

csemailorders@otis.com

#### **Table of Contents**

Notes About This Catalog Section
Questions to Answer Before Calling OSC
Box and Contact Configurations
Complete Switch Assemblies
Complete Switch Assemblies–Explosion and Moisture Proof14
Roller Arms and Switch Arms17
Rollers
Miscellaneous Hoistway and Carframe Switches23
Broken Tape Switch Devices–Illustrations
Tape Hitch Parts33
Micro Switches
Stopping Switches35
Magnet, Proximity, Light Switches
Knife & Inductor, & Various Vintage Switches

#### **Notes About This Catalog Section**

#### Terminology, Sizing Standards, and Use

- The primary measurements shown for parts are based upon their design drawings.
- Most measurements are provided in both Imperial units (for the United States) and metric units (for Canada, Mexico, etc.). If only one form of a measurement is provided, assume Imperial units (generally inches) unless otherwise stated.
- Most Imperial measurements are rounded to the nearest tenth or hundredth of an inch and most metric measurements are rounded to the nearest millimeter.

# Questions to Answer Before Calling OSC

#### For Standard Roller Arm 6098 Switches

- 1. Is the arm straight or dog legged?
- 2. Is the roller fastened by peening, retaining ring, or nut?
- 3. How many sets of contacts are inside the box?
- 4. What is the contact configuration making, breaking, or a combination of the two?
- 5. Holding box vertically with the roller facing you and at the bottom, in which direction does the roller arm actuate? Right or left?

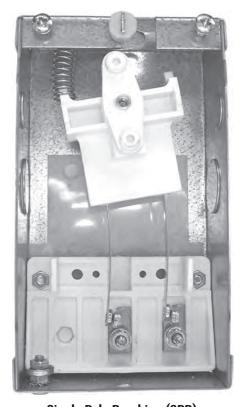
#### For Roller Arms

- 1. With the roller facing you and at bottom, does the arm extend down and to the right, down and to the left or just straight down? [For conventions of this catalog, down and dogleg to the right is considered Right Hand.]
- 2. How is the roller mounted? See 2. from above section.
- 3. Is the hole punching in the arm at the top done vertically or on an angle? Are the punched holes all round or are some arced slots?

#### For Rollers

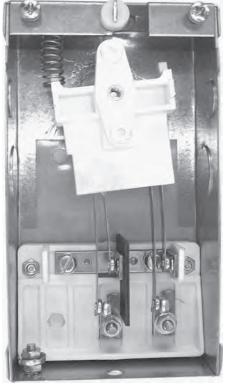
Note that some design changes have been made over the years in roller material. OSC no longer handles or supplies white or yellow rollers. The direct replacement is one of the black rubber rollers we carry—or replace the complete roller arm assembly.

#### Limit & Carframe Switches: Box and Contact Configurations



Single Pole Breaking (SPB) (SPM Opposite)

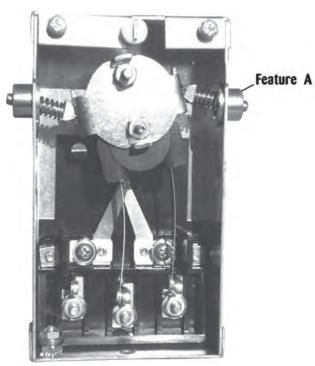
**NOTE:** This box and contact assembly not available for individual sale.



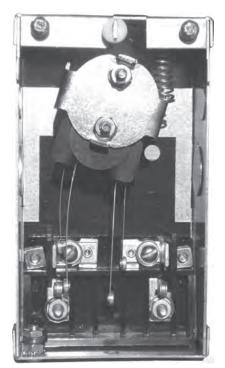
Double Pole Breaking (DPB) (DPM Opposite)

**NOTE:** This box and contact assembly not available for individual sale.

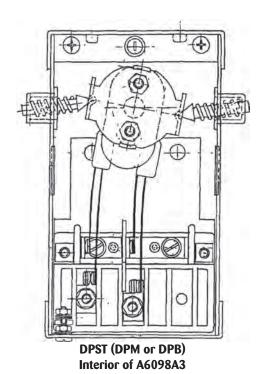
#### Limit & Carframe Switches: Box and Contact Configurations

