TTT-710
Turntable

Supported models include:
- pH Meter HM-30R
- Conductivity Meter CM-30R
- Multi-function Water Quality Meter MM-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.

- Analyzer mount for extra space-saving (optional)
  A dedicated analyzer mount is available for space-saving installation of the unit, includes analyzer.
  (Mounts are available in 2 types - one for R-series and another for automatic titrators.)

- 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.

The instrument can be added to various systems:

- Multiple-portion pH/conductivity measurement system using the Multi-function Water Quality Meter MM-60R
  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

### Stirring method
- Standard: Magnetic stirring
- Option: Propeller stirring

### External control input/output
- For RS-232C (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
- Output 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 bubbling → Pure water shower → Air blow
- (5) Chemical bubbling → Chemical shower → Air blow
- (6) Chemical bubbling → Pure water bubbling → Chemical shower → Air blow
- (7) Chemical shower → Air blow
- (8) Chemical bubbling → Pure water bubbling → Chemical shower → Air blow

#### 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
- When 100VAC is applied: Approx. 60VA at the maximum
- When 240VAC is applied: Approx. 90VA at the maximum

### Dimensions
- Main unit (not including table): Approx. W440 x H409 x D391mm
- Main unit (when table is attached): Approx. W566 x H409 x D507mm
- Stand: 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

<table>
<thead>
<tr>
<th>Product Code No.</th>
<th>Turntable connection cable (2m)</th>
</tr>
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<tbody>
<tr>
<td>1190087</td>
<td>Cable for connection to HM-30R, CM-30R or MM-60R</td>
</tr>
<tr>
<td>7075670K</td>
<td>Turntable connection cable (2m)</td>
</tr>
<tr>
<td>7401740K</td>
<td>Cable for connection to AUT-701, TA-70, TS-70 or TP-70</td>
</tr>
<tr>
<td>7401750K</td>
<td>ABT-S11 connection cable</td>
</tr>
<tr>
<td>7401760K</td>
<td>FAR connection cable</td>
</tr>
<tr>
<td>7400560U</td>
<td>Air pump box (for air blow)</td>
</tr>
<tr>
<td>7400560U</td>
<td>Air pump box (for air blow and bubbling)</td>
</tr>
<tr>
<td>7401640U</td>
<td>Waste water valve for TTT-710 (pinch cock)</td>
</tr>
<tr>
<td>7401660U</td>
<td>Waste water valve for TTT-T70 (solenoid valve)</td>
</tr>
<tr>
<td>7401670U</td>
<td>Propeller stirring unit (for table for 12 or 18 samples)</td>
</tr>
<tr>
<td>7401680U</td>
<td>Propeller stirring unit (for table for 36 samples)</td>
</tr>
<tr>
<td>7401690U</td>
<td>Propeller stirring unit (for table for 60 or 100 samples)</td>
</tr>
<tr>
<td>7401700U</td>
<td>Analyzer mount (for R-series)</td>
</tr>
<tr>
<td>7401710U</td>
<td>Analyzer mount (for AUT-701)</td>
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**CAUTION**

Please read the operation manual carefully before using products.

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Specifications and prices are subject to change without notice.

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