



Research & Vehicle Technology
“Infotainment Systems Product Development”

Feature – Digital Owner’s Manual Client
Subsystem Part Specific Specification
(SPSS)

Version 1.0
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FORD CONFIDENTIAL



Revision History

Date	Ver	Notes	
February 9, 2018	1.0	Initial Release	



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1 Overview

1.1 Purpose

The purpose of this System Specifications document is

- To specify the overall requirements and behaviors that will govern the development and implementation of the Web-based HMI system.
- The document will also establish any security, capacity, system architecture requirements not covered in other Technical Documents.
- For the first feature to use the Web-based HMI, Digital Owner's Manual, to specify the overall requirements and behaviors that will govern the development and implementation of the rendering and navigation of the Digital Owner's Manual in the IVI.

1.2 Scope

The scope of this System Specifications document is:

- In-Vehicle Interaction
- Streaming video
- On-board storage of content
- On-board search of content
- Context-sensitive help
- Bookmarks

1.3 Business Benefits

From the point of view of Digital Owner's Manual, which is the first feature for Web-based HMI, Integration of Owner's manual content into the digital environment is critical to improving customer experience especially with the increasingly complex set of features available on the vehicles. Current delivery techniques including information from dealerships to owner's manual and video snacks are antiquated and ineffective.

Further, competitive benchmarking shows implementation of Digital owner's manual in a variety of OEM's with varying degrees of complexity such as rendering a PDF version of the manual, navigating using vehicle exterior and interior images, to an Augmented reality

1.4 Target Market

All Ford and Lincoln markets with DOMClient.



2 Architectural Design

2.1 DOM-CLD-REQ-294909/A-DOM Client

The Digital Owners Manual (DOM) Client is responsible for the tasks listed below:

- Rendering HTML5 content that the Owner's Manual receives from the DOMServer.
- Rendering Images in GIF, JPG, PNG, or SVG formats.
- Streaming Video and Audio content in MP4/MP3 formats.
- Responding to touch events.
- Responding to Pan and Zoom events.
- Enabling search by Touch.
- Displaying notifications.
- Displaying Customer and Error messages.
- Establish connectivity through Connection Manager for external links as well as Video Streaming.
- Collect events and store them.

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

2.2 DOM-CLD-REQ-294910/A-DOM Server

The Digital Owners Manual (DOM) Server is responsible for the tasks listed below:

- Provide an image for DOMClient for initial provisioning.
- Provide software updates.
- Validate external links against Security Policy documents.
- Provide source for Video streaming.

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

2.3 Physical Mapping of Classes

The table below shows an example of how the logical classes that make up the Digital Owners Manual 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)
DOMClient	APIM
DOMServer	SDN



3 Functional Definition

3.1 DOM-FUN-REQ-294575/A-Navigate Owner's Manual

The Navigate Owner's Manual Function describes the behaviour related to the browsing of Digital Owner's Manual to view interested information.

3.1.1 Requirements

3.1.1.1 DOM-FUR-REQ-293442/A-Navigate Owner's Manual

User must be able to navigate the Owner's manual through a menu item that displays a list of choices from Table of contents

3.1.1.2 DOM-PFM-REQ-285979/A-Browse Digital Owner's Manual: Performance

DOMClient system must display text and images content within 1 second of user request.

Assuming there are no issues on Content provider side and internet connection speeds are optimal for Streaming, DOMClient system must start playing streaming video within 3 seconds of user request

3.1.1.3 DOM-FUR-REQ-294576/A-Browse: Security

If DOMServer is unable to authenticate that the request came from a valid vehicle, it must provide a relevant response. DOMClient system must display this response and indicate that the user should contact the dealer for further information. If DOMClient system is unable to authenticate the response's origin, it must indicate that the content is not available and suggest that the user try again later.

3.1.1.4 DOM-HMI-REQ-285982/A-Browse: Language

DOMClient system must display video content in language setting of the DOMClient. If this language is not available for the video content requested on the DOMServer, user should be warned that content will be displayed in the default language for the locale. If this is not available, user should be warned that content will be displayed in English language.

3.1.2 Use Cases

3.1.2.1 DOM-UC-REQ-285841/A-Browse Digital Owner's Manual

Actors	User, DOMClient, DOMServer
Pre-conditions	1. Vehicle is compliant with Driver distraction guidelines. 2. Vehicle may or may not be connected to a network.
Scenario Description – Main (M1)	1. User selects the Digital Owner's Manual tile on DOMClient. 2. DOMClient displays the Table of Contents 3. User selects the topic he/she is interested in 4. DOMClient displays the summary for the topic including links for further details. 5. User reads the summary 6. User exits the summary. 7. User exits the Table of contents and DOM successfully completing the use case.
Alternate Scenario Description (A1)	1. User seeks further details beyond summary displayed in step 5 of M1 2. User clicks on link for additional details 3. DOMClient displays detailed description along with images where applicable. 4. User browses and reads the details. 5. User exits the details to the table of contents. 6. User exits the Table of contents and DOM successfully completing the use case.

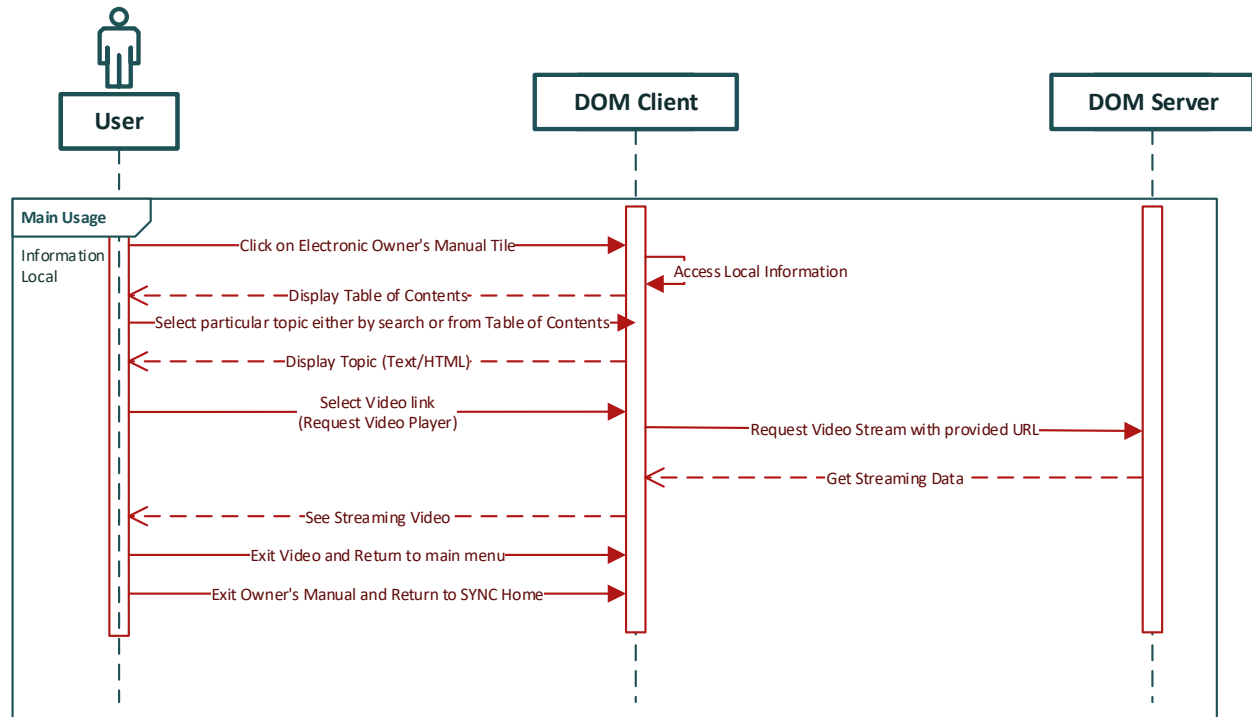


Alternate Scenario Description (A2)	<ol style="list-style-type: none">1. User seeks further details beyond summary displayed in step 5 of M12. User clicks on link for video3. DOMClient displays Streaming video to the user on the feature4. User views the streaming video5. User exits the video to the table of contents.6. User exits the Table of contents and DOM successfully completing the use case	
Post-conditions	<ol style="list-style-type: none">1. User has viewed the content successfully.2. User has exited the Digital Owner's Manual.	
Exception Scenario (F1)	<ol style="list-style-type: none">1. Vehicle is traveling at 5mph+ when user selects Digital Owner's Manual Tile2. Vehicle displays warning indicating that vehicle is in motion and lets the user know that for the safety of the driver, DOMClient will not display Owner's Manual content.	
Exception Scenario (F2)	<ol style="list-style-type: none">1. Vehicle is either in Parked state or traveling under 5 mph.2. User clicks on Digital Owner's Manual to execute scenario A2.3. There is no connectivity to Wi-Fi or Cellular.4. Car is not able to access videos.5. Car displays message indicating that user needs to connect to the network to stream videos.	
Frequency	<ul style="list-style-type: none">• Primary/Supporting Actors may execute Use case a few times a day during the initial ownership of a vehicle.• Frequency may gradually taper off as actors become comfortable with the features in the vehicle.	
Detailed Messages	Trigger	Message
	Vehicle is out of compliance with driver distraction guidelines.	For the safety of the driver and passengers in the vehicle, SYNC will not display Owner's Manual content
	Connectivity is not available	We are unable to stream the video you selected due to lack of connectivity. Please try again when connection becomes available.



3.1.3 Whitebox View

3.1.3.1 DOM-SD-REQ-285999/A-Browse





3.2 DOM-FUN-REQ-294638/A-Touch Search

This describes the search function executed within the Owner's Manual.

3.2.1 Requirements

3.2.1.1 DOM-FUR-REQ-285812/A-Touch Search

User must be able to search and bring up list of choices for further selection.

3.2.1.2 DOM-PFM-REQ-285997/A-Search: Performance

DOMClient system should return search results within content within 1 second of user request

3.2.1.3 DOM-HMI-REQ-285839/A-Search

1. Search functionality must be easy to use, navigate, and understand.
2. Search function must provide direct, actionable information relevant to the query.
3. Search function must provide legitimate and credible content relevant to the query.
4. User must be able to easily modify search criteria and rerun search.
5. Search criteria entered must be case-insensitive.
6. Search box textfield should be large enough to show 20 characters in English
7. Search box textfield should allow anywhere between 4 and 40 characters for search in English.
8. Search should begin with either a return key or touch of a search key.
9. A help link on how to use the search functionality must be provided.

3.2.1.4 DOM-HMI-REQ-285998/A-Search: Interface

A smart speller functionality must be implemented which searches based on Topic, Sub-topic, or Keyword.

At all times, only the relevant keys of the keyboard must be activated.

These are keys that correspond to valid completion of the previously entered string in the set of potential items (Topic, Sub-Topic, Keyword). The underlying application shall narrow down the number of possible candidates with each successive character entered by the user.

The search must not be case sensitive.

Searches begin from the beginning at whole words. For multiple words within space must be allowed for searches.

The result must be shown in the same format the Topics/Subtopics are currently listed. The list is just narrowed down by the search parameters.

3.2.2 Use Cases

3.2.2.1 DOM-UC-REQ-285988/A-Touch Search

Actors	User of the vehicle, DOMClient
Pre-conditions	<ol style="list-style-type: none">1. Vehicle is compliant with Driver distraction guidelines.2. Vehicle may or may not be connected to a network.
Scenario Description – Main (M1)	<ol style="list-style-type: none">1. User selects the Digital Owner's Manual tile on DOMClient.2. DOMClient displays the Table of Contents, which includes Search.3. User clicks on search4. User starts typing search term.5. DOMClient displays a scrollable list of terms for which content is available in the Digital Owner's Manual6. User selects the item from the list.7. User reads the summary8. User exits the summary to the search results.9. User exits the search results to the Table of contents.10. User exits the Table of contents and DOM successfully completing the use case.
Post-conditions	<ol style="list-style-type: none">1. User has viewed the content successfully.



	2. User has exited the Digital Owner's Manual																								
Failure Scenario (F1)	<div>1. Vehicle is not in compliance with Driver distraction guidelines when user selects Owner's Manual Tile and tries to search.</div> <div>2. Vehicle displays warning indicating that for the safety of the user DOMClient will display content only when vehicle is out of Driver Distraction state.</div>																								
Failure Scenario (F2)	<div>1. User selects Digital Owner's Manual Tile</div> <div>2. User types in search term/partial search term</div> <div>3. There are no hits/results</div> <div>4. Web Application shows a set of recommended/related results.</div> <div>5. If this is not available, Web Application shows an FAQ on how to run successful searches.</div> <div>6. User exits the search results.</div> <div>7. User exits the Digital Owner's Manual</div>																								
Frequency	<div>1. Primary/Supporting Actors may execute Use case a few times a day during the initial ownership of a vehicle.</div> <div>2. Frequency may gradually taper off as actors become comfortable with the features in the vehicle.</div>																								
Detailed Messages	<table><tr><th>Trigger</th><th>Message</th></tr><tr><td>Vehicle is not in compliance with Driver distraction guidelines.</td><td>For your personal safety, Owner's manual content is not available.</td></tr><tr><td>No Hits</td><td>Your search query did not yield any results. Please revise your search.</td></tr></table>	Trigger	Message	Vehicle is not in compliance with Driver distraction guidelines.	For your personal safety, Owner's manual content is not available.	No Hits	Your search query did not yield any results. Please revise your search.																		
Trigger	Message																								
Vehicle is not in compliance with Driver distraction guidelines.	For your personal safety, Owner's manual content is not available.																								
No Hits	Your search query did not yield any results. Please revise your search.																								
Search Criteria	<div>Sample/recommended list of search criteria from one vehicle included in the table below.</div> <table><tr><th>Feature</th><th>Search</th><th>Potential Variants</th></tr><tr><td rowspan="5">Seating</td><td>Front Seat</td><td>How do I adjust Front Seat?</td></tr><tr><td>2nd Row Seat</td><td>How do I adjust 2nd row Seat?</td></tr><tr><td>3rd Row Seat</td><td>How do I adjust 3rd row Seat?</td></tr><tr><td>Lumbar Support</td><td>I do not know how to adjust Lumbar Support</td></tr><tr><td>Head Rest</td><td>How do I adjust headrest?</td></tr><tr><td rowspan="2">Occupant Restraint</td><td>Horn</td><td>Horn does not work</td></tr><tr><td></td><td>Unable to use the horn.</td></tr><tr><td rowspan="2">Electrical Accessories Function</td><td>Electrical Memory</td><td>How do I set Seat? How do I adjust mirrors? How do I adjust columns?</td></tr><tr><td></td><td>How do I use the memory function?</td></tr></table>	Feature	Search	Potential Variants	Seating	Front Seat	How do I adjust Front Seat?	2 nd Row Seat	How do I adjust 2 nd row Seat?	3 rd Row Seat	How do I adjust 3 rd row Seat?	Lumbar Support	I do not know how to adjust Lumbar Support	Head Rest	How do I adjust headrest?	Occupant Restraint	Horn	Horn does not work		Unable to use the horn.	Electrical Accessories Function	Electrical Memory	How do I set Seat? How do I adjust mirrors? How do I adjust columns?		How do I use the memory function?
Feature	Search	Potential Variants																							
Seating	Front Seat	How do I adjust Front Seat?																							
	2 nd Row Seat	How do I adjust 2 nd row Seat?																							
	3 rd Row Seat	How do I adjust 3 rd row Seat?																							
	Lumbar Support	I do not know how to adjust Lumbar Support																							
	Head Rest	How do I adjust headrest?																							
Occupant Restraint	Horn	Horn does not work																							
		Unable to use the horn.																							
Electrical Accessories Function	Electrical Memory	How do I set Seat? How do I adjust mirrors? How do I adjust columns?																							
		How do I use the memory function?																							



