



Member State of OIML
United Kingdom of Great Britain
and Northern Ireland

OIML Certificate No
R76/1992-GB1-08.05
Revision 1

OIML CERTIFICATE OF CONFORMITY

Issuing authority

Name: **National Weights and Measures Laboratory**
Address: **Stanton Avenue
Teddington
Middlesex
TW11 0JZ
United Kingdom**

Person responsible: **Paul Dixon
Product Certification Manager**

Applicant

Name: **Ryco Equipment Inc.**
Address: **6810 220th Street SW
Mountlake Terrace
WA 98043
USA**

Manufacturer of the certified pattern is the Applicant.

Identification of the certified pattern:

**Non-automatic weighing instrument comprising the #821E
weight indicator connected to a compatible load cell.
Further characteristics see page 2**

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML:	R76
Edition:	1992 (E)
Accuracy class:	III, IIII

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation.

This certificate does not bestow any form of legal international approval.

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The conformity was established by tests described in the associated:

Test reports: TR 533 having 38 pages
Pattern evaluation checklist: F20359 having 12 pages

This revision replaces previous versions of the certificate.

The issuing authority

The CIML member



Mr P R Dixon
for NWML

Mr P Mason

Date: 18 August 2008

Ref: T1127/0022

Characteristics: This instrument is a Class III, battery-powered, self-indicating, non-automatic weighing instrument. It comprises the weight indicator designated the #821E connected to a load receptor.

Main features:

- LCD display
- Operator's keypad
- Stainless steel casing

Devices:

- Semi-automatic zero setting
- Semi-automatic subtractive tare weighing
- Zero-indicator
- Determination of stability of equilibrium
- Indication of stability of equilibrium
- Net indicator

Load cell:

Any compatible load cell may be used providing the following conditions are met:

- There is a respective OIML Certificate of Conformity (R60) or a test certificate (EN45501) issued for the load cell by a Notified Body responsible for type examination under Directive 90/384/EEC.
- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (WELMEC 2, Issue 4, 2004, No 11), and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to EN45501 has been conducted on this load cell.

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- The compatibility of the load cells and indicator is established by the manufacturer by means of the compatibility of modules calculation, contained in the above WELMEC 2 document, at the time of verification or declaration of EC conformity of type.
- The load cell transmission must conform to one of the examples shown in the WELMEC Guide 2.4, "Guide for Load cells".

Peripherals:

- No peripheral shall be connected under this Certificate.

Technical data:

Power supply	12 Vdc (maximum 14 Vdc)
Maximum number of scale intervals	3,000
Load cell excitation voltage	5 Vdc
Measuring range minimum voltage	0 mV
Measuring range maximum voltage	10 mV
Minimum load cell impedance	350 Ω
Maximum load cell impedance	1000 Ω
Minimum input voltage per verification scale interval	6.73 μ V
Fraction of maximum permissible error	$P_{ind} = 0.5$
Operating temperature range	0°C to + 30°C
Load cell cable (from Indicator to load cell junction box)	4-wire shielded max length = 2m/mm ²

Important note: Apart from the mention of the certificate's reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.