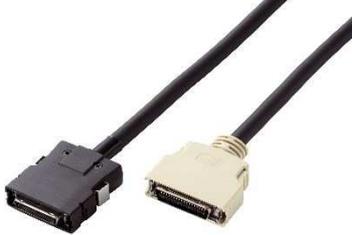


# Motorized Test Stand Application Examples

Motorized test stand MX2/EMX/MH2 series are equipped with various functions which realize more efficient and more advanced measurements.

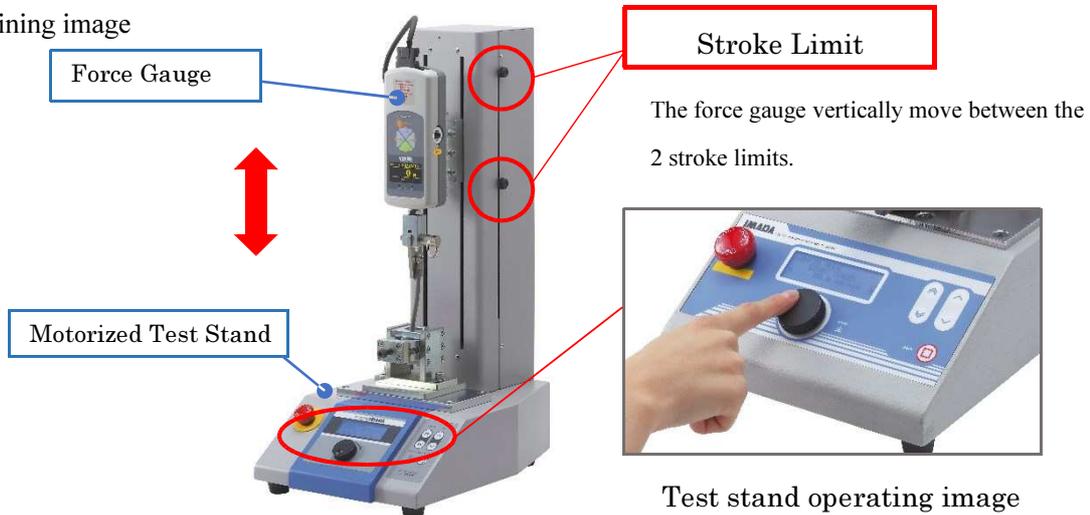
**Mutual functions for MX2/EMX/MH2 series**

© Various functions are available with combinations below.

MX2/EMX/MH2 series	Digital Force Gauge ZT series	Special Cable
		

\*Please contact us the cable models to our service group +81-(0)532-33-3288.

© Test stand combining image



## Function 1. Force Control Function

MX2 series and EMX series are equipped with force control function as a standard.

The connection of an optional special cable and force gauge ZT series enables to program measurement motions below.

© Application 1: Stop at the specific force value ©

The force gauge movement stops at the upper limit of force which is set on the force gauge. Afterward, it is back to the start side stroke limit. It is possible to command the stopping time with the test stand timer.

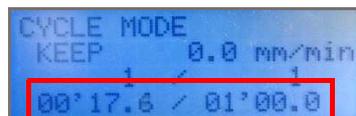
Motion1

Load force until the setting value.



Motion2

When the value reaches at the setting force, the force gauge movement stops for the test stand setting time.

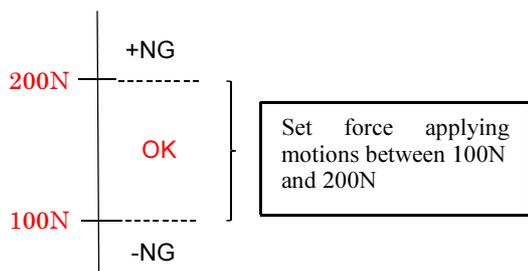


Motion3

The force gauge is back to the start stroke limit after stopping for the setting time.

\*There are unstopable possibilities depending on measuring speeds and sample hardness.  
\*MX2/EMX series, ZT series and a special cable are necessary.

◎ Application 2. Keep Applying the Setting Force (Range)◎



When the upper limit is 200N and the lower limit is 100N

The operation can be programmed to keep the force in OK range (between the upper limit and the lower limit). The range is able to be set with the force gauge. While the stop time is set with the test stand timer.

This function is useful when loading specific force for specific time. For example, the durability test of food containers.

\*There are unstopable possibilities depending on measuring speeds and sample hardness.  
\*MX2/EMX series, ZT series and a special cable are necessary.

