

CONTAMINATION DETECTOR KIT

The Checkmate method is the Industries only valid field test for a quick and accurate determination of contaminant levels in Oil and any CFC, HCFC or HFC Refrigerant.

The user connects the Checkmate body to a refrigerant source, inserts a detector tube and allows a small amount of gas to pass through. The detector tube is then removed and color change measures the contaminate level. Each tube is septum sealed and made of heavy wall Pyrex with fire embossed graduations. All materials are sterile analytic grade compounds packed under dry nitrogen gas. Septum ends will automatically be pierced when fully assembled, then self seal upon disassembly. Exposure to counter indicating atmospheric moisture is nil by this process.

Each Kit is a foam lined plastic case containing :

- (1) Metering device / Brass detector tube body 1/4" Male SAE Flare x 1/4" Male SAE Flare;
- (1) Blue extension hose 45° 1/4" Female SAE Swivel Nut with Gasket and Depressor x 1/4" Female SAE Swivel Nut with Gasket;
- (1) Pack of three (3) **Acid Detector** tubes. Determine the reusability of Recovered or Reclaimed Gas. In System Diagnostics, correlate the level of contaminants found in the Refrigerant Phase (vs.) the Oil Phase;
- (1) Pack of three (3) **Moisture Detector** tubes. This test is conducted by sampling a specific volume of Refrigerant in the vapor phase. Any Oil vapor or mist entering the tube will not affect the results. When the correct volume of vapor is allowed to pass through the Detector Tube, the results will be consistent with Laboratory Analysis;
- (1) Pack of three (3) **Easy Oil Test Detector** tubes for Mo Mineral Oil, AB Alkyl Benzene Oil, POE PolyOIEster (sintetic) or PAG Poly Alkylene Glycol Oil. Offers a more definitive way to check the condition of any Compressor Oil or to pretest any stock Oil before it is to be added to a System.

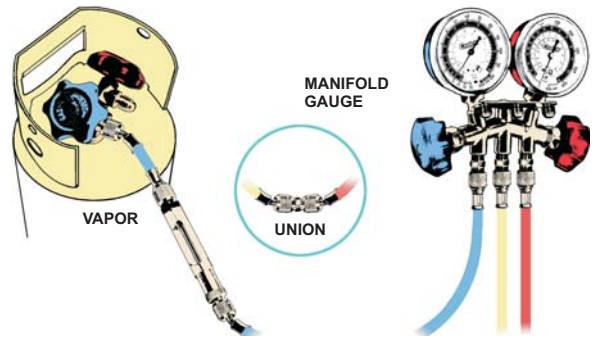
The traditional pH test in a bottle cannot measure the full range of Oil contaminants. A pH test will only work after a System has been exposed to long term acid production. Therefore, when the acid content of the Oil is ruled by the pH method, it is already a foregone conclusion that extensive corrosion, metal wear, copper plating and damage to the Compressors' electrical windings has already occurred.

Oil phase Detector Tubes will accurately measure the Oils' dielectric strength. Dielectric strength is best defined as "the fluids ability to conduct an electrical current". Oil containing variable amounts of moisture and other dissolved impurities will increase the Oils' conductance. The ideal Oil should be nonconductive however, even virgin Refrigeration Oil will register slight conductivity. Working Compressor Oil will manifest conductance due to chemical interaction, notwithstanding, the introduction of contaminants during an installation or repair.

The Color Chart displays the color breakouts of this test. The soft colors indicate low Oil conductivity progressing stepwise to the stronger colors of highly conductive Oil.

- (1) 1/4" (7/16" 20UNF) Male SAE Flare x 1/4" (7/16" 20UNF) Male SAE Flare brass union for connecting three 0,9 m. (3' - 36") or two 1,5 m. (5' - 60") 1/4" ID hoses;
- (1) 5/16" (1/2" 20UNF) Female SAE with Neoprene Gasket and Depressor x 1/4" (7/16" 20UNF) Male SAE with Valve Core brass Adapter for R-410a.

A detector tube can only be used once even if the Test is negative.



Termination Pressure The point at which to stop Refrigerant Gas flow through a Detector Tube Assembly which is pressurizing a gauge manifold having approximately 8+10 feet of 1/4" ID hose volume.

