ARTC

NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

Certificate No. S 01-1802-AL227

Approval date 12/07/2018

Approved by A/GM Technical Standards

Report no. TAR-01-1802-AL227

Report date 29/06/2018

This certificate is issued to

Supplier Alstom Transportation
16 Giffnock Ave
North Ryde, NSW 2113
Contact – Alan De-Reuck, 0406 572 846, alan.de-reuck@alstomgroup.com

In respect of

Manufacturer Alstom Transportation

Product description **Electrologixs XP4 Level crossing Predictor**

Item identification Refer to Approved Item List.

Application ARTC Network Wide

Relevant Standards
ESD-03-01 Level Crossing Design
ESD-03-02 Level Crossing Predictor Design, Certification & Test
ESC-03-01 Level Crossing Equipment
SPS 05 Electrical & Components (Ratings & Construction Requirements)
EST-20-01 Signals Standards and Equipment Training Courses
ESC-09-02 Lightning and Surge Protection Requirements
ESC-11-01 Construction of Cable Route and Associated Civil Works
SPS 02 Environmental conditions

Conditions of Approval

General	1. For use in accordance with ARTC specifications and typical circuits only. 2. Only items on the Approved Items List shall be used in designs for ARTC or actually installed on the ARTC network. 3. Project Engineers and Third Party Contractors shall inform the supplier Alstom that the equipment is to be used on the ARTC network when placing the order. 4. For existing XP4 locations, the Corridor Manager is to manage a review before 01 November 2018 to plan the updating from fimware version 7.11 to 7.25. The updating shall be scheduled based on a risk assessment of the safety and performance issues detailed in

	ESB17-01 from Alstom. All locations need to be scheduled for an upgrade of the firmware by 01July 2019. 5. All new systems being commissioned shall use firmware version 7.25.
Supplier	6. All documentation from the supplier supporting this system shall be in English. All diagnostic systems, support systems and tools associated with the Product shall display all information in English. 7. The Supplier shall submit to ARTC any updates to the support documents listed in Table 3 8. The supplier grants to ARTC the permission to publish the documents on the ARTC Engineering Extranet so that those signals staff internal and external involved in supporting the system may reference the information. 9. The Supplier remains accredited to ISO 9001 specifically for these products. The Supplier advises ARTC on a 12 monthly basis that the ISO 9001 accreditation is current. ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011. 10. Any subsequent change to the design, materials or manufacturing process of the product is not covered by this approval. The Supplier shall notify ARTC of any modification or changes in order to obtain a valid updated type approval certificate. 11. The Supplier will make available training courses for Maintenance of the product for signals technician staff to undertake maintenance, fault finding, installation, set to work and testing. 12. The Supplier will make available training courses for design of the product for signals design staff to undertake application design consistent with the ARTC design standards. These shall cover data design and circuit design. 13. Training courses shall be documented in accordance with EST-20-01 and submitted to ARTC for endorsement. 14. All items shall be fitted with a readily visible label stating the Manufacturer/Supplier, Product group, item name, revision level, serial number, date of manufacturer and manufacturer's identification product number.
Design Conditions	15. All design for track circuit operation shall assume a train shunt of 0.2 Ω and a ballast resistance of 1.5Ω.km. 16. A special design analysis shall be undertaken and the results shall be submitted for Standards Section acceptance in each instance before XP4 track circuits are applied to dual gauge track (one track circuit equipment detecting trains on either gauge). 17. Vital track clear information for a signal interlocking shall be derived independently from XP4 equipment. 18. Design documentation shall record track related dimensions in both metric (metres) and imperial (feet) with the imperial dimensions always shown in parenthesis following the metric. 19. Mandatory to follow the 'Application Manual' and 'System Operation & Maintenance Manual' 20. The MDSA 'Motion Detection Surge Arrestor' is included in this type approval. 21. Only for use on closed communications systems to category 2 EN50159:2010. Not to be used on radio communications systems without further approval.

