Operating manual

1.0 Basic Notice

The PowdermaticV1 enables the reloader, in connection with a digital scale, to dose nitrocellulose powders in a time-saving manner.
The accuracy of the dosing quantity depends on the accuracy of the digital scale.

ALWAYS CHECK EACH LOAD WEIGHT ON THE SCALE BEFORE FILLING POWDER INTO A CASE.
This product is a powder dosing tool, not a measuring tool.
The Powdermatic does not affect the accuracy or performance of the scale in any way. It doesn't stop you from setting an unsafe target weight. The Powdermatic will not notify you that your load is over, under, or on target or is not fireproof. The Powdermatic does not ensure that you have correctly zeroed the scale before weighing a load.
You are fully responsible for the operation of your scale and this product, and determine how much powder you place in your case and firearm.
You use this product at your own risk.
The developer, manufacturer and distributor of this product assume no liability for anything you do with this product.
Reloading is dangerous and you will be fully responsible for any damage caused to you, others or property, whether directly or indirectly related to the use of this product.
Proper reloading practices must always be employed.
Do not use black powder or black powder substitutes with this product. Black powder can be ignited by static electricity. This product contains electronics, motors, and moving metal parts and is not safe for use with black powder or other explosive materials.
The Powdermatic is warranted to be free from defects in materials and workmanship under normal use for a period of two years from the date of purchase. During the warranty period, any product or part of the product determined to be defective due to improper materials or workmanship under normal use and service will be repaired or replaced free of charge.
This product is intended for non-commercial use. Any other use of this product will void this warranty.
This warranty only applies to a Powdermatic that has not been modified in any way.
This warranty is only valid in conjunction with proof of purchase issued by an authorized dealer.

The Powdermatic is controlled using an app via a Bluetooth connection between the Powdermatic and a smartphone.
The Powdermatic is only an aid for powder dosing.

! The accuracy of the dosing quantity is only determined by the digital scale used.
! Carry out regular reference measurements with your digital scales in accordance with the scale manufacturer's instructions.

2.0 Intended use

The PowdermaticV1 you purchased is an aid for dosing nitrocellulose powder, which is fed into a dosing cup on the digital scale by rotating the dosing tubes.
The weight display of the digital scale is decisive here, whether the weight target amount is reached, fallen below or exceeded.

! The exact dosing quantity must be read off the display of the digital scale.
! Before each use of the Powdermatic, the digital scales must be checked according to the manufacturer's instructions.
! The PowdermaticV1 only gives an acoustic indication as to whether the dosing process is complete.
! The correctness of the weighed amount depends only on the digital scale.

Only the following nitrocellulose powders may be used:

- **Commercially available nitrocellulose powder for loading cartridge ammunition,**
- **Ball powder with a diameter greater than 0.4 mm**
- **Rod-shaped with a diameter greater than 0.4 mm and a length greater than 0.4 mm**
- **The use of flake powder is not permitted**
- **Dosing of black powder or black powder substitutes is not permitted**

Handling nitrocellulose powder requires official approval. The associated requirements regarding. Storage and handling of gunpowder must be observed. Before filling the powder container of the PowdermaticV1, an event. Electrostatic charging of the operator can be discharged by touching grounded conductors, such as radiators.
Observe the operating instructions of the manufacturer of the digital scale, especially the warm-up times and calibration.

3.0 Improper use / warning

Improper use occurs when:

- When using nitrocellulose powder which deviates from the above geometric specifications.
- When using black powder or black powder substitutes (danger of explosion)
- The operation
  - Below 10 C or greater than 40 C Celsius
  - humid environment
  - near sources of ignition or sources of heat, fire and open flames
  - Permanent storage of powder in the powder container of the PowdermaticV1
  - Operating the Powdermatic without covering the powder container
  - Operation of the digital scale deviating from the scale manufacturer's specifications.
  - Operation of the digital scale in weighing mode different from GRAIN
- Opening the Powdermatic or removing the drive cover

4.0 Initial start-up

During initial start-up, scale-specific data is transmitted to the Powdermatic.
Proceed as follows:

1. Install app
2. Give the app permission "Allow connection to nearby devices" (see the instructions for your smartphone)
3. Connect the scale to the Powdermatic using the data cable and switch on the scale
4. Switch on the Powdermatic
5. Pair the Powdermatic with your smartphone (see the instructions for your smartphone)
6. Open the app, select the scale, enter the serial number and confirm with "OK".
7. The "Client" field remains empty
8. Confirm the button "Agree" and in the following screen the button "Select Bluetooth device here"
9. The MAC address and "Powdermatic" will be displayed
10. Choose the Powdematic

11. The main screen appears. The target value is displayed with "0", the "actual value" with 0 or "-----". You will also see the successful connection under the Bluetooth symbol.
12. Turn off app, turn off Powdermatic
13. Switch on Powdermatic, switch on app. The scale type, serial number and client are now displayed
14. Press the "Agree" button
15. You will now see the "actual value" as 0.00 and the "target value" as 0. If you press lightly on the scale with your finger, the actual value changes accordingly.

This completes the initial start-up

4.1 After initial start-up

1. Turn on the scale
2. Switch on the Powdermatic
3. Switch on the app, the scale type, the serial number and the client are now displayed
4. Press the "Agree" button

You will now see the "actual value" as 0.00 and the "target value" as 0. If you press lightly on the scale with your finger, the actual value changes accordingly.

