

# DFT SERIES

## Digital Force Gauge

The CHATILLON® DFT Series are equipped with sophisticated force measurement capabilities including programmable test parameters and the ability to store up to 100 test readings in memory. The gauge features an easy-to-use and logical display hierarchy to guide users through operations. Dedicated function keys and intelligent display prompts also simplify gauge operation without compromising performance or functionality. The DFT gauge has a 1000 Hz sampling rate making it ideal for capturing peak readings. Using the integral RS232 serial communications, users can download data directly into popular office software including WORD®, EXCEL® and ACCESS® for custom reporting. A large, easy-to-read LCD display with adjustable contrast minimizes poor light conditions.

### FEATURES

- Simple to Setup, Operate and Maintain
  - Dynamic Display Hierarchy
  - Dedicated Function Keys
  - Intelligent Prompts
  - Self-Diagnostics
- Powerful Data Management
  - 1000 Hz Sampling
  - Store Up to 100 Readings
  - Export to EXCEL, ACCESS and WORD
- RS232 Serial Data Communications
- Overload Capacity- 110% of Rated Capacity
- Hand-held or Test Stand Applications

### SPECIFICATIONS

Accuracy:  $\pm 0.15\%$  of Full Scale  $\pm 1$  LSC  
 Selectable Units: oz, g, lb, kg, N  
 Overload Capacity: 110% of rated capacity  
 Display: LCD, 4-1/2 characters  
 Sampling: 1000Hz  
 Outputs: RS232, Mitutoyo  
 Power: AC Adapter, NiCd Battery Pack  
 Accessories: Carrying Case, Attachments  
                   Extension Rod, Battery Charger  
 Weight: 2 lbs (0.9 kg)  
 Warranty: 1 Years



*DFT Series Handheld Digital Gauge*

**SPECIFICATION**  
 SS-FM-3113-0201  
 February 2001



*Pharmaceuticals*



*Electronics*



*Medical Device*

### INTERNET

[www.ametek.com](http://www.ametek.com)  
[www.chatillon.com](http://www.chatillon.com)  
[www.lloyd-instruments.co.uk](http://www.lloyd-instruments.co.uk)

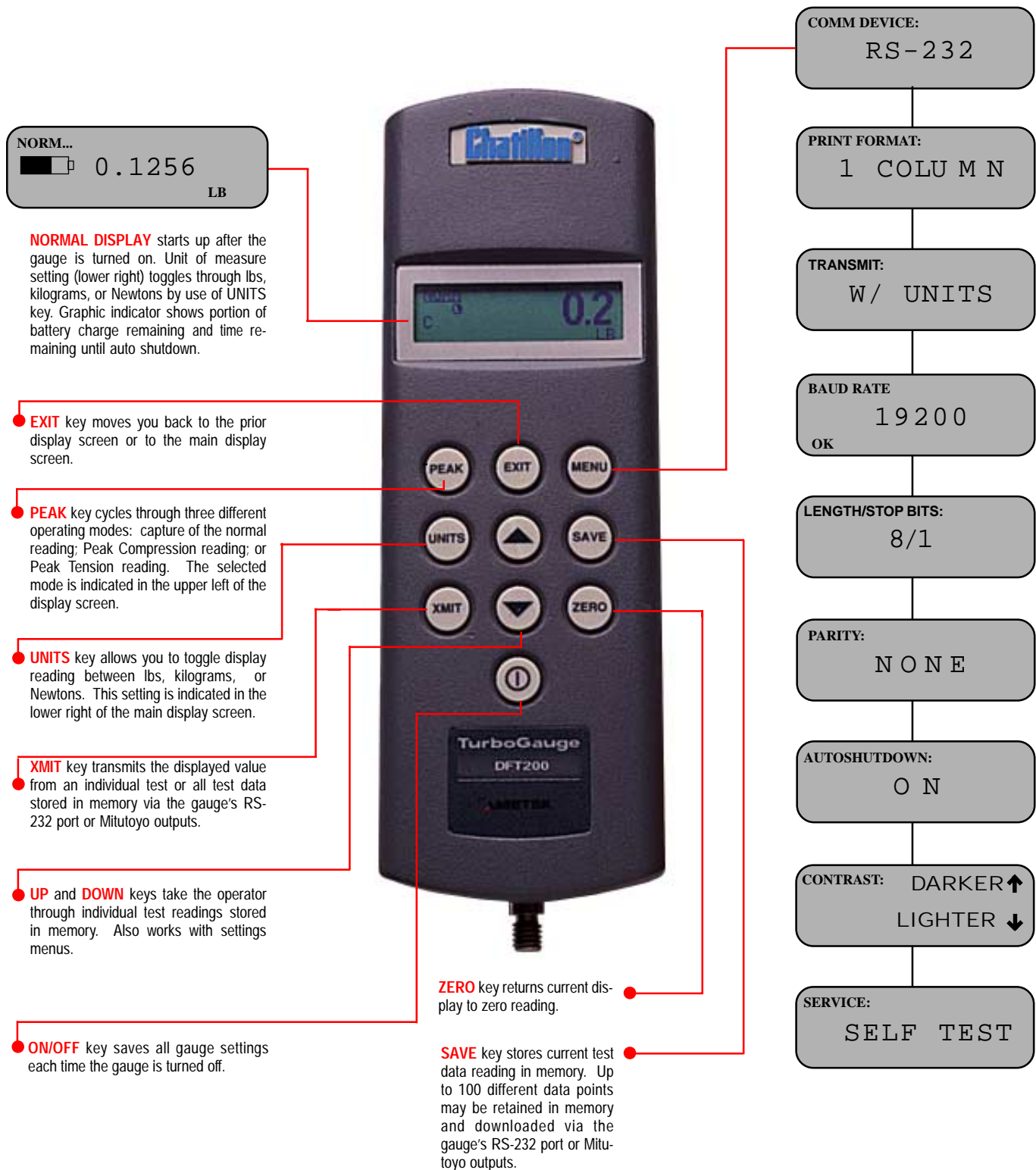
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 LLOYD INSTRUMENTS is a trademark of AMETEK, Inc.  
 EXCEL, WORD, ACCESS are registered trademarks of Microsoft Inc.

