



AMERICAN

Manufacturing Company, Inc.

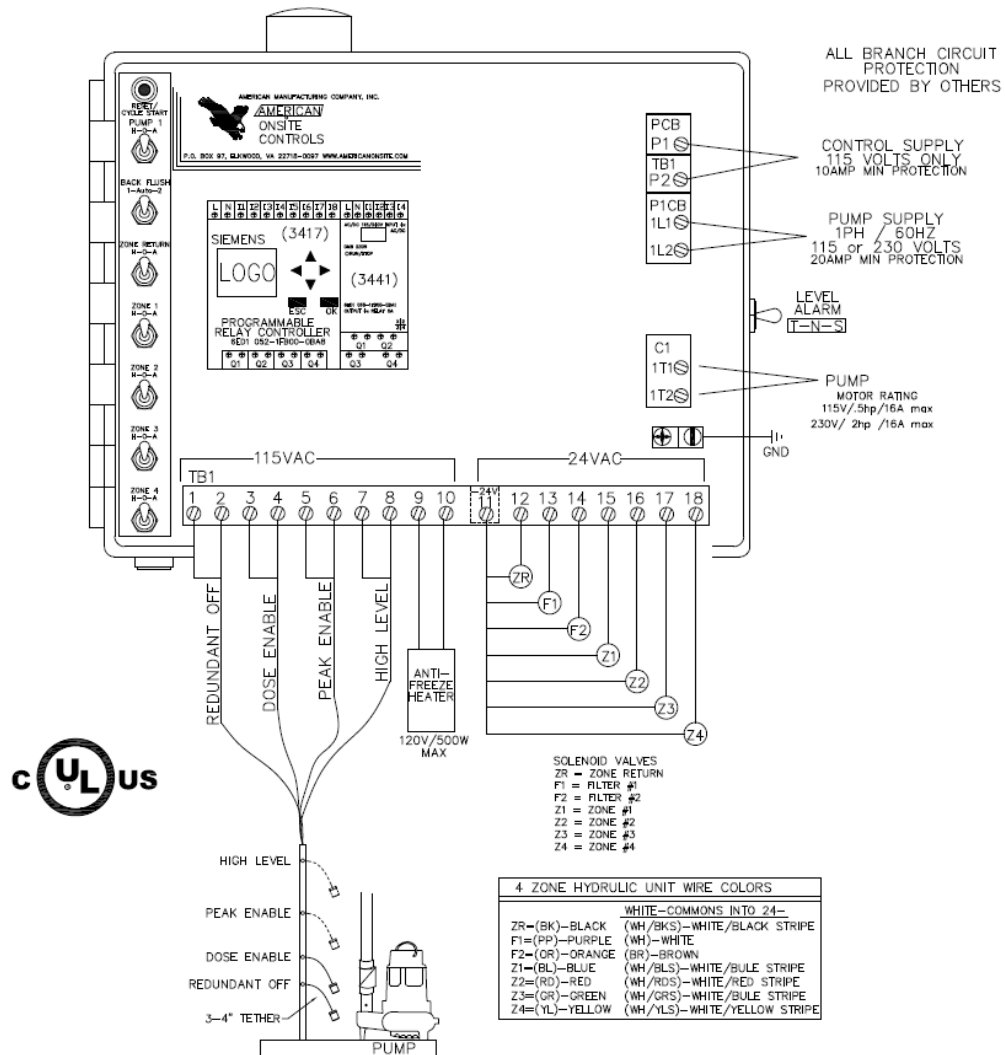
PERC-RITE® CONTROLER MANUAL

ASD15—AWD15 Series

(Fully Automatic)

PATENT NO. 5,200,065 ; 5,984,574 ; 6,261,452B1

DP0-B9114 1—4 ZONES




MANUFACTURED BY:
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**Perc-Rite© Drip
1-4 Zone System Controller**
Programming instructions for the Siemens LOGO! PLC

VERSION 1.1 8/1/2021

PLEASE REVIEW SEQUENCE AND ALL THE FOLLOWING INSTRUCTIONS BEFORE ATTEMPTING TO CHANGE SETTINGS!

