## TEMGO

# INSTALLATION-OPERATION AND PARTS LIST MANUAL

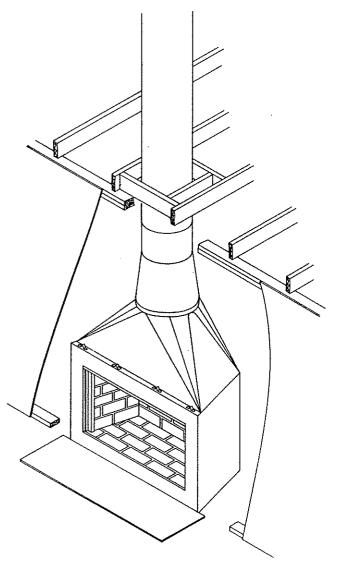
BUILT-IN WOOD BURNING FIREPLACE WITH PREFABRICATED CHIMNEY

ZERO CLEARANCE MODELS

TBF 28-1

TBF 36 - 1

TBF 42-1 ~





TEMTEX PRODUCTS, INC P.O. BOX 1184 NASHVILLE, TENNESSEE 37202 TELEPHONE (615) 297-7551 A SUBSIDIARY OF TEMTEX INDUSTRIES, INC



#### **FOREWORD**

You have just purchased a Zero clearance Fireplace from Temco's line of heating equipment. Each part of your fireplace is of high quality material and superior workmanship. This fireplace has been tested and design certified by Underwriters' Laboratories and it has been laboratory and field tested by Temco Engineers. This has been done to bring you the utmost in product quality.

For you to realize all the advantages and years of reliable service that have been engineered into your fireplace, you must follow through by observing all the instructions contained in this book regarding installation and operation. Your installation must further conform with all local codes and safety regulations pertaining to fireplace installation.

Keep this book in a safe place for ready reference. It will serve as a guide for operation after installation and will aid in obtaining maximum heating comfort from your fireplace. You may also need the parts list when ordering replacements.

#### **READ THIS ENTIRE BOOK**

#### SHORTAGES AND DAMAGES

It is important that you check for damage or shortages as soon as your fireplace is delivered. The shipping list will list all parts contained in the cartons.

To identify model number and serial number when ordering parts see nameplate located in the upper front corner of the fireplace firebox.

NOTE: To identify individual parts, refer to parts illustrations located on pages 9 and 10.

While we will gladly make up any shortages, we hope you will carefully and thoroughly search for each part before reporting it missing. Some parts are small and can be concealed by the packing. Do not throw the packing material away until you are sure that all items are accounted for and are not in the packing.

## LOCAL CODES

Local building codes must be followed in all cases as to the particular requirements concerning the installation of factory built fireplaces.

#### **CLEARANCES:**

Any of these models may be placed directly on a combustible floor, against a combustible wall or raised on a wooden platform without clearance from combustible construction. However, the fireplac must be secured in place so that it can't shift. Fran, ing members may be placed directly against the side and back clearance angles of the fireplace. Combustible floors must be protected at the front and to the sides of the fireplace opening as shown in Fig. 1. If the unit is to be installed on a raised platform it must rest on a continuous level surface.

Framing may be completed before delivery, if dimensions for enclosure are followed closely, particularly those in reference to framing around opening. In Fig. 1, Dimension "A" indicates position of finished wall surface with respect to surround face of fireplace. The surround is the black portion of the fireplace front.

As a general rule, when moulding or trim is to be installed around surround, finished surround is best installed FLUSH with finished wall so a simpler trim piece may be used to cover joint. See Fig. 1 for clearances from combustibles. Non-combustible facing material such as glass, marble, brick, tile, stone, etc. may be applied directly to the surface of the surround. No combustible material within 12" of the fireplace opening shall project more than 1/8" for each 1" clearance from the opening, in accordance with Uniform Building Code. The position of header and framework around opening must be adjusted to accommodate the thickness of finished surround when fireplace sits tight against wall at rear. choice of finished surround is made AFTER INSTAL LATION, it is suggested that framing be installed so finished surround will OVERLAP finished wall ("A" = Zero). Enclosure around fireplace is constructed of 2 x 4's, or heavier, in conventional manner.

