Government Polytechnic Bhatapara
Electrical Engineering Department

EXPERIMENT NO-1

Aim; -Identify type of resistor and measure their values.

Apparatus Required: 1. Digital multimeter (DMM)

2. Resistors, (color coded)

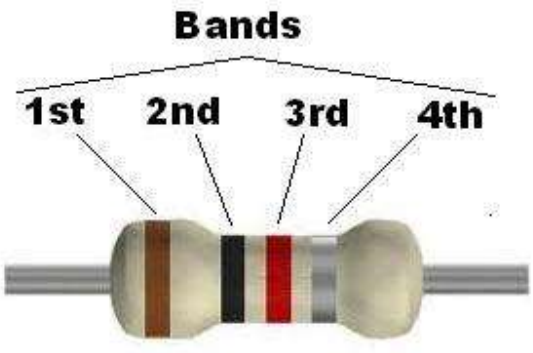
Theory: -

This is the most common component in electronics. It is used mainly to control current and voltage within the circuit. Its function is to reduce the flow of electric current. Its value is designated in units called the "Ohm." A 1000 Ohm resistor is typically shown as 1K-Ohm. It is an electrical component with known specified value of resistance. The opposition to the flow of electric current is known as resistance. The resistance of resistor is given by

R=V/I; where R=resistance, V=voltage, I=current.

Types of resistors:

There are two types of resistors; 1) fixed resistor and 2) variable resistor Fixed resistor is one whose value remains stable within the limits of its specification. Variable resistors are the resistor whose resistance can be changed from zero to a certain maximum value. There are two types of fixed resistors; 1) Linear and 2) Nonlinear. In linear resistor, there is linear relationship between resistance and temperature while in nonlinear resistor; there is non-linear relationship between resistance and temperature.



The color bands painted on the body of the resistors indicate the values. The colour bands are read from left to right from one end, which has the band closure to it. The first three bands give the resistance value. The first and second bands indicate the first and second significant digits while the third band gives the number of zeros , which follows the first two digits. In case the third band is gold or silver, it represents a multiplying factor of

0.1 or 0.01 respectively. If however the third band is black, it means, do not add zeros to the first two digits. The resulting number is the resistance in ohms.

The fourth band represents the error in value called tolerance. If the fourth band is gold, it means a tolerance of ± 5%, where as fourth band is silver means a resistance of tolerance of ± 10% . Absence of fourth band means a resistance of tolerance of ± 20%.

Color	Numeric Value	Multiplier	Tolerance	Temperature coefficient
BLACK	0	1Ω		250
BROWN	1	10 Ω	±1%	100
RED	2	100 Ω	±2%	50
ORANGE	3	1K Ω		15
YELLOW	4	10 Ω		25
GREEN	5	100 Ω	±0.5%	20
BLUE	6	1M Ω	±0.25%	10
VIOLET	7		±0.1%	5
GREY	8			1
WHITE	9			
GOLD			±5%	
SILVER			±10%	

For five bands:- The first three bands represent the usual resistance of the resistor. The first and second bands indicate the digits and the third band indicates the number of zeros following the two digits. The fourth band gives tolerance. The fifth band gives reliability level. The colour code for reliability is, Brown – 1%, Red – 0.1%, Orange – 0.01%, Yellow – 0.001% and so on. The first band close to one edge indicates the first digit in the numerical value of the resistor.

Procedure: - First the resistance of the given resistor is measured according to the colour code system, including tolerance and this is verified with the value measured by digital

multi-meter by keeping its band switch in proper resistance range. The values are to be noted in the in the table-2.

Observation table:-

Resistors	First color band	Second color band	Third color band	Fourth color band	% Tolerance	Coded value, Ω	Measured value, Ω
1							
2							
3							
4							

Table No.2

Precautions: -

1) Care should be taken in deciding the first edge.

2) Tolerance can also be taken into consideration while measuring resistance as per colour code.

Government Polytechnic Bhatapara
Electrical Engineering Department

EXPERIMENT NO-2

Aim; -Identify type of inductors, specification and measure their values.

Apparatus Required: 1. Digital multimeter (DMM)

2. Inductors

Theory: -

An inductor is a passive component that is used in most power electronic circuits to store energy in the form of magnetic energy when electricity is applied to it. One of the key properties of an inductor is that it impedes or opposes any change in the amount of current flowing through it. Whenever the current across the inductor changes it either acquires charge or loses the charge in order to equalize the current passing through it. The inductor is also called a choke, reactor or just coil.

Depending on the type of material used inductors can be classified as follows:

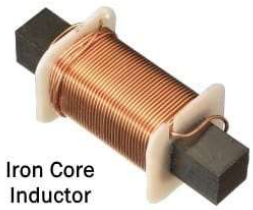
1. Iron Core Inductor
2. Air Core Inductor
3. Iron Powder Inductor
4. Ferrite Core Inductor which is divided into,

- Soft Ferrite

- Hard Ferrite

Iron Core Inductor

As the name suggests the core of this type of inductor is made of iron. These inductors are low space inductors that have high power and high inductance value. However, they are limited in high-frequency capacity. These inductors are used in audio equipment.



Iron Core Inductor

Air Core Inductor

These inductors are used when the amount of inductance required is low. Since there is no core, it does not have a core loss. But the number of turns the inductor must have is more for this type when compared to the inductors with the core. This results in a high-Quality factor. Usually, ceramic inductors are often referred to as air-core inductors.

