

ATD

AUTO-TRACKING DENSITOMETER



Scanning Instrument Manual
(covers ATD Sheet and ATD News Systems)



User Information

FCC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTE: Shielded interface cables must be used in order to maintain compliance with the desired FCC and European emission requirements.

Canada

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

AVERTISSEMENT : Des câbles d'interface blindés doivent être utilisés afin de se conformer aux règlements européens et FCC (USA) sur l'émission

Keep Cal Plaques Clean At All Times.

Kalibrierstandard stets sauber halten!

Siempre mantenga la placa de calibración limpia.

Tenir le plaque de calibration propre tout le temps.

Sempre mantenga la placca della calibrazione pulita.

Do Not Oil Moving Parts.

Bewegliche Teile nicht ölen!

No lubrifique las peizas en movimiento

Ne pas lubrifier les pièces en mouvement

Non lubrificare le parti mobili.

CAUTION: Use only the 24v Adapter (P/N ATS40-109) to supply power to the Docking Station.

VORSICHT: Benutzen Sie nur den X-Rite- 24V-AC-Adapter (P/N SE30-75) als Stromanschluß zur Kopplerstation.

ADVERTENCIA: Use solamente el Adaptador de 24v (pieza Nº ATS40-109) para suministrar la energía al mecanismo de conexión.

AVERTISSEMENT: Utiliser seulement l'adaptateur de 24v (P/N ATS40-109) pour fournir l'alimentation au mécanisme de connexion.

AVVERTIMENTO: Usare solamente l'adattatore di 24v (parte n. ATS40-109) per fornire l'alimentazione al meccanismo del collegamento.

The Manufacturer: **X-Rite, Incorporated**
Der Hersteller: **4300 44th Street, S.E.**
El fabricante: **Grand Rapids, Michigan 49512**
Le fabricant:
Il fabbricante:

Declares that: **Auto Tracking Densitometer**
gibt bekannt: **ATD**
advierte que:
avertit que:
avverte che:



is not intended to be connected to a public telecommunications network.
an ein öffentliches Telekommunikations-Netzwerk nicht angeschlossen werden soll.
no debe ser conectado a redes de telecomunicaciones públicas.
ne doit pas être relié à un réseau de télécommunication publique.
non deve essere connesso a reti di telecomunicazioni pubbliche.

CE DECLARATION

Manufacturer's Name: X-Rite, Incorporated
Manufacturer's Address: 4300 44th Street, S.E.
Grand Rapids, Michigan 49512 U.S.A.
Model Name: Auto Tracking Densitometer
Model No.: ATD
Directive(s) Conformance: EMC 89/336/EEC LVD 73/23/EEC

WEEE

As of August 13, 2005, X-Rite products meet the European Union – Waste Electrical and Electronic Equipment (WEEE) directive. Please refer to www.xrite.com for more information on X-Rite's compliance with the WEEE directive.

PROPRIETARY NOTICE

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This instrument may be covered by one or more patents. Refer to the instrument for actual patent numbers.

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LIMITED WARRANTY

X-Rite, Incorporated (“X-Rite”) warrants each instrument manufactured to be free of defects in material and workmanship (excluding battery pack) for a period of 36 months. This warranty shall be fulfilled by the repair or replacement, at the option of X-Rite, of any part or parts, free of charge including labor, F.O.B. its factory or authorized service center.

This warranty shall be voided by any repair, alteration, or modification, by persons other than employees of X-Rite, or those expressly authorized by X-Rite to perform repairs, and by any abuse, misuse, or neglect of the product, or by use not in accordance with X-Rite’s published instructions.

X-Rite reserves the right to make changes in design and /or improvements to its products without any obligation to include these changes in any products previously manufactured. Correction of defects by repair or replacement shall constitute fulfillment of all warranty obligations on the part of X-Rite.

THIS WARRANTY IS EXPLICITLY IN LIEU OF ANY OTHER EXPRESSED OR IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. THIS WARRANTY OBLIGATION IS LIMITED TO REPAIR OR REPLACEMENT OF THE UNIT RETURNED TO X-RITE OR AN AUTHORIZED SERVICE CENTER FOR THAT PURPOSE.

This agreement shall be interpreted in accordance with the laws of the State of Michigan and jurisdiction and venue shall lie with the courts of Michigan as selected by X-Rite, Incorporated.

Always include serial number in any correspondence concerning the unit. Serial numbers are located on the bottom of the scanning head and right end plate of the track.

INSTRUMENT TRACEABILITY

The spectral reflectance values for the supplied white reference are traceable to the National Institute of Standards and Technology through the RIT Munsell Color Laboratory. The RIT Laboratory maintains standards to which NIST assigned values. These standards were used in assigning values to X-Rite's two primary standard white porcelain on steel plaques.

A calibration report (MCSL-18) issued by Munsell Color Science Laboratory contains measurement methods, measurement values, and verifies the ceramic plaques' NIST traceability path. These two plaques are used to generate the supplied white reference.

ABOUT THIS MANUAL

This document covers the installation, operation, calibration and general maintenance of your instrument. Refer to your software documentation and on-line help for complete software installation and operation instructions.

This manual is organized into four sections and two appendices. In order to make the best use of your system, it is recommended that you read all sections and appendices.

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Installing the System

This section covers unpacking, inspection, and installation of your system. System description and vocabulary illustrations are also included. You should read through this entire section to familiarize yourself with your instrument.

Section Contents

- Unpacking and Inspection..... 1-1
- System Description 1-2
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UNPACKING AND INSPECTION

The main system components are packaged separately:

- Track/Docking Station, Scanning Head, Cabling, Software, Documentation, and Accessories
- Vacuum Pump

After removing the components from each shipping carton, inspect them for damage. If any damage has occurred during shipping, immediately contact the transportation company that shipped them. Do not proceed with installation until the carrier's agent has inspected the damage.

Your components were packaged in specially-designed cartons to help prevent damage. If reshipment is necessary, the components should be packaged in the original carton. If the original carton is not available, contact X-Rite to have replacements shipped to you.