Studs may be placed flat to conserve space. No clearances are required between framing and fire-place. Header across opening should be a 1 x 6. This will allow ½" space from header to fireplace face for drywall.

Chimney sections require a minimum clearance of two inches to combustible material. Firestop spacers must be installed at every ceiling level which will automatically provide the necessary clearance.

The firepace must not be installed closer than "Z" to any unprotected combustible wall, perpendicular to the fireplace openings (See Fig. 1). This does not apply to corner installation.

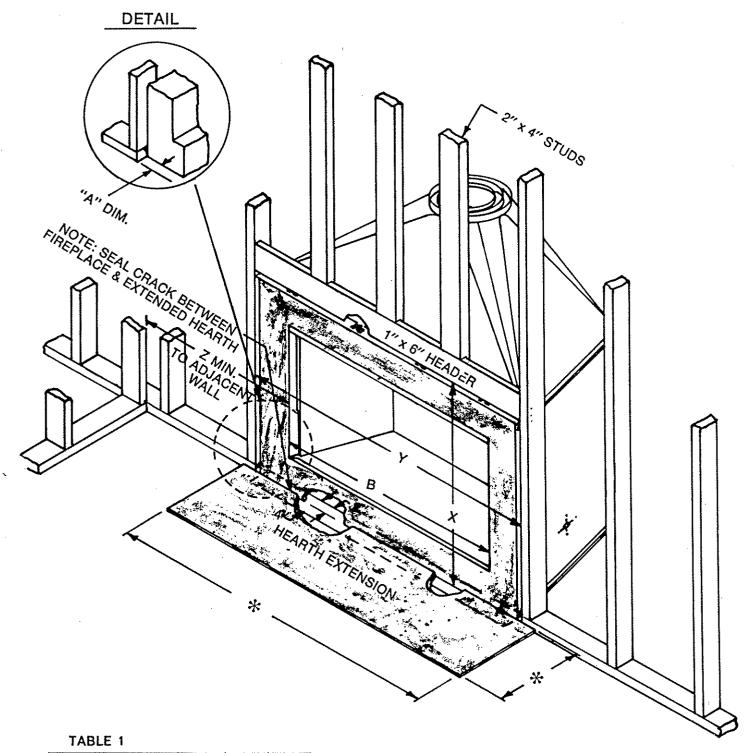
Floor which supports fireplace does not have to be reinforced unless the material used for facing is very heavy: (i.e. Fieldstone—large areas of brick, etc.)

#### - WARNING

Only TEMCO components designed for your model fireplace may be installed. Other parts or any modification to your TEMCO components may cause a FIRE HAZARD and will void the TEMCO warranty. In addition, such action may void the coverage provided by your homeowner's policy.

RISK OF ASPHYXIATION . . . DO NOT CONNECT THIS APPLIANCE TO A CHIMNEY FLUE SERVING A GAS-FIRED APPLIANCE.

NO BLOWER OR THERMAL GRATE MAY BE USED IN A TEMCO TBF FIREPLACE. THEY WILL DAMAGE THE DOOR AND CAUSE A FIRE HAZARD.

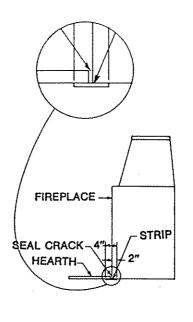


MODEL	*Hearth Extension	Х	Υ	Z
TBF - 28	16"x44"	35¾"	39"	24"
TBF - 36	16"x52"	36,1/4"	47"	30″
TBF - 42	20"x58"	36¼"	53″	30″

FIGURE 1

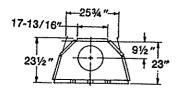
## CAUTION

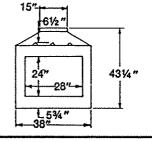
COMBUSTIBLE MATERIAL MUST NOT BE INSTALLED OVER DARKENED AREAS.

