



OWNER'S MANUAL



Instructions for the installation, operation and maintenance of Traulsen Flex Drawer Convertible Two Drawer Refrigerator/Freezer*

*Please Note: This manual is intended for use with the above referenced equipment manufactured after May 01, 2020.

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Hours of Operation: Monday - Friday 7:30 a.m. - 4:30 p.m. (CST)

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I. THE SERIAL TAG

I. a - SERIAL TAG & LOCATION

The serial tag is a permanently affixed label on which is recorded vital electrical and refrigeration data about your Traulsen product, as well as the model and serial number. This tag is located in upper interior compartment.

I. b - READING THE SERIAL TAG

- **Model** = The model # of your Traulsen unit
- **(S/N) Serial Number** = The permanent ID# of your Traulsen unit
- **Refrigerant SYS1** = System 1 Refrigerant type used and refrigerant charge
- **Design Pressure** = System 1 High and Low Pressure
- **Refrigerant SYS2** = System 2 Refrigerant type used and refrigerant charge
- **Design Pressure** = System 2 High and Low Pressure
- **Volts** = Voltage
- **Hz** = Cycle
- **PH** = Phase
- **Total Current** = Maximum amp draw
- **Min Circuit Amps** = Minimum circuit ampacity
- **Lights** = Light wattage
- **Agency Labels** = Designates agency listings
- **Components** = Component Ratings



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SCAN FOR SERVICE INFO

MODEL: MODELO: MODELE:	
S/N:	

REFRIGERANT / REFRIGERANTE / RÉFRIGÉRANT	
SYS1 (REFM):	
Hi Press. (PRESH):	
Lo Press. (PRESL):	
SYS2 (REFA):	
Hi Press. (PRESH):	
Lo Press. (PRESL):	

Input Power (ELIN) - FOR INDOOR USE ONLY	

(Symbol 1) (Alt Safety / Other 1)	(Symbol 2) (Alt. San / Other 2)	(Symbol 3) (Alt. En. / Other 3)	(Symbol 4) (WEEE)
(Symbol 5) (Safety)	(Symbol 6) (Sanitation)	(Symbol 7) (Energy)	(Symbol 8) (Customer QR Code / Other 4)

Device/Part Number: PartNum	(UL/NSF Notes)
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COMPONENTS / COMPOSANTS / COMPONENTES			
COMP AMPS:		EVAP FAN AMPS:	
COND FAN AMPS:		LIGHT WATTS:	
DEF HTR AMPS:		CTRL AMPS:	
DOOR HTR AMPS:		MIN AMPS:	
MAX AMPS:			

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II. RECEIPT INSPECTION

II. a - RECEIPT INSPECTION

All Traulsen products are factory tested for performance and are free from defects when shipped. The utmost care has been taken in crating this product to protect against damage in transit.

You should carefully inspect your Traulsen unit for damage upon delivery. If damage is detected, you should save all the crating materials and make note on the carrier's Bill of Lading describing the damage. A freight claim should be filed immediately. If damage is subsequently noted during or immediately after installation, contact our customer care team to file a freight claim. There is a fifteen (15) day limit to file freight damage with the carrier. Under no condition may a damaged unit be returned to Traulsen without first obtaining written permission (return authorization). You may contact Hobart/Traulsen customer care at 800-333-7447 to request a return or file a claim.

III. INSTALLATION

III. a - LOCATION

Select a proper location for your Traulsen unit, away from extreme heat and allow proper clearance for air circulation (see section III.f).

III. b - PACKAGING

The Traulsen unit is shipped from the factory secured to a sturdy wooden pallet with a steel strap and packaged in durable wood crating.

Most exterior stainless steel and aluminum surfaces have a protective vinyl covering to prevent scratching during manufacturing, shipping and installation. After the unit is installed in place of service, remove and discard the covering from all surfaces.

To remove the wooden pallet, first if at all possible, we suggest that the cabinet remain strapped to the pallet during all transportation to the point of final installation. The strap can then be removed with metal shears. Be careful as the steel strap is under tension and will release once cut.

NOTE: Traulsen does not recommend laying the unit down on its front or side or back. However, if you must only lay unit on the front of side, not the back and please be certain to allow the unit to remain in an upright position afterwards for 24 hours before plugging it in so that the compressor oils and refrigerant may settle.

III. INSTALLATION (continued)

III. c - LEGS OR CASTERS

This Traulsen product is shipped from the factory with casters installed. Level the cabinet using a level or pan of water in the bottom of the cabinet.

Legs are available as an optional accessory kit. These are shipped inside the cabinet in a cardboard box.

⚠ WARNING THE CABINET MUST BE BLOCKED AND STABLE BEFORE INSTALLING LEGS. UNITS ARE NOT DESIGNED TO BE MOVED WHILE ON LEGS. IF THE UNIT REQUIRES MOVING, A PALLET JACK OR FORKLIFT SHOULD BE USED TO PREVENT DAMAGE.

To install the legs, first raise and block the cabinet a minimum of 7" from the floor. Thread the legs into the threaded holes on the bottom of the cabinet (see figure 1). Be certain that all legs are tightly secured. When the unit is set in its final position, it is important for proper operation that the unit be level. The legs are adjustable for this purpose; turn the bottom of the leg counterclockwise to raise it, clockwise to lower it. Level the unit from front to back as well as side to side in this manner.



Fig. 1

III. d - CORD & PLUG

All Traulsen models are supplied with a cord & plug attached. It is shipped coiled and secured by a nylon strip to the back of the cabinet near condensing unit area. For your safety and protection, all units supplied with a cord and plug include a special three-prong grounding plug on the service cord. Select only a dedicated electrical outlet with grounding plug for power source.

