

**UPPER MORELAND TOWNSHIP**

**Committees Meeting Agenda**

**May 23, 2022 at 7:00 p.m.**

***AGENDA ITEMS ARE SUBJECT TO CHANGE***

**INSTRUCTIONS TO JOIN:**

**Go to Zoom.us.** Click “Join a Meeting”      Webinar ID: 917 5771 7982      Password: 182130

**Join by Phone:** Dial 1-929-205-6099      Webinar ID: 917 5771 7982      Password: 182130

***Public comments via email have been discontinued and must be stated in person at the meeting.***

***\*\*Residents requiring special accommodations:  
please call the Township during normal business hours at 215-659-3100 x1058 or x1057\*\****

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**Public Health & Safety Committee Members:** Commissioner and Committee Chair Charles M. Whiting, Commissioner Kip McFatridge and Commissioner Nicholas O. Scull; Township Staff Members/Representatives: Police Chief Andrew Block, Fire Chief Glassman, Assistant Chief Ken Davidson, Second Alarmers Association & Rescue Squad.

**I. Call to Order**

**II. Roll Call**

**III. Presentation**

**IV. Approval of Minutes – April 18, 2022 (attachment)**

**V. Acceptance and approval of the following monthly reports:**

- A. Police Department Memorandum and Monthly Report by Police Chief Block (attachment)
- B. Fire Department by Fire Chief Glassman (attachments)
- C. Second Alarmers Association & Rescue Squad by Assistant Chief Ken Davidson (attachment)

**VI. Old Business**

**VII. New Business:**

- A. Memorandum of Understanding - Montgomery County SWAT and Central Bucks Special Response Team (attachment)
- B. BUSPATROL – Traffic Management System (attachment)
- C. Newington Drive – Parking Signs

**VIII. Other Items**

**IX. Visitor Comments**

**X. Commissioner Comments**

**XI. Adjournment**

**Upper Moreland Township  
Committees Meetings  
April 18, 2022 - Meeting Minutes**

**Public Health & Safety Committee Meeting**

**Public Health & Safety Committee Members:** Commissioner and Committee Chair Charles M. Whiting, Commissioner Kip McFatridge, Commissioner Nicolas O. Scull; Andrew J. Block, Chief of Police; Edward Glassman, Fire Chief; Kenneth E. Davidson, Assistant Chief Operations & Administration - Second Alarmer's Rescue Squad

- I. **Call to order:** Commissioner and Committee Chair Charles M. Whiting called the meeting to order following adjournment of the Finance & Administrative Committee Meeting.
- II. **Roll Call:** Commissioner and Committee Chair Whiting, Commissioners McFatridge and Scull, Police Chief Block, Fire Chief Glassman, Assistant Chief Davidson. Also present were: Randall Schaible, Assistant Township Manager/Director of Finance, Matthew H. Candland, Township Manager, Sean Kilkenny, Township Solicitor.
- III. **Approval of Minutes** - March 21, 2022 - The meeting minutes were unanimously approved as submitted.
- IV. **Acceptance and approval of the following monthly reports - March 2022:**
  - A. Police Department – Memorandum and Monthly Reports - Chief Block discussed the following:
    - Statistics from calls, crimes, offenses, arrests, investigations, citizen concerns and traffic.
    - A list of community-oriented police activities was also reviewed.
    - Commissioner Scull commented concerns about the District Justice Offices moving from the Willow Grove Courthouse Annex Building to Lower Moreland. Chief Block explained that the County provided notification at the end of 2021, and the move is in anticipation of Judge Leo's retirement in two years. Commissioner McFatridge added that renovations are being planned for the Annex Building.
    - Chief Block and Commissioner McFatridge commended the Police Department and School District officials for working in partnership in response to an incident on March 2, 2022 at the Middle School, involving a student in possession of a fire arm and posting pictures to social media.
  - B. Department of Emergency Services - Chief Glassman reviewed the following:
    - Statistics of calls for service, emergency responses, inspections, permits, activities and trainings for the month.
    - Read a note received from Warminster Township Supervisor, Janice Charlton, thanking the Fire Department for their bravery and assistance with a recent house fire.
    - Safety tips on barbecue pits and propane grills.
  - C. Second Alarmer's Association and Rescue Squad - Chief Davidson reviewed the following:
    - Statistics for emergency responses, mental health services, opioid incidents, transports, patients' outcomes, yearly comparisons, trainings and funding.
    - Staffing updates with five full-time paramedic positions that remain vacant.
    - A meeting with local and state representatives was attended in late March regarding Act 10 legislation that would allot \$25M to certified agencies.
    - EMS Week is May 15-21, 2022 and an Open House will be held on May 14, 2022 with planned festivities.

**Upper Moreland Township  
Committees Meetings  
April 18, 2022 - Meeting Minutes**

- Partnered with the School District to offer retraining to faculty members, which is scheduled at Eastern Center for Arts and Technology on May 17, 2022.

**V. Old Business**

A. EMS Update:

- Mr. Candland explained that discussions are ongoing with township managers for solutions to financial issues effecting EMS services provided to seven municipalities that include: Upper Moreland, Hatboro, Abington, Rockledge, Jenkintown, Whitpain and Upper Dublin.
- The Committee will continue a discussion at a future Public Health & Safety Committee Meeting.

**VI. New Business** - Nothing to report.

**VII. Other Items** - Nothing to report.

**VIII. Visitor Comments** - Nothing to report.

**IX. Commissioner Comments:**

- Chief Block announced the National Drug Take Back Day will be held on April 30, 2022, 10:00 am to 2:00 pm at the Giant Super Food Store at 315 York Road, as well as at the Police Station lobby at 117 Park Avenue. A food drive at the Giant will also be conducted at the same time to benefit the Willow Grove Baptist Church Food Bank.

**XI. Adjournment:** There being no further business for this Committee, the meeting was adjourned at 9:00 p.m.

Respectfully submitted by Kathleen Kristire.

# **UPPER MORELAND TOWNSHIP**

## **POLICE DEPARTMENT**

### **Monthly Report**



### **April 2022**

**Andrew J. Block**

**Chief of Police**

**Upper Moreland Police  
April 2022 Monthly Report**

The Upper Moreland Police Department responded to 1,244 calls for service for the month of April 2022. The total calls for service for year to date is 4,965.

The calls for service between March and April of 2022 decreased by 75 incidents. The monthly police department call volume has realized an 7.5% increase in call volume when comparing April 2021 and April 2022.

Outlying year-to-date call volume:

- April 2021; 4,581
- April 2020; 4,436
- April 2019; 4,697

Overall difference between year to date April 2019 and April 2022 is a 5.5% increase in call volume.

The following Part-One Crimes were reported and investigated by Upper Moreland Police in April 2022;

- One Aggravated Assault cleared by arrest
- 41 Theft offenses with 22 offenses cleared by arrest

The following Part-Two Crimes were reported and investigated by the Upper Moreland Police in April 2022;

- Three Narcotics offense cleared by arrest
- One Public Intoxication offense cleared by arrest
- 18 Other Crimes committed cleared by arrest

The Patrol Division conducted the following proactive measures;

- 563 Vehicle Investigations
- 60 Hazardous Traffic Violations
- 136 Non-Hazardous Traffic Violations
- Seven Parking Citations Issued/12 Warnings Issued
- Nine Homeless Contacts
- Five DUI Investigations
  - DUI Arrests
    - One Between 7:00AM and 7:00PM
    - Four Between 7:00PM and 7:00AM

Upper Moreland Police  
April 2022 Monthly Report

**Traffic and Highway Safety Unit**

The Traffic Unit conducted the follow investigations, activities, and studies;

- 26 Calls for Service
- Five Traffic and Parking Issue
- Three Citizens Concerns
- One Traffic Study
- 171 Traffic Stops/Motor Vehicle Investigations
- 125 Warnings Issued
- 22 Hazardous Moving Violations Issued
- 43 Non-Hazardous Moving Violations Issued
- Two Arrests
- Two MCSAP Inspections
  - One vehicle taken out of service

**Detective Bureau/CID**

The Detective Bureau opened the following new cases in the month of April 2022;

- One Missing Persons Investigation
- One Drug Delivery Resulting in Death Investigation
- One Shooting Investigation – Assisting Cheltenham PD
- Two Fire Investigations
- Two Juvenile Sexual Assault Investigations
- Six Police Applicant Background Investigations

The Detective Bureau executed the following arrest/search warrants during the month of April 2022:

- Burglary Warrant Assisting Plymouth PD
- Search Warrant for Burglary Vehicle – Assisting Plymouth PD



# Upper Moreland Township Police Department

Andrew J. Block  
Chief of Police  
April 2022



Major Service Areas	This Month – 4/2022	Last Month – 3/2022	Last Year – 4/2021	Year to Date 2022	Year to Date 2021	Year to Date 2020	Year to Date 2019	
Calls for Service	1,244	1,319	1,224	4,965	4,581	4,436	4,697	
Average Response Time	3.969	3.879	3.988	3.920	4.121	3.651	4.112	
Reportable Vehicle Crashes	21	17	19	70	75	56	77	
Non-Reportable Vehicle Crashes	59	64	53	244	205	197	269	
Part One Crime	This Month – 4/2022	Last Month – 3/2022	Last Year – 4/2021	Year to Date 2022	Year to Date 2021	Year to Date 2020	Year to Date 2019	
Category	Reported	Arrests	Reported	Arrests	Reported	Arrests	Reported	Arrests
Murder	0	0	0	0	0	0	0	0
Rape	0	1	0	0	0	1	3	1
Robbery	0	0	1	1	0	2	2	4
Aggravated Assault	1	1	2	2	0	1	5	2
Burglary	0	0	2	3	0	3	5	1
Theft	41	22	35	18	37	28	153	84
Auto Theft	0	0	1	2	1	0	3	3
Order Maintenance	This Month – 4/2022	Last Month – 3/2022	Last Year – 4/2021	Year to Date 2022	Year to Date 2021	Year to Date 2020	Year to Date 2019	
Category	Arrests	Arrests	Arrests	Arrests	Arrests	Arrests	Arrests	
Narcotics	3	5	1	18	11	25	41	
Public Intoxication	1	4	2	11	2	9	14	
Disorderly Conduct	0	1	2	2	4	8	5	
Other	18	38	19	89	79	57	103	
Proactive Measures	This Month – 4/2022	Last Month – 3/2022	Last Year – 4/2021	Year to Date 2022	Year to Date 2021	Year to Date 2020	Year to Date 2019	
Vehicle Investigations	563	467	302	1,955	1,197	1,305	1,575	
Hazardous Traffic Violations	60	49	79	235	260	244	281	
DUI Violations	5	9	3	24	10	17	20	
Non-Hazardous Traffic Violations	136	142	49	501	155	359	676	
Parking Violations Citations/Warnings	7/12	2/4	7/1	22/17	23/4	10/3	22/9	
Homeless Contacts	9	8	N/A	40	N/A	N/A	N/A	

\*Warnings as of July 2016

**Upper Moreland Police  
April 2022 Monthly Report**

The following is an overview of Part-One crime statistics:

- There have been three burglaries reported YTD. In 2021 five burglaries YTD, 2020 four burglaries YTD, 2019 seven burglaries YTD.
- Thefts, including retail theft, YTD are 153 with 84 clearances.
- There has been two Robbery offenses YTD which have been cleared by arrest, with three reported YTD in 2021 and four reported YTD in 2020, with none reported YTD in 2019.
- All robberies remain under investigation by the Detective Bureau.

**Community Oriented Policing and Police Department Monthly Activities and Highlights**

April 2, 2022 – Upper Moreland Township Police attended and staffed an information table and displayed a patrol vehicle at the Upper Moreland Equity Alliance Community Festival held at the Upper Moreland High School.

