



Australian Government
**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

Cancellation
Supplementary Certificate of Approval
No S339

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

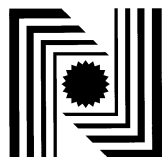
This is to certify that the approval for use for trade granted in respect of the
Mettler Toledo Model Jaguar Digital Indicator

submitted by Mettler Toledo Limited
 220 Turner Street
 Port Melbourne VIC 3207

has been cancelled in respect of new instruments as from 1 April 2012.

Signed by a person authorised by the Chief Metrologist
to exercise his powers under Regulation 60 of the
National Measurement Regulations 1999.

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke at the bottom.



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Supplementary Certificate of Approval

No S339

Issued under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the

Mettler Toledo Model Jaguar Digital Indicator

submitted by Mettler Toledo Limited
 220 Turner Street
 Port Melbourne VIC 3207.

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 January 2002, and then every 5 years thereafter.



Instruments purporting to comply with this approval shall be marked NSC No S339 and only by persons authorised by the submitter.

Instruments incorporating a digital indicator purporting to comply with this approval shall be marked NSC No S339 in addition to the approval number of the instrument.

It is the submitter's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the Commission and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with the Commission's Document NSC P 106.

The values of the performance criteria (maximum number of scale intervals etc.) applicable to an instrument incorporating the pattern approved herein shall be within the limits specified herein and in any approval documentation for the other components.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0/A.

The Commission reserves the right to examine any instrument or digital indicator of an instrument purporting to comply with this approval.

Special:

Instruments purporting to comply with variant 1 shall only be used with Commission-approved Mettler Toledo 'DigiTOL' load cells.

DESCRIPTIVE ADVICE

Pattern: approved 18 December 1996

- A Mettler Toledo model Jaguar digital indicator.

Variant: approved 18 December 1996

1. Without the analog input circuit board.

Technical Schedule No S339 describes the pattern and variant 1.

Variants: approved 21 May 1999

2. Connected to two baseworks.
3. As a multiple range indicator with version T.1.0426 software.
4. With certain other features.

Technical Schedule No S339 Variation No 1 describes variants 2 to 4.

Variant: approved 31 March 2000

5. Model JagXtreme indicator.

Technical Schedule No S339 Variation No 2 describes variant 5.

Variant: approved 8 March 2001

6. Model JagXtreme (or Jaguar) indicator networked with other Commission-approved indicators.

Technical Schedule No S339 Variation No 3 describes variant 6.

FILING ADVICE

Supplementary Certificate of Approval No S339 dated 10 April 2000 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Supplementary Certificate of Approval No S339 dated 27 August 2001
Technical Schedule No S339 dated 5 May 1997 (incl. Table 1 & Test Procedure)

Technical Schedule No S339 Variation No 1 dated 27 September 1999

Technical Schedule No S339 Variation No 2 dated 10 April 2000

Technical Schedule No S339 Variation No 3 dated 27 August 2001

Figures 1 to 4 dated 5 May 1997

Figures 5 to 7 dated 10 April 2000

Figure 8 dated 27 August 2001

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.



National Standards Commission

TECHNICAL SCHEDULE No S339

Pattern: Mettler Toledo Model Jaguar Digital Indicator.

Submittor: Mettler Toledo Limited
525 Graham Street
Port Melbourne VIC 3207.

1. Description of Pattern

A Mettler Toledo model Jaguar digital indicator (Table 1) which may be fitted with output sockets for the connection of auxiliary and/or peripheral devices and approved for use with up to 6 000 verification scale intervals.

Instruments shall be in the housings shown in Figures 1 to 3, with either the keyboard as shown there or as shown in Figure 4.

1.1 Zero

Zero is automatically corrected to within $\pm 0.25e$ whenever power is applied and whenever the instrument comes to rest within $0.5e$ of zero.

The initial zero-setting device has a nominal range of not more than 20% of the maximum capacity of the instrument.