		How do I set memory for seat/mirror/columns?
	Paint Appearance	Exterior Paint Trouble
		Why is there a color difference between parts?
		Why is there uneven paint on the exterior of the car?
	Manual Transmission	Manual Change Gears
		How do I change gears to reverse?
		How do I change gears from 1 st to 2 nd ?
		How do I shift gears?
		Why is it so difficult to shift gears?
	Automatic Transmission	Shift Gears
		How do I shift gear from Park?
		How do I shift gear from Reverse?
	Instrumentation Function	Key Pad
		How do I use the Keypad?
		How do I lock or unlock doors using Keypad?
	Digital User Interface	Apple Car Play
		How do I exit Apple Car Play? How do I get apps from my Apple on DOMClient?
		Android Auto
		How do I get apps from my Android on DOMClient?
		Navigation
		Need help on Navigation menus
		A/C Control
		A/C Control is difficult to use
		Heater Control
		How do I adjust heat?
		Message Center
		How do I use Message Center?
		AEN
	Child Safety	How do I use AEN?
		Child Safety
		Child Restraints
		Installing Child Restraints
		Child Restraint Positioning
		Child Safety Locks
	Seatbelt	Seatbelt
		Fastening Seatbelts
		Seatbelt Height Adjustment
		Seatbelt Minder
		How do I turn off Seatbelt minder?
	Supplementary Restraints System	Supplementary Restraints System
		Driver Airbag
		Passenger Airbag
		Side Airbag
		Driver Knee Airbag



	Keys and Remote Control	Side Curtain Airbag	
		Keys and Remote Control	Why is my remote control not working?
		Remote Control	
		Changing Remote Control Battery	
		Intelligent Key Access	
		Key or Remote Control	How do I replace a lost key or remote control?
	MyKey	MyKey	
		MyKey Settings	
		Create a MyKey	How do I create a MyKey?
		Clear a MyKey	
		Clear All MyKey	How do I clear MyKey?
		Check MyKey System Status	How do I track distance using MyKey?
		Number of MyKeys	How do I know how many MyKeys are programmed to the vehicle?
		Number of Admin Keys	How do I find out how many admin keys are programmed to the vehicle?
		MyKey with Remote Start Systems	Can I use MyKey with Remote Start Systems?
			I am unable to create a MyKey
			I cannot program the configurable settings
			I cannot clear the MyKeys
			I lost the admin key
			I lost a key
			MyKey distances do not accumulate
			MyKey does not function with the keyless entry transmitter.
	Doors and Locks	Locking and Unlocking	
		Locking	How do I lock the vehicle?
		Unlocking	How do I unlock the vehicle?
		Central Locking	How do I lock all doors?
		Double Locking	How do I double lock the doors?
		Automatic Relocking	How do I automatically relock the doors?
		Lock with Key blade	How do I lock the door with key blade?
		Unlock with Key blade	How do I unlock the door with key blade?



		Open Liftgate Manually	How do I open Liftgate manually?
		Open Liftgate with Remote Control	How do I open Liftgate with remote control?
		Close Liftgate	How do I close Liftgate manually?
		Power Liftgate	
		Open Power Liftgate	How do I open Power Liftgate?
		Close Power Liftgate	How do I close Power Liftgate?
		Stop Liftgate movement	How do I stop Liftgate movement?
		Set Liftgate Open Height	How do I set Liftgate Open Height?
			Why is the Liftgate not closing?
	Security	Passive Anti-theft System	
		Anti-theft	
		Coded Keys	
		Arming Engine Immobilizer	
		Disarming Engine Immobilizer	
		Perimeter Alarm	
		Anti-theft Alarm	
		Perimeter Alarm	
		Interior Sensors	
		Inclination Sensors	
		Battery Backup Sounder	
		Triggering the alarm	
		Full guard	
		Reduced guard	
		Selecting full or reduced guard	
		Ask on exit	
		Disarming the alarm	
		Category One Alarm	
	Steering Wheel	Adjust Steering Wheel	How do I adjust steering wheel?
		Manual Adjustable Steering Wheel Column	How do I lock the steering wheel?
		Power Adjustable Steering Wheel Column	
	Audio/Media	Volume Up	How do I turn up volume on Steering wheel?
		Volume Down	How do I turn down volume on Steering wheel?
		Mute	How do I mute?
		Media	How do I scroll through available audio sources?
		Audio Sources	



		Seek Down	How do I tune radio to the previous stored preset?
		Seek Previous	How do I play the previous track?
		Seek Up	How do I tune the radio to the next stored preset?
		Seek Next	How do I play the next track?
		Voice Control	How do I activate voice control?
			How do I cancel voice control?
	Cruise Control	Switch on Cruise Control	How do I switch on cruise control?
		Set Cruise Speed	How do I set a particular cruise speed?
		Change Set Speed	How do I change set speed?
		Cancel Set Speed	How do I cancel set speed?
		Resume Set Speed	How do I cancel set speed?
		Switch Cruise Control Off	How do I switch off Cruise Control?
		Switch Adaptive Cruise Control On	
	Adjust Pedals	Vertical Control	How does Vertical Control work for adjusting pedals?
		Horizontal Control	How does Horizontal Control work for adjusting pedals?
	Wipers and Washers	Wipers and Washers	
		Wipe Intervals	How do you change wipe intervals?
		Speed Dependent Wipers	
		Autowipers	How do I configure Autowipers?
		Windshield Washers	How do I operate Windshield Washers?
	Power Running Boards	Power Running Boards	
		Automatic Power Deploy	How do I automatically deploy running boards?
		Automatic Power Stow	How do I automatically stow running boards?
		Manual Power Deploy	
		Enabling Power running Board	How do I enable Power Running boards?
		Disabling Power running Board	How do I disable Power Running boards?



		Bounce-back	Why does the board bounce-back?
	Lighting	Lighting	
		Lighting Control	How do I switch on Headlamp?
			How do I switch off Headlamp?
			How do I switch on Instrument panel lamps?
			How do I switch off Instrument panel lamps?
			How do I switch on rear lamps?
			How do I switch off rear lamps?
		High Beam	How do I turn on high beam?
			How do I turn off high beam?
		Autolamps	What is Autolamps?
			How do I turn on Autolamps?
		Instrument lighting	How do I increase brightness on instrument lighting?
			How do I dim instrument lighting?
		Daytime running lamps	How are daytime running lamps activated?
		Automatic High Beam	How do I activate Automatic High Beam?
			How do I turn off Automatic High Beam?
		Fog lamps	How do I turn on Fog lamps?
			How do I turn off Fog lamps?
		Direction Indicators	How do I turn on Direction Indicators?
		Turn Signals	How do I turn off Direction Indicators?
		Spot lamps	How do I turn on Spot Lamps?
			How do I turn off Spot Lamps?
		Cargo and Trailer Hookup Lamps	How do I turn on Cargo and Trailer Hookup lamps?
			How do I turn off Cargo and Trailer Hookup lamps?
		Interior Lamps	How do I turn on Interior Lamps?
			How do I set Interior lamps so that they stay off when car is off?



		Ambient Lighting	How do I adjust ambient lighting?
	Windows and Mirrors	Windows and Mirrors	
		Power Windows	How do I adjust Power Windows?
		Exterior Mirrors	How do I adjust Exterior Mirrors?
		Interior Mirrors	How do I adjust Interior Mirrors?
		Sliding Windows	How do I adjust Sliding Windows?
		Sun Visors	How do I adjust Sun Visors?
		Moonroof	How do I open Moonroof?
			How do I close Moonroof?
	Instrument Cluster	Instrument Cluster	
		Gauges	What are the different gauges?
			Where is the Engine Oil Pressure gauge?
			Where is the Engine Coolant Temperature gauge?
		Warning Lamps and Indicators	What do these Warning Lamps and Indicators mean?
		Warning Lamps	What do these Warning lamps mean?
		Indicators	What do these Indicators mean?
		Audible Warnings and Indicators	What do these Audible Warnings mean?
		Audible Warnings.	
	Information Displays	Information Displays	How do I scroll through the menu options?
		Information Messages	How do I remove Information messages from the display?
	Climate Control	Manual Climate Control	How do you control climate manually?
		Automatic Climate Control	How do you control climate automatically?
		Heated Windows and Mirrors	
		Heated Windows	How do you operate Heated Windows?
		Heated Mirrors	How do you operate Heated Mirrors?
		Cabin Air filter	Where is the Cabin Air filter located?
			How would I know when to change the Air Filter?
		Remote Start	How do I operate Remote Start?



	Seats	Seats	
		Head Restraints	How do I adjust Head Restraints?
		Front Seat Head Restraints	How do I adjust Front Seat Head Restraints?
		Rear Seat Head Restraints	How do I adjust Rear Seat Head Restraints?
		Adjust Seat Manually	How do I adjust seat?
		Moving Seat Forward and Backward	How do I move seat forward?
		Recline Adjustment	How do I move seat backward?
		Manual Lumbar	How do I adjust recline?
			How do I adjust lumbar?
		Power Seats	
		Power Lumbar	How do I turn on massage on seats?
			How do I adjust massage?
		Memory Function	Where is the memory control?
		Rear Seats	How do I adjust Rear Seats?
		Heated Seats	How do I operate Heating in Seats?
		Cooled Seats	How do I operate Cooling in Seats?
		Front Seat Armrest	How do I adjust Front Seat Armrest?
		Rear Seat Armrest	How do I adjust Rear Seat Armrest?
	Universal Garage Door Opener	Universal Garage Door Opener	How do I program the Garage Door Opener?
	Auxiliary Power Points	Auxiliary Power Points	How do I use the power points?
	Storage Compartments	Storage Compartments	Where are the storage Compartments?
		Center Console	Where is the Center Console?
		Overhead Console	Where is the overhead console?
	Starting and Stopping the Engine	Starting and Stopping the Engine	What are the positions in the Ignition Switch?
			Why is my car not starting?
		Keyless Starting	How do I start my car?
		Steering Wheel Lock	How do I lock my Steering Wheel?
			How do I unlock my Steering Wheel?
		Engine Block Heater	How do I use the Engine Block Heater?
		Auto Start-Stop	How do I enable Auto Start-Stop?

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		Turn off Lane Departure Intervention	How do you turn off Lane Departure Intervention?
	Four-Wheel Drive	Four-Wheel Drive	How do I operate Four-Wheel drive?
	Rear Axle	Rear Axle	
		Electronic Locking Differential	How do I use Electronic Locking Differential?
		Activate Electronic Locking Differential	How do I activate Electronic Locking Differential?
		De-activate Electronic Locking Differential	How do I de-activate Electronic Locking Differential?
	Brakes	Anti-lock Brakes (ABS)	How do I drive with Anti-lock Brakes (ABS)?
		Parking Brake	How do I operate Parking Brake?
		Electric Parking Brake	How do I operate Electric Parking Brake?
		Hill Start Assist	How do I use Hill Start Assist?
	Traction Control	Traction Control	How do I use Traction Control?
	Stability Control	Stability Control	How do I use Stability Control?
	Hill Descent Control	Hill Descent Control	How do I use Hill Descent Control?
	Parking Aids	Parking Aids	How do I use the different Parking Aids?
		Rear Parking Aid	How do I use Rear Parking Aid?
		Active Park Assist	How do I use Active Park Assist?
		Rear View Camera	How do I use Rear View Camera?
		360 Degree Camera	How do I use 360 Degree Camera?
	Cruise Control	Cruise Control	How do I turn on Cruise Control?
			How do I turn off Cruise Control?
		Adaptive Cruise Control	How do turn on Adaptive Cruise Control?
			How do I turn off Adaptive Cruise Control?
	Driving Aids	Driving Aids	What are the various Driving Aids?
		Driver Alert	How do I turn Driver Alert on?
			How do I turn Driver Alert off?
		Lane Keeping System	How do I turn on Lane Keeping System?
			How do I turn off Lane Keeping System?



		Blind Spot Information System	How do I turn on Blind Spot Information System?
			How do I turn off Blind Spot Information System?
		Cross Traffic Alert	How do I enable Cross Traffic Alert?
			How do I disable Cross Traffic Alert?
		Steering	
		Adaptive learning	What does Adaptive Learning Steering do?
			How do I enable Adaptive Learning Steering?
			How do I disable Adaptive Learning Steering?
		Collision Warning System	How do I use Collision Warning System?
		Drive Control	What are the settings for Drive Control?
			How can I change Drive Control Settings?
	Load Carrying	Load Retaining Fixtures	
		Load Limit	What is the load limit?
		Bed Access	
		Step	
		Deploy Step	How do I deploy the step?
		Stow Step	How do I stow the step?
		Bed Ramps	How do I use Bed Ramps?
	Towing	Towing	How do I set up Tow for a Trailer?
		Trailer Reverse	How do I enable Trailer Reversing aids?
		Trailer Sway Control	How do I turn on Trailer Sway Control?
			How do I turn off Trailer Sway Control?
		Recommended Towing Weights	What is the recommended Towing Weight?
		Essential Towing Checks	What are the checks for Towing?
		Four Wheel Towing	How would you tow a vehicle on four wheels?
	Driving Hints	Driving Hints	Can you provide Driving Hints?
		Breaking New Vehicle In Hints	What are the hints for breaking a new vehicle in?



		Economical Driving	How can I make sure I am driving Economically?
		Driving through Water	How do I drive through Water?
		Floor Mats	How do I install Floor Mats?
		Snowplowing	How do I install the Snow Plow?
	Roadside Emergencies	Roadside Emergencies	
		Roadside Assistance	How do I get Roadside Assistance?
		Hazard Flashers	How do I operate Hazard Flashers?
		Fuel Shutoff	When is Fuel Shutoff?
		Jump Starting the Vehicle	How do I jump-start the vehicle?
		Post-crash alert system	When is the Post-crash alert system initiated?
		Transporting the vehicle	How do I transport the vehicle?
		Towing Points	How do I use Towing Points?
		Recovery Hooks	How do I use Recovery Hooks?
	Customer Assistance	Customer Assistance	How do I get Customer Assistance?
		Reporting Safety Defects	How do I report Safety Defects?
	Fuse Specification Chart	Fuse Specification Chart	Can I see the Fuse Specification Chart?
		Changing a fuse	How do I change a fuse?
	Maintenance	Opening Hood	How do I open hood?
		Closing Hood	How do I close hood?
		Under hood overview	Can I get an under hood overview?
		Engine Oil Check	How do I check Engine Oil?
		Oil Change Indicator Reset	How do I reset Oil Change Indicator
		Engine Coolant	How do I check Engine Coolant?
		Automatic Transmission Fluid	How do I check Automatic Transmission Fluid?
		Transfer Case Fluid	How do I check Transfer Case Fluid?
		Brake Fluid	How do I check Brake Fluid?
		Power Steering Fluid	How do I check Power Steering Fluid?
		Washer Fluid	How do I check Washer Fluid?
		Fuel Filter	How do I check Fuel Filter?



		Battery	How do I check/change Battery?
		Wiper Blades	How do I check Wiper Blades?
			How do I change Wiper Blades?
		Adjust Headlamp	How do I adjust Headlamp?
		Change a bulb	How do I change a bulb?
		Bulb Specification Chart	Can I see the Bulb Specification Chart?
		Engine Air Filter	How do I change Engine Air Filter?
	Vehicle Care	Cleaning the exterior	How do I clean the exterior?
		Waxing	How do I wax the car?
		Cleaning the engine	How do I clean the engine?
		Cleaning the wiper blades	How do I clean the wiper blades?
		Cleaning the interior	How do I clean the interior?
		Cleaning the instrument panel	How do I clean the instrument panel?
		Cleaning the instrument Cluster Lens	How do I clean the instrument cluster lens?
		Cleaning Leather Seats	How do I clean Leather seats?
		Repair Minor paint damage	How do I repair minor paint damage?
		Cleaning wheels	How do I clean wheels?
		Vehicle Storage	How do I store the vehicle?
	Wheels and Tires	Tire Care	How do I care for tires?
		Snow Chains	How do I use Snow Chains?
		Tire Pressure Monitoring System	How do I use Tire Pressure Monitoring System?
		Road Wheel	How do I change a road wheel?
		Wheels and Tires Technical Specifications	Can I see the Technical Specifications for Wheels and Tires?
	Capacities and Specifications	Engine Specifications	What are the Engine Specifications?
		Motorcraft Parts	What are the Motorcraft Parts?
		Vehicle Identification Number	What is my Vehicle Identification Number?
		Vehicle Certification Label	What is my Vehicle Certification Label?
		Transmission Code Specification	What is my Transmission Code Specification?



		Capacities and Specifications	What are the capacities and Specifications for my vehicle?
		Audio Unit	How do I operate my Audio Unit?
		Digital Radio	How do I operate my Digital Radio?
		Satellite Radio	How do I operate my Satellite Radio?
		USB Port	How do I use my USB port for Audio?
	DOMClient	DOMClient	How do I use DOMClient?
		Home Screen	Where is the home screen?
		Voice Recognition	How do I use Voice Recognition?
		Entertainment	How do I use Entertainment on DOMClient?
		Climate	How do I adjust climate on DOMClient?
		Phone	How do I operate Phone on DOMClient?
			How do I pair phone to DOMClient?
		Navigation	How do I operate Navigation on DOMClient?
		Apps	How do I enable Applink?
			How do I use Apps on DOMClient?
		Settings	How do I adjust Settings on DOMClient?
	Accessories	Accessories	What are the accessories available for my vehicle?
	Ford Protect	Ford Protect	What are the Ford Protect options?
	Scheduled Maintenance	Scheduled Maintenance	What Scheduled Maintenance should I follow?
			What are the Owner Checks and Services I should do?
	End User License Agreement	End User License Agreement	Can I see the End User License Agreement?
	Type Approvals	Type Approvals	What are the Type Approvals for my car?