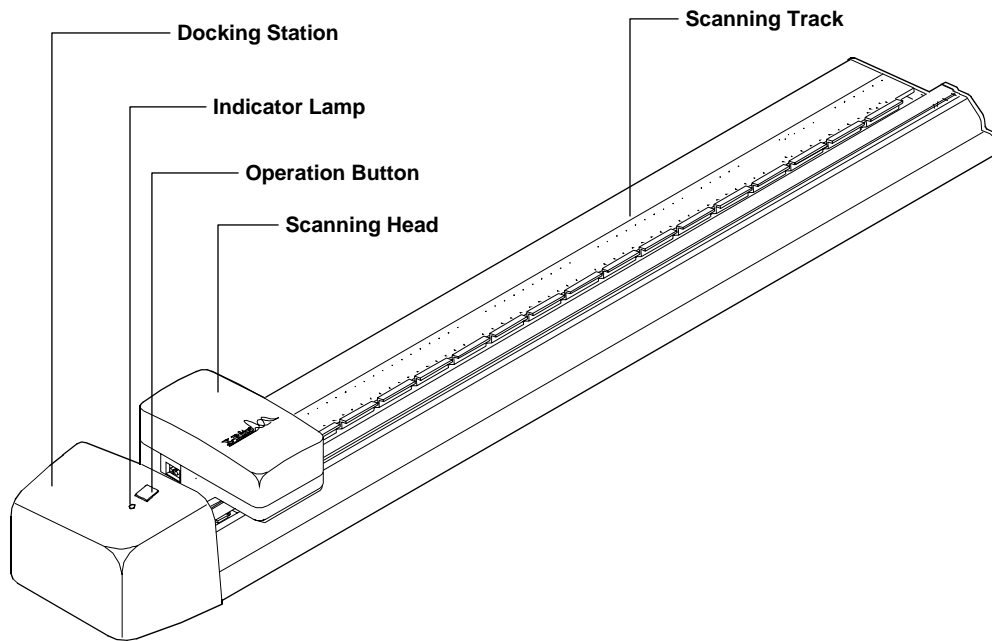
Packaging Drawings and Parts Lists

Check your package contents against your packing list and original order. A detailed packaging drawing and parts list is included in this manual as *Appendix B*.

SYSTEM DESCRIPTION

The ATD Sheet instrument provides density measurements while automatically locating and center itself on a color bar that is within 38mm of the paper's edge.

The ATD News instrument scans news print gray balance rules or continuous color mastheads that are manually aligned to the track LED's.

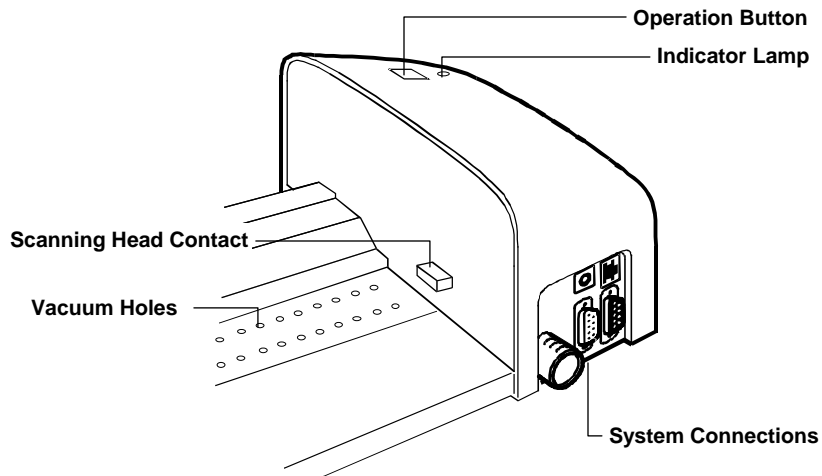


Track and Docking Station

The press sheet or news paper is held securely to the track with a series of vacuum holes while the Scanning Head measures. The Operation button is used to activate a measurement sequence.

The indicator light on the Docking Station illuminates three separate colors for various mode conditions:

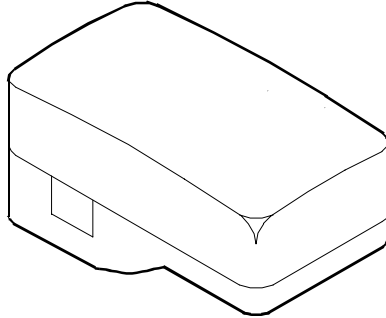
- **Solid Green Light**—indicates that the scanning head is docked and ready for use.
- **Solid Yellow Light**— indicates that the scanning head is away from the docking station.
- **Solid Red Light**— indicates that an error or problem exists with the system.
- **Flashing Yellow Light**—indicates unit powered up to take reading.
- **Flashing Red Light**—indicates there is a problem and unit needs service.
- **Flashing Yellow & Green**—indicates system needs to be reset.
Pressing and holding Operation button for 5-seconds performs reset.



Scanning Head

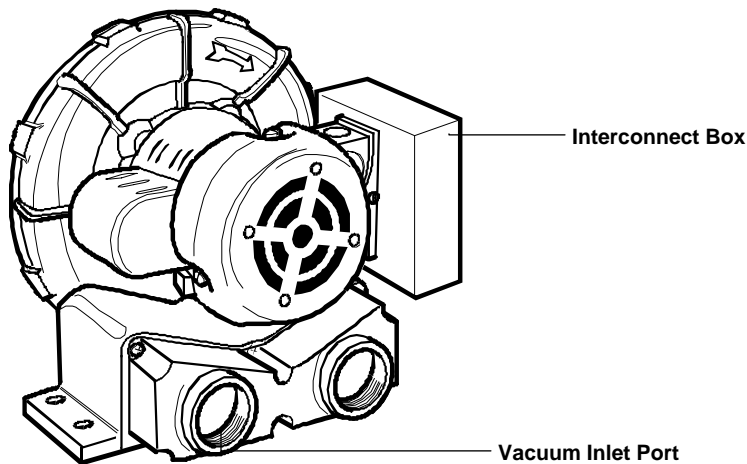
The ATD Sheet scanning head scans a color bar at a rate of 100mm a second using a 4.5mm color patch size.

The ATD News scanning head scans a gray balance rule or continuous color bar at a rate of 8in./sec. The head take approximately five measurements per inch and averages all the reading across the user-defined zone.



Vacuum Pump

A series of small holes located in the surface of the Track are used to hold the press sheet in place during a measurement. This is accomplished by the use of a Vacuum Pump. The Vacuum Pump is connected to the Docking Station allowing automatic activation during a measurement cycle.

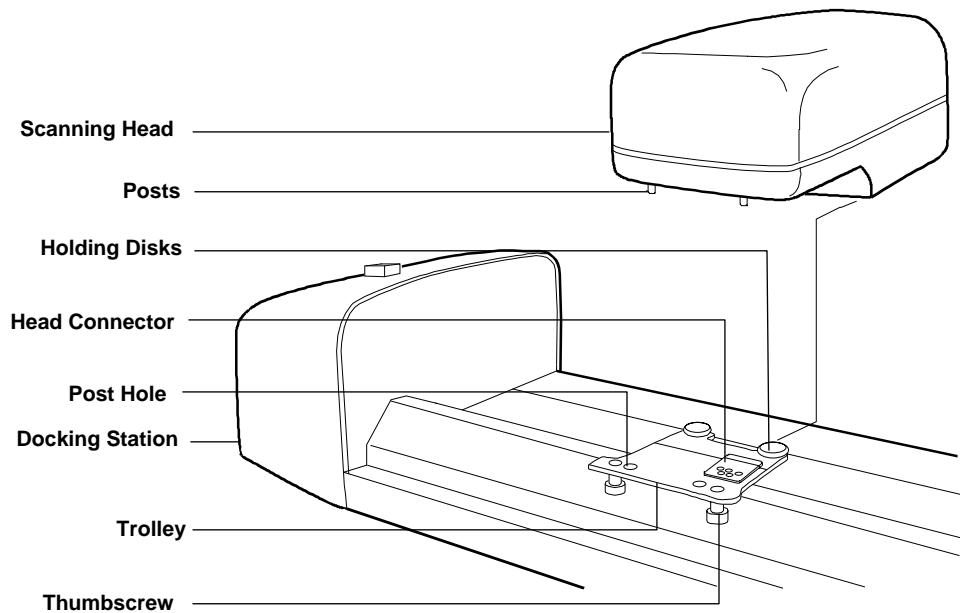


REATTACHING THE SCANNING HEAD

In the event that the scanning head is removed, follow the procedure below to reattach it to the Trolley.

