

OPERATING INSTRUCTIONS
FOR
RIKEN PORTABLE GAS LEAK CHECKER

MODEL GH-202F
(SAMPLE-DRAWING TYPE)



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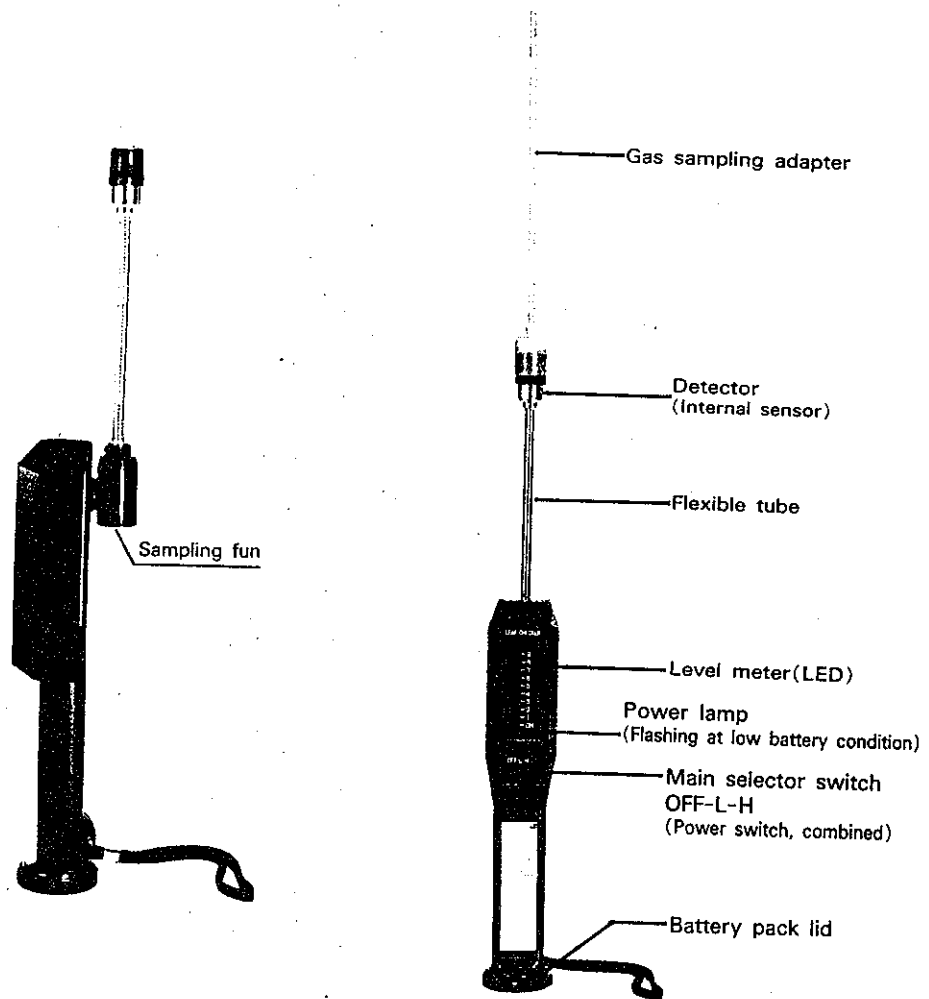
1. GENERAL

The model GH-202F is a fully compact and handy battery-operated instrument which builds in high sensitive semi-conductor gas sensor and consists of three types versatily designed to detect and trace up leaking source of Flon, LPG, Town gas, Methyl bromide, Ammonia and many others with easy-to-read LED level meter and an audio. As this instrument builds in very unique automatic balance circuitry which is patented in Japan, back-ground noise and temperature will be automatically compensated during operation. When battery is dropped to replacement-equal level, the power lamp will start flashing at the "ON" position.

2. SPECIFICATIONS

Model	: GH-202F
Maximum derection sensitivity	: Main selector switch is ; H : 20 ppm (30ppm or 4.7kg/year with Flon 12) L : 200 ppm (31g/year with Flon 12)
Calibration standard	: Hydrogen (H ₂)
Sampling flow rate	: Approx 300 cc/min.
Leak display	: Red LED level meter and buzzer sound (at above 5-level illumination)
Power display	: Continuous illumination by LED below the level meter
Precaution of battery life	: Flashing of power lamp
Operating temp.	: -5 °C ~ +40°C
Battery	: Manganese dry battery (SUM-3, R6 or AA size) x 6 pcs
Continuous operating hours	: Approx 1.5 hours by manganese dry batteries Approx 3.6 hours by Alkaline dry batteries
Warming-up time	: Better than 40 seconds
Outer dimensions	: 50(W) x 270(H) x 60(D) mm
Weight	: Approx 450g (Including dry catteries)

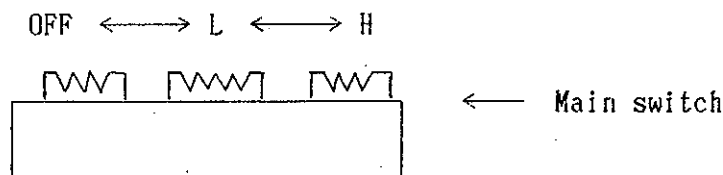
3. NAME OF EACH PARTS



4. HOW TO USE

1) Preparation for detection

- ① When set the main switch to "L" position, the display of level meter is lit and the mark "ON" only is continuously lit after the display of level meter disappears in 15 ~ 25 sec.



