



# HANDYSURF E-35B E-40A E-45A

Dedicated catalog is available.

**Powerful Functions  
- Compact and Easy Operation -**

**Built-in Tracing Driver  
for E-35B and E-40A**



\* Extension cable provided as a standard accessory can be used to extend the tracing driver.

Support seven languages!  
Support various national standards!  
Computer connectable!

**Cable-connected Tracing Driver  
for Measurement in Tight Locations  
with E-35B, E-40A and E-45A**

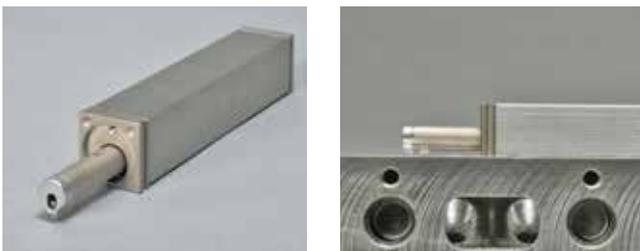


## E-35B Tracing Driver: Standard Type



**Popular standard type for on-site measuring**  
Powerful functions in a compact design.  
Large memory capacity holds 10 measurement data.  
Max. measuring range: 12.5 mm

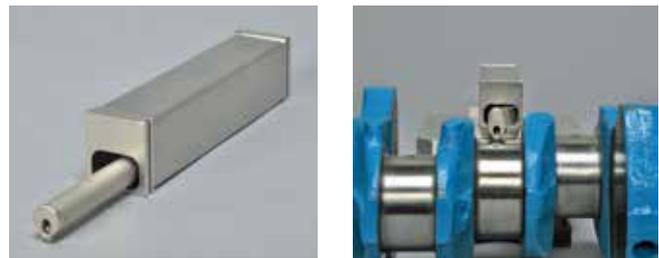
## E-40A Tracing Driver: Retraction Type



**Detector retracts during standby and after measuring**  
Reduces risk of probe and pickup damage.  
Supports use of pickup with automated devices built-in.  
Retraction amount: 1.5 mm  
Max. measuring range: 12.5 mm

## E-45A Tracing Driver: Horizontal Tracing Type

\* E-45A cannot be built-in to a main unit.



**Suitable for constricted locations  
such as crankshaft pins, journals, etc.**

Allows highly efficient axial direction measurement using horizontal tracing in a constricted location where conventional measurement is difficult.  
Max. measuring range: 4.0 mm  
Measuring speed: 0.6 mm/s



**Sample combination of a tracing driver and height gage**  
Optional post mount (E-CS-S26A) and height gage adapter (E-WJ-S93A) are required.

## HANDYSURF Lineup

HANDYSURF provides a choice of types to meet the needs of a wide range of applications. In addition to the standard type, both a retraction type (which can be built into a device), and a horizontal tracing type for use in tight spaces, make important contributions to on-site measuring.

## AI Function for Easy Operation

The AI function automatically configures optimum conditions for measuring range, evaluation length, cut-off value, and recording magnification (when a printer is being used).

## Can be Used Anywhere in the World

HANDYSURF conforms to ISO, JIS (2001, 1994, 1982), ASME, CNOMO and other international standards. It supports operation in English, Japanese, German, French, Italian, Spanish and Portuguese. It meets European safety standard requirements for CE marking.

## Replaceable Displacement Pickup

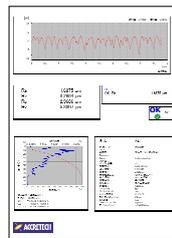
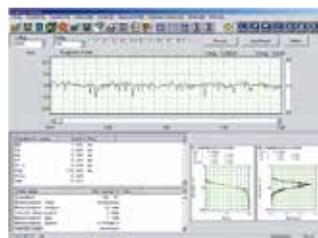
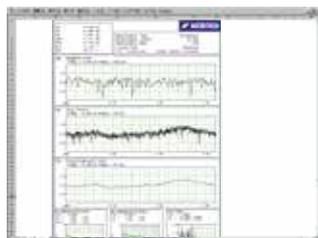
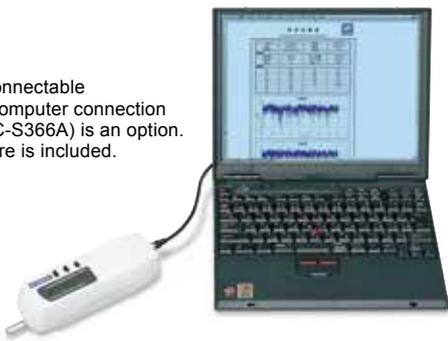
A displacement pickup provides precise surface roughness measurement. Since the pickup is replaceable, optional pickups specialized for file holes and deep grooves can also be used, facilitating a wide range of measurements.



