VR-6100 Vibration Level Meter

Measurement using block memory function and timer function

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Measurement using block memory function and timer function for **VR-6100** Vibration Level Meter

■Measurement overview

The block memory is the memory which is exclusive for the timer measurement to store the data that is automatically stored during the timer measurement. B mark indicates on the memory mode display of the LCD screen. When executes the timer measurement with settings of timer ON and real time octave display OFF respectively, the calculation values and measurement conditions of 3 axes or 1 selected axis is stored automatically after completing each measurement. This also applies to the real time octave measurement (optional function), but in this function, the measurement conditions are stored in the real time memory. The followings are an explanation of the measurement procedure without using the real time function. In addition, timer function is with saving electricity function.

■Block memory

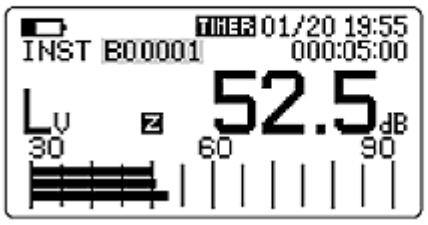
The block memory is divided into 10 blocks. Enable to select the data to be stored from three axes or one axis. Maximum 480 combined data for three axes and maximum 1440 combined data for one axis can be stored per 1 block. The recalled data can be displayed in various formats of calculated values by pressing the panel switch [L Leq LE], [AXIS] or [LIST].

■Storing data to block memory

The block memory is interlocked with the timer measurement to storage data as follows.

- The data is stored from address 0001 of the block 0, immediately after initializing the block memory.
- Even if all addresses of block 0 is stored, the data will be stored in the next block of address 0001, when the timer measurement is continued. The block cannot be selected.
- If you stop the timer measurement before the data are stored in all addresses of some block, the data cannot continue to be stored in that block. Therefore, when new timer measurement is started, the data are stored from the address 0001 of next block to the previous measurement.
- When the data are stored until the last block of all addresses, the data storing is not executed until the memory is cleared. Although, only timer measurement will be continued.

Address 0001 of block 0



<Caution>

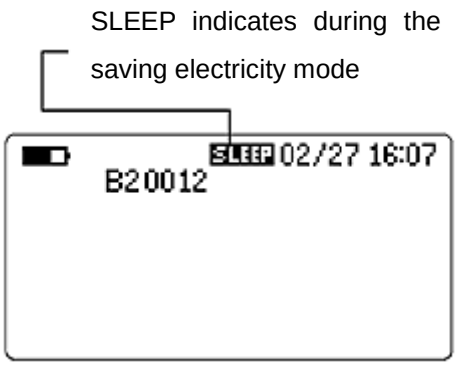
- The data cannot be stored in the block memory with the panel switch operation.
- The timer measurement which is executed in the real time octave display cannot be stored in the block memory.
- When the data are stored up to block 9 by the previous timer measurement, only the timer measurement is executed and the measurement data are not stored, unless the previous block memory data are cleared.
- When the data are not stored in the block, mark "----" is indicated on the LCD screen of memory address.

■Saving electricity mode function

The timer measurement is interlocked with saving electricity mode function. Saving electricity mode function is the function that reduces electric consumption of measurement waiting time that is not in the actual measurement.

During the saving electricity mode, the sleep mark is indicated on the screen. Automatically switch to the saving electricity mode when the waiting time to the next actual measurement is more than 1 minute and no key operation for 10 seconds after each actual measurement.

However, if the RS232C mark is indicated, the mode is not switch to saving electricity mode. Also, during the saving electricity mode, when the panel switch of the VR-6100 is pressed for 3 seconds or more, or before around 30 seconds of the next actual measurement starts, the condition is automatically returned to the measurement waiting states.



■Measurement procedure

1. **Selecting the store axis**

Switching the data memory setting to ready status

Set the timer measurement OFF and real time octave display OFF respectively.

Displaying the menu mode screen

Press the panel switch [MENU], and switch to the menu mode. Menu mode is displayed by switching the menu screen.

Displaying the menu of DATA MEMORY

At first, press the panel switch [<] or [>] (ADDRESS), and flash setting item on the main menu [4.DATA MEMORY] and press the panel switch [ENTER] to switch to (4.DATA MEMORY) menu.

