

E008 + E033 ELECTRICAL WIRING + TESTING

FIXED WIRING

FOR BOTH FIXED WIRING AND FLEXIBLE CORD, P.V.C CABLES ARE WIDELY USED.

SINGLE CORE : RED (OR) BLACK

TWO CORE : RED AND BLACK
(OR)

RED AND WHITE

THREE CORE (SINGLE PHASE)

RED - ACTIVE

BLACK - NEUTRAL

GREEN + YELLOW - EARTH

THREE CORE (THREE PHASE)

RED + BLUE + YELLOW
(OR)

RED + WHITE + BLUE

FOUR CORE (THREE PHASE): RED, YELLOW, BLUE, BLACK

RED, WHITE, BLUE, BLACK

PVC - POLY VINYL CHLORIDE - WIDELY USED.

BUT IT CAN BE ATTACKED BY TERMITES.

MIMS - MAGNESIUM OXIDE DIELECTRIC
CAN WITHSTAND UP TO 250°C
TEMPERATURE

XLPE - CROSS-LINKED POLYETHYLENE

PTFE - POLYTETRAFLUOROETHYLENE

TEMPERATURE RANGE: 60, 90, 200°C

COLOUR COATING IS APPLIED FOR FIXED
WIRING. IT IS NOT APPLIED FOR INTERNAL
WIRING OF APPLIANCES.

THERMO PLASTIC SHEATH

CAN WITHSTAND THE SUN LIGHT
EXPOSED TO WEATHER.

FLEXIBLE CORD

	ACTIVE	NEUTRAL	EARTH
1 ϕ	RED	BLACK	YELLOW / GREEN
	BROWN	LIGHT BLUE	YELLOW / GREEN
3 ϕ	BROWN WHITE BLUE	BLACK	YELLOW / GREEN
	RED BLUE YELLOW	BLACK	YELLOW / GREEN

CABLE TYPES AND APPLICATION

HARD DRAWN COPPER, CADMIUM COPPER
— HIGHER TENSILE STRENGTH

ALUMINIUM ALLOY, STEEL CORED

ALUMINIUM (ACSR)

— LIGHT WEIGHT
— CHEAPER COST
— USED FOR HIGH VOLTAGE
OVER HEAD LINES.

