

## TOUCH SCREEN INTERFACE DEVICE - TSID

The Touch Screen Interface Device (TSID) is an optional piece of equipment that is used to perform troubleshooting and customization of the SC2000 for specific applications.

It provides full access to all setup and status parameters.

It also has screens designed to demo the SCADA capabilities of the SC2000.



### TSID FUNCTIONS

- View or Change Setup Parameters
- View Status or Change Setup of all I / O
- Test Communication Ports COM1 and ENET1
- Demo all SCADA features

### TSID COMMUNICATION WITH SC2000

The following SC2000 parameter settings are required for COM1 and ENET1 to communicate with the TSID:

RS232 Port COM1 Setup							
E.11	1	Slave Address					Range: 1 - 247
E.12	3	Baud Rate	1 = 2400 bps	2 = 4800 bps	3 = 9600 bps	4 = 19200 bps	
E.13	0	Parity Mode	0 = No Parity	1 = Odd Parity	2 = Even Parity		
E.14	2	Stop Bits	1 = 1 Stop Bit	2 = 2 Stop Bits			

Ethernet Port ENET1 Setup			
E.114 - E.111	192 . 168 . 80 . 12 ( E.114 . E.113 . E.112 . E.111 )	IP Address	Range: 0 - 255
E.144 - E.141	255 . 255 . 255 . 0 ( E.144 . E.143 . E.142 . E.141 )	Subnet Mask	Range: 0 - 255
E.154 - E.151	192 . 168 . 80 . 1 ( E.154 . E.153 . E.152 . E.151 )	Default Gateway	Range: 0 - 255
E.161	502	Port Number	Range: 1 - 65,535

Note:

The Controller's logic reads the setup values upon power up; any changes to the above settings require that the power to be cycled before the new values are used.

