

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3432561

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST

**CONVEYING PARTY DATA**

Name	Execution Date
MANUFACTURING RESOURCES INTERNATIONAL, INC.	06/30/2015

**RECEIVING PARTY DATA**

<b>Name:</b>	FIFTH THIRD BANK
<b>Street Address:</b>	3344 PEACHTREE ROAD NE, SUITE 800
<b>Internal Address:</b>	MAIL DROP X46306
<b>City:</b>	ATLANTA
<b>State/Country:</b>	GEORGIA
<b>Postal Code:</b>	30326

**PROPERTY NUMBERS Total: 100**

Property Type	Number
Patent Number:	8208115
Patent Number:	8121163
Patent Number:	8829815
Patent Number:	9030129
Patent Number:	8373541
Patent Number:	8379182
Patent Number:	8015452
Patent Number:	8562770
Patent Number:	D595678
Patent Number:	8508155
Patent Number:	8400570
Patent Number:	8128342
Patent Number:	8654302
Patent Number:	8358397
Patent Number:	8569910
Patent Number:	8350799
Patent Number:	8704752
Patent Number:	8803790
Patent Number:	8310824

PATENT

<b>Property Type</b>	<b>Number</b>
<b>Patent Number:</b>	9072166
<b>Patent Number:</b>	8773633
<b>Patent Number:</b>	8497972
<b>Patent Number:</b>	8760613
<b>Patent Number:</b>	8693185
<b>Patent Number:</b>	8988011
<b>Patent Number:</b>	9026686
<b>Patent Number:</b>	8689343
<b>Patent Number:</b>	8351014
<b>Patent Number:</b>	9030641
<b>Patent Number:</b>	8700226
<b>Patent Number:</b>	8441574
<b>Patent Number:</b>	8823916
<b>Patent Number:</b>	8749749
<b>Patent Number:</b>	8988647
<b>Patent Number:</b>	8418387
<b>Patent Number:</b>	8804091
<b>Patent Number:</b>	8369083
<b>Patent Number:</b>	8649170
<b>Patent Number:</b>	8755021
<b>Patent Number:</b>	9065259
<b>Patent Number:</b>	8988635
<b>Application Number:</b>	12422037
<b>Application Number:</b>	12568896
<b>Application Number:</b>	12234360
<b>Application Number:</b>	14508767
<b>Application Number:</b>	14508621
<b>Application Number:</b>	12235200
<b>Application Number:</b>	14709045
<b>Application Number:</b>	13296981
<b>Application Number:</b>	12505041
<b>Application Number:</b>	14050464
<b>Application Number:</b>	12684608
<b>Application Number:</b>	13747226
<b>Application Number:</b>	12706602
<b>Application Number:</b>	12711578
<b>Application Number:</b>	14453966
<b>Application Number:</b>	14326053

<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	13954469
<b>Application Number:</b>	14247658
<b>Application Number:</b>	12986787
<b>Application Number:</b>	14702443
<b>Application Number:</b>	14253543
<b>Application Number:</b>	14475173
<b>Application Number:</b>	14664213
<b>Application Number:</b>	14457611
<b>Application Number:</b>	13206596
<b>Application Number:</b>	13045272
<b>Application Number:</b>	13361305
<b>Application Number:</b>	14346884
<b>Application Number:</b>	13707762
<b>Application Number:</b>	13649764
<b>Application Number:</b>	13858426
<b>Application Number:</b>	14746271
<b>Application Number:</b>	14055499
<b>Application Number:</b>	14192130
<b>Application Number:</b>	14192435
<b>Application Number:</b>	14198141
<b>Application Number:</b>	14201221
<b>Application Number:</b>	14322962
<b>Application Number:</b>	14326059
<b>Application Number:</b>	14558326
<b>Application Number:</b>	14645076
<b>Application Number:</b>	14230765
<b>Application Number:</b>	14689939
<b>Application Number:</b>	14700519
<b>Application Number:</b>	14740581
<b>Application Number:</b>	14740746
<b>Application Number:</b>	14741118
<b>Application Number:</b>	14740865
<b>Application Number:</b>	14740997
<b>Application Number:</b>	62061950
<b>Application Number:</b>	62061512
<b>Application Number:</b>	62055255
<b>Application Number:</b>	62064304
<b>Application Number:</b>	62140164

Property Type	Number
Application Number:	62162420
Application Number:	62161673
Application Number:	62167115
Application Number:	62171323
Application Number:	62183808

**CORRESPONDENCE DATA**

**Fax Number:**

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

**Phone:** 404-322-6285  
**Email:** kevin.fogle@nelsonmullins.com  
**Correspondent Name:** BRADLEY WAHL  
**Address Line 1:** 201 17TH STREET NW  
**Address Line 2:** SUITE 1700  
**Address Line 4:** ATLANTA, GEORGIA 30363

<b>NAME OF SUBMITTER:</b>	BRADLEY WAHL
<b>SIGNATURE:</b>	/Bradley Wahl/
<b>DATE SIGNED:</b>	07/09/2015
	This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 18**  
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## PATENT SECURITY AGREEMENT

[MANUFACTURING RESOURCES INTERNATIONAL, INC.]

