Department of consumer and corporate affairs / Ministère de la consommation et des corporations

STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL

G-95

OTTAWA December 14, 1972.

ROCKWELL PULSE GENERATING INDEX AND REMOTE REGISTER

APPARATUS

A. Pulse Generating Index Assembly

(1) Plastic Clock-type Register, No. 05, approved under circular G-72-1.
(2) Electrical Pulse Generator, actuated by the meter, produces:

(i) Peak voltage	6.0 volts
(ii) Peak amperage	0.08 amperes
(iii) Pulse duration	0.05 seconds
(iv) Capacity per pulse	100 cu. ft.

B. Remote Register Assembly

(1) Four Digit Counter-type Register, with two fixed zeros, reading increments in 100 cu. ft.
(2) Electromechanical Register Actuator, advances the index registration by one digit for each pulse received.

C. Interconnecting Cable

(1) Two-conductor, 22 gauge, 7 strand cable, Belden #8442, or equivalent.
(2) Maximum loop impedance 40 ohms.

DESCRIPTION

This registration system provides the means for remote reading of a gas meter, at a point outside a building, when the meter itself is located inside.

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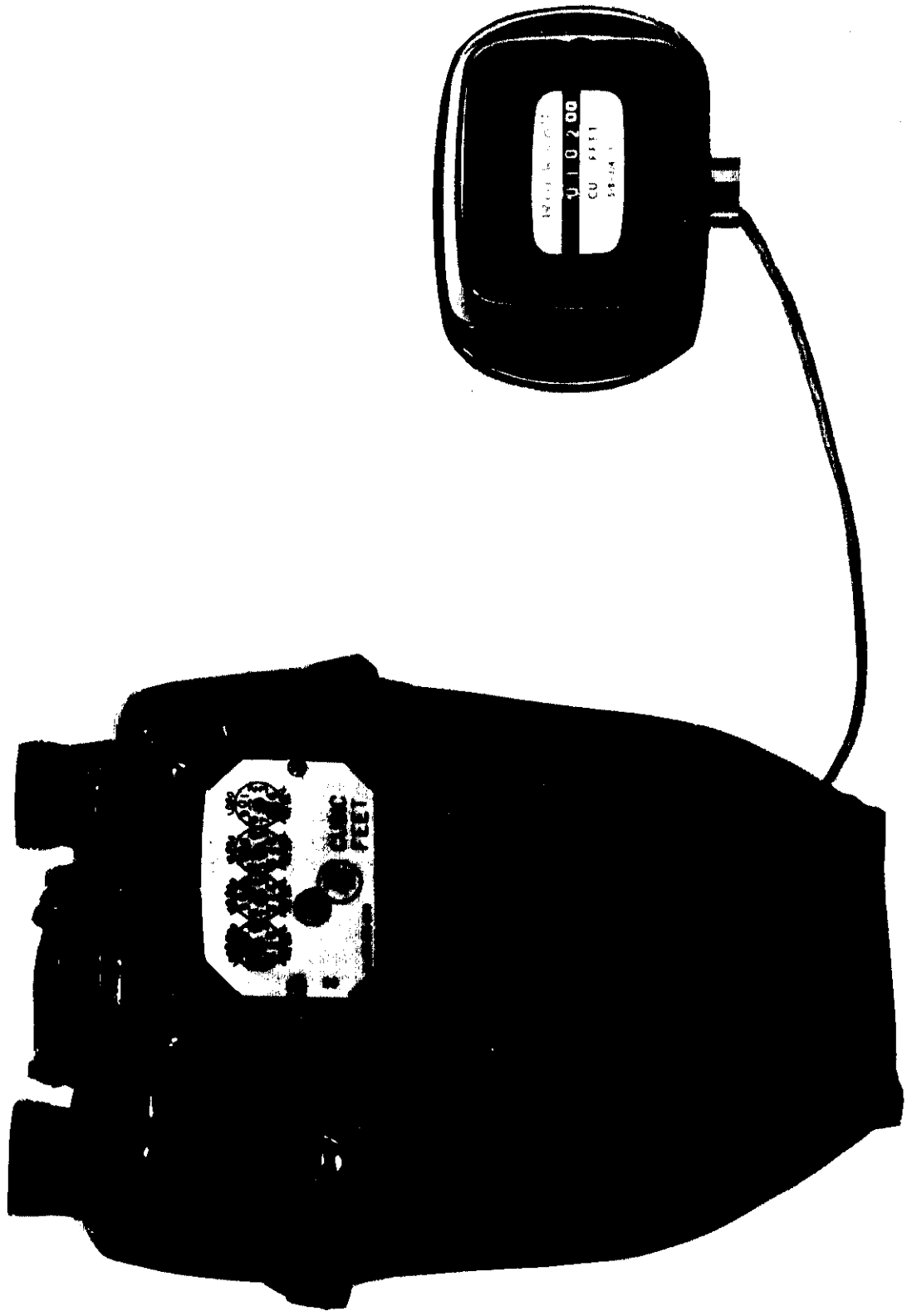

The system comprises two main assemblies, namely:

(1) The Pulse Generating Index Assembly, attached to the gas meter in place of the conventional register, consists of the plastic index, Rockwell No. 05, and an electrical pulse generator, driven by the meter through a suitable reduction gearing within the register.
(2) The Remote Register Assembly, connected to the pulse generator by a two-wire cable, consists of a counter-type register and an electro-mechanical actuator which advances the lowest reading dial by one digit for each pulse.

