

Physical Science

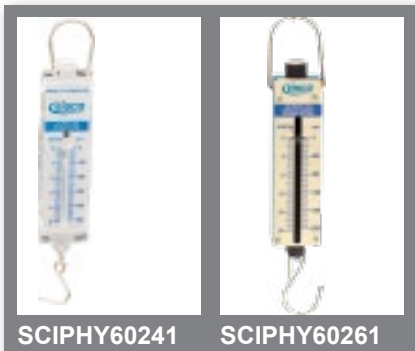




Balance Electronic

Capacity 2 kg Division 1 g pan size 15x17 cm, operates on mains supply & battery.

SCIPHY6021



Balances Spring – Dual Scale Transparent

Balances Spring – Dual Scale Metal
Acrylic body with large, easily read flat scales.
Flat form case with large easily read scale in Metric and Newton range.

SCIPHY60241

SCIPHY60261



Balance Weight - PW

Polished Brass, supplied with wooden block, as illustrated.

- SCIPHY60371 - Capacity 500g
- SCIPHY60372 - Capacity 1 000g
- SCIPHY60373 - Capacity 2 000g



Hooked Weights

Brass hooks at both ends. Recessed bottoms to enable the weights to be hooked together. The bottom is flat when placed on a flat surface.

Set of 9 weights, 10-1000 g in wooden block.

SCIPHY60374



Slotted Set of Masses and Hanger

Set comprises masses of Brass with slots, brass hangers with hook. Fine finish, masses removable and replicable on hanger.

- SCIPHY62581 - SET OF 9 weight + one hanger - total 100g
- SCIPHY62582 - SET OF 9 weight + one hanger - total 250g
- SCIPHY62583 - SET OF 4 weight + one hanger - total 250g
- SCIPHY62584 - SET OF 9 weight + one hanger - total 100g
- SCIPHY62585 - SET OF 6 weight + one hanger - total 100g
- SCIPHY62586 - SET OF 12 weight + one hanger - total 250g

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Meter Scale Hardwood

One meter, graduated on both edges in centimeters and millimeters, one edge reading 0 to 100 left to right, the other edge in reverse.

SCIPHY60641 - One Meter - Horizontal Reading

SCIPHY60642 - One Meter - Horizontal Reading

SCIPHY60645 - One Meter - Horizontal Reading with Brass Ends



SCIPHY60761

Tape Measures - 5 mtr.

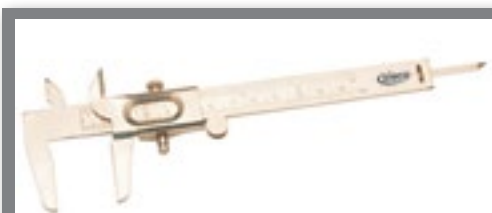
Both sides metric, or one side metric and other in feet-inches Fiberglass with PVC covering. Non-conducting, waterproof, washable, and water-resistant. Case made of zinc-coated steel sheet, covered with vinyl and fitted with a flush winding-handle.



SCIPHY60782

Vernier Calliper-Plastic

Columbus type calliper enabling the user to read either inside, outside or depth measurements. with dual scale 0-12 cm x 0.1 mm Imperial scale graduated to $5 \times \frac{1}{16}$ " provided with thumb wheel for easy motion of jaws, in plastic case.



SCIPHY60781

Vernier Calliper - Steel

Plated steel, Columbus type calliper enabling the user to read either inside, outside or depth measurements. With dual scale 0-12 cm x 0.1 mm Imperial scale graduated to $5 \times \frac{1}{16}$ " provided with thumb wheel for easy motion of jaws, in plastic case



SCIPHY60862

Micrometer Screw Gauge

Nade of nickel plated brass, with ratchet top, accurately machined stainless steel rod. Range 0-25 x 0.01 mm, supplied in case.

Lock Type



SCIPHY61022

Geometrical Shapes

Plastic Set of 10 pcs., 2 each of circle, triangle, semi-circles, squares and rectangle.



SCIPHY61051

Abacus

A simple device for counting and among the first calculating devices ever used. Consists of a wooden frame



SCIPHY6106

Cubes Metal Assorted - 10 mm

Plastic Set of 10 pcs., 2 each of circle, triangle, semi-circles, squares and rectangle. Supplied in a box



SCIPHY61088

Cubes For Density Investigation

Cubes for density investigation, 20 mm side.

- SCIPHY61081 - Brass
- SCIPHY61082 - Lead
- SCIPHY61083 - Zinc
- SCIPHY61084 - Copper
- SCIPHY61085 - Aluminium
- SCIPHY61086 - Tron
- SCIPHY61087 - Tin



SCIPHY6116

Displacement Vessel

Metal with spout, for specific gravity experiments.

Size : 100x50mm

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SCIPHY61383

Jolly Bulb with Gauge

Jolly bulb is 60mm diameter and is directly connected to a Bourdon gauge. Use for investigation of gas at constant volume. By inserting the glass bulb into either warm or cold water the expansion and contraction of the air contained in the bulb can be seen as a pressure change on the gauge. Gauge is calibrated in kg/cm² and in psi.



SCIPHY6139

Bourdon Gauge

A circular gauge having overall dia. of 100 mm and a depth of 40 mm. The dial reads 0-2.5 kg/cm² dia about 100 mm. An actual working gauge is mounted in our specially designed transparent polycarbonate case so the actual working parts are visible.



SCIPHY61401

Boyle's Law Apparatus

For demonstrating the relationship between pressure and volume of a given amount of gas. Two glass tubes, one closed at one end, and the other with both ends open are connected by a long rubber tube. Wooden meter rule permits measurement.

SCIPHY61402 - Mercury 250g for use with above



SCIPHY6148

Boyle's Law - Marriot

Demonstrates the relationship between the pressure and volume of a closed quantity of gas at constant temperature. A gas volume of 50 ml. is closed, in the gas syringe. A pressure gauge is connected to the connection tube of the gas syringe to measure the pressure. The gas syringe plunger is pushed in or pulled out of the syringe and the volume and the pressure of the gas are reduced. Mounted on ABS plastic base of size 250 x 175 mm

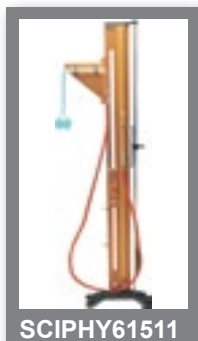


SCIPHY61501

Boyle's Law Apparatus Demonstration Type

Wide bore tube closed at top is mounted on a scale 0 - 600 mm with zero corresponding to the inside of the top end. Air is trapped by colored oil in a metal pressure chamber fitted with a Bourdon Gauge and a ruffled inlet tube with stopcock.

SCIPHY61502 - Oil 250ml for use with above



SCIPHY61511

Charle's Law Apparatus

Mounted on wooden stand polished with heavy metal base, having levelling screws. Overall height 120 cm Box wood scale 100 cm graduated in mm reading in both directions. The mercury reservoir held in clamp slides on metal rod. A Jolly's air bulb made from corning glass is supplied mounted on a wooden frame which can be slotted on the side. Complete with rubber tubing and set of two glass tubes, without mercury.



SCIPHY61523

Pump Pressure, Hand Pump



SCIPHY61763

Bell in Vacuum - Acrylic

A new improved Acrylic Bell Jar of size 25 x 14 cm compatible with the pump plate. The bottom flange is ground flat to ensure a perfect seal. Electric bell is mounted for sound in vacuum experiments. Operates on 4-6V DC.

SCIPHY61764 - Spare bell for above



SCIPHY62002

Liquid level apparatus

To show that level of liquid in communicating vessels is constant irrespective of the size or shape of the vessels. The apparatus comprises four glass tubes of different shapes and cross-sectional area projecting vertically from a common horizontal tube. Mounted on a plastic base.



SCIPHY62021

Capillary Tubes Apparatus

For demonstrating the relationship between capillary pressure and the bore diameter of the capillary tube. The apparatus comprises of a metal frame arrangement whose base is like a trough and the upper part of the frame supports six capillary tubes of different bore. The trough is filled with water and the difference in heights of the resulting columns of water in the tubes is readily apparent. Overall height of frame 90 mm length of capillary tubes 150 mm



SCIPHY6203

Kinetic Theory Model

For demonstrating molecular activity in gases. To study motion and behavior of molecules in gases. An electric motor running at 4 - 12 V DC vibrates small platform inside transparent tube so that set of many small steel ball is vibrated violently inside tube. An increase in the violence of vibration simulates an increase in gas temperature and an increase in the weight of the 'float' simulates an increase in gas pressure. Supplied with balls and 2 'floats' CE marked



SCIPHY62032

Smoke Cell

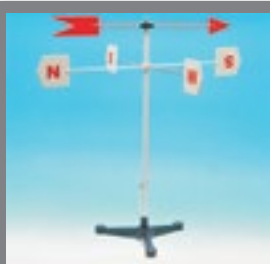
Whitley BayFor observation of 'Brownian Motion' in smoke particles. Consists of box with plastic lid as well as flanges that allow easy attachment to standard microscopes. The box contains a smoke cell, cylindrical condensing lens and a 12 volts 3W festoon bulb. Apparatus preset to focus the light at correct height. The set is supplied with detailed instructions and a squeeze bottle type smoke generator. Dimensions 90 x 46 x 20 mm



SCIPHY6241

Rain Gauge, British Pattern, Copper

Constructed from copper. It has 5 inch dia. (127 mm) funnel, an inner receiving vessel and an outer body all of copper, and a glass measuring cylinder graduated 0 to 10 mm x 0.1 mm (100 divisions.)



SCIPHY6244

Wind Vane Balanced

With bearings mounted on steel pivot. Complete with metal base and direction indicator as shown



SCIPHY6245S

Anemometer Small

Simple device used to determine wind speed. It is simple enough for elementary children to understand and use. Cups are each mounted on horizontal arms which extends from the axis of rotation. Cups are of red and blue colour.



SCIPHY62801

Pulleys Plastic

Constructed from copper. It has 5 inch dia. (127 mm) funnel, an inner receiving vessel and an outer body all of copper, and a glass measuring cylinder graduated 0 to 10 mm x 0.1 mm (100 divisions.)



SCIPHY6287

Pulley Rod Mounted

Diameter 50mm. Plastic ball bearing pulley, mounted on 150 x 10 mm diameter rod.



SCIPHY62942

Oscilloscope Model EI 801 - 20 MHzs

Oscilloscope with feel of Digital touch. The vertical bandwidth is adequate for all your needs and you can easily view signals upto 40MHz.

- 20 MHz Bandwidth
- Digital Readout with Backlit LCD
- Sharp Trace CRT and Auto focus
- Stable Triggering up to 40 MHz
- X 10 Magnification
- 20ns max Sweep Speed
- Alternate Triggering
- Gold Plated BNC Connectors



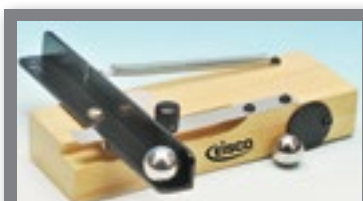
SCIPHY6296-N9

Function Generator

This EISCO Function Generator is a quite versatile and useful equipment in the lab. It is available in two models :

- Model I : Output 1 Hz to 100 KHz, in five ranges with multiplier x 10
- Wave Shape Output : Sine, Square & Triangular
- Amplitude : 0 - 10V peak to peak
- Model II : Output 1 Hz to 1 MHz, in six ranges with multiplier x 10
- Wave Shape Output : Sine, Square & Triangular
- Amplitude : 1 Hz to 100KHz = 10V peak to peak
- 100KHz to 1MHz = 3V peak to peak

The equipment operates on 120V / 240V AC using voltage selector switch.

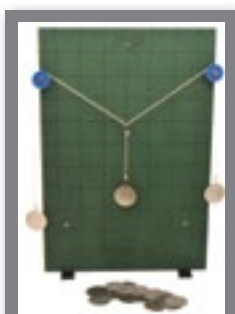


SCIPHY6318

Falling Bodies Apparatus

L-section launcher with holes for locating two 19 mm diameter steel balls which act as projectiles. Launcher is released by push button and projects one ball forward while allowing the other to fall freely. Launching mechanism mounted on wooden block 180 x 60 x 30 mm which may be clamped by bench and has a convenient storage pocket for the balls, complete with two steel balls.

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SCIPHY6345

Force Board Kit

This compact Force Board Kit provides the teacher with a simple solution to demonstrate the principles of the parallelogram and polygon of forces. This low maintenance board of size 40 x 55 cm is constructed from a hard wearing material with a grid printed in black and is bench standing. Supplied with detachable feet to provide for easy storage when not in use, ball bearing pulleys, reel of cotton, 3 hooks and mass set.



SCIPHY6346

Parallelogram of Forces Apparatus

To verify the relationship between forces acting at a point. Comprises board 65 x 50 cm with two aluminium pulleys 50 mm diameter, on clamps for mounting in any position. Complete with three hangers iron nickel plated 50 g and 12 slotted weights of 50 g each.



SCIPHY6350

Dynamic Trolley - Wooden

This pair of identical wooden trolleys 300 mm long, mounted on three wheels. A spring loaded rod is fitted to give impulse when released. It has a provision for stacking the trolleys on top of each other with removable pins. Supplied complete with 3 elastic rings, 3 springs, 8 pins (for stacking), 2 rubber corks, 2 needles and 1 releasing pin.



SCIPHY63531PLA

Dynamic Trolley Pair - Plastic

These carts have a single piece body which is virtually un-breakable. These are excellent upgrades for the traditional wooden or metallic one and its unique design allows many precision dynamic experiments to be carried out. The cart's plastic body is mounted on a set of 3 low friction nylon wheels providing a straight line over long distances. A lockable spring loaded plunge has 2 levels of spring compression and is activated by a trigger knob on top of the trolley. A cushioned surface mounted on top of each cart enables placing of additional masses for increasing the effective weight of the cart. The cart can also be stacked on top of each other. Velcro pads are pasted at the back end of each cart enabling study of inelastic collisions.



SCIPHY63531

Ticker Tape Timer

This ticker tape timer is housed in a tough moulded plastic case. The timer operates on 12 volts AC supply and produce 50/60 dots per second depending on the main frequency. The case has a tape guide and a carbon disc plug which can be moved to maximise the use of the discs. It is supplied with one roll of 50 meter paper tape and carbon discs box of 100



SCIPHY6355DTSR

Dynamic Track, Stand & Ramp

The track bases are in thick MDF with hardwood side supports which give good resistance to flexing. Rounded corners avoid injuries. Support feet link with the support frame which provides a robust system for height adjustment. Complete with run off ramp to bridge the gap between track and floor when required.



SCIPHY6359

Digital Stopwatch

Quartz timer, showing normal time, hours, minutes, seconds, days, dates, months are displayed. 1/100th second, with alarm



SCIPHY63741

Ring and Ball Gravesande

An apparatus for demonstrating thermal expansion, comprising a captive brass ball secured to mounted brass ring by chain. Ring mounted on rod with wooden handle. Ball passes through the ring when cold but will not pass through after being heated. Ball dia. 22 mm



SCIPHY63841

Compound bar, Copper and Iron

For demonstrating the differential expansion of two metals as shown by the curvature produced when the bar is heated. Comprising a bar of copper and iron each 200 x 15 mm, riveted together



SCIPHY6398

Conductivity Apparatus Ingen - Hausz

Metal rods 150 x 3 mm length x diameter, one each of aluminium, brass, copper, lead and iron, embedded along one side of a metal tank size 150 x 90 x 100 mm length x width x height



SCIPHY64002

Thermal Conductivity of Metal - Economy

Comprising strips of copper, iron, aluminium and brass fixed on wooden ring meeting in the centre, outer ends of the strips formed with small cups.



SCIPHY64111

Leslie's Cube - Tin

Tin plate box with 130 mm sides. The vertical faces of the box are blackened, roughened, varnished and polished respectively. The top opening is 75 mm diameter and is fitted with a stopper. The apparatus is filled with water maintained at boiling point by a low bunsen flame. Infra red sensors may be used to compare the relative radiant heat output from each of the four faces.



SCIPHY64181

Radiometer Crook's

Comprising partly evacuated glass bulb approx. 70 mm diameter, containing at its centre a fine pivot which supports four light weight metal arms. One side of each vane is blackened, the reverse side is bright. Mounted on round plastic moulded base.



SCIPHY64521

Calorimeter Joule's

For determination of the specific heat capacity of a liquid by the electrical method. Comprises a nickel-plated copper calorimeter 75 x 50 mm lagged and enclosed within an outer vessel 100 x 75 mm. A close-fitting ebonite lid is provided with a wire stirrer and a pair of 4 mm socket terminals connected to a constantan wire heating coil. The resistance of the coil is approximately 6 ohms and should be used with a current of 0.5 A with a maximum of 1 A.



SCIPHY6450

Calorimeter Joule's

Economy for the determination of the specific heat capacity of liquid by the electrical method. The apparatus comprises a nickel-plated copper calorimeter 75 x 50 mm fitted with a cork and a heating coil of thin constantan wire. The resistance of the coil is 6 ohms and the recommended working current is 0.5 A with a maximum of 1A. Electrical connection is by means of a pair of barrel connectors.



SCIPHY6485

Steam Engine Model with Boiler

Operation of a commercial steam engine is well illustrated with this working model. The extra large size unit is provided with a horizontal boiler with a whistle, safety valve, steam gauge on metal base. Operates on 220V AC. 50 Hz



SCIPHY6503

Magnifier Pocket Type with Pouch

Handy 48 mm dia., Magnification 4x in pouch



SCIPHY65081

Magnifier - Reading Glass

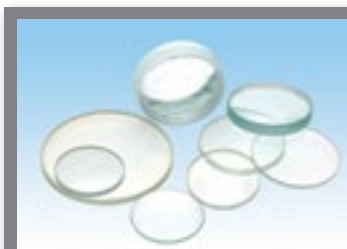
Diameter 50mm, Focal Length 10 cm In metal frame and handle, chrome plated, packed in cardboard box.



SCIPHY65341-CV

Glass Lenses - Double Convex

Spherical, optically worked glass, with ground edges, highly polished. Dia 38,50 & 75mm focal length 50, 100, 150, 200, 250, 300-500mm



SCIPHY65361-CC

Glass Lenses - Double Concave

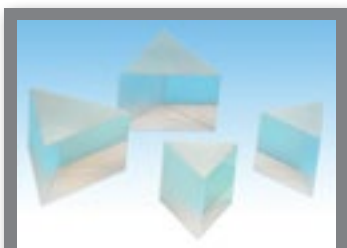
Spherical, optically worked glass, with ground edges, highly polished. Dia 38,50 & 75mm focal length 50, 100, 150, 200, 250, 300-500mm



SCIPHY65501

Lens Holder

Wooden to take lenses or mirrors up to 76 mm diameter. Comprising an upright 100 mm high, with V shape slot to hold a convex or concave lens, mounted on rectangular base 100 x 50 mm An index mark is engraved on each end of the base



SCIPHY65831

Prisms

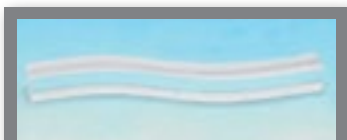
Optically worked for use with Spectrometer, Equilateral, two faces polished 32 x 32 mm height.



SCIPHY658313

Prism with Narrow Angle

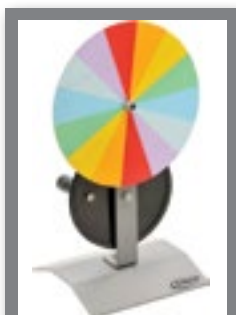
Prism with Narrow angle manufactured from Optical Borosilicate Crown glass having R.I. 1.510 App. Size 32 x 32 mm



SCIPHY6587

Light Guide Demonstrator

An 'S' shaped acrylic bar 220 x 20 x 20 mm which can be used with the Ray box to demonstrate total internal reflection. It helps students to understand the principles of optical communications. The bottom of the bar is white to aid visibility.



SCIPHY65821

Newton's Color Disc

Hand driven for demonstrating that white light may be composed from all the spectral colors by rotation of multi-colored disc. Comprising a multicolored disc, 175 mm diameter, mounted on metal stand and driven by belt with the help of driving wheel, fitted with a handle.



SCIPHY6585

Newton's Color Disc - Motor Driven

Newton disc 75 mm dia. mounted on the axle of a small motor, which is fitted on a plastic base-plate with connection sockets. Operates on 4-6 volts DC



SCIPHY65941

Direct Vision Spectroscope

For the rapid examination of spectral composition of white light, metal tube with draw out focusing and an adjustable slit fitted with achromatic objective glass and 3 element prisms. Complete in a wooden case.



SCIPHY66011

Ray Box - Sliding

Metal, with sliding lamp housing. Supplied with single and triple slits, 50 mm wide. 12V, 21W lamp with cable and 4 mm plugs. Operates on 12 volts power supply.

SCIPHY66012 - Spare Bulb - 12v
 SCIPHY66013 - Lens Cylindrical

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SCIPHY6613

Refraction & Reflection Apparatus - Metal

Kit for studying reflection and refraction without the need for an optical bench, on a stable and convenient support. This kit comprises 1 metal support, 1 graduated disc dia. 230 mm and a transparent and graduated semi-cylindrical tank of 200 mm diameter and 1 solid and 1 mirror.



SCIPHY6615

Light Box and Optical Set

The light box consists of a light source 12 V, 24 W lamp, producing convergent, divergent or parallel beam. On one end, an adjustable cylindrical convex lens (for parallel beam) and on the other end, a triple aperture system for color mixing experiments (lateral aperture are provided with adjustable hinged mirror). All apertures in the box are provided with vertical channels to hold slit plates and color filters. The optical set includes acrylic blocks, set of three mirrors, 2 slit black plates, one with three narrow slits at one end and one narrow slit at the other end. Another black plate with four narrow slits at one end, one wide slit at the other end and set of seven mounted color filters. Supplied with working instructions.



SCIPHY66151

Optics Kit

This Optics kit is truly exceptional value for money. It contains enough components to cover investigations and experiments into ray optics, reflection, refraction, colour mixing, absorption, focal length measurement etc. The Kit consists of 1 Standard Ray box with internal slide out slit, lens, gate and filter holder, 3 Mirrors mounted on wooden base, 10 Colour filters, 1 Triple colour slide, 1 white screen calibrated, 1 fluid trough rectangular, 1 Equilateral acrylic block, a semi-circular block, 1 rectangular acrylic block, 1 convex lens acrylic, 1 concave lens acrylic, 1 absorber clear, 1 absorber amber, 1 absorber black, a colour strip, a double slit, 1 triple slit and 1 spare lamp.



SCIPHY6616-OPT

Optical Bench Single Rod

Economy This optical bench one meter long is an ideal bench for introductory optics investigations and a good upgrade to our basic optics meter rule bench. It comprises of a square section aluminium tube which is graduated on one side allowing easy reading when the riders move on the bench. This economy bench comes with the accessories : 4 pcs. of Riders for lens and slit holder, one each of candle holder, object needle and object screen, 2 pcs. of lens holder.



SCIPHY6649

Optical Bench Kit

Set comprises of :

- 1 Bench with ends 1 meter long
- 8 pcs. Riders with tightening screw
- 1 Lamp housed with halogen bulb 12 Volt, 24 Watt
- 6 pcs. Lens Holder for 50 mm dia lenses
- 1 each Lens Biconvex +10, +20, +50
- 1 pc. Lens Biconcave -20
- Set of Diaphragms
- 1 Plain mirror 100 x 100 mm
- 1 Translucent screen 100 x 100 mm
- 1 Transparent screen 100 x 100 mm
- 1 Object screen white 100 x 100 mm



SCIPHY6619

Spectrometer Standard

An economically priced instrument which is nevertheless capable of much useful quantitative work. The main structural parts including the collimator and telescope bodies are in heavy castings.

Scale 170 mm diameter, divided 0 to 360° x 1°, independently rotatable with locking screw. A spring-loaded vernier scale attached to the telescope mount provides readings to 0.1° (6 minutes of arc). Collimator Mounted on fixed pillar with axis adjustment. Objective lens has 150 mm focal length, an aperture of 212 mm and is carried in spiral focusing system. Unilaterally adjustable slit 6 mm Long. Telescope Mounted on moveable pillar with adjustment, locking screw, and axis adjustment. Objective lens has 170 mm Focal length, 21 mm aperture and is carried in a spiral focusing system. Ramsden eyepiece with cross wires and locking ring focus adjustment. Prism Table The table is provided with three levelling screws and has lines marked to assist placement of prism.

Standard Accessories Includes 1-prism clamp for prisms up to 40mm high, 1 diffraction grating holder, aperture 25 x 25 mm, 1 small screwdriver, 1 tommy bar for axis adjustment. Supplied in strong thermocole box with working instructions..



SCIPHY6625

Diffraction Slide Educational

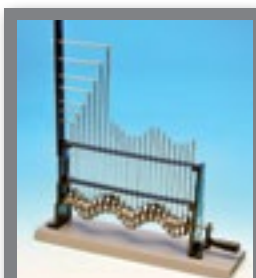
Kit for studying reflection and refraction without the need for an optical bench, on a stable and convenient support. This kit comprises 1 metal support, 1 graduated disc dia. 230 mm and a transparent and graduated semi-cylindrical tank of 200 mm diameter and 1 solid and 1 mirror.



SCIPHY67082

Wave Form - Helix (Slinky)

For demonstrating wave motion. Helical coil of flat section tempered steel wire. Coil diameter 7.5 cm length closed 5 cm fully extended 3 meters.



SCIPHY6712

Wave Apparatus Demo - Metal

For demonstrating longitudinal and transverse motion. Consisting of a number of eccentric disc supporting a series of metal rods on revolving the handle, transverse waves are obtained. Longitudinal waves are obtained with bent rods running in metal guide on metal base

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SCIPHY67361

Tuning Forks - Steel

Plain shanks, chrome plated / Blued. Best quality steel.



SCIPHY67521

Stroboscope

A hardboard disc with twelve 50 x 3 mm slots and finger hold, pivoted on a ball bearing mount which also acts as a convenient handle. Diameter of disc 255 mm



SCIPHY67671

Ripple Tank

This dual purpose tank is a versatile apparatus allowing all types of waves and wave motion. With illuminator lamp and important accessories included it forms a complete ready to use unit. The unique design and size allows it to be used on an overhead projector as well. Supplied in foam packing.



SCIPHY67673

Ripple Tank Controller

This unit provides two fully independent, continuously variable DC outputs 0 to 5 V for the ripple tank motor, together with a fixed AC output to operate 6 V, 20 W bulb. Supplied with a detachable 1.5 m IEC mains lead.



SCIPHY67681

Ripple Tank Projectable

To show wave properties of light, electromagnetic waves, sound or other types of waves. By taking advantage of the optical properties of water waves, phenomenon, can be enlarged and made visible on a screen. The ripple tank provides a dramatic demonstration of the general properties of waves and propagation phenomenon.



SCIPHY6769

Ripple Tank Advanced with Projection Screen

This advanced ripple tank comes complete with all accessories needed for wave investigations. The frame is made of reinforced plastic and with foam beaches (to negate reflections). There is a mirror which can be mounted at 45 degrees to project the ripples onto a translucent screen on one side of the unit. Intense illumination by strong light source which is synchronized with the wave generator helps students to observe the wave patterns on a workgroup table.



SCIPHY6784

Strong U-shape Magnet

Strong Steel magnet of size 140 x 20 x 15 mm, Painted red and supplied with a keeper.



SCIPHY67802

Horseshoe Magnets

Chrome steel, with keepers, dimensions are approx. Size 75 x 12 x 5 mm



SCIPHY67861

Bar Magnets - Chrome Steel

In Pairs, half Red / Blue painted with keepers.

- SCIPHY 67861 - 37 x 12 x 5mm
- SCIPHY 67862 - 50 x 12 x 5mm
- SCIPHY 67863 - 75 x 12 x 5mm
- SCIPHY 67864 - 100 x 12 x 5mm
- SCIPHY 67865 - 150 x 12 x 5mm



SCIPHY68001

Electromagnet U-form

Comprising iron U-shaped core of circular section, with armature and carrying hook. Wounded with insulated copper wire and provided with connectors, for use on 4-6 volts D.C



SCIPHY68004

Electromagnet Superior

This is our best quality version, operating on 12Volts and has a higher lifting power. Normal voltage to the terminals up to 12 volts DC, Coil Turns 600 each.



SCIPHYICE

Iron Clad Electromagnet

This 2 lb. Electromagnet is a high power electromagnet capable of lifting upto 100 lbs. Use 4 D size batteries this piece is precision machined making an excellent contact with the energized part of the magnet.



SCIPHY68015

Demonstration Electromagnet

A small electromagnet mounted on a plastic case with 4 mm safety connections. The voltage is supplied using these safety sockets which energises the electromagnet. Students can observe the change in strength of the electromagnet with varying voltag Small office pins are ideal to use as weights to demonstrate this.



SCIPHY68032

Magnetic Field Demo. Long Solenoid

For investigating the magnetic field associated with a solenoid coil. Coil 51 x 92 mm (dia. X length) copper wire 1.5 mm diameter.



SCIPHY6805

Magnetic Field Chamber - Economy

A magnetic field chamber offering a considerable saving over more expensive versions by virtue of it's not containing expensive silicon oil. Whilst some performance in terms of "symmetry of fillings distribution" is sacrificed as a result the use of a specially fine grade of fillings minimizes this loss. The chamber is supplied complete with a cylindrical bar magnet.



SCIPHY68173

Magnetic Needle

Magnetic Needles, 100 mm. Carbon steel with jewel bearing for pivoting.



Stand Magnetic Needle

Metal Non-magnetic metal pillar with carbon steel point, on stable base, overall height 110 mm

SCIPHY68181



Plotting Compass

With dial marked with principal points of the compass, one glass face only, in aluminium case.

SCIPHY6822



Pocket Compass

A small compass in a metal case, 45 mm dia., marked in degree with N & S indications

SCIPHY68231



Demonstration Compass

Consists of simple 10cm long magnetic needle on compass map. Easy to demonstrate the cardinal points of a compass and determine all their directions. For investigating the magnetic field associated.

SCIPHY6825



Demonstration Induction Coil

With primary of heavy gauge enamelled copper wire, approximate resistance 0.5 ohms wound on former 110 x 30 mm length x diameter. Secondary coil of fine enamelled copper wire, approximately resistance 100 ohms on former 120 x 82 mm length x diameter. Both coils fitted with 4 mm sockets. Iron core 160 x 15 mm length x diameter.

SCIPHY6840

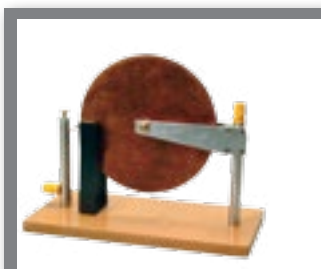
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SCIPHY6843

Barlow's Wheel

Discover Lorentz force without using mercury. Barlow's wheel is an historical demonstration experiment of Lorentz force generated by currents flowing between the polar expansions of a magnet. Barlow's Wheels is an impressive piece of apparatus constituted by a wheel on low friction suspensions. The item is equipped with neodymium-ironboron magnets that generate a strong magnetic field over the wheel that is therefore set on motion when crossed by currents.



SCIPHY6844

Barlow Wheel - Mercury Free

For demonstrating the applications of Laplace's Law. The continuous rotation of disc is because of electromagnetic force is induced by magnet. A disc shape conductor able to rotate about its axis, conducting strip on disc with contact made by brushing against the disc. Two connecting terminals fitted on insulating base.



SCIPHY6846

Westminster Electromagnetic Kit

Comprises of 8 anisotropic alloy magnets; 8 anisotropic ceramic ferrite magnets; 4 steel magnetic yokes; 6 plotting compasses; 5 hardwood formers of compasses; 1 bottle iron filling; 4 each double c-cores; clips for c-cores; aluminium rings, split aluminium rings, 4 each support bases, armature with axle rods, 8 split pins, 16 rivets, 1 length latex rubber tubing, 4 each formers of coils, reels of tape, reels copper wire, 4 each sheets white paste board, plain postcard, reels white cotton, 4 each carbon resistors 100 Ohms, 10 Ohms flash lamp bulbs, 5 neon bulbs, 8 MES bulb holders, wood clamp, wood block.



SCIPHY6850CSET

Coils & Core Activity Set

Cores and Coils Set allows students to study not only how transformers work, but also study several different properties of induced magnetism. This kit consists of a plastic base, a laminated iron core, mounting fixtures, and six coils protected in a heat resistant film. Topics covered include Lenz' Law, Faraday's Law, how iron cores increase magnetic field strength, and electromagnetic induction itself. This versatile piece of equipment can also be used to teach about how transformers used by power companies carry electrical energy. Extensive instructions on how to use the apparatus as a demonstration as well as inquiry based lessons surrounding electromagnetic induction and transformers are included as well as five different student activity capture sheets.



SCIPHY68561

Friction Rod Ebonite

Length approximate 30 cm, dia.12 mm



SCIPHY68562

Friction Rod Glass

Length approximate 30 cm, diameter13 mm



SCIPHY6857

Friction Rod Perspex

Length approximate 30 cm, diameter13 mm



SCIPHY6864

Cotton Rubber - Yellow Duster

Square size 30 x 30 cms. approx



SCIPHY6878

Aepinus Condenser

It consists of two adjustable plates 100 mm dia. insulated handle and a glass dielectric plate. Fitted on stable base

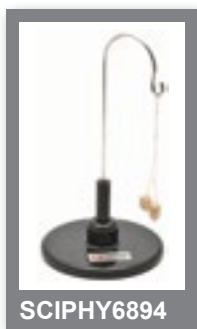


SCIPHY6889

Electric Field Apparatus

The apparatus enables electric field patterns to be shown in much the same way that magnetic fields are demonstrated with iron fillings, either by direct viewing or on an overhead projector. The apparatus comprises a clear plastic dish 90 x 12 mm diameter x depth, and base 140 x 125 mm. Alongside each terminal is a thumbscrew system which permits fine height adjustment of the electrodes. Six electrodes are supplied, two 'point source' two 'line source' and two circular rings of 35 and 70 mm dia.

Physical Science



Electroscope - Pith Ball

A plated brass pillar mounted on bakelite base supporting two pith balls in unspun silk.

SCIPHY6894



Electrostatic Kit

Comprises of 1 electroscope, 4 metallised polystyrene spheres, 1 each reel nylon, cellulose acetate strip, polythene strip, wire stirrup, rubber cloth, wire hook, electrophorus on handle and proof plane, 2 each of polythene tiles and aluminium cans.

SCIPHY6900



Electroscope Kit

For experiments of electroscope and other related studies such as electrostatic induction, the nature of charge in a body. Faraday's ice pail experiment etc. pair of flask type electroscope, two each discs and terminals, one Faraday's ice pail. Spare foil leaf pairs included. With instructions.

SCIPHY6901



Electroscope - Gold Leaf

A glass conical flask, brass rod with disc and gold leaf attached supported rubber cork.

SCIPHY6912



Plates For Simple Cells

plate of size 125 x 50 mm and fitted with 4 mm socket terminals, Zinc, Carbon, Copper, Lead

SCIPHY69261



SCIPHY69271

Electrodes for Student Cell

Size 100 x 19 mm



SCIPHY69481

Batteries Zinc-Carbon

Good quality, leak-proof, offering economy with performance. Recommended where current demand are modest and are safer to use



SCIPHY69201

Van De Graaff Generator Motor Driven

Specially designed for electrostatic experiments and where continuous source of high voltage is required. Fitted on base with smooth running AC Motor, operates on 220 volts A.C.50Hz. Charge collecting Belt : Silicon rubber having excellent insulation resistance. Tracking : Belt-tracking easily adjusted. Charge collecting combs : Aluminium mesh, clearly visible. Spheres : Aluminium 150 mm. dia. Connections : 4 mm. sockets in dome and base. Voltage developed : Upto 200 kV, depending on ambient conditions, with a spark length of 60 mm. Discharger : Spherical 100 mm. dia., with insulated handle and 4 mm.



SCIPHY69181

Van De Graaff Generator

Hand operated on base. The generator is self exciting and charge separation occurs. A metal sphere of dia. 20 cm. surrounds the upper pulley assembly and charge accumulates on the sphere, which is insulated by a plastic column supporting the pulley assembly. The charge builds up until electrical breakdown of air surrounding the sphere occurs. Supplied with a discharging sphere 10 cm. diameter.



SCIPHY69574

Cell Holders

Provides 1.5, 3, 4.5 and 6 Volts DC power and has 4mm sockets for safety. Needs 4 D-cell batteries. Supplied without batteries.



SCIPHY6971ACDC

AC / DC Power Pack

convenient switches. It is ideal to use for equipments such as Ray boxes, DC motor experiments, Optical benches, Hartley optical disc etc. Capacity 2 Amp.



SCIPHY70002

Knife Switch

Durable plastic base knife switches that stand up during tough student use. Poles & knives are made of brass for good electrical connections.

Single pole - single throw
Single pole - double throw
Double pole - single throw
Double pole - double throw



SCIPHY7016

Flash Lamp Bulb - Lens Ended

2.2 V, 0.25 A, lens ended, M.E.S. Cap. Pack of Ten



SCIPHY70191

Light Emitting Diode (LED)

Red/Green/Yellow
5 mm standard high quality Red LED indicators with diffused lens.
Maximum voltage 3.0 V D.C. PCB or panel mount.



SCIPHY70221

Bulb Holder M.E.S. - Plastic

Mounted bulb holder for easy connections to electrical circuits. Overall diameter 30 mm Supplied without bulb



SCIPHY70302

Electric Bell

With detachable cover, metal thread terminals. Dome gang dia. 75 mm approx. 4 - 6 Volts



SCIPHY7048

Banana Plugs

4 mm moulded ABS Body 4 mm pin, 14 mm long spring insert. Overall length of plug 48 mm



SCIPHY7052

Crocodile Lead Set

The set consists of 10 leads in assorted colours, each with a plastic sleeved crocodile clip at both ends. Length of leads 360 mm Max. current rating 0.5A continuous.



SCIPHY70541

Connecting Leads

Insulated with 4 mm plug at one end and crocodile clip at the other end.



SCIPHY70581

Copper Wire - Bare Reel

Physical Science



SCIPHY7059

Copper Wire

Reel of 45 mtr.
This is general-purpose high conductivity annealed copper wire with a thin coating of tough flexible insulating plastic 26 SWG



SCIPHY70641

Nichrome Wire - Bare Reel



SCIPHY70661

Eureka/constantan Wire - Bare Reel



SCIPHY70701

Soldering Iron - 25 Watts

With wooden / bakelite handle, lightweight body, element tested for high insulation, with long life pencil bit.



SCIPHY70726

Soldering Wire

Used for soldering, pack of 100 g, Lead free



SCIPHY70721

Wire Stripper – EXECUTIVE

Multi gauge wire stripper & cutter with comfortable vinyl grips. Screw adjuster to preset wire size for removing the insulation. Made of high grade alloy steel. Length 130 mm



SCIPHY7072P

Tool Kit

Consists of 6" slip joint pliers, 6.5" long nose pliers, 6" adjustable wrench, screwdriver set featuring slotted bits, phillips bits and nut drivers.



SCIPHY70742

Moving Coil Meters DC

Ammeter DC 0 - 1 A, 0 - 5A (Dual)
 Moving Coil Meters DC Type EDM-80 Square
 Clear acrylic front cover, fully enclosed economically priced and offer + 2.5% accuracy. Scale length 60 mm Overall size 125 x 80 x 80 mm with zero adjustment and connection terminals.



SCIPHY70801

Moving Coil Meters DC

Voltmeter DC 0 - 5 V, 0 - 15 V (Dual)
 Moving Coil Meters DC Type EDM-80 Square
 Clear acrylic front cover, fully enclosed economically priced and offer + 2.5% accuracy. Scale length 60 mm Overall size 125 x 80 x 80 mm with zero adjustment and connection terminals.



SCIPHY7085

Galvanometer

Moving Coil Meters DC Type MR - 100 Clear acrylic front cover, fully enclosed economically priced and offer + 2.5% accuracy. This galvanometer can be converted into any type of Ammeter / Voltmeter using shunts.



SCIPHY71211

Digital Multimeter Model M-830D

D.C. Voltage 200 mV - 1000 V $\pm 0.5\% \pm 2$ digit
A.C. Voltage 200 V - 750 V $\pm 1.2\% \pm 10$ digit
D.C. Current 200 μ A - 10A $\pm 1\% \pm 2$ digit
Resistance 200 Ohms - 2000 kOhms $\pm 1.2\% \pm 8$ digit
Max. Display 1999
Display size 16 x 48 mm, 3½ digit LCD
Range Manual
Transistor Test Yes
Diode Measurement Yes
Continuity Test Yes
Accessories Battery, Testing leads with Instruction Manual, CE-marked



SCIPHY71962

Spectrum Tubes

Straight form, with side electrodes and 50 mm long fine capillary in the middle. Length 26 cm. Oxygen, Neon, Helium, Nitrogen, Argon, C. Dioxide, Hydrogen, Sulphur, Xenon, Krypton, Iodine Vapour



SCIPHY7252-N8

Bicycle Dynamo Assembly

This apparatus has a cycle dynamo mounted on a base. Two 4 mm. socket terminals are provided for the dynamo output, connected in parallel with an M.E.S. lamp holder and 2.5 V bulb



SCIPHY7301

Worcester Circuit Board Kit

Kit consists of baseboard terminals, set of metal connection pillars and a number of clip-on connections strip and accessories units, enable a variety of circuits to be constructed quickly. Supplied with all accessories, without cells. Operating instructions provided.



SCIPHY7328

Power Supplies AC/DC 2V - 12V / 5A

This is unregulated very useful power supply. It gives the DC voltages as well as AC voltage from 2V - 12V in steps of 2 volts at 5 Amp. capacity. It is available in 120V / 60Hz as well as in 220V, 50/60Hz. Size 22 x 20 x 13 cm



SCIPHY7331

Power Supplies Regulated AC/DC 12V/5A

This is a highly useful power supply. It provides DC voltage 0-12V continuously variable and adjustable at 5 Amps. capacity. The output voltage & current are displayed on the digital display. The 12V AC at 5 Amp. capacity is also provided. DC output voltage is overload and short circuit protected. Thermal cut-off is provided for the AC overload protection. Both the outputs can be used simultaneously to the full capacity. Operates on 120V AC / 240V AC, 50/60 Hz using voltage selector switch. Size 22 x 20 x 13 cm



SCIPHY7338

Power Supply E.H.T. 5 kV

Continuously variable output from 100V to 5KV displayed on 0 to 5kV Digital Voltmeter. E.H.T. circuits are fully floating so that for certain applications the positive and negative terminals may be connected to earth. E.H.T. output are taken from 4 mm sockets and provide 100V to 5KV at 3mA. A centre tapped socket is provided to give ± 2.5 kV output. Additional pair of 4 mm socket at 19 mm spacing are provided giving 6.3V AC at 2A for filament supplies. An illuminated on / off switch is mounted on the panel. Housed in metal case. Operates on 220 / 240 V AC 50 Hz. Size 26 x 23 x 11 cm



SCIPHY8010

Basic Electricity Kit

The Basic Electricity Kit has been designed as a low-cost, attractive and flexible alternative to the 'circuit-board' approach to pupil investigations into simple circuits. Each component such as a switch, rheostat, bulb holders etc., is mounted on its own individual plastic panel with 4mm sockets. The panels are then formed into circuits by connecting them together using 4 mm stackable leads. Because this is 'real circuit making' the equipment will find users throughout secondary school science curricula. Each kit is supplied in two polystyrene trays which keep the units organized.