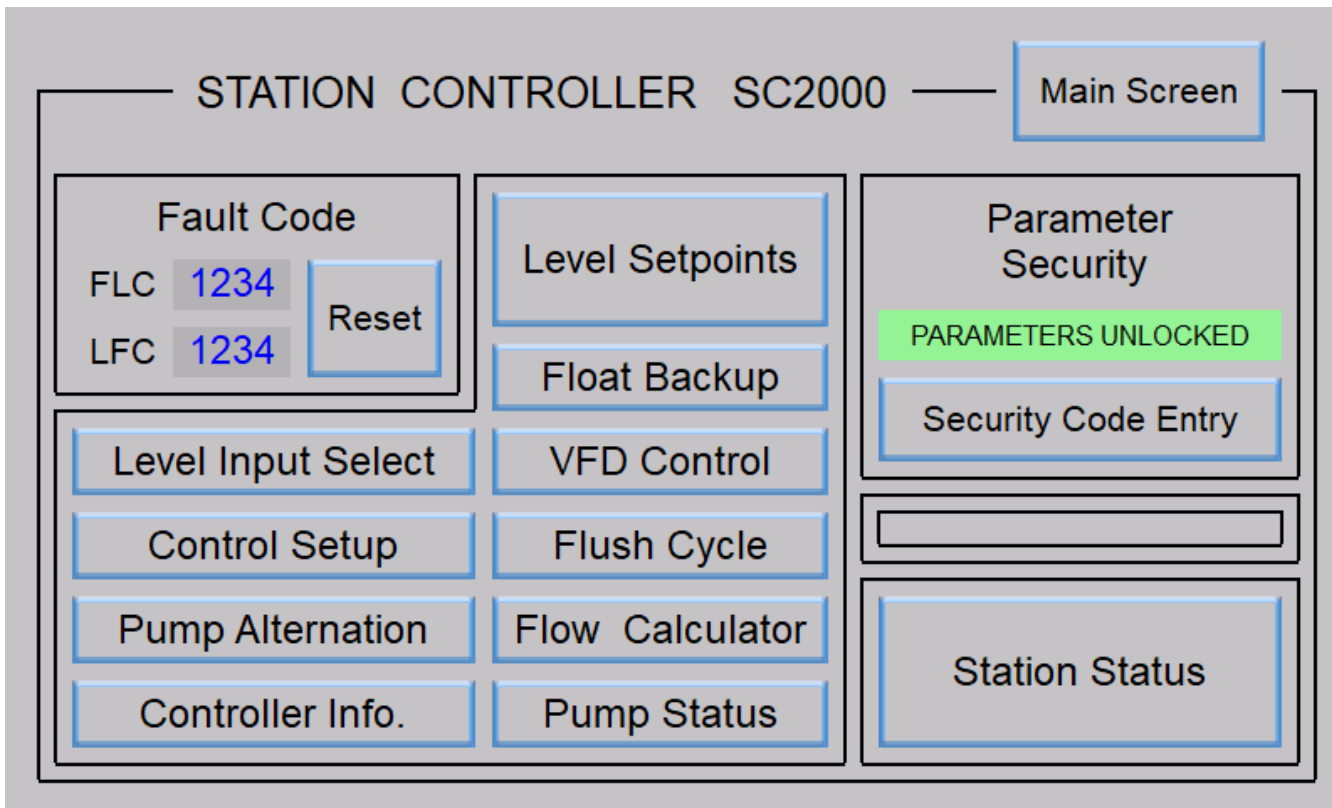
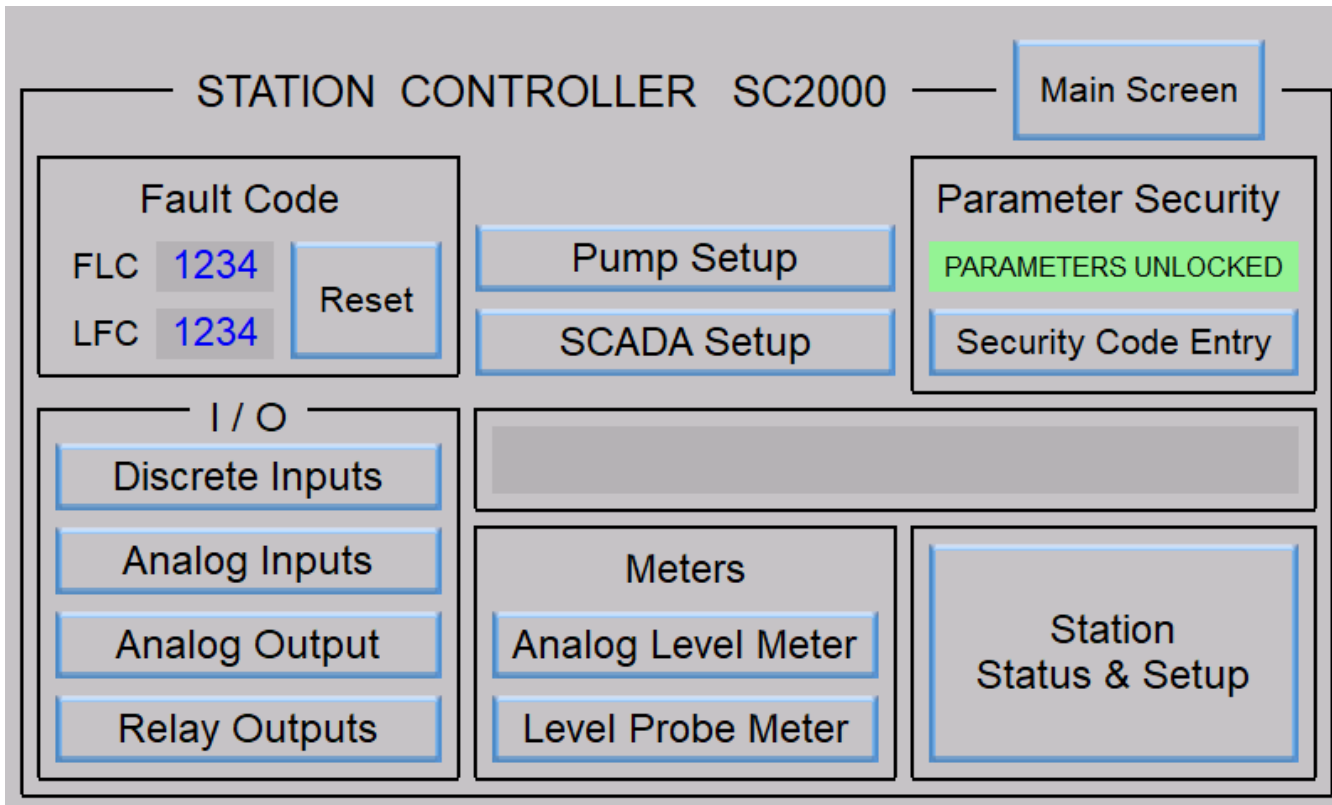
The Touch Screen Interface Device (TSID) consists of a 7 inch Touch Screen panel made by Automation Direct, housed in a durable carrying case with a power cord and interface cables for connection to the Serial Port COM1 and the Ethernet Port ENET1.

It is programmed as a Modbus Master that continually polls the Controller.

### ORDERING INFORMATION

**Part Number: TSID**

SC2000 MENU - Touchscreen HMI SCREEN



# SC2000 MENU - Touchscreen HMI SCREEN

**LEVEL - ALM1**

High Alarm

Low Alarm

123.4

feet

Push To Start Level Simulation

PUMP 1	PUMP 2	PUMP 3	PUMP 4
NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE
RUN	RUN	OFF	OFF
DISABLE	DISABLE	DISABLE	DISABLE
FORCE	FORCE	FORCE	FORCE
1234.5	1234.5	1234.5	1234.5
ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)
RESET	RESET	RESET	RESET

Flush Cycle Active

All Pump Disable Active

Low-Low Level Pump Cutoff Active

Probe Backup Active

Flow Calculator Forcing On Pump(s)

