



## Strategies for Transporting Students with Special Needs

Charlotte-Mecklenburg Schools  
Kristine Lofton, EC Program Specialist  
Sherri Gordon, Lead Physical Therapist  
November 2014

---

---

---

---

---

---

---

---



## Child Safety Restraint Systems (CSRS)

- Safety features of school buses
- Various interventions to try before a CSRS
- Installing CSRSs on the bus
- Securing students in CSRS
- Additional strategies

---

---

---

---

---

---

---

---



## Safety Features of Buses



- Built like a tank
- Bright color
- Lots of flashing lights



---

---

---

---

---

---

---

---



## Safety Features Inside the Bus

### Compartmentalization

- High, padded, flexible seat backs
- Specific spacing



Only works if students remain in the compartment & on the bus seat

---

---

---

---

---

---

---

---



## Interventions for Students Who are Unable to Stay Seated



Starts with a team working together

---

---

---

---

---

---

---

---



## Interventions for Students Who are Unable to Stay Seated

### Collaborate with school and bus staff:

- Is additional training regarding the student's disability needed?
- Does student have a means of communicating?
- Does student have a behavior plan that can be incorporated on the bus?




---

---

---

---

---

---

---

---



## Interventions for Students Who are Unable to Stay Seated

Implement one or more of the following:

- Assign a peer buddy to sit next to student
- Assign seating:
  - Next to 'good' role model
  - Near the front of the bus
  - For all of the students




---

---

---

---

---

---

---

---

---

---

---

---



## Interventions for Students Who are Unable to Stay Seated

Allow the student to hold a preferred item:

- Soft toy or fidget
- Reading material




---

---

---

---

---

---

---

---

---

---

---

---



## Interventions for Students Who are Unable to Stay Seated

Additional Resources:

- Teachers
- Therapists
- NC Guide for Transporting Preschoolers & Students with Disabilities

**4.4 Students With Disabilities and The Bus Ride**

**Autism & 'The Bus Ride'**

**What is Autism?**  
Autism is a developmental disorder that is characterized by significant impairment in social interactions and communication skills.

**How does having Autism affect the student?**  
Students with autism may exhibit a wide range of physical abilities and a variety of behaviors. Students may exhibit one or more of the following characteristics:

- Unusual or unresponsive to others appear to be in their own world
- Repetitive behaviors such as rocking back and forth, twisting fingers, or repeating an action over and over again
- Difficulty with common classroom conversations and/or responding when spoken to
- Extreme sensitivity to noise (i.e. may become agitated with loud noise)
- Extreme sensitivity to someone or something touching them (i.e. may become agitated, may pick at their own clothing, and/or may avoid contact)
- Unusually low or high tolerance for pain

**Special Considerations for the Bus Ride:**

- Obtain information about student's specific characteristics and communication abilities with the school staff.
- Consult with classroom staff on behavior strategies that can be incorporated during the bus ride.
- Maintain a calm routine to avoid undesirable behaviors.
- Give verbal comments using a calm voice in simple one or two word phrases.
- Maintain close supervision during the bus ride as some students may be injured by touch.
- Observe closely with the student as some students may be injured by touch.
- Allow the student to hold a familiar object if needed to remain calm during the bus ride.
- Consult with school staff if the student has difficulty staying on the bus seat. A child safety restraint system may need to be used.

---

---

---

---

---

---

---

---

---

---

---

---

WORKING TOGETHER TO ACHIEVE STUDENT SUCCESS | 64<sup>TH</sup> CONFERENCE ON EXCEPTIONAL CHILDREN

## Options When Interventions Don't Work

**Child Safety Restraint Systems:**

- Integrated Bus Seats
- Transportation Add-On Restraint
- Safety Vests

---

---

---

---

---

---

---

---

---

---

---

---

WORKING TOGETHER TO ACHIEVE STUDENT SUCCESS | 64<sup>TH</sup> CONFERENCE ON EXCEPTIONAL CHILDREN

## Options When Interventions Don't Work

**What about Lap Belts?**

Use of lap-belts only to restrain students ➔ discontinued due to **EXCESSIVE** force at the stomach and head