	22. Can be used adjacent to AC or DC electrified networks, must be no closer than 3m from the running line of electrified rails.
Signal Designers	23. Any individual working with or designing a system of the product for the ARTC network shall have completed the respective endorsed training course. The individual shall have the product on their statement of competency for design with a level 2 or shall work under appropriate mentorship and supervision. 24. All designs for application on the ARTC network shall be in accordance with the relevant ARTC engineering and signalling standards. 25. All details and settings for the design shall be included in the circuit sheets. 26. The XP4 Logic Station Tool shall be used in the design and verification of data for each and every XP4 level crossing.
Signal Maintenance, Installation & Testing	27. Any individual working with the product on the ARTC network shall have completed the respective endorsed training course. The individual shall have the product on their statement of competency for maintain and/or install and/or test with a level 2 or shall work under appropriate mentorship and supervision. 28. There are no field serviceable components within the units. Any failed units shall be replaced. Units shall only be repaired and overhauled by certified workshops. 29. All locations/systems that are updated from software version 7.11 to 7.25 that have insulated joints within 500 metres of the level crossing shall have a test plan with a light engine undertaking testing at a range of speeds to verify correct operation of the system. 30. All new locations/systems shall have a test plan with a light engine undertaking testing at a range of speeds to verify correct operation of the system.

Any subsequent change to the design, materials or manufacturing process is not covered by this approval. The manufacturer should notify ARTC of any modification or changes in order to obtain a valid updated certificate. This may require the submission of a Product Information Pack in accordance with AS7702 for the changed product.

Note/Comments NIL.

Issue date 12/07/2018 **Expiry date**

Issued by **John Furness**

ARTC A/General Manager Technical Standards

Alstom Electrologixs XP4 Level crossing Predictor

Table 1 - Legacy Approved Item List – Expires 1 July 2019

Part Number	Product Name	Product Description	Min Mod Level	Hardware Revision	Software Revision
XP4 Processor					
251432-200	VPM-3 Crossing	Level Crossing Processor Module	E	AB9	7.11

Table 2 - Approved Item List – Ongoing

XP4 Processor					
251432-200	VPM-3 Crossing	Level Crossing Processor Module	H	AB0	7.25
083024-725	VPM-3 Crossing Executive software	Level Crossing Processor Module			7.25

VPM-3 Crossing Software Release						
Date	Part Number	Release	Processor	SW Label	Executive Runtime CRC	Executive File CRC
11/17/17	083024-725	Ver 7.25	A	VPM3 ABC Exec Bld 0255	CA42AA9B	2B8E2744
			B		9E336C65	C6A54707
			C		860A8E5E	CD6D87CB

Part Number	Product Name	Product Description	Min Mod Level	Hardware Revision	Software Revision
251134-000	VIO-44S	Vital Input/Output Module	NA	CAO	NA
251336-000	XTI-1S	Crossing Track Interface Module	NA	BD0	1
251379-000	VIO-44R	Redundant Vital Input/Output Module	NA	AB0	NA
251380-000	VIO-86S	Vital Input/Output Module	NA	AB0	NA
251384-000A	IXC-20S	Integrated Crossing Control Module	NA	AB0	
	FLA	IXC-20S+ Processor A	NA	AB0	1
	FLB	IXC-20S+ Processor B	NA	AB0	1
	FLC	IXC-20S+ Processor C	NA	AC0	1.5

Note* The CRC information shows up on the units Web GUI for FLA, FLB & FLC software loads

Special Function Modules					
227561-000	XIP-20	Crossing Interface panel (with lamp resistor) 20amp	NA		
227561-001	XIP-20	Crossing Interface panel (without lamp resistor) 20amp	NA		
227561-100	XIP-20B	Crossing Interface Panel	NA		
251124-000	CDU-1	Control and Display Unit	NA	CA9	AC0
251346-000	NSM-1	Normal/Standby Module	NA	BA2	NA
251333-000	GFD-1	Ground Fault Detector	NA	B01	NA

