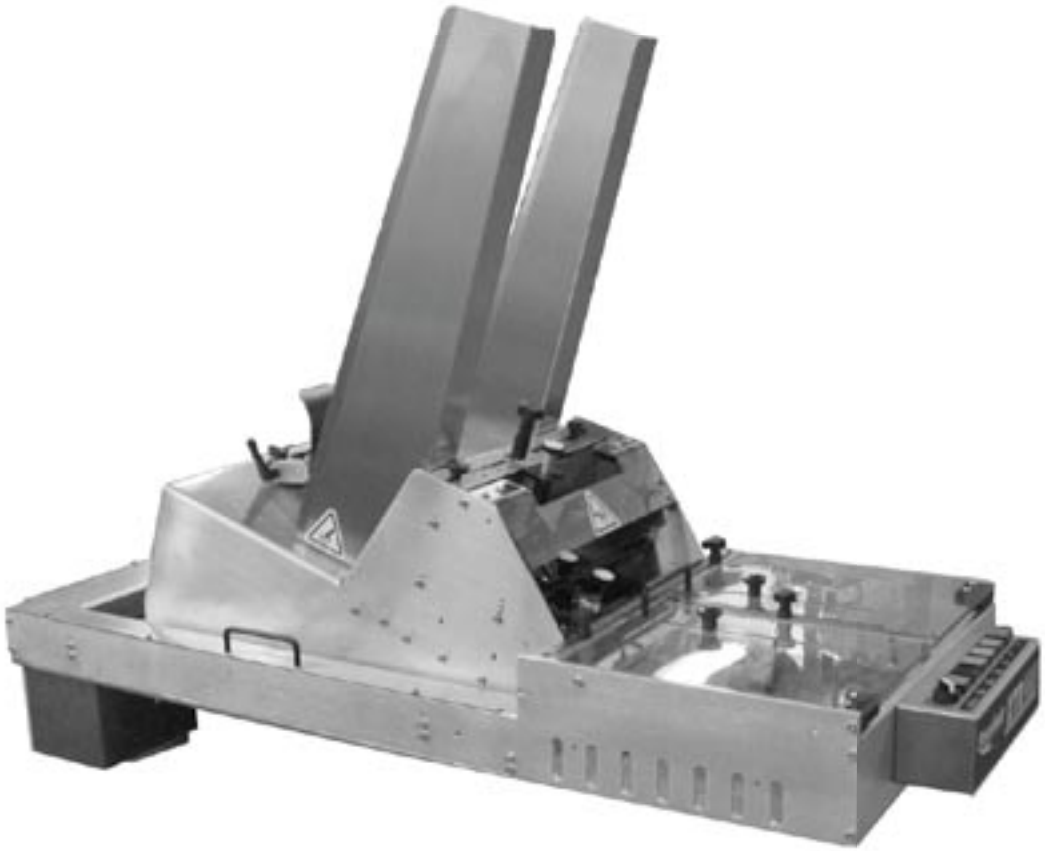
XTR Series Droppers

Product Guide



Streamfeeder®

Part Number: 00900449 (Rev A 8/03)

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CONTENTS

NOTES:

BEFORE YOU BEGIN

Message Conventions

Eight types of messages may appear in this manual which emphasize information of particular interest:

DANGER signifies an action or specific equipment area that can result in serious injury or death if proper precautions are not taken.

WARNING signifies an action or specific equipment area that can result in personal injury if proper precautions are not taken.

CAUTION signifies an action or specific equipment area that can result in equipment damage if proper precautions are not taken.

ELECTRICAL DANGER signifies an action or specific equipment area that can result in personal injury or death from an electrical hazard if proper precautions are not taken.

TIP signifies information that is provided to help minimize problems in the installation or operation of the feeder.

NOTE provides useful additional information that the installer or operator should be aware of to perform a certain task.

CHECK signifies an action that should be reviewed by the operator before proceeding.

IMPORTANT alerts the installer or operator to actions that can potentially lead to problems or equipment damage if instructions are not followed properly.

NOTES:

SAFETY

Make sure you thoroughly read this section to become familiar with all the safety issues relating to the safe operation of this Universal Feeding Solution™.

Please read all of the warnings that follow to avoid possible injury. Although Streamfeeder has made every effort to incorporate safety features in the design of this dropper, there are residual risks that an installer or operator should be aware of to prevent personal injury.

Please read all of the cautions that follow to prevent damage to the Universal Feeding Solution. The dropper is built with the highest quality materials. However, damage can occur if the system is not operated and cared for within design guidelines as recommended by Streamfeeder.

Danger

- **Equipment interior contains incoming 115 or 230VAC electrical power. Bodily contact with these high voltages can cause electrocution, which can result in serious injury or death.**

Electrical Noise

The air contains electromagnetic interference (EMI) fields and radio frequency interference (RFI), also known as “electrical noise”. Usually this noise is small enough in size (amplitude) to not be a problem. If intense enough, however, it can cause problems for other electrical equipment.

Streamfeeder has designed the XTR Series Droppers with noise immunity in mind. Even the sensors provided with the feeder have a certain amount of noise immunity built-in. However, in extremely noisy environments, these design considerations are not necessarily immune to electrical noise and therefore, operational problems can occur. *If you suspect any such electrical noise problems, please report it to a qualified technician.*

Specifications

Max Product Width
- XTR 1200 ..... 12 in. (30.48 cm)
- XTR 1700 ..... 17 in. (43.18 cm)

Min Product Width
- XTR 1200 ..... 2 in. (5.08)
- XTR 1700 ..... 7 in. (17.78 cm)

Max Product Length
- XTR 1200 ..... 12 in. (30.48 cm)
- XTR 1700 ..... 12 in. (30.48 cm)

Min Product Length
- XTR 1200 ..... 4 in. (10.16 cm)
- XTR 1700 ..... 6 in. (15.24 cm)

Max Product Thickness ..... .5 in. (1.27 cm)

Min Product Thickness ..... .003 in. (.008 cm)

Max Accumulation Thickness ..... 1.5 in. (3.81 cm)

Hopper Capacity ..... 24 in. (60.96 cm)

Power Input ..... 115vac; 50 / 60Hz

Current (Dropper / Feeder)
- In-Rush ..... 25A / 6A
- Steady ..... 6A / 2A

Air* ..... Compressed; 5 CFM

Controls
- Panel ..... Host I/O and Flight Trigger
- Remote ..... Fault Reset, Feeder Cycle, Dropper Cycle, Feeder and Dropper Cycle, Stop, Retract Length, and Ready

Weight (with Heavy Duty Stand)
- XTR 1200 ..... 346 lbs (157 kg)
- XTR 1700 ..... 361 lbs (164 kg)

Warranty ..... One-Year Limited

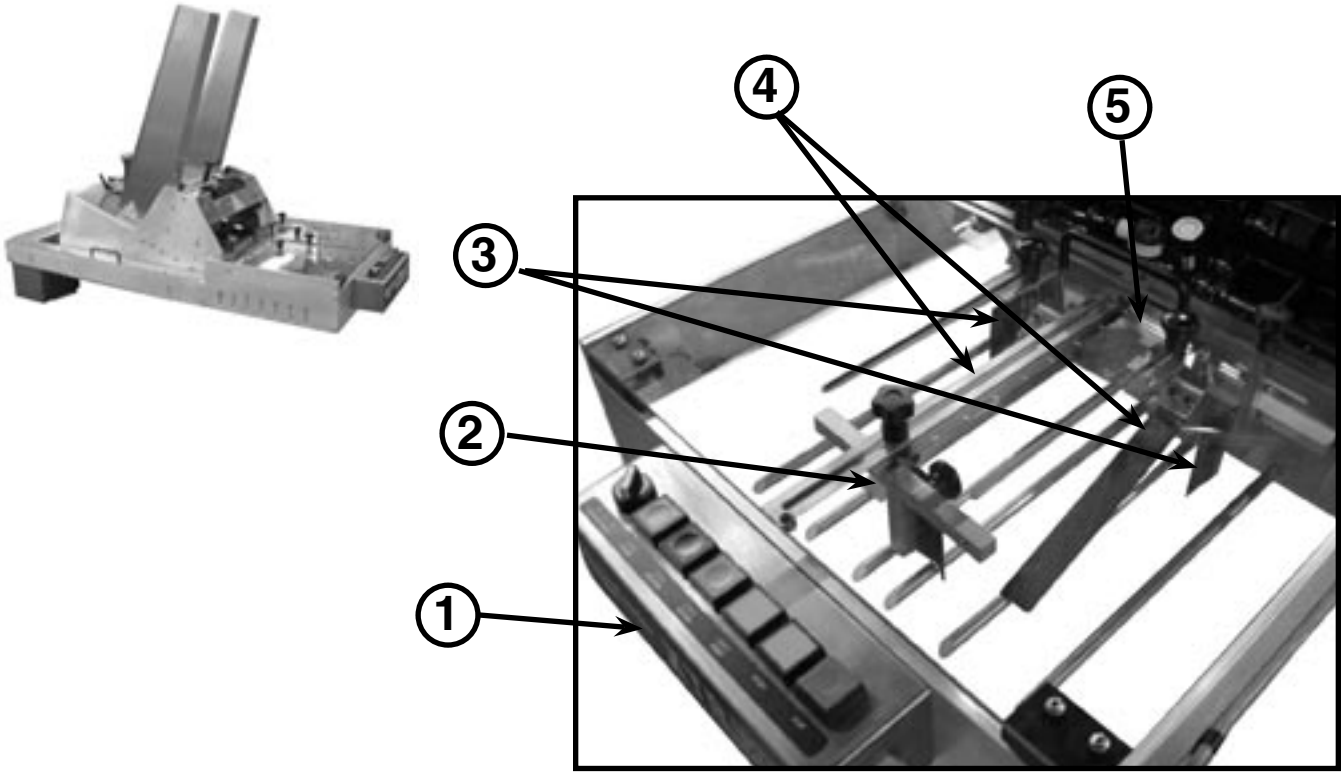
* For Optional Equipment

1: About the Machine

At the core of the XTR Series Dropper is our Universal Friction Feeder with patented Differential Friction Technology™, which ensures package integrity through precise product separation and singulation. The powerful XTR Series will effectively accumulate material at high speed, producing high levels of automated productivity.

Review the main assemblies in Figure 1A to become familiar with names and locations of feeder parts and adjustments. This will help to prepare you for initial setup. Descriptions are found in Table 1A.

Fig. 1A Main Assemblies



Not Shown:

- **Heavy Duty Stand**
- **Main Control Box**

Table 1B Main Assemblies Feature Descriptions Feature Description

(1) Operator station	Provides the user interface for operation of the XTR Retractable Dropper. Includes: Retract Length Setting, Cycle Feeder, Cycle Dropper, Cycle System, Fault Reset, Ready, and Stop.
(2) Back stop	Halts the discharged product, aligning the front and back product position to provide necessary control of the accumulating batch.
(3) Knock down	Provides the needed deflection of the product as it exits the feeder, maintaining control of the accumulated batch. Simple 2-knob adjustment makes adjustments during product change-over quick and easy.
(4) Side guides	Assist in controlling and directing the product to maintain a "neat" stack. 2-inch and 6-inch versions are standard, with a stiffer 6-inch version available as an option.
(5) Hold-down springs	Assist in capturing and controlling the product, maintaining a neat stack. Single knob adjustment for easy product change-over.
Not Shown	
Heavy duty stand w/casters	Supports the feeder and allows for easy mobility. Includes built-in height adjustment from 32-45 inches. Minimum drop height: 36 inches.

Control Box--
Operator Station

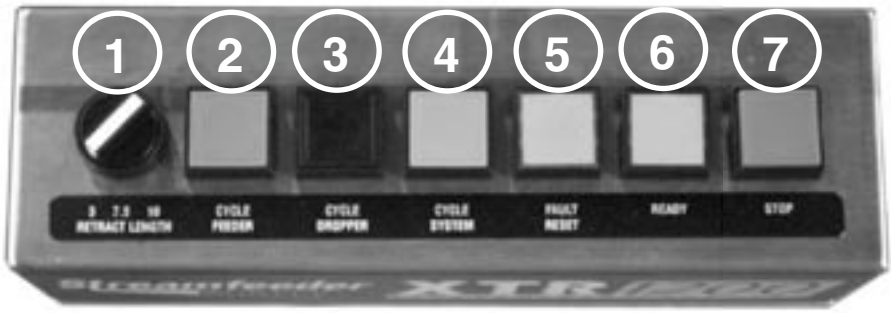


Fig 1B Operator Station Components

Table 1B Operator Station Components

Feature	Description
(1) Retract Length	Sets the return distance of the retracting rods to match approximate product size.
(2) Cycle Feeder	Causes FEEDER ONLY to perform one complete feed cycle.
(3) Cycle Dropper	Causes DROPPER ONLY to perform one complete feed cycle.
(4) Cycle System	Causes FEEDER AND DROPPER to perform one complete feed cycle.
(5) Fault Reset	Press to clear fault condition. After reset, the feeder enters READY mode.
(6) Ready	Lamp indicating feeder/dropper is ready to receive trigger signals.
(7) Stop	Halts the feeder and places it in FAULT mode. Pressing FAULT RESET returns the feeder to READY.

Control Box--
Connections Panel

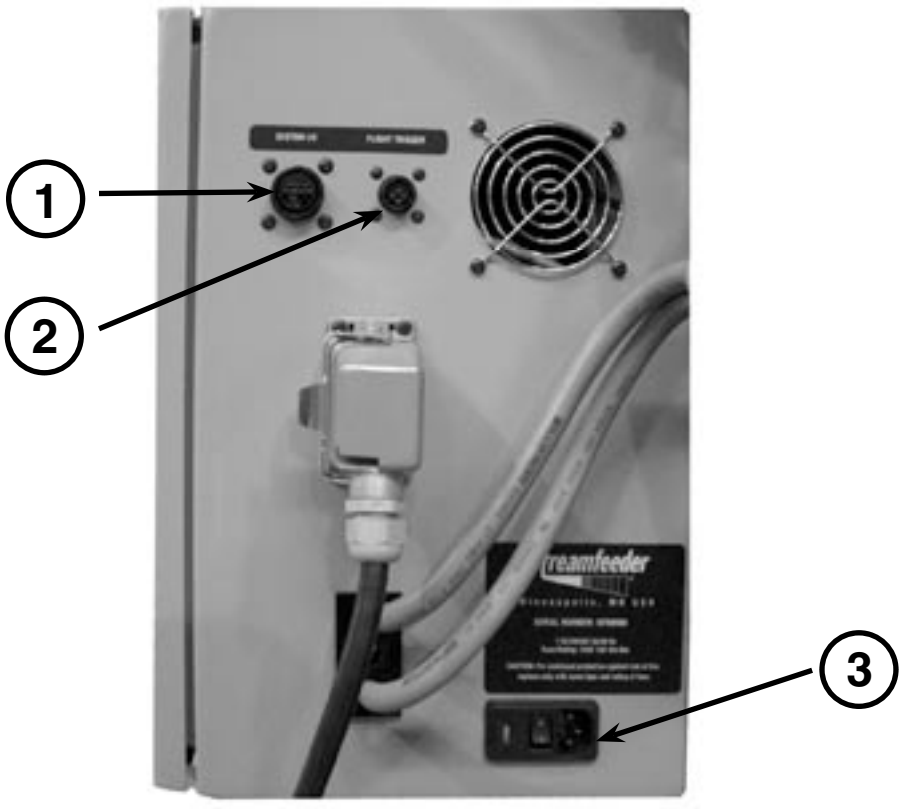


Fig 1C Control Box--Connections Panel

Table 1C Control Box--Connections Panel

Item	Description
(1) System I/O	This 14-pin connector sends and receives DC voltage or ON/OFF control signals to other devices.
(2) Trigger Input	The photo sensor sends the signal to begin a feed cycle via this 4-pin connector.
(3) Power Entry	The cordset plugs into this IEC320 connector, providing power to the dropper from a grounded/ fused 115V outlet. NOTE: This power entry module provides power to the dropper assembly only. The Universal Friction Feeder has its own power interface. Refer to the feeder Product Guide for more information.

2: Preparing for Operation

Overview

To prepare the unit for operation a series of simple adjustments need to be made for the material you are going to run. After all the adjustments have been completed, the final step is to test run the system to verify the settings are correct.

