

SERVICE MANUAL

DRY WELLS

MODEL:	Dual Line	I-Line	Mini Flex Line
PART NUMBER:	18018765	18018767	18018707







Dry Well (18018707 Shown)

MAKE IT WONDERFUL



IMPORTANT SAFETY INFORMATION

EXPLANATION OF SAFETY AND NOTICE SYMBOLS

-  **DANGER** DANGER indicates a hazardous situation which, if not avoided, **WILL** result in death or serious injury.
-  **WARNING** WARNING indicates a hazardous situation which, if not avoided, **COULD** result in death or serious injury.
-  **CAUTION** CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
-  **NOTICE** NOTICE is used to address practices not related to physical injury.

READ AND SAVE THESE INSTRUCTIONS

DANGER

Energized electrical circuits present a life-threatening hazard of electric shock, explosion, or arc flash.

- NEVER hose down unit or clean with water jet.
- ALWAYS disconnect unit from power IMMEDIATELY if bare wires or other electrical conductors are exposed.
- ALWAYS ensure all electrical circuits are disconnected and discharged, with an appropriately rated voltage detecting device, before performing service, maintenance, or installation work.
- ALWAYS follow all national and local standards, laws, and codes, as well as all applicable safe electrical work practices.

Failure to follow these safety instructions WILL result in death or serious injury.

WARNING

Heated surfaces present a serious hazard of burning.

- Disconnect power or other heat sources, and allow adequate cooling time, before cleaning or service.
- Avoid contact with heated surfaces during operation or while cooling.
- Always use appropriate personal protective equipment (PPE) where heated surfaces are present.

Failure to follow these safety instructions COULD result in death or serious injury.

Unauthorized modifications or repairs pose a hazard in the form of an improperly functioning unit.

- ONLY for commercial use.

- NEVER make ANY modifications to the unit that are not authorized by documentation provided by *Franke*.
- NEVER remove any labels from the unit.
- ALWAYS replace ANY labels that have been removed or damaged IMMEDIATELY.
- ONLY use original equipment manufacturer (OEM) parts when service, maintenance, or installation work is performed.
- NEVER operate with factory installed parts or components removed.
- NEVER use for other than intended use.

Failure to follow these safety instructions COULD result in death or serious injury.

These instructions are intended for qualified persons ONLY. Use by others creates an unsafe condition.

- ONLY persons who are certified technicians or trades persons with the requisite knowledge, skills, ability, and training, MUST perform service or installation work.
- ALWAYS keep out of the reach of children.
- ONLY allow access to unit by trained personnel who have read this manual.

Failure to follow these safety instructions COULD result in death or serious injury, as well as property damage or void of warranty.

CAUTION

Lifting and transporting heavy objects poses a hazard of injury.

- NEVER lift or move equipment without proper tools or assistance.

IMPORTANT SAFETY INFORMATION

Failure to follow these safety instructions COULD result in minor to moderate injury.

Steel surfaces may have sharp edges which pose a hazard of injury

- ALWAYS wear appropriate personal protective equipment (PPE) when moving or handling equipment.

Failure to follow these safety instructions COULD result in minor to moderate injury.

NOTICE

NEVER use inappropriate tools, processes, or procedures. Damage to components of unit can occur.

- Follow these instructions EXACTLY to avoid property damage or void of warranty.

NEVER discard any loose parts received with unit. They may be required for proper and safe installation and operation.

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REMOVAL & INSTALLATION OF PARTS

Power ON/OFF Switch & Controllers

⚠ DANGER

RISK OF ELECTRIC SHOCK

ALWAYS disconnect and discharge electrical circuits before performing circuit work. Verify circuit is discharged using an appropriately rated voltage detecting device.

⚠ CAUTION

SHARP SURFACES HAZARD

ALWAYS wear appropriate personal protective equipment (PPE) when handling sharp edges or surfaces.

To remove power ON/OFF switch and controllers:

1. Remove two (2) M5 0.8 × 12 mm screws fastening controller face plate to control module (Fig. 1).
2. Disconnect wiring to switches and controllers.
3. Remove power switches by pressing in on tabs on sides of each switch. Pull switch through frame to remove (Fig. 2).
4. Remove controllers by pressing in on tabs to either side of each controller. Slide mounting clips back and off of controller. Pull controller through frame to remove (Fig. 3).
5. Install in reverse order. Refer to Fig. 4 and 5, and Tables 1 and 2, for connection points for each wire on the controllers and switch.

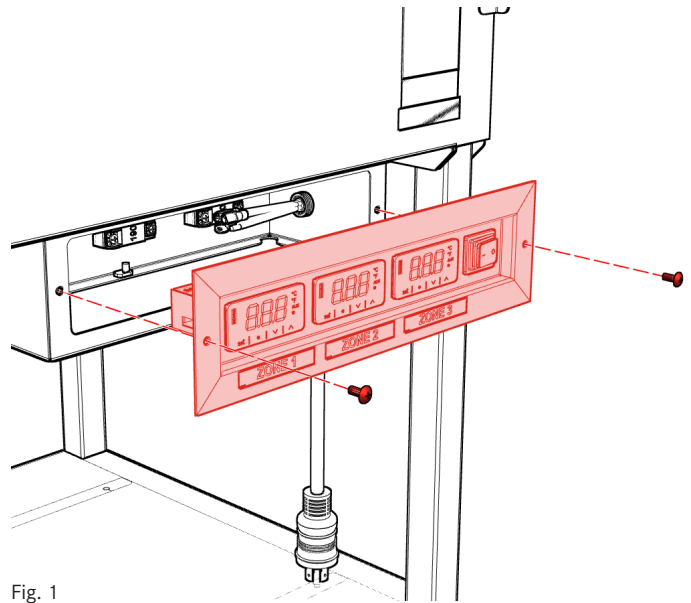


Fig. 1

DETAIL A

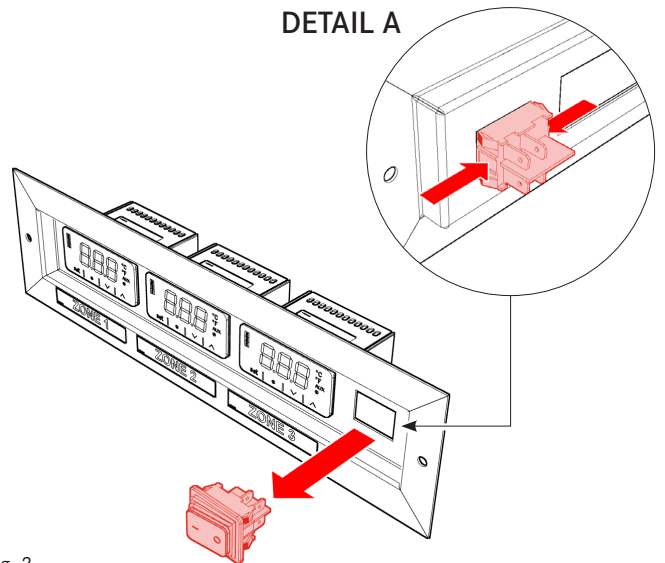


Fig. 2

DETAIL B

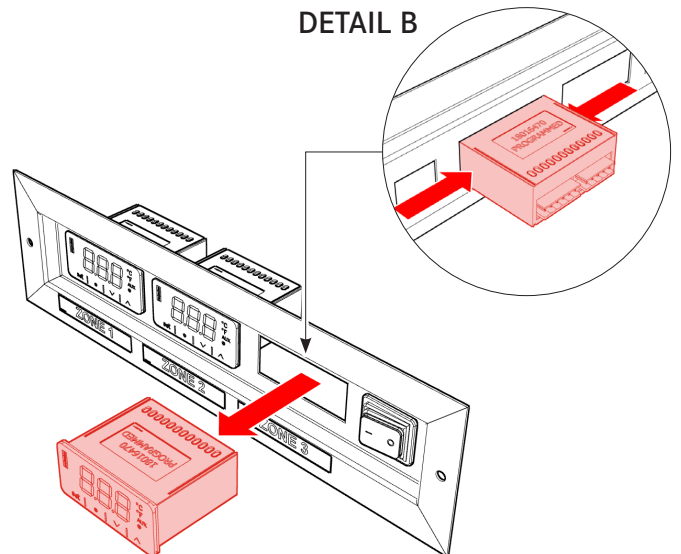


Fig. 3

REMOVAL & INSTALLATION OF PARTS

CONTROLLER

EVCO TERMINAL	WIRE COLOR
Terminal 1	Empty
Terminal 2	Empty
Terminal 3	Empty
Terminal 4	To Power ON/OFF Switch
Terminal 5	Empty
Terminal 6	To Power ON/OFF Switch
Terminal 8	To Relay
Terminal 9	Empty
Terminal 10	To Sensor & Relay
Terminal 11	To Sensor
Terminal 12	Empty

