



# **USER'S MANUAL**

READ AND SAVE FOR YOUR SAFETY

This symbol on the product means the product is listed by Underwriters Laboratories of Canada



MODEL FXW-R IONIZATION TYPE AC DIRECT WIRE

LINE VOLTAGE INTERCONNECT UNITS.

PRINTED IN U.S.A.

#### WARNING

This smoke alarm will sound a short beep when power is connected. Do not interconnect with Firex Models G-6 (0406C); G-18 (0418C); G-120 (0420C); AD (04418C); or PG-40 (0484C). Do not use with smoke alarm models other than those listed as suitable in this manual.

# IMPORTANT INFORMATION ABOUT YOUR SMOKE ALARM

- This 120 volt AC smoke alarm must only be put up by a qualified licensed electrician.
- This user's manual must be given to the occupant of the home, and transferred to all subsequent users.
- Before installing your smoke alarm, you must read this entire User's Manual.
- Install a smoke alarm in each room and in each other area of your home.
   See section 3.
- Smoke alarms cannot give you an early warning of fire or smoke unless you install, use and maintain them by following these instructions.
- · Smoke alarms cannot detect all fires and smoke conditions.
- You must hear the alarm's warning sound and quickly respond to it to reduce the risk of damage, injury, or death that may result from a fire.
- · A smoke alarm should never be used, in any case, for more than 10 years.

#### MODEL FXW-R

- This Smoke alarm will not work without 120 AC power properly connected.
   The smoke alarm must be tested when installed and then every week after that.
- The constant green light under the Push and Hold To Test Weekly button shows that the unit is connected properly.

## 1. WHAT SMOKE ALARMS CAN DO:

Smoke alarms can only HELP protect your home and family against loss resulting from a fire. The best protection is obtained by installing smoke alarms near the center of each room, and each other area of the home,

making sure that the people in the home will be able to hear and respond to the alarm sound.

Interconnecting smoke alarm, such as FXW-R, together can increase your safety by having two or more alarms sounding in multiple locations. The wiring connecting the smoke alarm carries a signal which will cause all interconnected alarms to sound when smoke is sensed at the location of the originating alarm. For example, one smoke alarm could be in a basement, and other interconnected units could be located in a central hallway, bedroom, or other area which assures the horns will be heard.

Your smoke alarm meets or exceeds the requirements for audibility, or loudness, set by Underwriters' Laboratories of Canada.

WARNING - SMOKE ALARMS MAY GIVE YOU A WARNING OF FIRE AND SMOKE, BUT ONLY IF YOU INSTALL, USE, AND MAINTAIN THEM IN ACCORDANCE WITH THESE INSTRUCTIONS.

#### 2. WHAT SMOKE ALARMS WILL NOT DO:

A SMOKE ALARM WILL NOT WORK WITHOUT POWER. Your smoke alarm needs 120 volt AC power properly connected. A smoke alarm will not work if the power is turned off, or is interrupted for any reason.

A SMOKE ALARM WILL NOT SENSE A FIRE WHEN THE SMOKE CANNOT REACH THE ALARM. If a fire starts in a chimney, wall, roof, the other side of a closed door, or any other isolated area, the smoke alarm may not sense the smoke and will not give a warning. If you do not have an alarm in the bedroom, and sleep with the door closed, a fire inside the bedroom may not sound the alarm located in another room. This is why a smoke alarm must be placed both inside and outside all bedrooms. A SMOKE ALARM WILL NOT PROMPTLY SENSE A FIRE EXCEPT IN THE AREA OR ROOM IN WHICH THE SMOKE ALARM IS LOCATED. FOR EXAMPLE:

A.) A SMOKE ALARM MAY NOT SENSE A FIRE ON ANOTHER LEVEL OF A RESIDENCE OR BUILDING. A second-floor smoke alarm may not detect a fire on the first floor or basement of a building in sufficient time to allow safe escape by the normal exit path. This is why smoke alarms must be installed on every floor or level of your home or building.

