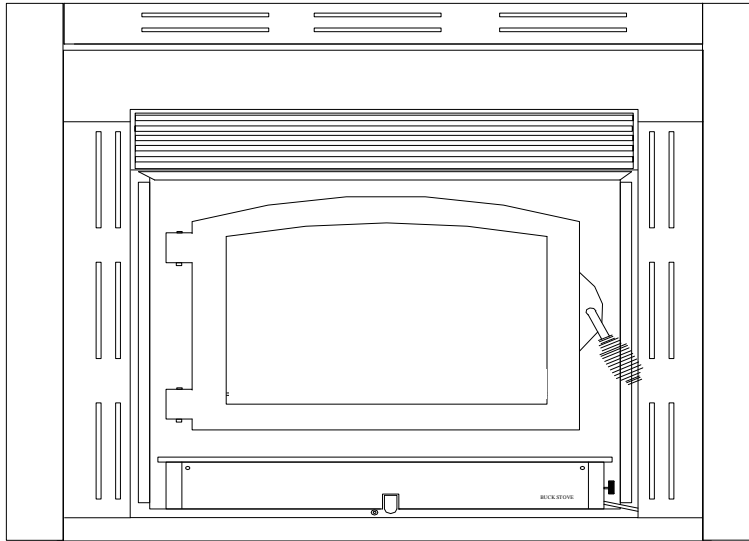


**MODEL 51ZC  
ZERO CLEARANCE CABINET  
FOR USE WITH FIREPLACE MODELS 51, T-51, 74, T-74 ONLY.  
MAYBE INSTALLED IN RESIDENTIAL AND MOBILE HOME.**

Contact your insurance company for coverage and installation inspection.



**WARNING**

**Do not attempt to build a fire in this product. It has been designed and safety tested for use only with Models 51,T-51,74,T-74 manufactured by NEW BUCK CORPORATION. Read and follow the installation and operating instructions for this model.**

**FEATURES**

**PREPARATIONS  
OPERATION**

**INSTALLATION  
MAINTENANCE**

**SAFETY**

**SAFETY NOTICE**

**IF THIS HEATER IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION INSTRUCTIONS. CONTACT THE AUTHORITY HAVE JURISDICTION (SUCH AS MUNICIPAL BUILDING DEPARTMENT, FIRE DEPARTMENT, FIRE PREVENTION BUREAU, ect.) SHOULD BE CONSULTED BEFORE INSTALLATION TO DETERMINE THE NEED TO OBTAIN A PERMIT. KEEP THESE INSTRUCTIONS FOR FUTURE USE.**

**TESTED AND LISTED BY: ITS/**



**WARNOCK HERSEY, MIDDLETON, WI**

**MANUFACTURED BY NEW BUCK CORPORATION - SPRUCE PINE, NC 28777**

Revised 10/2007





## SECTION I

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# RESIDENTIAL INSTALLATION

Listed NEW BUCK CORPORATION:

**Model**

**51ZC** Zero Clearance Cabinet Assembly For Use With Models 51, T-51, 74, and T-74 Only.

**CAUTION:** Read through all of these instructions carefully. Follow approved Chimney Manufacturer's Installation exactly. Failure to install the Cabinet Fireplace, Stove and Chimney as described in the instructions will void the manufacturer's warranty and may have an effect on your Homeowner's Insurance. A major cause of chimney related fires is failure to maintain required clearances (air spaces) to combustible materials. It is of the utmost importance that these parts be installed only in accordance with these instructions.

**“DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.”**

**“DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS.”**

**“DO NOT BUILD A FIRE DIRECTLY INSIDE THE ZC CABINET. IT IS DESIGNED SOLELY FOR HOUSING THE MODELS 51, T-51, 74, T-74 STOVES.”**

**“WARNING -THIS FIREPLACE HAS NOT BEEN TESTED WITH AN UNVENTED GAS LOG SET. TO REDUCE THE RISK OF FIRE OR INJURY, DO NOT INSTALL AN UNVENTED GAS LOG SET INTO THIS FIREPLACE.”**

**CAUTION:**

“Never use gasoline, gasoline - type lantern fuel , kerosene, charcoal lighter fluid, or similar liquids to start or ‘freshen up’ a fire in this fireplace. Keep all such liquids well away from the fireplace while it is in use,”

“Disposal of Ashes:

Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.”