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

1.2 Tare

A semi-automatic and/or a keyboard-entered pre-set subtractive taring device, each of up to maximum capacity, may be fitted.

1.3 Display Check

A display check is initiated whenever power is applied.

1.4 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

1.5 Sealing Provision

Provision is made for the calibration adjustments to be sealed either by means of the sealing screws provided on the rear of the indicator (for the housings shown in Figures 1 and 2) or by means of the method shown in Figure 3 (for the style of housing shown in that Figure).



1.6 Linearisation Facility

Instruments are fitted with a fixed single-point (mid-range) linearisation correction facility.

1.7 Markings

An instrument shall carry the following markings, in the form shown at right:

Manufacturer's mark, or name written in full	Ⓜ
Indication of accuracy class	III
Maximum capacity	Max kg *
Minimum capacity	Min kg *
Verification scale interval	e = kg *
Serial number of the instrument	
Pattern approval mark for the indicator	NSC No S339

* These markings shall also be shown near the display of the result if they are not already located there.

In addition, instruments not greater than 100 kg capacity shall carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

TABLE 1 — Specifications

Maximum number of verification scale intervals	6000
Minimum sensitivity	1 μ V/scale interval
Excitation voltage	15 V DC
Minimum load impedance	35 Ω
Maximum excitation current	430 mA

2. Description of Variant 1

Without the analog input circuit board, in which case the indicator shall only be used with Commission-approved Mettler Toledo 'DigiTOL' load cells.

The maximum number of verification scale intervals (VSI) applicable is determined by the number of VSI given in the approval documentation for the load cells used.

TEST PROCEDURE

Instruments should be tested in conjunction with any tests specified in the approval documentation for the instrument to which the pattern is connected, as appropriate, and in accordance with any relevant tests specified in the Inspector's Handbook.

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads, m , expressed in verification scale intervals, e , are:

- $\pm 0.5 e$ for loads $0 \leq m \leq 500$;
- $\pm 1.0 e$ for loads $500 < m \leq 2\,000$; and
- $\pm 1.5 e$ for loads $2\,000 < m \leq 10\,000$.

TECHNICAL SCHEDULE No S339

VARIATION No 1

Pattern: Mettler Toledo Model Jaguar Digital Indicator.

Submittor: Mettler Toledo Limited
525 Graham Street
Port Melbourne VIC 3207.

1. Description of Variants

1.1 Variant 2

With two baseworks connected to a single Jaguar indicator.

The baseworks may incorporate Commission-approved Mettler Toledo 'DigiTOL' type load cells, and/or may incorporate conventional analog strain gauge type load cells.

Note: The interface circuitry for analog type load cells is incorporated on either one ('dual') or two ('single') analog interface printed circuit boards.

Each basework shall be clearly identified to correspond to the appropriate scale display shown on the indicator. That is, there shall be a clear correspondence between the basework identification, the scale selected indication (shown by illumination of the annunciators above the scale symbol below the lower display), and the scale selection function (accessed using the key, and which includes a configurable description of the basework which is to be selected).

1.2 Variant 3

As a multiple range indicator with version T.1.0426 software (shown after instrument switch-on as 'PN# Rev T.1.0426'). Each basework may be configured with up to three ranges and with up to 6000 verification scale intervals in each range.

Annunciators marked W1, W2 and W3 indicate which range the instrument is operating in at any time, and the instrument shall be provided with a set of markings for each range (and if necessary for each platform), appropriately marked to correspond to W1, W2 and W3.

1.3 Variant 4

With the use of certain other features, as listed below.

Note: The use of these features may or may not be appropriate in different situations. The acceptability in any particular situation must be assessed in-situ and may require consultation with the appropriate trade measurement authority. In some situations it may be necessary for a print-out of the weighing result to be produced for the method of operation to be considered acceptable. In such situations NSC General Supplementary Certificate of Approval No S1/0/A should be consulted.

