



DAWN OF THE DONUT DELIVERY MAN

Matthew Schneider

I was with a plumbing/heating contractor several months back and he was telling me that his plumbing supply houses, all of which are now attempting to be HVAC supply houses, are in his shop once a week “begging” for his business. The guy from supply house A is here every Tuesday morning with donuts, supply house B’s guy stops in on Wednesday with donuts and supply house C swings in and takes them to lunch on Fridays. Each of these guys faithfully deliver the donuts and produce product “specials” and “premiere dealer” pricing, promoting the concept that the contractor with the low price will be the most successful. I asked one question: “What value are the legions of Donut Delivery Men bringing with their weekly visits?” His answer made me laugh: “Tasty Donuts.”

Do you want to try a truly difficult exercise? Sit your team down, your entire team and ask them why your customers should want to do business with your company. You would think that this should be an easy question to answer and there would be a litany of truly thoughtful reasons as to why, but I would bet you that it won’t be as easy as you think.

At the encouragement and uncomfortable prodding of our sales and personal development coach Matt Plughoff, we did this exercise with our sales team several weeks ago. Initially there were a lot of product related responses. We have great products, stainless steel, low warranty rates, high temperature rises and technologically cutting edge controls. Once the product well ran dry, there were responses about daily delivery, family owned and operated, an average of twenty years of employee service. You know, all of the things you hear on a daily basis on thirty second television and radio spots for your local appliance store or the carpet cleaning guy around the corner. These things are important, but I would contend that these things are quite simply basic expectations of the 21st century purchaser. My customers and your customers expect a quality product, they expect good and timely delivery, they expect that em-

ployees and technicians are trained to do their jobs properly and they could care less how many generations of my family have operated this business.

Re-rack. Ask the question again. Be 100% truly honest with yourself and identify the difference between prerequisites and real differentiations between you and your competitors that will influence a potential customer in a concrete manner. This is what our team did. In fact we spent the better half of a whole day talking about this

single topic. We tossed ideas back and forth. We got on each others nerves.

We praised each other for great ideas. We got mad at each other.

Heck, there was even some yelling and I am sure some hurt feelings. And at the end, we still didn’t have all the answers locked in stone, but we took a journey together that started and ended as a team.

If you allow us to, we want to embed ourselves into your salesforces. We fundamentally do not believe that the lowest priced contractor, with the lowest priced products automatically become the most successful. Our faith is rooted in the old adage “scarcity sells” and the best tool in the contractor arsenal is their sales team. The daily battle is won and lost at the kitchen table and if allowed, we promise to use industry data to make you more profitable. By no means is this the entire list or even remotely a comprehensive one, but I would love to share some of our commitments for 2015 that I think make us different and a great business partner.

1. Profitability starts with opportunities and we have committed ourselves to making sure every dealer that is in partnership with Monroe Equipment has a good, professional, easily navigable website that is linked to at least one social media site.
2. We are personally fed up with the giant manufacturer’s insistence on using their dealers as promotional tools for their brands, charging huge dollars to participate in programs that drive their message rather than



WISCONSIN COMMERCIAL BUILDING CODE REFRESHER

Ben Lane

It's that time of year again and the State of Wisconsin has announced the scheduling of its 44th annual commercial building code refresher course.

The course is scheduled for February 16-18, 2015 in Madison, WI. An in-depth review of the International Codes will be presented over the course of the three days with the Mechanical (IMC) and Fuel Gas (IFGC) portions being covered in detail on Tuesday, February 17, 2015.

Attendees can enroll for one, two or all three days online at epd.engr.wisc.edu or by phone at 800-462-0876 or by fax at 800-442-4214. You may also call us for a mail-in registration form.

Anyone actively involved in the design, construction, maintenance or inspection of commercial buildings in the state is encouraged to attend. I hope to see you there.

