



Function Specification Feature



Backtrack <<Logical Function>>

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Function Specification Feature

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Important Note

You need to use the RE specification macros provided by the "RE_SpecificationMacroTemplate.dotm" (refer to "Utilities" on [page "Specification Templates" in the RE Wiki](#)) to allow seamless VSEM import of the specification content. ***Use only these RE specification macros to create requirements*** in this specification. Refer to "[How to use the Specification Templates](#)" on how to enable and use the macros and the requirements templates in this specification.



Function Specification Feature

CONTENTS

Contents	3
1 Function Specification	4
1.1 Function Overview	4
1.1.1 Function Description	4
1.2 Function Scope	4
1.2.1 Logical Function.....	4
1.3 Function Modeling.....	5
1.3.1 Activity Diagrams	6
1.3.2 Sequence Diagrams	8
1.3.3 Decision Tables	9
1.4 Function requirements	9
1.4.1 Functional Requirements	9
1.4.2 Non-Functional Requirements	32
1.4.3 Functional Safety Requirements.....	36
1.4.4 Other Requirements.....	36
2 Open Concerns	39
3 Revision History	40
4 Appendix.....	41
4.1 Data Dictionary.....	41
4.1.1 Logical Signals.....	41
4.1.2 Logical Parameters	41
4.1.3 Encoding Types	41



1 FUNCTION SPECIFICATION


1.1 Function Overview

1.1.1 Function Description

This function is used to help the driver to reverse back automatically in narrow road conditions. The system can record up to the latest 50m routine of the vehicle in real time when environment condition and vehicle condition are met.

The system will control the vehicle to reverse back and can display remain distance real time according to the recorded routine after the driver activates the function. During the reversing process, if the system detects obstacles (ex. pedestrians, vehicles or predicts) in danger area, it will execute emergency braking automatically. Driver should observe the surrounding situation so that can take over the vehicle if need to ensure vehicle safety.

1.2 Function Scope

The  – “Backtrack” function is called by the following functions:

-  – “[Logical Function](#)”

1.2.1 Logical Function



Function Specification Feature

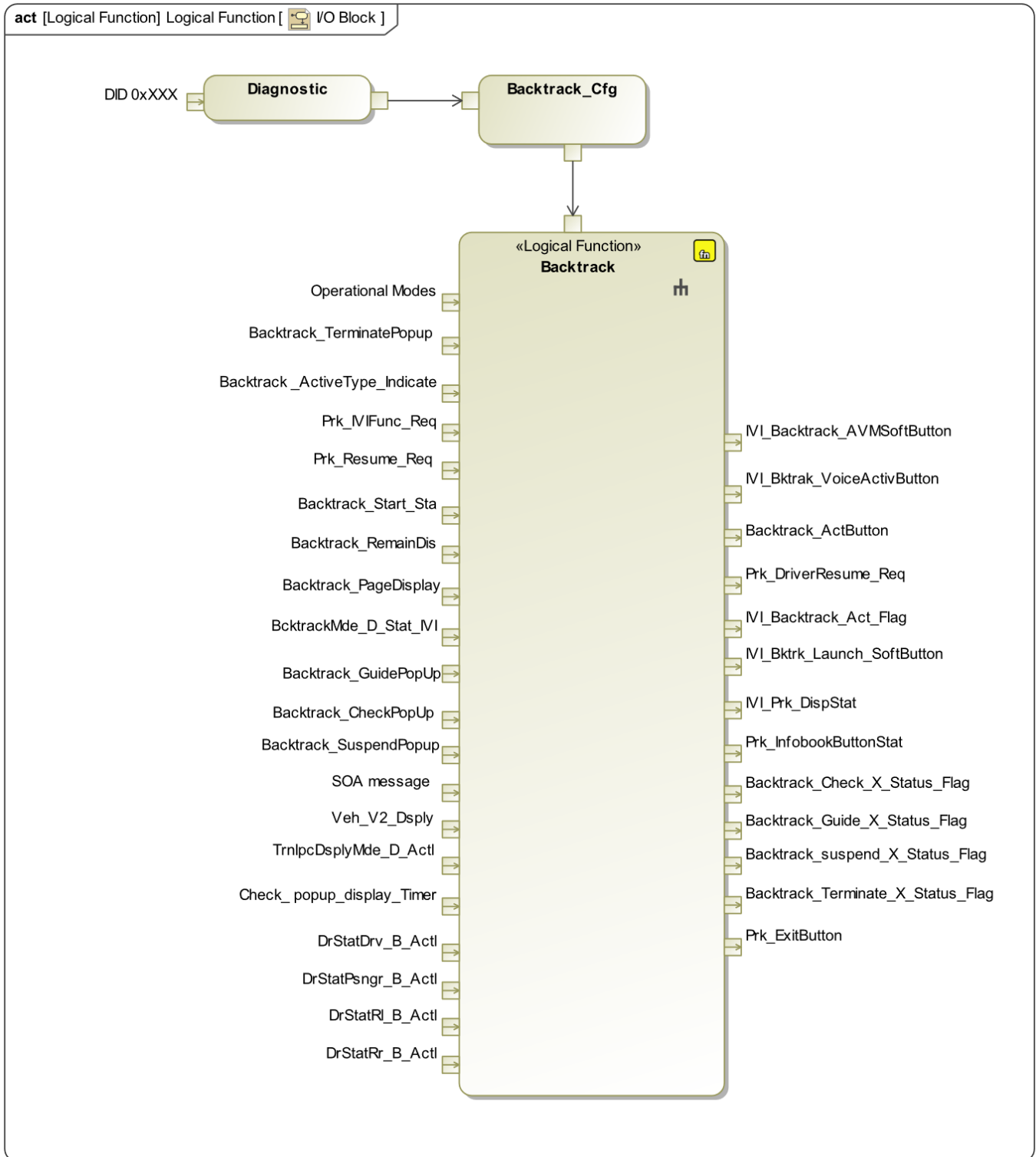


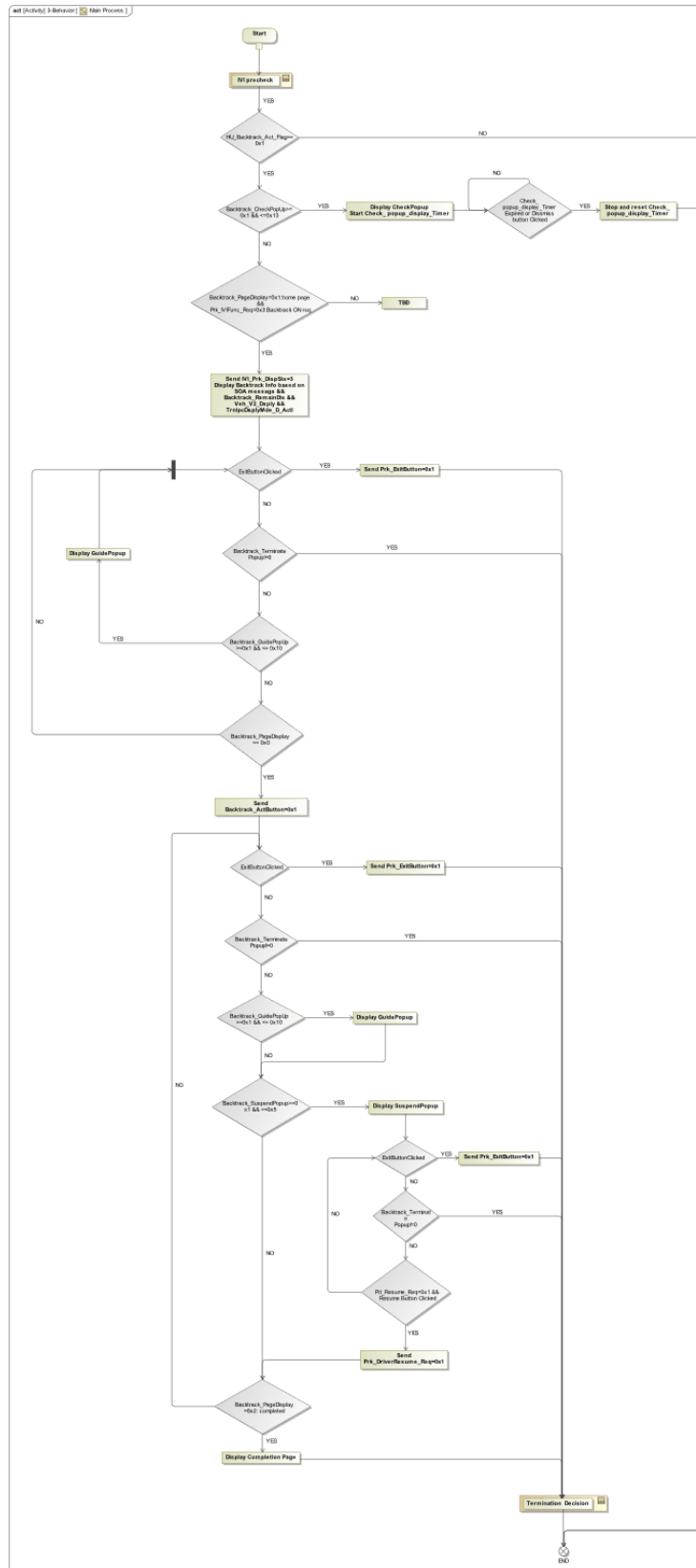
Figure 1: Activity Diagram of “I/O Block” calling “Backtrack”