1.3.1 With a number of Jaguar indicators networked

In a networked arrangement it may be possible for an indicator to access the indication of other baseworks in the network, and for the remote indicator to control the operation of the basework. It is also possible for a number of indicators to share printers or remote indicators on the network. It is only possible to alter the calibration of a basework from the particular indicator to which it is directly attached.

Each basework shall be clearly identified to correspond to the appropriate scale display shown on the indicator. That is, there shall be a clear correspondence between the basework identification, the scale selected indication (shown by illumination of the annunciators above the scale symbol below the lower display), and the scale selection function (accessed using the key, and which includes a configurable description of the basework which is to be selected).

Note: Such network arrangements may have serious potential for confusion (where for example a platform may be tared using a remote indicator). Such an arrangement should only be accepted where the operation is appropriate for the instrument use.

1.3.2 With 'JagBasic' programs

A 'JagBasic' program is additional software incorporated within the instrument to perform additional functions.

The following instrument configurations using 'JagBasic' programs are acceptable.

- (a) An arrangement (Figure 5) in which two platforms are connected to a single Jaguar indicator. The indication for one platform is shown on the primary display of the Jaguar indicator, and the indication for the second platform is shown on a remote display. The sum of the two weight indications is shown on the lower display of the Jaguar indicator.
- (b) An arrangement (Figure 6) in which two Jaguar indicators are networked, and two platforms are connected to each Jaguar indicator. The indication for the first platform is shown on the primary display of the first Jaguar indicator, and the indication for the second platform is shown on a remote display. The indication for the third platform is shown on the primary display of the second Jaguar indicator, and the indication for the fourth platform is shown on a second remote display. The sum of the four weight indications is shown on the lower display of the first Jaguar indicator.

- (c) An arrangement (Figure 7) in which from two to six Jaguar indicators are networked, and a single platform is connected to each Jaguar indicator. The indication for each platform is shown on the primary display of its Jaguar indicator. The sum of the weight indications for all the platforms is shown on the lower display of the first indicator.

Note: For (a), (b) and (c) above:

- The value displayed as the summed indication shall equal the mathematical sum of the measurement values displayed for each platform being summed.
- The scale interval of the summed indication shall be of a value to suit the sum of the scale intervals of each platform being summed or of the sum. That is, if the platform scale intervals are 50 and 20, the sum is 70, and therefore the scale interval of the summed indication is 10.
- The summed indication (and any print-out of summed indication) shall be blank or show non-numerical characters if any of the indications being summed is blank or is displaying a negative number (e.g. under or over capacity).
- The summed indication shall indicate the denomination of the value being displayed.
- Neither the tare nor the pre-set tare device may be operated when the instrument is used in any of these three arrangements.
- An additional remote display may be connected to the first Jaguar indicator to repeat the summed weight indication.

1.3.3 'TraxDSP' feature

This feature introduces filtering which is intended to minimise the effects of vibration on the weighing process.

1.3.4 Operator prompts

Prompts for the operation of the instrument can be configured in the instrument. Such operator prompts shall be configured so as not to cause confusion with the normal weighing results.

1.3.5 Automatic tare feature

Provides for tare to be automatically acquired when a stable load on the platform exceeds a pre-set gross weight threshold value. The tare value may be automatically cleared whenever the weight on the platform falls below another pre-set gross weight threshold value.

Use of this feature should be restricted to applications where there is a defined sequence of operation of the instrument.

1.3.6 Other mass units

Units other than kg, g or t (e.g. lb) may only be used where there is a genuine need for export purposes; the indicator shall be marked "lb units for export use only" (or similar).

It is also possible to display additional information related to the weight value such as the sum of two platforms, a rate of delivery or a calculated product volume, in the auxiliary (lower) display. In this case the lower display shall be marked as NOT FOR TRADE USE.