## Data Transfer to Computer

A serial port (RS-232C) (standard accessory) makes it possible to transfer measurement conditions, parameter values, and profile curve data directly to a computer.

Computer Connectable  
\* Notebook computer connection cable (E-SC-S366A) is an option. Support ware is included.



## Inspection Report Creation (Support ware)

Data can be imported into a Microsoft EXCEL spreadsheet and used to create an inspection report.

## TiMS Light (Option)

Advanced analysis can be performed using ACCRETECH TiMS Light integrated measuring system.

## ACCTee

TiMS Light and ACCTee equivalent to the software installed in high grade models enable advanced analysis.

## Measurements from Any Orientation

The compact, lightweight design of the HANDYSURF enables measurement from any orientation – horizontally, vertically, or tilted. The display and tracing driver can be used together in an integrated or separated configuration to meet specific measuring needs (E-35B, E-40A).

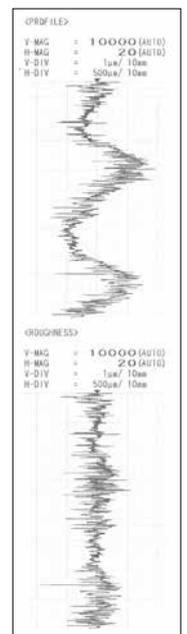
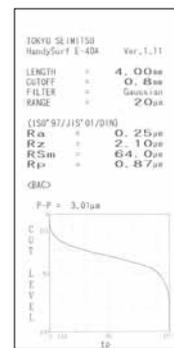


## Functions to Support On-site Operation Data Storage/Rechargeable Battery

On-board memory can store 10 sets of measurement data for unrestricted output whenever it is required. Both the HANDYSURF unit and the printer have built-in rechargeable batteries, making them ideal for on-site measurements.



Compact printer III  
E-RC-S30A



Sample of printout with all functions selected

Option (for E-35B, E-40A)

\*Option accessories of E-45A is not on this catalog.



**Magnetic Stand E-ST-MAC**  
For Post Mount Φ 6 E-CS-S26A  
Post Mount Holder 0102050  
For measuring at various heights and angles.



**Long Hole Extension Adapter DM57506**  
For long hole measuring with pickup extended 50 mm.



**Adapter for Horizontal Direction Measurements DM57507**  
For measuring 68 mm inside from the side of the tracing driver.



**Nose Piece (For Flat Surfaces) E-WJ-S88A**  
For handheld measuring of a flat surface whose measuring surface is too small.



**Nose Piece (For Cylinders) E-WJ-S85A**  
For handheld measuring of a cylinder whose measuring surface is too small.



**Adapter for Hole Measurements E-WJ-S86A**  
For handheld measuring of holes and grooves that run at a right angle to the object being measured.

