

# Microcomputer Meter

## Usage Guide

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Your gas meter is a microcomputer meter. Please take the time to carefully read this manual and use it correctly.



**Hiroshima Gas**

## Microcomputer Meter Functions

### 1. Automatically cuts off gas when it detects a large outflow of gas

The microcomputer automatically detects when there is a large outflow of gas, or the flow of gas suddenly increases due to a damaged gas pipe or other causes, and cuts off gas flow via the meter within one minute. The amount of gas which causes the cutoff depends on the size of the meter; the relevant values are shown in the table on the right.

Type size	Cutoff Gas Outflow Volumes (m <sup>3</sup> /h)				
	1.6	2.5	4	6	LP2
Gas outflow (m <sup>3</sup> /h)	3.0	4.5	7.3	10.9	2.0
Gas outflow increase (m <sup>3</sup> /h)	2.3	3.6	5.6	8.4	2.9

\*The meter size (type size) is displayed as "NB4", etc. on the front plate of the meter.

### 2. Automatically cuts off gas when it detects gas being used for a long period of time

The microcomputer detects when a certain volume of gas is being used for an unusually long period of time due to users forgetting to shut off their gas or other reasons, and automatically cuts off gas flow via the meter. Length of time for which some gas devices can be used continuously are shown in the table on the right.

Gas device examples	Gas consumption		Estimated continuous usage time (in minutes)
	(kW)	(kcal/h)	
	1.25	1,075	Unlimited
Heater/fan heater	3.75	3,225	720
	7.50	6,450	660
Bath heater	10.00	8,600	330
Bath heater/ small water heater	11.00	9,460	260
	12.50	10,750	220
	15.00	12,900	170
	17.50	15,050	120
	21.25	18,275	100
No. 10 large water heater	25.00	21,500	90
No. 13 large water heater	30.00	25,800	70
No. 16 large water heater	37.50	32,250	60
No. 20/24 large water heater	56.25	48,375	50
No. 32 large water heater	75.00	64,500	40

\*The continuous usage time recorded is canceled and reset to zero when the gas usage volume fluctuates ±3%. Gas consumption is displayed on the nameplate, etc. of gas devices.

### 3. Seismoscope detects earthquakes and automatically cuts off gas

The gas supply will be cut off via the gas meter when a major earthquake (approximately 200 gal [equal to intensity 5] or higher) is detected while gas is in use.

### 4. Automatically cuts off gas when there is a drop in gas pressure

The gas supply will be cut off via the gas meter when there is a drop in gas pressure (down to approximately 0.3 kPa or less) during use due to a problem with the gas pipes or other causes.

#### Warning feature

When there is a slight leakage in gas, or gas has been flowing continuously for more than 30 days, the meter will recognize it as gas leakage and display a warning. However, the gas supply will not be cut off.

#### Optional feature

**Alarm and linked circuit breaker (separate fee required)**  
When linked with a gas alarm, the microcomputer can automatically cut off the gas supply when the alarm goes off.

Although the microcomputer meter possesses the functions described above, they cannot prevent gas leakage caused by improper usage of gas devices, cooking fires, or exhaust gas poisoning, etc. Microcomputer meters also cannot respond to gas leaks which occur upstream and away from the meter itself.

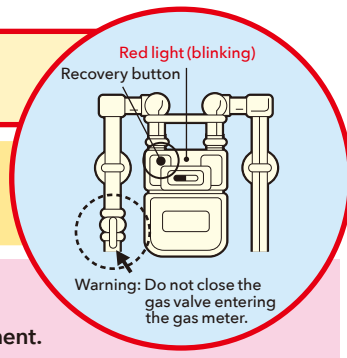
## Measures to Take When Red Light Is Blinking and Gas Is Cut Off (Recovery Methods)



There is a possibility of a gas leakage. Confirm if there is a smell of gas. If you can smell gas, contact Hiroshima Gas immediately.



When using gas after an earthquake, please verify that there are no problems with your gas devices, couplers, or exhaust equipment.



If there is no smell of gas (when the cause of the gas cutoff is due to reasons other than gas leakage), follow the recovery procedure below.

If gas has been cut off and the red light on the microcomputer gas meter is blinking, the cause is likely to be that shown on the pages inside this booklet.

