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OMB No. 0651-0027 (exp. 6/30/20)

DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
DOCKET NO. 210\_708; 10,944  
EXPRESS MAIL NO. EV402383992US

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PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):

Timothy P. Galante, Sivakumar Gopalnarayanan,  
Don A. Shuster, Craig R. Kersten and Larry Burns

Execution Date(s) January 4, 2005, January 4, 2005, December  
21, 2004, December 30, 2004 and April 4, 2005

Additional name(s) of conveying party(ies) attached ☐ Yes ☒ No

2. Name and address of receiving party(ies):

Name: Carrier Corporation  
Address: 1 Carrier Place  
Farmington, CT 06034

Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☐ Other \_\_\_\_\_

4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s) 11/025,352

B. Patent No.(s)

Additional Numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning this document should be mailed:

Name: Dana F. Bigelow

Address: WALL MARJAMA & BILINSKI LLP  
101 South Salina Street, Suite 400  
Syracuse, NY 13202  
Telephone: (315) 425-9000  
Facsimile: (315) 425-9114

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00

- ☐ Authorized to be charged by credit card  
☒ Authorized to charge any deficiency or credit any over payment to  
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☐ Enclosed  
☐ None required (government interest not affecting title)

8. Payment Information

- a. Credit Card Last 4 Numbers \_\_\_\_\_  
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b. Deposit Account Number \_\_\_\_\_  
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9. Signature:

Dana F. Bigelow  
Reg. No. 26,441

April 11, 2005

Date

Total number of pages including cover sheet,  
attachments, and documents: 6

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the US PTO, P.O. Box 1450, Alexandria, V.A. 22313-1450

04/14/2005 ECDOPER 00000293 030835 11025352

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(40.00 DA)

PATENT  
REEL: 016450 FRAME: 0302

## JOINT ASSIGNMENT

We, Timothy P. Galante, Sivakumar Gopalnarayanan, Don A. Shuster, Craig R. Kersten and Larry Burns believe that we are the inventors of the subject matter disclosed in the application for patent (hereinafter "the invention or inventions") identified herein as

**DUAL THERMOCHROMIC LIQUID CRYSTAL TEMPERATURE SENSING FOR REFRIGERANT CHARGE INDICATION**

and further identified by Attorney Docket Number 210\_\_708.

- ☐ for which the undersigned has executed an application for patent in the United States of America on \_\_\_\_\_ and transmitted herewith.
- ☒ which application for patent was filed on December 27, 2004 and has been assigned Serial No. 11/025,352 by the United States Patent and Trademark Office.

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which is hereby acknowledged, each of the undersigned agrees to assign, and hereby does assign, transfer and set over to Carrier Corporation, a corporation incorporated in the State of Delaware, and having a principal place of business at 1 Carrier Place, Farmington, CT 06034, (hereinafter designated as the Assignee) his or her entire right, title and interest in the invention or inventions as represented by the application for patent identified herein (the "application") in the United States, its territories, dependencies and possessions, his or her entire right, title, and interest in the application, and his or her entire right, title and interest in the invention or inventions as regards all other national jurisdictions and international entities that have the power to grant patents, wherever situated, including without limitation all applications for patent which claim priority to and/or the benefit of the subject matter disclosed in the application for patent identified herein, including any provisional application, utility application, design application, and/or plant application, as well as any continuation application, divisional application, continuation-in-part application, reissue application, reexamination application, patent interference proceeding, foreign national application and/or any application filed or to be filed under a patent treaty such as the International Convention for Protection of Industrial Property and/or the Patent Cooperation Treaty, and any Letters Patent which may be granted therefor in any jurisdiction.

In addition to the above assignment, each of the undersigned agrees to execute all papers necessary in connection with the application and any continuing applications, divisional applications, or continuations-in-part thereof, and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

Each of the undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation or division thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

Each of the undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

Each of the undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of a valid United States Patent to the Assignee.