Function 2. Speed Setting for Measurements

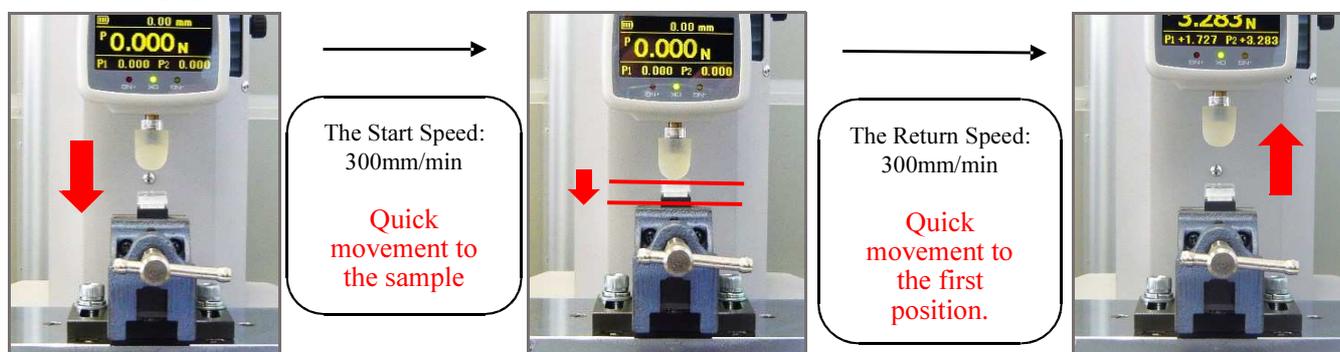
MX2 series /EMX series /MH2 series are able to program 3 speed patterns. Start speed, Measuring speed and Return speed. This function reduce waiting time. Therefore, speedy measurements are possible.

◎How to use the speed settings ◎

The start speed changes to the measurement speed when the force gauge reaches at the setting lower limit of limit.

For example, in the case of start speed at 300mm/min, measuring speed 10mm/min and return speed 300mm/min and the force lower limit 0.5N...

The speed changing example



The measurement first position ~ the Loading starts (the Measurement start motion)

The force reaches at the setting force ~ the Loading finishes (the Loading motion)

The loading complete ~the first position (the Motion complete)

Measuring speed:  
10mm/min  
Load moderately

Speedy measurements by quick movements

\*There are unstopable possibilities depending on measuring speeds and sample hardness.

\*MX2/EMX series, ZT series and a special cable are necessary.

### Function 3. Varieties of Input and Output Functions

MX2 series/EMX series/MH2series are equipped with varieties of input and output functions. These help progressive measurements.

◎ Application Example 1.Zero reset and Data sending of force gauge◎

The displayed force is able to reset to zero at the movement start while the ZERO ON START is activated. Automatic data sending to PC is possible at the reciprocating motion finish while the automatic sending data function SEND SIGNAL is activated.

◎Application Example 2.Auto saving of software◎

Force Recorder, software for force gauges, automatically starts data saving at the measurements start while the test stand RECORD TRIGGER is activated. Besides, the saving is automatically finishes at the reciprocating motion finish.



Measurement Start with the test stand start button.

Measurement finishes when reciprocating motions complete

Measurement Start

Measurement Finish

Application Example 1

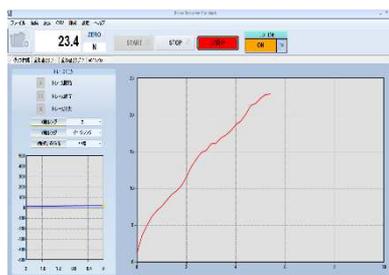


Force Value Zero Reset

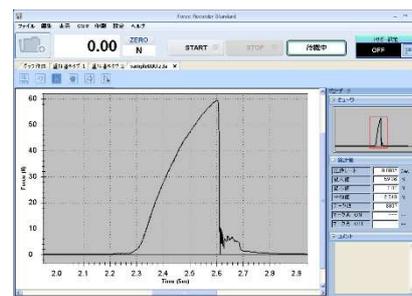
番号	荷重	判定	時刻	日付
14	1.10N	OK	17:07:52	2013/11/07
15	0.00N	OK	17:07:52	2013/11/07
16	-4.79N	-NG	17:07:52	2013/11/07
17	6.15N	+NG	17:07:52	2013/11/07
18	-6.54N	-NG	17:07:53	2013/11/07
19	-4.79N	-NG	17:07:53	2013/11/07
20	6.15N	+NG	17:07:53	2013/11/07
21	-3.34N	OK	17:07:53	2013/11/07
22	-8.67N	-NG	17:07:53	2013/11/07
23	7.49N	+NG	17:07:53	2013/11/07
24	3.58N	OK	17:07:53	2013/11/07
25	-9.23N	-NG	17:07:53	2013/11/07
26	1.71N	OK	17:07:53	2013/11/07
27	11.58N	+NG	17:07:53	2013/11/07
28	-4.75N	-NG	17:07:54	2013/11/07

Automatic transfer the values to PC

Application Example 2



Start the Graph Drawing



Stop and Save the Drawing Graph

※MX2/EMX/MH2 series and ZT series and a special cable are necessary.

