UD-10 Traffic Crash Reporting New for 2018







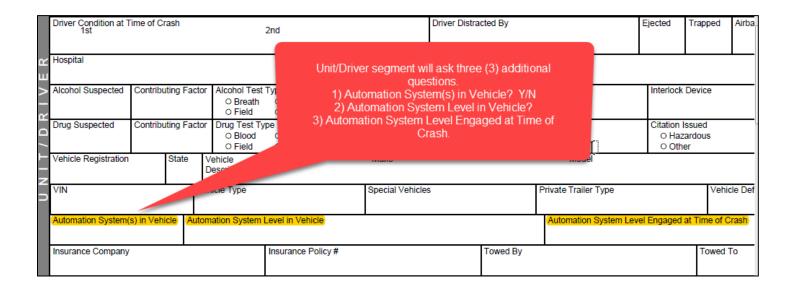
Automated Vehicles:

To comply with new federal reporting guidelines, the Michigan State Police Traffic Crash Reporting Unit (TCRU) has added three new fields to the UD-10 Traffic Crash Report for 2018. These fields will be used to capture the level of autonomy for the motor vehicles involved in the traffic crash.

These federal reporting guidelines were developed collectively by the National Highway Traffic Safety Administration and the Governors Highway Safety Association, who urged the states to adopt these fields into their traffic crash reporting.

With the passing of MCL 257.665 which in part allows for the operation of automated vehicles on public roadways, the TCRU has developed the following materials to assist the officer in collecting these new fields.

UD-10 Placement:



Automated Vehicle Definitions:

| SAE level | Name | Narrative Definition | Execution of Steering and Acceleration/ Deceleration | Monitoring of Driving Environment | Fallback Performance of <i>Dynamic</i> <i>Driving Task</i> | System Capability (Driving Modes) |
|--------------|---------------------------|--|---|---|---|--|
| Huma | <i>n driver</i> monito | ors the driving environment | | , | | |
| 0 | No Automation | the full-time performance by the <i>human driver</i> of all aspects of the <i>dynamic driving task</i> , even when enhanced by warning or intervention systems | Human driver | Human driver | Human driver | n/a |
| 1 | Driver Assistance | the <i>driving mode</i> -specific execution by a driver assistance system of either steering or acceleration/deceleration using information about the driving environment and with the expectation that the <i>human driver</i> perform all remaining aspects of the <i>dynamic driving task</i> | Human driver and system | Human driver | Human driver | Some driving modes |
| 2 | Partial Automation | the driving mode-specific execution by one or more driver assistance systems of both steering and acceleration/deceleration using information about the driving environment and with the expectation that the human driver perform all remaining aspects of the dynamic driving task | System | Human driver | Human driver | Some driving modes |
| Autor | nated driving s | ystem ("system") monitors the driving environment | | | | |
| 3 | Conditional Automation | the <i>driving mode</i> -specific performance by an <i>automated driving system</i> of all aspects of the dynamic driving task with the expectation that the <i>human driver</i> will respond appropriately to a <i>request to intervene</i> | System | System | Human driver | Some driving modes |
| 4 | High Automation | the <i>driving mode</i> -specific performance by an automated driving system of all aspects of the <i>dynamic driving task</i> , even if a <i>human driver</i> does not respond appropriately to a <i>request to intervene</i> | System | System | System | Some driving modes |
| 5 | Full Automation | the full-time performance by an automated driving system of all aspects of the dynamic driving task under all roadway and environmental conditions that can be managed by a human driver | System | System | System | All driving modes |

Copyright © 2014 SAE International. The summary table may be freely copied and distributed provided SAE International and J3016 are acknowledged as the source and must be reproduced AS-IS.

Automated Vehicle Fields:

1. Automation System in Vehicle: YES/NO

2. Automation System Level in Vehicle:

Automation System Level in Vehicle

- 0. No Automation
- 1. Driver Assistance
- 2. Partial Automation
- 3. Conditional Automation
- 4. High Automation
- 5. Full Automation
- 6. Automation Level Unknown
- 98. Unknown

3. Automation System Level Engaged at Time of Crash:

Automation System Level Engaged at Time of Crash

- No Automation
- Driver Assistance
- 2. Partial Automation
- Conditional Automation
- 4. High Automation
- Full Automation
- 6. Automation Level Unknown
- 98. Unknown

While a majority of the vehicles on the road today are not automated, some levels of automation do exist on newer vehicles. Common Level 1 (Driver Assistance) systems include:

Lane Keeping Assist
Adaptive Cruise Control
Park Assist
Automatic Emergency Braking

<u>Note:</u> Due to the fact that some drivers and police officers may not be able to identify if a vehicle even has an automation level, select **98-Unknown** at this time until further explanation and training is available.

Five Levels of Vehicle Autonomy





















Level 0

No automation: the driver is in complete control of the vehicle at all times.

Level 1

Driver assistance:

the vehicle can assist the driver or take control of either the vehicle's speed, through cruise control, or its lane position, through lane guidance.

Level 2

Occasional self-driving:

the vehicle can take control of both the vehicle's speed and lane position in some situations, for example on limited-access freeways.

Level 3

Limited self-driving:

the vehicle is in full control in some situations, monitors the road and traffic, and will inform the driver when he or she must take control.

Level 4

Full self-driving under certain conditions:

the vehicle is in full control for the entire trip in these conditions, such as urban ride-sharing.

Level 5

Full self-driving under all conditions:

the vehicle can operate without a human driver or occupants.

Source: SAE & NHTSA