Table 1

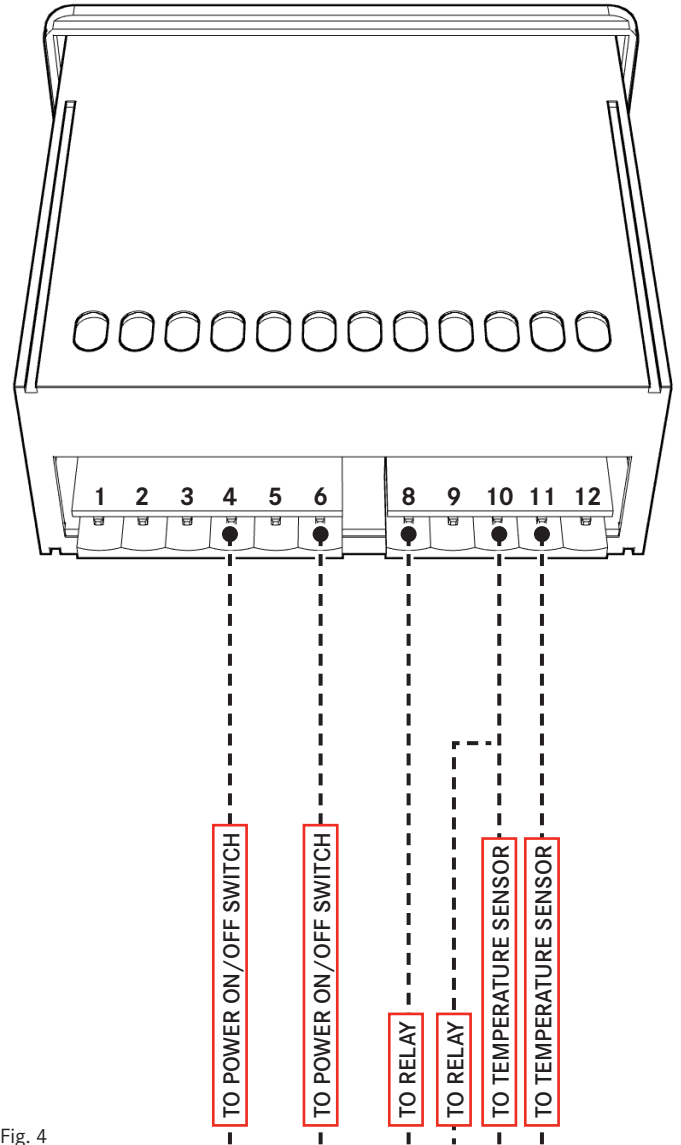


Fig. 4

POWER ON/OFF SWITCH

SWITCH TERMINAL	WIRE COLOR
Terminal 1	To Controller Terminal 6
Terminal 2	To Power Cord
Terminal 3	To Controller Terminal 4
Terminal 4	To Power Cord

Table 2

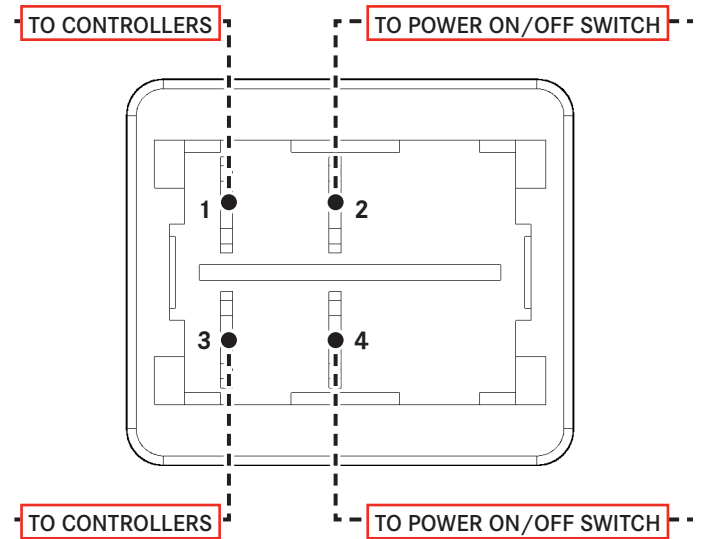


Fig. 5

REMOVAL & INSTALLATION OF PARTS

Solid State Relays

⚠ DANGER

RISK OF ELECTRIC SHOCK

ALWAYS disconnect and discharge electrical circuits before performing circuit work. Verify circuit is discharged using an appropriately rated voltage detecting device.

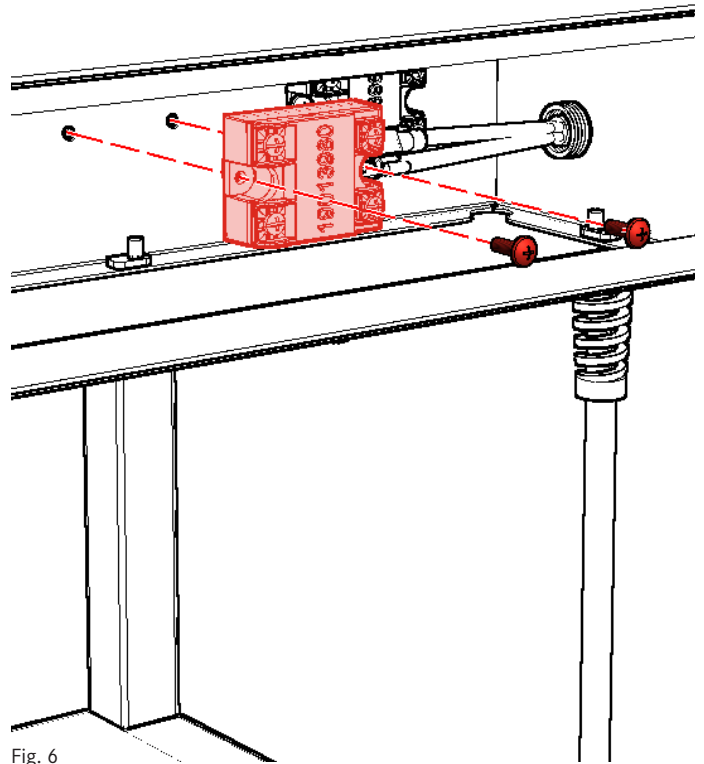
⚠ CAUTION

SHARP SURFACES HAZARD

ALWAYS wear appropriate personal protective equipment (PPE) when handling sharp edges or surfaces.

To remove solid state relays:

1. Remove controller face plate (refer to *Power ON/OFF Switch & Controllers*, page 4).
2. Disconnect wiring to affected relay.
3. For EACH relay, remove two (2) M4 0.7 × 10 mm screws fastening relay to back of control module (Fig. 6).
4. Install in reverse order.



REMOVAL & INSTALLATION OF PARTS

Heater Access Panels

⚠ DANGER

RISK OF ELECTRIC SHOCK

ALWAYS disconnect and discharge electrical circuits before performing circuit work. Verify circuit is discharged using an appropriately rated voltage detecting device.

⚠ CAUTION

SHARP SURFACES HAZARD

ALWAYS wear appropriate personal protective equipment (PPE) when handling sharp edges or surfaces.

To remove heater access panels:

1. Remove six (6) M4.8 × 13 mm hex head screws from right-hand access panel. Drop panel away from unit to remove (Fig. 7).
2. Remove four (4) M4.8 × 13 mm hex head screws from left-hand access panel. Drop panel away from unit to remove (Fig. 8).
3. Install in reverse order..

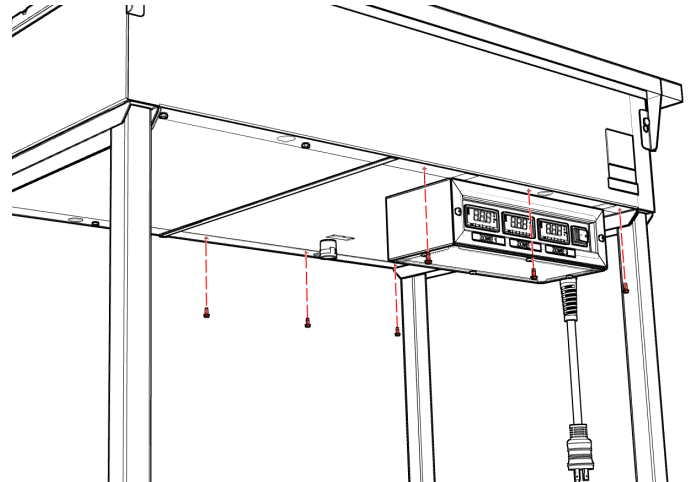


Fig. 7

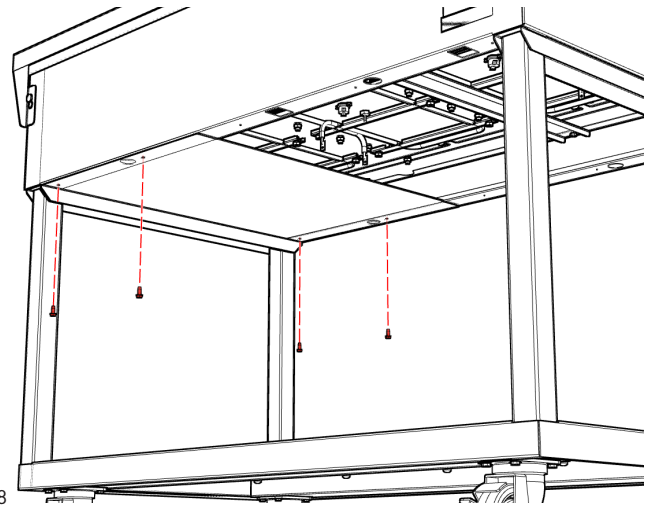


Fig. 8

REMOVAL & INSTALLATION OF PARTS

High Limit Switches

⚠ DANGER

RISK OF ELECTRIC SHOCK

ALWAYS disconnect and discharge electrical circuits before performing circuit work. Verify circuit is discharged using an appropriately rated voltage detecting device.

⚠ CAUTION

SHARP SURFACES HAZARD

ALWAYS wear appropriate personal protective equipment (PPE) when handling sharp edges or surfaces.