3.3 DOM-FUN-REQ-294661/A-Stream Video

This function describes the streaming of video referenced in the Digital Owner's Manual.

3.3.1 Requirements

3.3.1.1 DOM-FUR-REQ-285816/A-Stream Video

User must be able to stream relevant video when the user chooses a video link/thumbnail that explains the feature.

3.3.1.2 DOM-PFM-REQ-285905/A-Stream: Performance

1. Assuming there are no issues on Content provider side and internet connection speeds are optimal for Streaming, the time spent filling in the buffer when video is first started (Buffer Fill) must be less than 5 seconds.
2. Assuming there are no issues on Content provider side and internet connection speeds are optimal for Streaming, the time spent waiting for playback excluding Buffer Fill (Lag Length) must be less than 2 seconds.
3. Assuming there are no issues on Content provider side and internet connection speeds are optimal for Streaming, the ratio of waiting time/watching time for a video must be less than 1%.

3.3.1.3 DOM-FUR-REQ-294662/A-Video Format Requirements

HTTP/HTTPS Live streaming must be supported.

Adaptive BitRate Streaming must be supported

MP4 Container must be supported

Audio Codec: AAC-LC must be supported

Sample Rate: 48/96 Khz must be supported

Video Codec: H.264 must be supported

3.3.1.4 DOM-HMI-REQ-285830/A-Video Streaming

1. User must be advised if data charges apply for Streaming Videos.
2. The tool playing the video must have playback controls including pause, resume, forward, and rewind.

3.3.2 Use Cases

3.3.2.1 DOM-UC-REQ-286745/A-Stream Videos

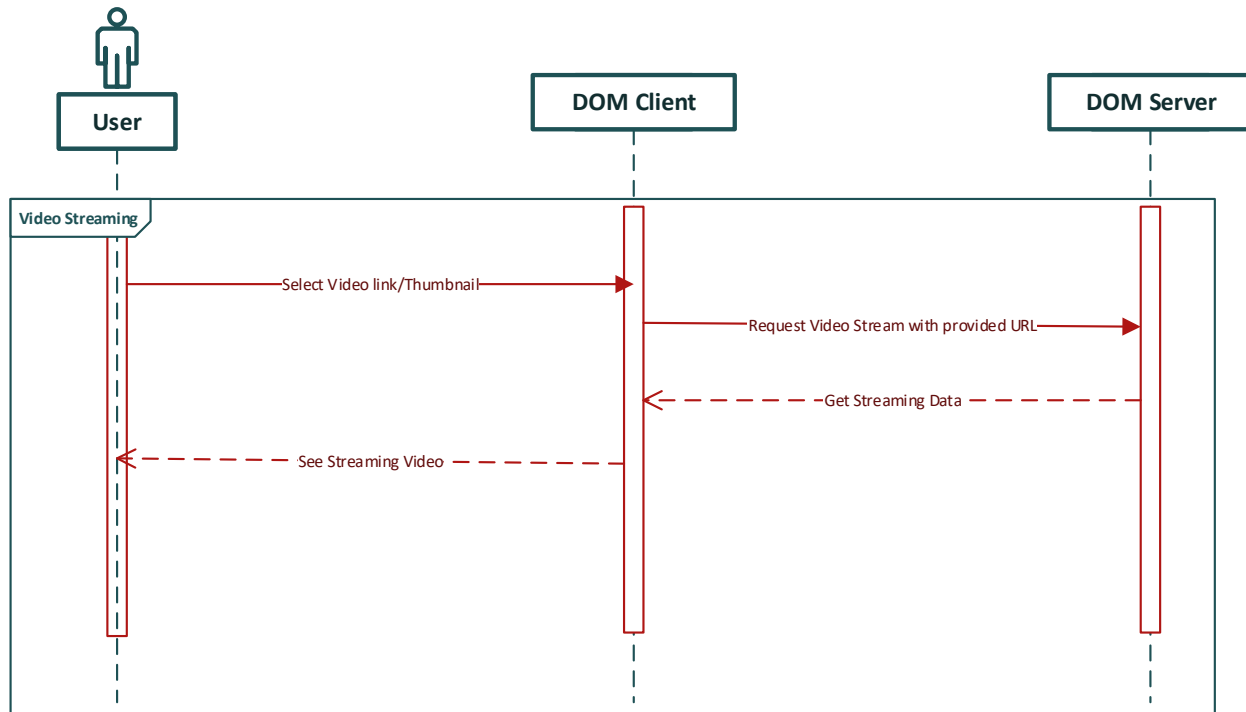
Actors	User, DOMClient
Pre-conditions	<ol style="list-style-type: none">1. Vehicle is compliant with Driver distraction guidelines.2. Connection to a network is available.
Scenario Description – Main (M1)	<ol style="list-style-type: none">1. User selects a link to view video for a particular topic2. DOMClient initiates video player in preparation for the video.3. DOMClient passes URL to DOMServer to initiate video streaming.4. DOMClient receives Streaming data5. User views streaming video
Post-conditions	<ul style="list-style-type: none">• DOMClient completes streaming of video.
Failure Scenario (F1)	<ol style="list-style-type: none">1. M1-Step12. Connectivity is established.3. Link is not available/broken.4. DOMClient provides a message indicating that Link is not available/broken
Failure Scenario (F2)	<ol style="list-style-type: none">1. M1-Step12. Connectivity is not available.



	3. DOMClient provides a message indicating that connectivity is not available and requests the user to try again when connectivity is available.	
Failure Scenario (F3)	<div>1. M1-Step1</div> <div>2. Connectivity is established.</div> <div>3. DOMClient starts streaming video.</div> <div>4. Streaming is spotty with consistently low quality and occasional buffering.</div> <div>5. Based on lag length, DOMClient provides a message indicating that connectivity is spotty resulting in poor video streaming experience.</div>	
Frequency	This Use case will be executed whenever user needs to see a video related to a particular feature.	
Detailed Messages	Trigger	Message
	Link is not available	The link you have requested is unavailable at this time.
	Connectivity is not available	We are unable to get connectivity at this time. Please try again when connection becomes available.
	Spotty Streaming	Due to poor connection quality, your video may be of poor quality. We will keep trying to adjust video quality in the background based on connection quality.

3.3.3 White-box View

3.3.3.1 DOM-SD-REQ-286751/A-Stream Video





3.4 DOM-FUN-REQ-294663/A-Bookmark Owners Manual Procedures

This function describes bookmarking or adding to favorites Owner's Manual procedures.

3.4.1 Requirements

3.4.1.1 DOM-FUR-REQ-285818/A-Bookmarks-Favorites

User must be able to bookmark/select favorites for subsequent selection and viewing.

3.4.1.2 DOM-HMI-REQ-285837/A-Bookmark/Favorites

1. The user must be able to easily add Procedure to Favorites.
2. The user must be able to easily remove Procedure from Favorites

3.4.1.3 DOM-HMI-REQ-286756/A-Bookmark

Only procedures (Content in the topic) and Videos can be bookmarked.

3.4.2 Use Cases

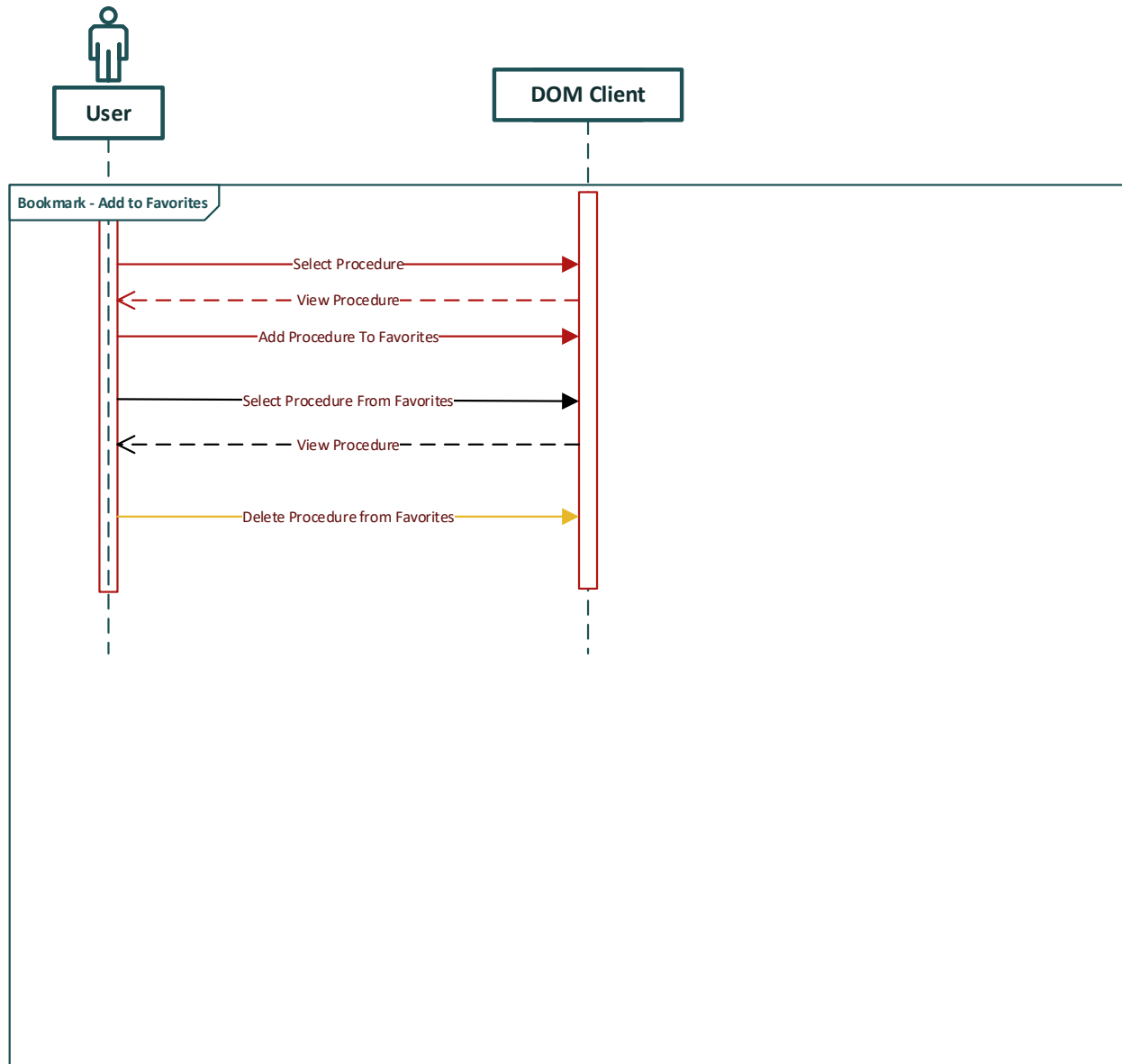
3.4.2.1 DOM-UC-REQ-286754/A-Bookmark Content

Actors	User, DOMClient
Pre-conditions	<ol style="list-style-type: none">1. Vehicle is compliant with Driver distraction guidelines.2. Vehicle may or may not be connected to a network.
Scenario Description: Main (M1)	<ol style="list-style-type: none">1. User views content for a particular Procedure.2. User adds procedure to favorites.3. User exits the Owner's Manual.4. User turns off ignition on the vehicle.5. User turns on the ignition on the vehicle.6. User goes to favorites and selects the procedure saved.7. User views the selected procedure.
Post-conditions	<ul style="list-style-type: none">• User has bookmarked a topic.
List of Exception Use Cases	
Frequency	This Use case will be executed whenever user wants to add a procedure to favorites.



3.4.3 White-box View

3.4.3.1 DOM-SD-REQ-286757/A-Bookmark Content





3.5 DOM-FUN-REQ-294664/A-Considerate Prompt Link to Owners Manual

This function describes the behavior related to Considerate prompts and linking to content in Owner's Manual.

3.5.1 Requirements

3.5.1.1 DOM-FUR-REQ-285814/A-Considerate prompt link to Owner's Manual

User must be able to bring up relevant content in Owner's manual for a Considerate Prompt.

3.5.1.2 DOM-HMI-REQ-285837/A-Bookmark/Favorites

1. The user must be able to easily add Procedure to Favorites.
2. The user must be able to easily remove Procedure from Favorites

3.5.2 Use Cases

3.5.2.1 *DOM-UC-REQ-286768/A-Considerate Prompts linking to Electronic Owner's Manual*

Actors	User, DOMClient, Centerstack
Pre-conditions	<ol style="list-style-type: none">1. Vehicle is compliant with Driver distraction guidelines.2. Vehicle may or not be connected to a network.
Scenario Description – Main (M1)	<ol style="list-style-type: none">1. User selects the Considerate-prompt for additional information.2. DOMClient receives the context details which includes Error/Warning ID.3. Using the Error/Warning ID, DOMClient retrieves the Summary and MO id.4. DOMClient system displays the summary of the topic requested.5. User reads the summary.6. User chooses to view details7. This invokes the Digital Owner's Manual with the MO id.8. Digital Owner's manual relevant content is shown to the user.9. User navigates the content, which may include video.10. User exits the content and returns to the previous state or main menu in DOMClient.
Alternate Scenario (A1) – User reads summary only	<ol style="list-style-type: none">1. User selects the Considerate-prompt for additional information.2. DOMClient receives the context details which includes Error/Warning ID.3. Using the Error/Warning ID, DOMClient retrieves the Summary and MO id.4. DOMClient system displays the summary of the topic requested.5. User reads the summary.6. User chooses to dismiss summary without viewing details.7. User returns to the previous state or main menu in DOMClient.
Alternate Scenario (A2) - Vehicle in Motion	<ol style="list-style-type: none">1. User selects the Considerate-prompt for additional information.2. DOMClient receives the context details which includes Error/Warning ID.3. Using the Error/Warning ID, DOMClient retrieves the Summary and MO id.4. Since Vehicle is traveling at or over 5mph, the message is saved for display later.5. When vehicle drops back to under 5mph, DOMClient system displays the summary of the topic requested.



	<ol style="list-style-type: none">6. User reads the summary.7. User chooses to view details8. This invokes the Digital Owner's Manual with the MO id.9. Digital Owner's manual relevant content is shown to the user.10. User navigates the content, which may include video.11. User exits the content and returns to the main menu in DOMClient.
Alternate Scenario (A3) – Details Option is hidden	<ol style="list-style-type: none">1. User selects the Considerate-prompt for additional information.2. DOMClient receives the context details which includes Error/Warning ID.3. Using the Error/Warning ID, DOMClient retrieves the Summary.4. DOMClient system displays the summary of the topic requested.5. Since there is no MO Id associated with the ID, there is no relevant detailed information in Digital Owner's Manual. For this scenario, the Details option is hidden.6. User reads the summary.7. User dismisses the summary and returns to the main menu in DOMClient.
Alternate Scenario (A4) – Two prompts generated simultaneously	<ol style="list-style-type: none">1. User selects Considerate-prompt 1 for additional information.2. User selects Considerate-prompt 2 for additional information3. DOMClient receives the context details which includes Error/Warning ID for Considerate-prompt 1.4. Using the Error/Warning ID, DOMClient retrieves the Summary and MO id for Considerate-prompt 1.5. DOMClient system displays the summary of the topic requested for Considerate-prompt 1.6. User reads the summary for Considerate-prompt 1.7. User chooses to view details for Considerate-prompt 18. This invokes the Digital Owner's Manual with the MO id for Considerate-prompt 1.9. Digital Owner's manual relevant content for Considerate-prompt 1 is shown to the user.10. User navigates the content, which may include video.11. User exits the content and returns to the previous state or main menu in DOMClient.12. DOMClient system now displays the summary of the topic requested for Considerate-prompt 2.13. User reads the summary for Considerate-prompt 2.14. User chooses to view details for Considerate-prompt 2.15. This invokes the Digital Owner's Manual with the MO id for Considerate-prompt 2.16. Digital Owner's manual relevant content for Considerate-prompt 2 is shown to the user.17. User navigates the content, which may include video.18. User exits and returns to the previous state or main menu in DOMClient.

