Mecmesin
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Myometer

Operator Manual

Mecmesin
FORCE & TORQUE TEST SOLUTIONS
www.mecmesin.com

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Mecmesin AFG Myometer

The Mecmesin AFG Myometer is intended for ergonomic evaluation only. It will accurately indicate muscle strength required for or applied to physical tasks, sports, and other recreational activities. It is not intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease, in man or other animals.

Part no. 431-378-03

Contents

Your Myometer

Thank you for choosing Mecmesin's AFG Myometer. With correct use and regular re-calibration it will give many years of accurate and reliable service.

The Mecmesin Myometer is an ideal instrument for evaluating the weakness of individual muscles or group of muscles by calculating the Constant score. Based on the latest technology, the Myometer gauge can be used to accurately measure muscle strength, for example, with regard to rehabilitation—e.g. evaluation of shoulder and other limb function, yet remains a very simple to use tool to use.

Before use

On receipt please check that no physical damage has occurred to the packaging material, plastic case or the instrument itself. If any damage is evident, please notify Mecmesin immediately.

Overview

The Mecmesin AFG Myometer is a 'dedicated application' instrument. The most commonly-used features, including displaying force, peak hold, zero, and changing units of measurement, can all be done by pressing a single key on the front panel, shown with grey text. The Constant score function is easily accessed from the main menu, page 1.

Powering the Myometer

The Myometer is supplied with a set of five nickel metal hydride (NMH) AAA rechargeable batteries, which are supplied fully charged to allow use straight from the box.

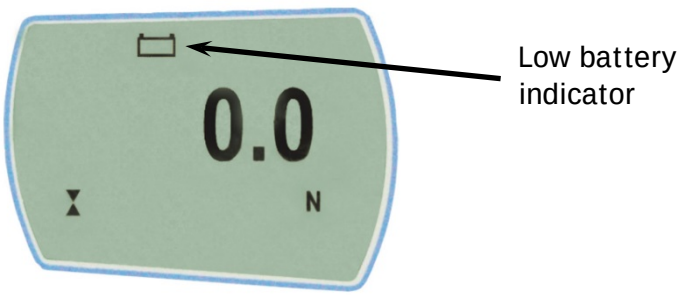
Replacing batteries

To replace the batteries, first remove the two retaining screws from the battery cover. Remove the old batteries and fit five new ones. Be sure to observe correct polarity. The batteries are placed on top of the 'release tag', which enables quick and easy removal.

Refit the cover and tighten the screws. Connect the mains adapter/charger to the Myometer charger socket located at the upper right-hand side of the instrument, and charge the batteries for 14 to 16 hours. **Only use the adapter/charger supplied.** A fully charged battery pack will provide approximately 20 hours constant use between charges.

Low battery warning

There will be an audible alarm, and a low battery symbol will appear in the display approximately two minutes before the gauge automatically powers down.



Mains operation

The Myometer can also be powered directly from the mains. This can be achieved with or without the rechargeable batteries being fitted. Connect the mains adapter/charger to your mains supply. Only use the adapter/charger supplied. If rechargeable batteries are fitted, a trickle charge will be applied to the batteries with the display switched on or off.

Fitting of alkaline batteries

The Myometer can also be powered by AAA 1.5V alkaline batteries (not supplied). For the fitting of alkaline batteries, follow fitting instructions as per rechargeable batteries above. **Warning**: when alkaline batteries are fitted, the mains adaptor/charger must NEVER be connected to the Myometer due to the risk of acid leakage, which could damage the instrument.

Battery safety information

NEVER:

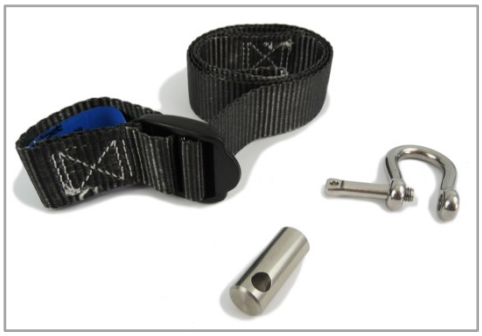
- Short circuit
- Disassemble or deform cells
- Heat or incinerate
- Immerse in water
- Solder anything to the battery terminals
- Reverse individual cell polarity
- Use alternative chargers to those supplied by Mecmesin
- Use replacement parts other than as supplied by Mecmesin

Never dispose of batteries with 'normal' refuse. Contact your local Environmental Authority to determine the location of your appropriate disposal facility.

Using the Myometer

Accessories

Your Myometer is supplied with the following accessories:



1. Operating instructions
2. Myometer mounting bracket
3. Accessory kit including M6 bow shackle & wrist/ankle strap
4. Emperor Lite software
5. Cables: RS232 9 way (351-059) & USB-Serial adaptor (351-068)
6. Calibration certificate
7. Transit case

If any of these accessories is missing or damaged, please contact Mecmesin or their Authorised Agent immediately.