“Do Not Use Grate or Elevate Fire-Build Wood Fire Directly on Hearth in Stove.”

For operation and use of air, and damper controls, see stoves Owners Manual for use of air, and damper control.

For operation and use of electrical assemblies, see stoves Owners Manual for use of electrical assemblies

**“USE SOLID WOOD FUEL ONLY.”**

The Zero-Clearance Cabinet and the Models 51, T-51, 74, and T-74 Installed (hereafter referred to as the 51ZC) is designed for installation in a family dwelling, where minimum clearance is desired.

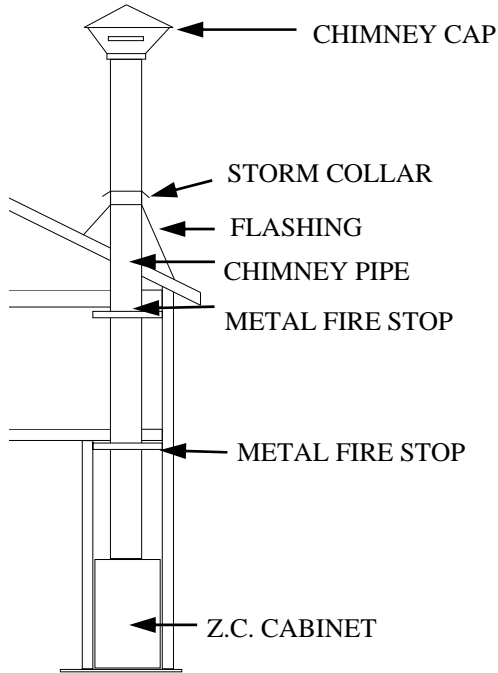
## INSTALLATION PRECAUTIONS

The following precautions are mandatory for a safe installation.

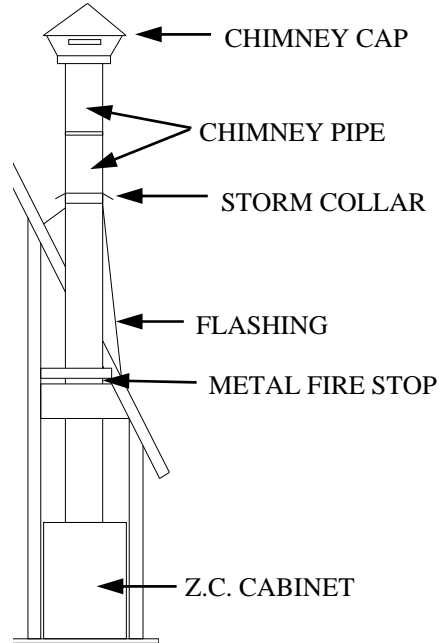
- (A) Compliance with local building codes and regulations is mandatory.
- (B) Be careful not to damage the unit in handling and unpacking component parts and accessories.
- (C) **Model 51zc Cabinet, use only 6"listed 2100° UL 103 HT TYPE Chimney with the 51zc Cabinet (ONLY AFTER) one of the following new Buck Corporation Stoves 51, T-51, 74, T-74, has been installed into the 51ZC Cabinet.**
- (D) The chimney must extend a minimum of three feet (3') above the highest point where it penetrates the roof (three feet (3') above a flat roof or up to a 2 /12 pitch roof ), and the chimney must extend a minimum of two feet (2') higher than any portion of the building within ten feet (10') of the chimney. The minimum height is fourteen feet (14'). The maximum height is thirty feet (30'). A two-inch (2") clearance must be maintained between the chimney and any combustible materials at all points.
- (E) A rain cap must be used to terminate the chimney to prevent down-draft. Use the factory approved rain cap which is approved for the type chimney being installed.
- (F) **“DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.” DO NOT USE A FLUE INTENDED FOR A GAS APPLIANCE.”DO NOT CONNECT TO ANY DISTRIBUTION DUCT OR SYSTEM.”**

