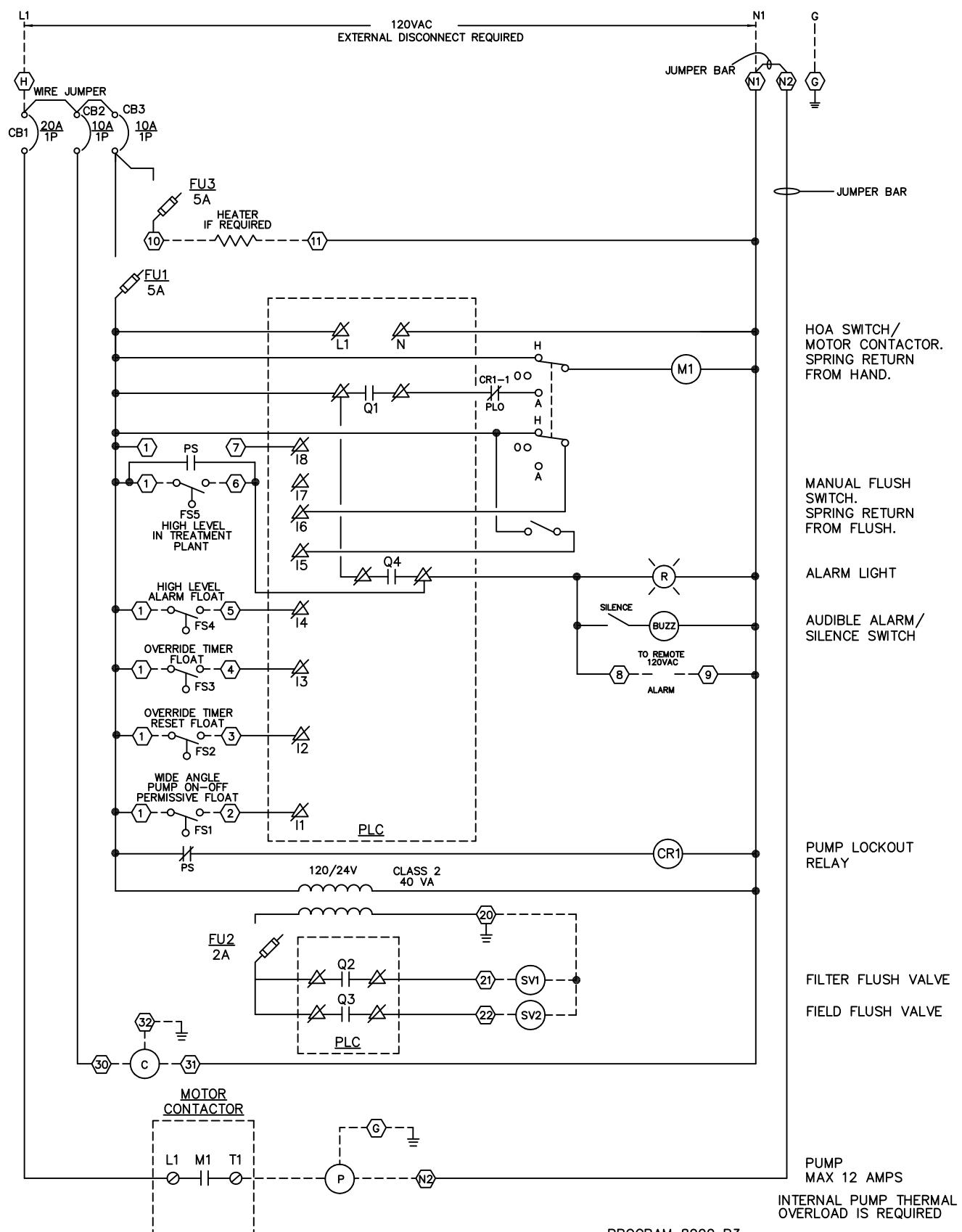delta

treatment systems

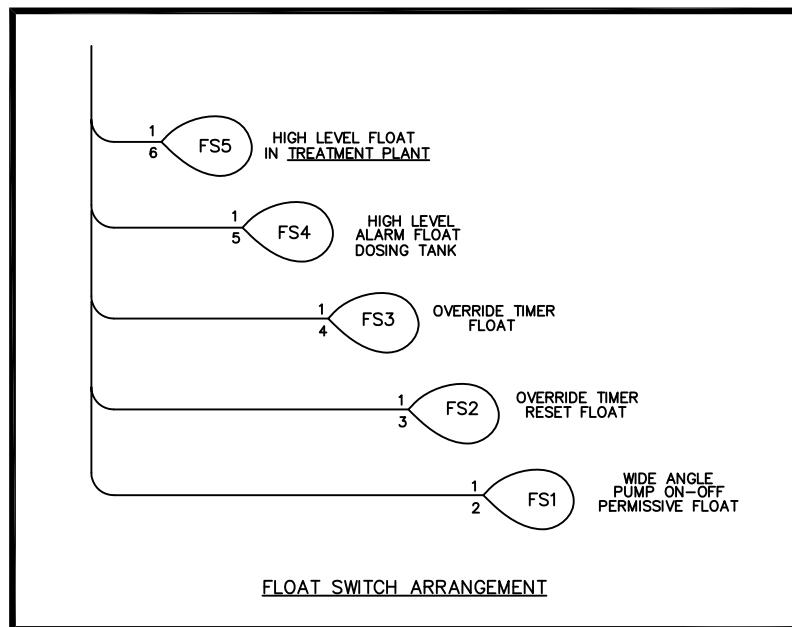