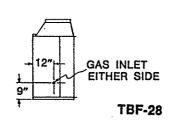


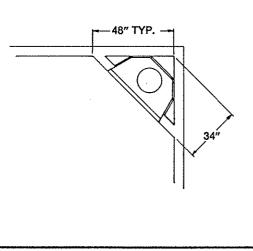
The Hearth Safety Strip furnished with each unit, P.N. 2B60161 for model TBF-28, P.N. 2B60162 for TBF-36 and P.N. 2B60163 for TBF-42, must be installed under the fireplace. This strip must be positioned on the floor to extend 2" under the fireplace and 6" either side of the fireplace opening at the point where the extended hearth meets the fireplace. (See Fig. 1)

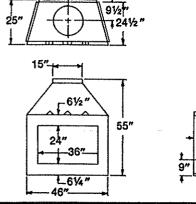
#### **DIMENSIONS AND CLEARANCES**



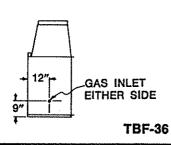


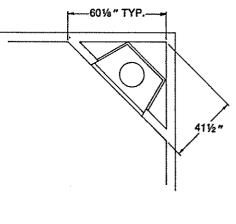


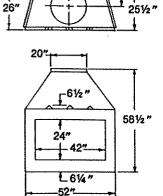




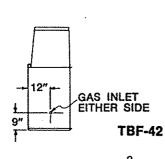
101/2"

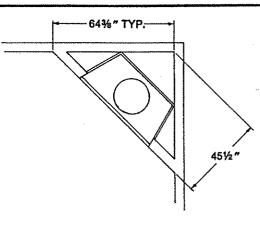






39"



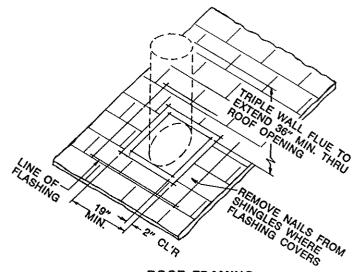


## Framing Ceiling and Roof Openings:

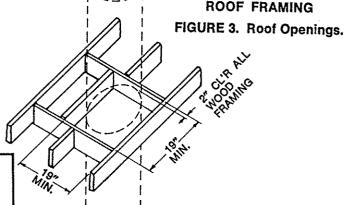
Frame ceiling and roof opening directly above one another, as flue should go straight up to chimney armination. Firestops must be used at each ceiling, at none is required at roof line. Roof framing must be 2 x 6's or 2 x 4's and securely nailed, as chimney termination and flashing are anchored to this construction and must withstand heavy loads. NOTE: Opening dimensions are measured horizontally.

Cut and frame openings through ceilings and roof levels (see opening sizes, Figs. 2 & 3). These sizes allow proper clearance between chimney and combustible construction. When using a simulated brick chimney different openings are required.

At each ceiling level, install a firestop, with angle extending into joist space, and nail it to joist and headers around celing opening. No firestop is to be used at roof levels. Install a firestop (Model 930F, 30° Penetration) or (Model 904F, 90° Penetration) at each point where the chimney passes through a ceiling. Use a 30° Penetration where a chimney penetrates a ceiling at a 30° angle. The firestop should be installed from the underside of the ceiling except at the attic level where it should be installed on top of the framing members. A minimum of 2" clearance must be maintained from flue pipe to all combustibles. If any portion of chimney extends through any living or storage area, this portion must be enclosed to eliminate personal contact or damage to the chimney.



**ROOF FRAMING** 



## **WARNING**

#### **FIREPLACE MODEL TBF 28-1**

FOR USE ONLY WITH TEMTEX LABELED FIREPLACE PARTS. LABELED CHIMNEY SUPPORT, CHIMNEY SECTION, FIRESTOP SPACER, ELBOW, ROOF ASS'Y AND HEARTH EXTENSION REQ. TO COMPLETE FIREPLACE. MODEL CAK-1 COMBUSTION AIR KIT MAY BE USED.

