

The TWWS Sapphire Digital Thermostat is a replacement for the older Tempwise 2000 (TWW Series) digital thermostat. With all of the features of the new Sapphire thermostat it allows you to replace the older control without having to cut new holes in your cabinetry. Installation is easy! You can use the old display cable

- Sapphire blue LED display
- All necessary adapters for the display cable
- Largest fan and heater circuit rating in the business.
- User friendly programming
- Unique fuse protection for circuits.

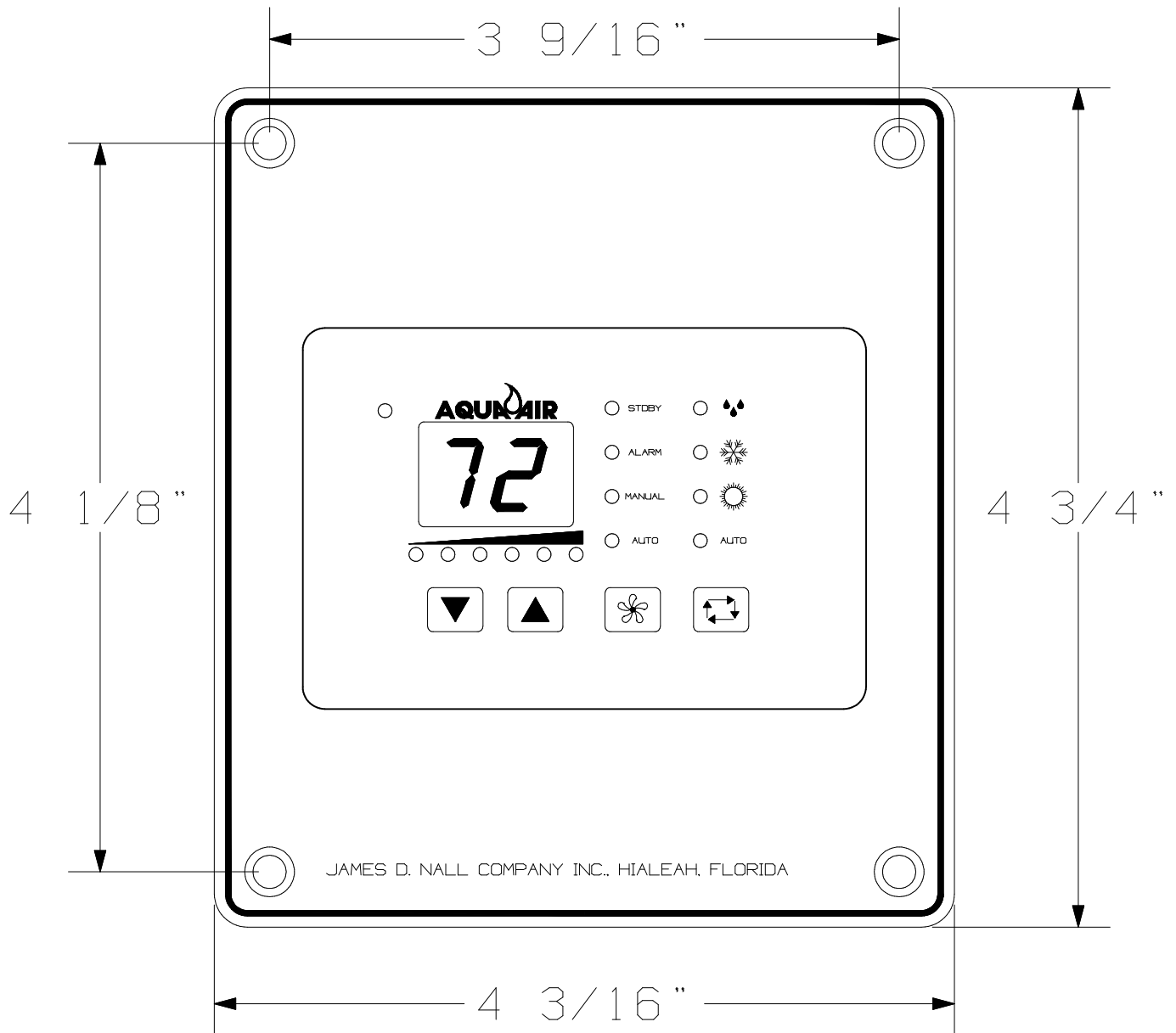


TWWS Full size shown

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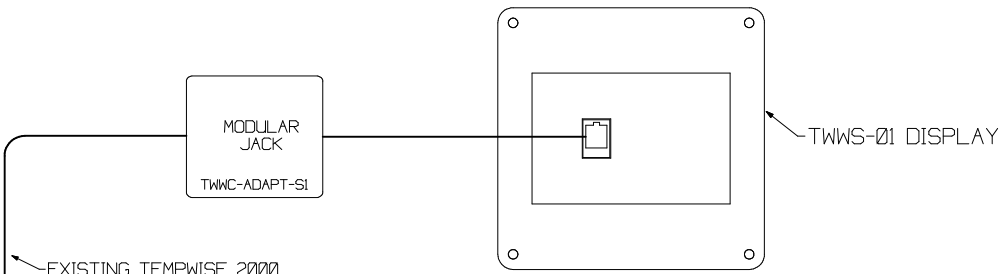
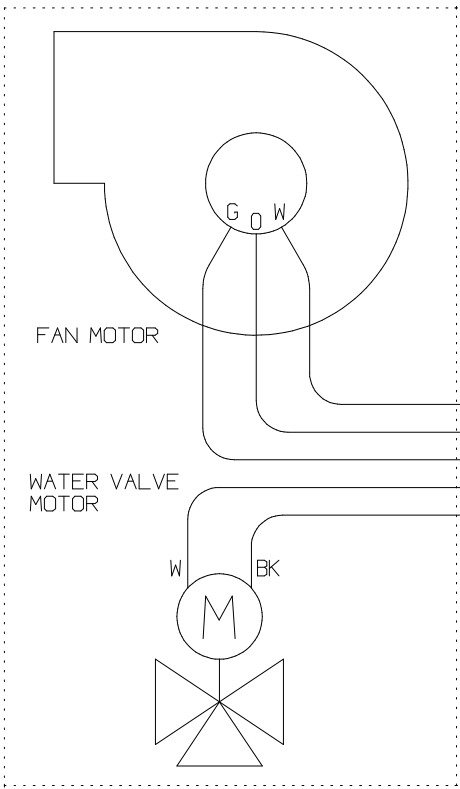
Tempwise Sapphire Features

- Highest fan circuit rating in the industry...12 AMPS !!
- Will control up to six Aqua Air 16KBTUH Whispercoils™
- Sapphire Blue LED's with brightness control
- Dual voltage 115/230 capability
- Display cables are 50% smaller in diameter than the competitions making routing a snap
- Field replaceable fuse protection
- Modular plug connection for high and low pressure switches