---

---

---

---

---

---

---

---

---

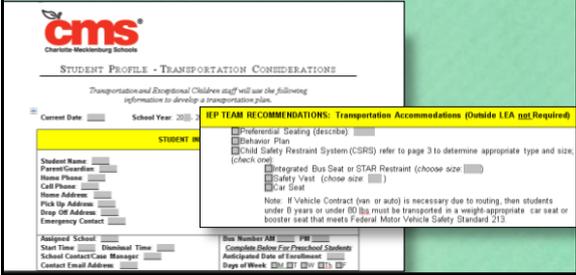
---

---

---

WORKING TOGETHER TO ACHIEVE STUDENT SUCCESS | 64<sup>TH</sup> CONFERENCE ON EXCEPTIONAL CHILDREN

## Options When Interventions Don't Work



---

---

---

---

---

---

---

---

---

---

---

---

WORKING TOGETHER TO ACHIEVE STUDENT SUCCESS | 64<sup>th</sup> CONFERENCE ON EXCEPTIONAL CHILDREN

## The Need for a CSRS Must Be Documented in the IEP

**cms** Charlotte-Mecklenburg Schools  
DEC 4  
Purpose: Develop Initial Individual Education Program

**Individualized Education Program (IEP)**

Duration of Special Education and Related Services: From: 05/07/2014 To: 05/06/2015

General Education Special Education Nonacademic Services and Activities	Participating in Regular Class/Activity	Participating With Accommodations
Transportation		X

**General Education Program Accommodations**

**Class/Activity:** Transportation  
**Accommodations:** Child Safety Restraint System (CSRS)

**Implementation Specifications:**  
Aaron requires a child safety restraint system in order to be safe while riding the bus

---

---

---

---

---

---

---

---

---

---

WORKING TOGETHER TO ACHIEVE STUDENT SUCCESS | 64<sup>th</sup> CONFERENCE ON EXCEPTIONAL CHILDREN

## Options When Interventions Don't Work

### Integrated Bus Seats on NC Buses



---

---

---

---

---

---

---

---

---

---

WORKING TOGETHER TO ACHIEVE STUDENT SUCCESS | 64<sup>th</sup> CONFERENCE ON EXCEPTIONAL CHILDREN

## Integrated Bus Seats

**CE White Seat**  
**20-60 lbs**



---

---

---

---

---

---

---

---

---

---



## Integrated Bus Seats



**SafeGuard  
Seat  
22-85 lbs**

---

---

---

---

---

---

---

---



## Integrated Bus Seats



**New  
SafeGuard  
Seat  
22-85 lbs**

---

---

---

---

---

---

---

---



## Restraining Students in Integrated Bus Seats

1. Flip vinyl down to expose seat



---

---

---

---

---

---

---

---



- 2. Unbuckle buckles, loosen webbing **and** place center buckle forward




---

---

---

---

---

---

---

---



- 3. Position student so hips are all the way back
- 4. Buckle both side straps into center buckle




---

---

---

---

---

---

---

---



### CE White Seat

- 5. Webbing tightens and loosens by pulling on tab at top right corner




---

---

---

---

---

---

---

---



## SafeGuard Integrated Seat

- 5. Webbing tightens by pulling upward on both sides




---

---

---

---

---

---

---

---



## New SafeGuard Seats

- 5. Webbing tightens by pulling down on the outside strap




---

---

---

---

---

---

---

---



- 6. Buckle chest clip and position at armpit level
- 7. Adjust shoulder guide (SafeGuard)




---

---

---

---

---

---

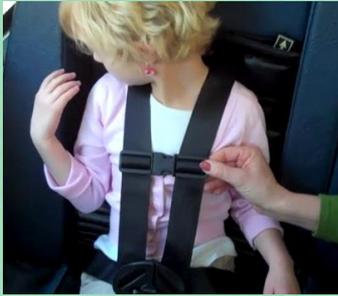
---

---



## Removing Students in Integrated Bus Seats

1. Unfasten harness/chest clip




---

---

---

---

---

---

---

---



## CE White Seat

2. Loosen webbing by pulling on tab at top right corner




---

---

---

---

---

---

---

---



## SafeGuard Integrated Seat

2. Loosen webbing by pushing on gray webbing slide on both sides




---

---

---

---

---

---

---

---



## New SafeGuard Seats

- Loosen webbing by lifting lift up metal tab and pulling middle strap




---

---

---

---

---

---

---

---



## Removing Students in Integrated Bus Seats

- Unfasten buckles




---

---

---

---

---

---

---

---



## Student Transportation Add-On Restraint (STAR)

SafeGuard STAR

- STAR - 25-65 lbs
- Plus - 25-90 lbs
- Special Needs – 25-105




---

---

---

---

---

---

---

---



## Installing a STAR Seat

1. Place upper straps over seat back
2. Insert both short straps on base between seat and back




---

---

---

---

---

---

---

---



3. Connect and tighten outer black straps first to make sure base fits snug against seat
4. Connect and tighten gray straps




---

---

---

---

---

---

---

---



## Restraining a Student in a STAR Seat

1. Loosen webbing and position center buckle forward
2. Position student so hips are back
3. Place shoulder straps flat




---

---

---

---

---

---

---

---



## Restraining a Student in a STAR Seat

- 4. Buckle both side straps into center buckle and tighten (pull webbing up)




