



SJE RHOMBUS Installer Friendly Series Single Phase Simplex Instruction Manual

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SJE RHOMBUS Installer Friendly Series Single Phase Simplex

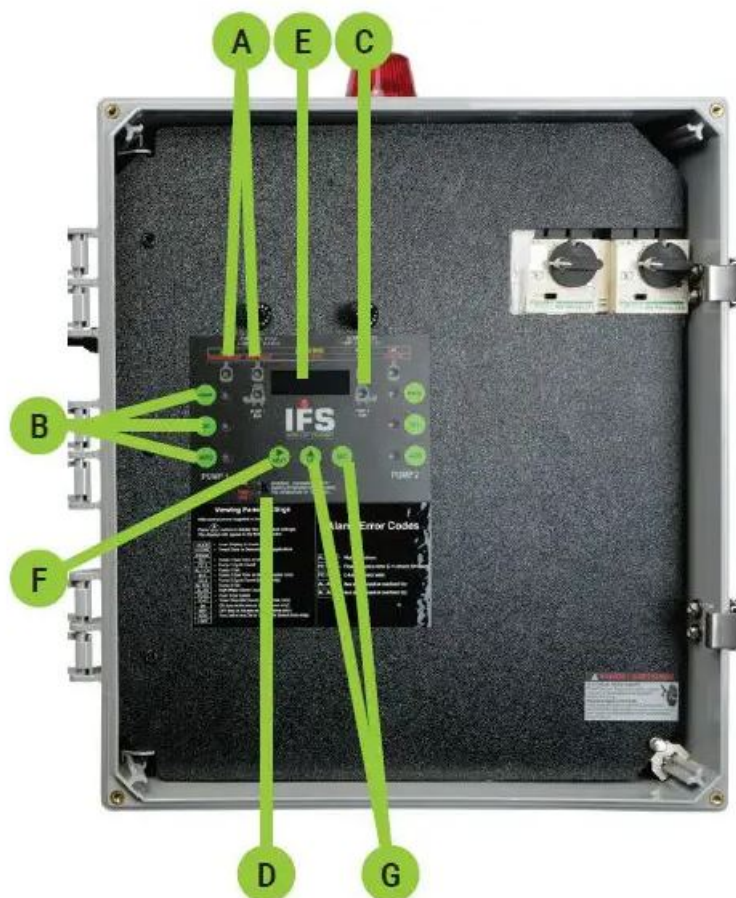


Product Information

The Three Phase Duplex is a pump control and system monitoring system that can be operated in either Demand Dose or Timed Dose mode. It is equipped with a Float or C-Level™ Sensor for pump control and continuous level monitoring. The panel features a touch pad with various features for easy operation and monitoring.

The IFS duplex control panel utilizes an innovative circuit board design to control two alternating 208/240/480 VAC three phase pumps in water and sewage applications. IFS panels feature an easy-to-use touch pad on inner door for programming and system monitoring. The alternating action equalizes pump wear. In addition, this system provides override control should either pump fail. The panel configuration can be easily converted in the field to either a timed dose or demand dose. Available with the EZconnex® float system. The panel can utilize the C-Level™ sensor for continuous level monitoring. It senses the level in the tank and sends a signal to the panel. Pump activation levels can be adjusted by using the panel touch pad. C-Level™ CL40 sensor operating range is 3-39.9 inches (7.6-101.3 cm). C-Level™ CL100 operating range is 3-99.5 inches (7.6-252.7 cm).

