

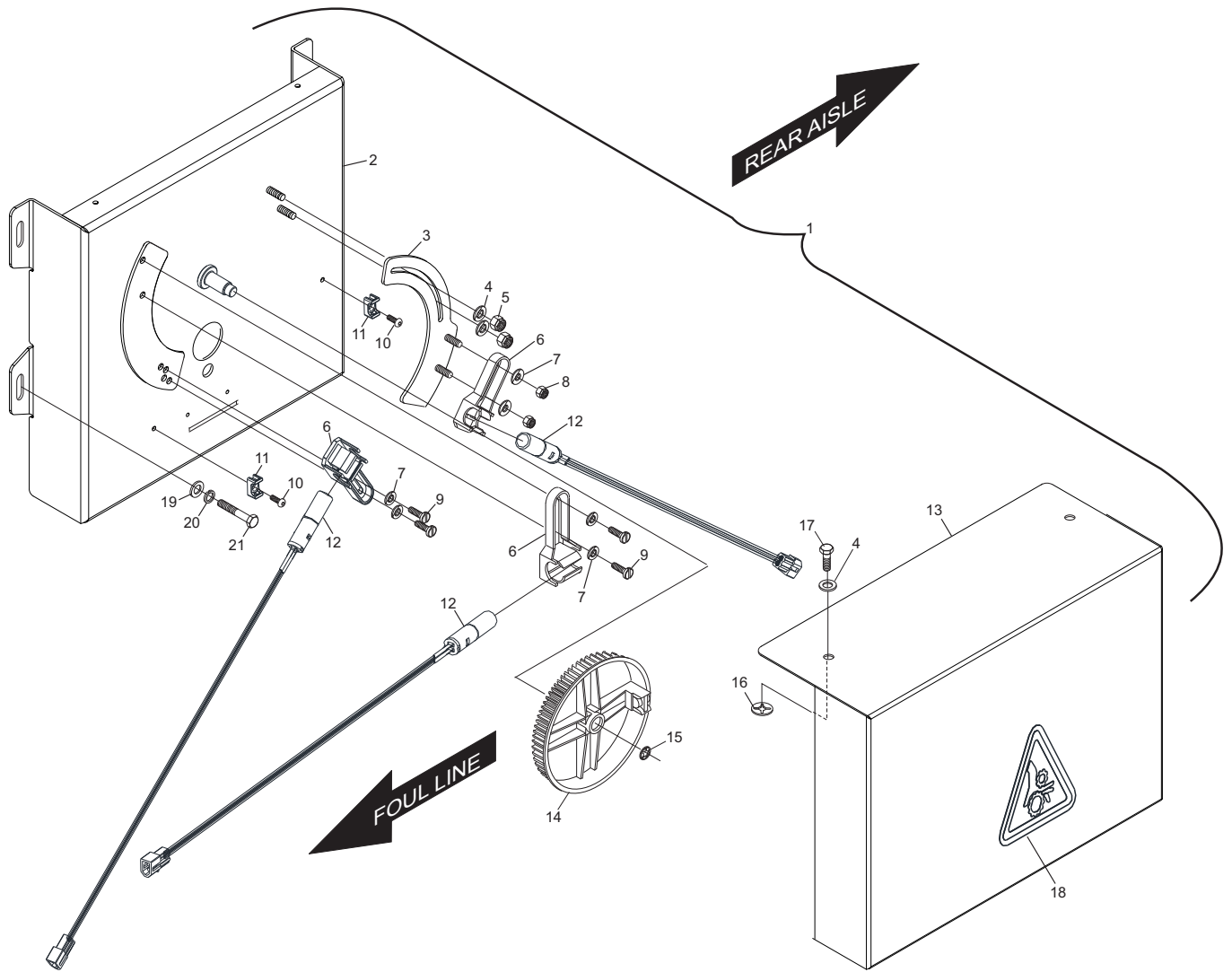
**Section E**

**Electronics**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-078115-009		Cluster Housing Assembly
2.	*55-078115-000		Cluster Housing
3.	55-078255-000		Switch Support 2 (Home Switch)
4.	11-052020-001		Flat Washer (5.3 mm x 12 mm x 1 mm)
5.	11-051742-001		Hex Locknut (M5)
6.	99-050181-004		Switch Holder
7.	11-052021-001		Flat Washer (4.3 mm x 12 mm x 1 mm)
8.	11-051741-001		Hex Locknut
9.	11-052354-001		Slotted Pan Head Machine Screw (M4 x 12 mm)
10.	11-054601-001		Pop Rivet
11.	99-226387-000		Cable Tie Holder
12.	55-143047-000		Assembly - Cluster Reed Switch
13.	55-078116-000		Cluster Cover
14.	55-078216-009		Cluster Gear Assembly
15.	11-053478-001		Quick Lock (Speed Nut)
16.	11-690553-000		Retainer - Push-On
17.	11-051069-001		Screw Hex Cap (M5 x 12 mm)
18.	99-268200-003		"Moving Parts" Safety Label
19.	11-052008-001		Flat Washer (10.5 mm x 20 mm x 2 mm)
20.	11-051769-001		Lock Washer (M10)
21.	11-051035-001		Screw Hex. Cap. (M6 x 16 mm)

