

## SPECIFICATIONS FOR DOMESTIC ELECTRICAL INSTALLATIONS

### CLAUSES

(1)

### MAIN SWITCH BOARD

SPECIALLY CONTROLS, PROTECTS, AND USUALLY MEASURES THE SUPPLY TO A WHOLE INSTALLATION.

### CLAUSE 0.5.85

A SWITCH BOARD FROM WHICH THE SUPPLY TO THE WHOLE INSTALLATION CAN BE CONTROLLED.

### CLAUSE 0.5.84 (INSTALLATION)

ALL ELECTRICAL WIRINGS, ACCESSORIES, FITTINGS, CONSUMING DEVICES, CONTROL AND PROTECTIVE GEAR AND OTHER EQUIPMENTS ASSOCIATED WITH WIRING SITUATED IN (OR) BEYOND ANY BUILDING.

THE INSTALLATION IS DEEMED TO COMMENCE AT CONSUMER TERMINAL

### CLAUSE 0.5.85 DOMESTIC INSTALLATION.

AN INSTALLATION IN A PRIVATE DWELLING (OR) THAT PORTION OF AN INSTALLATION ASSOCIATED SOLELY WITH AN INDIVIDUAL FLAT (OR) LIVING UNIT.

## CLAUSE 0. S.56 MULTIPLE INSTALLATION

AN INSTALLATION INCORPORATING

- A NUMBER OF DOMESTIC INSTALLATIONS
- A NUMBER OF NON-DOMESTIC INSTALLATIONS
- ANY COMBINATION OF DOMESTIC AND NON DOMESTIC INSTALLATION.

## DISTRIBUTION BOARD

DISTRIBUTION BOARD IS GENERALLY FEED FROM A SUB MAIN TO CONTROL AND PROTECT A PORTION OF AN INSTALLATION.

## TYPES AND APPLICATIONS

THE TYPE OF SWITCH BOARD USED FOR A PARTICULAR INSTALLATION WILL DEPEND ON

- LOAD REQUIREMENT
- NUMBER OF CIRCUITS
- FAULT LEVEL PROTECTION EQUIPMENT

- METERING AND EQUIPMENT ARRANGEMENT
- LOCATION
- SUPPLY AUTHORITY REQUIREMENTS.

## LOCATION

SWITCH BOARDS SHOULD BE INSTALLED IN A SUITABLE DRY, WELL VENTILATED WHERE ACCESS IS NOT OBSTRUCTED.

## CLAUSE 2.16.11.1 CONTROL

THE SUPPLY TO EVERY INSTALLATION SHALL BE CONTROLLED ON THE MAIN SWITCH BOARD BY MAIN ISOLATION SWITCH

## CLAUSE 2. 11. 6 .1.2

THE NUMBER OF MAIN SWITCHES INSTALLED AT ANY MAINSWITCH BOARD SHALL NOT EXCEED SIX

## CLAUSE 2. 1.6.1.3 ACCESS TO MAIN SWITCH

MAIN SWITCHES SHALL BE READILY ACCESSIBLE.

SHALL NOT BE MORE THAN 2m ABOVE GROUND FLOOR (OR) PLATFORM.

CLAUSE 2.21.1.12 LOCATION

GENERAL

THE MAIN SWITCH BOARD SHALL NOT BE LOCATED NOT MORE THAN ONE FLOOR ABOVE (OR) BELOW AN ENTRANCE TO THE BUILDING AND SHALL BE WITHIN EASY ACCESS TO SUCH ENTRANCE

MULTIPLE INSTALLATION

IN MULTIPLE INSTALLATION, THE MAIN SWITCH BOARD SHALL NOT BE LOCATED WITHIN ANY DOMESTIC INSTALLATION.

RESTRICTED LOCATIONS

- A SWITCH BOARD SHALL NOT BE INSTALLED WITHIN 0.9m ABOVE THE GROUNDS, FLOOR (OR) PLATFORM IN DOMESTIC AND MULTIPLE INSTALLATIONS.
- A SWITCH BOARD SHALL NOT BE INSTALLED WITHIN A FIRE ISOLATED STAIRWAYS, PASSAGEWAYS, RAMP (OR) SIMILAR MEANS OF EMERGENCY EXIT FROM BUILDING.

## III

### WIRING SYSTEMS

FLAT TPS CABLES (WHITE / BLACK / GREY) → GENERAL INSTALLATION  
SHEATH

RED SHEATH - FIRE ALARM SYSTEM

CABLES CAN RUN IN

- UNENCLOSED IN CEILING SPACES
- INSIDE PLASTERBOARD LINED WALLS AND PARTITIONS
- INSIDE SKIRTING TRUNKING AND FLOOR DUCT

#### TRUNKING & DUCT

CLAUSE O.S.-90 DUCT - A PIPE OF 75mm DIAMETER  
OR GREATER

CLAUSE O.S. 94 TRUNKING - A TRUNK OR THROUGH  
FOR HOUSING AND PROTECTING  
ELECTRICAL CABLES AND CONDUCTORS.

CLAUSE O.S. 97 WIRING ENCLOSURE.

