

# ICC-ES Evaluation Report

**ESR-2542**

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**DIVISION: 10 00 00—SPECIALITIES**  
**Section: 10 31 00—Manufactured Fireplaces**

**REPORT HOLDER:**

**FMI PRODUCTS, LLC**  
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**EVALUATION SUBJECT:**

**FMI PRODUCTS LLC FACTORY-BUILT WOOD-BURNING  
 FIREPLACE MODELS 36EC II, 36L/R, B36, GM36, B42,  
 C36, C42, G36, G42, GM42, G50, GM50, F48H AND  
 PN36-A**

**1.0 EVALUATION SCOPE**
**Compliance with the following codes:**

- 2009 *International Residential Code*® (2009 IRC)
- 2009 *International Mechanical Code*® (2009 IMC)
- 2006 *International Residential Code*® (2006 IRC)
- 2006 *International Mechanical Code*® (2006 IMC)

**Properties evaluated:**

- Clearance to combustibles
- Physical properties

**2.0 USES**

The FMI Products, LLC, factory-built wood-burning fireplaces and chimneys described in this report are fireplaces complying with IMC Section 903 and IRC Section R1004.

**3.0 DESCRIPTION**
**3.1 General:**

The fireplaces described in this report are factory-built wood-burning appliances and chimneys recognized for installation with minimum clearances to combustibles as specified in Table 2. They may be installed over combustible floors, with hearth extension dimensions and clearances between the firebox opening and the sidewalls as specified in Tables 4 and 5. The fireplaces must be installed and used with the FMI Products, LLC, chimneys and terminations noted in this report.

Overall sizes of the fireplace units, hearth extensions, the chimney inside diameter and the installed chimney termination heights are shown in Table 1. Accessory components are indicated in Table 3.

**3.2 Model 36EC II:**

This model is constructed with semicircular, No. 28 gage [0.016 inch (0.41 mm)], galvanized steel outer and top shells. The top is insulated with a 1½-inch-thick (38 mm), 2.4 pcf density (38.44 kg/m<sup>3</sup>), Owens-Corning Jetcell unfaced glass-fiber batt supported underneath by a No. 28 gage [0.016 inch (0.41 mm)] galvanized steel pan. The firebox chamber is formed from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is protected by 1½-inch-thick (38 mm) refractory material on the bottom, and ¾-inch-thick (19.1 mm) refractory material at the sides and back. The flue collar is fabricated from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel over which a No. 26 gage [0.019 inch (0.48 mm)] chimney connector is installed. The fireplace uses the FMI Products, LLC, 8-inch (203 mm) double-wall chimney. The unit is supplied with glass doors (optional), hearth extension, integral grate and blower assembly as described in Table 3. The unit may also be provided with an optional outside combustion air kit as described in Table 3.

**3.3 B36 Model Series:**

The B36 model series consists of Models B36, B36I, B36L and B36LI. These models are constructed with No. 28 gage [0.016 inch (0.41 mm)] galvanized steel outer and top shells. The firebox chamber is formed from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is protected by 1¼-inch-thick (31.8 mm) refractory material on the bottom and back, and 1-inch-thick (25.4 mm) refractory material at the sides. The flue collar is fabricated from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is intended for connection to a FMI Products, LLC, 8-inch (203 mm) double-wall chimney. These units are supplied with glass doors (optional), hearth extension, integral grate and blower assembly as described in Table 3. These units may also be provided with an optional outside combustion air kit as described in Table 3.

**3.4 B42 Model Series:**

The B42 model series consists of Models B42, B42I, B42L and B42LI. These models are constructed with No. 28 gage [0.016 inch (0.41 mm)], galvanized steel outer and top shells. The firebox chamber is formed from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is protected by 1¼-inch-thick (31.8 mm) refractory material on the bottom and back, and 1-inch-thick (25.4 mm) refractory material at the sides. The flue collar is fabricated from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is intended for connection to a FMI Products, LLC, 8-inch (203 mm) double-wall chimney. These units are supplied with glass doors (optional), hearth extension, integral grate and blower assembly as described in Table 3. These units may also be provided with an optional outside combustion air kit as described in Table 3.