\* *Not sold separately - order index number 1.*

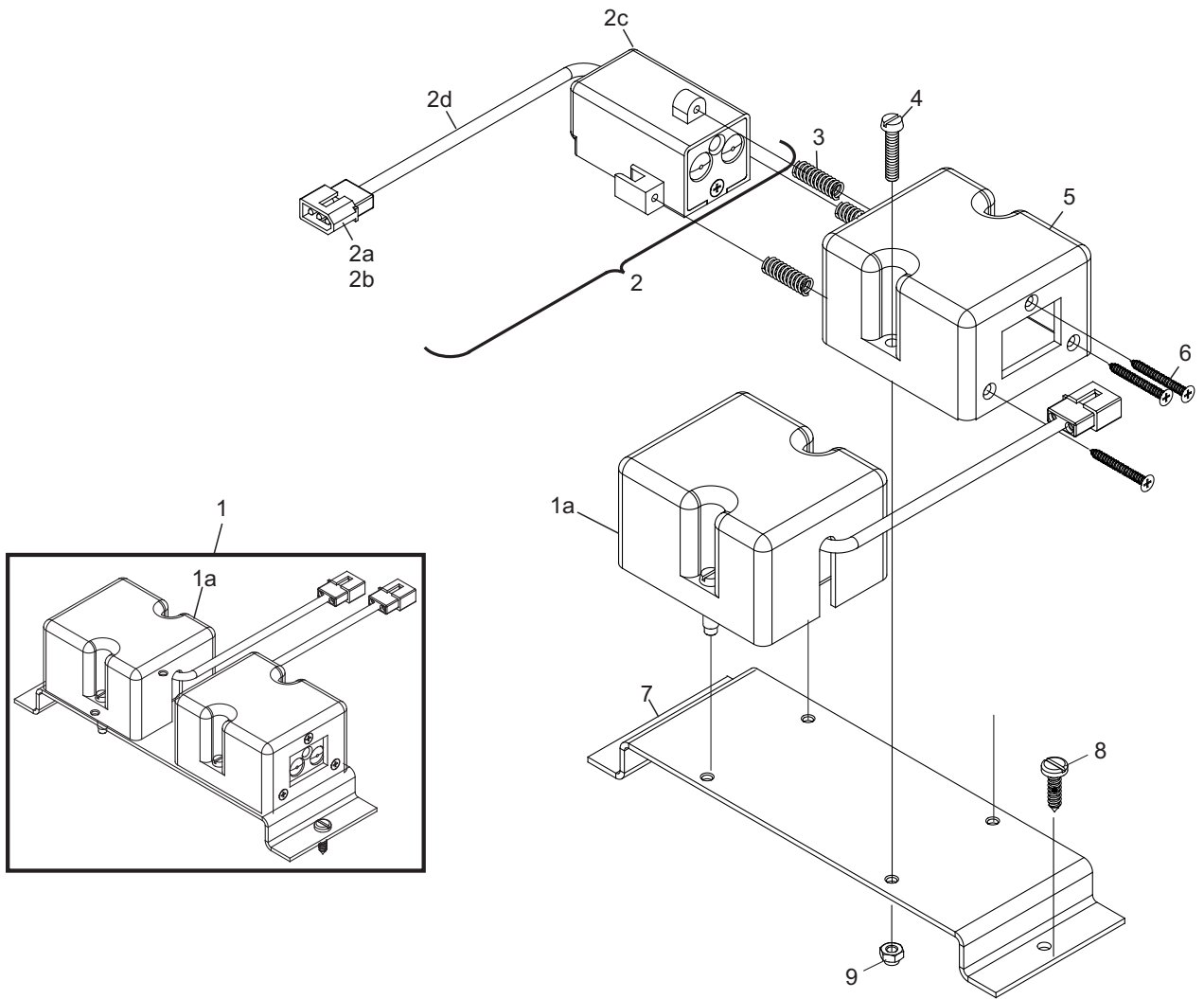
## Switch Cluster



## Switch Cluster

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	99-087141-000		Ball Detect Assembly Complete
1a.	99-087140-000		Ball Detect Only - Single Unit
2.	99-087139-000		Ball Detect Complete
2a.	11-680101-000		Connector Plug (Molex)
2b.	11-680302-000		Pin (Molex)
2c.	99-080193-004		Ball Detector Box
2d.	99-080269-004		Cable - Ball Detector
3.	99-080180-004		Compression Spring
4.	11-052211-001		Slotted Head Machine Screw
5.	99-080186-003		Ball Detect Housing
6.	11-086307-001		Flat Head Tapping Screw
7.	99-080213-003		Support Bracket
8.	11-053203-001		Tapping Screw
9.	11-051741-001		Metric Hex Locknut

## Ball Detect

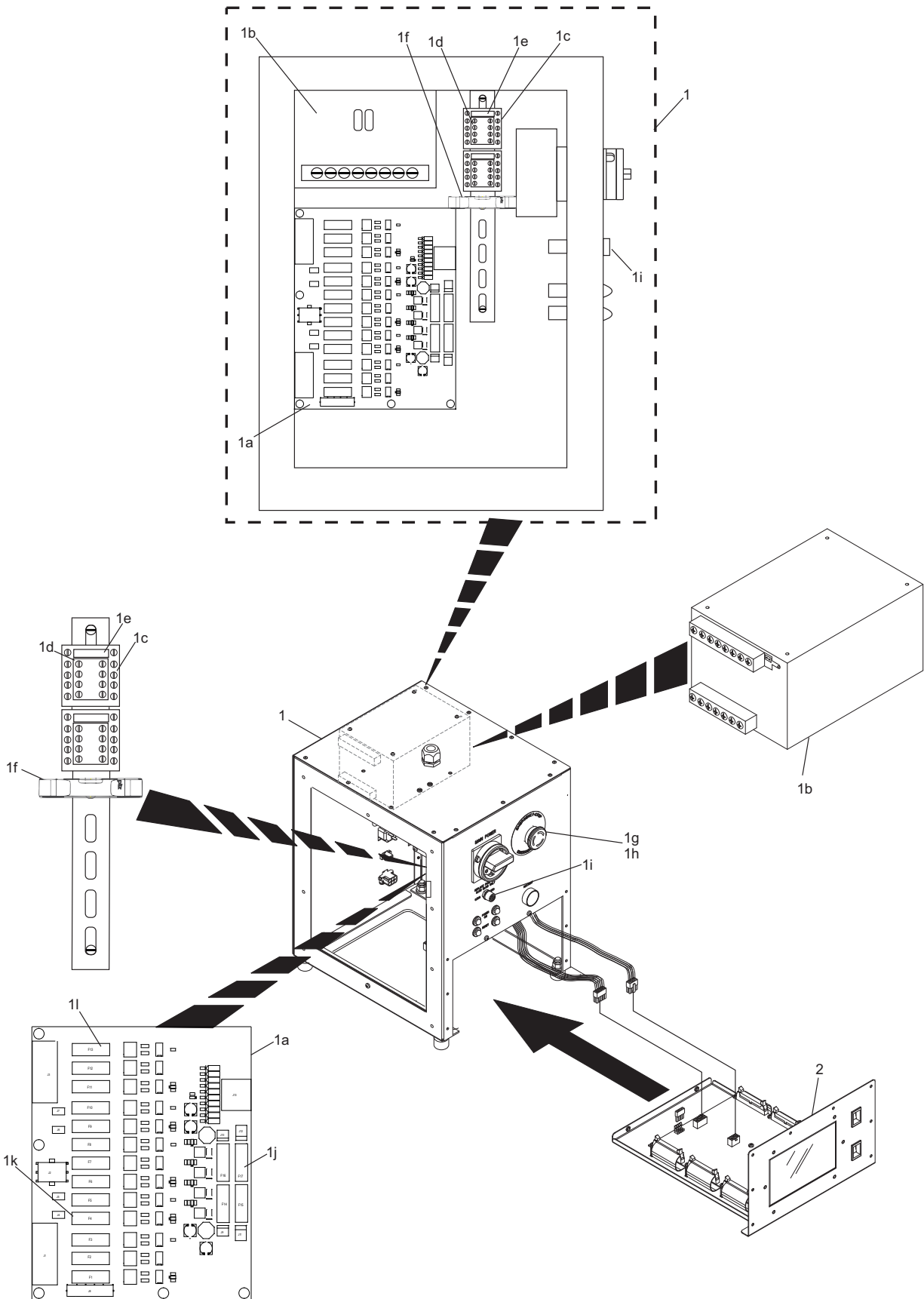


## Ball Detect

Index No.	Part No.	Package / Order Reference	Description
1.	55-143072-000	55-860056-000	Pkg. 360 Controller Assembly - StringPin UL
	55-143026-000	55-860057-000	Pkg. 360 Controller - StringPin CE
1a.	55-143008-230	55-860059-230	High Voltage PCB (230V)
	55-143008-380	55-860059-380	High Voltage PCB (380V)
1b.	11-696982-000	55-860060-000	Power Supply (24V)
1c.	*11-671007-xxx		Power Contactor -12A
1d.	*11-671008-xxx		Contactor Block - NC/NO
1e.	*11-671009-xxx		Surge Suppressor 24V
1f.	11-696694-000		Controller - Pilz (CE Only)
1g.	11-616037-000		Holder, Contact Block - Emergency Stop
1h.	11-616036-000		Button - Emergency Stop
1i.	11-685056-000		Fuse 250V .5A Fast Blo
1j.	11-685061-000	57-861636-000	Fuse 250V 1.0A Slow Blow - Pkg of 4 (Not Shown)
1k.	11-685062-000	14-860242-000	Fuse 250V 2.0A Slow Blow - Pkg of 5 (Not Shown)
1l.	11-685067-000	57-861874-000	Fuse 250V 3.0A Slow Blow - Pkg of 4 (230V Only)
2.	55-143054-400	55-860058-400	Slide Out Assembly - StringPin Ver 1.0 (Replaced by 55-860058-401)
	55-143054-401	55-860058-401	Slide Out Assembly - StringPin Ver 1.1.27 (Replaced by 55-860064-400)
	55-143090-400	55-860064-400	Slide Out Assembly - StringPin Ver 1.1.27
2a.	11-685060-000	47-862854-000	Fuse 250V 3.15 A Fast Blo - Pkg of 5 (Not Shown)

