



AVEN



Products:
for Optical Inspection,
Assembly and Field Services



i360

page 6



iLoupe

page 4



miniVue

page 24



Deluxe Dual Arm Ball Bearing Boom Stand w/Mounting Post

page 30



Model L Fiber Optic Illuminator

page 22



Infinity Cameras

page 25



Table of Contents



iLoupe

4



i360

6



iGauge

8



Video Inspection Systems

9



Microscopes

14



Illumination

23



CCD/CMOS Cameras

25



Stands & Mounts

28



Shop & Pocket Microscopes

32



Loupes & Magnifiers

33



Magnifying Lamps & Task Lights

36



Tool Kits

44



Pliers & Cutters

52



Tweezers

69



Screwdrivers

86



Alignment Tools

91



Knives & Blades

92



Scissors

95



Crimping Tools & Wire Strippers

97



Soldering/Desoldering Accessories

105



About AVEN

With a product line that features more than 750 tools for optical inspection and precision assembly, Aven, Inc. has made a name for itself as a leading precision technology provider.

When Aven was founded in 1983, our objective focused on the importing and wholesaling of specialty tools. As the business evolved, we expanded our product portfolio to include more high technology tools, thus allowing us to engage in new market segments.

In 1997, Aven underwent its first progression, shifting from traditional workbench tools to industrial electronics supplies. We then turned our focus to precision tools for optical inspection and precision assembly.

Today, Aven's product line includes stationary and portable microscopes, video inspection systems, specialty high-resolution digital and video cameras, lenses, illuminated magnifiers, software for image analysis and tools for precision assembly.

The AVEN Advantage

While we offer a broad product line of optical inspection equipment components, Aven's true value to customers is realized in our positioning as a full-service technology provider.

As a result of years of comprehensive research and development, Aven has expanded its expertise in the realm of design and customized configuration of advanced video inspection systems. Our solution-based experts possess the ability to recommend and create complete optical systems according to customer's needs and budgets. We also develop new products based on the specifications of our customers.

To form a clearer understanding of our customers and their needs, Aven's specialists make on-site visits to

evaluate client's testing and/or quality control stations. Based on the findings, we are able to recommend application improvements and demonstrate the latest advances in testing equipment technology.

A highly experienced sales staff and our diverse and extensive product mix allow us to meet the needs of the optical measurement and electronic equipment markets. Aven also provides a variety of ancillary services such as product assembly, custom parts and tooling, and distribution, all of which are coordinated from our Michigan headquarters.

iSeries

iSeries

From the world's first compact portable microscope to tools that are as simple as "plug and play," Aven's iSeries line of digital microscope technology offers a variety of functions and capabilities that are applicable to a number of industries.

The iSeries product line includes:

iLoupe

The world's first compact portable field microscope/camera combination with zoom capability of up to 150x.

i360

A 3-D microscope featuring enhanced viewing capabilities, including a 360-degree rotational view and oblique viewing angles up to 55 degrees.

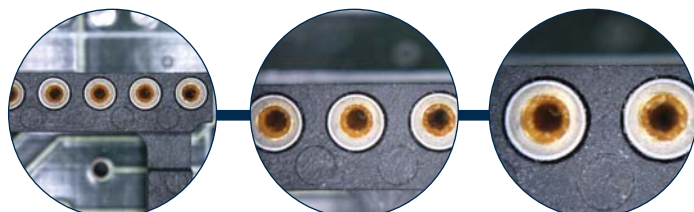
iGauge

Video imaging and measurement software that enables the user to measure, annotate and analyze images with just a few clicks.





iLoupe



10x

20x

30x



26700-501S

World's first compact portable field microscope, available anytime and anywhere

2 in 1 device. Standard Digital Camera & a High Power Microscope

Built in Adjustable LED Lighting

High Resolution 7 mega-pixel Canon Camera

10x, 20x and 30x objective lenses available giving a magnification range of 10x to 150x

Cost Effective Offering with Powerful Functions

The first compact portable field microscope utilizes a digital camera with a patented module and specially designed lenses with built in high intensity adjustable LED Lights. The iLoupe can clearly capture objects from 6mm to 10 microns. This 2 in 1 device allows you to quickly interchange between a standard digital camera and a microscope. You can now carry a portable field microscope and a digital camera in your pocket with ease. Three objective lenses are available to meet a variety of different applications. Using the optical and digital zoom range of the camera the following magnification ranges are produced:

With the 10x objective lens: 10x to 60x

With the 20x objective lens: 20x to 100x

With the 30x objective lens: 30x to 150x

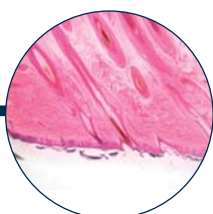
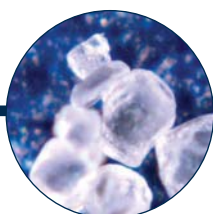
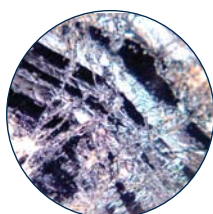
The iLoupe is available in Starter Pack and Pro Pack Versions. The iLoupe Starter Pack includes the Canon Camera with the Adapter Ring, Module and a 10x-60x Objective Lens. The iLoupe ProPack includes the Canon Camera with the Adapter Ring, Module and three objective lenses (10x-60x), (20x-100x) and (30x-150x). Both the Starter Pack and Pro Pack are supplied in a Plastic Carrying Case.

Applications

QC Inspection
Research

Medical
Forensics

Archaeology,
Forestry and Much More



Visit www.aveninc.com to see more images taken with the iLoupe.

iLoupe Accessories



iLoupe
Carrying Case
26700-506



iLoupe Pro Pack
26700-501P

iSeries

Specifications

	iLoupe Starter Pack	iLoupe Pro Pack
Objective Lenses included	10x	10x, 20x, and 30x
Magnification Range	10x -60x	10x-150x
Field of View	10x: 16x12mm, 20x: 9x6.5mm, 30x: 5.7x4.5mm	
Lens Design	Schott No-Lead Optical Grade Glass	
Coating	Multi-Layer Anti-Reflective Coating	
Built in Dimmable Illumination	4 White LED Lights	
Batteries	Two Li-ion Rechargeable Batteries Included	



iLoupe Stand
26700-505

Order

Description

26700-501S	iLoupe Starter Pack w/ Plastic Carrying Case
26700-501P	iLoupe Pro Pack w/ Plastic Carrying Case
26700-505	iLoupe Stand
26700-506	iLoupe Carrying Case
26700-501-10	Replacement Lens 10x-60x
26700-501-20	Replacement Lens 20x-100x
26700-501-30	Replacement Lens 30x-150x



00

iSeries

i360



- **3D 360 degree rotational view with a 45 degree oblique viewing angle.**
- **Zoom 50x-300x with great depth of field**
- **Built in LED lighting with intensity control**
- **Rotate clockwise or counter clockwise**
- **Ideal for SMT, Semiconductor IC, Medical Devices, Research and Failure Analysis**

i360 3D Microscope is designed to give you a 3D perspective with rotation to your inspection process. The user can now view the specimen from all angles without having to move it. This helps reduce evaluation times and improves the QC process.

i360 also comes with our optional PC Link software that allows for image capture and measurement. It can also be connected directly to a PC with our optional USB Camera. Our USB Camera comes with our Infinity Analyze Imaging Software. Infinity analyze allows you to quickly and easily process images which can be entered into an archive application or saved in a variety of formats. Measurements and annotations are easy to perform, highly reproducible and can be customized to your needs.

i360 standard version comes with a 50x-300x lens with a 45 degree oblique viewer, high resolution analog color CCD Camera with BNC and S-Video Outputs, Control Box for controlling the LED light intensity, rotation (i.e. counter clockwise or clockwise), and rotational speed, 15" color flat panel monitor, and stand with focusing control. All cables and adapters are also included.

i360 Optional Accessories

USB Cameras with 1.4 and 2.0 megapixel resolution

USB Video Link with Software for image capture, processing and archiving



i360 Dimensions: Base - 13"x13" Height - 16 1/4"

Specifications

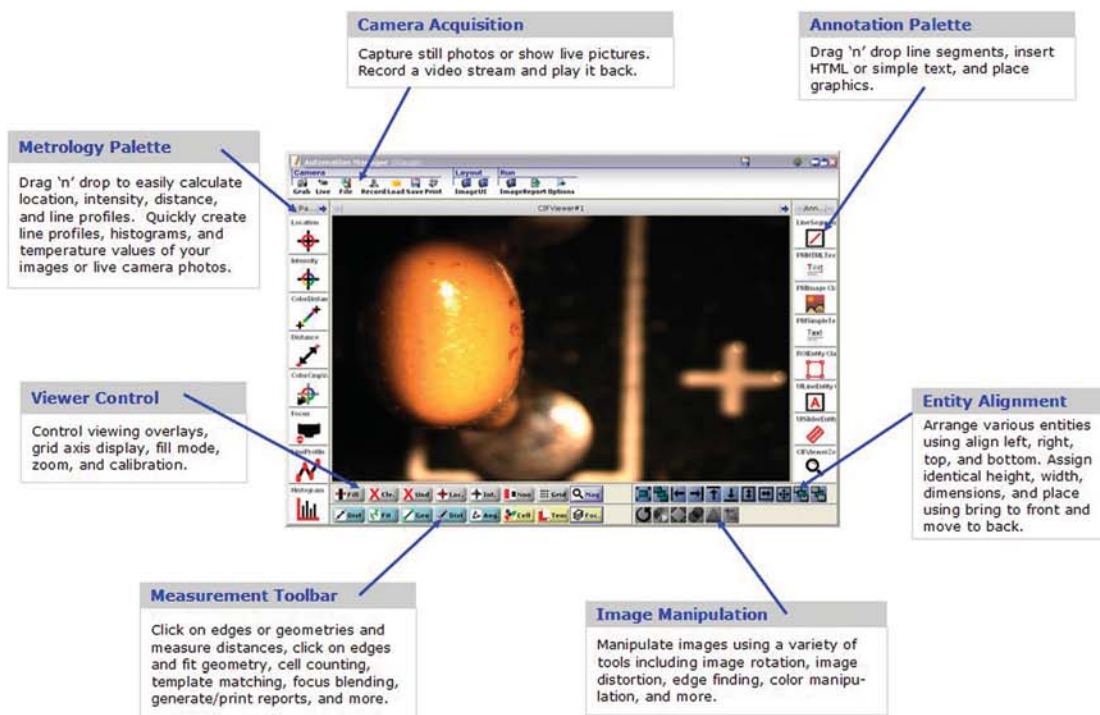
Magnification Range	50x-300x
Lighting	LED with Intensity Control
Camera	1/3" CCD Color Camera
Working Distance	55.5mm
Depth of Field	8mm to 1.2mm
Field of View	9.2mm to 1.3mm

Order

Description

26700-106-10	i360 3D Microscope with 45 degree Viewer, 1/3" CCD Color Camera, Controller, Stand with Focus Control, and 15" Flat Panel Color Monitor.
26700-106-14	i360 3D Microscope with 45 Degree Viewer, USB 1.4 Mega Pixel Camera with Infinity Analyze Imaging Software, Controller, Stand with Focus Control
26700-106-20	Same as 26700-106-14 USB 1.4 Megapixel Camera replaced with our USB 2.0 Megapixel Camera
26100-403	USB Video Link with Software for Image Capture, Processing and Archiving for use with our Analog CCD Camera. Basic measurement functions are included.

iGauge Video Imaging and Measurement Software



iGauge allows you to measure, annotate and analyze your images with just a few clicks. iGauge will dramatically increase the capability of any video camera based system. **Test Drive iGauge by downloading a 30 day trial version from our website www.aveninc.com**

SIMPLE AND EASY TO USE

Features:

- Image Capture, Record & Playback
- Viewing Tools
- Toolbar Geometry/Metrology
- Geometry Tools
- Annotation Tools
- Metrology Tools
- Image Processing Tools
- Reporting Tools
- Image Manipulation Tools
- Intuitive Interface

Order #	Description
26100-405	iGauge Video Software

Video Inspection Systems

Aven's Video Inspection Systems can be used for several applications, including inspection, defect analysis and quality assurance. Our products feature a wide range of lenses, cameras, lighting options, video capture cards and stands to enable us in creating a custom solution for you.

This product line includes:

Aven Micro Zoom Systems

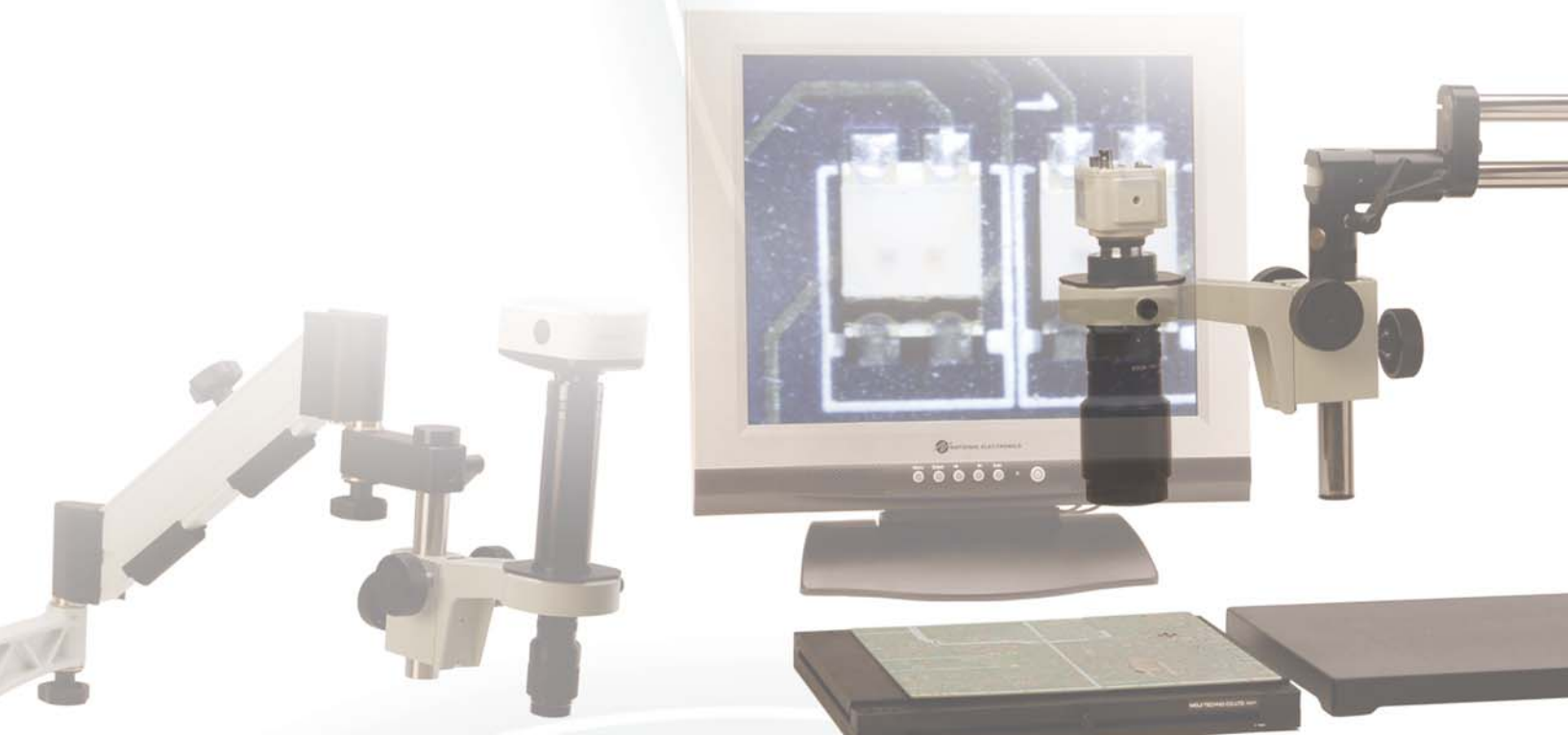
Designed for high magnification and high resolution applications.

Aven Macro Zoom Video Inspection Systems

Designed for large field of view applications.

Aven Micro and Macro Systems now feature our NEW **miniVue** high resolution color camera with instant image capture and a built-in 2" high resolution LCD Screen.

Create Your Own Custom System @ www.aveninc.com





Aven Micro Zoom Video Inspection System VIS-6000

Create Your Own Custom
System @ www.aveninc.com



26700-102-00

Designed for high magnification and high resolution applications

Modular design allows you to vary magnification,
field of view, and working distance

Easily upgradeable

Magnification Range: 10x-67x (with 0.5x adapter and auxiliary lens)
(20x-134x with the 0.5x lens removed)

Working Distance: 143mm (5.6") to 187mm (7.36")
(81-93mm with the 0.5x lens removed)

Field of View: 34.32mm (1.35") to 5.32mm (0.2")
(17.16-2.67mm with the 0.5x lens removed)

miniVue 3.1 megapixel camera with instant image capture
on built-in SD card and 2" high resolution LCD screen.
Connect to a PC via USB, as well as to a larger LCD Monitor
for detailed viewing

Applications

Inspection of a wide range of objects
such as integrated circuits, solder joints,
surface analysis, quality control and
laboratory inspection.

Customization

A variety of adapters & auxiliary lens,
cameras, lighting options, video capture
cards, and stands are available to provide
a custom solution.

Magnification Range

2x to 2735x possible.
Call for more information.

High Accuracy Measurement

Detented Lenses are available for high
accuracy measurements.

12x Zoom Lenses

For customers requiring the highest
combination of zoom range and
resolution. Visit www.aveninc.com for
more information.

Order #

Description

26700-102-00

VIS 6000 with Zoom 6000 lens, 0.5x adapter tube and auxiliary
lens, miniVue Camera and 150 watt FOI with Ring Light. Mounted
on the Ergo Stand with 11"x18" base. With our miniVue camera,
images can be saved directly onto a SD Card.



Micro Zoom Video Inspection
System on Articulating Arm

26700-102-15



Micro Zoom Video Inspection
System on Boom Stand

2700-102-10

Specifications

Lens Attachment	Mag/Field of View (mm)	.5x Adapter		1x Adapter		2x Adapter		5x Adapter	
		Low	High	Low	High	Low	High	Low	High
0.25x	Magnification	5x	33x	10x	67x	21x	134x	52x	329x
	Field of View	68.64	10.64	34.32	5.32	17.16	2.66	6.88	1.08
0.5x	Magnification	10x	67x	21x	133x	41x	267x	104x	671x
	Field of View	34.32	5.32	17.16	2.67	8.58	1.33	3.43	0.53
0.75x	Magnification	16x	100x	31x	200x	62x	400x	155x	1016x
	Field of View	17.16	2.67	8.58	1.33	4.29	0.67	1.72	0.27
None	Magnification	21x	133x	41x	267x	83x	531x	207x	1317x
	Field of View	17.16	2.67	8.58	1.33	4.29	0.67	1.72	0.27
1.5x	Magnification	31x	200x	62x	400x	124x	808x	312x	1976x
	Field of View	11.43	1.78	5.72	0.89	2.86	0.44	1.14	0.18
2x	Magnification	41x	267x	83x	531x	165x	1078x	413x	2735x
	Field of View	8.58	1.33	4.29	0.67	2.15	0.33	0.86	0.13

* Note magnification data calculated based on 1/3" CCD camera and a 15" LCD Monitor.

Order

Description

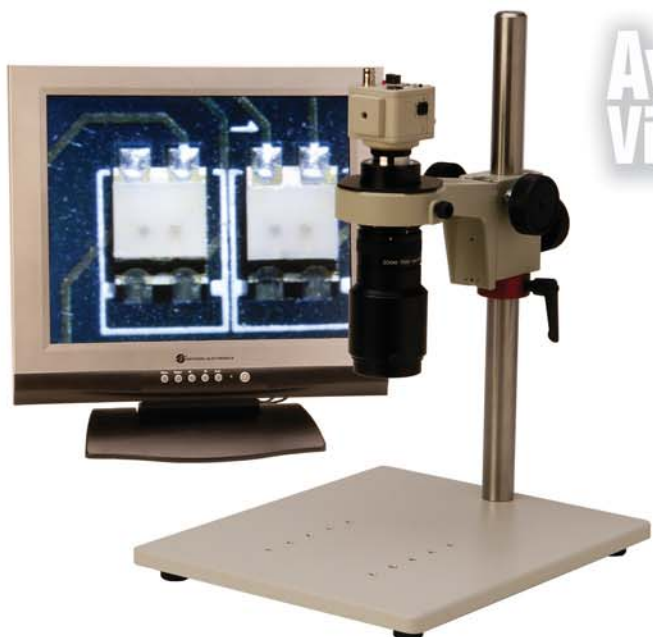
26700-102-10

VIS 6000 – Same system as 2700-102-00 but mounted on a Dual Arm Ball Bearing Stand with a 1.3 Megapixel USB Camera with Image Capture and Measurement Software. *Monitor not Included.*

26700-102-15

VIS 6000 – Same system as 2700-102-10 but mounted on an Articulating Arm with Mounting Clamp. *Monitor not Included.*

* Systems 26700-102-10 and 26700-102-15 can also be ordered with our new miniVue Camera. Go to www.aveninc.com to configure a system.



Aven Macro Zoom Video Inspection System

Create Your Own Custom
System @ www.aveninc.com

● **Designed for Large Field of View Applications**

● **6x Macro Zoom Lens with Adjustable Iris and Close-Up Lens**

● **Magnification: Up to 71x with a 15" Monitor
Working Distance 5"**

● **Field of View: 291.6 to 213.8mm (11" to 8.4") (at 48"
working distance allows Inspection of large samples.)**

● **System available with High Resolution USB Digital
Cameras with Software**

● **Focal Range: 18mm - 108mm**

● **Working Distance: 5" - 12" with Close Up Lens, 24" to Infinity
without close-up lens**

Applications

Quality Assurance, biomedical imaging or assembly applications where an easy to view, sharp and true-to-life magnified image is required.

Customization

A variety of adapters & auxiliary lens, cameras, lighting options, video capture cards, and stands are available to provide a custom solution. See chart on next page for more information on magnification and FOV ranges possible.



Macro Zoom Video Inspection System
on Boom Stand

2700-103-00

Specifications

w/Close-Up Lens

Working Distance	FOV(mm) @ Low Mag.	FOV(mm) @ High Mag.	Magification Range
5"	25.9x19.4	4.3x3.2	12x - 71x
7"	38.9x29.2	6.5x4.9	8x - 47x
8"	45.5x34	7.6x5.7	7x - 40x
10"	58.3x43.7	9.7x7.3	5x - 31x

w/o Close-Up Lens

Working Distance	FOV(mm) @ Low Mag.	FOV(mm) @ High Mag.	Magification Range
24"	136.1x97.2	22.7x21.1	2x - 13x
36"	213.8x155.5	35.6x25.9	1.5x - 9x
48"	291.6x213.8	48.6x35.6	1x - 6x

Order #

Description

26700-103-00

6x Macro Lens mounted on a SS Dual Arm Ball Bearing Boom Stand, 1/3" CCD Camera, 15" LCD Monitor, PC Link Device and Software for Image Capture.

** Please note, in most applications additional illumination is not required for this lens system.*



Stereo Zoom Microscopes

Our stereo zoom and stereo microscopes are manufactured exclusively for Aven by Carton Optical of Japan. Carton Optical has been manufacturing microscopes for over 40 years. Their microscopes have gained a reputation for providing the very best in optical performance, durability, and versatility. With a diverse selection of bodies, stands, and lighting techniques a system can be configured to fit any application.

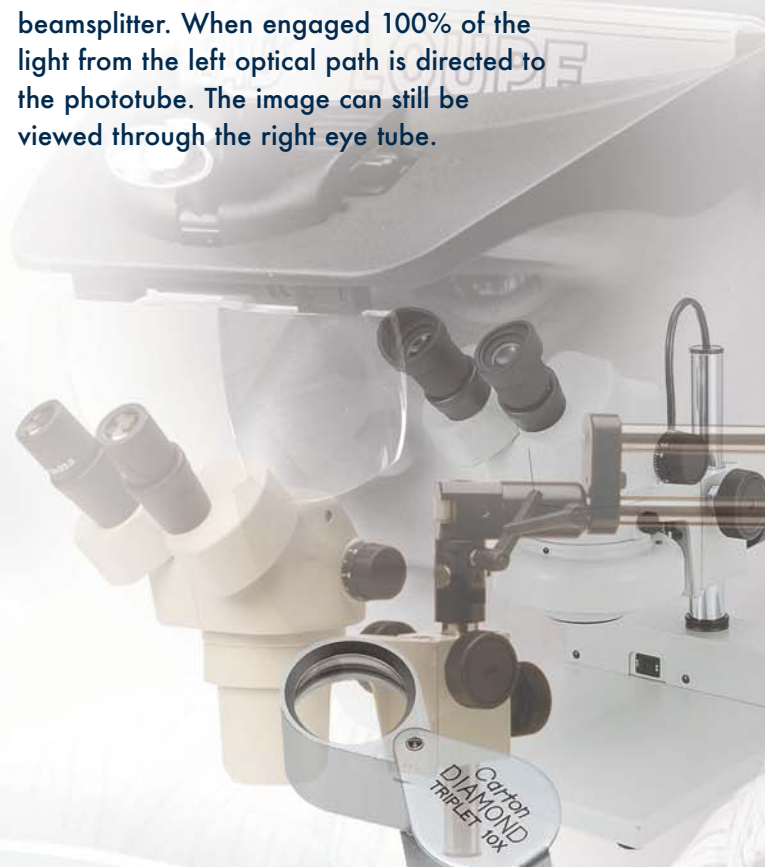
To configure your system select:

1. The microscope body that meets your magnification, field of view and working distance requirements. Note with a combination of eyepieces and auxiliary lens you can tailor a system to meet your requirements.
2. Focusing Mount.
3. Stand (please take into account the working distance and the height of the stand).
4. Illumination - Fiber Optic, Fluorescent or LED.
5. Camera and or adapter if you are using a trinocular body.
6. Monitor if necessary.

All stereo zoom bodies feature:

- Crisp high resolution precision optics that provide an erect, non-reversed stereoscopic image.
- Binocular eyepieces inclined at 45 degrees for fatigue free viewing.
- Diopter adjustments on both eyepieces.
- Interpupillary distance adjustment 52mm to 75mm.
- Body can be rotated a full 360 degrees and locked in any position.
- Trinocular zoom bodies feature a beamsplitter. When engaged 100% of the light from the left optical path is directed to the phototube. The image can still be viewed through the right eye tube.

Configure Your Own Custom Microscope System @ www.aveninc.com



SPZ-50 Series

Outstandingly large zoom ratio 7.46:1-best zoom ration in this class

Magnification range: 6.7x to 50x

Field of View 34.3mm to 3.6mm (1.35" to 0.14")

Working distance 108mm (4.25") - the best in this class

Magnification range of 2.25x to 200x with optional lenses

17mm (0.67") high eye point wide field 10x eyepieces (field number 23) for comfortable viewing even for operators with eyeglasses.

