

METROPOLITAN NY CHAPTER Refrigeration Service Engineers Society

Continuing Education for the HVAC/R Industry

“Better Service Through Knowledge”

April 2017

WWW.METRONYRSES.ORG



Window Air Conditioners Low Refrigerant Charge

While repairing window air conditioners, it is not uncommon for the system problem to be due to a loss of refrigerant.

Depending on how much refrigerant has been lost, diagnosing this problem may be quite simple. Remove the system from its casing and operate it for about 5 to 10 minutes.

If frost develops on the outlet of the capillary tube and does not dissipate after several minutes of operating, the system has lost some of its refrigerant. If allowed to operate in this fashion, this frost will begin to develop on the surface of the evaporator and will eventually restrict the airflow across the evaporator further compounding the problem. The absence of frost on the outlet of the capillary tube does not always mean the system has a full refrigerant charge. If enough refrigerant has been lost no frost will appear.



A technician should not always conclude that frost on the evaporator is due to a low refrigerant charge. Other system problems such as a restricted airflow across the evaporator (dirty air filter, or blower) or too cold of a return air temperature can also lead to this problem.

An easy way to tell the difference is to defrost the evaporator, verify that the airflow across the evaporator is sufficient and then operate the system for 5 to 10 minutes.

Again, if frost develops on the outlet of the capillary tube and does not dissipate after several minutes of operating, the system has lost some of its refrigerant.

Testing for Evaporator Leaks

Locating and repairing refrigerant leaks associated with air conditioning systems is a common task for many technicians. Sometimes locating a leak can be tricky. If the leak is in an area which is not easily accessible, it may be difficult to locate. One such location on residential split system air conditioners is *within* the evaporator section. The evaporator is enclosed in either a plenum or its own casing. To leak search this area, a section of the casing surrounding the evaporator must be removed. On some systems this may be a time-consuming task.



If this is the case, the following procedure can be used to initially determine if there is a refrigerant leak in that section before removing any panels.

1. Make sure the system still contains some amount of the refrigerant.
2. If the evaporator has any ice on its coils, remove the ice before proceeding. If the system has a forced-air furnace attached, turn the system to the heating mode to defrost the evaporator. If not, allow the indoor blower to run without the compressor running to defrost the evaporator.
3. Turn off all system power and allow the system's pressure to equalize.
4. Warm up and calibrate (if needed) a good quality electronic leak detector.
5. Set the leak detector to its highest sensitivity.
6. Locate the evaporator's drain outlet and remove a section of the piping close the evaporator's drain pan.
7. Position the detector's probe at the drain opening (be careful to avoid any water coming in contact with the probe).
8. Leave the probe in this area for at least ten minutes or until a leak is sensed.
9. Remove the electronic leak detector's probe, recalibrate if needed, and repeat Step 8.
10. If a leak is detected on both tests, then remove the required casing to expose the evaporator and pinpoint the exact location of the leak.



**HVACR
TECHNICAL
TRAINING**

**Coming to the
Metro New
York area**

Recommended for:
HVACR Service Techs
HVACR Electricians
HVACR Contractors
HVACR Students

**SATURDAY,
April 22nd, 2017
8:30am – 5:00pm**

**FULL DAY
with Hot Lunch
served**

Location:
Riccardo's Catering
21-01 24th Avenue
Astoria, N.Y. 11102
(718) 721-7777

Training Seminar

(2 Training Sessions)

**Introduction to Duct Design,
Problems & Issues**

Schematic Reading, Tips & Shortcuts

YOU WILL LEARN:

- Issues Related To Poor DUCT DESIGN & INSTALLATION
- Building Envelope Testing Protocols & Standards
- How To Find DUCT LEAKS
- Basic Schematic Reading & Symbols - What They Mean
- Test Methods & Troubleshooting Tips & Shortcuts

This program utilizes lecture, field examples, computerized demonstrations, handout materials and encourages audience participation. A certificate of completion will be mailed to all participants.

The cost for full program, including morning & afternoon refreshment breaks and full service, hot sit-down lunch is:
\$130 - (\$105 for RSES & OESP members)

Brought to you by:

R.S.E.S.