NOTE: Do not under any circumstances cut or remove the round grounding prong from the plug or use an extension cord.

III. e - POWER SUPPLY

The supply voltage should be checked prior to connection to be certain that proper voltage for the cabinet wiring is available (refer to the serial tag to determine correct unit voltage). Make connections in accordance with local electrical codes. Use qualified electricians.

Use of a separate, dedicated circuit is required. Size wiring to handle indicated load and provide necessary over current protector in circuit (see amperage requirements on the unit's serial tag).

IV. INSTALLATION (continued)

III. f - CLEARANCE

In order to assure optimum performance, the condensing unit of your Traulsen unit **MUST** have an adequate supply of air for cooling purposes. Therefore, 1" stoppers in the back are integral part of the unit. Space around these stoppers should not be blocked to provide proper air exhaust. There are no clearance requirements for the sides.

NOTE: Do not install the cabinet without casters.

IV. OPERATION

Both refrigerators and freezers do not require manual defrosting. However, manual defrost option is available on the control, if required.

IV. a - OPERATION DISPLAY INDICATORS

During normal operation, the display shows either the temperature measured or one of the following indications:

dEF	Defrost in progress
oFF	Controller in stand-by
cL	Condenser clean warning
do	Door open alarm
E1	Probe T1 failure
E2	Probe T2 failure
E3	Probe T3 failure

IV. b - FREEZERS

During normal operation, a freezer continuously circulates below freezing cabinet air through the evaporator coil. The coil requires a periodic defrosting for proper operation. An electric defrost occurs every 7 hours for a maximum length of 30 minutes to melt any frost which may accumulate on the coil during the compressor "ON" cycle. At the start of a freezer defrost cycle, both the compressor and evaporator fans are off. The microprocessor control will read "dEF" (see figure 1).



Fig. 1

The electric heaters (attached to the evaporator coil and

IV. OPERATION (continued)

IV. b - FREEZERS (cont'd)

drain tube) are energized. When the temperature sensor affixed to the coil senses 50°F, the coil and drain pan are fully defrosted. Both heaters and compressor are off for 5 minutes to let the defrost water drip out completely. After drip time, compressor will resume operation. The evaporator coil fans are delayed from starting at the termination of a defrost cycle. Fan operation is automatically resumed, after a short time or temp delay (whichever comes first). After completion, the total refrigeration system operation is then resumed. During defrost operation, heat is confined to the coil enclosure to prevent any significant rise in temperature within the food zone. The fan delay control function upon termination of a defrost cycle is two-fold. First, to prevent blowing warm air into the food storage area. Second, to prevent any condensation on the defrost coil from being blown into the food storage area.

The microprocessor control is set from the factory to terminate defrost at 30 minutes for freezers in the event of a sensor failure. This setting should never be tampered with, without first consulting the factory.

IV. c - REFRIGERATORS

During normal operation, a refrigerator continuously circulates above freezing cabinet air through the evaporator coil. An electric defrost occurs every 8 hours for a maximum length of 30 minutes to melt any frost which may accumulate on the coil during the compressor "ON" cycle. The defrost process is the same as freezer described in the previous section. With standard holding refrigerators, high relative humidity is also maintained to prevent dehydration of stored product.

IV. d - REFRIGERATING PRODUCT

The Flex Drawer will satisfactorily refrigerate an assorted load of food items. Allow space above food bin to permit free air circulation. Do not overload at any one time with warm food products and expect immediate results. A certain amount of time is required to remove heat from items before operating temperatures can be attained. The system is designed for storage of refrigerated or frozen product.

Opening the drawer will increase the temperature in the cabinet and will require a certain amount of time to recover. Also, after peak service periods or after warm product is loaded, the refrigerator will require a certain amount of time for the temperature to return to the normal operating range.

IV. OPERATION (continued)

IV. e - DRAWER LOADING

Product should be placed in a way that ensures air can circulate. Do not operate without the ABS bin in place (see figure 2).

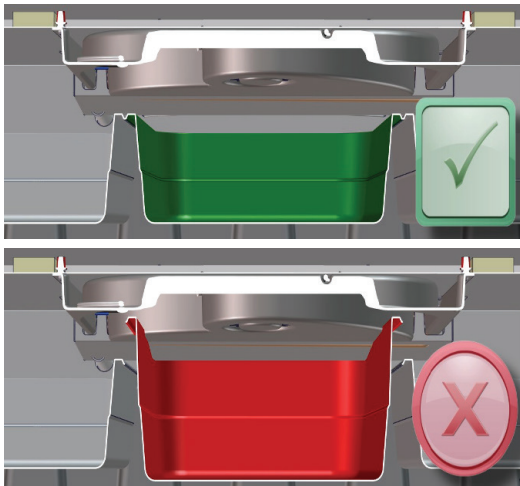


Fig. 2

V. CARE & MAINTENANCE

⚠ WARNING DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING ANY PARTS OF THE UNIT.

V. a - CLEANING THE EXTERIOR

Exterior stainless steel should be cleaned with warm water, mild soap and a soft cloth. Apply with a dampened cloth and wipe in the direction of the metal grain.

Avoid the use of strong detergents and gritty, abrasive cleaners as they may tend to mar and scratch the surface. Do NOT use cleaners containing chlorine, this may promote corrosion of the stainless steel.

V. b - CLEANING THE INTERIOR

For cleaning the interior, use baking soda with warm water, and a soft cloth. Apply with a dampened cloth and wipe in the direction of the metal grain. Use on breaker strips as well as door and drawer gaskets.

