

Appliance Repair Show Transcript—June 15, 2008

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Frigidaire Gallery Gas Dryer No Longer Heating

JOHN MCCULLOCH

We'll start things off today with a question on a [Frigidaire dryer](#), from Allison in Pinckney. Good morning, Allison, go ahead please.

ALLISON

Hi. I have a [Frigidaire Gallery dryer](#), and a couple of days ago it stopped heating. It would still run, but [it wouldn't heat](#) and I fumbled with the [dials](#) and turned it to no heat and then back to low and then to medium, and it started heating up again. Just last night it stopped heating again.

JOHN SOWDEN

Yeah, you have a [gas dryer](#)?

ALLISON

Yes.

JOHN SOWDEN

And does it seem to heat the first cycle or two and then it quits? Do you get initial heat?

ALLISON

No. No heat at all.

JOHN SOWDEN

But when it was failing?

ALLISON

Oh, when it started failing? Not that I noticed.

JOHN SOWDEN

Okay. Most often from what you describe, the problem is the [gas valve system](#) has failed. You're not getting any heat because the [gas burner](#) is not igniting, and I don't think selecting the "no heat" or "heat" did anything. Most often what happens is, the [coils](#) on the [gas valve](#) become intermittent, and then over time they get weak and then eventually they just quit. So sometimes they work, sometimes they don't. It's also possible that the [igniter](#) has failed. The best way to diagnose this is, while the unit is running when you have it set up for heat is to observe the [gas burner assembly](#). Normally what you should see is the igniter glowing bright red, then it will shut down and you'll hear a click; that's the [light sensor](#) saying that it's satisfied and then you'll hear the [gas valve coils](#) turn on.

ALLISON

Okay.

JOHN SOWDEN

So that's the sequence of operation. If you don't have any glow at all, you either have a bad [igniter](#) or possibly one of the [thermostats](#) that sends power to that [gas valve assembly](#) has failed. But from what you're describing, the most common problem is the [gas valve solenoid coils](#). Those are about thirty bucks for a set of coils and we have those in stock. We have lots of those in stock!

ALLISON

Okay. Is that something my husband could do?

JOHN SOWDEN

Boy, that's a trick question, especially on Father's Day! Yeah, it's a pretty straightforward repair on that unit. Once it's unplugged, the [front panel](#) comes off. You have to separate the main top from the front panel. There's a set of [clips](#) between the front panel and the top that you depress with a putty knife and you can push the top back like a car hood and then remove the front panel. It's a fairly easy unit to work on. We do sell quite a few of those, so I'm assuming a lot of the average do-it-yourselfers are able to do that. And if he has any questions or any other concerns, he can always go to our website [RepairClinic.com](#) where we have a lot of how-to advice. We also have exploded views of the unit which kind of shows how it comes apart and if he wants to ask us a specific question he can also log in.

ALLISON

And if he can't do it himself and he needs to call someone, do you have anyone on your [website](#) that could refer him to someone?

JOHN SOWDEN

We do have an appliance dealer directory. We have basically just everybody listed; it's like a big phone book. I would always recommend, if you have a friend or neighbor that

has had success with a repair company that they seem to like and have been treated fairly, that's the best way to go is word of mouth.

ALLISON

Okay. Thank you so much!

Fedders Dehumidifier Fan Runs Constantly but Doesn't Collect Moisture

JOHN MCCULLOCH

Let's go now for a question on a [dehumidifier](#) from Vic, in Monroe, here on the Appliance Repair Show. Good morning Vic.

VIC

Yes, I have a dehumidifier; it's a [Fedders](#).

JOHN SOWDEN

Okay.

VIC

It was running fine, but this Spring I turned it on and it's not collecting. It's just running and running, but [not collecting anything](#).

JOHN SOWDEN

So you hear the [fan](#) running?

VIC

Yes.

JOHN SOWDEN

Do you hear any other noises?

VIC

Not really.

JOHN SOWDEN

Does it compress or try to start? Do you hear any clicking?

VIC

I don't know. I didn't check that.

