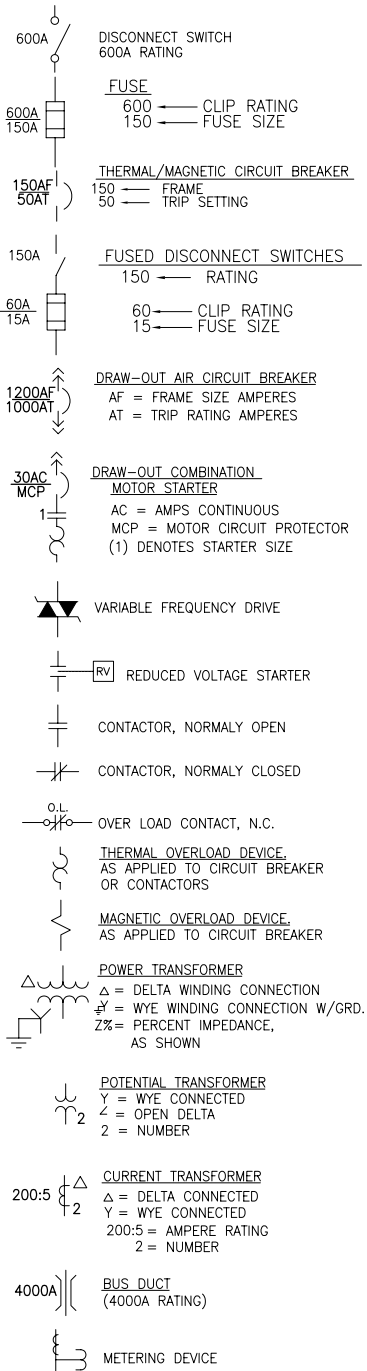


ONE LINE DIAGRAM SYMBOLS



METER = DESIGNATION AS FOLLOWS

A - AMMETER

F - FREQUENCY METER

V - VOLTMETER

W - WATTMETER

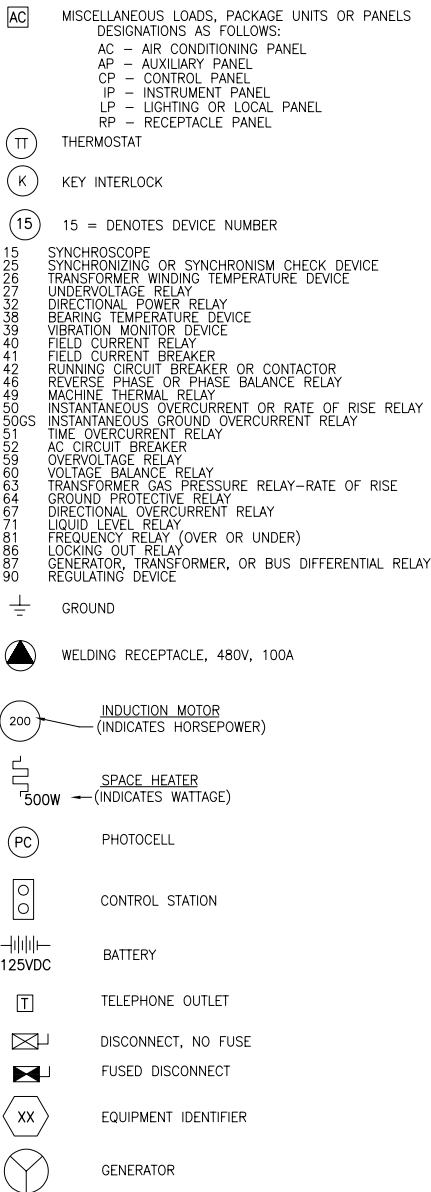
VAR - VOLTAMPERE REACTIVE METER

VARH - VOLTAMPERE REACTIVE HR. METER

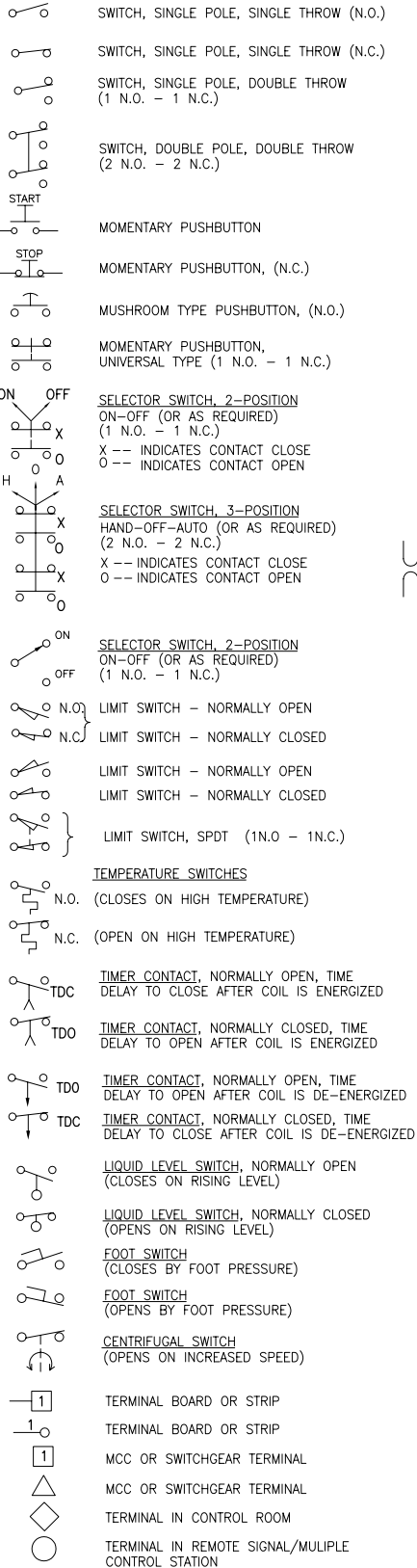
WH - WATTHOUR METER

KWH_D KILOWATTHOUR METER WITH 15 MIN. DEMAND ATTACHMENT