XP4 Communication Modules					
251329-000	CIO-1A	RS232 and Office Comms Interface	NA	B02	NA
251330-000	CIO-2A	RS 232 Comms Interface	NA	B01	NA
251332-000	CIO-MDA	RS422/485 Comms Interface	NA	B02	NA

XP4 Power Supply					
251456-000	CPS-3	Central Power Supply	NA	AA0	NA

XP4 Chassis					
300752-000	Chassis	9 slot with backplane	NA	BA3	NA
251464-000	Chassis	4 slot with backplane	NA	AB0	NA
251473-000	Chassis	1 slot with backplane	NA	AA2	NA

Application Memory Module					
251495-000	UCI-3	Application Memory Module	NA	AA0	NA

Personality Modules					
227482-000	VIO-44S Normal/Standby	VIO-44S personality Module	NA	BA1	NA
227444-000	VIO-44S	VIO-44S personality Module for	NA	B01	NA

		normal/standby configuration			
227538-000	VIO-44R	VIO-44R personality Module	NA	AA1	NA
227471-000	XTI-1S	XTI-1S personality Module	NA	BA1	NA
227481-000	XTI-1S Normal/Standby	VIO-44S personality Module for normal/standby configuration	NA	BA1	NA
227537-000	VIO-86S	VIO-86S personality Module	NA	AA3	NA
227546-000	IXC-20S	IXC-20S+ personality Module	NA	AA1	NA

Noise Filters and Reactors					
250016-001	1133A-2 60Hz	Shunt	NA	N08	NA
250016-002	1133A-2 180Hz	Shunt	NA	N09	NA
250141-001	5025A	Track Battery Reactor	NA	C05	NA
250158-1A	1180B	Battery Reactor	NA	G03	NA
250213-1A	TIU-2	Track Isolation Unit Model 2	NA	I04	NA

Junction Boxes					
226108-001	TJC	Junction Box	NA	J02	NA
225238-001	385A-3	Terminal Housing Pipe & Mounting Foot 20"	NA	S04	NA
225238-003	385A-3	Terminal Housing Pipe & Mounting Foot 24"	NA	BA1	NA

Frequency Selectable Shunts					
250849-000	FSS-1A	(86Hz – 267Hz)	NA	CB1:1	NA
250849-001	FSS-1B	(267Hz – 560Hz)	NA	B05	NA
250849-002	FSS-1/2C	(630Hz – 979Hz)	NA	CA5	NA

250849-003	FSS-1D	(86Hz – 211Hz)	NA	CA2	NA
250849-004	FSS-1E	(211Hz – 525Hz)	NA	B05	NA
250849-005	FSS-1/2F	(430Hz – 970Hz)	NA	B05	NA
250850-000	FSS-2A	(86Hz – 267Hz)	NA	CB3	NA
250850-001	FSS-2B	(267Hz – 560Hz)	NA	CA6	NA
250850-002	FSS-2D	(86Hz – 211Hz)	NA	CA2	NA
250850-003	FSS-2E	(211Hz – 525Hz)	NA	B05	NA

Dummy Loads					
251063-000	-	Assy adjustable inductor	NA	B01	NA
250069-001	1186A-1	1000ft (305m)	NA	E02	NA
250069-002	1186A-2	2000ft (610m)	NA	E03	NA
227032-000	FSS Load	250ft (76m)	NA	B00	NA
227032-001	FSS Load	500ft (152m)	NA	B00	NA
227032-002	FSS Load	750ft (229m)	NA	B00	NA
227032-003	FSS Load	1000ft (305m)	NA	B00	NA
227032-004	FSS Load	1250ft (381m)	NA	B00	NA
227032-005	FSS Load	1500ft (457m)	NA	B00	NA
227032-006	FSS Load	1750ft (533m)	NA	B00	NA
227032-007	FSS Load	2000ft (610m)	NA	B00	NA
227032-008	FSS Load	2250ft (686m)	NA	B00	NA
227032-009	FSS Load	2500ft (762m)	NA	B00	NA
227032-010	FSS Load	2750ft (838m)	NA	B00	NA
227032-011	FSS Load	3000ft (914m)	NA	B00	NA
227032-012	FSS Load	3250ft (914m)	NA	B00	NA
227032-013	FSS Load	3500ft (1067m)	NA	B00	NA
227032-014	FSS Load	3750ft (1143m)	NA	B00	NA
227032-015	FSS Load	4000ft (1219m)	NA	B00	NA

