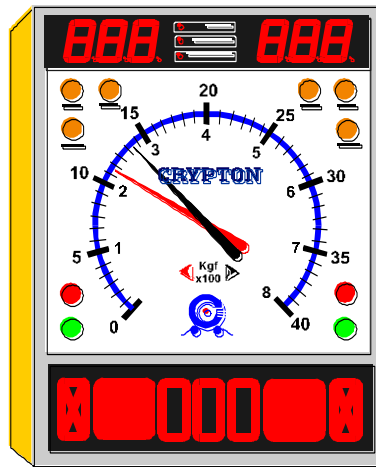


CRYPTON

In tune with the future



Commercial Vehicle Roller Brake Tester.

CVBT 8000

CALIBRATION INSTRUCTIONS

TES1348/A
Aug 2001

IMPORTANT

Every reasonable effort has been made to ensure that information within these Operating Instructions is correct at the time of release, but Crypton cannot accept-responsibility for any errors that may occur.

The information in these Operating Instructions is subject to change without notice, and does not represent a commitment on the part of Crypton.

Service & Warranty

The reliability of this equipment is fully supported by our service agents, with repair workshops and field service engineers to provide a full range of After-Sales Care, including installation, contract maintenance, factory overhaul and emergency repairs on site. Please refer to the page at the end of this manual for full details.

Note:

Your attention is drawn to our Terms & Conditions of Sale, particularly paragraph 2. If a service engineer is called out. under service warranty where, upon inspection and test the equipment is found to be in full working order and no fault found, the user is liable to be charged the cost incurred for this call out. Before calling out an engineer, ensure your equipment is faulty by checking its operation, particularly mains supply and fault codes/self test if applicable.

WARNING:

Do not attempt to operate this equipment unless you have read and understood these instructions.

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INTRODUCTION

Calibration and adjustment of brake force measurements on Brake Tester CVBT8000.

Calibration must be performed at the time of installation, at service, after repare and at regular intervals. It is recommends that the brake tester is calibrated at least once a year.

Important: Calibration must be performed by a person, who has been trained in accordance with these instructions.

For technical support contact Crypton on phone 00 44 1278 436200.

Warning: Protective covers and other safety devices are removed or are not in operation during the calibration process. Note that the rollers will turn without wheels being placed on them. In emergency the rollers can be stopped by pressing the emergency stop or STOP on the remote control or on the keyboard on the control cabinet.

Procedure:

Preparing the brake tester for calibration:

1. **Turn the main switch to off on the control cabinet. (3. Figure 1).**
Turn off the main power supply and lock the switch during the removal of the cover plates and opening the control cabinet.
2. **Open the yellow control box.**
The yellow box is located in the control console. The console is opened with the appropriate key.
3. **Remove the cover plates over the pit on the outside the roller units.**
4. **Remove the cover over the yellow box in the control console.**
This is done to allow access to the potentiometers on which the settings are adjusted.
5. **Turn the main switch on. (3. Figure 1)**
Now that the protective covers are removed take care not to touch any live parts of the electric installation. Turn the main switch on. Then press RESET button (2. Figure 1) on the control console.
6. **Wait 20 minutes.**
Wait 20 minutes to allow the electronic circuits to stabilise.
7. **On the remote control:**
Press <TEST> and <OK>. Wait 3 sec. and press <TEST>.
Then press <TEST> and <UP> to test position 0. (Figure 2)
The brake tester is now in test position 0. Which is indicated on the display in the lower right hand corner of the display console (3. Figure 3)