NOTIFICATION OF CHANGE

In Technical Schedule No S339 dated 5 May 1997, clause **1. Description of Pattern** should be amended by adding the following:

"However this approval does not include the use of the indicator as an automatic weighing instrument (except as provided by clause 1.1 (e) of NSC General Certificate No S1/0/A), unless specifically mentioned in a certificate of approval for such an instrument. Note: The Commission has indicated an intention to remove clause 1.1 (e) from General Certificate No S1/0/A."

TECHNICAL SCHEDULE No S339
VARIATION No 2

Pattern: Mettler Toledo Model Jaguar Digital Indicator.

Submittor: Mettler Toledo Limited
525 Graham Street
Port Melbourne VIC 3207.

1. Description of Variant 5

The model Jaguar indicator (pattern and variants) known as a model JagXtreme.

TECHNICAL SCHEDULE No S339
VARIATION No 3

Pattern: Mettler Toledo Model Jaguar Digital Indicator.

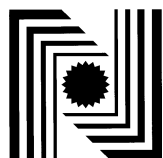
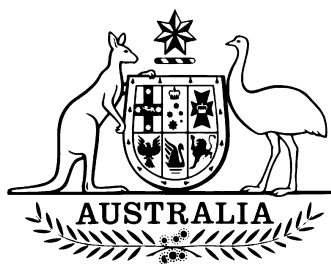
Submittor: Mettler Toledo Limited
220 Turner Street
Port Melbourne VIC 3207.

1. Description of Variant 6

An arrangement (Figure 8) in which a JagXtreme (or Jaguar) indicator has other Commission-approved digital indicators (*) connected to it (with platforms connected to those indicators). The indication for each platform is shown on the primary display of the corresponding indicator. The sum of the weight indications for all the platforms is shown on the lower display of the JagXtreme (or Jaguar) indicator.

(*) Note that Indicators other than the models shown in Figure 8 may also be used.

At verification/certification the summing indication should be checked to ensure that it complies with the requirements of NSC General Supplementary Certificate of Approval No S1/0/A.



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Notification of Change

Supplementary Certificate of Approval No S339

Change No 1

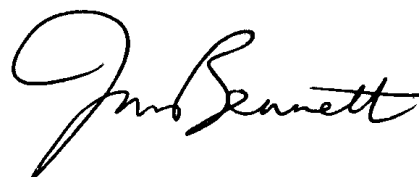
The following change is made to the approval documentation for the
Mettler Toledo Model Jaguar Digital Indicator

submitted by Mettler Toledo Limited
220 Turner Street
Port Melbourne VIC 3207.

In Supplementary Certificate of Approval No S339 dated 27 August 2001, the Condition of Approval referring to the review of the approval should be amended to read:

“This approval becomes subject to review on 1 January 2007, and then every 5 years thereafter.”

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.





Australian Government
National Measurement
Institute

Bradfield Road, West Lindfield NSW 2070

Notification of Change
Supplementary Certificate of Approval No S339
Change No 2

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

The following changes are made to the approval documentation for the
Mettler Toledo Model Jaguar Digital Indicator