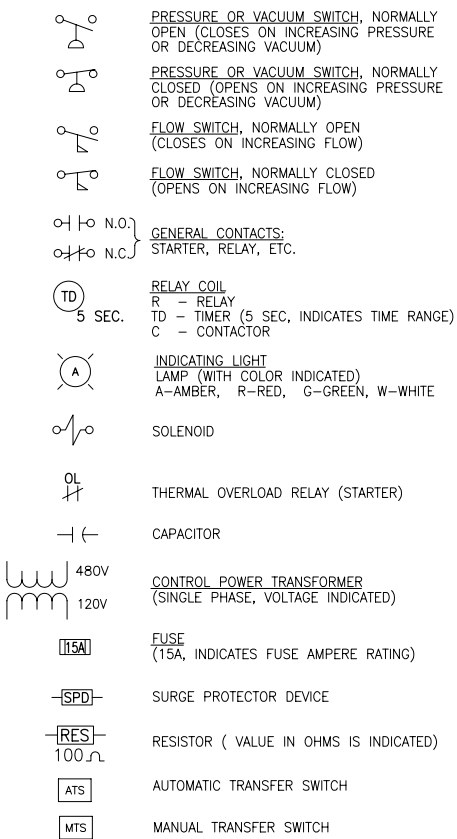
ONE LINE DIAGRAM SYMBOL (CON'T.)



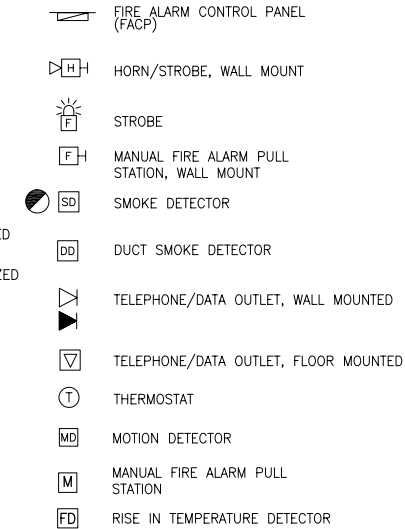
SCHEMATIC & WIRING DIAG.



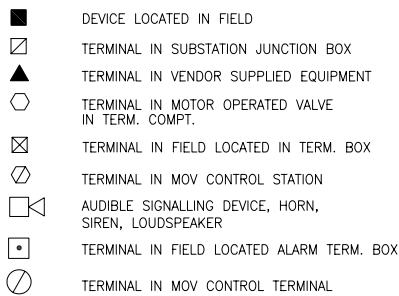
SCHEMATIC & WIRING DIAG.(CON'T)



SIGNAL SYSTEM



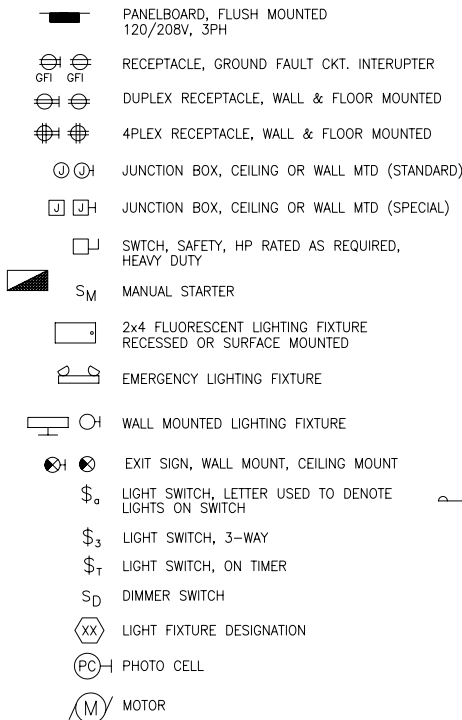
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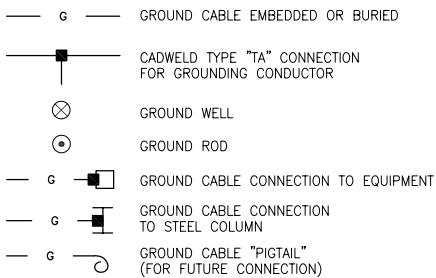
ABBREVIATIONS