Fitting accessories

The Myometer comes supplied with a wrist/ankle strap and a universal mounting bracket designed to be fitted to a table. The following pictures can be used as your main guide for the final installation of the Myometer.

Please note that the Myometer is not designed for function with external 'Smart' sensors.

Table edge mounting

Gauge attachment

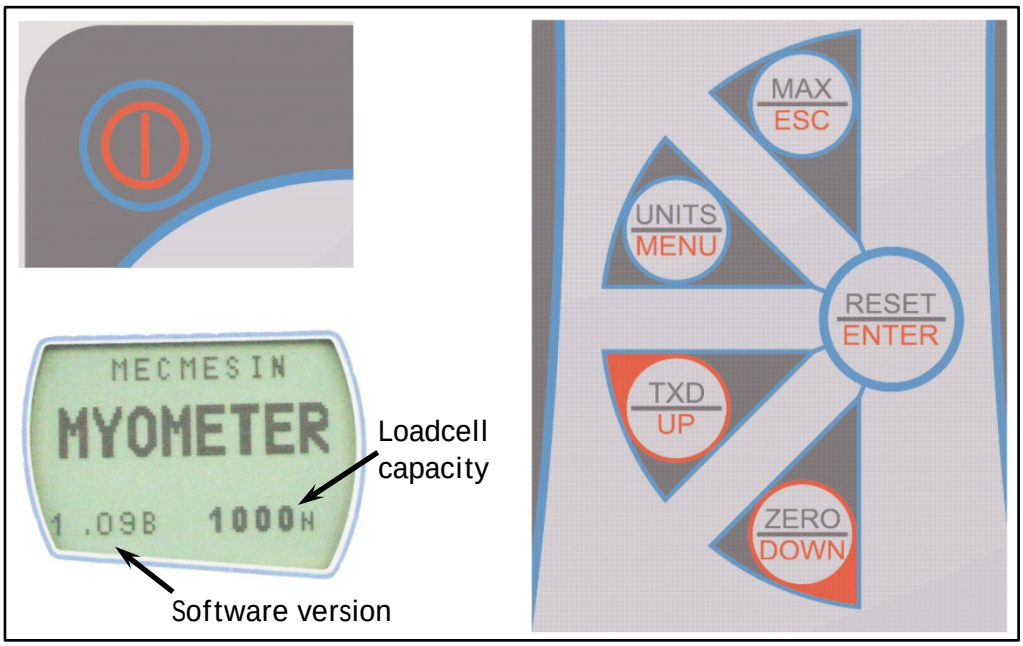
Wrist strap in place

Vertical use

Horizontal use

Switching on

The control panel has five function keys and an On/Off key: To switch the gauge on, press the red key. A short self-test runs, during which the display will show the model, and the capacity in newtons.



Note: The current version of the gauge's operating software appears in the bottom left corner of the start-up screen. This may differ from the illustration above.

After the self-test, providing no load has been applied to the instrument, the display will show all zeros. This is because the gauge re-zeros itself during the self-test routine. It is best not to move the Myometer around during the self-test.

If a compressive or tensile force is applied to the sensor probe (located at the bottom of the Myometer), the reading on the display will register the applied force.

NB: All the current settings are saved when the gauge is turned off, and the gauge will function in the same mode when powered up again.

Do not overload the loadcell, as this could cause irreparable damage. Forces greater than 120% of full-scale will produce an audible beep until load is released and an OL symbol will appear on the display for 30 seconds.

Forces greater than 150% of full-scale will produce an audible beep until load is released and an OL symbol will appear permanently on the display. If this should occur consult your supplier to arrange inspection and repair, if necessary. To power down the Myometer press the red key.

Using the menus

The Myometer Advanced Menus are navigated using the red text on the function keys.

- Press and hold the MENU key for approximately 3 seconds to access page 1 of the main-menu.
- Pressing the MENU key again, takes you to the next menu page.
- To move between the options listed on a menu page, use the UP and DOWN keys.
- Press the ENTER key to select sub-menus, activate features and enter values.
- Within sub-menus the UP and DOWN keys will also change numerical values.
- Press the ESC key to return to the relevant main-menu page and ESC again to return to the main display.

Testing in Constant score mode

In this mode, all you need to do is apply the test, and after about 4 seconds the display will freeze, displaying the results.

Press ZERO to clear the results and perform another test.

Individual readings, Constant score results

Should you wish to see the individual readings instead, run the test with Constant score turned off, and at the end of the test, turn it on again.

To turn off Constant score

- Press and hold MENU for 3 seconds.
- At 'Constant score', press ENTER twice (to turn Constant score off).
- Press ESC twice to return to the active display.

Run the test.