Selecting the store axis of block memory

Press the panel switch [<] or [>] (ADDRESS) to flash setting item [2.B AXIS], and press the panel switch [ENTER] to flash the setting value of the store axis selection for the block memory. Press the panel switch [<] or [>] (ADDRESS) to flash the X/Y/Z or 3 axes (XYZ) to be set, and press the panel switch [ENTER] to return the flashing cursor to the setting item [2.B AXIS].

Confirming the setting condition

Press the panel switch [<] or [>] (ADDRESS) to flash the setting item [OK], and press the panel switch [ENTER]. If the panel switch [ENTER] is pressed when [OK] is flashing, the setting conditions are confirmed and return to the menu screen. Also, at this time, when the panel switch [MENU] is pressed, the measurement screen is switched to the screen which is directly after the setting condition is confirmed. In addition, if the condition setting is not confirmed, press the panel switch [ENTER] to flash [CANCEL].

<Caution>

- The axis selections are managed in block unit. Therefore, selected axis is available for the new block which is being stored.
- The setting value cannot be changed during the calculation, internal calibration signalling output or memory recall.

2. Setting the timer function

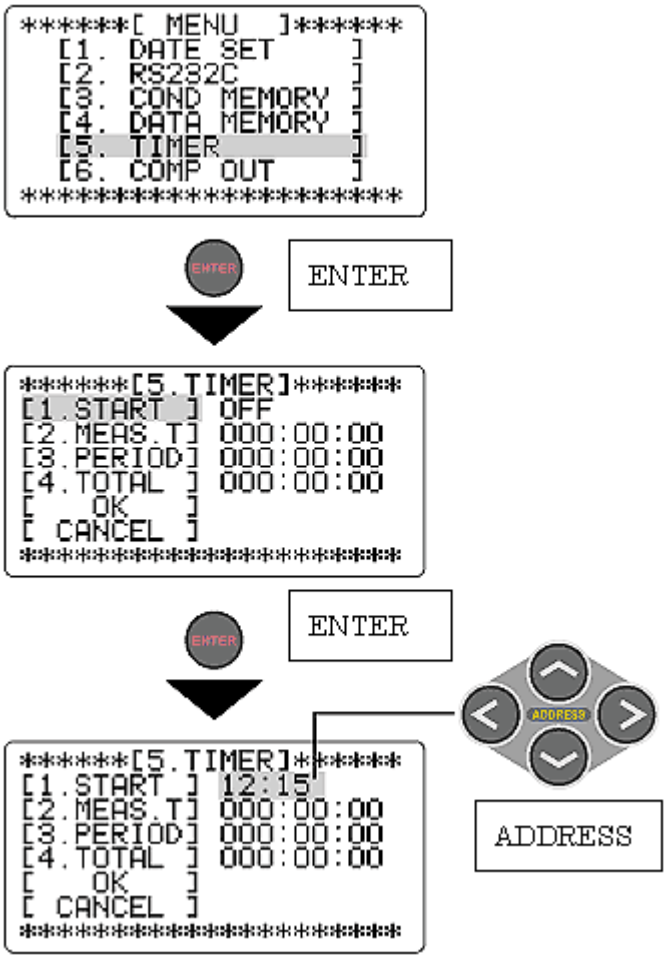
Start the timer function after the selection of store axis.

Switching the timer measurement setting screen [5.TIMER]

Press the panel switch [MENU] to switch to the main menu. Next, press the panel switch [<] or [>] (ADDRESS) to flash [5.TIMER]. When the panel switch [ENTER] is pressed, the screen is switched to the measurement time setting screen [5.TIMER].

Setting the measurement starting time [1.START]

When press the panel switch [ENTER] while the measurement time setting screen [1.START] is flashing, the flashing cursor is switched to the setting item (OFF in here). First, press the panel switch [<] or [>] (ADDRESS) to switch to the measurement starting time (OFF or hour). Next, press the panel switch [<] or [>] (ADDRESS) to flash the setting item of minute, and press panel switch [<] or [>] (ADDRESS) to switch measurement starting time (minute). In the end, press the panel switch [ENTER] to confirm the setting conditions. The figure on the right is the example when sets the measurement starting time at 12:15.



① Press panel switch [<] or [>] (ADDRESS) to move the flashing cursor to the setting item "minute".

② Press panel switch [<] or [>] (ADDRESS) to change the "minute".

