



HYDRAULIC THROUGH FRAME SLIDEOUT OWNER'S MANUAL

L I P P E R T
C O M P O N E N T STM

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Warning, Safety, and System Requirement Information

Description

The Lippert Hydraulic Through Frame Slideout System is a rack and pinion guide system, utilizing a hydraulic cylinder to move the room assembly. The power unit drives the cylinder rod in a forward and backward motion to move the slide room in and out. The Lippert Hydraulic Slideout System is designed to operate as a negative ground system.

Safety Information



The “WARNING” symbol above is a sign that a service or maintenance procedure has a safety risk involved and may cause serious injury or death if not performed safely and within the parameters set forth in this manual.

Always wear eye protection when performing service or maintenance to the vehicle. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the service.

This manual provides general service and maintenance procedures. Many variables can change the circumstances of the service procedure, i.e., the degree of difficulty involved in the service operation and the ability level of the individual performing the operation. This manual cannot begin to plot out procedures for every possibility, but will provide the general instructions for effectively servicing the vehicle. In the event the skill level required is too high or the procedure is too difficult, a certified technician should be consulted before performing the necessary service. Failure to correctly service the vehicle may result in death, serious injury or voiding the warranty. The owner’s manual for the unit may have more procedures for service and maintenance.



Failure to act in accordance with the following may result in death, serious injury, coach or property damage.

The Lippert Hydraulic Through Frame Slideout System is intended for the sole purpose of extending and retracting the slideout room. Its function should not be used for any other purpose or reason than to actuate the slideout room. To use the system for any reason other than what it is designed for may result in damage to the coach and/or cause serious injury or even death.

Before actuating the system, please keep these things in mind:

1. Parking locations should be clear of obstructions that may cause damage when the slideout room is actuated.
2. Be sure all persons are clear of the coach prior to the slideout room actuation.
3. Keep hands and other body parts away from slideout mechanisms during actuation. Severe injury or death may result.
4. To optimize slideout actuation, park coach on solid and level ground.

Prior to Operation

Prior to operating the Lippert Hydraulic Through Frame Slideout System, follow these guidelines:

1. Coach should be parked on the most level surface available.
2. Leveling or stabilizing system should be actuated to ensure coach will not move during operation of slideout system.
3. Be sure battery is fully charged.
4. Be sure to keep all persons and pets clear of slideout system during operation.



Always make sure that the slideout room path is clear of people and objects before and during operation of the slideout room. Always keep away from the slide rails when the room is being operated. The gear assembly may pinch or catch on loose clothing causing personal injury.

NOTE: Install transit bars (if so equipped) on the slideout room during storage and transportation.

Operation

Extending Slideout Room

5. Level the Unit.
6. Verify the battery is fully charged and hooked up to the electrical system.
7. Remove transit bars (if so equipped).
8. Press and hold the IN/OUT switch in the OUT position until room is fully extended and stops moving.
9. Release switch, which will lock the room into position.

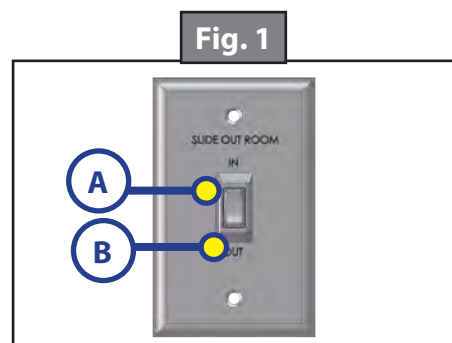
NOTE: Only hold OUT switch until room stops.

Retracting Slideout Room

1. Verify the battery is fully charged and hooked up to the electrical system.
2. Press and hold the IN/OUT switch in the IN position until the room is fully retracted and stops moving.
3. Release the switch. This will lock the room into position.

NOTE: Only hold IN switch until room stops.

4. Install the transit bars (if so equipped).



Maintenance

Inspection

After servicing the slideout system in any way, be sure to check the following:

1. Slideout stops are installed and adjusted properly.
2. Head assemblies are installed and adjusted properly.
3. System is mounted properly.
4. Cross shafts are mounted properly and clear all other components.
5. Gear packs function properly.
6. Manual override is accessible.
7. Outside seals compress when slideout is retracted.
8. Inside seals compress when slideout is extended.
9. Slideout extends and retracts smoothly.
10. Both sides of slideout are synchronized.
11. Any dirt or debris is cleaned from the interior or exterior of the coach.

System Maintenance

The Lippert Through Frame Slideout System has been static tested to over 4,000 continuous cycles without any noticeable wear to rotating or sliding parts. It is recommended that when operating in harsh environments (road salt, ice build up, etc.) the moving parts be kept clean. They can be washed with mild soap and water. No grease or lubrication is necessary and in some situations may be detrimental to the environment and long term dependability of the system.

Electrical System Maintenance

For optimum performance, the slideout system requires full battery current and voltage. The battery must be maintained at full capacity. Other than good battery maintenance, check the terminals and other connections at the battery, the control switch, and the system for corrosion, and loose or damaged terminals. Check motor leads under the trailer chassis. Since these connections are subject to damage from road debris, be sure they are in good condition.

NOTE: The Lippert Through Frame Slideout System is designed to operate as a negative ground system. A negative ground system utilizes the chassis frame as a ground and an independent ground wire back to battery is necessary. It is important that the electrical components have good wire to chassis contact. To ensure the best possible ground, a star washer should be used. Over 90% of unit electrical problems are due to bad ground connections.

Mechanical Maintenance

Although the system is designed to be almost maintenance free, actuate the room once or twice a month to keep the seals and internal moving parts lubricated. Check for any visible signs of external damage after and before movement of the travel trailer.

NOTE: For long-term storage: It is recommended that the room be closed (retracted).

Troubleshooting

Troubleshooting Introduction

This troubleshooting chart outlines some common problems, their causes and possible corrective actions. If any part or serial number information is available, provide it to the service technician when asking for assistance.

The Lippert Slideout System is only one of four interrelated slideout room system components. These four components are: chassis, room, coach, and Lippert Slideout System. Each one needs to function correctly with the others or misalignment problems will occur.

Every travel trailer has its own personality and what may work to fix one trailer may not work on another even if the symptoms appear to be the same.

When something restricts room travel, system performance will be unpredictable. It is very important that slide tubes be free of contamination and allowed to travel full distance (Stroke). Ice or mud buildup during travel is an example of some types of contamination that can occur.

When you begin to troubleshoot the system, make sure the battery is fully charged, there are no visible signs of external damage to the system and that all connections are secure.

During troubleshooting, remember that if you change something, that change may affect something else. Be sure any changes you make will not create a new problem.

You can obtain additional information on the Lippert Slideout System by visiting www.lci1.com/customerservice or by calling 574-537-8900.

Problem	Probable Cause	Corrective Action
Room doesn't move when switch is pressed	Restriction or obstruction inside or outside of unit	Check for and clear obstruction
	Low battery voltage, blown fuse, defective wiring	Check battery voltage and charge if needed. Find and check fuse, replace if blown. Check battery terminals and wiring. Look for loose, disconnected or corroded connectors.
Power unit runs but room does not move	Restrictions both inside and outside of unit	Check for and clear restriction
Power unit runs, room moves slowly	Low battery, poor ground, extremely low outdoor temperature	Charge battery and check ground wire
Room drifts in both the in and out positions	Check for leaks in the hydraulic system	Tighten fittings
	Air in system	After checking all connections, cycle pump several times in and out
In the closed position, room drifts out	Leaking cylinder seal	See cylinder test next page
	Fluid bypassing cylinder piston	See cylinder test next page
	Hose from pump is leaking	Tighten fitting or replace hose
	Air in system	After checking all connections, cycle pump several times in and out.
	Loose mounting bolts	Tighten mounting bolts.
In the open position, room drifts in	Hose from pump is leaking	Tighten fitting or replace hose
	Leaking cylinder seal	See cylinder test on next page
	Fluid bypassing cylinder piston	See cylinder test on next page

Hydraulic slideout cylinder retract test

1. Retract (close) all slideouts (rooms) completely.
2. Disconnect all rooms from system (if coach is equipped with IRC, close all but one room).
3. Loosen hose from "E" (extend) port on the manifold of the power unit.
4. Plug opening on manifold to prevent drawing air into the system.



Do not attempt to run room out with the "E" port hose loose. The system will experience rapid fluid loss.

5. Energize the pump unit to retract (close) room.
6. When room is fully retracted, continue to run the room in and watch for fluid flow from hose/port "E". Fluid flow greater than a few drops will indicate internal cylinder leaking (bypassing of piston seal). If greater than a few drops leak from hose fitting, piston seal is bad and will need to be replaced. If there is no fluid flow, reconnect hose to "E" port and tighten.
7. Repeat steps 2 through 6 for each slideout until all slideouts have been tested. Energize the pump unit to retract (close) room.



Be sure to reconnect and tighten hose at the "E" port before attempting to extend (open) the room or the system will experience rapid fluid loss.

Hydraulic slideout cylinder extend test

1. Extend (open) all slideouts (rooms) completely.
2. Disconnect all rooms from system (if coach is equipped with IRC, open all but one room).
3. Loosen hose from "R" (retract) port on the manifold of the power unit. Individual slideouts can be tested if the unit is equipped with an IRC block. Close all valves in IRC except the one to be tested.
4. Plug opening on manifold to prevent drawing air into the system.



Do not attempt to run room in (retract) with the "R" port hose loose. The system will experience rapid fluid loss.

5. Energize the pump unit to extend (open) room.
6. Continue to run the room out and watch for fluid flow from hose/port "R" (or IRC block if coach is equipped with IRC). Fluid flow greater than a few drops will indicate internal leaking (bypassing of piston seal). If greater than a few drops leak from hose fitting, piston seal is bad and will need to be replaced. If there is no fluid flow, reconnect hose to "R" port and tighten.
7. Repeat steps 2 through 6 for each slideout until all slideouts have been tested.



Be sure to reconnect and tighten hose at the "R" port before attempting to retract (close) the room or the system will experience rapid fluid loss.

Fluid Filling Procedure

The Lippert Hydraulic Slideout System uses automatic transmission fluid (ATF). Any ATF can be used. A full synthetic or synthetic blend works best such as Dexron III or Mercon 5. For best operation, fill system to within ½" of the top when all slideouts are completely retracted. The see-through reservoir makes it easy to check oil level. It is recommended that the oil level be checked prior to operating the system. Make sure the breather cap is free of contamination before removing, replacing or installing.

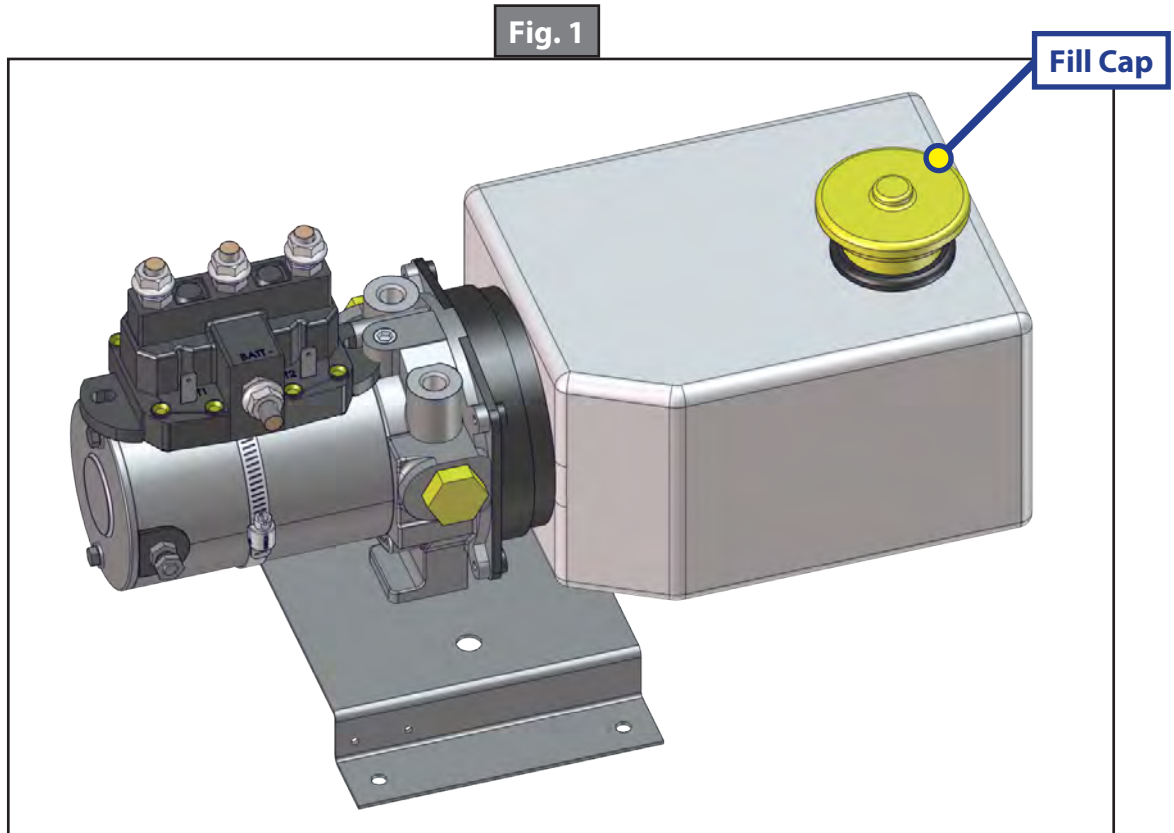
1. Remove Breather/Fill Cap.
2. Pour ATF into Breather/Fill opening.

NOTE: Do not allow any contamination into reservoir during fill process.

NOTE: Standard reservoir holds approximately 2 quarts (1.89 liters) of ATF.

3. Fill to within ½" of top.
4. Replace Breather/Fill cap when finished.

NOTE: System is self-purging. By simply cycling the system 2-3 times, any air in the system will be forced back to the reservoir and out of the Breather/Fill cap.



SLIDEOUTS

1. Start by measuring the distance between two individual adjacent teeth.
2. Using calipers or a steel rule, measure from the inside edge of one tooth (A), and then measure over to the inside edge of the next tooth (B) shown in (Fig. 1).
3. The 14.5° rack will measure approximately 0.170 inches (Fig. 2.1). The 20° rack will measure approximately 0.231 inches (Fig. 3.1).
4. The 14.5° rack will have 4 teeth per inch (Fig. 2.2). The 20° rack will have 3 teeth per inch (Fig. 3.2).