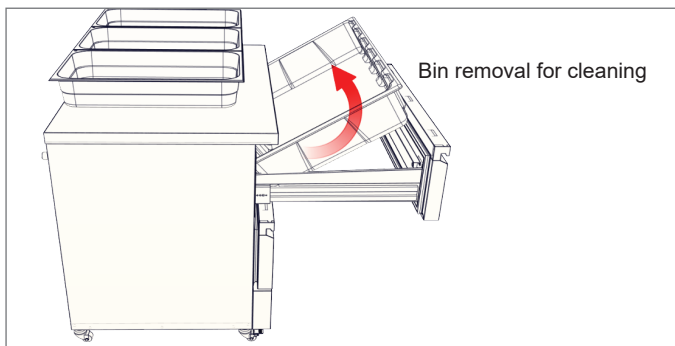


Fig. 3

V. CARE & MAINTENANCE (continued)

V. c - CLEANING THE CONDENSER FAN GUARD

The condenser fan guards function as a filter in this cabinet. Check the fan guard periodically by pulling outward on the lower louver panel. The operating environment will affect the required frequency of cleaning. Air must be able to freely circulate through the condenser. The air intake of the fan guard must be kept free of dirt and grease for proper system operation. The condenser fan guard is at the front of the cabinet, behind the louver panel. Carefully clean dirt and lint from the condenser fan guard using a vacuum cleaner or soft brush; do not use a wire brush.

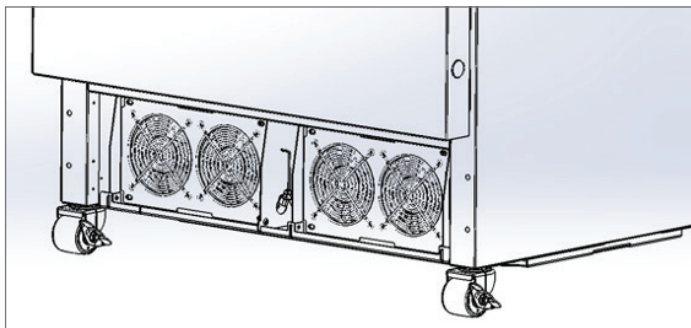


Fig. 4

V. d - CONDENSATE REMOVAL SYSTEM CARE

Condensate removal happens by evaporation at the bottom of the cabinet with hot gas tube. The unit does not need a drain. The evaporator coil, condensate loop and condensate pan can all be flushed with fresh water by a qualified service technician if needed.

V. e - PREPARING FOR EXTENDED SHUT DOWN

If the refrigerator is not to be used for an extended period of time, disconnect the electrical power supply and open the drawers. As soon as the cabinet has warmed up to room temperature, wipe out the interior. Leave the drawers open and check again to make sure that no moisture has collected on any parts. To restart refrigerator, follow instructions under PRESTART CHECKS and OPERATION.

V. f - ADJUSTING THE DRAWERS

Occasionally the drawer(s) may require alignment adjustment. To do so, first open the drawer and loosen the drawer face mounting screws enough to move the drawer face. Do not completely remove the screws. Next, adjust and level the drawer face as needed and tighten the screws.

V. CARE & MAINTENANCE (continued)

V. g - DRAWER GASKET REPLACEMENT

To replace the gasket, grasp it firmly by one corner and pull it out. Before attempting to install a new gasket, both the unit and gasket must be at room temperature. Insert the four corners first by using a rubber mallet (or hammer with a block of wood). After the corners are properly inserted, work your way towards the center from both ends by gently hitting with a mallet until the gasket is completely seated in place (see figure 5 for proper gasket placement).

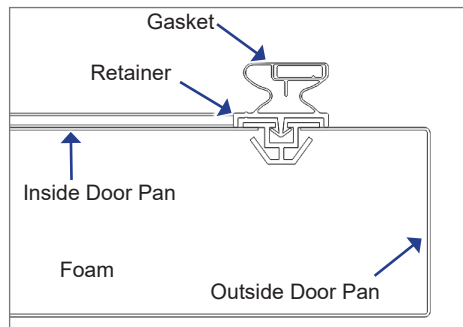


Fig. 5

VI. CONTROL BASICS

Your new Traulsen unit is equipped with a digital control, which precisely regulates operation. It is supplied from the factory completely ready for use.



VI. a - INFORMATION MENU

The information available in this menu is:

<i>t1</i>	Instant probe 1 temperature
<i>t2</i> *	Instant probe 2 temperature
<i>t3</i> *	Instant probe 3 temperature
<i>th1</i>	Maximum probe 1 temperature recorded
<i>tlo</i>	Minimum probe 1 temperature recorded
<i>cnd</i> **	Compressor working weeks
<i>Loc</i>	Keypad state lock

* displayed only if enabled (see Configuration Parameters)

** displayed only if ACC > 0

Access to menu and information displayed:

- Press and immediately release button **i**.
- With button **▼** or **▲** select the data to be displayed.
- Press button **i** to display value.
- To exit from the menu, press button **x** or wait for 10 seconds.

Initiate Stand-By:

Keeping the button **⏻** pressed for 3 seconds allows the controller to be put on a standby or output control to be resumed (with **SB**=YES only).

Locking the Keypad:

The keypad lock avoids undesired, potentially dangerous operations, which might be attempted when the controller is operating in a public place. In the INFO menu, set parameter **LOC** = YES to inhibit all functions of the buttons. To resume normal operation of keypad, adjust setting so that **LOC** = NO.