GALVANIZED STEEL

MOISTURE RESISTANCE

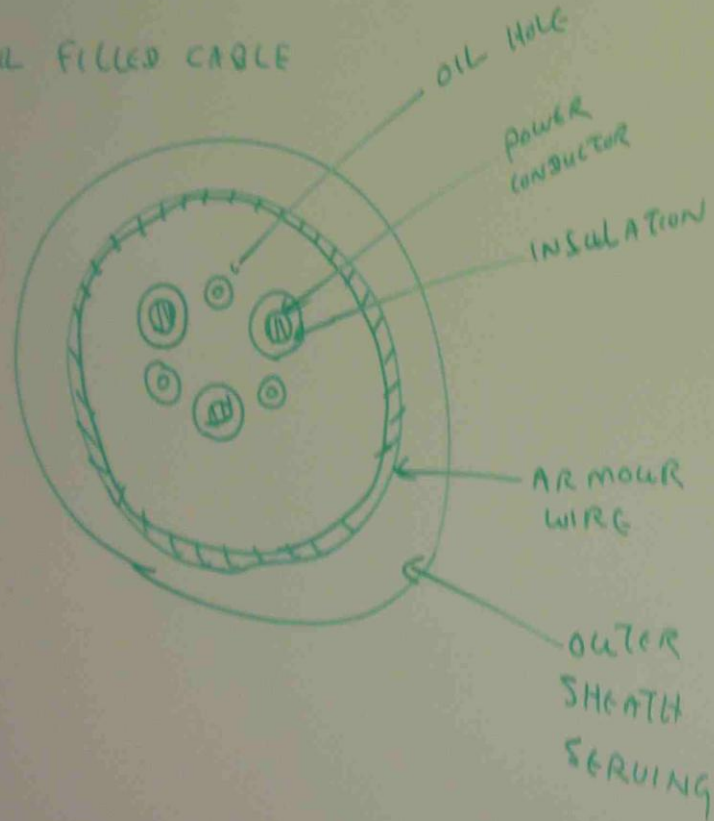
INSULATED CONDUCTOR

UNDERGROUND

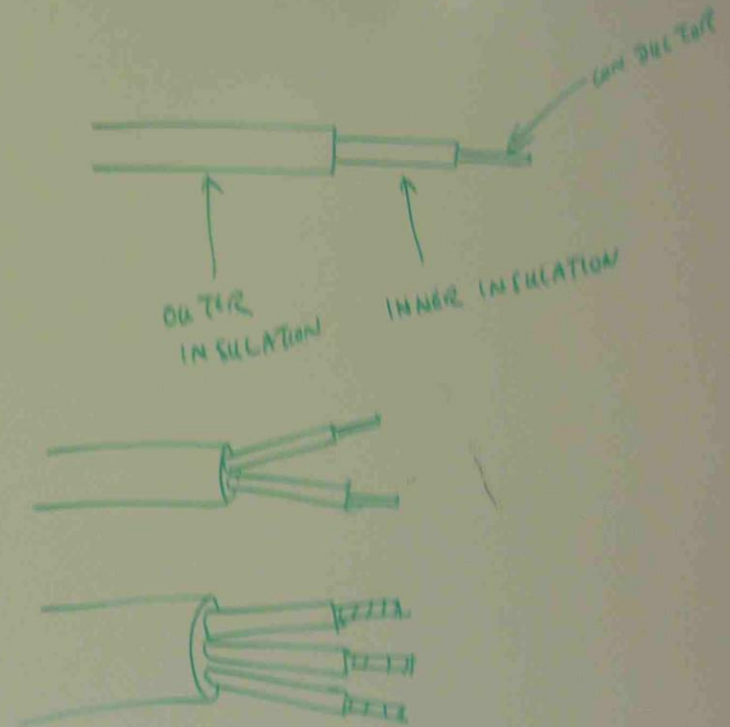
PAPER INSULATED, LEAD SHEATH CABLE

GAS FILLED CABLE

OIL FILLED CABLE



CABLE $1\text{mm}^2 \rightarrow 630\text{mm}^2$



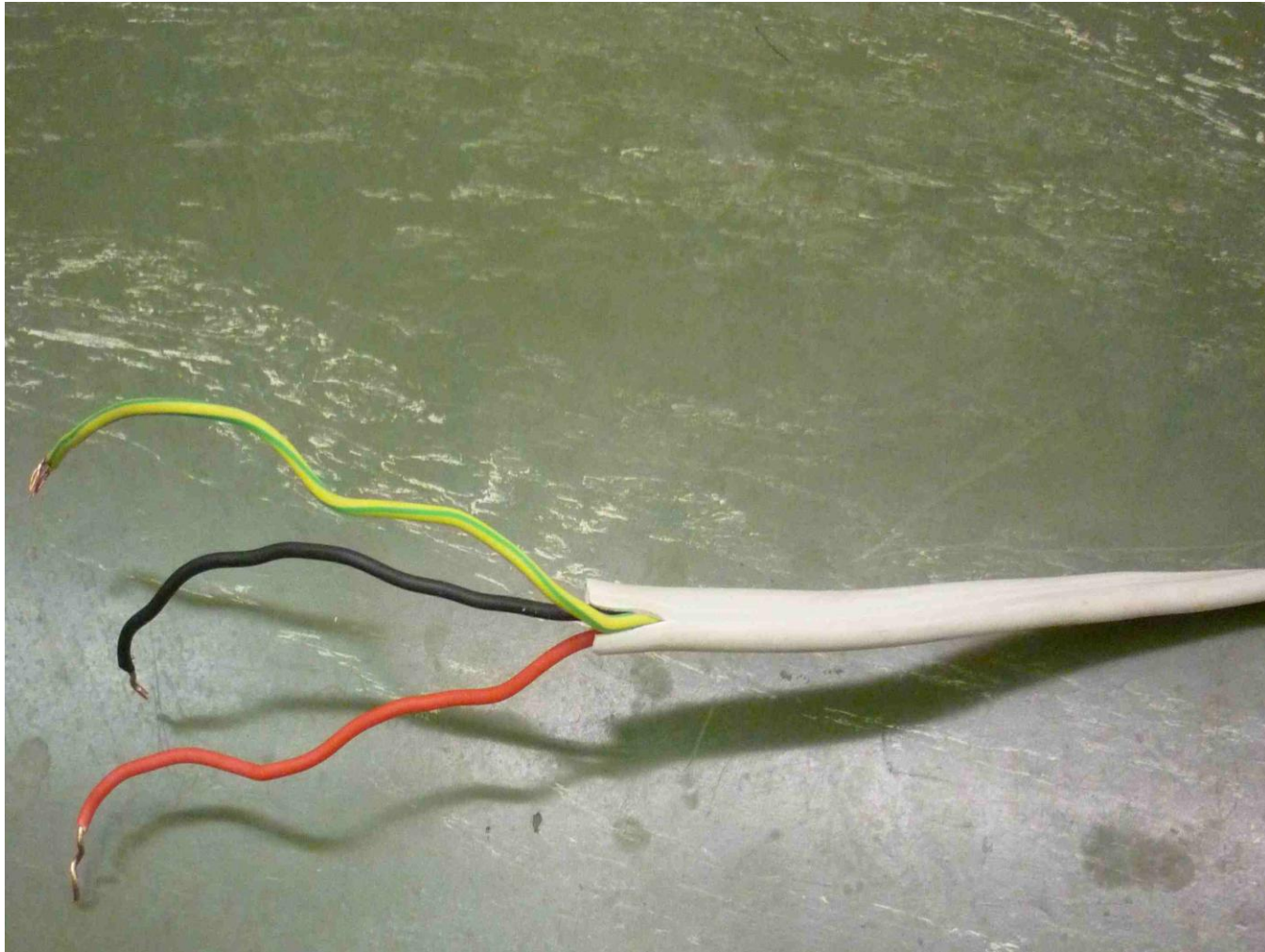
DOUBLE INSULATED TPS CABLE IS THE MOST POPULAR FOR WIRING WHEN INSTALLED WITHOUT PROTECTIVE ENCLOSURE

