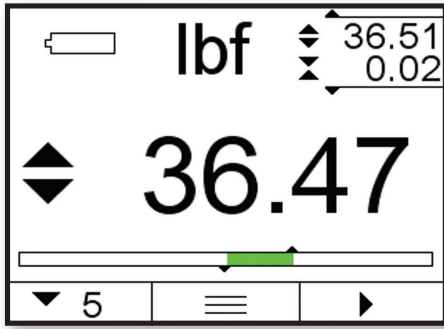


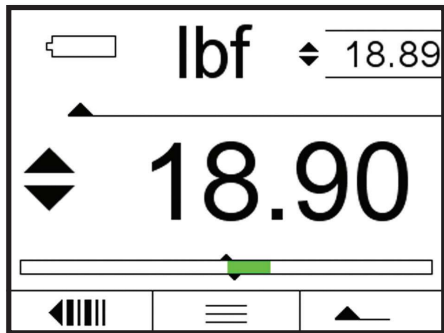


DIGITAL FORCE GAGES



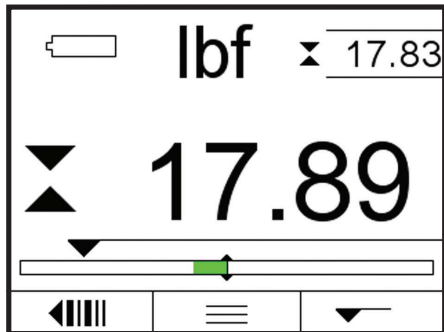
**Real Time View**

Primary window shows active load being applied to the load cell. The secondary windows shows the measured peak in tension made - 36,51lbf.



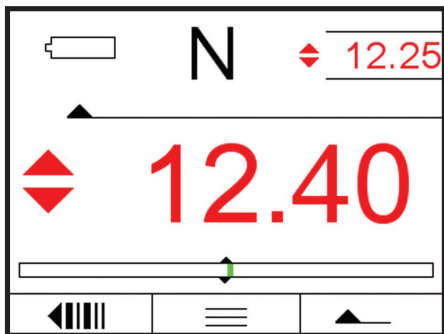
**Tension Peak View**

Shows maximum load measured in primary window. Secondary window shows real time load.



**Compression Peak View**

Shows maximum load measured in primary window. Secondary window shows real time load.



**Tolerance View**

When a tolerance is used, out-of-tolerance results display in red.

**DFG DIGITAL FORCE CONTROLLER**

The DFG is our basic force gage. The gage measures force at an accuracy of better than 0.2% full scale.

The DFG is ideal for basic tensile and compression testing. Test setup and operation is fast, efficient and easy for anyone. The DFG display shows the test direction and dynamic load during testing. Results are displayed at the completion of testing, including "Pass-Fail" when tolerance is applied. The gage will display statistics when results are saved to the gage's internal memory. Store up to 50 test results in local memory.

