

# SST Super Tank

## Analog Level Controller

Multifunction liquid level controller:

- Usable with any tank construction
- Versatile mounting
- Accessories to suit a multitude of tank level applications
- Leak detection capability
- UL 508A Listed

The **Simplex SST Series Analog Level Controller** is a relay based design, float switch activated, multifunction liquid level controller. SST applications include:

- Single fill pump control
- Duplex fill pump control, level switch activated
- Duplex fill pump control, pressure switch activated
- Single drain pump control
- Duplex drain pump control
- Pump-in, pump-out control

The SST Controller is UL 508A Listed.

The controller can be supplied in a number of installation configurations, including:

- Flush panel mounting
- TYPE 1 enclosure
- TYPE 3R enclosure
- NEMA4X enclosure

The SST controller is activated by level point sensing float switches. The controller may be supplied with an optional float switch-level transmitter assembly designed to the specific tank dimensions. The transmitter assembly can be supplied in a number of mounting configurations, including:

- 3.5" NPT
- 4.0" NPT
- Gasketed plate

The controller can also accept float switch/point level sensing contact closures from other, buyer supplied devices.



### Applications:

- Single and duplex pump control
- Tank fill control
- Tank drain control
- Valve control
- Leak detection
- Overfill prevention

The standard level transmitter is suitable for use with class-II flammable liquids or water. Optional level transmitters are available:

- Intrinsically safe transmitters for use with Class I liquids
- Alloy or plastic materials for use with corrosive liquids

Consult Simplex for compatibility of materials.



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### Features

The basic SST Level Controller provides:

- Single fill pump differential level control
- High level alarm
- Overfill safety cutout
- Low level alarm
- 5-point level state indication
- HOA pump control switch
- Pump test push-button
- Not-auto alarm (flashing)
- Power available indicator
- Pump running indicator

A 2 HP pump control power relay is provided, plus output contacts for high and low level alarms.

Options may be added to the basic SST level controller:

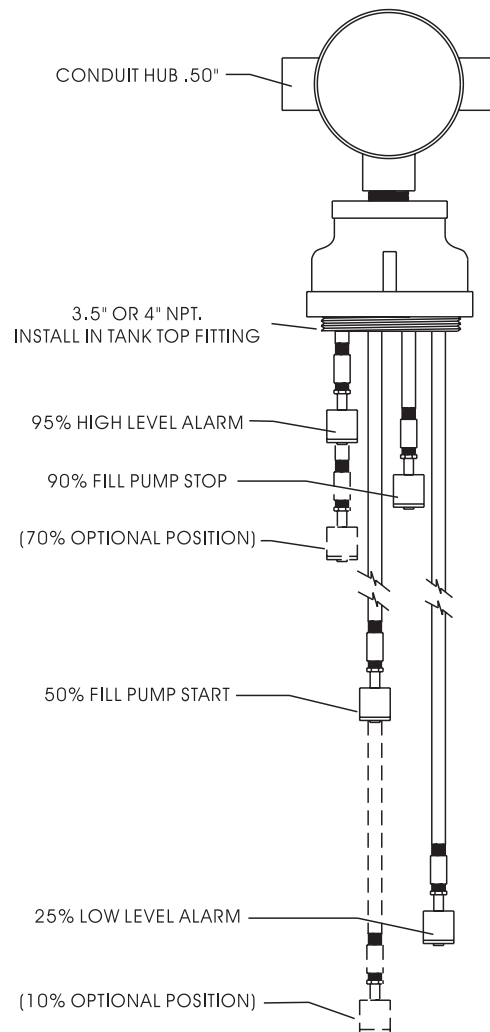
1. Duplex pump controller: for control of duplex pumps — automatic pump alternator, lag pump backup activated by low level alarm. Control switch, pump running indicators (2)
2. Duplex pump controller, as above, only with lag pump activated by pump pressure/flow switch
3. Tank drain controller — controls single pump to drain tank. Differential level controller starts pump at approximately 20% level, stops pump at empty level. High alarm, 30%.
4. Tank drain/duplex pump controller
5. Fill/drain duplex pump controller: one pump fills tank, second pump functions as safety drain pump, activated by high level alarm to pump-down tank to safe level.

Many accessories are available for SST Controllers, including relay repeater panels, motor starters, control power transformers, etc.

The SST Controller will accept inputs from external devices such as leak sensors, pressure switches or other sensors. Depending on mode selected, these inputs will activate alarms or initiate pump control functions.

### Typical Transmitter Arrangement

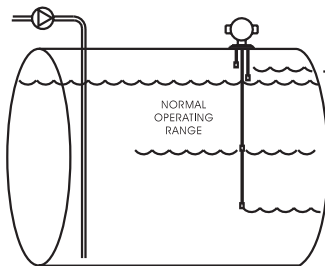
User may specify all control and alarm level points.