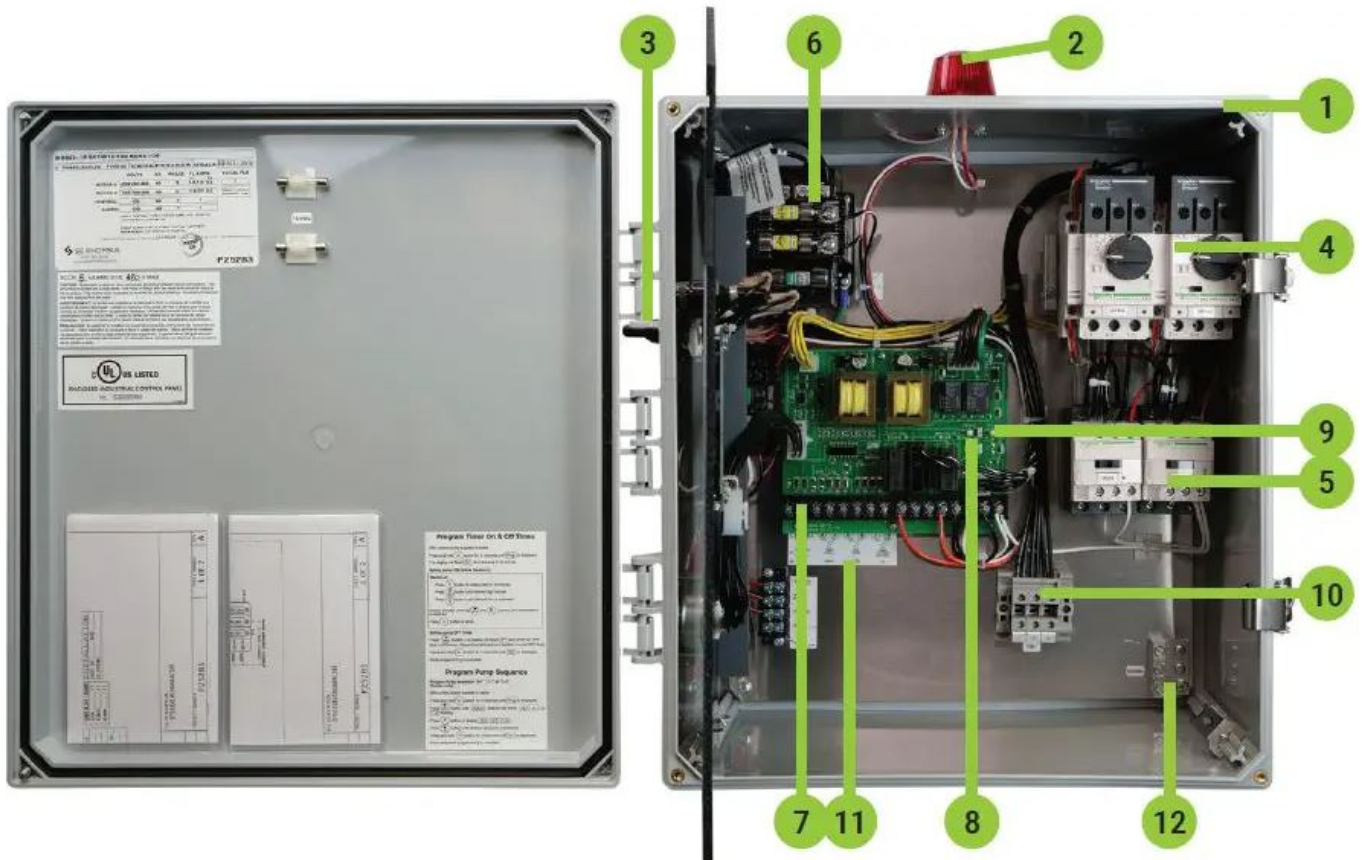
TOUCHPAD FEATURES



- **A.** Level Status indicators illuminate when floats or set points are activated; alarm will activate if a float operates out of sequence
- **B.** HOA (Hand-Off-Automatic) buttons control pump mode with indication; Hand mode defaults to Automatic when stop level or redundant off level is reached
- **C.** Pump Run indicators will illuminate when pumps are called to run
- **D.** Lead/Lag selector toggles pump operation (alternate 1-2 and 2-1)
- **E.** LED display shows system information including: level in inches or centimeters (C-Level™ only), mode, pumps elapsed time (hh:mm), events (cycles), alarm counter, float error count, timed dose override counter (timed dose only), and ON/OFF times (timed dose only)

