

# Cooling and Deep Freeze Portable

**TC 704**



<b>External Dimension:</b>	<b>B = 560 mm</b>
	<b>D = 940 mm</b>
	<b>H = 551 mm</b>
<b>Inside Dimension:</b>	<b>B = 370 mm</b>
	<b>D = 540 mm</b>
	<b>H = 366 mm</b>
<b>Gross capacity:</b>	<b>82 l</b>
<b>Temperature range:</b>	<b>-24°C to 10°C</b>
<b>Optional:</b>	<b>-24°C to 40°C</b>

## Usage:

Transportable by hand, portable (car, Ambulance, air plane, ship, etc.) motor-operated by vehicle-battery, 12 or 24 Volt direct current. Used to transport and to keep a constant temperature (-24°C /+10°C or -24°C /+40°C) for fragile preparations and products in needed emergency rescues and accident - first care, but also for special transports by various vehicles, for instance air plane/car or car/car (for instance highly delicate organ parts, blood products, living vaccine, among other things.)

## Special features:

Reusable cooling and deep freeze operation, in order to reach a complete cooling chain over a fixed location to a changeable location to mobile. **The voltage can be changed from 12 or 24 Volt direct current - to 230 Volt mains connection (alternating current) standard fitting.**

## Housing

Completely in undeformable (UVA resistant), shock-proof, plastic material grey colour outside. All the internal corners are rounded to make easy any cleaning operation. Insulated lid hinged, made with the same material and insulation as the rest of the structure (plastic material grey colour). The lid is fitted up with a perimetric gasket to assure a perfect sealing and with 2 special locking hanging-levers. 2 pcs. External handles at the 2 sides of the structure, allowing an easy handling of the portable refrigerator

## Isolation

High density (40 Kg/m<sup>3</sup>) foamed-in-place polyurethane, with a thickness of 80 mm. CFC-free. Thanks to the high thickness value, the refrigerator maintains the internal temperature for long time (also when it is not connected to any electrical source)

## Storage room

Easily accessible due to the wide opening - insulated lid. Inner-shell made of one piece, with rounded corners, made of aluminium coated white colour.

**Optional:** **Cable port** with cover. For example to create access for operator measurement lines, etc.

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**Digital electronic thermostat** with incorporated alarm: microprocessor operating, with 4 switches, allowing the control of all the refrigerator functions (maintaining of the adjusted temperature, compressor and fans functioning). The internal temperature is displayed with a LED display, with red colour, bright indication and an accuracy of 1°C.

Into its functions, the thermostat includes even an alarm, both acoustic (with a buzzer) and visual (with indication LED dots) for temperature deviations, both over or below than the programmed one, with limits that remain adjustable according to the user needs. The acoustic alarm can be even muted through a special switch

### **Error warning lamp**

Signalling abnormal working situation (i.e. condenser or compressor temperature too high, vehicle battery discharged, wrong electrical connection, etc.)

### **Cooling unit**

Mounted in the right part of the box, with the condensing unit compounded by one hermetic compressor and one finned condenser, air cooled through a fan. Also, the internal walls of the storage chamber are the evaporator, for a direct cooling of the stored material and granting a better temperature uniformity and stability due to the fact that the cold comes from 4 sides. All the mounted components are industrial grade to grant the maximum reliability

Refrigerant: environment-friendly R134a CFC-free

### **Defrost**

manually

### **Refrigeration**

static with the evaporator in 4 sides of the internal chamber, granting the maximum temperature uniformity and stability inside the box

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## Plug

the portable refrigerator includes two electrical cords, one ending with for the 12/24 V connector in the vehicle and the other one ending with a Schuko type plug.

## AC-DC adapter

incorporated into the structure of the box, allow its use with all the possible different voltages, simply changing the electrical cords (supplied) to one of the 2 suitable connectors fitted in the external side of the box itself.

## Technical Data:

Mains power supply                      12 or 24 Volt  
and 230 Volt/1ph/50 Hz **Optional:** 110 V and/or 60 Hz

Working-Range:                              Temp. -24°C to +40°C or -24°C to +10°C

Ambient Temperature:                      max. 32°C

## Packing details (in carton)

Dimensions:                                  approx. 66x104x65 cm

Net weight:                                    29 kg

Gross weight:                                37 kg

**Country of Origin:**                      **European Community**

Customs clearance code:                    8418 5019

## Advice for usage:

In practical use, it is often necessary to cool the cooling portable to a stable, required temperature before filling. Usually the filling takes place at the stationary out-patient department, at the central pharmacy or drug depot, mostly with constantly cooled preparations in the pre cooled portable, cooled to reach the same temperature level.

The cooling portable can be kept at a constant temperature at mains connection, 230Volt alternating current-safety socket.

After filling, the cooling portable gets carried to a mobile rescue or to some other possible use and, there, is cooled further.

Only in this way can a complete chain of cold storage be guaranteed according to the regulations of drug manufacturers (instruction leaflet, packaging imprint), given for many products while the maintaining the expiry date.

Such a chain of cold storage is especially required when handling and transporting blood products, organ parts and living vaccine.



**Wireless data logger, complete**  
For easy temperature documentation of refrigerated goods

consisting of:

### Wireless data logger, SPY Mini

Wireless data logger for Temperature, without Display

Internal memory:	10.000 measurements
Interval:	1min. to 90 minutes adjustable
Measurement area:	-40°C to 80°C
Accuracy:	+/-0,4°C (-20°C to +30°C), otherwise +/-0,5°C
Resolution:	0,1°C
Dimensions:	123x69x30 mm

Bidirectional communication via radio (868MHz)  
Useable range up to 45 meter (ideal condition)  
IP68

Hi/Low- Alarm, **Optional: Prealarm**

Each logger has its own serial number and an adjustable ID number  
Not changeable Battery; Life time approx 5 years

### Software - Basic Version for single user

- Maintenance of multiple Wireless data logger
- collect the recorded data of the Wireless data logger
- Back up data (tamper-proof)
- Prepare the data in terms of graphics or charts
- Excel exportable
- Maintenance of alarms via potential free contact at the Modem
- or Alarmsystem (SMS, phone call, blinking light, buzzer)

### SPY RF USB-Modem for data transfer to the PC via USB-connector

- Communication with infinite numbers of Wireless data logger
- Remote alarm via integrated potential contact
- including wall mounting holder

\*\*\*more models and designs available, please contact us!\*\*\*