April 6, 2022 – Sergeant Pam Cordura participated in an online Hidden, High, and Hammered presentation. The presenter is Officer Beth Sanborn of the Lower Gwynedd Police Department. This program provides parents with information on stash devices meant to confuse and conceal contraband, vape devices, paraphernalia, CBD products, and alcoholic items with deceptive advertising. Upper Moreland Police has recommended this program to Upper Moreland School District Officials.

April 7, 2022 – Detectives Mark Bouldin, Vince Small, Frank Gallagher, Detective/Sergeant Jim Kelly, Lieutenant Kelly Ruddell and Chief Block attending the Montgomery County regional crime information seminar at Normandy Farms. This seminar provides the latest information on crime trends in the region. Representatives from the FBI and Montgomery County present this information to better educate law enforcement on the new trends and how to combat the latest criminal schemes.

**Upper Moreland Police  
April 2022 Monthly Report**

April 8, 2022 – Representatives from the Upper Moreland Township Police Department, Fire Department, and Codes Division attended a planning meeting for June Fete with representatives from Abington Memorial Hospital. June Fete will be held at the fair grounds at 2990 Edgehill Road June 10<sup>th</sup> through June 12<sup>th</sup>, 2022.

April 22, 2022 – A K9 presentation and demonstration took place with the students and faculty at Queen of Angles School.

April 23, 2022 – Upper Moreland Police Officers assisted with traffic control for the annual Pennypack 5K run.

April 26, 2022 – The Police Chiefs' Association of Montgomery County sponsored the Lessons Learned from the Marjory-Stoneman Douglas High School Shooting. Tony Pustizzi, Chief of Police (Retired) discussed many issues that occurred on February 14, 2018 when a former student entered the high school and killed 17 people and injured 17 students. The focus of the presentation and training is for our officers in Montgomery County to hone their training and experience when responded to armed intruder/active shooter incidents. Officers John Magovern, Chris Hens, Joe Staufenberg, John Kidd attended this presentation as well as Sergeants Jim Robb and Tim Lynch, Detective Todd Smith and Lieutenant Kelly Ruddell.

April 28, 2022 – Upper Moreland Police Officers attended the memorial service for Hatboro K9 Officer Ryan Allen at Graeme Park. Officers William Nagy, Kevin Kramer, John Kidd, JD Baldwin, Detective Mark Bouldin, Detective Sergeant Jim Kelly, Sergeant Andrew Clauhs, Lieutenant Kelly Ruddell attended the memorial representing Upper Moreland PD. In addition to their attendance, K9 Officers Matt Snyder and Brian Rems organized the K9 Honor Guard for the memorial service. Sergeant Pam Cordura, Officers Thomas Sokolis and John McCleary provided patrol coverage to Hatboro so that all Hatboro Police Officers could attend the memorial for Officer Allen. Attached is a letter from Hatboro Police Chief Jim Gardner thanking the UMPD for our assistance during the memorial.

Upper Moreland Police  
April 2022 Monthly Report

April 30, 2022 – The Upper Moreland Police Department and Upper Moreland PBA conducted The National Drug Take Back and Pack the Police Car event at the Giant Supermarket. The drug take back resulted in 202 pounds of narcotics and other medicines being turned in to UMPD Officers. The drugs were turned over to the Montgomery County District Attorney's office at the conclusion of the event.

Sergeant Pam Cordura and the PBA organized the food drive which yielded an impressive response from our communities. Nine police cars were filled with food in four hours. This food was donated to the Willow Grove Baptist Church's Food Pantry and The Upper Moreland School District's Food Pantry. Also received were Giant gift cards in the amount of \$1,425.00 and \$447.00 in cash donations. These gift cards will be used to buy meats and produce by the Food Pantry as needed to keep the shelves stocked. The community was very generous with the food drive and appreciative of the PBA and the officers for their service to our communities. The following officers participated in this event: Det. Sgt. James Kelly, Sgt. Pam Cordura, Sgt. Peter Ruddell, Dets. Frank Gallagher, Vince Small, Todd Smith, Officers Bill Gershanick, Chris Hens, Amanda Rossetti, John Magovern, Layla Cruz and Clerk Tina McGuckin. Attached is a thank you letter from the Willow Grove Baptist Church for all of the efforts on April 30<sup>th</sup>!

Respectfully Submitted,

*Andy Block*

Chief Andy Block

# Cheltenham Township

## Police Department

Montgomery County, Pennsylvania

**Acting Chief of Police**  
John P. Slavin

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Phone: 215-885-1600  
Fax: 215-887-8593



**Police Administration Building**  
8230 Old York Road  
Elkins Park, PA 19027-1589

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[www.cheltenhamtownship.org](http://www.cheltenhamtownship.org)

April 22, 2022

Chief Andrew Block  
Upper Moreland Township Police Department  
117 Park Avenue  
Willow Grove, PA 19090

Dear Chief Block: *Andy*,

On April 16, 2022 Cheltenham Township Police responded to a shooting on Ogontz Avenue where the occupants of a dark-colored Ford Taurus fired multiple shots at a Jeep Compass, striking one occupant inside.

Cheltenham Police Officers along with the assistance of multiple agencies located the Ford Taurus a short time later and three occupants were taken into custody. A fourth occupant managed to escape. Multiple firearms were recovered.

Cheltenham was very thankful by the response from many Police Departments including Upper Moreland Township Police Detective Frank Gallagher who responded to assisting our Detectives and holding the scene at Abington Jefferson Hospital. The cooperation on the scene from your staff was very professional and shows why County wide teamwork is necessary and beneficial to all of us. Please share my grateful thanks with your Detective who responded to the scene.

Sincerely,

A handwritten signature in black ink that appears to read "John".

John P. Slavin  
Acting Chief of Police



Est. 1903  
JAMES E. GARDNER  
*Chief of Police*

## HATBORO POLICE DEPARTMENT

120 EAST MONTGOMERY AVENUE  
HATBORO, PENNSYLVANIA 19040



Emergency 9-1-1  
Business 215-675-2832  
FAX 215-675-7723

May 2, 2022

Chief Andrew Block  
Upper Moreland Police Department  
117 Park Avenue  
Willow Grove, PA 19090

Dear Chief Block:

As you are aware, our department recently suffered the loss of our canine handler, Officer Ryan Allen. I want to thank you and the Upper Moreland Police Department for assistance over the past few months. First, Officer Matt Snyder, assigned to your canine unit, helped us greatly during this difficult time. From assisting us and Officer Allen's family with our police dog Louie, to providing expert consultation to me regarding police canine operations, his professionalism, dedication, and knowledge was certainly appreciated.

A memorial service was held for Officer Allen on April 28, 2022. So our personnel could attend the services, we suspended patrol operations effective at 10:00 P.M. on April 27, 2022, until 6:00 A.M., April 29, 2022. Without hesitation your department was there for us by providing mutual aid coverage during this time. Please thank all of your personnel for their support, especially Officers McCleary, Sokolis and Misner who signed-up to cover our shifts.

Again, I thank you for all of your support and assistance during this difficult time.

Sincerely,

A handwritten signature in blue ink, appearing to read "James E. Gardner".

James E. Gardner  
Chief of Police



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*A Church for the Community*

May 6, 2022

Pam Cordura and the Upper Moreland Police Department,

I just wanted to write a letter to thank you so much for inviting the Willow Grove Baptist Food Pantry to be part of this year's Pack the Police Car Event/Drug Takeback Saturday at the Willow Grove Giant on Saturday, April 30<sup>th</sup>.

We were blessed with an absolutely beautiful day and the event was so well organized. I am so thankful for all of the friendly volunteers in the Upper Moreland Police Department that worked so hard at the event to make it such a success.

The Upper Moreland community responded to all of your hard work with such great kindness and love. The community filled 8 1/2 police cruisers with food and groceries and donated over \$1400 in Giant gift cards. Our pantry has recently been struggling to keep up with the amount of food that we need to help the families that we serve. What a blessing the food and groceries and gift cards will be to the struggling families that we serve in our local community in the coming months!

Willow Grove Baptist Food Pantry is currently assisting 70-80 local families in need. We have pantry hours on:

Saturdays 11:00-1:00  
Sundays 12:00-1:30  
Mondays 11:00-1:00  
Thursdays 06:00-7:30

Please do not hesitate to send anyone our way that you feel could benefit from our services.

Thank you so much for being a police department that truly cares and makes a difference in the community that they serve.

Sincerely,

A handwritten signature in black ink that reads "Rick Beyerle".

Rick Beyerle  
Willow Grove Baptist Food Pantry Manager  
Cell: 215-813-4931  
E-Mail: rbeyerle@verizon.net

# UPPER MORELAND TOWNSHIP

## FIRE DEPARTMENT

Monthly Report



April 2022

Edward Glassman

Fire Chief

Upper Moreland Fire  
April 2022 Monthly Report

Fire Calls - 78

EMS QRS calls- 9

Fire Permit Inspections – 48      Fees collected: \$ 3235.00

Fire Marshal Investigations- 1

Injuries FF or Civilian- 0

**Significant Incidents**

4/2-Dwelling fire mutual aid at 1030 Serpentine Ln. Cheltenham

4/7-MVA Overturned vehicle with victims trapped at County Line Rd  
and Davisville Rd. extrication completed

4/14-MVA with victims trapped at 913 W. Moreland Rd. extrication  
completed

4/16- MVA Overturned vehicle with victims trapped at 726  
Fitzwatertown Rd. extrication completed

4/19-MVA Overturned vehicle with victims trapped at Commerce and  
Maryland extrication completed

4/24- Significant Building Fire at 1503 Sycamore

4/25 MVA with victims trapped on PA Turnpike extrication completed

4/25- Dwelling fire mutual at 701 Paxson Ave. Cheltenham

Upper Moreland Fire  
April 2022 Monthly Report

## **Community Oriented Fire Department Monthly Activities**

1 event attended by 30 people

### **Fire Service Training Hours**

32 personnel with 1041 hours



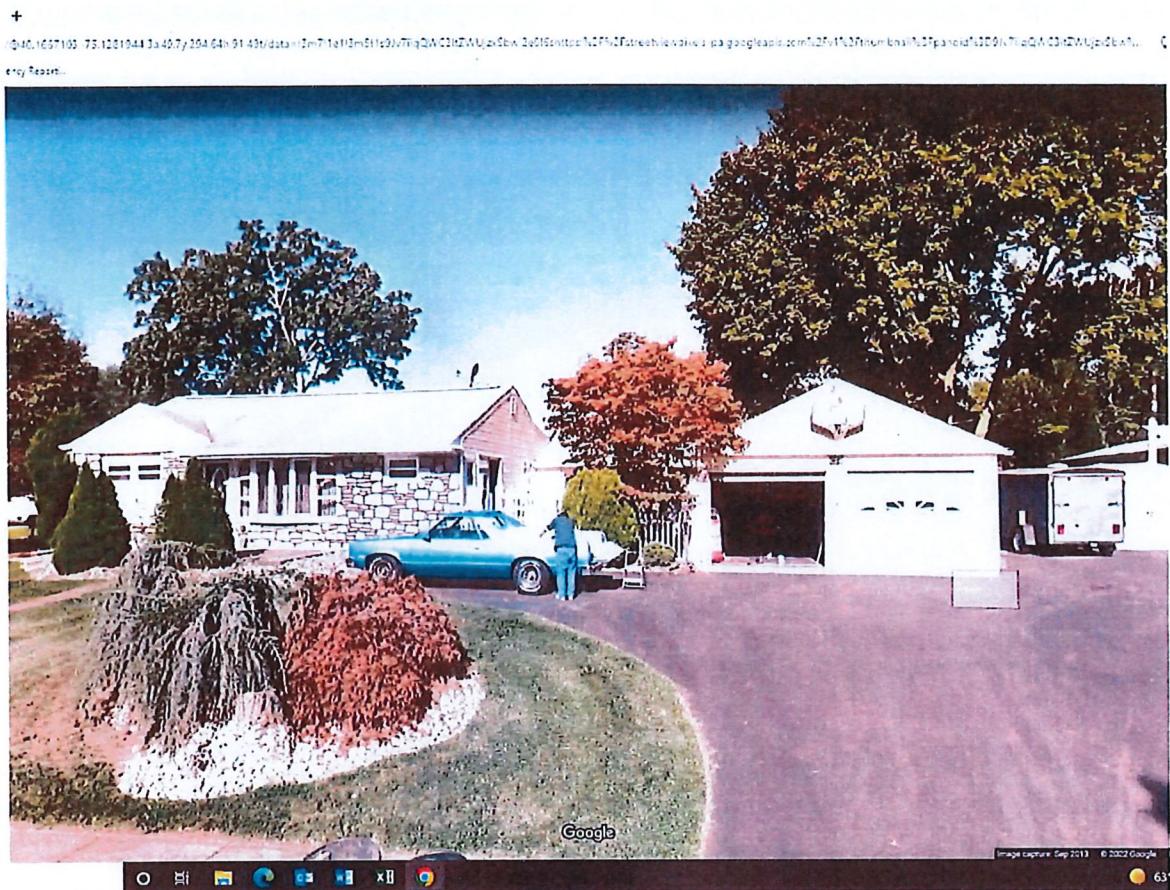
Upper Moreland Fire  
April 2022 Monthly Report



