

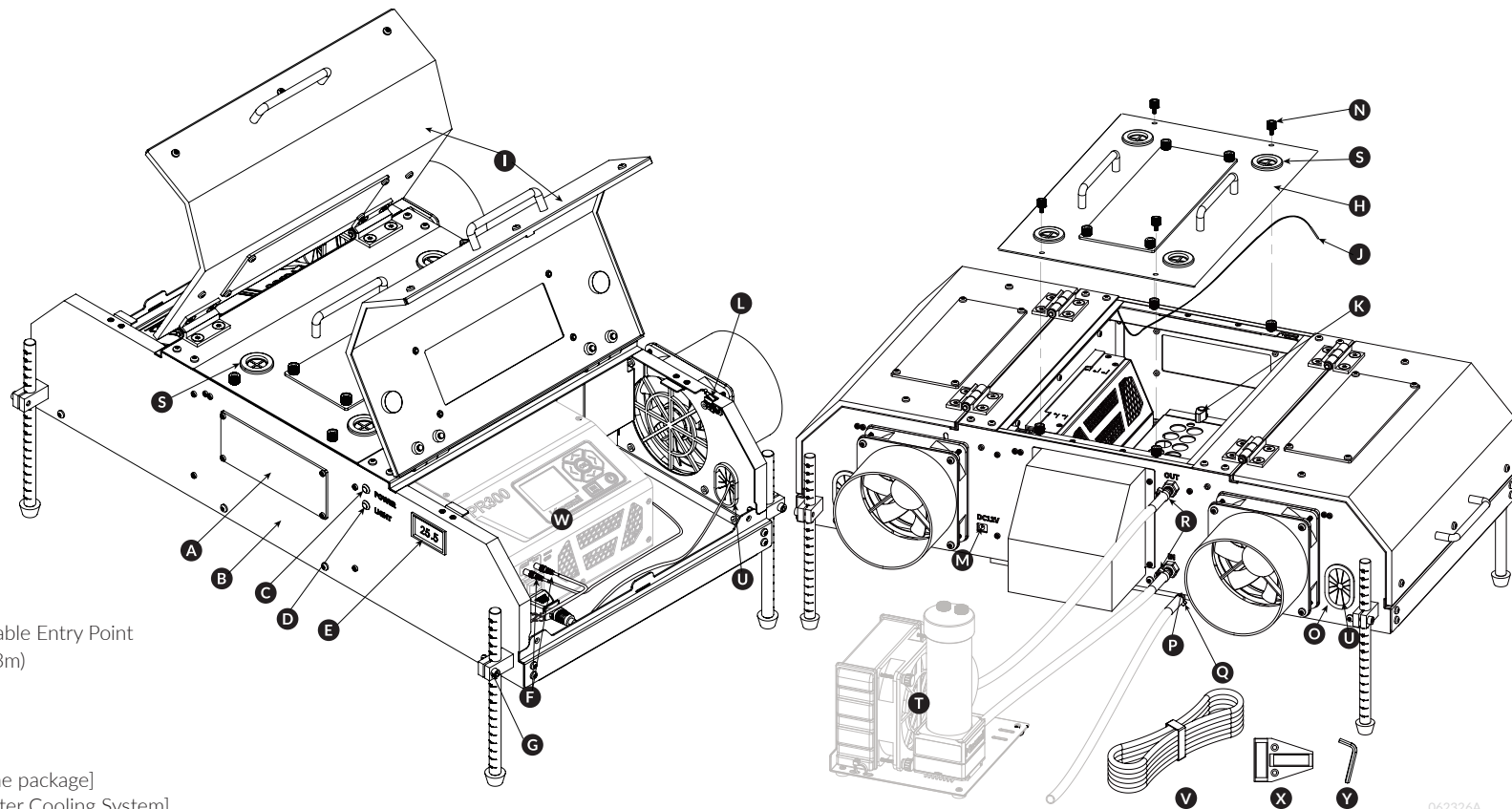
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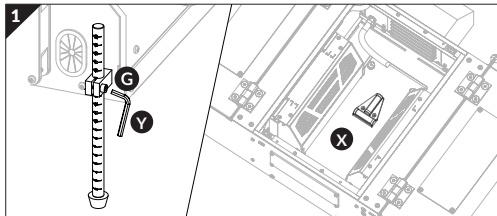
LED PhotoReaction Lighting

PR300 Shielding Box Plus Quick Start Guide

- A Viewing Window
- B Front Panel
- C Power Indicator
- D Light Indicator
- E Digital Temperature Display
- F 0-10V Unit Link Cable x2
- G Leg Adjustment Hex Screw (M5) x4
- H Top Cover
- I Side Door
- J Temperature Probe
- K *Water Tank
- L Interlock Sensor
- M Shielding Box Plus DC 12V Input
- N Top Cover Thumb Screw (M4) x4
- O Rear Panel
- P Drain Outlet
- Q Cable Tie x2
- R Plastic Hose Clamp x8
- S Feedthrough Port
- T *Water Cooling System

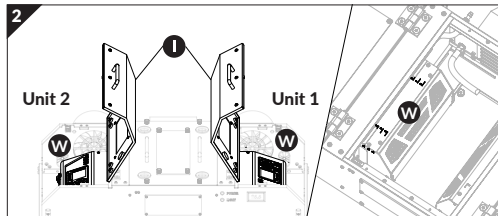
- U PR300 Power Cable Entry Point
 - V Water Hose (4.3m)
 - W *PR300
 - X Spirit Level
 - Y Hex Key
- [*Not included in the package]
[*Included in **T** Water Cooling System]





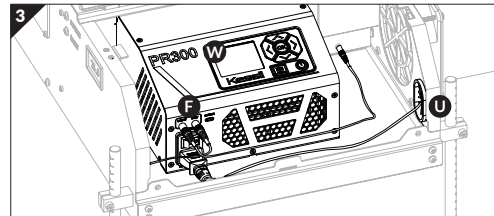
If using a magnetic stirrer (not provided), loosen the four (G) **Leg Adjustment Hex Screws** with a (Y) **Hex Key** and adjust the support leg height so the Shielding Box Plus sits comfortably on top of the stirrer.

Place the (X) **Spirit Level** inside the box to ensure levelness, then retighten all screws to stabilize. If a stirrer is not used, set the height to $\geq 9\text{cm}$ to maintain adequate airflow beneath the box.



Open the (I) **Side Doors** to install the (W) **PR300**. A (W) **PR300** must be placed in the Unit 1 position to enable the safety interlock connection through (F) **0-10V Unit Link Cables**.

When using the (T) **Water Cooling System**, the scale markings on the (W) **PR300** can be aligned to set the precise distance (in centimeter) between the PR300 protective glass and the reaction vial position inside the (K) **Water Tank**.

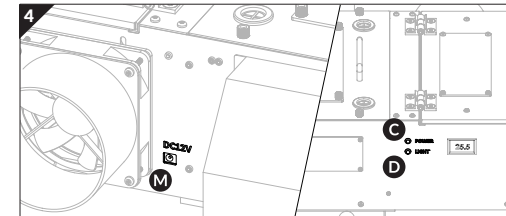


Pass the PR300 power cable through the (U) **PR300 Power Cable Entry Point**.

Single-Lamp Operation: Connect the built-in (F) **0-10V Unit Link Cable** labeled "TO PR300 UNIT 1 OUTPUT" to the "Output" port of the PR300 in the Unit 1 position to engage the safety interlock.

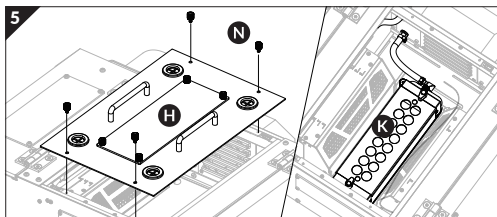
Dual-Lamp Operation: Connect the remaining (F) **0-10V Unit Link Cables** to their respective PR300 ports as labeled. This design designates the PR300 in the Unit 2 position as the master control unit.

Safety interlock is active only when the box is powered on, all doors and covers are securely closed, and the 0-10V cables are properly linked for either single- or dual-lamp configurations.



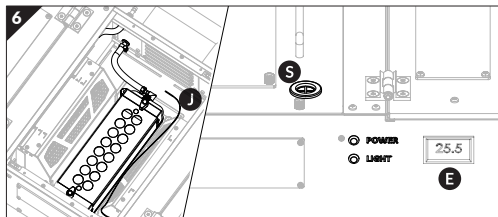
Close the (I) **Side Doors** and power on both the (M) **Shielding Box Plus DC 12V Input** and the (W) **PR300**. The (C) **Power Indicator** will illuminate green to signify that the system fans are active.

The (D) **Light Indicator** will turn green to signify that PR300 is emitting light (intensity $\geq 1\%$) only when safety interlock is fully engaged. Opening any door or cover will trigger the safety interlock, immediately turning off the (D) **Light Indicator** and forcing the PR300 to pause (intensity becomes 0%). The PR300 will automatically resume its previous setting or program once all doors and covers are resecured.



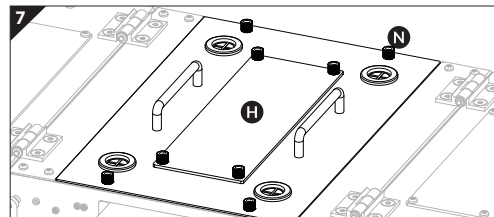
The (N) **Top Cover Thumb Screws (M4) x4** can be loosened to remove the (H) **Top Cover** for sample placement.

To use with the (T) **Water Cooling System**, place the (K) **Water Tank** inside and connect the internal water hoses to both ends of the tank.

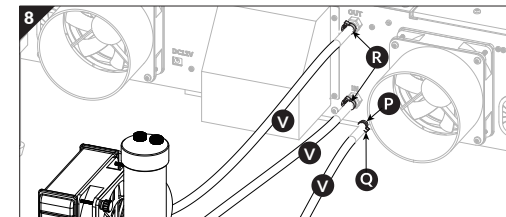


Install the two button batteries included in the package to activate the (J) **Temperature Probe**, and the real-time temperature measured by the probe will show on the (E) **Digital Temperature Display**.

Users can route external gas or liquid lines to the reaction samples inside the box through the (S) **Feedthrough Ports**.



Replace the (H) **Top Cover** and retighten the screws after sample placement.



To set up the (T) **Water Cooling System**, cut the (V) **Water Hose** to the required length, then connect the hoses from the "Outlet" and "Inlet" ports of the Shielding Box Plus to the ports on the (T) **Water Cooling System**. Secure these connections tightly using the (R) **Plastic Hose Clamps**. Finally, connect hoses to the (P) **Drain Outlet**, secure them with the (Q) **Cable Tie**, and route them to a waste container or sink to drain the condensate.