# For household users of LPG Publicity understanding camphlet for of contractions o Gas





英語版

Clean energy

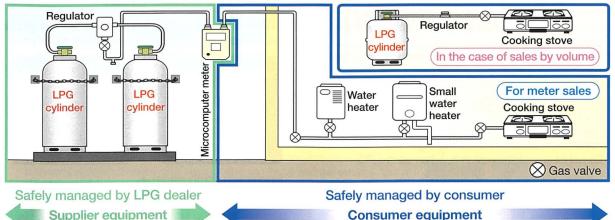
Please read through this pamphlet with everyone in your family. This pamphlet is provided to households as required by the LPG Law.

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## ·般社団法人 広島県LPガス協会

# For your safe and

### Please be a responsible user and check on the safety of your gas appliances daily.



### **Consumer equipment**

What is consumer equipment? Consumers are legally responsible for consumer equipment that normally ranges from the microcomputer meter outlet to the gas appliances themselves (from the LPG cylinder to gas appliances when no gas meter is present).

It is important to understand LPG and your gas appliances correctly to use LPG safely and comfortably at all times.

Read your gas appliance instruction manuals and check their warning labels. Learn about the performance and the correct operation of your gas appliances, and correct methods of maintenance and storage.

### Please cooperate with inspections and surveys for your safety.

For your safety and peace of mind, an authorized LPG dealer or safety organization sent by the dealer will conduct the following periodic safety inspections as required by the Liquefied Petroleum Gas Law. Thank you for your cooperation.

#### 1) When a gas cylinder is replaced

What is supplier equipment?

Supplier equipment ranges from LPG cylinders to microcomputer

meters, and their safety is the responsibility of the LPG dealer.

2 At least once a year

Inspection of the LPG cylinder, regulator, cylinder valve and gas piping.

Inspection of piping and appliances to check for gas leaks in basements and other problems.

#### **(3)** Ideally at least once every 4 years

General inspection of gas appliances such as functional inspection of gas regulators, inspection for gas leaks from piping and inspection of gas appliances and intake/exhaust equipments.

\*Please assist in improving or replacing appliances if the necessity is so indicated as a result of the inspection.

## Do you know about the "Safety inspection system for long-life products"

From 2009, the following products must be inspected (for a fee) at the times specified by law for each product. Registered owners of the following products will receive a notification of required inspection. Be sure to have your product inspected.

### Specified maintenance products

Indoor gas on-demand water heater (Includes gas water heaters and gas heaters) (using LPG / city gas)

Indoor gas bathtub water heater (using LPG / city gas) Oil water heater Oil bathtub water heater Oil forced-flue-system hot-air type heater

Built-in electric dishwasher Electric bath drier

### Steps to take after purchasing a specified maintenance product

### Indoor gas bathtub water heater Indoor gas on-demand water heater

### Explanation

### **2** Ownership registration

inspection system to you.

Have the dealer explain the Register your appliance by filling in the ownership form with necessary data and giving it to the dealer or mailing it to the manufacturer.

### Safety inspection

You will receive a notification from the manufactuer when it is time for an inspection. Contact the manufacturer and request an inspection. \*A fee is charged for the inspection.

You may also request inspections of other products purchased before April 1, 2009. Please contact the manufacturer or agent for details.

# comfortable use of LPG

# LPG characteristics

## Heavier than air

LPG is heavier than air and may accumulate at floor level or behind furniture. If you discover a gas leak, always ventilate the lower level areas to disperse the LPG.

## 2 Special odor

LPG is naturally colorless and odorless but to make leaks easier to detect, an artificial gaseous odor (an offensive odor) is intentionally added.

### Ombustion requires ample and clean air

Proper combustion of LPG requires plenty of fresh air (oxygen). Please be sure to ventilate the room when using LPG indoors, inadequate ventilation causes incomplete gas combustion that contains carbon monoxide. Always make sure that the area around your gas appliance is thoroughly ventilated.

## Gas is contained in a cylinder in a liquefied state

LPG is contained in the LPG cylinder in a pressurized and liquefied state.