1.3 Function Modeling



Function Specification Feature

1.3.1 Activity Diagrams





Function Specification Feature

Figure 1: Activity Diagram of Backtrack

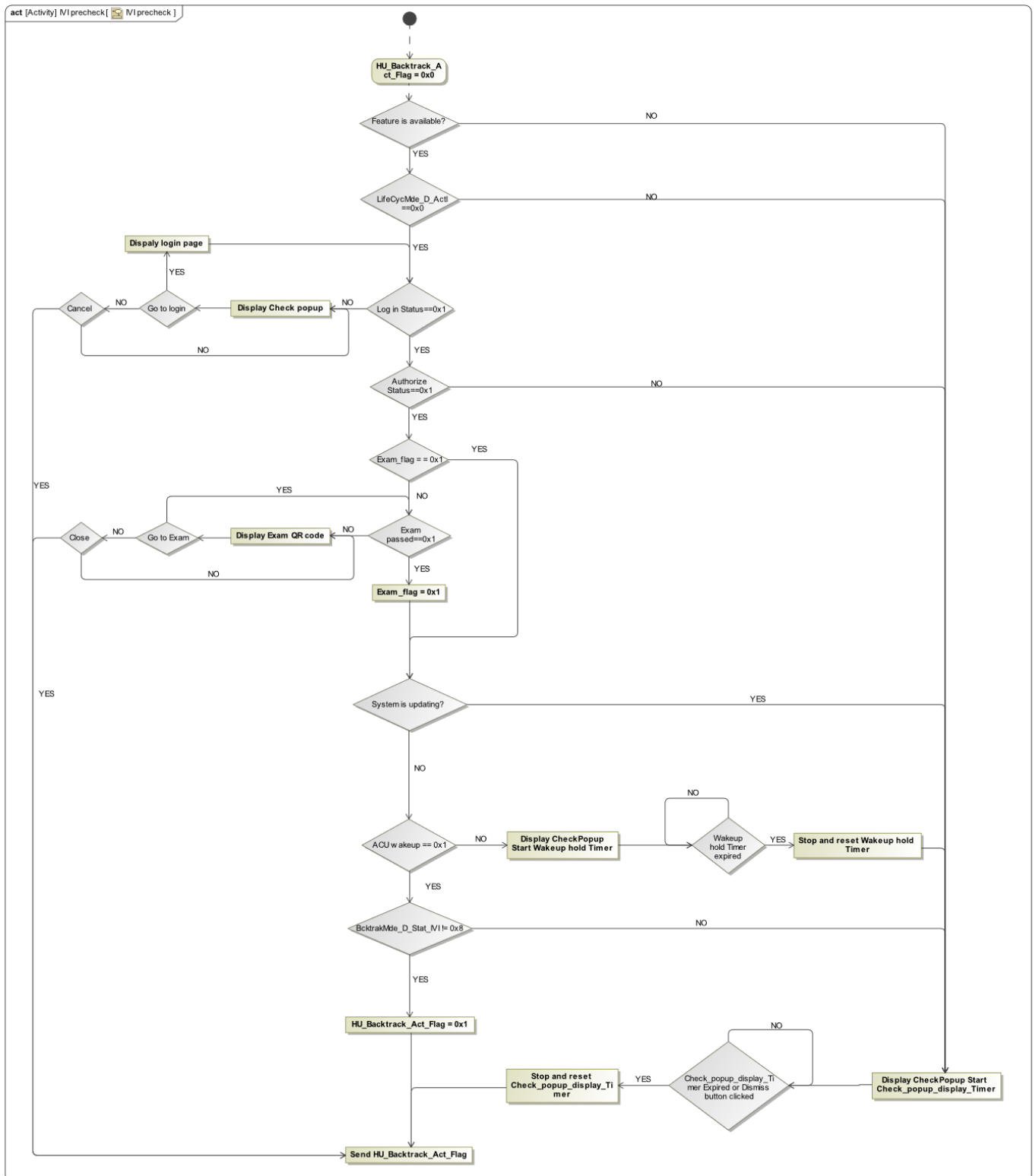


Figure 2: Activity Diagram of IVI precheck



Function Specification Feature

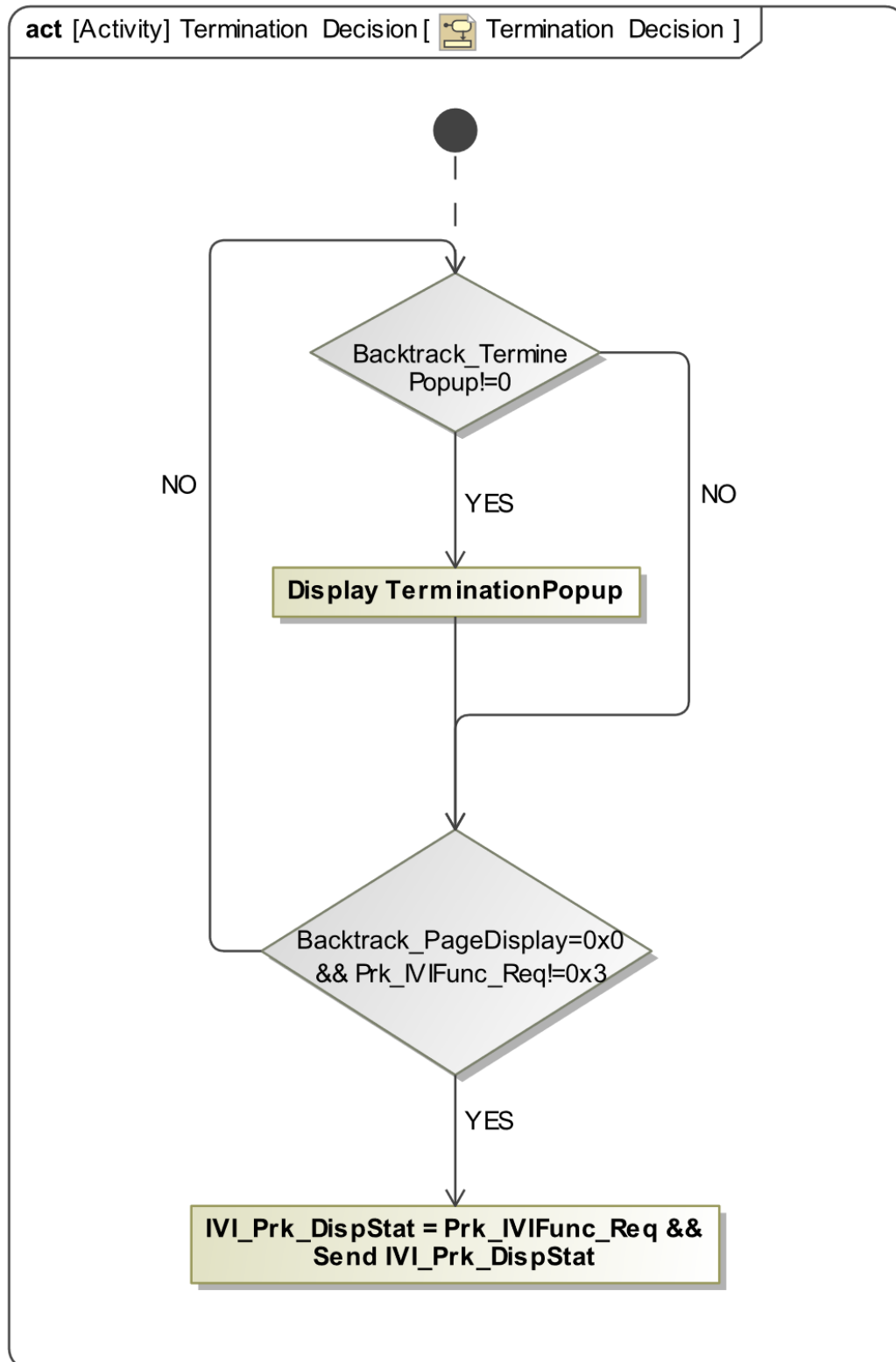


Figure 3: Activity Diagram of Termination Decision

1.3.2 Sequence Diagrams



Function Specification Feature

No sequence diagram associated to specified function.

1.3.3 Decision Tables

No Decision Tables found in the Magicdraw model.

1.4 Function requirements

1.4.1 Functional Requirements

1.4.1.1 Inputs

1.4.1.1.1 Internal flag

- Check_popup_display_Timer

1.4.1.1.2 MUX messages on the CAN Bus

1.4.1.1.3 CAN Input Signals

Backtrack_TerminatePopup

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Backtrack_TerminatePopup	6			1	0		0(0x0)	63(0X3F)
		No Request				0x0		
		Req_Quit_CarModeInvalid				0x1		
		Req_Quit_OTA_Active				0x2		
		Req_Quit_ADAS				0x3		
		Req_Quit_ABSActive				0x4		
		Req_Quit_TCSActive				0x5		
		Req_Quit_ESCActive				0x6		
		Req_Quit_eCALL				0x7		
		Req_Quit_CameraBlockage				0x8		
		Req_Quit_USS Blockage				0x9		
		Req_Quit_SlopeTooLarge				0xA		
		Req_Quit_SpeedHigh				0xB		
		Req_Quit_TirePressureTooLow				0xC		
		Req_Quit_RemoteStartForbid				0xD		
		Req_Quit_PT_Ready_Failed				0xE		
		Req_Quit_VehicleLowBattery				0xF		
		Req_Quit_TrailerConnected				0x10		
		Req_Quit_TractionControlSystemOff				0x11		
		Req_Quit_PowerpackTorqueStatusChangesToNotAvailable				0x12		
		Req_Quit_PowerManagementFailure				0x13		
		Req_Quit_LSC_Error				0x14		
		Req_Quit_EPAS_Error				0x15		



Function Specification Feature

		Req_Quit_ABS_Error				0x16		
		Req_Quit BCM_Error				0x17		
		Req_Quit_BLEM_Failure				0x18		
		Req_Quit_Remote_Device_Error				0x19		
		Req_Quit_UnexpectedDeactivation_Of_LSC				0x1A		
		Req_Quit_UnexpectedDeactivation_Of_ABS				0x1B		
		Req_Quit_UnexpectedDeactivation of EPAS				0x1C		
		Req_Quit_ExternalECUFailure				0x1D		
		Req_Quit_Sys_Failure				0x1E		
		Req_Quit_CAN_Communication_Failure				0x1F		
		Req_Quit_FunctionOnCheckOvertime				0x20		
		Req_Quit_UserExitViaButton/Voice				0x21		
		BrakeExceed_2min				0x22		
		Req_Quit_GearIntervention				0x23		
		Req_Quit_EPB_Apply				0x24		
		Req_Quit_SteeringWheel_Intervention				0x25		
		Req_Quit_MirrorFold				0x26		
		Req_Quit_Unsafe_Behavior				0x27		
		Req_Quit_Vehicle_Charging				0x28		
		Req_PowerOFF				0x29		
		Req_Quit_InsurmountableObstacle Detected				0x2A		
		Req_Quit_TimingOvertime				0x2B		
		Req_Quit_MatimeOvertime_10min				0x2C		
		RecoveryTimeout				0x2D		
		Req_Quit_InterruptTimesOverflow				0x2E		
		Req_Quit_RemoteMoveDistanceOut_Of_Range				0x2F		
		Req_Quit_HandshakeFailed				0x30		
		Req_Quit_SteeringAngle_Out_of_Limit				0x31		