SMARTPHONE SERVICING FOR LG DUCT FREE UNITS

Kenneth Jung

No, I do not mean calling for technical support on every unit you are servicing, rather use your phone for an in-depth "real time" window to see and analyze the entire mini-split system based on digital information being analyzed and provided by the internal PCB.

With smartphones and apps that are available for everything from online grocery shopping to placing bets at the track, now you also can use your smartphone for servicing LG DFS mini-split air conditioning and heat pump systems.

LG now offers "LG Smart Inverter Monitoring System 2.0 (SIMs)," and is the only mini-split manufacturer to have this unique servicing tool. SIMs consists of a hardware Wireless Local Area Network (WLAN) module, an interface cable and a free downloadable app. Before using SIMs you must download and install the latest version of the free app from either Apple (iOS) or Play Store for Android phone models. Be sure to download the WLAN version. There is also a Bluetooth version, but the Bluetooth version will not work with this SIMs module. Additionally, SIMs is not currently supported for use with tablets.

The SIMs module and LG smartphone app together provide monitoring and troubleshooting capabilities for LG duct free systems that cannot be equaled with conventional meters and refrigeration gauges*.

**Note: Refrigeration gauges should not be hooked up to VRF mini-split system for typical maintenance or service call scenarios. Since VRF mini-split air conditioners and heat pumps are critically charged systems, the proper and only accurate way to check for proper system refrigerant charge is to completely recover, evacuate and weigh in the correct calculated amount of refrigerant. Also since there is no way to determine what hertz (hz)*

the compressor is running at nor determine at what capacity the indoor unit(s) are functioning at, having refrigerant gauges hooked up to these types of systems will provide no useful information other than knowing that refrigerant is in the unit. Calculating superheat and sub-cooling will be inaccurate and trying to read gauge pressures can create more problems than anything.

SIMs can display and graph "real time" operational data for the LG system, including outdoor and indoor unit(s). Additionally, SIMs will display error codes and troubleshooting guides.

Once the SIMs connection is established, model and serial numbers will be displayed. From the main screen additional operational information is available including indoor and outdoor temperatures, fans speeds refrigerant pipe temperatures and the "pulse value" for the electronic expansion valve. Additional screen tabs will give additional and more in-depth information; compressor hertz, DC link voltage, fan (indoor and outdoor) RPM values, current, input voltage, etc.

Select the graph tab and all operational data can also be viewed in a graph format. Again this is real time information so the technician can visually see how the system is performing.

If you are serious about mini-split sales, providing quality equipment and support; then take a serious look at all that LG has to offer in both mini-splits and multi-f (multi indoor head) systems. If you want to provide professional installations and service, then the LG SIMS Monitoring System (part #PSWMOZ0) is something you cannot be without.

HRV SIZING FOR NEW CONSTRUCTION HOMES

Ben Lane

Traditionally, one of the largest sources of heat loss in a home could be attributed to air infiltration through holes, cracks and gaps in home construction. As energy prices have continued to rise, so too has the demand for more energy efficient structures. Tighter and tighter homes have been constructed as a result with poor indoor air quality being an unintended consequence of this. Lower air infiltration means less natural ventilation creating the potential for harmful pollutants and humidity to accumulate. This poses a risk to both our homes and our health.

The best and most efficient way of mitigating this risk is by the addition of a whole house ventilating system by way of a heat recovery ventilator or HRV. The heat recovery ventilator allows us to maintain a safer, more comfortable indoor environment by replacing the stale, moisture laden and potentially contaminated indoor air with fresh outdoor air along with the added benefit of recapturing this heat energy before it is exhausted and using it to preheat our incoming outside air saving us valuable energy.

HRV sizing does not have to be terribly labor intensive or cumbersome. There are several ways that the ventilation system can be sized but the industry accepted standard is ASHRAE 62.2: Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings.

