

# CATCH THE WAVE

Triangular Wave Technologies, Inc. (TWT®)

*The Ultimate in Water Treatment & Conditioning*

*The green way*

# POOLS & SPAS

## SPARKLING CLEAR WATER CHEMICAL-FREE

The easy way to ensure your swimming experience is safe, fun and environmentally friendly!



ABOVE GROUND POOLS



SPAS



INDOOR POOLS



INGROUND POOLS

TWT® IonGuard  
(Ionization)  
Disinfection, Purification,  
Deposit Control Technology—  
ALL-IN-ONE  
PACKAGE SOLUTION





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Water Treatment & Conditioning  
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# SPARKLING CLEAR ALGAE-FREE WATER FOR POOLS & SPAS

**Triangular Wave Technologies, Inc. (TWT®)  
Technologically Advanced Pool Management Systems**

**Control scale deposits, algae, bacteria and corrosion without the need for chemicals. Eliminate the bio-film that serves as a breeding ground for disease-causing bacteria, collecting in your pool piping, tubing and equipment.**

## Easy on the Eyes

Gain peace of mind with TWT Enhanced Control Pool Management Systems, the chemical-free, safe and easy way to enjoy your pool and spa season! Your backyard or indoor pool is a place for relaxation. Everyone wants to avoid problems with their pool, and also with the effects of handling, storing, and swimming in harsh chemicals and treated water. The good news is TWT has the solution for all!

## Super Sparkling Water

The Enhanced Pool Management System works with your existing pool filter and pump systems to control deposits and purify the water, killing and removing harmful bacteria and algae, preventing corrosion and deterioration of your pipes and equipment. Reduce your chemical treatments and maintenance efforts by 90% or more, and make your swimming experience safe, fun, and environmentally friendly.

- **Chemical-Free (TWT®) Patented Deposit Control Technology**, hard water conditioning & treatment.
- **IonGuard (Ionization) Disinfection/Purification**, bacteria, algae, fungus control in pools & spas. IonGuard Purification System is an electrolytic copper/silver ion generator. The system units contain specially cast copper/silver alloy electrodes. These electrodes are mounted in a housing designed for easy access. The IonGuard Purification System purifies water through a process called ionization. This process utilizes a low voltage direct current (DC) to place precise and minute amounts of copper and silver ions into water systems. Copper ions kill algae and silver ions kill bacteria.

- Eliminate the need for chlorine and get the same results with TWT chemical-free treatment & conditioning systems
- Protect the investment in your pool/spa from the harsh effects of chemicals
- Enhance water quality, and improve operating efficiency and equipment life cycle.
- Eliminate the need for Chlorine (No more handling or storing harsh chemicals)
- Enhance Pool/Spa water quality (Sparkling clear water all the time)
- Improve operating efficiency of your pool equipment (Enhanced life cycle)
- Minimal maintenance (Spend more time with your friends and family)
- Lower electrical cost (Save energy)
- Lower labor cost (save your hard earned dollars)
- Lower replacement cost (Corroded pipes and fittings)
- Versatile and compatible with all pool/spa equipment
- A full range of systems to meet all pool/spa treatment requirements
- Safe and cost effective
- No more ruined cloths
- No more odor complaints
- No more irritated eyes
- Easy to follow illustrated, application, installation and maintenance manuals.
- Relax and enjoy your backyard or indoor swimming season

**Note: Review TWT website: [www.twtwatertreatment.com](http://www.twtwatertreatment.com) for additional Pool & Spa process and technical information**



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**TWT-SPK01-1 / Four (4) Unit Kit Application:**  
Designed to condition & treat water feed lines 1" or less in diameter



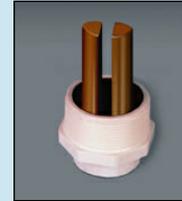
**TWTDCl-5C8-377**  
Integrated Ionization & Deposit Control System—0.5 amp control unit for pipes up to 1" or less  
Universal power supply