B.) IF THE SMOKE ALARM IS LOCATED ON A DIFFERENT LEVEL THAN THE BEDROOMS, OR ISOLATED AREA OF THE HOUSE OR RESIDENCE, IT IS LESS LIKELY TO WAKE UP PEOPLE SLEEPING IN THE BEDROOMS. Because of this, the National Fire Protection Association (NFPA) recommends that smoke alarms be wired together so that an alarm on any level of the residence will sound an alarm loud enough to awaken sleepers in closed bedrooms. This can be done by installing and interconnecting multiple station alarms.

ALL TYPES OF SMOKE ALARMS HAVE LIMITATIONS. NO TYPE OF SMOKE ALARM CAN SENSE EVERY KIND OF FIRE OR SMOKE EVERY TIME. Although ionization smoke alarms (such as this smoke alarm) are your best overall choice for reliability and fast response time (NFP Research Foundation and U.S. Fire Administration Data) since they quickly sense small "invisible" smoke particles and will also sense larger "visible" smoke particles; note, photoelectric smoke alarms may respond more quickly in certain types of fires, for example slow smoldering fires with large "visible" smoke particles.

WARNING – SMOKE ALARMS WILL NOT WORK DURING A LOSS OF POWER.

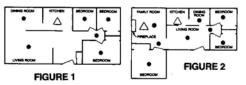
Using an smoke alarm in a smoky area like a kitchen, or in a high humidity area near a shower, can cause false alarms. DO NOT TURN OFF THE AC POWER TO QUIET THE ALARM. A SMOKE ALARM WILL NOT HELP PROTECT YOU IF IT IS NOT POWERED. Properly locate your alarm to avoid nuisance alarms.

A SMOKE ALARM MAY NOT ALWAYS WARN YOU ABOUT FIRES CAUSED BY CARELESSNESS AND SAFETY HAZARDS LIKE SMOKING IN BED, VIOLENT EXPLOSIONS, ESCAPING GAS, IMPROPER STORAGE OF FLAMMABLE MATERIALS, OVER-LOADED ELECTRICAL CIRCUITS, CHILDREN PLAYING WITH MATCHES, NATURAL CAUSES SUCH AS LIGHTNING, OR ARSON. FIRE PREVENTION IS YOUR BEST SAFEGUARD.

Installing smoke alarms may make you eligible for lower insurance rates, but SMOKE ALARMS ARE NOT A SUBSTITUTE FOR INSURANCE. Homeowners and renters alike should continue to insure their lives and properties.

#### 3. WHERE YOU SHOULD INSTALL YOUR SMOKE ALARMS:

- DO INSTALL YOUR SMOKE ALARMS IN ACCORDANCE WITH ALL APPLICABLE LAWS, REGULATIONS, STANDARDS AND CODES.
- DO INSTALL A SMOKE ALARM IN THE HALLWAY OUTSIDE OF EVERY BEDROOM AREA. IF THE BEDROOM HAS A DOOR, THERE MUST BE A SMOKE ALARM INSIDE AND OUTSIDE THE BEDROOM. SEE FIGURE 1. IF YOUR HOME OR RESIDENCE HAS TWO BEDROOM AREAS, A SMOKE ALARM MUST BE PLACED OUTSIDE THE SECOND BEDROOM AREA AND INSIDE THE BEDROOM(S) IF THEY HAVE DOORS. SEE FIGURE 2. IF YOUR HOUSEHOLD OR RESIDENCE HAS SEVERAL FLOORS, THERE MUST BE AN ALARM ON EVERY FLOOR, INCLUDING THE BASEMENT. SEE FIGURE 3.