#### **FIREPLACE MODEL TBF 36-1**

FOR USE ONLY WITH TEMTEX LABELED FIREPLACE PARTS. LABELED CHIMNEY SUPPORT, CHIMNEY SECTION, FIRE-STOP SPACER, ELBOW, ROOF ASS'Y AND HEARTH EXTENSION REQ. TO COMPLETE FIREPLACE. MODEL SG36-1 GLASS DOORS AND MODEL CAK-1 COMBUSTION AIR KIT MAY BE USED.

#### FIREPLACE MODEL TBF 42-1

FOR USE ONLY WITH TEMTEX LABELED FIREPLACE PARTS. LABELED CHIMNEY SUPPORT, CHIMNEY SECTION, FIRESTOP SPACER, ELBOW, ROOF ASS'Y AND HEARTH EXTENSION REQ. TO COMPLETE FIREPLACE. MODEL SG42-1 GLASS DOORS AND MODEL CAK-1 COMBUSTION AIR KIT 1AY BE USED.

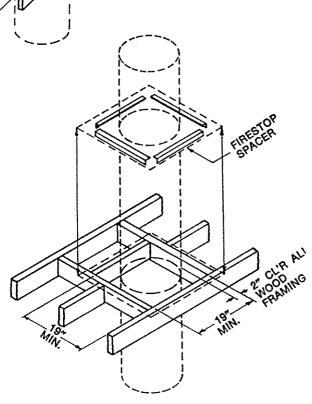
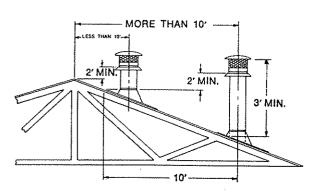


FIGURE 2. Ceiling Opening (16" centers)

#### To Install Chimney Sections

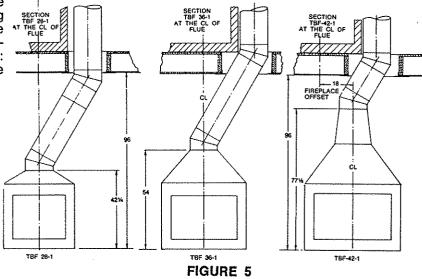
The three sections of flue pipe are, inner, intermediate, and outer. Insert the inner (9") into the top of the fireplace with the snap end down. Push until the snap locks engage. Slip the intermediate (12") over the inner. Push it down until it bottoms and the snap locks engage. Slip the outer (15") over the intermediate and push it down until it bottoms and the snap locks engage. Continue this process adding the flue sections on top of each other until the flue penetrates the roof opening above the roof flashing at least 3" or more to allow adequate room for the storm collar. The minimum completed heights measured from the base of the fireplace are as follows: TBF-28—12'; TBF-36—12'; and TBF-42—15'6". The maximum height is 90'.



2. To achieve minimum offset (see table 2), attach return elbow (with 18" straps) to first elbow. To achieve further offset, you may install various lengths of triple wall pipe (12", 18", 24", 36" and/ or 48") between the elbows to a maximum length of 72 inches. At this point a flue support must be provided if additional sections are to be added.

#### TYPICAL OFFSET INSTALLATION

NOTES: 1 FLUE SUPPORT MUST BE USED AT 30 FOOT INTERVALS.



## FIGURE 4

If chimney pipe is within 10' of the roof peak, the top should extend 24" above the peak. When farther than 10' from the roof peak, the top of the chimney pipe should be at least 24" above a point on the roof that is 10' from the centerline of the chimney, measured in a horizontal plane. (See Fig. 4) In either case, the top of the last section of chimney pipe must be at least 36" above the highest point of the roof cutout. (See Figs. 3 and 9)

Chimney sections must be supported with either guy wires or ¾" conduit flatten on the ends, when chimney extends 6 feet or more above the roof. Chimney may be extended to a maximum height of 12 feet above the roof.

