



THERMO KING KIT

40-815

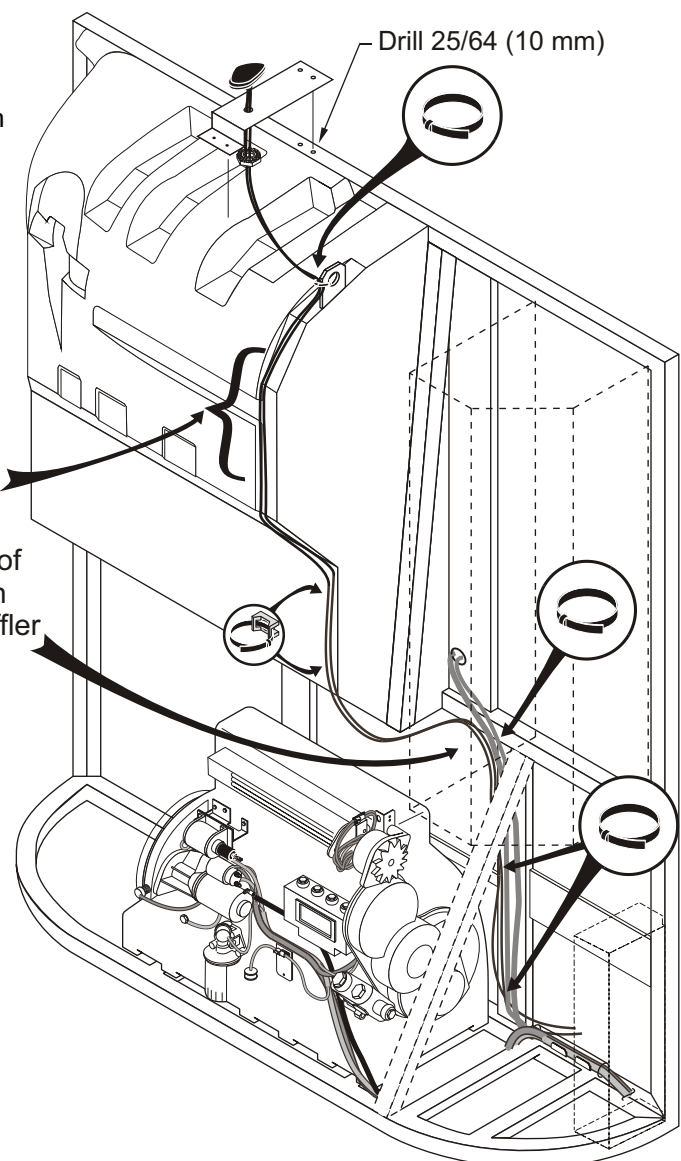
Subject: Trac-King GSM
Units: SB units
Benefits: This kit contains the parts needed to install the system

Installation Instructions:

1. Attach antenna to the mounting bracket with the provided nut.
2. Mount the antenna assembly to the center of the condenser frame. Use the bracket as a template to mark and drill two 25/64 (10 mm) for the threaded inserts. Loosely attach the antenna assembly with the supplied screws, flatwashers and lockwashers.
3. Clean the plastic bulkhead with isopropyl alcohol wet wipes (203-498). Wipe dry.
4. Peel off the protective tape (double sided) and firmly press the bracket to the plastic bulkhead. Tighten hardware. Drill two 9/32 holes in the plastic bulkhead and install the rivets, seal the rivet heads with silicone caulk to protect the integrity of the bulkhead.

Application Guidelines: For maximum bond strength the ideal tape application is accomplished when temp. is between 70 to 100 F and the bond is allowed to dwell 72 hours. The bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure develops better adhesive contact and thus improves bond strength.

5. Route the antenna cables to the control box. Bandwrap cables to the lifting eye. Secure antenna cables to bulkhead with caulk.
6. Use bandwraps to secure the cables to the main harness and enter the control box through the harness grommet. Maintain 3 inches of clearance from the muffler, belts and pulleys.



