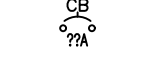
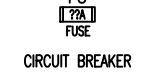
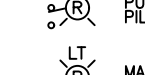
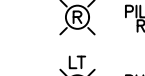
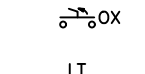
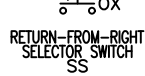
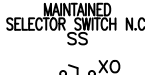
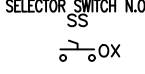
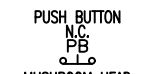
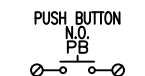


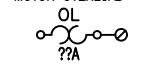
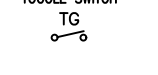
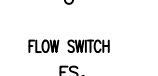
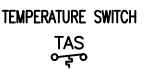
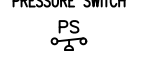
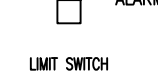
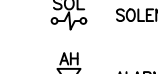
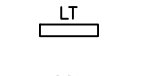
CONTROL SCHEMATIC SYMBOL AND DEVICE ABBREVIATION KEY



SELECTOR SWITCHES:
THE "OX" OR "XO" NOTATION IN THE LOWER RIGHT CORNER DENOTES THE STATE AND NUMBER OF POSITIONS OF THE SWITCH. EACH CHARACTER DENOTES A POSITION OF THE SWITCH. AN "O" DENOTES OPEN STATE AND AN "X" DENOTES CLOSED STATE IN THE RESPECTIVE POSITION. THE SAME NOTATION WILL APPEAR ON ALL ADDITIONAL CONTACTS OF THE SWITCH.

INDICATING LIGHT
COLOR
DESIGNATIONS
A = AMBER
B = BLUE
C = CLEAR
G = GREEN
R = RED
W = WHITE
Y = YELLOW

AMPERAGE RATINGS OF FUSES AND CIRCUIT BREAKERS DENOTED AS NUMERICAL VALUE SUFFIXED BY "A", E.G. "10A"



1-PHASE
MOTOR

RELAY COIL

NO
NC

LATCHING
RELAY COIL

NO
NC

UNLATCHING
RELAY COIL

NO
NC

ON-DELAY TIMER

NO
NC

OFF-DELAY TIMER

NO
NC

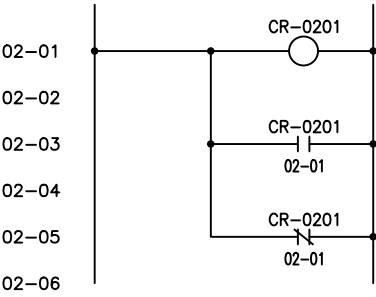
MOTOR
STARTER COIL

NO
NC

"??-??" REPRESENTS
CROSS-REFERENCE TO LOCATION OF
PARENT COIL, E.G. "03-00" FOR SHEET
THREE, LINE ZERO

RELAY COILS:
REFERENCES TO CORRESPONDING
RELAY CONTACTS APPEAR NEXT TO
THE COIL SYMBOL (NORMALLY OPEN
CONTACTS AFTER "NO" AND NORMALLY
CLOSED CONTACTS AFTER "NC").

CROSS REFERENCING EXAMPLE



RELAY COIL

NO 02-03
NC 02-05

CROSS REFERENCES SHOW AS
LINE NUMBER. THE CHARACTERS
BEFORE THE HYPHEN DENOTE
THE SHEET NUMBER.

NORMALLY OPEN CONTACTS
APPEAR NOT UNDERLINED,
WHILE NORMALLY CLOSED
CONTACTS APPEAR UNDERLINED.

