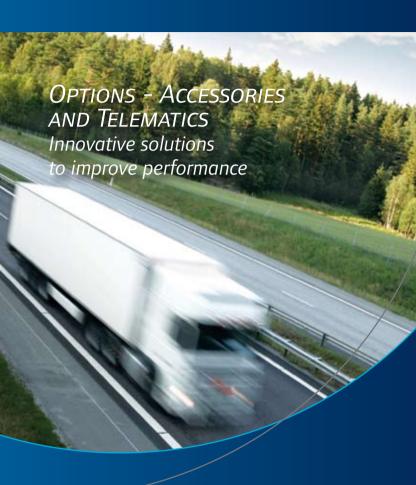
THERMO KING



- Unit Management
- Fleet Management
- Data Management
- Temperature Management
 - Fuel Management









Content

Introduction

	Unit Management	7
	Fleet Management	19
	Data Management	25
	Temperature Management	31
EF	Fuel Management	45
	Compatibility Matrix	53



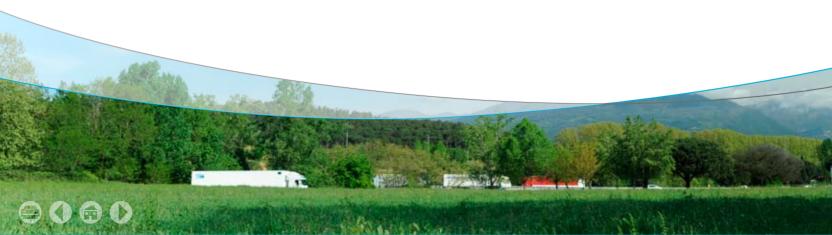
Introduction

Our business doesn't stop with providing top-of-the-line transport temperature control equipment; we also offer solutions that will help you get the very most from your fleet, ensuring maximum return from every journey.

Thermo King offers a wide range of innovative telematic and accessory solutions to help you reduce costs, increase performance and improve fleet management.

Genuine Thermo King options are:

- Designed specifically to work with Thermo King units
- Customised to your application requirements
- Engineered for top performance and superior reliability







UNIT MANAGEMENT

Energy Battery

EON Battery

Remote status light

Evaporator guards S2 & S3

Controller options



Truck and trailer energy battery Start right every time

The Thermo King battery is exclusively designed for application on over-the-road transport temperature control units. It incorporates the latest calcium calcium technology with extra deep cycling capacity for greater energy reserve, increased lifecycle and reduced maintenance cost.



Key Features

- Reliable power and energy when needed
- Safe, fully sealed and environmentally protected against all weather conditions
- Cold cranking amps ENCCA 760 A (trailer battery)/640 A (truck battery)
- C20 Capacity (A-hrs) 92 Ah (trailer battery)/
 75 Ah (truck battery)

Part No	Description
2030765	Trailer Battery
2030774	Truck Battery





EON batteryMore power and a longer service life

The EON battery uses Absorbed Glass Mat technology to offer, in one box, the characteristics of two separate batteries. It can deep cycle as well as provide enormous cranking power in one durable package. With improved vibration resistance it also withstands freezing temperatures and extreme heat.



Key Features

- · Reliable power and energy when needed
- Safe, fully sealed and environmentally protected against all weather conditions
- Four years warranty
- Up to five times the life of a wet cell battery
- Cold cranking amps ENCCA 880 A

Part No	Description
2030777	EON Battery





Remote status light and combination displays Keep in control while on the move

Thermo King's new remote Status Light and Combination Displays are designed to increase driver awareness, enabling early corrective action and reducing the risk of load loss and costly call out service. Three models are available, allowing drivers to monitor unit operation status, fuel level and load temperature individually or all in one.



