Research & Vehicle Technology
"Infotainment Systems Product Development"

Feature – LiftGate Softswitch Interface Client

Infotainment Subsystem Part Specific Specification (SPSS)

Version 1.3

UNCONTROLLED COPY IF PRINTED

Version Date: February 11, 2022

FORD CONFIDENTIAL

Revision History

Date	Version	Notes	
October 29, 2018	**1.0**	**Initial Release**	
February 8, 2019	**1.1**		
	LGSS-IIR-REQ-323817/B-LGSSInterfaceClient_Rx		MBORREL4: Removed REQ-332999 & REQ-333000, Added REQ-201601
	LGSS-REQ-328538/B-Powermode Conditions		MBORREL4: Added Delayed Acc, Acc, and Start
	STR-572684/B-Requirements		MBORREL4: Removed REQ-332486
	LGSS-REQ-332246/B-LiftGate Release - User Input Enable/Disable		MBORREL4: Changed to a precondition table for clarity. Added some new preconditions
	LGSS-UC-REQ-323953/B-User selects Manual LiftGate Softswitch on LGSSInterfaceClient (switch enabled)		MBORREL4; Updated postcondition as LGSSServer1 opens manual liftgates
	LGSS-UC-REQ-323963/B-User selects Open Power LiftGate Softswitch on LGSSInterfaceClient (switch enabled)		MBORREL4: Updated postconditions (no switch updates)
	LGSS-UC-REQ-323974/B-User selects Close Power LiftGate Softswitch on LGSSInterfaceClient (switch enabled)		MBORREL4: Updated postconditions (no switch updates)
	LGSS-UC-REQ-323975/B-User selects Power LiftGate Softswitch on LGSSInterfaceClient while LiftGate in motion (switch enabled)		MBORREL4: Updated postconditions (no switch updates)
	LGSS-ACT-REQ-333020/B-User Selects Power LiftGate Softswitch On LGSSInterfaceClient		MBORREL4: Updated to remove HMI button text update
	LGSS-SD-REQ-333007/B-User Selects Manual LiftGate Softswitch On LGSSInterfaceClient		MBORREL4; Updated postcondition as LGSSServer1 opens manual liftgates
	LGSS-SD-REQ-333021/B-User Selects Power LiftGate Softswitch On LGSSInterfaceClient		MBORREL4: Updated to remove HMI button text update
June 21, 2019	**1.2**		
	LGSS-IIR-REQ-323817/C-LGSSInterfaceClient_Rx		MBORREL4: Added REQ-333000
	STR-572684/C-Requirements		MBORREL4: Added REQ-354975
	LGSS-REQ-354975/A-LiftGate Ajar Status		MBORREL4: New req.
	LGSS-UC-REQ-323953/C-User selects Manual LiftGate Softswitch on LGSSInterfaceClient (switch enabled)		MBORREL4: Updated to include liftgate ajar status
	LGSS-UC-REQ-323963/C-User selects Open Power LiftGate Softswitch on LGSSInterfaceClient (switch enabled)		MBORREL4: Updated to include liftgate ajar status
	LGSS-UC-REQ-323974/C-User selects Close Power LiftGate Softswitch on LGSSInterfaceClient (switch enabled)		MBORREL4: Updated to include liftgate ajar status
	LGSS-UC-REQ-323975/C-User selects Power LiftGate Softswitch on LGSSInterfaceClient while LiftGate in motion (switch enabled)		MBORREL4: Updated to include liftgate ajar status
February 11, 2022	**1.3**		
	STR-572054/B-Architectural Design		nmajjiga: updated for Splitgate
	LGSS-CLD-REQ-323809/B-LiftGate Softswitch Interface Client		nmajjiga: updated for Splitgate
	LGSS-CLD-REQ-323811/B-LiftGate Softswitch Server2		nmajjiga: updated for Splitgate
	DOC-572058/B-Physical Mapping of Classes		nmajjiga: updated for Splitgate
	STR-1019270/A-Logical Signal Mapping		nmajjiga: added signal mapping
	LGSS-IIR-REQ-323816/B-LGSSInterfaceClient_Tx		nmajjiga: added new signals for splitgate
	MD-REQ-474664/A-SplitgateReleaseCounter_Rq		nmajjiga: signal for splitgate release counter
	MD-REQ-474665/A-Splitgate_Remote_Oper_Rq		nmajjiga: signal for remote operation configuration setting request
	MD-REQ-479257/A-SplitgateEnable_Rq		nmajjiga: signal to enable power vs manual mode
	LGSS-IIR-REQ-323817/D-LGSSInterfaceClient_Rx		nmajjiga: added new signals for splitgate
	MD-REQ-474666/A-Liftgate_Position_St		nmajjiga: signal for liftgate position

MD-REQ-474667/A-Tailgate_Position_St	nmajjiga: signal for tailgate position
MD-REQ-474668/A-Splitgate_Remote_Oper_St	nmajjiga: signal for remote operation configuration setting status
MD-REQ-479258/A-SplitgateEnable_St	nmajjiga: signal to enable power vs manual mode
MD-REQ-479259/A-TailgateAjar_St	nmajjiga: signal for Tailgate Ajar status in SPlitgate
STR-572055/B-General Requirements	nmajjiga: updated for Splitgate
LGSS-REQ-328539/B-Feature Configuration	nmajjiga: updated for Splitgate
LGSS-REQ-476077/A-Feature Configuration - SplitGate	nmajjiga: new requirement for Splitgate
LGSS-REQ-328540/B-Speed Restriction Configuration	nmajjiga: updated for Splitgate
LGSS-REQ-477617/A-Back End Enclosure Type Configuration	nmajjiga: new requirement for Backend Enclosure
LGSS-REQ-478025/A-Back End Enclosure Type Configuration - SplitGate	nmajjiga: new requirement for Backend Enclosure
LGSS-REQ-479237/A-Missing Message DTC - SplitGate	nmajjiga: new requirement for Splitgate
STR-572056/B-Functional Definition	nmajjiga: updated for Splitgate
STR-572684/D-Requirements	nmajjiga: added new requirement for liftgate position status
LGSS-REQ-332245/B-LiftGate Release - User Input	nmajjiga: updated to add configuration details
LGSS-REQ-354975/B-LiftGate Ajar Status	nmajjiga: updated to include configuration detail
LGSS-REQ-474677/A-LiftGate Position Status	nmajjiga: new requirement for liftgate position status
LGSS-REQ-477817/A-Decklid/Trunk Ajar Status	nmajjiga: added new requirement for Decklid/Trunk
LGSS-REQ-479277/A-TailGate Ajar Status - SplitGate	nmajjiga: Tailgate Ajar details for Splitgate
STR-572685/B-Use Cases	nmajjiga: updated usecase to support splitgate configuration
LGSS-UC-REQ-477837/A-User selects Manual LiftGate Only Softswitch on LGSSInterfaceClient - SplitGate	nmajjiga: new usecase usecase to support splitgate configuration
LGSS-UC-REQ-477838/A-User selects Open Power LiftGate Only Softswitch on LGSSInterfaceClient - SplitGate	nmajjiga: new usecase usecase to support splitgate configuration
LGSS-UC-REQ-477839/A-User selects Close Power LiftGate Only Softswitch on LGSSInterfaceClient when TailGate is Closed - SplitGate	nmajjiga: new usecase to support splitgate configuration
LGSS-UC-REQ-474707/A-User selects Close Power LiftGate Only Softswitch on LGSSInterfaceClient when Tailgate is Open - SplitGate Low Trim	nmajjiga: new usecase to support splitgate configuration
LGSS-UC-REQ-474708/A-User selects Close Power LiftGate Only Softswitch on LGSSInterfaceClient when Tailgate is Open - SplitGate High Trims	nmajjiga: new usecase to support splitgate configuration
LGSS-UC-REQ-477840/A-User selects Power LiftGate Only Softswitch on LGSSInterfaceClient while LiftGate in motion - SplitGate	nmajjiga: new usecase to support splitgate configuration
LGSS-UC-REQ-477841/A-User selects Power LiftGate Only Softswitch on LGSSInterfaceClient while LiftGate and TailGate in motion - SplitGate	nmajjiga: new usecase to support splitgate configuration
LGSS-UC-REQ-477842/A-User selects Manual/Power LiftGate Only Softswitch on LGSSInterfaceClient (switch disabled) - SplitGate	nmajjiga: new usecase to support splitgate configuration
LGSS-FUN-REQ-474717/A-Manual/Power LiftGate + TailGate Softswitch	nmajjiga: new function defination for Liftgate + Tailgate Softswitch
STR-1019290/A-Requirements	nmajjiga: new requirements for Liftgate + Tailgate Softswitch
LGSS-REQ-474718/A-SplitGate Release - Interface Client Request	nmajjiga: new requirement for Liftgate + Tailgate Softswitch
STR-1019310/A-Event Counter Requirements_Splitgate Release Counter	nmajjiga: new requirement for Liftgate + Tailgate Softswitch
LGSS-REQ-474737/A-Initial Value_Splitgate Release Counter	nmajjiga: new requirement for Liftgate + Tailgate Softswitch
LGSS-REQ-474738/A-Valid Events_Splitgate Release Counter	nmajjiga: new requirement for Liftgate + Tailgate Softswitch
LGSS-REQ-474739/A-Voltage Range_Splitgate Release Counter	nmajjiga: new requirement for Liftgate + Tailgate Softswitch
LGSS-REQ-474740/A-Bus Wakeup_Splitgate Release Counter	nmajjiga: new requirement for Liftgate + Tailgate Softswitch
LGSS-REQ-474741/A-Bus Sleep Voting_Splitgate Release Counter	nmajjiga: new requirement for Liftgate + Tailgate Softswitch
LGSS-REQ-474742/A-Value Retention_Splitgate Release Counter	nmajjiga: new requirement for Liftgate + Tailgate Softswitch
LGSS-REQ-474743/A-SplitGate Release - User Input	nmajjiga: new requirement for Liftgate + Tailgate Softswitch

LGSS-REQ-474744/A-SplitGate Release - User Input Enable/Disable	nmajjiga: new requirement for Liftgate + Tailgate Softswitch
LGSS-REQ-474745/A-SplitGate Position Status	nmajjiga: new requirement for Liftgate and Tailgate position status
STR-1019291/A-Use Cases	nmajjiga: new usecases for Liftgate + Tailgate Softswitch
LGSS-UC-REQ-474709/A-User selects Manual LiftGate + TailGate Softswitch on LGSSInterfaceClient (switch enabled)	nmajjiga: new usecase for Liftgate and Tailgate position status
LGSS-UC-REQ-474710/A-User presses LiftGate + TailGate Softswitch on LGSSInterfaceClient while Liftgate is Closed and TailGate is Closed	nmajjiga: new usecase for Liftgate and Tailgate position status
LGSS-UC-REQ-474711/A-User presses LiftGate + TailGate Softswitch on LGSSInterfaceClient while LiftGate is Lower-Unlatched and TailGate is Open	nmajjiga: new usecase for Liftgate and Tailgate position status
LGSS-UC-REQ-474712/A-User presses LiftGate + TailGate Softswitch on LGSSInterfaceClient while LiftGate is Open and TailGate is Closed	nmajjiga: new usecase for Liftgate and Tailgate position status
LGSS-UC-REQ-474713/A-User presses LiftGate + TailGate Softswitch on LGSSInterfaceClient while LiftGate and TailGate are Open	nmajjiga: new usecase for Liftgate and Tailgate position status
LGSS-UC-REQ-474714/A-User selects Power LiftGate + TailGate Softswitch on LGSSInterfaceClient while LiftGate and/or TailGate in motion	nmajjiga: new usecase for Liftgate and Tailgate position status
LGSS-UC-REQ-474715/A-User selects Manual/Power LiftGate + TailGate Softswitch on LGSSInterfaceClient (switch disabled)	nmajjiga: new usecase for Liftgate and Tailgate position status
LGSS-STR-1019292/A-White Box Views	nmajjiga: new diagrams for manual/power splitage operation
LGSS-STR-1019293/A-Activity Diagrams	nmajjiga: new activity diagrams for manual/power splitage operation
LGSS-ACT-REQ-474659/A-User Selects Power LiftGate + TailGate Softswitch On LGSSInterfaceClient	nmajjiga: new activity diagram for power splitage operation
LGSS-ACT-REQ-474657/A-User Selects Manual LiftGate + TailGate Softswitch On LGSSInterfaceClient	nmajjiga: new activity diagram for manual splitage operation
LGSS-STR-1019294/A-Sequence Diagrams	nmajjiga: new sequence diagrams for manual/power splitage operation
LGSS-SD-REQ-474658/A-User Selects Manual LiftGate + TailGate Softswitch On LGSSInterfaceClient	nmajjiga: new sequence diagram for manual splitage operation
LGSS-SD-REQ-474661/A-User Selects Power LiftGate + TailGate Softswitch On LGSSInterfaceClient	nmajjiga: new sequence diagram for power splitage operation
LGSS-FUN-REQ-474722/A-SplitGate Remote Operation Configuration Setting	nmajjiga: new function defination for splitgate remote operation configuration setting
STR-1019295/A-Requirements	nmajjiga: new requirements for splitgate remote operation configuration setting
LGSS-REQ-474747/A-SplitGate Remote Operation Configuration Setting - User Input	nmajjiga: new requirement for splitgate remote operation configuration setting
LGSS-REQ-479297/A-SplitGate Remote Operation Configuration Setting - User Input Enable/Disable	nmajjiga: new requirement for splitgate remote operation configuration setting
LGSS-REQ-474723/A-SplitGate Remote Operation Configuration Setting - Interface Client Request	nmajjiga: new requirement for splitgate remote operation configuration setting
LGSS-REQ-474746/A-SplitGate Remote Operation Configuration Setting - Server Response	nmajjiga: new requirement for splitgate remote operation configuration setting
LGSS-REQ-479357/A-SplitGate Remote Operation Configuration Setting - Startup/Shutdown	nmajjiga: new requirement for splitgate remote operation configuration setting
STR-1019296/A-Use Cases	nmajjiga: new usecase for splitgate remote operation configuration setting
LGSS-UC-REQ-474716/A-User Enable SplitGate Remote Operation Configuration Setting On LGSSInterfaceClient	nmajjiga: new usecase for remote operation configuration setting
LGSS-UC-REQ-479317/A-User Disable SplitGate Remote Operation Configuration Setting On LGSSInterfaceClient	nmajjiga: new usecase for remote operation configuration setting
LGSS-STR-1019297/A-White Box Views	nmajjiga: new diagrams for splitgate remote operation configuration setting
LGSS-STR-1019298/A-Activity Diagrams	nmajjiga: new activity diagram for splitgate remote operation configuration setting
LGSS-ACT-REQ-474662/A-User Selects Remote Operation Configuration Setting On LGSSInterfaceClient	nmajjiga: new activity diagram for remote operation configuration setting
LGSS-STR-1019299/A-Sequence Diagrams	nmajjiga: new sequence diagram for splitgate remote operation configuration setting