Float Backup Active

**FAULT CODE**

FLC 1234

LFC 1234

RESET

Previous Screen

**High Alarm**

**Low Alarm**

123.4

feet

PUSH TO START LEVEL SIMULATION

DN UP

**LEVEL PROBE STATUS**

Electrode 1

Electrode 2

Electrode 3

Electrode 4

Electrode 5

Electrode 6

Electrode 7

Electrode 8

Electrode 9

Electrode 10

PUMP 1	PUMP 2	PUMP 3	PUMP 4
NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE
RUN	RUN	OFF	OFF
DISABLE	DISABLE	DISABLE	DISABLE
FORCE	FORCE	FORCE	FORCE
1234.5	1234.5	1234.5	1234.5
ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)
RESET	RESET	RESET	RESET

Float Backup Active

Electrode Out of Sequence

Low-Low Level Pump Cutoff Active

Flush Cycle Active

Flow Calculator Forcing On Pump(s)

All Pump Disable Active

**FAULT CODE**

FLC 1234

LFC 1234

RESET

Previous Screen

SC2000 MENU - Touchscreen HMI SCREEN

### REMOTE LEVEL CONTROL STATUS

HIGH ALARM

LEVEL Remote

123.4

feet

Push To Start Level Simulation

REMOTE CONTROL LEVEL INPUT

123.4

feet

Parameter: rcLn

LOW ALARM

PUMP 1	PUMP 2	PUMP 3	PUMP 4
NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE
RUN	RUN	OFF	OFF
DISABLE	DISABLE	DISABLE	DISABLE
FORCE	FORCE	FORCE	FORCE
1234.5	1234.5	1234.5	1234.5
ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)
RESET	RESET	RESET	RESET
Probe Backup Active	Flush Cycle Active		
Float Backup Active	Flow Calculator Forcing On Pump(s)		
Low-Low Level Pump Cutoff Active	All Pump Disable Active		

Previous Screen

**FAULT CODE**

FLC 1234

LFC 1234

RESET

SC2000 MENU - Touchscreen HMI SCREEN

### FLOAT CONTROL STATUS

[Previous Screen](#)

FLOAT STATUS	PUMP 1	PUMP 2	PUMP 3	PUMP 4
HIGH LEVEL	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE
4TH ON LEVEL	RUN	RUN	OFF	OFF
3RD ON LEVEL	DISABLE	DISABLE	DISABLE	DISABLE
2ND ON LEVEL	FORCE	FORCE	FORCE	FORCE
1ST ON LEVEL	1234.5	1234.5	1234.5	1234.5
OFF LEVEL	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)
LOW LEVEL	RESET	RESET	RESET	RESET

Low-Low Level Pump Cutoff Active

All Pump Disable Active

Float Out of Sequence

**FAULT CODE**

FLC 1234 RESET

LFC 1234 RESET

### FLOAT BACKUP STATUS

[Previous Screen](#)

FLOAT STATUS	PUMP 1	PUMP 2	PUMP 3	PUMP 4
HIGH LEVEL	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE	NOT AVAILABLE FOR SERVICE
4TH ON LEVEL	RUN	RUN	OFF	OFF
3RD ON LEVEL	DISABLE	DISABLE	DISABLE	DISABLE
FORCE	FORCE	FORCE	FORCE	FORCE
2ND ON LEVEL	1234.5	1234.5	1234.5	1234.5
1ST ON LEVEL	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)	ELAPSED RUN TIME (HOURS)
OFF LEVEL	RESET	RESET	RESET	RESET
LOW LEVEL				

Electrode Out of Sequence

Low-Low Level Pump Cutoff Active

Flush Cycle Active

Flow Calculator Forcing On Pump(s)

All Pump Disable Active

**FAULT CODE**

FLC 1234 RESET

LFC 1234 RESET

### PUMP CONTROL and ALARM SETUP

[Previous Screen](#)

PUMP ON / OFF LEVEL CONTROL (feet)

4th OFF	123.4	123.4	4th ON
3rd OFF	123.4	123.4	3rd ON
2nd OFF	123.4	123.4	2nd ON
1st OFF	123.4	123.4	1st ON

LEVEL ALARMS (feet)

HIGH

LOW

FAULT CODE

FLC	1234	RESET
LFC	1234	

### PUMP SETUP

[Previous Screen](#)

Number of Pumps Present   
Parameter: P.13

Maximum Number of Pumps Allowed To Run At The Same Time   
Parameter: P.14

Maximum Number of Pumps Allowed To Run While On Generator   
(See Discrete Input Function 7) Parameter: P.15

## LEVEL INPUT SELECT

[Previous Screen](#)

### Level Input Select

1

Parameter: P.22

1 = Analog Level Meter ALM1 - Transducer Input  
**See:** Analog Level Meter ALM1

2 = Level Probe Meter LPM1 - Level Probe Inputs  
**See:** Level Probe Meter LPM1

3 = Float Switch Inputs  
**See:** Discrete Input Setup

4 = Remote Control Level Input

**Notes:**  
 Selection 1 - Level Input from a 4-20mA Pressure Transducer - Connected to Analog Input AIX1.  
 Selection 2 - Level Probe with 10 Electrodes - Connected to Level Probe Inputs: E1 - E10.  
 Selection 3 - Float Switches as the Primary Level Input - Connected to Discrete Inputs.  
 Selection 4 - Remote Control Level Input written through SCADA to Parameter rL.n.

