

Control System Submittal

Project Name: Hailey, ID

Customer: PortALogic

Specification: Bulk Water Station Piping Enclosure - FS63

Job Number: PAL9213

Project Engineer: Matthew Messman

Date: 02-16-2023

Submittal ID: D9213

Revision: 0

SUBMITTAL		D9213	
<input type="checkbox"/> APPROVED	<input type="checkbox"/> APPROVED AS NOTED		
<input type="checkbox"/> REJECTED	<input type="checkbox"/> REVISE AND RESUBMIT		
BY:	_____		
DATE:	_____		

EleMech INC
2275 White Oak Circle
Aurora, IL 60502
630-499-7080

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Rev:

0

Date:

02-16-2023

By:

MDM

Section:

A

Job Number:

PAL9213

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Section Name:

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Electrical Drawings



Rev: 0

Date: 02-16-2023

Section:

B

Section Name:

Electrical Drawings

By: MDM

Job Number:


PAL9213

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HAILEY, ID	
PAL9213	
SPECIFICATION	BULK WATER FILL STATION FS-63
REFERENCE	2023-003

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Date _____

REV	DESCRIPTION	BY	DATE

REFERENCE INFORMATION

ELEMECH FILE: PAL9213A1

PROJECT NAME

HAILEY, ID
PO#: 2023-003

DRAWN BY	DATE
MDM	02/16/23
CHECKED BY	DATE
BMG	02/16/23
SCALE	NONE

TITLE

BULK WATER FILL STATION
CONTROL PANEL
FS-63

DRAWING NO.

PAL9213A1

REV

0

SHEET 1 OF 8

Control Panel Enclosure

Rating:	NEMA TYPE 4		
Material:	Painted Steel (Grey)		
Disconnect Type:	N/A		
<input checked="" type="checkbox"/> Dead Front	<input checked="" type="checkbox"/> 3-PT Latch	<input checked="" type="checkbox"/> Heater	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Installation Conditions:</u>			
<input type="checkbox"/> Indoor - Unconditioned		<input type="checkbox"/> Indoor - Conditioned	
<input type="checkbox"/> Outdoor - Direct Sunlight		<input checked="" type="checkbox"/> Outdoor - Shaded	
Environment Max Temperature Rating (°F):	110		
Internal Device Max Temperature Rating (°F):	131		
Climate Control Type:	None Required		

Panel Construction

Certification:	UL508A		
Listing Serial Number:	TBD		
<u>Options:</u>			
<input checked="" type="checkbox"/> UPS	<input checked="" type="checkbox"/> Receptacle	<input checked="" type="checkbox"/> Panel Light	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Nameplates and Legendplates:</u>			
Material Type:	Thermal Printed		
Attachment Type:	Adhesive		
Colors:	Background:	White	Text: Black
<u>Wire/ Cable Type:</u>		<u>Wire Color:</u>	
Wiring to be 14 AWG unless otherwise specified. 16 AWG minimum. Wire shall be MTW type, tinned copper, 600VAC, 105°C, UL1015/CSA.		Black - Power	
		Black - 120VAC Hot	
		White - 120VAC Neutral	
		Red - 120VAC Control	
		Yellow - Foreign Voltage	
		Green - Ground	
		Blue - DC Positive	
		White/Blue - DC Negative	
		<u>Wire Labels:</u>	
		<input checked="" type="checkbox"/> Adhesive, Self-laminating	
		<input type="checkbox"/> Heat Shrink	
		Note: Colors based on UL508A requirements.	

Local Enclosure

Tag:	N/A	Rating:	N/A	Material:	N/A
------	-----	---------	-----	-----------	-----

Power and Motor

<u>Power Feed:</u>					
Circuit 1 :	120	VAC	16.6	FLA	SCCR 5 KAIC @ 120 VAC
<u>Motor Data:</u>					
Motor 1 :	N/A	VAC	N/A	FLA	N/A HP Controller: N/A

Networking

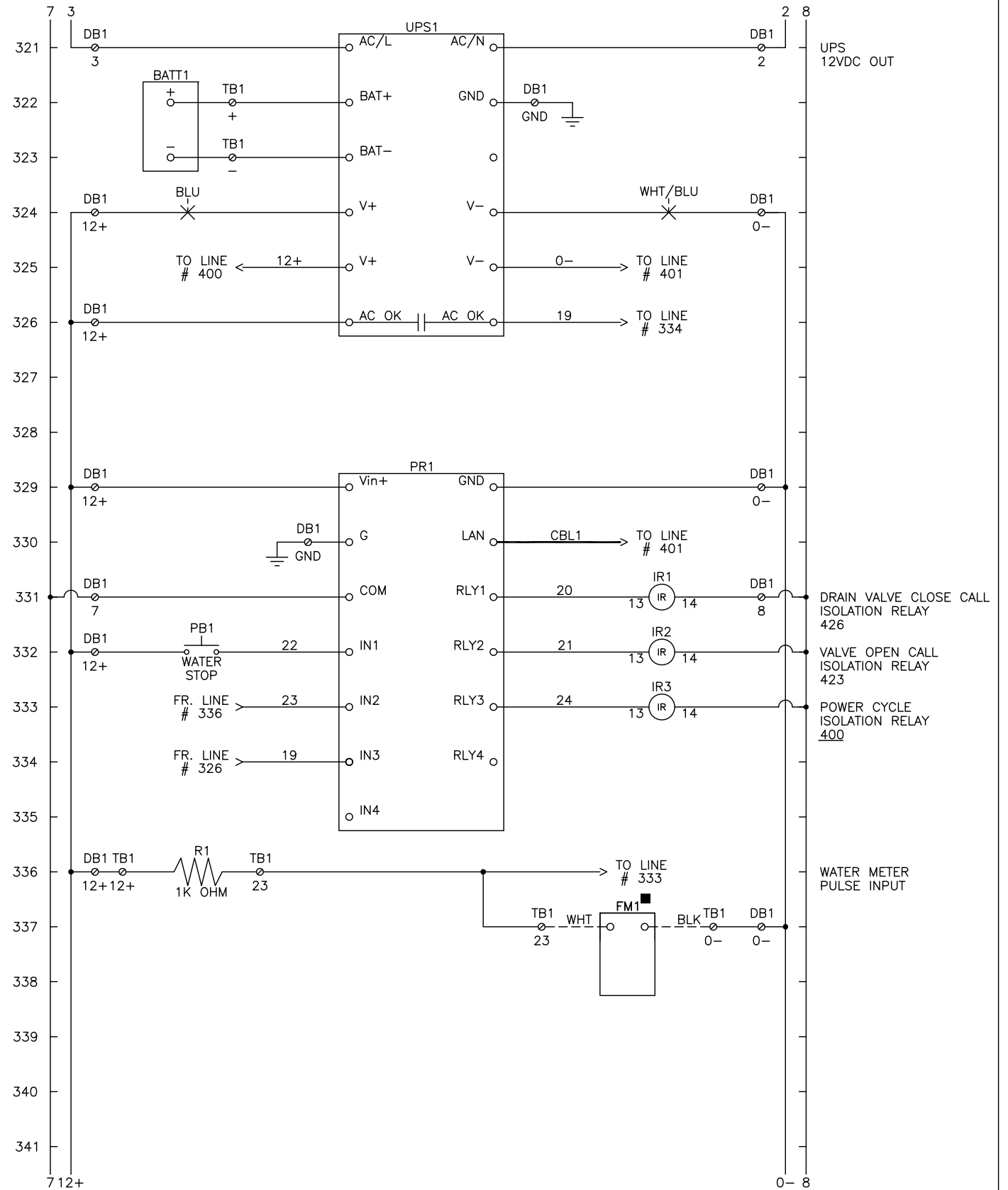
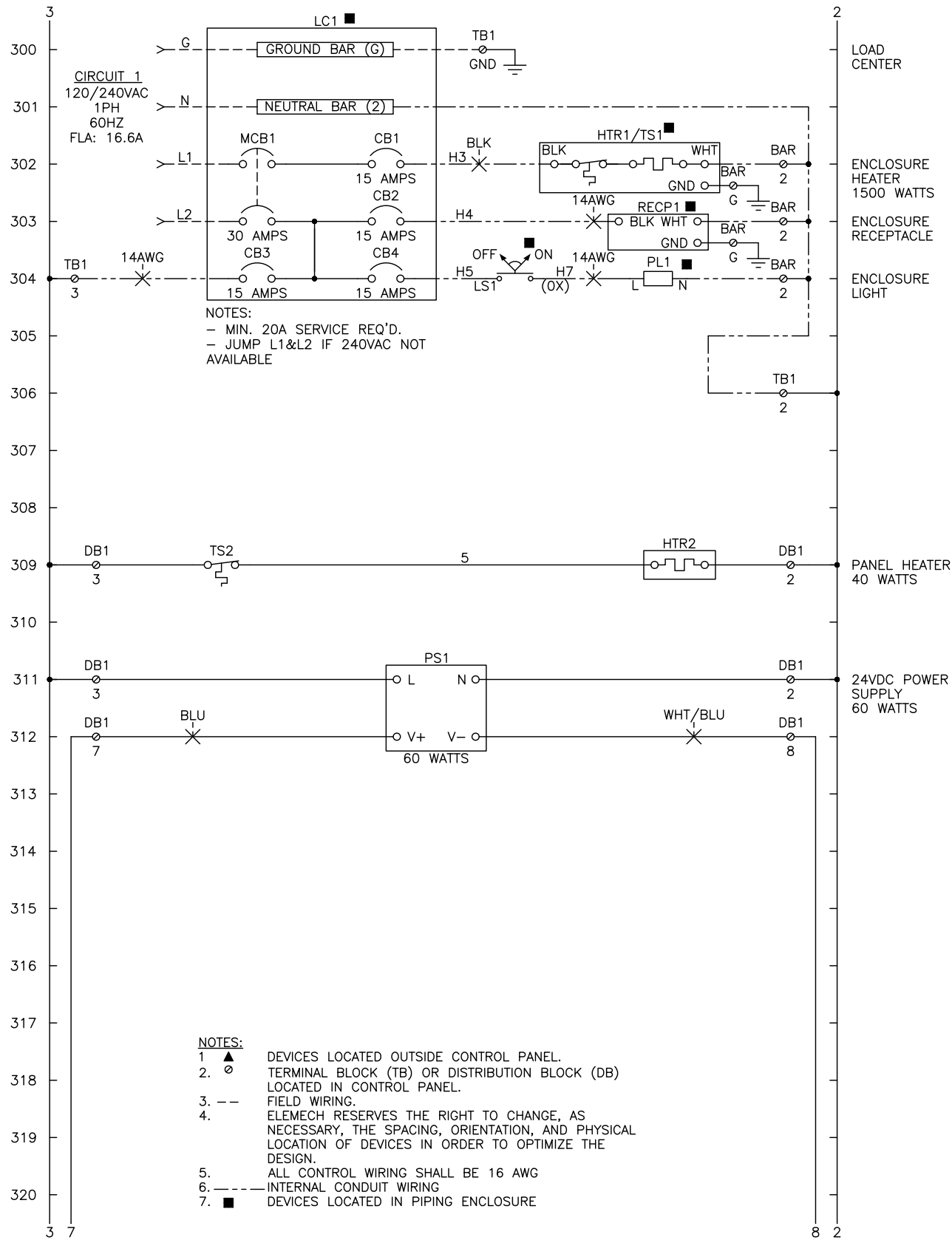
Communication Type:		Ethernet/ IP
Subnet:	255.255.255.0	Gateway: 192.168.2.1
<u>IP Address:</u>		
EBOX1	LAN1: 192.168.2.2	
EBOX1	LAN2: 10.0.0.2	
PR1:	10.0.0.3	
<u>Programming:</u>		
EBOX1	Hamsing	Software: Portalogic Version: 6.4.0.0
<u>Notes:</u>		
1. PLC shall be programmed with ladder type only.		

Instrumentation

Tag:	N/A	Cable Length:	N/A
Rating:	<input type="checkbox"/> Non-Hazardous	<input type="checkbox"/> Intrinsically Safe Class 1 Division 1,2	
	<input type="checkbox"/> Class 1, Division 2	<input type="checkbox"/> Class 1 Division 1,2	

REV	DESCRIPTION	BY	DATE

REFERENCE INFORMATION ELEMECH FILE: PAL9213A2	PROJECT NAME HAILEY, ID PO#: 2023-003	DRAWN BY MDM	DATE 02/16/23	TITLE BULK WATER FILL STATION CONTROL PANEL FS-63	
		CHECKED BY BMG	DATE 02/16/23		
		SCALE NONE			
		DRAWING NO. PAL9213A2 SHEET 2 OF 8		REV 0	



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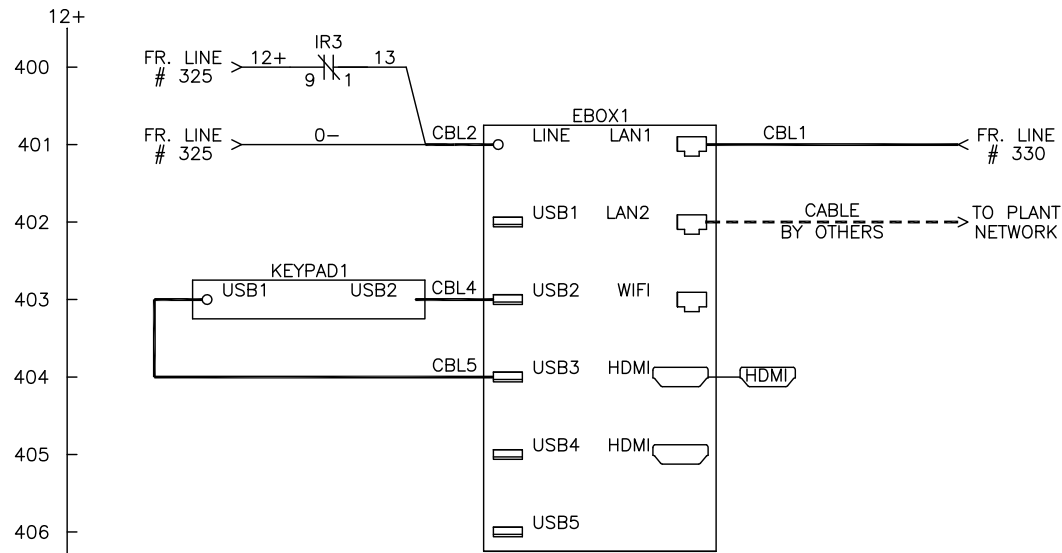
PROJECT NAME
HAILEY, ID
PO#: 2023-003

DRAWN BY	DATE
MDM	02/16/23
CHECKED BY	DATE
BMG	02/16/23
SCALE	NONE

TITLE
BULK WATER FILL STATION
CONTROL PANEL
FS-63

DRAWING NO.	REV
PAL9213A3	0

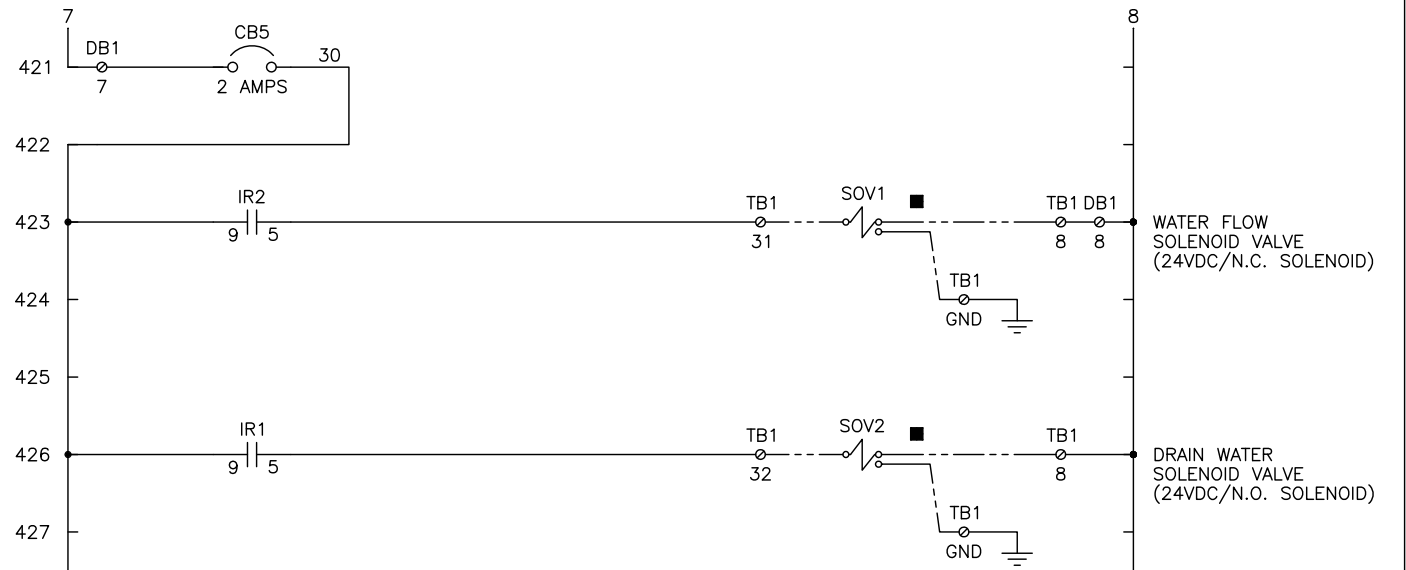
SHEET 3 OF 8



COMMUNICATIONS
CONTROLLER

OPERATOR
INTERFACE

HDMI DISPLAY
SIMULATOR DONGLE



REV	DESCRIPTION	BY	DATE

REFERENCE INFORMATION
ELEMECH FILE: PAL9213A4

PROJECT NAME
HAILEY, ID PO#: 2023-003

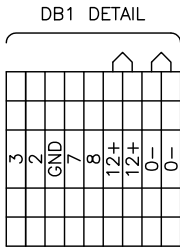
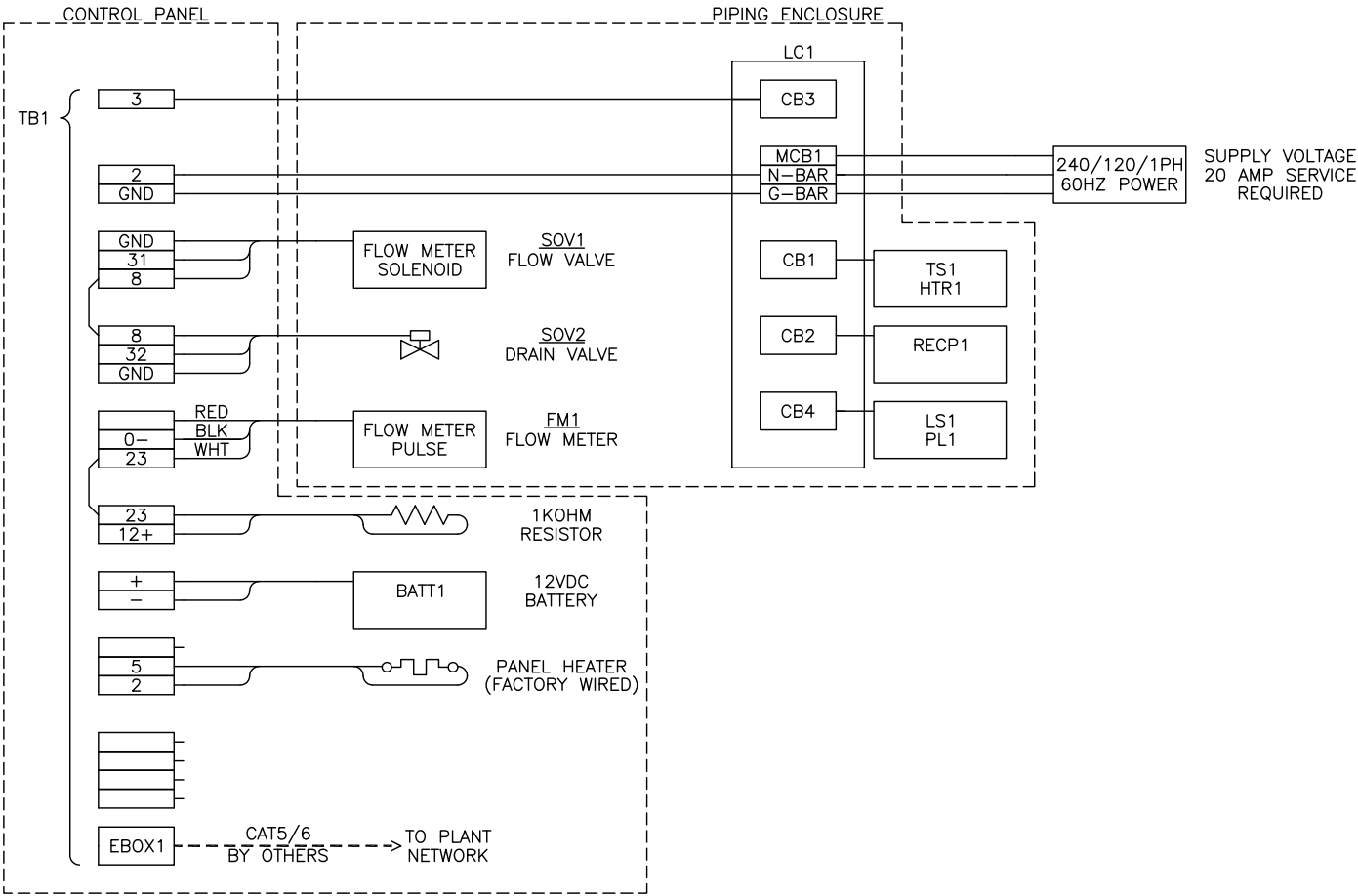
DRAWN BY	DATE
MDM	02/16/23
CHECKED BY	DATE
BMG	02/16/23
SCALE	NONE

TITLE	REV
BULK WATER FILL STATION CONTROL PANEL FS-63	0
DRAWING NO.	SHEET 4 OF 8
PAL9213A4	

FIELD WIRING DIAGRAM

WARNING:

- DAMAGE RESULTING FROM INSTALLATION OF TOP ENTRY CONDUIT WILL VOID WARRANTY
- AVOID CUTTING HOLES DIRECTLY ABOVE ANY ELECTRICAL COMPONENTS
 - PROTECT INTERNAL COMPONENTS FROM METAL SHAVINGS, CUTTING OILS, DEBRIS, AND MOISTURE
 - USE PROPER FITTINGS, MYERS TYPE 4 OR EQUAL
 - CONDUIT AND FITTING MUST BE SEALED WATERTIGHT TO PREVENT WATER ENTRY
 - ALL PENETRATIONS MUST BE SEALED OFF TO PREVENT INTRUSION OF MOISTURE, CORROSIVE GASES, AND VAPORS FROM ENTERING THE ENCLOSURE



DEVICE SETTINGS

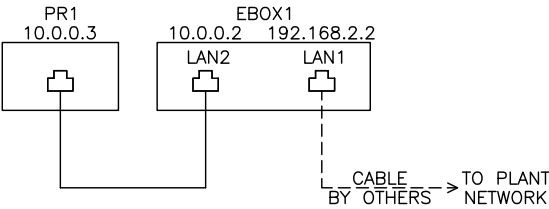
TS1 - SETTINGS

HEATER ON/OFF 60 °F

TS2 - SETTINGS

HEATER ON/OFF 60 °F

ETHERNET NETWORK MAP



NOTES:

1. --- CAT5 ETHERNET CABLE SUBNET MASK: 255.255.255.0

STATION INSTRUCTIONS:

- USER ACCESS WILL BE AUTHORIZED THROUGH THE PORTALOGIC SOFTWARE BY THE OWNER. ACCESS CODES WILL BE DISTRIBUTED TO THE USERS.
 - PORTALOGIC SOFTWARE TO BE INSTALLED ON A PLANT OWNED PC WITH NETWORK CONNECTIVITY TO THE STATION.
- USER SHALL PRESS **START** TO BEGIN.
 - THE USER SHALL ENTER ACCESS NUMBER AND PRESS ENTER, THEN ENTER PIN AND PRESS **ENTER**.
 - SELECT MODE OF DISPENSING: 'AUTO FILL' OR 'MANUAL' AND PRESS **ENTER**.
 - IF 'AUTO FILL' WAS SELECTED, ENTER REQUIRED GALLONS AND PRESS **ENTER**.
 - IF 'MANUAL' WAS SELECTED, PROCEED TO STEP 3.
- THE DISPENSING SCREEN WILL APPEAR. PRESSING THE **START** BUTTON WILL CALL THE VALVE TO OPEN AND FLOW WILL BEGIN. TOTALIZED VOLUME WILL BE SHOWN ON THE DISPLAY.
 - FLOW MAY BE TEMPORARILY STOPPED BY PRESSING **STOP** OR THE WATER STOP PUSHBUTTON AT ANY TIME.
 - IF 'MANUAL' MODE WAS SELECTED, ALL OPERATION OF THE STATION WILL BE VIA THE **START** AND **STOP** BUTTONS.
- FLOW WILL CONTINUE UNTIL VOLUME REQUESTED EQUALS THE VOLUME DISPENSED, WHICH WILL END THE PROCESS.
- THE SYSTEM IS NOW READY TO PROCESS THE NEXT TRANSACTION.

