

Course Description

Advanced Brake: System design & commissioning

Version:	BSD/Com.-2026	Convenor:	John Hirst
Location:	Classroom. SMDC, 153 Kerrs Road, Wiri	Date:	TBC
Target Group:	Technicians who have demonstrated sound, basic knowledge of brake system design & operation. (Max. 6 candidates)		

Pre-requisites:

- Personal Protection Equipment (PPE).
- Competent computer usage skill.
- Successfully completing the *Basic Brake & Diagnostic training* test paper with a score $\geq 85\%$.
- Calculator.

Aim:

- To provide an understanding of legislative requirements.
- Demonstrate the fundamentals of trailer braking system design & compliance.
- Successfully complete an End Of Line procedure on a TEBS-E brake control system.
- Advance technical competence in trailer electronic control systems.

Vision:

- Course candidates are guided through the certification process from conception to commissioning.
- Detailed programming & system analysis promotes better understanding & confidence when dealing with the most advanced braking systems in the NZ marketplace.

Course Content:

Module 1: Theory relating to brake system design (classroom)	
Introduction:	<ul style="list-style-type: none"> • Welcome & housekeeping • Course agenda
Performance criteria & System architecture	<ul style="list-style-type: none"> • Legislative requirements • Brake force & brake torque • Foundation brake & brake factors
System components	<ul style="list-style-type: none"> • Key components • Component function • Component protection
Technical data (Trailer)	<ul style="list-style-type: none"> • Review the mass & dimension data from the trailer manufacturer

Module 2: ECU programming & commissioning (classroom & showroom)	
Create a calculation, generate a file, commission trailer (EOL):	<ul style="list-style-type: none"> • Collating vehicle data (practical) • Design a brake system file (familiarisation) • Creating an ECU file (familiarisation) • Perform vehicle End Of Line commissioning process (practical) • Calibrate Electronically Controlled Air Suspension (practical)

Course Duration: Full Day – 9am – 4.00pm

Course Cost: \$800.00 + gst per person
(\$400.00 pp deposit - non refundable)

Course Contact:

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