#### FCT\_MANAGE\_Priority\_Driving\_School\_Signaling\_Req

##### Effectivity of FA : FCT\_MANAGE\_Priority\_Driving\_School\_Signaling\_Req

| **FA Title** | **FA Name** | **Version** | **Effectivity Expression** |
| --- | --- | --- | --- |
| FCT\_MANAGE\_Priority\_Driving\_School\_Signaling\_Req | Tech Function 123460 | --E.000 |  |

##### Flows

| Flow Title | Direction | Alias 1 | Alias 2 | Alias 3 | Flow Name(Version) | Min | Max | Unit | Resolution | Description | Functional Values | Effectivity Expression |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| HornActivationDrivingSchoolDmd | Consumption |  |  |  | Flow 962928(--A.000) |  |  |  |  | Manual demand for horn activation/deactivation coming from the driving school module | NOT\_ACTIVE  ACTIVE |  |
| HornRequest | Consumption |  |  |  | Flow 977866(---.000) |  |  |  |  | Status of horn push | True  False |  |
| TurnIndicatorDriverDmd | Consumption |  |  |  | Flow 959798(--B.000) |  |  |  |  | Demand for turn indicator activation(left or right) coming from the stalk | IDLE  LEFT  RIGHT  INVALID |  |
| TurnIndicatorDrivingSchoolDmd | Consumption |  |  |  | Flow 959806(--B.000) |  |  |  |  | Manual demand for turn indicator activation/deactivation (left or right) coming from the driving school module | IDLE  LEFT  RIGHT  INVALID |  |

| Flow Title | Direction | Alias 1 | Alias 2 | Alias 3 | Flow Name(Version) | Min | Max | Unit | Resolution | Description | Functional Values | Effectivity Expression |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| HornActivationReq | Emission |  |  |  | Flow 959818(---.000) |  |  |  |  | Manual request for horn activation after prioritization between driving school monitor and normal user demands | False  True |  |
| TurnIndicatorReq | Emission |  |  |  | Flow 959816(--C.000) |  |  |  |  | Manual request for turn indicator activation(left or right) after prioritization between driving school module and normal user demands | IDLE  LEFT  RIGHT  INVALID |  |

##### Internal flows

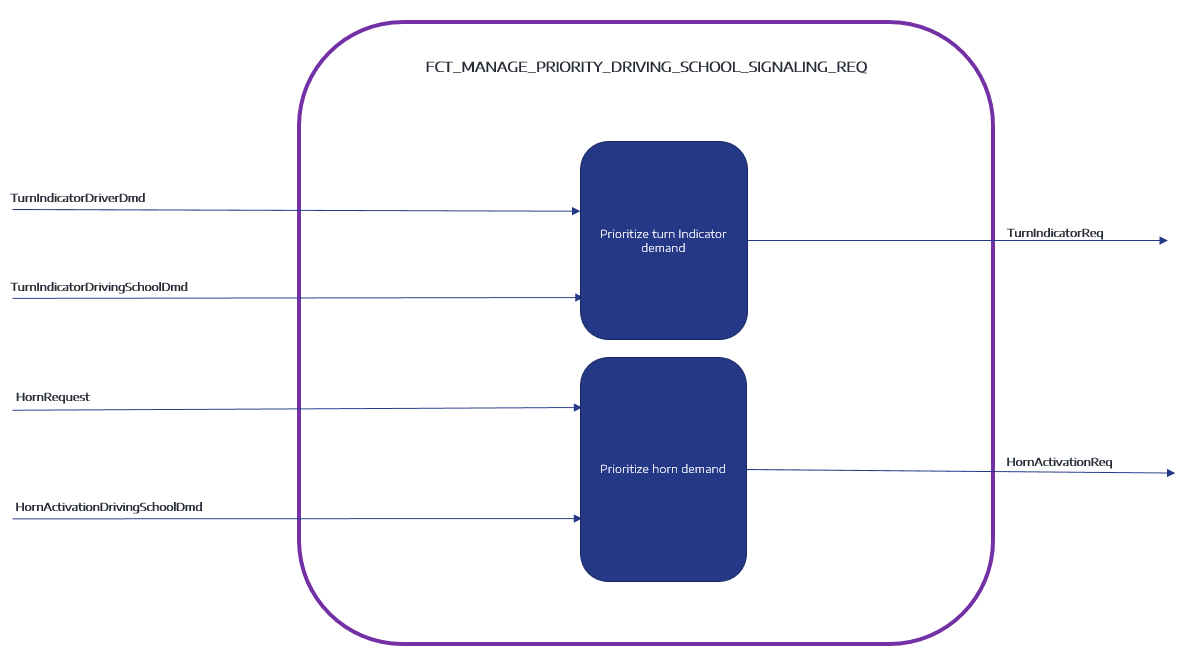
The function uses the following internal flows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Flows** | **Values** | **Dimension** | **Description** |
|  |  |  |  |