FLAT TYPE - TPS CABLE IS USUALLY USED IN GENERAL WIRING.

SWITCH WIRE - TWIN ACTIVE
SOME SUPPLY AUTHORITIES DO NOT PERMIT THE BLACK AS A SWITCH WIRE.

CIRCULAR TYPE TPS USES BASICALLY THE SAME CONSTRUCTION AS THE FLAT TYPE. BUT THE CABLE CORES ARE TWISTED TO FORM A CIRCULAR PATTERN.

TPS IS USED AS WATER PROOF.

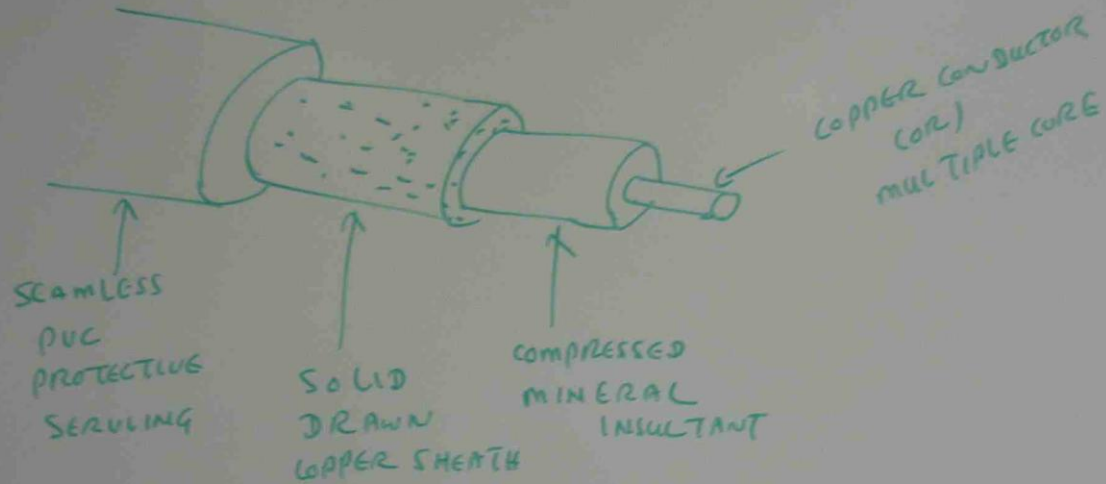








MIMS CABLE



MIMS CABLE CONSISTS OF AN ANNEALED SEAMLESS COPPER SHEATH, HOUSING HIGHLY COMPRESSED PURE MAGNESIUM OXIDE POWDER WHICH SURROUNDS AND INSULATES THE HIGH CONDUCTIVITY COPPER CONDUCTOR.

