FUSE & BREAKER BREAKDOWN

FUSE	STANDARD BREAKER	BRANCH/FEEDER TYPE AFCI BREAKER	COMBINATION TYPE AFCI BREAKER	GFCI BREAKER
55+ Commonly found in homes built over 55 years ago.	Began appearing in homes built in the **1960s**	**FIRST-GENERATION** AFCI protection required by the 1999 NEC®.	The 2005 NEC® phased out Branch/Feeder AFCIs as of **January 1, 2008** for new construction and remodels. Today, **MOST** circuits should have AFCI protection.	The first GFCI circuit breaker was introduced around **1968**, and the first receptacle type in **1972**.
BASIC fire prevention.	**BASIC** fire prevention.	**MODERATE** fire prevention.	**ENHANCED** fire prevention.	Prevents **SHOCKS.**
Uses a filament that **melts** when overloaded.	Trips when electrical current **exceeds levels** determined by the breaker's ratings.	Trips when a **parallel** arc between the hot and neutral conductors is detected.	Provides same proctection as Branch/Feeder AFCIs **AND** detects lower level series arcing in both branch circuits and power supply cord.	Trips when an **unwanted path** occurs between an electrical current and a grounded element. Recommended on circuits that could come in contact with water.
Average Cost **$6**	Average Cost **$5**	Average Cost **$25**	Average Cost **$35**	Average Cost **$35**
Must replace with fuse of the same rating if blown.	Can be **reset** and **reused** after tripping.			
Use of an oversized fuse, i.e. a 30 amp fuse in a 20 amp circuit, is a dangerous **FIRE HAZARD.**	**FREQUENT** trips of a breaker indicate a problem and should be inspected by a qualified electrician.	**Parallel arcs** are commonly caused by **damaged** or melted insulation on fixed wiring.	"**Combination**" does **NOT** mean an AFCI + GFCI. Combination **=** protection from parallel **&** series arcing.	**AFCI & GFCI** technologies can co-exist, which together, provide the **most complete** protection on a circuit.

Label your panels so you can quickly turn off and **restore electricity** when necessary.

All electrical distribution systems should have an **electrical inspection** conducted if the home is older than **40 years** or has had a major addition, renovation or large appliance added.

AFCI and GFCI breakers should be tested monthly. Visit **www.esfi.org** to learn how.