Status Only Display



Fuel Combo Display



Triple Combo Display

Key Features

- Designed with driver safety and comfort in mind
- 3-in-1 display unit status, box temperature and fuel level monitored from driver's seat
- Clear visibility day and night with auto dimming, making it easy for drivers to read
- 3 temperature zones displayed for multitemperature units
- CE approved and tested in extreme temperature environments
- Fuel combo display is compatible with Thermo King and other fuel tanks when used with Thermo King's range of electronic fuel gauges

Remote status light and combination displays	Part No		
	UK- left hand drivers	EU	Flush mount
Status Only Display	400985	400984	400989
Fuel Combo Display (status and fuel level w/o gauge)	401069	401068	401067
Triple Combo Display (status & temperature & fuel level w/o gauge)	401065	401064	401066

12





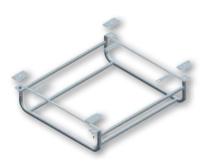
Unit

Management

Evaporator guards S2 & S3

Maximum protection during loading and unloading

Evaporators are crucial when it comes to safeguarding your cargo. During loading and unloading, however, they are susceptible to damage from forklift trucks, pallets, crates, bins, boxes and other cargo.



Key Features

- Full protection from exterior damage
- Exceptional durability
- Available for all multi-temp truck and trailer models
- User friendly installation
- Quick access for evaporator maintenance
- Four mounting plates for secure fastening Installation components included in the kit

Evaporator guards	Part No	
	Steel	Aluminium
Evaporator Guard S3	987812	987814
Evaporator Guard S2	987813	987815





Controller options

SR-2 Extension

The SR-2 extension permits repositioning of the SR-2 control panel close to the operator on high trailers and rail or intermodal applications. Drop down HMI for SR-2 Controller for both SL and SLX – customised solution to enable easy and safe access to the HMI.



Part No	Description
900356	Dropdown HMI

SR-2 Rear Remote Control

The SR-2 rear remote control allows control of the refrigeration unit from inside the rear of the trailer. This application is particularly suitable for large logistic depots, enabling energy efficient and safe loading.



Part No	Description
401008	Rear-remote Trailer SR-2 Single temp
401031	Rear-remote Trailer SR-2 Multi temp
401061	Rear-remote Truck SR-2 Single temp
401062	Rear-remote Truck SR-2 Multi temp











FLEET MANAGEMENT

TracKing

Temperature Management

Vehicle TracKing

Driving Style Management

Fuel Management





TracKing



One system. Many Benefits

TracKing is an innovative, easy to use GPRS GPS system that gives perishable goods transporters visibility of their assets from their desktops. Having real time temperature, location and alarms information on their refrigerated fleets increases their operational efficiency and reduces incidences of cargo loss. TracKing allows them to guarantee product integrity and on-time delivery to their customers.

Temperature Management **Tracking**

- Optimum temperature management to ensure top quality product delivery
- Lower service costs and unit down-time with real time alarm notification
- Manage the refrigeration unit remotely with 2-way control
- Help ensure cargo integrity

Vehicle TracKing

- Accurate location of your fleet at all times on a map
- Increased cargo security through asset visibility
- Locate Thermo King Dealers easily on a map for service support
- Monitor vehicle routes by replaying journey on a map (cellular only)
- Theft protection with battery backup (cellular only)

Tracking Temperature Management	Part No		
	EU SIM	UK SIM	NO SIM
Tracking GPRS trailer SR-2	400943	401017	401018
Tracking GPRS trailer Non SR-2 (DAS/TKDL)	400944	401019	401020
Tracking GPRS Truck	400945	401012	401022
Tracking GPRS UTS	401005	401023	401024
Tracking GPRS SLX	401007	401009	401025
Tracking GPRS SLX Spectrum	401042	401041	401074





Fleet Management System



Thermo King's new TracKing Fleet Management System uses the FMS standard interface to deliver operational efficiencies going beyond the cold chain to vehicle and driver management. This system provides fleet managers with a dashboard of cost critical information so they can run a successful transportation operation and improve their response times to the customer.