- **F. NEXT** push button toggles display
- **G. UP and SET** push buttons set pump ON/OFF times (timed dose only) and activation levels (C-Level™ only)

COMPONENTS



1. Enclosure base measures 16 x 14 x 6 inches (40.64 x 35.56 x 15.24 cm); NEMA 4X (ultraviolet stabilized thermoplastic with removable mounting feet for outdoor or indoor use)
2. Red LED beacon provides 360° visual check of alarm condition
3. Exterior Alarm Test/Normal/Silence switch allows horn and light to be tested and horn to be silenced in an alarm condition; alarm automatically resets once alarm condition is cleared
4. Motor protective switches provide adjustable overload, branch circuit protection and pump disconnect
5. IEC motor contactors control pumps by switching electrical lines
6. Multi-tap transformer (208/240/480 VAC primary) provides 120 VAC control alarm voltage or 600 VAC primary transformer
7. Float connection terminal block
8. Control Power indicator/fuse indicator light illuminates if control power is present in panel; alarm will activate if control fuse is blown
9. Alarm Power indicator/fuse indicator light illuminates if alarm power is present in panel
10. Large incoming power connection terminal block
11. Terminal block float wiring label
12. Ground lugs
13. Alarm horn provides audio warning of alarm conditions (83 to 85 decibel rating) (Not shown)

Note: Options, voltage, and amp range selected may change enclosure size and component layout.

Note: Schematic/Wiring Diagram and Pump Specification Label are located inside the panel.

Control and System Monitoring

IFS CONTROL PANEL	6 MODEL TYPE	1 ALARM PACKAGE	W ENCLOSURE RATING	PUMP FULL LOAD AMPS	FLOAT SWITCH APPLICATION	8AC OPTIONS (LISTED BELOW)
CONTROL PANE L	✓	IFS				
MODEL TYPE	✓	6	Three Phase Duplex (includes Option 8AC as standard)			
ALARM PACKAG E	✓	1	Alarm Package (includes test/normal/silence switch, fuse, red light, & horn)			
ENCLOSURE RA TING	✓	W	Weatherproof, NEMA 4X (engineered thermoplastic)			
	208/240/480V			600V		
PUMP FULL-LOA D AMPS		001	1.0 – 1.6 FLA		005	1.0 – 1.6 FLA
		101	1.6 – 2.5 FLA		105	1.6 – 2.5 FLA
		201	2.5 – 4.0 FLA		205	2.5 – 4.0 FLA
		301	4.0 – 6.3 FLA		305	4.0 – 6.3 FLA
		401	6.0 – 10.0 FLA		405	6.0 – 10.0 FLA
		511	9.0 – 14.0 FLA		515	9.0 – 14.0 FLA
		611	13.0 – 18.0 FLA		615	13.0 – 18.0 FLA
		621	17.0 – 23.0 FLA		625	17.0 – 23.0 FLA
		701	20.0 – 25.0 FLA		705	20.0 – 25.0 FLA
FLOAT SWITCH A PPPLICATION		H	Floats – Pump Down (select Option 17 below)			
		E	EZconnex® Float Switch System (select Option 34 or 35 below)			
		X	No Floats			
		C	C-Level™ Sensor (select Option 24 or 29) Select Option 3E and/or 4A & 4D f or high water alarm and/or redundant off floats			

NOTE: Pump down applications only. Industry practices suggest that a secondary device, such as a float switch, be used for redundant activation of the high-level alarm and pump shut off when using the C-Level™ sensor.

ENCLOSURE UPSIZE: If you selected one or more of the options, add a one-time charge for enclosure upsize.