- Δ DENOTES SMOKE ALARM WITH FALSE ALARM CONTROL
- DENOTES ANY TYPE OF SMOKE ALARM



FIGURE 3

- DO INSTALL A SMOKE ALARM IN EVERY BEDROOM WHERE A SMOKER SLEEPS.
- DO INSTALL A SMOKE ALARM IN EVERY ROOM AND BEDROOM WHERE ELECTRICAL APPLIANCES (such as portable heaters, humidifiers, or electric blankets) MAY BE OPERATED WHILE SOMEONE SLEEPS.
- DO INSTALL A SMOKE ALARM INSIDE EVERY BEDROOM WHERE SOMEONE SLEEPS WITH THE DOOR CLOSED. Smoke can be blocked by the closed door, or the alarm may not wake the sleeper if the door is closed.
- DO INSTALL SMOKE ALARMS AT BOTH ENDS OF A BEDROOM HALLWAY IF THE HALLWAY IS MORE THAN 30 FEET LONG.
  - DO INSTALL BASEMENT SMOKE ALARMS AT THE BOTTOM OF THE BASEMENT STAIRWELL.
  - DO INSTALL SECOND FLOOR SMOKE ALARMS AT THE TOP OF THE FIRST-TO-SECOND FLOOR STAIRWELL, as long as no other door or obstruction blocks the path of the smoke to the alarm.
- DO INSTALL A SMOKE ALARM IN A ROOM WHERE FLAMMABLE HOUSEHOLD CHEMICALS OR HOUSEHOLD SOLVENTS ARE STORED. For example, if you keep kerosene, paint thinner, or certain types of contact cements within your residence, install a smoke alarm in that room, unless not recommended by a situation described in section 5.
- DO INSTALL SMOKE ALARMS ON THE CEILING, AS CLOSE TO THE CENTER OF THE ROOM AS YOU CAN. If this is not practical, mount it on the ceiling, but no closer than 4 inches to any wall or corner. See figure 4.
  - If ceiling mounting is not practical or possible, and wall mounting is allowed by state and local fire codes, mount your smoke alarm on the wall at least 4, but no more than 12 inches down from the ceiling. See figure 4.

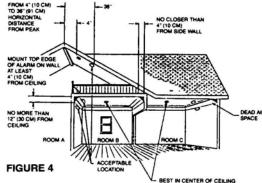
If your ceiling has radiant heat or has a lack of insulation to the outside, ceiling mounting of your smoke alarm is not advisable due to temperature variations. You should follow the wall mounting procedures.

If you have a peaked, sloped, gabled, or cathedral styled ceiling, mount your smoke alarm 3 FEET MEASURED HORIZONTALLY FROM THE HIGHEST POINT ON THE CEILING AS SHOWN IN FIGURE 4.

Do install smoke alarms in both rooms (areas) that are divided by a partial wall extending 8 or more inches down from the ceiling. See smoke alarms located in rooms B and C of figure 4.

# 4. SPECIAL DIRECTIONS FOR INSTALLING YOUR SMOKE ALARM IN MANUFACTURED AND MOBILE HOMES.

WARNING: Smoke alarms may be installed on the ceilings of manufactured and mobile homes if there is adequate insulation in the ceiling.



Install smoke alarms on walls only between 4 and 12 inches of ceiling. Install smoke alarms on inside walls in older homes or in homes where you are not sure of the insulation level. In older homes (manufactured in approximately 1976 or before) that have little or no insulation compared to today's standards, uninsulated metal outside walls and roofs can transfer heat and cold from the outdoors, making the air right next to the wall or roof hot or cold, compared to the rest of the air inside the room. These layers of hot or cold air can prevent smoke from reaching a smoke alarm. If your mobile home has this condition, put your smoke alarm on an inside wall only, between 4 and 12 inches from the ceiling. If you are not sure about the insulation in your mobile home, or if you notice that the outside walls or ceiling are unusually hot or cold, put the smoke alarm on an inside wall

# 5. WHERE YOU SHOULD NOT INSTALL SMOKE ALARMS:

A) In new construction, where two or more smoke detectors are required within a living unit they shall be installed so that the alarm is clearly audible throughout the living unit over background noise levels with all intervening doors closed. A living unit is an area in which the family or person lives. This does not include common area in multi-family buildings such as corridors, lobbies, or basements.

