March 2012

Controller Catalog

Advantage Controls
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2012-05-07 1:24

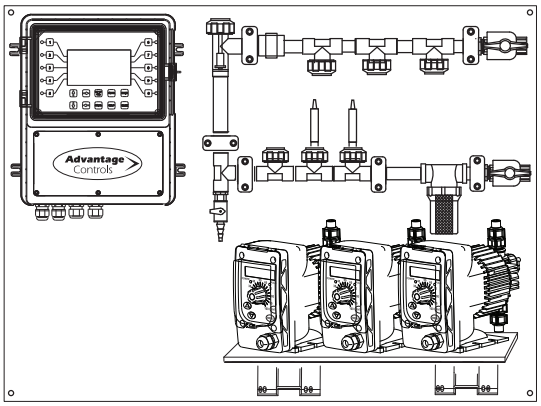
Contents

Restocking Charge - All items accepted for credit are subject to a restocking fee of 25% of the original sale price. All items returned for credit must be new, unused, undamaged equipment less than 3 months old that is still in production.

Minimum Order - There is a minimum net order amount of $30.00, excluding shipping.

Please Note - Possession of price list does not ensure right to purchase direct.
Due to continuous improvement of products, prices subject to change without notice.

Notes:

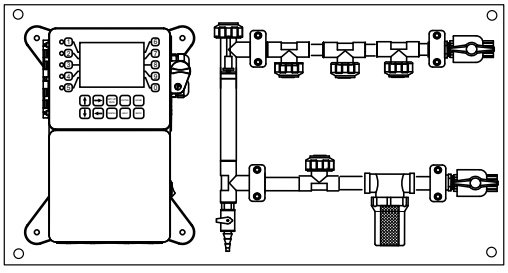


Make Installation Easy with a Pre-Fab System!

We can premount your controller, chemical metering pumps, sample line and bleed-off line with bleed valve onto one easy to install poly panel.

You won't have to fight with plumbers and electricians to make sure your system is installed correctly. All they have to do is run water in and out.

Save time and money! See the pre-fabrication options on pages 18-21.

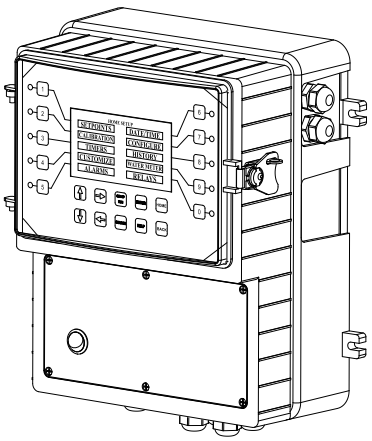


Our Most Popular MegaTron SS Tower Prefab

CM10-AB3E
Assembled prefab includes isolation valves, 3 quick release injection tees, strainer and sample port. Controller ordered separately.

See page 20 for more details.

MegaTron Controllers



MegaTrons combine a large 16 line display with a simple ATM style menu to create our most powerful and flexible controller. A single unit can control 1 to 4 systems.

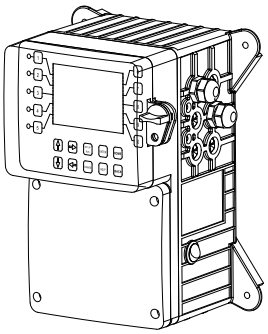
To build a model pick the function(s) needed by the type of probe. Add the code for each function you need for a system. For a multiple system controller list all of the functions of the first system followed by a **dash** then the functions for the next system. If system two is the same as the first just put (–X2). If the systems 2, 3 and 4 are the same as the first put a (-X4).

After all system(s) functions use another **dash** and list all of the unit options needed. Example: **MGCPF3E-CF3E-H1K**.

Notes:

1. All timers are selectable between: pulse (water meter), percent, post blow down, limit and 28-day.
2. Any system with a timer automatically gets two water meter inputs.
3. Do not exceed the maximum number of each control function.
4. A MegaTron controller can have a maximum of 20 relay outputs. Each control function (except make-up conductivity) is supplied with a control relay, but you can menu select what activates each relay provided. Dry contact and additional control relays count towards the total of 20.
5. Internet connection options H4 and H5 require a user supplied ISP. Option H4 requires an unlimited dial-up ISP. Option H5 requires an unlimited “data only” plan from a cell provider on a USB style cell modem.
6. Internet connection option H5 requires that the selected cell provider’s signal is strong enough at controller installation point to work correctly.

MegaTron SS Controllers



These units are a smaller single system version of the MegaTron with 5 relays, 5 digital inputs, 2 water meter inputs and expansion slots plus all of the user friendly features of a full size MegaTron including the ATM style menu.

Web Advantage

Get the optional internet communications card and Web Advantage lets you constantly stay connected to your unit over the internet and get emailed reports automatically sent to you.

Web Advantage is a totally secure server dedicated to keeping track of all of your internet connected MegaTron units. Any MegaTron equipped with an internet connection option will be monitored 24 hours a day by Web Advantage providing you constant, real time information. Web Advantage allows you to change settings, generate history reports automatically and select who to send email alarm notifications to should Web Advantage detect any system conditions outside your parameters.

Access to Web Advantage no longer has an annual fee! There is simply a connection fee to establish ownership rights. The initial connection fee is included free with the purchase of a MegaTron with communications, giving the original buyer ownership rights also. If a MegaTron’s ownership changes from the original buyer the Transfer fee will be charged to establish new ownership rights.

Build a MegaTron

Model MG __ __ __ __ __ __ __ __ __ __ __ __ - __ __ __ __

Conductivity Control (1 per system max)

- C = TE-4A Standard Tower probe; 140°F and 150 PSI max
- C0 = Tower Conductivity no probe
- C1 = TE-4ASS Standard Tower probe w/ S.Steel Tips; 140°F and 150 PSI max
- C3 = AH-4ASS 1" MNPT, 212°F and 250 PSI max
- C5 = DC-4ASS tank mount; 190°F max
- C8 = AL-4RTD pure water probe, 212°F and 100 PSI max (no ORP with C8)
- C10 = DI-4A, 140°F and 150 PSI max, 1" MNPT
- C11 = CS-4ASS corporation stop style electrode, 60 PSI
- B0 = Boiler conductivity no probe
- B1 = BE-4RTDC boiler probe, RTD temp, 1" cross, 350 PSI @ 265°F / 250 @ 400°F
- B2 = BE-32C probe, no temp comp, 1" cross, 350 PSI @ 265°F / 250 PSI @ 400°F
- B5 = BE-2 boiler probe, no temp comp, 1" cross, 50 PSI boiler max
- D = DI-27-4A high conductivity range
- D1 = TE-4A high conductivity range (0-50,000)

Make-up / Miscellaneous Conductivity (max of 1 per system)

- M = DI-4A Standard Make-up, 140°F and 150 PSI max, 1" MNPT
- MA = Alias make-up input of one system's make-up reading
- M0 = Make-up / miscellaneous conductivity no probe
- M1 = DI-4ASS
- M3 = AH-4ASS with 1" MNPT, 250 PSI max
- M4 = TE-4A PVC 3/4" slip tee design, 150 psi max
- M6 = CS-4ASS corporation stop style electrode, 60 PSI

PH Control (1 per sys max) For dual set point use Q instead of P

- P = TPE-21 Standard Tower, 140°F and 100 PSI max
- P0 = pH Control no probe
- PA = Alias pH input from another system's pH reading
- P1 = PE-21H, CPVC probe with 1/2" MNPT, 180°F @ 80 PSI max
- P2 = TPE-21 w/ pre amp
- P3 = PE-21H w/ pre amp
- P4 = Tank mounted probe
- P5 = Tank mount w/ pre amp
- P8 = PE-21SS stainless steel probe 1/2" MNPT, 212°F and 250 PSI max
- P9 = PE-21SS with pre amp
- P11 = PE-11 low ionic probe with 1/2" MNPT, 180°F and 50 PSI max
- P12 = PE-11 w/ pre amp
- P15 = Corp-stop style pH probe w/ pre amp

ORP Control (1 per system max)

- R = TOE-21 Standard Tower, 140°F and 100 PSI max
- RO = ORP Control no probe
- RA = Alias ORP input from another system's ORP reading
- R1 = OE-21H, CPVC probe with 1/2" MNPT, 180°F @ 80 PSI max
- R2 = TOE-21 with preamp
- R3 = TOE-21H with preamp
- R4 = Tank mounted probe
- R5 = Tank mounted ORP w/ pre amp
- R8 = OE-21SS stainless steel probe 1/2" MNPT, 212°F and 250 PSI max
- R15 = Corp-stop style ORP probe w/ pre amp

Temperature Control (2 max / system – Each conductivity uses up one)

- T = TC-1 Standard Tower, 140°F and 150 PSI max
- T2 = High temp probe, with 1" MNPT, 212°F and 250 PSI max

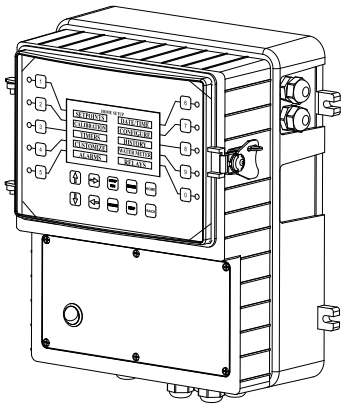
Feed Timers (max of 5 per system: 28-DAY, PULSE, %, LIMIT or POST BLEED)

F1 to F5 (F4 = Four feed timers)

Flow Switches

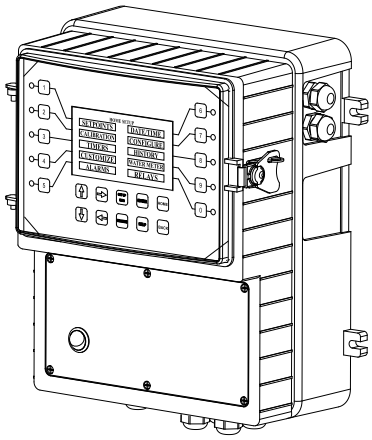
- E = Standard float style flow switch assembly (towers); 140 PSI @ 75°F
- E3 = Paddle flow switch with PVC flow assembly; 140 PSI @ 75°F
- E4 = Paddle flow switch with PVC flow assembly (unassembled with 10' cord); 140 PSI @ 75°F
- E5 = Paddle flow switch with brass assembly; 250 PSI @ 75°F (order appropriate probes)
- E6 = Flow switch connection only with cable
- E8 = Standard float switch assembly unassembled with 10' cord; 140 PSI @ 75°F

After all System Card features are selected go to the next page for whole unit options.



MegaTrons now include all card expansion slots and 5 digital inputs for drum level alarms and other digital inputs on each system card as a standard feature.

MegaTron Whole Unit Options



A = Conduit connections
A3 = Liquid tights only with CE mark
A7 = Australian power cord, no pigtails
A31 = 10' cable on relays 11-15 box
A41 = 10' cable on relays 11-20 boxes
H1 = Internet card with CAT5 connection
H4 = Internet card with internal Phone Modem
H5 = Internet card with external Cellular Router for USB Modem
H11 = Internet card with CAT5 connection and Modbus TCP/IP
H14 = Internet card with phone modem and Modbus TCP/IP
H21 = Internet card with CAT5 connection and BACNet TCP/IP
H31 = Internet card with CAT5 connection and Lonworks
K = Additional control relays (K, K2, K3 ….) don't exceed 20 relays total
N3 = Three 4-20mA Inputs; 8 inputs max (can't have N and U options together)
N8 = Eight 4-20mA Inputs; 8 inputs max (can't have N and U options together)
O3 = Three 4-20mA Isolated Outputs; 6 outputs max
O6 = Six 4-20mA Isolated Outputs; 6 outputs max
S = Saturation index (Unit must have tower conductivity & pH)
U3 = Three 0-5 volt isolated Inputs; 8 max (can't have U and N options together)
U8 = Eight 0-5 volt isolated Inputs; 8 max (can't have U and N options together)
V = 5 VDC output with water meter connections for paddle wheel flow meters
V2 = 12 VDC output with water meter connections for paddle wheel flow meters
W3 = 3 auxiliary flow meter inputs
W6 = 6 auxiliary flow meter inputs
W9 = 10 auxiliary flow meter inputs
Y = ETL Agency Listing

Notes:
1. **Pre-wired 4-20mA input cables with external connector can be ordered below.**
2. **0-5 volt input option required for BlueTrack.**
3. **See page 29 for specialty sensors.**

MegaTron Parts

MG-RL-05	Replacement relay card with 5 relays
MG-RL-05-BOX	Complete remote relay box with 5 relays
MG-RL-CPLR	Relay card ribbon cable to wire cable coupler
MG-PWR	Power supply board
MG-PROGCHIP	MegaTron Program chip
MG-KEYPAD-ASM	Keypad and display panel assembly (no display)
MG-DISPLAY-ASM	Display panel assembly complete with keypad
MG-DISPLAY-ASM-V1	Display panel assembly complete with keypad (older motherboards)
MG-DOOR	Clear cover
MG-FUSE-PAK	(5) 2.5 amp fuses
MG-ICM-01	Internet communications card
MG-ICM-04	Internet communications card with internal phone modem
MG-CL-ROUTER	External cellular router only
MG-CL-ROUTER-TA	Complete external cellular router with enclosure and power supply
MG-CAT5	CAT 5 cable from internal communications card
MG-CROSS	Crossover cable for H1 option
MG-MAO-3	4-20mA output card with 3 outputs, change suffix for # of outputs needed
MG-MAI-3	4-20mA input card with 3 inputs, change suffix for # of inputs needed
MG-VIN-3	0-5 volt input card with 3 inputs, change suffix for # of inputs needed
MG-AUXFLOW-W3	3 auxiliary flow meter inputs
MG-AUXFLOW-W6	6 auxiliary flow meter inputs
MG-AUXFLOW-W9	10 auxiliary flow meter inputs
AUXFLOW-WIRE	Auxiliary flow meter input cable with 3 pin Molex
MG-SYS-	System card Add all of the desired system function codes from the unit model numbering system and add the control function price without probe.
NEW INPUT-CABLE-2	Prewired 2 conductor cable to 4-20mA input and 12Vdc power with external connector, 3'
INPUT-CABLE-4	Prewired 4 conductor cable to 4-20mA input and 12Vdc power with external connector, 3'

MegaTron Field Upgrades

MegaTrons may be upgraded to add functions and features depending on desired additions and original option configuration. Contact the factory with the model and serial number of the unit and the additions for more details.