POWER FAILURE

IN THE EVENT OF AN AC POWER FAILURE, ANY TRANSACTION CURRENTLY IN PROGRESS WILL BE ENDED. WHILE THE AC POWER IS OUT, USERS MAY NOT LOG INTO THE STATION. IF POWER REMAINS OFF FOR AN EXTENDED PERIOD OF TIME, THE STATION WILL SHUT DOWN.

THE STATION WILL AUTOMATICALLY POWER BACK ON, UPON AC POWER RETURNING.



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PROJECT NAME
HAILEY, ID
PO#: 2023-003

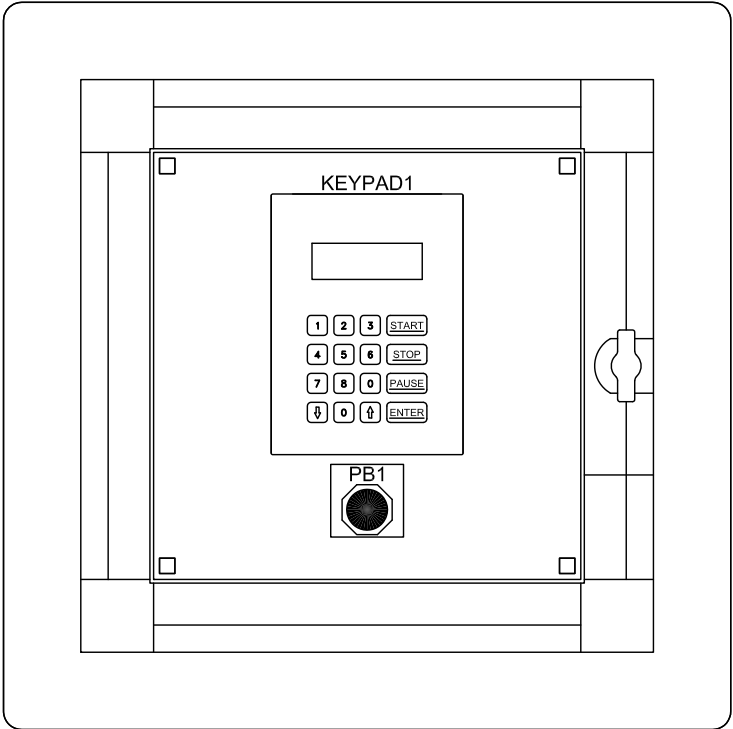
DRAWN BY	DATE
MDM	02/16/23
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BMG	02/16/23
SCALE	NONE

TITLE
BULK WATER FILL STATION
CONTROL PANEL
FS-63

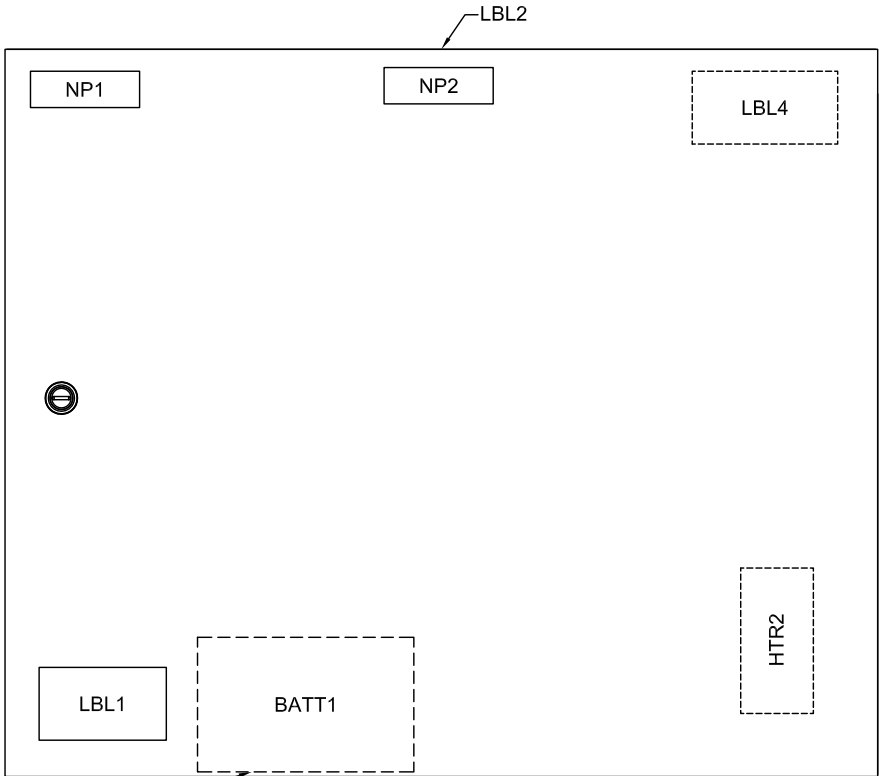
DRAWING NO.
PAL9213A5
SHEET 5 OF 8

REV
0

HINGED WINDOW W/WINGKNOB
16"Hx16"W WINDOW
12"Hx12"W VIEWABLE

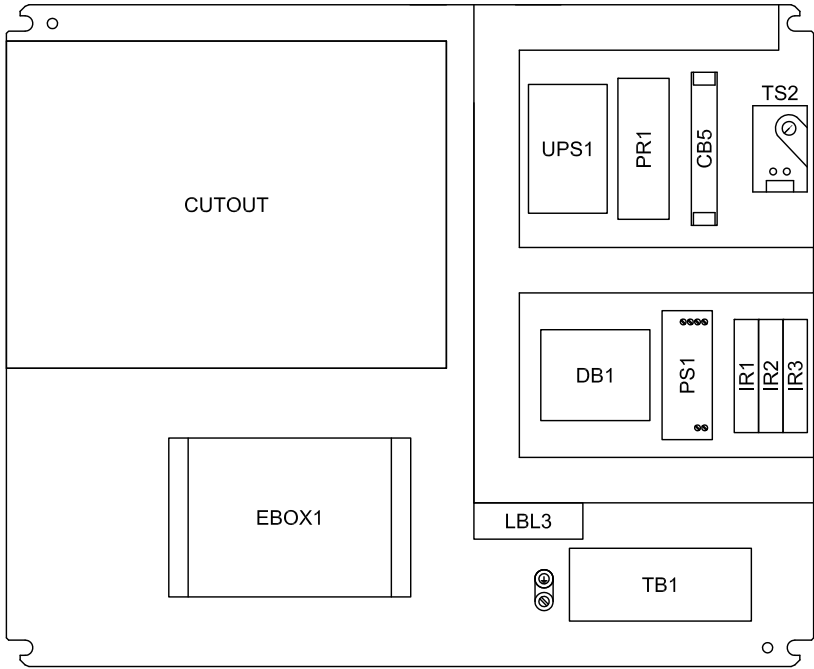


MOUNTING PLATE LAYOUT
20"HX20"W




BATT1 SHIPPED LOOSE
PLACED ON ENCLOSURE BOTTOM
AT TIME OF START-UP

ENCLOSURE LAYOUT
20"Hx24"Wx8"D
NEMA 4 PAINTED STEEL




SUB-PANEL LAYOUT
22.2"Hx18.2"W

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	MDM	02/16/23												
	CHECKED BY	DATE												
	BMG	02/16/23												
	SCALE	NONE												

1. ENCLOSURE SHALL BE MADE OF TYPE 3R STANDARDS OF FORMED CORNER POST BOLTED CONSTRUCTION OF CODE GAUGE STEEL.
2. ENCLOSURE SHALL BE CONSTRUCTED OF 3R PAINTED STEEL.
3. ENCLOSURE SHALL BE INSULATED WITH R-7.5 FOAM BOARD.
4. BOTTOM PLATES ARE 2. 1/2" ABOVE FLOOR LINE.
5. NOT SHOWN; CONDUIT, PIPE STANDS, ADDITIONAL FRAMING, DRAIN PIPING, LIGHTING
6. GROUND WIRING SHALL BE 12AWG.




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	This drawing is limited to functional design, general arrangement and clearance. No responsibility is accepted by EleMech, Inc for other dimensions, quantities, or coordination with other equipment or drawings except as stated in the purchase order.						ELEMECH FILE: PAL9213A7	HAILEY, ID PO#: 2023-003	CHECKED BY BMG	DATE 02/16/23		DRAWING NO. PAL9213A7 SHEET 7 OF 8	REV 0
									SCALE	NONE			
	By _____ Date _____												

LEGENDPLATES			
TAG	DESCRIPTOR LINE 1	DESCRIPTOR LINE 2	DESCRIPTOR LINE 3
PB1	WATER	STOP	
NAMEPLATES			
TAG	DESCRIPTOR LINE 1	DESCRIPTOR LINE 2	DESCRIPTOR LINE 3
NP1	120VAC–1PH–60HZ		
NP2	BULK WATER	FILL STATION	

LABEL DESCRIPTION	
LBL1	ELEMECH ELECTRICAL CONTROL SYSTEMS
LBL2	WARNING DAMAGE RESULTING FROM INSTALLATION OF TOP ENTRY CONDUIT WILL VOID WARRANTY. – AVOID CUTTING HOLES DIRECTLY ABOVE ANY ELECTRICAL COMPONENTS – PROTECT INTERNAL COMPONENTS FROM METAL SHAVINGS, CUTTING OILS, DEBRIS, AND MOISTURE – USE PROPER FITTINGS, MYERS TYPE 4 OR EQUAL – CONDUITS AND FITTING MUST BE WATERTIGHT TO PREVENT WATER ENTRY – ALL PENETRATIONS MUST BE SEALED OFF TO PREVENT INTRUSION OF MOISTURE, CORROSIVE GASES, AND VAPORS FROM ENTERING THE ENCLOSURE
LBL3	CONNECT BATTERY TERMINALS AT TIME OF PANEL INSTALLATION
LBL4	WARNING UPS VOLTAGE PRESENT WHEN POWER IS OFF. CONTACT MAY CAUSE ELECTRICAL SHOCK OR BURN. TURN OFF AND LOCK–OUT UPS OUTPUT POWER BEFORE SERVICING.

NAMEPLATES AND LEGENDPLATES CONSTRUCTION			
	PANEL LEGENDPLATES	NAMEPLATES	DEVICE TAGS
TEXT COLOR	BLACK	BLACK	BLACK
BACKGROUND COLOR	WHITE/ YELLOW (E–STOPS)	WHITE	WHITE
MATERIAL	THERMAL TRANSFER	THERMAL TRANSFER	THERMAL TRANSFER
ATTACHMENT	ADHESIVE	ADHESIVE	ADHESIVE
TEXT SIZE	5/32” HIGH	3/16” HIGH	1/8” HIGH
DIMENSIONS	2.25”X2.25”	2.72”X1”	1”X $\frac{1}{2}$ ”
MAX. CHARACTERS PER LINE	15	17	7

PANEL DATA LABEL



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WARRANTY NOTICE

NO ALLOWANCE OR PAYMENT WILL BE MADE FOR WARRANTY REPAIR UNLESS PRIOR AUTHORIZATION HAS BEEN REQUESTED AND OBTAINED FROM THE ELEMECH SERVICE DEPT.

SERIAL: PAL9213POWER: 1/60/120

REF: # 2023–003FLA: 16.6 A

DATE: TBDLGST MOT: N/A

SHORT CIRCUIT CURRENT RATING

N/A KA RMS SYMMETRICAL @ N/A VOLTS MAX

ENCLOSURE RATING: NEMA TYPE 4

NAME: HAILEY, ID

TORQUE SCREWS TO 12 IN–LBS

ALL FIELD WIRING SHALL BE 60°C COPPER CONDUCTOR ONLY

NOTE:
THE CONTROL PANEL WILL ALSO BE LISTED AND LABELED WITH A SERIALIZED LABEL AS OUTLINED IN THE CONTROL PANEL SPECIFICATION NOTES.

PILOT DEVICE LEGENDPLATES

LINE 1

LINE 2

LINE 3LINE 3

PANEL NAMEPLATE

LINE 1


LINE 2

LINE 3

NOTE:
TEXT WILL REMAIN VERTICALLY CENTERED IF LESS THAN 3 LINES ARE USED.

DEVICE TAG

TAG



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ELEMECH FILE: PAL9213A8

PROJECT NAME

HAILEY, ID
PO#: 2023-003

DRAWN BY

MDM

CHECKED BY

BMG

SCALE

NONE

DATE

02/16/23

DATE

02/16/23

TITLE

BULK WATER FILL STATION
CONTROL PANEL
FS-63

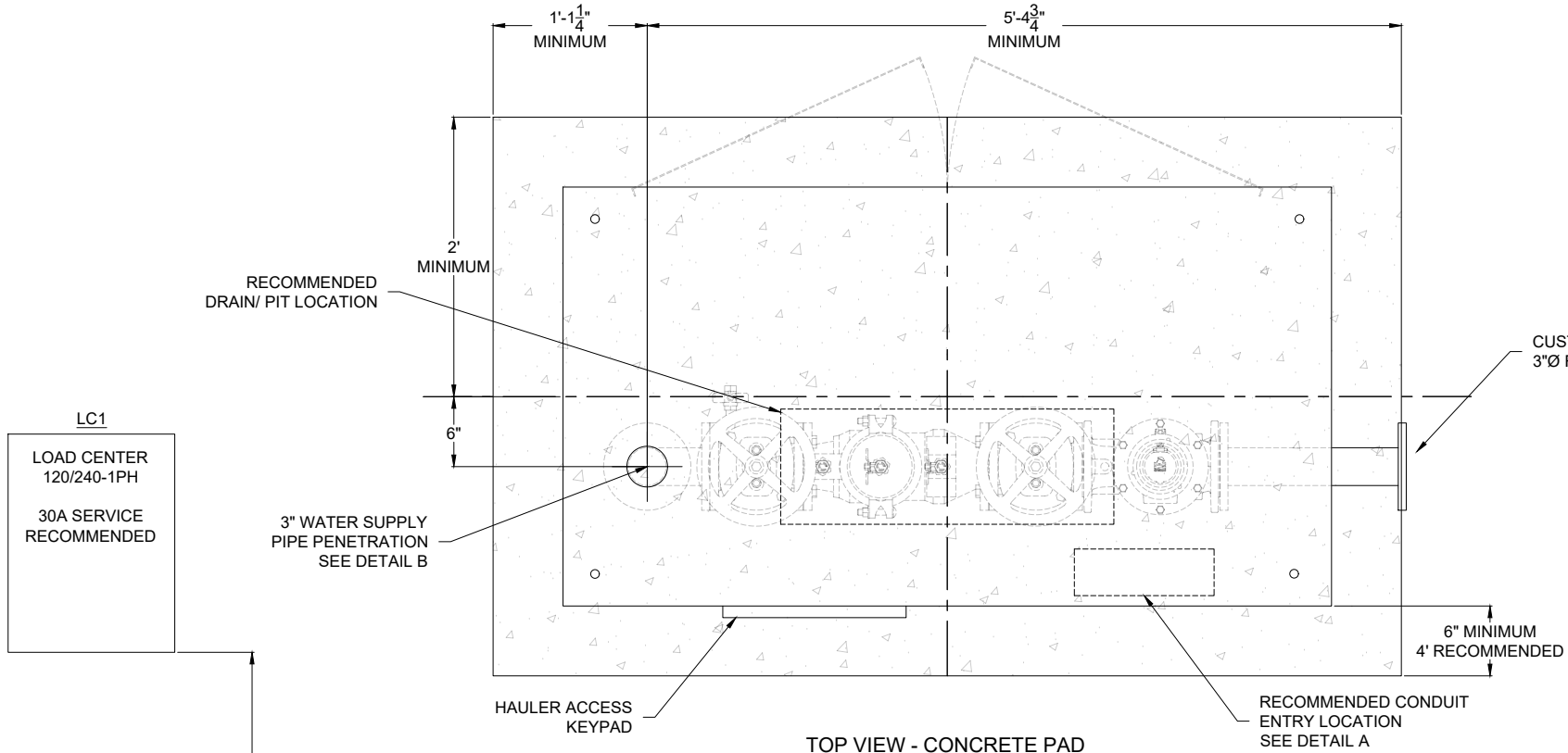
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SHEET 8 OF 8

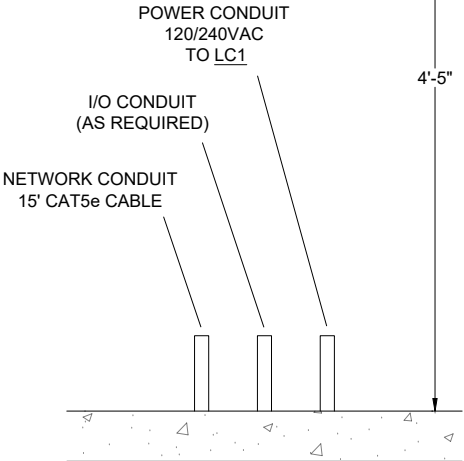


TOP VIEW - CONCRETE PAD

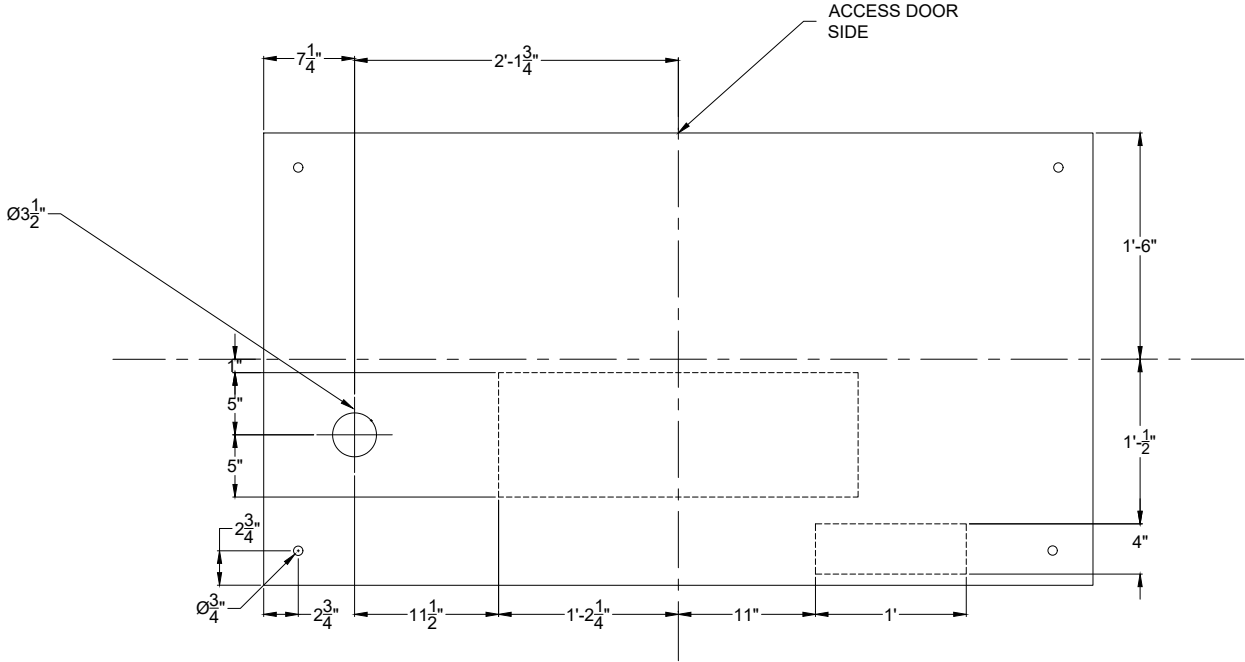
RECOMMENDED ANCHOR INFORMATION

ANCHOR: POWER-STUD+ SD6 (OR EQUAL)
BRAND: DEWALT (OR EQUAL)
MATERIAL: 1/2" Ø TYPE 316 STAINLESS STEEL
DRILL METHOD: HAMMER DRILL
QUANTITY: 4

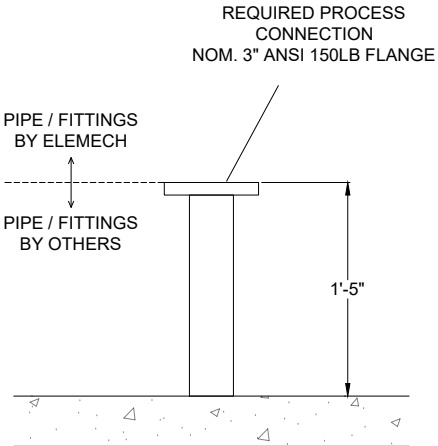
NOTE: CONCRETE PAD AND ANCHORING HARDWARE BY OTHERS



DETAIL A



TOP VIEW - ENCLOSURE ENTRY LOCATIONS



DETAIL B

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REFERENCE INFORMATION
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PROJECT NAME
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DRAWN BY	DATE
MDM	02/16/23
CHECKED BY	DATE
BMG	02/16/23
SCALE	NONE

TITLE BULK WATER FILL STATION CONCRETE PAD AND ENTRY LOCATIONS FS-63	
DRAWING NO. PAL9213B1 SHEET 1 OF 1	REV 0

Bill of Materials



 630-499-7080 • www.elemechinc.com	Rev: 0	Section: C	
	Date: 02-16-2023		
Section Name: Bill of Materials	By: MDM	Job Number: PAL9213	Page # 1/1