B) In a multiple station installation, it is not recommended to extend the interconnected units into other family living units or into common basement or hallway areas. This is because a false alarm in one unit would be a nuisance if it sounded an alarm in another family living unit or common

It is preferable that a smoke alarm with FALSE ALARM CONTROL be installed in an area where particles of combustion are normally present, such as kitchens or automobile garages. However, a normal alarm may be used in these locations as long as the installer or user recognizes the possibility exists of false alarms due to these locations.

DO NOT install a smoke alarm within close proximity of heating and cooling supply vents or within close proximity of return air or fresh air vents. Smoke could be diffused or reduced by being diverted into the return air vent.

DO NOT install your smoke alarm in an area where the temperature may fall below 40 degrees Fahrenheit, or rise above 100 degrees Fahrenheit. Smoke alarms are designed to work safely only within these temperature ranges, and failure to alarm, improper alarms or nuisance alarms may result from operation outside of these temperature limits.

DO NOT install a smoke alarm in a damp or very humid area such as in bathrooms with showers, where the normal humidity may rise above 93% Relative Humidity. Above this level, moisture may condense inside the smoke chamber and cause wrong or false alarms.

DO NOT install a smoke alarm in an area where particles of combustion are normally present, such as kitchens or automobile garages unless the smoke alarm has a False Alarm Control feature.

DO NOT install a smoke alarm in dusty or dirty areas; SUCH AN INSTALLATION CANNOT BE RELIED UPON. An accumulation of dust and dirt in a smoke alarm's sensing chamber may block the openings and prevent an alarm, or may get inside the alarm and cause false alarms. If a smoke alarm is required in such an area, vacuum it frequently and test it according to Section 7.

DO NOT install a smoke alarm where bugs and insects are present before eliminating or minimizing the bug problem. Bugs may build up on chamber openings and prevent smoke from entering. As a result, unit should be vacuumed frequently as explained in Section 8.

DO NOT install a smoke alarm within close proximity of a fluorescent light. Electrical "noise" may cause nuisance alarms.

DO NOT install a smoke alarm in the dead air space in the corner where the wall meets the ceiling. If in doubt as to the exact location of mounting, for your safety, contact your local fire department for help in choosing a location.

#### HOW TO INSTALL YOUR SMOKE ALARM AND HOW TO INTERCONNECT IT WITH ADDITIONAL FX1020, FX1106, FXW-1A OR FXW-R ALARMS.

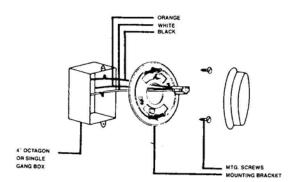
AFTER HAVING CAREFULLY READ THE INTRODUCTION AND SECTION 1 THROUGH 6, YOU ARE READY TO INSTALL YOUR SMOKE ALARM.

WARNING: ALL ELECTRICAL INSTALLATION, INCLUDING WIRING, SHOULD BE PERFORMED BY A QUALIFIED ELECTRICIAN AND IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 760 OF THE NATIONAL ELECTRICAL CODE AND ANY LOCAL CODES ADOPTED BY YOUR COMMUNITY.

#### PLEASE FOLLOW THESE DIRECTIONS:

#### MODEL FXW-R

- 6-1 Turn off main power to circuit and be sure it cannot be turned on until work is complete.
- **6-2** Unlock and remove mounting plate from the smoke alarm itself with a counterclockwise twist.
- **6-3** Screw mounting plate to 4" octagon or single gang box. (CAUTION: Do not warp mounting plate by over-tightening screws.)
- 6-4 Wire smoke alarm for either single or multiple station (see wiring instructions below).



# CAUTION:

Do not interconnect with Firex models G-6 (0406C), G-18 (0418C), G-120 (0420C), AD (04418C), or PG-40 (0484C). These models can be identified by a yellow interconnect wire for multiple station interconnection. Do not use with smoke alarm models other than those listed as suitable in this manual. Doing so will permanently damage the alarm.