VOLTAGE

0.6/0.6 kV (600V) - L.V LIGHT DUTY - 4mm² CONDUCTOR - 50 AMP

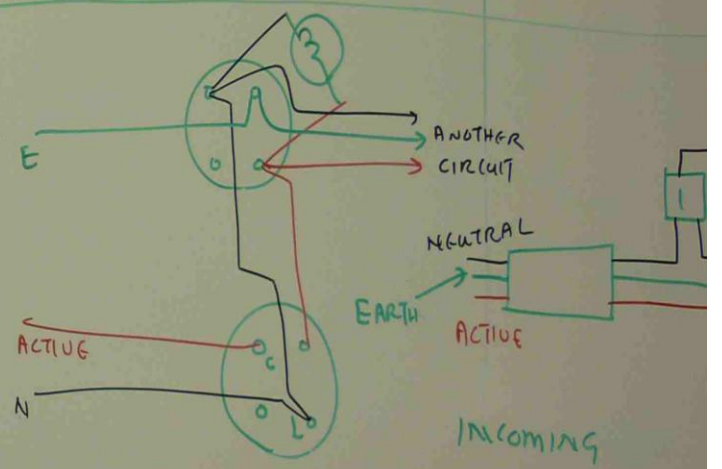
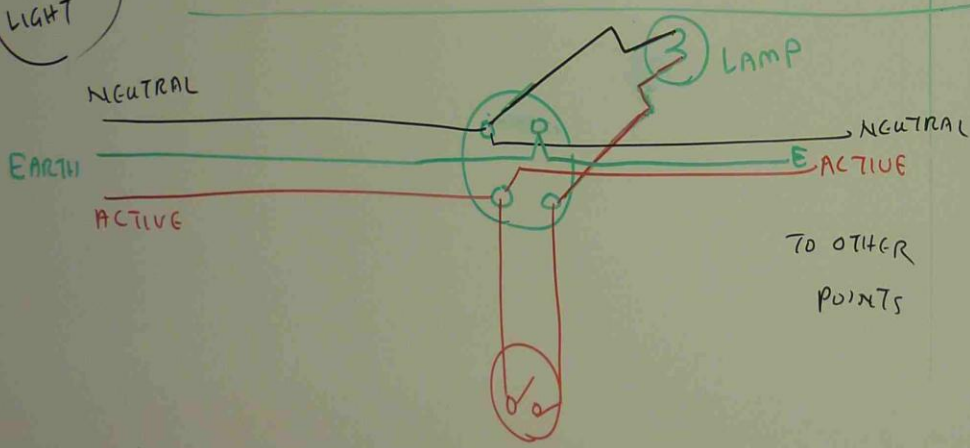
1/1 kV (1000V) 1.5mm² → 400mm²
2SA → 1000A