(NBS-1) Narrowband Shunts					
250250-G02B	ASSY NS-1 W/10	86Hz	NA	HA2	NA
250250-G03B	ASSY NS-1	114Hz	NA	LA2	NA

	W/10				
250250-G04B	ASSY NS-1 W/10	156Hz	NA	IA1	NA
250250-G05B	ASSY NS-1 W/10	172Hz	NA	HA1	NA
250250-G06B	ASSY NS-1 W/10	211Hz	NA	H02	NA
250250-G07B	ASSY NS-1 W/10	285Hz	NA	H02	NA
250250-G08B	ASSY NS-1 W/10	348Hz	NA	H02	NA
250250-G09B	ASSY NS-1 W/10	430Hz	NA	H02	NA
250250-G10B	ASSY NS-1 W/10	522Hz	NA	H02	NA
250250-G11B	ASSY NS-1 W/10	645Hz	NA	H02	NA
250250-G12B	ASSY NS-1 W/10	790Hz	NA	H02	NA
250250-G13B	ASSY NS-1 W/10	970Hz	NA	H03	NA
250250-G21B	ASSY NS-1 W/10	525Hz	NA	B01	NA
250250-J01B	ASSY NS-1 W/10	151Hz	NA	HA1	NA
250250-J02B	ASSY NS-1 W/10	210Hz	NA	G02	NA
250250-J03B	ASSY NS-1 W/10	267Hz	NA	G02	NA
250250-J04B	ASSY NS-1 W/10	326Hz	NA	H02	NA
250250-J05B	ASSY NS-1 W/10	392Hz	NA	I02	NA
250250-J06B	ASSY NS-1 W/10	452Hz	NA	I02	NA
250250-J07B	ASSY NS-1 W/10	522Hz	NA	I02	NA
250250-J08B	ASSY NS-1	560Hz	NA	I02	NA

	W/10				
250250-J09B	ASSY NS-1 W/10	630Hz	NA	I02	NA
250250-J10B	ASSY NS-1 W/10	686Hz	NA	I02	NA
250250-J11B	ASSY NS-1 W/10	753Hz	NA	H02	NA
250250-J12B	ASSY NS-1 W/10	816Hz	NA	H02	NA
250250-J13B	ASSY NS-1 W/10	881Hz	NA	H02	NA
250250-J14B	ASSY NS-1 W/10	979Hz	NA	I03	NA
250250-230	ASSY NS-1 W/10	230Hz	NA	BA1	NA
250250-135	ASSY NS-1 W/10	135Hz	NA	BA1	NA

(NBS-2) Narrowband Shunts					
250568-G02	ASSY NS-2 W/10	86Hz	NA	IA1	NA
250568-G03	ASSY NS-2 W/10	114Hz	NA	IA2	NA
250568-135	ASSY NS-2 W/10	135Hz	NA	BA1	NA
250568-230	ASSY NS-2 W/10	230Hz	NA	BA1	NA
250568-G04	ASSY NS-2 W/10	156Hz	NA	IA2	NA
250568-G05	ASSY NS-2 W/10	172Hz	NA	IA1	NA
250568-G06	ASSY NS-2 W/10	211Hz	NA	H02	NA
250568-G07	ASSY NS-2 W/10	285Hz	NA	I02	NA
250568-G08	ASSY NS-2 W/10	348Hz	NA	H03	NA
250568-G09	ASSY NS-2	430Hz	NA	J02	NA

