



PROJECT: \_\_\_\_\_

CUSTOMER: \_\_\_\_\_

ENGINEER: \_\_\_\_\_

PUMP MANUFACTURER: \_\_\_\_\_

**MODEL: JPV**

**VARIABLE SPEED  
JOCKEY PUMP CONTROLLER**

**DRAWING SUBMITTAL PACKAGE**

**CONTENTS:**

- BROCHURE
- DIMENSIONAL DATA
- WIRING SCHEMATICS
- FIELD CONNECTIONS

**NOTE:** The drawings included in this package are for controllers covered under our standard offering. Actual AS BUILT drawings may differ from what is shown in this package.





## Variable Speed Jockey Pump Controller



### MAIN FEATURES:

- Variable Speed Drive
- NEMA 2 ventilated enclosure
- System pressure indication
- Pump running indication
- Power on indication
- 0-300psi rated pressure transducer
- Fused main disconnect switch
- HAND-OFF-AUTO selector switch

The Tornatech Model JPV variable speed jockey pump controllers are specifically designed to control jockey pumps in order to maintain the desired water pressure in pump serviced systems. A jockey pump installation prevents unnecessary starting of the fire pump due to small leaks.

The standard power circuit consists of a fused horsepower rated main disconnect switch which provides short circuit protection for the variable speed drive and electric motor. Overload protection and motor starting is provided by the variable speed drive itself.



# JPV

MODEL

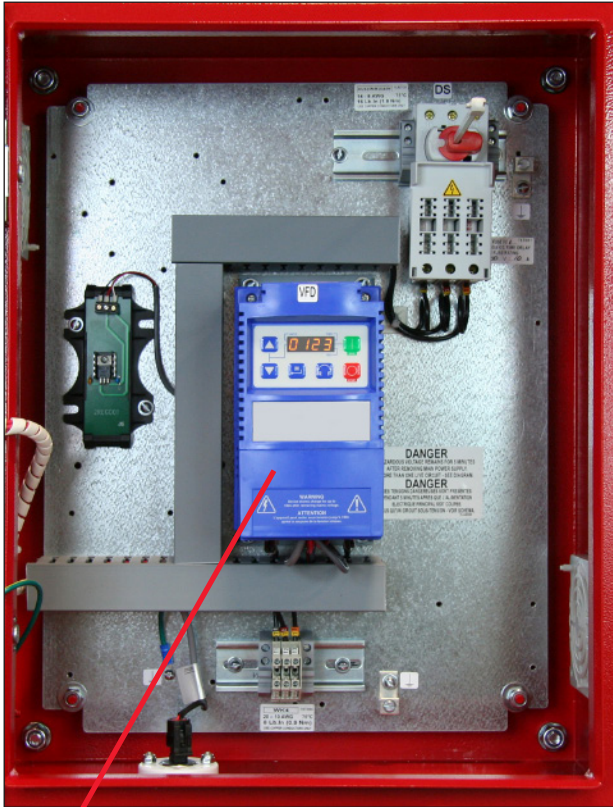


The automatic operation of the jockey pump controller is achieved by the variable speed drive reading the system pressure through the pressure transducer. The variable speed drive allows the user to set a start pressure and a stop pressure. The stop pressure is considered as the maximum pressure that the system can accept or that is required.

The variable speed drive will start the motor and then vary the speed so that the pump will not deliver more pressure than the stop pressure (maximum pressure) value. It will also allow for a timed ramp-up start (soft start) of the motor. This solves the problem of introducing high pressure spikes into the piping system. An adjustable timer is supplied to allow the pump to run for a minimum period of time.