VI. CONTROL BASICS






VI. a INFORMATION MENU (cont'd)

Selection of Second Parameter Group:

It's possible to select control parameters between two different pre-programmed groups, in order for the fundamental control parameters to be adapted quickly to changing needs. Changeover from Group I to Group II (and vice versa) may take place MANUALLY by pressing button for 2 seconds (with **IISM** = MAN), or AUTOMATICALLY when ECO conditions are detected (with **ISM** = ECO), or when **IISM** = DI, **DxO** = IISM and the digital input is activated (the activation of DIx selects Group II, x = 1,2,3). If **IISM** = NON, switchover to Group II is inhibited. The activation of Group II is signaled by the lighting up of the relevant LED on the controller display.

VI. b - ADJUSTING CABINET SETPOINT

Setpoint display and modification:

- Press button  for atleast a half second to display the setpoint value.
- While keeping the  button pressed, use button  or  to set the desired value (adjustment is within the minimum **SPL** and the maximum **SPH** limit).
- When button  is released, the new value is stored.

VI. c - INITIATING A DEFROST


Automatic defrost:

Defrost starts automatically as soon as the time set with parameter **DFT** has elapsed.

- Timed defrost: With **DFM** = TIM defrosts take place at regular intervals when the timer reaches the value of **DFT**. For example, with **DFM** = TIM and **DFT** = 36, a defrost will take place every 6 hours.
- Optimized defrost: With **DFM** = FRO the timer is only increased when the conditions occur for frost to form on the evaporator, until the time set with parameter **DFT** is matched. If the evaporator works at 0°F, defrost frequency depends on the thermal load and climatic conditions. With setpoints much lower than 0°F, defrost frequency mainly depends on the refrigerator operating time.
- Defrost time count backup: At the power-up, if **DFB** = YES, the defrost timer resumes the time count from where it was left off before the power interruption. Vice versa, with **DFB** = NO, the time count re-starts from 0. In stand-by, the accumulated time count is frozen.

VI. c - INITIATING A DEFROST (cont'd)

Manual or remote defrost start:

It's possible to manually start a defrost, by pressing button  for 2 seconds.

Defrost type:

Once defrost has started, Compressor and Defrost outputs are controlled according to parameter **DTY**. If **FID** = YES, the evaporator fans are active during defrost.

Defrost termination:

The actual defrost duration is influenced by a series of parameters.

- Time termination: **T2** = NO and **T3** different from 2EU: the evaporator temperature is not monitored and defrost will last as long as time **DTO**.
- Temperature monitoring of one evaporator: **T2** = YES and **T3** different from 2EU. In this case, if the sensor **T2** measures the temperature **DLI** before the time **DTO** elapses, defrost will be terminated in advance.

Resuming thermostatic cycle:











When defrost is over, if **DRN** is greater than 0, all outputs will remain off for **DRN** minutes, in order for the ice to melt completely and the resulting water to drain. Moreover, if probe **T2** is active (**T2** = YES), the fans will re-start when the evaporator gets to a temperature lower than **FDD**; Vice versa, if probe **T2** is not active (**T2** = NO) or after defrost has come to an end, such condition does not occur by end of the time **FTO**, after **FTO** minutes have elapsed the fans will be switched on anyway.

Caution: if **DFM** = NON or **C-H** = HEA all defrost functions are inhibited; if **DFT** = 0, automatic defrost functions are excluded.

VI. CONTROL BASICS

VI. d - CONFIGURATION PARAMETERS

Parameter Configuration:

- To get access to the parameter configuration menu, press button  and  for 5 seconds.
- With button  or  select the parameter to be modified.
- Press button  to display the value.
- By keeping button  pressed, use button  or  to set the desired value.
- When button  is released, the newly programmed value is stored and the following parameter is displayed.
- To exit from the setup, press button  or wait for 30 seconds.

VI. e - TECHNICAL DATA

Power supply

TRL-002....W 100-240Vac $\pm 10\%$, 50/60Hz, 3W

Relay output max loads (240Vac)

	TRL-002..S/T..-	TRL-002..Q/R..-
Compressor	16A resistive 12 FLA 48 RLA	12A resistive 12 FLA 48 RLA
Evap. Fan	16A resistive 4 FLA 12 RLA	8A resistive 4 FLA 12 RLA
Defrost	16A resistive 4 FLA 12 RLA	16A resistive 4 FLA 12 RLA
Auxiliary loads 1	7A resistive	7A resistive
Auxiliary loads 2	7A resistive	7A resistive

Input

NTC 10K Ω @25°C LAE Part No. SN4...

Measurement Range

<0.5 within the measurement range

Operating Conditions

-10... +50°C; 15%...80% r.H.

CE (Approvals and Reference Norms)