Upper Moreland Fire  
April 2022 Monthly Report



## Upper Moreland Fire April 2022 Monthly Report



Upper Moreland Fire  
April 2022 Monthly Report



Upper Moreland Fire  
April 2022 Monthly Report

Respectfully Submitted,

*Edward Glassman*

Fire Chief

## Fire Department

### April 2022 Report to the Upper Moreland Township Board of Commissioners

<i><b>Emergency Activity Summary</b></i>		
<i><b>Response Summary</b></i>		
	<b>April</b>	<b>Year to Date</b>
Fire Related:	78	281
In-Township:	58	203
Assist Other Depts:	21	73
Assist PA Turnpike:	8	21
EMS Related:	9	66
Total Responses:	87	347
<i><b>* Ignition Summary</b></i>		
	<b>April</b>	<b>Year to Date</b>
Structure:	5	18
Non-Structure:	10	21
<i><b>Causes</b></i>		
Accidental:	15	39
Intentional:	0	0
Natural:	0	0
Under Investigation:	0	0
<i><b>* In Service Summary</b></i>		
	<b>April</b>	<b>Year to Date</b>
Fire:	15	39
Rescue:	5	9
Haz Mat:	0	0
<i><b>Structural Response Summary</b></i>		
	<i>0600 Mon - 0600 Sat</i>	<i>0600 Sat - 0600 Mon</i>
	<b>Apr</b>	<b>YTD</b>
Average Response Time:	4:35	4:47
Total Responses	74	235
	<b>Apr</b>	<b>YTD</b>
Average Response Time:	7:35	9:10
Total Responses	13	112

<i><b>Permit, Inspection, Fee &amp; Public Education Summary</b></i>		
<i><b>Permit Summary</b></i>		
	<b>April</b>	<b>Year to Date</b>
Fire Code:	42	91
Tank Removal:	4	10
Tank Installation:	3	7
Other:	2	2
<i><b>Inspection Summary</b></i>		
	<b>April</b>	<b>Year to Date</b>
Inspection Reports:	48	133
Fire Marshal Investigations:	1	12
<i><b>Fee Summary</b></i>		
	<b>April</b>	<b>Year to Date</b>
Fees Collected:	\$3,235.00	\$7,720.00
<i><b>Public Education Summary</b></i>		
	<b>April</b>	<b>Year to Date</b>
Activities Conducted:	1	6
Persons Attending:	Multiple	80
<i><b>Safety Analysis</b></i>		
	<b>April</b>	<b>Year to Date</b>
Firefighter Injuries:	0	0
Firefighter Deaths:	0	0
Civilian Injuries:	0	0
Civilian Deaths:	0	0
Accidents Involving Vehicles:	0	0

\* Includes Assist to Other Townships

# Second Alarmers Snapshot

## Upper Moreland Township

May 2022



### Calls for service in March 2022:

STATION	Count	
380 Officers	25	8.4%
381 Willow Grove	146	49.2%
382 Elkins Park	1	0.3%
383 North Hills	3	1.0%
384 Hatboro	122	41.1%
<b>Grand Total</b>	<b>297</b>	<b>100.0%</b>

NATURE OF CALL	Count	
Medical	282	94.9%
Motor Vehicle Collision	12	4.0%
Fire	3	1.0%
<b>Grand Total</b>	<b>297</b>	<b>100.0%</b>

RESPONSE OUTCOME	Count	
Transported	195	65.7%
Officer Response	25	8.4%
Cancelled Prior to Arrival	18	6.1%
Handled By Mutual Aid Service	16	5.4%
Patient Refused Care	14	4.7%
Cancelled on Scene	9	3.0%
Assist, Unit	7	2.4%
Assist, Public	5	1.7%
Standby	5	1.7%
Dead At Scene	2	0.7%
Treatment / No Transport	1	0.3%
<b>Grand Total</b>	<b>297</b>	<b>100.0%</b>

REC AGENCY	Count	
Jefferson Health / Abington Hospital	187	95.9%
Holy Redeemer Hospital & Medical Center	6	3.1%
Doylestown Hospital	1	0.5%
Temple Health / Jeanes Hospital	1	0.5%
<b>Grand Total</b>	<b>195</b>	<b>100.0%</b>

## April 2022 Naloxone Administration Report – Upper Moreland Township

**0**

**INTERVENTIONS**

In Selected Time Slice

**30**

**DAYS**

In Selected Time Slice

**0**

**PATIENTS**

In Selected Time Slice

### April Staffing Report:

2022

ALS Full Staffing = 3240

ALS Actual Staffing = 2785 Hours

Downgrade to BLS staffing = 419 hours

Downgrade to no status = 36hours

2021

ALS Full Staffing = 3240

ALS Actual Staffing = 3017

Downgrade to BLS staffing= 211

Downgrade to no status = 12

### Notable Information:

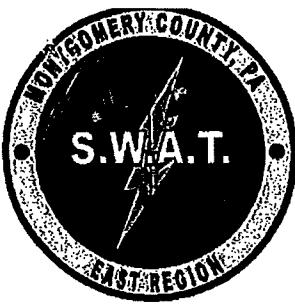
SARS currently has 5 full time paramedic positions that remain vacant.

SARS was awarded \$37,237.00 in funding as a result of the \$25,000,000 allocated to EMS by the state in Act 10. We are told that all EMS agencies received the same equal share of funding.

SARS submitted a county ARPA request for \$130,505.00 to cover the costs of various consultants to help explore the concept of a regional EMS Authority. If awarded the breakdown requested is:

- \$32,500 administrative/governmental consultant
- \$30,000 licensed professional engineer services
- \$30,000 legal services
- \$38,000 GIS/mapping services
- Misc. expenses \$5,000

On May 17<sup>th</sup> SARS will be conducting “Stop-the-Bleed” training with faculty members at the Eastern Center for Arts and Technology and later in the year conducting a drill for response to active threat incidents/violent trauma with their staff and students.



## Montgomery County SWAT – East Region

Serving the Communities of:

- Ambler Borough • Bryn Athyn Borough • Cheltenham Township • Hatboro Borough •
- Horsham Township • Jenkintown Borough • Lower Moreland Township •
- Rockledge Borough • Upper Dublin Township • Upper Moreland Township •

04/04/2022 |

### Memorandum of Understanding

**Party 1:** Montgomery County SWAT- East Region (MCSWAT-ER)

**Party 2:** Central Bucks Special Response Team (CBSRT)

#### Purpose of MOU:

To establish a relationship and partnership between MCSWAT-ER and CBSRT for the purpose of providing requested operational relief in the event of a respective Team's active deployment. This relief contingency is critical to maintain the highest standards of tactical response.

#### General MOU Information:

##### **Teams Overview:**

The Montgomery County SWAT-East Region Team and the Central Bucks Special Response Team are well established multi-jurisdictional tactical teams. Both Teams operate under established and written Standard Operation Procedures (SOP's). Both Teams are governed by a board of Member Department Chiefs. Both Teams train to respective written standards that are influenced by national best practices. Both Teams are collateral duty Teams made up of volunteer personnel from their respective Member Departments. Both Teams utilize specialty equipment and weapons to accomplish their written mission statements.

##### **Teams Purpose:**

Both Teams are designated to respond to "special threats" situations. A "special threat" may be defined as any situation involving a sniper, the taking of hostages, a barricaded subject, terrorist activity, the execution of high-risk search and arrest warrants, high-risk stakeouts, dignitary protection, or any incident which is considered beyond the capability of standard patrol personnel and resources. A "special threat" situation can include any situation which has the potential to become a specified "special threat" situation.

*Stamus Contra Malum*

**Teams Structure:**

Each Team has designated Operators, Snipers, and Negotiators. MCSWAT-ER also has designated Team Medics. Team personnel are further broken down into specialists including Breachers (Mechanical and Shotgun), Explosive Breachers (MCSWAT-ER only), Drone and Robot Operators, and Grenadiers (Less Lethal and Chemical Munitions deployment). Each Team has an individual and designated Command and Leadership structure.

**Specific MOU Information:****Sniper Training Group:**

Both Teams participate in the Bucks/Mont Sniper Training Group (STG). This participation goes back numerous years. The STG is a collective of designated Sniper personnel from each Team. The purpose of the STG is to provide current training concepts and applications to participating Sniper personnel. The STG trains together once each calendar month. Through this training, the STG has addressed interoperability issues and considerations. As a result, the STG can be deployed (and has been) as one collective unit in the event of a respective Team's active deployment. This deployment capability is an agreed exception to this MOU.

**Teams Training Parameters:**

At this time, each Team trains individually and to its own written standards. There is no current training program involving both Teams. As a result, interoperability issues and considerations have not been addressed. Due to this current training status, the Teams would not, barring critical and specific exigent circumstances, look to combine personnel in a deployment capacity.

**MOU Parameters:**

MCSWAT-ER and CBSRT agree to provide relief, when requested, at any call out incident requiring said relief. Necessary relief considerations include duration of call out incident, weather considerations, type of call out incident, or other considerations as determined by the respective Team Commander. The request for relief will only be made after an agreement between the requesting Team Commander and the Incident Commander.

The relief will constitute a full deployment of the requested Team. All available Team personnel will respond, including Command and Leadership, Operators, Snipers (if not already on location), Medics, and Negotiators. All personnel (absent exigent and/or mission critical circumstances) from the requesting Team will be systematically relieved with personnel from the relieving Team. Deployed equipment may be utilized by the relieving Team at the discretion of both Team's Commanders (and taking into account familiarity with said equipment).

The Incident Commander from the requesting Agency will not be relieved for the purposes of continuity. The relief process will include a full incident briefing to the relieving Team. The duration of the relief will be an agreement between both Team's Commanders and the Incident Commander.

*Stamus Contra Malum*

**MOU Exceptions:**

The deployment of the Sniper Training Group personnel has already been addressed in this document. The assistance of specific skill personnel may be requested by each Team without the deployment of the full Team. Specific skill personnel examples currently include drone pilots and multiple language speakers. These specific skill examples may be expanded moving forward. The assistance of these personnel will only be provided on agreement between each Team's Commanders.