### 3.5 C36 Model Series:

The C36 model series consists of Models C36, C36I, C36L and C36LI. These models are constructed with No. 28 gage [0.016 inch (0.41 mm)], galvanized steel outer and top shells. The firebox chamber is formed from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is protected by 1<sup>1</sup>/<sub>4</sub>-inch-thick (31.8 mm) refractory material on the bottom and back, and 1-inch-thick (25.4 mm) refractory material at the sides. The flue collar is fabricated from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is intended for connection to a FMI Products, LLC, 8-inch (203 mm) double-wall chimney. These units are supplied with glass doors (optional), hearth extension, integral grate and blower assembly as described in Table 3. These units may also be provided with an optional outside combustion air kit as described in Table 3.

### 3.6 C42 Model Series:

The C42 model series consists of Models C42, C42I, C42L and C42LI. These models are constructed with No. 26 gage [0.019 inch (0.48 mm)], galvanized steel outer and top shells. The firebox chamber is formed from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is protected by 1<sup>1</sup>/<sub>4</sub>-inch-thick (31.8 mm) refractory material on the bottom and back, and 1-inch-thick (25.4 mm) refractory material at the sides. The flue collar is fabricated from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is intended for connection to a FMI Products, LLC, 8-inch (203 mm) double-wall chimney. These units are supplied with glass doors (optional), hearth extension, integral grate and blower assembly as described in Table 3. These units may also be provided with an optional outside combustion air kit as described in Table 3.

### 3.7 G36 and GM36 Model Series:

The G36 and GM36 model series consists of Models G36, G36H, GM36S and GM36H. These models are constructed with No. 26 gage [0.019 inch (0.48 mm)], galvanized steel outer and top shells. The firebox chamber is formed from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is protected by 1<sup>5</sup>/<sub>8</sub>-inch-thick (41 mm) refractory material on the bottom and back, and 1<sup>3</sup>/<sub>8</sub>-inch-thick (35 mm) refractory material at the sides. The flue collar is fabricated from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is intended for connection to a FMI Products, LLC, 12<sup>3</sup>/<sub>8</sub>-inch (312 mm) double-wall chimney. These units are supplied with glass doors (optional), hearth extension and integral grate as described in Table 3. These units may also be provided with an optional outside combustion air kit as described in Table 3.

### 3.8 G42 and GM42 Model Series:

The G42 and GM42 model series consists of Models G42, and G42H, GM42S and GM42H. These models are constructed with No. 26 gage [0.019 inch (0.48 mm)], galvanized steel outer and top shells. The firebox chamber is formed from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is protected by 1<sup>5</sup>/<sub>8</sub>-inch-thick (41 mm) refractory material on the bottom and back, and 1<sup>3</sup>/<sub>8</sub>-inch-thick (35 mm) refractory material at the sides. The flue collar is fabricated from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is intended for connection to a FMI Products, LLC, 12<sup>3</sup>/<sub>8</sub>-inch (314 mm) double-wall chimney. These units are supplied with glass doors (optional), hearth extension and integral grate as described in Table 3. These units may also be provided with an optional outside combustion air kit as described in Table 3.

### 3.9 G50 and GM50 Model Series:

The G50 and GM50 model series consists of Models G50, G50H, GM50S and GM50H. These models are constructed with No. 26 gage [0.019 inch (0.48 mm)], galvanized steel outer and top shells. The firebox chamber is formed from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is protected by 1<sup>5</sup>/<sub>8</sub>-inch-thick (41 mm) refractory material on the bottom and back, and 1<sup>3</sup>/<sub>8</sub>-inch-thick (35 mm) refractory material at the sides. The flue collar is fabricated from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is intended for connection to a FMI Products, LLC, 12<sup>3</sup>/<sub>8</sub>-inch (314 mm) double-wall chimney. These units are supplied with glass doors (optional), hearth extension and integral grate as described in Table 3. These units may also be provided with an optional outside combustion air kit as described in Table 3.

### 3.10 Model PN36-A:

This model is an open-end-type, see-through fireplace with two sides covered by glass doors and one side covered by a fixed glass pane. The fourth side is constructed of No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and provided with 1-inch-thick (25.4 mm) fiberglass foil-faced insulation. The top of the assembly is constructed with No. 26 gage [0.019 inch (0.48 mm)] zinc-coated steel, enclosing the flue collar and chimney connector. The firebox is constructed with No. 22 gage [0.030 inch (0.76 mm)] aluminized steel protected by refractory material, 1-inch-thick (25.4 mm) at the bottom and 1-inch-thick (25.4 mm) at the fourth side.

