Howell, Rosa (NHTSA)

From: Abbott, John (NHTSA)
Sent: Tuesday, January 08, 2013 12:58 PM
To: Howell, Rosa (NHTSA)
Subject: FW: Graco response to NHTSA Preliminary Evaluation PE12-031
Attachments: Graco Response to NHTSA PE12-031.pdf; Attachment 3.pdf; Attachment 31.pdf; Attachment 32.pdf; Letter to Office of Chief Counsel 12_21_2012.pdf

Thank you Rosa

From: Galambos, Dave [mailto:Dave.Galambos@gracobaby.com]
Sent: Friday, December 21, 2012 4:19 PM
To: Yon, Scott (NHTSA)
Cc: Abbott, John (NHTSA); Beckstrom, Sean; dcampbell@crowell.com
Subject: Graco response to NHTSA Preliminary Evaluation PE12-031

Dear Mr. Yon,

Please find attached Graco's response to PE12-031 and three non-confidential attachments to Graco's response. Also attached is a copy of the letter to the Office of Chief Counsel which requests permanent confidential treatment to other confidential and business sensitive attachments to Graco's response.

Sincerely,
Dave Galambos

Dave Galambos I Senior Regulatory Manager, Graco Children's Products, Inc. I a ***Newell Rubbermaid*** company *Always render more and better service than is expected of you, no matter what your task may be.* I Fairlawn Office (Main office): 3320 West Market Street Fairlawn, Ohio 44333 - Fairlawn direct: 1.330.869.7225 I Atlanta Office: 3 Glenlake Parkway Atlanta, Georgia 30328 - Atlanta direct: 1.770.418.7299 Desk number 715-12 I Mobile phone: 1.330.283.1136 I email: dave.galambos@newellco.com

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NewellRubbermaid Brands That Matter | Baby & Parenting Essentials

December 21, 2012

Via Electronic Mail

D. Scott Yon, Chief
Vehicle Integrity Division
National Highway Traffic Safety Administration
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Re: Graco response to NHTSA Preliminary Evaluation PE12-031

Dear Mr. Yon:

Graco Children's Products, Inc. (Graco) hereby submits this letter in response to the National Highway Traffic Safety Administration's (NHTSA) Preliminary Evaluation PE12-031 to investigate allegations that the harness buckle of various Graco child restraints for model years 2009-2012 is difficult to unlatch or becomes stuck in the latched position.

Graco submits under separate cover to the Office of the Chief Counsel various supporting attachments that contain confidential commercial or business sensitive information.

Graco has evaluated the 28 Vehicle Owner's Questionnaires provided by NHTSA to Graco on October 19, 2012 (the "October Questionnaires") and 32 additional Complaint Detail Reports provided by NHTSA to Graco on Dec 12, 2012 (the "December Reports") in an effort to determine the buckle component involved in the incidents. The following is a summary of Graco's analysis of these reports:

The October Questionnaires:

12 incidents involve the Signature Buckle Design (internally and hereinafter referred to as "Signature Buckle")
12 incidents involve the QT Buckle Design (internally and hereinafter referred to as "QT Buckle")
4 incidents involve either the Signature or QT buckle but there is insufficient information to determine which specific buckle was involved.

The December Reports:

16 reports involving 21 child restraints for buckles that are difficult to unlatch:
4 incidents involve the Signature Buckle
7 incidents involve the QT Buckle

9 incidents involve either the Signature or QT buckle but there is insufficient information to determine which buckle was involved.
1 incident involving an unknown buckle because model number was not provided

11 reports that the plastic cover on the buckle tongue is cracked. The plastic cover is cosmetic in nature and is not related to buckles that are difficult to unlatch or become stuck in the latched position

3 reports of the plastic cover on the buckle tongue or the buckle housing is cracked. Insufficient information is provided to accurately determine what specific component is cracked. These reports are not related to buckles that are difficult to unlatch or become stuck in the latched position

2 reports of vehicle incidents related to steering and brakes that are not Graco products.

Based on this analysis, Graco's current view is that the scope of this evaluation relates to both the Signature Buckle and the QT Buckle designs. Both buckle designs are 5-point buckles with 2 tongues and a central release button. Figure 1 shows the Signature Buckle and Figure 2 shows the QT Buckle.



Figure 1 – Signature Buckle



Figure 2 - QT Buckle

The QT and Signature Buckle release buttons function differently from one another and differently from Graco's 5-point buckles used in the past. The QT Buckle release button is a pivoting button and must be depressed inward at the top portion of the red button in order to

release the tongues. The Signature Buckle release button is a sliding button and must be depressed downward toward the crotch webbing in order to release the tongues.

Graco initially utilized the Signature Buckle design on many 2009 models. This proprietary buckle design was created as a joint effort between AmSafe and Graco. The Signature Buckle was used exclusively on Graco child restraints. Graco later introduced the QT Buckle design on its child restraints. The QT Buckle was developed by AmSafe and is commercially available to other child restraint manufacturers. Graco believes that other manufacturers use, at least a version of, the QT Buckle on commercially available products.

As you will see from this response, Graco has been keenly aware of the issue being investigated by NHTSA. This issue is a consumer frustration and a consumer experience that Graco has been working to improve. However, Graco has no reports of any injury or evidence of degradation in crash performance nor does it believe at this time that there is any safety issue. Graco has collected the necessary information as requested by NHTSA and provides the following response to each of the requested items.

1. State the number of all subject child seats Graco has manufactured, or imported for sale, in the United States, by model number and model year. Provide the data by monthly production volumes in a table in Microsoft Access 2010, or a compatible format (e.g., Excel), entitled "PRODUCTION DATA."

   Graco's Response:

   Graco provides the number of child restraints manufactured from January 1, 2009 through October 2012 for the child restraint models that utilize the Signature and QT buckles as shown in **Attachment 1 – PRODUCTION DATA**. The child restraint models that have utilized the Signature and QT buckles include the following:

   Nautilus and derivative models Nautilus Elite and Argos 70
   MyRide 65 and derivative models MyRide 65 with Safety Surround and MyRide 70
   Comfort Sport and Classic Ride 50
   Size4Me
   Step 2 and CozyCline
   SmartSeat
   Snugride and Snugride 22
   Snugride 30
   Snugride 32
   Snugride 35
   Step 1 Safe Seat
   Snugride Click Connect 40

2. State the number of each of the following, received by Graco, or of which Graco is otherwise aware, which relate to, or may relate to, the alleged defect in the subject child seats:

a. Consumer complaints;
b. Reports from retailers or distributers;
c. Reports involving a crash, injury, or fatality, based on claims against Graco involving a death or injury, or notices received by Graco alleging or proving that a death or injury was caused by the alleged defect in a subject child seats; and
d. Lawsuits, both pending and closed, in which Graco is or was a defendant or codefendant.