Trinocular version has diopter adjustment on vertical tube for fine focusing of image

** Note specifications mentioned above are with Wide Field 10x eyepieces.*

[BEST SELLER]



SPZ-50

Binocular stereo zoom body with 10x eyepieces, rubber eye guards and dust cover

15

Stereo Zoom Microscopes

Optical Data

Eyepiece	DHW10X (F.N. 23)				
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x	w/2x
Magnifications	6.7x-50x	3.35x-25x	5x-37.5x	10.72x-80x	13.4x-100x
Working Dist.	108mm	240mm	132mm	50mm	41mm
Field of View	34.3-4.6mm	68.9-9.2mm	45.7-6.1mm	21.4-2.8mm	17.1-2.3mm

Eyepiece	DHW15X (F.N.15)				
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x	w/2x
Magnifications	10.05x-75x	5.02x-37.5x	7.53x-56.25x	16.08x-120x	20.1x-150x
Working Dist.	108mm	240mm	132mm	50mm	41mm
Field of View	22.3-3mm	44.7-6mm	29.8-4mm	16-1.8mm	11.1-1.5mm

Eyepiece	DHW20X (F.N. 11.4)				
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x	w/2x
Magnifications	13.4x-100x	6.7x-50x	10.05x-75x	21.44x-160x	26.8x-200x
Working Dist.	108mm	240mm	132mm	50mm	41mm
Field of View	17-2.2mm	34-4.5mm	22.6-3mm	10.6-1.4mm	8.5-1.1mm

[BEST SELLER]



SPZT-50

Trinocular stereo zoom body with 10x eyepieces, rubber eye guards and dust cover

Order # Description

SPZ-50	SPZ-50 Binocular
SPZT-50	SPZT-50 Trinocular



DSZ-44 Series



DSZ-44

Binocular stereo zoom body with 10x wide field eyepieces, Rubber eye guards and dust cover



DSZT-44

Trinocular stereo zoom body with 10x wide field eyepieces, Rubber eye guards and dust cover

16

Stereo Zoom Microscopes

Zoom Ratio of 4.4:1

Magnification range: 10x to 44x

Field of View of 23mm to 5.3mm (0.90" to 0.20")

Working distance 90mm (3.54")

Magnification range of 2.5x to 140.8x with optional lenses

Wide Field 10x Eyepieces (field number 23)

** Note specifications mentioned above are with Wide Field 10x eyepieces.*

Optical Data

Eyepiece	DSW5X (F.N. 22.5)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	5x-22x	2.5x-11x	3.75x-16.5x	8x-35.2x
Working Dist.	90mm	150mm	105mm	45mm
Field of View	22.5-5.1mm	45-10.2mm	30-6.8mm	14-3.1mm

Eyepiece	DSW10X (F.N. 23)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	10x-44x	5x-22x	7.5x-33x	16x-70.4x
Working Dist.	90mm	150mm	105mm	45mm
Field of View	23-5.2mm	46-10.4mm	30.6-6.9mm	14.3-3.2mm

Eyepiece	DSW15X (F.N. 15)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	15x-66x	7.5X-33X	11.25X-49.5X	24X-105.6X
Working Dist.	90mm	150mm	105mm	45mm
Field of View	15-3.4mm	30-6.8mm	20-49.5mm	9.3-2.1mm

Eyepiece	DSW20X (F.N. 11.4)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	20x-88x	10x-44x	15x-66x	32x-140.8x
Working Dist.	90mm	150mm	105mm	45mm
Field of View	11.4-2.5mm	22.8-5.1mm	15.2-3.45mm	7.1-1.6mm

Order # Description

DSZ-44	DSZ-44 Binocular
DSZT-44	DSZT-44 Trinocular

DSZ-70 Series

- For high magnification applications
- Zoom Ratio of 3.5: 1
- Magnification range: 20x to 70x
- Field of View of 10mm to 2.8mm (0.39" to 0.11")
- Working distance 80mm (3.15")
- Magnification range of 5x to 224x with optional lenses
- Wide Field 10x Eyepieces (field number 20)

* Note specifications mentioned above are with Wide Field 10x eyepieces.

Optical Data

Eyepiece	DSW5XZ (F.N. 20)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	10x-35x	5x-17.5x	7.5x-26.25x	16x-56x
Working Dist.	80mm	120mm	85mm	41mm
Field of View	10-2.9mm	20-5.7mm	13.3-3.8mm	6.2-1.7mm

Eyepiece	DSW10XZ (F.N. 20)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	20x-70x	10x-35x	15x-52.5x	32x-112x
Working Dist.	80mm	120mm	85mm	41mm
Field of View	10-2.8mm	20-5.7mm	13.3-3.8mm	6.2-1.7mm

Eyepiece	DSW15X (F.N. 15)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	30x-105x	15x-52.5x	22.5x-78.75x	48x-168x
Working Dist.	80mm	120mm	85mm	41mm
Field of View	7.5-2.1mm	15-4.2mm	10-2.8mm	4.6-1.3mm

Eyepiece	DSW20X (F.N. 11.4)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	40x-140x	20x-70x	30x-105x	64x-224x
Working Dist.	80mm	120mm	85mm	41mm
Field of View	5.7-1.6mm	11.4-3.2mm	7.6-2.1mm	3.5-1mm

Order # Description

DSZ-70	DSZ-70 Binocular
DSZT-70	DSZT-70 Trinocular



DSZ-70

Binocular stereo zoom body with 10x wide field eyepieces, Rubber eye guards and dust cover



DSZT-70

Trinocular stereo zoom body with 10x wide field eyepieces, Rubber eye guards and dust cover



NSW Series

Stereo Microscopes

Configure Your Own Custom Microscope System @ www.aveninc.com

18

Stereo Zoom Microscopes



Large stage to accommodate large parts (220mmx284mm). A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.
Magnification: 10x & 30x

Order #	Description
26800B-361	NSW-30PF Microscope

Dual Magnification of 6x & 20x, 10x & 20x, 10x & 30x and 20x & 40x bodies available

Single Magnification of 10x or 20x bodies available

10x Wide Field Eyepieces standard (field number 23)

Field of View: 38.3mm (1.50") at 6x, 23mm (0.91") at 10x, 11.5mm (0.45") at 20x, 7.6mm (0.30") at 30x and 5.7mm (0.22") at 40x



Features a large stage to accommodate large parts (220mmx284mm). For illumination, we recommend our fluorescent ring lights or our fiber optic illuminator with our annular ring light. If an auxiliary lens is not used a ring light adapter will be required to install the fluorescent ring light or the annular ring light.
Magnification: 10x & 30x

Order #	Description
26800B-362	NSW-30P Microscope

Order # Description

NSW-1	Single 10x Stereo Body
NSW-2	Single 20x Stereo Body
NSW-20	Dual Magnification 10x & 20x Stereo Body
NSW-30	Dual Magnification 10x & 30x Stereo Body
NSW-40	Dual Magnification 20x & 40x Stereo Body
NSW-620	Dual Magnification 6x & 20x Stereo Body**

* Each Body comes with Wide Field 10x eyepieces
Rubber Eye Guards and dust cover

** NSW-620 will not work with stand T

Preconfigured Systems

Shown below are some of our popular systems or you can configure a system to match your application.
Configure a system online at www.aveninc.com

Stand Systems



Order # 26800B-305

Model DSZ-44P

DSZ-44 Stereo Zoom Binocular Microscope 10x to 44x, with 10x eyepieces. Mounted on Stand P. For illumination we recommend fluorescent or LED Ring Lights or our fiber optic illuminators.

Stand base is 220mm x 284mm



Order # 26800B-371

Model SPZ-50PFM

SPZ-50 Stereo Zoom Binocular Microscope 6.7x to 50x, with 10x eyepieces. Mounted on Stand PFM. Has built in 9W Fluorescent ring light.

Stand base is 220mm x 284mm

Boom Stand Systems



Order # 26800B-370

SPZ-50 Stereo Zoom Binocular Microscope

6.7x to 50x, 10x eyepieces, 0.5x lens, Ring Light Adapter, and LED Ring Light with Intensity Control. Mounted on our Double Arm Stainless Steel Ball Bearing Boom Stand.



Order # 26800B-369

SPZT-50 Stereo Zoom Trinocular Microscope

6.7x to 50x 10x eyepieces, 0.5x lens, Ring Light Adapter, Fiber Optic Illuminator with Annular Ring Light, USB Infinity 1, 1.3 Megapixel Camera with Infinity Image Analysis Software. Mounted on our Double Arm Stainless Steel Ball Bearing Stand. Computer not included.

19

Stereo Zoom Microscopes



Preconfigured Systems

Shown below are some of our popular systems or you can configure a system to match your application.
Configure a system online at www.aveninc.com

Examples of other Popular Systems

Systems shown below can be ordered using individual part #s.

Call us, we can help configure a system to meet your requirements



Trinocular Scope on an Articulating Arm with an 17"x20" base and Fiber Optic Illumination.



Trinocular Scope on Stand PF with Built in Fluorescent Illumination and USB Camera.



Binocular Scope on Single Arm Boom Stand with Fiber Optic Illumination.



Trinocular Scope on Single Arm Stand with 10"x10" base and miniVue Camera.



Trinocular Scope Double Arm Ball Bearing Stand with miniVue Camera.



Trinocular Scope mounted on PF Stand with miniVue Camera.

20

Stereo Zoom
Microscopes

Optional Accessories

Eyepiece Lenses and Rubber Eye Guards



Order #	Description
26800B-444	DSW-5X eyepieces for DSZ-44, DSZT-44 and NSW series bodies. F.N. 22.5
26800B-446	DSW-5XZ eyepieces for DSZ-70 and DSZT-70 series bodies. F.N. 20.



Order #	Description
26800B-441	DSW-10X eyepieces for DSZ-44, DSZT-44 and NSW series bodies. F.N. 23.
26800B-448	DHW-10X eyepieces for SPZ-50 and SPZT-50 series bodies. F.N. 23.
26800B-445	DSW-10XZ eyepieces for DSZ-70 and DSZT-70 series bodies. F.N. 20.



Order #	Description
26800B-442	DSW-15X eyepieces for DSZ-44, DSZT-44, DSZ-70, DSZT-70 and NSW series bodies. F.N. 15
26800B-449	DHW-15X eyepieces for SPZ-50 and SPZT-50 series bodies. F.N. 15.



Order #	Description
26800B-443	DSW-20X eyepieces for DSZ-44, DSZT-44, DSZ-70, DSZT-70 and NSW series bodies. F.N. 11.4
26800B-450	DHW-20X eyepieces for SPZ-50 and SPZT-50 series bodies. F.N. 11.4.

** Eyepieces listed above are sold in pairs only.

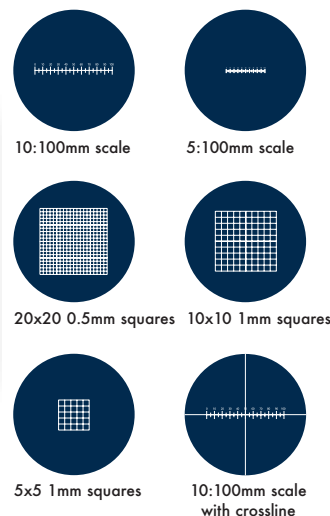
Rubber Eye Guards

Order #	Description
26800B-452	Rubber Eye Guards for DSW eyepieces
26800B-453	Rubber Eye Guards for DHW eyepieces

Focusing Eyepiece 10x with Reticle



Order #	Description
26800B-455	10x with 5:100mm scale
26800B-456	10x with 10:100mm scale
26800B-457	10x with 20 x 20 0.5mm squares
26800B-458	10x with 10 x 10 1mm squares
26800B-459	10x with 10:100mm scale with cross line



* Above eyepieces are for the DSZ/NSW series bodies.

To order focusing eyepieces for the SPZ Series bodies, please **add -10** to the end of the above mentioned part numbers.



Optional Accessories

Auxiliary Objective Lenses



Order # Description

26800B-461 Auxiliary lens 0.5x

26800B-462 Auxiliary lens 0.75x



Order # Description

26800B-463 Auxiliary lens 1.6x

26800B-464 Auxiliary lens 2x



Order # Description

26800B-465 Lens Cover for protection of objectives

Order # Description

26800B-460 Adapter to mount Fluorescent Ring Light or Fiber Optic Annular Ring Light

* Please note 0.5x lens cannot be used with SPZ series bodies with stand P and PF. 0.5x lens cannot be used for stands T and TL and with NSW series with stand P

** 2x lens cannot be used with the DSZ and NSW series bodies.

Camera Adapters



Order # Description

26800B-435 Adapter to Mount CCD Camera to our Trinocular bodies

* Various Adapters are available for mounting Digital Cameras. Please call with the type of camera you want to use with our trinocular microscopes.

Gliding Stages



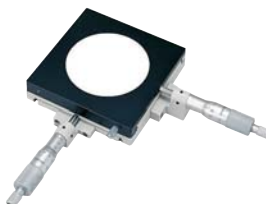
Order # **26800B-475**

Stage size 350mm x 250mm x 103mm. Base Size: 520mm x 480mm. Range of movement 360mm x 418mm.



Order # **26800B-476**

Stage size: 300mm x 210mm x 40mm. Base Size 250mm x 250mm. range of movement 250mm x 250mm.



Order # **26800B-471**

Gliding stage with attachments for micrometers. Mitutoyo No. 150-192 (MHN1-25). Size 114mm x 114mm. Range of movement 25mm x 25mm.



Order # **26800B-474**

Rotatable. Size 135mm. Range of movement 25mm x 25mm.



Order # Description

26800B-472 Size 140mm x 114mm. Range of movement 94mm x 66mm.

Illumination

Standard Frequency Fluorescent Ring Lights



26200B-201 to 206



26200B-207 to 208

Aven fluorescent ring lights are designed for applications requiring a high quality illuminator. Provides 360° shadow free illumination. Our reflector housing is cast from high quality aluminum alloy (except for model 26200B-201) for durable and cool operation. Operates at 115V AC.

Order # Description

26200B-201	Fluorescent Ring Light Economy, 8 watt Lamp
26200B-202	Fluorescent Ring Light Standard, 17 watt Lamp
26200B-203	Fluorescent Ring Light with UV Lamp
26200B-206	Fluorescent Ring Light ESD Safe, 17 watt Lamp
26200B-207	Fluorescent Ring Light with Focus mount for DSZ & NSW Series
26200B-208	Fluorescent Ring Light with Focus mount for SPZ Series

White LED Ring Light w/Brightness Control



Designed to be used with standard microscopes and video lenses. Provides a stable bright light with 54 LEDs. These long life LEDs operate at very low temperature, are flicker free and do not change color over time. 110V

Order # Description

26200B-210	White LED Ring Light with Brightness Control
-------------------	---

White LED Ring Light w/Brightness & Sector Control



Designed to be used with standard microscopes and video lenses. Has a 7 step brightness control feature and four lighting modes, 1/4, 2/4, 3/4, and Full. Excellent for applications requiring a high degree of lighting control. Incorporates 60 Long Life LEDs that are flicker free and operate at low temperature and do not change color over time. 110V.

Order # Description

26200B-211	White LED Ring Light with Brightness & Sector Control
-------------------	--

Model L Fiber Optic Illuminators



26200A-205



26200A-207

Features

- High output 150 Watt Lamp
- Variable Intensity Control
- Approximately 200-2000 Hours Lamp Life (not guaranteed)
- Supplied with Ring Light (39") or Double Pipe Light (19.5")
- Illuminator with double pipe light has a focusing lens included, providing an illumination distance of 20-200mm and an illumination area of 10-40mm
- Input Voltage 110VAC

Dimensions: 11"x6.5"x5"

Weight: 9.6lbs.

Order # Description

26200A-205	Model L Fiber Optic Illuminator w/Ring Light
26200A-207	Model L Fiber Optic Illuminator w/Double Pipe Light & Focusing Lens



Illumination

Model 150 Fiber Optic Illuminator



Features

- High quality ball bearing fan for low noise and vibration
- High output 150 watt bulb
- Variable intensity control
- Easy lamp change
- Color/ Daylight Filters available
- Color Beige

Specifications

Input voltage.....	110 VAC
Color Temperature.....	3250 kelvin
Lamp life.....	200-2000 hours
Weight.....	7.5 lbs. (3.4 kgs.)
Dimensions.....	7.0" x 7.5" x 6.5"

Order

Description

26200A-200	Model 150 Fiber Optic Illuminator
26200A-212	Adapter for 1.125" ID Ring Light

Fiber Optic Ring Lights



Features

- Uniform Lighting
- Streamlined Design
- 360° shadow free illumination
- 3 thumb screw for easy mounting
- Accepts polarizer and darkfield adapters
- Black anodized aluminum housing
- Crimped Stainless Steel terminations
- 36" cable length

Order

Description

26200A-402	Ringlight 2.31" ID Can be mounted on all SPZ, DSZ and NSW Series Microscopes
26200A-403	Ringlight 1.125"ID Can be mounted on Video Lenses

Fiber Optic Goosenecks



These light guides are constructed with high quality glass fiber optics and provide the highest degree of adjustable and interference free uniform illumination of focused white light. Focusable lenses allow for variable spot light adjustments making these ideal for situations where intense illumination is required. Our light guides are offered in a standard stainless steel obedient sheathing which offers "stay-put" positioning.

Order

Description

26200A-523	Double Gooseneck with Focusing lens 18" Long
-------------------	---

Fiber Optic Area Backlights



These high-output, uniform backlights are made of the highest quality components and offer a sleek, slim design, which makes them highly versatile for mounting in tight spaces. The housing consists of black, electrocoated steel and the sheathing is PVC covered metal hose. Backlights have a $\pm 10\%$ uniformity. 36" long cable length.

Order

Description

26200A-532	FOA Backlight 4" x 4" (101.6 x 101.6mm)
-------------------	--

Digital Color Camera

miniVue Camera



World's first digital color camera for microscopy and video inspection applications with a built in 2" LCD Screen and instant image capture feature with the built in SD Card. A PC is not required for image capture or image viewing, saving bench space and money. A 2.0 USB outlet is provided to connect to a PC.

Can be used with **any microscope** or video lens with a C-Mount

25
Stereo Zoom
Microscopes

Features

- 3.1Megapixel Camera
- Built in High Resolution 2" Screen
- Full Digital Signal Processing
- Capture Images and Video on the built in SD Card. Transfer to a PC at your convenience
- Connect via USB to a PC or Printer
- Friendly User Interface
- Crosshair feature for location and measurement
- TV Out allows the connection of an external LCD monitor for detailed viewing
- Wireless and wired USB Shutter control
- Many stand alone features on camera (see www.aveninc.com for more details)

Specifications

Sensor Resolution.....	3.1 megapixels
Maximum Resolution.....	8 megapixels
Sensor Type.....	1/2" CMOS
Frame Rate.....	28 fps at TV/PC Out
LCD Screen Size.....	2"
Memory Card.....	SD/MMC Card
TV Output.....	NTSC/PAL
USB Interface.....	Yes
Controller.....	Remote and USB
Picture Format.....	jpeg
Video Format.....	mpeg4
Printer Support.....	Pictbridge and DPOF
Mount.....	C-Mount
Power Supply.....	DC 12V, 1.5A

Order #	Description
26100-230	miniVue Camera



CCD & CMOS Cameras

High Resolution DSP CCD Color Cameras

26

Stereo Zoom
Microscopes



Our color cameras use single integration type CCD complemented by a digital signal processing system to provide both high quality images and a host of compensation functions. These cameras are ideal for machine vision, video inspection and microscopy applications.

Highlights

- CCD Total Pixels: 881(h) x 508 (v)
- Resolution: 470 TVL / 580 TVL Enhanced
- On Screen Display
- 26100-100 has S-Video and Composite Outputs
- 26100-102 has Y/C and Composite Outputs
- C & CS Mount
- Detail Specs at www.aveninc.com

Order # Description

26100-100	1/3" CCD Camera with power supply
26100-102	1/2" CCD Camera with power supply

Infinity 1 CMOS Color Cameras



The Infinity CMOS USB 2.0 cameras are designed to be a cost effective, versatile solution for a variety of microscopy imaging applications. Features include auto white balance, full exposure control, programmable gain, sub-windowing and region of interest. It is excellent for documentation and archiving applications.

Highlights

- 1 and 3 Megapixel. 6 also available upon request
- Perfect for documentation and archiving applications
- Fast frame rate
- C-mount
- Infinity Analyze Software Included. For more details of this software please visit our website at www.aveninc.com

Order # Description

26100-215	Infintiy 1 CMOS 1.3 Megapixel Camera
26100-216	Infintiy 1 CMOS 3.1 Megapixel Camera

Specifications

Megapixel	Resolution	FPS	Sensor
1.3	1280 x 1024	15	1/2" CMOS
3.1	2040 x 1536	6	1/2" CMOS

Infinity 2 CCD Color Cameras



Equipped with a high quality Sony CCD Sensor, these USB 2.0 cameras offer excellent sensitivity, high dynamic range and a 12-bit digital output. Features include binning, auto white balance, full exposure control, programmable gain, sub-windowing and region of interest. It is ideal for higher-end scientific, medical, ophthalmic and life science applications.

Highlights

- 1, 2 and 3 megapixel resolution
- Higher dynamic range for quantitative analysis
- Fast frame rate
- Low noise electronics
- C-Mount
- Infinity Analyze Software Included. For more details of this software please visit our website at www.aveninc.com

Order # Description

26100-220	1.4 Megapixel CCD Camera
26100-221	2.0 Megapixel CCD Camera
26100-222	3.3 Megapixel CCD Camera

Specifications

Megapixel	Resolution	FPS	Sensor
1.4	1390 x 1040	15	1/2" CCD
2.0	1616 x 1216	12	1/1.8" CCD
3.0	2080 x 1536	5	1/1.8" CCSD

CCD & CMOS Cameras

Infinity Lite Camera



INFINITY lite is a compact, affordable microscopy camera that delivers outstanding image quality and excellent value. Highlights include live video preview and real-time focus for the efficient capture of optimal images, an intuitive user application for camera control, full integration to popular third-party imaging applications through our TWAIN drivers, USB 2.0 interface, standard C-mount and compact design for trouble-free installation, and one standard cable for power and data to minimize clutter. As with all INFINITY cameras, no costly framegrabber is required.

Highlights

- 1.5 megapixel camera
- High-speed USB 2.0 interface eliminates a framegrabber and facilitates ease of installation on both laptop and desktop computers
- INFINITY CAPTURE software application included
- Mac compatible
- On-board image processing of the INFINITY lite's progressive scan 1.5 megapixel image sensor results in accurate color fidelity
- Full color sub-windowing allows for rapid, focus and scanning of samples: 15 fps at full 1440x1080 resolution and 60 fps at 640x480 resolution
- 8-bit pixel data
- Rugged dependability and versatility

Order #	Description
26100-212	Infinity Lite Color Camera 1.5 Megapixel

LCD Monitors



Produces only the sharpest and most brilliant color images. Featuring easy to use OSD controls and built in speakers. You will find this monitor both easy to use and a pleasure to look at. This monitor offers a maximum resolution of 1280 x 1024 pixels and a refresh rate up to 75KH translating into a flicker free monitor that is easy on your eyes.

Comes with

- 12V DC adapter /power chord
- D-Sub 15 pin VGA connector cable
- Audio Cables

Inputs

- Video Input: 15-pin D sub/ AV/ S-Video

Order #	Description
26700-402	17" LCD Monitor
26700-404	15" LCD Monitor



Stands and Focus Mounts

Focus Mount



Focus mount to hold our SPZ, DSZ and NSW Series bodies. Rack & Pinion mechanism allows for precise focusing over a 55mm travel. Coarse focus mechanism incorporates a slip clutch and tension adjustment. Fits a 25mm mounting post and has an opening to accept bodies of diameter 74mm (2.9")

Order #	Description
---------	-------------

SCW-PA	Focus Mount
---------------	--------------------

Stand Type PF with Focus Mount and Built in Fluorescent Light



Features:

- Large stage 220mm(8.66") x 284mm (11.18") to accommodate a variety of parts
- Built in 9 watt low temperature fluorescent light in focus mount
- Length of Post 250mm (9.84")

Order #	Description
---------	-------------

Stand PF	For DSZ-44, DSZT-44, and NSW Series Bodies
Stand PFM	For SPZ-50 and SPZT-50 Series Bodies
Stand PFL	For DSZ-70 and DSZT-70 Series Bodies

Pole Type Stand with Focus Mount



Features:

- Large stage 220mm (8.66") x 284mm (11.18") to accommodate a variety of parts
- Length of Post 250mm (9.84")

Order #	Description
---------	-------------

Stand P	For SPZ, DSZ, and NSW Series Bodies
----------------	-------------------------------------

Stands and Focus Mounts

Stand Type T and L with Focus Mount



Features:

- Transmitted and Incident Lights are built in the Type T stand as shown
- Type T stand has Fluorescent 9 watt incident light and Tungsten Transmitted light
- Base 160mm x 219mm (6.30" x 8.62")
- Stage Plate: Frosted glass plate (diameter 80mm (3.15")) and Frosted blue filter (diameter 37mm (1.46"))
- Stand Type L same as stand T but Incident Light is Tungsten (not shown)
- Rack and Pinion Focus Mount, tension control pin included

Order # Description

Stand T	For DSZ-44, DSZT-44, and NSW Series Bodies
Stand L	For DSZ-44, DSZT-44, and NSW Series Bodies

Standard Boom Stand with Mounting Post



Features:

- Perfect for stationary video and microscopy applications
- Heavy Duty Steel Base 10" x 10" x 0.75" (254mm x 254mm x 19mm), 21lbs
- 16" (406mm) Vertical Post with 16" (406mm) Horizontal Post. Diameter of Post and Bar 1-3/16" (30.16mm). Nickel plated
- Safety Clamp Included
- Mounting Post with tilt feature for Focus Mount SCW-PA
- Sturdy and stable
- Requires focusing mount to mount microscope bodies

Order # Description

26800B-520	Standard Boom Stand with Mounting Post
-------------------	---

Deluxe Boom Stand with Mounting Post



Features:

- Perfect for stationary video and microscopy applications especially where vibrations can disrupt your work
- Heavy Duty Steel Base 10" x 10" x 0.75" (254mm x 254mm x 19mm), 21lbs or 17" x 20" Heavy Duty Base , 27lbs to accommodate large parts on base
- 16" (406mm) x 1-1/2" OD (38mm) stainless steel vertical post
- 18" (457mm) x 1-1/2" OD(38mm) aluminum horizontal post
- Post with tilt feature for Focus Mount SCW-PA included
- Quick release red anodized aluminum safety clamp
- Optional 25" Vertical Post and 25" Horizontal Bars available
- Optional table mount and C-clamp mounts available

Order # Description

26800B-525	Deluxe Boom Stand with Tilt Mounting Post and 10" x 10" base
26800B-530	Deluxe Boom Stand with Tilt Mounting Post and 17" x 20" base



Stands and Focus Mounts

Standard Dual Arm Ball Bearing Boom Stand with Mounting Post

30

Stereo Zoom
Microscopes



Features:

- Stability of the standard boom stand but with ultra smooth movement of a ball bearing slide
- Great for inspection applications where magnification adjustment and the ability to move across a specimen are important
- Heavy duty base 11" x 10" x 1.25" (285mm x 260mm x 32mm), 21lbs
- Main Vertical post 15" (380mm) long, extension post 9" (225mm) long. OD 1-1/2" (37mm) for a total post length of 24"
- Horizontal Post 22.5" (570mm) long from end to end.
- Safety Clamp included
- Post with Tilt Feature for Focus Mount SCW-PA included

Order #	Description
---------	-------------

26800B-535	Double Arm Ball Bearing Boom Stand
------------	------------------------------------

Deluxe Dual Arm Ball Bearing Boom Standing with Mounting Post



26800B-540

Features:

- Ultra smooth movement of a ball bearing slide
- Two types of bases available 10" x 10" (254mm x 254mm) and 17" x 20" (432mm x 508mm) Weights 21 lbs and 27 lbs respectively
- 16" (406mm) Stainless Steel Vertical Post (OD 1-1/2"). Other sizes available on request
- Thomson linear ball bearing and dual hardened stainless steel shafting for the horizontal axis. Total horizontal motion 12-1/2" (317.5mm)
- Safety Clamp included
- Optional table mount clamps and C-Clamps available
- Post with tilt feature for focus mount SCW-PA included

Order #	Description
---------	-------------

26800B-540	Deluxe Dual Arm Ball Bearing Boom Stand with Mounting Post and 10" x 10" base
26800B-545	Deluxe Dual Arm Ball Bearing Boom Stand with Mounting Post and 17" x 20" base



26800B-545

Stands and Focus Mounts

Lift Articulating Arm Boom Stand



Features:

- Designed to allow maximum freedom of movement
- Perfect for video and lighting applications that require a lot of movement
- Flexible arm can easily be adjusted into hard to reach locations and out of the way again
- Various mounts and bases available to suit your application
- Vertical Post 16" (406mm). OD 1-1/2"
- Lift Articulating boom arm approximately 30"(762mm) horizontal reach, and approximately 15"(381mm) vertical travel $\pm 40^\circ$ movement from horizontal
- Adjustable gas spring counter balance allows "free floating" of 0-20 lbs. Ambidextrous vertical position lock. Gas spring provides controlled "safe" lift and decent
- Mount post with tilt feature included for focus mount SCW-PA
- Safety Clamp included

Order # Description

26800B-550	Lift Articulating Arm Boom Stand with Table Clamp
26800B-555	Lift Articulating Arm Boom Stand with 17" x 20" base

Articulating Arm



Features:

- Adjustable, counter-balanced articulating arm moves easily up or down through 14.5".
- Heavy-Duty construction allows for maximum of 20 lbs of weight.
- Wide range of horizontal and vertical movements. Scanning area can reach 3"
- Adjustable counter-balanced arm which allows easy, hand guided up and down movement, works in spaces where a conventional boom stand will not fit.