Generally speaking, we want to size the HRV to provide a minimum of 7.5 CFM per occupant in the space. Typically we will figure two people in the first bedroom and a single person in each bedroom beyond that. ASHRAE Standard 62.2-2004 has proposed the following formula for whole house ventilation system sizing:

$$CFM = (0.01 \times \text{Floor Area S.F.}) + (7.5 \times (\text{No. Bedrooms} + 1))$$

Luckily for those of us who are mathematically challenged, ASHRAE has developed the following table for quick reference purposes as well:

TABLE 4.1a (I-P)
Ventilation Air Requirements, cfm

Floor Area (ft ²)	Bedrooms				
	0-1	2-3	4-5	6-7	>7
<1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150
>7500	105	120	135	150	165

One important note to make when applying this table is that it is provided with the understanding that the ventilating system is operating continuously, without shutting down. If the system is to be operated intermittently by way of occupancy, humidity or other controllers, then the system should be upsized to account for the fractional run time. The formula for calculating the new CFM requirement based on fractional run times is as follows:

$$CFM = CFM \text{ (Table 4.1a)} / (\text{Daily Fractional On-Time \%} \times \text{Ventilation Effectiveness})$$

TABLE 4.2
Ventilation Effectiveness for Intermittent Fans

Daily Fractional On-Time, f	Ventilation Effectiveness, ε
f ≤ 35%	0.33
35% ≤ f < 60%	0.50
60% ≤ f < 80%	0.75
80% ≤ f	1.0

Example: A fan operated 30% of the time with cycle times of four hours (six cycles per day) with a ventilation air requirement of 40 CFM. The ventilation effectiveness will be 33% (from Table 4.2) and the new CFM requirement for fractional run time would be 404 CFM.
 $40 \text{ CFM} / (0.33 \times 0.30) = 404 \text{ CFM}$

As you can see, length of run time plays an important role in determining the total amount of ventilation that should be provided. Another important distinction to make is that this should be the total amount of ventilation provided to the home. Any local exhausts provided at the point of use, such as bathroom and kitchen hood exhausts, may be subtracted from this total provided that this amount is introduced as make-up air to the return side of the furnace.

The addition of a heat recovery ventilator to a new home construction is a great way to protect your most valuable assets; your home and your health. The HRV, when appropriately sized, is the most energy efficient way of addressing your indoor air quality concerns. The formulas and tables presented here in conjunction with ASHRAE Standard 62.2 are the industry accepted standard for addressing these concerns. Use these tools on your next residential new construction project or contact a member of our Engineering Department for additional tools and resources.

GETTING TO KNOW YOU

Barb Ortlieb

This issue's person of interest is Freddy Lewis, assistant warehouse manager, truck driver, order filler and all around nice guy. In January, Fred will celebrate his 26th year with Monroe Equipment. Fred came to Monroe from a career of mail processing. He collected mail from many companies in Milwaukee to be pre-sorted for the post office.

A friend who had worked at Monroe told him about an opening for a warehouse/driving position and as they say "the rest is history".

He enjoys his job because it gives him a variety of things to do during the day. An amusing moment occurred while on a delivery when he helped a contractor carry a condenser unit to the roof top while each of them being on separate ladders.

Fred is married to Lourdes, who is a regional coordinator of specialized services for the Milwaukee Public School system. They have two children, and two grandchildren. Fred and his wife have traveled to Italy, Brazil, Peru, Jamaica, and the Dominican Republic, and would like to go to Costa Rica someday.

Fred also enjoys martial arts, fishing, hunting, bow hunting and traveling. Last year he and his crew finished 23rd out of 114 in the annual Brew City Tournament, a salmon fishing contest on Lake Michigan. Also in 2013, he spent a week in Idaho by himself gun hunting elk; where he passed up an opportunity to take a spike. This year he and a friend bow hunted elk in Colorado, he saw game but had no clear shots.

Fred likes the writings of Sun Tzu, and Miyamoto Musashi, a military strategist and a samurai warrior.