**6-5** Attach smoke alarm to mounting bracket with clockwise twist until unit snaps into locked position.

**6-6** Turn on main power. Constant green light on cover indicates AC power is on.

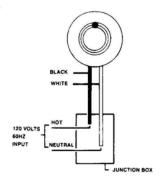
6-7 Test smoke alarm (see Section 7).

#### WIRING - ALL SMOKE ALARMS

- Your smoke alarm operates from a 120V AC supply rated at 0.1 AMPS, 60 Hz.
- Your smoke alarm comes equipped with 3 color coded leads for permanent electrical connections.
- The black and white leads are for connection to the 120 VAC supply.
   Failure to observe the polarity shown can result in continuous alarm and could damage the unit (see wiring).
- The orange lead is for multiple station interconnection to FX-1020, FX-1106, FXW-1A or FXW-R model smoke alarms only. Do not interconnect with Firex models which utilize yellow interconnect wires. Connection to any other circuit will result in damage to the unit. Maximum wire length between any two detectors is 1,175 feet for #18 AWG or 2,970 feet for #14 AWG (15 OHMS loop resistance).
- Use of a single phase dedicated AC branch circuit for all smoke alarms is
  preferable in that it will minimize nuisance alarms due to power line
  transients. However, some state and local codes prohibit this wiring
  scheme. Check for these codes before beginning your installation.
- Orange wire is for interconnection only. DO NOT CONNECT TO ANY OTHER CIRCUIT. Use proper wire (#18 AWG Minimum).\*\*
- Failure to observe polarity can result in continuous alarm and damage to the unit
- If more than one source of AC power is used in an interconnect system, the neutral wire must be common to both phases.

#### WIRING - SINGLE STATION

Install two color coded wires (#18 AWG Minimum)\*\* between smoke alarm and 120 VAC power source. Make white to white and black to black connections.



SINGLE STATION

# WIRING - MULTIPLE STATION HOT BLACK NEUTRAL WHITE ORANGE

#### MULTIPLE STATION

#### MAXIMUM NUMBER OF INTERCONNECTED UNITS

Model

# Of Units

FXW-R

1-18

\*\* Meets all requirements of NEC760

Install 3 color coded wires (#18 AWG Min.)\*\* between interconnected smoke alarms and 120 VAC power source. Make wire connections as shown. Observe proper polarity by following color code with all units.

 FOR DIRECT WIRE 120 VAC-POWERED UNITS: Your Smoke Alarm is powered when the light is constant green. The interconnect feature of 120 VAC powered units will only work when all units are receiving rated 120 VAC.

NOTE: Smoke alarms using the multiple station wiring system offer a simultaneously audible alarm of all units. The green light will turn off on the smoke alarm that originated the alarm, and the light on all the other interconnected smoke alarms will remain constant green.

# 7. WEEKLY TESTING OF YOUR SMOKE ALARM

The first test will tell you if you have connected the unit(s) properly. For your safety, you must repeat this procedure weekly to test for proper operation.

7-1 FOR A COMPLETE WEEKLY TEST OF THE ELECTRONICS AND THE IONIZATION SENSOR OPERATION, FIRMLY DEPRESS THE TEST BUTTON FOR AT LEAST FIVE (5) SECONDS. The smoke alarm will sound by making a beeping sound, about 4 beeps per second. If you have multiple station interconnected alarms, all alarms will sound when any test button is pushed. The smoke alarm(s) will stop sounding when you release the button.

7-2 "Multiple station units must be tested for proper alarm interconnect at time of installation, and periodically thereafter." At least two people are required to perform this test. One person should press the test button on a location of each additional smoke alarm that is multiple-station wired, one at a time. The other person(s) must verify that the additional smoke alarms sound an alarm signal when the first person is causing an alarm condition by pressing the test button. This test is necessary to verify proper wiring of the interconnect wire between all interconnected multiple-station smoke alarms and to verify continued proper operation.