For subparts "a" through "d," state the total number of each item (e.g., consumer complaints, reports from retailers, etc.) separately. Multiple incidents involving the same child seats are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for item "c" provide a summary description of the alleged problem and causal and contributing factors and Graco's assessment of the problem, with a summary of the significant underlying facts and evidence. For item "d", identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

Graco's Response:

a. Consumer Complaints

Graco provides the total number of consumer complaints from Graco's consumer feedback database for the Signature and QT buckles in **Attachment 2**. The information is presented by child restraint platform and by buckle type for the time period from Jan 1, 2009 to November 30, 2012 (which represents child restraint models manufactured in the 2009-2012 timeframe). Graco notes that there are 3 buckle types noted in **Attachment 2**: QT, Signature and Unknown Buckle. If a consumer was unable to provide a date of manufacture, model number or both, Graco cannot determine which buckle (QT or Signature) is involved in the consumer complaint. Therefore, such complaints are tallied as an unknown buckle.

Utilizing the 2009-2012 sales information provided in Request #1 above for child restraint models that corresponds to the complaints, the overall composite percentage complaint rate for all buckles (Signature, QT and Unknown) for the entire production quantity is 0.116%.

Graco has also collected consumer feedback regarding the buckles from Graco's Facebook page and Graco's blog. These are presented in **Attachment 3**.

b. Reports from Retailers or Distributors

Graco has received two reports from retailers or distributors in the U.S. of the Signature or QT buckle being difficult to unlatch or becoming stuck in the latched position. **Attachment 4** shows the documentation associated with these two reports.

c. Reports Involving a Crash, Injury, or Fatality.

Graco is not aware of any incidents involving a vehicle crash, an injury or a fatality relating to the Signature or QT buckle that related to any alleged difficulty to unlatch or that allegedly became stuck in the latched condition. To the best of Graco's knowledge the Signature or QT buckle has not resulted in any injury or the degradation to crash performance of any Graco Child restraint.

d. Lawsuits, both pending and closed.

Graco is not aware of any litigation involving child restraints equipped with either the Signature or QT buckle that allegedly is difficult to unlatch or becomes stuck in the latched condition.

3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
   a. Graco's file number or other identifier used;
   b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, report from retailer, etc.);
   c. Child seat owner's name, address, and telephone number;
   d. Child seat model number;
   e. Child seat model year;
   f. Child seats date of manufacture;
   g. Harness buckle/subject component part number;
   h. Incident date;
   i. Report or claim date;
   j. Whether the harness buckle was allegedly unable to be opened;
   k. Whether the harness was allegedly cut to facilitate removal of the child occupant;
   l. Whether Graco has possession of the subject child seat and or harness buckle;
   m. Number of alleged injuries; and
   n. Number of alleged fatalities.

   Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

   Graco's Response:

   Graco provides the requested information in tabular form in **Attachment 5 – REQUEST NUMBER TWO DATA** which is an Excel spreadsheet with worksheet tabs that represent the various child restraint platforms that utilize the QT and Signature buckles.

The spreadsheet columns correlate to the requested information (a) through (n) as follows:

a. Graco's file number or other identifier used is identified in Column I as the "Reference #"

b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, report from retailer, etc.): **Attachment 5** addresses only consumer complaint reports.

c. Child seat owner's name, address, and telephone number: Identified in Columns C through H.

d. Child seat model number: Identified in Column P as "Product Line" which is the platform name and Column Q which is the "Model Number"

e. Child seat model year: Identified by date of manufacture in Column K

f. Child seats date of manufacture: Identified in column K. If the consumer does not provide the date of manufacture, this field is populated with a date of 1970 which is an internal indicator that no date of manufacture was provided. However, Graco in an effort to be transparent and as inclusive as possible has included the unknown dates of manufacture and disclosed as many incident reports as possible that *may* be responsive.

g. Harness buckle/subject component part number: No part number is captured in Graco's consumer incident reports. However, all complaints identify the buckle type in Column A as QT, Signature or "unknown-no DOM". Because the consumer was unable to provide a date of manufacture, model number or both, Graco has not been able to determine which buckle (QT or Signature) is involved in the consumer incident. Therefore, the complaint is tallied as an "unknown-no DOM"

h. Incident date: **Attachment 5** does not capture the incident date. However, the incident occurrences are generally close to the "Call Date" which is Column J.

i. Report or claim date is identified in Column J as "Call Date"

j. Whether the harness buckle was allegedly unable to be opened: Graco notes that in the course of capturing consumer feedback, whether a buckle was difficult to open or was unable to be opened was not specifically captured. Note that Columns T and U include various categories of buckle performance issues that are from a drop-down menu used by Graco Consumer Service Representatives. The category of "Won't Unlock" may represent buckles that were unable to be unlatched, but this category is a generalization and may not actually reflect the specific issue that NHTSA is investigating. However, Graco in an effort to be transparent has disclosed as many incident reports as possible that *may* be responsive.

k. Whether the harness was allegedly cut to facilitate removal of the child occupant: Graco notes that in the course of capturing consumer feedback, whether a buckle harness was cut to

facilitate the removal of a child may not have been identified. This is not a specific item that was captured or was specifically asked. However, when that situation was communicated, the Consumer Services Representative may have captured that event in the "Incident Notes" or communication thread which is Column W. Graco has performed a search of the Incident notes in Column W for buckle harnesses that were allegedly cut and highlights this finding in Column B.

l. Whether Graco has possession of the subject child seat and or harness buckle: As a matter of course Graco does not have every seat or buckle returned. Such a decision is at the discretion of the Consumer Services Representative based on the issue and flow of conversation with the consumer. In the event that a car seat or buckle was returned to Graco, such fact would be indicated in the Inspection Notes under ADDITIONAL INFORMATION on the individual incident reports shown in **Attachments 6 through 18.**

m. Number of alleged injuries: There have been no injuries from a buckle being difficult to unlatch or being stuck in the latched position. Graco does not believe this consumer frustration is a safety issue as indicated by the lack of any injuries or an issue that degrades the crash performance of the car seats.

n. Number of alleged fatalities: There have been no fatalities from a buckle being difficult to unlatch or being stuck in the latched position. Graco does not believe this consumer frustration is a safety issue as indicated by the lack of any fatalities or an issue that degrades the crash performance of the car seats.

