## Trimble CCSFlex Compaction Control Systems Asphalt Compactors

The Trimble<sup>®</sup> CCSFlex<sup>™</sup> Compaction Control System for asphalt compactors is an easy-to-use, reliable, flexible and affordable option to leverage compaction control technology and be more competitive.

The CCSFlex "in a case" system provides pass count mapping for asphalt compactors. Select the low cost "system in a case" solution and add sensors for increased system capabilities as needs change. CCSFlex is easy-to-use as you can operate without a GPS base station and without designs. The system is installed as an aftermarket system, retrofitted onto any asphalt compactor with open or enclosed cab. Add-on options for temperature mapping and higher accuracy positioning are available.

Trimble CCSFlex Compaction Control System increases efficiency and produces a better quality mat. The CCSFlex system eliminates much of the guess work from asphalt paving operations. The CCSFlex pass count functionality increases efficiency and improves the quality of the mat and helps achieve more consistent compaction to target design density over the entire material layer. The operator will also be able to roll a more efficient pattern and can thus increase productivity and save fuel.

SYSTEM IN A CASE	APPLICATIONS
PASS COUNT MAPPING ONLY Sub-meter level horizontal mapping using SBAS	Asphalt compaction applications, where monitoring pass count mapping allows the contractor to run more efficiently, and where pass counts targets need to be met.
OPTIONS	
HIGHER ACCURACY MAPPING MS972 Options and SNM940 Connected Site Gateway or SNRx10 Site Net Radio	<ul> <li>Accuracy levels ranging from standard to high precision, matching needs and budgets can be selected. Options include:</li> <li>Location RTK with precise horizontal – ideal for applications where the horizontal accuracy needs to be 1-2cm</li> <li>Full RTK – ideal for applications where a vertical GPS-RTK accuracy is required</li> <li>GLONASS – ideal for application with more limited GNSS satellite reception</li> </ul>
TEMPERATURE MAPPING IS310 Infrared Sensor	Two IS310 Infrared Sensors can be added to measure the temperature of the mat at the time of compaction. CCSFlex graphically maps and displays temperature readings on the in-cab control box, indicating which areas should be compacted immediately and which should cool off before being compacted. High and low temperature warnings can also be configured to ensure the operator is alerted to any issues in real-time.
IN FIELD REPORTING Third pary printer	A printer from a third party can be added to the system to print the in-field report off the CCSFlex system

## Trimble CCSFlex Compaction Control System for Asphalt Compactor Configurations and options



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## System in a Case

Pass Count System Configuration – Key System Features:

- · Cost effective, simple configuration for increased rolling pattern efficiency
- · Displays pass count maps, allowing operator to track where pass count target has been met
- Operation using base station-free Satellite-based Augmentation Systems (WAAS, EGNOS, MSAS)
- · Add on sensors and options expand system functionality
- · In-field compaction reports viewed on the control box
- · Ease of operation with no need for a GPS base station and 3D design





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## **System Options**

Pass Count and and Temperature Mapping System Configuration – Key System Features:

- IS310 Infrared Sensor provides temperature information
- Temperature readings graphically mapped and displayed on the in-cab control box, allowing the operator to judge his time window for compaction across the surface
- MS972 GNSS receiver options for higher accuracy horizontal mapping—Location RTK with precise horizontal. Full RTK and GLONASS options are also available.
- SNM940 Connected Site Gateway or SNRx10 Site Net Radio for receiving correction information for higher accuracy positioning
- In-field compaction reports, viewed on the control box can be optionally printed out in the cab with portable printer.





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