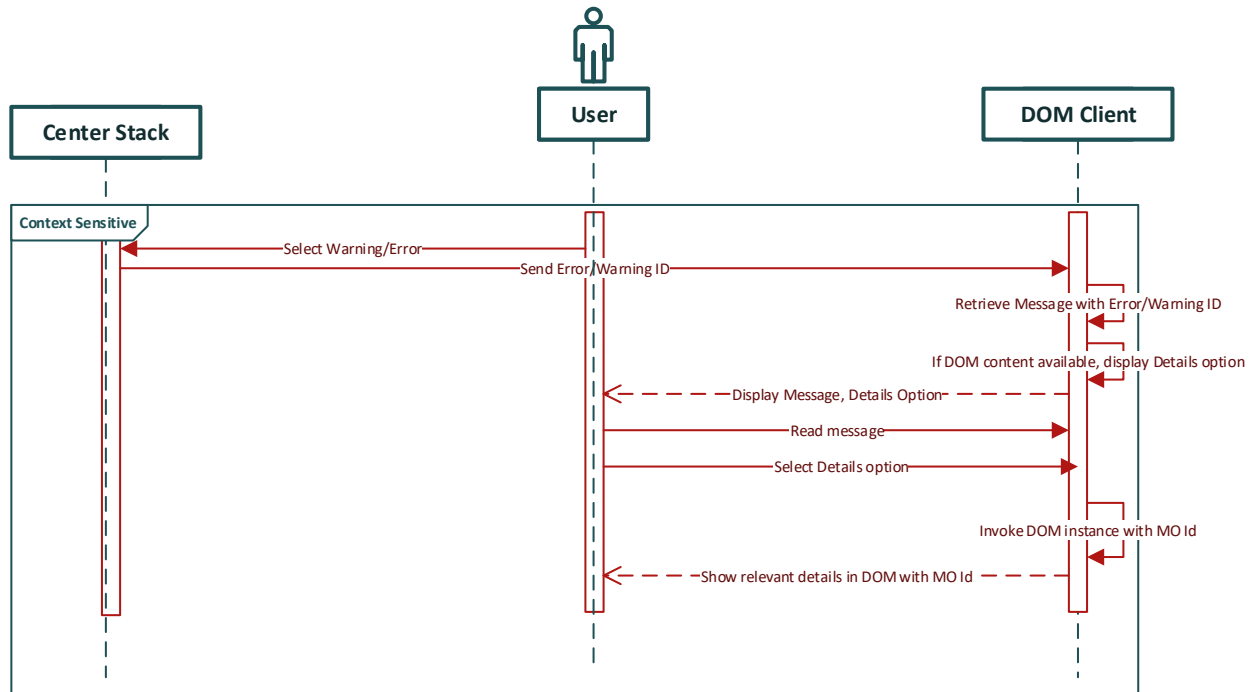


Post-conditions	<ul style="list-style-type: none">User has viewed the summary and details related to the Considerate-prompts successfully.		
Failure Scenario (F1)	<ol style="list-style-type: none">DOMClient attempts to invoke Owner's manual with the MO id.No relevant information found for the Information Requested.DOMClient opens the main landing page of the Owner's Manual.A message is provided to the user indicating that the actual content was not found and asks the user to enter new search criteria to search for the relevant content.		
Frequency	<ul style="list-style-type: none">This Use case is executed when a user triggers information requests for Considerate-prompts a few times a month.		
Detailed Messages	Trigger	Message	
	No relevant content.	No relevant content found. Please consult the Owner's Manual in the glove box for any further information	
Sample List of Considerate Prompts	Category	Code	Prompt
	Navigate to POI	W226	Fuel Level Low
		W1815	Battery Level Low
	Call Roadside Assistance	W1484	Transmission, Over Temperature, Stop Safely
		W140	Steering Fault, Service now
	Situational Prompts		Spinning Tire event detected. Turn Traction Control Off
			ACC Sensor blocked. Switch to Normal Cruise.
			GPS detects you have crossed a border. Change metrics from English to Metric units
	Learn More in Park	W450	Washer Fluid Level Low
		W381	Tire Pressure Low



3.5.3 White-box View

3.5.3.1 DOM-SD-REQ-286770/A-Considerate Prompt Link to Owner's Manual





3.6 DOM-FUN-REQ-294665/A-Context Sensitive (Info-Icon) link to Owner's Manual

This function describes the behavior of Info-icon and links to Owner's Manual.

3.6.1 Requirements

3.6.1.1 DOM-FUR-REQ-285813/A-Info-icon link to Owner's Manual

User must be able to bring up relevant content related to Info-icons set up for various features.

3.6.2 Use Cases

3.6.2.1 **DOM-UC-REQ-286765/A-Context-sensitive Help Linking to Electronic Owner's Manual**

Actors	User, DOMClient, Centerstack
Pre-conditions	<ol style="list-style-type: none">1. Vehicle is compliant with Driver distraction guidelines.2. Vehicle may or not be connected to a network.
Scenario Description – Main (M1)	<ol style="list-style-type: none">1. User selects the Information Icon for the feature in use for additional information.2. DOMClient receives the context details which includes Infotag.3. Using the Infotag, DOMClient retrieves the Summary and MO id.4. DOMClient system displays the summary of the topic requested.5. User reads the summary.6. User chooses to view details7. This invokes the Digital Owner's Manual with the MO id.8. Digital Owner's manual relevant content is shown to the user.9. User navigates the content, which may include video.10. User exits the content and returns to the previous state or main menu in DOMClient.
Alternate Scenario (A1) – User reads summary only	<ol style="list-style-type: none">1. User selects the Information Icon for the feature in use.2. DOMClient receives the context details which includes Infotag.3. Using the Infotag, DOMClient retrieves the Summary and MO id.4. DOMClient system displays the summary of the topic requested.5. User reads the summary.6. User chooses to dismiss summary without viewing details7. User returns to the previous state or main menu in DOMClient.
Alternate Scenario (A2) - Vehicle in Motion	<ol style="list-style-type: none">1. User selects the Information Icon for the feature in use.2. DOMClient receives the context details which includes Infotag.3. Using the Infotag, DOMClient retrieves the Summary and MO id.4. Since Vehicle is traveling at or over 5mph, the message is saved for display later.5. When vehicle drops back to under 5mph, DOMClient system displays the summary of the topic requested.6. User reads the summary.7. User chooses to view details8. This invokes the Digital Owner's Manual with the MO id.9. Digital Owner's manual relevant content is shown to the user.10. User navigates the content, which may include video.11. User exits the content and returns to the main menu in DOMClient.
Alternate Scenario (A3) –	<ol style="list-style-type: none">1. User selects the Information Icon for the feature in use.2. DOMClient receives the context details which includes Infotag.3. Using the Infotag, DOMClient retrieves the Summary.



Details Option is hidden	<ol style="list-style-type: none">DOMClient system displays the summary of the topic requested.Since there is no MO Id associated with the Infotag, there is no relevant detailed information in Digital Owner's Manual. For this scenario, the Details option is hidden.User reads the summary.User dismisses the summary and returns to the main menu in DOMClient.		
Post-conditions	<ul style="list-style-type: none">User has viewed the summary and details related to the Info-icon successfully.		
Failure Scenario (F1)	<ol style="list-style-type: none">DOMClient attempts to invoke Owner's manual with the MO id.No relevant information found for the Information Requested.DOMClient opens the main landing page of the Owner's Manual.A message is provided to the user indicating that the actual content was not found and asks the user to enter new search criteria to search for the relevant content.		
Frequency	<ul style="list-style-type: none">This Use case is executed when a user triggers information requests for features e a few times in a month.		
Detailed Messages	Trigger		Message
	No relevant content.		No relevant content found. Please consult the Owner's Manual in the glove box for any further information
List of Info-icons	Feature	Infobook Tag	Infobook Content
	Language	IB30A	Select your preferred language.
	Temperature Units	IB30B	Select your preferred temperature units (°C or °F).
	Measure Units	IB30C	Select preferred units for your vehicle fuel economy (mpg or km/L) and distance (km or miles).
	Tire Pressure Units	IB30D	Select your preferred tire pressure units (PSI standard in the US or kPA standard in Canada & Europe)
	Touch Button Beep	IB30E	Turn on/off the audible beep when confirming choices made through the touch screen.
	Touch Panel Beep	IB30F	Turn on/off the audible beep when confirming choices made through the climate or audio system.
	Automatic System Updates	IB30G	Set the vehicle to automatically download the latest system software features, enhancements, and security updates when connected to a Wi-Fi network.



			Vehicle information needed to perform the update will be sent to Ford U.S. Data charges may apply. Certain updates may be possible through the %appName% app. See your Owners Manual for more details. *NOTE: %appName% will be replaced by either "FordPass" or "Lincoln Way" (without the quotes) based on EOL Configs.
	About SYNC	IB30H	Provides information about SYNC, including the software version, and any specific serial numbers or identification numbers that may be specific to the vehicle's system.
	Software Licenses	IB30I	Provides information on the licenses for specific software within the vehicle.
	Master Reset	IB30J	Re-sets the system to factory default settings. All changes made, including paired Bluetooth devices, contact lists, and saved points (if the vehicle is equipped with navigation) will be lost.
	MyKey Information	IB35A	MyKey allows you to program your keys to restrict certain driving modes to promote safe driving habits, such as increasing seat belt use, limiting vehicle top speeds and decreasing audio volume. Programmed keys are called "MyKeys." Unprogrammed keys are called "Admin Keys." Your vehicle will also keep track of the total distance driven with a MyKey.
	Create MyKey	IB35B	You can program MyKeys to allow drivers to use certain safety features, or automatically turn them on. All MyKeys are programmed to the same settings. Once a MyKey is enabled, it will follow certain default safety features such as turning off automatic adult content on satellite radio, turning on park aids, and activating the low fuel warning earlier.
	Volume Limiter	IB35C	Volume limiter (with a MyKey) lets you set the audio system's maximum volume limit to 45%. This will disable the Speed sensitive volume feature.
	Emergency Assistance	IB35D	{Feature Name} will automatically attempt to call Emergency Services using a connected phone when a qualified crash is detected. This feature can be set to



			remain on even if the MyKey driver tries to disable it. To setup Emergency Contacts, make sure that the mobile phone contacts are downloaded. +image
	911 Assist	IB35E	{Feature Name} will automatically attempt to call Emergency Services using a connected phone when a qualified crash is detected. This feature can be set to remain on even if the driver tries to disable it. To setup Emergency Contacts, make sure that the mobile phone contacts are downloaded. +image
	Do Not Disturb	IB35F	This feature sends all calls directly to voicemail. Text message notifications are not displayed on the screen and all ringtones and alerts are set to silent. +image
	Traction Control	IB35G	Traction Control reduces engine power to increase traction if the vehicle wheels spin when accelerating on slippery surfaces. This menu allows you to set this feature to be forced to remain on even if a MyKey user turns this feature off. +video
	Max Speed / Speed Limit	IB35H	Max Speed/Speed Limiter allows you to set a maximum speed limit. The MyKey driver will not be able to override the speed limit that has been set. +image
	Speed Minder	IB35I	Speed Minder allows you to preselect a maximum speed for the vehicle for MyKey drivers. If the MyKey driver exceeds the preselected speed a notification will be shown on the display with the speed followed by an audible tone.
	Clear All MyKeys	IB35J	This feature allows you to clear your MyKey settings. By doing so, you will remove all restrictions and return all MyKeys to their original admin key settings. You will not be able to remove MyKey restrictions individually.
	Cruise Control	IB2A	This menu allows you to adjust the Cruise Control settings to adapt to the traffic speed ahead of you. The Adaptive Cruise Control setting will adjust the speed to maintain the gap between you and the vehicle ahead you. Once traffic is



			clear your vehicle will adjust to the speed you had previously set.
	Speed Limiter	IB2B	This menu allows you to adjust the maximum speed of the vehicle.
	Lane Keeping Systems	IB2C	This menu allows you to configure Lane Keeping System alerts and settings. When on the road, the lane keeping system can help you keep your vehicle inside of your lane and you can activate these alerts with the {insert term} on the steering wheel.
	Pre-Collision Assist	IB2D	This menu allows you to configure Pre-Collision features (active at speeds 3mph (5km/h)) and alerts. Pre-Collision Assist uses radar and camera technology to scan the roadway ahead and, if a collision risk with a vehicle or pedestrian is detected, provides a warning to the driver. If the driver does not respond in time, the system can automatically apply up to full braking force to help reduce the severity of or even eliminate some frontal collisions. Pre-Collision Assist may help drivers avoid rear end collisions with other vehicles at all speeds, while Pedestrian Detection can help the driver avoid pedestrians at lower speeds – both may reduce the severity of forward collisions or even prevent certain forward collisions.
	Traffic Sign Recognition	IB2E	Whether the signs are at the side of the road or above it, permanent or temporary, Traffic Sign Recognition can identify them. An icon of that speed or no-overtaking sign appears on the instrument cluster and changes every time you enter a new limit.
	Rear View Camera	IB2F	The feature will automatically activate when in reverse gear.
	Tow Haul	IB2G	If turned on, this feature will change the transmission shift points to higher RPM limits to help keep the vehicle moving while towing. This feature provides engine braking in all gears, which is useful when descending hills.
	Blindspot Detection	IB2H	This feature helps detect vehicles that may have entered the blindspot zone of your vehicle. The detection area is on



			both sides of your vehicle, extending rearward from the exterior mirrors to approximately 10 feet (3 meters) beyond the bumper. The system is designed to alert you if certain moving vehicles enter the blindspot zone while driving.
	Trailer Blindspot Detection	IB2I	When a trailer is properly connected, this feature helps detect vehicles that may have entered the blindspot zone. This feature uses sensors located in the vehicle tail lamps to extend the detection area rearward from the vehicle side mirrors to the end of the trailer.
	Cross Traffic Alert	IB2J	Cross Traffic Alert is designed to warn you of vehicles that are approaching the rear of your vehicle from the side when your transmission is in reverse
	Wrong Way Alert	IB2K	This feature relies on a windshield-mounted camera to pick up Do Not Enter or Wrong Way signs and pairs it with data from the car's navigation system. If the car starts driving against the flow of traffic, it fires off visible and audible warnings for the driver.
	Traction Control	IB2L	Turn on/off the traction control feature. This feature {insert TBD copy}...
	Auto Start-stop	IB2M	Turn on/off the auto stop-start feature. This feature automatically shuts off the engine when the vehicle is at rest to cut fuel use and eliminate idle emissions. It then restarts the engine automatically when the driver lifts off the brake (or puts in the clutch to select 1st gear) to get going again.
	Auto Hold	IB2N	Auto Hold uses your vehicle's brakes to hold your vehicle at a stop once your vehicle has reached a standstill condition.
	Hill Start Assist	IB2O	Turn on/off the Hill Start Assist feature. This feature makes towing & hauling heavy loads on an incline controllable & reduces rollback.
	Hill Descent Control	IB2P	Turn on/off the Hill Descent Control feature. This feature allows a smooth and controlled hill descent in rough terrain without the driver needing to touch the brake pedal.



	Driver Alert	IB2Q	Turn on/off the Driver Alert feature. This feature works with a front camera that detects if your vehicle is in the lane. If driving is irregular, it will alert you.
	Trailer Sway	IB2R	Turn on/off the Trailer Sway Control feature. This feature helps to keep your trailer or camper from swaying side to side while towing it. If your trailer starts to sway the stability control light will flash and a trailer sway reduce speed message in your information display. This feature will begin to apply the brakes to individual and reduce your engine power if needed.
	Parking Aid	IB2S	Turn on/off the parking aid feature. When in reverse this feature audibly alerts you of your surroundings, and how close you are to hitting other cars or objects.
	Rear Brake Assist	IB2T	If turned on, this feature will use the rear sensors while in reverse gear to detect any objects and if the driver does not respond to the audible or visual warnings, then the brakes will be applied automatically.
	Lane Centering Assist	IB2U	This feature can be activated by pressing the Lane Centering Assist button on the steering wheel while driving with Adaptive Cruise Control. {+imageIcon}. While active, the system provides continuous hands-on steering support to help guide the vehicle, keeping it centered in the lane. Lane Centering Assist will not respond if Adaptive Cruise Control is turned off, if the driver removes their hands from the steering wheel for an extended period, or if lane lines cannot be detected.
	Pedestrian Detection	IB2V	Pedestrian Detection is part of the Pre-Collision Assist system and is active up to speeds of 50 mph (80 km/H). If the sensors detect a pedestrian and the driver does not respond to any visual and audible warnings, then the gap between brake pads and discs is reduced to improve brake responsiveness. If the driver still does not respond, then brakes are applied automatically.



