NATIONAL STANDARDS COMMISSION

NATIONAL MEASUREMENT (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/4C/47

This is to certify that an approval has been granted that the pattern and variant of the

NCI Model 4000 Weighing Instrument

submitted by National Controls Inc.
2320 Airport Blvd
Santa Rosa
CALIFORNIA USA 95402

are suitable for use for trade.

Conditions of Approval

This approval is subject to review on or after 1/10/89.

Instruments purporting to comply with this approval shall be marked NSC No 6/4C/47.

This approval may be withdrawn if instruments are constructed and used other than as described in the drawings and specifications lodged with the Commission.

Signed

Executive Director

Descriptive Advice

Pattern: approved 4/9/84

. A self-indicating weighing instrument of up to 9.995 kg capacity with 0.005 kg scale intervals, and with a model 4010 indicator displaying mass only.

Technical Schedule No 6/4C/47 describes the pattern.

Variant: approved 14/2/85

1. Of 15 kg capacity with 0.005 kg scale intervals.

Technical Schedule No 6/4C/47 Variation No 1 describes variant 1.

Filing Advice

Certificate of Approval No 6/4C/47 dated 3/12/84 is superseded by this Certificate and may be destroyed.

The documentation for this approval now comprises:

Certificate of Approval No 6/4C/47 dated 24/4/85
Technical Schedule No 6/4C/47 dated 3/12/84
Technical Schedule No 6/4C/47 Variation No 1 dated 24/4/85
Test Procedure No 6/4C/47 dated 3/12/84
Figure 1 dated 3/12/84

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4C/47

Pattern: NCI Model 4000 Weighing Instrument

Submittor: National Controls Inc.
2320 Airport Blvd
Santa Rosa
CALIFORNIA USA 95402

1. Description of Pattern

A self-indicating weighing instrument of 9.995 kg capacity with 0.005 kg scale intervals, and with a model 4010 digital indicator displaying mass only (Figure 1). The instrument may be fitted with output sockets for the connection of auxiliary and/or peripheral devices.

1.1 Zero

Zero is automatically corrected to within 0.25e whenever the instrument comes to rest within 0.5e of zero. If the instrument comes to rest outside that range but within the zero reset range, zero may be reset by pressing the zero button. The zero light illuminates whenever zero is set within 0.25e.

1.2 Indicator

The model 4010 indicator has either a single or double-sided display. A segment check is initiated whenever the power is switched on.

1.3 Markings

The instrument is marked with the following data:

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No 6/4C/47
Accuracy class	(III)
Maximum capacity	Max 9.995 kg*
Minimum capacity	Min 0.1 kg*
Verification scale interval	e = d = 0.005 kg*

* These markings are repeated close to each reading face if not already in that vicinity.

1.4 Levelling

The instrument is provided with adjustable feet. Adjacent to the level indicator is a notice advising that the instrument must be level when in use.

1.5 Verification Provision

Provision is made for a verification mark to be applied.

TEST PROCEDURE No 6/4C/47

All load applications to the instrument should be in accordance with the Commission's recommended testing procedure for the elimination of rounding error as set out in Document 104.

The maximum permissible errors are:

± 0.5e for loads between 0 and 500e;
± 1.0e for loads between 501e and 2000e; and
± 1.5e for loads above 2000e.

1. Zero Test

As the automatic device resets zero when the weighing mechanism is in equilibrium within 0.5e of zero, zero should be checked as described in Document 104, with a load equal to, say, 10e on the load receptor. The indications with 0.25e and 0.75e additional mass on the load receptor will be 10e and 11e respectively.

2. Zero Range

The maximum range of operation of the zero setting device should not exceed 4% of the maximum capacity (± 2% approximately). With zero balance indicated apply a load of, say, 2.5% of maximum capacity to the instrument and press the zero button; the instrument should not rezero.

3. Load Test

Test loads are to be applied to the instrument in not less than approximately 5 equal steps increasing to maximum capacity, followed by decreasing loads of not less than 5 approximately equal steps to zero load.

4. Range of Indication

(a) The maximum mass indicated should not exceed the marked maximum capacity by more than 10e; above this indicated mass the indication should be blank or show non-numerical characters.