	W/10				
250568-G11	ASSY NS-2 W/10	645Hz	NA	H03	NA
250568-G12	ASSY NS-2 W/10	790Hz	NA	G02	NA
250568-G13	ASSY NS-2 W/10	970Hz	NA	G02	NA
250568-G21	ASSY NS-2 W/10	525Hz	NA	H02	NA
250568-J01	ASSY NS-2 W/10	151Hz	NA	IA1	NA
250568-J02	ASSY NS-2 W/10	210Hz	NA	G02	NA
250568-J03	ASSY NS-2 W/10	267Hz	NA	H02	NA
250568-J04	ASSY NS-2 W/10	326Hz	NA	HD4	NA
250568-J05	ASSY NS-2 W/10	392Hz	NA	H02	NA
250568-J06	ASSY NS-2 W/10	452Hz	NA	H02	NA
250568-J07	ASSY NS-2 W/10	522Hz	NA	G02	NA
250568-J08	ASSY NS-2 W/10	560Hz	NA	G02	NA
250568-J09	ASSY NS-2 W/10	630Hz	NA	G02	NA
250568-J10	ASSY NS-2 W/10	686Hz	NA	G02	NA
250568-J11	ASSY NS-2 W/10	753Hz	NA	H02	NA
250568-J12	ASSY NS-2 W/10	816Hz	NA	G02	NA
250568-J13	ASSY NS-2 W/10	881Hz	NA	H02	NA
250568-J14	ASSY NS-2 W/10	979Hz	NA	G02	NA

(NBS-3) Narrowband Shunts					
250896-G06	ASSY NS-3 W/10	211Hz	NA	BA5	NA
250896-J02	ASSY NS-3 W/10	210Hz	NA	D06	NA
250896-J03	ASSY NS-3 W/10	267Hz	NA	C05	NA

Wideband Shunts					
250121-001	1134D-2	Wide band Shut/Coupler	NA	Q04	NA
250121-002	1134D-3	Dual Wide Band Shunt	NA	B04	NA
250121-003	1134D-4	Dual Wide Band Shunt	NA	B04	NA
250121-004	1134D-5	Dual Wide Band Shunt	NA	B04	NA

XP4 Pre-made cables					
075046-000	XIP-20 CABLE	4ft (cable 1)	NA	AA1	NA
075047-000	XIP-20 CABLE	4ft (cable 2)	NA	AA1	NA
075046-001	XIP-20 CABLE	8ft (cable 1)	NA	AA1	NA
075047-001	XIP-20 CABLE	8ft (cable 2)	NA	AA1	NA
075046-002	XIP-20 CABLE	12ft (cable 1)	NA	AA1	NA
075047-002	XIP-20 CABLE	12ft (cable 2)	NA	AA1	NA
075046-003	XIP-20 CABLE	16ft (cable 1)	NA	AA1	NA
075047-003	XIP-20 CABLE	16ft (cable 2)	NA	AA1	NA
075046-004	XIP-20 CABLE	20ft (cable 1)	NA	AA1	NA
075047-004	XIP-20 CABLE	20ft (cable 2)	NA	AA1	NA
075090-000	VIO-44R/VIO-44S (OUTPUTS)	4ft cable	NA	AA0	NA
075089-000	VIO-44R/VIO-44S (INPUTS)	4ft cable	NA	AA0	NA
075090-001	VIO-44R/VIO-44S (OUTPUTS)	8ft cable	NA	AA0	NA
075089-001	VIO-44R/VIO-44S (INPUTS)	8ft cable	NA	AA0	NA
075090-002	VIO-44R/VIO-44S (OUTPUTS)	12ft cable	NA	AA0	NA