	Post Impact Braking	IB2W	This feature initiates braking up to the level of the anti-lock-brake system during or right after a collision.
	Pre-Collision Assist	IB10A	If turned on, the Pre-Collision Assist System will be enabled each time the engine is turned on.
	Distance Indication	IB10B	If turned on, this feature will indicate with an audible beep how close or far you are to an object or vehicle in your path. The closer you get to the object the quicker the cadence of the audible beep.
	Active Braking	IB10C	If turned on, this feature is designed to automatically apply the vehicles brakes if an obstruction or incident is identified in front. Using sensors the road ahead is scanned and a message is highlighted on the instrument panel if a possible collision is ahead with the brakes applied if the message is not adhered to.
	Evasive Steering	IB10D	If turned on, this feature helps steer around stopped or slower vehicles to help avoid collisions. Designed to operate at city and highway speeds, it uses radar and a camera to detect slower-moving and stationary vehicles ahead, and provides steering support to enable drivers to avoid a vehicle if a collision is imminent. The system is activated if there is insufficient space to avoid a collision by braking and the driver decides to take evasive action.
	Activate Traffic Sign Recognition	IB12A	If turned on, this feature recognizes traffic signs on the side of the road or above it, permanent or temporary. An icon of that speed or no-overtaking sign appears on the instrument cluster and changes every time you enter a new limit.
	Activate Speed Warning	IB12B	%featureName% + image
	Speed Warning Chime	IB12C	%featureName% + audioFile
	Auto Engine Off	IB13A	This feature automatically turns off the engine after 30 minutes if the vehicle is left unattended.



	Easy Entry / Easy Exit	IB13B	If turned on, this feature will automatically move the steering column and driver's seat to allow extra room to exit the vehicle. The column and seat will return to the previous setting when the ignition is turned on.
	Park Lock Control	IB13C	If turned on, this feature allows you to shift the transmission from P (Park) to N (Neutral) after you have switched the ignition off. You can use this feature when double parking your vehicle. Parking your vehicle parallel to an already parked vehicle is double parking. CAUTION: When turning this feature off means the vehicle can move freely when in N.
	Silent Mode	IB13D	Silent mode turns off cluster lighting, center stack lighting, welcome lights, courtesy lights and locking horn feedback.
	Rain Sensor	IB13E	If turned on, the rain sensor will automatically alter the speed and rate of the wiper blades to keep outward visibility unobstructed at all times (vehicle must be equipped with rain-sensing wipers).
	Charge Cord Lock	IB13F	%featureName% + image + "The charge Cord can only be unlocked while the vehicle is running and the charging cord is connected."
	Charge Port Light	IB13G	%featureName% + image + "If set to Limited, the Charge Port Light will illuminate when plugging in, opening doors, and pressing the Unlock button on your key fob. If set to ON, it will also illuminate when actively charging"
	MyKey	IB13H	MyKey lets you program keys with restricted driving modes for guests or family members to use when driving your vehicle.
	Onboard Modem Serial Number	IB13I	This feature provides information about the vehicle's modem.
	Alarm System	IB13J	This vehicle is equipped with an anti-theft alarm system. There are interior sensors that detect movement inside of the vehicle. The perimeter sensors monitor if someone opens a door, liftgate or hood



			without a valid key. This menu allows you to configure the active sensors and system reminders.
	Chimes	IB13K	This feature allows you to set the chime behavior for warning chimes, information chimes and parking chimes.
	Remote Start Setup	IB13L	This feature allows you to set the remote start behavior to automatic or to the previous settings you set for climate preferences, seat location preferences, and engine run time duration when starting your vehicle remotely.
	Aux Heater	IB13M	This feature (PTC electrical heater) aids in warming the vehicle interior on vehicles with a diesel engine. If enabled, it will activate depending on the outside at temperature and coolant temperature.
	Park Heater	IB13N	This feature allows you to set the park heater time and behavior to warm up your vehicle's engine at desired time(s).
	Windows	IB13O	This menu allows you to set the window behavior (such as automatically closing or opening with your remote control).
	Wipers	IB13P	This menu allows you to set the windshield wiper behavior (such as rain sensing wipers, courtesy wipes, and reverse wiping).
	Power Liftgate	IB13Q	This feature allows you to set your vehicle to automatically open its trunk hands-free.
	Lighting	IB13R	This menu allows you to set the headlight behavior of your vehicle (adaptive headlamps, automatic headlamps, etc.).
	Ambient Lighting	IB13S	This feature allows you to customize the colors and intensity of the interior lighting.
	Locks	IB13T	This menu lets you configure the locking features of your vehicle doors (when you turn on your vehicle, when you leave your vehicle, when you mislock your vehicle, etc.).
	Remote Unlock	IB13U	This feature allows you to program your remote to unlock all of the vehicle doors or the Driver's door only



	Mirrors	IB13V	This feature allows you to set the default behavior of your mirrors (e.g. automatically fold when you park).
	Power Running Board	IB13W	%featureName% + image
	Door Keypad Code	IB13X	The keypad is located near the driver's window. Depending on your vehicle, it may have physical buttons, or it may be invisible until it is touched. Once you press the keypad, it will light up so that you can see and touch the appropriate buttons. Please note that the keypad may not work if you input your entry code too quickly. If this happens, simply enter your code more slowly. The keypad allows you to: Lock or unlock the doors, Recall saved seat and mirror positions, Arm and disarm the anti-theft alarm, Open the trunk, and Program or erase personal entry codes.
	Ask on Exit	IB14A	If turned on, the message "Reduced guard?" is displayed each time you switch off the ignition. If you wish to set the alarm with reduced guard, press the ok button. If you wish to set the alarm with full guard, leave your vehicle without pressing the ok button.
	Park Slot	IB15A	%featureName% + audioFile + "This chime will play when Park Slot is enabled and a parking spot is found."
	Information	IB15B	%featureName% + audioFile + "This chime will play to inform you of a vehicle condition that may require attention."
	Activate Remote Start	IB17A	Remote Start allows you to turn on the engine from up to 300 feet away and to adjust the vehicle interior to a comfortable temperature before you get in.
	Climate Control	IB17B	This menu allows you to adjust the interior automatically to 72 degrees Fahrenheit (22 degrees celsius) or to the last setting upon remote start.
	Seats and Wheels	IB17C	This menu allows you to set the seat and wheel temperature to AUTO (See owner's manual) upon remote start.



	Seats (if no heated steering wheel)	IB17C	This menu allows you to set the seat temperature to AUTO (See owner's manual) upon remote start.
	Continue Heat	IB18A	Park heater will heat the vehicle's engine and will continue to run for up to 30 minutes after the ignition is switched off. The vehicle battery must be at least 60% charged to use this feature.
	Heater Programming	IB18B	This menu allows you to program your park heater to automatically run at a scheduled date and time.
	Courtesy Wiper	IB21A	If turned on, the windshield wipers will provide a courtesy wipe a few seconds after the initial wipe has been completed to make sure any excess wiper fluid is cleaned from the windshield.
	Rain Sensing	IB21B	%featureName% + image + "If enabled, this feature automatically turns on wipers or changes wiper speed depending on the weather. The sensitivity can be adjusted by turning the ring on your wiper stalk."
	Reverse Wiper	IB21C	If enabled, this feature will automatically turn on the reverse wipers when the front wipers are on and you shift into reverse.
	Auto Highbeam	IB23A	If turned on, this feature allows your vehicle to sense when to turn on/off your highbeam lights. A camera mounted behind the rearview mirror detects approach lights and decides when to turn your highbeams on or off to give you the best visibility on a dark road and to avoid glaring your lights at someone who is approaching.
	Daytime Lights	IB23B	If turned on, this feature will only work when you have your lights set to the autolamp setting.
	Welcome Lights	IB23C	Welcome Lights
	Adaptive Headlamps	IB23D	Adaptive Headlamps
	Adaptive Headlamps Setup	IB23E	This menu lets you configure the adaptive headlamps for left hand or right hand traffic.

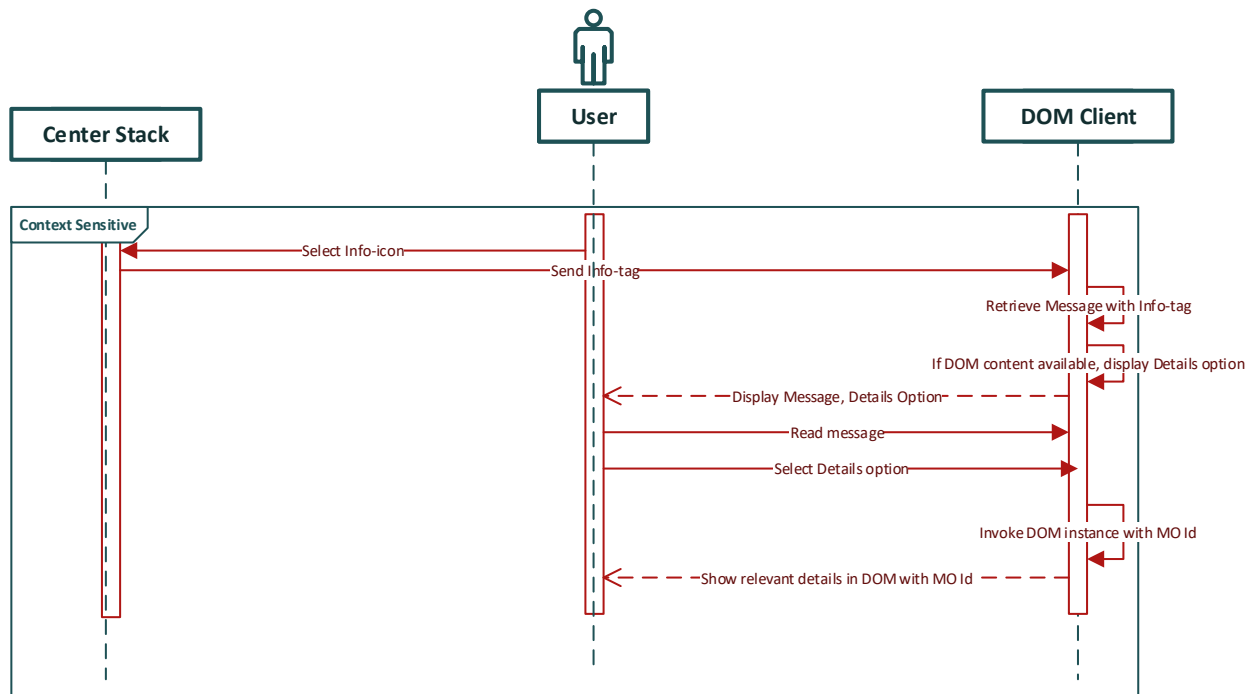


	Autolamp Delay	IB23F	This menu lets you configure the amount of time your lights stay on after exiting the vehicle.
	Autolock	IB27A	If turned on, this feature automatically locks all of the doors when you reach speeds greater than 12.4 mph (20 km/h).
	Auto Unlock	IB27B	If turned on, this feature automatically unlocks all of the doors when the vehicle is turned off and the driver's door is opened.
	Relock	IB27C	If turned on, this feature automatically relocks the doors if you press the unlock button on the remote control and do not open a door within 45 seconds.
	Mislock	IB27D	If turned on, the horn will chirp twice if you try and lock your doors when one or more of your doors (including the hood or trunk) has not been closed properly.
	Switch Inhibit	IB27E	This feature protects the vehicle if you lock your vehicle and leave the windows down. Switch inhibit will stop all controls inside of the car from unlocking the vehicle unless the remote control key or door keypad code is used.
	Audible Feedback	IB27F	Audible Feedback
	Exterior Lights Feedback	IB27G	Exterior Lights Feedback
	Remote Unlock	IB27H	This feature allows you to program the remote to unlock all of the vehicle doors or the Driver's door only.
	Autofold	IB28A	Autofold
	Reverse Tilt	IB28B	Reverse Tilt



3.6.3 White-box View

3.6.3.1 DOM-SD-REQ-286769/A-Info-icon link to Owner's Manual





3.7 DOM-FUN-REQ-294666/A-Comply with Driver Distraction Rules

This requirement describes behavior when Driver Distraction rules are in effect.

3.7.1 Requirements

3.7.1.1 DOM-FUR-REQ-285820/A-Driver Distraction Compliance

All interactions with Owner's manual must comply with Driver distraction rule

3.7.2 Use Cases

3.7.2.1 DOM-UC-REQ-286688/A-Driver Distraction Compliance

Actors	DOMClient, User					
Pre-conditions	<ol style="list-style-type: none">Vehicle is compliant with Driver distraction guidelines.Vehicle may or not be connected to a network.					
Scenario Description – Main (M1)	<ol style="list-style-type: none">User is viewing Digital Owner's Content in a particular language.Vehicle equals or exceeds the threshold speed of 5mph.DOMClient displays a message indicating that the Owner's Manual is unavailable for the User's safety.User exits the message and returns to the DOMClient home screen.					
Alternate Scenario (A1)	<ol style="list-style-type: none">Vehicle is traveling at or over the threshold speed of 5mphDOMClient is on the message indicating that the Owner's Manual is unavailable for the User's safety.Vehicle is either parked or slows down below the threshold speed of 5mph.The message in step 2 disappears and the last known session of the Owner's Manual shows up.User views the Owner's Manual content and exits.					
Post-conditions	<ul style="list-style-type: none">DOMClient has blocked Digital Owner's Manual due to driver distraction rules.					
Failure Scenario (F1)	<ol style="list-style-type: none">Owner's Manual Content is not available in the language selected.When the user selects the Owner's Manual, DOMClient provides a message to the user that the Owner's Manual is unavailable in the language selected and will continue to be displayed in the default languageUser continues to browse Owner's Manual in default language.User exits to default DOMClient screen.					
Frequency	<ul style="list-style-type: none">This use case is executed only when vehicle is crossing the threshold of 5mph.					
Reference	<p>Driver Distraction Requirements are logged in FSMS. Electronic Owner's Manual must comply with the Requirements logged here.</p> <p>https://www.fsms-portal.ford.com/index.jsp</p> <p>Summary is listed below:</p> <table><tr><td></td><td></td></tr><tr><td>Use of Systems with Visual Display</td><td>RQT-002003-021848</td></tr></table>				Use of Systems with Visual Display	RQT-002003-021848
Use of Systems with Visual Display	RQT-002003-021848					



Visual Information

RQT-002003-021854

Not Intended for use while driving

RQT-002003-021859

Interruptibility

RQT-002003-021857

Down vision to components with high visual demand

RQT-002003-022004

Legibility

RQT-002003-021807

Feedback

RQT-002003-021851

Detailed
Messages

Trigger

Message

Vehicle is at or over
5mphFor your personal safety, Owner's Manual
content is not available.



3.8 DOM-FUN-REQ-294787/A-Link to External Site

This function describes the behavior when content is linked to an external site.

3.8.1 Requirements

3.8.1.1 DOM-FUR-REQ-285815/A-Link to External Sites

User must be able to click on a link and browse for additional external content (such as Sirius).