\* xxx - 000 or 100 (Do Not Mix)

## 360 Controller



### 360 Controller

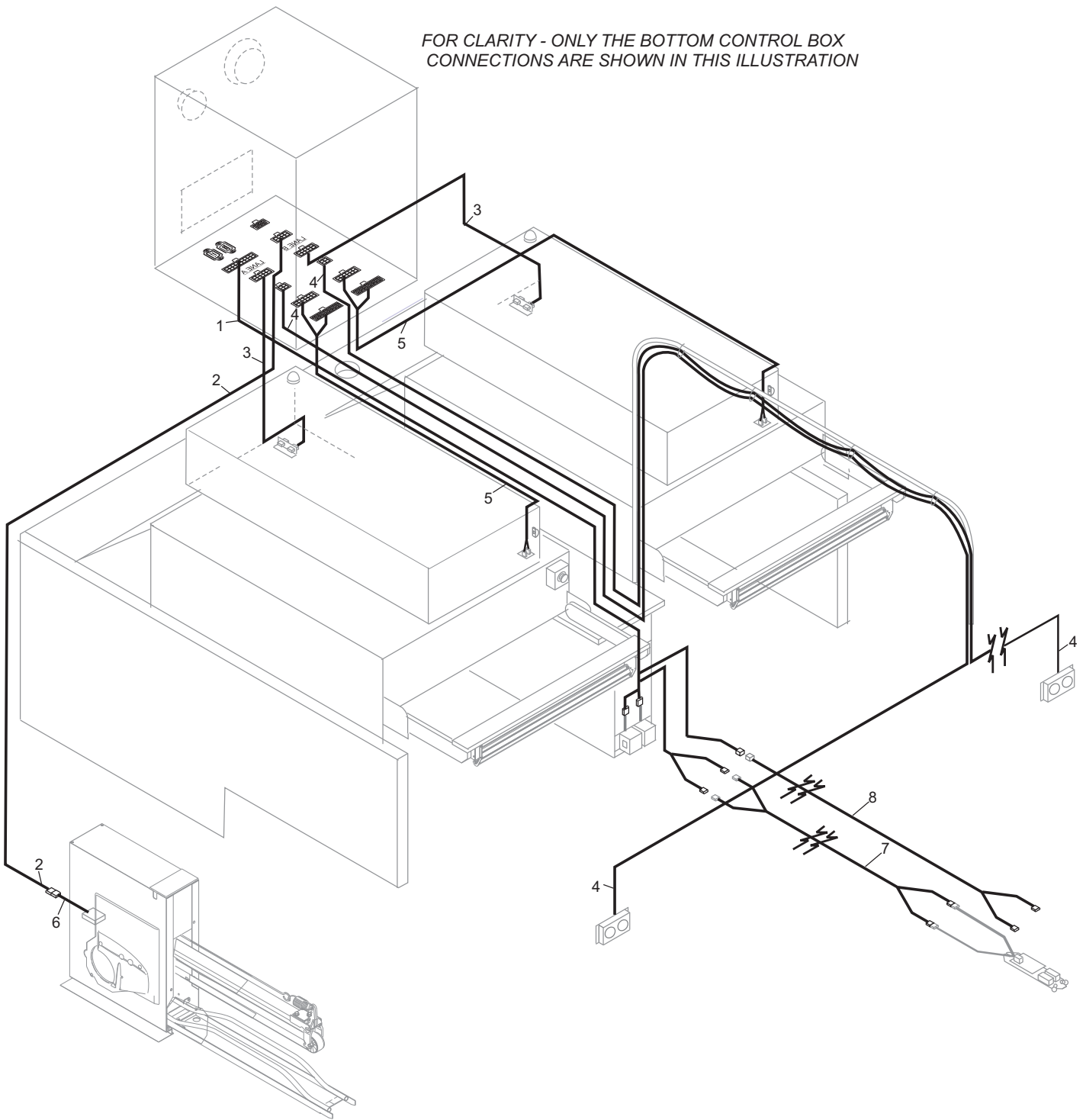
<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143016-xxx		Foul Unit/ Ball Detect/ Ball Lift Cable Assembly
2.	55-143014-xxx		StringPin Ball Accelerator Overload Cable Assembly
3.	55-143068-xxx		StringPin Switch Cluster Ext Cable Assembly
4.	55-143015-xxx		1st/2nd Ball LED Lights Masking Unit Cable Assembly
5.	55-143012-xxx		Cable Assembly, String Pinsetter Control to PMI
6.	47-245429-004		Overload Switch Cable
7.	68-100659-000	47-862717-000	Foul To Optical Trigger Cable Assembly
8.	53-520588-000	53-860691-000	Lane Cable To Ball Lift

*xxx - 000 for rear mount controller  
100 for front mount controller  
200 for separated lane pair*