075089-002	VIO-44R/VIO-44S (INPUTS)	12ft cable	NA	AA0	NA
075090-003	VIO-44R/VIO-44S (OUTPUTS)	16ft cable	NA	AA0	NA
075089-003	VIO-44R/VIO-44S (INPUTS)	16ft cable	NA	AA0	NA
075090-004	VIO-44R/VIO-44S (OUTPUTS)	20ft cable	NA	AA0	NA
075089-004	VIO-44R/VIO-44S (INPUTS)	20ft cable	NA	AA0	NA
075091-000	VIO-86S (INPUTS 1-5)	4ft cable	NA	AA1	NA
075092-000	VIO-86S (INPUTS 6-8, OUTPUT 6)	4ft cable	NA	AA1	NA
075093-000	VIO-86S (OUTPUTS 1-5)	4ft cable	NA	AA1	NA
075091-001	VIO-86S (INPUTS 1-5)	8ft cable	NA	AA1	NA
075092-001	VIO-86S (INPUTS 6-8, OUTPUT 6)	8ft cable	NA	AA1	NA
075093-001	VIO-86S (OUTPUTS 1-5)	8ft cable	NA	AA1	NA
075091-002	VIO-86S (INPUTS 1-5)	12ft cable	NA	AA1	NA
075092-002	VIO-86S (INPUTS 6-8, OUTPUT 6)	12ft cable	NA	AA1	NA
075093-002	VIO-86S (OUTPUTS 1-5)	12ft cable	NA	AA1	NA
075091-003	VIO-86S (INPUTS 1-5)	16ft cable	NA	AA1	NA
075092-003	VIO-86S (INPUTS 6-8, OUTPUT 6)	16ft cable	NA	AA1	NA
075093-003	VIO-86S (OUTPUTS 1-5)	16ft cable	NA	AA1	NA
075091-004	VIO-86S	20ft cable	NA	AA1	NA

	(INPUTS 1-5)				
075092-004	VIO-86S (INPUTS 6-8, OUTPUT 6)	20ft cable	NA	AA1	NA
075093-004	VIO-86S (OUTPUTS 1-5)	20ft cable	NA	AA1	NA
075094-000	XTI-1S P3	4ft cable	NA	AA0	NA
075094-001	XTI-1S P3	8ft cable	NA	AA0	NA
075094-002	XTI-1S P3	12ft cable	NA	AA0	NA
075094-003	XTI-1S P3	16ft cable	NA	AA0	NA
075094-004	XTI-1S P3	20ft cable	NA	AA0	NA
Note* one XIP-20 panel and 2 cables are required per IXC-20S module used.					

Surge Arrestors					
250204-001C	MDSA-1	Motion Detector Surge Arrestor (for one track) (0A-6A)	NA	BB3	NA
250675-000	MDSA-2	Motion Detector Surge Arrestor (for two tracks) (0A-6A)	NA	DB3	NA
250204-100	MDSA-1XS	Motion Detector Surge Arrestor (for one track) (0A-12A)	NA	AA1	NA
250675-100	MDSA-2XS	Motion Detector Surge Arrestor (for two tracks) (0A-12A)	NA	AA0	NA

Software

- Application Compiler Editor (ACE) – Version 2.5

Table 3 Manuals for ElectroLogIXS XP4

Identification	Title		Version
100323-010	System Operation and Maintenance	Volume one	AW0
100323-010	System Operation and Maintenance	Volume two	B1
100132-001	Application Manual		AC0

ALSTOM

ESB 17-001

ENGINEERING SERVICE BULLETIN

Date: Oct 27, 2017

Equipment Affected: ElectroLogIXS XP4 units with VPM-3 Processor:

- VPM-3 PN 251432-200 running executive version 7.24 or earlier
- VPM-3 PN 251432-300 running executive version 8.25 or earlier
- All PMD-4/4R units PN 300911-xxx, running executive version 7.24 or earlier.

Note: version 6.34 for the VPM-3 251432-100 is addressed in a separate PUB announcement, PUB 17-002.

Urgency: Update at next maintenance interval for all systems where any XTI-1S module is used.

Issue: Alstom has corrected two potential issues with ElectroLogIXS XP4 systems running the XTI-1S track module.

1) Alstom discovered a potential for short warning times when trains quickly move over a short, remote, approach at or near 68-72 MPH, which caused Post Joint Detection to not activate correctly. The new executive will now properly start Post Joint Detection in these cases.

