

## Wiring diagram

The diagram below shows how to wire 34–37HW electrically-operated locks. **Dashed wire lines represent components that MAY OR MAY NOT be required.**

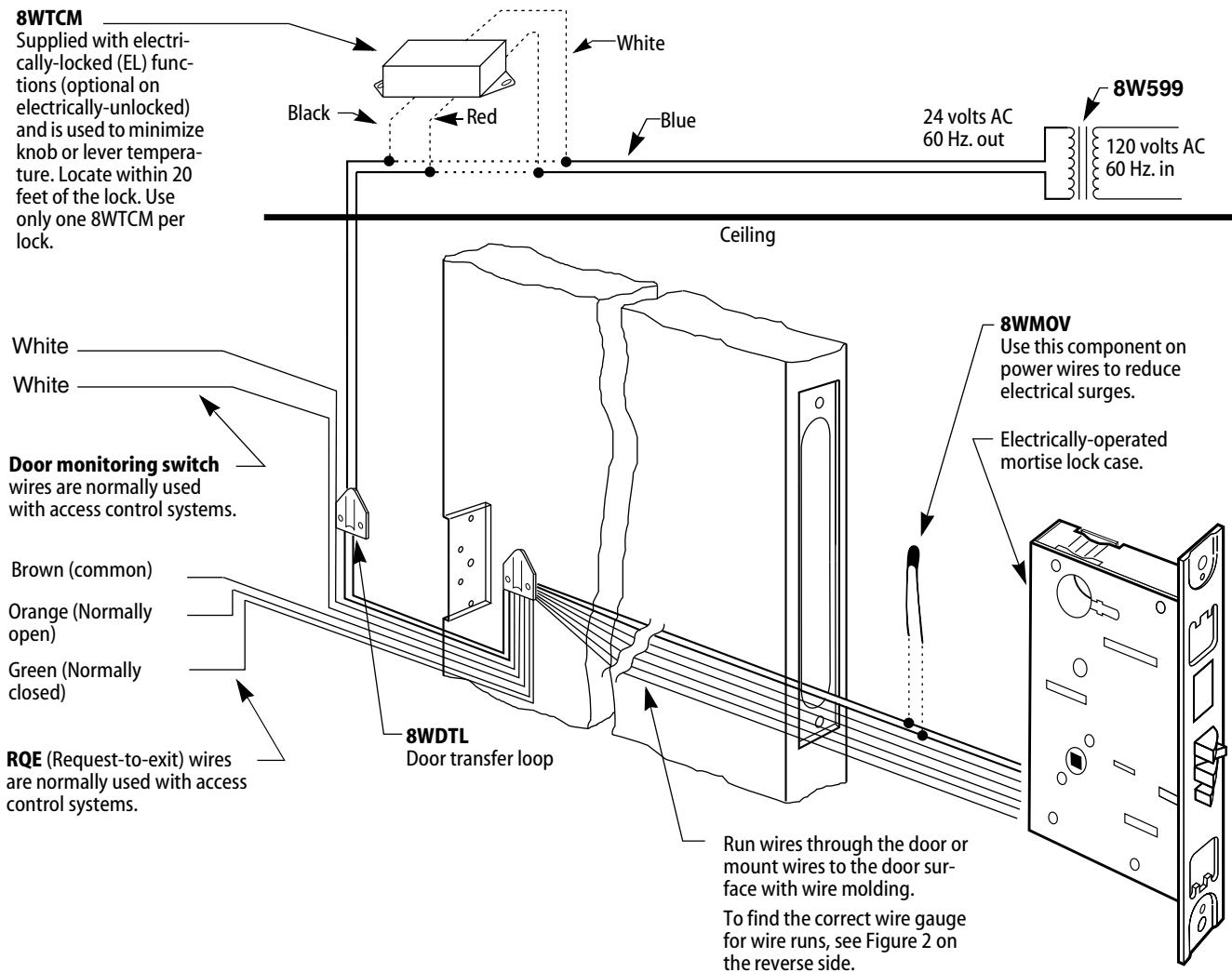


Figure 1—Wiring diagram for the 34–37H electrically-operated lock

## Electrical requirements

The following table describes the voltage and current specifications for the mortise lock, RQE switch, and door monitoring switch.

Unit	Voltage	Current
34H–37HW	24 volts AC or DC	0.75 amp
RQE switch rating	30 volts DC	0.1 amp max.
Door monitoring switch	30 volts DC max.	0.5 amp max./7.5 watts max.

## Parts List

The following table describes the parts illustrated in Figure 1. You may substitute most components with equivalent parts.

Part number	Description
8W599	Transformer—24 volt AC, 40 volt-amps. See the examples under Installation Hints on the reverse side.
8WTCM	Temperature control module
8WDTL	Door transfer loop. You may substitute this with a power transfer hinge.
8WMOV	Metal oxide varistor

## Minimum gauge wire chart for lock circuits

The chart in Figure 2 helps you find the minimum wire gauge needed for a specific length wire run. It assumes that the lock circuit is made of two conductor cable. The chart also factors in a 15% voltage loss at 24 volts.