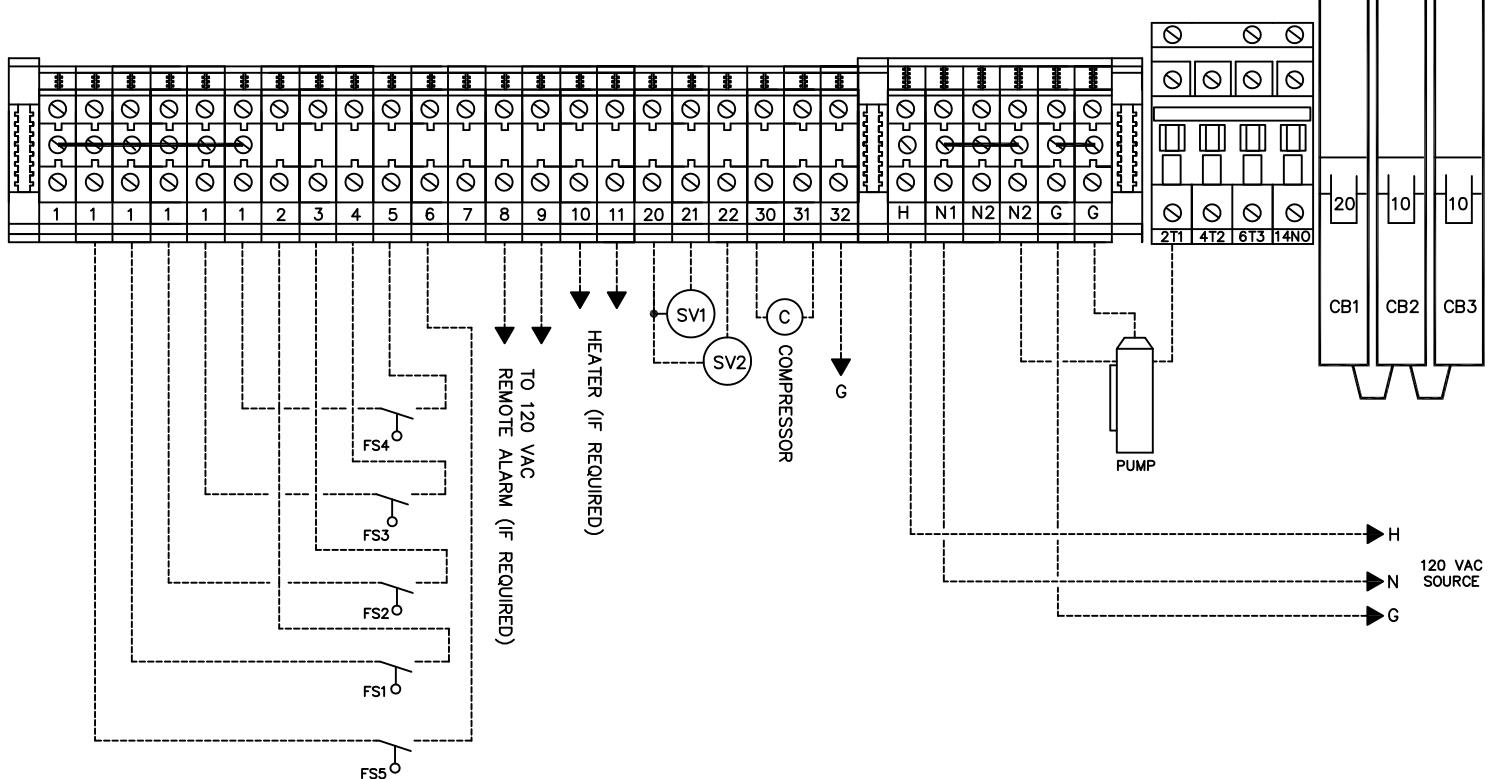## FILTER
CONTROL PANEL W/ ATU/PLO

