OWNER'S NOTIFICATION LETTER

December 17, 2009

First Transit
Joe Kraus
3204 Como Avenue S.E.
Minneapolis, MN 55413

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

IMPORTANT MESSAGE -- PLEASE READ IMMEDIATELY

Dear Bus Owner:

Re: NHTSA Safety Recall, Program- Luminator LED Destination Sign
Campaign number 09E - 054
Van Hool Campaign number 09V - 397
Van Hool Buses models A300L - AG300

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Luminator Holding, LP has decided that a defect which relates to motor vehicle safety exists in items of motor vehicle equipment, i.e. the Luminator LED Side Destination Sign. Please see enclosed Luminator's Owner's Notification Letter and Safety Recall Bulletin 09E - 054.

Our records indicate that you are the owner/operator of Van Hool buses in the VIN ranges of:

64649 - 64660	Model A300L	Model Year 2009
62842 - 62845	Model AG300	Model Year 2009

Luminator has hired service personnel to assist the transit authorities that need help in making the necessary modifications

Please verify that any "unit" numbers listed above are still in your fleet and contact Luminator for materials and any technical resistance you require. The contact information is provided below:

Material requests
Allison Brett
abrett@luminatorusa.com
972-516-3074

Technical Issues
Tom Zagaruyka
tzagaruyka@luminatorusa
972-516-3021

Please verify that any "unit numbers" listed above are still in your fleet and approach your nearest ABC Customer Care & Parts Source dealership or call (877) 427-7278 to schedule an appointment.

For additional information, questions, or if you do not operate any of the above identified buses, please contact ABC Companies, our designated agent in the United States:

ABC Companies
17469 West Colonial Drive
Winter Garden, FL 34787
toll free #: (800) 222-2871
tel #: (407) 656-7977
fax #: (407) 905-7020)

If the affected vehicle(s) is (are) not repaired free of charge to you and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue S.E.,Washington, D.C. 20590. You may also telephone the toll free Auto Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153) or go to http://www.safercar.gov.

Federal regulations require that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten working days of receipt of this notice.

If you had this recall performed before you received this letter, you may be eligible to receive reimbursement from Luminator for the cost of obtaining a pre-notification remedy of the problem associated with this recall.

Van Hool NV and ABC Companies apologize for any inconvenience this may cause, however this action is taken in the interest of your safety and continued satisfaction with our vehicles.

Yours sincerely,

Van Hool N.V.

Enclosures: Luminator Owner's Notification Letter and Safety Recall Bulletin 09E - 054

Luminator
On Board Since 1934
Communications, Audio, and Lighting Systems for the Transportation Industry

Important Safety Recall

September 16, 2009

To our valued customers:

The required information to assist us in documenting this recall follows:

This letter is to inform you of a safety recall that has been issued by Luminator. The attached service bulletin and FMI will fully explain the issue, and the steps that are required to resolve it. We are working diligently to ensure this is taken care of quickly and do not anticipate any major problems as we work to correct it.

We have filed a recall notice with the National Highway Traffic Safety Administration (NHTSA). Luminator will send out the attached service bulletin, along with a copy of the Field Modification Instructions to the Transit Authorities affected by this recall. We would appreciate your assistance in verifying the customers that have vehicles with the configurations noted below.

Multiple side signs (curbside side sign and roadside side sign or side route sign)
Single side sign, no rear sign

Please provide with a list of all of the customers that you notify of this recall. In the notification to your customers, please make sure that you advise them to contact Luminator for materials and any technical assistance they require. The contact information is provided below:

Material Requests	**Technical Issues**
Allison Brett	Tom Zagaruyka
abrett@luminatorusa.com	tzagarukya@luminatorusa.com
972-516-3074	972-516-3021

If you prefer to provide us with the list, we will make all necessary notifications on your behalf. If you prefer to speak with your customers, the spreadsheet below can be filled out with the TA's information and then passed on to us.

Luminator has hired service personnel to assist the transit authorities that need help in making the necessary modifications. We will be thoroughly documenting all steps and will provide you with reports as required.

We appreciate your understanding and will be happy to answer any questions or concerns you may have.