JOHN SOWDEN

Okay. Well, normally the [dehumidifiers](#) are pretty straightforward. What happens is you have a [fan](#) that turns on and the compressor runs. If the compressor is not running, it's possible you have a bad relay package for the compressor, or the compressor itself has failed. If the fan's running and the compressor is running, and it's [not drawing any moisture out of the air](#), then what you have is a situation where you either have a leak in

the refrigerant system, which is normally terminal for those because you can go buy a new one for less than what it would cost to repair it; or it's possible that the unit is just really dirty. But, being only a couple years old, I would lean more towards the possibility that you have a problem in the compressor. So if you hear it clicking on and off, it could be a shorted compressor or a bad [relay overload assembly](#) for the compressor. But most often with [dehumidifiers](#), if the [fan](#) runs and nothing else is working, it's a compressor problem or a sealed system problem, like a refrigerant leak, and both of those are uneconomical to repair.

VIC

I have another question. Is the water from the [dehumidifier](#) safe to drink?

JOHN SOWDEN

I would say not because it's basically being dripped off of a coil that's taking in all the room air.

VIC

I understand that, but if I were to run it through, what do you call it, the reverse osmosis system?

JOHN SOWDEN

I still wouldn't do it. That's an interesting question, but I guess....

JOHN MCCULLOCH

Water the plants with it!

JOHN SOWDEN

Yeah. I was going to say, I guess any water ran through the proper filtering system would be drinkable, but I wouldn't...

VIC

I had a check, I sent it to Lansing, a check for bacterial problems, and it came out all right. No problems.

JOHN SOWDEN

Yeah, but that really depends on what's in your basement or wherever you have it. Everything that you have in that room is being drawn into that coil. So say you left a bottle of bleach open or something like that, all that is going to end up in the dehumidifier. So I really wouldn't recommend that.

VIC

Okay. Thank you.

JOHN MCCULLOCH

But it would be okay to water his plants with it, right?

JOHN SOWDEN

Even then, I don't know...I'd hate to kill a fifty dollar whatever kind of plant.

1988 Maytag Washing Machine Stopped Spinning and Pulley Fell Off

JOHN MCCULLOCH

And we'll talk to Julie next, from Rochester, about a [Maytag washer](#) here on the Appliance Repair Show. Hi Julie! Go ahead please.

JULIE

Good morning! I have an old [washing machine](#), a Maytag, bought probably in 1988. It stopped spinning and the [pulley](#) with the [belt](#) at the bottom of the washer has come off. My question is, is it worth getting fixed?

JOHN SOWDEN

Actually the pulley just stays on the [motor](#) shaft with one fitting, a hex key or an Allen wrench. So it's possible that it was just loose. Most often what happens is the [pulley](#) will heat up and/or split and then fall off.

JULIE

Right. Okay.

JOHN SOWDEN

But as far as replacing it goes, it's a pretty simple repair. You just have to take the two [screws](#) at the base of the [front panel](#) off, and you can remove the front panel and the belt guard. The [belts](#) I think are around twenty to twenty five bucks a piece. I would replace at least the [drive belt](#) and then the [pulley](#)...

JULIE

Okay. It looks like, though, that you'd have to tip the [washing machine](#) on its side to get to the [pulley](#).

JOHN SOWDEN

You have to tilt it back—that's the easiest way to go about it.

JULIE

To put the pulley back on and put the [belt](#) back on?

JOHN SOWDEN

Right. All you need is an [Allen wrench](#) (part # LLK12) to take the [front panel](#) off, and then slightly tilt it back. The [pulley](#) we have in stock is \$26.70 if you find that the pulley is stripped out. The other thing you want to look into is the [motor shaft](#). If it's got a big groove in it where the pulley has worn into it you may require a new [motor](#); or you can kind of move the [pulley](#) up and down on the shaft and try to grab a new spot, because it's made to engage the flat spot of the motor shaft.

JULIE

Okay. But if we get into needing a new [motor](#), it's not worth messing with it?

JOHN SOWDEN

It's twenty years old?

JULIE

Yeah.

JOHN SOWDEN

If everything else is all right...you know, those [Maytag's](#) are old war horses.

JULIE

Oh, it's been great!

JOHN SOWDEN

But obviously, at twenty years there are other things that can start to go. You can have a [timer](#) go out or a [tub seal](#).