**REFRIGERATION SERVICE ENGINEERS SOCIETY
METROPOLITAN NY CHAPTER**

www.MetroNYRSES.org

**For Further Information Call:
Stan Hollander @ 718 232-6679**

REGISTER EARLY – SEATING LIMITED

===== ✂ CUT HERE ===== ✂ CUT HERE ===== ✂ CUT HERE ===== ✂

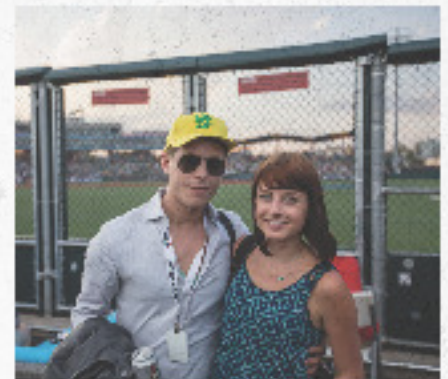
SEMINAR 4/22/17

RSES Membership # (if applicable) _____
 NAME _____ COMPANY NAME _____
 ADDRESS _____ CITY _____ STATE _____ ZIP _____
 PHONE: _____ EMAIL: _____
 WANT TO USE CREDIT CARD? # _____ EXP. DATE _____

MAKE CHECKS PAYABLE TO: METRO NY RSES (or call 718 232-6679)
MAIL CHECKS ALONG WITH THIS REGISTRATION FORM (DETACHED) TO:
STAN HOLLANDER; 1837 61st STREET, BROOKLYN, NY 11204

MCU PARK - RSES BBQ

PARTY IN OUR BACKYARD



TICKET PRICES

ADULTS - \$50 --- CHILDREN - \$40

AUGUST 6th, 2017 - vs. ABERDEEN IRONBIRDS

ENJOY A PRE-GAME BUFFET WHILE WATCHING THE GAME FROM THE MOST UNIQUE VANTAGE POINT IN THE BALLPARK! YOU CAN PULL UP A CHAIR AT THE TIKI BAR, RELAX ON THE "PATIO" OR PLAY YARD GAMES SUCH AS CORNHOLE.

MAKE CHECKS PAYABLE TO: METRO NY RSES (OR CALL: 718 232-6679)

MAIL CHECKS TO: STAN HOLLANDER; 1837 61st STREET, BROOKLYN, NY 11204



HVAC/R
Parts
Supplies
Equipment

27-01 BROOKLYN QUEENS
EXPRESSWAY WEST
WOODSIDE, NY 11377

FAX (718) 274-4972

Large
Local
Stock
Free Catalogue

718-545-4896

WHOLESALE ONLY

Supco

**SEALED UNIT
PARTS CO., INC.**

P.O. BOX 21
2230 LANDMARK PLACE
ALLENWOOD, NJ 08720 USA
(732) 223-6644
FAX: (732) 223-1617

H&L

HEATING SUPPLY, Inc.
COMMERCIAL / INDUSTRIAL /
RESIDENTIAL

- AUTHORIZED DEALER OF
- HONEYWELL • McDONNELL MILLER •
 - FIREYE • HEAT TIMER •
 - FUEL WATCHMAN •
 - BELL AND GOSSETT • ASCO •
 - POWERFLAME BURNERS •
 - T.A.C. BUILDING AUTOMATION •
 - ECLIPSE GAS BOOSTER •
 - SIEMENS GAS TRAINS •
 - GRUNDFOS •

BRIAN T. O'NEILL
BRIAN@HLHEATINGSUPPLY.COM

1077 CONEY ISLAND AVENUE
1100 BROOKLYN, NY, 11230
(718) 859-2424
FAX (718) 859-5727



**UNITED
REFRIGERATION INC.**
Refrigeration, Air
Conditioning, Heating,
Supplies, Equipment & Parts

Jim Herlinger
Branch Manager
51-05 59th Place
Woodside, NY 11377-7408

Tel: 718 476-2600
Fax: 718 476-2648
Branchv2@uri.com

**HALSEY SUPPLY
CO. INC.**

FOR ALL YOUR

AIR CONDITIONING
REFRIGERATION

EQUIPMENT
PARTS SUPPLIES

EPA-CERTIFICATION TESTING

241 HALSEY STREET
BROOKLYN, NY 11216

(718) 574-4774

FAX (718) 574-4778



RATHE
ASSOCIATES

EXPECT MORE
& GET IT.

