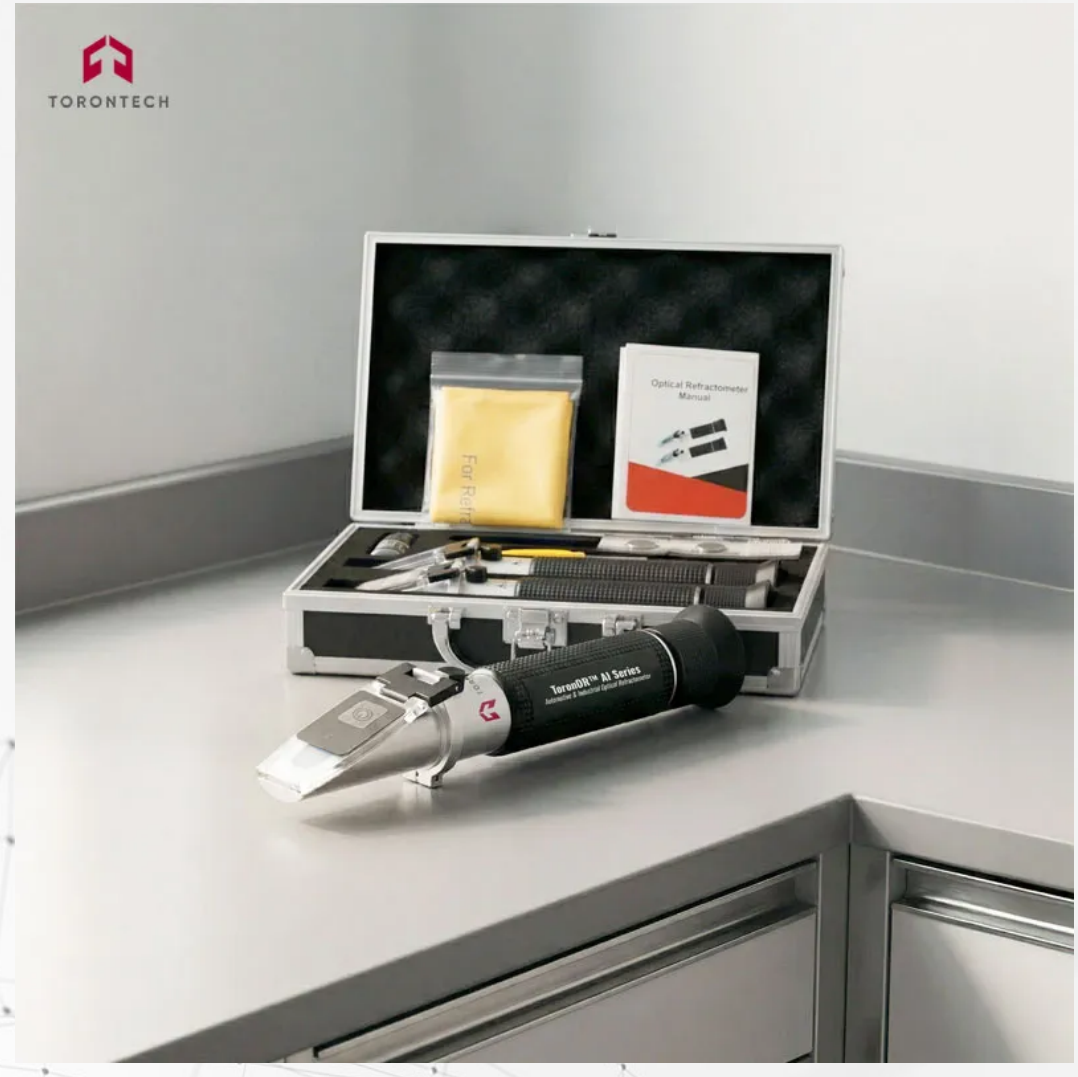
TORONTECH



AUTOMOTIVE & INDUSTRIAL OPTICAL REFRACTOMETER

Automotive & Industrial Optical Refractometer – ToronOR™ AI Series

Optical Refractometer tools in the ToronOR™ AI Series are handheld analog instruments for quick concentration, freezing-point, and specific-gravity checks across automotive and industrial fluids. The Automotive & Industrial Optical Refractometer – ToronOR™ AI Series suitable for AdBlue/DEF, ethylene glycol, propylene glycol, cleaning fluid, battery electrolyte, and IPA concentration, with different scale combinations depending on the model. This refractometer is handheld, pure-aluminum optical refractometers with automatic temperature compensation and no battery requirement for operation.