Build a MegaTron SS

Model **SS** __ __ __ __ __ __ __ __ __ __ __ __ __ __ - __ __ __ __

Conductivity Control

- C = TE-4A Standard Tower probe; 140°F and 150 PSI max
- C0 = Tower Conductivity no probe
- C1 = TE-4ASS Standard Tower probe w/ S.Steel Tips; 140°F and 150 PSI max
- C3 = AH-4ASS 1” MNPT, 212°F and 250 PSI max
- C5 = DC-4ASS tank mount; 190°F max
- C8 = AL-4RTD pure water probe, 212°F and 100 PSI max (no ORP with C8)
- C10 = DI-4A, 140°F and 150 PSI max, 1” MNPT
- C11 = CS-4ASS corporation stop style electrode, 60 PSI
- B0 = Boiler conductivity no probe
- B1 = BE-4RTDC boiler probe, RTD temp, 1” cross, 350 PSI @ 265°F / 250 @ 400°F
- B2 = BE-32C probe, no temp comp, 1” cross, 350 PSI @ 265°F / 250 PSI @ 400°F
- B5 = BE-2 boiler probe, no temp comp, 1” cross, 50 PSI boiler max
- B9 = RTD Temp Comp - No Sensor Supplied
- D = DI-27-4A high conductivity range
- D1 = TE-4A high conductivity range (0-50,000)

PH Control For dual set point use **Q** instead of **P**

- P = TPE-21 Standard Tower, 140°F and 100 PSI max
- P0 = pH Control no probe
- P1 = PE-21H, CPVC probe with 1/2” MNPT, 180°F @ 80 PSI max
- P2 = TPE-21 w/ pre amp
- P3 = PE-21H w/ pre amp
- P4 = Tank mounted probe
- P5 = Tank mount w/ pre amp
- P8 = PE-21SS stainless steel probe 1/2” MNPT, 212°F and 250 PSI max
- P9 = PE-21SS with pre amp
- P11 = PE-11 low ionic probe with 1/2” MNPT, 180°F and 50 PSI max
- P12 = PE-11 w/ pre amp
- P15 = Corp-stop style pH probe w/ pre amp

ORP Control (1 per controller)

- R = TOE-21 Standard Tower, 140°F and 100 PSI max
- RO = ORP Control no probe
- R1 = OE-21H, CPVC probe with 1/2” MNPT, 180°F and 80 PSI max
- R2 = TOE-21 with preamp
- R3 = TOE-21H with preamp
- R4 = Tank mounted probe
- R5 = Tank mounted ORP w/ pre amp
- R8 = OE-21SS stainless steel probe 1/2” MNPT, 212°F and 250 PSI max
- R15 = Corp-stop style ORP probe w/ pre amp

Temperature Control (2 max per controller – Each conductivity uses up one)

- T = TC-1 Standard Tower, 140°F and 150 PSI max
- T2 = High temp probe, with 1” MNPT, 212°F and 250 PSI max

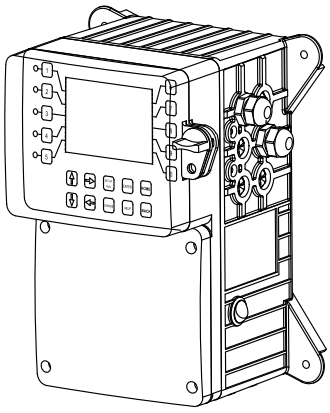
Feed Timers (max of 5 per controller: 28-DAY, PULSE, %, LIMIT or POST BLEED)

F1 to F5 (F4 = Four feed timers)

Flow Switches

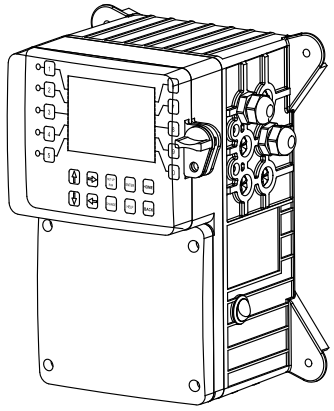
- E = Standard float style flow switch assembly (towers); 140 PSI @ 75°F
- E3 = Paddle flow switch with PVC flow assembly; 140 PSI @ 75°F
- E4 = Paddle flow switch with PVC flow assembly (unassembled with 10’ cord); 140 PSI @ 75°F
- E5 = Paddle flow switch with brass assembly; 250 PSI @ 75°F (order appropriate probes)
- E6 = Flow switch connection only with cable
- E8 = Standard float switch assembly unassembled with 10’ cord; 140 PSI @ 75°F

After Single System Card features are selected go to the next page for whole unit options.



The MegaTronSS comes standard with 5 control relays and digital inputs, 2 water meter inputs and can have communications, 4-20mA and many other options.

MegaTron SS Whole Unit Options



A	=	Conduit connections
A3	=	Liquid tights only with CE mark
A7	=	Australian power cord, no pigtails
H1	=	Internet card with CAT5 connection
H4	=	Internet card with internal Phone Modem
H5	=	Internet card with external Cellular Router for USB Modem
H11	=	Internet card with CAT5 connection and Modbus TCP/IP
H14	=	Internet card with phone modem and Modbus TCP/IP
H21	=	Internet card with CAT5 connection and BACNet TCP/IP
H31	=	Internet card with CAT5 connection and Lonworks
N3	=	Three 4-20mA Inputs (can't have N and U options together)
O3	=	Three 4-20mA Isolated Outputs
S	=	Saturation index (Unit must have tower conductivity & pH)
U3	=	Three 0-5 volt isolated Inputs; 8 max (can't have U and N options together)
V	=	5 VDC output with water meter connections for paddle wheel flow meters
V2	=	12 VDC output with water meter connections for paddle wheel flow meters
W3	=	3 auxiliary flow meter inputs
Y	=	ETL Agency Listing

Notes:
1. **Pre-wired 4-20mA input cables with external connector can be ordered below.**
2. **0-5 volt input option required for BlueTrack.**
3. **See page 29 for specialty sensors.**

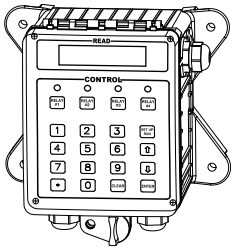
MegaTron SS Parts

MG-RL-05	Replacement relay card with 5 relays
MG-RL-CPLR	Relay card ribbon cable to wire cable coupler
MG-PWR	Power supply board
SS-PROGCHIP	MegaTron Program chip
SS-KEYPAD-ASM	Keypad and display panel assembly (no display)
SS-DISPLAY-ASM	Display panel assembly complete
SS-DOOR	Clear cover
SS-ICM-01	Internet communications card
SS-ICM-04	Internet communications card with internal phone modem
SS-COM-CB	SS carrier board for communications card and 4-20 cards
MG-CAT5	CAT 5 cable from internal communications card
MG-CROSS	Crossover cable for H1 option
SS-MAO-CB	4-20mA output board with 3 outputs and carrier board
SS-MAO-3	4-20mA output card with 3 outputs
SS-MAI-3	4-20mA input card with 2 inputs
SS-VIN-3	0-5 volt input card with 2 inputs
SS-AUXFLOW-W3	3 auxiliary flow meter inputs
AUXFLOW-WIRE	Auxiliary flow meter input cable with 3 pin Molex
SS-SYS-	Mother / System board for non RTD conductivity or timer only units
SS-SYS-CP	Mother / System board for non RTD conductivity and/or pH
SS-SYS-CR	Mother / System board for non RTD conductivity and/or ORP
SS-SYS-CPR	Mother / System board for non RTD conductivity and/or pH & ORP
SS-SYS-B1	Mother / System board for RTD conductivity

NEW	INPUT-CABLE-2	Prewired 2 conductor cable to 4-20mA input and 12Vdc power with external connector, 3'
	INPUT-CABLE-4	Prewired 4 conductor cable to 4-20mA input and 12Vdc power with external connector, 3'

Note: The prewired input cables simplify connecting to external 4-20mA signal sources that need 12 VDC power on the loop (i.e. fluorometers, level sensors and other specialty probes).

MicroTron Controller



MicroTron controllers can control tower or other system functions including: conductivity, pH, ORP and a variety of chemical feed timers. Each system control function drives a relay. MicroTrons can control a maximum of four (4) relay outputs. Choose a base model and add desired options.

Build a Model (Four relay outputs max)

Tower

LC = Conductivity; TE-4A Tower probe 140°F &150 PSI max
LC-2 = Tower and Make-up Conductivity; TE-4A & DI-4A probes

pH or ORP only

LP = pH control ; TPE-21 probes, 140°F and 100 PSI max
LR = ORP control; TOE-21 probes 140°F and 100 PSI max

Timer Only

LF2 = 2 timers Pulse or Percent
LB2 = 2 timers 28-day “Biocide”

Additional Timers

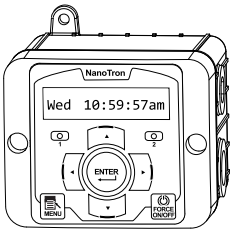
Inhibitor Timers (Pulse, Limit, % Post Bleed and %)
F to F-4 (F-2 = Two feed timers)

Biocide Timers (28-Day)
B to B-4 (B-2 = Two bio timers)

Options

A	Conduit connections 95-240 VAC
C-3	Single 4-20 mA isolated output (straight output only, not proportional)
C-4	Single 4-20 mA Non-Isolated Output
E	Standard float style flow switch assembly (towers); 140 PSI @ 75°F
E3	Paddle flow switch with PVC flow assembly; 140 PSI @ 75°
E4	Paddle flow switch with PVC flow assembly (unassembled with 10’ cord); 140 PSI @ 75°F
E5	Paddle flow switch with brass assembly; 250 PSI @ 75°F (order appropriate probes)
E6	Flow switch connection only with cable
E8	Standard float switch assembly unassembled with 10’ cord; 140 PSI @ 75°F
M	Alarm Relay
M-1	Alarm, Dry Contact
O-1	Tank Mounted Probe, mounting brackets included (pH only)
O-2	Tank Mounted Probe, mounting brackets included (conductivity only)
O-3	Tank Mounted Probe, mounting brackets included (ORP only)
P	Remote pH or ORP Transmitter
Q-1	Tower conductivity probe AH-4ASS, 250 psi max (32° - 140°F)
Q-4	Tower conductivity probe TE-4ASS with SS electrodes, 140°F &150 PSI max
Q-12	High Temperature SS body pH probe, PE-21SS (212°F max)
Z-6	Accepts 1 Water Meter Input per chem feed timer
Z19	Timed Sampling conductivity control
9	Paddle Wheel Flowmeter input - 5 volt d.c. drive signal
9a	Paddle Wheel Flowmeter input - 12 volt d.c. drive signal

NanoTron Controller



The NanoTron compact units are designed to automate various applications. Simple step through menu provides user-defined configuration.

