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ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-046  Non-compliant behaviour	4.1 Index 04 - SS026 3.5.7.5, (Table 2, [5]) Index 04 - SS026 3.5.7.5: 7	The onboard ETCS should inform the driver about the status of the safe radio connection. In the scenario where T_NVCONTACT expires (maximum time since last received RBC message) and the subsequent additional delay time (60s) also expires, the onboard ETCS should release the safe radio connection and remove the "Connection Up" symbol.  However in this scenario, the CL345 onboard ETCS releases the connection but does not remove the "Connection Up" symbol.
ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-053  Non-compliant behaviour	4.1 Index 04 - SS026 3.6.2.2.2 4.1 Index 04 - SS026 3.6.5.1.4 j)	When passing a linked balise group contained in previously received linking information, the onboard ETCS should send a position report to the RBC (unless position report parameters from the RBC are stored onboard). Passing a linked balise group not contained in previously received linking information should not be a trigger for the onboard ETCS to send a position report to the RBC.  However, when the train passes over a linked balise group not contained in the linking information, the CL345 onboard ETCS sends a position report to the RBC even if it should not.
ETCS fix Plan MR5	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-095  Non-compliant behaviour	4.1 Index 04 - SS026 3.14.1.5	If an emergency brake command was triggered due to roll away protection, reverse movement protection or standstill supervision the emergency brake command should be released at standstill and after driver acknowledgement.  However, in the case where service brakes have failed and roll away protection triggers an emergency brake command, the CL345 onboard ETCS does not enable to driver to acknowledge the brake application, so the emergency brakes remain applied.
ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-072  Non-compliant behaviour	4.1 Index 04 - SS026 3.14.1.7.5	If the onboard ETCS triggers a brake command due to the driver not having acknowledged a text message, the brake command should be released once the driver has acknowledged the text message.  However if the CL345 onboard ETCS triggers a brake command due to the driver not having acknowledged a text message, the brake is not released once the driver has acknowledged the text message until or unless the train is also at standstill.

Compliance	Item Reference and Condition	TSI Clause	Applicant Explanation
ETCS fix Plan MR6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-110  Non-compliant behaviour	4.1 Index 04 - SS026 3.14.4.1 Index 04 - SS026 3.14.4.2 Index 04 - SS026 4.4.7.1.5 Index 04 - SS026 4.4.7.3.1	Whilst supervising standstill, the onboard ETCS should prevent the train from moving. However, the CL345 onboard ETCS does not perform standstill supervision for speed lower than 4cm/s or 0.0895mph because the odometer cannot detect speed below 4cm/s or 0.0895mph.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-038  Non-compliant behaviour	4.1 Index 04 - SS026 3.16.1.1 Index 04 - SS026 3.16.3.1.1.1 Index 04 - SS026 3.16.3.1.1.2 4.2.2 Index 13 SS040 4.3.2.1.1 e)	The onboard ETCS should be able to store up to 30 Temporary Speed Restrictions (TSRs). If a message is received that exceeds that amount, the onboard ETCS should not consider the message, it should reject the message and inform the RBC.  However the CL345 onboard ETCS is only able to store up to 20 TSRs. Once this is exceeded the onboard ETCS enters System Failure mode.
TCMS fix Plan 7.3.2.2	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-071  Non-compliant behaviour	4.1 Index 04 - SS026 3.18.4.3.5	The onboard ETCS should allow a range for the RBC ID from 0 to 16777214 inclusive.  However the CL345 onboard ETCS does not accept an RBC ID of 0.
ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-049  Non-compliant behaviour	4.1 Index 04 - SS026 3.18.6.1 4.2.2 Index 6 ERA 015560 8.5.1.5	Outside the context of data entry, the driver should be able to view driver ID, train running number, RBC contact information, Virtual Balise Cover(s) and Train Data either modifiable by the driver or modifiable by other ERTMS/ETCS external sources.  However, in Shunting mode the CL345 onboard ETCS does not open the data view window when selected by the driver.
ETCS fix Plan MR6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-076  Non-compliant behaviour	4.1 Index 04 - SS026 4.4.5.1.1 Index 04 - SS026 4.4.5.1.2 Index 04 - SS026 4.6.2 Index 04 - SS026 4.6.3_13	The onboard ETCS should switch to System Failure mode in the case of a fault which affects safety and command the emergency brakes. However, in the event of a safety related failure of the odometry system the CL345 onboard ETCS commands the service brake until standstill, in accordance with operating within the target speed profile.  However, if a target speed exceedance occurs after an odometry failure there is a delay of 120 seconds before the CL345 onboard ETCS commands the emergency brakes.