After successful feeder setup (refer to feeder Product Guide) the following adjustments must be made:

1. Dropper retract length adjustment.
2. Dropper back stop and knockdown adjustment.
3. Side guide adjustments.
4. Adjust hold-down springs.
5. Test cycle to verify proper settings.

IMPORTANT

Condition of Installment:

Warning decals must be visible to machine operator.

Step 1 Dropper Retract Length Adjustment

Review

The retracting rods provide a landing area for the product as it exits the feeder. After the matrial is accumulated, the next trigger signal causes the rods to retract, dropping the product stack onto the drop target.

Objective

For maximum productivity, the retracting rod's range of motion can be adjusted to to three product-dependent lengths.

Procedure

To adjust the retract length:

1. With the dropper powered up and in FAULT mode, select the retract length closest to the size of the product to be fed.
2. If product size falls between settings, use the setting that produces the best feeding performance.

Step 2: Dropper Backstop and Knockdown Adjustment

Review

The backstop halts the discharged product, aligning the front and back product position to provide necessary control of the accumulating batch.

Objective

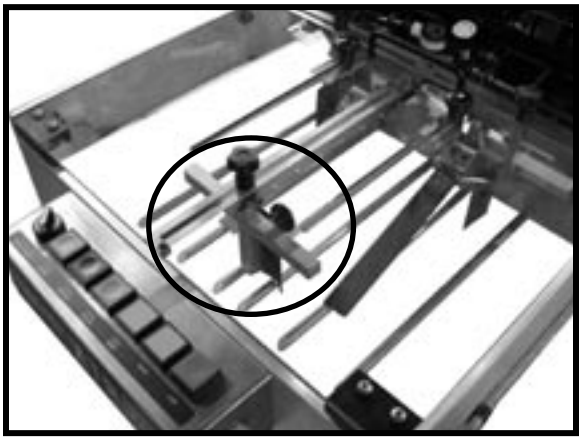
Proper adjustment maintains product control and allows the accumulation of a “neat” batch, ensuring high productivity.

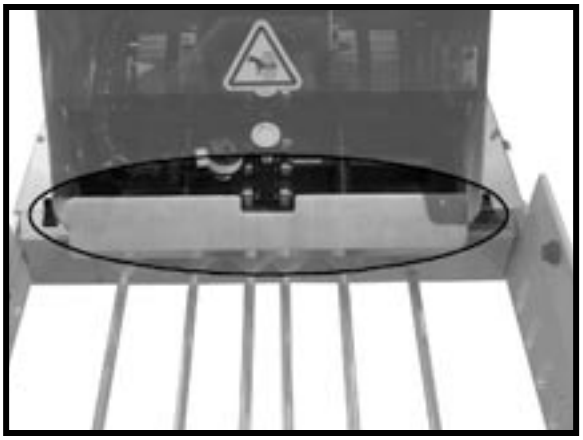
Procedure

1. Manually place one piece of material onto retracting rods.
2. Loosen fastening knob and slide backstop toward product, leaving 1/8 inch gap.
3. Tighten knob to secure in place.
4. Adjust the knockdown plate by loosening its locking knobs and raising/lowering until light contact is made with the product as it exits the feeder.

NOTE

The addition of one piece to the batch (in Step 1) ensures that the knockdown place is not too tight on the desired batch count.





Step 3: Adjust Dropper Side Guides

Review

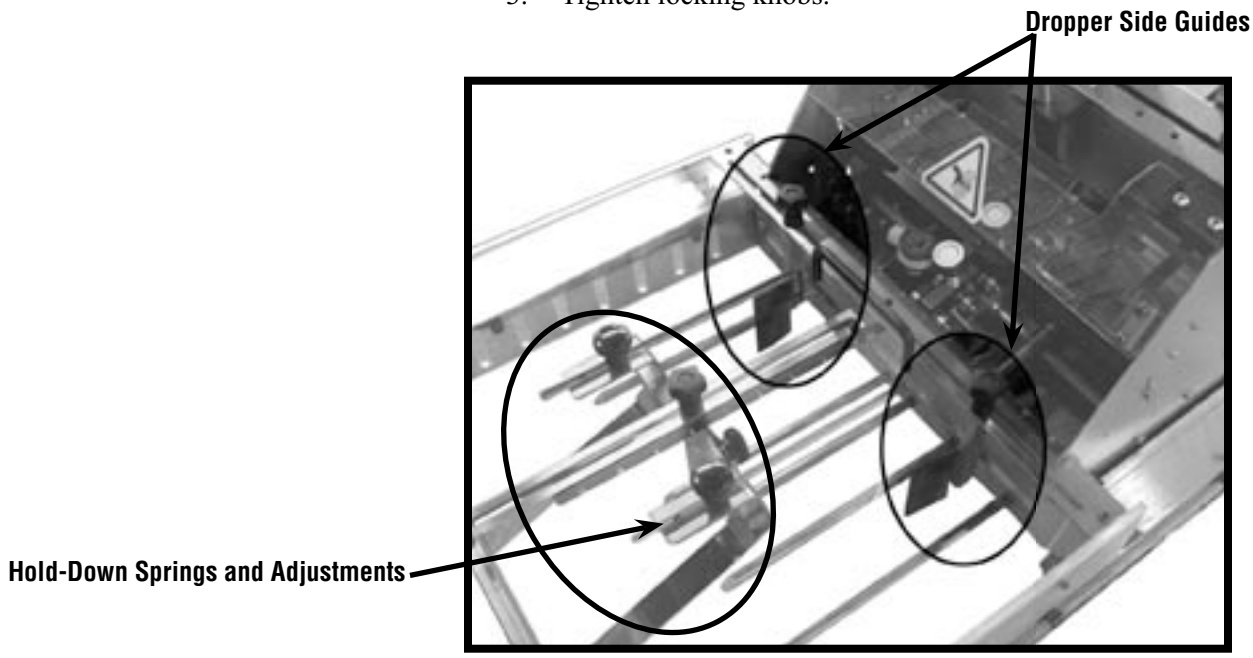
The Dropper side guides assist in directing and controlling the product, maintaining a "neat" stack.

Objective

Adjust the side guides to align the product with the dropper head.

Procedure

1. Loosen locking knobs.
2. Slide guide assemblies to desired location.
3. Tighten locking knobs.



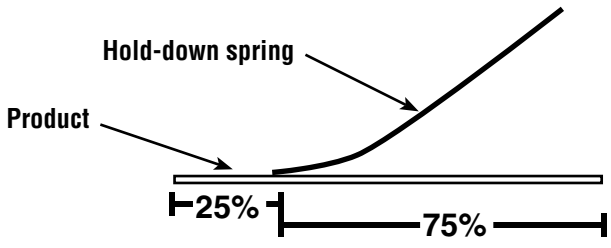
Step 4: Adjust Hold-Down Springs

Review

The hold-down springs assist in capturing and controlling the product to maintain a neat stack.

Objective

Adjust the hold-down springs so each spring overlaps about 75% of the product.



Step 4: Adjust Hold-Down Springs (cont)

Procedure

1. Loosen locking knobs.
2. Move guides to desired location.
3. Tighten locking knobs.

Step 5: Manual Test to Verify

Now that you have made all the necessary adjustments for operation, it is recommended that you verify the singulation and separation of product through the gate assembly area. Before you power-up and run your machine with a full hopper, manually feed several sheets of product through the gate assembly area.

Prepare your test by loading the hopper with approximately 2 to 2-1/2 in. (5 to 6 cm) of product. Make sure you preshingle the stack so that product rests against the curvature of the gate assembly.

NOTE

If the gate assembly is too tight, the feeder will have difficulty pulling the product through the gate assembly area. This will cause "missed" feeds.

1. Manually feed several sheets of product slowly through the gate assembly area. Move the drive belts by pressing the jog button (zero key) on IQuipped control panel.
2. Observe how individual product enters and exits the gate assembly area. Remember, a properly set gap will allow each new sheet to enter at about the center line of the cylinder while the bottom sheet is exiting the gate assembly area. Ideally, this means a slight overlap of both the first sheet and the second sheet (1/8 in., or 3 mm) at the gate assembly area. The overlap occurs as the bottom sheet is exiting, and the next sheet is entering.
3. If feeding doubles, then move the wedge in towards the gate assembly. Test again.

NOTE

Moving the back wedge too far forward to the gate assembly can create a pinch point between the tip of the wedge and the product. If moving the back wedge in is not effective, then an optional wedge may be required. See Section 6 for more information.

4. If sheets are overlapping excessively or, if the machine is feeding doubles, then reduce the gap slightly by moving the knob about 1/8 turn counterclockwise. Test again.
5. As product moves through the hold-down area, check for any skewing or jamming. Also check for damage to the product.
6. If this or other feeding problems still persist (slipping, skewing, jamming), then review all the adjustment procedures in Section 2, "Preparing for Operation" in the feeder Product Guide.
7. Verify that product is entering the dropper head with no obstructions. Observe the backstop and side guides to verify proper setting.

3: How to Operate

Operational Sequence

Successful power-up and operation of the unit is assured if you apply each of following sets of procedures where needed:

1. Loading product.
2. Powering on the feeder/dropper.
3. Setting and adjusting speed.
4. Starting a cycle.
5. Stopping the feeder.
6. Clearing a jam.

Loading Product

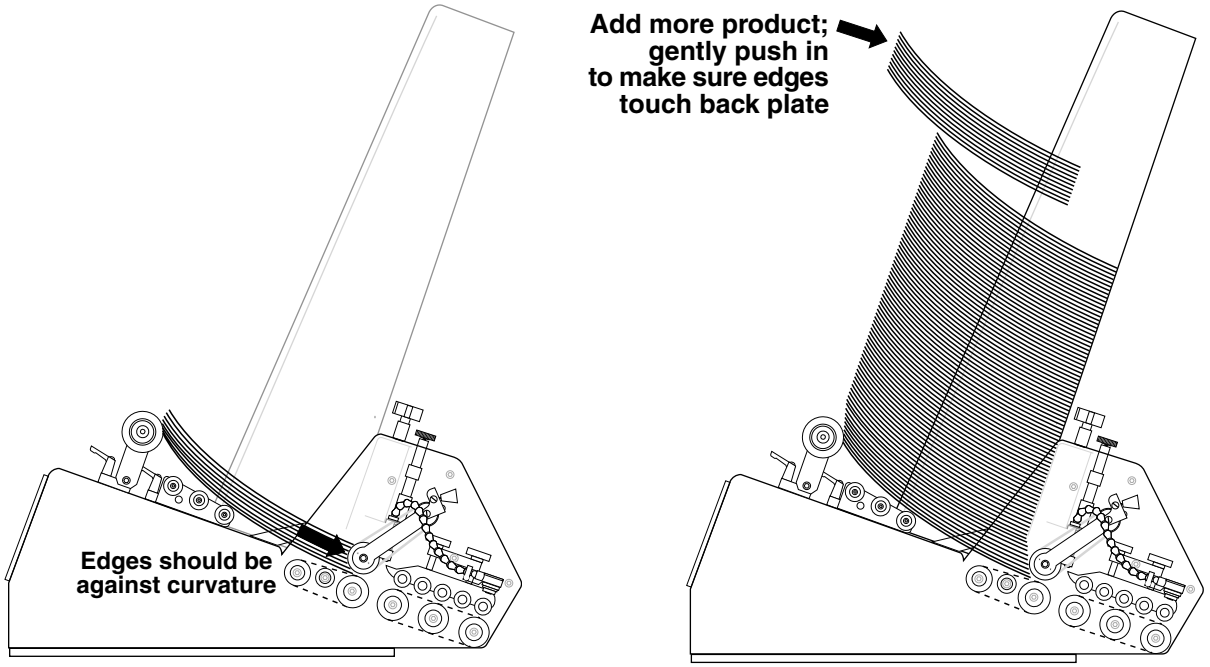
1. Preshingle a small stack of material and load in hopper.
2. With one end of the stack resting against the gate assembly, the other end will be resting on the back wedge.
3. Gradually add more product to the hopper. As stack height will have a preferred minimum and a maximum, you will have to experiment to determine the effective range of height.
4. As you add product, tamp each hand-full of product with your hand to make sure it rests evenly against the back plate.

NOTE

Preshingling prevents multiple sheets from jamming under the gate assembly at start-up.

TIP

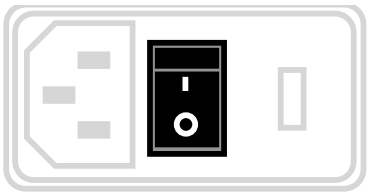
Stack height affects the downward pressure on the feed belts. Greater downward pressure can increase the chances for misfeeds or double feeds.



Operational Sequence (cont)

Powering on the Dropper

Turn the power on by pressing the horizontal line (-) on the power switch rockers located on the dropper control box. See the feeder Product Guide for information on powering on the feeder.



Starting a Feed Cycle

1. Press the RESET button on the operator station and observe the lamp for READY signal.
2. With speed and batch size set on the feeder, observe the vacuum fluorescent display to verify the feeder enrters READY mode.
3. Press the CYCLE FEEDER button to initiate a complete feed cycle.
3. Press CYCLE SYSTEM button to drop the batch onto the conveyor and complete another feed cycle.
4. Observe to verify good product flow through the feeder/dropper.

Stopping the Feeder/Dropper

To stop the system at any time, press the red STOP button. This will instantly stop the feeder and dropper. To return the feeder/dropper to READY mode, press the FAULT RESET button.

Operational Sequence (cont)

Clearing a Jam

If a jam occurs during operation, complete the following steps:

1. Press the STOP button.
2. Open the safety guard.
3. Remove the jammed product. While doing so, attempt to determine the cause of the jam.
4. Verify adjustments, paying specific attention to any loose components. Refer to “Preparing for Operation” for proper adjustment procedure.
5. Close the safety guard and reset the machine by pressing FAULT RESET.

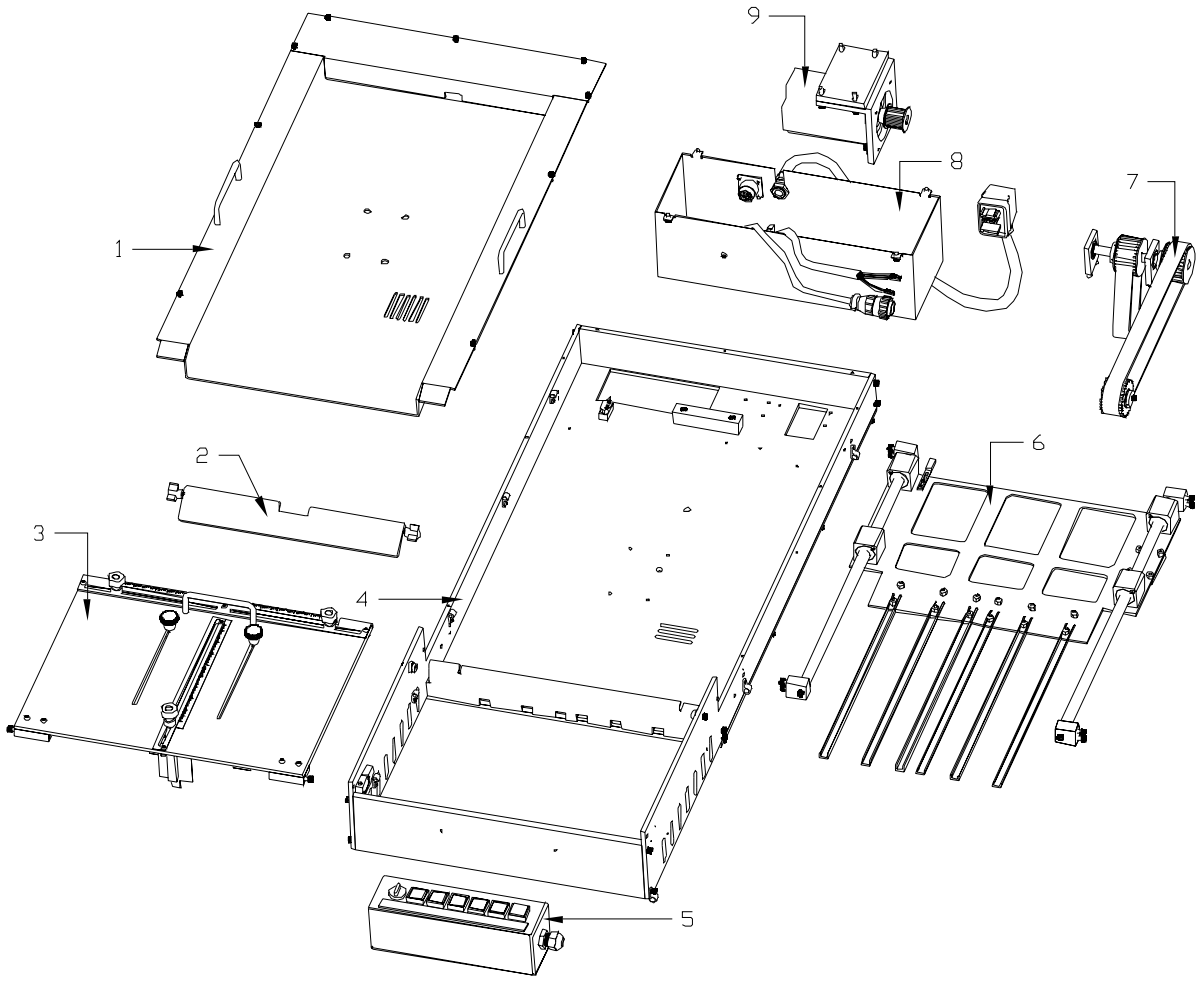
Preshingling prevents multiple sheets from jamming under the gate assembly at start-up. Stack height affects the downward pressure on the feed belts. Greater downward pressure can increase the chances for misfeeds or double feeds.

