

# Air Conditioning & Heating

## GENERAL

This Mobile Medical International Corporation unit is equipped with a custom six-ton environmental control unit (ECU) mounted and integrated into the front of the trailer and a custom five-ton ECU mounted and integrated into the rear loft. These ECUs can be powered by either shore power or generator.

The front unit provides the primary conditioning for the OR, soiled and clean rooms. The front ECU uses R22 refrigerant.

The rear unit provides primary conditioning for the post op/ pre-op, lavatory and vestibule areas. The rear ECU unit uses R407C refrigerant. The rear unit manual is AC-414-60, found in this manual set.

Refer to the ECU manufacture's operating instructions for additional information in the OEM manual provided in the Appendix portion of this manual.

## **THERMOSTATS**

The air conditioning and heating systems are controlled by two (2) temperature controllers. The controllers are located at the nurses' station for the rear ECU and on the wall between the OR stairs for the front ECU. Refer to the ECU manufacturer's operating instructions for additional information in the ECU manual provided in the Appendix portion of this manual.

## MAINTENANCE

Consult the technical manuals provided in the Appendix portion of this manual set prior to any maintenance procedure. A quarterly schedule of preventative maintenance, inspection, and service should be established immediately after initial operation of the environmental control units (ECU). When operating under unusual conditions, such as a very dusty or sandy environment, it may be necessary to reduce the interval to monthly, or even less if conditions are extreme.

### **!WARNING!**

#### **W10. Refrigerant is used in the refrigeration equipment**

**DEATH OR SERIOUS INJURY** may result if personnel fail to observe safety precautions. Great care must be exercised to prevent liquid refrigerant, or refrigerant gas discharged under high pressure, from coming into contact with any part of the body. Extremely low temperature resulting from rapid expansion of liquid refrigerant or refrigerant gas discharged from under high pressure, can cause sudden and irreversible tissue damage through freezing.

All personnel must wear thermal protective gloves and a face shield or goggles when working in any situation where refrigerant contact with skin or eyes is possible. Application of excessive heat to any component in a charged system will cause extreme pressure that may result in a rupture, possibly explosive in nature.

Exposure of certain CFC (chlorofluorocarbon) and HCFC (halogenated chlorofluorocarbon) refrigerants to extreme heat or a very hot surface will cause a chemical reaction in the gas to form carbonyl chloride (phosgene), a highly poisonous and corrosive gas.

Generally, in their natural states, CFC and HCFC refrigerants are colorless, odorless vapors with no toxic characteristics, are heavier than air, and will disperse rapidly in a well-ventilated area. However, in an unventilated area, these refrigerants present a danger as an asphyxiate by displacing oxygen in the area.

### **!WARNING!**

#### **W16. REFRIGERANT UNDER PRESSURE is used in the operation of this equipment.**

Death on contact or severe injury may result if you fail to observe safety precautions. Never use a heating torch on any part that contains refrigerant. Do not let liquid refrigerant touch you and do not inhale refrigerant gas.

### **!WARNING!**

#### **W17. DANGEROUS CHEMICAL, Refrigerant R407-C HCFC is used in this equipment.**

### **!WARNING!**

#### **W18. DANGEROUS CHEMICAL, Refrigerant R22 HCFC is used in this equipment.**