HANDYSURF Specifications

Model		HANDYSURF					
		-35B		-40A		-45A	
		5 μmR	2 μmR	5 μmR	2 μmR	5 μmR	
Measuring range	Z-direction	±160 μm					
	Drive axis	X-direction 12.5 mm		Y-direction 4.0 mm			
Resolution	Z-direction	0.01 μm/±20 μm to 0.08 μm/±160 μm					
	Standard	Complied with JIS-2013/-2001/-1994/-1982, ISO-2009/-1997, DIN-1990, ASME-1995, CNOMO					
Analysis items	JIS-2001 Parameter	Ra, Pa, Pq, Pt, Rz, Rz.J, Rzmax, Rq, Rp, Rt, R3z, RSm, Pc, AVH, Hmax, Hmin, Pmr, Rmr, Rk, Rpk, Rvk, Mr1, Mr2, Vo, K					
	Cross section/Roughness measurement	R, Rx, AR, W, Wx, AW, Wte					
	Motif	Section profile curve, roughness curve, ISO13565 special roughness curve, roughness motif curve, waviness motif curve, envelope waviness curve					
Filter	Cutoff	Gaussian filter, 2RC filter (non-phase compensation type) (JIS'82)					
	Cutoff value	λc 0.08, 0.25, 0.8, 2.5 mm			λs 0.08, 0.25, 0.8 mm		
Evaluation length	λc	2.5, 8 μm			2.5 μm		
	λs	0.4 mm to 12.5 mm (Unit: 0.1 mm)					
Drive speed	λs	0.4 mm to 4.0 mm (Unit: 0.1 mm)					
	λs	0.6 mm/s					
Pickup	Movement system	Standard type		Retraction type		Horizontal tracing type	
	Sensing method	Differential inductance (displacement type)					
	Measuring force	4 mN or less	0.75 mN or less	4 mN or less	0.75 mN or less	4 mN or less	
	Tip	Diameter	5 μmR	2 μmR	5 μmR	2 μmR	5 μmR
		Angle	90° cone	60° cone	90° cone	60° cone	90° cone
		Material	Diamond				
Measuring method	Skid: Sapphire, 32 mmR (tracing direction)						
Data processor unit	Display	LCD 16 figures × 2 lines with sleep mode					
	Data output	Connector supporting RS232C, one port mounted					
	Printer	Printer (Option): thermal recording paper (roll) Width: 58 mm (Recording width: 48 mm)					
Other	Language	Japanese, English, German, French, Italian, Spanish, Portuguese					
	Power source	Charge	Built-in rechargeable battery (charged with AC adapter), Charging time: 10 hours				
		Voltage	AC adapter single-phase AC 100 V/120 V/220 V/230 V				
	Power consumption	Approx. 1 VA					
Dimension (W x D x H) and weight	180 mm × 68 mm × 54 mm, Approx. 600 g						
Accessories	Reference specimen (E-MC-S24B), AC adapter, operation manual						
	Pickup (E-DT-SM10A)	Pickup (E-DT-SM49A)	Pickup (E-DT-SM10A)	Pickup (E-DT-SM49A)	Pickup (E-DT-SM39A)		
	Tracing driver (E-RM-S173A)		Tracing driver (E-RM-S168A)		Tracing driver (E-RM-S167A)		
	Rear adjustment device (E-WJ-S64A)					Stand for specimen (E-WJ-S558A)	
	Tracing driver extension cable (E-SC-S255A)					V-shape nose piece (E-WJ-S536A)	
	Handy case (E-MA-S35A)					Tracing driver cable (E-SC-S466A) Handy case (E-MA-S97A)	

Pickup Specifications

Model	E-DT-SM10A	E-DT-SM49A	E-DT-SM39A	E-DT-SM11A	E-DT-SM12A	E-DT-SM13A
Application	General measuring		Horizontal tracing	Fine hole (min. inner dia.Φ 6 mm)	Extra fine hole (min. inner dia.Φ 3 mm)	Deep groove (max. depth 7 mm)
Applicable model	E-35B, E-40A	E-35B, E-40A	E-45A	Option for E-35B, E-40A		
Measuring force	4 mN	0.75 mN	4 mN			
Pickup tip	Diameter	5 μm	2 μm	5 μm		
	Angle	90° cone	60° cone	90° cone		
	Material	Diamond				
Skid	Sapphire Tracing direction: 32 mmR					
Dimension						

\*Maximum measuring length is 8mm when used with HANDY SURF E-40A.

Printer (Option)

Name/Model	Compact Printer III E-RC-S30A (DPU-S245-00A-E)
Printing method	Thermal line dot
Recording curves	Section profile curve, roughness curve, BAC, roughness motif curve, waviness motif curve, envelope waviness curve
Recording magnification	Vertical direction: 100, 200, 500, 1 k, 2 k, 5 k, 10 k, Auto Horizontal direction (H): 1, 2, 5, 10, 20, 50, 100, 200, Auto
Other	Power supply: AC adapter 100 V, 120 V, 230 V Weight: Approx. 280 g Dimension: 83 mm × 130 mm × 45 mm
Accessories	Connecting cable (E-SC-S527A), Power cable, Recording paper (E-CH-D26A (2 rolls))