



FORMULA FORD AND TOUGHBOOK CF-D1 PROVE PERFECT RACING PARTNERS

This year Formula Ford entered its 44th consecutive year of delivering future champions. Many aspiring Formula Ford stars began their racing careers here. So, for the Toughbook CF-D1 industrial tablet, designed for the world of engine & machine diagnostics, it is the perfect environment to put its talents to the test.

Nigel Jones, the Motor Sports Association Technical Delegate for Formula Ford, who is in charge of scrutineering and technical eligibility at the races, has been putting the Toughbook CF-D1 through its paces this season.



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Formula Ford and Toughbook CF-D1 prove perfect racing partners

Returning from his most recent racing weekend at the famous Spa track in Belgium, Nigel said the Toughbook CF-D1 was making his role as the official rule keeper of technical specifications much easier.

"My job is to ensure that the cars are built and maintained to the technical specifications issued by Ford," explained Nigel. "During race meetings, I check that the cars continue to comply with the specifications and in effect cannot cheat."

One of the key elements of Formula Ford's success, unlike other single-seater series, is that it is not a one-make championship. By allowing freedom of chassis design, engine build and numerous technical items of specification on the car, it drives the teams to develop cars of an exceptionally high technical standard.

The strictly enforced technical regulations have been one of the mainstays of the championship over the years. The Ford Motor Company is behind these regulations, with staff at Ford Racing in the Dunton Research Centre, writing and updating and providing the vital expertise of the championship scrutineer and electronics experts.

Diagnostics during race weekend

The latest cars have an Electronic Control Unit (ECU), which controls the engine and records all the car performance data during the course of the weekend. Nigel can plug the Toughbook CF-D1 into the car's ECU at any point to check that the cars are meeting regulations. Data recorded includes information such as revolutions per minute, speed, engine and oil temperatures. In the event of an engine problem, the scrutineers can also use the Toughbook to help diagnose specific issues for the drivers and their mechanics.

Perfect for the race environment

"For the environment that we work in, the CF-D1 is perfect," said Nigel. "It has a large screen and is very clear to read, it's not too heavy and easy to carry around in one hand, and from a diagnostic point of view, does everything that I need it to do during a busy race weekend."

The fully rugged Windows[®] 7 based CF-D1 industrial tablet has been designed with and for technicians performing diagnostics on engines, automobiles, trucks and machines in either the workshop or field environment.

With its full shift battery life, 13.3" widescreen HD LED display, the latest 2nd Generation Intel [®] CoreTMi5-2520M (2.5GHz) standard voltage processor and a 320GB hard drive, the CF-D1 is equipped perfectly to handle today's intensive diagnostic applications. In addition, the tablet combines all the rugged intensity expected of Toughbook and is built to stand-up to the knocks, falls, liquids, dust and extreme temperatures of the workshop and outdoor environments.

Screen clarity

The 13.3" widescreen HD LED display allows technicians to easily run real-time diagnostic programmes, read telematic data and view schematics and designs. The resistive touchscreen allows for easy data input using fingers, gloves or a pen. The screen has been specifically built for clarity both inside the workshop and for use outside in bright sunlight.

The CF-D1 will run for 9 hours at a 60cd/m² brightness setting and has configurable triple bay ports fully designed for customisation, and able to support all specialist ports for reliable diagnostic data transmission. The ports can be easily configured to meet specific requirements such as a Serial or VGA interface, a second LAN port or rugged USB connector.

Ergonomically designed and rugged

Ergonomically designed with semi-mobility in mind, the device weighs approx. 2.25kg and can be carried by the handle, held in one hand for data input using the hand strap or stand alone alongside the technician using extendable legs (Special request). The device can also be used in a docking cradle with adjustable viewing angle to allow optimized viewing in various usage scenarios or back at the technician's desk in the office.

Finally, the CF-D1 has all the rugged elements expected in a Toughbook. Drop tested to a height of 90cm* and with water and dust protection giving it an impressive IP65* rating.

"I trust the Toughbook tablet implicitly," said Nigel. "It is very reliable and I can be using it consistently from Friday afternoon through to Sunday on a race weekend. The battery life is very good. For diagnostics, it is great. I can carry it around from car to car easily in one hand and it withstands the knocks and spills you have to expect in this environment, when you have to transport the device around."

As well as diagnostics, Nigel also maintains all of the Formula Ford rules on the tablet so they can be referred to wherever he may be during the race weekend. He can also use the tablet for judges to review in-car camera footage of racing incidents.

For Formula Ford, the rugged Toughbook CF-D1 tablet is the perfect diagnostic machine to match the quality of Formula Ford racing.

*Tested at Panasonic factory.