Item	Component	Description	Manufacturer Part Number	QTY	Device
Bulk Water Station Piping Enclosure - FS63 (Quantity: 1)					
1	15-213-001	Unistrut, 10' Stick, Galvin. Steel, 1 5/8" Sq, Slotted	B-Line: B22SGALV10	5	
2	118-257-011	Flange Pack, Bolt, 5/8"x 3", SS, Hex Head	6248CH316-F593	12	BOLT
3	118-257-012	Flange Pack, Nut, 5/8-11, SS, Hex	62NF316-F594	12	BOLT
4	03-058-204	Circuit Breaker, 1 Pole, 240VAC, 15A, HOM Load Center Type	Square D: HOM115CP	4	CB1-4
5	53-000-005	Conduit, Flexible PVC, Liquidtight, 1/2" Non-Metallic,	EleMech: 1/2"Flexible Conduit -see P/M	1	CONDUIT
6	53-000-009	Conduit, Flexible PVC, Liquidtight, 1/2" Fitting	EleMech: LN43DA-CTN	1	CONDUIT
7	53-037-001	1/2" Flex. Fitting, Compression/Male, Non-Metallic, Swivel	Hubbell: PS0509NGY	5	CONDUIT
8	53-054-007	Conduit, Nipple, 3/4x3 1/2", 304SS, (Non-Standard)	RJ Keck: SS4N34312	1	CONDUIT
9	53-267-001	1/2" cord grip, 0.23-0.47" Cable, IP68, Nylon, w/Lock Nut	Remke: RD13NA-BKNR	4	CONDUIT
10	11-000-524	Enclosure Mounting Plate, 20"x20", use w/Water Station	EleMech: 11-000-524	1	EN2
11	11-000-A037	Wind Kit, Alum/Hinge, Wing Knob w/ Frame, 16"H x 16"W	EleMech: 11-000-A037	1	EN2
12	11-406-028	Enclosure, Custom, 66"Wx72"Hx36"D, NEMA 3R, Painted	Chicago Switchboard: 2102-119R1	1	EN2
13	118-257-015	Flange Gasket, 3", Rubber, Full Faced	RJ Keck: RRFFG3	3	FLANGE
14	53-000-074	Flange, 3" FNPT, Class 150, 304SS, Raised Face	EleMech:Flange-3"FNPT-150#-RF(IS4LRFTFM)	2	FLANGE
15	101-405-020	Meter Valve, 3", ANSI 150, (1) 24VDC SOV, 1/10 Pulse, Blue	Bermad: WW3"-910MV-01-G-C-A5-EB-4DC-NN-N	1	FM1/SOV1
16	15-011-000	Ground Lug, 14AWG - 4AWG	Blackburn: L70	3	GND
17	15-058-001	Ground Bar, 9 Pole, 18-8AWG	Square D: PK9GTA	1	GND
18	15-215-039	Ground Lug, 14AWG - 2AWG	McMaster-Carr: 6920K22	1	GND
19	17-606-002	Heater, 1500 Watts, 120VAC, Wall Mtd, T-Stat, UL	Cadet: CSC151TW	1	HTR1, TS1
20	03-018-287	Circuit Breaker, Load Center, 125A, NEMA 3R, 8 Spaces	Eaton: BR816L125RP	1	LC1
21	39-071-A001	Light Switch Assembly, Weatherproof, 15A	Leviton: RS115-WCP Assembly	1	LS1
22	03-058-205	Circuit Breaker, 2 Pole, 240VAC, 30A, HOM Load Center Type	Square D: HOM230CP	1	MCB1
23	15-213-012	Pipe Clamp, Unistrut Attached, 3" Pipe, 304SS	B-Line: B2015 SS4	1	PIPE
24	53-000-099	Pipe, 3" Dia, 16"Long, Sch.40, 304SS, (2) NPT, 1/2" Half Cou	EleMech Pipe: 3"Dx16"L-S40-304-2NPT1CPL	1	PIPE1
25	53-000-140	Pipe, Custom, 2x3" Flange RF, 90° Elbow, SCH40, 304SS	EleMech: Pipe-3"x90°-304SS-2FLNG	1	PIPE2
26	54-000-006	Light Fixture, LED, 4ft. IP66, 120VAC, 36W	EleMech: LVP5M-4N3650	1	PL1
27	14-071-A006	Receptacle Assembly, Weatherproof, 6mA GFCI Trip, 15 Amps	Leviton: GFNT1-I Weatherproof Assembly	1	RECP1
28	53-000-121	Reduced Pressure Assembly, 375, 3" Stainless, NRS, Flanged	Wilkins: 3-375AST	1	RPZ1
29	53-433-006	Pipe, Nipple, 1/2"NPT, Hex Close, Brass	Watts: LF A833	2	SOV2
30	53-433-010	Pipe, Union, 1/2"NPT, FxF, Brass	RJ Keck: RBU12	1	SOV2
31	74-158-015	Solenoid Valve, 24VDC, NO, 2 Way, Brass, 1/2" NPT	Asco: 8210G34-24VDC	1	SOV2
32	118-257-031	Bolt, 5/8"-11 x 1-3/4", SS, Hex Cap Screw	6228CH188	4	VLV1

Item	Component	Description	Manufacturer Part Number	QTY	Device
33	118-550-001	Butterfly Valve, 3", ANSI 150 Flange Fit, AWWA C504	116-653	1	VLV1
Bulk Water Station Control Panel - FS20 (Quantity: 1)					
34	00-000-000	Wire, Hardware, Wire labels, etc.	EleMech: Miscellaneous	1	
35	10-069-001	Wireway Duct Cover, 1"W, 6 Ft. Section, w/Panduit F Series	Panduit: C1WH6	3	
36	10-069-007	Wireway Duct, 1"Wx3"H, 6 Foot Section	Panduit: F1X3WH6	3	
37	42-063-007	Terminal Block, Din Rail, 35MM Wide, 15 High, 2 Meters Long	Iboco: Omega 3 AF	1	
38	51-000-062	Wire, MTW Type, 600V, 105°C, CSA/UL1015, Tinned Copper	EleMech: 51-000-062	1	
39	52-000-000	Label, Underwriters Laboratories 508A, w/Decal Set	EleMech: 508A	1	
40	03-058-119	Circuit Breaker, 1 Pole, 240VAC, 2A, 14kA, UL489, Type C	Square D: M9F42102	1	CB5
41	57-000-009	Cable, Comm., Ethernet, Standard, RJ45M - RJ45M, 3'	Deep Surplus: CB242-3BL	1	CBL1
42	57-000-051	Cable, Barrel, 12VDC, 5.5mm x 2.5mm, Use w/EBOX	EleMech: CBL-5.5x2.5mm	1	CBL2
43	42-063-004	Terminal Block, Ground, 30A, 600V, 6MM Wide, w/WK4/U	Wieland: 57.504.9055.0	4	DB,TB
44	07-063-000	Distribution Block, End Cover, 4 Pole, 300V,10A, w/WK4E\U\VB	Wieland: 07.311.4053.1	2	DB1
45	07-063-001	Distribution Block, Jumper, 4 Pole, 300V,10A, w/WK4E\U\VB	Wieland: Z7.210.3427	1	DB1
46	07-063-002	Distribution Block, Single Pole, 10A, 300V, WK4E\U\VB	Wieland: 57.404.6955.1	9	DB1
47	ELE-33-P009	Program, EBOX, Custom	EleMech: ELE-33-P009	1	EBOX
48	33-637-000	Industrial PC, ML100G-40, 2-LAN, 3-USB, Ryzen, notes	EleMech: ML100G-40-8GB-DIN-APO-64GBSSD	1	EBOX1
49	11-035-084	Enclosure, Nema 4, Painted Steel, 20"Hx24"Wx8"D, Concept	Hoffman: C-SD20248	1	EN1
50	11-035-152	Sub-Panel, Painted Steel, w/24"Hx20"W Concept	Hoffman: C-P2420	1	EN1
51	15-011-000	Ground Lug, 14AWG - 4AWG	Blackburn: L70	1	GND
52	124-599-007	HDMI Display Simulator Dongle	Adafruit: 4247	1	HDMI
53	17-628-000	Heater, 100-240VAC, 40 Watts, Convection Type	Omega DBK: 50H 40W	1	HTR2
54	52-137-003	Label, Caution: Heater Element, 1.5"Wx0.75"H, White/Red	Nameplate Tech: 52-137-003	1	HTR2
55	06-058-027	Control Relay Retension Clip, w/Telemec. RPM 1-Pole Relay	Square D: RPZR235	3	IR1-3
56	06-058-028	Control Relay, SPDT, 24VDC, 5Pin Spade, Operator, 15A	Square D: RPM12BD	3	IR1-3
57	38-058-009	Socket, 5 Pin Spade, Din Mount, Screw Term., w/ RPM 1-Pole	Square D: RPZF1	3	IR1-3
58	08-533-A004	Water Station Keypad, USB, SS, Start/Stop/Sel/Ent/Left/Down	EleMech: KP-SS-USB-S,S,S,E,L,D	1	KEYPAD1
59	25-000-A010	Nameplate Assembly, White, Black Text, 1"Hx3"W	EleMech: 25-000-A010 Assembly	2	NP1,2
60	02-005-003	Contact Block, 1NO, w/A-B 800 Series	Allen-Bradley: 800T-XD1	1	PB1
61	29-005-121	Pushbutton, NEMA 4X, Operator Only, Mushroom, Red, Momentary	Allen-Bradley: 800H-DR6	1	PB1
62	33-475-009	Web Relay, 9-28VDC, 4-OPTO In, 4-Relay Out	Web Relay: X-410-I	1	PR1
63	37-098-013	Power Supply, 60W, 85-264VAC IN, 24VDC OUT, NEC Class 2	Phoenix: 2902992	1	PS1
64	69-000-002	Resistor, 1k Ohms, 1/4Watt, 5% Tol	Yageo: CFR-25JB-52-1K (1.0KQBK-ND)	1	R1

Item	Component	Description	Manufacturer Part Number	QTY	Device
65	42-063-000	Terminal Block, Labels, Custom Printed, w/WK4/U	Wieland: 04.242.6353-CUSTOM	64	TB
66	42-063-001	Terminal Block, End Plate, Gray, w/WK4/U	Wieland: 07.311.0155.0	1	TB
67	42-063-003	Terminal Block, Single Pole Gray, 30A, 600V, 6MM Wide, WK4/U	Wieland: 57.504.0055.0	24	TB
68	42-063-009	Terminal Block, End Clamp, w/WKN10/U	Wieland: Z5.522.8553	4	TB,DB
69	46-034-003	Thermostat, for heater control, N.C.contact, 6 amp,30-140 F.	Stego: 11100.9-00	1	TS2
70	48-591-001	UPS, DRC-100A, 120VAC In, 12VDC Out, 4.5A, DIN, Batt Rqd	Mean Well: DRC-100A	1	UPS1
Spare Parts / Ship Loose (Total Quantity Provided)					
71	61-000-012	Labor, Engineering, Submittal, Schematics, BOM	EleMech: 61-000-012	1	ENG
72	48-592-001	UPS, Battery, 12VDC, 15Ah, F2 Spade Term	SigmatTek: SP12-15 F2 - package of 2	1	BATT1
73	70-000-038	Software, Portalogic V.6, Digital License, Multi-User	EleMech: 70-000-038	1	PAL
74	118-257-015	Flange Gasket, 3", Rubber, Full Faced	RJ Keck: RRFFG3	1	GASK
75	118-257-011	Flange Pack, Bolt, 5/8"x 3", SS, Hex Head	6248CH316-F593	4	BOLT
76	118-257-012	Flange Pack, Nut, 5/8-11, SS, Hex	62NF316-F594	4	BOLT

PortALogic User Manual



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Section:

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Section Name:

PortALogic User Manual

By: MDM

Job Number:

PAL9213

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Portalogic 6 User Manual

Version 1.34

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Chapter 1: About Portallogic

About the Portallogic System

Portallogic management software provides facilities with the means for managing transported water and waste. Portallogic is a web-based application that can be accessed by any number of users on a network. This software is included with the purchase of any Portallogic water or waste station.

All Portallogic stations are designed for haulers to use with little to no operator supervision. The stations provide identification, access to the equipment that is necessary for the pickup or delivery, and monitoring. The management software provides automated record keeping, reporting, and billing for the water/waste being transported, and real-time communication with water and/or waste stations. This system gives facilities complete control over their unattended stations.

Portallogic Management Software

The Portallogic Management Software automates the pickup/delivery of water/waste and manages the associated customers, trucks, billing, monitoring, revenue, and more. The software application consists of three parts:

1. Portallogic IIS Web service
2. Microsoft SQL Database
3. Portallogic Web Application

Portallogic provides control of the water/waste stations by synchronizing the data exchanges between the Microsoft® SQL Server database and office staff. The Portallogic Web Application provides a user interface for office staff to control the water/waste stations, manage customer and truck accounts, and generate reports.

Minimum System Requirements

Before installing Portalogic, it is important to ensure that the capacity of your computer system is sufficient both to install and to run the application. EleMech suggests the following minimum system requirements:

- Operating System: 64-bit Windows 10 or later / Windows Server 2016 or later
- CPU: 4 cores
- RAM: 8 GB
- Hard Drive: 20 GB free space
- Network: 1 Gbps / 100 Mbps Ethernet Connection

Chapter 2: Portalogic SQL Setup

Installing SQL Server

if an SQL database is already in place and is to be utilized, skip to Chapter 3. Full local administrative access will be required for the installation and internet access.

1. Download SQL Server Express from Microsoft's website: <https://www.microsoft.com/en-us/sql-server/sql-server-downloads> → run executable
2. Installation type: Custom → Choose a media location and click "Install" (you can delete this folder once done)

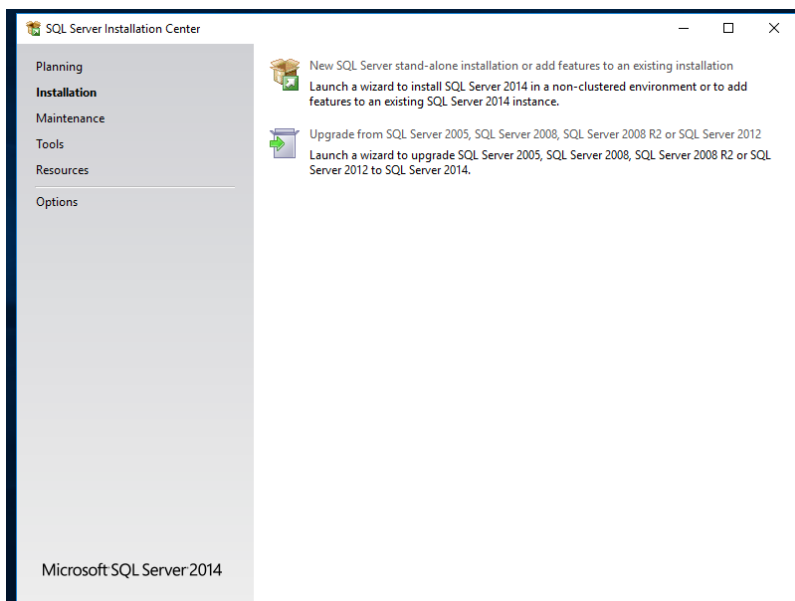


Figure 1: New SQL Server Installation

3. After reading the Software License Terms, check "I accept the license terms", click "Next".
4. Leave the Instance Features selections as default and click, "Next".
5. Select the Named Instance option. Specify a named instance for SQL Server. Be sure to write down the named instance chosen, as you will need it later. The default is SQLExpress. After specifying a named instance, click "Next":

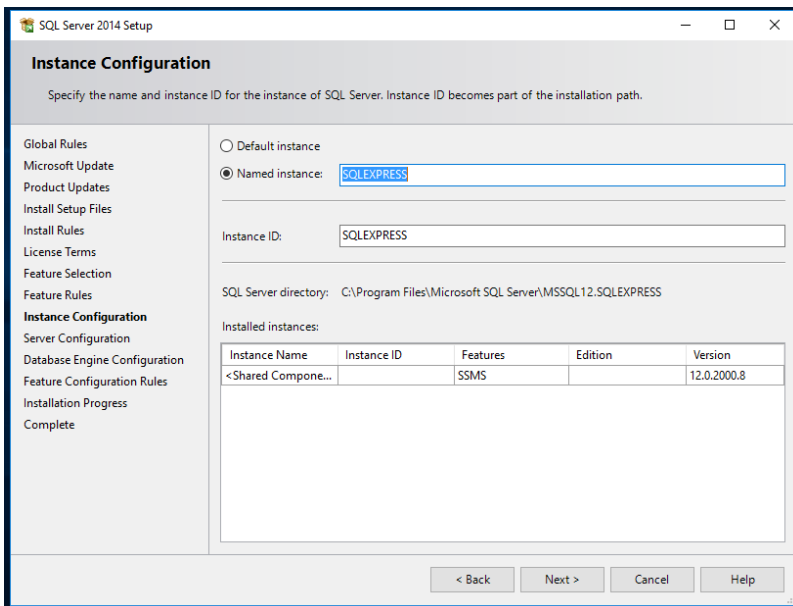


Figure 2: SQL Server Instance Configuration

6. Leave the Server Configuration selections as default unless told otherwise by a local database administrator and click “Next”.
7. In the Database Engine Configuration page, select the option “Mixed Mode”. Create and **document** a password for the SQL Server System user “sa”. This password must be at least 8 characters long and contain 3 of the 4 criteria:
 - a) Contain uppercase letter(s)
 - b) Contain lowercase letter(s)
 - c) Contain non-alphanumeric characters, such as “#” or “%”
 - d) Contain number(s)
8. Once the password has been entered into the Enter Password and Confirm Password lines, click Next

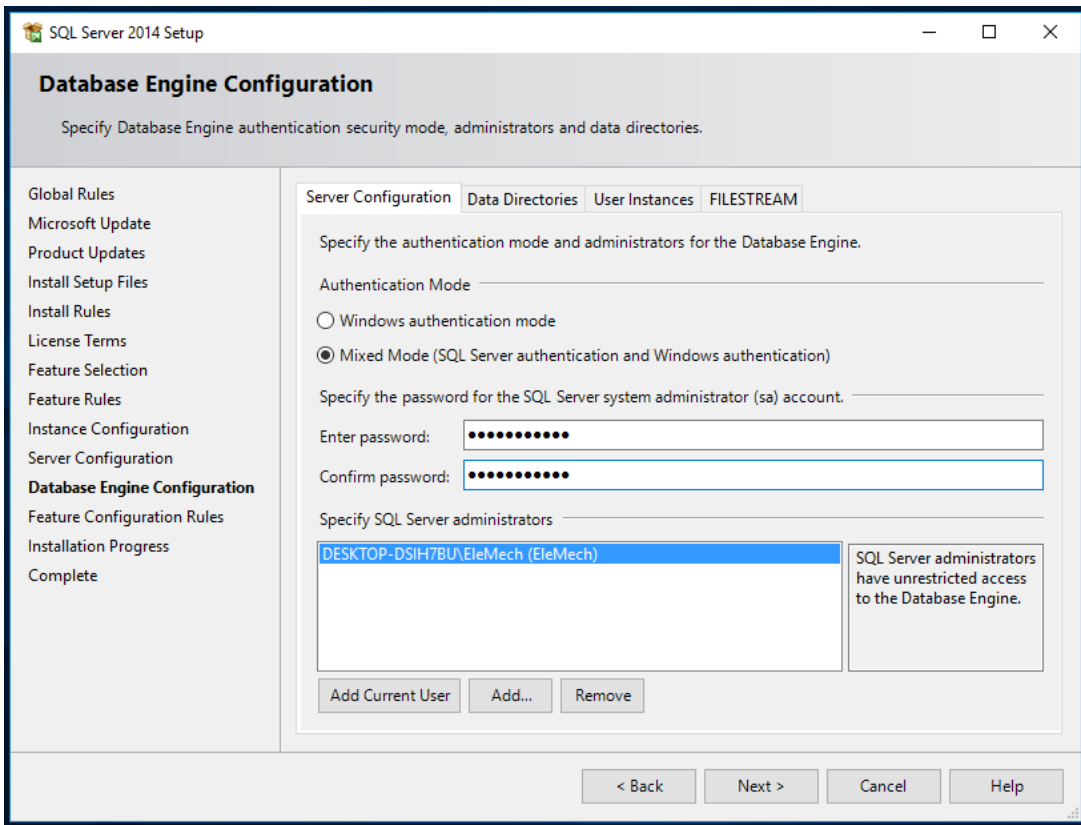


Figure 3: SQL Server Mixed Mode

9. Click “Next”. SQL Server will then begin to install.
10. When SQL Server installation is complete, click “Close” to exit the window.

Installing SQL Server Management Studio

1. Download the installation file from Microsoft's website: <https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms>
2. If prompted with a security pop-up, allow the program to make changes to your computer.
3. Click on "New installation or add features to an existing installation".
4. Select "Add features to an existing instance of SQL Server" and select the name of the previously created server. Click "Next".

