Black and White Transmission Densitometer

User's Manual

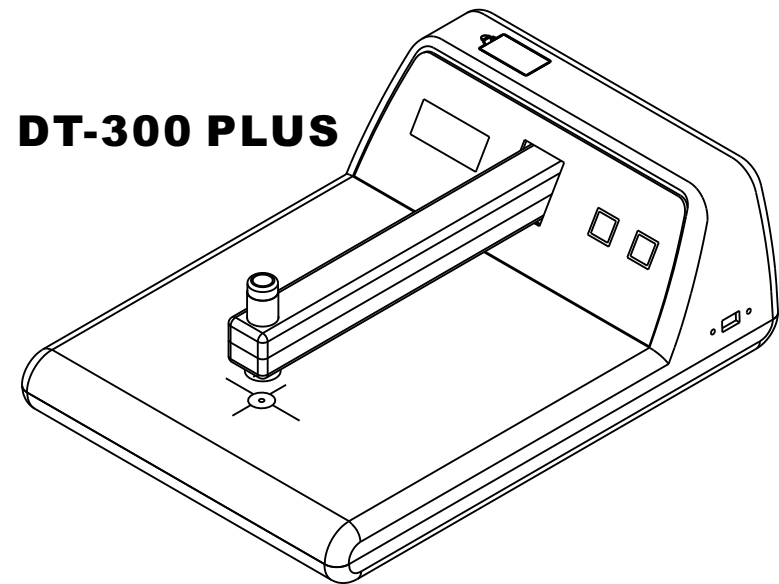**How to connect DT-300 PLUS with PC**

1) Download CH341SER.zip and DT-Utility.zip from our website.

   (http://www.Lcndt.net/en/DT.html)

   You can also get instruction Video by this link.

2) Extract DT-Utility.zip. (Support Win7/Win8/Win10 X86/X64 and higher)

3）Use Cable connect DT-300 PLUS with PC USB Port.

4) For the first time connect DT-300 PLUS, your PC may need to Setup "CH341SER.zip". You will no need to Setup it again for future.

5) Open the DT-Utiltiy software to calibration.

CALIBRATION FREQUENCY :

Self-calibrate to a certified density step tablet prior to use.

Under normal operating conditions, the instrument calibration should be verified once a year.
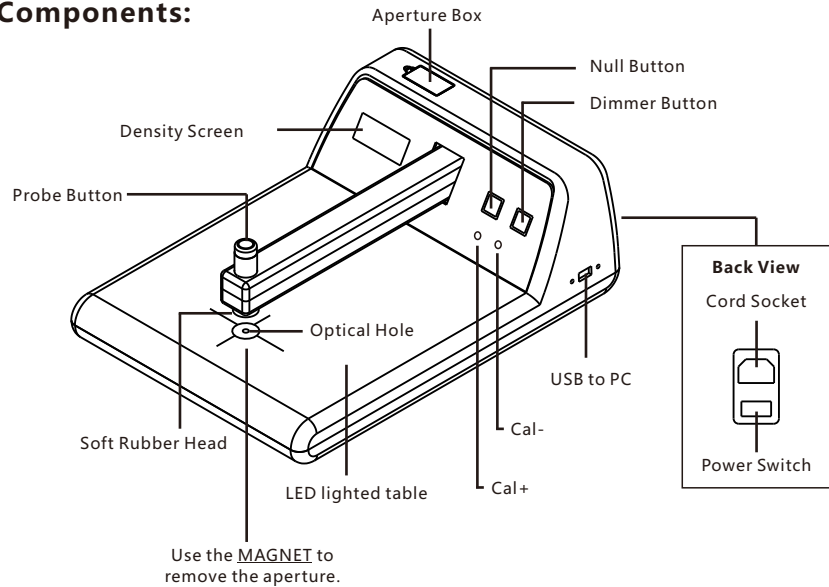

DT-300 PLUS

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Components:

Aperture Box

Null Button

Dimmer Button

Density Screen

Probe Button

Optical Hole

Back View

Cord Socket

USB to PC

Cal-

Power Switch

Soft Rubber Head

LED lighted table

Cal+

Use the MAGNET to remove the aperture.

Measurement:

1. Insert Power cord to Cord Socket. Turn Power Switch on. Click Dimmer button to adjust the intensity of LED lighted table(There are 5 steps, from 0%-100%). Long press Dimmer button the lighted table will be switched between All on and Half on.

2. Press down the Probe Button till Soft Rubber Head totally touched the table. Hold & Press Null Button till Density Screen displayed 0:00 , then release the Probe Button.

3. Place your film on LED lighted table. Press down the Probe Button till Soft Rubber Head totally touched the film. The display will show the density. Release the reading head.

Program Mode: (Use this feature with Caution)

We strongly suggest you to use "F-1" Real-Time calibration.

Procedure.:

1. Turn off the DT-300 PLUS.

2. Keep Pressed "Null" Button, then turn on the DT-300 PLUS, until **P** appears, then release "Null" Button. It means you have entered into Program Mode.

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3. After you release the "Null" button, The display will show $\boxed{F\text{-}1}$, and by short pressing the "NULL" button, it will switch to $\boxed{F\text{-}2}$

    F-1 : Real-time calibration.
    F-2 : Traditional parameter calibration.

4. When the display shows $\boxed{F\text{-}1}$, press and hold the "NULL" button to enter real-time calibration mode. Now the display will show $\boxed{P\text{-.}\text{--}}$

5. Next, it's the same as the usual measurement of density: first Zeroing, the display will show $\boxed{P0.00}$ and then measure any step of the density strip. The display will show $\boxed{P+density}$

For example, when you measure the STEP 1, the display will show $\boxed{P1.00}$
Because it is the same as the Ref. Density(or the error is less than 0.02D), there is no need for calibration; proceed to measure the STEP 2.

STEP	1	2
Reading	1.00	1.55
Ref. D	1.00	1.60

When you measure the STEP 2, the display will show $\boxed{P1.55}$
Since the reading is "0.05" less than the Ref. Density, we need to add "0.05" to match the Ref. Density. Therefore, at this point, we need to press the "CAL+" button five times. Each press of the "CAL+" button will increment the reading in real-time by "0.01". So after pressing the "CAL+" button five times, the display will show $\boxed{P1.60}$. It will save automatically.

Further more, the added calibration factor of 0.05 is only effective for this specific density range and will not have a calibration effect on other density ranges.

Notes: The CAL+ or CAL- buttons will only be effective in calibration mode; in the normal operating mode, pressing them will have no effect.

6. After the Program, you need to reboot the unit.

Notes: Each DT-300 PLUS is strictly calibrated during factory. After Change the Aperture size, re-calibration may be needed.

How to Reset DT-300 to factory settings?

1. Enter into Program Mode, the display will show F-1

2. Press & Hold "Dimmer" button until display P0.00

3. Reboot the unit.