Driving Style Management Tracking

Increase fuel efficiency and prolong the life of your fleet with real time visibility of driving styles. Analyse which drivers are costing you more fuel due to poor driving and advise them on how to improve.

Vehicle Management Reports

- Increase fleet uptime
- Lower total cost of fleet ownership with accurate vehicle data
- Improve fleet utilisation with route management

Fuel Management

- Optimise fuel consumption by trip, vehicle and driver
- Minimise environmental impact with better fuel management
- Lower fuel costs with improved driving styles

Tracking Fleet	Part No		
Management System	EU SIM	UK SIM	
Kit GPRS/GPS	401054	401073	
Kit FMS	401	056	









DATA MANAGEMENT

I-Box

Wintrac





I-Box

Universal translator for communications

The i-Box accesses Thermo King data for improved communications

It is a protocol interpreter box and connects directly to an open communication port on the Thermo King controller or datalogger.

- Enables third party remote communication
- Jointly developed with transport industry leaders
- Robust construction, built to last
- Connects to any existing Thermo King controllers or dataloggers

Data available through i-Box

- Reefer data
- Cargo temperatures (single and multi zone)
- Shutdown Alarms
- Operating modes
- Total engine hours
- Fuel level
- Battery voltage

Part No	Description
400836	i-Box for Truck and Trailer-MP, TG-VI and multi temp controller
400870	i-Box for SR2

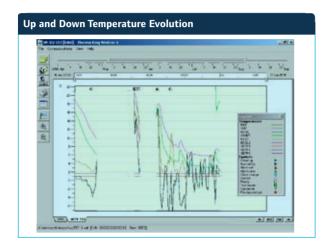
For any third party to access Thermo King controllers and datalogger data they have to develop a link to their system by usage of the i-Box and a Software Developers kit.

Part No	Description
047208	i-Box SDK



Wintrac

Fast, easy-to-use Windows™ based reporting utility for Thermo King dataloggers



- Stable performance, easy downloads and fast downloading speeds
- Fast performance analysis easily define and search for critical data you need
- Innovative, easy-to-use graphical user interface
- Automatic, comprehensive management of files
- Fast, flexible viewing of Graph and Table Reports
- Fast, convenient setting of trip headers

- Fast retrieval and setting of datalogger set-up features
- Comprehensive trip file import/export capabilities
- Display of detailed information from each compartment on Multi-temp trailers
- Downloading of selected dates from TranScan and TKDL dataloggers

Part No	Description
2041919	Wintrac 4.8.1 full system









TEMPERATURE MANAGEMENT

Data loggers

TKDL

Laser thermometer

Door switch

AIA Temperature Sensor

Energy Curtain





Data loggers DAS Data Acquisition System

Thermo King's DAS is a secure, totally independent temperature recorder that keeps a precise record of cargo temperatures from the time the cargo is loaded to final delivery.

It includes its own memory and internal real-time clock, and can accommodate up to six independent, directly connected temperature sensors. At the same time, the DAS connects to the refrigeration unit's controller to provide additional data.

- Provides independent documentation of cargo temperatures during transport
- Developed and tested to comply with all European temperature recording requirements
- Compatible with Wintrac and TracKing

Part No	Description					
452231	DAS – Independent standalone – no kit					
400740	DAS – Retrofit kit trailer 30s MP-V					
400741	DAS – Retrofit kit trailer 30s Multi-temp					
400742	DAS – Retrofit kit trailer 30s TG-VI					
400743	DAS – Retrofit kit trailer 50s Multi-temp, TG-VI & MP-V controllers					
400744	DAS – Retrofit kit truck 30s & 50s MP-T controllers					
400745	DAS – Kit Truck 30s & 50s fitted in factory MP-T controllers					
400747	DAS – Kit trailer 30s & 50s Multi-temp, MP-V, MP-VI & TG-VI					







TKDL

Automatic data capture system for refrigerated vehicles

Another range of dataloggers that have proven to be highly reliable in the temperature transportation market are the TKDL dataloggers with integrated printer.

