

# IonGuard Purification Application Guidelines

## IonGuard Purification Systems Application Guidelines For Pools & Spas

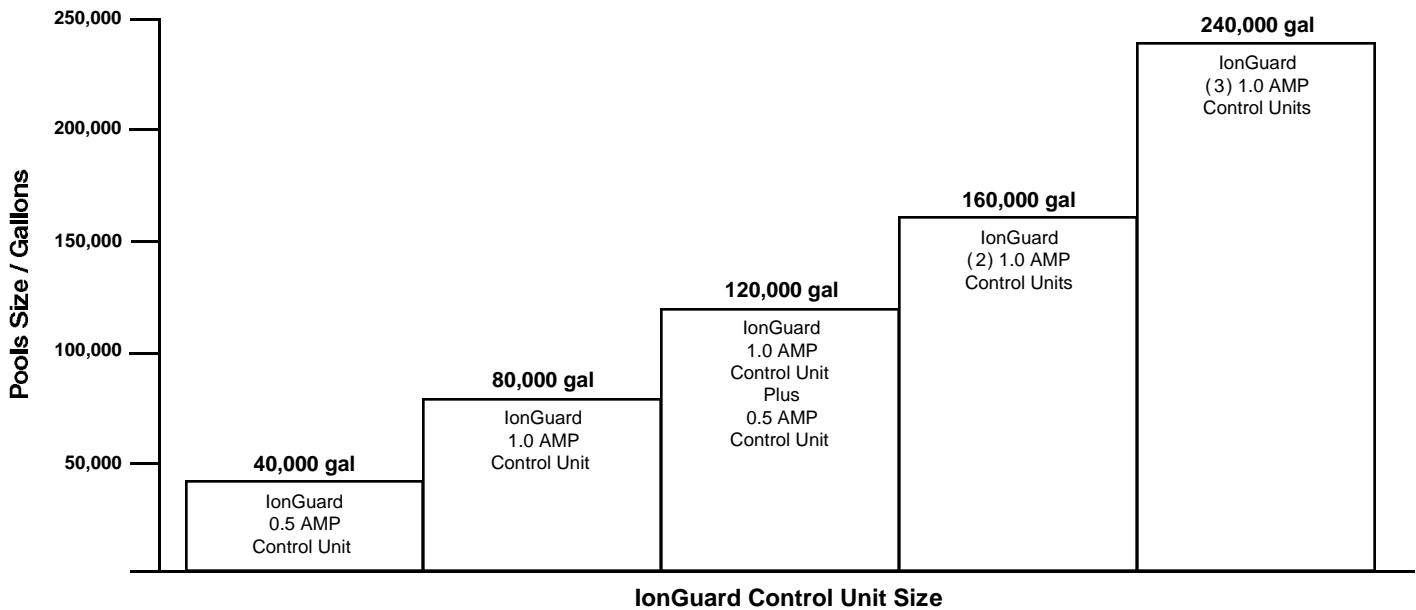
The first step in applying an IonGuard Purification System is to determine the maximum current required to support the system. For pools & spas up to 40,000 gallons, the 0.5 amp unit is suggested. For larger water volumes, refer to **Chart 1** to determine the ionization current needed.

After the current needed has been determined, then the electrode set that will provide the rated current in the water in question is selected. Measure the water conductivity reading and refer to **Chart 2** to determine the electrode size needed to support the current in the tested water. Conductivity readings should be taken and submitted with all purchase orders for proper product application and installation verification. (Low cost conductivity meters may be purchased from

