Ministry of Business, Innovation & Employment

Wellington, New Zealand

CERTIFICATE OF APPROVAL

Weights and Measures Regulations 1999
Part 1 Regulations 5 and 6

Current Date of Issue: 30 April 2021
Original Date of Issue: 11 April 2014

Certificate 2151

Overseas Certificate No: NMI 13/1/23

This certifies that the Cubetape C190 Series, Length Measure described overleaf has been approved as suitable for trade use subject to any conditions stated in the schedule:

Figure 1 - Cubetape Model 190 Series Dimensional Measuring Instrument

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Under delegated authority from the Chief Executive of The Ministry of Business, Innovation & Employment

Note: This is not an approval to any person but only with respect to the type and pattern of weight, measure, or weighing or measuring instrument.

SCHEDULE

Pattern:	Length Measuring Instrument
Make:	Cubetape
Model:	C190 Series
Manufacturer:	ParcelTools Pty Ltd - Australia
Submitter:	Mettler Toledo Limited, Victoria, Australia
Maximum Measurable Length:	1200 (L) x 300 (W) x 300 (H) cm
Minimum Measurable Length:	10 x 10 x 10 cm
Scale Interval:	1 cm

Conditions of Approval:

1. Instruments are only approved for use of determination of the linear dimensions of rectangular box-shaped objects and for the calculation of volume of the item and/or "dimensional weight" value, for the purposes of determining freight or postal charges.

2. Measurements indicated on the display of the pattern are approved for trade use. The markings on the tape itself are NOT intended for trade use and the instrument (must) displays "TAPE MARKINGS ARE NOT LEGAL FOR TRADE USE" or similar wording when instrument is powered on.

3. The instrument must be zeroed prior to any measurement. Failure to zero the instrument may result in short measure and a tape error message may be indicated on the LCD display.

4. Trading Standards reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

5. The verification and subsequent certifications of the instrument must be carried out by Accredited Persons who are accredited under the Weights and Measures Act 1987 Section 30A or by an Inspector of Weights and Measures.

Description:

The Cubetape model C190 Series (figure 1) are dimensional measuring instruments which are approved for use for the determination of the linear dimensions of rectangular (#) boxed shape objects.

A rectangular box (parallelepiped) is a polyhedron with six faces each of which is a parallelogram and adjacent edges are perpendicular.

Note: Different models include: C190MFT, C190MBD and C190MBS.
- Model C190MFT includes a USB, Bluetooth and Infrared connectivity.
- Model C190MBD includes a USB and Infrared connectivity.
- Model C190MBS, includes a Barcode scanner, USB, Bluetooth and Infrared connectivity.

The instrument uses the markings along the nylon-coated tape to detect the length of each dimension of the object being measured. The detected dimensional value is then indicated on the integrated LCD display (figure 2).

The measurement results are stored to an internal memory and can then be transferred to other peripheral devices via USB data connection or wirelessly using Bluetooth or infrared connectivity.

The pattern is approved for use for the determination of the linear dimensions of objects having maximum dimensions (i.e. length x width x height) of 1200 x 300 x 300 cm and minimum dimensions 10 x 10 x 10 cm. The scale interval is 1 cm.

Typical Operation:
- Check that the tape is fully retracted to ensure correct zeroing.
- The tape is then extended along one side of the item (commencing with the tape fully retracted to ensure

correct zeroing), aligning the tape index (end protector) and the edge of the C190 unit to contact the edge of the item.
• The brake/trigger button is then pressed and the unit records the current length for the first dimension being measured. Alternatively the append button may be pressed to record a partial measurement and the brake/trigger records the final length.
• This is repeated for the other two dimensions of the item. Note that the append function isn't available for these two dimensions.
• The unit may then indicate the calculated volume and/or dimensional weight for the determined dimensions.

Construction Details:
1. Dimensioning Unit:
The instrument is battery-operated hand-held device, comprises a dimensioning unit with an integrated LCD display and a replacement tape cassette (retractable nylon-coated spring steel tape). The tape is marked with a maximum length of 300 cm.

The various tape cassettes used in the dimensioning unit are:
• Cubetape tape cassette, or
• ParcelTools Australia model C190T (also known as Great Wall Company tape cassette of the same model). See figure 3.

Note: The tape cassettes are NOT approved on their own. To be used for trade the cassettes must be installed into the pattern and measurements read through the display.

Instruments are provided with 3 status LED light to show measurement progress. The instrument operates using a Cubetape version 1.07x software.