This datalogger can be used in a wide range of applications. Installed in the drivers cabin on the wall or in the dashboards radio slot or externally mounted on the trailer wall. By means of pressing a single key a delivery or journey ticket is printed.

Also part of the TKDL range but with an optional hand held thermal printer is this DCS datalogger.

This specially designed, lower cost recording system is tailored for the smaller van applications.

Part No	Description
452123	TKDL – DCS Data capture system (No integrated printer)
452121	TKDL – PRO type C: Premium Data Logger + Printer, In Cab
452117	TKDL - PRO type R: Premium Data Logger + Printer, Radio Slot
452118	TKDL - PRO type T: Premium Data Logger + Printer, Trailer Mount
452122	TKDL - SPR type C: Simple data logger, In Cab
452119	TKDL - SPR type R: Simple Data Logger, Radio Slot
452120	TKDL - SPR type T: Simple Data Logger , Trailer Mount



TKDL - Type R



TKDL - Type C



TKDL - Type T



TKDL - DCS





Laser thermometer Measure temperature from a distance

Useful non-contact, handheld laser thermometer device used to measure transported goods temperature at a distance.

- Easy to use
- Laser sighting
- °C or °F selectable
- Large, easy to read display
- Auto switch off



Part No	Description
2041059	Laser thermometer

Cable thermometer

Portable pallet level thermometer with extension cable

Ideal for quality control during loading and unloading of goods. The durable design ensures impact resistancy in busy logistic environments.

- Range -50°C to 150°C
- Resolution 0.1°C
- Accuracy +/-0.3°C



Part No	Description
2040900	Cable thermometer





Door switch

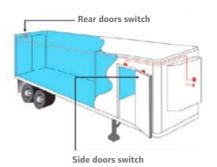
Economy, security and noise reduction for delivery operations

This low profile, durable switch automatically turns off the refrigeration unit when the door is opened and restarts when the door is closed.

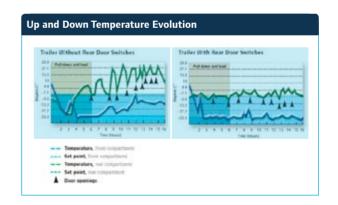


- Reduced run time: less maintenance & lower fuel consumption
- Less heat gain into the load at delivery: improved temperature control
- Greater security: door opening events can be logged or trigger an alarm
- Greater safety: automatically turn interior trailer lights on and off as they are needed
- Zero refrigeration unit noise during delivery





Part No	Description				
400906	Slim-line Door Switch for protection during door openings (3-wire)				
400907	Slim-line Door Switch for protection during door openings (2-wire)				





AIA Temperature Sensor

Economy, security and noise reduction for delivery operations

The AIA-Accurate Internal Air Sensor measures the internal air for climate control systems.

Efficient, reliable and high performance temperature control requires impeccable accuracy.

This temperature sensor measures real internal air temperature without the influence of internal surface temperature, providing optimum load protection. Compared to traditional wall mounted sensors the difference in measured temperature is up to 7°C.



- No influence from internal surface temperature
- Stainless steel plate installed in the trailer body
- Mounted onto a flexible rubber tube for easy bending



Part No	Description
417873	DAS
417874	SR2 (Cargowatch)
417875	TKDL-Thermo King recorders, dataloggers and universal recorder





Energy Curtain

The energy curtain ensures that produce is delivered in optimum condition by minimising exposure to outside ambient temperature. The curtain is a cost effective and energy saving solution and can be customised to any truck size.