PRICING WORKSHEET

- IFS Three-Phase Duplex Base Price
- Alarm Package
- Enclosure Rating

- Pump Full Load Amps
- Float Switch Application
- Total Options
- Enclosure Upsize
- TOTAL LIST PRICE

DESCRIPTION

OPTION S	DESCRIPTION	OPTION S	DESCRIPTION
3A	Alarm Flasher	17C	Sensor Float® / Internally Weighted (per Float) – Mercury
3B	Manual Alarm Reset	17D	Sensor Float® / Externally Weighted (per Float) – Mercury
3E	High Water Alarm Float (must also select Option 17) Only Available with Float Switch Application = C	17G	SJE MilliAmpMaster™ / Pipe Clamp (per Float) – Mechanical
		17H	SJE MilliAmpMaster™ / Externally Weighted (per Float) – Mechanical
4A	Redundant Off (must also select Option 4D if floats are required)	17J	Sensor Float® / Pipe Clamp (per Float) – Mercury
4D	Redundant Off Float (must also select Option 4A and Option 17)	19F	Fourth Float to Separate Alarm Function from Lag
5A	Thermal Cutout/Heat Sensor Auto Reset (for pumps with thermal switch leads)	24E	C-Level™ CL40 Sensor with 4' Vent Tube and 20' Cord
		24F	C-Level™ CL40 Sensor with 4' Vent Tube and 40' Cord
5E	Seal Failure Circuit and Red Indicator (2 Wire)	24G	C-Level™ CL40 Sensor with 8' Vent Tube and 20' Cord
6A	Auxiliary Alarm Contact, Form C	24H	C-Level™ CL40 Sensor with 8' Vent Tube and 40' Cord
8AC	Display Board – Includes: ETM Counter, Events (Cycles) Counter, Alarm Counter and Lead/Lag Selector (included as standard)	24X	No C-Level™ CL40 Sensor
		29A	C-Level™ CL100 Sensor with 10' Vent Tube and 20' Cord
10E	Lockable Latch – NEMA 4X	29B	C-Level™ CL100 Sensor with 10' Vent Tube and 40' Cord
10G	Lightning Arrestor	29X	No C-Level™ CL100 Sensor
10K	Anti-condensation Heater	34D	EZconnex® 4-Port, 25', with 10' Floats (3) / Pipe Clamp, Sealing Plug
11C	Additional NEMA 1 Remote Alarm Panel (must also select Option 6A)	34E	EZconnex® 4-Port, 50', with 10' Floats (3) / Pipe Clamp, Sealing Plug

11D	Additional NEMA 4X Remote Alarm Panel (must also select Option 6A)	34G	EZconnex® 4-Port, 25', with 20' Floats (3) / Pipe Clamp, Sealing Plug
16A	10' Cord in Lieu of 20' Cord (per Float)	34H	EZconnex® 4-Port, 50', with 20' Floats (3) / Pipe Clamp, Sealing Plug
16B	15' Cord in Lieu of 20' Cord (per Float)	35D	EZconnex® 4-Port, 25', with 10' Floats (4) / Pipe Clamp
16C	30' Cord in Lieu of 20' Cord (per Float)	35E	EZconnex® 4-Port, 50', with 10' Floats (4) / Pipe Clamp
16D	40' Cord in Lieu of 20' Cord (per Float)	35G	EZconnex® 4-Port, 25', with 20' Floats (4) / Pipe Clamp
		35H	EZconnex® 4-Port, 50', with 20' Floats (4) / Pipe Clamp

EZconnex® mechanically-activated, narrow angle float switches with quick release connections

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Documents / Resources

	<p>SJE RHOMBUS Installer Friendly Series Single Phase Simplex [pdf] Instruction Manual Installer Friendly Series Single Phase Simplex, Installer Friendly Series, Single Phase Simplex, Phase Simplex, Simplex</p>
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References

- [Home - SJE Rhombus Control Products](#)