Fig. 1 Side View

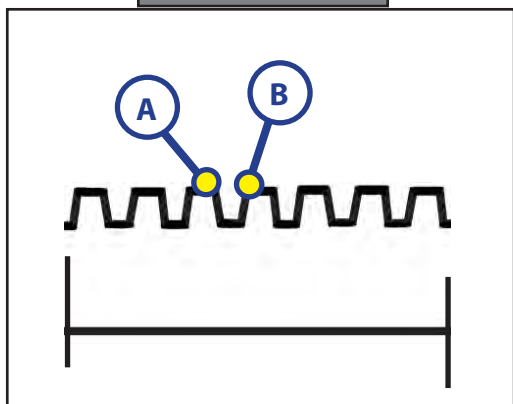


Fig. 2.1 - 14.5° Rack

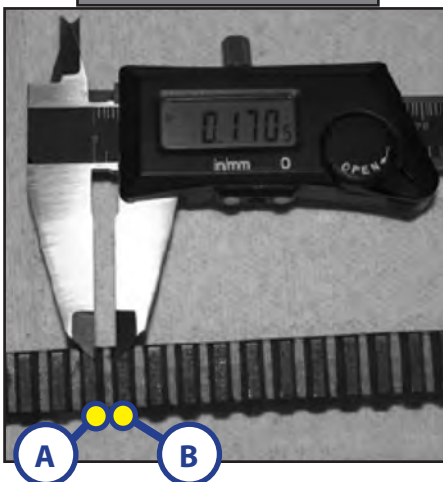


Fig. 3.1 - 20° Rack

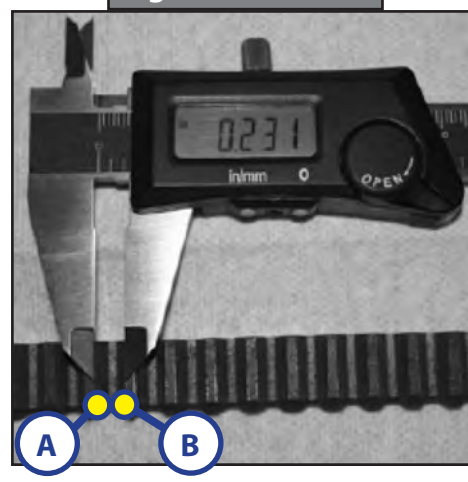


Fig. 2.2 - 14.5° Rack

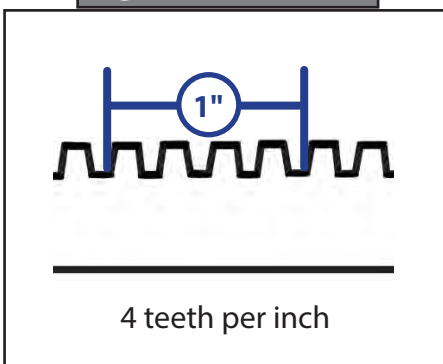
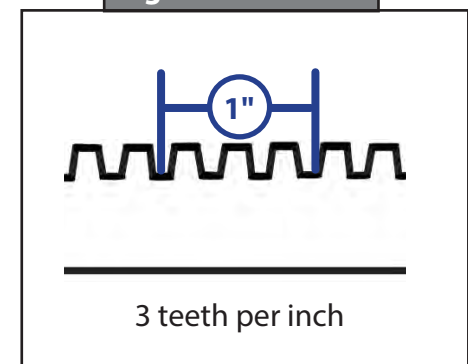


Fig. 3.2 - 20° Rack

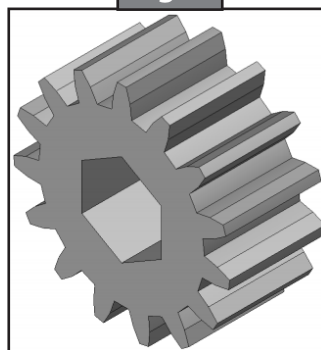


The simplest way to differentiate between the 14.5° spur gear and the 20° spur gear is the number of teeth on the gear. Spur gear 122739 (Fig. 4) has 18 teeth. Spur gear 101941 (Fig. 5) has 15 teeth.

Fig. 4



Fig. 5



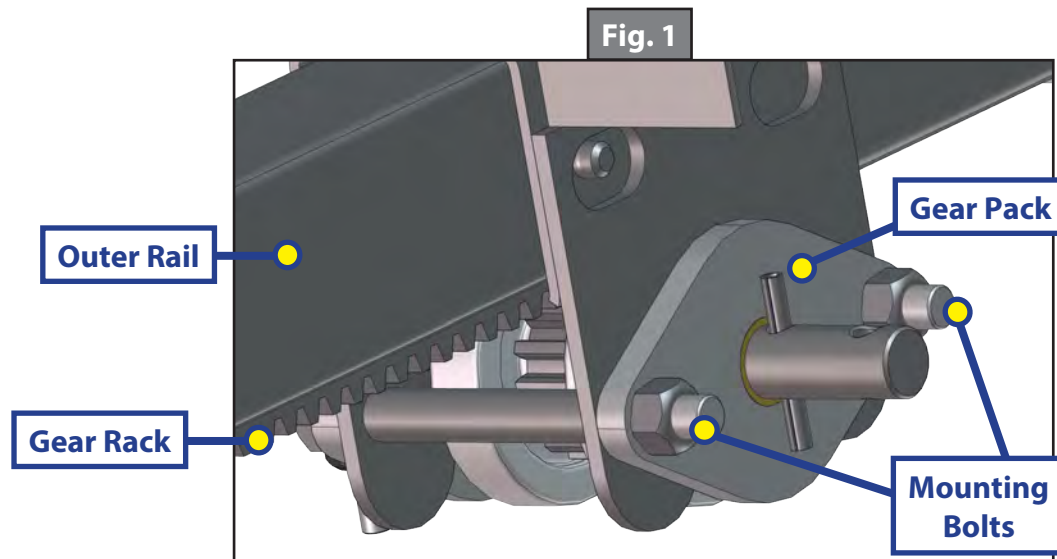
GEAR PACK REPLACEMENT INSTRUCTIONS

SLIDEOUTS

In the event a gear pack needs to be replaced, follow these steps:

1. Run slideout room half way out.
2. Place a jack under the inner arm of the slideout.
3. Jack room up just enough to remove pressure off the gear pack.
4. Remove drive bolt from the cross shaft.
5. Remove bolts which hold the gear pack assembly in place on the outer rail.
6. Drop out the damaged gear pack.
7. Install the new gear pack.
8. Install bolts to hold gear pack assembly in place on the outer rail.
9. Install cross shaft and bolt.
10. Gear pack assembly does not need to be torqued down, only adequately and securely tightened.

Gear Packs	
281331	2 x 2
140409	2 x 3, 3 x 3
122837	Standard 2.5 x 2.5
123356	Heavy Duty 2.5 x 2.5
140418	Embedded Rack



SLIDEOUTS

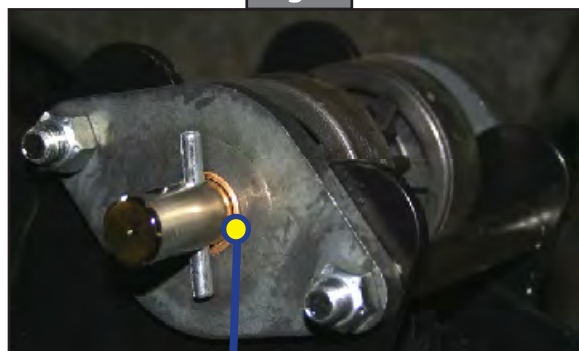
Fig. 1



A

B

Fig. 2



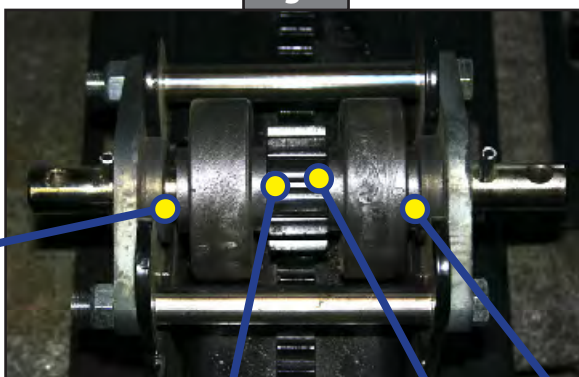
A

Fig. 3



A

Fig. 4



A

B

C

D

1. Loosen both gear packs bolts (Fig. 1A and Fig. 1B) until tension is off of the gear pack.
2. Using a manual pump oil can, pump 2-3 squirts of synthetic motor oil onto gear pack drive shaft in lubrication points (Fig. 2A), (Fig. 3A), (Fig. 4 A through D).

NOTE: Do not lubricate rack or pinion gear teeth, lubricate drive shaft only.

NOTE: LCI recommends Mobile One Fully Synthetic 10W-30 Motor Oil to lubricate gear pack.

3. Extend and retract slideout arms several times to work lubricant through gear pack.

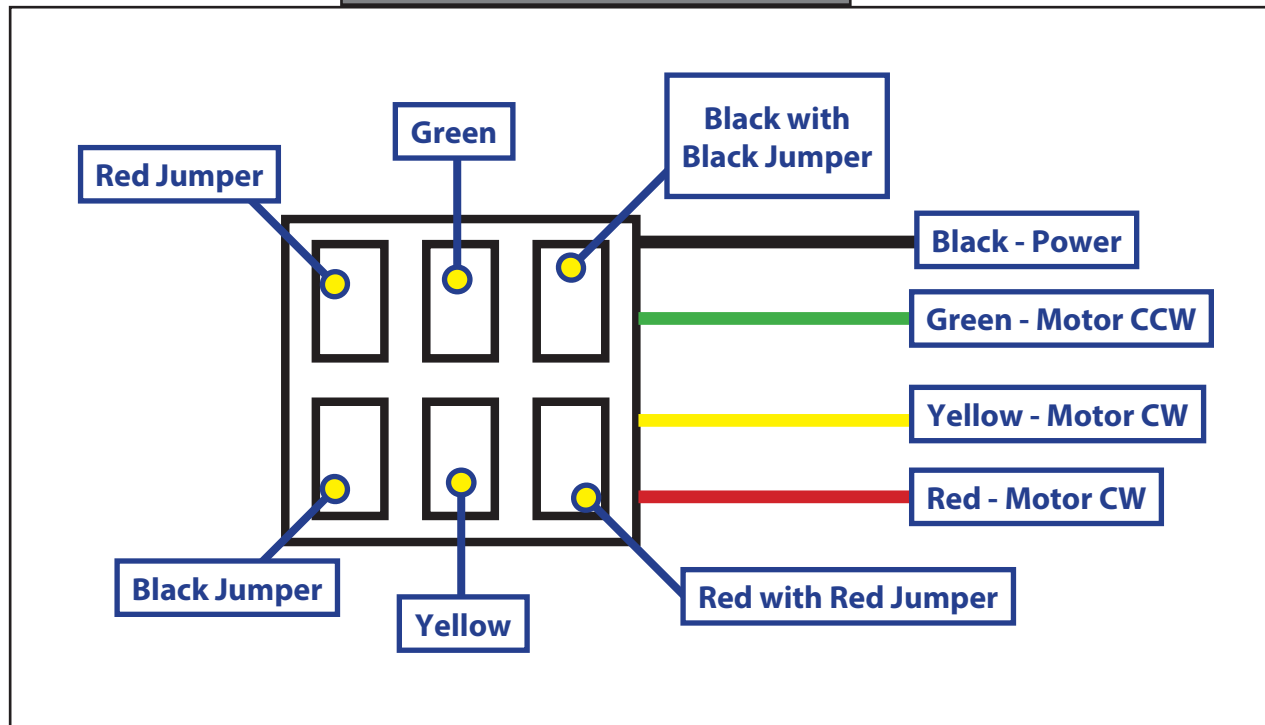
Motor troubleshooting

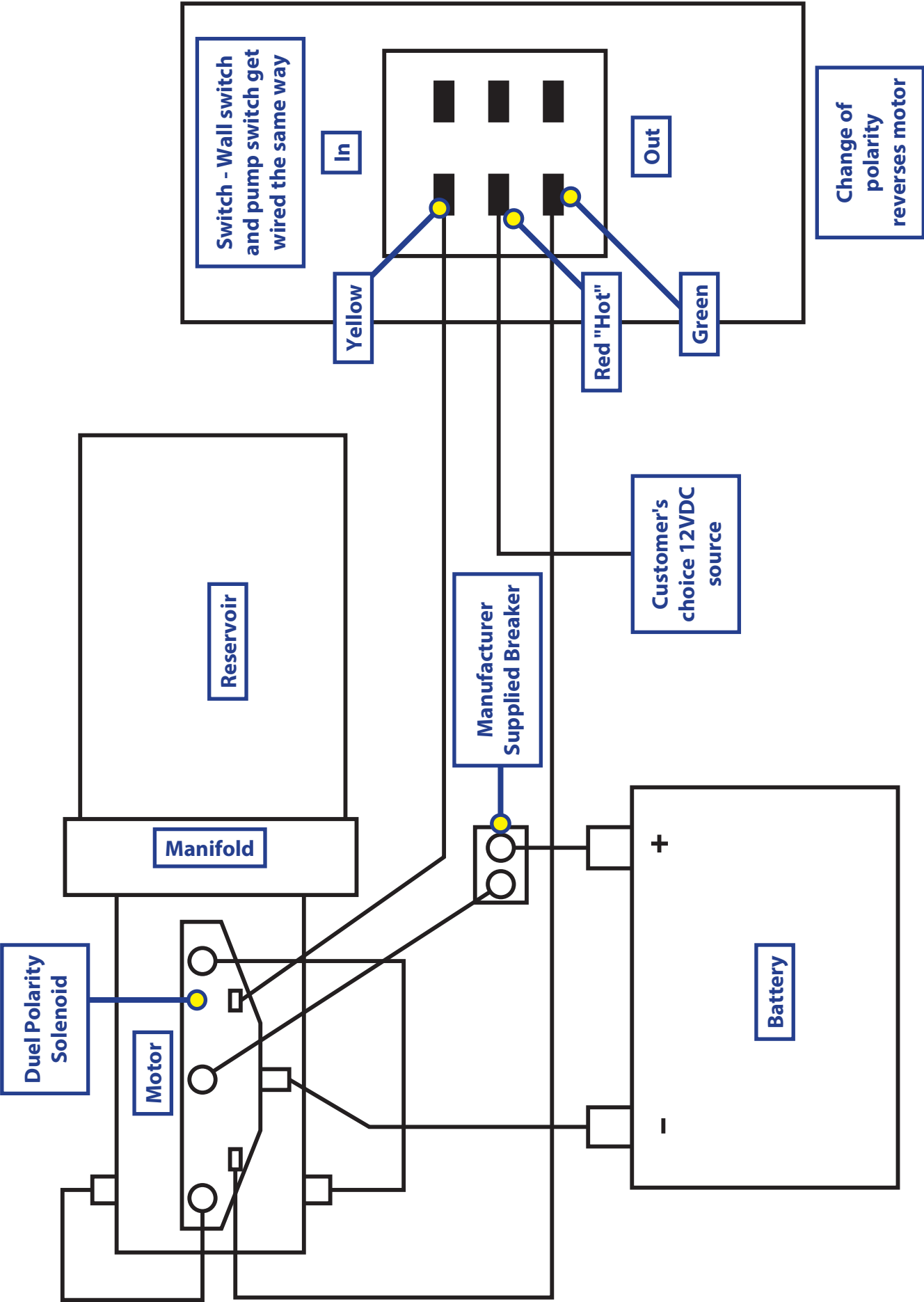
Before attempting to troubleshoot the motor, make sure an adequate power source is available. The unit batteries should be fully charged or the unit should be plugged into A/C service with batteries installed. Do not attempt to troubleshoot the motor without assuring a full 12V DC charge.