JULIE

Right.

JOHN SOWDEN

Which went out on mine this morning and ruined a golf shirt! So it's a gamble, but if nothing else you can just tighten up the existing one and get some more miles out of it. If the pulley looks burnt or deteriorated, just replace the [pulley](#) and the [belt](#), and for less than fifty bucks you might get another ten years out of it.

JULIE

Super! Great!

JOHN SOWDEN

It's definitely worth putting a little effort into.

JULIE

Thank you very much!

1998 Kenmore Refrigerator Ice Maker Not Making Ice after Power Outage

JOHN MCCULLOCH

And here with a question on a [Kenmore ice maker](#), Freddy, in Clarkston, on the Appliance Repair Show. Good morning, Freddy. Go ahead, please.

FREDDY

Good morning. After the power outage, [my ice maker stopped making ice](#). The mechanism works, but I'm just not getting it to fill up.

JOHN MCCULLOCH

Okay and how old is this machine?

FREDDY

Oh, it's about ten years old. I got it with my house.

JOHN SOWDEN

And so, do you hear the [ice maker](#) try to fill?

FREDDY

No, because I've heard that in the past. You can hear the water flowing in there.

JOHN SOWDEN

Right.

FREDDY

I was wondering if maybe when it started back up after the power outage that maybe the [valve](#) froze closed or something.

JOHN SOWDEN

More than likely it was probably compromised electrically rather than mechanically, with a brownout or a power spike. It's pretty indiscriminate when you get these things happening. My sister just lost her TV set but her computer and everything else was fine, and her power was out for a couple of days. She wasn't very happy, like everyone else in Michigan right now, but I would say it's possible that the coil for the [water inlet valve](#) is the problem. Now, the other thing you want to do is monitor your freezer temperature because you could actually have a problem in your [refrigerator](#). The [ice maker](#) cycles once that mold gets to be around fifteen degrees, so if your freezer is at sixteen or seventeen degrees or higher, it might not be enough to cycle the [ice maker](#), but everything would seem frozen, as far as the stuff at first glance would seem like it's working properly. So I would start by checking freezer temperatures: you should have between zero and eight degrees. After that, if everything looks alright, then I would lean more towards the ice maker. You can always check that either with an [ohmmeter](#) (part # DM10T), you can check the valve itself, or you can manually harvest the ice maker. We have instructions on how to do that on our website, [RepairClinic.com](#). You can just go to our website and type in "[Ice Maker Help](#)" and it will take you to the ice maker page.

FREDDY

Okay. Thanks a lot. So that tells me how to access it? I think I go in from the back; I don't even know how to get to it.

JOHN SOWDEN

For the [ice maker](#) itself, to test cycle it, normally you have to go in through the front. Open the freezer door and remove the plastic cover on the ice maker. Depending on what style you have, there are a few things you can do to manually cycle it, and then see if you

can hear it fill, but I'd start with the freezer temperature. If that's okay, then I'd go into the [ice maker](#) or the [water valve assembly](#). The water valve assembly is something that you can check the coil on the valve with an [ohmmeter](#) (part # DM10T) to see if in fact it's open.

FREDDY

Okay. Well thank you very much.

Maytag Neptune Front Loading Washing Machine Making Loud Noise during Spin Cycle

JOHN MCCULLOCH

And, here with a question on a [Maytag washer](#), Warren, in Columbiaville, on the Appliance Repair Show. Go ahead, Warren.

WARREN

Yes, I have an older [Neptune Maytag washer](#). It sounds like the [bearings](#) are going out in the spin cycle.

JOHN SOWDEN

Sounds like a jet engine taking off when it goes into spin?

WARREN

Oh, it sounds worse than that! It sounds like there are shocks riding on the [bearings](#) or the drum. My question is, is it worth fixing? We've had all sorts of problems with this washer.

JOHN SOWDEN

Had a lot of warranty work done on it?

WARREN

Yes and I'm questioning if I should just go ahead and cut my losses and buy a new [washer](#). If you suggest that I should, are the [front loaders](#) any more reliable than they have been in the past?