To turn on Constant score and view results

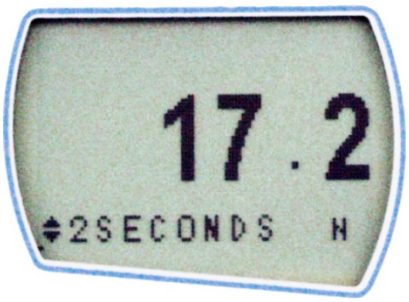
- Press and hold MENU for 3 seconds.
- At 'Constant score', press ENTER twice (to turn Constant score back on).
- Press ESC twice to return to the active display.
- Now press MAX/ESC sequentially to view each result in turn, followed by the Constant score summary, as follows:

Maximum load

This is the maximum reading since the last time the ZERO or RESET function was invoked.

Load at 2 seconds

This is the load recorded at 2 seconds since the last time the ZERO or RESET function was invoked once the Constant score trigger threshold has been reached.



Load at 3 seconds

This is the load recorded at 3 seconds since the last time the ZERO or RESET function was invoked once the Constant score trigger threshold has been reached.

Mean load between 1 and 4 seconds

The average of the load recorded between 1 and 4 seconds since the last time the ZERO or RESET function was invoked once the Constant trigger threshold has been reached.

Press MAX/ESC once more for the Constant score summary.

Basic functions

Display

Compressive force is indicated by: ⧗

Tensile forces are indicated by: ⇕

Zeroing the Myometer

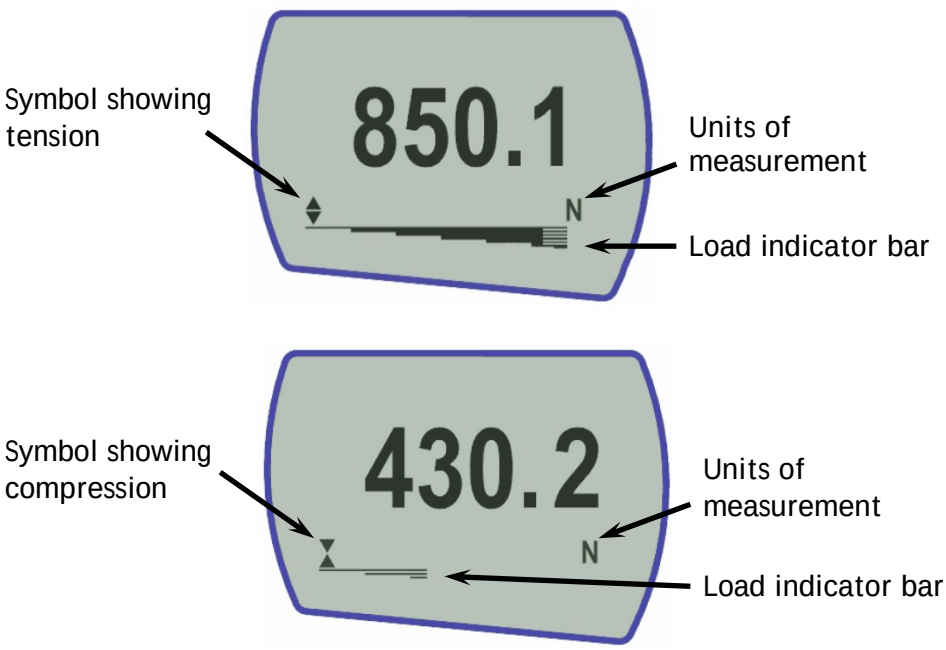
During the operation of the Myometer it is often necessary to zero the display—e.g. when you wish to tare out the weight of attachments, so it does not become part of the measured reading. Press and release the ZERO key.

Changing units of measurement

You can choose from the following units of measurement depending on the capacity of your gauge: newtons (N), kilonewtons (kN), kilogram-force (kgf), ounce-force (ozf), pound-force (lbf).

To change the display units press and release the UNITS key. Each successive key press will select the next available units until the gauge returns to its original setting. The Myometer automatically converts readings, as new units of measure are selected.

A load indicator bar alerts the operator to how much load has been applied to the loadcell. When approximately 80% of the rated capacity is reached, the indicator bar changes appearance. This warns the operator that steps should be taken to prevent excessive load being applied. When applying *tensile force*, the load indicator bar begins solid in appearance, then becomes striped when the capacity is approached. When applying *compressive force*, the load indicator bar begins striped and then becomes solid (see examples below).



If the Myometer has suffered a serious overload condition, the load indicator bar will be partially displayed even when no load is present. This is a warning that the loadcell is damaged and you should immediately contact your supplier to arrange repair.

Zeroing the gauge

During the operation of the gauge it is often necessary to zero the display—e.g. when you wish to tare out the weight of an attached accessory, so it does not become part of the measured reading. Press and release the ZERO key.

The gauge detects and stores maximum (peak) force in both compression and tension directions.

