



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

# STANDARDS BRANCH - DIRECTION DES NORMES

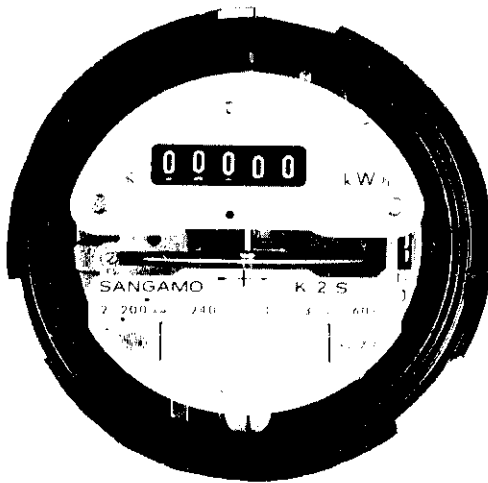
## NOTICE OF APPROVAL

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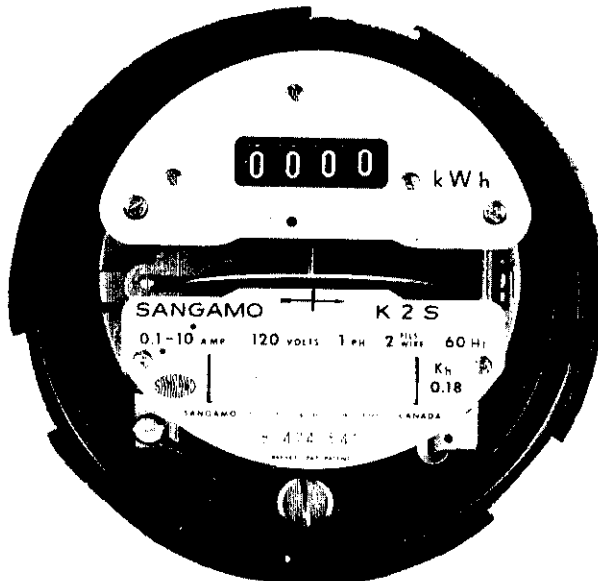
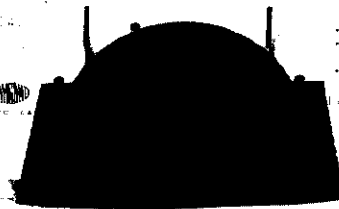
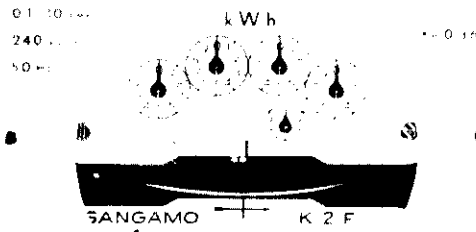
OTTAWA February 9, 1973

### SANGAMO TYPES "K2A", "K2S" and "K2F" SINGLE PHASE WATTHOUR METERS

| Current Range<br>(amperes) | Voltage                   | Wire    | Disc Constant<br>(Kh) | Register Ratio (Rr)        |                              |                            |
|----------------------------|---------------------------|---------|-----------------------|----------------------------|------------------------------|----------------------------|
|                            |                           |         |                       | Clock Type                 |                              |                            |
|                            |                           |         |                       | 4-dial x 1<br>(4-drum x 1) | 4-dial x 10<br>(4-drum x 10) | 5-dial x 1<br>(5-drum x 1) |
| 0.1-10 <sup>①</sup>        | 120                       | 2       | 0.18                  | 555-5/9<br>(1111-1/9)      | -                            | 555-5/9<br>(1111-1/9)      |
|                            | 240                       | 2 and 3 | 0.36                  | 277-7/9<br>(555-5/9)       | -                            | 277-7/9<br>(555-5/9)       |
|                            | 345                       | 2       | 0.54                  | 185-5/27<br>(370-10/27)    | -                            | 185-5/27<br>(370-10/27)    |
| 1-100                      | 120                       | 2       | 1.8                   | 55-5/9<br>(111-1/9)        | 555-5/9<br>(1111-1/9)        | 55-5/9<br>(111-1/9)        |
|                            | 240                       | 3       | 3.6                   | 27-7/9<br>(55-5/9)         | 277-7/9<br>(555-5/9)         | 27-7/9<br>(55-5/9)         |
|                            | 345                       | 2       | 5.4                   | -<br>(-)                   | 185-5/27<br>(370-10/27)      | 18-14/27<br>(37-1/27)      |
| 2-200 <sup>②</sup>         | 120                       | 2       | 3.6                   | 27-7/9<br>(55-5/9)         | 277-7/9<br>(555-5/9)         | 27-7/9<br>(55-5/9)         |
|                            | 240                       | 3       | 7.2                   | -<br>(-)                   | 138-8/9<br>(277-7/9)         | 13-8/9<br>(27-7/9)         |
|                            | 345                       | 2       | 10.8                  | -<br>(-)                   | 92-16/27<br>(185-5/27)       | 9-7/27<br>(18-14/27)       |
| Frequency                  | 50 and 60 Hz, all ratings |         |                       |                            |                              |                            |