JOHN SOWDEN

Well, the first thing is, as far as spending money on your existing one, the repair for yours if you need a new [bearing](#), it comes as the [rear kit assembly](#) (part # 22004465), or the rear half of the tub. So that's basically a metal bearing pressed into a plastic outer shell. It's a pretty labor-intensive job if you do it yourself, and even if you do it yourself you're probably going to spend two or three hundred dollars on the back half of the outer tub assembly. So, if you have somebody come out and do this, you're going to be probably at half the cost of a new [front loader](#) if you're looking at the thousand dollar range. So at this point, given all the other stuff you've had going on, this would be the time to cut your losses if you were going to do so.

WARREN

Okay. And the other part of the question is, are [front loaders](#) any more reliable today?

JOHN SOWDEN

Well, front loaders have been around for a really long time. [Westinghouse](#) has had one for thirty or forty years, and they were pretty good machines. Just in the market today, I actually read not too long ago that [front loaders](#) this year finally edged out [top loaders](#) as far as sales go. There are more of them out there, so any problems you hear about are going to be magnified because there's just more of them. There are quite a few decent machines out these days and a lot of them have worked out their problems. As you said, your machine there, the original production, they had some issues and some warranty concerns and they've cleaned a lot of that up. As for the ones out there today, there's the Duet that's made by [Whirlpool](#); Samsung has one. If you buy a new [Maytag](#) it could be a Samsung, since as of a couple years ago they were producing some for Maytag. [LG](#) makes a front loader. So there are quite a few manufacturers now getting into that game. I always recommend when looking for a new appliance, or frankly anything, go look at the Consumer Reports and see what they say about it. They're unbiased, they don't take advertising or anything like that; so when they test the stuff, it's really just from their point of view and they beat on the stuff pretty thoroughly. So whether it's a new car or a new radio or a new appliance, I always recommend Consumer Reports. At least see what they have to say about it.

WARREN

Okay. Very good, thank you.

1996 Insinkerator Dishwasher Tripped Circuit Breaker and the Control Board Emitted a Flash of Electricity

JOHN MCCULLOCH

And with a question on an [Insinkerator dishwasher](#), here's Victor, in Grosse Pointe Shores, on the Appliance Repair Show. Good morning, Victor, go ahead please.

VICTOR

Good morning and thank you for taking my call. About two weeks ago I phoned in and I had a problem with two coffee makers, electric coffee pots, plus the [dishwasher](#). So you recommended I call an electrician, and I did.

JOHN SOWDEN

And?

VICTOR

So then the electrician said there was nothing wrong with the circuit. But we went downstairs and we found that the circuit breaker was tripped. So, he tripped it back in place, and then the [dishwasher](#) began to work. So it was empty, and it worked for a while, so I said I'll just cancel it, so I pushed the cancel button. And when I did, a flash of electricity shot out from underneath the ...

JOHN SOWDEN
Control panel?

VICTOR
Yes. So now I'm wondering what to do next?

JOHN SOWDEN
Well, it sounds like you've found the culprit, which was the [dishwasher](#) has got a short in it somewhere. It sounds like if the coffee makers were conking out...you say they were or were not on the same circuit?

VICTOR
No, they were not on the same circuit, as a matter of fact.

JOHN SOWDEN
So they were two separate, two unrelated problems, then?

VICTOR
Yes.

JOHN SOWDEN
Okay. Well, we've got that part straightened around. Now, when you hit the cancel button on the [dishwasher](#), you're initiating the drain cycle; you incorporate the motor, and it's possible that you either have a short...does this have a set of push buttons?

VICTOR
Yes.

JOHN SOWDEN
Okay. It's possible that you either have a short in the switch assembly, or any other of the components in the machine could be shorted or grounded, even a grounded wire.

VICTOR
I see.

JOHN SOWDEN
So basically, it could be that when you hit the cancel drain, when you press that switch in, it opens and closes a series of connections throughout that program switch and all one of them has to do is not open or close properly and then you run line voltage to line voltage and it takes out the switch immediately. Now, I have here that you have an [Insinkerator](#).

VICTOR
Yes.

JOHN SOWDEN

Actually that unit was made by [Kitchen Aid](#).