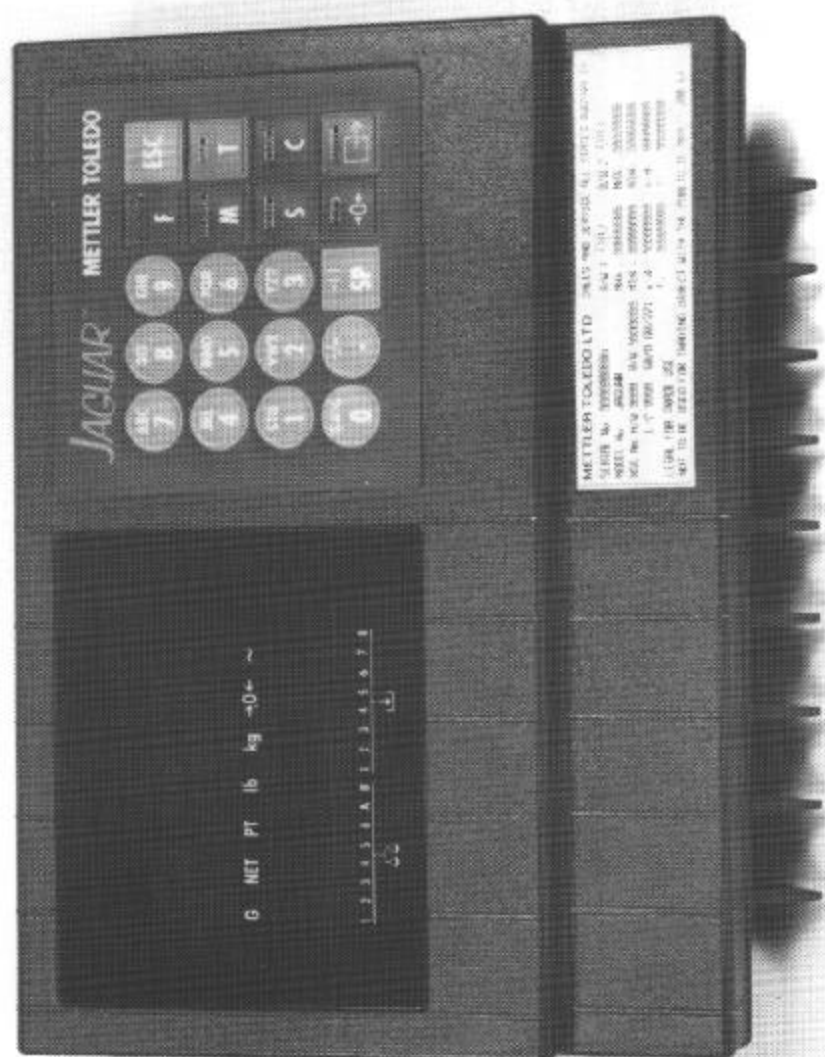
submitted by Mettler Toledo Limited
 220 Turner Street
 Port Melbourne VIC 3207.

- A. In Supplementary Certificate of Approval No S339 dated 27 August 2001;
1. The Condition of Approval referring to the review of the approval should be amended to read:
 “This approval becomes subject to review on 1 January **2012**, and then every 5 years thereafter.”
 Note: The review date was previously amended by Notification of Change No 1 dated 17 February 2003.
2. The FILING ADVICE should be amended by adding the following:
 “Notification of Change No 1 dated 17 February 2003
 Notification of Change No 2 dated 4 June 2008”
- B. In Technical Schedule No S339 dated 5 May 1997, clause **1.5 Sealing Provision** should be amended by adding:
 “..., or by means of suitably placed destructible adhesive labels.”

Signed by a person authorised by the Chief Metrologist
to exercise his powers under Regulation 60 of the
National Measurement Regulations 1999.

A handwritten signature in black ink, appearing to be 'J. H. T.', written in a cursive style.

FIGURE S339 - 1



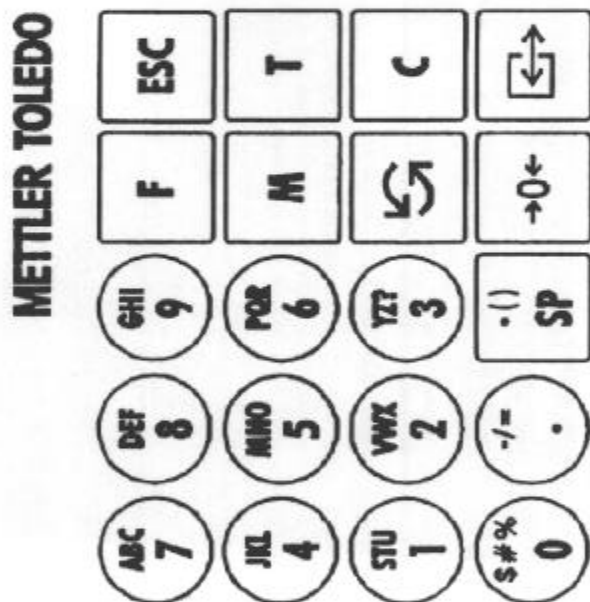
Mettler Toledo Model Jaguar Digital Indicator