To remove high limit switches:

1. Remove heater access panels from underside of unit (refer to *Heater Access Panels*, page 7).
2. For EACH bracket, remove two (2) M4.8 × 13 mm hex head screws fastening insulation brackets to unit (Fig. 9). Drop brackets and insulation out of unit.
3. Disconnect wiring to affected high limit switch.
4. For EACH high limit switch, remove two (2) M4 0.7 × 5 mm screws fastening switch to bottom of dry well pan (Fig. 10).
5. Install in reverse order.

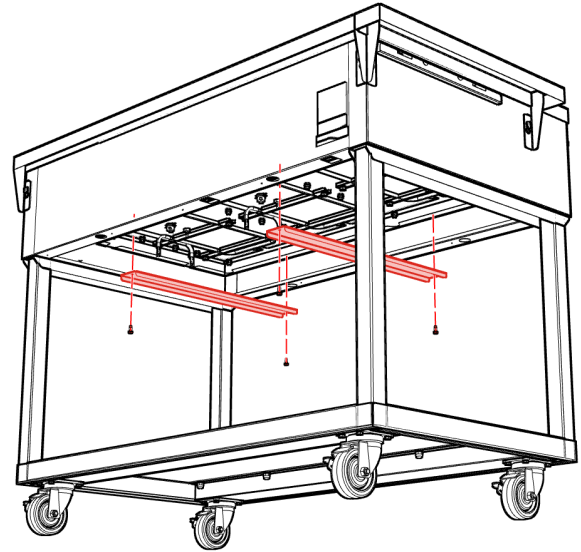


Fig. 9

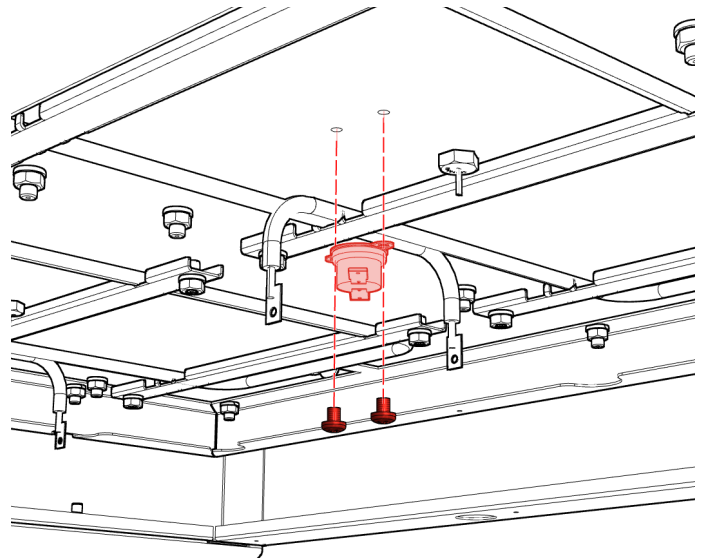


Fig. 10

REMOVAL & INSTALLATION OF PARTS

Temperature Sensors

⚠ DANGER

RISK OF ELECTRIC SHOCK

ALWAYS disconnect and discharge electrical circuits before performing circuit work. Verify circuit is discharged using an appropriately rated voltage detecting device.

⚠ CAUTION

SHARP SURFACES HAZARD

ALWAYS wear appropriate personal protective equipment (PPE) when handling sharp edges or surfaces.

To remove temperature sensors:

1. Remove heater access panels from underside of unit (refer to *Heater Access Panels*, page 7).
2. For EACH bracket, remove two (2) M4.8 × 13 mm hex head screws fastening insulation brackets to unit (Fig. 11). Drop brackets and insulation out of unit.
3. Disconnect wiring to affected temperature sensor.
4. For EACH temperature sensor, unscrew sensor from bottom of dry well (Fig. 12).
5. Install in reverse order.

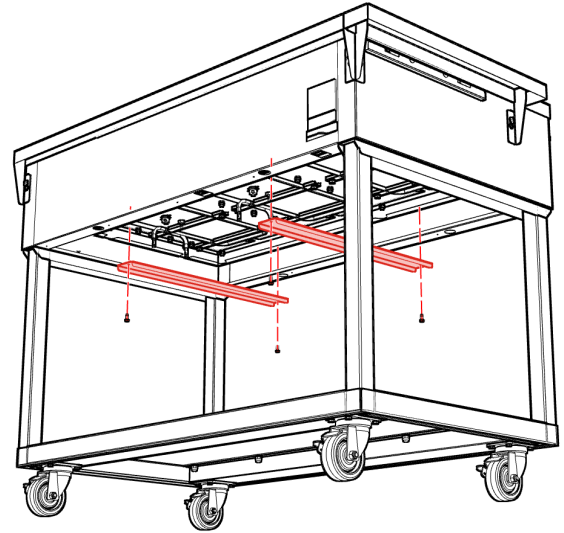


Fig. 11

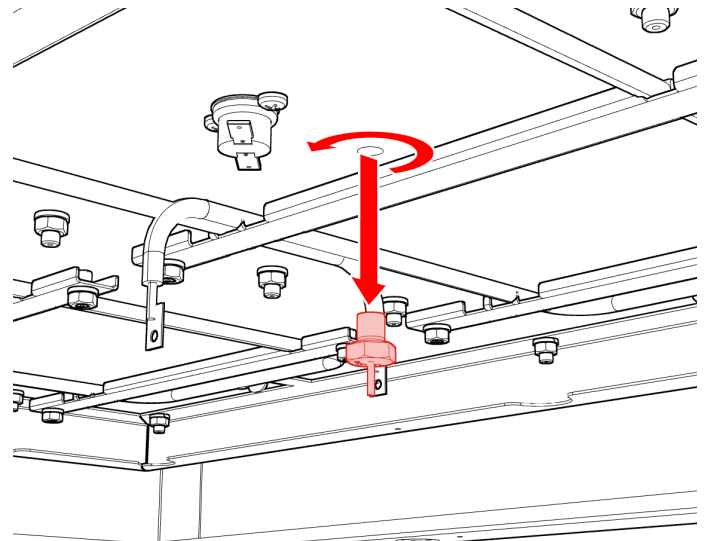


Fig. 12

REMOVAL & INSTALLATION OF PARTS

Heating Elements

⚠ DANGER

RISK OF ELECTRIC SHOCK

ALWAYS disconnect and discharge electrical circuits before performing circuit work. Verify circuit is discharged using an appropriately rated voltage detecting device.

⚠ WARNING

RISK OF BURNING/SCALDING

Turn ALL heated components OFF and allow to cool for at least 30 minutes or until cool to the touch before cleaning.

⚠ CAUTION

SHARP SURFACES HAZARD

ALWAYS wear appropriate personal protective equipment (PPE) when handling sharp edges or surfaces.

To remove heating elements:

1. Remove heater access panels from underside of unit (refer to *Heater Access Panels*, page 7).
2. For EACH bracket, remove two (2) M4.8 × 13 mm hex head screws fastening insulation brackets to unit (Fig. 13). Drop brackets and insulation out of unit.
3. Disconnect wiring to affected heating element.
4. For EACH heating element, remove six (6) acorn nuts fastening heating element brackets to unit (Fig. 14). Drop brackets and heating elements out of unit.
5. Pinch terminal ends of heating element together and push up to release from brackets (Fig. 15).
6. Install in reverse order.

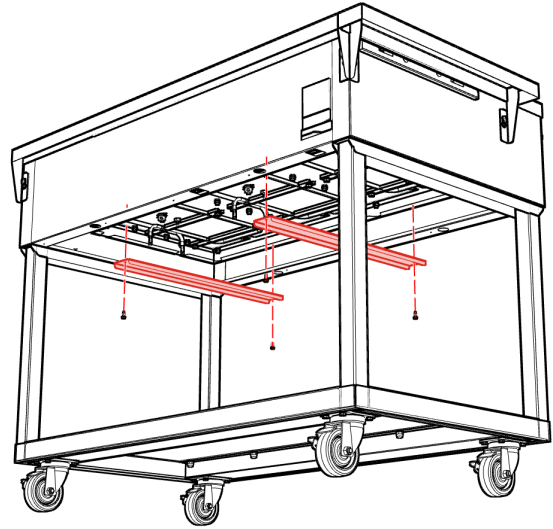


Fig. 13

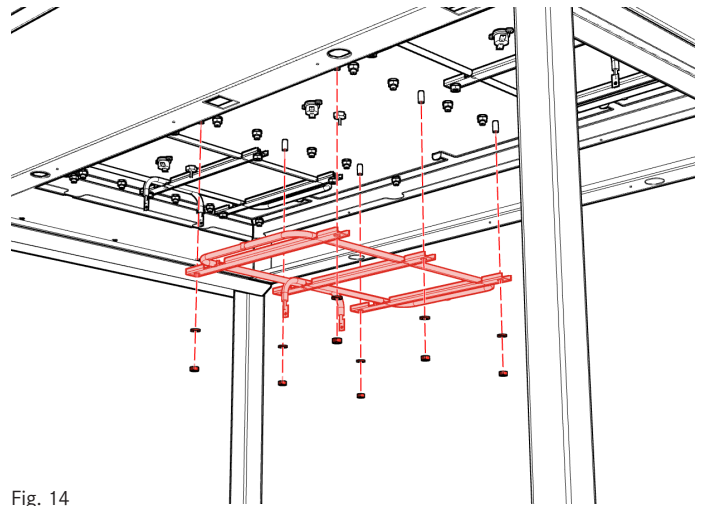


Fig. 14

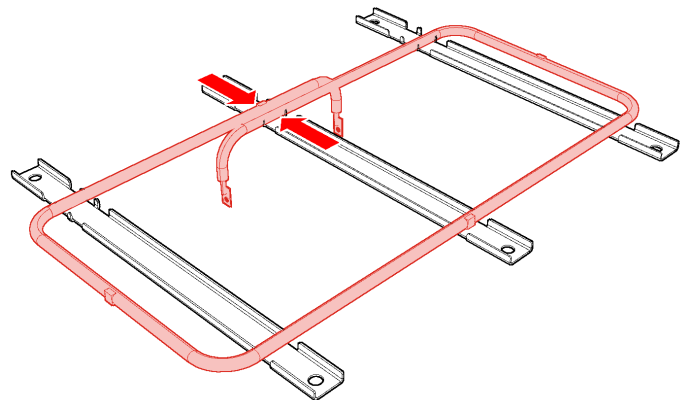


Fig. 15

Temperature Setpoint Adjustment

Refer to the *Dry Wells Operation Manual* for the temperature setpoint adjustment.