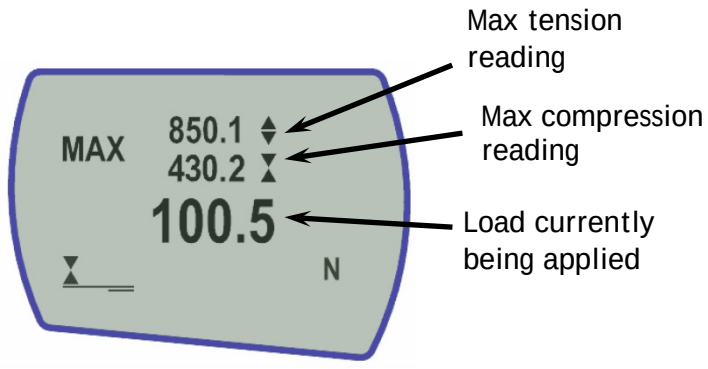
Max (Peak) readings

Note: the following max display modes *do not apply when the Constant score function is enabled*. See page 7 for alternative modes.

‘Max’ mode

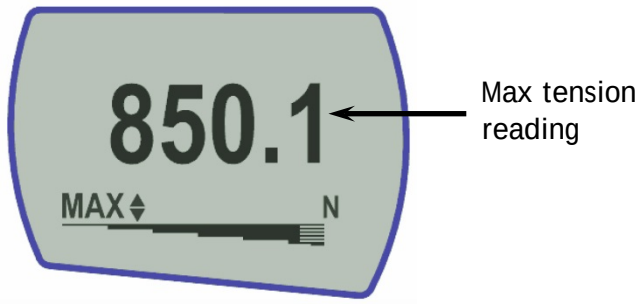
Press the MAX key. The display will show the word MAX together with the highest tensile force and the highest compressive force detected during the test. The current load being applied to the loadcell is also displayed.

Dual mode



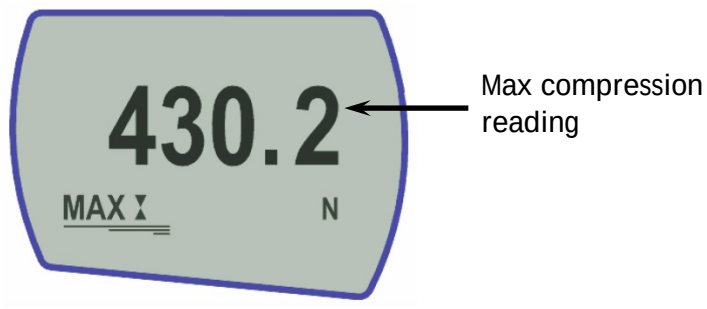
Max tension

Press the MAX key again and the display will show the maximum tensile force identified by the symbol: ▲▼



Max compression

Press the MAX key again and the display will show the maximum compressive force identified by the symbol: ⧗



Normal mode

Press the MAX key again and the word MAX will disappear. The display will now indicate forces applied in both directions as they are applied to the loadcell, and maintain a dynamic display.

Press the RESET key to clear both maximum registers and prepare for detecting the next maximum readings.

Data output

See also: Advanced Menu Options, Comms on page 17).

RS232 and Digimatic output signals

It is possible to transmit the displayed reading to peripheral devices (e.g. PC, printer) via the communications port by pressing and releasing the TXD key.

Displayed readings can also be requested individually from a PC via the RS232 interface by sending a '?' character. See page 30.

A full range of interface cables are available to connect your Myometer to peripheral devices—see page 34 for details.

Continuous data transmission

For sending a continuous data stream to a PC, printer, etc. press and hold the TXD key for 2 seconds then release. TX

will now appear in the display to indicate that data is being sent:

To stop sending data, simply press and release the TXD key, at which point TX will disappear from the display.

The continuous data stream rate is 25 Hz, unless 115200 Baud is selected, when it is 50 Hz.

To avoid spurious data from simply handling the Myometer, the continuous data output only starts when the load threshold default of 2% of the rated capacity of the gauge is reached. This threshold can be set from 0-100% (see page 16).

PC communication or other RS232 input device, e.g. PLC

Hold down the Ctrl key on the PC keyboard and press:

a to simulate pressing the TXD key *

b to simulate pressing the UNITS key

c to simulate pressing the MAX key

d to simulate pressing the RESET key

e to simulate pressing the ZERO key

See page 30 for full table.

* Note that the continuous transmission mode cannot be entered via this method.

The AFG Myometer uses 9600, 19200, 57600 or 115200 Baud, 8 data bits, 1 start bit, 1 stop bit, no parity and no flow control. (See page 7, Advanced Menu Options for setup details.)

Loadcell diagnostic test

Symptoms of overload may be:

- OL in display
- buzzer sound
- probe not aligned perpendicularly to the gauge
- load indicator bar present, even under zero load.

See page 21, Calibration, on how to check loadcell status.