## SELECTING A CHIMNEY INSTALLATION AND LOCATION

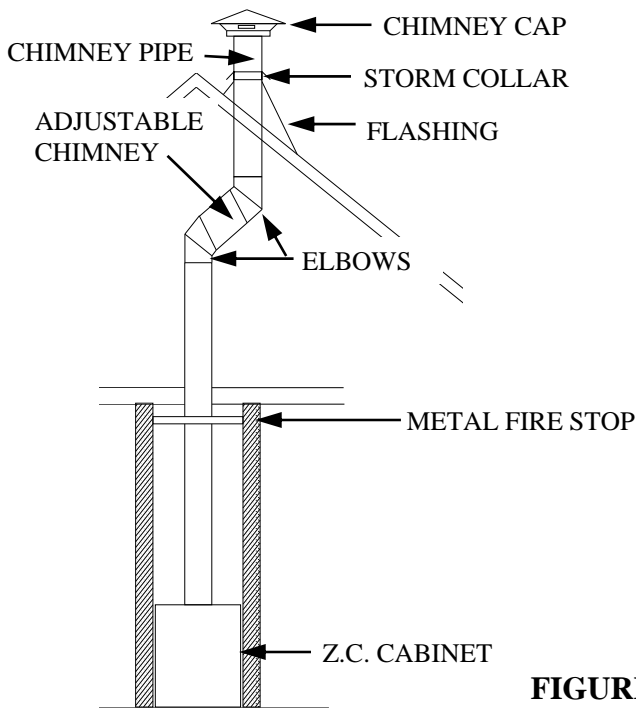
There are two basic types of chimney installation possible with the 51ZC; straight up through a ceiling, or a chase installation, either outside or inside. These are normally used as follows:



**FIGURE 1 THROUGH CEILING**



**FIGURE 2 THROUGH CATHEDRAL CEILING**



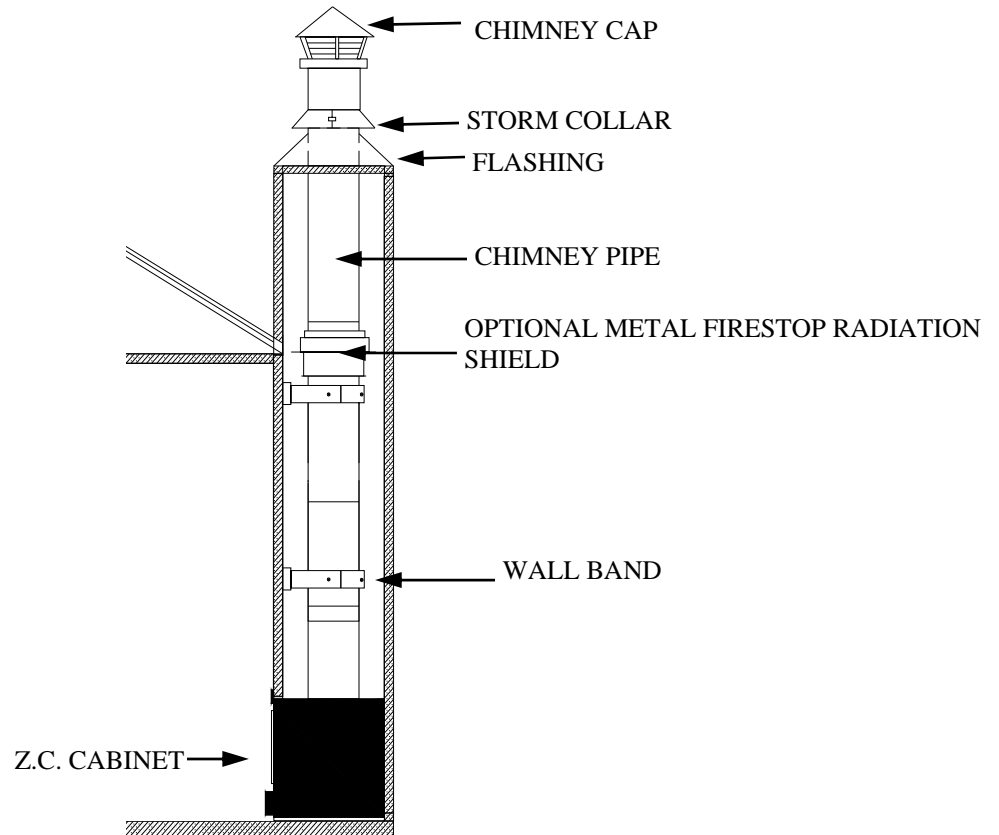
**FIGURE 3 OFFSET TO CLEAR OBSTRUCTION**

**WARNING:** Only one pair of 15 degree or 30 degree offsets can be used.

**CAUTION:** Refer to chimney manufacturer's instructions for assembly and disassembly of chimney parts. Be sure to follow chimney instructions for proper clearances to combustibles and proper air spacing required.

- A. Straight up through ceiling (See Page 4 Figures 1 and 2). This is a simple installation normally used when installing a Model 51ZC inside an existing room, and in some cases, in new construction. Refer to (Page 4 Figure 3) if an offset to clear an obstruction is needed.

**WARNING:** Only one pair of 15 degree or 30 degree offsets can be used.



**FIGURE 4 EXTERIOR WALL CHASE**

- B. Exterior Chase Installation: (See Figure 4). A chase is an enclosure built specifically to house a chimney. The interior of a chase is open from Model 51ZC to the roof, eliminating the need to cut through ceilings and the roof. Normally, a chase is built through the wall, and the Model 51ZC is located in the bottom of the chase, with the front of the unit flush with the interior wall. Chases are commonly veneered on the outside with brick, stone or wood to give the appearance of a conventional fireplace flue. Occasionally, they are built inside and boxed in, similar to a stairwell. When making a chase installation, it is important to read the chimney manufacturer's instructions prior to building, as there are specific requirements for bracing a free standing flue that must be planned for. There are also occasions where offsets are used within a chase to accommodate unusual building designs, or to locate the Model 51ZC further into a room.

## Floor Protection: or Hearth Protector

Floor protection must be 3/8" minimum thickness non-combustible material or equivalent.

### How to use alternate materials and how to calculate equivalent thickness.

An easy means of determining if a proposed alternate floor protector meets requirements listed in the appliance manual is to follow this procedure:

1. Convert specification to R-value:  
R-value is given—no conversion is needed.  
K-factor is given with a required thickness (T) in inches:  
C-factor is given:  $R=1/C$
2. Determine the R-value of the proposed alternate floor protector.  
Use the formula in step (1) to convert values not expressed as "R"  
For multiple layers, add R-values of each layer to determine the overall R-value.
3. If the overall R-value of the system is greater than the R-value of the specified floor protector, the alternate is acceptable.

#### Example:

The specified floor protector should be 3/4" thick material with a K-factor of 0.84.

The proposed alternate is 4" brick with a C-factor of 1.25 over 1/8" mineral board with a K-factor of 0.29.

Step (a): Use formula above to convert specification to R-value.  $R= 1/K \times T = 1/0.84 \times .75 = 0.893$

Step (b): Calculate R of proposed system. 4" brick of  $C=1.25$ , therefore  $R_{brick} = 1/C = 1/1.25 = 0.80$  1/8" mineral board of  $K = 0.29$ , therefore  $R_{min.bd.} = 1/0.29 \times 0.125 = 0.431$

Step (c): Compare proposed system R of 1.231 to specified R of 0.893. Since proposed system R is greater than required, the system is acceptable.

#### Definitions:

$$\text{Thermal conductance} = C = \frac{\text{Btu}}{(\text{hr})(\text{ft}^2)(\text{°F})} = \frac{\text{W}}{(\text{m}^2)(\text{°K})}$$

$$\text{Thermal conductance} = K = \frac{(\text{Btu})(\text{inch})}{(\text{hr})(\text{ft}^2)(\text{°F})} = \frac{\text{W}}{(\text{m})(\text{°K})} = \frac{(\text{Btu})}{(\text{hr})(\text{ft})(\text{°F})}$$

$$\text{Thermal conductance} = R = \frac{(\text{ft}^2)(\text{hr})(\text{°F})}{\text{Btu}} = \frac{(\text{m}^2)(\text{°K})}{\text{W}}$$