Level Probe Backup

## STATION CONTROL SETUP

[Previous Screen](#)

**Pump Mode**

1 = Pump Down  
2 = Pump Up

1

Parameter: P.31

**Pump Re-Enable Delay After Low Level Pump Cutoff Float Opens (Pump Down Mode Only)**  
(Seconds)

123

Parameter: P.35

**Start Up Delay (seconds)**

123

Parameter: P.32

**Pump Re-Enable Delay After High Level Pump Cutoff Float Opens (Pump Up Mode Only)**  
(Seconds)

123

Parameter: P.36

**Lag Pump Delay (seconds)**

123

Parameter: P.33

**Low Level Alarm Mode**

0 = Disable Low Level Alarm  
1 = Enable Low Level Alarm

1

Parameter: P.34

### DISCRETE INPUT SETUP & STATUS

[Previous Screen](#)

DISCRETE INPUT	FUNCTION	STATUS
D1	12 F.01	OPEN n.01
D2	12 F.02	OPEN n.02
D3	12 F.03	OPEN n.03
D4	12 F.04	OPEN n.04
D5	12 F.05	OPEN n.05
D6	12 F.06	OPEN n.06
D7	12 F.07	OPEN n.07
D8	12 F.08	OPEN n.08
D9	12 F.09	OPEN n.09
D10	12 F.10	OPEN n.10
D11	12 F.11	OPEN n.11
D12	12 F.12	OPEN n.12

Parameters:
Parameters:

**Discrete Input Functions:**

- 0 = No Function
- 1 = Pump 1 Disable
- 2 = Pump 2 Disable
- 3 = Pump 3 Disable
- 4 = Pump 4 Disable
- 5 = External Alternation - Group 1
- 6 = External Alternation - Group 2
- 7 = On Generator
- 8 = All Pump Disable
- 9 = Sequence Input 1
- 10 = Sequence Input 2
- 11 = Sequence Input 3
- 12 = Sequence Input 4

[Next Screen](#)

### DISCRETE INPUT SETUP & STATUS

[Previous Screen](#)

DISCRETE INPUT	FUNCTION	STATUS
D13	12 F.13	OPEN n.13
D14	12 F.14	OPEN n.14
D15	12 F.15	OPEN n.15
D16	12 F.16	OPEN n.16
D17	12 F.17	OPEN n.17
D18	12 F.18	OPEN n.18

Parameters:
Parameters:

**Discrete Input Functions:**

- 13 = Call Pump 1 Last
- 14 = Call Pump 2 Last
- 15 = Call Pump 3 Last
- 16 = Call Pump 4 Last
- 17 = Low Level Alarm Only
- 18 = High Level Alarm Only
- 19 = Pump Cutoff - Low-Low Level
- 20 = Pump Cutoff - High-High Level
- 21 = Pump Control - Off Level
- 22 = Pump Control - 1st On Level
- 23 = Pump Control - 2nd On Level
- 24 = Pump Control - 3rd On Level
- 25 = Pump Control - 4th On Level
- 26 = Pump Control - High Level
- 27 = Start Flush Cycle

See Manual for more Functions.

[Next Screen](#)

## DISCRETE INPUT SETUP

Previous Screen

Discrete Input  
Pump Disable Mode

1

0 = Disable Pump with Closed Discrete Input  
1 = Disable Pump with Open Discrete Input

Parameter: F.19

This Parameter only applies to Pump Disable Discrete Inputs that have their Discrete Input Setup parameters set for Functions 1 - 4.

## RELAY OUTPUT SETUP & STATUS

Previous Screen

RELAY OUTPUT	FUNCTION	STATUS	REMOTE CONTROL
ROX1	1 F.31	OFF ro.1	FORCE ON
ROX2	1 F.32	OFF ro.2	FORCE ON
ROX3	1 F.33	OFF ro.3	FORCE ON
ROX4	1 F.34	OFF ro.4	FORCE ON
ROX5	1 F.35	OFF ro.5	FORCE ON
ROX6	1 F.36 Parameter	OFF ro.6 Parameter	FORCE ON

For Remote Control of Relay set Function to "0".

