BUSPATROL

SCHOOLBUS

STUDENT SAFETY

Stop-Arm Program

2020

FAQ Manual

What to Know & What to Do To Safeguard Your Fleet

INTRODUCTION

Purpose of Document

On October 30, 2018, a driver in Indiana illegally ran a school bus stop-arm and tragically killed three students as they were crossing the street. The bus driver had the vehicle's stop arm and flashing lights activated as the children were crossing the road.

In April, 2020, the National Transportation Safety Board (NTSB) released its findings on the fatal crash, recommending the use of technology to monitor and prevent collisions of this sort.

In this document, we review stop-arm safety technology, the legislation required to permit its use in enforcement and how BusPatrol's tech-powered programs help school districts crack down on dangerous driving around school buses.

THE PROBLEM - ILLEGAL RUNNERS

Why are Stop-Arm Camera Laws Necessary?

17 MILLION REASONS WHY

While enforcement and education are critical in helping to change behavior, current models and legal frameworks in most states require that police offers catch motorists in the act of passing a school bus while its stop-arm is down to issue a ticket. But with roughly 560,000 school buses traveling across more than 4 million miles of road and highway in America, conventional methods are not enough to effectively enforce the law to control stop-arm violations across the country.

Federal lawmakers recently proposed a bill to improve school bus safety and step up efforts to prevent stop-arm violations. The Stop for School Buses Act of 2019 (H.R. 2218/S. 1254) was introduced in the House by U.S. Representatives Jackie Walorski (R-Ind.) and Julia Brownley (D-Calif.), and in the Senate by Senators Todd Young (R-Ind.) and Gary Peters (D-Mich.). The bipartisan legislation calls upon the U.S. Department of Transportation to conduct a comprehensive review of all issues involved with illegal passing of school buses and make recommendations to Congress on best practices to deal with the national safety issue.

>**94,000**
Violations Occur Each Day in Amerca

.73x
Violations / Bus / Day

How Often Do Drivers Illegally Pass School Buses in America?

In 2019, The National Association of State Directors of Pupil Transportation Services (NASDPTS) released data from their annual national survey indicating that **more than 17 million stop-arm violations occur in the United States each year.**

BusPatrol's pilot projects reveal even more staggering safety figures. Recent pilots conducted in Virginia, Georgia, Maryland, Ontario, and Québec **suggest that school buses are illegally passed by drivers between 1.6 - 3.8 times per bus, per day in both urban and suburban environments.**

BusPatrol recently conducted a one-month study of 10 buses in East Meadow, New York, during which our cameras recorded 615 illegal Stop-Arm passes, or roughly 2.3 per bus, per day. This represents three times more than the number of tickets given out by Nassau & Suffolk counties during the entire 2018-2019 school year.

"The results of the surveys, conducted annually since 2011, have been unfortunately consistent. The survey results have brought needed attention among state and federal policymakers to the need for greater safety countermeasures." - NASDPTS, President, Mike LaRocco

CHANGES IN LEGISLATON SUPPORTING SCHOOL BUS SAFETY

Has My State Enacted a Law Allowing for Exterior School Bus Cameras and Stop-Arm Program Enforcement?

According to the National Conference of State Legislatures (NCSL), 22 states explicitly permit local governments or school districts to use stop-arm cameras to capture evidence and issue tickets for illegally passing stopped school buses based on the images

Crucially, **footage from stop-arm cameras is now admissible in court as evidence**, helping police and the communities they serve to enforce long-standing traffic laws and ensure the safety of children on roadways.

States with Stop-Arm Camera Enforcement Laws (22)

Alabama	Maryland	Tennessee
Arkansas	Mississippi	Utah
Connecticut	New York	Virginia
Georgia	North Carolina	Washington
Idaho	Oklahoma	West Virginia
Illinois	Pennsylvania	Wyoming
Indiana	Rhode Island	
Maine	South Carolina	

What Are Our Leaders Saying About These Legislative Changes?

"Despite the fact that students are much safer being transported to and from school in a school bus, students and adults at the bus stop are still very much at the mercy of inattentive motorists," LaRocco added. "The sheer volume of these illegal passing incidents in a day, let alone an entire school year, is tragic and sobering, particularly when you consider that these injuries and deaths are easily preventable."

- NASDPTS, President, Mike LaRocco

"No parent should ever have to worry that their child's bus ride to and from school is anything other than safe and easy. By signing this measure into law, we are providing school districts with the tools they need to hold reckless drivers accountable and advancing New York State's bold initiatives to keep our school children safe."