Sincerely,

Eric Marquet
Director of Quality Assurance

900 Klein Road, Plano TX 75074
Ph. 972-424-6511 FAX 972-423-1540
Email: lmtsales@luminatorusa.com
www.luminatorusa.com

09E-054
(12 pages)

Form Approved: O.M.B. No. 2127-0004

Safety Defect and Noncompliance Report Guide for Equipment
PART 573 Defect and Noncompliance Report[1]

On August, 31, 2009 Luminator Holding, LP decided that a defect which relates to motor vehicle safety exits in items of motor vehicle equipment listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

Date this report was prepared: September 11, 2009

Furnish the manufacturer's identification code for this recall (if applicable): CAGE Code 17744

1. Identify the full corporate name of the fabricating manufacturer/brand name/trademark owner of the recalled item of equipment. If the recalled item of equipment is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

Luminator Holding, LP, 900 Klein Road, Plano, TX 75074

Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.

David Major, Controller

Telephone Number: 972-516-3033 Fax No.: 972-423-1540.

Name and Title of Person who prepared this report.

Eric Marquet

Director of Quality Assurance

Signed: _____

I. Identify the Recalled Items of Equipment

2. Identify the items of Equipment involved in this Recall, *for each make and model or applicable item of equipment product line (provide illustrations or photographs as necessary to describe the item of equipment), provide*:

Generic name of the item:

Make: Luminator Model: Horizon LED Side Destination Sign, PWA Connector,

Part Number: 506746(-001), (-002), (-004), Size: NA

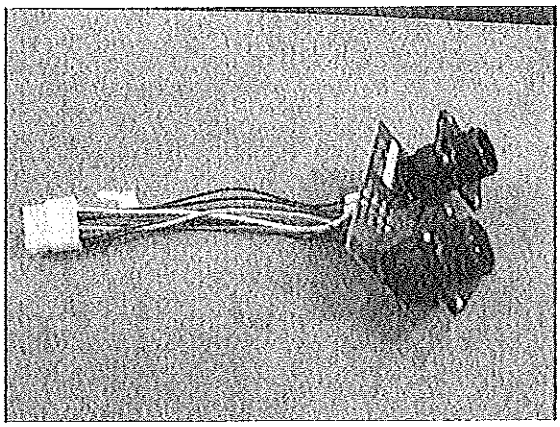
Function: The connector board allows the sign system interconnecting cables to attach to the sign and provide power, ground and communications from the bus to the side destination sign.

Model Years Involved: 2001-2009

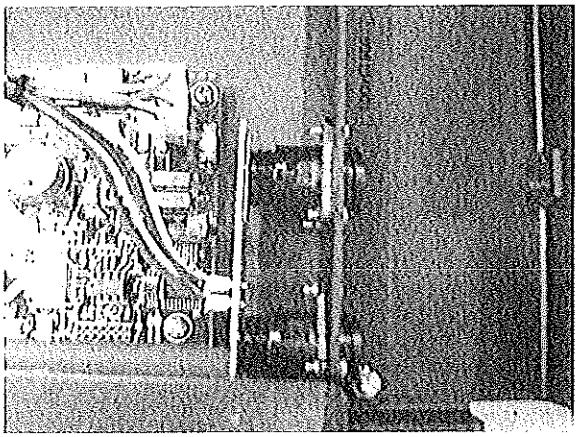
Other information which characterizes/distinguishes the items of equipment to be recalled:

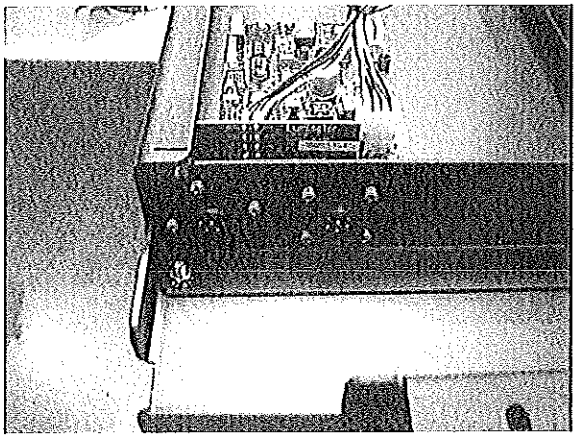
_____

Side Destination Sign Connector Board



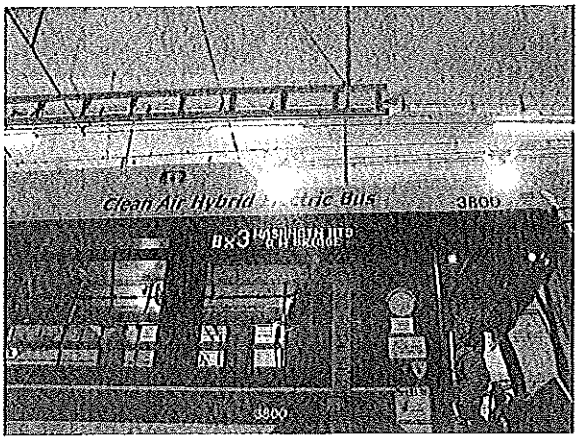
Connector Board Installed in a typical Side Destination Sign Housing



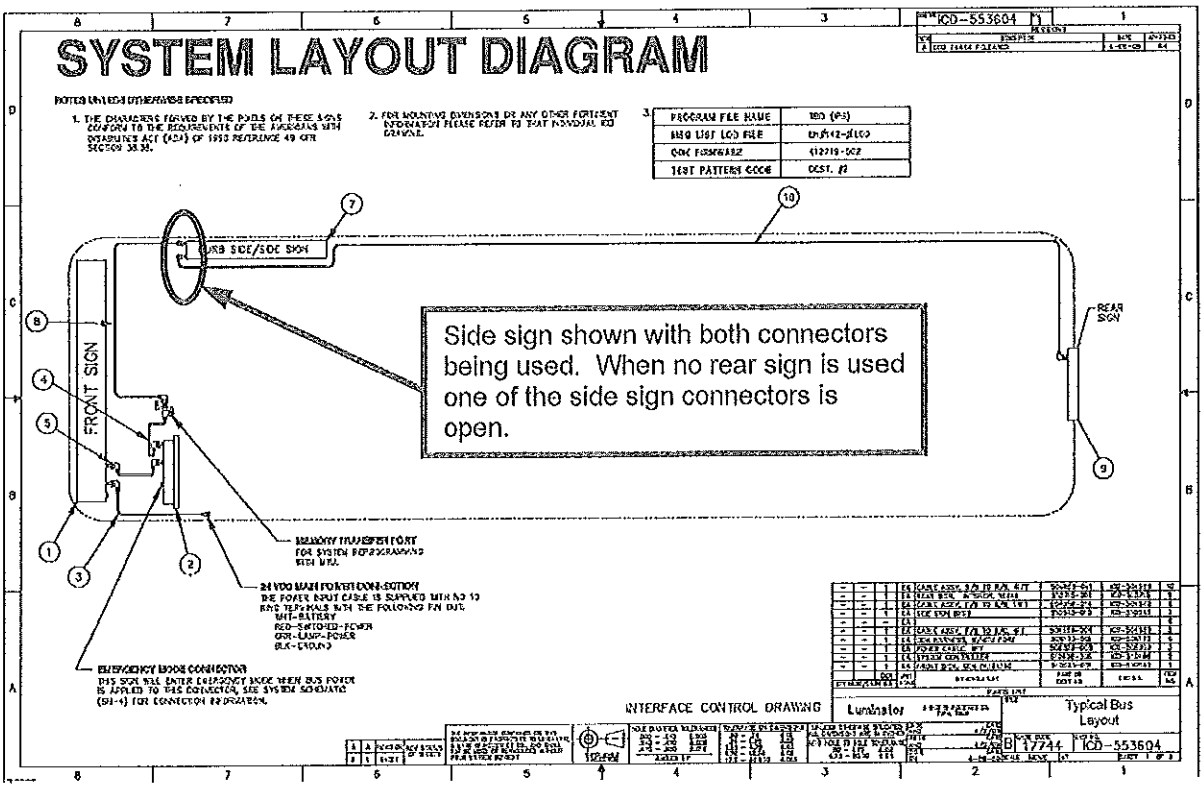


Side Destination Sign with cable connected to board

Side Destination Sign installed in Transit Bus



Typical Destination Sign Layout on Transit Buses



The following Side Destination Signs manufactured by Luminator contain the 506746 Connector board:

Make: Luminator Model: Horizon LED Side Destination Sign
Part Number: 510544-All Size: NA
Function: Display destination and route information to the exterior of the bus
Model Years Involved: 2001-2009

Make: Luminator Model: Horizon LED Side Rout Sign
Part Number: 510565-All Size: NA
Function: Display destination and route information to the exterior of the bus
Model Years Involved: 2001-2009

Make: Luminator Model: Horizon LED Side Rout Sign
Part Number: 510545-All Size: NA
Function: Display destination and route information to the exterior of the bus
Model Years Involved: 2001-2009

Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents.

100%

II. Identifying the Recall Population

3. Furnish the total number of items of equipment recalled potentially containing the defect or noncompliance.

		Number of Items
Model: PWA Connector Board	**Year: 2001-2009**	**Potentially Involved: 18,620**

The destination signs listed above are installed on transit and paratransit buses sold in the US and Canada. These signs are sold by Luminator to Bus manufacturers and also to transit authorities directly. The signs shipped to the Bus manufacturers are installed prior to delivery to the transit authorities, the signs delivered directly to the transit authority are installed by the authority, Luminator or a third party installer.

This board is used on all side destination signs manufactured by Luminator as listed above. Only the signs with an open connector on the side sign connector board are affected. It is estimated that of the 18,620 signs that have been built and shipped by Luminator, about 50% meet the configurations described above.

Total Number Potentially Affected by the Recall: 8,879 est.

4. Furnish the approximate percentage of the total number of items of equipment estimated to actually contain the defect or noncompliance:

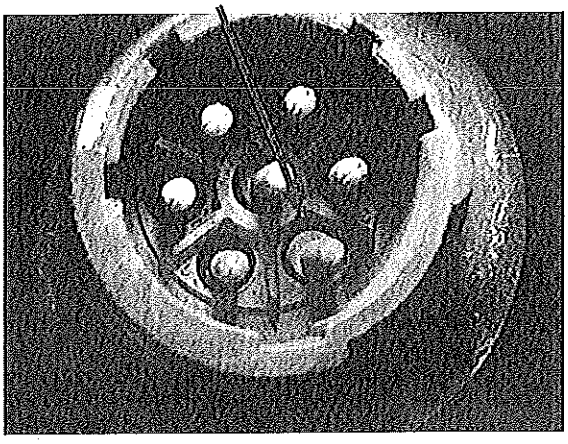
8.5%, this number is based on the results of our analysis of boards in the sample population as outlined below (see table).
Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled items of equipment:

An analysis was done on a sample population of 269 sign connector boards from buses built with the specific configuration at risk which is multiple side signs and a single side sign with no rear sign. These boards were from different transit authority locations from the Midwest to the East Coast. This population consisted of samples from various years, bus models and environmental conditions. The analysis consisted of removing the connector and microscopically examining the PWA surface below the connector for evidence of corrosion. Based on the corrosion found, it was determined that all boards 2007 and older needed to be replaced. This connector board design was first used in 2001.

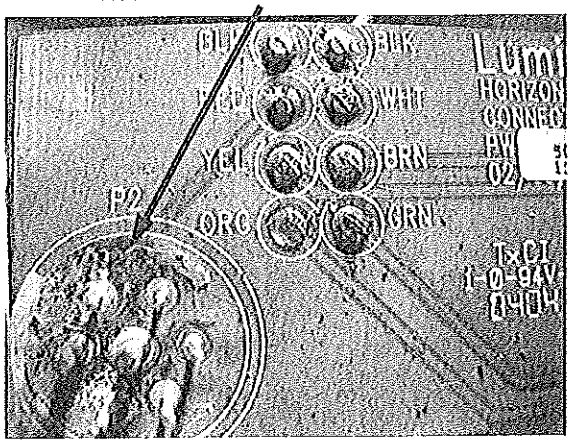
Sample Population of Connector Boards from Transit Authorities