The unit uses a FMI Products, LLC, 12-inch (305 mm) double-wall chimney and is offered with optional glass doors, an optional outside combustion air kit, an integral grate and hearth extension extensions, as shown in Table 3.

### 3.11 Model 36 L/R:

These models are an open-end-type, with the front side fitted with doors and the left end (for the 36L model) or right end (for the 36R model) fitted with a fixed glass pane. The fireplaces are constructed with a No. 22 gage [0.030 inch (0.76 mm)] galvanized steel outer shell and top. The top is insulated as described for model 36EC II. The firebox chamber is constructed with No. 22 gage [0.030 inch (0.76 mm)] aluminized steel protected by refractory material, 1-inch-thick (25.4 mm) at the bottom, back and at the unglazed side.

The units use a FMI Products, LLC, 8-inch (203 mm) double-wall chimney and are offered with optional glass doors, optional outside air kit, an integral grate and a hearth extension, as shown in Table 3.

### 3.12 Model F48H:

These models are constructed with No. 26 gage [0.019 inch (0.48 mm)] galvanized steel outer and top shells. The firebox chamber is formed from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is protected by 1<sup>5</sup>/<sub>8</sub>-inch-thick (41 mm) refractory material on the bottom and back, and 1<sup>3</sup>/<sub>8</sub>-inch-thick (35 mm) refractory material at the sides. The flue collar is fabricated from No. 22 gage [0.030 inch (0.76 mm)] aluminized steel and is intended for connection to an FMI Products, LLC, 12<sup>3</sup>/<sub>8</sub>-inch (312 mm) double-wall chimney. These units are supplied with glass doors (optional), hearth extension and integral grate as described in Table 3. These units may also be provided with an optional outside combustion air kit as described in Table 3.

**4.0 INSTALLATION**

**4.1 General:**

The fireplace units must be installed in accordance with the manufacturer's published installation instructions, with the components, limitations, minimum sidewall clearances and clearances to combustibles described in Section 3.0 and Tables 1 through 5.

**4.2 Combustion Air:**

Combustion air must be provided in accordance with IRC Chapter 17 and IMC Chapter 7.

**4.3 Outside Combustion Air:**

When installation is with the optional outside combustion air kit specified in Table 3, the kit must be installed in accordance with the FMI Products, LLC, published installation instructions supplied with each fireplace in accordance with IRC Section R1006.1.1 and IMC Section 707. The outdoor air intake opening location and protection must be in accordance with IMC Section 710.

**5.0 CONDITIONS OF USE**

The FMI Products, LLC, fireplace models 36EC II, 36L/R, B36, B42, C36, C42, G36, G42, G50, GM36, GM42, GM50, F48H and PN36-A described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The fireplace assemblies must be installed in accordance with the manufacturer's published installation instructions, this report and the applicable code. In the event of a conflict between this report and the manufacturer's installation instructions, this report governs.
- 5.2 The installation and use of components, such as decorative shrouds, unvented gas log heaters and vented gas log lighters, is outside the scope of this report.

5.3 Where factory-built chimneys are supported by structural members, such as joists and rafters, those members must be designed to support the additional loads.

5.4 The fireplaces are manufactured by FMI Products, LLC, in Santa Ana, California, under a quality control program with inspections by PFS Corporation (AA-652), as noted in Section 7.0.

**6.0 EVIDENCE SUBMITTED**

- 6.1 Data in accordance with UL127.
- 6.2 Quality documentation.
- 6.3 Installation instructions.

**7.0 IDENTIFICATION**

The fireplaces are identified by a metal plate, located in the firebox opening, that includes the manufacturer's name (FMI Products, LLC) and address, model number, serial number, clearances to combustibles, type of fuel, details on hearth extension and chimney, ICC-ES evaluation report number (ESR-2542), electrical rating (if supplied with optional blower assembly), and the name of the inspection agency (PFS Corporation). The metal plate also includes statements that installation of the appliance must comply with the manufacturer's instructions, the evaluation report and the applicable code, and that the local code official should be contacted prior to installation.