### Relay Output Functions:

- 0 = Remote Control
- 1 = High Level Alarm
- 2 = Low Level Alarm
- 3 = Pump 1 Control
- 4 = Pump 2 Control
- 5 = Pump 3 Control
- 6 = Pump 4 Control

## ANALOG INPUT STATUS

[Previous Screen](#)

ANALOG INPUT	FUNCTION	STATUS
AIX1 -	1 F.40	1234 A.100
AI1 -	0 F.41	1234 A.101
AI2 -	0 F.42	1234 A.102
AI3 -	0 F.43	1234 A.103
AI4 -	0 F.44	1234 A.104

**Analog Input Functions:**

0 = Collect Analog Data for SCADA  
 1 = Analog Level Meter ALM1

**Note:**  
 The Function of all Analog Inputs are fixed as shown and can not be changed in the field.

Parameters: Parameters:  
 Analog Inputs Calibrated for: 819 @ 4.00mA 4095 @ 20mA

## ANALOG OUTPUT SETUP & STATUS

[Previous Screen](#)

ANALOG OUTPUT	FUNCTION	STATUS
AOX1 -	1 F.50	1234 A.200
AO1 -	1 F.51	1234 A.201
AO2 -	1 F.52	1234 A.202
AO3 -	1 F.53	1234 A.203
AO4 -	1 F.54	1234 A.204

**Analog Output Functions:**

0 = No Function  
 1 = Pump 1 Speed Reference  
 2 = Pump 2 Speed Reference  
 3 = Pump 3 Speed Reference  
 4 = Pump 4 Speed Reference  
 5 = Pump X Speed Reference  
 6 = Copy of Wet Well Level

Parameters: Parameters:  
 Analog Outputs Calibrated for: 819 @ 4.00mA 4095 @ 20mA

# SC2000 MENU - Touchscreen HMI SCREEN

## RS232 SERIAL PORT COM1 SETUP

Power must be cycled for changes to the Serial Port Setup to take effect.

[Previous Screen](#)

Slave Address	123	Range: 1 - 247 Parameter: E.11	<b>RS232 Serial Port - COM1</b> <div style="border: 1px solid black; background-color: #f0f0f0; padding: 5px; margin-bottom: 5px;"> <span style="background-color: #f08080; padding: 2px 10px;">12345</span> Polling Request Byte Counter                      Parameter: d.109                 </div> <div style="border: 1px solid black; background-color: #f0f0f0; padding: 5px;"> <span style="background-color: #f08080; padding: 2px 10px;">12345</span> Polling Response Byte Counter                      Parameter: d.110                 </div>
Baud Rate	123	1 = 2400 bps 2 = 4800 bps 3 = 9600 bps 4 = 19200 bps Parameter: E.12	
Parity Mode	123	0 = No Parity 1 = Odd Parity 2 = Even Parity Parameter: E.13	
Stop Bits	1	1 = 1 Stop Bit 2 = 2 Stop Bits Parameter: E.14	

[Next Screen](#)

## ETHERNET PORT ENET1 SETUP

Power must be cycled for changes to the Ethernet Port Setup to take effect.

[Previous Screen](#)

Protocol	123	Parameter: E.101									
Port Number	12345	Parameter: E.161									
MAC Address	123	123	123	123	123	123	123	Parameter: E.176			
IP Address	123	123	123	123	Parameter: E.114, E.113, E.112, E.111						
Subnet Mask	123	123	123	123	Parameter: E.144, E.143, E.142, E.141						
Default Gateway	123	123	123	123	Parameter: E.154, E.153, E.152, E.151						
Operating Program Revision Number	12345	Parameter: d.111		Polling Request Byte Counter	12345	Parameter: d.112		Polling Response Byte Counter	12345	Parameter: d.113	

[Next Screen](#)

## COMMUNICATION SETUP

[Previous Screen](#)

---

### Remote Control Command Canceling Delays (seconds)

COM1 <small>Parameter: E.01</small>	12345	Delay Range: 1 - 65535 seconds
ENET1 <small>Parameter: E.02</small>	12345	To Disable Remote Control Command Canceling for one or more Ports set the Respective Delay Parameter to 0.

---

Default Remote Level <small>Parameter: E.03</small>	123.4	Range: 0.0 - 231.0 feet
--	-------	-------------------------

[Next Screen](#)

## ETHERNET PORT ENET1 TEST SCREEN

[Previous Screen](#)

High Alarm

Low Alarm

123.4

feet

Push To Start Level Simulation

PUMP 1	PUMP 2
OFF	OFF
DISABLE	DISABLE
FORCE	FORCE

Operating Program Revision Number

12345

Parameter: d.111

Polling Request Byte Counter	Polling Response Byte Counter
12345	12345
<small>Parameter: d.112</small>	<small>Parameter: d.113</small>

LEVELALARMS (feet)

HIGH	123.4
LOW	123.4

PUMP ON / OFF LEVEL CONTROL (feet)