7-3 FOR A COMPLETE WEEKLY TEST TO ENSURE THAT SMOKE WILL REACH THE IONIZATION SENSOR AND THAT THE SENSOR IS NOT PLUGGED WITH GREASE, DIRT, DUST, GRIME, INSECTS OR ANY TYPE OF OBSTRUCTION, YOU MUST TEST IN A CAREFUL FIRE-SAFE MANNER by blowing smoke directly into the smoke alarm until the alarm sounds. The hole on the cover is for sound only and will not sense smoke. NEVER USE AN OPEN FLAME OF ANY KIND TO TEST YOUR SMOKE ALARM, YOU MAY IGNITE AND DAMAGE THE SMOKE ALARM OR YOUR HOME. (The smoke alarm will stop sounding when the smoke is cleared from the sensing chamber. Blowing or fanning fresh air into it will help to clear it.)

7-4 ONCE A WEEK check the indicator light under the "Push and Hold To Test Weekly" button on the smoke alarm. If 120 volts AC Power is connected and the smoke alarm is receiving power, the indicator light will remain constant green.

- 7-5 Always test your smoke alarm upon returning from vacation, or any other time when no one has been in your household or residence for several days.
- 7-6 If your smoke alarm does not respond as described in any of the above tests, check that 120 VAC power is applied. For your protection immediately replace the unit with one that operates properly. If power is properly applied, promptly have a qualified electrician disconnect the smoke alarm, remove the unit, repack it and return it for repair or replacement (see warranty section 9).

WARNING: IF A SMOKE ALARM IS INSTALLED IN A MOBILE HOME OR RV, TEST THE SMOKE ALARM AFTER YOU REMOVE THE VEHICLE FROM STORAGE AND BEFORE EACH TRIP.

#### 8. TAKING CARE OF YOUR SMOKE ALARM

Your smoke alarm has been designed and manufactured to be as maintenance free as possible. Here are a few simple steps you must perform, in addition to the weekly tests described in Section 7, to keep your unit in good working order:

The smoke alarm should be vacuumed monthly or more often if there is dust, dirt, or kitchen grease that can accumulate. Use a soft brush or wand attachment, and vacuum all slots in the cover and side. FOR YOUR SAFETY, you must properly clean and maintain your Smoke Alarm, since a dirty or malfunctioning unit may either fail to alarm or cause unwanted nuisance alarms.

If the unit is either damaged or fails to operate properly and you have checked that AC power is applied, follow the directions in Section 10 for return. FOR YOUR SAFETY, DO NOT OPEN THE SMOKE ALARM OR TRY TO REPAIR IT YOURSELF. While smoke alarms are economical devices, they contain precision electronic components that are precisely calibrated. Repair must be done by the manufacturer.

#### 9. WARRANTY INFORMATION:

# 5 YEAR LIMITED WARRANTY

Maple Chase Company warrants to the original consumer purchaser each new smoke alarm to be free from defects in material and workmanship under normal use and service for a period of five (5) years from date of purchase. Maple Chase Company agrees to repair or replace, at its option, any defective smoke alarm, provided that it is returned with postage prepaid and with proof of purchase date to Maple Chase Company. This warranty does not cover damage resulting from accident, misuse or abuse or lack of reasonable care of the product. This warranty is in lieu of all other express warranties, obligations or liabilities. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO A PERIOD FOR FIVE (5) YEARS FROM PURCHASE DATE. IN NO CASE SHALL MAPLE CHASE COMPANY BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY ITS NEGLIGENCE OR FAULT.

## 10. FOR UNITS UNDER WARRANTY RETURN TO:

Return to Maple Chase Company in a well padded box. Ship it postage prepaid to:

MAPLE CHASE COMPANY
PRODUCT SERVICE DEPARTMENT
2820 Thatcher Road
Downers Grove, IL 60515-4040, U.S.A.

MAPLE CHASE COMPANY OF CANADA
PRODUCT SERVICE DEPARTMENT
385 Watline Avenue
OR Mississauga, Ontario, Canada L4Z 1P3