

## Operator Panel Instructions

Model: SACP80A-HS

Description: 80 Ton Rental AC unit with Electric heat

**STEP 1:** Determine the operating mode intended to run. The unit can run in COOLING ONLY, HEATING MODE, or DH (dehumidification) MODE. In all modes the blower will operate.

COOLING MODE: designed for when only DX cooling is needed (no heat). Only the controller which operates the compressors (cooling stage 1 & 2) will operate – IR33-1

HEATING MODE: all 3 stages of heat may be used. Stage 1 & 2 are ON/OFF only and are controlled via IR33-2 HTG controller. Stage 3 is modulating type (precise control) and is controlled via the IR33-2 DH controller

DH MODE: only cooling stage 1 and heating stage 3 will operate.

**STEP 2:** Confirm that all circuit breakers are in the on position. There are both single and 3 pole circuit breakers on the unit (all should be in the ON position)

**STEP 3:** Apply power to the unit:

\*\*\*\*\* The unit is Equipped with a voltage and phase monitor relay. The device protects against over and under voltage, imbalance, and incorrect phasing. If any items are not within the devices power requirements the INCORRECT POWER light will be lit. The device also has a minimum 15 second start-up timer (light will be powered for the first 15 seconds on start). If INCORRECT POWER light is lit after 90 seconds, correct incorrect power situation. Once correct power is established the POWER ON light should be lit.

**STEP 4:** Confirm that 9CB & 11CB (control circuit breaker within the panel) is ON and 1PL (control power light) is lit.

- If not, check PMR (phase monitor relay) and ES (emergency stop) button.
- If PMR (device inside power panel) red LED is lit, check phase rotation and voltage setting.

**STEP 5:** Check that 1SW (unit BYP/OFF/VFD switch) is in the VFD position and 2PL (blower run light) is lit.

- If not, check 5CB (blower circuit breaker).

**STEP 6:** Set blower running speed using SPD ADJ POT (potentiometer)

**STEP 7:** 5SW (Clg probe selection switch), 10SW (Htg probe selection switch), & 11 SW (DH probe selection switch)

- Turn 5SW to RA - Cooling is based on return air control.
- Turn 5SW to SA – Cooling is based on supply air control.
- Turn 10SW to RA - Heating is based on return air control.

*It is the customer's responsibility to always follow the written operating instructions of the unit and maintain safe work practices. Only industry certified and trained professionals should work on refrigeration and HVAC equipment*

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- Turn 10SW to SA - Heating is based on supply air control.
- Turn 11SW to RA - DH heating is based on return air control.
- Turn 11SW to SA - DH heating is based on supply air control.

### **STEP 8:** Unit mode selector switch, 2SW

- Turn 2SW to CLG - Unit is running in cooling mode
- Turn 2SW to HTG - Unit is running in heating mode
- Turn 2SW to DH - Unit is running in dehumidification mode

### **STEP 9:** Compressor Selector Switch, 3SW, and 4SW

- Turn 3SW and 4SW to select OFF, LOCAL, HAND or REMOTE
- OFF - Compressor is switched off.
- LOCAL - Compressor is operating with local controller.
- HAND - Compressor is operating in manual mode without the controller (manual on).
- REMOTE - Compressor is operating in remote mode without the controller (on/off by remote thermostat)

### **STEP 10:** Heater Selector Switch, 8SW & 9SW

- Turn 8SW & 9SW to select OFF, LOCAL, HAND or REMOTE
- OFF - Heater is switched off.
- LOCAL - Heater is operating with local controller.
- HAND - Heater is operating in manual mode without the controller (manual on).
- REMOTE - Heater is operating in remote mode without the controller (on/off by remote thermostat)

### **STEP 11:** set the desired temperature on ALL IR controllers being utilized.

Typical operation for DH mode is that the cooling coil with “over cool” coil below the desired temperature, and stages 3 & 4 heat will be used to “reheat” to the desired leaving or return air temperature

Notes: the unit has multiple safeties. Many are manual reset including: overloads for blower and each stage of heat, and CUH cabinet temperature safety switch, refrigerant low pressure, refrigerant high pressure, and compressor and heat overloads.

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