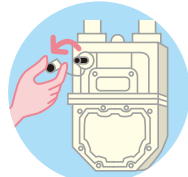
## Recovery Procedure



1

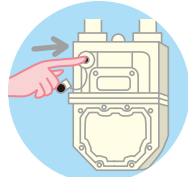
Close valves or use the switches on gas devices and turn off all gas devices. Do not forget the exterior gas devices.

Confirm that unused gas valves are closed. Do not close the valve on the gas meter.



2

Unscrew and remove the cap on the recovery button with your hand.



3

Firmly press the recovery button until it is fully depressed and immediately release once the red light illuminates.

Always remember to return the cap on the recovery button.



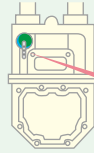
4

Wait approximately 3 minutes.

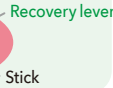
The light will start blinking; the microcomputer meter is verifying that there are no gas leaks during this time. After three minutes have passed, check the microcomputer meter again and, if the red light is no longer blinking, gas can be used again.

When the microcomputer meter is equipped with a recovery lever

(When the microcomputer meter is located in a high place)



Using a stick, raise the lever until it is fully raised. Immediately release the lever once raised.



## Cautions and Warnings

### a. ⚠ Warning Do not close the gas meter valve during normal operation

Closing the gas meter valve will prevent the meter from functioning properly, and thus unable to display gas leakage warnings. If you were to be away from home for a long period of time (for instance, going on a vacation etc), or if you suspect that there is a gas leakage or other abnormalities, immediately close the valve on the gas meter, and also all other gas valves and turn off all gas devices, and contact Hiroshima Gas.

### b. ⚠ Warning Periodically check whether the red light on the microcomputer meter is blinking

Even when gas can be used without any problems, if the red light is blinking on the microcomputer meter, there may be a gas leakage. Please check whether the red light on the microcomputer meter is blinking or not approximately once every month. If the red light is blinking, please follow the instructions below.

### c. ⚠ Warning Please take note of the following points which could hinder microcomputer meter recovery operations

Please take note of the following points in order to prevent any hindrance to microcomputer meter recovery operations, monthly meter inspections, and periodic replacement work.

- Please do not place any objects in front of a microcomputer meter.
- Please do not place microcomputer meters indoors (concealing, burying) if you were to carry out renovations etc, and do not block the path to microcomputer meters.
- Please keep dogs away from entrances, exits, and microcomputer meters.

### d. In cases when gas flows continuously for 30 days or longer (for example gas devices have been turned on for a long period of time etc), a warning may be displayed. Please turn off gas devices when not in use.

### e. Please ask Hiroshima Gas to confirm if your microcomputer meter is of an appropriate size whenever you purchase and install new large gas devices (gas hot-water heaters, gas water heaters, gas bath heaters, etc.).

### f. Microcomputer meters may cut off the gas supply if it detects heavy vibrations or shocks similar to those caused by earthquakes. Please take care not to jolt or vibrate the microcomputer meters.

### ⚠ Notice (When Red Light Is Blinking)

#### A. When gas devices can still be used normally

Turn off gas devices and refrain from using gas for one hour. The red light on the microcomputer meter will stop blinking. If the blinking persists, please contact us immediately. There may be a minute gas leakage.

#### B. When gas devices cannot function normally

There may be a gas leakage; carefully check to make sure that there is no smell of gas. If you can smell gas, contact Hiroshima Gas. If there is no smell of gas, initiate microcomputer recovery measures as per the recovery procedures in this booklet.

Contact / inquiries		During a gas leak	
<b>Area of residence</b>	● Mon. - Fri.: 8:50 a.m. - 7:00 p.m. (excluding holidays) ● Sat., Sun., hol.: 8:50 a.m. - 5:30 p.m.	<b>Area of residence</b>	Available 24 hours a day
Hiroshima/Higashihiroshima/Kabe/Kumano District	082-251-2151	Hiroshima/Higashihiroshima/Kabe District	082-251-3219
Kure District	0823-22-1234	Kure/Kumano District	0823-22-3219
Onomichi/Mihara District	0848-22-2104	Onomichi/Mihara District	0848-22-3219

\*If the gas is still off and the light is blinking after three minutes, it is possible that you have forgotten to turn off a gas device or that there is a gas leak; check once again to make sure that you have not forgotten to close all gas valves and turn off all gas devices.