DESIGN NOTES AND CONSIDERATIONS

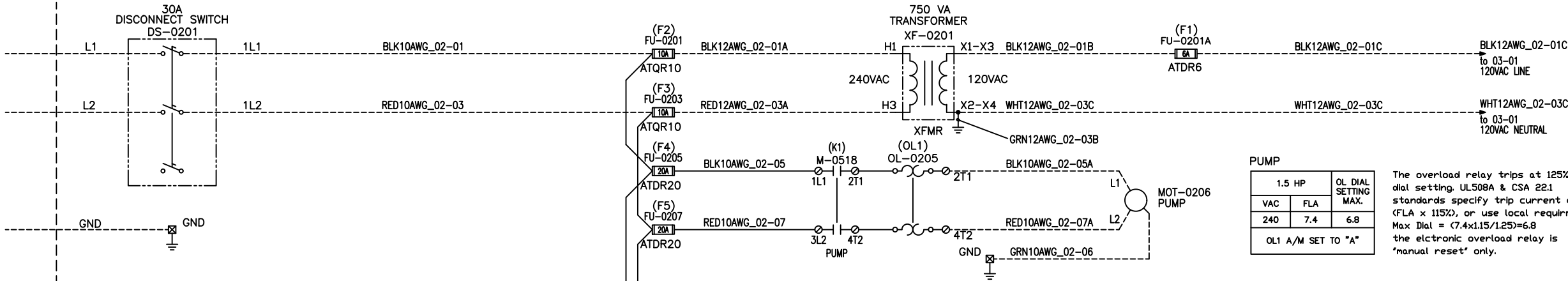
-ALL WIRING SHALL BE SIZED IN ACCORDANCE WITH NEC REGULATIONS.

WIRE LEGEND	
DESC	STYLE
PANEL WIRING	_____
FIELD/CONDUIT WIRING	-----

4/24/24	B	UPDATE NOTES	24-05-005	NE
10/08/18	A	RELEASED FOR PRODUCTION	18-05-027	LPH
DATE	REV	DESCRIPTION	ECN	ENGINEER
REVISION HISTORY				
		 THIS PRINT CONTAINS INFORMATION THAT IS PROPRIETARY. DISCLOSURE OF ANY INFORMATION ON THE DOCUMENT CANNOT BE MADE WITHOUT WRITTEN PERMISSION OF BRADLEY CORPORATION.		
TOLERANCES UNLESS OTHERWISE SPECIFIED			DRAWN BY: LPH	
FRACTIONS ± 1/32 3 PLACE ± .020 2 PLACE ± .03 1 PLACE ± .1 ANGLES ≤ ± 3°		ALL THREADS TO BE CLASS 2 ALL FINISH NUMBERS ARE RMS DO NOT SCALE DRAWING		DATE: 10/05/2018
				SCALE: .
				REF.: .
				FIRST ON: .
MATERIAL:				
NAME: SCHEMATIC S19387 240V CID2				
DWG. NUMBER: S83-432				SHEET 1 OF 8

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02-38

FROM
CUSTOMER
CONNECTION
240VAC/1Ø/60HZ
30 FLA



PUMP

1.5 HP	OL DIAL SETTING MAX.
VAC	FLA
240	7.4
240	6.8
OL1 A/M SET TO "A"	

The overload relay trips at 125% of the dial setting. UL508A & CSA 22.1 standards specify trip current of (FLA x 115%), or use local requirements. Max Dial = (7.4x1.15/1.25)=6.8 the electronic overload relay is 'manual reset' only.