Delta Treatment Systems
9125 Comar Drive
Walker, LA 70785
(225) 665-6162 Fax (800) 219-9183

CP-1744/ECO/PLO

L1
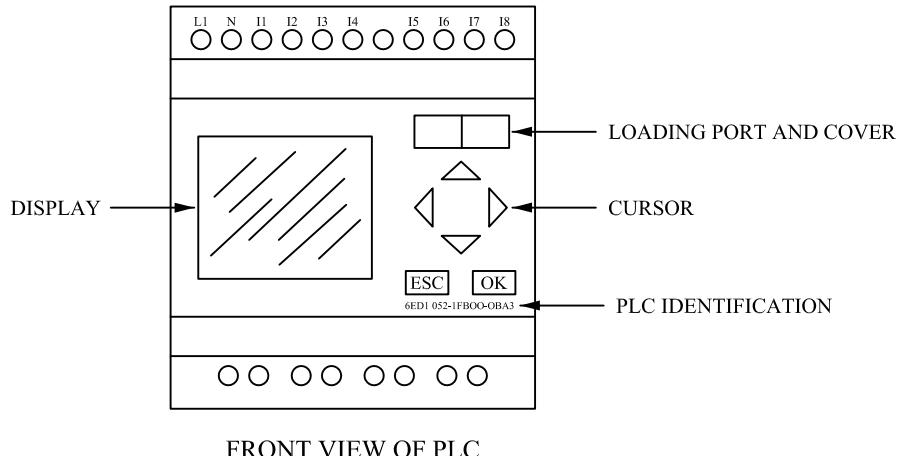120VAC
EXTERNAL DISCONNECT REQUIRED
N1
G

JUMPER BAR
N1 N2 G

H WIRE JUMPER
CB1 20A 1P   CB2 10A 1P   CB3 10A 1P

JUMPER BAR

FU3 5A
HEATER IF REQUIRED
10 11

FU1 5A

L1   N

CR1-1 PLO
H A H

M1

HOA SWITCH/
MOTOR CONTACTOR.
SPRING RETURN
FROM HAND.

Q1

1 PS 7
18

1 6
FS5
HIGH LEVEL
IN TREATMENT
PLANT
17
16
15

A

MANUAL FLUSH
SWITCH.
SPRING RETURN
FROM FLUSH.

