

# SJE RHOMBUS Installer Friendly Series Single Phase Simplex Capacitor Instruction Manual

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Manual





The IFS simplex capacitor (start/run) control panel utilizes an innovative circuit board design to control one 120/208/240V single phase pump in water and sewage applications. IFS panels feature an easy-to-use touch pad on inner door for programming and system monitoring. 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<sup>™</sup> 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<sup>™</sup> CL40 sensor operating range is 3-39.9 inches (7.6-101.3 cm). C-Level<sup>™</sup> CL100 operating range is 3-99.5 inches (7.6-252.7 cm).

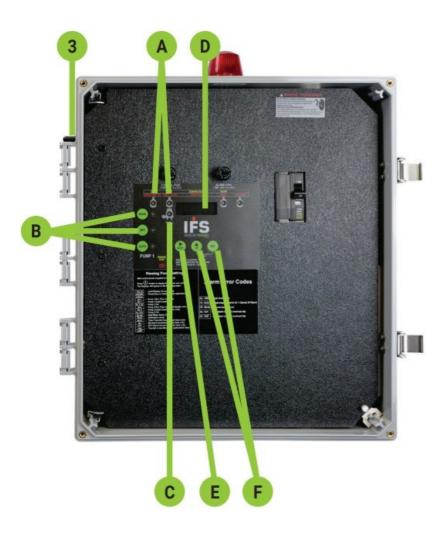
NOTE: SJE Rhombus will warranty motor start kit components supplied by SJE Rhombus for one year. SJE

Rhombus makes no warranty of any type with respect to motor start kits supplied by the customer.

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#### **TOUCH PAD 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 indicator will illuminate when pumps are called to run
- **D.** LED Display for system information including: level in inches or centimeters (C-Level<sup>™</sup> 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)
- E. NEXT push button toggles display
- **F.** 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. Alarm horn provides audio warning of alarm condition (83 to 85 decibel rating)
- 5. Overload relay (optional) provides pump overload protection (Not shown)
- 6. IEC motor contactor controls pump by switching electrical lines
- 7. Circuit breaker (optional) provides pump disconnect and branch circuit protection
- 8. Float and control/alarm incoming terminal block
- 9. Control Power indicator/fuse indicator light illuminates if control power is present in panel; alarm will activate if control fuse is blown
- 10. Alarm Power indicator/fuse indicator light illuminates if alarm power is present in panel
- 11. Large pump connection power terminal block
- 12. Terminal block float and control/alarm incoming power wiring label
- 13. Ground lugs

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.

IFS	7	1	w	1				8AC
CONTRO L PANEL	MODEL T YPE	ALARM P ACKAG	ENCLOS URE RATI NG	STARTIN G DEVIC E	PUMP FU LL LOAD AMPS	PUMP DI SCONNE CTS	FLOAT S WITCH A PPLICATI ON	OPTIONS (LISTED BELOW)

CONTROL PANE				
L		IFS		
MODEL TYPE	1	7	Single Phase Simplex Capacitor (includes Option 8AC as stand ard)	
ALARM PACKAG E	1	1	Alarm Package (includes test/normal/silence switch, fuse, red light, & horn)	
ENCLOSURE RA TING	1	W	Weatherproof, NEMA 4X (engineered thermoplastic)	
STARTING DEVIC	RTING DEVIC 1 120/208/240V IEC Motor Contactor		Base	
		0	0 – 7 FLA	Base
		1	7 – 15 FLA	Base
PUMP FULL LOA D AMPS		2	15 – 20 FLA	\$106.00
		3	20 – 30 FLA	\$119.00
		4	30 – 40 FLA	\$143.00
PUMP DISCONNE		0	No Pump Disconnect	Base
CTS		4	Circuit Breaker	\$86.00
		Н	Floats – Pump Down (select Option 17 below)	Base
		L	Floats – Pump Up (select Option 17 below)	Base
FLOAT SWITCH A		E	EZconnex® Float Switch System (select Option 33 or 34 below)	- \$102.00
PPLICATION		х	No Floats WITH Alarm Package	- \$102.00
		С	C-Level™ Sensor (select Option 24 or 29) Select Option 3E an d/or 4A & 4D for high water alarm and/or redundant off floats	- \$102.00

**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

## PRICING WORKSHEET

**IFS Single Phase Simplex Capacitor** 

Base Price: \$1,891.00

Alarm Package\_\_\_\_\_

Enclosure Rating \_\_\_\_\_\_

Starting Device	
Pump Full Load Amps	_
Pump Disconnects	
Float Switch Application	
Total Options	
TOTAL LIST PRICE	