He is often mistaken for Wesley Snipes and once while in Italy, some girls asked to him to take a picture with them!



Fred Lewis

"Dawn of the Donut Delivery Man" Continued from page 1

- yours. We dedicate ourselves to help you market you first and your brand second.
3. Sales opportunities must be capitalized on and we will consult, design, manufacture and coach on great, educational, menu based product selection and price guides to influence the efficiency at the kitchen table, positively effecting the closing ratio and driving product mix to more feature enhanced products.
 4. Our sales team is eager to participate in ride-alongs so that they can experience the sales process and provide unbiased coaching. The individuals in my life that I consider my mentors were the ones that gave the unbiased, most truthful coaching. This coaching was uncomfortable on occasion, but it made me better at my profession.
 5. We will provide availability to the industries best sales professionals to help your sales team train, learn and grow professionally. Matt Plughoff is second to none with regards to building an elite sales professional. If you haven't taken advantage of the opportunity to work with him, I would love to discuss future events.
 6. We will bring cutting edge, industry information on a monthly basis. This will include industry trends, selling techniques and consumer purchasing information to help you tailor your message to get the best results.
 7. If you need technical training, submit a request to your Territory Manager and our technical training professionals will come to you with a customized program. This saves you time and allows your team to get back to what moves the needle in your business – selling.
 8. Above all else, we promise to not be the "Donut Delivery Man!" A wise man once told me that the most precious item I have in my life is my time and I should always use it wisely. The team at Monroe Equipment values your time and we want to make sure that our time spent together is productive and moves the needle for both of our businesses.
- In conclusion, I want to sincerely thank you for your support. Everyone at Monroe Equipment is forever grateful for our partnership. We all look forward to working with you in 2015 and providing a helping hand to you and your team in reaching your goals. We will be laser-like focused on bringing value to every sales call and helping you move the needle at the kitchen table.

LG MINI SPLITS - CH-05 CODE

Ken Jung

When installing a mini-split air-conditioning/heat pump system there seems to be one dreaded problem than haunts contractors more than anything else - no communication between the outdoor and indoor unit(s).

Typically this problem is experienced at the time of commissioning or start-up. The system was correctly installed, refrigeration piping beautifully done – no leaks, properly evacuated, perfectly calculated and weighted in refrigerant charge. Power is on. Wireless remote control is adjusted. The light(s) on the indoor unit start blinking; the equipment does not kick in! _____! _____!!!

Now what? New equipment and you think the circuit boards are already “bad.” What a pain. However, with LG equipment, a code of CH-05 indicates that there is a communication problem between the outdoor and indoor units, not that those new circuit boards have already failed.

Most commonly, a communication problem with newly installed equipment is the result of improper wiring between the outdoor and indoor unit(s). A good quality digital VOM will be needed to evaluate the electrical communication circuits. (An Analog VOM is a great asset for evaluating communication signals).

Hopefully the following information will help to address some of the possible CH-05 code issues with new installations.

1. Is there proper 208-230 vac measured between terminal L1 & L2 at the outdoor unit?
2. L1 to Terminal 3, - AC volts – fluctuating reading from 200-240 vac (should be in the same volt range as the L1 – L2 reading in step 1. (Analog meter recommended)
3. DC voltage reading from terminal 3 to Grnd (with wire connected) should measure between 20 – 100 vdc. If the voltage is less than 10 vdc or more than 100 vdc, a potential board problem may exist. (With an analog meter, voltage values should sweep between approximately 20 to 60 vdc).
4. L2 to Terminal 3 should read between 60 – 70 vdc. Depending on type and accuracy of meter being used, this actual voltage is between -36 vdc and +36 vdc.

Because of the rapid signal changes, the volt meter will probably indicate a bouncing signal of 60 – 70 vdc.

