

Standard Features

- Attractive, modern SlimLine design
- Hour/minute/second hands
- 12" and 16" round models
- 12" Square Models
- Individual automatic synchronization with hourly correction
- Corrects Simplex 59 minute, National Time/Rauland and various 58 minute correction formats
- Microprocessor-based movement
- Simple setup and installation
- Easily maintained and serviced

Optional Features

- Double-Dial Round Brackets
- Double-Dial Square Brackets

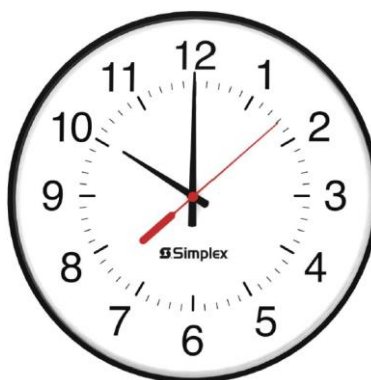
Description

Simplex Synchronous Clocks can be used in all types of applications, from small offices to large-scale industrial sites. Round clocks are available in 12", and 16" sizes. Square clocks are also available at 12".

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 less than 59 minutes of 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.



6310-9239A



2310-9271A

Specifications

| | |
|-----------------------------|---|
| Case Material | ABS |
| Case Color | Black or Light Gray |
| Crystal | Shatter-proof, side-molded, transparent polycarbonate |
| Voltage Input | 85 – 130 VAC 50/60Hz (110VAC); 7 – 28 VDC/VAC 50/60Hz (24VAC) |
| Average Current Consumption | 25 mA @ 110VAC 35 mA @ 24VDC/VAC |
| Hand Tolerance | Minute hand: +/- ¼ minute Second hand: +/- ½ second |
| Temperature Range | 32° F to 120° F (0° C to 40° C) |
| Compliance | 95%, non-condensing |

Wiring

Wiring size and type varies greatly, depending on correction type, voltage used, quantity of clocks, cable distance, local codes, and National Electrical Code Class I requirements. Your local Sales Representative is equipped to assist you with complete clock system design services and wiring specifications.

Mounting

| Mounting Specifications | | | | | | | |
|-------------------------|-------------------|------------|-------------------|--------------------|------------|--------------------|--|
| PID | SlimLine Mounting | Dimensions | Operating Voltage | Correction Voltage | Case Color | Dial Face | Power Connector |
| 6310-9221A | YES | 12" ROUND | 110 V / 60 Hz | 110 V / 60 Hz | BLACK | S 1-12 Hours | Molex |
| 6310-9226A | YES | 12" ROUND | 24 V / 60 Hz | 24 V / 60 Hz | BLACK | S 1-12 Hours | Molex |
| 6310-9227A | YES | 12" ROUND | 110 V / 60 Hz | 110 V / 60 Hz | BLACK | S 1-12/00-23 Hours | Molex |
| 6310-9231A | YES | 12" ROUND | 110 V / 60 Hz | 110 V / 60 Hz | BLACK | S 1-12 Hours | Molex |
| 6310-9233A | YES | 12" ROUND | 110 V / 60 Hz | 110 V / 60 Hz | BLACK | S 1-12/00-23 Hours | Molex |
| 6310-9239A | YES | 12" ROUND | 24 V / 60 Hz | 24 V / 60 Hz | BLACK | S 1-12 Hours | Molex |
| 6310-9240A | YES | 16" ROUND | 110 V / 60 Hz | 110 V / 60 Hz | BLACK | D 1-12 Hours | Molex |
| 6310-9250A | YES | 16" ROUND | 110 V / 60 Hz | 110 V / 60 Hz | BLACK | D 1-12 Hours | Molex |
| 2310-9271A | YES | 12" SQUARE | 120 V / 60 Hz | 120 V / 60 Hz | LIGHT GRAY | D 1-12 Hours | Molex |
| 2310-9275A | YES | 12" SQUARE | 24 V / 60 Hz | 24 V / 60 Hz | LIGHT GRAY | D 1-12 Hours | Molex |
| | | | | | | | Under Dial Face # S = Symmetry # D = Designer |

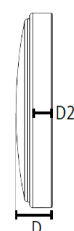
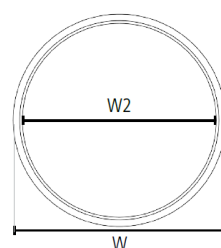
Clock Size:

12" SlimLine

W = 12.9" (32.7cm)
 W2 = 12.6" (32.0cm)
 D = 2.4" (6.2cm)
 D2 = 1.7" (4.3cm)

16" SlimLine

W = 16.7" (42.3cm)
 W2 = 16.3" (41.5cm)
 D = 2.5" (6.4cm)
 D2 = 1.7" (4.4cm)



