

## TTT-710 Turntable

### Supported models include:

pH Meter HM-42X/30R, Conductivity Meter CM-42X/30R,  
Multi-function Water Quality Meter MM-43X/60R,  
Automatic Titrator AUT-701, Acidity Titrator TA-70,  
Salinity Titrator TS-70, Potentiometric Titrator TP-70  
and Automatic Burette ABT-511

\*For information regarding older models, please contact us.



## Continuous and automatic multiple-sample measurement capability

### ■ Continuous and automatic measurement of up to 100 samples possible

4 types of tables (for 12, 18, 36 and 60 samples) are available for a wide range of purposes.

Also, a 100-sample table is available as a factory-installed option.

### ■ Easy maintenance

Electrode cleaning tank and electrode storage tank are placed on the front of the unit.

This enables easy maintenance of tubes, electrodes, etc.

### ■ Wide-range of electrode cleaning modes available

Pure water shower cleaning comes as a standard feature.

Chemical cleaning, bubbling cleaning, and air blow modes are also available as optional features.

### ■ Turntable with a thermostatic tank (factory-installed option)

Multiple-sample measurement at a constant temperature can be performed (The circulation-type thermostatic tank that can be externally added to a system must be purchased separately.)

### ■ Next sample stirring function (factory-installed option)

The instrument can prepare the next sample to be tested by stirring the sample in advance.

This function helps when it takes a long time for the sample to mix or react with reagents properly.

### ■ Analyzer mount for extra space-saving (optional)

The instrument can be added to various systems:

### ● Multiple-portion pH/conductivity measurement system using the Multi-function Water Quality Meter MM-43X

Capable of simultaneously measuring multiple portions of one sample for pH and conductivity.

### ● Dual automatic titration system for multiple samples using the Automatic Titrator AUT-701

Capable of performing two different types of titration on multiple samples.

### ● Reagent dispensing system to multiple samples that uses the Automatic Burette ABT-511

Capable of fixed rate continuous dispensing of reagents to multiple samples.

## Specifications

Display	LCD	
Number of samples/ Beakers used	12 samples	200mL beaker, 300mL tall beaker (Our recommendation: Glass beakers manufactured by AGC TECHNO GLASS CO., LTD. or HARIO CO., LTD.)
	18 samples	100mL tall beaker (Our recommendation: Glass beakers manufactured by AGC TECHNO GLASS CO., LTD. or HARIO CO., LTD.)
	36 samples	30mL beaker, 50mL tall beaker (Our recommendation: Glass beakers manufactured by AGC TECHNO GLASS CO., LTD.)
	60 samples	20mL dedicated beaker (H-20 beaker manufactured by NICHIDEN RIKA-GLASS CO., LTD.)
	100 samples	20mL dedicated beaker (H-20 beaker manufactured by NICHIDEN RIKA-GLASS CO., LTD.)
Stirring method	Standard: Magnetic stirring Option: Propeller stirring	
External control input/ output	For RS-232C (X-series, R-series, AUT-701/AUT-501,TA-70/TS-70/TP-70) Input/output for OPTION2 (R-series, G-series) Input/output for automatic burette ABT-511 and flow comparison unit FAR-201A Input/output for external control box Output for air pump box Input for liquid level sensor signal (cleaning water 1, waste water) Output for over-head stirrer unit power	
Cleaning mode	(1) Pure water shower → Air blow (2) Pure water bubbling → Pure water shower → Air blow (3) Chemical shower → Pure water shower → Air blow (4) Chemical bubbling → Pure water shower → Air blow (5) Chemical bubbling → Pure water bubbling → Pure water shower → Air blow (6) Chemical bubbling → Chemical shower → Air blow (7) Chemical shower → Air blow (8) Chemical bubbling → Pure water bubbling → Chemical shower → Air blow <b>Note:</b> ·Air blow cleaning is available when the optional air pump box is installed. ·Chemical cleaning is available when the optional external control box and chemical pump are installed. ·Bubbling cleaning is available when the optional air pump box and waste water valve are installed.	
Cleaning time	0-9999 seconds	
Air blow frequency	1-9 times	
Measurement repetitions for same sample	1-9 times	
Detection of final sample	Possible by using completion detection pin or defining the final sample number by key operation	
Cleaning tank material	Polypropylene	
Stirring time before measurement	0-9999 seconds	
Waiting time before measurement	0-9999 seconds	
Liquid level alarm	Cleaning water 1 (pure water): Empty Cleaning water 2 (chemical liquid): Empty (when the optional chemical liquid level sensor is connected) Waste water: Full	
Performance-guaranteed temperature	5-40° C	
Power requirements	100-240VAC, 50/60Hz	
Power consumption	Standard	When 100VAC is applied: Approx. 60VA at the maximum When 240VAC is applied: Approx. 90VA at the maximum
	When optional product is connected	When 100VAC is applied: Approx. 100VA at the maximum When 240VAC is applied: Approx. 130VA at the maximum
Dimensions	Main unit (not including table)	Approx. W440 x H409 x D391mm
	When table is attached	Approx. W566 x H409 x D507mm
	Maximum dimensions when in operation	Approx. W566 x H534 x D507mm
Weight of main unit	Approx. 16kg (Not including table and electrodes)	

## Standard Accessories

Table (Specify either for 12, 18, 36 or 60 samples)
Electrode cartridge (Specify a suitable type depending on the number of samples/purpose)
Cleaning water tank (10L, with liquid level sensor)
Waste water tank (10L, with liquid level sensor)
Cleaning water tube (3m)
Waste water hose (1.5m)
Completion detection pin
Power cord
2P-3P conversion adapter
Disposable beaker
Operation manual

## Options

Product	Code No.
Turntable connection cable (2m) Serial control cable for connection to HM-42X, CM-42X or MM-43X	7433040K
Turntable connection cable (2m) Serial control cable for connection to HM-30R, CM-30R or MM-60R	118C087
Turntable connection cable (2m) Cable for connection to AUT-701, TA-70, TS-70 or TP-70	7075670K
OPTION2 connection cable Analog control cable for connection to R-series/ G-series	7401740K
ABT-511 connection cable	7401750K
FAR connection cable	7401760K
Air pump box (for air blow)	7400560U
Air pump box (for air blow and bubbling)	7401640U
Waste water valve for TTT-710 (pinch cock)	7401650U
Waste water valve for TTT-710 (solenoid valve)	7401660U
Propeller stirring unit (for table for 12 or 18 samples)	7401670U
Propeller stirring unit (for table for 36 samples)	7401680U
Propeller stirring unit (for table for 60 or 100 samples)	7401690U
Analyzer mount (for R-series)	7401700U
Analyzer mount (for AUT-701)	7401710U

For further information regarding chemical cleaning, please contact us.



**DKK-TOA CORPORATION**



**CAUTION**

Please read the operation manual carefully before using products.

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