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ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-055  Non-compliant behaviour	4.1 Index 04 - SS026 4.4.8.1.7	<p>When the driver selects Shunting mode in Level 2, the onboard ETCS should send the request to the trackside for authorisation. The onboard ETCS then switches to Shunting mode only once that authorisation is received.</p> <p>However the CL345 onboard ETCS does not send the Shunting request to the trackside.</p>
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-086  Non-compliant behaviour	4.1 Index 04 - SS026 4.4.11.1.3.1 b)	<p>The onboard ETCS in Staff Responsible mode supervises train movements against a given distance. If that distance is determined by the value transmitted by the RBC or entered by the driver, the start location of the distance should refer to the estimated position of the train front when the distance information is received or entered.</p> <p>However the CL345 onboard ETCS supervises the distance to run in Staff Responsible mode, received from the RBC or entered by the driver, from a position referring to a location 25m in advance of the train front.</p>
ETCS fix Plan MR8	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-093  Non-compliant behaviour	4.1 Index 04 - SS026 4.4.11.1.5.1	<p>If train movement is detected while the Driver is entering Staff Responsible mode speed/distance limits on the DMI, the onboard ETCS should trigger the brakes. The CL345 onboard ETCS is compliant up until the brakes are triggered.</p> <p>However, if the Driver tries to move the train forward again (after the train has stopped and the brakes are released) the brakes are triggered again. The driver must open the Staff Responsible mode speed/distance window again and acknowledge the Staff Responsible mode speed/distance limits to avoid this repeat brake intervention. This repeat brake intervention and need to open the Staff Responsible mode speed and distance window again is the noncompliance.</p>

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ETCS fix Plan MR8	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-TSI-TRANSITIONS-RR1  Non-Compliant behaviour	4.1 Index 04 - SS026 4.6.2 [31] and [32]	The onboard ETCS should transition from On Sight mode to Full Supervision mode if defined criteria are fulfilled, including that no specific mode is required by a mode profile.  However, when in On Sight mode between two On Sight mode profiles without overlapping acknowledgement areas, the CL345 onboard ETCS remains in On Sight mode instead of transitioning to Full Supervision.
ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-090  Non-Compliant behaviour	4.1 Index 04 - SS026 4.7.2 Index 04 - SS026 4.7.2.1.4:41	The onboard ETCS should provide an indication (fixed text message) to the driver when an emergency brake feedback failure is detected.  However the CL345 onboard ETCS does not provide this indication after emergency brake feedback failure.
ETCS fix Plan MR8	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-074  Non-Compliant behaviour	4.1 Index 04 - SS026 4.7.2 Index 04 - SS026 4.7.2.1.4:60	The driver should be able to acknowledge an indication on that the onboard ETCS roll away protection has applied the brakes.  However, if the CL345 onboard ETCS is in Shunting mode or Limited Supervision mode, the driver is not able to acknowledge brakes applied by roll away protection.
ETCS fix Plan MR6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038f  Non-Compliant behaviour	4.1 Index 04 - SS026 4.7.2.1.4:26 4.2.14 Index 05 - SS027 4.3.1.1:4	Upon changing mode the onboard ETCS JRU should record the change of mode. However upon entering System Failure mode the CL345 onboard ETCS JRU does not record the mode change.
ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-048  Non-Compliant behaviour	4.1 Index 04 - SS026 4.10.1.3:42b Index 04 - SS026 4.10.1.3:33	When transitioning to level 0 Unfitted mode, the onboard ETCS should not change the stored Radio Network ID but should delete the RBC ID and phone number.  However, when transitioning to level 0 Unfitted mode, the onboard ETCS deletes the Radio Network ID, does not delete the RBC ID and the RBC phone number is as 0.
ETCS fix Plan MR8	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-054  Non-Compliant behaviour	4.1 Index 04 - SS026 5.4.3.2:13 Index 04 - SS026 A.3.1:2 Index 04 - SS026 A.3.1: 3	In the absence of reply from the RBC, the onboard ETCS should wait 15 seconds before repeating its message to the RBC.  However the onboard ETCS waits 30 seconds before repeating its message.

