Common Measurement Setting

■ **Operation mode**

<High-speed>

This mode continuously transfers measured profiles to a PC at high speed via a USB or Ethernet connection.
Use for processing profiles at high speed in your original PC program.

The controller performs the following processing:
Laser beam emission (trigger) -> Imaging -> Profile creation/Buffering -> Continuous profile transfer

* Profiles can be read out by using communication commands as well.
There are various patterns for reading. (Refer to the "Communication library reference manual" for details.)

* Position correction, OUT measurement, and judgment output are not performed.
* Ethernet is recommended over USB for fast communication.

<Advanced function>

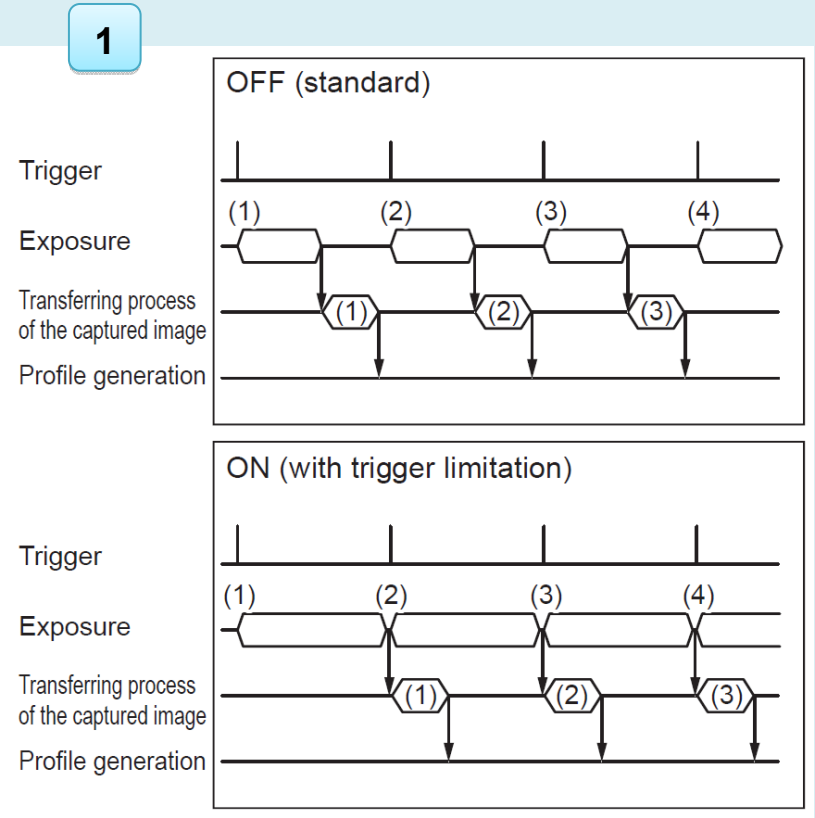
This mode performs position correction, OUT measurement (up to 16 points), and judgment output for measured profiles.
Use this mode to minimize external processing by completing the measurement result output through the controller functions.

Common Measurement Setting

■ Parallel imaging (1) * Valid only in high-speed mode

Set whether to perform "exposure" of an imaging element in parallel with "captured image transfer".
If parallel imaging is turned on, an entire sampling time can be used for exposure, which enables a more stable measurement at higher speed even on low intensity workpieces.

However, the following restrictions apply:
- The last imaged profile is created with each trigger.
- Modes other than continuous trigger mode require one extra trigger.
- If a trigger interval is 10 ms or longer, the last imaged profile will be lost.



■ Memory assignment

The controller internal memory is used for storing profiles and OUT measurement values through buffering of measured profiles or the storage function.

* The storage function is not available in high-speed mode.
* All stored data will be cleared in the following instances regardless of the memory assignment method.
  - When power to the controller is turned off.
  - When "Thorough initialization (return to default)" is executed.
  - When "Clear memory" is executed.
  - When setting is changed.
  - When a system error occurs.

Common Measurement Setting

Select an memory assignment method from the following according to usage.

<All area (overwrite)>
Uses the entire internal memory for buffering measured profiles and storing such items as OUT measurement values.
Maximizes the amount of data that can be stored (buffered) in a single program measurement.
All stored data will be cleared if a program is switched.

<Double buffer>
Divides the internal memory into A side and B side and alternates these two sides at every program switching.
Stored (buffered) data can be read out during the next program measurement because data is not cleared immediately by single program switching.
However, if a program is switched twice, data stored (buffered) prior to the last switch is cleared.

<All area (not to overwrite)>
Uses the entire internal memory for buffering measured profiles and storing such items as OUT measurement values.
Data stored in the internal memory is not cleared even if a program is switched.
Use this mode to continue storage while switching programs and read out all stored data at one time after storage is completed.

* In this setting, all stored data can be read out only when using your original program through the included communication library. (The LJ-Navigator2 reads out only data stored in the current program.)

Common Measurement Setting

■ Operation at FULL memory * Valid only in high-speed mode

Set whether to overwrite old data when the internal memory (one side of it in "Double buffer") becomes full of storage data.

■ Strobe output time * Valid only in advanced function

The fastest update cycle for judgment output is twice the strobe output time.

■ Minimum input time for terminal setting

Set the minimum ON time in which the terminal control is deemed valid.
Set it short for higher-speed terminal control and long for
preventing incorrect operations and chattering due to noise.

■ Program switch

Select either "communication command/touch operation/console" or
"external terminal (P1/P2/P3/P4)" to switch the program number.