



# ACTIVE COLD BOX



**Quality, Management, Environment, Health & Safety Standards**



CDSO MD 5 License



USFDA Listed



European CE



ISO 9001: 2015  
IAF



ISO 13485:2016  
NABCB/IAF



ISO 45001 : 2018  
IAF



**7 Electric Safety Certifications**  
IEC 60335-1 and IEC 60335-2-24, IEC 61010-1,  
IEC 61010-2-020 and 61010-2-101, IEC 61326-1,  
IEC 61326-2-6.

## INTRODUCTION

The MarkEn Active Cold Box is a state-of-the-art solution tailored to meet the stringent requirements of temperature-sensitive shipments, particularly vital in the pharmaceutical and life sciences sectors. Its innovative design encompasses several comprehensive features that prioritize precision, efficiency, and mobility, ensuring the safe and reliable transport of critical materials.



## KEY FEATURES

### EXTENDED TEMPERATURE RETENTION



**Advanced Temperature Control and Secure Storage:** The temperature can be adjusted between  $-20^{\circ}\text{C}$  and  $+20^{\circ}\text{C}$  with high precision, thanks to a microprocessor-based controller, and displayed with an accuracy of  $\pm 1^{\circ}\text{C}$ .



**Alarm System:** Includes a low battery warning for safety.



**User-Centric Design:** The push handle makes door operation smooth and effortless.



**Energy Efficiency and Environmental Consideration:** Equipped with R600a refrigerant and a DC compressor for reduced energy consumption.



**Battery Protection Mechanism:** Incorporates an automatic cut-off feature to avoid deep battery discharge, preserving battery health.



**Accurate Temperature Regulation:** Ensures precise temperature control for reliable performance.



**Dual Compartments:** Comes with a partition for organized storage.



**Energy-Saving Design:** Optimized for efficient energy use.



**Mobility:** Features wheels for easy movement.

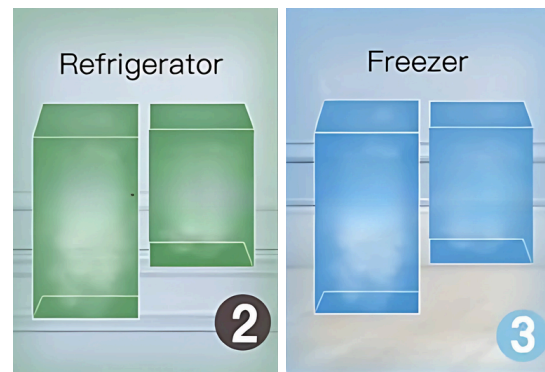
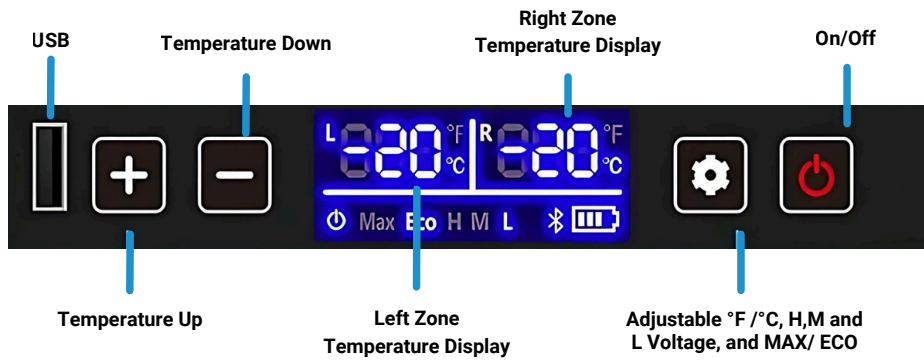


**Dual Power Functionality (Optional):** Designed to run on both 12/24V battery power or a 220V AC supply, with an auto-switching feature for seamless power transitions.

## AREAS OF APPLICATION

It is suitable for vaccine transportation, food sample collection for law enforcement, blood banks, health and epidemic prevention systems, academic institutions, the electronics industry, chemical industry, bioengineering, university laboratories, military enterprises, and more.

## DUAL TEMPERATURE AND DUAL DISPLAY



### USER FRIENDLY DEVICE



- The freezer body is constructed from high-quality materials, featuring a compact design that allows it to be placed directly on an experiment table, making it convenient for storing samples.
- It is easy to operate and equipped with lifting handles on the body for convenient mobility.

### SMART TEMPERATURE CONTROL



- It features a high-definition digital display with an accuracy of  $\pm 1^{\circ}\text{C}$ . The internal temperature can be adjusted from  $-20^{\circ}\text{C}$  to  $+20^{\circ}\text{C}$ .
- The system is user-friendly with an intuitive interface and clear operation status.



## REFRIGERATION SYSTEM

- It utilizes an advanced refrigeration system that ensures rapid cooling while being energy efficient.
- Its compact size makes it easy to transport, and it can operate using a DC 12V vehicle power supply.



## ALARMS

- Includes a low battery alarm.
- Optional alarms: Door ajar, high temperature, and low temperature alarms available.

TECHNICAL SPECIFICATION	
<b>Make</b>	MarkEn
<b>Capacity</b>	50 L
<b>Construction</b>	ABS Material with minimum 40mm PUF insulation
<b>Temperature Range</b>	-20° C To +20° C
<b>Operating Temperature Range</b>	Maintain +2°C to +8°C for 6–8 hrs on battery
<b>Microprocessor Controller</b>	Yes
<b>Temperature Display &amp; Programming</b>	Digital LED display indicating the actual temperature of each compartment separately. Provided with ON/OFF key and easy-to-program keys for setting the temperature of each compartment.
<b>Individual Temperature Set</b>	Yes
<b>Hold Over Time</b>	≥ 30 minutes without battery support
<b>Refrigerant Type</b>	R600A
<b>Interior Lighting</b>	Yes, for better visibility.
<b>Data Logger (OPTIONAL)</b>	Yes, for flexible storage options.
<b>Storage Chambers</b>	Convertible Dual Chamber with removable partition.
<b>Handle &amp; Wheels</b>	Included for easy transport.
<b>Battery</b>	Lithium battery with integrated charging and connection interfaces for powering the cold box during off-grid operation.
<b>Battery Backup</b>	Provides 6 to 8 hours of operation.
<b>Charge</b>	Included in the package.
<b>Alarms</b>	Battery low alarm
<b>Noise level</b>	<45 dB
<b>Power Supply</b>	AC (220V to 240V) 50/60 HZ and DC (12V)

## CERTIFICATIONS



- 📍 **Regd office & Factory:** 93/1, MIDC Satpur, Nashik- 422007 (IND)
- 📍 **New Delhi office -** 05, A-44, VDS Tower, Sector 2, Noida- 201301. UP. India
- ☎ **Customer Care No. +91 91 3030 5959**
- 🌐 **www.markenworld.com** ✉ **info@markenworld.com**