In operation, the volume passed through the meter is registered on the clock-type plastic register, attached to the meter. As the register advances, it causes a spring loaded coil to rotate within a magnet up to a point where it is released by a tripping cam. The force of the spring rotates the coil quickly in the opposite direction within the magnetic field, thus generating an electrical pulse. The pulse, transmitted via a cable to the remote register, operates an electro-magnetic relay which advances the counter reading in increments of 100 cubic feet.

The remote counter, enclosed in a weatherproof plastic case, is designed for outside mounting on a wall.

This remote reading system may be used on any gas meter for which the Rockwell register No. 05 is suitable, as listed on Approval Circular G-72-1. All gas meters intended for use in the remote reading system shall be presented for verification with the pulse generating index assembly attached to the meter and one end of the cable attached to the terminals of the pulse generating index. If the results of test are satisfactory, the inspector shall seal the register to the meter as part of the sealing process.

It shall be the responsibility of the gas utility to

(i) test all meters fitted with the pulse generating index assembly to determine that pulses are being properly generated,
(ii) check all remote registers to ensure that pulses are properly received and registered,
(iii) at the time of installation, set the reading of the remote register to correspond exactly with the reading on the register of the meter,

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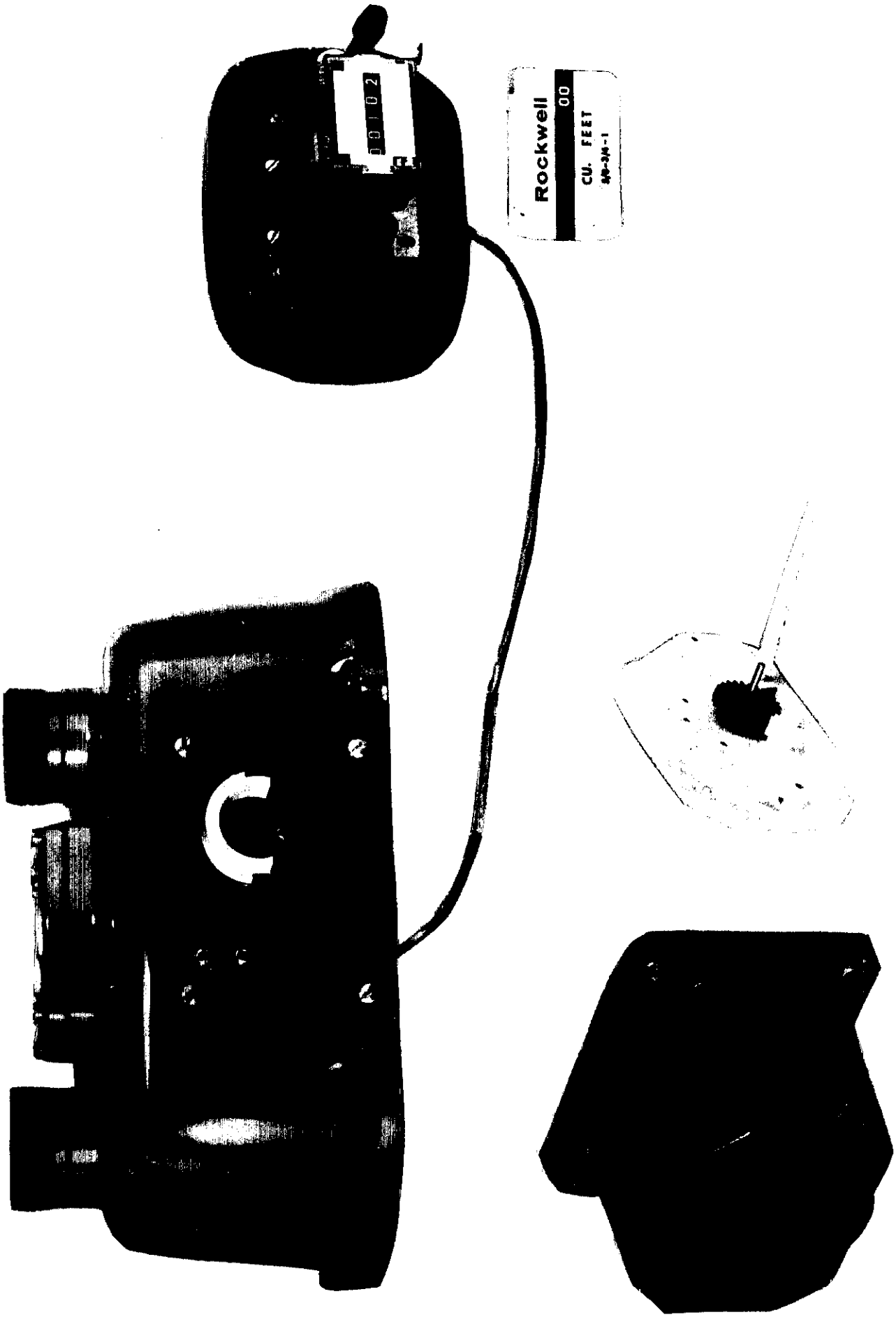

(iv) within one year of installation, verify that the two registers continue to read the same. (Any cases where discrepancies in reading have shown up shall be reported to the District Inspector and the causes therefore determined).
(v) seal the remote register against tampering.

In cases of dispute the reading on the index of the meter itself, not the remote register, shall be taken as the registration of the meter.

The utility is permitted to change remote registers in any installation provided that the new register is set to correspond with the reading of the meter index.

Approval granted to:

Rockwell Manufacturing Company of Canada Ltd., Guelph, Ontario.

J.S.T. Swanson, P. Eng.,
Chief, Standards Laboratory,
Standards Branch.

W.J.S. Fraser
Chief, Electricity and Gas
Standards Branch.

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