Iron Powder Inductor

In this type of inductor, the core is Iron Oxide. They are formed by very fine and insulating particles of pure iron powder. High magnetic flux can be stored in it due to the air gap. The permeability of the core of this type of inductor is very less. They are usually below 100. They are mainly used in switching power supplies.

Ferrite Core Inductor

In this type of Inductor, ferrite materials are used as core. The general composition of ferrites is XFe_2O_4. Where X represents transition material. Ferrites can be classified into two types. Soft ferrites and hard ferrites.

- Soft Ferrite: Materials that have the ability to reverse their polarity without any external energy.
- Hard Ferrite: These are permanent magnets. That is their polarity will not change even when the magnetic field is removed.

Choke

A choke is a type of inductor that is used mainly for blocking high-frequency alternating current (AC) in an electrical circuit. On the other hand, it will allow DC or low-frequency signals to pass. As the function of this inductor is to restrict the changes in current it is called a choke. This inductor consists of a coil of insulated wire wound on a magnetic core. The main difference between chokes and other inductors is that in their cases they do not require high Q factor construction techniques meant to reduce the resistance in inductors found in tuned circuits.

Measurement

Maxwell's Inductance bridge measures an inductance by comparison with a variable standard self-Inductance. The connections and the phasor diagrams for balance conditions are shown below.

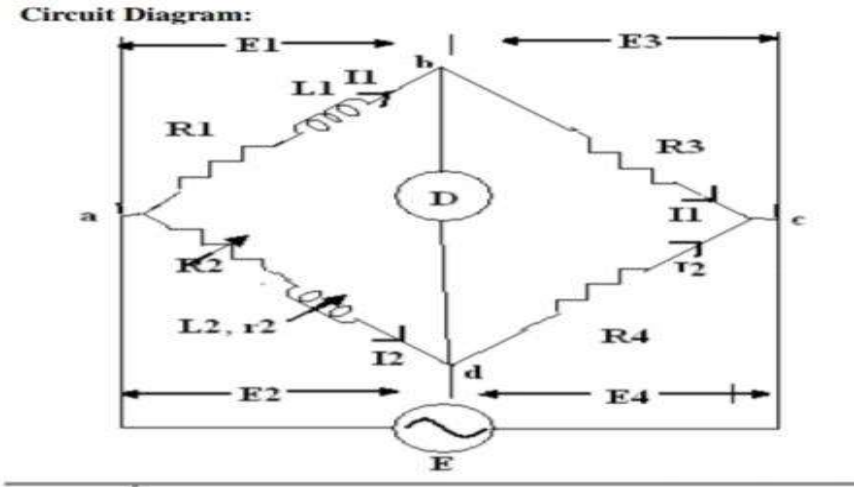


Fig1:- Maxwell's Inductance bridge.

Let, L1 = unknown inductance of resistance R1, L2 = variable inductance of fixed resistance r2, R2 = variable resistance connected in series with inductor L2, R3, R4 = known non-inductive resistances.

At balance, L1 = R3L2/R4, R1= R3(R2+r2)/R4.

Procedure:-

1. Connect the circuit as shown in the figure.
2. Connect the unknown inductance in L1.

3.Connect the multimeter between ground and output of imbalance amplifier.

4.Vary R2, from minimum position, in clockwise direction.

5.If the selection of R2 is correct the balance point can be obtained at minimum position.

6.Vary R2 for fine balance adjustment.

Observation Table:-

S.No.	R2	R3	C1	L1=R3L2/R4	True value of L1

Result: Identify type of inductors and practical values of Inductances are found to be nearly equal.

Government Polytechnic Bhatapara
Electrical Engineering Department

EXPERIMENT NO-3

Aim; -Identify type of capacitors, specification and measure their values.

Apparatus Required: 1. Digital multimeter (DMM)

2. Capacitors

Theory: -A capacitor is a passive electronic component consisting of a pair of conductors separated by an insulator. A capacitor is a physical device consisting of two pieces of conducting material separated by an insulating material. This insulating material is referred to as the Dielectric. Because the dielectric is an insulator, no current flows through the capacitor. If the dielectric breaks down and becomes a conductor, the capacitor can no longer hold a charge and is useless.

Types of capacitors the capacitors are divided into two classes. 1) Fixed and 2) Variable.

Fixed capacitors are further divided into Electrolytic and Non-Electrolytic (Non-Polarized).

- A fixed capacitor is constructed in such a manner that it possesses a fixed value of capacitance which cannot be adjusted.

- A variable capacitor is constructed in such a manner that its value can be varied. There are various types of capacitors in above said groups depending on different types of material used for dielectric electrode plates and method of their manufacturing and internal construction.

Non electrolytic capacitors are paper, Mica, Plastic, ceramic and glass.

Electrolytic capacitors are of two types: 1) Aluminum and 2) Tantalum.

- Aluminum Capacitor - A fixed type of electrolytic capacitor.

- Tantalum Capacitor – A fixed type of electrolytic capacitor.

- Paper Capacitor – A variable type of non-electrolytic capacitor.

- Glass capacitor - A variable type of non-electrolytic capacitor.

he Schering bridge is one type of AC bridge, which is used to measure the unknown capacitance, relative permeability, dissipation factor, and dielectric loss of a capacitor.