FIGURE S339 - 2



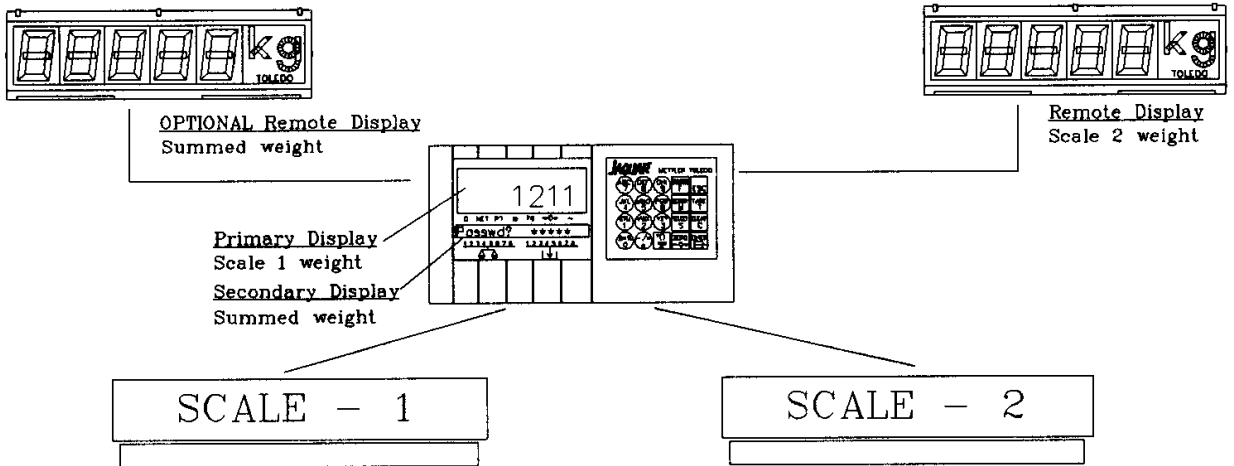
Jaguar Digital Indicator in an Alternative Housing