## KILOWATT-HOURS



- ① Transformer type, all other ratings are self-contained. The 2-wire transformer type socket meter is available in either the 4- or 5- terminal base.
- ② The 2-200 amp., current range also applies to a dual-rated 2-200 (2-100) amp. rating. The rating is determined by a small removable tab marked "100" that masks the 200 marked on the nameplate.

All ratings are available in "A" diecast bottom connected base and "S" socket type base. Transformer type ratings are also available in the semi-flush "F" base for panel mounting.

All registers have test dials.

The standard 5-dial clock register is available in 3 forms -

1. straight 5-dial x 1
2. converted to 4-dial x 1 by a mask over the highest reading dial. S-EA.601
3. converted to a 4-dial x 10 by a tag marked "mult. x 10" hanging on the shaft of the first reading dial. E-38.

100 ampere 345 volt, and 200 ampere 240 and 345 volt ratings require 5-dial x 1 or 4-dial x 10 registers.

Burden data of 0.1-10 transformer type meter.

Potential Coils at rated voltage

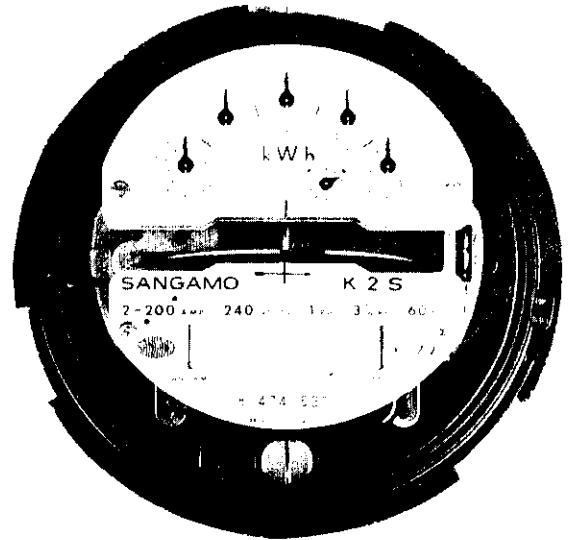
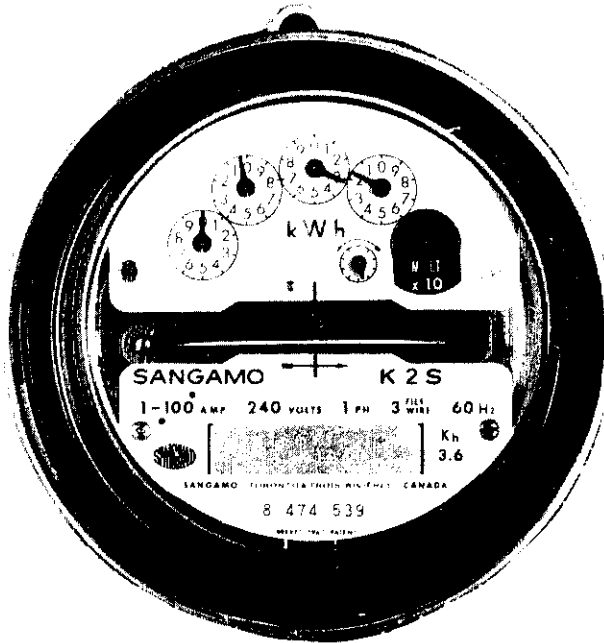
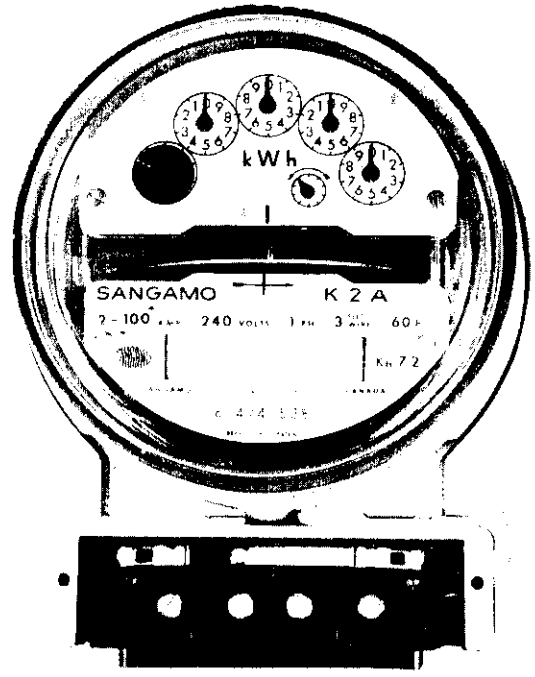
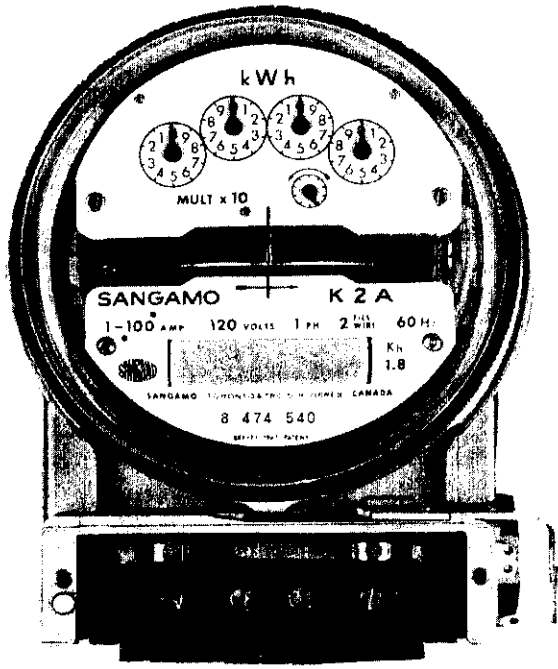
|       |       |         |        |
|-------|-------|---------|--------|
| 60 Hz | 1.0w  | 7.8 rva | 7.9 va |
| 50 Hz | 1.25w | 9.6 rva | 9.7 va |

Current Coils at 5 amperes

|                    |       |        |          |        |
|--------------------|-------|--------|----------|--------|
| 2 wire             | 60 Hz | 0.9 w, | 3.7 rva, | 3.8 va |
|                    | 50 Hz | 0.9 w, | 3.3 rva, | 3.4 va |