Document URL:
<https://tinyurl.com/vyerzm5>



Periodic Maintenance

Refer to the *Dry Wells Operation Manual* for periodic maintenance procedures.

Document URL:
<https://tinyurl.com/vyerzm5>



NOTICE

IMPORTANT SERVICE INFORMATION

By default, the controller is locked from the factory. Do NOT unlock the controller unless requested to do so by a store manager.

Locking the Controller

To lock the controller:

1. From the current temperature display, press and hold the Set button for approximately 5 to 8 seconds.
2. Use the Up and Down arrow buttons to scroll to **PA1**, and press the Set button. If **PA1** does not appear, skip to *step 4*.
3. Use the Up arrow button to increase the value from 0 to 14, which is the pass code, and press

the Set button.

4. Use the Up and Down arrow buttons to scroll to **LOC**, and press the Set button.
5. The letter 'y' should be displayed. Use the Up and Down arrow buttons to scroll to 'n', and press the Set button.
6. Press the Power button momentarily twice (upper right hand button), and the display returns to the current temperature display.

Unlocking the Controller

To unlock the controller:

1. From the current temperature display, press and hold the Set button for approximately 5 to 8 seconds.
2. Use the Up and Down arrow buttons to scroll to **PA1**, and press the Set button. If **PA1** does not appear, skip to *Step 4*.
3. Use the Up arrow button to increase the value from 0 to 14, which is the pass code, and press

4. Use the Up and Down arrow buttons to scroll to **LOC**, and press the Set button.
5. The letter 'n' should be displayed. Use the Up and Down arrow buttons to scroll to 'y', and press the Set button.
6. Press the Power button momentarily twice (upper right hand button), and the display returns to the current temperature display.

PROCEDURES & ADJUSTMENTS

Testing the Temperature Sensors

It is important to confirm whether the coil and air temperature sensors are operating within specified parameters.

Use the following test to determine if sensor replacement is necessary.

1. Fill a cup with ice and water.
2. Using thermometer to monitor, allow temperature of water to stabilize at 32°F (0°C).

3. Remove temperature sensor from unit (refer to *Temperature Sensors*, page 9), and submerge sensor into cup of water.
4. Test sensor at black and white wires using a calibrated ohmmeter. Confirm it is reporting a resistance value of 27.28k ohms, +/- 1%.
5. If sensor is outside of specified parameters, replace it.

TROUBLESHOOTING

ISSUE	POSSIBLE CAUSE	REMEDY
Unit does not start when powered ON.	Unit is not plugged in.	Verify unit is plugged into an appropriately rated electrical outlet.
	Outlet is not working.	Plug unit into another, nearby outlet. If individual outlet is not working, use alternate, and contact licensed electrician to repair or replace outlet.
	Circuit breaker has been tripped.	Check circuit breaker to see if it has tripped. Reset if necessary.
	Power switch not receiving power.	Confirm with a voltmeter that electricity is flowing from the power cord to the power switch. Replace any damaged or non-functional wiring.
Power is ON but unit is not heating.	Power switch is not working.	Test, and replace the power switch if necessary.
	The high limit switch has tripped.	Unplug the unit for one (1) hour, then plug in, restart, and confirm operation.
	Power is not flowing through the heating circuit components.	Confirm that power is flowing through the relays, high limit switch, and heating element. Replace any damaged or non-functional components.
	Controller has been turned OFF.	Turn the controller ON by pressing the power (top-right) button on the controller.
	Controller is not receiving power.	Check input voltages to the controller. Replace wiring and/or controller as needed.
	Controller is not sending signals to the heating elements.	Check output voltages from the controller. Replace wiring and/or controller as needed.

TROUBLESHOOTING

ISSUE	POSSIBLE CAUSE	REMEDY
Dry well is too warm.	Setpoint is set too high.	Adjust the setpoint temperature (refer to <i>Temperature Setpoint Adjustment</i> , page 11).
	Power is not flowing through the heating circuit components.	Confirm that power is flowing through the relays, high limit switch, and heating element. Replace any damaged or non-functional components.
	Temperature sensor is not installed correctly.	Confirm that the temperature sensor is installed correctly (refer to <i>Temperature Sensors</i> , page 9).
Dry well is too cold.	Setpoint is set too low.	Adjust the setpoint temperature (refer to <i>Temperature Setpoint Adjustment</i> , page 11).
	Power is not flowing through the heating circuit components.	Confirm that power is flowing through the relays, high limit switch, and heating element. Replace any damaged or non-functional components.
	Temperature sensor is not installed correctly.	Confirm that the temperature sensor is installed correctly (refer to <i>Temperature Sensors</i> , page 9).

If following these steps does not fix the problem,
contact Franke at (800) 537-2653 and press 2 for Technical Support.

COMMON SERVICE PARTS

Exterior (Dual Line)

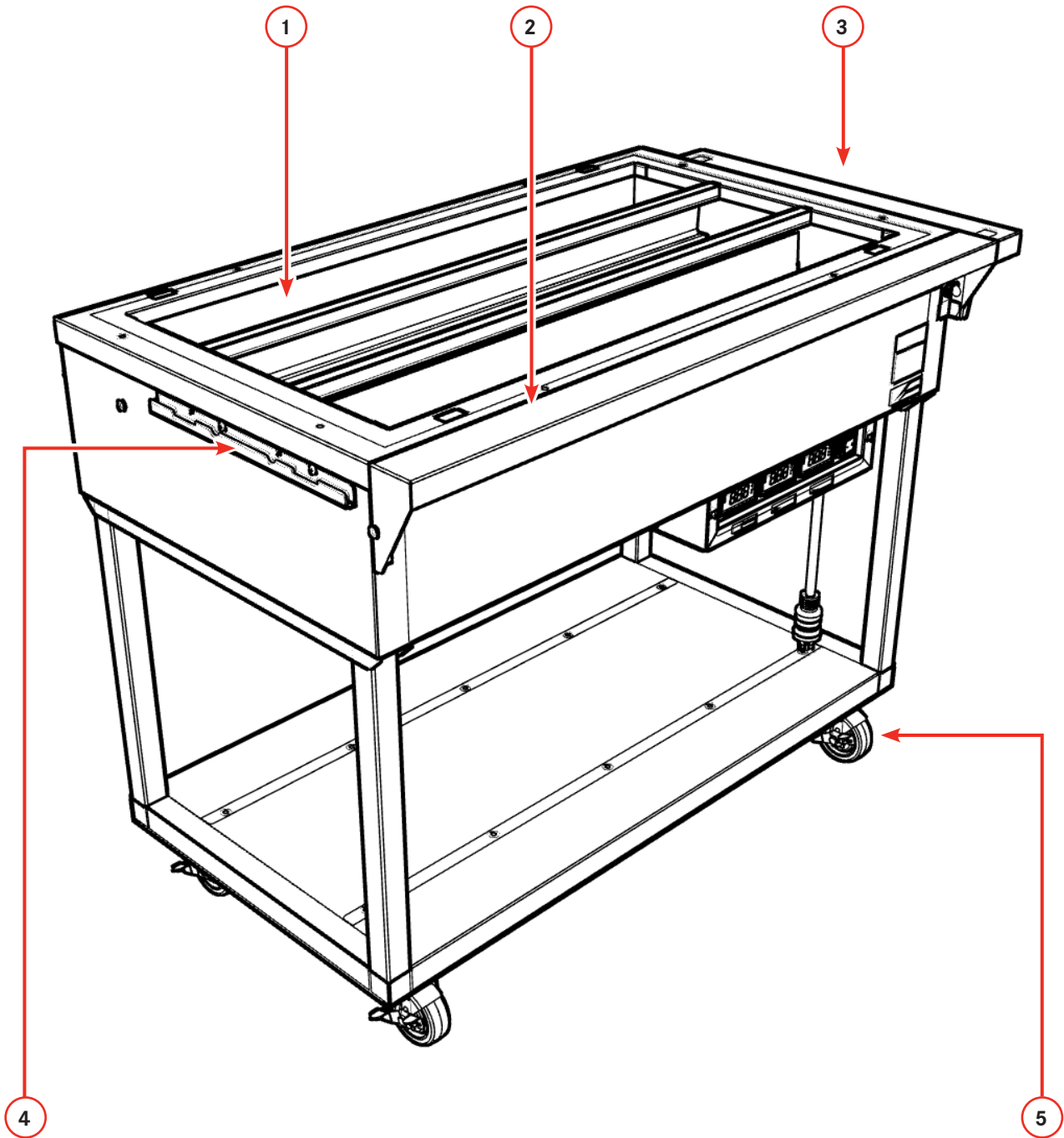


Fig. 16

ITEM	PART #	DESCRIPTION	QTY
1	27808075	Hot Well Aluminum Kit	1
2	30-210012623	Front Shelf, Dual Line	1
3	18018051	Side Shelf Extension, Dual Line	1
4	30-210009091	Side Hanger	1
5	19003592	Caster, 3-1/2" Dia., Swivel Plate	4