Note: Most NanoTron units have 2 controller relays max. Corrosion monitor units have 1 powered relay and 1 dry contact relay

Model **NANO-**__ __ - __ __ __

Conductivity Control & 1 Feed Timer

C = TE-4A **Standard Tower** probe 140°F and 150 PSI max
C0 = Tower Conductivity no probe
C1 = TE-4ASS **Standard Tower** probe with S. Steel Tips; 140°F and 150 PSI max
C3 = AH-4ASS 212°F and 250 PSI max
C4 = DC-4A Tank mount 190°F max
C5 = DC-4ASS Tank mount with S. Steel Tips; 190°F max
B0 = Boiler Conductivity no probe
B2 = BE-32 non temp comp boiler probe 250 PSI @ 400°F
B5 = BE-2 non temp comp boiler probe 50 PSI boiler max

Model **NANO-**__ __ - __ __ __

Two Selectable Feed Timers

F2

Model **NANO-**__ __ - __ __ __

NEW

Corrosion Monitor with 4-20mA Output

M0 = Corrosion monitor with no sensor body
M01 = Corrosion monitor with PVC quick release probe body and 3/4" tee; 140 PSI @ 75°F
M02 = Corrosion monitor with 1" SS threaded probe body; 200 PSI @ 200°F
NOTE: Corrosion sensor tips available at the bottom of this page.

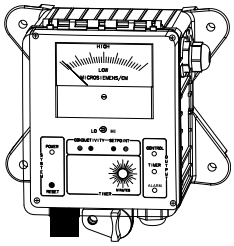
Options

A = 100-240 volt conduit connections
A3 = 100-240 volt conduit connections and CE approval
A7 = Australian power cord (240 VAC)
E = Standard float style flow switch assembly (towers); 140 PSI @ 75°F
E3 = Paddle flow switch with PVC flow assembly; 140 PSI @ 75°F
E4 = Paddle flow switch with PVC flow assembly (unassembled with 10' cord); 140 PSI @ 75°F
E5 = Paddle flow switch with brass assembly; 250 PSI @ 75°F (order appropriate probes)
E6 = Flow switch connection only with cable
E8 = Standard float switch assembly unassembled with 10' cord; 140 PSI @ 75°F
Y = ETL agency listing

Corrosion Sensor Tips for Nano-M corrosion monitors (order as seperate line items)

CE-MS = Pair of Mild Steel
CE-CO = Pair of Copper
CE-BR = Pair of Brass
CE-CN = Pair of Cupro-Nickel
CE-AL = Pair of Aluminum

2EZ Analog Controllers



Advantage's 2EZ series of analog controllers provide an easy to use pre-wired controller in a NEMA 4X style enclosure with a padlockable clear cover, analog display, simple knob controls and ETL agency approval.

Build a 2EZ Model

The model number starts with **2EZ** followed by a dash, then the code for the probe function desired. Once the main functions are selected, insert another dash **(-)** and list the desired options. Example: (**2EZ-ALT2-Y**)

2EZ-__ __ __ __ __ - __ __

Conductivity Control

A = TE-4A Standard Tower probe, 140°F and 150 PSI max
A0 = Tower Conductivity no probe
A1 = TE-4ASS
A3 = AH-4ASS with 1" MNPT, 212°F and 250 PSI max
A4 = DC-4A Tank mount 190° F max
A6 = CS-4A Corporation stop style probe
B0 = Boiler / condensate conductivity control no probe
B2 = BE-32 Boiler / Condensate probe, 350 PSI @ 265°F / 250 PSI @ 400°F max
B5 = BE-2 non temp comp boiler probe 50 PSI boiler max
D1 = Blue Track probe (no conductivity and only with digital display)

Boiler Sample Method

7 = Timed Sample or Sample and Hold
8 = Continuous
9 = Condensate

Display Type

L = Digital LCD 0-10,000 scale (0-500 on condensate units)
M = Analog Needle Meter 0-3,000, 0-6,000 scale (0-100, 0-500 condensate)

Chemical Feed Timers (not available on boiler units)

T1 = Limit Timer 0-90 min.
T2 = Pulse Timer 0-150 sec.
T3 = Percent Timer 10 minute cycle
T33 = Percent Timer 33 minute cycle
T4 = Post Bleed

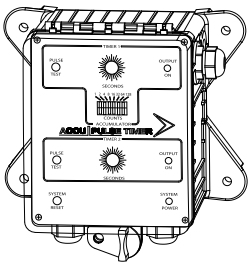
Flow Switch

E = Standard float style flow switch assembly (towers); 140 PSI @ 75°F
E3 = Paddle flow switch with PVC flow assembly; 140 PSI @ 75°F
E4 = Paddle flow switch with PVC flow assembly (unassembled with 10' cord); 140 PSI @ 75°F
E5 = Paddle flow switch with brass assembly; 250 PSI @ 75°F (order appropriate probes)
E6 = Flow switch connection only with cable
E8 = Standard float switch assembly unassembled with 10' cord; 140 PSI @ 75°F

Options

C = Conduit connection
C1 = 240 volt conduit
C3 = Delete pump pigtail on pre-wired units
D = On/Off switch
F2 = Prewired with 2 N.O. bleed pigtails
F3 = Prewired for MOV bleed
F4 = Extra pigtail for feed timer
F8 = Extra pigtail On with flow
F81 = Extra pigtail Off with flow
G = Time delay relay output
H = Dry contact relay ON with conductivity
K = High/Low Alarm 120 volt and dry contact
O = 4-20mA non-isolated output
O1 = 4-20mA isolated output (requires +12vdc)
R = Molex probe connection
S1 = 0-5,000, 0-10,000 mS/cm for 2EZ-AM
S2 = 0-1500, 0-3000 mS/cm for 2EZ-AM
S3 = 0-100 / 0-500 mS/cm for 2EZ-AM
S4 = 0-1000 for 2EZ-AL
S10 = 0-10,000 mS/cm for 2EZ-AL
Y = ETL agency listing USA/Canada

Analog Timers



Advantage's standard analog timers provide an easy to use pre-wired controller in a NEMA 4X style enclosure with a padlockable clear cover and simple knob controls. Standard analog timer units are prewired with 8' power cords and 8" output pigtails. Digital encoders provide precise digital timing with a wide range of timer scales to choose from.

Water Meter Actuated Reset (Pulse)Timer

DWT-1 Single Pulse Timer Standard Scale 0-150 Seconds
DWT-2 Dual Pulse Timer Standard Scales 0-150 Seconds

Options

A	0-10 Minute Time Scale (DWT-1)
B	0-10 Minute/0-10 Minute Time Scale (DWT-2)
C	0-10 Minute/0-150 Second Time Scale (DWT-2)
D	Other Time Scale (see optional scales below)
E	Extra Female Output Cord
F	Single Accumulator 2-255 Counts
G	Dual Accumulator (Only with DWT-2) 2-255 Counts
H	Sequential Operation on DWT-2 with 1 or no Accumulator only
I	Dual Timers Separate Operation on DWT-2, for use with 2 water meter inputs
J	Accepts 110 VAC Signal From Water Meter
K	N.O./N.C. contacts
L	Conduit Connections
M	220 VAC service
N	Dry contact relay output
S	Momentary switch instead of water meter input wire
S1	On/Off switch

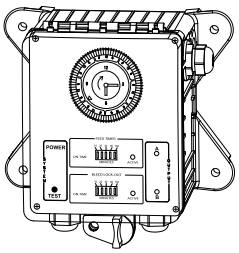
Feed Limit Timer

DLT-1 0 - 90 Minute Timer

Options

D Option Scales for DWT, DLT, and DPT timers. Other Scales are available, consult factory.

D-0	0-31	Hours	D-6	0-155	Minutes
D-1	0-31	Seconds	D-7	0-10	Minutes, 20 Seconds
D-2	0-155	Seconds	D-8	0-7	Hours, 45 Minutes
D-3	0-31	Minutes	D-9	0-310	Seconds
D-4	0-62	Minutes	D-11	0-217	Minutes
D-5	0-62	Seconds	D-12	0-248	Minutes



Biocide Timer

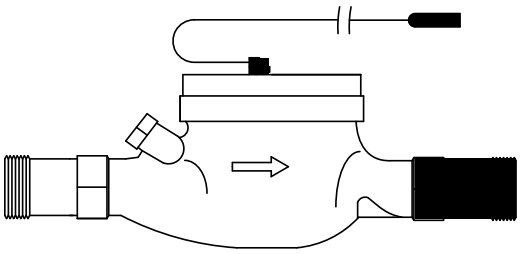
Model BC timers provide accurate control of biocide feed based on a seven day cycle clock. All BC models utilize a simple wheel design with tabs for easy programming.

BC-1 7 Day Timer with 2 hour Intervals
BC-2 7 Day Timer With 10 Minute Intervals, Also Switch Selectable Alternator
BC-2A 7 Day Timer With all the Features of Model BC-2 With Added 10 minutes to 5 Hour 10 Minute Bleed Lockout.

Options

5	Mounted Flow Switch
D	Dry contact for Bleed Lockout with 2 Wire Lead
E	Additional Female Output Cord .....

COOLING TOWER ACCESSORIES



Contacting Head Water Meters

Contacting head water meters provide an electrical dry contact out for proportional control based on water flow when used with a pulse activated timer or pump.

Cold Water Meters 105°F Max

Part Number	Pipe Size	Gallons per Contact	PSI Max	Flow Range GPM	Shipping Wt. (lbs)
AW-2-G10	3/4”	10	150	0.5-20	4
AW-3-G10	1”	10	150	1-50	7
AW-4-G10	1 1/2”	10	150	1.5-100	15
AW-5-G10	2”	10	150	2-130	17
AWR-2T	2”	100	200	2-132	40
AWR-3T	3”	1000	200	5.3-352	42
AWR-4T	4”	1000	200	8-528	51

Notes:
- All AW-2, 3, 4, and 5 meters are supplied with couplings and gaskets.
- Add Suffix “A” for meter without contacting head.
- Change -G10 to -G100 for 100 GPC on AW-2, 3, 4, and 5.

Water Meter Accessories

RCT-1	Remote Resetable Totalizer
RCT-1N	Non-resetableTotalizer
AW-SP2	Signal Splitter 2 Outputs
AW-SP3	Signal Splitter 3 Outputs
PD-1	Pulse Divider
AW-RS	Reed Switch for meter
AW-RSM	Reed Switch for **Master Meter**

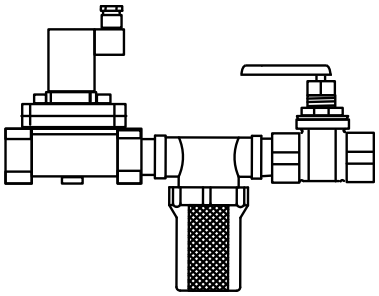
Paddle Wheel Flow Meters

IP81P	Fixed Depth sensor, PVC body, 75 PSI @ 120°F / 175 PSI @ 75°F
MF81T-P-075	3/4” PVC tee for IP81P
MF81T-P-100	1” PVC tee for IP81P
MF81T-P-200	2” PVC tee for IP81P
MF82S-P-300	PVC saddle for 3” pipe for IP81P
IP115S	Adjustable depth insertion sensor for 3” to 10”, 2” MNPT ball valve 316 SS body with bronze ball valve, 200 psi / 200°F max

Other Water Meters and Replacement Parts

We can help you get many other types and styles of flow measuring devices along with replacement kits for several brands of water meters. Contact the factory for more details.

Bleed-Off Piping Assemblies....Make Maintenance Easy!



Adding a strainer and isolation valve to your bleed valve!
A adds poly strainer & brass isolation valve
A1 adds metal y-strainer & brass isolation valve
A4 adds poly y-strainer with flush & brass iso valve

Brass Motorized Ball Valves

Full Port

(Power open, spring return) Max. Temp 250°F

Part	Size	PSI Max
ABS-1/2	1/2”	125
ABS-3/4	3/4”	125
ABS-1	1”	100
ABS-1 1/2	1 1/2”	100
ABS-2	2”	100

Belimo power open, spring return ball valve Full Port

(Power open, spring return) Max. Temp 212°F

Part	Size	PSI Max
ABV-1/2	1/2”	150
ABV-3/4	3/4”	150
ABV-1	1”	150

W Weather shield for ABS & ABV valves, poly

Brass Motorized Paddle Valves

Max. Temp 250°F

Part	Size	PSI Max
AEC-1/2	1/2”	50
AEC-3/4	3/4”	25
AEC-1	1”	15

ASCO - Brass Solenoid Valves

Max. Temp 125°F

Part	Size	PSI Max
ASCO- 1/2	1/2”	150
ASCO-3/4	3/4”	150
ASCO-1	1”	125

Brass Solenoid Valves

Zero PSI Differential

Max. Temp 140°F

Part	Size	PSI Max	CV
SO -1/2	1/2”	145	4.2
SO-3/4	3/4”	145	10.5
SO-1	1”	145	12.9
SO-1 1/2	1.5”	145	35.1
SGO -1/2	1/2”	200	2.8
SGO-3/4	3/4”	200	2.8
SGO-1	1”	200	8.3

Plastic Solenoid Valves 2-150 psi

Max. Temp 125°F

SPV-1 1” Heavy Duty Thermoplastic

Advantage Controls can help you source other valves and sizes not shown here. Consult factory for pricing and availability.