##### Function description

This technical function computes the turn indicator and horn manual activation/deactivation requests after applying a prioritization strategy between information coming from the driver and the DSM (driving school module).

Functional architecture with internal sub-function decomposition



##### Requirements

###### Initialization

| REQ-0928107 A | GEN-CBY-VISI-MNG\_PRIO\_SIGN-0001 | Modified : 02/11/2025 |
| --- | --- | --- |
| State : Release | Owner : e593461 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| At initialization the following flows will be set as follows:  TurnIndicatorReq = **IDLE**  HornActivationReq = **FALSE** | | |

###### Prioritize horn demand

| REQ-0944597 B | GEN-CBY-VISI-MNG\_PRIO\_SIGN-0007 | Modified : 02/11/2025 |
| --- | --- | --- |
| State : Release | Owner : e593461 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the driving school instructor has just demanded to activate the horn (HornActivationDrivingSchoolDmd has a transition from a different value to **ACTIVE)**  OR the driver has just requested to activate the horn (HornRequest has a transition from a different value to **True**)  THEN the system shall generate a horn activation request (HornActivationReq = **True**) | | |
| **Comments** | | |
| Generate horn activation request based on driver or driving school instructor action when DSM is present | | |
| **Description** | | |
| 24Q3-evolution | | |
| **Diversity Expression** | | |
| HP-0001187 [ STELLANTIS DICTIONARY Q3\_2024 - ∞ ] AND CBX OPTION\_DRIVER\_SCHOOL\_MODULE(CBX\_01 WITH) | | |

| REQ-0944599 C | GEN-CBY-VISI-MNG\_PRIO\_SIGN-0008 | Modified : 03/26/2025 |
| --- | --- | --- |
| State : Release | Owner : u428977 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| **IF** the driving school instructor requested to deactivate the horn (HornActivationDrivingSchoolDmd = **NOT\_ACTIVE)**  **AND** the driver requested to deactivate the horn (HornRequest = **False**)  **THEN** the system shall generate a horn deactivation request (HornActivationReq = **False**) | | |
| **Comments** | | |
| Generate horn deactivation request based on driver or driving school instructor action when DSM is present | | |
| **Description** | | |
| 25Q1-REGUL-QIA#604- AND instead of OR | | |
| **Diversity Expression** | | |
| HP-0001187 [ STELLANTIS DICTIONARY Q3\_2024 - ∞ ] AND CBX OPTION\_DRIVER\_SCHOOL\_MODULE(CBX\_01 WITH) | | |

