DORAN

Model 7000

Digital Scale

Digital Weight Indicator

Model 7000M

OPERATOR MANUAL

Made in USA

Introduction

Introducing the Doran Scales, Inc. Model 7000, 7000XL, 8000XL Digital Scale Indicator. This scale uses state of the art technology to provide you with a low cost solution to the most demanding weighing applications. With ease of use and setup in mind, the scale is simple to set up and ready to use. The Model 7000, 7000XL, 8000XL offers many features. A few of these features are listed below:

- NTEP certification for Class III installations to 10,000d (CoC 99-129).
- A six digit, 0.56" red LED display for easy reading.
- lb, kg, oz, g, lb-oz display units supported.
- Fully configurable duplex printer port with RS232 support.
- EEPROM nonvolatile data storage of all calibration and setup information.
- Microprocessor monitoring system to prevent scale failure under severe fault conditions.
- Support for up to four 350 ohm load cells.
- 115/230 VAC 50/60 Hz (jumper selectable) operation.
- Field selectable digital filtering.
- Software configurable remote push-button support (Optional).
- Non NTEP parameters are user configurable.
- Password protected, Front Panel Calibration Access Feature (Optional on 7000).
- 60 hour of battery operation, with built in charger (8000XL).
- Six digit, 0.56" red LED remote display (Optional).
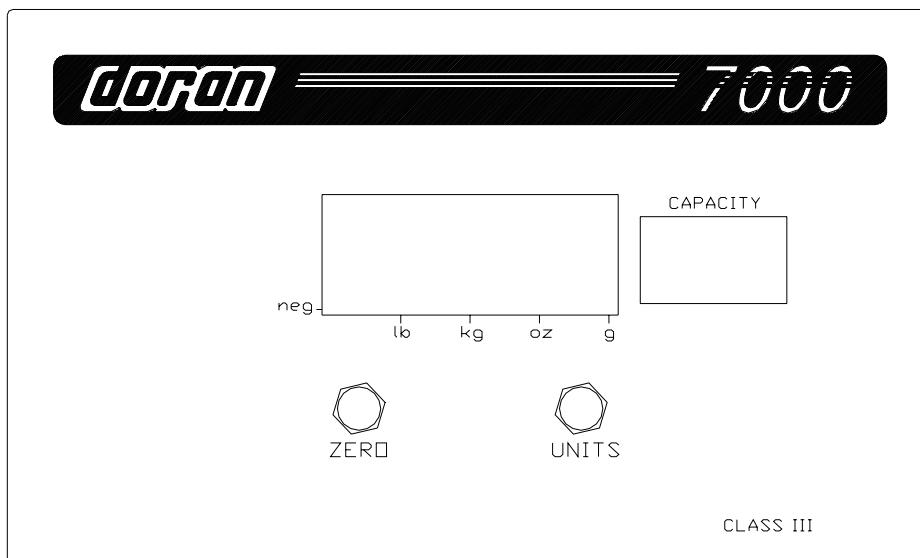- 4-20mA analog output (Optional).

Please be sure to read the entire manual to ensure obtaining all the benefits that the Model 7000, 7000XL, 8000XL can provide. If any questions arise, please feel free to contact the Doran Scales Technical Support Department at 1-800-262-6844.

Unpacking Your Scale
Before unpacking your Doran scale, please read the instructions in this section. Your new scale is a durable industrial product, but it is also a sensitive weighing instrument. Normal care should be taken when handling and using this product. <u>Improper handling or abuse can damage the scale and result in costly repairs that will not be covered by the warranty</u>. If you notice any shipping damage, notify the shipper immediately. Please observe the following precautions to insure years of trouble free service from your new scale.
- DO NOT drop the scale.
- DO NOT immerse the scale.
- DO NOT drop objects on the platform.
- DO NOT pick up the scale by the "spider."
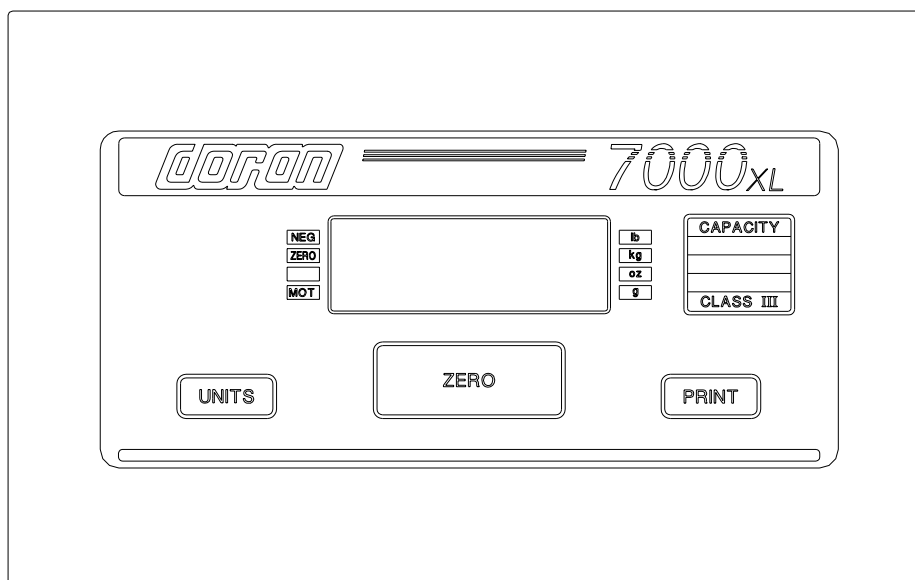- Carefully remove the scale from the shipping carton.