Year of Mfg of Connector Board	Number of Boards	Corrosion found (visually)	Percentage of Boards with Corrosion
2001	30	0	0%
2002	15	1	6%
2003	65	2	3%
2004	50	13	20%
2005	10	0	0%
2006	70	9	11%
2007	4	0	0%
2008	15	0	0%
Totals	269	25	8.5%

Corrosion on Open Connector



Corrosion on board under connector



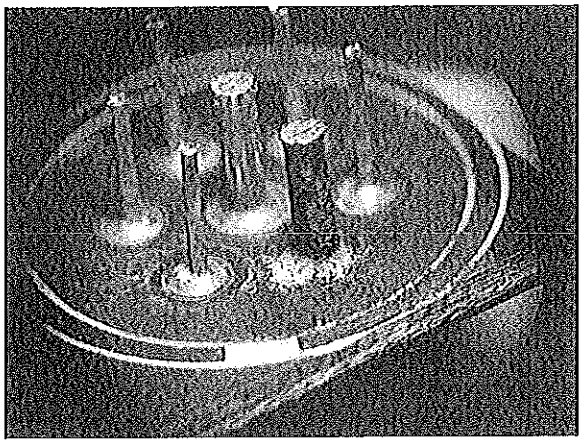
III. Describe the Defect or Noncompliance

5. Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.

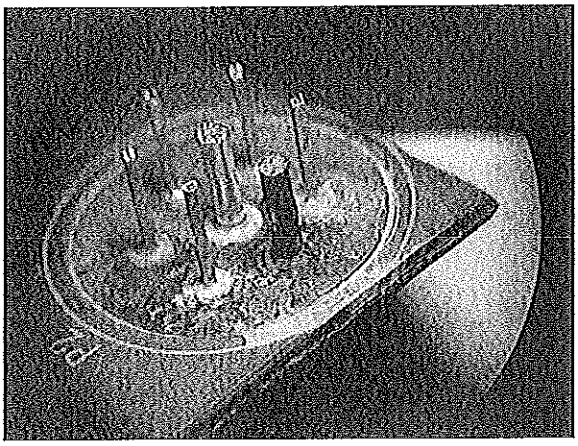
The signs listed above are equipped with the 506746 connector board that is used to "daisy chain" the Side Destination sign to other signs in the sign system. When there is no rear sign, or there are multiple side signs, one connector is left uncovered by the missing cable. This creates an open connector condition that allows debris to collect inside the connector and provides a path for moisture to ingress along the pins of the connector down to the PWA board itself causing corrosion on the solder connection between the open connector and PWA board. The corrosion allows for a conductive path between battery voltage and ground. This corrosion will allow a potential short and the sign will fail. In rare instances, this corrosion will cause the sign to smoke and possibly flame.

The photos below (taken from the sample population) show the impact of the corrosion on the board itself after the connector barrel has been removed.

Corrosion Starting on Battery Voltage Pin



Corrosion advanced to a conductive condition



Describe the cause(s) of the defect or noncompliance condition.

The corrosion is caused by an accumulation of moisture under the connector. None of the connectors which have a cable attached to them show any sign of corrosion. The base of the connector is too close to the board to effectively coat the solder connections with conformal coating (a corrosion preventative). This corrosion creates the conductive path between battery voltage and ground pins. Certain cleaning practices, (i.e. spraying water and cleaning agents) used at the Transit Authorities facilities introduces more moisture into the connector and increases the likelihood of the corrosion.

Describe the consequence(s) of the defect or noncompliance condition.

This corrosion will allow a potential short and the sign will fail. In rare instances, this corrosion will cause the sign to smoke and possibly flame.

Identify any warning which can (a) precede or (b) occur.

In some situations the circuit breaker will trip. This is not a consistent occurrence.

If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address.
The 506746 has been purchased from several suppliers however the defect is not process related. The board is manufactured exactly to the Luminator requirements. This defect is application based in that closed connectors (those with a cable attached to them) do not have this condition.

Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:
NA

IV. Provide the Chronology In Determining the Defect/Noncompliance

If the recall is for a defect, complete item 6, otherwise item 7.

6. With respect to a defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.

The following events lead to the identification of the root cause. Each event occurred on a bus without a rear sign and with a single open connector on the side destination sign.