- New York State, Governor, Andrew Cuomo

"The fact that there are, on average, fewer than 6 fatalities caused by cars illegally passing stopped school buses each year must mean we are doing something right. But we cannot be lulled into complacency. We must keep striving to find a better way to prevent fatalities caused by cars that illegally pass a stopped school bus. Moreover, we must acknowledge and address the role we play in these tragedies."

- Mike Martin, Executive Director, NAPT

STOP-ARM ENFORCEMENT

How Does BusPatrol's Stop-Arm Enforcement Program Reduce Illegal Passings?

BusPatrol outfits fleets with the latest stop-arm safety technology; including stop-arm cameras, DVR and storage devices, internal cameras, GPS, telemetry and LTE connectivity. In addition to our industry-leading hardware, our enforcement program is powered by proprietary software and processes, and by experienced safety professionals who coordinate with police, local officials and partners.

When a school bus is stopped and its lights and stop-arm are activated, BusPatrol cameras capture incidents involving vehicles illegally passing the bus. Through cloud computing, data is sent to BusPatrol's safety experts, who then review the footage and prepare evidence packages for law enforcement.

By coupling technology-based enforcement with education and public safety campaigns, we change driver behavior around school buses and children.
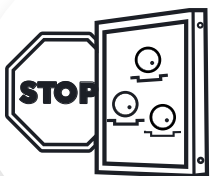
HARDWARE   SOFTWARE   PROCESSES & TRAINED PERSONNEL

Who Are Stop-Arm Violation Tickets Issued To, and How Much Will They Cost Violators?

Stop-arm cameras identify illegal passers by license plate number. Tickets are issued to a vehicle's registered owner, unless the automobile is proven stolen during the time of the offense. If someone other than the vehicle's owner was driving at the time, the owner can request a transfer of liability.

In most states, a first-time stop-arm violation carries a fine of $250-$350. In New York state, subsequent violations within an eighteen month period are subject to a $25 increase in penalty, up to a maximum of $300.

In addition to the financial deterrent, violators learn about the potential dangers of their actions. Offenders can call our toll free number and speak with a BusPatrol representative, who can review the video evidence with them and help them understand the dangers of illegal passing. Our team offers services in English, Spanish and French.

BusPatrol driver data demonstrates that 94% of first-time offenders do not receive a second ticket, and that 95% of drivers do not contest their ticket after seeing video evidence of their violation.

ENFORCEMENT & EDUCATION

Reducing the Number of Violations Per Bus Per Day

First-Time Fine

$250 – $350

Most states impose a first-time fine within this range. Additional fines can be given for subsequent offences.

STOP-ARM ENFORCEMENT

# How Does BusPatrol's Stop-Arm Enforcement and Ticketing Process Work?

BusPatrol's leading stop-arm enforcement program is built on a robust, guided, and secure process.

When a vehicle illegally passes a school bus while the stop-arm is deployed, BusPatrol's multi-lens camera box captures the violation and car's license plates from different depths and angles. The footage, along with GPS and timecode data, is stored locally on an onboard digital video recorder (DVR) unique to each bus.

The data related to the incident and violation is sent via an encrypted LTE network to BusPatrol's secure cloud system. BusPatrol's artificial intelligence (AI) software filters all footage received from each bus before it goes to one of our safety specialists for review.

A BusPatrol's safety specialist reviews the filtered footage. If they determine that the violation is indeed an offence, the specialist prepares an evidence package for use by law enforcement. The package is built in accordance with state law, complete with video footage, license plate number, make, model, driver information, GPS location, and a timestamp of the incident.