EN60730-1; EN60730-2-9; EN55022 (Class B); EN50082-1

VI. CONTROL BASICS (continued)

PAR	RANGE	DESCRIPTION
SPL	-58...SPH	Minimum limit for SP setting.
SPH	SPL...180°	Maximum limit for SP setting.
SP	SPL... SPH	Setpoint (value to be maintained in the room).
C-H	REF; HEA	Refrigerating (REF) or Heating (HEA) control mode.
HY0	1...10°	Thermostat OFF -> ON differential.
HY1	0...10°	Thermostat ON -> OFF differential.
CRT	0...30min	Compressor rest time. The output is switched on again after CRT minutes have elapsed since the previous switchover. We recommend to set CRT=03 with HY0<2.0°.
CT1	0...30min	Compressor/Heater output run when probe T1 is faulty. With CT1=0 the output will always remain OFF.
CT2	0...30min	Compressor/Heater output stop when probe T1 is faulty. With CT2=0 and CT1>0 the output will always be ON. Example: CT1=4, CT2= 6: In case of probe T1 failure, the compressor will cycle 4 minutes ON and 6 minutes OFF.
DFM	NON; TIM; FRO CRN	Defrost start mode NON : defrost function is disabled (the following parameter will be FCM). TIM : regular time defrost. FRO : the defrost time count is only increased when the conditions occur for frost to form on the evaporator (optimized time increase). CRN : defrost is based off of compressor run time (time is based off of DAT).
DFT	0...250	Time interval among defrosts in x10 minutes. When this time has elapsed since the last defrost, a new defrost cycle is started. Each number is multiplied by 10 minutes. 0-250 indicates 0-2500 minutes.
DAT	0...100 hours	Frost accumulation timeout.
DFB	NO/YES	Defrost timer backup. With DFB=YES, after a power interruption, the timer resumes the count from where it was left off with ±30 min. approximation. With DFB=NO, after a power interruption, the defrost timer will re-start to count from zero.
DLI	-58...180°	Defrost end temperature.
DMD	0...30min	Minimum defrost duration.
DTO	1...120min	Maximum defrost duration.
DTY	OFF; ELE; GAS	Defrost type OFF: off cycle defrost (Compressor and Heater OFF). ELE: electric defrost (Compressor OFF and Heater ON). GAS: hot gas defrost (Compressor and Heater ON).
DSO	OFF; LO; HI	Defrost start optimization OFF : no optimization. LO : defrost waits until the compressor cut-out. HI : defrost waits until the compressor cut-in.
SOD	0...30 min	Start optimization delay.
DPD	0...240sec	Evaporator pump down. At the beginning of defrost, defrost outputs (determined by DTY) are OFF for DPD seconds.
DRN	0...30min	Pause after defrost (evaporator drain down time).

VI. CONTROL BASICS (continued)

PAR	RANGE	DESCRIPTION
DDM	RT; LT; SP; DEF	Defrost display mode. During defrost the display will show: RT : the real temperature; LT : the last temperature before defrost; SP : the current setpoint value; DEF : "dEF".
DDY	0...60min	Display delay. The display shows the information selected with parameter DDM during defrost and for DDY minutes after defrost termination.
FID	NO/YES	Fans active during defrost.
FDD	-58...180°	Evaporator fan re-start temperature after defrost.
FTO	0...120min	Maximum evaporator fan stop after defrost.
FCM	NON; TMP; TIM	Fan mode during thermostatic control. NON : The fans remain ON all the time; TMP : Temperature-based control. The fans are ON when the compressor is ON. When the compressor is turned OFF, the fans remain ON as long as the temperature difference $T_e - T_a$ is greater than FDT. The fans are turned ON again with FDH differential. (T_e = Evaporator temperature, T_a = Air temperature); TIM : Timed-based control. The fans are ON when the compressor is ON. When the compressor is OFF, the fans switch ON and OFF according to parameters FT1, FT2, FT3
FDT	-12...0°	Evaporator-Air temperature difference for the fans to turn OFF after the compressor has stopped.
FDH	1...12°	Temperature differential for fan re-start.
		Example: FDT = -1, FDH=3. In this case, after the compressor has stopped, the fans are OFF when $T_e > T_a - 1$ (FDT), whereas the fans are ON when $T_e < T_a - 4$ (FDT-FDH).
FT1	0...180sec	Fan stop delay after compressor/heater stop. See Fig. 2
FT2	0...180	Timed fan stop in x10 seconds. With FT2=0 the fans remain on all the time.
FT3	0...180	Timed fan run in x10 seconds. With FT3=0, and FT2 > 0, the fans remain off all the time.
ATM	NON; ABS; REL	Alarm threshold management. NON : all temperature alarms are inhibited (the following parameter will be ACC). ABS : the values programmed in ALA and AHA represent the real alarm thresholds. REL : the alarm threshold is obtained by the sum of setpoint, thermostat differential and ALR/AHR.
ALA	-58... 180°	Low temperature alarm threshold.
AHA	-58... 180°	High temperature alarm threshold.
ALR	-12... 0°	Low temperature alarm differential. With ALR=0 the low temperature alarm is excluded.
AHR	0... 12°	High temperature alarm differential. With AHR=0 the high temperature alarm is excluded.
ATI	T1; T2; T3	Probe used for temperature alarm detection.
ATD	0... 120 min	Delay before alarm temperature warning.
ACC	0...52 weeks	Condenser periodic cleaning. When the compressor operation time, expressed in weeks, matches the ACC value programmed, "CL" flashes in the display. With ACC=0 the condenser cleaning warning is disabled and CND disappears from Info Menu.
IISM	NON; MAN; ECO; DI	Switchover mode to second parameter set NON : inhibition to use the second parameter group (the following parameter will be SB). MAN : button switches the two parameter groups over. ECO : automatic switchover to the second parameter group, when ECO conditions are detected. DI : switchover to the second parameter group when DIx input is on.
IISL	-58... IISH	Minimum limit for IISP setting.
IISH	IISL... 180°	Maximum limit for IISP setting.
IISP	IISL... IISH	Setpoint in mode 2.
IIHO	1... 10°	Thermostat OFF->ON differential in mode 2.