Table 3

COMMON SERVICE PARTS

Exterior (I-Line)

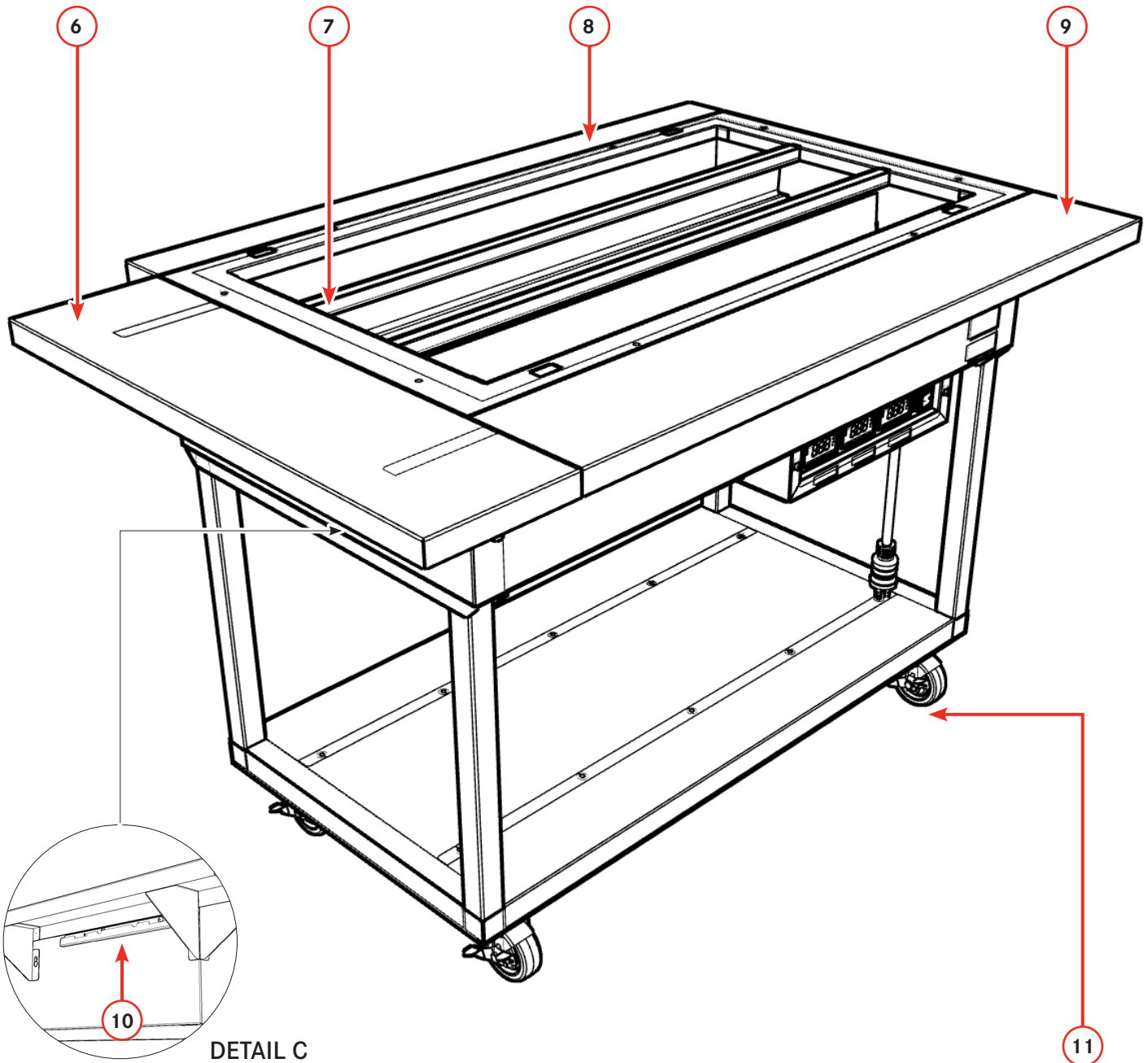


Fig. 17

ITEM	PART #	DESCRIPTION	QTY
6	18018054	Side Shelf Extension, I-Line, LH	1
7	27808075	Hot Well Aluminum Kit	1
8	30-210015009	Back Shelf, I-Line	1
9	30-210015006	Front Shelf, I-Line	1
10	30-210009091	Side Hanger	1
11	19003592	Caster, 3-1/2" Dia., Swivel Plate	4

Table 4

COMMON SERVICE PARTS

Exterior (Mini Flex Line)

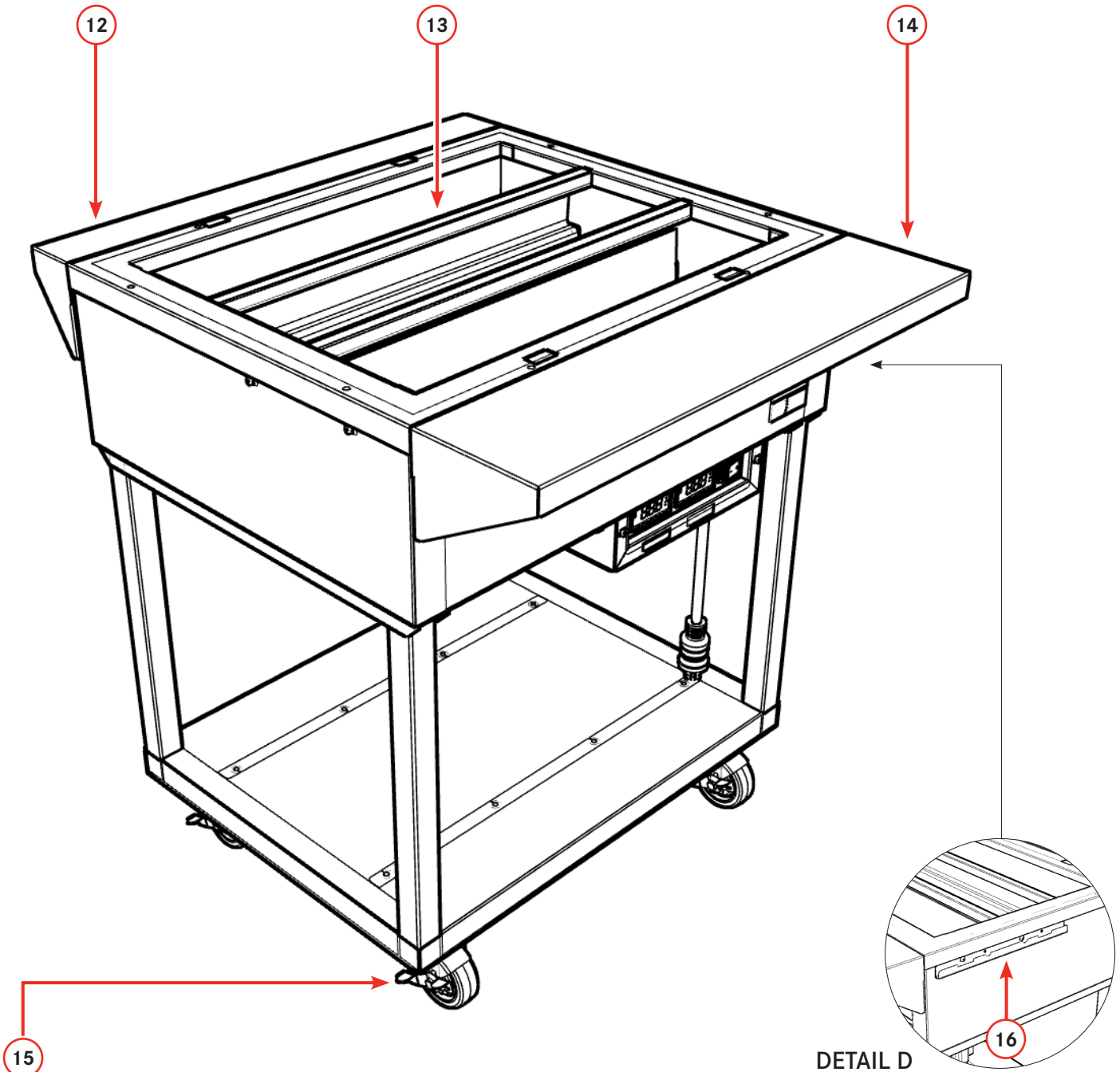


Fig. 18

ITEM	PART #	DESCRIPTION	QTY
12	30-210014909	Back Shelf, Mini Flex Line	1
13	*	Hot Well Aluminum Kit, Mini Flex Line	1
14	30-210014910	Front Shelf, Mini Flex Line	1
15	19003592	Caster, 3-1/2" Dia., Swivel Plate	4
16	30-210009091	Side Hanger	1