	LGSS-SD-REQ-474663/A-User Selects Remote Operation Configuration Setting On LGSSInterfaceClient	nmajjiga: new sequence diagram for splitgate remote operation configuration setting
	LGSS-FUN-REQ-479337/A-Enable/Disable Power SplitGate Feature	nmajjiga: new function defination for power splitgate setting
	STR-1031070/A-Requirements	nmajjiga: new requirements for power splitgate setting
	LGSS-REQ-479338/A-Power SplitGate Setting - User Input	nmajjiga: new requirement for power splitgate setting
	LGSS-REQ-479339/A-Power SplitGate Setting - User Input Enable/Disable	nmajjiga: new requirement for power splitgate setting
	LGSS-REQ-479340/A-Power SplitGate Setting - Interface Client Request	nmajjiga: new requirement for power splitgate setting
	LGSS-REQ-479341/A-Power SplitGate Setting - Server Response	nmajjiga: new requirement for power splitgate setting
	LGSS-REQ-479358/A-Power SplitGate Setting - Startup/Shutdown	nmajjiga: new requirement for power splitgate setting
	STR-1031071/A-Use Cases	nmajjiga: new usecase for power splitgate setting
	LGSS-UC-REQ-479342/A-User Enable Power SplitGate Setting On LGSSInterfaceClient	nmajjiga: new usecase for power splitgate setting
	LGSS-UC-REQ-479343/A-User Disable Power SplitGate Setting On LGSSInterfaceClient	nmajjiga: new usecase for power splitgate setting
	LGSS-STR-1031072/A-White Box Views	nmajjiga: new diagrams for power splitgate setting
	LGSS-STR-1031073/A-Activity Diagrams	nmajjiga: new activity diagram for power splitgate setting
	LGSS-ACT-REQ-479344/A-User Enables/Disables Power SplitGate Setting On LGSSInterfaceClient	nmajjiga: new activity diagram for power splitgate setting
	LGSS-STR-1031074/A-Sequence Diagrams	nmajjiga: new sequence diagram for power splitgate setting
	LGSS-SD-REQ-479346/A-User Enables/Disables Power SplitGate Setting On LGSSInterfaceClient	nmajjiga: new sequence diagram for power splitage setting

Table of Contents

1 Architectural Design

1.1 LGSS-CLD-REQ-323809/B-LiftGate Softswitch Interface Client

The LiftGate Softswitch Interface Client (LGSSInterfaceClient) is responsible for the tasks listed below:

- Providing a user interface for the LiftGate Softswitch and LiftGate + TailGate Softswitch feature
- Managing feature restricted status
- Transmitting user input to LGSSServer1
- Displaying active feature state on user interface

Please review the implementation guide/block diagram to locate the LGSSInterfaceClient class.

1.2 LGSS-CLD-REQ-323810/A-LiftGate Softswitch Server1

The LiftGate Softswitch Server1 (LGSSServer1) is responsible for the tasks listed below:

- Receiving user request from LGSSInterfaceClient
- Transmitting request to LGSSServer2

Please review the implementation guide/block diagram to locate the LGSSServer1 class.

1.3 LGSS-CLD-REQ-323811/B-LiftGate Softswitch Server2

The LiftGate Softswitch Server2 (LGSSServer2) is responsible for the tasks listed below:

- Receiving release request from LGSSServer1
- Releasing the LiftGate, TailGate (when configured for SplitGate as High Trims)

Please review the implementation guide/block diagram to locate the LGSSServer2 class.

1.4 Physical Mapping of Classes

The table below shows an example of how the logical classes that make up the LiftGate Softswitch / LiftGate + TailGate Softswitch feature can be mapped into physical modules. This mapping is an example only and does not necessarily carryover to other carlines or vehicle architectures.

Logical Class	Physical Module (ECU)
LGSSInterfaceClient	SYNC / PDC
LGSSServer1	BCM
LGSSServer2	RGTM

1.5 Logical Signal Mapping

The CAN signals mentioned throughout this document shall refer to the CAN signal's logical name. The logical names shall be mapped to their actual CAN signal names. Please use the table below to perform the mapping.

Logical Name	CAN Signal Name
LiftgateReleaseCounter_Rq	BecRleas_No_RqMnu
SplitgateReleaseCounter_Rq	Bec2Oprt_No_RqMnu
Splitgate_Remote_Oper_Rq	BecConfg_B_RqMnu
SplitGateEnable_Rq	Power_Liftgate_Mode_Cmd
Ignition_Status	Ignition_Status
VehicleSpeed_St	Veh_V_ActlEng
LockInhibit_St	LockInhibit
GearLvrPos_D_Actl	GearLvrPos_D_Actl
CarMode_St	LifeCycMde_D_Actl

Delay_Accy	Delay_Accy
LiftgateAjar_St	DrStatInnrTgate_B_Actl
TrunkTailgateStatus	DrStatTgate_B_Actl
Liftgate_Position_St	LftgtPos_Pc_Actl
Tailgate_Position_St	DrTgatePos_Pc_Actl
Splitgate_Remote_Oper_St	BecConfg_D_Stat
SplitGateEnable_St	Power_Liftgate_Mode_Stt
TailGateAjar_St	Bec2Ajar_B_Stat

Table: Logical name/CAN signal mapping

1.6 LGSSInterfaceClient Interface

1.6.1 LGSS-IIR-REQ-323816/B-LGSSInterfaceClient_Tx

1.6.1.1 MD-REQ-328278/A-LiftgateReleaseCounter_Rq

Message Type: Request

This signal is used to request a release of the LiftGate. This signal increments by 1 everytime it is sent to request a release.

Name	Literals	Value	Description
Type	-	-	Unit: SED Resolution: 1 Offset: 0
	Initial Value	0x0	Reserved for transmitter reset
	Code Value	0x1 To 0x6	
	Not Used	0x7	

1.6.1.2 MD-REQ-474664/A-SplitgateReleaseCounter_Rq

Message Type: Request

This signal is sent when Liftgate+Tailgate button is pressed. This signal increments by 1 everytime it is sent to request a release.

Name	Literals	Value	Description
Type	-	-	Unit: SED Resolution: 1 Offset: 0
	Initial Value	0x0	Reserved for transmitter reset
	Code Value	0x1 To 0x6	
	Not Used	0x7	

1.6.1.3 MD-REQ-474665/A-Splitgate_Remote_Oper_Rq

Message Type: Request

This signal is sent when the user to manages RKE/hands free configuration setting.

Name	Literals	Value	Description
Type	-	-	RKE/hands free configuration setting
	Disabled	0x0	Operate Liftgate only
	Enabled	0x1	Operate Liftgate and Tailgate

1.6.1.4 MD-REQ-479257/A-SplitgateEnable_Rq

Message Type: Request

The signal is used by the LGSSInterfaceClient to enable/disable the Power SplitGate feature.

Name	Literals	Value	Description
Type	-	-	Request to enable/disable the Power SplitGate feature
	Disable	0x0	
	Enable	0x1	

1.6.2 LGSS-IIR-REQ-323817/D-LGSSInterfaceClient_Rx

1.6.2.1 MD-REQ-027149/A-IgnitionStatus_St (TcSE ROIN-225464-1)

Message Type: Status

Signal used to indicate ignition state.

Name	Literals	Value	Description
Type	-	-	Indicates ignition state
	Unknown	0x0	
	Off	0x1	
	Accessory	0x2	
	Run	0x4	
	Start	0x8	
	Invalid	0xF	

1.6.2.2 MD-REQ-014025/A-VehicleSpeed_St (TcSE ROIN-223023-1)

Message Type: Status

Status used to indicate vehicle speed.

Name	Literals	Value	Description
Type	-	-	Indicates vehicle speed. Unit: kph Resolution:0.01 Offset:0
	kph	0x0 to 0xFFFF	

1.6.2.3 MD-REQ-333022/A-LockInhibit_St

Message Type: Status

This signal is used to indicate the lock inhibit status.

Name	Literals	Value	Description
Type	-	-	Current Lock Inhibit status
	No Inhibit	0x0	
	Inhibit	0x1	

1.6.2.4 MD-REQ-014023/A-GearLvrPos_D_Actl (TcSE ROIN-266648-1)

Message Type: Status

Vehicle status signal for the Gear Lever Position on an automatic transmission vehicle.

Name	Literals	Value	Description
Type	-	-	-
	Park	0x0	
	Reverse	0x1	
	Neutral	0x2	
	Drive	0x3	
	Sport_DriveSport	0x4	
	Low	0x5	
	First	0x6	
	Second	0x7	
	Third	0x8	
	Fourth	0x9	
	Fifth	0xA	
	Sixth	0xB	
	Undefined_Treat_as_Fault	0xC	
	Undefined_Treat_as_Fault1	0xD	
	Unknown_Position	0xE	
	Fault	0xF	

1.6.2.5 MD-REQ-086348/A-CarMode_St

Message Type: Status

Name	Literals	Value	Description
Type	-	-	Defines what car mode state is active.
	Normal	0x0	
	Factory	0x1	
	NotUsed	0x2	
	Transportation	0x3	

1.6.2.6 MD-REQ-201601/A-Delay_Accy

Message Type: Status

This signal is used indicate whether Delayed Accessory is active or not.

Name	Literals	Value	Description
Type	-	-	Status of delayed accessory

	Off	0x00	
	On	0x01	

1.6.2.7 MD-REQ-333000/A-LiftgateAjar_St

Message Type: Status

The signal is used to inform the LGSSInterfaceClient of the current Liftgate ajar status.

Name	Literals	Value	Description
Status	-	-	Indicates the current liftgate ajar status
	Closed	0x0	
	Open	0x1	

1.6.2.8 MD-REQ-330585/A-TrunkTailgateStatus

Message Type: Status

This method is indicating the trunk/tailgate status.

Name	Literals	Value	Description
TrunkTailgateStatus	-	-	
	Closed	0x0	
	Ajar	0x1	

1.6.2.9 MD-REQ-474666/A-Liftgate_Position_St

Message Type: Status

The signal is used to inform the LGSSInterfaceClient of the current Liftgate Position.

Name	Literals	Value	Description
Type	-	-	Indicates current liftgate position Unit: percent Resolution:1 Offset:0
	percent	0 to 127	

1.6.2.10 MD-REQ-474667/A-Tailgate_Position_St

Message Type: Status

The signal is used to inform the LGSSInterfaceClient of the current Tailgate Position.

Name	Literals	Value	Description
Type	-	-	Indicates current tailgate position Unit: percent Resolution:1 Offset:0
	percent	0 to 127	

1.6.2.11 MD-REQ-474668/A-Splitgate_Remote_Oper_St

Message Type: Status

This signal is to indicate RKE/hands free configuration setting status.

Name	Literals	Value	Description
Type	-	-	RKE/hands free configuration setting status
	Disabled	0x0	Operate Liftgate only
	Enabled	0x1	Operate Liftgate and Tailgate
	Not used	0x2	
	Not supported	0x3	

1.6.2.12 MD-REQ-479258/A-SplitgateEnable_St

Message Type: Status

The signal is used to inform the LGSSInterfaceClient of the current Power SplitGate feature status.