NOTES:

4: Mechanical Components

NOTE

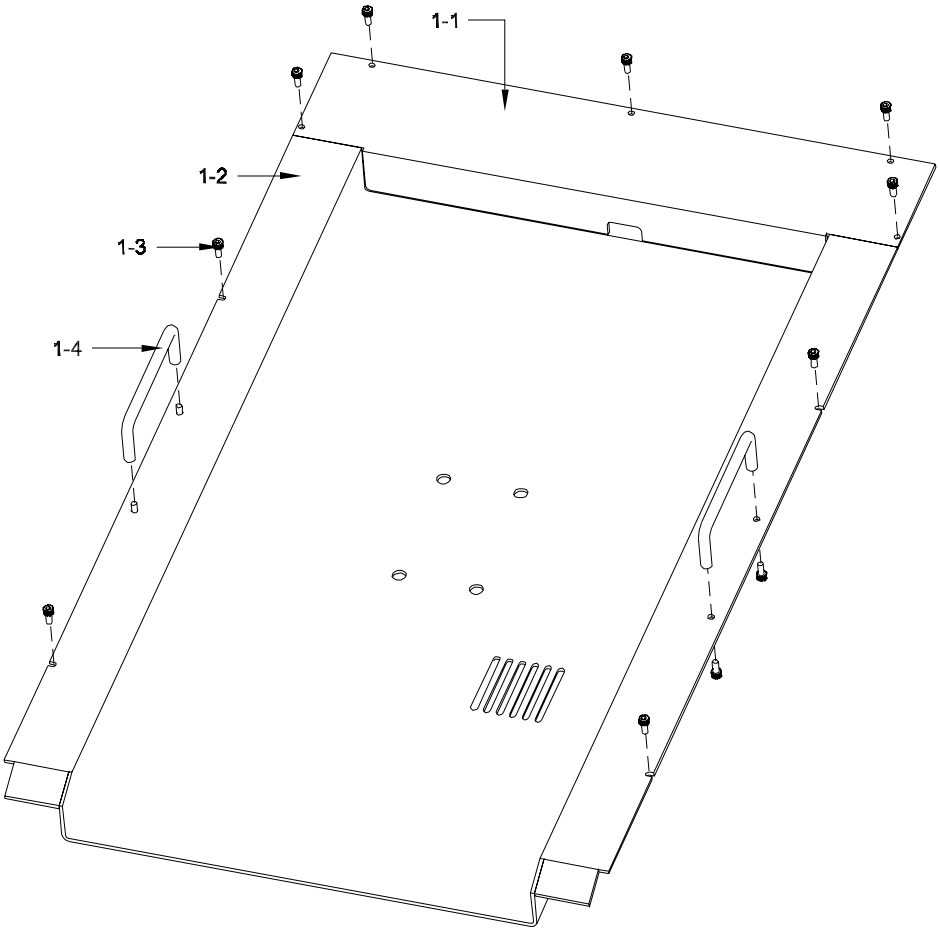
Refer to the feeder Product Guide for information on feeder components.



RETRACTABLE DROPPER

Belly Pan, Mount Plate Assembly # (XTR1200)
Belly Pan, Mount Plate Assembly # (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
1-1	1	Gear Cover	51379021	51379066
1-2	4	Belly Pan, Mount Plate	51379020	51379063
1-3	13	SHCS/SS 8-32 X 3/8	00002813	00002813
1-4	2	Handle	44841002	44841002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RETRACTABLE DROPPER

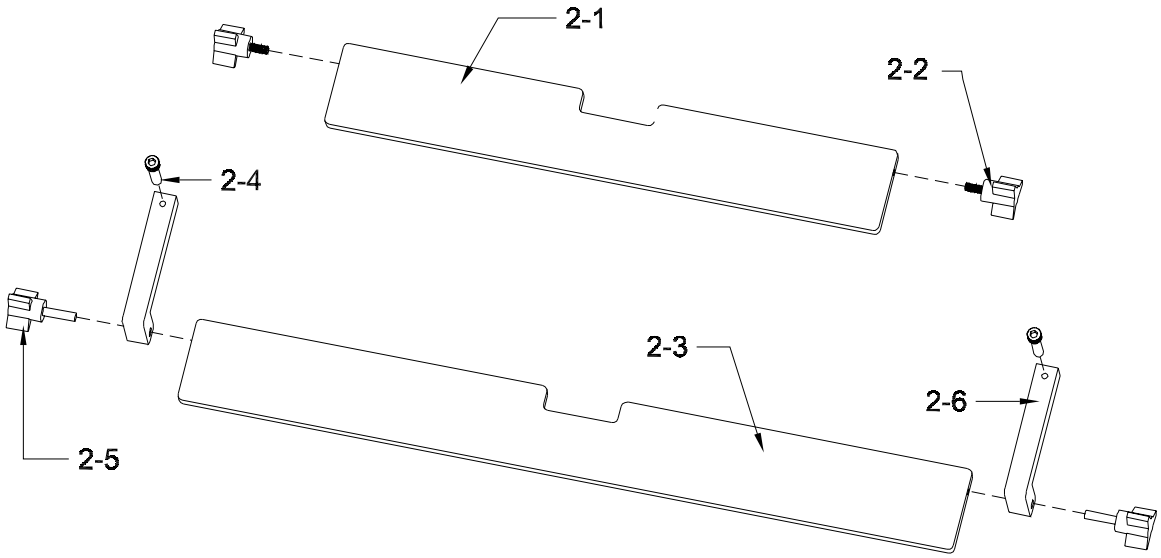
KNOCK DOWN # (XTR1200)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200
2-1	1	Knock Down	51379106
2-2	2	3 Lobe Knob	23500092

RETRACTABLE DROPPER

KNOCK DOWN # (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1700
2-3	1	Knock Down	51379110
2-4	2	SHCS 10-32 X 1	00002335
2-5	2	3 Lobe Knob	44759059
	2	SS 10-32 X 1-1/4	00002202
2-6	2	Knock Down Mount	51379111
2-7	2	Knock Down Block	51379122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RETRACTABLE DROPPER

SIDE GUIDE COVER ASSEMBLY # (XTR1200)
SIDE GUIDE COVER ASSEMBLY # (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
3-1	2	Rack Holder, Side Guide Mount	51379024	51379024
3-2	1	Side Guide Right (Short)	51379040	51379040
3-3	2	SHCS/SS 10-32 X 5/8	00002815	00002815
3-4	4	BHCS 10-32 X 1/2	00002834	
	8	BHCS 10-32 X 1/2	00002834	
3-5	2	Block Hinge Cover Mount	44640012	
	4	Block Hinge Cover Mount	44640012	44640012
3-6	1	Top Cover	51379035	51379072
3-7	1	Back Stop Support	51379057	51379057
3-8	3	Knob, 5 Lobe	44963102	44963102
	3	Set Screw 10-32 X 1-1/4	00002202	00002202
	3	Knob Spacer	51379062	51379062
3-9	2	1” Round Knob	44681021	
	4	1” Round Knob	44681021	44681021
	2	Set Screw 10-32 X 1-1/4	00002202	
	4	Set Screw 10-32 X 1-1/4	00002202	00002202
	2	Knob Spacer	51379062	
	4	Knob Spacer	51379062	51379062
3-10	1	SHCS/SS 10-32 X 5/16	00002309	00002309
3-11	1	Back Stop Mount Bar	51379030	51379030
3-12	1	Back Stop Holder	51379060	51379060
3-13	2	Compression Spring	51379081	51379081
3-14	1	Back Stop 2” Wide	51379027	
3-15	2	Set Screw 10-32 X 1	00002201	00002201
	2	1” Round Knob	44681021	44681021
3-16	2	Shaft Top Cover Hinge Mount	44640011	51379114
3-17	1	Wide Back Stop 6” Wide	51379053	51379053
	1	Wide Back Stop 16-13/16 Wide	51379112	51379112
3-18	1	Side Guide Left (Long)	51379055	51379055
	1	Side Guide Left (Long Stiff Optional)	51379108	51379108
3-19	1	Side Guide Right (Long)	51379054	51379054
	1	Side Guide Right (Long Stiff Optional)	51379107	51379107
3-20	1	Side Guide Left	51379041	51379041
3-21	4	BHCS/SS 6-32 X 1/4	00003416	00003416
3-22	5	Kepnut 8-32	00002121	00002121
3-23	1	Side Guide Support	51379049	51379073

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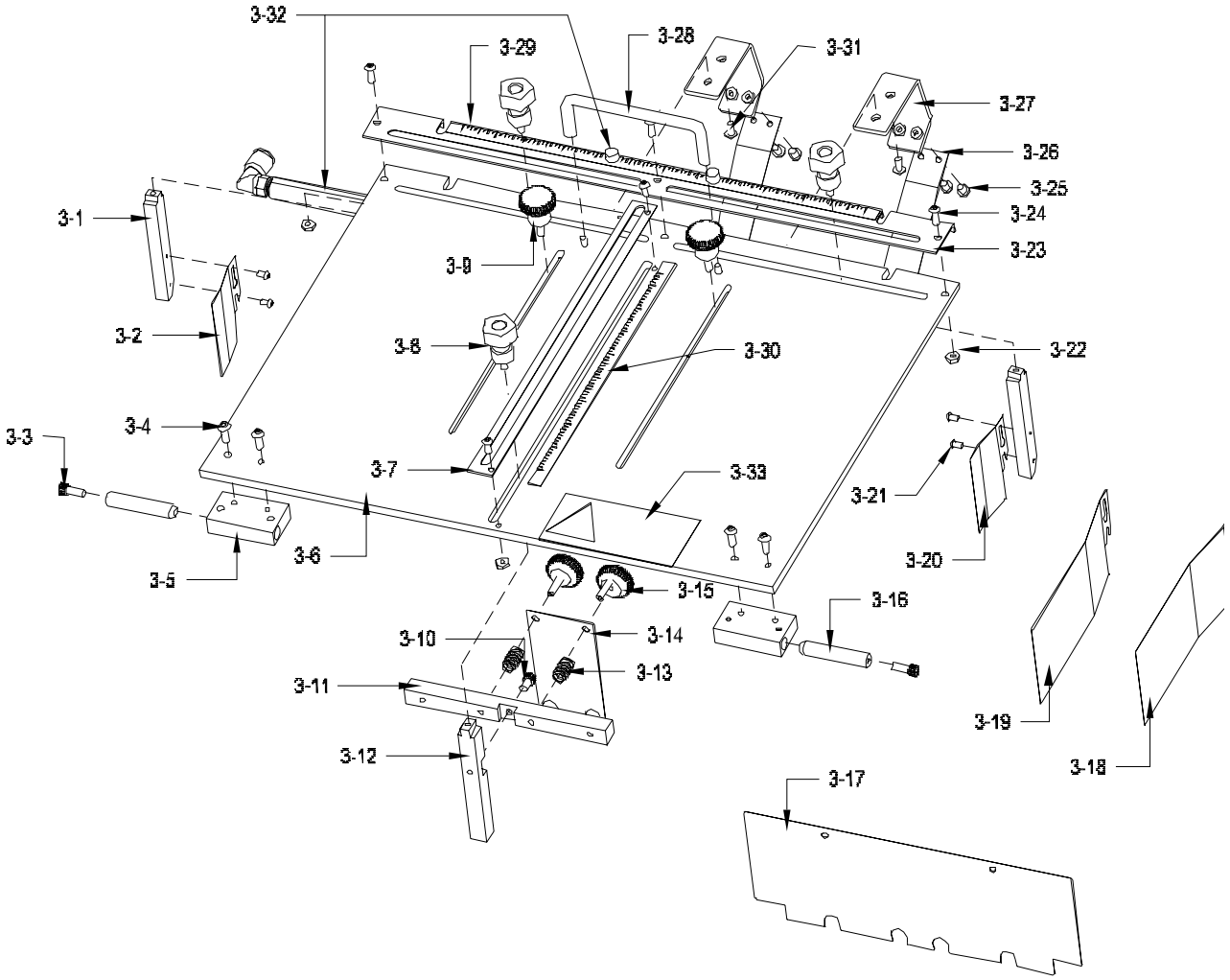
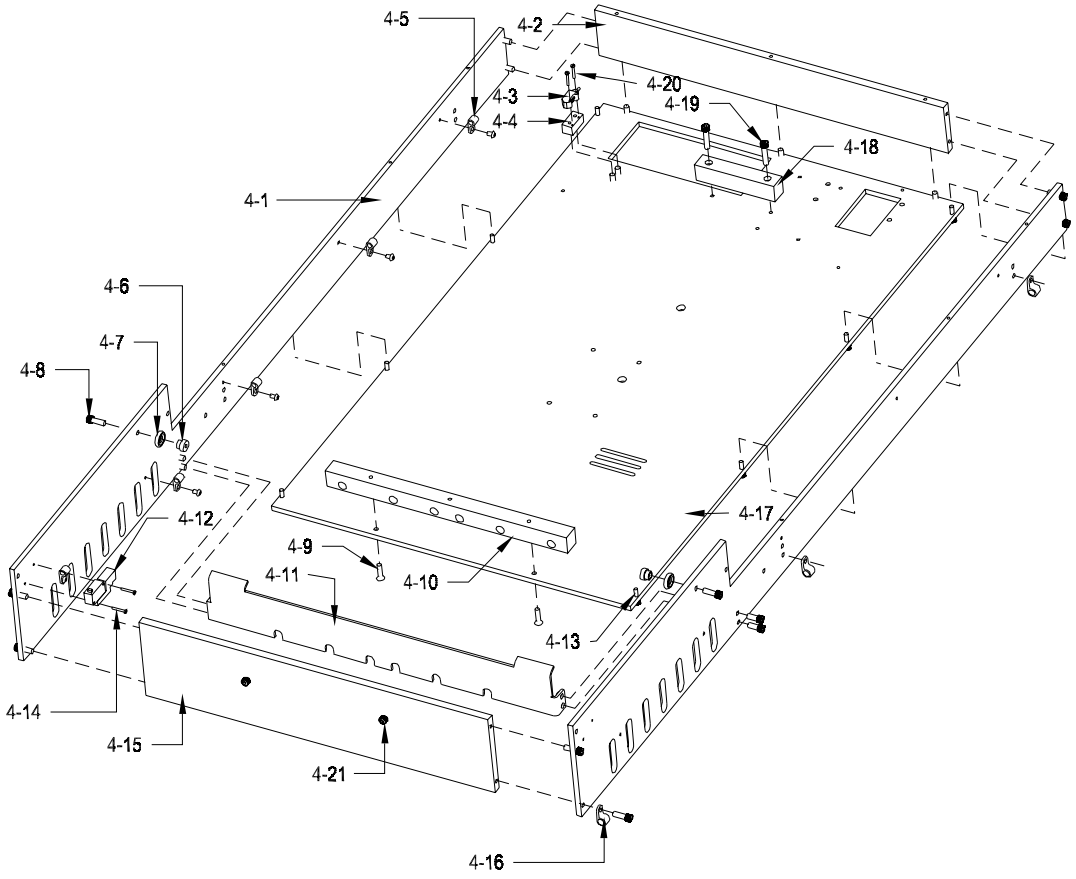
3-24	5	BHCS/SS 8-32 X 1/2	00002302	00002302
3-25	4	BHCS/SS 10-32 X 5/16	00002307	
	8	BHCS/SS 10-32 X 5/16	00002307	00002307
3-26	2	Spring Hold Down	51379042	
	4	Spring Hold Down	51379042	51379042
3-27	2	Knock Down Mount	51379099	
	4	Knock Down Mount	51379099	51379099
3-28	1	Handle	44841002	44841002
	2	BHCS 8-32 X 1/2	00002302	00002302
3-29	1	Ruler (Width)	51277115	51277142
3-30	1	Ruler (Length)		
3-31	2	BHCS 10-32 X 3/8	00002305	
	4	BHCS 10-32 X 3/8	00002305	00002305
3-32	2	Knob (Optional)	435SO269	435SO269
	1	Block Air (Optional)	51379097	51379098
	1	Male Elbow Tube (Optional)	44450085	44450085
3-33	1	Label, Warning Crush Hazard	44813011	44813011