Order # Description

26800B-560	Articulating Arm
-------------------	-------------------------

Standard Stand



Features:

- Aluminum powder coated base 11" x 13" x 1/2" (279mm x 330mm x 12.7mm), 8lbs.
- 10 tapped holes for mounting X-Y stages
- 16" Stainless Steel vertical post (OD 0.96", 24.5mm) with safety clamp
- Compatible with focus mount SCW-PA

Order # Description

26800B-570	Standard Stand with Safety Clamp
-------------------	---

Ergo Stand



Features:

- Aluminum powder coated base 13" x 13" x 1/2", 8lbs. (330mm x 330mm x 12.7mm) with Black & White glass plate
- 16" Stainless Steel vertical post (OD 0.96", 24.5mm) with safety clamp
- Compatible with focus mount SCW-PA

Order # Description

26800B-575	Ergo Stand with Safety Clamp
-------------------	-------------------------------------



Shop Microscopes

Shop Microscope 40x and 100x



Designed for quick and precise measurements in laboratories, workshops and assembly lines. Comes with a dual scale reticle graduated in both inches and millimeters. A turn of the eyepiece brings the reticle in sharp focus. No calibration is needed. Reticle can be rotated for measurement in any direction. Dual knobs with rack and pinion focusing lets you quickly refine the image. Includes a fully adjustable battery operated penlight illuminator. Scope has a cutaway opening at base for subject manipulation.

Specifications

MODEL	Shop Microscope 40x	Shop Microscope 100x
Magnification (Field of View)	40X (4.5 mm)	100 (1.8 mm)
Objective Lenses	4x	10x
Focusable Eyepiece	10x with Scale	10x with Scale
Measuring Range	3.0 mm/0.1"	1.0 mm/0.05"
Minimum Gradation	0.02 mm/0.001"	0.01 mm/0.001"
Working Distance	15 mm	5.5 mm
Height	200 mm	200 mm
Width	65 mm	65 mm
Net Weight	570 g	580 g
Accessory	Penlight	Penlight

Order # Description

26800C-531	Shop Microscope 40x with 3.0mm/0.1" Scale
26800C-532	Shop Microscope 100x with 1.0mm/0.05" Scale

Pocket Microscopes 25x



"Pen Size" powerful direct measuring pocket scope for quick, close examination. Excellent for detecting flaws or imperfections, surface measurements, examination of fibers, print, etc.

Comes with a measuring metric glass reticle. Has beveled opening for gathering and focusing light. Scope has an aluminum case with a satin finish and pocket clip. Furnished in a vinyl sleeve.

Order # Description

26800C-533	Pocket Microscopes 25x
-------------------	-------------------------------

Specifications

Magnification	Field of View	Scale Calibration	Measurement Range	Length	Diameter
25x	3.24mm	0.05mm	0-3mm	127mm (5")	11.10mm (7/16")

Shop Microscopes

Illuminated Pocket Microscopes

Perfect carry-with microscope. Ideal for on site detailed examination of small areas and objects. Useful for engineers, tool makers, quality control inspectors, field researchers etc.

Has a built in light source. In addition a clear acrylic stand allows ambient light to the object under examination.

Operates on two AA batteries not included. Case Included.



26800C-534



26800C-536 to 540

Order #	Description
26800C-534	Illuminated Pocket Microscope 40x w/Scale: Measuring Range 4mm, Graduation: 0.1mm
26800C-536	Illuminated Pocket Microscope 20x
26800C-538	Illuminated Pocket Microscope 30x w/Scale: Measuring Range 4mm, Graduation 0.1mm
26800C-540	Illuminated Pocket Microscope 50x w/Scale: Measuring Range 4mm, Graduation 0.1mm

33

Stereo Zoom
Microscopes

Loupes & Magnifiers

Loupes with Scales

Loupes with reticles for measurement and inspection. Comes with ReticuleScale No.1 and Vinyl Case. Optional reticle scales are available.



Order #	Description
26001	Loupe with Scale 7x
26002	Loupe with Scale 10x
26003	No. 1 Reticule Scale
26004	No. 2 Reticule Scale
26005	No. 3 Reticule Scale
26006	No. 4 Reticule Scale

SCALE PATTERNS

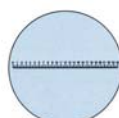
No.1

Lengths in either inches or millimeters can be measured with the appropriate line. Maximum: 0.6" or 16mm



No.2

Lengths can be measured in 0.1 millimeters increments. Maximum: 16mm



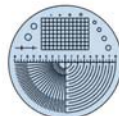
No.3

Angles, radius, diameters, widths, etc. can be measured mainly in inches.



No.4

Angles, radius, diameters, widths, etc. can be measured mainly in millimeters.





Loupes & Magnifiers

Inspection Eye Loupes



26034



26041-43

Great for close inspection. Rests comfortably in the eye socket. Lightweight yet sturdy. Plastic mount. Our 8x, 6x and 4x loupes come with rubber cushion for additional comfort.

Order # Description

26034	10x EyeLoupe 1" WD
26041	8x EyeLoupe with Cushion 1" WD
26042	6x EyeLoupe with Cushion 2" WD
26043	4x EyeLoupe with Cushion 2.5" WD

34

Stereo Zoom
Microscopes

Inspection Eye Loupes



26051



26052

Fixed focus magnifiers with clear acrylic bases that permit ambient light to illuminate subject for clear bright viewing.

Order # Description

26051	10x Inspection Magnifier with 1" Diameter Lens
26052	3x Inspection Magnifier with 3" Diameter Lens

Swing Out Inspection Loupes



26011

26012

Order # Description

26010	10x Hex Loupe 18mm Diameter Triplet Lens
26011	10x Loupe 16mm Diameter Triplet Lens
26012	20x Loupe 12mm Diameter Triplet Lens

Giant Folding Loupe



Double glass lens provides a large viewing area. Lens diameter is 1-3/4" and has a magnification of 6x.

Order # Description

26013	Giant Folding Loupe, 6x
--------------	--------------------------------

Magnifier with Clamp



Has an adjustable 2 1/2" diameter magnifying glass. Allows for close observation of work during soldering operation.

Order # Description

26000	Magnifier with Clamp
--------------	-----------------------------

Loupes & Magnifiers

Magnifier with Tweezers



Magnifying glass mounted onto stainless steel, anti acid, anti magnetic tweezers. Lens diameter is 1.25" and the power is 3x. Available with pointed or curved tweezer tips. Excellent for working on small parts that require magnification.

Order # Description

26030 **3x Magnifier** with Curved Tips

26031 **3x Magnifier** with Straight Tips

Headband Magnifier with LED Illumination



Comes with 1.5x, 2x, 2.5x and 3.5x clip-on lenses. LED light provides 50,000 hours of illumination. Light operates with 3 AAA batteries (not included).

Order # Description

26221 **Headband Magnifier** with LED Illumination

Headband Magnifier with Light



Comes with 1.2x, 1.8x, 2x and 3.5x clip on lenses. Features a 2.2v bulb and operates with 4 AAA batteries (not included).

Order # Description

26222 **Headband Magnifier** with Light

Optivisor



Soft pliable wide headband for ultimate comfort. Easily adjusts to any head size. Self locking, remains in place. Glass lens.

Order # Description

26101 Magnification: 1-1/2x Working Distance: 20" (#2)

26102 Magnification: 1-3/4x Working Distance: 14" (#3)

26103 Magnification: 2x Working Distance: 10" (#4)

26104 Magnification: 2-1/2x Working Distance: 8" (#5)

26105 Magnification: 2-3/4x Working Distance: 6" (#7)

26106 Magnification: 3-1/2x Working Distance: 4" (#10)

Accessories

Order # Description

26107 **Replacement Lens #2** (1-1/2x)

26108 **Replacement Lens #3** (1-3/4x)

26109 **Replacement Lens #4** (2x)

26110 **Replacement Lens #5** (2-1/2x)

26111 **Replacement Lens #7** (2-3/4x)

26112 **Replacement Lens #10** (3-1/2x)

26113 **Auxiliary Lens 2-1/2x**



Magnification & Task Lighting

Aven's Magnification & Task Lighting products are for the demanding professionals who need the flexibility to view objects from a variety of angles.

Magnifying Lamps

Our magnifying lamps enable users to magnify objects up to four times. Some of the features among products within this line also include lighting that is positioned so that shadows will not hinder your ability to inspect and analyze.

Task Lighting

All of our task lighting products come equipped with a flexible, adjustable arm that allows users to direct light where they need it most for assignments in such areas as manufacturing, assembly and inspection.

00

Magnification
& Task Lighting



Magnification Lighting

ProVue Magnifying Lamps



Our most popular magnifying lamp is designed for professionals. It is equipped with an ultra-bright 22-watt circular fluorescent bulb and a Crystal Clear 5", 3-diopter (1.75x) glass lens to provide 360° distortion free viewing. Metal housing is mounted on a 45" spring balanced arm that stays set in any position. Lamp operates at 115V-AC and comes complete with mounting clamp and a 5-foot power cord. 1 year warranty (excludes bulb).

Optional Accessories

- Weighted Base
- Swing-Away Lens – 5 diopter (2.25x)
- Auxiliary Lens – 3 diopter (1.75x)



Swing-Away Lens



Auxiliary Lens

Order #	Description
26501-SIV	ProVue Magnifying Lamp-Ivory-3 Diopter
26501-WB	Weighted Base
26501-B22	22-watt Replacement Bulb
26501-SLA	Swing-Away Lens – 5 Diopter (2.25x)
26501-AL3	Auxiliary Lens – 3 Diopter (1.75x)

37

Magnification
& Task Lighting

ProVue Deluxe Magnifying Lamp 'Features a Heavy Duty Spring Balanced Arm'



Designed for demanding professionals. It is equipped with an ultra-bright 22-watt circular fluorescent bulb, a Crystal Clear 5", 3-diopter (1.75x) lens, mounted on a silver-grey metal housing. The fluorescent bulb is protected with a clear plastic diffuser/splash guard. The heavy-duty adjustable arm with tempered steel springs allows for easy positioning. When fully extended the arm has a reach of 35". Comes with a mounting clamp. Can also be mounted directly on the working surface. Operates at 115V-AC and comes with a 5-foot power cord. 1 year warranty (excludes bulb).

Optional Accessories

- Swing-Away Lens – 5 diopter (2.25x) for total magnification of 8 diopter (4x)
- Auxiliary Lens – 3 diopter (1.75x) for total magnification of 6 diopter (3.5x)



Swing-Away Lens



Auxiliary Lens

Order #	Description
26501-DSG	ProVue Deluxe Magnifying Lamp-Silver
26501-B22	22-watt Replacement Bulb
26501-SLA	Swing-Away Lens – 5 Diopter (2.25x)
26501-AL3	Auxiliary Lens – 3 Diopter (1.75x)



Magnification Lighting

Maxi-Mag Magnifying Lamp



Super large 7", 3-diopter lens gives you unrivaled field of view and work space. Comes with a powerful 32-watt circular fluorescent bulb. This lamp can show you things that you have never seen before! The Ivory mar-resistant engineered plastic housing is mounted on a 45" spring balanced arm for easy positioning. Lamp operates at 115V-AC and comes complete with a mounting clamp and a 5-foot power cord. 1 year warranty (excludes bulb).

Optional Accessories

- Weighted Base
- Swing-Away Lens – 5 diopter (2.25x) for total magnification of 8 diopter (4x)



Swing-Away Lens

Order #	Description
26503-SIV	Maxi-Mag Magnifying Lamp – Ivory
26503-B32	Replacement Fluorescent Bulb
25501-WTB	Weighted Base
25501-SLA	Swing-Away Lens – 5 Diopter (2.25x)

Magnification
& Task Lighting

Mighty Mag Magnifying Lamps



The Mighty Mag features a large 7" x 5.2", 3-diopter (1.75x), distortion free Crystal Clear lens mounted in a high tech style mar-resistant engineered plastic housing with dual light sources. The large, rectangular viewing area of the glass enables comfortable viewing with both eyes and provides shadow-free magnification with light coming from both sides. The housing is mounted to an internal spring balanced arm with a 30" reach that will set in any position. Unit operates at 115V-AC and comes complete with mounting camp and a 5-foot power cord. 1 year warranty (excludes bulb). Available in Ivory and Black (ESD safe).

Optional Accessories

- Swing-Away Lens – 5 diopter (2.25x) for additional magnification



Swing-Away Lens

Order #	Description
26505-SIV	Mighty Mag Magnifying Lamp – Ivory
26505-ESD	Mighty Mag Magnifying Lamp – Black
26505-B09	Replacement Bulb
26501-SLA	Swing-Away Lens – 5 Diopter (2.25x)
26506-BT4	Black Light Bulb



Magnification Lighting

MaxiVue Magnifying Lamp



The MaxiVue offers a fully adjustable magnifier lens (can be rotated) for full range inspection capabilities. Unnecessary slouching is eliminated. Three 9-watt compact fluorescent lamps provide two light levels: 27-watts from top and both sides of the magnifier or 18-watts of side-to-side lighting. Features a large 6.9"x4.2", 3-diopter (1.75x) Crystal Clear lens, mounted on a mar-resistant engineered plastic housing. The spring balanced arm has a 40" reach and stays in any position. Operates at 115V-AC and comes complete with a mounting clamp and a 5 foot power cord. 1 year warranty (excludes bulbs).

Optional Accessories

● Weighted Base

Order #	Description
25506-SIV	MaxiVue Magnifying Lamp - Ivory
26501-WB	Weighted Base
26505-B09	Replacement Bulb
26506-BT4	Black Light Bulb

00

**Magnification
& Task Lighting**

VuePlus Magnifying Lamp



VuePlus features a 4", 3-diopter Crystal Clear lens. Comes with a 60-watt incandescent bulb which provides "incident lighting" for viewing irregular work surfaces. Comes with a 30" spring balanced arm with a tension control knob at the arm joint and a table mounting clamp. Operates at 115V-AC.

Order #	Description
26504-SBK	VuePlus Magnifying Lamp - Black



Task Lighting

OptiVue Magnifying Lamp



OptiVue combines function and form in one small package. With a powerful 13-watt fluorescent bulb, an all capable 3-diopter lens and a highly flexible gooseneck, this small "goes anywhere" dynamo provides illumination and magnification wherever you need.

Order #	Description
26507-SBK	OptiVue Magnifying Lamp – Black-3 Diopter

40

Magnification
& Task Lighting

Titan Halogen 150 Watt Task Light



Provides clean and crisp light. Features a powerful 150-watt bulb mounted in a black metal housing. Comes complete with a 35" spring balanced arm with tension control and mounting clamp. Operates at 115V-AC.

Order #	Description
26512-SBK	Titan 150-watt Task Light

Elumina 50 Watt Task Light



With a contemporary design, the Elumina task light allows you to direct light where you need it. Adjustable arm extends 23 inches from the weighted base. Lamp includes a 50-watt halogen bulb. Silver Satin Finish. Comes with a 5-foot power cord. Operates at 115V-AC.

Order #	Description
26511-SSL	Elumina 50-watt Task Light

Task Lighting

Aurora Combo Lamp



Features a 9 1/2" shade with a 22-watt fluorescent and a 60-watt incandescent bulb. A 3-way switch permits selection of fluorescent or incandescent or both. A 42" adjustable spring balanced arm with tension control allows you to position the lamp exactly where you require. Ivory color. Comes with a mounting clamp and a 5-foot power cord. Operates at 115V-AC.

Order #	Description
26515-SIV	Aurora Combo Lamp

Magna Fluorescent Lamp



Features a flexible 42" spring balanced arm supplied with two 15-watt fluorescent tubes that provide uniform light. 19" rectangular head features a handle that permits easy positioning. Comes with a mounting clamp and a 5-foot power cord. Operates at 115V-AC.

Order #	Description
26516-SIV	Magna Fluorescent Lamp

Magna Deluxe Fluorescent Lamp



A whole new class of elegant looking fluorescent light from Aven designed to give you crisp, flicker-free lighting, and a maximum uniformity together with a larger lighting area. The 20" lighting head is totally enclosed and features a 55 watt fluorescent bulb. Features a built-in electronic ballast for increased lumen.

The heavy duty industrial grade adjustable arm with tempered steel springs and tension control knobs allows you to easily position the lamp where you want it. The head swivels 310° and tilts 210° for maximum adjustment. Comes with a mounting clamp and a 5 ft power chord. Operates 115V-AC. 1 year warranty (excludes bulb).

Order #	Description
26516-D155	Magna Deluxe 20" Fluorescent Lamp



Task Lighting

Magna Deluxe XL 3 Tube Fluorescent Lamp



Features:

- 45 watt fluorescent lamp (3 tubes, 15 watts each) for demanding visual tasks.
- Switches allow you to turn on one, two, or three lamps to suit your needs.
- Spring balanced 35" arm allows rapid positioning of the light and will stay in position needed for your application
- All metal construction with baked on enamel finish.
- Built-in electronic ballast
- C-clamp included for mounting to tables up to 2" thick.
- 3-cord plug

Order # Description

26516-D3T

Magna Deluxe XL 3 Tube Fluorescent Lamp



42

Magnification
& Task Lighting

Sirius Quartz Halogen Task Lights



Excellent for all types of applications requiring high intensity illumination, such as manufacturing, assembly, and inspection. Round tube arms are vibration resistant but can be adjusted to provide the lighting angle you require (Also available with a flex arm). Lamp Head can be moved in up and down direction. 20 Watt Halogen bulb included. Can accept up to 50 watt bulb. C-Clamp is included. Optional Magnetic Base also available. Industrial Grade Quality. 1 year warranty (excludes bulb).

Order # Description

26521

Short Arm Task Light

26522

220mm (8.66") Arm Task Light

26523

440mm (17.32") Arm Task Light

26524

800mm (31.5") Arm Task Light

26525

520mm (20.5") Flex Arm Task Light

26520-MB

Magnetic Base

Precision Tools

To provide years of worry-free service, we have selected only the best tools for our kits and provide them with a lifetime guarantee.

Our tool kits range from 22 to 163 pieces and can be used in such fields as electronics, engineering and any other task that requires precision assembly.

Tools can also be purchased individually from the following available categories:

Ergo Pliers & Cutters

Featuring scientifically designed handles to provide exceptional comfort, this product is made from stainless steel with a non-reflective black finish. Dual-leaf springs, a box joint construction for exceptional durability and induction-hardened cutting edges are among the other attributes.

Precision Tweezers

Designed to meet applications in areas such as electronics, aircraft and aerospace, miniature assembly, precision engineering, optics and microscopy, these tools come in a variety of materials and can be custom made.

Alignment Tools, Knives & Blades, Scissors, Desoldering/Soldering Tools

Featuring a range of speciality "hard to find" tools for assembly and field service applications.

Precision Screwdrivers

Specifically designed for electronics, our precision screwdrivers include such features as a black tip, nylon engineered plastic, duplex component handle designed for rapid rotation, greater comfort and control, fast turning swivel caps and imprinted sizes on the handle for easy selection.

Crimping Tools & Wire Strippers

Featuring a broad selection to meet all your data com requirements. Special dies and crimpers are also available on request.



Tool Kits



- **Ergonomically designed screwdrivers**
Included in all Aven Kits for fatigue free work and high torque. The fine textured grip has excellent anti-slip properties, and the blades are made from chrome vanadium steel hardened throughout for long life.



- **Lifetime Warranty on Tools**
We have selected only the best tools for our kits to give you years of worry free service. Should any hand tool from your kit fail under normal use, we will replace it free of charge.



- **Rugged Hard Cases**
High density polyethylene for outstanding toughness and attractive styling. The thick walls of our cases are reinforced with a full length piano hinge and a continuous tongue-and-groove aluminium valance. Cases come in a rich pebble grain finish that absorbs scratches without chipping or fading. (1 Year Warranty)



- **Compact and Durable Soft Cases**
Our soft cases are manufactured from tough ballistic nylon. They are lightweight, yet strong, featuring oversized self healing zippers, large pockets for all your extras, nylon web handles and shoulder straps.

Tool Kits

163-piece Master Field Service Kit



This kit has all the essential tools required by field service professionals and in-house technical support groups for onsite support of electronic equipment. Built-in cart for easy transportation.

Dimensions (LxWxH)
14.5"x18"x10.5"

Weight
28lbs. (with tools)

TOOLS:

- Alignment Tool, 2-piece
- Brush
- Bit Set, 33-piece Security
- Crimping Tool, w/wire stripper, bolt cutter
- Cutters, 4" & 5" Diagonal
- Desoldering Pump
- Dispenser, 2 oz. Leak Proof
- Driver Blade Extension 4"
- Driver Blade Handle
- Duplex Outlet Tester
- Feeler Gauge
- File Set, Square, Round & Flat
- Hammer, 4 oz. Ball Pein
- Hemostat, 6" Straight
- Hex Driver Blades, 9-piece .050-3/16"
- Hex Key Set, 7-piece
- IC Extractor, 8-24 Pin
- Inspection Mirror
- Knife, w/pack of 5 precision utility blades

- Nut Driver Blades, 9-piece, 3/16"-1/2"
- Measuring Tape, 1" x 25 ft
- Parts Box, 8 Compartments
- Penlight with Batteries
- Pick Up Tool 8 1/2" Magnetic
- Punches, Drive Pin 1/16" and 1/8"
- Ruler, 6" Stainless Steel
- Scissors, Electrician
- Scribe
- Soldering Aid, 3-piece
- Soldering Iron, 25-Watt
- Socket Set, 13-piece
- Solder Pack
- Solder Wick
- Spring Tool Push & Pull
- Torx Blade Set, 6-piece T6-T25
- Utility Knife
- Wire Stripper, Adjustable Stop

PLIERS:

- 4" Chain Nose
- 10" Groove Joint

- Retaining Ring, Internal/External
- 5" Vise Grip
- 6" Long Nose with cutter

SCREWDRIVERS:

- Slotted: 3/32" x 2", 1/8" x 4", 1/8" x 8", 3/16" x 4", 1/4" x 4", 5/16" x 6", 1/4" x 4", 5/16" x 6", 1/4" Stubby
- Phillips: #0 x 2", #0 x 8", #1 x 3", #2 x 4", #2 Stubby
- Ratchet Offset
- Jeweler's Set, 6-piece
- Pocket: 3/32" & #0 Phillips

TWEEZERS:

- 6 1/2" Angle Point
- Reverse Action

WRENCHES:

- 4" Adjustable
- 6" Adjustable
- Wrench Set: 10-piece
- Combination 5/32" - 7/16"

Order # Description

15201

163-piece Master Field Service Kit



Tool Kits

140-piece Information Systems Service Kit



Service PCs, workstations, file servers, LANs, Telco and RS232 line sharing devices, printers, plotters, and monitors. This kit contains the key tools to service equipment that processes, transmits, and displays information. Included are specialty tools for extracting DIPs, PLCC and RS232 pins, tamperproof drivers needed for accessing computers and monitors and two function testers for power and telephone lines.

Dimensions (LxWxH)
14.5"x18"x10.5"

Weight
24lbs. (with tools)

46

Precision
Tools

TOOLS:

- Alignment Tools, 3-piece set
- Crimping Tool, Wire/Bolt
- Bit Sets: 11-piece & 33-piece Security
- Cutters, 4" Diagonal & 5" Diagonal
- Drive Blade Handle 4"
- Drive Blade Extension 4"
- Feeler Gauge
- File Set, 3-piece: Square, Round, Flat
- Hemostat 6"
- Hex Driver Blades Ball End, 7-piece .050 - 3/32"
- IC Inserter/Extractor
- Interface Card Int/Ext Tool
- Key Cap Puller
- Knife #1 with 5 Precision Utility Blades
- Magnifier with Light
- Mirror/Magnetic Pick Up Tool 6"-18" Telescopic
- Nut driver Blades, 8-piece 3/16" - 1/2"

- Penlight with Batteries
- Pick Up Tool, 4 1/2" 3-Prong
- Scissor
- Socket Set, 13-piece 1/4" Driver (9) Sockets 3/16" - 1/2" (2) Extensions 3" and 6" (1) Reversible Ratchet (1) Spinner Handle
- Solder Pack
- Soldering Iron with Tip
- Solder Pump Anti-static
- Spring Hook Tool Set 2-piece
- Spudger
- Storage Box
- Tester, Duplex Outlet
- Tester, Telephone Line
- Tweezers Reverse Action
- Wire Stripper: 16-26 AWG
- Wrench 6" Adjustable

PLIERS:

- 4" Chain Nose
- 8" Groove Joint
- 5" Locking

- 6" Long Nose with Cutter
- RS232 Contact Insert/Removal Tool
- Retaining Ring

SCREWDRIVERS:

- Slotted: 3/32" x 2" Pocket, 1/8" x 8", 3/16" x 4", 1/4" x 6", 5/16" x 6"
- Phillips: #0 x 2" Pocket, #1 x 8", #2 x 4"
- Stubby 2-piece PH/ST
- Ratchet Offset
- Jeweler's Set, 6-piece

EXTRACTORS:

- 8-24 pin IC
- PLCC

RULERS:

- 6" Stainless Steel
- 1" x 25' Tape

Order # Description

15210

140-piece Information System Kit

Tool Kits

85-piece Master Electronic Tool Kit



One of our most popular kits offering the best value. We have included in this kit a multimeter, a high-speed drill set with accessories, a vice for holding small objects, battery-powered vacuum cleaner, 30 watt soldering iron, and much more, all supplied in a sturdy aluminum case for years of service.