Name	Literals	Value	Description
Status	-	-	Indicates the current Power SplitGate feature status
	Disabled	0x0	
	Enabled	0x1	
	Not Used	0x2	
	Not Supported	0x3	

1.6.2.13 MD-REQ-479259/A-TailgateAjar_St

Message Type: Status

The signal is used to inform the LGSSInterfaceClient of the current Tailgate ajar status.

Name	Literals	Value	Description
Status	-	-	Indicates the current Tailgate ajar status
	Closed	0x0	
	Ajar	0x1	

2 General Requirements

2.1 LGSS-REQ-328538/B-Powermode Conditions

The LGSSInterfaceClient shall only allow the functionality of this feature when:

- IgnitionStatus_St = Run, Start, or Acc and the touch screen display is On, OR
- IgnitionStatus_St = Off and Delay_Accy = On and the touch screen display is On

2.2 LGSS-REQ-328539/B-Feature Configuration

The LGSSInterfaceClient shall have a configurable parameter to determine whether the vehicle supports LiftGate Softswitch.

- If the parameter indicates the vehicle supports LiftGate Softswitch, then LGSS-FUN-REQ-323940-Manual/Power LiftGate shall be supported.
- If the parameter indicates the vehicle does not support LiftGate Softswitch, then none of the functionality defined in this SPSS shall be supported.

Note: This configuration is to be used for all single back end enclosure types (power liftgate, manual liftgate, decklid, etc) requiring the release softswitch. The LGSSServer1 shall manage the different back end enclosures and send the appropriate request signal to the LGSSServer2.

2.3 LGSS-REQ-476077/A-Feature Configuration - SplitGate

The LGSSInterfaceClient shall have a configurable parameter to determine whether the vehicle supports SplitGate (LiftGate Softswitch or LiftGate + TailGate Softswitch).

- If the parameter indicates 0x1 (Low Trim) the vehicle supports LiftGate Softswitch, then LGSS-FUN-REQ-323940-Manual/Power LiftGate Softswitch and LGSS-FUN-REQ-479337- Enable/Disable Power SplitGate Feature shall be supported.
- If the parameter indicates 0x2 (High Trim) or 0x3 (High Trim w/o Hands Free) the vehicle supports “LiftGate + TailGate” Softswitch, then all the functionality and signals defined in this SPSS shall be supported.
- If the parameter indicates 0x0 (Disabled) the vehicle does not support LiftGate Softswitch or “LiftGate +TailGate” Softswitch, then none of the functionality defined in this SPSS shall be supported.

Note: This configuration is to be used for dual back end enclosure types (i.e. SplitGate) requiring the release softswitch. “SplitGate” and “LiftGate + TailGate” shall be used interchangeably.

2.4 LGSS-REQ-328540/B-Speed Restriction Configuration

The LGSSInterfaceClient shall have a configurable parameter to set the vehicle speed threshold by which the LiftGate Softswitch and “LiftGate + TailGate” Softswitch menu shall be made available/unavailable.

2.5 LGSS-REQ-477617/A-Back End Enclosure Type Configuration

The LGSSInterfaceClient shall determine the type of back end enclosure for this feature via the following configurable parameters:

- Power Liftgate shall be determined by:
  - Liftgate Softswitch (DE08 Byte 19 Bit 2-1) = 0x1 - Power Liftgate, AND
  - Power Liftgate/Decklid HMI (DE08 Byte 13 Bit 2) = 0x0 – Liftgate, AND

- Manual Liftgate shall be determined by:
  - Liftgate Softswitch (DE08 Byte 19 Bit 2-1) = 0x2 – Manual Liftgate, AND
  - Power Liftgate/Decklid HMI (DE08 Byte 13 Bit 2) = 0x0 – Liftgate, AND

- Decklid/Trunk shall be determined by:
  - Liftgate Softswitch (DE08 Byte 19 Bit 2-1) = 0x2 – Manual Liftgate, AND
  - Power Liftgate/Decklid HMI (DE08 Byte 13 Bit 2) = 0x1 - Decklid, AND

This determination shall be used by the LGSSInterfaceClient for all relevant HMI graphics, indicators, etc. as well the ajar signals that indicate their status.

2.6 LGSS-REQ-478025/A-Back End Enclosure Type Configuration - SplitGate

The LGSSInterfaceClient shall determine the type of back end enclosure for this feature via the following configurable parameters:

- Power Liftgate shall be determined by:
  - Liftgate Softswitch (DE08 Byte 19 Bit 2-1) = 0x1 - Power Liftgate, AND
  - Power Liftgate/Decklid HMI (DE08 Byte 13 Bit 2) = 0x0 – Liftgate, AND
  - 3-Way Splitgate Softswitch and Menu Settings (DE0A Byte 9 Bit 4-3) = 0x0 - Disabled

- Manual Liftgate shall be determined by:
  - Liftgate Softswitch (DE08 Byte 19 Bit 2-1) = 0x2 – Manual Liftgate, AND
  - Power Liftgate/Decklid HMI (DE08 Byte 13 Bit 2) = 0x0 – Liftgate, AND
  - 3-Way Splitgate Softswitch and Menu Settings (DE0A Byte 9 Bit 4-3) = 0x0 - Disabled

- Decklid/Trunk shall be determined by:
  - Liftgate Softswitch (DE08 Byte 19 Bit 2-1) = 0x2 – Manual Liftgate, AND
  - Power Liftgate/Decklid HMI (DE08 Byte 13 Bit 2) = 0x1 - Decklid, AND
  - 3-Way Splitgate Softswitch and Menu Settings (DE0A Byte 9 Bit 4-3) = 0x0 - Disabled

- Manual/Power Liftgate + Tailgate (Splitgate) shall be determined by:
  - Liftgate Softswitch (DE08 Byte 19 Bit 2-1) = 0x0 - Off, AND
  - Power Liftgate/Decklid HMI (DE08 Byte 13 Bit 2) = 0x0 - Liftgate, AND
  - 3-Way Splitgate Softswitch and Menu Settings (DE0A Byte 9 Bit 4-3) = 0x1 - Low Trim OR 0x2 - HighTrim OR 0x3 - HighTrim w/o Hands Free

This determination shall be used by the LGSSInterfaceClient for all relevant HMI graphics, indicators, etc. as well the ajar signals that indicate their status.

2.7 LGSS-REQ-479237/A-Missing Message DTC - SplitGate

When SplitGate is configured as Low Trim or High Trim or High Trim w/o Hands Free (see LGSS-REQ-478025-Back End Enclosure Type Configuration - SplitGate), the LGSSInterfaceClient shall set a “lost communication” DTC for any expected LGSS periodic messages that are not received for more than 5 seconds.

3 Functional Definition

3.1 LGSS-FUN-REQ-323940/A-Manual/Power LiftGate Softswitch

3.1.1 Requirements

3.1.1.1 LGSS-REQ-332237/A-LiftGate Release - Interface Client Request

When the LiftGate Release is selected by the user via HMI, the LGSSInterfaceClient shall increment the event counter LiftgateReleaseCounter_Rq by a value of 1.

When LiftgateReleaseCounter_Rq reaches a count value of 6, the next increment shall reset the counter to a value of 1. The count value of 0 is reserved, and shall not be used in the increment operation of this counter.

3.1.1.2 Event Counter Requirements

3.1.1.2.1 LGSS-REQ-332238/A-Initial Value

When the LGSSInterfaceClient resets, it shall initialize and publish LiftgateReleaseCounter_Rq = 0.

Immediately following a reset, the LGSSInterfaceClient shall monitor for events that will cause LiftgateReleaseCounter_Rq to increment.

The LGSSInterfaceClient shall continue to publish 0 until an event causes LiftgateReleaseCounter_Rq to increment.

3.1.1.2.2 LGSS-REQ-332239/A-Valid Events

For a count event to be deemed valid, the LGSSInterfaceClient must first detect a “non-button press” before an actual “press.” Only then shall the LGSSInterfaceClient increment LiftgateReleaseCounter_Rq.

When powering back On from a reset, the LGSSInterfaceClient shall not increment LiftgateReleaseCounter_Rq if the first value it reads for the corresponding button is a “pressed” value. This is to avoid any possible “stuck button” error conditions.

Ex. If the interface is a manual switch that is pressed/not pressed, the module shall ensure that the switch is first not pressed, and then when it sees a pressed event, it shall increment the counter.

3.1.1.2.3 LGSS-REQ-332241/A-Voltage Range

The LGSSInterfaceClient shall not increment LiftgateReleaseCounter_Rq when voltage is out of range, even if an incrementing event occurs (refer to Ford Next Generation Infotainment Engineering Spec_VerX_SYNC4 for voltage requirements).

3.1.1.2.4 LGSS-REQ-332242/A-Bus Wakeup

The LGSSInterfaceClient shall wake CAN whenever LiftgateReleaseCounter_Rq has changed.

3.1.1.2.5 LGSS-REQ-332243/A-Bus Sleep Voting

The LGSSInterfaceClient is allowed to vote for CAN Sleep 5 seconds after the last change in LiftgateReleaseCounter_Rq, independent of the FNOS wakeup strategy.

3.1.1.2.6 LGSS-REQ-332244/A-Value Retention

The LGSSInterfaceClient shall retain the last transmitted value of LiftgateReleaseCounter_Rq through sleep/wake cycle.

3.1.1.3 LGSS-REQ-332245/B-LiftGate Release - User Input

When configured for Manual/Power LiftGate (see LGSS-REQ-477617-Back End Enclosure Type Configuration) or SplitGate for Low Trim or High Trim or High Trim w/o Hands Free (see LGSS-REQ-478025-Back End Enclosure Type Configuration - SplitGate) the LGSSInterfaceClient shall provide a user interface (button/graphic) to allow selection of the LiftGate Softswitch release button.

3.1.1.4 LGSS-REQ-332246/B-LiftGate Release - User Input Enable/Disable

The LGSSInterfaceClient shall enable/disable (show/hide, grey-out, etc.) the LiftGate Softswitch user interface (button/graphic) based on the following:

LockInhibit_St	CarMode_St	VehicleSpeed_St	IgnitionStatus_St	Delay_Accy	Transmission Type config.	GearLvrPos_D_Actl	LiftGate Softswitch User Interface
Inhibit	D/C	D/C	D/C	D/C	D/C	D/C	Disabled
No_Inhibit	Normal	Less than threshold in REQ-328540	OFF	ON	D/C	D/C	Enabled
No_Inhibit	Normal	Less than threshold in REQ-328540	ACC	D/C	D/C	D/C	Enabled
No_Inhibit	Normal	Less than threshold in REQ-328540	RUN or START	D/C	Automatic	Park	Enabled
No_Inhibit	Factory	D/C	D/C	D/C	D/C	D/C	Enabled
No_Inhibit	Transport	D/C	D/C	D/C	D/C	D/C	Disabled

*D/C – Don't Care

Note: Transmission Type config. = Manual will be considered at a later time. As of this SPSS release, the LGSSInterfaceClient shall not support this feature on a Manual Transmission vehicle.

3.1.1.5 LGSS-REQ-354975/B-LiftGate Ajar Status

The LGSSInterfaceClient shall display a graphic indicating the ajar (open/close) status of the LiftGate when configured Manual/Power LiftGate (see LGSS-REQ-477617-Back End Enclosure Type Configuration) or SplitGate as Low Trim or High Trim or High Trim w/o Hands Free (see LGSS-REQ-478025-Back End Enclosure Type Configuration - SplitGate).

The graphic shall be shown as such:

- When LiftgateAjar_St = "(0x0) Closed" the LiftGate shall be shown as Closed
- When LiftgateAjar_St = "(0x1) Open" the LiftGate shall be shown as Opened

If LiftgateAjar_St is not available on the bus or cannot be read, the LiftGate shall be shown as Closed.

3.1.1.6 LGSS-REQ-474677/A-LiftGate Position Status

As per "LGSS-REQ-354975-LiftGate Ajar Status" when LiftgateAjar_St = (0x1) Open the LGSSInterfaceClient shall monitor Liftgate_Position_St to display the actual position of the LiftGate.

3.1.1.7 LGSS-REQ-477817/A-Decklid/Trunk Ajar Status

The LGSSInterfaceClient shall display a graphic indicating the ajar (open/close) status of the Decklid/Trunk when configured for Decklid/Trunk (see LGSS-REQ-477617-Back End Enclosure Type Configuration / LGSS-REQ-478025-Back End Enclosure Type Configuration - SplitGate). The graphic shall be shown as such:

- When TrunkTailgateStatus = "(0x0) Closed" the Decklid/Trunk shall be shown as Closed
- When TrunkTailgateStatus = "(0x1) Ajar" the Decklid/Trunk shall be shown as Opened

If TrunkTailgateStatus is not available on the bus or cannot be read, the Decklid/Trunk shall be shown as Closed.