## **StringPin 360 Controller Bottom Connection Cabling**



FOR CLARITY - ONLY THE BOTTOM CONTROL BOX CONNECTIONS ARE SHOWN IN THIS ILLUSTRATION



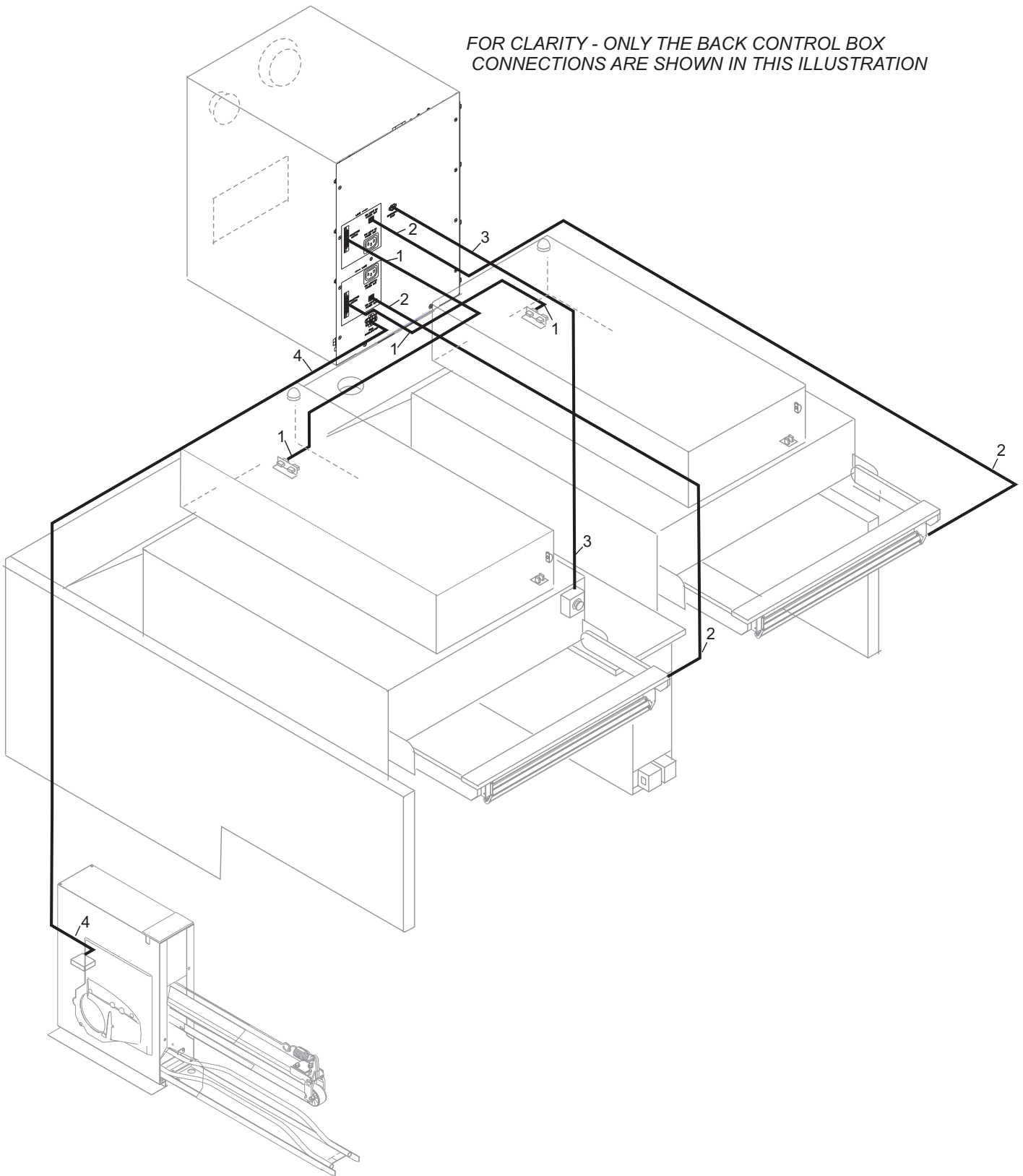
### StringPin 360 Controller Bottom Connection Cabling

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143067-xxx		StringPin Motor Power Cable Assembly
2.	55-143069-xxx		String Pinsetter DC Pin Light Cable Assembly
3.	55-143013-xxx		Emergency Stop Box Assembly w/Cable
4.	47-246311-004		Ball Accelerator Motor Cable Assembly

*xxx - 000 for rear mount controller  
100 for front mount controller  
200 for separated lane pair*

## **StringPin 360 Controller Back Connection Cabling**

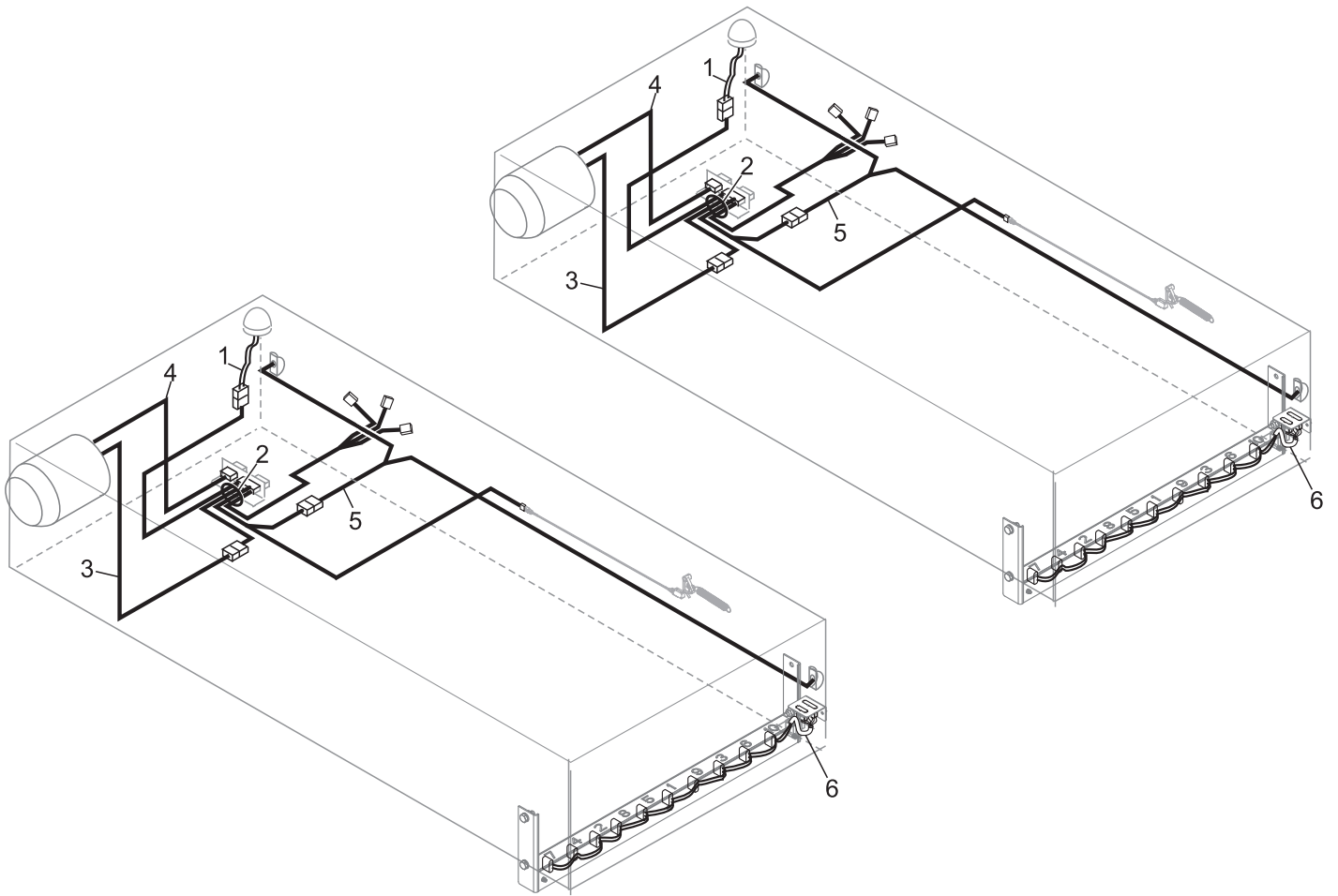
FOR CLARITY - ONLY THE BACK CONTROL BOX CONNECTIONS ARE SHOWN IN THIS ILLUSTRATION



### StringPin 360 Controller Back Connection Cabling

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143019-000		StringPin Trouble Light Cable Assembly
2.	55-143010-000		StringPin Switch Cluster Cable
3.	55-143018-000		StringPin Motor Overload Cable
4.	55-143011-000		String Pinsetter Motor Cable Assembly
5.	55-143017-000		Mechanic's Stop Switch Cable Assembly
6.	55-143009-000		Pin Station Cable Assembly

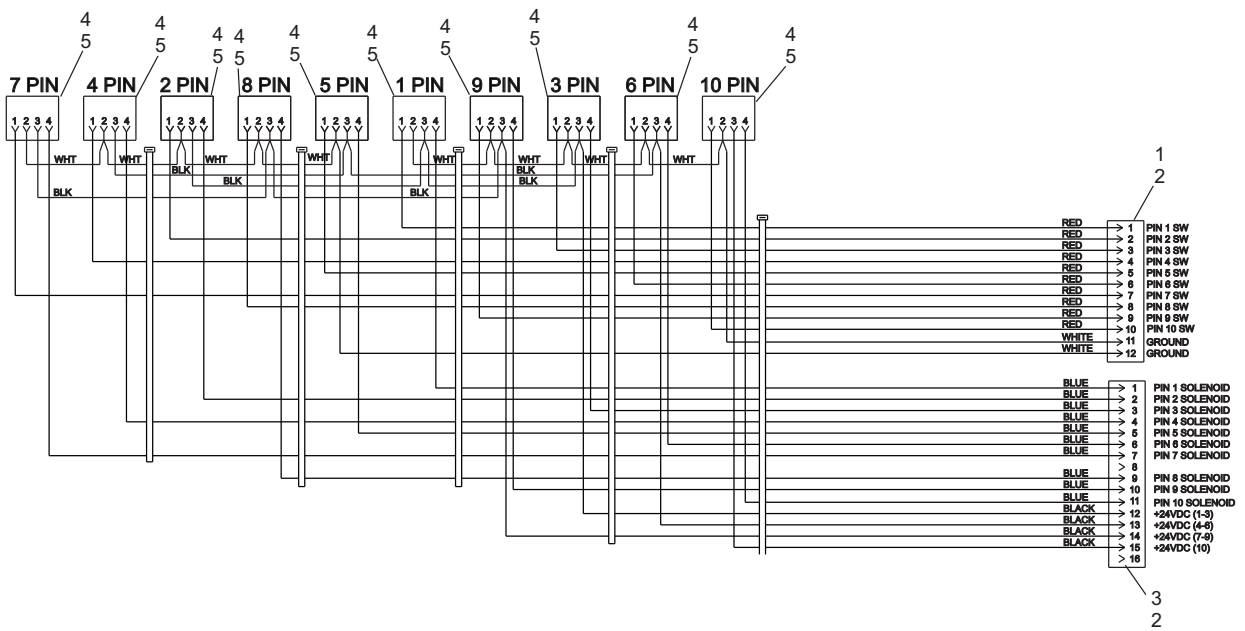
## String Pinsettter Internal Cabling



## String Pinsetter Internal Cabling

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	11-692212-000		Connector Housing (12 Position Mini-Fit Jr.)
2.	11-692090-000		Terminal (Mini-Fit Jr. - Male)
3.	11-692005-000		Connector Housing (16 Position Mini-Fit Jr.)
4.	11-680301-000		Terminal (.062 Female)
5.	11-680205-000		Connector Housing (4 Position .062)

**Pin Station Cable Assembly  
55-143009-000**

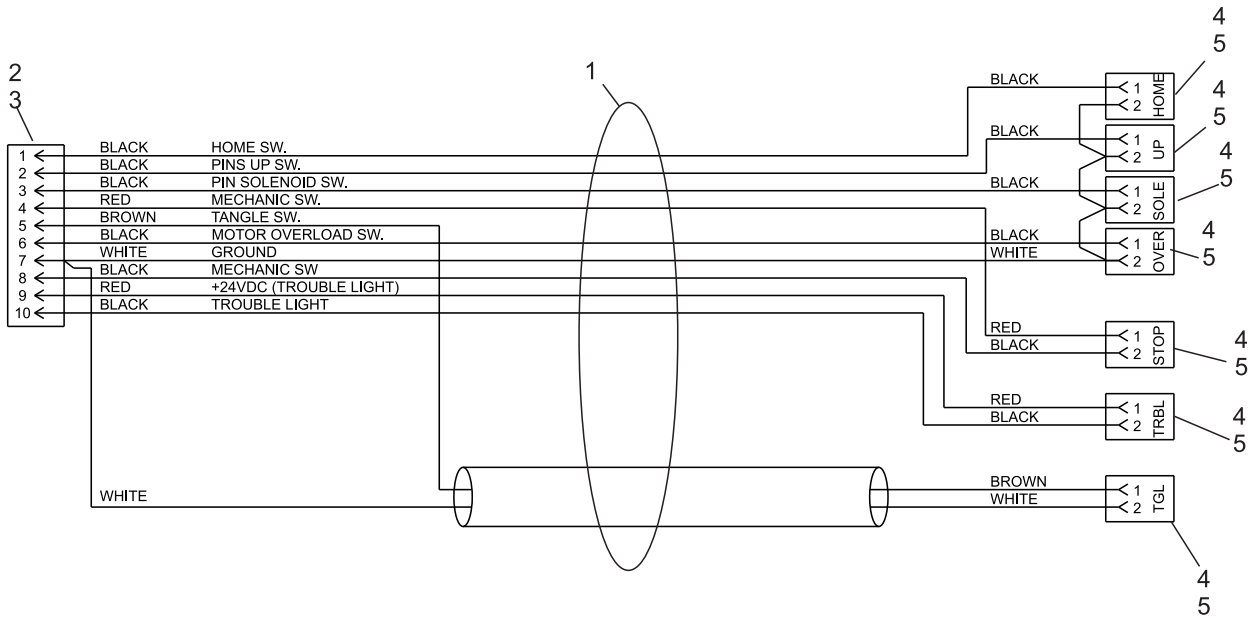


**Pin Station Cable Assembly  
55-143009-000**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143010-000		StringPin Switch Cluster Cable Assembly
2.	11-692210-000		Connector Housing (10 Position Mini-Fit Jr.)
3.	11-692090-000		Terminal (Mini-Fit Jr. - Male)
4.	11-680216-000		Connector Housing (2 Position .062)
5.	11-680301-000		Terminal (.062 Female)

**StringPin Switch Cluster Cable Assembly  
55-143010-000**





**StringPin Switch Cluster Cable Assembly  
55-143010-000**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143011-000		String Pinsetter Motor Cable Assembly
2.	11-612010-000		Terminal - #8 Stud
3.	11-696738-000		4 Position Mate-N-Lok
4.	11-696737-000		Terminal - Socket, Mate-N-Lok

**StringPin Pinsetter Motor Cable Assembly  
55-143011-000**

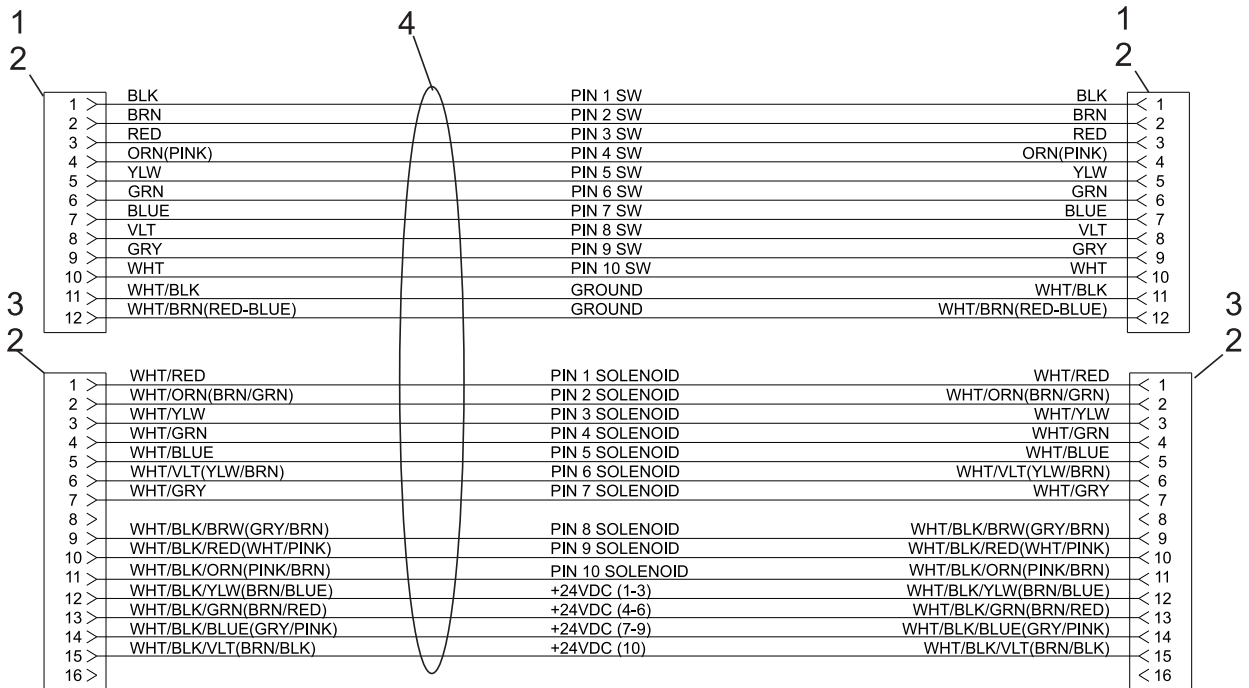


**StringPin Pinsetter Motor Cable Assembly**  
**55-143011-000**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	11-692312-000		Connector Housing (12 Position Mini-Fit Jr.)
2.	11-692091-000		Terminal (Mini-Fit Jr. - Female)
3.	11-692856-000		Connector Housing (16 Position Mini-Fit Jr.)
4.	55-143012-xxx		Cable Assembly, String Pinsetter Control to PMI

*xxx - 000 for rear mount controller  
100 for front mount controller  
200 for separated lane pair*

**StringPin 360 Controller to PMI  
55-143012-XXX**

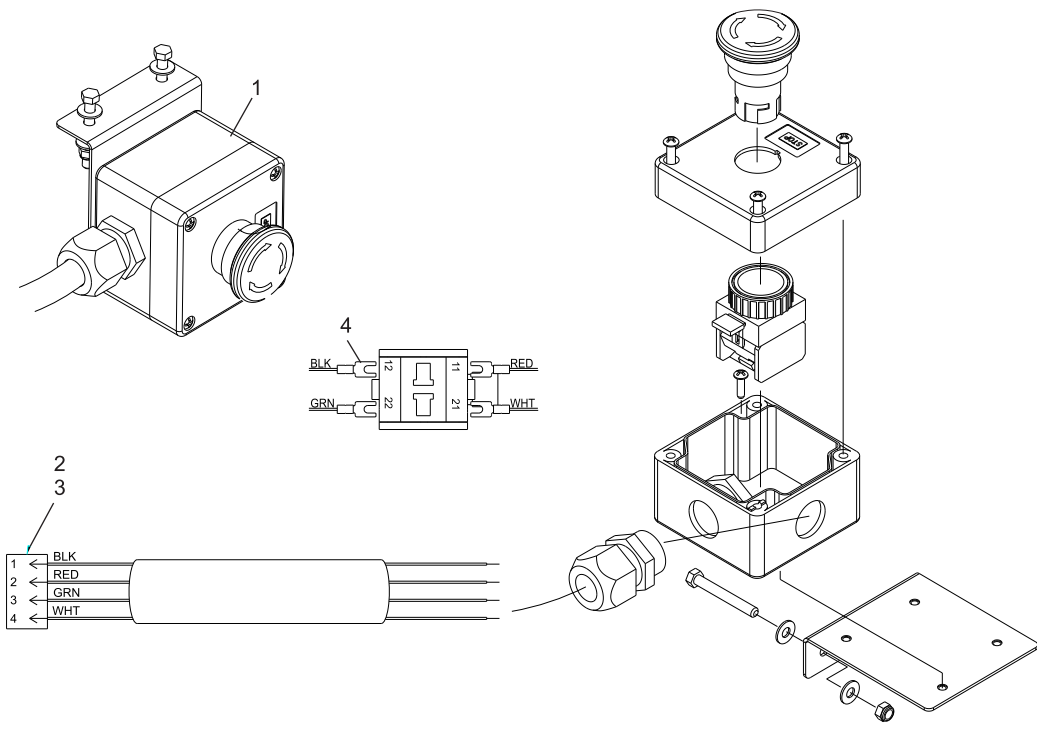


**StringPin 360 Controller to PMI**  
**55-143012-XXX**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143013-xxx		Emergency Stop Box Assembly
2.	11-692091-000		Terminal (Mini-Fit Jr. - Female)
3.	11-692304-000		Connector Housing (4 Position Mini-Fit Jr.)
4.	11-612000-000		Terminal - Fork #6

*xxx - 000 for rear mount controller  
100 for front mount controller  
200 for separated lane pair*

**StringPin Emergency Stop Box - Rear Mount Cable  
55-143013-xxx**



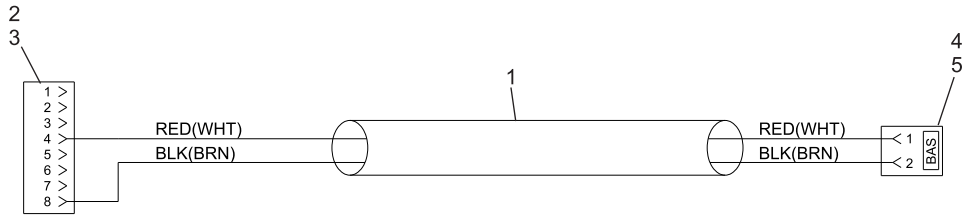
**StringPin Emergency Stop Box - Rear Mount Cable**  
**55-143013-xxx**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143014-xxx		StringPin Ball Accelerator Overload Cable Assembly
2.	11-692091-000		Terminal - (Mini-Fit Jr. - Female)
3.	11-692308-000		Connector Housing (8 Position Mini-Fit Jr.)
4.	11-690216-000		Connector Housing (2 Position .062)
5.	11-680301-000		Terminal (.062 Female)

*xxx - 000 for rear mount controller  
100 for front mount controller  
200 for separated lane pair*

**Ball Accelerator Overload Cable - Rear Mount Cable  
55-143014-XXX**



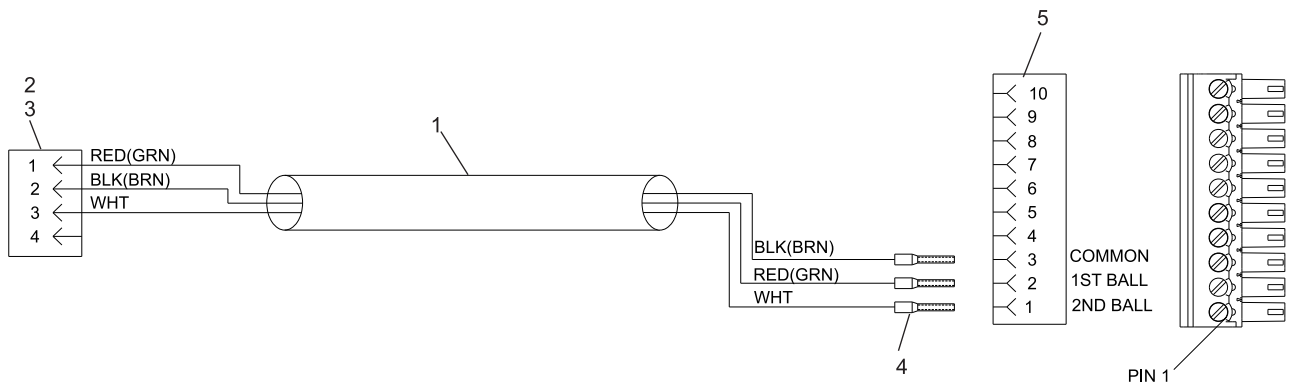


**Ball Accelerator Overload Cable - Rear Mount Cable**  
**55-143014-XXX**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143015-xxx		1st/2nd Ball LED Lights Masking Unit Cable Assembly
2.	11-692091-000		Terminal (Mini-Fit Jr. - Female)
3.	11-692304-000		Connector Housing (4 Position Mini-Fit Jr.)
4.	11-680831-000		Ferrule
5.	11-697996-000		Connector Housing (10 Position)

*xxx - 000 for rear mount controller  
100 for front mount controller  
200 for separated lane pair*

**1st and 2nd Ball LED lights Cable Assembly  
55-143015-XXX**

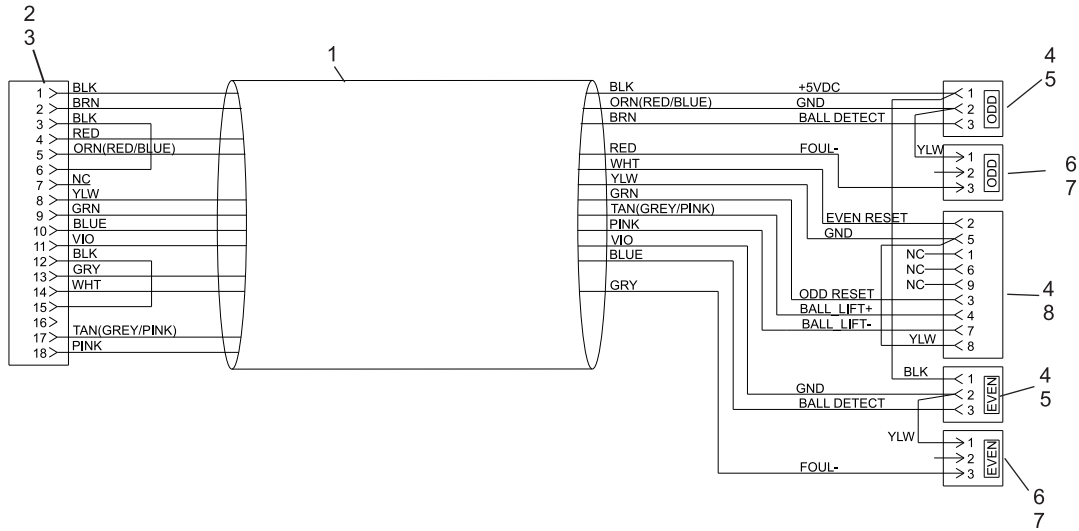


**1st and 2nd Ball LED lights Cable Assembly  
55-143015-XXX**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143016-xxx		Foul Unit/ Ball Detect/ Ball Lift Cable Assembly
2.	11-692091-000		Terminal (Mini-Fit Jr. - Female)
3.	11-692318-000		Connector Housing (18 Position Mini-Fit Jr.)
4.	11-680301-000		Terminal (.062 Female)
5.	11-680201-000		Connector Housing (3 Position .062 Receptacle)
6.	11-680302-000		Terminal - (.062 Male)
7.	11-680101-000		Connector Housing (3 Position .062 Plug)
8.	11-680204-000		Connector Housing (9 Position .062 Receptacle)

*xxx - 000 for rear mount controller  
100 for front mount controller  
200 for separated lane pair*

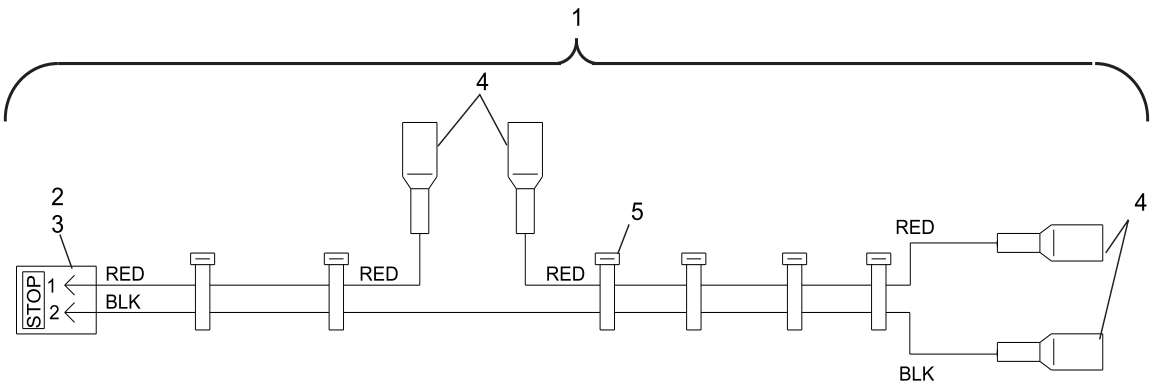
**Foul/Ball lift/ Ball Detect ,Cable Assembly  
55-143016-XXX**



**Foul/Ball lift/ Ball Detect ,Cable Assembly  
55-143016-XXX**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143017-000		String Pinsetter Mechanic's Stop Switch Cable Assembly
2.	11-680116-000		Connector Housing (2 Position .062 Plug)
3.	11-680302-000		Terminal - (.062 Male)
4.	11-612152-000		Terminal - Faston
5.	11-603115-000		Wire Tie - 4"

**String Pinsetter Mechanic's Stop Switch Cable Assembly  
55-143017-000**

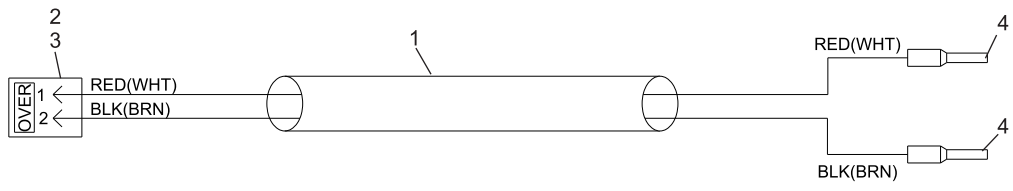


**String Pinsetter Mechanic's Stop Switch Cable Assembly  
55-143017-000**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143018-000		StringPin Motor Overload Cable Assembly
2.	11-680116-000		Connector Housing (.062 Plug)
3.	11-680302-000		Terminal(.062 - Male
4.	11-680831-000		Terminal Ferulle

**String Pinsetter Motor Overload Cable Assembly  
55-143018-000**

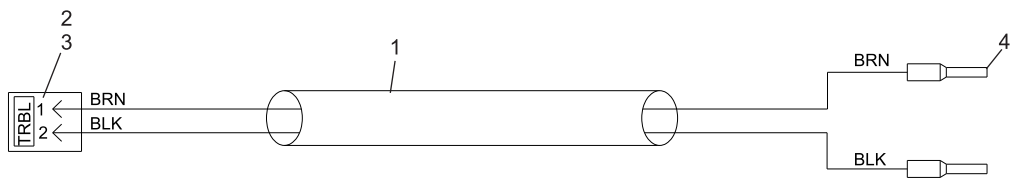




**String Pinsetter Motor Overload Cable Assembly**  
**55-143018-000**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143019-000		StringPin Trouble Light Cable Assembly
2.	11-680116-000		Connector Housing (.062 Plug)
3.	11-680302-000		Terminal (.062 - Male)
4.	11-680831-000		Terminal Ferulle

**String Pinsetter Trouble light Cable Assembly  
55-143019-000**

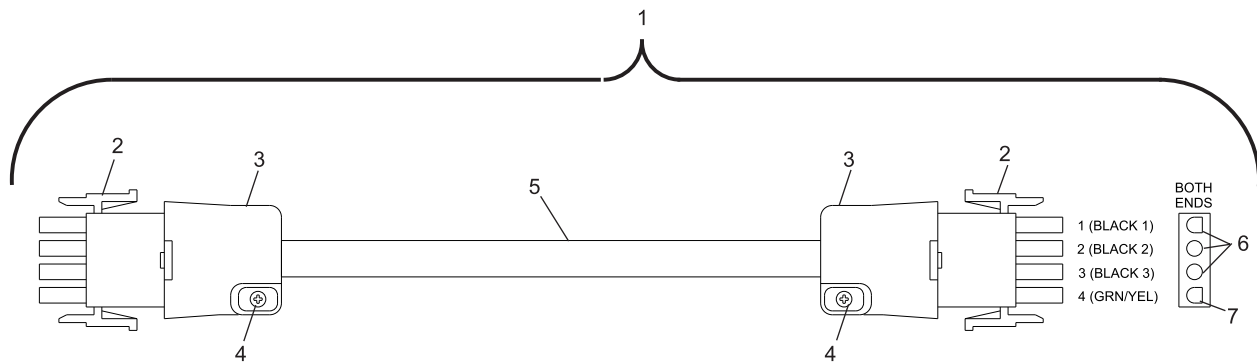


**String Pinsetter Trouble Light Cable Assembly**  
**55-143019-000**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143067-xxx		StringPin Motor Power Cable Assembly
2.	11-696703-000		Connector Housing (4 Position Mate-N-Lok Plug)
3.	11-696721-000		Strain Relief, Cover (4 Position)
4.	11-082521-001		Screw (#6 x 3/8")
5.	27-619208-000		4 Conductor Cable (4500 mm)
6.	11-696736-000		Terminal - Pin, Mate-N-Lok
7.	11-696735-000		Terminal - Pin, Mate-N-Lok, Ground

*xxx - 000 for rear mount controller  
100 for front mount controller  
200 for separated lane pair*

**StringPin Motor Power, Cable Assembly - Rear Mount Cable  
55-143067-XXX**

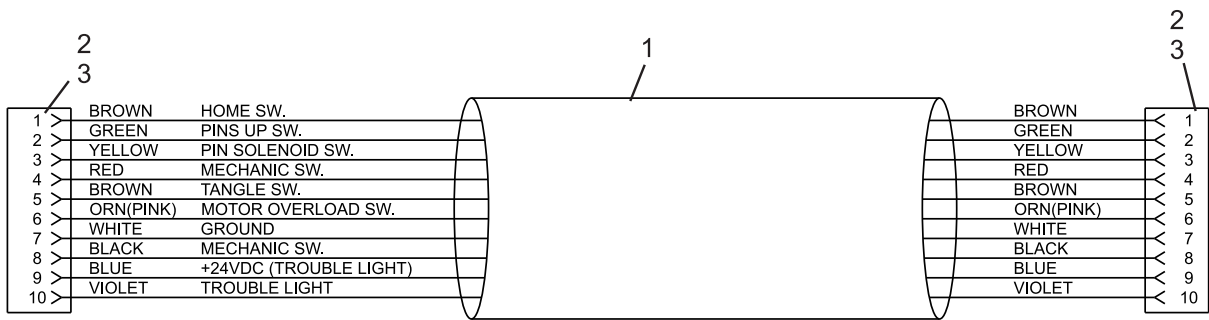


**StringPin Motor Power, Cable Assembly - Rear Mount Cable  
55-143067-XXX**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143068-xxx		String Pinsetter Switch Cluster EXT Cable Assembly
2.	11-692309-000		Connector Housing (10 Position Mini-Fit Jr. Receptacle)
3.	11-692091-000		Terminal (Mini-Fit Jr. - Female)

*xxx - 000 for rear mount controller  
100 for front mount controller  
200 for separated lane pair*

**String Pinsetter Switch Cluster EXT Cable Assembly  
55-143068-XXX**



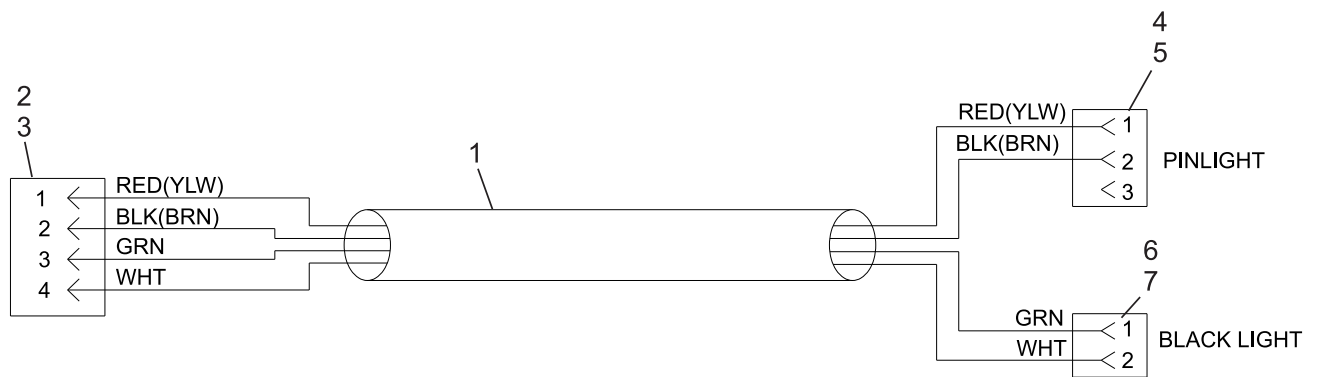
**String Pinsetter Switch Cluster EXT Cable Assembly  
55-143068-XXX**

<b>Index No.</b>	<b>Part No.</b>	<b>Package / Order Reference</b>	<b>Description</b>
1.	55-143069-xxx		String Pinsetter DC Pinlight Cable Assembly
2.	11-680019-000		Connector Housing (2 Position Plug .062)
3.	11-680302-000	57-860032-000	Terminal (.062 Male), Pkg Qty - 10
4.	11-697237-000		Connector Housing (3 Position .100kk)
5.	11-680326-000		Terminal (.100kk)
6.	11-697204-000		Connector Housing (2 Position.156kk)
7.	11-680322-000		Terminal (.156kk)

xxx - 000 for rear mount controller  
100 for front mount controller  
200 for separated lane pair

**String Pinsetter DC Pinlight Cable Assembly  
55-143069-XXX**





**String Pinsetter DC Pinlight Cable Assembly  
55-143069-XXX**