③ Press panel switch [<] or [>] (ADDRESS) to move the flashing cursor to the setting item "second".

④ Press panel switch [<] or [>] (ADDRESS) to change the "second".

⑤ In the end, press the panel switch [ENTER] to conform the adjustment of hour, minute and second.

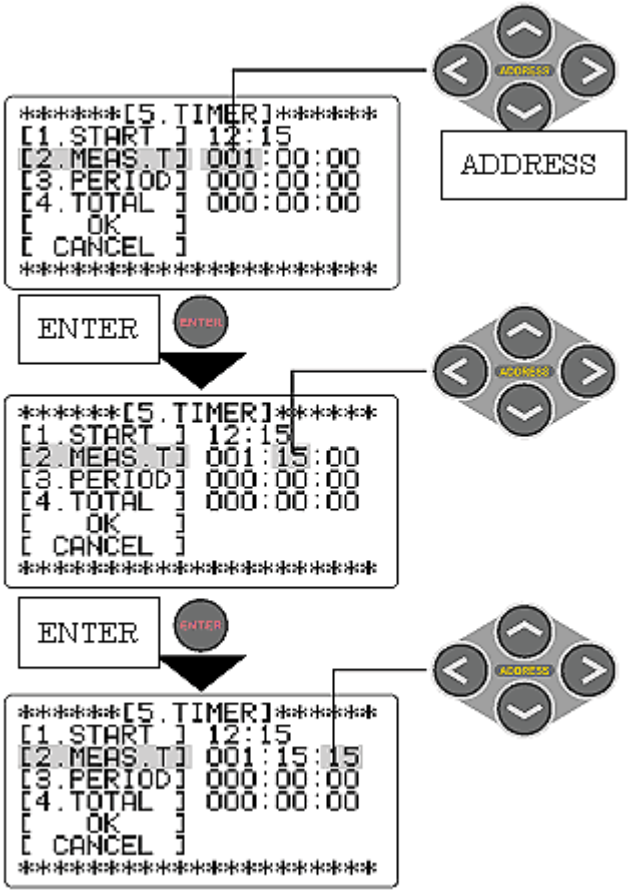
Setting the measurement time [2.MEAS.T]

Press the panel switch [ENTER] when [2.MEAS.T] in the timer measurement setting screen is flashed, the flashing cursor is switched to the setting item of measurement time (000: 00: 00).

First, press the panel switch [<] or [>] (ADDRESS) to switch the measurement unit (hour) of measurement time.

In addition, the setting number of digits can be moved by pressing the panel switch [<] or [>] (ADDRESS). Next, move the flashing cursor to the digit (minute), and press the panel switch [<] or [>] (ADDRESS) to switch the measurement unit (minute).

In the end, move the flashing cursor to the digit (second), and press the panel switch [<] or [>] (ADDRESS) to switch the measurement unit (second). When the panel switch [ENTER] is pressed, the setting condition is confirmed. The figure on the right is the example when the measurement time setting is 1 hour 15 minutes 15 seconds (001: 15: 15).



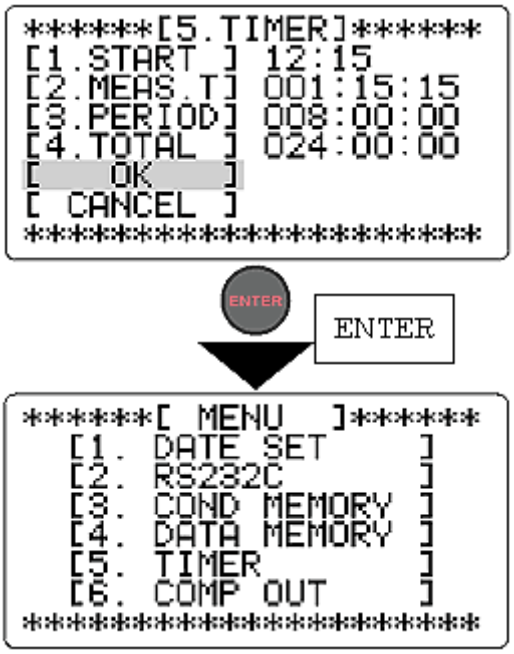
Setting the measurement period [3.PERIOD] or total measurement time [4.TOTAL]

Set measurement period [3. PERIOD] and total measurement time [4. TOTAL] respectively with the same procedure explained in the paragraph of "**Setting of measurement time [2.MEAS.T]**".