Q4

R
ALARM LIGHT

HIGH LEVEL
ALARM FLOAT
1 5 FS4
14

SILENCE
BUZZ
AUDIBLE ALARM/
SILENCE SWITCH

OVERRIDE TIMER
FLOAT
1 4 FS3
13

TO REMOTE 120VAC
8 ALARM 9

OVERRIDE TIMER
RESET FLOAT
1 3 FS2
12

WIDE ANGLE
PUMP ON-OFF
PERMISSIVE FLOAT
1 2 FS1
I1

PLC

PS

CR1
PUMP LOCKOUT
RELAY

120/24V   CLASS 2   40 VA

FU2 2A

Q2
Q3

20

21 SV1
22 SV2

PLC

FILTER FLUSH VALVE

FIELD FLUSH VALVE

32
30 C 31

MOTOR
CONTACTOR

L1 M1 T1

G
P   N2

PUMP
MAX 12 AMPS

INTERNAL PUMP THERMAL
OVERLOAD IS REQUIRED

PROGRAM 8000 R3

Drawing Title								
SCHEMATIC DIAGRAM		-	-	-	-	-	-	-
	REFERENCE DRAWING	NO.		REVISION - LOCATION		ECN	DATE	BY
DATE: 02/08/22	S/N	Sales Engineer A.D.	Application Engineer A.D.	DRAWN BY: NCR		APPROVED BY: DATE:		

Project Title
FILTER CONTROL PANEL

delta
treatment systems

9125 Comar Drive
Walker, LA
70785

Ph. (225) 665-6162
Fax (225) 219-9183

PURCHASE ORDER NUMBER

DRAWING NUMBER
CP-1744/ECO/PLO

SHEET NUMBER
1

Terminal strip numbers: 1 1 1 1 1 1 2 3 4 5 6 7 8 9 10 11 20 21 22 30 31 32 H N1 N2 N2 G G

2T1 4T2 6T3 14NO

20 10 10

CB1 CB2 CB3

SV1
SV2
C
COMPRESSOR
G

HEATER (IF REQUIRED)

TO 120 VAC REMOTE ALARM (IF REQUIRED)

FS4
FS3
FS2
FS1
FS5

PUMP

H
N — 120 VAC SOURCE
G

FLOAT SWITCH ARRANGEMENT

1
6 — FS5 — HIGH LEVEL FLOAT IN TREATMENT PLANT

1
5 — FS4 — HIGH LEVEL ALARM FLOAT DOSING TANK

1
4 — FS3 — OVERRIDE TIMER FLOAT

1
3 — FS2 — OVERRIDE TIMER RESET FLOAT

1
2 — FS1 — WIDE ANGLE PUMP ON–OFF PERMISSIVE FLOAT

FLOAT SWITCH ARRANGEMENT

SETTING THE PLC

LOADING PORT AND COVER

DISPLAY

CURSOR

ESC   OK

6ED1 052-1FBOO-OBA3

PLC IDENTIFICATION

FRONT VIEW OF PLC

The clock screen is considered the "main" screen and will be the starting point for all programming.

- Upon power up, the clock screen may not by displayed.
- Use ▼ and ▲ to reach the main screen (clock showing) and to scroll through data display screens.

Setting Parameters:

1. Press ▼ until you see the main screen (clock showing) and then press ESC. The main menu is now displayed.
2. From the main menu, use ▲ or ▼ to highlight "Program" and press OK. The program menu is now displayed.
3. From the program menu, use ▲ or ▼ to highlight "Set Parameter" and press OK. The parameter list is now displayed.
4. Use ▲ or ▼ to scroll through the parameter list. Once the desired parameter is highlighted, press OK.
5. Use ▲ or ▼ to highlight desired parameter setting and press OK. A blinking cursor will appear.
6. Use ▲ or ▼ to move the cursor and the ◄ or ► to change values.
7. Press OK after changing parameter setting and the cursor will disappear.
8. Once parameter setting(s) are changed, press ESC to return to parameter list.
9. Repeat Step 4-9 until all parameters are set to the correct values.
10. Press ESC one time to return to program menu; two times to return to main menu; three times to return to main screen clock showing).

Notes:

- To view inputs, at the main screen (clock showing) press ►.
    ○ To return to main screen (clock showing) press ◄.
- To view ouputs, at the main screen (clock showing) press ► twice.
    ○ To return to main screen (clock showing) press ◄ twice.