- Uses less bulky 4 pin plugs for the display cable instead of the competitions 8
- Continuous room temperature display with one touch set point temperature display or change
- Maintains room temperature to within 2 degrees of set point
- Remote temperature sensing bulb or faceplate air temperature sensor can be used
- Fahrenheit or Centigrade temperature display
- Automatic or six manually selected fan speeds
- High speed and low speed fan limit settings
- LED bar graph visually indicates fan speed
- Fan can be set to run continuous or to cycle on and off as the room reaches the set point
- De-humidification mode controls room temperature and humidity level
- Non-volatile EEPROM memory. Controller will not lose settings in memory due to power interruptions
- Electric element heaters up to 12A can be operated directly from the controller



AQUA-AIR MARINE AIR CONDITIONING SYSTEMS			
TWWS DIGITAL THERMOSTAT DISPLAY CUTOUT DIMENSIONS			
DRAWING NUMBER	4011-11A	DRAWN BY	SB
		DATE	09-02-05
SCALE	NONE	APPROVED BY	CC
		REVISION DATE	
			REV

MULTIPLE FAN COILS CAN BE CONNECTED IN PARALLEL TO THE THERMOSTAT PROVIDED THEY DO NOT EXCEED THE MAXIMUM AMPERAGE RATINGS OF THE CONTROL MODULE



