## SUPATRAC



## Internal Mass Adaptor

## INSTALLATION

- calculate desired mass position*
- attach cartridge guard
- dismount arm
- remove cartridge and finger lift
- squeeze sponge and insert into right arm tube
- use a rod to push it far in
- insert the free end of the mass
- retain a part of the tether
- push the mass to correct depth
- maintain mass position with rod and pull sponge with tether until mass is firmly wedged
- push tether in to hide it
- re-mount arm


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## Internal Mass Adaptor

The internal mass adaptor increases the inertia of the Blackbird tone-arm for better performance with low compliance cartridges. It can be used instead of the external mass adaptor or in addition to it. The process of installation is more complicated than the external mass adaptor, but once installed it is invisible as it sits inside the arm tube.

## *

To calculate correct position for internal adaptor:

- measure distance (d) from pivot to centre of external mass adaptor
- measure internal mass length (L)
- weigh external mass adaptor (m)
- weigh internal mass (M)
- recall arm's effective length (E)
- equivalent distance (D) from arm tip to internal mass will be:
$D=E-(L / 2)-V(m \times d \times d / M)$
This does not account for variation to inertia after counterweight adjustment, but should be close enough for most purposes.


## WARNING

Use protective gloves as the tether and arm can cut your fingers.

The carbon-fibre arm tube is fragile and may crack if excessive force is applied to it from inside or outside. If you get stuck installing or removing the internal mass adaptor, please contact SUPATRAC for advice rather than applying too much force.

## REMOVAL

- attach cartridge guard
- dismount arm
- remove cartridge and finger lift
- retrieve tether with wire hook
- pull mass gently until it dislodges

For more information please visit www.supatrac.com

## PARTS



Replacement parts are available from SUPATRAC.