TEMPERATURE RANGE UP TO 200°C

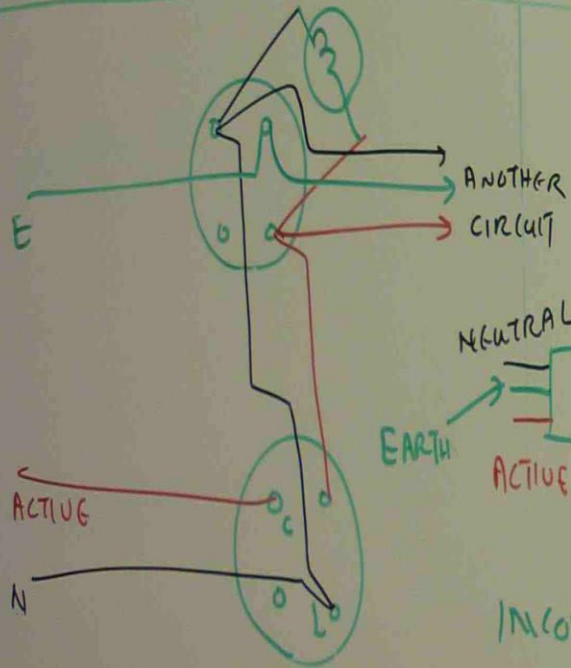
SWITCH
+
LIGHT

LOOPING IN BATTEN HOLDER (OR) CEILING ROSE

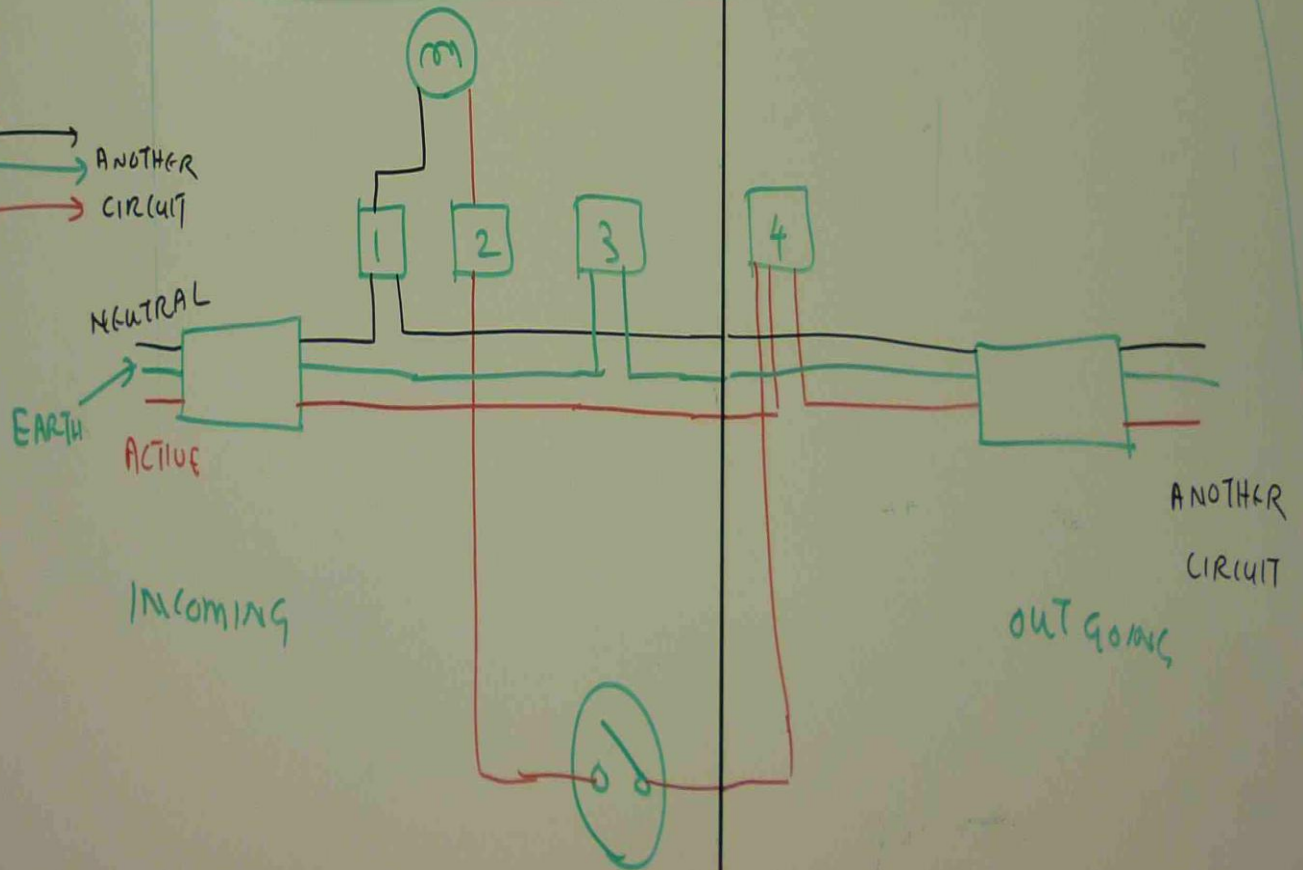
LOOPING IN SWITCH



LOOPING IN SWITCH



PRACTICAL CONNECTION FOR BEGINNERS