The chimney components and terminations are identified with the manufacturer's name (FMI Products, LLC) and address, part number, the clearance to combustibles, the name of the inspection agency ( PFS Corporation), the chimney type ("Type HT" and "Residential Type and Building Heating Appliance Chimney"), and the ICC-ES evaluation report number (ESR-2542).

**TABLE 1—FMI PRODUCTS, LLC, FIREPLACES**

NO.	MODEL	OVERALL SIZE (inches)			FIREBOX OPENING (inches): W x H	HEARTH EXTENSION SIZE (inches): W x D	CHIMNEY SIZE I.D. (inches)	INSTALLED HEIGHT— FIREPLACE AND CHIMNEY (feet)	
		W	D	H				Min.	Max.
1	36EC II	41	22 <sup>1</sup> / <sub>16</sub>	42	36 x 22 <sup>1</sup> / <sub>8</sub>	52 x 16	8	14	40
2	36 L/R Corner unit	39 <sup>1</sup> / <sub>8</sub>	22	42	Front 36 x 2 <sup>1</sup> / <sub>2</sub> Side 18 <sup>7</sup> / <sub>8</sub> x 22 <sup>1</sup> / <sub>8</sub>	Front 68 x 20 Side 22 x 20	8	15	60
3	PN36-A 3-sided	40	24	66 <sup>1</sup> / <sub>4</sub>	36 <sup>1</sup> / <sub>2</sub> x 20 <sup>1</sup> / <sub>2</sub>	2 sides 65 x 40 End 44 x 16	12	16	50
4	B36, B36L, B36L, B36LI	38	21 <sup>1</sup> / <sub>8</sub>	37 <sup>1</sup> / <sub>2</sub>	36 x 21 <sup>1</sup> / <sub>2</sub>	52 x 16	8	11 <sup>1</sup> / <sub>2</sub>	50
5	B42, B42L, B42L, B42LI	44	21 <sup>1</sup> / <sub>8</sub>	37 <sup>1</sup> / <sub>2</sub>	42 x 21 <sup>1</sup> / <sub>2</sub>	66 x 20	8	14 <sup>1</sup> / <sub>2</sub>	50
6	C36, C36L, C36L, C36LI	41	21	40 <sup>1</sup> / <sub>4</sub>	35 x 21	52 x 16	8	14 <sup>1</sup> / <sub>2</sub>	50
7	C42, C42L, C42L, C42LI	48	22 <sup>5</sup> / <sub>8</sub>	44 <sup>1</sup> / <sub>4</sub>	42 x 24	66 x 20	8	14 <sup>1</sup> / <sub>2</sub>	50
8	G36, G36H, GM36S, GM36H	45	26 <sup>5</sup> / <sub>8</sub>	67	36 x 30	60 x 20	12 <sup>3</sup> / <sub>8</sub>	16	50
9	G42, G42H, GM42S, GM42H	51	28 <sup>1</sup> / <sub>2</sub>	67	42 x 30	66 x 20	12 <sup>3</sup> / <sub>8</sub>	16	50
10	G50, G50H, GM50S, GM50H	59	28 <sup>1</sup> / <sub>2</sub>	67	50 x 30	74 x 20	12 <sup>3</sup> / <sub>8</sub>	16	50
11	F48H	60 <sup>5</sup> / <sub>8</sub>	30	76 <sup>1</sup> / <sub>4</sub>	48 x 42	72 x 20	12 <sup>3</sup> / <sub>8</sub>	16	50

For SI: 1 inch = 25.4 mm.

**TABLE 2—MINIMUM CLEARANCES TO COMBUSTIBLES (inches)**

MODEL	FIREPLACE CLEARANCES				CHIMNEY CLEARANCES TO COMBUSTIBLES (inches)
	Sides	Back	Top	Bottom	
36EC II	3/4	3/4	0	0	1
36 L/R Corner unit	3/4	3/4	0	0	2
PN36-A 3 sided	1/2	NA	0	0	2
B36, B36I, B36L, B36LI	3/4	3/4	0	0	1
B42, B42I, B42L, B42LI	3/4	3/4	0	0	2
C36, C36I, C36L, C36LI	3/4	3/4	0	0	1
C42, C42I, C42L, C42LI	3/4	3/4	0	0	2
G36, G36H, GM36S, GM36H	1 1/2	1 1/2	0	0	1
G42, G42H, GM42S, GM42H	1 1/2	1 1/2	0	0	2
G50, G50H, GM50S, GM50H	1 1/2	1 1/2	0	0	2
F48H	1 1/2	1 1/2	0	4 1/2	2

For SI: 1 inch = 25.4 mm.