This **PATENT SECURITY AGREEMENT** (this "Agreement") is made as of June 24, 2015 by **MANUFACTURING RESOURCES INTERNATIONAL, INC.**, a Georgia corporation ("Debtor"), and **FIFTH THIRD BANK**, an Ohio banking corporation (the "Bank").

### WITNESSETH:

**WHEREAS**, the Debtor, **AMERICAN PANEL CORPORATION** ("APC"), **SHILOH METALWORKS, LLC** ("Shiloh Metal"), **APC INTELLECTUAL PROPERTY, LLC** ("APC IP"), **MRI INTELLECTUAL PROPERTY, LLC** ("MRI IP"), **APC REAL ESTATE HOLDINGS, LLC** ("APC Real Estate") and **MRI REAL ESTATE HOLDINGS, LLC** ("MRI Real Estate") (collectively, the "**Borrowers**") and the Bank have entered into that certain Loan and Security Agreement, dated as of even date herewith (as amended, modified, supplemented, restated or renewed from time to time, the "**Loan Agreement**");

**WHEREAS**, the Bank has required, as a condition to the extension of the financial accommodations to be extended to the Borrowers under the Loan Agreement, that Debtor pledge and grant to the Bank a Lien on and in its "Patents" (as defined herein) as security for the Obligations;

**NOW, THEREFORE**, for and in consideration of the premises set forth above and for other good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, the Debtor and the Bank, by its acceptance hereof, hereby agrees as follows:

1. **Defined Terms.** Unless otherwise defined herein, each capitalized term used herein that is defined in the Loan Agreement shall have the meaning specified for such term in the Loan Agreement. The Loan Agreement and the terms and provisions thereof are hereby incorporated herein in their entirety by this reference thereto.
2. **Security Interest in Patents.** To secure the complete and timely payment, performance and satisfaction of all of the Obligations, Debtor hereby grants, assigns, transfers and pledges to the Bank a security interest in and lien on as and by way of a first mortgage and security interest having priority over all other security interests, with power of sale, to the extent permitted by law, conditioned upon the occurrence and during the continuation of an Event of Default, all of Debtor's right, title and interest in and to the following, whether, now existing or hereafter acquired: (a) all patents and patent applications used in Debtor's business and listed on **Schedule I** attached hereto and made a part hereof, and all renewals thereof, (b) all income, royalties, damages and payments now and hereafter due and/or payable under and with respect thereto, including, without limitation, payments under all licenses entered into in connection therewith and damages and payments for past or future infringements or dilutions thereof,

(c) the right to sue or otherwise recover for past, present and future infringements and dilutions thereof, (d) all of Debtor's rights corresponding thereto throughout the world, and (e) all other proceeds and products of the foregoing, including (without limitation) any rights pursuant to its agreements with any other party relating thereto (all of the foregoing patents and patent applications, together with the items described in clauses (a)-(e) in this Section 2 are sometimes hereinafter individually and/or collectively referred to as the "Patents"). Prior to any Event of Default, Bank will have no rights or interests in any of the Patents other than the security interest granted herein. Nothing in this Agreement will be construed as an assignment of the Patents to Bank until an occurrence of an Event of Default.

3. **New Patents.** Debtor represents and warrants that, from and after the date of this Agreement, (a) the Patents listed on **Schedule I** are a true, accurate and complete list of all of Debtor's Patents, and (b) no Liens in such Patents have been granted by Debtor to any Person, other than the Bank, and except as permitted in the Loan Agreement. If, prior to payment in full of the Obligations, Debtor shall (i) obtain rights to any new Patents or (ii) become entitled to the benefit of any Patents, the provisions of Section 2 above shall automatically apply thereto, provided that Debtor shall not be under any obligation to take any steps or incur any costs to enforce, create or perfect any lien or security interest in any Patents registered outside the United States of America, including, without limitation, any filing recordation, notice or otherwise in any other county other than the United States of America. Debtor shall give to the Bank written notice of the acquisition of new United States Patents promptly after the occurrence thereof. Debtor may, and hereby authorizes the Bank to, modify this Agreement unilaterally upon Debtor's notice to the Bank (i) by amending **Schedule I** to include any future United States Patents (including patent applications) and (ii) by filing, in addition to and not in substitution for this Agreement, a duplicate original of this Agreement containing on **Schedule I** thereto, as the case may be, such future Patents.

