FORD LDM Localization - 功能 #3019

功能 # 2519 (已关闭): Ford_SYSR: System Requirement

Ford_SYSR：Daytime Running Lamp (DRL)/Park Lamp Drive Mode Activation

2024-11-05 10:06 - 玉洁 金

状态:	已关闭	**开始日期:**	2024-11-05
优先级:	普通	**计划完成日期:**	2024-11-07
指派给:	玉洁 金	**% 完成:**	100%
类别:		**预期时间:**	0.00 小时
目标版本:	H003_SW0007169.A001.8	**耗时:**	0.00 小时

描述

REQ26
The module will be capable of determining DRL state by either BCM LIN or by BCM ‘ L/RF_DRL_LAMP_Ckt ’ direct wire.

When direct wire control is used the parameter “ DRL_POS_Trigger_DutyCycle_cfg ” will trigger the DRL to go into lower intensity mode referred to position function when the direct wire duty cycle falls below the configured value. Values range between 10-41%, 200Hz.

If BCM DRL direct wire duty cycle >= “ DRL_POS_TriggerDC_cfg ”, it should be ‘ DRL intensity ’.
If BCM DRL direct wire duty cycle < “ DRL_POS_TriggerDC_cfg ”, it should be POS intensity, which is configured by parameter ‘ ParkPos_Intensity_cfg ’.

NOTE1: Set ‘ DRL_POS_Trigger_DutyCycle_cfg ’ significantly higher/lower than BCM DRL direct wire duty cycle value to avoid the sampling error. For example: If BCM DRL direct wire duty cycle of POS is 10%, ‘ DRL_POS_Trigger_DutyCycle_cfg ’ should be at least 15%.

NOTE2: POS duty cycle cannot be below 5%. Lower values will be ignored and 5% will be used instead.
NOTE3: “ DRL_Intensity ” should be 100% as default value.
REQ27
The output of the dedicated LIN controlled DRL/Position function shall be determined based on the following LIN signals table. DRL request shall take a higher priority than Position request.

DRL_Rqst	Position_Park_Left_Cmd	Position_Park_Right_Cmd	Output Expectation
NULL	OFF	OFF	Both Off
NULL	OFF	ON	Left Off Right On with ‘ ParkPos_Intensity_cfg ’
NULL	ON	OFF	Left On with ‘ ParkPos_Intensity_cfg ’ Right Off
NULL	ON	ON	Both On with ‘ ParkPos_Intensity_cfg ’
DRL	Don ’ t care	Don ’ t care	Both On with ‘ DRL_Intensity_cfg ’

Table 11: DRL/POS function command table
DRL/PL should execute above truth table,when welcome/farewell not triggle.

REQ28
DRL maybe affected by LB if LB outage is detected and configured to be turned off, a configurable parameter “ DRL_LB_Outage_cfg ” will determine if DRL is affected by LB outage.
- 0x00h: DRL will not be affected by LB outage.
- 0x01h: DRL will be affected by LB outage. When LB failure and LB is configured to turn off with failure, If DRL requested, DRL will dim to “ ParkPos_Intensity_cfg ”; If POS requested, it should keep “ ParkPos_Intensity_cfg ”.
- 0x02h: DRL will be affected by LB outage. When LB failure and LB is configured to turn off with failure, If DRL requested, it can be activated with ‘ DRL_Intensity_cfg ’; If POS requested, it should be off.

REQ29

In EEL LIN systems, the LDM shall take the configured performance control action when the TI is activated on the same side. The LDM shall use the LIN signal ‘ Turn_Signal_Light_Cmd ’ to determine whether the turn indicator is activated.

The parameter ‘ DRL_TI_Control_cfg ’ shall be used to determine if the DRL shall remain in the current state, dim to ‘ -ParkPos_Intensity_cfg ’, or turn off completely. Also defined the parameter to fade or snap to expected intensity once the Turn is deactivated, the fade time shall be configured by ‘ DRL_activation_time_after_deact_cfg ’.

‘ DRL_activation_time_after_deact_cfg ’ definitions:
- Range: 0ms to 1000ms
- Resolution: 100ms
-

If ‘ LSDx_usage_cfg ’ is not 0x03 use 1 DRL behavior.
If ‘ LSDx_usage_cfg ’ is 0x03 use 2 DRL behavior.

1 DRL behavior:
‘ DRL_TI_Control_cfg ’ parameter definition:
0x00 = TI has no impact on DRL.

0x01 = Turn off DRL and POS when TI active.
After TI deactivation and if DRL or POS is still requested then smooth fade in of constant current from 0 to requested value within 'DRL_activation_time_after_deact_cfg' +/- 0.2s. The current control shall not start before 1 second after the deactivation of TI has been detected by HW.

0x02 = Dim DRL to ‘ ParkPos_Intensity_cfg ’ when TI is active. After TI deactivation same behavior as by 0x01, but from ‘ ParkPos_Intensity_cfg ’ to ‘ DRL_Intensity ’ to requested intensity.