		Req_Quit_Shift_Operate_Failed				0x32		
		Req_Quit_TrajectoryDeviation				0x33		
		Req_Quit_ChargeCover				0x34		
		Req_Quit_SpaceLimit				0x35		
		ParkingSucceed				0x36		
		Req_Quit_Searching_Timeout				0x37		
		Req_Quit_Actuator feedback abnormal				0x38		
		Req_Quit_APA_active				0x39		



Function Specification Feature

		Not used				0x3A-0x3F		
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Backtrack_ActiveType_Indicate

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Backtrack_ActiveType_Indicate	3			1	0		0(0x0)	7(0x7)
		OFF				0x0		
		Backtrack activated by IVI soft button				0x1		
		Backtrack activated by voice button				0x2		
		Backtrack activated by AVM soft button				0x3		
		QuickPanel				0x4		
		Reserved				0x5		
		Reserved				0x6		
		Reserved				0x7		

Prk_IVIFunc_Req

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Prk_IVIFunc_Req				1	0		0(0x0)	7(0x7)
		No req				0x0		
		AVM ON req				0x1		
		APA ON req				0x2		
		Backtrack ON req				0x3		
		HAVP ON req				0x4		
		Reserved				0x5		
		Reserved				0x6		
		Reserved				0x7		

Prk_Resume_Req

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Prk_Resume_Req	1			1	0		0(0x0)	1(0x1)
		No request				0x0		
		Request				0x1		

Backtrack_Start_Sta

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Backtrack_Start_Sta	2			1	0		0(0x0)	3(0x3)
		No display				0x0		
		Highlighted				0x1		
		Grey				0x2		
		Reserved				0x3		



Function Specification Feature

Backtrack_RemainDis

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Backtrack_RemainDis	6		m	1	0		0	63
		0-50m						

Backtrack_PageDisplay

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Backtrack_PageDisplay	2			1	0		0(0x0)	3(0x3)
		OFF				0x0		
		Backtrack_Reversing				0x1		
		Backtrack_Completed				0x2		
		Invalid				0x3		

BcktrakMde_D_Stat_IVI

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
BcktrakMde_D_Stat_IVI	4			1	0		0(0x0)	15(0xf)
		OFF				0x0		
		Initialization				0x1		
		Standby				0x2		
		Checking				0x3		
		Maneuvering				0x4		
		Paused				0x5		
		Terminated				0x6		
		Disable				0x7		
		Failure				0x8		
		Completed				0x9		
		Reserved				0xA		
		Not used				0xB~0xf		

Backtrack_GuidePopUp

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Backtrack_GuidePopUp	5			1	0		0(0x0)	31(0x1F)
		No Popup				0x0		
		Gear N				0x1		
		Release Brake Pedal Or Choose Exit				0x2		
		Release Accelerator				0x3		
		Doors				0x4		
		Hood				0x5		
		Trunk				0x6		



Function Specification Feature

		Safety Belt				0x7		
		Press Start				0x8		
		Keep Vehicle Standstill				0x9		
		Reversing				0xA		
		Charging Gun				0xB		
		Charger Cover				0xC		
		Press Resume				0xD		
		Rear mirror				0xE		
		Release EPB				0xF		
		Brake				0x10		
		Reserved				0x11		
		Not used				0x12~0x1F		

