

# Full Feature, Start and Power Monitoring Wiring

Wiring for Pivot Point monitor with start, power monitoring, speed control and Endgun control out at the end tower box: “Full Feature/Start/Power Monitor” wiring version – This version cannot be used with Reinke and similar neutral safety type pivots.

## Full Feature Wiring:

**For pivots NOT using start or power monitoring:**

Only do steps 1-3 for basic stop feature and tape off unused wires.

Add steps 4 and 5 for speed control

Add steps 6 and 7 for end gun control

## Zimmatic:

1. Remove the Zimmatic brown (safety) wire from the terminal strip in the end tower box and install our Black wire AND Red/Black wire in its place.
2. Use a wire nut to connect our Red wire to the Zimmatic brown (safety) wire that was removed from the terminal strip in step 1.
3. Install our orange wire into the terminal strip with the other white (neutral) wires.
4. Remove the Zimmatic orange (percent timer) wire from the terminal strip in the end tower box and install our blue wire in its place.
5. Use a wire nut to connect our yellow wire to the Zimmatic orange (percent timer) wire that was removed from the terminal strip in step 4.
6. Remove the Zimmatic purple (end gun) wire from the terminal strip in the end tower box and install our brown wire in its place.
7. Use a wire nut to cap the Zimmatic purple (end gun) wire that was removed from the terminal strip in step 6.

## Valley:

1. Remove the Valley yellow (safety) wire from the terminal strip in the end tower box and install our Black wire AND Red/Black wire in its place.
2. Use a wire nut to connect our Red wire to the Valley yellow (safety) wire that was removed from the terminal strip in step 1.
3. Install our orange wire into the terminal strip with the other white (neutral) wires.
4. Remove the Valley purple (percent timer) wire from the terminal strip in the end tower box and install our blue wire in its place.
5. Use a wire nut to connect our yellow wire to the Valley purple (percent timer) wire that was removed from the terminal strip in step 4.
6. Remove the Valley pink (end gun) wire from the terminal strip in the end tower box and install our brown wire in its place.
7. Use a wire nut to cap the Valley pink (end gun) wire that was removed from the terminal strip in step 6.

**Olson: (After 1980)**

1. Remove the yellow (safety) wire from the terminal strip in the end tower box and install our Black wire AND Red/Black wire in its place.
2. Use a wire nut to connect our Red wire to the yellow (safety) wire that was removed from the terminal strip in step 1.
3. Install our orange wire into the terminal strip with the other white (neutral) wires.
4. Remove the Olson grey (percent timer) wire from the terminal strip in the end tower box and install our blue wire in its place.
5. Use a wire nut to connect our yellow wire to the Olson grey (percent timer) wire that was removed from the terminal strip in step 4
6. Remove the Olson purple (end gun) wire from the terminal strip in the end tower box and install our brown wire in its place.
7. Use a wire nut to cap the Olson purple (end gun) wire that was removed from the terminal strip in step 6.

**Lockwood with 16v safety system:**

1. Remove one of the 120v wires going to the safety transformer and connect our Black wire AND Red/Black wire in its place.
2. Use a wire nut to connect our Red wire to the wire that was removed from the transformer in step 1.
3. Install our white wire into the other 120v terminal on the safety transformer. (with the wire that was not disturbed in step 1 or 2)
4. Remove the Lockwood purple (percent timer) wire from the terminal strip in the end tower box and install our blue wire in its place.
5. Use a wire nut to connect our yellow wire to the Lockwood purple (percent timer) wire that was removed from the terminal strip in step 4.
6. Remove the Lockwood brown (end gun) wire from the terminal strip in the end tower box and install our brown wire in its place.
7. Use a wire nut to cap the Lockwood brown (end gun) wire that was removed from the terminal strip in step 6.

## **Start and Power Monitoring Wiring:**

### **For pivots using start and/or power monitoring:**

**Start Feature applies 120v to the safety circuit for 10 seconds to start the pivot – this may not work on all pivots to be able to start the pivot.** Example: start works well on most Valley pivots, some Zimmatic, and various others.

**In the Pivot Control Panel, remove end gun wire that goes out to the tower boxes and connect it to 120v at the transformer.**

(End gun wire will have 120v at all times)

Perform steps 1 - 3 and 6 – 7 for basic features and tape off unused wires.

Add steps 4 – 5 for speed control

### **Zimmatic:**

1. Remove the Zimmatic brown (safety) wire from the terminal strip in the end tower box and install our red/black wire in its place.
2. Use a wire nut to connect our Red wire to the Zimmatic brown (safety) wire that was removed from the terminal strip in step 1.
3. Install our orange wire into the terminal strip with the other white (neutral) wires.
4. Remove the Zimmatic orange (percent timer) wire from the terminal strip in the end tower box and install our blue wire in its place.
5. Use a wire nut to connect our yellow wire to the Zimmatic orange (percent timer) wire that was removed from the terminal strip in step 4.
6. Remove the Zimmatic purple (end gun) wire from the terminal strip in the end tower box and install our brown wire in its place.
7. Use a wire nut to connect our black wire to the Zimmatic purple (end gun wire coming from the control panel (120v all the time)) wire that was removed from the terminal strip in step 6.

### **Valley:**

1. Remove the Valley yellow (safety) wire from the terminal strip in the end tower box and install our red/black wire in its place.
2. Use a wire nut to connect our Red wire to the Valley yellow (safety) wire that was removed from the terminal strip in step 1.
3. Install our orange wire into the terminal strip with the other white (neutral) wires.
4. Remove the Valley purple (percent timer) wire from the terminal strip in the end tower box and install our blue wire in its place.
5. Use a wire nut to connect our yellow wire to the Valley purple (percent timer) wire that was removed from the terminal strip in step 4.
6. Remove the Valley pink (end gun) wire from the terminal strip in the end tower box and install our brown wire in its place.
7. Use a wire nut to connect our black wire to the Valley pink (end gun wire coming from the control panel (120v all the time)) wire that was removed from the terminal strip in step 6.

**Olson: (After 1980)**

1. Remove the yellow (safety) wire from the terminal strip in the end tower box and install our red/black wire in its place.
2. Use a wire nut to connect our Red wire to the yellow (safety) wire that was removed from the terminal strip in step 1.
3. Install our orange wire into the terminal strip with the other white (neutral) wires.
4. Remove the Olson grey (percent timer) wire from the terminal strip in the end tower box and install our blue wire in its place.
5. Use a wire nut to connect our yellow wire to the Olson grey (percent timer) wire that was removed from the terminal strip in step 4
6. Remove the Olson purple (end gun) wire from the terminal strip in the end tower box and install our brown wire in its place.
7. Use a wire nut to connect our black wire to the Olson purple (end gun wire coming from the control panel (120v all the time)) wire that was removed from the terminal strip in step 6.

**Lockwood with 16v safety system:**

1. Remove one of the 120v wires going to the safety transformer and connect our red/black wire in its place.
2. Use a wire nut to connect our Red wire to the wire that was removed from the transformer in step 1.
3. Install our white wire into the other 120v terminal on the safety transformer. (with the wire that was not disturbed in step 1 or 2)
4. Remove the Lockwood purple (percent timer) wire from the terminal strip in the end tower box and install our blue wire in its place.
5. Use a wire nut to connect our yellow wire to the Lockwood purple (percent timer) wire that was removed from the terminal strip in step 4.
6. Remove the Lockwood brown (end gun) wire from the terminal strip in the end tower box and install our brown wire in its place.
7. Use a wire nut to connect our black wire to the Lockwood brown (end gun wire coming from the control panel (120v all the time)) wire that was removed from the terminal strip in step 6.