A flue support Model No. 904S must be installed at both 45 and 75 foot levels to adequately support flue pipe on vertical runs 45 feet or higher measuring from fireplace base.

#### To Install Elbows

Maintain 2 inches minimum clearance to combustibles, except when passing through firestop spacers.

1. Place elbow on the top of the fireplace, pointed in the direction offset is required.

	Offset Dim. "T"	Rise Dim. "S" (Inches)		
Lineal Gain of Offset with Two Elbows	(Inches) (2)	Model TBF-28	Model TBF-36	Mode TBF-42
Elbows Only—No intermediate sections	41/8	577/g	69%	92¾
One 12" Section	91/2	671/8	78%	102
One 18" Section	121/2	721/4	84	1071/8
Two 12" Sections	14%	76%	881/8	1111/4
One 24" Section	151/2	771/2	891/4	1123/8
One 12" Section and One 18" Section	17%	811/2	931/4	116%
One 12" Section and One 24" Section, or Two 18" Sections	20%	86¾	981/2	121%
One 36" Section	211/2	87%	99%	12234
One '18" Section and One 24" Section	23%	91%	103%	1263/4
One 12" Section and One 36" Section, or Two 24" Sections	26%	971/8	108%	132
One 48" Section	271/2	981/4	110	1331/8
One 18" Section and One 36" Section	29%	1021/4	114	1371/8
One 12" Section and One 48" Section, or One 24" Section and One 36" Section	32%	1071/2	1191/4	1423/6
One 18" Section and One 48" Section	35%	112%	124%	1471/2
One 24" Section and One 48" Section, or Two 36" Sections	38%	117%	129%	15234
One 36" Section and One 48" Section and One Flue Support (904S) (1)	46%	130%	142%	165¾

TABLE 2

#### Note

If the required offset distance is not shown in the above table but is less than the maximum allowed (125"), additional chimney sections can be added to any of the above combinations, adding to the "T" and "S" (Fig. 5) dimensions as follows:

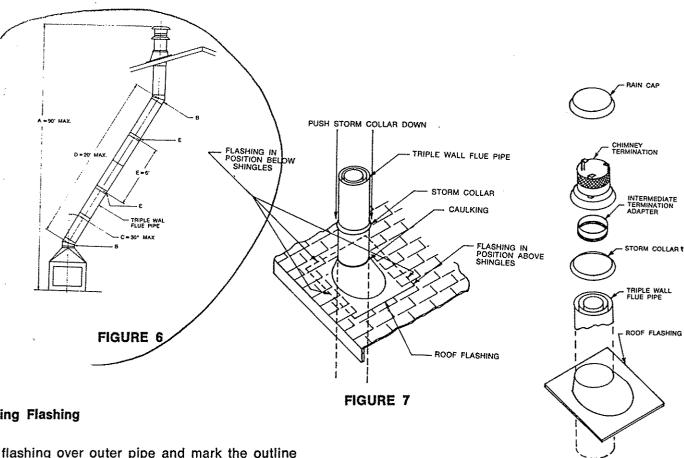
For each	Add	Add
additional:	to "T"	to "S"
12" Section	5%"	91/4"
18" Section	83/8"	14%″
24" Section	11%"	19%″
36" Section	173/8″	30"
48" Section	23%"	40%"
Flue Support (904S)	11/2"	25/8″

#### Rules Governing Offset Installations

- A. 90' maximum height. Four 30° elbows maximum per system.
- C. Chimney is to be a maximum of 30° from vertical.
- D. Maximum of 20 ft. length of angled run of chim-
- E. Additional support to be provided every 6 ft. of angled run of chimney.

The intermediate termination adaptor, and chimney termination are then attached to the triple wall pipe. (See Fig. 8) To attach the termination, slide the termination brackets over the outside wall pipe and mark the hole location on the pipe and drill holes for metal screws. Next install the termination adaptor into the intermediate pipe (end with locks goes into pipe), then slide the chimney termination over this and line the brackets up with the holes already drilled and attach with the 3 screws provided.