The figure in the paragraph of "**Confirmation of all setting conditions**" is the setting examples when the measurement period [3. PERIOD] is 8 hours 00 minute 00 second (008:00:00), and all measurement time is 24 hours 00 minute 00 second (0024:00:00) respectively.

Confirming all setting conditions

After completing all setting conditions, move the flashing cursor to [OK] which is on the measurement time setting screen. At this time, when the panel switch [MENU] is pressed, the measurement screen is switched directly after the setting condition is confirmed. When the panel switch [ENTER] is pressed, all measurement conditions which are set on the measurement time setting screen [5. TIMER] are confirmed, and the screen is returned to the main menu.



3. Timer measurement procedure

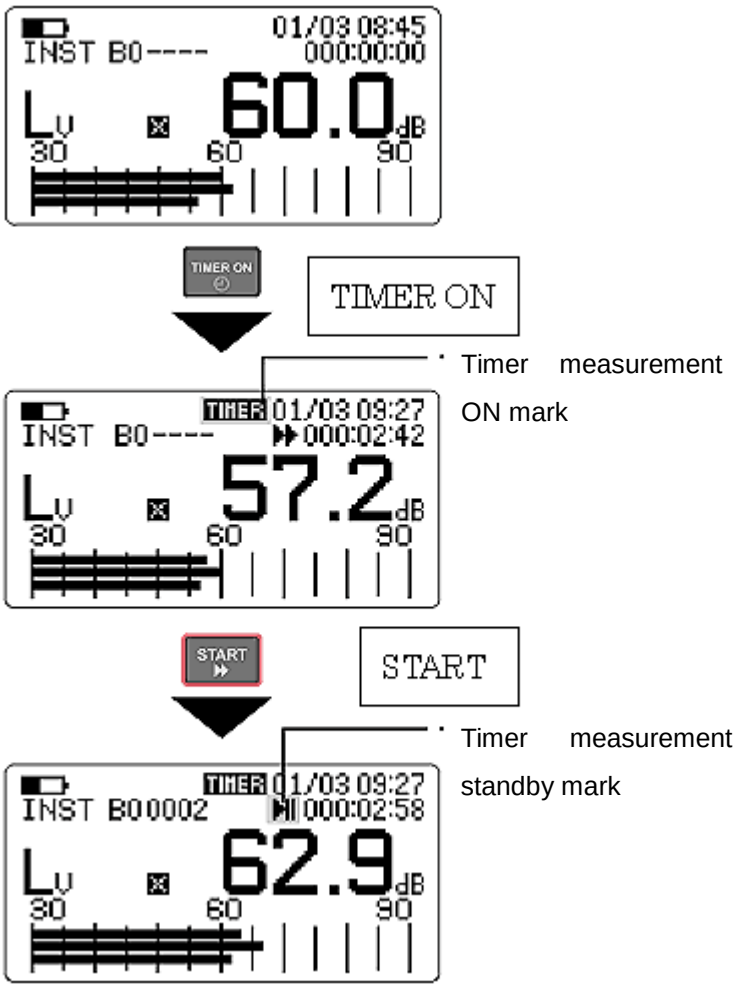
After setting the timer measurement condition, timer measurement executes as the following procedure.

Switching the timer measurement ON

Press the panel switch [TIMER] to switch the timer measurement ON. When the timer measurement is switched to ON, the TIMER measurement ON mark is indicated on the screen.

Starting the timer measurement

When the panel switch [START] is pressed, the measurement is switched to the standby mode, and the measurement standby mark is indicated on the screen. The measurement is started when the time of the clock and the setting time are matched for the first time after pressing the panel switch [START], and the data of each measurement are stored in the block. The measurement in progress mark is indicated during the measurement.



Timer measurement ON mark

Timer measurement standby mark

<Caution>

- Automatically switch to the saving electricity mode when the waiting time to start the measurement after pressing the panel switch [START] is more than 30 seconds, and no key operation for 10 seconds.
- When the measurement period setting is 30 seconds or more, and the panel switch [PRINT] is pressed for 0.5 seconds or more right after starting the timer measurement, the measurement results can be outputted from the printer immediately after each measurement. Also, at this time, RS mark is flashed.

- END -