Shipping Weight:

2 lbs (0.9 kg)

4 lbs (1.8 kg)

Double/Dual Mount Dimensions:

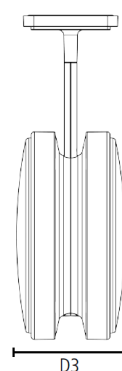
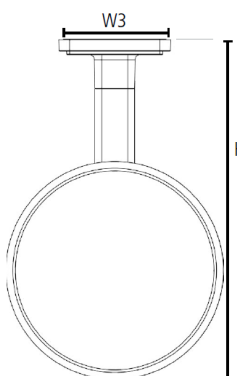
W3 = 6.6" (16.7cm)
 D3 = 6.4" (16.2cm)

W3 = 6.6" (16.7cm)
 D3 = 6.4" (16.3cm)

Adjustable Pole Height:

H = 19.7" (50.2cm)
 = 18.1" (46.1cm)
 = 16.5" (41.9cm)

H = 21.7" (55.3cm)
 = 20.1" (51.2cm)
 = 18.5" (47.0cm)

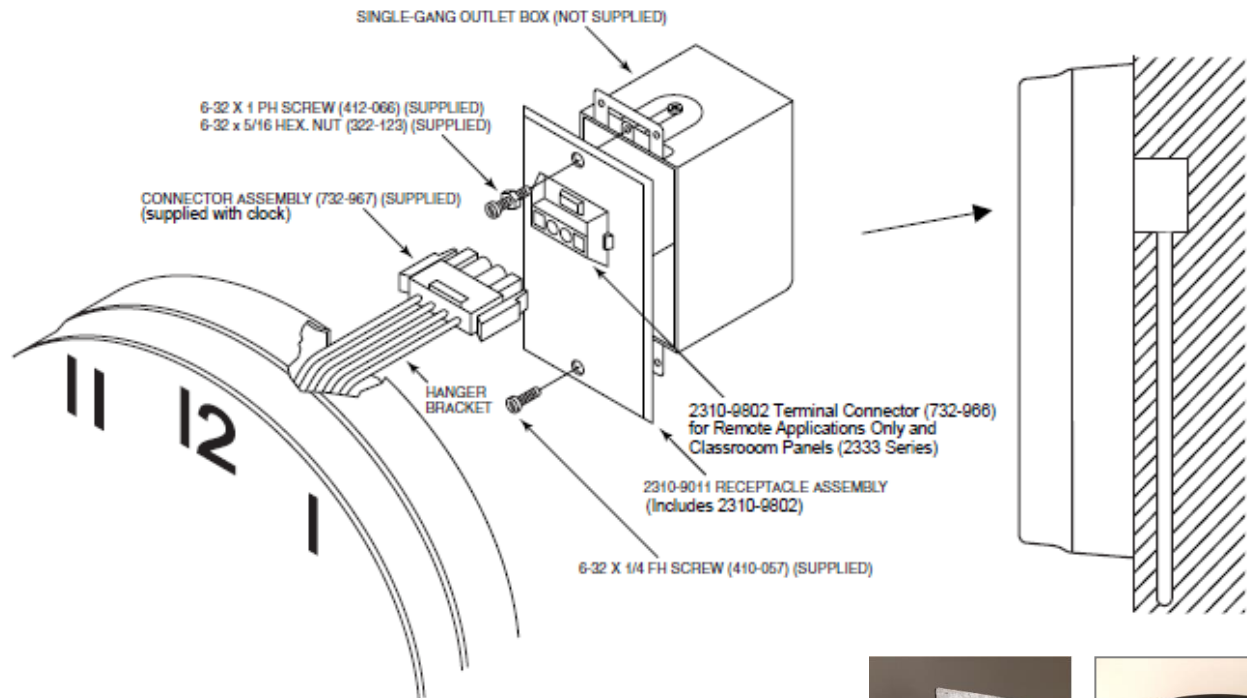


MOUNTING, continued:

Simplex 2310A/6310A synchronous clocks may be used for service replacement of previously installed Simplex 2310/6310 synchronous clocks and for new synchronous wired system installation.