1. Thermal Event Atlanta, MARTA, January, 2006 (smoke and fire, sign destroyed, unable to determine root cause)
2. Thermal Event Atlanta, MARTA, December, 2008 (smoke only, sign in tact, partial root cause identified)
3. Electrical Event Richmond, January, 2009 (smoke only, tripped breaker 3 times then failed)
4. Thermal Event, St Louis, June, 2009 (smoke only, root cause fully determined)
5. Thermal Event, MARTA, Atlanta, August, 2009 (smoke and fire, sign destroyed, fleet replacement completed 8/21/09)

7. With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.

V. Identify the Remedy

8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.

On all buses built in 2007 or older the connector board will be replaced with a newly designed board. The new board eliminates the possibility of arcing by putting the ground and battery voltage on separate layers of the board. The traces have also been moved to allow the maximum spacing. In addition conformal coating has been applied below the connector and a cap is installed on all open connectors to prevent the incursion of moisture and debris which would allow corrosion to develop

On all buses built since 2008, there has been no evidence of corrosion. By cleaning the connector with a moisture displacing corrosion inhibitor and subsequently capping the open connector with a vinyl cap, the conditions that allow the moisture to ingress and produce the corrosion will be elimnated.

Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.

1. New Connector Board, part number 508331-001 (replaces 506746-001, see Appendix 2 for drawings)
2. Ground and power on two separate layers of PWA,
3. Traces are more widely spaced,
4. Connector assembled to the board with a gap so the conformal coating can be applied to the connector solder joints.

Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.

Since May of 2009 all signs built by Luminator have been shipped with a vinyl cap covering all connectors. These caps are to remain in place unless a cable is attached to the connector.

The connector board change has gone in effect as of 09/20/2009

VI. Identify the Recall Schedule

Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please, identify any foreseeable problems with implementing the recall.

Please see Attached Timeline, Appendix 1 for notification timeline

We have concerns regarding notification of all customers. We hope for assistance from the various OEMs that have installed our equipment on their buses. Since the OEMs have done the actual installation of the signs on the buses, they will have more accurate information on the bus configurations. Since some OEMs purchase materials on blanket POs we are not always advised of the actual configuration on a specific bus and must rely on second hand information.

VII. Furnish Recall Communications

9. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. *A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) for review prior to mailing.*

Note: These documents are to be submitted separately from those provided in accordance with Part 573.8 requirements.

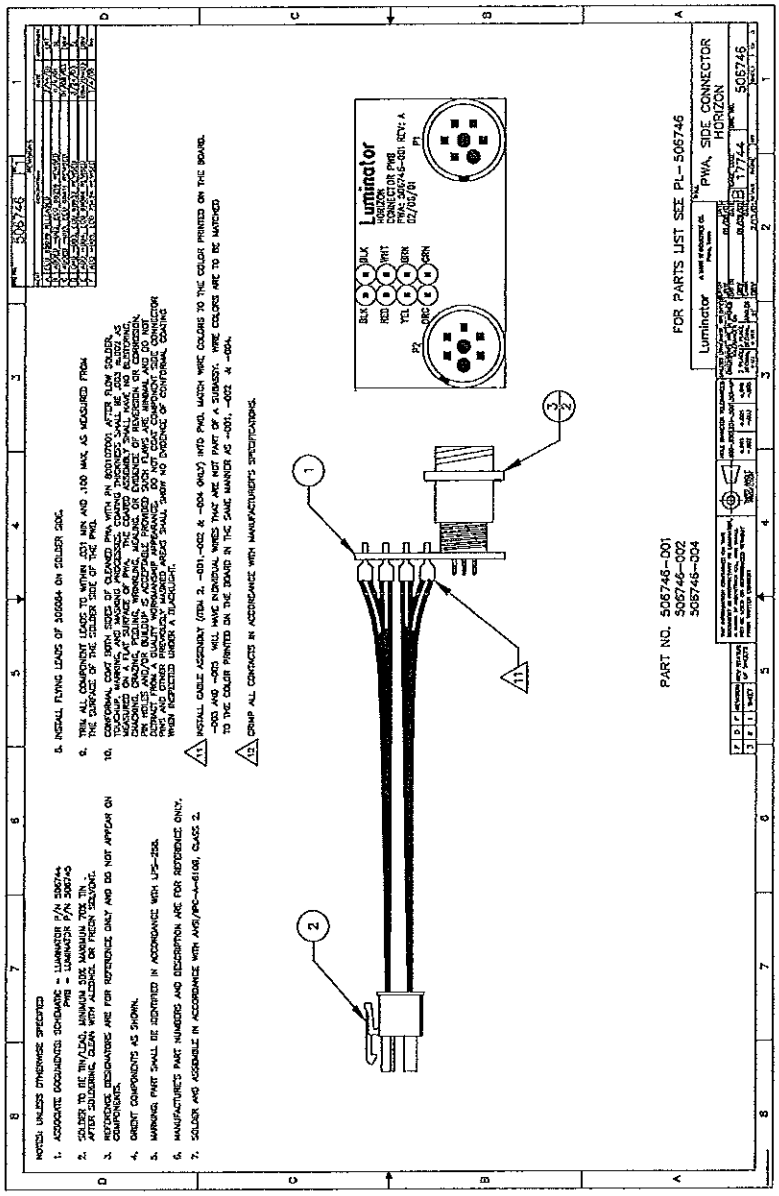
See Attached Field Modification Instructions, Document # 904666 and Service Bulletin Document # 9230