TERMINATION PRESSURE CHART (± 0,14 Bar Vapor Phase)			
R-11	0,14 Bar	R-407c	9000 Klea66 7,97 Bar
R-12	4,14 Bar	R-408a	FX10 8,27 Bar
R-13	5,52 Bar	R-409a	FX56 5,86 Bar
R-13B1	1301 6,55 Bar	R-500	4,48 Bar
R-22	6,90 Bar	R-502	8,27 Bar
R-113	0,07 Bar	R-134a	2,07 Acid
R-114	0,35 Bar		3,79 Moi.
R-123	0,07 Bar	R-402a	5,86 Acid
R-124	2,07 Bar		8,96 Moi.
R-125	11,03 Bar	R-410a	10,00 Acid
R-401a	MP39 5,52 Bar		12,41 Moi.
R-401b	MP66 5,86 Bar	R-507	6,89 Acid
R-404a	HP62 FX70 7,58 Bar		9,31 Moi.
R-406a	GHG 4,14 Bar		



Model	Description
RT700K	Contamination Detection Kit for refrigerant CFC, HCFC, HFC and Refrigeration Oils.
Accessories / Replacement Parts	
RT750A	(1) Pack of three (3) Acid Dector tubes.
RT751M	(1) Pack of three (3) Moisture Dector tubes.
RT752C	(1) Pack of three (3) Oil Conductivity tubes for MO Mineral Oil, AB Alkyl Benzene Oil, POE Polyol Ester (sintetic) or PAG Poly Alkylene Glycol Oils.
AD87	R410a Adaper 1/4" Male SAE with Valve Core x 5/16" (1/2" 20UNF) Female SAE with Gasket and Depressor.

REFRIGERATION OIL ACID TEST KITS

Fast and easy one step kits designed for detecting the presence and formation of destructive Acid in MO Mineral, AB AlkylBenzene and POE PolyOIEster (sintetic) oils in Air Conditioning and Refrigeration Systems.

Now available in three versions. The original ATK-4 test kit effective on MO Mineral and AB AlkylBenzene oils, provides an economical 4 tests per kit. The ATK-1 is a single test version of the original ATK-4 kit.

The ATK-1-P is a newly designed single test kit for POE PolyOIEster (sintetic) refrigeration oil.

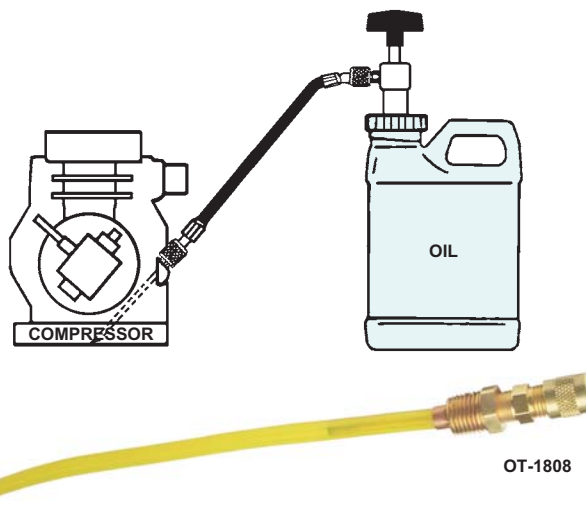
- Easy to evaluate. Color change indicates acidity;
- Color intensity reveals the amount of acid present in the oil sample **Purple = Safe, Orange = Marginal, Giallo = Acidic.**



Model	Description
ATK-1	(1) Test/Kit for MO Mineral and AB AlchylBenzene Refrigeration Oil.
ATK-4	(4) Tests/Kit for MO Mineral and AB AlchylBenzene Oil.
ATK-1-P	(1) Test/Kit for POE PolyOIEster (Sintetic) Refrigeration Oil.

OIL TAP

Oil Tap is installed on a semi-hermetic compressor for the changing of oil and testing procedures. The internal pressure helps discharge the oil from the crankcase and acid tests can be made while the compressor is running. Allows the addition by vacuum or removal by pressure of oil while compressor is running. And, you can detect hazardous refrigerant pooling in the crankcase before start-up and control the removal using a compound gauge. Oil Tap can be permanently installed.



Model	Description
OT-1808	Oil Tap - 1/4" Male SAE with Valve Core and Cup x 1/8" / 1/4" Male Pipe Thread.