WARNING! DO NOT USE THE “PROGRAM”, “NETWORK” OR “DIAGNOSTICS” SCREENS!

ALL SCREENS NECESSARY FOR SETTING UP THE PLC ARE FOUND BY SIMPLY PRESSING  THE UP ARROW KEY FROM THE CLOCK SCREEN!

If the screen backlight turns ORANGE, STOP! ONLY the clock is changed through the “Display #1” screen below!

Turn the power on to the LOGO microprocessor (P1 circuit breaker - ON) with all the HOA switches in the “OFF” position. Press the up or down arrow buttons to view available screen information. Screens may be viewed by pressing the up and/or down arrow buttons. The last screen, Time and Date, can be adjusted if necessary to current conditions (see below).

WARNING: Time and date must be set for proper operation

The image to the right shows the logo unit itself showing the time clock screen.

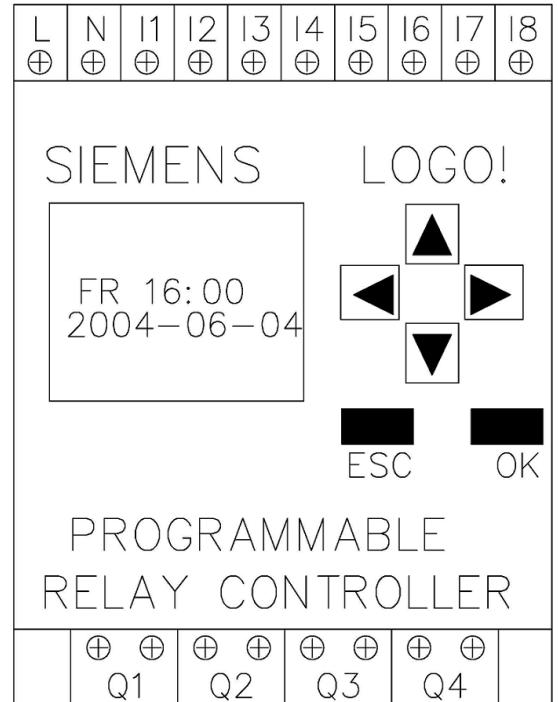
Display #1 appears whenever the escape key (ESC) is hit at the clock screen or if a program is stopped or if no program exists.

The controller is factory preprogrammed for a repetitive cycle type system which starts with the off period. The preset functions are shown on the screens below on page 17


Setting the Clock (Display #2)

WARNING: Time and date must be set for proper operation. Arrow down to date/time screen, set clock by pressing ESC. Scroll down to SETUP and press OK. Arrow down to clock and press OK, arrow up to set clock press OK. Use UP down arrows to change values, Left and Right arrows to move to the next value. Press OK when done, then press ESC until you get back to the date and time screen.

WARNING: DO NOT GO INTO THE “PROGRAM”, “NETWORK” OR “DIAGNOSTICS” SCREENS! ALL SCREENS NECESSARY FOR SETTING UP THE PLC ARE FOUND BY SIMPLY PRESSING THE UP ARROW FROM THE CLOCK SCREEN! Any changes to parameter settings through these screens will void warranty and the operator may be responsible for having the PLC re-programmed.



Pointer



STOP
PROGRAM>
SETUP>
NETWORK
DIAGNOSTICS

Su 00:00
YYYY-MM-DD
01.01.00

Program messages

The program messages are displayed when the particular routine of the program has been enabled. For example, when a pump is dosing a drip zone, the Dosing pump run time screen can be seen. The following screens are shown as noted;

- The count down for a cycle start is viewed when reset/cycle start push-button is held (displayed only while holding reset button, dose starts at 10 seconds, field flush starts if held for 20 seconds)
- field flushing in progress (displayed only while field flushing)
- filter back wash in progress (displayed only while back flushing filters)
- field flushing enabled for next dose cycle (displayed only when next dose is field flush)
- pressurizing zone for field flush (displayed only when pressurizing zone)
- zone dosing target (displayed when dosing in progress or with all zone HOAs in manual)
- filter/field flush settings (only displayed with all zone HOAs in manual)

Edit Screens “Pump Run Time & Pump Rest Times”



Any line with this ARROW icon can be changed.

