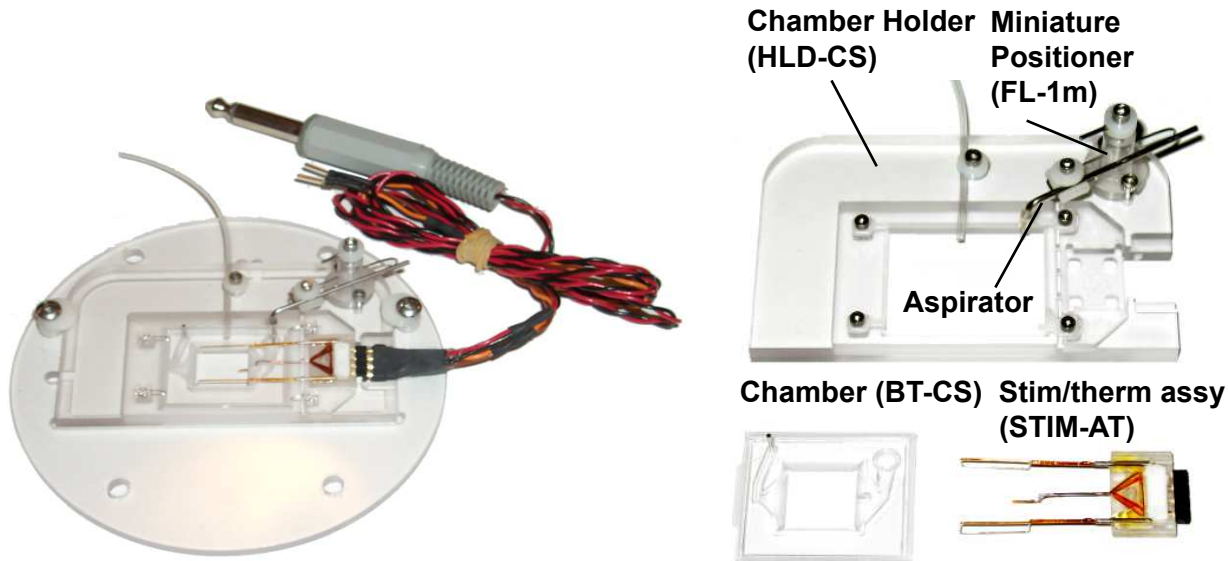




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Equipment for cellular & electrophysiology research

Culture chamber system



- **Low cost reusable culture/stim chamber (BT-CS)**
-small volume, laminar flow, inflow/outflow port, #1 glass bottom
- **Stimulation/thermistor assy (STIM-AT)** presses into place-**no tools required**
- **Holder (HLD-CS)** for chamber, aspirator
- **Microscope stage adapters (MSA-NIK, MSA-TS100, MSA-OL11, MSA-LEI/DM, MSA-MZ etc.)** for all popular microscopes
- **BT-CS fits Ionoptix Corp C-Dish** for stimulation during culture

DESCRIPTION

The **Culture Chamber system** uses a **low cost** but complete cell perfusion chamber (**BT-CS**) for holding cells or small pieces of tissue and then transferring them to a microscopy or electrophysiology setup. The **BT-CS** has an inflow tube and area for aspirating solution and has laminar flow over a range of flow rates. The **Stimulation/thermistor assy (STIM-AT)** presses into the **Chamber holder (HLD-CS)**. The unique design of the stimulation electrodes is such that they clip into a small recess cut along the front and rear lower edges of the chamber. They can be rebent to their original shape if they are accidentally damaged. The aspirator is positioned with the **FL-1m Miniature positioner** attached to the **HLD-CS**.

In a typical setup with temperature control the **HPRE2 Pre-heater** is used for heating the chamber. perfusate. The **MPRE8 8 channel pre-heater** can be used to superfuse a region of the chamber. These can both be controlled by the **TC2BIP Temperature Controller** for electrophysiology or **mTCII micro-Temperature Controller** for microscopy. If the **TC2BIP** is equipped with the third channel (**TC2-Ch3**) the temperature in the chamber can be monitored with the thermistor built into the **Stimulation/thermistor assy**.

