

# User's Manual for InsMon

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## Table of Content

1. Scope .....	3
2. Preparation of items .....	3
3. Applicable Model .....	3
4. Startup and Baud rate .....	4
5. COM port change.....	5
6. Baud rate change.....	7
7. Measurement.....	8
8. Frequency change.....	9
9. Data save .....	10
10. Command input.....	11

## 1. Scope

InsMon is communication software for three-axis inertial measurement unit.

## 2. Preparation of items

Before use, please check 5 items below in advance.

- 1) PC (OS Windows 10 or previous version)
- 2) RS232 cable (specified by each model or equivalent)
- 3) Power supply cable (specified by each model or equivalent)
- 4) USB-RS232 conversion cable (unnecessary for PC loaded with COM port)
- 5) Communication Software InsMon

## 3. Applicable Model

- 1) AU7428 Series including cased TAG244
- 2) AU7554 Series including cased TAG250
- 3) AU7498 Series
- 4) AU7595 Series including cased TAG247 and TAG264
- 5) AU7615 Series including cased TAG265
- 6) AU7684 Series including cased TAG300

#### 4. Startup and Baud rate

- 1) Please execute “Insmon.exe.” The screen in figure 1 is displayed.
- 2) Press the VER button in the red frame to check the communication. The send-command is displayed in green on the terminal screen.
- 3) If succeeded, software version is displayed in blue on the screen. If no response, communication is not established.
- 4) If communication is not established, please refer to the chapter 5 COM port change in this manual.

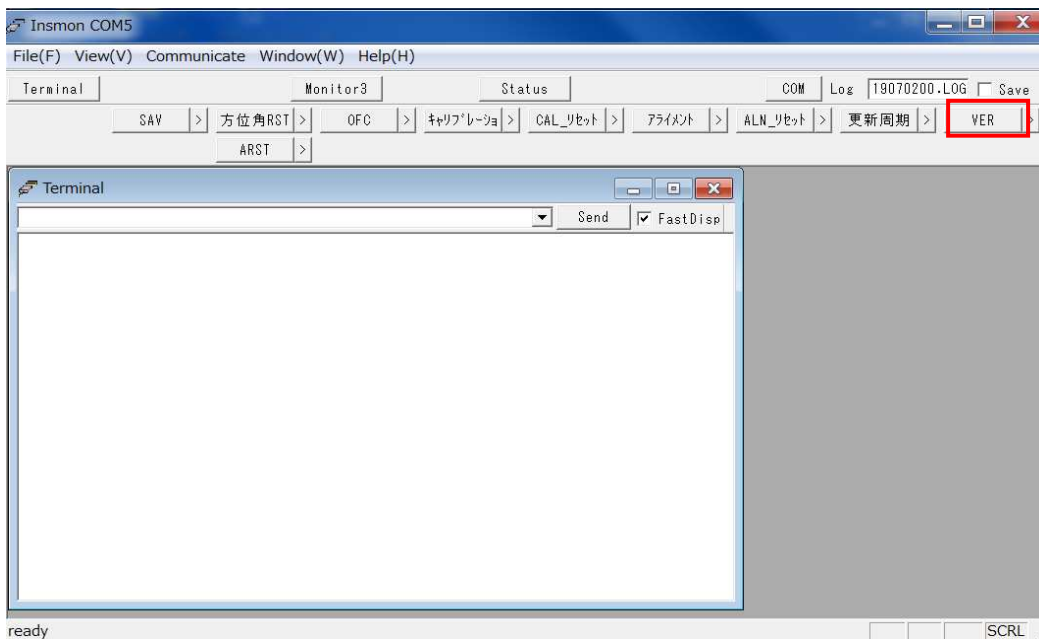


Figure 1. Startup screen

## 5. COM port change

- 1) Confirm the COM port which you are currently connected.
- 2) Open the OS device manager and check the port COM and LPT. If you are using a USB cable, the display "USB Serial Port" is added, and the COM number is displayed. In the example in Figure 2, the COM number is "COM 3".
- 3) In case of COM 100 (3 digits) or more, the connection is not established. In that case, please change the COM port to be lower than COM99.