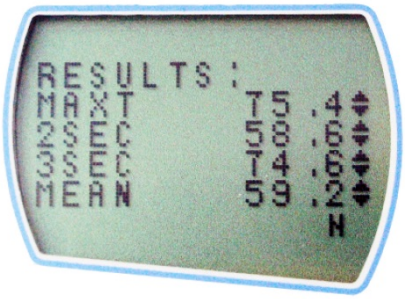
An instrument showing an overload condition cannot be relied upon to provide accurate, repeatable measurement—contact your supplier.

Menu, Page 1

Constant score function (ON/OFF)

The Constant score function allows the following to be recorded:

1. The maximum load
2. The load at 2 seconds
3. The load at 3 seconds
4. The mean load between 1 and 4 seconds



The Constant score function is enabled and disabled from the menu pages. It is enabled by default.

Constant score trigger threshold (SET)

The timer for the Constant score readings should be started when the load reaches a user-set threshold above zero load. This threshold is a percentage of full scale and set at 1%. Invoking the Reset or Zero functions will require the trigger

threshold to be reached again. The default should always be set to 1%.

Note: If the percentage parameter is higher than 1%, it will not be in agreement with the Emperor Lite software, used for results analysis.

Communications

Communication settings are selected to configure interfacing of the Myometer with peripheral devices.

To access the COMMS settings, press and hold the MENU key until page 1 of the main menu appears. Use the DOWN key to move the arrow cursor to COMMS and press ENTER.

Port sub-menu 1 (TX units)

Using UP and DOWN keys select the relevant option. When setting PORT, you will access PORT sub-menu 1.

Transmission of the displayed load reading can be set to include the unit of measurement, the display shows TX UNITS OFF or ON. Use the UP or DOWN key to position the arrow cursor against the desired selection and press the ENTER key.

Port sub-menu 2 (TX sign)

The display will show TX SIGN OFF and ON. This will transmit a negative sign for compression readings if set to ON. Use the UP or DOWN key to position the arrow cursor against the desired selection and press the ENTER key.

Port sub-menu 3 (Baud rate)

The transmission (or Baud) rate can now be set. Use the UP or DOWN key to position the arrow cursor at the relevant speed (9600, 19200, 57600 or 115200). Press ENTER to select.

Port sub-menu 4 (terminal)

Additional characters can be appended to the transmitted load (RS232 only). These can be set to NULL (nothing), CR

(carriage return), LF (line feed) or CR LF. Use the UP or DOWN key to position the arrow cursor at the desired setting. Press ENTER to select.

Port sub-menu 5 (line delay)

If required, a LINE DELAY, to be executed after each reading is sent, can now be set. Use the UP or DOWN key to set this value from 0 to 5 seconds in one-second intervals.

Press ENTER to select.

Port sub-menu 6 (TX threshold)

For use with continuous readings only, a % threshold for the start of transmission can now be set. Use the UP or DOWN key to set this value from 0% to 100%. Press ENTER to select. The display will return to the COMMS sub-menu 1.

Alarm

The Myometer has an audible and visual alarm feature. This can be set to trigger on pass, fail or sample break criteria.

Up to five alarm settings may be stored, but only one setting may be used at any one time.

To set an alarm, press and hold the MENU key until page 1 of the main menu appears. The cursor arrow will point to ALARM. Press the ENTER key.

Alarm sub-menu 1 (setting selection)

The display will show ALARM OFF, and five separate alarms, which may each be set up independently and stored by the user for easy access when changing test routines. The cursor will be positioned against the current alarm in use, or against ALARM OFF if no alarm is selected.

To activate an alarm, move the cursor to the desired alarm and press ENTER.

Alarm sub-menu 2 (alarm set)

This will access ALARM sub-menu 2, however this alarm has now been activated, and you can return to the main display by pressing the ESC key twice. The main display will now show an alarm 'bell' symbol accompanied by the number of the alarm selected, indicating that that alarm is activated:

If, however, you wish to change the settings of the selected alarm, choose SET by pressing the ENTER key in ALARM sub-menu 2.

Alarm sub-menu 3 (alarm limits)

The display will now show the two limits—LIMIT 1 (lower limit) and LIMIT 2 (upper limit)—plus the value they are set to and whether they are in tension (TENS'N) or compression (COMP'N). A diamond cursor indicates which value is selected. Use the UP and DOWN keys to change the value, press and hold to scroll values. When the correct value is reached, press the ENTER key to set LIMIT 1. Repeat procedure for LIMIT 2:

Note: The alarm limits are not active below 1% of the capacity of the tester.

Alarm sub-menu 4 (alarm indicator)

The display shows AUDIBLE, LED and BOTH with the arrow cursor indicating which feature is selected. This menu selects how the PASS/FAIL status of a value will be indicated.

AUDIBLE	Only the audible alarm will be activated when the value is a pass/fail.
LED	The PASS LED will illuminate green to indicate a pass status, the FAIL LED will illuminate orange or red to indicate low or high failures respectively.
BOTH	Both the LED and the audible alarm will be activated.

Use the UP and DOWN keys to move the cursor and press the ENTER key to select the desired feature.