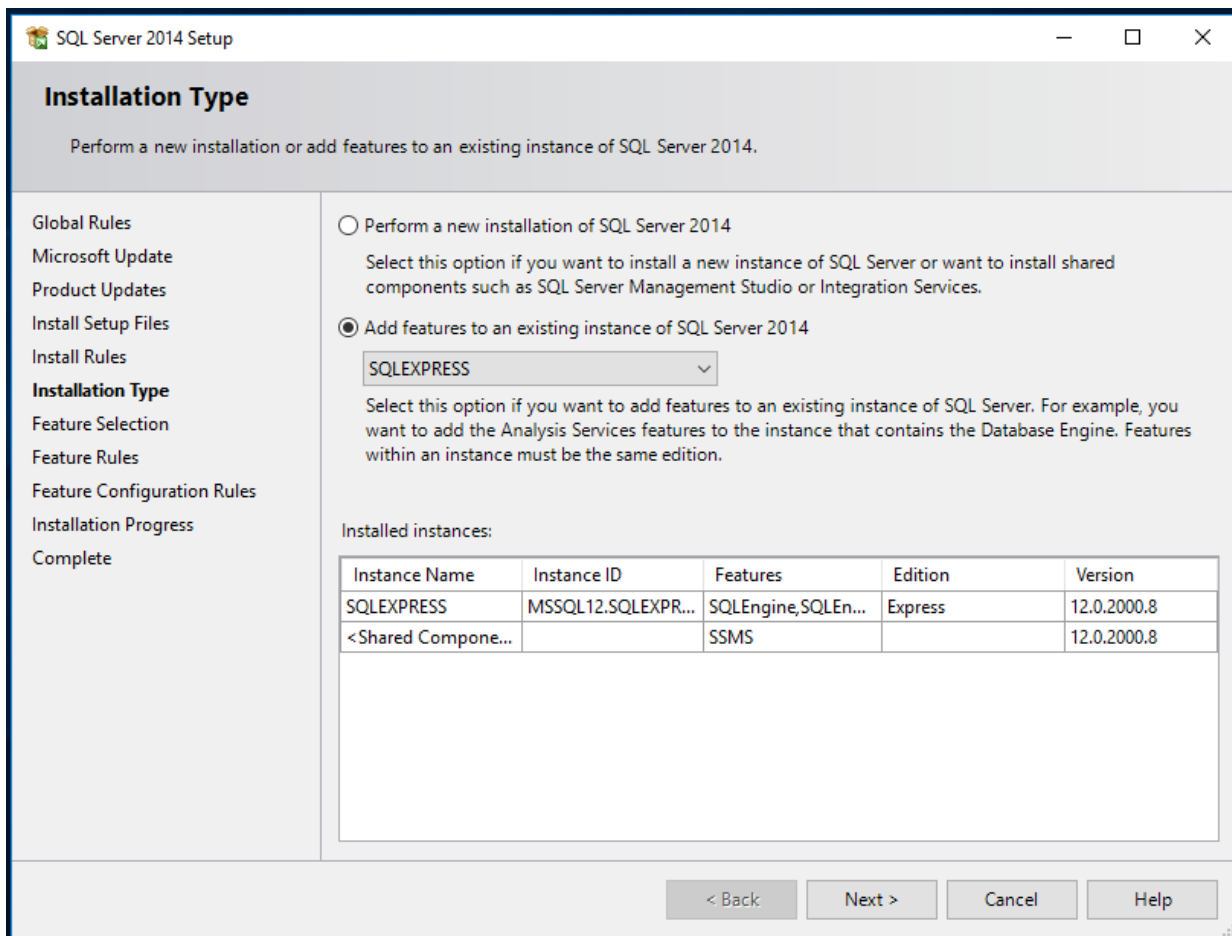


Figure 4: SQL Management Studio Installation

5. Select “Management Tools - Basic” only and select “Next”.

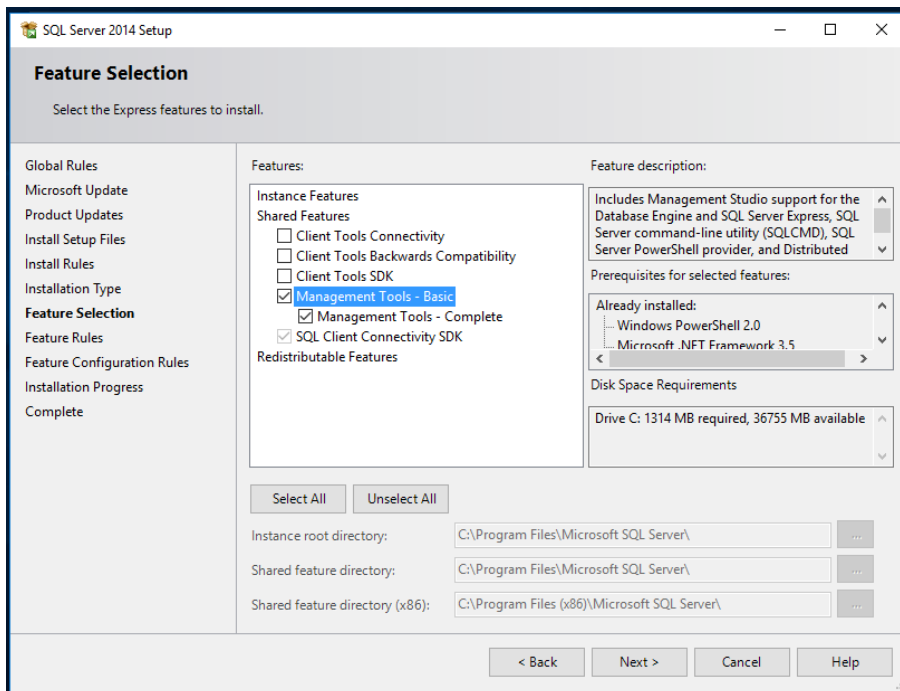




Figure 5: SQL Management Studio Feature Selection

6. SQL Server Management Studio installation is now complete. Click “Close” to exit the window.

Chapter 3: Portalogic Installation

Database Setup

1. Click  Start
2. Search for SQL Server Management Studio or “SSMS”.
3. Login with the Server Type: “Database Engine”
4. Server Name: “(Local)\SQLEXPRESS”
5. Click “Connect”.
 - a) **NOTE:** If an existing SQL instance is being used or a remote one, “SQLEXPRESS” may not apply.
6. Right click on the “Databases” Folder and select “New Database”.
7. Name the new database “Portalogic5” and click “OK”.
 - a) **NOTE:** Make sure it is called “Portalogic5” not “Portalogic6”.
8. Click the “New Query” Button. Press the “Open File” button  and open the file “Portalogic.sql” in the installation files, then press “Execute” to run the script.

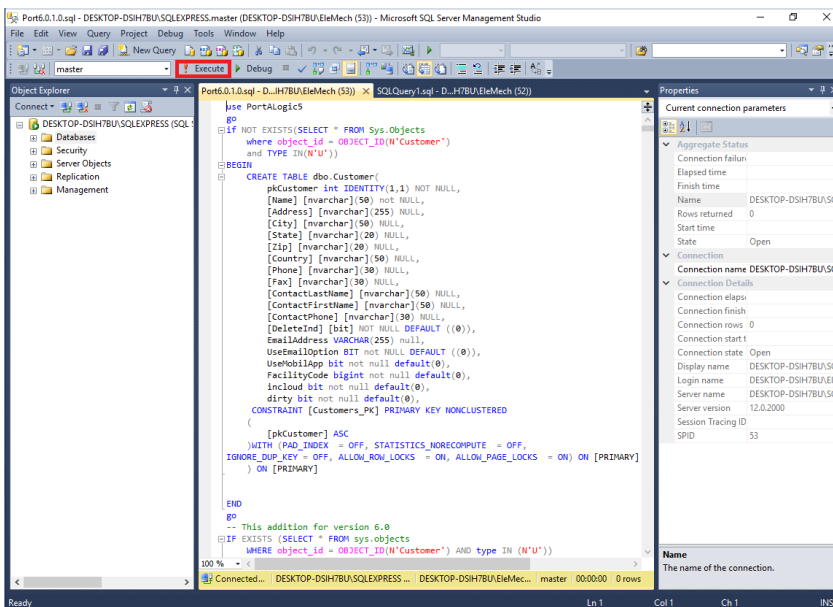



Figure 6: SQL Management Studio execute database script

Setting the Cloud Job Number

To add customers to Portallogic a Cloud Job Number is needed, otherwise you will get the following error message:

① Cloud Job Number is blank. Please contact Elemech.

To avoid this this error, you must enter your Cloud Job Number into the following SQL Server Management Studio directory path:

1. Click  Start
2. Search for “SQL Server Management Studio”
3. Drill Down to “dbo.LocalPLC” by completing the following steps:

- a) Expand “(Local)\SQLEXPRESS”
- b) Expand “Databases”
- c) Expand “Portalogic 5”
- d) Expand “Tables”
- e) Navigate to and right click “dbo.LocalPLC”
- f) Select “Edit Top 200 Rows” from the drop-down menu
- g) Locate the tab “TelerikCloudJobNumber” or “JobNumber”
 - i. NOTE: The text in this tab may be cut off, so it may appear as “TelerikCloudJo...”
- h) In the box directly beneath that tab, type in the Job Number Provided to you.
 - ii. NOTE: You can find this number in bottom right corner of the electrical drawings shipped with your panel. It should be in a three letter/four number format, i.e ABC1234

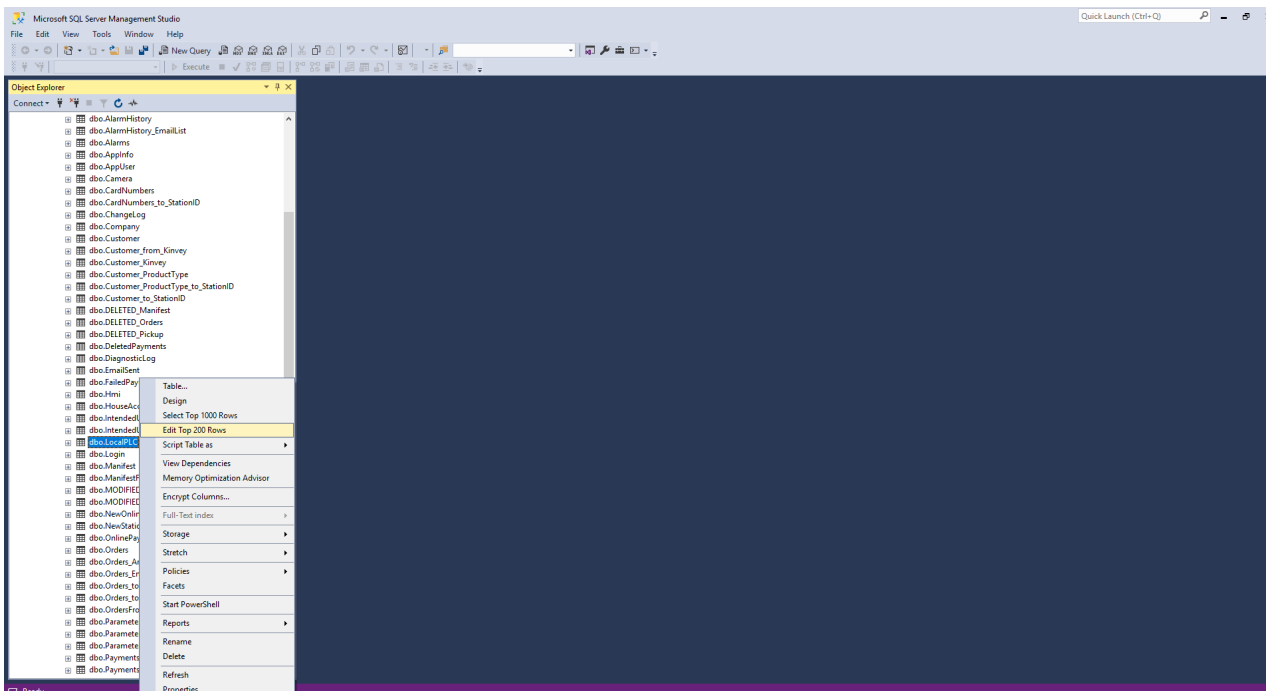


Figure 7: Setting Up Cloud Job Number

PC93\SQLEXPRESS.P...c5 - dbo.LocalPLC							
	pkPLC	Name	StationID	CloudMySQLIP	Cloudtype	CloudSchema	TelerikCloudJo...
	1	Office	0	173.194.233.26	1		Tes1234
▶*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Figure 8: TelerikCloudJobNumber Tab

Create Database Login

1. (local)SQLEXPRESS
 - a) Security
 - b) right click “Logins” folder
 - c) New Login
 - d) Login name: “portuser”
 - i. SQL Server authentication → Password and Confirm password: “1234”
 - ii. Uncheck “Enforce password policy” → Click “OK”

The screenshot shows the 'Login - New' dialog box in SQL Management Studio. The 'General' tab is selected. The 'Login name' is 'portuser'. 'SQL Server authentication' is selected. Password and Confirm password are masked with dots. 'Enforce password policy' is unchecked. The 'Mapped Credentials' table is empty. 'Default database' is 'master' and 'Default language' is '<default>'. The 'Connection' section shows 'Server: DESKTOP-DSIH7BU\SQLEXPRESS' and 'Connection: DESKTOP-DSIH7BU\EleMech'. The 'Progress' section shows a 'Ready' status.

Figure 9: SQL Management Studio new user

2. Databases → Portalogic5 → Security → right click on “Users” folder → New User...

- a) User name: portuser
- b) Login Name: portuser
- c) Default Schema: Leave blank
- d) Select a page → Owned Schemas → check “db_owner”
- e) Select a page → Membership → check “db_owner”

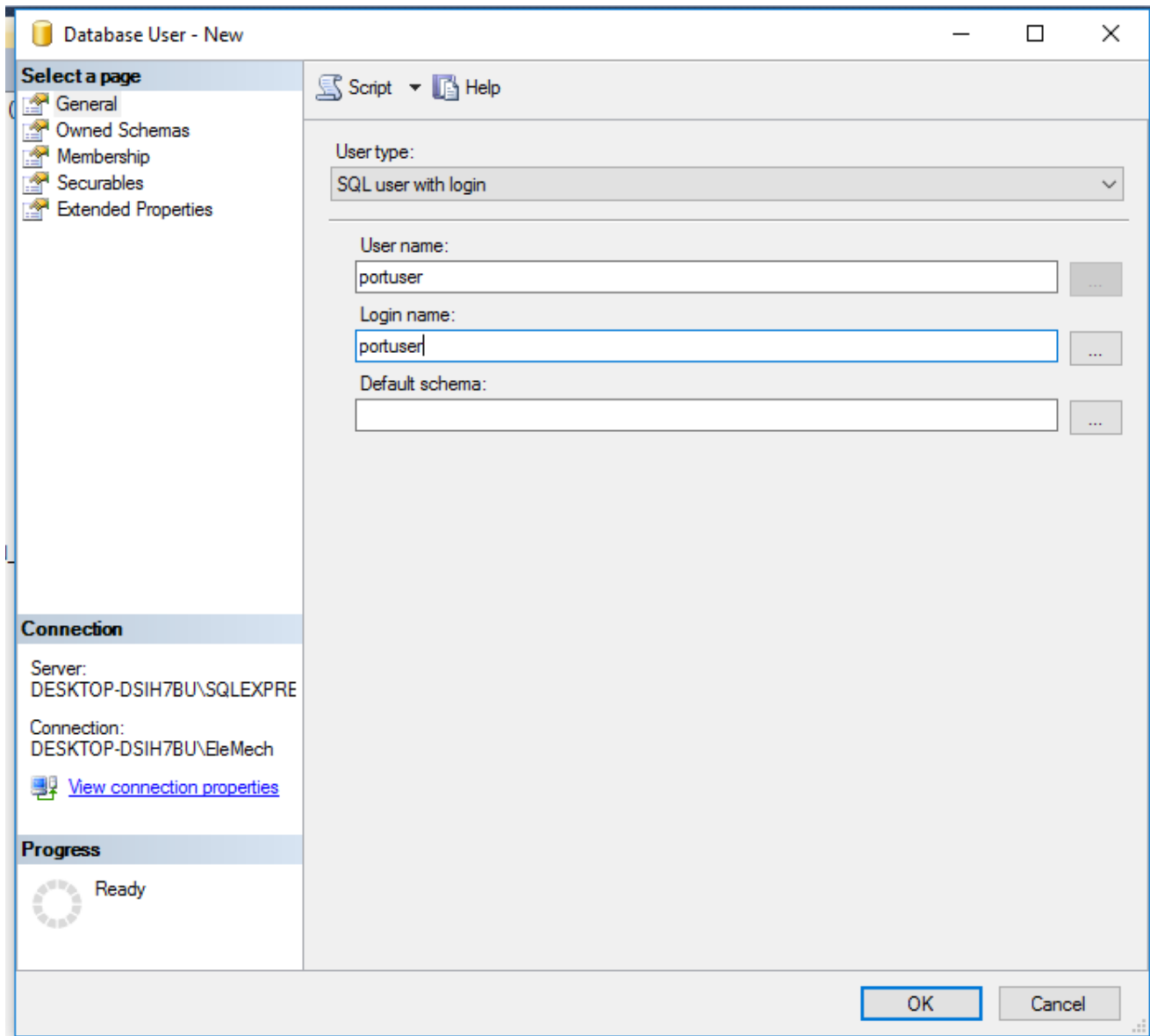



Figure 10: SQL Management Studio database user

Portalogic Data Service

1. Download and install Node.js LTS version (use all default options): <https://nodejs.org/en/download/>
2. Download and install Git for Windows (use all default options): <https://git-scm.com/download/win>
3. Search Windows for "SQL Server Configuration Manager"
 - a) Expand "SQL Server Network Configuration" and expand "Protocols for SQLEXPRESS"
 - b) If you cannot find it: Windows Key + R → compmgmt.msc → Services and Applications → SQL Server Configuration Manager → SQL Server Network Configuration
 - c) Double click on "TCP/IP" and set "Enabled" to "Yes"
 - d) Click the "IP Addresses" tab and underneath the "IPAll" tab set "TCP Port" to "1433"
 - e) Click "OK" on the Warning that the service will have to be restarted
 - f) Click on "SQL Server Services"
 - g) Right click on "SQL Server (SQLEXPRESS)" and choose "Restart"
4. Create a folder named "EleMech" within this directory: "C:\Program Files (x86)".
5. Copy and paste the files within "Copy Files to EleMech Folder" to inside the folder you just created: "C:\Program Files (x86)\EleMech" .
6. Within the "PortalogicDataService" folder, right click on "install-admin.bat".
 - a) The computer will need internet access during this process. If that is not possible, EleMech will need to be contacted for a more advanced installation.
7. Select "Run as Administrator" from the drop-down menu.
 - a) **NOTE:** Check for any errors that may arise. If a non-default installation directory is required, edit this file and change the INSTALL_DIR at the top.
8. If default directories or database login information need to change, please change the settings in these files:
 - a) POData\Web.config
 - b) PortalogicDataService\config.json
 - i. After changes, restart the service. Follow the steps outlined on page 25.
 - c) Portalogic6\Reports
 - i. Change "ConnectionString" at top of all files

Internet Information Services (IIS) Setup

1. Install IIS and ASP.NET 4.8

- Click  Start → Turn Windows Features on or off
- Check “.NET Framework 4.8 Advanced Services”, “Internet Information Services”, and “ASP.NET 4.8” within Internet Information Services → World Wide Web Services → Application Development Features. Leave all boxes checked that were done so automatically when you clicked on them.
- OK → Wait for installation to complete

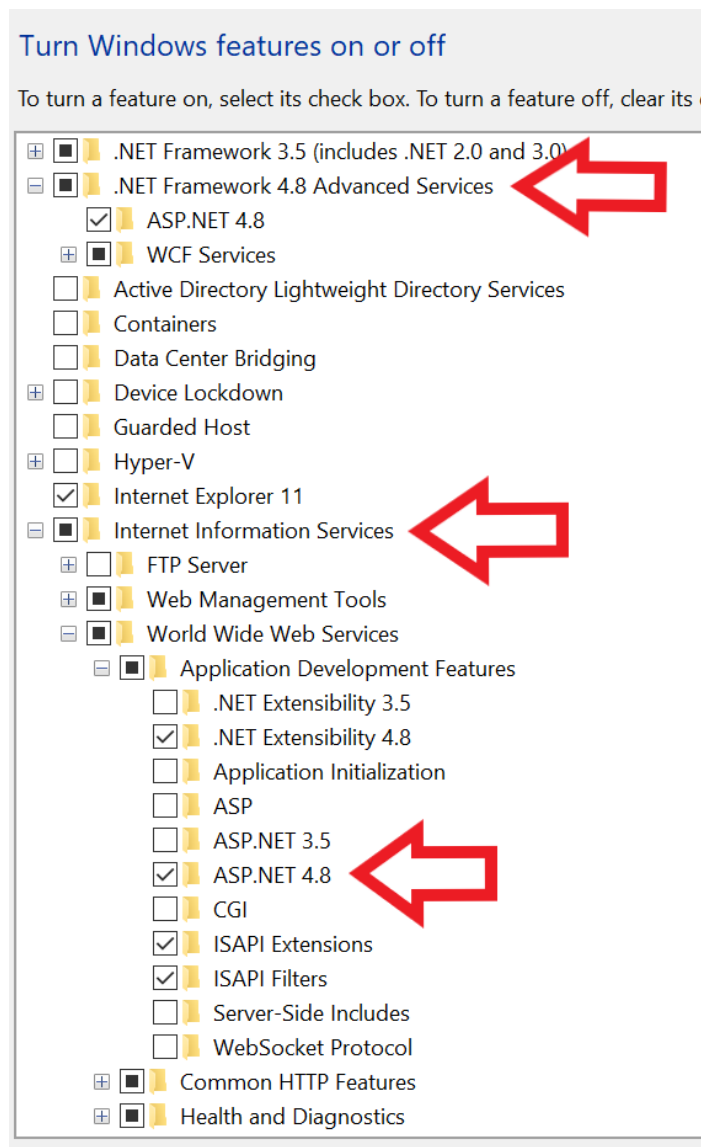



Figure 11: ASP.NET and IIS Installation

2. Click  Start
3. Search for IIS (Internet Information Services)
4. On the left-hand pane, drill down to Sites
5. Right click on “Default Web Site”
6. Select “Add Application”

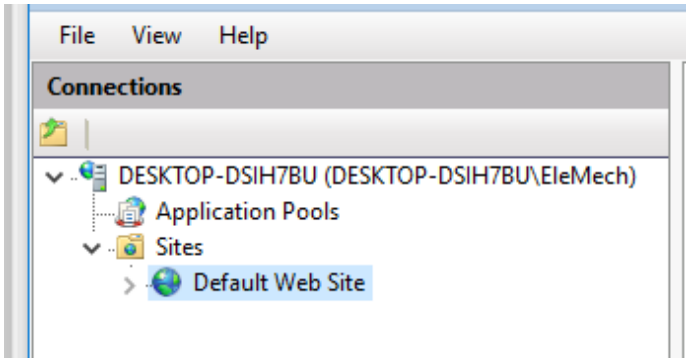


Figure 12: Internet Information Services – drilldown

7. Type in “PortOData4” in the Alias textbox. Press the “...” button next to the “Physical Path” textbox. Navigate to the “OData” folder, select it, and click “Ok”. The “OData” folder is located under “C:\Program Files (x86)\EleMech\POData”. Click the “Ok” button to add the application.