4. **Consent to Use.** Except upon the occurrence and during the continuation of an Event of Default, Debtor may make, have made, use, and sell the inventions disclosed and claimed in the Patents for Debtor's own benefit and account and for none other. Except as otherwise permitted by the Loan Documents, Debtor agrees not to sell or assign its interest in, or grant any sublicense under, the right and license granted to it in this Section without the prior written consent of Bank.

5. **Royalties.** Debtor hereby agrees that the use by the Bank of the Patents as authorized hereunder in connection with the Bank's exercise of its rights and remedies hereunder or pursuant to any Loan Document shall be coextensive with Debtor's rights thereunder and with respect thereto and without any liability for royalties or other related charges from the Bank to Debtor.

6. **Duties of the Debtor.** Debtor shall have the duty, to the extent desirable in the normal conduct of its business, to (a) prosecute diligently any patent application that is part of the Patents pending as of the date hereof or hereafter until the termination of this Agreement, (b) make application on unpatented but patentable items material to the conduct of Debtor's business, as appropriate, giving due consideration to value, importance, cost, and opinion of counsel as to patentability, and (c) preserve, maintain, and enforce against infringement all

Patents (other than nonpayment of renewal fees on Patents which are not necessary or useful in the conduct of Debtor's business or operations). Debtor further agrees (i) not to abandon any registered Patent without the prior written consent of the Bank, unless any registered Patent is not material to the conduct of Debtor's business or if such abandonment is otherwise desirable to Debtor in the ordinary course of business, and (ii) to maintain in full force and effect the registered Patents material to the conduct of its business. Any expenses incurred in connection with the foregoing shall be borne by Debtor. The Bank shall not have any duty, other than any duty imposed by law, with respect to the Patents. Without limiting the generality of the foregoing, the Bank shall be under no obligation to take any steps necessary to preserve rights in the Patents against any other parties, but the Bank may do so at its option from and after the occurrence and during the continuance of an Event of Default, and all reasonable out-of-pocket expenses incurred in connection therewith shall be for the account of Debtor and shall be added to the Obligations secured hereby.

7. **Power of Attorney; Cumulative Remedies.** Debtor hereby irrevocably designates, constitutes and appoints the Bank (and all officers and agents of the Bank designated by the Bank in its sole and absolute discretion) as Debtor's true and lawful attorney-in-fact, and authorizes the Bank and any of the Bank's designees, in Debtor's or the Bank's name, conditioned upon the occurrence and during the continuation of an Event of Default, to take any action and execute any instrument necessary or reasonably advisable to accomplish the purposes of this Agreement, and consistent with existing license agreements, including, without limitation, to (i) endorse Debtor's name on all applications, documents, papers and instruments necessary or reasonably desirable for the Bank in the use of the Patents, (ii) assign, pledge, convey or otherwise transfer title in or dispose of the Patents to anyone, (iii) grant or issue any exclusive or nonexclusive license under the Patents to anyone, and (iv) take any other actions with respect to the Patents as the Bank reasonably deems in its best interest. Debtor hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof (except to the extent of any gross negligence, willful misconduct or fraud). This power of attorney is coupled with an interest and shall be irrevocable until the Obligations (other than the Obligations that expressly survive repayment of the Loans) are paid in full. Debtor acknowledges and agrees that this Agreement is not intended to limit or restrict in any way the rights and remedies of the Bank under the Loan Agreement or any other Loan Document, but rather is intended to facilitate the exercise of such rights and remedies.

The Bank shall have, in addition to all other rights and remedies given it by the terms of this Agreement, all rights and remedies allowed by law and the rights and remedies of a secured party under the Uniform Commercial Code as enacted in any jurisdiction in which the Patents may be located or deemed located. Upon the occurrence and during the continuance of an Event of Default and following the expiration of any applicable notice and/or cure periods and the election by the Bank to exercise any of its remedies under the Uniform Commercial Code or other applicable law with respect to the Patents, Debtor agrees to assign, convey and otherwise transfer title in and to the Patents to the Bank or any transferee of the Bank and to execute and deliver to the Bank or any such transferee all such agreements, documents and instruments as may be necessary, in the Bank's sole discretion, to effect such assignment, conveyance and transfer. All of the Bank's rights and remedies with respect to the Patents,

whether established hereby, by the Loan Agreement or by any other agreements or by law, shall be cumulative and may be exercised separately or concurrently. Notwithstanding anything set forth herein to the contrary, it is hereby expressly agreed that upon the occurrence and during the continuance of an Event of Default and following the expiration of any applicable notice and/or cure periods, the Bank may exercise any of the rights and remedies provided in this Agreement, the Loan Agreement or any of the other Loan Documents. Debtor hereby acknowledges and agrees that this Agreement is not intended to limit or restrict in any way the rights and remedies of Bank under the Loan Agreement, but rather is intended to facilitate the exercise of such rights and remedies. Debtor agrees that any notification of intended disposition of any of the Patents required by law shall be deemed reasonably and properly given if given at least 10 days before such disposition.