The following tests require only a DC voltmeter (or DC test light) and a jumper lead.

1. Attach voltmeter (or test light) leads to the negative and positive switch terminals on back of wall switch. Does the meter indicate 12V DC? If **YES**, see **Step 2**; if **NO** see **Step 3**.
2. If **YES**, at the motor, check the incoming leads to 12V DC (if necessary, disconnect leads at wire splices). Does meter indicate 12V DC? If **YES**, motor needs to be replaced. The motor is not field serviceable. **DO NOT ATTEMPT TO REPAIR**. If **NO**, Inspect all wires and connections between the wall switch and the motor. Repair connections as necessary. Recheck as in **Step 1**.
3. If **NO**, Inspect all connections between battery and switch. Inspect 30A Auto-reset Circuit Breaker (See Next Page). Recheck as above in **Step 1**.
4. Since there are no field serviceable parts in the motor, electrical troubleshooting and service is limited to replacing only those components as previously outlined.
5. Thorough inspection of wiring and connections is the only other electrical service that can be performed.

Fig. 1 Slideout Switch Color Codes



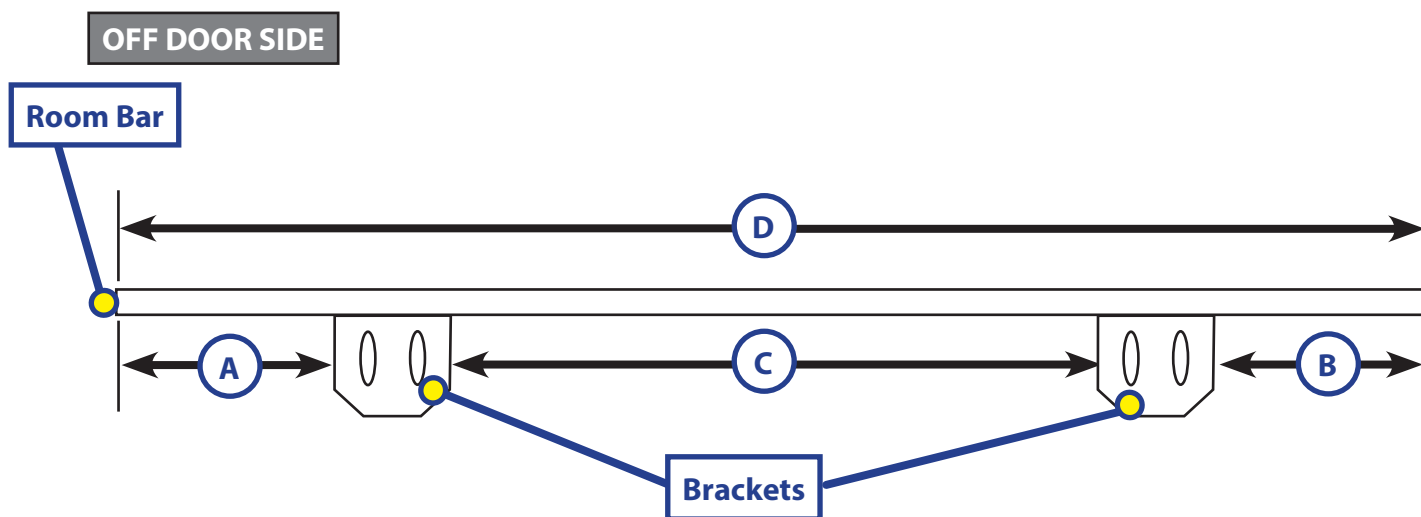
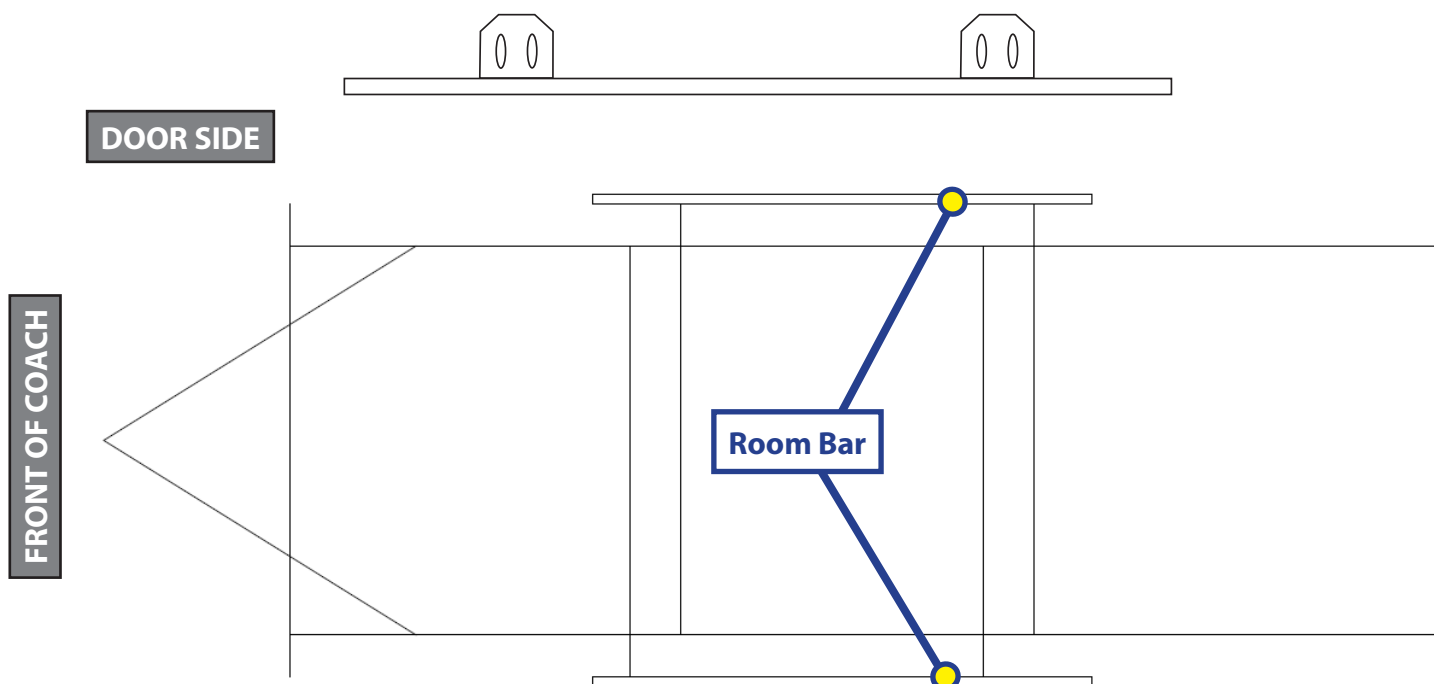


ROOM BAR MEASUREMENT CHART

SLIDEOUTS

Instructions:

1. Circle which side of your coach this room bar is for (Door Side or Off Door Side).
2. Enter the measurements for A, B, C, and D on the lines at the bottom.



A _____ B _____ C _____ D _____

Adjusting room so it seals in the IN position

1. Locate cylinder coming through the frame.
2. Run room partially out.
3. Hold Jam nut (Fig. 1A) in place with wrench.
4. Adjust Nylock nut (Fig. 1C) towards the bracket if the room does not seal or adjust the Nylock nut (Fig. 1C) away from the bracket if the room is too tight and damages the fascia.

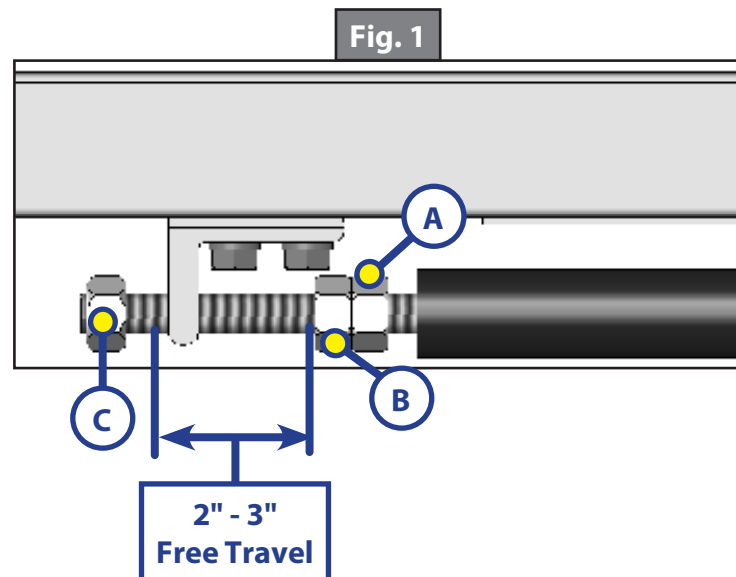
NOTE: Make small adjustments running the room in after each adjustment until proper seal is achieved.

Adjusting room so it seals in the OUT position

1. Locate cylinder coming through the frame.
2. Extend room completely out.
3. Check the inside fascia and seal positioning.
4. Partially retract room.
5. Loosen Jam nut (Fig. 1A) from Jam nut (Fig. 1B) and back off Jam nut (Fig. 1A) to give Jam nut (Fig. 1B) room for adjustment.
6. Adjust Jam Nut (Fig. 1B) away from the bracket if the room extends to far and damages the inside fascia or adjust Jam Nut (Fig. 1B) towards the bracket if the room does not seal.

NOTE: Make small adjustments running the room out after each adjustment until proper seal is achieved.

7. Tighten Jam Nut (Fig. 1A) to Jam Nut (Fig. 1B).



Mechanical Room Adjustment

NOTE: All slideout room adjustments must be performed by certified service technicians. Adjustments made by non-certified persons may void any and all warranty claims.

Horizontal adjustment

1. Loosen carriage bolts (Fig. 2A) on each bracket located at the end of each guide tube.
2. Room is ready to be positioned horizontally by pushing on the outside, sidewall or by using a prying device inserted into the opening between the room and coach.

NOTE: Use caution when using prying device so seals do not become damaged.

Vertical adjustment

1. Loosen 2 carriage bolts (Fig. 2A) on each bracket located at the end of each guide tube.
2. Loosen jam nut.
3. For vertical adjustment turn vertical adjustment bolt (Fig. 3A) up or down to locate room height.
4. Once room is located, tighten carriage bolts (Fig. 2A) and Jam Nut bolts.

Fig. 2

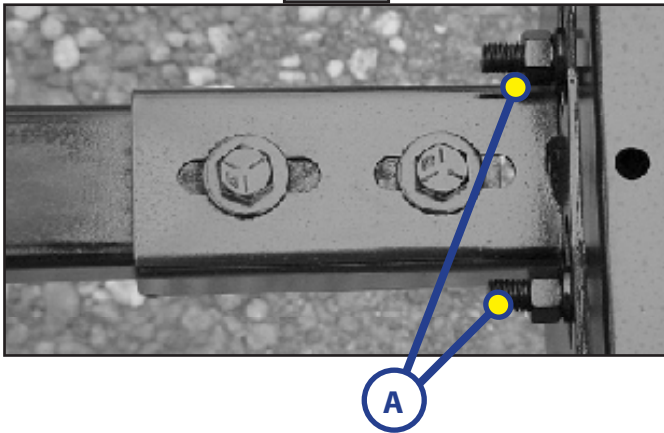
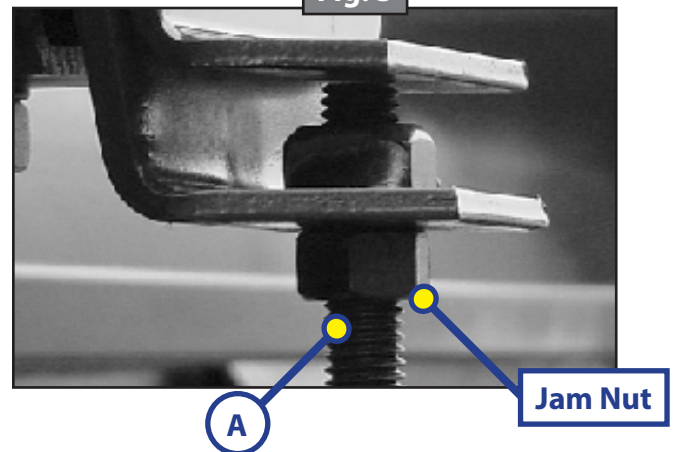