## Clean energy

LPG has relatively small impact on the environment, and it is considered clean energy. In addition, LPG does not contain harmful carbon monoxide.

Contact your LPG dealer in any of the following circumstances.

(See contact information on front cover)

Before installing or removing gas equipment or gas appliances.

- Before performing any other construction not directly related to gas such as work related to remodeling, painting or the water supply.
- Before starting or stopping use of LPG when building a new house, remodeling a house or when moving house.
- When it is difficult to set up or put away seasonal gas appliances such as gas heaters.
  ※Remember that anyone performing work related to piping, bathtub water heaters, small water heaters or exhaust ducts must be legally qualified.

Remember that some bathtub water heaters and small water heaters require intake and exhaust outlets.



- Be sure to use appliances made for use with LPG.
  City gas appliances cannot be used for LPG.
- Be sure to read instruction manuals thoroughly and use LPG appliances properly.
- Keep the warranty certificates of your gas appliances.
- Old or long-unused gas appliances may be recalled (collected for repairs) by the manufacturer. Check with the manufacturer or your LPG dealer.



# Handling of small LPG cylinders

- Set the cylinder on a flat and level surface so that it cannot tip over.
- Do not lay the cylinder on its side while using it.
- Do not set the cylinder in direct sunlight or near flame sources.
- Be sure to close the cylinder valve after using it.
- Store cylinders outdoors in a well-ventilated area away from potential fire hazards.
- Be sure to return used cylinders to your LPG dealer.

It is extremely dangerous to dispose of a cylinder containing any LPG, as it may cause an accident in the collection vehicle or at the disposal facility. Japanese law prohibits the disposal of such items.



Small cylinder

# Use LPG correctly to

# Always check the flame when turning appliances on and off.

- Do not place anything highly combustible near LPG appliances.
- When lighting your gas appliances with a match, make sure to open the valve only after lighting the match.
- When using gas, do not leave the appliance unattended. This is very dangerous because wind could blow out the flame, a pot could boil over or boiling oil could catch fire. Always remember: Never leave an LPG appliance unattended while cooking.
- Do not let your clothes catch fire when using LPG.



# Check rubber hoses occasionally and replace them before signs of wear appear.

 Use a rubber hose made for your LPG gas valve or a compatible hose.

A compatible hose

- We recommend using hoses with quick disconnect couplings that can be easily and securely connected and disconnected.
- \*\*To prevent gas leaks, it is prohibited to use a rubber hose to connect a fixed-type LPG appliance such as a water heater or bathtub water heater.
- Do not use excessively long rubber hoses.
  (The hoses of 3 meters or less are preferable.)
- Do not use cracked or burnt rubber hoses.



Three-way

union

- \*\*Check rubber hoses for gas leaks by putting some soapy water on them and looking for bubbles. If you notice any bubbles, replace the hoses immediately. Be sure to wipe off the hoses after checking.
- Make sure that rubber hoses are inserted up to the red line on gas valves and fasten them tightly in place with hose clamps.
- Do not bend rubber hoses sharply Prohibited or force them through tight spaces.
- Never use three-way union connectors as they are dangerous.

### Make sure the flame always burns blue.

When using gas, make sure that the flame is always blue.
 A reddish flame indicates incomplete combustion.





Incomplete combustion (Inadequate air)

Adequate air

Important!

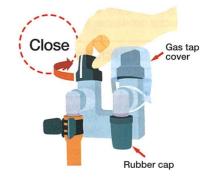
# Maintaining your LPG appliances

LPG appliances that are clogged may cause incomplete combustion, so brush them clean occasionally.

If maintenance of gas appliances such as burners requires removing screws or other parts, contact your LPG dealer and never perform the maintenance yourself.

### Gas valves should be completely open during use and completely closed when not in use.

- When using gas, open gas valves completely. When not using gas, close gas valves completely.
- Before going out or going to bed, be sure to close gas and appliance valves.
- If you are planning to go away for long time, close the LPG cylinder valve and notify your LPG dealer.
- Do not use gas piping or valves to ground electrical appliances.
- Never open a gas valve that is not connected to a stove or other gas appliance. (Attaching a gas tap cover and rubber cap is recommended when leaving the gas appliance unattended.)