VICTOR

Oh, I see.

JOHN SOWDEN

Except for the name on the front, it's pretty much a [Kitchen Aid dishwasher](#). As far as parts for these go, some of them are being discontinued through [Insinkerator](#), but they still may or may not be available through Kitchen Aid. This is what, a ten year old unit?

VICTOR

Oh, maybe a bit more.

JOHN SOWDEN

Okay. As far as to get replacement parts for the switch, the first thing you can do is remove the front panel. On the door, normally, there's a great big wiring diagram that's stickered to the front panel. It may be in the lower access panel in the little plastic envelope, I think on the one you have. It will show you on the program switch, there will be a chart and it will say, when you press say 'normal wash', it will show you which contacts are open and which are closed on that switch when you select the various cycles. So, you can label the wires going to the switch and take it out, after turning the power off; you can take the switch out and check that with an ohmmeter and see if the switch is making and breaking contact appropriately according to the cycle selector chart that's on the wiring diagram. Or, you can call a service guy out.

VICTOR

That's what I'm going to do. I'm going to call a service guy out. Who should I call? Who do you recommend, please?

JOHN SOWDEN

Again, I always recommend somebody who works on these on a warranty basis. It always helps, because those people have up-to-date training. In this particular case, I would go with whomever your friends and neighbors have used that they seem to be pretty happy with. So I would always go by word of mouth when it comes to stuff like that.

VICTOR

I see. So you wouldn't recommend any particular person for repair?

JOHN SOWDEN

It's really hard to do that. Obviously, it depends on where you live and it never fails, every time I recommend something, it always goes wrong. I recommended one time that somebody go and buy a brand new [Maytag washer](#). This was about twenty years ago, which was very sound advice and I was out two days later working on their brand new [Maytag washer](#) that I recommended! So ever since then I've learned to go by word of mouth, go by Consumer Reports, go with somebody else who's had experience with overall performance. That way I'm off the hook.

VICTOR

All right. The next thing I wanted to mention was, the first automatic washers that I remember in the early 1950s were Bendix, and they were all [front loaders](#). So apparently it's come full circle.

JOHN SOWDEN

Yeah, well energy and water have pushed a lot of that. Not to mention that they do a good job on the clothes. Yes, the government and the environment and all the green stuff going into these have really pushed everything in favor of the front loaders.

VICTOR

Well, thank you very much.

Frigidaire Gas Range Not Heating Properly

JOHN MCCULLOCH

Here's Paul, in Algonac, with a [Frigidaire oven](#) that isn't working right, here on the Appliance Repair Show. Go ahead, Paul.

PAUL

Hi. Yes, I bought this [oven](#) a couple years back. I looked at it the other day and took the bottom apart, and there's like a glow thing in there that turns red?

JOHN SOWDEN

Yes.

PAUL

But that doesn't get the gas to it.

JOHN SOWDEN

So the [igniter](#) glows red but it does not turn on the main [burner](#)?

PAUL

Exactly! The broiler part works on top and, of course, the stove works, but is this repairable by myself?

JOHN SOWDEN

Well, you've already got it torn down to the point to where you need to access the components you need to replace.

PAUL

Okay.

JOHN SOWDEN

More than likely, the problem is your [bake igniter](#). Even though it's glowing bright red, it's probably still not functioning electrically. It actually has to draw so much current in the circuit. If you look at the [gas valve](#) there will be a little stamping on it that normally will tell you the amperage of that valve. The [igniter](#), as it glows bright red, it allows a current drop and allows that voltage to then actuate on the gas valve itself. And so, it's a real common misconception that it can't be the [bake igniter](#) because it's glowing bright red but actually, it gets weak over time. Now one thing you can do, if you get the [model number](#) as it reads off your oven and go to our website, [RepairClinic.com](#), and put it in there, it's quite possible that your [broiler igniter](#) and your bake igniter are the same. Not always, but possibly. So if that's the case, then you could simply take the one from your broil and install it in your bake, and if it works, then you know the [bake igniter](#) is your problem.

PAUL

Is that a pretty common part? Is it easy to buy, do you think?

