

Time Control Products

6310 Series

Analog Clocks

UL Listed

STANDARD FEATURES:

- Custom Combinations of Movements, Hands, and Dials
- Individual Automatic Supervision
- Semi-Flush or Surface Mounted
- Shatterproof Lexan Lens
- Molded High-Impact ABS Case
- Simple Installation
- Easily Maintained and Serviced

Simplex 6310-Series Analog Clocks can be used in all types of applications, from small offices to large-scale industrial sites. Synchronous, Impulse, Quartz, Electronic, and Non-Self-Regulating movements are custom-integrated with a variety of dial and hand styles to fit the customer's needs.

Synchronous Clocks

Synchronous-wired secondary clocks are synchronous motor driven, and individually checked for agreement with the Simplex Time Control Center. Each synchronous clock uses a sweep second hand, and provides these capabilities:

Hourly correction. Clocks are automatically synchronized with the Simplex Time Control Center every hour. This means clocks will display the correct system time after a power failure. Clocks that are up to 59 minutes slow or 55 seconds fast are corrected completely on the hour.

12-hour correction. Synchronization is provided for clocks that are up to 12 hours slow. This ensures that even the most prolonged power interruption in individual clocks, or in the complete system, will be compensated for automatically. Clocks that are up to 11 hours and 59 minutes slow are corrected every 12 hours.



Designer Dial with
Designer Hands
15"



Symmetry Dial with
Symmetry Hands
9" 12"



Symmetry Dial, 00/23
Inner Ring, with
Symmetry Hands
9" 12"

Impulse Clocks

Simplex Impulse Self-Regulating Clocks are driven by a compact ratchet drive movement that responds to an electrical impulse sent from the Time Control Center each minute. Impulse clocks are individually checked for agreement with the Time Control Center once each hour, providing uniform and accurate time. Any clock not synchronized with the Time Control Center will be automatically advanced or retarded as required.

Impulse clocks connect to 2- or 3-wire parallel circuits.

Hourly correction. Rapid correction impulses are transmitted from the Time Control Center each hour. With the 3-wire circuit, one wire is used for the rapid impulses; with the 2-wire circuit, polarity reversal is used. Correction range is 59 minutes slow and 10 minutes fast.

Electronic Clocks

Electronic clocks are synchronous motor driven, and provide the same hourly and 12-hour correction as the synchronous clocks.

Each clock includes a sweep second hand.

Hourly and 12-hour correction. Correction is accomplished via a power line carrier pulse. The pulse is superimposed on the lighting bus or main distribution by Simplex signal generating equipment operating in conjunction with the TCC. No special clock wires are necessary, since the correction signal travels to all 120 VAC convenience outlets to the connected clocks.

Quartz Clocks

Simplex quartz battery-operated clocks are available in 9- and 12-inch sizes. These clocks operate via a quartz crystal regulated movement, which drives the hands in a manner similar to that of synchronous clocks.

Each clock includes a sweep second hand.

Easy operation. The clock has a rear-mounted on/off switch, plus a manual setting knob for easy and accurate time setting.

Long life. One AA Alkaline battery can sustain a clock for over a year.

Accuracy. Operating at normal temperature, the quartz clock remains within 20 seconds of the correct time after one month.

Non-Self-Regulating Clocks

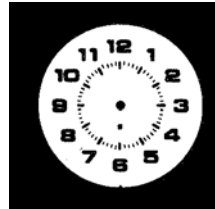
Non-self-regulating clocks are recommended for installation in smaller businesses and office areas. Driven by a synchronous motor, each non-self-regulating clock obtains its accuracy through a 60 Hertz power line.

Each clock includes a sweep second hand.

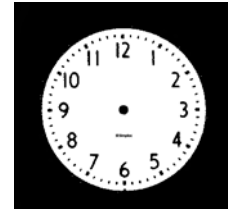
Easy resetting. A knurled knob extends from the motor casing to allow resetting after power outages.

DIALS:

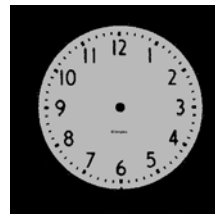
There are several types of dials that can be used with analog clocks, as shown below.



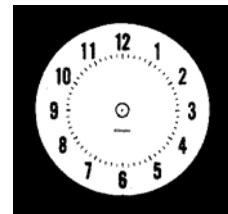
**6310-4001
Designer
9" 12" 15"**



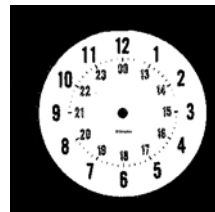
**6310-4003
Classic I - White
9" 12" 15"**



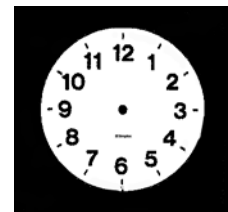
**6310-4002
Classic Sunburst
9" 12" 15"**



**6310-4027
Symmetry
9" 12" 15"**



**6310-4017
Symmetry,
24-Hour
9" 12" 15"**



**6310-4007
Custom 5
9" 12" 15"**

HANDS:

A variety of hand types are also available (for weatherproof applications, contact your local SimplexGrinnell sales office):



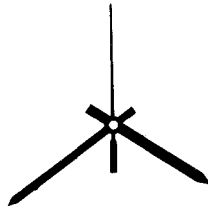
6310-3003
Classic
9" 12" 15"



6310-3001
Designer
9" 12" 15"



6310-3013
Impulse
9" 12" 15"



6310-3012
Symmetry
9" 12"