Table 5 * Contact Technical Support for assistance

COMMON SERVICE PARTS

Control Module (Dual & I-Line)

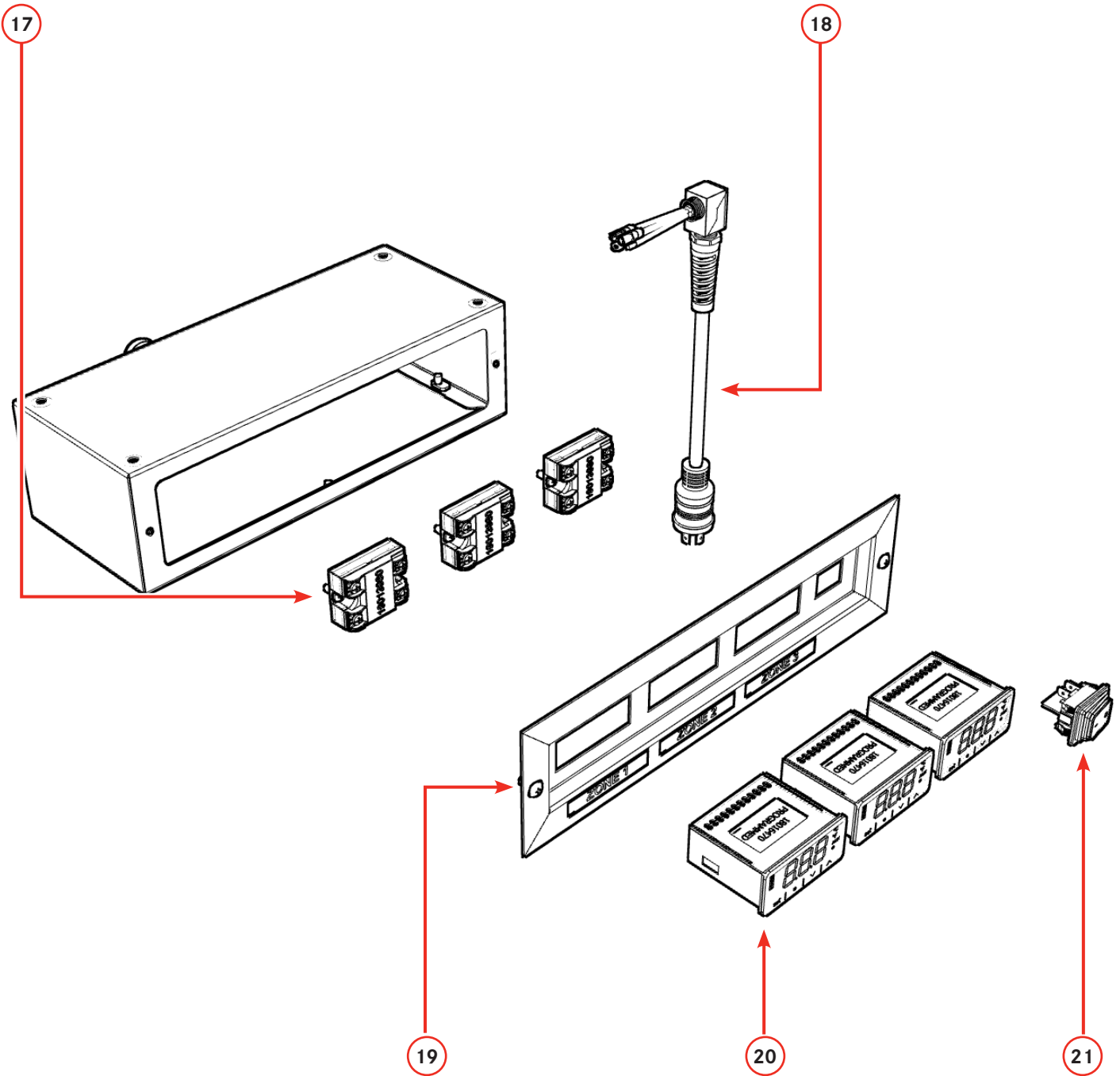


Fig. 19

ITEM	PART #	DESCRIPTION	QTY
17	19013980	Relay, Solid State, Panel Mount, 24 A, 24-280 VAC	3
18	19008887	Electrical Cord w/ NEMA L14-20P	1
19	30-210005487	Face Plate, Control Panel	1
20	18016470	Controller, EVCO, f/ Dry Wells	3
21	385.152	Rocker Switch, Illuminated	1

Table 6

COMMON SERVICE PARTS

Control Module (Mini Flex Line)

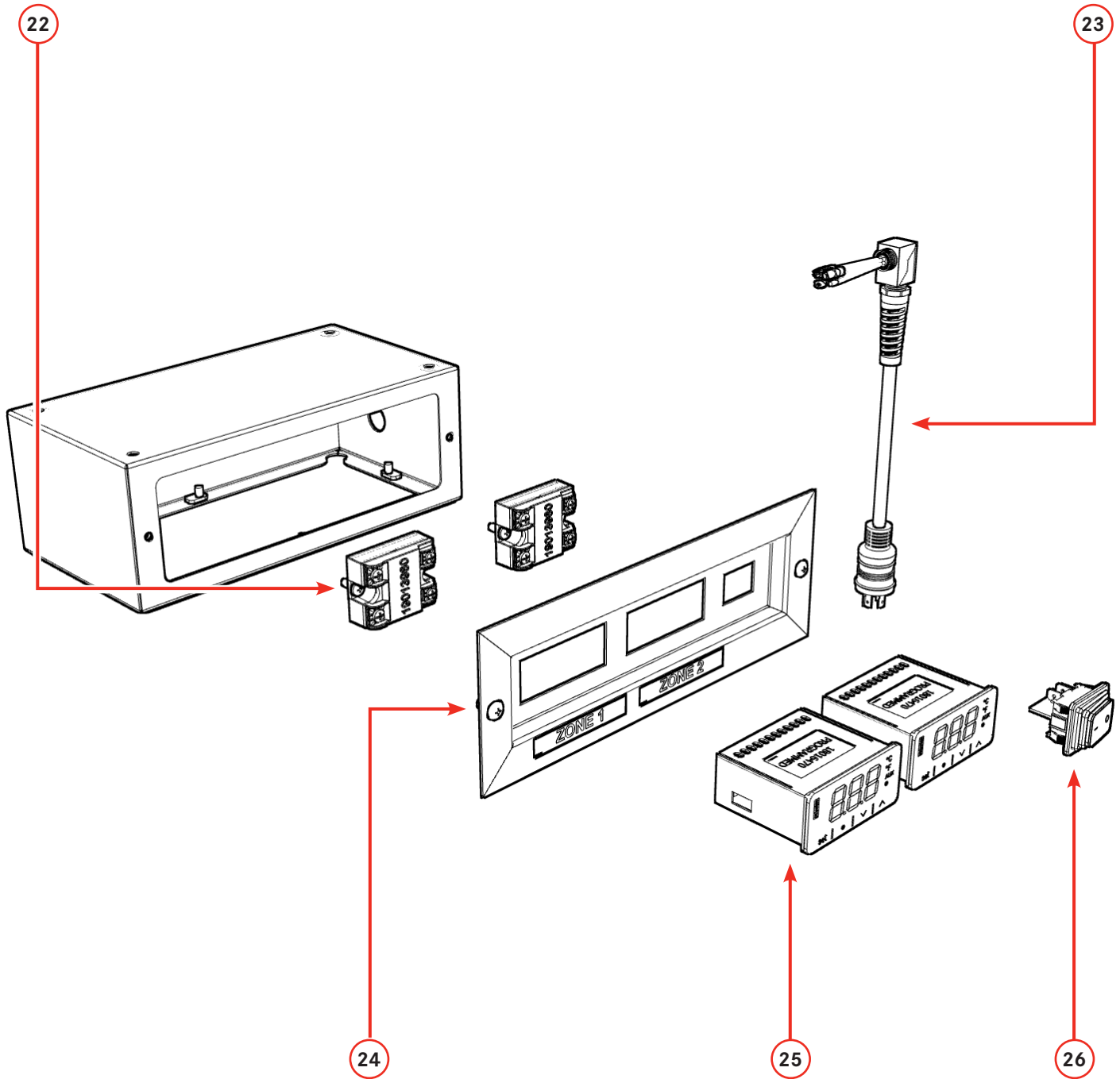


Fig. 20

ITEM	PART #	DESCRIPTION	QTY
22	19013980	Relay, Solid State, Panel Mount, 24 A, 24-280 VAC	
23	19008887	Electrical Cord w/ NEMA L14-20P	
24	30-210009614	Face Plate, Control Panel	
25	18016470	Controller, <i>EVCO</i> , f/ Dry Wells	
26	385.152	Rocker Switch, Illuminated	

Table 7

COMMON SERVICE PARTS

Dry Well (Dual & I-Line)

