	Technical Specification for Verification and Inspection of Taximeters	S/N	CNMV 21
		Rev.	3

This Technical Specification is developed pursuant to Paragraph 2, Articles 14 and 16 of the Weights and Measures Act.

2. The date of promulgation, document number, date of enforcement and content of amendment are listed as follows:

Rev.	Date of Promulgation	Document No. (Ching-Piao-Szu-Tsu)	Date of Enforcement	Content of Amendment
1	May 29, 2003	No.09240005120	Jul 01, 2003	
2	Nov 22, 2006	No.09540004830	Nov 22, 2006	
3	Jun 04, 2010	No.09940002680	Jul 01, 2010	1. In compliance with eco-friendly seal action, the term of lead seal is replaced by seal. 2. In consideration of practicality and convenience, seal regulation on taximeter constant k verification is cancelled henceforth. 3. In compliance with taximeter constant k verification seal cancellation, seal must be affixed on both side of the taximeter upon installation completion by the repairer. 4. Section 4 regulations on verification and inspection equipment titles are added for clarification.
4	Mar 14, 2013	No. 10240011150	Jul 1, 2013	1.Extends the definition of the initial verification conducting on a taximeter after the fare chip has been changed due to switching to different fare area. 2.Sets the responsibility on the repairer by putting a seal after repairing. 3.Modifies the definition of error and sets the formula of the calculation of error. 4.Prolong the validity of verification from one to two years.

3. This technical specification is formulated with reference to the following international specifications:
OIML R21 Taximeter (1975)

Date of Promulgation **March 14, 2013**	**Bureau of Standards, Metrology and Inspection Ministry of Economic Affairs**	Date of Enforcement **July.01, 2013**

1. Scope: this specification applies to electronic taximeters (hereinafter referred to as "taximeters"), i.e., with electronic devices, a pricing meter installed in a profit seeking small bus or a taxi to calculate and display the amount payable by the passenger.

2. Definition of Terms
   2.1 Taximeter constant k verification: the initial verification conducted on a taximeter after been produced or after the fare chip been changed due to switching to different fare area.
   2.2 Wheels verification (running verification): the re-verification of a taximeter, which is conducted after a taximeter is installed in the car.
   2.3 Taximeter constant k: the number of pulse waves received by a taximeter, a numeric value representing a distance travelled of 1 km.
   2.4 Initial charge: First increment of fare indication upon activation of the taximeter.
   2.5 Distance count: the calculation method in which the fare increases in proportion to the distance traveled.
   2.6 Time count: the calculation method in which the fare increases in proportion to the duration of the journey.
   2.7 Distance and time count: the calculation method in which two components of the fare increase concurrently, one in proportion to the duration of the journey and the other in proportion to the distance traveled.
   2.8 Fare: Monetary amount calculated by the taximeter.
   2.9 Reference number of pulses: Theoretical number of pulses from a distance and/or time measuring signal, which can be calculated using the tariff data.

3. Construction
   3.1 The following data shall be marked or indicated on the front panel of a taximeter:
   (1) Serial number and type;
   (2) Taximeter constant k (revolutions);
   (3) Fare (NTD), distance (kilometer), time (minute, second);
   (4) Manufacturer;
   (5) Type approval number; and
   (6) The position for verification compliance tag.
   When surcharge calculation can be controlled automatically by taximeter, the meter shall equipped a real time indication
   3.2 When any function key or button is pressed, a beep prompt shall be given and clearly display or indicate the conditions of the taximeter used.
   3.3 The taximeter shall be installed in a conspicuous place inside the car facing to the customers' seats.
   3.4 An extra hole along diametric of either of bolts that fasten the cover of the taximeter is required for legal seal after passing wheel verification as 3.6 mentioned. The seal shall be connected with a hole on the car the taximeter installed.
   3.5 After passing the wheels verification, a wheel verification compliance mark shall be attached to the front side of the taximeter.
   3.6 After being installed by repairers, the taximeter shall be sealed at its both sides of its panel by the repairer and the joint of the taximeter and the car shall also be sealed at

its front end by the repairer. The seal shall be marked the name or mark of repairer and the installed date. The agency that conducts the wheel verification seals an additional seal at the end of seal sealed by repairers. All the seals shall not be hidden.

3.7 After the seals are removed for repair, the repairer shall attach new seals at the left and right and remove the original wheel verification tag. The taxi driver or owner shall apply for re-verification. Taximeters passed verification shall be re-attached new seals onto its original places in accordance with the requirements of Section 3.6.

4. Verification, Inspection and Maximum Permissible Errors

4.1 Verification and inspection equipment: all the equipments shall be traceable.

4.1.1 Taximeter constant k verification equipments:

(1) Taximeter constant k verification device,

(2) Time measurement device.

4.1.2 Wheel verification device.

4.1.3 Distance verification device.

4.2 Taximeter constant k verification items are as follows:

4.2.1 Taximeters are checked in compliance with the provisions set forth in Sections 3.1and 3.2, and of this Specification.

4.2.2 The errors of distance count, time count and night surcharge of a taximeter shall be within the specified maximum permissible errors.

4.2.3 Taximeters shall work properly when the power voltage varies between 9V and 16V. Original indications shall be displayed when the voltage drops to 6V and lasts for 10 seconds then returns to 12V. The displayed fare shall not be changed after the power has been switched 5 times continuously under average working voltage.

4.2.4 Speed measuring shall not exceed the specified maximum permissible errors when a taximeter converts to time-based pricing.

4.3 Items of wheel verification (including distance verification) are as follows:

4.3.1 Taximeters are checked in compliance with the provisions set forth in Sections 3.3, 3.4, 3.6, and 3.7 of this Specification.

4.3.2 the errors of distance count of a taximeter shall be within the specified maximum permissible errors.

4.4 Maximum permissible errors of verification are prescribed as follows:

4.4.1 Error shall be expressed by percentage of the indicated value subtracts the standard value and the standard value. The formula shall be as followed：

$$\frac{\text{indicated value} - \text{standard value}}{\text{standard value}} x100\,\%$$

4.4.2 The error shall be rounded off to tenth.

4.4.3 Taximeter constant k verification:

(1) The maximum permissible errors of speed for converting time-based pricing of a taximeter are ±10 %.

(2) The maximum permissible errors of time for taximeter constant k verification of a taximeter are ±2 %.

(3) The maximum permissible error of distance for taximeter constant k verification of a taximeter is -2 %, with no positive maximum permissible

errors.

4.4.4 Wheels verification (including running verification):

The maximum permissible error of distance for wheels or distance verification of a taximeter is -4 %, with no positive maximum permissible errors.

4.5 The maximum permissible errors of inspection for taximeters are 1.5 times the maximum permissible errors of wheels verification.

4.6 The period of validity of verification is two year, commencing from the day that the verification compliance mark is attached to the first day of the month of the next twenty-fifth months.

5. Verification Compliance Marks

5.1 After passing taximeter constant k verification, a verification compliance marks shall be attached to a conspicuous position of the body of the taximeter.

5.2 After passing wheels verification, the joint between the taximeter cover and the car body shall be sealed and a wheel verification compliance mark shall be attached to the front of the taximeter.