3.8.2 Use Cases

3.8.2.1 **DOM-UC-REQ-286685/A-Browse for External Content**

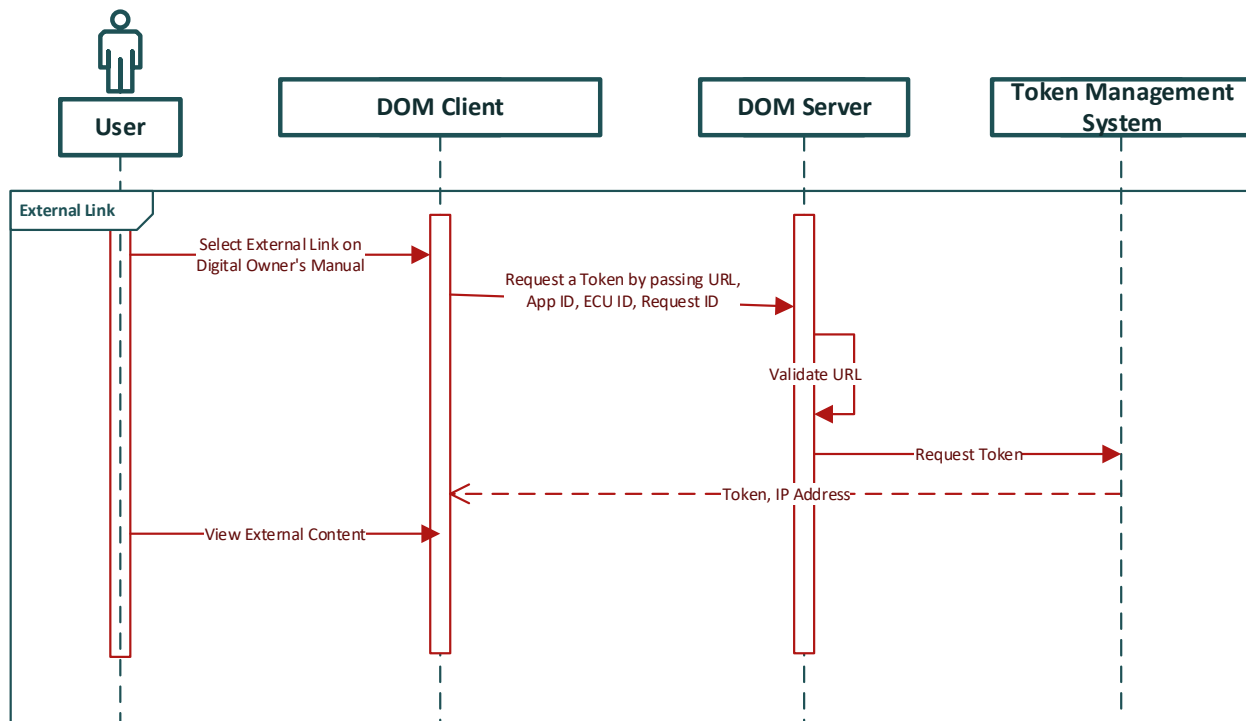
Actors	User, DOMClient, Wireless Interface Router
Pre-conditions	<ol style="list-style-type: none">1. Vehicle is compliant with Driver distraction guidelines.2. Vehicle is connected to a network.
Scenario Description – Main (M1)	<ol style="list-style-type: none">1. User navigates the Owner's Manual, which includes links to external information.2. User clicks to view content that is hosted within Ford Network.3. Web Application passes necessary parameters including URL, App ID, ECU ID, Request ID to the Wireless Interface Router to get a token.4. Once URL is validated via In-vehicle policies, Wireless Interface Router sends the full request to a cloud-based Token Management system.5. This service generates a token with time to live and sends it back with IP address to the Web Application6. User views the content requested.
Alternate Scenario (A1)	<ol style="list-style-type: none">1. User navigates the Owner's Manual, which includes links to external information.2. User clicks to view content that is hosted outside Ford Network.3. Web Application passes necessary parameters including URL, App ID, ECU ID, Request ID to the Wireless Interface Router to get a token.4. Once URL is validated via In-vehicle policies, Wireless Interface Router sends the full request to a cloud-based Token Management system, which forwards it to a 3rd party using API.5. This service generates a token with time to live and sends it back with IP address to the Web Application6. User views the content requested.
Post-conditions	<ul style="list-style-type: none">• User has viewed the content successfully.
Failure Scenario (F1) – Token Generation Failure	<ol style="list-style-type: none">1. M1/A1 – Steps 1 to 52. Token generation fails.3. Web Application provides a message to the user indicating that the requested content cannot be viewed.
Failure Scenario (F2) – URL Whitelisted	<ol style="list-style-type: none">1. M1/A1 – Steps 1 to 32. URL is not whitelisted (pre-registered). Validation fails.3. DOMClient displays a message indicating link is unavailable.



	4. Web Application provides a message to the user indicating that the requested content cannot be viewed.						
Frequency	<ul style="list-style-type: none">This Use case may be executed when the user chooses to view help content that is not within the Owner's manual, but a link to an external or internal site						
Performance	<ul style="list-style-type: none">DOMClient system should display content within 1 second of selecting the link.						
Security	<ul style="list-style-type: none">If the link within Owner's Manual content is pointing to a resource outside Ford network, it must be validated.						
Detailed Messages	<table><tr><th>Trigger</th><th>Message</th></tr><tr><td>No Connectivity.</td><td>Content is not available due to lack of connectivity. Please try again after you have connectivity.</td></tr><tr><td>URL not whitelisted. Token not generated.</td><td>The Website you are trying to reach is either unavailable or not responding. Please try again later.</td></tr></table>	Trigger	Message	No Connectivity.	Content is not available due to lack of connectivity. Please try again after you have connectivity.	URL not whitelisted. Token not generated.	The Website you are trying to reach is either unavailable or not responding. Please try again later.
Trigger	Message						
No Connectivity.	Content is not available due to lack of connectivity. Please try again after you have connectivity.						
URL not whitelisted. Token not generated.	The Website you are trying to reach is either unavailable or not responding. Please try again later.						

3.8.3 White-box View

3.8.3.1 DOM-SD-REQ-286687/A-Browse for External Content





3.9 DOM-FUN-REQ-294788/A-Display Owner's Manual in Language Selected on DOMClient

This function describes behavior when language setting is modified on DOMClient.

3.9.1 Requirements

3.9.1.1 DOM-FUR-REQ-285817/A-Display Owner's Manual in Language Selected on DOMClient

Web Application must be able to present all information (except Video) in the language selected on the DOMClient. If translated content for the language is not available, it must default to the default language choice for the locale. Finally, if no translated content for DOMClient language or default language of locale is available, system must default to English.

3.9.1.2 DOM-HMI-REQ-285982/A-Browse: Language

DOMClient system must display video content in language setting of the DOMClient. If this language is not available for the video content requested on the DOMServer, user should be warned that content will be displayed in the default language for the locale. If this is not available, user should be warned that content will be displayed in English language.

3.9.1.3 DOM-HMI-REQ-286764/A-Language Pack

Bundle Name	Bundle #	Languages
FNA	1	NA English
		NA Spanish
		Canadian French
FOE and EDM	3E	UK English
		Dutch
		EU Spanish
		Polish
		Czech
		EU French
		German
		Russian
		Danish
		EU Portuguese
		Italian
		Swedish
		Norwegian
		Turkish
FAPA	12	UK English
		Australian English
	13	NA English
		Simplified Chinese (Chinese Mandarin)
	14	NA English
		Traditional Chinese (Taiwanese Mandarin)
FSAO	9	NA English
		Brazilian Portuguese
		NA Spanish
Export and Growth	6	UK English
		EU Spanish
		EU French
		EU Portuguese
	19	NA English
		NA Spanish
		Dutch



	24	NA English
		Canadian French
		Korean
	27	UK English
		EU French
		Arabic
	28	UK English
		EU French
		Arabic
		EU Portuguese
	29	NA English
		Thai
	30	UK English
		Indian English

3.9.2 Use Cases

3.9.2.1 DOM-UC-REQ-286759/A-Language Support

Actors	User, DOMClient		
Pre-conditions	<ol style="list-style-type: none">1. Vehicle is compliant with Driver distraction guidelines.2. Vehicle may or not be connected to a network.3. Owner's Manual is available in all languages (in a language pack) on DOMClient.		
Scenario Description – Main (M1)	<ol style="list-style-type: none">1. User is viewing Digital Owner's Content in a particular language.2. User modifies the language of display via Settings.3. DOMClient displays the Owner's Manual in the newly set language.4. User views the Owner's Manual content in the new language5. User exits.		
Alternate Scenario (A1)	<ol style="list-style-type: none">1. User modifies the language of display via Settings.2. User clicks on the Digital Owner's Manual tile to start up the Digital Owner's Manual.3. DOMClient displays the Owner's Manual in the newly set language.4. User views the Owner's Manual content in the new language5. User exits.		
Post-conditions	<ul style="list-style-type: none">• User has viewed the content in the new language successfully.		
Failure Scenario (F1)	<ol style="list-style-type: none">1. Owner's Manual Content is not available in the language selected.2. When the user selects the Owner's Manual, DOMClient provides a message to the user that the Owner's Manual is unavailable in the language selected and will continue to be displayed in the default language3. User continues to DOMClient Owner's Manual in default language.4. User exits to default DOMClient screen.		
Frequency	<ul style="list-style-type: none">• This use case is executed only when settings is modified for a language.		
Language Packs	Bundle Name	Bundle #	Languages
	FNA	1	NA English



		NA Spanish
		Canadian French
	FOE and EDM	3E UK English
		Dutch
		EU Spanish
		Polish
		Czech
		EU French
		German
		Russian
		Danish
		EU Portuguese
		Italian
		Swedish
		Norwegian
		Turkish
	FAPA	12 UK English
		Australian English
		13 NA English
		Simplified Chinese (Chinese Mandarin)
		14 NA English
		Traditional Chinese (Taiwanese Mandarin)
	FSAO	9 NA English
		Brazilian Portuguese
		NA Spanish
	Export and Growth	6 UK English
		EU Spanish
		EU French
		EU Portuguese
		19 NA English
		NA Spanish
		Dutch
		24 NA English
		Canadian French
		Korean
		27 UK English
		EU French
		Arabic
		28 UK English
		EU French
		Arabic
		EU Portuguese
		29 NA English
		Thai
		30 UK English
		Indian English

Detailed
Messages

Trigger

Message



Language choice for
Owner's Manual is not
available

Owner's Manual content is not available in
the language selected. It will continue to be
displayed in the default language



3.10 DOM-FUN-REQ-294792/A-Initial Provisioning of Owner's Manual

This function describes Initial Provisioning of Owner's Manual.

3.10.1 Requirements

3.10.1.1 DOM-FUR-REQ-285819/A-Persistent Storage of Content

The IVI system must store the digital owner's manual persistently on DOMClient for off-line viewing.

3.10.1.2 DOM-PFM-REQ-286959/A-Initial Provisioning: Performance

DOMClient system must download and install the entire Digital Owner's Manual in under 5 minutes.

3.10.2 Use Cases

3.10.2.1 DOM-UC-REQ-286920/A-Initial Provisioning In the Factory

Actors	Factory Worker, DOMClient, DOMServer
Pre-conditions	<ol style="list-style-type: none">1. Vehicle is rolling out of factory.2. Digital Owner's Manual does not exist on DOMClient.3. Connection to a network is available.
Scenario Description – Main (M1)	<ol style="list-style-type: none">1. Factory worker presses the Icon for Digital Owner's Manual on the DOMClient system.2. DOMClient requests the latest version of the Digital Owner's Manual on the DOMServer by sending VIN number, country Code, and language pack code.3. DOMServer responds with full package of latest version of Digital Owner's Manual.4. DOMClient shows progress bar indicating progress of download.5. Once download is successfully completed, a success message is returned on the screen and to the DOMServer.6. DOMClient starts to install the package.7. DOMClient shows progress bar indicating progress of installation.8. Once installation is successfully completed, a success message is returned on the screen and to the DOMServer.9. DOMClient displays the Home screen of the Owner's Manual.10. Factory worker runs factory specified tests on the Digital Owner's Manual that tests navigation, links to html, and video streaming.11. Factory worker exits the Digital Owner's Manual.
Post-conditions	<ul style="list-style-type: none">• Vehicle has the latest version of the Digital Owner's Manual, which is tailored for the vehicle.
Failure Scenario (F1) – Download Failure	<ol style="list-style-type: none">1. M1 – Steps 1 to 32. Download is interrupted due to lack of connectivity (either on vehicle or on the DOMServer).3. DOMClient displays a message indicating download has been interrupted due to connectivity issues.4. A similar message indicating download interruption is sent to the DOMServer.5. Factory worker reschedules load when connectivity is available.6. Once connectivity is available, DOMClient re-establishes connectivity.7. DOMClient resumes downloading of Digital Owner's manual package from where it left off.

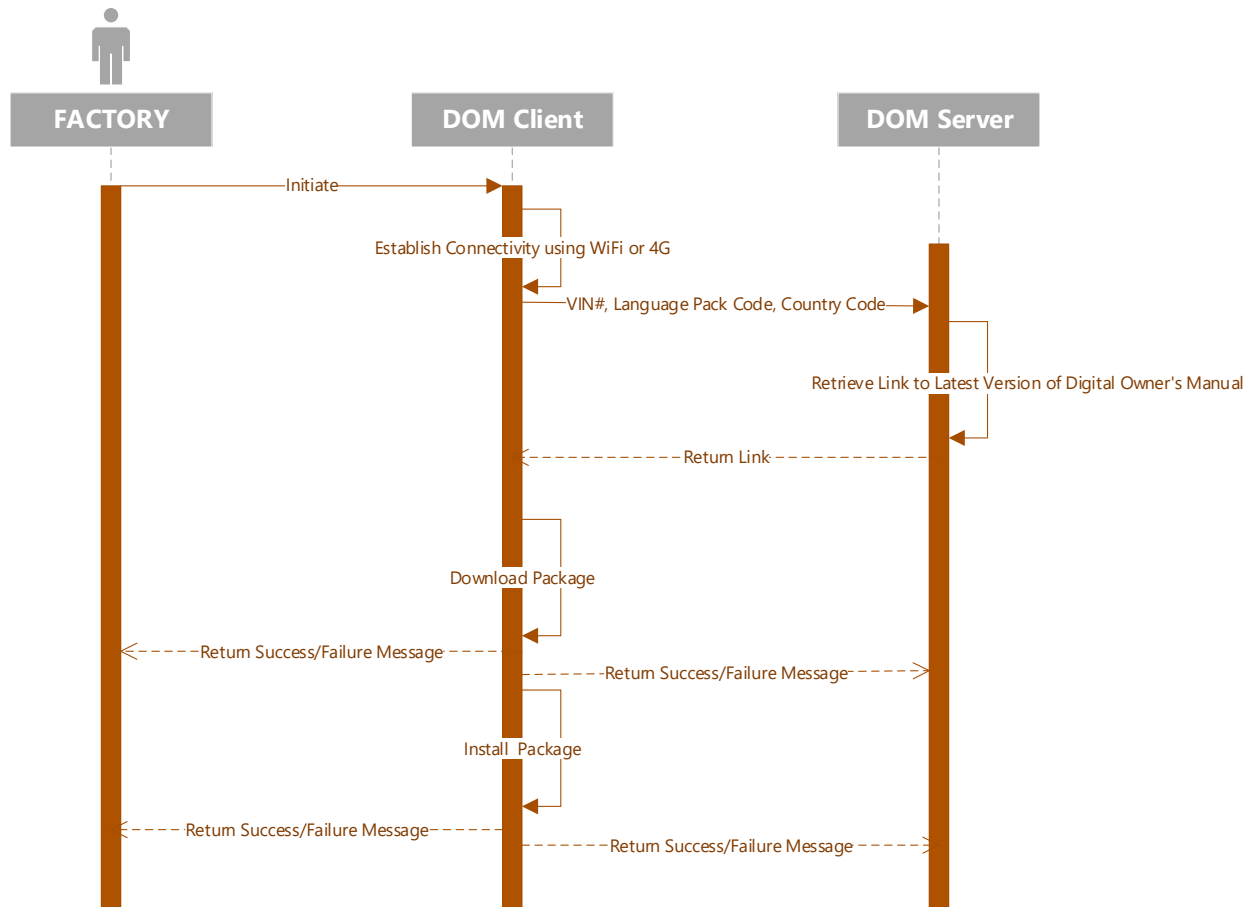


	8. M1 – Steps 4 to 9	
Failure Scenario (F2) – Installation Failure	<ol style="list-style-type: none">1. M1 – Steps 1 to 72. An installation failure occurs.3. DOMClient displays a message indicating installation failure has occurred.4. A similar message indicating installation failure is sent to the DOMServer.5. Factory worker follows process steps to diagnose the unit further.	
Failure Scenario (F3) – Test Failure	<ol style="list-style-type: none">1. M1 – Steps 1 to 82. Test of Owner's Manual fails.3. Vehicle is flagged for further inspection/investigation.	
Failure Scenario (F4) – Relevant Package not found	<ol style="list-style-type: none">1. M1 – Steps 1 to 2.2. DOMServer is unable to find/send a package to the vehicle.3. DOMClient displays a message indicating package is not found.4. Factory worker follows process steps to diagnose the unit further.	
Frequency	<ul style="list-style-type: none">• This Use case will be executed once during factory roll out.	
Special Requirement	<ul style="list-style-type: none">• The Digital Owner's Manual must be tailored for the vehicle based on model and features.	
Detailed Messages	Trigger	Message
	Download interrupted	Download has been interrupted due to failure in connectivity either on Vehicle or on Cloud side.
	Unable to authenticate the response's origin	Since we are unable to authenticate the origin of the response, we are unable to process this request.
	Package not found for VIN Number, Language pack code, Country code	Cloud is unable to find the right package for the VIN Number, Language pack code, and Country code.
	Installation failure	Installation of package has failed.
	Unable to authenticate the response	SYNC is unable to authenticate the response's origin.



3.10.3 White-box View

3.10.3.1 DOM-SD-REQ-286960/A-Initial Provisioning





3.11 DOM-FUN-REQ-294793/A-Update Content in the Background

This function describes the behavior when content is updated in the background.

3.11.1 Requirements

3.11.1.1 DOM-PFM-REQ-286974/A-Update Content in the Background: Performance

DOMClient system should download and install the delta of Digital Owner's Manual in under 3 minutes.