3.1.1.8 LGSS-REQ-479277/A-TailGate Ajar Status - SplitGate

The LGSSInterfaceClient shall display a graphic indicating the ajar (open/close) status of the TailGate when configured for SplitGate as Low Trim or High Trim or High Trim w/o Hands Free (see LGSS-REQ-478025-Back End Enclosure Type Configuration - SplitGate).

The graphic shall be shown as such:

- When TailgateAjar_St = "(0x0) Closed" the TailGate shall be shown as Closed
- When TailgateAjar_St = "(0x1) Ajar" the TailGate shall be shown as Opened

If TailgateAjar_St is not available on the bus or cannot be read, the LiftGate shall be shown as Closed.

3.1.2 Use Cases

3.1.2.1 LGSS-UC-REQ-323953/C-User selects Manual LiftGate Softswitch on LGSSInterfaceClient (switch enabled)

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON LiftGate Softswitch is Enabled Manual LiftGate is Closed
Scenario Description	The user selects the LiftGate softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer1 releases the Manual LiftGate LGSSInterfaceClient displays the LiftGate as Opened
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.2 LGSS-UC-REQ-323963/C-User selects Open Power LiftGate Softswitch on LGSSInterfaceClient (switch enabled)

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON LiftGate Softswitch is Enabled Power LiftGate is Closed
Scenario Description	The user selects the LiftGate softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 begins to open the Power LiftGate LGSSInterfaceClient displays the LiftGate as Opened
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.3 LGSS-UC-REQ-323974/C-User selects Close Power LiftGate Softswitch on LGSSInterfaceClient (switch enabled)

Actors	Vehicle Occupant

Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON LiftGate Softswitch is Enabled Power LiftGate is Open
Scenario Description	The user selects the LiftGate softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 begins to close the Power LiftGate LGSSInterfaceClient displays the LiftGate as Opened until it fully closes. When closed, the LGSSInterfaceClient displays the LiftGate as Closed.
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.4 LGSS-UC-REQ-323975/C-User selects Power LiftGate Softswitch on LGSSInterfaceClient while LiftGate in motion (switch enabled)

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON LiftGate Softswitch is Enabled Power LiftGate is in motion (opening/closing)
Scenario Description	The user selects the LiftGate softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 stops/pauses Power LiftGate operation/motion LGSSInterfaceClient displays the LiftGate as Opened
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.5 LGSS-UC-REQ-323954/A-User selects Manual/Power LiftGate Softswitch on LGSSInterfaceClient (switch disabled)

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON LiftGate Softswitch is Disabled
Scenario Description	The user selects the LiftGate softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSInterfaceClient indicates that the operation cannot be performed at this time
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.6 LGSS-UC-REQ-477837/A-User selects Manual LiftGate Only Softswitch on LGSSInterfaceClient - SplitGate

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as Low Trim or High Trim or High Trim w/o Hands Free LiftGate Only Softswitch is Enabled Manual LiftGate is Closed
Scenario Description	The user selects the LiftGate Only softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer1 releases the Manual LiftGate LGSSInterfaceClient displays the LiftGate as Opened
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.7 LGSS-UC-REQ-477838/A-User selects Open Power LiftGate Only Softswitch on LGSSInterfaceClient - SplitGate

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as Low Trim or High Trim or High Trim w/o Hands Free LiftGate Only Softswitch is Enabled Power LiftGate is Closed or Lower Unlatched Tailgate is Open or Closed
Scenario Description	The user selects the LiftGate Only softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 begins to open the Power LiftGate LGSSInterfaceClient displays the LiftGate as Opened
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.8 LGSS-UC-REQ-477839/A-User selects Close Power LiftGate Only Softswitch on LGSSInterfaceClient when TailGate is Closed - SplitGate

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as Low Trim or High Trim or High Trim w/o Hands Free

	LiftGate Only Softswitch is Enabled Power LiftGate is Open Tailgate is Closed
Scenario Description	The user selects the LiftGate Only softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 begins to close the Power LiftGate LGSSInterfaceClient displays the LiftGate as Opened until it fully closes. When closed, the LGSSInterfaceClient displays the LiftGate as Closed.
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.9 LGSS-UC-REQ-474707/A-User selects Close Power LiftGate Only Softswitch on LGSSInterfaceClient when Tailgate is Open - SplitGate Low Trim

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as Low Trim LiftGate Only Softswitch is Enabled Power LiftGate is Open Tailgate is Open
Scenario Description	The user selects the LiftGate Only softswitch on the LGSSInterfaceClient
Post-conditions	LGSSInterfaceClient sends request to LGSSServer1 LGSSServer2 notifies customer that Liftgate cannot be closed while Tailgate it open LGSSInterfaceClient displays the LiftGate as Opened
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.10 LGSS-UC-REQ-474708/A-User selects Close Power LiftGate Only Softswitch on LGSSInterfaceClient when Tailgate is Open - SplitGate High Trims

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as High Trim or High Trim w/o Hands Free LiftGate Only Softswitch is Enabled Power LiftGate is Open Power Tailgate is Open
Scenario Description	The user selects the LiftGate Only softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 begins to close both LiftGate and TailGate LGSSInterfaceClient displays the LiftGate and TailGate as Closed

List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.11 LGSS-UC-REQ-477840/A-User selects Power LiftGate Only Softswitch on LGSSInterfaceClient while LiftGate in motion - SplitGate

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as Low Trim or High Trim or High Trim w/o Hands Free LiftGate Softswitch is Enabled Power LiftGate is in motion (opening/closing)
Scenario Description	The user selects the LiftGate Only softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 stops/pauses Power LiftGate operation/motion LGSSInterfaceClient displays the LiftGate as Opened or current position
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.2.12 LGSS-UC-REQ-477841/A-User selects Power LiftGate Only Softswitch on LGSSInterfaceClient while LiftGate and TailGate in motion - SplitGate

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as High Trim or High Trim w/o Hands Free LiftGate Softswitch is Enabled Power LiftGate is in motion (opening/closing) Power TailGate is in motion (opening/closing)
Scenario Description	The user selects the LiftGate Only softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 stops/pauses Power LiftGate and Power TailGate operation/motion LGSSInterfaceClient displays the LiftGate and TailGate as Opened or current position
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

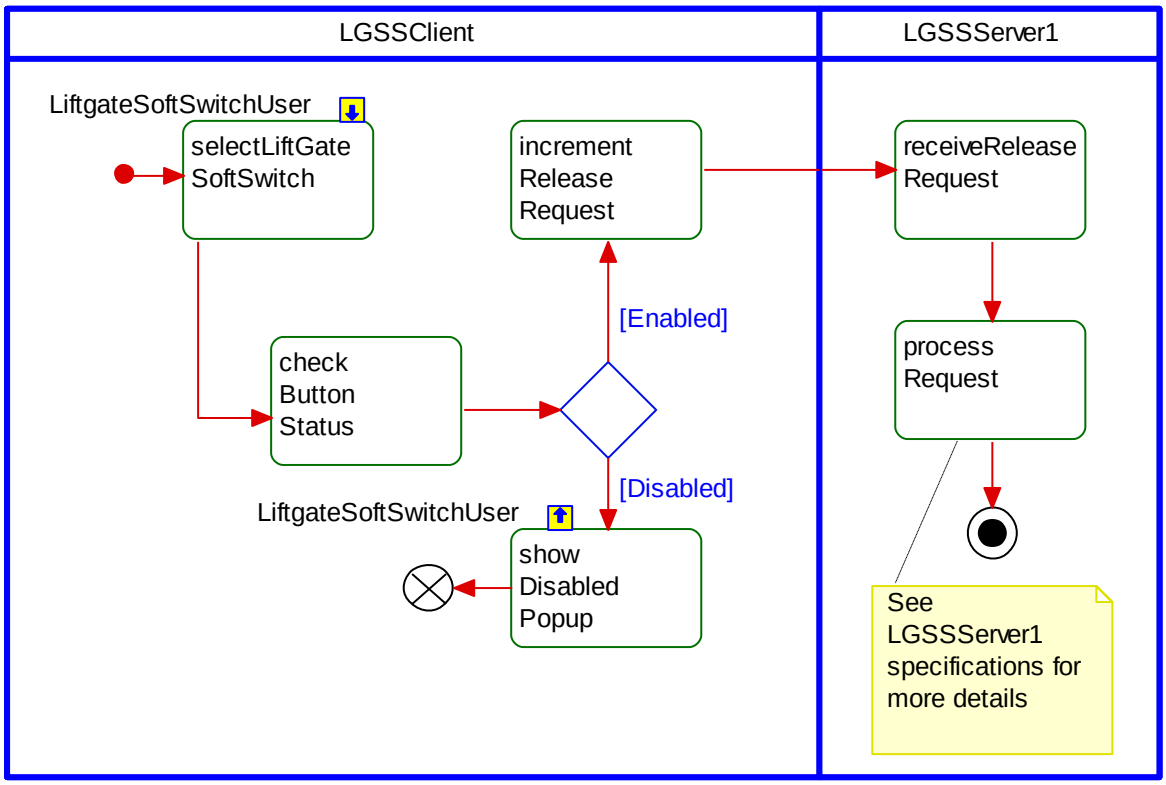
3.1.2.13 LGSS-UC-REQ-477842/A-User selects Manual/Power LiftGate Only Softswitch on LGSSInterfaceClient (switch disabled) - SplitGate

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as High Trim or High Trim w/o Hands Free LiftGate Only Softswitch is Disabled
Scenario Description	The user selects the LiftGate Only softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSInterfaceClient indicates that the operation cannot be performed at this time
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.1.3 White Box View

3.1.3.1 Activity Diagrams

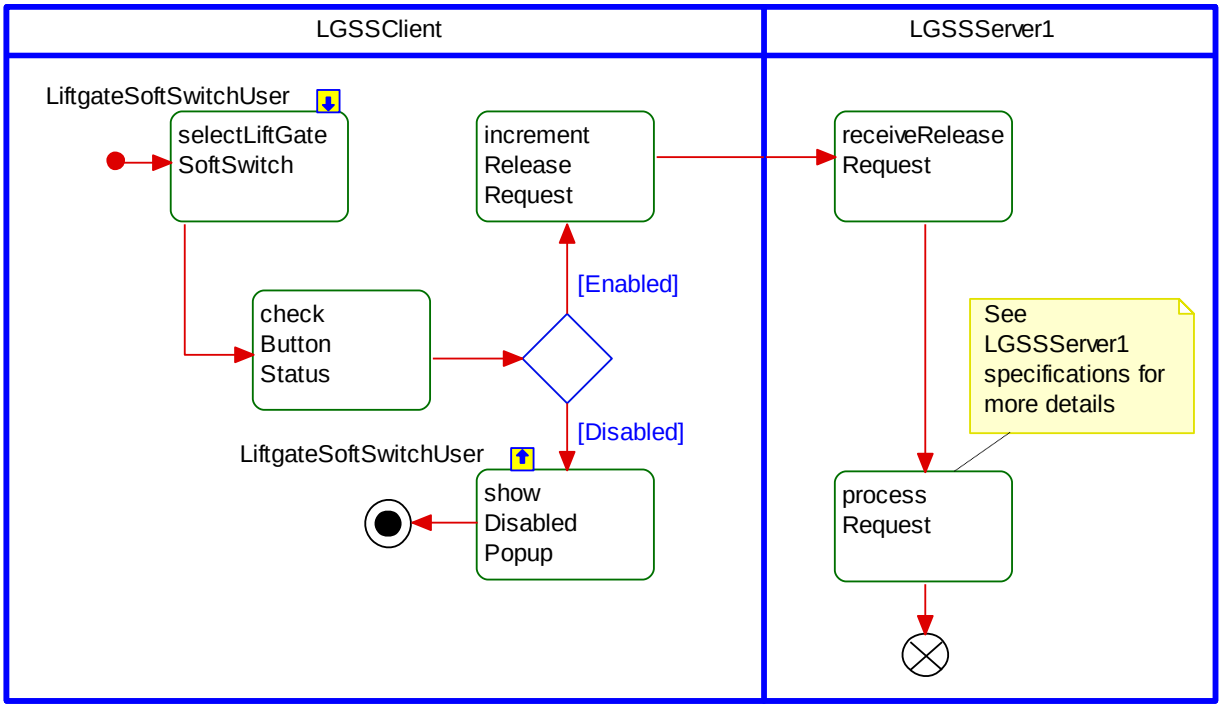
3.1.3.1.1 LGSS-ACT-REQ-333006/A-User Selects Manual LiftGate Softswitch On LGSSInterfaceClient Activity Diagram



Note: This is applicable for “LiftGate Only” softswitch as well when vehicle configured for Splitgate as Low Trim or High Trim or High Trim w/o Hands Free (see LGSS-REQ-478025-Back End Enclosure Type Configuration - SplitGate).

