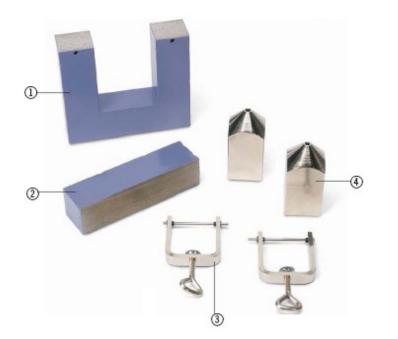
3B SCIENTIFIC® PHYSICS



Transformer Core D 1000976 Pole Pieces D 1000978

Instruction sheet

06/15 JH



- 1 Transformer core (U-core)
- 2 Yoke (I-core)
- 3 Clamps for clamping the yoke or pole pieces firmly to the core.
- 4 Pair of drilled pole pieces

1. Safety instructions

- Polished surfaces should be kept free of dirt and grease.
- Transformer core, yoke and pole pieces should not be exposed to moisture.
- For transporting the U-core and yoke (l-core), make sure the clamps are firmly secured.
- During the experiment, the yoke or pole pieces should be firmly secured using the clamps.

2. Description, technical data

2.1 Transformer core

The transformer core with yoke and clamps are provided for use in conjunction with the acces-

sories listed under item 4 of the instructions for assembling the demountable transformer.

Transformer core and yoke made of highquality, laminated iron for use in transformers, with two holes drilled for securing pole pieces or yoke with the aid of clamps.

Cross section of core:	40 mm x 40 mm
Height including yoke:	170 mm
Width:	150 mm
Material:	Laminated iron
Weight:	6 kg approx.

- 2.1.1 Scope of delivery
- 1 Transformer core
- 1 Yoke
- 2 Clamps (pair)

2.2 Pair of drilled pole pieces

The pole pieces are required for experiments on electromagnetism where a well-defined air gap is necessary (e.g. Waltenhofen's pendulum or investigations of paramagnetic and diamagnetic samples).

Pole pieces made of soft iron each with one plane and one conical end. The pole pieces have a bore drilled through the middle of them.

Cross section of core:	40 mm x 40 mm
Bore at conical end:	5 mm
Bore at plane end:	12 mm
Material:	Soft iron
Weight:	1.7 kg approx.

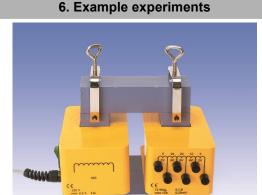


Fig.1 Demountable transformer

3. Operation

- The safety instructions for the coils must be observed at all times.
- Mount the primary and secondary coils on the core.
- Lay the polished side of the yoke or pole pieces on top of the U-core.
- Attach the clamps.
- Firmly secure the yoke or pole pieces with the clamps.

4. Accessories for demountable transformer

Mains coil D @230V 220V	1000987	
Mains coil D @115V	1000986	
Low Voltage Coil D	1000985	
Coil D	1000988	
Coil D	1000989	
Coil D	1000990	
Fusion ring	1000980	
High current coil with 5 turns for spot		
welding	1000981	
High current coil D for nail fusing experiment		
	1000984	
High voltage coil D including 2 horn shaped		
electrodes	1000991	
Waltenhofen's pendulum	1000993	

5. Cleaning, maintenance and storage

- Polished surfaces should be kept free of dirt and grease.
- Store in dry conditions.
- Remove any rust with fine steel wool or sandpaper.



Fig. 2 Waltenhofen's pendulum



Fig. 3 Spark discharge along hornshaped electrodes