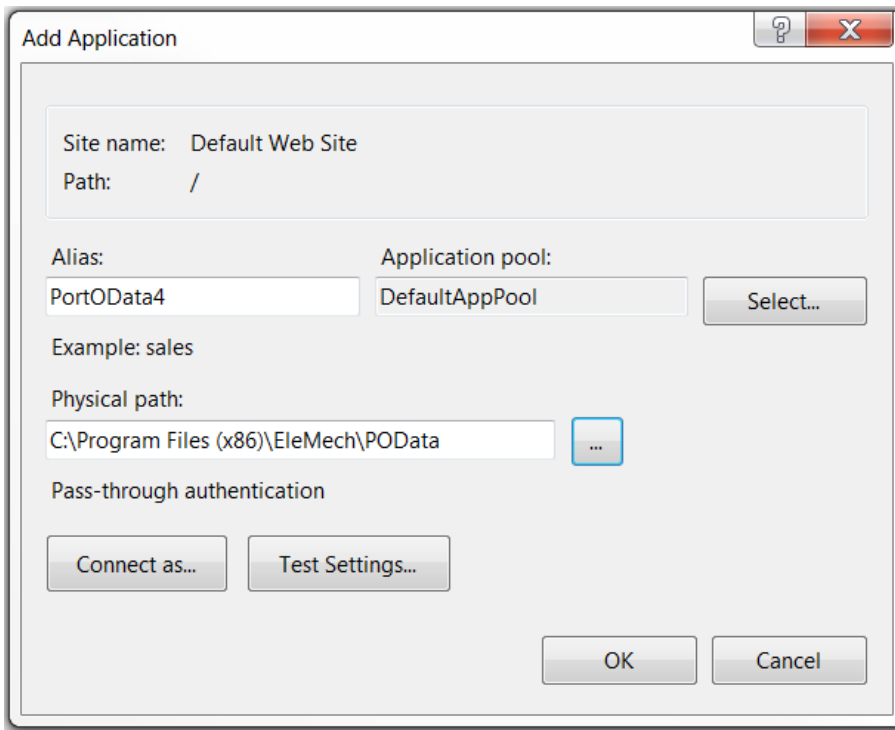


Figure 13: Internet Information Services - OData Website

8. Select “PortOData4” in the “Connections” pane → select “Browse *.80 (http)” under the right-hand side “Actions” pane.

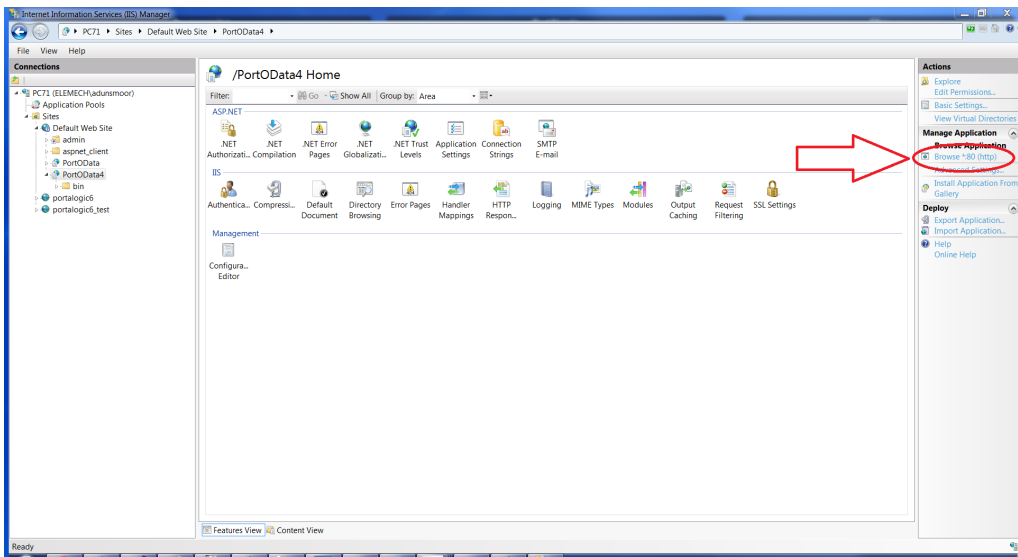


Figure 14: Internet Information Services - Browse WCF

9. It should show without errors after a few seconds.

```
{
  "@odata.context": "http://localhost/PortOData4/$metadata", "value": [
    {
      "name": "Users", "kind": "EntitySet", "url": "Users"
    }, {
      "name": "IntendedUses", "kind": "EntitySet", "url": "IntendedUses"
    }, {
      "name": "Deletables", "kind": "EntitySet", "url": "Deletables"
    }, {
      "name": "Customers", "kind": "EntitySet", "url": "Customers"
    }, {
      "name": "Trucks", "kind": "EntitySet", "url": "Trucks"
    }, {
      "name": "WasteGenerators", "kind": "EntitySet", "url": "WasteGenerators"
    }, {
      "name": "Companies", "kind": "EntitySet", "url": "Companies"
    }, {
      "name": "Stations", "kind": "EntitySet", "url": "Stations"
    }, {
      "name": "ProductTypes", "kind": "EntitySet", "url": "ProductTypes"
    }, {
      "name": "GenericFunctions", "kind": "EntitySet", "url": "GenericFunctions"
    }, {
      "name": "Orders", "kind": "EntitySet", "url": "Orders"
    }, {
      "name": "Payments", "kind": "EntitySet", "url": "Payments"
    }
  ]
}
```

Figure 15: OData successfully hosted

10. If the page shows errors, ensure that your .NET version is 4.8 or higher. Download it from Microsoft and install it if needed.

11. (Optional) Test table loading data by copying and pasting this URL into a browser:

<http://localhost/PortOData4/Users?apikey=SG.fKTNqAgER4CI31NnK92XzA.gr2G8G7lpfw1M394XnIBZ0h>

```
// 20200309105337
// http://localhost/PortOData4/Users?apikey=SG.fKTNqAgER4CI31NnK92XzA.gr2G8G7lpfw1M394XnIBZ0h

{
  "@odata.context": "http://localhost/PortOData4/$metadata#Users",
  "value": [
    {
      "UserID": 1,
      "FunctionResult": null,
      "ReturnCode": 0,
      "RoleID": 1,
      "Role": "Administrator",
      "UserName": "admin",
      "Name": "admin",
      "Password": "admin"
    }
  ]
}
```

Figure 16: OData Users Table Test

12. Right click on “Sites” → select “Add Website...”

- a) Site name: “portallogic6”
- b) Physical path: “C:\Program Files (x86)\EleMech\Portallogic6”
- c) Binding: Port 84 (if port 84 is unavailable, use another number)

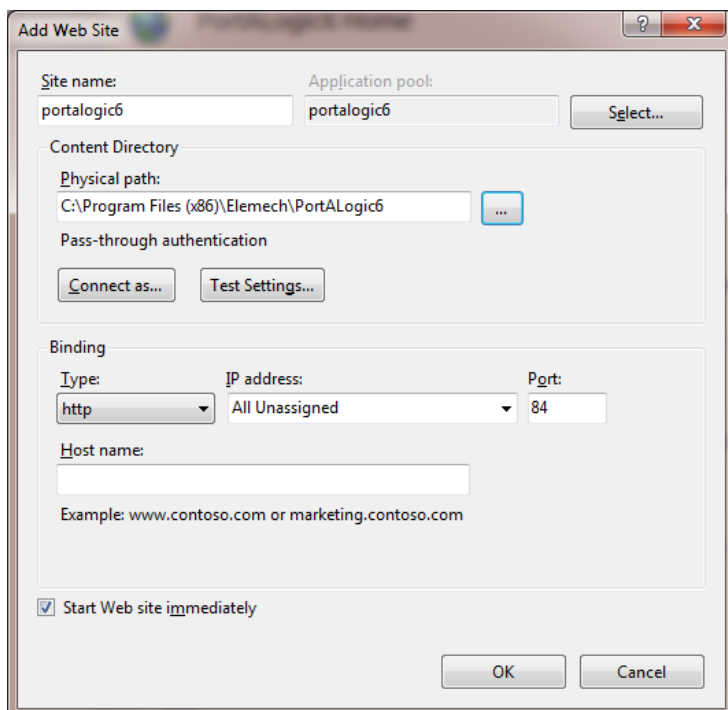


Figure 17: Internet Information Services - add Portallogic6

- d) Ensure that the Application Pool is using ASP.NET 4.0 or higher.
- e) Select “Application Pools” in the top of the left pane
 - i. **NOTE:** “portalogic6” should show “.NET CLR Version” as v4.0 or higher, if it is not, change it
- f) Select “portalogic6”:
 - i. Basic Settings
 - ii. Select the “.NET CLR version” dropdown and select v4.0 or higher
 - iii. Click “OK”

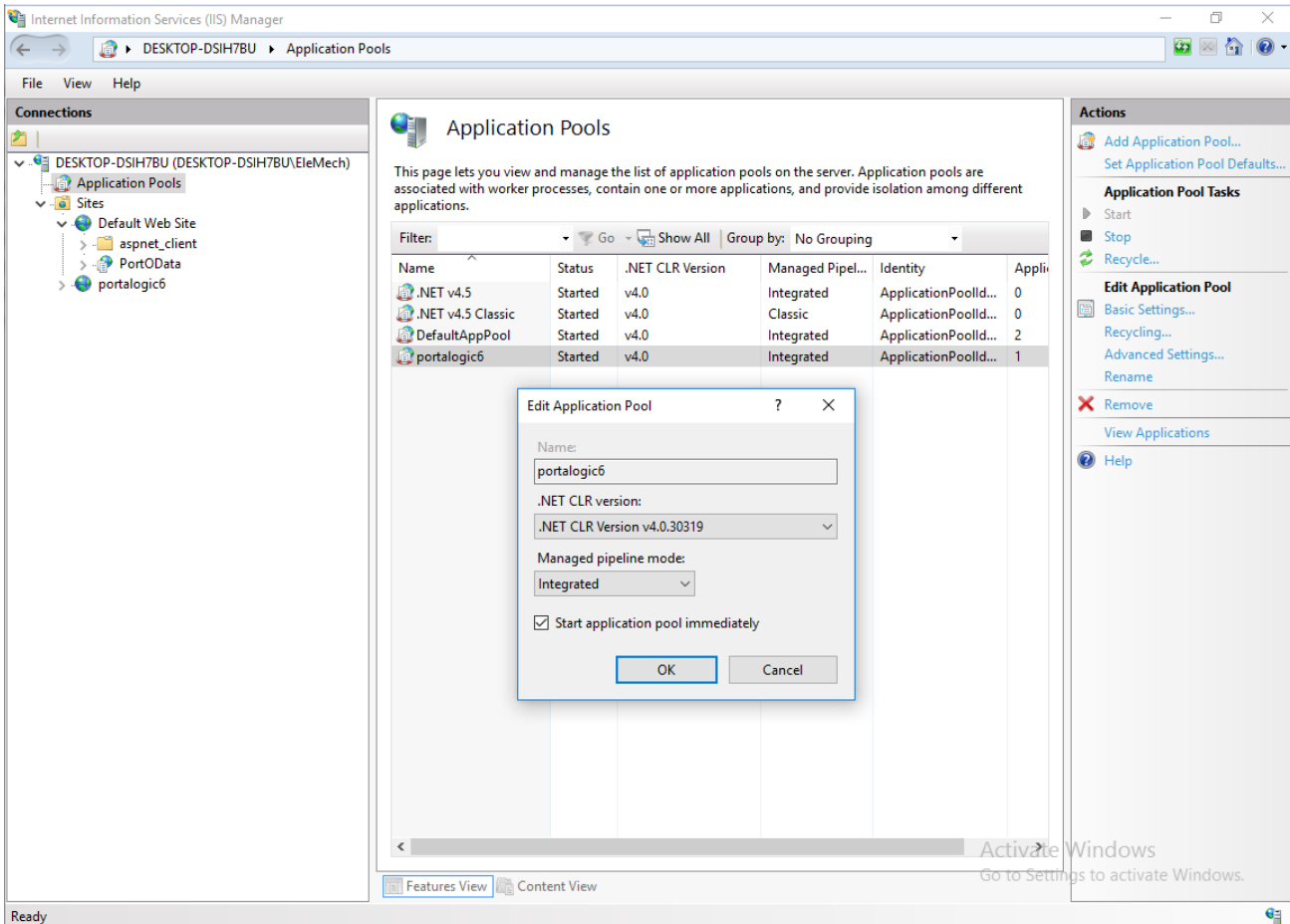


Figure 18: Internet Information Services - Application Pool

g) Ensure that ASP .NET is working properly

- i. In a Browser, navigate to <http://127.0.0.1:84> (use the correct port number if it was changed in step 12. The results should look like Figure 19.

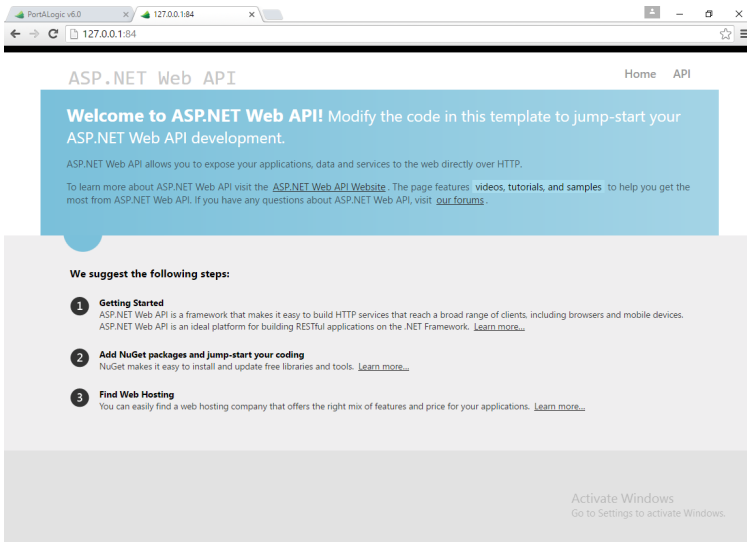



Figure 19: ASP.NET Web API Successful

13. The Firewall needs to be set to allow the Portalogic website to be accessed on other computers.

- a) Click 
- b) Search Windows Firewall
- c) Advanced Settings (left panel)
- d) Inbound Rules

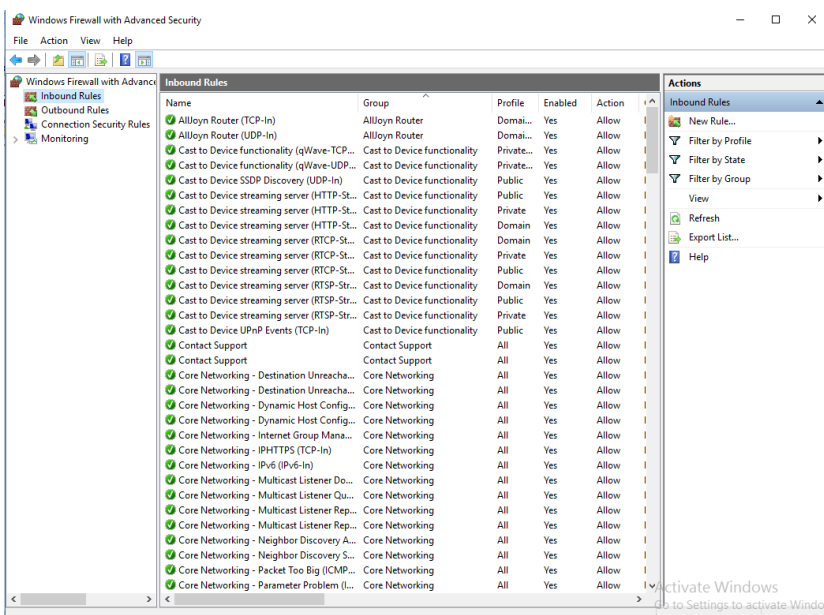


Figure 20: Windows Firewall - Inbound Rules

e) New Rule (top right-hand panel)

- i. Port TCP, Specific local ports: 84 (or the website port used previously)
- ii. Allow the connection
- iii. Domain, Private, Public (checked)
- iv. Name: Portalogic 6 Website Port (or another of your choosing)

✓ Port 44818 TCP	Private	Yes	Allow	No	Any	Any	Any	TCP	44818	Any	Any
✓ Port 44818 UDP	Private	Yes	Allow	No	Any	Any	Any	UDP	44818	Any	Any
✓ Port 44818 UDP	Domain	Yes	Allow	No	Any	Any	Any	UDP	44818	Any	Any
✓ Port 7153 TCP	Domain	Yes	Allow	No	Any	Any	Any	TCP	7153	Any	Any
✓ Port 7153 TCP	Private	Yes	Allow	No	Any	Any	Any	TCP	7153	Any	Any
✓ Port 7155 TCP	Private	Yes	Allow	No	Any	Any	Any	TCP	7155	Any	Any
✓ Port 7155 TCP	Domain	Yes	Allow	No	Any	Any	Any	TCP	7155	Any	Any
Portalogic 6	All	Yes	Allow	No	Any	Any	Any	TCP	84, 85	Any	Any
✓ Print 3D	Domain	Yes	Allow	No	Any	Any	Any	Any	Any	Any	Any
✓ Proximity sharing over TCP (TCP sharing-...	All	Yes	Allow	No	%System...	Any	Any	TCP	Any	Any	Any
✓ RdcyHost.exe	Private	Yes	Allow	No	C:\Progr...	Any	Any	TCP	Any	Any	Any
✓ RdcyHost.exe	Private	Yes	Allow	No	C:\Progr...	Any	Any	UDP	Any	Any	Any
✓ RdcyHost.exe	Domain	Yes	Allow	No	C:\Progr...	Any	Any	UDP	Any	Any	Any
✓ RdcyHost.exe	Domain	Yes	Allow	No	C:\Progr...	Any	Any	TCP	Any	Any	Any

Figure 21: Windows Firewall - Port 84, 85 Opened

14. Allow log file viewing over browser (optional)

a) In IIS, uncollapse “Default Web Site”

- i. Left click “logs” (created in Portalogic Data Service)
- ii. Directory Browsing
- iii. Open Feature
- iv. Enable

b) Back to “logs” Home

- i. MIME Types
- ii. Open Feature
- iii. Add...

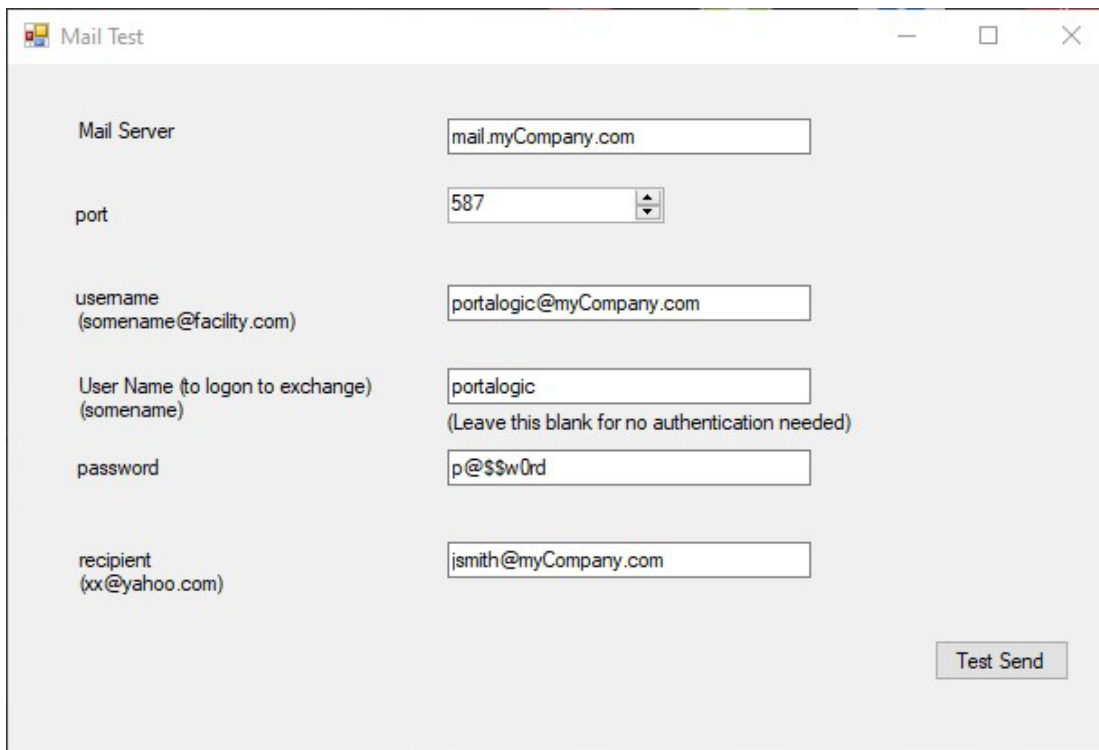
- File name extension: .log
- MIME type: text/plain

c) You can now browse this directory for Portalogic log files: <http://localhost/logs>

Exchange Mail Server Configuration

If your facility has an Exchange Server you would like to use for sending Portalogic email, please follow these steps.

1. Run “TestMail.exe” located at “C:\Program Files (x86)\Elemech\Utilities”.
2. Fill out the Mail Test form and click “Test Send”. If the recipient you entered receives an email, the parameters entered are correct. You may leave “User Name (to logon to exchange)” blank if no authentication is required.



The screenshot shows a window titled "Mail Test" with a light gray background. It contains several input fields and a button. The fields are labeled as follows:

- Mail Server:** A text box containing "mail.myCompany.com".
- port:** A spinner box showing the value "587".
- username (somename@facility.com):** A text box containing "portallogic@myCompany.com".
- User Name (to logon to exchange) (somename):** A text box containing "portallogic". Below this box is the text "(Leave this blank for no authentication needed)".
- password:** A text box containing "p@\$w0rd".
- recipient (xx@yahoo.com):** A text box containing "jsmith@myCompany.com".

In the bottom right corner of the window is a button labeled "Test Send".

Figure 22: Outlook Test Email Configuration

3. Configure Portalogic to use the parameters you have just tested:
 - a) Navigate to “C:\Program Files (x86)\EleMech\PortalogicDataService”
 - b) Open the file “config.json” and enter the parameters from your successful Mail Test as the values in “email.smtpConfig.prod”. Ensure that “useSMTP” is true.
4. Restart the Portalogic Data Service
 - a) Search Windows for “Node.js Command Prompt” and run it as administrator.
 - b) Run this command: “pm2 ls”.
 - c) Find the id of “portalogic-data-service” and replace the “#” in the following command with the id number: “pm2 restart#”.
5. Send a test email from Portalogic.
 - a) Open Portalogic 6 (or refresh the page if it is already open) and log in.
 - b) In the sidebar, click Facility → Email Setup.
 - c) Set Email Used to “Yes” and click “Save”.
 - d) Enter a Test Email Address and click “Test” → Verify receipt of email.
 - e) If your test email was received, your configuration is working. You may now enter email addresses into the Alarm Recipients field. Separate emails with a comma, and click “Save” to complete the process.

Chapter 4: Portalogic Web App

About Portalogic

The Portalogic web app allows users to access information that Portalogic stations acquire. Portalogic may be accessed on any number of PCs on the same network as the Portalogic Service detailed previously and offers different access privileges for its software users. Portalogic can be viewed using Chrome (preferred) or Firefox browsers, the application will not work when using Microsoft Internet Explorer or the updated internet browser, Microsoft Edge.

Starting Portalogic

To Start Portalogic on the machine hosting the IIS server, open your **Google Chrome** browser and type in the network address: “<http://127.0.0.1:84/index.html>” (port 84 may be different if you used a different port in Figure 17). On a remote networked PC, type: “[http://\(the IP address of the IIS machine\):84](http://(the IP address of the IIS machine):84)”. i.e. “<http://192.168.2.45:84/index.html>”. EleMech recommends creating a browser shortcut on your desktop so that Portalogic can be accessed faster without typing in a network address each time. If you do not know the network address, please contact EleMech technical support.

Logging In

To improve security, Portalogic requires a valid login in order to access the program. When the application Starts, the login page appears. Enter a username and password and click “Login”. Default username/password: admin/admin.