# be safe at all times.

# To consumers using appliances such as small water heaters or gas heaters:

The fins are here.

Always maintain thorough intake and outtake ventilation.

\*CO (carbon monoxide) is a colorless, odorless and extremely toxic gas. \*There have been cases of fatal accidents due to CO (carbon

monoxide) poisoning caused by inadequate ventilation.

- To ensure proper ventilation when using LPG appliances indoors, turn on an exhaust fan or open a window occasionally. (Do not forget to ventilate the room air when heating and cooling.)
- \*Burning gas requires ample and clean air. Without adequate ventilation, gas cannot burn completely because the room lacks oxygen and fills up with gas exhaust. This is extremely dangerous because gas exhaust can contain harmful carbon monoxide gas. Always make sure there is ample ventilation.
- \*/If an appliance's flame goes out after igniting or during use, a safety device may have been activated. Stop using the appliance immediately without trying to relight it and use the emergency number on the front cover to contact your gas appliance dealer, LPG dealer or safety organization.

(See contact information on front cover.)

- Check whether the fins are clogged with dust.
- Never use a small water heater to fill a bath or as a shower.

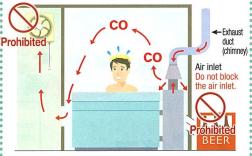
Prohibited



When using a gas heater or gas fan heater indoors, be sure to open a window 1 or 2 times every hour to ventilate the room air.

To consumers using bathtub water heaters with natural exhaust systems:

Do not use the ventilation fan when using gas for a bathtub with a chimney spout natural ventilation system. Exhaust gas may be sucked back inside and cause CO (carbon monoxide) poisoning.



Also, if exhaust ducts are damaged or blocked (e.g., by a bird's nest), adequate ventilation is not possible. Check the condition of the ducts occasionally.

Upon request, we will inspect gas appliances for CO (carbon monoxide) emissions. If abnormal CO (carbon monoxide) emissions are found, the defective gas appliances should be replaced immediately. Please replace gas appliances that become too old or are not equipped with an incomplete combustion detector without delay.



- Check that the alarm unit is mounted in an appropriate position.
- Keep the power cord of the alarm unit plugged into the outlet at all times.
- Do not place anything around the alarm unit.
- Check that the replacement date for the alarm unit has not expired.
- \*\* As a general rule, shared housing, schools, hospitals, and other high occupancy facilities, underground rooms, and other facilities with fire equipment are required by law to install LPG alarms.



# Incase of gas leak !!

### [If you smell gas] [If your gas alarm sounds]

# <Never ignite anything.>

Do not touch an electric outlet or any switch. It might cause a spark and ignite the gas.



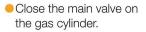
 Fully open doors and windows in the room.

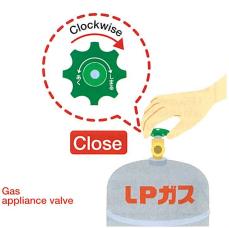
Extinguish any fire in the room.

- \*LPG is heavier than air. Be aware that LPG can accumulate at floor level.

 Shut all gas valves and turn off all LPG appliances.

> Shut all gas valves.





### <Contact your LPG dealer or safety organization. (See emergency number on front cover.)>

Turn off all LPG

appliances

• Tell the dealer or safety organization your name, address and describe the problem.

Gas appliance valve

 Do not begin using LPG again until your LPG dealer or safety organization has conducted an inspection.

See contact information on front cover.

\*Contact them in the event of any LPG-related accident.

# We recommend LPG appliances with safety equipment or safety devices.

### Microcomputer meters

If a gas leak or other abnormality in gas flow/pressure occurs, the microcomputer meter automatically shuts off the gas supply.

\*The microcomputer meter is equipped with a safety function that shuts off the gas supply if a major earthquake (magnitude 5 and larger) occurs.