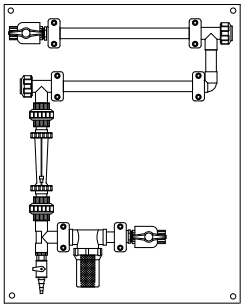
Valve Options and Parts

P Pre-wired with an 8’ cord
C For conduit connections
L UL Listed valves
SGO-1/2-Kit
SGO-3/4-Kit
H-CONN Connector for SG & SO Valves
F3 3 gpm PVC flow control
F5 5 gpm PVC flow control
Add -24V for 24 Volt or -230V for 230 Volt
ABS-SHIELD-ASM
ABV-SHIELD-ASM

Plumbing Parts

YP-3/4	3/4” poly Y strainer, flushable
Y Strainer	3/4” Black Iron 20 Mesh Screen
BL-1	1” Non Clear Flushable Basket Strainer
BL-3/4-BLK	3/4” Non Clear Plastic Basket Strainer
BL-3/4-GASKET	Gasket for BL-3/4
BL-3/4-BOWL	Bowl for BL-3/4
BL-3/4-SCREEN	Strainer screen for BL-3/4
BV-3/4	3/4” PVC Ball Valve
GV-3/4	3/4” (200 psi) Brass Ball Valve
PTS-3/4	3/4” Plastic Basket Strainer / Flushable
PTS-1.5	1-1/2” Plastic Basket Strainer / Flushable

Corrosion Coupon Racks



Advantage coupon racks are mounted on a polyethylene panel with inlet and outlet ball valves for easy installation.

Standard 3/4" & 1" PVC and 3/4" CPVC models use our unique quick disconnect coupon holders that require no tools, making coupon inspection and removal fast and easy.

Note: Options selected may reduce pressure ratings.

3/4"PVC Sch 80 120 PSI @ 125°F

MODEL
ACR-10
ACR-20
ACR-30
ACR-40
ACR-50
ACR-60

1"PVC Sch 80 120 PSI @ 125°F

ACR-11
ACR-21
ACR-31
ACR-41
ACR-51
ACR-61

3/4" Black Iron 300 PSI @ 300°F

ACR-15
ACR-25
ACR-35
ACR-45
ACR-55
ACR-65

3/4" Stainless Steel 300 PSI @ 300°F

ACR-19
ACR-29
ACR-39
ACR-49
ACR-59
ACR-69

3/4" CPVC Sch 80 80 PSI @ 180°F

MODEL
ACR-12
ACR-22
ACR-32
ACR-42
ACR-52
ACR-62

1" CPVC Sch 80 80 PSI @ 180°F

ACR-13
ACR-23
ACR-33
ACR-43
ACR-53
ACR-63

1 " Black Iron 300 PSI @ 300°F

ACR-18
ACR-28
ACR-38
ACR-48
ACR-58
ACR-68

Options

A	Flow Control Orifice, 3 gpm
B-2	Flow Indicator 6" long, 1-10 gpm 325 psi, 212°F max
B-7	Flow Indicator 7.5" long, 1-10 gpm 100 psi, 125°F max
C	Flow Control Orifice, 5 gpm
E	Sample Tee with Valve
F	Back Flow Check Valve
G	Basket Strainer
H	Steel Y-Strainer
J	Provide Clear PVC Piping over Coupon - price is per coupon
K	Omit ¾" Ball Valves
K-1	Omit 1" Ball Valves
L	3/4" FNPT for use with Corrator Probes Includes Pipe Plug for ¾" & 1" PVC Racks only
U	Unassembled
X	Special Option--Customer defined

Coupon Rack Parts

ACR-CH	Complete ¾" PVC Holder
ACR-CH-1	Complete 1" slip PVC quick release Holder
ACR-CH½	½" PVC Coupon Holder
ACR-CHB	Black Iron Coupon Holder ¾"
ACR-CH-QH	Complete ¾" PVC Holder; no tee
ACR-NHW	Nylon Hardware
ACR-CHSS	Coupon Holder 3/4" MNPT, 304 Stainless Steel
BV-3/4	PVC Ball Valve for ACR
E-30	"O" Ring Seal for Holder
FLOW-75-10	Flow Indicator ,¾" MNPT, 7.5" long, 100 psi and 125°F
FLOW-3/4	Flow Indicator, ¾" MNPT, 9.5" long
FLOW-¾-BR	Flow Indicator, ¾" MNPT, 9.5" long with brass fittings
FLOW-1	Flow Indicator, 1" MNPT, 9.5
FLOW-2HT	Flow Indicator, 1" MNPT, 325 psi and 212°F max
F-4411V	O-ring for all flow indicators except FLOW-2HT
OR-3-BE	Flow Restrictor - 3 GPM, Brass
OR-3-BEP	Flow Restrictor - 3 GPM, PVC
OR-5-BE	Flow Restrictor - 5 GPM, Brass
OR-5-BEP	Flow Restrictor - 5 GPM, PVC
OR-8-BE	Flow Restrictor - 8 GPM, Brass
OR-8-BEP	Flow Restrictor - 8 GPM, PVC
OR-10-BE	Flow Restrictor - 10 GPM, Brass
T-C	Coupon Holder T only
T-ADAPT	Quick disconnect coupon opening to 1" slip adaptor
T-ADAPT-W	Quick disconnect coupon opening to 1" slip adaptor with larger I.D.

Corrosion Deposit Monitor

Portable System for on-site evaluation of water treatment performance by simulating actual heat exchange conditions. Includes a flow meter and corrosion coupon holder.

ADPM-1	120 VAC
ADPM-2	240 VAC
Option	
A	Digital readout of heater voltage, incoming water and skin temperature of corrosion tube.
W	Removes metal frame for wall mounting

Corrosion Rack, Monitor & Deposit Parts

Coupons

AMS	Mild Steel
ACO	Copper
AS4	304 Stainless Steel
AS5	316 Stainless Steel
ANK	Nickel
ABR	Brass
ABA	Aluminum
AGS	Galvanized Steel

Scale Coupon

ASC-5	316 Stainless Steel

Note: Additional coupon materials and styles available; consult factory for details.

Specimen Tubes

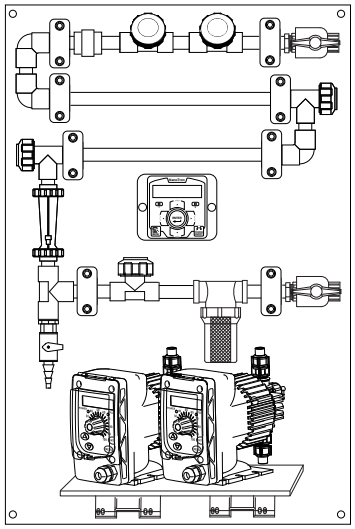
AMS-T	Mild Steel
ACO-T	Copper
AS4-T	304 Stainless Steel
AS5-T	316 Stainless Steel
ANK-T	Nickel
ABR-T	Brass

Corrosion Tips

CE-MS	Pair of Mild Steel
CE-CO	Pair of Copper
CE-BR	Pair of Brass
CE-CN	Pair of Cupro-Nickel
CE-AL	Pair of Aluminum

FIREROD-115-1	Heating rod for ADPM-1
FIREROD-115-1A	Heating rod for ADPM-1A with connectors
FIREROD-220	Heating rod for ADPM-2
FIREROD-220-2A	Heating rod for ADPM-2A with connectors

NEW Loop Guard



Loop Guard prepackaged units provide a more professional approach to closed loop feed and monitoring. A Loop Guard and separately ordered NanoTron and/or pumps allow for automated feed of closed loop treament. Add NanoTron corrosion monitors for an even higher level of automation.

Loop Guard prepackaged closed loop systems provide an all-in-one panel with coupon holders, isolation valves, injection tees, sample port and back check.

LG - __ __ __ __ __ __ __ - __

Loop Material and # of Coupons

	3/4" PVC	1" PVC	3/4" Iron	1" Iron
2 holders.....	**A2**	**A12**	**A22**	**A32**
4 holders.....	**A4**	**A14**	**A24**	**A34**

Corrator Sensor Ports
B = (2) Advantage quick release 3/4" PVC
B1 = (2) Advantage quick release 1" PVC
B2 = (2) 1" FNPT ports in 1" iron tee

Controller Space & Mounting Hardware (order controller and/or pumps separately)
C0 = No controller space
C1 = Room for 1 NanoTron
C2 = Room for 2 NanoTrons
C3 = Room for 3 NanoTrons
C4 = Room for 1 MegaTronSS

Sensor Tees
D = (1) 3/4" PVC quick release
D2 = (2) 3/4" PVC quick releases
D3 = (1) 1" Iron tee
D4 = (2) 1" Iron tees

Strainer Options
E = 3/4" basket
E1 = 3/4" flushable y
E2 = 1" basket
E3 = 3/4" Black iron
E4 = 10" poly filter cold (3/4")
E5 = 10" poly filter hot (3/4")

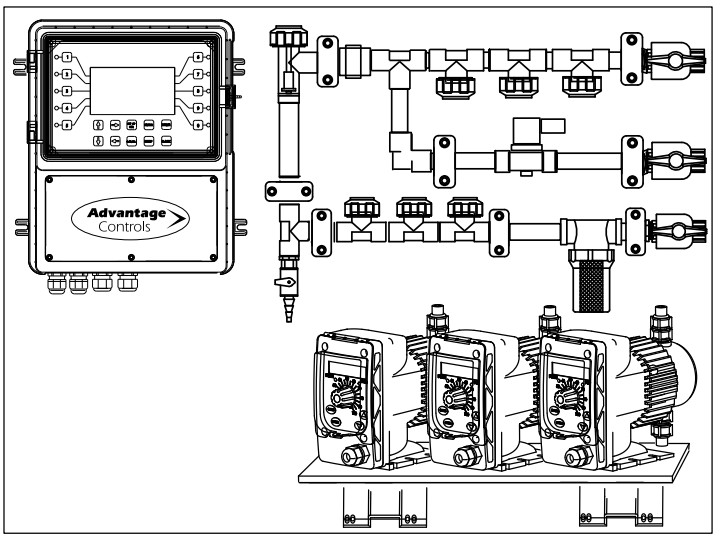
Flow Indicator 1-10 pgm
F = 3/4" 150PSI
F2 = 3/4" 325PSI

Flow Restrictor 1-10 pgm
G = 3/4" PVC 3GPM
G1 = 3/4" PVC 5GPM
G3 = 3/4" Brass 3GPM
G4 = 3/4" Brass 5GPM

Options
L = Clear pipe over holders on PVC
P = 2 pump shelf
R = Mounting rails
U = 1/2" blue poly panel

Prefabricated Systems

Wall Mounts



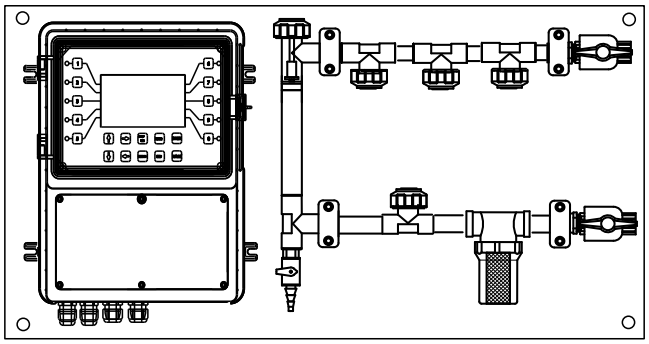
Full size wall mounts for a controller, 1-4 plumbing loops, pumps and accessories make a professional installation easy and saves you time and money.

Start with WM and code for number of plumbing loops and panel material desired, “WM2”. Then select options A-J for each loop. If additional loops are the same, use a -X2, X3 or X4. After all loops are built, list whole unit options: WM2-AB3D3FJ-X2.

NOTE: 1. Multi-loop panels may come in sections.
2. Option “H” on wall mount units are not available on multi-loop panels.

Build one to your specs on the next page.

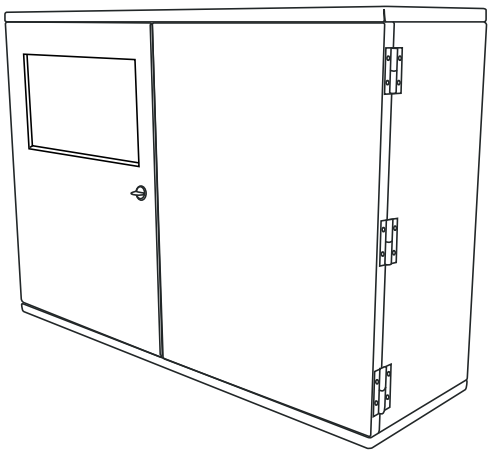
Controller Mount Boards



Controller mount boards are a low cost option making installation fast and easy on compact poly boards for controller and sample stream assemblies.

Build one to your specs on page 20.

Fully Enclosed Cabinets



The FE series of fully enclosed pre-fabs provide a safe and secure professional installation that saves time and money while protecting your water treatment equipment from the elements and tampering.

Choose a PVC or painted steel cabinet and a wide range of options to meet your specific installation requirements.

Build one to your specs on page 21.