Figure 23: Portalogic Login

Database Design

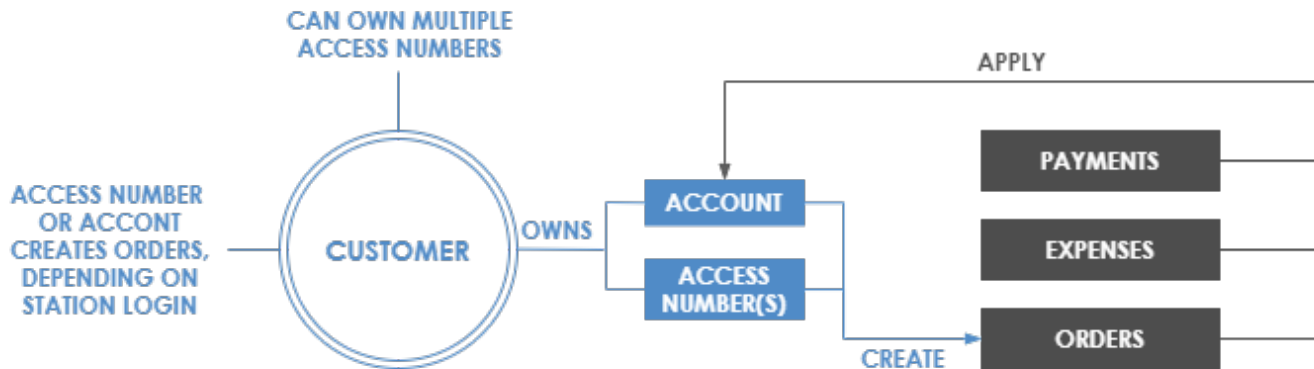


Figure 24 - Portalogic Database Design

The database is composed of five primary parts (see Figure 33). A customer owns an account with as many access numbers as required. Accounts and access numbers may create orders. Orders and payments/expenses apply to the customer's account. To login at a station, a customer must enter an access number and PIN. Access numbers may be assigned to fobs, swipe cards, proximity cards, or NFC cards, allowing customers to login using these methods (all methods require PIN entry). They can also be assigned to a truck for further identification.

Navigating Portalogic

Portalogic features four areas for navigation: the primary navbar, the secondary navbar, the sidebar menu, and the quick access menu. See figure 40 for reference.

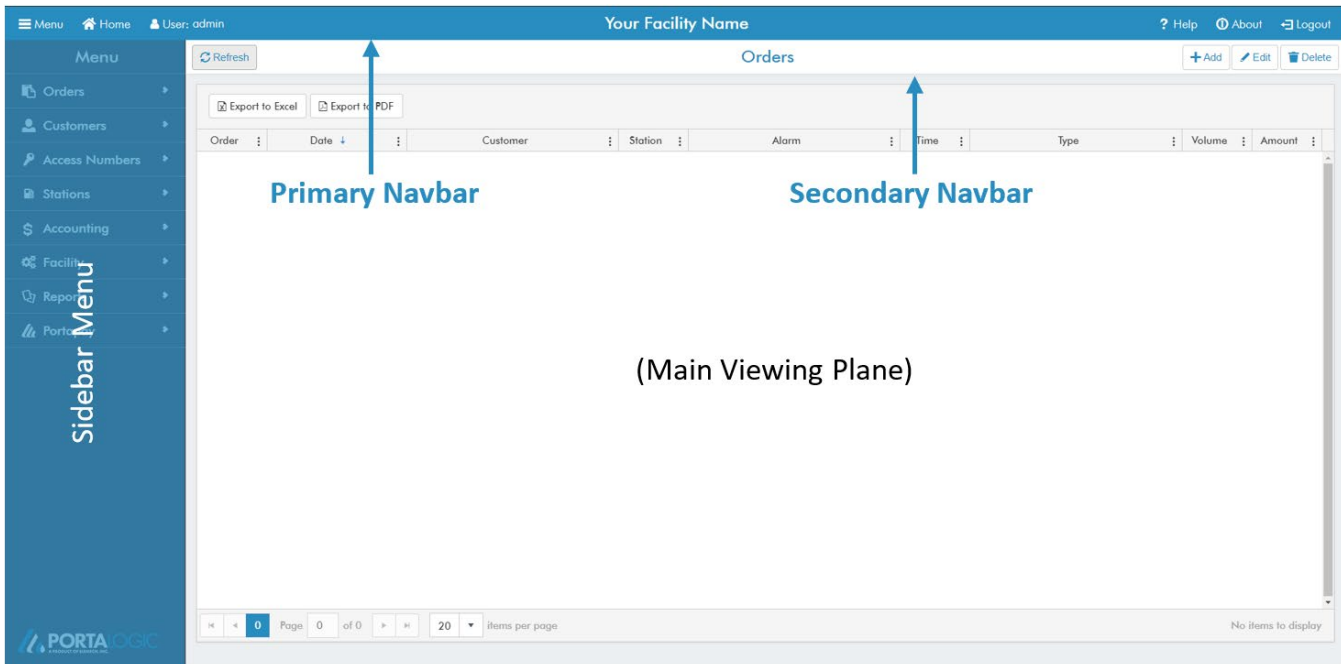


Figure 25: Navigation Areas

Primary Navbar

The primary navbar stretches the full width of the screen across the top in blue. It is always accessible and contains the following:

- **Menu:** clicking this button toggles the sidebar menu open or closed
- **Home:** an always accessible link to the home screen
- **User:** your username is displayed here
- **Facility:** the name of your facility appears in the center of the navbar
- **Help:** EleMech’s contact information and Portalogic activation input field
- **About:** a window containing Portalogic’s version number and copyright information
- **Logout:** click here when you wish to logout

Secondary Navbar

The secondary navbar is found across the top of the main viewing pane in white. It contains buttons specific to each screen (Orders, Customers, Access Numbers, etc...), and changes with each screen. Buttons appearing on the secondary navbar are described in the “Using the Grid” section and the individual screen sections. The title of the screen always appears in the center of the secondary navbar.

Sidebar Menu

The sidebar menu contains links to each screen, it is located on the far left and is always accessible. Clicking a link to a screen will cause that screen to slide into view in the main viewing pane. Clicking the Portalogic logo at the bottom of the menu will open portallogic.info in another tab in your browser. The sidebar may be collapsed by clicking the “Menu” button on the primary navbar described above, which expands the main viewing pane. When collapsed, only icons for each screen are visible.

Some links lead to sub navigation views (Facility and Reports, for example), which will slide into view within the sidebar. A back button will appear at the top of the sidebar which allows you to navigate back to its default view. Pressing the “home” button on the primary navbar will also return the sidebar to its default view.

Using the Grid

Portalogic displays the data it collects in a series of grids, viewable via the links in the sidebar menu. Clicking on a cell in a grid will select its row and highlight both the cell and its row. Each row represents an individual item on each grid (a row is an order on the Orders grid, a customer on the Customers grid, a truck on the Trucks grid, etc...), with columns providing data relevant to that item.

Ledger							
Back Refresh							
Export to Excel Export to PDF							
Date ↓	Customer	Balance	Description	Type	Credit	Debit	Facility
01/11/2018 09:30 AM	Great Lakes Water	\$94.00		Payment	\$100.00	\$0.00	-\$1,848.50
01/11/2018 09:30 AM	Green Trucking	\$1,800.00		Payment	\$2,000.00	\$0.00	-\$1,848.50
01/11/2018 09:30 AM	iWaste Collector	\$1,100.00		Payment	\$1,500.00	\$0.00	-\$1,848.50
01/11/2018 09:29 AM	Aurora Pools, Inc.	\$394.60		Payment	\$400.00	\$0.00	\$1,751.50
01/11/2018 09:29 AM	HaulerMan	\$700.00		Payment	\$1,000.00	\$0.00	\$1,751.50
01/11/2018 09:28 AM	Water R Us	-\$3.30		Order	\$0.00	\$3.30	\$3,151.50
01/11/2018 09:27 AM	Green Trucking	-\$200.00		Order	\$0.00	\$200.00	\$3,148.20
01/11/2018 09:27 AM	HaulerMan	-\$300.00		Order	\$0.00	\$300.00	\$3,148.20
01/11/2018 09:27 AM	iWaste Collector	-\$400.00		Order	\$0.00	\$400.00	\$3,148.20
01/11/2018 09:26 AM	Great Lakes Water	-\$6.00		Order	\$0.00	\$6.00	\$2,248.20
01/11/2018 09:14 AM	Hawthorn Tanker, LLC	-\$775.00		Order	\$0.00	\$300.00	\$2,242.20
01/11/2018 09:14 AM	Dunsmoor Trucking	-\$1,103.50		Order	\$0.00	\$440.00	\$2,242.20
01/11/2018 09:13 AM	Just Us Water	-\$72.50		Order	\$0.00	\$30.00	\$1,502.20
01/11/2018 09:13 AM	Aurora Pools, Inc.	-\$5.40		Order	\$0.00	\$2.40	\$1,502.20
01/11/2018 09:12 AM	Dunsmoor Trucking	-\$663.50		Order	\$0.00	\$500.00	\$1,469.80
01/11/2018 09:12 AM	Hawthorn Tanker, LLC	-\$475.00		Order	\$0.00	\$275.00	\$1,469.80
01/11/2018 09:11 AM	Aurora Pools, Inc.	-\$3.00		Order	\$0.00	\$3.00	\$694.80
01/11/2018 09:10 AM	Water Transit, Inc.	-\$285.80		Order	\$0.00	\$2.40	\$691.80
01/11/2018 09:09 AM	Dunsmoor Trucking	-\$163.50		Order	\$0.00	\$165.00	\$689.40
01/11/2018 09:08 AM	Hawthorn Tanker, LLC	-\$200.00		Order	\$0.00	\$200.00	\$524.40
1 2 Page 1 of 2 20 items per page 1 - 20 of 32 items							

Figure 26: A grid in Portalogic

Each grid also populates the secondary navbar with a set of controls specific to that grid. If a grid has a control that it alone uses, it is described in its individual screen section. Here are the most common controls:

- **Back:** takes the main viewing pane to the previous screen
- **Refresh:** a button to manually refresh the data on the grid
- **Add:** leads to a screen where a new item can be created
- **Edit:** leads to a screen where changes can be made to the selected item
- **Delete:** removes the selected item from the grid. A confirmation prompt will appear before the item is deleted

Each grid is also accompanied by an “Export to Excel” button and an “Export to PDF” button. Press these buttons when you wish to save and/or view the data in these respective formats. Under each grid is a set of navigational controls that can be used to view multiple pages, or condense the data onto a single scrollable page.

Column Sorting

Items may be sorted by column by clicking on a column heading. When sorted this way, an arrow will appear indicating which direction its contents are being sorted (click again to sort the other direction, and once again to turn the sorting off). If sorting for a column is on, you may select up to four additional columns by which to sort by, in hierarchical order. With sorting for a column on, select additional columns. You will see a number appear next to the arrow indicating sort direction, the number being the column’s current hierarchy with 1 being the priority and 5 being the last. Sorting more than five columns will result in an error.



Number ↑ 1	Encoded Number ↑ 2	Type ↓ 5	PIN ↑ 3	Customer ↓ 4	Truck ↓
6	65445642132	Magnetic Stripe Card	1827	Dunsmoor Trucking	5
5	465645465465	Magnetic Stripe Card	7112	Dunsmoor Trucking	4

Figure 27: Column Sorting Hierarchy

Filtering

Items may be filtered by clicking on a column’s filter icon. Set the operator and value to exactly your desired terms and click “Filter” to see your results. An additional operator and value may also be set to further narrow or expand your results. To clear the filter, click on the filter icon again and press the “Clear” button.

<div> <div>Export to Excel</div> <div>Export to PDF</div> </div>						
Order	Date ↓	Customer	Station	Receipt	Truck	
40	02/12/2018 - 8:31 AM	Green Trucking	<div> <div>Show items with value that:</div> <div>Is equal to</div> <div></div> <div>And</div> <div>Is equal to</div> <div></div> <div>Filter</div> <div>Clear</div> </div>			0
41	02/12/2018 - 8:31 AM	Water Transit, Inc.				6
36	02/12/2018 - 8:30 AM	Water R Us				0
37	02/12/2018 - 8:30 AM	Great Lakes Water				0
38	02/12/2018 - 8:30 AM	iWaste Collector				0
39	02/12/2018 - 8:30 AM	Hawthorn Tanker, LLC				0
33	02/12/2018 - 8:29 AM	Dunsmoor Trucking				4
34	02/12/2018 - 8:29 AM	Aurora Pools, Inc.				10
35	02/12/2018 - 8:29 AM	HaulerMan		0	0	0
30	02/06/2018 - 8:19 AM	Green Trucking		0	0	0
31	02/06/2018 - 8:19 AM	Water R Us		0	0	0

Figure 28: Filter Screen

Note: When filtering by a specific date, setting the operator to “is equal to” will result in a search for items occurring at exactly midnight of the date you select. Instead, set the Operator to “Is after or equal to: (desired date)”, click the “And” option, and set the additional operator to “Is before: (day after desired date)”. For example, to see all orders for the month of July, select: Is after or equal to: 7/1/2021 AND Is before: 8/1/2021.

Grid Hotkeys

After making a selection within a grid, you may use the following hotkeys:

Enter

sort by the selected column header

Alt + Down

opens the selected column header’s filter menu

Esc

closes the filter menu

Ctrl + Left/Right

reorders the selected column with the previous/next column

Tab

navigate through elements in the grid and filter screen (hold shift for reverse order)

Arrow Keys

navigate over cells in the grid

Page Up/Down

move to previous/next grid page

Space

select the row with the currently highlighted cell

Ctrl + Home/End

highlights the first/last cell in the grid

Home/End

highlights the first/last cell in the current row

Sidebar Menu Screens

Clicking a link on the sidebar menu will navigate the main viewing pane to the selected screen. From here, you will have access to the screen's grid/forms and controls.

General Controls

Many grids utilize a few common controls. These are outlined below.

- **Add Item:** To add a new item, click the “Add” button in the top right corner. In the “Add (item name)” screen, fill out all required fields and any other fields as necessary. Then click “Create” in the top right corner, and a popup will alert you that an item was successfully created. The “Cancel” button will clear all fields in the form if needed. The main viewing pane will remain on this screen (allowing you to add new items in succession) until you navigate away or press the “Back” button.

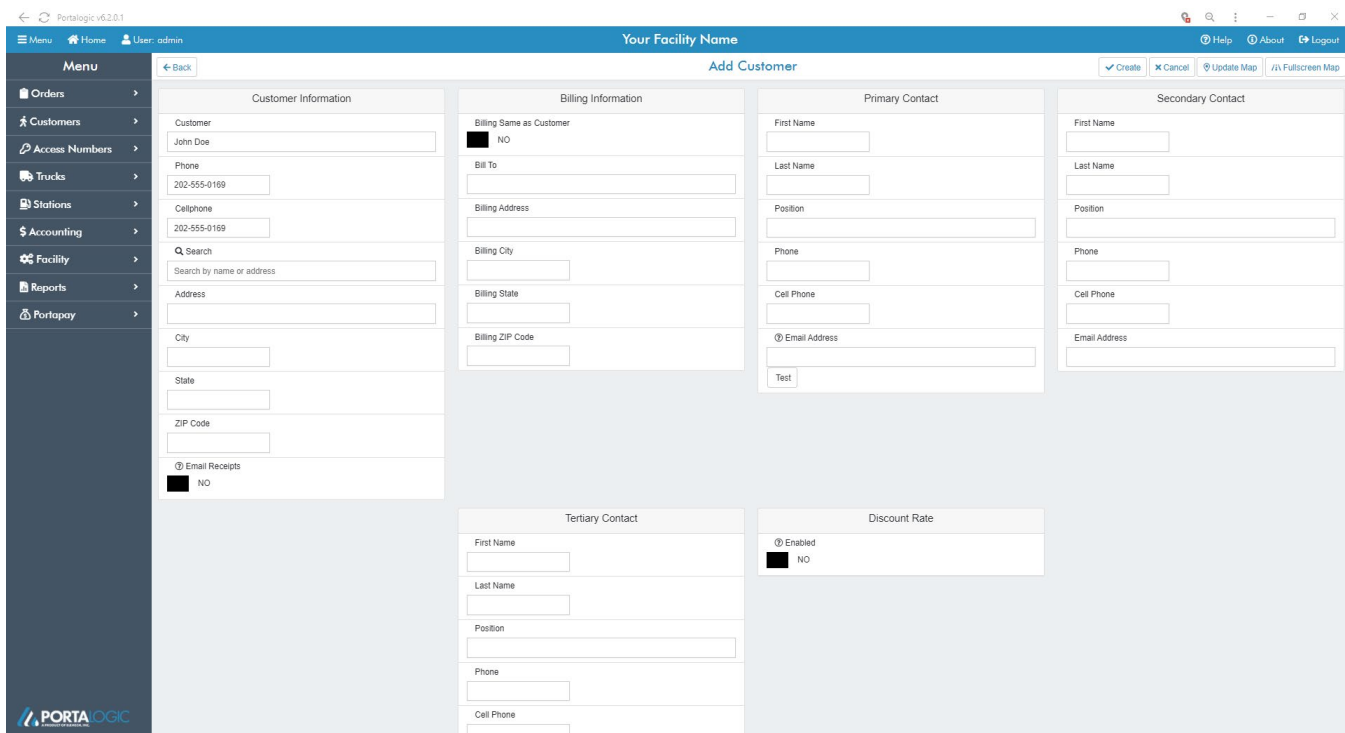


Figure 29: Example Add Item Screen - Add Customer is shown here

- **Edit Item:** To edit an item, select it on the grid, and click the “Edit” button in the top right corner. Note that some fields are not editable once an item is created. Make changes as needed and click “Save” in the top right corner. A popup will alert you that the item was

successfully changed, and the main viewing pane will navigate back to the grid. The “Cancel” button will undo all changes prior to saving if needed.

The screenshot displays the 'Edit Customer Information' interface. At the top, a blue header bar contains the 'Rolling Hills Municipality' logo and navigation links like 'Menu', 'Home', 'User: admin', 'Help', 'About', and 'Logout'. Below this, a sidebar menu lists various system functions. The main content area is divided into sections: 'Customer Information' with fields for name, phone, address, city, state, and zip; 'Primary Contact' with fields for first/last name, phone, and email; and 'Account Information' with a product dropdown and user toggles. A 'QUICK ACCESS' sidebar is visible on the right.

Figure 30: Example Edit Item Screen - Edit Customer is shown here

- **Delete Item:** To delete an item, select it on the grid and click “Delete” in the top right corner. A “Delete Item Confirmation” popup will appear, select yes. A popup will alert you that an item was deleted, and the item will be removed from the grid.
- **Expand/ Collapse Section:** Form screens make use of collapsible section headers. A header in a blue bar is expanded, and a header in a white bar is collapsed. Click the bar to expand or collapse a section as needed.

Home Screen

After a successful login, Portalogic will Start, and the home screen will be displayed. You can always navigate back to this screen using the home button on the primary navbar. The home screen provides an overview of your stations’ performance and activity. From the dropdown in the top right, you may select “Today”, “Monthly”, or “Yearly” to adjust the data being displayed accordingly.

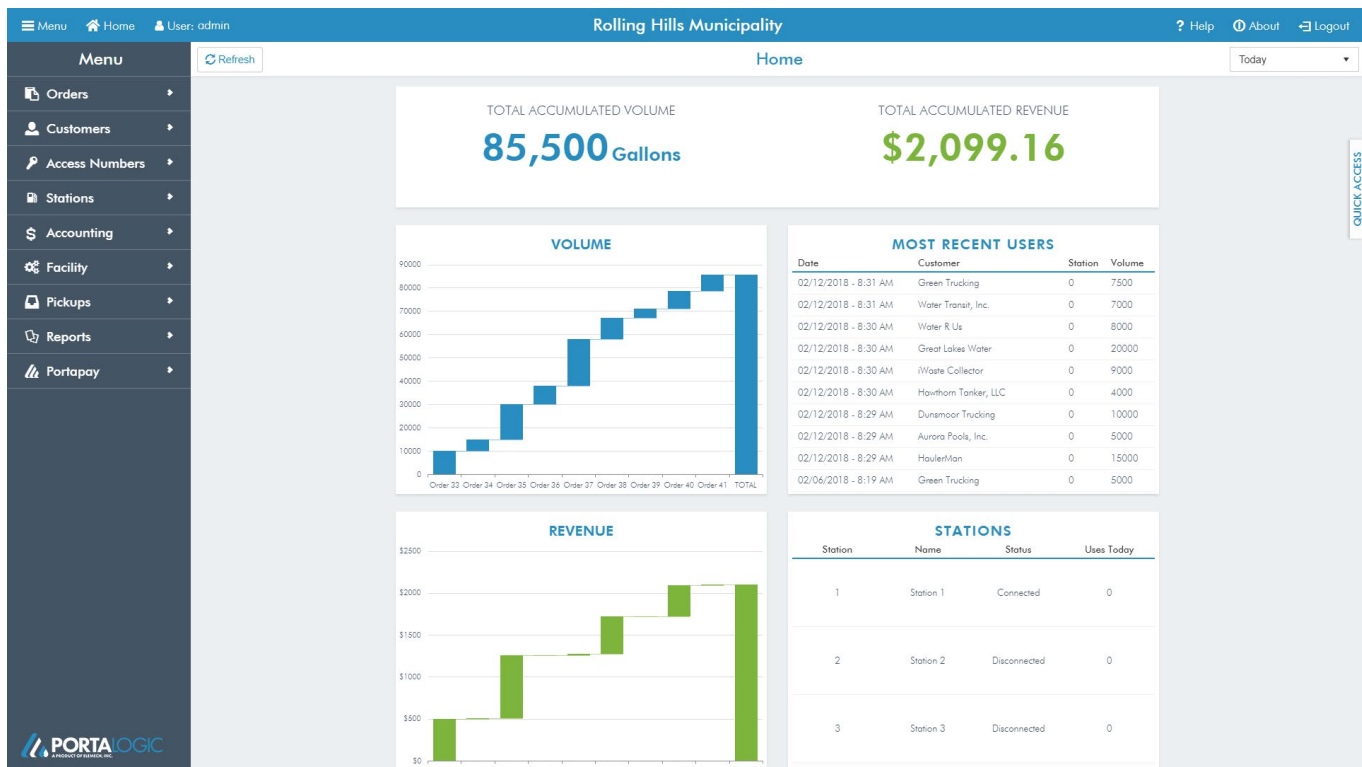


Figure 31: Portalogic Home Screen

Hovering over a chart entry will show the value of that entry. If the timeframe is set to “Today”, each entry is a single order, a single day for “Monthly”, and a single month for “Yearly”. The “Most Recent Users” grid will show the ten most recent users of your station(s). The “Stations” grid indicates the number of uses and the status of each of your stations.

Menu Navigation

Orders

The Orders Screen shows all the Orders received from stations or added manually. The grid columns include Order, Date, Customer Name, Station Number, Receipt Number, Truck Number, Product Type, Alarm Code, Duration, Volume, and Amount.

When adding or editing an order, if the cost for the selected product type has been set in “Facility → Product Type” the amount for the order will be calculated automatically.

The screenshot shows a web form titled "Order Information" with a blue header. Below the header, the form contains several fields and calculated values. On the left, there is a timestamp "018 11:03 AM". In the center, "Cost/1000: \$50" and "Total: \$600.00" are displayed in blue text. On the right, "Volume" is labeled next to a text box containing "12000". Below these, there is a dropdown menu with "5" selected and a label "Truck Driver Name" next to an empty text box.

Figure 32: The total for an order can be calculated automatically

Customers

The Customers Screen lists all customers that have been added to your system. The information shown here includes the customer's Name, Account Number, Account Status, Sales this Month, and Current Balance.

Details: Clicking the "Details" button on the secondary navbar will open a window containing the selected customer's name, address, contact information, account information, and details on the customer's automatic billing settings.

Access Numbers

The Access Numbers Screen contains information regarding a customer's access method to your station. The columns in this grid include Customer Name, Number (a generic number for identifying the access device), Type, PIN, Status, and Last Used.