**Entirety:**

This MOU, in its entirety, shall set the foundation for the relationship and partnership between the MCSWAT-East Region Team and the Central Bucks Special Response Team. This MOU is to be considered a living document and will not preclude the Teams from changing the stated parameters moving forward. Should any portion of this MOU be deemed invalid or not enforceable, this shall have no bearing on the remaining portions and conditions set forth in this document.

**Changes:**

Changes or modifications to this document may be made with the approval of each Team's governing body and a mutual agreement between the Teams. On agreement of changes, notice of said changes shall be sent to the designated signing Chiefs of each Team via traditionally accepted delivery practices.

**Approval:**

Designated Chief:

---

Montgomery County SWAT – East Region

---

Central Bucks Special Response Team

*Stamus Contra Malum*



# BUSPATROL



TRAFFIC MANAGEMENT SYSTEMS  
**ENHANCED  
INSTALLATION  
GUIDE**

---

JULY 2021

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## 1.0 Purpose

The purpose of this guide is to provide guidance to the installers for the installation of the bus camera system.



## 2.0 References

### **BPA Safety Manual**

(See HRM437DOC for BPA employees)

### **Contractor Safety Manual**

(See HRM438DOC for Contractors)



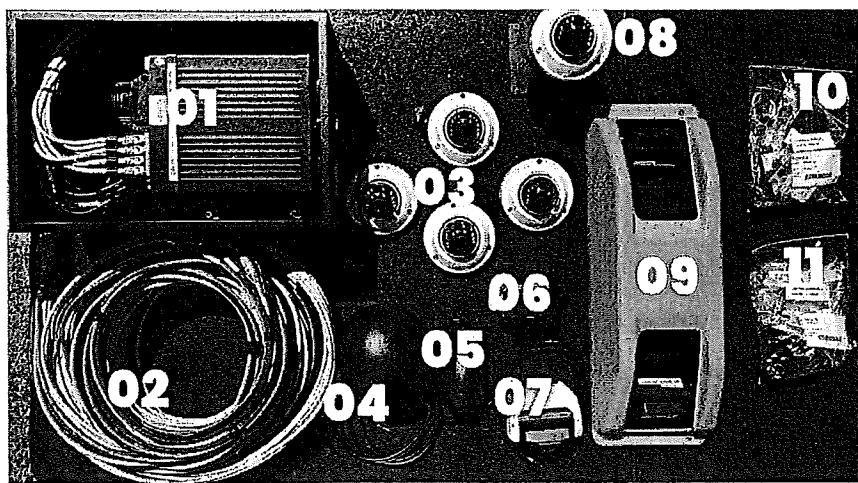
## 3.0 Safety

Safety is the highest priority of this company. No job is so important or so urgent that work safety is compromised. Since it is impossible to cover every situation that arises in the workplace, each job must be carefully evaluated to determine the safest way to perform that job.

**Refer to the BPA Safety Manual and Contractor Safety Manual for more information.**

## 4.0 Necessary Parts for Installation

In the box, you will find all of the parts necessary for installation of the system. Refer to the figure below to identify all of the components before you begin.



- 01** DVR Box
- 02** Wiring harness
- 03** Interior cameras
- 04** Antenna puck
- 05** Side load camera
- 06** Rear facing camera
- 07** C28 overview camera
- 08** Front facing camera
- 09** Traffic management cameras
- 10** Electrical pack
- 11** Mechanical pack

## 4.1 Additional Consumables

Installers will need to have the following consumables available during the installation process as they are not provided in the BusPatrol package:

- Track
- Loom
- Silicon Sealant
- Electrical Tape

## 4.2 Total Resources and Time

Resources 2 installers

Time: 2.5 hours to 3 hours (5 to 6 man hours)



TIMES INDICATED ARE APPROXIMATE. INSTALLERS WILL BECOME MORE EFFICIENT OVER TIME

## 5.0 Step 01- Collect Supplies & Bus Pre-Inspection



Resources Both



Parts Full kit



Time 15 minutes



Tools Full tool set

### TASKS TO BE PERFORMED



Note



Caution



1 Layout kit + tools

---

Open windows for ventilation if hot out



2 Pre install

- Fill out all details
- Take photos of all damage
- **Two people should perform inspection: one inside operating the controls and one outside observing performance**



## 6.0 Step 02- Open Up Bus



Resources  
Support Installer



Parts  
None



Time  
15 minutes



Tools Cordless driver, Bits, Hand bit-driver, Spudger, Prybar, Panel removal tool, Magnetic parts dish, Phone or tablet

### TASKS TO BE PERFORMED

1 Pull down panels and wire chases-all drive side + rear on passenger side

**1.1 Place screws in magnetic bowl**

**1.2** If you cannot loosen them you may need to loosen window screws, but be sure to put back window screws at the end of the day

**1.3** Let panels hang if they are connected to strong wires (e.g., speaker wire)

**1.4 Taking down panels allows for more information on how wires can be run**

3 Unscrew and pull back the B-pillar post

4 Remove any panels covering the electrical bay

5 Open front and rear overhead panels

**Often the overhead panels have a hook and cable to easily hold them open**

6 Remove seats above the DVR box and where wires will be routed

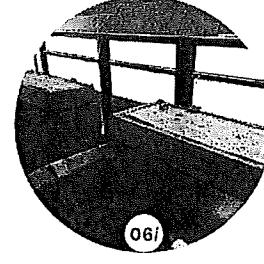
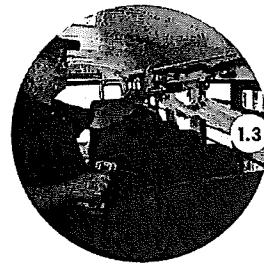
**When seats are removed place upside down on the seat backs across the aisle to create a nice shelf to hold tools**



Note



Caution



## 7.0 Step 03- Install Prep & Place Cameras



Resources  
Lead Installer



Parts  
Antenna  
assembly



Time  
5 minutes



Tools Drill, 1 3/8" hole saw,  
Fish tape, Windex, Rag/paper  
towels, Alcohol wipes, Electrical  
tape, Silicone, Ladder

### TASKS TO BE PERFORMED

1

Map out location for DVR

**1.1** Typically it will be located under the 3rd seat to balance the distance to the license plate camera box and harness running towards the front of the bus

- **Ideally DVR box should be mounted under the 3rd seat, but either the 1st or second seat is acceptable if necessary**
- **Do not place cameras on beams**

2

Staging interior cameras

**2.1** Lead installer walks through bus marking camera drill locations for interior cameras and windshield camera

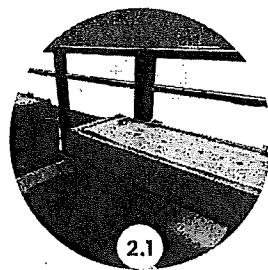
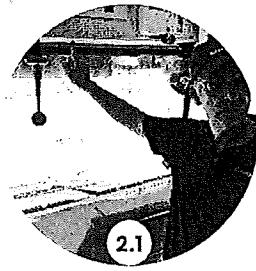
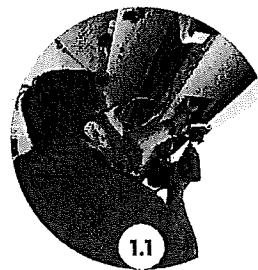
**2.2** Place cameras on seats

**make sure cameras are located above seat back, not above the seat or isles**

*Make sure that holes will not be drilled through components behind the sheetmetal*

Note

Caution



## 7.0 Step 03- Install Prep & Place Cameras



Resources  
Lead Installer



Parts  
Antenna  
assembly



Time  
5 minutes



Tools Drill, 1 3/8" hole saw,  
Fish tape, Windex, Rag/paper  
towels, Alcohol wipes, Electrical  
tape, Silicone, Ladder

### TASKS TO BE PERFORMED

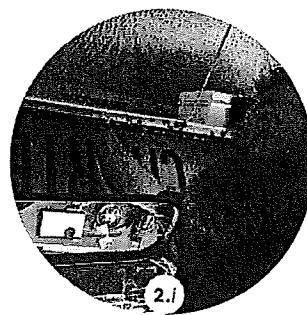


Note



Caution

**Make sure camera wires can be fished  
without interfering or crossing a beam**

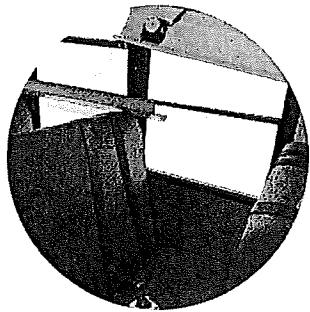


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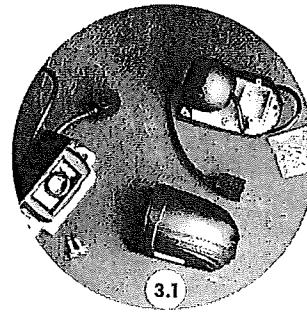
Staging exterior cameras



**3.1 Unbox and place the sideload, rear,  
overview, and reverse camera**



**Hang the Overview, Rear and Sideload  
cameras from the ladder to have them  
handy for a quick installation**



## 8.0 Step 04- Mount DVR Box

 Resources  
Support Installer

 Parts  
DVR enclosure / Harness  
assemble, DVR mounting  
plate, DVR mounting screws

 Time  
15 minutes

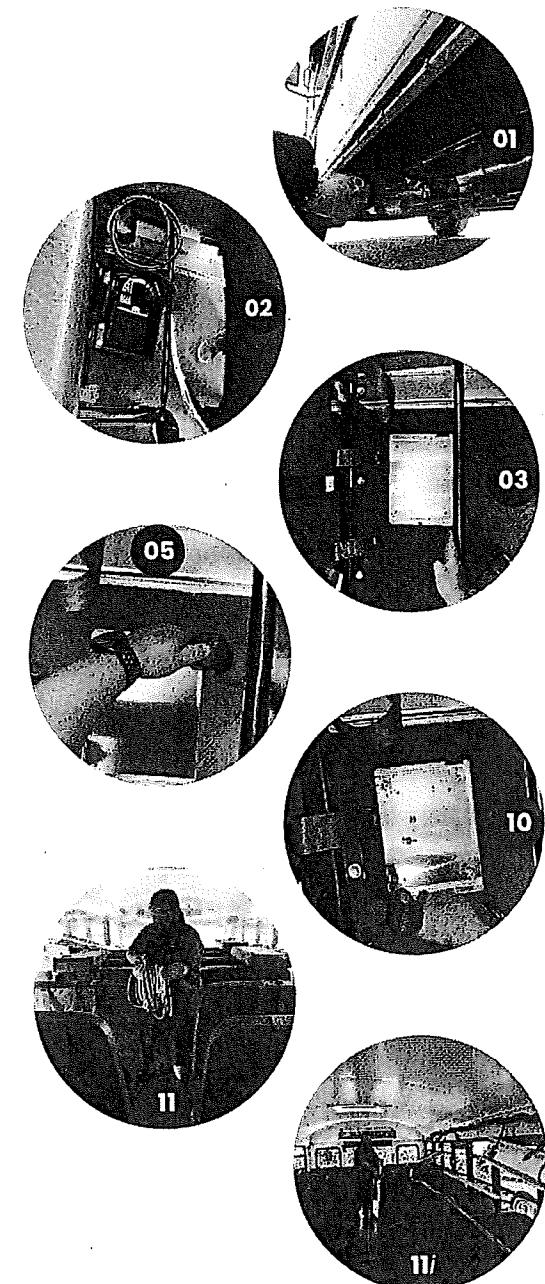
 Tools  
Drill, Drivers, Bits, Hand bit-  
driver, Nut driver, DVR box key

