

# CoolCheck® 2

## AUTOMATED COOLANT AND DIESEL EXHAUST FLUIDS ANALYSIS SYSTEM

Accurate, on-location testing in seconds



Cooling systems play a vital role in preserving the overall engine heat balance and in protecting engine components against corrosion and other problems. *Machinery and Lubrication* magazine estimates that 60% of engine downtime in the commercial sector is coolant related.

Testing your coolant and maintaining your system at optimum levels will help prevent:

- Corrosion, pitting, rust build-up
- Damaged seal/coolant leaking into oil
- Overheating, boil-over, engine seize-up
- Engine damage from freezing

As an added benefit, CoolCheck tests for correct DEF levels. An incorrect DEF mixture can also be harmful:

- Reduces engine efficiency
- Negates emission reduction efforts

CoolCheck delivers the following analysis parameters by fluid type:

### COOLANT TESTS

COOLANT TYPE  
CLARITY  
COLOR  
PRESENCE OF CONTAMINATION  
BOILING POINT  
FREEZE POINT  
GLYCOL CONTENT (%)  
NITRITES

### DIESEL EXHAUST FLUID TESTS

% UREA  
% DEF

## CoolCheck provides measurement and profiling of coolant condition and diesel exhaust fluid (DEF) integrity.

- Designed for use by the non-expert
- Executes 9 different tests in less than 45 seconds
- Measured results are also graded as:  
> NORMAL > ABNORMAL > SEVERE
- Provides corrective advice to avoid potential failures before they happen
- Replaces hazardous, dangerous chemicals and inaccurate test strips used in manual testing

## CoolCheck helps prevent the most common problems with cooling systems:

- Mixed fluid types
- Depletion of key performance additives
- System contamination

## Updated to the latest computer technology

- Faster computer
- More resistant to power failures and data interruptions
- Safe power shut down mode

## Additional protection against dirty environments

- Cooling fans to stabilize the environmental temperature conditions
- Changeable air filters to protect electronics from dust and debris
- Hard plastic cover to protect sample chamber and optics from contaminants

OK/GOOD			Re-Print
ID:	cummins		Repeat Scan
Type:	Special Blue		
Clarity:	Clear	N	Export
Contamination:	None	N	
Color:	Blue		Finish
Freeze Point:	-44 F	N	
Glycol Content:	53.8%	N	
Boil Point:	228 F	N	
Nitrites:	1850 PPM	N	

Normal Sample –  
All readings within acceptable range

ABNORMAL			Re-Print
ID:	8267		Repeat Scan
Type:	Conventional		
Clarity:	Clear	N	Export
Contamination:	None	N	
Color:	Green		Finish
Freeze Point:	-5 F	A	
Glycol Content:	34.9%	A	
Boil Point:	219 F	A	
Nitrites:	<300 PPM	A	

Abnormal Sample –  
Freeze Point, Glycol Content and Boil Point all below acceptable range – add pack depleted

## CoolCheck Information

PRODUCT INFORMATION	
Part Number	42000-00
Accessories	POS printer (included) LubeTrak® (optional)
Applications	Cooling systems and Diesel Exhaust Fluid (DEF) Analysis
Operating Mode	Multi-parameter Tests
OUTPUT	
Coolant	Coolant Type, Clarity, Contamination, Color, Freeze Point, Glycol Content, Boil Point, Nitrites
Diesel Exhaust Fluids (DEF)	% Urea; DEF Amount
DEVICE SPECIFICATIONS	
Spectral Range	200-1100 nm
Detectors	Dual-Path multi-wave spectrometer – UV/Vis (200-750 nm) and NIR (750-1100 nm); Dual Xenon light source
Calibration	3 Standard fluids generate a polynomial 2nd / 3rd order fit.
OPERATIONAL SPECIFICATIONS	
Sample Volume Required	0.5 oz. (15 ml)
Sample Time Required	45 seconds
Ambient Operating Temperature	0-40 C
Operational Humidity	5-95% (non-condensing)
Ambient Altitude	up to 11,500 feet (3000 meters)

USER INTERFACE SPECIFICATIONS	
Display	Panel touch screen
Data Entry	touchscreen / USB port for computer mouse
Data Storage	16 GB internal
Data Transfer	LAN/wireless (FTP) to online reporting
Communication	Port 21 (online reporting through LubeTrak)
POWER REQUIREMENTS	
Power	115/230V 50/60 Hz (single-phase)
Power Consumption	20 Watts
MECHANICAL SPECIFICATIONS	
Dimensions	10.5" (L) x 9" (W) x 4.5" (H) (28cm x 23cm x 11.5 cm)
Weight	4.6 lbs. (2.1 kg)
CONSUMABLES	
29140-00	CoolCheck sample vials, disposable single-use (200)
29313-00	Thermal Printer Paper
29036-00	Sample extractor pump
29034-00	Sample extractor tubing
29315-00	Coolant Control Sample, R500
29316-00	Coolant Control Sample, DEF-100
29317-00	Coolant Control Sample, N2200
29713-00	Understanding Your CoolCheck Report Info Sheet

Normal

Abnormal

Critical

### Coolant Analysis Report

Unit ID :	DT084
Component ID :	1
Component Type :	Coolant
Component Description :	
Sample Date :	08/15/2015
Sample ID :	OSA400168-710
Results :	For Future Use.

TEST	RESULTS	GRADE
Boil	223	N
Clarity	Cloudy	A
Color	Red	Unknown
Contam	Heavy	S
Freeze	-24	N
Glycol	44.7	N
Nitrites	<300	A

**N** = Normal    **A** = Abnormal    **C** = Critical

Optional LubeTrak® Software allows managers to effectively maintain the health and efficient operation of equipment. Users can organize test data and maintenance recommendations from the CoolCheck in a database with easy to use analysis and tracking capability.

- Stores analysis history
- Tracks equipment results
- Displays 'red flag' problems
- Sends alerts to computer or smart phone
- Exportable data

Unit Type	Last Condition	Last Sample Date	Posted Date
COOLANT	ABNORMAL	8/26/2015	8/26/2015
COOLANT	CAUTION	8/26/2015	8/26/2015
COOLANT	CAUTION	8/26/2015	8/26/2015
COOLANT	CAUTION	8/26/2015	8/26/2015
COOLANT	CAUTION	8/26/2015	8/26/2015
COOLANT	ABNORMAL	8/25/2015	8/25/2015

Last Condition	Last Sample Date	Posted Date	ComponentRef
ABNORMAL	08/25/2015	08/25/2015	OSA400168-DR050
CAUTION	07/26/2015	07/26/2015	OSA400168-DR050
CAUTION	06/23/2015	06/23/2015	OSA400168-DR050
NORMAL	05/28/2015	05/28/2015	OSA400168-DR050
CAUTION	05/14/2015	05/13/2015	OSA400168-DR050
CAUTION	05/13/2015	05/13/2015	OSA400168-DR050

COOLANT	ABNORMAL	8/25/2015	8/25/2015
COOLANT	ABNORMAL	8/25/2015	8/25/2015
COOLANT	CAUTION	8/25/2015	8/25/2015
COOLANT	CAUTION	8/25/2015	8/25/2015
COOLANT	CAUTION	8/24/2015	8/24/2015
COOLANT	CAUTION	8/22/2015	8/22/2015