**Extending and Finishing Chimney** 



#### Installing Flashing

Place flashing over outer pipe and mark the outline on roof. Remove nails from shingles in this outline to bottom edge of roof cutout. Coat the roof area under shingles with roofing cement. Slide the flashing under shingles into position and renail top and side shingles. Do not nail through lower portion of flashing. If necessary, cover side and top of flashing with salvaged shingles.

#### Installing Storm Collar

Install storm collar and raise upward. Apply waterproof caulking around flashing where collar fits at top of flashing. Push storm collar down securely on sealer and flashing. (See Fig. 7)

#### FIGURE 8

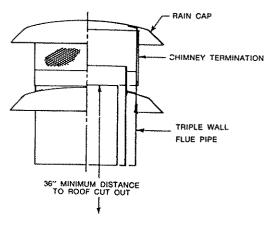


FIGURE 9

#### Installing Gas Line

IMPORTANT: install the gas line before framing fireplace.

If desired, a gas log lighter (or gas log set) may be installed. Use only black iron pipe, ½" size, and appropriate iron fittings.

When installing a gas line, a valve designed for installation outside the fireplace is recommended.

The gas line can enter the fireplace from either side. Refer to page 3 for the entrance hole. Remove the refractory side where the gas line is to enter the TBF-36 or TBF-42. There are three knock outs on either side of the fireplace. One each in the outer, intermediate, and firebox shield. Remove all three knock outs. Replace the refractory side and mark where the gas line will enter. Remove the refractory and drill the hole with either a masonry or spade bit. Replace the refractory aligning the drilled hole with the knock outs.

Run the gas line to just outside entrance hole of fireplace. Install a 7" (minimum) nipple to reach inside the fireplace.

Finish the installation by either capping the gas line inside the fireplace or attaching the gas log or lighter.

## Test for Gas Leaks

All gas piping and connections must be tested for leaks after the installation is completed.

Be sure the unit is turned off.

Apply a soapy solution to all connections and joints and if bubbles appear, leaks can be detected and corrected.

DO NOT USE A MATCH OR OPEN FLAME OF ANY KIND TO TEST FOR LEAKS.

Never operate any appliance with leaky connections. NOTE: If gas logs are to be used, damper MUST be locked open.

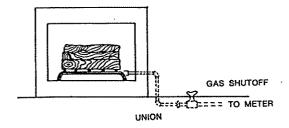


FIGURE 10

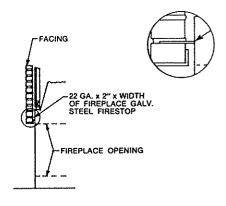


FIGURE 11

Construction Note: Installer to provide a firestop as shown in Fig. 11. Firestop to butt against fireplace face the entire length of the facing and to be imbedded in the mortar joint.

#### **IMPORTANT**

#### Charcoal Fires

A charcoal fire may be built in a grate or fire basket, with the damper in the full open position to allow smoke and fumes to escape. Build fire by using paper, kindling or other conventional charcoal lighting means. CHARCOAL REQUIRES A CONSTAN SUPPLY OF FRESH AIR. Leave an outside door c window into the room partially open. BE SURE ALL ASHES ARE COLD BY FEELING THEM BEFORE CLOSING DAMPER OR WINDOW

CAUTION: Use of an exhaust fan may cause the fireplace to smoke or vent poorly. Always provide a source of fresh air for combustion into the room where the fireplace is installed.

#### CARE AND OPERATION

#### To Build a Fire

- Open screens by grasping handles, push each back to sides.
- Open damper by pulling handle down until it locks in open position. You will feel the damper snap into the locked position.
- Be sure grate is placed far back in fireplace and place several crumpled pieces of paper on grate.
- 4. Light another piece of crumpled paper and hold high inside the fireplace. This will warm the flue and start the chimney "drawing."

