# Detailed of operation

## ① Select Measuring object

[Home_page]

・Lubricant Oil Select

HOME 20xx/xx/xx xx:xx
LUB.OIL < - > GREASE
MEAS. | VIEW | DATE | SD

・Measuring object selects by up/down buttons.

・Grease Select

HOME 20xx/xx/xx xx:xx
LUB.OIL < - > GREASE
MEAS. | VIEW | DATE | SD

・Press MEAS.Button

## ② Measure

MEAS. 20xx/xx/xx xx:xx
PLEASE SET LUB.OIL
&
PRESS MEAS. BUTTON.
MEAS. | EXIT

To [HOME]

・GREASE is displaied when selects Grease.

・Set sample ,and press MEAS. button

MEAS. 20xx/xx/xx xx:xx
LUB.OIL
MEASURING
>>>>>>
STOP

・GREASE is displaied when selects Grease.

・Measurement starts ,then ">>>"mark. will move.
(Measuring time depends on the density of sample.)

MEAS. 20xx/xx/xx xx:xx
STOP MEAS.
HOME

To [HOME]

・Measuring is stopped if press STOP button.

### Measure Complete(LUB.OIL)

MEAS. 20xx/xx/xx xx:xx
-- COMPLETE --
###ppm
HOME | SAVE

To [HOME]

### Measure Complete(GREASE)

MEAS. 20xx/xx/xx xx:xx
-- COMPLETE --
#.###%
HOME | SAVE

To [HOME]

### Error Case (OVER RANGE)

MEAS. 20xx/xx/xx xx:xx
OVER RANGE
HOME

To [HOME]

When 500 ppm or more is detected at LUB. OIL
When 2% or more is detected at GREASE
It will be in the OVER range.

・Measurement complete.
Displayed figure is a measurement result.
LUB.OIL is "ppm" oder. GREASE is "%" oder.

・Press SAVE button.

## ③ Save Data

SAVE 20xx/xx/xx xx:xx
###ppm
PLEASE SELECT UNIT.

| | | | | | |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 |

SAVE | EXIT

To [HOME]

・Lub.Oil is "ppm" unit.
Grease is "%" unit.

・Select save unit by these buttons.

SAVE 20xx/xx/xx xx:xx
#.###%
PLEASE SELECT UNIT.

| | | | | | |
|---|---|---|---|---|---|
| 1 | 2 | X | X | X | 6 |
| 7 | 8 | 9 | X | 11 | 12 |
| 13 | 14 | 15 | X | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 |

SAVE | EXIT

Units in which GREASE data is already stored when LUB.OIL data is saved, or units in which LUB.OIL data is already saved when GREASE data is saved are indicated with "X" instead of a number.

・Press Save Button, Data save is completed.

SAVE 20xx/xx/xx xx:xx
-- SAVE COMPLETE --
###ppm -UNIT##
20xx/xx/xx xx:xx
HOME

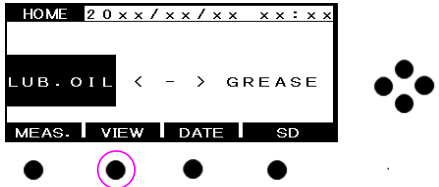
To [HOME]

SAVE 20xx/xx/xx xx:xx
-- SAVE ERROR --
NOT SAVED THIS UNIT
HOME | RET.

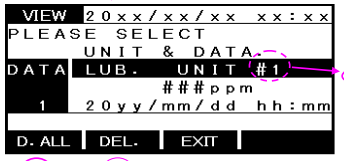
To [HOME]

If you press the SAVE button while "X" is selected, an error message will be displayed and the data will not be saved. Return to HOME with the HOME button. Selection is possible again with the RET button.

## ④. VIEW DATA (VIEW)




・Press view Button



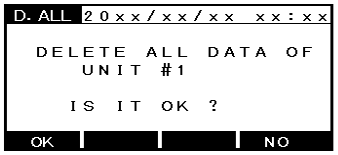

Select UNIT number

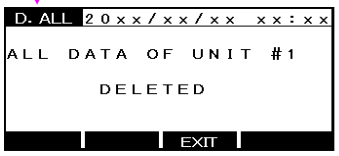
Select DATA number

・VIEW DATA with the Select button.
Select DATA number with up/down buttons.
Select UNIT number with right/left buttons.

To [⑤−B. Delete 1 data]

## ⑤−A. Delete unit data

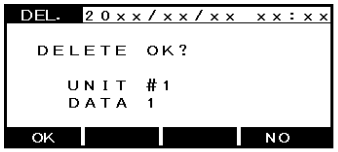



To [HOME]

・If press "OK" then delete all data of selected unit .