FUSES	
FAN (F2)	25A
TX-PRIM. (F1)	500mA
TX-SEC. (F3)	500mA

INLET WATER SENSOR NOTE
ATTACH SENSOR TO THE WATER INLET LINE AT FAN COIL WATER VALVE

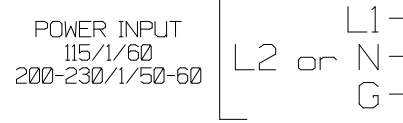
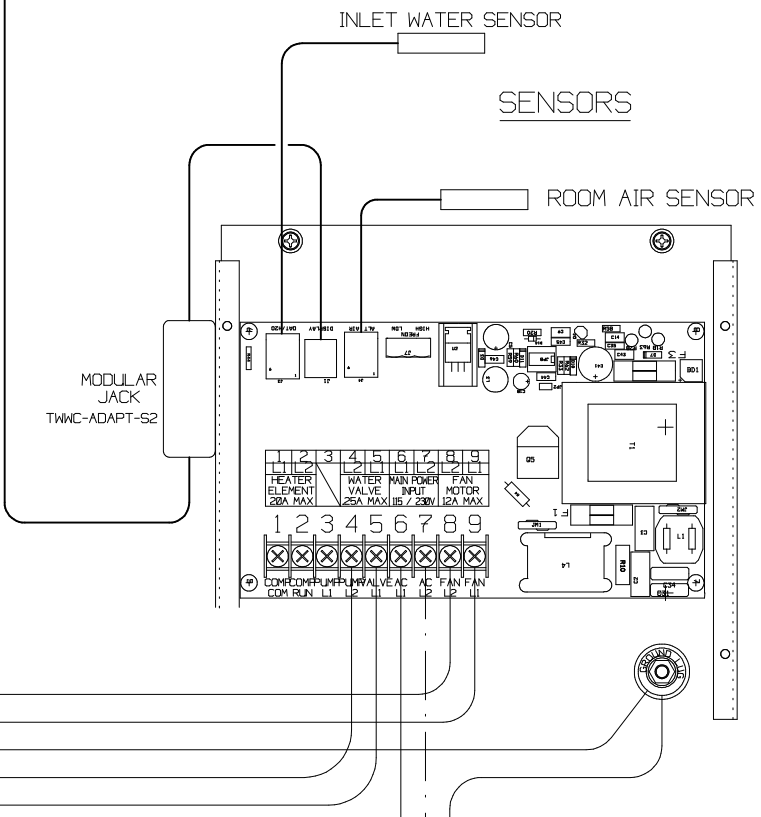
NOTE: REMOVE AQUASTAT PART# AQL60768

MAXIMUM CIRCUIT RATINGS
WATER VALVE 1/4A
FAN MOTOR 12A
HEATER 20A

TERMINAL BLOCK CONNECTIONS

1. HEATER ELEMENT L1
2. HEATER ELEMENT L2
3. N/A
4. WATER VALVE L2
5. WATER VALVE L1
6. POWER INPUT L1
7. POWER INPUT L2 or N
8. FAN L2
9. FAN L1