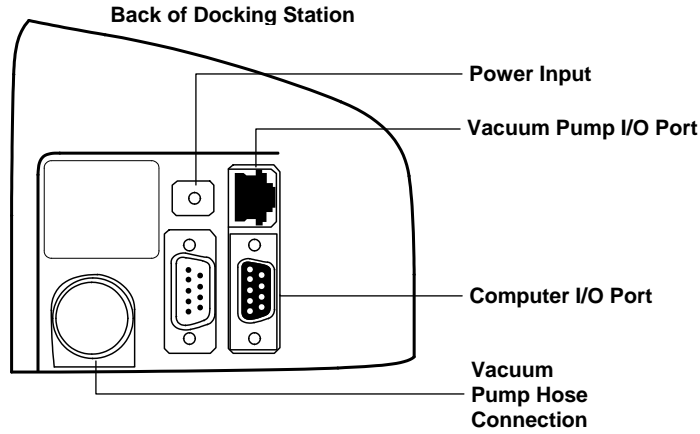
1. Position the Scanning Head Trolley approximately 12 inches from the Docking Station. This is accomplished by sliding the Trolley away from the Docking Station with your hand.
2. Position the Scanning Head over the Trolley and slide forward allowing the Holding Disks to insert into the Scanning Head.
3. Align the Mounting Plate Thumbscrews with the Posts and Post Holes in the Scanning Head.
4. Loosely secure the thumbscrews to the Scanning Head. Alternately tighten until firmly seated.

NOTE: Scanning Head must be securely fastened to Trolley to allow proper operation of instrument.



SYSTEM CONNECTIONS

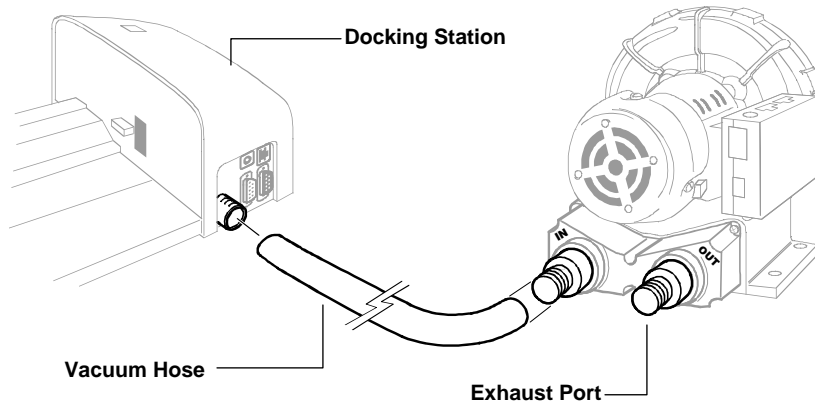
The System requires a few simple connections before operating. Connection procedures for the individual components are covered on the following pages.



Vacuum Pump Connections

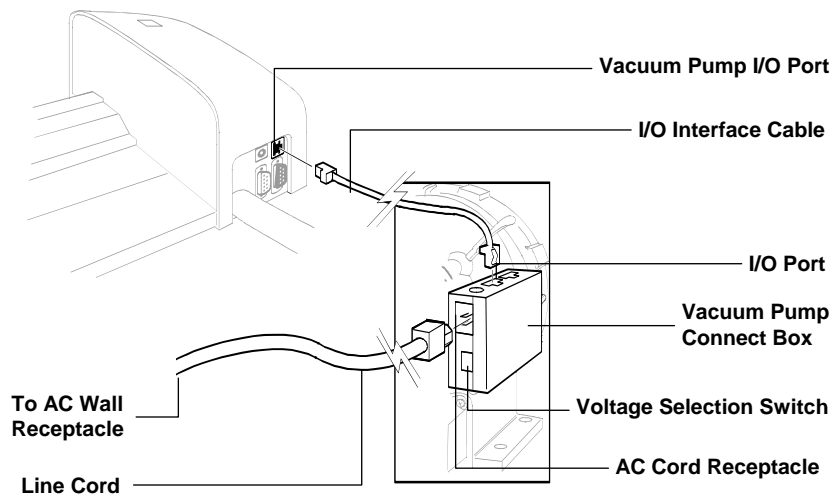
1. Push one end of Vacuum Hose onto the Barbed Adapter at back of the Docking Station.
2. Push other end of Vacuum Hose onto the Barbed Adapter on Vacuum Pump.

NOTE: To obtain up to 15% more vacuum from the pump, remove the exhaust port barbed adapter.



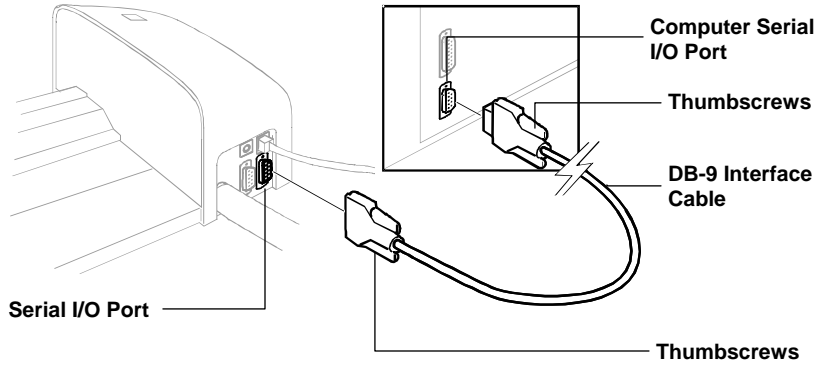
3. Make sure the Voltage Selection Switch—located below Line Cord Receptacle—has been set to the proper line voltage for your region.
4. Connect one end of I/O Interface Cable to the Vacuum Pump I/O Port on the Docking Station.
5. Connect other end of I/O Interface Cable to an I/O Port on the Vacuum Pump Connect Box (either port can be used).
6. Connect the Line Cord to the Vacuum Pump AC Cord Receptacle.
7. Plug Line Cord into AC wall receptacle.

NOTE: Vacuum Pump only operates during a measurement sequence.



RS-232 Interface Connection

1. Connect one end of the DB-9 Interface Cable to an available Serial Port on back of your computer. Secure with thumbscrews.
2. Connect opposite end of DB-9 Interface Cable to Serial I/O Port on back of Docking Station. Secure with Thumbscrews.