**SPAS**



**TWT-IDK-0265115**  
ID Electrode Installation Kit:  
3" Electrode, 1 1/2" PVC Tee, Tee-Cap and Conduit

**TWT-IRC-01 (1")**  
Schedule 40 PVC Industrial Reaction Chamber



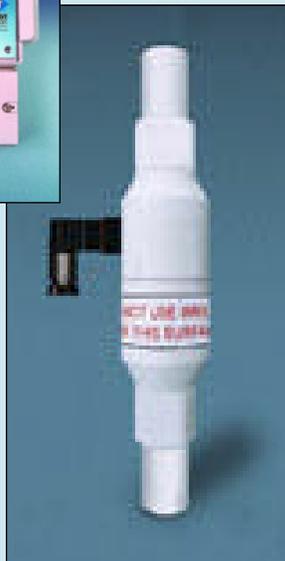
**TWT-RE-0245**  
1 1/2" Replacement Electrodes  
Alternate and clean electrodes periodically for enhanced life cycle and operating efficiency

**TWT-SPK02-1.5 / Four (4) Unit Kit Application:** Designed to treat water feed lines 1 1/2" or less in diameter



**TWTDCl-5C8-377**  
Integrated Ionization & Deposit Control System—0.5 amp control unit for pipes up to 1 1/2" or less  
Universal power supply

**POOLS**  
up to  
30,000 Gal



**TWT-IDK-0265122**  
ID Electrode Installation Kit:  
3" Electrode, 2" PVC Tee, Tee-Cap and Conduit

**TWT-IRC-1.5 (1 1/2")**  
Schedule 40 PVC Industrial Reaction Chamber



**TWT-RE-0255**  
3" Replacement Electrodes  
Alternate and clean electrodes periodically for enhanced life cycle and operating efficiency



**TWT-SPK03-2 / Four (4) Unit Kit Application:  
Designed to condition & treat water feed lines 2" or less in diameter"**



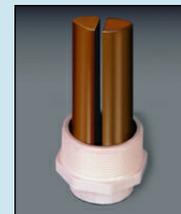
**TWTDCI-5C8-378**  
Integrated Ionization & Deposit Control System—1.25 amp control unit for pipes up to 2" or less  
Universal power supply

**POOLS  
40,000 / 80,000  
Gal**



**TWT-IDK-0265123**  
ID Electrode Installation Kit:  
6" Electrode, 3" PVC Tee, Tee-Cap and Conduit

**TWT-IRC-02 (2")**  
Schedule 40 PVC Industrial Reaction Chamber



**TWT-RE-0262**  
6" Replacement Electrodes  
Alternate and clean electrodes periodically for enhanced life cycle and operating efficiency

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**TWT-SPK04-3 / Four (4) Unit Kit—Designed to treat water feed lines 3" or less in diameter**



**TWTDCI-5C8-378**  
Integrated Ionization & Deposit Control System—2 amp control unit for pipes up to 3" or less  
Universal power supply

