The 24A34 Series Fan/Heat Sequencer gives the service technician a direct replacement for sequencing both fan and heat. The terminal markings on the 24A34 sequencers are equivalent to most other manufacturers’ types.

These sequencers may be wired in series, as shown in wiring diagrams, to allow sequencing of one through seven element furnaces.

To prevent electrical shock and/or equipment damage, disconnect electric power to system, at main fuse or circuit breaker box, until installation is complete.

Do not use on circuits exceeding specified voltage. Higher voltage will damage control and could cause shock or fire hazard.

**DESCRIPTION**

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Timings</th>
<th>Switches</th>
<th>Timings – ON</th>
<th>Timings – OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>24A34-1</td>
<td>1</td>
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<td>1-20</td>
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<td>24A34-5 ①</td>
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<tr>
<td>24A34-14 ②</td>
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<td></td>
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<td>75-95</td>
<td>–</td>
</tr>
</tbody>
</table>

**TABLE NOTES:**

① M1-M2 and M3-M4 are always first switches to turn ON and last to turn OFF. All other switches are random ON and random OFF

② 24A34-14 Switch contacts designated F1 - F2 instead of M1 - M2

♦ These contacts switch simultaneously

**NOTE:** Underwriters Laboratories requires a fan interlock circuit to insure the blower remains operating whenever more than one sequencer is used. The fan interlock should be the M1 / M2 contacts of the second or third sequencer. All M1 / M2 contacts are wired to the blower motor so that any sequencer that is energized will keep the blower ON.
WIRING DIAGRAMS

FAN DELAY OFF

WIRING

<table>
<thead>
<tr>
<th>Normally close</th>
<th>Normally open</th>
</tr>
</thead>
</table>

(One Timing) 24A34-15

FOR ONE ELEMENT FURNACES

COMBINATION Fan and Heater Loads

ONE POLE

WIRING

- M1 to 1st element & fan
- H to 24 VAC wall thermostat

(One Timing) 24A34-1 / -2

SEPARATE Fan and Heater Loads

TWO POLE

WIRING

- M1 to fan
- M3 to 1st element
- M4 to 24 VAC wall thermostat

(One Timing) 24A34-3 / -4

FOR TWO ELEMENT FURNACES

COMBINATION Fan and Heater Loads

TWO POLE

WIRING

- M1 to 1st element & fan
- M3 to 2nd element
- H to 24 VAC wall thermostat

(One Timing) 24A34-3 / -4

SEPARATE Fan and Heater Loads

ONE POLE

WIRING

- M5 to 2nd element or aux. contacts
- M1 to fan
- M3 to 1st element
- M4 to 24 VAC wall thermostat

(Two Timings) 24A34-5

DOTTED LINE BETWEEN “H” TERMINAL IS A FACTORY-INSTALLED JUMPER

FOR THREE ELEMENT FURNACES WITH COMBINATION FAN & HEATER LOADS

SINGLE-STAGE Room Thermostat

WIRING

ONE POLE

- M5 to 3rd element
- H to 24 VAC wall thermostat

TWO POLE

- M5 to 3rd element
- M7 to 24 VAC wall thermostat
- M1 to fan & 1st element
- M2 to 2nd element

(Two Timings) 24A34-5

TWO-STAGE Room Thermostat Option

WIRING

TWO POLE

- M5 to 3rd element
- M7 to 24 VAC wall thermostat
- M1 to fan & 1st element
- M2 to 2nd element

(Two Timings) 24A34-6

FOR THREE ELEMENT FURNACES WITH SEPARATE FAN & HEATER LOADS

SINGLE-STAGE Room Thermostat

WIRING

TWO POLE

- M5 to 2nd element
- M7 to 3rd element
- M1 to 24 VAC wall thermostat
- M2 to fan & 1st element
- M4 to 1st element

(Two Timings) 24A34-5

TWO-STAGE Room Thermostat Option

WIRING

TWO POLE

- M1 to fan interlock
- M3 to 3rd element
- H to W2 of 24 VAC wall thermostat

(One Timing) 24A34-3 / -4

TWO POLE

- M5 to common of 24 transformer
- M7 to 2nd element
- M1 to W1 of 24 VAC wall thermostat
- M2 to fan
- M3 to 1st element

(Two Timings) 24A34-6
For Four Element Furnaces

Combination Fan and Heater Loads

Single-Stage Room Thermostat

<table>
<thead>
<tr>
<th>Wiring</th>
<th>To 3rd element</th>
<th>To 4th element</th>
<th>To 24vAC wall thermostat</th>
<th>To fan &amp; 1st element</th>
<th>To 2nd element</th>
</tr>
</thead>
</table>