RETRACTABLE DROPPER

BASE ASSEMBLY # (XTR1200)
BASE ASSEMBLY # (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
4-1	2	Side Frame	51379001	51379001
4-2	1	Side Frame Mount	51379002	51379064
4-3	1	Home Sensor Assembly	13791123	13791123
4-4	1	Photo Sensor Mount	51379039	51379039
4-5	5	Wire Clamp	53500581	53500581
	5	BHCS 8-32 X 3/8	00002306	00002306
4-6	2	Rubber Spacer Bracket	44640009	44640009
4-7	2	O-Ring Support	43555068	43555068
4-8	17	SHCS/SS 10-32 X 5/8	00002820	00002820
4-9	2	FHCS/SS 10-32 X 3/4	00003336	00003336
4-10	1	Retract Shaft Support Block	51379105	51379103
4-11	1	Back Stop	51379005	51379070
4-12	1	Harness Safety Interlock	13791133	13791133
4-13	8	SHCS/SS 8/32 X 5/8	00002816	00002816
4-14	4	Screw 4-40 X 3/4	00003385	00003385
4-15	1	Side Frame Mount	51379003	51379065
4-16	3	Wire Clamp	53500582	53500582
4-17	1	Base Plate	51379017	51379067
4-18	1	Back Pan Support	51379059	51379074
4-19	2	SHCS 10-32 X 7/8	00003302	00003302
4-20	2	PHMSSL 2-56 X 5/8	00002505	00002505
4-21	2	SHCS/SS 10-32 X 1/4	00002840	00002840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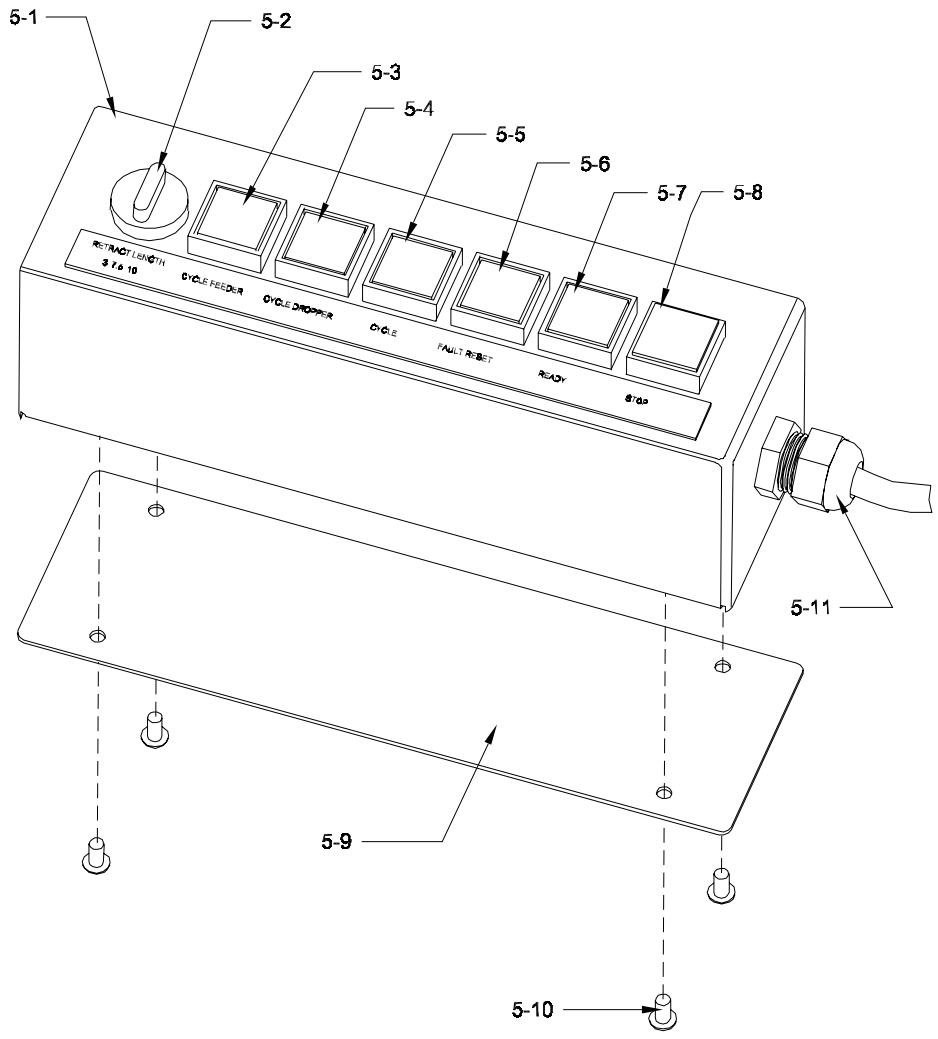
RETRACTABLE DROPPER

OPERATOR STATION # (XTR1200)
OPERATOR STATION # (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
5-1	1	Operator Station Enclosure	51379050	51379050
5-2	1	Switch Selector 3 Position	51379085	51379085
5-3	1	Push Button, Blue	51379088	51379088
5-4	1	Push Button, Black	51379087	51379087
5-5	1	Push Button, Green	51379086	51379086
5-6	1	Push Button, Amber	51379089	
	1	LED Light, Amber	51379093	51379093
5-7	1	Panel Light	51379091	51379091
	1	LED Light, Green	51379092	51379092
5-8	1	EXT Push Button	51379090	51379090
5-9	1	Operator Station Cover	51379044	51379044
5-10	4	BHCS/SS 10-32 X 3/8	00002805	00002805
5-11	1	Operator Interface Cable Assemble	13791124	13791124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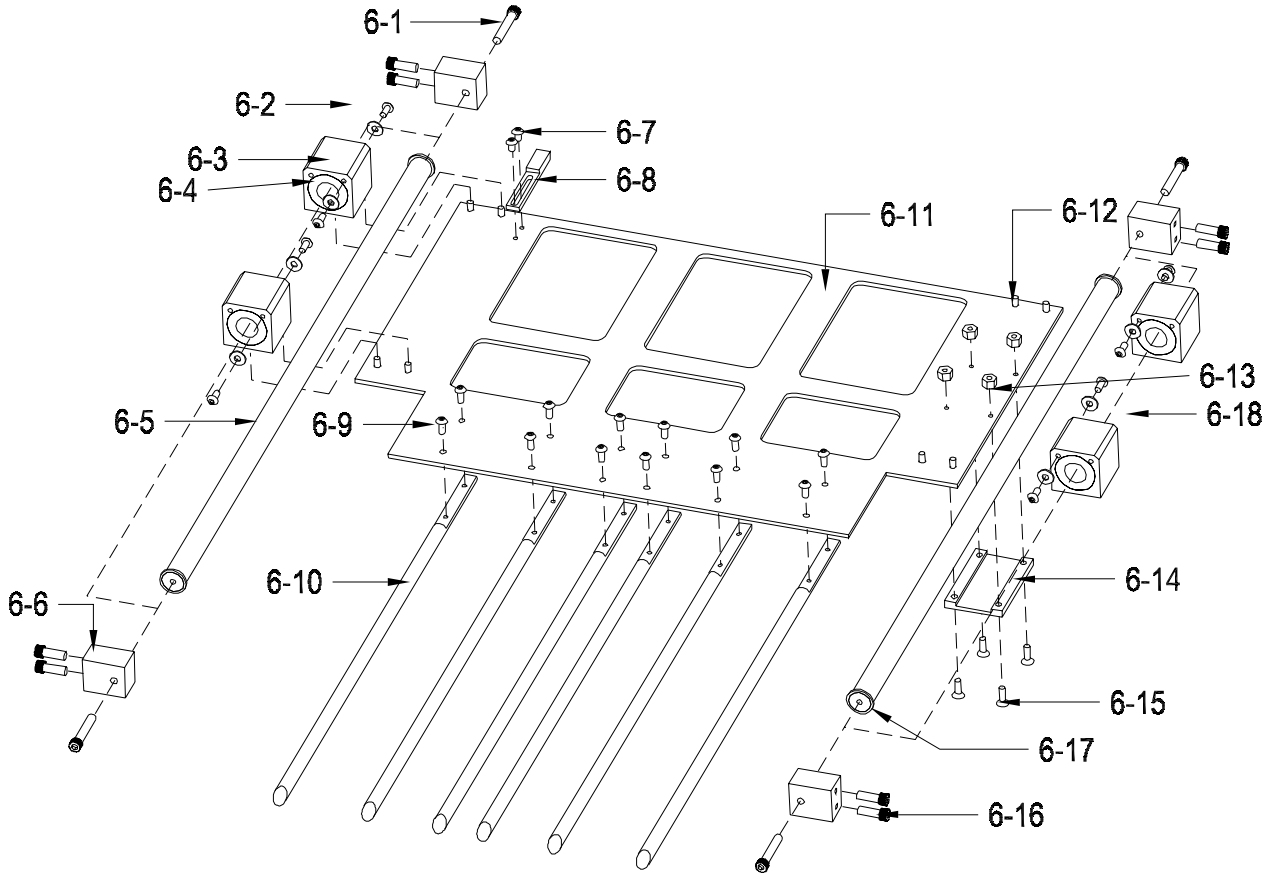
RETRACT LENGTH
3 7 6 10
CYCLE FEEDER
CYCLE DROPPER
CYCLE
FAULT RESET
READY
5-9
5-10
5-11