VOLTAGE

0.6/0.6 kV (600V) - L.V. LIGHT DUTY - 4mm² CONDUCTOR - 50 AMP

1/1 kV (1000V) 1.5mm² → 400mm²
25A → 1000A

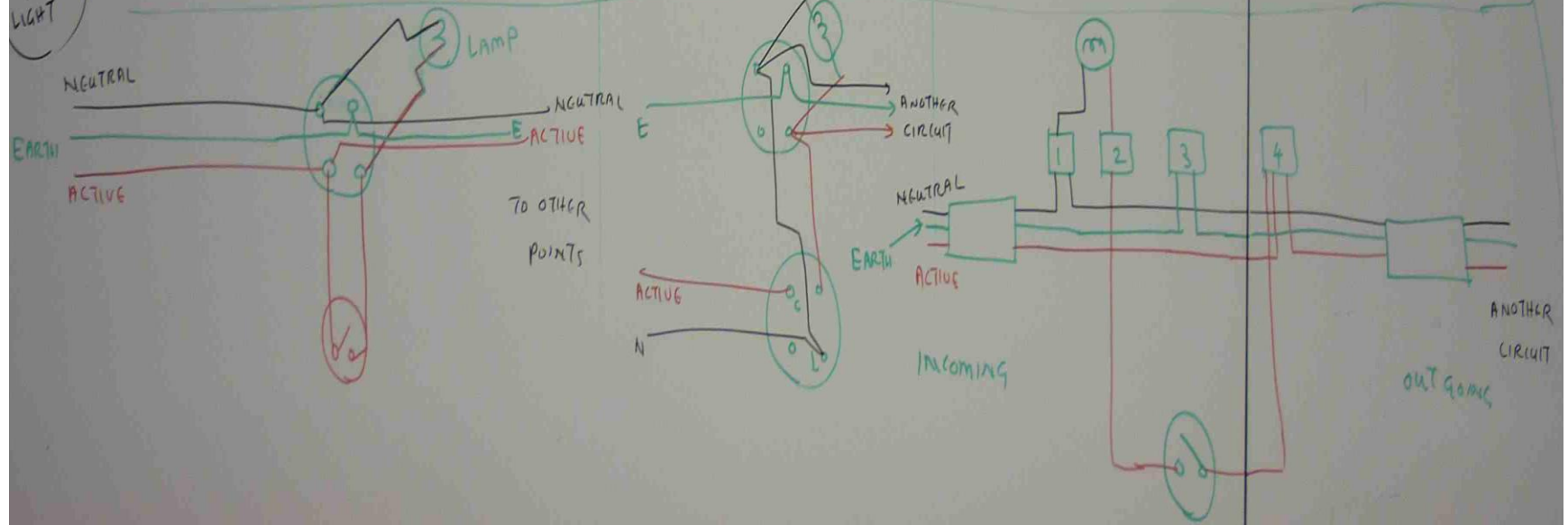
TEMPERATURE RANGE UP TO 80°C

SWITCH
+
LIGHT

LOOPING IN BATTEN HOLDER (OR) CEILING ROSE