Kit Contents:

1	92-2619	Antenna Mounting Bracket	1
2	92-2672	Unit Mounting Brackets	2
3	NSS	Trac-King Unit.	1
4	NSS	Antenna (GSM/GPS) with nut	1
5	41-5168	Trac-King harness	1
6	55-2977	Screw - bracket	2
7	55-1800	Lockwasher	2
8	55-2086	Flatwasher	2
9	55-7767	Insert - threaded	2
10	55-9756	Rivet - bracket	2
11	55-2201	Flatwasher	16
12	203-498	Wipe (Alcohol)	1
13	55-1844	Screw	8
14	55-4223	Nut	8

5. Attach the brackets to the Trac-King module, position the assembly above the TG-IV controller, mark and drill four (4) ¼ holes into the cover. The brackets must be used on units with or without DAS.
6. Attach the antenna cables and the seven pin connector to Trac-King module, hand tight.
7. Attach the GND wire with terminal to the control box ground stud.
8. Solder the IGN wire to the #8 wire terminal of the On/Off switch.
9. Attach the 2S wire to the #2 terminal on the relay board.
10. Use an Amp terminal remover tool (204-737) to remove the two wires from the Communication harness 14 pin Amp connector (see below) and replace them with TxD and RxD wires.

Thermoguard µPIV/µPV, Multitemp µPIV

Trac-King	Comm. Port	Pin No.
TxD	TxD2	1
RxD	RxD2	2

Thermoguard µPVI (see Note 1)

Trac-King	Comm. Port	Pin No.
TxD	TxD3	11
RxD	RxD3	14

or

TxD	TxD2	3
RxD	RxD2	7

Note 1. Comm. Port 2 is an option if Comm. Port 3 is not available. For Port 3, configure it to REMC OFF and TRMR OFF (for Port 2) in the super guarded access command.

Note 2. If installation configuration has no remote display but with DAS installed, connect the TRAC-king to Comm. Port 1. Otherwise to Comm. Port 2.

Thermoguard VI (see Note 2)

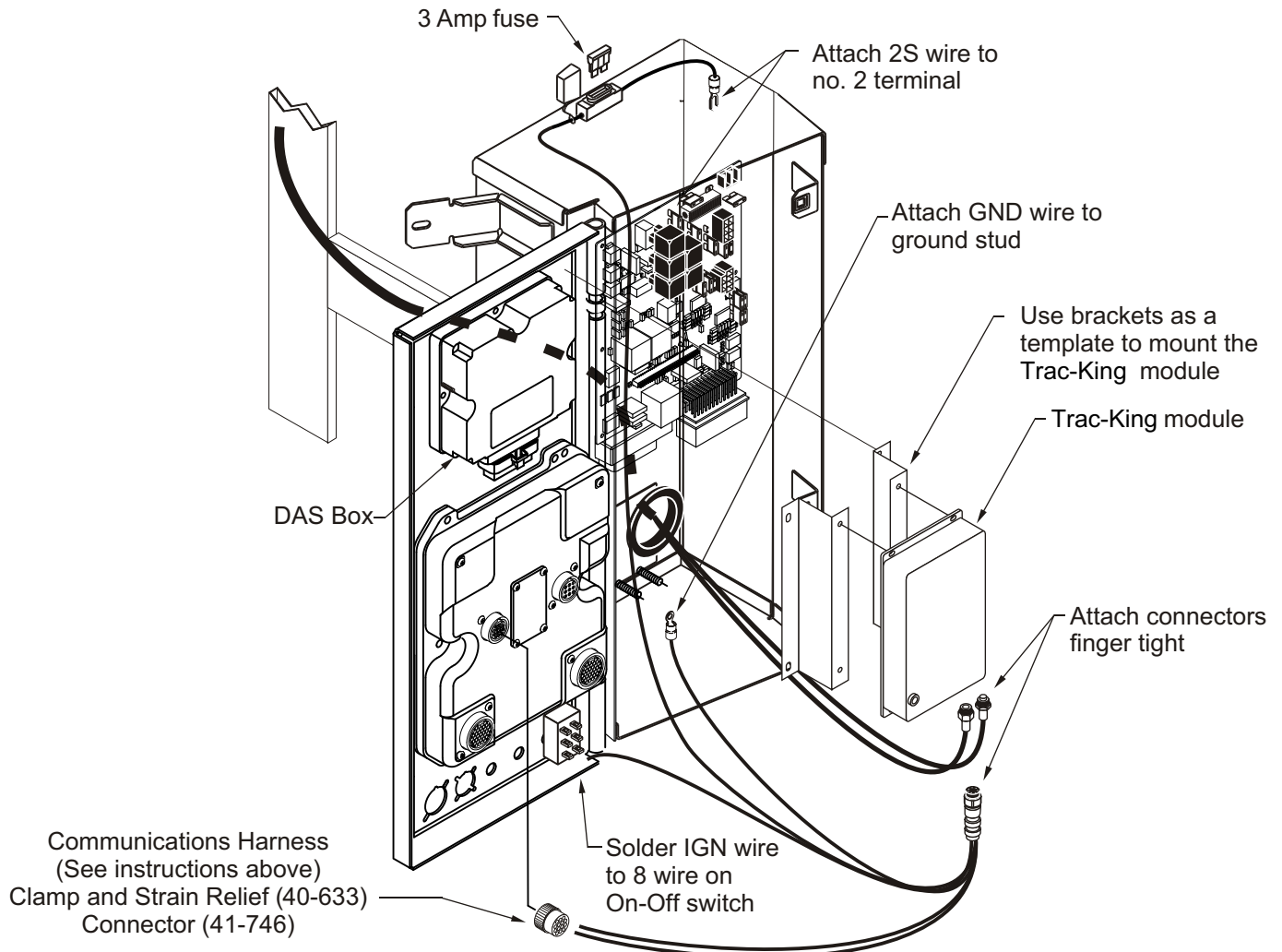
Trac-King	Comm. Port	Pin No.
TxD	TxD1	8
RxD	RxD1	4