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ETCS fix Plan MR6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-TSI-TRACKTRAIN-RR1  Non-Compliant behaviour	4.1 Index 04 - SS026 5.4.3.2:S3	During Start of Mission, if the driver selects to re-enter the Radio Network ID, the onboard ETCS should acquire a list of available and allowed networks based on a request to the mobile terminals.  However, the CL345 onboard ETCS presents no available networks if the identified network has an ID but no network name.
ETCS fix Plan MR5, MR6, MR7 (reset reduction); MR8 L1 issues	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-091  Non-Compliant behaviour	4.1 Index 04 - SS026 5.4.3.3: 5 4.2.2 Index 6 ERA 015560 8.2.3.2.3	If the stored train position is 'unknown' during Start of Mission then the onboard ETCS should set the status of the ETCS Level variable to 'invalid' and send 'unknown' status to the DMI.  However, when the stored train position is 'unknown' the CL345 onboard ETCS incorrectly sends "L1" to the DMI, and this results in the DMI indicating Level 1 as the current level.
ETCS fix Plan MR6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-051  Non-Compliant behaviour	4.1 Index 04 - SS026 5.4.4.1: E11	The driver should be able to enter or validate train data when the ETCS Level 2 is selected, regardless of whether radio communication has been established with the RBC.  However, on the CL345 onboard ETCS it is not possible to perform train data entry in Level 2 if the communication session is not established. If a communication session is not available the CL345 onboard ETCS does not respond to a driver request to enter train data.
ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-085  Non-Compliant behaviour	4.1 Index 04 - SS026 5.5.3.1.3	Entering Shunting mode from Full Supervision, Limited Supervision, On Sight, Staff Responsible, National System or Unfitted mode (or from Post Trip if there was on on-going mission) is considered an end of mission. At end of mission the onboard ETCS should report the end of mission to the RBC. However, at end of mission initiated by entering Shunting mode, the CL345 onboard ETCS delays reporting end of mission to the RBC by 8 seconds.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-008  Non-Compliant behaviour	4.1 Index 04 - SS026 5.8.2.1	The onboard ETCS should allow the driver to select Override only when specified criteria are fulfilled relating to train speed, onboard ETCS mode and availability of valid train data and train running number.  However the CL345 includes an additional criterion not specified in the standard - that the Driver ID is entered in Stand By mode before Override is selected.



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ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-99  Non-Compliant behaviour	4.1 Index 04 - SS026 5.8.3.1.1 4.1 Index 04 - SS026 5.8.4.1 c)	<p>When activating Override in Post Trip mode, the current position of the train front end should be considered as the former End of Authority (EOA). However, the CL345 onboard ETCS considers the former EOA as the min safe antenna position + 5m, rather than as the current position of the train front end. The safe antenna position is calculated by subtracting the distance between active EUROBALISE antenna and the front end of the train from the min safe front end position. This puts the former EOA 2.6m ahead of the current train front, rather than at the current position of the train front. The Override procedure should end when at least one of a number of specified conditions are met, one of which is that the former EOA has been passed with the min safe antenna position.</p> <p>However, given the way the CL345 onboard ETCS considers the former EOA in this scenario, this is always 5m, which is 2.6m later than specified.</p>
TCMS fix Plan 7.3.2.2	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-060  Non-standard DMI	4.2.2 Index 6 ERA 015560 5.1.3.2	<p>Aligned text within an area of the DMI should be indented by three cells from the limit of the area.</p> <p>However the title of the Train Running Number entry field is not indented.</p>
ETCS fix Plan MR6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-040d  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 5.3.1.1.6	<p>Windows on the DMI should include a 'close' button which closes the window and returns to the parent window.</p> <p>However, the CL345 DMI close button for the Set VBC window does not work. The Set VBC window does not close.</p>
TCMS fix Plan 7.6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-073  Non-standard DMI	4.2.2 Index 6 ERA 015560 5.3.2.5.3	<p>An "enabled" button should be shown slightly lifted from the background by displaying a border. A "pressed" button should not display this border.</p> <p>The "Yes" button in the RBC data window and train data window always shows a border independently of state, so always appears not to be "pressed".</p>