Backtrack_CheckPopUp

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Backtrack_CheckPopUp	5			1	0		0(0x0)	31(0x1F)
		No Req				0x0		
		ACU Failure				0x1		
		Valid Stored Routine				0x2		
		Velocity				0x3		
		Slope				0x4		
		Ready				0x5		
		Emergency Call				0x6		
		failure				0x7		
		Mode				0x8		
		Other ADAS Feature Active				0x9		
		Mobile control				0xA		
		SW is updating				0xB		
		Space is enough				0xC		
		Passed exam				0xD		
		Authorization				0xE		
		Backtrack SW Avail				0xF		
		Wake up				0x10		
		Log-in				0x11		
		In Progress				0x12		
		Mirror				0x13		
		HAVP learning				0x14		
		Reserved				0x15		
		Not used				0x16~0x1F		

Backtrack_SuspendPopup

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Backtrack_SuspendPopup	4			1	0		0(0x0)	0(0x7)
		Default				0x0		
		Belt				0x1		
		Doors				0x2		



Function Specification Feature

		Blocked				0x3		
		Hood				0x4		
		Trunk				0x5		
		ChagerCover				0x6		
		ChagerGun				0x7		

Veh_V2_Dsply

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Veh_V2_Dsply	9			1	0		0x0	511(0x1FF)

TrnlpcDsplyMde_D_Actl

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrnlpcDsplyMde_D_Actl	3		SED	1	0		0(0x0)	7(0x7)
		Park				0x0		
		Reverse				0x1		
		Neutral				0x2		
		Drive				0x3		
		Sport				0x4		
		Manual_1_Low				0x5		
		Manuel_2				0x6		
		Manuel_3				0x7		

DrStatDrv_B_Actl

Signal Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
DrStatDrv_B_Actl	1		SED	1	0		0 (0x0)	1 (0x1)
		Closed				0x0		
		Ajar				0x1		

DrStatPsngr_B_Actl

Signal Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
DrStatPsngr_B_Actl	1		SED	1	0		0 (0x0)	1 (0x1)
		Closed				0x0		
		Ajar				0x1		

DrStatRI_B_Actl

Signal Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
DrStatRI_B_Actl	1		SED	1	0		0 (0x0)	1 (0x1)
		Closed				0x0		
		Ajar				0x1		



Function Specification Feature

DrStatRr_B_Actl

Signal Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
DrStatRr_B_Actl	1		SED	1	0		0 (0x0)	1 (0x1)
		Closed				0x0		
		Ajar				0x1		

1.4.1.2 Outputs

1.4.1.2.1 Internal flag

- Backtrack_Suspend_X_Status_Flag, internal flag used to control suspend warning message in center display.
- Backtrack_Check_X_Status_Flag, internal flag used to control the check popup message displayed in the message center.
- Backtrack_Guide_X_Status_Flag, internal flag used to control the guide message displayed in the message center.

1.4.1.2.2 MUX signals on the CAN Bus

IVI_Prk_DisStat

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
IVI_Prk_DisStat	3			1	0		0(0x0)	7(0x7)
		OFF				0x0		
		AVM activated				0x1		
		APA activated				0x2		
		Backtrack activated				0x3		
		HAVP active				0x4		
		Reserved				0x5		
		Reserved				0x6		
		Reserved				0x7		

Backtrack_ActButton

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Backtrack_ActButton	1			1	0		0(0x0)	1(0x1)
		No request				0x0		
		Requested				0x1		

IVI_Backtrack_AVMSofButton

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
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Function Specification Feature

IVI_Backtrack_AVMSofBu tton	1			1	0		0(0x0)	1(0x1)
		OFF				0x0		
		ON				0x1		

IVI_Backtrack_Act_Flag

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
IVI_Backtrack_Act_Flag	1			1	0		0(0x0)	1(0x1)
		Unactivated				0x0		
		Activated				0x1		

IVI_Bktrk_Launch_SoftButton

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
IVI_Bktrk_Launch_SoftBu tton	1			1	0		0(0x0)	1(0x1)
		OFF				0x0		
		ON				0x1		

Prk_DriverResume_Req

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Prk_DriverResume_Req	1			1	0		0(0x0)	1(0x1)
		No pressed				0x0		
		Pressed				0x1		

Prk_InfobookButtonStat

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
Prk_InfobookButtonStat	2			1	0		0(0x0)	2(0x2)
		Normal				0x0		
		Gray				0x1		
		Not display				0x2		

IVI_Bktrak_VoiceActivButton

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
IVI_Bktrak_VoiceActivButt on	2			1	0		0(0x0)	2(0x2)
		No request				0x0		
		ON				0x1		
		OFF				0x2		

Prk_ExitButton

Signal_Name	Size(bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
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Function Specification Feature

Prk_ExitButton	2			1	0		0(0x0)	1(0x1)
		No Pressed				0x0		
		Pressed				0x1		



Function Specification Feature

State Matrix for Backtrack_suspend_X_Status_Flag

Operational _Mode	BackTrack_Cfg	Backtrack_SuspendPopup Signal	Backtrack_Suspend_1 _Status_Flag	Backtrack_Suspend_2 _Status_Flag	Backtrack_Suspend_3 _Status_Flag	Backtrack_Suspend_4 _Status_Flag	Backtrack_Suspend_5 _Status_Flag	Backtrack_Suspend_6 _Status_Flag	Backtrack_Suspend_7 _Status_Flag
Normal	Yes (0x1)	0x1	Active	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive
		0x2	Inactive	Active	Inactive	Inactive	Inactive	Inactive	Inactive
		0x3	Inactive	Inactive	Active	Inactive	Inactive	Inactive	Inactive
		0x4	Inactive	Inactive	Inactive	Active	Inactive	Inactive	Inactive
		0x5	Inactive	Inactive	Inactive	Inactive	Active	Inactive	Inactive
		0x6	Inactive	Inactive	Inactive	Inactive	Inactive	Active	Inactive
		0x7	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Active
Other cases			Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive

• **Backtrack Suspend Warning MC Status Flags to MC Warning Message and Active Chime**

Message ID	Description of Warning	Active MC_Status_Flag	Active Chime_Status_Flag
M5001	Driver Seat Belt Unbuckled	Backtrack_Suspend_1_Status_Flag	No Chime
M5002	Doors Ajar	Backtrack_Suspend_2_Status_Flag	No Chime
M5003	Obstacle Blocked	Backtrack_Suspend_3_Status_Flag	No Chime
M5004	Hood Ajar	Backtrack_Suspend_4_Status_Flag	No Chime
M5005	Trunk Ajar	Backtrack_Suspend_5_Status_Flag	No Chime
M5006	Charger Cover	Backtrack_Suspend_6_Status_Flag	No Chime
M5007	Charger Gun	Backtrack_Suspend_7_Status_Flag	No Chime



Function Specification Feature

State Matrix for Backtrack_Guide_X_Status_Flag

Operational_Mode	Backtrack_Cfg	Backtrack_GuidePop Up	Backtrack_Guide_1_ Status_Flag	Backtrack_Guide_2_ Status_Flag	Backtrack_Guide_3_ Status_Flag	Backtrack_Guide_4_ Status_Flag	Backtrack_Guide_5_ Status_Flag	Backtrack_Guide_6_ Status_Flag	Backtrack_Guide_7_ Status_Flag	Backtrack_Guide_8_ Status_Flag	Backtrack_Guide_9_ Status_Flag	Backtrack_Guide_10_ Status_Flag	Backtrack_Guide_11_ Status_Flag	Backtrack_Guide_12_ Status_Flag	Backtrack_Guide_13_ Status_Flag	Backtrack_Guide_14_ Status_Flag	Backtrack_Guide_15_ Status_Flag	Backtrack_Guide_16_ Status_Flag	
Normal	Enabled	0x1	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x3	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x4	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x5	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x6	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x7	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x8	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x9	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0xA	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	
		0xB	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	
		0xC	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	
		0xD	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	
		0xE	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina
		0xF	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina
		0x10	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT
Other Cases			Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	