RETRACTABLE DROPPER

SLIDE ASSEMBLY # (XTR1200)
SLIDE ASSEMBLY # (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
6-1	4	SHCS/SS 10-32 X 1-1/4	00003415	00003415
6-2	8	BHCS/SS 8-32 X 3/8	00002806	00002806
6-3	4	Bearing Block	51379012	51379012
6-4	4	Bearing 51379013	51379013	
6-5	2	Slide Shaft	51379010	51379010
6-6	4	Shaft Mount	51379009	51379009
6-7	2	BHCS 8-32 X 1/4	00002210	00002210
6-8	1	Photo Sensor Arm	51379038	51379038
6-9	12	BHCS 8-32 X 3/8	00002306	
	16	BHCS 8-32 X 3/8	00002306	00002306
6-10	6	Round Retract Shaft	51379102	
	8	Round Retract Shaft	51379102	
6-11	1	Slide Plate	51379004	51379071
6-12	8	FHCS 8-32 X 3/8	00003335	
6-13	4	Nylock Nut 8-32	00002109	00002109
6-14	1	Belt Clamp	51379011	51379011
6-15	4	FHCS 8-32 X 5/8	51379011	51379011
6-16	8	SHCS/SS 10/32 X 5/8	00003451	00003451
6-17	4	O-Ring 51379075	51379075	
6-18	8	Washer, #8 Flat	00002600	00002600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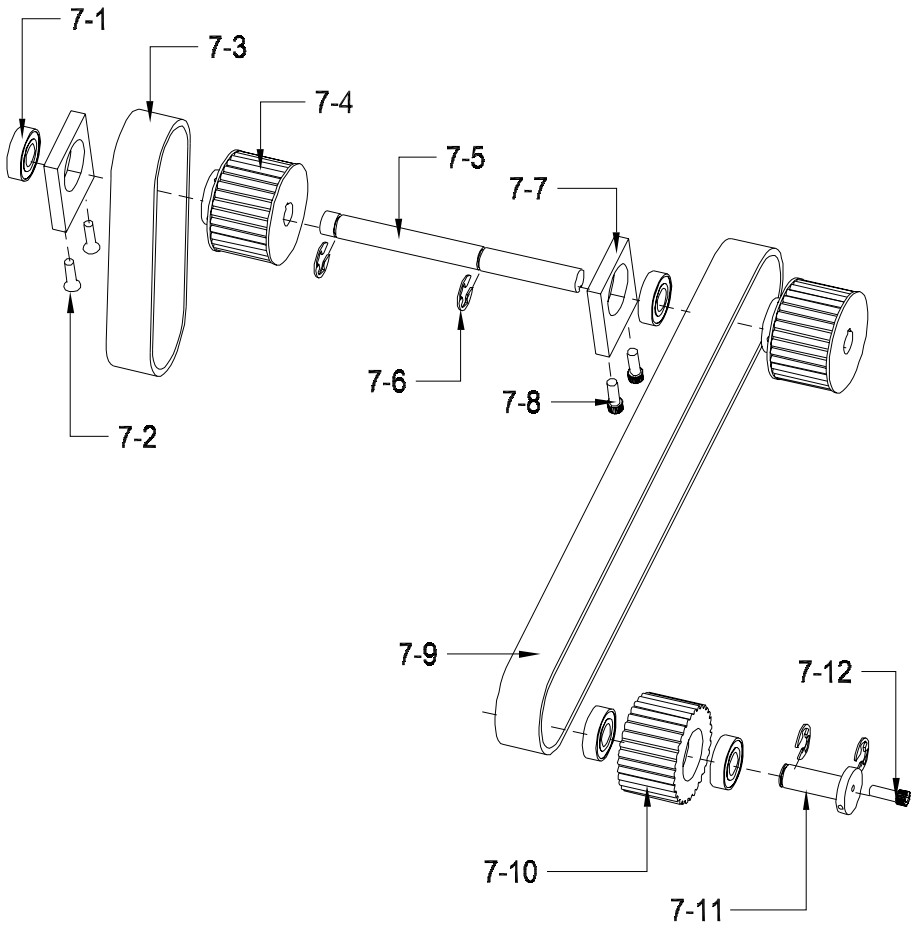
RETRACTABLE DROPPER
JACK SHAFT ASSEMBLY # (XTR1200)
JACK SHAFT ASSEMBLY # (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
7-1	4	R8 Ball Bearing	23500094	23500094
7-2	2	FHSCS/SS 10-32 X 3/4	00002338	00002338
7-3	1	Drive Belt 5MR-355	51379034	51379034
7-4	2	Pulley 32 Tooth Flanged	51379016	51379016
	4	Set Screw 10-32 X 1/4	00002216	00002216
7-5	1	Drive Shaft	51379019	51379019
7-6	4	E Clip 3/8 00001155	00001155	
7-7	2	Drive Shaft Bearing Block	51379018	51379018
7-8	3	SHCS/SS 10-32 X 5/8	00002820	00002820
7-9	1	Timing Belt 5MR-1450	51379015	51379015
7-10	1	Pulley 32 Tooth Non Flanged	51379036	51379036
7-11	1	Pulley Belt Tension	51379047	51379047
NS	1	Key Stock 1/8	44852080	44852080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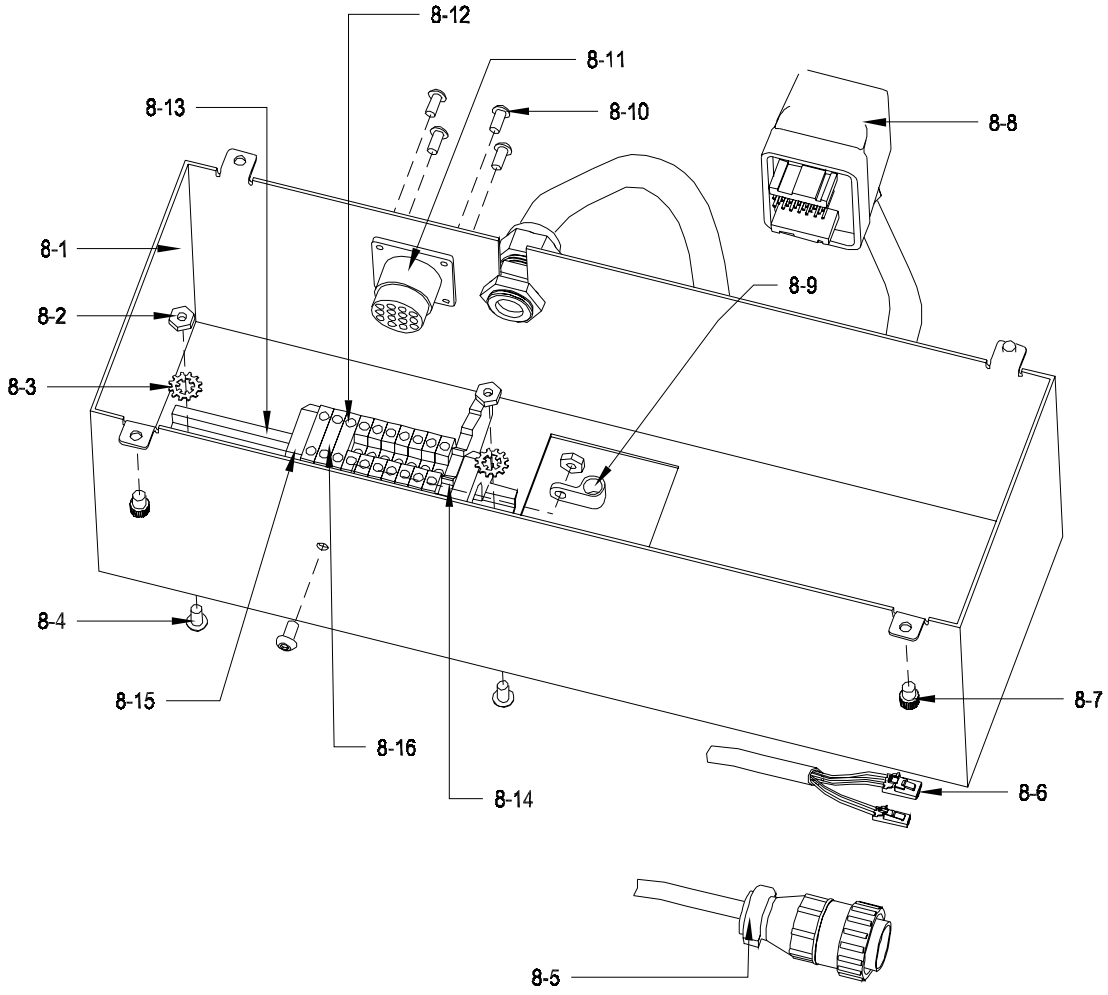
RETRACTABLE DROPPER
MOTOR COVER ASSEMBLY # (XTR1200)
MOTOR COVER ASSEMBLY # (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
8-1	1	Motor Cover	51379032	51379032
8-2	3	Hex Net 10-32	00002106	00002106
8-3	2	Star Washer	00002609	00002609
8-4	3	BHCS 10-32 X 3/8	00002805	00002805
8-5	1	Cable Assembly Feeder Interface	13791135	13791136
8-6	1	Harness Assembly Dropper Sensor's	13791137	13791137
8-7	3	SHCS/SS 10-32 X 1/4	00002840	00002840
8-8	1	Cable Assembly Dropper Interconnect	13791127	13791127
8-9	1	Wire Clamp	53500582	53500582
8-10	4	BHCS/SS 8-32 X 3/8	00002806	00002806
8-11	1	Harness Assembly System I/O	13791126	13791126
8-12	10	Terminal Block	53500153	53500153
8-13	7	Din Rail (7")	53500154	53500154
8-14	1	Terminal Block Side Plate	51327009	51327009
	1	Terminal Block Green/Yellow	51327028	51327028
8-15	2	Plate Anchor End	53500156	53500156
8-16	3	Bar Bridge	53500157	53500157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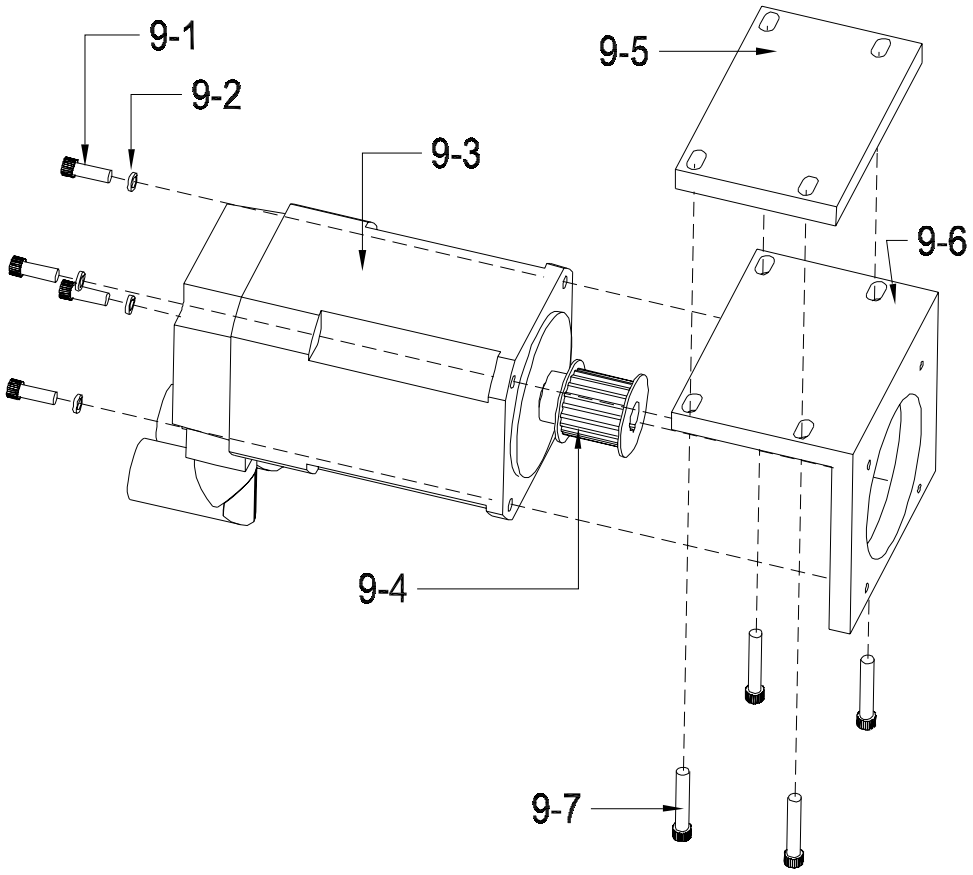
RETRACTABLE DROPPER
MOTOR ASSEMBLY # (XTR1200)
MOTOR ASSEMBLY # (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
9-1	4	SHCS 10-32 X 5/8	00002320	00002320
9-2	4	Lock Washer #10	00002608	00002608
9-3	1	Kollmorgan Motor	44946005	44946005
9-4	1	Motor Pulley	44947030	44947030
9-5	1	Motor Mount Spacer	51379076	51379076
9-6	1	Motor Mount	44697007	44697007
9-7	4	SHCS 10-32 X 1-1/4	00002840	00002840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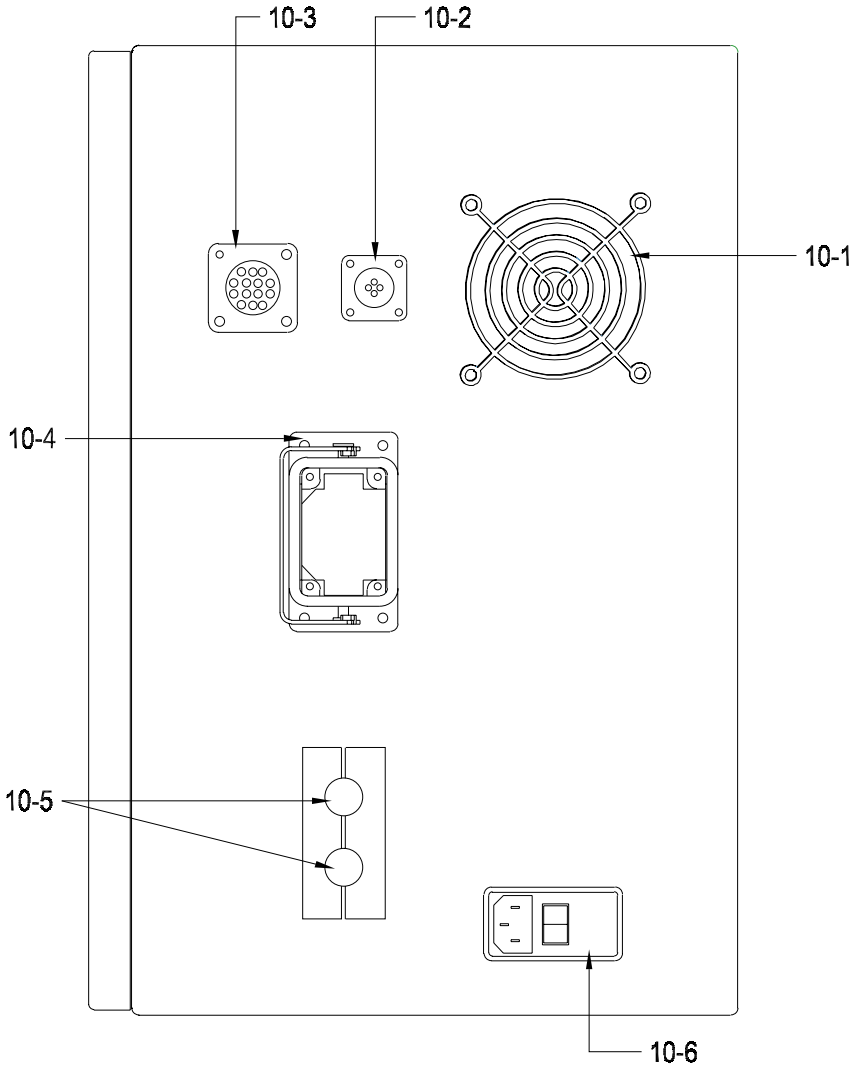
RETRACTABLE DROPPER

EXTERNAL ELECTRICAL ENCLOSURE # (XTR1200)
EXTERNAL ELECTRICAL ENCLOSURE # (XTR1700)

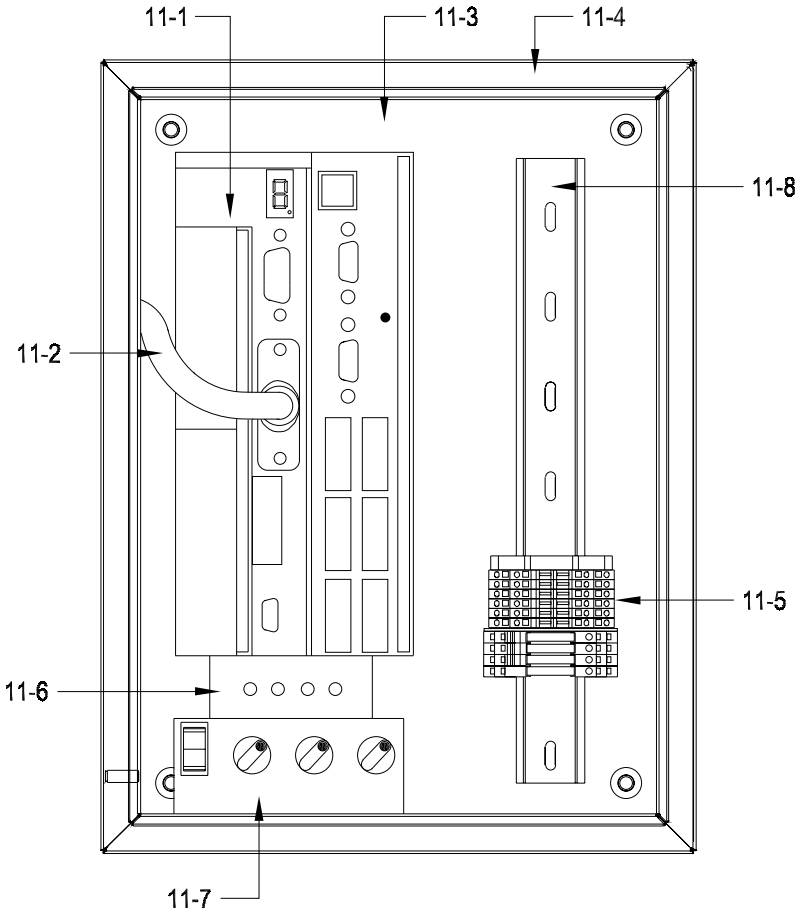
DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
10-1	1	Guard	53500281	53500281
10-2	1	Harness Assy Flight Trigger Interface	13791132	13791132
10-3	1	Harness Assembly System I/O	13791126	13791126
10-4	1	Harness AssyDropper Interconnect	13791128	13791128
10-5	1	Cable Set Kollmorgan	44946006	44946006
10-6	1	Power Entry Module	44649034	44649034
	2	Fuse 10Amp 5 V 20MM	53500455	53500455



RETRACTABLE DROPPER

INTERNAL ELECTRICAL ENCLOSURE # (XTR1200)
INTERNAL ELECTRICAL ENCLOSURE # (XTR1700)

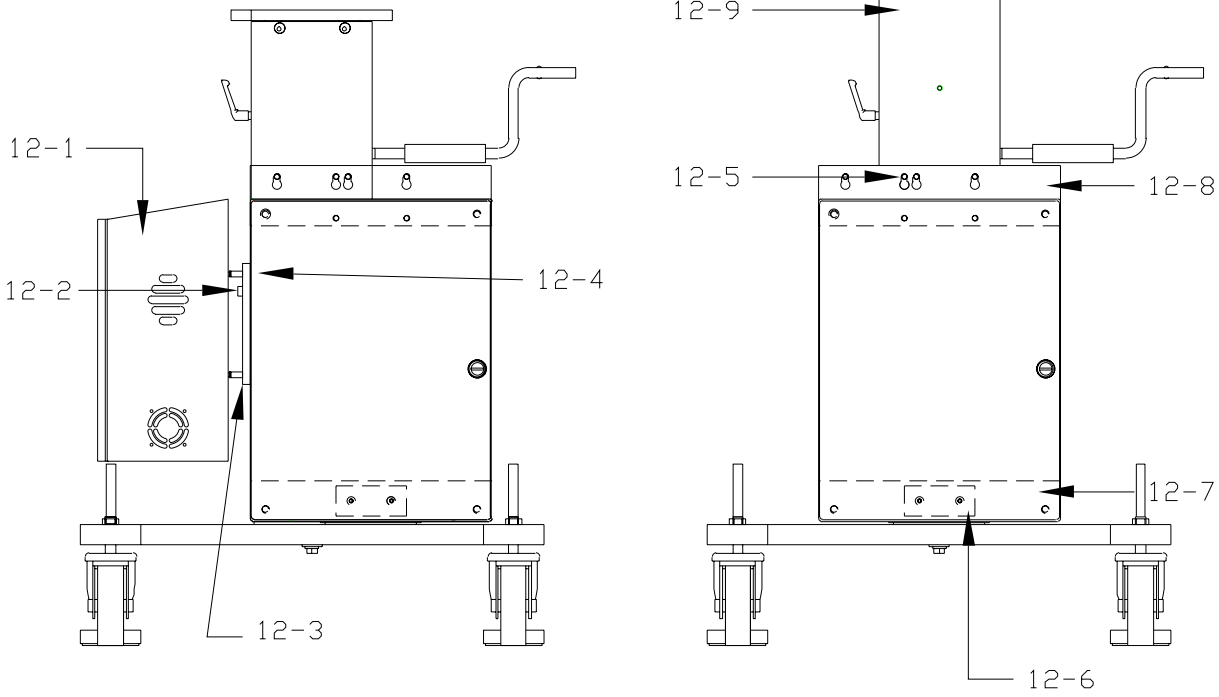
DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
11-1	1	Servo Star SC Drive 6A	51327021	51327021
11-2	1	Cable Set Kollmorgan	44946006	44946006
11-3	1	Enclosure Back Panel	51379078	51379078
11-4	1	Electrical Enclosure	51379079	51379079
11-5	1	Terminal Block	51327028	51327028
11-6	1	Power Supply	53500598	53500598
11-7	1	Harness Internal Interface	13791134	13791134
11-8	7	Din Rail (7”)	53500154	53500154