3.1.3.1.2 LGSS-ACT-REQ-333020/B-User Selects Power LiftGate Softswitch On LGSSInterfaceClient

Activity Diagram



Note: This is applicable for “LiftGate Only” softswitch as well when vehicle configured for Splitgate as Low Trim or High Trim or High Trim w/o Hands Free (see LGSS-REQ-478025-Back End Enclosure Type Configuration - SplitGate).

3.1.3.2 Sequence Diagrams

3.1.3.2.1 LGSS-SD-REQ-333007/B-User Selects Manual LiftGate Softswitch On LGSSInterfaceClient

Constraints

Pre-Condition

Powermode Conditions are met
LGSSInterfaceClient is ON
LiftGate Softswitch is Enabled
Manual LiftGate is Closed

Scenarios

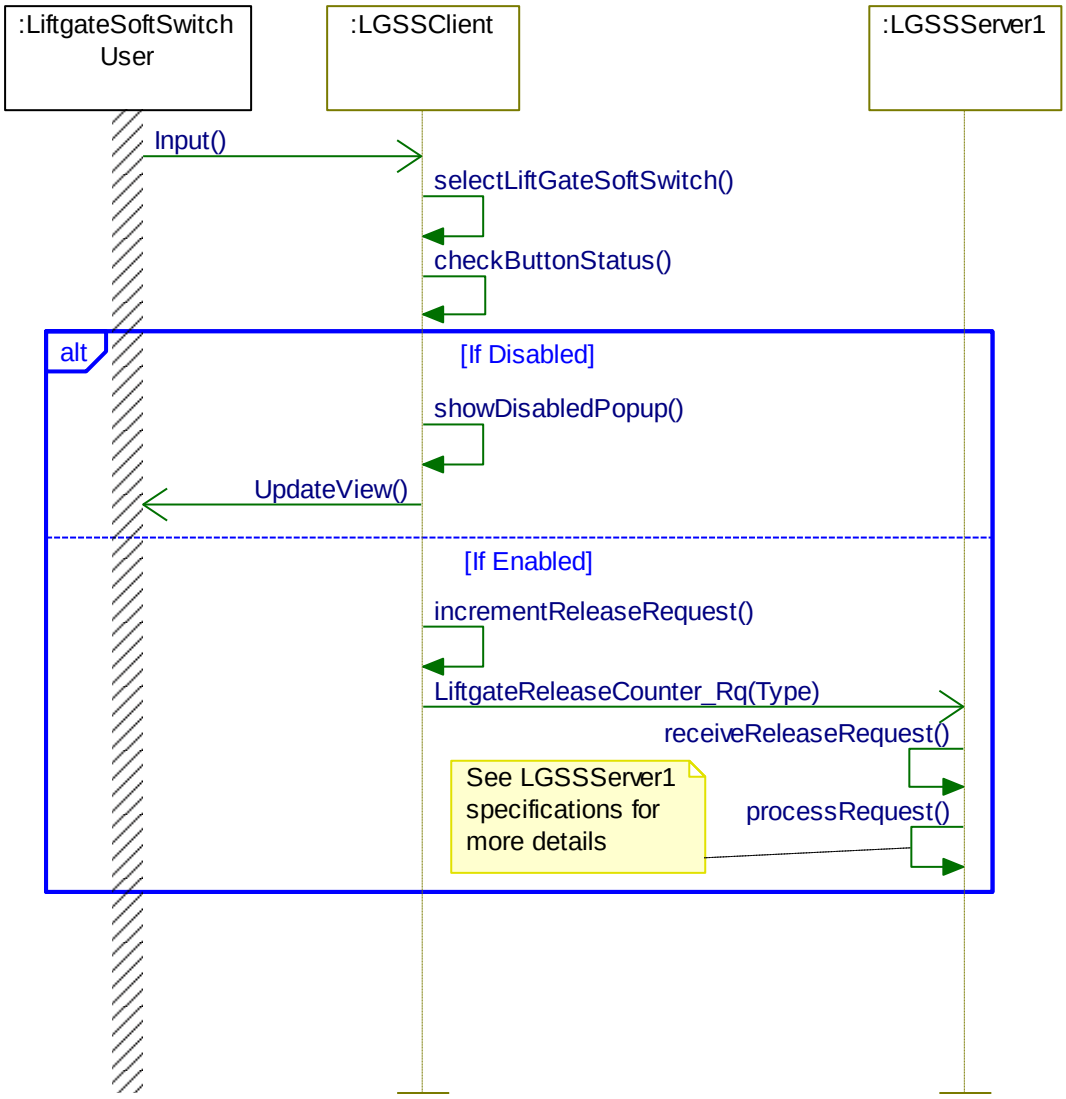
Normal Usage

The user selects the LiftGate softswitch on the LGSSInterfaceClient

Post-Condition

The LGSSServer1 releases the Manual LiftGate

Sequence Diagram



Note: This is applicable for “LiftGate Only” softswitch as well when vehicle configured for Splitgate as Low Trim or High Trim or High Trim w/o Hands Free (see LGSS-REQ-478025-Back End Enclosure Type Configuration - SplitGate).

3.1.3.2.2 LGSS-SD-REQ-333021/B-User Selects Power LiftGate Softswitch On LGSSInterfaceClient

Constraints

Pre-Condition

Powermode Conditions are met
LGSSInterfaceClient is ON
LiftGate Softswitch is Enabled
Power LiftGate is Closed

Scenarios

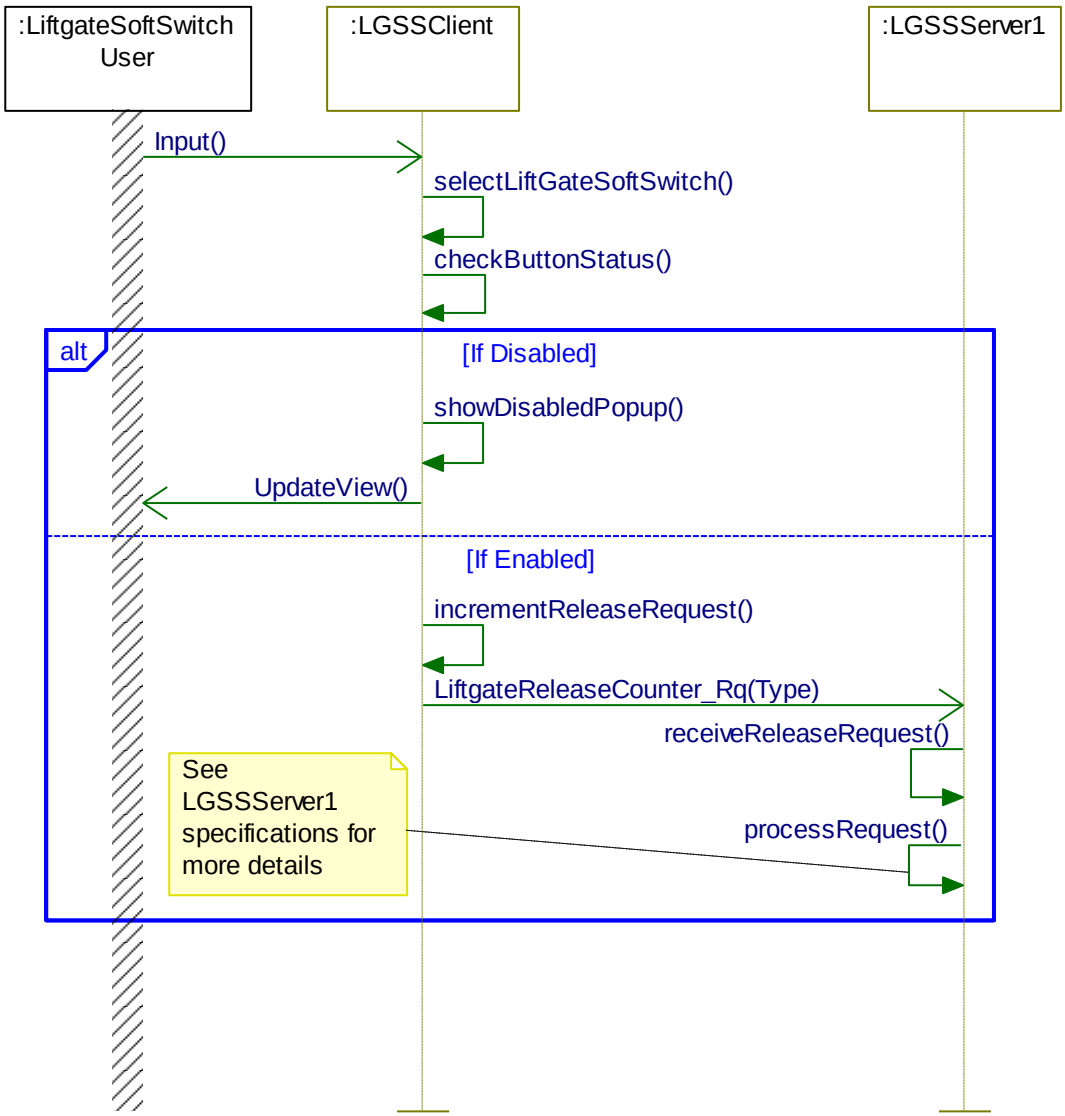
Normal Usage

The user selects the LiftGate softswitch on the LGSSInterfaceClient

Post-Condition

The LGSSServer2 begins to open the Power LiftGate

Sequence Diagram



Note: This is applicable for “LiftGate Only” softswitch as well when vehicle configured for Splitgate as Low Trim or High Trim or High Trim w/o Hands Free (see LGSS-REQ-478025-Back End Enclosure Type Configuration - SplitGate).

3.2 LGSS-FUN-REQ-474717/A-Manual/Power LiftGate + TailGate Softswitch

3.2.1 Requirements

3.2.1.1 LGSS-REQ-474718/A-SplitGate Release - Interface Client Request

When the LiftGate + TailGate Release is selected by the user via HMI, the LGSSInterfaceClient shall increment the event counter SplitgateReleaseCounter_Rq by a value of 1.

When SplitgateReleaseCounter_Rq reaches a count value of 6, the next increment shall reset the counter to a value of 1. The count value of 0 is reserved, and shall not be used in the increment operation of this counter.

3.2.1.2 Event Counter Requirements_Splitgate Release Counter

3.2.1.2.1 LGSS-REQ-474737/A-Initial Value_Splitgate Release Counter

When the LGSSInterfaceClient resets, it shall initialize and publish SplitgateReleaseCounter_Rq = 0.

Immediately following a reset, the LGSSInterfaceClient shall monitor for events that will cause SplitgateReleaseCounter_Rq to increment.

The LGSSInterfaceClient shall continue to publish 0 until an event causes SplitgateReleaseCounter_Rq to increment.

3.2.1.2.2 LGSS-REQ-474738/A-Valid Events_Splitgate Release Counter

For a count event to be deemed valid, the LGSSInterfaceClient must first detect a “non-button press” before an actual “press.” Only then shall the LGSSInterfaceClient increment SplitgateReleaseCounter_Rq.

When powering back On from a reset, the LGSSInterfaceClient shall not increment SplitgateReleaseCounter_Rq if the first value it reads for the corresponding button is a “pressed” value. This is to avoid any possible “stuck button” error conditions.

Ex. If the interface is a manual switch that is pressed/not pressed, the module shall ensure that the switch is first not pressed, and then when it sees a pressed event, it shall increment the counter.

3.2.1.2.3 LGSS-REQ-474739/A-Voltage Range_Splitgate Release Counter

The LGSSInterfaceClient shall not increment SplitgateReleaseCounter_Rq when voltage is out of range, even if an incrementing event occurs (refer to Ford Next Generation Infotainment Engineering Spec_VerX_SYNC4 for voltage requirements).

3.2.1.2.4 LGSS-REQ-474740/A-Bus Wakeup_Splitgate Release Counter

The LGSSInterfaceClient shall wake CAN whenever SplitgateReleaseCounter_Rq has changed.

3.2.1.2.5 LGSS-REQ-474741/A-Bus Sleep Voting_Splitgate Release Counter

The LGSSInterfaceClient is allowed to vote for CAN Sleep 5 seconds after the last change in SplitgateReleaseCounter_Rq, independent of the FNOS wakeup strategy.

3.2.1.2.6 LGSS-REQ-474742/A-Value Retention_Splitgate Release Counter

The LGSSInterfaceClient shall retain the last transmitted value of SplitgateReleaseCounter_Rq through sleep/wake cycle.

3.2.1.3 LGSS-REQ-474743/A-SplitGate Release - User Input

When configured for SplitGate as High Trim or High Trim w/o Hands Free (see LGSS-REQ-478025-Back End Enclosure Type Configuration - SplitGate) the LGSSInterfaceClient shall provide a user interface (button/graphic) to allow selection of the LiftGate Only and LiftGate + TailGate Softswitch release buttons.

