Dillon D-Terminator

Precision Electronic Scale
Instructions V 3.0

Dillon Precision Products, Inc.

Phone (602) 948-8009
(800) 223-4570
Fax: (602) 998-2786

DILLON D-TERMINATOR INSTRUCTIONS

Congratulations on your selection of the Dillon D-Terminator electronic scale. The Dillon D-Terminator is an Electronic Computerized Load Cell Scale. With many features only found in very expensive laboratory and jeweler's scales, the Dillon D-Terminator is balanced and designed for multi-purpose usage. The maximum capacity is 100 GRAMS or 1500 GRAINS and the resolution is 0.01 GRAMS or 0.1 GRAINS. Features include: an Anti-Static draft shield, Calibration function, Tare function, an Overload cell protector, Automatic shutoff, and universal AC or battery operation for portability and field use.

No other scale on the market today provides as many quality features and value as the Dillon D-Terminator

A. Battery Insertion:

FIG 1

FIG 2

1. Turn the scale onto it's side. Remove the battery compartment cover by pressing the tab to the rear and tip it off. *FIG 1*
2. Install the four AA Alkaline Batteries into the compartment and replace the cover. *FIG 2*

CAUTION: WHEN INSERTING THE BATTERIES, KEEP THE COVER CLOSED TO PREVENT PRESSURE TO THE LOAD CELL PLATE ON THE TOP SIDE OF THE SCALE. THE SCALE IS NOT DESIGNED FOR WEIGHT EXCEEDING 100 GRAMS.

B. AC Adapter / Battery Eliminator:

1. Your scale can also be operated on 110-240V universal AC by using the furnished AC adapter. This adapter plugs into the jack at the center rear of the scale.
2. Insert the adapter plug into the socket on the rear of the scale and then plug the adapter into an AC outlet. DO NOT SUBSTITUTE AC ADAPTERS. Only use the AC adapter provided with the scale. *FIG 3*

FIG 3

(NOTE: Use of an AC adapter other than the one provided may damage the scale.)

C. About The Scale:

1. Select a FLAT and LEVEL surface, which is not subject to vibration or air movement.
2. Turn the scale on by pressing the ON/OFF key once. *FIG 4*
   The scale is now on. The display will show "+88.8.8.8." and then "0.00" with a small letter "g" for "g:gram" on the upper right side of the display. This indicates that the scale is ready to use. The "MODE" key will allow you to toggle between GRAMS, GRAINS, CARATS, PENNYWEIGHT, OUNCE, and TROY OUNCE, after turning the scale on, even if there is something being weighed at the time.
3. The Dillon D-Terminator Scale will weigh in the following modes and capacities:
   CAPACITY (by weighing unit)
   - Grams: 100 g
   - Grains: 1543 gn
   - Carats: 500 ct
   - Pennyweight: 64.3 dwt
   - Ounces: 3.52 oz
   - Troy Ounce: 3.2 ozt
4. When this scale is used in any location where air movement may be a factor, the "draft shield" should be put down (closed) covering the weighing platform, to prevent inaccurate readings due to environmental influences. This specially designed cover incorporates an anti-static material to eliminate fluctuations in readings. This prevents inaccurate readings due to static electrical build up. (A feature normally found only on very expensive laboratory scales). When used in indoor environments without influences, the cover should be lifted up to allow easy access and use. *FIG 5*

FIG 4

g (Grams): For measuring
gn (Grains): For measuring gun powder
ct (Carat): for measuring gemstones
dwt (Pennyweight): For measuring precious metals, gemstones, and black powder.
oz (Ounce): For measuring
ozt (Troy Ounce): For measuring

ACCURACY / RESOLUTION
(by weighing unit)
- Grams: 0.01 g
- Grains: 0.1 gn
- Pennyweight: 0.005 dwt
- Carats: 0.05 ct
- Ounces: 0.001 oz
- Troy Ounce: 0.001 ozt

5. This scale features an automatic shutoff after approximately 5 minutes of inactivity (battery power only) at which time it will shut itself off. This conserves battery drain, and protects the scale from being left on for prolonged periods of time when not in use.

FIG 5

FIG 6

D. Calibration:

1. *FIG 6* This scale was calibrated before shipment from the factory, but must be re-calibrated before use and it must be re-calibrated after every repositioning of the scale and before each additional use if stored for any period of time.
2. Calibration can be affected by the following factors -
   1. Handling during shipment.
   2. Changes in work locations,.
   3. Drastic changes in temperature.