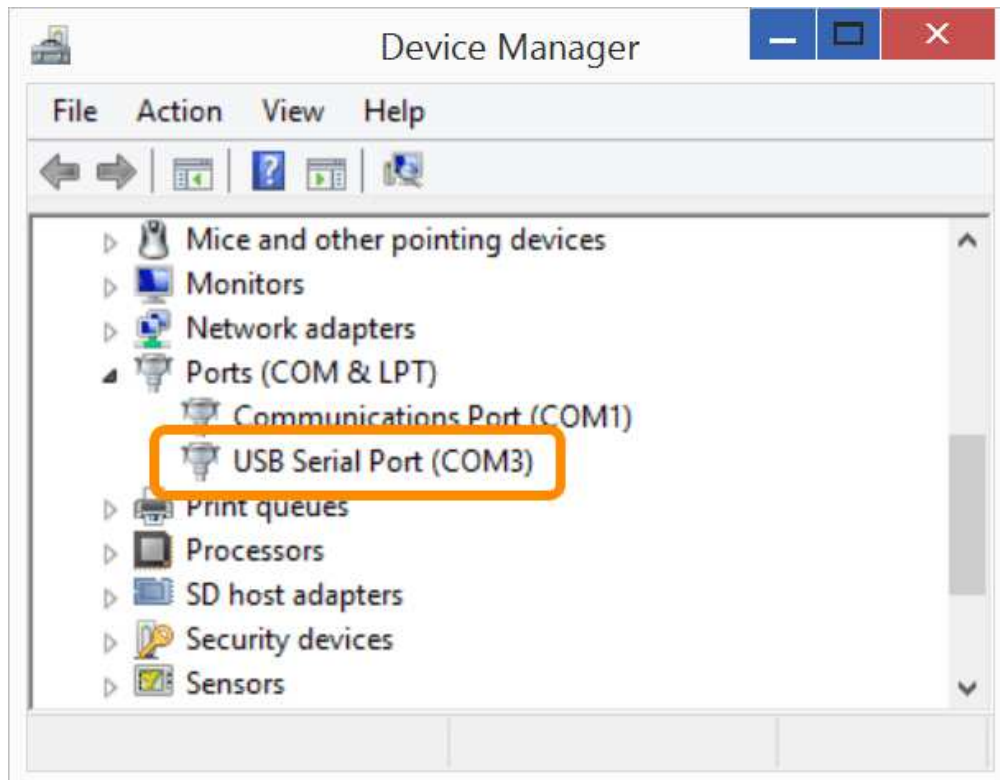
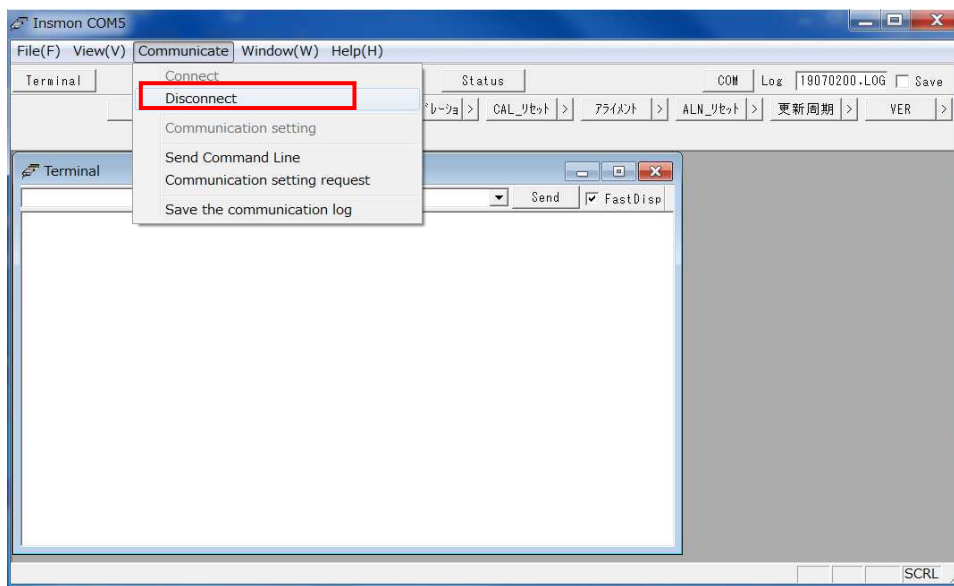
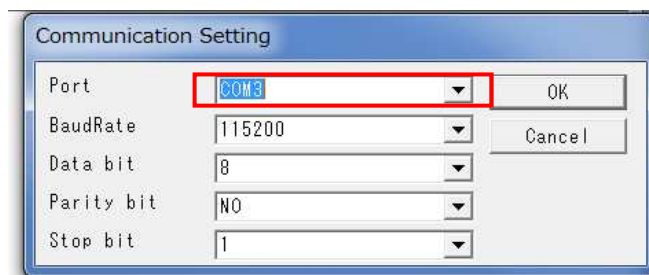


Figure 2. Device Manager

4) Reopen the InsMon and click the “Disconnect” button in communicate tab.



