



IMI TA TA-SCOPE Hydraulic Testing Device User Guide

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SCOPE Hydraulic Testing Device User Guide



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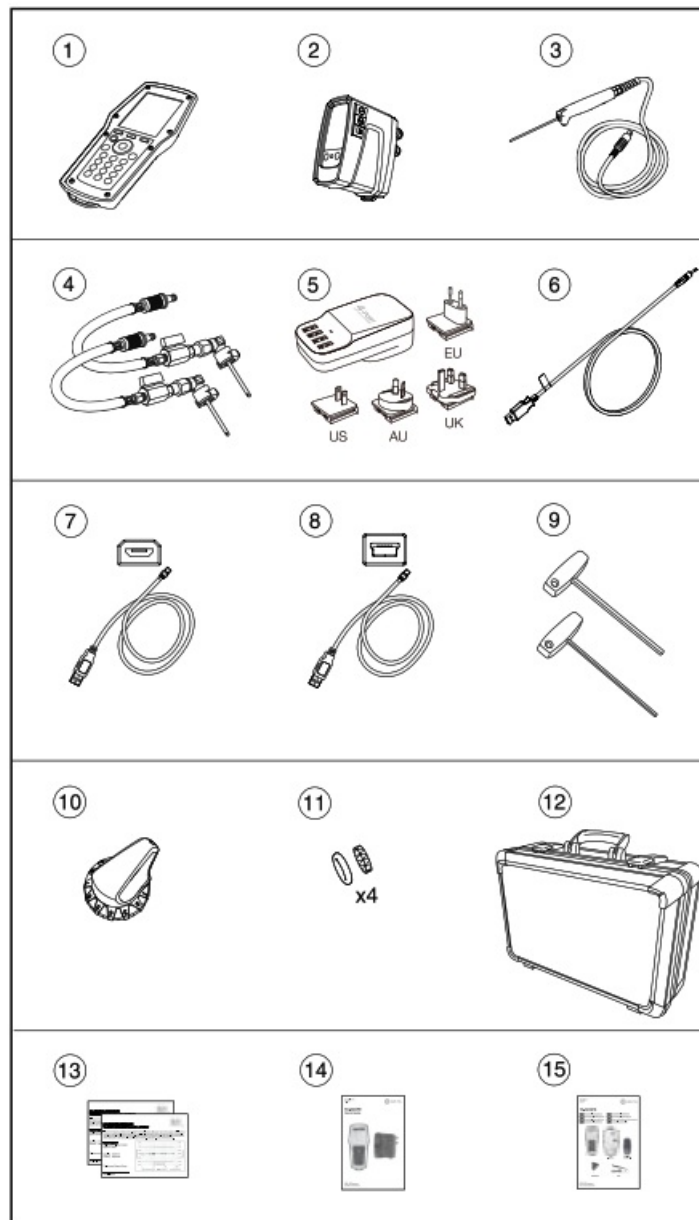
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TA-SCOPE Hydraulic Testing Device

Welcome to your new TA-SCOPE

Instrument and measuring equipment





1 Handheld unit (Hh)
 2 Dp Sensor unit (DpS-Visio)
 3 Digital Temperature Sensor (DTS)
 4 Measuring hoses with probe
 5 Multi-charger for Handheld and Dp Sensor(s)
 6 USB charging cable;
 Hh – Multi-charger
 7 USB-cable for connection;
 Hh – DpS-Visio /
 PC – DpS-Visio /
 DpS-Visio – Multi-charger

8 USB-cable for connection;
 Hh – PC
 9 Allen Keys 3 mm/5 mm
 10 Presetting tool TBV-C, -CM, (-CMP)
 11 Spare filters and O-rings for hoses (4 pcs)
 12 Case
 13 Calibration certificates for DpS-Visio and
 DTS
 14 Quick Guide
 15 Guarantee/Service/Calibration form



CAUTION! Read the user manual before using the product. Complete TA-SCOPE manual available on www.imi-hydronic.com.

