

Magnetic Stripe Wear Tester

WEAR-Tester 3000

Ensures magnetic stripe durability meets industry standards to prevent unreliable cards being issued to the end customer

SUPPORTED SPECIFICATIONS

High (HiCo) and Low (LoCo) coercivity unencoded and encoded magnetic stripes related to:

- ISO/IEC 7811-2:2018
- ISO/IEC 7811-6:2018
- ISO/IEC 7811-8:2014
- ISO /IEC 10373-2
- JIS 6501 Type I and II
- JIS 6502
- Mastercard CQM 2.19 March 2020 #3024#
- Custom test limits can be set by the user.
- Other standards available as variants

Magnetic stripe appearance and readback unreliability due to wear and abrasion is a serious concern. Card Issuer image can be damaged by worn and unreadable magnetic stripes. Magnetic stripe cards must be tested to ensure compliance with ISO/IEC industry standards aimed at exposing weaknesses in magnetic stripe wear resistance.

The WEAR-Tester 3000 enables tests on all types of magnetic stripe cards and TFCs (thin flexible cards) in compliance with these exacting ISO/IEC standards and CQM #3024#.



*General view.
Card loaded for test
ISO/IEC Test Head
carried in load arm*

*Test in progress
(Lid normally closed for test)*



Solution Highlights

- A free-standing desk-top unit designed to enable automated testing to meet ISO / IEC requirements.
- Suitable for all types and sizes of magnetic stripe media, including cards, tickets, ATB and documents.
- Accurate abrasive test head loading; allows the user to set up the WEAR-Tester 3000 for test duration. Once initiated, the test is completed automatically.
- Perfect for any magstripe manufacturing, bureaux or QC environment to test cards prior to and during card issue.



*Test Head moved aside
for card loading*





THE BARNES ADVANTAGE

Barnes is the chosen test tool of Banks & Issuers, Card Manufacturers, Personalisation Bureaus and Test Laboratories worldwide.

Here are some reasons why:

BUSINESS AGILITY

Barnes test tools are easy to use by both technical and non-technical users, and speed up card development and payment scheme certification.

COST ELIMINATION

The high business costs and wasted resources of producing and issuing invalid cards are eliminated.

RISK REDUCTION

The reputational risk of issuing invalid EMV cards to end customers is reduced.

FUTURE PROOFED

Barnes works in partnership with all major payment schemes. As scheme rules evolve, Barnes rapidly makes updated test script packs available to customers via the Barnes website.

SERVICE EXCELLENCE

Our clients have every confidence that, whatever their test requirement, the Barnes team is always on-hand to deliver expert advice and fast support.

Features and Benefits

All the features of WEAR-Tester 3000 are designed to deliver ISO-IEC standard test-result accuracy to any magnetic stripe manufacturing, bureau or QC environment.

ISO/IEC 10373-2:2006

Defines test methods for the magnetic recording characteristics of identification cards according to the definitions given in base standards ISO/IEC 7811-2, ISO/IEC 7811-6 and ISO/IEC 7811-7.

ISO/IEC 7811-2, 7811-6, 7811-8

Specifies requirements for a high coercivity magnetic stripe (including any protective overlay) on an identification card, the encoding technique and coded character sets.

ISO/IEC 15457

Specifies the physical characteristics of thin flexible cards at the point of loading into the card issuing equipment and at the point of issue to the public.

Mastercard CQM 2.19 March 2020 #3024#

After 4,000 head wear cycles, the average signal amplitude (UA) and individual signal amplitude (Ui) shall verify: UAafter \pm 0.60 UAbefore, and Ui after \pm 0.80 Uaafter.

Dummy Head

5 supplied meeting ISO 10373-2 requirements. Each dummy head is good for 15 (minimum) wear tests. Additional dummy heads can be made by the user or supplied by Barnes.

Test Media

ID1 size; TFC-1 size; Lateral (ISO) and Central stripe positions.

Dummy Test Head/Stripe Loading

Standard set at 1.5 +/-0.2 Newtons (ISO). Other loadings can be set by the user if desired.

Wear Test Cycles

Wear rate is 56 (nominal) cycles per minute. Test duration is controlled manually (a domestic mains timer is included).

Wear Test Card Velocity (With Respect to Dummy Head)

24 - 40 cm/sec (ISO: 20 - 50 cm/sec).

Technical Specification

Electrical

220-240 Vac, 50Hz or 110-120 Vac, 60Hz.

Power

<150W

Dimensions (cm)

40 (Width) x 30 (Height) x 20 (Deep).

Weight (Kg)

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