RETRACTABLE DROPPER

ENCLOSURE MOUNTING # (XTR1200)
ENCLOSURE MOUNTING # (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200	P/N 1700
12-1	1	IQuipped Box	68311001	
12-2	2	Shoulder Bolt	44854033	
12-3	1	IQuipped Mounting Plate	51208161	
12-4	1	Internal Mounting Plate	51379113	
12-5	2	Shoulder Bolt	51299012	51299012
12-6	1	Slide Mount	51379101	51379101
	2	FHCS/SS 10-32 X 1/2	00002830	00002830
12-7	1	Bottom Bracket	51379083	51379083
	2	BHCS 3/8-16 X 1/2	00003363	00003363
12-8	1	Top Bracket	51379084	51379084
	2	BHCS 3/8-16 X 1/2	00003363	00003363
12-9	1	29” Heavy Duty Stand (Standard)	51021001	51021023
	1	39” Heavy Duty Stand (Optional)	51021034	51021035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RETRACTABLE DROPPER

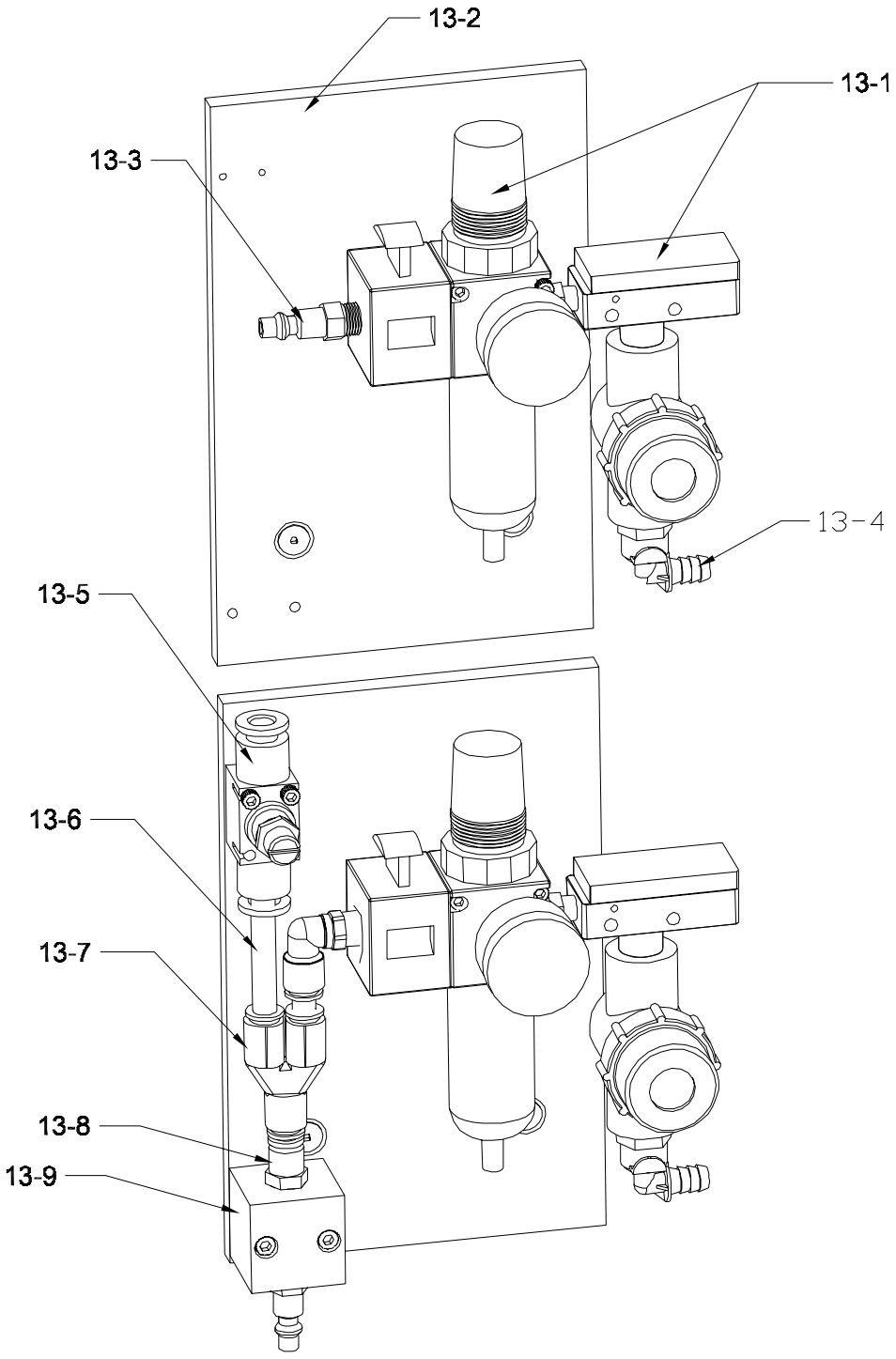
AIR MOUNTING (OPTIONAL) ASSEMBLY #13791147 (XTR1200)
AIR MOUNTING (OPTIONAL) ASSEMBLY #13791147 (XTR1700)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200/1700
13-1	1	Venturi Vacuum Generator	44450072
	2	Screw, SHCS 8-32 x 1-1/2	00002333
13-2	1	Air Mounting Plate	51327066
	2	Screw, FHSCS 1/4-20 x 3/4	00003395
13-3	1	Air Fitting 44813006	
13-4	1	90 Degree Connector	53500219
NS	30”	Vacuum Hose	44450026

RETRACTABLE DROPPER

AIR MOUNTING (FOR OPTIONAL AIR KNOCK-DOWN)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N 1200/1700
13-5	1	Flow Control Inline Valve 3/8 Tube	44450097
	2	Screw, SHCS 8-32 x 1	00002303
13-6	40”	Polyurethane Tubing 3/8od 1/4id Black	44450096
13-7	1	Tube Y Fitting 3/8 Tube to 3/8 Tube	44450094
13-8	1	Tube Fitting 3/8 Tube to 1/4 NPT Male	44450084
13-9	1	Air Mounting Block	51327067
	2	Screw, SHCS 10-32 x 1-1/4	00002312
13-10	1	Air Fitting	44813006


13-2
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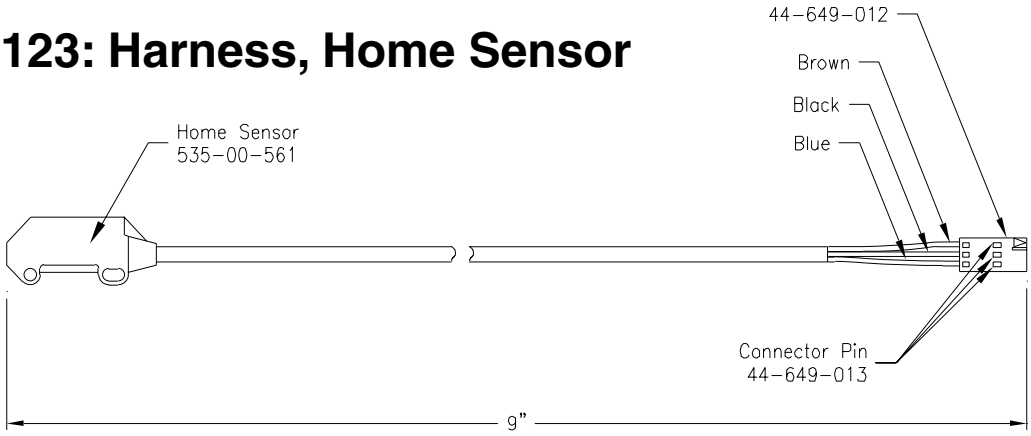
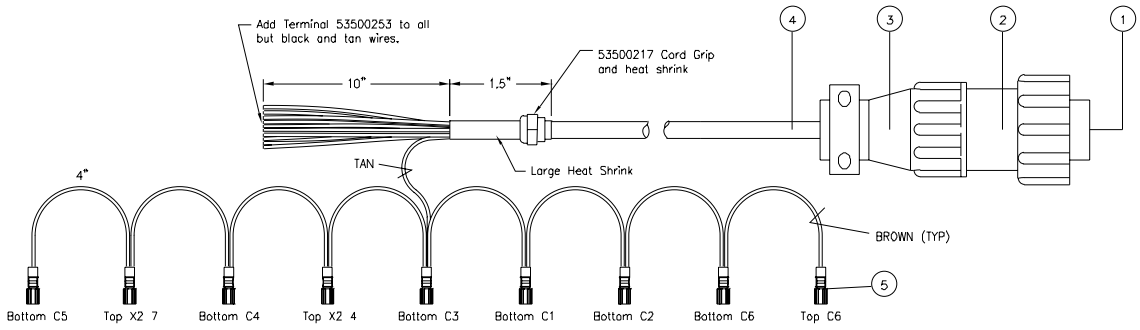
NOTES:

5: Electrical Components

13791123: Harness, Home Sensor



13791124: Cable, Operator Interface

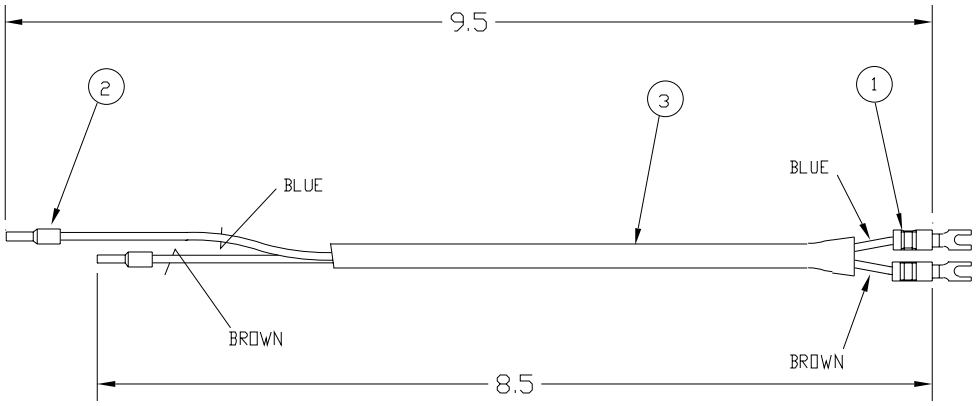


Pin #	Color	Button #	Function
1	Brown	1	Cycle Dropper PB NO
2	Red	2	Cycle Feeder PB NO
3	Orange	3	Cycle System PB NO
4	Yellow	4	Fault Reset PB NO
5	Green	5	Stop PB NC
6	Blue	6	Retract Length A NO Top
7	Violet	6	Retract Length B NO Bottom
8	Gray	4	Fault Lamp X1
9	White	7	Ready Lamp X1
11	Tan		DC +24v (Connect to all C and X2)
12	Shield Wire		
14			Key 53500509

Assembly Note:
Cut Off From Both Ends
RED/GRN
RED/YELLOW
RED/BLACK
PINK
BLACK

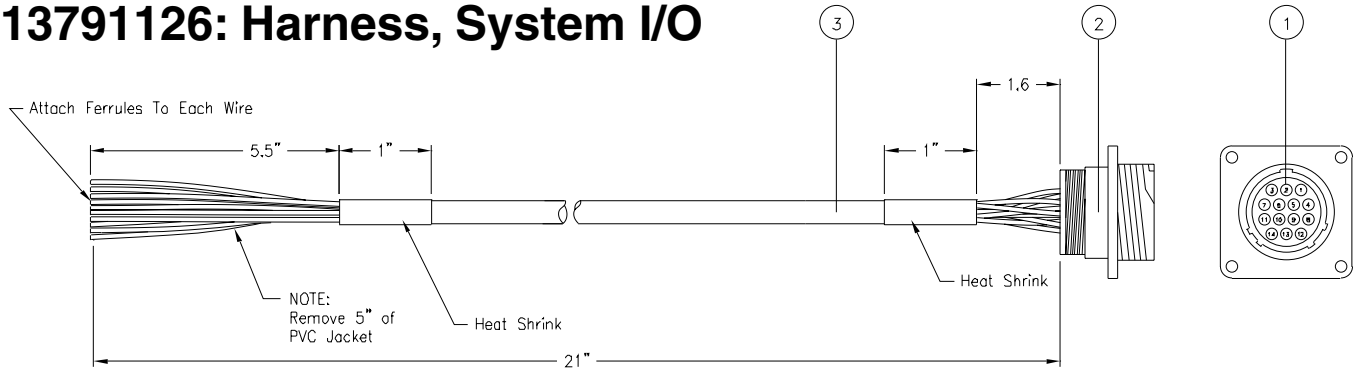
ITEM	QTY.	DESCRIPTION	PART #
1	11	Contact Pin Male	535-00-502
2	1	Plug Amp 14 Pin	44-649-028
3	1	Clamp 16 Pin	44-649-029
4	6.5'	Cable 15 Conductor	535-00-127
5	18	Terminal Red .110	535-00-253
6	1	Cord Grip PG-9	535-00-217
7	32	22AWG Brown	535-00-213
8	1	Key	535-00-509

13791125: Harness, DC Power A



ITEM:	QTY:	PART #	DESCRIPTION
1	2	53500047	TERMINAL CONNECTOR
2	2	53500237	RED FERRULE
3	5 1/4"	44649087	SHEATHING #7 NP BLACK
4	18"	53500055	WIRE 18AWG BLUE
5	15"	53500056	WIRE 18AWG BROWN

13791126: Harness, System I/O



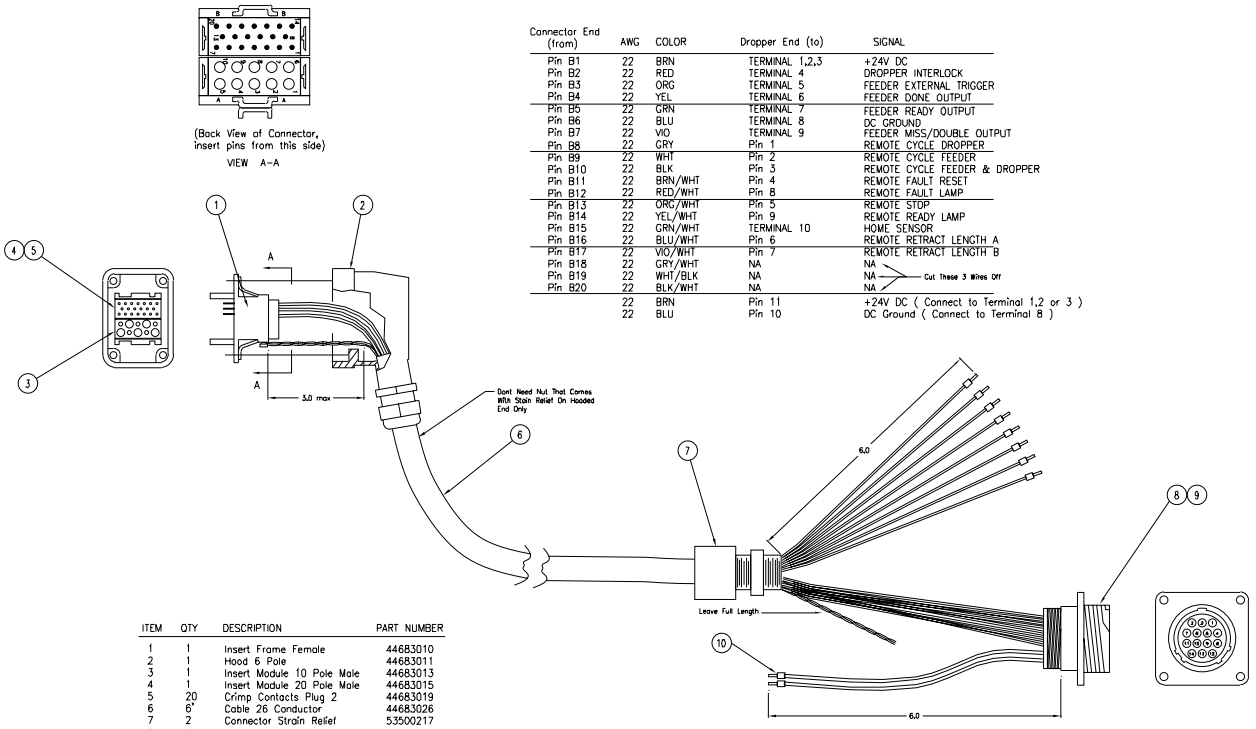
Pin #	Color
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
10	Black
13	Red & Yellow
14	Red & Green