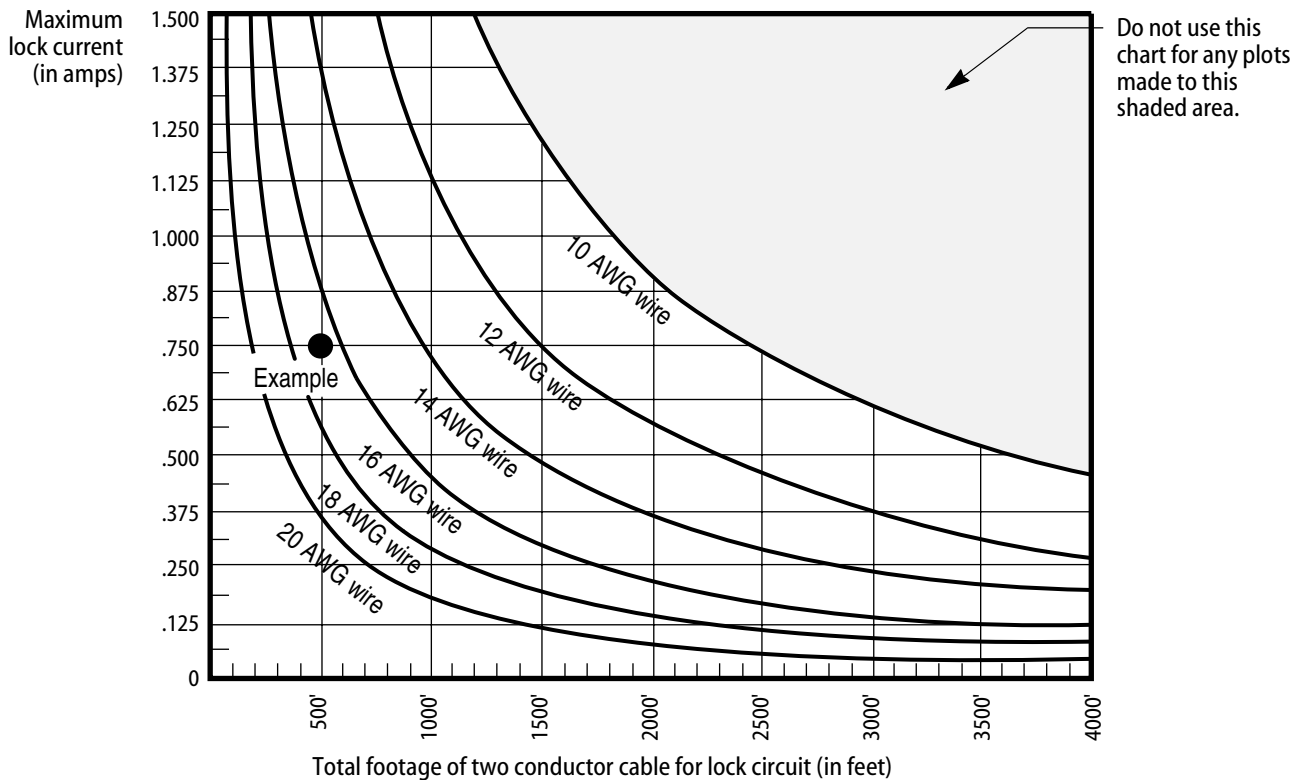


Figure 2—Minimum gauge wire chart for lock circuits

### To find the correct gauge wire:

- 1 Determine the maximum lock current and find that value on the left side of the chart.
- 2 Determine the total footage of cable to be used in the lock circuit and find that value at the bottom of the chart.
- 3 Locate the intersection of current and footage. The line above or to the right of the intersection shows what minimum gauge wire you need.

### Example

- ▲ Lock current: 0.750 amp maximum
- ▲ Total wire run: 500 feet

Wire gauge needed: 16 AWG two conductor cable

**Note:** For 12 volt locks, double the maximum lock current, then use that value on the left side of the chart.

### Installation hints

- 1 Wire gauge (or size) determines how efficiently the lock will operate. Consider wire gauge before installation. To find the recommended minimum wire gauge for all wire runs, see Figure 2.
- 2 Use wire of 20 AWG (gauge) or larger. We do not recommend using a smaller wire gauge than 20 AWG.
- 3 When wiring two or more locks to a single power supply, make sure that the power rating of the power supply is 1 ½ times greater than the sum of the lock's power requirement.

### Example

For two locks powered by one supply:

- ▲ Lock 1 (30H) is rated at 24 volts, 0.75 amps—24 volts × 0.75 amps = 18 volt-amps
- ▲ Lock 2 (30H) is rated at 24 volts, 0.75 amps—24 volts × 0.75 amps = 18 volt-amps

Choose a transformer with a rating of at least: (18 volt-amps + 18 volt-amps) × 1 ½ = 54 volt-amps