Function Specification Feature

- Backtrack Guide popup MC Status Flags to MC Message and Active Chime

Message ID	Description of GuidePopup	Active MC_Status_Flag	Active Chime_Status_Flag
M5101	Please switch to Neutral	Backtrack_Guide_1_Status_Flag	No Chime
M5102	Release Brake Pedal or Choose Exit	Backtrack_Guide_2_Status_Flag	No Chime
M5103	Release Accelerator	Backtrack_Guide_3_Status_Flag	No Chime
M5104	Doors Ajar	Backtrack_Guide_4_Status_Flag	No Chime
M5105	Hood Ajar	Backtrack_Guide_5_Status_Flag	No Chime
M5106	Trunk Ajar	Backtrack_Guide_6_Status_Flag	No Chime
M5107	Please fasten Seatbelt	Backtrack_Guide_7_Status_Flag	No Chime
M5108	Press "Start reversing" button to get started	Backtrack_Guide_8_Status_Flag	No Chime
M5109	Keep Vehicle Standstill	Backtrack_Guide_9_Status_Flag	No Chime
M5110	Reversing	Backtrack_Guide_10_Status_Flag	No Chime
M5111	Charing Gun	Backtrack_Guide_11_Status_Flag	No Chime
M5112	Charger door ajar	Backtrack_Guide_12_Status_Flag	No Chime
M5113	Press "Resume" button to continue reversing	Backtrack_Guide_13_Status_Flag	No Chime
M5114	Rear mirror error	Backtrack_Guide_14_Status_Flag	No Chime
M5115	Release EPB	Backtrack_Guide_15_Status_Flag	No Chime
M5116	Brake	Backtrack_Guide_16_Status_Flag	No Chime



Function Specification Feature

State Matrix for Backtrack_Check_X_Status_Flag

Operational_ Mode	Backtrack_Cfg	Backtrack_Check PopUp	Backtrack_Check 1_Status_Flag	Backtrack_Check 2_Status_Flag	Backtrack_Check 3_Status_Flag	Backtrack_Check 4_Status_Flag	Backtrack_Check 5_Status_Flag	Backtrack_Check 6_Status_Flag	Backtrack_Check 7_Status_Flag	Backtrack_Check 8_Status_Flag	Backtrack_Check 9_Status_Flag	Backtrack_Check 10_Status_Flag	Backtrack_Check 11_Status_Flag	Backtrack_Check 12_Status_Flag	Backtrack_Check 13_Status_Flag	Backtrack_Check 14_Status_Flag	Backtrack_Check 15_Status_Flag	Backtrack_Check 16_Status_Flag	Backtrack_Check 17_Status_Flag	Backtrack_Check 18_Status_Flag	Backtrack_Check 19_Status_Flag	Backtrack_Check 20_Status_Flag	
Normal	Enabled	0x1	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x3	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x4	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x5	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x6	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x7	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x8	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x9	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xA	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xB	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xC	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xD	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xE	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina	Ina
		0xF	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina	Ina
		0x10	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina	Ina
		0x11	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina	Ina
		0x12	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina	Ina
		0x13	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT	Ina
		0x14	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	ACT
Other Cases			Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	



Function Specification Feature

- Backtrack Check popup MC Status Flags to MC Message and Active Chime

Message ID	Description of CheckPopup	Active MC_Status_Flag	Active Chime_Status_Flag
M5201	ACU Failure	Backtrack_Check_1_Status_Flag	No Chime
M5202	Invalid Stored Routine	Backtrack_Check_2_Status_Flag	No Chime
M5203	High Vehicle speed	Backtrack_Check_3_Status_Flag	No Chime
M5204	High Slope	Backtrack_Check_4_Status_Flag	No Chime
M5205	Motion not Ready	Backtrack_Check_5_Status_Flag	No Chime
M5206	Emergency Call	Backtrack_Check_6_Status_Flag	No Chime
M5207	ECU failure	Backtrack_Check_7_Status_Flag	No Chime
M5208	Non-Normal Mode	Backtrack_Check_8_Status_Flag	No Chime
M5209	Other ADAS Feature Active	Backtrack_Check_9_Status_Flag	No Chime
M5210	Under Mobile control	Backtrack_Check_10_Status_Flag	No Chime
M5211	SW is updating	Backtrack_Check_11_Status_Flag	No Chime
M5212	Limited Space	Backtrack_Check_12_Status_Flag	No Chime
M5213	Exam not Passed	Backtrack_Check_13_Status_Flag	No Chime
M5214	No Authorization	Backtrack_Check_14_Status_Flag	No Chime
M5215	Backtrack SW not Available	Backtrack_Check_15_Status_Flag	No Chime
M5216	Waiting Wake up	Backtrack_Check_16_Status_Flag	No Chime
M5217	Not Log-in	Backtrack_Check_17_Status_Flag	No Chime
M5218	In Progress	Backtrack_Check_18_Status_Flag	No Chime
M5219	Rear Mirror	Backtrack_Check_19_Status_Flag	No Chime
M5220	HAVP learning	Backtrack_Check_20_Status_Flag	No Chime



Function Specification Feature

State Matrix for Backtrack_Terminate_X_Status_Flag

Operational_Mode	Backtrack_Cfg	Backtrack_TerminatePopup	Backtrack_TerminatePopup_1_Status_Flag	Backtrack_TerminatePopup_2_Status_Flag	Backtrack_TerminatePopup_3_Status_Flag	Backtrack_TerminatePopup_4_Status_Flag	Backtrack_TerminatePopup_5_Status_Flag	Backtrack_TerminatePopup_6_Status_Flag	Backtrack_TerminatePopup_7_Status_Flag	Backtrack_TerminatePopup_8_Status_Flag	Backtrack_TerminatePopup_9_Status_Flag	Backtrack_TerminatePopup_10_Status_Flag	Backtrack_TerminatePopup_11_Status_Flag	Backtrack_TerminatePopup_12_Status_Flag	Backtrack_TerminatePopup_13_Status_Flag	Backtrack_TerminatePopup_14_Status_Flag	Backtrack_TerminatePopup_15_Status_Flag	Backtrack_TerminatePopup_16_Status_Flag	Backtrack_TerminatePopup_17_Status_Flag	Backtrack_TerminatePopup_18_Status_Flag	Backtrack_TerminatePopup_19_Status_Flag	Backtrack_TerminatePopup_20_Status_Flag	Backtrack_TerminatePopup_21_Status_Flag	Backtrack_TerminatePopup_22_Status_Flag	Backtrack_TerminatePopup_23_Status_Flag	Backtrack_TerminatePopup_24_Status_Flag	Backtrack_TerminatePopup_25_Status_Flag	Backtrack_TerminatePopup_26_Status_Flag	Backtrack_TerminatePopup_27_Status_Flag	Backtrack_TerminatePopup_28_Status_Flag	Backtrack_TerminatePopup_29_Status_Flag
Normal	Enabled	0x1	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x2	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x3	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x4	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x5	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x6	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x7	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x8	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x9	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xA	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xB	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xC	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xD	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xE	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina



Function Specification
Feature

		0xF	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x10	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x11	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x12	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x13	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x14	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x15	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x16	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x17	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina
		0x18	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina
		0x19	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina
		0x1A	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina
		0x1B	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina
		0x1C	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina
		0x1D	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act
		0x1E	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x1F	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x20	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x21	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x22	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x23	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x24	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x25	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina



Function Specification Feature

		0X26	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina		
		0x27	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina		
		0x28	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x29	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2A	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2B	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x2C	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2D	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2E	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2F	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x30	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x31	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x32	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x33	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x34	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x35	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x36	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x37	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0X38	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x39-0x3F	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
Other Cases			Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina			



