



OPERATOR GUIDE

KOLD KARTTM

OPERATION MANUAL

KOLD KART™ 1231 W. 132_{ND} Street GARDENA, CA 90247 Phone 310.324.5835 • Fax 310.324.9476



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KOLD KARTTM

The answer to keeping it fresh

Kold KartTM is a temperature controlled air cargo container transport dolly that allows perishable air cargo to be delivered to and from the door of an aircraft under constant refrigeration.

KOLD KART'S TWO EASY STEPS FOR OPERATION

- 1. Turn On Refrigeration
- **2.** Loading And Unloading Rear/Side door or both.

OPERATING PROCEDURE

Kold KartTM, in addition to keeping valuable shipments cold, was designed for ease of use. The following procedure will guide you through the necessary steps to operate the Kold KartTM easily and safely.

DO NOT ALLOW PERSONNEL TO OPERATE THE KOLD KARTTM DOLLY UNLESS THEY ARE PROPERLY TRAINED.







REFE

1. STARTING REGRIGERATION UNIT (CARRIER)

a. To start unit check if the I/O switch is in the "I" position.

2. CHANGING THE SET POINT TEMPERATURE

- a. Press the up or down key to increase or decrease the display set point.
- b. Press the enter key when the desired set point is displayed to lockin the new set point.

3. TURNING ON REFRIGERATION UNIT (CARRIER)

- a. Start the refrigeration unit by flipping toggle switch to the ON position. Refrigeration unit will automatically start.
- b. Refrigeration unit will run on diesel or electric standby. Diesel power will also charge the batteries. Electrical standby is 3 phase 230V AC.

4. LOADING SAFETY

- a. Always chalk the Kold KartTM wheels when loading or unloading dolly if unit is not connected to a tug or tow vehicle.
- After loading containers into the Kold KartTM always use the b. container/pallet floor stops for securing the load. When the Kold KartTM dolly is successfully loaded, close the doors secure them using the door handle lock, you can secure the doors with a seal(s) and/or padlock(s) if required.

DO NOT LOAD OR UNLOAD DOLLY WITH PERSONNEL INSIDE.

DO NOT MOVE KOLD KARTTM WITH PERSONNEL **INSIDE.**

DO NOT WALK OR STEP ON ROLLERS.

DO NOT LOAD LIVE ANIMALS INSIDE KOLD KARTTM





5. TOWING THE KOLD KARTTM

- a. When Kold Kart's tow bar is locked in the upright position (1), the brakes will be set. To release brakes, simply lower the tow bar (3).
- b. Be sure to use wheel chocks before hooking and unhooking the Kold ${\rm Kart}^{\rm TM}.$
- c. Always use wheel chocks when Kold Kart[™] is on uneven ground.

DO NOT UNHOOK TUG FROM KOLD KART™ IF PARKED ON UNEVEN GROUND.

DO NOT RELEASE THE BRAKES ON KOLD KARTTM IF UNIT IS PARKED ON UNEVEN GROUND UNLESS YOU HAVE CONFIRMED THE WHEELS ARE CHALKED.

- d. Dolly can be towed safely at no more than 20 MPH.
- . Kold KartTM can be lifted with lift trucks in the designated area.

DO NOT LIFT THE KOLD KART™ OUTSIDE THE DESIGN AREAS WITH FORK LIFT. MAY CAUSE SERIOUS DAMAGE.

DO NOT MOVE THE KOLD KARTTM WITH A LIFT TRUCK. MAY CAUSE SERIOUS DAMAGE.

TO MOVE THE KOLD KART™ IT MUST BE TOWED TO A TOWCAR.

f. Kold KartTM is equipped with a rear hitch. This allows additional standard dollies or Kold KartTM dollies to be towed. This hitch is rated at 50,000 lb.

DO NOT PULL OVER 50,000 1b BEHIND THE FIRST KOLD KARTTM DOLLY.

g. Kold KartTM dolly has a height clearance of 114 inch wing. Watch overhead clearance. Use caution when towing Kold KartTM near aircraft.















6. STOPPING REFRIGERATION UNIT

a. To stop unit by flipping toggle switch to OFF position. The diesel engine or electric motor will stop and the microprocessor/controller will turn off.

For all other functions regarding the Carrier refrigeration unit please refer to the Carrier operation manual.

7. ADJUSTING KOLD KART[™] REAR BRAKES



a. To adjust brakes unhook the brake rod from the bottom of front tow bar. Turn the threaded connector accordingly. If the tow bar will not lock in the upright position then the brakes are too tight and will need to be adjusted. You must feel resistance when you lock the tow bar in the upright position to confirm the rear brakes are locking.

