State of California
Department of Food and Agriculture
Division of Measurement Standards

Certificate Number: 5268-01

California Type Evaluation Program
Certificate of Approval
for Measuring Devices

For:

OSC/Intellimeter (Electronic)
Watt-Hour Measurement System
Models: A-120 and AB-120

(INDOOR USE ONLY)

Submitted by:

OSC/Intellimeter
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Standard Features and Options

- Class 100 (colored red) or Class 200 (colored yellow) current transformers
- Designed for 120-208V, 120-240V and 50-60 Hz power supplies
- Communicates with central station via power line carrier (existing wiring) or fiber-optic cable (optional)
- Stores tenant's watt-hour usage in nonvolatile EEPROM memory
- Equipped with a tamper alarm
- No watt-hour register is provided on the meter (see lobby display)
- Model A-120 has one meter (single channel) on a printed circuit board
- Model AB-120 has two meters (dual channel) on a printed circuit board

Type CS-1 Central Station:
- Communications and data storage center for the system
- Stores billing data in nonvolatile EEPROM memory
- Sends information to lobby display
- Provides telephone access to data for bill processing

Lobby Display:
- One to 20 displays can be centrally located
- Tenants can access their current meter readings by using their unique code numbers

Option: Repeater(s) to establish or enhance system communication (not tested)

These devices were evaluated under the California Type Evaluation Program (CTEP) and were found to comply with the applicable requirements of California Code of Regulations for "Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: June 29, 2001

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Mike Cleary, Director

OSC/Intellimeter
Watt-Hour Measurement System (Electronic)
Models: A-120 and AB-120

Application: For use as a watt-hour metering system in legally submetered electric service applications.

Identification: A supplemental identification label is applied to the middle of the meter case cover and the original identification label is located on the inner CPU board chassis.

Sealing: The main circuit board, located inside the meter enclosure, has a sealable cover and provisions for a wire security seal which protects the calibration and configuration adjustment mechanisms. The meter enclosure is supplied with four screws of which two are drilled for a wire security seal to be affixed diagonally across the face of the meter enclosure after installation. This prevents access to the connection terminals for line voltage and for current sensors.

Operation: These watt-hour energy meters are not self-contained but use current transformers (CT's) to sense the customer's electrical usage and to drive the watt-hour meter and register. The current sensor output is proportional to the tenant's current load and is connected to the central processing unit (CPU) within the meter. The CPU processes the information. A lobby display indicates accumulated kilowatt-hour values.

Test Conditions: The standard "gate mode" is an operational mode of OSC/Intellimeter provided for use in performing accuracy tests. The OSC/Intellimeter under test is used in conjunction with a terminal and an OSC/Intellimeter test interface unit to automatically pass a specified amount of energy through a comparison standard. "Gating" is accomplished by closing and opening the voltage potential connected to the standard. Percentage registration of the OSC/Intellimeter is determined by comparing the amount of energy specified in "gate mode" to the registration of the standard. Alternatively, OSC/Intellimeters can be tested with any snap switch operated test set using software and a special test interface unit provided by OSC/Intellimeter Corporation. A personal computer (PC) is connected to the test interface unit which is, in turn, connected to the OSC/Intellimeter under test. All other connections are the same as with any CT-type meter. Using the PC, the tester instructs the OSC/Intellimeter to measure a preset amount of energy (watt-hours). While measuring, an indicator light is activated.

Three Model AB-120 meters were submitted for evaluation. The meters were tested at the Division of Measurement Standards lab and then installed in an apartment building for permanence testing purposes. The meters were retested after 60 days of use. The meters were subjected to a combined total of over 100 tests from 1.5 amps to 60 amps at both unity and 0.5 power factors at the lab and in the field.

Results of the evaluation indicate the devices comply with applicable requirements.

Type Evaluation Criteria Used: Title 4, California Code of Regulations, 2001 Edition

Tested By: D. Reiswig and J. Raspino (CA)