An Optical Refractometer measures how light bends when it passes through a fluid sample. In practical field use, that optical change is converted into a direct scale reading for fluid concentration, freezing-point protection, or specific gravity. The ToronOR™ AI Series is built for fast spot checks in workshops, fleet maintenance, coolant service, battery service, and fluid preparation work where a simple handheld Refractometer is more practical than a benchtop instrument.

This series is different from a general laboratory refractometer because each model is application-scaled. Instead of reporting only refractive index, these models convert the reading into field-friendly scales such as ethylene glycol freeze protection, propylene glycol freeze protection, battery-acid specific gravity, DEF/AdBlue urea concentration, or IPA concentration. That makes the instrument easier to use for service technicians and industrial operators who need a direct answer rather than a raw refractive-index number.

APPLICATIONS

Automotive & Industrial Optical Refractometer – ToronOR™ AI Series Application

Automotive coolant service

Several models in the series are designed for ethylene glycol and propylene glycol freeze-protection checks. This supports radiator service, engine cooling-system maintenance, and coolant dilution verification in passenger vehicles, trucks, buses, heavy equipment, and industrial engines. ASTM D3321 is the best-known field refractometer reference for approximate freezing-point determination of aqueous engine coolants.

DEF and AdBlue concentration verification

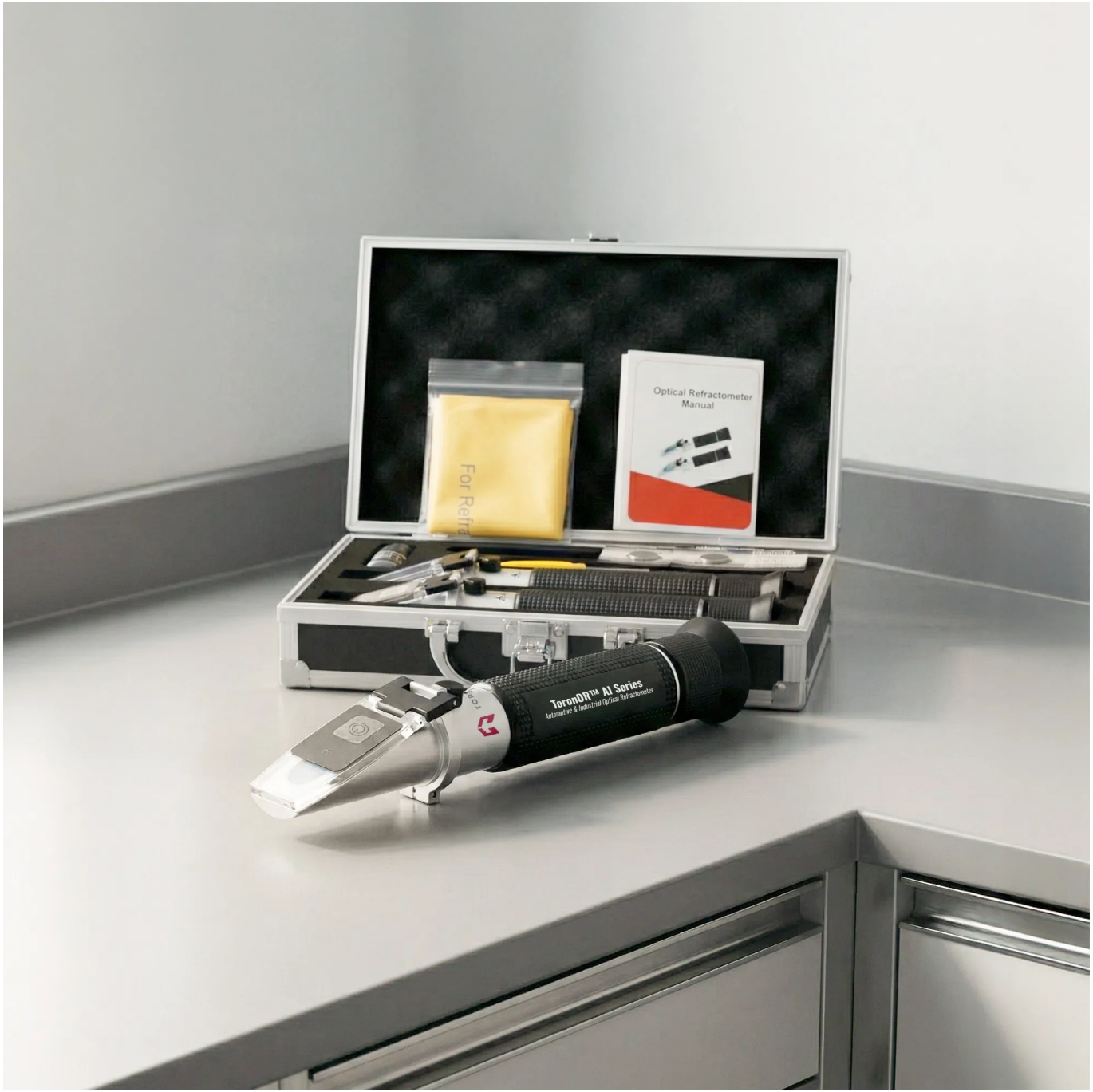
ToronOR™ AI 700 and ToronOR™ AI 800 are aimed at AdBlue/DEF urea concentration checks. This is useful for diesel exhaust fluid storage, filling, service, and incoming inspection where concentration drift or contamination can affect SCR performance. ISO 22241 is the main international framework for AUS 32 / DEF quality, including concentration and physical-property requirements.

