

# MegaTron Controller

## Microprocessor Control of:

- Conductivity
- pH
- ORP
- Chemical Feed
- Biocide Feed
- Service Reports
- 4-20mA In & Outs

## Key Features

- Customizable LCD Display
- On Board History Graphs
- Multiple System Capability
- Simple ATM Style Menu
- Internet Communications Option
- Up to 20 Assignable Relays
- Relay Test Keys
- Customizable Notepad
- Multi-Level Security Code
- LSI or RSI Index Options
- Non-Volatile Memory
- Email Alarm Capable
- MODbus and BACnet Options



## Application

The MegaTron combines a simple ATM style menu with a 16 line graphic display and a large variety of options to make the most user friendly water treatment controller available.

Units can be configured to control a wide range of digital and analog inputs. Relay activation and names plus many other features are field selectable. The "Notepad" allows the input and history gathering of service report parameters.

MegaTron units can control single or multiple cooling towers and or boiler systems with the most customization flexibility available.

## Build a Model

Units can be configured to control 1-4 systems. The model number starts with **MG** followed by the code for each function needed for the first system (**MGCPF3E**).

If building a multi-system unit, put a - after the functions of a system and list the functions for the next system (**MGCPF3E-B2F2**). If systems are the same, just put a -**X2,3** or **4** after a system (**MGCPF3E-X2**). After main control functions have been selected, insert a - and list the desired common options (**MGCPF3-CF3E-H1KY**).

**Conductivity Control** (1 per system max)

**B2** = BE-32 Standard Boiler probe

**C** = TE-4A Standard Tower probe

**Make-up or Misc Conductivity** (1 per system)

**M** = DI-4A Standard make-up probe

**PH Control** (1 per system / 2 max)

**P** = TPE-21 Standard Tower probe

**ORP Control** (1 per system / 2 max)

**R** = TOE-21 Standard ORP probe

**Temp** (2 max/system – Each conductivity uses one)

**T** = TC-1 Standard temp probe

**Feed Timers** (max of 5 per system)

**F1 to F5** (F4 = Four feed timers)

**Flow Switch**

**E** = Flow Switch

### OPTIONS

**A** - Conduit connection

**A3** - Liquid tight only with CE mark, 100-240 volt

**H1** - Internet Connect Communications

**H4** - Internet card with phone modem

**H11** - Internet card w/ CAT5 & Modbus TCP/IP

**H21** - Internet card w/ CAT5 & BACnet TCP/IP

**H31** - Internet card for LonWorks

**N** - 4-20mA Inputs (N3-N8)

**O** - 4-20mA Outputs (O3-O6)

**S** - pH saturation indexes (with pH control)

**V** - 5 volt D.C. output with water meter wires

**W** - Auxiliary flow meter inputs (W3, W6, W9)

**Y** - Agency Approval (ETL, US&C)

### NOTES:

1. Timers selectable (pulse, %, post bleed, limit or 28-day). Each system has 2 water meter inputs.
2. All expansion slots provided.
3. Each system card comes with 5 digital inputs.
4. Change H1 option to H11 for MODbus TCP/IP or H21 for BACnet IP read only communications.
5. Boiler conductivity should only be used on continuous or surface lines; not bottom blowdown lines.
6. Contact the factory for a complete option list.

## Specifications

### Electrical

- **Input:** 95-240 VAC, 50/60 Hz
- **Control:** Equal to input voltage (95-240VAC) fused at 2.5A per relay

Prewired units are supplied with an 8' (248.84 cm) power cord and 8" (20.32 cm) output receptacles.

### Operational

- **Display:** 240 x 128 Graphic LCD
- **Conductivity Control:** uS/cm, mS/Cm, PPM scales with ranges up to 50,000 depending on sensor selection. Boiler sampling: continuous, timed or sample and hold.
- **pH:** 0-14 scale
- **ORP:** +/- 1000 millivolts scale  
The ORP setpoint can be tied to an optional 28-day feed timer as an override.
- **Accuracy:** +/- 1%
- **Feed Timers are all selectable from:**
  - Pulse** - water meter activated w/accumulator
  - Percent** - 1 - 100% of a cycle time.
  - Limit** - Limits feed with bleed
  - Post** - 1-100% of post bleed or other time with an over all limit.
  - 28 Day** - biocide timer.

### Enclosure

Heavy duty NEMA 4X style high impact thermoplastic with padlockable gasketed Lexan viewing door.

### Environment

Ambient temperature: 0° to 125°F (-17 to 52°C)

Relative humidity: 0 to 100%

### Electrodes

Tower Standard electrodes are supplied in 3/4" (1.91 cm) SCH 80 PVC female slip tees with quick release nut.

- **Conductivity:** TE-4A 150 psi (10.3 bar) / 140°F (60°C) Max
- **pH:** TPE-2 100 psi (6.8 bar) / 140°F (60°C) Max
- **ORP:** TOE-2 100 psi (6.8 bar) / 140°F (60°C) Max
- **Temperature:** TC-1 150 psi (10.3 bar) / 140°F (60°C) Max

Boiler Conductivity electrodes are supplied with 1" (2.54 cm) MNPT SS threads.

- **Conductivity:** BE-32 250 psi @ 400°F / 350 psig @ 265°F PEEK core

**Shipping Weight:** Approximately 10 lbs. (4.536 kg)

### Dimensions:

W 12.5" (31.75 cm) x H 14" (35.56 cm) x D 7" (17.78 cm)

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