0x03 =If DRL is in dim intensity when TI begins do not change DRL intensity for the duration of turn indicator.
If DRL is at bright intensity or switches to requesting bright intensity during TI immediately turn DRL off. After TI deactivation same behavior as by 0x01.

LSDx_usage_cfg	DRL_TI_Control_cfg	DRL/PO intensity	DRL behavior when TI avtive
<>0x03	0x00	Don ’ t care	No impact on DRL/PO
	0x01	Don ’ t care	Turn off DRL/PO
	0x02	DRL	Dim to ‘ ParkPos_Intensity_cfg ’
		POS	Keep ‘ ParkPos_Intensity_cfg ’
	0x03	DRL	Turn off DRL
		POS	Keep ‘ ParkPos_Intensity_cfg ’

Table 12: 1 DRL respond to TI strategy
2 DRL behavior:
‘ DRL_TI_Control_cfg ’ parameter definition:
0x00 = The intent of this option is to support DRL2 being in the same chamber as the TI. While DRL1 is too close to the turn indicator to support DRL function during the day and still achieving POS at night.
If DRL is dim intensity when TI begins then turn off DRL2 and leave DRL1 at dim intensity. If DRL is at bright intensity or switches to requesting bright intensity during TI, immediately turn both DRL1 and DRL2 off.
After TI deactivation and if DRL or POS is still requested, then smooth fade in DRL1/2 from 0 to requested intensity within ‘ DRL_activation_time_after_deact_cfg ’ +/- 0.2s. The fade shall not start until 1 second after the deactivation of TI has been detected by HW..

0x01 = The intent of this option with two-part DRL is to support DRL2 being in the same chamber as TI, while DRL1 is far enough away from the TI to not need to be deactivated.
For DRL2 deactivate DRL and POS when TI is active, but do not change the state of DRL1.
After TI deactivation and if DRL or POS is still requested, then smooth fade in DRL2 from 0 to requested intensity same behavior as 0x00.

0x02 = The intent of this option with two-part DRL is to support DRL2 being close to TI while DRL1 is far enough away from TI to not be affected by TI.
When TI is active dim DRL2 to ’ ParkPos_Intensity_cfg ’ and do not change DRL1.
After TI deactivation 1 second later and if DRL or POS is still requested, then smooth fade in on DRL2 from ’ ParkPos_Intensity_cfg ’ to requested intensity.

0x03 = The intent of this option with two-part DRL is to support DRL2 being adjacent to the turn indicator and DRL1 being far enough away that it is not affected by TI,
If DRL2 is in dim intensity when TI begins do not change DRL2 intensity for the duration of turn indicator. If DRL2 is at bright intensity or switches to requesting bright intensity during TI, immediately turn DRL2 off.
After TI deactivation and if DRL or POS is still requested, then smooth fade in DRL2 from 0 to requested intensity same behavior as 0x00.

Table 13: 2 DRL respond to TI strategy

REQ30
If the DRL is active, and flash to pass signal is received via LIN and IGN is either run or start, the LDM shall follow the parameter ‘ DRL_ON_FTP_cfg ’.
‘ DRL_ON_FTP_cfg ’ parameter definition:
- 0x00: FTP has no impact on DRL
- 0x01: DRL should switch from ‘ DRL_Intensity_cfg ’ to ‘ ParkPos_Intensity_cfg ’ when BCM LIN command ‘ FTP_Status ’ = 0x01. If DRL is off, it should stay at off.

After the ‘ FTP_Status ’ transation from 0x01 to 0x00, the DRL will swtich to the requested intensity.

子任务:

功能 # 3020: Ford_SWER_ REQ26-REQ30_0001： DRL Control Strategy -...	**已关闭**
功能 # 3021: Ford_SWER_ REQ26-REQ30_0002： Accuracy and Frequency...	**已关闭**
功能 # 3022: Ford_SWER_ REQ26-REQ30_0003：DRL direct wire control	**已关闭**
功能 # 3023: Ford_SWER_ REQ26-REQ30_0004：DRL BCM LIN	**已关闭**
功能 # 3024: Ford_SWER_ REQ26-REQ30_0005：Output duty cycle for d...	**已关闭**
功能 # 3027: Ford_SWER_ REQ26-REQ30_0007：DRL Response to Turn In...	**已关闭**
功能 # 3028: Ford_SWER_ REQ26-REQ30_0008：DRL Response to Flash-T...	**已关闭**
功能 # 3029: Ford_SWER_ REQ26-REQ30_0009：DRL_activation_time_aft...	**已关闭**

历史记录

#1 - 2024-11-05 10:11 - 玉洁 金

- 主题 从 Ford_SYSR：Daytime Running Lamp (DRL)/Park Lamp Control Strategy (REQ 26-REQ30) 变更为 Ford_SYSR：Daytime Running Lamp (DRL)/Park Lamp Drive Mode Activation

- 描述 已更新。

- 指派给 从 培源 左 变更为 玉洁 金

#2 - 2024-11-26 15:54 - 斌 徐

- 状态 从 新建 变更为 已关闭