Battery electrolyte checks

Models with battery-acid scales support lead-acid battery maintenance by showing electrolyte specific gravity. That helps technicians estimate battery condition and verify service readiness in automotive, backup power, forklift, and industrial battery applications.

Cleaning-fluid and alcohol concentration control

The lineup also includes models for cleaning-fluid concentration and IPA concentration by volume. These are useful where service fluids or process solutions need a quick visual concentration check during preparation, refill, or routine maintenance. The ToronOR™ AI 850 specifically lists a 0–60% v/v IPA scale, while several multi-scale models include a cleaning-fluid temperature scale.


Optical Refractometer
Manual
ToronDR™ AI Series
Automotive & Industrial Optical Refractometer

Standards

- EN 61000-6-1: 2007
- EN 61000-3-2: 2014
- EN 61000-3-3: 2013
- EN 61000-6-3: 2007+A1:2011+AC:2012
- EN 61000-4-2: 2009
- EN 61000-4-3: 2006+A1:2008+A2:2010
- EN 61000-4-4: 2012
- EN 61000-4-5: 2014
- EN 61000-4-6: 2014
- EN 61000-4-8: 2010
- EN 61000-4-11: 2004

FEATURES

Automotive & Industrial Optical Refractometer – ToronOR™ AI Series Key Features

- Handheld Optical Refractometer format for quick field checks across automotive and industrial fluids.
- Application-specific scales for DEF/AdBlue, IPA, ethylene glycol, propylene glycol, cleaning fluid, and battery electrolyte, depending on model.
- Pure aluminum body construction called out on multiple products.
- No battery required for measurement because the instrument uses ambient light only.
- Easy focusing and calibration design for routine workshop use.
- Non-slip rubber grip area for more comfortable handling.
- ATC function with compensation range of 10°C to 30°C (50°F to 86°F).

- Large analog scale plate and pre-shipment calibration.
- Durable manual design suited to workshop, fleet, and service environments.

TECHNICAL SPECIFICATIONS

Automotive & Industrial Optical Refractometer – ToronOR™ AI Series Technical Specification