**POOLS  
90,000 120,000  
Gal**



**TWT-IDK-02651232E**  
ID Electrode Installation Kit:  
Two 6" Electrode, 3" PVC Tee, Tee-Cap and Conduit

**TWT-IRC-03 (3")**  
Schedule 40 PVC Industrial Reaction Chamber



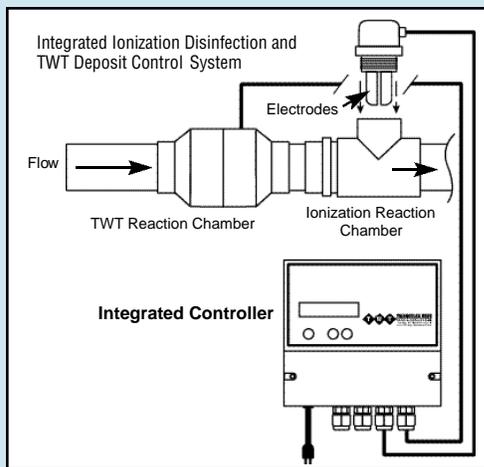
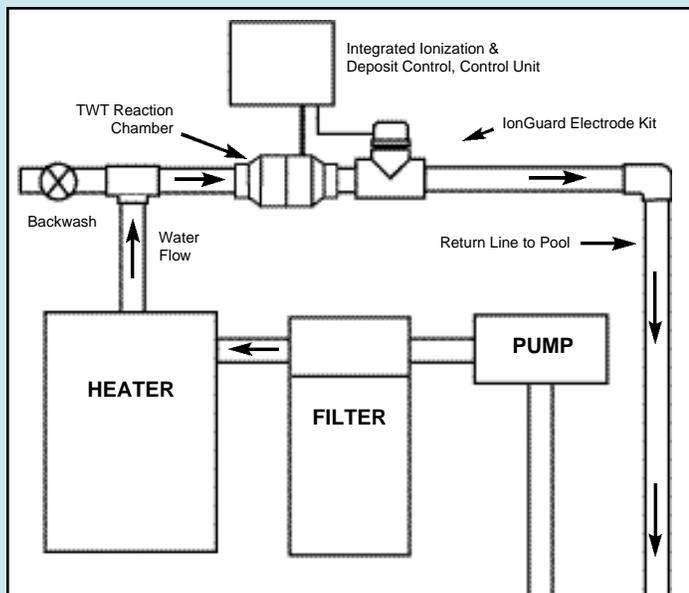
**TWT-RE-0262**  
6" Replacement Electrodes  
Alternate and clean electrodes periodically for enhanced life cycle and operating efficiency

# TUBE & PIPE APPLICATION & INSTALLATION GUIDELINES



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**Application Guidelines for KITS#:**  
**TWT-SPK01-1(1") • TWT-SPK02-1.5 (1 1/2")**  
**TWT-SPK03-2 (2") • TWTSPK04-3 (3")**



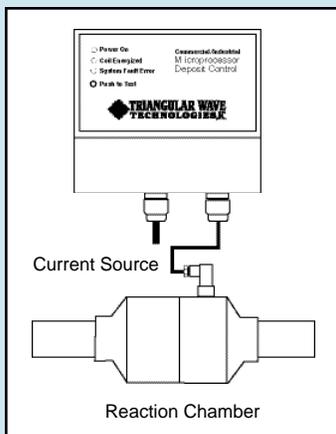
**Pools with copper water fed lines: (optional) TWT® St/St Factory Wrapped Reaction Chambers with Dielectric Union (Couplings) for Copper Pipe Applications**

**To ensure the maximum effect and results of our control systems please follow these guidelines:**

**Pools with steel water fed lines (optional):**

**TRIANGULAR WAVE TECHNOLOGIES REACTION CHAMBERS**

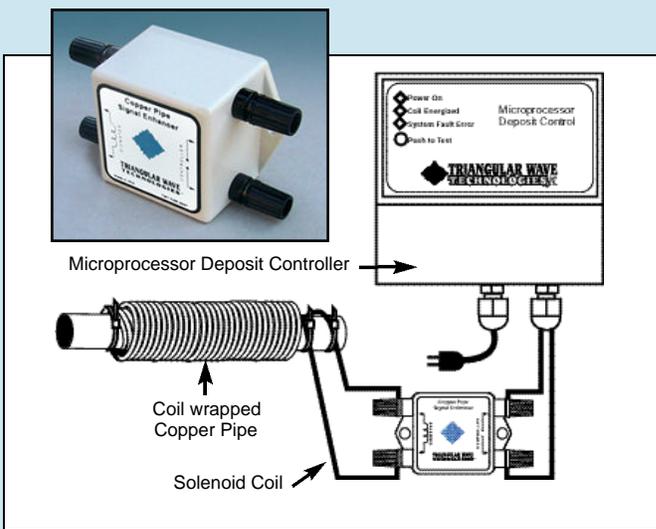
To use in conjunction with the TWT Deposit Control Systems when required, Triangular Wave Technologies, Inc. has developed a line of factory-wrapped wire coil Reaction Chambers to address magnetic pipe environments. **Typically, wire coil cannot be installed on any magnetic pipe, such as steel, galvanized steel, ductile iron, or cast iron.** If a coil is applied to such a pipe, the pipe becomes a shield and prevents the wave energy from entering the fluid path. The TWT Reaction Chambers solve this problem by providing an easily installed section of non-magnetic pipe to provide the proper pipe material for the Deposit Control System to work as designed. All TWT Reaction Chambers are fully sealed, protecting their layers of factory-wrapped coil. The PVC, Stainless Steel Industrial Reaction Chamber systems are designed and manufactured to meet the highest quality specifications.