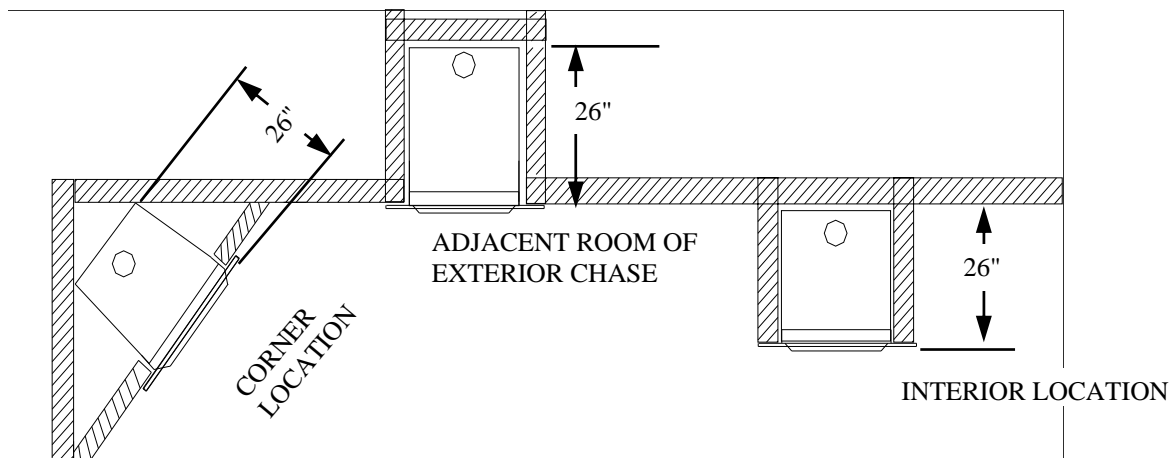
Install in accordance with 24 CFR, Part 3280 (HUD).

# FRAMING CONSTRUCTION AND INSTALLATION

Except as noted, the 51ZC can be installed almost anywhere you desire. There are, however, a few clearance and framing restrictions that must be followed. (See Page 10 Figure 9), and (Page 11 Figure 10) to make sure that these clearance restrictions are met. It is much wiser to place your Model 51ZC correctly at the start.

You must ensure that the floor is of adequate strength to accept the load of this unit. If inadequate, the floor will require additional support, such as bracing. **NOTE:** A wooden base constructed of plywood or 2" x 4" boards is required in order to get proper clearance above the extended hearth (millboard, rock stone, etc.).

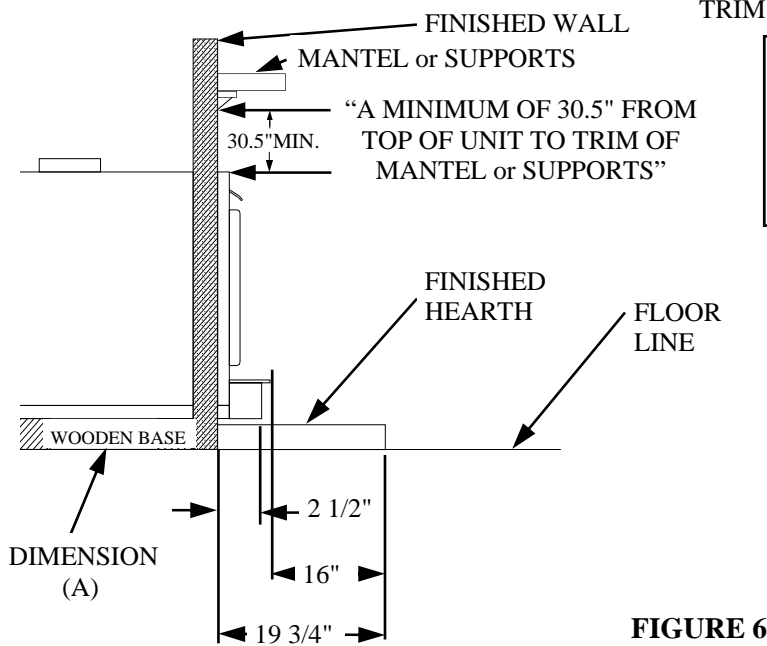
Good planning is essential for a satisfactory installation, therefore, at this point you should have decided where the 51ZC is to be located and the route the chimney will follow to the roof—straight up, or chase. If you cannot decide the best route, contact your Dealer for assistance with the planning.