3.11.2 Use Cases

3.11.2.1 **DOM-UC-REQ-286961/A-Update Content in the Background**

Actors	DOMClient, DOMServer
Pre-conditions	<ol style="list-style-type: none">1. DOMClient has a version of the Digital Owner's Manual in memory.2. Connection to a network is available
Scenario Description – Main Scenario (M1)	<ol style="list-style-type: none">1. DOMClient checks every quarter to see if there is an updated version of the Digital Owner's Manual on the DOMServer by sending VIN number, country Code, and language pack code.2. DOMServer responds with full package of latest version of Digital Owner's Manual.3. DOMClient downloads the update in the background.4. Once download is successfully completed, a success message is returned to the DOMServer.5. DOMClient starts to install the package in the background.6. Once installation is successfully completed, a success message is returned to the DOMServer.7. DOMClient indicates to the user that a new version of Owner's Manual has been installed
Scenario Description – Alternate Scenario (A1)	<ol style="list-style-type: none">1. DOMClient checks every quarter to see if there is an updated version of the Digital Owner's Manual on the DOMServer by sending VIN number, country Code, and language pack code.2. DOMServer responds with delta package of latest version of Digital Owner's Manual.3. DOMClient downloads the update in the background.4. Once download is successfully completed, a success message is returned to the DOMServer.5. DOMClient starts to install the package in the background.6. Once installation is successfully completed, a success message is returned to the DOMServer.7. DOMClient indicates to the user that a new version of Owner's Manual has been installed.
Post-conditions	<ul style="list-style-type: none">• DOMClient has the latest version of the Digital Owner's Manual.
Failure Scenario (F1) – Download Failure	<ol style="list-style-type: none">1. M1 – Steps 1 to 32. Download is interrupted due to lack of connectivity (either on vehicle or on the DOMServer).3. An error message indicating download interruption is sent to the DOMServer.4. Once connectivity is available, DOMClient re-establishes connectivity.5. DOMClient resumes downloading of Digital Owner's manual package from where it left off.

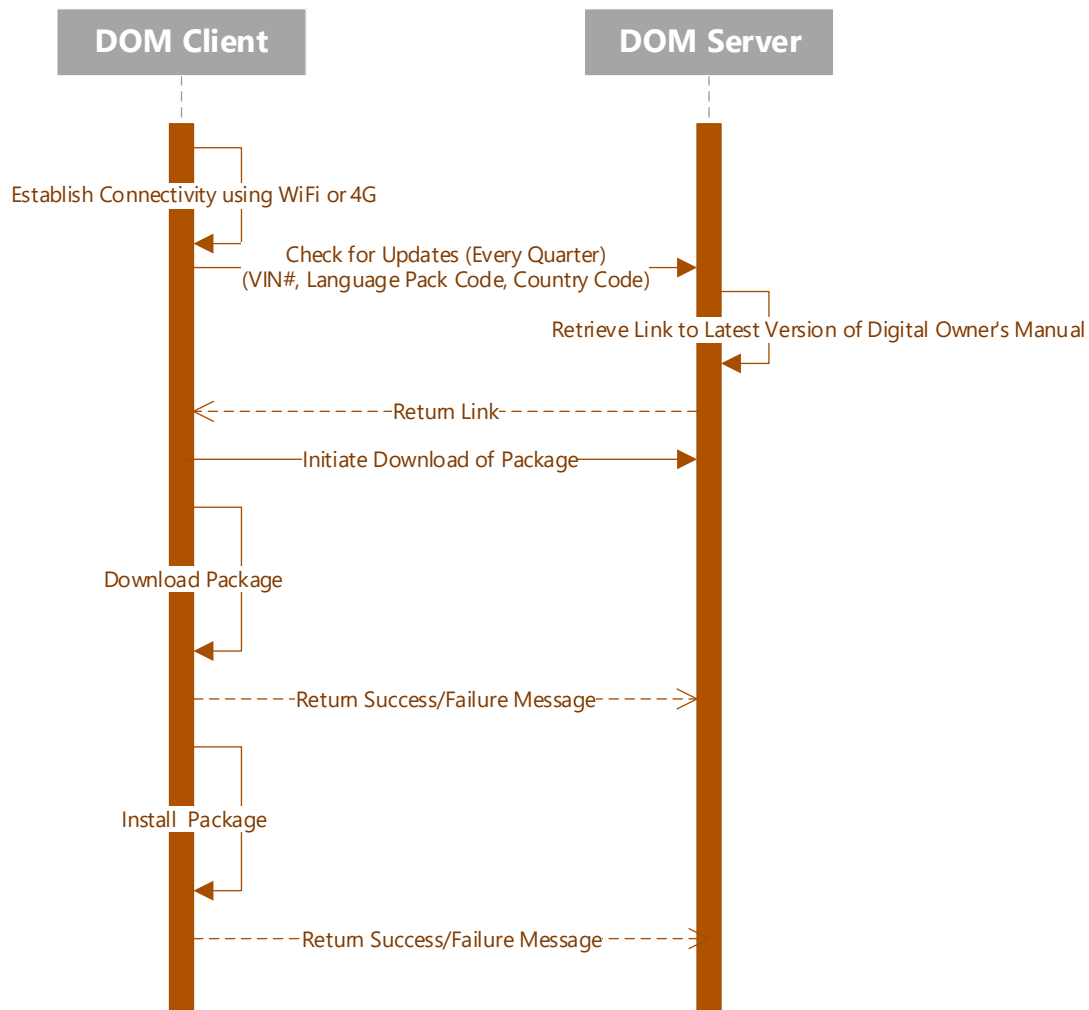


	6. M1 – Steps 4 to 7	
Failure Scenario (F2) – Installation Failure	<ol style="list-style-type: none">1. M1 – Steps 1 to 52. An installation failure occurs.3. A message indicating installation failure is sent to the DOMServer.	
Frequency	This Use case will be executed every quarter if updated content is available on the DOMServer for the VIN#, Country Code, and Language Pack combination.	
Detailed Messages	Trigger	Message
	Download interrupted	Download has been interrupted due to failure in connectivity either on Vehicle or on Cloud side.
	Unable to authenticate the response's origin	Since we are unable to authenticate the origin of the response, we are unable to process this request.
	Package not found for VIN Number, Language pack code, Country code	Cloud is unable to find the right package for the VIN Number, Language pack code, and Country code.
	Installation failure	Installation of package has failed.
	Unable to authenticate the response	SYNC is unable to authenticate the response's origin.



3.11.3 White-box View

3.11.3.1 DOM-SD-REQ-286973/A-Update Content in the Background





3.12 DOM-FUN-REQ-294794/A-Voice Interaction with Owner's Manual

This function describes behavior related to voice interaction with the Owner's Manual.

3.12.1 Requirements

3.12.1.1 DOM-FUR-REQ-285823/A-Voice Input

The system must be able to take voice input.

3.12.1.2 DOM-FUR-REQ-285824/A-Text-to-Voice

The system must be able to read out Text-to-Voice

3.12.1.3 DOM-HMI-REQ-287136/A-Initiating Voice Search

The following commands will initiate the Electronic Owner's Manual:

Owner's Manual

Electronic Owner's Manual

Digital Owner's Manual

Stuck, I am stuck

Users guide

How to use

Help me

The Voice Module for Electronic Owner's Manual gets initiated and welcomes the user.

Hi, Welcome to the Electronic Owner's Manual Module. This is Henry. Please state the feature on which you need guidance. Alternately, you can choose from the list of choices provided here.

3.12.1.4 DOM-HMI-REQ-287137/A-General Voice - Interface

User must speak after the tone, with a normal voice at a normal speed.

User must not speak while system is responding. System will not be able to recognize commands if user speaks while system is responding.

User must ensure that background noise is minimized when interacting with the voice system.

3.12.1.5 DOM-HMI-REQ-287138/A-Voice Feedback

Voice sessions must provide both audible and visual feedback. This includes prompts to aid the customer. Audible and visual feedback must be simultaneously generated in matching pairs (only).

Audible Feedback

The following Audible tones provide the state of the Voice system

New Voice Control Session: This indicates that a new Voice Control Session has been initiated.

Listening: Indicates that System is listening and ready for user command.

Positive Recognition: Indicates that a command from the user has been positively recognized.

Negative Recognition: Indicates that a command has not been successfully recognized.

Timeout: Indicates that a listening phase has ended (within 10 seconds) during which no user command was detected.

Cancel: Indicates that the user has cancelled the listening phase.

Chimes for each of the above will be specified by Ford in conjunction with the supplier.

Visual Feedback

The Voice Control Application and DOMClient must display a variety of visual icons depending upon the state of the Voice System. The icons shall apply and be displayed in the following situations:

System Prompt: This will be displayed for the duration of the Voice Control Session

Listening State: This will be displayed while Voice Control System is in Listening State.

Timeout: This will be displayed when a listening phase has ended (within 10 seconds) during which no user command was detected.

Cancel: Indicates that the voice session has been brought to end by the user.



3.12.2 Use Cases

3.12.2.1 DOM-UC-REQ-287135/A-Voice Search

Actors	User, DOMClient
Pre-conditions	<ol style="list-style-type: none">1. Vehicle is compliant with Driver distraction guidelines.2. Vehicle may or not be connected to a network.
Scenario Description – Main (M1)	<ol style="list-style-type: none">1. User initiates the Owner's Manual with the commands listed in the section "Initiating the Owner's Manual"2. DOMClient responds and confirms it is now in Owner's Manual area.3. User then issues a specific command that relates to Topic in the Owner's Manual.4. DOMClient responds with choices based on the command and requests the user to either choose visually or by number corresponding to the choices.5. User makes a choice.6. DOMClient displays Topic.7. User exits Topic.8. User exits Owner's Manual and returns to DOMClient home screen.
Post-conditions	User gets a set of results from voice search.
Failure Scenario (F1)	<ol style="list-style-type: none">1. User initiates the Owner's Manual with the commands listed in the section "Initiating the Owner's Manual"2. DOMClient is unable to understand the command and asks the user to repeat the command.3. User repeats the command.
Failure Scenario (F2)	<ol style="list-style-type: none">1. User initiates the Owner's Manual with the commands listed in the section "Initiating the Owner's Manual"2. DOMClient brings up the wrong application.3. User cancels current command and starts over.
Failure Scenario (F3)	<ol style="list-style-type: none">1. M1- Steps 1 to 32. DOMClient is unable to understand the command and asks the user to repeat the command.3. User repeats the command
Failure Scenario (F4)	<ol style="list-style-type: none">1. M1- Steps 1 to 42. User notes that DOMClient has misunderstood command and has brought up the wrong choices.3. User cancels current command and starts over.
Frequency	This Use case will be executed whenever user needs to search for Topic in Owner's Manual.

**Voice Search
(Sample)**

List of Sample/Recommended Search Criteria for one vehicle provided below:

Feature	Search	Potential Variants
Seating	Front Seat	How do I adjust Front Seat?
	2 nd Row Seat	How do I adjust 2 nd row Seat?
	3 rd Row Seat	How do I adjust 3 rd row Seat?
	Lumbar Support	I do not know how to adjust Lumbar Support
	Head Rest	How do I adjust headrest?
Occupant Restraint	Horn	Horn does not work
		Unable to use the horn.
Electrical Accessories Function	Electrical Memory	How do I set Seat? How do I adjust mirrors? How do I adjust columns?
		How do I use the memory function?
		How do I set memory for seat/mirror/columns?
Paint Appearance	Exterior Paint Trouble	Why is there a color difference between parts?
		Why is there uneven paint on the exterior of the car?
Manual Transmission	Manual Change Gears	How do I change gears to reverse?
		How do I change gears from 1 st to 2 nd ?
		How do I shift gears?
		Why is it so difficult to shift gears?



	Automatic Transmission	Shift Gears	How do I shift gear from Park?
			How do I shift gear from Reverse?
	Instrumentation Function	Key Pad	How do I use the Keypad?
			How do I lock or unlock doors using Keypad?
	Digital User Interface	Apple Car Play	How do I exit Apple Car Play? How do I get apps from my Apple on DOMClient?
		Android Auto	How do I get apps from my Android on DOMClient?
		Navigation	Need help on Navigation menus
		A/C Control	A/C Control is difficult to use
		Heater Control	How do I adjust heat?
		Message Center	How do I use Message Center?
		AEN	How do I use AEN?
	Child Safety	Child Safety	
		Child Restraints	
		Installing Child Restraints	
		Child Restraint Positioning	
		Child Safety Locks	
	Seatbelt	Seatbelt	
		Fastening Seatbelts	



		Seatbelt Height Adjustment	
		Seatbelt Minder	How do I turn off Seatbelt minder?
	Supplementary Restraints System	Supplementary Restraints System	
		Driver Airbag	
		Passenger Airbag	
		Side Airbag	
		Driver Knee Airbag	
		Side Curtain Airbag	
	Keys and Remote Control	Keys and Remote Control	Why is my remote control not working?
		Remote Control	
		Changing Remote Control Battery	
		Intelligent Key Access	
		Key or Remote Control	How do I replace a lost key or remote control?
	MyKey	MyKey	
		MyKey Settings	
		Create a MyKey	How do I create a MyKey?
		Clear a MyKey	
		Clear All MyKey	How do I clear MyKey?
		Check MyKey System Status	How do I track distance using MyKey?
		Number of MyKeys	How do I know how many MyKeys are programmed to the vehicle?



		Number of Admin Keys	How do I find out how many admin keys are programmed to the vehicle?
		MyKey with Remote Start Systems	Can I use MyKey with Remote Start Systems?
			I am unable to create a MyKey
			I cannot program the configurable settings
			I cannot clear the MyKeys
			I lost the admin key
			I lost a key
			MyKey distances do not accumulate
			MyKey does not function with the keyless entry transmitter.
	Doors and Locks	Locking and Unlocking	
		Locking	How do I lock the vehicle?
		Unlocking	How do I unlock the vehicle?
		Central Locking	How do I lock all doors?
		Double Locking	How do I double lock the doors?
		Automatic Relocking	How do I automatically relock the doors?
		Lock with Key blade	How do I lock the door with key blade?
		Unlock with Key blade	How do I unlock the door with key blade?
		Open Liftgate Manually	How do I open Liftgate manually?



		Open Liftgate with Remote Control	How do I open Liftgate with remote control?
		Close Liftgate	How do I close Liftgate manually?
		Power Liftgate	
		Open Power Liftgate	How do I open Power Liftgate?
		Close Power Liftgate	How do I close Power Liftgate?
		Stop Liftgate movement	How do I stop Liftgate movement?
		Set Liftgate Open Height	How do I set Liftgate Open Height?
			Why is the Liftgate not closing?
	Security	Passive Anti-theft System	
		Anti-theft	
		Coded Keys	
		Arming Engine Immobilizer	
		Disarming Engine Immobilizer	
		Perimeter Alarm	
		Anti-theft Alarm	
		Perimeter Alarm	
		Interior Sensors	
		Inclination Sensors	
		Battery Backup Sounder	



		Triggering the alarm	
		Full guard	
		Reduced guard	
		Selecting full or reduced guard	
		Ask on exit	
		Disarming the alarm	
		Category One Alarm	
	Steering Wheel	Adjust Steering Wheel	How do I adjust steering wheel?
		Manual Adjustable Steering Wheel Column	How do I lock the steering wheel?
		Power Adjustable Steering Wheel Column	
	Audio/Media	Volume Up	How do I turn up volume on Steering wheel?
		Volume Down	How do I turn down volume on Steering wheel?
		Mute	How do I mute?
		Media	How do I scroll through available audio sources?
		Audio Sources	
		Seek Down	How do I tune radio to the previous stored preset?
		Seek Previous	How do I play the previous track?
		Seek Up	How do I tune the radio to the next stored preset?



		Seek Next	How do I play the next track?
		Voice Control	How do I activate voice control?
			How do I cancel voice control?
	Cruise Control	Switch on Cruise Control	How do I switch on cruise control?
		Set Cruise Speed	How do I set a particular cruise speed?
		Change Set Speed	How do I change set speed?
		Cancel Set Speed	How do I cancel set speed?
		Resume Set Speed	How do I cancel set speed?
		Switch Cruise Control Off	How do I switch off Cruise Control?
		Switch Adaptive Cruise Control On	
	Adjust Pedals	Vertical Control	How does Vertical Control work for adjusting pedals?
		Horizontal Control	How does Horizontal Control work for adjusting pedals?
	Wipers and Washers	Wipers and Washers	
		Wipe Intervals	How do you change wipe intervals?
		Speed Dependent Wipers	
		Autowipers	How do I configure Autowipers?
		Windshield Washers	How do I operate Windshield Washers?