| REQ-0944601 B | GEN-CBY-VISI-MNG\_PRIO\_SIGN-0009 | Modified : 02/11/2025 |
| --- | --- | --- |
| State : Release | Owner : e593461 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the driver requests to activate the horn (HornRequest = **True**)  THEN the system shall generate a horn activation request (HornActivationReq = **True**) | | |
| **Comments** | | |
| Generate horn activation request based on driver action when DSM is not present | | |
| **Description** | | |
| 24Q3-evolution | | |
| **Diversity Expression** | | |
| HP-0001187 [ STELLANTIS DICTIONARY Q3\_2024 - ∞ ] AND CBX OPTION\_DRIVER\_SCHOOL\_MODULE(CBX\_00 WITHOUT) | | |

| REQ-0944602 B | GEN-CBY-VISI-MNG\_PRIO\_SIGN-0010 | Modified : 02/11/2025 |
| --- | --- | --- |
| State : Release | Owner : e593461 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the driver requests to deactivate the horn (HornRequest = **False**)  THEN the system shall generate a horn deactivation request (HornActivationReq = **False**) | | |
| **Comments** | | |
| Generate horn deactivation request based on driver action when DSM is not present | | |
| **Description** | | |
| 24Q3-evolution | | |
| **Diversity Expression** | | |
| HP-0001187 [ STELLANTIS DICTIONARY Q3\_2024 - ∞ ] AND CBX OPTION\_DRIVER\_SCHOOL\_MODULE(CBX\_00 WITHOUT) | | |

#### SD\_SOUND\_DOMAINE

##### FCT\_MANAGE\_Sound\_Warning

###### Effectivity of FA : FCT\_MANAGE\_Sound\_Warning

| **FA Title** | **FA Name** | **Version** | **Effectivity Expression** |
| --- | --- | --- | --- |
| FCT\_MANAGE\_Sound\_Warning | Tech Function 124560 | --E.000 |  |

###### Flows

| Flow Title | Direction | Alias 1 | Alias 2 | Alias 3 | Flow Name(Version) | Min | Max | Unit | Resolution | Description | Functional Values | Effectivity Expression |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BatteryThermalRunawayAlert | Consumption |  |  | Job3Entry :THERMAL\_RUNAWAY\_STATE | Flow 991084(---.000) |  |  |  |  | Thermal Runaway Indication | No\_Thermal\_Runaway\_Alert  Thermal\_Runaway\_Alert |  |
| DeviceLeftVehicleAudibleChirp | Consumption |  |  |  | Flow 965232(---.000) |  |  |  |  | This flow is used to trigger the audible warning related to device left vehicle | Not\_Active  Active |  |
| HornActivationReq | Consumption |  |  |  | Flow 959818(---.000) |  |  |  |  | Manual request for horn activation after prioritization between driving school monitor and normal user demands | False  True |  |
| PanicModeActiveRequest | Consumption | IGNITION\_FD.PanicModeActive |  |  | Flow 975648(--A.000) |  |  |  |  | Panic mode active request | Not\_Active  Active |  |
| PropulsionSystemActive | Consumption | HCS\_Propulsion\_System\_Active |  |  | Flow 971312(---.000) |  |  |  |  | Propulsion system active status | FALSE  TRUE |  |
| RemoteStartAudibleChirpRequest | Consumption |  |  |  | Flow 965210(---.000) |  |  |  |  | This flow is used to request the audible chirp for remote start | False  True |  |
| RemoteStartStatus | Consumption |  |  |  | Flow 965188(---.000) |  |  |  |  | This flow is used to request the remote start status | Remote Start Not Active  Remote Start Active |  |
| ScheduledCabinConditionStatus | Consumption |  |  |  | Flow 965194(---.000) |  |  |  |  | This flow is used to request the scheduled cabin condition status | Remote Start Not Active  Remote Start Active |  |
| TheftAlarmStatus | Consumption | ETH\_TheftAlarmStatus.Info |  |  | Flow 980064(---.000) |  |  |  |  | Inform on Alarm System active functional state | Disarm State  Prearm State  Arm State  Active Alarm State Horn  Active Alarm State  Tamper State  ITM Alarm State  Unavailable |  |
| VehicleIgnitionStatus | Consumption |  |  |  | Flow 965186(---.000) |  |  |  |  | This flow is used to give information about ignition status of the vehicle | Initialization  IGN\_LK  ACC  RUN  START  UNAVAILABLE |  |
| VehicleLongSpeedComputedValue | Consumption |  |  |  | Flow 967000(---.000) | 0 | 512 | km/h (Kph) | 0.01 | It provides the longitudinal speed of the Vehicle calculated from the wheel speed on the front or rear drive axle depending on the maximum traction level and selected by Proxy (xF approach) | Unavailable  Fault |  |
| VehicleModeConfiguration | Consumption | VehConfigMode | MODE\_CONFIG\_VHL |  | Flow 963340(---.000) |  |  |  |  | It represents the vehicle configuration mode | Fitting  Plant\_Mode  Check  Logistic\_mode  Client  Show\_Room  Aftermarket |  |
| VehicleOTAMode | Consumption |  |  |  | Flow 1001581(--B.000) |  |  |  |  | Vehicle OTA mode |  |  |