The evidence package is then submitted to law enforcement via a secure cloud portal. Law enforcement reviews the evidence package to approve citation. If approved, a ticket is mailed to the vehicle's owner, along with a link to BusPatrol's Driver Education & Payment Portal, where they can view video evidence of their violation. The vehicle owner makes their payment online, through the mail, or in person in the municipal jurisdiction – tickets can also be contested through the relevant jurisdiction's civil court system.
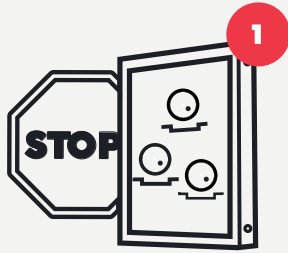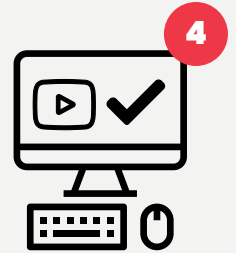
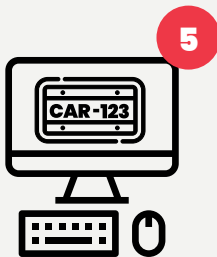**1** Stop-Arm Cameras Captures Violation at 8 Different Angle
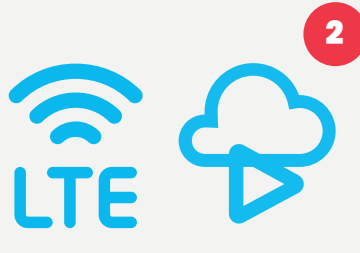
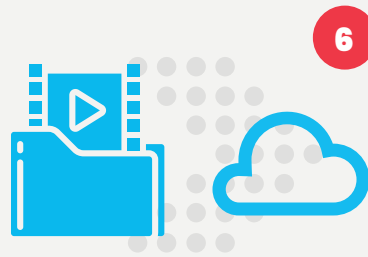**2** Data Sent Via Encrypted LTE Network to BusPatrol's Secure Clouds Servers.

3 AI Footage Filter *Pre-Processing* Before Sending to Reviewers

4 Trained Reviewers Verify Video of Each Stop-Arm Incident for Violations
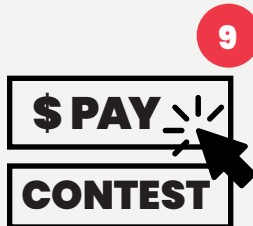
5 Processors Prepare Evidence Packages

6 The Evidence Package is Submitted to Law Enforcement Via a Secure Cloud Portal

7 Police Review Evidence Package for Approval

8 Approved Citations Are Issued to Violators By Mail with Links to Video

9 Violator Accesses AlertBus Site to Pay or Contest Citation

Toll-free number to review incident and learn about traffic laws from trilingual customer service team.

After 90 days, all citation data is purged from BusPatrol's DVR, cloud, and servers.

Is There a District Share in the Ticket Revenue?

With BusPatrol's seamless stop-arm program, each district is entitled to a share of the ticket revenue based on the agreement. Because every district is different, BusPatrol works to establish unique partnerships in every jurisdiction to allow municipalities to re-invest in their communities and safety programs.

**FUNDING & FINANCING**   **$0 NO CAPITAL OUTLAY REQUIRED**

Does the Law Provide State Aid to Cover the Costs of Procurement, Installation, and Management of a Stop-Arm Enforcement Program?

It is not mandatory to implement stop-arm technology, and states with the required legislation to permit stop-arm enforcement programs do not provide additional funding for the installation, maintenance, and management of stop-arm cameras on school buses.

However, BusPatrol offers communities a way to reduce stop-arm violations at <u>no cost</u>.

We shoulder the cost of procurement, installation and maintenance of stop-arm cameras for a school district's entire fleet, funded by the fines paid by motorists who commit stop-arm violations. Once we recover our installation, technology and program management costs, BusPatrol shares the revenue generated by each paid ticket with the district. **In the rare case that a partner issues no tickets, BusPatrol will even absorb these costs.**