Note: For LiftGate Only button refer to LGSS-REQ-332245-LiftGate Release - User Input

3.2.1.4 LGSS-REQ-474744/A-SplitGate Release - User Input Enable/Disable

The LGSSInterfaceClient shall enable/disable (show/hide, grey-out, etc.) the LiftGate + TailGate Softswitch user interface (button/graphic) based on the following:

LockInhibit_St	CarMode_St	VehicleSpeed_St	IgnitionStatus_St	Delay_Accy	Transmission Type config.	GearLvrPos_D_Actl	LiftGate + TailGate Softswitch User Interface
Inhibit	D/C	D/C	D/C	D/C	D/C	D/C	Disabled
No_Inhibit	Normal	Less than threshold in REQ-328540	OFF	ON	D/C	D/C	Enabled
No_Inhibit	Normal	Less than threshold in REQ-328540	ACC	D/C	D/C	D/C	Enabled
No_Inhibit	Normal	Less than threshold in REQ-328540	RUN or START	D/C	Automatic	Park	Enabled
No_Inhibit	Factory	D/C	D/C	D/C	D/C	D/C	Enabled
No_Inhibit	Transport	D/C	D/C	D/C	D/C	D/C	Disabled

*D/C – Don't Care

Note: Transmission Type config. = Manual will be considered at a later time. As of this SPSS release, the LGSSInterfaceClient shall not support this feature on a Manual Transmission vehicle.

3.2.1.5 LGSS-REQ-474745/A-SplitGate Position Status

The LGSSInterfaceClient shall display a graphic indicating the actual position of the LiftGate and TailGate.

Refer section LGSS-REQ-474677-LiftGate Position Status for LiftGate position graphic details.

As per "LGSS-REQ-479277-TailGate Ajar Status - SplitGate" when TailgateAjar_St = (0x1) Ajar the LGSSInterfaceClient shall monitor the TailGate Position Status signal "Tailgate_Position_St " to display actual position of TailGate.

3.2.2 Use Cases

3.2.2.1 LGSS-UC-REQ-474709/A-User selects Manual LiftGate + TailGate Softswitch on LGSSInterfaceClient (switch enabled)

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as High Trim or High Trim w/o Hands Free LiftGate + TailGate Softswitch is Enabled Manual LiftGate and TailGate are Closed
Scenario Description	The user selects the LiftGate + TailGate softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer1 releases the Manual LiftGate LGSSInterfaceClient displays the LiftGate as Opened

List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.2.2.2 LGSS-UC-REQ-474710/A-User presses LiftGate + TailGate Softswitch on LGSSInterfaceClient while Liftgate is Closed and TailGate is Closed

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle Configured for SplitGate as High Trim or High Trim w/o Hands Free LiftGate + TailGate Softswitch is Enabled Power LiftGate is Closed or Lower-Unlatched Power TailGate is Closed
Scenario Description	The user selects the LiftGate + TailGate Softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 begins to open the Power LiftGate and Power TailGate LGSSInterfaceClient displays the LiftGate and Tailgate as Opened
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.2.2.3 LGSS-UC-REQ-474711/A-User presses LiftGate + TailGate Softswitch on LGSSInterfaceClient while LiftGate is Lower-Unlatched and TailGate is Open

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle Configured for SplitGate as High Trim or High Trim w/o Hands Free LiftGate + TailGate Softswitch is Enabled Power LiftGate is Lower-Unlatched Power TailGate is Open
Scenario Description	The user selects the LiftGate + TailGate Softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 begins to open the Power LiftGate LGSSInterfaceClient displays the LiftGate and TailGate as Opened
List of Exception Use Cases	

Interfaces	LGSSInterfaceClient CAN, G-HMI

3.2.2.4 LGSS-UC-REQ-474712/A-User presses LiftGate + TailGate Softswitch on LGSSInterfaceClient while LiftGate is Open and TailGate is Closed

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle Configured for SplitGate as High Trim or High Trim w/o Hands Free LiftGate + TailGate Softswitch is Enabled Power LiftGate is Open Power TailGate is Closed
Scenario Description	The user selects the LiftGate + TailGate Softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 begins to Open the Power TailGate LGSSInterfaceClient displays the LiftGate and TailGate as Open
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.2.2.5 LGSS-UC-REQ-474713/A-User presses LiftGate + TailGate Softswitch on LGSSInterfaceClient while LiftGate and TailGate are Open

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle Configured for SplitGate as High Trim or High Trim w/o Hands Free LiftGate + TailGate Softswitch is Enabled Power LiftGate is Open Power TailGate is Open
Scenario Description	The user selects the LiftGate + TailGate Softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 begins to Close the Power LiftGate and Power TailGate LGSSInterfaceClient displays the LiftGate and TailGate as Closed
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient

	CAN, G-HMI

3.2.2.6 LGSS-UC-REQ-474714/A-User selects Power LiftGate + TailGate Softswitch on LGSSInterfaceClient while LiftGate and/or TailGate in motion

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as High Trim or High Trim w/o Hands Free LiftGate + TailGate Softswitch is Enabled Power LiftGate and/or Power TailGate is in motion (opening/closing)
Scenario Description	The user selects the LiftGate + TailGate softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSServer2 stops/pauses Power LiftGate and/or Power TailGate operation/motion LGSSInterfaceClient displays the LiftGate and TailGate as Opened or current position
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

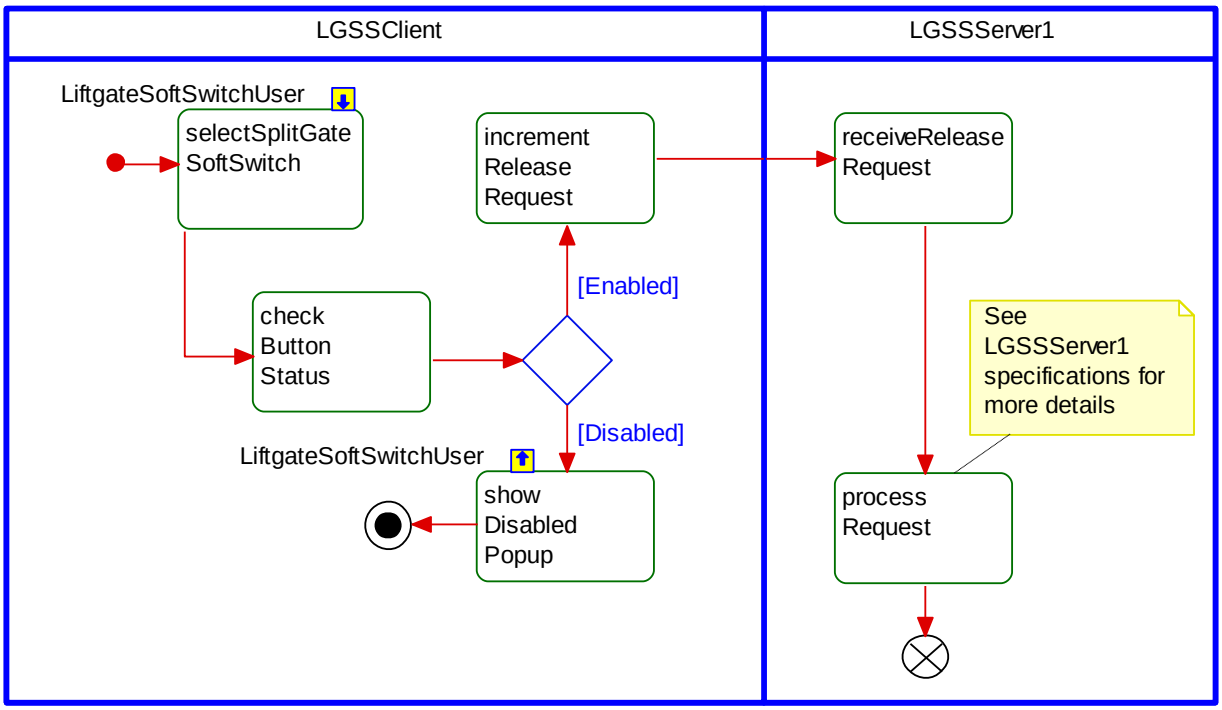
3.2.2.7 LGSS-UC-REQ-474715/A-User selects Manual/Power LiftGate + TailGate Softswitch on LGSSInterfaceClient (switch disabled)

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as High Trim or High Trim w/o Hands Free LiftGate + TailGate Softswitch is Disabled
Scenario Description	The user selects the LiftGate + TailGate softswitch on the LGSSInterfaceClient
Post-conditions	The LGSSInterfaceClient indicates that the operation cannot be performed at this time
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

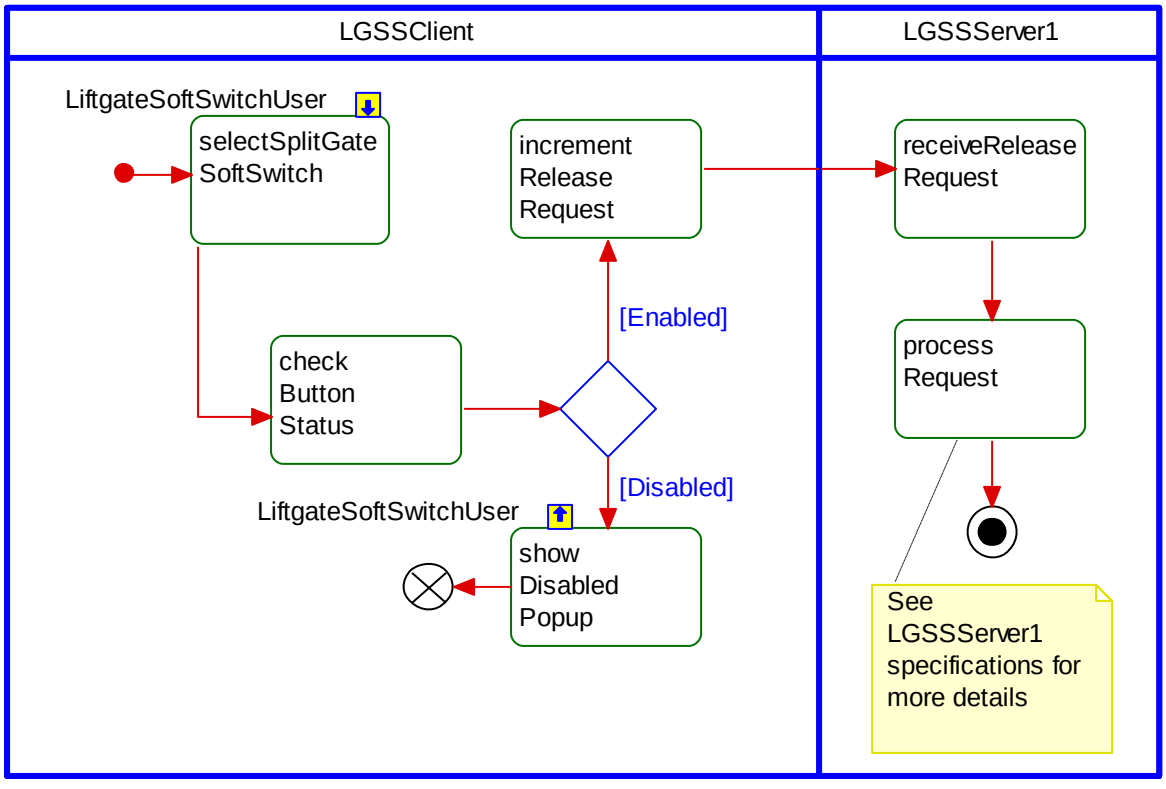
3.2.3 White Box Views

3.2.3.1 Activity Diagrams

3.2.3.1.1 LGSS-ACT-REQ-474659/A-User Selects Power LiftGate + TailGate Softswitch On LGSSInterfaceClient



3.2.3.1.2 LGSS-ACT-REQ-474657/A-User Selects Manual LiftGate + TailGate Softswitch On LGSSInterfaceClient



3.2.3.2 Sequence Diagrams

3.2.3.2.1 LGSS-SD-REQ-474658/A-User Selects Manual LiftGate + TailGate Softswitch On LGSSInterfaceClient

Constraints

Pre-Condition

Powermode Conditions are met
LGSSInterfaceClient is ON
“LiftGate + TailGate” Softswitch is Enabled
Manual LiftGate and TailGate are Closed