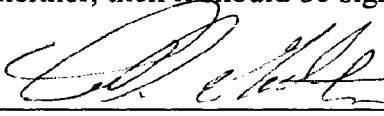
Each of the undersigned hereby authorizes and requests the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed and will not execute, any agreement in conflict herewith.

Each of the undersigned hereby grants to any duly empowered legal representative, including specifically Thomas J. Wall, Owen D. Marjama, Peter J. Bilinski, George S. Blasiak, Robert E. Purcell, Dana F. Bigelow, Indranil Mukerji, Joseph B. Milstein, R. Stephen Rosenholm, James R. Muldoon, Joel Stettenheim and Thomas T. Aquilla of WALL MARJAMA & BILINSKI LLP, the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or with the rules of any other national or international Patent Office for recordation of this document or a true copy thereof.

In witness whereof, this instrument has been executed by the undersigned on the date opposite the respective name of the undersigned.

This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. or (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses.

Date 1/4/05


Signature  (SEAL)  
Timothy P. Galante

Date 1/4/05

Notary/Witness Cynthia L. Fagan  
Notary/Witness CYNTHIA L. FAGAN  
NOTARY PUBLIC  
MY COMMISSION EXPIRES MAR. 31, 2006

Date \_\_\_\_\_

Date 1/4/05

Signature  (SEAL)  
Sivakumar Gopalnarayanan

Date 1/4/05

Notary/Witness Cynthia L. Fagan

Date \_\_\_\_\_

Notary/Witness CYNTHIA L. FAGAN  
NOTARY PUBLIC  
MY COMMISSION EXPIRES MAR. 31, 2006

Date 12-21-2004

Signature Don A. Shuster (SEAL)  
Don A. Shuster

Date 12-21-2004

Notary/Witness C. Huff

Date 12-21-2004

Notary/Witness Maureen Peterson

Date \_\_\_\_\_

Signature \_\_\_\_\_ (SEAL)  
Craig R. Kersten

Date \_\_\_\_\_

Notary/Witness \_\_\_\_\_

Date \_\_\_\_\_

Notary/Witness \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_ (SEAL)  
Larry Burns

Date \_\_\_\_\_

Notary/Witness \_\_\_\_\_

Date \_\_\_\_\_

Notary/Witness \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_ (SEAL)

Don A. Shuster

Date \_\_\_\_\_

Notary/Witness \_\_\_\_\_

Date \_\_\_\_\_

Notary/Witness \_\_\_\_\_

Date 12-30-04

Signature  (SEAL)

Craig R. Kersten

Date 12-30-04

Notary/Witness 

Date 1-4-05

Notary/Witness Kathleen G. O'Keefe

Commission expires: Oct 18, 2008

Kathleen G. O'Keefe - Marion Cty, IN

Date \_\_\_\_\_

Signature \_\_\_\_\_ (SEAL)

Larry Burns

Date \_\_\_\_\_

Notary/Witness \_\_\_\_\_

Date \_\_\_\_\_

Notary/Witness \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_ (SEAL)  
Don A. Shuster

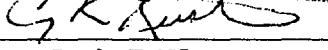
Date \_\_\_\_\_

Notary/Witness \_\_\_\_\_


Date \_\_\_\_\_

Notary/Witness \_\_\_\_\_

Date 12-30-04

Signature  (SEAL)  
Craig R. Kersten

Date 12-30-04

Notary/Witness 

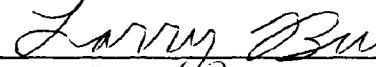
Date 1-4-05

Notary/Witness Kathleen G. O'Keefe

Commission expires: Oct 18, 2008

Kathleen G. O'Keefe - Marion Cty, IN

Date 4/4/05

Signature  (SEAL)  
Larry Burns

Date 4/4/05

Notary/Witness Victoria Weatherford

Date \_\_\_\_\_

Notary/Witness Victoria Weatherford

State of: Indiana  
County of: Marion  
By: 3/27/08