



From the Desk of Beth Ann Verity

## TOPICS TO ADDRESS:

### 1. Legal Vision

- A. The mandate in a nutshell
  - i. All new trucks under 10,000 GVW. Phase in: 10% by 05/01/16, 40% by 05/01/17, 100% by 05/01/18. Two stage vehicles have no phase in; however, 100% by 05/01/18.
  - ii. Must be tested on specific grid (10' x 20') with (7) 32" H x 12"□, cylinders marked per specification with contrasting color.
  - iii. Cylinders must be placed per spec on the grid and camera must be placed at 32" from the ground. Camera must show top 150mm of the 2 cylinders nearest the bumper and ALL the other cylinders.
  - iv. Camera view must not be so distorted (fish-eye) that you cannot easily discern what is in the field of view.
  - v. Test results (Vin, Body #, Make, Model, year, camera system, weight of vehicle, camera height, etc.) must be logged and submitted yearly AND upon request.
- B. Can I use a 360 system? No. The mandate specifically states that the driver must rely on 1 camera. Buzzers, mirrors, and other cameras may be added; however a "stitched or overlapped" software package is not legal because of the disappearance at the seams. Even if technology overcomes the seam, it still cannot be used because it is not a 1-camera system.
- C. Why is Verity's *Legal Vision*® better than any other?
  - i. We over-designed our camera. Our camera view includes the 12" gap between the bumper and the first cylinders. All competitors may be legal, but their views begin at the required 150mm tops of the first cylinders. Therefore, an "18 month-old toddler" could walk up and stand at the bumper and not be visible on the monitor. Verity believes the competitor's systems will not avoid civil lawsuits.
  - ii. The Verity *Legal Vision*® camera also crops the picture in such a way that the "fish-eye" distortion is minimized to the greatest extent possible.
- D. Can I use a wireless system? No. Wireless systems delay the signal slightly.
- E. Why should I retro-fit my trucks? Trucks retro-fitted with a Verity *Legal Vision*® system will most likely never injure a body or damage property. If an



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accident occurs, they go to court with the “best system that was available”. Therefore, they were as pro-active as possible about their fleet safety.

- F. Where do I find a grid for testing? Call or e-mail Beth Ann. She will share her “shopping list”. We created a high-quality, sturdy, use-for-many-years, legal grid for \$693.00. Beth Ann will send you the list which provides names of the manufacturers, web links, item descriptions, and pricing for our grid. We chose a grid with 1’ x 1’, black & white, checkerboard as suggested by the K.T. Safety Act. This provides “proof of the scale” in the pictures you submit with the reports.

## 2. “J” Series

### A. Why is the cabling better?

- i. The harness and the camera cable have been tested for constant, more than sufficient power from the monitor to the cable and back again.
- ii. The harness and monitor are pinned in such a way that if a pin or pins are bent or broken, the end customer/ OEM need only purchase a new harness and not a new monitor. This is a great cost savings.
- iii. The camera extension cable connections are female>female. It cannot be installed backwards.

### B. What products are in the “J” Series?

- i. SM05J & SM07J are standard rear vision systems (5” or 7” monitor screens)
- ii. SM10J is our standard system with a 10.1” screen. This is a special order item.
- iii. SMQ7J is a quad monitor supporting 4 cameras.

### C. Quad systems vs 360 “Surround”: This is our “answer” to the 360 or surround systems. These camera signals are not stitched. The monitor can switch to showing all cameras or any camera with the push of a button. At this time, Verity will not sell a “surround” system because of the disappearance at the corners AND because the views from the side cameras are severely distorted.

## 3. *Reveal*

- A. What is it? *Reveal* is a product line for Tractor Trailers, RVs, and towables that provides a view of the complete sides of the trailer and the rear of the trailer even while reversing into a parking space at jack-knife angles.



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- B. What products can be used to design a *Reveal* package? Forward facing cameras, side cameras (both medium and heavy duty), DVR (recorders with varying memory), installation kits, and *Legal View* cameras or standard rear view cameras for the back, along with other options can create a custom package for the OEM, dealer, or fleet owner.
- C. Can Verity install on Pups - multiples? Yes. The driver can see as he backs to hook up to each trailer, one after the other. He then travels with the camera on the last trailer activated.

#### 4. What do the IP ratings mean?

- A. IP ratings determine how much dust & moisture will penetrate the component.
- B. (See last page for IP Rating Explanation)

#### 5. How are Verity systems & their components superior?

- A. Our cameras get their power from the monitor.
- B. Our camera multiplexer function is performed in the monitor and not from a separate control box.
- C. We do not purchase "off the shelf" from manufacturers. We purchase Production Time and work with the manufacturer's engineers to up-grade the boards and components that go into our cameras and monitors.
- D. Our monitor screens are rated for 500,000 hours - as opposed to our competitor's "off the shelf" 10,000 - 50,000 hours.
- E. Our monitors have been tested against those sold by our competitors. Only a Verity monitor supplies a boosted, constant power supply to the camera. All other monitors dropped power before arriving at the camera and in some cases, arrived without sufficient power for the camera to perform if used for a *Reveal* application.
- F. Since purchasing the company in 2015, our "issue" rate for cameras and monitors is .024%. When considering the "J" Series only, our issue rate since shipping began 03/2016 is 0.01%.

