# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date	
MINGFEI GAN	08/21/2012	
KEONWOO LEE	08/21/2012	
ARYN SHAPIRO	08/21/2012	
LUCY YI LIU	08/21/2012	
GILBERT B. HOFSDAL	08/21/2012	
JIAN SUN	08/13/2012	

### **RECEIVING PARTY DATA**

Name:	CARRIER CORPORATION
Street Address:	ONE CARRIER PLACE
City:	FARMINGTON
State/Country:	CONNECTICUT
Postal Code:	06034

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14234675

## **CORRESPONDENCE DATA**

Fax Number: (860)286-0115

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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ATTORNEY DOCKET NUMBER:	PA-0018581-US-AA
NAME OF SUBMITTER:	DAVID A. FOX
SIGNATURE:	/David A. Fox/
DATE SIGNED:	10/20/2014

**Total Attachments: 4** 

**REEL: 033979 FRAME: 0786** 503024928

<del>PATENT</del>



PATENT REEL: 033979 FRAME: 0787

#### ASSIGNMENT

We, Mingfel Gan of 4590 Red Fox Drive, Manlius in the State of New York 13104-2433; KeonWoo Lee of 4754 Prestwick Drive, Manlius in the State of New York 13104; Aryn Shapiro of 317 S. Clinton Street, Syracuse in the State of New York 13202; Lucy Yi Liu of 5003 Saddlebrook Drive, Fayetteville in the State of New York 13066; Gilbert B. Hofsdal of 2381 Old Route 5, Chittenango in the State of New York 13037; and Jian Sun of 1306-171 For Fayetteville in the State of New York 13037; have invented certain improvements in a "STARTUP LOGIC FOR REFRIGERATION SYSTEM", and described in US Patent Application Serial No. 61/511,592, filed July 26, 2011, and International Application Docket No. PA-0018581, executed on even date herewith and listing as inventors:

Mingfel Gan: KeonWoo Lee; Hans-Joachim Huff; Aryn Shapiro; Lucy Yi Liu; Gilbert B. Hofsdal; and Jian Sun, (hereinafter the Application(s)) and for which International Application we authorize insertion post-execution here in parentheses (PCT/US12/48099 filed July 25, 2012)

At the time of the invention of the improvements, said improvements were assigned to or under obligation of assignment to Carrier Corporation (hereinafter Assignee) a Delaware, U.S.A. corporation, having a place of business at One Carrier Place, Farmington, Connecticut, United States of America 06034.

the international filing date and International Application number when known.

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged by the undersigned, the undersigned have sold, assigned, transferred and set over and by these presents do hereby sell, assign, transfer and set over unto Assignee, its successors and assigns, our entire right, title and interest in and to:

said invention or inventions as described in the Application(s), in all forms and embodiments thereof and in all countries and other jurisdictions;

the Application(s) and all applications filed in all countries and jurisdictions based thereon or otherwise for said invention or inventions, including direct or indirect nonprovisional of, divisional, continuation, continuation-in-part, or substitute applications, and including the right to file all said applications under the provisions of the Paris Convention for the Protection of Industrial Property, Patent Cooperation Treaty or other international convention or agreement;

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all patents and reissues, reexaminations, or extensions thereof to be obtained in all countries and jurisdictions upon said invention or inventions or from all said applications; and

to all such rights relating to prior inflingements, retroactive or past royalties, provisional rights, and other retroactive or past rollef or compensation.

The undersigned hereby authorize and request the issuing authorities in all countries and jurisdictions to issue all patents on all said applications to Assignee or its successors and assigns.

The undersigned further agree, without any further payment or compensation by Assignee or its successors and assigns, to communicate to Assignee, its successors and assigns and to their representatives and agents, all facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings whenever requested; testify in all interference or other legal proceedings, whenever requested; execute and deliver, on request, all lawful papers required to make all of the foregoing provisions effective; and generally do everything possible to aid Assignee, its successors or assigns and nominees to obtain and enforce proper patent protection for said invention or inventions in all countries and jurisdictions.