Service Replacement:

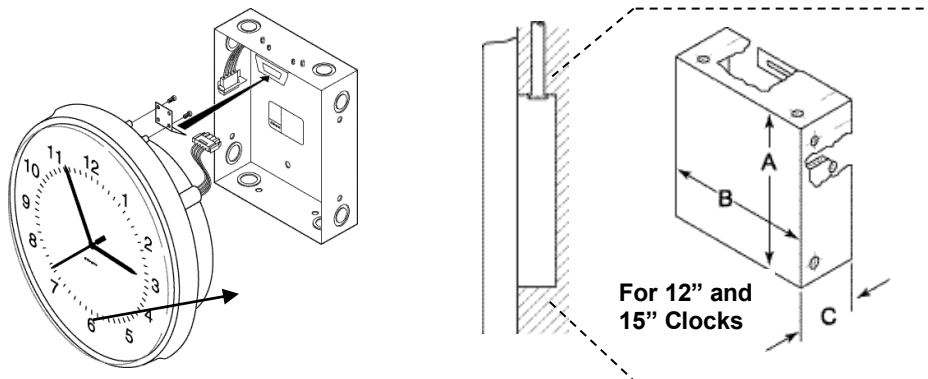
Surface Mount Clock: Previously installed Simplex 2310 and 6310 surface mount synchronous clocks may have been mounted using a 2310-9011 Receptacle Assembly as shown below.



To replace these clocks with a Simplex 2310A or 6310A clock requires an A-RETRO-PLATE-1 Simplex Cover Plate (ordered separately). Remove the terminal connector from the existing 2310-9011 receptacle plate and insert it into the A-RETRO-PLATE-1 Simplex Cover Plate. Install a 6-32 x 1 PH screw in the upper hole of the box. Mount the clock onto the extended screw using the integral mounting hole that is molded in the clock case as shown at right.



Semi-Flush Mounting: A previously installed 12" and 15" Simplex semi-flush synchronous clock may have been mounted using a 2975-9038 or 2975-9040 Back Box as shown below.



| TYPE | OLD# | A | B | C | USE |
|-----------|------|---------------------|---------------------|---------------------|---|
| 2975-9038 | 5928 | 9-1/8" (23.1 cm) | 8-1/8" (20.6 cm) | 2-5/16" (5.8 cm) | 12"/15" Round Semi-Flush 12" Square Semi-Flush |
| 2975-9040 | 5929 | 9-1/8" (23.1 cm) | 8-1/8" (20.6 cm) | 3-5/8" (9.1 cm) | 12"/15" Round Semi-Flush 12" Square Semi-Flush |

To replace these clocks with a Simplex 2310A or 6310A clock, attach the clock mounting hanger and connector assembly (included) to the 2310A / 6310A replacement clock according to the instructions provided. Attach the connector to the receptacle plug and hang the clock onto the back box.

Double-Dial Mounting:

Simplex 2310A and 6310A clocks are **not** compatible with existing Simplex 2310-9810 / 2310-9812 / 2310-9814 Double-Dial Brackets. To double-dial mount a Simplex 6310A round clocks requires installation of a 2-gang back box and either a:

| | |
|---------------|---|
| JAH-1BD-12R-0 | Double Mount Housing for Slim Line 12" Round Analog Clock, or |
| JAH-1BD-16R-0 | Double Mount Housing for Slim Line 16" Round Analog Clock |

To double-dial mount Simplex 2310A square clocks requires installation of a 2-gang back box and either a:

| | |
|---------------|--|
| JAB-1BD-01S-0 | Pole for Double/Flag Mount, 8.5 Square Analog Clock (Ceiling Mount Only), or |
| JAB-1BD-00S-0 | Pole for Double/Flag Mount, 13.5" Square Analog Clock |

New System Installation:

Simplex 2310A and 6310A synchronous clocks are ideal for installation in a new Simplex synchronous wired clock system:

1. Back Box

Simplex 2310A / 6310A synchronous clocks may be installed using either a 2310-9011 Receptacle Assembly and one-gang box, or a 2975-9038 or 2975-9040 Back Box. When a 2310-9011 Receptacle Assembly is utilized, remove the terminal connector from the 2310-9011 receptacle plate and insert it into an A-RETRO-PLATE-1 Simplex Cover Plate (ordered separately). Double dial or flag mount requires installation of a 2-gang back box.

2. Install Molex Connector

Connect the four-position Molex connector (included) to the clock according to the instructions provided with the 2310A/6310A clock.

3. Clock Mount / Hanger

When mounting the clock to a 2975-9038 or 2975-9040 Back Box, attach the Simplex clock hanger to the clock.

When mounting the clock using a 2310-9011 Receptacle Assembly and one-gang box, the alternative locking assembly mount (included) may be used. Install according to Simplex 2310A / 6310A installation instructions.

Simplex 2310A and 6310A synchronous clocks may also be installed in non-Simplex synchronous clock systems:

Automatic Protocol Detection

The microprocessor-based movement of Simplex 2310A and 6310A synchronous clocks recognizes 59-minute correction and 58-minute correction protocols, as well as National Time, Rauland, Midnight Reset, and Dukane correction. The clock will automatically detect and accept time correction from any of these protocols, and requires less than five minutes to perform hand position correction.