At balance, {r1+ 1/(jωC1)} {R4/(1+jωC4R4)} = R3/(jωC2)

{r1+ 1/(jωC1)} R4 = R3/(jωC2) *{(1+jωC4R4)}

R1R4 – {(jR4)/(ωC1)} ={ (-jR3)/(ωC2)} + {(R3R4C4)/(C2)}

Equating real and imaginary terms,

R1 = R3C4/C2 and C1 = C2R4/R3

Circuit diagram: -

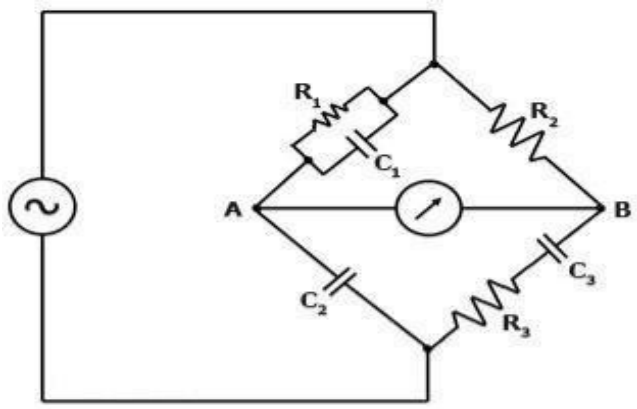


Fig1:- Schering bridge

Procedure: -

1. Connect the circuit as shown in the figure.
2. Select any value of C1.
3. Connect the multimeter between ground and output of imbalance amplifier.
4. Vary R4 and C4, from minimum position, in clockwise direction.
5. If the selection of C1 is correct the balance point can be obtained at minimum position.
6. If that is not the case, select another C1.
7. Calculate the Capacitance by substituting known values.

Observation table: -

S.No.	C4	C1	C2	R3	R4

Result: - Identify type of capacitors and practical values of capacitor are found to be nearly equal.

Government Polytechnic Bhatapara
Electrical Engineering Department

EXPERIMENT NO-4

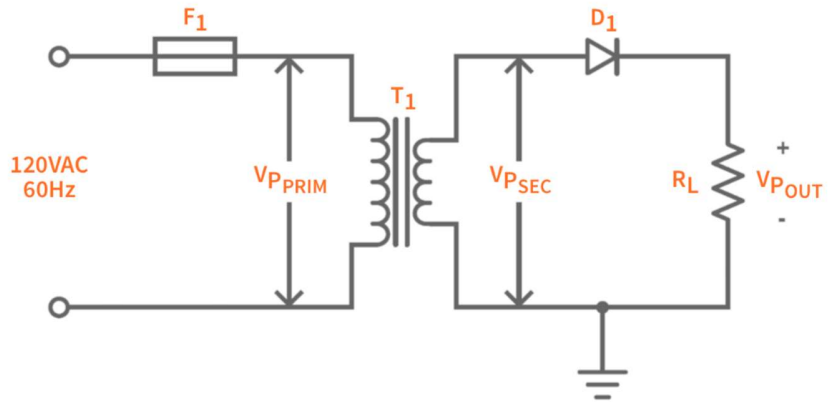
Aim; -Construct and test a half wave rectifier circuit.

Apparatus Required: 1. Diode

2.Transformer

Theory: -

Half-wave rectifiers transform AC voltage to DC voltage. A halfwave rectifier circuit uses only one diode for the transformation. A halfwave rectifier is defined as a type of rectifier that allows only one-half cycle of an AC voltage waveform to pass while blocking the other half cycle.



fig(1);half wave rectifier circuit

Construct -

1. Connect fuse primary side of transformer.
2. Connect diode secondary side of transformer.
3. Connect resistance between ground and output of diode.

Result: - We have construct half wave rectifier circuit.

Government Polytechnic Bhatapara
Electrical Engineering Department

EXPERIMENT NO-5

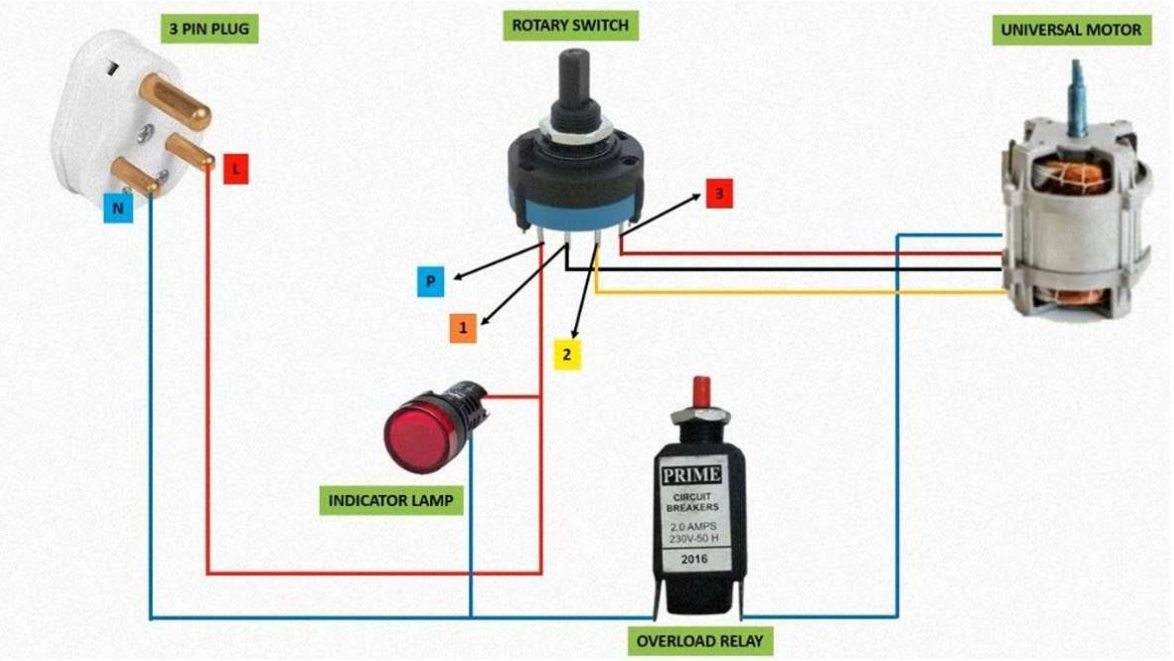
Aim; - Identify the various part and trace the control circuit of a given electrical mixer

Apparatus Required: electrical mixer

Theory: -

A mixer grinder is a compact portable electrical machine that is used for mixing and grinding grains.