Trucks

Once a customer is created, a truck can be assigned to that customer. Truck numbers are unique across all customers and may be assigned in the "Add Truck" screen. Pressing the "New" button next to the Truck Number field will set the number to the lowest unique truck number available. If you are assigning swipe cards to your haulers, the truck number will be the same as the swipe card number.

When adding or editing a truck, you can choose to bill the truck by capacity, apply a default product type to that truck, enable/disable the truck account ("Edit Truck" only), and set up a sample frequency for the truck if a sampler is set up. Account Active is enabled by default and will allow access to the water/waste station. Disabling it will prevent the truck's associated card/login from working at the water/waste station.

Stations

The Stations Screen shows a list of all stations connected to Portalogic and the following information: Station, Name, Type, IP Address, Status, and Uses Today. When adding a station, ensure that you can first ping its IP address from the server hosting Portalogic (does not apply to cloud stations). When editing the station, you can create a custom schedule for your customers by clicking “Export To PDF” in the calendar section.

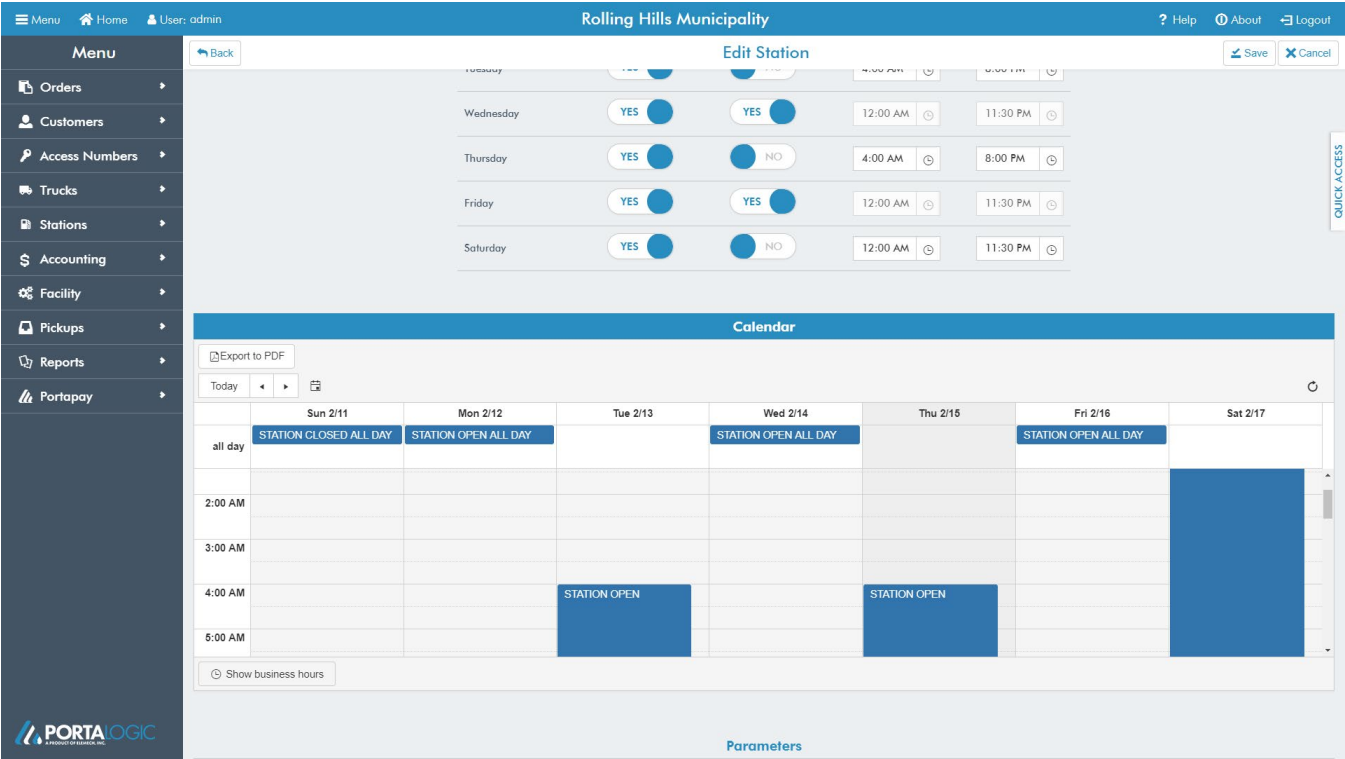


Figure 33: Set your schedule and Export to PDF to create a schedule for your customers

Should you need to access it, the station parameters may also be set in this screen.

- Alarms:** Clicking the “Alarms” button on the secondary navbar will display a grid containing all alarms that have occurred for the selected station.
- Sync:** The “Sync” button will sync relevant data and the date and time from your Portalogic server to your stations when pressed.

Accounting

This section contains two screens: Ledger and Payments/Expenses. Ledger contains a balance over time for each customer and the facility on a per-order basis. In Payments/ Expenses you can add a payment (Customer Debit) or expense (Customer Credit) for a customer’s account. Balance in the Ledger is the customer’s balance at midnight of the day the payment or expense was inserted.

Facility

This section contains information and settings for the Facility in general. See “Facility Menu” for more information.

Pickups

This section is only applicable for Waste Dump Stations using manifests. Pickups are the loads that comprise a manifest and are entered by the hauler while using a station. For every manifest, an order is created. When a manifest has pickups with different product types, the most expensive product type is used to calculate the total cost for the combined volume.

Reports

By making selections in this section, you may use Portalogic to generate custom reports. See “Chapter 5: Reports” for more information.

Facility Menu

Information

Within the Facility menu, clicking information will navigate the main pane to the Facility Information screen. here, you can set and save your facility name, contact and billing information, as well as view other information about your Portalogic setup.

Settings

In Facility → Settings, you may set an automatic data refresh interval (in seconds) and/or enable/ disable Automatic Data Refresh. Enabling Automatic Data Refresh allows Portalogic to refresh the information displayed in all grids and the home screen automatically each time your set interval elapses. Click “Save” in the top right corner to save your settings.

Email Setup

Clicking the Facility menu and selecting “Email Setup”, will display the email setup window. Setting Email Used to “Yes” will allow Portalogic to email an electronic copy of the receipt to the customer each time they use a station. To enable this feature for a customer, select the customer in the Customers grid, and click “Edit” in the top right corner. Under “Primary Contact”, set Email Receipts to “Yes”, and enter the customer’s email address. You may test an email address by clicking the “Test” button. Click “Save” to save your changes.

The Email Used switch will also allow Portalogic to email electronic copies of invoices to any addresses entered in the Invoice Recipients field (separate multiple email addresses with a comma). This feature is only available if automatic billing is enabled.

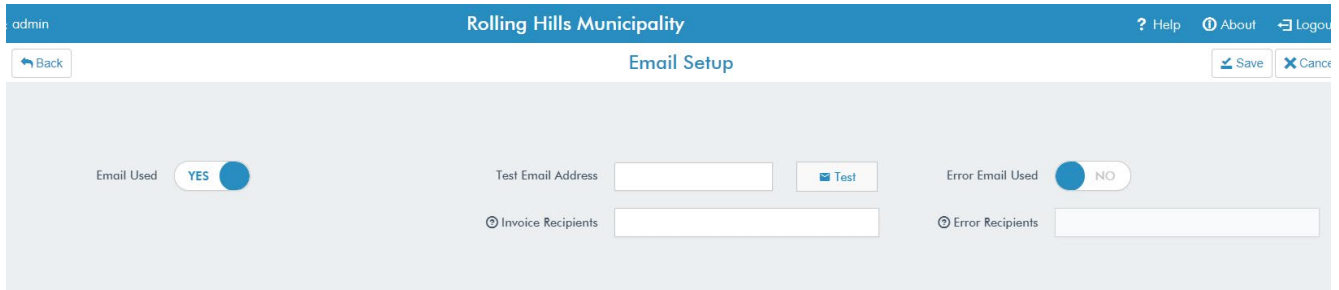


Figure 34: Portalogic Email Setup

Also in Email Setup, setting Error Email Used to “Yes” will enable the Error Recipients field and allow you to enter email addresses that will receive an email alert whenever an error occurs at a station (separate multiple email addresses with a comma). You may also test email addresses from this page by entering an email address in the Test Email Addresses field and clicking “Test”. Click “Save” to save your changes.

Product Types

Facility → Product Types displays a grid showing all product types and rates for your facility. You may add a new product type by clicking “Add” in the top right corner or edit existing product types by clicking “Edit”. From the Edit Product Type screen, you may set a future rate for a product and a date that the future rate will take effect. Rates are listed in cost/1,000.

Waste Generators

The Waste Generators grid lists all entered locations that your stations receive waste from. You may add new waste generators and edit existing waste generators by clicking the “Add” and “Edit” buttons in the top right corner. Within the Edit Waste Generators screen, you may enter specific customers who may select that generator as a manifest source while using your stations. Do so by entering the customers’ names in the Allowed Customers field under “Waste Information” (leaving this field empty allows all customers to select the waste generator as a manifest source). Click “Save” to save your changes.

Figure 35: Specify customers for a generator by entering their name in the Allowed Customers field

Users

The Users grid displays all user accounts that may login to Portalogic. Add new users by clicking “Add”, filling out the Add User form, and clicking “Create” in the top right corner.

The following are the access privileges of User roles:

- **Administrator:** Full access
- **Financial:** Cannot add/edit/delete Stations, edit Facility Information, edit Email Setup, or add/edit/delete Users
- **Operational:** Cannot add/edit/delete Stations, edit Facility Information, edit Email Setup, add/edit/delete Users, add/delete Orders, add/delete Payments
- **Read Only:** Cannot change data at all, but can view it
- All roles can generate reports.

Chapter 5: Reports

Generating Reports

Portallogic software can generate several types of reports including activity, billing, and revenue. All reports have date range selection fields to narrow down the information displayed. To generate a report, select “Reports” in the sidebar menu, select a sub-category, and finally your desired report. Reports can be printed or exported directly from Portallogic.

Activity Reports

Activity Reports display all customer trips to the water/waste station.

Note: Station 0 is listed anytime orders were manually added through Portallogic.

Activity by Station

The data is arranged by date and then by station. It includes the Time, Customer, Truck #, Receipt #, Alarm ID, Water/Waste ID, Entered Volume, Metered Volume, and Daily Total.

Activity by Customer

This report shows activity for a selected customer. You can choose to select a different customer from the customer name drop down. The data is organized by the date and time of each trip. It includes the Trip Date, Truck #, Receipt #, Alarm ID, Water/Waste Type, Volume, and Daily Total.

Activity by Truck

This report shows activity for a selected truck. You can choose to select a different truck from the truck number drop down. The data is organized by the date and time of each trip. It includes the Trip Date, Receipt #, Alarm ID, Water/Waste Type, Volume, and Daily Total.

Activity by Product Type

This report shows activity for a selected customer. The data is organized by the product type’s description name. It includes type description, total orders, and total volume for that type in the selected time frame.

Customer Statements

Customer Statements are Portalogic's "Invoices". There are three versions of this statement described in more detail below. This report may be used to assist in billing the customers. The user may enter a memo to the customer as well as a due date for payment. The rest of the report shows a summary of trips to the stations in the date range, followed by a detailed list of all of trips.

Note: The Customer Statement can be printed out for all customers by checking the switch labeled "All Customers" to generate reports more quickly. The file will be generated into a PDF file so that it may be saved or printed at any time.

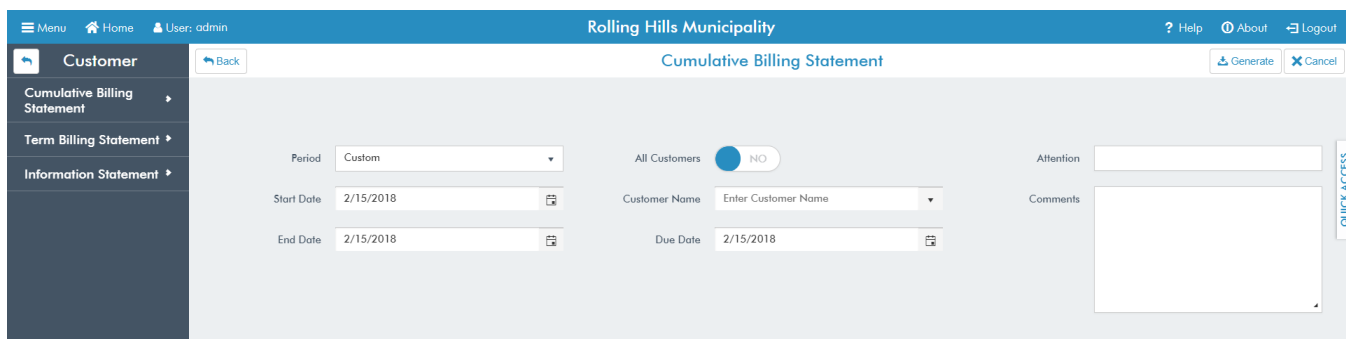
The screenshot shows the 'Cumulative Billing Statement' interface for Rolling Hills Municipality. The top navigation bar includes 'Menu', 'Home', 'User: admin', and links for 'Help', 'About', and 'Logout'. A left sidebar lists 'Customer', 'Cumulative Billing Statement', 'Term Billing Statement', and 'Information Statement'. The main area has a 'Back' button and 'Generate'/'Cancel' buttons. It features input fields for 'Period' (set to 'Custom'), 'Start Date' (2/15/2018), 'End Date' (2/15/2018), 'All Customers' (a toggle switch set to 'NO'), 'Customer Name' (a dropdown menu), and 'Due Date' (2/15/2018). There are also fields for 'Attention' and 'Comments' on the right side.

Figure 36: Example Customer Statement screen - Cumulative Billing Statement is shown here

Cumulative Billing Statement

This statement allows you to select a payment due date to be included on the statement. Comments may be added and will appear immediately below the Summary section. Anything added in the Attention field will appear under the billing address. The address of your facility and customer are positioned to fit and align with a standard size (#10) windowed envelope. The statement lists the Water/Waste Type, Total Trips, Total Volume, Previous Balance, Current Balance, Invoice Number, and Account Number. The second page includes the "Account Adjustments" section where credit or interest is displayed and the "Account Debits" section.

By default, a single statement is created for the customer selected via the dropdown menu. To expedite the report generation process, Customer Statements can also be generated for all customers at once by setting All Customers to "Yes".

Term Billing Statement

This Statement is identical to the "Cumulative Billing Statement" except it does not include a

payment due date, previous balance, or an “Account Adjustments” section on the second page. This statement is comprised of payments, interest, and other account adjustments for the selected period, but it does not display them. Any account adjustments will automatically be added or subtracted to the “Statement Balance”.

Information Statement

This statement shows only activity and volume for the selected date range. No financial information is included.

Revenue Reports

Revenue by Customer – Summary

The data is arranged by customer. This report lists all Customers, their Total Trips, Total Volume, Total Revenue, and a Grand Total for each.

Revenue by Customer – Detail

This report is arranged by Customer and Account Number. It includes Trip Date, Receipt #, truck #, Product Type, Volume, and Sale Amount. The report displays Total Trips, Volume, and Revenue. If you have multiple stations, the report will show the station number for each order.

Revenue by Truck – Summary

The data is organized by truck number. It includes all trucks and lists the Truck Number, Total Trips, Total Volume, Total Revenue, and a Grand Total for each.

Revenue by Truck – Detail

This report only shows activity for a selected truck. The data is organized by the date and time of each trip. It includes the Trip Date, Receipt #, Product Type, Volume, and Daily Total. A Grand Total is provided for Trips, Volume, and Revenue.

Revenue by Water/Waste Type – Summary

This report summarizes the revenue by product type for orders within the selected date range. The report is arranged by product type and includes Total Trips, Total Volume, Balance, and a Grand Total for each.

Customer Truck List

This report lists all customers and trucks in the Portalogic database. Trucks are grouped by owning customer. This report lists the Truck Number, Vehicle Identification Number, Make/ Model, Contact, Phone Number, Cell Number, Sample Frequency, and Total Trucks.

Menu

Home

User: admin

Rolling Hills Municipality

HelpAboutLogout

Menu

Orders

Customers

Access Numbers

Stations

Accounting

Facility

Pickups

Reports

Portapay

Customer Truck List

Truck	VIN	Make/Model	Contact	Phone	Cell	Sample
Just Us Water						
2	JT8BF28G11515473	Mercedes-Benz Gluo D	Pitts, Steven	(549)641-5648	(122)135-4649	0
3	1FAPF6622WK242709	Ferrari Sneutrino Broled	Bennett, Scott	(615)517-5167	(615)517-5167	0
8						0
9						0
Total Trucks: 4						
Dunsmoor Trucking						
4	1GB6G8LC1C1154375	Lexus Zimo Seared Phrog	Whitney, Christopher	(201)472-9152	(201)472-9152	0
5	1N0SR12E9WZ117635	Hummer Branon De-Bon	Knowles, David	(817)768-6914	(817)768-6914	0
Total Trucks: 2						
Water Transit, Inc.						
6						0
Total Trucks: 1						
Aurora Pools, Inc.						
10			Griffis, Nic	(630)499-7080		0
Total Trucks: 1						
Grand Total: 8 Trucks						

2/6/2018 2:22:20 PM

Report Generated by Portalogic Management Software
Copyright © 1998-2017 Eutelsch, Inc. All rights reserved.

Page 1 of 1

Figure 37: Example generated Customer Truck List in print-preview

Chapter 6: Troubleshooting

Portallogic

Data is not syncing with the station

Search Windows for “Node.js Command Prompt” and run it as administrator. Run this command: “pm2 ls”. Ensure that the service “portallogic-data-service” shows, and its status is “online”. You can restart it by finding its id and replace it with # in this command: “pm2 restart #”.

Consult the portallogic-data-service log files in this directory for errors: C:\inetpub\wwwroot\logs.

Browsing OData shows 404 Error

URL: <http://localhost/PortOData4/Users?apikey=SG.fKTNqAgER4CI31NnK92XzA.gr2G8G7lpfw1M394XnIBZ0h>

shows a 404 error and you cannot login to Portallogic 6. The possible solution (tested on Windows Server 2012 R2) is to open Server Manager → Manage → Add Roles or Features → Install the following:

- Application Server: Web Server (IIS) Support
- IIS Hostable Web Core

Retry the URL and consult the webpage for any detailed errors and check the Portallogic-OData.log file in this directory for errors: C:\inetpub\wwwroot\logs. You may need to remove the PortOData4 application from “Default Web Site” in IIS Manager and re-add it after installing the additional features before it will work.

Not Responding

Test the reception of the ePort within the FS-10 by pressing the Telemeter’s RSSI button, as shown in Figure 6-1. The Telemeter’s LEDs will light up indicating the signal strength. The card reader will also display CSQ: XX (signal strength) and CSQ: YY (Bit Error Rate). Use Table 1 to determine the quality of the signal. If the quality is below ‘Good’, the user may experience problems when using credit cards. Table 2 can be used for troubleshooting during normal operation.

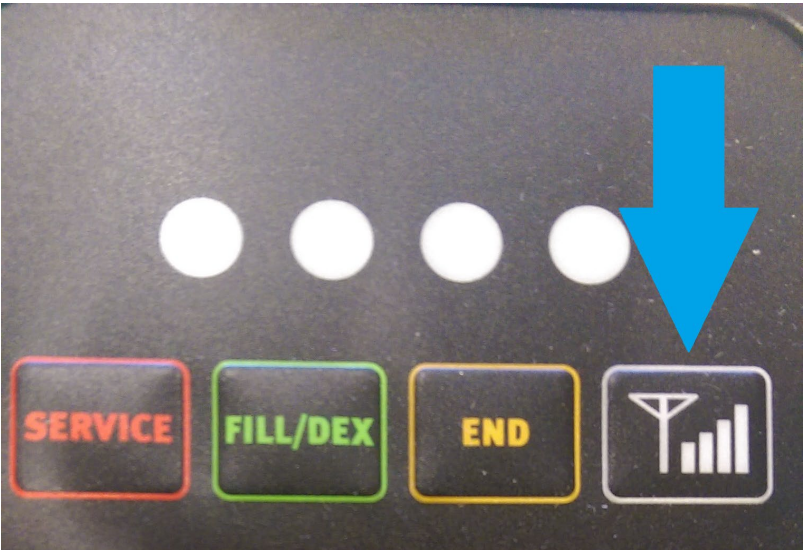


Figure 38 - Telemeter's RSSI Button

Quality	Telemeter LEDS	CSQ: XX	CSQ: YY
Very Poor	none	00 to 07	Any value other than 00 for CSQ:YY indicates additional signal loss
Poor	Red	08 to 09	
Good	Red and Yellow	10 to 14	
Very Good	Red, Yellow, and Green	15 to 19	
Excellent	Red, Yellow, Green, and Blue	20 or greater	

Table 1 - ePort Signal Quality

RED	YELLOW	GREEN	BLUE	EXPLANATION
		blinking		In service - 1 second pulses (heartbeat)
blinking				Indicates device file system transfers (quick blink when saving)
		lit	lit	Establishing a cell connection (activated)
	lit			Pending transaction or settlement file
		lit		Initializing
			lit	Communications for Port 1 only (not shown when an ERROR)
lit	blinking			Disabled by VMC or no communications to VMC
lit	blink 2x			MDB busy or resetting

Table 2- ePort LED Status Codes

Troubleshooting

1. Currently Unable to Accept

- Press the “SERVICE” button on the G10-S Telemeter to display error codes on the Card Reader display.
- Code 1ID1 means vending machine has disabled the Card Reader.
- “Currently Unable to Accept” displayed on Card Reader: Same as 1ID1.
- Code 1IE0 means the G10-S is having wireless communications trouble.
- Code 1Il1 means the G10-S is not communicating with the Vending Machine Controller (VMC)

2. Card Reader displays “Establishing Cell Connection” and reStarting

- Ensure antenna and antenna wire are in good condition, not broken, pinched or missing.
- Ensure that the antenna wire is not wrapped up in a coil as this will degrade signal.
- Try repositioning the antenna for better signal reception.

3. System has trouble communicating or authorizing cards reliably

- Check RSSI signal strength for a minimum reading of 12,00.
- If RSSI reading is below minimum recommended, see section above for antenna issues.

4. Card Reader has no display

- a) Check for disconnected, pinched, or broken cables.
- b) If the G10-S Telemeter has a blinking green LED, replace the Card Reader.
- c) If the G10-S Telemeter has no LED light activity, check for disconnected or broken MDB harness.

Another possibility is a failed G10-S Telemeter.

5. Card swipe or tap unable to be authorized

- a) Is the Card being used invalid, damaged, or expired?
- b) Check for weak RSSI signal.

6. Card swipe or tap not detected by reader

- a) Ensure the Card Reader cable to the Telemeter is in good condition and connected.
- b) Is the card being used invalid, damaged, or expired?
- c) If the steps listed above are OK, replace the Card Reader.

7. Card Reader perpetually displays “Welcome” with steady green LED

- a) Ensure the Card Reader cable to the Telemeter is connected at both ends.

Further Troubleshooting

Contact USA Technologies Customer Service and have your ePort Telemeter number ready: (888) 561-4748.

customersupport@usatech.com

Printer

Malfunctioning

The Printer's status and possible error can be discerned by watching the number of times the status light blinks according to the chart below. The printer's status light is on the righthand side of its power cable.