Handheld

The display is divided into three areas, the Information bar, the Main display and the Function keys.



Information bar

Icons on the Information bar display details of battery status, connection type and intensity.

Main display

Instructions on how to carry out hydronic functions are shown on the Main display.











Function keys

The three top keys on the keypad are used for selecting options shown in the lower part of the Main display. The options vary depending on which menu is currently shown.









Keypad

The keypad has alphanumeric keys. Select a letter by repeatedly pressing the key until the desired letter appears. Prolonged press enters a digit.

Information bar

	Battery status bar
	Charging of battery
	Battery symbol
	Handheld
	Dp sensor DpS-Visio
	Dp sensor (older version)
	Wireless communication
	Intensity of wireless signal
	Wireless signal set to Off
	Connection by cable

Press function key “Language” to select desired language.

	Function key Options depend on text in display
	On/Off
	Flow adjustment (Computer method) Short cut button
	Return/Escape
	Enter
	Navigation up/down
	Navigation right/left
	Alphanumeric 0-9. A-Z plus symbols

DpS-Visio

The display is divided into three areas, the Information bar, the Main display and the Function keys.

! Note! Never leave water in the Dp sensor unit when risk of freezing exists (i.e., in the car during winter).



Connections for cables

Handheld connections

1. Charger
2. USB to PC
3. Temperature probe (SPTP or DTS)
4. USB to Dp Sensor



DpS-Visio connections

1. Temperature probe 1 (SPTP or DTS)
2. Temperature probe 2 (SPTP or DTS)
3. Charger and USB to Handheld



DpS-Visio – Main screen sequences



Navigate button

Short press: Browse between menus described here
Long press: Entering setting menu (see page 6)

	Home Dips-Visio type (5 or 10 bar) Software version number Battery level Logging progress (Replaced by when a logging is waiting to start)		Logging Logging progress (Replaced by when a logging is waiting to start) Progress in time / Total logging time Time-step Last logged values
	Info Software version number Wireless software version number Serial number		Battery Battery level Battery installation date Battery voltage Battery current (+ when charging)
	Calibration Dp range Date of last factory calibration Date of next recommended factory calibration		

DpS-Visio – Settings menu



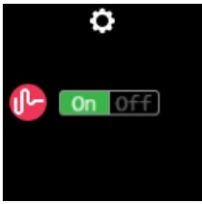
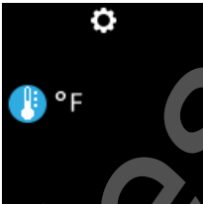
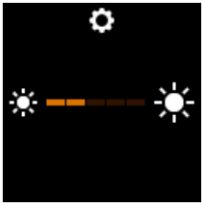
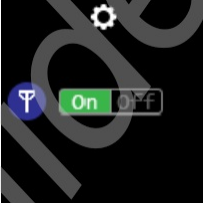



In the settings menu, customized adjustments of the Dips-Visio and information representation are managed.



Long press to open settings menu
Long press to close settings menu
Short press – jump to next screen



Arrow button to change settings

	Settings are open		Change Dp measuring unit
	Toggle Dp filtering on/of		Change temperature unit
	Change display brightness level		Toggle radio on/off
	Change time to display auto off		Long press to  close settings menu

Quick measure – Handheld + DpS-Visio

Measure flow



Warning! Beware of hot fluid in the valve. Always follow the sequence described in the manual when connecting and disconnecting the measuring equipment.



Warning! The surface on the Dp sensor unit can be hot while measuring on hot media. Always use suitable safety equipment.

1. Turn the handheld (Hh) and the Dp sensor (DpS-Visio) on.
2. Connect measuring equipment.



3. Hh: Navigate to Quick Measure in the main menu and press enter.
4. Hh: Navigate to Measure Flow and press enter.

Water temperature over 125°F (52°C) can cause severe burns instantly or death from scalds.