Generally, the mixer grinder is designed to operate with a 230V AC supply.



Universal motor :-The universal motor is a type of electric motor that can operate on either AC or DC power and uses an electromagnet as its stator to create its magnetic field.[1] It is a commutated series-wound motor where the stator's field coils are connected in series with the rotor windings through a commutator. It is often referred to as an AC series motor. The universal motor is very similar to a DC series motor in construction, but is modified slightly to allow the motor to operate properly on AC power.

Overload relay; - An overload relay is a device that protects an electric motor against overloads and phase failure. It senses the overloading of the motor and interrupts the power flow to the motor, thus protecting it from overheating and winding damages. Apart from overloads, it can also protect the motor from phase loss/ failures and phase imbalance. They are very commonly known as OLR.

Rotary switch: -A rotary switch is a switch operated by rotation. These are often chosen when more than 2 positions are needed, such as a three-speed fan or a CB radio with multiple frequencies of reception or "channels".

Indicator lamp: -An indicator lamp is a warning device used to alert drivers of potential problems with their vehicles.

Control circuit

Most of the mixer grinders have the function to switch on and off in their speed control switch but some mixer grinders come with a separate power switch to on and off.

Result: - We have done identifying the various part and trace the control circuit of a given electrical mixer.

Government Polytechnic Bhatapara
Electrical Engineering Department

EXPERIMENT NO-6

Aim; - Construct and the test a switch circuit using transistor.

Apparatus Required: Transistor, Resister, 5v supply

Theory: - A transistor is a semiconductor device used to amplify or switch electrical signals and power. It is composed of semiconductor material, usually with at least three terminals for connection to an electronic circuit. A voltage or current applied to one pair of the transistor's terminals controls the current through another pair of terminals. Because the controlled (output) power can be higher than the controlling (input) power, a transistor can amplify a signal. Some transistors are packaged individually, but many more are found embedded in integrated circuits.

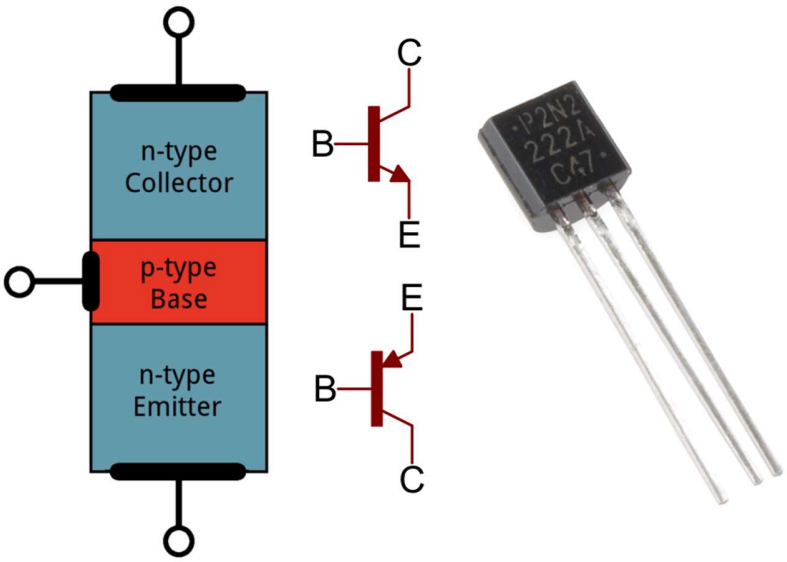


Fig (1): - Transistor

- A transistor can function as a single-pole single-throw switch controlled by an electronic signal driving the base terminal.
- When the control signal on the base terminal turns the transistor off, it acts like an open switch.

• When the control signal on the base terminal turns the transistor on, it acts like a closed switch.

• When transistor is used for switching, it is in one of two states: on or off.

• In the off state, the base bias current is zero and the transistor is cut off.

• In the on state, the base bias current is set large enough to drive the transistor into saturation.

• Adding a capacitor in parallel with the base resistor improves the transistor switching speed.

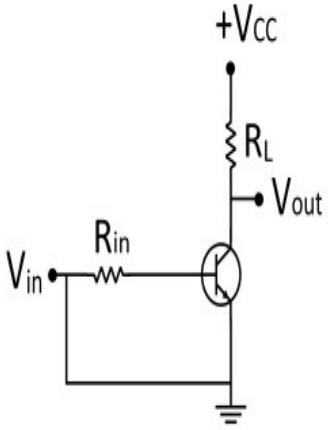


Fig (2)**: -** Switch circuit using transistor

Procedure: -

1. Connect the circuit as shown in Figure 2.

2. Apply 5V, 1 kHz square wave to the base.

3. Apply +5V dc voltage to collector.

4. Observe the input and output waveforms simultaneously using oscilloscope.

Result: -We have Construct and the test a switch circuit using transistor.

Government Polytechnic Bhatapara
Electrical Engineering Department

EXPERIMENT NO-7

Aim; - Identify internal and external components of washing machine and operate it.