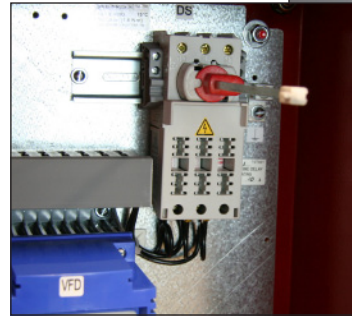
# JPV MODEL

## Variable Speed Jockey Pump Controller



• Variable Speed Drive

- 3 position Hand-Off Auto selector switch complete with pad-lockable cover



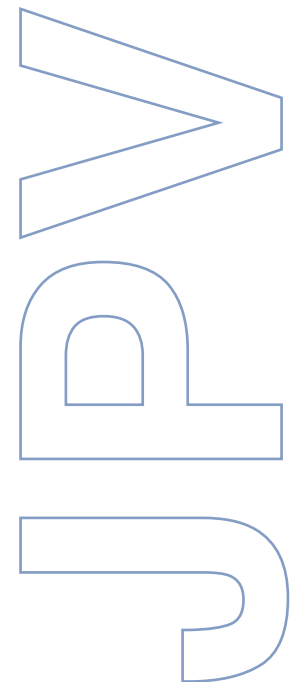
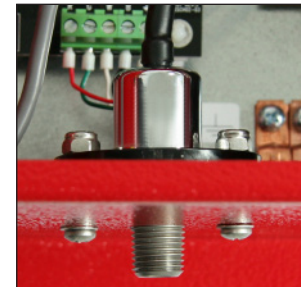
- Fused, horsepower rated, door interlocked, rotary type disconnect switch

- Built-in wall mounting lugs for ease of installation



- Enclosure louvers

- Pressure transducer with 0-300psi range and 316 stainless steel construction



**HOW TO ORDER:** JPV - V / HP / Ph / Hz  
 Ex.: JPV - 208 / 2HP / 3Ph / 60

**Tornatech Inc.**  
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[tornatech.com](http://tornatech.com)

[info@tornatech.com](mailto:info@tornatech.com)

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# JOCKEY PUMP CONTROLLER

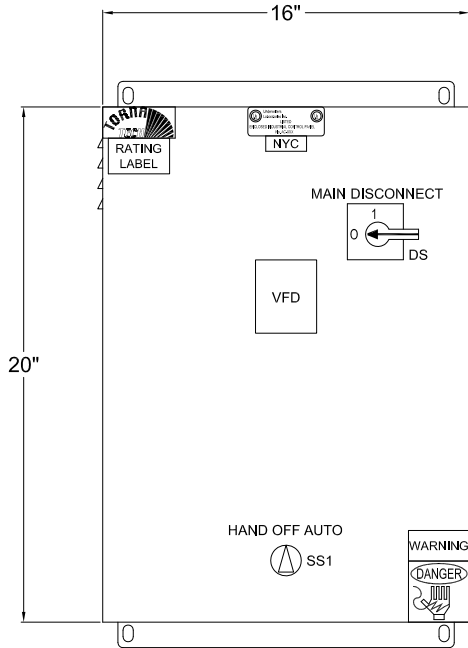
# MODEL : JPV

## Wiring schematic

BUILT TO UL 508A & CSA C22.2 No.14 STANDARDS.

