

## Lytx Hub - Managed Installation Offering Solution Offering

- 3 Auxiliary Camera Max supported for Managed Installs. System supports maximum 4
- 2 Side Auxiliary Camera's Max
- 1 Rear Auxiliary Camera Max

### Bill of Materials Available

Catalog Number	Description	Components	Components	Notes
PER-RVS-0724	Side Camera – 120 degree Arm Camera with 21' cable	<ul style="list-style-type: none"> <li>• LYTX-ARM-FR-NC</li> </ul> Side Camera – Freightliner 120 degree Arm Camera	<ul style="list-style-type: none"> <li>• LYTX-882</li> </ul> 21' Double Female Camera Cable	<ul style="list-style-type: none"> <li>• Max 2 per vehicle</li> <li>• Hose Clamp mounting type</li> <li>• Driver and Passenger side location only</li> </ul>
PER-RVS-0723	Rear Camera – 103 degree Backup Camera with 66' Cable	<ul style="list-style-type: none"> <li>• LYTX-770-NC</li> </ul> Rear Camera – 130 degree Backup Camera	<ul style="list-style-type: none"> <li>• LYTX-825N</li> </ul> 66' Double Female Camera Cable	<ul style="list-style-type: none"> <li>• Max 1 rear camera per vehicle.</li> <li>• Must be on the back of the vehicle – no sides</li> </ul>
PER-RVS-0704	4 Channel Power Harness with 4 Video Outputs	<ul style="list-style-type: none"> <li>• RVS-5044-LYTX-F03-B</li> </ul> RVS: 4 Channel Harness w/ Regulator	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	<ul style="list-style-type: none"> <li>• Voltage Regulator cable will be pre-attached to the harness</li> <li>• All 4 video inputs will be connected</li> </ul>
PER-RVS-0722	Monitor – 7" LED Digital Quad View Color Monitor with Mount	<ul style="list-style-type: none"> <li>• LYTX-6137Q-NP</li> </ul> Monitor – 7" LED Digital Quad View Color Monitor	<ul style="list-style-type: none"> <li>• LYTX-1420</li> </ul> Double Swivel Monitor Mount	

### General Vehicle Type Exclusions:

- Nonstandard vehicles
  - o Trains / Intermodal
  - o Trolleys
  - o Crane's or heavy duty off road vehicle types
  - o Forklifts
  - o Greater than 24 volt systems
  - o Detachable trailers – rear
  - o Street sweepers - rear

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## Solution Breakdown

### 1. Auxiliary side camera's

#### Definition:

- Side camera is defined as side camera vehicle Cab area and forward
- No side camera placements behind the cab area

Camera offering:

- **PER-RVS-0707** – Side Camera – Hose Clamp mounting style
- **PER-RVS-0881** – 16’ Double Female Camera Cable (connects Camera to Lytx Hub)



**View Objective:** Based on the mirror location the camera may potentially have a small blindspot

- Sideswipe
- Merging
- Collisions
- Side vehicle activity (loading / unloading)





#### Mounting/Routing Options:

- Mounting the camera will use the supplied hose clamps and attach to the vehicle side mirrors
- Mirror Arm Mounting Considerations:
  - Diameter measurements:
    - 2 Larger hose clamps - 4" maximum diameter and minimum diameter of 3"
    - 2 smaller hose clamps – 1.25" maximum diameter and minimum diameter of 1"
- No drilling
- Approved Routing Method
  - No disassembly of mirror for cable routing
  - Cable routing on the exterior and routed through the door jam if applicable
- Location on the mirror mount will vary based on optimal view defined.
  - Placements will be documented and part of the approved database

### Hose Clamp samples:



### Vehicle Type Considerations:

- Medium to heavy-duty vehicles with mirror arms that extend out. Not close to the body.

### Known Exclusions:

- Passenger vehicles
- Vehicles that do not have a hinging door to route through or a clear routing path (Bus)
- Light Duty vehicles that do not have enough extension on the side mirrors ie Ford F 550. Unable to get hose clamp around mirror mold
- **Freightliner NEW Cascadia P4** – the mirror mold is too large for the 4" hose clamp. We can combine the supplied large and small hose clamp to fit but client may not like it aesthetically

### Camera Specifications:

- 120 degree viewing angle
- 2.8mm lens
- 10 infra-red lights for night vision
- Waterproof with an IP68 rating
- 10G vibration rating
- Adjustable lens for optimal viewing

## 2. Auxiliary Rear Camera

### Definition:

- Rear camera is defined as being mounted on the back end of the vehicle
  - Can be mounted up high or low depending on the vehicle type
- Fixed vehicles, no mechanical moving parts or trailers
  - A fixed and non-moving mounting surface must be available
  - No articulating parts to route through

### Camera offering:

- **PER-RVS-0711** – Rear Camera
- **PER-RVS-0720** – 66’ Double Female Camera Cable (connects Camera to Lytx Hub)



**View Objective:** Based on the mirror location the camera may potentially have a small blindspot. You would still be able to capture the vehicle coming up to the blind spot to determine root cause.