Scenarios

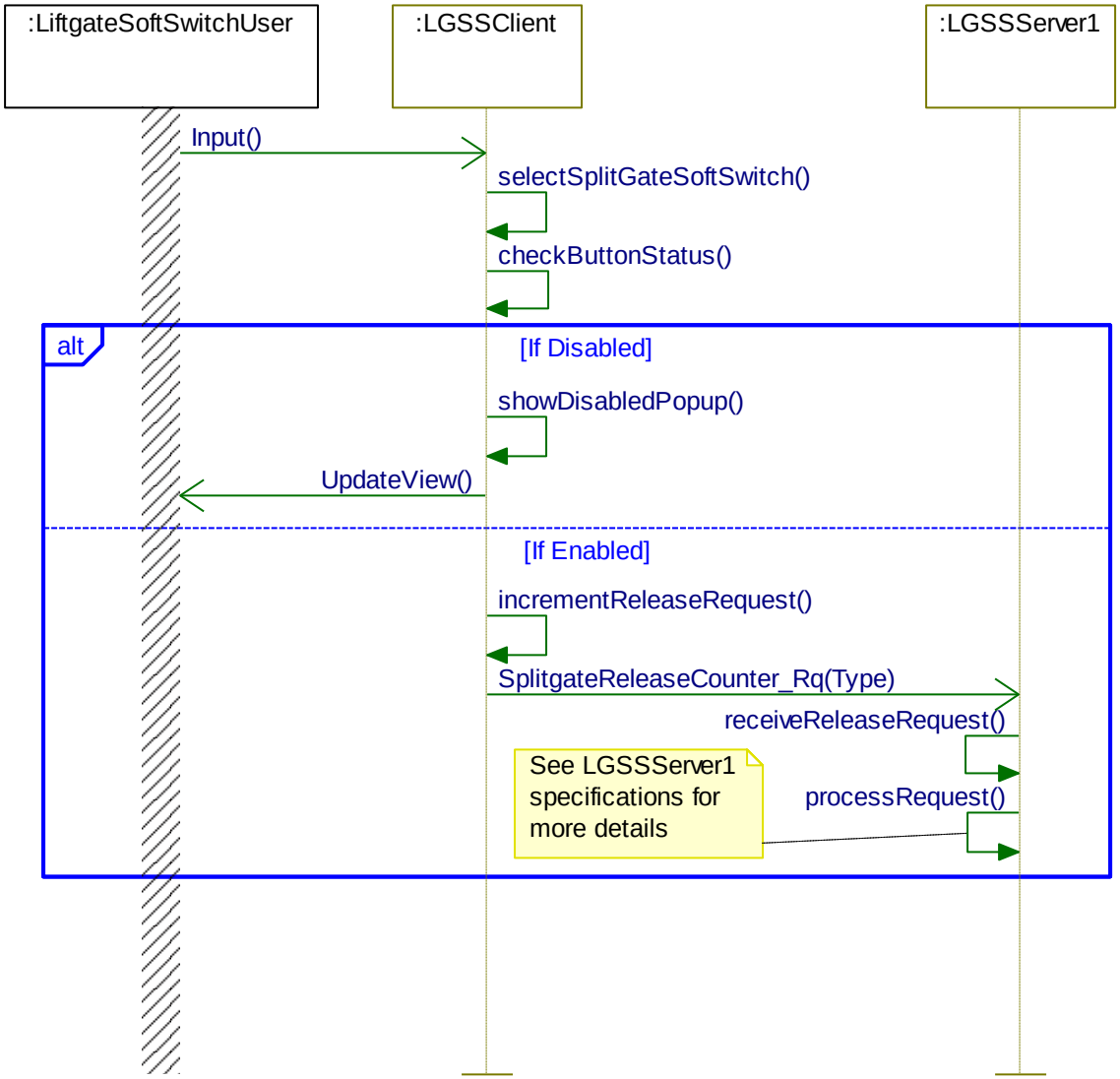
Normal Usage

The user selects the “LiftGate + TailGate” softswitch on the LGSSInterfaceClient

Post-Condition

The LGSSServer1 releases the Manual LiftGate

Sequence Diagram



3.2.3.2.2 LGSS-SD-REQ-474661/A-User Selects Power LiftGate + TailGate Softswitch On LGSSInterfaceClient

Constraints

Pre-Condition

Powermode Conditions are met
LGSSInterfaceClient is ON
"LiftGate + TailGate" Softswitch is Enabled
Power LiftGate and TailGate are Closed

Scenarios

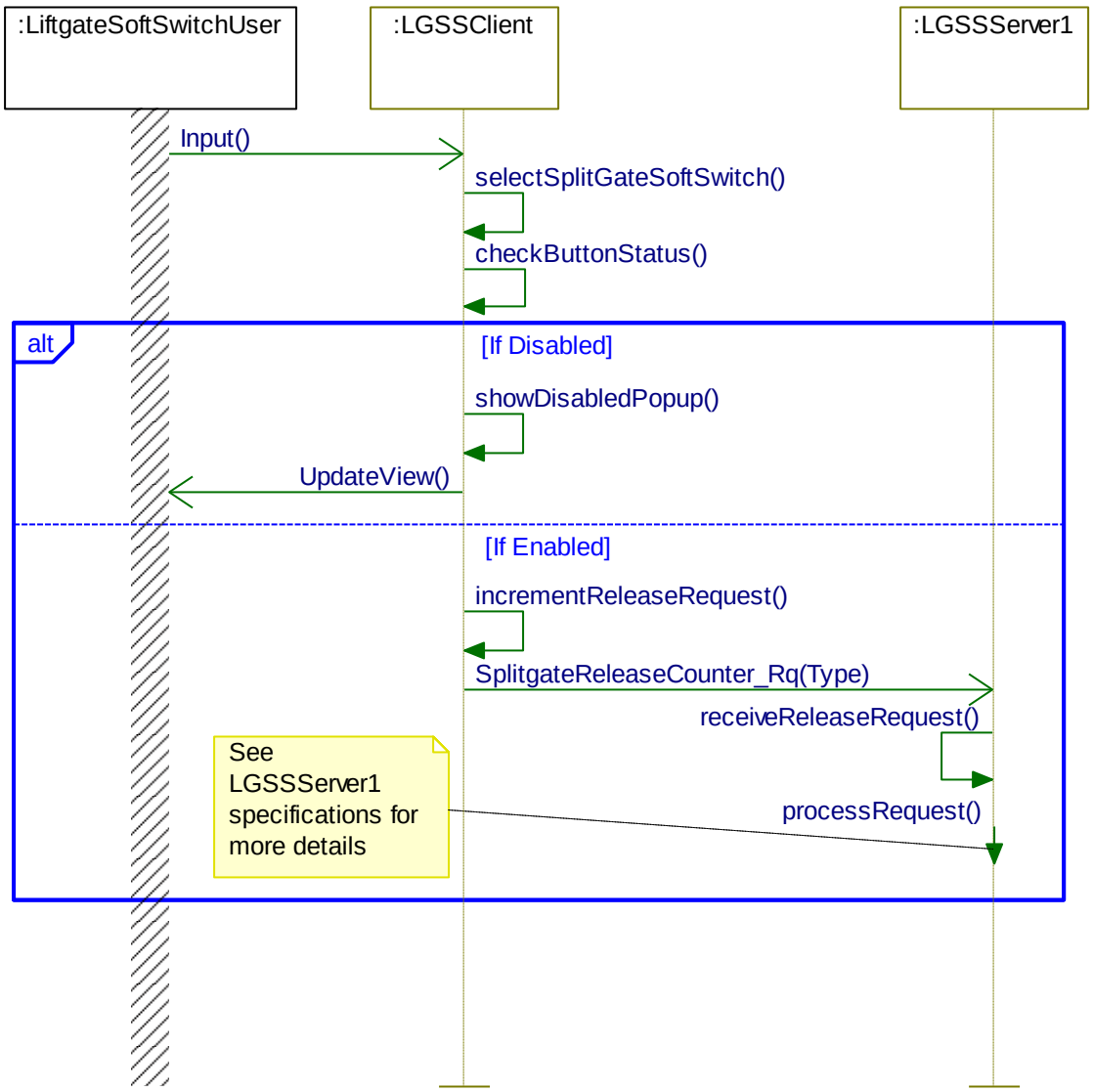
Normal Usage

The user selects the "LiftGate + TailGate" softswitch on the LGSSInterfaceClient

Post-Condition

The LGSSServer2 begins to open the Power LiftGate and TailGate

Sequence Diagram



3.3 LGSS-FUN-REQ-474722/A-SplitGate Remote Operation Configuration Setting

3.3.1 Requirements

3.3.1.1 LGSS-REQ-474747/A-SplitGate Remote Operation Configuration Setting - User Input

The LGSSInterfaceClient shall provide a user interface (button/graphic) to toggle Remote Operation Configuration setting between LiftGate Only vs LiftGate + TailGate.

3.3.1.2 LGSS-REQ-479297/A-SplitGate Remote Operation Configuration Setting - User Input Enable/Disable

The LGSSInterfaceClient shall enable/disable (show/hide, grey-out, etc.) the SplitGate Remote Operation Configuration setting user interface (button/graphic) based on the following:

- If IgnitionStatus_St = (0x4) Run, (0x8) Start, or (0x2) Accessory, the above shall be enabled
- If IgnitionStatus_St != (0x4) Run, (0x8) Start, or (0x2) Accessory, the above shall be disabled (greyed-out, hidden, etc.)
- IgnitionStatus_St = (0x0) Off and Delay_Accy = (0x1) On, the above shall be enabled
- IgnitionStatus_St = (0x0) Off and Delay_Accy = (0x0) Off, the above shall be disabled (greyed-out, hidden, etc.)
- If the DTC defined by REQ-479237 is active, the above shall be disabled (greyed-out, hidden, etc.)

For the Vehicle Settings HMI location, there may be additional restrictions that prevent its usage even further (ex. restricting access to IgnitionStatus_St = (0x4) Run). However, all other interfaces (ex. the notification/popup) shall remain accessible.

3.3.1.3 LGSS-REQ-474723/A-SplitGate Remote Operation Configuration Setting - Interface Client Request

The LGSSInterfaceClient shall set and send Splitgate_Remote_Oper_Rq to the LGSSServer2 with the following values:

- Splitgate_Remote_Oper_Rq = 0x0 (Disabled); when the user selects the RKE/hands free to control “LiftGate only”
- Splitgate_Remote_Oper_Rq = 0x1 (Enabled); when the user selects the RKE/hands free to control “LiftGate + TailGate”

3.3.1.4 LGSS-REQ-474746/A-SplitGate Remote Operation Configuration Setting - Server Response

The LGSSInterfaceClient shall monitor Splitgate_Remote_Oper_St from the LGSSServer2 for the active RKE/hands free configuration setting status.

- When Splitgate_Remote_Oper_St = 0x0 (Disabled) is received, the LGSSInterfaceClient shall reflect that “LiftGate Only” is selected to the user
- When Splitgate_Remote_Oper_St = 0x1 (Enabled) is received, the LGSSInterfaceClient shall reflect that “LiftGate + TailGate” is selected to the user

3.3.1.5 LGSS-REQ-479357/A-SplitGate Remote Operation Configuration Setting - Startup/Shutdown

Upon system shutdown, the LGSSInterfaceClient shall store the last received value of Splitgate_Remote_Oper_St from the LGSSServer2 and shall display the stored value at system startup until Splitgate_Remote_Oper_St is received from the LGSSServer2.

Upon system shutdown, the LGSSInterfaceClient shall store the last transmitted value of Splitgate_Remote_Oper_Rq and shall continue to transmit the stored value again at system startup.

3.3.2 Use Cases

3.3.2.1 LGSS-UC-REQ-474716/A-User Enable SplitGate Remote Operation Configuration Setting On LGSSInterfaceClient

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as High Trim or High Trim w/o Hands Free

	SplitGate Remote Operation Configuration setting is set to “LiftGate Only” (Disable)
Scenario Description	The user accesses the SplitGate Remote Operation Configuration setting menu on the LGSSInterfaceClient and selects “LiftGate + TailGate” (Enable)
Post-conditions	• The LGSSServer2 updates the SplitGate Remote Operation Configuration setting to “LiftGate + TailGate” (Enable) • The LGSSInterfaceClient updates its HMI to reflect “LiftGate + TailGate” (Enable) is active
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

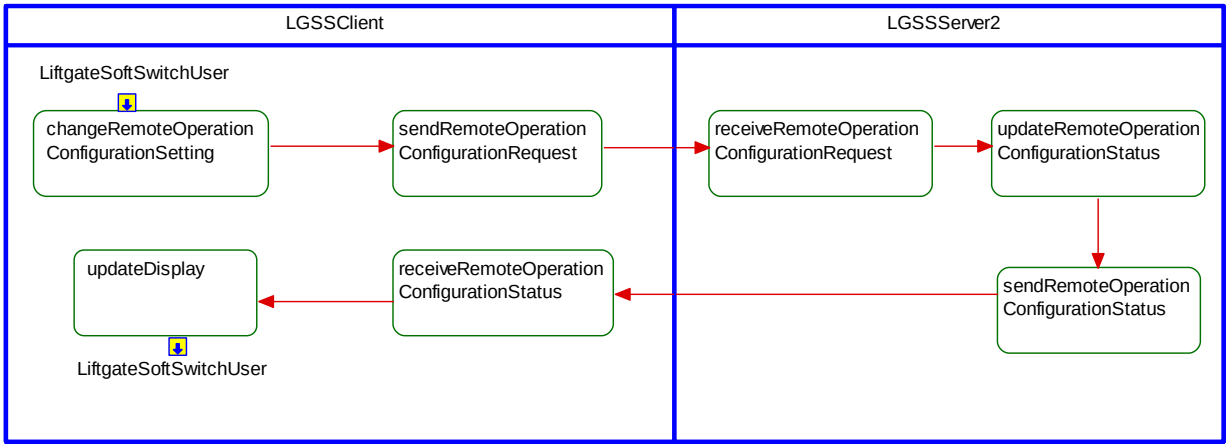
3.3.2.2 LGSS-UC-REQ-479317/A-User Disable SplitGate Remote Operation Configuration Setting On LGSSInterfaceClient