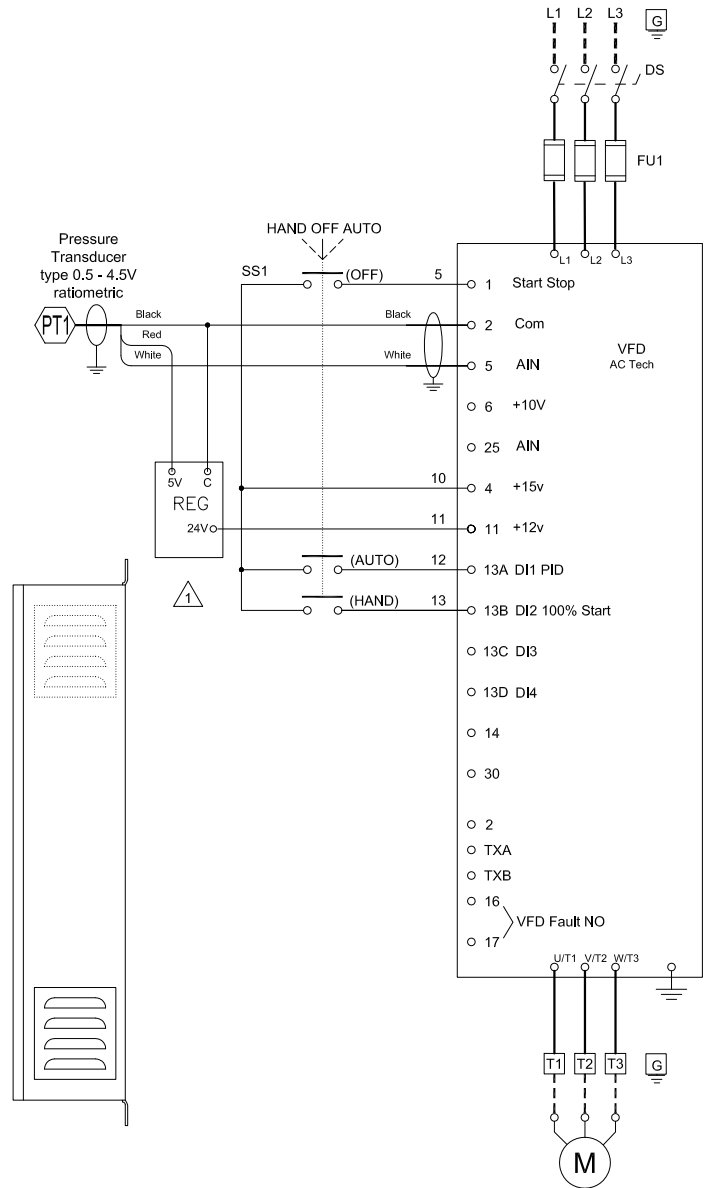
### LEGEND

- DS : DISCONNECT SWITCH
- FU : FAST ACTING FUSE
- PT : PRESSURE TRANSDUCER
- SS : SELECTOR SWITCH
- VFD : VARIABLE FREQUENCY DRIVE
- REG : VOLTAGE REGULATOR

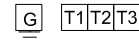


NEMA/CSA 2 ENCLOSURE

Dimension may change at manufacturer discretion.



### TERMINAL STRIP



LINE TERMINALS / LOAD TERMINALS				
MAXIMUM MOTOR HORSEPOWER	WIRE SIZE COPPER ONLY	TORQUE	WIRE SIZE COPPER ONLY	TORQUE
10HP	14 - 8 AWG	16Lb.in	20 - 10 AWG	8Lb.in

Drawing for information only.  
 Manufacturer reserves the right to modify this drawing without notice.  
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REV.	DATE	DESCRIPTION	APP.	DRAWING No.
1.	11/03/24	REGULATOR	DES.	JPV-WS001 /E
0.	11/03/03	FIRST ISSUE	VER.	
			APP.	

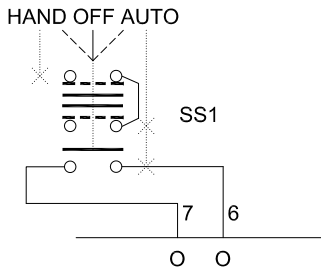
# JOCKEY PUMP CONTROLLER OPTIONS

# MODEL : JP & JPY

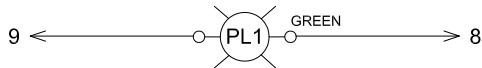
## Wiring schematic

BUILT TO UL 508A & CSA C22.2 No.14 STANDARDS.

- OPTION No. 1 : MINIMUM RUN PERIOD TIMER**  
TIMER ADJUSTABLE ON IPD BOARD.