### TASKS TO BE PERFORMED

- 1 Check outside + under the floor for hoses before installing  
**Use short screws if hoses are present**
- 2 Attach bottom plate to DVR box and place under seat
- 3 Position ~8" (one hand width) from wall and with front edge below and parallel to seat rail
- 4 Once in position carefully remove the DVR box leaving the plate in position
- 5 Use the 3/8" drill to start first hole
- 6 Drive first bolt in half way to hold plate
- 7 Drill second hole while holding plate in place
- 8 Drive first and second bolt all the way
- 9 Drill and drive the final two bolts
- 10 Mount the box to the plate and secure with the two nuts  
**Don't tighten down the DVR nuts too tightly, they will be difficult to remove during service**
- 11 Unroll wire bundle  
**Unroll the wire bundle along the tops of the seats to make it easy to fish**

 Note

 Caution



## 9.0 Step 05- Antenna



Resources  
Lead Installer



Parts  
None



Time  
5 minutes



Tools  
Marker, Drill, 1" hole saw,  
3/4" hole saw, Drill debris catcher  
(rubber cone), Safety glasses

### TASKS TO BE PERFORMED



Note



Caution

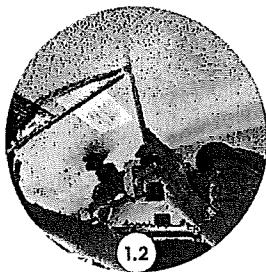
1

Determine antenna placement

**1.1** Lengthwise: Antenna should be placed over driver compartment

*Place in front or behind horizontal beam*

**1.2** Widthwise: From inside bus, measure 24" up from top of driver side window

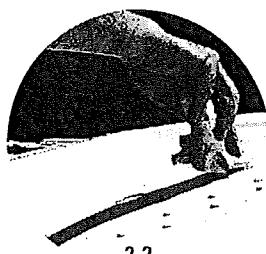


2

Pre-clean roof area

**2.1** Measure 24" from interior window to confirm location and mark location

**2.2** Wipe down using Windex



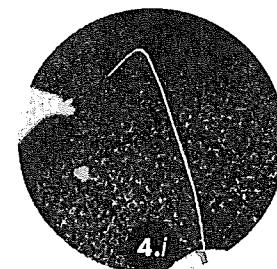
3

Drill hole

**3.1** Use 1 3/8" hole saw

**3.2** Hole cutouts will be hot > don't allow them to fill on seats, plastic, etc.,

**3.3** Make sure to clean drill shavings from the roof, they can leave rust marks



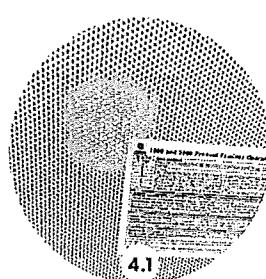
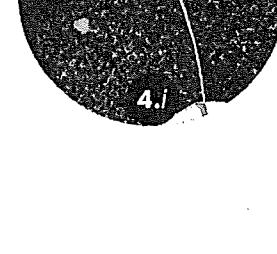
4

Fish wire from exterior to interior

**Bend wire hook to make fishing easier**

**4.1** Look for light to guide placement

**4.2** This is a two person job: Inside tech routes wires to outside tech



## 9.0 Step 05- Antenna



Resources  
Lead Installer



Parts  
None



Time  
5 minutes



Tools Marker, Drill, 1" hole saw, 1 3/4" hole saw, Drill debris catcher (rubber cone), Safety glasses

### TASKS TO BE PERFORMED

5

Installing antenna

- 5.1 Tape antenna end to fish wire
- 5.2 Using driver side window (or assistance from person inside), pull antenna down through hole
- 5.3 Use alcohol to clean surface and allow to dry
- 5.4 Remove adhesive backing
- 5.5 While pushing down antenna, pull wires from inside to remove slack
- 5.7 Push down antenna firmly to engage adhesive
- 5.8 Seal completely around base with silicon

**Ensure to use a full, even bead of silicone without any gaps. Make sure to smooth it around the antenna**



Note



Caution



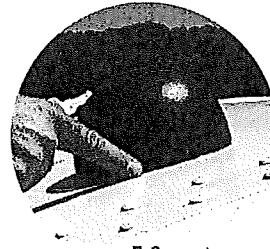
5.2



5.4



5.7



5.8

# 10 Step 06- Run Harness & Drill Holes



## Resources

Support Installer



## Parts

Pre-installed DRV-box  
with attached wire harness

## Time

30  
minutes

## Tools

Drill, Drivers, Bits, Fish tape, Hand  
bit-driver, Electrical tape, Hole  
grommets (as needed), Zip-ties

## TASKS TO BE PERFORMED



Note



Caution



## Main harness hole

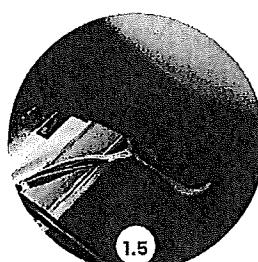
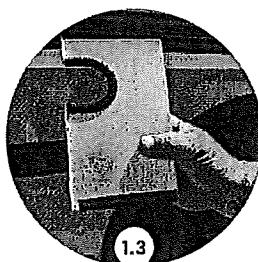
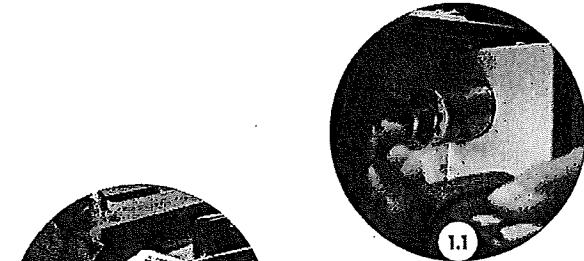
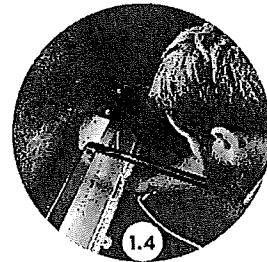
**1.1** Drill a wire routing hole through the bulkhead to be able to feed it to the B-pillar

**Put the hole as close to wall as possible**

**1.3** Notch the hole for service with a Dremel

**1.4** Route cables through bulkhead and up B-pillar

**1.5 When pulling wire, support back end with your foot or zip tie to rails to leave some slack in the wires**



# 10 Step 06- Run Harness & Drill Holes

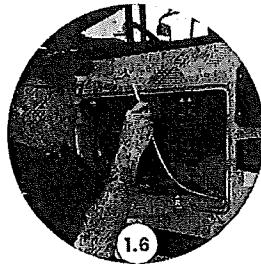
**Resources**

Support Installer

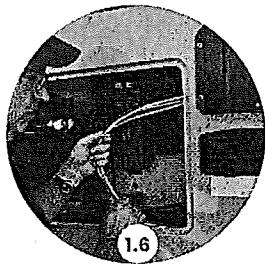
**Parts**Pre-installed DRV-box  
with attached wire harness**Time**30  
minutes**Tools**Drill, Drivers, Bits, Fish tape, Hand  
bit-driver, Electrical tape, Hole  
grommets (as needed), Zip-ties

## TASKS TO BE PERFORMED

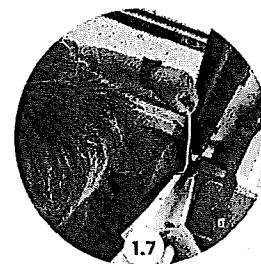
**1.6** Often cables first need to be routed out the electrical panel  
(which is a coordinated two person job)



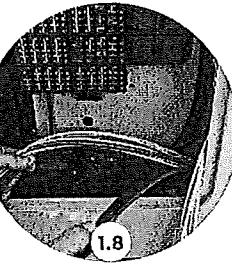
**1.7** Run wires behind existing electrical harnesses



**1.8** Pull tape and separate split 1 (power and I/O) at bottom of electrical bay



Do not cut tape when separating!



Note



Caution

# 10 Step 06- Run Harness & Drill Holes



**Resources**  
Support Installer



**Parts**  
Pre-installed DRV-box  
with attached wire harness



**Time**  
30  
minutes



**Tools**  
Drill, Drivers, Bits, Fish tape, Hand  
bit-driver, Electrical tape, Hole  
grommets (as needed), Zip-ties

## TASKS TO BE PERFORMED



**Note**

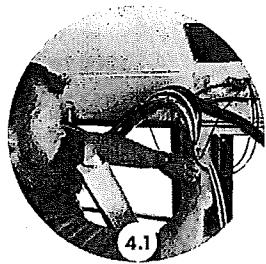


**Caution**

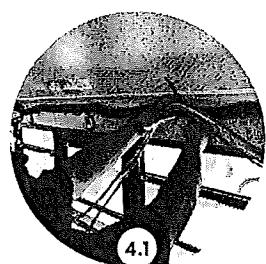
**2** Pull up remaining cables (except power and I/O - these should be put to the side)



**3** Connect the antenna wires to the main harness



**4** Pull harness to back of bus



**4.1** Zip tie wire bundle to existing wire harness

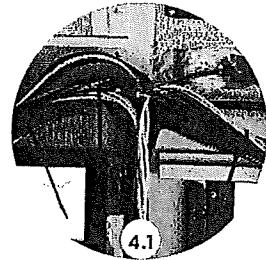
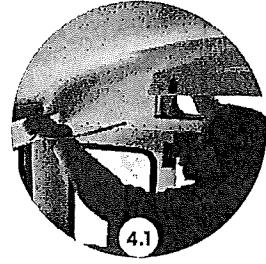
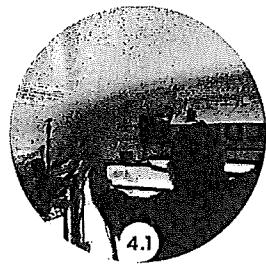
*Some operators do not want wire bundle zip tied to existing wires; if so, leave it loose and drop into track while closing up bus*



**When finishing front and rear overhead compartments make sure wires run neatly along bottom edge and excess wire is tucked behind the back panels so signs can be changes without interfering with wires**



*Don't pull/zip tie the wires too tight at B-pillar, make sure to leave slack to allow wires to make curve*



# 11 Step 07a- Install Exterior Cameras



Resources  
Lead Installer



Parts  
Exterior Cameras,  
Mounting screws



Time  
5 minutes



Tools  
Drill, 1 3/8" hole saw, Drivers,  
Bits, Hand bit-driver, Fish tape,  
Electrical tape, Silicone,

## TASKS TO BE PERFORMED



Note



Caution

1

Install Overview Camera

**1.1** Measure from stop arm to stop arm (back) to find center > Using this line up to just above rain gutter

*use caution to not install over lettering,  
or within 6" of a clearance light mount plate*