| Flow Title | Direction | Alias 1 | Alias 2 | Alias 3 | Flow Name(Version) | Min | Max | Unit | Resolution | Description | Functional Values | Effectivity Expression |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SoundWarningCtrl | Emission |  |  |  | Flow 962880(--B.000) | 0 | 100 | % | 1 | Control of the horn |  |  |

###### PLMParameter

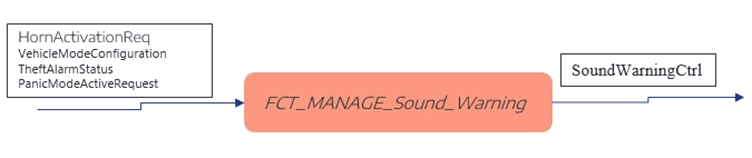
| **PLM Parameter Name** | **Version** | **PLM Parameter Title** | **Description** | **Unit** | **Min** | **Max** | **Reference Value** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SPAR-0014702 | C | HORN\_ALARM\_FREQ | Alarm frequency for audible sound (horn) warning[Step: 0.5] [Dimension: 1] | FREQUENCY | 0.0Hz | 10.0Hz | 2.0Hz |
| SPAR-0014703 | C | HORN\_ALARM\_DUTY\_CYCLE | Horn alert duty cyclic [Step: 0.1] | Ratio | 0.0 | 1.0 | 0.5 |
| SPAR-0016570 | C | T\_MAX\_MAN\_HORN\_ON | The maximum performance of the manual sound warning [Step: 1] | TIME | 0.0s | 60.0s | 30.0s |
| SPAR-0016571 | C | T\_MAN\_HORN\_COOL\_DOWN | Timing for manual horn cool down [Step: 1] | TIME | 0.0s | 60.0s | 23.0s |
| SPAR-0016568 | C | HORN\_PANIC\_FREQ | Panic mode frequency for audible sound (horn) warning [Step: 0.5] [Dimension: 1] | FREQUENCY | 0.0Hz | 10.0Hz | 2.0Hz |
| SPAR-0016569 | C | HORN\_PANIC\_DUTY\_CYCLE | Horn alert duty cyclic for panic mode [Step: 0.1] | Ratio | 0.0 | 1.0 | 0.5 |
| SPAR-0018718 | B | HORN\_TR\_DUTY\_CYCLE | Horn alert duty cyclic for thermal runaway [Step: 0.1] | Ratio | 0.0 | 1.0 | 0.5 |
| SPAR-0018719 | B | HORN\_TR\_FREQ | Thermal runaway frequency for audible sound (horn) warning [Step: 0.5] [Dimension: 1] | FREQUENCY | 0.0Hz | 10.0Hz | 2.0Hz |
| SPAR-0019902 | A | T\_HORN\_REQ\_COOL\_DOWN | Time since the last manual horn request. [Step: 1] | TIME | 0.0s | 60.0s | 5.0s |