8. **Successors and Assigns.** This Agreement shall be binding upon Debtor and its successors and assigns, and shall inure to the benefit of Bank and its successors and assigns.

9. **Governing Law.** This Agreement shall be construed and enforced and the rights and duties of the parties shall be governed by in all respects in accordance with the laws and decisions of the State of Georgia, without reference to the conflicts or choice of law principles thereof.

10. **Notices.** All notices or other communications hereunder shall be given in the manner and to the addresses set forth in the Loan Agreement.

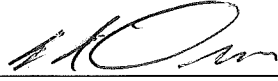
(signature page follows)



IN WITNESS WHEREOF, the parties hereto have duly executed this Patent Security Agreement under seal as of the day and year first above written.

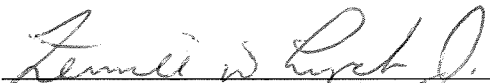
**DEBTOR:**

**MANUFACTURING RESOURCES  
INTERNATIONAL, INC.**

By:  PAIS CEO  
William R. Dunn, President and CEO

Agreed and Accepted as of this June 30, 2015

**FIFTH THIRD BANK**

By:   
Name: Zennie W. Lynch Jr.  
Title: Vice President

**Schedule I**  
**To**  
**Patent Security Agreement**

Dated as of June 30, 2015

**Current U. S. Patents**

<u>Name</u>	<u>Record Owner</u>	<u>Registration No.</u>
FLUID COOLED DISPLAY	Manufacturing Resources International, Inc.	8,208,115
SPEAKER CONFIGURATION	Manufacturing Resources International, Inc.	8,223,999
ISOLATED GAS COOLING SYSTEM FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,767,165
ISOLATED COOLING SYSTEM HAVING AN INSULATOR GAP AND FRONT POLARIZER	Manufacturing Resources International, Inc.	8,879,042
SYSTEM FOR USING CONSTRICTED CONVECTION WITH CLOSED LOOP PLENUM AS THE CONVECTION PLATE	Manufacturing Resources International, Inc.	8,274,622
SYSTEM FOR USING CONSTRICTED CONVECTION WITH CLOSED LOOP COOLING SYSTEM AS THE CONVECTION PLATE	Manufacturing Resources International, Inc.	8,482,695
SYSTEM FOR USING CONSTRICTED CONVECTION WITH CLOSED LOOP COOLING SYSTEM AS THE CONVECTION PLATE	Manufacturing Resources International, Inc.	8,854,572
CONSTRICTED CONVECTION COOLING SYSTEM FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,854,595
COMBINED SERIAL/PARALLEL LIGHT CONFIGURATION AND SINGLE LAYER PCB CONTAINING SAME	Manufacturing Resources International, Inc.	8,351,013
COMBINED SERIAL/PARALLEL LIGHT CONFIGURATION AND SINGLE LAYER PCB CONTAINING THE SAME	Manufacturing Resources International, Inc.	8,648,993
Liquid crystal display assembly comprising an LED backlight assembly and a movable element placed behind the LED backlight assembly having a hinge to allow access to a rear portion of the LED backlight assembly	Manufacturing Resources International, Inc.	8,537,302
DURABLE DISPLAY PANEL WITH IMPACT RESISTANCE	Manufacturing Resources International, Inc.	8,189,134

SYSTEM FOR THERMALLY CONTROLLING DISPLAYS	Manufacturing Resources International, Inc.	8,711,321
BACKLIGHT ADJUSTMENT SYSTEM	Manufacturing Resources International, Inc.	8,125,163
BACKLIGHT ADJUSTMENT SYSTEM	Manufacturing Resources International, Inc.	8,829,815
BACKLIGHT ADJUSTMENT SYSTEM	Manufacturing Resources International, Inc.	9,030,129
SHARED ISOLATED GAS COOLING SYSTEM FOR OPPOSITELY FACING ELECTRONIC DISPLAYS	Manufacturing Resources International, Inc.	8,373,841
COOLING SYSTEM FOR OUTDOOR ELECTRONIC DISPLAYS	Manufacturing Resources International, Inc.	8,379,182
ADVERTISING DISPLAYS	Manufacturing Resources International, Inc.	8,016,452
FRAME SEAL METHODS FOR LCD	Manufacturing Resources International, Inc.	8,562,770
GAS STATION TELEVISION	Manufacturing Resources International, Inc.	D595,678
SYSTEM AND METHOD FOR CALIBRATING BACKLIGHT DEVICES	Manufacturing Resources International, Inc.	8,508,155
SYSTEM AND METHOD FOR DISPLAYING MULTIPLE IMAGES/VIDEOS ON A SINGLE DISPLAY	Manufacturing Resources International, Inc.	8,400,570
MULTIDIRECTIONAL MULTISOUND INFORMATION SYSTEM	Manufacturing Resources International, Inc.	8,128,342
HEAT EXCHANGER FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,654,302
SYSTEM FOR COOLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,358,397
SYSTEM AND METHOD FOR CONTROLLING THE OPERATION PARAMETERS OF A DISPLAY IN RESPONSE TO CURRENT DRAW	Manufacturing Resources International, Inc.	8,569,910
DYNAMIC DIMMING LED BACKLIGHT	Manufacturing Resources International, Inc.	8,350,799
DYNAMIC DIMMING LED BACKLIGHT	Manufacturing Resources International, Inc.	8,704,752
DYNAMIC DIMMING LED BACKLIGHT	Manufacturing Resources International, Inc.	8,803,790
FIELD SERVICEABLE ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,310,824
FIELD SERVICEABLE ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	9,072,166
EXPANDED HEAT SINK FOR ELECTRONIC DISPLAYS	Manufacturing Resources International, Inc.	8,773,633