- Light the paper in the grate and as the kindling catches, add more or heavier wood until fire is well established, being careful not to "smother" fire.
- If charcoal or coal is to be used, it now may be added slowly.
- Close right firescreen first and then left firescreen being sure they overlap. Keep closed at all times except when adding fuel.

The fireplace firescreen should be in place while a fire is burning. Never leave the fire unattended without this protection.

WARNING: Never use flammable liquids indoors to light your fire.

#### **WOOD FIRES**

Different types of wood have different heat values. The heat that a fire place log produces depends on the concentration of woody material, resin, water and ash. When wood is compared to fossil fuels, a full cord of dry hickory wood weighs about two tons and is approximately equal in heating value to a ton of hard coal or 200 gallons of fuel oil. On a gallons for pound basis, heavy hardwoods have about half the heating value of coal and a third of the heating value of oil.

Since woods differ in composition, the relative rankg of a number of common woods should prove ...elpful to the firewood buyer and fire builder. The following tabulation shows the relative densities and heat values of a variety of dry woods. The range of actual densities (as compared to water) and the heat values are simplified to rank the woods (with hickory's value set at 100). Those toward the top of the list burn longer. Those toward the bottom ignite and burn quicker; therefore, it is beneficial to mix light and heavy wood to achieve the ideal fire.

Species	Density	Heat Value
Osage orange	0.7883	112
Dogwood	.7079	100-107
Hophornbeam	.7075	100-101
Hickory	.7074	100
Oak	.6073	86- 99
Black locust	.6970	95- 98
Blue beech	.6571	93- 96
Beech	.6466	89- 91
Hard maple	.5865	83- 88
Birch	.5564	79- 86
Mulberry	.5963	84- 85
Apple	.5862	83- 84
Ash	.5761	81- 82
Southern pine	.5160	73- 81
Elm	.5059	71- 80
Walnut	.52 <b>-</b> .55	74
oft maple	.4754	67- 73
amarack	.4953	70- 72
Cherry	.5052	70- 71

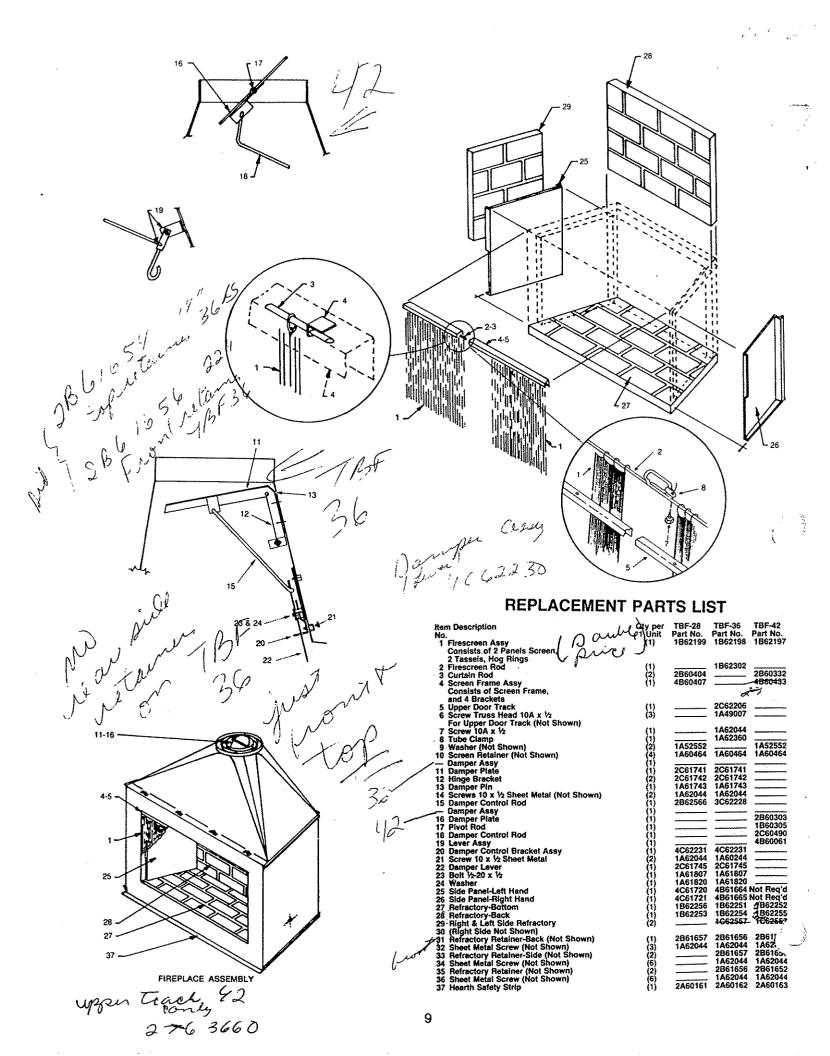
.4952	70
.4852	69- 70
.4551	64- 69
.4446	62- 63
.4244	59- 60
.4144	59
.4042	57
.4042	57
.3841	54- 55
.3640	51- 54
.3340	47- 54
.3739	53
.3739	53
.3537	50
	.4852 .4551 .4446 .4244 .4144 .4042 .3841 .3640 .3340 .3739