2) Updated Manual Mode CJ-LOS. Fixed a potential for an MDR recovery while a slow train is inbound and Manual Mode CJ-LOS is utilized. This issue has been mitigated by removing CJ-LOS Manual Mode on MDRs with a zero offset and constrained Manual Mode operation to a fixed CJ-LOS RX level of 15. If a fielded unit has a Manual Mode CJ-LOS RX level set to a value other than 15, or has zero offset on the MDR, the new executive will give an error message and alarm upon discovery of the value difference and not allow that MDR to recover. The unit directs the user to change the CJ-LOS RX value to 15 and/or remove the 0 offset. The MDR will be allowed to recover upon correction. This update supersedes ESB 15-001 which restricted Manual Mode use.

Issue:

Alstom has corrected a potential issue with ElectroLogIXS PMD-4/4R applications using constant warning.

1. Alstom has discovered a potential issue where an ElectroLogIXS PMD-4/4R, using an XTI-1S module, is applied with dummy loaded approaches and utilizing CW mode. If the termination shunt or dummy load(s) change values due to damage, the total network load comprised of the dummy load, shunt, and track, can change the loading characteristics to the XTI-1S module and a low RX can result. This could result in shortened warning times. The MD Timer option is recommended to be ON when in this application. MD Timer will detect the low RX level and revert the crossing to MD Mode. While this is not a newly described issue, the PMD-4 unit did not have the MD Timer option available previously. The MD Timer Enable and MD Timer Delay options have been added to the PMD-4/4R Advanced Approach settings in the CONF: Approach Settings - Data Window. This update coincides with ESB 16-001 for ElectroLogIXS XP4.

Additional Non-Safety Updates

1) When Automatic CJ-LOS mode is used, the minimum CJ-LOS RX level has been limited to 30 instead of 15. That allows users to use Standard or Manual Mode for RX levels between 0-15, and Automatic Mode between 16 and 80. Automatic mode has a range of 15 based on the unit entry, so if 30 is entered, the unit will use 16-30 for Automatic mode as a minimum. The new executive will give an error message and alarm if CJLOS is set to auto and the RX value is 15-29. The MDR will not be allowed recover until this is corrected.
2) Fixed train record log speed information on train moves with Aux starts.
3) Fixed Train Data Log it now properly records 30 seconds prior to an MDR going false to 10 seconds after it goes true.
4) Remove minimum 16 second ring time for MDRs with a non-zero offset to allow them to stop ringing for advance starts when not necessary. This had the potential to cause a ringby at the crossing from the remote unit, because the remote track was ringing for a minimum time value.
5) Trains faster than 85 mph will now record correct speeds in train record log. This log is restricted to two digits for speed information (99 max).
6) Fix issue with SNMP configuration file validation
7) Fix issue with erasing logs after a reset when archive size is changed
8) Fix display of AC voltage in the SNMP MIB when VLD-R8AC module is configured
9) Add ability to update non-vital RP200X SSH parameters
10) Match display of parameters via SSH show commands with the WebGUI displays
11) Log GFD parameter changes in the Configuration Log
12) Fix issues with Ethernet port reporting in the IF and IP SNMP MIB
13) Modify the SSH validate command so the file is retained if a duplicate parameter is encountered
14) Display IHRD settings on the system configuration Web page and the SSH show command
15) Request SNTP time sync immediately after a reset if SNTP is the configured time source
16) Add capability to update Selective function keys via the SSH stage and apply commands
17) Add fixes to address LogAR errors
18) Add fixes to address TDCO A/B sync failure resets
19) Add fixes to address SIC frame resets
20) Add fix so the HTTP interface will respond to requests on either port over a routed network
21) Reduce message delays in vital remote that sharing the same UDP port number

Resolution

Upgrade software with:

PN 251432-200 executive version 7.25
PN 251432-300 executive version 8.26
PMD-4/4R executive version 7.25

Note: ESB updated software includes all prior ESB software updates.