When accessing **Attachment 5 – REQUEST NUMBER TWO DATA** which is an Excel spreadsheet, please note the following to help in navigating through the spreadsheets:

1. The worksheets tabs on the bottom are divided by child restraint platform.
2. Within each spreadsheet is some color coding used to visually group multiple rows that are the associated with the same incident.
3. It may be necessary to double-click the cell in Column W to expand the full content of the "incident notes".
4. A full report of each incident can be found in **Attachments 6 through 18** by cross-referencing the "Reference #" which is Column I to the file name that bears the same number as the "Reference #".

4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, reports from retailers, etc.) and describe the method Graco used for organizing the documents.

Graco's Response:

Graco provides the requested information regarding consumer complaints in **Attachment 6 through 18** as individual incident reports. Each incident report is named by the database Reference Number and can be cross-referenced to the incidents reported in **Attachment 5** (column I of the spreadsheets). The incident reports are organized by child restraint platforms on the worksheet tabs on the bottom of the Excel spreadsheet.

Reports from Retailers are presented in **Attachment 4.**

Graco does not have any documents relating to reports of crashes, injuries, fatalities or lawsuits regarding a buckle being difficult to unlatch or being stuck in the latched position; as stated above, Graco is not aware of any such events.

5. State a total count for all of the following categories of claims, collectively, that have been paid by Graco that relate to, or may relate to, the alleged defect in the subject child seats: warranty claims; extended warranty claims; claims for good will services that were provided; or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin, customer satisfaction campaign, or other such activity.

   Separately, for each such claim, state the following information:
   a. Graco's claim number;
   b. Child seats owner's name and telephone number;
   c. Child seats model number;
   d. Child seat model Year
   e. Child seats date of manufacture;
   f. Buckle part number
   g. Repair date;
   h. Repairing facility's name, telephone number, city and state or ZIP code;
   i. Labor operation number;
   j. Problem code;
   k. Replacement part number(s) and description(s);
   l. Concern stated by the customer; and
   m. Comment, if any, by the technician or person(s) making the repair, and/or the person(s) processing the claim that relate to the claim and/or repair.

   Provide this information in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA."

Graco's Response:

Graco's data provided in **Attachments 6 through 18** indicates all efforts to remedy or repair and child restraint systems that allege any buckle issues. Based on the flow of the conversation with the consumer, a Consumer Services Representative may issue a refund to a consumer, replace the buckle component or child restraint, or provide buckle cleaning or buckle operation

instructions. Graco does not track individual refunds. Refunds therefore must be gleaned from the individual incident reports shown in **Attachments 6 through 18.**

6. Describe in detail the search criteria used by Graco to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject child seats**.** State the terms of the new child seats warranty coverage offered by Graco on the subject child seats (i.e., the number of months for which coverage is provided and the child seats systems that are covered). Describe any extended warranty coverage option(s) related to the alleged defect that Graco offered for the subject child seats and state by option, model, and model year, the number of child seats that are covered under each such extended warranty.

Graco's Response:

Graco maintains its consumer feedback in a new database that was implemented in September 2009 that collects all pertinent information from consumers who contact Graco. Graco's Consumer Service Representatives collect 1) the consumer's contact information; 2) the product's model number, date of manufacture and date of purchase; and 3) the issue being communicated by the consumer including component affected. In an effort to capture the voice of the consumer regarding what is wrong and how it happened, Graco's database has a series of taxonomy menu choices. Graco is then able to query the database based on the entered consumer information. Graco's database search criteria included:

1) Car seat models with a date of manufacture of 2009 through 2012;

2) Incidents that included the component of the harness buckle or related components (i.e. Harness Buckle; Harness Assembly (complete) w/tong/buckle; Harness Buckle Tongue; and Tongue for car seat harness)

3) Level 1 "What's Wrong" taxonomy (Hard goods)

3) Level 2 "What's Wrong" taxonomy (Performance; Unlocking/Separating; Doesn't like design; Adjustment)

4) Level 3 "What's Wrong" taxonomy (cant' be operated; hard to unlock/open; interference; stuck/sticks; won't come out; and won't unlock / open)

Many consumers who contact Graco benefit from Graco's guidance on buckle operating instructions and cleaning the buckle of any foreign material that may impede its performance. Many consumers are able to remedy their issue with this guidance. In addition, Graco has extended its normal one year warranty coverage to an unlimited warranty on the buckle component for buckles that are difficult to unlatch or that become stuck in the latched position for consumers that require a replacement buckle. For select child restraint models that do not

have a consumer replaceable harness buckle, the extended warranty covers the replacement of the child restraint up through its identified useful life date.

7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject child seats that Graco has issued to any retailers or distributors, regional or zone offices, or other such entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications. Also include the latest draft copy of any communication that Graco is planning to issue within the next 120 days.

Graco's Response:

Graco has no documents that are responsive to this request. Graco has and continues to believe this issue is a consumer frustration and has addressed complaints in a reactionary manner and through implementing design improvements.

8. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject child seats that have been conducted, are being conducted, are planned, or are being planned by, or for, Graco. For each such action, provide the following information:
   a. Action title or identifier;
   b. The actual or planned start date;
   c. The actual or expected end date;
   d. Brief summary of the subject and objective of the action;
   e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and,
   f. A brief summary of the findings and/or conclusions resulting from the action.

   For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

Graco's Response:

Graco has performed various analyses, studies and evaluations on the subject Signature and QT buckles, many of them in cooperation with AmSafe, the buckle manufacturer as identified in **Attachment 19**. This attachment addresses the specific requested items a through f as requested above. **Attachments 20 to 29** provide the supporting information for each identified study, analysis or evaluation.

9. Describe all modifications or changes made by, or on behalf of, Graco in the design, material composition, manufacture, quality control, supply, or installation of the subject components, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject child seats. For each such modification or change, provide the following information:
   a. The date or approximate date on which the modification or change was incorporated into child seats production;
   b. A detailed description of the modification or change;
   c. The reason(s) for the modification or change;
   d. The part numbers (service and engineering) of the original component;
   e. The part number (service and engineering) of the modified component;
   f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
   g. When the modified component was made available as a service component; and,
   h. Whether the modified component can be interchanged with earlier production components.

   Also, provide the above information for any modification or change that Graco is aware of which may be incorporated into child seats production within the next 120 days.