Alarm sub-menu 5 (alarm band)

The display shows OUT BAND and IN BAND. This menu selects which values are to be considered.

OUT BAND	Any value falling outside the set limits LIMIT 1 and LIMIT 2.
IN BAND	Any value falling between the set limits LIMIT 1 and LIMIT 2.

Use the UP and DOWN keys to move the cursor and press ENTER key to select the desired feature.

Alarm sub-menu 6 (alarm PASS/FAIL)

The display shows PASS or FAIL. This menu sets the OUT BAND criteria.

PASS	Values, which fall either OUT BAND (or IN BAND, if selected), are a PASS and will cause an audible beep, illuminate an LED or both.

FAIL — Values, which fall either OUT BAND (or IN BAND, if selected), are a FAIL and will cause an audible beep, illuminate an LED, or both.

Use UP and DOWN keys to move the cursor and press ENTER key to select the desired feature.

Alarm sub-menu 7 (alarm buzzer mode)

The display shows BUZZER ON, CONTINUOUS and PULSE. This menu selects the length of time the buzzer will sound, if AUDIBLE or BOTH has been selected in sub-menu 5.

CONTINUOUS — The buzzer sounds at a pre-set alarm value and stays on until the load falls below that pre-set.

PULSE — The buzzer pulses for a fixed time of one second every time the load crosses over each of the presets.

Use the UP and DOWN keys to move the cursor and press the ENTER key to select the desired feature. The display will now return to the main menu page 1, press ESC to return the main display.

Information

This menu option is for information only, and may be required for diagnostic purposes by your distributor.

It displays calibration information:

▲▼ tension span

▲▼ compression span

I Initial zero

G Gravitational constant

Z Current zero

Calibration

If you suspect that your Myometer has sustained an overload, it is possible to check the status of the instrument immediately.

Symptoms of overload may be:

- OL in display
- buzzer sound
- load indicator bar present even under zero load.

Place the Myometer on a flat level surface. Press and hold the MENU key until page 1 of the main-menu appears.

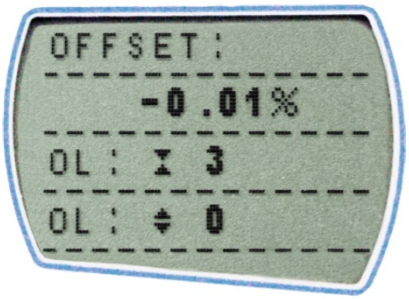
Using the UP and DOWN keys move the arrow cursor to CALIBRATION, and press ENTER

Calibration sub-menu 1

The display will show 0000. Press the ENTER key four times (to enter 0000 as the password).

Calibration sub-menu 2

CALIBRATION sub-menu 2 (the sensor diagnostic test screen) will appear on the display:



The offset value provides an indication of the condition of the loadcell, and is defined as the % difference between the initial zero and the current zero reading.

If the offset is between 5 and 10%, please contact your supplier to arrange a re-calibration of your AFG Myometer.

If the offset is greater than 10%, please contact your supplier to arrange for a possible sensor replacement.

These values are given as an indicator only—the need for calibration/repair may vary according to the individual characteristics of the sensor.

In addition to the offset, the number of overloads (OL) experienced by the loadcell in both compression and tension directions are displayed. An overload is registered when a load exceeding 150% of the rated capacity of the loadcell is applied in either direction.

Press the ESC key to return to the main menu page 2, and again to return to the main display.

Menu Page 2

Backlight

To access the BACKLIGHT function, press and hold the MENU key until page 1 of the main menu appears. Press and release the MENU key once to access the main menu page 2. Using the UP and DOWN keys, move the arrow cursor to BACKLIGHT, and press ENTER.

The display will return to the main menu page 3, press the ESC key to return to the main display

Note: Battery consumption is doubled when using the backlight.

Backlight sub-menu 1

The display shows BACKLIGHT OFF and ON: Use the UP and DOWN keys to move the arrow cursor against the desired selection and press ENTER.

Press the ESC key twice to return to the main display.

Note: When activated, the backlight will remain on for 30 seconds since the last key press or last load applied registering over 2% of full scale.

Auto off

To conserve battery power, it is possible to activate an auto-off function so that the Myometer powers down 5 or 10 minutes after either the last key press, or the last load applied greater than 2% of full scale.

To access the AUTO OFF function, press and hold the MENU key until page 1 of the main-menu appears. Press and release the MENU key once to access the main menu page 2. Using the UP and DOWN keys, move the arrow cursor to AUTO OFF, and press ENTER.

The display shows AUTO OFF:

OFF	Disables auto-off function.
5 MINUTES	Myometer will automatically power down after 5 mins.
10 MINUTES	Myometer will automatically power down after 10 mins. Use the UP and DOWN keys to move the arrow cursor against the desired selection and press ENTER.

The display will return to the main menu page 2, press the ESC key twice to return to the main display.

Note: The AUTO-OFF function is disabled whilst using the settings menus.