Function Specification
Feature

Operational_ Mode	Backtrack_ Cfg	Backtrack_ TerminatePopup	Backtrack_ TerminatePopup_30_Status_Flag	Backtrack_ TerminatePopup_31_Status_Flag	Backtrack_ TerminatePopup_32_Status_Flag	Backtrack_ TerminatePopup_33_Status_Flag	Backtrack_ TerminatePopup_34_Status_Flag	Backtrack_ TerminatePopup_35_Status_Flag	Backtrack_ TerminatePopup_36_Status_Flag	Backtrack_ TerminatePopup_37_Status_Flag	Backtrack_ TerminatePopup_38_Status_Flag	Backtrack_ TerminatePopup_39_Status_Flag	Backtrack_ TerminatePopup_40_Status_Flag	Backtrack_ TerminatePopup_41_Status_Flag	Backtrack_ TerminatePopup_42_Status_Flag	Backtrack_ TerminatePopup_43_Status_Flag	Backtrack_ TerminatePopup_44_Status_Flag	Backtrack_ TerminatePopup_45_Status_Flag	Backtrack_ TerminatePopup_46_Status_Flag	Backtrack_ TerminatePopup_47_Status_Flag	Backtrack_ TerminatePopup_48_Status_Flag	Backtrack_ TerminatePopup_49_Status_Flag	Backtrack_ TerminatePopup_50_Status_Flag	Backtrack_ TerminatePopup_51_Status_Flag	Backtrack_ TerminatePopup_52_Status_Flag	Backtrack_ TerminatePopup_53_Status_Flag	Backtrack_ TerminatePopup_54_Status_Flag	Backtrack_ TerminatePopup_55_Status_Flag	Backtrack_ TerminatePopup_56_Status_Flag	Backtrack_ TerminatePopup_57_Status_Flag
Normal	Enabled	0x1	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x2	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x3	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x4	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x5	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x6	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x7	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x8	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x9	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xA	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xB	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xC	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xD	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xE	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0xF	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina



Function Specification Feature

		0x10	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x11	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x12	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x13	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x14	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x15	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x16	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x17	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x18	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x19	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x1A	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x1B	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x1C	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x1D	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x1E	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x1F	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x20	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x21	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x22	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x23	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x24	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x25	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0X26	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina



Function Specification Feature

		0x27	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x28	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x29	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina
		0x2A	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2B	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2C	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2D	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2E	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x2F	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x30	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x31	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x32	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	Ina	
		0x33	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	Ina	
		0x34	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	Ina	
		0x35	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	Ina	
		0x36	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	Ina	
		0x37	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	Ina	
		0X38	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	Ina	
		0x39	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Act	
		Other Cases			Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina	Ina



Function Specification Feature

- Backtrack Terminate popup MC Status Flags to MC Message and Active Chime

Message ID	Description of TerminatePopup	Active MC_Status_Flag	Active Chime_Status_Flag
M5301	Req_Quit_CarModelInvalid	Backtrack_TerminatePopup_1_Status_Flag	No Chime
M5302	Req_Quit_OTA_Active	Backtrack_TerminatePopup_2_Status_Flag	No Chime
M5303	Req_Quit_ADAS	Backtrack_TerminatePopup_3_Status_Flag	No Chime
M5304	Req_Quit_ABSActive	Backtrack_TerminatePopup_4_Status_Flag	No Chime
M5305	Req_Quit_TCSActive	Backtrack_TerminatePopup_5_Status_Flag	No Chime
M5306	Req_Quit_ESCAActive	Backtrack_TerminatePopup_6_Status_Flag	No Chime
M5307	Req_Quit_eCALL	Backtrack_TerminatePopup_7_Status_Flag	No Chime
M5308	Req_Quit_CameraBlockage	Backtrack_TerminatePopup_8_Status_Flag	No Chime
M5309	Req_Quit_USS Blockage	Backtrack_TerminatePopup_9_Status_Flag	No Chime
M5310	Req_Quit_SlopeTooLarge	Backtrack_TerminatePopup_10_Status_Flag	No Chime
M5311	Req_Quit_SpeedHigh	Backtrack_TerminatePopup_11_Status_Flag	No Chime
M5312	Req_Quit_TirePressureTooLow	Backtrack_TerminatePopup_12_Status_Flag	No Chime
M5313	Req_Quit_RemoteStartForbid	Backtrack_TerminatePopup_13_Status_Flag	No Chime
M5314	Req_Quit_PT_Ready_Failed	Backtrack_TerminatePopup_14_Status_Flag	No Chime
M5315	Req_Quit_VehicleLowBattery	Backtrack_TerminatePopup_15_Status_Flag	No Chime
M5316	Req_Quit_TrailerConnected	Backtrack_TerminatePopup_16_Status_Flag	No Chime
M5317	Req_Quit_TractionControlSystemOff	Backtrack_TerminatePopup_17_Status_Flag	No Chime
M5318	Req_Quit_PowerpackTorqueStatus ChangesToNotAvailable	Backtrack_TerminatePopup_18_Status_Flag	No Chime
M5319	Req_Quit_PowerManagementFailure	Backtrack_TerminatePopup_19_Status_Flag	No Chime
M5320	Req_Quit_LSC_Error	Backtrack_TerminatePopup_20_Status_Flag	No Chime
M5321	Req_Quit_EPAS_Error	Backtrack_TerminatePopup_21_Status_Flag	No Chime
M5322	Req_Quit_ABS_Error	Backtrack_TerminatePopup_22_Status_Flag	No Chime
M5323	Req_Quit_BCM_Error	Backtrack_TerminatePopup_23_Status_Flag	No Chime
M5324	Req_Quit_BLEM_Failure	Backtrack_TerminatePopup_24_Status_Flag	No Chime
M5325	Req_Quit_Remote_Device_Error	Backtrack_TerminatePopup_25_Status_Flag	No Chime



Function Specification Feature

M5326	Req_Quit_UnexpectedDeactivation_Of_L SC	Backtrack_TerminatePopup_26 _Status_Flag	No Chime
M5327	Req_Quit_Unexpected Deactivation_Of_ABS	Backtrack_TerminatePopup_27 _Status_Flag	No Chime
M5328	Req_Quit_UnexpectedDeactivation of EPAS	Backtrack_TerminatePopup_28 _Status_Flag	No Chime
M5329	Req_Quit_ExternalECUFailure	Backtrack_TerminatePopup_29 _Status_Flag	No Chime
M5330	Req_Quit_Sys_Failure	Backtrack_TerminatePopup_30 _Status_Flag	No Chime
M5331	Req_Quit_CAN_Communication_Failure	Backtrack_TerminatePopup_31 _Status_Flag	No Chime
M5332	Req_Quit_FunctionOnCheckOvertime	Backtrack_TerminatePopup_32 _Status_Flag	No Chime
M5333	Req_Quit _UserExitViaButtion/Voice	Backtrack_TerminatePopup_33 _Status_Flag	No Chime
M5334	BrakeExceed_2min	Backtrack_TerminatePopup_34 _Status_Flag	No Chime
M5335	Req_Quit_GearIntervention	Backtrack_TerminatePopup_35 _Status_Flag	No Chime
M5336	Req_Quit_EPB_Apply	Backtrack_TerminatePopup_36 _Status_Flag	No Chime
M5337	Req_Quit_SteeringWheel_Intervention	Backtrack_TerminatePopup_37 _Status_Flag	No Chime
M5338	Req_Quit_MirrorFold	Backtrack_TerminatePopup_38 _Status_Flag	No Chime
M5339	Req_Quit_Unsafe_Behavior	Backtrack_TerminatePopup_39 _Status_Flag	No Chime
M5340	Req_Quit_Vehcle_Charging	Backtrack_TerminatePopup_40 _Status_Flag	No Chime
M5341	Req_PowerOFF	Backtrack_TerminatePopup_41 _Status_Flag	No Chime
M5342	Req_Quit_InsurmountableObstacle Detected	Backtrack_TerminatePopup_42 _Status_Flag	No Chime
M5343	Req_Quit_TimingOvertime	Backtrack_TerminatePopup_43 _Status_Flag	No Chime
M5344	Req_Quit_MatimeOvertime_10min	Backtrack_TerminatePopup_44 _Status_Flag	No Chime
M5345	RecoveryTimeout	Backtrack_TerminatePopup_45 _Status_Flag	No Chime
M5346	Req_Quit_InterruptTimesOverflow	Backtrack_TerminatePopup_46 _Status_Flag	No Chime
M5347	Req_Quit_RemoteMoveDistanceOut_Of Range	Backtrack_TerminatePopup_47 _Status_Flag	No Chime
M5348	Req_Quit_HandshakeFailed	Backtrack_TerminatePopup_48 _Status_Flag	No Chime
M5349	Req_Quit_SteeringAngle_Out_of_Limit	Backtrack_TerminatePopup_49 _Status_Flag	No Chime
M5350	Req_Quit_Shift_Operate_Failed	Backtrack_TerminatePopup_50 _Status_Flag	No Chime
M5351	Req_Quit_TrajectoryDeviation	Backtrack_TerminatePopup_51 _Status_Flag	No Chime
M5352	Req_Quit_ChargeCover	Backtrack_TerminatePopup_52 _Status_Flag	No Chime
M5353	Req_Quit_SpaceLimit	Backtrack_TerminatePopup_53 _Status_Flag	No Chime