---

---

---

---

---

---

---

---



- 5. Adjust shoulder guides
- 5. Buckle orange chest strap under black harness strap
- 7. Buckle harness clip (armpit level)




---

---

---

---

---

---

---

---



## Student Transportation Add-On Restraint (STAR) Special Needs



- 25 to 105lbs
- Extra support features include an abductor, recline wedge, torso supports, height adjusters, and adjustable headrests

---

---

---

---

---

---

---

---



## Safety Vests

Used for students who:

- Inappropriately unbuckle the buckles on integrated seats or STAR seats
- Weigh over 90 lbs and need a CSRS




---

---

---

---

---

---

---

---



## Safety Vests

- For students weighing 20 – 164 lbs
- 4 sizes with adjustable zippers
- Leg positioning straps (x-small, small, and medium)




---

---

---

---

---

---

---

---



## Safety Vests

### The Musts:

- Put on the student before getting on bus
- Be snug **and** zip up the back
- Back thread the webbing




---

---

---

---

---

---

---

---



## Installing the Safety Vest Seat Mount

Secure seat mount around seat back

- Adjustable hooks **must** be at the top of the seat
- Buckle release **must** face the seat back




---

---

---

---

---

---

---

---



## Installing the Safety Vest Seat Mount

- Make sure seat mount webbing is snug
- Tighten hip webbing by positioning the mount so that less webbing is on the seat




---

---

---

---

---

---

---

---



## Securing the Vest & Student

1. Attach seat mount snap hooks to D-rings at both hips




---

---

---

---

---

---

---

---



## Securing the Vest & Student

2. Adjust webbing to student's height
3. Back thread webbing to prevent sliding
4. Attach shoulder snap hooks to the metal slots on the vest




---

---

---

---

---

---

---

---



## For Students over 165 Pounds

- No commercially available product for students over 165 lbs
- E-Z-ON will make a custom vest
  - Not crash tested
  - May want to document in the IEP that *'due to no other options available, a custom vest made by manufacturer of safety vests will be used for school bus transport'*

---

---

---

---

---

---

---

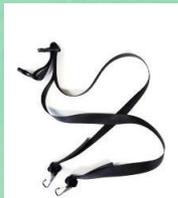
---



## Safety Vest Accessories for Large Vests



- Zipper extensions
- Leg straps




---

---

---

---

---

---

---

---



### Additional Points for all CSRS

- Remove student's book bag before securing student
- Make sure all buckles are fastened
- Make sure straps are snug




---

---

---

---

---

---

---

---



### Additional Points for all CSRS

- Do not let students buckle or unbuckle
- Do not install CSRS in seats with emergency exits
- Seat behind a CSRS should be empty or occupied by another CSRS user




---

---

---

---

---

---

---

---



### Additional Points for All CSRS

- A CSRS is a **RESTRAINT**, therefore, the need must be listed in the student's IEP
- Whenever possible, move towards the Least Restrictive Environment




---

---

---

---

---

---

---

---



## Know How to Evacuate

### Integrated Seats & STAR Seats

- 2 cuts below harness clip

Cut @ 45°




---

---

---

---

---

---

---

---



## Know How to Evacuate

### Safety Vest

- 1 cut below buckle (vest and mount remain on student)



Cut @ 45°

---

---

---

---

---

---

---

---



## CSRS – Expiration Dates

- E-Z-ON Safety Vests – currently do not have expiration date on tag
  - Expect this to change
- STAR Seats – expiration date is 6 years from date of manufacture
  - Change to 6 years from invoice date

**SAVE Expired CSRS for EVACUATION Practice**

---

---

---

---

---

---

---

---



# Social Stories



---

---

---

---

---

---

---

---

# E-Z-On Max Vest

- Must be installed on reinforced bus seat  
➢ (Meets FMVSS 210)
- Must install anchor point (kit included) to seat



---

---

---

---

---

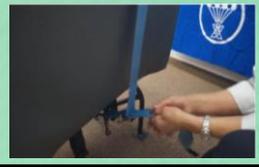
---

---

---



<http://ezonpro.com/>  
To see the complete video



---

---

---

---

---

---

---

---



## Before Considering Max Vest

- Make sure seat mount webbing is snug at hips & shoulders
- Collaborate with teacher, OT, PT, SLP.....
- Communication system
- Fidgets
- Functional Behavior Analysis/Behavior Plan




---

---

---

---

---

---

---

---



TRANSPORTATION & EXCEPTIONAL CHILDREN DEPARTMENTS  
CHILD SAFETY RESTRAINT SYSTEMS - EXAM

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Job Title: \_\_\_\_\_ Area: \_\_\_\_\_

## Are You Ready to Be Tested?

1. Leg belts are utilized on CMS/NC school buses for student restraint.  
True  False
2. Compartmentalization is the term used for occupant protection in school busses in the bus seat compartment by the use of high, padded and flexible distance apart.  
True  False
3. To save time and to encourage independence, it is okay to let students fasten restraint systems.  
True  False
4. The harness clips on integrated bus seats and STAB Seats (Student - Transport) should be at arm pit level.  
True  False

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Pre-test/best must be signed off before proceeding to the school/occupant measurement assessment on the bus for and CMS installation assessment in lab.