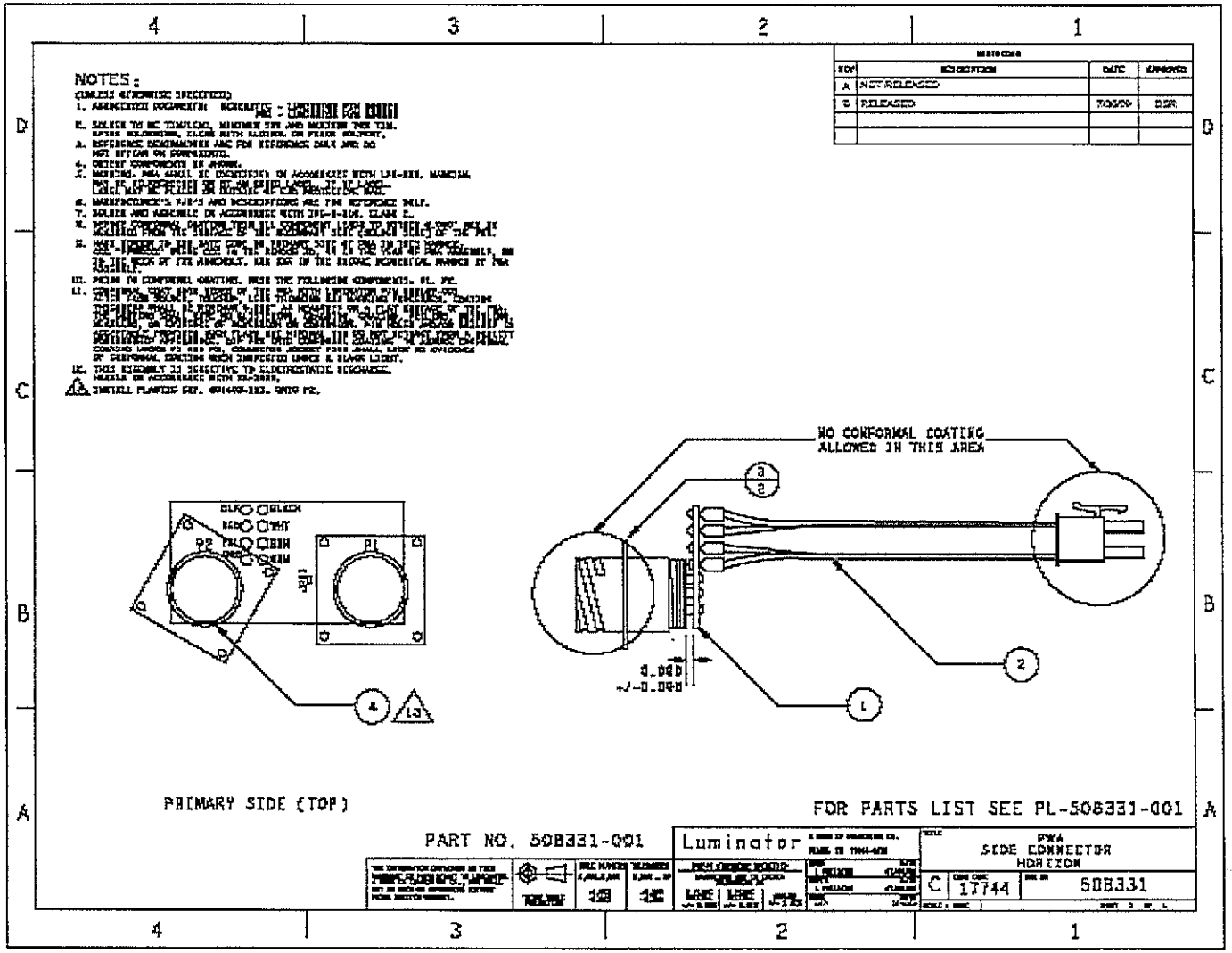
The Privacy Act of 1974 - Public Law 93-579, As Amended: This information is requested pursuant to the authority vested in the National Highway Traffic Safety Act and subsequent amendments. You are under no obligation to respond to this questionnaire. Your response maybe used to assist the NHTSA in determining whether a manufacturer should take appropriate action to correct a safety defect. If the NHTSA proceeds with administration enforcement or litigation against a manufacturer, your response, or statistical summary thereof, may be used in support of the agency's action.

