

**T&C**  
Power Conversion

# ATN - 10 Auto Tuner Network

T&C POWER CONVERSION



## FEATURING:

- **Preset-in Controller for easy Plasma Ignition**
- **Lightweight Controller (2.5 lbs.)**
- **Accepts 110-240 VAC without tap changes**
- **Field testable and set-up friendly controls**
- **Optional DC Probe Output**
- **1000 W at 13.56 MHz**
- **Series LC network allows wide range impedance tuning**
- **Can be retrofitted to most Plasma Systems**
- **Match 9W x 16D x 5H**
- **19" rack mount brackets available**

## *P&M Detector*

### Frequency Of Operation

13.56 MHz

### RF Power Rating

up to 2000 Watts

### Impedance Rating

50 Ohms

## *Mechanical*

### Matching Box

9" W x 16" D x 5" H

### Input Connector

Type "N"

### Cooling

Air / Water

## *PT-II-CE Controller*

### Electrical Power Required

110 - 240 VAC

### Electrical Power Consumption

45 Watt

### AC Power Connector

6DEI EMI Filter

### Dimensions

8" W x 9" D x 1.5" H

## GENERAL

The ICP Auto Tuner is designed to match the impedance of the load coil while maintaining 50 Ohms of reactive impedance to the RF Generator. During ignition and final tuning the match will vary over a small impedance range causing ionization of the argon or other gas. Upon ionization a more dense plasma will form and the Auto Tuner will adjust to couple the impedance match. Capacitors range until a null is seen in the detector circuit of the auto Tuner.

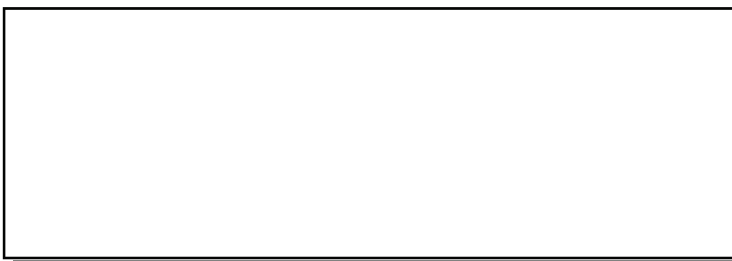
The complete unit is separated into two enclosures. The PT-II-CE is the controller unit and Auto Tuner is the impedance matcher. Both units are enclosed in aluminum, with the Auto Tuner being yellow irradiated for conductive ground purposes.

The Matching network contains Air Variable Capacitors for tuning and load.

The unit is considered "L" shape configuration which gives the Auto Tuner direct coupling to Plasma effect. This is the most efficient method for power transfer in RF.

The controller in an all self contained power supply and servomotor control unit. The front panel has controls for both manual and auto modes. It also provides ignition preset potentiometers for efficient lighting and tuning of the Plasma Process.

## Sales Representative:



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