Connecting Power

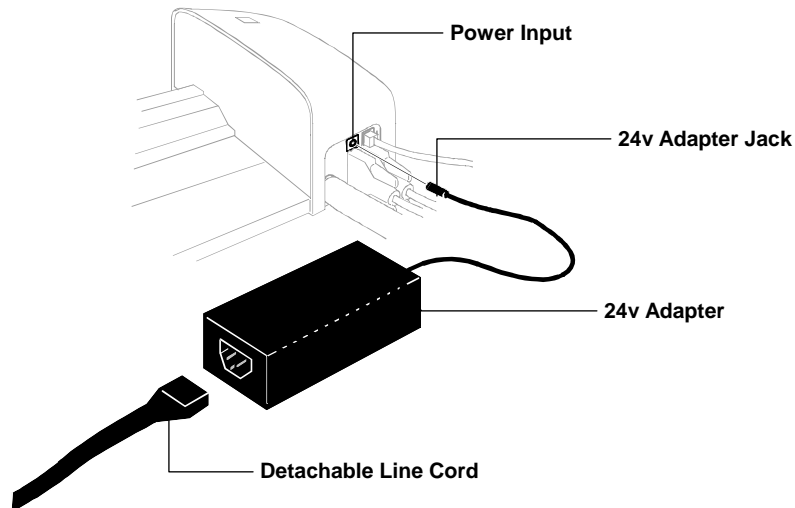
The system must be allowed to stabilize at room temperature before plugging the adapter into an AC wall receptacle.

CAUTION: Use only the 24v Adapter (P/N ATS40-109) to supply power to the Docking Station.

Power is applied to the Scanning System when the 24v Adapter is plugged into an AC wall receptacle. The System does not have an ON/OFF switch.

NOTE: Scanning Head must be attached before power is applied.

1. Insert the adapter jack of the 24v Adapter into the Power Input on back of Docking Station.
2. Insert the Detachable Line Cord into the socket on the 24v Adapter.
3. Plug the three-prong plug from the Line Cord into an AC Wall Receptacle.



Operating the System

Now that you have made all the necessary connections (and loaded your software) you are ready to operate your system. The heart of the Scanning Instrument is the compact, scanning head. The ATD Sheet head moves along the track at approximately 150mm/sec. The ATD News head moves along the track at approximately 8in./sec. After a measurement, the scanning head uploads the data to the computer via RS-232 communications.

This section covers instrument calibration, sheet loading and alignment, and measurement procedures.

Refer to your software documentation or on-line help for information regarding software operation.

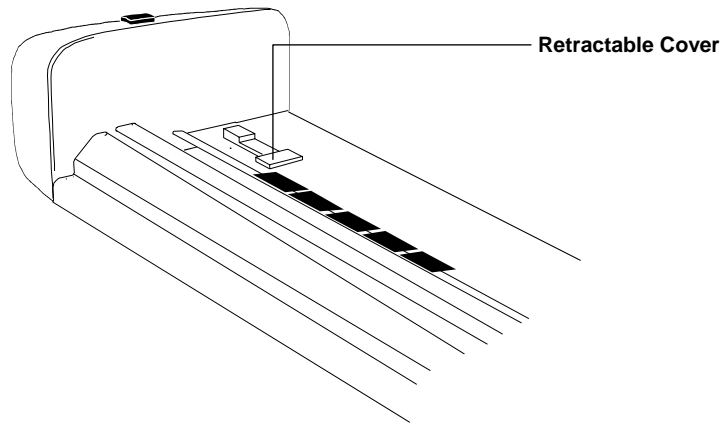
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- Taking a Measurement with the ATD Sheet Instrument 2-5
- Taking a Measurement with the ATD News Instrument 2-6

CALIBRATING THE SCANNING INSTRUMENT

Calibrating the Scanning Instrument is virtually automatic, there is no calibration reference to position. The Calibration References are a permanent part of the Track assembly—located near the Docking Station. The references are covered by a retractable cover when the Scanning Head is away from the Docking Station, and exposed when the scanning head is next to the docking station.

The Scanning Head automatically calibrates to the references when required or when you request it.



NOTE: The calibration references should be cleaned periodically to maintain calibration accuracy. Refer to Section Three, General Cleaning for procedure.

SHEET LOADING AND ALIGNMENT

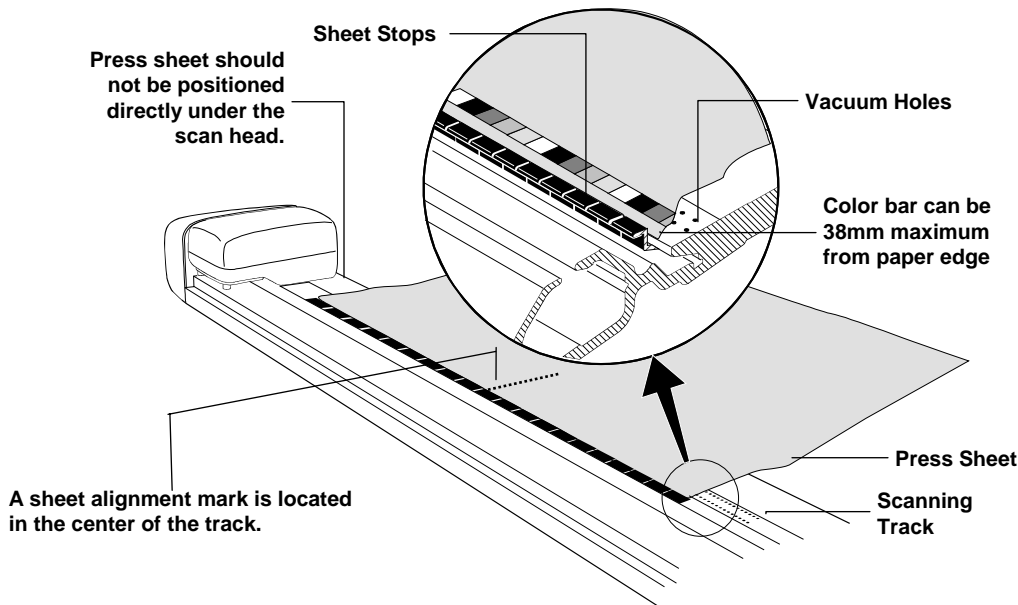
Loading a press sheet or paper onto the Scanning Instrument is fast and easy. There are no guides or clamps to adjust. The press sheet or paper is loaded onto the track from the back over the plate that contains the vacuum holes and LED's (if a feed-through track). A vacuum is created once a measurement sequence is started, holding the press sheet or paper in place.

The sheet or paper should be placed 90mm away from the docking station or centered on the track, and at least 60mm away from the end of the track.

Standard Track Positioning

The press sheet must be positioned against the "sheet stops" that run along the back edge of the vacuum plate. The color bar on the sheet cannot be over 38mm from the paper's edge.