## ⑤−B. Delete 1 data

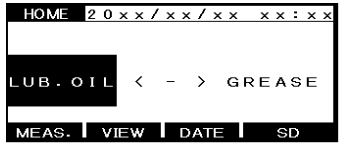



・If press "OK" then delete selected data .

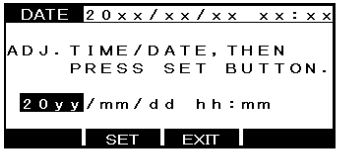
To [HOME]

・Remaining data are automatically shifted and kept sequence of measurment date and time.

## ⑦. ADJUST DATE (DATE)




・Press the DATE button
Go to the clock adjustment.




Change the pointer with the ight/left buttons

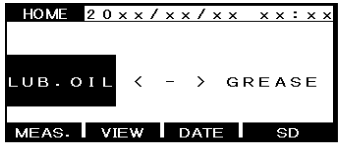
Change the value with the up/down buttons.

To [HOME]

・Set the date and time with the SET button

・Return Home page.

## ⑥. Save data to SD card.




・Press the SD button

To [HOME]

・Insert an SD card and press the SAVE butt

To [HOME]

・Save is complete if the above message is displaied

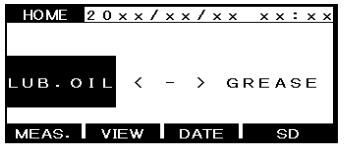
### Error message

・In the case of the above message,
the SD card is WRITE PROTECT
Or not inserted. Confirm the SD card again.

## ⑧. Calibration

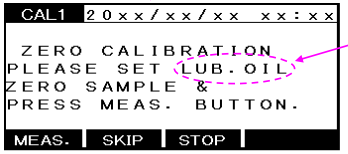
Perform calibration in a stable state after applying power for 10 minutes or more.

ess both buttons



・Press the both up and down buttons SELECT button , calibration starts .

・Calibration of the measurement object begins.

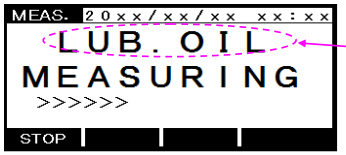



・Or "Grease"

To [HOME]

To the next step using the data of the main memory

・ZERO calibration
LUB.OIL case: Set 0ppm calibration sample.
GREASE case: Set 0ppm calibration sample for LUB.OIL.

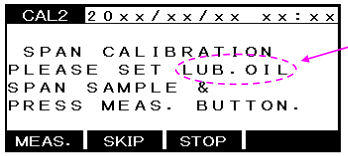



・Or "Grease"

・Measure the condition of ZERO calibration (20sec)

Go to the next (upper right side)

Next screen (continuation from lower left )

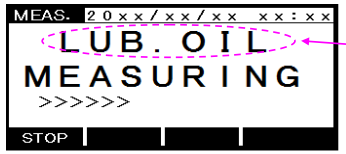



・Or "Grease"

To [HOME]

To the next step using the data of the main memory

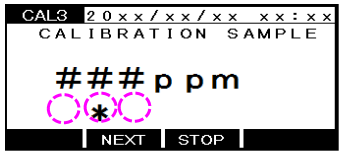
・SPAN calibration
Set the calibration sample adjustment for SPAN.
Attention! LUB.OIL and GREASE use different sample.

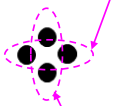


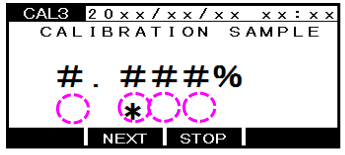

・Or "Grease"

・Measure the condition of SPAN calibration (20sec)

Change the pointer with the right/left buttons.





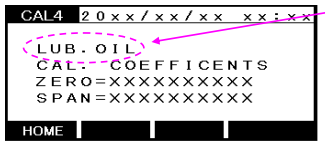
To [HOME]

Change the value with the up/down buttons.

・Enter the value attached to the calibration sample.

Go to the next (upper right side)

Next screen (continuation from lower left )




・Or "Grease"

To [HOME]

Calibration coefficient calculation & storage.
The coefficients are calculated from the sensor data at ZERO measurement, the sensor data at SPAN measurement, and the sample value at SAPN calibration sample, and stored in the main unit.
The display format shows five digits after the decimal point.

If there is a large difference between the measured values after calibration, perform the calibration again.