Apparatus Required: Washing machine, Supply

Theory: -

Internal and external components

- **Water pump.** This circulates the water through the machine, rotating in two directions. It's used for circulating the water through the wash cycle and also for draining the water during the spin cycle.
- **Water inlet control valve.** This is located near the water inlet point, which is opens and closes automatically when you load the clothes, depending on how much water is required.
- **Drum.** Did you know that washing machines actually have two tubs? The one you see where the clothes are loaded is the inner drum, which moves around the washing machine and is perforated with holes to allow the water in and out. The outer tub contains the inner drum and the water, stopping it from leaking into the rest of the machine and supports the inner drum.
- **Agitator or paddles.** This is located inside the tub of the washing machine and helps perform the cleaning of the clothes. Most fully-automatic washing machines have these paddles on the rotating inner drum which is controlled by a rotating disc, whereas semi-automatic washing machines use an agitator that rotates within the machine to produce a current in the machine. Either way, these are designed to move the clothes around during the wash to allow the detergent to work and remove dirt particles and soiling from your clothes, helping the clothes rub together while washing.
- **Washing machine motor.** This is combined with the agitator or the disc that turns the drum, it produces a rotator motion. This is basically the mechanism that gets your machine going.
- **Drain pipe.** All the dirty water from your washing is expelled from the machine via the drain pipe.
- **Printed circuit board (PCB).** This is where you'll find mainly the electronics that operate the machine from electrical components to circuits. These can be programmed and help operate the machine, acting as the artificial intelligence for the

- washing machine, sometimes even deciding on the time needed for rinsing or washing.
- **Timer.** This helps set the wash time for your clothes, which can be set manually or automatically.
- **Heating element.** This heats the water up in the washing machine to the desired temperature.

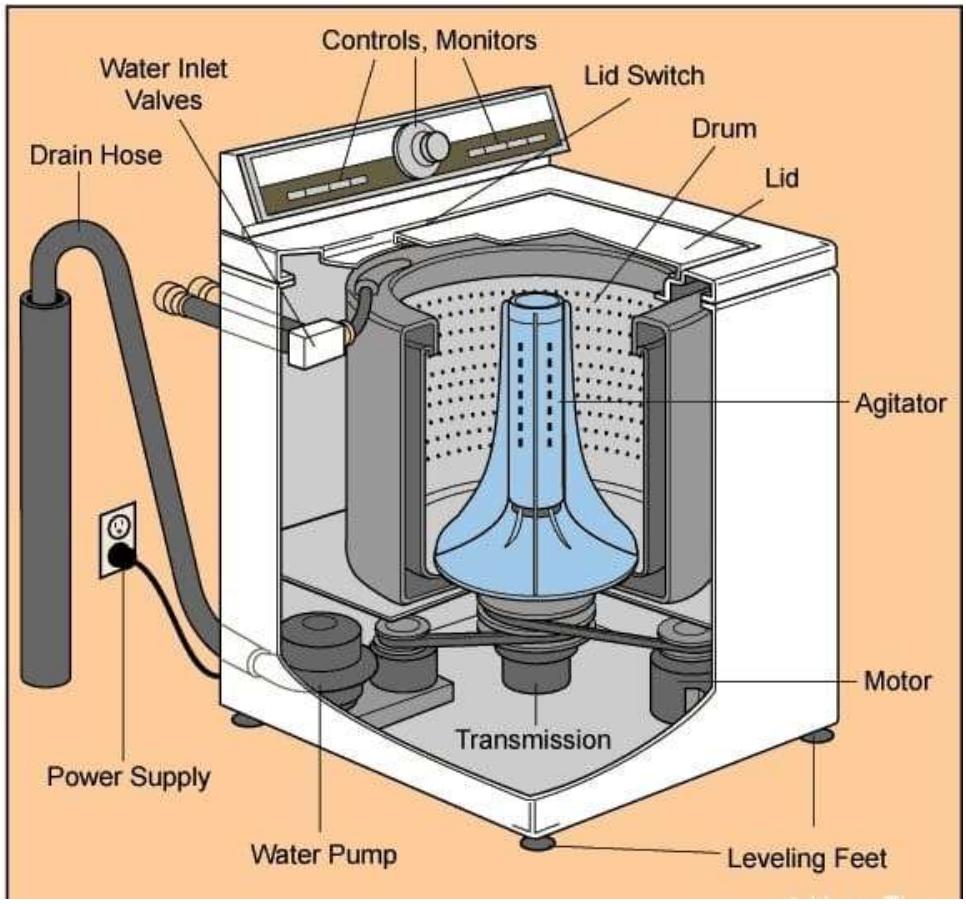


Fig (1): -Washing machine

Operation: -

1. You load the machine with your laundry, dose with Ariel and select the program you need.
2. The programmer in your machine opens the valves to let the hot and cold water into the machine, this then fills both drums up. Some water also enters the detergent tray (if your machine uses one), and washes any detergent into the main part of the machine.
3. The valves are switched off once the water has entered the machine.
4. The thermostat measures the water coming into your washing machine and may heat up the water using the heating element to the required temperature.

5. Once the water is at the desired temperature, the inner drum begins to rotate back and forth, mixing the clothes up in the warm, soapy water, agitating them to help remove stains and soiling.
6. The detergent helps remove the dirt from the clothes, and pulls it into the water.
7. The valve opens again and the dirty water drains out of the drums. The pump works to help get rid of the water.
8. The valve lets clean water in again into the drums.
9. The inner drum rotates again to rinse the clothes from any remaining dirty water or detergent.
10. Once rinsed, the inner drum starts to spin at high speed to remove any remaining water. This water goes out through the small holes in the inner drum into the outer drum before the pump removes any remaining water, and your clothes are ready to be taken out to dry.