	Power Running Boards	Power Running Boards	
		Automatic Power Deploy	How do I automatically deploy running boards?
		Automatic Power Stow	How do I automatically stow running boards?
		Manual Power Deploy	
		Enabling Power running Board	How do I enable Power Running boards?
		Disabling Power running Board	How do I disable Power Running boards?
		Bounce-back	Why does the board bounce-back?
	Lighting	Lighting	
		Lighting Control	How do I switch on Headlamp?
			How do I switch off Headlamp?
			How do I switch on Instrument panel lamps?
			How do I switch off Instrument panel lamps?
			How do I switch on rear lamps?
			How do I switch off rear lamps?
		High Beam	How do I turn on high beam?
			How do I turn off high beam?
		Autolamps	What is Autolamps?
			How do I turn on Autolamps?



		Instrument lighting	How do I increase brightness on instrument lighting?
			How do I dim instrument lighting?
		Daytime running lamps	How are daytime running lamps activated?
		Automatic High Beam	How do I activate Automatic High Beam?
			How do I turn off Automatic High Beam?
		Fog lamps	How do I turn on Fog lamps?
			How do I turn off Fog lamps?
		Direction Indicators	How do I turn on Direction Indicators?
		Turn Signals	How do I turn off Direction Indicators?
		Spot lamps	How do I turn on Spot Lamps?
			How do I turn off Spot Lamps?
		Cargo and Trailer Hookup Lamps	How do I turn on Cargo and Trailer Hookup lamps?
			How do I turn off Cargo and Trailer Hookup lamps?
		Interior Lamps	How do I turn on Interior Lamps?
			How do I set Interior lamps so that they stay off when car is off?
		Ambient Lighting	How do I adjust ambient lighting?



	Windows and Mirrors	Windows and Mirrors	
		Power Windows	How do I adjust Power Windows?
		Exterior Mirrors	How do I adjust Exterior Mirrors?
		Interior Mirrors	How do I adjust Interior Mirrors?
		Sliding Windows	How do I adjust Sliding Windows?
		Sun Visors	How do I adjust Sun Visors?
		Moonroof	How do I open Moonroof?
			How do I close Moonroof?
	Instrument Cluster	Instrument Cluster	
		Gauges	What are the different gauges?
			Where is the Engine Oil Pressure gauge?
			Where is the Engine Coolant Temperature gauge?
		Warning Lamps and Indicators	What do these Warning Lamps and Indicators mean?
		Warning Lamps	What do these Warning lamps mean?
		Indicators	What do these Indicators mean?
		Audible Warnings and Indicators	What do these Audible Warnings mean?
		Audible Warnings.	



	Information Displays	Information Displays	How do I scroll through the menu options?
		Information Messages	How do I remove Information messages from the display?
	Climate Control	Manual Climate Control	How do you control climate manually?
		Automatic Climate Control	How do you control climate automatically?
		Heated Windows and Mirrors	
		Heated Windows	How do you operate Heated Windows?
		Heated Mirrors	How do you operate Heated Mirrors?
		Cabin Air filter	Where is the Cabin Air filter located?
			How would I know when to change the Air Filter?
		Remote Start	How do I operate Remote Start?
	Seats	Seats	
		Head Restraints	How do I adjust Head Restraints?
		Front Seat Head Restraints	How do I adjust Front Seat Head Restraints?
		Rear Seat Head Restraints	How do I adjust Rear Seat Head Restraints?
		Adjust Seat Manually	How do I adjust seat?
		Moving Seat Forward and Backward	How do I move seat forward?
		Recline Adjustment	How do I move seat backward?



		Manual Lumbar	How do I adjust recline?
			How do I adjust lumbar?
		Power Seats	
		Power Lumbar	How do I turn on massage on seats?
			How do I adjust massage?
		Memory Function	Where is the memory control?
		Rear Seats	How do I adjust Rear Seats?
		Heated Seats	How do I operate Heating in Seats?
		Cooled Seats	How do I operate Cooling in Seats?
		Front Seat Armrest	How do I adjust Front Seat Armrest?
		Rear Seat Armrest	How do I adjust Rear Seat Armrest?
	Universal Garage Door Opener	Universal Garage Door Opener	How do I program the Garage Door Opener?
	Auxiliary Power Points	Auxiliary Power Points	How do I use the power points?
	Storage Compartments	Storage Compartments	Where are the storage Compartments?
		Center Console	Where is the Center Console?
		Overhead Console	Where is the overhead console?
	Starting and Stopping the Engine	Starting and Stopping the Engine	What are the positions in the Ignition Switch?
			Why is my car not starting?
		Keyless Starting	How do I start my car?



	Steering Wheel Lock	How do I lock my Steering Wheel?
		How do I unlock my Steering Wheel?
	Engine Block Heater	How do I use the Engine Block Heater?
	Auto Start-Stop	How do I enable Auto Start-Stop?
		How do I disable Auto Start-Stop?
Fuel and Refueling	Fuel Quality	What fuel quality is expected?
	Fuel Filler Funnel Location	Where is the Fuel Filler Funnel location?
	Running out of fuel	What do I do if I run out of fuel?
	Fuel Consumption	How do I monitor Fuel Consumption?
		How do I maintain fuel efficiency?
	Emission Control System	How do I ensure vehicle is in compliance with Emission Control?
Transmission	Transmission	
	Floor Shifter	How do I use Floor Shifter?
	Column Shifter	How do I use Column Shifter?
	Tow Mode	How do I use Tow Mode?
	Sport Mode	How do I use Sport Mode?
	Automatic Transmission	
	SelectShift	What is SelectShift?



	Source: Most Annoying Features		
	Auto Start/Stop	Auto Start	What is AutoStart?
		Auto Stop	What is AutoStop?
	Lane Departure Warning	Lane Departure Warning	
		Turn on Lane Departure Warning	How do you turn on Lane Departure warning?
		Turn off Lane Departure Warning	How do you turn off Lane Departure warning?
	Lane Departure Intervention	Lane Departure Intervention	
		Turn on Lane Departure Intervention	How do you turn on Lane Departure Intervention?
		Turn off Lane Departure Intervention	How do you turn off Lane Departure Intervention?
	Four-Wheel Drive	Four-Wheel Drive	How do I operate Four-Wheel drive?
	Rear Axle	Rear Axle	
		Electronic Locking Differential	How do I use Electronic Locking Differential?
		Activate Electronic Locking Differential	How do I activate Electronic Locking Differential?
		De-activate Electronic Locking Differential	How do I de-activate Electronic Locking Differential?



	Brakes	Anti-lock Brakes (ABS)	How do I drive with Anti-lock Brakes (ABS)?
		Parking Brake	How do I operate Parking Brake?
		Electric Parking Brake	How do I operate Electric Parking Brake?
		Hill Start Assist	How do I use Hill Start Assist?
	Traction Control	Traction Control	How do I use Traction Control?
	Stability Control	Stability Control	How do I use Stability Control?
	Hill Descent Control	Hill Descent Control	How do I use Hill Descent Control?
	Parking Aids	Parking Aids	How do I use the different Parking Aids?
		Rear Parking Aid	How do I use Rear Parking Aid?
		Active Park Assist	How do I use Active Park Assist?
		Rear View Camera	How do I use Rear View Camera?
		360 Degree Camera	How do I use 360 Degree Camera?
	Cruise Control	Cruise Control	How do I turn on Cruise Control?
			How do I turn off Cruise Control?
		Adaptive Cruise Control	How do turn on Adaptive Cruise Control?
			How do I turn off Adaptive Cruise Control?
	Driving Aids	Driving Aids	What are the various Driving Aids?



		Driver Alert	How do I turn Driver Alert on?
			How do I turn Driver Alert off?
		Lane Keeping System	How do I turn on Lane Keeping System?
			How do I turn off Lane Keeping System?
		Blind Spot Information System	How do I turn on Blind Spot Information System?
			How do I turn off Blind Spot Information System?
		Cross Traffic Alert	How do I enable Cross Traffic Alert?
			How do I disable Cross Traffic Alert?
		Steering	
		Adaptive learning	What does Adaptive Learning Steering do?
			How do I enable Adaptive Learning Steering?
			How do I disable Adaptive Learning Steering?
		Collision Warning System	How do I use Collision Warning System?
		Drive Control	What are the settings for Drive Control?
			How can I change Drive Control Settings?
	Load Carrying	Load Retaining Fixtures	
		Load Limit	What is the load limit?
		Bed Access	



		Step	
		Deploy Step	How do I deploy the step?
		Stow Step	How do I stow the step?
		Bed Ramps	How do I use Bed Ramps?
	Towing	Towing	How do I set up Tow for a Trailer?
		Trailer Reverse	How do I enable Trailer Reversing aids?
		Trailer Sway Control	How do I turn on Trailer Sway Control?
			How do I turn off Trailer Sway Control?
		Recommended Towing Weights	What is the recommended Towing Weight?
		Essential Towing Checks	What are the checks for Towing?
		Four Wheel Towing	How would you tow a vehicle on four wheels?
	Driving Hints	Driving Hints	Can you provide Driving Hints?
		Breaking New Vehicle In Hints	What are the hints for breaking a new vehicle in?
		Economical Driving	How can I make sure I am driving Economically?
		Driving through Water	How do I drive through Water?
		Floor Mats	How do I install Floor Mats?
		Snowplowing	How do I install the Snow Plow?
	Roadside Emergencies	Roadside Emergencies	



		Roadside Assistance	How do I get Roadside Assistance?
		Hazard Flashers	How do I operate Hazard Flashers?
		Fuel Shutoff	When is Fuel Shutoff?
		Jump Starting the Vehicle	How do I jump-start the vehicle?
		Post-crash alert system	When is the Post-crash alert system initiated?
		Transporting the vehicle	How do I transport the vehicle?
		Towing Points	How do I use Towing Points?
		Recovery Hooks	How do I use Recovery Hooks?
	Customer Assistance	Customer Assistance	How do I get Customer Assistance?
		Reporting Safety Defects	How do I report Safety Defects?
	Fuse Specification Chart	Fuse Specification Chart	Can I see the Fuse Specification Chart?
		Changing a fuse	How do I change a fuse?
	Maintenance	Opening Hood	How do I open hood?
		Closing Hood	How do I close hood?
		Under hood overview	Can I get an under hood overview?
		Engine Oil Check	How do I check Engine Oil?
		Oil Change Indicator Reset	How do I reset Oil Change Indicator
		Engine Coolant	How do I check Engine Coolant?



		Automatic Transmission Fluid	How do I check Automatic Transmission Fluid?
		Transfer Case Fluid	How do I check Transfer Case Fluid?
		Brake Fluid	How do I check Brake Fluid?
		Power Steering Fluid	How do I check Power Steering Fluid?
		Washer Fluid	How do I check Washer Fluid?
		Fuel Filter	How do I check Fuel Filter?
		Battery	How do I check/change Battery?
		Wiper Blades	How do I check Wiper Blades?
			How do I change Wiper Blades?
		Adjust Headlamp	How do I adjust Headlamp?
		Change a bulb	How do I change a bulb?
		Bulb Specification Chart	Can I see the Bulb Specification Chart?
		Engine Air Filter	How do I change Engine Air Filter?
	Vehicle Care	Cleaning the exterior	How do I clean the exterior?
		Waxing	How do I wax the car?
		Cleaning the engine	How do I clean the engine?
		Cleaning the wiper blades	How do I clean the wiper blades?
		Cleaning the interior	How do I clean the interior?



		Cleaning the instrument panel	How do I clean the instrument panel?
		Cleaning the instrument Cluster Lens	How do I clean the instrument cluster lens?
		Cleaning Leather Seats	How do I clean Leather seats?
		Repair Minor paint damage	How do I repair minor paint damage?
		Cleaning wheels	How do I clean wheels?
		Vehicle Storage	How do I store the vehicle?
	Wheels and Tires	Tire Care	How do I care for tires?
		Snow Chains	How do I use Snow Chains?
		Tire Pressure Monitoring System	How do I use Tire Pressure Monitoring System?
		Road Wheel	How do I change a road wheel?
		Wheels and Tires Technical Specifications	Can I see the Technical Specifications for Wheels and Tires?
	Capacities and Specifications	Engine Specifications	What are the Engine Specifications?
		Motorcraft Parts	What are the Motorcraft Parts?
		Vehicle Identification Number	What is my Vehicle Identification Number?
		Vehicle Certification Label	What is my Vehicle Certification Label?
		Transmission Code Specification	What is my Transmission Code Specification?



		Capacities and Specifications	What are the capacities and Specifications for my vehicle?
		Audio Unit	How do I operate my Audio Unit?
		Digital Radio	How do I operate my Digital Radio?
		Satellite Radio	How do I operate my Satellite Radio?
		USB Port	How do I use my USB port for Audio?
	DOMClient	DOMClient	How do I use DOMClient?
		Home Screen	Where is the home screen?
		Voice Recognition	How do I use Voice Recognition?
		Entertainment	How do I use Entertainment on DOMClient?
		Climate	How do I adjust climate on DOMClient?
		Phone	How do I operate Phone on DOMClient?
			How do I pair phone to DOMClient?
		Navigation	How do I operate Navigation on DOMClient?
		Apps	How do I enable AppLink?
			How do I use Apps on DOMClient?
		Settings	How do I adjust Settings on DOMClient?
	Accessories	Accessories	What are the accessories available for my vehicle?
	Ford Protect	Ford Protect	What are the Ford Protect options?



	Scheduled Maintenance	Scheduled Maintenance	What Scheduled Maintenance should I follow?
			What are the Owner Checks and Services I should do?
	End User License Agreement	End User License Agreement	Can I see the End User License Agreement?
	Type Approvals	Type Approvals	What are the Type Approvals for my car?



3.13 DOM-FUN-REQ-294799/A-Capture Usage and Error Data

This function describes the requirements for capturing usage and error data.

3.13.1 Requirements

3.13.1.1 DOM-FUR-REQ-285822/A-Capture Usage and Error Data

User must capture the following usage and error data as generated.

Usage Information:

System must be able to provide the following usage metrics and collect information needed to enable the same.

Session:

General

- Source of entry
 - Web Application
 - Info-icon
 - Considerate prompt
- Session Duration
- Browse Path within Owner's Manual
- # of Times search is used in a session
- Percent of time spent on each type of content:
 - HTML
 - Animation
 - Video
 - Audio
- Topics selected
- Time spent on each topic
- Procedures viewed
- Time spent on each procedure
- External Links Selected
- Time spent on External Links
- IP address of content selected
- Does user return to Internal Content?
- # of interruptions that occur while browsing Owner's Manual?
- What are the interruptions?
- Does user return to Owner's Manual content after interruption?
- Does user connect to Wi-fi for watching video or browsing external link?
- Does user connect to Data for watching video or browsing external link?

Videos

- Streaming videos watched
- Time spent on each video

Search

- Parameters searched
- Time to execute search query
- Search queries that do not provide any result
- Browse path after search results provided.

Info-icon path

- Info-icon selected
- Owner's Manual Details selected

Considerate Prompt path

- Considerate Prompt selected
- Owner's Manual Details selected



Error Information

Session:

General

- Unable to access Video with Wi-fi/Data
- Unable to access External Link with Wi-fi/Data
- Web-engine crash
- Selecting Details link on Info-icon takes user to wrong location.
- Selecting Details link on considerate prompts takes user to wrong location.
- Touch screen on Owner's manual does not respond to user touch.
- Pan gesture not working
- Zoom gesture not working
- Response time on selecting Topic/Subtopic

Links

- Broken Links
- External Links routed to incorrect locations.
- Interruptions encountered during streaming
- Video playback quality (spotty)

Search

- Responsiveness of Search
- Average Search Response time
- Search queries that do not return anything.
- Search queries that are stuck in execution

Analytics

We need to answer the following questions:

1. Which topic(s) are browsed the most (List in decreasing order of access)?
2. Which procedure(s) are browsed the most (List in decreasing order of access)?
3. Which videos are browsed the most (List in decreasing order of access)?
4. Which external links are browsed the most (List in decreasing order of access)?
5. What is the top 5 most followed path for viewing content in user manual?
6. List of topics never accessed.
7. List of procedures never accessed.
8. List of videos never accessed.
9. List of external links never browsed.
10. How much % of time is spent on the following:
 - a. HTML5 text content
 - b. Video
 - c. Audio (if available)
11. What % of selections of info-icons translate to clicking on Details for Owner's Manual Content?
12. List of info-icons most browsed for details (May indicate that the summary is insufficient).
13. What % of selections of Considerate Prompts translate to clicking on Details for Owner's Manual Content?
14. List of considerate prompts most browsed for details (May indicate that the summary is insufficient).



4 Appendix: Reference Documents

Reference #	Document Title
1	
2	
3	
4	
5	
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