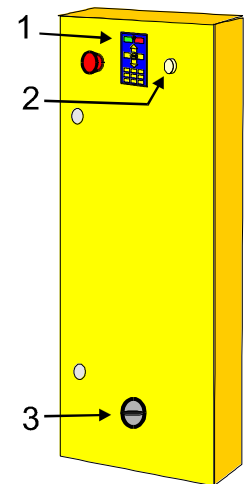


Fig.1

Remote control

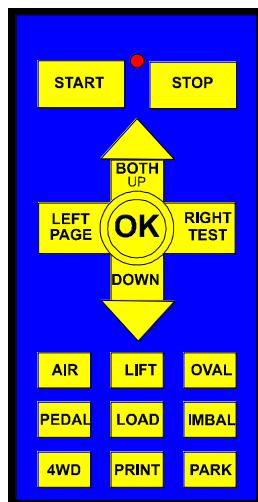


Fig.2

Display console

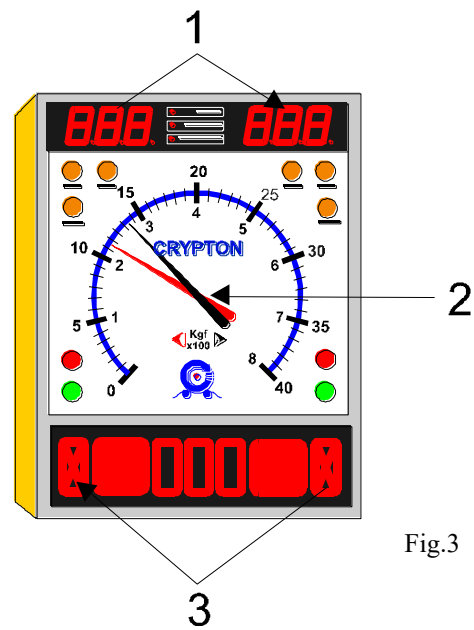


Fig.3

Calibrating the LEFT roller unit:



The calibration transducer is mounted below the load cell using the bolt protruding downwards from the bracket connecting the motor to the load cell.

Fig.4

1. Thread the elongated nut onto the bolt



Fig.5

2. Place the calibration transducer below the ball of the nut and screw the adjustment nut down unto the top of the transducer



Fig.6

3. Turn on the calibration Instrument and wait for it to zero. Tighten the adjustment nut on top of the calibration transducer to assert a slight pressure (e.g. 100 Kgf) onto the calibration transducer.
4. Press the reset button to allow the instrument to zero.
5. Turn the brake tester off and then on again and wait until the amber zeroing light, on the brake tester display console, turns off. (It takes approximately 40 seconds).
6. On the remote control (figure 2) Press <TEST> and <OK>, wait for 3 sec, and press <TEST>. Then press <TEST> and <UP> (or <DOWN>) to test position 0. The brake tester is now in test position 0, and is now ready to be calibrated..
7. Tighten the adjustment nut onto the calibration transducer until the value 400 Kgf appears on the calibration instrument display.
8. If the pointer, on the brake tester console, does not show 2000 Kgf., adjust the GAIN potentiometer on print card A4 in the yellow box until 2000 kgf is shown on the display console.
Use the correct tool, a special calibration screw driver, to adjust the GAIN potentiometer, NOT a screw driver.

The value on the display console must equal the value on the calibration instrument x 5.

e.g. If the value shown on the calibration instrument = 400 kgf.

The value shown on the brake tester console must = 2000 kgf.

9. Repeat procedures 2 to 8 if adjustment has been made.
11. Check the correlation between the values shown on the calibration instrument and on the scale and LED display on the display console at different values. The variations must not exceed 3% of the shown value.

The value shown on the brake tester console, must be equal to the value on the calibration instrument x 5

12. Remove the calibration tool.

Repeat the procedure on the right roller unit.

The right roller unit is calibrated in the same way as the left unit. The potentiometer is located on the 3rd print board from the left in the yellow box (A on figure 7)

When the calibration is completed:

Press <TEST> and <OK> to leave the test position.

Turn off the brake tester.

Replace the cover plates over the motors as well as the cover on the yellow box.