2. Zeroing
Zeroing of the instrument is achieved by allowing the tape to be fully retracted (by releasing the tape brake) whilst the unit is powered on.

NOTE: The instrument must be zeroed prior to any measurement. Failure to zero the instrument may result in short measure and a tape error message may be indicated on the LCD display.

3. Append Function
Instruments are provided with an append function to allow measurement of objects with a length greater than the maximum length of the tape.
After partially measuring the object and pressing the append button on the Cubetape allows the object to be measured by adding the further additional partial measurements.
The append function operates for the length dimension only. The instrument allows 3 partial measurements to be appended to give a total maximum length of 1200 cm.

4. Printed and display information:
The measurment data from the Cubetape is made available to other systems for indication and/or printing. Printed and displayed informaion must be made availabe for verification/certification test and must comply with the requirements set out in OIML R129, Multidimensional Measuring Instruments, as per the extract below.

7.9.1 Any printed ticket or displayed indication shall include sufficient information to identify the transaction,
for example:
(a) dimensions: length (L), width (W) and height (H);
(b) volume (vol);
(c) weight (Wt) if the instrument includes a weighing instrument;
(d) dimensional weight (Dim Wt ... kg or DW ... kg);
(e) dimensional tare (DT ... kg);
(f) conversion factor (F);
(g) quantity for charging, for example dimensions, vol or DW ... kg;
(h) price rate and price; and
(i) date, transaction number or other identification of the object.

Note 1: Icons may be used to identify indications.
Note 2: When the customer is not present during the measurement process the above information need not
be displayed or printed out at the time but shall be available on request.

Original Date of Issue: 11 April 2014

Note 3: The price interval and the price rate shall comply with the national regulations applicable for trade.

7.9.2 A printed ticket shall also contain the following printed or preprinted
information:
(a) that the dimensions and/or volume shown are those of the smallest rectangular box that fully encloses
the object; and
(b) that the dimensional weight is a calculated value deemed to be a weight value obtained by applying a
conversion factor to the object's volume or dimensions.

5. Interfaces:
The instruments may be fitted with interfaces for the connection of auxiliary and/or peripheral devices.

Type of Interfaces:
• USB
• Bluetooth
• Infrared connectivity
• Barcode scanner

Note: The Auxiliary devices shall meet the following conditions:
(i) have no function that would cause a variation in the display of the measured or computed quantities
(ii) is not capable of transmitting any data or instruction into the dimensional measuring instrument, other than to release a printout, checking for correct data transmission or validation
or
As indicated from time to time by Trading Standards.

METROLOGICAL MARKINGS:

Instruments must carry the following markings:

Manufacturer's mark, or name:
Model designation:
Pattern approval number: TS2151
Serial number of the instrument:
Year of manufacture:
Max dimensions for each axis:……. (cm)
Min dimensions for each axis:………(cm)
Scale interval d = ...cm

Note: The markings on the tape itself are NOT intended for trade use. The instruments must display "TAPE MARKINGS ARE NOT LEGAL FOR TRADE USE" or similar wording when instrument is powered on.

TEST PROCEDURE:
The maximum permissible error at verification/certification is ±1.0 cm for dimensions from the minimum measurable dimension to any value up to and including the maximum measurable dimension capacity of the instrument.

To carry out the verification/certification test the instrument must be tested against a reference length measure (Inspectors or Accredited Person's working standard of Length, rigid or flexible line standard).

1) The total length of the reference length measure must be at least 3 m.
2) The reference length measure must have a graduation scale interval better than 1/5 d, (where d is the scale interval for the Cubetape instrument).
3) Each axis (length, width, and height) is tested for at least five dimensions (equidistant) between and including minimum and maximum dimensions specified for the Cubetape instrument.
4) Each measurement shall be within the maximum permissible error, (error is +/- 1.0 cm).
NOTE: where an append function is used, the total determined length must be within +/- 1.0 cm.

Original Date of Issue: 11 April 2014

Sealing: The tape cassette must be secured to the instrument as shown in figure 4. The battery cover should be removed to see the sealing sticker.

Mark of Verification: An approved adhesive destructible sticker used for sealing must carry a Mark of Verification. Removal of seal deems the instrument not verified.