2nd OFF	123.4	123.4	2nd ON
1st OFF	123.4	123.4	1st ON

Next Screen

## COMMUNICATION SETUP

Previous  
Screen

### RX & TX LED MODE

1

Parameter: E.07

- 1 = Shows COM1 and ENET1 Communication
- 2 = Shows COM1 Communication Only
- 3 = Shows ENET1 Communication Only
- 4 = Shows Communication Between the Input Board and the Control Board Only
- 5 = Shows Communication Between the Aux I/O Board and the Control Board Only

## PUMP ALTERNATION SETUP

Previous  
Screen

1

### Alternation Sequence Mode

Parameter: P.16

- 1 = Standard Alternation: Group 1: Pumps 1-4
- 2 = Pump 1 Always Lead: Group 1: Pump 1  
Group 2: Pumps 2 - 4
- 3 = Pump 3 Always Last: Group 1: Pumps 1 - 2  
Group 2: Pump 3
- 4 = Pump 4 Always Last: Group 1: Pumps 1 - 3  
Group 2: Pump 4
- 5 = Split Alternation: Group 1: Pumps 1 - 2  
Group 2: Pumps 3 - 4

1

### Alternation Sequence Modifier A

Parameter: P.17

- 0 = Group 1 Pump(s) Are Allowed to Run with Pumps from Group 2
- 1 = Group 1 Pump(s) Not Allowed to Run with Pumps from Group 2

Next  
Screen

[Previous Screen](#)

## PUMP ALTERNATION SETUP

### GROUP 1

---

Forced Lead Pump Position  Force Alternation  Current Lead Pump

Parameter: P.18 Parameter: Ad.01

0 = Alternate  
X = Number of Lead Pump

Time Based Alternation (Internal Time Clock) (minutes)  0 = Disabled  
60 = 1 hour  
480 = 8 hour  
1440 = 24 hour

Parameter: P.20

[Next Screen](#)

[Previous Screen](#)

## PUMP ALTERNATION SETUP

### GROUP 2

---

Forced Lead Pump Position  Force Alternation  Current Lead Pump

Parameter: P.19 Parameter: Ad.02

0 = Alternate  
X = Number of Lead Pump

Time Based Alternation (Internal Time Clock) (minutes)  0 = Disabled  
60 = 1 hour  
480 = 8 hour  
1440 = 24 hour

Parameter: P.21

SC2000 MENU - Touchscreen HMI SCREEN

### VARIABLE FREQUENCY DRIVE SPEED CONTROL SETUP

[Previous Screen](#)

Level: High Alarm / Low Alarm

123.4 feet

Pump 1 OFF Pump 2 OFF Pump 3 OFF Pump 4 OFF

Level at 100% Speed (feet): 123.4 (Parameter: P.63)

Level at Minimum Speed (feet): 123.4 (Parameter: P.62)

Minimum Speed (% of full speed): 12 (Parameter: P.61)

Calculated VFD Speed Reference: 123.4 % (Parameter: Pd.41)

Flush Cycle Active

Float Backup Active

Pump Start Speed Boost Time (seconds): 12 (Parameter: P.64)

Speed of Pump Remotely Forced On (0% - 100%): 123 (Parameter: P.65)

FAULT CODE

FLC 1234

LFC 1234

RESET

### FLUSH CYCLE SETUP & STATUS

[Previous Screen](#)

Level: High Alarm / Low Alarm

123.4 feet

Pump 1 OFF Pump 2 OFF Pump 3 OFF Pump 4 OFF

Flush Cycle Mode: 1 (Parameter: P.71)  
 0 = Flush Cycle Disabled  
 1 = Flush Cycle Enabled (Internal Time Clock)  
 2 = Flush Cycle Enabled (External Time Clock)

Flush Cycle Start Level (Feet): 123.4 (Parameter: P.73)

Flush Cycle Stop Level (Feet): 123.4 (Parameter: P.74)

Start Cycle

Stop Cycle

Normal Pump Operation

Waiting for Well to Fill Up

Calling All Pumps to Run

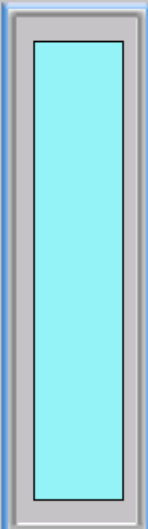
12345 Time Remaining On Internal Time Delay (minutes) (Parameter: Pd.51)

12345 Delay Between Flush Cycles (minutes) (Parameter: P.72)

SC2000 MENU - Touchscreen HMI SCREEN

### FLOW CALCULATOR - DATA DISPLAY

Level



123.4

feet

Pump 1  Pump 2  Pump 3  Pump 4

**Latest Inflow Rate**

12,345

gallons / minute

Parameter: Fd.01

Time Measuring Latest Inflow Rate

123.45

minutes

Parameter: Fd.36

**Inflow Totalizer**

1,234,512,345

gallons

Parameters: Fd.02

Inflow Totalizer rolls over to zero at:  
4,294,967,295 gallons

Active Determining Latest Inflow Rate

Level Rising Too Fast

Active Forcing On Pump(s)