This means that participating school districts can equip their entire school bus fleet with the latest Safety-Arm technology, at no cost. This includes GPS, full-fleet management, Zonar SafeTech Solution, student tracking, equipment maintenance, upgrades, telecommunication services (connectivity), storage, and real-time remote data access.
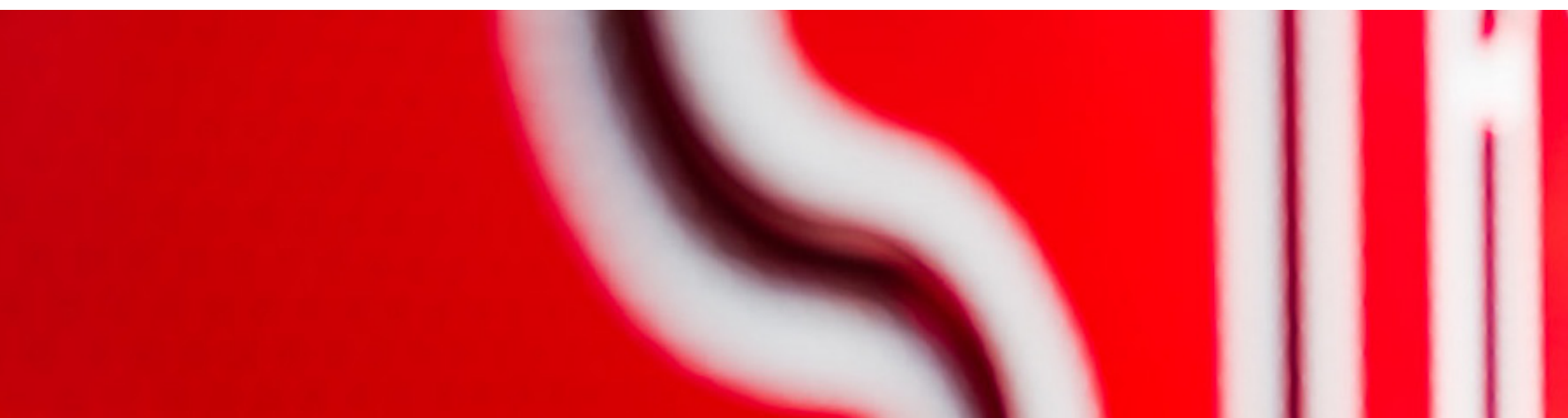
Why Is Full-fleet Deployment the Only Effective Way to Change Driver Behavior Across Communities & Increase Safety for All Students?

We are the only company with a singular focus on full-fleet deployment. BusPatrol's **inclusive model prioritizes safety for all students** over short-term profits for hardware vendors. We outfit entire fleets with no capital outlay required from our partners.

To measure the success of our program and **capture the complete data sets required to make informed safety decisions**, our technology must be applied consistently across a jurisdiction and its fleet.

It would be simpler to identify dangerous routes and help school bus drivers to avoid them, but BusPatrol's wants to make all roads safer and change driver behavior uniformly across communities.

The technology required to power our stop-arm program provides all our riders and their parents with additional benefits, such as access to WIFI and emergency bus safety and anti-bullying alerts. Through our exclusive partnerships with Zonar and BusPlanner, all student riders and their families benefit from access to the Chipmunk parent app and Z Pass™ Student Rider Visibility; providing safe and secure rider reporting.

WHY FULL-FLEET DEPLOYMENT?

COMPLETE SAFETY DATA SETS
FOR EFFECTIVE DECISION MAKING

EQUAL ACCESS TO TECHNOLOGY
AND SAFETY BENEFITS FOR ALL FAMILIES
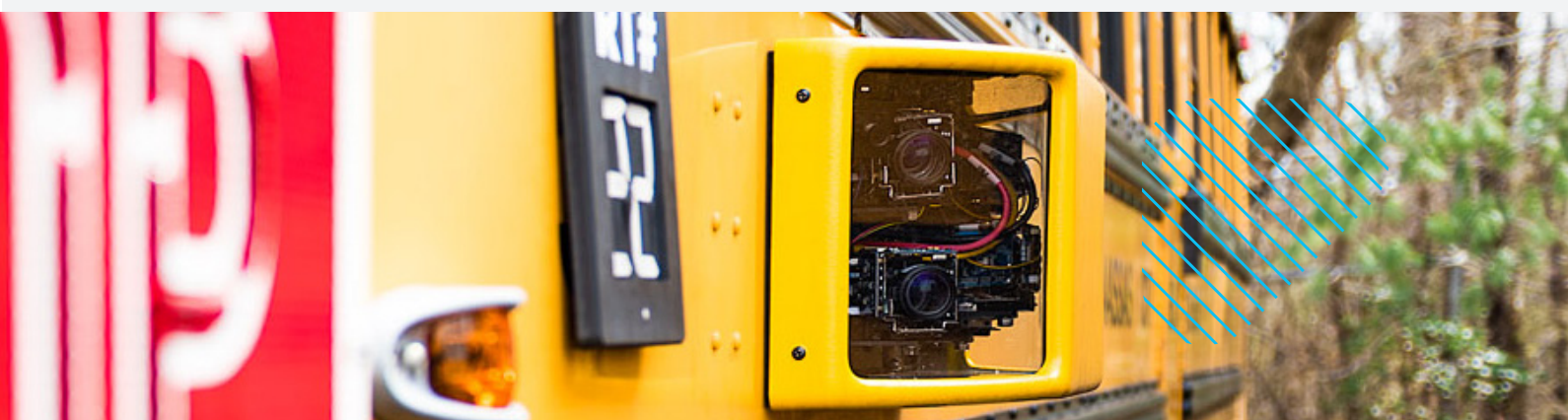
TECHNOLOGY - HARDWARE & SOFTWARE

Why is BusPatrol the Leader in School Bus Safety and Stop-Arm Enforcement Technology?