E. Calibration Procedure:

1. Make sure the 100 GRAM calibration weight is available before proceeding.
2. If the display is not showing "0.00" grams, then press the "ZERO" key once before proceeding. The powder pan should not be on the platform. Wait for the display to show "0.00" grams.
3. Press and hold the "CAL" key for 4 seconds until the display indicates "100.00 grams" by blinking on and off. *FIG 7* Press the "ON/OFF" key once and the display will show "CAL 0" which indicates that the zero point is set. *FIG 8*
4. GENTLY place the 100 GRAM calibration weight on the platform and wait until "CAL F" is displayed. *FIG 9* The scale is now calibrated and ready to use. Remove the weight and wait for 0.00 to appear. If 0.00 does not appear, press ZERO to return the scale to zero. If you wish to check the calibration, place the weight on the platform and 100.00 ± 1/100th gram will appear. The scale may not read exactly 100 grams due to variations in the manufacturing of the 100 Gram weight. The key is that the scale should give you the same reading in repeated weighing of the same object within the given tolerance range. (99.99 to 100.01)
5. If the display shows "CAL E" *FIG 10*, it means an error has occurred during the calibration procedure. Retry until 0.00 appears.

FIG 7

FIG 8

FIG 9

FIG 10

F. Re- Zero Function:

Press the "ZERO" key at any time to re-zero the scale. This is a good idea if it is moved during a weighing process. *FIG 11*

FIG 11

G. Operation of the Scale (weighing powder):

1. Turn the scale on by pressing the "ON" key and wait until the display reads "0.00" grams. If the scale is not in the mode desired, then press the MODE key to change the weight unit accordingly. The selected weight capacity (grams or grains for example) will remain even when the scale is turned off and then on again. Once the proper weight capacity is selected, the scale is ready to weigh powder.
2. Place an empty powder pan on the scale. *FIG 12*
3. If there are environmental variables affecting the scale's performance, then lower the Draft Shield to stabilize the readings.

4. Press the ZERO key to "zero out" the scale. This will remove the powder pan weight allowing only the powder itself to be weighed. This function is called "TARE Function" *FIG 11*
5. Wait till the scale reads "0.00". At this point the scale can be used to weigh any object that will fit on the platform (within the weight range of the scale).
6. Pour powder into the powder pan. Allow 3-4 seconds for the display to settle (because of the scale's extreme sensitivity, the display may fluctuate slightly, if so, check for vibration or air movement). Read the weight of the scale.
7. Turn the scale off when you are finished.

FIG 12

H. Trickling Powder

1. The Dillon D-Terminator Scale is designed to allow "trickling" of powder. This can be used to "fine tune" a powder charge (load) in use. It is best to use a Powder Trickler for this function, but trickling by hand can be done if performed properly.
2. *FIG 13* Place a fixed amount of powder on the powder pan. Wait till the reading stabilizes. Then slowly add powder from the Trickler or by hand to increase the amount of powder in the pan until the desired amount of powder is reached.
3. **CAUTION: Trickling on ANY electronic scale takes a certain amount of learning curve. Digital scales have "lock in" mechanisms designed to stabilize the readings and prevent constant fluctuations. If the trickling function is performed TOO SLOWLY, it is possible to "fool" the scale. In this case, the scale will remain locked on the reading displayed even though more powder is actually being added. When this occurs, it is possible to have a powder charge indicate a lighter weight than is actuality there. To prevent this, it is necessary to trickle at a rate that allows the scale to determine increased weight being added to the scale. It is always recommended that the final weight be "checked" periodically to make sure it is accurate, especially until the user is comfortable in the trickling function.**

FIG 13

CAUTION:

1. Place objects onto the weighing platform VERY GENTLY.
2. Do not weigh any object which will exceed the capacity of the scale. This could permanently damage the load cell sensor. (The scale's capacity of 1500 grains is equal to about 3.5 ounces.) The powder pan weighs about 175 grains and this must be considered.
3. Turn off the scale when not in use by pressing the "ON/OFF" key. This will prevent unnecessary battery drain. Also unplug both ends of the AC adapter when the scale is not in use.
4. Always keep the calibration weight clean. The effects of accumulated body oils and dirt can cause the calibration operation to be off by 1/10 of a grain or more.
5. Always keep the unit away from heat and direct sunlight.
6. The scale should be kept clean and away from moisture. Only clean with a clean dry cloth.

For REFUNDS within the 30 days of purchase, return the scale to:
Dillon Precision Products, Inc.
8009 E. Dillon's Way
Scottsdale, AZ 85260

For warranty REPAIR or REPLACEMENT, return the scale to:
Competitive Edge Dynamics USA
P.O. Box 486
2908 Betz Court (for UPS or Fed Ex returns)
Orefield, PA 18069
Phone: 610-366-9752
Fax: 610-366-9680
Email: info@cedhk.com

Please note that it is necessary to first call and obtain a RMA (Return Merchandise Authorization) number.

PACKAGE CONTENTS:

1 Dillon D-Terminator Scale	4 AA Alkaline Batteries	1 AC Adapter
1 Attached Weighing Platform	1 100 GRAM Calibration Weight	1 Powder Pan
1 Attached Draft Shield (Anti-static cover)		

Contact Dillon Precision for technical support at: 1-800-223-4570
Or FAX: 480-998-2786

The D-Terminator digital scale is covered by a one-year manufacturer's warranty.

Dillon Precision Products, Inc.