THERMAL PLATE WITH OPTIONAL COOLING LOOP IN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,497,972
MODULAR DISTRIBUTED COMPONENTS FOR LED BACKLIGHT	Manufacturing Resources International, Inc.	8,760,613
SYSTEM AND METHOD FOR MAINTAINING A CONSISTENT TEMPERATURE GRADIENT ACROSS AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,693,185
SYSTEM AND METHOD FOR MANAGING BACKLIGHT LUMINANCE VARIATIONS	Manufacturing Resources International, Inc.	8,988,011
SYSTEM AND METHOD FOR REMOTELY IDENTIFYING DISPLAY COMPONENTS	Manufacturing Resources International, Inc.	9,026,686
SYSTEM AND METHOD FOR SECURELY TRANSMITTING VIDEO DATA	Manufacturing Resources International, Inc.	8,689,343
HEAT EXCHANGER FOR BACK TO BACK ELECTRONIC DISPLAYS	Manufacturing Resources International, Inc.	8,351,014
HEAT EXCHANGER FOR BACK TO BACK ELECTRONIC DISPLAYS	Manufacturing Resources International, Inc.	9,030,641
A METHOD FOR DRIVING A COOLING FAN WITHIN AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,700,226
VISUAL IDENTIFIER FOR IMAGES ON AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,441,574
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY WITH A HEAT EXCHANGER HAVING INTERNAL FANS	Manufacturing Resources International, Inc.	8,823,916
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY WITH MANIFOLDS AND AMBIENT GAS	Manufacturing Resources International, Inc.	8,749,749
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY WITH MANIFOLDS AND AMBIENT GAS	Manufacturing Resources International, Inc.	8,988,647
ISOLATED ACCESS ASSEMBLY FOR BACK-TO-BACK ELECTRONIC DISPLAY AND STATIC DISPLAY	Manufacturing Resources International, Inc.	8,418,387
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY WITH REDUCED NOISE EMISSIONS	Manufacturing Resources International, Inc.	8,804,091
SYSTEM AND METHOD FOR SELECTIVELY ENGAGING COOLING FANS WITHIN AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,369,083
SYSTEM AND METHOD FOR SELECTIVELY ENGAGING COOLING FANS WITHIN AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	8,649,170
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY WITH MANIFOLDS AND AMBIENT GAS	Manufacturing Resources International, Inc.	8,755,021

WIRE PASS THROUGH DEVICE	Manufacturing Resources International, Inc.	9,065,259
LIGHTING SYSTEM FOR TRANSPARENT LIQUID CRYSTAL DISPLAY	Manufacturing Resources International, Inc.	8,988,635

### Current Foreign Patents

<u>Name</u>	<u>Record Owner</u>	<u>Registration No.</u>
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	China 200880124923.0
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Europe 2225603
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Finland 2225603
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	France 2225603
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Germany 602008033034.6
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Great Britain 2225603
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Italy 2225603
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Japan 5351898
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Norway 2225603
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International	Russian Federation 2493575
THERMAL CONTROL SYSTEM FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International	Russian Federation 2513043
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International	Spain 2493592 T3
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International	Sweden 2225603
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International	Switzerland 2225603
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International	Taiwan I437950