BusPatrol's leading stop-arm camera safety technology, hardware and software suite are fully customized to meet each school district's unique needs.

Through innovation and **exclusive partnerships** with other leaders in pupil transportation, BusPatrol also offers the latest route planning and fleet management solutions to communities at no cost.

Full-fleet deployment of BusPatrol's standard equipment package and options including:

- Stop-Arm Cameras & Optional Interior Camera Package
- Digital Video Recorder (DVR) with GPS & Telemetry
- Live Streaming & Remote Evidence Access
- BusPatrol Console & AlertBus Software:
  Fleet Health CheckSnail Trail GPS & Vehicle Information
- Notifications & Safety Alerts (Email and SMS)
- Access to PSA and Educational Safety Campaign Tools

$0 **Outfit your entire fleet with BusPatrol, Zonar and BusPlanner.**

Fleet Managment & Safety	Routing Solutions

ZONAR®

- Zonar V4™ Telematics Control Unit
- Zonar Ground Traffic Control
- Zonar Connect™ & Samsung Tablets
- Electronic Verified Inspection Reporting
- Zonar Verify Rider Verification
- Z Pass Student Rider Visibility
- Z Pass+ Secure Ridership Alerts
- SafeStop & Child Check-Mate System
- Zonar Count Student Rider Tally
- Zonar Coach - Driver Coaching

BusPlanner®

- BusPlanner Pro Route Planning Software
- Transportation Information Portal
- Map & Boundary Administration Software
- BusPlanner GPS Tracking & Analysis Module
- BusPlanner Redistricting Analysis Module
- BusPlanner Route Costing Capabilities
- BusPlanner Turns+
- Chipmunk Parent App
- BusPlanner Implementation & Training

Ai TECHNOLOGY

Automated Violation Analysis (AVA)

How Does BusPatrol's AI Technology Improve Stop-Arm Violation Enforcement?

BusPatrol's AI technology empowers communities by making it easier to review video, manage their programs, and communicate with law enforcement.

Our AI algorithms are programmed to identify illegal passers, as well as their vehicle and license plate details. The Automated Violation Analysis (AVA) system allows us to spot potential violations more accurately by reducing the risk of false negatives and human error in the review process.

Once identified, each stop-arm event is reviewed by a BusPatrol safety specialist, after which the evidence package is sent to law enforcement.

DATA AND PRIVACY

What Information Does BusPatrol Share with Law Enforcement, and How Do We Respect Privacy?

Information from BusPatrol's cameras is shared with the police via a secure encrypted portal. To ensure driver privacy, we do not allow school officials to access this data, nor do we make it accessible for disciplinary proceedings unless the law allows it.

We draft tailored access agreements for each municipality, including provisions on privacy and the secure handling of access privileges and data. We also purge all video evidence on a regular basis, in accordance with state law and police procedure.

What Information Does Buspatrol Share with Partners in Its Reports, and How Often?

BusPatrol delivers monthly reports to each of its partners, providing them with up-to-date figures and data on:

º **Safety metrics** including the number citations & violations, infraction volumes & specific data from individual bus stops.

º **Financial reports** including ticket collection, credit card processing, bank statetements and proof of payment.

School board officials can only access BusPatrol's video and data on a secure portal, with authorization as defined by their school board.

ECONOMIC BENEFITS

What Human Resources Are Required to Run BusPatrol's Program? How Many Jobs Does a Program Create in Local Communities?

Stop-Arm enforcement programs require trained individuals to help manage the infraction review process, as well as equipment maintenance, IT management, and stakeholder coordination.

BusPatrol operates local command centers that provide responsive maintenance, repair, and support services. Our headquarters and central processing center is located in Lorton, Virginia.

We are committed to opening centers in each region we serve. In addition to ensuring we can provide on-site assistance, this also **creates approximately 50 local jobs** in roles such as evidence processing, field service, program administration, and customer service.

When it comes to the staffing needs of law enforcement, each municipality typically requires two people to handle evidence reviews and provide final approval before tickets are issued, though this varies based on the volume of violations each office receives. **Payroll for these individuals is covered by ticket revenue, which means zero-cost for the law enforcement office as well.**

JOB CREATION THROUGH LOCAL COMMAND CENTERS

| Evidence Processing | Field Service | Program Administration | Customer Service |

SAFETY BENEFITS & DATA

How Do Stop-Arm Programs and Technology Help Communities Beyond Enforcement?