Dimensions (LxWxH)
13"x18"x6"

Weight
18lbs. (with tools)

TOOLS:

- Brush
- Plastic Box for Components
- Cleaning Solution (20 ml)
- Desoldering Pump
- Drill Set 15-piece
- File Set 5-piece
- Crimping Tool 9" 5-way
- Cutter 4.5"
- Flashlight
- Head Cleaning Fluid
- Hex Key Wrench 7-piece
- Holder 3-prong
- Knife Utility (Snap-Off Blade)
- IC Inserter/Extractor
- Multimeter Digital
- Nut Drivers: 5 and 6 mm
- Scissor 6"
- Solder
- Solder Aid Kit, 3-piece
- Soldering Iron, 30-Watt Ceramic
- Soldering Iron Stand
- Tape, Electrical
- Tweezers 6.5" Cross Lock
- Wrench 6" Adjustable
- Wrench Set Ignition 10-piece

- Wrist Strap Anti-Static
- Vacuum Cleaner, 5-piece
- Vice

PLIERS:

- 5" Flat Nose Serrated
- 5" Bent Nose Serrated
- 5" Long Nose Serrated
- 8" Linesman

SCREWDRIVERS:

- Electrical Test
- Slotted: 3 x 75 mm; 5 x 75 mm, 6 x 38 mm, 6 x 100 mm
- Phillips: #0 x 75 mm, #1 x 75 mm, #1 x 150 mm, #2 x 100 mm, #2 x 200 mm, #2 x 38 mm
- Safety Torx: T10 & T15

PRECISION SCREWDRIVERS:

- Slotted: 2.4 x 75 mm; 3.0 x 100 mm, 3.8 x 150 mm
- Phillips: #0 x 75 mm, #1 x 100 mm; #2 x 150 mm

Order # Description

15018

85-piece Master Electronic Tool Kit

93-piece Premier Field Service Kit



A full complement of tools for maintaining, upgrading and repairing electronic equipment. Supplied in double-sided, durable nylon case with large external pockets.

Dimensions (LxWxH)
17"x12"x5.5"

Weight
13lbs. (with tools)

TOOLS:

- Cutters: 4 1/4" & 6" Diagonal
- Desoldering Pump
- DIP IC Extractor
- DIP IC Inserter
- Feeler Gauge
- Flashlight, with batteries
- Hammer, 4 oz. Ball Pein
- Hex Key Set BP, 9-piece
- Hemostat, 5"
- Jeweler's Screwdrivers, 6-piece Phillips/Slotted
- Metal Scribe
- Microwick
- Mirror/Magnetic Retriever
- Needle Files, 3-piece
- Driver Handle 4"
- Nutdriver Blades, 9-piece: 3/4", 9/32", 3/8", 7/32", 5/16", 7/16", 1/4", 11/32", 1/2"
- Punch Pins 1/16", 1/8"
- Ruler, 6" Stainless Steel
- Scissors, Technik Electricians
- Socket Set, 13-piece 1/4" Drive
- Solder Aid Kit, 3-piece
- Soldering Iron

- Solder
- Spring Tool Combination, 2-piece
- Tape Measure
- Wire Stripper 16-26 AWG
- Wrench 6" Adjustable
- Wrench Set, Mini Ignition, 8-piece 7/32", 7/16"

PLIERS:

- 4 1/2" Chain Nose Serrated
- 6" Long Nose with Side Cutter
- 5 3/4" Needle Nose
- 6" Slip Joint

SCREWDRIVERS:

- Slotted: 3/32" x 2", 3/8" x 4", 3/16" x 4", 1/4" x 4"
- Phillips: #0 x 2", #1 x 4", #2 x 4"
- Safety Torx: T10, T15, T20
- Stubby Slotted: 1/4"
- Stubby Phillips: #1
- Handle

TWEEZERS:

- 5" Sharp Point
- 4 1/2" Cross Lock

Order # Description

15006

93-piece Field Service Kit



Tool Kits

65-piece Premier Service Engineer's Kit



For those that repair computers, copiers, and any other electronic equipment on-site. Double sided, durable nylon case with large external pockets.

Dimensions (LxWxH)
17"x12"x5.5"

Weight
11lbs. (with tools)

TOOLS:

- Alignment Tool
- Cutters: 4 1/2" Diagonal
- Desoldering Pump
- Flashlight, with batteries
- Hemostat, Technik 5"
- Hex Key Set Fold Up, 9-piece .050 to 3/16"
- Knife, Precision
- Metal Scribe
- Microwick
- Needle Files, 2-pieces
- Nutdriver Blades: 3/16", 9/32", 3/8", 7/32", 5/16", 7/16", 1/4", 11/32", 1/2"
- Prong Holder
- Ruler, 6" Stainless Steel Ruler
- Solder Aid Kit, 3-piece
- Soldering Iron
- Solder

Scissors, Electricians

- Torx Key Set Fold Up, 7-piece T6 to T20
- Tweezers, 6" Cross lock
- Wire Stripper
- Wrench 6" Adjustable

PLIERS:

- 5" Needle Nose
- 6" Slip Joint
- 6" Long Nose with Wire Cutter
- 4 1/2" Chain Nose-Serrated

SCREWDRIVERS:

- Blades: Phillips - #0, #1, #2
- Blades: Slotted - 1/8", 3/16", 1/4"
- Phillips: #0 x 2"
- Slotted: 3/32" x 2"
- Jeweler's 6-piece Set

Order # Description

15002

65-piece Service Engineer's Kit



67-piece Premier General Electronic Tool Kit

Contains all the essential tools needed to access, troubleshoot and repair electronic equipment.

Dimensions (LxWxH)
15.5"x10.5"x5.5"

Weight
8lbs. (with tools)

TOOLS:

- Brush
- Cutter, 4 1/2" Diagonal
- Flashlight, with batteries
- Hex Keys Fold Up, 9-piece .050 to 3/16"
- Knife Snap Blade, 10-pieces
- Microwick
- Plastic Parts Box
- Ratchet
- Ruler, 6" Stainless Steel
- Scissors, Electrician
- Socket Set, 9-piece
- Extension Bars: 4" and 6"
- Solder
- Soldering Iron

Tape Measure 12'/3M

- Torx Fold Up, 7-piece T6 to T20
- Wire Stripper/Cutter
- Wrench Adjustable 6"

PLIERS:

- 6" Slip Joint
- 6" Long Nose with Wire Cutter
- 4 1/2" Long Nose Pliers with Cutter

SCREWDRIVERS:

- Phillips: #0 x 4", #1 x 4", #2 x 4"
- Slotted: 1/8" x 4", 3/16" x 4", 1/4" x 4"
- Jeweler's 6-piece Phillips & Slotted

Order # Description

15001

67-piece Premier General Electronic Kit

48

Precision
Tools

Tool Kits

98-piece Premier Networking Tool Kit



Designed to address the specific requirements of maintaining and troubleshooting data links, LANs and WANS. Kit contains a complete selection of tools to access and troubleshoot a variety of equipment common to all networks.

Dimensions (LxWxH)
17"x12"x5.5"

Weight
11lbs. (with tools)

TOOLS:

- Alignment Tool
- Cable Cutter
- Cable Stripper, Coax
- Cable Tester, Multi Network
- RS232 to w12/45 Converter
- Crimp Tool, with (RG58 & RG59) die set
- Cutters 4 1/2" Diagonal
- Flashlight, with batteries
- Gender Changer: M/M & F/F
- Hex Key Set, 9-piece 5/64" to 1/4"
- Knife, Precision
- Mirror/Magnetic Retriever
- Modular Plugs (24): 4 & 8 Pos
- Nutdriver Blades, Interchangeable: 3/16", 1/4", 5/16"
- Plastic Parts Box (3)
- Pliers: 4 3/4" Long Nose - Serrated Jaws
- Punch Down Tool

- Receptacle Analyzer
- RJ45 Adapter Cable 14'
- Scissors, Electrician
- Solder
- Soldering Iron
- Wire Stripper 16 to 26 AWG
- Wrench 6" Adjustable

SCREWDRIVERS:

- Blades: Slotted - 1/8", 3/16", 1/4"
- Blades: Phillips - #0, #1, #2
- Blades: Torx - T10, T15, T20

PRECISION

SCREWDRIVERS:

- Slotted: 2.4 mm
- Phillips: #0

POCKET

SCREWDRIVERS:

- Phillips #0
- Slotted 3/32"

Order # Description

15007

98-piece Premier Networking Tool Kit

48-piece Premier Compact Technician's Kit



A compact version of our popular Technician's Kit, with 47 of the most requested tools in a durable nylon case.

Dimensions (LxWxH)
15.5"x10.5"x5.5"

Weight
8lbs. (with tools)

TOOLS:

- Alignment Tools (3)
- Cutter, 4 1/2" Diagonal
- Desoldering Pump
- Driver Handle 4"
- Flashlight, with batteries
- Hex Key Set, 9-piece
- Knife Precision Blade
- Microwick
- Needle File Flat
- Nutdriver Blades: 1/4", 5/16", 3/8"
- Ruler, 6" Stainless Steel
- Solder
- Solder Aid Kit, 6-piece

- Soldering Iron
- Wire Stripper/Cutter
- Wrench 4" Adjustable

SCREWDRIVERS:

- Blades: Slotted- 3/16", 1/4", 5/16"
- Blades: Phillips - #1, #2
- Jeweler's, 6-piece Phillips and Slotted

PLIERS

- 6" Slip Joint
- 4 1/2" Chain Nose - Smooth Jaws
- 5 1/2" Needle Nose
- 6" Long Nose with Wire Cutter

Order # Description

15004

48-piece Premier Compact Tech. Tool Kit



Tool Kits

70-piece Premier Technician's Kit



Ideal for general electronic service, this kit contains tools commonly needed to get at the 'electronics,' including a socket set, an adjustable wrench, and locking pliers and much more.

Dimensions (LxWxH)
15.5"x10.5"x5.5"

Weight
8lbs. (with tools)

TOOLS:

- Alignment Tools (3)
- Cutter, 4 1/2" Diagonal
- Desoldering Pump
- Flashlight, with batteries
- Hex Key Set, 9-piece
- Hemostat, 5"
- IC Inserter/Extractor
- Knife Precision Blade
- Microwick
- Mirror, Inspection
- Needle File Flat
- Nutdriver Blades: 1/4", 5/16", 3/8"
- Ruler, 6" Stainless Steel
- Scissors, Electrician
- Socket Set, 13-piece 1/4"
- Solder
- Spring Hook Tool (2)
- Solder Aid Kit, 6-piece

- Soldering Iron
- Wire Stripper/Cutter
- Wrench 6" Adjustable

PLIERS:

- 5 3/4" Needle Nose-Serrated Jaws
- 4 1/2" Chain Nose-Serrated Jaws
- 6" Vise Grip
- 6" Long Nose with Wire Cutter

SCREWDRIVERS:

- Phillips: #0 x 21/2"
- Slotted: 3/32" x 2"
- Jeweler's, 6-piece Phillips and Slotted
- Blades: Slotted - 3/16", 1/4", 5/16"
- Blades: Phillips - #1, #2
- Screwdriver Handle Drive

Order # Description

15003

70-piece Premier Technician's Kit



55-piece Premier PC Technician's Tool Kit

This kit contains an assortment of tools for the "Pros" servicing computer systems, PC terminals, and peripherals.

Dimensions (LxWxH)
15.5"x10.5"x5.5"

Weight
6lbs. (with tools)

TOOLS:

- Alignment Tool
- Cable Ties
- Cutter, 4 1/2" Diagonal
- Driver handle 4"
- Flashlight, with batteries
- Gender Changers RS232 M/M, F/F
- IC Inserter/Extractor
- Nutdriver Blades: 3/16", 1/4", 5/16", 3/8"
- Needle Files (3)
- Parts Holder 3-Prong
- PLCC Removal Tool
- Pliers: 4 1/2" Chain Nose, Serrated

- Wrench, Adjustable 4"
- Wipes (6)
- Wire Stripper
- Wrist Strap

HEX KEYS

- BP(8) .050 to 5/32"
- BP metric (6) 1.5 to 5 mm

SCREWDRIVERS:

- Phillips #00, #0, #1
- Slotted: 3/32", 1/8"
- Torx - T8, T10, T15
- Blades: Slotted - 1/8", 3/16", 1/4"
- Blades: Phillips - #0, #1, #2

Order # Description

15005

55-piece Premier PC Technician's Kit

Tool Kits

22-piece Personal Computer Tool Kit



Dimensions (LxWxH)
13"x8"x2.5"

Weight
3lbs. (with tools)

A compact tool kit, which has all the necessary tools for performing routine upgrades, maintenance, and repairs on PCs, Macs and workstations, in an attractive and durable case.

TOOLS:

- 3-Prong Holder
- Brush
- Crimp Tool, 7 in 1
- Desoldering Pump
- IC Extraction Tool
- IC Insertion Tool
- Nutdrivers: 5 mm, & 6 mm
- Pliers, 5" Long Nose
- Solder

- Soldering Iron, 30W Ceramic
- Tweezer, Stainless
- Wrench 6" Adjustable
- Wrist Strap, Anti-static

SCREWDRIVERS:

- Slotted: 3 x 75 mm, 5 x 75 mm
- Phillips: #0 x 75 mm, #1 x 75 mm
- Safety Torx: T10, T15

Order # Description

15014

22-piece Personal Computer Tool Kit

22-piece Network Maintenance Kit



Dimensions (LxWxH)
15"x10"x3"

Weight
6lbs. (with tools)

All the essential tools to maintain and service computer networks, in a durable case.

TOOLS:

- Cable Stripper, Rotary Coaxial
- Crimping Tool for 4, 6, & 8 position line cords
- Cutter, 4.5" Diagonal
- Desoldering Pump
- Flashlight, Mini
- Forcep, 6" Straight
- Hex Key Set 7-piece
- IC Extractor
- Inspection Mirror

- Nutdrivers: 5 mm & 6 mm
- Pliers, 5" Long Nose
- Soldering Iron, 30W Ceramic
- Wire Stripper (AWG 20-30)

SCREWDRIVERS:

- Slotted: 3 x 75 mm, 5 x 75 mm, 6 x 100 mm
- Phillips: #0 x 75 mm, #1 x 75mm, #2 x 100 mm
- Torx: T10, T15, T20

Order # Description

15021

22-piece Network Maintenance Kit

22-piece Basic Electronic Tool Kit



Dimensions (LxWxH)
14"x9"x2.5"

Weight
6lbs. (with tools)

Contains the essential tools needed to access, troubleshoot, and repair electronic equipment, supplied in an attractive durable case.

TOOLS:

- Alignment Driver
- Cutter, 6" Diagonal
- Desoldering Pump
- Needle File Set, 2-piece, Round and Flat
- Nutdrivers: 5 mm & 6 mm
- Solder
- Soldering Iron, 30W Ceramic
- Solder Wick
- Tape, PVC Insulated

- Tweezer, Stainless
- Wrench 6" Adjustable

PLIERS

- 6" Long Nose
- 6" Combination

SCREWDRIVERS:

- Slotted: 3 x 75 mm, 5 x 75 mm, 6 x 100 mm
- Phillips: #0 x 75 mm, #1 x 75 mm, #2 x 100 mm, #2 x 200 mm

Order # Description

15019

22-piece Basic Electronic Tool Kit

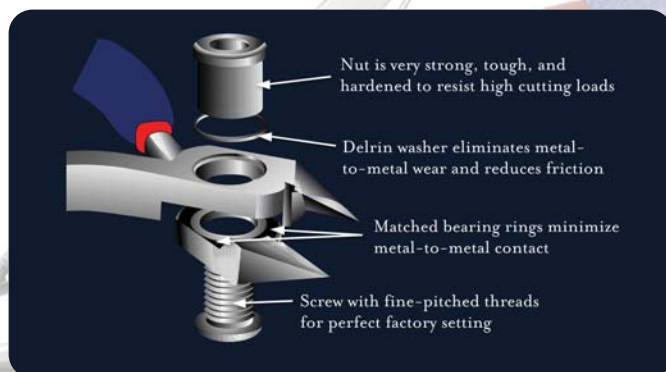


Aven Tronex Series High Precision Pliers and Cutters

made in the USA

Cutting Edge Technology provides you with superior levels of cutting performance, quality, value and comfort.

- **Highest quality American made** 1% carbon alloy steel is used for exceptional hardness and toughness. Tools are engineered for precision cutting yet long lasting ruggedness. These tools have the heft and feel that of a luxury car.
- **Special Handles** both standard and long are ergonomically designed to fit most hands with no points of pressure. They are enhanced by soft cushion grips for maximum comfort to reduce cutting fatigue dramatically.
- **Exceptional Cutting Edges.** They are made with by using a proprietary dual sharpening process and then raised to optimum hardness and toughness through a induction heating and tempering process. The result: Sharp, hard and tough cutting edges outcut and outlast all others.
- **Superior Joint System:** Two halves of the tool are joined by a fine thread interlocking screw and nut which mount on precision machined bearing rings. This ensures a tight, perfect alignment with smooth consistent cutting.
- Cutters are available in Semi-Flush, Flush and Razor Flush cutting edges.
- Attractive satin coating protects against corrosion and reduces glare.
- Stainless steel double leaf springs
- ESD Safe cushion grips for exceptional comfort
- Available in Standard and Ergonomic handle lengths. Length of tool with standard handle: 115mm (4-1/2") and with ergonomic handle: 140mm (5-1/2")
- 100% Quality assurance:- Each cutter is checked individually at the factory and are warranted for be free of defects in materials and workmanship for the life of the tool



Standard Handle
115mm (4.5")

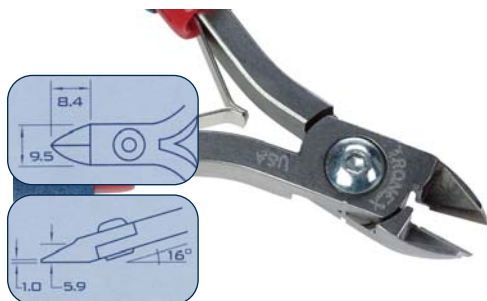


Ergonomic Handle
140mm (5.5")



Tronex Series - High Precision Cutters

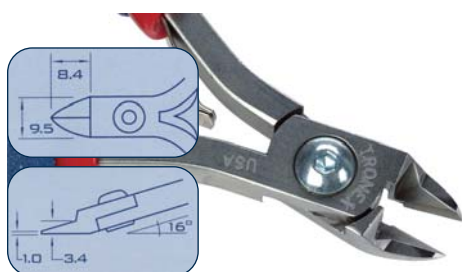
Tronex Oval Head Cutter



Strong versatile and long lasting, this popular shape can be used for many applications. Designed to be durable through hundreds of cuts.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity*
5111	7111	Semi-Flush	.20 to 1.20mm
5112	7112	Flush	.15 to 1.50mm
5113	7113	Razor Flush™	.10 to 1.00mm

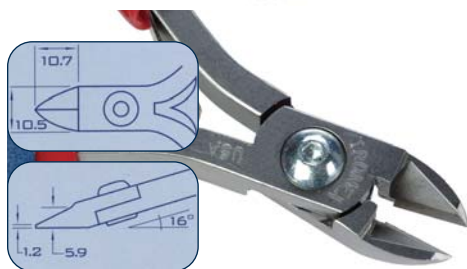
Tronex Oval Head Cutter with Relief



Same features as the oval head cutter but the relief provides extra accessibility.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity*
5121	7121	Semi-Flush	.20 to 1.20mm
5122	7122	Flush	.15 to 1.10mm
5123	7123	Razor Flush™	.10 to 0.90mm

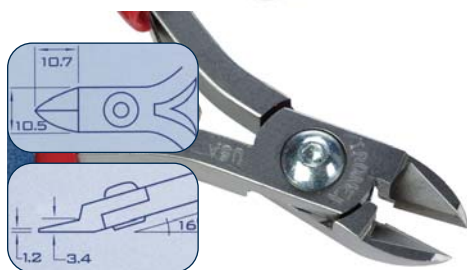
Tronex Large Oval Head Cutter



Popular for wire and cable, extra rugged, 25% larger head than standard oval cutters.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity*
5511	7511	Semi-Flush	.20 to 1.50mm
5512	7512	Flush	.15 to 1.50mm
5513	7513	Razor Flush™	.10 to 1.20mm

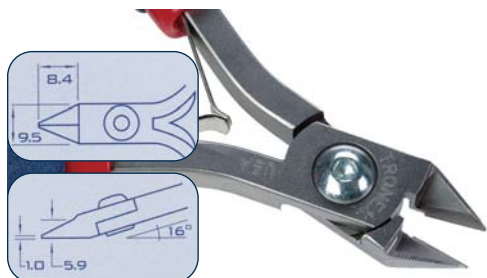
Tronex Large Oval Head Cutter with Relief



Same features as the large oval head cutter but the relief provides extra accessibility.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity*
5521	7521	Semi-Flush	.20 to 1.40mm
5522	7522	Flush	.15 to 1.40mm
5523	7523	Razor Flush™	.10 to 1.20mm

Tronex Tapered Head Cutter



A more compact design pointed head for increased operator access, yet covers a wide cutting range and long tool life.

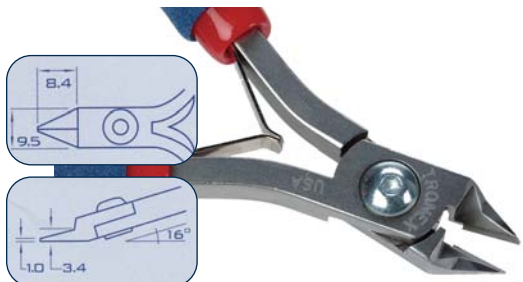
Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity*
5211	7211	Semi-Flush	.20 to 1.10mm
5212	7212	Flush	.15 to 1.10mm
5213	7213	Razor Flush™	.10 to 1.00mm

*Diameter of Soft Copper wire



Tronex Series - High Precision Cutters

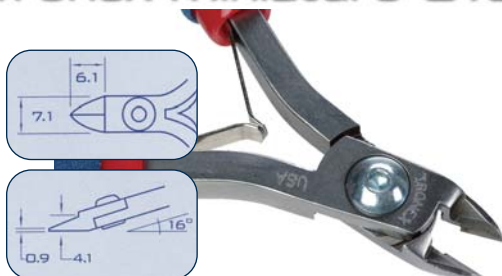
Tronex Tapered Head Cutter with Relief



Same features as the tapered head cutter but with a lower profile for better access and extra visibility.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity*
5221	7221	Semi-Flush	.20 to 1.10mm
5222	7222	Flush	.15 to 1.00mm
5223	7223	Razor Flush™	.10 to 0.90mm

Tronex Miniature Oval Head Cutter



SMT Cutter, 30% smaller head than standard oval cutters.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity*
5311	7311	Semi-Flush	.20 to 1.10mm
5312	7312	Flush	.10 to 1.00mm
5313	7313	Razor Flush™	.10 to 0.80mm

Tronex Miniature Tapered Head Cutter

54

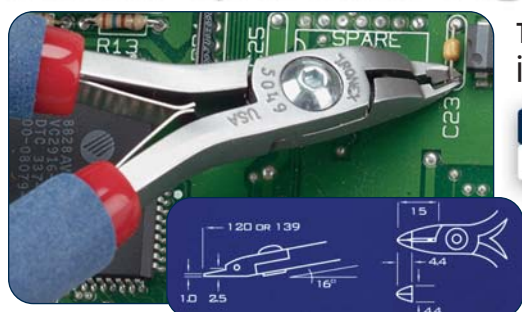
Precision
Tools



Miniature Taper Relief cutters are used only for exceptionally fine cutting work. Usually access to the cutting area is difficult, requiring the very low profile of this cutter with full relief.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity*
5421	7421	Semi-Flush	.20 to 1.10mm
5422	7422	Flush	.10 to 1.00mm
5423	7423	Razor Flush™	.10 to 0.80mm

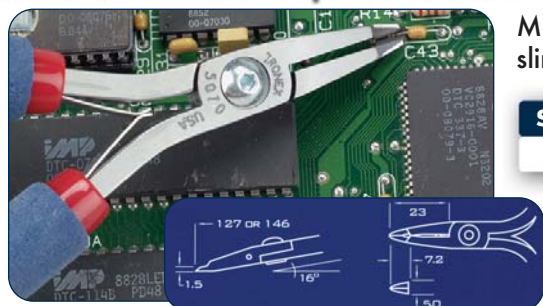
Tronex Tip Cutter High Relief



Tip cutter with a deep relief for an exceptionally low profile. Short sturdy jaw. Razor Flush™ cutting Edges.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity
5049	7049	Razor Flush™	.10 to 0.65mm

Tronex Small Tip Cutter



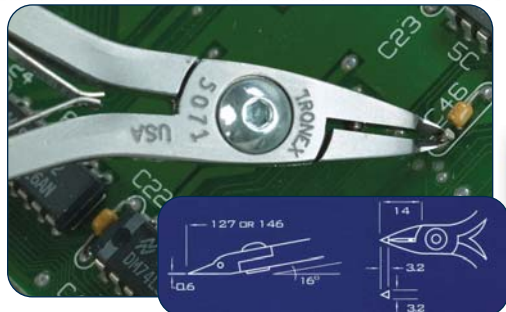
Most popular tip cutter. Jaw is twice as long as standard cutters. Jaw is slim with a low relieved profile. Razor Flush™ cutting edges.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity
5070	7070	Razor Flush™	.10 to 0.65mm

*Diameter of Soft Copper wire

Tronex Series - High Precision Cutters

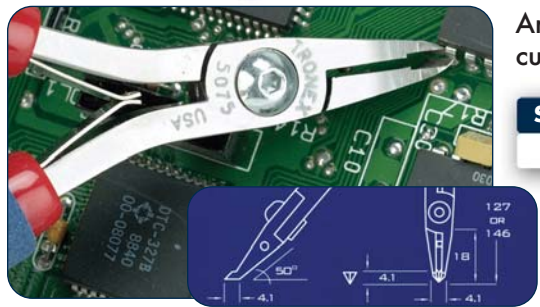
Tronex Subminiature Tip Cutter



SMT Cutter. Extraordinarily small. Fine cutting edges and fine tip. Often used under a microscope. Removes individual leads from fine pitch components. Razor Flush™ Cutting Edges.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity
5071	7071	Razor Flush™	.05 to 0.40mm

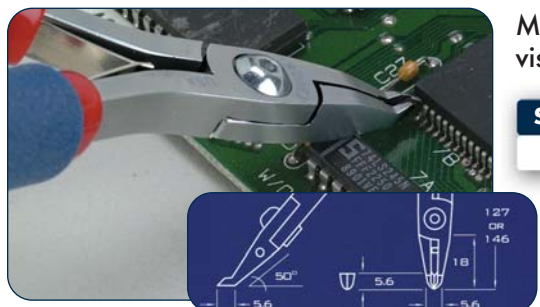
Tronex Angulated Miniature 50° Cutter



An SMT cutter with a very small cutting head. Used for exceptionally fine cutting. Relieved for maximum accessibility. Flush cutting edges.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity
5075	7075	Flush	.10 to 0.65mm

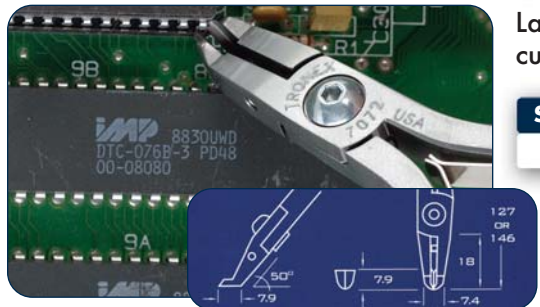
Tronex Angulated Small 50° Cutter



Most popular angulated cutter. Small cutting head with relief for excellent visibility. Durability combined with fine cutting. Flush cutting edges.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity
5082	7082	Flush	.10 to 0.65mm

Tronex Angulated Large 50° Cutter



Largest cutting head. Robust. Excellent in cutting several leads in a single cut. Relieved for enhanced visibility. Razor Flush™ cutting edges.