All Prefabs Please Note:

- Controller, pumps, and bleed valves are ordered separately. Panel dimensions may vary depending upon options and controller selections.
- If ordering option “C” for probes, a 3/4” PVC 90° flow tee is automatically included on 3/4” & 1” PVC loops. If a 1” PVC straight flow tee is needed, add a 1 before the “C” # (i.e. C12 for 1” flow tee and two 3/4” probe tees). If no 3/4” PVC 90° flow tee is desired, add a 0 before the “C” # selected (i.e. C02)

Wall Mounts

WM ___ - _ _ _ _ _ _ _ _ _ _ _ _ - _

Number of Plumbing Loops on 3/8" White Poly Panel (add to base)
1 **2** **3** **4**
Number of Plumbing Loops on 1/2" Blue Panel (add to base)
21 **22** **23** **24**

Loop Material With valves, strainer, back check and sample (*no strainer & check)
A = 3/4" PVC **A0** = no loop **A1** = 1" PVC
A2 = 3/4" Black iron **A3** = 3/4" Copper **A4** = 1" Black iron
A5 = 3/4" CPVC **A6** = 3/4" brass valves on PVC loop

Injection	**3/4" PVC**	**1" PVC**	**1" CPVC**	**3/4" Black Iron**	**1" Iron**
B1 = 1 tee		**B11**	**B21**	**B31**	**B41**
B2 = 2 tees		**B12**	**B22**	**B32**	**B42**
B3 = 3 tees		**B13**	**B23**	**B33**	**B43**
B4 = 4 tees		**B14**	**B24**	**B34**	**B44**

Probe Tees (only needed if different than controller ordered - see page 18)

3/4" PVC Quick Release	**1" PVC Quick Release**	**1" Black Iron**
C1 = 1 tee	**C21**	**C41**
C2 = 2 tees	**C22**	**C42**
C3 = 3 tees	**C23**	**C43**
C4 = 4 tees	**C24**	**C44**

Pump Mounting Shelf
D1 = Shelf for 1 **D2** = Shelf for 2 **D3** = Shelf for 3
D4 = Shelf or 4 **D5** = Shelf for 5 **D6** = Shelf for 6

Strainer Options (3/4" basket strainer included as standard)
E = 3/4" flushable **E2** = 3/4" 10" filter housing **E4** = 1" basket strainer

Flow Indicator 1-10 pgm
F = 150 psi, 3/4" **F2** = 325 psi, 1"

Coupons	**3/4" PVC**	**1" PVC**	**3/4" Black Iron**
G1 = 1 Station		**G11** = 1 Station	**G21** = 1 Station
G2 = 2 Stations		**G12** = 2 Stations	**G22** = 2 Stations
G3 = 3 Stations		**G13** = 3 Stations	**G23** = 3 Stations

Add "L" to get clear PVC over coupon.

Solid Feeder (order SFS separately / D1 or D2 available with H1 / no D option with H2)
H1 = For a SFS-?01 **H2** = For 2 SFS-?01's **H3** = For 3 SFS-?01's

J = Bleed off leg with shut-off valve (order bleed valve separate)
J1 = Bleed off leg with shut-off valve & 3/4" water meter (order bleed valve separate)

Loop Direction: Standard is in and out on the right.
K = In/Out Left **K1** = Left to Right **K2** = In/Out Bottom

Corrosion Sensor Tees 90°
M1 = 3/4" PVC **M11** = 1 PVC 1" **M21** = 1 Iron 1"
M2 = 3/4" PVC **M12** = 2 PVC 2" **M22** = 2 Iron 1"

Controller Mount Area (only needed if ordered without a controller)
N = MegaTron SS **N1** = MegaTron **N2** = MegaTron + 1 relay box **N3** = MegaTron + 2 relay boxes
N4 = MicroTron / 2EZ **N5** = NanoTron

Whole Pre-Fab Options
P = Wire channel duct
S = Electrical junction box
W = Free standing leg kit
R = Mounting rails (required w/ H's)
T = Weather shield 37" wide max
Z = Customer defined special

Controller Mount Boards

CM ___ - _ _ _ _ _ _ _ _ _ _ _ _

Board Dimensions and Loop Options
05 = 24” wide x 18” tall board for single loop only, no controller mount area
10 = 34” wide x 18” tall board for single controller and loop
20 = 52” wide x 18” tall board for dual loop systems

Loop Material With isolation valve and sample port
A = 3/4” PVC **A0** = no loop **A1** = 1” PVC
A2 = 3/4” Black iron **A3** = 3/4” Copper **A4** = 1” Black iron
A5 = 3/4” CPVC **A6** = 3/4” brass valves on PVC loop

Injection Tees

	3/4” PVC	1” PVC	1” CPVC	3/4” Black Iron	1” Iron
B1 = 1 tee		**B11**	**B21**	**B31**	**B41**
B2 = 2 tees		**B12**	**B22**	**B32**	**B42**
B3 = 3 tees		**B13**	**B23**	**B33**	**B43**
B4 = 4 tees		**B14**	**B24**	**B34**	**B44**

Probe Tees (only needed if different than controller ordered - see page 18)

3/4” PVC Quick Release	1” PVC Quick Release	1” Black Iron
C1 = 1 tee	**C21**	**C41**
C2 = 2 tees	**C22**	**C42**
C3 = 3 tees	**C23**	**C43**
C4 = 4 tees	**C24**	**C44**

Strainer Options (Not included as standard)
E = 3/4” Basket **E1** = 3/4” Flushable Y **E4** = 1” Basket Strainer
E5 = 3/4” Black Iron Strainer

Flow Indicator 1-10 pgm
F = 150 psi, 3/4” **F2** = 325 psi, 1”

J = Bleed off leg with shut-off valve (order bleed valve separate)

Loop Direction: Standard is water in and out on the right.
K = In/Out Left **K1** = Left to Right **K2** = In/Out Bottom

Corrosion Sensor Tees 90°
M1 = 3/4” PVC **M11** = 1 PVC 1” **M21** = 1 Iron 1”
M2 = 3/4” PVC **M12** = 2 PVC 2” **M22** = 2 Iron 1”

Controller Mount Area (only needed if ordered without a controller)
N = MegaTron SS **N1** = MegaTron **N2** = MegaTron + 1 relay box **N3** = MegaTron + 2 relay boxes
N4 = MicroTron / 2EZ **N5** = NanoTron

Q = Backcheck

Whole Pre-Fab Options
P = Wire channel duct
S = Electrical junction box
U = 1/2” Blue poly panel
Z = Customer defined special
R = Mounting rails
T = Weather shield (37” wide max)
V = No panel (unassembled)

Fully Enclosed Cabinets

FE ___ - _ _ _ _ _ _ _ _ _ _ _ _ - _ _

Enclosure Type
1 = PVC 46"W x 32"H x 14.5"D
2 = Metal 36"W x 36"H x 12"D (3 pumps & injectors max; no G or H option)

Loop Material with valves, strainer, back check and sample (*no strainer & check)

A = 3/4" PVC	**A0** = no loop	**A1** = 1" PVC
A2 = 3/4" Black iron	**A3** = 3/4" Copper	**A4** = 1" Black iron
A5 = 3/4" CPVC	**A6** = 3/4" brass valves on PVC loop	

Injection	**3/4" PVC**	**1" PVC**	**1" CPVC**	**3/4" Black Iron**
B1 = 1 tee		**B11**	**B21**	**B31**
B2 = 2 tees		**B12**	**B22**	**B32**
B3 = 3 tees		**B13**	**B23**	**B33**
B4 = 4 tees		**B14**	**B24**	**B34**

Probe Tees (only needed if different than controller ordered - see page 18)

3/4" PVC Quick Release	**1" PVC Quick Release**	**1" Black Iron**
C1 = 1 tee	**C21**	**C41**
C2 = 2 tees	**C22**	**C42**
C3 = 3 tees	**C23**	**C43**
C4 = 4 tees	**C24**	**C44**

Pump Mounting Shelf
D1 = 1 pump **D2** = 2 pump **D3** = 3 pump **D4** = 4 pump

Strainer Options (3/4" basket strainer included as standard)
E = 3/4" flushable **E4** = 1" Basket Strainer

Flow Indicator 1-10 pgm
F = 150 psi, 3/4" **F2** = 325 psi, 1"

Corrosion Coupon Stations (must be standard or K loop direction)

3/4" PVC	**1" PVC**	**3/4" Black Iron**
G2 = 2 Stations	**G12** = 2 Stations	**G22** = 2 Stations

Add "L" to get clear PVC over coupon

Solid Feeder (order SFS separately; no D or G options with H; no room for controller with H3)
H1 = For a SFS-101 **H2** = For 2 SFS-101's **H3** = For 3 SFS-101's

J = Bleed off leg with shut-off valve (order bleed valve separate)

Loop Direction: Standard is in and out on the right.
K = In/Out Left **K1** = Left to Right **K2** = In/Out Bottom

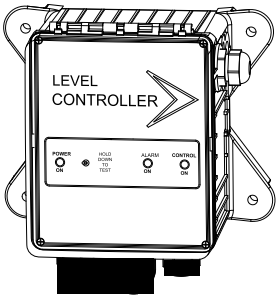
Corrosion Sensor Tees 90°

M1 = 3/4" PVC	**M11** = 1 PVC 1"	**M21** = 1 Iron 1"
M2 = 3/4" PVC	**M12** = 2 PVC 2"	**M22** = 2 Iron 1"

Controller Mount Area (only needed if ordered without a controller)
N = MegaTron SS **N1** = MegaTron **N2** = MegaTron + 1 relay box **N3** = MegaTron + 2 relay boxes
N4 = MicroTron / 2EZ **N5** = NanoTron

Whole Pre-Fab Options
P = Wire channel duct
S = Electrical junction box
V = Window (left door on PVC)
V2 = Windows in both doors
Y = Non ACI equipment to be supplied
R = Mounting rails
U = Key lock latch
W = Free standing leg kit
Z = Customer defined special

Liquid Level Alarm Fill Controllers



ALL low level units prevent chemical metering pumps from pumping dry and provide an alarm LED and relay notification of the low level condition.

FILL units automate filling of a tank with a control relay output based on a low "ON" and high "OFF" level switch input.

ALL-100	Designed for use with 100 gallon tank. Level controller with 60" wand 120 VAC, 60 Hz, 5 amp receptacles labeled PUMP and ALARM
ALL-50	Designed for use with 50 gallon tank. Level controller with 42" wand 120 VAC, 60 Hz, 5 amp receptacles labeled PUMP and ALARM
ALL-30	Designed for use with 30 gallon tank. Level controller with 30" wand 120 VAC, 60 Hz, 5 amp receptacles labeled PUMP and ALARM
ALL-C	Level Controller only (less wand)
ALL-D	Dual Input Level Controller (less wand)

FILL-C00	Fill controller only with no level wands
FILL-C35	Fill controller only with 2 wands sized for an Advantage 35 gal. tank
FILL-C55	Fill controller only with 2 wands sized for an Advantage 55 gal. tank

Options

C	240 V
E	Extra Output Cord
H	High alarm input on FILL unit with control cut-off and 120 volt alarm output (no wand)
H1	High alarm on FILL unit with control cut-off and dry contact alarm output (no wand)
LED	LED on Level Wand
S	Switch For Output (ON/OFF)
V	Audible Alarm with Silence Switch, 100 db

Level Wands Only

ALL-S60	Level Wand adjustable to 60" with switch contacts 28 VDC 50 mA
ALL-S42	Level Wand adjustable to 42" with switch contacts 28 VDC 50 mA
ALL-S30	Level Wand adjustable to 30" with switch contacts 28 VDC 50 mA
ALL-S12	Level Wand adjustable to 12" with switch contacts 28 VDC 50 mA

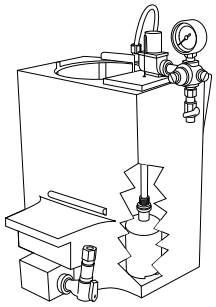
Flow Controller

FL-1	Preplumbed Flow Controller with 3/4" female slip connection

Options

E	Additional Female Output Cord, Both On with Flow
F	Additional Output Cord, 1 On with Flow, 1 Off with Flow
G	Additional Output Cord, 1 On with Flow, 1 On with power
H	Additional Output Cord, 1 Off with Flow, 1 On with power
I	1/2" NPT Fittings Supplied For Flow Input and Output
J	Additional Output Cord, Both Off with Flow
K	No flow switch, 6' two wire lead
L	Conduit Connections
L2	1" flow assembly with 1-20 gpm flow indicator

Solid Feed Systems



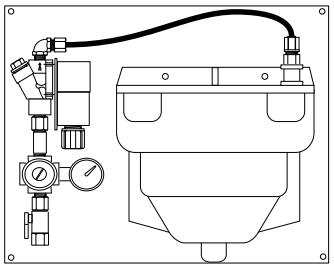
SFS solid feed systems include a dissolving bowl with a 0.6 gpm at 10 psi spray nozzle; shut-off valves on inlet water and pump suction connection, pressure regulator, solenoid, Y-strainer and level switches (most models).