Model	What this model is for	Scale details	Best fit use case	Common build / package details
ToronOR™ AI 100	A Fahrenheit-based automotive refractometer for users who prefer U.S.-style temperature reading. It combines coolant and battery scales.	Ethylene glycol: -84°F to 32°F. Propylene glycol: -60°F to 32°F. Battery electrolyte: 1.100–1.400 sg.	Best for U.S.-market service teams that prefer Fahrenheit freeze-point scales instead of Celsius.	Standard handheld ATC refractometer package.
ToronOR™ AI 200	A triple-scale refractometer for coolant and battery service. It offers a lower ethylene glycol temperature range than several other mixed-use models.	Ethylene glycol: -60°C to 0°C. Propylene glycol: -50°C to 0°C. Battery electrolyte: 1.100–1.400 sg.	Best for automotive and industrial maintenance users who need coolant plus battery checking with no DEF or cleaning-fluid requirement.	Standard handheld ATC refractometer package.
ToronOR™ AI 250	A dual-coolant refractometer that combines freeze-point indication with concentration-style scales for ethylene glycol and propylene glycol.	Ethylene glycol: -50°C to 0°C and 70% to 0. Propylene glycol: -50°C to 0°C and 70% to 0.	Best for users who want to look at both freeze protection and approximate coolant concentration in one tool.	Standard handheld ATC refractometer package.
ToronOR™ AI 400	A coolant, cleaning-fluid, and battery refractometer with a narrower battery-specific gravity range than some other models.	Ethylene glycol: -50°C to 0°C. Propylene glycol: -50°C to 0°C. Cleaning fluid: -40°C to 0°C. Battery electrolyte: 1.15–1.30 sg.	Best for routine service work where the priority is checking coolant condition and battery electrolyte without needing DEF or IPA scales.	Pure aluminum body, no battery required, manual focus and calibration, non-slip rubber grip, ATC range 10°C to 30°C, large scale plate, calibrated before shipment.

Model	What this model is for	Scale details	Best fit use case	Common build / package details
ToronOR™ AI 500	A multi-scale automotive service refractometer covering battery, coolant, and cleaning fluid. It is similar to ToronOR™ AI 700F but without the AdBlue scale.	Battery electrolyte: 1.100–1.400 sg. Ethylene glycol: -50°C to 0°C. Propylene glycol: -50°C to 0°C. Cleaning fluid: -40°C to 0°C.	Best for garages, service centers, and maintenance teams that mainly work with coolant, battery electrolyte, and cleaning fluid.	Package includes ATC refractometer, pipette, mini screwdriver, protective carrying case, manual, and cleaning cloth.
ToronOR™ AI 600	A dual-coolant refractometer with broader low-temperature range and both Celsius/Fahrenh eit presentation. It focuses on antifreeze protection rather than battery or DEF work.	Ethylene glycol: -70°C to 0°C and -90°F to 32°F. Propylene glycol: -60°C to 0°C and -70°F to 32°F.	Best for users who want a coolant-only model with deeper freeze-point coverage and easier use across international or mixed-unit service environments	Pure aluminum construction and standard ATC refractometer package set.
ToronOR™ AI 700	A multi-scale automotive and DEF refractometer for users who want one tool to check several service fluids. The ToronOR™ AI 700 describe as a handheld AdBlue refractometer developed to check urea concentration in AdBlue, while also covering battery, coolant, and cleaning-fluid readings.	AdBlue: 30–35% urea. Battery electrolyte: 1.100–1.400 sg. Ethylene glycol: -50°C to 0°C. Propylene glycol: -50°C to 0°C. Cleaning fluid: -40°C to 0°C.	Best for workshops or fleets that handle DEF, coolant, battery acid, and washer/cleaning fluid and want one handheld tool instead of multiple refractometers. This is the most versatile model in the lineup.	Pure aluminum construction, ambient-light operation with no battery, ATC refractometer package with pipette, mini screwdriver, protective carrying case, manual, and cleaning cloth.
ToronOR™ AI 800	A DEF / urea concentration refractometer focused on diesel exhaust fluid checks. This is the simpler DEF-focused option in the lineup.	DEF / urea concentration: 0–40%.	Best for users who only need to check DEF concentration and do not need extra coolant or battery scales. Good for SCR-related maintenance and incoming DEF verification.	Package includes ATC refractometer, pipette, mini screwdriver, protective carrying case, manual, and cleaning cloth.
ToronOR™ AI 850	A dedicated IPA refractometer for checking alcohol concentration and related freeze-point behavior. This model is more specialized than the other automotive fluid versions.	IPA freeze point: -23° to 0°. IPA concentration: 0–60% v/v.	Best for users who need a straight forward tool for IPA solution concentration control, service-fluid preparation, or similar industrial cleaning-fluid checks.	Package includes ATC refractometer, pipette, mini screwdriver, protective carrying case, manual, and cleaning cloth.

TORONTECH.com

TORONTECH

Torontech Inc.
251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC
601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE
Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE

Phone: +971 488 19252
Email: me@torontech.com

USA | Canada | EU | UAE | GCC | KSA | India | Africa | Latin America | Asia