5) After disconnection, click the “Communication setting” button in Communicate tab.  
Input the COM port which you are currently using.



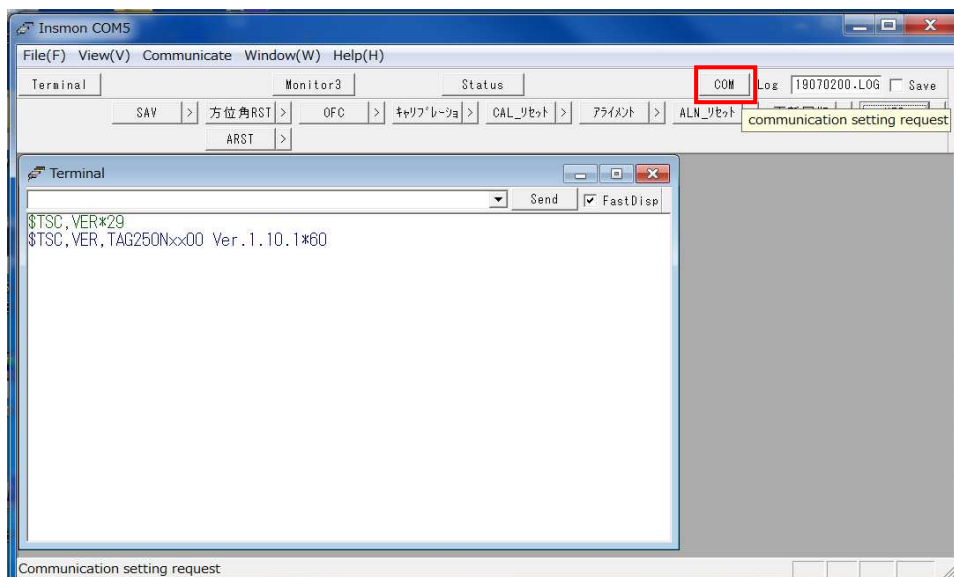
6) Click the “Connect” button in Communicate tab to restart operation.

7) Please execute the chapter 4. Startup and Baud rate and see if there is a response of VER command.

## 6. Baud rate change

The initial setting of baud rate is 115.2kbps. In normal use, no need to change baud rate. In case the initial baud rate is not suitable to the environmental condition, please change the baud rate accordingly.

- 1) Please execute "Insmon.exe." and open InsMon. Note that data reception needs to be suspended during this period.
- 2) With the IMU powered on and connected, press the "COM" button. The following screen will be displayed.



- 3) Change the setting of BaudRate and Data bit to be desired and press OK.
- 4) Power on and restart IMU.
- 5) Press "AUTO" in COM Command Tab to complete the connection.

Note: The initial setting of baud rate is 115.2kbps. The frequency is 100 Hz max for GPS type, 200 Hz max for other models. If the baud rate is lowered, communication is not performed in maximum frequency. In that case, lower the frequency to suitable level.

## 7. Measurement

- 1) Please execute “Insmon.exe.” and startup InsMon.
- 2) Push “monitor 3” and following screen is displayed. (Screen is different depending on model)