(b) The minimum mass indicated should be zero; below this the indication should be blank or show non-numerical characters.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4C/47

VARIATION No 1

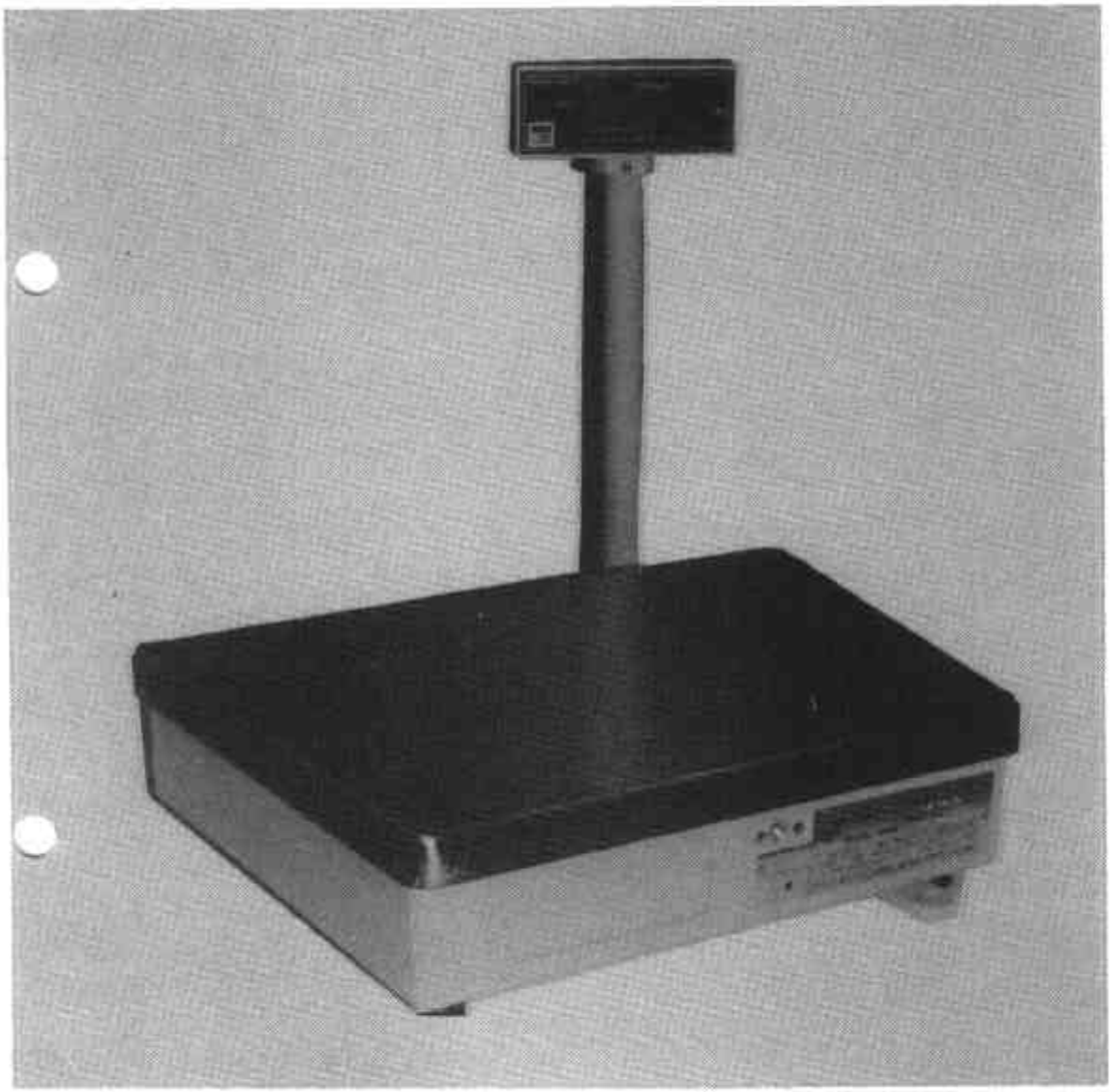
Pattern: NCI Model 4000 Weighing Instrument

Submittor: National Controls Inc.
2320 Airport Blvd
Santa Rosa
CALIFORNIA USA 95402

1. Description of Variant 1

Of 15 kg capacity with 0.005 kg scale intervals.

FIGURE 6/4C/47 - 1



NCI 4000 Weighing Instrument
With 4010 Indicator