Result: -We have identifying internal and external components of washing machine and operate it.

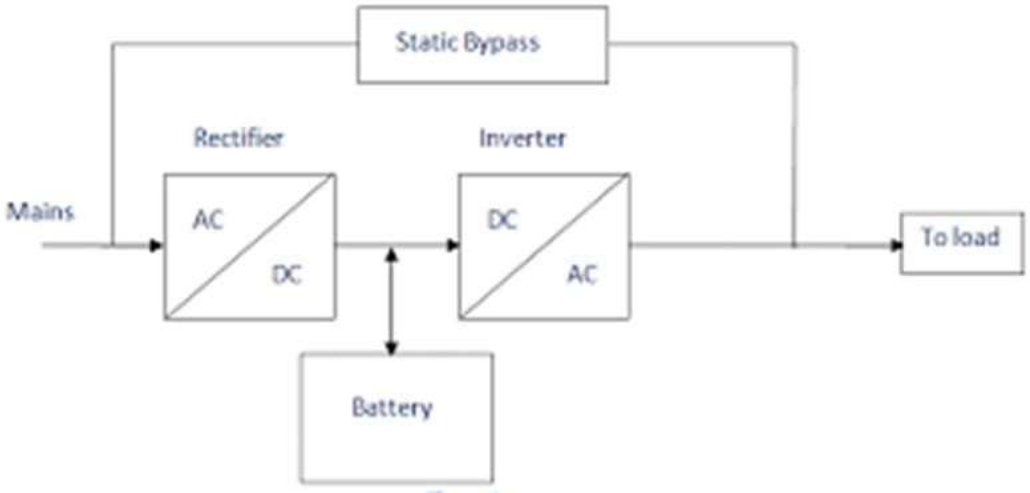
Government Polytechnic Bhatapara
Electrical Engineering Department

EXPERIMENT NO-8

Aim; - Identify the internal and external components of a given home UPS, install and operate it.

Apparatus Required: UPS,

Theory: - (Uninterruptible Power Supply) A device that provides battery backup when the electrical power fails or drops to an unacceptable voltage level. Small UPS systems provide power for a few minutes; enough to power down the computer in an orderly manner, while larger systems have enough battery for several hours. In mission critical datacenters, UPS systems are used for just a few minutes until electrical generators take over.

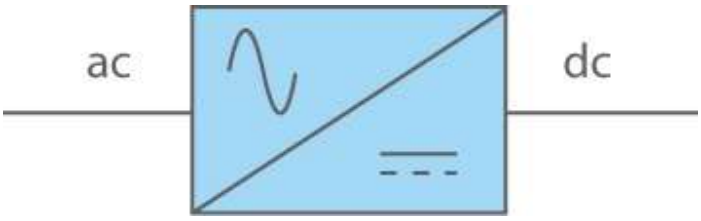


Rectifier

The rectifier carries out several key functions. The first is to convert the input power from AC (Alternating Current) to DC (Direct Current). Its second main role is to recharge the batteries, while the DC power routes to the inverter too.

Depending on the size of the UPS, the rectifier module may incorporate the battery charger. With smaller uninterruptible power supply systems (i.e. below 3 kVA) it is not uncommon for the rectifier and battery charger to be separate components.

UPS rectifiers can accept wide input voltage fluctuations, meaning the system can handle overloads or surges without having to engage the batteries.



UPS Batteries

The batteries in a UPS system provide emergency power when the mains supply fails. Either the rectifier or a separate charger ensures that the batteries are always charged.

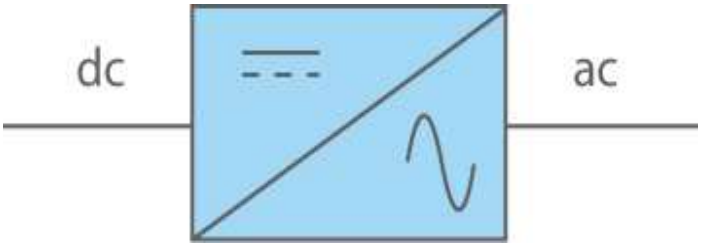
UPS battery systems have at least one string of batteries, with the number of batteries required depending on the DC voltage of the UPS. Batteries within a string are connected in series, so if a single battery fails, so too does the entire string.

For smaller UPS systems, the batteries are often internal to the unit. Whereas in larger solutions, UPS batteries are often housed in their own standalone cabinets.

Inverter

This component fulfils the second half of the double conversion by switching the DC voltage from the rectifier or battery back to an AC output that powers the critical load.

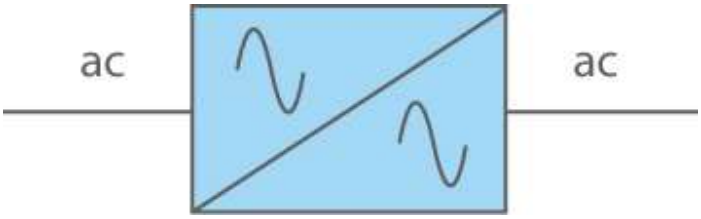
This conversion process (AC to DC to AC) and filtering smooths out events such as spikes, sags, surges, and electrical noise, ensuring the final output is a pure sine waveform.



