CI-340
Handheld Photosynthesis System

Accurate and Portable—Gas Exchange on the Go!

Compact and durable, this single-handed tool measures photosynthesis, respiration, transpiration, stomatal conductance, PAR and internal CO_2 all in one easy to carry unit. Optional accessory modules enable the researcher to control CO_2, H_2O, temperature, light intensity, and measure chlorophyll fluorescence, while the ten different customized chambers accommodate any leaf size, including conifer needles and cacti. Direct chamber connection to the CO_2/H_2O gas analyzer reduces measurement delay and enables rapid measurement of gas exchange.

CID Bio-Science INC.
Tools that work where you work.

Control Modules

CI-301LA

Light Module

The Light Module allows researchers to adjust the light intensity above the leaf in the chamber to perform light-response curves and standardize light environment across measurements.

CI-301AD

Adjustable H_2O & CO_2 Control Module

The H_2O & CO_2 Control Module enables researchers to set or adjust the CO_2 and H_2O concentrations in the incoming air stream in order to investigate leaf-level physiological responses.

CI-510CS

Temperature Control Module

The Temperature Control Module allows researchers to adjust the temperature of the leaf chamber to evaluate changes in photosynthetic rate relative to high or low temperatures.

CI-510CF

Chlorophyll Flourescence Module

The Chlorophyll Fluorescence Module measures fluorescence simultaneously alongside gas-exchange measurements and provides researchers with information about changes in photosynthesis efficiency and heat dissipation from a leaf.

The control modules expand the use of the CI-340 and enable users to modify light intensity, manipulate CO_2 and H_2O concentrates, adjust temperature, and measure chlorophyll fluoresence.

Leaf Chambers

LC-1
Square Leaf Chamber

For open-system measurements of trees, shrubs and herbs with small, broad leaves.
25 mm x 25 mm

LC-5
Large Cylindrical Leaf Chamber

For open-system measurements of large-needled conifers. 50 mm x 70 mm

LC-10
Liter Leaf Chamber

For closed-system measurements of very large leaves. 180 mm x 130 mm x 170 mm

LC-11
Cactus Leaf Chamber

For measuring the leaves of Cacti with the CI-340 Handheld Photosynthesis System.

Our **10 customized leaf chambers** maximize the amount of leaf area enclosed in the sample chamber. Visit our website to see more.

Applications

- Ecologists use the CI-340 to measure seasonal changes in photosynthetic rate as a response to temperature shifts.
- Agronomists use the CI-340 to measure water status of crop plants across related genotypes.
- Horticulturalists use the CI-340 to measure changes in leaf physiology as a result of drought stress.

To see a full list of application resources including published research with the **CI-340 Handheld Photosynthesis System**, please visit:
www.cid-inc.com/applications

Product Features

- Lightweight and optimized for single-handed operation
- Stable analyzers for accurate CO_2 and H_2O measurements
- Accommodates open and closed system measurements
- Infrared, non-contact leaf temperature measurement
- Ten interchangeable chambers customized for different leaf types
- Custom soil respiration chamber
- Control modules for light, temperature control, CO_2 / H_2O supply and chlorophyll fluorescence measurement
- Chlorophyll fluorescence and photosynthesis measured simultaneously

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