

UNICHILLER LOW AMBIENT CONTROL KIT (A01091-G01)

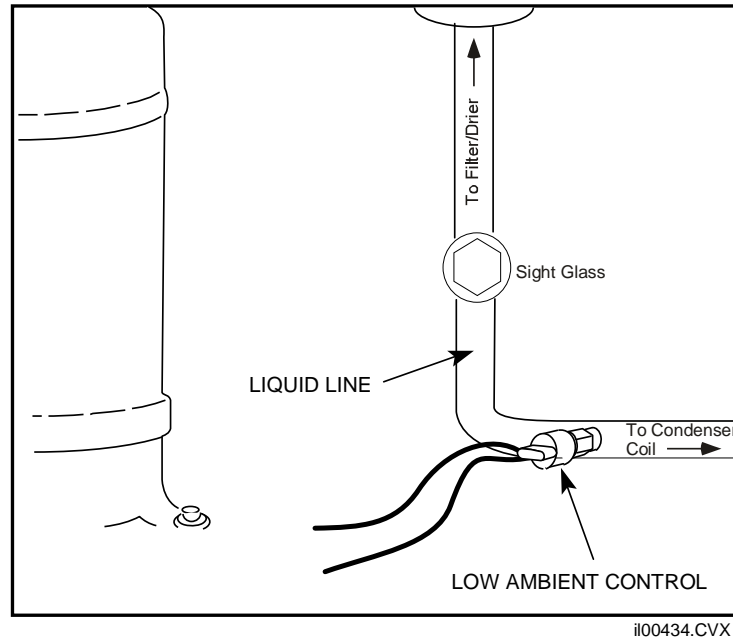


Figure 1. Typical Unit Shown

Application. The *UNICO SYSTEM* low ambient control kit is designed for Unichillers operating in the cooling cycle under low ambient conditions (65°F [18°C]). For these conditions, the head pressure decreases causing the low pressure to decrease to the point of tripping the low-pressure switch and shutting down the unit. To maintain system operation, the low ambient turns off the propeller fans, which increases the head pressure and therefore the low pressure. If conditions are windy or significantly less than 65°F, it may be necessary to add a wind screen. Consult Unico Technical Support if this is an issue.

Sequence of Operation. The low ambient control automatically cycles the outdoor fan motor when the head pressure falls below normal operating conditions. The cutoff point on this control is at a point where the low pressure does not fall below that of a typical low pressure switch, so annoying cut outs on low pressure are eliminated during the cooling cycle. Because the outdoor fan is stopped, the head pressure will increase. Once the head pressure rises to a certain level, the outdoor fan will re-energize.

The pressure control (only good for R-22 or R-407C) is factory set as follows:

Cut-Out Point	210 psig (1448 kPa)
Cut-In Point	275 psig (1896 kPa)

The control automatically resets, so no adjustments are necessary.

Installation.

1. Turn off power to unit.
2. Secure low ambient control to service port located on liquid line between the condenser coil and thermal expansion valve. The control is equipped with a built-in valve core depressor to prevent refrigerant loss. See Figure 1.

IMPORTANT —Unichillers have only one service port on liquid line located at liquid line service valve, therefore, a depressor tee (provided) must be used. Remove service port cap from suction line service valve, install low ambient control on open side of tee and then secure the control assembly to the service port as shown in Figures 2 and 3.

Position assembly so that end of tee with valve core can now be used as service port.

3. Refer to the wiring diagram provided in this instruction to complete wiring (Figure 4).
4. Restore power to unit.

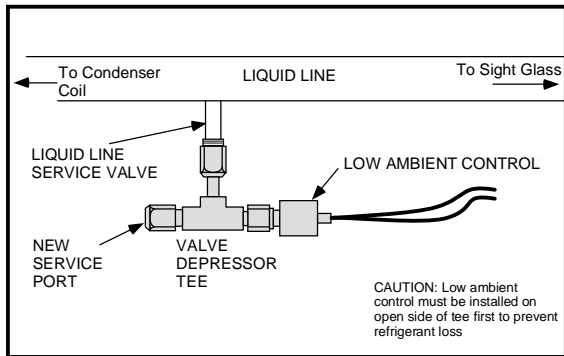


Figure 3.

IL00433.CVX



Figure 2.

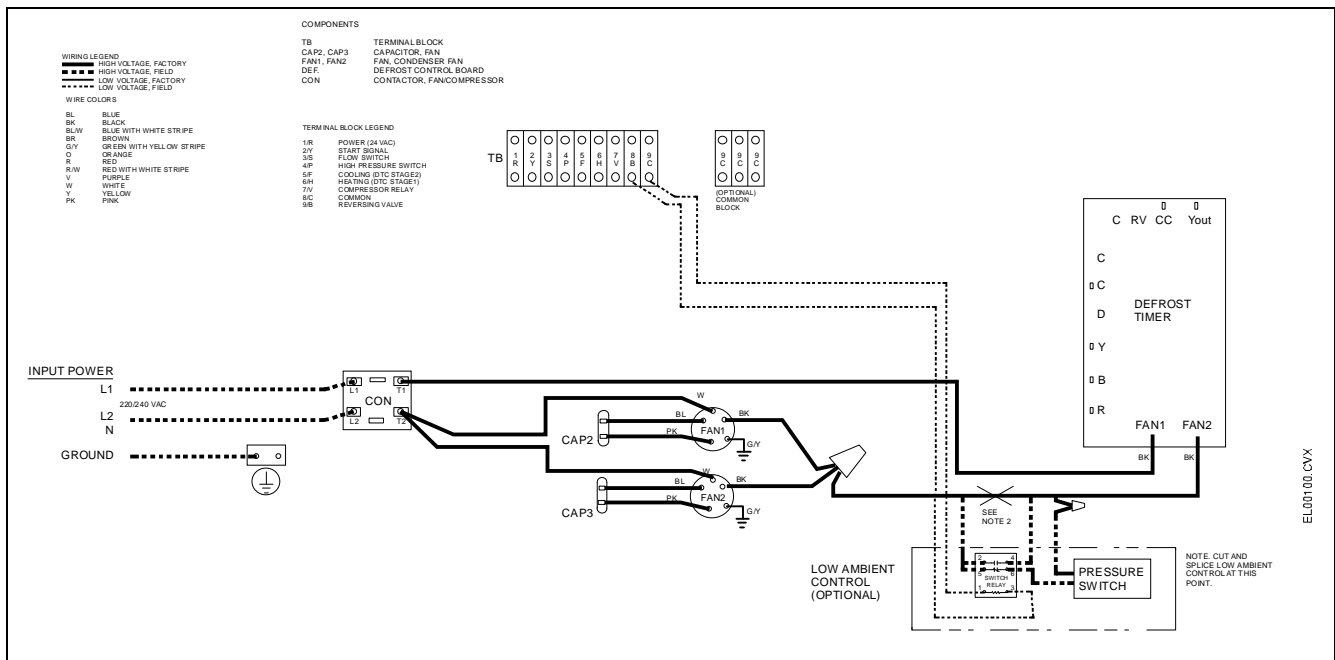


Figure 4. Field Wiring Diagram for Unichillers with Low Ambient Control