Invert display

For operator comfort it is often desirable to reverse the display, so it can be easily read.

To access the INVERT function, press and hold the MENU key until page 1 of the main-menu appears. Press and release the MENU key once to access the main menu page 2. Using the UP and DOWN keys, move the arrow cursor to INVERT, and press ENTER.

The display shows INVERT OFF and ON: Use the UP and DOWN keys to move the arrow cursor against the desired selection and press ENTER.

Press the ESC key twice to return to the main display.

Note: The menu pages are not inverted when the INVERT function is enabled.

Default Menu Settings

Menu 1: Constant score options

CONSTANT SCORE 1,2		Default
1	Constant score enabled, ON or OFF	ON
2	Start Threshold Value	1%

Menu 1: COMMS settings

COMMS 1,2,3,4,5,6		Default
1	Units being transmitted, ON or OFF	OFF
2	Sign being transmitted, ON or OFF	ON
3	Baud rate value	9600
4	C = Carriage return, L = Line feed, CL = both	CL
5	Line delay in seconds	0
6	Constant transmit threshold in percent	2

Menu 1: Alarm on options

ALARM ON,1,2,3,4,5,6,7		Default
1	Alarm Number Selected; 1, 2, 3, 4 or 5	OFF
2	x Limit1 value	
3	x Limit2 value	
4	B = Buzzer, L = LED, BL = Buzzer & LED	
5	O = Out of Band, I = In Band	
6	P=Pass, F=Fail	
7	C = Continuous, P = Pulse, or blank	

Menu 2: Backlight

BACKLIGHT 1		Default
1	Backlight enabled, ON or OFF	OFF

Menu 2: Auto-off

AUTO-OFF 1		Default
1	Auto-off time, OFF, 5 mins or 10 mins	OFF

Menu 2: Invert

INVERT 1		Default
1	Display inverted, ON or OFF	ON

Restore factory defaults

Press and hold the MENU key until page 1 of the main menu appears. Press and release the MENU key once to access the main menu page 2. Using the UP and DOWN keys, move the arrow cursor to DEFAULTS, and press ENTER.

(sub menu 1) at DEFAULTS SET, press ENTER.

(sub menu 2) at RESTORE DEFAULTS, YES / NO, select YES to restore default settings, or NO to cancel, and press ENTER.

Press the ESC key to return to the main display.

Factory default settings

Menu Function	Default Setting
CONSTANT SCORE	ON
START THRESHOLD	1%
ALARM	OFF
COMMS	
UNITS	OFF
SIGN	ON
BAUD	9600
TERMINAL	CR AND LF
LINE DELAY	0 SECONDS
TX THRESHOLD	2%
BACKLIGHT	OFF
AUTO OFF	OFF
INVERT	ON

RS232 Communications

RS232 Command configuration

The settings of your Myometer can be remotely read and configured by sending these RS232 command characters:

Character in ASCII	Decimal	Hexadecimal	Function
M	77	0x4D	Current mode
U	85	0x55	Current units
C	67	0x43	Loadcell capacity
@	64	0x40	Configuration status request
*	42	0x2A	Continuous transmit
n	110	0x6E	Constant score results screen*
o	111	0x6F	Load at 2 seconds*
p	112	0x70	Load at 3 seconds*
q	113	0x71	Mean load*
r	114	0x72	Normal screen
s	115	0x73	Dual max**
t	116	0x74	Max tension
u	117	0x75	Max compression**
a	97	0x61	mN
b	98	0x62	N
d	100	0x64	gf
e	101	0x65	kgf
f	102	0x66	ozf
g	103	0x67	lbf
?	63	0x3F	Transmit the current reading***

Character in ASCII	Decimal	Hexadecimal	Function
CTRL a	1	0x01	TXD key
CTRL b	2	0x02	UNITS key
CTRL c	3	0x03	MAX key
CTRL d	4	0x04	RESET key
CTRL e	5	0x05	ZERO key
CTRL f	6	0x06	ENTER menu

Note: Displayed units will only change if it is applicable to the loadcell capacity of the gauge.

* Only if Constant score function is disabled

** Only if Constant score Peak function is enabled

*** If displaying the Constant score results screen, the current 'live' load will be transmitted

RS232 Command responses

The Myometer can be remotely interrogated for its current settings by sending the following RS232 commands.