IN TESTIMONY WHEREOF, the undersigned have-hereunto set their hand and seal on the date after their signature.

(L.S.) Cram/Asf	8/21/2012 Date
Mingfel Gan (L.S.)	Date 2/21/2012
(L.S.)	B/21/2012
(L.S.)	8/21/2012 Date
(L.S.) Gilbert B. Hofsdal	7/21//Z- Date
(L.S.)	Date

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## ASSIGNMENT

We, Mingfel Gan of 4590 Red Fox Drive, Manlius in the State of New York 13104-2433; KeonWoo Lee of 4754 Prestwick Drive, Manlius in the State of New York 13104; Aryn Shapiro of 317 S. Clinton Street, Syraouse in the State of New York 13202; Lucy Yi Liu of 5003 Saddlebrook Drive, Fayetteville in the State of New York 13066; Gilbert B. Hofsdal of 2381 Old Route 5, Chittenango in the State of New York 13037; and Lian Sun of 1306-11/14 . Fayetteville in the State of New York 13037; and Lian Sun of 1306-11/14 . Fayetteville in the State of New York 13027; have invented certain improvements in a "STARTUP LOGIC FOR REFRIGERATION SYSTEM", and described in US Patent Application Serial No. 61/511,592, filed July 26, 2011, and International Application Docket No. PA-0018581, executed on even date herewith and listing as inventors: Mingfel Gan: KeonWoo Lee; Hans-Joachim Huff; Aryn Shapiro; Lucy Yi Liu; Gilbert B. Hofsdal; and Jian Sun, (hereinafter the Application(s)) and for which International Application we authorize insertion post-execution here in parentheses (PCT/US12/48099 filed July 25, 2012)

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the international filing date and International Application number when known.

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged by the undersigned, the undersigned have sold, assigned, transferred and set over and by these presents do hereby sell, assign, transfer and set over unto Assignee, its successors and assigns, our entire right, title and interest in and to:

said invention or inventions as described in the Application(s), in all forms and embodiments thereof and in all countries and other jurisdictions;

the Application(s) and all applications filed in all countries and jurisdictions based thereon or otherwise for said invention or inventions, including direct or indirect nonprovisional of, divisional, continuation, continuation-in-part, or substitute applications, and including the right to file all said applications under the provisions of the Paris Convention for the Protection of Industrial Property, Patent Cooperation Treaty or other international convention or agreement;

1 of 2

all patents and reissues, reexaminations, or extensions thereof to be obtained in all countries and jurisdictions upon said invention or inventions or from all said applications; and

to all such rights relating to prior infringements, retroactive or past royalties, provisional rights, and other retroactive or past relief or compensation.

The undersigned hereby authorize and request the issuing authorities in all countries and jurisdictions to issue all patents on all said applications to Assignee or its successors and assigns.

The undersigned further agree, without any further payment or compensation by Assignee or its successors and assigns, to communicate to Assignee, its successors and assigns and to their representatives and agents, all facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings whenever requested; testify in all interference or other legal proceedings, whenever requested; execute and deliver, on request, all lawful papers required to make all of the foregoing provisions effective; and generally do everything possible to aid Assignee, its successors or assigns and nominees to obtain and enforce proper patent protection for said invention or inventions in all countries and jurisdictions.

IN TESTIMONY WHEREOF, the undersigned have-hereunto set their hand and seal on the date after their signature.

(L,S,)			
(L.S.) Mingfei Gan		Date	
(L,S,) KeonWoo Le	16	Date	
(L.S.)	,		
(L.S.) Aryn Shapir	D	Date	
(L.S.) Lucy Yi Liu	•	Date	
(L.S.)			
(L.S.) Gilbert B. H	ofsdal	Date	
(L.S.) JM	7	Ang. 13, 2012	
Jian Sun		Date	

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