Fig. 3

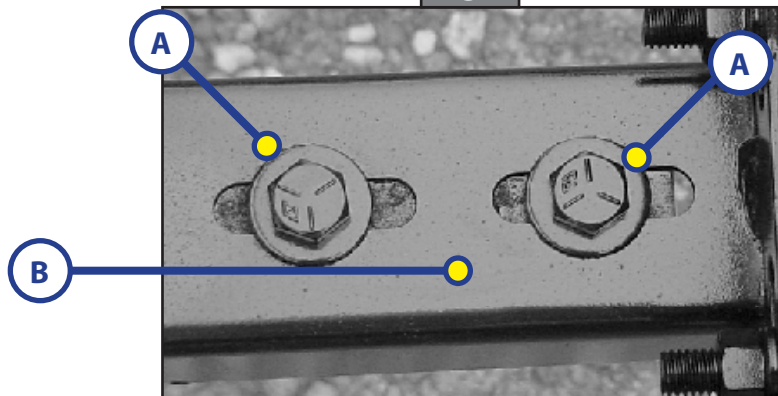


Synchronizing Room Travel

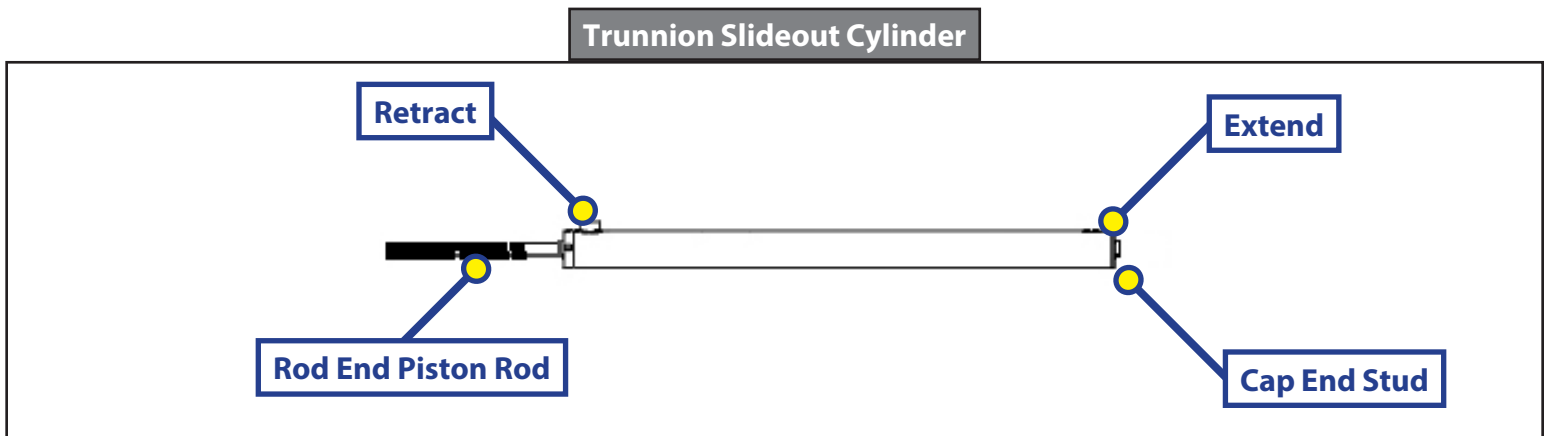
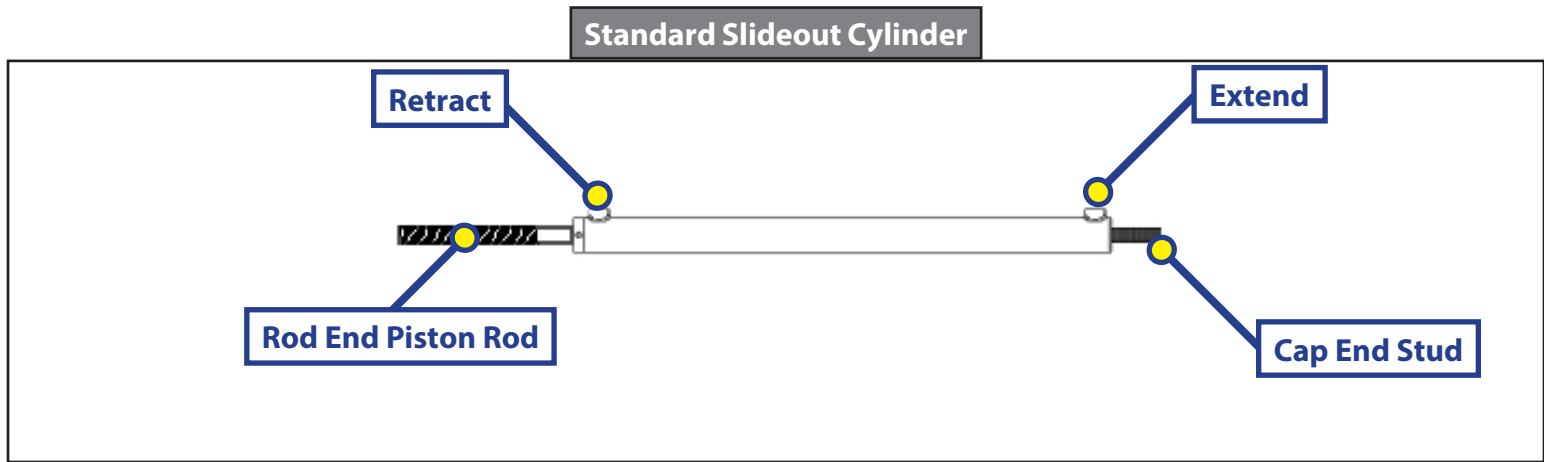
The Lippert Hydraulic Slideout System room travel (both sides of the room traveling the same distance) can be adjusted with specially designed synchronizing bracket mounted on the passive slide tube. The passive slide tube is the one that is not powered. The active slide tube is the one that has the cylinder attached. If one side of the room fails to seal adjust as follows:

1. Loosen bolts (Fig. 4A) on top of the passive slide tube (Fig. 4B).
2. Push or pull room (on the passive side) to align with the active side.

Fig.4



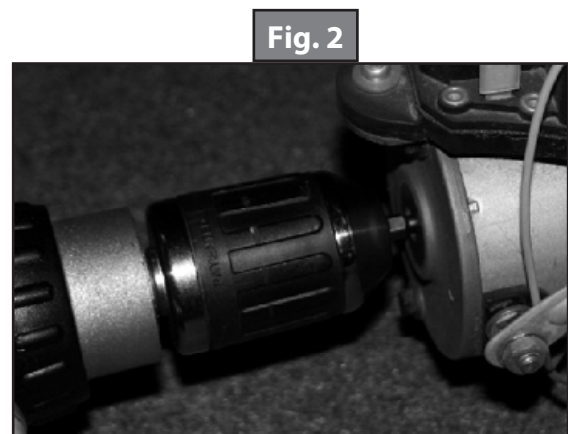
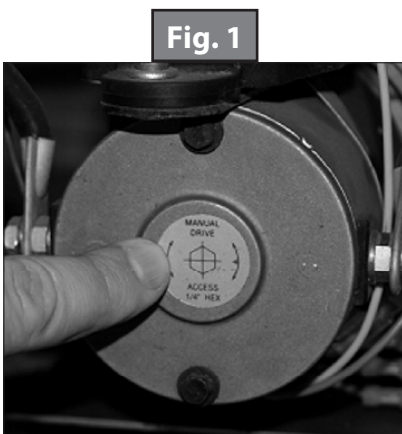
Extend and retract cylinder port locations



Manual Override

The Lippert Hydraulic Slideout System can be run with auxiliary power devices like electric drills, ratchet wrenches or cordless screwdrivers. In the event of electrical or system failure, this manual method of extending and retracting the slideout room can be used. A standard hand-held drill is all that is required. A standard 38" room will take approximately 45 seconds to retract. See the instructions below.

1. Remove protective label (Fig. 1).
2. Using a standard hex bit, insert into auxiliary drive device (cordless drill, screwdriver, or ratchet wrench).
3. Insert hex bit into coupler found under protective label (Fig. 2).
4. Run drill forward or clockwise to extend slideout room and in reverse or counterclockwise to retract slideout room.

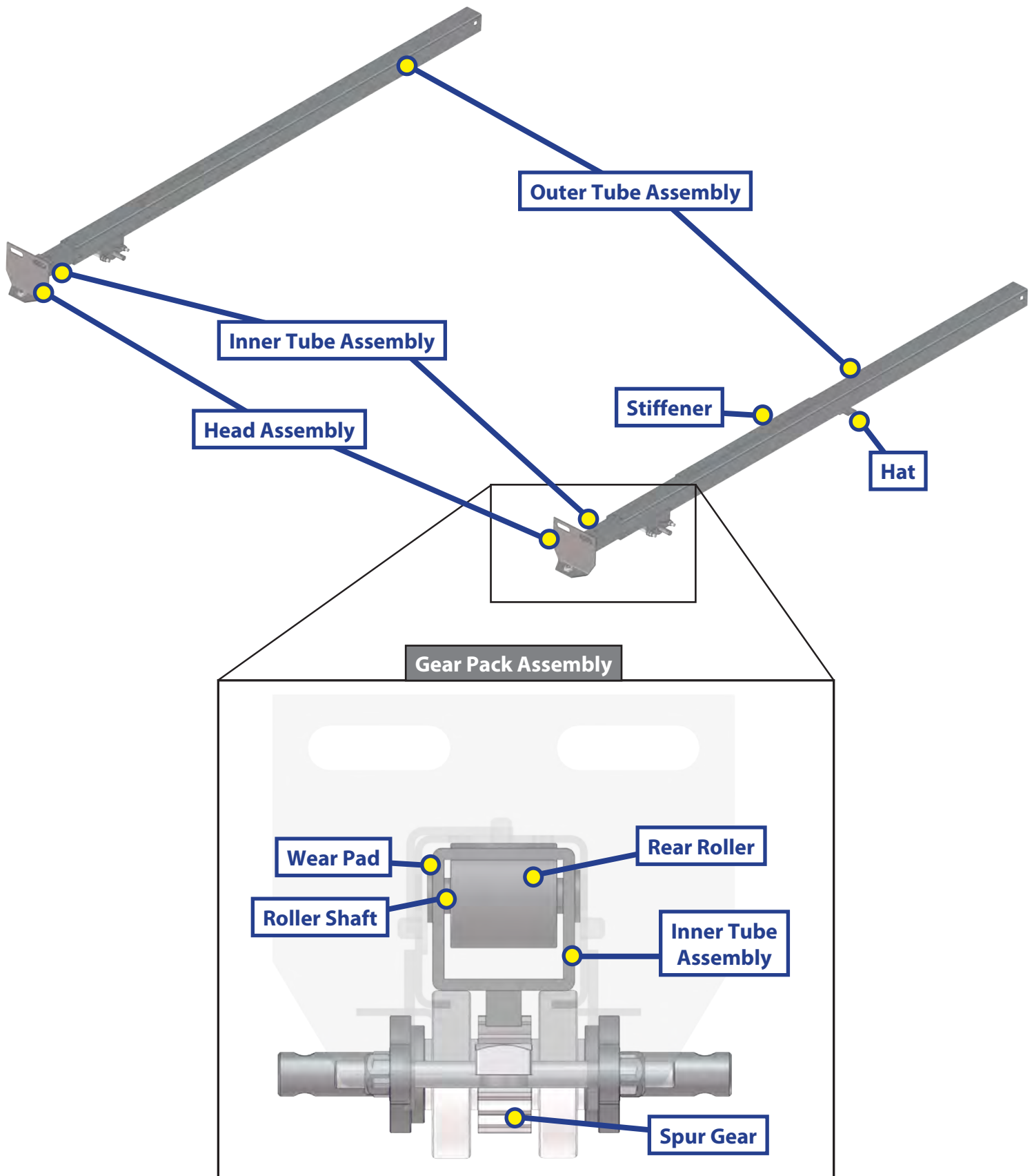




LIPPERT
COMPONENTS

2X2 HYDRAULIC THROUGH FRAME SLIDEOUT ASSEMBLY

SLIDEOUTS

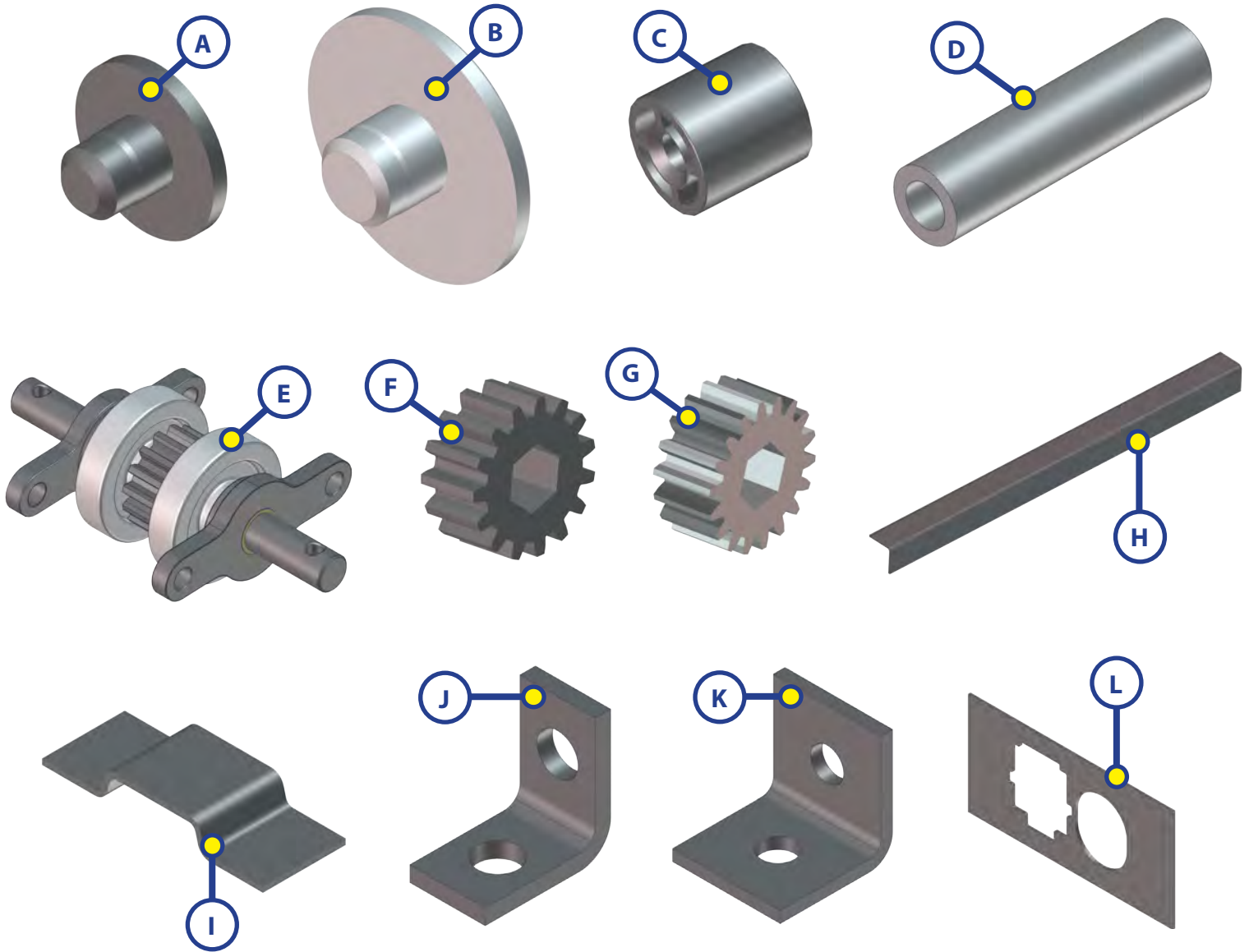




LIPPERT
COMPONENTS

2X2 HYDRAULIC THROUGH FRAME SLIDEOUT COMPONENTS

SLIDEOUTS



Callout	Part #	Description
A	103480	Wear Pad (x8)
B	277882	Wear Tab for 317322
C	104475	Rear Roller
D	105893	Roller Shaft
E	281331	Gear Pack
F	101941	Spur Gear (Current)
G	122739	Spur Gear (Obsolete)
H	102357	Stiffener
I	106059	Hat (x2)
J	113535	Front Trunion Bracket
K	106040	Rear Trunion Bracket
L	159279	Trim Plate