or

TxD	TxD2	27
RxD	RxD2	19

11. Secure excess wires with bandwraps.
12. To test the unit refer to your user manual. Return the unit to service.

To retrieve a user manual got to <http://www.trac-king.com>, enter your username and password. Click on the book with the question mark "?" on the cover (located to the far right of the TK Logo) and then click on download.



Basic Troubleshooting Guide	
<i>Symptom/Problem</i>	<i>Action</i>
1. No web access.	<i>Call Technical support</i> <i>@ 952-887-2200/952-200-8389 or e-mail:</i> <i>gsmtrac-king@thermoking.com</i>
2. Position, time, date and refrigeration data are not being displayed / web does not respond.	Step 1: Check LED of the unit is flashing. Step 2: Check fuse and power connection. Step 2: Check GSM network coverage. Step 3: Call Technical support <i>@952-887-2200/952-200-8389 or e-mail</i> <i>gsmtrac-king@thermoking.com</i>
3. Position, time and date are not displayed- refrigeration data is available.	Step 1: Check if antenna has line-of-sight to the Sky. Step 2: Check damage to GPS antenna its cable and hand tight connectors. Step 3: Call Technical support <i>@ 952-887-2200/952-200-8389 or e-mail</i> <i>gsmtrac-king@thermoking.com</i>
4. Refrigeration data not displayed, position time and date are available.	Step 1: Review TX/RX connection –check trac-king loom cable. Step 2: Reset power of the Trac-King GSM Unit. Leave the power of the refrigeration unit on. Step 3: Check communication port. It should be set to datapac protocol or remote no/off. Refer to green book for changes of settings. Step 4: Verify from Table 1 if the software version of the micro is supported by this wireless product. Step 5: Call Technical support <i>@ 952-887-2200/952-200-8389 or e-mail</i> <i>gsmtrac-king@thermoking.com</i>

Table 1

Controller	Supported Software Revision	Unsupported Software Revision
TGVI	1090	1060 and below
μP VI	4035	
	4032	
	4031	
	4030	
	Buzzer 4010 / 8888	
μP V KOR	603	
	602	
	600	
	9607	
	611	
	610	
	601	
μP IV Multi Zone (TCI)	2023	
	2022	
	2021	
	2015	
	2011	
	2001	
μP IV⁺ Single Temp	612	310
	510	
	512	
	3021	
	3022	
	9438	
	3020	
	420	
	412	

Statement according FCC part 15.19



FCC identifier has to be on the equipment

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Statement according FCC part 15.21

Modifications not expressly approved by **Thermo King Corp.** could void the user's authority to operate the equipment.

Statement according FCC part 15.105

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

RF Exposure

Note:

The antenna of this device is installed on the top of a Thermo King refrigeration unit which is mounted in front of the trailer. Thus, the truck driver and passenger are at least 20 cm from the antenna.

Health and Safety Information

Exposure to Radio Frequency (RF) Signals

This product is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.