Key Features

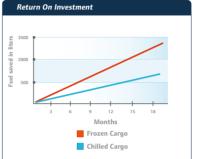
- Reduces the time that the interior is exposed to ambient temperature by 90 - 95%
- Reduces fuel consumption by as much as 4-7 litres a day
- Cost of the curtain is won back over a period of approximately 2 years





with Energy Curtain

without Energy Curtain





Part No	Description
2060230	Energy curtain





FUEL MANAGEMENT

Fuel filtration and priming system

Fuel storage

Electronic fuel capture





F

Fuel filtration and priming system Increase uptime and reduce call out costs

The 3-in-1 fuel filtration and priming system comprises:

- fuel filter
- water separator
- priming pump

It operates by removing foreign particles and water from all types of fuel to ensure that the unit operates on full capacity enabling efficient fuel consumption. In addition the system can be easily primed by the driver.



Key Features

- Removes contaminants from fuel
- Rugged priming pump for on the spot fast system priming
- Replaceable water separator prevents water from entering the fuel system
- Reduces running costs and increases engine life
- Easy to retrofit for all truck and trailer applications

Part No	Description
100415	Fuel filtration and priming system – includes fittings
130994	Replacement filter 30 Microns





Fuel Storage Keep running for longer

The Thermo King fuel tank is an essential component of a total fuel management system.

When integrated with Thermo King's fuel level sensors, fuel level displays and anti-siphon devices you can manage and secure your fuel consumption and costs more efficiently.



Description	Tank	Installation Kit	Anti-siphon device	
Polyethylene Fuel tank 230l	120839	900351	130960	
Steel Fuel tank 190l	120451	017071	130878	

Thermo King offers a 190 litre steel fuel tank or a 230 litre polyethylene tank depending on your requirements.

The impact and corrosion resistant polyethylene fuel tank with 230 litre capacity is safe, light and easy to install. The high capacity ensures less fuel stops and increased uptime to keep you running for longer.

Start protecting your fuel investment today with Thermo King anti-siphon device





Electronic Fuel Capture

Thermo King's fuel level sensors are compatible with the Thermo King polyethylene and steel fuel tanks and also other competitive fuel tanks.

They enable fuel level information to be visualised by remote display, stored in the memory of the Thermo King datalogger or used for online fuel level monitoring by Thermo King's telematics solution TracKing.



Description	Polyethylene	Steel 190l	OEM fuel	
	230l fuel tank	fuel	tanks	
Fuel guage and electronic sensor	130794	131019	131001	

50 51





Fuel

Management

COMPATIBILITY MATRIX













Compatibility Matrix

COOL UNIT TYPE	SLX 100/200/ 300/400	SLX Spectrum	SLe 400	SL/SLe 100/200/ 300	SL TCI Spectrum
COOL UNIT TYPE - U	NIT MANAG	EMENT			
Energy Battery	1	1	1	1	1
EON - Battery	1	1	1	1	1
Combo Display	1	✓	1	/ *	/ *
Evaporator guards S2 & S3	Х	1	×	×	1
SR-2 Extension	1	1	1	Х	Х
SR-2 Rear Remote Control	1	1	1	Х	Х
COOL UNIT TYPE - FL	EET MANA	SEMENT			
TracKing	1	1	1	1	1
COOL UNIT TYPE - DA	ATA MANAG	EMENT			
Wintrac	1	1	1	1	1
i-Box	1	✓	1	1	1
COOL UNIT TYPE - TE	MPERATUR	E MANAGE	MENT		
DAS datalogger	Х	Х	√ **	✓	1
TKDL datalogger	1	✓	1	1	1
Laser Thermometer	1	✓	✓	1	1
Cable Thermometer	1	1	1	1	1
Door Switch	1	1	1	1	1
AIA Temperature Sensor	✓	1	1	1	1
Energy Curtain	1	✓	1	1	1
COOL UNIT TYPE - FL	JEL MANAG	EMENT			
Fuel filtration and priming system	1	1	1	1	1
Fuel Tank	1	1	1	1	1
Anti-Siphon device	1	1	1	1	1
Electronic Fuel level gauge	1	1	1	1	1