WATER HEATER

BUILDING HEATER

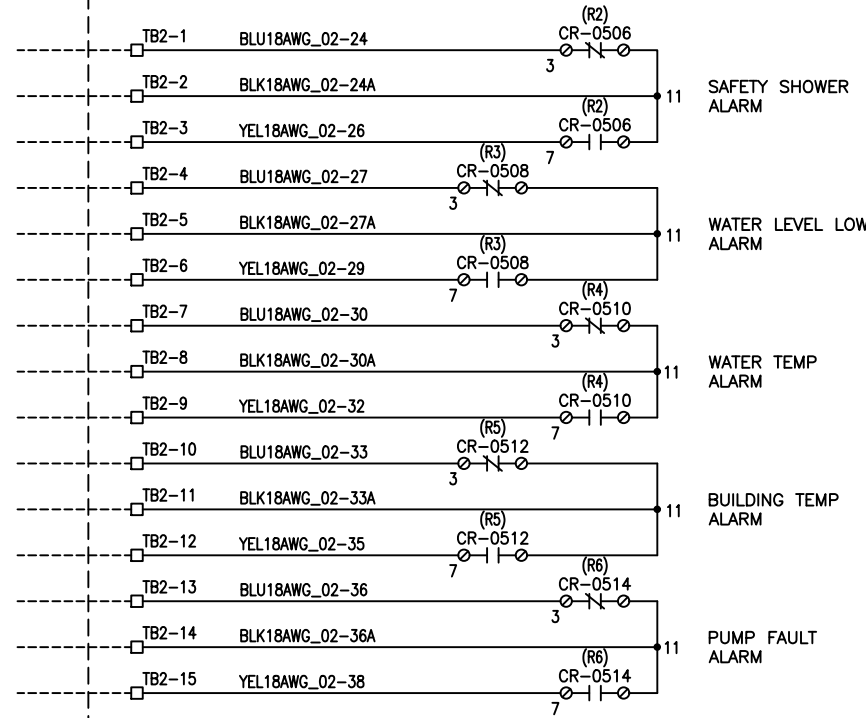
1/3HP VENTILATION FAN

1/3 HP	OL DIAL SETTING MAX.
VAC	FLA
230	3.3
240	3.2
240	2.9
OL1 A/M SET TO "A"	

* COMPONENTS PRESENT WITH VENTILATION FAN OPTION ONLY

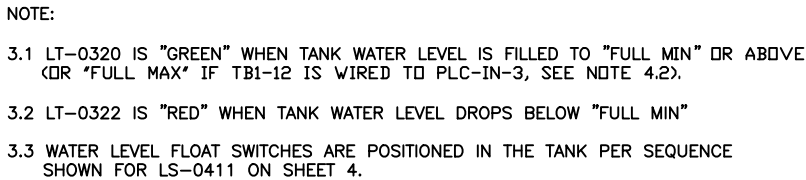
The overload relay trips at 125% of the dial setting. UL508A & CSA 22.1 standards specify trip current of (FLA x 115%), or use local requirements. Max Dial = (3.3x1.15/1.25)=3.0 the electronic overload relay is 'manual reset' only.