Figure 2 - Integrated LCD Display

Figure 3- Model C190T Tape Cassette

Figure 4- Sealing of Tape Cassette

(a) Rubber Protective Cover   (b) Battery Cover   (c) Cubetape Model C190MFT

Sealing Label
Securing Tape Module

SCHEDULE

Variant: 2151.1

Current Date of Issue: 22 May 2014

Pattern:	Length Measuring Instrument
Make:	Cubetape
Model:	CSN110 Scan Tape
Submitter:	Mettler Toledo Limited, Victoria, Australia
Conditions of Approval:	1. As detailed in Certificate # TS2151.

2. Trading Standards reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

3. The verification and subsequent certifications of the instrument must be carried out by Accredited Persons who are accredited under the Weights and Measures Act 1987 Section 30A or by an Inspector of Weights and Measures.

Description:

VARIANT 1

The pattern Cubetape model CSN190MFT may also be known as Cubetape model CSN110 Scan Tape.

All specifications remain the same.

METROLOGICAL MARKINGS:
Instruments must carry the following markings:

Manufacturer's mark, or name:
Model designation:
Pattern approval number: TS2151
Serial number of the instrument:
Year of manufacture:
Max dimensions for each axis:……. (cm)
Min dimensions for each axis:………(cm)
Scale interval d = ...cm

Note: The markings on the tape itself are NOT intended for trade use. The instruments must display "TAPE MARKINGS ARE NOT LEGAL FOR TRADE USE" or similar wording when instrument is powered on.

Sealing:	As detailed in Certificate # TS2151.
Mark of Verification:	An approved adhesive destructible sticker used for sealing must carry a Mark of Verification. Removal of seal deems the instrument not verified.

Original Date of Issue: 22 May 2014

SCHEDULE

Variant: 2151.2

Current Date of Issue: 18 October 2018

Overseas Certificate No: NMI 13/1/23 Rev 3

Pattern:	Length Measuring Instrument
Make:	Cubetape
Model:	CSN190 PRO (or) CSN110 Scan TapeTM PRO
Submitter:	Mettler Toledo Limited (New Zealand)
Conditions of Approval:	1. As detailed in Certificate # TS2151. 2. Trading Standards reserves the right to examine any instrument or component of an instrument purporting to comply with this approval. 3. The verification and subsequent certifications of the instrument must be carried out by Accredited Persons who are accredited under the Weights and Measures Act 1987 Section 30A or by an Inspector of Weights and Measures.

Description:

VARIANT 2

The variant approves the following:
• The Cubetape models C910 PRO and CSN110 ScanTape™ PRO dimensional measuring instruments which are similar to C910 and CSN110 ScanTape™ respectivey, but uses barcode markings on the retractable tape (Figure 1-Variant 2). A fixed scanner positioned on the enclosure reads the barcode marking on the tape. The tape is marked with the barcode value of the length to be read with a scale interval of 1 cm.
• The pattern uses a ParcelTools Australia model C190T-C and C190T-C-O (Figure 2-Variant 2) replacement tape cassette.
The C190T-C (human readable and barcode markings) and C190T-C-O (barcode markings only) tape cassette is only approved for trade use when it is installed in the pattern or variant and taking measurements through the display of the pattern.

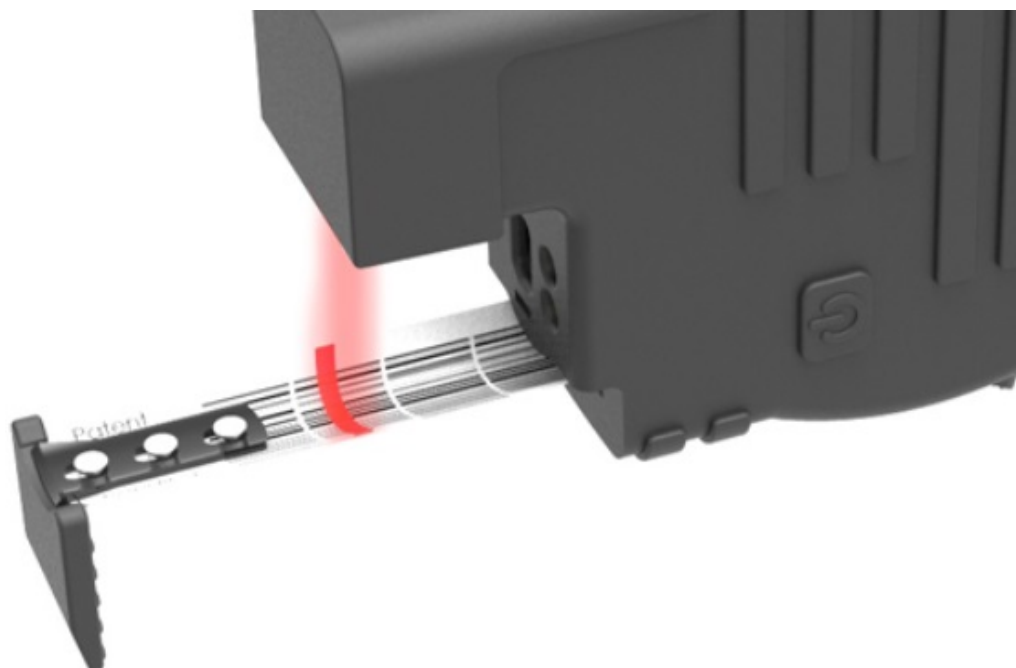|	
Components:	C190T-C and C190T-C-O tape cassette
Sealing:	As detailed in Certificate # TS2151.
Mark of Verification:	An approved adhesive destructible sticker used for sealing must carry a Mark of Verification. Removal of seal deems the instrument not verified.