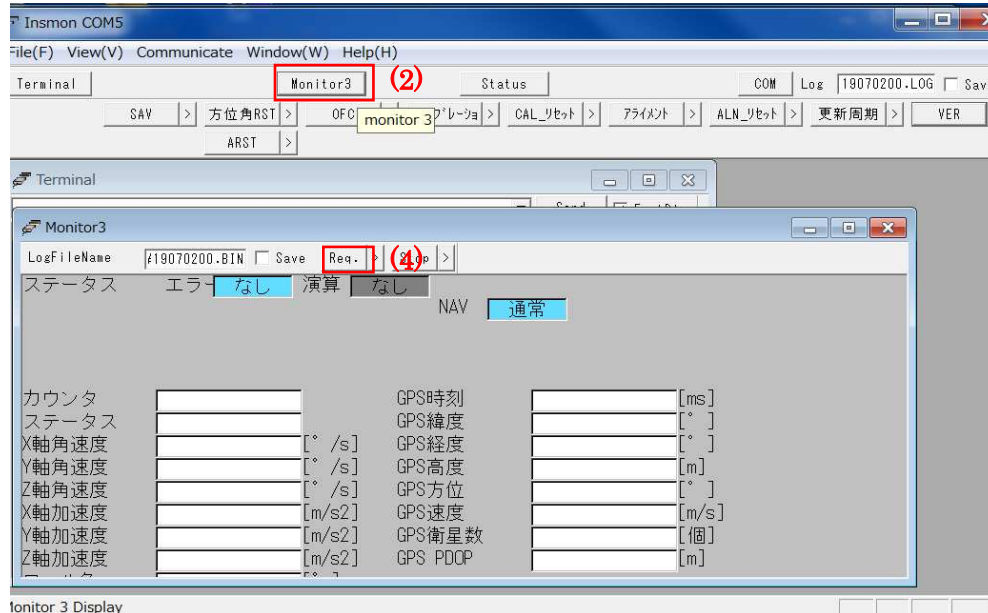


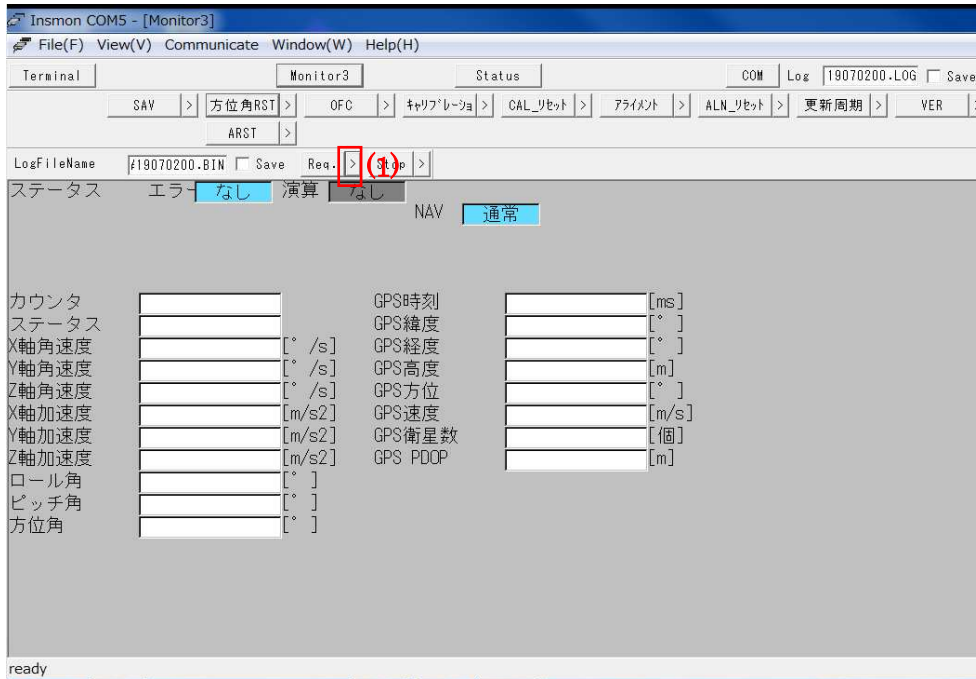
Figure 3. Measurement

- 3) Turn on IMU. If the device operates normally, the LED flashes green.
- 4) Press “Req.” button to start data reception. Each sensor will be measured and displayed on the screen. Please push the "Stop" button when you finish measurement.



## 8. Frequency change

- 1) Press the ">" button to the right of the "Req" button.



- 2) Command Edit is displayed on the screen.
- 3) "Freq," in Figure 4 shows the current setting of frequency. Change the setting of frequency to be desired and press "send".