Function Specification Feature

M5354	ParkingSucceed	Backtrack_TerminatePopup_54 _Status_Flag	No Chime
M5355	Req_Quit_Searching_Timeout	Backtrack_TerminatePopup_55 _Status_Flag	No Chime
M5356	Req_Quit_Actuator feedback abnormal	Backtrack_TerminatePopup_56 _Status_Flag	No Chime
M5357	Req_Quit_APA_active	Backtrack_TerminatePopup_57 _Status_Flag	No Chime



Function Specification Feature

1.4.1.3 Error Handling

Missing Message Strategy

The signals will be declared missing as per the Diagnostics section of this SPSS.

DTCs states and history will be determined as per the Diagnostics section of this SPSS.

If Backtrack_Cfg is "Disabled", the cluster shall never log a missing message DTC for this feature.

1.4.2 Non-Functional Requirements

Operational Modes

Mode	Differentiating Vehicle Conditions
Sleep Mode	Backtrack function and Information displaying Disabled
Limited Mode	Backtrack function and Information displaying Disabled
Normal Mode	Backtrack function and Information displaying Enabled / Disabled
Crank Mode	Backtrack function and Information displaying Disabled

Function activation and button response

Users can activate Backtrack via voice control command (IVI_Bktrak_VoiceActivButton) or buttons (IVI_Backtrack_AVMBButton or IVI_Backtrack_QuickPanel) in touchable screen of infotainment system. When buttons clicked, IVI should send signals with value 0x01 for three times, then send value 0x0. All button event for backtrack should comply this behavior.

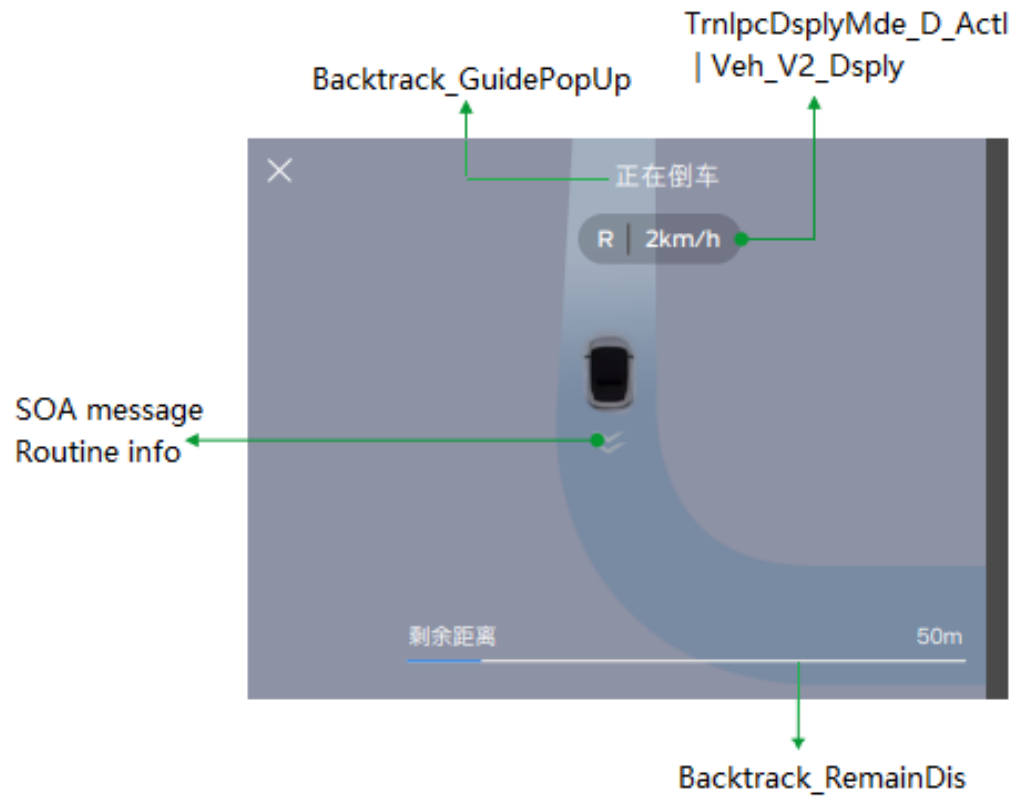
Exit button response

If user clicks Exit button while a termination popup is being displayed, termination popup should disappear at once, and IVI switch to launcher page.

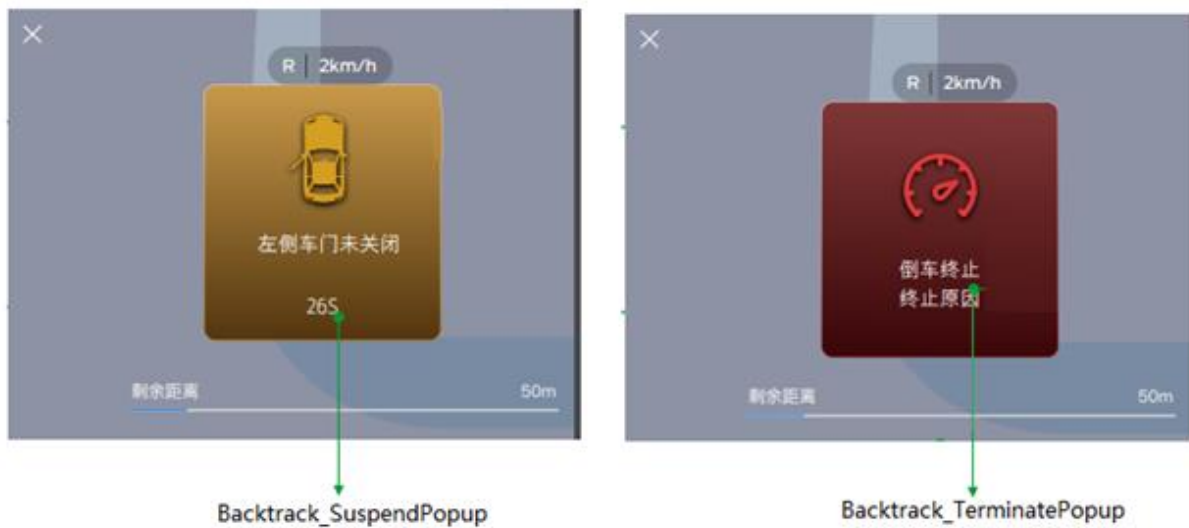
Indicator Graphics / Display Format



Function Specification Feature



Backtrack Graphics



Backtrack Suspend & Termination popup Graphics

These are only sample graphics, please refer HMI specifications for program specific details.