Schematic rendering of solenoid hookup

The TWT Reaction Chamber is part of the patented TWT Deposit Control Technology, the function of which is to control scale and bio-film in the plumbing infrastructure, fixtures, and water-fed appliances found in the system being treated. The Reaction Chamber provides a chamber through which the water flows and is exposed to the triangular wave signal that lies at the heart of the deposit control technology. As the fluid passes through, it is treated and then carries that treatment downstream, to condition the rest of the plumbing system, non-chemically and reliably.

**TWT-CSE COPPER PIPE SIGNAL ENHANCER (For copper pipes only)**



Schematic rendering of the TWT-CSE-0227 hookup

**Copper pipes, although acceptable, are one of the more difficult of materials to work with. To overcome this difficulty...**Triangular Wave Technologies has designed its Copper Pipe Signal Enhancer. This unit is placed between the controller and the copper pipe solenoid. The function of the signal enhancer is to provide a proper impedance match and to ensure maximum energy transfer between the controller and the solenoid, which ensures enhanced treatment of the fluid. The Copper Pipe Signal Enhancer must be used in all copper pipe applications to maximize the performance, and provide a boost to your application.

The copper signal enhancer is a passive signal / impedance matching circuit. This device provides a power boost to the conditioning signal in copper pipes.

**IONGUARD DISINFECTION, PURIFICATION AND TWT® DEPOSIT CONTROL TECHNOLOGY—ALL IN ONE PACKAGE (KIT) TREATMENT FOR POOLS & SPAS**



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**TWT-SPK05-4 / Five (5) Unit Kit Application:  
Designed to condition & treat water feed lines 4" or less in diameter"**



**TWT-5C8-404**  
**Commercial/Industrial Microprocessor Deposit Controller**  
2 amp control unit ( for pipes up to 4" or less)— Controls mineral deposits and corrosion in all fluid based systems  
Current source 110/20 VAC  
Other current source available upon request

**TWT-IRC-04 (4")**  
Schedule 40 PVC Industrial Reaction Chamber

**POOLS  
130,000  
160,000 Gal**



**TWT-5C8-277**  
IonGuard Ionization/Purification System for the Control of Algae & Bacteria  
2 amp control unit( for pipes up to 6" or less)  
Universal power supply

