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Certificate No. C – 00031-2

ITSO Certificate of Compliance

To: ERG Transit Systems (UK) Limited

For: TP5000 Ticket Machine POST with external card reader MCR
(release 10.03.46000)
and TRACS Depot Software (release 5.7.1.1)
and TRACS (.NET) Software (release 1.4.0.1)

This is to certify that the above product has been tested as required by
ITSO for compliance against ITSO TS 1000-0 Specification Version: 2.1.3

Final Test Report: ERG/CER_001/10 dated 07 July 2008

ERG_POST_2.1.3_TP5000 dated 18 June 2010

This product supports the functions: ITSO POST and communicates
within an ITSO environment as listed in Schedule A of this Certificate.

This product may only be used by ITSO Licenced Members complying
with the conditions and constraints listed in Schedule B.

Signed for and on behalf of ITSO :

Title:

COMPLIANCE MANAGER

Dated :

09 JULY 2010

Certificate Valid until :

08 JULY 2017



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Schedule A

This POST communicates with CMD1-8.

The POST consists of an off-line bus ETM, and a depot PC communicating with HOPS.

The IPEs supported are represented by the following table.

IPE	Create	Modify	Accept	Delete
TYP 0 – Private Application			✓	
TYP 2 – Stored Travel Rights		✓	✓	
TYP 3 - Loyalty (Type 1)		✓	✓	✓
TYP 4 – Charge to Account (value)	✓	✓	✓	✓
TYP 5 – Charge to Account (journeys)	✓	✓	✓	✓
TYP 14 – Entitlement		✓	✓	✓
TYP 16 – ITSO ID and Entitlement		✓	✓	✓
TYP 17 – Loyalty (Type 2)		✓	✓	✓
TYP 22 – Area based ticket	✓	✓	✓	✓
TYP 23 – Journey Ticket	✓	✓	✓	✓
TYP 24 - Journey Ticket (incl Reservations)	✓	✓	✓	✓
TYP 25 - Travel Voucher	✓	✓	✓	✓
TYP 26 - Tolling	✓	✓	✓	✓
TYP 27 – Period Pass (space saving)	✓	✓	✓	✓
TYP 28 – Carnet (space saving)	✓	✓	✓	✓
TYP 29 – Multi Journey Ticket (space saving)	✓	✓	✓	✓
Transient Ticket	✓	✓	✓	✓



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Schedule B

List of the conditions and/or constraints applied by ITSO.

This POST meets the off-line bus ETM benchmark timing standards for CMD1, 3, 4, 6, 7, 8 and the current derogation for existing CMD2:

	Average over tests
CMD1	480mS
CMD2	1160mS
CMD3	540mS
CMD4	250mS
CMD5	470mS
CMD6	250mS
CMD7	520mS
CMD8	430mS