\*If gas operation does not return to normal or anything is unclear, please contact Hiroshima Gas.

\*Please feel free to inquire about microcomputer meters via the above.

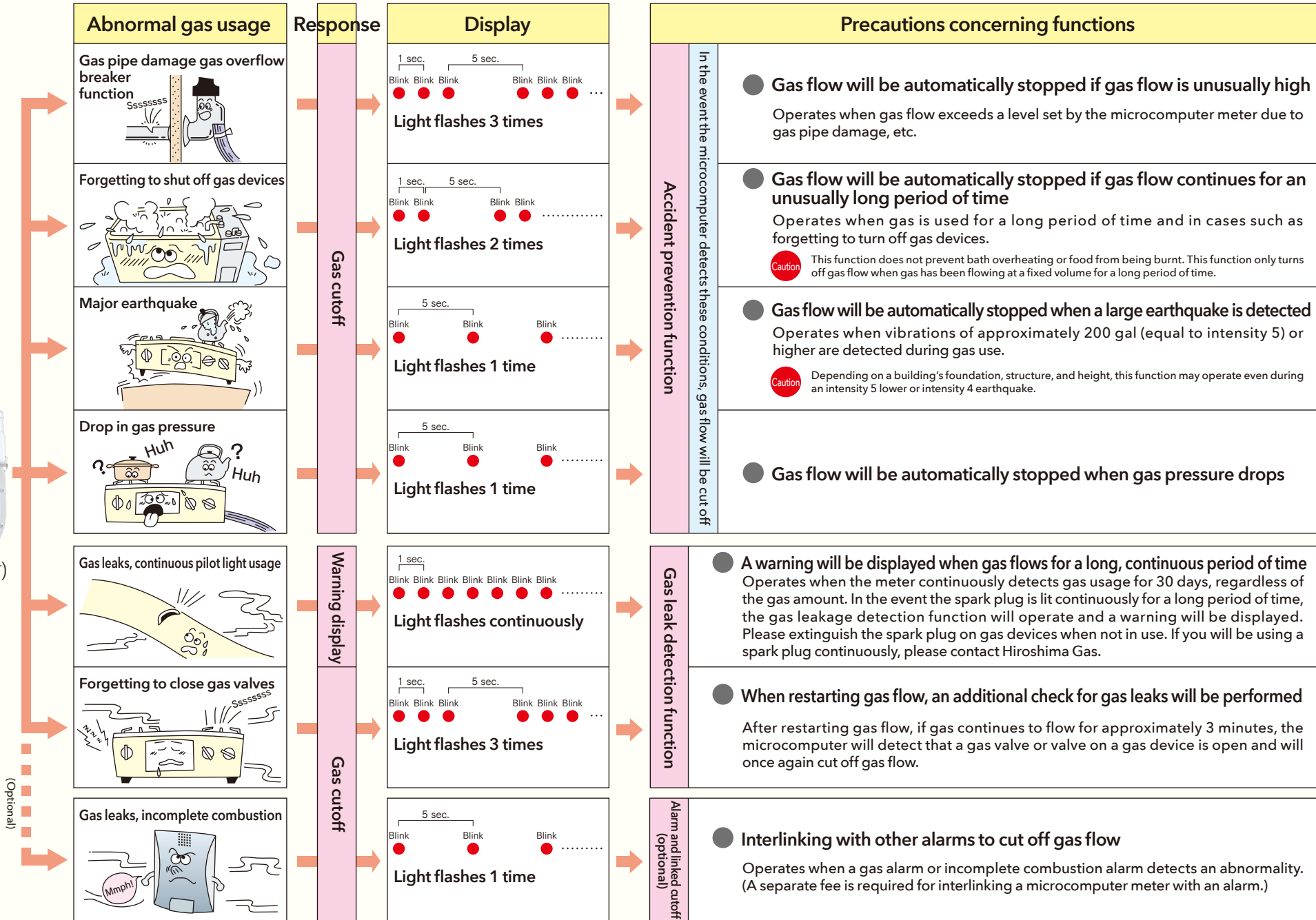
(Current as of September 2013)

# Microcomputer Meter Operation and Precautions

## Gas supply cutoff function



(Microcomputer meter)



(Optional)