Level switches are pre-set to maintain a max of approximately 2.5 gallons. Units with the 120-volt level controller have a relay test switch, LED for power and control with a lockable clear cover.

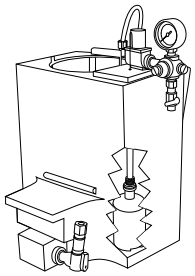
SFS-G01	Single dissolving bowl in a tank with non-electric make-up valve
SFS-G02	Dual dissolving bowls in a tank with non-electric make-up valve
SFS-101	Single dissolving bowl in a tank with 12 VDC controller
SFS-105	Single dissolving bowl and tank with 120 VAC controller on panel
SFS-205	Two dissolving bowls with pressure regulators, one solution tank
SFS-305	Three dissolving bowls with pressure regulators, one solution tank
SFS-10	Dissolving bowl with 120 volt solenoid, pressure regulator, no tank or controller
SFS-20	Two dissolving bowls with one 120 volt solenoid, regulator, no tank or controller
SFS-T01	Dissolving bowl with battery powered timer valve, regulator and gauge on panel

Options

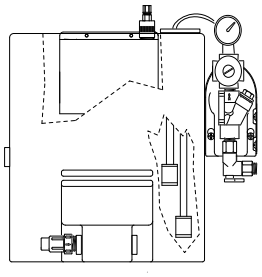
A	Conduit connections
A2	240 volt with conduit connections
B1	Back check in pump suction line
C2	Dissolved solution low conductivity switch control for 205, 305 & 405 models
D	1” FNPT port on the top of the tank for conductivity probe (not needed with C2)
D2	Adjustable level wand for external monitoring
E	10’ of 3/4” I.D. clear tubing for overflow
F	Adds booster pump to 120 volt models
G	Blue back panel for 105, 205, (double the price for 305, 405)
H	High Level Alarm Cut-off with LED and Alarm Relay Output on 120 volt models
H2	Adds a high level cut-off to SFS-101 controller
H3	High alarm with cut-off and second brass solenoid N.O. on 120 volt units
H4	High level cut-offs on SFS-201, 120 volt module and N.O. brass shut-off valves
L	Provide 120 volt level controller for remote mounting with SFS-101
P	Non Advantage Controls metering pump mounting adaptor
R1	Remove pressure regulator from 205, 305 & 405 (R2, R3 to remove more than 1)
T2	Dual timer controller for SFS-205 (T3, T4 for 3 or 4 timers)
V	Viton seats in electric solenoid valve
W	Adjustable wands



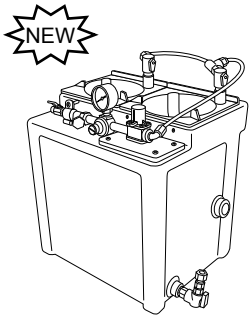
SFS-10



SFS-G01



SFS-101



SFS-G02

Solid Feed Systems - *continued*

Parts

R00223	SS Wall Mounting Bracket
SFS-BV	Brass Inlet Valve
SFS-C01	12 volt controller for 101 and 201 models
SFS-C?05	120 volt controller for ?05 models, list 105, 205, 305 to match
SFS-C05-H	120 volt controller for 05 models with option H
SFS-DB-1	Dissolving Bowl (New Advantage PVC bowl assembly)
SFS-DB-ARM-1	Spray arm for dissolving bowl (New Advantange PVC spray arm assembly)
SFS-E4A	Replacement probe for conductivity switching units
SFS-LF	Individual Float Switch
SFS-LF-1	1 Level Float Assembly
SFS-LF-2	2 Level Float Assembly
SFS-LF-2-FH01	Level wands for SFS-FH01
SFS-LF-3	3 Level Float Assembly
SFS-LF-G01	Level float and inlet valve assembly for SFS-G01 (no gauge, regulator, or strainer)
SFS-LF-G02	Level float and inlet valve assembly for SFS-G02 (no gauge, regulator, or strainer)
SFS-PA-101M	Plumbing assembly for 101M (includes solenoid, inlet valve, pressure regulator & gauge)
SFS-PA-105M	Plumbing assembly for 105M (includes solenoid, inlet valve, pressure regulator & gauge)
SFS-PA-G01	Plumbing assembly for G01 & G02 (includes inlet, y-strainer, pressure regulator & gauge)
SFS-PG	Pressure Gauge
SFS-PR	Pressure Regulator
SFS-SB-12V	Brass solenoid valve with y-strainer 12 volt D.C.
SFS-SB-120V	Brass solenoid valve with y-strainer 120 volt A.C.
SFS-SB-KIT	Repair kit for 12V or 120V solenoid valves
SFS-SUCTION	Outlet pump suction assembly
SFS-TANK-101	Replacement tank for the SFS-101
SFS-TANK-205	Tank only for 205
SFS-TANK-G01	Replacement tank for the SFS-G01
SFS-TIP-LP	Low pressure spray tip
SFS-WT	Wall transformer for 12 volt D.C. models
2C4A000051	1/2” MNPT to 1/4” FNPT reducer for pump suction on tank
2C4A000056	Overflow elbow
2C4A000059	Replacement spray nozzle
2C4A000060	1/2” tubing x 1/4” MNPT connector

NEW Mounting Panels for SFS Feeders

SFS-PANEL-2	1/2” blue poly panel for 2 SFS-G01, or 101 (34” x 24”)
SFS-PANEL-3	1/2” blue poly panel for 3 SFS-G01, or 101 (46” x 24”)
SFS-PANEL-32	1/2” blue poly panel for 3 SFS-G02 (60” x 24”)

Options for SFS-PANEL

A	3/4” PVC freshwater header with shut-off
W	Free standing leg kit

Glycol Feeder for Closed Loop Systems

GF - __ __ __ __ __ __ - __ __

Tank Selection
- 0 = No tank
- 1 = 55 gallon poly
- 2 = 100 gallon poly
- 3 = 30 gallon poly
- 4 = 50 gallon carbon steel
- 5 = 5 gallon (no stand, 30 gpd pump only)
- 7 = 150 gallon poly

Stand Selection
- A = Painted steel stand
- B = Painted steel stand w/ mixer bracket
- C = Tank top mount (no tank included)
- D = Portable stand with built in rollers
- E = No stand (for 5 gal tanks)

Pump Selection

*Dual pump sys. require 2 pump selections (i.e., -11)
- 0 = No pump
- 1 = 1.5 gpm at 100 PSI; 1/3 hp
- 2 = 3.75 gpm at 100 PSI; 1/2 hp
- 3 = 6.1 gpm at 60 PSI; 1/3 hp
- 4 = 10 gpm at 60 PSI; 1/2 hp
- 5 = 30 gpd at 100 PSI; solenoid driven

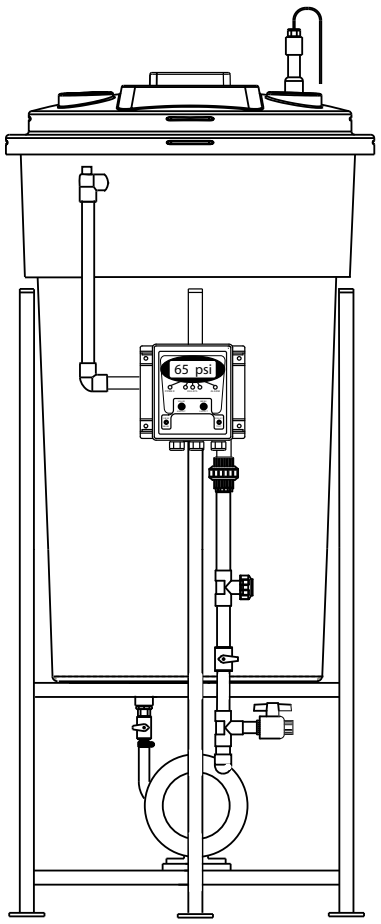
Pump Configuration
- A = Standard configuration
- B = Alternating pumps for single loops (requires 2 pump selections)
- C = Pump plumbed for transfer duty into tank

Loop Selection

*Dual loop sys. require 2 loop selections (i.e., -11)
- 0 = No loop
- 1 = Sch 80 PVC loop; 100 PSI max; 100°F max
- 2 = Copper/brass loop; 100 PSI max; 180°F max
- 3 = Carbon steel loop; 100 PSI max

Control Selection
- A = Digital controller w/ 0-100 PSI 4-20mA output sensor for 30 gal & + sizes
- C = Analog 5-20 PSI switch for 5 gal tank w/ 30 GPD pump
- D = Pressure transducer, level wand and pump starter relay for use with separately ordered MegaTron or SS with 4-20mA input ability
- E = Manual pump control; no pressure switch or level wand
- F = Digital controller for dual loops with two sensors

Options
- 1 = 240V
- 2 = 4-20mA output of pressure on digital controller
- 3 = Solenoid valve for pressure relief on digital units
- 4 = 30-50 PSI pressure switch for analog units
- 5 = Position back check to use tank for expansion
- 6 = High alarm on digital units
- M = Mixer controls (order mixer separate)
- S = ON/OFF switch
- Y = ETL approval (only on units with controller option D)



Most Popular Model

GF-1A1A1A
with user friendly digital controls

Glycol Feeder Parts

DALL-GF-V	Digital controller with relays & 4-20mA output (sensors not included)
AGF-PS	Standard pressure switch (30-50 PSI)
AGF-LPS	Low pressure switch (5-20 PSI)
AGF-PRV	Pressure relief valve (brass)
CKV-3/4PP	Back Check Valve
991F41	1.5 GPM Pump at 100 PSI; 1/3 HP Motor
992MJ07	3.75 GPM Pump at 100 PSI; 1/2 HP Motor
AGF-PTD	Pressure transducer for digital glycol feeder
AGF-BLS	Bowl strainer for suction side of pump
AGF-PG	Pressure gauge
AGF-SUCTION	Pump suction assembly; shut-off and strainer
AGF-APCT-55	Replacement 55 gallon tank for glycol feeder

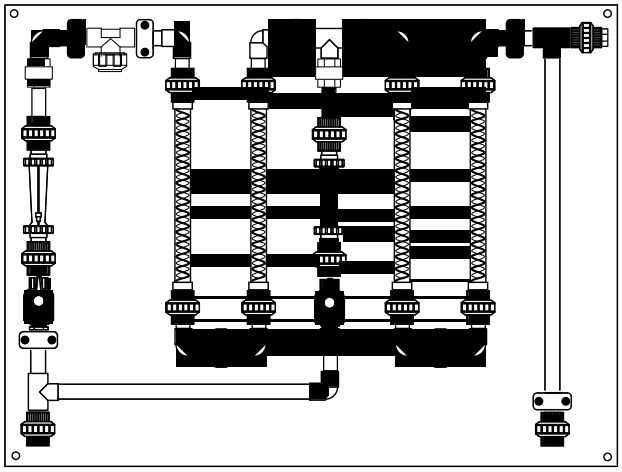
NEW Replacement plumbing assemblies can be ordered for glycol feeders by putting a prefix of **PA** in front of the glycol feeder model number (i.e. **PAGF-1A1A1A**). It will include isolation valves, pressure gauge, pressure relief valve and back check (the pressure transducer AGF-PTD is not included).

Polymer Feed Stands

Unit is constructed of corrosion resistant plastic and includes: 3/4” PVC sample stream, inlet valve, flow indicator (1-10 gpm), back check valve, chemical injection point, and static mixer.

PFS-01 Stand alone single mixer and flow indicator + pump mount area

PFS-04 Wall mount poly panel with 4 mixers and 2 flow indicators



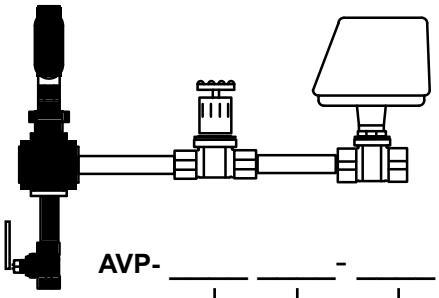
PFS-04

Options

A	Omit Sample Stream
B	Antisyphon back pressure valve
D	500 cc draw down column
F	Flow Controller, mounted complete with flow switch in the sample line
G	Flow Switch only, no controller
L	Flow indicator for low flow, 0.1 to 1.0 gpm instead of standard 1-10 gpm
L2	1” flow assembly with 1-20 gpm (PFS-01 only)
L3	3/4” CPVC flow assembly with brass fitting flow indicator (PFS-01 only)
W	Metal stand for PFS-04
V	Gate Valve on outlet

Build Your Own Boiler Valve Package

With the AVP valve package, select the blowdown valve and flow restrictor that meets your boiler application's requirements and Advantage Controls will pre-assemble it with a probe cross to insure that you get a correct plumbing configuration.