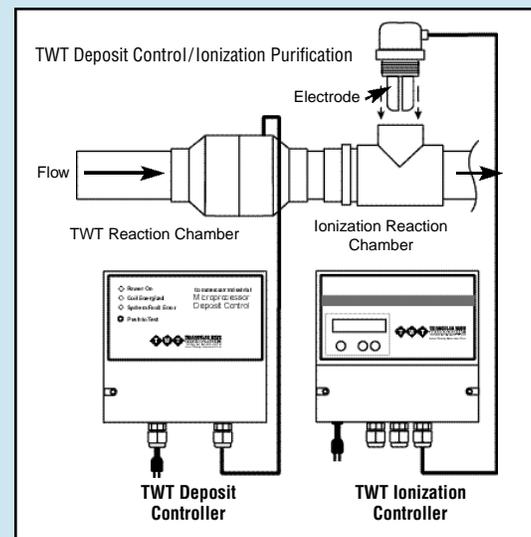
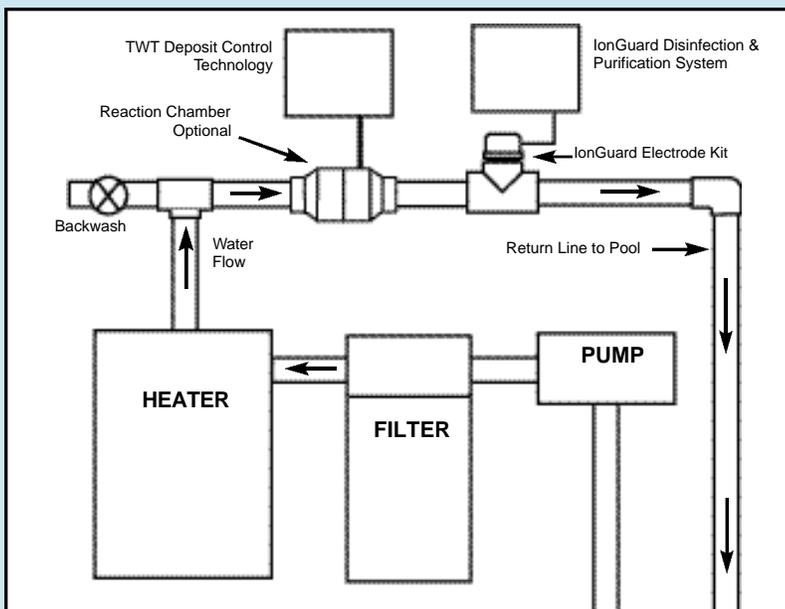


**TWT-IDK-0265124P**  
ID Electrode Installation Kit:  
6" 4 Prong Electrode, 4" PVC Tee, Tee-Cap and Conduit



**TWT-RE-0264P**  
6" Replacement Electrodes  
Alternate and clean electrodes periodically for enhanced life cycle and operating efficiency

**Application Guidelines for KITS#  
TWTSPK05-4 (4")**



Note: Tube and pipe application guidelines on previous page



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**TWT-SPK06-6 / Eight (8) Unit Kit—Designed to treat water feed lines 6" or less in diameter"**



**TWT-5C8-406**  
**Commercial/Industrial Microprocessor Deposit Controller**  
3 amp control unit ( for pipes up to 6" or less)—Controls mineral deposits and corrosion in all fluid based systems  
Current source 110/20 VAC  
Other current source available upon request

**POOLS**  
**160,000 / 240,000 gal**



**TWT-IDK-0265126**  
ID Electrode Installation Kit:  
6" Electrode, 6" PVC Tee,  
Tee-Cap and Conduit

**TWT-5C8-278**  
IonGuard Ionization/Purification System for the Control of Algae & Bacteria  
1.25 amp control unit ( for pipes up to 6" or less)  
Universal power supply



**TWT-RE-0262**  
6" Replacement Electrodes  
Alternate and clean electrodes periodically for enhanced life cycle and operating efficiency



**TWT-IRC-06 (6")**  
Schedule 40 PVC Industrial Reaction Chamber



**TWT-5C8-279**  
IonGuard Ionization/Purification System for the Control of Algae & Bacteria  
2 amp control unit( for pipes up to 6" or less)  
Universal power supply