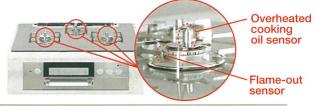
### Centralized monitoring system

This system monitors gas usage 24/365 and alerts appropriate personnel (such as a dealer so he will contact you) if abnormalities are detected.

### Si sensor portable cooking stove

A gas stove equipped with safety sensors on all burners that detect flame out, overheated cooking oil, and unattended flames.

- The flame-out sensor automatically stops gas flow if a spill, boiling over, strong winds, etc. extinguishes the flame.
- ◆To prevent cooking oil combustion, the overheated cooking oil sensor monitors the temperature on the bottom of the pot and automatically extinguishes the flame if the temperature reaches 250°C.
- The lighted flame sensor automatically extinguishes the flame if left on for a certain period of time.



#### Gas alarm

This alarm unit senses a gas leak promptly and sounds a warning with a buzzer or voice message.



## Effectively prevents CO (carbon monoxide) poisoning

### CO (carbon monoxide) alarm

This alarm detects CO (carbon monoxide) emitted by incomplete combustion and sounds a warning with a buzzer or voice message.



# Small water heaters with incomplete combustion prevention systems

Gas is shut off automatically when incomplete combustion occurs.

Small water heaters without the above system may cause CO (carbon monoxide) poisoning through incomplete combustion. Early replacement is highly recommended.

There are also residential fire alarms and CO (carbon monoxide) alarms that are equipped with a gas alarm.

### Residential fire/gas/CO alarm

This system sounds a warning with a buzzer or voice message if it detects a fire, CO (carbon monoxide), or a gas leak.





LPG detector

### Outdoor water heaters

Outdoor installation effectively prevents CO (carbon monoxide) poisoning since ample ventilation is available for combustion and the exhaust gas is released outdoors. In addition, excellent in



energy-saving performance.

# In case of emergency

## Be safe at all times



Don't panic. After the shaking stops, then completely extinguish flames by closing all gas and appliance valves. If the shaking is strong, also close the outdoor LPG cylinder valves.



Close the LPG cylinder valve. Tell the firefighters or anyone fighting the fire where the cylinder is located and ask them to handle the situation.

Cylinder valve

How to close the gas

cylinder valve

Making sure to close the cylinder

valve in the event of a disaster helps to

prevent secondary problems. Turn the

valve clockwise to close it.



Close the LPG cylinder valve and make sure the cylinder is fastened in place and cannot easily topple over or be washed away.

\*Switch off the breaker, too.

\*If any problem occurs, use the emergency number on the front cover to contact your LPG dealer or safety organization immediately and tell them your name, address and describe the problem. (See contact information on front cover.)

\*\*Do not begin using LPG again until your LPG dealer or safety organization has conducted an inspection.



Safety measures in regions with heavy snowfall

#### Shovel snow carefully

Be careful not to damage gas equipment when clearing away snow.

# How to restart the microcomputer meter

Push and immediately release the reset button on the microcomputer meter. Then wait at least one minute.

\*Some microcomputer meters have a cap over the reset button. \*Turn off appliances, make sure unused gas valves are completely shut, then press the reset button. The red light and LCD will start blinking. Wait about 1 minute for the microcomputer meter to check for LPG leak. If there is no problem, the red light will stop blinking and the LCD message goes off. This completes the recovery process, so you can open the valves and begin using the LPG. (If the reset fails, do not try this process again, contact your LPG dealer and have it checked by a professional.)



#### Erect a snow fence or cylinder shed

Snow fences or cylinder sheds can be used to prevent gas cylinders from being buried in the snow and to protect the regulator, piping and meter from snow that was shoveled or slid off a roof. Be sure to clear snow from such fences and cylinder sheds.

### Reinforce exhaust ducts (chimneys)

Braces should be added to reinforce exhaust ducts.



In the case of disasters such as large earthquakes, past experience has taught us the utmost importance of recovering lifelines. Because LPG can be made available again quickly and it can be used promptly in evacuation areas, LPG provides safety for the lives of many people. Based on this fact, LPG has proven "its great resistance to disasters" at various places.