# Police Pursuit Mode Dedicated RTT- CGEA1.3

## Functional Description

The purpose of the Police Pursuit Mode RTT is to inform the officer when the vehicle is in the Police Pursuit Mode.

The Police Pursuit Mode RTT Function correlates PolicePurstMde\_B\_Stat signal and the Operational\_Mode to illuminate or extinguish the Police Pursuit Mode RTT.

The Police Pursuit Mode RTT shall provide an iconic representation that will illuminate to provide feedback/confirmation to the officer that vehicle is in the Police Pursuit Mode.

This section describes the RTT function and sets a flag that is used by the Message Center display (See Message Center Section for details of Message Display Algorithm).

This RTT is applicable on Gas/FHEV and any other police vehicles

## Interfaces

### Interface Context Diagram (I/O Block Diagram)

### Police Pursuit Mode RTT Function



### Inputs

#### IR-REQ-345491/A-INTERNAL:

Operational\_Mode

#### MUX signal from PCM

##### SIG-REQ-345484/A- PolicePurstMde\_B\_Stat Signal

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Signal Name** | **Size**  **(bits)** | **Detail** | **Units** | **Res.** | **Offset** | **State Encoded** | **Min.** | **Max.** |
| PolicePurstMde\_B\_Stat | 1 |  | SED | 1 | 0 |  | 0 (0x0) | 1 (0x1) |
|  |  | OFF |  |  |  | 0x0 |  |  |
|  |  | ON |  |  |  | 0x1 |  |  |

### IR-REQ-345493/A-Outputs

* Police\_Pursuit\_RTT, which is used to control the state of the the reconfigurable telltale (RTT).

## Function/Performance

### F-REQ-345492/A-Operational Modes

|  |  |
| --- | --- |
| **Mode** | **Differentiating Vehicle Conditions** |
| Sleep Mode | Police Pursuit Mode Telltale OFF |
| Limited Mode | Police Pursuit Mode Telltale OFF |
| Normal Mode | Police Pursuit Mode Telltale ON / OFF |
| Crank Mode | Police Pursuit ModeTelltale ON / OFF |

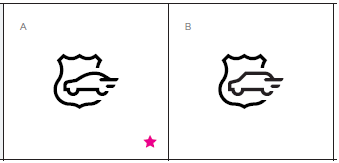
### Voltage Levels

Refer to the Cluster Features table located in the Operational Modes and Voltage Range Strategies Section in this SPSS.

### Human-Machine Interface

#### Visual

#### HMI-REQ-345490/A-Indicator Graphics / Display Format

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Refer to HMI Program For actual symbol definition and RTT Indication

##### HMI-REQ-345485/A- Indicator Color Coordinates

Blue - Reference SDS IL-0017/IS-0379

##### HMI-REQ-345486/A- Indicator Characteristics

Police Pursuit Mode RTT

#### Audio

None

### PFM-REQ-345494/A-System Accuracy

The Police\_Pursuit\_RTT shall change the state of the Telltale within 100msec of a state change as indicated in the state matrix reference 1.3.5.1 Subsystem Algorithm Flowchart/ State Diagram.

### Operation: Performance and Functional

#### Subsystem Algorithm Flowchart / State Diagram

##### F-REQ-345487/A- State Matrix for Police\_Pursuit\_RTT

|  |  |  |
| --- | --- | --- |
| **Operational\_Mode** | **PolicePurstMde\_B\_Stat** | **Police\_Pursuit\_RTT** |
| Normal  or  Crank | ON (0x1) | ON |
| OFF (0x0) | OFF |
| All Other Cases | | OFF |

##### F-REQ-345488/A- Police\_Pursuit\_RTT to MC Warning Message ID

| **MC\_Status\_Flag** | **Mc Warning - Message ID** |
| --- | --- |
| PolicePursuit\_RTT | W3585 |

#### Operation Description (supports algorithm flowchart /state diagram)

#### FS-REQ-345840/A-Function Safety Classification (EMC)

B

#### Memory Storage

##### NVM-REQ-345489/A- Functional Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter Name** | **Description** | **Value at**  **Battery Connect** | **Value at**  **Module Wake-up** |
| Police\_Pursuit\_RTT | Used to control the state of the RTT | OFF(0x0) | OFF(0x0) |
| PolicePurstMde\_B\_Stat signal | CAN signal sent from the PCM | OFF(0x0) | OFF(0x0) |
| Operational\_Mode | 4 state indicator for cluster operational mode | Limited | Limited, Normal or Crank |

#### Prove Out

None

#### Reconfigurable Telltale

Yes

#### Message Center Msg

No text, see Table 1.2 for Warning Message ID W3585

## Missing Message

### Missing Message Strategy

None

## Diagnostics

### Self Test

None

### Engineering Test Mode

Reference section “Dealer / Engineering Test Mode (ETM)”.