AVP- _____ _____ - _____

ELECTRIC BLOWDOWN VALVE

..... 00 = SG2-1/2 brass solenoid valve, 13-50 min/max psi
..... 10 = SGB-1/2 brass solenoid valve, 13-140 min/max psi
..... 30 = MBWB-1/2 motorized ball valve SS, 360° actuator, 0-450 min/max psi diff
..... 40 = MBWA-1/2 motorized ball valve SS, 90° actuator, 0-450 min/max psi diff
..... 60 = SOB-1/2 brass solenoid valve, 0-140 min/max psi diff

FLOW RESTRICTING DEVICE

..... 00 = AOU-1 orifice union with 4 plates, 1000 psi max
..... 10 = FCS-1/2 flow control valve SS, 200 psi max
..... 20 = FC-1/2 flow control valve, 800 psi max

Change 2nd digit of code to 1 for 3/4" or 2 for 1" connection: AVP-61-11

Options

A	Adds second flow restricting device for continuous sampling Note: Add price of selected flow valve twice to price of package
C	3/4" probe tee instead of 1"
F	Add a 3/4" flush ball valve on bottom of probe cross (150 PSI max)
Y	Add 1/2" Y-strainer with flush valve before blowdown valve
Y1	Add 3/4" Y-strainer with flush valve before blowdown valve
P	Mount AVP and separately ordered controller onto poly board and pre-wire

Boiler Solenoid Valves

SOB-1/2	1/2" Valve, 0-140 psi, rated to 356°F
SOB-3/4	3/4" Valve, 0-140 psi, rated to 356°F
SGB-1/2	1/2" Valve, 13-140 psi, rated to 350°F
SGB-3/4	3/4" Valve, 13-140 psi, rated to 350°F

Motorized Ball Valves, 0-450 psi, Rated to 459° With 360° Electric Actuators

MBWB-1/2	1/2" Valve With 1036 Actuator
MBWB-3/4	3/4" Valve With 1036 Actuator
MBWB-1	1" Valve With 1036 Actuator
MBWB-1 1/2	1 1/2" Valve With 1036 Actuator
MBWB-2	2" Valve With 2036 Actuator
MBWB-1/2-230V	1/2" Valve With 1036 Actuator for 240VAC service

Motorized Ball Valves, 0-450 psi, Rated to 459° With Heavy Duty 90° Electric Actuators

MBWA-1/2	1/2" Valve With 1075 Actuator
MBWA-3/4	3/4" Valve With 1075 Actuator
MBWA-1	1" Valve With 1075 Actuator
MBWA-2	2" Valve With 2075 Actuator

Motorized Ball Valves, 0-1000 psi, Rated to 650°F, Extra Heavy Duty 90° Electric Actuator

MBWC-1/2	1/2" Valve with 1275 Actuator
MBWC-3/4	3/4" Valve with 1575 Actuator
MBWC-1	1" Valve with 2075 Actuator

Motorized Ball Valve Parts

MWB	1036 Actuator Only
MWA	1075 Actuator Only
AWS-1/2	1/2” Valve Only, carbon steel body, 316 SS stem & ball
AWS-3/4	3/4” Valve Only, carbon steel body, 316 SS stem & ball
AMK-9	Mounting Kit for 1036 Actuator
AMK-10	Mounting Kit for 1075 Actuator
MBW-CPL	Coupling for Motorized Ball Valve 1036
MWBS	Micro switch for activator

Economy SS Flow Control Device for 200 psi with position indicator (not a shut-off valve)

FCS-1/2	1/2”
FCS-3/4	3/4”
FCS-1	1”

Boiler Rated Flow Control Valves

FC-1/2	1/2” 800 psi
FC-3/4	3/4” 800 psi
FC-1	1” 800 psi

AOU-1	1” Forged Steel Orifice Union with 4 Orifice Plates - 1000 psi
AOUP	Set of 4 Stainless Steel Orifice Plates Includes 1/8”, 3/16”, 1/4”, 5/16” Orifice Sizes.
AOUP-1	1” Blank Plate, SS

Diverter Valves, Carbon Steel Body, Teflon Seals

MBWD-1/2	1/2”
MBWD-3/4	3/4”
MBWD-1	1”

Sample Cooler

LBC	Sample Cooler With 316 SS Tubing, Tube & Connections Plain 1/4” OD Tube End (2500 PSI Hot Coil / 250 PSI on Cold Shell)

Advantage Controls can help you source other valves and sizes not shown here. Consult factory for pricing and availability.

Specialty Sensors

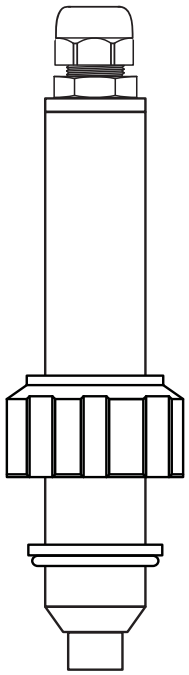
SKIDSENS Fouling Sensor by Neosens

SKIDSENS- ___ ___ ___

MOUNTING OPTIONS
- .....A = No tee
- .....C = 3/4” quick release PVC 90 (gray)
- .....D = 3/4” quick release PVC 90 (clear)
- .....E = 1” male slip PVC quick release fitting

POWER SUPPLY
- ..... 1 = No power supply
- ..... 4 = 90-264 VAC to 24 VDC power supply (with USA cord)
- ..... 5 = 90-264 VAC to 24 VDC power supply (no cord)

LOOP ISOLATION
- ..... L = 4-20mA loop isolator on power supply



NEW

Free Chlorine Sensor

WG-FC02-ASM	0-2 PPM free chlorine sensor and flow assembly (flow cell, flow indicator, regulator, gauge and mounting board) 10 PSI max
WG-FC02	0-2 PPM free chlorine sensor (sensor only) 10 PSI and 0.2 GPM
WG-FC05	0-5 PPM free chlorine sensor (sensor only) 10 PSI and 0.2 GPM

Replacement Parts

FLOW-25-01	0-1 GPM flow indicator with 1/4” FNPT connections
WG-PG	0-30 PSI pressure guage
SFS-PR	1/4” FNPT pressure regulator
WG-FLOW	Flow tee only for WG sensors
WG-PTD	Pressure transducer 0-100 PSI

Blue Track Sensor

OP-1	Blue Track optical sensor
OP-1-FLOW	Blue Track flow assembly
OP-1-ASM	Blue Track sensor and flow assembly

NEW

DC POWER SUPPLY ONLY

PSDC-24	90-264 VAC to 24 VDC power supply (with USA cord)
Options	
-A	90-264 VAC to 36 VDC power supply (no cord)
-L	4-20mA loop isolator on power supply

Tower Conductivity Replacement Probes

Quick Release Style

E-2-10 Non-Temperature Compensated Probe (A Minus Standard Replacement 10' cord)
E-2SS-10 Stainless Steel electrodes Non-Temperature Comp. (10' cord)
E-3A-10 Probe, 3-wire with 10' Cord (Standard on original Analog Models)
E-3ASS-10 Stainless Steel electrodes with A Range Temp.Comp.(10' cord)
E-4A-10 Probe, 4-wire with 10' cord (Standard Replacement MegaTron, MicroTrons and 2EZ)
E-4ASS-10 Stainless Steel electrodes, with 10' cord A Range Temperature Compensation

For the probe and tee assembly add the "T" prefix.
For probes made of CPVC add suffix CPV to end of probe part number.

Threaded Mount Probes

AH-2SS-10 1" MNPT SS Bushing, Insertion Type, 250 psi, 212°F max (no temp comp) (10' cord)
AH-4ASS 1" MNPT SS bushing, conductivity probe, 250 psi, 212°F max
AH-4BSS 1" MNPT SS bushing, conductivity probe, 250 psi, 212°F max

Special Type Probes

DC-2 Tank Mounted Conductivity Probe - 2-wire (A Minus) Non-Temp. Comp.
DC-4A Tank Mounted Conductivity Probe - 4-wire
DC-4ASS Same as DC-4A with Stainless Steel Electrodes
CS-4A Corporation Stop Electrode
DI-4A Direct insertion make up conductivity probe 1" threaded collar & quick release assembly
DI-27-4A High conductivity electrode with 1" quick release assembly
AL-4RTD Pure water probe conductivity probe with RTD temp comp, 3/4" MNPT, 212°F and 100 PSI max
ATE-3A-10 Morr Control Replacement Probe 3-Wire with 10' cord
Note: For conductivity probes with longer wires, see page 34.

Boiler Conductivity Replacement Probes

BE-2 1" MNPT SS threads, PEEK core, 50 psi
BE-32 1 or 3/4" MNPT SS threads, Ceramic core, 250 psi @ 400°F / 350 psig @ 265°F (2-wire)
BE-34B 1 or 3/4" MNPT SS threads, 250 psi @ 400°F / 350 psig @ 265°F (4-wire with thermistor)
BE-4RTD 1 or 3/4" MNPT SS threads, Peek core, 4-wire MegaTron RTD, 250 psi @ 400°F / 350 psig @ 265°F
BE-4RTD-S 3/4" MNPT SS threads, Peek core, 4-wire MegaTron RTD, 250 psi @ 400°F / 350 psig @ 265°F
BE-5ME Special High Temp / psi probe all Stainless Steel 1000 psi max
BE-5MEC BE-5ME Complete With Cross and Flush Valve.
1C 1" FNPT Steel Cross
3/4C 3/4" FNPT Steel Cross for BE-4RTD-S Probe

Notes:
1. To make boiler probes (except BE-5ME) a complete probe and cross assembly add a suffix of C to the end of the part number.
2. **A** Range Temp Compensation = 32-140°F (0-60°C) **B** Range Temp Comp = 32-212°F (0-100°C)

pH & ORP Replacement Probes

TPE-21 Complete Probe Assembly Supplied with PVC Tee - 10 ft lead
PE-21 Flat Surface, Double Junction, 10 ft lead, 140°F and 100 PSI max
PE-21H Flat Surface, Double Junction, 10 ft lead, 180°F and 100 PSI max
PE-21SS Double Junction High Temp pH Probe in a SS body 212°F; 1/2" MNPT
PE-11 Low ionic pH probe, 10 ft lead, 180°F and 100 PSI max
PE-21CS Corporation stop pH sensor assembly
TOE-21 Complete Probe Assembly Supplied with PVC Tee-10 ft lead
OE-21 Flat Surface ORP Replacement Probe 10 ft lead, 140°F and 100 PSI max
OE-21H Flat Surface ORP High Temperature (180°F Max) Replacement Probe, 10 ft lead
OE-21SS Double Junction, High Temperature ORP Probe in a SS Body 212°F; 1/2" MNPT
OE-11 Low ionic ORP probe
TC-1 Temperature Sensor for MicroTron (Standard) 140°F and 150 PSI max

pH & ORP Probe Parts

T-3	Tee Only
E-30-PH	O-Ring (For New pH Probe)
PE-NUT	Probe Assembly Nut
RTP-1	pH Transmitter; Non-Replaceable Battery Powered with BNC Connections
RTP-3	pH Transmitter with Power Supply and Multiple Wire Connections
DPE	Tank Mounted pH/ORP Probe Assembly (less probe)
PH-EXT-10	pH Cable Extension, 10 feet
PH-EXT-50	pH Cable Extension, 50 feet
BNC-ADPT	BNC to two wire adaptor for pH /ORP probes
T-ADPT	Quick disconnect pH/ORP probe opening to 1” slip adaptor

Miscellaneous PVC Quick Release Probe Assembly Parts

3/4 MNPT-KIT	2 PVC nipples, 3/4” male slip on one end and 3/4” male thread on the other end
T-3	Tee Only
T-3-CPV	CPVC Tee Only
E-30	O-Ring (For T-2, T-3, T-4 assembly)
PLUG-T3	Plug for T-3 tee complete with nut, o-ring and plug
MW-T-3	Single Probe Tee with 3/4” MNPT on one end and 3/4” slip on the other
MW-T-3-2	Dual Probe Tee assembly with 3/4” MNPT on one end and 3/4” slip on the other

Build a Replacement Flow Assembly (Probes not Included)

FSB-

- **1** Flow Switch with Sample Tee Body
- **2** Add Sample and One Probe Tee
- **3** Add Sample and Two Probe Tees
- **4** Add Sample and One Probe Tee, With Longer Body for old Dual Box
- **5** Add Sample and Two Probe Tees, With Longer Body for old Dual Box
- **6** Add Sample and Three Probe Tees