LIPPERT
COMPONENTS

2X2 HYDRAULIC THROUGH FRAME SLIDEOUT COMPONENTS

SLIDEOUTS



A



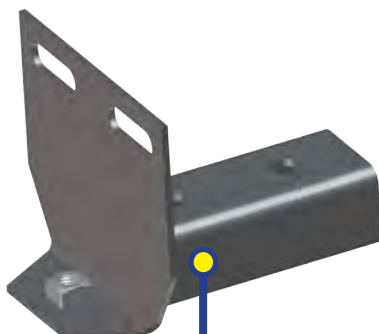
B



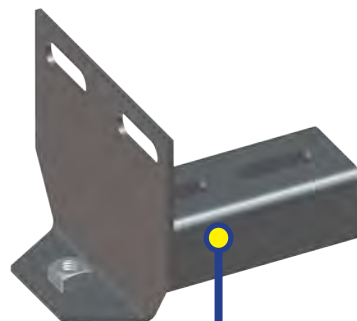
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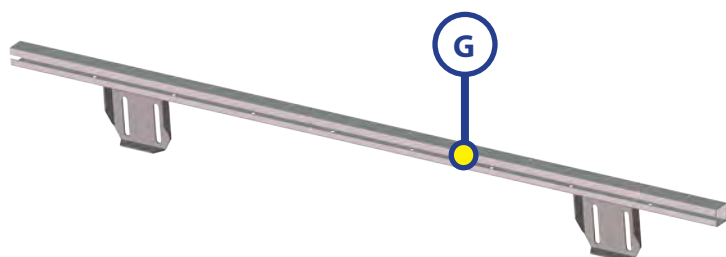
D



E



F



G

NOTE: See Room Bar Measurement Chart
(LIP Sheet 0080)

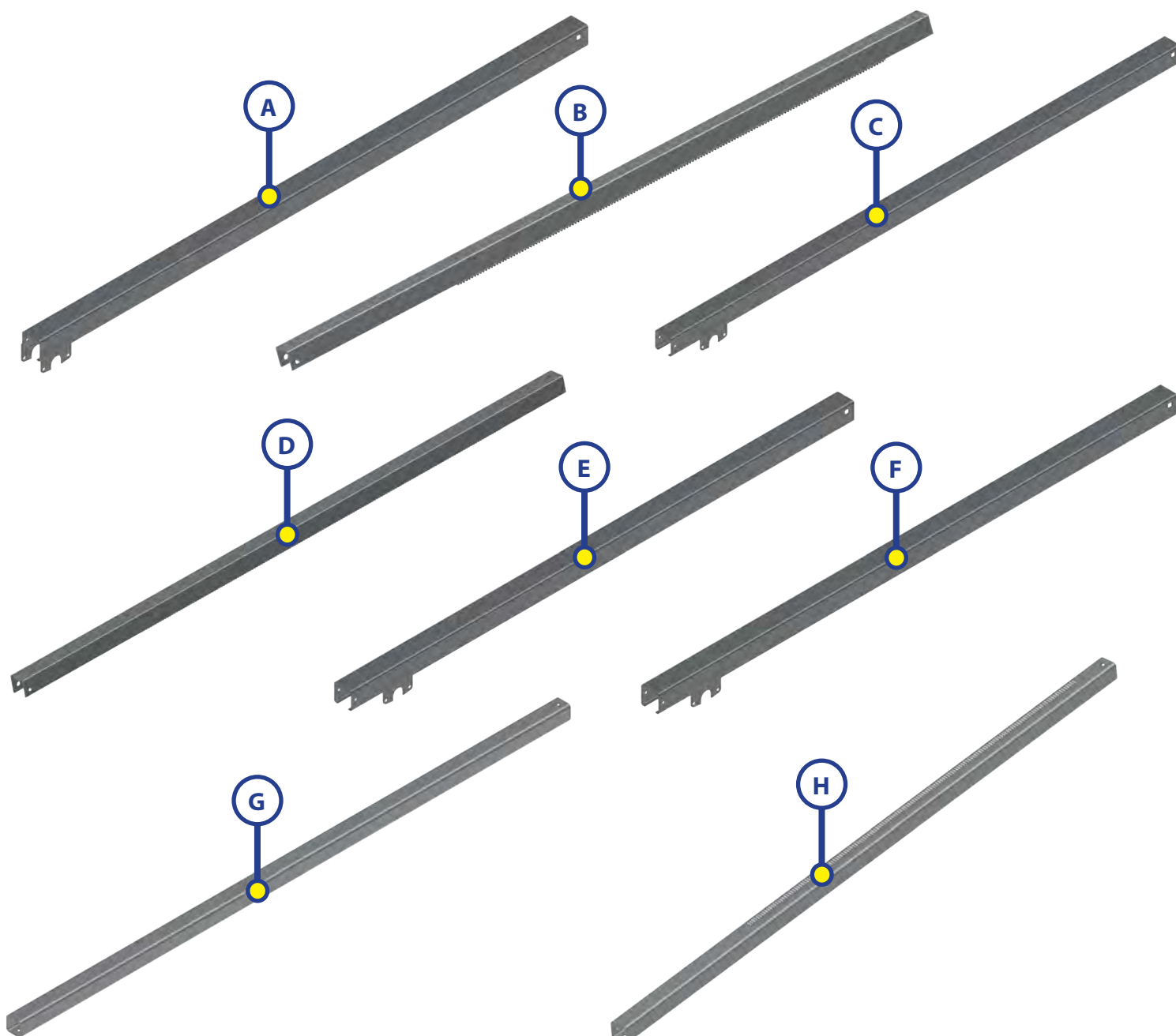
Callout	Part #	Description
A	104851	Slideout Mounting Bracket
B	141792	1 3/8" Adjustable Head Assembly
C	159624	Standard Weld-On Head Assembly
D	163049	Flush Adjustable Head Assembly
E	173593	Standard Flush Fixed Head Assembly
F	173594	Standard Flush Adjustable Head Assembly
G	183949	Room Bar (Use for up to 80")
	183950	Room Bar (Use for up to 154")
NOTE: Brackets can be shipped loose.		



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COMPONENTS

2X2 HYDRAULIC THROUGH FRAME SLIDEOUT COMPONENTS

SLIDEOUTS

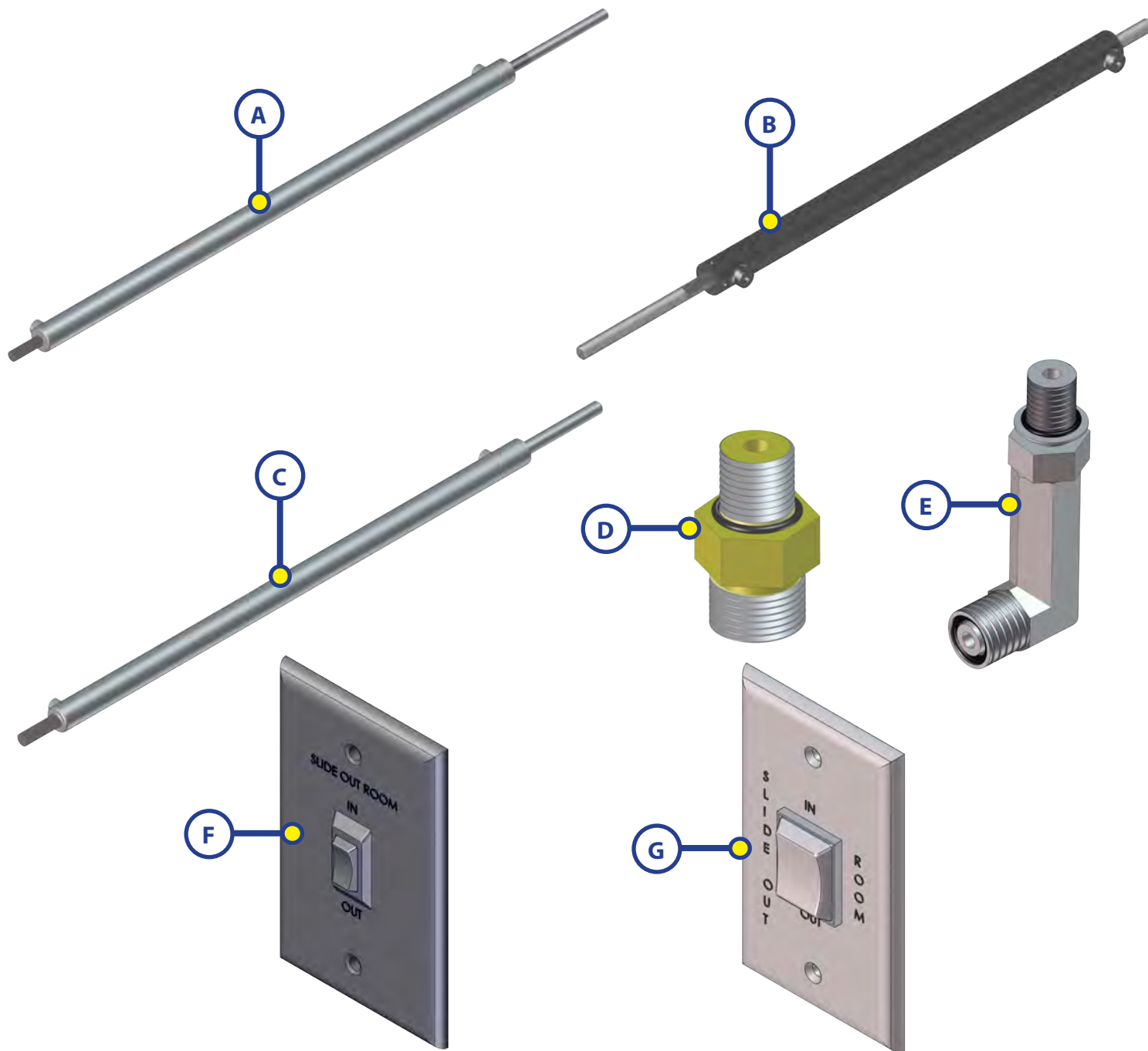


Callout	Part #	Description
A	145735	Outboard Outer Arm (Idler)
	145734	Outboard Outer Arm (Drive)
B	145736	Outboard Inner Arm
C	173204	Inboard Outer Arm 76" (Idler and Drive)
D	163778	Inboard Inner Arm
E	161014	Inboard Outer Arm 69" (Idler and Drive)
F	159389	Inboard Outer Arm 70" (Idler and Drive)
G	301393	Inboard Inner Arm (18 Teeth)
H	296090	Outboard Inner Arm (18 Teeth)
NOTE: Standard slideout arms have 15 teeth.		



2X2 HYDRAULIC THROUGH FRAME SLIDEOUT DRIVE COMPONENTS

SLIDEOUTS



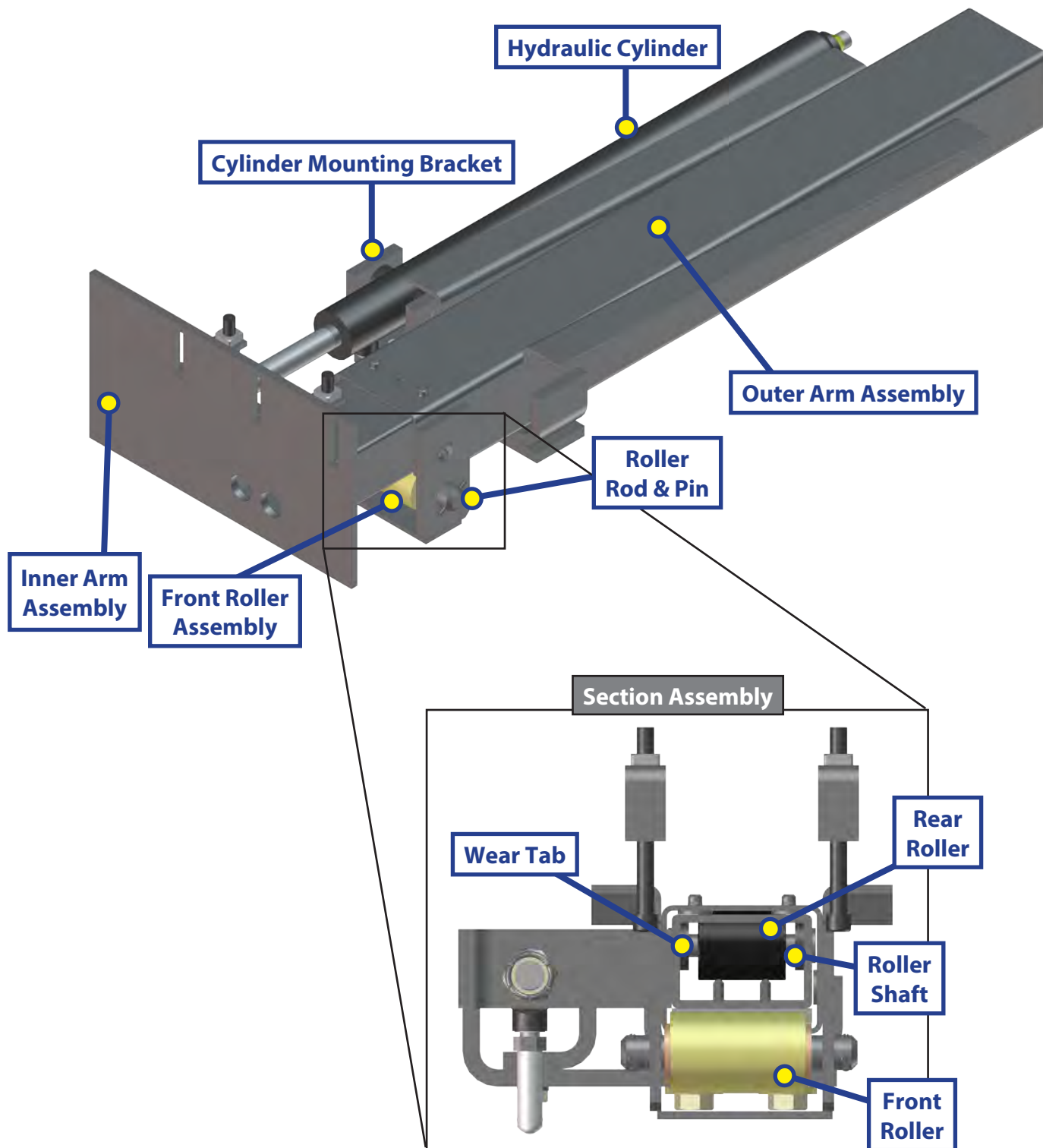
Callout	Part #	Description
A	123603	Hydraulic Trunion 38"
B	125653	Hydraulic Trunion 24"
C	133874	Hydraulic Trunion 30"
D	141109	O-Ring Face Seal Straight Fitting
E	173738	O-Ring Face Seal Elbow Fitting
F	120639	Hydraulic Interior Slideout Switch
G	140530	6 Prong Interior Switch with Wall Plate