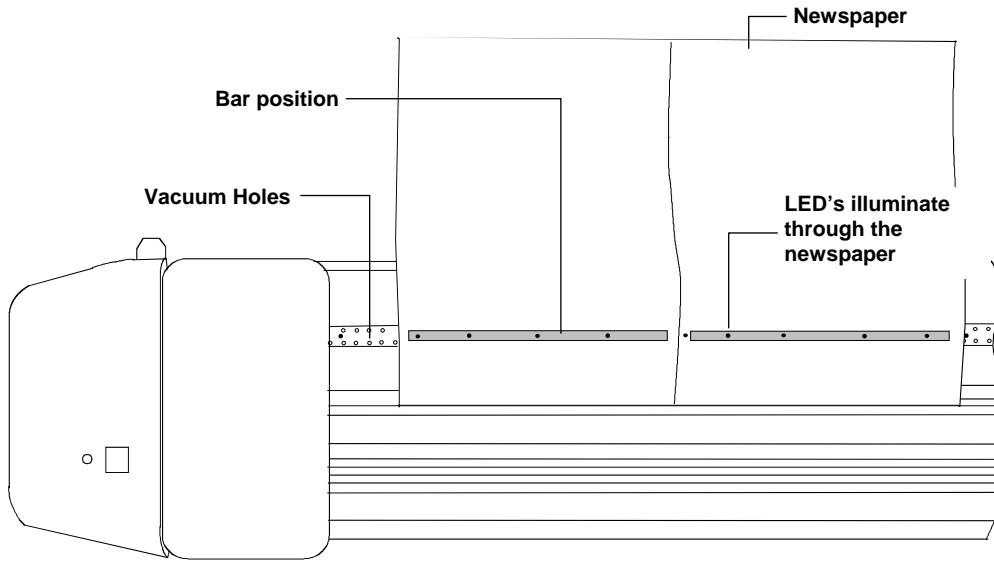
In the event that a color bar is not properly aligned on a press sheet (this is recognized during a job setup), the scanning system takes corrective action by automatically adjusting the ATD scanning head. This ensures all color patches are measured accurately even when a color bar is slightly skewed.



Feed-Through Track Positioning

The feed-through track allows measurements at any location within the paper. This is possible because the track has a slotted opening, allowing the paper to be slide through the track.

The gray balance bar or color masthead bar is easily position on the track using a series of LED's that illuminate from the track through the paper. The LED's are located between the vacuum holes approximately every 5 inches along the track. Open the paper and position it so the LED's are shining down the center of the bar. The LED's automatically shut off once the scanning head starts in motion.

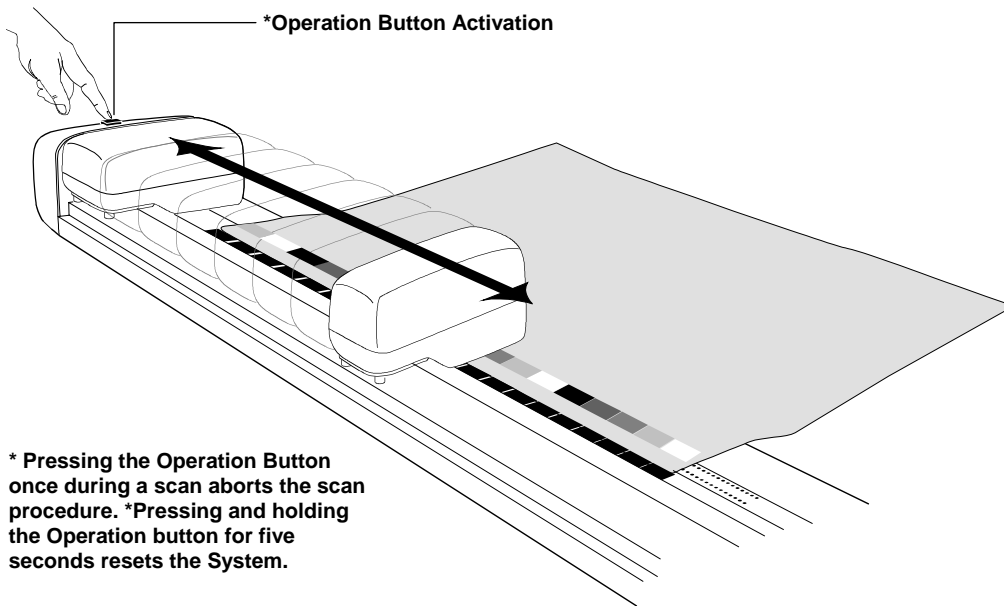


TAKING A MEASUREMENT WITH THE ATD SHEET INSTRUMENT

After the press sheet is properly positioned on the track, you are ready to perform a color bar recognition/measurement. The sequence is started in one of two ways: by selecting the recognition/measurement function from the Software, or by pressing the Operation button located on top of the Docking Station.

Once a scan is set in motion, the vacuum pump activates and the “green” light on the station changes to “yellow,” indicating a scan is in progress. The scan head travels the entire length of the track before returning to the docking station. If additional color bars are located on the opposite edge, you will need to change sides. The software informs you when this is required. Refer to your software documentation for additional information.

If a problem is encountered during a measurement, the scanning head immediately returns to the docking station. View your computer monitor to see if an error message is displayed. If no message is displayed, try to rescan sheet; if a problem still occurs, refer to the Troubleshooting section in this manual.

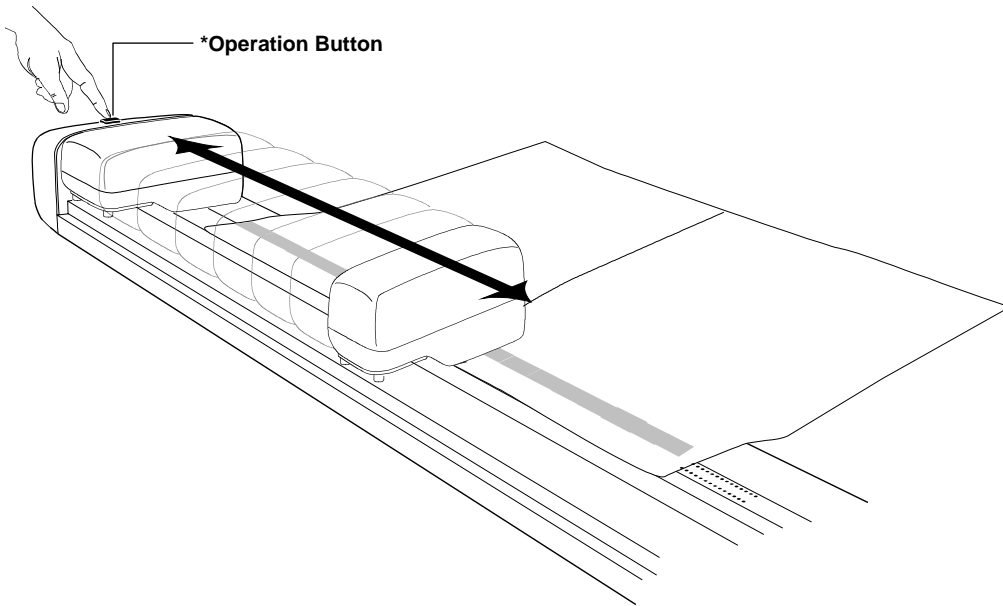


TAKING A MEASUREMENT WITH THE ATD NEWS INSTRUMENT

After the newspaper is properly positioned on the track, you are ready to perform a measurement. Press the Operation button located on top of the Docking Station once to activate the vacuum pump. Then, press the button again to start the measurement sequence.