**MX2, MH2 (option-CN specification)/EMX series mutual functions**

◎Various functions can be used when combining products below.

MX2/MH2(Option-CN specification) or EMX series	Special cable
	

\*Please contact our service group +81-(0)532-33-3288) for the cable model

**Function 4.Various Input and Output functions**

MX2 series with CN option and EMX series are equipped with expandable input and output functions. Unique using is available.

Below are possible measurements by connecting an optional cable and force gauge ZT series.

◎Application Example 1. Operation from external devices◎

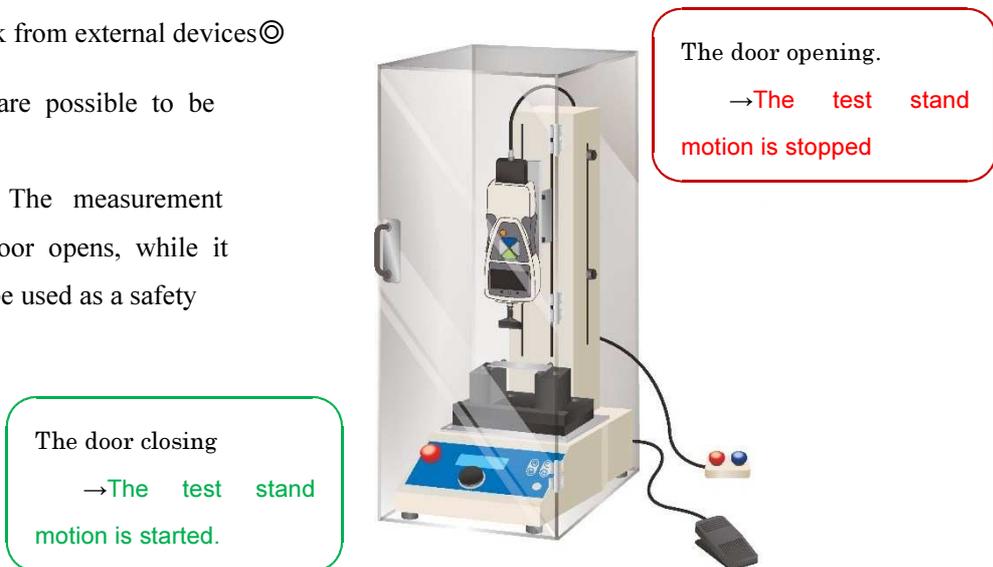
The test stand motions such as start and stop can be operated with external contact signals from external devices For example, the stepping operation is possible with a connected foot switch.



◎Application Example 2: Safety Lock from external devices◎

External contact point signals are possible to be used as safety interlock functions.

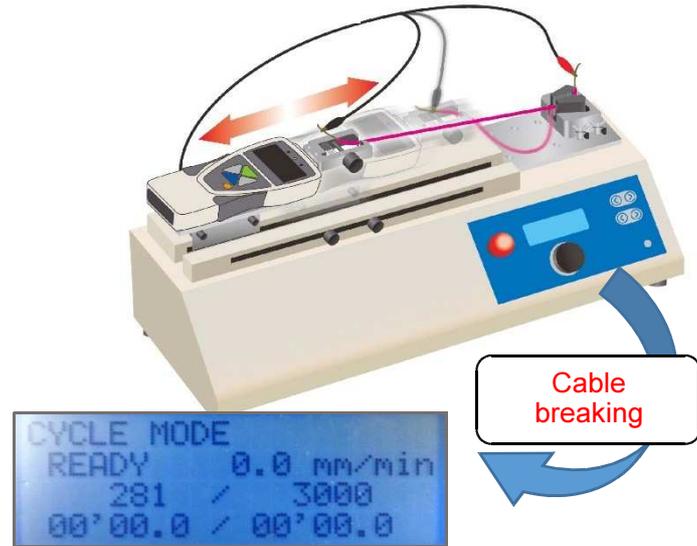
For example, a safety door. The measurement motions do not start when the door opens, while it starts when the door closes. It can be used as a safety equipment.



© Application Example 3. Automatic stop with external contact point ©

Automatic stop is possible at the cable broken moment while the both ends of cable are connecting the test stand with external connect point. It is effective for cable durability test which repeats pulling the cable at specific force.

It also counts the number of measurements until the breaking.



Count the measurement repeating number (the reciprocating number)

※MX2/EMX/MH2 series and ZT series and a special cable are necessary.

Please feel free to contact us for necessary devices +31 (0) 53 4356060