FIGURE S339 - 4



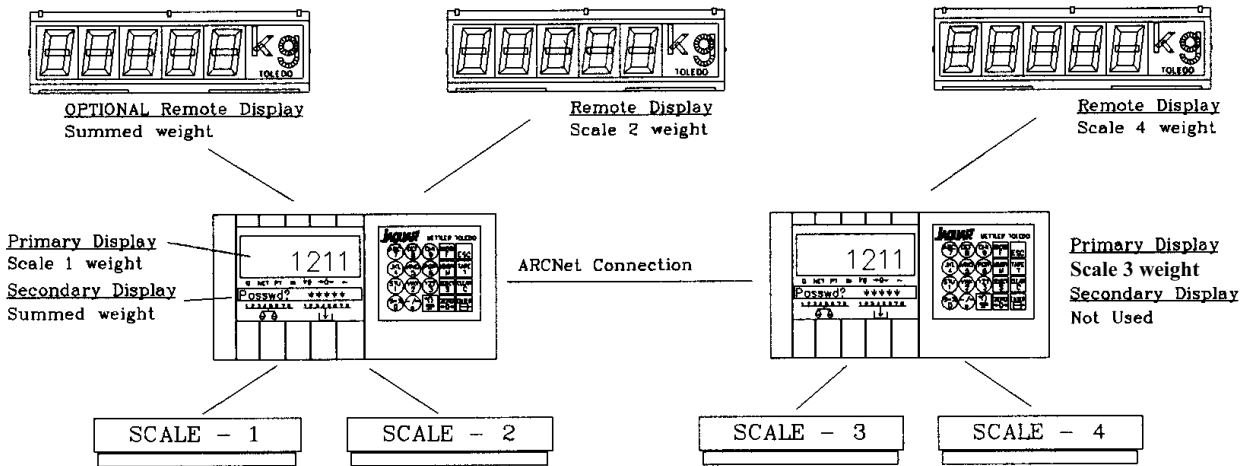
Showing Alternative Keyboard

FIGURE S339 - 5



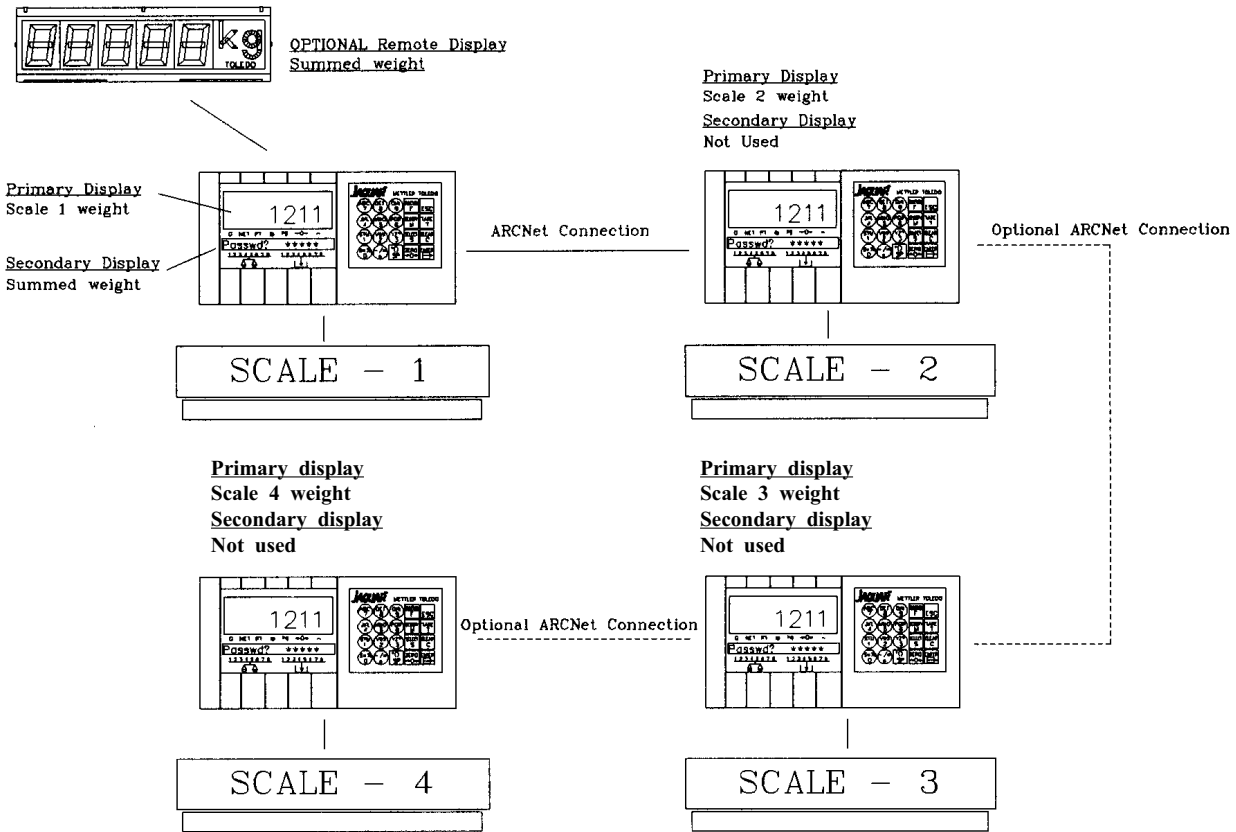
Variant 4 - arrangement (a)

