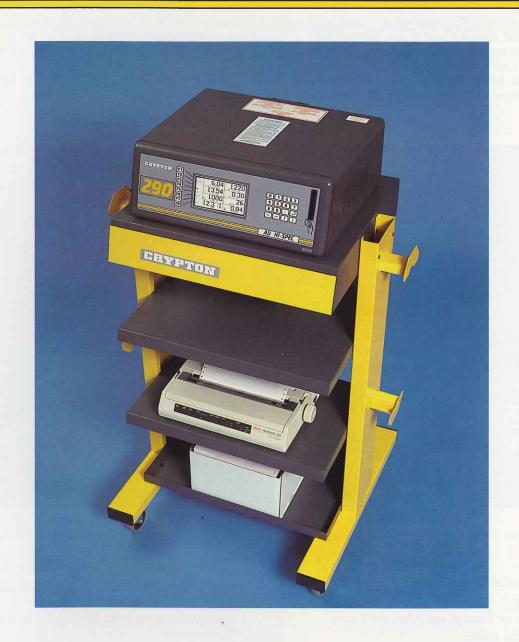
# CRYPTON



## 290 AU HI-SPEC EMISSION ANALYSER

**OIML Class I and MOT approved** 

#### 290 AU HI-SPEC EMISSION ANALYSER

Designed to meet or exceed all present high level European legislative standards, the 290 AU is Swiss Approved OIML Class 1 and has a Department of Transport Certificate of Acceptance for MOT use. The 290 AU is an infra-red emission analyser combined with a state-of-the-art message centre display which not only shows the 4 gas results but also Lambda Ratio and AFR. Offering excellent microprocessor controlled reliability, ease of use and a range of options to suit your requirements the 290 AU is the most advanced and versatile emission analyser available today.



#### **FEATURES**

- 4 Gas CO/HC/CO2/O2
- OIML Class 1 Approved
- Certificate of Acceptance for MOT use
- AFR/Lambda Ratio
- Large message centre with contrast control
- On-screen operator prompts, test selection menus and diagnostic messages
- Automatic calibration, zeroing and O<sub>2</sub> spanning
- Automatic leak detection and HC residue tests
- Exceptionally fast 5 minute warm-up time and rapid response
- Membrane function keys and numeric data input keys
- Optional Oil Temperature Probe and Engine RPM Display (DIS/Wankel and 4 stroke selection)
- Optional Trolley with storage
- Optional A4 width Printer with 2 copy paper, automatic date/time printout and personal header

- Garage name and address header input card
- Parallel Centronics and Serial RS485/RS232 outputs
- Communicates with Crypton Engine Test Equipment



### Quality, Accuracy & Reliability

### DESIGNED FOR MOTTESTING AND EUROPEAN EMISSION PROGRAMMES

The importance of accurate emission analysis is widely recognised and is now included in annual MOT tests. A full exhaust emission diagnosis provides more than just a check, thereby assisting with the analysis of the many fault conditions that cause poor combustion efficiency.

The 290 AU makes the emission check for MOT purposes simplicity itself with the unique AUTOMATIC OPERATOR PROMPTED MOT TEST. No other stand alone emission analyser provides such ease of use.

### 4 GAS COMBINED WITH AFR/LAMBDA DISPLAY

High levels of CO are produced in conventional petrol engines when insufficient oxygen causes incomplete combustion. This over rich mixture indicates possible air blockages or component wear. High HC levels occur when unburnt fuel is present indicating ignition system or engine wear faults.

With the advent of catalytic convertor equipped vehicles the CO/HC is reduced to near zero and so the measurement of  $CO_2$  and  $O_2$  are essential as diagnostic indicators.

The 290 AU LAMBDA display provides a quick check for engines with closed loop catalytic convertors by calculating the fuel efficiency directly from the exhaust emissions.

The 290 AU AFR display also provides a useful indicator of combustion efficiency with the calculation of the Air to Fuel Ratio for conventional exhaust systems.

### UNIQUE DISPLAY GIVES CLEAR OPERATOR INSTRUCTIONS

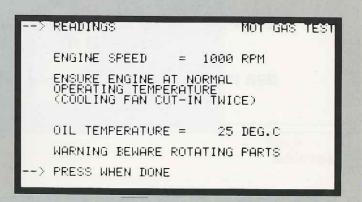
The 290 AU message centre provides easy to read operator messages and diagnosis on screen.

The MOT test provides a simple procedure with clear step by step instructions to ensure the vehicle is correctly set prior to the MOT emission check.

The display also provides clear indications of filter blockages. Calibration is fully automatic ensuring that accuracy and reliability are always maintained.

> END (MEHDINGS)	MOT	GHS	TEST
MOT GAS TEST =	PASS		0-0
RESULTS CO 0.00% VOL HC 0 PPM VOL IDLE 749 RPM SMOKE	PASS PASS PASS PASS	LIN min	1ITS 4.50 1200
> PRINT CERTIFICATE			

MENU	6.04	1220
	13.54	0.30
:무: MOT 상조	1000	<b>26</b>
ĺ	12.3 :1	$\lambda$ 0.84



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### HIGH QUALITY PRINTOUT TO IMPRESS YOUR CUSTOMER

The optional A4 printout provides a permanent record for you and your customer.

The 290 AU personalised header card enables garage name and address to be printed with results.

#### 290 AU HI-SPEC EMISSION ANALYSER

#### **Technical Specification**

CO-0-99.9% Accuracy to +/- 0.06% Repeatability to +/- 0.03%

Accuracy to +/-11 ppm

HC-0-9999 ppm Repeatability to +/- 5 ppm

Accuracy to +/- 0.4% CO<sub>2</sub>-0-20.00% Repeatability to +/- 0.2%

Accuracy to +/- 0.2% O<sub>2</sub>-0-25.00% Repeatability to 0.1%

Noise: CO < 0.05% CO2 < 0.1%

HC <5 ppm RPM-0-6000 rpm With DIS/Wankel and 4 stroke

selection

**Oil Temperature AFR Ratio** Lambda Ratio

0-120 Degrees C From 5:1 to 25:1

From 0.35 to 1.70 with fuel type selection, leaded, unleaded or LPG Operating Temperature +2 - +50 Degrees C

**Response Time** 

10 Seconds to 95% of final reading with 8 m hose and probe

6 Seconds to 95% of final reading without hose and probe

Warm-up Time 5 Minutes

Humidity

**Altitude** 

0-85% relative humidity (non-condensing)

-1000 to +7000 feet -300 to +2100 metres

**Power Consumption** 200W

**Power Requirements** 

180-250V AC 50-60Hz 110—120V Available to special

order

495mm (19<sup>1</sup>/<sub>2</sub>") Wx368mm Size

(14<sup>1</sup>/<sub>2</sub>") D x 175 (7") H

16.5kg (36.3lb) Weight

#### The 290 AU Range

290 — 4 Gas with Lambda/AFR Measurement

— As 290 plus Oil Temperature and RPM Display 290 OR

— As 290 plus A4 Width Printer 290 P

290 POR — As 290 plus A4 Width Printer, Oil Temperature

and RPM Display

290 PORT — As 290 POR plus Trolley

#### Service

Essential rapid call-out and calibration services as well as contract maintenance is available from Transervice to ensure fast back-up and minimum down time in the event of a service requirement. Transervice is the largest garage equipment service organisation in the UK with regional offices, over 130 on the road engineers and backed-up with Crypton training and spare parts. The equipment comes with a full 12 month warranty and operating instructions.

The company reserve the right to introduce improvements in design or specification without prior notice

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