Graco's Response:

Graco provides all modifications to the Signature and QT buckles in **Attachments 30** that may have an affect on the alleged defect that the buckle is difficult to unlatch or becomes stuck in the latched position for the time period of 2009 to the present. Very few modifications have been implemented on the Signature and QT buckles for the 2009 to 2012 time period. Graco's engineering change notices shown in **Attachment 30** relate to the following changes:

1) Implementation of the Signature buckles on various child restraint platforms

2) Implementation of the QT buckles on various child restraint platforms

3) QT buckle modifications in November 2012 to provide a better user interface for the consumer by improving 3 areas:

a. The button shape changed to help "force" the consumer to push at the top of the button,
b. More consistent release force by adding a third spring, and
c. Reduce tongues insertion force by half.

10. Provide an exploded view drawing of the subject components identifying by name and part number all of its component parts. Separately, for each part, discuss its function in the operation of the buckle and its interaction with other buckle component parts. Also, provide engineering specification drawings for the subject components.

Graco's Response:

The QT and Signature buckles are the propriety design of AmSafe Commercial Products, Inc. On December 14, 2012, Graco provided to the Office of Chief Counsel confidential and business sensitive documents from AmSafe that include the exploded view drawings, descriptions of each component's function and engineering specification drawings in an effort to maintain AmSafe's confidentiality and proprietary design information.

11. Provide a matrix (summary table) for all unique design levels of the subject components, which should include all part numbers, supplier identification information (name, address, part number, etc.), dates of component manufacture, and application by child seat model including the periods/dates of production usage for each child seat model identified.

Graco's Response:

Graco provides all modifications to the Signature and QT Buckles in **Attachment 30** for the time period of 2009 to the present. The supplier and manufacturer of the Signature Buckle and QT Buckle is AmSafe Commercial Products, Inc. 22937 Gallatin Way, Elkhart, IN 46514.

12. Furnish Graco's assessment of the alleged defect in the subject child seats including:
    a. The causal or contributory factor(s);
    b. The failure mechanism(s);
    c. The failure mode(s);
    d. The risk to child seat safety that it poses;
    e. What warnings, if any, that the alleged defect was occurring or that the subject component was malfunctioning; and
    f. The reports included with this inquiry.

Graco's Response:

As defined by the scope of this investigation, Graco has utilized two buckle designs for the child restraint models in the years 2009-2012. Graco initially utilized the Signature Buckle design on many of the 2009 models. This buckle design was a joint effort between AmSafe and Graco and was used exclusively on Graco child restraints. Graco later introduced the QT Buckle design on its child restraints. The QT Buckle was utilized on new Graco models and replaced the Signature Buckle on existing child restraint models. The QT Buckle was developed by AmSafe and is commercially available to other child restraint. Graco believes that another manufacturer is currently utilizing the QT Buckles on commercially available products.

As stated earlier, the Signature and QT buckle designs have unique operating features as compared to traditional buckles used over the past decade. The Signature Buckle's red release button is depressed or slid downward in a direction that is parallel with the main plane of the entire harness system on the child restraint in order to unlatch the buckle as shown in Figure 3



Figure 3

The QT Buckle's red release button is depressed inward in a direction that is perpendicular to the plane of the red button in order to unlatch the buckle. However, the red button is a pivot-action button that must be depressed on the upper portion of the red button as shown in Figure 4. In addition, the direction of tongue insertion into the buckle housing is on a slight angle (see Figure 5) until the tongues engage the buckle and are locked in place as shown in Figure 6.

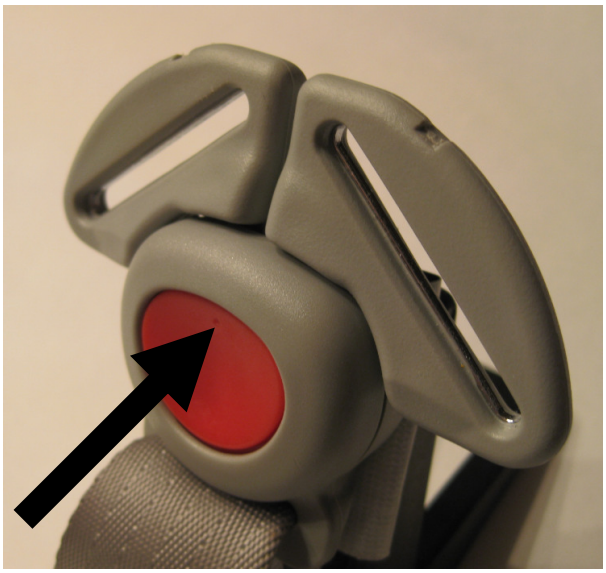


Figure 4



Figure 5



Figure 6

a. Casual or Contributory factors

1. Foreign Material in Buckles

Graco has noted in examining returned buckles from consumers that are alleged to be difficult to unlatch or that become stuck in the latched position, that a large portion of the examined buckles contain foreign material on the internal components. Graco believes this foreign material is likely food and drink substances (food, dried liquid drinks, vomit, formula, etc.) that have migrated or seeped into the buckle. This foreign material is believed to be impeding the buckle function and is noticeable by an increased force necessary to unlatch the buckle. Graco has worked with AmSafe, the buckle manufacturer, to develop a cleaning procedure for both the Signature and QT Buckles as shown in **Attachment 31**. This cleaning procedure is being communicated to consumers who are contacting Graco and it is believed that the buckle cleaning has been effective in resolving many issues with the consumers who have cleaned the buckle. In addition, this cleaning procedure is being phased into the instruction manuals as a normal part of the child restraint maintenance.

Graco has taken a number of returned buckles that consumers have complained are difficult to unlatch and cleaned them using the developed cleaning procedure. In all cases the buckle functioned properly after cleaning.