Command M

Response	Gauge Display Mode
Normal	Normal mode
MaxC	Max compression
MaxT	Max tension
MaxDual	Dual max screen
2seconds	Load at 2 seconds
3seconds	Load at 3 seconds
Mean	Mean load from Constant score function
ConstantScore	Constant score results screen

Command U

Response
N
mN
gf
kgf
ozf
lbf

Command C

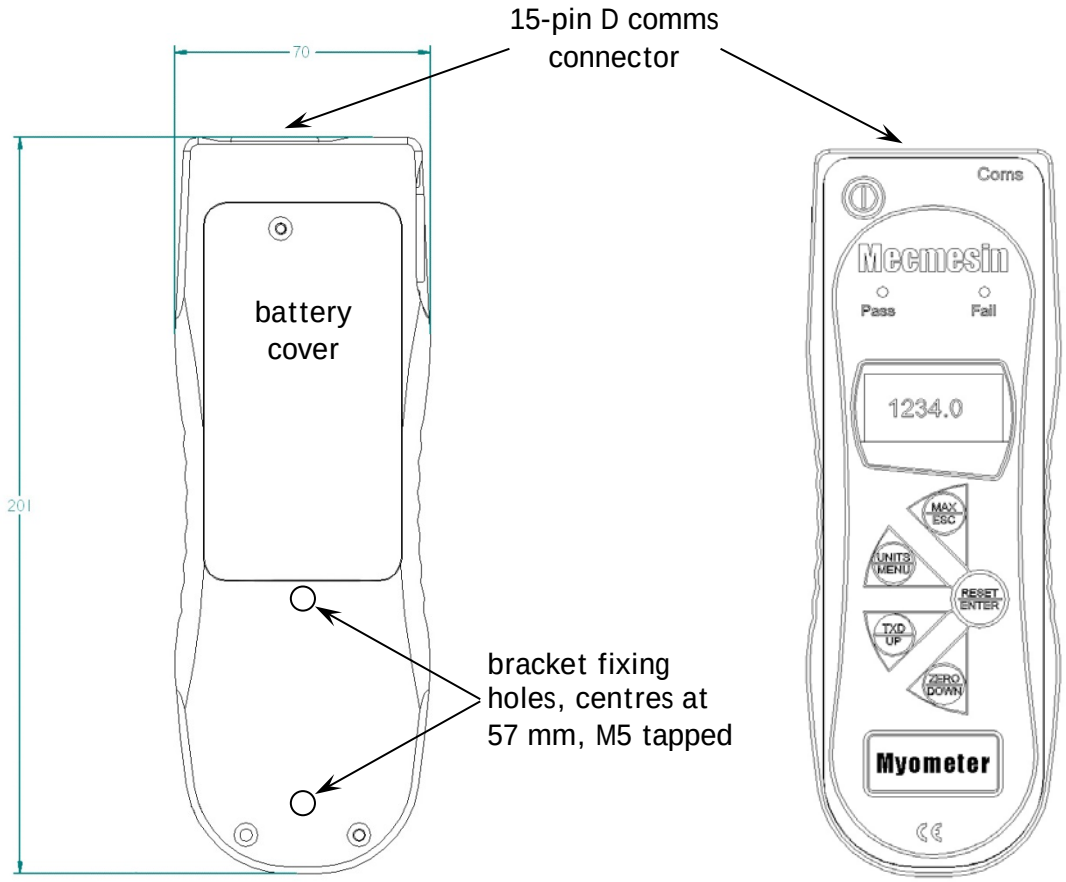
Response: The loadcell size in N 'xxxx' will be transmitted if the loadcell is not calibrated, or has a serious fault.

Command @

When all options are OFF, and the Myometer is set at defaults, the following information will be transmitted:

Response	Explanation of response
MYOMETER	Gauge type
10.000	Loadcell size in N as per transmitting 'C'
V01	Version number
Normal	Mode of operation as per transmitting 'M'
N	Units of operation as per transmitting 'U'

Dimensions


15-pin D comms
connector
70
201
battery
cover
bracket fixing
holes, centres at
57 mm, M5 tapped
Coms
Mecmesin
Pass
Fail
1234.0
MAX
ESC
UNITS
MENU
RESET
ENTER
TXD
UP
ZERO
DOWN
Myometer

Specifications

Model no:	mN	N	kN	gf	kgf	ozf	lbf
Myometer	-	1,000 x 0.2	1 x 0.0002	-	100 x 0.02	3,500 x 1	220 x 0.05

Accuracy: ± 0.1% of full scale

Calibration temperature: 20°C ± 2°C

Operating temperature: 10°C to 35°C

Temperature shift at zero load: ± 0.01% of full-scale/°C

Output

RS232-C: 8 data bits, 1 Start bit, 1 Stop bit, no parity

Adpator/charger unit

The mains adaptor/charger supplied with the Myometer is a constant-current type.

Primary: 230V – 50Hz (110V – 60Hz version also available)

Secondary: 100mA constant current at 9V Charger output plug:
Centre = positive
Outer = negative

Communications cables

Interface cables for connecting your AFG to peripheral devices:

Cable	Mecmesin Part No
Gauge to RS232 (9-pin D-type)	351-059
RS232 to USB	351-068

Allocation for the pins on the female 15 way ‘D Type’ Communication Connector:

Pin Out:	
1	Analogue Output
2	RS232 Transmit
3	RS232 Receive
4	None
5	None
6	+5 volts
7	None
8	None
9	None
10	Ground
11	None
12	None
13	None
14	None
15	None

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