NOTE: ALL L2's ARE COMMON TO EACH OTHER

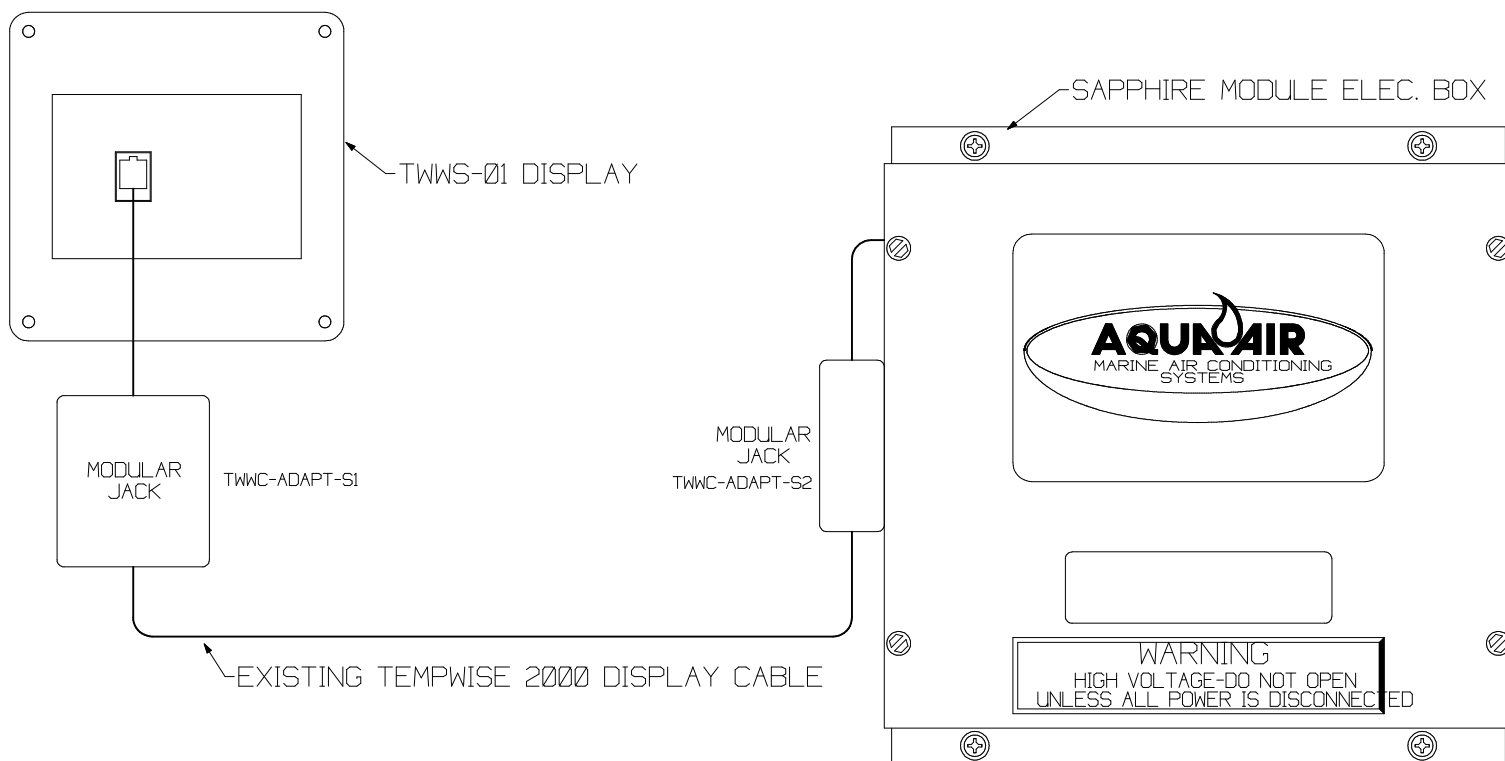


NOTE: FAN COIL MOTOR, WATER VALVE & HEATER MUST BE RATED FOR THE SAME VOLTAGE AS THE POWER INPUT.
NOTE: JP1 MUST BE CUT FOR CHILLED WATER APPLICATIONS.
NOTE: DISCARD EXISTING ROOM AIR SENSOR & ROUTE NEW ROOM AIR SENSOR TO SAME LOCATION.

AQUA-AIR MARINE AIR CONDITIONING SYSTEMS			
TWWS DIGITAL THERMOSTAT w/ SINGLE FAN COIL 115 or 230V			
COOLING ONLY or with HOT WATER HEAT			
DRAWING NUMBER	4011-11B	DRAWN BY	SB
		DATE	09-02-05
SCALE	NONE	APPROVED BY	CC
		REVISION DATE	
		REV	

CONNECTION DETAILS FOR NEW TW-SAPPHIRE

(USING TWWS AND EXISTING TEMPWISE 2000 DISPLAY CABLE)



- 1). MOUNT SAPPHIRE MODULE CLOSE TO THE FAN COIL & CONNECT FAN COIL WIRING TO CIRCUIT BOARD.
- 2). CONNECT THE 8 PIN TEMPWISE 2000 DISPLAY CABLE INTO THE MODULAR JACK THAT IS MOUNTED EXTERNALLY ON THE SAPPHIRE MODULE ELEC. BOX.
- 3). INSTALL RETURN AIR & WATER SENSORS PROVIDED.
DON'T USE OLD STYLE SENSORS
- 4). AFTER THE SAPPHIRE DISPLAY HAS BEEN MOUNTED ON THE BULKHEAD, USE THE 2 SCREWS OR THE ADHESIVE PAD PROVIDED TO MOUNT THE MODULAR JACK NEAR THE DISPLAY.
- 5). PLUG THE 4 PIN CONNECTER THAT IS ATTACHED TO THE MODULAR JACK INTO THE DISPLAY.
- 6). PLUG THE 8 PIN CONNECTER ON THE TEMPWISE 2000 DISPLAY CABLE INTO THE MODULAR JACK.