### Part II Performance

#### Supported Diagnostic Trouble Codes (DTCs)

None

## Reference Specification

IS-0001 WARNINGS/INDICATORS/DISPLAYS PROVEOUT

IS-0046 INSTRUMENTATION MATERIAL RESISTANCE TO CLEANING

IS-0052 OPERATING VOLTAGES - FUNCTIONAL/PERFORMANCE

IS-0069 FUNCTIONAL IMPORTANCE CLASS

IS-0324 WINDSHIELD & OTHER REFLECTIONS

IS-0327 WARNING INDICATOR EVALUATION

IS-0329 FLICKERING OF LAMPS

IS-0379 NORTH AMERICAN WARNINGS AND INDICATORS STRATEGY

IL-0021 CRAFTSMANSHIP - DISPLAYS

IL-0023 CLARITY/LEGIBILITY/READABILITY

IL-0025 INTERIOR ILLUMINATION INTENSITY

IL -0027 VISUAL CONTRAST

IL -0043 OPERATIONAL ENVIRONMENT FUNCTIONALITY

IL -0045 COLOR

IL -0048 ILLUMINATION ACCEPTABILITY

03-0661  PLACEMENT: CONTROL AND DISPLAY LOCATIONS

03-0662  PLACEMENT: LOGICAL GROUPING FUNCTION AND USAGE

03-0664  PLACEMENT: DOWN VISION TO COMPONENTS WITH HIGH VISUAL DEMAND

03-0665  PLACEMENT: EXPECTED LOCATIONS OF CONTROLS AND DISPLAYS VDS

03-0670  INTERIOR VISIBILITY

03-0671  INTERIOR VISIBILITY: REFLECTIONS FROM COMPONENTS & SURFACES

03-0672  INTERIOR VISIBILITY: REFLECTIONS IN DISPLAYS

03-0673  INTERIOR VISIBILITY: VISUAL OBSCURATIONS

03-0674  INTERIOR VISIBILITY: ILLUMINATION CONTROLS / DISPLAYS

03-0675  INTERIOR VISIBILITY: VEILING GLARE

03-0677  INTERIOR VISIBILITY: SUNLIGHT WASHOUT

03-0681  IDENTIFICATION: CHARACTER AND SYMBOL SIZE

03-0682  IDENTIFICATION: LEGIBILITY

03-0685  IDENTIFICATION: SYMBOLS,  ABBREV FOR CONTROL

03-0721  LOGIC OF OPERATION: OPERATIONAL STEREOTYPES

03-0722  LOGIC OF OPERATION: INTERPRETATION

03-0723  LOGIC OF OPERATION: USE OF SYSTEMS WITH VISUAL DISPLAYS

## Revision History

**SPSS Module Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Revision Level** | **Name** | **Change Description** | **Date** |
| 1.0 | P. Khot | Initial Release –Based on request from Fredrick Roseman for Police Pursuit Mode Indication for FHEV vehicles. | 11/22/16 |
| 1.1 | V. Patel | An issue was identified where the loss of communication DTC was getting set on a non-Hybrid vehicle.  This feature is only supposed to work on non-Hybrid vehicles.  This update fixes the issue. A configuration parameter is now checked to make sure that the vehicle/cluster is configured as a hybrid (BEV, FHEV or PHEV) variant for the RTT to get activated, and DTC triggered in case of loss of communication.  Section 1.2.1, figure 1: Added PT Hybrid configuration parameter as an input in the context diagram.  Section 1.3.5.1  Figure 2: Added a CAN diag config routine flowchart  Table 1.1: Added an PT\_Hyb\_Cfg input column to the matrix.  Section 1.3.5.4: Defined init values for the PT\_Hyb\_Cfg in the memory parameters table.  Section 1.4.1: Added statement to ensure DTC is only logged if PT\_Hyb\_Cfg is set as a Hybrid variant.  Section 1.5.3: Added the DE01 diagnostic config parameter definition. | 12/7/2017 |
| 2.0 | V. Patel | The feature is applicable on non EV vehicles as well based on direction from Scott Watkins. Hence this update removes the DE01 configuration parameter and the DTC dependency on it.  Removed the configuration variable and missing message DTC, wherever applicable, from the document.  Also initial release for VSEM requirements migration. | 2/27/2019 |
|  |  |  |  |
|  |  |  |  |