A PIPE, TUBE, DUCT OR CABLE TRUNKING  
FIXED (OR) SUPPORTED IN POSITION WITH  
APPROPRIATE PROTECTION

### SEGREGATION

LOW VOLTAGE CABLES TO BE SEGREGATED FROM CABLES OF  
OTHER SYSTEMS PARTICULARLY TELECOMMUNICATION SERVICES AND  
ALSO FROM FIRE CONTROL, EVACUATION AND LIFT WIRING SYSTEMS.

### INSTALLATION OF CABLE TRAYS

- ARRANGEMENT OF CABLE
- CLEARANCE BETWEEN TIERS
- INSTALLATION METHODS
- CURRENT CARRYING CAPACITIES
- DERATING FACTORS.

## TPI CABLE (BUILDING WIRE)

CAN BE INSTALLED IN

RIGID PVC CONDUIT

FLEXIBLE PVC CONDUIT

CORRUGATED PVC CONDUIT

- DERATING FACTOR TO BE TAKEN INTO ACCOUNT

### CLAUSE 3.26.1 APPLICATION OF METALLIC CONDUIT

METALLIC CONDUIT USED FOR THE PROTECTION OF CABLES IN THE FOLLOWING SITUATIONS.

WHERE EXPOSED TO SEVERE MECHANICAL DAMAGE.

IN CLASS 1 ZONE 0 AND CLASS 1 ZONE 1 HAZARDOUS AREAS

FOR THE SUPPLY TO FIRE AND SMOKE CONTROL EQUIPMENTS.

EVA CAVIATION EQUIPMENTS AND FIRE.

WHERE AMBIENT TEMPERATURE EXCEEDS 60°C.  
WHERE THE PROTECTION IS REQUIRED TO REDUCE  
THE EFFECT OF FIRE.

CLAUSE 3.26.4.5 CONTINUITY

MECHANICAL AND ELECTRICAL CONTINUITY (EARTH CONTINUITY)  
SHALL BE MAINTAINED

SWA & MI MS CABLES → USED TO PROTECT  
SEVERE MECHANICAL DAMAGE  
UNDERGROUND.

NEED P-UC SERVING PROTECTION  
MI MS - MULTI-STORY BUILDING RISING MAINS  
FIRE PROTECTION.

## PAPER WORK IN ELECTRICAL CONTRACTING

PAPER WORK CONSISTS OF INVOICES, BILLING,  
PAY ROLL, PURCHASE ORDER, ETC)

## KEY FACTORS IN PROCESSING PAPER WORK SMOOTHLY

- HAVING ENOUGH INFORMATION
- GETTING THE INFORMATION WHEN NEEDED
- HAVING ENOUGH PEOPLE TO HANDLE THE WORK.

## PURCHASE ORDER

ONE COPY → VENDOR

ONE COPY → FOLDERS TO CHECK ALL INVOICES

ONE COPY → P.O FILE. (PURCHASE ORDER FILE)

### BILLINGS

ONE COPY → JOB FOLDER

TWO COPIES → CUSTOMER

THE CUSTOMER SHOULD RETURN ONE COPY WITH PAYMENT

### TIME CARDS

ONE COPY → PAYROLL

ONE COPY → JOB FOLDER

### INCOMING INVOICES

ONE COPY → JOB FOLDER

ONE COPY → BOOKKEEPER'S ACCOUNT  
PAYABLE BASKET

### INCOMING STATEMENTS

ONE COPY → "PAIR FILE" TOGETHER WITH  
A COPY OF ALL INVOICES PERTAINING TO IT.

ONE COPY → SHOULD BE RETURNED  
WITH PAYMENT.

### BOOKKEEPER'S JOB

THE BOOKKEEPER SHOULD HAVE SEVERAL  
FILES (OR) BASKETS TO KEEP PAPER  
WORK IN

- ACCOUNT PAYABLE
- ACCOUNT RECEIVABLE (BILLING)
- BILLINGS TO GO OUT

( THESE ARE BILLINGS PREPARED BY  
SOMEONE ELSE, GIVEN TO THE BOOKKEEPER  
TO PROCESS )

SERVICE ORDER

BILLED

CUSTOMER \_\_\_\_\_

ADDRESS \_\_\_\_\_

PHONE \_\_\_\_\_

JOB ADDRESS \_\_\_\_\_

JOB PHONE \_\_\_\_\_

DESCRIPTION  
\_\_\_\_\_

JOB ASSIGNED TO: \_\_\_\_\_

MATERIAL	
INVOICE PO #	AMOUNT

RATE \_\_\_\_\_

LABOUR	
DATE	1 HOUR

COMPLETED \_\_\_\_\_

OTHER  
\_\_\_\_\_

RATE :

QUOTED AMOUNT :

## CUTTING COST

- BUYING MATERIALS MORE CHEAPLY  
(MARKET SURVEY, JUDGE PRICE & QUALITY)
- MAKING IT EASIER FOR SUPPLIER  
(IT WILL MAKE IT EASIER FOR YOUR SUPPLIER  
TO SELL YOU MATERIAL THAT IS NOT  
SUBJECT TO UNFAIR COMPETITION)

How much should I pay  
JUDGE WITH TOTAL AMOUNTS & BENEFIT  
STRUCTURE THE COMMODITY ITEM IN MASS  
AT THE TIME DISCOUNT IS OFFERED.

## BID PRICING