###### Internal flows/Variables

The function uses the following internal flows:

|  |  |  |
| --- | --- | --- |
| Flows | **Values** | Description |
| ManualSoundWarningAvailability | **False**  **True** | Manual sound warning availability |
| PanicModeSoundWarningAvailability | **False**  **True** | Panic mode sound warning availability |
| AlarmSoundWarningAvailability | **False**  **True** | Theft alarm sound warning availability |
| TR\_SoundWarningAvailability | **False**  **True** | Thermal runaway hazard sound warning availability |
| Horn\_TR\_Request | **False**  **True** | Internal request for horn thermal runaway |
| FOTA\_Inhibition | **False**  **True** | FOTA inhibition status |
| TIME\_MAN\_HORN\_ON | [0-63]  Step: 1  Init: 0 | Counter used during manual horn activation |
| TIME\_MAN\_HORN\_OFF | [0-63]  Step :1  Init: 0 | Counter used during manual horn deactivation |
| MAN\_HORN\_COOL\_DOWN | Not active  Active | Variable used for Manual Horn Cool down |

###### Requirements



INITIALIZATION

| REQ-0937070 C | GEN-CBY-VISI-Horn-0002 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| The system shall initialize the output flows at the following values:  (SoundWarningCtrl=**0%)**  (*ManualSoundWarningAvailability* **= False**)  (*PanicModeSoundWarningAvailability* **= False**)  (*AlarmSoundWarningAvailability* **= False**)  (*TR\_SoundWarningAvailability* **= False**)  (*Horn\_TR\_Request* = **False**)  (*FOTA\_Inhibition* = **False**) | | |
| **Description** | | |
| 25Q2-REGUL-QIA-861 | | |

Sound warning availability

| REQ-0937071 C | GEN-CBY-VISI-Horn-0003 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the vehicle is in plant, transport or customer mode  [  (VehicleModeConfiguration = **Plant\_Mode**)  OR  (VehicleModeConfiguration = **Logistic\_mode**)  OR  (VehicleModeConfiguration = **Client**)  ]  AND there is no FOTA update in progress  (FOTA\_Inhibition = **False**)  THEN the system shall enable the manual sound warning  (ManualSoundWarningAvailability = **True**)  Else  The system shall make unavailable the manual sound warning  (ManualSoundWarningAvailability = **False**) | | |
| **Description** | | |
| 25Q2-REGUL-QIA-884 | | |

| REQ-0998254 B | GEN-CBY-VISI-Horn-0008 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the vehicle is customer mode  (VehicleModeConfiguration = **Client**)  AND vehicle is in state 0 or state 1  [  (VehicleIgnitionStatus = **IGN\_LK)**  OR  (PropulsionSystemActive = **FALSE**)  ]  AND there is no FOTA update in progress  (FOTA\_Inhibition = **False**)  THEN the system shall enable the sound warning  (PanicModeSoundWarningAvailability = **True**)  ELSE  The system shall make unavailable the sound warning  (PanicModeSoundWarningAvailability = **False**) | | |
| **Description** | | |
| 25Q2-REGUL-QIA-847 | | |

| REQ-0998256 B | GEN-CBY-VISI-Horn-0009 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the vehicle is in customer mode  (VehicleModeConfiguration = **Client**)  AND vehicle is in state 0  (VehicleIgnitionStatus = **IGN\_LK**)  THEN the system shall enable the sound warning  (AlarmSoundWarningAvailability = **True**)  ELSE  The system shall make unavailable the theft alarm sound warning  (AlarmSoundWarningAvailability **= False**) | | |
| **Description** | | |
| 25Q2-REGUL-VEH\_NEED\_UPDATE | | |

| REQ-0998257 A | GEN-CBY-VISI-Horn-0010 | Modified : 04/29/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| The system shall always make the thermal runaway hazard sound warning available  (TR\_SoundWarningAvailability **= True**) | | |
| **Description** | | |
| 25Q1-REGUL-Feature update | | |