The functions that may be edited are: Dose Target (Run Time) for each zone, Peak Rest, Standard Rest and quantity of Filters. To adjust these settings, go to the respective screen below and follow the instructions.

EDIT SCREENS

The following screens are shown when all H-O-A switches are in the “OFF” position.

#1: Setting Pump Run Times (ZONE DOSING TARGET, Screen #1):

	Z O N E	D O S I N G		
	T A R G E T	C U R R E N T		
1 ▶	1 5 : 1 5 m	0 0 : 0 0 m		
2 ▶	1 0 : 1 5 m	0 0 : 0 0 m		
3 ▶	0 5 : 1 5 m	0 0 : 0 0 m		
4 ▶	2 0 : 1 5 m	0 0 : 0 0 m		

NOTE:

THE HOMEOWNER ASSUMES FULL RESPONSIBILITY FOR CONDITIONS OR MALFUNCTIONS DUE TO CHANGES IN PUMP RUN TIME OR OTHER SETTINGS BY AN UNQUALIFIED SERVICE PROVIDER.

Screen 1

NOTE: This screen is only available when all zone HOA switches are in the **OFF** position. The screen also will display once an automatic dose has been started.

Set Zone run times, Standard rest time, or Peak rest time by using the UP and Down arrows to get to the appropriate screen. Press and hold ESC until highlighted. Press OK to begin the edit process. Use Up and Down arrows to change values while Left and Right arrows advance to the next number to edit. When finished, press OK to lock in value, and then press ESC twice.

NOTE: Settings can be changed while the program is running.

#2: Setting Pump Rest Times (Standard & Peak, Screen #2)

S	T	D	R	E	S	T	▶	0	3	:	3	0	h	
P	E	A	K	R	E	S	T	▶	0	1	:	1	5	m
C	U	R	R	E	N	T		0	0	:	0	2	h	
N	U	M	Z	O	N	E	S						2	
N	E	X	T	Z	O	N	E						1	

Screen #2

NOTE: Settings can be changed while the program is running.

Press and Hold the "ESC" key until the Standard Rest Time is highlighted. **Press** the "OK" button and the first location will start flashing. **0**1:30h. **Press** the pointer button > to select the number of rest hours/minutes (hh:mm) for the standard and peak rest times to be set. **Press** the pointer button up/down to change the number from 0-9. Continue this process until the desired time is entered. Continuing to the far right with > pointer will allow the time range to be changed from hours to minutes (mm:ss) of rest time. *Example: If you want the Standard Rest time to be 2 hours and 35 minutes you would need it to display "02:35h"* When entries are complete **Press** the "OK" button. **Press** the "ESC" key twice and the entry will be complete.

**Standard Rest time may be referred to as "Average" rest time in design plans.*

This screen also indicates the number of zone HOA switches that are currently in the AUTO position as well as the next zone in program sequence to dose. If the PEAK level float is up the text "PEAK UP" will display at the bottom right of screen. If the HIGH LEVEL ALARM float is up, the text "HIGH UP" will display at the bottom left of screen.

DATA SCREENS (Keep Scrolling with the DOWN pointer key)....

Float Switch Positions (Screen #3)

The 3rd screen shows the current status of the pump tank float switches. "UP" means the float is up or submerged, "DOWN" means the float is down or not submerged.