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity
5072	7072	Razor Flush™	.10 to 0.65mm

Tronex Heavy Duty Cutter



This cutter, forged of carbon steel, has strength in the head and joint areas needed to cut heavier gauge wire or cable. Cushion grips provide operator comfort. A jaw restraining device is attached to insure spring retention. Overall length 6" (152mm). Length of cutting blade 3/4" (19mm)

Standard Handle	Ergonomic Handle	Cutting Edge	Cutting Capacity
-	7812	Flush	.10 to 1.60mm

*Diameter of Soft Copper wire



Tronex Series - High Precision Pliers

Tronex Chain Nose Pliers: Standard and Short Jaw



Features very fine tips, "eased" edges of the inner jaw to reduce the risk of damage to the workpiece during forming, and a long jaw for extended gripping power. Available with smooth or serrated jaws. Standard & Short Chain nose pliers have tips dimension of 1.2mm W x 1.4mm H (.050" x .060").

Standard Handle	Ergonomic Handle	Jaw Type	Jaw Length
511	711	Standard Smooth	33mm (1.30")
512	712	Standard Serrated	33mm (1.30")
513	713	Short Smooth	19mm (0.75")

Tronex Needle Nose Pliers



These pliers have exceptionally fine tips. The outer surface of the jaw is rounded to the shape of smooth half cones. This design increases tool access and allows forming of round loops. All edges of the inner jaws are eased. Tip dimensions: 1.0mm W x 1.2mm H. (.040" x .050").

Standard Handle	Ergonomic Handle	Jaw Type	Jaw Length
521	721	Smooth	31.7mm (1.25")

Tronex Round Nose Pliers: Standard and Short Jaw



Available in long and short jaws. The long jaws makes it possible to form a wide range of loop diameters. The short jaw adds more stiffness and strength to allow forming of heavier gauge wire with added control. Long jaw pliers have a tip diameter of 0.7mm(.030") and the short jaw pliers have a tip diameter of 0.9mm (.035").

Standard Handle	Ergonomic Handle	Jaw Type	Jaw Length
531	731	Smooth	31.7mm (1.25")
532	732	Smooth	18.1mm (.715")

Tronex Flat Nose Pliers: Standard and Wide Tips



These flat nose pliers have a long jaw and very thin tips. The tip gripping area has a smooth finish. All inner edges are "eased" to reduce risk of workpiece damage. Standard flat nose pliers have tips that are 3.5mm (.140") wide and the Wide Tip Flat Nose Pliers have tips that are 6.3mm (.250") wide.

Standard Handle	Ergonomic Handle	Jaw Type	Jaw Length
541	741	Standard Smooth	31.7mm (1.25")
542	742	Wide Smooth	31.7mm (1.25")

Ergo Pliers & Cutters

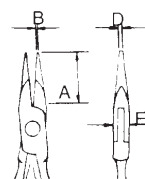
- Scientifically designed handles to provide exceptional comfort
- Manufactured from Stainless Steel, will not rust
- Non Reflective Black Finish
- Dual Leaf Springs
- Induction Hardened Cutting Edges





Ergo Pliers & Cutters

Chain Nose Pliers



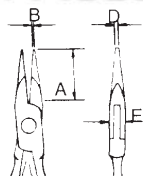
Head Dimensions:
A-.93" B-.04"
D-.06" E-.21"

Ideal for forming, bending and precision assembly work.

Order # Description

10301-ER	4.5" Chain Nose , Smooth Jaws: 0.93" Jaw Length
10307-ER	4.5" Chain Nose , Serrated Jaws: 0.93" Jaw Length
10302-ER	5" Chain Nose , Smooth Jaws: 1.05" Jaw Length
10308-ER	5" Chain Nose , Serrated Jaws: 1.05" Jaw Length

Extra Long Chain Nose Pliers



Head Dimensions:
A-1.42" B-.05"
D-.07" E-.25"

Excellent for hard to reach areas.

Order # Description

10311-ER	5" Extra Long Chain Nose Smooth Jaws: 1.42" Jaw Length
10311S-ER	5" Extra Long Chain Nose Serrated Jaws: 1.42" Jaw Length

58

Precision
Tools

Needle Nose Pliers



Head Dimensions:
A-1.93" B-.04"
D-.06" E-.22"

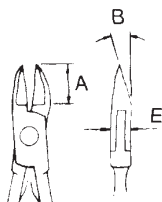
Ideal for work in tight places where space and accessibility are limited.

Order # Description

10314-ER	5-3/4" Needle Nose Serrated Jaws: 1.93" Jaw Length
-----------------	--

Ergo Pliers & Cutters

Oval Head Cutters

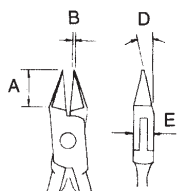


Head Dimensions:
A-.55" B-13° E-.28"

Order # Description

10321-ER	4-1/2" Oval Head Cutter, Semi-Flush Cutting Capacity: 22 AWG, CBL: 0.55"
10323-ER	4-1/2" Oval Head Cutter, Flush Cutting Capacity: 24 AWG, CBL: 0.55"
10332-ER	4-3/8" Mini Oval Head Cutter, Flush Cutting Capacity: 24 AWG, CBL: 0.45"

Tapered Head Cutters

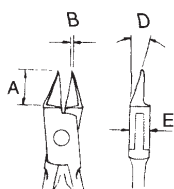


Head Dimensions:
A-.55" B-.05"
D-14° E-.28"

Order # Description

10325-ER	4-1/2" Tapered Head Cutter, Semi-Flush Cutting Capacity: 22 AWG, CBL: 0.55"
10326-ER	4-1/2" Tapered Head Cutter, Flush Cutting Capacity: 24 AWG, CBL: 0.55"
10331-ER	4-3/8" Mini Tapered Head Cutter, Flush Cutting Capacity: 24 AWG, CBL: 0.45"

Tapered Head Cutter w/Relieved Head

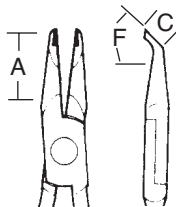


Head Dimensions:
A-.55" B-.05"
D-13° E-.28"

Order # Description

10329-ER	4-1/2" Tapered Head Cutter, RH, Flush Cutting Capacity: 24 AWG, CBL: 0.55"
-----------------	--

Tip Cutter



Head Dimensions:
A-.75" C-.20"
E-.23" F-.45°

Order # Description

10330-ER	4-1/2" Tip Cutter, Flush Cutting Capacity: 24 AWG
-----------------	---

* Cutting Capacity stated above is for soft copper wire



Stainless Steel Pliers & Cutters

- Mirror Polished Stainless Steel
- ESD Safe Grips
- Box Joint Construction
- Dual Leaf Springs For Comfortable Action
- Induction Hardened Cutting Edges
- Large Selection



60

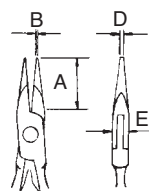
Precision
Tools

Stainless Steel Pliers & Cutters

Stainless Steel Pliers



Head Dimensions:
A-.93" B-.04" D-.06" E-.21"

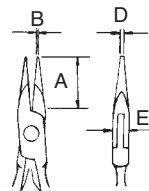


Technik 4-1/2" Chain Nose – Ideal for forming, bending and precision assembly work.

Order #	Description
10301	Technik 4-1/2" Chain Nose, Smooth
10307	Technik 4-1/2" Chain Nose, Serrated



Head Dimensions:
A-1.05" B-.04" D-.06" E-.39"

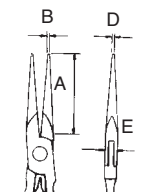


Technik 5" Chain Nose – Popular pliers for forming, bending and precision assembly work.

Order #	Description
10302	Technik 5" Chain Nose, Smooth
10308	Technik 5" Chain Nose, Serrated



Head Dimensions:
A-1.53" B-.06" D-.08" E-.38"

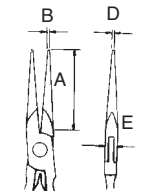


Technik 6" Chain Nose – For forming, bending and component handling.

Order #	Description
10333	Technik 6" Chain Nose, Serrated



Head Dimensions:
A-1.42" B-.05" D-.07" E-.25"

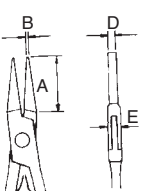


Technik 5" Extra Long Chain Nose – For forming, bending and precision assembly work. Excellent for difficult to reach areas.

Order #	Description
10311	Technik 5" Extra Long Chain Nose, Smooth
10311S	Technik 5" Extra Long Chain Nose, Serrated



Head Dimensions:
A-.94" B-.02" D-.15" E-.24"

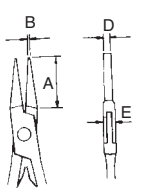


Technik 4-1/2" Flat Nose – For bending and component handling.

Order #	Description
10303	Technik 6" Chain Nose, Smooth



Head Dimensions:
A-.94" B-.02" D-.15" E-.24"



Technik 5" Flat Nose – For bending and component handling.

Order #	Description
10304	Technik 5" Flat Nose, Smooth

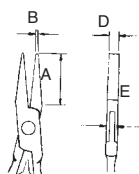


Stainless Steel Pliers & Cutters

Stainless Steel Pliers



Head Dimensions:
A-1.66" B-.02" D-.21" E-.33"



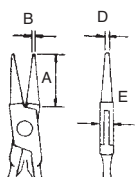
Technik 6" Flat Nose – For bending and component handling.

Order #	Description
---------	-------------

10335	Technik 6" Flat Nose, Smooth
-------	------------------------------



Head Dimensions:
A-.84" B-.05" D-.04" E-.25"



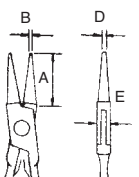
Technik 4-1/2" Round Nose – For forming or coiling fine wire.

Order #	Description
---------	-------------

10305	Technik 4-1/2" Round Nose, Smooth
-------	-----------------------------------



Head Dimensions:
A-.93" B-.05" D-.04" E-.31"



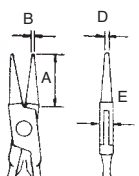
Technik 5" Round Nose – For forming or coiling fine wire.

Order #	Description
---------	-------------

10306	Technik 5" Round Nose, Smooth
-------	-------------------------------



Head Dimensions:
A-1.53" B-.05" D-.04" E-.30"



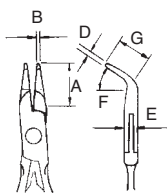
Technik 6" Round Nose – For forming or coiling fine wire.

Order #	Description
---------	-------------

10334	Technik 6" Round Nose, Smooth
-------	-------------------------------



Head Dimensions:
A-.90" B-.04" D-.06" E-.24" F-42° G-.31"



Technik 4-1/2" Bent Nose – For working in confined areas.

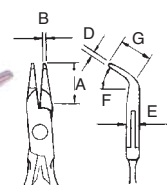
Order #	Description
---------	-------------

10309	Technik 4-1/2" Bent Nose, Smooth
-------	----------------------------------

10310	Technik 4-1/2" Bent Nose, Serrated
-------	------------------------------------



Head Dimensions:
A-1.20" B-.04" D-.05" E-.25" F-42° G-.41"



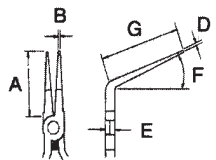
Technik 5" Extra Long Bent Nose – For working in confined, difficult to reach areas.

Order #	Description
---------	-------------

10312	Technik 5" Extra Long Bent Nose, Smooth
-------	---

Stainless Steel Pliers & Cutters

Stainless Steel Pliers



Head Dimensions:

A-1.23" B-.06" D-.05" E-.21" F-25° G-1.67"

Technik 6" Curved Needle Nose (75°)

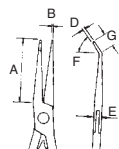
- Designed for working in out of the way, confined areas.
- Thin bent nose with tapered jaws.
- Lap joint construction.

Order #

Description

10953

Technik 6" Curved Needle Nose (75°), Serrated



Head Dimensions:

A-1.6" B-.05" D-.08" E-.25" F-50° G-.44"

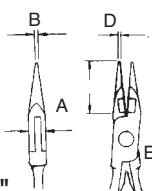
Technik 6" Extra Long Bent Nose – For confined areas and difficult to reach areas.

Order #

Description

10313

Technik 6" Extra Long Bent Nose, Smooth



Head Dimensions:

A-1.04" B-.05" D-.07" E-.24"

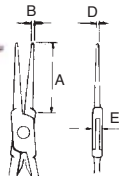
Technik 4-3/4" Long Nose with Cutter – General purpose plier with built in cutting blades.

Order #

Description

10315

Technik 4-3/4" Long Nose with Cutter, Serrated



Head Dimensions:

A-1.93" B-.04" D-.06" E-.22"

Technik 5-3/4" Needle Nose – Designed for light work where space and accessibility are limited.

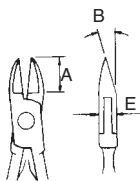
Order #

Description

10314

Technik 5-3/4" Needle Nose, Serrated

Stainless Steel Cutters



Head Dimensions:

A-.55" B-13° E-.28"

Technik 4-1/2" Standard Oval Head Cutter

Order #

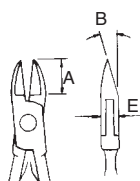
Description

10321

Technik 4-1/2" Standard Oval Head Cutter, Semi-Flush, Cutting Capacity: 22 AWG Soft Wire

10323

Technik 4-1/2" Standard Oval Head Cutter, Flush, Cutting Capacity: 24 AWG Soft Wire



Head Dimensions:

A-.62" B-15° E-.36"

Technik 5" Standard Oval Head Cutter

Order #

Description

10322

Technik 5" Standard Oval Head Cutter, Semi-Flush, Cutting Capacity: 20 AWG Soft Wire

10324

Technik 5" Standard Oval Head Cutter, Flush, Cutting Capacity: 22 AWG Soft Wire

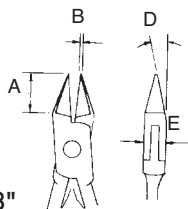


Stainless Steel Pliers & Cutters

Stainless Steel Cutters



Head Dimensions:
A-.55" B-.05" D-14° E-.28"



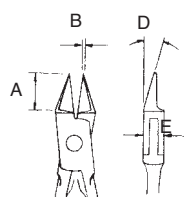
Technik 4-1/2" Standard Tapered Head Cutter

Order # Description

10325	Technik 4-1/2" Standard Tapered Head Cutter Semi-Flush, Cutting Capacity: 22 AWG Soft Wire
10326	Technik 4-1/2" Standard Tapered Head Cutter Flush, Cutting Capacity: 24 AWG Soft Wire



Head Dimensions:
A-.55" B-.05" D-13° E-.28"



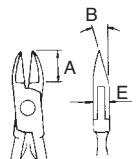
Technik 4-1/2" Standard Tapered Relieved Head Cutter

Order # Description

10329	Technik 4-1/2" Standard Tapered Relieved Head Cutter Flush, Cutting Capacity: 24 AWG Soft Wire
--------------	--



Head Dimensions:
A-.45" B-13° D-.25"



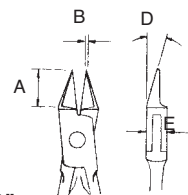
Technik 4-3/8" Mini Oval Head Cutter

Order # Description

10332	Technik 4-3/8" Mini Oval Head Cutter Flush, Cutting Capacity: 24 AWG Soft Wire
--------------	--



Head Dimensions:
A-.45" B-.04" D-17° E-.23"



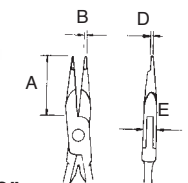
Technik 4-3/8" Mini Tapered Head Cutter

Order # Description

10331	Technik 4-3/8" Mini Tapered Head Cutter Flush, Cutting Capacity: 24 AWG Soft Wire
--------------	---



Head Dimensions:
A-.87" B-.05" D-.07" E-.23"



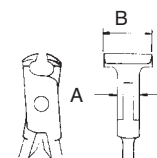
Technik 4-1/2" Tip Cutter

Order # Description

10330	Technik 4-1/2" Tip Cutter Flush, Cutting Capacity: 24 AWG Soft Wire
--------------	---



Head Dimensions:
A-.69" B-.39"



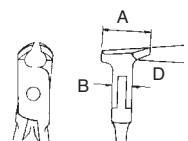
Technik 4-1/2" End Cutter

Order # Description

10327	Technik 4-1/2" End Cutter Semi-Flush, Cutting Capacity: 22 AWG Soft Wire
--------------	--



Head Dimensions:
A-.71" B-.38" D-8°



Technik 4-1/2" Oblique Cutter

Order # Description

10328	Technik 4-1/2" Oblique Cutter Semi-Flush, Cutting Capacity: 22 AWG Soft Wire
--------------	--

Niptec Cutters

- Manufactured from a special carbon alloy steel, heat treated in a controlled environment for optimum hardness. Has an anti-glare finish to improve work accuracy.
- Niptec Cutters can be distinguished from their competitors by their smooth cutting action with less force, due to the specially designed return spring.
- Our 5000 Series Cutters manufactured with 5mm thick cutting blades are recommended for applications requiring highly durable and long lasting cutters.



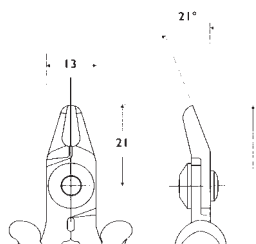
10

Precision
Tools



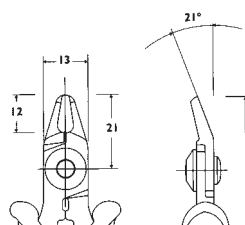
Niptec Cutters

Niptec 5000 Series



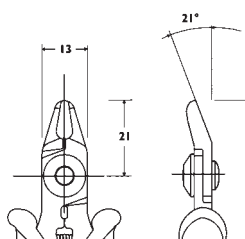
TR 5000 / TR 5000R – Long lasting cutting blades, 5mm thick. TR 5000 produces a semi flush cut and TR 5000 R a clean flush cut. Both have ESD safe handles.

Order #	Description
10501	TR 5000 Semi-Flush, Cutting Capacity: 12 AWG Steel Wire
10502	TR 5000R Flush, Cutting Capacity: 14 AWG Steel Wire



TR 5000 PG – Pointed long lasting cutting blades, allowing access into tight places. Cutting edges are rounded and well finished. 5mm thick, flush cutting blades. Has ESD safe handles.

Order #	Description
10503	TR 5000 PG Flush, Cutting Capacity: 16 AWG Steel Wire



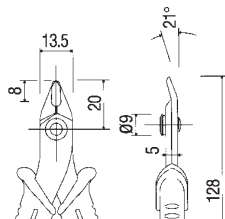
TRR 5000 – Specially designed blades to cut steel wire up to a diameter of 0.5mm / 24 AWG, 10 AWG copper wire 5mm, flush cutting blades. Has ESD safe handles.

Order #	Description
10504	TRR 5000 Flush, Cutting Capacity: 24 AWG Steel Wire

66

Precision
Tools

Niptec 1000 Series



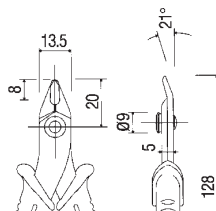
TR 25 E – Our most popular and economical cutter. Has a narrow cutting head for greater access into dense areas. Produces a clean flush cut. Tool handles have regular blue non-slip grips.

Order #	Description
10521EC	TR 25 E Flush, Cutting Capacity: 16 AWG Steel Wire

* Dimmensions in mm.

Niptec Cutters

Niptec 1000 Series



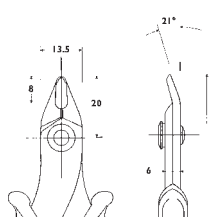
TR 25 – A very popular tool. Light weight and easy to handle with narrow cutting head for access into dense areas. Produces a clean flush cut. ESD safe handles.

Order # Description

10521

TR 25

Flush, Cutting Capacity: 18 AWG Steel Wire



TR 30 15 – Specially designed tool for cutting wires a certain length from the surface. TR 30 15 cuts 1.5mm from the surface. Produces a clean flush cut and has ESD safe handles.

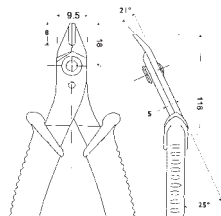
Order # Description

10523H

TR 30 15

Flush, Cutting Capacity: 16 AWG Steel Wire

Niptec 1000 Micro Series



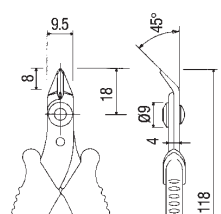
TR 20 M – Small head design allows access into tight places. Produces a clean flush cut. ESD safe handles.

Order # Description

10527B

TR 20 M

Flush, Cutting Capacity: 20 AWG Steel Wire



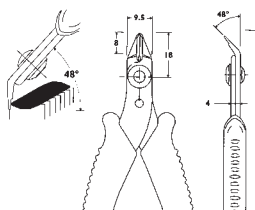
TR-20-50 M – Has the same features as our TR 20 M but the cutting angle is 48° instead of 21°. Ideal for reaching into difficult places. Has ESD safe handles.

Order # Description

10525

TR-20-50 M

Flush, Cutting Capacity: 22 AWG Steel Wire



TR 20 TM – Specially designed for cutting integrated circuit pins. The very small size of the cutting blades angled at 45° enables closely placed pins to be cut. Produces a flush cut. Has ESD safe handles.

Order # Description

10526

TR 20 TM

Flush, Cutting Capacity: 22 AWG Steel Wire

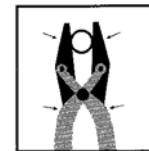


Parallel Action Pliers

- The unique compound joint design allows the jaws to open and close parallel to one another. This makes them ideal for holding and gripping components and manipulating wire. Comes with anti-rust finish with bright nickel sealed handles and smooth fully heat-treated black jaws for durability.



non-parallel



parallel

- When to Choose Parallel Action Pliers

Parallel Action Pliers are the right choice when you need to hold an object still while applying pressure on it. Non-parallel pliers let an object slip forward when pressure is applied. The configuration of Parallel Action Pliers holds the object firmly even when the job calls for firm pressure.

Flat Nose with Wire Cutter



Flat nose pliers with a wire cutter. Has serrated jaws with a v-slot. Model 10761 has a maximum jaw opening of 0.4" (10mm) and a soft wire cutting capacity of 0.1"/2.5mm. Model 10764 has a jaw opening of 0.7"/17mm and a soft wire cutting capacity of 0.24" (6.0mm).

Order #	Description
10761	5" Flat Nose with Wire Cutter Jaw Length: 1 6/16"/35mm Jaw Width: 1/4"/6.4mm
10764	8" Flat Nose with Wire Cutter Jaw Length: 1 10/16"/41mm Jaw Width: 1 1/2"/12.5mm

68

Precision
Tools

Flat Nose



The 8" Flat Nose plier has serrated jaws with a v-slot that allows you to feed wire down the throat of the plier and hold it firmly in place. The plier has a maximum jaw opening of 0.7" (17mm).

Order #	Description
10756	8" Flat Nose Jaw Length: 1 10/16"/41mm Jaw Width: 1 10/16"/41mm

Compound Action 6-1/2" Diagonal Cutter

{Will Cut piano wire}



The essential feature of these diagonal cutters is the accuracy of the cutting edges and the quality of the steel and heat treatment. The compound lever design gives good mechanical advantages allowing the pliers to cut piano wire with handle loads significantly less than conventional forged pliers of equivalent size.

Order #	Description
10754	Compound Action 6-1/2" Diagonal Cutter Jaw Type: Semi-Flush Cutting Capacity: 2mm Piano Wire

Precision Tweezers

Precision tweezers to meet applications in electronics, aircraft and aerospace, miniature assembly, precision engineering, optics, microscopy, etc.



- Large selection in a variety of materials
- Special coatings for custom applications
- Custom designs

00

Precision
Tools



Precision Tweezers

We Offer a Wide Variety of Tweezers To Meet a Broad Range Of Applications and 2 Different Quality Grades.

In order to choose the best tool for your application:

1. Determine the type of points best suited for your application.
2. Refer to the material guide below and select the correct material for your application.
3. Determine the quality level required for your application if applicable. (Table 1)
4. Remember there is a trade-off between hardness, magnetism and corrosion resistance. (Table 2)

Quality Grades (Table 1)

Brand Recommend For:

Accutek
★★★★ Made from the finest steels. Perfectly balanced for a superior feel. Light weight with soft tension with accurately finished points. Recommended for work under high power magnification aerospace and micro electronics and in applications where high precision is required. All Accutek precision tweezers are made from anti-acid, anti-magnetic stainless steel.

Technik
★★★ Finely crafted tweezers. Anti-glare finish to reduce eye strain. Hand finished points for accuracy. Recommended for micro electronics and precision assembly.

Material Selection Guide (Table 2)

Material	Tip Hardness	Magnetism	Corrosion Resistance
Carbon Steel	Excellent	Yes	Low
Stainless Steel	Very Good	Some	Good
Stainless Steel, Anti-magnetic, Anti-acid	Good	None to very little	Excellent, Resists Acids
Carbon Composite	Soft	None	Non Corrosive

Ceramic ESD Safe, non magnetic. Resists all chemicals except hydrofluoric acids. Withstands temperatures up to 900°F. Heat sink fighter. For more details on the features of our ceramic tweezers please refer to page 80.

Plastic We offer static dissipative plastic tweezers. Plastic tweezers are non magnetic, resist virtually all commercial solvents. Non absorbent and easy to clean. Tips are non marring.

Carpenter 20, Nickel, Titanium, Beryllium, Copper & Brass: Available on special order.

Special Coatings (Available on non magnetic steel only)

TE - Teflon	Superior anti-scratch, non-stick material. Acid resistant. 400°F/200°C
EP - Epoxy	Good electrical insulation and resistance to chemicals. Antiglare. 300°F/150°C
RY - Ryton	Very smooth. Excellent resistance to chemicals and temperature.
PY - Pyron	Water and solder repellent. Non conductive 950°F/500°C
GP - Gold Plating	Very high corrosion resistance. Smooth anti-scratch, anti-glare, no tarnish finish.

* To order tweezers with above mentioned coatings, please add the symbol to the order #.

* Call AVEN for price and delivery time.