The system is now ready for operation

5.0 Specifications and Limitations

supply voltage	12V, 2,5 A Gleichspannung Euro Stecker 5,5 Außen-, 2,5 mm Innendurchmesser, Plus in Mitte
operating ambient temperature	>= 10 Grad C < = 40 Grad C
Bluetooth	V4.2
connection cable	RS232 Datenkabel, 9 PIN Sub-D Kern, A&D-Waage Typ Nullmodem G&G Typ 1:1 max. Länge 1,5 Meter, empfohlen 0,5 Meter
dosing range	Min. 3 Grain Max. 300 Grain
Weight	ca. 2 Kg
Volume of the powder container	ca. 175 ccm
Implemented data storage	1. All powder-specific dosing parameters 2. All relevant loading data
Implemented statistics	Display of: 1. Target-actual value comparison 2. Min-Max actual value for all dosing 3. Average actual value 4. Average dispensing time 5. Graphic representation of each actual value 6. Trend display
power-up sequence	1. Turn on the scale 2. Switch on the Powdermatic 3. Open the app and connect to Powdermatic. If you switch off the app after a connection, you must Also restart the Powdermatic and then reconnect to the app
Permitted powder types	• Commercial nitrocellulose powders for loading cartridge ammunition as follows: • Nitrocellulose spherical powder with a diameter greater than 0.4 mm • Nitrocellulose rod-shaped powder with a diameter of Greater than 0.4 mm and a length greater than 0.4 mm
NOT allowed powders	• The use of nitrocellulose flake powder is not permitted • Dosing of black powder or black powder substitutes is not permitted

5.1 Security Features

Implemented security features	
During the dosing process (for all dos	**Checking the data connection during the dosing process** » During the dosing process, the continuous increase of the dosed amount of powder is Checked. A weight loss of greater than one grain leads to an interruption of the dosing process And an acoustic warning. A new dosing process is then only possible after the dosing container has been emptied.
With manual start	**Before starting dosing, a check is made as to whether:** - the dosing container is on the scale (with App Level 5.1) » If the ACTUAL value is less than -0.3 grains, an acoustic warning is given - whether the dosing container has been completely emptied »at an ACTUAL value of > 0.1 grain, an acoustic warning is given T is not possible to start the dosing process
With auto begin	**Before the start of dosing,** **A check is carried out to determine whether the dosing container** is empty or was completely emptied. » If the ACTUAL value is >-1 and <= 0.8 grains, an acoustic warning is given It is not possible to start the dosing process
After the dosing process	»Acoustic signal The Powdermatic does not affect the accuracy or performance of the scale in any way. It doesn't stop you from setting an unsafe target weight. The Powdermatic does not inform you about That your charge is over, under, or at target, or is not fireproof. The Powdermatic does not ensure That you have correctly zeroed the scale before weighing a load.

6.0 Operation via app

The Powdermatic is controlled by an app, only for the Android operating system. All designations with a “blue” background are function keys.
Sliders are "yellow", switches are "green" when switched on. The parameters of the sliders can also be entered manually by pressing the no number field.
The functional acts

1 SET button ==> Enter the target value. "Reset" button ==> delete the target value
2. Slider
    1. MassFill determines when the mass filler stops.
       Small value = mass filler stops later,
       large value = bulk filler stops earlier,
    2. Start Slow determines when the trickling process begins.
       Small value = trickle process starts late,
       large value = trickle process starts early
    3. Speedway determines the trickel speed
       Small value = low speed
       large value = fast speed
    4. Tolerance determines the allowable tolerance
    5. Dampening affects the end of the dispensing process
       e.g. 0.01 = the system stops at target tolerance damping.
       From firmware T6, an automatic Trick to target
    6. Semi-automatic,
       On = the dosing process begins when 2 grains have been manually dosed into the dosing cup
    7. dual mode,
       On = both dosing tubes are active
    8. Full automatic,
       On = the dosing process begins after the dosing cup is placed on the scale
    9. Step Flow
       On = for fine dosing, the small dosing tube rotates alternately.
    10. StepSpeed
       If Step-Flow is switched on, the setting option "StepSpeed" appears
       High value = long movement, larger amount of powder
       Small value = short movement, small amount of powder
       With an optimal setting, only one grain of powder can be dosed
    11. Auto tare (from App Level 5.1)
       On = the Powdermatic makes a tare before each dosing process

If your smartphone or tablet does not implement functions properly, close all apps activated in the background.
A detailed description of all functions can be found at https://www.powdermatic.eu
See the corresponding videos

7.0 Care & Cleaning

Only use a soft brush to clean the powder container of the PowdermativV1.
Never use liquids or hard objects for cleaning.
Only use a soft cloth to clean the outside.

8.0 Revision Index

02/05/2023:	Point 2.0 added to the operating instructions of the scale manufacturer
	Section 6.0 of the term StepFlow added
	Added term StepSpeed
	Item 7.0 newly recorded
19:02.2023	Point 5.1 newly recorded
02/24/2023	Point 1.0 updated
	Point 5.0 updated
	Section 5.1 updated

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