Once a scan is set in motion, the “green” light on the station changes to “yellow,” indicating a scan is in progress. The scan head travels the entire length of the paper before returning to the docking station. Refer to your software on-line help for specific information on the software operation.

If a problem is encountered during a measurement, the scanning head immediately returns to the docking station. View your computer monitor to see if an error message is displayed. If no message is displayed, try to rescan the paper; if a problem still occurs, refer to the Troubleshooting section in this manual.



General Maintenance

This section will cover the maintenance procedures for the system.

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- Repair Information 3-1
- Overview 3-1
- Scanning Head 3-1
- Scanning Track 3-3
- Cleaning the Calibration Disks..... 3-4

REPAIR INFORMATION

Your ATD System is covered by a three-year limited warranty and should be referred to the factory for repairs within the warranty period. Attempts to make repairs within this time frame may void the warranty.

X-Rite provides a factory repair service to their customers. Because of the complexity of the circuitry, all repairs should be referred to the factory.

X-Rite will repair any ATD System past warranty. Shipping cost to the factory shall be paid by the customer, and the instrument shall be submitted in the original carton as a complete, unaltered unit.

OVERVIEW

The System requires little preventative maintenance to achieve years of reliable operation. However, to protect your investment and maintain measurement accuracy, a few simple cleaning procedures should be performed.

SCANNING HEAD

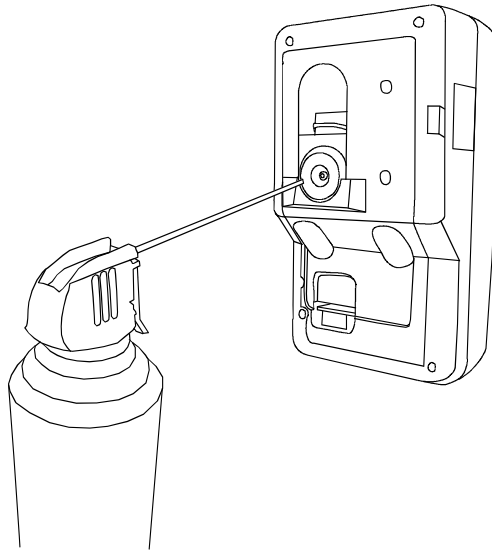
NOTE: DO NOT use any solvents or harsh cleaners of any kind.

NOTE: DO NOT move the trolley up and down the track manually without the scanning head attached.

In the course of normal use, spray powder, paper dust, and other airborne contaminants will likely enter the instrument's optics. This can eventually reduce the sensitivity of the instrument and may lead to calibration errors. Follow the steps below to clean the optical components.

Cleaning (1 to 2 times a month)

1. Obtain a source of clean, dry, compressed air. This air should be of the quality used to clean delicate camera lenses.
2. Remove the scanning head from the track. To do this:
 - Disconnect power from the track.
 - Gently slide the head away from the docking station.
 - Loosen the two thumbscrews that lock the head to its trolley.
 - Gently free the head from the trolley.
3. Being careful to hold the compressed air source upright, blow short, gentle bursts of compressed air directly into the instrument's aperture. Be careful to ensure the compressed air nozzle is approximately 10mm away from the optics.



4. Re-attach the scanning head to the trolley. To do this:
 - Carefully align the head back onto the trolley. Take care to ensure that the head is properly seated on the alignment pins.
 - Tighten the thumbscrews that secure the head to the trolley. Gently wiggle the head as you tighten the screws to ensure that the head is fully seated.
 - Slowly slide the head back into the docking station.
 - Re-connect the power to the track.

5. Note that the process of cleaning the optics will affect the instrument's sensitivity as dust and powder will no longer block the optical path. It is essential that the head be fully calibrated following the cleaning process.
6. The exterior of the scanning head and docking station can be wiped clean with a lint-free cloth dampened in water or a mild cleaner.

Maintenance

1. Replace the five (5) Read Head Pogos if they display any signs of wear or discoloration.
2. On newer read heads, replace the Paper Stop Push Plate if anodize is broke or worn through.

SCANNING TRACK

NOTE: DO NOT reverse the intake/exhaust port on the vacuum to blow out the track vacuum chamber. This will force any dust inside the track into the read head optics.

NOTE: DO NOT use any solvents or harsh cleaners of any kind.

NOTE: DO NOT use any type of lubrication (oil) on any part of the system.

Cleaning (1 to 2 time a month)

1. The exterior of the docking station can be wiped clean with a lint-free cloth dampened in water or a mild cleaner.
2. The track can be wiped clean with a lint-free cloth dampened in glass cleaner. When cleaning the track, make sure to clean the entire track. This includes the portion of the track that resides under the reading head when it is in its docked position. You can simply slide the head over when cleaning is required.
3. Inside of track assembly – use compressed air to remove all print dust.

Maintenance

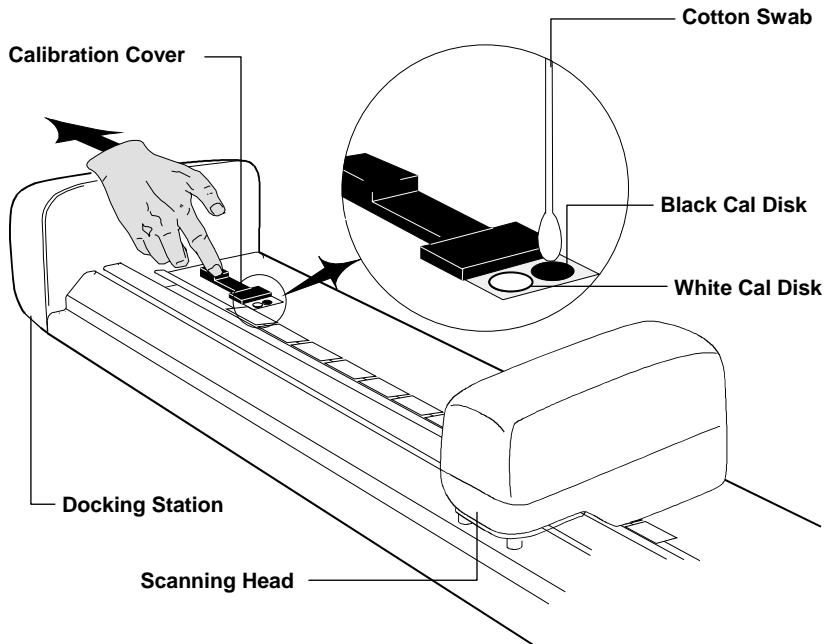
- Replace the following items at 500,000 scans.
- Trolley bearings and wheels
- Power cable
- End plate bearings (both ends)
- Nut on drive screw
- Station home sensor pogos

Usage Approximation		
Usage	Scans per day	Year to reach 500,000
Heavy	300	4.5
Medium	150	9.0
Light	75	13.5

CLEANING THE SCANNING CALIBRATION DISKS

On a daily basis you may need to clean the Calibration Disks located in the Track. This is a relatively easy procedure requiring only a few minutes of time.