VI. CONTROL BASICS (continued)

PAR	RANGE	DESCRIPTION
IIH1	0... 10°	Thermostat ON->OFF differential in mode 2.
IIDF	0...250	Time interval among defrosts in mode 2 in x10 minutes.
IIFC	NON; TMP; TIM	Fan control in mode 2. See FCM.
ECS	1...5	Controller sensitivity for the automatic switchover from Group I to Group II (1=minimum, 5=maximum).
ECS	1...5	Controller sensitivity for the automatic switchover.
EPT	0...240 min	Eco pull-down time. Only with IISM=ECO. Group I parameters are used in regulation for at least EPT minutes. See Fig.3
SB	NO/YES	Stand-by button enabling.
DSM	NON; ALR; STP	Door switch input mode: NON : door switch inhibited ALR : when DIx=DOR and the digital input is on, an alarm is generated after ADO minutes STP : when DIx=DOR and the digital input is on, in addition to the alarm, the fans are immediately stopped and the compressor is stopped after CSD minutes.
DAD	0...30 min	Delay before door open alarm warning.
CSD	0...30 min	Compressor/heater stop delay after door has been opened.
D10	NON; DOR; ALR; IISM; RDS	DI1 digital input operation NON : digital input 1 not active. DOR : door input. ALR : when the input is on, an alarm is generated (if AHM=STP, the compressor is stopped and the defrosts are suspended). IISM : when the input is on, the controller will use group 2 parameters. RDS : when the input is on, a defrost is started (remote control).
D1A	OPN; CLS.	DI1 digital input activation. OPN : on open CLS : on close
D20	See D10	DI2 digital input operation. See D10.
D2A	OPN; CLS.	DI2 digital input activation. OPN : on open CLS : on close
PSL	-58...158	Minimum setpoint adjusted via potentiometer.
PSR	0...15	Range of setpoint adjusted via potentiometer.
LSM	NON; MAN; ECO; DI1; DI2; DI3.	Light control mode NON : light output not controlled. MAN : light output controlled through button (if OAx=LGT). ECO : lights activated/deactivated following the ECO state. DIx : lights activated/deactivated following the DIx state.
LSA	OPN; CLS	Light activation (only with LSM=ECO or LSM=DIx). OPN : lights on with DIx open or ECO mode deactivated. CLS : lights on with DIx closed or ECO mode activated.
OT1	0...600 sec	Activation time of OA1
OT2	0...600 sec	Pause between OA1 activation

VI. CONTROL BASICS (continued)








PAR	RANGE	DESCRIPTION
OA1	NON; LGT; 0-1; 2CU; 2EU; ALO; ALC	AUX 1 output operation NON : output disabled (always off). LGT : output enabled for light control. 0-1 : the relay contacts follow the on/standby state of controller. 2CU : output programmed for the control of an auxiliary compressor. 2EU : output enabled for the control of the electrical defrost of a second evaporator. ALO : contacts open when an alarm condition occurs. ALC : contacts make when an alarm condition occurs.
2CD	0...120 sec	Auxiliary compressor start delay. If OAx=2CU the auxiliary output is switched on with a delay of 2CD seconds after the main compressor has cut-in. Both compressors are turned off at the same time.
OS1	-12.5..12.5°	Probe T1 offset.
T2	NO/YES	Probe T2 enabling (evaporator).
OS2	-12.5..12.5°	Probe T2 offset.
T3	NON; DSP; CND; 2EU	Auxiliary probe T3 operation NON : probe T3 not fitted. DSP : temperature T3 to be displayed. CND : condenser temperature measurement. 2EU : second evaporator temperature measurement.
OS3	-12.5..12.5°	Probe 3 offset.
AHM	NON; ALR; STP;	Operation in case of high condenser alarm NON : high condenser alarm inhibited. ALR : in case of alarm, "HC" flashes in the display and the buzzer is switched on. STP : in addition to the alarm symbols displayed, the compressor is stopped and defrosts are suspended.
AHT	-50...110°	Condensation temperature alarm (referred to T3 probe).
TLD	1...30 min	Delay for minimum temperature (TLO) and maximum temperature (THI) logging.
TDS	T1; 1-2; T3	Selects the temperature probe to be displayed. T1 : probe T1 1-2 : the AVG-weighted average between T1 and T2 T3 : probe T3
AVG	0...100%	The relative weight of T2 on T1 (if TDS = 1-2) Example 1: T1 = -5°, T2 = -20°, AVG = 100%. The displayed temperature will be -20° (T1 has no effect) Example 2: T1 = -5°, T2 = -20°, AVG = 60%. The displayed temperature will be -14.
SCL	1°C; 2°C; °F	Readout scale. 1°C : measuring range -50...110°C (0.1°C resolution within -9.9 ÷ 19.9°C interval, 1°C outside) 2°C : measuring range -50 ... 110°C °F : measuring range -55 ... 180°F
SIM	0...100	Display slowdown.
ADR	1...255	TRL-002 address for PC communication.
NPR	0...1	Setup programmed.
STT	0...255	Setup traceability.

VI. CONTROL BASICS (continued)

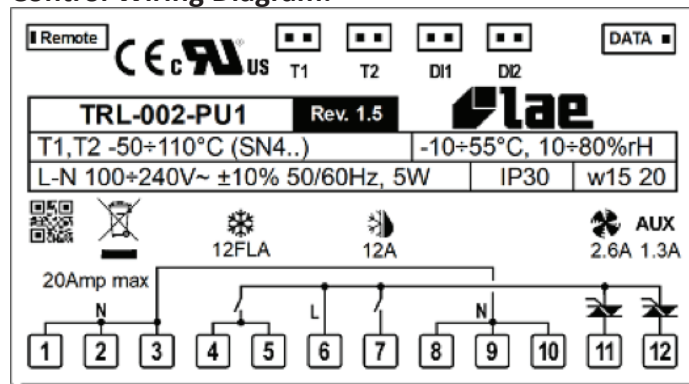
VI. f - COMPONENTS AND WIRING DIAGRAM



Indications:

-  Thermostat output
-  Fan output
-  Defrost output
-  Activation of 2nd parameter set
-  Alarm
-  Manual activation / Increase button
-  Exit / Stand-by button

Control Wiring Diagram:



VII. TROUBLESHOOTING GUIDE

VII. a -TROUBLESHOOTING GUIDE

FIND YOUR PROBLEM HERE	REMEDY
1. Condensing unit fails to start.	<ul style="list-style-type: none"> a. Check if cord & plug has been disconnected. b. Check control temperature setting.
2. Condensing unit operates for prolonged periods or continuously.	<ul style="list-style-type: none"> a. Are doors closing properly? b. Dirty condenser or filter. Clean properly. c. Evaporator coil iced. Needs to defrost. See instructions for setting a manual defrost cycle on section VI.c.
3. Food compartment is too warm.	<ul style="list-style-type: none"> a. Check door(s) and gasket(s) for proper seal b. Perhaps a large quantity of warm food has recently been added or the door was kept open for a long period of time, in both cases, allow adequate time for the cabinet to recover its normal operating temperature. c. Control setting too high, readjust per instructions on section VI.b. d. Check that condensing coil is clean.
4. Food compartment is too cold.	<ul style="list-style-type: none"> a. Perhaps a large quantity of very cold or frozen food has recently been added. Allow adequate time for the cabinet to recover its normal operating temperature. b. Adjust the control to a warmer setting, see section VI.b.
5. Condensation on the exterior surface.	<ul style="list-style-type: none"> a. Check door alignment and gaskets for proper seal. b. Condensation on the exterior surface of the unit is perfectly normal during periods of high humidity.
6. Compressor hums but does not start.	<ul style="list-style-type: none"> a. Call for service.
7. No power to unit	<ul style="list-style-type: none"> a. Check if cord & plug has been disconnected. b. Check power supply breaker.

VIII. SERVICE/WARRANTY INFORMATION

VIII. a - SERVICE INFORMATION

Before calling for service, please check the following:

- ☐ Is the electrical cord plugged in?
- ☐ Is the fuse OK or circuit breaker on?
- ☐ Is the condenser coil clean?
- ☐ Is the power switch on?

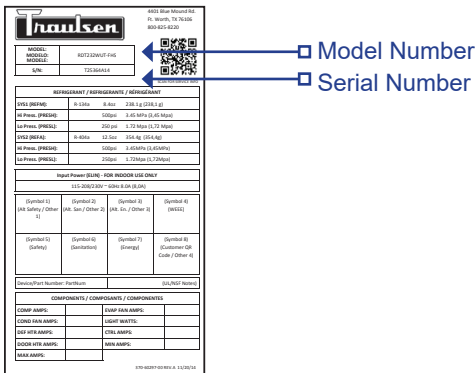
If after checking the above items and the unit is still not operating properly, please contact an authorized Traulsen service agent:
Traulsen
4401 Blue Mound Road
Fort Worth, TX 76106
(800) 825-8220.

Traulsen reserves the right to change specifications or discontinue models without notice.

VIII. b - SPARE PARTS INFORMATION

Spare or replacement parts may be obtained through a parts supplier or one of our authorized service agents. A list of authorized service agents is posted on our company's official website Service tab at www.Traulsen.com.

Note: When calling for spare parts or service support, please make sure you have model and serial number of unit available.



The image shows a Traulsen QR code and a label with arrows pointing to the Model Number and Serial Number. The label contains the following information:

MODEL / MODELE	
MODEL / MODELE	4401 BLUE MOUND RD
S/N	123456789

Below the QR code, there are two arrows pointing to the Model Number and Serial Number fields. The Model Number field is labeled "Model Number" and the Serial Number field is labeled "Serial Number".

VIII. c - WARRANTY REGISTRATION

The warranty for your new Traulsen unit may be registered with us by completing warranty information online, via our website www.Traulsen.com. Click on Service Tab on the home page. You may also register your product by calling us directly at 800-825-8220.

VIII. SERVICE/WARRANTY INFORMATION (continued)

VIII. d - WARRANTY STATEMENT:



TRAULSEN/KAIRAK EQUIPMENT WARRANTY



U.S. Domestic Warranty



SIX-YEAR PARTS AND LABOR WARRANTY

FEG Refrigeration, a division of ITW Food Equipment Group LLC d/b/a Traulsen ("Traulsen") warrants to the original end-user (the "Owner") of the Equipment (as defined below) that Traulsen will convey the Equipment free and clear of all liens, security interests, and encumbrances created by, through or under Traulsen. Traulsen further warrants to the Owner that for a period of six (6) years from the later of either (a) the date of delivery to the common carrier or (b) the date of original installation (the "Domestic Warranty Period") (provided that in no event shall the Domestic Warranty Period commence later than 3 months from the date of delivery to the common carrier by Traulsen unless otherwise agreed upon by the parties in writing), under normal use and given proper installation and maintenance as determined by Traulsen, the Equipment: (a) will conform to the written specifications as provided by Traulsen ("Specifications") and (b) will be free from substantial defects in material and workmanship. "Equipment" means serialized units of refrigeration equipment sold by Traulsen and branded as "Traulsen", "Kairak" or "Centerline by Traulsen". "Equipment" does not include, Air Curtains, equipment for export, spare parts, component parts, replacement parts, service parts, products not branded as Traulsen, Kairak or Centerline by Traulsen, products sold by Traulsen that are expressly subject to a different warranty and/or warranty period, - and other products whose product documentation reference a different warranty policy and/or exclude this warranty policy (collectively, the "Excluded Products").

SEVEN-YEAR COMPRESSOR WARRANTY

The warranty period for compressors (the "Compressor Warranty Period") shall extend for an additional one (1) year beyond the Domestic Warranty Period. In the case of a nonconforming compressor, Traulsen shall provide a single replacement compressor; however, all installation, recharging, and repair costs shall be the responsibility of the Owner. For Equipment purchased for use with a condenser provided by a third-party, the six-year parts and labor warranty will apply only to those components contained within the Equipment to the point of connection of the refrigeration lines leading to the third-party condenser.

