

## MicroLab Equipment Packages



MicroLab instruments may be purchased in five different packages with increasing sensor capability. Additional sensors can be added later. When purchased as part of a “package”, the sensor cost is discounted. Sensor packages are listed by chemical measurement and price on page 29 of the catalog, and by sensor content in the table below.

There are no hidden costs. A site license for MicroLab’s high quality software is included with every instrument. You may load the software on lab computers and college networks. Students may download personal copies of the software from the MicroLab web site to make graphs and reports at home. Periodic upgrades are available free from the MicroLab web site.

With addition of a computer, MicroLab packages are completely operational on delivery.

- The **FS-516** is a stand-alone **FASTspec™** scanning spectrophotometer that will simultaneously read transmission, absorbance, fluorescence, turbidity, and scatter in the 360-940 nm range. It will perform Beer’s Law, color comparison, kinetics, and quantitative and visual fluorescence experiments. It is a powerful replacement for a classic Spectronic-20. MicroLab’s patented **FASTspec™** scanning spectrophotometer is built into the FS-522 lab interface and is included all of the FS-522 packages.

- The **FS-522A** “Advanced” Package includes the **FASTspec™** 360-940 nm scanning spectrophotometer plus eight high resolution inputs for temperature, pressure, pH, dissolved oxygen, Redox potential (ORP), conductance, voltage, counts, etc. Sensors for pressure, temperature, and voltage are included with this package. With addition of a pH electrode, the FS-522A will make most of the measurements required for general chemistry.



- The **FS-522C** “Comprehensive” is a FS-522A package with added sensors for acid-base chemistry and precision titrations: a pH electrode, a drop counter, a drop dispenser, and new non-corrosive laboratory clamp for the drop counter.

- The **FS-522E** “Expanded” is the FS-522C package with added sensors for electrochemistry: a Multi-EChem Half Cell Module for Electrochemical Series and Nernst Equation experiments and the Model 270 regulated Electrochemistry Power Supply for electroplating and coulometric experiments.

- The **FS-522E-2** is the FS-522E package plus a conductance sensor, a stainless steel thermocouple, a second thermistor, the new 116 Vapor Pressure kit, and an upgrade to the Model 154 Precision Constant Volume Drop Dispenser with its new noncorrosive clamp

|  | FS-516 | FS-522 "Advanced" | FS-522 "Comprehensive" | FS-522 Expanded | FS-522 E-2 |
|--|--------|-------------------|------------------------|-----------------|------------|
| <i>Internal FASTSpec™ scanning spectrophotometer</i>             | *      | *                 | *                      | *               | *          |
| Internal 0-2 atm Pressure sensor                                 |        | *                 | *                      | *               | *          |
| 103 Temperature sensor   |        | *                 | *                      | *               | (2)        |
| 60 mL gas syringe (Boyle's Law)                                  |        | *                 | *                      | *               | *          |
| 132 Voltage lead   |        | *                 | *                      | *               | *          |
| 121 pH electrode   |        |                   | *                      | *               | *          |
| 226 IR Reflective Drop Counter with New 158 non-corrosive clamp. |        |                   | *                      | *               | *          |
| 2260 60 mL drop dispenser  |        |                   | *                      | *               | Model 154  |
| 152 Multi-EChem Half Cell Module                                 |        |                   |                        | *               | *          |
| 270 Electrochemistry Power Supply                                |        |                   |                        | *               | *          |
| 160 Conductance Probe  |        |                   |                        |                 | *          |
| 109 Stainless Steel Thermocouple                                 |        |                   |                        |                 | *          |
|  |        |                   |                        |                 |            |
| <b>Recommended Upgrades</b>                                      |        |                   |                        |                 |            |
| 154 Constant Volume Drop Dispenser + New 156 Clamp               |        |                   | *                      | *               | Included   |
| 116 Gas Pressure Apparatus (New!)                                |        | *                 | *                      | *               | Included   |
|  |        |                   |                        |                 |            |