**TWT-IDK-02651264P**  
ID Electrode Installation Kit:  
6" 4 Prong Electrode, 6" PVC Tee,  
Tee-Cap and Conduit



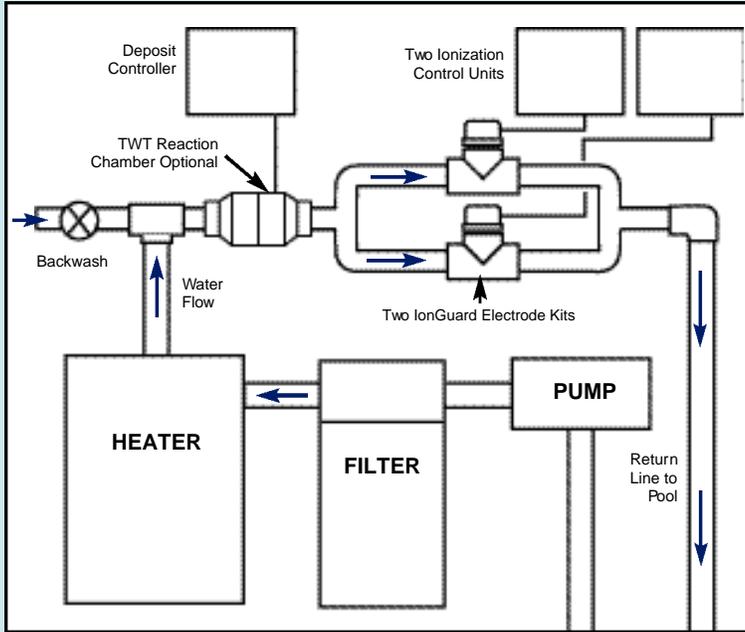
**TWT-RE-0264P**  
6" Replacement Electrodes  
Alternate and clean electrodes periodically for enhanced life cycle and operating efficiency

**TUBE & PIPE APPLICATION & INSTALLATION GUIDELINES**

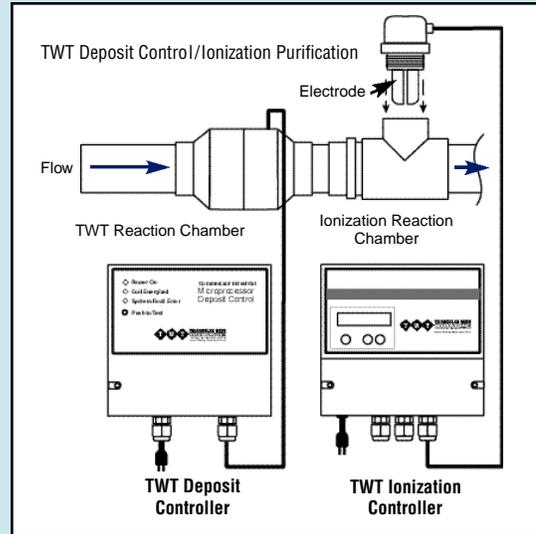


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**Application Guidelines for KIT#  
TWTSPK06-6 (6")**



Note: Tube and pipe application guidelines on previous pages



**LARGER VOLUME AND PIPE SIZE APPLICATIONS:**

TWT IonGuard and Deposit Control products can be integrated to meet almost any application and treatment requirements.

**QUOTATION (RFQ): REQUEST FOR QUOTE**

Kits are available to meet your specific application, volume and treatment requirements upon request.

**( Don't know what you need?)**

**REQUEST A QUOTE FOR WATER & FLUID TREATMENT  
ON THE TWT WEBSITE HOME PAGE**

You may fill in the on line form and submit it to us, or you may print it, fill it in, and fax it to us at (201) 576-0410. **Please note that all fields marked with a (red\*) must be filled, in order to receive a response.** If you have trouble submitting the form via the online submit button, please send an e-mail to: info@triangularwave.com or triwaveinc@aol.com with all of your contact information.

TWT is happy to provide this on-line quote and information request form to make your evaluation and purchase process as streamlined as possible. Your complete system quote and/or additional information will be provided to you by either TWT or an authorized TWT dealer or distributor, via e-mail (or fax, if requested).

**TWT PRODUCTS & SYSTEMS MAKE SENSE FROM AN OPERATIONAL,  
ECONOMICAL AND SAFETY POINT OF VIEW**

**DON'T WAIT..CONTACT TWT TODAY:**

(info@triangularwave.com / triwaveinc@aol.com) For the dealer/ distributor near you and/or for information on what system will meet your specific application needs!

**No matter what you see...go to TWT your smart water solutions company**

Visit [www.twtwatertreatment.com](http://www.twtwatertreatment.com) to see TWT, Inc. complete product catalog



ISO Certified Facility

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Websites: www.triangularwave.com • www.twtwatertreatment.com