### FLOW CALCULATOR - PUMP DATA DISPLAY

Pump Status

Pump 1  Pump 2  Pump 3  Pump 4

**Pump Outflow Rate**

Active Determining Pump 1 Outflow Rate

12,345

gallons / minute

Active Determining Pump 2 Outflow Rate

12,345

gallons / minute

Active Determining Pump 3 Outflow Rate

12,345

gallons / minute

Active Determining Pump 4 Outflow Rate

12,345

gallons / minute

Parameters: Fd.04 - Fd.07

**Pump Run Cycle Time**

123.45

minutes

123.45

minutes

123.45

minutes

123.45

minutes

Parameters: Fd.28 - Fd.31

Level

123.4

feet

# SC2000 MENU - Touchscreen HMI SCREEN

## FLOW CALCULATOR - DATA DISPLAY

[Previous Screen](#)

Inflow Total Since the Start of a New Day	<b>1,234,512,345</b> gallons <small>Parameters: Fd.12</small>	Average Daily Inflow Total
Complete Day's Data	<b>Daily Inflow Total</b>	<b>1,234,512,345</b> gallons <small>Parameters: Fd.10</small>
Newest Data	Day 1 <b>1,234,512,345</b> gallons	Internal Time Clock Time Elapsed Since the Start of a New Day <b>12,345</b> hours <b>12</b> minutes <small>Parameters: Fd.35 &amp; Fd.34</small>
	Day 2 <b>1,234,512,345</b> gallons	
	Day 3 <b>1,234,512,345</b> gallons	
	Day 4 <b>1,234,512,345</b> gallons	
	Day 5 <b>1,234,512,345</b> gallons	
	Day 6 <b>1,234,512,345</b> gallons	
Oldest Data	Day 7 <b>1,234,512,345</b> gallons <small>Parameters: Fd.14 - Fd.26</small>	

[Start New Day](#)

[Next Screen](#)

## FLOW CALCULATOR SETUP

[Previous Screen](#)

1

### Flow Calculator Mode

0 = Flow Calculator Disabled - All Flow Data is Reset to Zero  
1 = Flow Calculator Enabled - Internal Time Clock  
2 = Flow Calculator Enabled - External Time Clock

Parameter: P.75

Surface Area of Wet Well **1,234.5** square feet  
Parameter: P.77

Delay Before Forcing On Another Pump(s) **12** minutes  
Parameter: P.78

Latest Inflow Rate Reset Delay **123** minutes  
Parameter: P.79

1234

### Display Scaling for Legacy SCADA Registers

1 = gallons  
10 = gallons / 10  
100 = gallons / 100  
1000 = gallons / 1000

Parameter: P.76

## LEVEL PROBE METER LPM1 - Scaling into Feet

[Previous Screen](#)

**Probe Status**

- Electrode 1
- Electrode 2
- Electrode 3
- Electrode 4
- Electrode 5
- Electrode 6
- Electrode 7
- Electrode 8
- Electrode 9
- Electrode 10

Level Probe Meter Level

123.4

 feet
 

Parameter: LPd.1

Level Probe Meter Electrode Spacing

12

 inches
 

Parameter: P.27

Level Probe Sensitivity

123

Parameter: P.28

For LPM1 to be used for Pump Control and Level Alarms the Level Input Select (Parameter P.22) must be set on "2".

**FAULT CODE**

FLC	1234	RESET
LFC	1234	

## ANALOG LEVEL METER ALM1 - Scaling into Feet

[Previous Screen](#)

Analogue Level Meter ALM1

123.4

 feet
 

Parameter: ALd.1

Analogue Input AIX1

1234

Parameter: A.100

Analogue Input Range:  
819 @ 4.0mA  
4095 @ 20mA

**Level Input Zero**

Slow +/- 1

▲

▼

1234

Fast +/- 10

▲

▼

Parameter: P.25

**Level Input Span**

123.45

 feet
 

Parameter: P.24

**Signal Conditioning Control**

123

Parameter: P.26

100 = Slow  
240 = Normal  
250 = Fast

For ALM1 to be used for Pump Control and Level Alarms the Level Input Select (Parameter P.22) must be set on "1".