#### Hints for Best Results

- Make sure chimney is high enough to give sufficient draft.
   Chimney should extend 3 feet above highest point where it passes through roof and should be at least 2 feet higher than any portion of any building horizontally within 10 feet.
- 2. Keep chimney and flue pipe clean to avoid any flue blockage or smoking.
- 3. Always open damper completely before lighting fire or warming flue.
- Keep base of fireplace clear of excess ash accumulation. This will prevent grate "burnout."
- Provide combustion air from the outside into the room where the fireplace is located. Inlet for combustion air should be at least 75 square inches of area.

Ventilating fans, exhaust hoods, or central heating systems often cause fireplaces to smoke by stealing the fireplace combustion air. If the volume is enough, it can even cause a reverse flow of air down the fireplace chimney causing smoking.

- 6. If starting a fire in a cold room be sure and warm the flue first, see instruction 4, "To Build a Fire." (It may take two or three pieces of paper before the flue is warm.) Otherwise fireplace will smoke until flue is warm.
- 7. A grate promotes a quick and even fire. Be sure grate is placed far back in fireplace to allow air/to enter the fire from all directions. Be sure ashes do not accumulate under grate.
- 8. When the fire has gone completely out, close damper to prevent excess heat loss up the chimney. This will also prevent condensation in the chimney and resulting water on the hearth.
- 9. To close damper, push lever to up position until it locks.



## ACCESSORY PARTS LIST

NO.	DESCRIPTION	PART NO.
1	Chimney Termination —	4C60102
3	Architect Termination	4C61638
4	Firestop Spacer-90° Penetration	4B60080 4C60135
5	Firestop Spacer-30° Penetration (Not Shown)	2C62275
6	Storm Collar	1B60430
4 5 6 7 8 9	Flashing 0/12 to 6/12	1B60431
8	Flashing 7/12 to 12/12	4D60078
10	30° Elbow Flue Support	4B60176
~10 ~11	12" Triple Wall Pipe —	4C60115
12	18" Triple Wall Pipe	4C60116
13	24" Triple Wall Pipe	4C60117 4C60118
14	36" Triple Wall Pipe	4C60119
15	48" Triple Wall Pipe Hearth Extension TBF-28	4B60140
16 17	Hearth Extension TBF-36	4B60090
18	Hearth Extension TBF-42	4B60144
19	Intermediate Termination Adapter	2060932
20	Starter Section TBF-42	4060415
21 22	Combustion Air Kit (Not Shown)	CAK DEL TBF36-1 ONLY SG36-1
22	Glass Door Package (Not Shown) TO BE INSTALLED ON FIRE PLACE MOD	DECTBESOT ONET
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	Intermediate Termination Adapter Starter Section TBF-42 Combustion Air Kit (Not Shown) Glass Door Package (Not Shown) TO BE INSTALLED ON FIDEPLACE MOD	^
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