Station/Task	Practice	Installation Sign-off
Station 1	Remove and install Tie Down - eye buckle style	
Station 2	Remove and install Tie Down - ratchet style	
Station 3 or 4	Secure occupant with shoulder and lap belt	
CMS Station	Install safety vest seat mounts	
CMS Station	Install STAB Seat	

---

---

---

---

---

---

---

---



## What's Wrong??

---

---

---

---

---

---

---

---

**What's Wrong??**



---

---

---

---

---

---

---

---

**What's Wrong??**



---

---

---

---

---

---

---

---

**What's Wrong??**



---

---

---

---

---

---

---

---

**What's Wrong??**



---

---

---

---

---

---

---

---

**What's Wrong??**



---

---

---

---

---

---

---

---

**What's Wrong??**



---

---

---

---

---

---

---

---



**What's Wrong??**

---

---

---

---

---

---

---

---



**What's Wrong??**

---

---

---

---

---

---

---

---



**What's Wrong ??**

---

---

---

---

---

---

---

---

**What's Wrong??**



---

---

---

---

---

---

---

---

**What's Wrong??**



---

---

---

---

---

---

---

---

**What's Wrong??**



---

---

---

---

---

---

---

---



## Practice & Testing Labs



Name: \_\_\_\_\_ Date: \_\_\_\_\_

Practice lab stations must be signed off before proceeding to the observation/occupant measurement assessment on the bus list and CSRS installation assessment in lab.

Practice Lab	Practice	Instructor Sign-Off
Station 1	Remove and install Tie Downs - convertible tray	
Station 2	Remove and install Tie Downs - ratchet strap	
Station 3 or 4	Secure occupant with shoulder and lap belt	
CSRS Station	Install safety vest seat mount	
CSRS Station	Install STAR Seat	

---

---

---

---

---

---

---

---

---

---

---

---



## Practice & Testing Labs (utilize checklist from NC Manual page 3-15)

Appendix 3D — (Documentation) - Procedures for Transporting Students Using Child Safety Restraint Systems (STAR Restraint - Integrated Child Restraint - Safety Vest)

PROCEEDURES FOR TRANSPORTING STUDENTS USING CHILD SAFETY RESTRAINT SYSTEMS (STAR Restraint - Integrated Child Restraint - Safety Vest)

Name: \_\_\_\_\_ Position: \_\_\_\_\_ Date: \_\_\_\_\_

Installing STAR Restraint	Yes	No	Comments
Gird, top and back straps are placed around bus seat back.			
Gird and top straps are placed over seat back.			
Gird and top straps are attached to each other.			
Black strap at front of base is placed underneath the bus seat.			
Black straps are attached to each other.			
All straps are snug and four tie offs are secured.			




---

---

---

---

---

---

---

---

---

---

---

---



## Additional Resources for CSRS Training

Child Safety Restraint Systems on School Buses – NHTSA Training Video

<http://www.nhtsa.gov/Driving+Safety/School+Buses/SCRS/CSRS+on+School+Buses+Training+Videos>

---

---

---

---

---

---

---

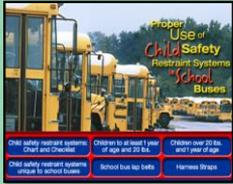
---

---

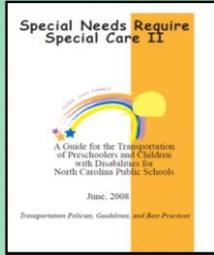
---

---

---



National Highway Traffic Safety Administration (NHTSA) Brochure  
[www.nhtsa.gov/people/injury/buses/busseatbelt](http://www.nhtsa.gov/people/injury/buses/busseatbelt)



[http://ncbussafety.org/EC/Manual/EC\\_Transp\\_Manual2008.pdf](http://ncbussafety.org/EC/Manual/EC_Transp_Manual2008.pdf)

---

---

---

---

---

---

---

---

---

---



Thanks for keeping me safe!  
Any Questions??

---

---

---

---

---

---

---

---

---

---