KOLD KARTTM COMPONENTS

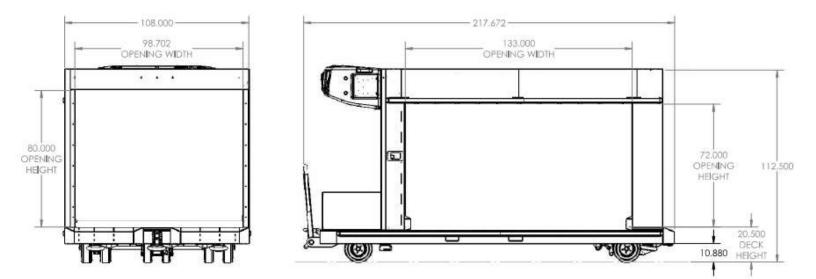
FUEL: Diesel

Electrical standby: 3 phases connector 230V AC.

Capacity: 40 Gallons / Approx. 1/2 Gallon per hour

Battery: 1 – 12 volt Heavy Duty Battery.





KOLD KARTTM TECHNICAL DATA

- Gross Vehicle Weight: 20,000 lb. (9,080 kg)
- Empty Weight: 9,500 lb. (4,131kg) Fuel tank full
- Cargo Capacity: 11,000 lb. (4,989.5 kg)
- Width: 108 inches (2.74 m)
- Height: 112.5 inches (2.86 m)
- Length: 217.7 inches (5.53 m) measured from rear bumper to the front tow bar in the up position.



PREPARATION FOR USE

The Kold KartTM has been lubricated and adjusted at the factory and no additional preparation is required. A general inspection should be made, if any damage was sustained in transit the transportation company should be notified immediately. Wheel lug nuts should be tightened after the first few days operations, and should be checked periodically thereafter (90 ft. lb. torque is recommended).

IMPORTANT:

Kold KartTM has tow bar actuated brakes. There are three positions the pole may be locked at. When the tow bar is locked in the up position (1), the brakes are on. You can lock the entire Kold KartTM just putting a paddle lock in this position. The second position (2) is when the pole is in the middle up. This position releases the brakes. The third and last position (3) is when you are about to tow the Kold KartTM. Take into account the positions of the tow bar to avoid damage.

LUBRICATION

a. Every six months grease the wheel hubs and caster spindles.

CAUTION: DO NOT OVERGREASE. OVERGREASING CAN CAUSE BEARING SEALS TO BE BLOWN OUT OF HUBS.

- b. Grease the ground brakes rockshaft and tow bar every 30 days.
- c. Grease fitting Zerks are provided at all lubrication points.

ADJUSTMENTS

The parking wheel brakes may need adjustment as the tires wear. To adjust, simply turn the front portion of the brake shaft until the desired length, of the brake shaft, is obtained.







KOLD KART™ TROUBLESHOOTING GUIDE

UNIT WILL NOT START

- **a.** If control panel is not illuminated, make sure the 100 amp circuit breaker is in the "ON" position.
- **b.** If the control panel is illuminated, make sure refrigeration unit is not in "STANDBY" mode. Refer to Carrier Operation manual for programming instructions.

AIR COMPRESSOR WILL NOT TURN ON

- **a.** The air compressor will only start if the refrigeration unit is running.
- **b.** Check 30 amp circuit breaker to make sure it is in the "ON" position.

KOLD KARTTM IS NOT AT RIDE HEIGHT

The Kold KartTM dolly is designed to maintain a ride height of 20-inch, from top of floor to ground. If the Kold KartTM is not at ride height take the following steps:

- **a.** Turn the refrigeration unit on and open either cargo door. This should allow the suspension raise or lower to ride height.
- **b.** The air compressor is designed to turn on when the air pressure in the reserve tank falls below 110 PSI and turns off when the air presser hits 150 PSI.
- **c.** Make sure the air pressure regulator is set at 95 PSI. Any adjustments must be made with refrigeration unit turned on, the air compressor running, 1 cargo door opened and the system fully charged.

ADJUSTMENT OF THE PRESSURE REGULATOR SHOULD ONLY BE PERFORMED BY A QUALIFIED TECHNICIAN.

DO NOT ALLOW THE AIR PRESSURE REGALATOR TO BE SET ABOVE 95 PSI. DAMAGE TO KOLD KARTTM SUSPENSION CAN OCCUR.

KOLD KARTTM HAS DEAD BATTERY

a. Be sure to turn off both circuit breakers before charging battery.