Precision Tweezers

Straight: Thick, Flat, Strong Tips

Pattern OO Flat edges, heavy-duty strong blades tapering to regular strong points. Length: 4 3/4" 120mm

Order #	Description	
18032 ACU	Accutek Pattern OO Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18032 USA	Technik Pattern OO Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Pattern OOD Same as OO with serrated tips and grips. Length: 4 3/4" 120mm

Order #	Description	
18037 ACU	Accutek Pattern OOD Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18037 USA	Technik Pattern OOD Stainless Steel, Anti-Magnetic, Anti-Acid	★★★
18036	Aven Pattern OOD Carbon Steel, Nickel/Chrome Plated	★★★

Pattern OOC Same as OO except shorter. Length: 4 1/2" 115mm

Order #	Description	
18034	Aven Pattern OOC Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Pattern AC Sturdy tips for bending and handling very fine wire and components. Has finger serrations. Length: 4 3/4" 120mm

Order #	Description	
18014	Aven Pattern AC Carbon Steel, Nickel/Chrome Plated	★★★
18016	Aven Pattern AC Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Straight: Strong Precise Tips

Pattern AA For general assembly, very strong and precise tips with fine finish. Length: 5" 130mm

Order #	Description	
18013 USA	Technik Pattern AA Stainless Steel, Anti-Magnetic, Anti-Acid	★★★
18011	Aven Pattern AA Carbon Steel, Nickel/Chrome Plated	★★★

Pattern MM Economical general-purpose tweezers slightly larger than AA. Length: 5" 130mm

Order #	Description	
18023 USA	Technik Pattern MM Stainless Steel, Anti-Magnetic, Anti-Acid	★★★
18021	Aven Pattern MM Carbon Steel, Nickel/Chrome Plated	★★★

*USA - Ultra Satin Anti-glare Finish



Precision Tweezers

Straight: Fine Tips

Pattern O Fine straight point tweezers for general handling and positioning of miniature parts or fine wire. Length: 4-3/4" 120mm

Order #	Description	
18026 ACU	Accutek Pattern O Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18026	Aven Pattern O Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Pattern OC Flat edges, fine tips and short. Length: 3-1/2" 90mm

Order #	Description	
18029 ACU	Accutek Pattern OC Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18029	Aven Pattern OC Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Pattern OA Straight point tweezers with radius edges. Designed for dense areas. Length: 4-3/4" 120mm

Order #	Description	
18027	Aven Pattern OA Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Pattern SS Extra long and narrow straight point tweezers. Provides extended reach and access to confined areas. Length: 5-1/2" 140mm

Order #	Description	
18040 ACU	Accutek Pattern SS Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18040 USA	Technik Pattern SS Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Pattern 1 General use, strong blades with fine points. Length: 4-3/4" 120mm

Order #	Description	
18043 ACU	Accutek Pattern 1 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18043 USA	Technik Pattern 1 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Straight: Ultra Fine Tips

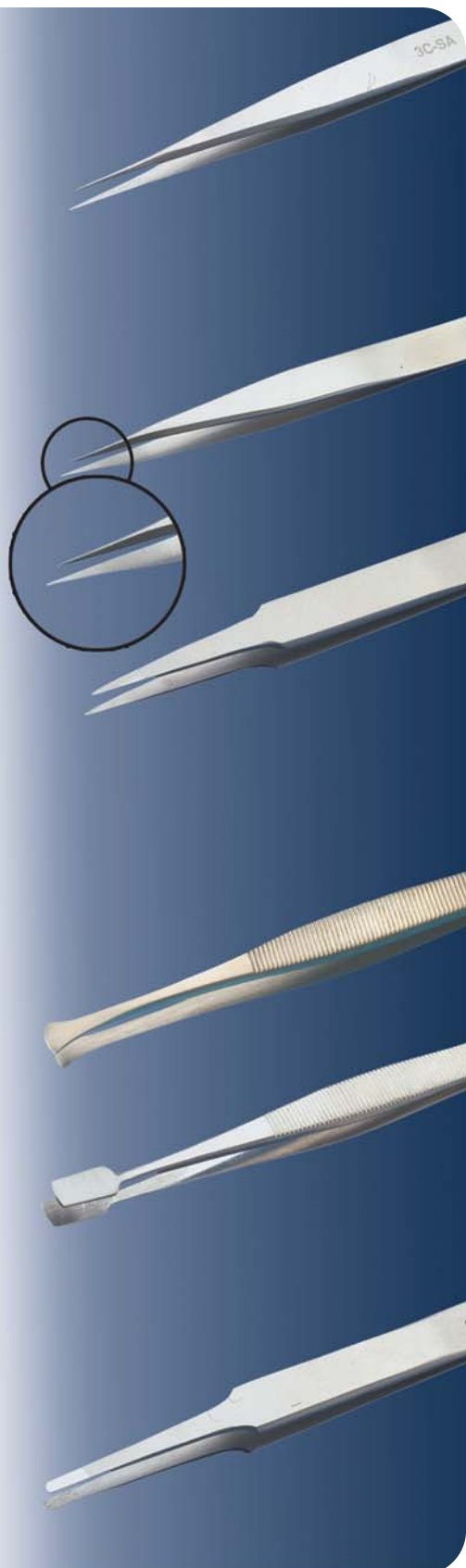
Pattern 3 Extra long and narrow straight point tweezers. Provides extended reach and access to confined areas. Length: 4-3/4" 120mm

Order #	Description	
18053 ACU	Accutek Pattern 3 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18053 USA	Technik Pattern 3 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

*USA - Ultra Satin Anti-glare Finish

Precision Tweezers

Straight: Ultra Fine Tips



Pattern 3C Same as 3 but shorter. Length: 4-1/4" 110mm

Order #	Description	
18056 ACU	Accutek Pattern 3C Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18056 USA	Technik Pattern 3C Stainless Steel, Anti-Magnetic, Anti-Acid	★★★
18054	Aven Pattern 3C Carbon Steel, Nickel/Chrome Plated	★★★

Pattern 3F Tips touch over 3mm for holding tiny wires. Length: 4-3/4" 120mm

Order #	Description	
18079 ACU	Accutek Pattern 3F Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★

Straight: Strong Sharp Tips

Pattern 2 Tapered point for bending and handling of small wires and parts. Length: 4-3/4" 120mm

Order #	Description	
18046 ACU	Accutek Pattern 2 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18046 USA	Technik Pattern 2 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Straight: Broad Tips

Pattern 35A For handling wafers and delicate parts. Length: 4-3/4" 120mm

Order #	Description	
18201	Aven Pattern 35A Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Pattern 36 Angled broad tip tweezers with large paddle style tips. Wide tips provide firm grip. Length: 4-3/4" 120mm

Order #	Description	
18202	Aven Pattern 36 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Tapered: Flat Tips

Pattern 2A Straight flat tips. Provides large flat gripping surface. Length: 4-3/4" 120mm

Order #	Description	
18049 ACU	Accutek Pattern 2A Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18049 USA	Technik Pattern 2A Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

*USA - Ultra Satin Anti-glare Finish



Precision Tweezers

Tapered: Ultra Fine Tips

Pattern 4 For extra fine work, blades taper sharply from body to very fine long rounded points. Length: 4-1/4" 110mm

Order #	Description	
18059 ACU	Accutek Pattern 4 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18059 USA	Technik Pattern 4 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★
18057	Aven Pattern 4 Carbon Steel, Nickel/Chrome Plated	★★★

Pattern 5 For extra fine work, long blades break sharply from body and taper to super fine points. Length: 4-1/4" 110mm

Order #	Description	
18062 ACU	Accutek Pattern 5 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18062 USA	Technik Pattern 5 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Angled: Fine Tips

Pattern 5A Oblique fine points for greater visibility. Length: 4-1/2" 115mm

Order #	Description	
18065 ACU	Accutek Pattern 5A Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18065 USA	Technik Pattern 5A Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Pattern 6 Same as 3 but shorter. Length: 4-3/4" 120mm

Order #	Description	
18069 ACU	Accutek Pattern 6 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18069 USA	Technik Pattern 6 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★
18067	Aven Pattern 6 Carbon Steel, Nickel/Chrome Plated	★★★

Angled: Ultra Fine Tips

Pattern 3CB Same as 3C except tips are bent. Length: 4-1/4" 110mm

Order #	Description	
18078 ACU	Accutek Pattern 3CB Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★

Pattern 65A Long fine curved tips. Length: 5-1/2" 140mm

Order #	Description	
18076 ACU	Accutek Pattern 65A Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★

*USA - Ultra Satin Anti-glare Finish

74

Precision
Tools

Precision Tweezers

Angled: Ultra Fine Tips

Pattern 5B Super micro, high precision bent tips provide maximum visibility.
Length: 4-1/4" 110mm

Order #	Description	
18066 ACU	Accutek Pattern 5B Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18066 USA	Technik Pattern 5B Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Pattern 66 Long double bent tips. Length: 5-1/2" 140mm

Order #	Description	
18077 ACU	Accutek Pattern 66 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★

Curved: Fine Tips

Pattern 7 For assembly work, hand can rest on bench, curved super fine points.
Length: 4-1/2" 115mm

Order #	Description	
18072 ACU	Accutek Pattern 7 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18072 USA	Technik Pattern 7 Stainless Steel, Anti-Magnetic, Anti-Acid	★★★
18070	Aven Pattern 7 Carbon Steel, Nickel/Chrome Plated	★★★

Pattern 7B Curved precision point tweezers. Similar to 7 but tips are serrated.
Length: 4-1/2" 115mm

Order #	Description	
18074 USA	Technik Pattern 7B Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Curved: Flat Tips

Pattern 2AB Curved round tip tweezers. Handles delicate or small parts. Tip angle facilitates wafer tray loading. Length: 4-3/4" 120mm

Order #	Description	
18050 USA	Technik Pattern 2AB Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

Cutting Tweezers

Pattern 15AGW & 15AP For cutting hairsprings and electronic component wires. Blades induction hardened to C58 (C Scale). 15AP same as 15A with parallel cut. Length: 4-1/2" 115mm

Order #	Description	
18114 ACU	Accutek Pattern 15AGW Carbon Steel, Nickel/Chrome Plated	★★★★
18115 ACU	Accutek Pattern 15AP Carbon Steel, Nickel/Chrome Plated	★★★★

*USA - Ultra Satin Anti-glare Finish



Precision Tweezers

Comfort Grip Tweezers

Aven comfort grip tweezers are designed to provide you the ultimate in comfort and control, to help you increase productivity and combat fatigue. The foam grips are ESD Safe and the tweezers feature high precision points for exact control. Tweezers are manufactured from Anti-Magnetic, Anti-Acid Stainless Steel.



Pattern OO-SA Flat edges, heavy duty strong blades, tapering to regular strong points. Length: 4-3/4"

Order #	Description
---------	-------------

18032-ER	Aven Pattern OO-SA
----------	--------------------



Pattern 2A-SA Straight, flat tips. Provides large flat gripping surface. Length: 4-3/4"

Order #	Description
---------	-------------

18049-ER	Aven Pattern 2A-SA
----------	--------------------



Pattern 3C-SA Very Sharp, ultra fine tips. Length: 4-1/4"

Order #	Description
---------	-------------

18056-ER	Aven Pattern 3C-SA
----------	--------------------



Pattern 5-SA For extra fine work, blades taper sharply from the body to super fine points. Length: 4-1/2"

Order #	Description
---------	-------------

18062-ER	Aven Pattern 5-SA
----------	-------------------



Pattern 7-SA Curved, super fine tips. Length: 4-1/2"

Order #	Description
---------	-------------

18072-ER	Aven Pattern 7-SA
----------	-------------------

Precision Tweezers

Titanium Tweezers

These titanium tweezers have been found to be excellent for use in the silicon chip industry because titanium tweezers do not shed particles like the stainless steel tweezers. Anytime an abrasive substance is handled and microscopic particles are a detriment, it may be best to choose titanium. Since titanium is non-magnetic, these tweezers are extremely useful when handling magnetic materials or when working in a magnetic field. Titanium is a light weight, high strength material.

Features:

- Lightweight (high strength to weight ratio)
- Zero Magnetic Retainivity
- Temperature Resistant to 800° F
- Chemical and Corrosion Resistant
- Non Solder Adhesive
- Bio compatible (maintain cell integrity, no inflammatory response)
- Typical application: handling of sensitive components in cleaning/chemical processes at high temperatures, histology, biology, forensics, electron microscopy etc.



Titanium AA	Order #	Description
	18013TT	Titanium AA Length: 5" (130mm)
Titanium #2	Order #	Description
	18046TT	Titanium #2 Length: 4-3/4" (120mm)
Titanium #2A	Order #	Description
	18049TT	Titanium #2A Length: 4-3/4" (120mm)
Titanium OO	Order #	Description
	18032TT	Titanium OO Length: 4-3/4" (120mm)
Titanium #3	Order #	Description
	18053TT	Titanium #3 Length: 4-3/4" (120mm)
Titanium #3C	Order #	Description
	18056TT	Titanium #3C Length: 4-1/4" (110mm)
Titanium #6	Order #	Description
	18069TT	Titanium #6 Length: 4-3/4" (120mm)
Titanium #5	Order #	Description
	18062TT	Titanium #5 Length: 4-1/4" (110mm)
Titanium #7	Order #	Description
	18072TT	Titanium #7 Length: 4-1/2" (115mm)



Precision Tweezers

E-Z Pik Tweezers

E-Z Pik tweezers features a highly durable special coating for high visibility and easy identification. Helps operators quickly identify the tweezers they need for their particular operation and engineers can easily specify tweezers to be used for a particular process by identifying the color only rather than type and style of tweezers. E-Z Pik tweezers will help improve productivity and process control. Available in six popular styles: AA (Yellow); OO (Red); #2A (Black); #3c (Light Blue); #5 (Green); #7 (Orange). Tweezers are manufactured from Anti-Acid, Anti-Magnetic Stainless Steel.



Style AA

Order #	Description
---------	-------------

18013EZ	Style AA (Yellow) Length: 5" (130mm)
----------------	---



Style OO

Order #	Description
---------	-------------

18032EZ	Style OO (Red) Length: 4-3/4" (120mm)
----------------	--



Style 2A

Order #	Description
---------	-------------

18049EZ	Style 2A (Black) Length: 4-3/4" (120mm)
----------------	--



Style 3C

Order #	Description
---------	-------------

18056EZ	Style 3C (Light Blue) Length: 4-1/4" (110mm)
----------------	---



Style 5

Order #	Description
---------	-------------

18062EZ	Style 5 (Green) Length: 4-1/4" (110mm)
----------------	---



Style 7

Order #	Description
---------	-------------

18072EZ	Style 7 (Orange) Length: 4-1/2" (115mm)
----------------	--



6 E-Z Pik Tweezers w/Protective Pouch

Order #	Description
---------	-------------

18480EZ	6 E-Z Pik Tweezers w/Protective Pouch
----------------	--

Carbofib Tweezers

Anti-Magnetic, Anti-Acid Stainless Steel Grips, with "Carbofib Tips." Fully ESD Safe (10^2 ohm) but at the same time, soft and non scratching. These conductive synthetic fiber tips are ideally suited to handle delicate and fragile components when extreme care and ESD safety are an absolute necessity. Every tweezers is manually finished and tested for maximum precision. Chemical resistant and heat resistant upto 256°C .

Straight: Strong Precise Tips

Accu-Tek 2CF Tapered precision point for bending and handling small wires.

Order # Description

18767

Accu-Tek 2CF
Length: 5"/130mm

Accu-Tek 2ACF Straight round tip. Provides larger flat gripping surface.

Order # Description

18768

Accu-Tek 2ACF
Length: 5"/130mm

Straight: Ultra Fine Tips

Accu-Tek 5CF Tapered, ultra-fine tweezers for subminiature work in densely packed areas.

Order # Description

18762

Accu-Tek 5CF
Length: 5"/130mm

Straight: Fine Tips

Accu-Tek 3CF Excellent for subminiature assembly work. Sharp fine tips.

Order # Description

18760

Accu-Tek 3CF
Length: 5"/130mm

Accu-Tek 302 Soft and strong carbofib tips. Resistant to $520^{\circ}\text{F}/270^{\circ}\text{C}$.
Tip width 2mm.

Order # Description

18702

Accu-Tek 302
Length: 5"/130mm

Accu-Tek 304 Same as 302 but has finer tips. Tip width 0.6mm.

Order # Description

18704

Accu-Tek 304
Length: 5"/130mm



Ceramic Tweezers

Zirconica Ceramic Tweezers meet the requirements for a high grade tweezer for use in:

- **Clean rooms**
- **Analytical Chemistry**
- **Chemical Laboratories**
- **Bio Technology**
- **Semiconductor manufacturing**
- **Circuit Board, Disk Drive and Magnetic Head Manufacturing**

Features:

- **Extremely smooth surface and very low coefficient of friction.**
- **Low thermal conductivity and high thermal shock resistance.**
- **Excellent electric loss at very high frequency range (VHF, UHF, and SHF).**
- **Will not cause electromagnetic induction or eddy current loss in high frequency.**
- **100% non magnetic, non rusting and non static.**
- **Highly resistant to all strong acids except hydrofluoric.**
- **Free from all metallic contamination.**
- **Solder will not adhere to surface.**
- **Six times harder than stainless steel.**
- **Two times harder than carbon steel.**
- **Will hold tip geometry better than metal.**
- **Can be subject to microwaves for sterilization.**
- **Thermal insulators well suited for soldering.**
- **Resistant to 1500°C**

AVEN Full Ceramic Tweezers

For working with acids (except HF). For SMD solder pot, high temperature exposure. Clean room approved. Can be sterilized, solder repellent.

Order # Description

18801	Aven Full Ceramic Tweezers Straight 1mm serrated tips Length: 5"/130mm
18802	Aven Full Ceramic Tweezers Straight 1mm smooth tips Length: 5"/130mm
18803	Aven Full Ceramic Tweezers Straight very fine smooth tips Length: 5"/130mm
18804	Aven Full Ceramic Tweezers Curved shape, fine tips Length: 5"/130mm

Accu-Tek Ceramic Tweezers

Lightweight, Zirconia replaceable ceramic tips attached to aluminum body.
*Replacement tips available.

Order # Description

18810	Accu-Tek Pattern 71 Flat fine tips Length: 5-1/4" Tip Length: 1-1/4"
18811	Accu-Tek Pattern 72 Fine tips Length: 5-1/4" Tip Length: 1-1/4"
18812	Accu-Tek Pattern 73 Extra fine tips Length: 5-1/4" Tip Length: 1-1/4"
18813	Accu-Tek Pattern 74 Fine broad tips Length: 5-3/8" Tip Length: 1-5/8"

AVEN Ceramic Tweezers

w/EDS Safe Plastic Body

Lightweight and economical ceramic tipped tweezer. Length: 4-3/4 : Fine Points

Order # Description

18820	Aven EDS Safe Ceramic Tipped Tweezers
--------------	--



80

Precision
Tools

Plastic Tweezers

Features & Specifications:

- **Tips do not spread under pressure**
- **No contamination**
- **Static Dissipative (106 - 109 OHM/SQ)**

- **Overall length 4-1/2" 115mm**
- **Non magnetic**

Recommended Uses:

Ideal for handling semi-conductors, silicone chips and delicate wafers. Static dissipative tweezers are ideal for use with sensitive components where ESD damage is a concern.

Aven Plastic Tweezers



Aven 2A Straight, flat, rounded tips

Order #	Description
18511	Aven 2A Type: P2A



Pattern 2AB Curved, rounded tips

Order #	Description
18514	Aven 2AB Type: P2AB



Pattern 3C Very fine, straight tips

Order #	Description
18517	Aven 3C Type: P3C



Pattern 6A Very fine, angulated tips

Order #	Description
18520	Aven 6A Type: P6A



Pattern 7 Very fine, curved tips

Order #	Description
18523	Aven 7 Type: P7



Pattern 35 Straight, flat tips

Order #	Description
18526	Aven 35 Type: P35



Pattern 35A Straight, broad, flat tips

Order #	Description
18529	Aven 35A Type: P35A

81

Precision
Tools



General Purpose Tweezers

Recommended Uses: For bending, separating and removing small items.

Aven College Forceps with Lock Curved, serrated tips

Order #	Description
18400	Aven College Forceps with Lock Length: 6"/150mm Tip Length: 1-5/8"

Aven College Forceps with Alignment Pin Straight, serrated tips

Order #	Description
18401	Aven College Forceps with Alignment Pin Length: 6"/150mm
18437	Aven College Forceps with Alignment Pin Length: 4"/100mm

Aven College Forceps with Alignment Pin Curved, serrated tips

Order #	Description
18402	Aven College Forceps with Alignment Pin Length: 6"/150mm
18438	Aven College Forceps with Alignment Pin Length: 4"/100mm

Aven College Forceps with Alignment Pin Offset, curved, serrated tips

Order #	Description
18403	Aven College Forceps with Alignment Pin Length: 6"/150mm

Aven Forceps with Plastic Coated Tips

Order #	Description
18430	Aven Forceps with Plastic Coated Tips Length: 8"/205mm
18431	Aven Forceps with Plastic Coated Tips Length: 12"/300mm

Aven Forceps with Straight Serrated Tips

Order #	Description
18432	Aven Forceps with Straight Serrated Tips Length: 12"/300mm
18433	Aven Forceps with Straight Serrated Tips Length: 10"/255mm
18434	Aven Forceps with Straight Serrated Tips Length: 8"/205mm
18435	Aven Forceps with Straight Serrated Tips Length: 6"/150mm
18436	Aven Forceps with Straight Serrated Tips Length: 5"/130mm

Aven Fiber Grip Tweezers Straight, smooth tips

Order #	Description
18415	Aven Fiber Grip Tweezers Length: 6-1/2"/165mm

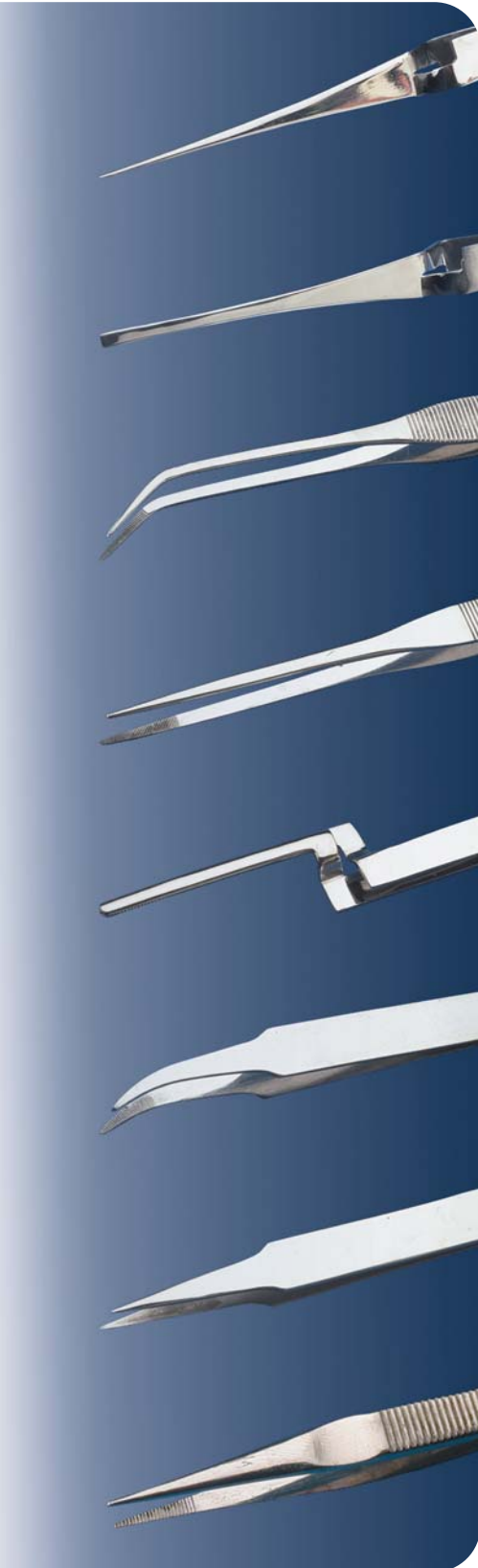
Aven Fiber Grip Tweezers Curved, smooth tips

Order #	Description
18417	Aven Fiber Grip Tweezers Length: 6-1/2"/165mm

82

Precision
Tools

General Purpose Tweezers



Aven Self Locking Tweezers Straight, narrow tips

Order #	Description
18419	Aven Self Locking Tweezers Length: 6-1/2"/165mm
18423	Aven Self Locking Tweezers Length: 4-1/2"/115mm

Aven Self Locking Tweezers Straight, serrated wide tips

Order #	Description
18421	Aven Self Locking Tweezers Length: 6-1/2"/165mm

Aven Utility Tweezers Curved tips and finger serrations

Order #	Description
18425	Aven Utility Tweezers Length: 7"/180mm

Aven Utility Tweezers Straight, serrated tips, and finger serrations

Order #	Description
18426	Aven Utility Tweezers Length: 7"/180mm

Aven Stand Up Cross Locking Tweezers Known as Paper Forceps in the dental trade. Also useful for soldering and holding small parts.

Order #	Description
18428	Aven Stand Up Cross Locking Tweezers Length: 6"/150mm

Aven General Purpose Tweezers Curved, serrated tips

Order #	Description
18481	Aven General Purpose Tweezers Length: 4-1/2"/110mm

Aven General Purpose Tweezers Tapered, serrated tips

Order #	Description
18482	Aven General Purpose Tweezers Length: 4-1/4"/110mm

Aven General Purpose Tweezers Medium sharp tweezers, serrated tips

Order #	Description
18483	Aven General Purpose Tweezers Length: 3"/80mm



General Purpose Tweezers

Aven General Purpose Tweezers Slant end

Order # Description

18484

Aven General Purpose Tweezers
Length: 3-1/2"/90mm

Aven General Purpose Tweezers Square end, smooth tips

Order # Description

18485

Aven General Purpose Tweezers
Length: 3-1/2" 90mm

Aven General Purpose Tweezers Blunt, smooth tips

Order # Description

18486

Aven General Purpose Tweezers
Length: 3"/80mm

Aven General Purpose Tweezers Spade tips, smooth

Order # Description

18487

Aven General Purpose Tweezers
Length: 4-1/2"/110mm

Aven General Purpose Tweezers Offset spade tips, smooth

Order # Description

18488

Aven General Purpose Tweezers
Length: 4-1/8"/108mm

Aven General Purpose Tweezers Square end, smooth tips

Order # Description

18489

Aven General Purpose Tweezers
Length: 4-1/8"/108mm

Aven General Purpose Tweezers Blunt, serrated tips

Order # Description

18490

Aven General Purpose Tweezers
Length: 5-11/16"/145mm

Aven General Purpose Tweezers Offset blunt, serrated tips

Order # Description

18491

Aven General Purpose Tweezers
Length: 4-1/2"/115mm

Aven General Purpose Tweezers Bent, blunt serrated tips

Order # Description

18492

Aven General Purpose Tweezers
Length: 10" 255mm

Aven Toothed Tissue Forceps

Order # Description

18494

Aven General Purpose Tweezers
Length: 5-1/2"/140mm

84

Precision
Tools

Tweezer Sets

5-Piece Precision Tweezers Set



Supplied in an elegant padded wooden case. Contains the most popular tweezers: OO-SA, OOD-SA, 3C-SA, 5-SA and 7-SA

Order #	Description	
18476 ACU	Accutek Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18476 USA	Technik Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

6-Piece Precision Tweezers Set



6 of our most popular tweezers supplied in a plastic pouch. Contains AA-SA, OO-SA, OOD-SA, 3C-SA, 5-SA and 7-SA

Order #	Description	
18475 ACU	Accutek Stainless Steel, Anti-Magnetic, Anti-Acid	★★★★
18475 USA	Technik Stainless Steel, Anti-Magnetic, Anti-Acid	★★★

5-Piece Carbofib Tweezers Set



Five of our most popular carbofib tweezers in an elegant padded wooden case. Contains: 2-CF, OO-CF, 2A-CF, 3C-CF and 5CF

Order #	Description
18478	ESD-Safe Tweezers Set

Aven 6-Pc. Tweezers Set

Contains one each of the following in a plastic pouch: 7" Curved Solder Utility Tweezers, 6" Blunt Tip Tweezers Serrated Points, 4-1/2" Solder Utility Tweezers Sharp Points, 7" Wide Point Tweezers with Lock, 7" Wide Point Cross Locking Tweezers, 7" Solder Utility Tweezers Straight

Order #	Description
18472	Aven 6-Pc. Tweezers Set

Aven 5-Pc. Tweezers Set

Contains one each of the following in a plastic pouch: 4-1/4" Curved Tweezers Serrated Tips, 4-1/4" Spade Tip Tweezers Smooth, 4-1/4" Wide Point Tweezers Serrated Tips, 4-1/4" Indented Shank Tweezers Smooth Tips, 4-1/2" Solder Utility Tweezers Sharp Points

Order #	Description
18473	Aven 5-Pc. Tweezers Set





Screwdrivers

Features:

- Ergonomically designed handle made from a molded thermoplastic rubber which prevents hands from slipping and allows for maximum torque application.
- Chrome-Vanadium steel blade with tip hardened to 56-60 HRC.