	Drawing Title							
		-	-	-		-	-	-
	PLC INSTRUCTIONS	REFERENCE DRAWING	NO.	REVISION - LOCATION		ECN	DATE	BY
DATE: 02/08/22		S/N	Sales Engineer A.D.	Application Engineer A.D.	DRAWN BY: NCR	APPROVED BY:		DATE:

Project Title		9125 Comar Drive Walker, LA 70785 Ph. (225) 665-6162 Fax (225) 219-9183	PURCHASE ORDER NUMBER
FILTER CONTROL PANEL	**delta** treatment systems		DRAWING NUMBER CP-1744/ECO/PLO
			SHEET NUMBER 3

PLC PARAMETERS

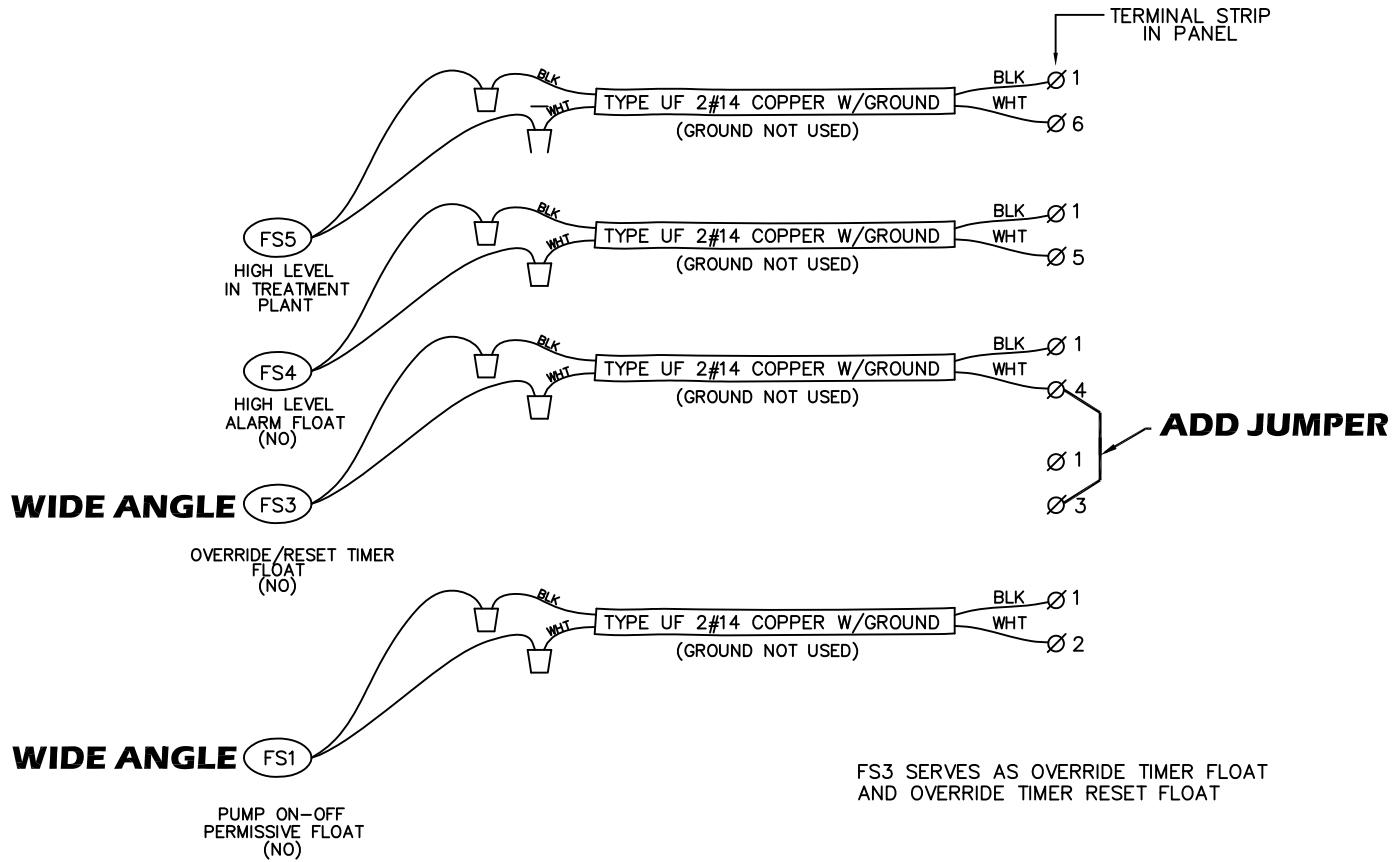| BLOCK	DESCRIPTION	FACTORY SETTING	PLC NOMENCLATURE
B01	TH = Run time	12 Minutes	12:00m
	TL = Off time	2 Hours	02:00h
B02	Off time during override period	1 Hour	01:00h
B03	Filter flush time after pump turns on	1 Minute	01:00m
B04	Filter drain time after pump turns off	2 Minutes	02:00m
B05	Field flush time normal operation	2 Minutes	02:00m
B06	Field drain time after pump turns off	2 Minutes	02:00m
B07	Number of fields	4	4
B08	Number of cycles until 1st field flush	84	84
B09	Field flush time when field flush switch is pressed	1 Minute	01:00m