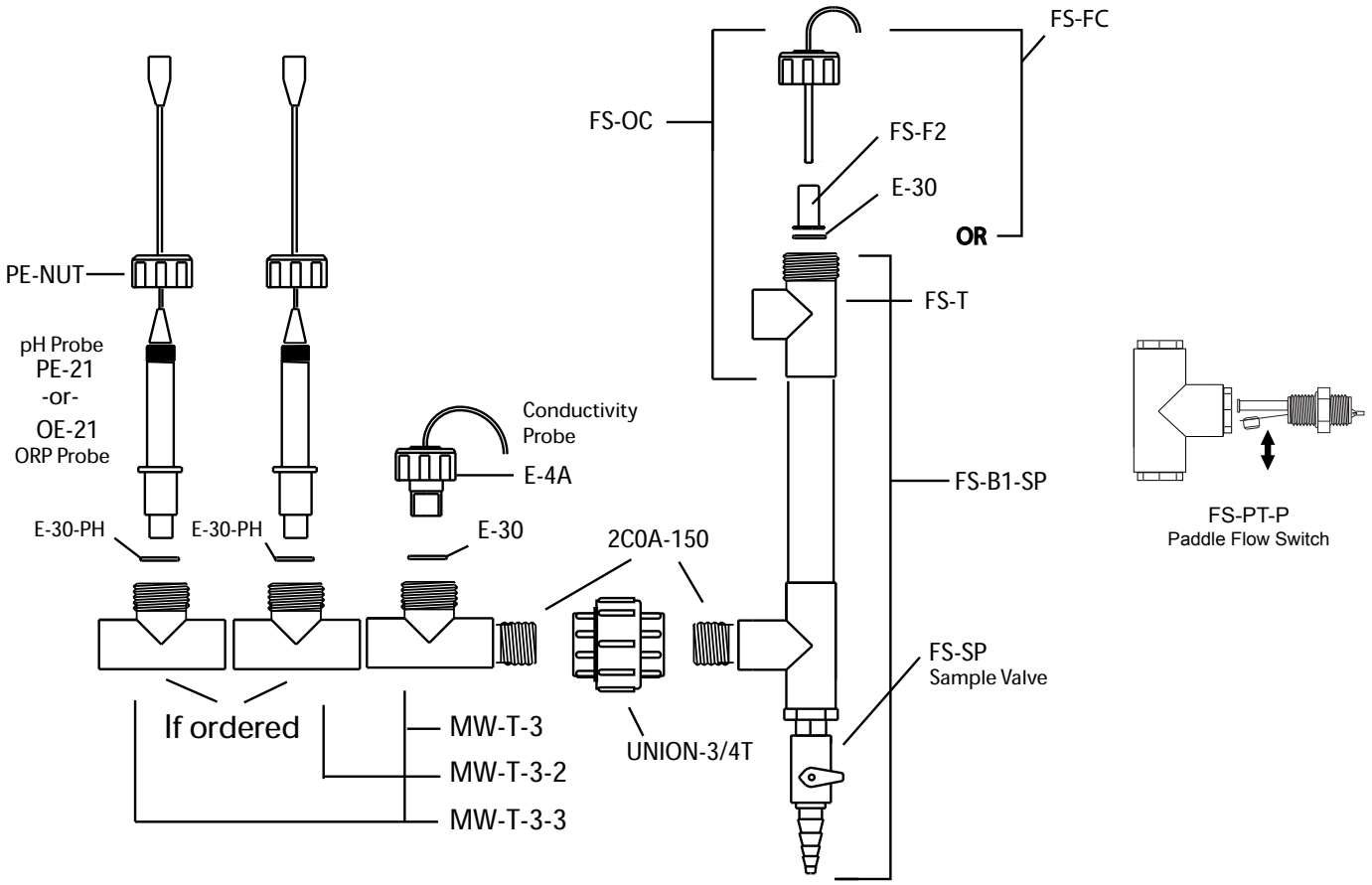
  - **OC** - Add Complete Flow Switch Cap and Plunger
  - **OC-T** Add Thermal Flow Switch & Transformer

    SP - Add Plastic Sample Cock

    - **J1** - Add 1 Injection Tee Assembly
    - **J2**- Add 2 Injection Tee Assemblies
    - **J3** - Add 3 Injection Tee Assemblies
    - **J4** - Add 4 Injection Tee Assemblies

      U - Unassembled

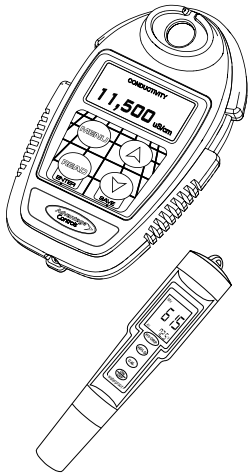
FS-B 2 - OC - SP - J4



Flow Assembly Parts

FS-C2	Dual read switch flow switch
FS-CPV	Flow Switch - CPVC Cap and Reed Switch
FS-0CPV	Complete CPVC Flow Switch Assembly
FS-F2	Flow Switch - Gray Plunger and Magnet
FS-FC	Flow Switch, clear PVC cap, reed switch, plunger, spring, o-rings and float
FS-SPRING	Spring for FS-C mechanical style flow switch
FS-SP	Sample Ball Valve - PVC
FS-T	Flow Switch - Clear PVC Tee (add G to get Gray)
FS-0C	Complete Clear Flow Switch Assembly (add G to get Gray)
FSB-1-SP	Flow switch and sample tee section
TFS-PWR	Thermal flow switch power supply only
E-30	O-Ring
E-30-PH	O-Ring for pH/ORP probes
T-3	Probe Tee with 3/4” PVC slip connections in and out
T-3E	3/4” Tee With Sample Cock
MW-T-3	Single Probe Tee with 3/4” MNPT on one end and 3/4” slip on the other
MW-T-3-2	Dual Probe Tee assembly with 3/4” MNPT on one end and 3/4” slip on the other
MW-T-3-3	Triple Probe Tee assembly with 3/4” MNPT on one end and 3/4” slip on the other
2C0A-150	3/4” slip to 3/4” MNPT nipple, PVC
UNION-3/4TT	3/4” PVC union, FNPT on both sides
FS-HP1	Flow Switch - High Pressure, 1” Brass, 250 psi
FS-HP-2	High Pressure Flow Assembly (no probe)
FS-PT-B	Paddle type flow switch with 3/4” brass tee; 250 PSI @ 75°F
FS-PT-P	Paddle type flow switch with 1” PVC tee; 150 PSI @ 75°F
FS-PT	Paddle type flow switch (no tee)
T-FS-PT	1” PVC tee for FS-PT

Hand Held Tester



The HanTron series of hand held testers provide accurate conductivity and temperature readings of any water system sample with features normally seen on much more expensive testers including: memory for 20 readings, unit of measure selections and temperature readings at a price comparable to older analog testers.

HT-3P Conductivity tester

HT-PH pH tester

Standard Solutions

CONDUCTIVITY

C-500-4	500 µS	4 oz.
C-500-16	500 µS	16 oz.
C-2500-4	2500 µS	4 oz.
C-2500-16	2500 µS	16 oz.
C-5000-4	5000 µS	4 oz.
C-5000-16	5000 µS	16 oz.

pH

pH-4-4	4.0 pH	4 oz.
pH-4-16	4.0 pH	16 oz.
pH-7-4	7.0 pH	4 oz.
pH-7-16	7.0 pH	16 oz.
pH-10-4	10.0 pH	4 oz.
pH-10-16	10.0 pH	16 oz.

ORP

ORP-4	200-275 mV ORP	4 oz.
ORP-16	200-275 mV ORP	16 oz.

Miscellaneous

BOX	Enclosure Only - Specify Model
BUZZ-1	Alarm buzzer (100 db) in standard box, pre-wired with 8' male power cord (-2, -3 or -4 for addition power cord inputs)
CLAMP-ASM-3/4A	Adjustable pipe clamp assembly with bolts and t-nuts
CORD-POWER	Power Cord -8 foot with plug
CORD-RECPT	8" cord with Molded Receptacle
DOOR	Clear Lexan cover for enclosure
INJ-COL	Injection Tee Collar
MA-LOOP-ISO-1	4-20mA loop isolator
MG-CMB	3/8" poly panel for mounting MG with no plumbing area
MICRO-BOX	New style MicroTron box with cover
MINI-BUZZ	Alarm buzzer in mini box with plug in transformer, 100 db
MS-001	Motor Starter, 25 Amp Relay, conduit connections
MS-002	Motor Starter, 25 Amp Relay, prewired (2 male, 1 female, 17 amp cords)
MS-003	25 amp relay box, 120 pre-wired input with 2 wire dry contact output
MS-003-001	Mounts a MS-003 on poly with seperately ordered NANO-F2
NANO-BOX-3	Nanotron style box with cover and 3 liquid tights 3/8"
SIM-4-20	Simple 4-20mA output simulator
SIM-COND	Simple conductivity simulator
SIM-PH/ORP	Simple pH/ORP simulator
SS-CMB	3/8" poly panel for mounting SS with no plumbing area
WIRE-2	2 Cord Cable/ft - 22 AWG
WIRE-3	3 Cord Cable/ft - 22 AWG
WIRE-4	4 Cord Cable/ft - 22 AWG
1A5B000337	Relay output Fuse 5 x 20 MM, 5 AMP
1A9A000015	1/2" liquid tight
1A9A000017	3/8" liquid tight
1A9A000243A	3/8" liquid tight to 1/2" F conduit
1E0A000044	Right door with window for PVC FE cabinet
1E0A000045	Left door with window for PVC FE cabinet
1G1F000105	25 amp relay
1M1P000043	120 VAC plugin AC adapter; 24 VDC out
1P1P000219	Relay output Fuse 5 x 20 MM, 2.5 AMP slow blow

Standard Wire Extensions for Conductivity and Flow Sensors

WIRE-2-10C	2 conductor, 10' extension
WIRE-2-25C	2 conductor, 25' extension
WIRE-2-50C	2 conductor, 50' extension
WIRE-2-75C	2 conductor, 75' extension
WIRE-2-100C	2 conductor, 100' extension
WIRE-4-10C	4 conductor, 10' extension
WIRE-4-25C	4 conductor, 25' extension
WIRE-4-50C	4 conductor, 50' extension
WIRE-4-75C	4 conductor, 75' extension
WIRE-4-100C	4 conductor, 100' extension

Add an R to the end of the part number for Molex connection.

Note: Order controller with standard probe wire and the extension(s) desired as a separate line item.

Repair Options and Fees

Advantage Controls is proud to offer a two year warranty on all controllers and metering pumps. We back this warranty up with a unique 30 day replacement memo policy. If something happens to your unit after it is out-of-warranty, we still want to help.

Call our technical support staff with the model, serial number and problem of your unit. If we are unable to fix the unit through troubleshooting, we will give you an RMA (return materials authorization) number to send the unit in. The different styles of units (analog timers, analog controllers, MicroTron controllers and pump) each have a Repair List Price. Normal replacement items are not included (i.e. probes, flow switches, liquid ends)

HT-3P
Analog Timers, Liquid Level and Flow Controllers
Analog Controllers (AM, 2-AM, B7M, 2-B7M etc…)
MicroTron Controllers (with 1 or less probe inputs)
MicroTron Controllers (with 2 or more probe inputs)
MegaTron
MegaTron SS (with 1 or less probe inputs)
MegaTron SS (with 2 or more probe inputs)
NanoTron timer only
NanoTron (1 sensor input)
Pumps (does not include liquid-end parts) ..... see pump price book

Service Call

Consult factory for more details.

Manufacturer's Product Warranty

Advantage Controls warrants control systems of its manufacture to be free of defects in material or workmanship. Liability under this policy extends for 24 months from date of installation (sensors are not included). Liability is limited to repair or replacement of any failed equipment or part proven defective in material or workmanship upon manufacturer's examination. Removal and installation costs are not included under this warranty. Manufacturer's liability shall never exceed the selling price of equipment or part in question. Advantage disclaims all liability for damage caused by its products by improper installation, maintenance, use or attempts to operate products beyond their intended functionality, intentionally or otherwise, or any unauthorized repair. Advantage is not responsible for damages, injuries or expense incurred through the use of its products. The above warranty is in lieu of other warranties, either expressed or implied. No agent of ours is authorized to provide any warranty other than the above.

30 Day Billing Memo Policy

Advantage Controls maintains a unique factory exchange program to ensure uninterrupted service with minimum downtime. If your controller malfunctions, call 1-800-743-7431 (international customers dial +1918 686-6211), and provide our technician with Model and Serial Number information. If he is unable to diagnose and solve your problem over the phone, a fully warranted replacement unit will be shipped, usually within 48 hours, on a 30 Day Billing Memo. This service requires a purchase order and the replacement unit is billed to your regular account for payment. The replacement unit will be billed at current list price for that model less any applicable resale discount. Upon return of your old unit, credit will be issued to your account if the unit is in warranty. If the unit is out of warranty or the damage not covered, a partial credit will be applied based upon a prorated replacement price schedule dependent on the age of the unit. Any exchange covers only the controller or pump. Electrodes and other external accessories are not included.

Get the Advantage in Water Treatment Equipment

Advantage Controls can give you the *Advantage* in products, knowledge and support on all of your water treatment equipment needs.

- Cooling Tower Controllers
- Boiler Blow Down Controllers
- Blow Down Valve Packages
- Solenoid Valves
- Water Meters
- Chemical Metering Pumps
- Corrosion Coupon Racks
- Chemical Solution Tanks
- Solid Feed Systems
- Feed Timers
- Filter Equipment
- Glycol Feed Systems
- Pre Fabricated Systems