Always consider the risks of injury from hot water before starting any measurement on a heating system and follow relevant local legislative, regulations, standards and good industry practice for working with pressurized hot water systems. Always use appropriate personal safety equipment when working on a heating system.

Examples of appropriate safety equipment include (but are not limited to) a face shield, heat resistant rubber gloves and boots and a long sleeved apron (long enough to cover the tops of the boots). Always wear your boots inside your trouser legs to prevent/minimize any hot water flowing into your boots. IMI Hydronic Engineering will not take any responsibility for injury Howson- ever caused by hot water during measurement.

09:27:59
Measure flow

Flow: -- USGPM

Dp: -- ft H2O

Temp: -- °F

5:1 40 USGPM -- %

5:2 STAD 3/4"

5:3 3.98 turns Cv = 6.54

5:4 Water

Options Units Measure

- 5:1 Input the given Design Flow for the terminal.
- 5:2 Define valve.

5:3 Input Valve Opening.

5:4 Define fluid

5. Hh: Press function key Measure to start measuring.

(The DpS-Visio will automatically calibrate and then go to measuring mode.)

Quick measure – DpS-Visio

Measure differential pressure and temperature




Short press or long* press



Double press

	By-pass valve opening		Measurement
	Flushing and calibration		Measurement without flushing and calibration
	By-pass valve closing		Brings back to main screen sequence

*) Keeping  pressed from the start keeps the calibration sequence in flushing phase.
Flushing phase is ended by releasing

PC communication

Download Hy Select

Download and install Hy Select from www.imi-hydronic.com.

Transfer of data

Connect TA-SCOPE to your PC to transfer data, e.g., hydronic networks and collected system information to and from the HySelect software.

Use the USB-cable to connect the Handheld to a PC and the Hy Select software will automatically connect to TA-SCOPE. Simply follow the instructions on the PC.

Software upgrade

When a new version of the TA-SCOPE software is available, Hy Select will automatically suggest an upgrade. Simply connect your TA-SCOPE and follow the instructions on the PC.



Care and storage recommendations

- TA-SCOPE can be cleansed with a dampened cloth and a lenient cleaning-agent.
- Change filter in the hoses regular.
- Never leave water in the Dap Sensor when risk of freezing exists (i.e., in a car during winter)!
- Do not expose to extreme temperatures, the battery may explode if disposed of in fire.
- Storage above 140° F is not allowed.
- Other usage than specified in this manual may cause damage to the unit or user.



Warning! Do not open the instrument. This can damage the instrument and void your guarantee! See user manual for further information.

Calibration/Service

The instrument (Dp sensors, temperature sensors) has been calibrated before delivery. IMI Hydronic Engineering recommend a yearly calibration and service. (See Guarantee/Calibration/Service form). Contact your local sales office for more information.

Batteries

Capacity and charging

Upon delivery the TA-SCOPE is partly charged and prepared to start balancing immediately. The Information bar on the Handheld displays the battery status for both Handheld and DpS-Visio whenever communication is established.

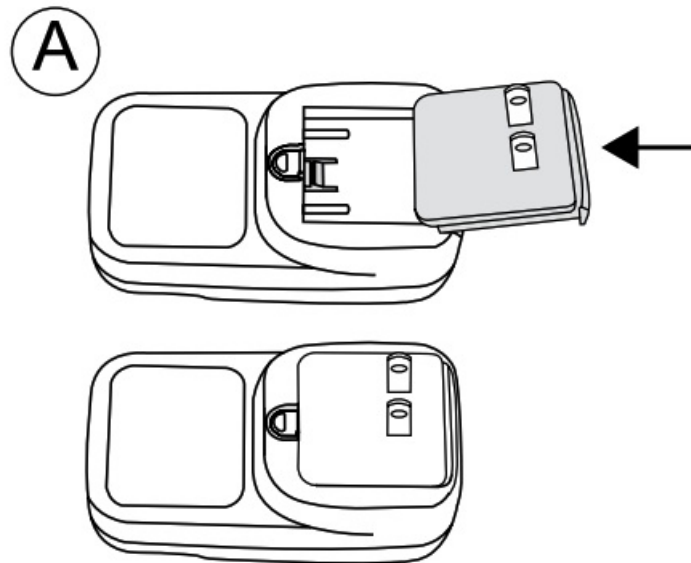
The Handheld and Dp sensor(s) can be charged at the same time through the multi- charger. The TA-SCOPE is delivered with one multi-charger and 2 charging cables.

