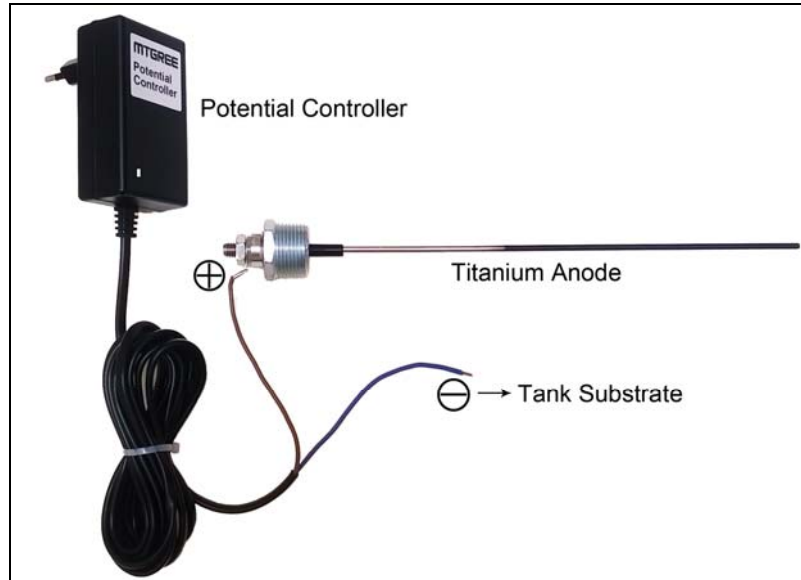


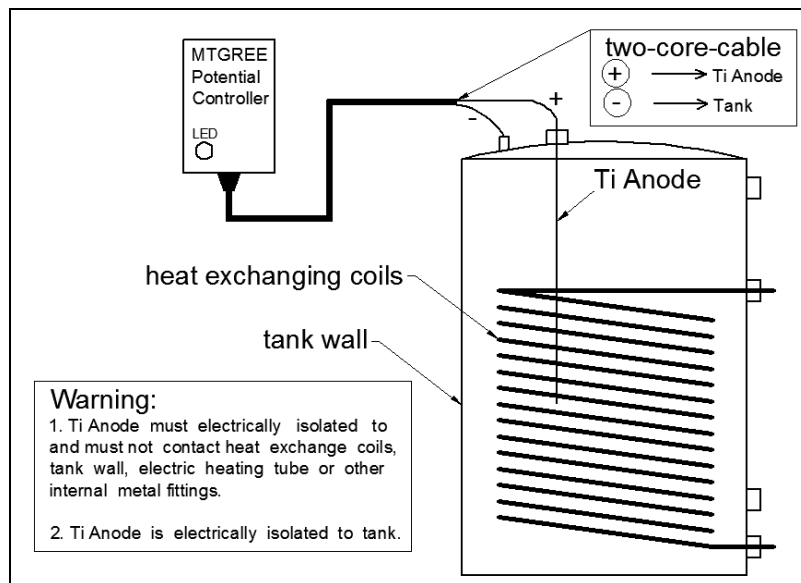
Datasheets, Installation and Operating Instruction for ME® or MT® ICCP systems

I. Introduction to ME® or MT® ICCP system

A. ME® or MT® system parts



B. Figure A: Schematic Installation of ME® or MT® system in a Tank.



C. ME® or MT® models are impressed current corrosion protection systems (ICCP). Each model of ME® or MT® system consists of a potential controller, a titanium electrode with Mixed Metal Oxide Coating, a R3/4 (or G3/4 or NPT3/4) screw for installation, cables and connector;

D. ME® or MT® system impresses protecting current to tank, measures tank off-potential periodically, regulates output current and precisely maintains tank potential, so as to protect tank from getting corroded;

E. Thanks to MMO coated titanium electrode, ME® or MT® system is designed to serve more

than 10 years and needs no maintenance or replacement than other system using a sacrificial magnesium anode or an aluminum anode;

II. ME[®], MT[®] parameters and applications

Below information is for reference purpose only when selecting a system for your tank. Pls contact Mtgree Co., Ltd for more technical instruction and information.