The **Chamber holder** fits into the **Microscope stage adapter**. These are available for most popular microscopes (see our website for further information).

Specifications

BT-CS: Central chamber-volume 0.3ml
- 13x12mm
- aspiration port matches male Luer for priming
- supplied with #1 cover slide attached
- polycarbonate (autoclavable)

STIM-AT: Platinum Iridium stimulation wires, snaps into **HLD-CS**

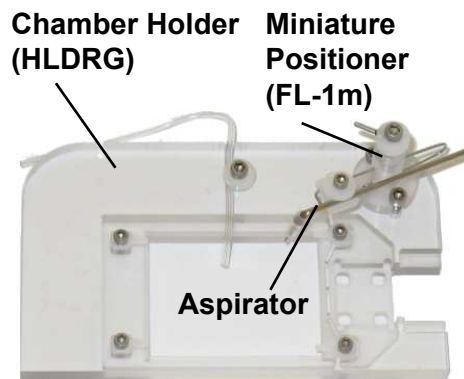
HLD-CS: Holds **BT-CS**, **STIM-AT** and **FL-1m**. Fits into MSA-XXX stage adapters



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Culture chamber system

Replaceable glass



- **Reusable culture/stim chamber/gasket (BTRG-CH/GA), and bottom clip (BTRG-BC)**
 -small volume, laminar flow (to 2ml/min), inflow/outflow port, accommodates #1 or #1 1/2 glass or plastic cover slide bottoms
- **Stimulation assy (STIM-AT)** presses into place- no tools

Chamber (BTRG) Stim/therm assy (STIM-AT)



Chamber & gasket

Bottom clip



Cover slide

DESCRIPTION

The **Culture Chamber system-RG** uses a **low cost** but complete cell perfusion chamber (**BTRG-CH/GA/BC**) for either culturing cells in or using cells grown on a 24x30mm #1 or #1 1/2 glass or plastic cover side. The chamber is then transferred to a microscopy or electrophysiology setup. The **BTRG** has an inflow tube and separate port for aspirating solution and supports laminar flow over a range of flow rates (up to 2ml/min). The **Stimulation/thermistor assy (STIM-AT)** presses into the **Chamber holder (HLDRG)**. The unique design of the stimulation electrodes is such that they clip into a small recess cut along the front and rear lower edges of the chamber. They can be rebent to their original shape if they are accidentally damaged. The aspirator is positioned with the **FL-1m Miniature positioner** which is attached to the **HLDRG**.

In a typical setup with temperature control the **HPRE2 Pre-heater** is used for heating the chamber. perfusate. The **MPRE8 8 channel pre-heater** can be used to superfuse a region of the chamber. These can both be controlled by the **TC2BIP Temperature Controller** for electrophysiology or **mTCII/mTC3 micro-Temperature Controller** for microscopy. If the **TC2BIP** is equipped with the third channel (**TC2-Ch3**) the temperature in the chamber can be monitored with the thermistor built into the **Stimulation/thermistor assy**.

The **Chamber holder** fits into the **Microscope stage adapter**. These are available for most microscopes but if we don't already have one we will make one for you at the same cost as a standard one.

Specifications

BTRG-CH: Central chamber-volume 0.3ml

- 13x12mm
- aspiration port matches male Luer for priming
- polycarbonate (autoclavable)

BTRG-GB: Silicon gasket (self adhesive) attached to **BTRG-CH**

BTRG-BC: Polycarbonate bottom clip (autoclavable)

STIM-AT: Platinum Iridium stimulation wires, snaps into **HLDRG**

HLDRG:HLDRG2 Holds **BTRG-CH/GA/BC**, **STIM-AT** and **FL-1m**. Fits into **MSA-XXX** stage adapters.

HLDRG2 has extra connection for a Ag/AgCl ground wire or pellet.

Cover slides: #1 plastic or glass