

# Chiller Information Work Sheet

## Quote request for MCS Microprocessor Upgrade

**NOTE: PLEASE PRINT THIS FORM, FILL OUT AS MUCH AS POSSIBLE, AND FAX TO MCS AT 239-694-0031**

### General Information

Company  Name  Title   
 Email  Phone  Mobile

### Unit Information

Installation Site Name  example: ABC Elementary School Unit Manufacturer  example: Trane, Dunham Bush Model Number  example: CVHE32, HWSC225D  
 Unit Serial #  Site Unit #  example: Chiller #2  
 What is the voltage to the unit?  208V  230V  460V  4160V Other Voltage   
 What is the control voltage in the unit?  24V  115V  230V What type of refrigerant is being used?

### Building Management System Information (BMS)

Do you want:

	<b>None</b>	<b>Hardwired</b>	<b>Network</b>	
BMS Target Reset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Do you want Low Ambient Unit shut off? <input type="text"/> If yes, what value? <input type="text"/>
BMS Run/Stop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<small>If ambient is below a certain value the system will not run</small>
BMS Demand Step Limiting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Do you want High Ambient Unit shut off? <input type="text"/> If yes, what value? <input type="text"/>
BMS Demand FLA% Limiting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

If communication to the BMS is lost default the BMS run to:

### Network Connection

IP Address <input type="text"/> Subnet Mask <input type="text"/> Default Gateway <input type="text"/> MCS Port <input type="text"/>	Ethernet <input type="radio"/> Bacnet IP Device ID 181 <input type="text"/> <input type="radio"/> Modbus IP	RS485 <input type="radio"/> Bacnet MSTP Address <input type="text"/> <input type="radio"/> Modbus RTU Baud Rate <input type="text"/> <input type="radio"/> Johnson N2 MAX Masters <input type="text"/> <input type="radio"/> Lontalk Network # <input type="text"/>
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### Evaporator Information

How many refrigeration circuits  Does each circuit have a Liquid Line Solenoid?   
 Where is the Evaporator located?  On Package  Remote  
 What is the Evaporator type?  What is the medium we are cooling  Other   
 Does it have an electronic expansion valve?  If yes: Who is the manufacturer?   
 What is the model #?  How many valves per circuit?  Are we controlling them?   
 How many chilled water pumps?  Is MCS controlling the chilled water pumps?  Is there a barrel heater?   
 Do you have a primary and standby chilled water pump(s)  Are they on a VFD?  Is the unit making ice?

### Condenser Information (up to 20 circuits)

What is the condenser type?   
 Is MCS controlling the condenser?   
 Is the condenser

### Water Cooled

Is there a cooling tower just for this chiller?   
 If yes: Do you want to control the cooling tower?   
 Is there a VFD on the cooling tower pumps?   
 How many fans on the cooling tower?   
 Are there VFD's on the fans?

If no: Is there a bypass water valve?

### Air Cooled

If air cooled how many banks of fans (fan circuits) do you have?   
 How do the fan banks relate to the refrigerant circuit?

Circuit	Fan Bank1	Fan Bank2	Fan Bank3	Fan Bank4	Fan Bank5	Fan Bank6	Fan Bank7	Fan Bank8
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# of stages (# of relays)          
 Are they on a VFD  If yes:

What is the control voltage span?  What is the full close to full open time delay?

The actuator must accept at least a 0-10 volt DC signal

**Compressor Information**

Compressor Type?  Number of Compressors per Circuit?

If Reciprocating Compressors, how many Unloaders per compressor?

Comp 1  Comp 3  Comp 5  Comp 7   
Comp 2  Comp 4  Comp 6  Comp 8

What is the compressor Model # and FLA (full load amps)?

Comp 1	<input type="text"/>	FLA 1	<input type="text"/>	Tons 1	<input type="text"/>	CFM 1	<input type="text"/>	Comp 5	<input type="text"/>	FLA 5	<input type="text"/>	Tons 5	<input type="text"/>	CFM 5	<input type="text"/>
Comp 2	<input type="text"/>	FLA 2	<input type="text"/>	Tons 2	<input type="text"/>	CFM 2	<input type="text"/>	Comp 6	<input type="text"/>	FLA 6	<input type="text"/>	Tons 6	<input type="text"/>	CFM 6	<input type="text"/>
Comp 3	<input type="text"/>	FLA 3	<input type="text"/>	Tons 3	<input type="text"/>	CFM 3	<input type="text"/>	Comp 7	<input type="text"/>	FLA 7	<input type="text"/>	Tons 7	<input type="text"/>	CFM 7	<input type="text"/>
Comp 4	<input type="text"/>	FLA 4	<input type="text"/>	Tons 4	<input type="text"/>	CFM 4	<input type="text"/>	Comp 8	<input type="text"/>	FLA 8	<input type="text"/>	Tons 8	<input type="text"/>	CFM 8	<input type="text"/>

What is the compressor starter type?

Do you want us to control the transition or is it being controlled externally?

Does the compressor have start up bypass?  Does it have Liquid Line Solenoid?  Per circuit

Does the compressor have hot gas bypass?  If yes, which circuits?  1  2  3  4  5  6  7  8

Does the compressor have fast unload?  Does the compressor have an oil cooler?

Does the compressor have economizer?  If yes, on circuit  1  2  3  4  5  6  7  8

Does the compressor have liquid injection to cool the motor?

Does the compressor have chamber injection?  If yes: What is the cooling medium?

**Control Information**

Will the unit have a Touch Screen   On Unit  Remote

Do you want to monitor Phase loss?

Does the unit have a Run/Stop switch?

Do you want to monitor voltages?  If yes  Phase A-B  Phase B-C  Phase A-C

Does the unit have an Emergency Stop switch?

Do you want a Warning output?

Do you want an Alarm output?

Does the unit have a heatpump?

Do you want to monitor unit Amperage?

Do you want to monitor unit KW?

Do you want to monitor Ambient Temperature?

Is there any other information we should know?