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TCMS fix Plan 7.6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-079  Non-standard DMI	4.2.2 Index 6 ERA 015560 5.4.1.9	If more than one object or text message require a driver's acknowledgement, the DMI should display the next object or text message one second after the current object or text message has been acknowledged.  However, when an object or text message is acknowledged the CL345 DMI displays the next one immediately, without the one second delay.
TCMS fix Plan 7.3.2.2	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-085  Non-standard DMI	4.2.2 Index 6 ERA 015560 8.1.1.4	The layout of objects and functions are allocated to particular layers and areas of the DMI.  The CL345 DMI area C2+C3+C4 contains an erroneous vertical black line.
TCMS fix Plan 7.6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-110  Non-standard DMI	4.2.2 Index 6 ERA 015560 8.1.1.4, 10.2.3.1, 10.3.7.1, 10.5.3.1	The layout of objects and functions are allocated to particular layers and areas of the DMI. The areas for each layer in the DMI default window should be as follows: • Layer 0: E10, E11, G1, G2, G3, G4, G5, G6, G7, G8, G9, G10, Z, Y • Layer 1: A1, (A2+A3)*, A4, B*, D*, C1, (C2+C3+C4)*, C5, C6, C7, C8, C9, E1, E2, E3, E4, (E5-E9)*, G11, G12, G13 • Layer 2: B3, B4, B5, B6, B7 Where * indicates those drawn as a whole area.  However the CL345 DMI's layers and areas are as follows • Layer 0: E10, E11, G1, G2, G3, G4, G5, G6, G7, G8, G9, G10, Z, Y, A4, C1, C5, C6, C7, C8, C9, E1, E5, E6, E7, E8, E9, G11, G12, G13 • Layer 1: A1, B*, D*, (C2+C3+C4)*, E2, E3, E4, B3, B4, B5 • Layer 2: B6, B7

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ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-001  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 8.2.1.2.3 Index 6 ERA 015560 8.2.1.3.1 4.1 Index-004 SS026 3.13.10.2.1	The onboard ETCS should indicate the estimated train speed to the driver. The estimated speed is referred to as the nominal speed (Vnom) for the CL345 onboard ETCS.  However, when in National System or Unfitted mode, the CL345 onboard ETCS includes an additional feature that is not specified in the standard. In these modes, if the difference between the nominal speed (Vnom) and the maximum speed (Vmax) exceeds certain thresholds, the needle on the speedometer will alternate between Vnom and Vmax rather than indicating the estimated speed. Those thresholds for the difference between Vnom and Vmax are as follows: • greater than 5km/h for more than 2s, or • greater than 4km/h for more than 20s, or • greater than 2km/h for more than 180s. The alternating frequency is 1Hz.
TCMS fix Plan 8.0	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-080  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 8.2.2.2.7	In Staff Responsible and On Sight modes the driver should be able to toggle the DMI display of distance to target on and off . Upon transition to Staff Responsible or On Sight modes the distance to target should be automatically toggled off.  However, the CL345 DMI does not show the distance to target in Staff Responsible or On Sight modes when it is toggled on.
TCMS fix Plan 7.6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-091  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 8.2.2.4.2 Index 6 ERA 015560 8.2.2.4.5	In On Sight, Staff Responsible and Shunting modes the driver should be able to toggle the display of Basic Speed Hooks on and off. Upon transition to On Sight, Staff Responsible and Shunting modes the Basic Speed Hooks should be automatically toggled off. However on the CL345 DMI, upon transition to On Sight, Staff Responsible and Shunting modes the Basic Speed Hooks are automatically toggled on. In On Sight mode, the driver should be able to toggle the display of Release Speed Digital on and off. Upon transition to On Sight, the Release Speed Digital should be automatically toggled off.  However on the CL345 DMI, upon transition to On Sight mode the Release Speed Digital is automatically toggled on.