**1.2** Line bracket up just above gutter

**1.3** Drill bracket

**If a double wall/beam = used to drill pilot  
hole (use 9/64 to open up outer hole)**

**1.4** Drill the wire hole – 1" straight through interior panel to fish wire directly into the chase

*Verify no cables behind when drilling  
through*

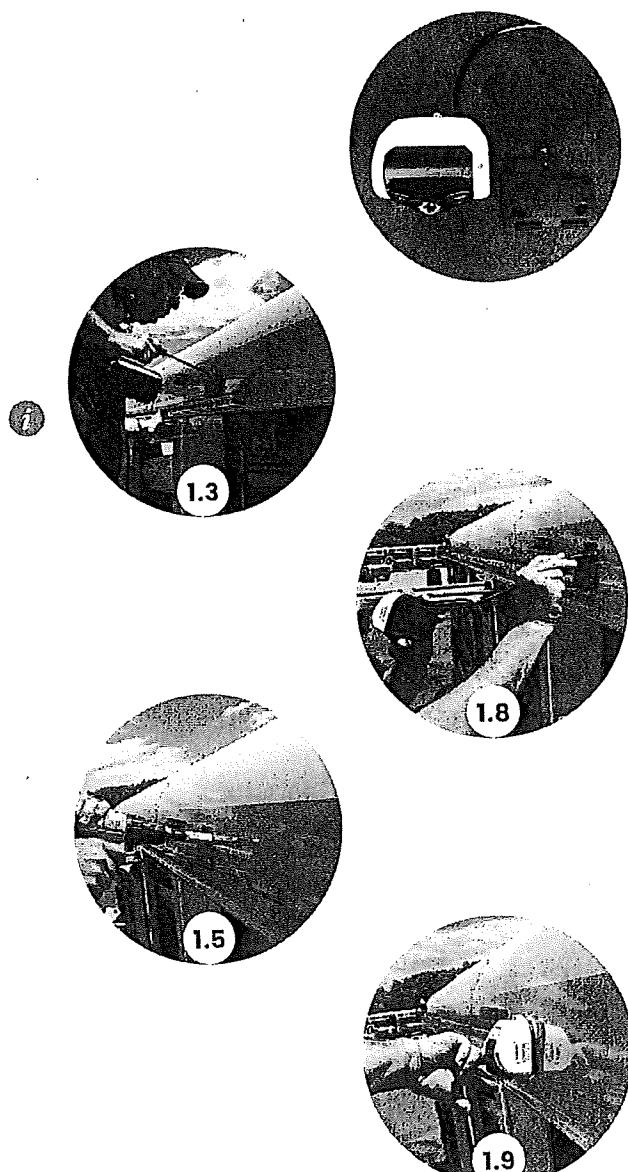
**1.5** Make sure to leave 1/8" gap from bracket, for grommet

**1.6** Don't screw down bracket so tight it bends

**1.7** Route wire into bus, connect grommet

**1.8** Tighten camera into bracket

**1.9** Add silicon bead around all but the bottom of the camera to allow any water to weep out



# 11 Step 07a- Install Exterior Cameras



Resources  
Lead Installer



Parts  
Exterior Cameras,  
Mounting screws



Time  
5 minutes



## Tools

Drill, 1 3/8" hole saw, Drivers,  
Bits, Hand bit-driver, Fish tape,  
Electrical tape, Silicone,

## TASKS TO BE PERFORMED



Note

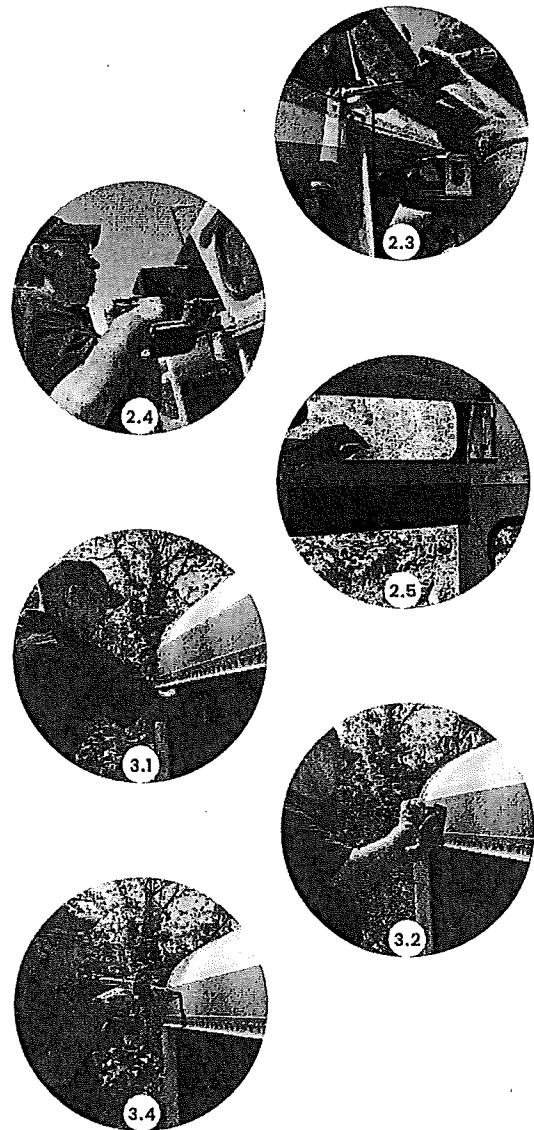


Caution

2

### Rear camera mount

- 2.1 For consistency the camera is typically placed on the driver side of the bus between the door and the amber or warning lights
- 2.2 Verify drilling won't damage anything
- 2.3 Hold in place and drill 2x mounting screws
- 2.4 Drill the 1" hole saw, approximately 2" about the camera
- 2.5 Fish cable and set grommet



3

### Side load camera

- 3.1 Check clearance for pass through of hole saw
- 3.2 Place camera so at 30° downward angle, it should face directly at the bottom of the loading door
- 3.3 Drill 1" hole with hole saw go through both layers
- 3.4 Place camera back and screw in mounting screws  
**Use a hand tool for screws that hold the camera covers on, a power drill can damage the aluminum housings and strip out the threads**

# 11 Step 07a- Install Exterior Cameras



Resources  
Lead Installer



Parts  
Exterior Cameras,  
Mounting screws



Time  
5 minutes



Tools  
Drill, 1 3/8" hole saw, Drivers,  
Bits, Hand bit-driver, Fish tape,  
Electrical tape, Silicone,

## TASKS TO BE PERFORMED



Note



Caution

4

Installing exterior revenue cameras

**4.1** Locating: Make sure bracket is at least 76" from stop arm pivot

**4.2** Make sure drill holes are within window frame

### Optional

**A** Put template on

**B** Measure to center template between crush rails – ensure template is parallel to rails

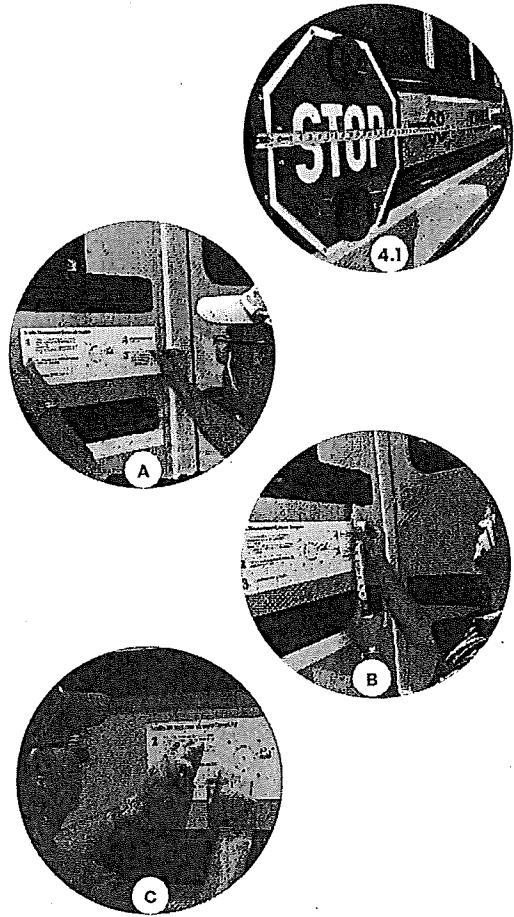
**C** Make holes with marker, using template

**D** Remove template

*Make sure door opens fully without hitting camera box*

5

Drill exterior center hole 1-3/4"



# 11 Step 07a- Install Exterior Cameras



Resources  
Lead Installer



Parts  
Exterior Cameras,  
Mounting screws



Time  
5 minutes



## Tools

Drill, 1 3/8" hole saw, Drivers,  
Bits, Hand bit-driver, Fish tape,  
Electrical tape, Silicone,

### TASKS TO BE PERFORMED



Note



Caution

6 Drill 9/64" pilot holes for mounting screws

**\* Pro tip:** Use the screws and pre-thread holes before installing the camera thread wires from inside-out

**Push the insulation back around the holes to keep the insulation from wrapping around the wires**

**Two person job: Pulling fish wire from outside in is a two person job - 2nd person tapes cables and pulls wires through**

7 Thread the wires through the base of the box

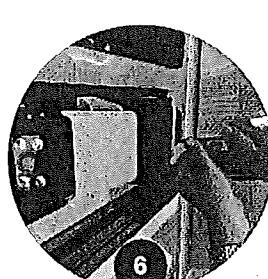
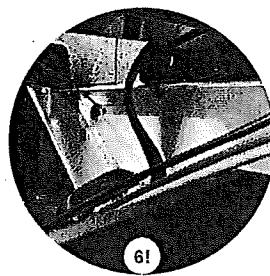
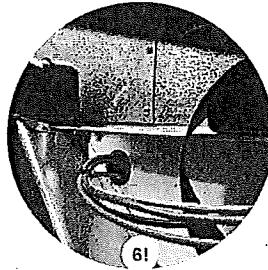
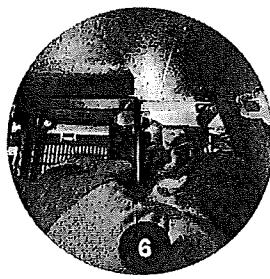
8 Hold the box up to align the holes and loosely screw to bus

9 Make sure the box is level and tighten down the screws

10 Connect wires

11 Tuck in box without sharp bends

12 Screw cover on



## 12 Step 07b- Install Interior Cameras



**Resources**  
Support Installer



**Parts**  
Interior Cameras,  
Mounting screws



**Time**  
25 minutes



**Time**  
Drivers, Bits, Hand  
bit-driver, Fish tape,  
Electrical tape, Tie wraps

### TASKS TO BE PERFORMED

#### 1 Drill holes on interior

**1.1** Start locator camera hole-  
about 8" above track

**1.2** Drill first hole

**1.3** Drill hole to fish wires to

**Use grommet on the bottom holes:**

**There is no need for holes behind canvas**

**1.4** If you forget a grommet you can cut  
the hole to install later, but make sure  
cut is at the bottom as pressure from  
wire is from the top

**No holes needed at the back as there  
are already ports to pull wire**

**When taping and fishing, make sure tape  
is under and over the hook on end of fish  
so it doesn't catch on the insulation**

**if you need to pull tape off leave a flag**

**Leave RJ45 caps on all except side load #6  
which is an extra tight fit**

**Watchout to avoid ceiling bearers when  
fishing**

Front camera hole- leave space  
to both pressure arm and windshield

**1.5** Use your index finger to space to  
windshield

**Make sure drill is to your left, if it is to the  
right and binds it will kick forward and break  
the windshield**

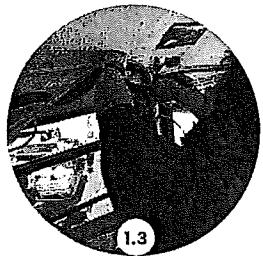
**1.6** Fish front camera wire

Note

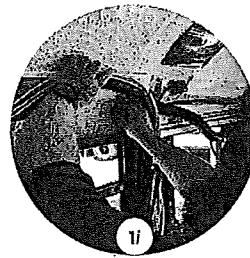
Caution



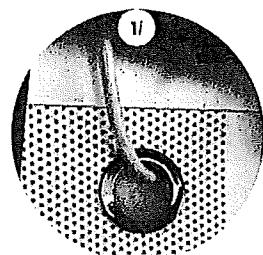
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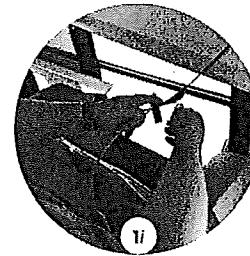
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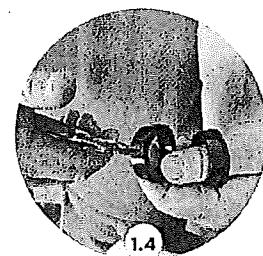
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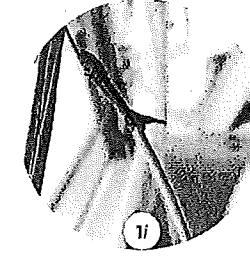
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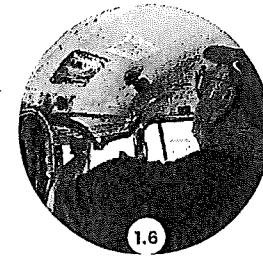
1.5