SMX II	TS 200/300 500/600	UTS UT1200	MD SR KD SR TD SR	MD 200/300	RD II SR WKD II SR	RD MT MD 200MT
✓	1	✓	1	1	1	1
✓	1	✓	✓	1	1	1
√ ∗	Х	Х	Х	Х	Х	Х
Х	X	1	Х	X	X	✓
Х	Х	Х	Х	Х	Х	Х
Х	Х	Х	Х	Х	Х	Х
1	1	1	1	1	1	√ ∗
1	1	1	1	1	1	Х
1	1	1	1	1	1	Х
		-			1	
✓	√	√	/	√	√	√
√	√	√	/	/	1	√
✓	√	1	V	1	√	√
/	1	1	1	1	√	1
1	1	√ √	1	1	1	√ √
_	'	•	'	_	V	•
1	1	1	1	1	1	✓
1	X	Х	×	Х	X	Х
1	Х	Х	Х	Х	Х	Х
1	X	Х	Х	Х	X	Х
1	Х	Х	×	Х	×	Х

 \checkmark *Only model Combo Status Only Display ✓ **Not compatible with SR2 only MP-VI







Compatibility Matrix Continued

COOL UNIT TYPE - UNIT MANAGEMENT								
	SLX 100/200 300/400	SLX SPECTRUM	SLe 400	SL/SLe 100/200 300	SL TCI SPECTRUM			
Energy Battery	2030765	2030765	2030765	2030765	2030765			
EON - Battery	2030777	2030777	2030777	2030777	2030777			
Combo Display	400985	400985	400985	400985	400985			
	400984	400984	400984	400984	400984			
	400989	400989	400989	400989	400989			
	401069	401069	401069					
	401068	401068	401068					
	401067	401067	401067					
	401066	401066	401066					
	401065	401065	401065					
	401064	401064	401064					
Evaporator guards		987813			987813			
S2 & S3	Х	987812	Х	Х	987812			
	^	987815	^	^	987815			
		987814			987814			
SR-2 Extension	900356	900356	900356	Х	Х			
SR-2								
Rear Remote	401008	401031	401008	Х	Х			
Control								

COOL UNIT TYPE - FLEET MANAGEMENT								
	SLX 100/200 300/400	SLX SPECTRUM	SLe 400*	SL/SLe 100/200 300	SL TCI SPECTRUM			
TracKing	401007	401042	401007	400944	400944			
Temperature	401009	401041	401009	401019	401019			
Management	401025	401074	401025	401020	401020			
TracKing Fleet Management System	This only applies on CAN-bus data coming from Truck and Tractor engine management 401056 together with 401054 or 401073							

SMX II	TS 200/300 500/600	UTS UT1200	MD SR KD SR TD SR	MD 200/300	RD II SR WKD II SR	RD MT MD 200M1
2030765	2030774	2030774	2030774	2030774	2030774	2030774
2030777	2030777	2030777	2030777	2030777	2030777	2030777
400985 400984 400989	×	×	×	×	×	×
		987813				987813
	Х	987812	Х	Х	Х	987812
		987815		, r		987815
		987814				987814
Х	Х	Х	Х	Х	Х	Х
X	×	×	×	×	×	×

SMX II	TS 200/300 500/600	UTS UT1200	MD SR KD SR TD SR	MD 200/300	RD II SR WKD II SR	RD MT MD 200MT**
400944	400945	401005	400945	400945	400945	400944
401019	401021	401023	401021	401021	401021	401019
401020	401022	401024	401022	401022	401022	401020

This only applies on CAN-bus data coming from Truck and Tractor engine management 401056 together with 401054 or 401073

*Only valid if SR2 controller is used with this cool unit. If other controller is being used then use part numbers that are captured under SL/SLe 100/200/300 **Only possible when TKDL is used



Compatibility Matrix Continued

COOL UNIT TYPE - DATA MANAGEMENT								
	SLX 100/200 300/400	SLX SPECTRUM	SLe 400	SL/SLe 100/200 300	SL TCI SPECTRUM			
Wintrac	2041919	2041919	2041919	2041919	2041919			
i-Box	400870	400870	400870	400836	400836			