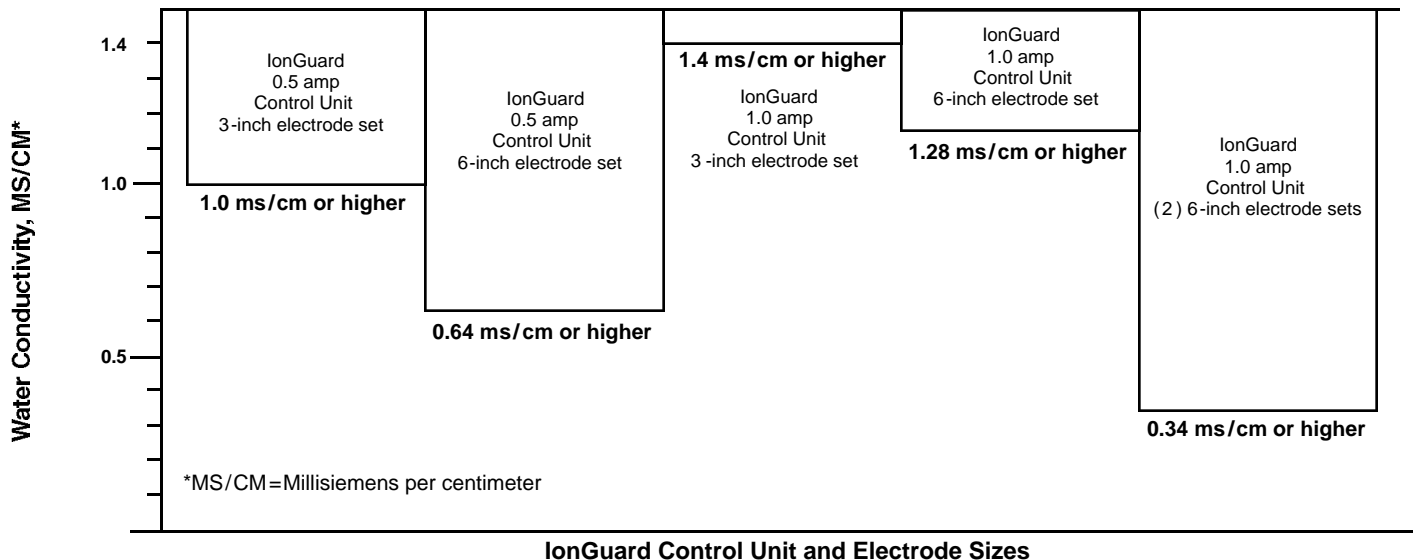
Triangular Wave Technologies, Inc.). Most needs will be met by one of two IonGuard units, the 0.5 amp model TWT-5C8-277, and the 1.0 amp model TWT-5C8-278. Larger Ionization current will be needed for pools with larger volumes of water; additional IonGuard Systems may be used to obtain the necessary current.

**Example:** 60,000 gallon pool water conductivity is 1.3 ms/cm, from Chart 1, 60,000 gallon pool will need 1.0 amp IonGuard current. From Chart 2 for 1.0 amp current and 1.3 ms/cm, one 3-inch electrode set will be needed (a set consists of one copper and one silver electrode).

**Chart 1: IonGuard Controller Size**



**Chart 2: IonGuard Control Unit and Electrode Sizes**



# Pools & Spas Application Guidelines

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After the current needed has been determined, then the electrode set that will provide the rated current in the water in question is selected. Measure the water conductivity reading and refer to **Table 2** to determine the electrode size needed to support the current in the tested water. Conductivity readings should be taken and submitted with all purchase orders for proper product application and

installation verification. Low cost conductivity meters may be purchased from Triangular Wave Technologies, Inc. Choose from IonGuard units TWT-5C8-277, the 0.5 amp model, and the 1.0 amp model, TWT-5C8-278. Larger Ionization current will be needed for pools with larger volumes of water. Additional IonGuard Systems may be added to obtain the necessary current.

**Example:** 60,000 gallon pool water, conductivity is 1.3 ms/cm, From: Table 1, 60,000 gallon pool will need 1.0 amp IonGuard current. Table 2 for 1.0 amp current and 1.3 ms/cm, one 3-inch electrode set will be needed.

**Table 1: Choose Ionization Current by Pool Volume**

<i>If: Pool Volume in Gallons</i>	<i>Then: Ionization Current Amps</i>	<i>Number of IonGuard Controllers</i>	
		<i>0.5 amp</i>	<i>1.0 amp</i>
Less Than 40,000	0.5	1	–
40,000 - 80,000	1.0	–	1
80,000 -120,000	1.5	1	1
120,000 -160,000	2.0	–	2
160,000 -240,000	3.0	–	3

\* For larger pools or special situations contact Triangular Wave Technologies, Inc.

**Table 2: Choose Electrode Size by Conductivity**

<i>If: Conductivity MS/CM</i>	<i>And: Ionization Amp</i>	<i>Then: Electrode Set</i>
1.0	0.5	3"
0.9	0.5	3"
0.8	0.5	3"
0.7	0.5	3"
0.638	0.5	3"
0.5	0.5	6"
0.4	0.5	6"
0.3	0.5	6"
0.2	0.5	6"
0.169	0.5	6"
1.4	1.0	3"
1.3	1.0	3"
1.275	1.0	3"
1.1	1.0	6"
1.0	1.0	6"
0.9	1.0	6"
0.8	1.0	6"
0.7	1.0	6"
0.6	1.0	6"
0.5	1.0	6"
0.4	1.0	6"
0.3375	1.0	6"
0.2	1.0	(2) 6"
0.169	1.0	(2) 6"