Power Requirements

Synchronous	120VAC, 4.6VA Continuous, 7.6VA Intermittent 220VAC, 4.6VA Continuous, 7.6VA Intermittent 24VAC, 4.6VA Continuous, 7.6VA Intermittent
Impulse	24VDC, .034A
NSR	120VAC, 4.6VA Continuous
Electronic	120VAC, 60 Hz, 4VA Continuous, 9.5VA Intermittent

Environmental

Power Requirements	24VDC, .034A
Environmental Limitations	32° F to 120° F (0° C to 40° C)
Humidity	95%, non-condensing

HAND TYPES

Hand Style	Movement	Hand Type	9-Inch	12-Inch	15-Inch
6310-3012 SYMMETRY	Sync, NSR, Electronic	Hour	517-762	517-763	--
		Minute	517-773	517-772	--
		Second	517-766	517-767	--
	Quartz	Hour	517-756	517-757	--
		Minute	517-758	517-759	--
		Second	517-760	517-761	--
6310-3001 DESIGNER	Sync, NSR, Electronic	Hour	517-449	517-451	517-453
		Minute	517-455	517-457	517-459
		Second	517-461	517-462	517-463
6310-3003 CLASSIC	Sync, NSR, Electronic	Hour	517-002	517-004	517-005
		Minute	517-018	517-011	517-013
		Second	517-060	517-071	517-061
6310-3013 SYMMETRY (Balanced)	Impulse	Hour	517-787	517-788	517-785
		Minute	517-783	517-784	517-789

DIAL TYPES

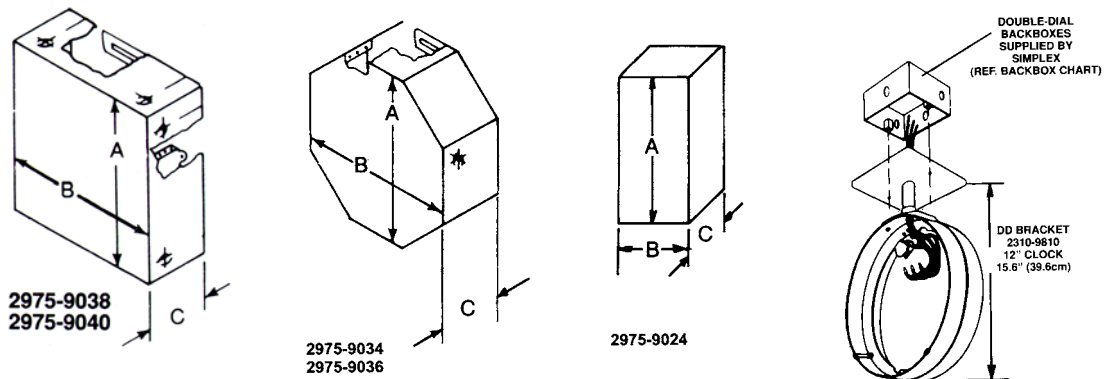
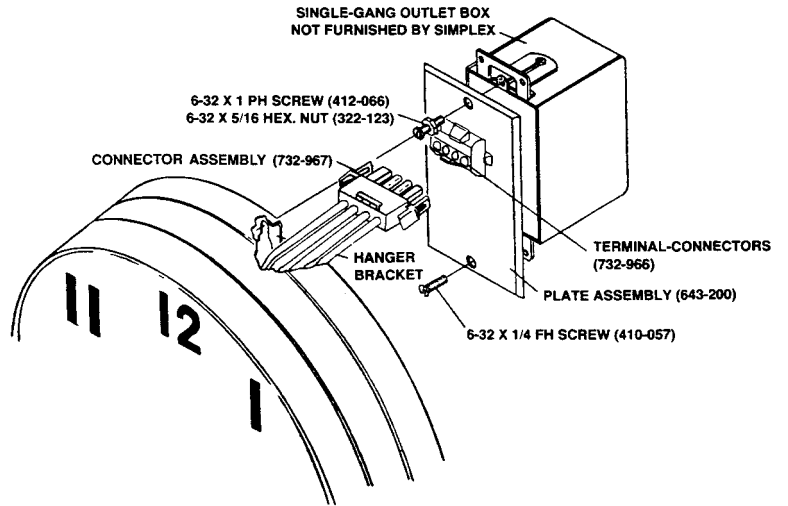
Description	Clock Size		
	9-Inch	12-Inch	15-Inch
6310-4027 SYMMETRY STANDARD	507-478	507-480	1507-675
6310-4017 SYMMETRY, 24-HOUR (with inner ring)	507-479	507-481	1507-677
6310-4001 DESIGNER	507-543	507-544	643-251
6310-4002 CLASSIC SUNBURST	507-545	507-546	507-045
6310-4003 CLASSIC I - WHITE	507-547	507-548	507-038
6310-4007 CUSTOM 5	507-549	507-550	1507-232

MOUNTING:

Surface. Synchronous and impulse clocks are provided with the 2310-9013 Simplex Style Plug and the 2310-9011 Receptacle Assembly, as shown to the right.

Electronic and non-self-regulating clocks are provided with a standard 3-wire AC plug (grounded) which mates with a duplex outlet and box (by others).

Semi-Flush. 15-inch clocks are semi-flush mounted on 2975-9040 Back Boxes, or 2975-9038 Back Boxes (for shallow walls).



Semi-Flush and Double-Dial Back Box Dimensions				
Product ID	A	B	C	Use
2975-9024	5"	4 1/2"	4"	Double Dial Side Wall or Ceiling Mount
2975-9034	8 13/16"	8 1/8"	2 5/16"	9" Semi-Flush
2975-9036	9 1/8"	8 1/8"	3 5/8"	9" Semi-Flush
2975-9038	9 1/8"	8 1/8"	2 5/16"	12" or 15" Semi-Flush
2975-9040	9 1/8"	8 1/8"	3 5/8"	12" or 15" Semi-Flush