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Figure 1 - Variant 2

Figure 2 - Variant 2

C190T-C-O Retractable Barcode only tape cassette

C190T-C Retractable Barcode tape cassette with human readable scale markings

SCHEDULE

Variant: 2151.3

Current Date of Issue: 30 April 2021

Overseas Certificate No: NMI 13/1/23 Rev5

Pattern:	Length Measuring Instrument
Make:	Cubetape
Model:	C190POS
Submitter:	Mettler Toledo Limited, Victoria, Australia
Conditions of Approval:	1. As detailed in Certificate # TS2151 and its variants.
	2. Measurement data transmitted by the C190POS instrument is NOT LEGAL FOR TRADE USE until the dimensions data has been validated with CRC8 data.
	3. Measurement data transmitted by the C190POS instrument to a compatible Bluetooth enabled device must be made available for the purpose of verification and subsequent certification by the Accredited Persons who are accredited under the Weights and Measures Act 1987 Section 30A or by an Inspector of Weights and Measures.

Description:

VARIANT 3

The variant approves the following:
1. The Cubetape model C910POS (Figure 1 – Variant 3) which is similar to C910 and has the same capabilities, but does not include the built in indicator.

The C190POS unit must be connected to a compatible Bluetooth enabled device capable of indicating the measurement results transmitted by the unit. The Bluetooth device operates with a Mettler Toledo Octo DataCapture software (Figure 2 – Variant 3)

Measurement data is only transmitted after the instrument measures all the three dimensions of the object being measured.

Each measurement data transmitted by the instrument comprises:
- Dimensions, length (L), width (W) and height (H)
- 8 bit cyclic redundancy check (CRC8) applied to the dimensions data
- Units of measurement
- Serial number identification

NOTE: Measurement data transmitted by the C190POS instrument is NOT LEGAL FOR TRADE USE until the dimensions data has been validated with CRC8 data.

2. The C190POS may also be used in conjunction with certain other 3rd party software that provide indicating functionality as detailed above. (The manufacturer, Parceltools Pty Ltd must be consulted regarding the acceptability of any alternative 3rd party electronic document software).

3. The pattern and its variants may use a ParcelTools Australia model C190T-U tape cassette (human readable and barcode markings).

Components:	C190T-U tape cassette
Sealing:	As detailed in Certificate # TS2151.

Mark of Verification: An approved adhesive destructible sticker used for sealing must carry a Mark of Verification. Removal of seal deems the instrument not verified.

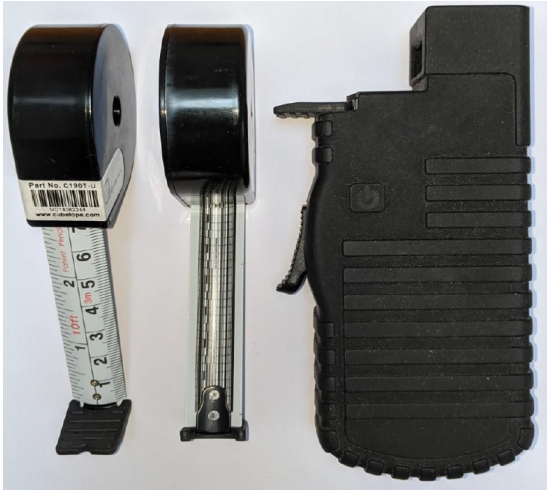## Figure 1 (Variant 3) - Cubetape Model C190POS with C190T-U Tape Cassette

Figure 2 (Variant 3) - Typical screen shot of the measurement results