Slotted Screwdrivers



Slotted

Order #	Blade Length	Tip Size
13801	3" / 75mm	1/8" / 3mm
13802	6" / 150mm	1/8" / 3mm
13803	3" / 75mm	3/16" / 5mm
13804	6" / 150mm	3/16" / 5mm
13805	8" / 200mm	3/16" / 5mm
13806	4" / 100mm	1/4" / 6mm
13807	6" / 150mm	1/4" / 6mm
13808	6" / 150mm	5/16" / 8mm

Phillips Screwdrivers



Phillips

Order #	Blade Length	Tip Size
13811	3" / 75mm	#0
13812	6" / 150mm	#0
13813	3" / 75mm	#1
13814	6" / 150mm	#1
13815	6" / 150mm	#2
13816	10" / 250mm	#2

Stubby Style Screwdrivers



Stubby Style

Order #	Blade Length	Tip Size
13809 (Slotted)	1-1/4" / 31mm	1/4" / 6mm
13817 (Phillips)	1-1/4" / 31mm	#2

Torx-Tip Screwdrivers



Tamper-Proof Torx

Order #	Blade Length	Tip Size
13821	2" / 50mm	T5
13822	2" / 50mm	T6
13823	2" / 50mm	T7
13824	3-1/4" / 80mm	T8
13825	3-1/4" / 80mm	T9
13826	3-1/4" / 80mm	T10
13827	3-1/4" / 80mm	T15

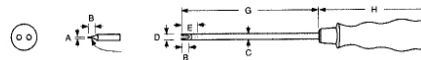
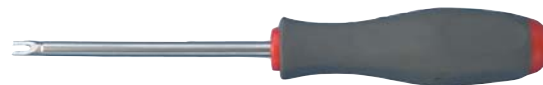
Nut Drivers



Nut Drivers

Order #	Blade Length	Tip Size
13841	4" / 100mm	3/16"
13842	4" / 100mm	7/32"
13843	4" / 100mm	1/4"
13844	4" / 100mm	9/32"
13845	4" / 100mm	5/16"
13846	4" / 100mm	11/32"
13847	4" / 100mm	7/16"
13848	4" / 100mm	1/2"

Security Screwdrivers



Security

Order #	Type	A	B	C	D	E	F	G	H
13831	M1.7	0.5	0.8	4	2.0	10	Ø10	80	50
13832	M2.0	1.0	1.0	4.5	2.0	10	Ø10	80	50
13833	M2.3	0.9	1.1	5	2.5	10	Ø10	80	50
13834	M2.6	1.2	1.2	5.5	2.8	10	Ø10	80	50

Screwdrivers

Pocket Screwdriver



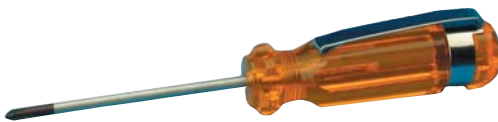
Pocket Clip Style - Slotted

Order # Description

13850

Pocket Screwdriver - Slotted
Blade Length: 1/32" x 2"

Pocket Screwdriver



Pocket Clip Style - Phillips

Order # Description

13851

Pocket Screwdriver - Phillips
Blade Length: #0 x 2"

Precision Screwdrivers

Precision Screwdrivers



Specifically designed for electronics.

Features:

- Black Tip.
- Nylon engineered plastic.
- AISI 8660 Chrome-molybdenum vanadium steel with satin finish.
- Duplex component handle designed for rapid rotation greater comfort and control.
- Fast turning swivel caps.
- Imprinted sizes on the handle for easy selection.

Slotted Unit: m/m		
Order #	Shaft Diameter	Working Length
13900	1.0	50mm
13901	1.6	50mm
13902	2.0	50mm
13903	2.4	50mm
13904	3.0	50mm
13905	2.4	75mm
13906	3.0	100mm
13907	4.0	150mm

Phillips Unit: m/m		
Order #	Tip Size	Working Length
13910	No. 000	50mm
13911	No. 00	50mm
13912	No. 0	50mm
13913	No. 1	50mm
13914	No. 0	75mm
13915	No. 1	100mm
13916	No. 1	150mm

Torx and Temper-Proof Unit: m/m		
Order #	Tip Size	Working Length
13920	T5 (only in star)	50mm
13921	T6 (only in star)	50mm
13922	T7	50mm
13923	T8	50mm
13924	T9	50mm
13925	T10	50mm
13926	T15	50mm
13927	T20	50mm

Nutdriver Unit: m/m		
Order #	Socket Size	Working Length
13930	M3.0	50mm
13931	M3.5	50mm
13932	M4.0	50mm
13933	M4.5	50mm
13934	M5.0	50mm
13935	M5.5	50mm
13936	M6.0	50mm



Precision Screwdriver Sets

7-Piece Precision Screwdriver Set



Contents:

Slotted: 1.6 x 50mm, 2.0 x 50mm, 2.4 x 50mm, 3.0 x 50mm

Phillips: No.00 x 50, No.0 x 50, No.1 x 50

Carrying case

Order #	Description
---------	-------------

13940	7-pc. Precision Screwdriver Set
-------	---------------------------------

14 in 1 Reversible Precision Screwdriver Set



Contents:

Slotted: 1.5mm, 2.0mm, 3.0mm, 4.0mm **Phillips:** No.0, No.00, No.000, No.1

Star: T5, T6, T7, T8, T9, T10

Handle

Order #	Description
---------	-------------

13941	14in1 Reversible Precision Screwdriver Set
-------	--

88

Precision
Tools

12 in 1 Precision Screwdriver Set



Precision Screwdriver with 6 Reversible Blades

Contents:

Slotted: 1.5mm, 2.0mm, 2.5mm, 3.2mm **Phillips:** No.000, No.00, No. 0, No.1

Star: T7, T9, T8, T10

Handle

Order #	Description
---------	-------------

13710	12 in 1 Precision Screwdriver
-------	-------------------------------

20 Piece Precision Screwdriver Set



This useful set contains 19 assorted Slotted/Philip/Star/Hex/Ball point/Blades. Special quick release design makes blade changes quick and easy.

Contents:

Slotted: 2.0mm, 2.5mm, 3.0mm, 4.0mm

Phillips: No.00, No.0 PZ#00 & #0

Star: T6, T7, T8, T9, T10

Hex: 1.5, 2.0, 2.5 mm

Nutdriver: 1.5, 2.0, 2.5 mm

Handle: 75mm (3")

Order #	Description
---------	-------------

13714	20pc. Precision Screwdriver Set
-------	---------------------------------

Precision Screwdriver Sets

8-Piece Precision Screwdriver Set



Contents:

Slotted: 2.0 x 75mm, 2.5 x 75mm, 3.0 x 75mm, 4.0 x 75mm

Phillips: No. 00x75mm, No. 0x75mm, No. 1x75mm, No. 1.5x75mm

Order #	Description
---------	-------------

13715	8-Piece Precision Screwdriver Set
-------	-----------------------------------

6-Piece Precision Nut Driver Set



Precision Screwdriver with 6 Reversible Blades

Contents:

Metric: 3.2 x 75, 4 x 75/mm, 5 x 75, 5.5 x 75/mm

Inch: 1.8" x 75/mm, 3/16" x 75/mm

Order #	Description
---------	-------------

13716	6-Piece Precision Nut Driver Set
-------	----------------------------------

6-Piece Combo Set



Contents:

Slotted: 40mm in sizes 1.8 and 2.5

Phillips: 40mm in sizes No. 00 and No. 0

4" Diagonal Cutter

5" Sharp Pointed Tweezers

Order #	Description
---------	-------------

13717	6-Piece Combo Set
-------	-------------------

7-Piece Combo Set



Contents:

Slotted: 40mm in sizes 1.8 and 2.5

Phillips: 40mm in sizes 00 and 0

4" Diagonal Cutter

4" Long Nose Pliers

5" Sharp Pointed Tweezers

Order #	Description
---------	-------------

13718	7-Piece Combo Set
-------	-------------------

11-Piece Combo Set



Contents:

Slotted: 40mm in sizes 1.2, 1.5, 1.8, 2.0, and 2.5

Phillips: 40mm in sizes 000, 00 and 0

4" Diagonal Cutter, 4" Long Nose Pliers, 5" Sharp Pointed Tweezers

Order #	Description
---------	-------------

13719	11-Piece Combo Set
-------	--------------------



Precision Screwdrivers

15-Piece Combo Set



Contents:

Slotted: 40mm in sizes 1.0, 1.2, 1.5, 2.0 and 2.5

Phillips: 40mm in sizes 000 and 00

Hex: 40mm in sizes 0.9, 1.3 and 1.5

4" Diagonal Cutter, 4" Long Nose Pliers, 5" Sharp Pointed Tweezers,

4-1/2" Scissors, Precision Knife Handle with 6 blades

Order #

Description

13720

15-Piece Combo Set

26-Piece Bit and Socket Set



Contents: 19 Bits, 4mm Hex x 28mm

Slotted: 2.0, 2.5, 3.0, and 4.0 **Phillips:** 00 and 0

PZ: 00 and 0

Torx: 6, 7, 8, 9, and 10

Hex: 1.5, 2.0 and 2.5

Ball Point: 1.5, 2.0 and 2.5

Adapters: 4mm Hex, 1/4" SQ, 25mm

Sockets: 1/4" Drive: 3.2, 4.0, 5.0, 5.5 and 7.0

Neo Microtip Screwdriver Handle

Order #

Description

13723

26-Piece Bit and Socket Set

90

Precision
Tools

11-Piece MicroTip Screwdriver Set w/ Interchangeable Blades



Contents:

Slotted: 40mm in sizes 0.8, 1.0, 1.2, 1.5, 1.8, 2.0 and 2.5

Phillips: 40mm in sizes 00, 0 and 1

Screwdriver Handle

Order #

Description

13721

11-Piece Microtip Screwdriver Set

6-Piece Precision Reversible Screwdriver Set



Contents:

Slotted Reversible: 120mm in sizes 0.25 x 1.5 and 0.5 x 3.0,

0.4 x 2.0 and 0.6 x 3.5, 0.4 x 2.5 and 0.8 x 4.0

Phillips Reversible: 120mm in sizes No. 000 and No. 00, No. 0 and No. 1

Neo Microtip Screwdriver Handle, Roll Up Pouch

Order #

Description

13722

6pc. Precision Reversible Screwdriver Set

Alignment Tools

25-Piece Master Alignment Tool Kit



This comprehensive selection of the most commonly used alignment tools and adjusters is invaluable to anyone's tool kit. The 25-piece set includes all the trimmer/potentiometer and RF coil adjusting tools available.

Order #	Description
13500	25-Piece Master Alignment Tool Kit

9-Piece Anti-Static Alignment Tool Kit



This Pocket Kit contains nine alignment tools constructed from a special nylon type material that cannot retain a static charge. Wide range of tip styles and sizing assures the user will have a tool for adjusting most conventional components.

- Pocket Size
- ESD Safe

Order #	Description
13016	9-Piece Anti-Static Alignment Tool Kit

Ceramic Alignment Screwdrivers/Adjusters

Special ceramic blades for zero electromagnetic induction. Outlasts metal and plastic tools.



Slotted Blade ,Ceramic Adjusters

Order #	Description
13224	Slotted Blade, Ceramic Adjusters Tip Size:0.9mm Blade Length:15mm
13221	Slotted Blade, Ceramic Adjusters Tip Size:1.3mm Blade Length:15mm
13225	Slotted Blade, Ceramic Adjusters Tip Size:1.8mm Blade Length:15mm
13222	Slotted Blade, Ceramic Adjusters Tip Size:2.6mm Blade Length:15mm



Phillips, Ceramic Adjusters

Order #	Description
13218	Phillips, Ceramic Adjusters Tip Size:PH00 Blade Length:15mm
13219	Phillips, Ceramic Adjusters Tip Size:PH0 Blade Length:15mm
13220	Phillips, Ceramic Adjusters Tip Size:PH1.7 Blade Length:15mm



4 in 1 , Ceramic Adjusters

A handy tool consisting of two double end ceramic bits.
Phillips: 0 and 1.8mm **Slotted:** 1.7mm and 0.9mm
Supplied with two protective plastic caps.

Order #	Description
13230	4 in 1, Ceramic Adjusters



6-Piece Ceramic Adjuster Set

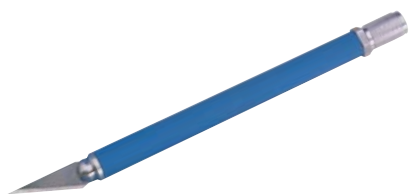
A handy set consisting of the most popular ceramic adjusters. Blade length is 15mm and the following sizes are included:
Phillips: PH0 and PH1.7 **Slotted:** 0.9mm, 1.3mm, 1.8, and 2.6mm

Order #	Description
13231	6-pc Ceramic Adjuster Set



Knives & Blades

Technik Knives



Technik K-18 Grip-On Non-Roll Soft Handle Knife

5" Comfortable soft grip handle with 4 jaw machined aluminum chuck for secure blade positioning. Includes a super sharp #11 blade, convenient rear blade release and a clear plastic safety cap. Used for cutting or trimming plastic, wood, paper, cloth and film. See page 94 for replacement blades.

Order #	Description
---------	-------------

44011	K-18 Precision Knife
-------	----------------------



Technik K-40 Pocket-Clip Light Duty Utility Knife

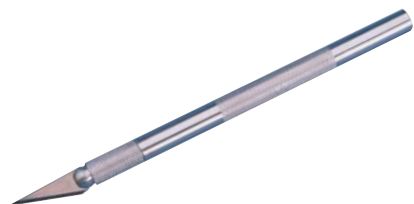
This unique multi-purpose precision knife is outstanding for cutting and trimming of paper, plastic, cloth, film and rubber and includes the following features:

- Unique twist lock pocket-clip safety cap.
- Machined aluminum 4 jaw chuck for tight secure blade housing.
- Comfortable ridged tapered plastic handle.
- Super sharp #11 blade.

See page 94 for replacement blades.

Order #	Description
---------	-------------

44018	K-40 Knife with Pocket Clip Cap
-------	---------------------------------

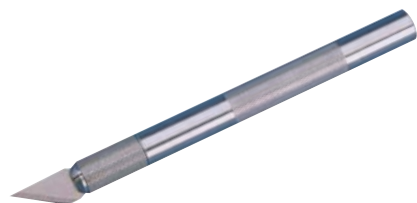


Technik Precision K-1 Light Duty Knife

4-3/4" aluminum handles with 4-slot point chuck for easy blade release. Includes a super sharp #11 blade and a high impact safety cap. Used for precision cutting, forming and stripping of paper, plastic, wood, cloth and film. See page 94 for replacement blades.

Order #	Description
---------	-------------

44012	K-1 Precision Knife
-------	---------------------

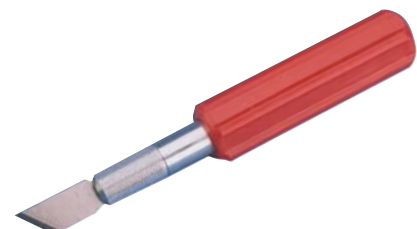


Technik K-2 Medium Duty Knife

4-3/4" aluminum handle with 4-slot point chuck for easy blade release. Includes a super sharp #22 blade and a high impact safety cap. Used for precision cutting, trimming and stripping paper, plastic, wood, cloth and film. See page 94 for replacement blades.

Order #	Description
---------	-------------

44013	K-2 Medium Duty Knife
-------	-----------------------



Technik K-5 Heavy Duty Knife

7/16" aluminum adapter, 4 jaw machined aluminum chuck for secure blade positioning and a snug fitting plastic safety cap. Included is a sharp edge angled blade. Used for precision cutting, trimming, stripping paper, plastic and wood. See page 94 for replacement blades.

Order #	Description
---------	-------------

44014	K-5 Heavy Duty Knife
-------	----------------------

Knives & Blades

Technik Knives



Technik K-8 Flat Handle Light Duty Knife

You can adjust the length of the blade by releasing the nut. Both ends of the blade can be used for cutting boxes, wood, leather and foam.

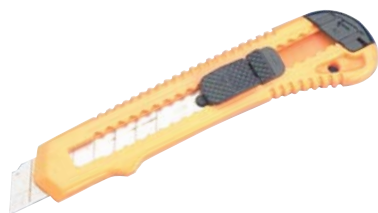
Order #	Description
44015	K-8 Light Duty Knife
44257	K-8 Replacement Blade (5/pk)



Technik K-10 Plastic Snap Blade Knife

Comes with 13-point blade. For home, office, industrial use cutting paper, plastic, wood and other items.

Order #	Description
44016	K-10 Heavy Duty Snap Blade Knife
44256	K-10 Replacement Blade (100/pk)



Technik K-13 Heavy Duty Plastic Snap Blade Knife

Comes with 7 point snap blade used for cutting and trimming.

Order #	Description
44017	K-13 Heavy Duty Snap Blade Knife
44254	K-13 Replacement Blade (100/pk)

Technik Scalpel Handles and Blades

These high precision knives are designed for intricate detailed work. Made from non-sterile .015" thick stainless steel, these blades are ideal for precision cutting in micro circuitry, photography, art, etc.

We offer a variety of handles and blades to suit many applications. Blades are made from surgical quality stainless steel and are supplied 2pc per tube.

Use the #30 plastic or #31 stainless steel metal handles for blades #10, 11, 12 and 15, use the #32 plastic handle or the #33 stainless steel metal handle for blade #23.



Order #	Description
44030	#30 Plastic Handle
44031	#31 S.S Metal Handle
44032	#32 Plastic Handle
44033	#33 S.S. Metal Handle

Order #	Description	
44041	#10 Scalpel Blade	2pc/tube
44042	#11 Scalpel Blade	2pc/tube
44043	#12 Scalpel Blade	2pc/tube
44044	#15 Scalpel Blade	2pc/tube
44045	#23 Scalpel Blade	2pc/tube



Knives & Blades

Technik Knife Set



Contains K1, K2, K5 knife handles with 13 assorted blades in a plastic tray that includes a Teflon covered magnetic strip to help in holding the blades securely.

Order # Description

44101

Knife Set

Technik Deluxe Knife Set



Contains the same items as our Knife Set #44101 however, is supplied in a wooden box.

Order # Description

44102

Technik Deluxe Knife Set

Technik Replacement Blades

Features:

- Blades precision-crafted of the highest quality carbon and stainless steel with hard, sharp points and honed cutting edges.
- Designed to handle a variety of tasks where accuracy and cutting ease are essential.

	Description	Order #
	No. 2 Blade Sharp angle for precision cutting of medium to heavyweight materials	44201 / 5 Pack Tube 44202 / 100 Pack
	No. 10 Blade For general cutting, light carving and slicing	44203 / 5 Pack Tube 44204 / 100 Pack
	No. 11 Blade Sharp angle for delicate, precision cutting, trimming and stripping	44205 / 5 Pack Tube 44206 / 100 Pack
	No. 11 Stainless Steel Blade Resists corrosion; will not rust	44205S / 5 Pack Tube 44206S / 100 Pack
	No. 16 Blade For stencilling, etching and scoring; also used on printed circuit boards	44211 / 5 Pack Tube 44212 / 100 Pack
	No. 17 Blade For precision wood chiseling with 1/4" cutting surface	44213 / 5 Pack Tube 44214 / 100 Pack
	No. 18 Blade For deep cross and smooth chiseling of wood with 1/2" cutting surface	44215 / 5 Pack Tube 44216 / 100 Pack
	No. 19 Blade For light chiseling, rough shaping, deburring and trimming	44217 / 5 Pack Tube 44218 / 100 Pack
	No. 22 Blade For long, heavy pressure cuts and general initial shaping in wood working, whittling, carving, trimming and slicing	44221 / 5 Pack Tube 44222 / 100 Pack
	No. 23 Blade For corner cuts, stripping and trimming in confined areas	44223 / 5 Pack Tube 44224 / 100 Pack
	No. 24 Blade For close corner cuts on templates and mates for deburring, stripping and gasket cutting	44225 / 5 Pack Tube 44226 / 100 Pack
	No. 25 Blade For general purpose heavy-pressure cutting, whittling, carving and trimming	44227 / 5 Pack Tube 44228 / 100 Pack
	No. 26 Blade For general purpose whittling and trimming with 2-15/16" cutting edge	44229 / 5 Pack Tube
	No. 27 Blade For general purpose cutting of lightweight & medium woods; 3" length for deeper cut	44230 / 5 Pack Tube
	No. 28 Blade For whittling, leather and linoleum work	44231 / 5 Pack Tube

Scissors



5" Electrician Scissor

Heavy-duty general-purpose scissor with two notches for 19 AWG and 23 AWG wire. Scraper and file on back edge of blade. Blade Length: 2"

Order #	Description
---------	-------------

11012	5" Electrician Scissor
-------	------------------------



4-1/2" Slim Blade Scissor

Most popular precision scissor for cutting fine wire and for general use. Blade Length: 1-1/4"

Order #	Description
---------	-------------

11014	4-1/2" Slim Blade Scissor - Straight
11072	4-1/2" Slim Blade Scissor - Curved



All Purpose Standard Scissor

The most common scissor for a variety of applications. Available in 3 most popular sizes.

Order #	Description
---------	-------------

11022	7" All Purpose Standard Scissor Blade Length: 3-1/4"
11023	8" All Purpose Standard Scissor Blade Length: 3-3/4"



4-1/2" Precision Scissor

Excellent for routine and specialty applications. Blade Length: 1-3/8"

Order #	Description
---------	-------------

11016	4-1/2" Precision Scissor
-------	--------------------------



5" Ceramic Scissor

The durable zirconia blade insert even works with magnetic materials. Plastic handles are carbon fiber reinforced.

Order #	Description
---------	-------------

11802	5" Ceramic Scissor
-------	--------------------



5-1/2" Ceramic Scissor

Ultra-sharp solid blades never dull. Aluminum die cast handles.

Order #	Description
---------	-------------

11801	5-1/2" Ceramic Scissor
-------	------------------------

*Ceramic blades never need sharpening. No metal to rust or corrode. Trims Kevlar quickly and neatly.



Scissors

2 IN 1 Combination Scissors



96

Precision
Tools

This scissor has a unique 2 in 1 cutting blade and can trim and cut materials that would not be possible with a normal scissor.

- Easily trim materials such as nylon fiber, cabtire cord, Kevlar etc.
- Gives you a fine flush cut
- Notched blades prevent the material to be trimmed from slipping
- U types notches on the blade allows you to hold items such as copper wire, cabtire or insulated cords etc. firmly in place
- Soft grip for added comfort
- Stainless Steel with blade hardness of HRC 54
- Length 170mm (6-1/2")

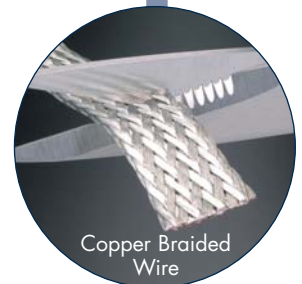
Specifications:

Notched Blade Cutting Capacity:

Aluminum/Copper sheet: 0.5mm
Plastic plate/PET: 1.0mm

U-type Blade Cutting Capacity

Copper wire: 1.5mm



Order #

Description

11080

2 IN 1 Combination Scissors

Crimping Tools/Wire Strippers

- A full line of crimping tools and wire strippers to meet all your data com requirements
- Special die available on request



97

**Precision
Tools**



Crimping Tools/ Wire Strippers

Aven Professional Crimping System



**Please note the frames and dies are sold separately.*

- All Steel Construction.
- Fully Ratcheting Cycle.
- Interchangeable dies constructed from heat treated hardened tool steel for long life.
- Quick Release Safety Latch.
- Sure-Grip Handles.
- More die selections available, contact Aven for details.
- Can provide custom designed die, contact Aven for details.

Order # Description

10160

Frame Only

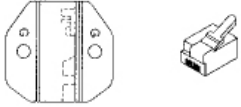
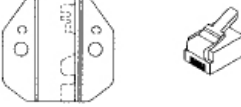
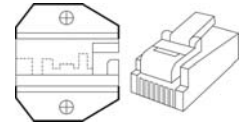
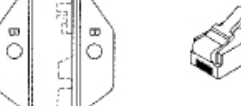
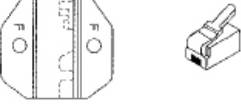
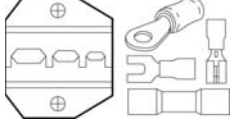
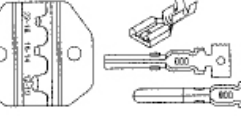
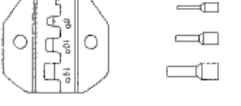
Dies for Coax Connectors

Die for Coax Connectors	Description	Order #
	For RG-58, RG-174 and RG-8218 for both 50 and 75-ohm cables. (Hex 0.213, 0.190, 0.178, 0.068, 0.042)	10162D
	For N-Series and RG-8/11 Connectors (Hex 0.429, 0.100, 0.080)	10166D
	For Cambridge CP-88, CP-89, BNC/TNC coax connectors with RG-58, RG-59/62 AU cables. (Hex 0.305, 0.068, 0.228)	10169D
	For RG-58, RG-59/62, BNC/TNC Coax connectors (Hex 0.255, 0.213, 0.068)	10172D
	For Plenum and Teflon cables RG-58 and 59. (Hex 0.213, 0.190, 0.068, 0.042)	10163D
	For RG-59, RG-6, F-Type CATV Connectors (Hex 0.350, 0.320, 0.255)	10167D
	For RG-174, Mini 59, BNC/TNC Connectors (Hex 0.178, 0.128, 0.068)	10170D
	For RG-6, RG-174, Belden-Type RG 8281 Cables (Hex 0.324, 0.178, 0.068)	10174D

98

Precision
Tools

Crimping Tools/ Wire Strippers

Die for Modular Connectors	Description	Order #
	For RJ-11 DEC MMJ six-position modular plugs with an offset release tab	10164D
	For Amp RJ-45 eight-position modular plugs. Primary strain relief crimp bar is located further back on the die/modular plugs	10168D
	For RJ-45, eight-position keyed or non-keyed modular plugs (excluding AMP)	10171D
	For RJ-11 two, four and six-position modular plugs	10175D
	For RJ-22 two and four-position handset modular plugs	10176D
Die for Barrel Type Connectors		
	22-10 AWG insulated terminals. Color-coded nests	10161D
	For 22-12 AWG non-insulated, open barrel connectors, Commercial type	10165D
Die for Wire Ferrules		
	For wire ferrules 12-22 AWG (0.5mm sq to 4mm sq)	10178D
	For wire ferrules 6-10 AWG (6mm sq to 16mm sq)	10179D
Die for Fiber Optic Connectors		
	AMP Optimate Fiber-Optic SMA or SFR type connectors (Round 0.195)	10173D



Crimping Tools/ Wire Strippers

Universal Crimp Tool for Coax Connectors



For crimping RG type connectors. Will crimp the following RG connectors: 55, 58, 59, 5, 6, 21, 141, 142, 143, 210, 212, 222, 223, 303, 304 and 400. Will crimp the following Belden type connectors: 8279, 8281, 9231 and 9141.

Order #	Description
10184	Universal Crimp Tool

All In One Telephone Tool



This versatile tool combines all the necessary tools to cut, strip and crimp modular telephone wires and plugs. Will cut and strip flat line cord cable up to 8 conductors wide. Crimps 8P8C/RJ45, 6P6C/RJ12, 6P2C/RJ11, 6P2C, 4P4C/Handset and 4P2C.