## EASY-TO-USE INTERFACE

DFT Series Gauges put a powerful INTEL® microprocessor in your palm, allowing you to collect up to 100 reviewable data readings in memory, then download them via the gauge's RS-232 port. You follow a simple hierarchy of display prompts to change gauge settings. The DFT Series' architecture will enable you to add features and functions as technologies emerge, thus preventing gauge obsolescence. As your needs evolve, so can the features of your gauge.

Pressing the **MENU** key cycles the display through nine different screens, allowing you to adjust gauge settings (below)

Settings are adjusted by using the UP and DOWN keys. Use of EXIT key takes operator back to normal startup screen.



## SPECIFICATIONS

**Accuracy:**  $\pm 0.15\%$  of Full Scale

### Data Storage

Stores up to 100 readings

### Sampling Rate

1000 samples per second

### Deflection

0.010-inch (0.254mm) maximum for full load

### Safe Overload

Gauge will display "OVERLOAD" when the force applied exceeds 116% of the gauge capacity.

### Maximum Overload

150% of gauge capacity. Load cell deformation may occur when overload exceeds 150%. Note: Gauge reading will not exceed 121%. If you feel the gauge may have exceeded the gauge capacity, contact your local AMETEK Representative.

### Tare Capacity

10% in order to utilize full scale (in lb Mode); can tare more than 10%, however, user may not have the use of gauge's full scale capacity during testing

### Analog Output

0 to  $\pm 2.0$ Vdc full scale, accurate to  $\pm 0.015$ V

### Digital Input/Output

+5V signal when High or Low setpoint is reached

### Display

32 x 122 pixel LCD dot matrix  
Adjustable contrast

### Display Refresh

250mS refresh in Normal and Peak modes

### Keypad

Six dedicated function keys with labels: LIMITS, EXIT, SAVE, XMIT, ZERO and ON/OFF.

Four dynamic function keys which change based on display context.

Keys feature audible and tactile feedback.

### Data Collect Mode

100 samples per second

### Communications

Bi-directional RS-232 serial data communications, transmits up to 100 data points per second. User-selectable baud rates from 300 to 115,200. MITU-TOYO output.