2X3 HYDRAULIC THROUGH FRAME SLIDEOUT ASSEMBLY

PRODUCT CATEGORY

2 x 3 Shorty Hydraulic Slideout



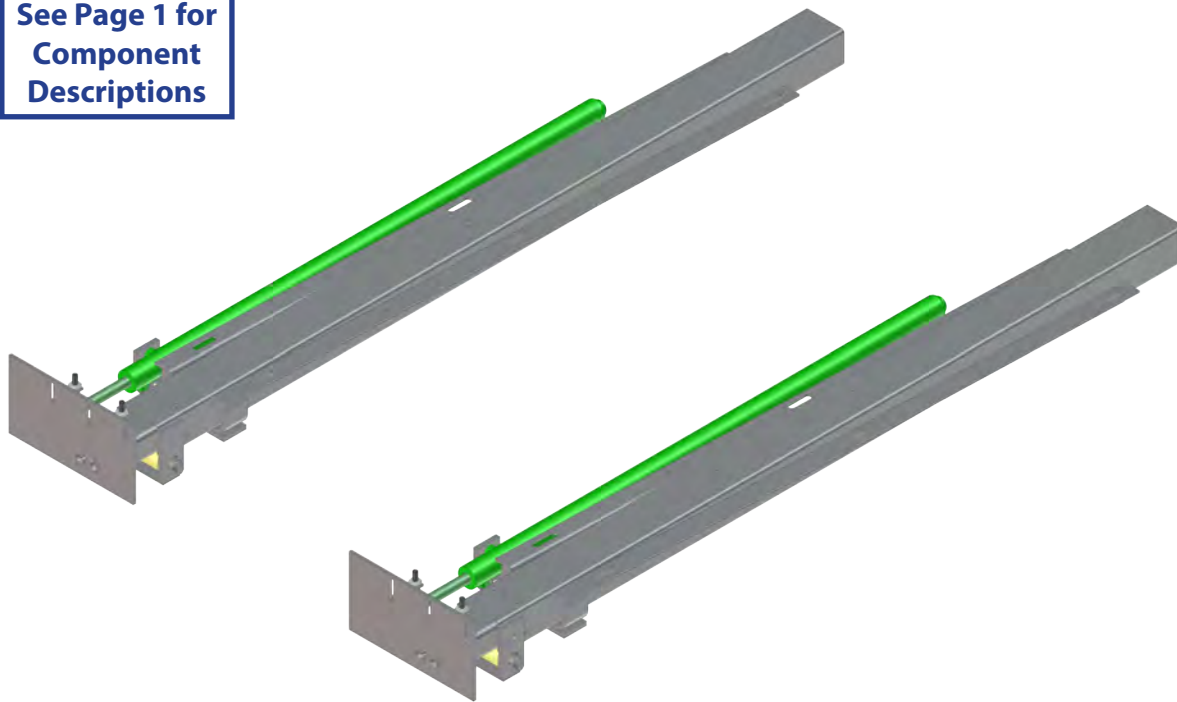


2X3 HYDRAULIC THROUGH FRAME SLIDEOUT ASSEMBLY

SLIDEOUTS

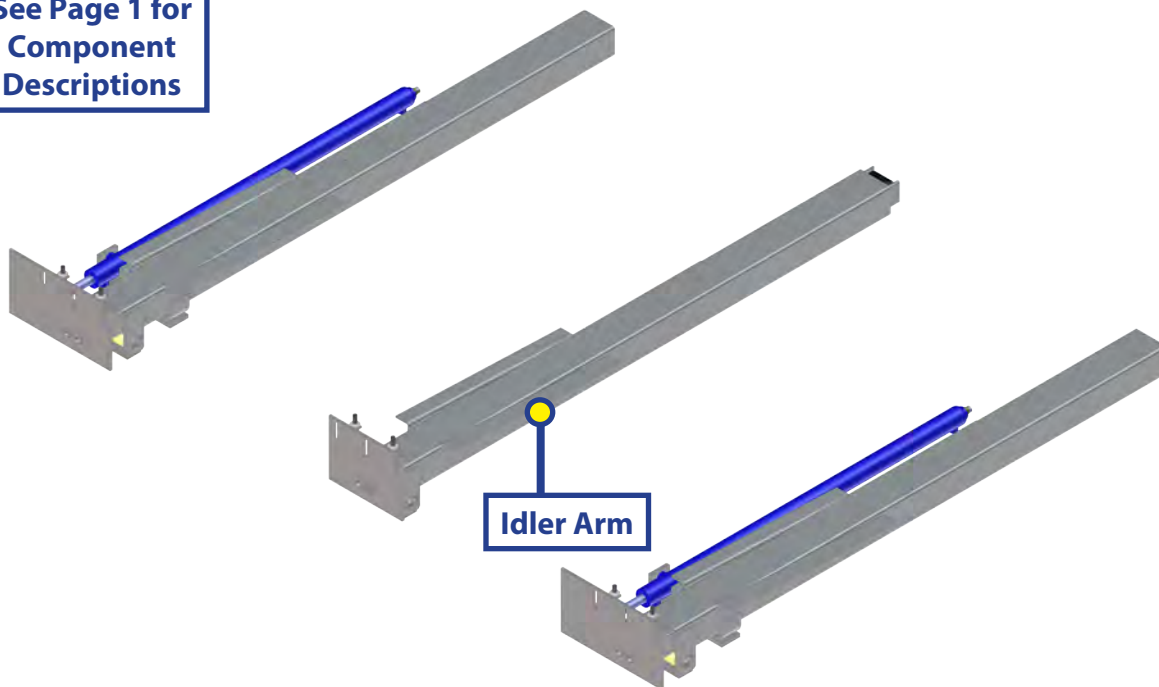
2 x 3 Bolt-In Hydraulic Slideout

See Page 1 for
Component
Descriptions



2 x 3 Full Wall Hydraulic Slideout

See Page 1 for
Component
Descriptions

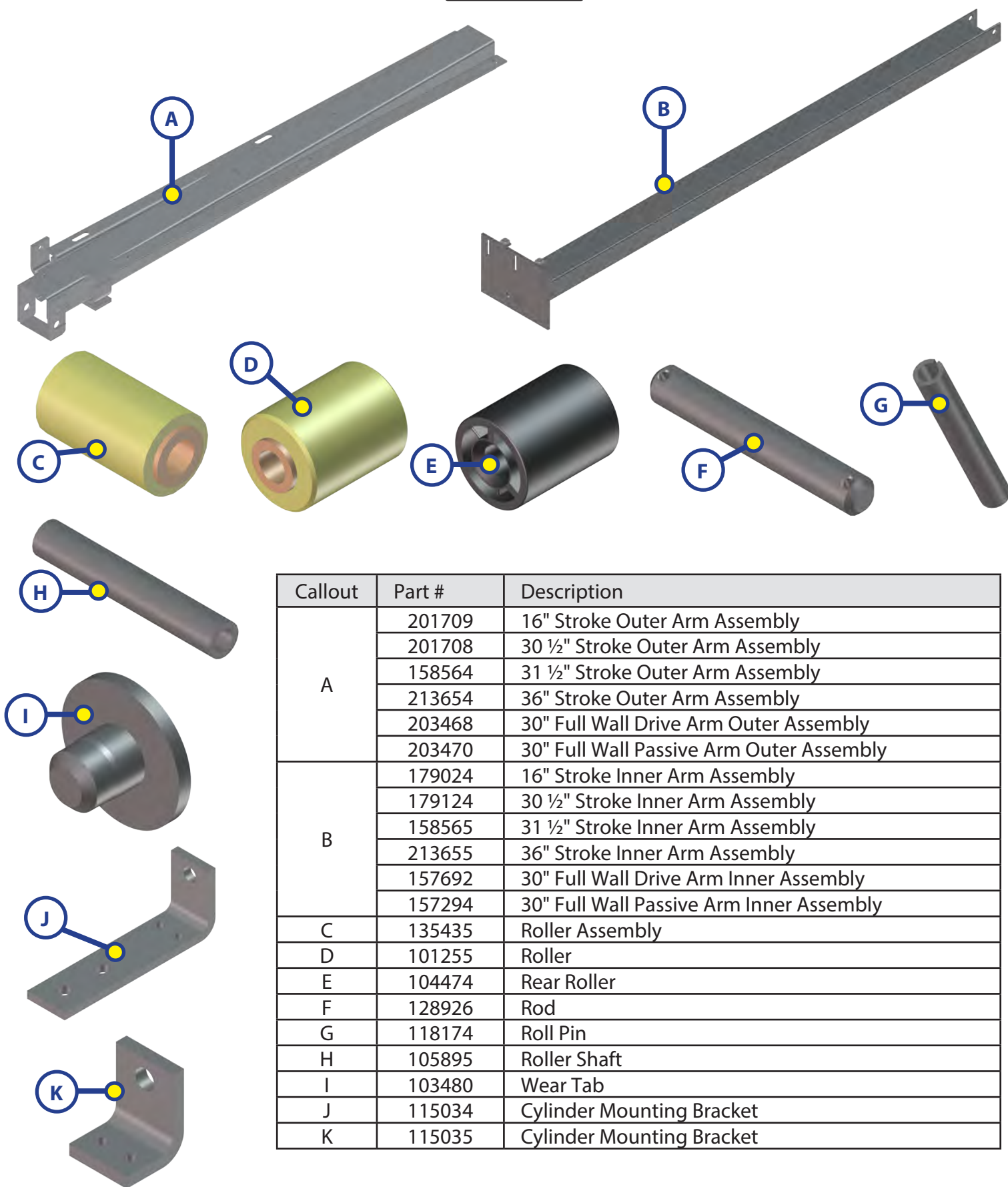




LIPPERT
COMPONENTS

2X3 HYDRAULIC THROUGH FRAME SLIDEOUT COMPONENTS

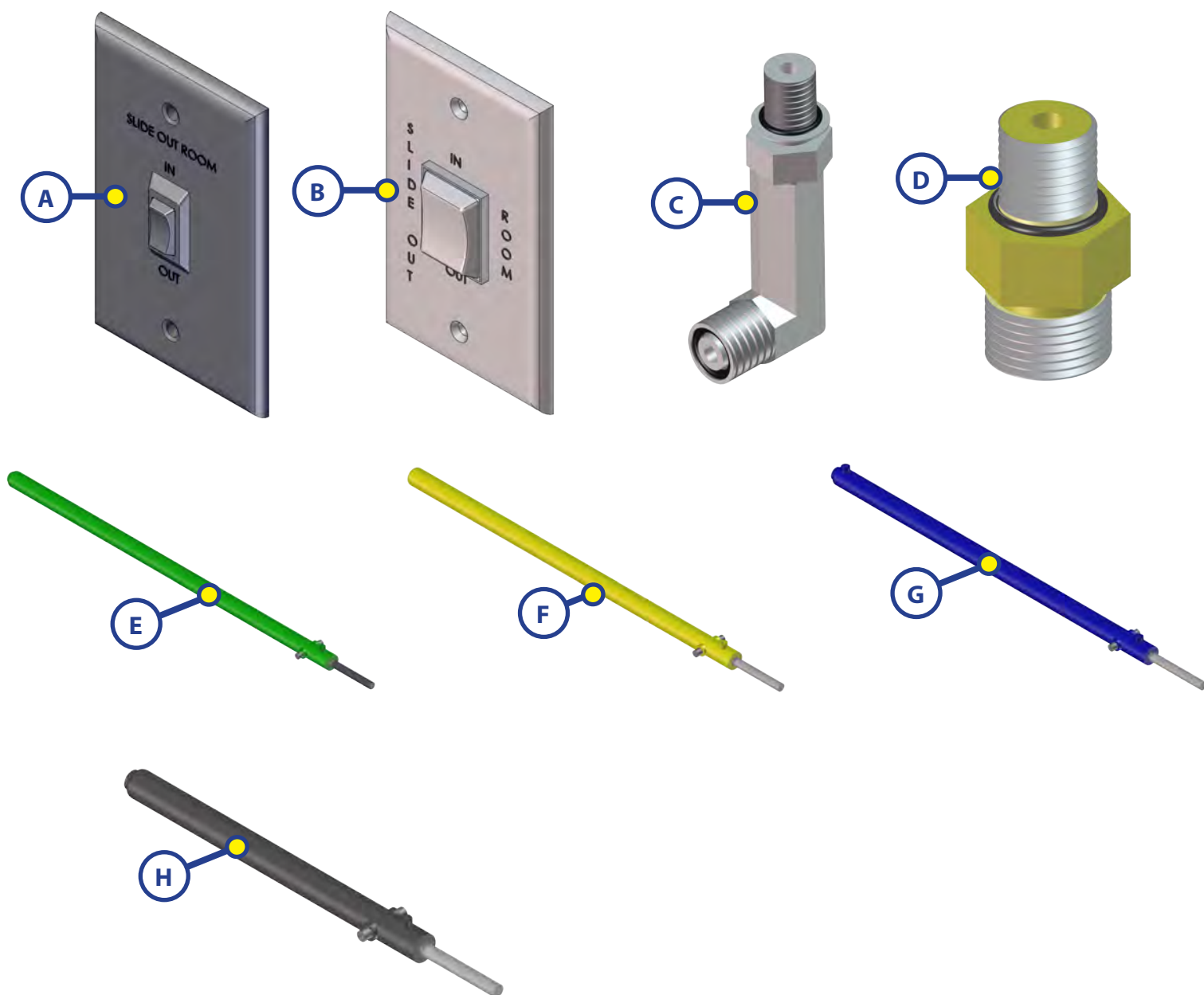
SLIDEOUTS



Callout	Part #	Description
A	201709	16" Stroke Outer Arm Assembly
	201708	30 ½" Stroke Outer Arm Assembly
	158564	31 ½" Stroke Outer Arm Assembly
	213654	36" Stroke Outer Arm Assembly
	203468	30" Full Wall Drive Arm Outer Assembly
	203470	30" Full Wall Passive Arm Outer Assembly
B	179024	16" Stroke Inner Arm Assembly
	179124	30 ½" Stroke Inner Arm Assembly
	158565	31 ½" Stroke Inner Arm Assembly
	213655	36" Stroke Inner Arm Assembly
	157692	30" Full Wall Drive Arm Inner Assembly
	157294	30" Full Wall Passive Arm Inner Assembly
C	135435	Roller Assembly
D	101255	Roller
E	104474	Rear Roller
F	128926	Rod
G	118174	Roll Pin
H	105895	Roller Shaft
I	103480	Wear Tab
J	115034	Cylinder Mounting Bracket
K	115035	Cylinder Mounting Bracket