Static Bypass Switch

This component is a safeguard in case there's a failure within the UPS system. In the event of a UPS fault, the static bypass switch automatically connects the load to the mains supply, bypassing the rectifier, batteries, and inverter.

Having to transfer to mains supply isn't ideal as the power won't be filtered or conditioned as usual in an online double-conversion UPS, but it does enable equipment to continue functioning while the UPS is repaired or replaced.



Other UPS Components

Depending on the size and type of UPS, there are several other common components that may be included, for example, fans or capacitors.

In addition, there are also components such as an External Maintenance Bypass, which enables the UPS to be removed and/or replaced without interrupting the load, Transient Volt Surge Suppressors (TVSS), and Simple Network Management Protocol (SNMP)-compliant monitoring and communications applications.

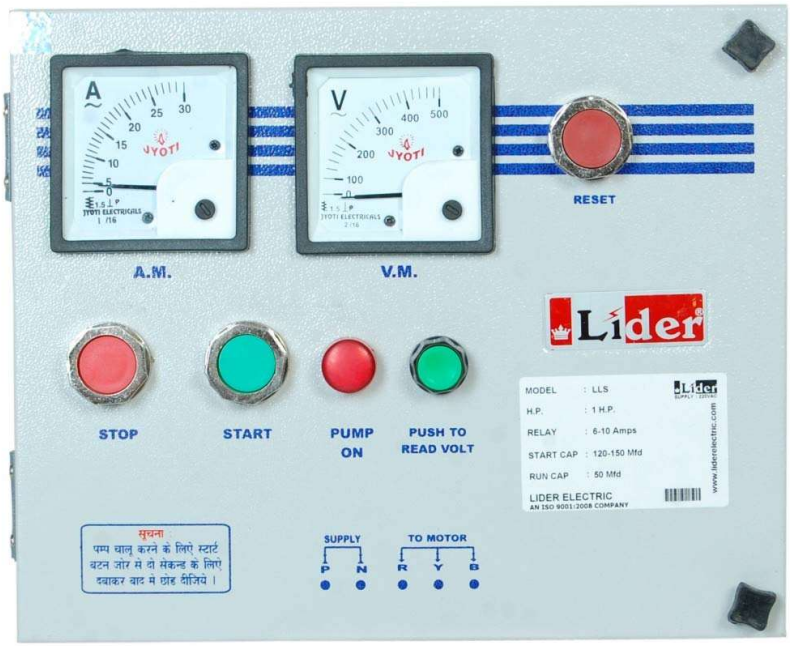
Result: - We have identified the internal and external components of a given home UPS, install and operate it.

Government Polytechnic Bhatapara
Electrical Engineering Department

EXPERIMENT NO-9

Aim; - Identify various component of a stater panel for single phase submersible pump.

Apparatus Required: Stater panel



Theory: -

Voltmeter

A voltmeter measures voltages usually calibrated in volts, millivolts (0.001 volt), or kilovolts (1,000 volts). In order to measure a device's voltage, a voltmeter is connected in parallel to a device. This setup is important as objects in parallel usually tend to experience the same potential difference. It is connected in parallel with the circuit mainly because the same voltage drop occurs across it.

Ammeter

An ammeter (abbreviation of Ampere meter) is a measuring instrument used to measure the current in a circuit. Electric currents are measured in amperes (A), hence the name. The ammeter is usually connected in series with the circuit in which the current is to be measured. An ammeter usually has low resistance so that it does not cause a significant voltage drop in the circuit being measured.

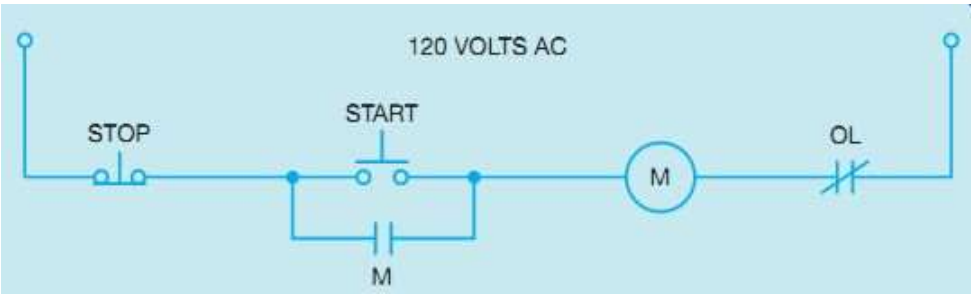
Reset button

A reset button is a button that can reset a device. the reset button clears the memory and reboots the machine forcibly. Reset buttons are found on circuit breakers to reset the circuit. This button can cause data corruption which is why it often doesn't exist on many machines.

Start and Stop button

When the START button is pushed, current flows through the relay coil and normally closed overload con tact to the power source. When current flows through relay coil M, the contacts connected parallel to the START button close. These contacts maintain the circuit to coil M when the START button re leases and returns to its open position.

The circuit will continue to operate until the STOP button is pushed and breaks the circuit to the coil. When the current flow to the coil stops, the relay de-energizes and contact M reopens. Since the START button is now open and contact M is open, there is no complete circuit to the relay coil when the STOP button is returned to its normally closed position. If the relay is to be restarted, the START button must be pushed again to provide a complete circuit to the relay coil.



Result: -We have Identified various component of a stater panel for single phase submersible pump.

Government Polytechnic Bhatapara
Electrical Engineering Department

EXPERIMENT NO-10

Aim; - Identify and repair the faulty components of a given DOL starter panel.

