

# METROPOLITAN NY CHAPTER Refrigeration Service Engineers Society

*Continuing Education for the HVAC/R Industry*

**“Better Service Through Knowledge”**

\*\*\*\*\*

**November 2016**

**WWW.METRONYRSES.ORG**



## *Replacing Thermostatic Expansion Valves*

When replacing a thermostatic expansion valve, it is usually easiest to replace the valve with the same make and model. However, there may be times when the original make and model is not readily available, so a replacement needs to be chosen. Choosing a replacement valve that matches the original refrigerant, capacity, body type, type of equalization and operating characteristics is important to ensure a proper operating system.

Choosing a replacement TEV with the same capacity requires a technician to refer to the selection tables of the replacement valve manufacturer. To determine the correct capacity for a replacement TEV, the technician must know the following:

- BTU capacity of the system;
- type of refrigerant used in the system;
- pressure drop across the valve;
- liquid refrigerant temperature entering the valve; and
- evaporator operating temperature.

Most selection tables will list the capacity of their valves in tons of refrigeration under various system conditions as listed above. When determining the pressure drop, the valve and the liquid entering temperature, a technician should use the worst case values.

The technician then needs to match the body type of the new valve to the original valve. Make sure that the inlet and outlet connection sizes and style match the original and are located in a position that will not make its installation too difficult.

The type of equalization also needs to be matched. If an internally equalized valve is used, then the replacement valve must also be internally equalized. If an external equalizer valve is used then an external equalizer valve must be used.

Lastly, the technician needs to make sure the replacement's power element matches the operating

characteristics of the original valve. There are several styles of power elements to choose from. Choosing the right one may require understanding the differences between the various charges and how they affect the system's operating performance. Referring to the manufacturer's catalog will usually give a detailed explanation of the various charges available.

Once the correct TEV has been chosen the technician needs to install it into the system. If the valve is to be brazed into the system, it is a good practice to wrap the valve body in a wet rag and not direct any heat toward it.



When securing the sensing bulb to the suction line always follow the manufacturer's recommendation for proper location. As a general rule, however, the sensing bulb should

be secured to a horizontal section of pipe at the outlet of the evaporator. On pipe sizes 7/8" and larger, it is recommended that the bulb be located at the 4 o'clock or 8 o'clock position. On smaller sized pipe, any area of the pipe except the bottom portion is acceptable. When securing the bulb to the pipe make sure it has a good thermal contact, using two straps to fasten the bulb to the pipe.

Always check the superheat setting of the valve, once it is installed. Do not rely on the manufacturer's setting for the system you are working on. Always check and make the necessary adjustments. Let the system run 15 minutes to allow the valve to stabilize before taking any readings or making any adjustments.

Replacing a TEV is generally a simple task; however, it is a time-consuming repair that should not be rushed.



**HVACR**

**TECHNICAL**

**TRAINING**

**Coming to the  
Metro New  
York area**

Recommended for:

HVACR Service Techs  
HVACR Electricians  
HVACR Contractors  
HVACR Students

**SATURDAY,  
November 12<sup>th</sup>,  
2016**

**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

# Removing the Mystery of Control Boards and Microprocessors Training Seminar

## YOU WILL LEARN:

- Microprocessors Are Not So Mysterious
- What Stories do the Beeps and Blinking Lights Tell?
- Thermistors And Other Components – Examined and Explained
- Sequence of Operation Analyzed
- Understanding the Lockout Sequence

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 members)

Brought to you by:

**R.S.E.S.**

**REFRIGERATION SERVICE ENGINEERS SOCIETY  
METROPOLITAN NY CHAPTER**

[www.MetroNYRSES.org](http://www.MetroNYRSES.org)

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

**REGISTER EARLY – SEATING LIMITED**

Control Boards and Microprocessors SEMINAR 11/12/16

RSES Membership # (if applicable) \_\_\_\_\_

NAME \_\_\_\_\_ COMPANY NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PHONE: DAY # \_\_\_\_\_ NIGHT # \_\_\_\_\_

WANT TO USE CREDIT CARD? # \_\_\_\_\_ EXP. DATE \_\_\_\_\_

**MAKE CHECKS PAYABLE TO: METRO NY RSES**

MAIL CHECKS ALONG WITH THIS REGISTRATION FORM (DETACHED) TO:  
STAN HOLLANDER; 1837 61<sup>st</sup> 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

1100 CONEY ISLAND AVENUE  
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 59<sup>th</sup> 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

*With All the IAQ Products Available,  
Which is Best for Your Application??  
What Are the Differences?*

**COMPRESSORS –**

*The Latest from Copeland*

*How To Finance Your Customers' Work*

*Troubleshooting Electric Motors*

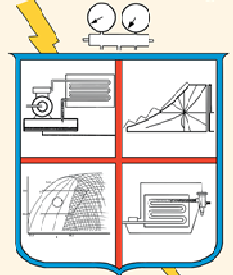
*Coil Treatment*

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

Looking for  
Solutions??  
*This Book May Help*

HVAC & R  
Hands on

**Troubleshooting**



Jose C. Jimenez

(718) 994-3773

jocojial@gmail.com

SEE  
US 1<sup>st</sup>



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



**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

Have you ever thought of introducing a co-worker to RSES? If not, think about it. As you know, there is never a charge to attend our monthly educational programs. All RSES members enjoy the benefits of belonging to a trade organization focused on their industry. However, members that also attend the monthly meetings get additional education and the opportunity to network with fellow technicians and with manufacturers' representatives

Feel free to forward this email to anyone you think might be interested in RSES. Non-members are always welcome at our meetings, and there is never a charge.

We will even give you coffee and cake, and provide you with free parking -  
***WHAT A BARGAIN!! Bring your friends and say "Hello".***

## Wednesday November 9th, 2016

### at 7:30pm

at

**RICCARDO'S**

21-01 24th Avenue, Astoria NY 11102

***With All the IAQ Products Available, Which is Best for Your Application?? What Are the Differences?***

by

Steve Mironenko, Jr.—United Components

## **IT'S OFFICIAL—Here are you newly elected CHAPTER OFFICERS AND BOARD MEMBERS**

### OFFICERS

*PRESIDENT:* DREW GARDA  
*VICE-PRESIDENT:* RICH BRUNO  
*SECRETARY:* NITO MEHRA  
*TREASURER:* STEVE AIELLO  
*SERGEANT-AT-ARMS:* KURT EGGERT

### BOARD OF DIRECTORS

*EDUCATIONAL DIRECTOR:* STAN HOLLANDER, CMS  
*EDUCATIONAL LIAISON:* RICH BRUNO  
*NEWSLETTER EDITORS:* STAN HOLLANDER, CMS  
HERB MEYER  
*BOARD MEMBERS:* JOHN PLAUT  
HOWARD DACOSTA