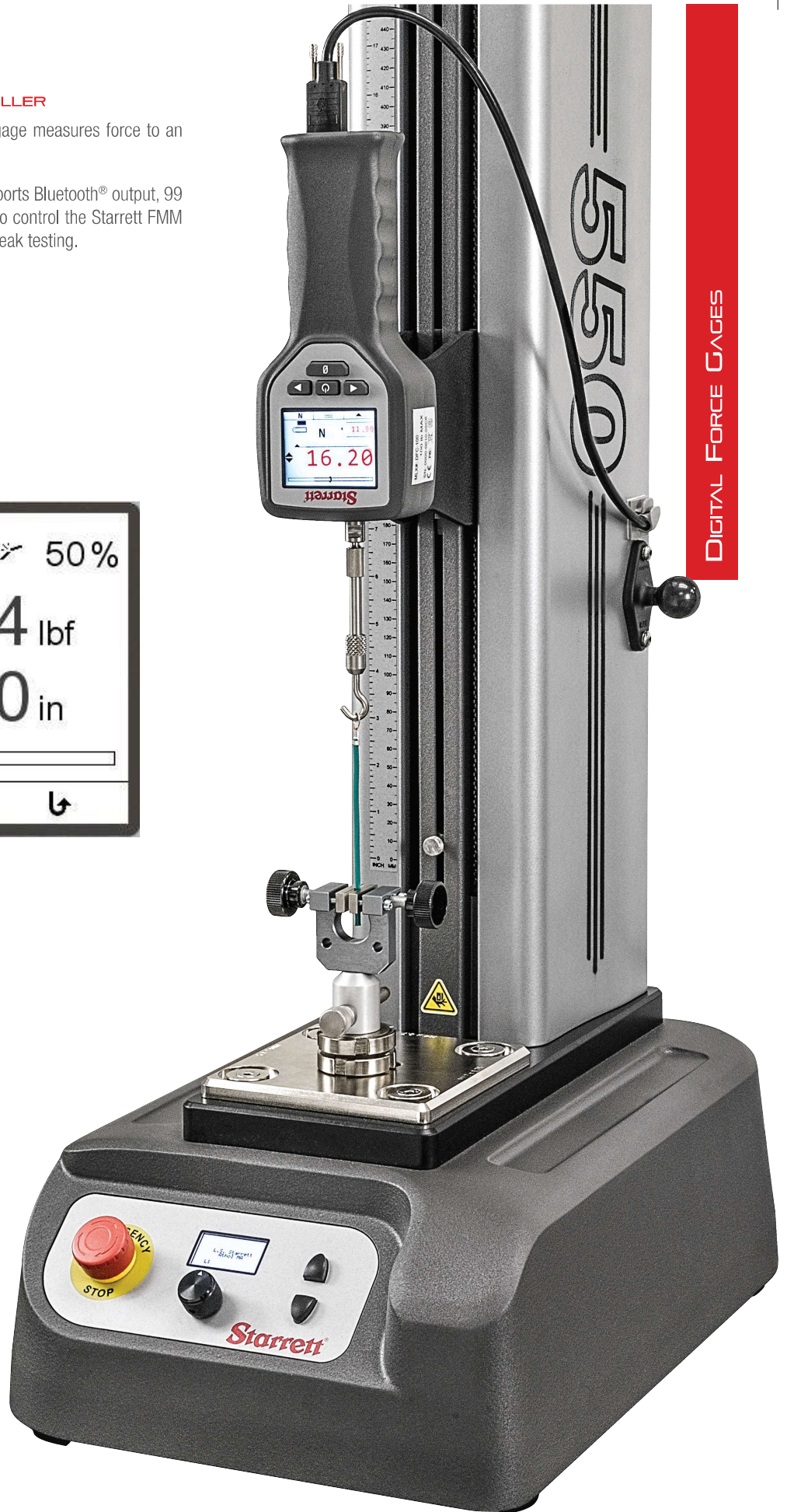
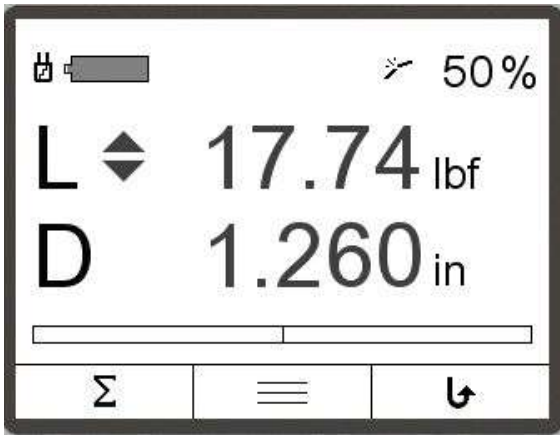




### DFC DIGITAL FORCE CONTROLLER

The DFC is our advanced force gage. The gage measures force to an accuracy of better than 0.1% of full scale.

In addition to the DFG features, the DFC supports Bluetooth® output, 99 results saved in memory, and can be used to control the Starrett FMM motorized test for basic load distance and break testing.



## FEATURES

- Use as handheld instrument or mount to Starrett test frames: FMM, MTL and MTH.
- Excellent display resolutions:
  - DFC 10,000:1
  - DFG 5,000:1
- Precise and accurate load measurements:
  - DFC 0.1% full scale
  - DFG 0.2% full scale
- Load sensors have safe overload rating of 200%
- High-resolution OLED color display with adjustable backlight and Auto Off feature
- Supplied with NIST-traceable Certificate of Calibration
- 3-year warranty
- Metric threads for screw-on attachments. Can be fitted with clevis adapters that fit hundreds of Starrett test fixtures.
- A primary and secondary display window shows your results. Out-of-tolerance results display in red.
- Adjustable sampling rates help you capture peak loads. Filters can be applied to peak and display values.
- Multiple display languages.
- Battery provides more than 30 hours of continuous operation. Charge battery using USB cable.
- Change display (Flip feature) orientation without having to expose electronics.
- Easy-to-use multi-function keypad. Softkeys are programmable to your most used functions.
- Programmable sounds for alarms, such as an out-of-tolerance result
- Cast-aluminum housing
- Comfort grip for handheld testing applications.