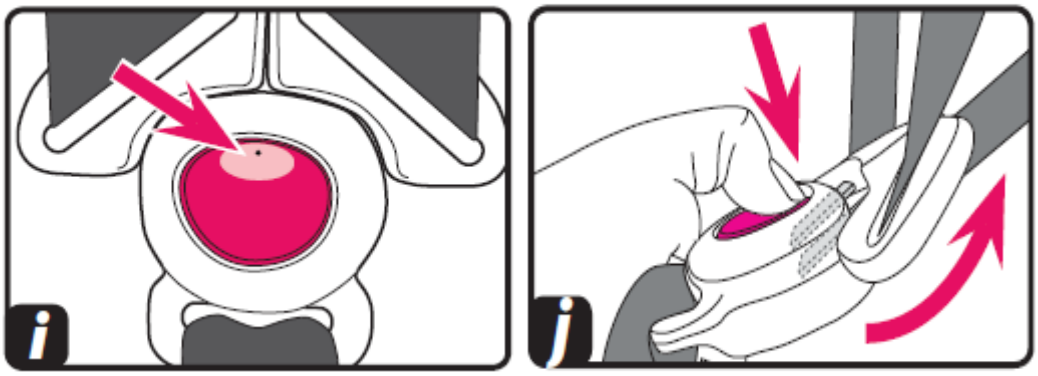
2. Red Button Push Location

Based on the pivot design of the QT Buckle's red button, the push location is a significant factor in the consumer's perception and frustration about the force required to unlatch the buckle. Because the optimum location for minimal force to depress the red button is near the top of the QT Buckle, pushing the button at the middle or lower positions increases the force required to unlatch the buckle.

The Signature Buckle's red button may also present a perceived difference to some consumers in that the red button is required to slide downward in order to unlatch the buckle. Although the surface area of the red button complies with the minimum 0.7 square inch area requirement of FMVSS-213, the contact shape of the red button's "ledge" may be perceived by some consumers to be more difficult than they would expect or are accustomed to.

In either buckle design, the buckles are fully compliant to the buckle requirements of FMVSS-213. The pre-crash buckle release force and the post-crash buckle release force have been demonstrated to be compliant when tested on production buckles to the FMVSS-213 buckle protocols.

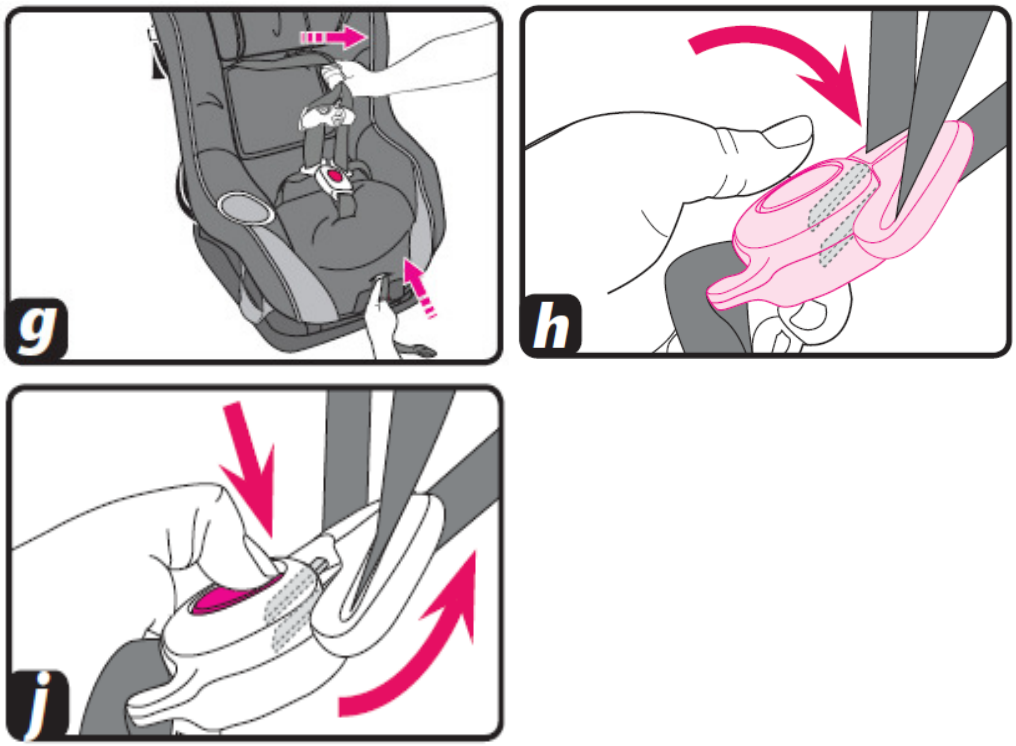
Graco has included in its instruction manuals for the child restraint models that utilize the QT buckle specific instructions on how the buckle is to be unlatched including where the red button should be depressed. **Attachment 32** shows the instruction manual page in its entirety. Two specific illustrations from this page are shown below which demonstrate the location that the red button should be depressed.



3. Interaction of Child's Body on Harness and Buckle

The position of the buckle relative to the child's body when unlatching the buckle may also be a factor in the caregiver's perception and frustration regarding the force required to unlatch the buckle, particularly on the QT buckle design. The child's body pushing on the snuggly adjusted harness applies a force on the tongues as they are attempted to be unlatched from the buckle. The torsional forces, depending on how much force is applied and in what direction, may increase the

consumer's perception about the force required to unlatch the buckle. In order to allow the buckle tongues to unlatch with the designed red button release force, the harness should be loosened and the buckle must be tilted slightly into the child to position the tongues with a slight outward pressure. This allows the tongues to be extracted in a direction that provides the least resistance force. Specific illustrations from the instruction manual page for the QT buckle unlatching instructions (**Attachment 32)** are shown below. Tilting the buckle in the opposite direction (away from the child's body) places a rearward torque on the tongues and may result is a higher release force.



b. Failure Mechanism

While there are several contributing factors involved in the consumer's perception that the buckle may be difficult to unlatch or becomes stuck in the latched position as described above, other than foreign material in the buckle that may contribute to internal buckle components operating less optimally, Graco and the buckle manufacturer have been unable to identify *any* other failure mechanisms.

c. Failure Mode

The failure mode described by a small percentage of consumers is typically an increased force required to unlatch the buckle after a period of normal usage time. This is consistent with foreign material accumulating in the buckle but may be accentuated by the other factors that are related to perception that the buckle is harder to unlatch than what would be expected and by improper unbuckling procedure for the QT buckle.

d. Risk to Child Seat Safety

1. No injuries or fatalities.

As shown in **Attachment 1**, Graco has been producing the Signature and QT buckles on various models in the 2009-2012 time period that have amounted to 3,034,739 child restraints in use by consumers. Graco has not received any reported incidents of the buckle allegedly being difficult to unlatch or becoming stuck in the latched position that have resulted in injuries, fatalities, lawsuits or any emergency egress situations since the Signature and QT Buckles have been incorporated into Graco products. Graco believes that some consumers have perceived the buckle as being more difficult to operate than they would have expected, but this has not resulted in any safety-related incidents.

