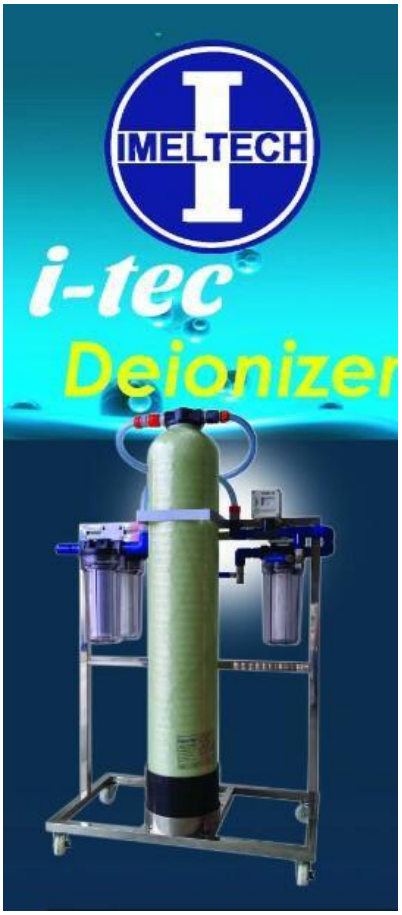
i-tec

i-tec PORTABLE DEIONISER SYSTEM

User's Manual



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CONTENTS

1.0 SYSTEM DESCRIPTION

Imeltech Ultra-Pure water systems employ “portable service” deionizer tanks. The portable exchange designation means that the tanks installed at the site are removed and returned to the supplier’s plant when they are exhausted. A new, fully regenerated portable deionizer column is left at the site so there will be no interruption in the supply of demineralised water. The capacity of these units will vary depending on the total dissolved minerals in the feed water to the deionizer column. Depending on the water quality and volume requirements, installations can consist of a single small column or several larger units in series.

The deionizer process module of the Portable DI Column system consists of two basic types of deionizer processes. Either of these two types can be employed in the Ultra-Pure water system depending on the quality and quantity requirements of the user.

First, the “two bed” deionizer system employing two different types of resins. This system uses two tanks. The first tank contains a cation resin and the second tank contains an anion resin. The chemical process in this system is such that when the water supply passes through the cation unit, cations such as calcium, magnesium and sodium are removed and replaced with hydrogen ions. Water quality obtained from this type of two bed deionizers normally is about 0.3 to 0.5 mega ohm/cm.

The Imeltech Ultra-Pure water system is the “one bed” deionizer process. In this system, the cation and anion resins are mixed together and placed in a single tank. Generally, single bed systems will produce water considerably in excess of 1 mega ohm/cm.

Higher purity water can be obtained if two mixed-bed DI columns are installed in series. Water quality of 15 mega ohm/cm and above can even be obtained with this configuration.

2.0 SYSTEM FEATURES

FUNCTION OF EACH FILTER, PORTABLE DI COLUMN AND PURITY METER.

1. SEDIMENT PRE-FILTER (5 micron) is installed to remove suspended particles in the feed water.

2. ACTIVATED CARBON FILTER is installed to remove chlorine and organic matters in the feed water. Dissolved chlorine in the feed water, if not removed, will damage the resins and reduce capacity of the DI resins.

3. PORTABLE DI COLUMN removes dissolved solids and purify the feed water.

4. POST FILTER (1 micron) is a resins trap and removes trace resins which may slip through the deionizer resins strainer.

5. PURITY METER is installed to test water quality. (refer to attachment on the last page of this manual on Purity Meter)

2.1.1 SPECIFICATIONS

MODEL	FLOWRATE (litres per hour)		(Based on influence water T.D.S. at 50 ppm as Nacl)		VOLUME OF MIXED BED RESIN	TANK SIZE (INCHES)	
	AVERAGE	MAXIMUM	QUALITY	THROUGHPUT		DIAMETER	HEIGHT
MBD 0844	490	900	2 meg ohm	18,000 litres	30 litres	08"	44"
MBD 1040	650	1,200	2 meg ohm	24,000 litres	40 litres	10"	40"
MBD 1054	820	1,500	2 meg ohm	30,000 litres	50 litres	10"	54"
MBD 1252	1,200	2,250	2 meg ohm	45,000 litres	75 litres	12"	52"
MBD 1354	1,600	3,000	2 meg ohm	60,000 litres	100 litres	13"	54"
MBD 1465	2,300	4,350	2 meg ohm	87,000 litres	145 litres	14"	65"

2.1.2 ENVIRONMENT REQUIREMENTS

Temperature : Operating ambient temperature from 16° - 32°C at relative humidity ≤ 70%

2.1.3 WATER REQUIREMENTS

Water quality : In accordance with JBA Standard for Drinking Water

Input Pressure : 1.5 – 3.5 bar Max. at 1.7 lit/min minimum flow

Water Temp : 10 -30°C

2.1.4 DRAIN REQUIREMENTS

Drainage must be able to discharge 6 lit/min of water and must not placed higher than 6" below bottom of system.