BusPatrol's Stop-Arm programs are changing the driving culture in communities across North America. School bus safety laws are being enforced more thoroughly and effectively with the help of our hardware, software, AI and safety specialists. Additionally, driver attitudes are shifting towards caution, making the roads safer for our children.

Moreover, the same technology that powers our buses can also be used as robust data gathering tools to empower school executives and facilitate informed decision making. At no cost, BusPatrol outfits entire fleets with LTE connectivity, GPS and cameras. Our exclusive partnerships with Zonar and BusPlanner allow school districts to benefit from integrated stop-arm, route planning and fleet management data.

In addition, revenues from the issued tickets are used at the discretion of our partners. BusPatrol's stop-arm program provides opporunities for municipalities and school districts to fund education and other student safety initiatives.

BUSPATROL REGIONAL SUPPORT

What is Required for Stop-Arm Programs to Work Between Communities?

Implementing a stop-arm safety program requires critical coordination between key regional stakeholders including law enforcement and municipal and county focal points. In addition to supporting the development of a memorandum of understanding (MoU) between parties, BusPatrol's safety deployment experts and legal team have the knowledge and experience required to expedite the drafting of local ordinances that may be required in specific jurisdictions.

ADDITIONAL FAQ

What If My School District Includes More Than One Municipality?

In cases where a district covers more than one municipality, the school board must enter into an agreement that includes all municipalities concerned. BusPatrol can help broker the agreement to ensure all stakeholders have their needs and concerns addressed.

What If a Bus Records a Violation While on a Trip Outside the District?

While BusPatrol processes every stop-arm event captured by our cameras, we only operate within the specific territory mandated by our agreement with each municipality. Using geofencing technology, in conjunction with our GPS and telemetry systems, we can pinpoint the exact location of each violation and ensure that tickets are only issued for infractions that occur within the agreed district.

That said, our aim is to change driver behavior across the country. If BusPatrol captures a violation in another jurisdiction, we will share an evidence package with its local authorities for their consideration. No action will be required on the school district's part.

What Is a District's Role in Adjudicating Tickets? Can It Dismiss Tickets, If Desired?

All stop-arm violation tickets are treated as civil infractions and fall under the purview of the district. However, only police can determine whether a ticket should be issued. Once issued, the ticket carries a mandatory fine and only the police or a judge have the authority to dismiss it.

REFERENCES & REPUTATION

# What Experience Does BusPatrol Have Working with Community Partners?

BusPatrol is the leading and most deployed stop-arm enforcement solution in America. We are also the only company dedicated entirely to child and school bus transportation safety.

Our business model is built on a spirit of partnership and collaboration. We work closely with diverse communities, as well as with public and private stakeholders, each of which has a unique set of needs and challenges.

THE MOST DEPLOYED STOP-ARM PROGRAM IN AMERICA

THOUSANDS OF BUSES OUTFITTED WITH BUSPATROL TECHNOLOGY

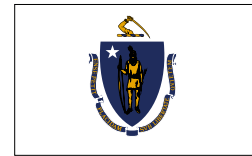School buses in the following states and provinces have been equipped with BusPatrol technology:
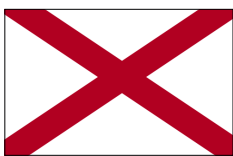
Alabama	Georgia	Maryland	Massachusetts
New York	North Carolina	Pennsylvania	Virginia

Ontario   Quebec

IMPLEMENTING OUR PROGRAM

How Can My School District Implement BusPatrol's No-Cost Stop-Arm Enforcement Program?

Contact BusPatrol by email at **info@buspatrol.com** or _visit us online_ to schedule a free safety assessment. A BusPatrol safety representative will schedule a brief meeting with you to learn more about your school district or municipality's specific needs.

A BusPatrol agreement comes with a guarantee of a full-fleet installation, maintenance (including equipment repairs), deployment schedule, privacy and encryption assurance, and terms of payment related to shared ticket revenue generated by the program.

THOUSANDS OF DRIVERS

EDUCATED EACH MONTH

LEARN MORE ABOUT OUR STOP-ARM ENFORCEMENT PROGRAM

Contact :

Email: info@buspatrol.com
Web: www.buspatrol.com
Phone: 1-888-507-6219

BUSPATROL

Contact :

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