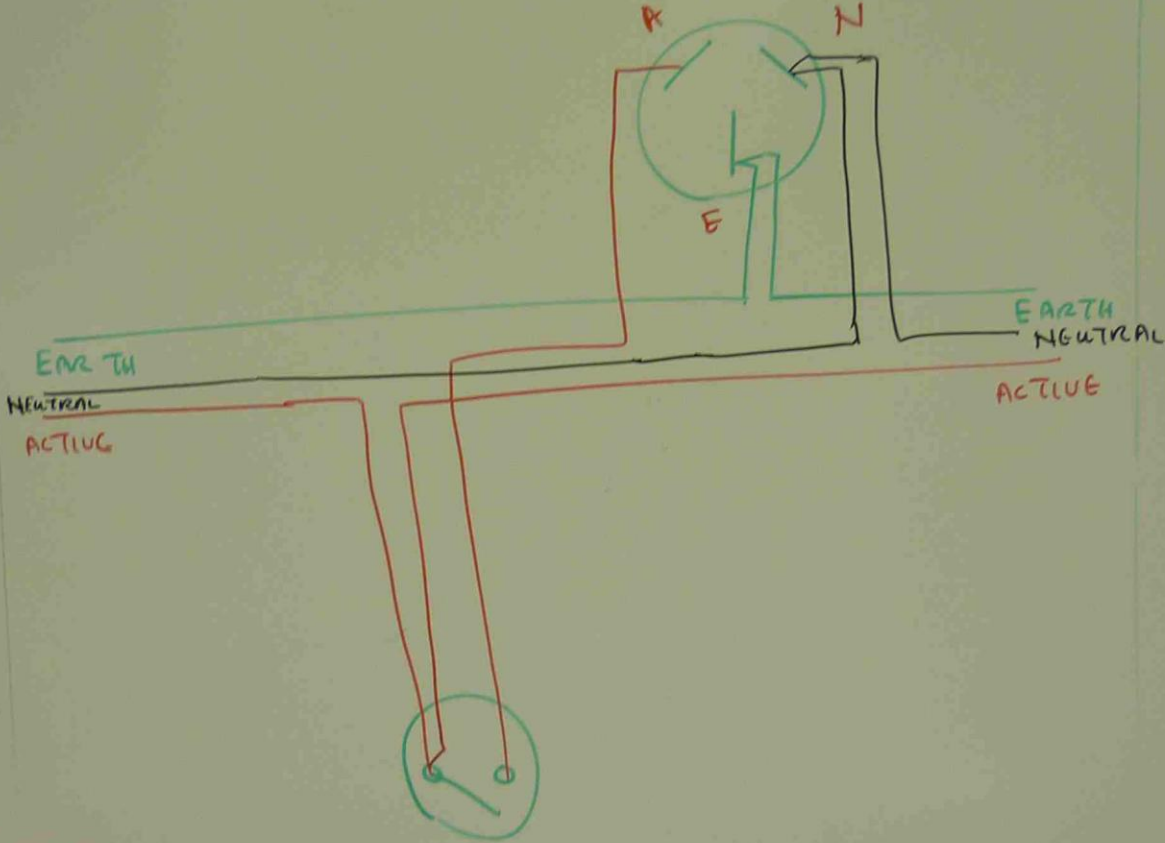
LOOPING IN SWITCH

PRACTICAL CONNECTION
FOR BEGINNERS

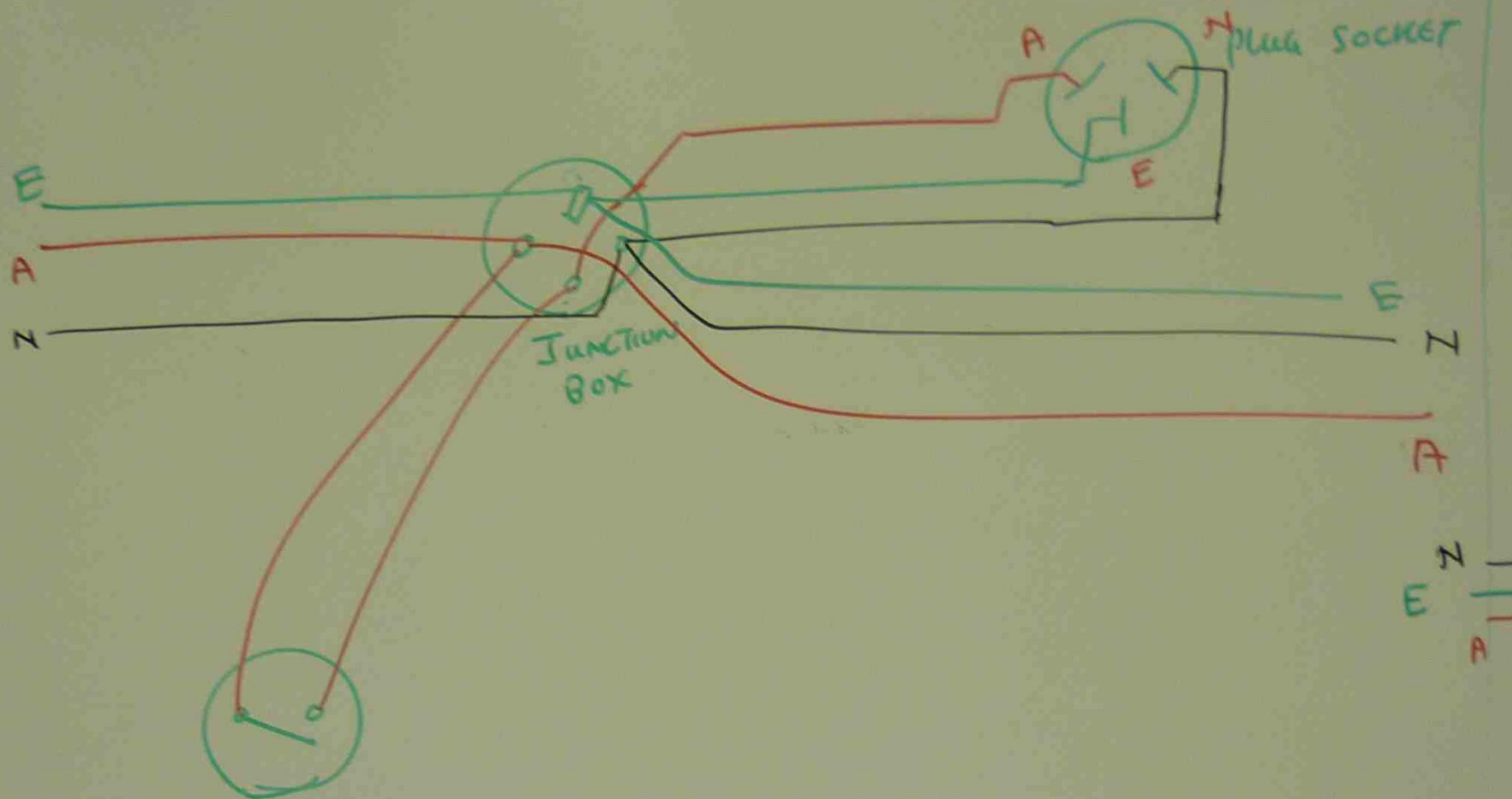


SWITCH + PLUG SOCKET

LOOPING AT SOCKET



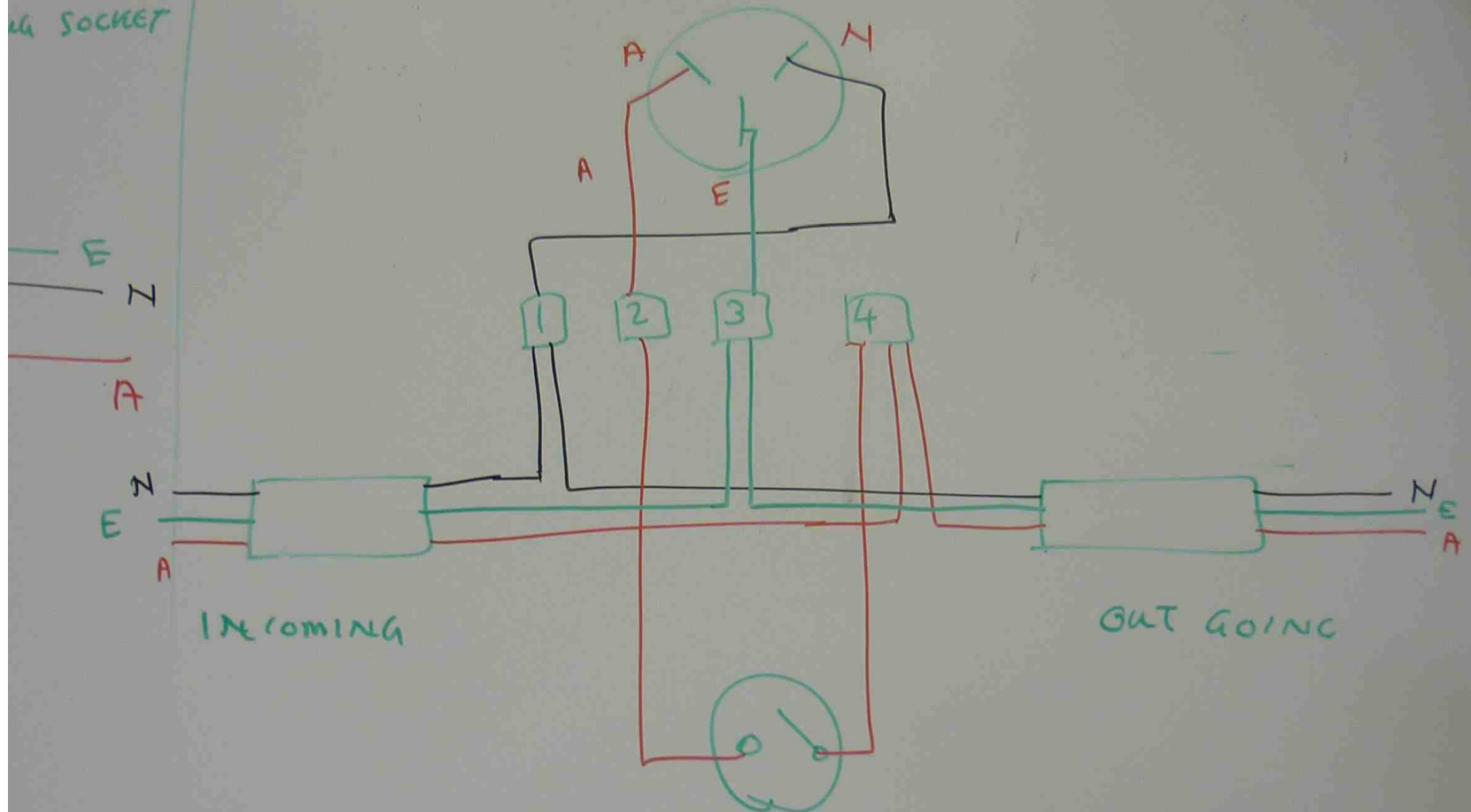
Looping AT SWITCH



SIMPLIFIED DIAGRAM FOR BEGINNERS