The USB connection is used for charging the battery or for transmitting data to a personal computer. The RS-232 cable is used for connection to the FMM Digital Tester. The DFC also has Bluetooth®.





# DIGITAL FORCE GAGES

## SPECIFICATIONS

Digital Force Gages		
Specification	DFC	DFG
Accuracy, Full Scale	0.1%	0.2%
Data Sampling (Hz)	25,000	10,000
Display Resolution	10,000:1	5,000:1
Safe Overload, Full Scale	200%	200%
Maximum Tare	10%	10%
Communications		
Bluetooth®	Yes	No
USB 2.0	Yes	Yes
RS-232	Yes	Yes
Digital I/O	2 channels	No
Memory, maximum results saved in gage	99	50
Operating Mode		
Machine Control¹	Yes	No
Real Time	Yes	Yes
Peak Compression	Yes	Yes
Peak Tension	Yes	Yes
Load Limit	Yes	Yes
Break Limit	Yes	No
Load Average	Yes	No
Load-Time Average	Yes	No
Cyclic Count (99,999 maximum)	Yes	No
Cyclic Duration (27 hours)	Yes	No
Hold Duration (27 hours)	Yes	No
Contact Closure	Yes	No
Power, Environmental		
Battery Type	Lithium Ion	
Battery Life, typical @ 20% brightness	>30 hours	
Charge Time, using 110/240V Mains	<3 hours	
Display	OLED High Resolution	
Operating Temperature	40°F to 110°F (4°C to 43°C)	
Thread, for adapters	Metric M6, M10	
Instrument Weight (approx.)	3lbs (1.36kgs)	

### NOTES

- Machine control is exclusive to the DFC. When connected to the FMM Digital Force Tester, configuration of force gage and tester is performed through the gage.

## ACCESSORY KITS

The DFC and DFG Force Gages are supplied with a complete accessory kit. The kit includes a hook, notch, chisel, flat, and point adapter. A 6" extension rod is included. Adapter materials are stainless steel. Aluminum is used for 2lbf (10N) and 10lbf (50N) capacities.

Included with the force gage is a carrying case, USB cable, a set of testing accessories, a Quick Reference Guide and NIST-traceable Certificate of Calibration.



Force gage standard accessories

DFC - Advanced Force Controller										
Model No.	Load Capacity					Safe Overload % Full Scale	Full Scale Deflection		Thread mm	Accessory Kit
	N	KGF	LBF	OZF	GF		in	mm		
DFC-2	10	1	2	32	900	200	0,013	0,33	M6 x 1-6H	SPK-FG-A
DFC-5	20	2	5	80	2200	200	0,007	0,18	M6 x 1-6H	SPK-FG-A
DFC-10	50	5	10	160	5000	200	0,006	0,15	M6 x 1-6H	SPK-FG-S
DFC-20	100	10	20	320	10,000	200	0,008	0,20	M6 x 1-6H	SPK-FG-S
DFC-50	250	25	50	800	25,000	200	0,015	0,39	M6 x 1-6H	SPK-FG-S
DFC-100	500	50	110	1600	50,000	200	0,024	0,60	M6 x 1-6H	SPK-FG-S
DFC-200	1000	100	225	-	-	200	0,021	0,54	M6 x 1-6H	SPK-FG-M
DFC-500	2500	250	550	-	-	200	0,028	0,70	M10 x 1,5-5H	SPK-FG-L

### NOTES

Load measurement accuracy is  $\pm 0.1\%$  of load cell capacity. Display resolution is 10,000:1.

DFG - Basic Force Controller										
Model No.	Load Capacity					Safe Overload % Full Scale	Full Scale Deflection		Thread mm	Accessory Kit
	N	KGF	LBF	OZF	GF		in	mm		
DFG-10	50	5	10	160	5000	200	0,006	0,15	M6 x 1-6H	SPK-FG-S
DFG-20	100	10	20	320	10,000	200	0,008	0,20	M6 x 1-6H	SPK-FG-S
DFG-50	250	25	50	800	25,000	200	0,015	0,39	M6 x 1-6H	SPK-FG-S
DFG-100	500	50	110	1600	50,000	200	0,024	0,60	M6 x 1-6H	SPK-FG-S
DFG-200	1000	100	225	-	-	200	0,021	0,54	M6 x 1-6H	SPK-FG-M
DFG-500	2500	250	550	-	-	200	0,028	0,70	M10 x 1,5-5H	SPK-FG-L

### NOTES

Load measurement accuracy is  $\pm 0.2\%$  of load cell capacity. Display resolution is 5,000:1.