SC2000 MENU - Touchscreen HMI SCREEN

PROBE INPUT	TEST SIGNAL STATUS	PROBE STATUS	LEVEL PROBE STATUS
E1	123	L.01 Electrode 1 n.21	<div style="border: 1px solid black; padding: 5px; display: inline-block;">123</div> Level Probe Sensitivity Parameter: P.28  <div style="border: 1px solid black; padding: 5px; display: inline-block; background-color: #f08080;">123</div> Clock Signal for Inputs: Parameter: L.11
E2	123	L.02 Electrode 2 n.22	
E3	123	L.03 Electrode 3 n.23	
E4	123	L.04 Electrode 4 n.24	
E5	123	L.05 Electrode 5 n.25	
E6	123	L.06 Electrode 6 n.26	
E7	123	L.07 Electrode 7 n.27	
E8	123	L.08 Electrode 8 n.28	
E9	123	L.09 Electrode 9 n.29	
E10	123	L.10 Electrode 10 n.30	

Parameters: Parameters:

LEVEL PROBE ELECTRODE	ELECTRODE FUNCTION	LEVEL PROBE BACKUP SETUP
E1	1 b.01	<div style="border: 1px solid black; padding: 5px; display: inline-block;">123</div> Level Probe Sensitivity Parameter: P.28  Electrode Input Functions: 0 = No Function 1 = Backup Pump Control - High Level 2 = Backup Pump Control - 4th On Level 3 = Backup Pump Control - 3rd On Level 4 = Backup Pump Control - 2nd On Level 5 = Backup Pump Control - 1st On Level 6 = Backup Pump Control - Off Level  Notes: 1. The Backup Pump Control feature will be disabled when the Level Probe is selected as the primary Level Input (Parameter P.22 = 2). 2. The Backup Pump Control feature will operate in the Pump Down Mode only (Parameter P.31 = 1), and will not operate in the Pump Up Mode. 3. Function 1 will activate the High Level Alarm and will call all available pumps to run until the Off Level Electrode is uncovered.
E2	1 b.02	
E3	1 b.03	
E4	1 b.04	
E5	1 b.05	
E6	1 b.06	
E7	1 b.07	
E8	1 b.08	
E9	1 b.09	
E10	1 b.10	

Parameters:

## SC2000 MENU - Touchscreen HMI SCREEN

PUMP 1	PUMP 2	PUMP 3	PUMP 4	Previous Screen
OFF	OFF	OFF	OFF	
ELAPSED RUN TIME (Hours) 1234.5	ELAPSED RUN TIME (Hours) 1234.5	ELAPSED RUN TIME (Hours) 1234.5	ELAPSED RUN TIME (Hours) 1234.5	
RESET	RESET	RESET	RESET	
LAST RUN CYCLE TIME (Minutes) 1234.5	LAST RUN CYCLE TIME (Minutes) 1234.5	LAST RUN CYCLE TIME (Minutes) 1234.5	LAST RUN CYCLE TIME (Minutes) 1234.5	
RESET	RESET	RESET	RESET	
PUMP START COUNTER 12345	PUMP START COUNTER 12345	PUMP START COUNTER 12345	PUMP START COUNTER 12345	
RESET	RESET	RESET	RESET	

Previous Screen	PARAMETERS LOCKED - ENET1		
	TO UNLOCK PARAMETERS ENTER SECURITY CODE BELOW		
	<b>SECURITY CODE ENTRY</b>		
Parameter Security Alert - COM1	12345	:	12345
Parameter Security Alert - ENET1	12345	:	12345
	Parameter: SCE3	Parameter: SCE2	Parameter: SCE1
	TO MANUALLY RE-LOCK ENTER "1" into: SCE3 or SCE2 or SCE1		
<p>Notes:</p> <p>Parameters may always be viewed even when PARAMETERS are LOCKED.</p> <p>Parameters must be UNLOCKED to have WRITE ACCESS, which is required to change their value.</p> <p>Parameter Security Alert - Suspicious Activity on SCADA Port ENET1 or COM1. (Detected Unusually High Number of Entries into Security Code Entry Parameters.)</p>			

[Previous Screen](#)

### CONTROLLER INFORMATION

**Control Board**

12345
Operating Program  
Revision Number

Parameter: d.101

**Control Board Startup Status**

123 %

Parameter: d.102

**24VDC #1 Supply Power Voltage**

123.4 Volts

Parameter: d.114

**24VDC #2 Supply Power Voltage**

123.4 Volts

Parameter: d.115

**Input Board**

12345
Operating Program  
Revision Number

Parameter: d.103

Polling  
Request  
Counter

12345

Parameter: d.104

Polling  
Response  
Counter

12345

Parameter: d.105

**Auxiliary I/O Board**

12345
Operating Program  
Revision Number

Parameter: d.106

Polling  
Request  
Counter

12345

Parameter: d.107

Polling  
Response  
Counter

12345

Parameter: d.108

[Next Screen](#)

[Previous Screen](#)

### CONTROLLER INFORMATION

**RS232 Serial Port - COM1**

12345
Polling Request  
Byte Counter

Parameter: d.109

12345
Polling Response  
Byte Counter

Parameter: d.110

**Ethernet Board - ENET1**

12345
Operating Program  
Revision Number

Parameter: d.111

12345
Polling Request  
Byte Counter

Parameter: d.112

12345
Polling Response  
Byte Counter

Parameter: d.113

Notes:

1. The Polling Request Byte Counters count the number of all incoming bytes.
2. The Polling Response Byte Counters count the number of all outgoing bytes.
3. All Counters rollover to zero when they get to 65,535.