### Current U.S. Patent Applications

<u>Name</u>	<u>Record Owner</u>	<u>Application No.</u>
VIDEO BUFFER FOR USE IN ADVERTISEMENT DISPLAYS	Manufacturing Resources International, Inc.	12/422,037
SYSTEM FOR SUPPLYING VARYING CONTENT TO MULTIPLE DISPLAYS USING A SINGLE PLAYER	Manufacturing Resources International, Inc.	12/568,896
ISOLATED GAS COOLING SYSTEM FOR COOLING ELECTRICAL COMPONENTS OF AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	12/234,360
SYSTEM FOR USING CONSTRICTED CONVECTION WITH CLOSED LOOP COOLING SYSTEM AS THE CONVECTION PLATE	Manufacturing Resources International, Inc.	14/508,767
CONSTRICTED CONVECTION COOLING SYSTEM FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	14/508,621
ISOLATED GAS HEATING SYSTEM FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	12/235,200
BACKLIGHT ADJUSTMENT SYSTEM	Manufacturing Resources International, Inc.	14/709,045
GLASS ASSEMBLY	Manufacturing Resources International, Inc.	13/296,981
PHOTOINITIATED OPTICAL ADHESIVE AND METHOD FOR USING SAME	Manufacturing Resources International, Inc.	12/505,041
HEAT EXCHANGER FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	14/050,464
ELECTRONIC DISPLAY WITH MOUNT-ACCESSIBLE COMPONENTS	Manufacturing Resources International, Inc.	12/684,608
SYSTEM FOR COOLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	13/747,226
DISPLAY CHARACTERISTIC FEEDBACK LOOP	Manufacturing Resources International, Inc.	12/706,602
SYSTEM FOR DISTRIBUTING A PLURALITY OF UNIQUE VIDEO/AUDIO STREAMS	Manufacturing Resources International, Inc.	12/711,578
DYNAMIC DIMMING LED BACKLIGHT	Manufacturing Resources International, Inc.	14/453,966
EXPANDED HEAT SINK FOR ELECTRONIC DISPLAYS	Manufacturing Resources International, Inc.	14/326,053
THERMAL PLATE WITH OPTIONAL COOLING LOOP IN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	13/954,469
SYSTEM AND METHOD FOR MAINTAINING	Manufacturing Resources	14/247,658

A CONSISTENT TEMPERATURE GRADIENT ACROSS AN ELECTRONIC DISPLAY	International, Inc.	
SYSTEM AND METHOD FOR REMOTELY MONITORING THE OPERATING LIFE OF ELECTRONIC DISPLAYS	Manufacturing Resources International, Inc.	12/986,787
HEAT EXCHANGER FOR BACK TO BACK ELECTRONIC DISPLAYS	Manufacturing Resources International, Inc.	14/702,443
SYSTEM FOR REDUCING THE THERMAL INERTIA OF AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	14/253,543
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY WITH A HEAT EXCHANGER HAVING INTERNAL FANS	Manufacturing Resources International, Inc.	14/475,173
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY WITH CIRCULATING GAS AND AMBIENT GAS	Manufacturing Resources International, Inc.	14/664,213
SYSTEM FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY WITH REDUCED NOISE EMISSIONS	Manufacturing Resources International, Inc.	14/457,611
EXPANDED HEAT SINK FOR ELECTRONIC DISPLAYS AND METHOD OF PRODUCING THE SAME	Manufacturing Resources International, Inc.	13/206,596
MODULAR SYSTEM FOR CONTROLLING A LIQUID CRYSTAL DISPLAY	Manufacturing Resources International, Inc.	13/045,272
SYSTEM AND METHOD FOR DYNAMIC LOAD SHARING BETWEEN ELECTRONIC DISPLAYS	Manufacturing Resources International, Inc.	13/361,305
SYSTEM AND METHOD FOR ENVIRONMENTAL ADAPTATION OF DISPLAY CHARACTERISTICS	Manufacturing Resources International, Inc.	14/346,884
OPTICALLY ISOLATED CAVITY FOR LIGHT SENSOR FEEDBACK IN LCD	Manufacturing Resources International, Inc.	13/707,762
TRANSPARENT LIQUID CRYSTAL DISPLAY ON DISPLAY CASE	Manufacturing Resources International, Inc.	13/649,764
APPARATUS AND METHOD FOR ASSEMBLING LARGE ELECTRONIC DISPLAYS	Manufacturing Resources International, Inc.	13/858,426
WIRE PASS THROUGH DEVICE	Manufacturing Resources International, Inc.	14/746,271
BACK PAN COOLING ASSEMBLY FOR ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	14/055,499
RIGID LCD ASSEMBLY	Manufacturing Resources International, Inc.	14/192,130
GLASS ASSEMBLY ON MONITOR ARRAY	Manufacturing Resources International, Inc.	14/192,435
HEAT EXCHANGER ASSEMBLY FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	14/198,141