FIGURE S339 - 6



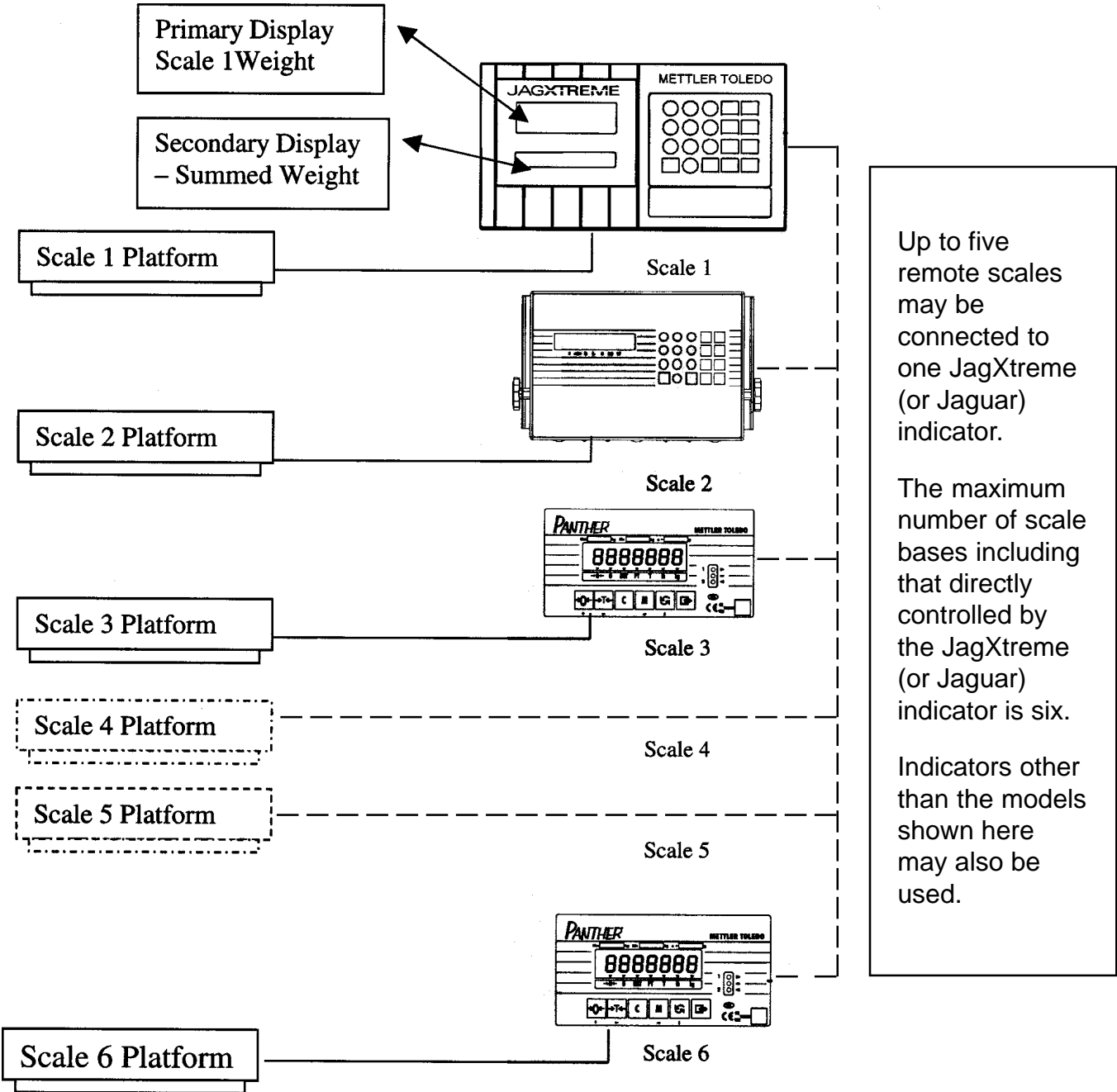
Variant 4 - arrangement (b)

FIGURE S339 - 7



Variant 4 - arrangement (c)

FIGURE S339 - 8



Typical JagXtreme Indicator Network - Variant 6