Appendix 1
Thermal Time Line

Event	Date Started	Date Complete
Thermal Event at Marta	Mon 10/30/06	Mon 10/30/06
Tim McManus Evaluation	Tue 10/31/06	Tue 10/31/06
In house investigation	Wed 11/1/06	Wed 11/1/06
Thermal Event at MARTA	Wed 12/17/08	Wed 12/17/08
Tim McManus Evaluation	Wed 12/17/08	Wed 12/17/08
In house investigation	Thu 12/18/08	Thu 12/18/08
Test effectiveness of Corrosion X spray and caps	Mon 2/2/09	Fri 2/6/09
Modify process to include caps on all signs on line	Fri 2/27/09	Fri 2/27/09
Thermal event at GRT	Wed 1/28/09	Wed 1/28/09
Tim McManus evaluation	Wed 1/28/09	Wed 1/28/09
In house investigation	Thu 1/29/09	Thu 1/29/09
Thermal Event St Louis	Wed 6/17/09	Wed 6/17/09
Tim McManus Evaluation	Thu 6/18/09	Thu 6/18/09
In house investigation	Fri 6/19/09	Fri 6/19/09
Collection of date coded equipment from field	Mon 7/20/09	Wed 7/22/09
Evaluate collected boards and ODKs	Thu 7/23/09	Thu 7/23/09
Determined date for replacement vs spray and cap	Fri 7/24/09	Fri 7/24/09
Build prototypes of newly designed boards	Mon 7/6/09	Fri 7/10/09
Test prototypes fo newly designed boards	Mon 7/13/09	Mon 7/13/09
Release drawings for new board	Wed 7/29/09	Wed 7/29/09
Get part number for Corrosion X in system.	Thu 7/30/09	Thu 7/30/09
Complete FMI	Mon 6/29/09	Wed 8/5/09
Complete Service bulletin	Mon 8/3/09	Wed 8/5/09
Determine first round quantities	Tue 7/28/09	Wed 7/29/09
Order materials for FMI	Wed 7/29/09	Fri 8/14/09
Determine customers for priority notification	Fri 7/17/09	Thu 7/30/09
Determine customers for 2nd round priority	Fri 7/31/09	Tue 8/11/09
Start sending notification to customers	Mon 8/3/09	Fri 8/7/09
Receive needed materials	Mon 8/17/09	Mon 8/17/09
Begin field mods	Tue 8/18/09	Fri 10/30/09

Appendix 2
Drawings




NOTES:
NO CONFORMAL COATING ALLOWED IN THIS AREA
PRIMARY SIDE (TOP)
FOR PARTS LIST SEE PL-508331-001
PART NO. 508331-001
Luminator
PWA SIDE CONNECTOR HORIZON
508331