JOHN SOWDEN

Most service trucks carry them. We stock quite a few at [RepairClinic.com](#). Most people that handle parts will have some.

PAUL

It's a pretty common part then?

JOHN SOWDEN

Yes.

PAUL

All right, bud. Thanks a lot for your time.

2001 Sub Zero Bottom Mount Refrigerator, Model 650, Not Cooling

JOHN MCCULLOCH

Here with a question on a [Sub Zero refrigerator](#), Rob in Toledo, on the Appliance Repair Show. Good morning, Rob! Go ahead please.

ROB

Yes. Happy Father's Day.

JOHN SOWDEN

Thank you very much. My youngest boy is helping me on the computer this morning.

ROB

Great! Well hopefully he's helping me, too. I've got a [650 Sub Zero, freezer on the bottom](#), fridge on the top. Good piece of appliance. This is my first problem.

JOHN SOWDEN

An expensive piece of appliance!

ROB

Expensive, but I bought it in 2001 and no problems until yesterday.

JOHN SOWDEN

Okay, and what happened?

ROB

We noticed our raspberries kept getting moldy, like two days after we bought them! So I looked at the digital readout, which I don't look at too often, but I looked at it and low and behold, [its fifty one degrees in the refrigerator, seven degrees in the freezer](#).

JOHN SOWDEN

Okay.

ROB

The freezer I had set at zero, refrigerator I have set at forty. Okay, so then I got thinking, wait a minute, what's this? Next to the [digital readout](#) (part # 4202800) it says "service". It blinks on and off, "service".

JOHN SOWDEN

Yes.

ROB

And then it blinks "EC".

JOHN SOWDEN

Is there a number after it?

ROB

Then it blinks the temperature, 51: EC then 51. It's supposed to blink 40! So basically, it's telling me I need service, and EC; I don't know, does that have to do with condenser?

JOHN SOWDEN

Well, the codes normally after "EC" will give you a number after that, which will tell you what [thermistor](#) (part #4204150) have failed in the machine, things of that nature.

Actually, most of the EC codes you have to get into the service portion of it, which I do believe is the colder key. Hold the colder and the on/off key for five seconds and it will tell you.

ROB

Oh, great, so I can figure it out!

JOHN SOWDEN

So if you go to the tech sheet on that...well, the first thing is, did you remove the top of the unit and clean the [condenser](#) (part # 3120330)?

ROB

Yes, the first thing I did was I removed the top of the unit; I even took off the inner top of the unit, and just a light mist of dirt came out. I vacuumed very carefully. It was clean to begin with, but I vacuumed that out and turned the power off totally. Then I turned the power back on, but it was still doing the same thing.

JOHN SOWDEN

Does the [compressor](#) (part # 7006959) run for the refrigerator side?

ROB

Oh, yeah. Which is which? On the right side there's a smaller unit...

JOHN SOWDEN

The smallest one is for the [refrigerator](#).

ROB

Yeah, the smaller one was running constantly until I put dry ice in the refrigerator yesterday. The dry ice brought it down to forty degrees and then it kicked off.

JOHN SOWDEN

Okay.

ROB

And then the left side is cold all the time. That's the bigger [compressor for the freezer](#) (part # 7009446), right?

JOHN SOWDEN

Yes.

ROB

And the bigger compressor kicks on and off as needed.

JOHN SOWDEN

So, it's fine. Right.

ROB

Yes. So the dry ice is holding my [Sub Zero](#) right now, and I've got two blocks in the fridge and two blocks in the freezer. It's at forty, where it should be, and the compressor has kicked off.

JOHN SOWDEN

But otherwise, if you took the dry ice out, the [compressor](#) (part # 7006959) would just run forever and it would not cool?

ROB

Yeah. What it's doing is it's holding at about 50-51 degrees. So it's doing the job partially. My question is, before I come to RepairClinic.com, where I've bought parts before...

JOHN SOWDEN

Glad to hear that!

ROB

Yes, for my [dryer](#) and [washer](#), but never for my [Sub Zero](#). Before I come over there later today, I've got to figure out what I need to buy.

JOHN SOWDEN

Well, in this particular case, from what you're telling me, you're going to probably end up needing a service person.

ROB

Even if I figure out the code?