Apparatus Required: DOL starter panel

Theory: -

Parts of DOL starter

Contactor & Coil

Magnetic motor controllers use electromagnetic energy for closing switches. The electromagnet consists of a coil of wire placed on an iron core. When a current flow through the coil, the iron of the magnet becomes magnetized, attracting an iron bar called the armature. An interruption of the current flow through the coil of wire causes the armature to drop out due to the presence of an air gap in the magnetic circuit.

Contactors are mainly used to control machinery which uses electric motors. It consists of a coil which connects to a voltage source. Very often for Single phase Motors, 230V coils are used and for three phase motors, 415V coils are used. The contactor has three main NO contacts and lesser power rated contacts named as Auxiliary Contacts [NO and NC] used for the control circuit. A contact is conducting metal parts which completes or interrupt an electrical circuit.

- NO-normally open
- NC-normally closed

Over load relay

Overload protection for an electric motor is necessary to prevent burnout and to ensure maximum operating life.

Under any condition of overload, a motor draws excessive current that causes overheating. Since motor winding insulation deteriorates due to overheating, there are established limits on motor operating temperatures to protect a motor from overheating. Overload relays are employed on a motor control to limit the amount of current drawn.

Overload relays can be classified as being thermal, magnetic, or electronic:

1. **Thermal Relay**: As the name implies, thermal overload relays rely on the rising temperatures caused by the overload current to trip the overload mechanism.

2. Thermal overload relays can be further subdivided into two types: melting alloy and bimetallic.

3. **Magnetic Relay**: Magnetic overload relays react only to current excesses and are not affected by temperature.
4. **Electronic Relay:** Electronic or solid-state overload relays, provide the combination of high-speed trip, adjustability, and ease of installation. They can be ideal in many precise applications.

Fig(1):-DOL Starter

Wiring of DOL Starter

1. Main Contact

- Contactor is connecting among Supply Voltage, Relay Coil and Thermal Overload Relay.
- L1 of Contactor Connect (NO) to R Phase through MCCB
- L2 of Contactor Connect (NO) to Y Phase through MCCB
- L3 of Contactor Connect (NO) to B Phase through MCCB.

NO Contact (-||-):

- (13-14 or 53-54) is a normally Open NO contact (closes when the relay energizes)
- Contactor Point 53 is connecting to Start Button Point (94) and 54 Point of Contactor is connected to Common wire of Start/Stop Button.

NC Contact (-|/|-):

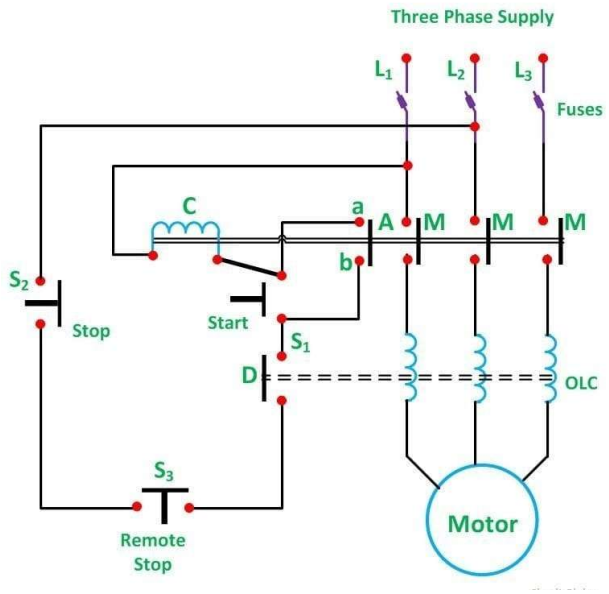
- (95-96) is a normally closed NC contact (opens when the thermal overloads trip if associated with the overload block)

2. Relay Coil Connection

- A1 of Relay Coil is connecting to any one Supply Phase and A2 is connecting to Thermal over Load Relay's NC Connection (95).

3. Thermal Overload Relay Connection:

- T1,T2,T3 are connect to Thermal Overload Relay
- Overload Relay is Connecting between Main Contactor and Motor
- NC Connection (95-96) of Thermal Overload Relay is connecting to Stop Button and Common Connection of Start/Stop Button.



Direct On Line Starter - Wiring Diagram

Working principle of DOL Starter

The main heart of DOL starter is Relay Coil. Normally it gets one phase constant from incoming supply Voltage (A1).when Coil gets second Phase relay coil energizes and Magnet of Contactor produce electromagnetic field and due to this Plunger of Contactor will move and Main Contactor of starter will closed and Auxiliary will change its position

NO become NC and NC become (shown Red Line in Diagram) .

Pushing Start Button

When We Push the start Button Relay Coil will get second phase from Supply Phase-Main contactor (5)-Auxiliary Contact (53)-Start button-Stop button-96-95-To Relay Coil (A2).Now Coil energizes and Magnetic field produce by Magnet and Plunger of Contactor move. Main Contactor closes and Motor gets supply at the same time Auxiliary contact become (53-54) from NO to NC .

Release Start Button

Relay coil gets supply even though we release Start button. When We release Start Push Button Relay Coil gets Supply phase from Main contactor (5)-Auxiliary contactor (53) – Auxiliary contactor (54)-Stop Button-96-95-Relay coil (shown Red / Blue Lines in Diagram).In Overload Condition of Motor will be stopped by intermission of Control circuit at Point 96-95.

Pushing Stop Button

When we push Stop Button Control circuit of Starter will be break at stop button and Supply of Relay coil is broken, Plunger moves and close contact of Main Contactor becomes Open, Supply of Motor is disconnected.

Result: -We have Identified and repair the faulty components of a given DOL starter panel.