2. Ability to Remove Child.

While some consumers have expressed to Graco and NHTSA their perception that the buckle is allegedly more difficult to unlatch than they would expect and some consumers have expressed that they were unable to unlatch the buckle, the child can still be extracted from the car seat harness by loosening the harness adjustment, unfastening the chest clip and removing the child with the buckle still fastened. In addition, the child restraint can be disconnected from the vehicle seat belt or vehicle LATCH anchors to remove the child and car seat from the vehicle if an emergency situation were to occur. Graco, and many of the NHTSA provided reports, has numerous accounts of caregivers who have successfully removed their child from the harness by loosening the harness system.

3. Cutting Harness to Remove Child

Graco notes that a small number of consumers have elected to cut the harness straps in an effort to remove their child from the child restraint because they were unable to unlatch the buckle. Of the 3,034,739 units sold over the period from January 1, 2009 through November 30, 2012, there have been a total of 29 incidents reported to Graco of the harness being cut which represents 0.00095% of the total units sold. These incidents are tabulated by child restraint platform and by buckle type in **Attachment 33**. This small percentage of incidents where the consumer felt the need to cut the harness is representative of the consumer not utilizing other more appropriate options like loosening the harness.

e. Warnings that alleged defect was occurring or that the subject component was allegedly malfunctioning;

1. Consumer Detection

Consumer feedback indicates that the force to unlatch the buckle in many incidents progressively increases over time. Whether the root cause is foreign material inside the buckle or an enhanced perception from various factors, the incident feedback indicates that the consumer is able to detect some difference in the performance of their specific buckle as demonstrated by a perceived increasing force to depress the red button. Consumers have been able to detect an increasing button force and have contacted Graco for various remedy options.

f. Reports

Graco has prepared a number of evaluations of this issue in order to improve our consumer's experience with Graco car seats. As is evident by the consumer feedback documented in this response, Graco has a consumer dissatisfaction issue related to the buckles it uses for car seats and has been on a path to improve the user interface on its buckles.

g. Other discussions

1. Buckles are compliant to FMVSS-213

The Signature and QT buckles used in the 2009-2012 Graco child restraint models are compliant to the requirements of FMVSS-213 even though there is some consumer feedback and some human factors evaluations that indicate the force to unlatch the buckle is higher than what is expected or considered acceptable to some adult caregivers. However, these buckles have passed every compliance test run by Graco third party labs and NHTSA as part of the annual test program where such tests are conducted according to FMVSS-213 procedures. The Signature and QT buckles serve the primary functions to remain fastened during the forces of a vehicle crash and to restrain the child in the event of a vehicle crash.

2. Consumers Serviced by Graco's Consumer Service Department

Graco's Consumer Service Department has been and continues to service consumers by assisting any consumer that contacts Graco by providing a replacement buckle; providing a replacement child restraint; providing a refund if required; reinforcing the proper unbuckling instructions or providing buckle cleaning instruction to remedy the consumer's issue. Each consumer contact is handled on a case-by-case basis to assess the circumstances and to provide the best remedy.

3. Analysis of returned buckles

Based on Graco's buckle evaluations in response to Request #8 for returned buckles from consumers who have indicated that the buckle is difficult to unlatch or becomes stuck in the latch position, Graco has concluded the following:

a. Cleaning of buckles by the developed cleaning procedure is effective in reducing the force required to unlatch the buckle.

b. Buckles that have been identified by consumers to "stick", in fact can be unlatched but Graco recognizes that there is some difficulty or frustration being experienced by some consumers. A small percentage of returned buckles were validated as being "stuck" in the latched position. Several of these were cleaned, then functioned normally.

c. Based on the consumer frustration related to difficulty in unlatching buckles, Graco has reinforced its instructions in the car seat manuals that utilize the QT Buckle to better guide the consumer on unlatching the buckle. This guidance is also provided to consumers who contact Graco's Consumer Services Department.

4. Preventing Children from opening buckles

Although the FMVSS-213 pre-crash buckle release force requirement of 9 to 14 pounds is aimed at achieving a force that is easy enough for an adult caregiver to unlatch the buckle while being more difficult for a child to unlatch the buckle, Graco strives to achieve a compliant release force at the upper end of the tolerance in the buckles used on Graco child restraints. To this end, Graco's Signature Buckle and QT Buckle have utilized some non-traditional release mechanisms such as the sliding button in the Signature Buckle and the pivoting button on the QT Buckle to decrease the likelihood that a child can open the buckle. Some older children with increased strength, dexterity and functional knowledge of the buckle unlatching mechanism may be able to unlatch a traditional buckle but a non-traditional buckle like the Signature and QT poses a greater challenge for children who attempt to unlatch buckles. This is particularly important as Graco car seat's recommended weight limits increase to accommodate older children. Graco has achieved improvement in the area of preventing older children with increased strength, dexterity and functional knowledge of traditional buckles from opening the Signature and QT buckles.

5. QT Buckle Improvements

In November of 2012, a modified version of the QT buckle was implemented in production on Graco child restraints. Graco had been working on this modification of the QT Buckle prior to the start of this investigation and Graco elected to continue its planned implementation of improvements. This buckle modification provides a better user interface for the consumer by improving 3 areas:

a. The button shape changed to help "force" the consumer to push at the top of the button;
b. More consistent release force by adding a third spring; and
c. Reduce tongues insertion force by half.

6. Consumer Perception and Frustration

Graco believes that the issue being investigated by NHTSA where consumers have reported difficultly unlatching the buckle or the buckle becoming stuck in the latched position is a perception and a frustration for some consumers and not a safety issue affecting the compliance or crashworthiness of the buckle. Utilizing the 2009-2012 sales information provided in Request #1 above for child restraint models that corresponds to the complaints, the overall composite percentage complaint rate for all buckles (Signature, QT and Unknown) for the entire production quantity is 0.116%. This represents approximately 1 person out of 1000 that believes the buckle is more difficult to unlatch than they believe it should be.

CONCLUSION:

Graco provides the following conclusion based on its efforts to analyses the buckle issue and to improve the user interface experience with the buckles.

1. No Injuries, Fatalities or Degradation in Crashworthiness

Graco is not aware of any incidents related to the Signature or QT buckles regarding any injuries, fatalities or degradation of crashworthiness of the child restraint related to Signature or QT buckles that are difficult to unlatch or that become stuck in the latched position.

2. Buckles are Compliant

The Signature and QT Buckles are fully compliant to the requirements of FMVSS-213. Graco believes that the buckles are not defective but a small percentage of consumers are frustrated and perceive that the buckles are more difficult to open than what they would expect.