2X3 HYDRAULIC THROUGH FRAME SLIDEOUT DRIVE COMPONENTS

SLIDEOUTS



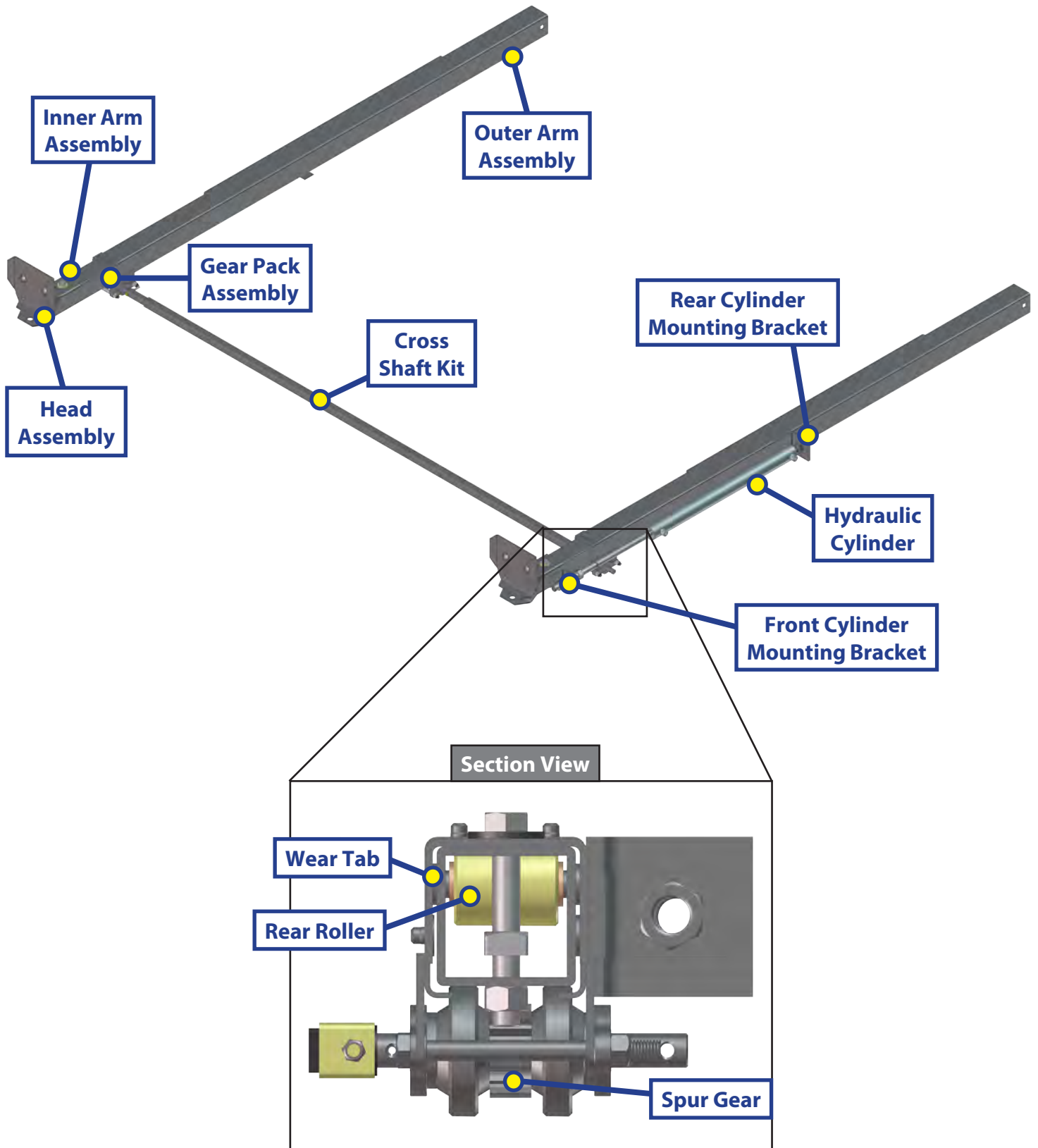
Callout	Part #	Description
A	120639	Hydraulic Interior Switch
B	140530	6 Prong Interior Switch with Wall Plate
C	173738	O-Ring Face Seal Elbow Fitting
D	141109	O-Ring Face Seal Straight Fitting
E	213750	36 ½" Hydraulic Cylinder
F	158499	31 ½" Hydraulic Cylinder
G	138720	30 ½" Hydraulic Cylinder
H	140930	16 ½" Hydraulic Cylinder



LIPPERT
COMPONENTS

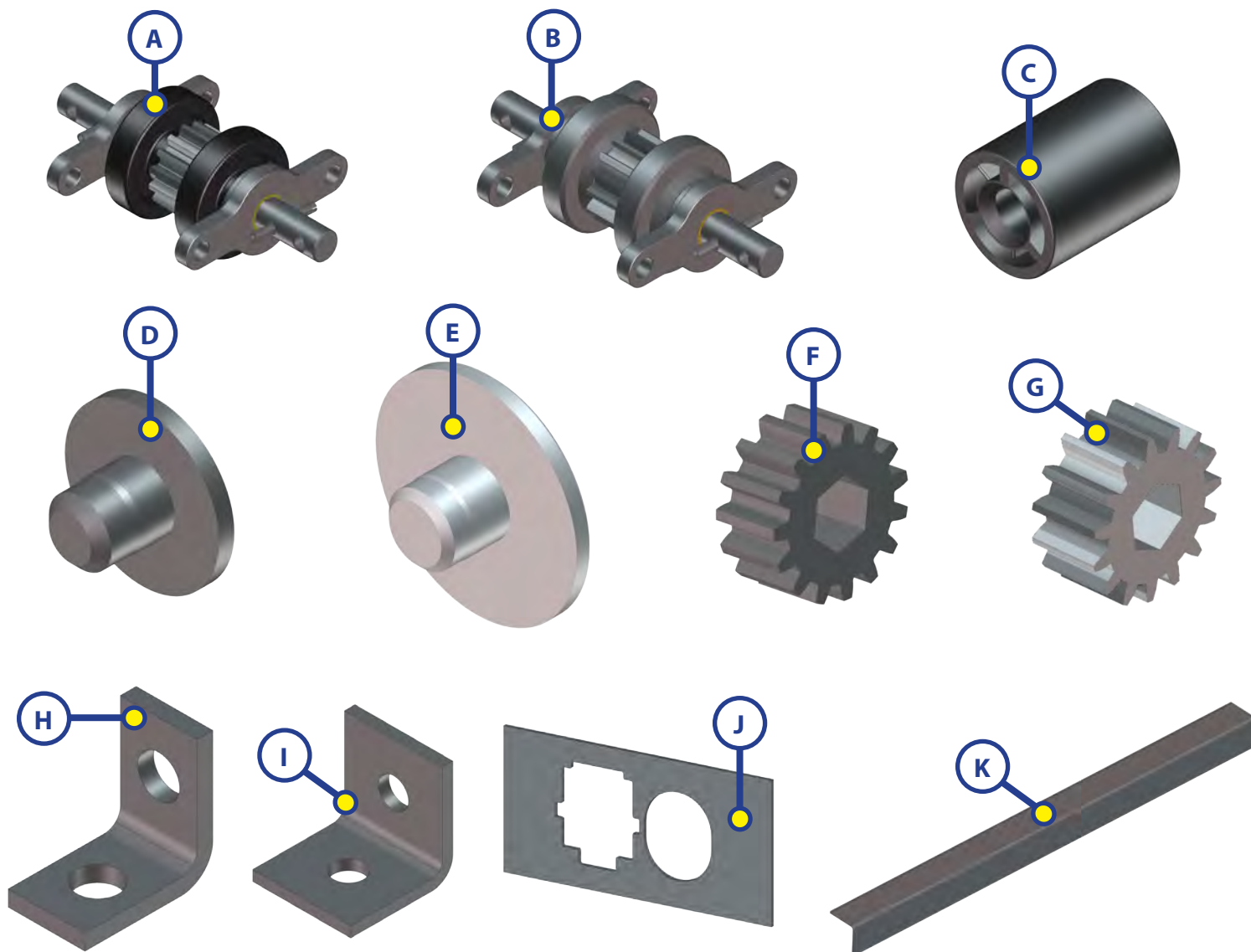
2.5X2.5 HYDRAULIC THROUGH FRAME SLIDEOUT ASSEMBLY

SLIDEOUTS



2.5X2.5 HYDRAULIC THROUGH FRAME SLIDEOUT COMPONENTS

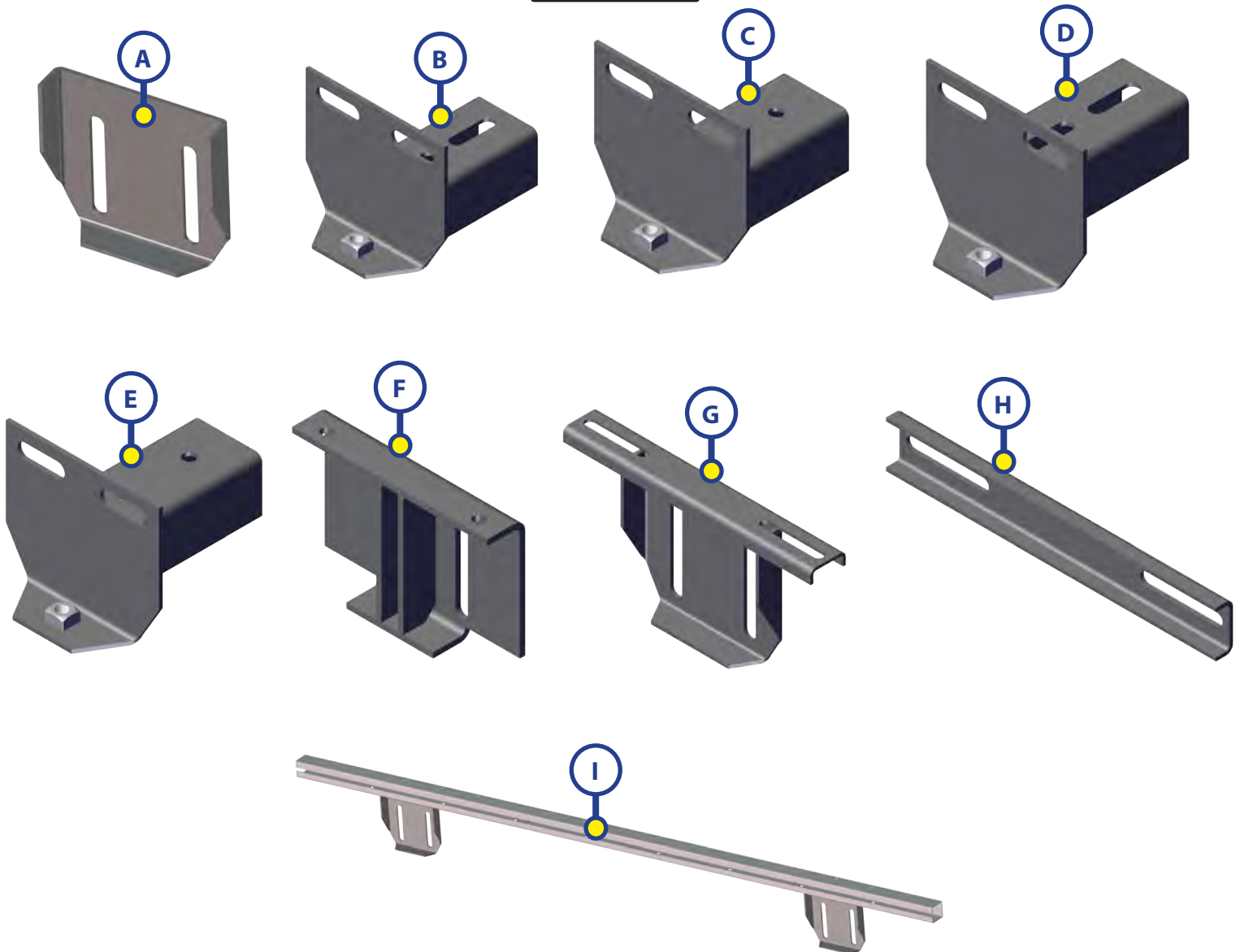
SLIDEOUTS



Callout	Part #	Description
A	122837	Gear Pack (Standard)
B	123356	Gear Pack (Heavy Duty)
C	105892	Rear Roller
D	103480	Wear Tab
E	277882	Wear Tab for 317322
F	101941	Spur Gear
G	328044	Spur Gear Heavy Duty
H	113535	Front Cylinder Bracket
I	106040	Rear Cylinder Bracket
J	106030	Trim Plate
K	102357	Stiffener