NOTE:
Cut Off Unused Wires

NOTE:
Possible to Make From
64911014

ITEM	QTY.	DESCRIPTION	PART #
1	10	Contact Pin Female	535-00-503
2	1	Recepticle Amp 14	44-649-027
3	21"	Cable 15 Conductor	535-00-127
4	10	10 Ferrule White	535-00-235

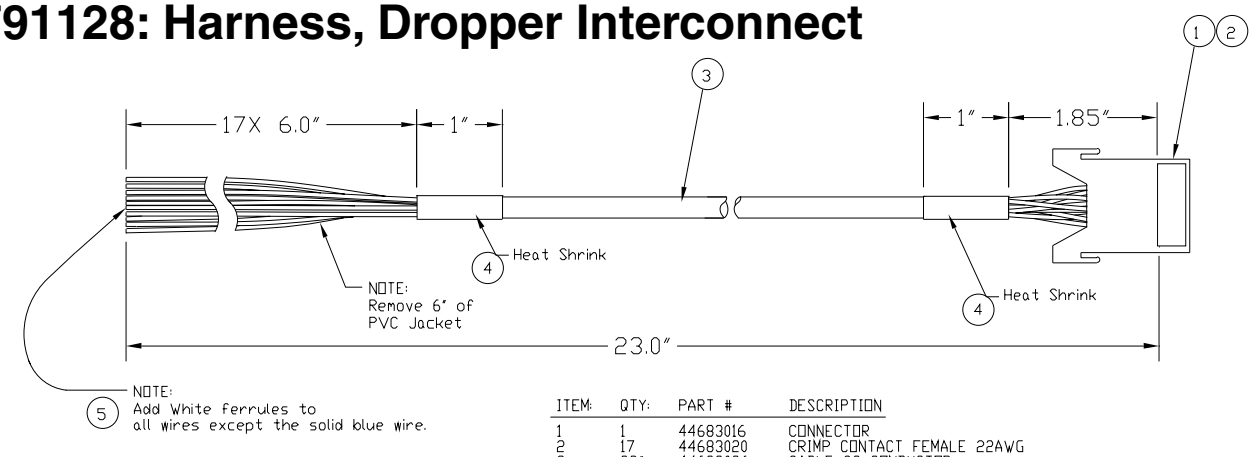
13791127: Cable, Dropper Interconnect



Connector End (from)	AWG	COLOR	Dropper End (to)	SIGNAL
Pin B1	22	BRN	TERMINAL 1,2,3	+24V DC
Pin B2	22	RED	TERMINAL 4	DROPPER INTERLOCK
Pin B3	22	ORG	TERMINAL 5	FEEDER EXTERNAL TRIGGER
Pin B4	22	YEL	TERMINAL 6	FEEDER DONE OUTPUT
Pin B5	22	GRN	TERMINAL 7	FEEDER READY OUTPUT
Pin B6	22	BLU	TERMINAL 8	DC GROUND
Pin B7	22	VIO	TERMINAL 9	FEEDER MISS/DOUBLE OUTPUT
Pin B8	22	GRY	Pin 1	REMOTE CYCLE DROPPER
Pin B9	22	WHT	Pin 2	REMOTE CYCLE FEEDER
Pin B10	22	BLK	Pin 3	REMOTE CYCLE FEEDER & DROPPER
Pin B11	22	BRN/WHT	Pin 4	REMOTE FAULT RESET
Pin B12	22	RED/WHT	Pin 8	REMOTE FAULT LAMP
Pin B13	22	ORG/WHT	Pin 5	REMOTE STOP
Pin B14	22	YEL/WHT	Pin 9	REMOTE READY LAMP
Pin B15	22	GRN/WHT	TERMINAL 10	HOME SENSOR
Pin B16	22	BLU/WHT	Pin 6	REMOTE RETRACT LENGTH A
Pin B17	22	VIO/WHT	Pin 7	REMOTE RETRACT LENGTH B
Pin B18	22	GRY/WHT	NA	NA
Pin B19	22	WHT/BLK	NA	NA — Cut These 3 Wires Off
Pin B20	22	BLK/WHT	NA	NA
	22	BRN	Pin 11	+24V DC (Connect to Terminal 1,2 or 3)
	22	BLU	Pin 10	DC Ground (Connect to Terminal 8)

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Insert Frame Female	44683010
2	1	Hood 6 Pole	44683011
3	1	Insert Module 10 Pole Male	44683013
4	1	Insert Module 20 Pole Male	44683015
5	20	Crimp Contacts Plug 2	44683019
6	6'	Cable 26 Conductor	44683026
7	2	Connector Strain Relief	53500217
8	9	Contact Pin Female	53500503
9	1	Receptacle Amp 14 Pin	44649027
10	8	Ferrule White	53500235
11	6"	Wire Brown 22 AWG	53500213
12	6"	Wire Blue 22 AWG	53500114

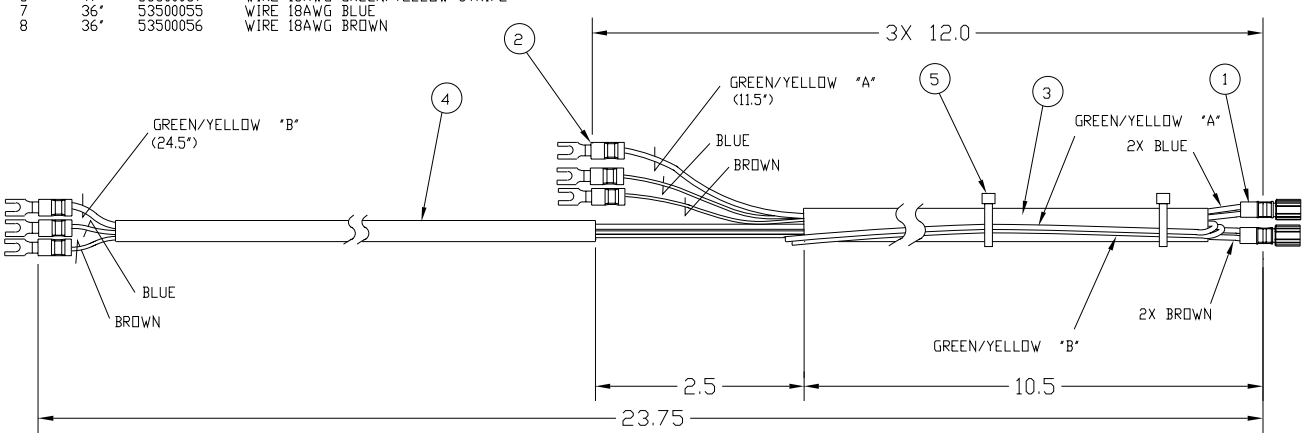
13791128: Harness, Dropper Interconnect



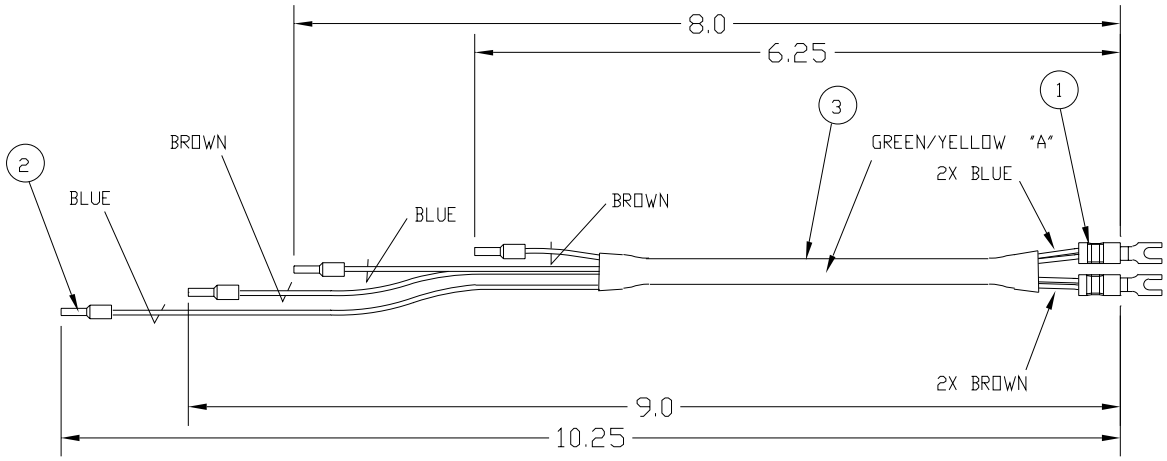
ITEM:	QTY:	PART #	DESCRIPTION
1	1	44683016	CONNECTOR
2	17	44683020	CRIMP CONTACT FEMALE 22AWG
3	23"	44683026	CABLE 29 CONDUCTOR
4	2"	XXXXXXXX	Shrink Wrap
5	16	53500235	White Ferrules

13791129: Harness, AC Power

ITEM:	QTY:	PART #	DESCRIPTION
1	2	44649046	SPADE CONNECTOR FEMALE
2	6	53500047	TERMINAL CONNECTOR
3	9"	44649085	SHEATHING #0 NP BLACK
4	11"	44649108	SHEATHING #3 NP BLACK
5	2	435SD263	TIE WRAP
6	47"	53500057	WIRE 18AWG GREEN/YELLOW STRIPE
7	36"	53500055	WIRE 18AWG BLUE
8	36"	53500056	WIRE 18AWG BROWN

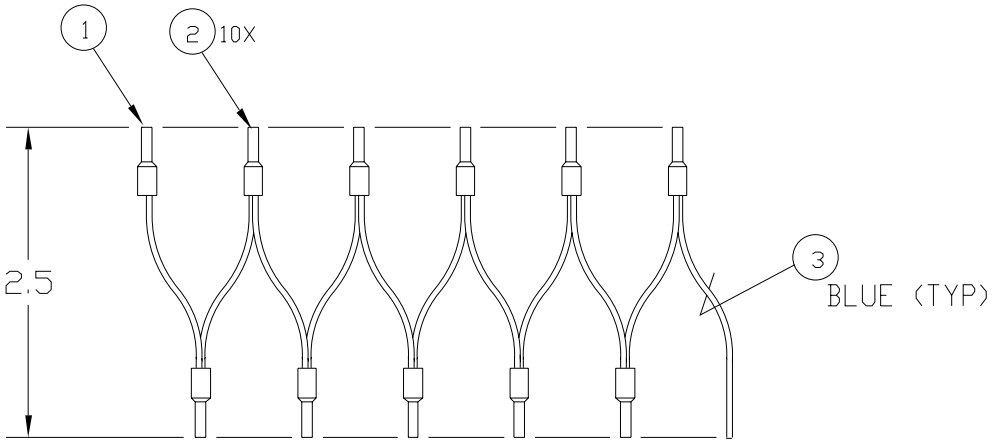


13791130: Harness, DC Power B



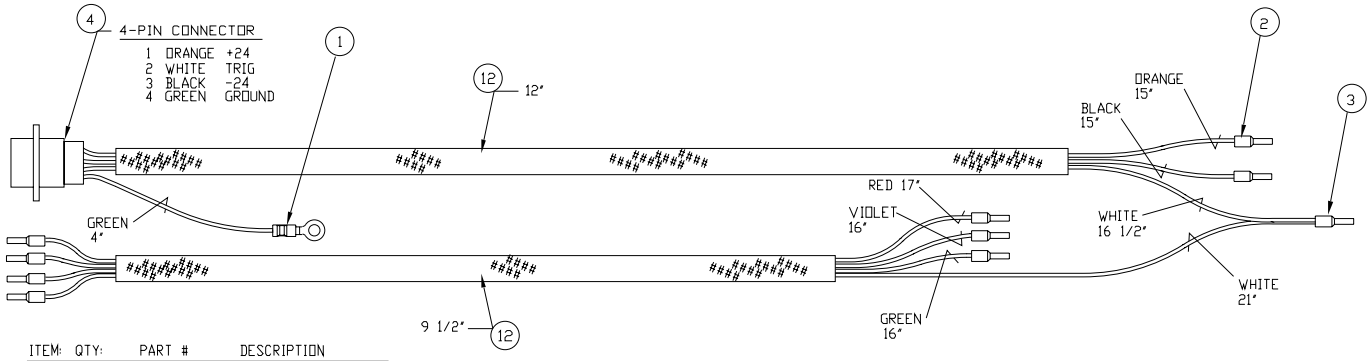
ITEM:	QTY:	PART #	DESCRIPTION
1	2	53500047	TERMINAL CONNECTOR
2	4	53500235	WHITE FERRULE
3	4 1/4"	44649087	#7 SHEATHING
4	18 1/4"	53500114	WIRE 22AWG BLUE
5	15 1/4"	53500213	WIRE 22AWG BROWN

13791131: Harness, DC Power C



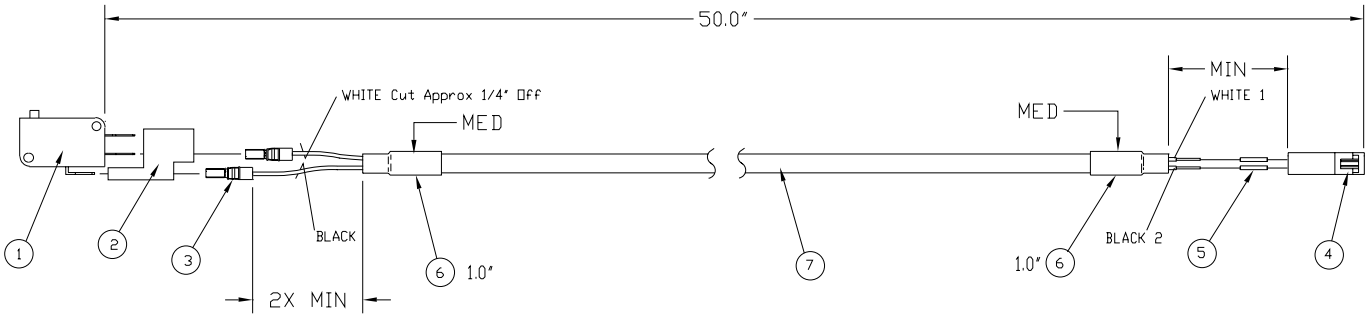
ITEM:	QTY:	PART #	DESCRIPTION
1	1	53500235	WHITE FERRULE
2	10	53500236	GRAY FERRULE
3	27 1/2"	53500114	WIRE 22AWG BLUE

13791132: Harness, Relay Interface



ITEM:	QTY:	PART #	DESCRIPTION
1	1	53500041	TERMINAL RING
2	9	53500235	WHITE FERRULE
3	1	53500236	GRAY FERRULE
4	1	53500505	4-PIN CHASSIS CONNECTOR
5	20"	53500212	WIRE GREEN 22 AWG
6	16"	53500214	WIRE VIOLET 22 AWG
7	17"	53500112	WIRE RED 22 AWG
8	38"	53500113	WIRE WHITE 22 AWG
9	15"	53500258	WIRE ORANGE 22 AWG
10	15"	53500111	WIRE BLACK 22 AWG
11	4	53500503	CONTACT PIN, FEMALE
12	21.5"	44649087	SHEATHING #7 BLACK