Two-Pole

(One Pole) 24A34-6

Two-Stage Room Thermostat Option after 2nd Element

<table>
<thead>
<tr>
<th>Wiring</th>
<th>To 4th element</th>
<th>To 24vAC wall thermostat</th>
<th>To fan interlock</th>
<th>To 3rd element</th>
</tr>
</thead>
</table>

One Pole

(Two Timings) 24A34-5

Separate Fan and Heater Loads

Two-Stage Room Thermostat Option after 2nd Element

<table>
<thead>
<tr>
<th>Wiring</th>
<th>To 4th element</th>
<th>To 24vAC wall thermostat</th>
<th>To fan interlock</th>
<th>To 3rd element</th>
</tr>
</thead>
</table>

Two Pole

(Two Timings) 24A34-5

Dotted line between "H" terminal is a factory-installed jumper.
FOR SIX ELEMENT FURNACES
COMBINATION Fan and Heater Loads
TWO-STAGE Room Thermostat Option After 3rd or 5th Element

WIRING

M6M5
To common of 24v transformer
To fan interlock
To W2 of 24vAC wall thermostat
To 6th element
To 2nd element

M8M7
To 4th element
To W1 of 24vAC wall thermostat
(Two Timings)
24A34-6

WIRING

M5M6
To 2nd element
To W2 of 24vAC wall thermostat
To fan interlock
To fan

M7M8
To 4th element
To W1 of 24vAC wall thermostat

M1M2
To fan & 1st element

M3M4
To 3rd element

(Two Timings)
24A34-6

SEPARATE Fan and Heater Loads
TWO-STAGE Room Thermostat Option After 2nd or 4th Element

WIRING

ONE POLE
M5M6
To 6th element
To W2 of 24vAC wall thermostat
To fan interlock
To 5th element

TWO POLE
M3M4
To 2nd element
To W2 of 24vAC wall thermostat
To fan interlock
To fan

M7M8
To 4th element
To W1 of 24vAC wall thermostat

M1M2
To fan & 1st element

(Two Timings)
24A34-6

WIRING

M5M6
To 2nd element
To W1 of 24vAC wall thermostat
To fan

M7M8
To 4th element
To W1 of 24vAC wall thermostat

M1M2
To fan & 1st element

M3M4
To 3rd element

(Two Timings)
24A34-6

TWO-STAGE Room Thermostat Option After 3rd or 5th Element

WIRING

ONE POLE
M5M6
To 7th element
To W2 of 24vAC wall thermostat
To fan interlock
To 6th element

TWO POLE
M3M4
To 1st element
To W2 of 24vAC wall thermostat
To fan interlock
To fan

M7M8
To 4th element
To W1 of 24vAC wall thermostat

M1M2
To fan & 1st element

(Two Timings)
24A34-6

SEPARATE Fan and Heater Loads
TWO-STAGE Room Thermostat Option After 3rd or 5th Element

WIRING

M5M6
To 2nd element
To W1 of 24vAC wall thermostat
To fan interlock
To fan

M7M8
To 4th element
To W1 of 24vAC wall thermostat

M1M2
To fan & 1st element

M3M4
To 3rd element

(Two Timings)
24A34-6

WIRING

M5M6
To 2nd element
To W1 of 24vAC wall thermostat
To fan

M7M8
To 4th element
To W1 of 24vAC wall thermostat

M1M2
To fan & 1st element

M3M4
To 3rd element

(Two Timings)
24A34-6

DOTTED LINE BETWEEN "H" TERMINAL IS A FACTORY-INSTALLED JUMPER

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FOR SEVEN ELEMENT FURNACES
COMBINATION Fan and Heater Loads
TWO-STAGE Room Thermostat Option After 3rd or 5th Element

WIRING

ONE POLE
M5M6
To 7th element
To W2 of 24vAC wall thermostat
To fan interlock
To 6th element

TWO POLE
M3M4
To 1st element
To W2 of 24vAC wall thermostat
To fan interlock
To fan

M7M8
To 4th element
To W1 of 24vAC wall thermostat

M1M2
To fan & 1st element

(Two Timings)
24A34-6

SEPARATE Fan and Heater Loads
TWO-STAGE Room Thermostat Option After 3rd or 5th Element

WIRING

M5M6
To 2nd element
To W1 of 24vAC wall thermostat
To fan

M7M8
To 4th element
To W1 of 24vAC wall thermostat

M1M2
To fan & 1st element

M3M4
To 3rd element

(Two Timings)
24A34-6

WIRING

M5M6
To 2nd element
To W1 of 24vAC wall thermostat
To fan

M7M8
To 4th element
To W1 of 24vAC wall thermostat

M1M2
To fan & 1st element

M3M4
To 3rd element

(Two Timings)
24A34-6

DOTTED LINE BETWEEN "H" TERMINAL IS A FACTORY-INSTALLED JUMPER

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