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ETCS fix Plan MR8	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-065  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 8.2.3.2.3	If the current ETCS level is unknown or invalid during start of mission, the DMI area where ETCS level is usually displayed should be blank.  However, in the case where unknown position should result in ETCS level being invalid, the CL345 displays the current ETCS level. This relates to CL345-N-C-TSI-GoIC-091.
TCMS fix Plan 7.3.2.2	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-086  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 8.2.3.2.9 14.2.2 Index 6 ERA 015560 13.2.1.1	The DMI should use a distinct abbreviation of the corresponding national system rather than 'NTC' when displaying level announcements for level NTC. For the CL345 the distinct abbreviation for the CBTC national system is 'CBTC'.  However for Level NTC CBTC level announcements not requiring acknowledgement, the CL345 DMI displays 'STM' rather than 'CBTC'. For Level NTC CBTC level announcements requiring acknowledgement the CL345 DMI displays 'NTC' rather than 'CBTC'.
ETCS fix Plan MR7	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-056  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 8.2.3.6.8	The DMI should enable the driver to toggle on and off the display of the tunnel stopping area. Whilst tunnel stopping areas are toggled on, 'tunnel stopping area' and 'tunnel stopping area announcement' symbols should be shown. Whilst the 'tunnel stopping area announcement' symbol is displayed, the DMI should show the remaining distance to the tunnel stopping area.  However, on the CL345 DMI, with the tunnel stopping area display toggled on and the 'tunnel stopping area announcement' symbol displayed, the remaining distance to the tunnel stopping area is only displayed if data for a single tunnel stopping area is received from the RBC. If data for more than one tunnel stopping area is received by the CL345 onboard ETCS, the distance to the tunnel stopping area display is blank.
TCMS fix Plan 8.0	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-066  Non-standard DMI	4.2.2 Index 6 ERA 015560 8.2.3.6.9	The DMI display of the remaining distance to a tunnel stopping area should be right aligned with a ten cell indent.  However, the CL345 DMI display of remaining distance to a tunnel stopping area is horizontally centred.

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TCMS fix Plan 7.3.2.2	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N- C-TSI_DMI-JRU-& Other-082  Non-standard DMI	4.2.2 Index 6 ERA 015560 8.5.1.7 Index 6 ERA 015560 10.2.1.3	<p>The Main window on the DMI should be an up-type button. Once selected by the driver an up-type button should change to the 'pressed' state, remaining in that state as long as the driver presses the button. Once the driver stops pressing the button, the button exits the 'pressed' state and the button's function should be activated. If the driver selection continues, but outside the up-type button (the finger slides out of the sensitive area of the button) the button should exit the 'pressed' state and the button's function should not be activated.</p> <p>However, when the driver's finger presses the Main button and slides out of that button's area whilst continuing to press, the button press's function is activated, resulting in the Main window being wrongly displayed. The Main window is therefore not behaving like an up-type button.</p>
TCMS fix Plan 7.3.2.2	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N- C-TSI_DMI-JRU-& Other-078  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 10.3.1	<p>The DMI should display the RBC ID data value when its entry is accepted by the driver pressing the input field.</p> <p>However, on the CL345 DMI, when a new value is entered into the RBC ID field and accepted a blank input field is displayed. The accepted data value is displayed only when the RBC ID field is pressed again.</p>
TCMS fix Plan 7.3.2.2	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N- C-TSI_DMI-JRU-& Other-084  Non-Compliant behaviour	4.2.2 Index 06 ERA_DMI 10.3.1.19	<p>When entering data on the DMI, after the first press of the associated keyboard, the value corresponding to the pressed data key should replace any existing value in the data area of the selected input field.</p> <p>However, values corresponding to the pressed data keys do not always replace existing values for Staff Responsible speed and distance on the CL345 DMI. The driver sometimes needs to press the Delete key prior to overwriting the previous data value.</p>