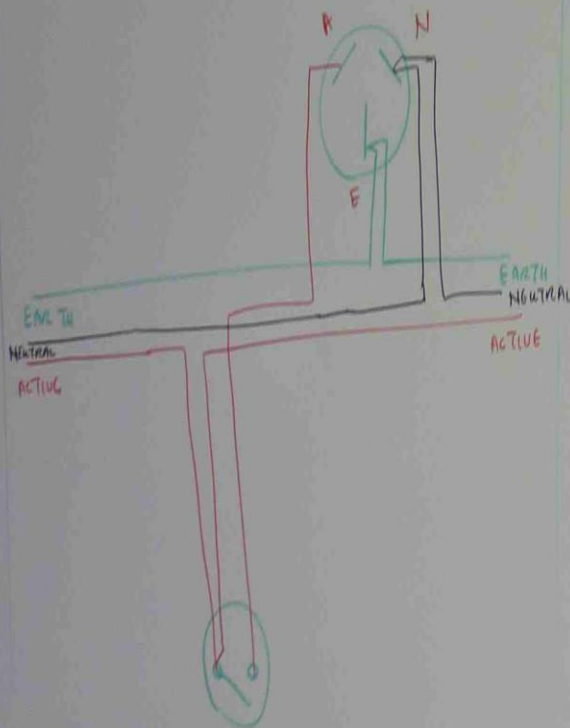
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SOCKET

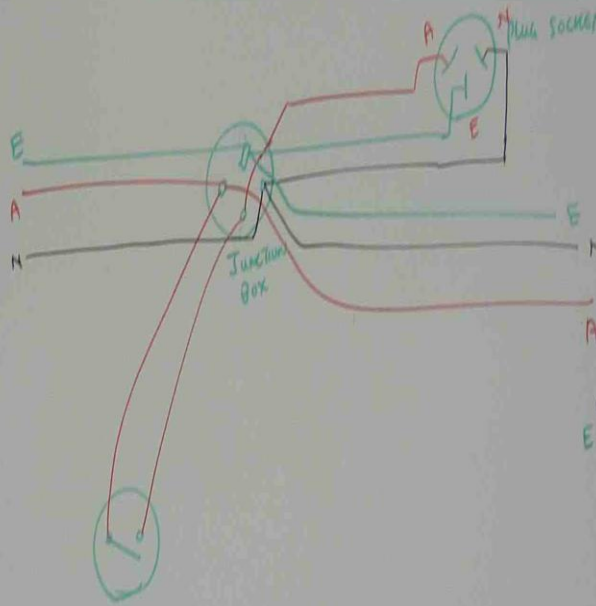


SWITCH + PLUG SOCKET

LOOPING AT SOCKET



LOOPING AT SWITCH



SIMPLIFIED DIAGRAM FOR BEGINNERS