5. Measure AC volts from L1 to Terminal 3. A Fluctuating reading around 120 vac indicates a possible open float switch or an open or grounded #3 wire.
6. L2 to Terminal 3, if you measure AC voltage of more than 50 vac, it is a good indication that you have crossed wires somewhere in either the L1, L2 or #3 wire circuit.
7. Lastly, make sure the proper wire is used. Stranded wire is an LG requirement for electrical connections to the outdoor unit and for the wiring between the outdoor and indoor unit(s). Solid wire does not support proper electrical communication that is so vital for proper operation of this type of equipment. It is also strongly recommended to use shielded wire in any application where the wiring is routed near fluorescent lighting, computers or in a significantly long electrical run. Never route the wiring in a conduit with electrical wires for other electrical circuits.

NEW MONROE EQUIPMENT WEBSITE

Our new website is ALMOST HERE! Thank you to those dealers that have helped us work out the bugs!

As soon as it is ready (hopefully within a week or so!), we will send your updated login and password information to your email. Please keep your eyes open!



RON LUTZ RETIRES

Lynn Beine

After 28 years of service with Monroe Equipment, Ron Lutz has officially retired! Ron did slow down to part-time in 2013 to help “ease” into this retirement thing. Obviously it has agreed with him enough for him to take the final plunge into retirement.

Ron found his way to Monroe in 1986 and never looked back. Serving as Sales Manager and territory manager in several different areas of the state, has made Ron famous or maybe infamous with a lot of our dealers.

Ron plans on keeping busy in retirement. I am pretty sure you will be able to find him at the gym or at the bar playing some sort of instrument or dancing with his wife or on the Jet ski or on the pontoon or out driving his Corvette. Ron does not lack in hobbies that’s for sure.

I am sure he will also spend some quality time with his children and grandchildren too!

Good luck Ron. You will be missed!



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ALLIED EXTENDED WARRANTY PROCEDURES

Sandy Burns

Most units installed after January 1st, 2010 have warranties issued by Service Net (Premium Care Plus). You can confirm that a labor contract exists and obtain the contract number at www.hvaccoverageverification.com. Type in the serial number with or without the "S". Depending on when the warranty was issued, it could be listed either way.

All questions and concerns in regards to these contracts should be sent to hvacclaims@sndirect.com or by phone at 800.886.9363. The current claim form is attached **and now has a space for "date of most recent maintenance"**. **Service Net is now requiring this date.** It has always been a condition of their warranty that annual maintenance be performed even if they weren't enforcing it. They are now! Please inform your customer that **"ANNUAL MAINTENANCE IS REQUIRED OR THE WARRANTY WILL BE VOIDED"**.

For most units installed before January 1st, 2010, you will need to file claims through Assurant/Federal Warranty. **PRIOR APPROVAL IS REQUIRED** so please call 800.235.5121 for approval. All Premium Care Plus agreements with Assurant have a 7-digit contract number. They can also be looked up on hvaccoverageverification.com. If a contract exists, it will state on this site that you need to contact Assurant. They may also require proof of last annual maintenance. This company is not easy to deal with. If possible, please contact me before calling for prior approval for tips on what you'll need.

Also, register all units for the 6-10 year parts warranty with Allied Air at www.alliedairwarranty.com. Registration needs to be done within 60 days of installation and only applies to single-family, owner occupied residential applications. You can find out if a unit has been registered by going to one of the following websites and clicking on Warranty Lookup. www.armstrongair.biz www.airease.biz www.concord-air.biz

Please contact me with questions or concerns on my direct line 262.432.3245 or email sburns@monroeequipment.com

Up Coming Events

JANUARY 21, 2015

Social Media Class 8:30 a.m. - Oshkosh

FEBRUARY 7-14, 2015

Armstrong Air Incentive Trip - Cabo San Lucas, Mexico

FEBRUARY 16-18, 2015

WI Commercial Building Code Refresher - Madison

The Monroe Igniter is a quarterly publication created exclusively for customers of Monroe Equipment, Inc.



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