SPECIFICATIONS

GVW	20,000 lb.
OVERALL LENGTH (towbar up)	217-1/4"
OVERALL LENGTH (towbar down)	260-3/4"
OVERALL WIDTH	108"
TOWBAR	4" x 3" 3/16" wall rectangular tube with 3" I.D., 1-5/8" cross-section lunette
REAR HITCH	Holland GSE EH-HD type

Wheels

FRONT	Caster with dual solid tires
REAR	Dual solid tires
WHEEL BEARINGS	1.375" sealed bearings
AXLES	6" wide with 1.375" Timken roller bearings
RIMS	2 piece demountable
CASTER SPINDLE BEARINGS	2 Timken sealed bearings
BRAKES	Friction type, towbar activated



SAFETY SUMMARY

GENERAL SAFETY NOTICES

The following general safety notices supplement the specific warnings and cautions appearing elsewhere in this manual. They are recommended precautions that must be understood and applied during operation and maintenance of the equipment covered herein. The general safety notices are presented in the following three sections labeled: First Aid, Operating Precautions and Maintenance Precautions. A listing of the specific warnings and cautions appearing elsewhere in the manual follows the general safety notices.

SAFETY PRECAUTIONS

Your Carrier TransCold refrigeration unit has been designed with the safety of the operator in mind. During normal operation, all moving parts are fully enclosed to help prevent injury. During all pre-trip inspections, daily inspections, and problem troubleshooting, you may be exposed to moving parts. Stay clear of all moving parts when the unit is in operation and when the unit RUN/STOP Switch (RSS) is in the START/RUN position.

FIRST AID

An injury, no matter how slight, should never go unattended. Always obtain first aid or medical attention immediately. OPERATING PRECAUTIONS

Always wear safety glasses. Wear hearing protection as required.

Keep hands, clothing and tools clear of the evaporator and condenser fans.

No work should be performed on the unit until all circuit breakers and the RUN/STOP Switch are turned off, and battery power supply is disconnected.

Always work in pairs. Never work on the equipment alone.

In case of severe vibration or unusual noise, stop the unit and investigate.

MAINTENANCE PRECAUTIONS

Beware of unannounced starting of the unit. This unit is equipped with Auto-Start in both the road and standby modes. The unit may start at any time. When performing any check of the system make certain the Emergency Switch is in the OFF position.

Be sure power is turned off before working on motors, controllers, solenoid valves and electrical control switches. Tag circuit breaker and vehicle ignition to prevent accidental energizing of circuit.

Do not bypass any electrical safety devices, e.g. bridging an overload, or using any sort of jumper wires. Problems with the system should be diagnosed, and any necessary repairs performed, by qualified service personnel.

When performing any arc welding on the unit or container, disconnect all wire harness connectors from the microprocessor. Do not remove wire harness from the modules unless you are grounded to the unit frame with a static safe wrist strap.

In case of electrical fire, open circuit switch and extinguish with CO2 (never use water).

AUTO-START

Your refrigeration unit is equipped with Auto-Start in both Start/Stop and Continuous Run modes. The unit may start at any time. A buzzer will sound for 5 seconds before the unit is started. When performing any check of the refrigeration unit (e.g., checking the belts, checking the oil), make certain that the RUN/STOP Switch is in the OFF (0) position. ENGINE COOLANT

The engine is equipped with a pressurized cooling system. Under normal operating conditions, the coolant in the engine and radiator is under high pressure and is very hot. Contact with hot coolant can cause severe burns. Do not remove the cap from a hot radiator; if the cap must be removed, do so very slowly in order to release the pressure without spray.

REFRIGERANTS

The refrigerant contained in your unit can cause frostbite, severe burns, or blindness when in direct contact with the skin or eyes. For this reason, and because of legislation regarding the handling of refrigerants during system service, we recommend that you contact your nearest Carrier Transicold authorized repair facility whenever your unit requires refrigeration system service.

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BATTERY

This unit is equipped with a lead-acid type battery. The battery normally vents small amounts of flammable hydrogen gas. Do not smoke when checking the battery. A battery explosion can cause serious physical harm and/or blindness. SPECIFIC WARNING AND CAUTION STATEMENTS

To help identify the label hazards on the unit and explain the level of awareness each one carries, an explanation is given with the appropriate consequences:

DANGER -- means an immediate hazard which WILL result in severe personal injury or death.

WARNING -- means to warn against hazards or unsafe conditions which COULD result in severe personal injury or death.

CAUTION -- means to warn against potential hazard or unsafe practice which could result in minor personal injury, product or property damage.

The statements listed below are specifically applicable to this refrigeration unit and appear elsewhere in this manual. These recommended precautions must be understood and applied during operation and maintenance of the equipment covered herein.