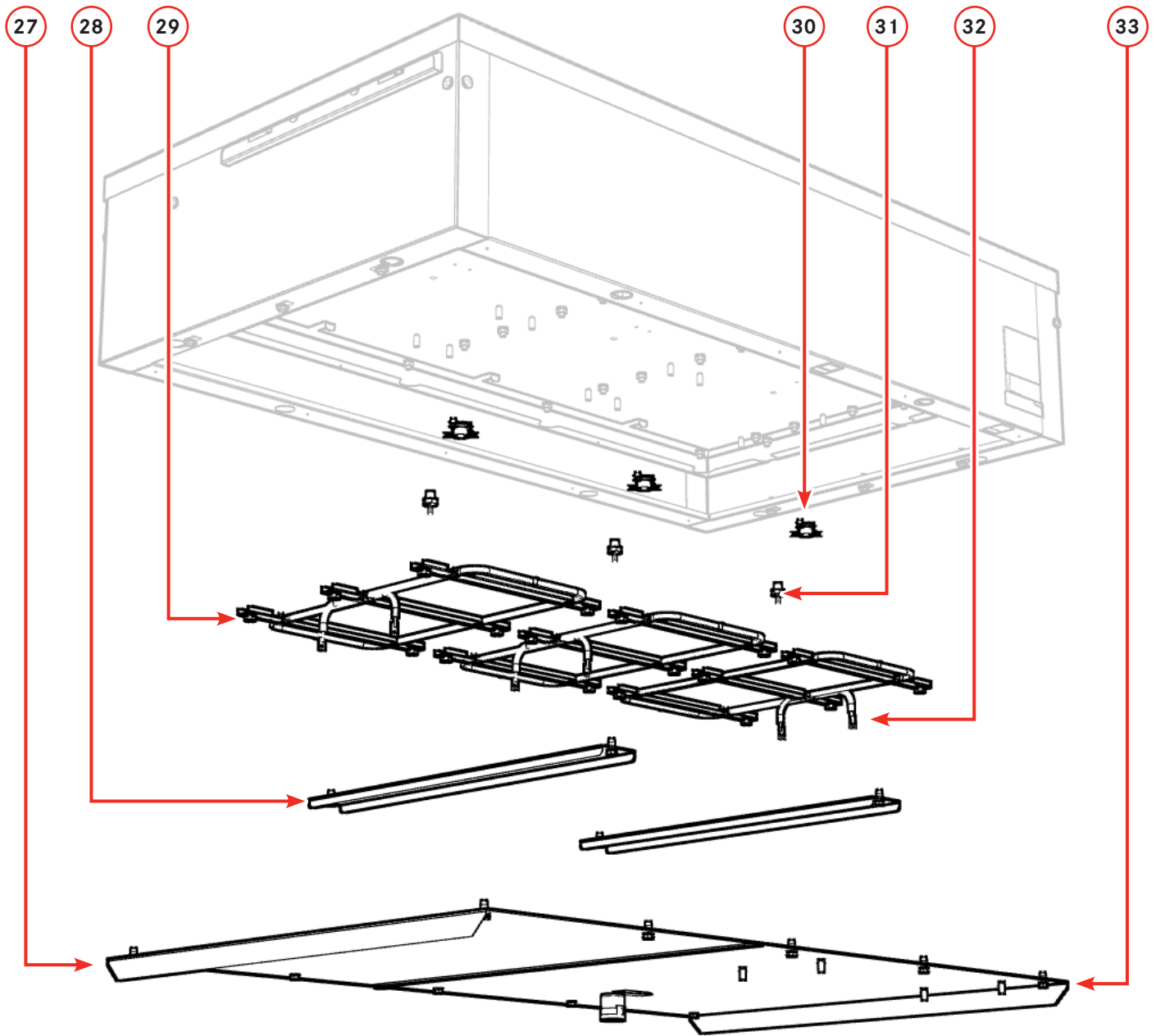


Fig. 21

ITEM	PART #	DESCRIPTION	QTY
27	30-210006030	Insulation Cover, LH	1
28	30-210006710	Insulation Bracket	2
29	30-210005380	Element Bracket	9
30	19013225	Switch, High Limit	3
31	19013343	Non-Rotating Bolt Sensor, PT1000	3
32	19013222	Heater, Rod	3
33	30-210006027	Insulation Cover, RH	1

Table 8

COMMON SERVICE PARTS

Dry Well (Mini Flex Line)

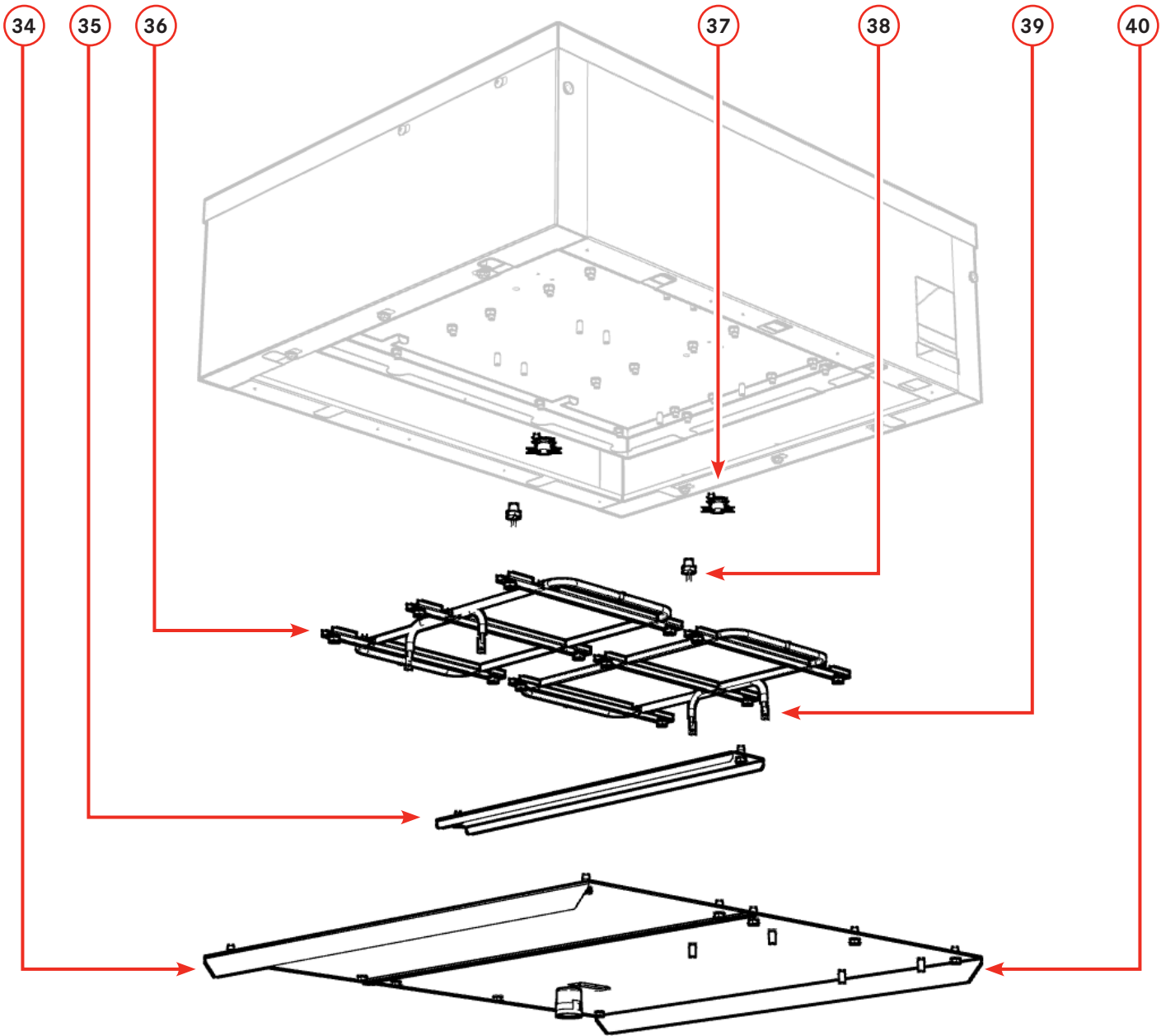


Fig. 22

ITEM	PART #	DESCRIPTION	QTY
34	30-210009620	Insulation Cover, Mini Flex Line, LH	1
35	30-210006710	Insulation Bracket	1
36	30-210005380	Element Bracket	6
37	19013225	Switch, High Limit	2
38	19013343	Non-Rotating Bolt Sensor, PT1000	2
39	19013222	Heater, Rod	2
40	30-210009622	Insulation Cover, Mini Flex Line, RH	1

Table 9

SPECIFICATIONS

CONTROLLER SETTINGS

PARAMETER	SETTING
Temperature Range	Adjustable
Coldest Set Point	283.0°F
Normal Set Point	285.0°F
Warmest Set Point	287.0°F
Compressor Protection	N/A
Minimum On Time	N/A
Minimum Off Time	N/A
Defrost Settings	N/A
Defrost Start Temp (Evaporator Probe)	N/A
Maximum Time Between Defrosts	N/A
Termination Temp (Evaporator Probe)	N/A
Maximum Time Allowed	N/A
Display Features	Adjustments
Can select °F or °C?	No
Can adjust temperature from display?	Yes
Can Initiate Defrost from display?	No
Display During Defrost Cycle	N/A