1.6



1.7



1.8

# 12 Step 07b- Install Interior Cameras



**Resources**  
Support Installer



**Parts**  
Interior Cameras,  
Mounting screws



**Time**  
25 minutes



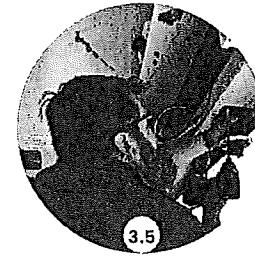
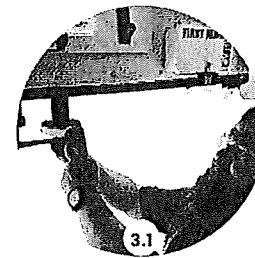
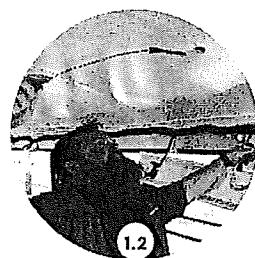
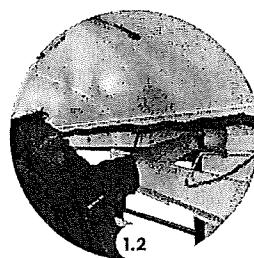
**Time**  
Drivers, Bits, Hand  
bit-driver, Fish tape,  
Electrical tape, Tie wraps

## TASKS TO BE PERFORMED

- 1.7 Drill plate camera wire  
**Make sure holes are all at the same height so that track can run level**
- 1.8 Zip ties every ~18" or whatever is needed to make it secure departing as bus
- 1.9 Cut ends off
- 1.10 Fish LP box wires



**Note**



### 2 Mounting interior cameras

- 2.1 Connect RJ45s
- 2.2 Push up wire length
- 2.3 Hold camera in place facing the right direction
- 2.4 Screw one self tapping screw to the ceiling
- 2.5 Drive other 2 screws  
*Watchout- Drill trigger is like a gas pedal, don't go full power*



### 3 Windshield camera

- 3.1 Hold in position and check clearance to swing arm and windshield
- 3.2 Ensure 1 (of 3) camera to pillar mounting screws faces rear of bus and the other 2 screws are on left/right
- 3.3 Drill windshield camera hole  
*Either hold the drill with the battery facing the right so it kicks away from the window, or hold the battery with your hand against the window to protect the glass in case it binds and kicks towards the glass*
- 3.4 Drive first self tapping screw
- 3.5 Finish other 3 screws
- 3.6 Connect wire
- 3.7 Bundle wires and close panel



# 13 Step 08- Connect Power & I/O



Resources  
Lead Installer



Parts  
Wire harnesses,  
Wire terminals



Time  
30  
minutes



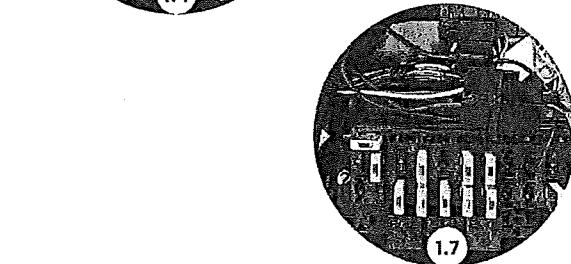
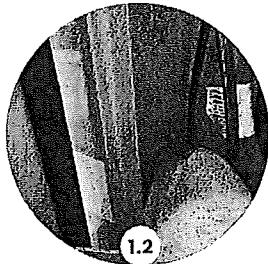
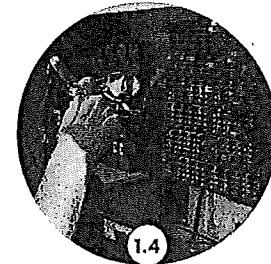
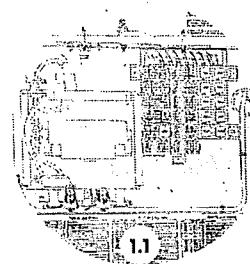
Tools  
Wire strippers, Wire  
crimpers, Socket set and  
bits, Drivers, Zip ties, Digital  
multi meter, Light Probe

## TASKS TO BE PERFORMED

1

PWR

- 1.1 Review wiring diagram for references (typically on inside of door)
- 1.2 Scrape paint from grounding location  
**Open cover for PWR bus connector**  
**Clean off power terminals if covered in grease**
- 1.3 Mount your ground with a ring terminal  
*Always ground first*
- 1.4 Test power lead has constant 12V with multimeter
- 1.4 Remove nut from power terminal  
*Only remove nut with insulated tools so if it hits the bus it will not short out*
- 1.5 Put on power ring terminal, secure nut  
**Use connectivity tester to identify ignition wire/fuse if it's not clear which lead is ignition**
- 1.6 Use posi-tap to connect to ignition wire OR
- 1.7 Use spade terminal to connect to unused fuse holder
- 1.8 Zip tie power wires down  
*Make sure PWR, ground and ignition are hooked up correctly to the right terminals*



# 13 Step 08- Connect Power & I/O



**Resources**  
Lead Installer



**Parts**  
Wire harnesses,  
Wire terminals



**Time**  
30  
minutes



**Tools** Wire strippers, Wire  
crimpers, Socket set and  
bits, Drivers, Zip ties, Digital  
multi meter, Light Probe

## TASKS TO BE PERFORMED

2

I/O

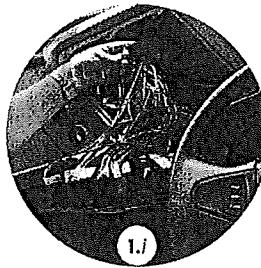
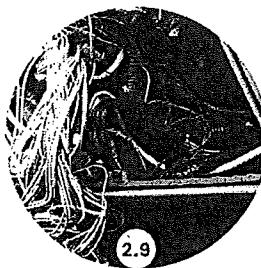
- 2.1 Locate leads/wire bundle
- 2.2 Locate amber, red and stop arm pins
- 2.3 Use a multimeter or light probe to test wires and determine which wires are the amber, red and stop arm
- 2.4 Put posi-taps on each wire
- 2.5 Test each posi-tap for connectivity  
*Make sure posi-taps are sealed properly and hooked up correctly*
- 2.7 Connect I/O wires to posi-taps
- 2.8 Stop-arm: Connect posi-tap to grey wire
- 2.9 Connect ambers and reds (using motor activate and test)
- 2.10 Connect AIS wires to HIS button leads
- 2.11 In interior of bus remove button panel
- 2.12 Install AIS button in blank plate by drilling a hole with a step bit
- 2.13 Connect per diagram  
**Always leave enough extra service loop wire for the AIS button so the button panel can be removed without breaking the wires**
- 2.14 Tuck all wires away (leave enough service loop)
- 2.15 Re-attach panel



Note



Caution



# 14 Step 09- Power-Up DVR & Load Updates



Resources  
Lead Installer



Parts  
None



Time  
20 minutes



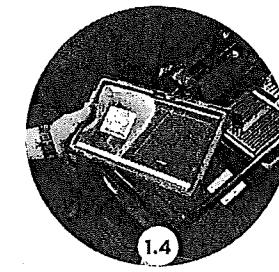
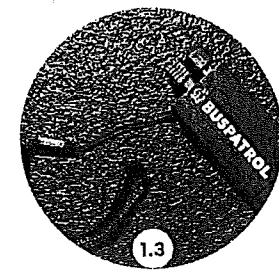
Tools DVR box key,  
Communication dongle, Tablet

## TASKS TO BE PERFORMED

1

PWR UP + update DVR

- 1.1 Unlock the front door of the DVR box
- 1.2 Make sure PWR is connected to DVR
- 1.3 Connect the Bolt dongle to the front USB port
- 1.4 Using the tablet search for the bus and login
- 1.5 Update firmware  
**The lights will blink in a circular pattern during the update**  
*If update is taking a long time (more than 5-8 minutes), hit OK, logout, and log back in.  
The progress bar is not always accurate*
- 1.7 Import the configuration file
- 1.8 Check all cameras for good connection
- 1.9 Check for regular and GPS connector
- 1.10 Check AIS, amber, stop arm indicators
- 1.11 Rename the bus with the "prefix + bus number"



# 15 Step 10- Sight Cameras



**Resources**  
Lead Installer



**Parts**  
None



**Time**  
20 minutes



**Tools** Driver, Hand driver, Bits, Tablet, Sighting mat or target system, Ladder

## TASKS TO BE PERFORMED



**Note**



**Caution**

**1**

Sight each of the interior cameras

**1.1** Remove the covers

**1.2** Review current sighting on the app

**1.3** Angle the cameras to see seats and the driver door

**1.4** Replace the covers

**Use sighting reference guide for more detailed sighting directions**

*Use a hand tool for screws that hold the camera covers on, a power drill can damage the cast aluminum housings and strip out the threads*

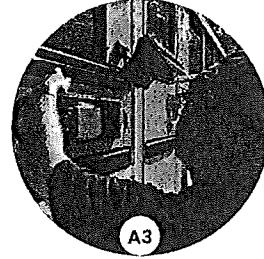
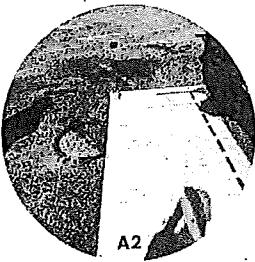
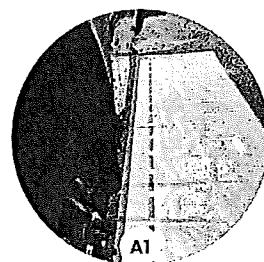
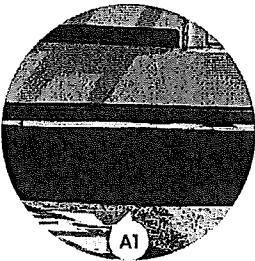
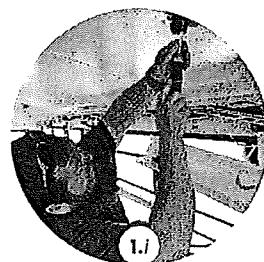
*Don't touch the camera lense and leave a smudge*

### A Forward Sighting

**A1** Rollout Mat: Align arrow locator to center of camera box & lengthwise line should be aligned with body of bus

**A2** Put reflector in corner (Starting position)

**A3** Check stop arm interference using software If stop arm is in image- loosen screws and adjust camera until stop arm is out of the picture



# 15 Step 10- Sight Cameras



Resources  
Lead Installer



Parts  
None



Time  
20 minutes



Tools  
Driver, Hand driver,  
Bits, Tablet, Sighting mat  
or target system, Ladder