**FIGURE 5**

Above (Figure 5) are framing location examples with depth dimensions for some typical configurations. These are finished measurements so install accordingly.

**CONTINUED FRAMING AND INSTALLATION**



**WARNING:** Install the hearth protector only as specified. The hearth extension must be a minimum of 16" in front of the fireplace opening and must be 40" wide minimum. (See page 6)

**NOTE:** No floor protector is needed directly under the Model 51ZC Cabinet, only the hearth protector. (See page 6)

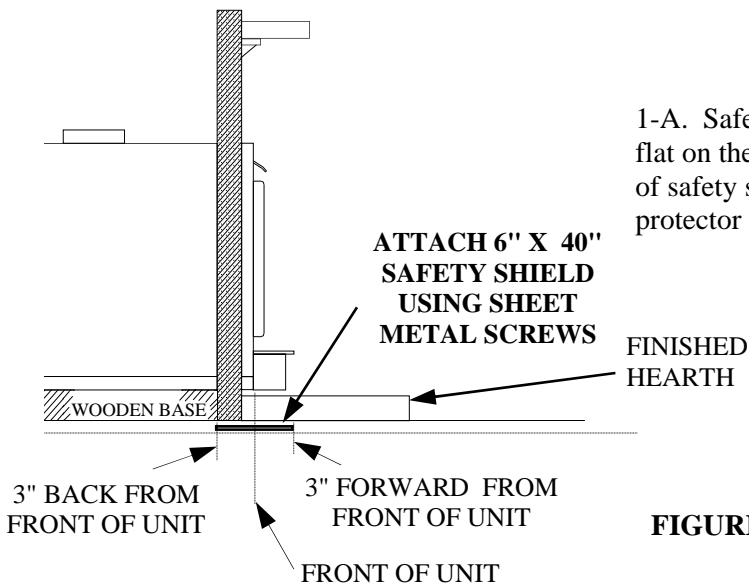
**NOTE: "Safety Shield for hearth extension must be used on installation."**

**FIGURE 6**

The base for the Model 51ZC must be level with or slightly higher than the "finished" hearth height dimension (A) Figure 6.

Framing must be accomplished after the Model 51ZC is set in place. The chimney can be installed after framing, but installation is considerably more difficult and, in some cases, impossible. Therefore, it is recommended that the chimney be installed prior to framing when a choice exists. Figure 5 on the previous page shows framing location examples with depth dimensions for some typical configurations. These are finished measurements so install accordingly.

**NOTE:** Before framing, combustible floor coverings (carpets, tiles, etc.) must be removed to outer dimensions of the unit framing, including the 16" x 40" area for the hearth extension.



1-A. Safety shield for millboard hearth extension for flat on the floor installation. Place (3") three inches of safety shield under the ZC Cabinet. Place hearth protector on top of safety shield.

**FIGURE 7-A**

































If for any reason you are dissatisfied with the suggested procedures, you may contact us in writing at:

New Buck Corporation  
Customer Service Department  
P. O. Box 69  
Spruce Pine, NC 28777

## **CONDITIONS AND EXCLUSIONS**

- A. Replacement of parts may be in the form of new or fully reconditioned parts, at NBC's option.
- B. There is no other express warranty. All implied warranties of Merchantability and Fitness for Use are limited to the duration of the Express Warranty.
- C. New Buck Corporation is not liable for indirect, incidental, or consequential damages in connection with the use of the product including any cost or expense of providing substitute equipment or service during periods of malfunction or non-use.  
Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.
- D. All warranty repairs under this warranty must be performed by an authorized Buck Stove service representative. Repairs or attempted repairs by anyone other than an authorized service representative are not covered under this warranty. In addition, these unauthorized repairs may result in additional malfunctions, the correction of which is not covered by warranty.

## **OTHER RIGHTS**

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.