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Vehicle configured for SplitGate as High Trim or High Trim w/o Hands Free SplitGate Remote Operation Configuration setting is set to “LiftGate + TailGate” (Enable)
Scenario Description	The user accesses the SplitGate Remote Operation Configuration setting menu on the LGSSInterfaceClient and selects “LiftGate Only” (Disable)
Post-conditions	• The LGSSServer2 updates the SplitGate Remote Operation Configuration setting to “LiftGate Only” (Disable) • The LGSSInterfaceClient updates its HMI to reflect “LiftGate Only” (Disable) is active
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.3.3 White Box Views

3.3.3.1 Activity Diagrams

3.3.3.1.1 LGSS-ACT-REQ-474662/A-User Selects Remote Operation Configuration Setting On LGSSInterfaceClient



3.3.3.2 Sequence Diagrams

3.3.3.2.1 LGSS-SD-REQ-474663/A-User Selects Remote Operation Configuration Setting On LGSSInterfaceClient

Constraints

Pre-Condition

Powermode Conditions are met

LGSSInterfaceClient is ON

Scenarios

Normal Usage

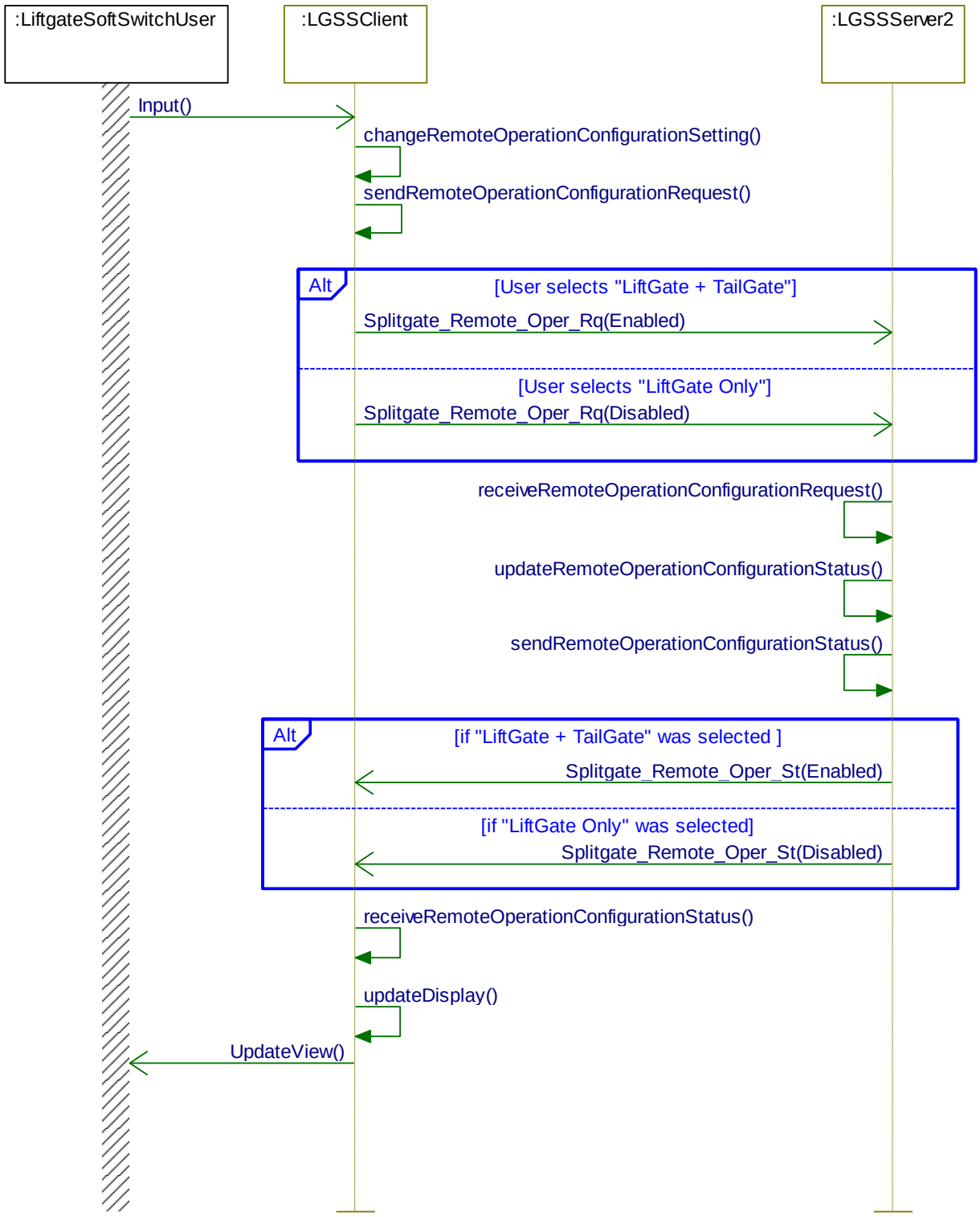
The user accesses the SplitGate Remote Operation Configuration Setting menu on the LGSSInterfaceClient and selects LiftGate+TailGate/LiftGate Only (Enabled/Disabled).

Post-Condition

The LGSSServer2 updates the SplitGate Remote Operation Configuration Setting accordingly

The LGSSInterfaceClient updates its HMI to reflect active state

Sequence Diagram



3.4 LGSS-FUN-REQ-479337/A-Enable/Disable Power SplitGate Feature

3.4.1 Requirements

3.4.1.1 LGSS-REQ-479338/A-Power SplitGate Setting - User Input

The LGSSInterfaceClient shall provide a user interface (button/graphic) to toggle SplitGate setting between power vs manual operation.

3.4.1.2 LGSS-REQ-479339/A-Power SplitGate Setting - User Input Enable/Disable

The LGSSInterfaceClient shall enable/disable (show/hide, grey-out, etc.) the Power SplitGate feature setting user interface (button/graphic) based on the following:

- If IgnitionStatus_St = (0x4) Run, (0x8) Start, or (0x2) Accessory, the above shall be enabled
- If IgnitionStatus_St != (0x4) Run, (0x8) Start, or (0x2) Accessory, the above shall be disabled (greyed-out, hidden, etc.)
- IgnitionStatus_St = (0x0) Off and Delay_Accy = (0x1) On, the above shall be enabled
- IgnitionStatus_St = (0x0) Off and Delay_Accy = (0x0) Off, the above shall be disabled (greyed-out, hidden, etc.)
- If the DTC defined by REQ-479237 is active, the above shall be disabled (greyed-out, hidden, etc.)

For the Vehicle Settings HMI location, there may be additional restrictions that prevent its usage even further (ex. restricting access to IgnitionStatus_St = (0x4) Run). However, all other interfaces (ex. the notification/popup) shall remain accessible.

3.4.1.3 LGSS-REQ-479340/A-Power SplitGate Setting - Interface Client Request

The LGSSInterfaceClient shall set and send SplitGateEnable_Rq to the LGSSServer2 with the following values:

- SplitGateEnable_Rq = “(0x0) Disabled” when Off (Disabled, Manual, etc.) is selected by the user
- SplitGateEnable_Rq = “(0x1) Enabled” when On (Enabled, Power, etc.) is selected by the user

To ensure the feature is enabled and available to the customer upon vehicle delivery, the LGSSInterfaceClient shall set and send SplitGateEnable_Rq = “(0x1) Enabled” to the LGSSServer2 by default (upon every battery connect, Master Reset, and local reset (Factory Mode -> Transport Mode -> Normal Mode/Customer Mode)).

3.4.1.4 LGSS-REQ-479341/A-Power SplitGate Setting - Server Response

The LGSSInterfaceClient shall monitor SplitGateEnable_St from the LGSSServer2 for the active Power SplitGate status.

- When SplitGateEnable_St = “(0x0) Disabled” is received, the LGSSInterfaceClient shall reflect that Off (Disabled, Manual, etc.) is selected to the user
- When SplitGateEnable_St = “(0x1) Enabled” is received, the LGSSInterfaceClient shall reflect that On (Enabled, Power, etc.) is selected to the user

3.4.1.5 LGSS-REQ-479358/A-Power SplitGate Setting - Startup/Shutdown

Upon system shutdown, the LGSSInterfaceClient shall store the last received value of SplitGateEnable_St from the LGSSServer2 and shall display the stored value at system startup until SplitGateEnable_St is received from the LGSSServer2.

Upon system shutdown, the LGSSInterfaceClient shall store the last transmitted value of SplitGateEnable_Rq and shall continue to transmit the stored value again at system startup.

3.4.2 Use Cases

3.4.2.1 LGSS-UC-REQ-479342/A-User Enable Power SplitGate Setting On LGSSInterfaceClient

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Power SplitGate feature is set to “Off” (Disabled, Manual, etc.)

Scenario Description	The user accesses the Power SplitGate menu on the LGSSInterfaceClient and selects On (Enabled, Power, etc.)
Post-conditions	• The LGSSServer2 updates the Power SplitGate feature to “On” (Enabled, Power, etc.) • The LGSSInterfaceClient updates its HMI to reflect “On” (Enabled, Power, etc.) is active
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

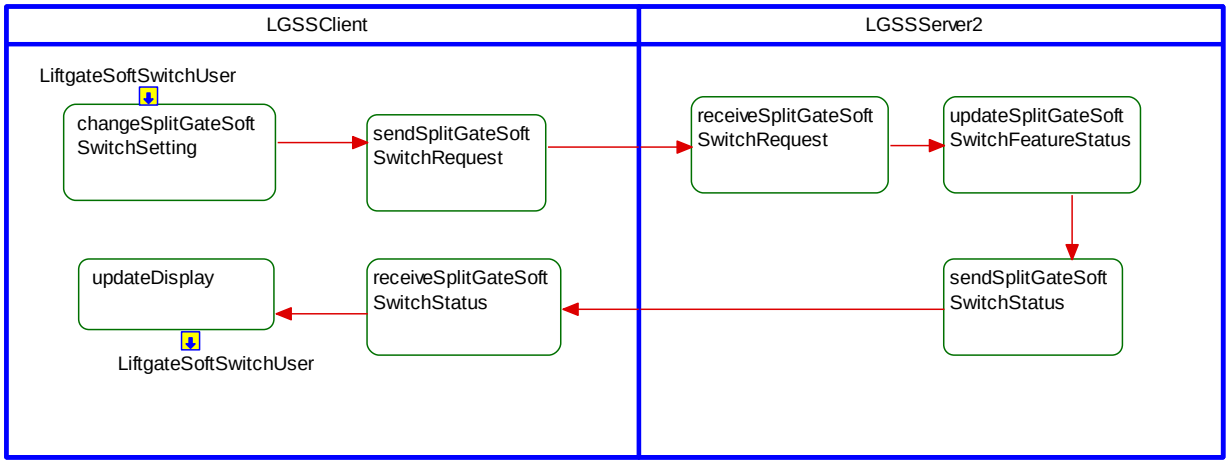
3.4.2.2 LGSS-UC-REQ-479343/A-User Disable Power SplitGate Setting On LGSSInterfaceClient

Actors	Vehicle Occupant
Pre-conditions	Powermode Conditions are met LGSSInterfaceClient is ON Power SplitGate feature is set to “On” (Enabled, Power, etc.)
Scenario Description	The user accesses the Power SplitGate menu on the LGSSInterfaceClient and selects “Off” (Disabled, Manual, etc.)
Post-conditions	• The LGSSServer2 updates the Power SplitGate feature to “Off” (Disabled, Manual, etc.) • The LGSSInterfaceClient updates its HMI to reflect “Off” (Disabled, Manual, etc.) is active
List of Exception Use Cases	
Interfaces	LGSSInterfaceClient CAN, G-HMI

3.4.3 White Box Views

3.4.3.1 Activity Diagrams

3.4.3.1.1 LGSS-ACT-REQ-479344/A-User Enables/Disables Power SplitGate Setting On LGSSInterfaceClient



3.4.3.2 Sequence Diagrams

3.4.3.2.1 LGSS-SD-REQ-479346/A-User Enables/Disables Power SplitGate Setting On LGSSInterfaceClient

Constraints

Pre-Condition

Powermode Conditions are met

LGSSInterfaceClient is ON

Scenarios

Normal Usage

The user accesses the Power SplitGate menu on the LGSSInterfaceClient and selects On or Off (Enabled/Disabled, Power/Manual, etc.).

Post-Condition

The LGSSServer2 updates the Power SplitGate feature accordingly

The LGSSInterfaceClient updates its HMI to reflect active state

Sequence Diagram

4 Appendix: Reference Documents

Reference #	Document Title
1	Infotainment Diagnostics Specification APIM Gen 4
2	Ford Next Generation Infotainment Engineering Spec_VerX_SYNC4
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	