| 3 wire (each coil) | 60 Hz | 0.45w, | 1.8 rva, | 1.9 va |
|                    | 50 Hz | 0.45w, | 1.6 rva, | 1.7 va |

#### Description

The type K2 single phase watthour meter consists of the type K electromagnet, register and magnetically supported moving system. The frame of the meter is essentially the same design as the frame of the Sangamo KA and KS single phase watthour meter. It differs



in that it is slightly smaller, and has only a single pair of somewhat larger bar type magnets on the left hand side. The frame is made from die-cast aluminum and carries the moving system, the register, and the brake magnets in the same manner as the K frame.

The current coils in all the K2 ratings are identical to those of the type K meter. The electromagnets are secured to the frame by spring dowel pins and the frame is attached to the base by three point mounting.

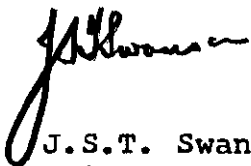
The material in the socket base has been changed from a white glass-filled polyester resin to a black phenolic moulding resin.

The design of the base, gasket, grounding straps, test links, sealing means and filter, are identical to the K design. The bottom connected "A" base and the semi-flush type "F" base have not been changed.

High load adjustment is a shunt on the permanent magnet operated by a screw from the front. The lag adjustment screw is located behind the disc shaft just above the disc and the low load adjustment is a knurled wheel projected through a slot in the grid at the right hand side.

Approval granted to:

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