Additional Information:

The XP4 update kit (Alstom P/N: 180697-725) includes:

- XP4 VPM-3 software executive version 7.25 upgrade software
- 10 "H" Min Mod Level labels

The XP4 update kit (Alstom P/N: 180670-826) includes:

- 10 "H " Min Mod Level labels
- XP4 VPM-3 software executive version 8.26 upgrade software

The PMD-4/4R update kit (Alstom P/N: 203640-725) includes:

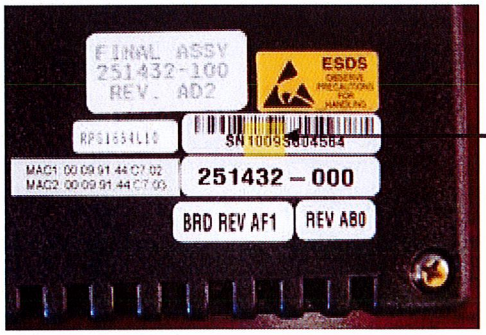
- PMD-4/4R VPM-3 software executive version 7.25 upgrade software
- 10 "A" Min Mod Level labels

Note: Bootloader software 5.15 (kit # 180702-515) is available but is not required to upgrade units to 7.25 or 8.26. It can be ordered separately if desired. It includes Alstom rebranding.

XP4 VPM-3 and all PMD-4/4R (**251432-200, 251432-300, 300911-xxx**) units manufactured after Nov 20, 2017, will come fully loaded with the new bootloader and executive revision for all new orders or whenever a VPM-3 is included as a part of an ElectroLogIXS system.

Identifying the date code on a VPM-3 Module

The picture below shows the stickers installed in the factory on the lower back corner of the VPM-3. The first four numbers contained in the serial number are the two-digit manufacturing year followed by the two-digit month. In this example, the module pictured was manufactured in September 2010.



The four highlighted numbers show the YYMM the module was manufactured.

CRC Information

VPM-3
Executive Software Ver 7.25
Processor A Runtime CRC CA42AA9B
Processor B Runtime CRC 9E336C65
Processor C Runtime CRC 860A8E5E

VPM-3 Executive Software Ver 8.26
Processor A Runtime CRC 23108F0C
Processor B Runtime CRC 3219EEFF
Processor C Runtime CRC CF66A33F

PMD-4/4R
Executive Software Ver 7.25
Processor A Runtime CRC CA42AA9B
Processor B Runtime CRC 9E336C65
Processor C Runtime CRC 860A8E5E

Ordering

Upgrade Option 1
Alstom will provide a kit for the VPM-3 processor to allow customers to upload new Executive software. Each kit will contain software upload instructions, a memory device with the required software upload files and ten minimum modification level stickers. Please contact our Customer Service Department and request the following:

- VPM-3 XP4 7.25 software upgrade kit, Part number 180697-725. If additional stickers are needed without an additional memory device, request the following:
  "H" minimum modification level sticker - Part number 140-001602-019
- VPM-3 XP4 8.26 software upgrade kit, Part number 180670-826. If additional stickers are needed without an additional memory device, request the following:
  "H" minimum modification level sticker - Part number 140-001602-019
- PMD-4/4R 7.25 software upgrade kit, Part number 203640-725. If additional stickers are needed without an additional memory device, request the following: "A" minimum modification level sticker - Part number 140-001602-012

Note: Bootloader software 5.15 (kit # 180702-515) is available but is not required to upgrade units to 7.25 or 8.26. It can be ordered separately if desired. It includes Alstom rebranding.

Upgrade Option 2
Modules can be sent in for software upgrade. To return affected equipment, request and print an RMA by calling Alstom's Customer Service Department at 1-800-825-7090 domestically, or 001-816-650-6171 internationally.

Both options will be provided for all customers free of charge until Nov 20, 2018.

Note: It is Alstom's policy to repair all modules returned under ESBs/PIAs that require repair beyond the scope of the ESB/PIA as a standard repair and return module. Modules requiring additional repair will be repaired and returned at standard repair cost at standard repair lead times (subject to part availability and physical condition of the board returned).