Function Specification Feature

Memory Storage Table 1

Parameter Name	Description	Value at Battery Connect	Value at Module Wake-up
Operational Mode	4 state indicators for cluster operational mode	Limited	Limited or Normal or Crank
Backtrack_Cfg	State indicator for feature presence controlled via CAN at EOL at VO plant.	Use Stored Value	Use Stored Value
Backtrack_RemainDis	remaining valid distance of Backtrack feature in m	0x0	Do not init
Backtrack_GuidePopUp	This signal indicates the guide prompt once Backtrack ON via SoftButton/MainButton/Voice, which is displayed on IVI screen. E.g remind the driver to shift to gear N so handshake among ECU will execute.	0x0	Do not init
Backtrack_CheckPopUp	This signal indicates the pre-condition prompt ,which is not met displayed on IVI screen once Backtrack ON via SoftButton/MainButton/Voice, E.g remind the driver to closed the door so the feature could be activated. This signal is differ from Backtrack_MainEntryPopUp. Once all the condition met in Backtrack_MainEntry, driver has the right to resolve issue e.g safety belt or doors issue	0x0	Do not init
Backtrack_ActiveType_Indicate	This signal indicates the different activation ways of the Backtrack.	0x0	Do not init
Backtrack_TerminatePopUp	This signal indicates the terminated condition of Backtrack feature. The feature will be deactivated in a safe manner and driver will receive a root cause via PopUp window last for 3 seconds E.g If the driver don't close the door within 30 second in pause phase, the feature will be terminated and a popup window with root case will be given to driver	0x0	Do not init
Backtrack_SuspendPopUp	This signal indicates the pause condition of Backtrack feature. Driver has the right to eliminate the issue within 30s so the feature could be resumed normally. e.g once doors is open, Backtrack will help driver to stop the vehicle safely and the feature remind driver to close the door before resume.	0x0	Do not init
Prk_ExitButton	This signal indicates parking feature request for IVI to have function ON, include APA/AVM/Backtrack/HAVP.	0x0	Do not init
Prk_Resume_Req	Interruption conditions are met, prompting the HMI cut user to confirm the recovery pop-up window.	0x0	Do not init



Function Specification Feature

Backtrack_Start_Sta	This signal indicates driver the status, if backtrack is ready to control the vehilce and the button is highlighted.	0x0	Do not init
Backtrack_PageDisplay	RA main page display req	0x0	Do not init
BcktrakMde_D_Stat_IVI	This signal indicates the state machine defined for Backtrack feature in ACU.	0x0	Do not init
SOA message	Input message from Ethernet from IPMB for Backtrack routine information.	0x0	Do not init
Veh_V2_Dsply	Transmission mode for display on instrument cluster or center stack. CAN signal from PCM	0x0	Do not init
TrnlpcDsplyMde_D_Actl	Transmission mode for display on instrument cluster or center stack. CAN signal from PCM	0x0	Do not init
IVI_Backtrack_AVMSofButton	This signal indicates the soft button of Backtrack on APIM screen (in AVM), if user click this button, APIM will sent pressed status to IPMB.	0x0	Do not init
Backtrack_ActButton	The driver needs to press the backtrack activation button once prep-condition met (after driver press the Backtrack_SoftButton/AVMButton/VoiceActivationButton)	0x0	Do not init
IVI_Bktrak_VoiceActivButton	This signal indicates the voice activation of Backtrack, if user requests Backtrack ON by voice, APIM will sent this signal to IPMB.	0x0	Do not init
Prk_DriverResume_Req	User clicks the Resume button	0x0	Do not init
IVI_Backtrack_Act_Flag	This signal indicates whether the IVI related precondition be satisfied so that ACU shall transit state of Backtrack from OFF to Standby.	0x0	Do not init
IVI_Bktrk_Launch_SofButton	This signal indicates the soft button of Backtrack on APIM launcher page, if user click this button, APIM will sent pressed status to IPMB.	0x0	Do not init
IVI_Prk_DisStat	This signal indicates which parking feature is displayed on APIM, include APA/AVM/Backtrack/HAVP	0x0	Do not init
Prk_InfobookButtonStat	This signal indicates the status of Infobook button, if parking feature actived, IPMB will request APIM to display the button in grey.	0x0	Do not init
DrStatDrv_B_Actl	CAN Signal sent from the BCM	Closed (0x0)	Closed (0x0)
DrStatPsngr_B_Actl	CAN Signal sent from the BCM	Closed (0x0)	Closed (0x0)
DrStatRI_B_Actl	CAN Signal sent from the BCM	Closed (0x0)	Closed (0x0)
DrStatRr_B_Actl	CAN Signal sent from the BCM	Closed (0x0)	Closed (0x0)
Backtrack_Check_X_Status_Flag	State variable used by Message Arbitrator	inactive	inactive
Backtrack_Guide_X_Status_Flag	State variable used by Message Arbitrator	inactive	inactive
Backtrack_suspend_X_Status_Flag	State variable used by Message Arbitrator	inactive	inactive
Backtrack_Terminate_X_Status_Flag	State variable used by Message Arbitrator	inactive	inactive



Function Specification Feature

Memory Storage Table 2

Parameter Name	Description	Range	Units	Resolution	Init Value
Check_popup_display_Timer	Variable used to set amount of time before Check_popup message off	0-20	Seconds	1	3

System Accuracy

Within 100 msec of receiving a message that results in a change of state the cluster will update the display to the proper state.

Self Test

None

Engineering Test Mode

Reference section "Dealer / Engineering Test Mode (ETM)"

Part II Performance

See individual Chime STSS modules.

Supported Diagnostic Trouble Codes (DTCs)

DTC	Description	When Logged
Cxxxxx	Lost communication with IPMB	Message missing for more than 5 seconds
Cxxxxx	Invalid Data Received From IPMB	XX signal value

DID DExx:

Block Num	Block Description	Byte(s)	Bits	State: Description	"0"	"1"	Default	Comments / Information
	PACKETED BLOCKS							
\$xx	Option Content (B&A)	*	*	Backtrack	Disabled	Enabled	Disabled	Disabled means the feature is not presented in the vehicle

1.4.3 Functional Safety Requirements

No Functional Safety Requirements specified.

1.4.4 Other Requirements

No Other Requirements specified.



Function Specification Feature

1.4.4.1 Design Requirements

No Design Requirements specified.



Function Specification Feature



2 OPEN CONCERNS

No Open Concerns (Ford Modeling Action Items) in the Magicdraw model.



Function Specification Feature

3 REVISION HISTORY

SPSS Module Revision History

Revision Level	Name	Change Description	Date
1.0	Li Eureka	Initial Release.	12/14/2022
1.1	Li Eureka	<p>Update I/O block, input, output and Flow Chart, details as below.</p> <p>Deleted unused signals: IVI_Launcher_SoftButton IVI_Backtrack_QuickPanel IVI_Backtrack_SoftButton</p> <p>Renamed signals: Backtrack_StateMachine to BcktrakMde_D_Stat_IVI IVI_Backtrack_VoiceActivationButton to IVI_Bktrak_VoiceActivButton IVI_Backtrack_Launcher_SoftButton to IVI_Bktrk_Launch_SoftButton</p> <p>Added signals: DrStatDrv_B_Actl DrStatPsngr_B_Actl DrStatRI_B_Actl DrStatRr_B_Actl</p> <p>Update Flag matrix logic & MC message for Backtrack_Check_20_Status_Flag, Backtrack_Suspend_6_Status_Flag, Backtrack_TerminatePopup_57_Status_Flag</p> <p>Update Backtrack_PageDisplay, IVI_Prk_DispStat and pre-check logic in chapter 1.3.1.</p>	02/21/2023
1.2	Li Eureka	<p>Added description for Exit button click while termination popup already exists</p> <p>Update Backtrack_SuspendPopup Signal value 0x7 from "Reserved" to "ChargerGun", accordingly added Backtrack_Suspend_7_Status_Flag and related matrix</p>	04/07/2023



4 APPENDIX

4.1 Data Dictionary

4.1.1 Logical Signals

No "Logical Interface Table" or "Logical Signals" tables found.

4.1.2 Logical Parameters

(No parameters have been defined)

4.1.3 Encoding Types



Function Specification Feature

Document ends here.