Note: P. Controller= Potential Controller, P.Target= Potential Target.

P.Controller	For Enameled Carbon Steel Tank					For Stainless Steel Tank			
	ME [®] UP	ME [®] OP					MT [®] UP	MT [®] OP	
Input	110-230 VAC, 50HZ	110-230 VAC, 50HZ					110-230 VAC, 50HZ	110-230 VAC, 50HZ	
Output Current	50 m A	100 m A					100 m A	180 m A	
P.Target	2.3 V	2.3 V					1.9 V	1.9 V	
Ambient tem.	0°-70℃	0°-70℃					0°-70℃	0°-70℃	
IP Rate	55	55					55	55	
Tank Volume. Liter	1x Ti200	1x Ti400	2x Ti400	1x Ti800	2x Ti800	1 x Ti400	1x Ti800	2x Ti800	
50	★					★			
80	★					★			
150	★					★			
200		★				★			
300		★					★		
400		★					★		
500		★					★		
800			★	★			★		
1000			★	★			★		
1500			★	★				★	
2000					★			★	

III. Warnings against personnel injury and water heater damage in process of installing ME[®] or MT[®] system:

- A. This system must be installed only by qualified persons;
- B. Before installing ME[®] or MT[®] system in tank, please turn off the electric power to your water heater, for defective electric heating tube element might cause fatal electric strike to person;
- C. Wrong polarity causes increased tank corrosion, please make sure right polarity of connecting cable. Right connecting is:
- D. Potential Controller “+” pole → Titanium anode;

Potential Controller “-” pole → Tank Substrate;

- E. Titanium anode touching internal tank wall or other metal tank fittings causes increased tank corrosion or increased fittings corrosion or ME[®] or MT[®] system malfunctioning.
- F. Please keep tank full of water all the time in order to run ME[®] or MT[®] system properly. If MMO coated part of titanium electrode does not contact water completely, ME[®] or MT[®] system will not work properly and will not protect your tank;
- G. Please power ME[®] or MT[®] system all the time, power off leads to no corrosion protection.

IV. Process of installing ME[®] or MT[®] system to your tank:

- A. To power off your water heater;
- B. To shut down inlet valve to tank;
- C. To empty water from tank;
- D. To remove magnesium rod or aluminum rod from tank;
- E. To install ME[®] or MT[®] system and make sure 1): titanium electrode does not contact inner tank surface or other metal fittings in the tank, 2): titanium anode is insulated with tank; 3) right polarity connection;
- F. By using a multimeter to measure the electric resistance between titanium electrode and tank construction before filling water into tank, this measured resistance is normally over 1 mega ohms;
- G. To fill water until tank is full and titanium electrode is completely immersed in water;
- H. To power on and start ME[®] or MT[®] system;
- I. To check if the LED lights green.

V. Warnings against User’s injury and water heater damage during ME[®] or MT[®] system running:

- A. This system must be maintained and troubleshot only by qualified persons;
- B. No power supply to ME[®] or MT[®] system, no corrosion protection to your tank, please keep ME[®] or MT[®] system power on all the time;
- C. For all the time, keep tank full of water. When titanium electrode does not completely contacting water, ME[®] or MT[®] system does not work properly or fails to work, or work life of ME[®] or MT[®] system will greatly decrease;
- D. Tapping water from tank at least one time per month to release gas produced by running of ME[®] or MT[®] system;
- E. ME[®] or MT[®] system is automatic and alarms with LED lighting red when something wrong happens, when ME[®] or MT[®] system runs properly, LED lights Green.

VI. Possible failure reasons when potential controller's LED lights red:

- A. Tank is not fully filled with water, or too much gas produced by ME[®] or MT[®] system accumulates inside tank;
- B. Wrong polarity connection;
- C. Electric insulation between Titanium Anode and Tank is not good;
- D. Open circuit for DC current from controller→titanium→tank→controller;
- E. ME[®] or MT[®] system power is not enough for your tank, i.e. your tank needs too much impressed current than your in-operation system can supply, your tank needs more powerful ICCP system.