| REQ-0998269 B | GEN-CBY-VISI-Horn-0011 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF a FOTA update is starting  [  (VehOTAState = **Update**)  AND  (VehOTASubState switches into **INSTALL**)  ]  THEN sound warnings are inhibited  (FOTA\_Inhibition = **True**) | | |
| **Comments** | | |
| FOTA inhibition | | |
| **Description** | | |
| 25Q2-REGUL-QIA-870 | | |

| REQ-0998271 B | GEN-CBY-VISI-Horn-0012 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF a FOTA update is ending  (VehOTAState = **Standby**)  THEN sound warnings are not inhibited anymore  (FOTA\_Inhibition = **False**) | | |
| **Comments** | | |
| FOTA inhibition stop | | |
| **Description** | | |
| 25Q2-REGUL-QIA-870 | | |

Manual sound warning request

| REQ-0937072 D | GEN-CBY-VISI-Horn-0004 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : Statutory | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the manual sound warning is available  (ManualSoundWarningAvailability = **True**)  AND the manual horn activation is requested  **(**HornActivationReq= **True)**  ANDthere is no cool down of the Manual Horn  **(**MAN\_HORN\_COOL\_DOWN = **Not Active**)  THEN the subsystem shall control the audible sound warning  **(**SoundWarningCtrl = **100%**)  ANDthe subsystem shall reset the timer TIME\_MAN\_HORN\_ON to 0 and start to count  AND the subsystem shall freeze the timer TIME\_MAN\_HORN\_OFF | | |
| **Description** | | |
| 25Q2-REGUL-VEH\_NEED\_UPDATE | | |

Theft alarm request

| REQ-0939555 D | GEN-CBY-VISI-Horn-0007 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the theft alarm sound warning is available  (AlarmSoundWarningAvailability = **True**)  ANDthe horn is requested for theft alarm system  (TheftAlarmStatus = **Active Alarm State Horn)**    THEN the warning audible signal shall be controlled at the frequency (*HORN\_ALARM\_FREQ*) with a (*HORN\_ALARM\_DUTY\_CYCLE*) duty cycle.  **(**SoundWarningCtrl = **100%)** | | |
| **Description** | | |
| 25Q2-REGUL-QIA-811 | | |
| **Diversity Expression** | | |
| HP-0001187 [ STELLANTIS DICTIONARY Q4\_2024 - ∞ ] AND DLH CHARACTERISTIC ALARMS(DLH\_03 WITH VEHICLE HORN) AND NOT DAB ANTI-THEFT ALARM(DAB\_00 WITHOUT) | | |

Panic mode request

| REQ-0986424 C | REF-CBY\_VISI-SSD-HORN-0001 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the panic mode sound warning is available  (PanicModeSoundWarningAvailability = **True**)  ANDthe horn is requested for panic mode  (PanicModeActiveRequest = **Active**)    THEN the warning audible signal shall be controlled at the frequency (*HORN\_PANIC\_FREQ*) with a (*HORN\_PANIC\_DUTY\_CYCLE*) duty cycle.  **(**SoundWarningCtrl = **100%)** | | |
| **Description** | | |
| 25Q2-REGUL-QIA-811 | | |
| **Diversity Expression** | | |
| HP-0001187 [ STELLANTIS DICTIONARY Q1\_2025 - ∞ ] AND ( D15 PANIC MODE ( D15\_01 WITH ) AND CHT TYPE\_PANIC\_MODE ( CHT\_02 HAZARD\_WARNING\_AND\_HORN ) ) | | |