- Loading / Unloading
- Collisions
- Good view of the road behind vehicle





### Mounting Options:

- Mounting will require drilling into the back of the vehicle
- Cable routing will need to be routed safely to the rear of the vehicle. If there's a vehicle that has a cable channel along the top, this should be leveraged.
- Top mounting looking down



### **Vehicle Type Considerations:**

- Medium to heavy duty vehicles
- Box trucks
- No boom type vehicle with moving parts
- Limited in length due to cable run. Must be able to run cable from cab to final Aux location
  - Must not exceed 66' from cab dash area to final mounting location in the back

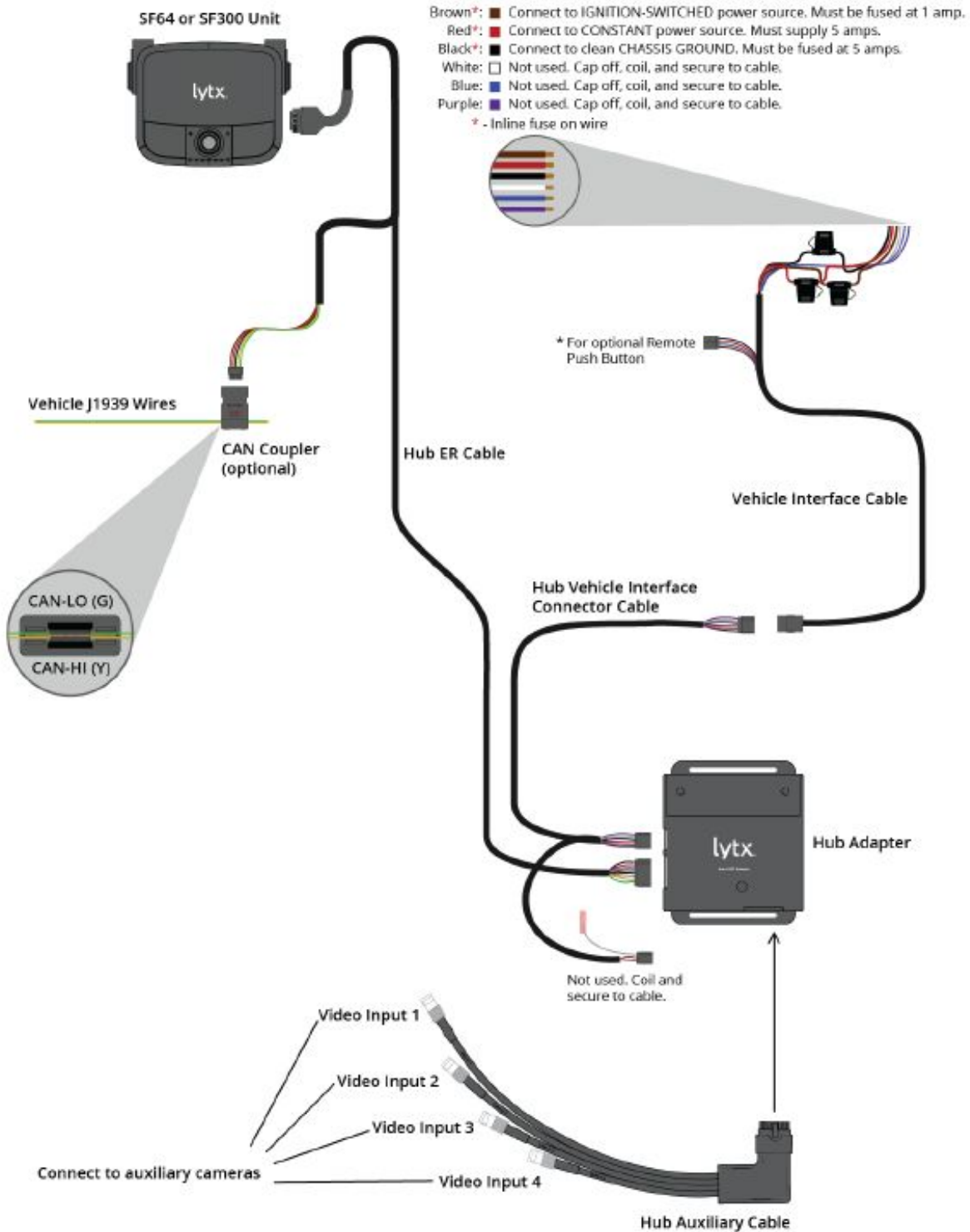
### **Known Exclusions:**

- Passenger vehicles
- Trailers. Not detachable solution permitted

### **Camera Specifications:**

- 130 degree viewing angle
- 1/3" Sharp Color CCD Camera
- 18 infra-red lights – 50ft of Night Vision
- Waterproof – IP69K Rating
- 410,000 Pixel / 2.5 mm lens
- Shock Resistant with 20G vibration and 100G impact rating

## Lytx Hub Cabling Diagrams





## **Lytx Hub Cabling Diagrams With PCU (Power Control Unit)**