JOHN SOWDEN

Yeah. See, if you put the dry ice in there and you get it down to forty degrees and you have the temperature set at forty degrees, then it's telling me that the electronics are doing what they're supposed to be doing, which is sensing the temperature and the [control board](#) (part # 4202800) saying all right, it's cold enough, I'm turning off the [compressor](#) (part # 7006959).

ROB

Yup.

JOHN SOWDEN

The compressor running continuously and not being able to pull down the system is normally a sign of a leak in the system or the cooling coil (the [evaporator](#) (part # 4204400)) or that the [compressor](#) (part # 7006959) is inefficient and not able to push the refrigerant through the system with enough force to do the job properly.

ROB

Okay.

JOHN SOWDEN

Each one is something that you're going to need a guy to come out with a torch and all that good stuff and get busy. My money's on you've got a leak in the cooling coil.

ROB

Okay. I've got a guy scheduled for Monday to come out, a real certified technician for [Sub Zero's](#).

JOHN SOWDEN

That's the best way to do it. That's good. Now one thing to look at is your warranty.

ROB

I have a warranty, as you know it's good for full parts and labor for five years, and I think from six to ten years I have to pay for labor.

JOHN SOWDEN

Parts only, right. So the parts should be covered under that. That's one good thing about spending the money on an expensive unit like that: their warranty is pretty extensive on some of the big ticket items. You'll still have to pay for labor, and it won't be cheap but it will still be much better than otherwise. I would see if they could bring an [evaporator](#) (part # 4204400) with them.

ROB

I'll write that down. Evaporator.

JOHN SOWDEN

And they may need to replace the [compressor](#) (part # 7006959) too. It just depends on the unit. But that's most often, from what you're describing.

ROB

One last thing, John: I read on the Internet the other day, after finding out about this problem and trying to do some research, somebody said their heat exchanger manifold, it was an old design, and they had to replace it with a new design. The old design had a bunch of welded pieces, and the new heat exchanger manifold was their problem. It sounded exactly like my problem. Do you think that's relevant?

JOHN SOWDEN

All a heat exchanger is, the suction line, the line coming from the cooling coil back to the [compressor](#) (part # 7006959), which has a low pressure gas in it, is soldered to a small capillary tube, about the size of a pencil lead, which feeds the front side, or the incoming side of the [evaporator](#) (part # 4204400) with liquid refrigerant. One side is a hot, or warm to the touch, the small one, and the other one is cold. So what they do, is by soldering them together, as the unit runs, it helps kind of pre-cool the refrigerant coming in to the evaporator, so you don't get a lot of noise and what they call flash gas. Then it also helps evaporate if there is any unused refrigerant going back to the [compressor](#) (part # 7006959), which makes sure that all of the refrigerant coming back to the low side of the compressor is a vapor and no liquid shows up because if you try to compress a liquid in a piston, it doesn't work very well.

ROB

Right.

JOHN SOWDEN

So that is what the heat exchanger is for. Normally if they're separated, you'll lose about seven to fifteen percent efficiency, you might see some sweating, and you might get a [compressor](#) (part # 7006959) knock every once in a while, but it shouldn't cause the thing to run at fifty degrees.

ROB

So the part you want me to tell them to have in the truck is what again?

JOHN SOWDEN

It's the evaporator for the refrigerator, and you're going to need the [model and serial number](#) off of that. The serial number is going to start with an M or a P. That's made in Madison, Wisconsin. If it is P it would be made in Phoenix.

ROB

It's an M. Thanks a lot, John. Have a good day!

JOHN MCCULLOCH

That's interesting! Do they mark them like the mint on a coin?

JOHN SOWDEN

Yeah, it's something like that. Actually [Sub Zero](#) factories just started consolidating. They used to both make them; you could get a 650 and it would be made in either Phoenix or Madison. So now they're splitting up their systems and making one unit in one plant, and the others in another, so they're not duplicating their processes and tooling and stuff. So they're consolidating and keeping all the stuff under one roof.

JOHN MCCULLOCH

Well, the important thing about that for some people in Detroit is that it's all made right here in America.

JOHN SOWDEN

Oh, yes! Yes.