Quick Start User's Guide

Fig. 1: Model 7000 Front Panel Layout
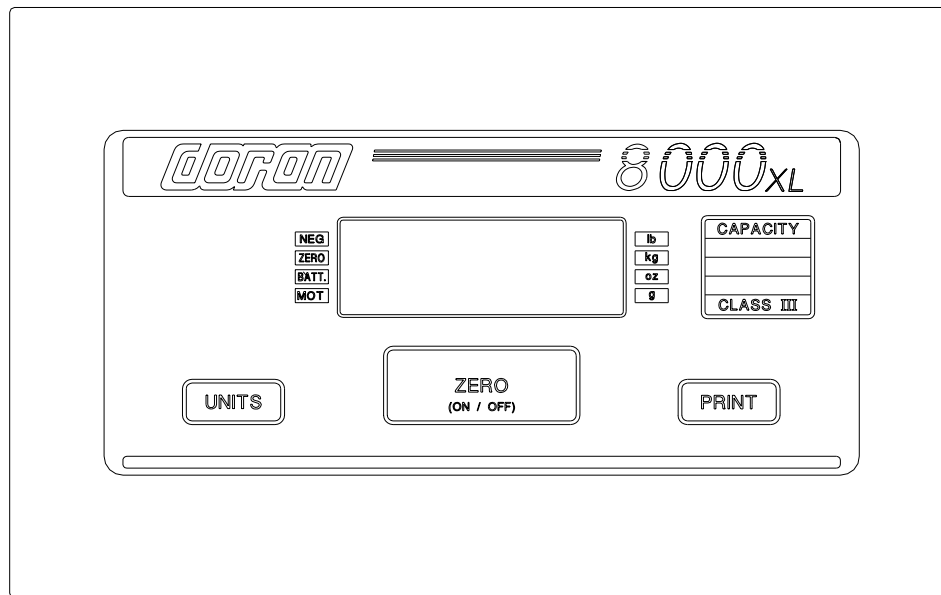
Model 7000:

The Model 7000 (Fig. 1) controls consist of the **ZERO** and optional **UNITS** buttons located under the main display. A six-digit LED display is used to provide weight indications, negative polarity (except lb/oz) and operator messages describing scale operation. A status annunciator, "NEG," is used to display negative polarity as well as the minus sign (except in lb & oz). The "NEG" LED is located in the lower left corner of the display area. Four LED's located at the bottom of the display indicate the current weighing units. Motion is indicated when the units LED's are off. The LED's are on when stable.

Fig. 2: Model 7000XL Front Panel Layout

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Model 7000XL:

The operational controls for the Model 7000XL (Fig. 2) consist of the **ZERO**, **PRINT** and **UNITS** buttons. A six digit LED display is used to provide weight indications and operator messages describing scale operation. Scale status such as motion (MOT), polarity (NEG) and center of zero (ZERO) is displayed on annunciators located to the left of the display area. Scale units are displayed on four annunciators located to the right of the main display.

Fig. 3: Model 8000XL Front Panel Layout

Model 8000XL:

The operational controls for the Model 8000XL (Fig. 3) consist of the **ZERO (on/off)**, **PRINT** and **UNITS** buttons. A six digit LED display is used to provide weight indications and operator messages describing scale operation. Scale status such as motion (MOT), polarity (NEG), center of zero (ZERO), and low battery (BATT) are displayed on annunciators located to the left of the display area. Scale units are displayed on four annunciators located to the right of the main display.

Power Up:

Connect the Model 7000, 7000XL to a compatible power source. With the 8000XL, press and release ZERO to turn on scale.

Basic Weighing Operation:

1) Remove all items from the scale platter.
2) Press ZERO to zero the scale. The weight display should now read zero.
3) Place an item on scale platter and wait for the motion (MOT) indicator to go out, indicating a stable weight.
4) Read the weight on the scale display.