13791133: Harness, Safety Interlock

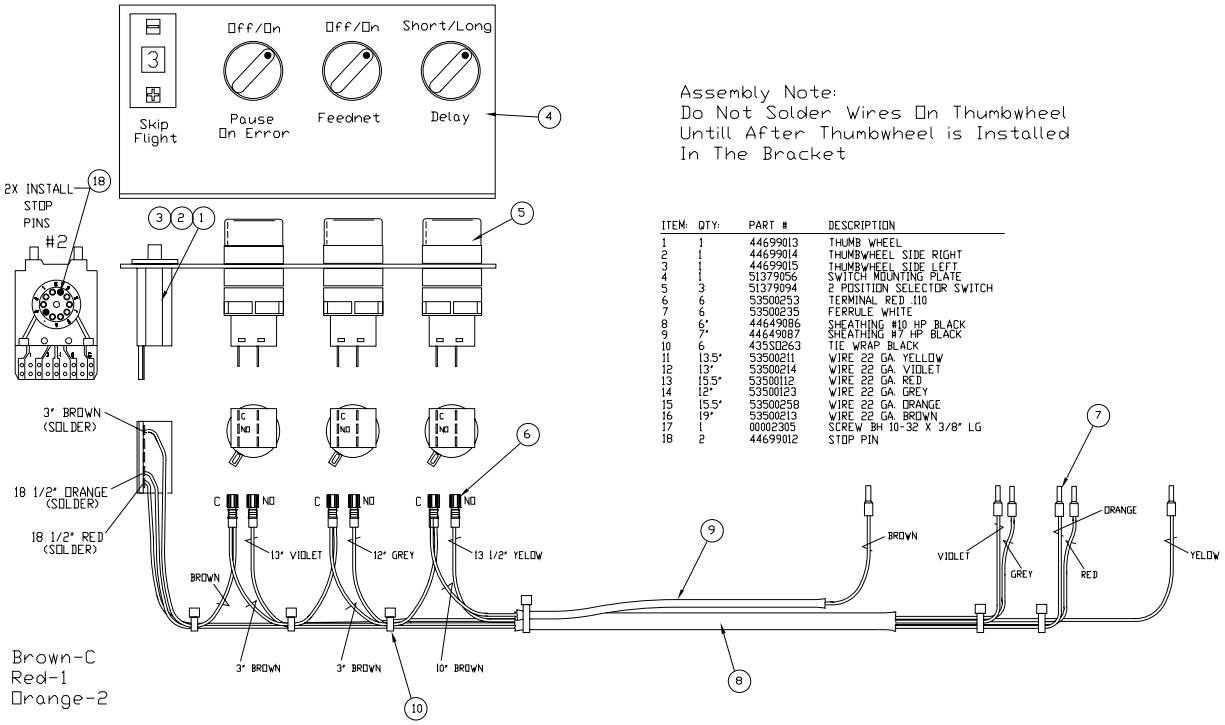


ITEM:	QTY:	PART #	DESCRIPTION
1	1	53500574	MICRO SWITCH
2	1	53500575	SWITCH CONNECTOR
3	2	53500576	TERMINAL
4	1	44649040	2-PIN HOUSING CONNECTOR
5	2	44649013	CONNECTOR PIN MALE
6	2"	XXXXXXXX	SHRINK WRAP
7	50"	53500146	CABLE 22 AWG 4 CONDUCTOR

NOTE:

1. REMOVE 2 WIRES OFF BOTH ENDS LEAVING WHITE AND BLACK ONLY.

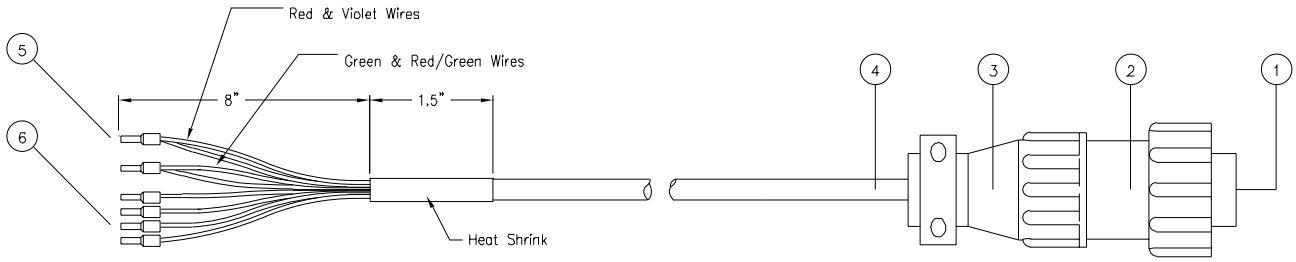
13791134: Harness, Internal Interface



Assembly Note:
Do Not Solder Wires On Thumbwheel Untill After Thumbwheel is Installed In The Bracket

ITEM:	QTY:	PART #	DESCRIPTION
1	1	44699013	THUMB WHEEL
2	1	44699014	THUMBWHEEL SIDE RIGHT
3	1	44699015	THUMBWHEEL SIDE LEFT
4	1	51379056	SWITCH MOUNTING PLATE
5	3	51379094	2 POSITION SELECTOR SWITCH
6	6	53500253	TERMINAL RED .110
7	6	53500235	FERRULE WHITE
8	6"	44649086	SHEATHING #10 HP BLACK
9	7"	44649087	SHEATHING #7 HP BLACK
10	6	43501263	TIE WRAP BLACK
11	13.5"	53500211	WIRE 22 GA. YELLOW
12	13"	53500214	WIRE 22 GA. VIOLET
13	15.5"	53500112	WIRE 22 GA. RED
14	12"	53500123	WIRE 22 GA. GREY
15	15.5"	53500258	WIRE 22 GA. ORANGE
16	19"	53500213	WIRE 22 GA. BROWN
17	1	00002305	SCREW BH 10-32 X 3/8" LG
18	2	44699012	STOP PIN

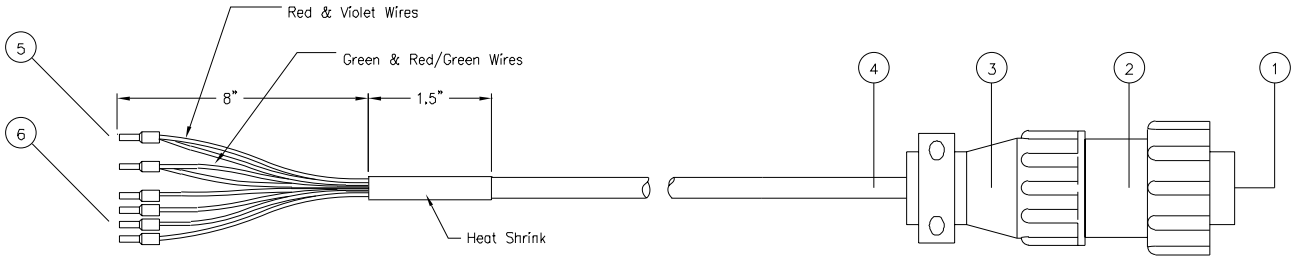
13791135: Feeder Interface Cable, XTR 1200



Pin #	Color	Function
1	Brown	Miss/Double (−)
2	Red	Miss/Double (+)
4	Yellow	Done (−)
5	Green	Done (+)
6	Blue	Ready (−)
7	Violet	Ready (+)
13	Red/Yel	Trigger (−)
14	Red/Grn	Trigger (+)

ITEM	QTY.	DESCRIPTION	PART #
1	11	Contact Pin Male	535-00-502
2	1	Plug Amp 14 Pin	44-649-028
3	1	Clamp 16 Pin	44-649-029
4	18"	Cable 15 Conductor	535-00-127
5	2	Ferrule Gray	535-00-236
6	4	Ferrule White	535-00-235

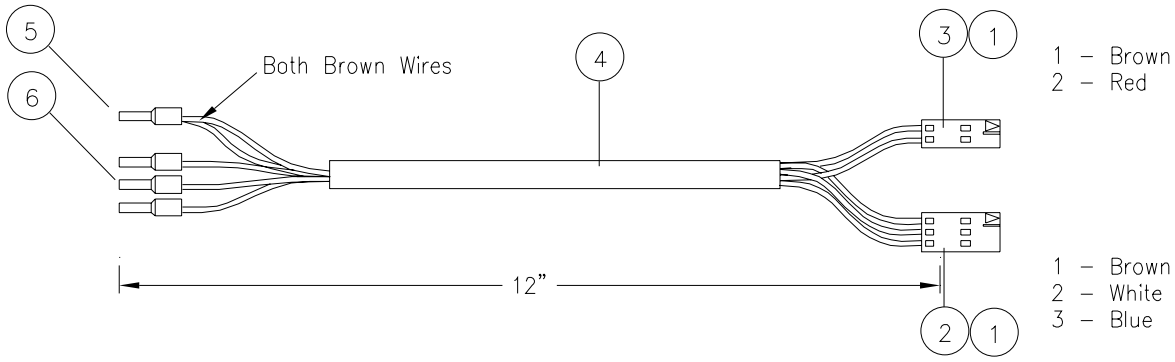
13791136: Feeder Interface Cable, XTR1700



Pin #	Color	Function
1	Brown	Miss/Double (−)
2	Red	Miss/Double (+)
4	Yellow	Done (−)
5	Green	Done (+)
6	Blue	Ready (−)
7	Violet	Ready (+)
13	Red/Yel	Trigger (−)
14	Red/Grn	Trigger (+)

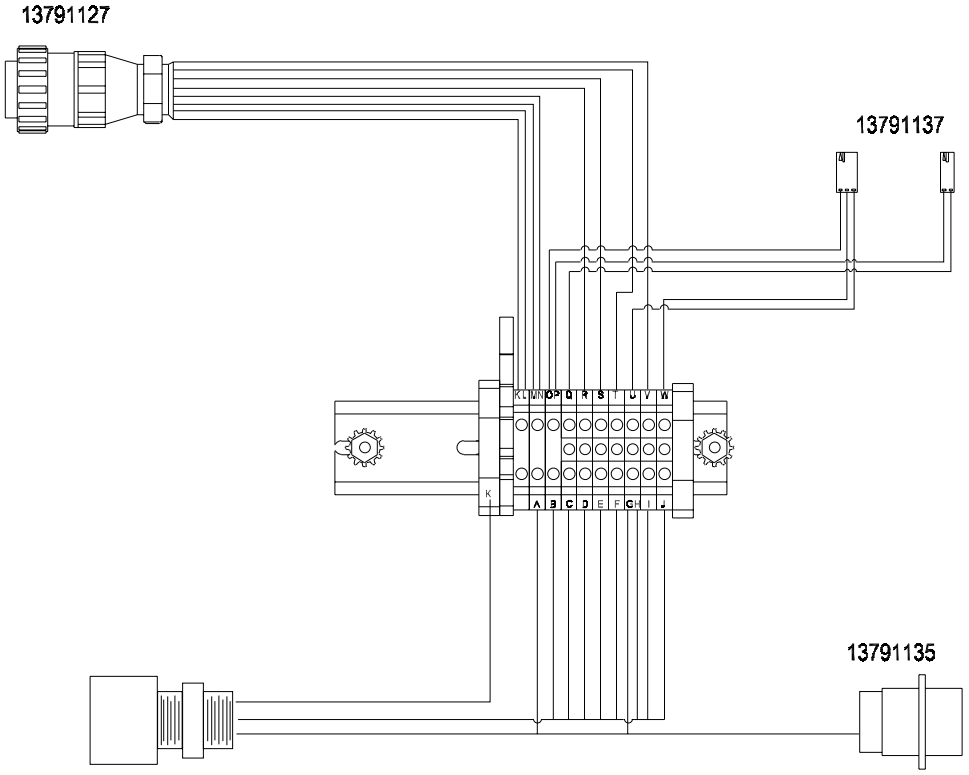
ITEM	QTY.	DESCRIPTION	PART #
1	8	Contact Pin Male	535-00-502
2	1	Plug Amp 14 Pin	44-649-028
3	1	Clamp 16 Pin	44-649-029
4	72"	Cable 15 Conductor	535-00-127
5	2	Ferrule Gray	535-00-236
6	4	Ferrule White	535-00-235

13791137: Harness, Sensor



ITEM	QTY.	DESCRIPTION	PART #
1	5	Contact Pin female	44-649-019
2	1	Connector 3 pin Molex	44-649-016
3	1	Connector 2 pin Molex	44-649-018
4	6"	Sheathing #7 Varflex	44-649-087
5	1	Ferrule Gray	535-00-236
6	3	Ferrule White	535-00-235
7	12"	Wire Red 22ga	535-00-112
8	12"	Wire White 22ga	535-00-113
9	12"	Wire Lt Blue 22ga	535-00-114
10	24"	Wire Brown 22ga	535-00-213

13791150: Wiring Diagram



A-BRN
B-BRN
C-RED
D-ORG
E-YEL
F-GRN
G-BLU
H-BLU
I-VIO
J-GRN/WHT
K-RED
L-VIO
M-GRN
N-RED/GRN
O-BRN
P-BRN
Q-RED
R-RED/YEL
S-YEL
T-LT BLU
U-BLU
V BRN
W-WHT
X-GRND (SHIELD)

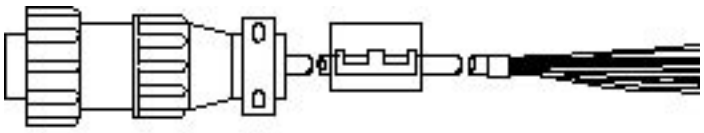
NOTES:

6: I/O Detail

A qualified service technician should perform the electrical integration of this equipment to the host machinery. Always disconnect the AC inlet power cord before performing any service activity.

External I/O Cable Wiring Table

Pin #	Wire Color	Function	Relay #	Relay Type
3	Orange	+24 VDC Supply (150ma. max)	-	
6	Blue	Ready Output (-)	1221	SSR
7	Violet	Ready Output (+)		24 VDC
8	Gray	Fault Output (-)	1110	SSR
9	White	Fault Output (+)		24 VDC
10	Black & Shield	DC Supply Ground	-	
13	Red /Yellow	External Trigger Input (-)	1115	SSR
14	Red / Green	External Trigger Input (+)		24 VDC



External I/O Cable 649-11-012

Warranty

STREAMFEEDER® LIMITED WARRANTY

Streamfeeder, LLC (Streamfeeder) warrants this product to be free from defects in materials and workmanship, when used under recommended operating conditions, for a period of one year from the date of original retail purchase.

If you discover a defect during the warranty period, please notify the authorized Streamfeeder distributor from whom you purchased this product, who will make repairs at no charge to you. If the defect is not field-repairable, and if you return it to Streamfeeder during the warranty period, Streamfeeder will, at its sole option, repair or replace this product, at no charge to you other than shipping charges to and from the Streamfeeder facility in Minneapolis Minnesota.

If you return this product to Streamfeeder for warranty repair or replacement, please attach to the returned product your name and your company's name, address, telephone number and fax number; a description of the problem; and a copy of the bill of sale or invoice that shows the appropriate serial number for the product. All returns must be accompanied by an authorized Streamfeeder Returned Goods Authorization (RGA) number. An authorized RGA number can be obtained from Streamfeeder Sales/Service Department.

This warranty applies only to products manufactured by Streamfeeder. This warranty does not apply if the product has been damaged by accident, abuse, misuse, neglect, improper maintenance, misapplication, or as a result of being attached to equipment not supplied by Streamfeeder; if the product has been modified without the written permission of Streamfeeder; or if the product's serial number has been removed or defaced. This warranty further does not apply to the failure of any rubber-based or consumable components, including but not limited to "O" rings, rollers, feed belts, fuses, or bulbs.

ALL IMPLIED WARRANTIES INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND THE IMPLIED WARRANTY OF MERCHANTABILITY ARE HEREBY DISCLAIMED.

Streamfeeder is not responsible for special, incidental, or consequential damages resulting from any breach of warranty or under any other legal theory, including lost profits, downtime, goodwill, or damage to or replacement of equipment or property.

This warranty and the remedies set forth above are exclusive and are in lieu of all others, oral or written, express or implied. There are no warranties that extend beyond the description on the face hereof. No Streamfeeder employee, distributor, or agent is authorized to make any modification, extension, or addition to this warranty.

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