

The Control Zone

Total Solution for all your Control Needs



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From the Desk of the President:

It has been a busy year at MCS. I just returned from the middle east after a long 3 week trip over-seeing the startup on new OEM equipment. In my spare time, I completed working on new firm-ware to add to our expanding line of software which can control superheat. The new firmware, PID, has been testing in multiple OEM facilities and in our own plant. Contact our sales team at sales@mcscontrols.com to review this firmware or any other information you might need.



What's Happening!!

A phrase that brings back memories of a television show from 1976 starring 'Raj'. The phrase 'What's Happening' was used as a greeting on the show. Raj was a intelligent, well-mannered young man who wore large black horn-rimmed glasses and aspires to be a writer.

MCS employs engineers like Raj who are aspired each day to develop products which make your work easier and more **Cost Effective**.

Over the last few years, MCS has been working on a 12 volt system which will reduce the power consumption needed to run our controls. Testing has been done in our manufacturing plant here in Florida and by many of our OEM customers to show that the +12 volt systems works on their equipment.

The MCS-MAGNUM +12 system includes a number of products all using 12 volts to power the Magnum, Touchscreen, expansion boards, etc. used in our control enclosures, or each can stand alone in your enclosure using the MCS Power Supply.

With the development of the +12 system, we have also developed expansion boards which double the number

of AO's, RO's and SI's which use the same footprint as our other expansion boards, all running on 12 volts.

The photo below shows a MCS Enclosure with **+12 boards**, MCS Touchscreen, MCS-MODBUS, MCS-EXV Drivers, and a MCS-IO-Base with MCS-IO-EXT board mounted on top of the base. This enclosure allows for the following: 28 SI inputs, 20 RO outputs, and 8 AO inputs plus the two MCS-MODUS boards.



Input power supplied to the enclosure can be 115/230 volts, and using a MCS Power Supply is converted to 12 volts to power all the boards in the enclosed above.

Depending on the number of boards and products used with the +12 system, a MCS Power Supply is provided which will have enough voltage to handle all boards, etc.

A brochure, data sheets, and the complete line of +12 products are available on our website at:

<https://mcscontrols.com/magnum12V.html>

In this Issue . . .

- [What's Happening- +12 Magnum](#)
- [Compressor Failure](#)
- [Upgrades for older chillers](#)
- [MCS Family](#)

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Compressor Failure?

The weird thing about compressor problems is that — well, it's usually not the compressor.

"Electric motors, take a lot to break them down,"
... It's probably something else.

Ninety percent of compressor failures can be attributed to problems found elsewhere in the system.

The main causes of electrical failure include imbalances in the voltage or current, resulting in overheating and failure. A compressor may overheat if there is not enough suction cooling, lack of condenser cooling, or if there is air in the system, raising both the pressure and temperature.

"If the cause of the compressor failure is not determined, there is a high risk of exposing the replacement compressor to the same conditions, which may cause the replacement compressor to fail prematurely."

As described again and again, it is never a good idea to just put in a new compressor.

A failed thermostatic expansion valve (TXV, EXV) is another suspect. Not metering refrigerant correctly can cause the compressor to overwork. Sometimes it can be slammed shut, which can cause the compressor to fail as well.

It's very important to have the right controls overseeing the operation of the compressor(s) and all aspects of the chiller and its operation.



On a job site with problems or concerns?
Have an upgrade coming up within the next week?



No worries!
At MCS we have control enclosures on the shelf and ready to go!

We also have an extensive inventory of Hanbell rotary screw refrigeration compressors in stock and ready to go!

sales@mcscontrols.com



**MCS Energy Efficient
and RoHS Compliant**

Did you Know?

UPGRADES, UPGRADES



If you are not aware, MCS is one of the leading control manufacturers who specialize in providing control upgrades for older chillers.

Carrier, Trane, McQuay and York, are just some of the many Chiller upgrades we provide a control path for. Older chillers have

antiquated, out of date controls which cannot handle the new refrigerants of today. Plus the older controls, just waste too much energy. MCS works with contractors in supplying upgrades for chillers whose only problems are poor operating controls.

Better yet, add a MCS MAGNUM which can upgrade and control multiple chillers and compressors in one location.

MCS Family

Our employees are one of the greatest assets we have.



Crystal Torres



John Toney

Your familiar with their voices, and their winning personalities, now you know the face you're talking with when you call MCS.

Crystal, Sales Coordinator at Micro Control Systems, joined the MCS team in 2018 and is responsible for supporting the sales team, order entry, invoicing, and much more.

John, Sales Support Administrator at Micro Control Systems, joined the MCS team in 2018 and is responsible to provide essential support to the sales team and product distribution.

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