JV Series

BOECKELER
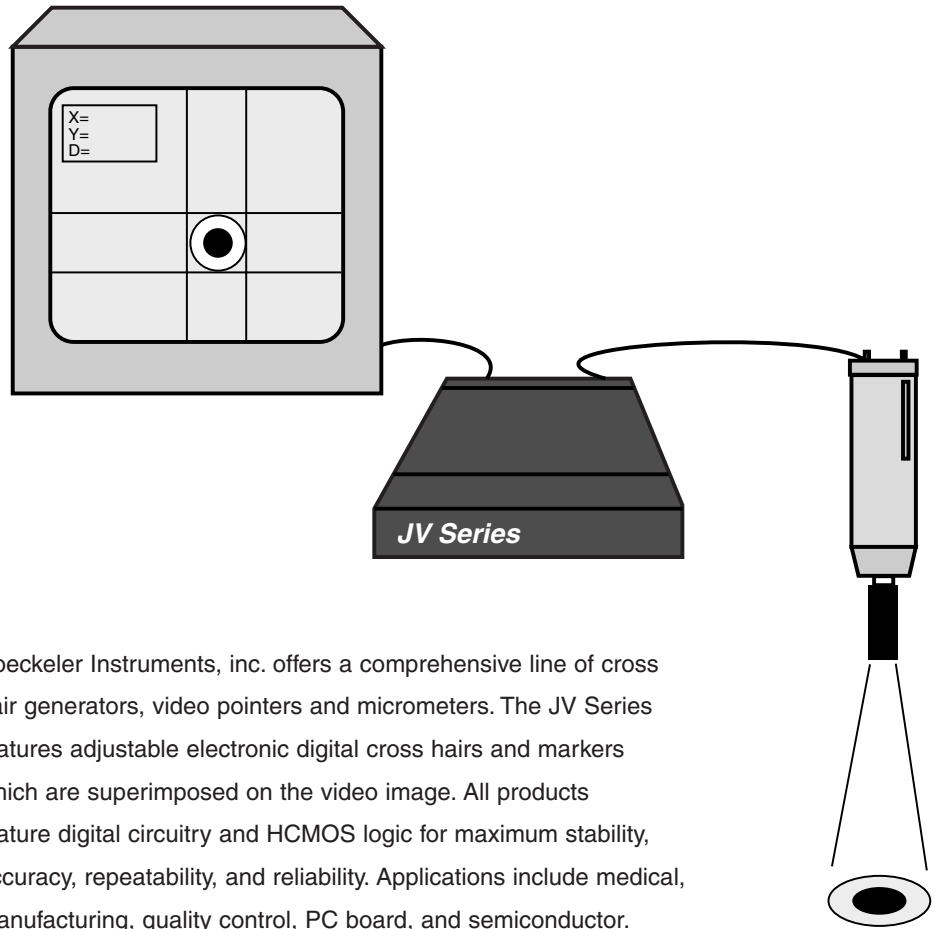
Boeckeler Instruments, inc. offers a comprehensive line of cross hair generators, video pointers and micrometers. The JV Series features adjustable electronic digital cross hairs and markers which are superimposed on the video image. All products feature digital circuitry and HCMOS logic for maximum stability, accuracy, repeatability, and reliability. Applications include medical, manufacturing, quality control, PC board, and semiconductor.
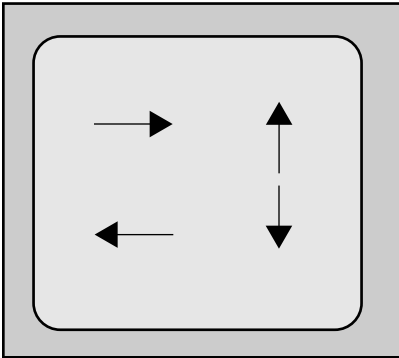
Pointers
Generators
Micrometers

FEATURES:

- Accommodates RS-170 composite, Y/C (S-VHS) video signals

- HCMOS logic

- Color or black & white operation

- Horizontal resolution up to 1/421 for RS-170 composite and Y/C (S-VHS) video

- Vertical resolution up to 1/467

- Battery backup

- Software security lock

- 12v dc camera power available from unit

- Phase-locked to camera

- Two-year warranty for all parts and labor

JV Series

## Video Pointers and Generators

JVP

The JVP is an affordable, single arrow, joystick controlled video pointer. The four directional arrows may be repositioned anywhere on the monitor screen.