2.5X2.5 HYDRAULIC THROUGH FRAME HEAD ASSEMBLIES (STANDARD)

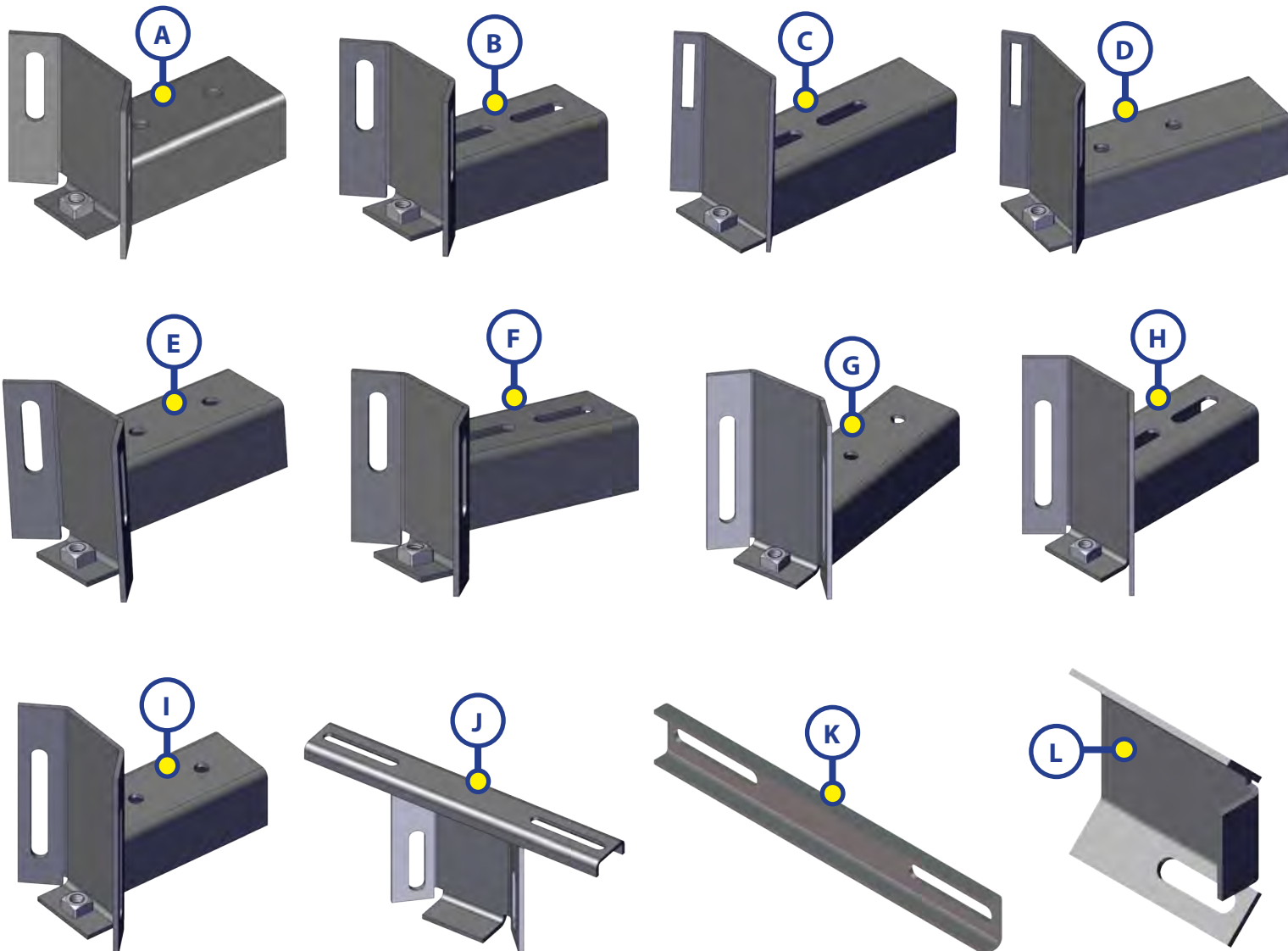
SLIDEOUTS



Callout	Part #	Description
A	104851	Slideout Mounting Bracket
B	119047	Flush Adjustable Head Assembly
C	119048	Flush Fixed Head Assembly
D	122854	Adjustable Head Assembly (1 3/4")
E	122855	Fixed Head Assembly (1 3/4")
F	166536	Flush Floor End Condition
G	226347	Room Bar Slide Head Assembly (12")
H	105966	Room Bar Bracket
I	183949	Room Bar (Use for up to 80")
	183950	Room Bar (Use for 81" to 154")

2.5X2.5 HYDRAULIC THROUGH FRAME HEAD ASSEMBLIES (V-TECH)

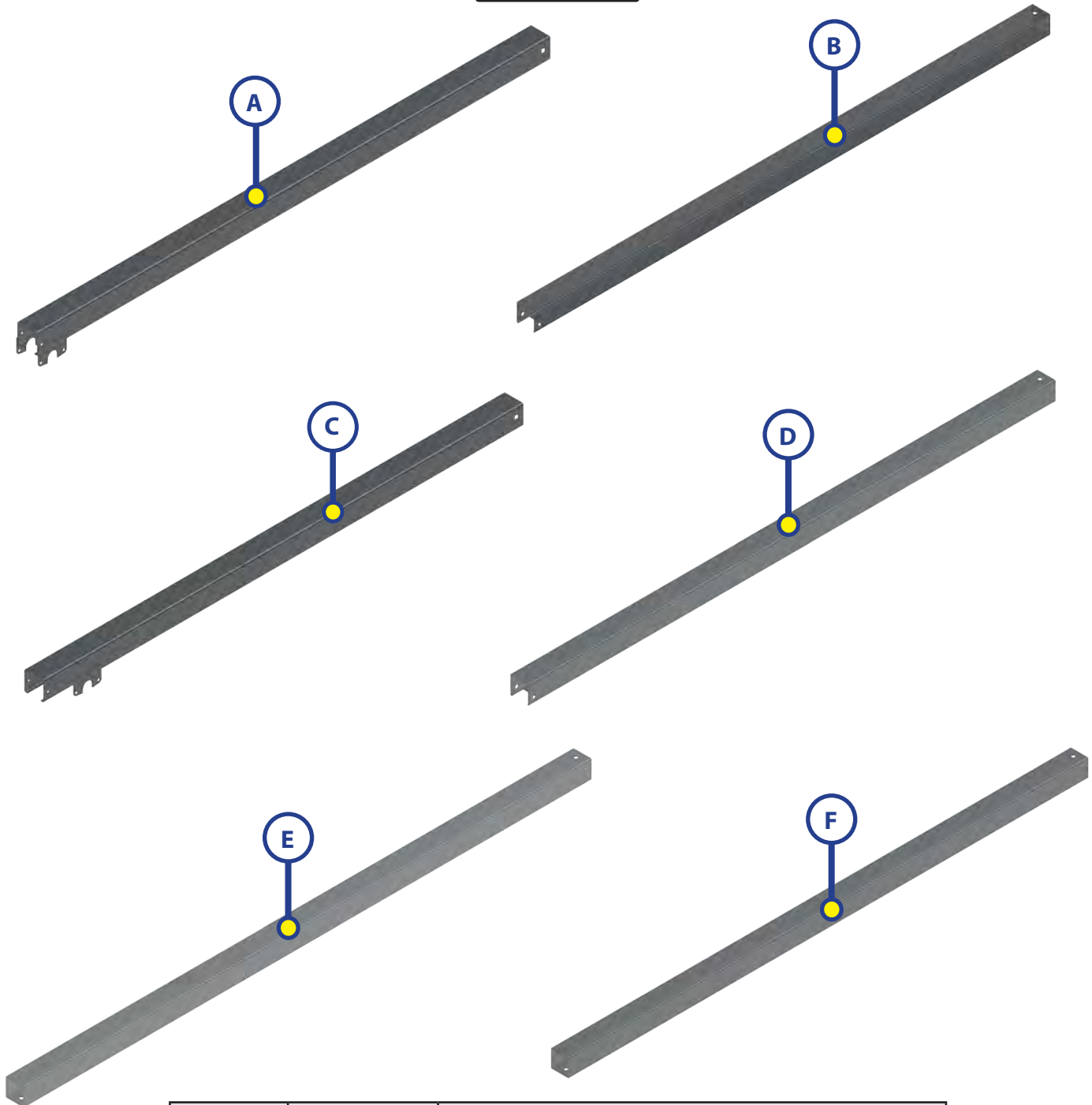
SLIDEOUTS



Callout	Part #	Description
A	118127	Flush Fixed Head Assembly
B	119157	Flush Adjustable Head Assembly
C	123999	Flush Adjustable, Tall & Extended Head Assembly
D	124000	Flush Fixed, Tall & Extended Head Assembly
E	145388	1 3/8" Fixed Head Assembly
F	145389	1 3/8" Adjustable Head Assembly
G	146612	Flush Fixed, Tall & Extended Head Assembly
H	151474	1 3/8" Adjustable Head Assembly
I	151475	1 3/8" Fixed Head Assembly
J	180461	Room Bar Assembly
K	105966	Room Bar Bracket
L	103139	Mounting Bracket

2.5X2.5 HYDRAULIC THROUGH FRAME SLIDEOUT COMPONENTS

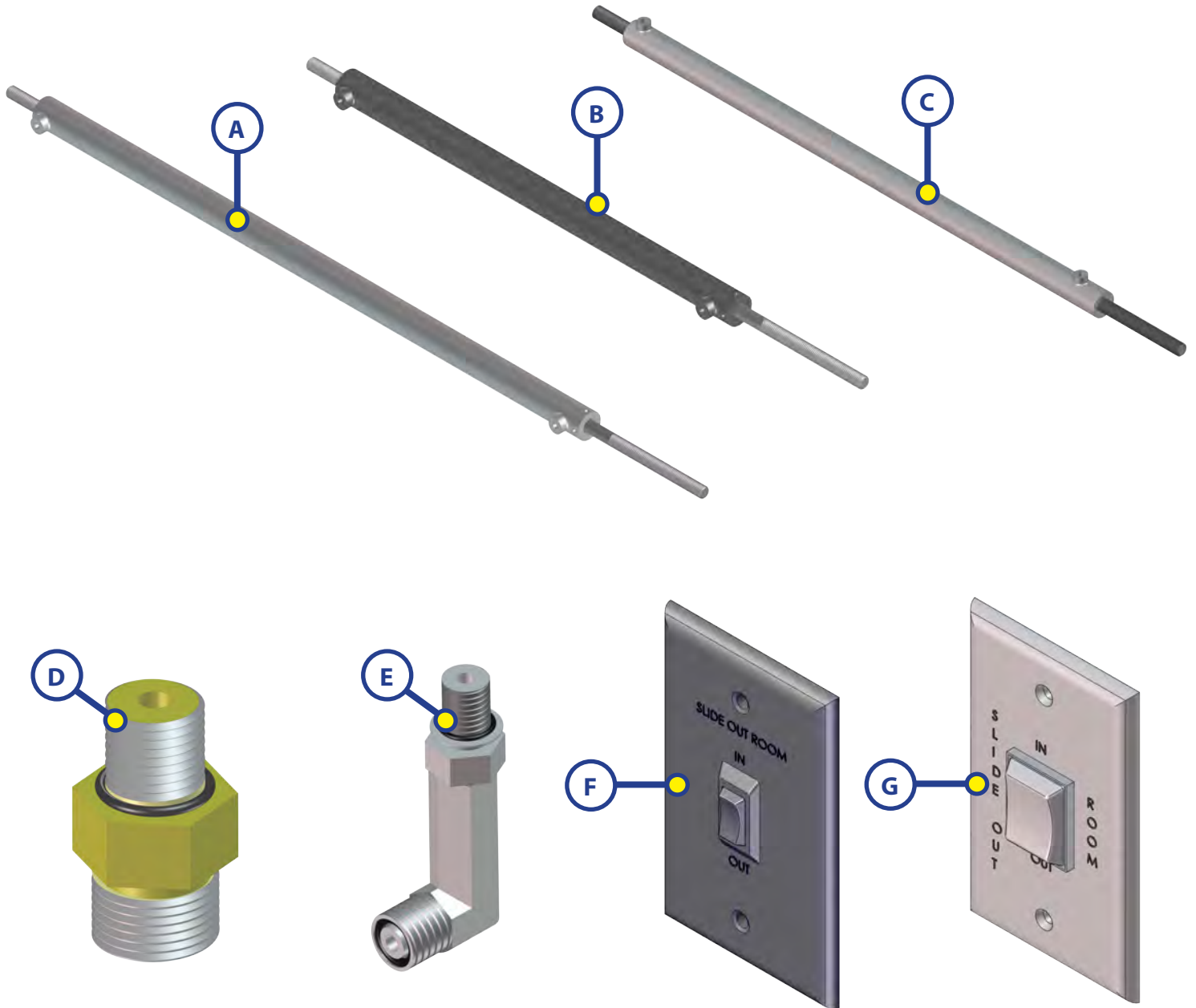
SLIDEOUTS



Callout	Part #	Description
A	143674	Outboard Outer Arm (Idler)
	143675	Outboard Outer Arm (Drive)
B	143707	Outboard Inner Arm
C	143676	Inboard Outer Arm (Idler)
	143677	Inboard Outer Arm (Drive)
D	143710	Inboard Inner Arm
E	296121	Inboard Inner Arm (18 Teeth)
F	317322	Outboard Inner Arm (18 Teeth)
NOTE: Standard slideout arms have 15 teeth.		

2.5X2.5 HYDRAULIC THROUGH FRAME SLIDEOUT DRIVE COMPONENTS

SLIDEOUTS



Callout	Part #	Description
A	123603	Hydraulic Cylinder 38"
B	125653	Hydraulic Cylinder 24"
C	133874	Hydraulic Cylinder 30"
D	141109	O-Ring Face Seal Straight Fitting
E	173738	O-Ring Face Seal Elbow Fitting
F	120639	Hydraulic Interior Slideout Switch
G	140530	6 Prong Interior Switch with Wall Plate



LIPPERT COMPONENTS™

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