Handheld is charged with a special charging cable. Dips-Visio with the same cable as used for communication with handheld (Hh) andic.



Charging – Operation instruction

(Choose the correct plug (fig A).)



1. Connect the multi-charger to the wall socket. Wait for the indicator to show green color.
2. Plug the device(s) into the USB port(s).



Warning! The supplied multi- charger from IMI Hydronic Engineering must be used!



CAUTION! (Multi-charger)

1. Do not bend the blade or pins of the plug.
2. If there are any strange sound, smoke or odor, pull of the cable(s) immediately.

3. Do not disassemble. (it may cause fire or electric shock).
4. Do not put any sharp objects into the venting hole. (it may cause fire or electric shock).
5. Ensure to plug the multi-charger firmly.
6. Ensure not to use damaged cable(s). (it may cause fire or electric shock).
7. Ensure not to place the multi-charger on a bed, bag or inside a closet that is not good for ventilation.
8. Always wipe off the multi-charger with a soft fabric, not water mop. (water may cause electric shock).
9. Keep the power plug and outlet clean. (dirt may cause a short circuit and fire).
10. Keep the product out of reach of children.

Technical specification

Measurement range

Total pressure

-TA-SCOPE..... max. 232 psi

-TA-SCOPE HP..... max. 362 psi

Differential pressure

-TA-SCOPE....0 – 72.5 psi

-TA-SCOPE HP.....0 – 145 psi

Recommended pressure range during flow measurements

-TA-SCOPE.....0.02 – 72.5 psi

-TA-SCOPE HP.....0.5 – 145 psi

Temperature liquid medium measurement.....-4 – +248°F

Measurement deviation

Differential pressure

– TA-SCOPE..... 0.015 psi or 1% of reading, whichever is the highest

– TA-SCOPE HP..... 0.029 psi or 1% of reading, whichever is the highest

Flow..... as for differential pressure + valve deviation

Temperature.....<0.36°F

Ambient temperature

During operation.....+32 – +104°F

During charging.....+32 – +104°F

During storage *.....-4 – +150°F

*) Do not leave water in the sensor when there is a risk of freezing

Humidity

Ambient humidity.....max. 90%RH

Sealing

Handheld unit (in wireless mode)..... IP 64

Dp sensor unit Dips-Visio (in wireless mode)..... IP 64

Digital temperature sensor..... IP 65

IP6X = dust tight

IPX4 = protected against splashing water

IPX5 = protected against water jets

Multi-charger

Input voltage..... 100-240 VAC

Input frequency..... 50-60 Hz

Output voltage.....5 VDC

Output current.....6800 mA

Connectors..... EU, UK, US, AU/NZ


Technical specifications valid at an altitude of max. 6560 ft.

All manuals and user guides at all-guides.com

We reserve the right to introduce technical alterations without prior notice.



Documents / Resources

 <p>IMI TA TA-SCOPE Hydraulic Testing Device</p>	<p>IMI TA TA-SCOPE Hydraulic Testing Device [pdf] User Guide TA-SCOPE Hydraulic Testing Device, TA-SCOPE, Hydraulic Testing Device, Hydraulic Device, Testing Device</p>
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References

- [All-guides – Innovative Search Service of Online Manuals](#)
- [IMI IMI Hydronic Engineering | Home](#)