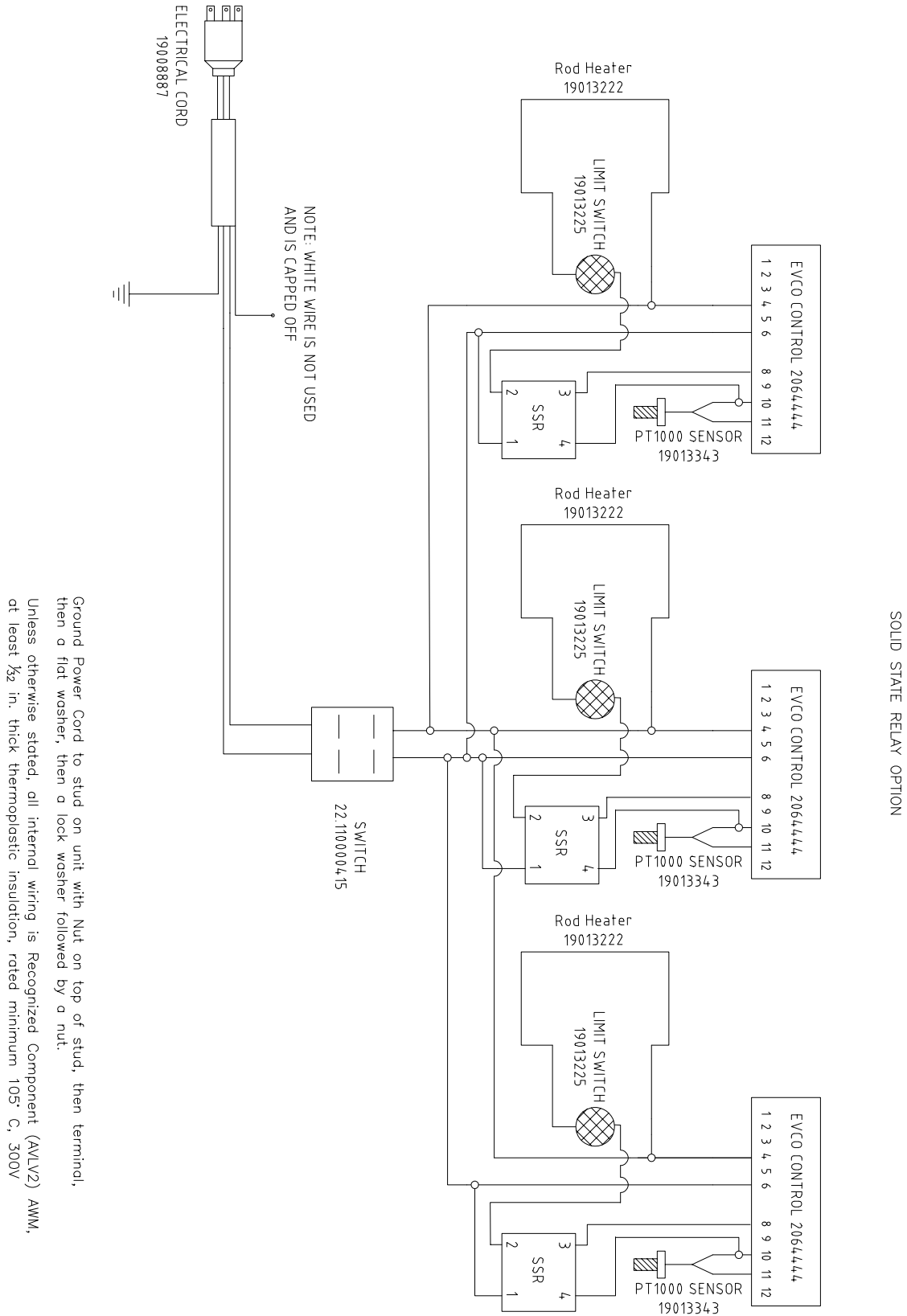
ELECTRICAL

PARAMETER	DUAL LINE/I-LINE	MINI FLEX LINE
Supply Power	208 V/60 Hz/1 Ph	208 V/60 Hz/1 Ph
Load Center Amperage	15.9 A	11.2 A

HEATER

PARAMETER	SETTING (DUAL/I-LINE)	SETTING (MINI FLEX LINE)
Voltage	208 V	208 V
Amperage	15.9 A	11.2 A
Wattage	1102 W (x3)	1165 W (x2)
Resistance	36.1 Ω (±10%) (x3)	36.1 Ω (±10%) (x2)

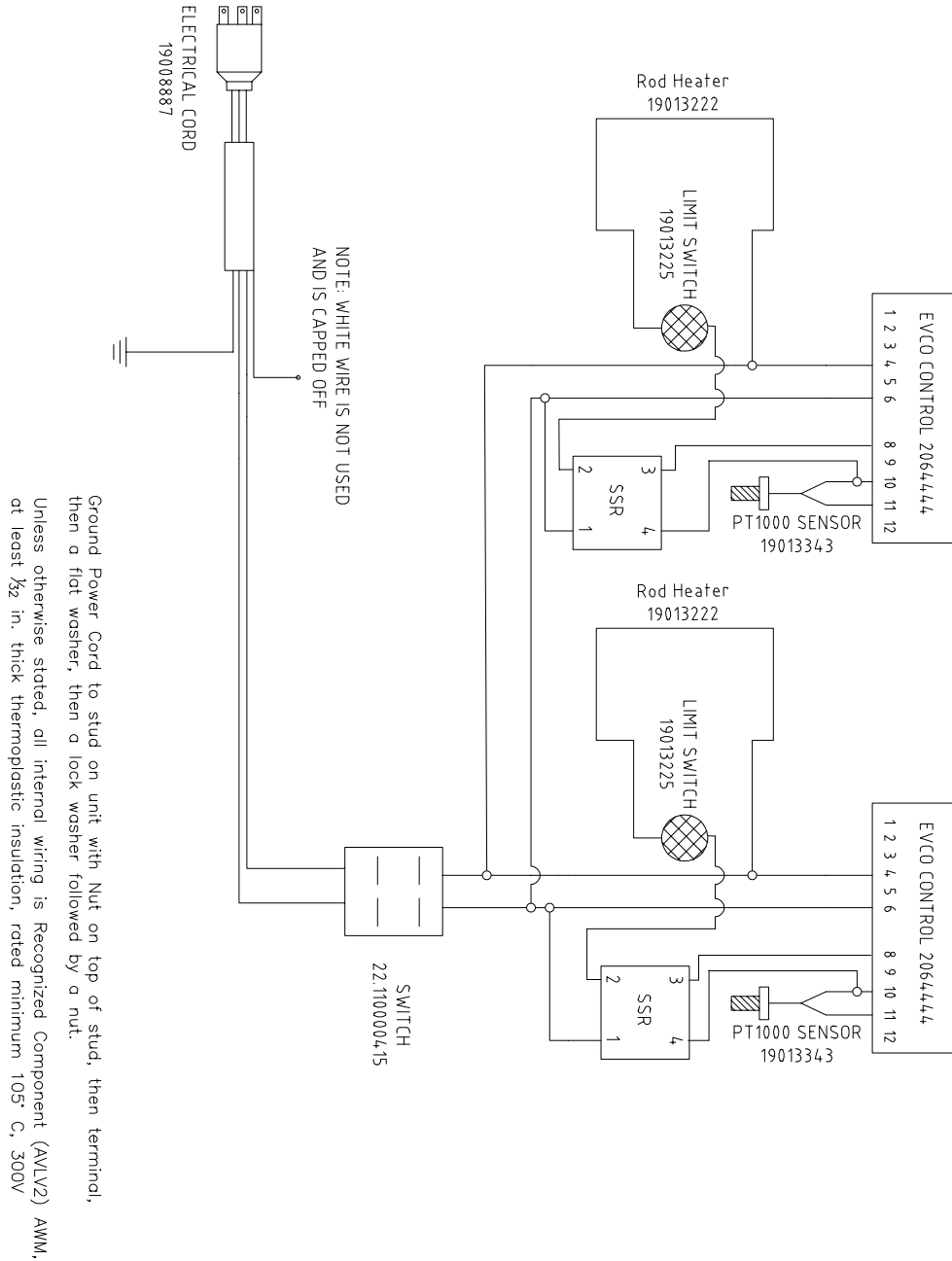
ELECTRICAL DIAGRAMS



TITLE	DRAWING #	REV.	VERS. DATE
Electrical Diagram, Dual/I-Line Dry Wells	19013458	B	11/5/2019

Fig. 23

ELECTRICAL DIAGRAMS



TITLE	DRAWING #	REV.	VERS. DATE
Electrical Diagram, Mini Flex Line Dry Well	19014001	A	10/21/2019

Fig. 24

WARRANTY

Franke Foodservice Systems (“Franke”) warrants new equipment manufactured in Franke’s own facilities to be free of defects due to poor materials or workmanship for the period of time listed below (following the date of original installation):

Franke-Manufactured Equipment

- All Components - 1 Year Parts and Labor (year 1)

Exclusions: Certain Franke parts that are expendable by nature and need to be replaced frequently may not be covered. Franke is not liable under these warranties for repairs or damages due to improper operation, maintenance or cleaning, attempted repairs or installation by unauthorized persons, alterations, water quality, abuse, fire, flood or acts of God.

Additionally, this warranty may be voided in the case of:

- Failure to follow Franke instructions for use, care or maintenance.
- Removal, alteration or defacing of the Franke-affixed serial number labels.
- Service by a non-authorized service company.
- Use of non-OEM (Original Equipment Manufacturer) parts.

This warranty is conditional upon Franke receiving notice of any defect subject to this warranty within thirty (30) days of its original discovery by the Buyer.

Other Equipment (Not Manufactured by Franke)

- Equipment not manufactured by Franke (commonly known as “buyouts” or purchased goods) and manufactured by other entities is covered by the warranties, if any, of such third-party manufacturers. Where such third party manufacturers provide warranties on any or all portions of said “buyouts,” Franke agrees to transfer all such warranties to the Buyer.

NOTES

For Support, Please Call:
Tel +1-800-537-2653, Option 2
(1-800-5-FRANKE, Option 2)

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