**Figure S2**

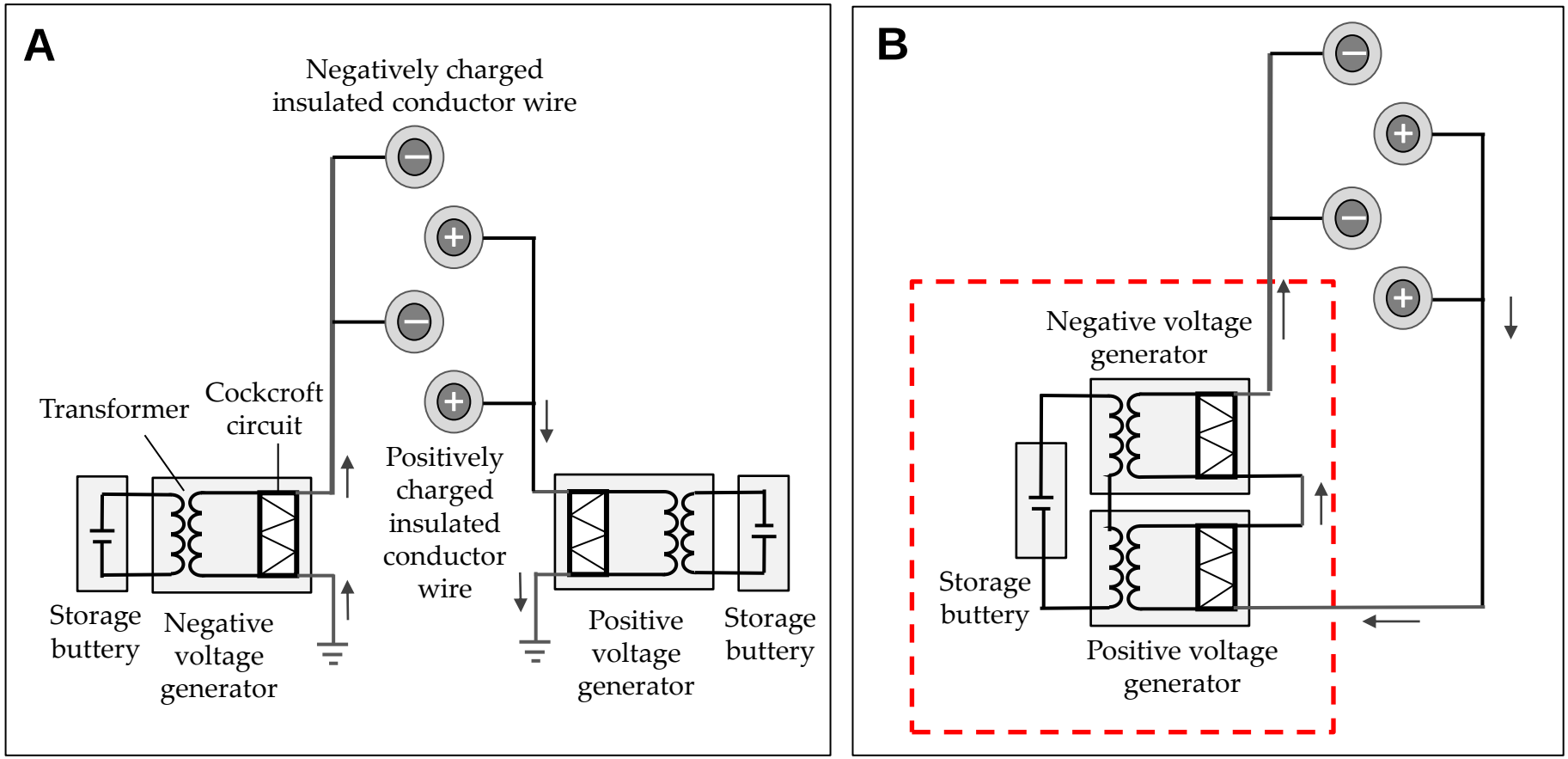


**Figure S2.** Schematic representations of (A) grounded and (B) ungrounded circuits integrated into a DD screen. The arrow indicates the direction of movement of negative electricity (free electrons). In (A), a negative voltage generator collects negative charge from the ground via a voltage enhanced by a transformer and Cockcroft circuit. The charge was supplied to insulated conductor wires (ICWs) that then became negatively charged. By contrast, a positive voltage generator pushes free electrons from the linked ICWs to ground to generate positively charged ICWs. An electric field forms between these oppositely charged wires. Both voltage generators were operated by a storage battery. In (B), free electrons from the conductor are supplied directly to another conductor using voltages produced by two voltage generators in a single box. In this circuit, the DD screen does not require a ground line and therefore is considered portable.