Note: Minute settings are in minutes and seconds. For example 02:00m is 2 minutes, 02:10m is 2 minutes and 10 seconds. Hour settings are in hours and minutes. For example 02:00h is 2 hours and no minutes, 02:10h is 2 hours and 10 minutes, and 00:12h is 12 minutes.

In addition to the settings above, various other parameters can be viewed as follows:

- Pump run time hours
- Pump start counts
- Level override counts
- High level counts
- Switch to hand counts

02/08/22
8000 R3

	Drawing Title				-		-	-		-	-	-
	PLC PARAMETERS											
				REFERENCE DRAWING	NO.		REVISION - LOCATION			ECN	DATE	BY
DATE: 02/08/22				S/N	Sales Engineer A.D.	Application Engineer A.D.	DRAWN BY: NCR			APPROVED BY:	DATE:	
	Project Title						9125 Comar Drive Walker, LA 70785			PURCHASE ORDER NUMBER		
	FILTER CONTROL PANEL		**delta** treatment systems				Ph. (225) 665-6162 Fax (225) 219-9183			DRAWING NUMBER CP-1744/ECO/PLO		
										SHEET NUMBER		4

TERMINAL STRIP
IN PANEL

BLK ─────────── BLK ─⊘ 1
┌───────────────────────────────┐
│ TYPE UF 2#14 COPPER W/GROUND   │ WHT
└───────────────────────────────┘   ─⊘ 6
WHT   (GROUND NOT USED)

BLK ─────────── BLK ─⊘ 1
FS5   ┌───────────────────────────────┐
HIGH LEVEL   │ TYPE UF 2#14 COPPER W/GROUND   │ WHT
IN TREATMENT └───────────────────────────────┘   ─⊘ 5
PLANT   WHT   (GROUND NOT USED)

BLK ─────────── BLK ─⊘ 1
FS4   ┌───────────────────────────────┐
HIGH LEVEL   │ TYPE UF 2#14 COPPER W/GROUND   │ WHT
ALARM FLOAT └───────────────────────────────┘   ─⊘ 4
(NO)   WHT   (GROUND NOT USED)
⊘ 1
WIDE ANGLE FS3   **ADD JUMPER**
⊘ 3
OVERRIDE/RESET TIMER
FLOAT
(NO)

BLK ─────────── BLK ─⊘ 1
┌───────────────────────────────┐
│ TYPE UF 2#14 COPPER W/GROUND   │ WHT
└───────────────────────────────┘   ─⊘ 2
WHT   (GROUND NOT USED)

WIDE ANGLE FS1   FS3 SERVES AS OVERRIDE TIMER FLOAT
AND OVERRIDE TIMER RESET FLOAT
PUMP ON-OFF
PERMISSIVE FLOAT
(NO)

EXAMPLE

3 FLOAT SYSTEM
WITH HIGH LEVEL
IN TREATMENT PLANT

	Drawing Title							
		-	-	-		-	-	-
	CONNECTION OF FLOATS	REFERENCE DRAWING	NO.	REVISION - LOCATION		ECN	DATE	BY
DATE: 02/08/22		S/N	Sales Engineer A.D.	Application Engineer A.D.	DRAWN BY: NCR	APPROVED BY:		DATE:

	Project Title				
	FILTER CONTROL PANEL	delta treatment systems	9125 Comar Drive Walker, LA 70785 Ph. (225) 665-6162 Fax (225) 219-9183	PURCHASE ORDER NUMBER	
				DRAWING NUMBER CP-1744/ECO/PLO	
				SHEET NUMBER	5