Features:
- Arrow flash capability
- Small to large arrow capability
- Remove and recall arrow to last exact position
- Adjustable matte level (black/gray/white)

Applications:
- Video presentations
- Forensics
- X-Ray analysis and reporting
- Topographical surveys
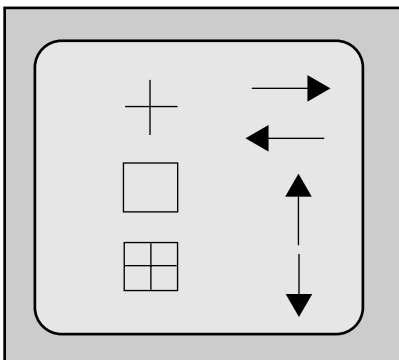
JV5000

The JV5000 is a video pointer employing three different symbols and four directional arrows. These individual markers can be moved to any position on the monitor screen. The JV5000 is supplied with a five-button remote control keypad.

Features:
- Two selectable symbol/arrow sizes
- Adjustable matte level (black/gray/white)

Applications:
- Video presentations
- Forensics
- X-Ray analysis and reporting
- Topographical surveys
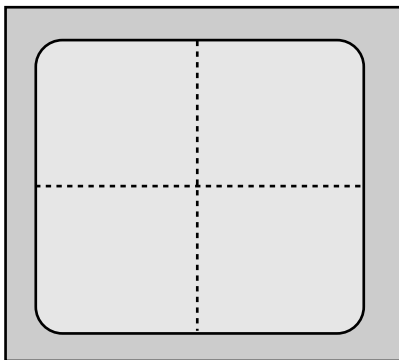
JV1000B

The JV1000B is a fixed, single cross hair generator with front panel controls.

Features:
- Selectable line type – solid or serrated
- Adjustable matte level (black/gray/ white)
- Cross hair can be turned on and off
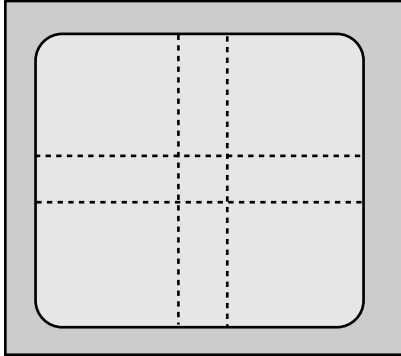- Power on off switch

Applications:
- Drill master programming
- Laser surgery
- Substrates alignment

Options:
- Y/C (S-VHS) input output capability for high resolution (JV1000BYC)
- CCIR/PAL compatibility

JV1500 - DISCONTINUED

Video Generators

JV2000

The JV2000 is a single or double cross hair generator. The cross hairs can be moved independently or simultaneously. The JV2000 is supplied with a five-button remote control keypad.

Features:

- Single cross hair positioned anywhere on the monitor screen
- Double cross hairs positioned anywhere on the monitor screen either independently or simultaneously
- Selectable line type – solid or serrated
- Adjustable matte level (black/gray/white)
- Battery back-up retains the most recent cross hair position for up to 10 years
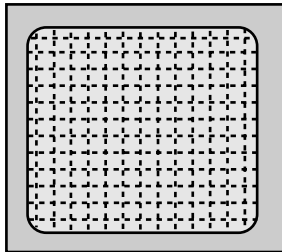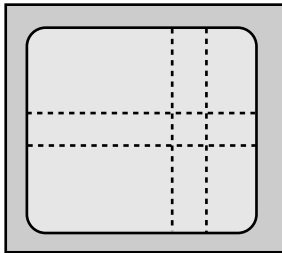- Software security lock prevents unauthorized changes to cross hair positions
- Stores and recalls up to eight preset patterns (JV2000S)

Applications:

- Substrate alignment
- Drill master programming
- Testing for deviations in welds, bare boards, wafers and ICs

Options:

- Y/C (S-VHS) input output capability for high resolution (JV2000YC)

JV2000GRD

The JV2000GRD is a video generator providing a single cross hair, double cross hairs, and a grid pattern. The unit is supplied with a five-button remote control keypad.

Features:

- Single cross hair positioned any-where on the monitor screen
- Double cross hairs positioned any-where on the monitor screen either independently or simultaneously
- Fixed position grid pattern of two, four, eight, 16 or 32 horizontal and vertical lines
- Selectable line type – solid or serrated
- Adjustable matte level (black/gray/white)

Applications:

- Substrate alignment
- Drill master programming
- Testing for deviations in welds, bar boards, wafers and ICs
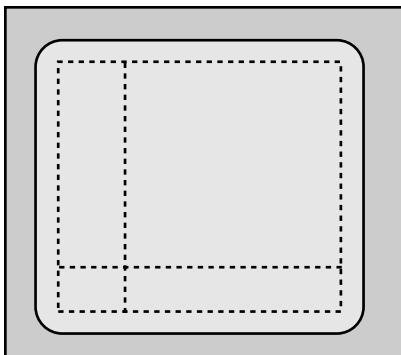
JV3000

The JV3000 is a three-line go-/no-go comparator. The unit has three modes of operation: three vertical lines, three horizontal lines, and a go-/no-go comparator box. The JV3000 is supplied with a five-button remote control keypad.