1. Carefully slide the Scanning Head away from the Docking Station.
2. Pull Calibration Cover towards the Docking Station to expose the Disks.
3. Clean Disks with a cotton swab or lint-free cloth.
4. Blow off Disks with compressed air.
5. Blow out under the Calibration Cover with compressed air.
4. Carefully release Calibration Cover and slide Scanning Head back against Docking Station.



Troubleshooting Tips

The Software constantly scans the system looking for any type of problems that may arise. When a problem is discovered, the Software displays an error message on the computer monitor, pinpointing the problem area. A list of “hardware” related error messages are listed below.

Error Messages and Reason/Solution

Error Messages	Reason/Solution
Docking Failure	Measurement was initiated—scanning head returned and docked—but the data was not transmitted from the scanning head. Check for loose cabling.
Lamp Burned Out Lamp Intensity Low Lamp Voltage High Lamp Voltage Low Motor Jammed Motor Too Fast	Scanning head needs service. Contact X-Rite, Incorporated.
Scanning Head not at Docking Station	Measurement was initiated but the scanning head was not at the docking station. Slide head against docking station.

Other problems that may occur and not be detected by Software are as follows.

Problems and Reason/Solution

Problems	Reason/Solution
Scanning head will not activate when the Software performs a measurement cycle.	Check to see if Software displayed any error message. Check for proper connection of interface cables and adapters between computer and Scanning System.
Measurements incorrect or not repeatable.	Scanning System needs calibration. Scanning head need service. Contract X-Rite, Incorporated.

Technical Specifications

ATD SHEET INSTRUMENT

Measurement Geometry	45°/0° per ANSI PH2.17
Light Source	Gas Pressure @ 2850°K
Color Response	Status T or Status E
Density Range	0 - 2.5D
Repeatability on White	±0.01 Density max.
Density Reproducibility	±0.02 Density @ 1.5 Density
Calibration	Automatic
Patch Width (along scan path)	3.8mm min.
Patch Height	Large Spot - 5.0mm min. Medium Spot - 3.2mm min. Small Spot - 1.6mm min.
Paper Thickness	1.5mm max.
Scanning Rate	150mm/sec. (6.8 mm patch)
Color Bar Location	Paper Edge to 38mm from edge.
Color Bar Alignment	Automatic centering of measurement on color bar. Paper set against stop.
Color Bar Quantity	Multiple Rows
Paper Hold Down	Vacuum activated with measurement command.
Power Required	Station 110/240 VAC, 50-60Hz, 4/2A Pump 115/230 VAC, 50-60Hz, 4/2A

Specifications and design subject to change without notice.

ATD NEWS INSTRUMENT

Measurement Geometry	45°/0° per ANSI PH2.17
Light Source	Gas Pressure @ 2850°K
Color Response	Status T or Status E
Density Range	0 - 2.5D
Repeatability on White	±0.01 Density max.
Density Reproducibility	±0.02 Density @ 1.5 Density
Calibration	Automatic
Scan Spot Size (total scanned spot)	1.2mm (.0475in.) x 4.75mm (.187in.) [5 scans averaged in a 1in. key (25.4mm)]
Paper Thickness	.25mm (.01in.) max.
Scanning Rate	200mm/sec. (8in./sec.)
Gray Balance Bar Alignment	Centering of gray balance bar on integrated LED's
Paper Hold Down	Vacuum activated with measurement command.
Power Required	Station 110/240 VAC, 50-60Hz, 4/2A Pump 115/230 VAC, 50-60Hz, 4/2A

Specifications and design subject to change without notice.

Parts List and Packaging Drawing

ATD SHEET INSTRUMENT PARTS LIST

42	-	-	-	-	-	NOT USED	
41	1	1	1	1	1	L4-038	TRAINING BROCHURE
40	-	-	-	-	-	NOT USED	
39	1	1	1	1	1	ATS40-597	SCANNING HD PACKING STRIP
38	1	1	1	1	1	SD43-ATS40-13	ATTENTION LABEL
37	1	1	1	1	1	SD200-ATS40-09	FOAM PAD
36	1	1	1	1	1	SD117-10	FLEXIBLE SCALE
35	-	-	-	-	-	NOT USED	
34	1	1	1	1	1	SD01-04GE	WARRANTY REGISTRATION CARD (GE)
33	1	1	1	1	1	SD01-04FR	WARRANTY REGISTRATION CARD (FR)
32	1	1	1	1	1	SD33-08	LINE CORD, 230v
31	-	-	-	-	-	NOT USED	
30	-	-	-	-	-	NOT USED	
29	-	-	-	-	-	NOT USED	
28	1	1	1	1	1	ATS40-192	VACUUM MOTOR ASSEMBLY
27	1	1	1	1	1	SD01-10	IMPORTANT NOTICE
26	1	1	1	1	1	1224-703	QUICK START INSTRUCTIONS
25	1	1	1	1	1	SD01-04	WARRANTY REGISTRATION
24	1	1	1	1	1	ATD40-500	OPERATION MANUAL
23	1	1	1	1	1	SD01-39	CERTIFICATE OF CALIBRATION
22	1	1	1	1	1	SD68-11	ENVELOPE
21	2	2	2	2	2	SD200-DTP22-10	CARTON
20	-	-	-	-	-	NOT USED	
19	-	-	-	-	-	NOT USED	
18	2	2	2	2	2	SD200-ATS40-08	FOAM SPACER
17	-	-	-	-	-	NOT USED	
16	1	1	1	1	1	ATS40-109	POWER SUPPLY ASSEMBLY
15	1	1	1	1	1	SE108-12-01	CABLE ASSEMBLY
14	3	3	3	3	3	SD65-13	PLASTIC BAG
13	1	1	1	1	1	SD33-07	LINE CORD, 115v
12	1	1	1	1	1	SM309-06	PLASTIC SHEET 36" x 60"
11	-	-	-	-	-	NOT USED	
10	1	1	1	1	1	ATS28-18	BASE CLAMP
9	-	-	-	-	-	NOT USED	
8	-	-	-	-	-	NOT USED	
7	-	-	-	-	-	NOT USED	
6	-	-	-	-	-	NOT USED	
5	-	-	-	-	-	NOT USED	
4	-	-	-	-	1	ATD40MLP-00-02	ATD40MLP INSTRUMENT ASSEMBLY
	-	-	-	1	-	ATD40LP-00-02	ATD40LP INSTRUMENT ASSEMBLY
	-	-	1	-	-	ATD40S-00-02	ATD40S INSTRUMENT ASSEMBLY
	-	1	-	-	-	ATD40M-00-02	ATD40M INSTRUMENT ASSEMBLY
	1	-	-	-	-	ATD40-00-02	ATD40 INSTRUMENT ASSEMBLY
3	-	-	-	-	-	NOT USED	
2	AR	AR	AR	AR	AR	SM02-06	PLASTIC BANDING, 1/2"
1	1	1	1	1	1	SD200-ATS40	PACKAGING SYSTEM
ITEM	QTY ATD40	QTY ATD40M	QTY ATD40S	QTY ATD40LP	QTY ATD40MLP	PART NUMBER	DESCRIPTION

