



Auto ID Solutions

a division of Product Development Laboratory, Inc.

Certificate of Calibration

Certificate Date: 1/22/2005

Certificate Number: 1020186

CUSTOMER INFORMATION:

ABC Printing Company
2224 4th Street N.W.
Minneapolis, MN 55414

Purchase Order #: Credit Card
Submitted by: John Daly

INSTRUMENT DESCRIPTION:

Instrument ID Number/Service Order Number: 10124

Manufacturer: RJS
Description: Bar code verification instrument.
1. Direct contact unit; with 6 mil
660nm aperture

Model: Inspector 3000
Serial number: 424245095865

CALIBRATION INFORMATION:

Reason for Service: Calibration
Type of Calibration: Normal
Technician: Jeff Beaudoin
Temperature: 21° C
Humidity: 55%

As Found Condition: **Out of Tolerance**
As Left Condition: In Tolerance
Calibration Date: 2005-06-22
Calibration Due: 2006-06-22
Procedure: AISOP-206 Verifier Calibration Process

AS FOUND - INSTRUMENT ACCURACY:

TEST PARAMETER	TEST STANDARD	INSTRUMENT TEST READING	ALLOWABLE DEVIATION	ACTUAL DEVIATION	RESULT
Direct contact unit:					
UPC-A Master Symbol					
ISO/ANSI overall grade	4.0	-	± 0.2	-	Out of Tolerance
Decodability	85.6%	77%	± 8%	-9%	Out of Tolerance
Modulation	84.6%	72%	± 8%	-13%	Out of Tolerance
Symbol Contrast	80.2%	52%	± 8%	-28%	Out of Tolerance
Defects Symbol					
ISO/ANSI overall grade	2.0	-	± 0.2	-	Out of Tolerance
Defects	21.7%	13%	± 8%	-9%	Out of Tolerance
Decodability (bar) Symbol					
ISO/ANSI overall grade	2.0	2.0	± 0.2	0.0	In Tolerance
Decodability	46.6%	40%	± 8%	-7%	In Tolerance
Contrast Symbol					
ISO/ANSI overall grade	2.0	-	± 0.2	-	Out of Tolerance
Symbol Contrast	49.7%	29%	± 8%	-21%	Out of Tolerance
Overall Results					Out of Tolerance

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RESULTS OF PHYSICAL EXAMINATION:

THIS INSTRUMENT HAS BEEN EXAMINED FOR ANY PHYSICAL DAMAGE AND IT WAS FOUND TO HAVE 2 PROBLEMS.

PROBLEM 1 - THE WIRES CONNECTING THE WAND TO THE VERIFIER BODY WERE EXPOSED AND DAMAGED. THE CONNECTOR WAS REWIRED.

PROBLEM 2 BATTERIES HAD LEAKED ACID IN THE BATTERY COMPARTMENT. THE ACID WAS NEUTRALIZED AND CLEANED.

FOLLOWING THE SERVICE, DAMAGE TO THE UNIT WAS JUDGED TO BE MINIMAL AND NOT DETRIMENTAL TO THE FUNCTION OF THE INSTRUMENT(S).

NOTE: DO NOT CHARGE ALKALINE BATTERIES IN THE UNIT OR SIGNIFICANT DAMAGE WILL OCCUR.

RESULTS OF OPERATIONAL EXAMINATION:

IT WAS DETERMINED THAT THIS INSTRUMENT WAS IN GOOD WORKING ORDER AND WAS THEREFORE SUITABLE FOR CALIBRATION.

PARTS REPLACED:

BATTERY CLIP, BATTERY COMPARTMENT COVER, BATTERY REMOVAL STRAP

AS LEFT - INSTRUMENT ACCURACY:

TEST PARAMETER	TEST STANDARD	INSTRUMENT TEST READING	ALLOWABLE DEVIATION	ACTUAL DEVIATION	RESULT
Direct contact unit:					
UPC-A Master Symbol					
ISO/ANSI overall grade	4.0	4.0	± 0.2	0.0	In Tolerance
Decodability	85.6%	80%	± 8%	-6%	In Tolerance
Modulation	84.6%	82%	± 8%	-3%	In Tolerance
Symbol Contrast	80.2%	72%	± 8%	-8%	In Tolerance
Defects Symbol					
ISO/ANSI overall grade	2.0	2.0	± 0.2	0.0	In Tolerance
Defects	21.7%	19%	± 8%	-3%	In Tolerance
Decodability (bar) Symbol					
ISO/ANSI overall grade	2.0	2.0	± 0.2	0.0	In Tolerance
Decodability	46.6%	44%	± 8%	-3%	In Tolerance
Contrast Symbol					
ISO/ANSI overall grade	2.0	2.0	± 0.2	0.0	In Tolerance
Symbol Contrast	49.7%	42%	± 8%	-8%	In Tolerance
Overall Results					In Tolerance

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The instrument(s) listed on this certification have been calibrated against standards traceable to the National Institute of Standards and Technology (NIST).

The calibration test accuracy ratio (TAR) of 10:1 was maintained, unless otherwise stated. A TAR of 10:1 defines that the test instrument(s) and standard(s) are ten times the accuracy of the calibrated the instrument(s).

Auto ID Solutions quality system compiles with applicable requirements of:

ANSI/Z540-1:1994 (Calibration Laboratories and Measuring and Test Equipment)

ISO17025:1999 (General Requirements for the Competence of Testing and Calibration Laboratories)

ISO 9001:2000 (Quality management systems, design, development, production, sales, installation, and servicing)

ISO 9002:1994 (Quality management systems, sales, installation, and servicing)

QS9000/ISO-TS16949 (Quality management systems that includes reduction of variation and defect prevention)

ISO 15426-1:2000 (Bar Code Verifier Conformance Standard – Linear Symbologies)

ISO 15416-1:2000 (Bar Code Print Quality Test Specification– Linear Symbologies)

ANSI X3.182:1990 (Bar Code Print Quality Guideline)

All results contained within this certification relate only to the item(s) calibrated. This Certificate of Calibration will not be reproduced except in full and with the written approval from Auto ID Solutions.

The user should be aware that any number of factors may cause this instrument(s) to drift out of calibration before the specified calibration interval has expired.

CALIBRATION STANDARDS:

NIST TRACEABLE NUMBER	INSTRUMENT ID NUMBER	DESCRIPTION	CALIBRATION DATE:	CALIBRATION DUE:
NIST SRM-1930-90 NIST 821/253660-94	10053	Calibrated Conformance Standard Test Card for UPC/EAN Symbol Verifiers	04/12/2005	10/12/2005
NIST SRM-1930-90	10099	Reflectance Calibration Standard	04/12/2005	10/12/2005

Calibration Approved By:



Jeffrey Beaudoin
Vice President, Operations