### Power

Rechargeable 8-hour NiCad battery, or continuous AC operation using battery charger supplied (110Vac or 220Vac)

### Battery Life

8-10 hours of continuous operation between charges

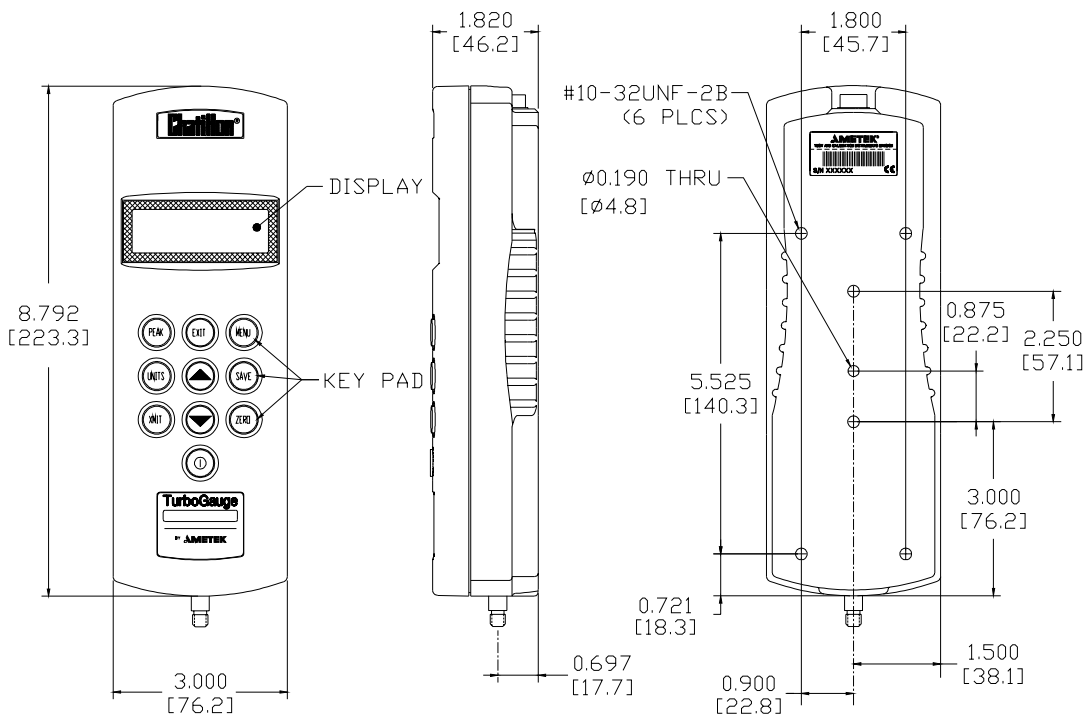
### Temperature Range

40° to 110°F (5° to 45°C)

### Temperature Stability

0.03% per °F

## DIMENSIONS



## ORDERING INFORMATION

### Integral Loadcell Models

Model	Capacity
DFT2	2 lb x 0.002 lb
	1 kg x 0.001 kg
	10 N x 0.01 N
DFT10	10 lb x 0.01 lb
	5 kg x 0.005 kg
	50 N x 0.05 N
DFT50	50 lb x 0.05 lb
	25 kg x 0.02 kg
	250 N x 0.2 N
DFT100	100 lb x 0.1 lb
	50 kg x 0.05 kg
	500 N x 0.5 N
DFT200	200 lb x 0.2 lb
	100 kg x 0.1 kg
	1000 N x 1 N
DFT500	500 lb x 0.5 lb
	250 kg x 0.2 kg
	2500 N x 2 N

Add "-220V" after the model number if you require 220V operation, e.g. DFT2-220V.

### STANDARD ACCESSORIES

	Part No.
Operator's Manual	SPK-DFT-072
Carrying Case	SPK-FMG-073
Chisel Point	SPK-FMG-008A
Chisel Point	SPK-FMG-008B
Point Adapter	SPK-FMG-009A
Point Adapter	SPK-FMG-009B
Notch Adapter	SPK-FMG-010A
Notch Adapter	SPK-FMG-010B
Flat Adapter	SPK-FMG-011A
Flat Adapter	SPK-FMG-011B
Hook, 250g - 10 lbs	SPK-FMG-012A
Hook, 50 - 100 lbs	SPK-FMG-012B
Extension Rod	SPK-FMG-013A
Extension Rod	SPK-FMG-013B
Battery Charger 115V	SPK-FMG-069A
Battery Charger 220V	SPK-FMG-069B

### TEST STAND MOUNTING KITS

	Part No.
LTS	NC000300
LTC	NC000300
HTC	NC000225
LTCM-6	NC000300
TCM201/TCM200	NC000300
TCM/TCD500	NC000626
TCM/TCD1000	NC000627

Request document PS-FM-3113 for a complete Parts List.



### TEST AND CALIBRATION INSTRUMENTS

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