Order #	Description
10181	All In One Telephone Tool

All In One Telephone Tool



Cuts and strips telephone cable. Features: RJ11, 2, 4 and 6 position and RJ45 8 position, a fully ratcheting cycle and a built in safety release.

Order #	Description
10183	Universal Crimp Tool

Modular Crimper



An extremely practical tool that is used for RJ11 and RJ45 applications. Both die are built into the tool. Also has a built in cutter and stripper to make it easier to prepare wire before crimping. Ratcheted Action

Order #	Description
10185	RJ11/RJ45 Modular Crimp Tool

4-Way Indent Crimp Tool



Designed to crimp closed barrel, screw machine pin and socket style contacts. Performs a simultaneous 4 indent crimp for superior contact retention.

Order #	Description
10186	4-Way Indent Crimp Tool

100

Precision
Tools

Crimping Tools/ Wire Strippers

Wire Stripper



Has adjustable screw stop for different wire sizes, and cushion grips. Cuts and strips both solid and stranded wire, cleanly and neatly. Hardened or ground blades. Strips AWG 30-10 wire.

Order #	Description
---------	-------------

10106	Wire Stripper
-------	---------------

Cable Cutter



Cuts coaxial cable up to RG-9U, multi-conductor cable up to 0.500" (12.7mm) and solid or stranded wire up to #8 AWG (10mm sq).

Order #	Description
---------	-------------

10102	Cable Cutter
-------	--------------

Cable Cutter-Heavy Duty



- Can cut up to 100 pair group cable.
- Cuts coaxial cable up to RG174/RG9.
- Built-in return springs allow ease of use.
- Custom grips and safety locks.
- Made from stamped hardened carbon steel.

Order #	Description
---------	-------------

10106A	Cable Cutter-Heavy Duty
--------	-------------------------

Ratchet Cable Cutter



- Cuts 750MCM (380mm sq) and smaller hard-drawn copper and aluminum cable.
- Specially hardened steel blades for longer life.
- Quick release mechanism simplifies blade back-out.
- Handles lock together for easy storage.

Order #	Description
---------	-------------

10106B	Ratchet Cable Cutter
--------	----------------------

UTP Cable Stripper



A simple tool for UTP cables. Strips in 3 circles to extract the jacket of UTP cables. Can also function as a 110 punch down tool.

Order #	Description
---------	-------------

10110	UTP Cable Stripper
-------	--------------------



Crimping Tools/ Wire Strippers

Rotary Coaxial Cable Stripper



For RG/58, 59 and 62. Strips without adjustments.

Order #	Description
10111	Rotary Coaxial Cable Stripper A: 8mm B: 4mm
10112	Rotary Coaxial Cable Stripper A: 6mm B: --
10111D	Replacement Blades for 10.111
10112D	Replacement Blades for 10.112

Round Cable Stripper



Slits cable both longitudinally and circumferentially. It can be used on single or multiple conductor cable to 1.75" (44.5mm) O.D. The blade can be adjusted to jacket thickness up to 0.125" (3.2mm).

Order #	Description
10113	Round Cable Stripper

Multi-Function Wire Stripper



- Use on shielded twisted pair and unshielded twisted pair, CATV Cable, CB Antenna, SO, SJ, and SJT and other flexible cables.
- Strips coax and UTP/STP cables.
- Versatile stripper and cutter allows you to carry fewer tools.
- Built-in cutter for clean cuts.
- Built-in wire stripper strips 16 to 26 AWG for added versatility.

Order #	Description
10114	Multi-Function Wire Stripper

Stripper/Cutter/Crimper



10133



10134



10134A



10134B

Item #10133

- Strips wire in wire sizes AWG 20 to 10 (0.8 to 2.6mm).
- Cuts soft copper wire.
- Cuts five bolt sizes (M2.6, M3, M3.5, M4 and M5).
- Crimps bare and insulated terminals.
- Crimps coax connectors (6mm).
- Has a serrated jaw and a narrow nose for pulling and looping wire and tightening small nuts.
- Cushioned handles.
- Length 8-1/4".

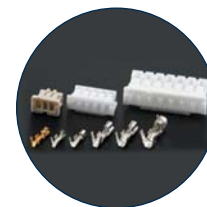
Item #10134, 10134A & 10134B

- Strips wire and 10134 crimps insulated terminals in wire sizes 22-10 & 22-14 AWG
- Cuts soft copper wire.
- Has a serrated jaw for pulling and looping wire and tightening small nuts.
- Cushioned handles with springs for easy repetitive wire stripping.
- Length 6-1/2".

Order #	Description
10133	Stripper/Cutter/Crimper
10134	Stripper/Cutter AWG 26-16 (0.4-1.3mm)
10134A	Stripper/Cutter AWG 30-20 (0.2-.08mm)
10134B	Stripper/Cutter AWG 20-10 (0.8-2.6mm)

Crimping Tools/ Wire Strippers

Crimping Tool for Micro Connectors Precision Engineered



- Capable of crimping 1.25 to 2.5mm (AWG 32-20) pitch connector pins.
- D-Sub connector contact can be also crimped.
- Original Set-pin prevents the joint from being loose and offers you easy maintenance.
- With locking latch and coiled spring.
- Pliers made of S55C with Teflon coating.
- 135g compact body for fatigue-free work.
- Length 6.8"

	Die Width	Die Height	Wire Size Range	
Die 1	1.0mm	0.50mm	Ø 0.20-0.32mm	AWG 32-28
Die 2	1.4mm	0.55mm	Ø0.32-0.51mm	AWG 28-24
Die 3	1.6mm	0.8mm	Ø 0.51-0.64mm	AWG 24-22
Die 4	1.9mm	0.9mm	Ø 0.51-0.81mm	AWG 24-20

Order # Description

10140

Crimping Tool for Micro Connectors

10141

Crimping Tool for Large Connectors
Sizes: 1.6, 1.9, 2.0 and 2.3 mm



Crimping Tools/ Wire Strippers

Wire Stripper



One light squeeze strips wire clean up to a full 7/8". Automatic feature holds jaws open to remove wire without crushing ends. Practically eliminates all nicking, cutting or fraying. Strips Teflon, Silicone and PVC wire. Made of aluminum with plastic molded handles. Will strip 22, 16, 14, 12, 10 and 8 AWG sizes.

Order #	Description
---------	-------------

10105	Wire Stripper
-------	---------------

BNC/TNC Connector Removal Tool



For easy access to high-density locations of connectors. Available in two popular lengths.

Order #	Description
---------	-------------

10136A	12" BNC/TNC Removal Tool
10136B	8" BNC/TNC Removal Tool

Punch Down Tool with 110/66 Blades



Insert and cut cable terminations effortlessly with this punch down tool. Impact absorbing, cushioned grip reduces operator stress for high volume installers. Adjustable high/low actuation setting accommodates termination requirements or operator preference. Storage compartment with unique locking device provides convenient storage for spare blades and helps prevent blade loss.

Order #	Description
---------	-------------

10135	Punch Down Tool with 110/66 Blades
10135A	Spare Blade 110
10135B	Spare Blade 66

Connector-Crimping Pliers



Designed to seat UG, UR and UY connectors. A special stop behind cutout prevents damage to connectors.

Order #	Description
---------	-------------

10137	Connector-Crimping Pliers
-------	---------------------------

Double Socket Can Wrench



Use to place fuses in cable terminals and connect wires to fuses and binding posts. 3/8" and 7/16" hex double end. Plastic handle.

Order #	Description
---------	-------------

10138	Double Socket Can Wrench
-------	--------------------------

104

Precision
Tools

Soldering/Desoldering Accessories

Desoldering Iron



Combines the ease and portability of a hand-held, manual desolder pump, with the performance of an electric desolder station. Vacuum chamber is easily removed for cleaning.

Order #	Description
---------	-------------

17522	Desoldering Iron
17522-220	Desoldering Iron 220V

6-Piece Solder Aid Kit



Six of the most popular soldering aids. Use the hook to remove components, the reamer to clean holes choked with solder, the knife for cutting away unnecessary circuits on PCB's, the scraper to remove the shielding from wires, rust and contamination to improve adhesion of solder, the brush to clean and the fork to bend and hold leads.

Order #	Description
---------	-------------

17524	6-Piece Solder Aid Kit
-------	------------------------

5-Piece Solder Aid Kit



This kit consists of a tweezer, a heat sink and 3 popular solder aids.

Order #	Description
---------	-------------

17523	5-Piece Solder Aid Kit
-------	------------------------

Soldering Stands



- Holds up to 1-1/8" diameter iron.
- Heavy duty metal base.
- Built in sponge tray.
- Sponge receptacle.
- 2 position iron holder stand.
- Two per pack.

Order #	Description
---------	-------------

17531	Soldering Iron Stand
17533	Soldering Stands-Two per pack.

Desoldering Pumps



Rugged, manual loading tool for volume desoldering. High vacuum heavy-duty plastic, fully enclosed shaft for safety. Plunger locks for compact storage.

Order #	Description
---------	-------------

17535	Desoldering Pump-13" High Impact Plastic
17536	Desoldering Pump-8.5" EDS Safe Plastic
17537	Desoldering Pump-8.5" Metal Body

Sturdy tool for routine desoldering. Slim profile with a smooth action.

Order #	Description
---------	-------------

Rugged, metal construction with an anti-static tip.

Order #	Description
---------	-------------



Soldering/Desoldering Accessories

No Clean Microwick



Features:

- No Contamination.
- No Burns.
- Handy dispenser allows precision positioning of the wick.
- Eliminates contamination and burns.
- Pure copper braid (3/32" wide) coated with a "no clean", non-corrosive, halide-free rosin based flux. Length 8".
- Cleaning not needed, leaves no visible residue.

Order # Description

17549	No Clean Microwick
--------------	---------------------------

Desoldering Wick



- High quality desoldering braid with unique no clean flux.
- Pure oxygen free copper wire.

Order # Description

17540	Desoldering Wick Width: .06"/1.5mm Length: 5"/1.5mm Weight: 0.4oz/11g
17541	Desoldering Wick Width: .08"/2mm Length: 5"/1.5mm Weight: 0.5oz/13g
17542	Desoldering Wick Width: .10"/2.5mm Length: 5"/1.5mm Weight: 0.6oz/16g

106 Solder Reel Stand



Features:

- Keep benches neat and draw out solder wire smoothly.
- Holds up to 1kg (approximately 2lbs.) roll of solder wire.
- Dimensions: 86mm (W) x 14mm (H) x 78mm (D) (3.4"x0.55"x3.1")
- Shaft diameter: 1.5mm (0.6")

Order # Description

17560	Solder Reel Stand
--------------	--------------------------

Solder



Formulated for high quality hand soldering of circuit boards and electronic assemblies.

Order # Description

17551	Solder Tin-Lead Alloy: 60 - 40 Diameter: 0.03"/0.8mm Weight: 1lb/500g
17552	Solder Tin-Lead Alloy: 60 - 40 Diameter: 0.04"/1mm Weight: 1lb/500g
17553	Solder Tin-Lead Alloy: 60 - 40 Diameter: 0.05"/1.2mm Weight: 1lb/500g
17554	Solder Tin-Lead Alloy: 60 - 40 Diameter: 0.03"/0.8mm Weight: 0.55lb/250g
17555	Solder Tin-Lead Alloy: 60 - 40 Diameter: 0.04"/1mm Weight: 0.55lb/250g

Third Hand With Tweezers



Allows both hands free for soldering. Heavy base prevents movement and multi position swivel clamps permit holding of piece at any angle.

Order # Description

17012	Third Hand With Tweezers
--------------	---------------------------------

Soldering/Desoldering Accessories



Hemostats Straight with Plastic Coated Handles

The most versatile tool, can be used as clamps, heat sinks, third hands, etc., while soldering. Has a three position locking device. Serrated jaws. Stainless steel construction.

Order # Description

12011	Hemostat Straight with Plastic Coated Handles Length: 5"
12013	Hemostat Straight with Plastic Coated Handles Length: 6"



Hemostats Curved with Plastic Coated Handles

Order # Description

12012	Hemostat Curved with Plastic Coated Handles Length: 5"
12014	Hemostat Curved with Plastic Coated Handles Length: 6"

Hemostats Straight

Order # Description

12001	Hemostat Straight Length: 3-1/2"
12015	Hemostat Straight Length: 5"
12017	Hemostat Straight Length: 6"
12019	Hemostat Straight Length: 8"

Hemostats Curved

Order # Description

12002	Hemostat Curved Length: 3-1/2"
12016	Hemostat Curved Length: 5"
12018	Hemostat Curved Length: 6"
12020	Hemostat Curved Length: 8"

Alligator Clamps

A unique tool for retrieving and holding small parts. Allows you to reach into long narrow spaces. Stainless steel.

Order # Description

12201	Alligator Clamp Length: 3-1/2"
12202	Alligator Clamp Length: 5-1/2"





Soldering/Desoldering Accessories



4-Pc. Single Probe Set

These probes are made from stainless steel. They are scalpel-shaped for fine probing. Useful for cold solder probing, hand inspection, micro positioning lead adjusting, etc.

Order #	Description
20210	4-Pc. Single Probe Set

Stainless Steel Probes

Useful for cold solder probing, hand inspection, micro positioning and lead adjusting.

Order #	Description
20031	Stainless Steel Probe

Order #	Description
20032	Stainless Steel Probe

Order #	Description
20033	Stainless Steel Probe

Order #	Description
20034	Stainless Steel Probe

Order #	Description
20040	Stainless Steel Probe

Order #	Description
20036	Stainless Steel Probe

Order #	Description
20039	Stainless Steel Probe

Order #	Description
20038	Stainless Steel Probe

Order #	Description
20035	Stainless Steel Probe

Order #	Description
20037	Stainless Steel Probe

108

Precision
Tools

Product Index

A	Page
Adjusters Ceramic	91
Alignment Tools	91
Articulating Arms	31
Auxiliary Lenses	22
B	
Backlight	24
Blades	93-94
Boom Stands	29-30
C	
Cable Cutters	101
Cable Strippers	101,102
Camera Adapter	22
Cameras	25-27
Can Wrench	104
Carbofib Tweezers	79
CCD Cameras	26
Ceramic Scissors	95
Ceramic Screwdrivers	91
Ceramic Tweezers	80
Comfort Grip Tweezers	76
Compound Action Cutter	68
Connector Removal Tool	104
Crimping Pliers	104
Crimping Tools	98, 100,103, 104
Cutters	53-55,59,63,64,66,67,68,101
Cutting Tweezers	75
D	
Desoldering Iron	105
Desoldering Pumps	105
Desoldering Wick	106
Dies for Crimping Tools	98,99
Double Pipe Light	24
E	
Ergo Tweezers	76
Eye Loupes	34
Eyepieces	21
E-Z Pick Tweezers	78
F	
Fiber Optic Area Backlights	24
Fiber Optic Gooseneck	24
Fiber Optic Illuminator	23,24
Fiber Optic Ring Light	24
Fluorescent Ring Lights	23
Focus Mount	28
G	
General Purpose Tweezers	82-84, 85
Gliding Stages	22
H	
Headband Magnifiers	35
Hemostats	107
I	
i360	6,7
iGauge	8
iLoupe	4,5
Infinity Cameras	26-27
K	
Knives	92-94

L	Page
LCD Monitors	27
LED Ring Lights	23
Lift Articulating Boom Stand	31
Loupes	33,34
M	
Magnifiers	33-35
Magnifying Lamps	37-40
Microscope Accessories	21,22
Microscope Stands	30-31
Microscopes	14-20
MiniVue	25
Monitors	27
O	
Optivisor	35
P	
Parallel Action Pliers	68
Plastic Tweezers	81
Pliers	56,61,62,63,68,104
Pocket Microscopes	32,33
Portable Microscope	4,5
Precision Screwdrivers	87-90
Precision Tweezers	71-75, 76, 77,78
Probes	108
Punch Down Tool	104
R	
Ring Lights	23,24
S	
Scalpel Blades	93
Scalpel Handles	93
Scissors	95,96
Screwdriver Sets	88-90
Screwdrivers	86-87
Shop Microscopes	32
Software	8
Solder	106
Solder Aid Kit	105
Solder Reel Stand	106
Soldering Stands	105
Stands	30-31
T	
Task Lights	40-42
Third Hand w/Tweezers	106
Titanium Tweezers	77
Tool Kits	44-51
Tronex Cutters	53-55
Tronex Pliers	56
Tweezer Magnifier	35
Tweezers	71-85
Tweezers Sets	85
V	
Video Imaging Software	8
Video Inspection Systems	6,7,10,11,12,13
Wire Stripper	101,102,104
W	
Wrench	104



Part # Index

Item#	Page#	Item#	Page#	Item#	Page#	Item#	Page#	Item#	Page#
511	56	7112	53	10168D	99	10328	64	13218	91
512	56	7113	53	10169D	98	10329	64	13219	91
513	56	7121	54	10170D	98	10329-ER	59	13220	91
521	56	7122	54	10171D	99	10330	64	13221	91
531	56	7123	54	10172D	98	10330-ER	59	13222	91
532	56	7211	54	10173D	99	10331	64	13224	91
541	56	7212	54	10174D	98	10331-ER	59	13225	91
542	56	7213	54	10175D	99	10332	65	13230	91
711	56	7221	54	10176D	99	10333	61	13231	91
712	56	7222	54	10178D	99	10334	62	13500	91
713	56	7223	54	10179D	99	10335	62	13710	88
721	56	7311	54	10181	100	10501	66	13714	88
731	56	7312	54	10183	100	10502	66	13715	89
732	56	7313	54	10184	100	10503	66	13716	89
741	56	7421	54	10185	100	10504	66	13717	89
742	56	7422	54	10186	100	10521	67	13718	89
5049	54	7423	54	10301	61	10521EC	66	13719	89
5070	54	7511	54	10301-ER	58	10523H	67	13720	90
5071	55	7512	54	10302	61	10525	67	13721	90
5072	55	7513	54	10302-ER	58	10526	67	13722	90
5075	55	10102	101	10303	61	10527B	67	13723	90
5082	55	10105	104	10304	61	10754	68	13801	86
5111	53	10106	101	10305	62	10756	68	13802	86
5112	53	10106A	101	10306	62	10761	68	13803	86
5113	53	10106B	101	10307	61	10764	68	13804	86
5121	53	10110	101	10307-ER	58	10953	63	13805	86
5122	53	10111	102	10308	61	11012	95	13806	86
5123	53	10112	102	10308-ER	58	11014	95	13807	86
5211	54	10113	102	10310	62	11016	95	13808	86
5212	54	10114	102	10311	61	11022	95	13809	86
5213	54	10133	102	10311-ER	58	11023	95	13811	86
5221	54	10134	102	10311S	61	11072	95	13812	86
5222	54	10134A	102	10311S-ER	58	11080	96	13813	86
5223	54	10134B	102	10312	62	11801	95	13814	86
5311	54	10135	104	10313	63	11802	95	13815	86
5312	54	10135A	104	10314	63	12001	107	13816	86
5313	54	10135B	104	10314-ER	58	12002	107	13817	86
5421	54	10136A	104	10315	63	12011	107	13821	86
5422	54	10136B	104	10321	63	12012	107	13822	86
5423	54	10137	104	10321-ER	59	12013	107	13823	86
5511	54	10138	104	10322	63	12014	107	13824	86
5512	54	10140	103	10322-ER	59	12015	107	13825	86
5513	54	10160	98	10323	63	12016	107	13826	86
7049	54	10161D	99	10323-ER	59	12017	107	13827	86
7070	54	10162D	98	10324	63	12018	107	13831	86
7071	55	10163D	98	10325	64	12019	107	13832	86
7072	55	10164D	99	10325-ER	59	12020	107	13833	86
7075	55	10165D	99	10326	64	12201	107	13834	86
7082	55	10166D	98	10326-ER	59	12202	107	13841	86
7111	53	10167D	98	10327	64	13016	91	13842	86

110

Index

Part # Index

Item#	Page#	Item#	Page#	Item#	Page#	Item#	Page#	Item#	Page#
13843	86	15021	51	18049ACU	73	18415	82	18768	79
13844	86	15201	45	18049-ER	76	18417	82	18801	80
13845	86	15210	46	18049EZ	78	18419	83	18802	80
13846	86	17012	106	18049TT	75	18421	83	18803	80
13847	86	17522	105	18049USA	73	18423	83	18804	80
13848	86	17523	105	18050USA	74	18425	83	18810	80
13850	87	17524	105	18053ACU	72	18426	83	18811	80
13851	87	17531	105	18053TT	75	18428	83	18812	80
13900	87	17533	105	18053USA	72	18430	82	18813	80
13901	87	17535	105	18054	73	18431	82	18820	80
13902	87	17536	105	18056ACU	73	18432	82	20031	108
13903	87	17537	105	18056-ER	76	18433	82	20032	108
13904	87	17540	106	18056EZ	78	18434	82	20033	108
13905	87	17541	106	18056TT	77	18435	82	20034	108
13906	87	17542	106	18056USA	73	18436	82	20035	108
13907	87	17549	106	18057	74	18437	82	20036	108
13910	87	17551	106	18059ACU	74	18438	82	20037	108
13911	87	17552	106	18059USA	74	18472	85	20038	108
13912	87	17553	106	18062ACU	74	18473	85	20039	108
13913	87	17554	106	18062-ER	76	18475ACU	85	20040	108
13914	87	17555	106	18062EZ	78	18475USA	85	20210	108
13915	87	17560	106	18062TT	77	18476ACU	85	26000	34
13916	87	18011	71	18062USA	74	18476USA	85	26001	33
13920	87	18013EZ	78	18065ACU	74	18480EZ	78	26002	33
13921	87	18013TT	77	18065USA	74	18478	85	26003	33
13922	87	18013USA	71	18066ACU	75	18481	83	26004	33
13923	87	18014	71	18066USA	75	18482	83	26005	33
13924	87	18016	71	18067	74	18483	83	26006	33
13925	87	18021	71	18069ACU	74	18484	84	26010	34
13926	87	18023USA	71	18069TT	75	18485	84	26011	34
13927	87	18026	72	18069USA	74	18486	84	26012	34
13930	87	18026ACU	72	18070	75	18487	84	26013	34
13931	87	18027	72	18072ACU	75	18488	84	26030	35
13932	87	18029ACU	72	18072-ER	76	18489	84	26031	35
13933	87	18032ACU	71	18072EZ	78	18490	84	26034	34
13934	87	18032-ER	76	18072TT	77	18491	84	26041	34
13935	87	18032EZ	78	18072USA	75	18492	84	26042	34
13936	87	18032TT	77	18074USA	75	18494	84	26043	34
13940	88	18032USA	71	18076ACU	74	18511	81	26051	34
13941	88	18034	71	18077ACU	75	18514	81	26052	34
15001	48	18036	71	18078ACU	74	18517	81	26101	35
15002	48	18037ACU	71	18079ACU	73	18520	81	26102	35
15003	50	18037USA	71	18114ACU	75	18523	81	26103	35
15004	49	18040ACU	72	18115ACU	75	18526	81	26104	35
15005	50	18040USA	72	18201	73	18529	81	26105	35
15006	47	18043ACU	72	18202	73	18702	79	26106	35
15007	48	18043USA	72	18400	82	18704	79	26107	35
15014	51	18046ACU	73	18401	82	18760	79	26108	35
15018	47	18046TT	77	18402	82	18762	79	26109	35
15019	51	18046USA	73	18403	82	18767	79	26110	35



Part # Index

Item#	Page#
26111	35
26112	35
26113	35
26221	35
26222	35
26521	42
26522	42
26523	42
26524	42
26525	42
44011	92
44012	92
44013	92
44014	92
44015	93
44016	93
44017	93
44018	92
44030	93
44031	93
44032	93
44033	93
44041	93
44042	93
44043	93
44044	93
44045	93
44101	94
44102	94
44201	94
44202	94
44203	94
44204	94
44205	94
44205S	94
44206	94
44206S	94
44211	94
44212	94
44213	94
44214	94
44215	94
44216	94
44217	94
44218	94
44221	94
44222	94
44223	94
44224	94
44225	94

Item#	Page#
44226	94
44227	94
44228	94
44229	94
44230	94
44231	94
44254	93
44256	93
44257	93
26100-100	26
26100-102	26
26100-212	27
26100-215	26
26100-216	26
26100-220	26
26100-221	26
26100-222	26
26100-230	25
26100-403	7
26100-405	8
26200A-200	24
26200A-205	23
26200A-207	23
26200A-212	24
26200A-402	24
26200A-403	24
26200A-523	24
26200A-532	24
26200B-201	23
26200B-202	23
26200B-203	23
26200B-206	23
26200B-207	23
26200B-208	23
26200B-210	23
26200B-211	23
26501-AL3	37
26501-B22	37
26501-DSG	37
26501-SIV	37
26501-SLA	37
26501-WB	37
26503-B32	38
26503-SIV	38
26504-SBK	39
26505-B09	38
26505-ESD	38
26505-SIV	38
26506-BT4	38
26506-SIV	39

Item#	Page#
26507-SBK	40
26511-SSL	40
26512-SBK	40
26515-SIV	41
26516-D155	41
26516-D3T	42
26516-SIV	41
26520-MB	42
26700-102-00	10
26700-102-10	11
26700-102-15	11
26700-103-00	13
26700-106-10	7
26700-106-14	7
26700-106-20	7
26700-402	27
26700-404	27
26700-501-10	4
26700-501-20	4
26700-501-30	4
26700-501P	4
26700-501S	4
26700-505	4
26700-506	4
26800B-305	19
26800B-361	18
26800B-362	18
26800B-369	19
26800B-370	19
26800B-371	19
26800B-435	22
26800B-441	21
26800B-442	21
26800B-443	21
26800B-444	21
26800B-445	21
26800B-446	21
26800B-448	21
26800B-449	21
26800B-450	21
26800B-452	21
26800B-453	21
26800B-455	21
26800B-456	21
26800B-457	21
26800B-458	21
26800B-459	21
26800B-461	22
26800B-462	22
26800B-463	22

Item#	Page#
26800B-464	22
26800B-465	22
26800B-471	22
26800B-472	22
26800B-474	22
26800B-475	22
26800B-476	22
26800B-520	29
26800B-525	29
26800B-530	29
26800B-532	32
26800B-535	30
26800B-540	30
26800B-545	30
26800B-550	31
26800B-555	31
26800B-560	31
26800B-570	31
26800B-575	31
26800C-531	32
26800C-533	32
26800C-534	33
26800C-536	33
26800C-538	33
26800C-540	33
DSZ-44	16
DSZ-70	17
DSZT-44	16
DSZT-70	17
NSW-1	18
NSW-2	18
NSW-20	18
NSW-30	18
NSW-40	18
NSW-620	18
SCW-PA	28
SPZ-50	15
SPZT-50	15
Stand L	29
Stand P	28
Stand PF	28
Stand PFL	28
Stand PFM	28
Stand T	29



New Products

Magna Deluxe XL 3 Tube Fluorescent Lamp

page 42



White LED Ring Light w/Brightness & Sector Control

page 23



E-Z Pick Tweezers w/Protective Pouch

page 78



Titanium Tweezers

page 77



2 in 1 Combination Scissors

page 96



Crimping Tool for Micro Connectors

page 103



Tronex Precision Cutters

page 52





AVEN

4595 Platt Road | Ann Arbor, MI 48108
Tel: 734-973-0099 | Fax: 734-973-0097
Email: info@aveninc.com | www.aveninc.com

Distributed by:

