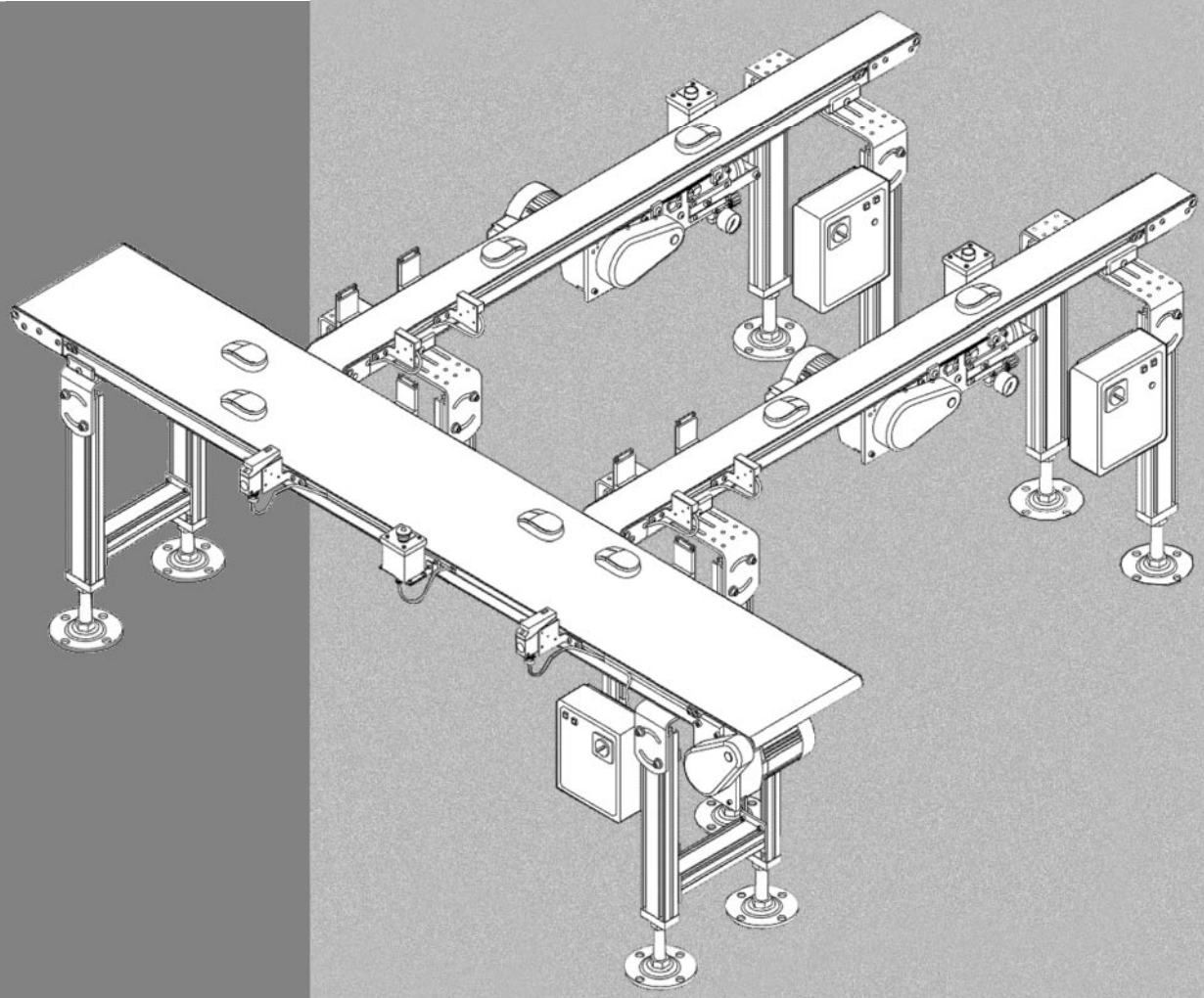
DORNER®



impac™ 100

APPLICATIONS GUIDE

851-124 Rev. D

The Impac 100 Applications Guide provides information on how applications are implemented using the Impac 100 and accessory Kits. In addition, there are three Appendices that give supplementary information on application design.

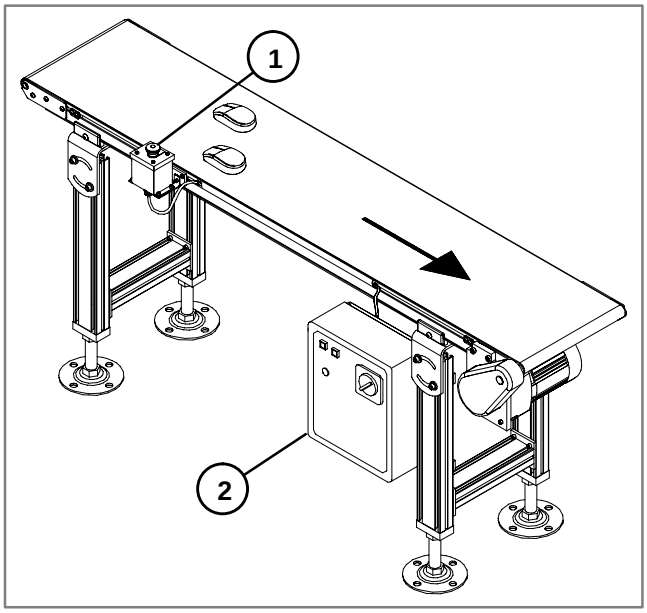
Applications Index

* Application documentation still under development.

Appendices

Conveyor Controlled by One Non-illuminated Emergency Stop Station or Pull-Cord

The conveyor is normally running and stops when the operator activates the Emergency Stop Station or Pull-Cord. The conveyor restarts when the operator resets the Emergency Stop or Pull-Cord. See Figure 1.



1- Emergency Stop Station
2- Impac 100

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Non-Illuminated Emergency Stop Kit or Pull-Cord Kit (75-41 or 75-42)

Setup and Test

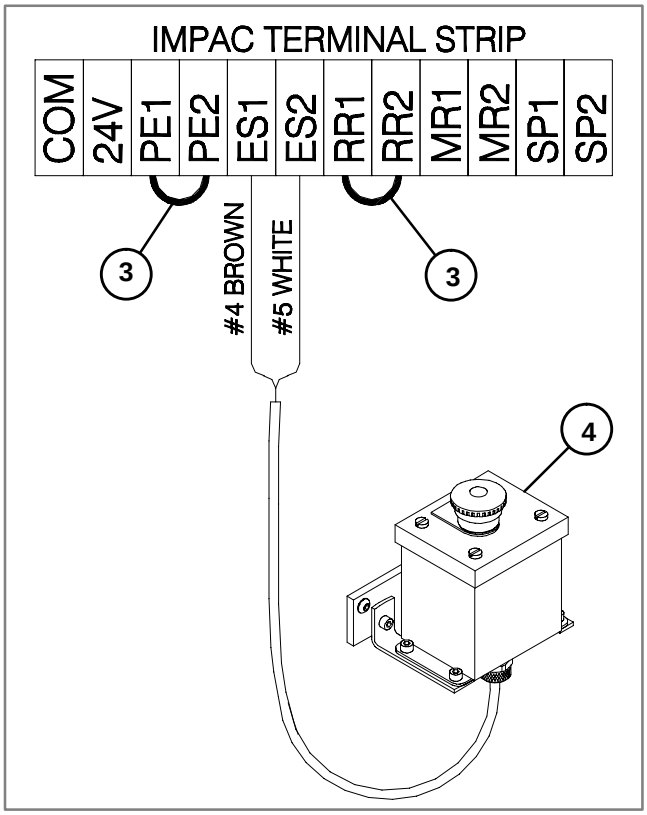
- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Emergency Stop Station or Pull-Cord to the desired location along conveyor and ensure that it provides easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Emergency Stop Station or Pull-Cord to the Impac 100.

  Remove jumper between terminals ES1 & ES2.

  Insert wire #4 (Brown) into terminal ES1.

  Insert wire #5 (White) into terminal ES2.

  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

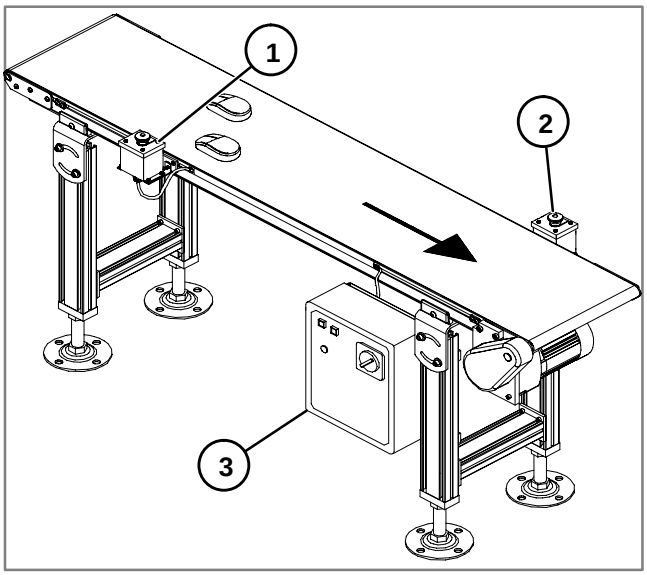


3- Jumpers
4- Non-illuminated Emergency Stop Station

Figure 2

Conveyor Controlled by Two Emergency Stop Stations or Pull-Cords

The conveyor is normally running and stops when the operator activates any Emergency Stop Station or Pull-Cord. The conveyor restarts when the operator resets all of the activated Emergency Stop Stations or Pull-Cords. See Figure 1.



1- First Emergency Stop Station
2- Second Emergency Stop Station
3- Impac 100

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
2 Non-Illuminated Emergency Stop Stations or Pull-Cord Kits (75-41 or 75-42)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Emergency Stop Stations or Pull-Cords to the desired locations along conveyor and ensure that both provide easy operator access. Use Figure 1 to aid i6n kit mounting locations. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the first Emergency Stop Station or Pull-Cord to the Impac 100.

  Remove jumper between terminals ES1 & ES2.

  Insert wire #4 (Brown) into terminal ES1.

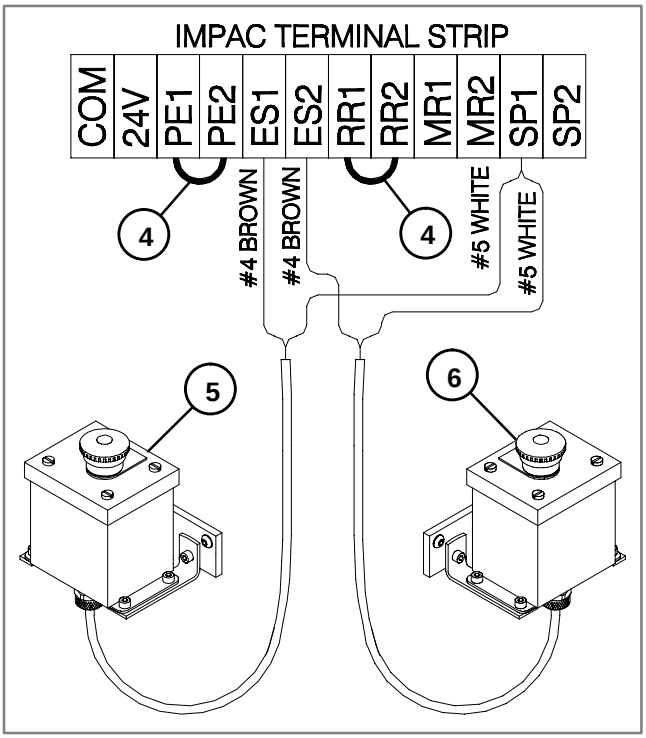
  Insert wire #5 (White) into terminal SP1.

  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- Connect the second Emergency Stop Station or Pull-Cord to the Impac 100.

  Insert wire #4 (Brown) into terminal ES2.

  Insert wire #5 (White) into terminal SP1.

  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

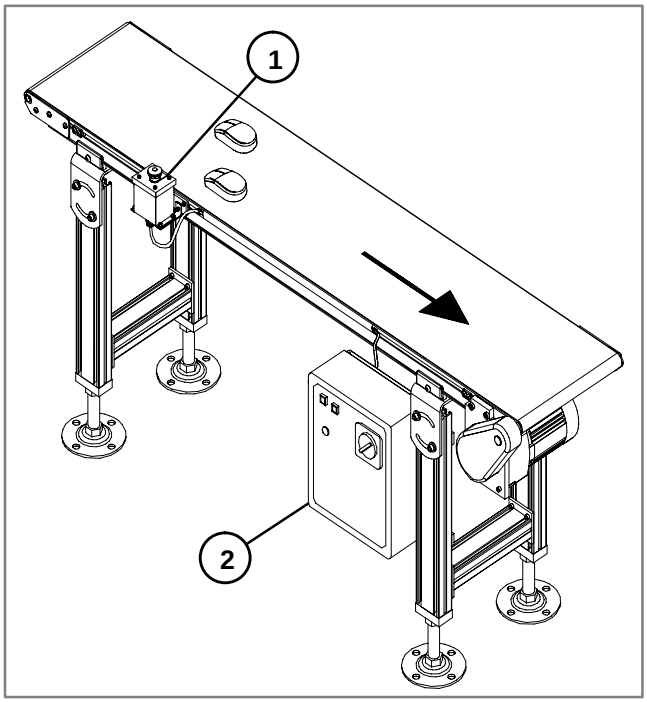


4- Jumpers
5- First Non-illuminated Emergency Stop Station
6- Second Non-illuminated Emergency Stop Station

Figure 2

Conveyor Controlled by One Illuminated Emergency Stop Station

The conveyor is normally running and stops when the operator activates the Emergency Stop Station. The conveyor restarts when the operator resets the Emergency Stop Station. The Emergency Stop Station will be illuminated whenever the unit is activated. See Figure 1.



1- Illuminated Emergency Stop Station
2- Impac 100

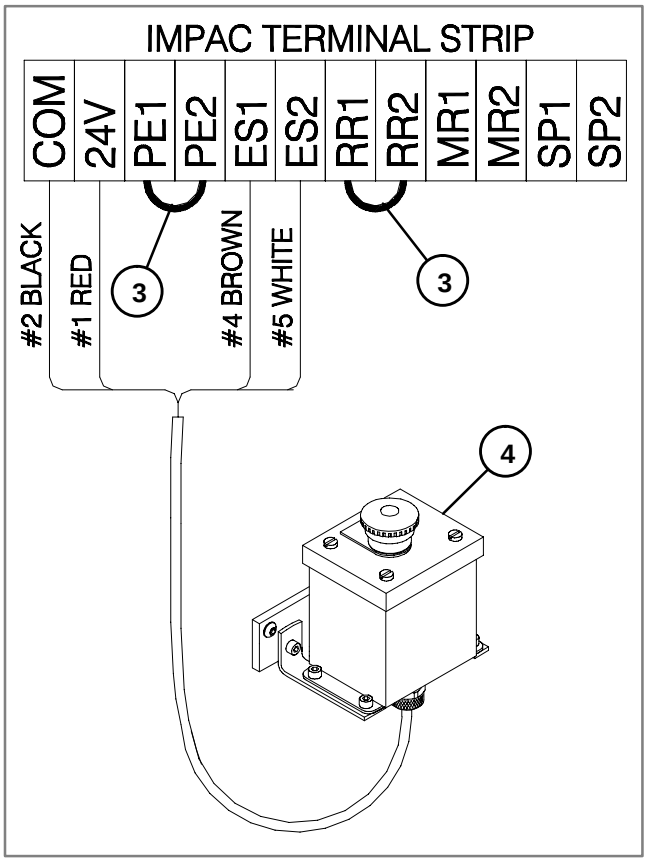
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Illuminated Emergency Stop Kit (75-40)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Emergency Stop Station to the desired location along conveyor and ensure that it provides easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kit.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Emergency Stop Station to the Impac 100.
  Remove jumper between terminals ES1 & ES2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wire #3 (Green) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

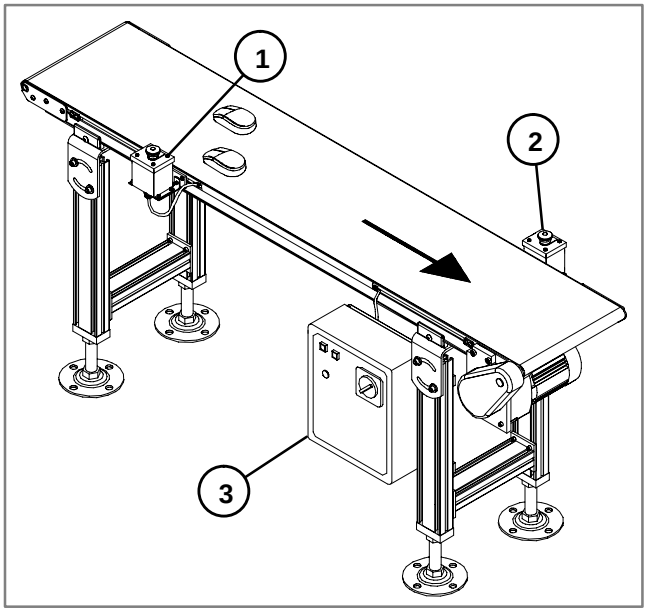


3- Jumpers
4- Illuminated Emergency Stop Station

Figure 2

Conveyor Controlled by Two Illuminated Emergency Stop Stations

The conveyor is normally running and stops when the operator activates any Illuminated Emergency Stop Station. The conveyor restarts when the operator resets the activated Emergency Stop Stations. The Emergency Stop Stations that were activated will be illuminated. See Figure 1.



1- First Emergency Stop Station
2- Second Emergency Stop Station
3- Impac 100

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
2 Illuminated Emergency Stop Station Kits (75-40)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Emergency Stop Stations to the desired locations along conveyor and ensure that both provide easy operator access. Use Figure 1 to aid in kit mounting locations. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the first Emergency Stop Station to the Impac 100.

  Remove jumper between terminals ES1 & ES2.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal ES1.

  Insert wire #5 (White) into terminal SP1.

  Wire #3 (Green) is not used and should be taped off.
- Connect the second Emergency Stop Station to the Impac 100.

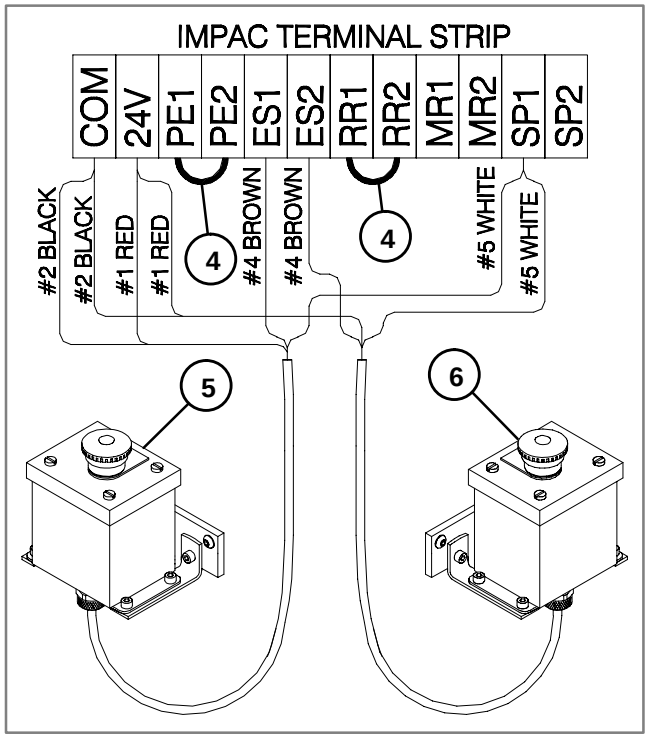
  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal ES2.

  Insert wire #5 (White) into terminal SP1.

  Wire #3 (Green) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

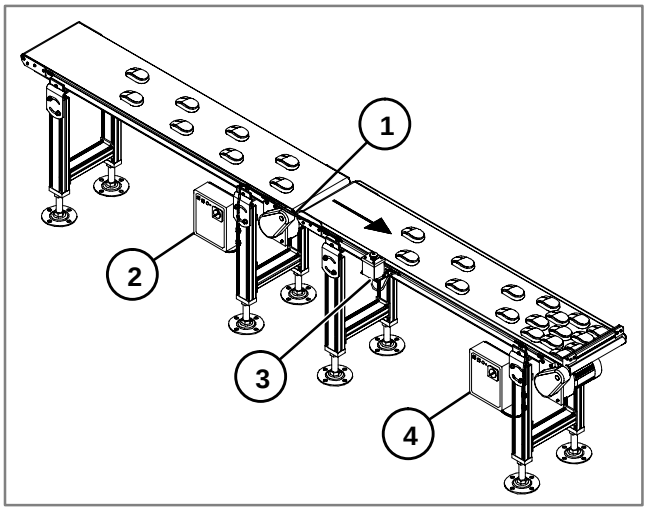


4- Jumpers
5- First Illuminated Emergency Stop Station
6- Second Illuminated Emergency Stop Station

Figure 2

Two Conveyors Controlled by One Non-illuminated Emergency Stop Station or Pull-Cord

Two conveyors are normally running and both conveyors stop when the operator activates the Emergency Stop Station or Pull-Cord. The conveyors restart when the operator resets the Emergency Stop Station or Pull-Cord. See Figure 1.



1- Linking Cable
2- Next to Last Impac 100 Controller
3- Emergency Stop Station
4- Last Impac 100 Controller

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controller (matched to your motor)
1 Non-illuminated Emergency Stop Kit or Pull-Cord Kit (75-41 or 75-42)
1 Controller to Controller Linking Cable Kit (75-80)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Emergency Stop Station or Pull-Cord to the desired location along the appropriate conveyor and ensure that it provides easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Emergency Stop Station or Pull-Cord to the Impac 100.

  Remove jumper between terminals ES1 & ES2.

  Insert wire #4 (Brown) into terminal ES1.

  Insert wire #5 (White) into terminal ES2.

  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- Connect the Linking Cable Kit to the last Impac 100 and the next to last Impac 100 controller.
  At the last Impac 100 controller:

  Insert wire #5 (White) into terminal MR1.

  Insert wire #4 (Brown) into terminal MR2.

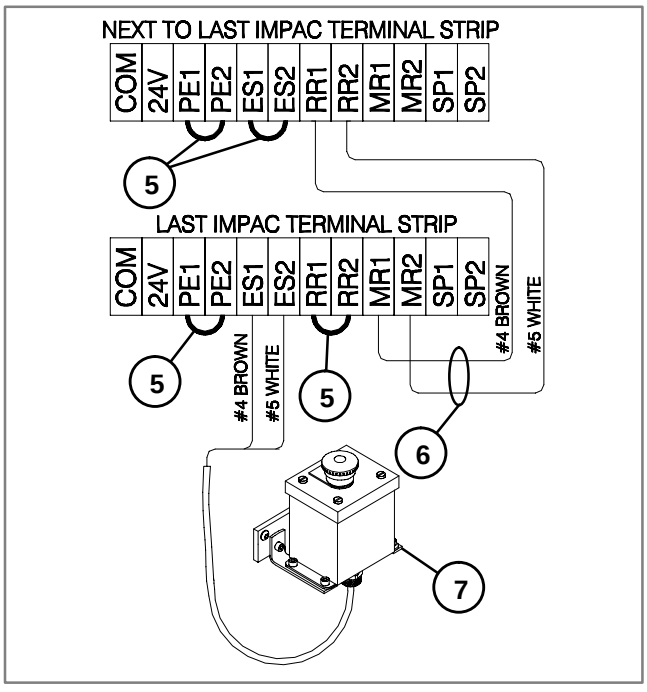
  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- At the next to last Impac 100 controller:

  Remove jumper between terminals RR1 & RR2.

  Insert wire #5 (White) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

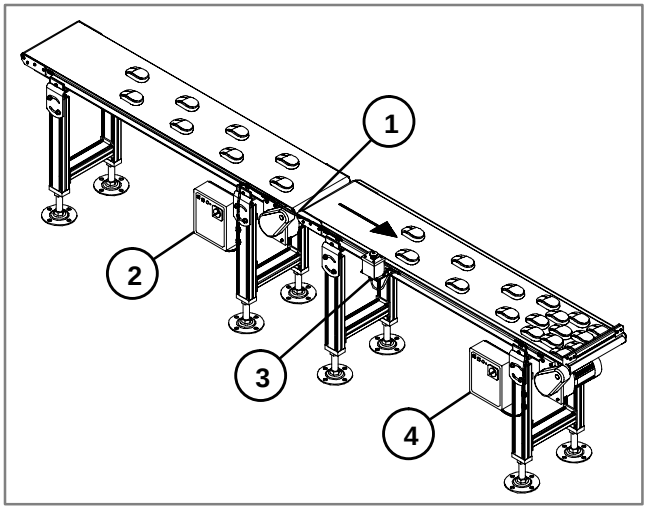


5- Jumpers
6- Linking Cable
7- Non-illuminated Emergency Stop Station

Figure 2

Two Conveyors Controlled by One Illuminated Emergency Stop Station

Two conveyors are normally running and both conveyors stop when the operator activates the Emergency Stop Station. The conveyors restart when the operator resets the Emergency Stop Station. The Emergency Stop Station will be Illuminated whenever the unit is activated. See Figure 1.



1- Linking Cable
2- Next to Last Impac 100 Controller
3- Emergency Stop Station
4- Last Impac 100 Controller

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controller (matched to your motor)
1 Illuminated Emergency Stop Kit (75-40)
1 Controller to Controller Linking Cable Kits (75-80)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Illuminated Emergency Stop Station to the desired location along the conveyor and ensure that it provide easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Illuminated Emergency Stop Station to the last Impac 100.

  Remove jumper between terminals ES1 & ES2.

  Insert wire #4 (Brown) into terminal ES1.

  Insert wire #5 (White) into terminal ES2.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Wire #3 (Green) is not used and should be taped off.
- Connect the Linking Cable Kit to the last Impac 100 and the next to last Impac 100 controller.
  At the last Impac 100 controller:

  Insert wire #5 (White) into terminal MR1.

  Insert wire #4 (Brown) into terminal MR2.

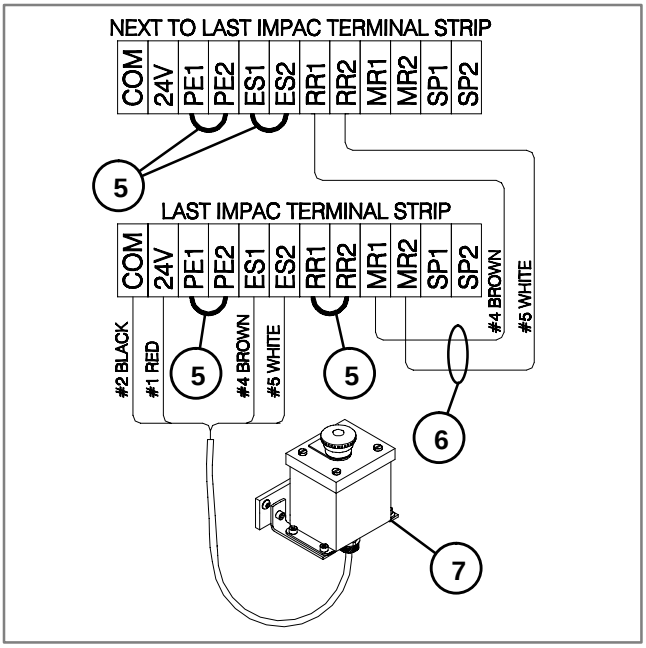
  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- At the next to last Impac 100 controller:

  Remove jumper between terminals RR1 & RR2.

  Insert wire #5 (White) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumpers
6- Linking Cable
7- Illuminated Emergency Stop Station

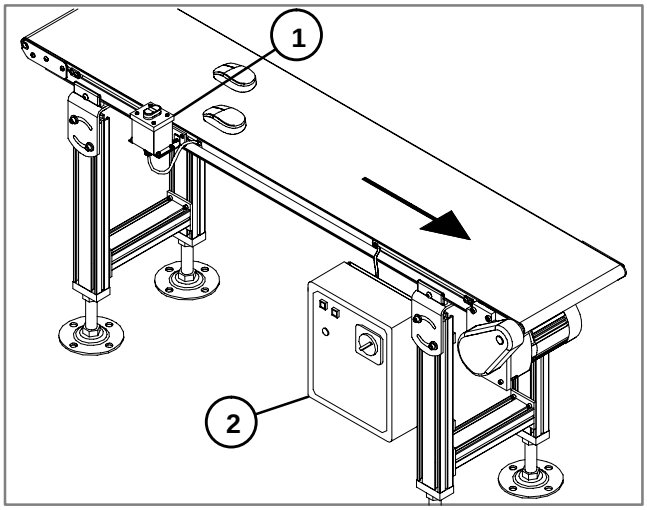
Figure 2

Conveyor Controlled by One Start/Stop Station

When the Start button is depressed the conveyor begins to run. When the stop button is depressed the conveyor will stop. See Figure 1.

Application Notes

- Only one Start/Stop station can be used per conveyor.



1- Start/Stop Station
2- Impac 100

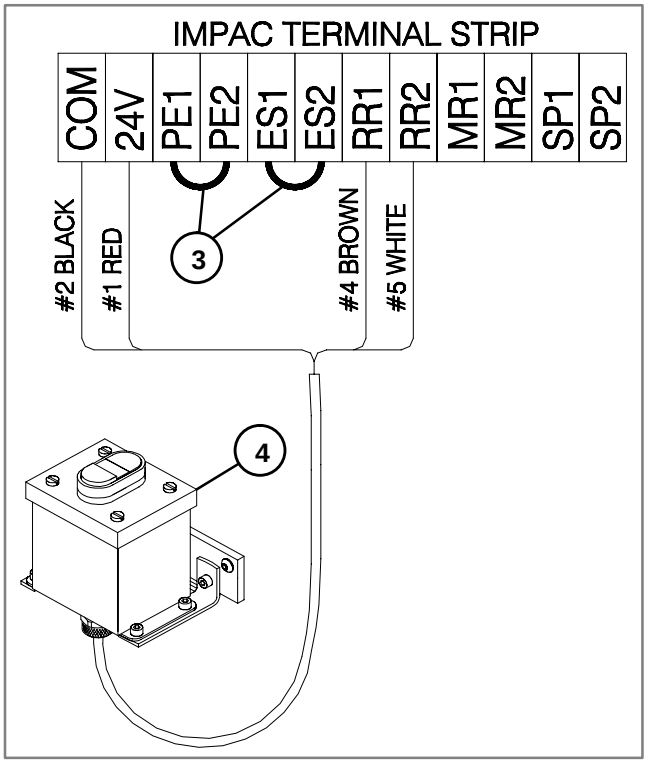
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Start/Stop Kit (75-70)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Start/Stop Station to the desired location along the conveyor and ensure that it provide easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Start/Stop Station to the Impac 100.
  Remove jumper between terminals RR1 & RR2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal RR1.
  Insert wire #5 (White) into terminal RR2.
  Wire #3 (Green) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



3- Jumpers
4- Start/Stop Station

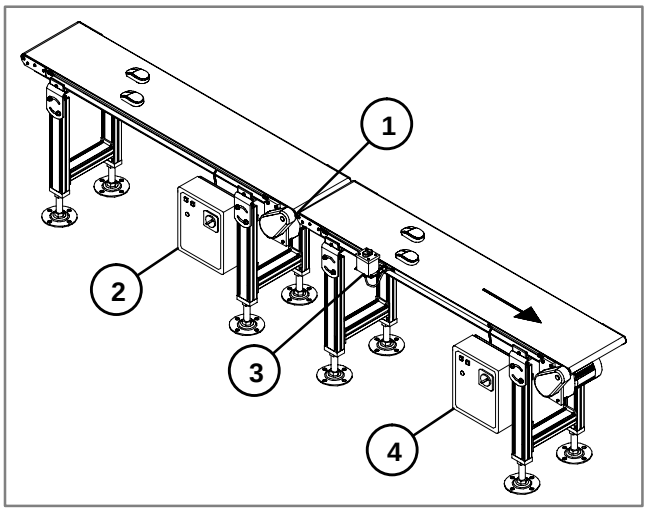
Figure 2

Two Conveyors Controlled by One Start/Stop Station

When the start button is depressed, the conveyors begin to run. When the stop button is depressed, the conveyors will stop. See Figure 1.

Application Notes

- Only one Start/Stop station can be used per conveyor.



1- Linking Cable
2- Next to Last Impac 100 Controller
3- Start/Stop Station
4- Last Impac 100 Controller

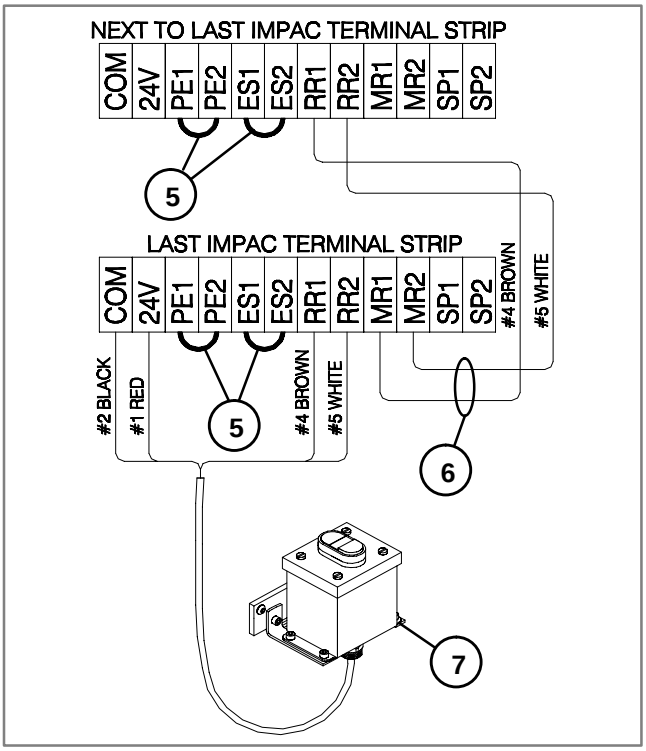
Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controller (matched to your motor)
1 Start/Stop Kit (75-70)
1 Controller to Controller Linking Cable Kit (75-80)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Start/Stop Station to the desired location along the conveyor and ensure that it provide easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Connect the Start/Stop Station to the last Impac100.
  Remove jumper between terminals RR1 & RR2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal RR1.
  Insert wire #5 (White) into terminal RR2.
  Wire #3 (Green) is not used and should be taped off.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Linking Cable Kit to the last Impac 100 and the next to last Impac 100 controller.
  At the last Impac 100 controller:
  Insert wire #5 (White) into terminal MR1.
  Insert wire #4 (Brown) into terminal MR2.
  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- At the next to last Impac 100 controller:
  Remove jumper between terminals RR1 & RR2.
  Insert wire #5 (White) into terminal RR1.
  Insert wire #4 (Brown) into terminal RR2.
  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumpers
6- Linking Cable
7- Start/Stop Station

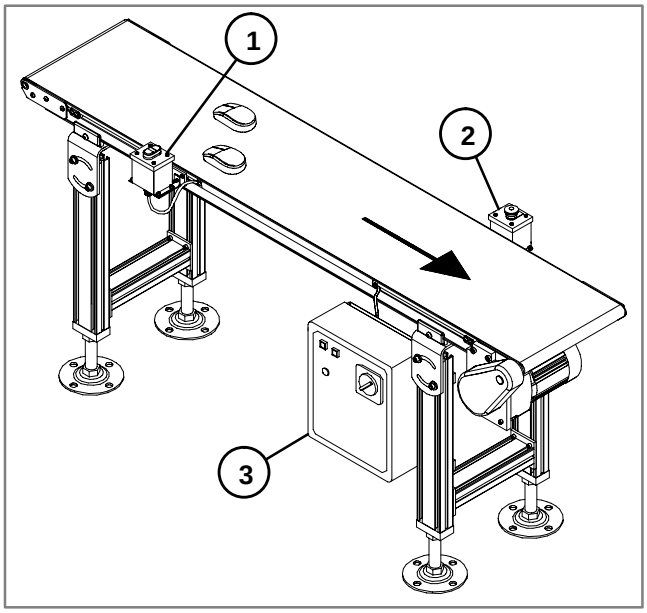
Figure 2

Conveyor Controlled by One Start/Stop Station and One Non-illuminated Emergency Stop Station or Pull-Cord

When the Start button is depressed the conveyor begins to run. When the Stop button is depressed the conveyor will stop. The conveyor will also stop if the Emergency Stop Station or Pull-Cord is activated. The Conveyor will not restart until the Emergency Stop Station or Pull-Cord is reset and the start button is depressed. See Figure 1.

Application Notes

- Only one Start/Stop station can be used per conveyor.
- When the Emergency Stop Station or Pull-Cord is activated the Start/Stop Station is Reset.



1- Start/Stop Station
2- Emergency Stop Station
3- Impac 100

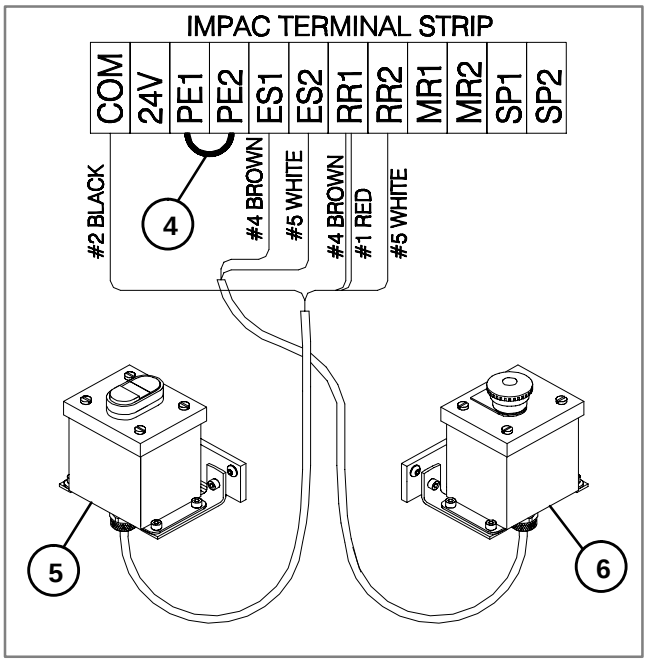
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Start/Stop Kit (75-70)
1 Emergency Stop Station or Pull-Cord (75-41 or 75-42)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Start/Stop Station or Pull-Cord to the desired location along the conveyor and ensure that both provide easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Start/Stop Station to the Impac 100.
  Remove jumper between terminals RR1 & RR2.
  Insert wire #1 (Red) into terminal RR1.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal RR1.
  Insert wire #5 (White) into terminal RR2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Emergency Stop Station or Pull-Cord to the Impac 100.
  Remove jumper between terminals ES1 & ES2.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

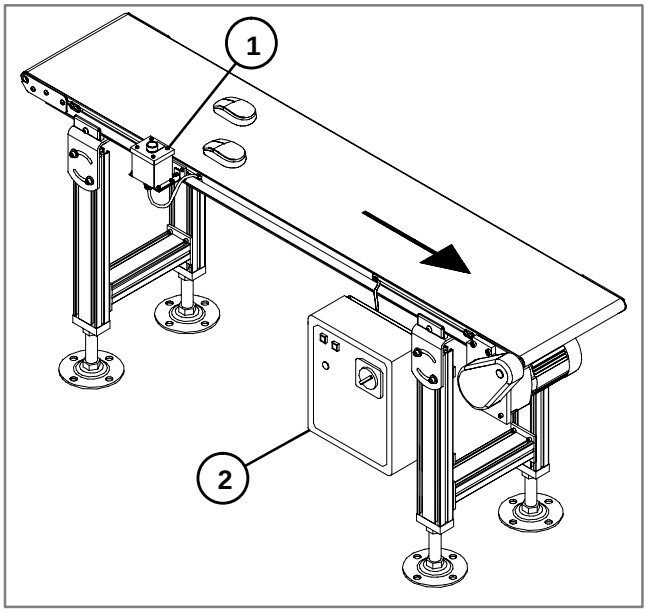


4- Jumper
5- Start/Stop Station
6- Non-illuminated Emergency Stop Station

Figure 2

Conveyor Controlled by One Jog Station or Foot Switch

The conveyor is normally stopped and runs only when a operator activates the Jog Station or Foot Switch. The conveyor will stop when the Jog Station or Foot Switch is deactivated. See Figure 1.



1- Jog Station
2- Impac 100

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Jog Kit or Foot Switch Kit (75-10 or 75-20)

Setup and Test

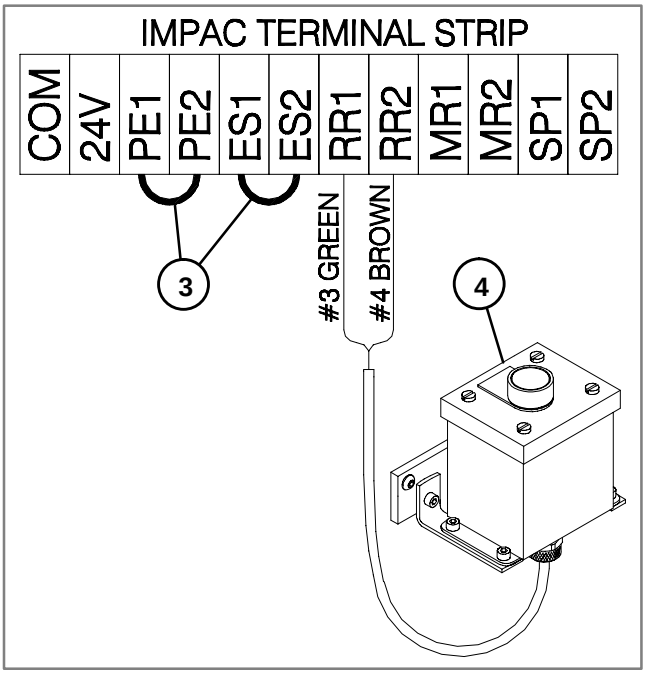
- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Jog Station or Foot Switch to ensure easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Connect the Jog Station or Foot Switch to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.

  Remove jumper between terminals RR1 & RR2.

  Insert wire #3 (Green) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wires #1, #2 & #5 (Red, Black & White) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

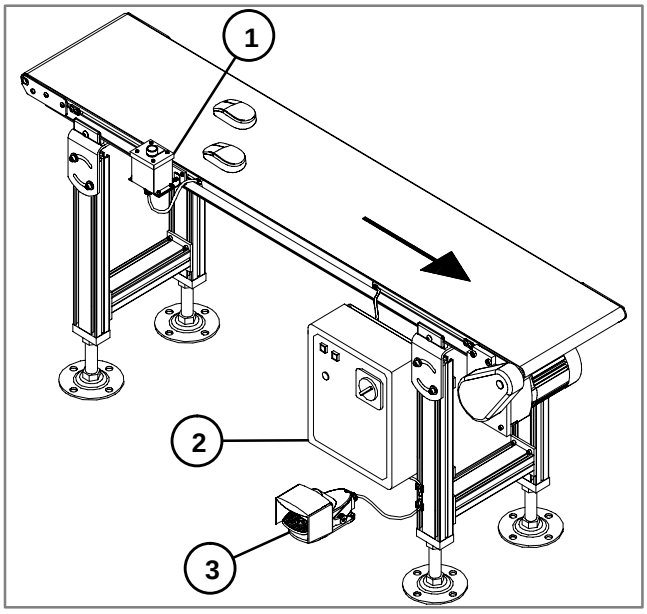


3- Jumpers
4- Jog Station

Figure 2

Conveyor Controlled by Two Jog Stations or Foot Switches

The conveyor is normally stopped and runs only when a operator activates either the Jog Stations or Foot Switches. The conveyor will stop when all activated Jog Stations or Foot Switches are deactivated. See Figure 1.



1- Jog Station
2- Impac 100
3- Foot Switch

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
2 Jog Kits or Foot Switch Kits (75-10 or 75-20)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Jog Stations or Foot Switches to ensure easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the first Jog Station or Foot Switch to the Impac 100.

  Remove jumper between terminals RR1 & RR2.

  Insert wire #3 (Green) into terminal RR1.

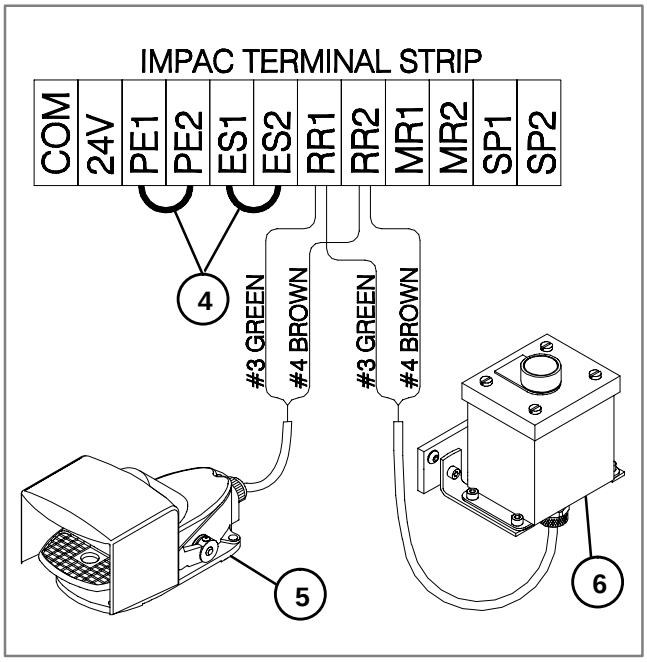
  Insert wire #4 (Brown) into terminal RR2.

  Wires #1, #2 & #5 (Red, Black & White) are not used and should be taped off.
- Connect the second Jog Station or Foot Switch to the Impac 100.

  Insert wire #3 (Green) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wires #1, #2 & #5 (Red, Black & White) are not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

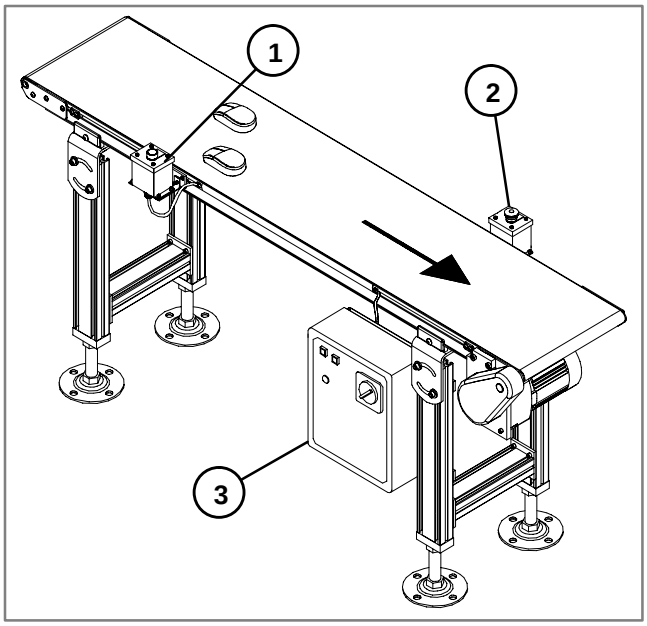


4- Jumpers
5- Foot Switch
6- Jog Station

Figure 2

Conveyor Controlled by One Jog Station or Foot Switch with Non-illuminated Emergency Stop Control

The conveyor is normally stopped and runs only when a operator activates the Jog Station or Foot Switch. The conveyor will stop when the activated Jog Station or Foot Switch is deactivated. The conveyor can also be stopped when the Emergency Stop Station or Pull-Cord is activated. The conveyor will not start again until the Emergency Stop Station or Pull-Cord is reset. See Figure 1.



1- Jog Station
2- Emergency Stop Station
3- Impac 100

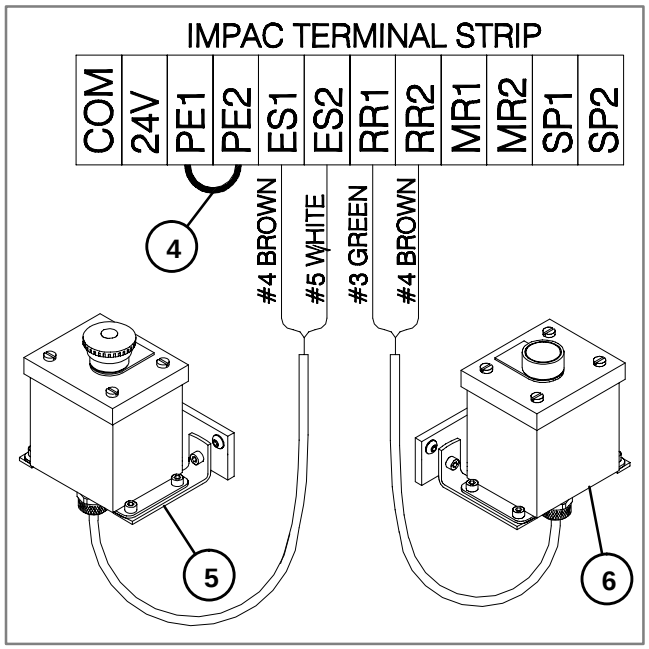
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Jog Kit or Foot Switch Kit (75-10 or 75-20)
1 Non-illuminated Emergency Stop Station or Pull-Cord Kit (75-41 or 75-42)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Jog Station or Foot Switch and the Emergency Stop Station or Pull-Cord Kit to ensure easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Jog Station or Foot Switch to the Impac 100.
  Remove jumper between terminals RR1 & RR2.
  Insert wire #3 (Green) into terminal RR1.
  Insert wire #4 (Brown) into terminal RR2.
  Wires #1, #2 & #5 (Red, Black & White) are not used and should be individually taped off.
- Connect the Emergency Stop Station or Pull-Cord to the Impac 100.
  Remove jumper between terminals ES1 & ES2.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

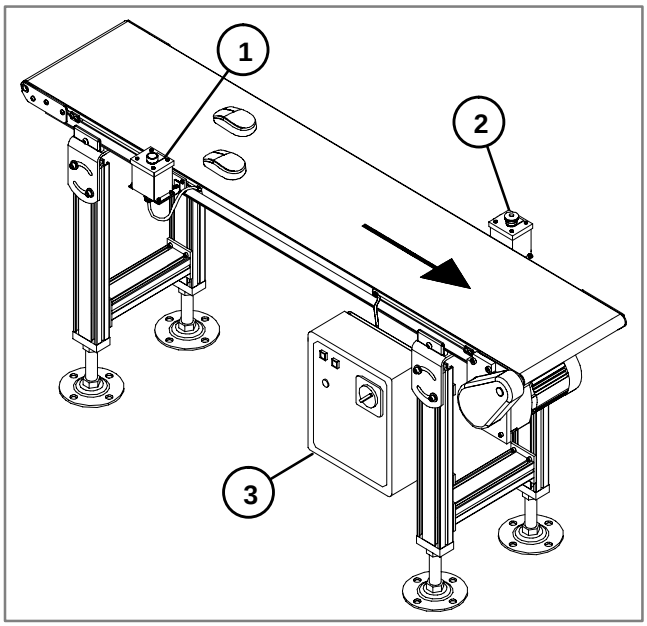


4- Jumper
5- Non-illuminated Emergency Stop Station
6- Jog Station

Figure 2

Conveyor Controlled by One Jog Station or Foot Switch with Illuminated Emergency Stop Station

The conveyor is normally stopped and runs only when a operator activates the Jog Station or Foot Switch. The conveyor will stop when the activated Jog Station or Foot Switch is deactivated. The conveyor can also be stopped when the Illuminated Emergency Stop Station is activated. The conveyor will not start again until the Emergency Stop Station is reset. When the Emergency Stop Station is activated it will be illuminated. See Figure 1.



1- Jog Station
2- Illuminated Emergency Stop Station
3- Impac 100

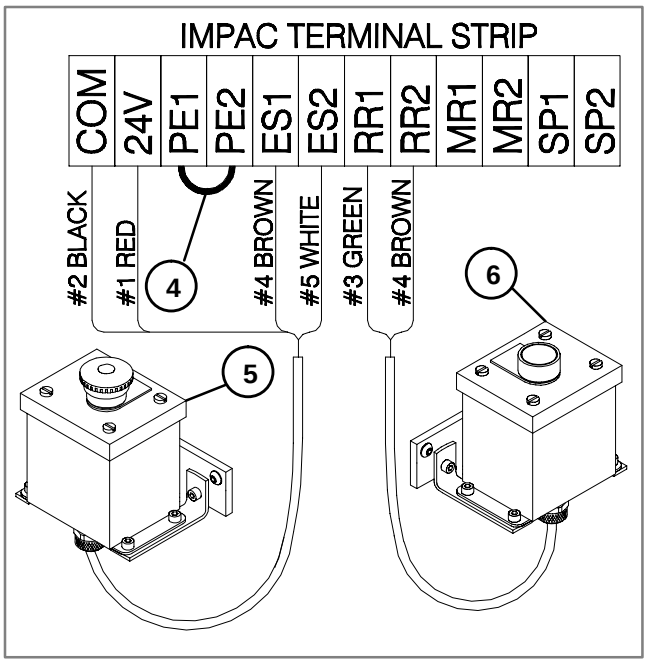
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Jog Kit or Foot Switch Kit (75-10 or 75-20)
1 Illuminated Emergency Stop Kit (75-40)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Jog Stations or Foot Switch and the Illuminated Emergency Stop Station to ensure easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Jog Station or Foot Switch to the Impac 100.
  Remove jumper between terminals RR1 & RR2.
  Insert wire #3 (Green) into terminal RR1.
  Insert wire #4 (Brown) into terminal RR2.
  Wires #1, #2 & #5 (Red, Black & White) are not used and should be taped off.
- Connect the Emergency Stop Station to the Impac 100.
  Remove jumper between terminals ES1 & ES2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wire #3 (Green) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

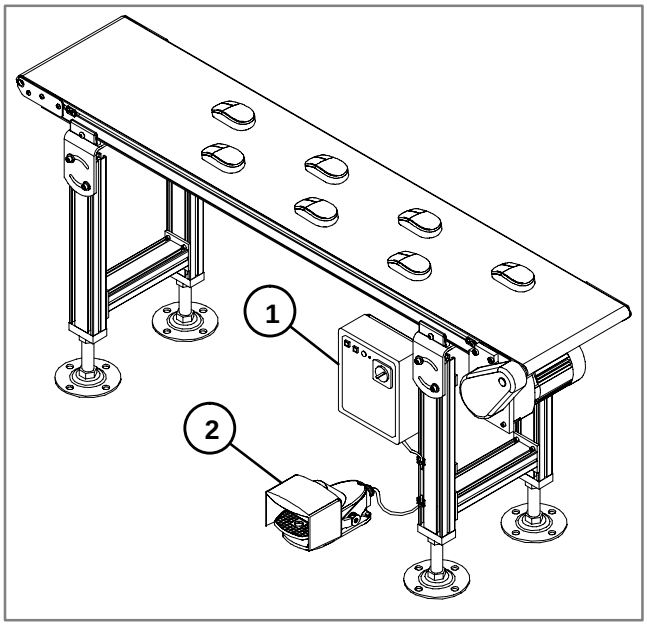


4- Jumper
5- Illuminated Emergency Stop Station
6- Jog Station

Figure 2

Conveyor Stopping Controlled by One Foot Switch

The conveyor is normally running and stops only when an operator activates the Foot Switch. The conveyor will run again when the Foot Switch is deactivated. See Figure 1.



1- Impac 100
2- Foot Switch

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Foot Switch Kit (75-20)

Setup and Test

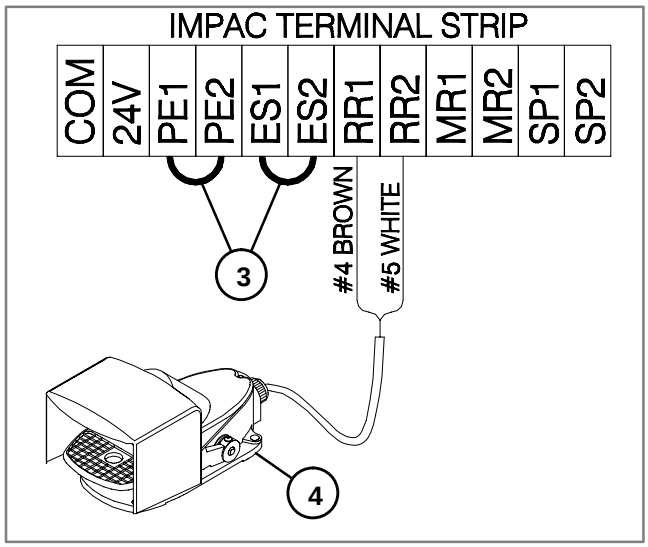
- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Foot Switch to ensure easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Foot Switch to the Impac 100.

  Remove jumper between terminals RR1 & RR2.

  Insert wire #4 (Brown) into terminal RR1.

  Insert wire #5 (White) into terminal RR2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

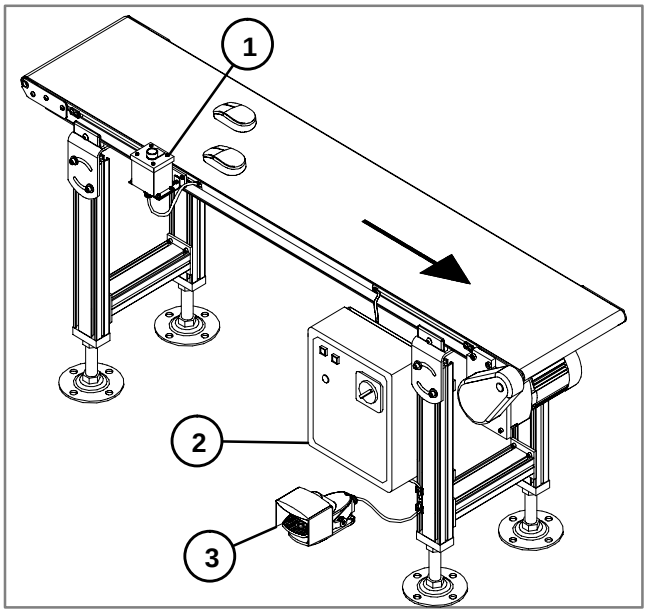


3- Jumpers
4- Foot Switch

Figure 2

Conveyor Controlled by Two Interlocked Jog Stations or Foot Switches

The conveyor is normally stopped and runs only when an operator activates both Jog Stations or Foot Switches. The conveyor will stop when either one of the Jog Stations or Foot Switches are deactivated. See Figure 1.



1- Jog Station
2- Impac 100
3- Foot Switch

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
2 Jog Kits or Foot Switch Kits (75-10 or 75-20)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Jog Stations or Foot Switches to ensure easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the first Jog Station or Foot Switch to the Impac 100.

  Remove jumper between terminals RR1 & RR2.

  Insert wire #3 (Green) into terminal RR1.

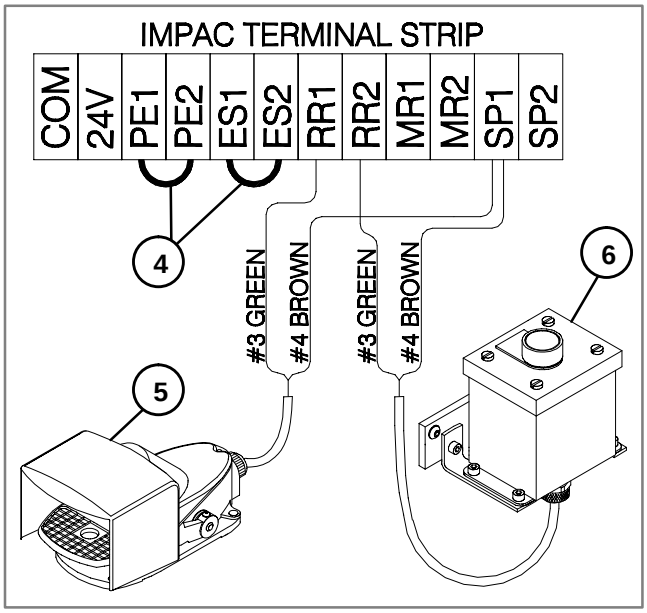
  Insert wire #4 (Brown) into terminal SP1.

  Wires #1, #2 & #5 (Red, Black & White) are not used and should be taped off.
- Connect the Emergency Stop Station to the Impac 100.
- Connect the second Jog Station or Foot Switch to the Impac 100.

  Insert wire #3 (Green) into terminal RR2.

  Insert wire #4 (Brown) into terminal SP1.

  Wires #1, #2 & #5 (Red, Black & White) are not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- Foot Switch
6- Jog Station

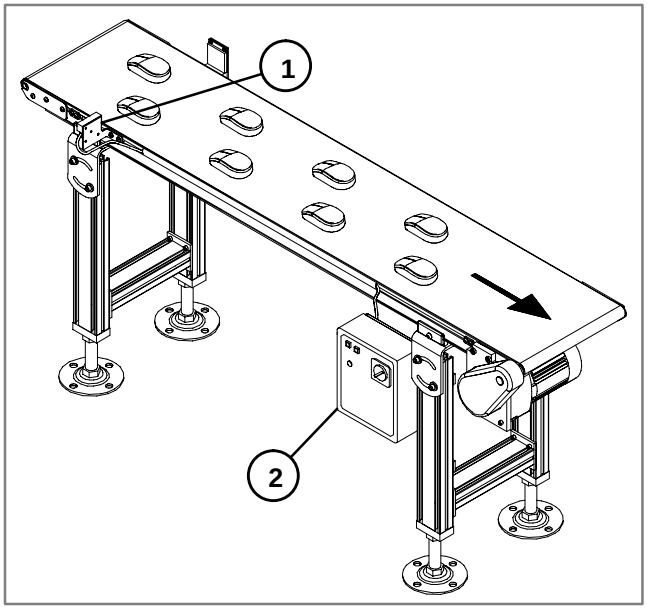
Figure 2

Conveyor Indexing

The conveyor is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. The conveyor stops when a part passes the Photo-Eye beam. See Figure 1.

Application Notes

- The maximum part index rate is dependent on motor type and generally should not exceed 10 parts per minute. If a higher rate is needed, see the index for the Automatic Conveyor Indexing with a Clutch/Brake application.
- When a part passes the Photo-Eye beam the conveyor will stop. The conveyor moves slightly more than a part length. If an adjustable gap is needed, a Timing Photo-Eye can be used. (See Application number 10.3)



1- Standard Photo-Eye (Infeed)
2- Impac 100

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Photo-Eye at the infeed end of the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Photo-Eye to the Impac 100.

  Remove jumper between terminals PE1 & PE2.

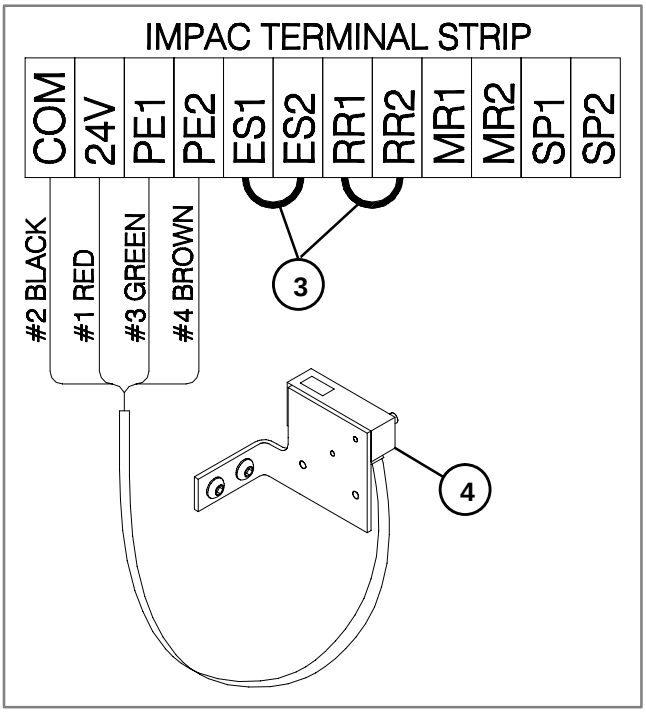
  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #3 (Green) into terminal PE1.

  Insert wDorner Mfg. Corp.20ire #4 (Brown) into terminal PE2.

  Wire #5 (Yellow) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



3- Jumpers
4- Standard Photo-Eye (Infeed)

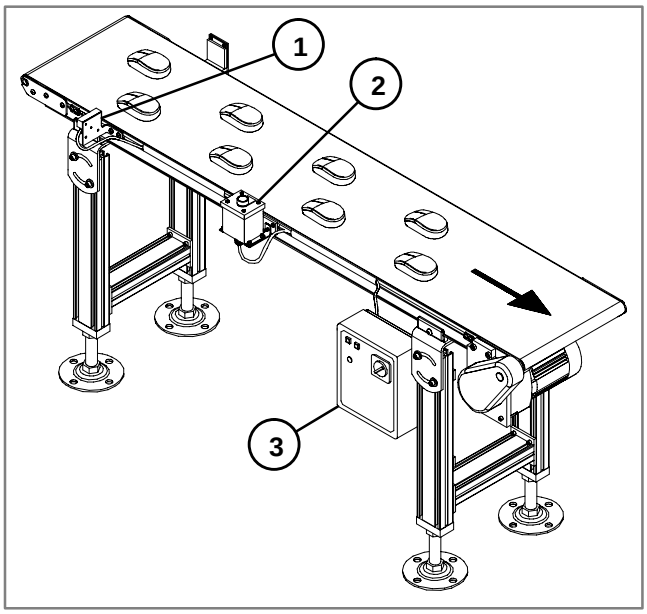
Figure 2

Conveyor Indexing with Jog Control

The conveyor is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. The conveyor stops when a part passes the Photo-Eye beam. Also, the operator can manually jog the conveyor using the Jog Station or Foot Switch. See Figure 1.

Application Notes

- The maximum part index rate is dependent on motor type and generally should not exceed 10 parts per minute. If a higher rate is needed, see the index for the Automatic Conveyor Indexing with Clutch/Brake application.
- When a part passes the Photo-Eye beam the conveyor will stop. The conveyor moves slightly more than a part length. If an adjustable gap is needed, a Timing Photo-Eye can be used.



1- Standard Photo-Eye (Infeed)
2- Jog Station
3- Impac 100

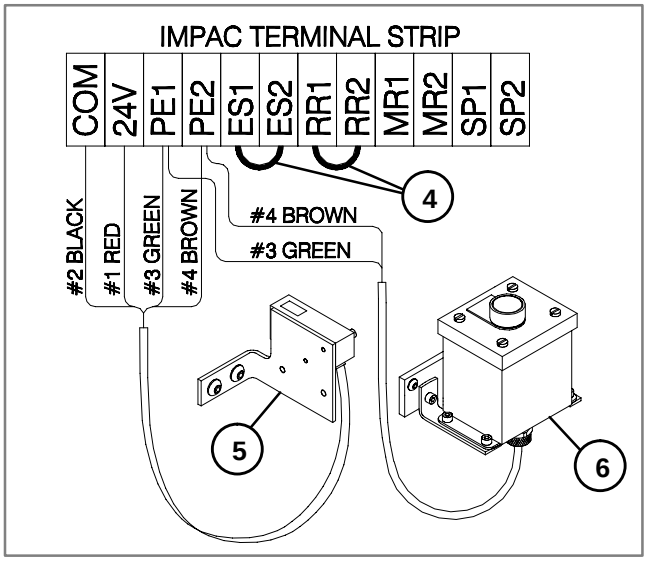
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Jog Kit or Foot Switch Kit (75-10 or 75-20)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Photo-Eye at the infeed end of the conveyor. Install the Jog Station or Foot Switch to ensure easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal PE2.
  Wire #5 (Yellow) is not used and should be taped off.
- Connect the Jog Station to the Impac 100.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal PE2.
  Wires #1, #2 & #5 (Red, Black & White) are not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- Standard Photo-Eye (Infeed)
6- Jog Station

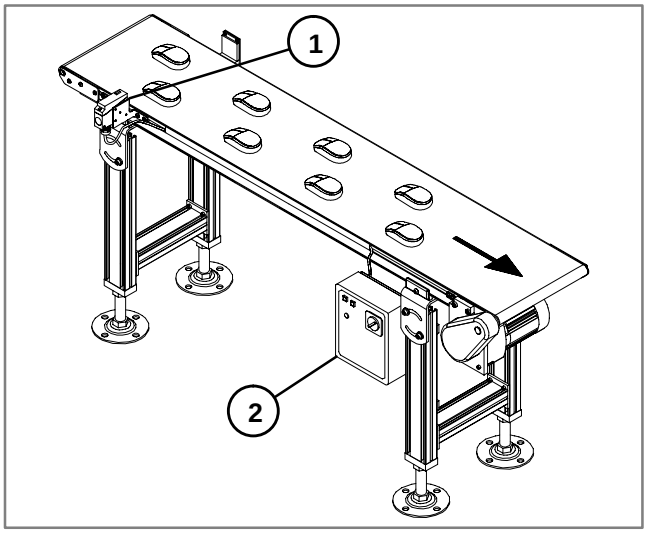
Figure 2

Conveyor Indexing with Adjustable Part Gap

The conveyor is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. In addition, as each part passes the Photo-Eye beam a user defined part gap is created between each part. The conveyor stops when the part passes the Photo-Eye beam and the time value set in the Timing Photo-Eye has expired. See Figure 1.

Application Notes

- The maximum part index rate is dependent on motor type and generally should not exceed 10 parts per minute. If a higher rate is needed, see the index for the Automatic Conveyor Indexing with a Clutch/Brake application.
- The Photo-Eye is configured with the time-delay-off function. The delay time is set to achieve the desired part gap spacing. The timing function allows the conveyor to run after the part passes the Photo-Eye.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the larger the gap.



1- Timing Photo-Eye (Infeed)
2- Impac 100

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye at the infeed end of the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the Impac 100.

  Remove jumper between terminals PE1 & PE2.

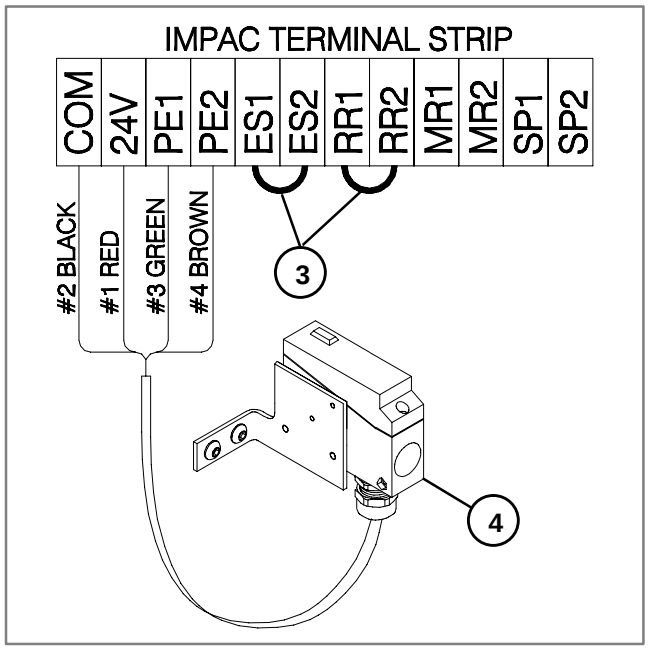
  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #3 (Green) into terminal PE1.

  Insert wire #4 (Brown) into terminal PE2.

  Wire #5 (White) is not used and should be taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-off function and the timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



3- Jumpers
4- Timing Photo-Eye (Infeed)

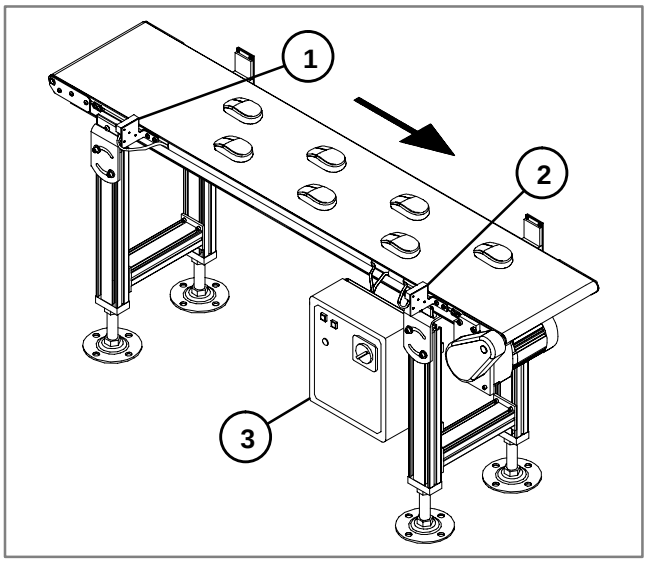
Figure 2

Conveyor Indexing and Conveyor End Stopping

The conveyor is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. The conveyor stops when a part passes the infeed Photo-Eye beam. The conveyor will also stop if a part blocks the Photo-Eye at the discharge end of the conveyor. See Figure 1.

Application Notes

- The maximum part index rate is dependent on motor type and generally should not exceed 10 parts per minute. If a higher rate is needed, see the index for the Automatic Conveyor Indexing with a Clutch/Brake application.
- When a part passes the Photo-Eye beam the conveyor will stop. The conveyor moves slightly more than a part length. If an adjustable gap is needed, a Timing Photo-Eye can be used. (See Application number 10.5)
- When a part reaches the discharge end of the conveyor, the conveyor will not run until that part has been removed.



1- Infeed Photo-Eye
2- Discharge Photo-Eye
3- Impac 100

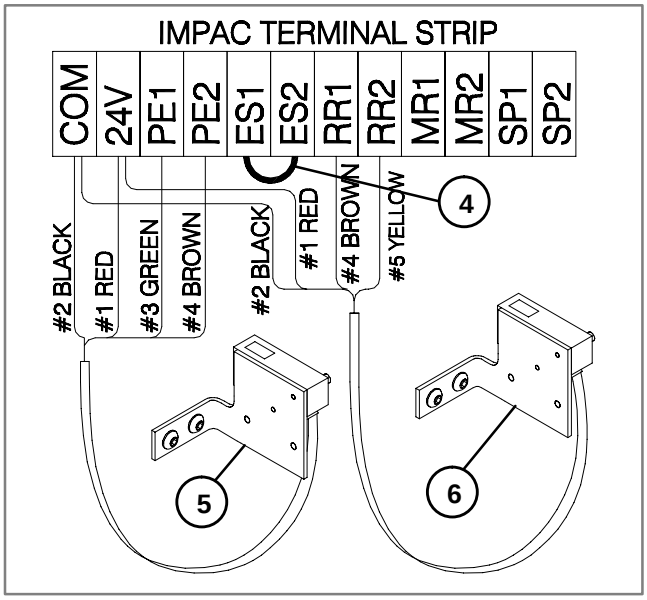
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
2 Adjustable or fixed mount Standard Photo-Eye Kits (75-30 or 75-31)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Standard Photo-Eyes at the infeed and discharge ends of the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the infeed Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal PE2.
  Wire #5 (Yellow) is not used and should be taped off.
- Connect the discharge Photo-Eye to the Impac 100.
  Remove jumper between terminals RR1 &RR2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal RR1.
  Insert wire #5 (Yellow) into terminal RR2.
  Wire #3 (Green) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumper
5- Infeed Photo-Eye
6- Discharge Photo-Eye

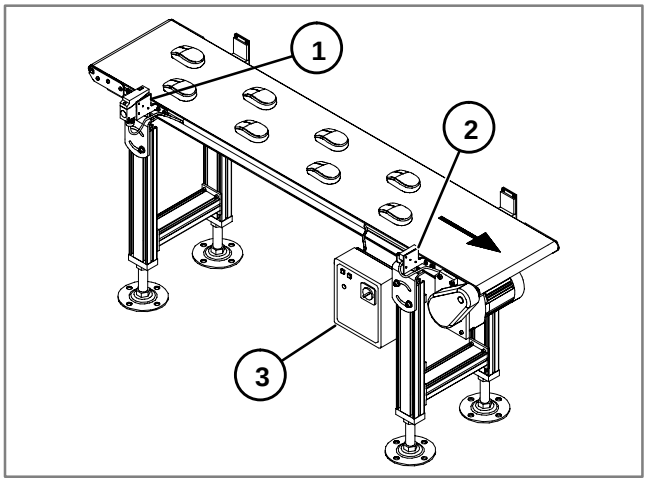
Figure 2

Conveyor Indexing with Adjustable Part Gap and Conveyor End Stopping

The conveyor is normally stopped and runs only when a part blocks the beam of the Timing Photo-Eye located at the infeed end of the conveyor. In addition, as each part passes the Timing Photo-Eye beam a user adjustable part gap is created between each part. The conveyor stops when the part passes the infeed Photo-Eye beam and the time value has expired. The conveyor will also stop if a part reaches the Photo-Eye at the discharge end of the conveyor and will not run until that part has been removed. Figure 1.

Application Notes

- The maximum part index rate is dependent on motor type and generally should not exceed 10 parts per minute. If a higher rate is needed, see the index for the Automatic Conveyor Indexing with a Clutch/Brake application.
- The Timing Photo-Eye is configured with the time-delay-off function. The delay time is set to achieve the desired part gap spacing. The timing function allows the conveyor to run after the part passes the Infeed Photo-Eye.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the larger the gap.



1- Timing Photo-Eye (Infeed)
2- Standard Photo-Eye (Discharge)
3- Impac 100

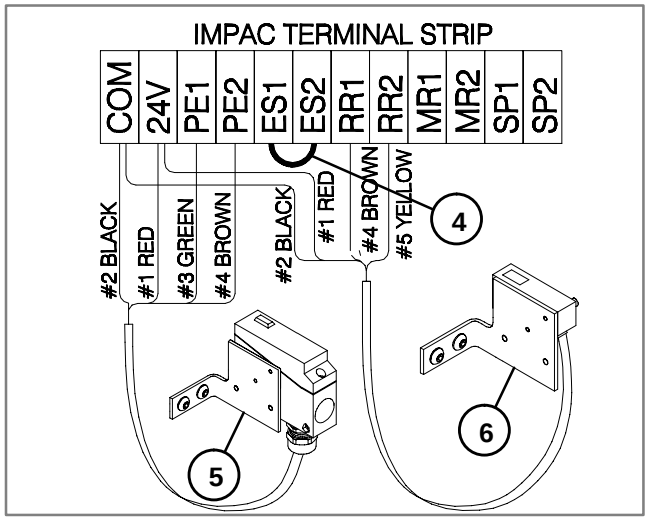
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31) (Discharge)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33) (Infeed)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye at the infeed end of the conveyor, and the Standard Photo-Eye at the discharge end of the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal PE2.
  Wire #5 (White) is not used and should be taped off.
- Connect the Standard Photo-Eye to the Impac 100.
  Remove jumper between terminals RR1 & RR2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal RR1.
  Insert wire #5 (Yellow) into terminal RR2.
  Wire #3 (Green) is not used and should be taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-off function (Off Delay) and timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumper
5- Timing Photo-Eye (Infeed)
6- Standard Photo-Eye (Discharge)

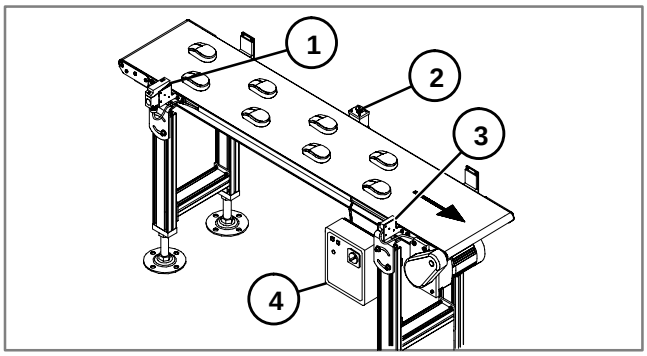
Figure 2

Automatic Conveyor Indexing with Adjustable Part Gap, Conveyor End Stopping and Non-illuminated Emergency Stop Station or Pull-Cord

The conveyor is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. In addition, as each part enters the conveyor a user adjustable part gap is created between each part. The conveyor will also stop if a part blocks the Photo-Eye at the discharge end of the conveyor or the Emergency Stop Station or Pull-Cord is activated. See Figure 1.

Application Notes

- The maximum part index rate is dependent on motor type and generally should not exceed 10 parts per minute. If a higher rate is needed, see the index for the Automatic Conveyor Indexing with a Clutch/Brake application.
- The Photo-Eye is configured with the time-delay-off function. The delay time is set to achieve the desired part gap spacing. The timing function allows the conveyor to run after the part passes the Photo-Eye.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the larger the gap.
- The conveyor stops when part passes the Photo-Eye beam and the time value set in the Timing Photo-Eye has expired.



1- Timing Photo-Eye (Infeed)
2- Emergency Stop Station
3- Standard Photo-Eye (Discharge)
4- Impac 100

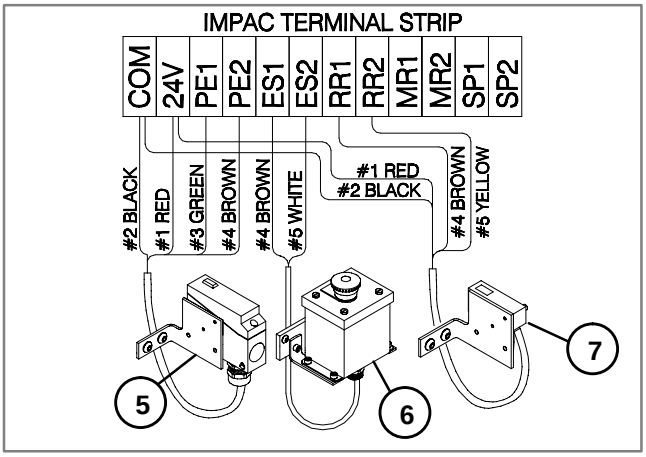
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Non-illuminated Emergency Stop Kit or Pull-Cord Kit (75-41 or 75-42)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye near the infeed of the conveyor, and the Standard Photo-Eye near the discharge of the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal PE2.
  Wire #5 (White) is not used and should be taped off.
- Connect the Standard Photo-Eye to the Impac 100.
  Remove jumper between terminals RR1 &RR2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal RR1.
  Insert wire #5 (Yellow) into terminal RR2.
  Wire #3 (Green) is not used and should be taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-off function and the timer value.
- Connect the Emergency Stop Station to the Impac 100.
  Remove jumper between terminals ES1 & ES2.
  Insert wire #4 (Brown) into terminals ES1.
  Insert wire #5 (White) into terminals ES2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used are not used and should be individually taped off.
- Restore power to Impac 100 and test conveyor operation.
- File copy of this application inside Impac 100 Controller.



5- Timing Photo-Eye (Infeed)
6- Non-illuminated Emergency Stop Station
7- Standard Photo-Eye (Discharge)

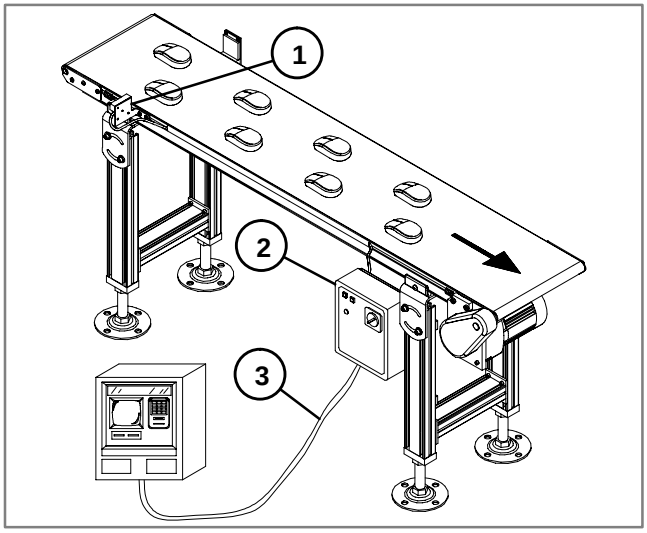
Figure 2

Conveyor Indexing with Override Signal from PLC or Machine Controller

The conveyor is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. In addition, the conveyor may be overridden or purged with a signal from a PLC or Machine Controller. See Figure 1.

Application Notes

- The maximum part index rate is dependent on motor type and generally should not exceed 10 parts per minute. If a higher rate is needed, see the index for the Automatic Conveyor Indexing with a Clutch/Brake application.
- When a part passes the infeed Photo-eye the conveyor will stop. The conveyor moves slightly more than a part length. If an adjustable gap is needed, a Timing Photo-Eye can be used.



1- Standard Photo-Eye (Infeed)
2- Impac 100
3- Linking Cable

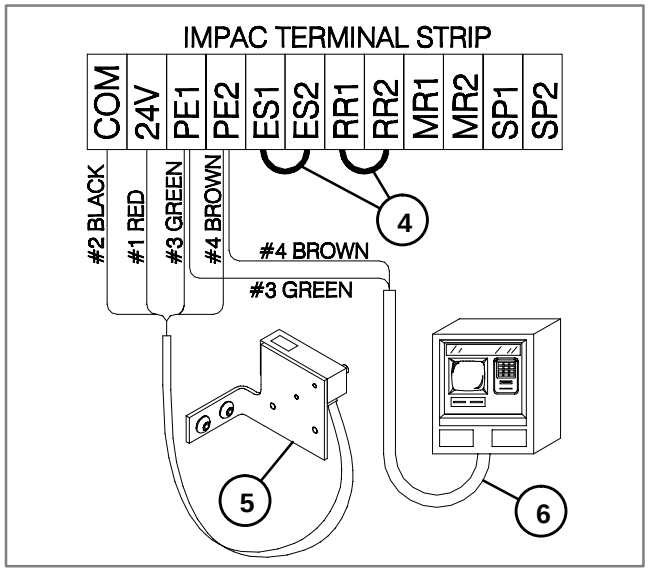
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Linking Cable Kit (75-80)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Standard Photo-Eye at the infeed end of the conveyor. Connect the Linking Cable Kit to the Impac 100 and the override or purge signal of the PLC or Machine Control. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Standard Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal PE2.
  Wire #5 (Yellow) is not used and should be taped off.
- Connect the Linking Cable Kit to the Impac 100.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (White) into terminal PE2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be taped off.
- Connect the Linking Cable to the PLC or Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller dry contact terminals (Close contacts to run).
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- Standard Photo-Eye (Infeed)
6- Linking Cable

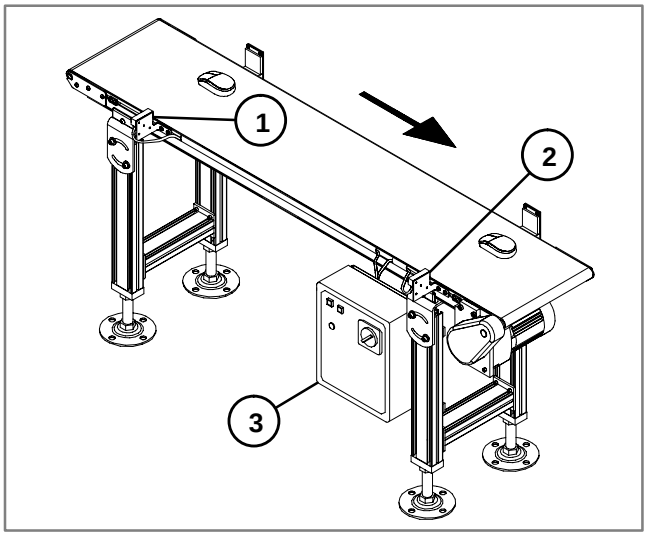
Figure 2

Conveyor Indexing to End of Conveyor with Conveyor End Stopping

The conveyor is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. The conveyor will run until that part has reached the discharge end Photo-Eye. The conveyor will not start again until the part blocking the End Stop Photo-Eye has been removed. See Figure 1.

Application Notes

- The maximum part index rate is dependent on motor type and generally should not exceed 10 parts per minute. If a higher rate is needed, see the index for the Automatic Conveyor Indexing with a Clutch/Brake application.



1- Infeed Photo-Eye
2- Discharge Photo-Eye
3- Impac 100

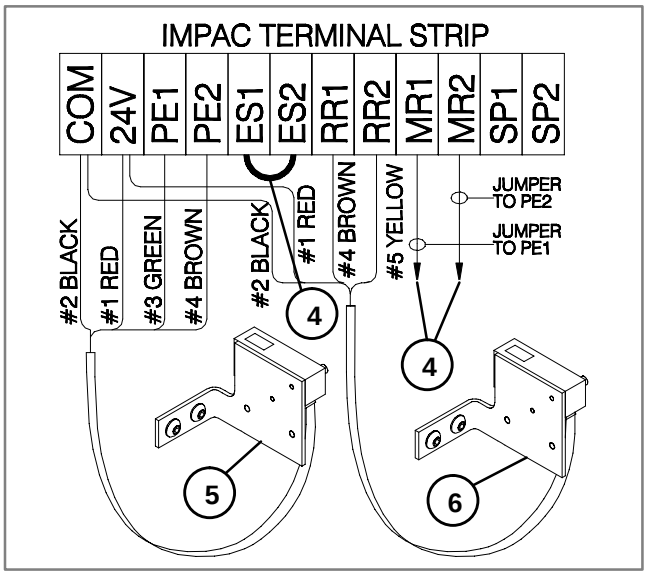
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
2 Adjustable or fixed mount Standard Photo-Eye Kits (75-30 or 75-31)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Standard Photo-Eyes at the infeed and discharge ends of the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the infeed end Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal PE2.
  Wire #5 (Yellow) is not used and should be taped off.
- Connect the discharge end Photo-Eye to the Impac 100.
  Remove jumper between terminals RR1 &RR2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal RR1.
  Insert wire #5 (Yellow) into terminal RR2.
  Wire #3 (Green) is not used and should be taped off.
- Install "customer supplied" jumpers between MR1 & PE1 and MR2 & PE2. The jumper must be 18 AWG wire.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- Infeed Photo-Eye
6- Discharge Photo-Eye

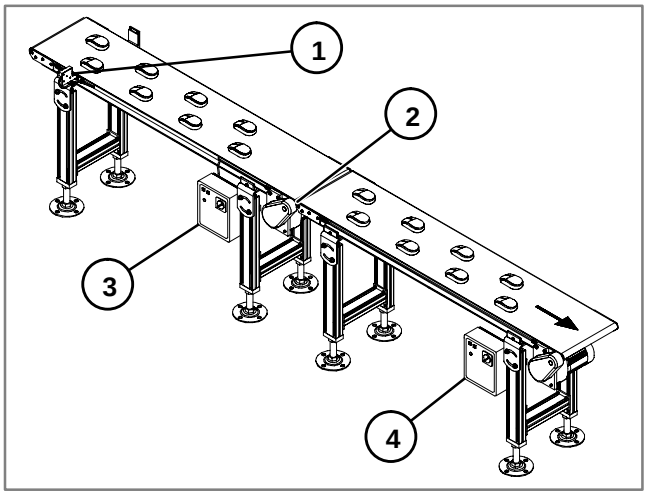
Figure 2

Conveyor Indexing with Two Conveyors

The conveyors are normally stopped and run only when a part blocks the beam of the Photo-Eye located at the infeed end of the first conveyor. The conveyors stop when a part passes the Photo-Eye beam. See Figure 1.

Application Notes

- The maximum part index rate is dependent on motor type and generally should not exceed 10 parts per minute. If a higher rate is needed, see the index for the Automatic Conveyor Indexing with a Clutch/Brake application.
- When a part passes the Photo-Eye beam the conveyors will stop. The conveyor moves slightly more than a part length. If an adjustable gap is needed, a Timing Photo-Eye can be used.



1- Standard Photo-Eye (Infeed)
2- Linking Cable Kit
3- Next to Last Impac 100
4- Last Impac 100

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controllers (matched to your motors)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Controller to Controller Linking Cable Kit (75-80)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install Photo-Eye at infeed end of the next to last conveyor. Use Figure 1 to aid in kit mounting location. For additional information, on mounting see Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Photo-Eye to the last Impac 100.

  Remove jumper between terminals PE1 & PE2.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #3 (Green) into terminal PE1.

  Insert wire #4 (Brown) into terminal PE2.

  Wire #5 (Yellow) is not used and should be taped off.
- Connect the Linking Cable Kit to the last Impac 100 and the next to last Impac 100 controller. At the last Impac 100 controller:

  Insert wire #5 (White) into terminal MR1.

  Insert wire #4 (Brown) into terminal MR2.

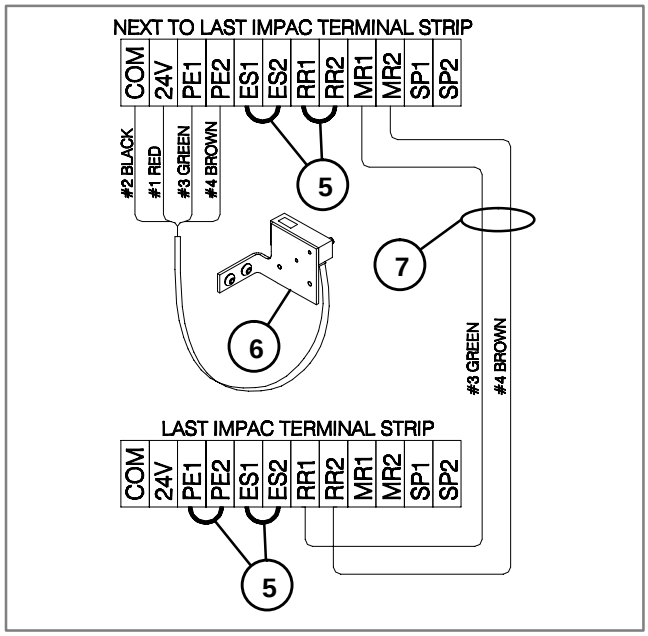
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- At the Next to Last Impac 100 controller:

  Remove jumper between terminals RR1 & RR2.

  Insert wire #5 (White) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumpers
6- Standard Photo-Eye (Infeed)
7- Linking Cable Kit

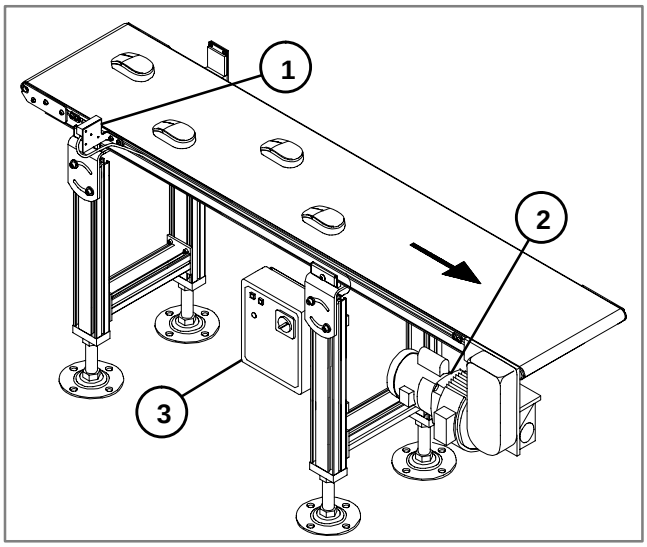
Figure 2

Conveyor Indexing

The conveyor, which is controlled by a Clutch/Brake, is normally stopped and runs only when a part blocks the beam of the Photo-Eye, located at the infeed end of the conveyor. The conveyor stops when a part passes the Photo-Eye beam. See Figure 1.

Application Notes

- The Clutch/Brake is used when the motor start/stop rate exceeds 10 parts per minute.
- When a part is in front of the Photo-Eye beam, the Conveyor Belt will move until the part is moved slightly past the Photo-Eye beam. If an adjustable gap is needed, a Timing Photo-Eye can be used. (See Application number 15.3)
- When the conveyor belt stops, the motor continues to run but the clutch disengages and the brake engages. When the conveyor restarts, the clutch engages and the brake disengages.



1- Standard Photo-Eye (Infeed)
2- Clutch/Brake
3- Impac 100

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)

1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)

1 Electric Clutch/Brake Kit (75-60)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Photo-Eye at the infeed end of the conveyor. Install the Clutch/Brake on the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Photo-Eye to the Impac 100.

  Remove jumper between terminals PE1 & PE2.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #3 (Green) into terminal 24V.

  Insert wire #4 (Brown) into terminal SP1.

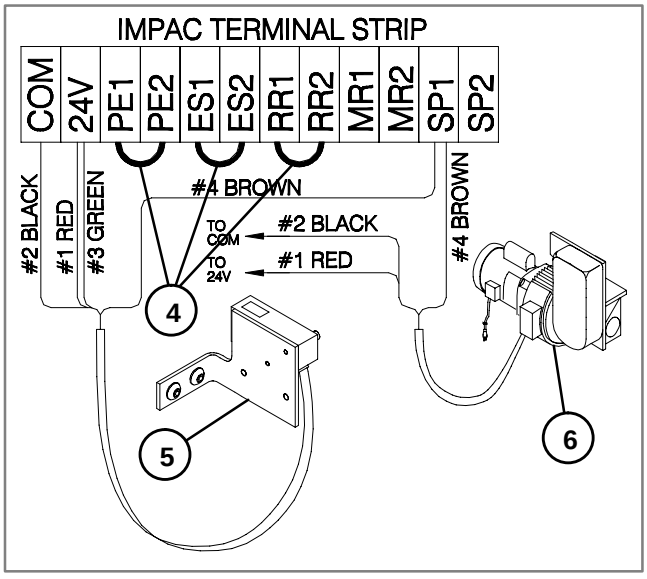
  Wire #5 (Yellow) is not used and should be taped off.
- Connect the Clutch/Brake to the Impac 100.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal SP1.

  Wire #3 & #5 (Green & White) are not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- Standard Photo-Eye (Infeed)
6- Clutch/Brake

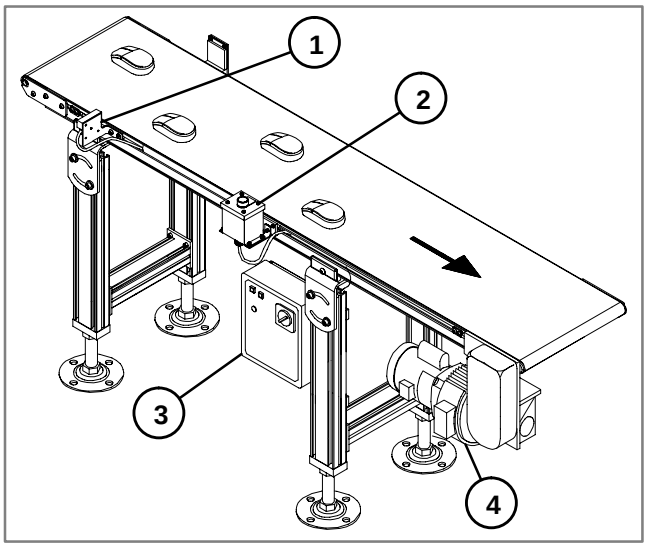
Figure 2

Conveyor Indexing with Jog Control

The conveyor which is controlled by a Clutch/Brake is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. The conveyor stops when a part passes the Photo-Eye beam. Also the operator can manually jog the conveyor using the Jog Station or Foot Switch. See Figure 1.

Application Notes

- The Clutch/Brake is used when the motor start/stop rate exceeds 10 parts per minute.
- When a part is in front of the Photo-Eye beam, the Conveyor Belt will move until the part is moved slightly past the Photo-Eye beam. If an adjustable gap is needed, a Timing Photo-Eye can be used.
- When conveyor belt stops, the motor continues to run but the clutch disengages and the brake engages. When the conveyor restarts, the clutch engages and the brake disengages.



1- Standard Photo-Eye (Infeed)
2- Jog Station
3- Impac 100
4- Clutch/Brake

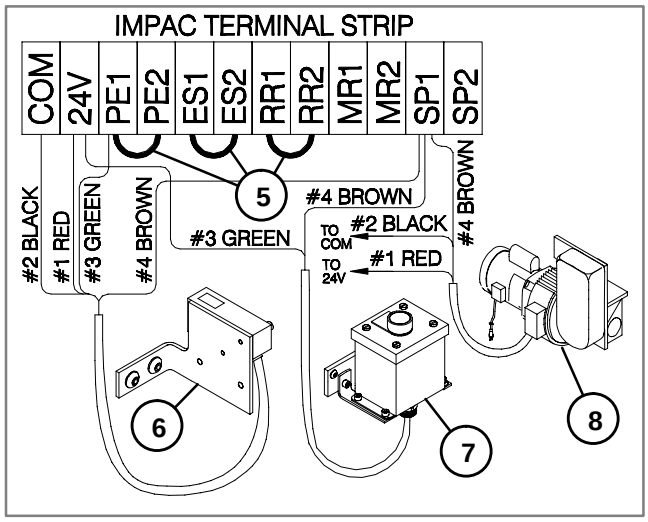
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Jog Kit or Foot Switch Kit (75-10 or 75-20)
1 Electric Clutch/Brake Kit (75-60)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Photo-Eye at the infeed end of the conveyor. Install the Jog Station or Foot Switch to ensure easy operator access. Install the Clutch/Brake on the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Photo-Eye to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal SP1.
  Wire #5 (Yellow) is not used and should be taped off.
- Connect the Jog Station to the Impac 100.
  Insert wire #3 (Green) into terminal 24V.
  Insert wire #4 (Brown) into terminal SP1.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be taped off.
- Connect the Clutch/Brake to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal SP1.
  Wires #3 & #5 (Green & White) are not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumper
6- Standard Photo-Eye (Infeed)
7- Jog Station
8- Clutch/Brake

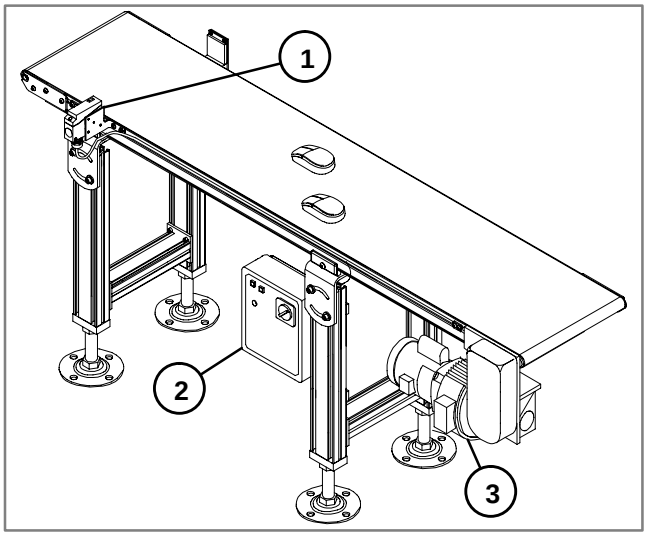
Figure 2

Conveyor Indexing with Adjustable Part Gap

The conveyor which is controlled by a Clutch/Brake is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. In addition, as each part passes the Photo-Eye beam a user adjustable part gap is created between each part. The conveyor belt stops, when the part passes the Photo-Eye beam and the time value set in the Timing Photo-Eye has expired. See Figure 1.

Application Notes

- The Clutch/Brake is used when the maximum part rate exceeds 10 parts per minute or the motor start/stop rate.
- The Photo-Eye is configured with the time-delay-off function. The delay time is set to achieve the desired part gap spacing. The timing function allows the conveyor to run after the part passes the Photo-Eye.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the larger the gap.
- When the conveyor belt stops, the motor continues to run but the clutch disengages and the brake engages. When the conveyor restarts, the clutch engages and the brake disengages.



1- Timing Photo-Eye (Infeed)
2- Impac 100
3- Clutch/Brake

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or Fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Electric Clutch/Brake Kit (75-60)

Setup and Test

- Install Impac 100.Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye at the infeed end of the conveyor. Install the Clutch/Brake on the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the Impac 100.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #3 (Green) into terminal 24V.

  Insert wire #4 (Brown) into terminal SP1.

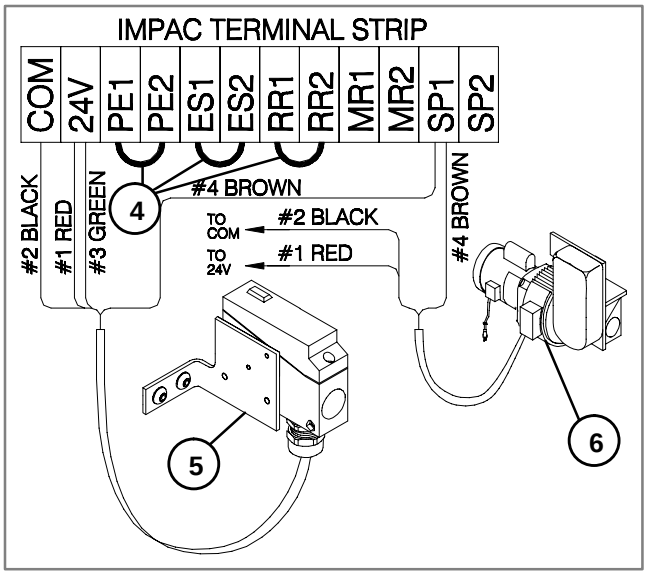
  Wire #5 (White) is not used and should be taped off.
- Connect the Clutch/Brake to the Impac 100.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal SP1.

  Wires #3 & #5 (Green & White) are not used and should be individually taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-off (Off Delay) function and the timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- Timing Photo-Eye (Infeed)
6- Clutch/Brake

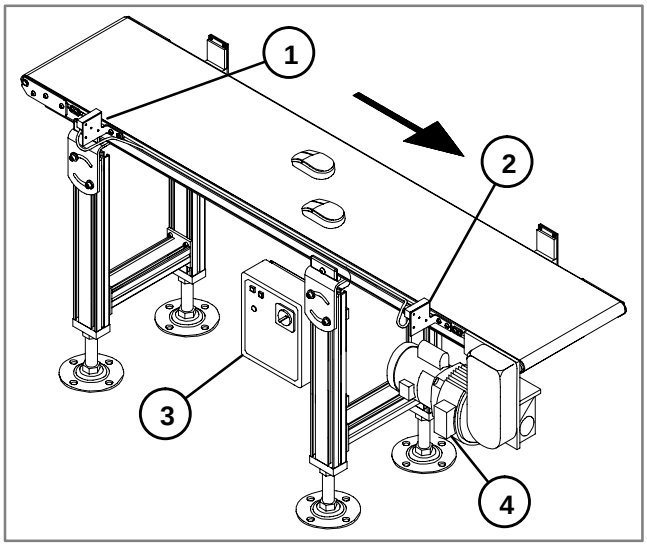
Figure 2

Conveyor Indexing with Conveyor End Stopping

The conveyor which is controlled by a Clutch/Brake is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. The conveyor stops when a part passes the infeed Photo-Eye beam. The conveyor will also stop if a part blocks the Photo-Eye at the discharge end of the conveyor. Figure 1.

Application Notes

- The Clutch/Brake is used when the maximum part rate exceeds 10 parts per minute or the motor start/stop rate.
- When a Part is in front of the Photo-Eye beam the Conveyor Belt will move until the part is moved slightly past the Photo-Eye beam. If an adjustable gap is needed, a Timing Photo-Eye can be used. (See Application number 15.5)
- When the conveyor belt stops the motor continues to run but the clutch disengages and the brake engages. When the conveyor restarts, the clutch engages and the brake disengages.
- When a part reaches the discharge end of the conveyor, the conveyor will not run until that part has been removed.



1- Infeed Photo-Eye
2- Discharge Photo-Eye
3- Impac 100
4- Clutch/Brake

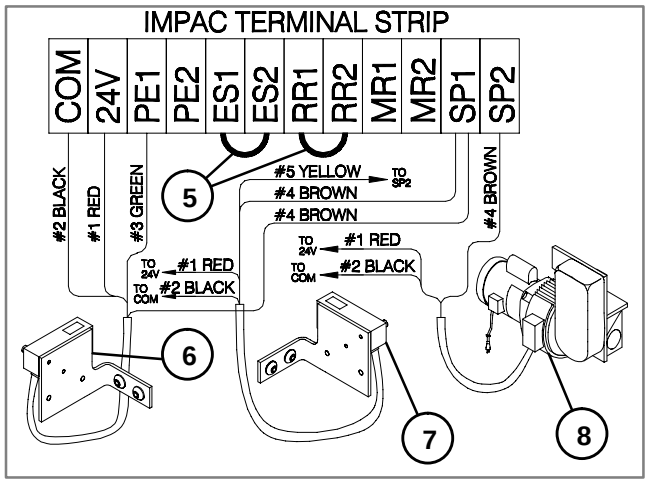
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
2 Adjustable or fixed mount Standard Photo-Eye Kits (75-30 or 75-31)
1 Electric Clutch/Brake Kit (75-60)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install Standard Photo-Eyes at the infeed and discharge ends of the conveyor. Install the Clutch/Brake on the conveyor. Use Figure 1 to aid in kit mounting locations. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the infeed Photo-Eye to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal SP1.
  Wire #5 (Yellow) is not used and should be taped off.
- Connect the discharge Photo-Eye to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal SP1.
  Insert wire #5 (Yellow) into terminal SP2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Clutch/Brake to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal SP2.
  Wires #3 & #5 (Green & White) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumpers
6- Infeed Photo-Eye
7- Discharge Photo-Eye
8- Clutch/Brake

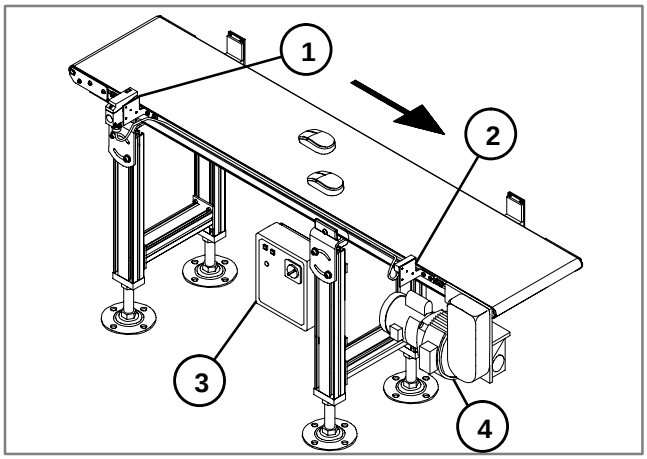
Figure 2

Conveyor Indexing with Adjustable Part Gap and Conveyor End Stopping

The conveyor which is controlled by a Clutch/Brake is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. In addition, as each part passes the Photo-Eye beam a user adjustable part gap is created between each part. The conveyor stops when the part passes the Photo-Eye beam and the time value set in the Timing Photo-Eye has expired. The conveyor will also stop if a part blocks the Photo-Eye at the discharge end of the conveyor and will not run until that part has been removed. See Figure 1.

Application Notes

- The Clutch/Brake is used when the maximum part rate exceeds 10 parts per minute or the motor start/stop rate.
- The Photo-Eye is configured with the time-delay-off function. The delay time is set to achieve the desired part gap spacing. The timing function allows the conveyor to run after the part passes the Photo-Eye.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the larger the gap.
- When conveyor belt stops, the motor continues to run but the clutch disengages and the brake engages. When conveyor restarts, the clutch engages and the brake disengages.



1- Timing Photo-Eye (Infeed)
2- Standard Photo-Eye (Discharge)
3- Impac 100
4- Clutch/Brake

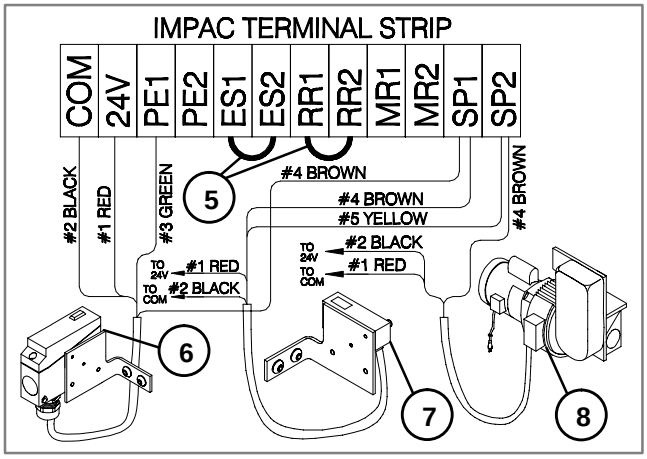
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Electric Clutch/Brake Kit (75-60)

Setup and Test

- Install Impac 100.Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye at the Infeed end of the conveyor, and the Standard Photo-Eye at the discharge end of the conveyor. Install the Clutch/Brake on the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal SP1.
  Wire #5 (White) is not used and should be taped off.
- Connect the Standard Photo-Eye to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal SP1.
  Insert wire #5 (Yellow) into terminal SP2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Clutch/Brake to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal SP2.
  Wires #3 & #5 (Green & White) are not used and should be individually taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-off function (Off Delay) and the timer value.
- Restore power to Impac 100 and test operation of conveyor.
- File a copy of this application inside Impac 100 Controller.



5- Jumpers
6- Timing Photo-Eye (Infeed)
7- Standard Photo-Eye (Discharge)
8- Clutch/Brake

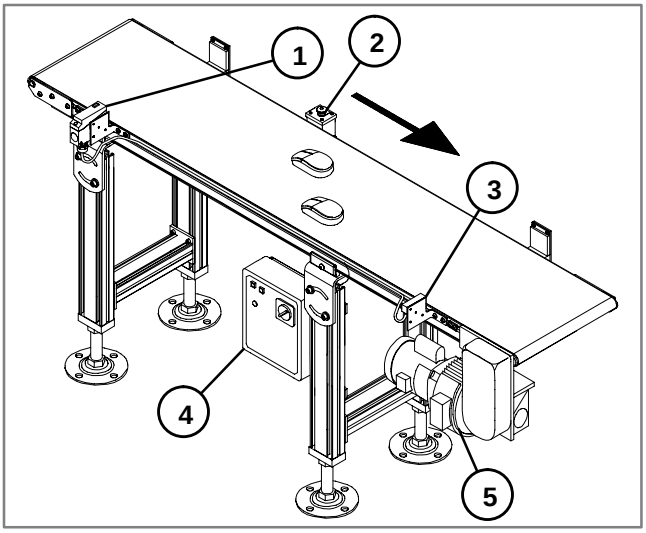
Figure 2

Conveyor Indexing with Adjustable Part Gap, Conveyor End Stopping and Non-illuminated Emergency Stop Station or Pull-Cord

The conveyor is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. In addition, as each part enters the conveyor, a user adjustable part gap is created between each part. The conveyor stops when the part passes the Photo-Eye beam and the time value set in the Timing Photo-Eye has expired. The conveyor will also stop if a part reaches the end of the conveyor or the Emergency Stop Station or Pull-Cord is activated. When a part reaches the end stop of the conveyor, the conveyor will not run until that part has been removed. See Figure 1. Conveyor also will not run until the Emergency Stop Station or Pull-Cord is reset.

Application Notes

- The Photo-Eye is configured with the time-delay-off function. The delay time is set to achieve the desired part gap spacing. The timing function allows the conveyor to run after the part passes the Photo-Eye.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the larger the gap.
- The conveyor stops when the part passes Photo-Eye beam and the time value set in the Timing Photo-Eye has expired.
- When conveyor belt stops, the motor continues to run but the clutch disengages and the brake engages. When conveyor restarts, the clutch engages and the brake disengages.
- If the Emergency Stop Station or Pull-Cord is activated, the Clutch/Brake disengages and power to the motor is stopped.



1- Timing Photo-Eye (Infeed)
2- Non-illuminated Emergency Stop Station
3- Standard Photo-Eye (Discharge)
4- Impac 100 Controller
5- Clutch/Brake

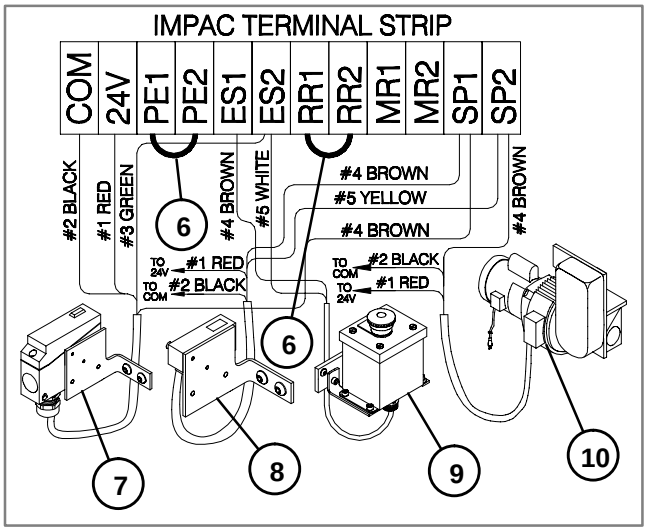
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Non-illuminated Emergency Stop Kit or Pull-Cord (75-41 or 75-42)
1 Electric Clutch/Brake Kit (75-60)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye near the infeed of the conveyor, and the Standard Photo-Eye near the discharge of the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the last Impac 100.
  - Insert wire #1 (Red) into terminal 24V.
  - Insert wire #2 (Black) into terminal COM.
  - Insert wire #3 (Green) into terminal ES2.
  - Insert wire #4 (Brown) into terminal SP1.
  - Wire #5 (White) is not used and should be taped off.
- Connect the Standard Photo-Eye to the last Impac 100.
  - Insert wire #1 (Red) into terminal 24V.
  - Insert wire #2 (Black) into terminal COM.
  - Insert wire #4 (Brown) into terminal SP1.
  - Insert wire #5 (Yellow) into terminal SP2.
  - Wire #3 (Green) is not used and should be taped off.
- Connect the Emergency Stop Station or Pull-Cord to the Impac 100.
  - Remove jumper between terminals ES1 & ES2.
  - Insert wire #4 (Brown) into terminal ES1.
  - Insert wire #5 (White) into terminal ES2.
  - Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Connect the Clutch/Brake to the Impac 100.
  - Insert wire #1 (Red) into terminal 24V.
  - Insert wire #2 (Black) into terminal COM.
  - Insert wire #4 (Brown) into terminal SP2.
  - Wire #3 & #5 (Green & White) is not used and should be taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-on function (On Delay) and the timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



6- Jumpers
7- Timing Photo-Eye (Infeed)
8- Standard Photo-Eye (Discharge)
9- Non-illuminated Emergency Stop Station
10- Clutch/Brake

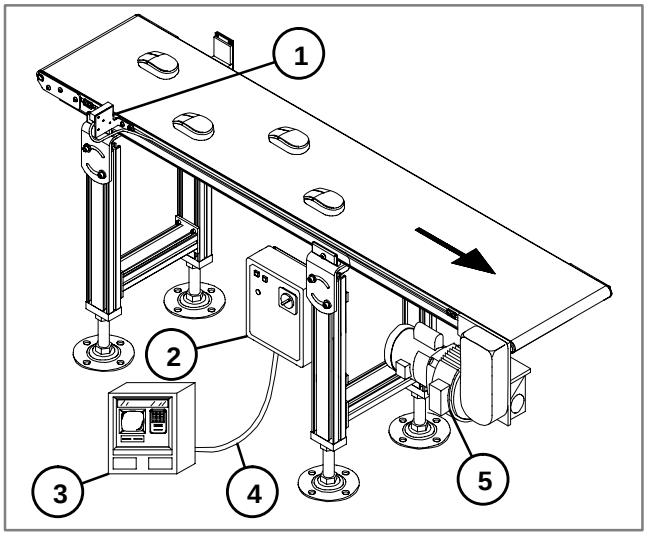
Figure 2

Conveyor Indexing with Override Signal from PLC or Machine Controller

The conveyor is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. In addition, the conveyor may be overridden or purged with a signal from a PLC or Machine Controller. See Figure 1.

Application Notes

- When a part passes the infeed Photo-eye the conveyor will stop. The conveyor moves slightly more than a part length. If an adjustable gap is needed, a Timing Photo-Eye can be used.
- When conveyor belt stops, the motor continues to run but the clutch disengages and the brake engages. When conveyor restarts, the clutch engages and the brake disengages.



1- Standard Photo-Eye (Infeed)
2- Impac 100
3- PLC or Machine Controller
4- Linking Cable
5- Clutch/Brake

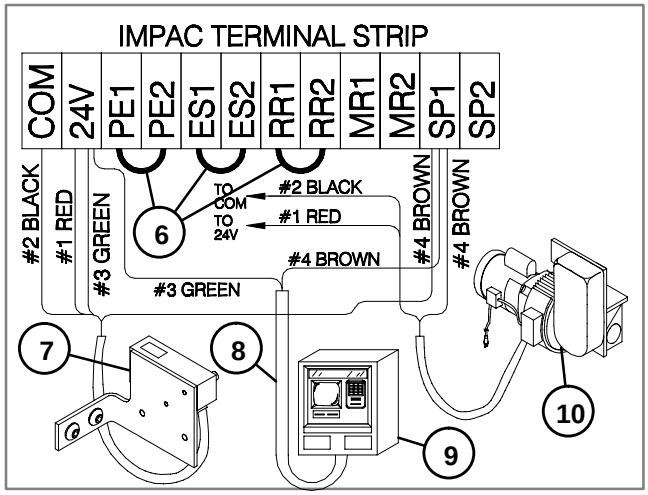
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Linking Cable Kit (75-80)
1 Electric Clutch/Brake (75-60)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Standard Photo–Eye at the infeed end of the conveyor. Install the Clutch/Brake on the conveyor. Connect the Linking Cable Kit to the Impac 100 and the override or purge signal of the PLC or Machine Control. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Standard Photo-Eye to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal 24V.
  Insert wire #4 (Brown) into terminal SE1.
  Wire #5 (Yellow) is not used and should be taped off.
- Connect the Linking Cable Kit to the Impac 100.
  Insert wire #3 (Green) into terminal 24V.
  Insert wire #4 (Brown) into terminal SP1.
  Wires #1, #2 & #5 (Red, Black & White) are not used and should be taped off.
- Connect the Clutch/Brake to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal SP1.
  Wire #3 & #5 (Green & White) is not used and should be taped off.
- Connect Linking Cable to the PLC or Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from Linking Cable to the PLC or Machine Controller dry contact terminals (contacts must close to run).
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



6- Jumpers
7- Standard Photo-Eye (Infeed)
8- Linking Cable
9- PLC or Machine Controller
10- Clutch/Brake

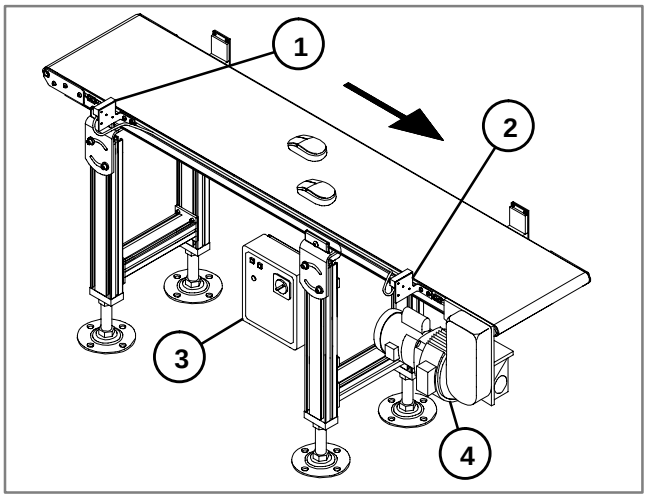
Figure 2

Conveyor Indexing to End of Conveyor with Conveyor End Stopping

The conveyor is normally stopped and runs only when a part blocks the beam of the Photo-Eye located at the infeed end of the conveyor. The conveyor will run until that part has reached the discharge end Photo-Eye. The conveyor will not start again until the part that is blocking the discharge end Stop Photo-Eye has been removed. See Figure 1.

Application Notes

- When conveyor belt stops, the motor continues to run but the clutch disengages and the brake engages. When conveyor restarts, the clutch engages and the brake disengages.



1- Infeed Photo-Eye
2- Discharge Photo-Eye
3- Impac 100
4- Clutch/Brake

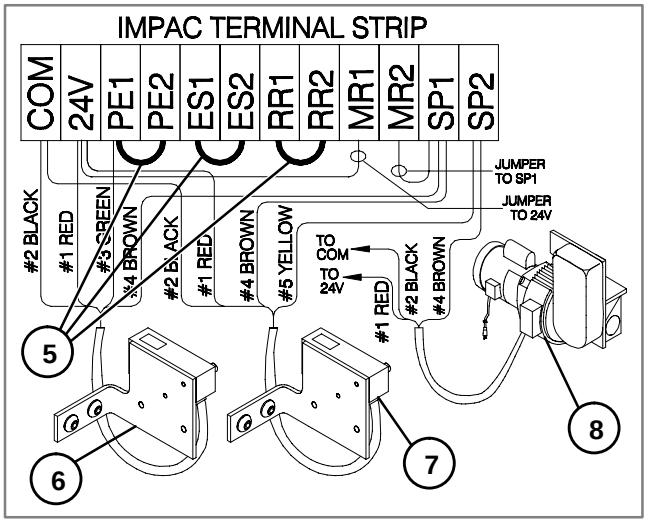
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
2 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Electric Clutch/Brake Kit (75-60)

Setup and Test

- Install Impac 100.Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Standard Photo-Eyes at the infeed and discharge ends of the conveyor. Install the Clutch/Brake on the conveyor. Use Figure 1 to aid in kit mounting locations. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Infeed Photo-Eye to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #3 (Green) into terminal PE1.
  Insert wire #4 (Brown) into terminal SP1.
  Wire #5 (Yellow) is not used and should be taped off.
- Connect the Discharge Photo-Eye to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal SP1.
  Insert wire #5 (Yellow) into terminal SP2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Clutch/Brake to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal SP2.
  Wire #3 & #5 (Green & White) is not used and should be taped off.
- Install (customer supplied) Jumpers between MR1 & 24V and MR2 & SP1. The jumper must be 18 AWG wire.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

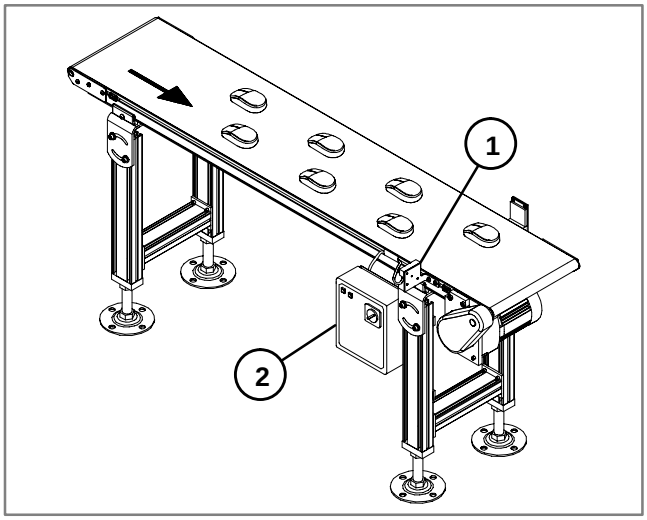


5- Jumpers
6- Infeed Photo-Eye
7- Discharge Photo-Eye
8- Clutch/Brake

Figure 2

Conveyor End Stopping

The conveyor is normally running and stops only when a part blocks the Photo-Eye at the discharge end of the conveyor. The conveyor will not restart until the part has been removed from the end of the conveyor. See Figure 1.



1- Standard Photo-Eye (Discharge)
2- Impac 100

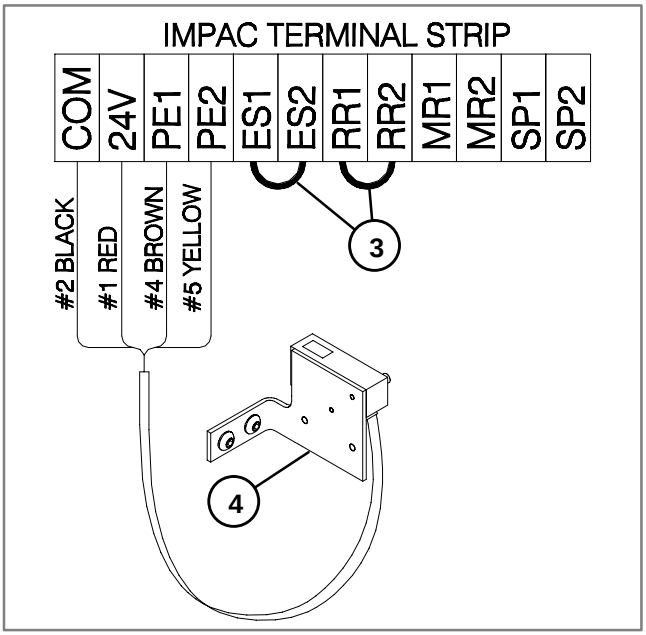
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install Photo-Eye near the discharge end of the conveyor. Exact position may vary depending on length of part and speed of the conveyor. Use Figure 1 to aid in kit mounting location. For additional information, on mounting see Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.



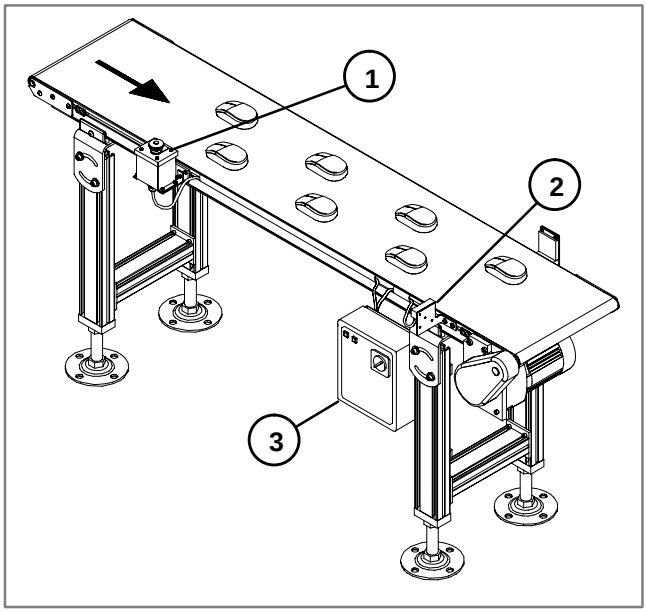
3- Jumpers
4- Standard Photo-Eye (Discharge)

Figure 2

- Connect the Photo-Eye to the last Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

Conveyor End Stopping with Non-illuminated Emergency Stop Control

The conveyor is normally running and stops only when a part blocks the Photo-Eye at the discharge end of the conveyor. The conveyor will not restart until the part has been removed from the end of the conveyor. In addition, the conveyor can be stopped by activating the Emergency Stop Station or Pull-Cord. The conveyor restarts when the operator resets the Emergency Stop Station or Pull-Cord. See Figure 1.



1- Emergency Stop Station
2- Standard Photo-Eye (Discharge)
3- Impac 100

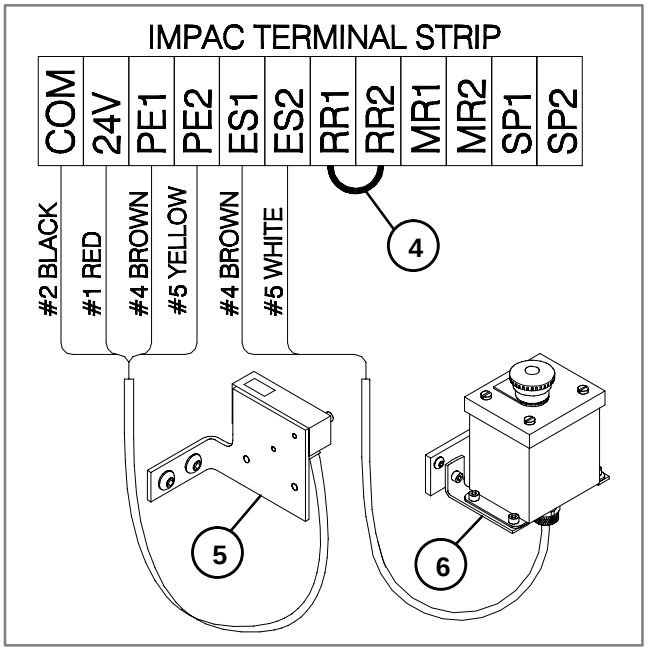
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Non-illuminated Emergency Stop Station or Pull-Cord Kit (75-41 or 75-42)

Setup and Test

- Install Impac 100.Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Photo-Eye near the discharge end of the conveyor. Exact position may vary depending on length of part and speed of the conveyor. Install the Emergency Stop Station or Pull-Cord to ensure easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Emergency Stop Station or Pull-Cord to the Impac 100.
  Remove jumper between terminals ES1 & ES2.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

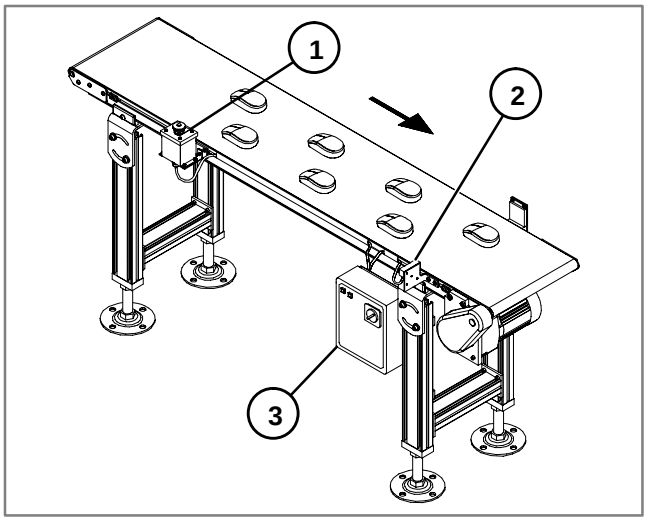


4- Jumper
5- Standard Photo-Eye (Discharge)
6- Non-illuminated Emergency Stop Station

Figure 2

Conveyor End Stopping with Illuminated Emergency Stop Station

The conveyor is normally running and stops only when a part blocks the Photo-Eye at the discharge end of the conveyor. The conveyor will not restart until the part has been removed from the end of the conveyor. In addition, the conveyor can be stopped by activating the Emergency Stop Station. The Conveyor restarts when the operator resets the Emergency Stop Station. When the Emergency Stop Station is activated it will be illuminated. See Figure 1.



1- Illuminated Emergency Stop Station
2- Standard Photo-Eye (Discharge)
3- Impac 100

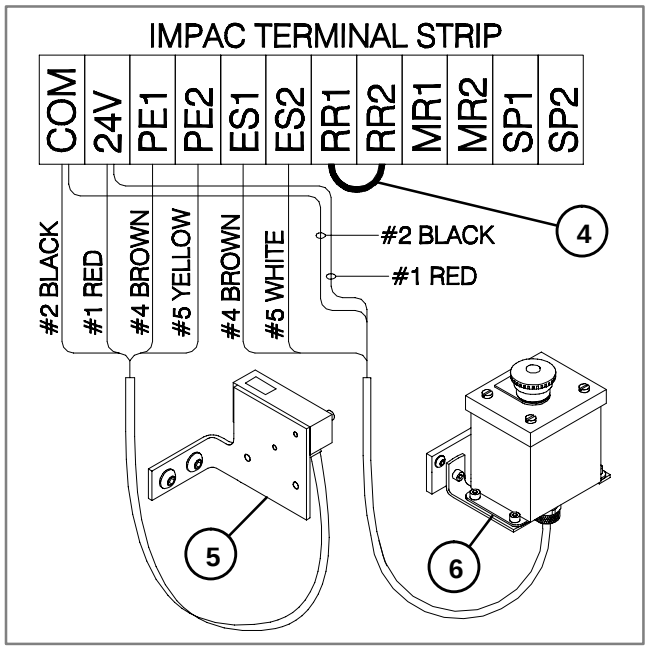
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Illuminated Emergency Stop Station (75-40)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install Photo-Eye near the discharge end of the conveyor. Exact position may vary depending on length of part and speed of the conveyor. Install the Illuminated Emergency Stop Station to ensure easy operator access. Use Figure 1 to aid in kit mounting location. For additional information, on mounting see Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Illuminated Emergency Stop Station to the Impac 100.
  Remove jumper between terminals ES1 & ES2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wires #3 (Green) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumper
5- Standard Photo-Eye (Discharge)
6- Illuminated Emergency Stop Station

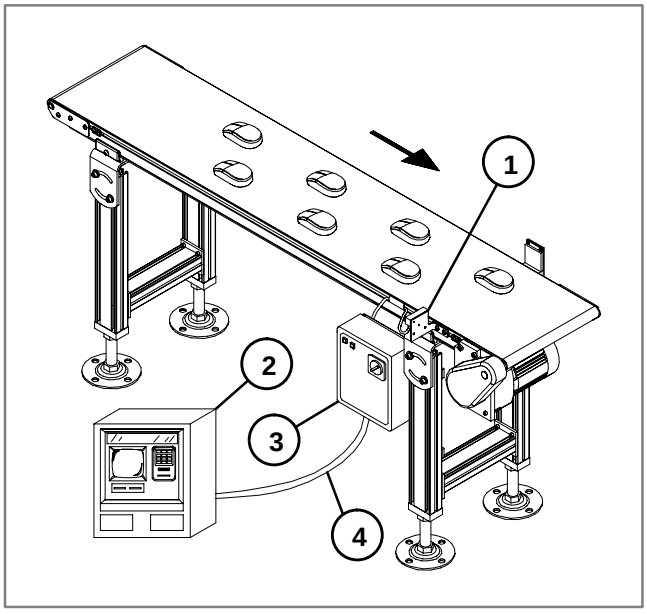
Figure 2

Conveyor End Stopping with Override Control from PLC or Machine Controller

The conveyor is normally running and stops only when a part blocks the Photo-Eye at the discharge end of the conveyor. The conveyor will not restart until the part has been removed from the end of the conveyor. In addition, the conveyor can be overridden or purged by a signal from a PLC or Machine Controller. See Figure 1.

Application Notes

- The signal from the PLC or Machine Controller must be a dry contact and the Linking Cable Kit wired across it.



1- Standard Photo-Eye (Discharge)
2- PLC or Machine Controller
3- Impac 100
4- Linking Cable

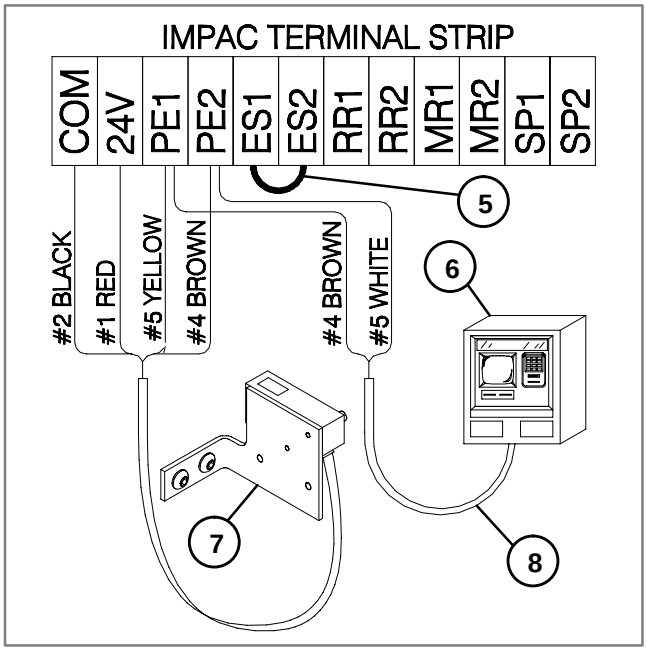
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Linking Cable Kit (75-80)

Setup and Test

- Install Impac 100.Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Photo-Eye near the discharge end of the conveyor. Exact position may vary depending on length of part and speed of the conveyor. Connect the Linking Cable Kit to the Impac 100 and the override or purge signal of the PLC or Machine Controller. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #5 (Yellow) into terminal PE1.
  Insert wire #4 (Brown) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Linking Cable Kit to the Impac 100.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (White) into terminal PE2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Connect the Linking Cable to the PLC or Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller dry contact terminals (contacts must close to run).
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumper
6- PLC or Machine Controller
7- Standard Photo-Eye (Discharge)
8- Linking Cable

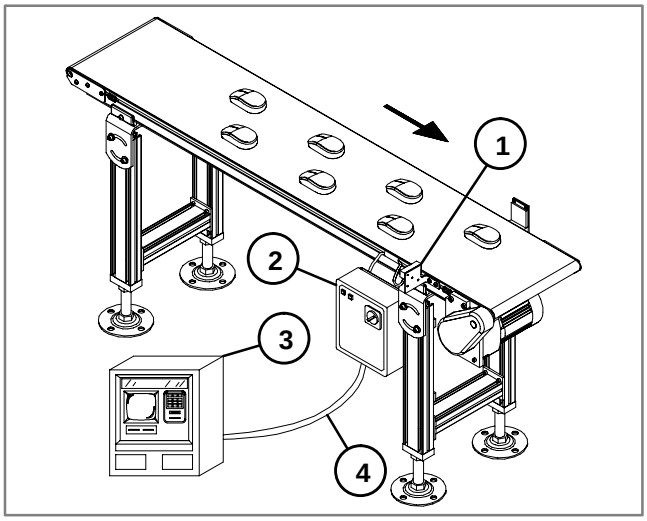
Figure 2

Conveyor End Stopping with Stop Control from PLC or Machine Controller

The conveyor is normally running and stops only when a part blocks the Photo-Eye at the discharge end of the conveyor. The conveyor will not restart until the part has been removed from the end of the conveyor. In addition, the conveyor can be stopped by a signal from a PLC or Machine Controller. The conveyor starts when the PLC or Machine Controller resets the stop signal. See Figure 1.

Application Notes

- The signal from the PLC or Machine Control must be a dry contact. The contact must be closed for the conveyor to run.



1- Standard Photo-Eye (Discharge)
2- Impac 100
3- PLC or Machine Controller
4- Linking Cable

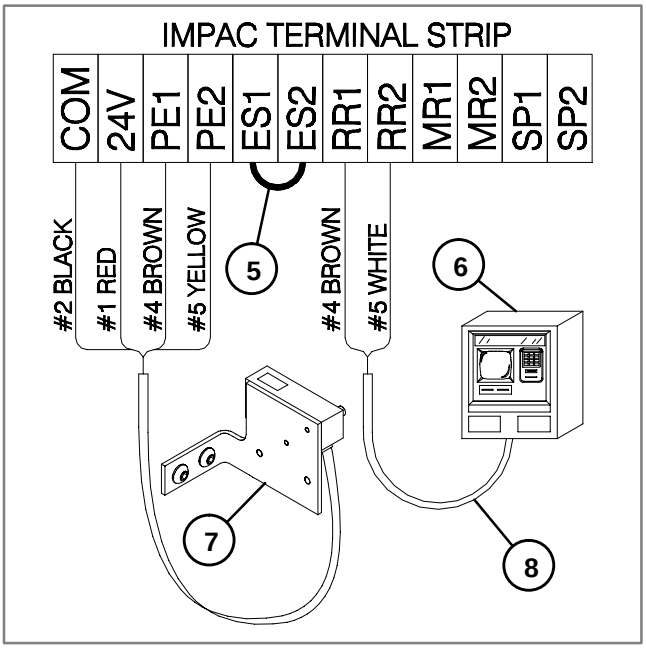
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Linking Cable Kit (75-80)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install Photo-Eye near the discharge end of the conveyor. Exact position may vary depending on length of part and speed of the conveyor. Connect the Linking Cable Kit to the Impac 100 and the external stop signal of the PLC or Machine Controller. Use Figure 1 to aid in kit mounting location. For additional information, on mounting see Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Linking Cable to the Impac 100.
  Remove jumper between terminals RR1 & RR2.
  Insert wire #4 (Brown) into terminal RR1.
  Insert wire #5 (White) into terminal RR2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Connect the Linking Cable to the PLC or Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller dry contact terminals (contacts must close to run).
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumper
6- PLC or Machine Controller
7- Standard Photo-Eye (Discharge)
8- Linking Cable

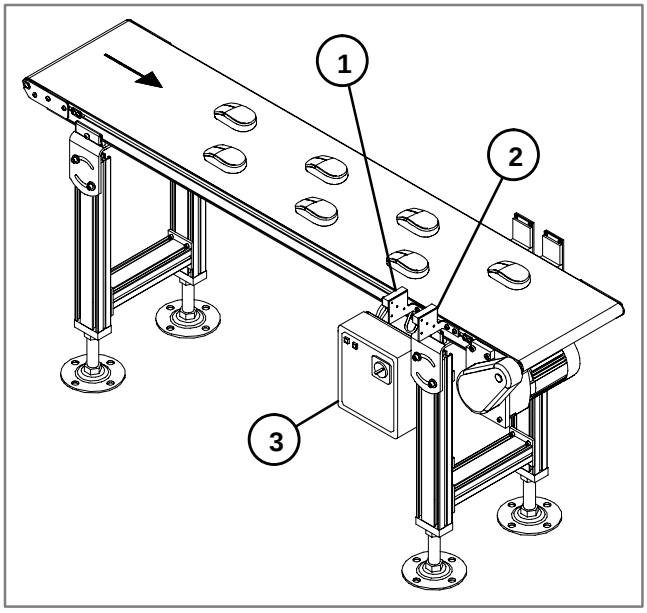
Figure 2

Conveyor End Stopping for Small Parts that Pass Sensor Before Conveyor Stops

The conveyor is normally running and stops only when a part blocks the Photo-Eye at the discharge end of the conveyor. The conveyor will not restart until the part has been removed from the end of the conveyor. See Figure 1.

Application Notes

- The Photo-Eyes must bet setup so if a part coasts through the first Photo-Eye Beam that it will not coast through the second.
- The Photo-Eyes must be close enough so that the part will block both Photo-Eyes at the same time.



1- First Photo-Eye (Discharge)
2- Second Photo-Eye (Discharge)
3- Impac 100

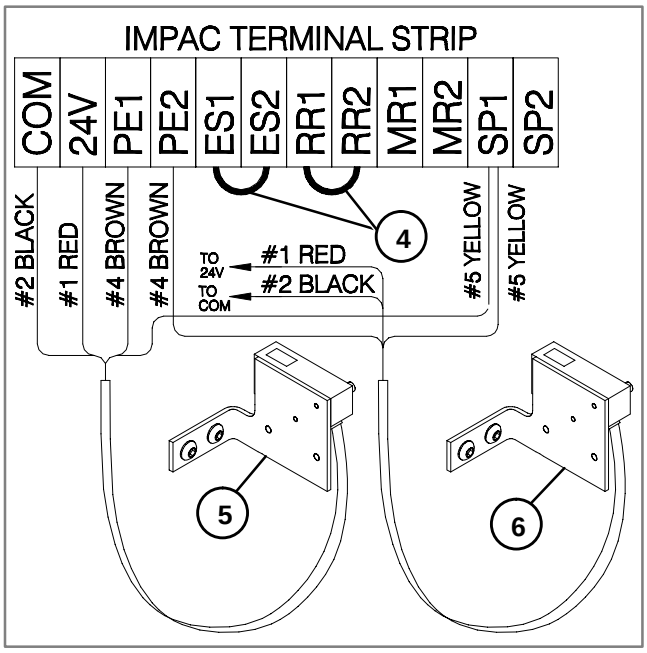
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)

Setup and Test

- Install Impac 100.Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Photo-Eyes near the discharge end of the conveyor. Exact position may vary depending on length of part and speed of the conveyor. See application notes for special considerations. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the first Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal SP1.
  Wire #3 (Green) is not used and should be taped off.
- Connect the second Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE2.
  Insert wire #5 (Yellow) into terminal SP1.
  Wire #3 (Green) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

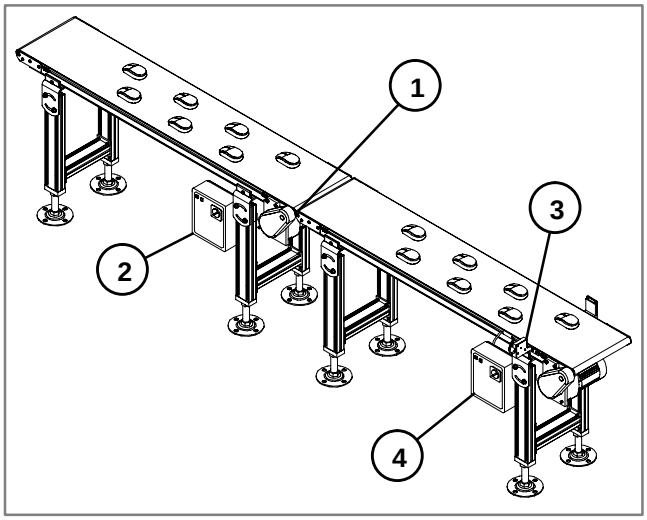


4- Jumpers
5- First Photo-Eye (Discharge)
6- Second Photo-Eye (Discharge)

Figure 2

Conveyor End Stopping with Two Conveyors

The conveyors are normally running and stop only when a part blocks the Photo-Eye at the discharge end of the last conveyor. The conveyors will not restart until the part has been removed from the end of the last conveyor. See Figure 1.



1- Linking Cable
2- Next to Last Impac 100
3- Standard Photo-Eye (Discharge)
4- Last Impac 100

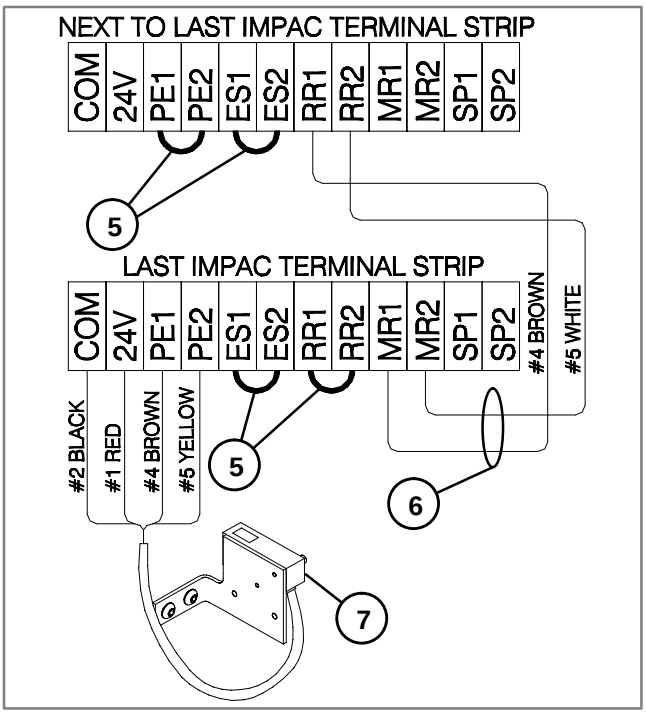
Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controllers (matched to your motors)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Linking Cable Kit (75-80)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install Photo-Eye near the discharge end of the last conveyor. Exact position may vary depending on length of part and speed of the conveyor. Use Figure 1 to aid in kit mounting location. For additional information, on mounting see Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Photo-Eye to the last Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Linking Cable to the last and the next to last Impac 100 Controllers. At the last Impac 100:
  Insert wire #5 (White) into terminal MR1.
  Insert wire #4 (Brown) into terminal MR2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- At the next to last Impac 100:
  Remove jumper between terminals RR1 & RR2.
  Insert wire #5 (White) into terminal RR1.
  Insert wire #4 (Brown) into terminal RR2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumpers
6- Linking Cable
7- Standard Photo-Eye (Discharge)

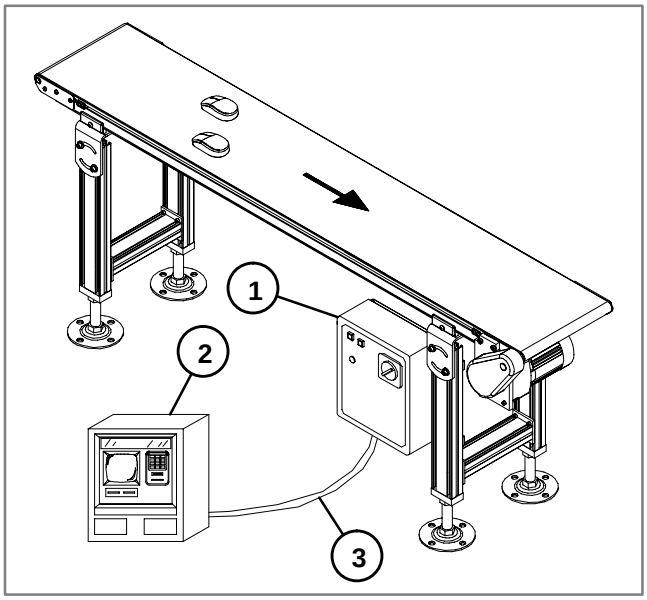
Figure 2

Conveyor Controlled by Signal from PLC or Machine Controller

The conveyor runs only when a signal from a PLC or Machine Controller is present. The conveyor stops when their is no signal from the PLC or Machine Controller. See Figure 1.

Application Notes

- The signal from the PLC or Machine Controller must be a dry contact.



1- Impac 100
2- PLC or Machine Controller
3- Linking Cable

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Linking Cable Kit (75-80)

Setup and Test

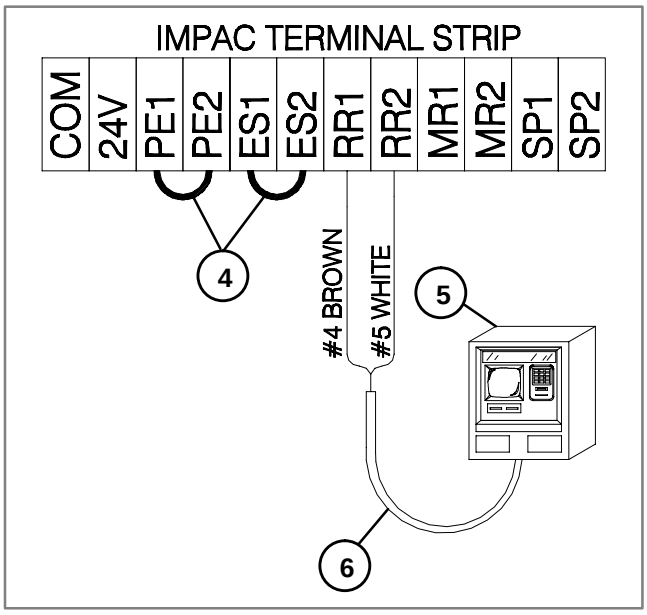
- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Linking Cable Kit to the Impac 100 and the PLC or Process Machine. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Linking Cable to the Impac 100.

  Remove jumper between terminals RR1 & RR2.

  Insert wire #4 (Brown) into terminal RR1.

  Insert wire #5 (White) into terminal RR2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Connect the Linking Cable to the PLC or Process Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller dry contact terminals (contacts must close to run).
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- PLC or Machine Controller
6- Linking Cable

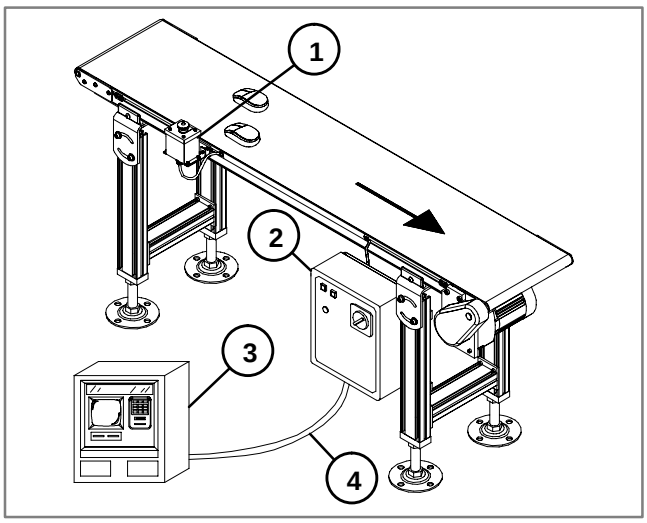
Figure 2

Conveyor Controlled by Signal from PLC or Machine Controller with Non-illuminated Emergency Stop Control

The conveyor runs only when a signal from a PLC or Machine Controller is present. The conveyor is stopped when their is no signal from the PLC or Machine Controller. The conveyor will also stop if the Emergency Stop Station or Pull-Cord is activated. The conveyor will not restart until the Emergency Stop Station or Pull-Cord is reset. See Figure 1.

Application Notes

- The signal from the PLC or Machine Controller must be a dry contact.



1- Emergency Stop Station
2- Impac 100
3- PLC or Machine Controller
4- Linking Cable

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Linking Cable Kit (75-80)
1 Non-illuminated Emergency Stop Station Or Pull-Cord Kit (75-40 or 75-42)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Emergency Stop Station or Pull-Cord Kit to the desired location on the conveyor and ensure that it provides easy operator access. Install the Linking Cable Kit to the Impac 100 and the PLC or Machine Controller. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Emergency Stop Station or Pull-Cord Kit to the Impac 100.

  Remove jumper between terminals ES1 & ES2.

  Insert wire #4 (Brown) into terminal ES1.

  Insert wire #5 (White) into terminal ES2.

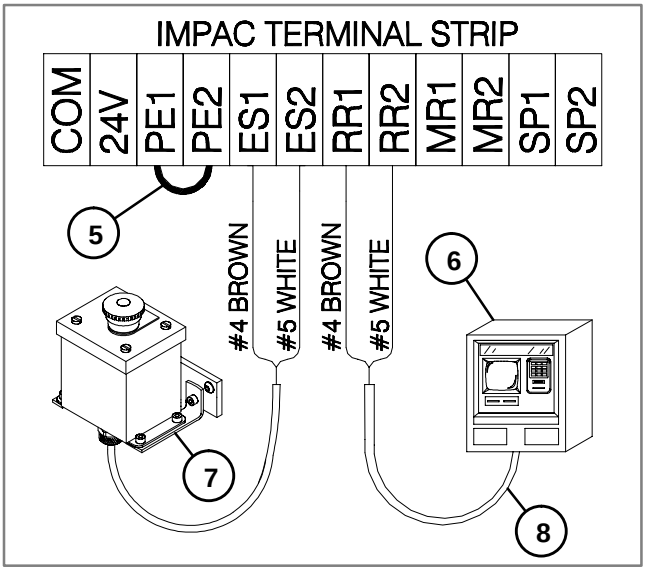
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be taped off.
- Connect the Linking Cable Kit to the Impac 100.

  Remove jumper between terminals RR1 and RR2.

  Insert wire #4 (Brown) into terminal RR1.

  Insert wire #5 (White) into terminal RR2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be taped off.
- Connect the Linking Cable to the PLC Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller dry contact terminals (contacts must close to run).
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumper
6- PLC or Machine Controller
7- Non-illuminated Emergency Stop Station
8- Linking Cable

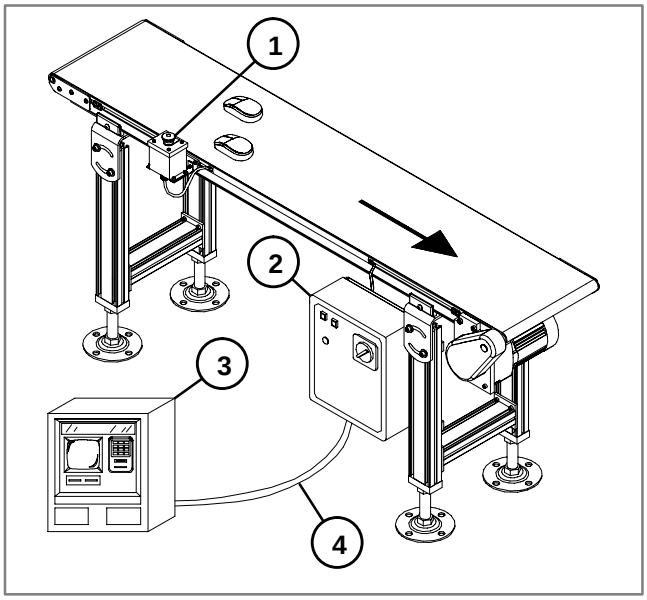
Figure 2

Conveyor Controlled by Signal from PLC or Machine Controller with an Illuminated Emergency Stop Control

The conveyor runs only when a signal from a PLC or Machine Controller is present. The conveyor stops when their is no signal from the PLC or Machine Controller. The conveyor will also stop if the Emergency Stop Station is activated. When the Emergency Stop Station is activated it will be illuminated. If the conveyor is stopped with the Emergency Stop Station, the conveyor will not start again until the Emergency Stop Station is reset. See Figure 1.

Application Notes

- The signal from the PLC or Machine Controller must be a dry contact.



1- Illuminated Emergency Stop Station
2- Impac 100
3- PLC or Machine Controller
4- Linking Cable

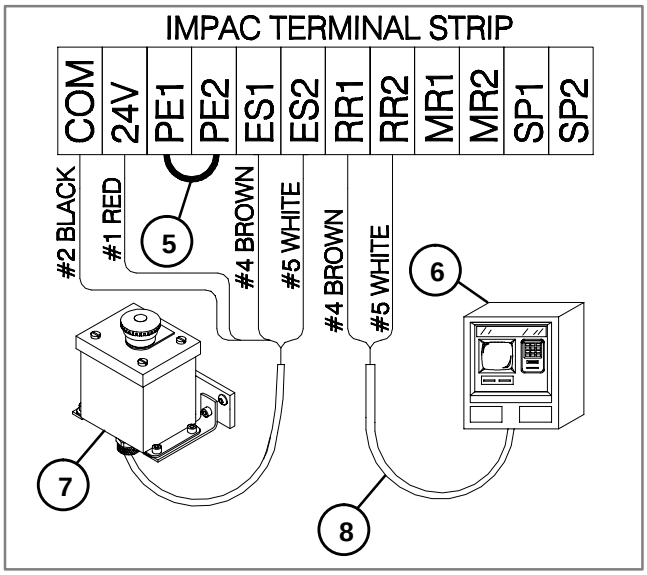
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Linking Cable Kit (75-80)
1 Illuminated Emergency Stop Kit (75-40)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Emergency Stop Station to the desired location on the conveyor and ensure that it provides easy operator access. Install the Linking Cable Kit to the Impac 100 and the PLC or Machine Controller. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Emergency Stop Station to the Impac 100.
  Remove jumper between terminals ES1 and ES2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Linking Cable to the Impac 100.
  Remove jumper between terminals RR1 & RR2.
  Insert wire #4 (Brown) into terminal RR1.
  Insert wire #5 (White) into terminal RR2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Connect the Linking Cable to the PLC or Process Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller dry contact terminals.(contacts must close to run).
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumper
6- PLC or Machine Controller
7- Illuminated Emergency Stop Station
8- Linking Cable

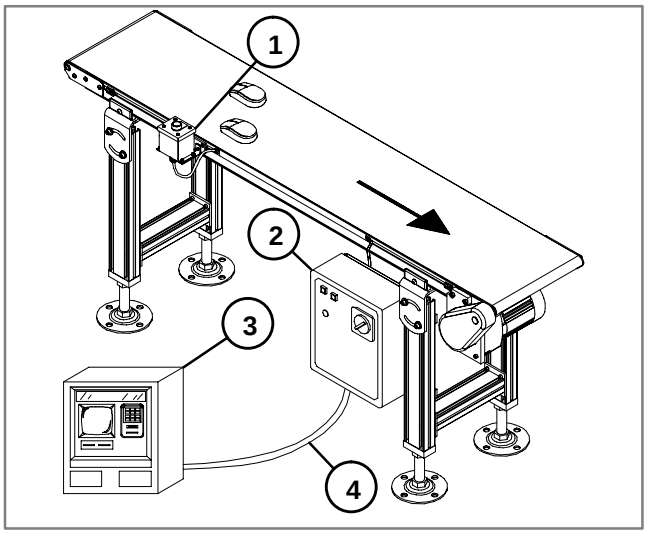
Figure 2

Conveyor Controlled by Signal from PLC or Machine Controller with Jog Override Control

The conveyor runs only when a signal from a PLC or Machine Controller is present. The conveyor stops when there is no signal from the PLC or Machine Controller. The conveyor will also run if the Jog Station or Foot Switch is activated. The conveyor will run until the Jog Station or Foot Switch is deactivated. See Figure 1.

Application Notes

- The signal from the PLC or Machine Controller must be a dry contact.



1- Jog Station
2- Impac 100
3- PLC or Machine Controller
4- Linking Cable

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Linking Cable Kit (75-80)
1 Jog Kit or Foot Switch Kit (75-10 or 75-20)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Jog Station or Foot Switch to the desired location on the conveyor and ensure that it provides easy operator access. Install the Linking Cable Kit to the Impac 100 and the PLC or Machine Controller. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Jog Station or Foot Switch to the Impac 100.

  Remove jumper between terminals RR1 and RR2.

  Insert wire #3 (Green) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

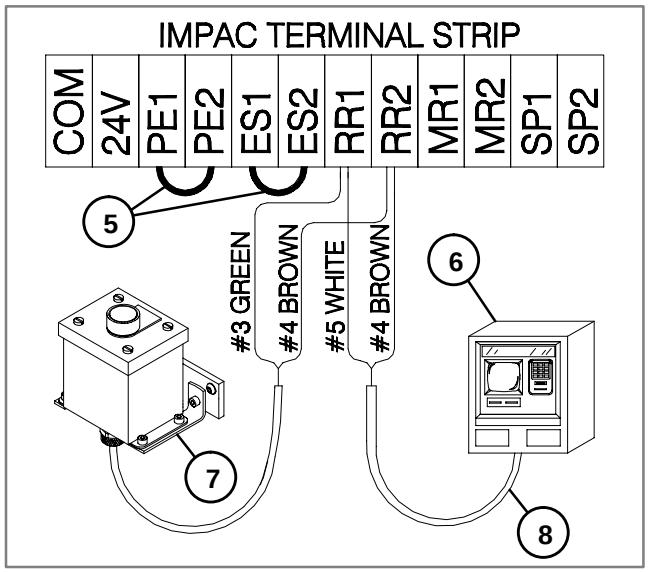
  Wires #1, #2 & #5 (Red, Black & White) are not used and should be individually taped off.
- Connect the Linking Cable Kit to the Impac 100.

  Remove jumper between terminals RR1 and RR2.

  Insert wire #4 (Brown) into terminal RR1.

  Insert wire #5 (White) into terminal RR2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be taped off.
- Connect the Linking Cable to the PLC Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller dry contact terminals (contacts must close to run).
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumpers
6- PLC or Machine Controller
7- Jog Station
8- Linking Cable

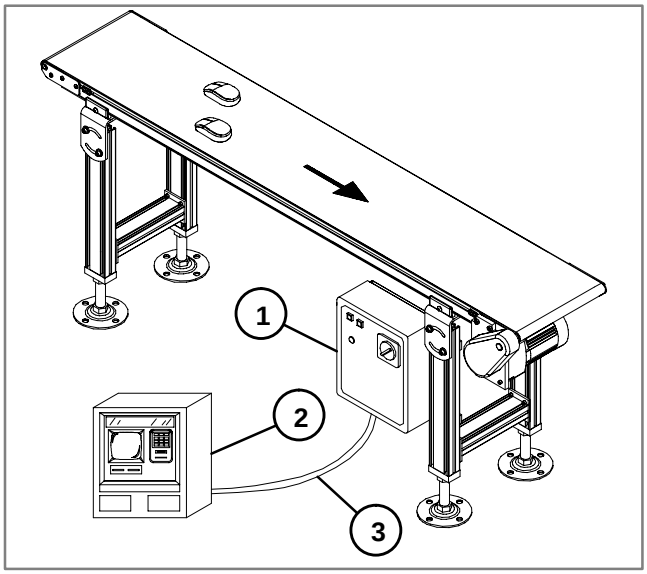
Figure 2

Conveyor Running Status to PLC or Machine Controller

The conveyor is running and sends a signal to the PLC or Machine Controller. The signal is removed if the motor stops running for any reason. See Figure 1.

Application Notes

- The signal from the Impac 100 is a closed set of contacts whenever the motor is running, the contacts will open if the motor stops running for any reason.



1- Impac 100
2- PLC or Machine Controller
3- Linking Cable

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Linking Cable Kit (75-80)

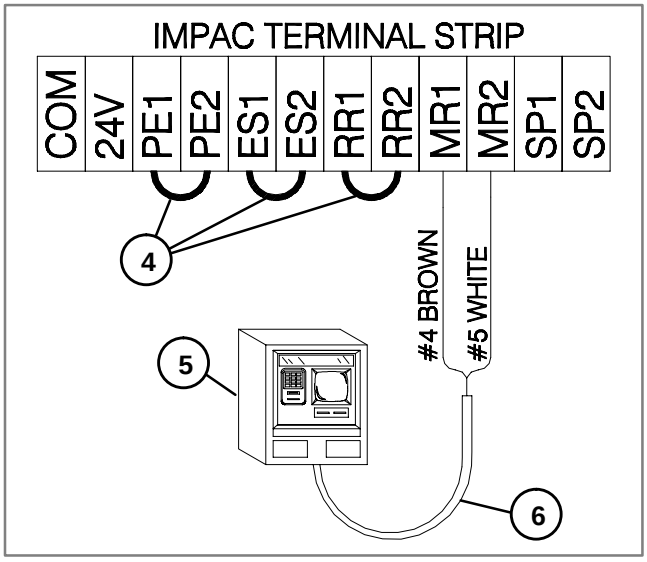
Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Linking Cable Kit to the Impac 100 and the PLC or Machine Controller. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Linking Cable to the Impac 100.

  Insert wire #4 (Brown) into terminal MR1.

  Insert wire #5 (White) into terminal MR2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Connect the Linking Cable to the PLC or Process Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller dry contact terminals. (Contacts must close to run).
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- PLC or Machine Controller
6- Linking Cable

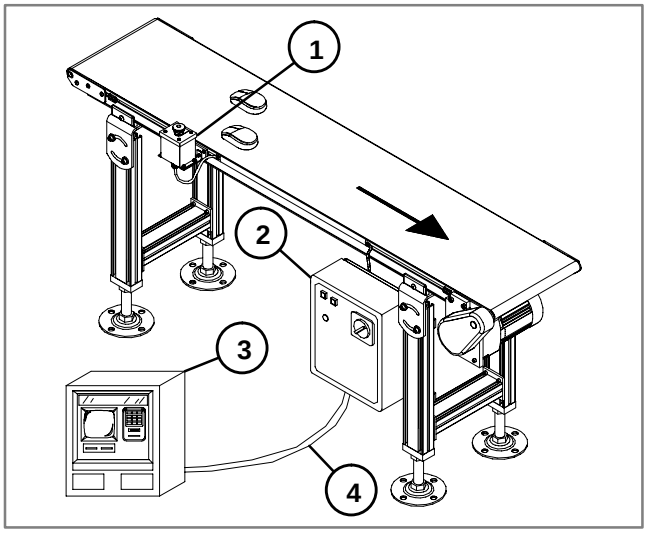
Figure 2

Conveyor Running Status to PLC or Machine Controller with Non-illuminated Emergency Stop Control

The conveyor is running and sends a signal to the PLC or Machine Controller. The signal is removed if the motor stops running for any reason. The conveyor can be stopped by using either the Emergency Stop Station or Pull-Cord. Figure 1.

Application Notes

- The signal from the Impac 100 is a closed set of contacts whenever the motor is running, the contacts will open if the motor stops running for any reason.
- When the Emergency Stop Station or Pull-Cord is activated the signal to the PLC or Machine Control will be lost.



1- Emergency Stop Station
2- Impac 100
3- PLC or Machine Controller
4- Linking Cable

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Linking Cable Kit (75-80)
1 Non-illuminated Emergency Stop Station or Pull-Cord Kit (75-41 or 75-42)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Linking Cable Kit to the Impac 100 and the PLC or Machine Controller. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Emergency Stop Station or Pull-Cord to the Impac 100.

  Remove jumper between terminals ES1 and ES2.

  Insert wire #4 (Brown) into terminal ES1.

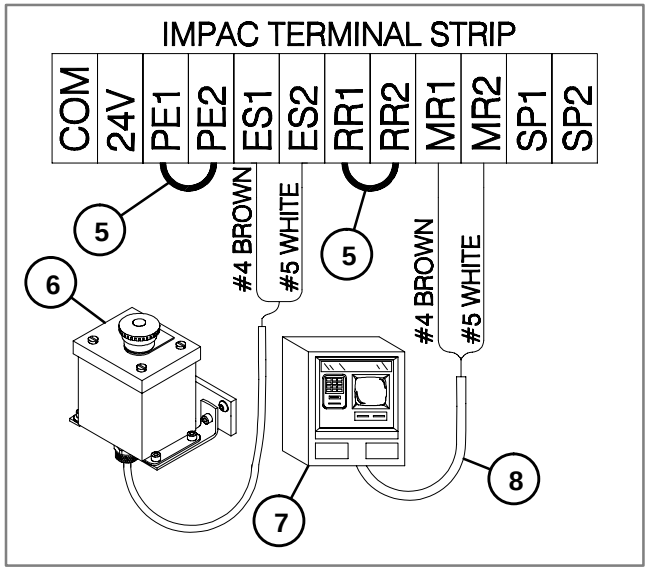
  Insert wire #5 (White) into terminal ES2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Connect the Linking Cable Kit to the Impac 100.

  Insert wire #4 (Brown) into terminal MR1.

  Insert wire #5 (White) into terminal MR2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be taped off.
- Connect the Linking Cable to the PLC Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller dry contact terminals.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumpers
6- Non-illuminated Emergency Stop Station
7- PLC or Machine Controller
8- Linking Cable

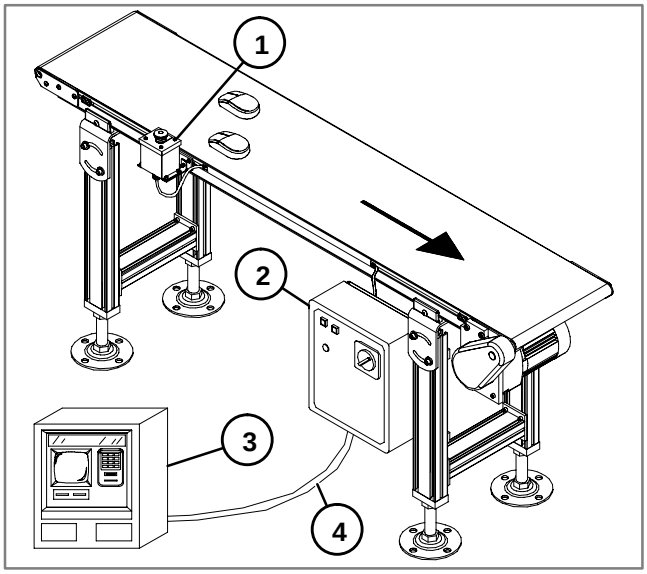
Figure 2

Conveyor Running Status to PLC or Machine Controller with Illuminated Emergency Stop Control

The conveyor is running and sends a signal to the PLC or Machine Controller. The signal is removed if the motor stops running for any reason. The conveyor can also be stopped by using the Illuminated Emergency Stop Station. When the Emergency Stop is activated, it will become illuminated. See Figure 1.

Application Notes

- The signal from the Impac 100 is a closed set of contacts whenever the motor is running, the contacts will open if the motor stops running for any reason.
- When the Emergency Stop Station is activated the signal to the PLC or Machine Control will be lost.



1- Illuminated Emergency Stop Station
2- Impac 100
3- PLC or Machine Controller
4- Linking Cable

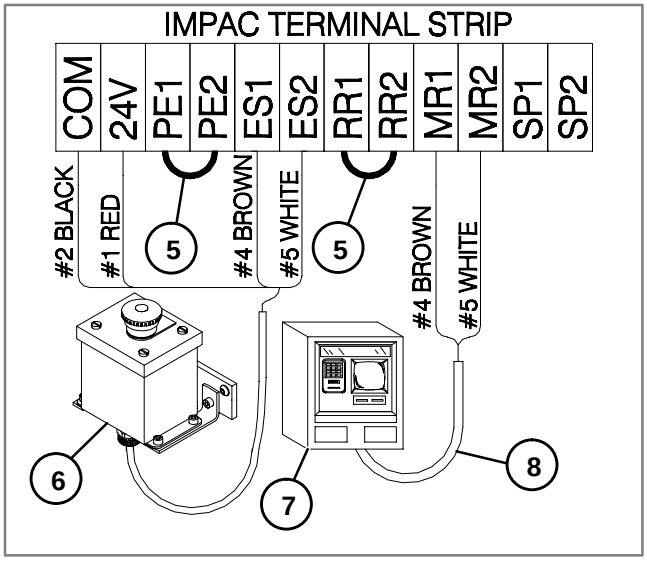
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Linking Cable Kit (75-80)
1 Illuminated Emergency Stop Station (75-40)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Emergency Stop Station to the desired location along the conveyor and ensure that it provides easy operator access. Install the Linking Cable to the Impac 100 and the PLC or Machine Controller. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Emergency Stop Station to the Impac 100.
  Remove jumper between terminals ES1 and ES2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Linking Cable to the Impac 100.
  Insert wire #4 (Brown) into terminal MR1.
  Insert wire #5 (White) into terminal MR2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Connect the Linking Cable to the PLC or Process Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller dry contact terminals.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumpers
6- Illuminated Emergency Stop Station
7- PLC otr Machine Controller
8- Linking Cable

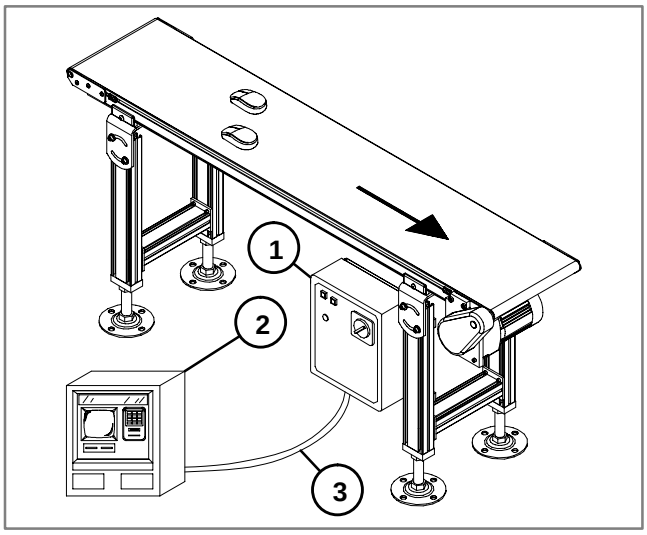
Figure 2

Conveyor Controlled by Signal from PLC or Machine Controller and Running Status to PLC or Machine Controller

The conveyor runs when there is a run signal present from a PLC or Machine Controller. The Impac 100 controller will send a "running" signal back to the PLC or Machine Controller. If the run signal is removed the motor will stop, and the running status signal to the PLC or Machine Controller will stop. See Figure 1.

Application Notes

- The run signal from the PLC or Machine Controller must be a closed set of contacts.
- The signal from the Impac 100 is a closed set of contacts whenever the motor is running, the contacts will open if the motor stops running for any reason.



1- Impac 100
2- PLC or Machine Controller
3- Linking Cable

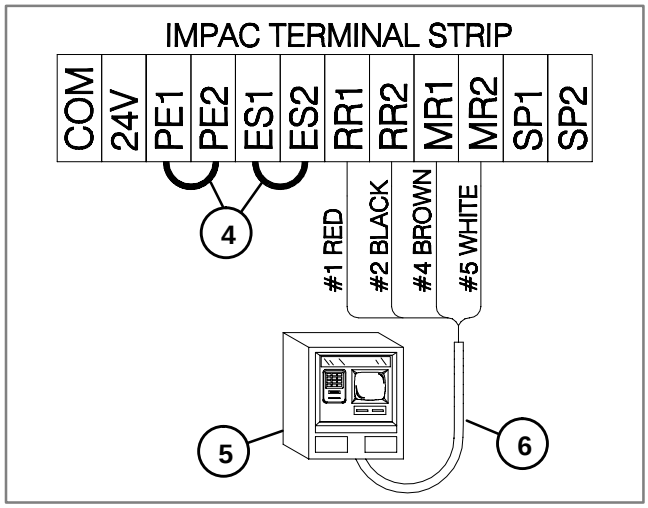
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Linking Cable Kit (75-80)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Linking Cable Kit to the Impac 100 and the PLC or Machine Controller. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Linking Cable Kit to the Impac 100.
  Remove jumper between terminals RR1 and RR2.
  Insert wire #1 (Red) into terminal RR1.
  Insert wire #2 (Black) into terminal RR2.
  Insert wire #4 (Brown) into terminal MR1.
  Insert wire #5 (White) into terminal MR2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Linking Cable to the PLC Machine Controller. Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller.
- Connect the Linking Cable to the PLC Machine Controller. Connect wire #1 (Red), and wire #2 (Black) from the Linking Cable to the PLC or Machine Controller dry contact terminals (contacts must close to run).
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- PLC or Machine Controller
6- Linking Cable

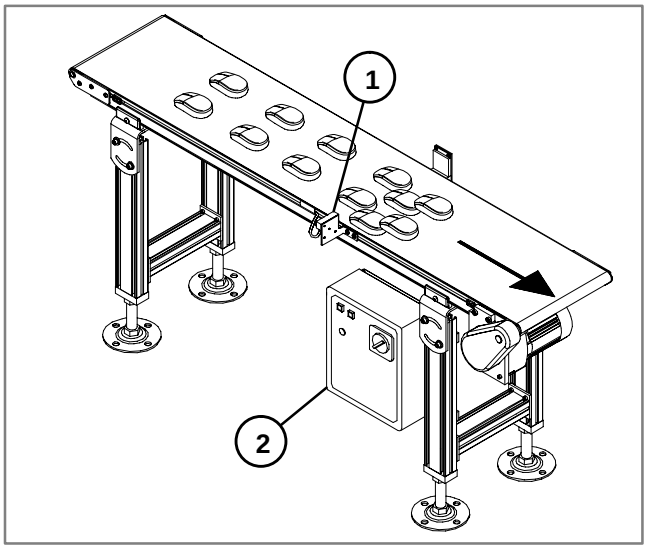
Figure 2

Automatic Conveyor Jam Detection using Single Photo-Eye with Time Delay Function

The conveyor is normally running and will stop if a part blocks the beam of the Photo-Eye for a user-specified amount of time. The conveyor will restart when the part has been removed from the Photo-Eye beam. See Figure 1.

Application Notes

- The Photo-Eye is configured with the time-delay-on function.
- The time delay value may be set to run for 0.1 to 5 seconds. The timing function allows the part to remain in front of the Photo-Eye for the desired amount of time before the conveyor will stop.



1- Timing Photo-Eye
2- Impac 100

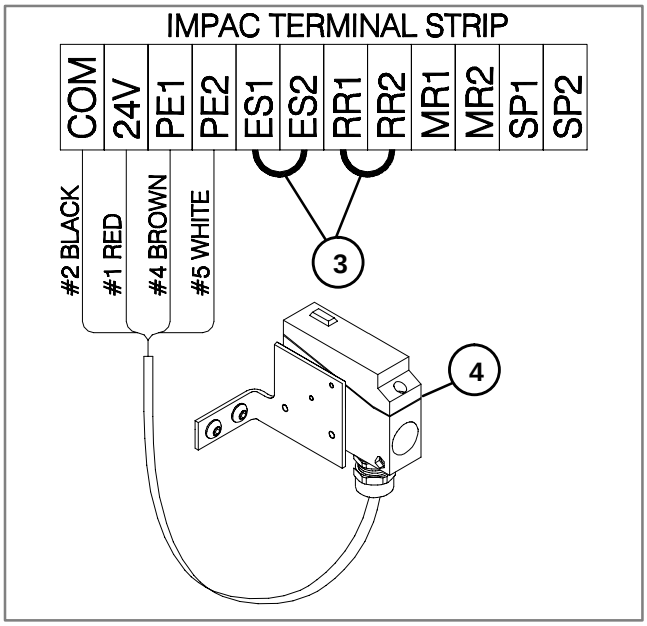
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller
(matched to your motor)
1 Adjustable or fixed mount Timing Photo-Eye Kit
(75-32 or 75-33)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye near a potential jam point. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (White) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-on function (On Delay) and the timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



3- Jumper
4- Timing Photo-Eye

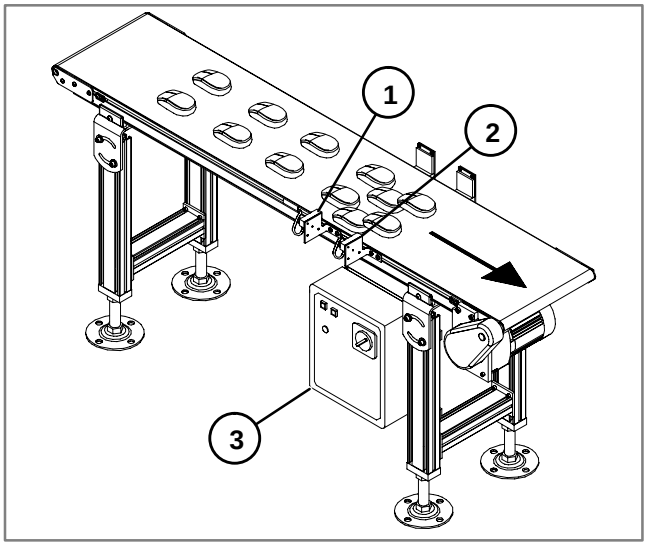
Figure 2

Automatic Conveyor Jam Detection using Two Photo-Eyes

The conveyor is normally running and will stop if parts block the Photo-Eyes beams at the same time. The conveyor will restart when parts have been removed from either Photo-Eye beam. See Figure 1.

Application Notes

- The Photo-Eyes must be have a distance slightly greater than the part length.
- The part gap must be longer than the part length and larger than the distance between the two Photo-Eyes.



1- First Photo-Eye
2- Second Photo-Eye
3- Impac 100

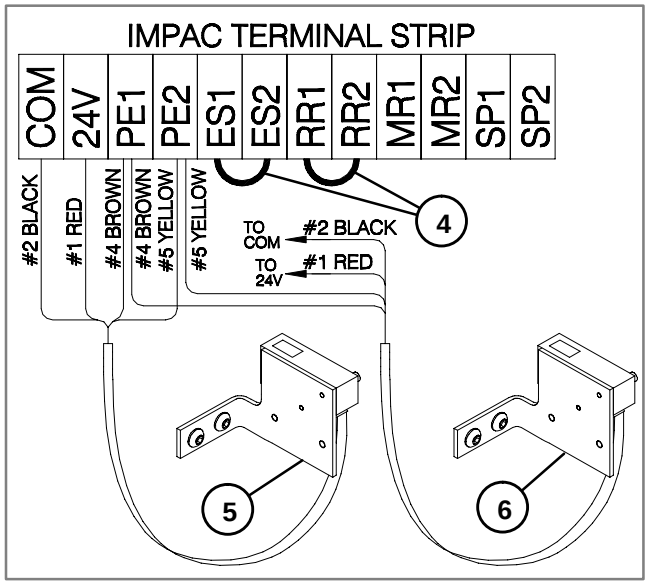
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
2 Adjustable or fixed mount Standard Photo-Eye Kits (75-30 or 75-31)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Standard Photo-Eyes near a potential jam point. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the first Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the second Photo-Eye to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- First Photo-Eye
6- Second Photo-Eye

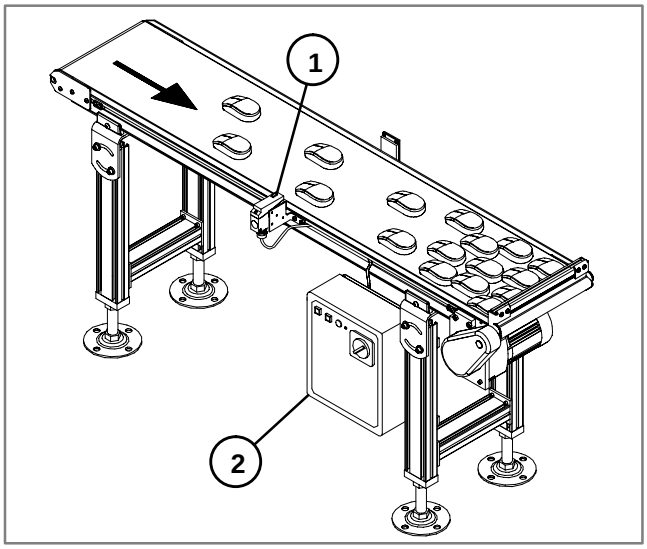
Figure 2

Conveyor Accumulation using Single Photo-Eye with Time Delay Function

The conveyor is normally running and stops when parts block the Photo-Eye beam for a user-specified amount of time. See Figure 1.

Application Notes

- The Photo-Eye is configured with the time-delay-on function.
- The conveyor should have a end stop to prevent the parts from running off the end of the conveyor.
- The conveyor should be a high side conveyor to prevent parts from rolling off the side of the conveyor.
- The time delay value may be set to run for 0.1 to 5 seconds. The timing function allows the part to remain in front of the Photo-Eye for the desired amount of time before the conveyor will stop.



1- Timing Photo-Eye
2- Impac 100

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller
(matched to your motor)
1 Adjustable or fixed mount Timing Photo-Eye Kit
(75-32 or 75-33)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye at the desired full point on the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the Impac 100.

  Remove jumper between terminals PE1 & PE2.

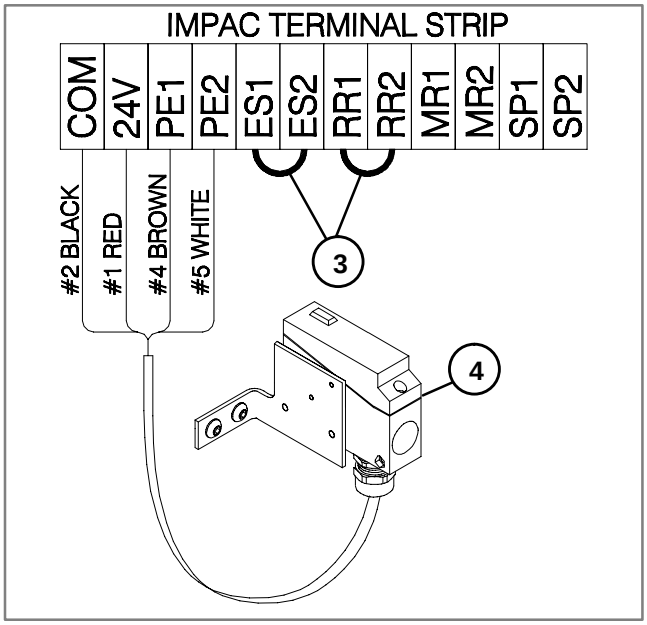
  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal PE1.

  Insert wire #5 (White) into terminal PE2.

  Wire #3 (Green) is not used and should be taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-on function (On Delay) and the timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



3- Jumper
4- Timing Photo-Eye

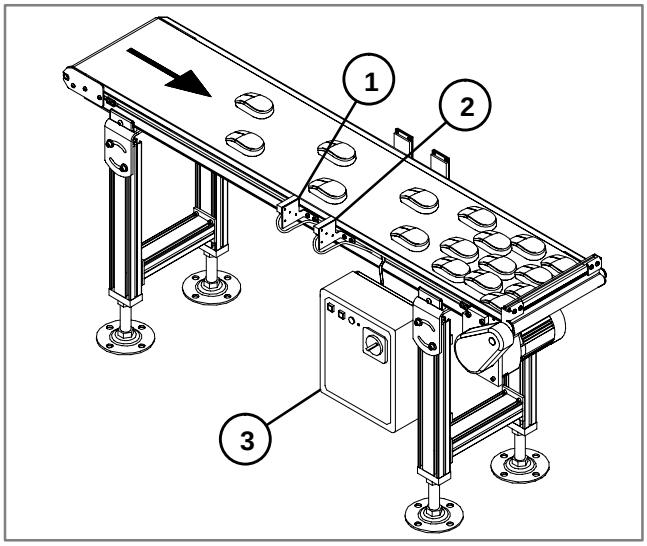
Figure 2

Conveyor Accumulation using Two Photo-Eyes

The conveyor is normally running and stops when parts accumulate and block both of the Photo-Eye beams located at the full point of the conveyor. See Figure 1.

Application Notes

- The conveyor should have an end stop to prevent the parts from running off the end of the conveyor.
- The conveyor should be a high side conveyor to prevent parts from rolling off the side of the conveyor.
- The Photo-Eyes must be have a distance slightly greater than a part length.
- The part gap must be longer than a part length and larger than the distance between the two Photo-Eyes.



1- First Photo-Eye
2- Second Photo-Eye
3- Impac 100

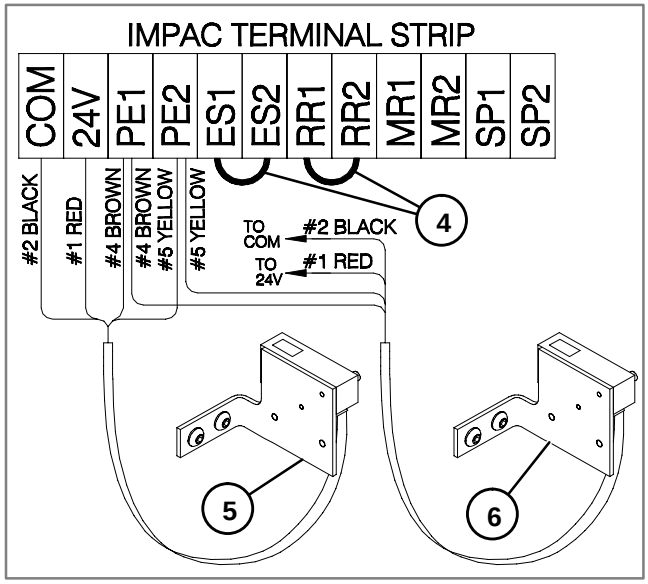
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
2 Adjustable or fixed mount Standard Photo-Eye Kits (75-30 or 75-31)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Standard Photo-Eyes at the desired full point on the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the first Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the second Photo-Eye to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumpers
5- First Photo-Eye
6- Second Photo-Eye

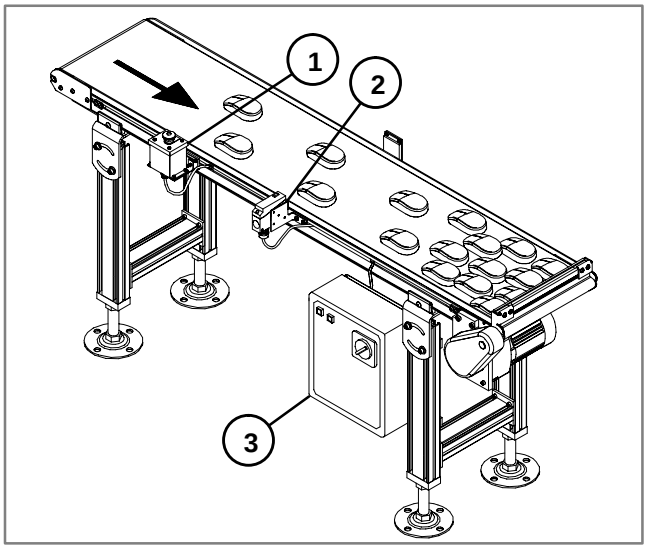
Figure 2

Conveyor Accumulation with Non-illuminated Emergency Stop Control or Pull-Cord

The conveyor is normally running and stops when parts block the beam of the Photo-Eye for a user-determined amount of time. The conveyor will also stop if the operator activates the Emergency Stop Station or Pull-Cord. The conveyor will restart when the operator resets the Emergency Stop Station or Pull-Cord and the conveyor full Photo-Eye is not blocked. See Figure 1.

Application Notes

- The Photo-Eye is configured with the time-delay-on function.
- The conveyor should have a end stop to prevent the parts from running off the end of the conveyor.
- The conveyor should be a high side conveyor to prevent parts from rolling off the side of the conveyor.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the longer the conveyor will run when the Photo-Eye is blocked. The time delay value represents the time when to stop the conveyor.



1- Emergency Stop Station
2- Timing Photo-Eye
3- Impac 100

Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Non-Illuminated Emergency Stop or Pull-Cord Kit (75-41 or 75-42)

Setup and Test

- Install Impac 100.Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye at the desired full point on the conveyor. Install the Emergency Stop Station or Pullcord to the desired location along the conveyor and ensure that it provides easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the Impac 100.

  Remove jumper between terminals PE1 & PE2.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal PE1.

  Insert wire #5 (White) into terminal PE2.

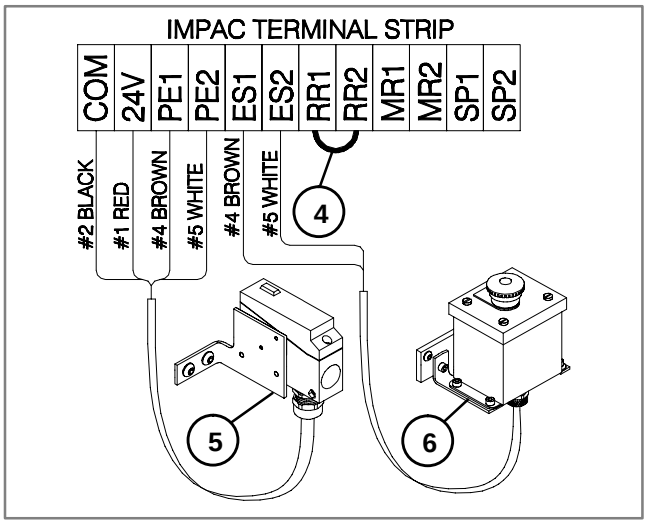
  Wire #3 (Green) is not used and should be taped off.
- Connect the Emergency Stop Station or Pull-Cord to the Impac 100.

  Remove jumper between terminals ES1 & ES2.

  Insert wire #4 (Brown) into terminal ES1.

  Insert wire #5 (White) into terminal ES2.

  Wires #1, #2 & #3 (Black, Red & Green) are not used and should be individually taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-on function (On Delay) and the timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumper
5- Timing Photo-Eye
6- Non-illuminated Emergency Stop Station

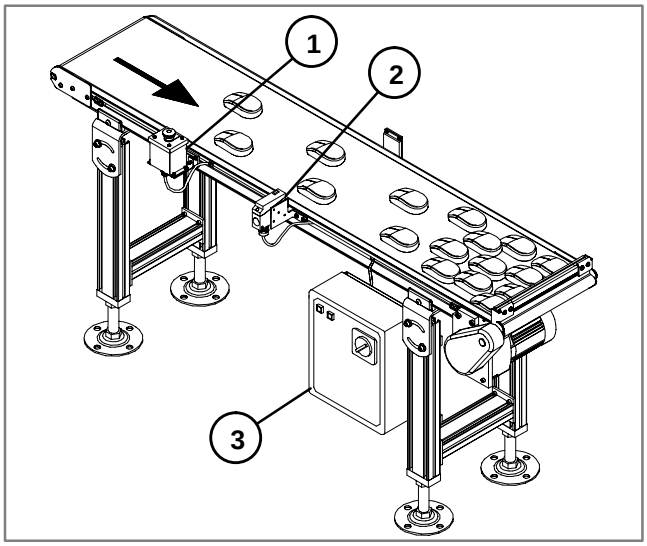
Figure 2

Conveyor Accumulation with Illuminated Emergency Stop Station

The conveyor is normally running and stops when parts block the beam of the Photo-Eye for a user-determined amount of time. The conveyor will also stop if the operator activates the Emergency Stop Station. The Emergency Stop Station will be illuminated when activated. The conveyor will restart when the operator resets the Emergency Stop Station and the conveyor full Photo-Eye is not blocked. See Figure 1.

Application Notes

- The Photo-Eye is configured with the time-delay-on function.
- The conveyor should have a end stop to prevent the parts from running off the end of the conveyor.
- The conveyor should be a high side conveyor to prevent parts from rolling off the side of the conveyor.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the longer the conveyor will run when the Photo-Eye is blocked. The time delay value represents the time when to stop the conveyor.



1- Emergency Stop Station
2- Timing Photo-Eye
3- Impac 100

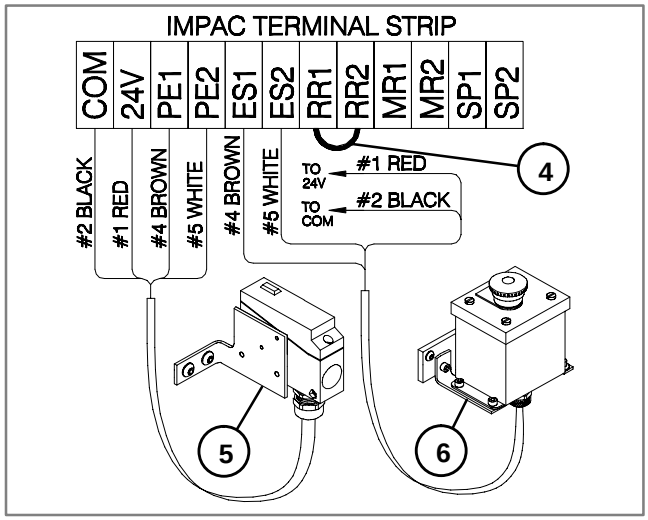
Figure 1

Hardware Requirements

1 Impac 100 Conveyor Controller (matched to your motor)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Illuminated Emergency Stop (75-40)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye at the desired full point on the conveyor. Install the Emergency Stop Station to the desired location along the conveyor and ensure that it provides easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (White) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Emergency Stop Station to the Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wire #3 (Green) is not used and should be taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-on function (On Delay) and the timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



4- Jumper
5- Timing Photo-Eye
6- Illuminated Emergency Stop Station

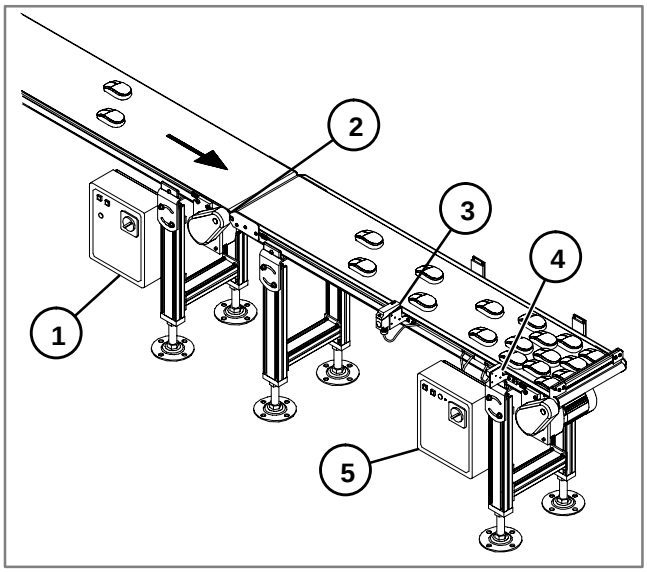
Figure 2

Accumulation on Two Conveyors

The conveyors are normally running and stop when parts accumulate and block the beam of the Timing Photo-Eye located at the full point for a user-determined amount of time. The conveyors restart when the discharge Standard Photo-Eye is cleared. See Figure 1.

Application Notes

- The Photo-Eye is configured with the time-delay-on function.
- The conveyor should have an end stop to prevent the parts from running off the end of the conveyor.
- The conveyor should be a high side conveyor to prevent parts from rolling off the side of the conveyor.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the longer the conveyor will run when the Photo-Eye is blocked.



1- Next to Last Impac 100 Controller
2- Linking Cable
3- Timing Photo-Eye (Full Point)
4- Standard Photo-Eye (Discharge)
5- Last Impac 100 Controller

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controllers (matched to your motors)
1 Controller to Controller Linking Cable Kit (75-80)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye at the desired full point on the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Install Standard Photo-Eye at the discharge end of the conveyor.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (White) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Standard Photo-Eye to the last Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Linking Cable Kit to the last Impac 100 and the next to last Impac 100 Controller. Then, at the last Impac 100 Controller:
  Insert wire #5 (White) into terminal MR1.
  Insert wire #4 (Brown) into terminal MR2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.

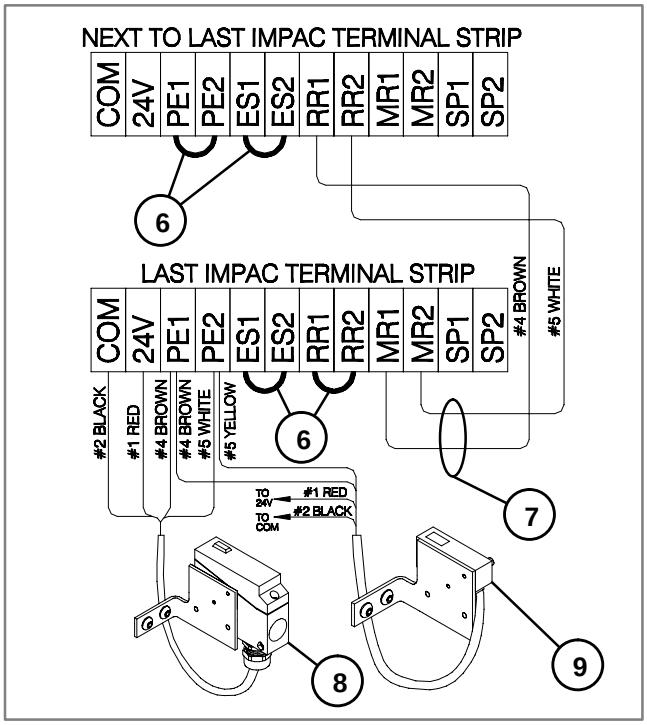
- At the next to last Impac 100 controller:

  Remove jumper between terminals RR1 & RR2.

  Insert wire #5 (White) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-on function (On Delay) and the timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



6- Jumpers
7- Linking Cable
8- Timing Photo-Eye (Full Point)
9- Standard Photo-Eye (Discharge)

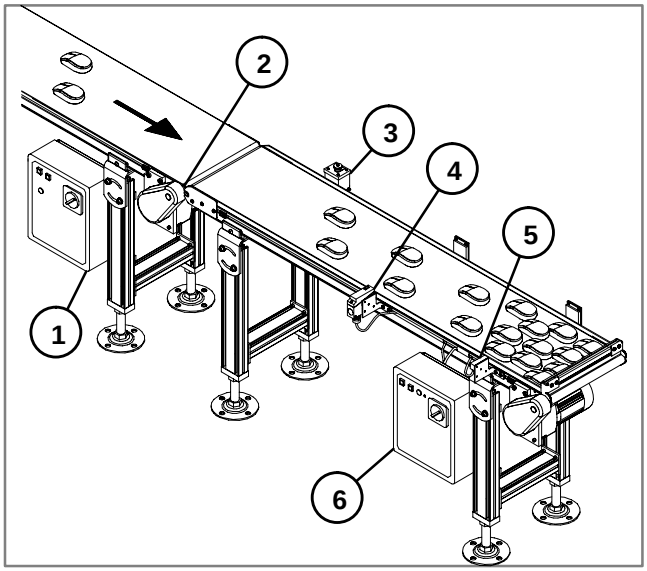
Figure 2

Accumulation on Two Conveyors with Non-illuminated Emergency Stop Control or Pull-Cord

The conveyors are normally running and stop when parts accumulate and block the beam of the Timing Photo-Eye located at the full point of the last conveyor for a user-determined amount of time. The conveyors restart when the discharge Photo-Eye is cleared. The conveyors can also be stopped when the operator activates the Non-illuminated Emergency Stop Station or Pull-Cord. The conveyors restart when the operator resets the Emergency Stop or Pull-Cord and the conveyor full point Photo-Eye is not blocked. See Figure 1.

Application Notes

- The Timing Photo-Eye is configured with the time-delay-on function.
- The conveyor should have an end stop to prevent the parts from running off the end of the conveyor.
- The conveyor should be a high side conveyor to prevent parts from rolling off the side of the conveyor.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the longer the conveyor will run when the Photo-Eye is blocked.



1- Next to Last Impac 100
2- Linking Cable
3- Emergency Stop Station
4- Timing Photo-Eye (Full Point)
5- Standard Photo-Eye (Discharge)
6- Last Impac 100

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controllers (matched to your motors)
1 Controller to Controller Linking Cable Kit (75-80)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Non-illuminated Emergency Stop Kit or Pull-Cord Kit (75-41 or 75-42)

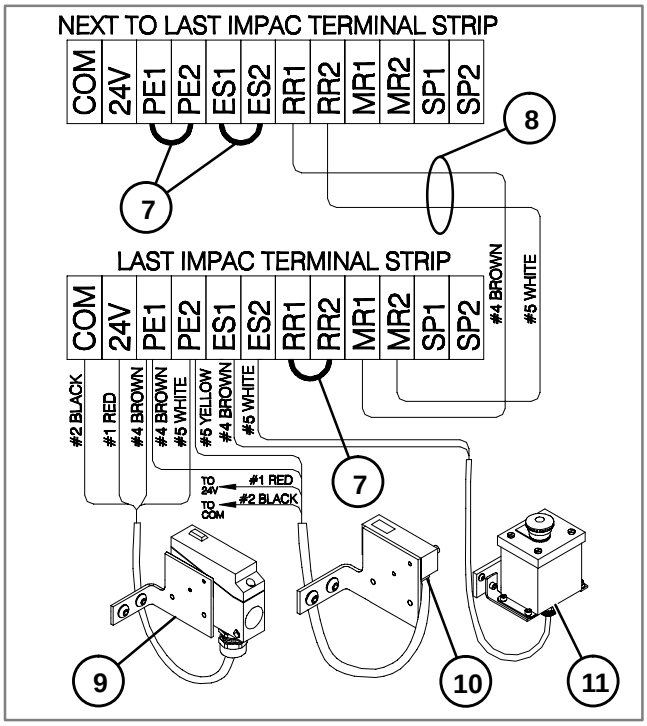
Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye at the desired full point on the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Install Standard Photo-Eye at the discharge end of the conveyor.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the last Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (White) into terminal PE12
  Wire #3 (Green) is not used and should be taped off.
- Connect the Standard Photo-Eye to the last Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Emergency Stop Station or Pull-Cord to the last Impac 100.
  Remove jumper between terminals ES1 & ES2.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Connect the Linking Cable Kit to the last Impac 100 and the next to last Impac 100 Controller. Then, at the last Impac 100 Controller:
  Insert wire #5 (White) into terminal MR1.
  Insert wire #4 (Brown) into terminal MR2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- At the next to last Impac 100 controller:
  Remove jumper between terminals RR1 & RR2.
  Insert wire #5 (White) into terminal RR1.

Insert wire #4 (Brown) into terminal RR2.

Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.

- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-on function (On Delay) and the timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



7- Jumpers
8- Linking Cable
9- Timing Photo-Eye (Full Point)
10- Standard Photo-Eye (Discharge)
11- Emergency Stop Station

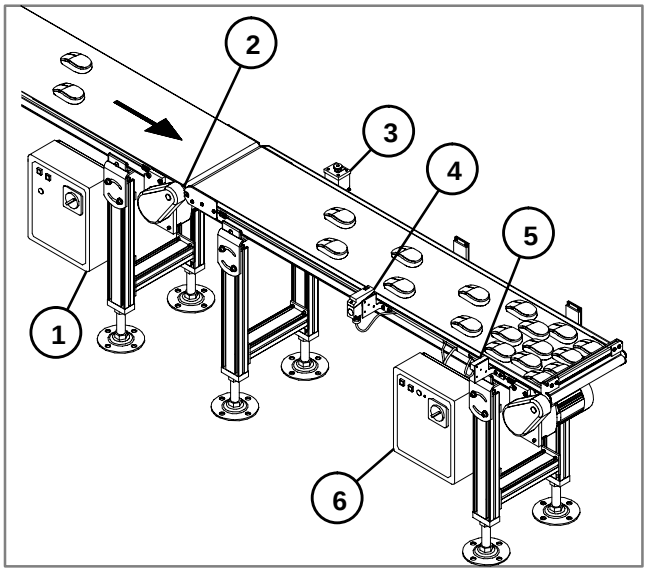
Figure 2

Conveyor Accumulation on Two Conveyors with Illuminated Emergency Stop Station

The conveyors are normally running and stop when parts accumulate and block the beam of the Timing Photo-Eye located at the full point of the last conveyor for a user-determined amount of time. The Conveyors restart when the discharge Photo-Eye is cleared. The conveyors can also be stopped when the operator activates the Emergency Stop Station. The conveyors restart when the operator resets the Emergency Stop and the conveyor full point Photo-Eye is not blocked. The Emergency Stop Station will be illuminated whenever the unit is activated. See Figure 1.

Application Notes

- The Timing Photo-Eye is configured with the time-delay-on function.
- The conveyor should have an End Stop to prevent the parts from running off the end of the conveyor.
- The conveyor should be a high side conveyor to prevent parts from rolling off the side of the conveyor.
- The time delay value may be set to run for 0.1 to 5 seconds. The longer the time delay the longer the conveyor will run when the Photo-Eye is blocked.



1- Next to Last Impac 100 Controller
2- Linking Cable
3- Illuminated Emergency Stop Station
4- Timing Photo-Eye (Full Point)
5- Standard Photo-Eye (Discharge)
6- Last Impac 100 Controller

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controllers (matched to your motors)
1 Controller to Controller Linking Cable Kit (75-80)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Adjustable or fixed mount Standard Photo-Eye Kit (75-30 or 75-31)
1 Illuminated Emergency Stop Kit (75-40)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Timing Photo-Eye at the desired full point on the conveyor. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Install Standard Photo-Eye at the discharge end of the conveyor.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Timing Photo-Eye to the last Impac 100.
  Remove jumper between terminals PE1 & PE2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (White) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Standard Photo-Eye to the last Impac 100.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal PE1.
  Insert wire #5 (Yellow) into terminal PE2.
  Wire #3 (Green) is not used and should be taped off.
- Connect the Emergency Stop Station to the last Impac 100.
  Remove jumper between terminals ES1 & ES2.
  Insert wire #1 (Red) into terminal 24V.
  Insert wire #2 (Black) into terminal COM.
  Insert wire #4 (Brown) into terminal ES1.
  Insert wire #5 (White) into terminal ES2.
  Wires #3 (Green) is not used and should be individually taped off.
- Connect the Linking Cable Kit to the last Impac 100 and the next to last Impac 100 Controller. Then, at the last Impac 100 Controller:
  Insert wire #5 (White) into terminal MR1.
  Insert wire #4 (Brown) into terminal MR2.
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.

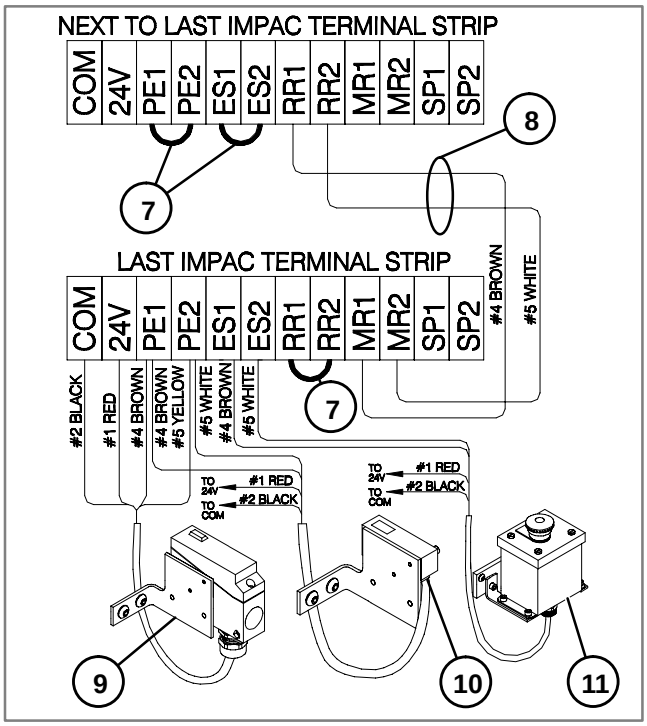
- At the next to last Impac 100 controller:

  Remove jumper between terminals RR1 & RR2.

  Insert wire #5 (White) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Follow the directions on the Photo-Eye specifications sheet to set the time-delay-on function (On Delay) and the timer value.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



7- Jumpers
8- Linking Cable
9- Timing Photo-Eye (Full Point)
10- Standard Photo-Eye (Discharge)
11- Illuminated Emergency Stop Station

Figure 2

Variable Speed Conveyor

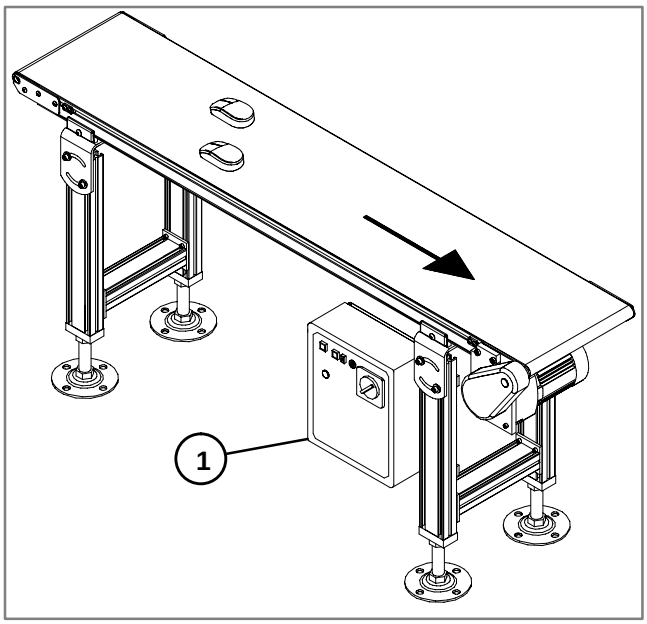
The conveyor is normally running at a constant speed and can be varied by using the speed pot located at the front of the Impac 100 Controller. See Figure 1.

Hardware Requirements

1 Impac 100 Variable Speed Conveyor Controller (matched to your motor)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Test the speed of the conveyor by varying the speed pot settings and observing the belt speed.
- File a copy of this application inside the Impac 100 Controller.

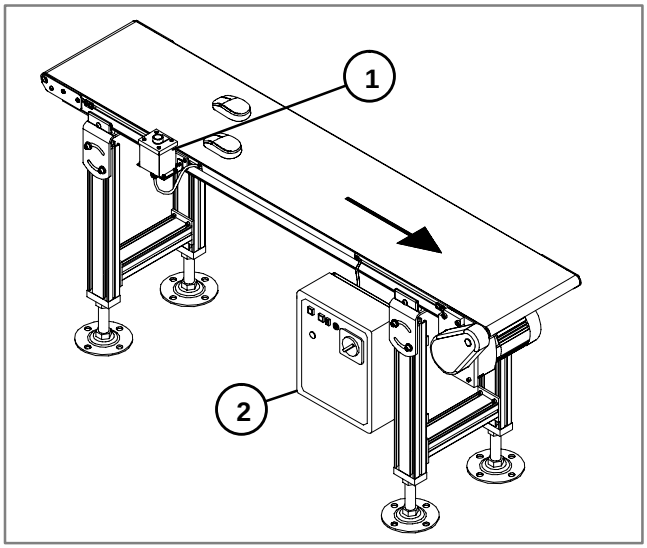


1- Variable Speed Impac 100

Figure 1

Variable Speed Conveyor Control with Jog Control

The conveyor is normally stopped and runs when the operator activates the Jog Station. The conveyor stops when the operator releases the Jog Station. See Figure 1.



1- Jog Station
2- Variable Speed Impac 100

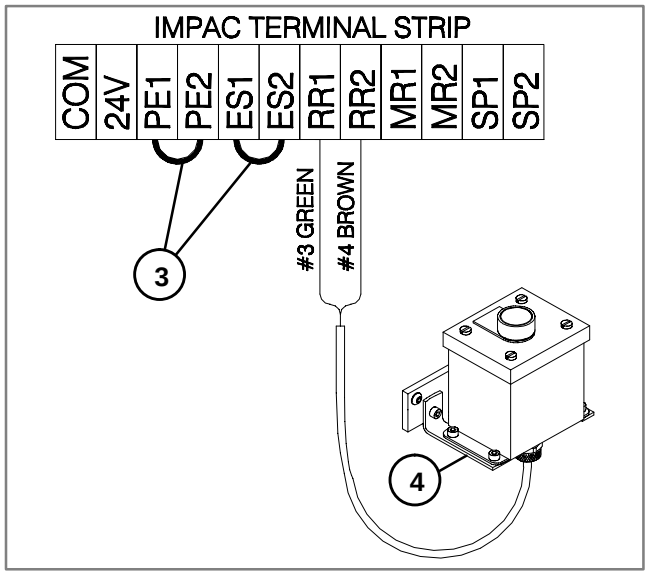
Figure 1

Hardware Requirements

1 Impac 100 Variable Speed Conveyor Controller (matched to your motor)
1 Jog Kit (75-10)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Jog Station to the desired location along conveyor and ensure that it provides easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Jog Station to the Impac 100.
  Remove jumper between terminals RR1 & RR2.
  Insert wire #3 (Green) into terminal RR1.
  Insert wire #4 (Brown) into terminal RR2.
  Wires #1, #2 & #5 (Red, Black & White) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- Test the speed of the conveyor by varying the speed pot settings and observing the belt speed.
- File a copy of this application inside the Impac 100 Controller.



3- Jumpers
4- Jog Station

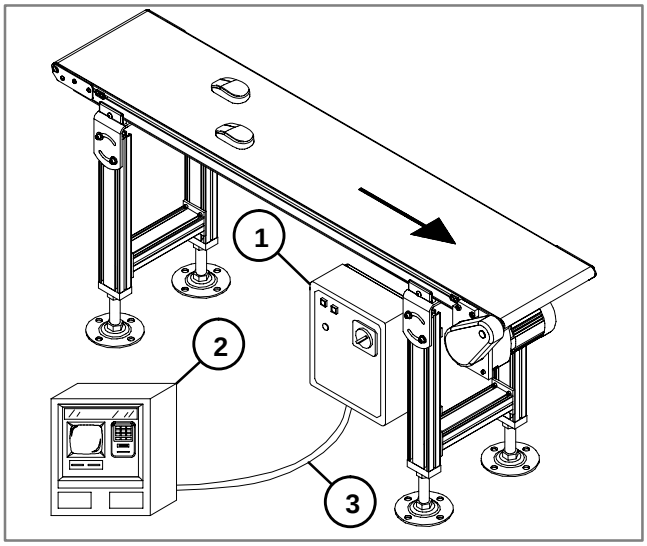
Figure 2

Variable Speed Conveyor Control with Speed Signal from PLC or Machine Controller

The conveyor is normally running. The speed is determined from the signal that is received from the PLC or Machine Controller. See Figure 1.

Application Notes

- **This application modifies the Impac internally.**
- The signal from the PLC or Machine Controller must be a 0 to 10 volt isolated speed signal.



1- Variable Speed Impac 100
2- PLC or Machine Controller
3- Linking Cable Kit

Figure 1

Hardware Requirements

1 Impac 100 Variable Speed Conveyor Controller (matched to your motor)
1 Linking Cable Kit (75-80)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Using the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Disconnect the Impac controller door-mounted speed potentiometer as follows:

  Locate the terminal block (TB1) at the upper left hand side of the DC drive.

  Remove the White wire with the green stripe from the terminal labeled “PW”.

  Tape the end of the exposed wire to avoid shorting to adjacent devices.

  Remove the Brown wire at the terminal labeled “PL” which is routed to the SPEED potentiometer. This is the Brown wire that enters the bundle of wires going to the left side of the controller. Be sure that the other Brown wire remains connected to the terminal block.

  Tape the end of the exposed wire to avoid shorting to adjacent devices.

  The speed potiometer, on the door of the Impac controller, is now disabled.

- Connect the Linking Cable to the Impac 100.

  Insert wire #4 (Brown) into terminal PL.

  Insert wire #5 (White) into terminal PW.

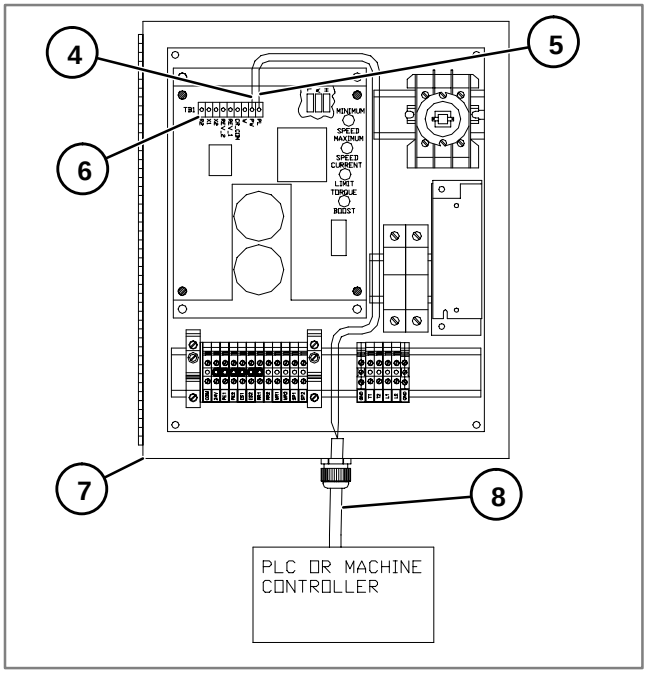
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.

- Connect the Linking Cable to the PLC or Machine Controller.

  Connect wire #4 (Brown), and wire #5 (White) from the Linking Cable to the PLC or Machine Controller 0 to 10 volt speed reference.

  The Brown wire to (–) and the White wire to the (+).

- Test the speed of the conveyor by varying the speed signal from the PLC or machine controller and observing the belt speed.
- File a copy of this application inside the Impac 100 Controller.



4- Terminal PW
5- Terminal PL
6- TB1
7- Impac 100 Controller
8- Linking Cable

Figure 2

Parts Merging from Merge Conveyor onto Main Conveyor

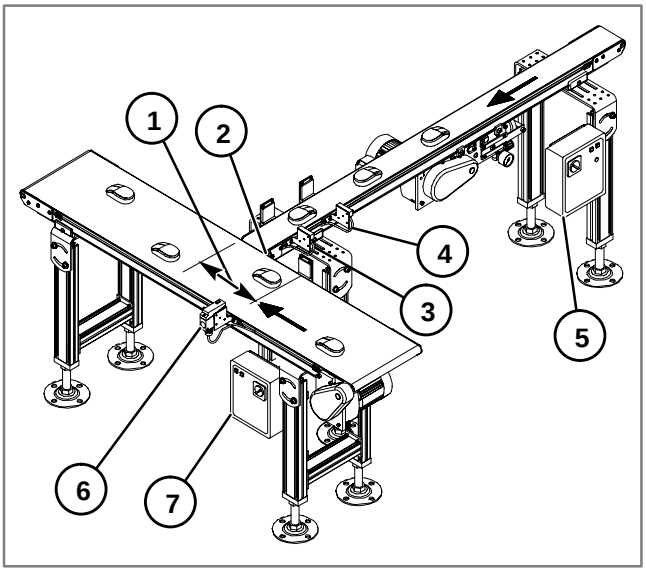
Both the main conveyor and the merge conveyor are normally running and parts from the merge conveyor are automatically merged onto the main conveyor. If a part from the merge conveyor arrives at the intersection and there are no parts in the merge intersection, the merge conveyor will continue to run and merge the part onto the main conveyor. If a part from the main conveyor is passing through the merge intersection and a merge conveyor part arrives at the intersection, the merge conveyor is stopped until the intersection clears. See Figure 1.

Application Notes

- The speed of the main and merge conveyors should be the same.
- Part shape and conveyor guiding must be such to ensure that parts are capable of traversing merge intersection and maintain proper orientation.
- The speed of conveyors should not be set too high to cause excess slippage as merging part moves onto main conveyor.
- Part spacing or gap, on the main conveyor, should be at least the greater value of 1.5 times the length of the merge intersection or 1.5 times the length of the part.
- Part spacing or gap, on the merge conveyor, should be at least 2 to 3 times the length of the part. The merge intersection length is measured from the Photo-Eye on the main conveyor to the farthest point where the merge conveyor intersects the main conveyor See Figure 1.
- If the main conveyor is stopped for any reason then the merge conveyor will automatically be stopped and the operator will have to manually clear the intersection of parts before restarting the conveyors.
- The placement and location of the three Photo-Eyes used to control the merging conveyor is very critical to ensure reliable and error free operation of the merge intersection. Testing with actual parts and conveyors is recommended to fine tune Photo-Eye placements. See Figure 1.

Photo-Eye Descriptions

- **Part at merge entrance** (4). When a part blocks this Photo-Eye, it indicates that part is entering the merge area. If this Photo-Eye and the Part in Intersection Photo-Eye (6), are both blocked, then the merge conveyor is stopped.
- **Part is committed** (3). When a part on the merge conveyor blocks this Photo-Eye, it indicates that the part is now too close to the intersection to stop [even if a part arrives at the Part in Intersection Photo-Eye (6)]. If this Photo-Eye is blocked, the merge conveyor will run regardless of the status of the Part in Intersection Photo-Eye (6).
- **Part in intersection** (6)**.** When a part from the main conveyor blocks this Photo-Eye it indicates that a part is now in the intersection and that all parts from the merge conveyor should be held until this part passes through the intersection. This Photo-Eye is a Timing Photo-Eye configured to use the a time-delay-off function with a time value that ensures the entire part clears the intersection, before starting the merge conveyor.



1- Length of Merge Intersection
2- Linking Cable
3- Part is Committed Standard Photo-Eye
4- Part at Merge Entrance Standard Photo-Eye
5- Merge Conveyor Impac 100
6- Part in Intersection Timing Photo-Eye
7- Main Line Conveyor Impac 100

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controllers (matched to your motors)
2 Adjustable or fixed mount Standard Photo-Eye Kits (75-30 or 75-31)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Controller to Controller Linking Cable Kit (75-80)

Setup and Test

- Install both Impac 100 Conveyor Controllers. Review the Impac 100 Operating & Installation Manual(s) shipped with the units.
- Install the Part in Intersection Timing Photo-Eye (6) on the main conveyor 1.5 part lengths prior to the merge intersection. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Install the Part is Committed Standard Photo-Eye (3) on the merge conveyor 1/2 part length prior to the merge intersection. Use Figure 1 to aid in kit mounting location.

- Install the Part at Merge Entrance Standard Photo-Eye (4) on the merge conveyor one part length prior to the merge intersection. Use Figure 1 to aid in kit mounting location.
- Disconnect power to the Impac 100's.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal blocks. See Figure 2.
- Connect the Part in Intersection Timing Photo-Eye to the merge conveyor Impac 100.

  Remove jumper between terminals PE1 & PE2.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal PE1.

  Insert wire #5 (White) into terminal PE2.

  Wire #3 (Green) is not used and should be taped off.
- Connect the Part is Committed photo-Eye to the merge conveyor Impac 100.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #3 (Green) into terminal PE1.

  Insert wire #4 (Brown) into terminal PE2.

  Wire #5 (Yellow) is not used and should be taped off.
- Connect the Part at Merge Entrance Photo-Eye to the merge conveyor Impac 100.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal PE1.

  Insert wire #5 (Yellow) into terminal PE2.

  Wire #3 (Green) is not used and should be taped off.
- Connect the Linking Cable Kit to the main Impac 100 and the merge Impac 100 Controller. Then, at the last main conveyor Impac 100 Controller:

  Insert wire #5 (White) into terminal MR1.

  Insert wire #4 (Brown) into terminal MR2.

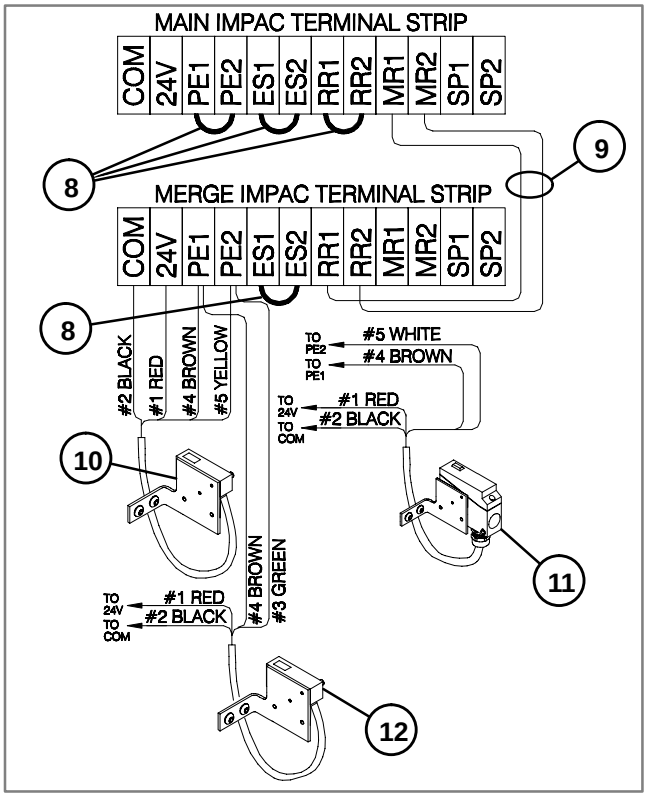
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- At the merge conveyor Impac 100 Controller:

  Remove jumper between terminals RR1 & RR2.

  Insert wire #5 (White) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wiress #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Follow the directions on the Photo-Eye specification sheet to select the a time-delay-off (Off-Delay) function and to set the time value to ensure the entire part clears the merge intersection. This value can be calculated by dividing the part spacing, or gap, on the main conveyor by the speed of the conveyor. Gap should be at least the greater value of 1.5 times the length of the merge intersection or 1.5 times the length of the part.
- Restore power to both Impac 100's and test merging operation. Fine tune Photo-Eye location and time values as required.
- File a copy of this application inside one or both of the Impac 100 Controllers.



8- Jumpers
9- Linking Cable
10- Part at Merge Entrance Standard Photo-Eye
11- Part in Intersection Timing Photo-Eye
12- Part is Committed Standard Photo-Eye

Figure 2

Parts Merging from Merge Conveyor onto Main Conveyor with Non-illuminated Emergency Stop Control or Pull-Cord

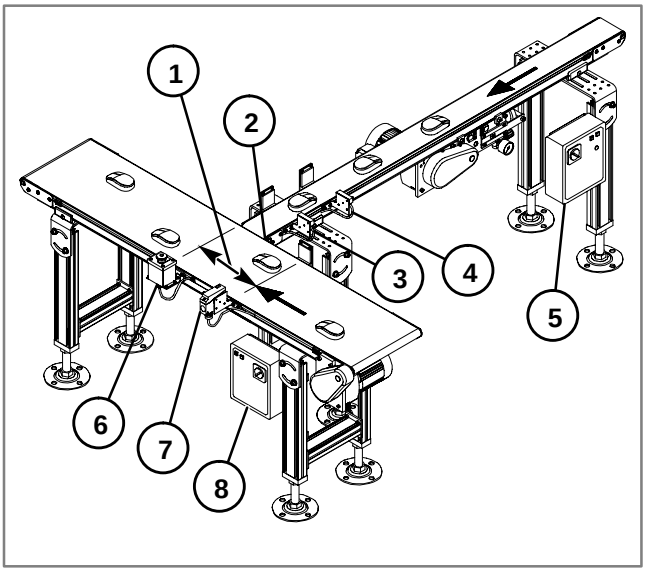
Both the main conveyor and the merge conveyor are normally running and parts from the merge conveyor are automatically merged onto the main conveyor. If a part from the merge conveyor arrives at the intersection and there are no parts in the merge intersection the merge conveyor will continue to run and merge the part onto the main conveyor. If a part from the main conveyor is passing through the merge intersection and a merge conveyor part arrives at the intersection the merge conveyor is stopped until the intersection clears. Both conveyors will also stop when the operator activates the Non-illuminated Emergency Stop Station or Pull-Cord. The conveyors restart when the operator resets the Emergency Stop or Pull-Cord. See Figure 1.

Application Notes

- The speed of the main and merge conveyors should be the same.
- Part shape and conveyor guiding must be such to ensure that parts are capable of traversing merge intersection and maintain proper orientation.
- The speed of conveyors should not be set too high to cause excess slippage as merging part moves onto main conveyor.
- Part spacing or gap, on the main conveyor, should be at least the greater value of 1.5 times the length of the merge intersection or 1.5 times the length of the part.
- Part spacing or gap, on the merge conveyor, should be at least 2 to 3 times the length of the part. The merge intersection length is measured from the Photo-Eye on the main conveyor to the farthest point where the merge conveyor intersects the main conveyor. See Figure 1.
- If the main conveyor is stopped for any reason then the merge conveyor will automatically be stopped and the operator will have to manually clear the intersection of parts before restarting the conveyors.
- The placement and location of the three Photo-Eyes used to control the merging conveyor is very critical to ensure reliable and error free operation of the merge intersection. Testing with actual parts and conveyors is recommended to fine tune Photo-Eye placements. See Figure 1.

Photo-Eye Descriptions

- **Part at merge entrance** (4). When a part blocks this Photo-Eye, it indicates that a part is entering the merge area. If this Photo-Eye and the Part in Intersection Photo-Eye (7), are both blocked, then the merge conveyor is stopped.
- **Part is committed** (3). When a part on the merge conveyor blocks this Photo-Eye, it indicates that the part is now too close to the intersection to stop [even if a part arrives at the Part in Intersection Photo-Eye (7)]. If this Photo-Eye is blocked, the merge conveyor will run regardless of the status of the Part in Intersection Photo-Eye (7).
- **Part in intersection** (7)**.** When a part from the main conveyor blocks this Photo-Eye it indicates that a part is now in the intersection and that all parts from the merge conveyor should be held until this part passes through the intersection. This Photo-Eye is a Timing Photo-Eye configured to use the a time-delay-off function with a time value that ensures the entire part clears the intersection, before starting the merge conveyor.



1- Length of Merge Intersection
2- Linking Cable
3- Part is Committed Standard Photo-Eye
4- Part at Merge entrance Standard Photo-Eye
5- Merge Conveyor Impac 100
6- Emergency Stop Station
7- Part in Intersection Timing Photo-Eye
8- Main Line Conveyor Impac 100

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controllers (matched to your motors)
2 Adjustable or fixed mount Standard Photo-Eye Kits (75-30 or 75-31)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Controller to Controller Linking Cable Kit (75-80)
1 Non-Illuminated Emergency Stop Kit or Pull-Cord Kit (75-41 or 75-42)

Setup and Test

- Install both Impac 100 Conveyor Controllers. Review the Impac 100 Operating & Installation Manual(s) shipped with the units.
- Install the Part in Intersection Timing Photo-Eye (7) on the main conveyor 1.5 part lengths prior to the merge intersection. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Install the Part is Committed Standard Photo-Eye (3) on the merge conveyor 1/2 part length prior to the merge intersection. Use Figure 1 to aid in kit mounting location.

- Install the Part at Merge Entrance Standard Photo-Eye (4) on the merge conveyor one part length prior to the merge intersection. Use Figure 1 to aid in kit mounting location.
- Install the Emergency Stop Station or Pull-Cord to the desired location along conveyor and ensure that it provides easy operator access. Use Figure 1 to aid in kit mounting location.
- Disconnect power to the Impac 100's.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal blocks. See Figure 2.
- Connect the Part in Intersection Timing Photo-Eye to the merge conveyor Impac 100.

  Remove jumper between terminals PE1 & PE2.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal PE1.

  Insert wire #5 (White) into terminal PE2.

  Wire #3 (Green) is not used and should be taped off.
- Connect the Part is Committed Photo-Eye to the merge conveyor Impac 100.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #3 (Green) into terminal PE1.

  Insert wire #4 (Brown) into terminal PE2.

  Wire #5 (Yellow) is not used and should be taped off.
- Connect the Part at Merge Entrance Photo-Eye to the merge conveyor Impac 100.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal PE1.

  Insert wire #5 (Yellow) into terminal PE2.

  Wire #3 (Green) is not used and should be taped off.
- Connect the Emergency Stop Station or Pull-Cord to the main Impac 100.

  Remove jumper between terminals ES1 & ES2.

  Insert wire #4 (Brown) into terminal ES1.

  Insert wire #5 (White) into terminal ES2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Connect the Linking Cable Kit to the main Impac 100 and the merge Impac 100 Controller. Then, at the last main conveyor Impac 100 Controller:

  Insert wire #5 (White) into terminal MR1.

  Insert wire #4 (Brown) into terminal MR2.

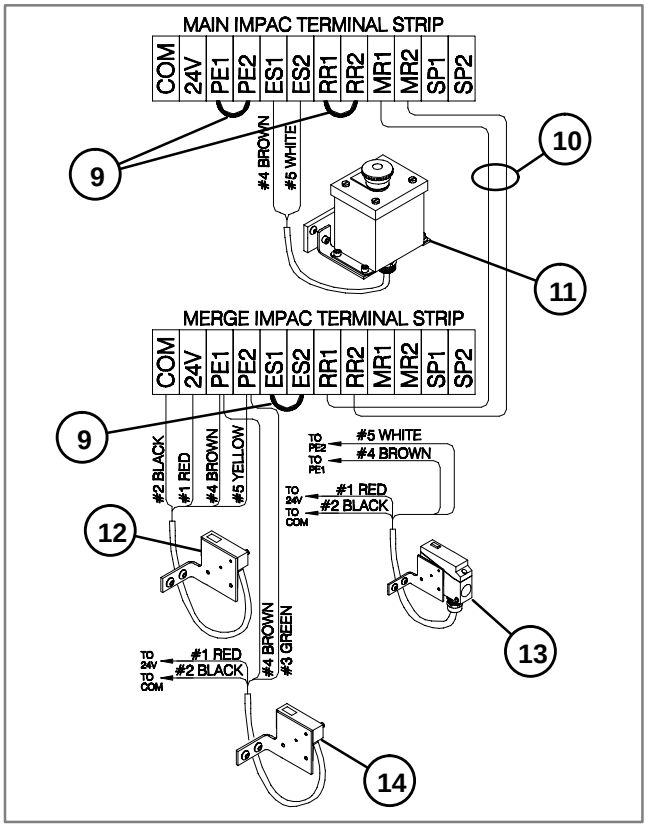
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- At the merge conveyor Impac 100 Controller:

  Remove jumper between terminals RR1 & RR2.

  Insert wire #5 (White) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wiress #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Follow the directions on the Photo-Eye specification sheet to select the a time-delay-off (Off-Delay) function and to set the time value to ensure the entire part clears the merge intersection. This value can be calculated by dividing the part spacing, or gap, on the main conveyor by the speed of the conveyor. Gap should be at least the greater value of 1.5 times the length of the merge intersection or 1.5 times the length of the part.
- Restore power to both Impac 100's and test merging operation. Fine tune Photo-Eye location and time values as required.
- File a copy of this application inside one or both of the Impac 100 Controllers.



9- Jumpers
10- Linking Cable
11- Emergency Stop Station
12- Part at Merge Entrance Standard Photo-Eye
13- Part in Intersection Timing Photo-Eye
14- Part is Committed Standard Photo-Eye

Figure 2

Parts Merging from Merge Conveyor onto Main Conveyor with Illuminated Emergency Stop Station

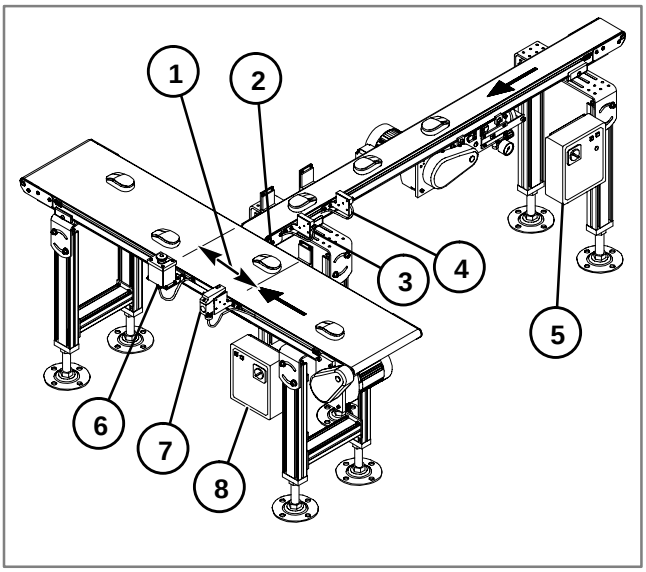
Both the main conveyor and the merge conveyor are normally running and parts from the merge conveyor are automatically merged onto the main conveyor. If a part from the merge conveyor arrives at the intersection and there are no parts in the merge intersection the merge conveyor will continue to run and merge the part onto the main conveyor. If a part from the main conveyor is passing through the merge intersection and a merge conveyor part arrives at the intersection, the merge conveyor is stopped until the intersection clears. Both conveyors will also stop when the operator activates the Illuminated Emergency Stop Station. The Emergency Stop will illuminate whenever the unit is activated. The conveyors restart when the operator resets the Emergency Stop. See Figure 1.

Application Notes

- The speed of the main and merge conveyors should be the same.
- Part shape and conveyor guiding must be such to ensure that parts are capable of traversing merge intersection and maintain proper orientation.
- The speed of conveyors should not be set too high to cause excess slippage as merging part moves onto main conveyor.
- Part spacing or gap, on the main conveyor, should be at least the greater value of 1.5 times the length of the merge intersection or 1.5 times the length of the part.
- Part spacing or gap, on the merge conveyor, should be at least 2 to 3 times the length of the part. The merge intersection length is measured from the Photo-Eye on the main conveyor to the farthest point where the merge conveyor intersects the main conveyor. See Figure 1.
- If the main conveyor is stopped for any reason then the merge conveyor will automatically be stopped and the operator will have to manually clear the intersection of parts before restarting the conveyors.
- The placement and location of the three Photo-Eyes used to control the merging conveyor is very critical to ensure reliable and error free operation of the merge intersection. Testing with actual parts and conveyors is recommended to fine tune Photo-Eye placements. See Figure 1.

Photo-Eye Descriptions

- **Part at merge entrance** (4). When a part blocks this Photo-Eye, it indicates that a part is entering the merge area. If this Photo-Eye and the Part in Intersection Photo-Eye (7), are both blocked, then the merge conveyor is stopped.
- **Part is committed** (3). When a part on the merge conveyor blocks this Photo-Eye, it indicates that the part is now too close to the intersection to stop [even if a part arrives at the Part in Intersection Photo-Eye (7)]. If this Photo-Eye is blocked, the merge conveyor will run regardless of the status of the Part in Intersection Photo-Eye (7).
- **Part in intersection** (7)**.** When a part from the main conveyor blocks this Photo-Eye, it indicates that a part is now in the intersection and that all parts from the merge conveyor should be held until this part passes through the intersection. This Photo-Eye is a Timing Photo-Eye configured to use the a time-delay-off function with a time value that ensures the entire part clears the intersection, before starting the merge conveyor.



1- Length of Merge Intersection
2- Linking Cable
3- Part is Committed Standard Photo-Eye
4- Part at Merge Entrance Standard Photo-Eye
5- Merge Conveyor Impac 100
6- Illuminated Emergency Stop Station
7- Part in Intersection Timing Photo-Eye
8- Main Line Conveyor Impac 100

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controllers (matched to your motors)
2 Adjustable or fixed mount Standard Photo-Eye Kits (75-30 or 75-31)
1 Adjustable or fixed mount Timing Photo-Eye Kit (75-32 or 75-33)
1 Controller to Controller Linking Cable Kit (75-80)
1 Illuminated Emergency Stop Kit (75-40)

Setup and Test

- Install both Impac 100 Conveyor Controllers. Review the Impac 100 Operating & Installation Manual(s) shipped with the units.
- Install the Part in Intersection Timing Photo-Eye (7) on the main conveyor 1.5 part lengths prior to the merge intersection. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Install the Part is Committed Standard Photo-Eye (3) on the merge conveyor 1/2 part length prior to the merge intersection. Use Figure 1 to aid in kit mounting location.
- Install the Part at Merge Entrance Standard Photo-Eye (4) on the merge conveyor one part length prior to the

merge intersection. Use Figure 1 to aid in kit mounting location.

- Install the Emergency Stop Station to the desired location along conveyor and ensure that it provides easy operator access. Use Figure 1 to aid in kit mounting location.
- Disconnect power to the Impac 100's.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal blocks. See Figure 2.
- Connect the Part in Intersection Timing Photo-Eye to the merge conveyor Impac 100.

  Remove jumper between terminals PE1 & PE2.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal PE1.

  Insert wire #5 (White) into terminal PE2.

  Wire #3 (Green) is not used and should be taped off.
- Connect the Part is Committed Photo-Eye to the merge conveyor Impac 100.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #3 (Green) into terminal PE1.

  Insert wire #4 (Brown) into terminal PE2.

  Wire #5 (Yellow) is not used and should be taped off.
- Connect the Part at Merge Entrance Photo-Eye to the merge conveyor Impac 100.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal PE1.

  Insert wire #5 (Yellow) into terminal PE2.

  Wire #3 (Green) is not used and should be taped off.
- Connect the Illuminated Emergency Stop Station or Pull-Cord to the main Impac 100.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Remove jumper between terminals ES1 & ES2.

  Insert wire #4 (Brown) into terminal ES1.

  Insert wire #5 (White) into terminal ES2.

  Wires #3 (Green) is not used and should be taped off.
- Connect the Linking Cable Kit to the main Impac 100 and the merge Impac 100 Controller. Then, at the last main conveyor Impac 100 Controller:

  Insert wire #5 (White) into terminal MR1.

  Insert wire #4 (Brown) into terminal MR2.

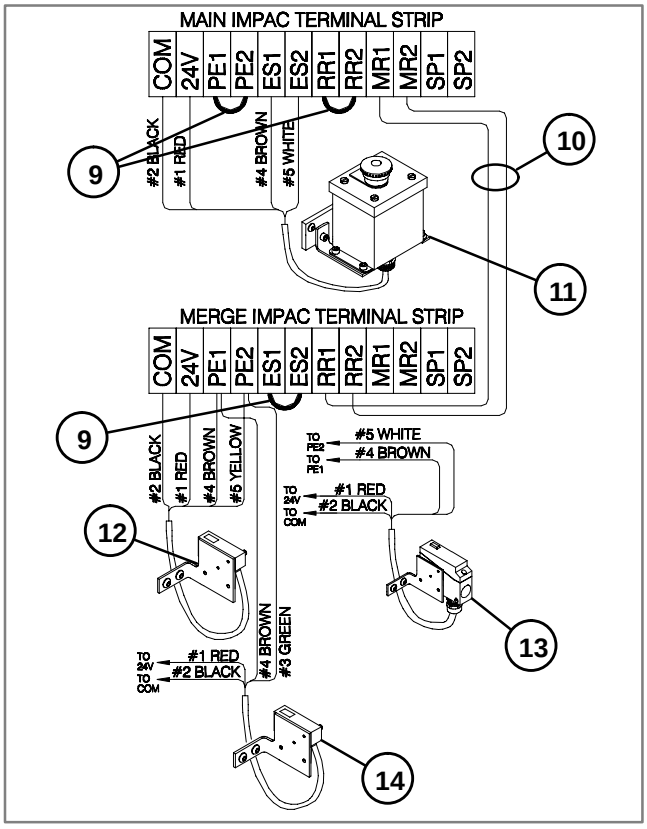
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- At the merge conveyor Impac 100 Controller:

  Remove jumper between terminals RR1 & RR2.

  Insert wire #5 (White) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wiress #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Follow the directions on the Photo-Eye specification sheet to select the a time-delay-off (Off-Delay) function and to set the time value to ensure the entire part clears the merge intersection. This value can be calculated by dividing the part spacing, or gap, on the main conveyor by the speed of the conveyor. Gap should be at least the greater value of 1.5 times the length of the merge intersection or 1.5 times the length of the part.
- Restore power to both Impac 100's and test merging operation. Fine tune Photo-Eye location and time values as required.
- File a copy of this application inside one or both of the Impac 100 Controllers.

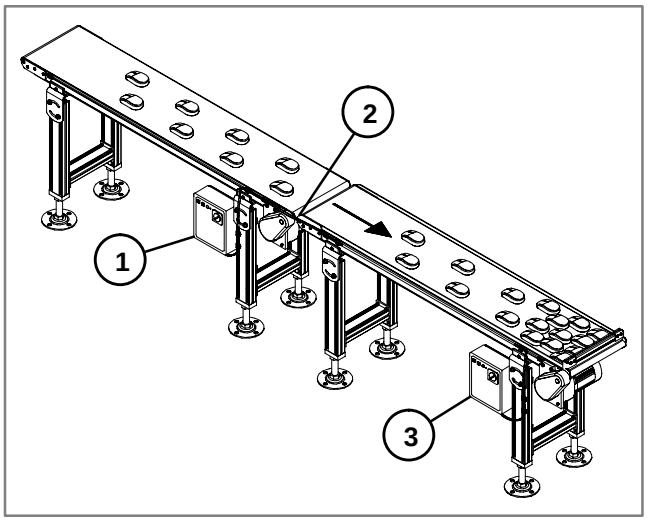


9- Jumpers
10- Linking Cable
11- Illuminated Emergency Stop Station
12- Part at Merge Entrance Standard Photo-Eye
13- Part in Intersection Timing Photo-Eye
14- Part is Committed Standard Photo-Eye

Figure 2

Two (or More) Conveyors Controlled For Coordinated Starting/Stopping

Two or more conveyors are normally running and all "upstream" conveyors stop when the operator turns the last Impac 100 Controller off. All "upstream" conveyors will be controlled "on" or "off", from the last "downstream" Impac 100 Controller. See Figure 1.



1- Next to Last Impac 100 Controller
2- Linking Cable
3- Last Impac 100 Controller

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controllers (matched to your motors)
1 Controller to Controller Linking Cable Kit (75-80)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Linking Cable Kit to the last Impac 100 and the next to last Impac 100 Controller. Then, at the last Impac 100 Controller:

  Insert wire #5 (White) into terminal MR1.

  Insert wire #4 (Brown) into terminal MR2.

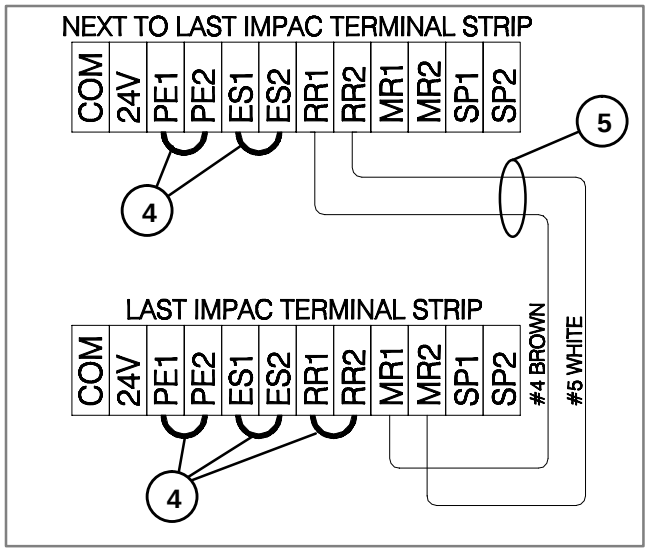
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- On the next to last Impac 100 Controller:

  Remove jumper between terminals RR1 & RR2.

  Insert wire #5 (White) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2.

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Restore power to Impac 100's and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.

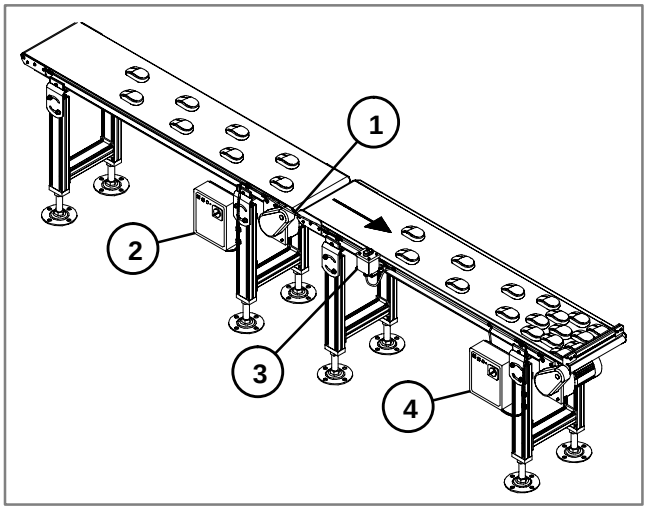


4- Jumpers
5- Linking Cable

Figure 2

Two (or More) Conveyors Controlled from a Single Start/Stop Station

All conveyors are normally stopped and all will run when the operator depresses the start button. All conveyors will stop when the operator depresses the Stop Button. See Figure 1.



1- Linking Cable
2- Next to Last Impac 100 Controller
3- Start/Stop Station
4- Last Impac 100 Controller

Figure 1

Hardware Requirements

2 Impac 100 Conveyor Controllers (matched to your motors)
1 Linking Cable Kit (75-80)
1 Start/Stop Kit (75-70)

Setup and Test

- Install Impac 100. Review Impac 100 Operating & Installation Manual shipped with the unit.
- Install the Start/Stop Station to the desired location along the conveyor and ensure that it provide easy operator access. Use Figure 1 to aid in kit mounting location. For additional information on mounting see the Impac Accessory Kit Setup & Installation Guide shipped with kits.
- Disconnect power to the Impac 100.
- Use the screwdriver furnished with the Impac 100 Controller to connect accessory kit wires to the Impac 100 terminal block. See Figure 2.
- Connect the Start/Stop Station to the last Impac100.

  Remove jumper between terminals RR1 & RR2.

  Insert wire #1 (Red) into terminal 24V.

  Insert wire #2 (Black) into terminal COM.

  Insert wire #4 (Brown) into terminal RR1.

  Insert wire #5 (White) into terminal RR2.

  Wire #3 (Green) is not used and should be taped off.
- Connect the Linking Cable to the last Impac 100 and to the next to last Impac 100 Controller. Then, at the last Impac 100 Controller:

  Insert wire #5 (White) into terminal MR1.

  Insert wire #4 (Brown) into terminal MR2

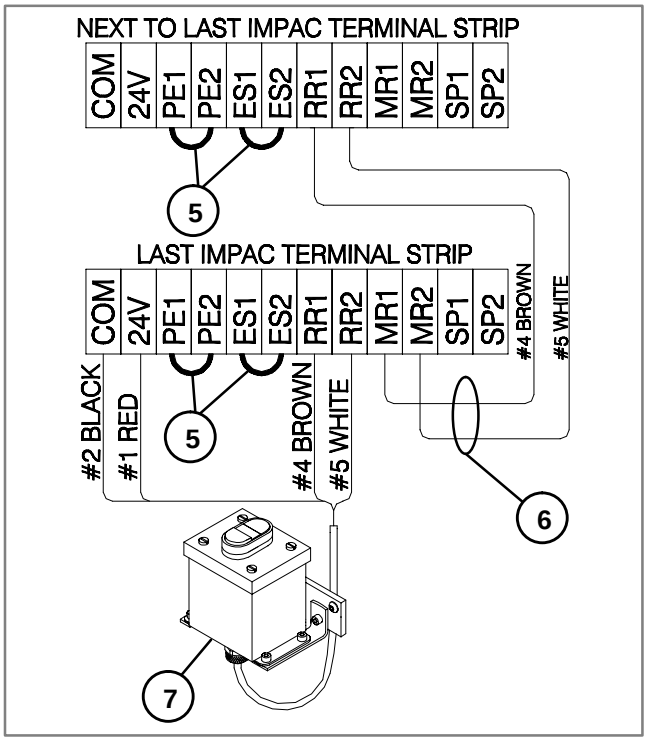
  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- At the next to last Impac 100 Controller:

  Remove jumper between terminals RR1 & RR2.