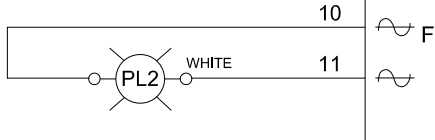


- OPTION No. 2 : "RUN" GREEN PILOT LIGHT**  
PART REQUIRED : PL1 - GREEN PILOT LIGHT



- OPTION No. 3 : "POWER ON" WHITE PILOT LIGHT**

PART REQUIRED : PL2 - WHITE PILOT LIGHT

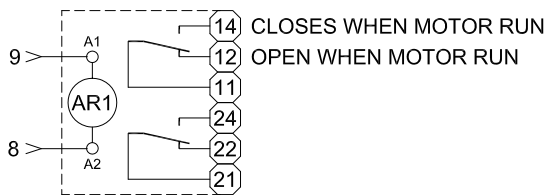


- OPTION No. 4 : ELAPSED TIME METER**  
PART REQUIRED : TT1 - ELAPSED TIME METER



- OPTION No. 5 : "MOTOR RUN" ALARM CONTACT**

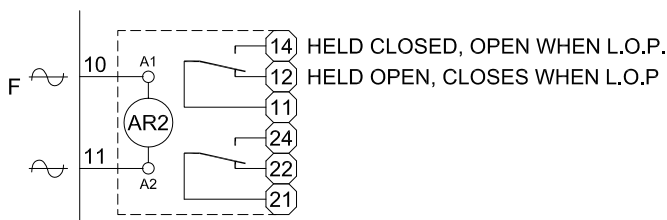
PART REQUIRED : AR1 - ALARM RELAY



NOTE: ○ : Terminal on alarm relay socket

- OPTION No. 6 : "LOSS OF POWER" ALARM RELAY**

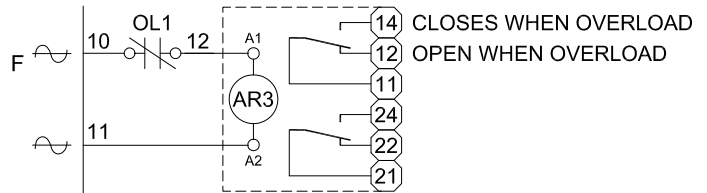
PART REQUIRED : AR2 - ALARM RELAY



NOTE: ○ : Terminal on alarm relay socket

- OPTION No. 7 : "OVERLOAD, SHORT CIRCUIT" ALARM CONTACT**

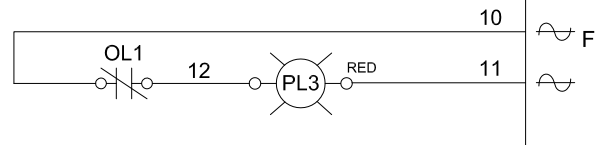
PART REQUIRED : AR3 - ALARM RELAY



NOTE: ○ : Terminal on alarm relay socket

- OPTION No. 7A : "OVERLOAD, SHORT CIRCUIT" RED PILOT LIGHT**

PART REQUIRED : PL3 - RED PILOT LIGHT



- OPTION No. 8 : NEMA/UL/CSA 12 ENCLOSURE**

- OPTION No. 8A : NEMA/UL/CSA 3/3R ENCLOSURE**

- OPTION No. 9 : NEMA/UL/CSA 4 ENCLOSURE**

- OPTION No. 10 : NEMA/UL/CSA 4X ENCLOSURE**  
304SST STAINLESS STEEL ENCLOSURE

- OPTION No. 10A : NEMA/UL/CSA 4X ENCLOSURE**  
316SST STAINLESS STEEL ENCLOSURE

- OPTION No. 11D : PRESSURE TRANSDUCER**  
0-600 PSI 316SST

- OPTION No. 12 : CE LISTING C/W EXTERNALLY MOUNTED WETTED PARTS**

- OPTION No. 13A : EXTERNALLY MOUNTED WETTED PARTS**

- OPTION No. 14 : EXPORT CRATING**

- OPTION No. 15 : FRENCH LABELLING**

- OPTION No. 16 : SPANISH LABELLING**

- OPTION No. 17 : LABELLING IN LANGUAGE OTHER THAN ENGLISH, FRENCH OR SPANISH**

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0.	09/04/09	FIRST ISSUE	VER.	JPO-WS101 /E

# JOCKEY PUMP CONTROLLER OPTIONS

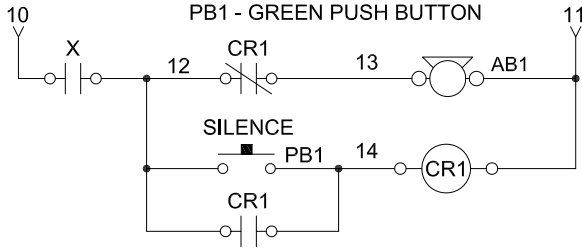
# MODEL : JP & JPY

## Wiring schematic

BUILT TO UL 508A & CSA C22.2 No.14 STANDARDS.