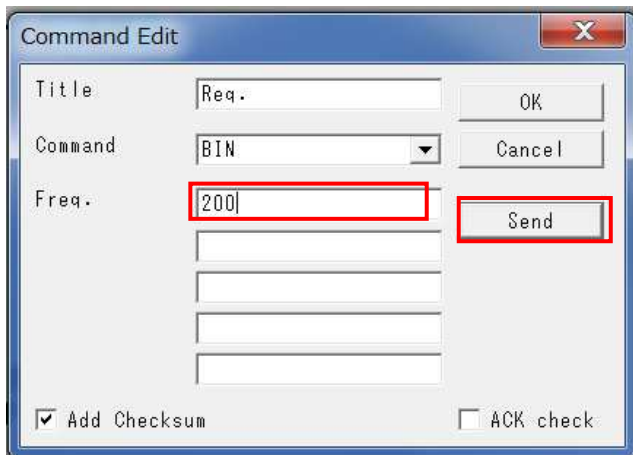
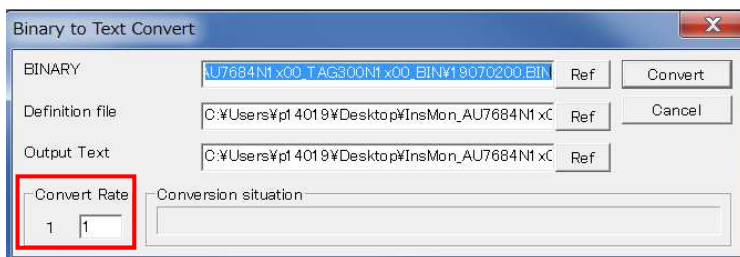
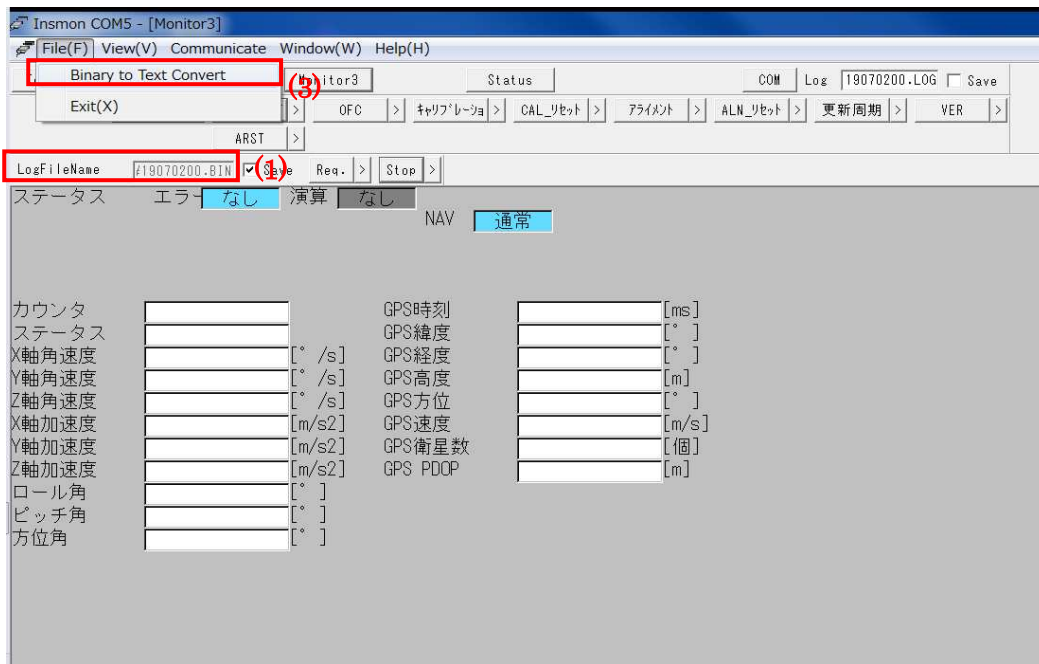


Figure 4. Command Edit

Note: The frequency that can be received is the values obtained by dividing 200 by an integer. For example, 200, 100, 66, 50..., etc. If you input such as 150Hz, the value is automatically changed to 100Hz. 75Hz is automatically changed to 66Hz. In case of less than 1Hz, 0.5Hz, 0.2Hz, and 0.1Hz are available.

## 9. Data save

- 1) Input the title of file and click the save checkbox. Only BIN file can be used.
- 2) Press the “Req.” button and start data reception. Press “Stop” button when you finish measuring. The data is created in the same folder as the exe file.
- 3) After the data reception, you can convert a BIN file into csv file by Binary to Text Convert in File tab. You can also change the data conversion rate which initial setting 1.



## 10. Command input

- 1) With IMU being connected, press "Stop" button in monitor 3.
- 2) Press the "Terminal" button to open the screen, and enter the send command in the command field.

Ex) Offset cancel command (time: 3 seconds): \$TSC,OFC,3

\*Checksum is can be abbreviated.