Deactivation requests

| REQ-0937073 D | GEN-CBY-VISI-Horn-0005 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : Statutory | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the manual horn activation is not requested  [  (ManualSoundWarningAvailability = **False**)  OR  (HornActivationReq = **False**)  OR the manual horn is active for a too long time  (TIME\_MAN\_HORN\_ON>=*T\_MAX\_MAN\_HORN\_ON)*  ]    AND the horn is not requested for theft alarm System  [  (TheftAlarmStatus <>**Active Alarm State Horn**)  OR  (AlarmSoundWarningAvailability =**False**)  ]    AND the horn is not requested for panic mode  [  (PanicModeActiveRequest =**Not\_Active**)  OR  (PanicModeSoundWarningAvailability = **False**)  ]    AND the horn is not requested for thermal runaway  [  (Horn\_TR\_Request = **False**)  OR  (TR\_SoundWarningAvailability = **False**)  ]    THEN  the warning audible signal shall not be controlled  (SoundWarningCtrl=**0%)**    ANDthesubsystem shall reset the timer TIME\_MAN\_HORN\_OFF to 0 and start to count  AND the subsystem shall freeze the timerTIME\_MAN\_HORN\_ON | | |
| **Description** | | |
| 25Q2-REGUL-QIA-861 | | |

Horn priority requests

| REQ-0986468 B | REF-CBY\_VISI-SSD-HORN-0002 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF multiple different horn behaviours are requested or activated simultaneously,  THEN the system shall only activate the highest priority sub system.  The priority table below shall be shown with the highest priority behaviour at the top of the table:   |  | | --- | | Horn requests priority | | 1. Manual request | | 2. Thermal runaway request | | 3. Panic mode request | | 4. Theft alarm request | | | |
| **Description** | | |
| 25Q2-REGUL-VEH\_NEED\_UPDATE | | |
| **Diversity Expression** | | |
| HP-0001187 [ STELLANTIS DICTIONARY Q4\_2024 - ∞ ] AND D15 PANIC MODE(D15\_01 WITH) OR DLH CHARACTERISTIC ALARMS(DLH\_03 WITH VEHICLE HORN) AND NOT DAB ANTI-THEFT ALARM(DAB\_00 WITHOUT) | | |

Cool down activation/deactivation

| REQ-0986471 C | REF-CBY\_VISI-SSD-HORN-0003 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| **IF** the manual horn is active for a too long time  (TIME\_MAN\_HORN\_ON >= *T\_MAX\_MAN\_HORN\_ON*  THEN the Manual Horn Cooldown activates  (MAN\_HORN\_COOL\_DOWN=**Active**) | | |
| **Description** | | |
| 25Q2-REGUL-QIA-887 | | |

| REQ-0986472 C | REF-CBY\_VISI-SSD-HORN-0004 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : Statutory | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| **IF** the manual horn is inactive for enough time  (TIME\_MAN\_HORN\_OFF >= *T\_MAN\_HORN\_COOL\_DOWN*)  **AND** the manual horn activation is NOT requested during T\_HORN\_REQ\_COOL\_DOWN  (HornActivationReq = **False** during *T\_HORN\_REQ\_COOL\_DOWN*)  **THEN**the manual Horn Cooldown deactivates  (MAN\_HORN\_COOL\_DOWN = **Not active**) | | |
| **Description** | | |
| 25Q2-EVOL-VEH need change | | |

Thermal runaway hazard warning

| REQ-0998265 B | GEN-CBY-VISI-Horn-0013 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the following condition becomes true  [  A request for thermal runaway hazard warning is received  (BatteryThermalRunawayAlert = **Thermal\_Runaway\_Alert**)  AND the vehicle is at a standstill  (SafetyStandstill = **TRUE**)  ]  THEN the system shall set the internal request for thermal runaway hazard warning to true  (Horn\_TR\_Request = **True**) | | |
| **Comments** | | |
| Horn TR activation | | |
| **Description** | | |
| 25Q2-REGUL-QIA-861 | | |