- ② Rotate the probe and set it to the front side. And this is ready to use.

Notice! In case of H2 version, in spite of setting the main switch to "L" position, there are a few cases where the display of level meter does not be lit and the alarm does not beep. This is not defective. (See the "4.1)Preparation for detection".)

2) Detection of leak

- ① Moving the top of sampling probe slowly (3 ~ 5cm/sec) according to the test point where leakage is to be tested, this instrument starts leaking the leak source. (If this is moved quickly, this might show the leak illumination without any presence of leaking gas).
- ② Where there is a leak in the tested point, the display of level meter is lit in turn according to the condition of leakage. The electric buzzer sounds when the LED level meter illuminates up to above 5 level mark.
- ③ When the leaking tested gas is too little at the level meter illumination marked "1 or 2", set the main switch to "H" position to increase the detection sensitivity.

3) Precaution in operation

- ① When detects the gas leak and the level meter illuminates at above 5-level, the buzzer will sound. The numeral printed in level meter from 1 to 9 does not mean gas concentration but may be used to compare gas concentration relatively. When the level meter is continuously lit, the instrument detects high concentrated gas and should be moved into the places under fresh air quickly. And after the display of level meter decreases, check the leaking spot again.
- ② When the instrument is exposed to the same point for a long time, LED level meter returns to "ON" position due to the automatic self-balance circuitly. After having made leak detection, put the instrument away from the leak source.
- ③ Due to the drastic changes of level meter, the LED level meter may be lit. Then when the wind or vapors hit the sensor directly, the same condition of detection is produced. For example when the changes of circumstances such as coming outside from the air-conditioned room to the outdoor are heavy, the LED level meter may be lit.
- ④ Do not expose the smoke or high concentration gas to the detector intentionally.
- ⑤ Whenever detecting high concentration gas, recovery time to "ON" position may be delayed - no affection for its performance.
- ⑥ The LED level meter may illuminate when temperature or humidity would be exposed to the sensor directly. While keeping the detector under the same condition, LED level meter returns "0" with internal self-balance circuitry.

- ⑦ Do not put the water or oil into the detector to prolong the sensor life.
- ⑧ Remove batteries if the instrument is not used for a long period.

5. BATTERY REPLACEMENT (How to set dry cells)

- 1) When set new dry cells or replace them, turn the battery cap to the arrow mark (Open) direction firstly and take it off. And take off the battery holder from the inside.
- 2) Set the dry cell(x 6 pcs) to the battery holder so that the polarity of battery is not mistaken. (There is mark of + - inside of battery holder.)
- 3) Put the battery holder with new dry cells into the instrument and close the cap of it. (When put the battery holder into the instrument, set the metal side to the bottom side.)
- 4) When the power voltage is normal and put the main switch to "L" position, the mark "ON" of level meter is lit continuously.

6. HOW TO USE THE ACCESSORY GAS SAMPLING ADAPTOR

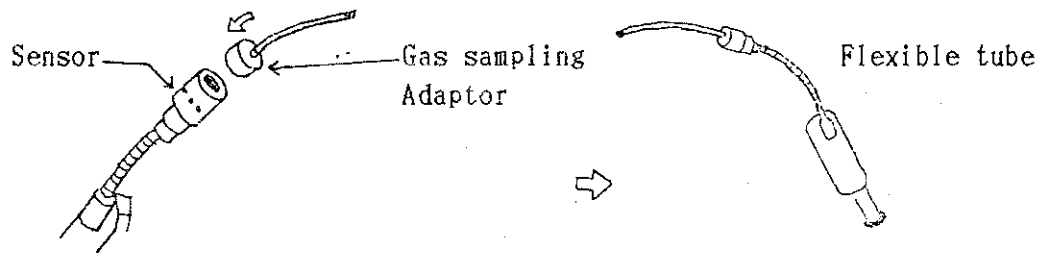
When the leaking tested spot is too narrow and the sensor is not accessible to there, it is recommended to use the gas sampling adaptor.

- 1) The length of sampling adaptor is 230mm (Standard).
And when it is cut shortly and used, there is no influence of detection sensitivity but the response time will be quicker.

* Example Length of adaptor	Response time (sec.)	
	Range "L"	Range "H"
230 (m/m)	Below 2.3	Below 1.3
115 (m/m)	Below 2.0	Below 1.1

- 2) After the operation of instrument, be used to put the main switch to "OFF" position to prolong the battery life.

- 3) Regarding the leak test in the room filled with low concentrated gas, the The leak point only can be detected by the function of internal automatic self-balance circuitry. When the display of LED level meter returns to "ON" only, check this leak test.



7. STANDARD ACCESSORIES

- 1) Manganese dry battery 6 pcs
- 2) Gas sampling adaptor 1 pce
- 3) Carrying case 1 pce
- 4) Instruction manual 1 copy

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