The Yellow Box

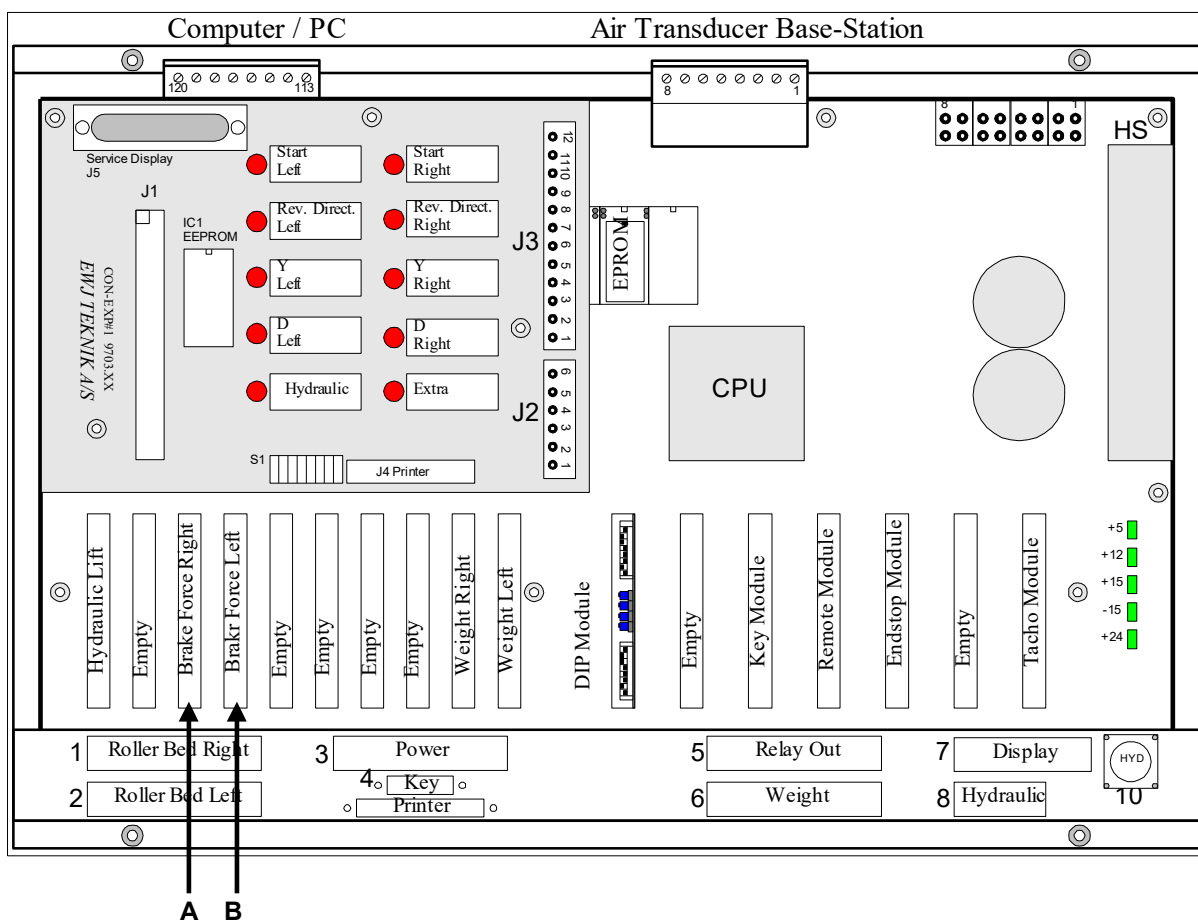


Fig.7

A shows the printcard holding the potentiometer for the right roller unit and **B** is the printcard for the left one. The potentiometers are located at the edge of the printcard.

Table of correlated values between the displayed values shown on the calibration instrument and the display console.

Value on the calibration tool	Value on the display console
40	200
80	400
120	600
160	800
200	1000
400	2000
600	3000
800	4000

The calibration tool consist of:

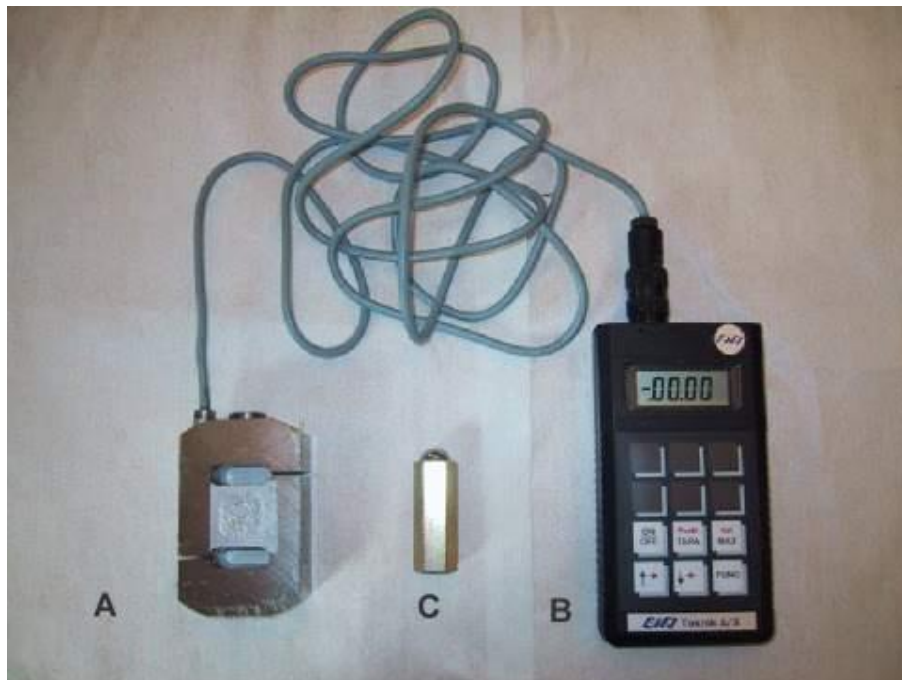


Fig.8

The calibration tool consist of 3 components:

- A. The calibration transducer, which is connected with a cable to...
- B. The calibration instrument holding the display and keypad.
- C. A nut with a ball on one end which fits into the top of the transducer.

NOTES: