Katalog

LABORATORIUM LISTRIK & MAGNET

UNESA

JURUSAN FISIKA FMIPA
UNIVERSITAS NEGERI SURABAYA

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KATALOG PERALATAN EKSPERIMEN LABORATORIUM LISTRIK & MAGNET

1. FARADAY'S LAW OF INDUCTION EX-9914

No.	Equipment	Code
a.	Induction Wand	EM-8099
b.	Variable Gap Lab Magnet	EM-8641
c.	Large Rod Stand	ME-8735
d.	45 cm Long Steel Rod	ME-8736
e.	Multi Clamp	SE-9442
f.	Voltage Sensor	CI-6503
g.	Magnetic Field Sensor	CI-6520A
h.	Rotary Motion Sensor	CI-6538
I.	Mass Balance	SE-8723
J.	Meter Stick	SE-7333
K.	ScienceWorkshop 750 Interface	CI-6400
l.	DataStudio Software	CI-6870

Experiment Topics :

1. Induced emf
2. Energy

Figure 1: Rod Stand

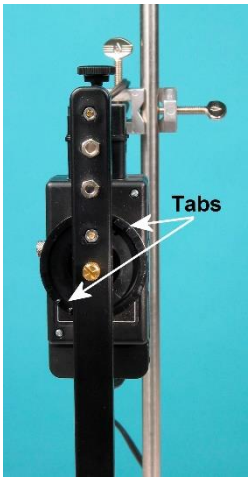

Figure 2: Tabs

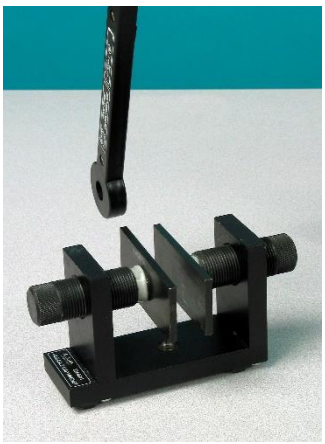

Figure 3: Magnet Pole Plates

Figure 5: ScienceWorkshop 750 Interface *Figure 6: Rotary Motion Sensor*

Figure 4: Coil Passes through Magnet

Figure 5: Equipment settings

2. MAGNETIC FORCES ON WIRES EX 9933

No.	Equipment	Code
a.	Basic Current Balance	SF-8607
b.	Current Balance Accessory	SF-8608
c.	Ohaus Cent-o-Gram Balance	SE-8725
d.	Low Voltage AC/DC Power Supply	SF-9584A
e.	Large Base and Support Rod	ME-9355
f.	Banana Plug Cord Set-Red (5 pack)	SE-9750
g.	Banana Plug Cord Set-Black (5 pack)	SE-9751
h.	Experiment Resources CD	EX-9922
i.	DataStudio Software	CI-6870

Experiment Topics :

1. Experiment 1 : Force Vs. Current
2. Experiment 2 : Force Vs. Length Of Wire
3. Experiment 3 : Force Vs. Magnetic Field
4. Experiment 4 : Force Vs. Angle

Figure 1: Ohaus Cent-o-Gram Balance

Figure 2: Basic Current Balance

Figure 3: Banana Plug Cord Set

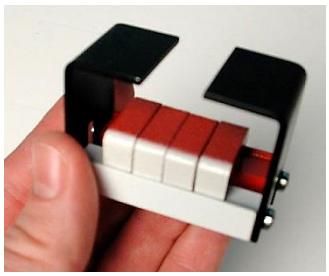

Figure 4: Magnet

Figure 5: Large Base and Support Rod

Figure 6: Current Balance Accessory

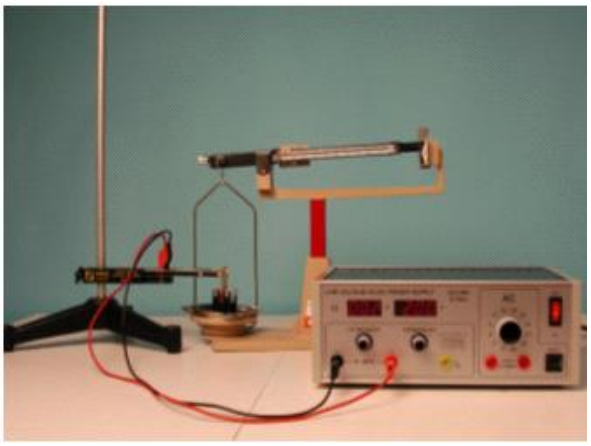

Figure 7: Current Balance Accessory *Setting for Experiment 1, Experiment 2, & Experiment 3*

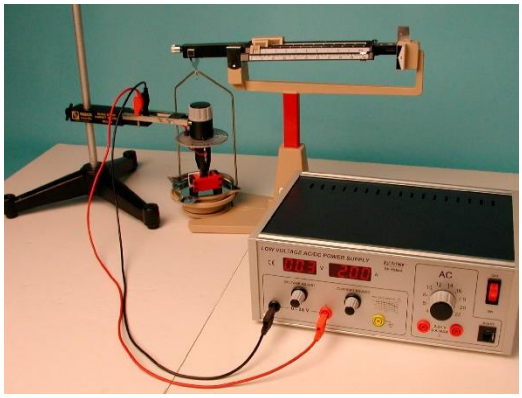

Figure 8: Current Balance Accessory *Setting For Experiment 4*

Figure 9: Current Balance Accessory *Setting in Laboratory*

3. RLC Circuit (EX 9915)

No.	Equipment	Code
a.	AC/DC Electronics Laboratory	EM-8656
b.	Voltage Sensors	CI-6503
c.	*ScienceWorkshop* 750 Interface	CI-7650
d.	DataStudio Software	CI-6870

Experiment Topics :

1. Experiment 1 : Resitive Circuit
2. Experiment 2 : Capacitive Circuit
3. Experiment 3 : Inductive Circuit
4. Experiment 4 : RL Circuit
5. Experiment 5 : RC Circuit
6. Experiment 6 : LC Oscilations
7. Experiment 7 : RLC Circuit (Voltage)
8. Experiment 8 : RLC Circuit (RLC Resonance)

Figure 1: ScienceWorkshop 750 Interface

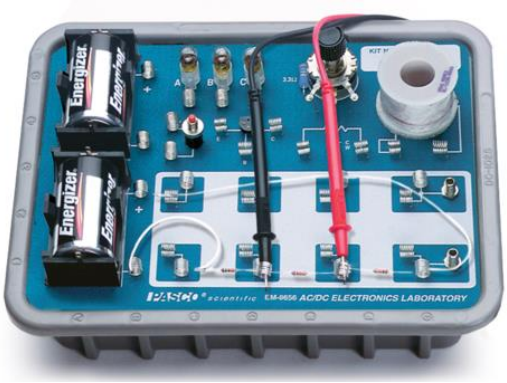

Figure 2: AC/DC Electronics Laboratory

Figure 3: Voltage Sensor

Figure 4: Banana Plug

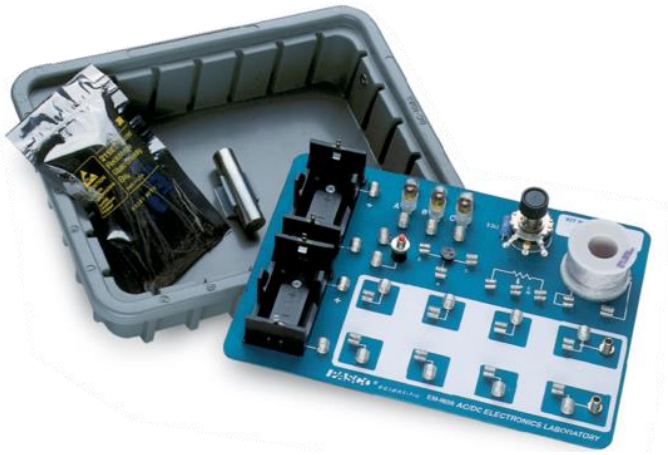

Figure 5: AC/DC Electronics Laboratory Accessorys

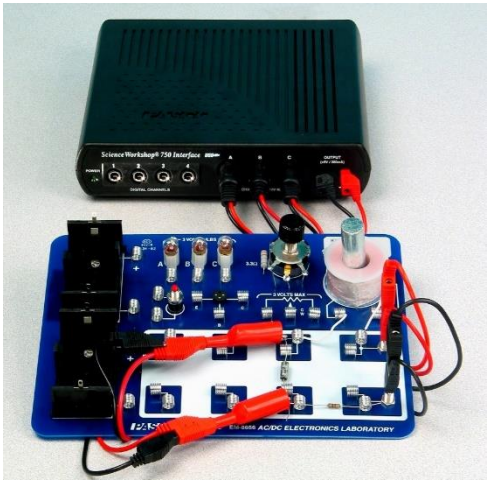

Figure 6: AC/DC Electronics Laboratory (Setting Accessorys)

Figure 7: AC/DC Electronics Laboratory (Setting Accessorys in labaoratory)

4. Earth's Magnetic Field (EX 9913)

No.	Equipment	Code
a.	Magnetic Field Sensor	CI-6520A
b.	Zero Gauss Chamber	EM-8652
c.	Rotary Motion Sensor	CI-6538
d.	Dip Needle	SF-8619
e.	Universal Table Clamp	ME-9376B
f.	45 cm Stainless (non-magnetic) Steel Rod	ME-8736
g.	Adjustable Angle Clamp	ME-8744
h.	ScienceWorkshop 500 or 750 Interface	CI-6400
i.	DataStudio Software	CI-6870

Experiment Topics :

1. Experiment 1 : Horizontal Component Of The Magnetic Field Of The Earth
2. Experiment 2 : Total Magnetic Field Of The Earth
3. Experiment 3 : The Dip Angle

Figure 1: Magnetic Field Sensor

Figure 2: ScienceWorkshop 750 Interface

Figure 3: Zerro Chamber

Figure 4: ScienceWorkshop 750 Interface

Figure 5: Magnetic Dip Needle

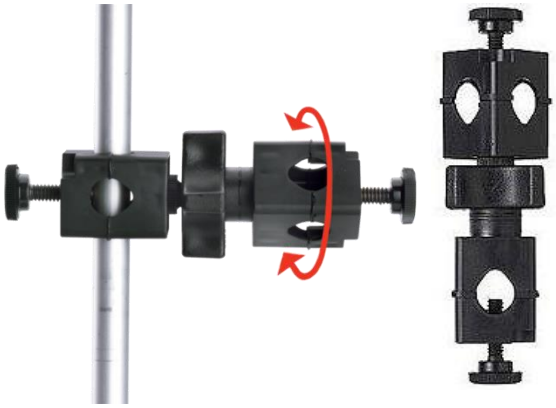

Figure 6: Adjustable Angle Clamp

Figure 7: Universal Table Clamp

Figure 6: Stainless (non-magnetic) Steel Rod

Figure 7: Setup experiment

5. Magnetic Field

No.	Equipment	Code
a.	Magnetic Field Sensor	
b.	Tesla Meter Digital Phywe	
c.	Rool meter	
d.	Power supply	
e.	Banana Plug	

Experiment Topics :

1. Experiment 1 : Magnetic Field vs Distance
2. Experiment 2 : Magnetic Field in the coil

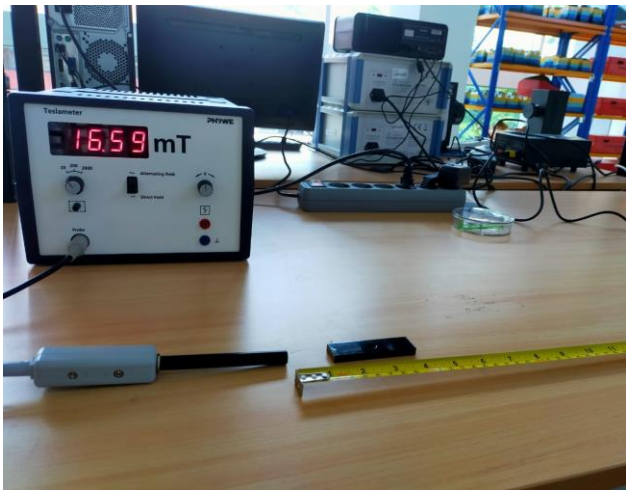

Figure 1: Setting Exp 1 : Magnetic vs Distance

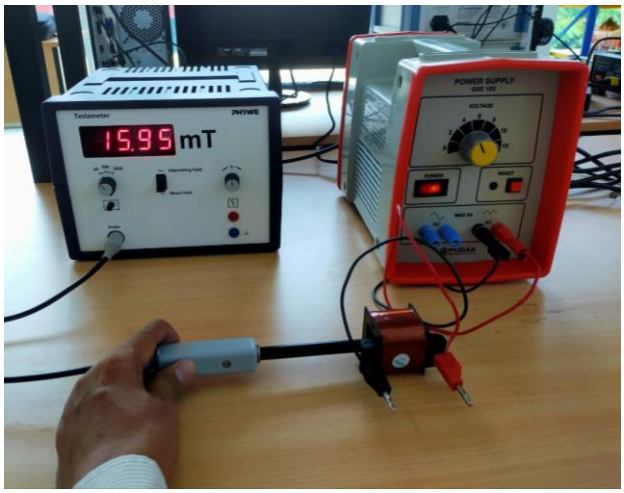

Figure 2: Setting Exp 2 : Magnetic field in the coil

Figure 2: Setting Exp 2 : Magnetic field in the coil 2

6. Charge and Discharge Capacitors

No.	Equipment	Code
a.	Pasco Spark Lab Data Logger	PS3601
b.	Pasco Voltage-Current sensor	PS2115
c.	Wireless voltage sensor	PS3211
d.	Wireless current sensor	PS3212
e.	Airlink interface	PS3200
f.	Charge/Discharge circuit	EM 8678
g.	Power supply Digital	
h.	Coil	
i.	Banana Plug	

Experiment Topics :

1. Experiment 1 : Charging Capasitor
2. Experiment 2 : Discharging Capasitor

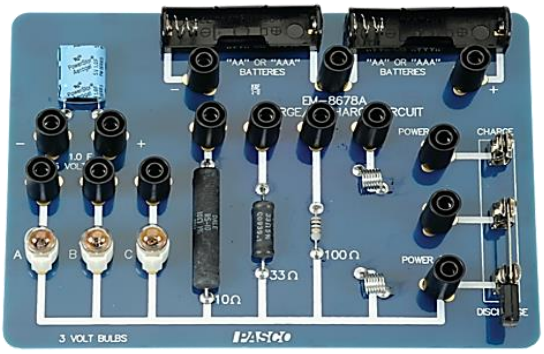

Figure 1: Charge/Discharge circuit

Figure 2: Pasco Airlink Interface

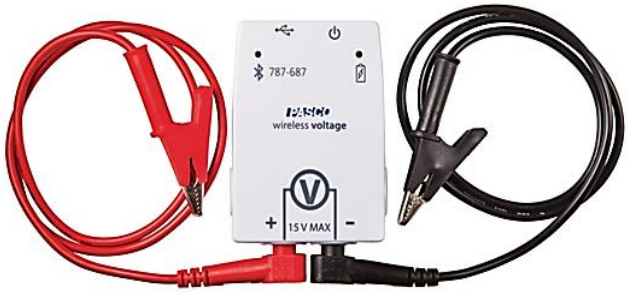

Figure 3: Wireless Voltage Sensor

Figure 4: Wireless Current Sensor

Figure 3: Pasco Voltage-Current Sensor

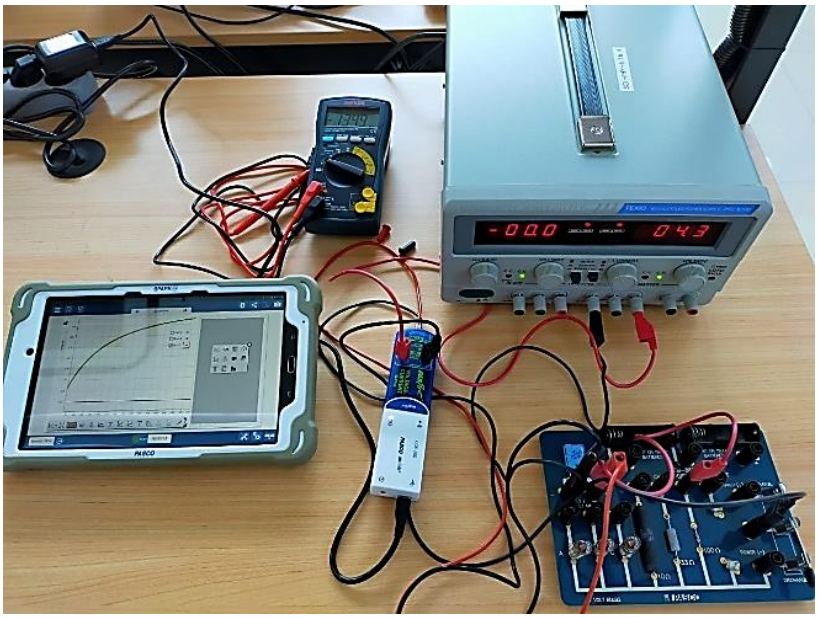

Figure 2: Setup Experiment