3. Consumers are being Serviced as Needed.

Consumers that contact Graco are being serviced to provide them with an acceptable remedy for any issues with regard to the Signature and QT Buckles.

4. Graco Continues to Improve Buckles

Graco has been evaluating the Signature and QT Buckles and has implemented changes to improve the user interface experience on the QT Buckle. Graco will continue to evaluate consumer feedback and will respond as needed to improve the consumer experience.

Graco looks forward to meeting with NHTSA in the near future to further review and discuss this issue on the QT and Signature Buckles.

Sincerely,



David Galambos
Senior Regulatory Manager
Graco Children's Products, Inc.

cc: Sean Beckstrom - Vice President, Legal Affairs, Newell Rubbermaid - Baby & Parenting Essentials
Dan Campbell – Crowell & Moring

PE12-031

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12/21/2012

ATTACHMENT 3

Attachment 3

- We just love our Graco My Ride Carseats! We have two in our Ford Windstar and just love them!! Although lately my youngest seat buckle, the button is flat,has been very hard to press to open. If I was ever in an emercency it would be horrible. I just bought the seat in January (Babies R Us) , my oldests seat has an indention on the button wich makes it easier to press open...anyone else with this problem? HELP Graco!
- Graco, I have never hated anything more than I hate your new crotch clip. Can I possibly get the old style crotch clip from you? I had to replace my Nautilus that I had only had for a MONTH with a different seat entirely because the clip is so difficult to use! It gets stuck and is nearly impossible to unbuckle when it's actually clipped, and it is very hard to actually get buckled to begin with!
- I agree the new buckle is horrible I miss the old push down buckle
- The new buckle is definitely more difficult.
- Well Graco, aside from asking people to email you, are you
  Actually doing anything? May e working on another redesign? Considering bringing back the old buckle?
- I had to buy a Nautilus to get me til my new seats arrived after our crash. It is now in the basement. None of our parents can undo it when they have the kids, it is terrible! I have never been so unhappy with a seat in 12 years worth of seats for 5 kids! I have owned likely 50+ seats, and this is a nice seat, but I LOATHE the buckle!
- Yes, please go back to the old buckle. I have a Snugride, My Ride & Nautilus with old buckles. But I won't buy another Graco until this current buckle is gone.
- Please give us the option of ordering the old style buckle. I will be needing a new seat for child #3 next year and want the old style buckle for it.
- The new buckles are a joke, I almost regret buying the Nautilus
- Yes! I could keep my Myride if it had the old buckle. Unfortunately, the new buckle is a PITA and I plan to sell the seat because of the buckle.
- Hi Graco! Wondering if you would consider re-manufacturing the old style Nautilus buckle. The new one is not good at all. And many of us CPSTs loved recommending the older style to grandparents and other caregivers who had issues with regular style buckles. I know, as a mom who has had surgery on both writsts, that I love love love the old style buckles on my two Nautilus seats and was VERY disappointed to learn that I could not buy a replacement in the old

style. I know others have posted here about it, only to have their comments deleted. Please consider our request!

- I agree. The original style buckle was one of the Nautilus' shining stars in terms of ease of use. I understand perhaps a smaller buckle on the infant seats, but it's disproportionate and no where near as easy to use on the Nautilus.
- This is the sole reason I am looking into a Radian for my oldest instead of a Nautilus. We have 2 MyRides with the newer buckle and 1 with the original buckle. HATE the new buckle!
- This is a valid and important request. I recommended the nautilus more than any other seat in my career, and also highly recommended the myride and snugride32/35. I have stopped recommending them almost entirely since the buckle changed. Not only was the old buckle wonderful, the new one is just too difficult. I cannot easily unbuckle it, there would be no way I could use it on a daily basis for my children. As a result, my newly forward-facing three year old cannot move into a nautilus as I had planned.
- Absolutely couldn't agree more. I have a hard time recommending Graco seats since the new style buckle came out. The Nautilus used to be my absolute favorite seat, and now I feel the opposite towards it. In fact, I bought a Nautilus, noticed the new buckle, and quickly reinstalled my Radian car seat back into the car for the child to use. The Nautilus with the new style buckle was put out of use for us.
- The new buckles are awful.
- I will also chime in though that we ruled out a Graco seat because of the new buckle.
- I'm with you all. I got a nautilus like 2 year back, and loved it, so when we needed to get a second seat, I didn't hesitate when I found the nautilus on sale at babies r us early last year. I do not like the new style buckle at all! It continually got stuck after having it for a few weeks. And it would only happen occasianly, but then a month back,everytime we used it, it was stuck. It would take 10 mins sometimes to get her out. I will say though, when I emailed graco, they quickly sent me a whole new harness, for both seats. I'm not changing it in the older one though.
- The problem with this is even when an adult figures out the trick to it, it's still much too hard for a child to do/undo. And the nauti in particular is a seat that tends to be used by an independent buckler. It's annoying but not as big a deal in the infant seats but it's a deal breaker in the nauti.
- I want the traditional style buckles, like my old SR22 had and Britax and Diono use on all their seats. It's easier to pull out from under a child's butt and older children can undo, but my

younger ones couldn't. The end of a wooden spoon can be used to open it for those w/ arthritis. Thanks, the buckles are the *only* thing I do not like about my Nautilus and they annoy me enough that I am thinking about getting rid of it and getting a Frontier.

- My buckle flat out doesn't buckle without putting extreme force into it. My parents thought they had buckled my daughter one day but had not. I should have bought a frotier
- Part of the problem is also buckling. I have to really jam the buckles in to get them to latch properly. I tried the "dimple" trick that Graco posted earlier and did not feel this method was any easier to release it.
- I have 4 granddaughters and I have not been able to drive them anywhere because I can not push the red button to release the buckle, I have arthritis, and had carpal tunnel surgery both hands, I have resumed everything else in my life but this. I am very sad to think I can not bring my girls for a sleep over or take them on outings. Do you have any suggestions on easier release or plans to replace the current buckles? We have had nothing but Graco car seats, strollers, play yards.. Please respond.
- I would just like to let people know that if you have a defective graco item, don't think that graco will respond quickly or really even seem to care! I have one of their new booster seats and the buckles jammed and it took me a long time to get my son out of his carseat! SUPPOSEDLY the replacement parts are on their way (two weeks later)! We'll see if they arrive anytime soon! GOOD THING I HAVE AN EXTRA SEAT FOR MY SON!
- Graco, I love your products so much. PLEASE bring back your old style buckles as an option on your car seats. The Safe Seat, My Ride and Nautilus are our primary car seats. After keeping our babies safe in a crash we went to replace the three seats with a MyRide65s and 2 Nautilus (I need one of each) but sadly I couldn't because pain in my hands has made it impossible for me to open the buckles on either seat. Please, please, please bring back the "old style" buckle.
- Is there anyway to bring back the old style buckle for the nautilus?!!! The new one is ridiculously hard! I've owned Graco before but this new style is a huge con on my pros and cons list for Graco.
- I have used Graco car seats since day one with my daughter (Snug Ride 22, My Ride 65 and the Nautilus three times over due to car accident replacing.) I have to admit, though, I can't stand the new crotch clips on them! My Nautilus is so stiff and difficult to buckle. If someone else buckles my daughter, they almost always do it wrong and my kid ends up with only her chest