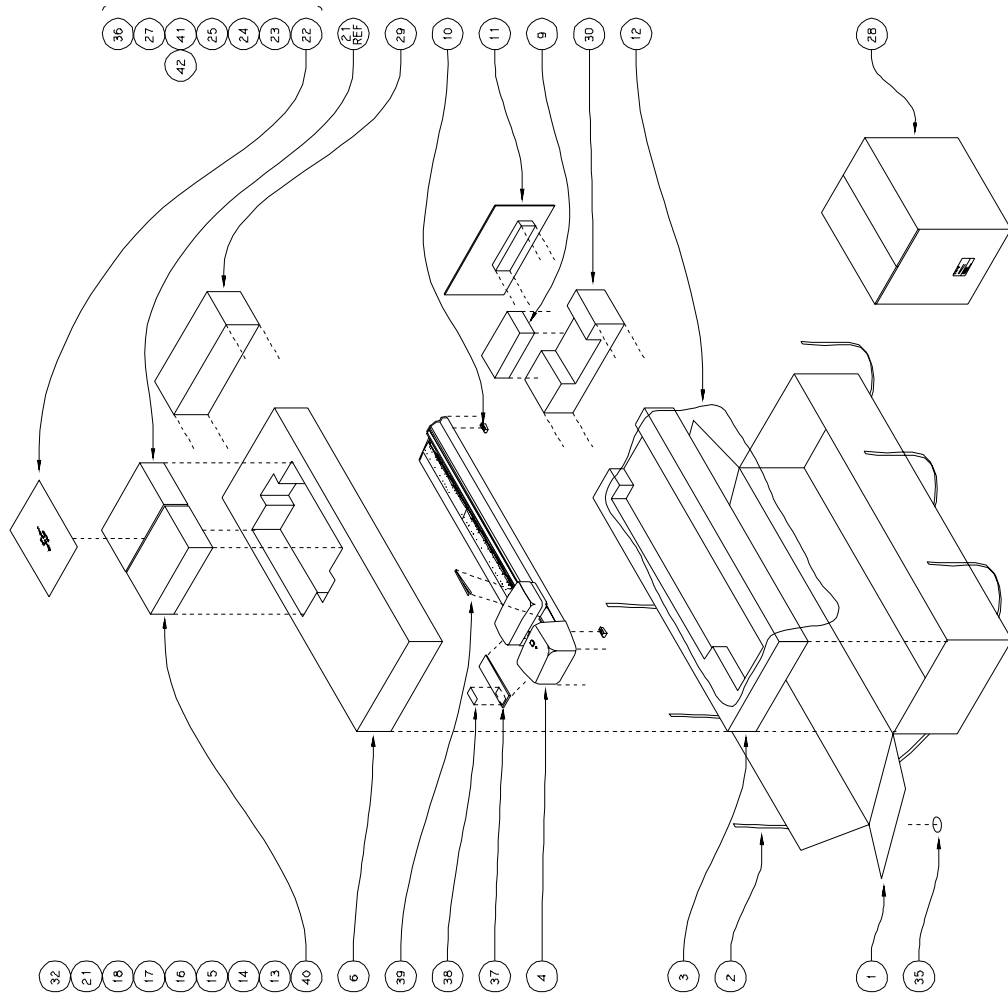
ATD40 MODELS PARTS LIST

PARTS LIST AND PACKAGING DRAWING

ATD NEWS INSTRUMENT PARTS LIST

42	1	1	-	-	L4-036A	PRINTING TRAINING BROCHURE
41	1	1	-	-	L4-036	TRAINING BROCHURE
40	-	-	-	-	SD33-31	LINE CORD, JAPAN
39	1	1	1	1	ATS40-597	SCANNING HEAD PACKING STRIP
38	1	1	1	1	SD200-ATS40-13	ATTENTION LABEL
37	1	1	1	1	SD200-ATS40-09	FOAM PAD
36	-	-	-	-	NOT USED	
35	1	1	1	1	SD43-77	CE APPROVAL LABEL
34	-	-	-	-	NOT USED	
33	-	-	-	-	NOT USED	
32	1	1	-	-	SD33-08	LINE CORD, 230v
31	-	-	-	-	NOT USED	
30	1	1	1	1	SD200-ATS50-03	FOAM INSERT
29	1	1	1	1	SD200-ATS50-02	FOAM INSERT
28	1	1	1	1	ATS40-192	VACUUM MOTOR ASSEMBLY
27	1	1	1	1	SD01-10	IMPORTANT NOTICE
26	-	-	-	-	NOT USED	
25	1	1	1	1	SD01-04	WARRANTY REGISTRATION
24	1	1	1	1	ATD40-500	OPERATION MANUAL
23	1	1	1	1	SD01-39	CERTIFICATE OF CALIBRATION
22	1	1	1	1	SD68-11	ENVELOPE
21	2	2	2	2	SD200-DTP22-10	CARTON
20	-	-	-	-	NOT USED	
19	-	-	-	-	NOT USED	
18	2	2	2	2	SD200-ATS40-08	FOAM SPACER
17	2	2	2	2	SD65-10	PLASTIC BAG
16	1	1	1	1	ATS40-109	POWER SUPPLY ASSEMBLY
15	1	1	1	1	SE108-12-01	CABLE ASSEMBLY
14	3	3	2	2	SD65-13	PLASTIC BAG
13	1	1	-	-	SD33-07	LINE CORD, 115v
12	1	1	1	1	SM309-06	PLASTIC SHEET 36" x 42"
11	1	1	1	1	SD200-ATS40-06	INSERT ASSEMBLY
10	2	2	2	2	AFT30-18	BASE CLAMP
9	1	-	1	-	SD200-ATS40-07	FOAM INSERT
8	-	-	-	-	NOT USED	
7	-	-	-	-	NOT USED	
6	1	1	1	1	SD200-ATS40-03	FOAM INSERT - TOP
5	-	-	-	-	NOT USED	
4	-	1	-	1	ATDN34-00-02	ATDN NEWS INSTRUMENT ASSEMBLY
	1	-	1	-	ATDN30-00-02	ATDN NEWS INSTRUMENT ASSEMBLY
3	1	1	1	1	SD200-ATS40-02	FOAM INSERT - BOTTOM
2	AR	AR	AR	AR	SM02-06	PLASTIC BANDING, 1/2"
1	1	1	1	1	SD200-AFT34-01	CARTON
ITEM	QTY ATDN30	QTY ATDN34	QTY ATDN30JP	QTY ATDN34JP	PART NUMBER	DESCRIPTION
PARTS LIST						

ATD NEWS PACKAGING DRAWING





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