Features:

- Independent or simultaneous movable vertical, and horizontal lines
- Selectable line type – solid or serrated
- Adjustable matte level (black/gray/white)
- Battery back-up retains the most recent cross hair position for up to 10 years
- Software security lock prevents changes to cross hair positions

Applications:

- On-line sorting within tolerances
- Bacterial/cell counting
- Solder joint verification
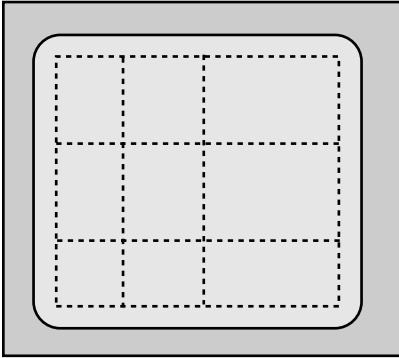
JV3400

The JV3400 is a four-line go/no-go comparator. The unit has three modes of operation: four vertical lines, four horizontal lines, and a go-/no-go comparator box. The JV3400 is supplied with a five-button remote control keypad.

Features:
- Independent or simultaneous movable cross hairs, vertical and horizontal lines
- Selectable line type – solid or serrated
- Adjustable matte level (black/gray/white)
- Battery back-up retains the most recent cross hair position for up to 10 years
- Software security lock prevents unauthorized changes to cross hair positions

Applications:
- On-line sorting within tolerances
- Bacterial/cell counting
- Solder joint verification
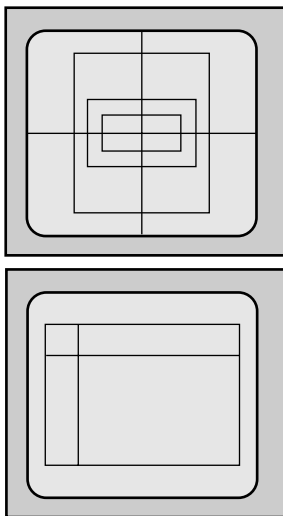
JV3600

The JV3600 is a two-function comparator. The unit generates up to three individually sizable boxes with a fixed cross hair and a go-/no-go comparator box. With the combination of these two functions the unit can store and recall up to 10 preset patterns. The JV3600 is supplied with a five-button remote control keypad.

Features:
- Generates up to three centered boxes with a fixed cross hair
- Individually or simultaneously sized boxes
- Generates a sizable go-/no-go comparator box
- Adjustable matte level (black/gray/white)
- Battery back-up retains the most recent cross hair position for up to 10 years

Applications:
- On-line sorting
- Solder joint verification
- Laser cut positioning
- Incoming inspection of machined parts
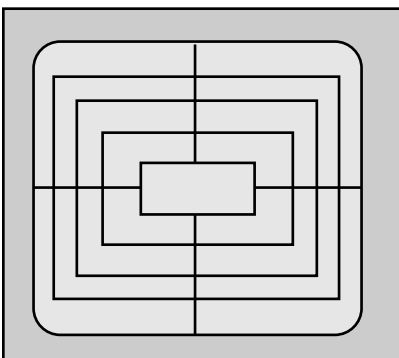
JV4000

The JV4000 is a four-box target generator. The unit can produce up to four sizable squares with a fixed center cross hair. The JV4000 is supplied with a five-button remote control keypad.

Features:
- Fixed center cross hair can be selected to on/off
- Generates up to four squares, sized individually or simultaneously
- Selectable line type – solid or serrated
- Adjustable matte level (black/gray/white)
- Battery back-up returns the most recent square size for up to 10 years
- Software security lock prevents unauthorized changes

Applications:
- Laser burst targeting
- Laser cut positioning
- Incoming inspection of bare boards, wafers and ICs

Video Generators & Micrometers
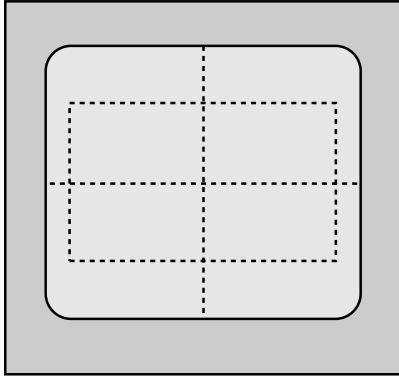
JV4100

The JV4100 provides a sizable rectangle with a movable cross hair. The unit is supplied with a five-button remote control keypad.