#### 6. Why should we trust Verity?

- A. Verity systems arrive on time, PERIOD. Most items are in stock. Specialty items require a 4-6 week lead time; depending on the quantity, that can be as short as 3-4 weeks.



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- B. Bill Verity has been designing camera systems for over 20 years both for vehicles and underwater marine applications. Asian, European, and Australian engineers and manufacturers request his input and ask him to tryout their ideas. Bill Verity has been a volunteer firefighter, sold RV's, completed an internship at NASA, and taught Special Education. Each of these experiences in different ways all impact the products we design.
- C. Beth Ann Verity has owned and ran a company that manufactured components used in building insulated doors for the agricultural industry. She then ran the office of a tool and die company for 10 years doing every job in the office except designing the dies - including financing.
- D. VERITY=QUALITY Our name is on the company not because we have a huge ego; but because we have a reputation for quality of product and quality of service.
- E. Our cameras and monitors are tested 100% before they are shipped from the manufacturer. Another 10% are tested at our facility before we ship anything from that order. If even 1 piece is suspect, we test every piece of the order, 100%.

#### 7. What support can our OEM's expect from Verity?

- A. The personal cell numbers of our Tech team members are on the manuals. We answer calls 24/7 - yes, even on weekends.
- B. The quickest help comes by having the OEM or end customer fill out our Online Service Ticket and upload photos from several angles. This provides most of the information we need to troubleshoot the system. We then phone the end customer and ask the questions to isolate the issue. IF necessary, we provide a FedEx label at no charge to the end customer for them to send us the component for inspection. We inspect those the same day we receive them and phone or email the end customer with the result and action that will be taken. We email the OEM and keep them apprised of all correspondence.
- C. Tech reports are issued and distributed to all Verity customers when an issue arises - as in the Camera Drip Loop You Tube video.
- D. WE DO NOT JUST SEND OUT A NEW CAMERA as our competitors do. Why not? It may not be the camera that is causing the issue, it could be a cut or crimped camera cable. Bent or broken pins in the monitor could also be the cause. And yes, it has happened more than once, sometimes the camera lens is just dirty and needs to be wiped clean.

#### 8. What has Verity done for me lately?



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- A. Verity is the only camera company to offer nationwide installation through our approved install team. **Precision Installations** has been installing our systems for several years first at Oshkosh/Pierce and now as a separate company. They performed our 173 truck retro-fit for Scholastic Book Fairs this past year. We also are building our list of installers around the USA who regularly purchase and install Verity systems for their own customers.
- B. Verity is the only camera company to offer **Retro-fit Installation Kits**. Whether you are installing our system on a Box Truck, RV, Tractor/Trailer, Farm Equipment, Prison Transport, Ambulance, or Boat Trailer, we have kits that supply all of the miscellaneous pieces necessary for an install comparable to OEM work. Grommets, self-drilling screws, wiring, connectors, wire loom, cable ties, and more are included so that the installer does not need to make a trip to the local hardware store.
- C. Verity is beginning to include in each system a **QC sticker** to be dated and initialed by the installation personnel. Once the system is installed, it is turned on and checked. The sticker is then placed on the back side of the monitor verifying that the system was good when shipped both from Verity and then again from the installer or OEM.
- D. Beth Ann Verity received certification as a **Woman-owned Business Enterprise** from the State of Indiana on March 24, 2017. Verity does sell to the U.S.A.F and this will make the purchases easier for them. VerityRVS is not looking for government contracts; however, many of our current customers either build for municipalities and/or the government. Also, we sell to several Fire Houses and DOC customers. The certification is a valuable selling point.

#### Verity Rear Vision System IP Explanation

<b>IP63</b>	Protected from total dust ingress.	Protected from water spray less than 60 degrees from vertical.
<b>IP64</b>	Protected from total dust ingress.	Protected from water spray from any direction.
<b>IP65</b>	Protected from total dust ingress.	Protected from low pressure water jets from any direction.



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<b>IP66</b>	Protected from total dust ingress.	Protected from high pressure water jets from any direction.
<b>IP67</b>	Protected from total dust ingress.	Protected from immersion between 15 centimeters and 1 meter in depth.
<b>IP68</b>	Protected from total dust ingress.	Protected from long term immersion up to a specified pressure of 30 PSI.
<b>IP69K</b>	Protected from total dust ingress.	Protected from steam-jet cleaning at 1400 PSI, Hot
<b>IP67 or Lower</b>	Protected from total dust ingress.	<b>Large portion of our competitors</b> Protected from immersion between 15 centimeters and 1 meter in depth.
<b>IP68</b>	Protected from total dust ingress.	<b>Verity Indoor cameras</b> Protected from long term immersion up to a specified pressure of 30 PSI.
<b>IP69K</b>	Protected from total dust ingress.	<b>ALL VERITY Rear/Side CAMERAS</b> Protected from steam-jet cleaning at 1400 PSI, Hot

*Beth Ann Verity*

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100%, 100% of the time!