# Start/run capacitor kits must be ordered separately (see Option 12 below or call factory).

	OPTIONS	DESCRIPTION	LIST PRICE	
	3A	Alarm Flasher	\$66.00	
	3B	Manual Alarm Reset	\$119.00	
	3E	High Water Alarm Float (must also select Option 17) On Float Switch Application = C	\$34.00	
	4A	Redundant Off (must also select Option 4D if floats are	\$72.00	
	4D	Redundant Off Float (must also select Option 4A and O	\$34.00	
	5A	Thermal Cutout/Heat Sensor Auto Reset(for pumps with eads)	\$51.00	
	5E	Seal Failure Circuit and Red Indicator (2 Wire)	\$198.00	
	6A	Auxiliary Alarm Contact, Form C	\$51.00	
1	8AC	Display Board – Includes: ETM Counter, Events (Cyarm Counter (included as standard)	\$0.00	
		Pump Overload – Specify Amperage after Number 9 F ollowed by Letter "A"Example: 912A = 12 amp pump	0 – 30 FLA	\$80.00
	ΙΥΔ		30 – 40 FLA	\$124.00
	10E	Lockable Latch – NEMA 4X		\$51.00
	10F	Lightning Arrestor (must select pump circuit breakers, cower combined)	ect pump circuit breakers, control andalarm p	
	10K	Anti-condensation Heater  Additional NEMA 1 Remote Alarm Panel (must also select Option 6A)		\$124.00
	11C			\$114.00
	11D	Additional NEMA 4X Remote Alarm Panel (must also se	\$368.00	
	12B	Customer Supplied Motor Start Components, Mounted JE Rhombus	\$138.00	
	12C	Motor Start Components Mounted and Supplied by SJE	Call Factory	

OPTIONS	DESCRIPTION	LIST PRICE
16A	10' Cord in Lieu of 20' Cord (per Float)	- \$3.00
16B	15' Cord in Lieu of 20' Cord (per Float)	- \$2.00
16C	30' Cord in Lieu of 20' Cord (per Float)	\$6.00
16D	40' Cord in Lieu of 20' Cord (per Float)	\$18.00
17C	Sensor Float® / Internally Weighted (per Float) – Mercury	\$13.00
17D	Sensor Float® / Externally Weighted (per Float) – Mercury	\$15.00
17G	SJE MilliAmpMaster™ / Pipe Clamp (per Float) – Mechanical	\$0.00
17H	SJE MilliAmpMaster™ / Externally Weighted (per Float) – Mechanical	\$8.00
17J	Sensor Float® / Pipe Clamp (per Float) – Mercury	\$6.00
24E	C-Level™ CL40 Sensor with 4' Vent Tube and 20' Cord	\$349.00
24F	C-Level™ CL40 Sensor with 4' Vent Tube and 40' Cord	\$384.00
24G	C-Level™ CL40 Sensor with 8' Vent Tube and 20' Cord	\$354.00
24H	C-Level™ CL40 Sensor with 8' Vent Tube and 40' Cord	\$390.00
24X	No C-Level™ CL40 Sensor	\$0.00
29A	C-Level™ CL100 Sensor with 10' Vent Tube and 20' Cord	\$359.00
29B	C-Level™ CL100 Sensor with 10' Vent Tube and 40' Cord	\$396.00
29X	No C-Level™ CL100 Sensor	\$0.00
33D <b>■</b>	EZconnex® 3-Port, 25', with 10' Floats (3) / Pipe Clamp	\$313.00
33E <b>■</b>	EZconnex® 3-Port, 50', with 10' Floats (3) / Pipe Clamp	\$355.00
33G <b>■</b>	EZconnex® 3-Port, 25', with 20' Floats (3) / Pipe Clamp	\$337.00
33H■	EZconnex® 3-Port, 50', with 20' Floats (3) / Pipe Clamp	\$379.00
34D <b>■</b>	EZconnex® 4-Port, 25', with 10' Floats (3) / Pipe Clamp, Sealing Plug	\$400.00
34E <b>■</b>	EZconnex® 4-Port, 50', with 10' Floats (3) / Pipe Clamp, Sealing Plug	\$454.00
34G <b>■</b>	EZconnex® 4-Port, 25', with 20' Floats (3) / Pipe Clamp, Sealing Plug	\$423.00
34H <b>■</b>	EZconnex® 4-Port, 50', with 20' Floats (3) / Pipe Clamp, Sealing Plug	\$476.00

# California Prop 65 requires the following:

Warning Cancer and Reproductive Har <a href="www,65Warningsca.gov">www.sjerhombus.com</a> email: <a href="customerservice@sjeinc.com">customerservice@sjeinc.com</a>



#### **Documents / Resources**



<u>SJE RHOMBUS Installer Friendly Series Single Phase Simplex Capacitor</u> [pdf] Instruction Manual

Installer Friendly Series Single Phase Simplex Capacitor, Installer Friendly Series, Single Phase Simplex Capacitor, Phase Simplex Capacitor, Simplex Capacitor, Capacitor



<u>SJE RHOMBUS Installer Friendly Series Single Phase Simplex Capacitor</u> [pdf] Instruction Manual

CL40, CL100, Installer Friendly Series Single Phase Simplex Capacitor, Installer Friendly Series, Single Phase Simplex Capacitor, Phase Simplex Capacitor, Simplex Capacitor, Capacitor

### References

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