## TASKS TO BE PERFORMED

Note

Caution

Move stop target out 1 foot,  
then check again

*If beyond 2 feet, you need to move the box*



### B Rear-Sighting

**B1** Same procedure as above, but with mat facing rear of bus

**B2** Ensure reflector is in bottom left corner of Camera

\*If no potential for stop arm interference

**B3** After license plate camera is fully sighted put on protective plastic cover

### C Sighting Overview camera

**C1** Keep sighting mat in Rear License Plate Camera sighting position

**C2** Align bottom of screen dashed lines on the sighting mat

### D Sighting Rear Camera

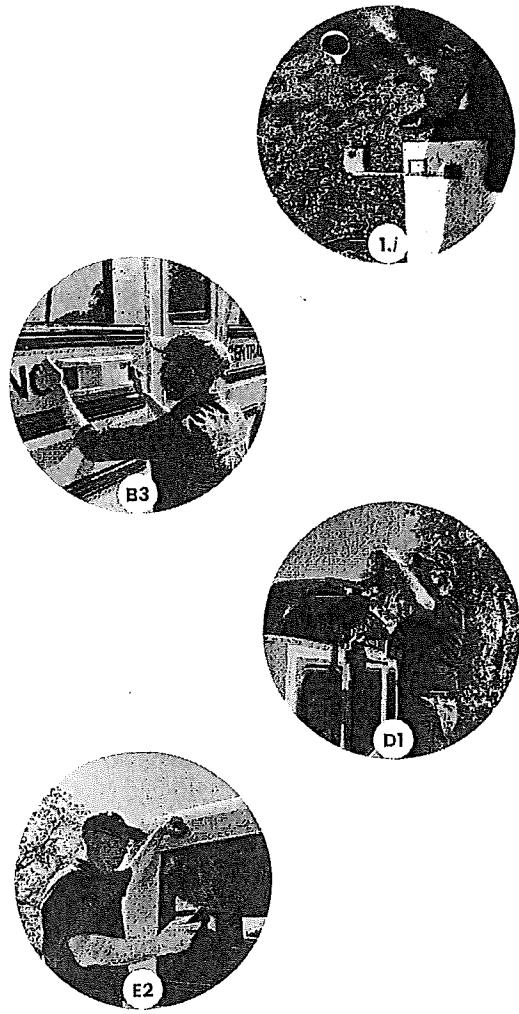
**D1** Ensure camera is aiming just off edge of bumper or as dictated by specific school district

### E Side load

**E1** Aiming to see bottom edge of door



**E2** Make sure green indicator is facing up



# 16 Step 11- Post Install



Resources  
Both



Parts  
None



Time  
60  
minutes



Tools  
Track and loom,  
Drill, Driver bits, Vacuum,  
Broom, Phone or tablet

## TASKS TO BE PERFORMED

1 Wrap loom around all exposed areas of wires that cant be covered in track

**If loom is opening up, wrap with electrical tape**

Get track, measure length + cut to length + cut for wire holes

**Make sure to cover all wires with track + flush up to surfaces**

*Stop drilling as soon as the screw is flushed up to the plastic track, don't over drive and crush the plastic*

3 Revisit all wire routing and ensure the wires are zip tied securely in place

4 Replace pillar post covers

5 Screw back any covers that were taken down

**When putting up factory track start front to back + make sure all wires are tucked in**

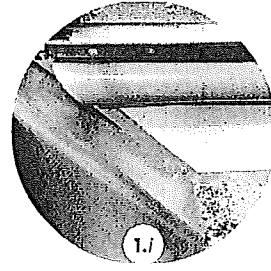
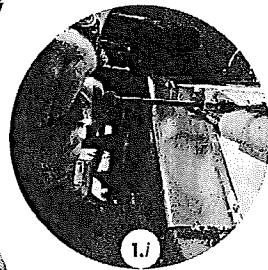
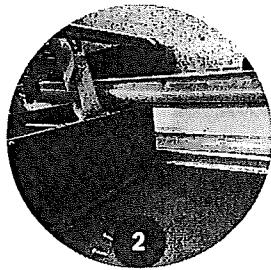
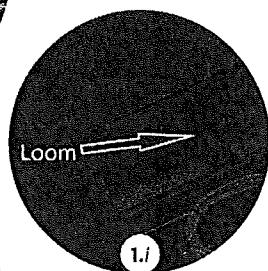
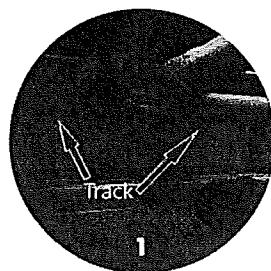
*Don't crack covers when placing them back on, older models may have become brittle over time*



Note



Caution



# 16 Step 11- Post Install



Resources  
Both



Parts  
None



Time  
60  
minutes



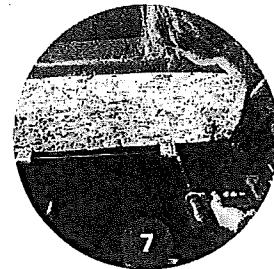
Tools Track and loom,  
Drill, Driver bits, Vacuum,  
Broom, Phone or tablet

## TASKS TO BE PERFORMED

6 Affix all bus tracks on back up make sure screens are secured

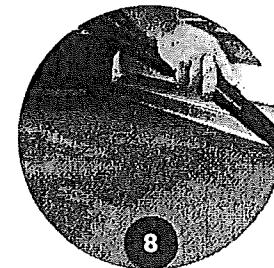
*Make sure all speakers and harnesses are reconnected*

7 Put seats back – secure with screws



7

8 Vacuum up debris from drilling



8

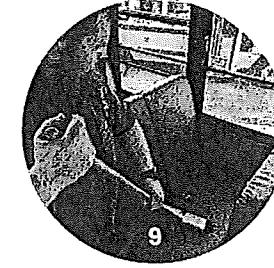
9 Sweep floor thoroughly – leave the bus cleaner where you found it

10 Remove all tools from bus

*Do not leave any sharp tools on the bus*

1

11 Complete post-install form



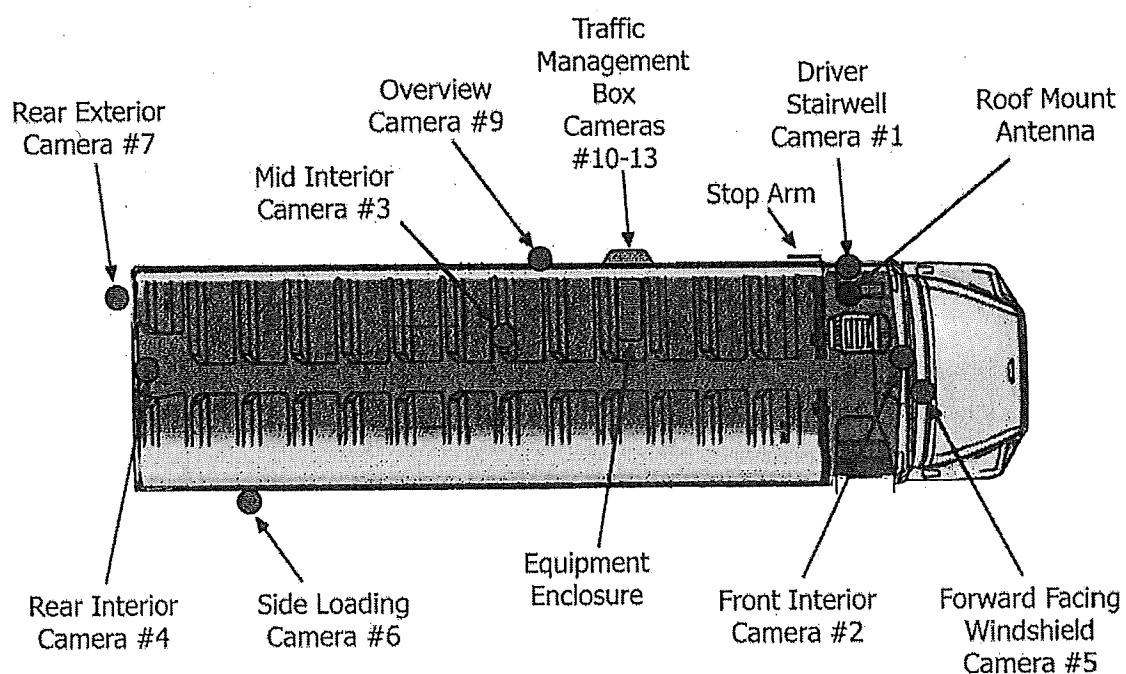
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12 Final check by QA team

## 17.0 Document Revision Record

Rev. No.	Change Description	Date	Initial
0	New Release	24JUL2020	BPA

# Appendix A -- Equipment Location Diagram

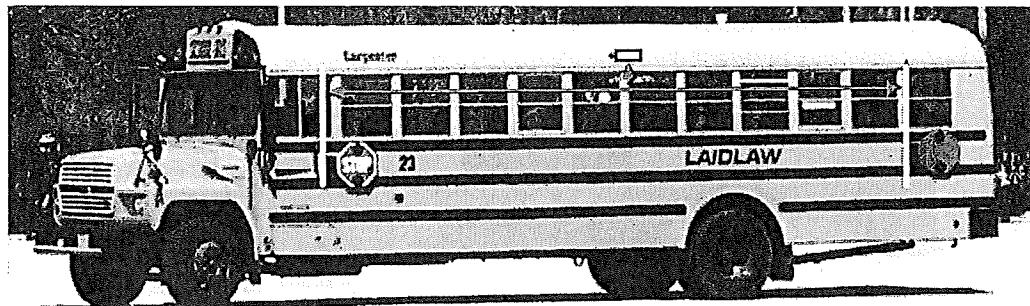


## Appendix B – Measuring of Bus for C28 Overview Camera

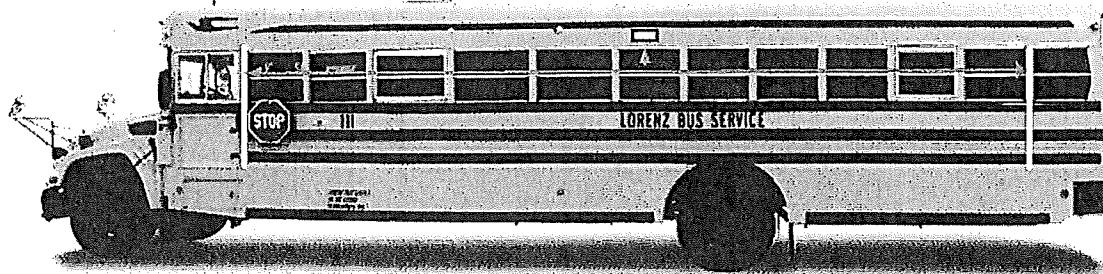
The C28 Overview camera shall be mounted on the roof just above the rain drip seam parallel to the ground while the bus is parked on a level surface.

### **Measuring for a Bus with Front and Rear Stop Arms**

- 1 Measure the distance between the two stop arms when extended at the pivot hinge of the sign.
- 2 Take half that measurement to find the camera mounting location (if the total distance is 24 ft., the camera should be mounted at 12 ft.).



- 1 Measure between the front stop arm and the center post between the last 2 windows (this is normally where a rear stop arm would be located).
- 2 Take half that measurement to find the camera mounting location (if the total distance is 24 ft., the camera should be mounted at 12 ft.).



## Appendix B – Measuring of Bus for C28 Overview Camera

### Variances

The center mounting location may be moved no more than 6" toward the front of the bus or 4" toward the rear of the bus to avoid any obstructions such as roof marker lamps.



BE CAREFUL NOT TO BLOCK VISIBILITY OF ANY ROOF LIGHTING OR LETTERING.