clip being fastened. I've heard several people complain about these horribly stiff, stubborn clips. Will you ever bring the original ones back?

- Just bought a brand new Nautilus 3 in 1 from Babies R Us. Got it out of the box and put together only to discover the harness buckle was not the same as we tried out at the store (the only one we liked) or shown on the box or shown on your website. Called Graco customer service this morning and they said they couldn't help me. I'm hoping someone can help me find the harness buckle that is supposed to be on this seat so I don't have to return it for the Frontier.
- I had the Graco Smart Seat for my daughter and this weekend she got stuck in it because the latch between her legs was stuck! I thought I was going to have to cut her out! The poor kids was so upset and so was I! Was able to loosen the straps enough to twist her out, thank goodness! Don't buy a Smart Seat though!! Scary stuff!! Plus I tried to call Graco during their posted business hours but all I could get was an "out of the office" recording. Even now they are not willing to help me at all. So bummed bc I used to love Graco!

-----Original Message-----
From: Jess McKissor [mailto:jessimckis@gmail.com]
Sent: Thursday, April 12, 2012 10:42 AM
To: Gracobaby BLOG
Subject: I hate your new crotch clip

My name is jessi McKissor. I have a Valerie print nautilus that I can only use in booster mode because the crotch clip is so temperamental. If I wanted a booster only, I would have bought the Turbo and saved myself well over 100 dollars . I've been trying to sell this seat that I only used for two weeks, but nobody wants to deal with your new crotch clip! Please bring the old ones back :(I've "pressed the little indent on the top" and it still doesn't help. Some people have three kids in a small car to load and unload and don't have an extra 15 minutes to mess with this :(

Sent from my iPhone

PE12-031

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ATTACHMENT 31

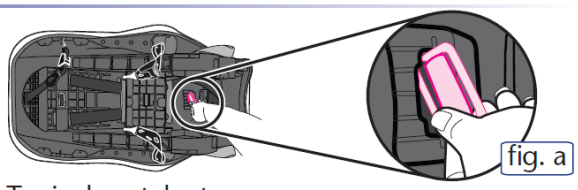
Attachment 31

Signature Buckle Cleaning Procedure

ADDITIONAL INFORMATION

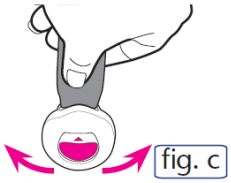
Buckle Cleaning Process:

⚠WARNING
Prevent serious injury or death:
- **Buckle must be properly latched.**
- **Periodically inspect and clean buckle to remove objects or debris that could prevent latching.**



Typical crotch strap attachment location





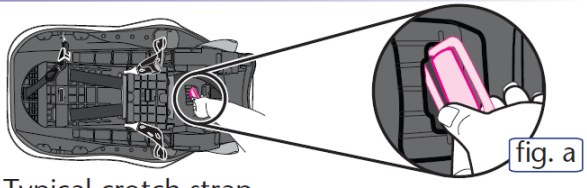
1. Turn restraint over, push retainer through crotch strap slot **(fig. a)**.
2. To clean buckle - place in a cup of warm water and gently agitate the buckle, press the red button several times while in the water, cycle the red button while under water **(fig. b)**. **DO NOT SUBMERGE THE HARNESS WEBBING.** DO NOT USE SOAPS or LUBRICANTS. DO NOT use household detergents. Never lubricate buckle.
3. Shake out excess water and allow to air dry, harness webbing should be dry before use **(fig. c)**.
4. Repeat Step 2 and 3 as needed. Buckle should fasten with a "click", if not, rinse buckle with warm water.
5. Reattach buckle into the same slot from Step 1. Re-check harness for correct installation before use.

QT Buckle Cleaning Procedure

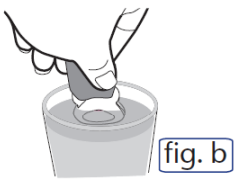
ADDITIONAL INFORMATION

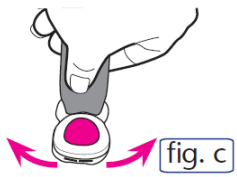
Buckle Cleaning Process:

⚠WARNING
Prevent serious injury or death:
- **Buckle must be properly latched.**
- **Periodically inspect and clean buckle to remove objects or debris that could prevent latching.**



Typical crotch strap attachment location





1. Turn restraint over, push retainer through crotch strap slot **(fig. a)**.
2. To clean buckle - place in a cup of warm water and gently agitate the buckle, press the red button several times while in the water, cycle the red button while under water **(fig. b)**. **DO NOT SUBMERGE THE HARNESS WEBBING.** DO NOT USE SOAPS or LUBRICANTS. DO NOT use household detergents. Never lubricate buckle.
3. Shake out excess water and allow to air dry, harness webbing should be dry before use **(fig. c)**.
4. Repeat Step 2 and 3 as needed. Buckle should fasten with a "click", if not, rinse buckle with warm water.
5. Reattach buckle into the same slot from Step 1. Re-check harness for correct installation before use.

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ATTACHMENT 32

Attachment 32

Chest Clip:

- To open: Press tabs and pull apart ***(d)***
- To close: Snap halves together. Make sure the chest clip is locked by pulling out on each half. ***(e)***

Buckle:

- To buckle: Insert both tongues into buckle. Pull up on tongues to be sure they are locked. ***(f)***
- To unbuckle: Loosen by lifting lever and pulling shoulder harness straps ***(g)***. Tilt top of buckle toward seat ***(h)*** and press in at the top of the red button ***(i)*** and pull tongues out of buckle. ***(j)***