  Insert wire #5 (White) into terminal RR1.

  Insert wire #4 (Brown) into terminal RR2

  Wires #1, #2 & #3 (Red, Black & Green) are not used and should be individually taped off.
- Restore power to Impac 100 and test operation of the conveyor.
- File a copy of this application inside the Impac 100 Controller.



5- Jumpers
6- Linking Cable
7- Start/Stop Station

Figure 2

Appendix A
Impac 100 Application Design Considerations

Operator and System Safety

It is very important to design each and every application with operator and part safety in mind. Use of the Impac Emergency Stop pull cord kit or the Emergency Stop pushbutton station kits make it extremely easy to provide protection for the operators, maintenance personnel, and the product being conveyed. Additionally, all control accessory kits are controlled with low voltage 24 volts D.C. logic thus providing another measure of safety.

Motor Protection

To ensure a highly reliable conveyor control application motor protection needs to be designed into the application so that problems are detected before the motor is damaged. Integral to the Impac 100 controller is motor overload protection, fusing of input power, and proper grounding of all units.

Ease of Maintenance and Troubleshooting

A key feature of the maintainability of any conveyor control application is not only how well it is designed but also how well it is documented and what troubleshooting information is provided. Integral to the Impac 100 controller (affixed to the inside of the controller cover) is a complete control schematic and troubleshooting guide.

Photo-Eye Timing Functions

Two Impac accessory kits come equipped with a timing Photo-Eye. The optional timing functions allow the user a great deal of flexibility in implementing various conveyor control applications. Included with the timing Photo-Eye kit is the technical specification sheet on the timer functions supported. Below is a summary of several of the key functions.

1. **Time-Delay-On**

   This is also sometimes referred to as an "ON-DELAY" function. This means that when the Photo-Eye senses a part (the beam is blocked) it will delay for a preset time (selected by the user) before signaling the Impac 100 controller that the part is present. The signal from the Photo-Eye will be removed when the trailing edge of the part passes the Photo-Eye. A key point to realize is that if the Photo-Eye time delay value expires and the part is already past the Photo-Eye then no signal will be sent to the Impac 100 controller. (Useful for conveyor full detection, jam detection, etc.). If another part is sensed by the Photo-Eye during its delay period, the time delay is reset to the initial value (starts over).

2. **Time-Delay-Off**

   This is also sometimes referred to as an "OFF-DELAY" function. This means that when the Photo-Eye senses a part (the beam is blocked) it will immediately signal the Impac that the part is present but when the part passes the Photo-Eye the signal will remain "on" for a preset time (selected by the user) before signaling the Impac 100 controller that the part has passed. (Useful for conveyor "indexing" applications that require conveyor to run after part has passed Photo-Eye, and handling of parts that give multiple triggers to a Photo-Eye). If another part is sensed by the Photo-Eye during its delay period, the time delay is reset to the initial value (starts over).

   There are several other Photo-Eye timing functions supported by the Impac Accessory Kits' Photo-Eye and they are detailed in the specification sheet included with the kit. However, the above two functions will meet most of the common conveyor control applications.

   A key issue to review before any application is considered is, can the accessory kit device (typically a Photo-Eye) "see" the part at the point on the conveyor where you would like to mount the unit? The Photo-Eye used is a retro-reflective polarized beam Photo-Eye. Included with the Photo-Eye Setup & Installation Guide is the manufactures' Photo-Eye specification. Generally, if the Photo-Eye beam can be blocked by the part movement on the conveyor the application should function correctly.

   Make sure part is taller than conveyor side rails and that it has no "holes" that the Photo-Eye would see as a false trigger. If there are "holes" in the part look at angling Photo-Eye across conveyor so it does not "see" the part hole or using a timing Photo-Eye with the "time-delay-off" function.

   Check to see if part is small enough that it might "coast through" the Photo-Eye beam before the conveyor has a chance to stop. If the part is too small, look at using two Photo-Eyes mounted close to each other so that if either Photo-Eye beam is blocked the conveyor stops.

Conveyor Stopping Distances & Belt Speed

The faster the conveyor speed the longer the stopping distance. If the application requires a small stopping distance then motor braking may be required. This can be accomplished using a clutch/brake kit, or using an Impac 100 controller and a DC motor, or using an Impac 100 controller with a VFD module (variable frequency drive) and an AC motor.

Frequency of Conveyor Stops and Starts

If a DC or AC motor is being used and the application would require more than **10 starts and stops** of the motor per minute then a clutch/brake unit should be used. This would allow the motor to run continuously while the clutch/brake stops and starts the conveyor belt.

The maximum number of motor starts and stops will vary, depending on motor type; user should check motor specifications.

Location of Accessory Devices

Ensure that accessory devices, mounted to the conveyor, are out of harms way and that they will not hamper normal conveyor or adjacent machine operation and maintenance. Dimensions of the Impac 100 are: 12″ (305 mm) high by 10″ (254 mm) wide by 5″ (127 mm) deep. Accessory Kit dimensions are provided in Appendix C.

Appendix B
Impac 100 Circuit Description

The Impac 100 control circuit is designed to support electrical interconnections to a variety of accessory kits (Photo-Eyes, Emergency Stops, Jog Buttons, Foot Switches, Emergency Stop Pull-Cord units, process machine/PLC/PC dry contact interfaces, and more). The kits are connected to the Impac 100 using convenient terminal point connections inside the controller. This allows the user to interconnect the kits to fit specific application control needs.

A simplified version of the Impac 100 control circuit is shown in Figure 1. Four groupings of terminal point connections have been provided for connecting all Impac accessory kits.

1. The first group (**COM-24V**) provides 24 volts D.C. power for any accessory kits that need power (Photo-Eyes, illuminated pushbuttons, etc.).
2. The next group (**PE1-PE2**, **ES1-ES2**, and **RR1-RR2**) provide three sets of control points for wiring accessory kits into the Impac 100 control circuit. Each group is configured with a jumper when the Impac 100 controller is shipped. When an accessory kit is to be installed the jumper is removed and the kit connected. Each set of control points represents a "series" connection to the Impac 100 control circuit. When accessory kits are wired in "series" it means that all connected accessories must be "on" for the conveyor to run. For example, if an accessory kit is wired to **PE1-PE2** and another accessory kit is wired to **ES1-ES2**, then both accessories must be "on" for the conveyor to run.

   The Impac 100 controller also supports wiring Impac accessory kits in "parallel". When an accessory kit is wired in "parallel" it means "if either" accessory kit is "on" the conveyor will run. Accessories connected in parallel are connected to the same Impac 100 terminal points.

   For example, if two accessory kits are wired to **PE1-PE2** then when either kit is "on" the conveyor will run. Any number of Impac accessories can be configured in any of the above series and parallel combinations.
3. The third group of terminals (**MR1-MR2**) provide an output contact (dry contact) that is closed when the conveyor is running. This can be used to link multiple conveyor operations together or to provide status back to a host controller.
4. The last group of terminals (**SP1-SP2**) are two spare terminal points that the user can use for extra termination points for accessory kit wiring.

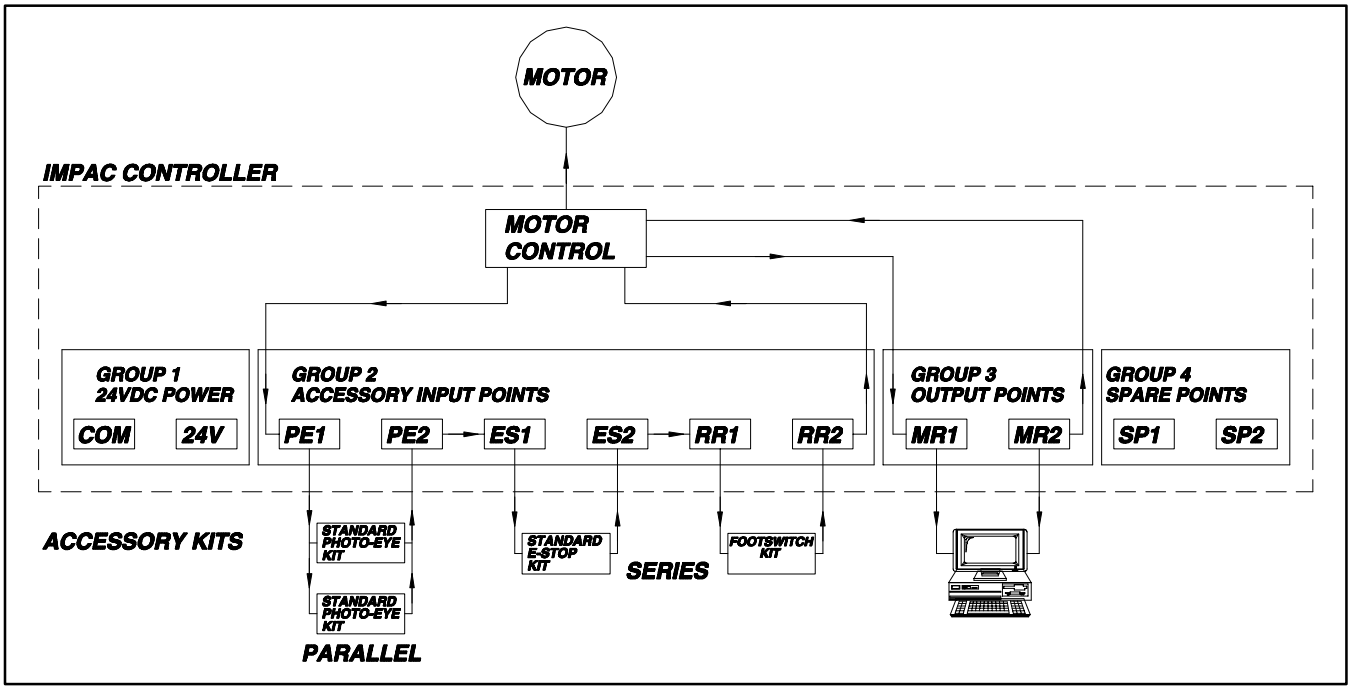


Figure 1: Simplified Impac 100 Control Circuit

Appendix C
Impac Accessory Kit Wiring Diagrams & Dimensions

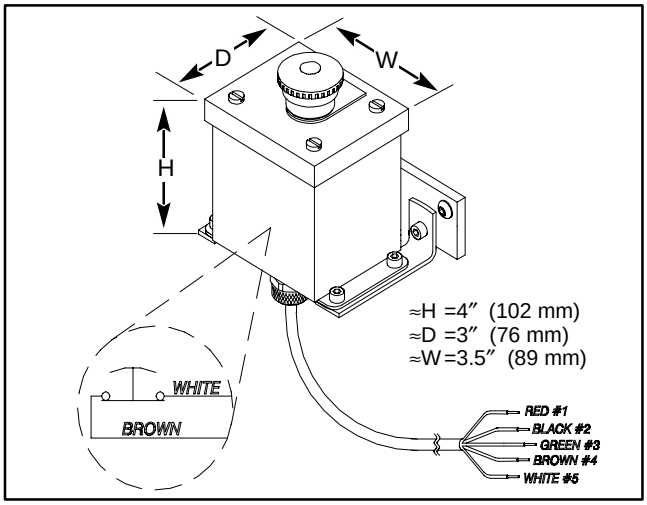


Figure 1: Emergency Stop Kit, Non-Illuminated (75-41)

NOTE:
In Figure 1, the switch is shown when the Emergency Stop button is pulled-out. When the Emergency Stop button is depressed the switch will open.

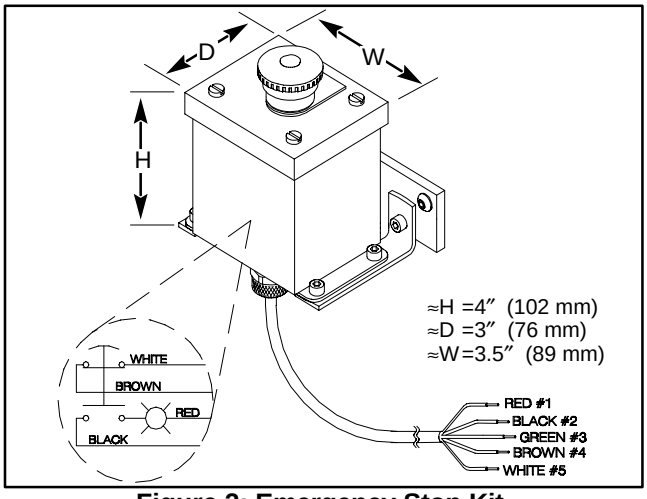


Figure 2: Emergency Stop Kit, Illuminated (75-40)

NOTE:
In Figure 2, the switch is shown when the Emergency Stop button is pulled-out. When the Emergency Stop button is depressed the switch will open and the light will be illuminated.

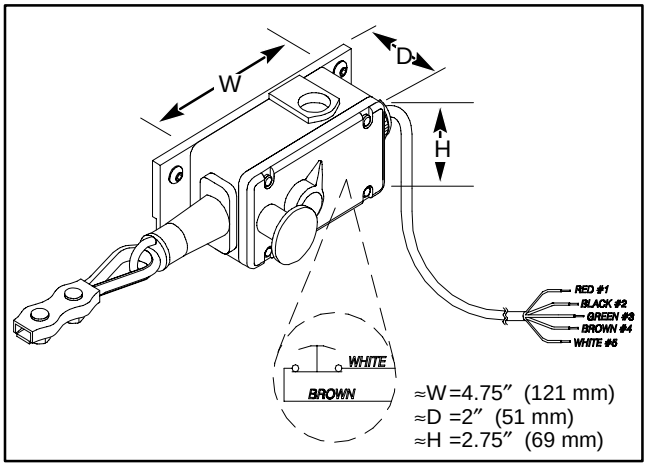


Figure 3: Emergency Stop Kit, Pull-Cord (75-42)

NOTE:
In Figure 3, the switch is shown when the reset button is pulled-out and the Pull-Cord is properly tensioned, but not tripped. When the Pull-Cord is tripped the switch will open.

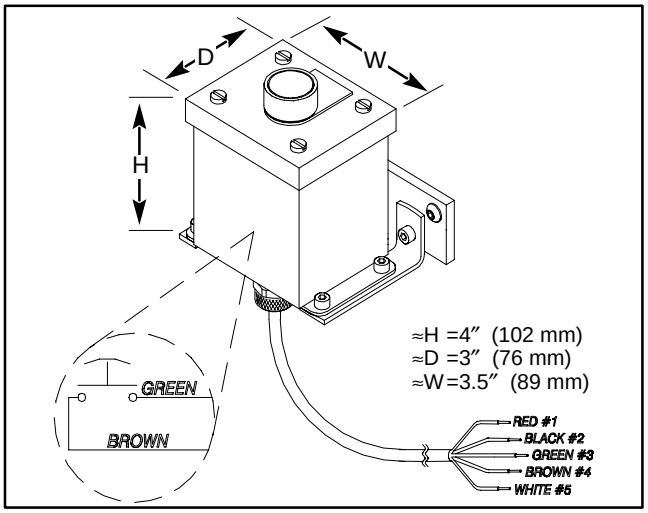


Figure 4: Jog Kit (75-10)

NOTE:
In Figure 4, the switch is shown when the jog button is not pushed. When the jog button is depressed the switch will close until the button is released.

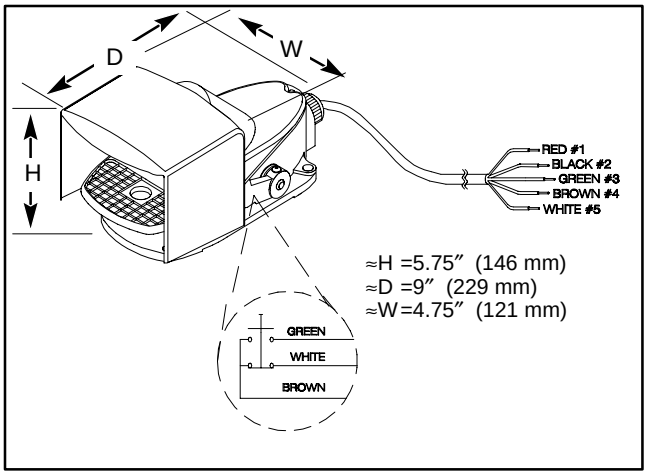


Figure 5: Foot Switch Kit (75-20)

NOTE:

In Figure 5, the Foot Switch is shown when the pedal is not depressed. When the Foot Switch is not depressed the green and brown wires are not connected, and the white and brown wires are connected. When the Foot Switch is depressed the green and brown wires are connected, and the white and brown wires are not connected.

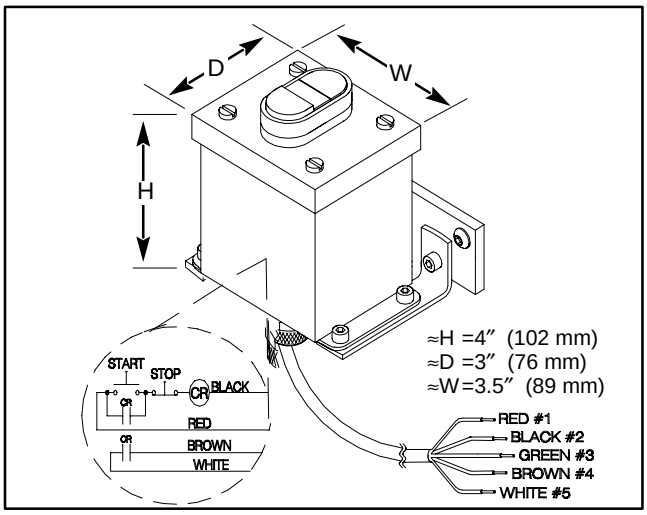


Figure 6: Start/Stop Kit (75-70)

NOTE:

In Figure 6, when the start button is depressed the CR relay is energized closing the CR relay contacts. This latches in the start button and closes the contact between the brown and white wires. When the stop button is depressed, CR relay is de-energized, which opens the CR relay contacts.

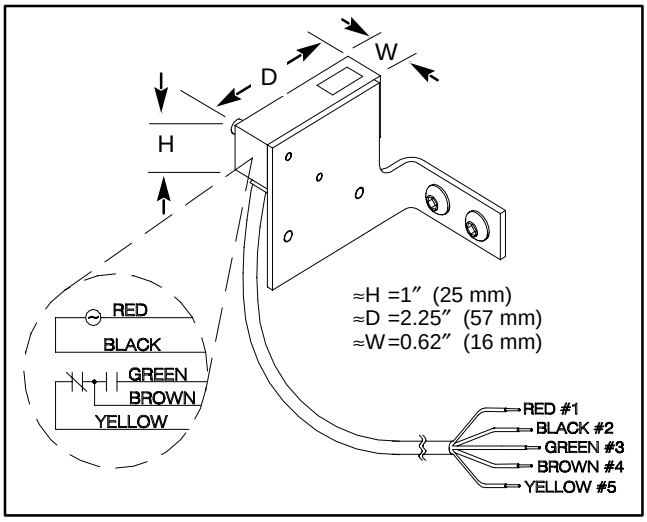


Figure 7: Standard Photo-Eye Kits, (75-30) & (75-31)

NOTE:

In Figure 7, the contacts are shown when a part is not blocking the Photo-Eye beam. When the Photo-Eye is blocked, the contact between the yellow and brown wires becomes open and the contact between green and brown wires becomes closed.

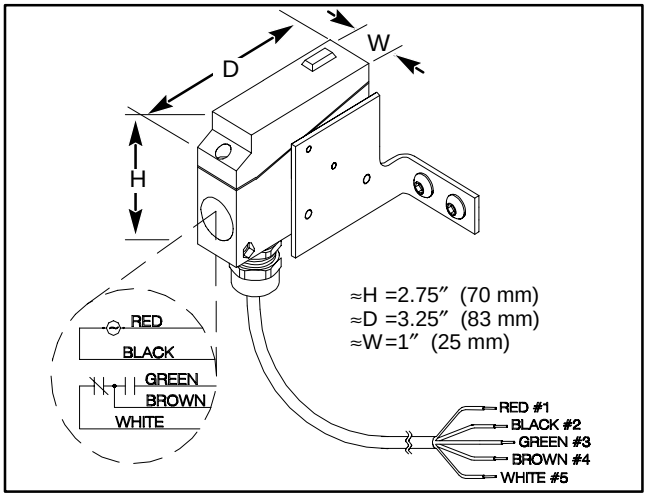


Figure 8: Timing Photo-Eye Kits, (75-32) & (75-33)

NOTE:

In Figure 8, the contacts are shown when a part is not blocking Photo-Eye beam, and the timing function has expired. When the Photo-Eye is blocked, the contact between the white and brown wires becomes open and the contact between green and brown wires becomes closed.

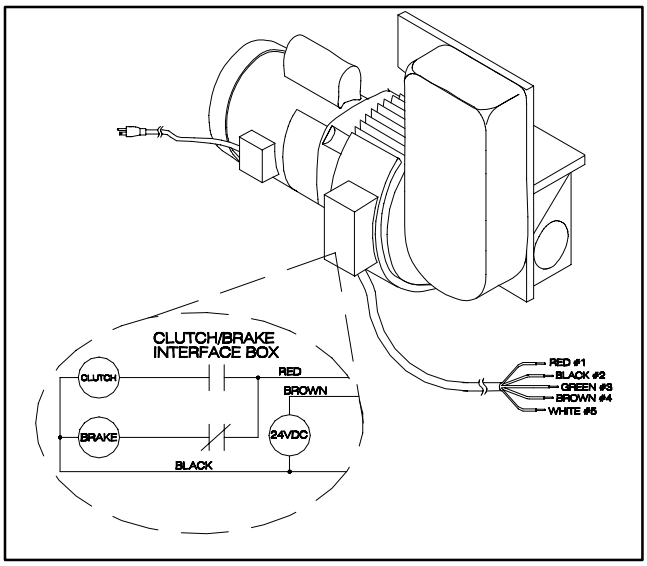


Figure 9: Electric Clutch/Brake Kit (75-60)

NOTE:

In Figure 9, the contacts are shown when the relay is not energized. The brake is engaged and will not allow the conveyor belt to move. The clutch is not engaged to the motor. When the relay is energized, the brake will disengage from the conveyor and the clutch will engage causing the conveyor belt to start moving.

Application Worksheet

Application Name: By: Date:

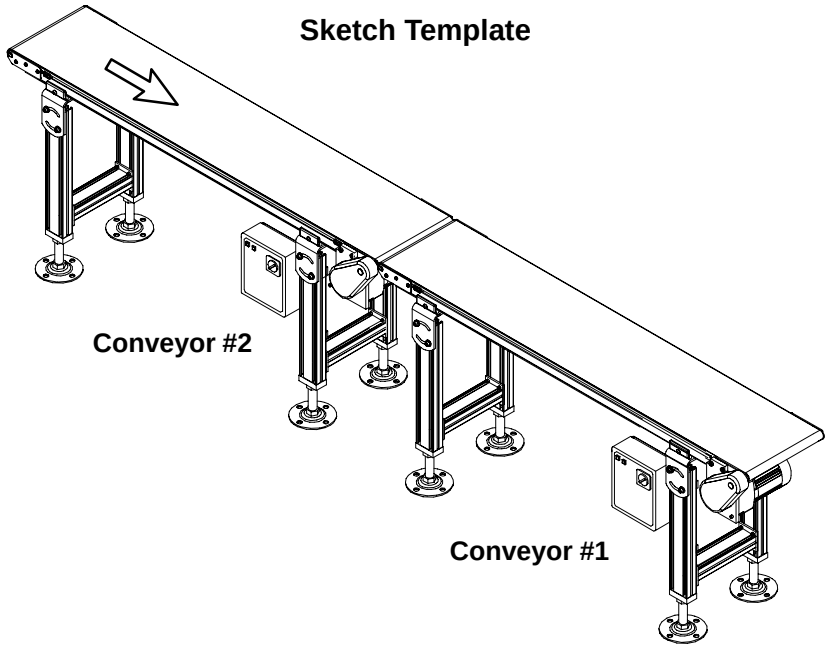
Use this worksheet as a tool for designing custom applications not found in this guide.

Check List

- ☐ Sketch the accessory kits into the Sketch Template.
- ☐ List the kits and parts on the Parts List.
- ☐ Fill-out the Terminal Strip Diagram using the Wiring Details Chart (see next page).
- ☐ Test the application after the kits are connected.
- ☐ File a copy of this worksheet with IMPAC 100.

Parts List:

Sketch Template



Terminal Strip Diagram

Conveyor #2

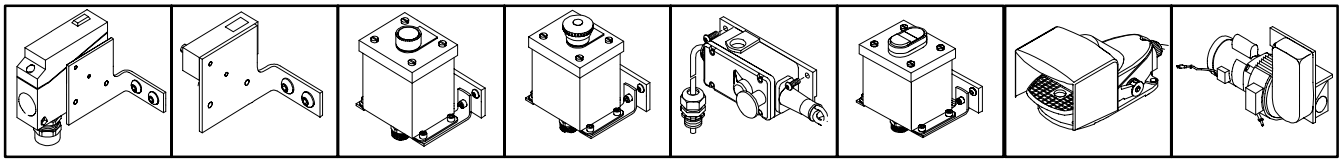
IMPAC TERMINAL STRIP

COM	24V	PE1	PE2	ES1	ES2	RR1	RR2	MR1	MR2	SP1	SP2

Conveyor #1

IMPAC TERMINAL STRIP

COM	24V	PE1	PE2	ES1	ES2	RR1	RR2	MR1	MR2	SP1	SP2



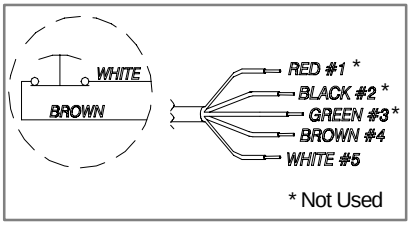
Timing Photo-Eye | Standard Photo-Eye | Jog Station | Emergency Stop Station | Pull-Cord | Start/Stop Station | Foot Switch | Clutch/Brake

impac™ 100

Application Worksheet

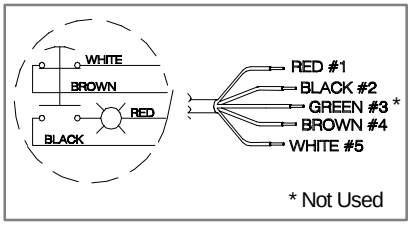
Wiring Details Chart

Use these charts to fill-out the Terminal Strip Diagram.



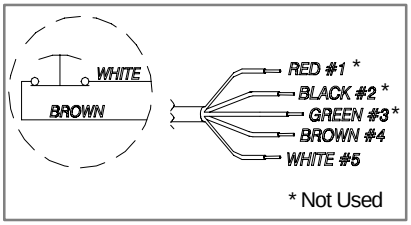
Emergency Stop Station 75-41

The switch is shown the E-Stop button is pulled-out. When the E-Stop button is depressed the switch will open.



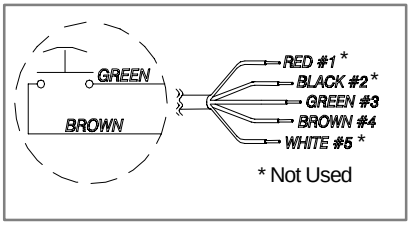
Illuminated Emergency Stop 75-40

The switch is shown when the E-Stop button is pulled-out. When the E-Stop button is depressed the switch will open and the light will be illuminated.



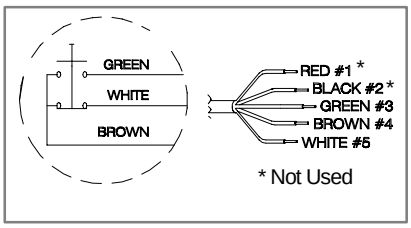
Pull-Cord 75-42

The switch is shown when the reset button is pulled-out and the pull-cord is properly tensioned, but not tripped. When the pull-cord is tripped the switch will open.



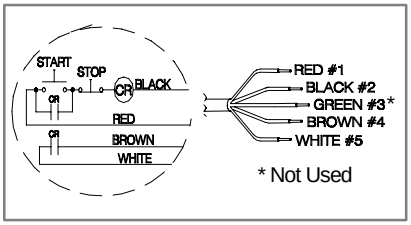
Jog Station 75-10

The switch is shown when the jog button is not pushed. When the jog button is depressed the switch will close until the button is released.



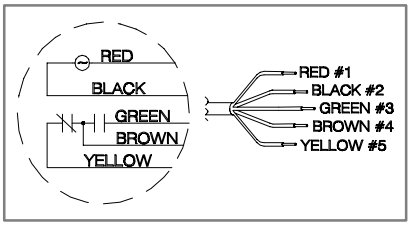
Foot Switch Kit 75-20

The Foot Switch is shown when the pedal is not depressed. The green and brown wires are open, and the white and brown wires are closed. When the Foot Switch is depressed the green and brown wires are closed, and the white and brown wires are open.



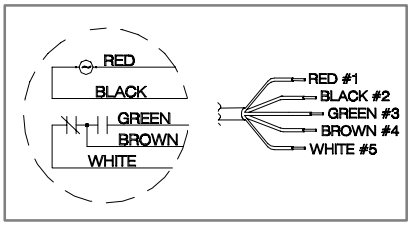
Start/Stop Station 75-70

When start button is depressed the CR relay is energized closing CR relay contacts. This latches in the start button and closes the contact between brown and white wires. When the stop button is depressed, CR relay is de-energized, which opens CR relay contacts.



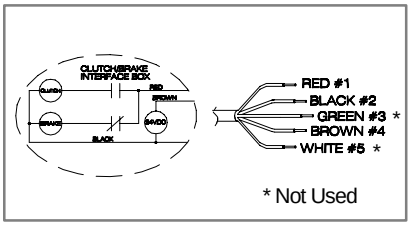
Standard Photo-Eyes 75-30 & 75-31

The contacts are shown when a part is not blocking the photo-eye beam. When the photo-eye is blocked, the contact between the yellow and brown wires becomes open and the contact between green and brown wires becomes closed.



Timing Photo-Eyes 75-32 & 75-33

The contacts are shown when a part is not blocking photo-eye beam, and timing function has expired. When photo-eye is blocked, contact between the white and brown wires becomes open and the contact between green and brown wires becomes closed.



Clutch/Brake 75-60

Contacts are shown when relay is not energized. Brake is engaged and will not allow conveyor belt to turn. The clutch is not engaged to motor. When relay is energized, brake will disengage from conveyor and clutch will engage, causing conveyor belt to start moving.

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FAX (02401) 80 52 93

Application Worksheet

impac™ 100

Application Name: TWO CONVEYORS CONTROLLED BY ONE JOG KIT By: R.C. Date: 9/12/96

Use this worksheet as a tool for designing custom applications not found in this guide.

Check List

- ☑ Sketch the accessory kits into the Sketch Template.
- ☑ List the kits and parts on the Parts List.
- ☑ Fill-out the Terminal Strip Diagram using the Wiring Details Chart (see next page).
- ☑ Test the application after the kits are connected.
- ☑ File a copy of this worksheet with IMPAC 100.

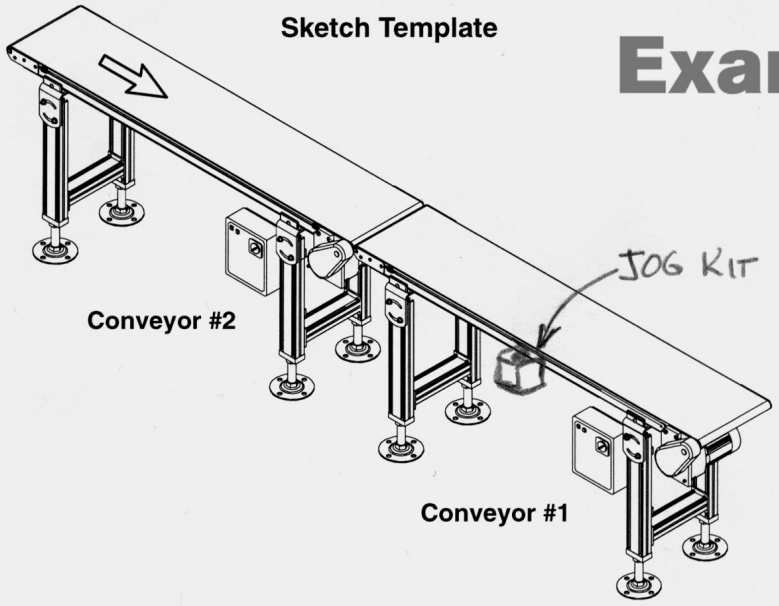
Parts List:

1 JOG KIT (75-10)

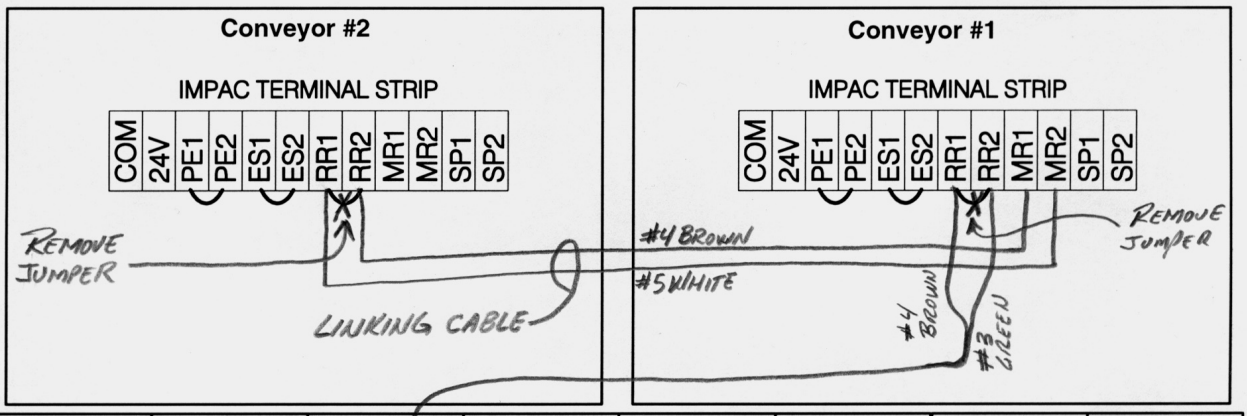
1 LINKING KIT (75-80)

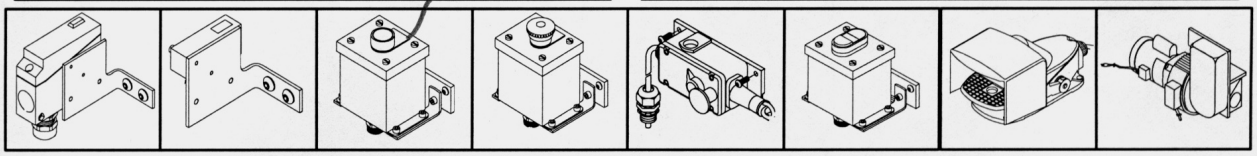
Sketch Template

Example



Terminal Strip Diagram





Timing Photo-Eye | Standard Photo-Eye | Jog Station | Emergency Stop Station | Pull-Cord | Start/Stop Station | Foot Switch | Clutch/Brake

RETURN POLICY

Returns must have prior written factory authorization or they will not be accepted. Items that are returned to Dorner without authorization will not be credited nor returned to the original sender. When calling for authorization, please have the following information ready for the Dorner factory representative or your local distributor:

1. Name and address of customer.
2. Dorner part number(s) of Item(s) being returned.
3. Reason for return.
4. Customer's original order number used when ordering the item(s).
5. Dorner or distributor invoice number.

A representative will discuss action to be taken on the returned items and provide a Returned Goods Authorization number for reference.

There will be a return charge on all new undamaged items returned for credit where Dorner was not at fault. Dorner is not responsible for return freight on such items.

Conveyors and conveyor accessories

Standard catalog conveyors	30%
MPB Series, cleated and specialty belt conveyors	50%
7400 & 7600 Series conveyors	non–returnable items
Engineered special products	case by case
Drives and accessories	30%
Sanitary stand supports	non–returnable items

Parts

Standard stock parts	30%
MPB, cleated and specialty belts	non–returnable items

Returns will not be accepted after 60 days from original invoice date.

The return charge covers inspection, cleaning, disassembly, disposal and reissuing of components to inventory.

If a replacement is needed prior to evaluation of returned item, a purchase order must be issued. Credit (if any) is issued only after return and evaluation is complete.

Dorner has representatives throughout the world. Contact Dorner for the name of your local representative. Our Technical Sales, Catalog Sales and Service Teams will gladly help with your questions on Dorner products.

For a copy of Dorner's Warranty, contact factory, distributor, service center or visit our website at www.dorner.com.

For replacement parts, contact an authorized Dorner Service Center or the factory.

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