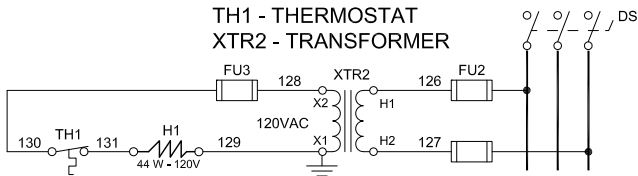
**OPTION No. 18 : AUDIBLE ALARM**

PART REQUIRED : AB1 - ALARM BUZZER  
CR1 - CONTROL RELAY  
PB1 - GREEN PUSH BUTTON



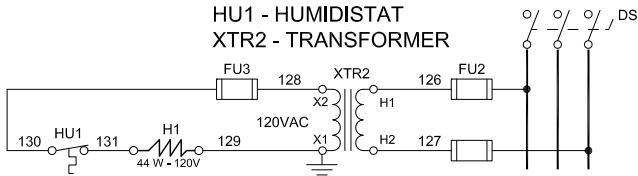
**OPTION No. 19 : ANTI-CONDENSATION HEATER & THERMOSTAT**

PART REQUIRED : FU2 & FU3 - FUSES  
H1 - SPACE HEATER  
TH1 - THERMOSTAT  
XTR2 - TRANSFORMER



**OPTION No. 20 : ANTI-CONDENSATION HEATER & HUMIDISTAT**

PART REQUIRED : FU2 & FU3 - FUSES  
H1 - SPACE HEATER  
HU1 - HUMIDISTAT  
XTR2 - TRANSFORMER



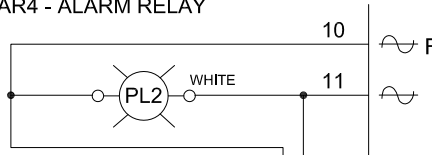
**OPTION No. 21 : TROPICALIZATION**

**OPTION No. 22 : PHASE REVERSAL / FAILURE PILOT LIGHT & ALARM CONTACTS**

FOR WIRING SCHEMATIC PLEASE CONTACT MANUFACTURER

**OPTION No. 23 : CONTROL POWER HEALTHY PILOT LIGHT & ALARM CONTACTS**

PART REQUIRED : PL2 - WHITE PILOT LIGHT  
AR4 - ALARM RELAY



HELD CLOSED, OPEN WHEN NO POWER  
HELD OPEN, CLOSSES WHEN NO POWER

**OPTION No. 24 : PUMP FAILURE VIA CURRENT SENSING RELAY**

FOR WIRING SCHEMATIC PLEASE CONTACT MANUFACTURER

**OPTION No. 25 : LOW ZONE PUMP CONTROL FUNCTION**

FOR WIRING SCHEMATIC PLEASE CONTACT MANUFACTURER

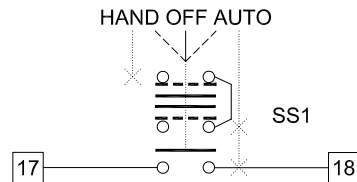
**OPTION No. 26 : MID ZONE PUMP CONTROL FUNCTION**

FOR WIRING SCHEMATIC PLEASE CONTACT MANUFACTURER

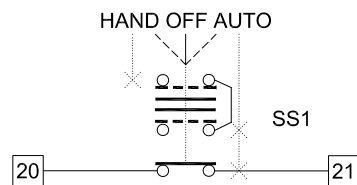
**OPTION No. 27 : HIGH ZONE PUMP CONTROL FUNCTION**

FOR WIRING SCHEMATIC PLEASE CONTACT MANUFACTURER

**OPTION No. 28 : SELECTOR SWITCH IN AUTO ALARM CONTACT**

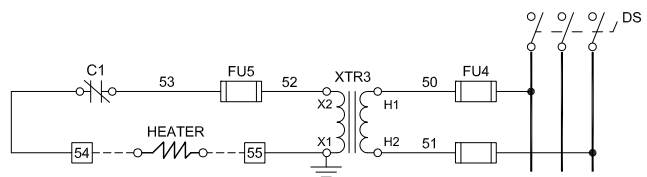


**OPTION No. 29 : SELECTOR SWITCH IN OFF OR HAND ALARM CONTACT**



**OPTION No. 30 : MOTOR HEATER CIRCUIT**

PART REQUIRED : FU4 & FU5 - FUSES  
XTR3 - TRANSFORMER



**OPTION No. 31 : SERVICE ENTRANCE RATED**

FOR WIRING SCHEMATIC PLEASE CONTACT MANUFACTURER

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0.	09/04/09	FIRST ISSUE	VER.	JPO-WS102 / E
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