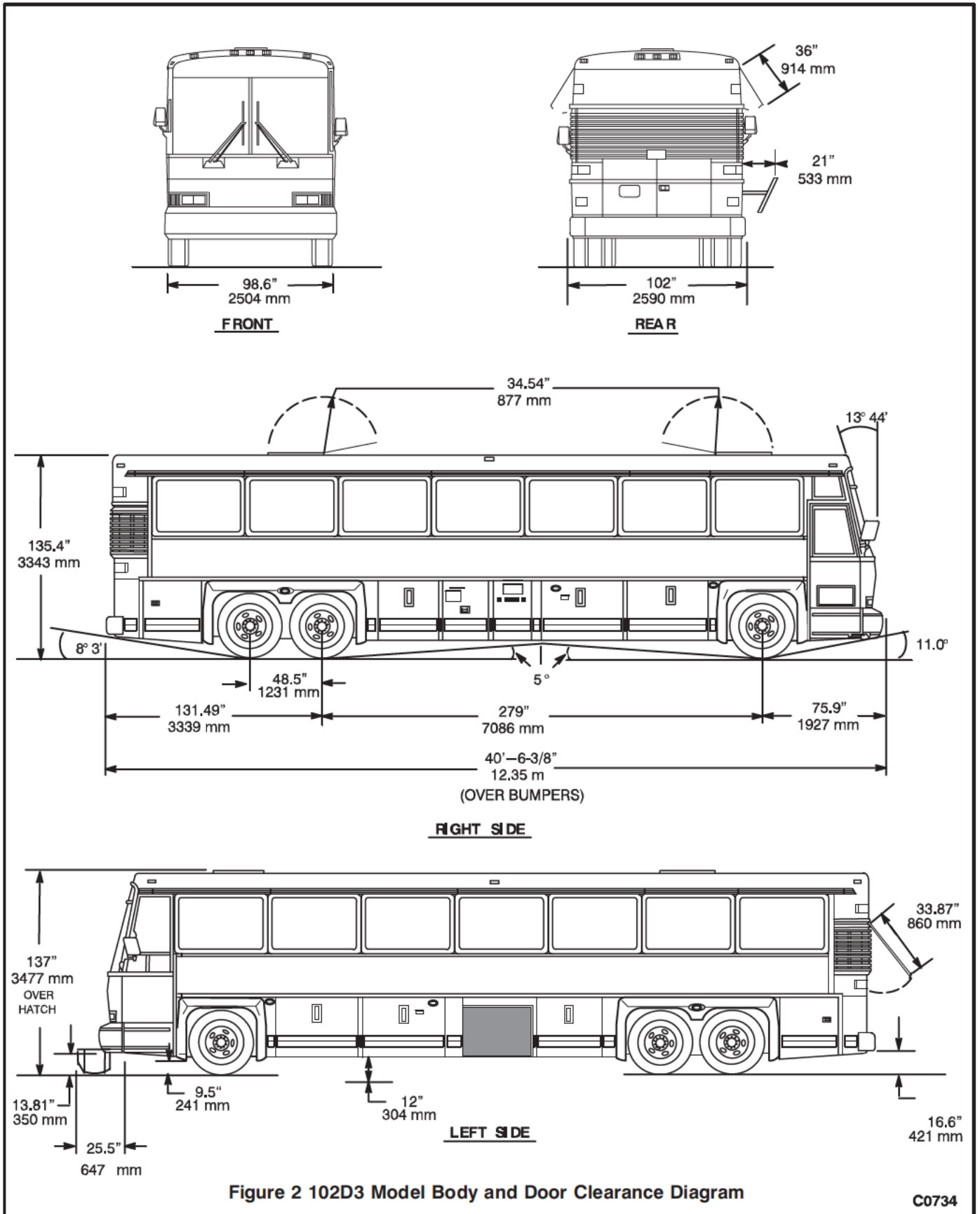
102D SERIES MAINTENANCE MANUAL

COACH SPECIFICATIONS



August 2000 Date

Intro-3 Page



REVISIONS & SERVICE INFORMATION BULLETINS

This manual will on occasion be revised in order to add new information, and to update or correct existing information. Please note the bold vertical line (revision bars) that appear to the left of each text column on sample page below (Figure 1). The revision bars indicate changes made since the last printing. The revision bars can be used to show changes made within a specific sentence or paragraph, and in some instances they may extend throughout whole section, if required. The revision bars should allow the reader to quickly identify areas with new or different information. All information contained in this manual is based on the latest product information available at time of publication. Motor Coach Industries reserves the right to make product changes at any time without notice. Service Bulletins are issued, when required, to supplement or supersede information in this manual. Information in the bulletins should be noted and filed for future use.



WELDING CAUTION



Since welding is a procedure which may be carried out either as allowed (explicitly or implicitly) by instructions in this manual or by an independent decision of the coach owner/operator, the following information pertaining to welding should be read before beginning any welding process. The prohibitions and requirements contained therein must be complied with when any coach welding is undertaken. **IMPORTANT:** In order to prevent electronic control component(s) damage during welding, steps 3 thru 5 must be strictly adhered to.

1. Welding must be done only by an experienced and qualified person (Minimum Requirements AWS B1.1). All specific instructions or prohibitions of applicable welding procedures must be followed.
2. Adequate ground contacts and barriers must be positioned as close as possible to the weld area and as required to protect components (wiring, brake lines, hydraulic lines, etc.) from damage due to heat, contact by weld splatter, arcing or other potentially damaging events associated with welding.
3. Turn the main battery disconnect switch to "OFF."
4. Protect the Vanner battery equalizer as follows:
 - a. Disconnect the ground at the equalizer first.
 - b. Disconnect the battery leads.
 - c. Reconnect the battery leads first and equalizer ground last.
5. Remove the ATEC/WTEC/DDEC power control fuses, and disconnect harnesses from their ECM and ECU units.



DRILLING CAUTION



Due to the close proximity of Electrical/Mechanical lines to the aisle floorboard DO NOT drill any holes in the center tunnel area. This area is 15 inches wide and runs immediately under the coach center aisle for the full length of the coach.

Various other WARNINGS, CAUTIONS and NOTES are contained in this manual. They should be read carefully to minimize the risk of personal injury or the possibility that improper service methods may be used which could damage the coach and render it unsafe. It is important to note that these cautions and notices are not all inclusive. We could not evaluate and advise users of all conceivable ways in which service may be done or of the possible hazardous consequences of each way. We have not attempted to do this. Therefore, anyone who uses a service procedure or tool not recommended by the manufacturer should first satisfy himself that neither his safety nor vehicle safety will be jeopardized by the particular method he selects.