SEMI-AUTOMATED 96 WELL HARVESTER
The Manual Harvester 96® is designed to provide the utmost flexibility in cell harvesting. Parameters are individually controlled to enable the operator to set the optimum conditions for any protocol. This flexibility allows operators to use their own creativity in achieving the desired results. By including a pulse wash program, controlled by the operator, this model also brings the gap between a fully automated and a manual Harvester.

Semi-Automated Harvesters
- Low cost
- Compact size
- Ease of operation
- Microplates or Microtubes
- Adjustable wash rates
- Pulse wash program
- Removable wash tips
- Double "O" ring filter mat sealing
- Autotrap accessory
- Quick & easy quality controls

Pulse Wash Program
All the durations of wash and aspirate times, in the pulse wash program, can be set from program switches under the front panel. By varying the wash, aspirate and wash/aspirate times, the operator can achieve optimal harvesting. The pulse wash program has five cycles of five steps each. The first cycle is designed as a prewet from an empty plate. At the pause, the operator changes to the test plate. Pressing run completes the remainder of the program with a series of filling and emptying of the wells. This action aids in cleaning the wells while concurrently washing down the background count.

Safety Features
The Manual Harvester 96 is equipped with a vacuum switch that inhibits operation if the vacuum is less than 5" of Hg, thus avoiding flooding. An automatic aspirate time of two seconds after each wash/aspirate empties the wells. When the Manual Harvester 96 is used with the Autotrap, a blinking LED alerts you when the trap is full. Simultaneously it disables the aspirate function, to avoid spilling liquid.

Push Button Operation
*Five push buttons control the functions of the semi-automatic Harvester 96*
**Wash:** Pressing this button opens the wash valve for a time, as set by the switch SW1.
**Aspirate:** The aspirate valve is open for as long as this button is pressed.
Wash/Aspirate: Both wash and aspirate valves are open as long as this button is pressed. The aspirate valve stays open for two seconds after the button is released.

Pulse Wash: This button starts a five cycle pulse wash program. The individual wash, aspirate and wash/aspirate times are set by the operator using the program switches.

Stop: Press this button once to pause the Pulse Wash program. If already in pause (as after the first cycle), pressing the stop button quits the program.

Schematic Cross Section of Removable Tip Design

Ordering Information
Mach IIIM
6 x 16 format on 15mm centers
*(supports Wallac Betaplate®)*
Cat. No. 96-2M

Mach IIIM
8 x 12 format on 9mm centers
*(supports Wallac MicroBeta®)*
Cat. No. 96-3M

Mach IIIMU
8 x 12 format on 9mm centers