TO CUSTOMER ALARMS,
DIGITAL CONTROL SYSTEM,
OR REMOTE MONITORING
6A @ 250VAC
MAXIMUM

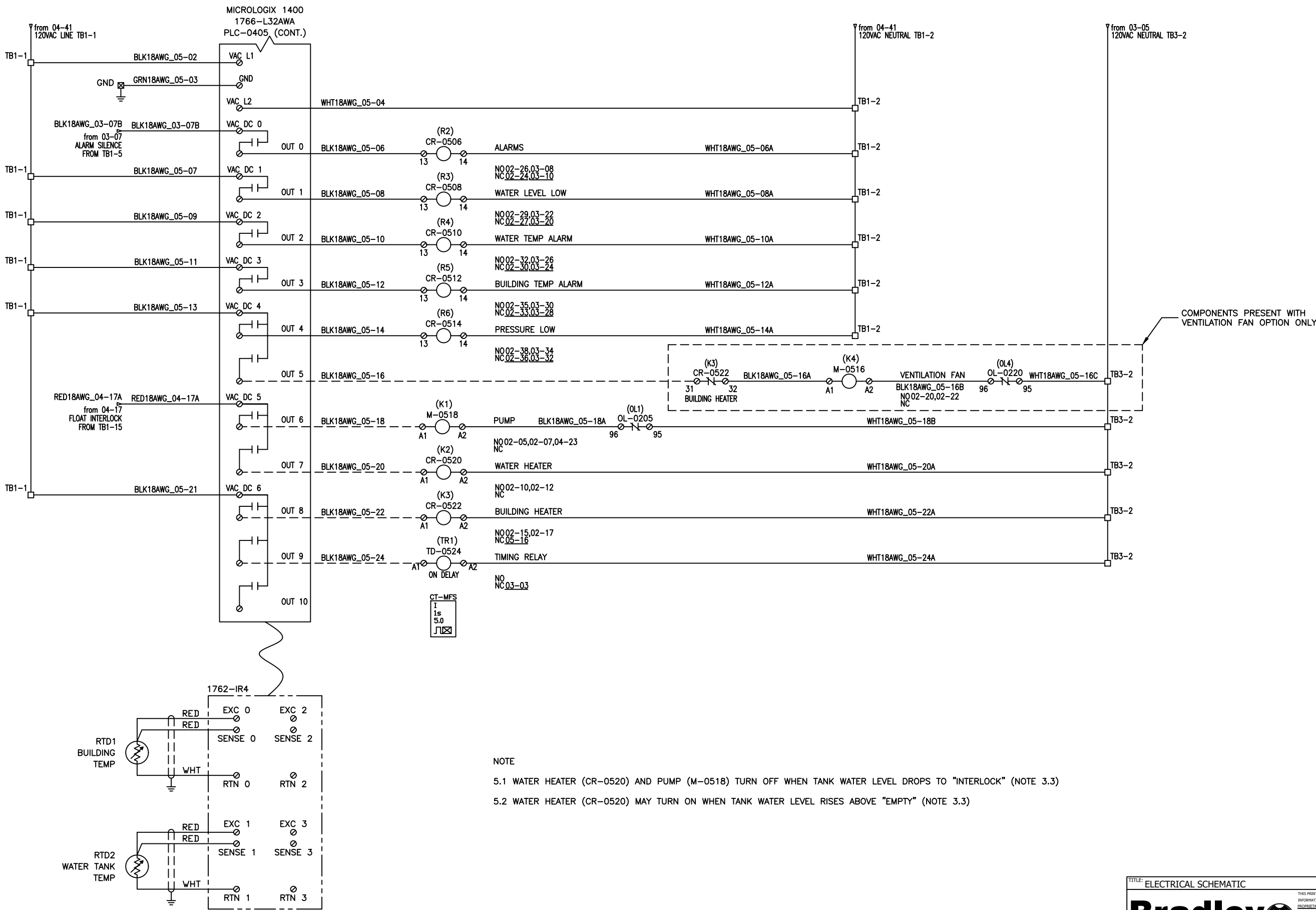


NOTES:

- 2.1 THESE PAIRS OF COMPONENTS ARE INTERLOCKED IN PLC SOFTWARE, NEVER ON AT THE SAME TIME, TO REDUCE MAXIMUM CURRENT LOAD:
 - + PUMP AND TANK WATER HEATER
 - + BUILDING HEATER AND EXHAUST FAN
- 2.2 INSTALLER TO PROVIDE 30A MAXIMUM PROTECTION ON INCOMING POWER
- 2.3 SOME COMPONENTS MAY NOT BE PRESENT DEPENDING UPON OPTIONS SELECTED.
- 2.4 CLASS I DIV.1 EXPLOSION-PROOF ENCLOSURE HAS AN ENVIRONMENTAL RATING OF 4X, AND CLASS I DIV.2 STEEL ENCLOSURE HAS A TYPE 4 RATING. CUSTOMER SUPPLIED CONDUIT HUBS OR FITTINGS ARE TO BE RATED FOR TYPE 4X OR 4, MATCHING THE RATING OF THE ENCLOSURE, TO MAINTAIN THE ENCLOSURE ENVIRONMENTAL RATING.



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05-41



NOTE
5.1 WATER HEATER (CR-0520) AND PUMP (M-0518) TURN OFF WHEN TANK WATER LEVEL DROPS TO "INTERLOCK" (NOTE 3.3)
5.2 WATER HEATER (CR-0520) MAY TURN ON WHEN TANK WATER LEVEL RISES ABOVE "EMPTY" (NOTE 3.3)