STATUS LED		DESCRIPTION
-	OFF	DEVICE OFF
GREEN	ON	DEVICE ON: NO ERROR
GREEN COMMUNICATION STATUS	x 1	RECEIVE DATA
	x 2	PRINthead OVERHEATED
	x 3	PAPER END
	x 4	POWER SUPPLY VOLTAGE INCORRECT
	x 5	RECEPTION ERROR (PARITY, FRAME ERROR, OVERRUN ERROR)
	x 6	COMMAND NOT RECOGNIZED
	x 7	COMMAND RECEPTION TIME OUT
	x 8	INSPECTION DOOR OPEN ⁽¹⁾
	x 9	PAPER JAM
	x 10	LOW PAPER ⁽²⁾
GREEN UNRECOVERABLE ERROR	x 11	AUTOCUTTER ERROR ⁽³⁾

Figure 39 - Printer Status Codes

Chapter 7: Auto Backup

Prepare PowerShell

1. Enter “PowerShell” in the Windows search bar. In the results, right click “Windows PowerShell” and select “Run as administrator” from the context menu.

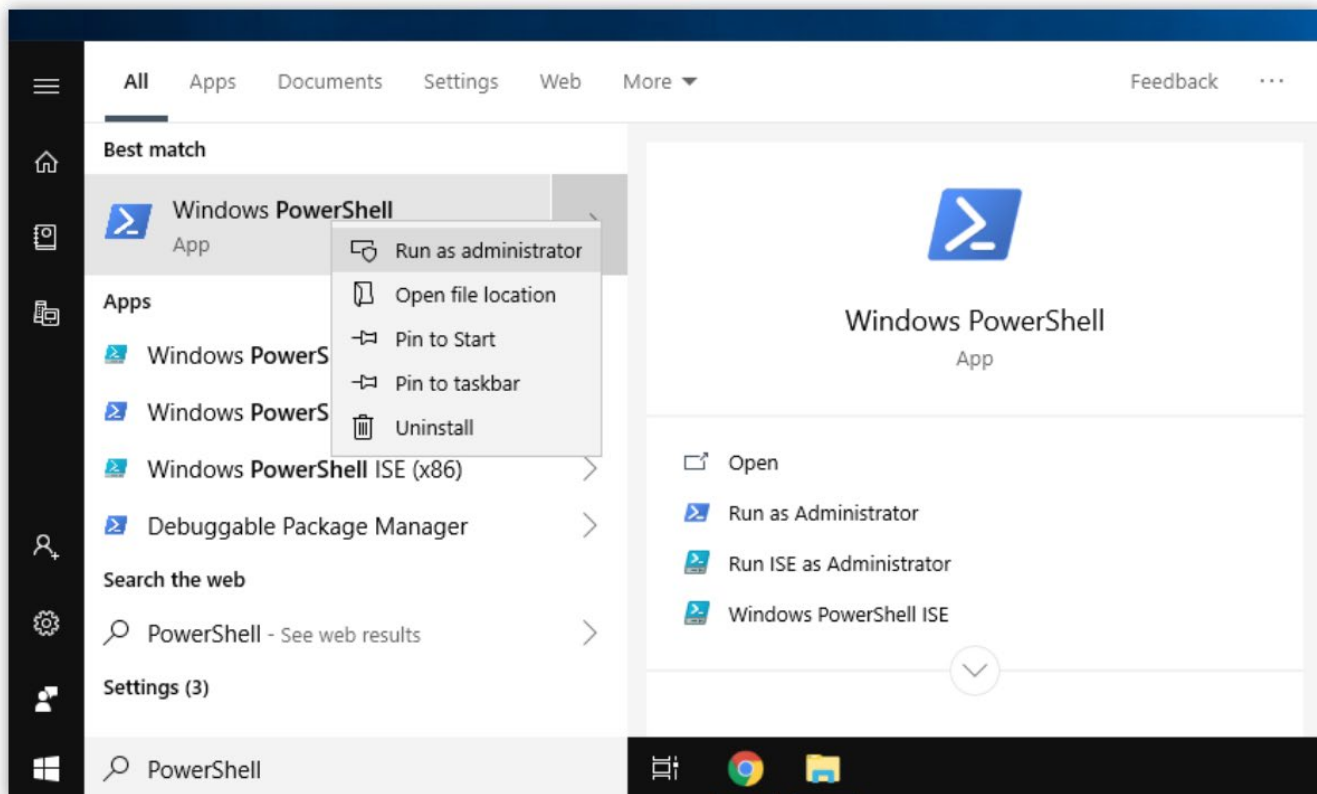


Figure 40: Run PowerShell as administrator

2. Once Windows PowerShell opens, type “set-executionpolicy remotesigned” and press Enter.
3. Select the “Yes” option by typing “Y” and pressing Enter.

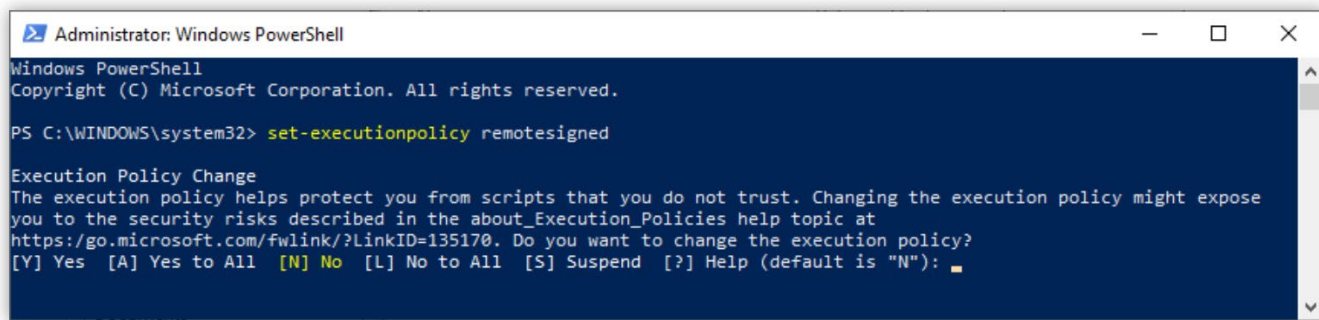


Figure 41: PowerShell Execution Policy Prompt

Create a Stored Procedure

1. From the provided files, create a copy of the "BackupApp" directory located in the "PortALogic6\Setup Files\Database Autobackup files" folder and place it in your "C:\temp\Elemech" directory (create this directory if it does not exist).
2. Start SQL Server Management Studio and select File → Open. Navigate to and open "C:\temp\Elemech\BackupApp\Scripts\SQL_Scripts\CreateStoredProc.sql"
3. Click Execute on the tool bar. If there is no error, a stored procure has been created.

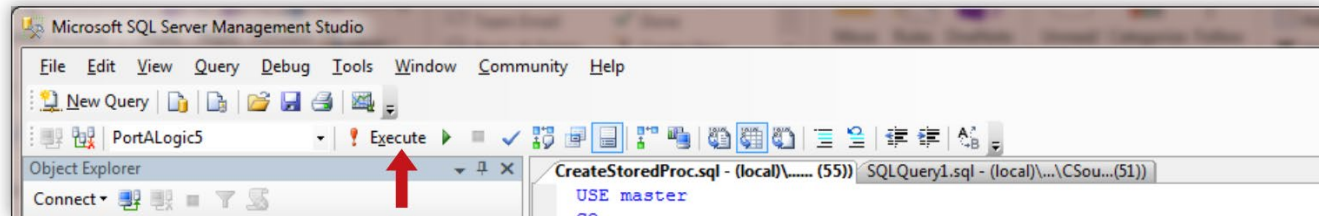


Figure 42: Click Execute to test

4. In SQL Server Management Studio, select File → Open. Navigate to and open "C:\temp\Elemech\BackupApp\Scripts\SQL_Scripts\Full_DB_Backup.sql"
5. Click Execute on the tool bar (Figure 7-3). If there is no error, a stored procure has been created.
6. Test the new procedure by double-clicking the "Full_DB_Backup.sql" file located at "C:\temp\Elemech\BackupApp\Scripts\SQL_Scripts\Full_DB_Backup.sql"

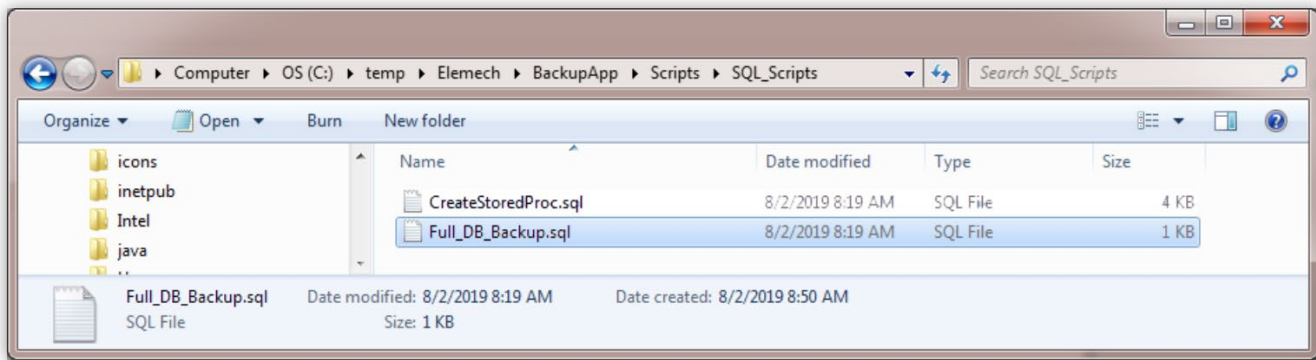


Figure 43 - Test Backup Procedure

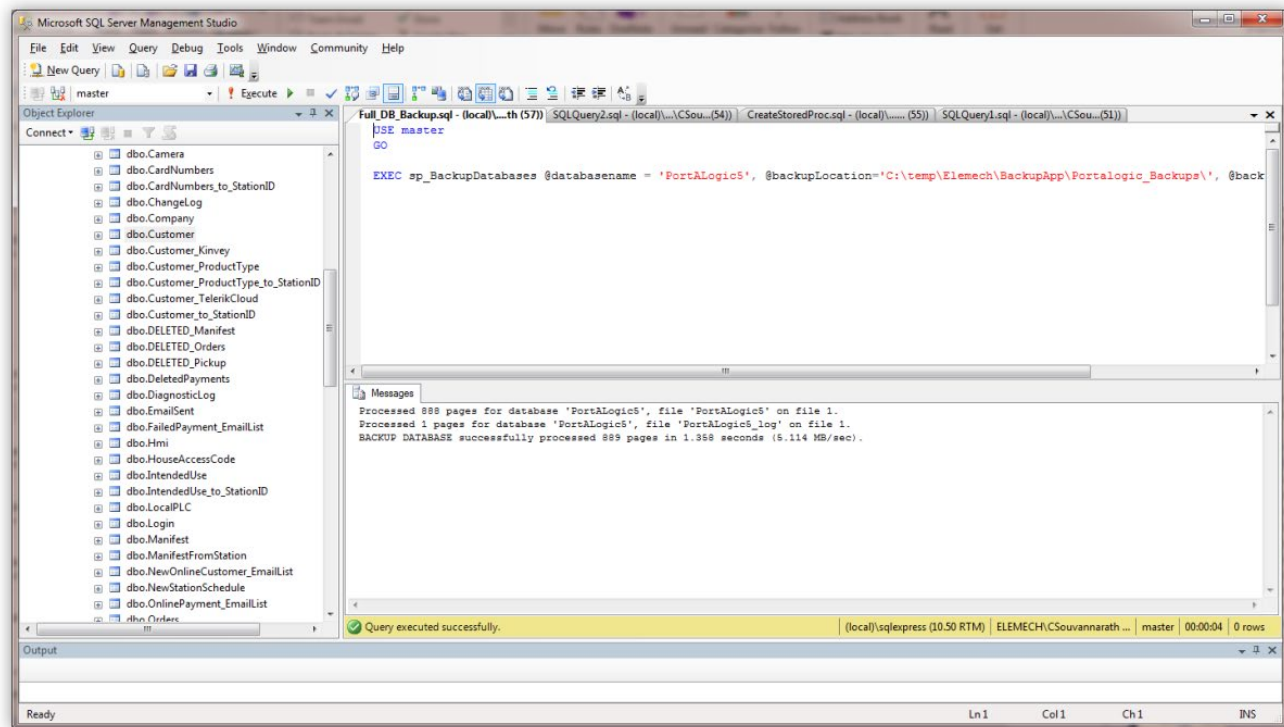


Figure 44: Test Backup Procedure

7. It should run without error. Check your backup file at
“C:\temp\Elemech\ BackupApp\PortaLogic_Backups\”

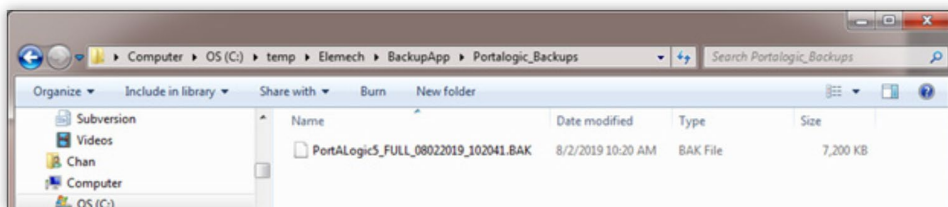


Figure 45: Backup File

Backup by Running Power script

1. Open Command Prompt and type “cd C:\temp\Elemech\BackupApp\Scripts\batch” and press Enter. Then type “backup.bat” and press Enter.

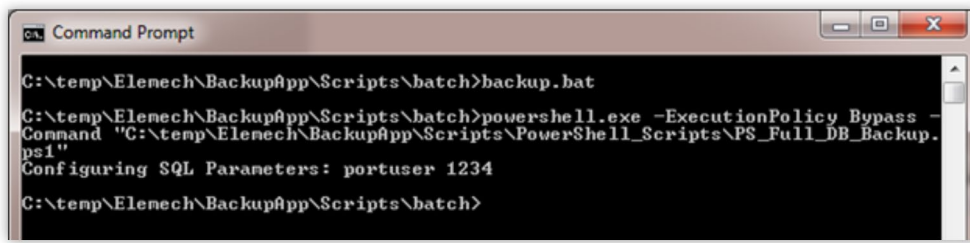



Figure 46: Powerscript Backup

2. Check your new backup file at “C:\temp\Elemech\BackupApp\Portalogic_Backups\”

Schedule Auto Backup


Chapter 3 outlines how to schedule daily tasks in Windows. Please refer to those figures outlined below if further reference is needed.

1. Click  Start → Task Scheduler (see Figure 3-18).
2. Click “Create Basic Task...” → Name it “Elemech PortALogic Backup” → Next (see Figure 3-19).
3. Select “Daily” → Next (see Figure 3-20).
4. Set the time to around midnight → Next (see Figure 3-21).
5. Select “Start a program” → Next (see Figure 3.22).
6. Browse → C:\temp\Elemech\BackupApp\Scripts\batch\backup.bat → Next → Finish (see Figure 3-23).
7. Right-click on “Elemech PortALogic Backup” → Properties (see Figure 3-24)
8. Select “Run whether user is logged on or not” → OK (see Figure 3-25).
9. Enter your password → OK.

Manual Backup

Setting Up a Manual Back Up

To setup a Portalogic Database backup manually, follow the steps below:

1. Click  Start → Search and open “SQL Server Management Studio”
2. Expand “(Local)\SQLEXPRESS”
3. Expand “Databases”
4. Right click on “Portalogic5”
5. Select “Tasks
6. Select “Back Up...”
7. In the “Back Up Database – Portalogic5” window there is a “Select a Page” panel to the left → Click on “Media Options”
 - a) **NOTE:** Under “Overwrite media”, “Back up to the existing media set” should be checked.
 - b) Change the “Append to the existing backup set” to “Overwrite all existing backup sets” by clicking on it → OK

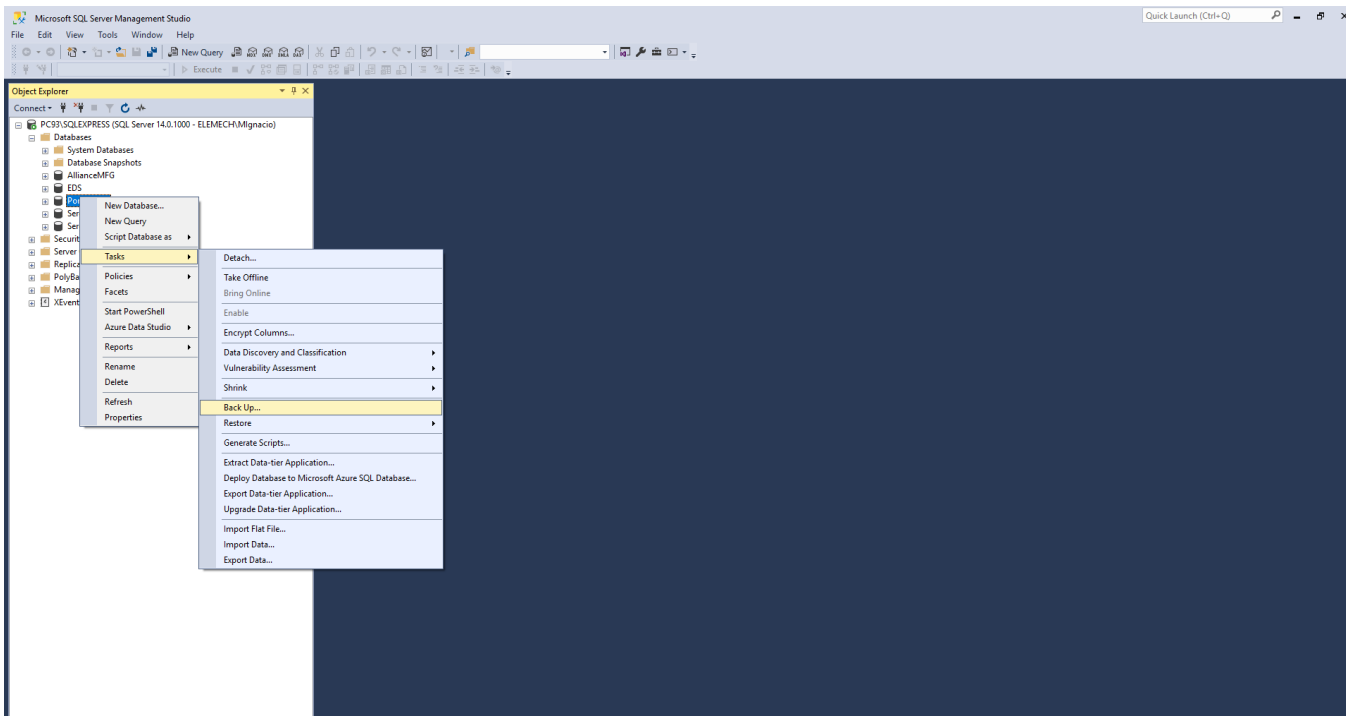


Figure 47: Drill Down of Portalogic 5 for Manual Backup

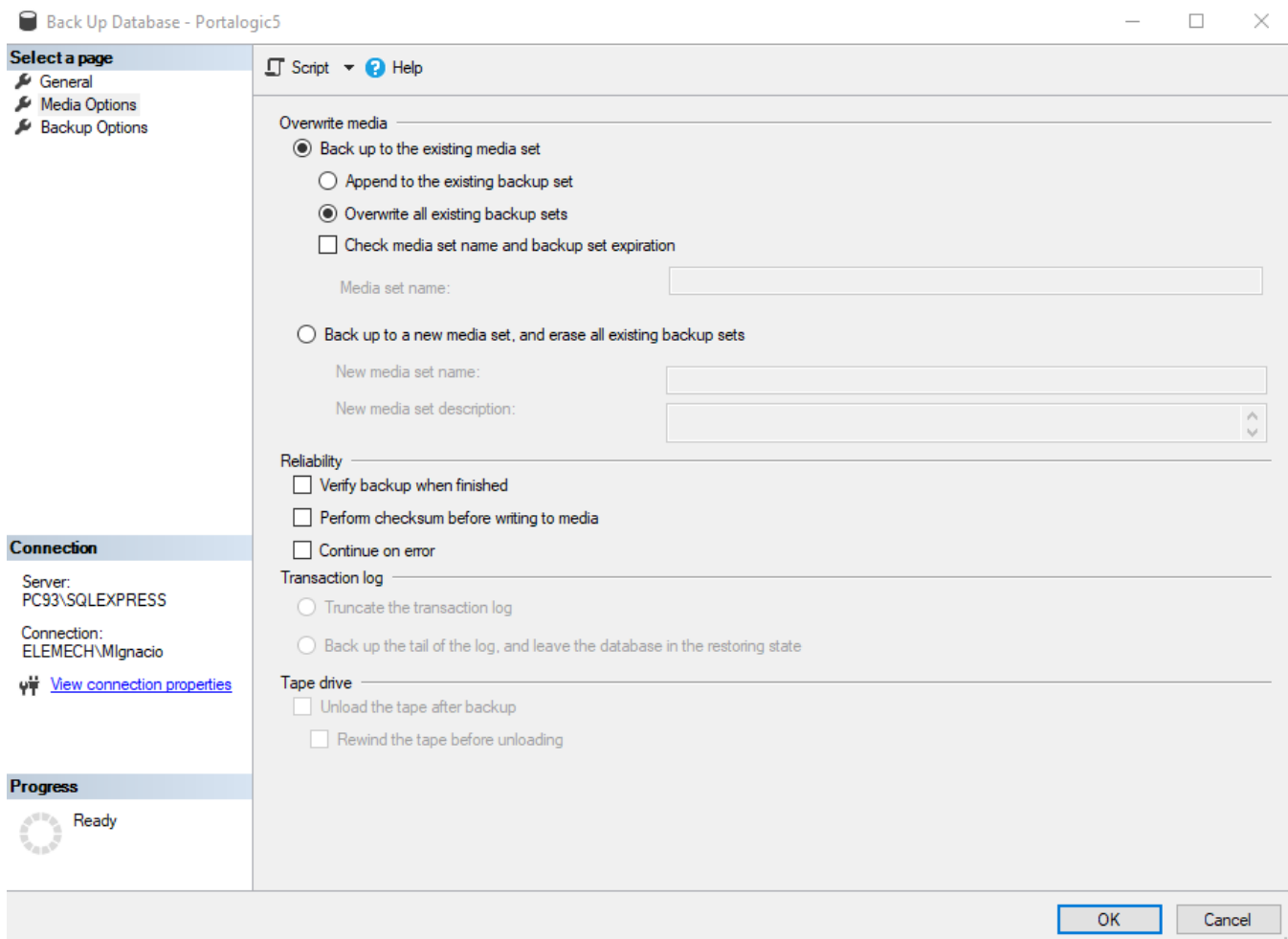


Figure 48: Backup Database - Portalogic 5 Window

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Chapter 9: Technical Support

For Portallogic technical support, contact:

EleMech Inc.

2275 White Oak Circle

Aurora, IL 60502

Phone: (630) 499-7080

Business Hours : Monday – Friday, 8 AM – 4 :30 PM Central Time

Email: Portallogic.Support@elemech.com

Please include your job number and version of Portallogic 6 in the email.

www.portallogic.info/support.html