| REQ-0998267 B | GEN-CBY-VISI-Horn-0014 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the thermal runaway hazard sound warning is available  (TR\_SoundWarningAvailability = **True**)  ANDthe internal thermal runaway hazard warning is requested  (Horn\_TR\_Request = **True**)    THEN the warning audible signal shall be controlled at the frequency (*HORN\_TR\_FREQ*) with a (*HORN\_TR\_DUTY\_CYCLE*) duty cycle.  (SoundWarningCtrl = **100%**) | | |
| **Description** | | |
| 25Q2-REGUL-QIA-811 | | |

| REQ-0998450 B | GEN-CBY-VISI-Horn-0015 | Modified : 06/13/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF the internal request for thermal runaway hazard is active  (Horn\_TR\_Request = **True**)  AND HornActivationReq switches from False to True  (HornActivationReq = **True**)  THEN the system shall set the internal request for thermal runaway hazard warning to false  (Horn\_TR\_Request = **False**) | | |
| **Description** | | |
| 25Q2-REGUL-QIA-861 | | |

##### FCT\_ACTUATE\_Sound\_Warning

###### Effectivity of FA : FCT\_ACTUATE\_Sound\_Warning

| **FA Title** | **FA Name** | **Version** | **Effectivity Expression** |
| --- | --- | --- | --- |
| FCT\_ACTUATE\_Sound\_Warning | Tech Function 124561 | --E.000 |  |

###### Flows

| Flow Title | Direction | Alias 1 | Alias 2 | Alias 3 | Flow Name(Version) | Min | Max | Unit | Resolution | Description | Functional Values | Effectivity Expression |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SoundWarningCtrl | Consumption |  |  |  | Flow 962880(--B.000) | 0 | 100 | % | 1 | Control of the horn |  |  |

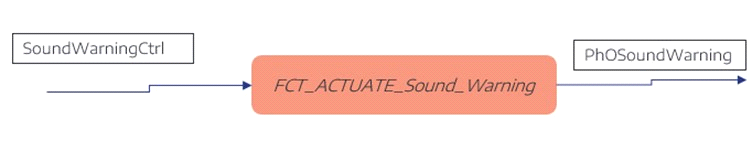
| Flow Title | Direction | Alias 1 | Alias 2 | Alias 3 | Flow Name(Version) | Min | Max | Unit | Resolution | Description | Functional Values | Effectivity Expression |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PhOSoundWarning | Emission |  |  |  | Flow 962884(---.000) | - |  |  | - | sound warning physical output | - |  |

###### PLMParameter

| **PLM Parameter Name** | **Version** | **PLM Parameter Title** | **Description** | **Unit** | **Min** | **Max** | **Reference Value** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SPAR-0016566 | C | HORN\_ON\_INTENSITY | The output value corresponding to activation [Step: 1] | SOUNDPOWERLEVEL | 0.0dB | 0.0dB | 110.0dB |
| SPAR-0016567 | C | HORN\_OFF\_INTENSITY | The output value corresponding to deactivation [Step: 1] | SOUNDPOWERLEVEL | 0.0dB | 0.0dB | 0.0dB |

###### Sound\_Warning

Requirements



| REQ-0899267 D | GEN-CBY-VISI-SWR-0001 | Modified : 06/12/2025 |
| --- | --- | --- |
| State : Release | Owner : e570734 | Grade : |
| Generic : Yes | Flexibility : | Key Requirement : Yes |
| PSA SSTG : | Maturity : Robust | Cyber Relevant : No |
| **Content of the Requirement** | | |
| IF a sound control value is received  (SoundWarningCtrl = **100%**)  THEN the system shall switch ON the Horn system (PhOSoundWarning **= *HORN\_ON\_INTENSITY***) in less than <30 ms>  ELSE the system shall switch OFF the Horn system  (PhOSoundWarning= ***HORN\_OFF\_INTENSITY***)in less than <30 ms> | | |
| **Description** | | |
| 25Q2-REGUL-QIA-810 | | |