C	U	R	R	E	N	T	F	L	O	A	T		
S	T	A	T	U	S								
H	I	G	H				D	O	W	N			
P	E	A	K				D	O	W	N			
E	N	A	B	L	E		U	P					
O	F	F					U	P					

Screen #3

****Float Operating Conditions**

The controller is configured to monitor the four available floats. The monitored float inputs are "Redundant Off", "Dose **Enable**", "Peak Enable" & "High Alarm". The float positions in the tank are indicated by a "on" meaning the float is submerged or "Off" meaning the float is NOT-submerged. The lowest float is the "Redundant Off" float. When this float is down the rest timer will elapse and no action will take place. Once the "Redundant Off" and "Dose Enable" float are BOTH activated and the rest timer has elapsed, the "Cycle Run" is signaled.

Zone & Field Flush Counters (Screen #7)


Z	O	N	C O U N T E R S							
			D	O	S	E	F	L	U	S
Z	1		0							0
Z	2		0							0
Z	3		0							0
Z	4		0							0


Screen #7

The Zone and FF display monitors the Auto operation for each zone. When any zone has started an automatic dose the “DOSE” counter will be advanced one count for the corresponding zone. When any zone has had an automatic Field Flush event the “FLUSH” column will advance one count.

Su	00:00
YYYY-MM-DD	
01.01.00	

Screen #9

CLOCK SCREEN (Last screen when scrolling down with arrow key) 

FROM THIS SCREEN ALL OTHER SCREENS ARE ACCESSED
BY SIMPLY SCROLLING UP WITH THE ARROW KEY. 

Reset/ Cycle Start Button (Located above the HOA switches)

When the Reset/Cycle Start pushbutton has been depressed and held for 1+ second during a dose, the pump will stop. When the Reset/Cycle Start push button has been depressed and held for 10 (+/-) seconds then released (with all HOA switches in AUTO and adequate liquid level), the pump will start an automatic dose cycle and the elapsed rest times will be forced to reset to zero.

Program/Setting menus

The **Program and Settings Menus** should only be used with factory direction.

Default Menu Start Instruction

This menu appears whenever a program is stopped or no program exists. **THE PUMP "H-O-A" SWITCH(S) SHOULD BE IN THE OFF POSITION!** Press the button until you reach the “Start” option and press the “OK” button. If your LOGO! is programmed it will begin its sequences when the pump switch is placed in the “Auto” position.

WARNING!!! Programming changes should only be done by an authorized American Manufacturing representative.

THE FOLLOWING SCREENS ARE SHOWN ONLY WHEN THE OPERATION IS ACTIVE:

C	Y	C	L	E	S	T	A	R	T
B	E	G	I	N	S	I	N		
0	0	:	0	0	s				

The count down for cycle start is shown when reset/cycle start push-button is held (displayed only while holding reset button, dose starts at 10 seconds, field flush starts if held for 20

B	A	C	K	W	A	S	H	I	N	G			
F	I	L	T	E	R		0						
C	U	R	R	E	N	T		0	0	:	0	0	s

filter back wash in progress (displayed only while back flushing filters

F	I	E	L	D	F	L	U	S	H	I	N	G			
Z	O	N	E		1										
T	I	M	E												
R	E	M	A	I	N	I	N	G		0	0	:	0	0	m

Field flushing enabled for next dose cycle (displayed only when next dose is field flush)

P	R	E	S	S	U	R	I	Z	I	N	G				
F	O	R		F	I	E	L	D		F	L	U	S	H	
Z	O	N	E											1	
T	I	M	E												
R	E	M	A	I	N	I	N	G		0	0	:	0	0	m

pressurizing zone for field flush (displayed only when pressurizing zone)


FLOW RECORD CARD

Flow record cards are available from American Manufacturing. As a time saver for the operator in lieu of recording all internal data from the PLC, recording the flowmeter reading and date can help monitor operational trends.

By recording the flow during annual operational monitoring events, the operator may be able to pick up excessive flow conditions due to leaky toilets, leaky tanks or other excess flow conditions.

Just determine the number of days between recorded events, determine the amount of effluent discharged, and look for significant variance.

DEALER NOTES;



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Owner: _____

DATE	FLOW-METER	INITIALS
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