REPRESENTING THE
INDUSTRY'S FINEST
MANUFACTURERS

CERTIFIED FACTORY
TRAINING BY
INDUSTRY EXPERTS

LOOK TO US FOR ALL YOUR
PLUMBING, HEATING & HVAC NEEDS

NY 631.822.1200

NJ 908.753.4666 • fax 631.822.1400

ratheassoc.com

COMING TOPICS

Troubleshooting Electric Motors

Coil Treatment

COMPRESSORS –

The Latest from Copeland

Blower Basics

Torch Safety

IAQ

If you have any suggestions or requests for Future programs,
please let us know!

**T
H
I
S
S
P
A
C
E
A
V
A
I
L
A
B
L
E**

**SEE
US 1st**



WHOLESALE DISTRIBUTORS
Refrigeration/AC/Heating

BROOKLYN (718) 257-3347
10720 Avenue D

JAMAICA (718) 526-0330
139-29 Queens Blvd.

MT. VERNON (914) 668-3631
551 S. Columbus Ave.



**Fire Ice
Mechanical Inc.**

HVAC/R Service Contractors

KURT J. EGGERT

Vogt Tube-Ice Authorized Dealer/
Sales & Factory Certified Technicians
Goldenrod Distributor;

The Newest in Water Treatment Technology
Air Conditioning & Refrigeration

Tel (718) 631-1503
Fax (718) 279-4686

ThermatiX Supply

Plumbing, Heating, and Air
Conditioning Supplies

"We keep you supplied
7 days a week!"



73 Broadway, Hicksville, NY 11801

toll free: (877) 390-9421

tel: (516) 513-0985 / 0986

fax: (516) 620-5942

email: sales@thermatixsupply.com



49-70 31st STREET
L.I.C., NY 11101

Phone: 718-937-9000

Fax: 718-392-1296

1-800-937-9000



Suva®



WEDDINGS

OUR SPECIALTY

Special Attention Given To
Dinner Dances • Company Parties
Cocktail Parties • Business Meetings
Fund Raisers • Fashion Shows
Engagement Parties • Christenings
Special Discounts Given to Senior Citizens

*Riccardo's
by the bridge*

21-01 24th Avenue, Astoria, NY 11102
718 721-7777

ANTHONY M. CORBISIERO
RICHARD F. CORBISIERO

METROPOLITAN NEW YORK CHAPTER, RSES

For Information Call: Stan Hollander, CMS (718) 232-6679

PRESIDENT'S MESSAGE

Next month I will list the various advantages of belonging to RSES. There are many, and I feel that it would be a good time to review them. There are probably some that you have forgotten about.

However, this month I want to review what we, your local chapter, offers its' members.

First, there are our monthly meetings. In case you haven't noticed, they are all educational. Each month Stan Hollander CMS has arranged an interesting speaker on a topic of interest to you, our technicians. He gets speakers through member's suggestions and his own research. There is never a charge to attend a meeting. Your Board of Directors meets on another night to plan and schedule chapter activities. so our monthly meetings are strictly educational, and never boring.

We try to schedule FULL-DAY Educational Seminars twice a year. Enclosed with this meeting notice is information and a registration form for our next seminar on April 22nd. There is a discounted rate for members.

The chapter also conducts EPA and NATE testing. EPA testing can be done at most meetings and should be arranged with Stan Hollander, CMS at: EducationalDirector@metroNYRSES.org. NATE testing can be arranged by contacting me at President@metroNYRSES.org.

The chapter also maintains a chapter web site at www.MetroNYRSES.org. Here you can see upcoming events and contact any of the chapter officers. Suggestions for speakers for meetings or seminars are always welcome.

Wednesday April 12th, 2017 at 7:30 pm

at

RICCARDO'S
21-01 24th Avenue, Astoria NY 11102

Critical Components: Trouble-Shooting HVACR Electric Motors

By

Rick Streacker, Packard Electric