

# Truck Refrigeration Units

## Truck Refrigeration Units Repair Manual



**ZHENGZHOU GUCHEN  
INDUSTRY CO., LTD.**

Website: [www.guchen.com](http://www.guchen.com)

Email: [info@guchen.com](mailto:info@guchen.com)

Tel: +86 371 69152892



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# HOW TO REPAIR YOUR TRUCK REFRIGERATION UNITS BY YOURSELF?





## Foreword to Guchen's Truck Refrigeration Units Repair

This truck refrigeration units repair manual is suitable for standard model. Information of some option items might not be included in this manual, which you need to [consult our technical service department](#) of the company.

## Truck Refrigeration Units Common Problems & Solutions to These Common Problems

Here is a chart for you to check out your truck refrigeration units why not refrigerating or why refrigerating not enough.

You can check it by yourself, and you can also [contact us for truck refrigeration units repair manual](#) or change the truck refrigeration units' spare parts for a great working performance.



PHOTO: Truck refrigeration Units and spare parts



Problems	Possible Reasons		Truck refrigeration units repair manual
<b>Truck Refrigeration Units Not Refrigerating</b>	Evaporator fans working	Condenser fans not work, compressors work	Check out whether the fans contact fall off or not, fans whether damage or not and ground wire whether working or not.
		Both condenser fans and compressors not working	Check out temperature detect switch (TDS) whether damage or not, electric relay whether pull in or not, and its contact whether loose.
		Condenser fans working, compressors not working	Check out clutch whether damage or not, connector lug whether fall off, belt whether loose.
	Evaporator fans not working	Both condenser fans and compressors working	Check out whether speed-control switch working or not, blower lines whether break or not, and blower ground lines whether damage or not.
		Both condenser fans and compressors not working	Check out whether the fuse blows out or not, and whether the electric relay working or not.
	Compressors working	Evaporator fans and condenser fans working	Fill too much refrigerant, check it whether meet the standard amounts with high and low pressure controller
			Not using truck reefer units for a long time, and check whether it still has refrigerant or not.
<b>Truck Refrigeration Units Refrigerating Not Enough</b>	Compressors working	Evaporator fans, condenser fans working; evaporators and condensers working	Liquid receiver inlet and outlet connect inversely. Check out the expansion valve whether blocked by ice or filth, and change liquid receiver.
		fans and other parts all working	Check whether condenser surface blocked by filth.

*Chart 1: truck refrigeration units problems for self-checking and repair manual*



Problems	Reasons	Self-checking
At the beginning, it refrigerates well, but after a while using, refrigerating effect decline; the high and low pressure data is lower.	Driving reefer trucks on the bumpy roads, because of the shocking frequently, resulting in wire contacts loose, and refrigerant leakage.	Using leakage meter check out where the leaking place is, screw down loose contacts and fill in refrigerant.
The truck reefer system not refrigerating; blowing hot air from blower outlet; expansion valve outlet and inlet blowing air same temperature; low presser controller shows lower number reading.	Using improperly. Expansion value temperature wrap damages, valve bore closed, and resulting in refrigerant leakage.	Change expansion value, refill in refrigerant.
Outlet air not cooling and compressor temperature increasing; the pointer in low pressure controller downs quickly nearly to “0 “and high pressure reading more increasing.	Expansion value filter screen is blocked by mess, and it frosts in expansion value or the expansion value “sweats”.	If the blocking is not serious, start off freezing system at intervals can clear the mess. Or take away the expansion value, use alcohol cleaning it, empty refrigerant and refill refrigerant again.
Refrigerating not enough, foresting in evaporator; both high and low pressure reading are lower.	Expansion value orifice has no effect.	Empty refrigerant, change expansion value and refill refrigerant.
After few days working of the units, refrigerating is declining gradually, high pressure controller reading higher and low pressure controller reading lower.	Drying agent in reservoir is saturate; expansion throttle is blocked by ice.	Empty refrigerant, change expansion value and refill refrigerant.
Start off the freezing system, only has air flowing but cold air, and high and low pressure controller no reading.	TDS poor contact or compressor electromagnetic clutch wire damages.	Use the multi-meter check out the TDS whether damage or not; change the compressor electromagnetic clutch.

**Chart 2: truck refrigeration units common problems for repair manual**



Item	Fault Code	Diagram Display	Solutions
Inner temp. sensor	Inner temp. sensor open circuit: <b>P1-H</b> Inner temp. sensor short-circuit: <b>P1-L</b>	<b>P1-H</b> <b>P1-L</b>	Refrigeration mode when set temperature is under 0°C and vice versa. Fault code flashes every 1 sec.
Defrost temp. sensor	Defrost temp. sensor open circuit: <b>P2-H</b> Defrost temp. sensor short-circuit: <b>P2-L</b>	<b>P2-H</b> <b>P2-L</b>	Defrosting according to defrost temperature shut down. Fault code and inner temperature alternate display every 1 sec.
Refrigerant line pressure	High pressure fault: <b>HP</b> Low pressure fault: <b>LP</b>	<b>LP</b> <b>HP</b>	All shut down. Fault code and inner temperature alternate display every 1sec.
Power voltage	Under DC 19V / DC10V : <b>LUEr</b> Over DC 32V / DC16V: <b>HUEr</b>	<b>HUEr</b> <b>LUEr</b>	All shut down. Fault code and inner temperature alternate display every 1sec.
Temp. abnormal alarm	High Temp Alarm: <b>HA</b> Low Temp Alarm: <b>LA</b>	<b>HA</b> <b>LA</b>	No variation in output.
Stand-by	Stand-by model cannot detect AC power: <b>NOSP</b>	<b>NOSP</b>	All shut down. Fault Code. If want use ROAD OPERATION, must restart the controller.

**Chart 3: truck refrigeration units fault code and solutions**



**PHOTO: Fault code displays in Control Panel**



## Conclusion

Guchen's Truck refrigeration units supplied by our company are guaranteed with long-term, trouble free running as long as you operate and maintain them in correct way.

Make sure to use spare parts provided by Zhengzhou Guchen Industry Co.,Ltd. for maintenance to assure best quality and reliability.

GUCHEN Industry is constantly striving to improve performance of its products to meet request of customers.

*\* The information contained in this truck refrigeration unit's manual is subject to change without notice.*