**TABLE 3—ACCESSORY EQUIPMENT FOR FIREPLACES**

MODEL NO.	GLASS-DOOR PACKAGE (OPTIONAL)	OUTSIDE COMBUSTION AIR KIT (OPTIONAL)	HEARTH EXTENSION	INTEGRAL GRATE	BLOWER ASSEMBLY	CHASE TERMINATION
36EC II	G36E	AK-4E	HE36	Yes	VCBK-3E	RTL-8DM ETL-8DM
36L/R	G36L/R	AK-4	HE-36L/R	Yes	VCBK4R/L	RTL-8DM ETL-8DM
PN36-A	36PN	AK-4	HEP36	Yes	None	RTL-12DM ETL-12DM
B36, B36I, B36L, B36LI	BDB36B	AK4, AK4F	HE36	Yes	BK3	RTL-8DM ETL-8DM
B42, B42I, B42L, B42LI	BDB42B	AK4, AK4F	HE42	Yes	BK3	RTL-8DM ETL-8DM
C36, C36I, C36L, C36LI	BD36B	AK4, AK4F	HE36	Yes	BK3	RTL-8DM ETL-8DM
C42, C42I, C42L, C42LI	BD42B	AK4, AK4F	HE42	Yes	BK3	RTL-8DM ETL-8DM
G36, G36H	BDG36B	AK4, AK4F	HE36	Yes	None	RTL-12DM ETL-12DM
G42, G42H	BDG42B	AK4, AK4F	HE42	Yes	None	RTL-12DM ETL-12DM
G50, G50H	BD50B	AK4, AK4F	HE50	Yes	None	RTL-12DM ETL-12DM
GM36S, GM36H	BDMO36E	AK4, AK4F	HE36	Yes	None	RTL-12DM ETL-12DM
GM42S, GM42H	BDMO42E	AK4, AK4F	HE42	Yes	None	RTL-12DM ETL-12DM
GM50S, GM50H	BDMO50E	AK4, AK4F	HE50	Yes	None	RTL-12DM ETL-12DM
F48H	BDMO48E	AK4, AK4F	HE50	Yes	None	RTL-12DM ETL-12DM

**TABLE 4—FIREPLACES WITH FRONT OPENING ONLY**

MODEL	DIMENSIONS (inches) <sup>1</sup>		
	Hearth Extension		Sidewall Clearance C
	A	B	
36EC II	52	16	14
B36, B36I, B36L, B36LI	52	16	14
B42, B42I, B42L, B42LI	66	20	12
C36, C36I, C36L, C36LI	52	16	12
C42, C42I, C42L, C42LI	66	20	12
G36, G36H, GM36S, GM36H	60	20	12
G42, G42H, GM42S, GM42H	66	20	18
G50, G50H, GM50S, GM50H	74	20	18
F48H	72	20	18

For SI: 1 inch = 25.4 mm.

<sup>1</sup>See Figure 1 for dimensions referenced in Table 4.

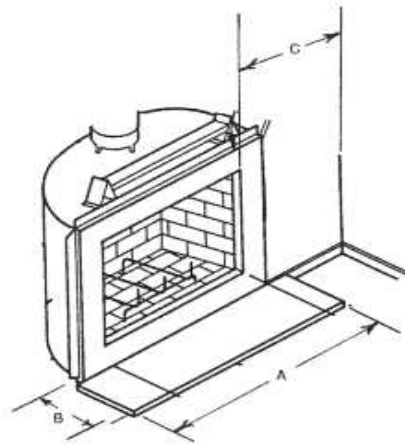
**TABLE 5—FIREPLACES WITH TWO OR THREE SIDES OPEN**

MODEL NO.	DIMENSIONS (inches) <sup>1</sup>					
	A	B	C	D	E	F
PN36-A	65	20	60	60	24	16
36L/R	42	48	20	24 (8) <sup>2</sup>	N/A	N/A

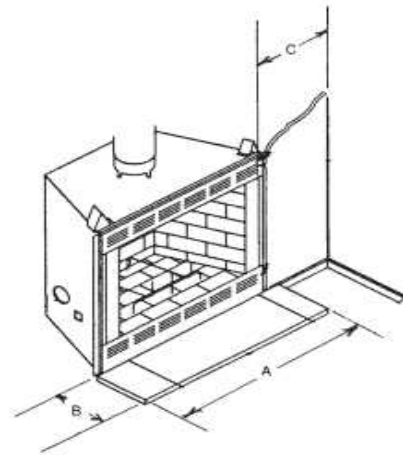
For SI: 1 inch = 25.4 mm.