COOL UNIT TYPE - TEMPERATURE MANAGEMENT								
	SLX 100/200 300/400	SLX SPECTRUM	SLe 400	SL/SLe 100/200 300	SL TCI SPECTRUM			
DAS datalogger	Х	X	X	400747	400747			
TKDL	452123	452123	452123	452123	452123			
datalogger	452121	452121	452121	452121	452121			
	452117	452117	452117	452117	452117			
	452118	452118	452118	452118	452118			
	452122	452122	452122	452122	452122			
	452119	452119	452119	452119	452119			
	452120	452120	452120	452120	452120			
Laser Thermometer	2041059	2041059	2041059	2041059	2041059			
Cable Thermometer	2040900	2040900	2040900	2040900	2040900			
Door Switch	400906	400906	400906	400906	400906			
				400907	400907			
AIA Temperature	417873	417873	417873	417873	417873			
Sensor	417874	417874	417874	417874	417874			
	417875	417875	417875	417875	417875			
Energy Curtain	2060230	2060230	2060230	2060230	2060230			

SMX II	TS 200/300 500/600	UTS UT1200	MD SR KD SR TD SR	MD 200/300	RD II SR WKD II SR	RD MT MD 200MT
2041919	2041919	2041919	2041919	2041919	2041919	Х
400836	400836	400836	400836	400836	400836	Х

SMX II	TS 200/300 500/600	UTS UT1200	MD SR KD SR TD SR	MD 200/300	RD II SR WKD II SR	RD MT MD 200MT
400747	400745	400745	400745	400745	400745	X
452123	452123	452123	452123	452123	452123	452123
452121	452121	452121	452121	452121	452121	452121
452117	452117	452117	452117	452117	452117	452117
452118	452118	452118	452118	452118	452118	452118
452122	452122	452122	452122	452122	452122	452122
452119	452119	452119	452119	452119	452119	452119
452120	452120	452120	452120	452120	452120	452120
2041059	2041059	2041059	2041059	2041059	2041059	2041059
2040900	2040900	2040900	2040900	2040900	2040900	2040900
400906	400906	400906	400906	400906	400906	400906
400907	400907	400907	400907	400907	400907	400907
417873	417873	417873	417873	417873	417873	417873
417874	417874	417874	417874	417874	417874	417874
417875	417875	417875	417875	417875	417875	417875
2060230	2060230	2060230	2060230	2060230	2060230	2060230



Compatibility Matrix Continued

COOL UNIT TYPE - FUEL MANAGEMENT								
	SLX 100/200 300/400	SLX SPECTRUM	SLe 400	SL/SLe 100/200 300	SL TCI SPECTRUM			
Fuel filtration/ priming system	100415	100415	100415	100415	100415			
Fuel Tank	120839	120839	120839	120839	120839			
	120451	120451	120451	120451	120451			
Anti-Siphon	130960	130960	130960	130960	130960			
	130878	130878	130878	130878	130878			
Electronic Fuel	130794	130794	130794	130794	130794			
level gauge	131019	131019	131019	131019	131019			
	131001	131001	131001	131001	131001			

SMX II	TS 200/300 500/600	UTS UT1200	MD SR KD SR TD SR	MD 200/300	RD II SR WKD II SR	RD MT MD 200MT
100415	100415	100415	100415	100415	100415	100415
120839 120451	×	Х	X	×	Х	Х
130960 130878	Х	Х	Х	х	Х	Х
130794 131019	х	Х	х	х	Х	х
131001						





Providing equipment and services to manage controlled-temperature environments for food and other perishables, our Climate Control Technologies sector encompasses both transport and stationary refrigeration solutions. Our product brands include Thermo King*, a world leader in transport temperature control system and Hussmann*-Koxka*, a manufacturer of refrigeration and food merchandising equipment.

www.thermoking.com www.hussmann.com www.koxka.com www.ingersollrand.com

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