PRODUCT SPECIFICATIONS:
WRONG WAY DETECTION, PREVENTION AND NOTIFICATION SYSTEM

Wrong Way detection—the right way.
The ATS Wrong Way Solution uses radar, laser or cameras to sense wrong-way drivers. Our multi-channel Notification System then alerts the driver with flashing messages and beacons to alert them to stop and turn around, notifies designated authorities immediately via email or text message (both with links to video when available), and alerts other drivers of the wrong way vehicle via dynamic messages on variable message signs and social apps.

Initial Detection and Confirmation Sensors
Detection and confirmation of the wrong-way vehicle is made by Doppler radar, laser or infrared camera, depending upon the detection environment. If the travel lane area of detection is directly next to a lane of traffic that should be traveling in the same direction as the desired wrong way detection area of interest, the detection area is limited to only a specific area with proper selection and configuration of the detection sensor.

Upon detection of a wrong-way vehicle, the initial detection sensor sends a signal to the central controller at the message sign via a wired or wireless connection, initiating the “Wrong Way” message. The initial detection sensor can be up to 1000 feet in advance of the message sign. This solution is built from functional pieces that can be customized to your installation.

The confirmation sensor is generally located after the message sign, and if the vehicle continues past the sign, a signal is transmitted to the central controller to send an alert to the designated authorities.

Multi-lane Sensing:
- Can be determined using either camera or radar detection in all light and weather conditions. IR cameras are utilized to optimize detection in all light and weather conditions.
- Up to three lanes can be monitored if the camera is mounted at sufficient height. If there is no “right way” traffic within the detection range, radar sensing is a very cost-effective solution as it detects wrong way vehicles over multiple lanes of traffic.

Single-lane Sensing:
- When single-lane detection is necessary, radar is again an option, but if there is traffic within range that is traveling the “right way”, the radar cannot filter this out.
- In these situations, the ATS QueTrak is utilized because it has extremely accurate directional vehicle tracking capabilities and is not influenced by traffic that is outside it’s detection zone, nor is it affected by light conditions or weather.

Notification
- Alerts are sent via email or text address with links to video when available
- Alerts can be sent to as many recipients as desired
- System is password-protected with three levels of access

AllTrafficSolutions.com
Notification (continued)

- Fully hosted, turnkey web-based remote management
  - Internet-connected computer and browser provides anywhere access
  - No IT infrastructure or support necessary
  - No additional hardware or network appliances necessary
  - No software or middleware to install for remote management
  - Wireless cellular connection provided by ATS; no separate charges
  - Web-based user interface is always up to date and continually receives applicable enhancements
- System can be accessed via API to inform other systems in real-time

Message Sign

- Four ATS message signs are available to display the ‘Wrong Way’ message
  - InstAlert 18 (IA18): 18” x 28” full matrix
  - InstAlert 24 (IA24): 24” x 60” full matrix
  - InstAlert 48 (IA48): 55” x 96” full matrix
  - InstAlert 68 (IA68): 75” x 138” full matrix
- Red (all sizes) or Amber LEDs (IA18 and IA24 only) for the Wrong Way message
- Optional strobes available to increase visibility, catch drivers attention
  - IA18: 1-2 line messages
    - 1 line: 10-1/4” H x 5.75” W characters, 4 per line
    - 2 lines: 7” H x 4” W characters, 6 per line
  - IA24: 1-3 line messages
    - 1 line: 24” H x 12.5” W characters, 4 per line
    - 2 lines: 10-1/4” H x 5.75” W characters, 8 per line
    - 3 lines: 7” H x 4” W characters, 12 per line
    - 2 lines: (1) 7” characters, 12/line, (1) 10 1/4” char, 8/line

IA48: 12 fonts including:
- 12” default height with 5 x 7 pixels, 3 lines, 8 characters/line
- 21” height with 5 x 12 pixels, 2 lines, 8 characters/line
- 42” height with 7 x 23 pixels, 1 line, 6 characters/line
- 8” height with 4 x 5 pixels, 4 lines, 9 - 12 characters/line

IA68: 12 fonts, including
- Default: 18” height with 5 x 7 pixels, 3 lines, 8 characters/line
- Largest: 60” height with 11 x 23 pixels, 1 line, 4 characters/line
- Smallest: 12” height with 4 x 5 pixels, 4 lines, 9 – 12 characters/line

- Up to six screens per message, completely customizable by user
- Full graphics capability, each LED individually controllable
- Variable display time, flash and reverse rates for each screen
- Meets MUTCD specifications
- NTCIP compatible, can be used to control message signs from other manufacturers
- See the InstAlert specifications for more VMS sign specs

Power

- System can be run on AC or solar power. Power is tailored to the requirements of the installed location

- Input: 12VDC
System detects, confirms and remotely alerts when a vehicle is traveling the wrong way down an exit ramp or similar lane.

System is powered with individual power at each component or with a central power system, either AC or solar. If a central system is used, communications are wired. If individual solar power is provided, communication is via radio.

1. **Front Detection Camera, Radar or Laser**
   - First detection of car entering ramp in the wrong direction. Monitored ramp can be directly next to ramp with vehicles traveling correctly in the “wrong” direction.
   - **Power**
     Solar at the camera or remote solar/AC System.
   - **Signal**
     Sent by radio to warning sign, or by wire through power conduit if remote powered.

2. **Warning Sign**
   - Warns driver they are traveling the wrong way. Red LED message with white strobes.
   - **Power**
     Solar at the sign or remote solar/AC
   - **Signal**
     Received by radio to sign, or by wire through power conduit if remote powered.
   - **Sensor Co-location**
     Rear-confirmation radar and/or front camera can be co-located with sign in some configurations.

3. **Rear Confirmation Radar**
   - Confirms vehicle on ramp traveling in the wrong direction and triggers an alert so the authorities can respond.
   - **Power**
     Solar at the camera or remote solar/AC.
   - **Signal**
     Sent by radio to sign, or by wire through power conduit if remote powered.