<sup>1</sup>See Figure 2 or 3 as applicable for dimensions referenced in Table 5.

<sup>2</sup>Value in parentheses is the reduced clearance permitted with the use of protective Wallshield PWS-42.



MODEL 36EC II



MODELS, B36, C36, G36, GM36, B42, C42, G42, GM42, G50, GM50 and F48H

**NOTE:** See Table 3 for actual dimensions

**FIGURE 1—HEARTH EXTENSION AND SIDEWALL CLEARANCES**

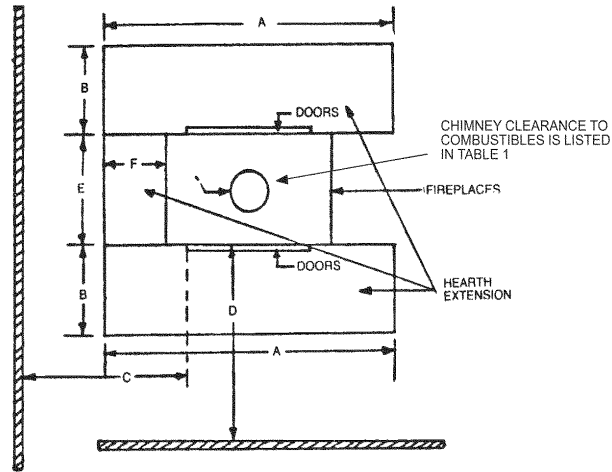


FIGURE 2—MODEL PN36-A (SEE-THROUGH FIREPLACE WITH THREE SIDES OPEN)

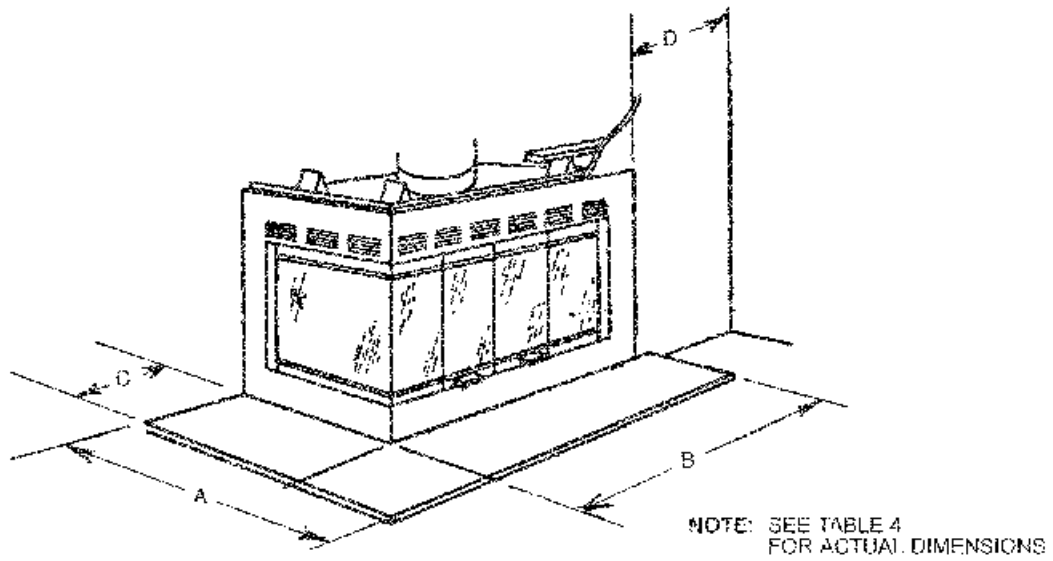


FIGURE 3—MODEL 36L/R (FIREPLACE WITH TWO SIDES OPEN)