2.1.5 PERFORMANCE CHRACTERISTICS

1. System operates on 9 Volts DC for Digital circuitry for the Purity Meter.
2. Built in a splash proof panel.

3.0 INSTALLATION OF **i-tec** PORTABLE DI SYSTEM

3.1 Select a firm flat floor to sit the system on.

3.2 Connect JBA Raw water to the Raw water inlet connector

3.3 Connect the system drain to the drain outlet connector

4.0 SPARE PARTS LIST

	PORTABLE DI SYSTEM PART LIST
1	10" x 5 micron filter cartridge
2	10" Activated Carbon cartridge
3	10" x 1 micron filter cartridge
4	Regenerated MB Resins / or New Mixed-bed Resins

5.0 PURITY METER

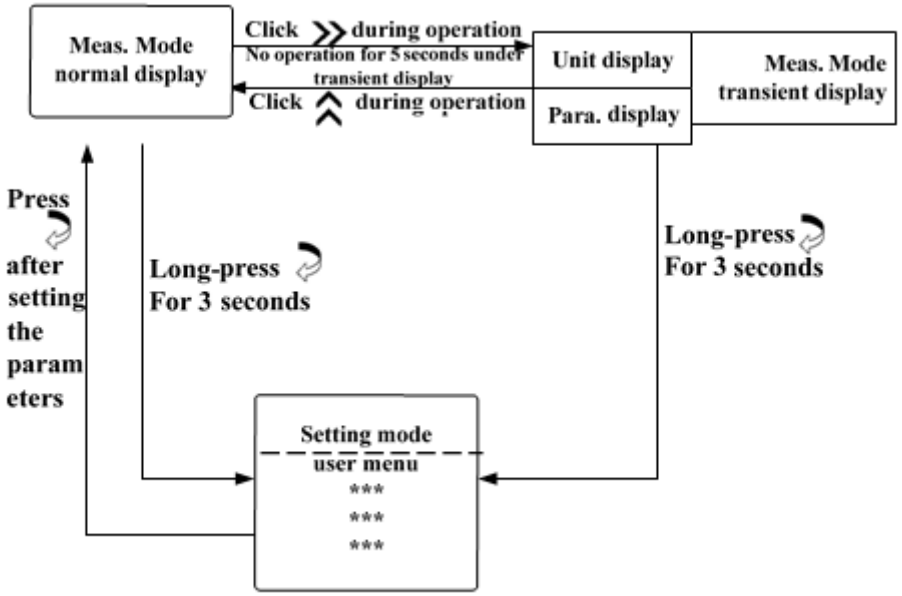
Settings

Please enter into the setting mode to check and set the relative parameters for your first use. These parameters are in different menus.
The starting time for this instrument is about 10 seconds and the measurement data during this time is invalid.

Front View

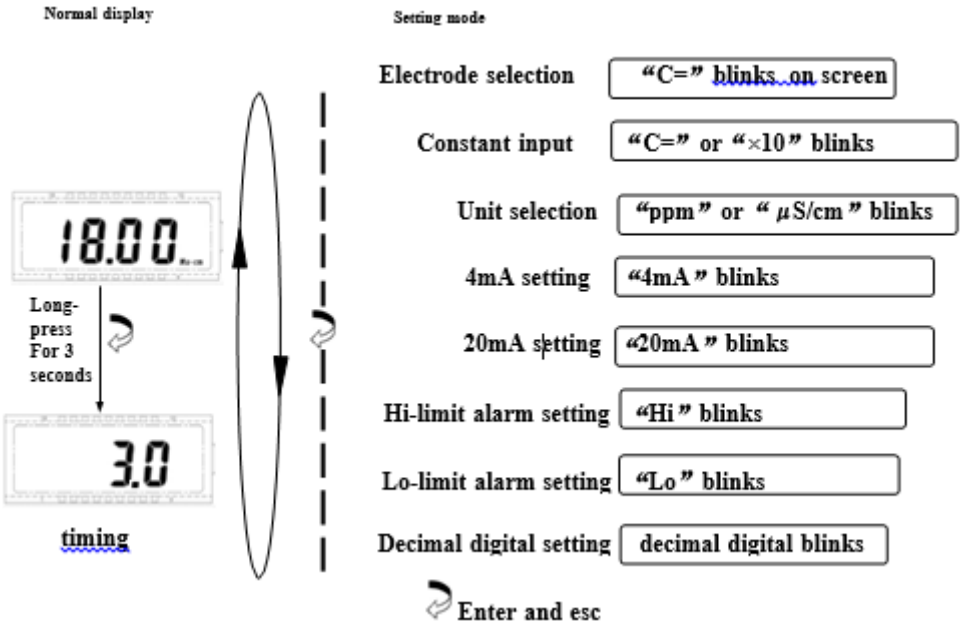
»	Select key	1. select thousand, hundred ,ten and unit in circulate under parameter setting interface 2. switch to display conductivity/TDS/resistivity under measurement condition
^^	Add key	1. Adjust the value under parameter setting status. 2. Check the temperature/mA reading under measurement status.
↵	Enter key	1.Enter parameter setting under main menu 2.Save the parameters and enter next menu

Two operation modes for CCT-3300 series：
◆measurement mode: normal display/transient display
◆setting mode: for parameter setting switch diagram：



Mode settings

Some parameters have been set before leaving factory. If the test environment changes(such as replacement of electrode, reset the alarm setting), please check the parameter which is in different menus. The specific content and operations as follows:



⚠ The setting value of 4mA and 20mA can not be equal. ! !

⚠ The decimal digits setting is only for C=0.01 cm-1 electrode selection.