Features:

- Completely sizable rectangle
- Center cross hair repositioned anywhere on the monitor screen through a digitally coded lock control
- Selectable line type – solid or serrated
- Adjustable matte level (black/gray/white)
- Battery back-up retains the most recent box size for up to 10 years
- Software security lock prevents unauthorized changes

Applications:

- Laser burst targeting
- S.M.T. analysis
- Pick and place machine programming
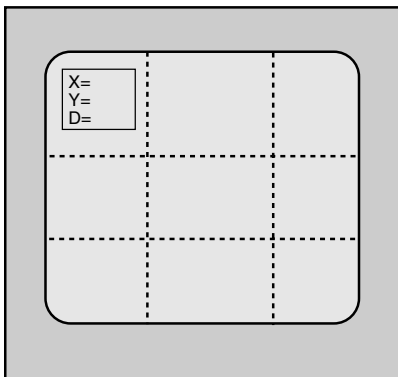
Micrometers JV6000/JV6000T

The JV6000/JV6000T are video micrometers providing on-screen measurements with four calibration capability. The unit provides accurate X-axis, Y-axis, and diagonal (D) measurements from a calibrated screen. The X, Y, and D measurements are displayed on the screen at all times after calibration. The JV6000 is supplied with a five-button remote control keypad; the JV6000T is supplied with a trackball controller.

Features:

- On-screen measurements: X-axis, Y-axis and diagonal (D)
- Four calibration capability
- Four decimal display measurement
- Adjustable matte level (black/gray/white)
- Battery back-up retains the most recent calibration settings for up to 10 years
- Software security lock prevents unauthorized changes to calibration settings

Applications:

- Skin and bone graft measurement
- Cell acceleration measurement
- Substrates dimension measurement
- Laser burst targeting and measurement

Options:

- Y/C (S-VHS) input/output capability for high resolution (JV6000YC)
- Six decimal display measurement (JV6000D for JV6000)

Video:
- Video Input: RS170, NTSC
- Video Output: Unity gain, loop through
- Power Input: 15V dc, 600mA
- Power Output:
  – JV1000B & JV6000(T): 12V dc, 350mA; +/-15% line and load
  – JVP: N/A

Operational Characteristics:
- Resolution: 421 (H) x 467 (V)
- Matte:
  – JV1000B & JV6000(T): Black to white and any shade of gray
  – JVP: Black to white and three shades of gray
- Line Type: Selectable solid to serrated (N/A JV3600, JV5000, JVP)
- One-year warranty on all parts and labor

Mechanical:
- Dimensions:
  – JV1000B & JV6000(T): 5.875" W x 1.75" H x 8.625" D (149.23 W x 44.45 H x 219.08 D mm)
  – JVP: 7" W x 1" H front to 3.75" back x 6.5" D (177.8 W x 25.4 H front to 95.25 back x 165.12 D mm)
- Weight:
  – JV1000B & JV6000(T): 3 lbs (1.36 kg)
  – JVP: 2 lbs (.91 kg)

Options:
- JVY/C: JV1000BYC, JV2000YC, JV6000YC
- CCIR/PAL version available

PRODUCT SUMMARY

Model	Description	Matte Level Blk/gry/wht	Line Type Solid/Serrated	Battery Backup	Software Lock
VIDEO POINTERS					
JVP	4 directional arrows, built-in joystick controller	Yes	No	No	No
JV5000	4 directional arrows, and 3 different symbols; 2 symbol/arrow sizes*	Yes	No	No	No
VIDEO GENERATORS					
JV1000B	Fixed, single cross hair; front panel controls	Yes	Yes	No	No
JV1500	Discontinued				
JV2000	Single or double cross hair*	Yes	Yes	Yes	Yes
JV2000GRD	Single, double cross hair, and grid pattern*	Yes	Yes	No	No
JV3000	3 modes: 3 vertical lines, 3 horizontal lines, and go-/no-go comparator*	Yes	Yes	Yes	Yes
JV3400	4 modes: 4 vertical lines, 4 horizontal lines, and go-/no-go comparator*	Yes	Yes	Yes	Yes
JV3600	2-function comparator, 3 sizable boxes with fixed centered cross hair, and go-/no-go comparator, store and recall 10 patterns*	Yes	No	Yes	No
JV4000	4 sizable squares with a fixed center cross hair*	Yes	Yes	Yes	Yes
JV4100	1 sizable rectangle with movable cross hair*	Yes	Yes	Yes	Yes
VIDEO MICROMETERS					
JV6000	X, Y, and D measurements; 4 calibration settings*	Yes	Yes	Yes	Yes
JV6000T	X, Y, and D measurements; 4 calibration settings; trackball controller	Yes	Yes	Yes	Yes

*5-button hand controller

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