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TCMS fix Plan 7.6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-088  Non-Compliant behaviour	4.2.2 Index 06 ERA_DMI 10.3.1.24 Index 06 ERA_DMI 10.3.1.25 Index 06 ERA_DMI10.3.1.26	When pressing the Enter button associated to an input field on the DMI, that input field should go to the 'accepted' state and the next input field in the same topic should be selected automatically. When the driver presses an input field area on the DMI, that input field should be selected.  However in the Staff Responsible Speed / Distance window on the CL345 DMI, having entered and accepted values into either the speed or distance fields, but not pressed 'Yes', if the driver repeatedly presses the input fields then the input field is cleared of the previously entered values.
TCMS fix Plan 7.6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-076  Non-standard DMI	4.2.2 Index 6 ERA 015560 10.3.1.26	The driver should be able to select a specific input field by activating the input field area (the label or data part) on the DMI, which should behave like an up-type button. A one cell wide, medium grey border should be shown around an input field on the DMI. In addition, in line with behaving like an up-type button as it should, three dimensional border effects should be shown on the DMI, distinguishing between the input field's 'enabled' and 'pressed' states.  However, whilst the thin, grey border is shown on the CL3453 DMI, the three dimensional borders have not been implemented.
TCMS fix Plan 7.3.2.2	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-075a  Non-standard DMI	4.2.2 Index 6 ERA 015560 10.3.2.1 Index 6 ERA 015560 10.3.2.2 Index 6 ERA 015560 10.3.2.3 Index 6 ERA 015560 10.3.2.4	A cursor (flashing horizontal line below the position of the next character to be entered) is required to indicate to the driver where the next selected character will be inserted in an input field on the DMI.  However, the CL345 DMI does not show a cursor for RBC ID and RBC phone number entry.
TCMS fix Plan 7.3.2.2	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-074  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 10.3.5.9	The Yes button of a data entry window on the DMI should only be enabled when all input fields display a data value, that is the input field contains data that has been accepted.  However on the CL345 DMI the Yes button on the RBC Data and Train Data windows is enabled before all input fields display a data value.

Compliance	Item Reference and Condition	TSI Clause	Applicant Explanation
TCMS fix Plan 7.6	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N- C-TSI_DMI-JRU-& Other-070  Non-standard DMI	4.2.2 Index 6 ERA 015560 11.2.1.6	When the hour glass symbol is shown on the DMI (due to an exchange of messages with the RBC), it should be vertically centred in the Main window title area.  However, after RBC contact data are validated the hourglass is shown on the CL345 DMI moving vertically centred underneath (rather than within) the Main window title area.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N- C-TSI_DMI-JRU-& Other- 040a  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 11.3.3 Index 6 ERA 015560 11.7.2 Index 6 ERA 015560 11.7.3	The DMI should follow the specified sequencing of windows, sub-level windows and menus, as well as the transitions for input fields.  However the CL345 DMI does not follow the window, sub-window and menu sequencing specified by ERA ERTMS 015560 during Start of Mission. For example, upon pressing the Close (X) button in the RBC Contact window, the Main window should be displayed. However, the CL345 DMI displays the Level window instead.
ETCS fix Plan MR8	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N- C-TSI_DMI-JRU-& Other- 039a  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 11.7.1.8 Index 6 ERA 015560 11.7.1.9	During the start up dialogue sequence, if a driver's acknowledgement is required, the DMI should display it 1 second after the end of the start up dialogue sequence.  However the CL345 DMI displays any required driver acknowledgement immediately after completion of the start up dialogue sequence.  After the start up dialogue sequence, if a data entry or validation window is currently displayed when a driver's acknowledgement is required, the DMI should stop the data entry / validation process, display the parent window instead and the driver's acknowledgement should appear 1 second afterwards.  However on the Class345 DMI, the acknowledge message will only be presented when the driver closes the data entry or validation window.

Compliance	Item Reference and Condition	TSI Clause	Applicant Explanation
ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-040k  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 11.7.3.3	<p>With the onboard ETCS in Post Trip mode, after sending a Movement Authority request, the DMI should display the hourglass symbol until the Movement Authority is received from the RBC. Once that Movement Authority is received, the DMI should switch from the Main window to the Default window and stop displaying the hourglass.</p> <p>However, with the CL345 onboard ETCS in Post Trip mode, the CL345 DMI switches from the Main window to the Default window upon sending the Movement Authority request, rather than waiting until the Movement Authority is received from the RBC. The hourglass symbol is not displayed between requesting and receiving the Movement Authority.</p>
ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-044  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 11.7.3.3	<p>If the driver selects 'Close' (X) in the Train Data Validation window, the DMI should display the parent window, in this case the Main window. If the driver selects 'No' in the Train Data Validation window, then the DMI should display the Train Data window.</p> <p>However, if the driver selects 'No' in the Train Data Validation window on the CL345 DMI, the Main window is displayed instead of the Train Data window.</p>
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-040e  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 11.7.6.3 S1	<p>When the driver presses the Train Integrity button on the DMI Special window, the Special window should be closed and the default window should be displayed. However, pressing the Train Integrity button on the CL345 DMI does not result in the Special window being closed and the default window being displayed.</p>
TCMS fix Plan 8.0	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-106  Non-standard DMI	4.2.2 Index 6 ERA 015560 14.2.1.2	<p>An audible click sound is given as feedback while pressing the finger on a DMI button. It should only be played once.</p> <p>However, the click sound is played repeatedly whilst a CL345 DMI button is pressed and held.</p>



Compliance	Item Reference and Condition	TSI Clause	Applicant Explanation
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-046  Non-Compliant behaviour	4.2.2 Index 6 ERA 015560 15.1.1.4 Index 6 ERA 015560 15.1.1.4.1	The DMI should display system status messages as text messages not to be acknowledged by the driver, with one exception (“[name of NTC] failed”).  However the CL345 DMI displays all system status messages as text messages requiring acknowledgement by the driver.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-003  Non-Compliant behaviour	4.2.5 Index 10 SS037-7.2.4.2.6 Index 10 SS037-7.2.5.2.2 (Table 11) Index 10 SS037-7.2.5.2.3 (Table 12) Index 39 SS092-1 5.6	The standard allows for the implementation of Safety Feature negotiation, whereby the initiating entity can request a certain Safety Feature. The responding entity should then offer the requested Safety Feature, unless it is not available in which case it offers the default value.  However, the CL345 onboard ETCS does not support this Safety Feature negotiation. The standard defines only one Safety Feature (single Data Encryption Standard with modified Message Authentication Code algorithm 3), and this one is implemented.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-004  Non-Compliant behaviour	4.2.5 Index 39 - SS092-1 A3.1	It should be possible to reset the radio to Bombardier's default configuration. This should be implemented by command MC21. This is an internal command triggered by system conditions, not by the user.  However command MC21 is not implemented in the CL345 onboard ETCS and reset to default configuration is managed by different commands, but achieving the same objectives as MC21. Therefore the required functionality is achieved but with different commands than the specified MC21.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-057  Non-Compliant behaviour	4.2.6 Index 34 MORANE FFFIS 4.4.5.4.1	The onboard ETCS should include a command to enable or disable the presentation of the connected line identity at the Terminal Equipment. However, the CL345 onboard ETCS does not include this command (AT+COLP: Attention command set, Connected Line Identification Presentation), so the Connected Line Identity is not presented to the trackside.

Compliance	Item Reference and Condition	TSI Clause	Applicant Explanation
ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-061  Non-Compliant behaviour	4.2.8 Index 079 - SS114 4.3.4.2 Index 079 - SS114 4.3.4.3 Index 079 - SS114 4.5.1.7	The onboard ETCS should refer to only one Home Key Management Centre and receive all keys from that Home Key Management Centre.  However the CL345 ETCS does not know the identity of the Key Management Centre from which it is authorised to receive keys.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-060  Non-Compliant behaviour	4.2.8 Index 079 - SS114 4.3.4.9	The onboard ETCS should be able to store 2000 key relations which consist of a relationship between a trackside unit, an authentication key and a validity period.  However the CL345 onboard ETCS can store a maximum of 1000 key relations.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038b  Non-Compliant behaviour	4.2.14 Index 05 - SS027 4.1.1.2(b) Index 05 - SS027 4.2.3.5	The onboard ETCS JRU should record the train position in metres.  However the CL345 onboard ETCS rounds up distances sent to the JRU.
ETCS fix Plan MR5	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038r  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.2.4.6	Upon receiving a message from a balise, the onboard ETCS should send the contents of that balise message to the JRU for recording. Its maximum length is 143 bytes. However the CL345 onboard ETCS always sends the contents of the balise message to the JRU as a 'full length' message of 143 bytes, where the remaining bytes after the contents of the balise message are filled with FF bytes.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038s  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.2.4.21	The onboard ETCS JRU should record the status of the set of symbols that can be displayed on the DMI.  However the CL345 ETCS JRU records that the Connection Lost / Set-Up Failed symbol and Connection Up symbol are displayed at the same time on the DMI which is not the case.

Compliance	Item Reference and Condition	TSI Clause	Applicant Explanation
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038a  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.2.4.23	The onboard ETCS JRU should record a message when any system status message appears or disappears.  However the CL345 onboard ETCS does not send the 'SH Request failed' status in the correct message to the JRU. Instead the ETCS Onboard sends 'SH Request failed' as part of a plain text message to the JRU.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038u  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.2.4.42	The onboard ETCS JRU should record the isolation status of each National System.  However the CL345 onboard ETCS JRU does not record the isolation status of each National System (CBTC and TPWS)
ETCS fix Plan MR9	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI-GoIC-039  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.3.1.1	The onboard ETCS JRU should record a change of system version.  However the CL345 onboard ETCS JRU does not record a change of system version when transitioning from Level 1 to Level 2.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038x  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.3.1.1:13	Upon receiving a message from the RBC, the onboard ETCS should send the contents of that RBC message to the JRU for recording. That message should include the Train Running Number.  However the CL345 onboard ETCS does not send the Train Running Number with RBC messages to the JRU for recording. The Train Running Number in this case is not recorded.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038h  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.3.1.1:20 Index 05 SS027 4.2.4.20	The onboard ETCS should record speed and distance monitoring data as displayed to the driver, including the target distance.  However, when the target distance is "0 m" the CL345 onboard ETCS records "None" rather than "0 m".

Compliance	Item Reference and Condition	TSI Clause	Applicant Explanation
ETCS fix Plan MR8	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038l  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.3.1.1:21	The onboard ETCS JRU should record a message when any DMI symbol appears or disappears.  However the CL345 onboard ETCS JRU records the yellow tunnel stopping announcement symbol whilst the tunnel stopping area display is toggled off, instead of the toggling function symbol which is displayed.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038m  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.3.1.1:21	The onboard ETCS JRU should record a message when any DMI symbol appears or disappears. When a L0 announcement does not need acknowledgement the grey L0 announcement symbol is displayed. When a L0 announcement does need acknowledgement the yellow L0 announcement symbol is displayed.  However, when the CL3454 DMI displays either the yellow or the grey level 0 announcement symbol, both symbols are recorded at the same time.
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038n  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.3.1.1:21	The onboard ETCS JRU should record a message when any DMI symbol appears or disappears.  However the Acknowledgement for Trip symbol is recorded when the onboard ETCS enters Trip mode even though the symbol is not displayed until the driver confirms the text message "Apply Brakes!".
ETCS fix Plan MR10	3EER400032-0011 revision A Sec 5 - Table 2 - ID CL345-N-C-TSI_DMI-JRU-& Other-038ad  Non-Compliant behaviour	4.2.14 Index 05 SS027 4.3.1.1:47	The onboard ETCS JRU should record a message when the traction cut off command state changes.  However the CL345 onboard ETCS JRU does not record the change in traction cut off state when traction cut off is requested by the ETCS.