LIFETIME CAM-LIFT HINGE AND WORKFLOW HANDLE WARRANTY

Traulsen warrants to the Owner for the life of the Equipment (the "Cam-Lift Lifetime Warranty Period") that the housing of cam-lift hinges and workflow handles will be free from substantial defects. In the case of non-conforming housing for cam-lift hinge or workflow handle during the Cam-Lift Lifetime Warranty Period, Traulsen shall provide a replacement part; however, Owner shall be responsible for any other replacement costs, including but not limited to, installation and labor.

WHAT IS NOT COVERED BY THIS WARRANTY

Traulsen's responsibility under this warranty is subject to the additional limits below:

- **No Consequential Damages.** Traulsen is not liable for loss of product or loss of profit, or any special, indirect, or consequential damages including, but not limited to, loss or damage resulting from the loss of product, whether or not due to refrigeration failure and whether or not Traulsen has been notified of the possibility of such damages.
- **Consumable Components or Ordinary Wear Items.** This Warranty excludes all consumable components and ordinary wear items within the Equipment, such as but not limited to components that are removable without the use of tools, gaskets, shelf pins, and light bulbs. All Excluded Products sold separately are also excluded.
- **Non-OEM parts.** Any use of non-OEM parts or parts not supplied by Traulsen or specified by Traulsen in the Operator's Manual on the Traulsen website (such as but not limited to EZ Clean gaskets, sensors, controls, etc.) shall automatically void this Warranty with respect to such parts and any damage, defect or wear caused by such parts.
- **Specified Causes.** This Warranty does not cover any damage, defect or wear resulting from fire, water, burglary, accident, abuse, misuse, lack of preventive maintenance, transit, acts of God, terrorism, power surges, improper installation, or repairs or installation by unqualified third parties, or improper modifications outside published parameters or modifications implemented outside of the direction of Traulsen tech support. All warranty claims made outside of the Domestic Warranty Period, Compressor Warranty Period or Cam-Lift Lifetime Warranty Period, as applicable, are expressly excluded from this Warranty.
- **Specified Uses.** The Equipment is intended only for commercial use in conditioned spaces and shall not be used by residences, consumers, or households or in any non-commercial application or in any non-conditioned spaces. This Warranty does not apply to, and shall not cover, any Equipment that is installed or used in any way in any residential, consumer or non-commercial application. No warranties, express or implied, are provided to any residential, consumer or non-commercial purchaser or owner of the Equipment.

VIII. SERVICE/WARRANTY INFORMATION (continued)

TRAULSEN/KAIRAK EQUIPMENT WARRANTY

U.S. Domestic Warranty (cont'd.)

- **Owner's Use.** The Owner is solely responsible for determining if Equipment is fit for a particular purpose and suitable for Owner's application. Accordingly, and due to the nature and manner of the Equipment, Traulsen is not responsible for the results or consequences of any use, misuse, or application of its Equipment.

SOLE REMEDIES

In the event of a breach of the warranties set forth above, Traulsen will, at Traulsen's option, and as Owner's sole and exclusive remedy and Traulsen's sole and exclusive obligation, repair (including labor costs), refund or replace any nonconforming Equipment, provided that:

- Traulsen is promptly notified during the Domestic Warranty Period, Compressor Warranty Period or Cam-Lift Lifetime Warranty Period, as applicable, in writing upon discovery of the nonconformance with a detailed explanation of any alleged deficiencies;
- Traulsen is given a reasonable opportunity to investigate all claims;
- Traulsen's examination of any alleged defective part confirms such alleged deficiencies and that the deficiencies were not caused by misuse, neglect, improper installation, improper repair, improper alteration or improper testing; AND
- In the case of a nonconforming part, Owner must return the part to Traulsen within 30 days from the date of repair. Failure to return a claimed defective part to Traulsen within the 30 days will waive the right to the warranty claim.

THIS DOMESTIC WARRANTY SETS FORTH THE EXTENT OF TRAULSEN'S LIABILITY FOR SALES WITHIN THE UNITED STATES. NO EQUIPMENT MAY BE RETURNED TO TRAULSEN WITHOUT TRAULSEN'S PRIOR WRITTEN APPROVAL. EXCEPT AS EXPRESSLY SET FORTH ABOVE IN THIS WARRANTY STATEMENT, TRAULSEN MAKES NO WARRANTY OR REPRESENTATION OF ANY KIND, EXPRESS OR IMPLIED (INCLUDING NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE). IN NO EVENT WILL TRAULSEN'S LIABILITY IN CONNECTION WITH THIS WARRANTY OR THE SALE OF THE EQUIPMENT EXCEED THE PURCHASE PRICE OF THE EQUIPMENT AS TO WHICH THE CLAIM IS MADE.

This warranty only applies to units shipped from Traulsen's manufacturing facilities on or after January 1, 2023.

To report a warranty claim, please email service@traulsen.com or call **1.800.825.8220** and include the serial and model number of the affected unit. All service for warranty claims must be dispatched by Traulsen. Traulsen reserves the right to refuse warranty claims for warranty service conducted by unauthorized third-party providers.



4401 Blue Mound Road Fort Worth, Texas 76106 (USA)

Phone: 800.825.8220 | Service Fax: 817.740.6757 | E-mail: service@traulsen.com | Website: www.traulsen.com

Form Number: TR36229 | Part Number: 375-60369-00 | Revision Date: 08-2023

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