### Pump/Valve Control Capability

#### Model SST-LC300

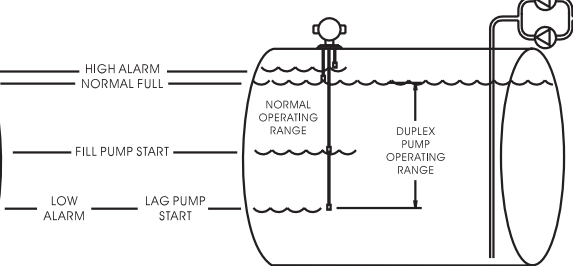
Basic Level Controller



Single Pump - Tank Fill

#### Model SST-LC345

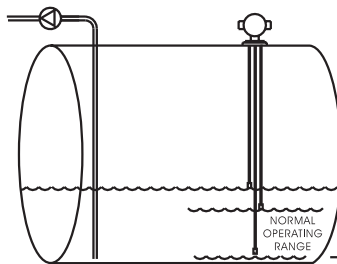
Duplex Pump Controller



Duplex Pump - Tank Fill  
Automatic alternating lag pump back-up

#### Model SST-LC383

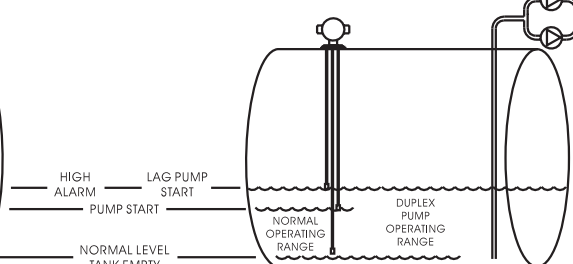
Drain Controller



Single Pump - Tank Drain

#### Model SST-LC383-345

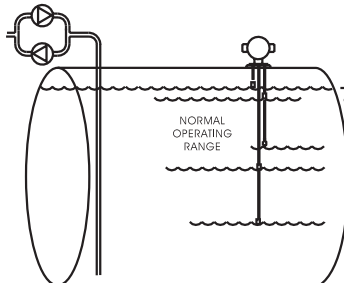
Duplex Drain Controller



Duplex Pump - Tank Drain  
Automatic alternating lag pump back-up

#### Model SST-LC390

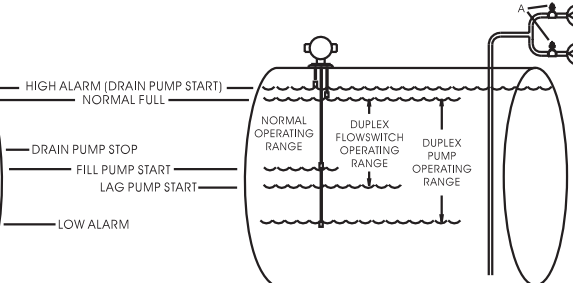
Duplex Fill-Drain



Duplex Pump  
Pump 1 - Fill  
Pump 2 - Safety Drain

#### Model SST-LC345-285

Duplex Pump Controller



Duplex Pump - Tank Fill  
Automatic alternating pressure/flow  
switch control.

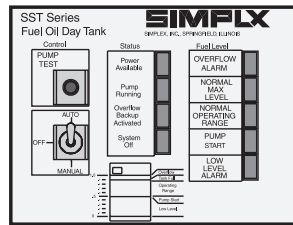
# SIMPLX®

## SST SUPER TANK • Analog Level Controller

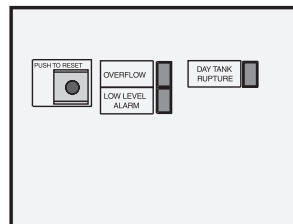
Standard Models Available



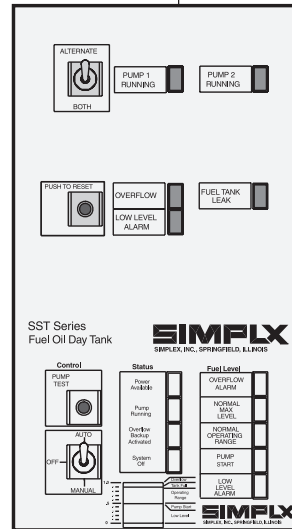
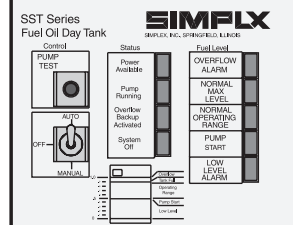
Function	Model
Single pump, fill control .....	SST-LC300
Single pump, drain control .....	SST-LC383
Single pump, fill control, leak monitor .....	SST-LC300,191
Duplex pump, fill control leak monitor .....	SST-LC345-191
Dual pump – one fill, one drain, leak monitor .....	SST-LC390,191



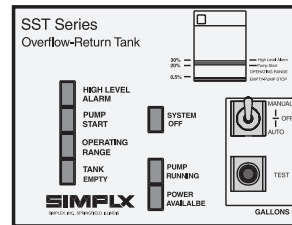
SST-LC300



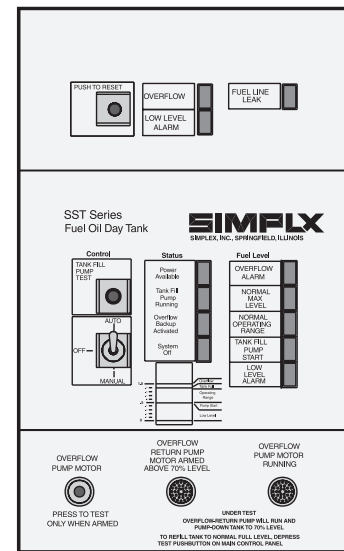
SST-LC300,191



SST-LC345,191



SST-LC383



SST-LC390,191

### Partial Option List

No.	Description
191	Leak sensor, input, alarm, alarm relay
260	Main power input disconnect switch
261A	Single-phase main power input circuit breaker
261B	3-phase main power input circuit breaker
262	Control power transformer
298	System off remote alarm relay
299	Auxiliary control relay
333	Low-low level alarm, sensor, input, alarm relay

No.	Description
334	Audible alarm horn
346	Pump running time meter
347	Manual duplex pump controller
212	Tank Commander TC-2 digital tank level gauge
214	Digital flow gauge, flow totalizer
768	Single-phase motor starter
770	3-phase motor starter