A	AMPERE OR ALARM OR AUTO	INTERR	INTERRUPTOR	REQ	REQUIRED
AC	ALTERNATING CURRENT	JB	JUNCTION BOX	REV	REVISION OR REVERSE
AFF	ABOVE FINISHED FLOOR	KCM	THOUSAND CIRCULAR MILS	RGS	RIGID GALVANIZED STEEL
AWG	AMERICAN WIRE GAUGE	KV	KILOVOLT	RM	ROOM
BLDG	BUILDING	KVA	KILOVOLT AMPERE	RM	ROOM
C	CONDUIT	KW	KILOWATT	SCHED	SCHEDULE
CAB	CABINET	KWH	KILOWATT HOUR	SECT	SECTION
CKT	CIRCUIT	LCP	LOCAL CONTROL PANEL	SP	SINGLE POLE OR SPEED SWITCH
CB	CIRCUIT BREAKER	LP	LIGHTING PANEL	SN	SOLID NEUTRAL
COM	COMMON OR COMMUNICATION	LTG	LIGHTING TRANSFORMER	SPEC	SPECIFICATION
CP	CONTROL PANEL	M	MOTOR	SPD	SURGE PROTECTION DEVICE
CS	CONTROL SWITCH	MAN	MANUAL	SPDT	SINGLE POLE DOUBLE THROW
CU	COPPER	MAX	MAXIMUM	SPST	SINGLE POLE SINGLE THROW
CT	CURRENT TRANSFORMER	MC	MOTOR CONTROLLER	STA	STATION
CPT	CONTROL POWER TRANSFORMER	MCB	MAIN CIRCUIT BREAKER	SW	SWITCH
DET	DETAIL	MCC	MOTOR CONTROL CENTER	SWBD	SWITCHBOARD
DIA	DIAMETER	MCP	MOTOR CIRCUIT PROTECTOR	SYS	SYSTEM
DISC	DISCONNECT	MH	MANHOLE	SWGR	SWITCHGEAR
DPDT	DOUBLE POLE DOUBLE THROW	MIN	MINIMUM	T	TRANSFORMER
DS	DISCONNECT SWITCH	MS	MANUAL STARTER	TB	TERMINAL BLOCK
DWG	DRAWING	MTD	MOUNTED	TC	TERMINAL CABINET
(E)	EXISTING	MTG	MOUNTING	TDR	TIME DELAY RELAY
EA	EACH			TDO	TIME DELAY OPEN
EL	ELEVATION			TDC	TIME DELAY CLOSED
ELEC	ELECTRICAL	NC	NORMALLY CLOSED	TE	THERMOCOUPLE OR RTD
EMERG	EMERGENCY	NIC	NOT IN CONTRACT	TYP	TYPICAL
EMT	ELECTRICAL METALIC TUBING	NO	NORMALLY OPEN	U/G	UNDERGROUND
ES	EMERGENCY SWITCH	NTS	NOT TO SCALE	UON	UNLESS OTHERWISE NOTED
EQUIP	EQUIPMENT	OD	OUTSIDE DIAMETER	V	VOLT OR VOLTAGE
FDR	FEEDER	PB	PULL BOX OR PUSHBUTTON	WP	WEATHERPROOF
FIXT	FXTURE	ø,PH	PHASE	WT	WATERTIGHT
FLR	FLOOR	PNL	PANEL	XP	EXPLOSION PROOF
FLEX	FLEXIBLE	PT	POTENTIAL TRANSFORMER		
G	GROUND	PWR	POWER		
GEN	GENERATOR	R	RELAY		
GFI	GROUND FAULT INTERR.	RECEP	RECEPTACLE		
H	HAND OR HOT				
HH	HAND HOLE				
HP	HORSEPOWER				
HOA	HAND-OFF-AUTO				
INSTR	INSTRUMENT				

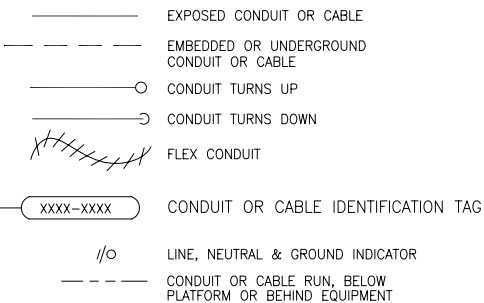
AUXILIARY DEVICES



GROUNDING



CONDUIT & FITTINGS



0	ISSUED FOR CONSTRUCTION	12-5-03	DK2	RAC
Sym.	Description	Date	Drawn By	Appr. By

PH: (800) 889-WRMS
Fax: (925) 933-5167



Walnut Creek, CA
Seattle, WA
Boston, MA

Drawn By:
LCM

Designed By:
HL

Date:
10/8/03

Proj. No.:
02-242

ALLEN TELESCOPE ARRAY
HAT CREEK RADIO OBSERVATORY
HAT CREEK, CA

ELECTRICAL
SYMBOLS & ABBREVIATIONS

One Inch at Full Scale
0 0.5 1.0

Dwg. No:
E001

Rev.:
0