Turn Off: (8000XL)

1) To turn off manually, press and hold the ZERO push button until the display shows "rEL Pb" Then release, the ZERO button and, the indicator will turn off, or…
2) Indicator will turn off automatically at the end of the unit on timer setting when that mode is selected (see page 23).

Low Battery Indication: (8000XL)

The "BATT" indicator indicates that the battery is in need of recharging. Once the "BATT" indicator turns on, there will be approximately one more hour of battery life before the scale shuts down. When the battery is too low to run the scale, the Model 8000XL simply turns off and will not operate again until the battery is recharged. The Model 8000XL remains accurate and useable even with the "BATT" indicator on.

Note: Battery life can vary depending on the following:

- The operating temperature.
- If optional remote display is installed.
- Whether or not the battery is fully charged after each low battery event.
- Load cell input impedance.

Electrical Connections:

Prior to connecting your Model 7000, 7000XL, 8000XL to power, check the serial number tag on the scale for the correct operating voltage. Verify that the power matches the rated voltage.

Be sure the AC power is not excessively noisy - this can occur if large inductive loads, such as solenoids or motors, are on the same power line. The Model 7000, 7000XL, 8000XL has a filtered power supply to reduce the effects of normal line noise, but they cannot limit severe fluctuations. If problems occur, noise producing devices may have to be suppressed to minimize their effect.

Zero:

The ZERO push button is used to zero the scale prior to making a reading. The zero button can function over the full range of the scale or it can be limited to a zero band equal to 4% of scale capacity for Canadian Legal for Trade applications. To zero the scale, wait until the scale is stable and press the ZERO button. The scale will zero immediately. The scale will not "zero" if the scale is in motion. The scale is equipped

with an optional "Zero on Demand" feature which holds "zero" requests until motion stops. This option may be activated during the scale setup procedure.

Units:

The UNITS button permits the operator to change the 7000XL, 8000XL, and 7000(optional) units by pressing a button. After pressing UNITS, the next display update will indicate the correct weight in the new units. The UNITS button has several configuration parameters, which can disable the UNITS button or limit the display units available.

Print:

The PRINT button permits the operator to send data to a printer or other external devices. Like the ZERO button, the user must wait for motion to stop before pressing the PRINT button. The current weight will then be transmitted to the printer. The 7000XL, 8000XL, and 7000(optional) has a "Print on Demand" feature which stores a PRINT request until the scale is stable. Once stable, the scale transmits the current weight. These models also have several automatic print options, which may be used to simplify printer operation.

Battery Operation: (8000XL)

The 8000XL is equipped with a self-contained rechargeable, sealed, gelled-electrolyte battery and charging circuit, both internal. The 8000XL is designed to run continuously for 60 hours (with one 350 ohm loadcell) on a fully charged battery. The charging circuit will fully charge the battery in approximately four hours. To charge the battery, simply plug the line cord into a standard 115V (230V optional) wall outlet.

The 8000XL can be used while recharging the battery, in fact, the 8000XL can be used with the AC charger cord plugged in on a continuous basis. A full recharge takes four hours, whether the 8000XL is on or off.

If an AC power failure occurs with the charger plugged in, the 8000XL battery immediately takes over to provide uninterrupted scale operation for up to 60 hours.

The 8000XL's charging circuit is a two-stage, current limited type charger. The 8000XL will sense the charge condition of the battery and charge at a high rate when the battery is depleted. When the battery comes up to a fully charged state, the charger will switch to a "float" or "trickle" mode which maintains the battery at a fully charged state without overcharging.

The "BATT" indicator indicates that the battery is in need of recharging. The 8000XL will continue to operate accurately for approximately four hours (with one 350 ohm loadcell) after "BATT" is lit. When the battery is too low to run the scale, the 8000XL simply turns off and will not operate again until the battery is recharged. At this point, when ZERO (ON/OFF) is pressed, the "BATT" indicator will be lit as the 8000XL performs its display test and then the scale will shut down immediately. This eliminates any potential scale errors.

Limited
Warranty

DORAN SCALES, INC. warrants its products to be free from defects in material and workmanship for a period of two (2) years from date of shipment. Any product found to be defective within this time period may be returned to DORAN's factory, freight prepaid, with prior return authorization for repair or replacement at no charge.

DORAN's liability under this warranty is limited to the repair or replacement of the defective product and in no event shall DORAN be liable for consequential or indirect damage to equipment or personnel. Nor shall DORAN be liable for damages to equipment or for personal injury caused by misuse, overload, accidental damage, alteration, improper installation, or unauthorized opening of the equipment. Under no circumstances will DORAN be responsible for any indirect or consequential damages due to errors in weighing or failure of a DORAN product to perform properly.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. THIS WARRANTY CONSTITUTES DORAN'S EXCLUSIVE WARRANTY. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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