COOLING ASSEMBLY FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	14/201,221
AIRGUIDE BACKLIGHT ASSEMBLY	Manufacturing Resources International, Inc.	14/322,962
FIGURE EIGHT CLOSED LOOP COOLING SYSTEM FOR ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	14/326,059
EXPANDABLE LIGHT GUIDE FOR BACKLIGHT	Manufacturing Resources International, Inc.	14/558,326
HYBRID REAR COVER AND MOUNTING BRACKET FOR ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	14/645,076
LIGHTING SYSTEM FOR TRANSPARENT LIQUID CRYSTAL DISPLAY	Manufacturing Resources International, Inc.	14/230,765
ROD AS A LENS ELEMENT FOR LIGHT EMITTING DIODES	Manufacturing Resources International, Inc.	14/689,939
BACK TO BACK ELECTRONIC DISPLAY ASSEMBLY	Manufacturing Resources International, Inc.	14/700,519
SEALED TRANSPARENT LIQUID CRYSTAL DISPLAY ASSEMBLY	Manufacturing Resources International, Inc.	14/740,581
LED ASSEMBLY FOR TRANSPARENT LIQUID CRYSTAL DISPLAY	Manufacturing Resources International, Inc.	14/740,746
WIRELESS VIDEO TRANSMISSION SYSTEM FOR LIQUID CRYSTAL DISPLAY	Manufacturing Resources International, Inc.	14/741,118
COOLING SYSTEM FOR LIQUID CRYSTAL DISPLAY	Manufacturing Resources International, Inc.	14/740,865
SYSTEM FOR TRACKING AND ANALYZING DISPLAY CASE USAGE	Manufacturing Resources International, Inc.	14/740,997
ADVANCED COOLING SYSTEM FOR ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	14/590,542
SUSPENDED ELECTRONIC DISPLAY AND COOLING ASSEMBLY	Manufacturing Resources International, Inc.	14/553,086
SYSTEM FOR DECREASING ENERGY USAGE OF A TRANSPARENT LCD DISPLAY CASE	Manufacturing Resources International, Inc.	62/061,950
PERIMETER VENTILATION SYSTEM FOR ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	14/624,268
LED ASSEMBLY FOR TRANSPARENT LIQUID CRYSTAL DISPLAY AND STATIC GRAPHIC	Manufacturing Resources International, Inc.	62/061,512
Optical Assembly for Transparent LCD Display Case (aka Beverage Cooler Display with Additional Linear Polarizer)	Manufacturing Resources International, Inc.	62/055,255
SYSTEM AND METHOD FOR PREVENTING DAMAGE TO PRODUCTS	Manufacturing Resources International, Inc.	62/064,304
MONOLITHIC DISPLAY WITH SEPARATELY CONTROLLABLE SECTIONS	Manufacturing Resources International, Inc.	62/140,164
SMART ELECTRONIC DISPLAY FOR RESTAURANTS	Manufacturing Resources International, Inc.	62/162,420
DISPLAY BRIGHTNESS CONTROL BASED ON	Manufacturing Resources	62/161,673

LOCATION DATA	International, Inc.	
SYSTEM AND METHOD FOR TRANSFERRING CONTENT BETWEEN DISPLAYS	Manufacturing Resources International, Inc.	62/167,115
SYSTEM AND METHOD FOR BLENDING ORDER CONFIRMATION OVER MENU BOARD BACKGROUND	Manufacturing Resources International, Inc.	62/171,323
SYSTEM AND METHOD FOR BLENDING ORDER CONFIRMATION OVER MENU BOARD BACKGROUND	Manufacturing Resources International, Inc.	62/183,808

### Current Foreign Patent Applications

<u>Name</u>	<u>Record Owner</u>	<u>Application No.</u>
SYSTEM AND METHOD FOR CONTROLLING THE OPERATION PARAMETERS OF A DISPLAY IN RESPONSE TO CURRENT DRAW	Manufacturing Resources International, Inc.	Australia 2010218083
FIELD SERVICEABLE ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Australia 2010319888
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY	Manufacturing Resources International, Inc.	Australia 2011248190
DISPLAY CASE WITH TRANSPARENT LIQUID CRYSTAL DISPLAY AND LIGHTING SYSTEM FOR SAME	Manufacturing Resources International, Inc.	Australia 2012322040
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Brazil P10820231-1
FIELD SERVICEABLE ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Brazil 1120120121669
DISPLAY CASE WITH TRANSPARENT LIQUID CRYSTAL DISPLAY AND LIGHTING SYSTEM FOR SAME	Manufacturing Resources International, Inc.	Brazil BR1120140089990
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Canada 2,705,814
ELECTRONIC DISPLAY WITH MOUNT-ACCESSIBLE COMPONENTS	Manufacturing Resources International, Inc.	Canada 2,749,532
SYSTEM AND METHOD FOR CONTROLLING THE OPERATION PARAMETERS OF A DISPLAY IN RESPONSE TO CURRENT DRAW	Manufacturing Resources International, Inc.	Canada 2,754,371
FIELD SERVICEABLE ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Canada 2,780,884
APPARATUS AND METHOD FOR REDUCING THE THERMAL INERTIA OF AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Canada 2,800,601

SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY	Manufacturing Resources International, Inc.	Canada 2,798,277
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY WITH REDUCED NOISE EMISSIONS	Manufacturing Resources International, Inc.	Canada 2,809,019
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY	Manufacturing Resources International, Inc.	Canada 2,808,159
SYSTEM AND METHOD FOR ENVIRONMENTAL ADAPTATION OF DISPLAY CHARACTERISTICS	Manufacturing Resources International, Inc.	Canada 2,849,902
DISPLAY CASE WITH TRANSPARENT LIQUID CRYSTAL DISPLAY AND LIGHTING SYSTEM FOR SAME	Manufacturing Resources International, Inc.	Canada 2,852,061
BACK PAN COOLING ASSEMBLY FOR ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Canada 2,888,494
DISPLAY CASE WITH TRANSPARENT LIQUID CRYSTAL DISPLAY AND LIGHTING SYSTEM FOR SAME	Manufacturing Resources International, Inc.	China P.R. 201280061436.0
SYSTEM AND METHOD FOR CONTROLLING THE OPERATION PARAMETERS OF A DISPLAY IN RESPONSE TO CURRENT DRAW	Manufacturing Resources International, Inc.	European Patent Convention 10746758.1
FIELD SERVICEABLE ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	European Patent Convention 10830484.1
APPARATUS AND METHOD FOR REDUCING THE THERMAL INERTIA OF AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	European Patent Convention 11787341.4
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY	Manufacturing Resources International, Inc.	European Patent Convention 11778238.3-1228
SYSTEM AND METHOD FOR ENVIRONMENTAL ADAPTATION OF DISPLAY CHARACTERISTICS	Manufacturing Resources International, Inc.	European Patent Convention 12833421.6
DISPLAY CASE WITH TRANSPARENT LIQUID CRYSTAL DISPLAY AND LIGHTING SYSTEM FOR SAME	Manufacturing Resources International, Inc.	European Patent Convention 12840353.2
BACK PAN COOLING ASSEMBLY FOR ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	European Patent Convention 13/361,305

DISPLAY CASE WITH TRANSPARENT LIQUID CRYSTAL DISPLAY AND LIGHTING SYSTEM FOR SAME	Manufacturing Resources International, Inc.	India 3837/DELNP/2014
SYSTEM AND METHOD FOR CONTROLLING THE OPERATION PARAMETERS OF A DISPLAY IN RESPONSE TO CURRENT DRAW	Manufacturing Resources International, Inc.	Israel 214816
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY	Manufacturing Resources International, Inc.	Japan 2013-509207
DISPLAY CASE WITH TRANSPARENT LIQUID CRYSTAL DISPLAY AND LIGHTING SYSTEM FOR SAME	Manufacturing Resources International, Inc.	Japan 2014-535945
RIGID LCD ASSEMBLY	Manufacturing Resources International, Inc.	PCT/US14/18984
GLASS ASSEMBLY ON MONITOR ARRAY	Manufacturing Resources International, Inc.	PCT/US14/19068
HEAT EXCHANGER ASSEMBLY FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	PCT/US14/20850
COOLING ASSEMBLY FOR AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	PCT/US14/21945
AIRGUIDE BACKLIGHT ASSEMBLY	Manufacturing Resources International, Inc.	PCT/US14/45405
FIGURE EIGHT CLOSED LOOP COOLING SYSTEM FOR ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	PCT/US14/45766
HYBRID REAR COVER AND MOUNTING BRACKET FOR ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	PCT/US15/19975
BACK TO BACK ELECTRONIC DISPLAY ASSEMBLY	Manufacturing Resources International, Inc.	PCT/US15/28461
TRANSPARENT LCD ASSEMBLY WITH DISPLAY CASE	Manufacturing Resources International, Inc.	PCT/US15/36056
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Republic of Korea 10-2010-7013306

SYSTEM AND METHOD FOR CONTROLLING THE OPERATION PARAMETERS OF A DISPLAY IN RESPONSE TO CURRENT DRAW	Manufacturing Resources International, Inc.	Republic of Korea 10-2011-7022221
DYNAMIC DIMMING LED BACKLIGHT	Manufacturing Resources International, Inc.	Republic of Korea 10-2011-7030760
SYSTEM FOR COOLING AN ELECTRONIC IMAGE ASSEMBLY	Manufacturing Resources International, Inc.	Republic of Korea 10-2012-7031800
SYSTEM AND METHOD FOR THERMALLY CONTROLLING AN ELECTRONIC DISPLAY WITH REDUCED NOISE EMISSIONS	Manufacturing Resources International, Inc.	Republic of Korea 10-2013-7006361
SYSTEM AND METHOD FOR ENVIRONMENTAL ADAPTATION OF DISPLAY CHARACTERISTICS	Manufacturing Resources International, Inc.	Republic of Korea 10-2014-7010961
DISPLAY CASE WITH TRANSPARENT LIQUID CRYSTAL DISPLAY AND LIGHTING SYSTEM FOR SAME	Manufacturing Resources International, Inc.	Republic of Korea 10-2014-7012857
BACK PAN COOLING ASSEMBLY FOR ELECTRONIC DISPLAY	Manufacturing Resources International, Inc.	Republic of Korea 10-2015-7012613