

# CO<sub>2</sub> Back-up System

BS-1 is to ensure optimal security for critical samples stored in Ultra-Low Temperature Freezers. It controls injection of CO<sub>2</sub> into freezer when freezer temperature rises above the preset temperature value. It also reminds users to fill or replace their CO<sub>2</sub> cylinders when pressure is low.



## ADVANTAGE

- Compact design, small footprint, can be placed on freezer top
- Temperature display, setting temperature adjustable by user
- Unique low CO<sub>2</sub> alarm, reminding user to change CO<sub>2</sub> cylinder in time
- USA-made ASCO brand ultra-low temperature electromagnetic valve

## RELIABILITY

- Stainless steel construction, rust-free, easy cleaning
- Hose & injection tube with sponge cover for insulation
- Rechargeable battery for 36 hours working time

## SAFETY

- Valve test button to check whether electromagnetic valve works normally
- High/Low temperature alarm, low battery alarm, low CO<sub>2</sub> alarm
- Stop injection of CO<sub>2</sub> when door opens, protecting user from being injured by liquid CO<sub>2</sub> (need to be connected with ULT freezer door switch).

# CO<sub>2</sub> Back-up System

|                    | Model   | BS-1                                  |
|--------------------|---|---------------------------------------|
| Basic              | Climate Class   | N                                     |
|                    | Cooling Type  | Direct Cooling                        |
|                    | Refrigerant   | Liquid CO <sub>2</sub>                |
| Performance        | Cooling Performance (°C)                                    | -70                                   |
|                    | Temperature Range (°C)                                      | -40~-70                               |
| Control            | Controller  | Thermostat                            |
|                    | Display   | LED                                   |
|                    | Temperature Increment (°C)                                  | 1                                     |
| Electrical         | Power Supply  | AC 100~240V, 50/60Hz                  |
|                    | Power (W)   | 20                                    |
|                    | Electrical Current (A)                                      | 0.25                                  |
| Weight & Dimension | Net/Gross Weight  | 11.2/13.6kg<br>24.7/30lbs             |
|                    | Exterior Dimension (W*D*H)                                  | 200×400×160 (mm)<br>7.8×15.7×6.3 (in) |
|                    | Packing Dimension (W*D*H)                                   | 370×530×330 (mm)<br>14.6×20.9×13 (in) |
|                    | High/Low Temperature Alarm                                  | ●                                     |
|                    | Low Liquid CO <sub>2</sub> Alarm                            | ●                                     |
| Functions          | Low Battery Alarm   | ●                                     |
|                    | Sensor Failure Alarm  | ●                                     |
|                    | Main Power Failure Alarm                                    | ●                                     |
|                    | Valve Open Indicator Light                                  | ●                                     |
|                    | Main Power On Indicator Light                               | ●                                     |
|                    | Valve Test Button   | ●                                     |
| Accessories        | *Hose (connecting backup system & CO <sub>2</sub> cylinder) | 3 meter                               |
|                    | Injection Tube (connecting backup system & freezer)         | 2 meter                               |