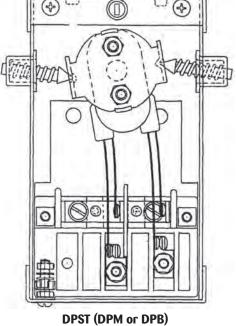


Interior of A6098A1 & A2 (SPM + B) (SPDT) A6151A1



Interior of A6098B27 (SPM + SPB) A6151R1 similar look to 6151E1

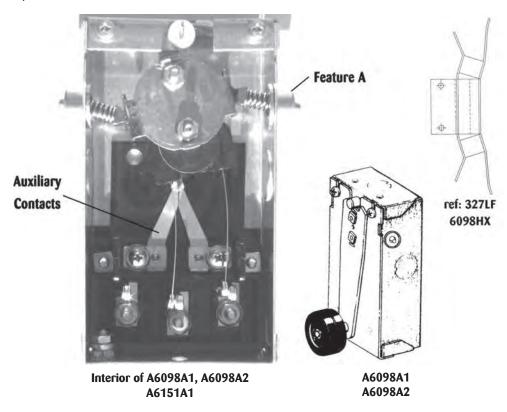




DPST (DPM or DPB) Interior of A6098A4

Part Number	Contact Logic	Description	Arm
A6098A1	SPDT	Switch, Floor Stop—main contacts make one circuit and break the other in each direction. With auxiliary contact close at center position. Switch not momentary.	A287E2
A6098A2	SPDT	Switch, Floor Stop—with oil pot. Main contacts make one circuit and break the other in each direction. With auxiliary contact close at center position. Switch not momentary.	A287E2
A6098A3	DPST	Switch, Floor Stop—both sets of contacts make when roller arm is thrown to left. Switch not momentary. Without auxiliary contact.	A287E2
A6098A4	DPST	Switch, Floor Stop—both sets of contacts break when roller arm is thrown to left. Switch not momentary. Without auxiliary contact.	A287E2

**NOTE:** All switch part numbers in this table have Features A on both sides of box.



Part Number	Contact Logic	Description	Hand	Arm
A6098B2	SPM	Switch, Limit (with oil pot)—Steel Cover	Left	287CH1
A6098B4	SPB	Switch, Limit (with oil pot)—Steel Cover	Left	287CH3
A6098B8	DPB	Switch, Limit (with oil pot)-Steel Cover	Left	287CH3
A6098B17	SPDT	Switch, Main Contact Breaking, Auxiliary Contact Making—Now with Clear Cover (momentary switch without Features A)	Left	287CH3
A6098B18	SPDT	Switch, Main Contact Breaking, Auxiliary Contact Making—Now with Clear Cover (momentary switch without Features A)	Right	287CH4
A6098B21	SPDT	Switch, Main Contact Making, Auxiliary Contact Breaking—Now with Clear Cover (momentary switch without Features A)	Left	287CH1
A6098B22	SPDT	Switch, Main Contact Making, Auxiliary Contact Breaking—Now with Clear Cover (momentary switch without Features A)	Right	287CH2
A6098B27	SPM & SPB	Switch, Limit-Now With Clear Cover	Left	287CH3
A6098B28	SPM & SPB	Switch, Limit-Now With Clear Cover	Right	287CH4

**NOTE:** All switch assemblies shown in this table use retaining ring fastened rollers. It is likely that your older switch has an arm where roller is peened on and not individually replaceable. It is OK to use arms shown as replacement here, both for older version arms and when individual old roller replacement is desired.



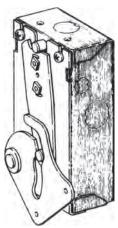
A6098B27

Part Number	<b>Contact Logic</b>	Description	Hand	Arm
AAA6098NM1	SPB	Switch, Limit-With Clear Cover	Left	287CH13
AAA6098NM2	SPB	Switch, Limit-With Clear Cover	Right	287CH14
AAA6098NM3	DPB	Switch, Limit-With Clear Cover	Left	287CH13
AAA6098NM4	DPB	Switch, Limit-With Clear Cover	Right	287CH14
AAA6098NM5	DPB	Switch, Limit-With Clear Cover	Left	6098FH5
AAA6098NM6	DPB	Switch, Limit-With Clear Cover	Right	6098FH6
AAA6098NM8	SPM	Switch, Limit-With Clear Cover	Left	287CH15
AAA6098NM9	SPM	Switch, Limit-With Clear Cover	Right	287CH16
AAA6098NM10	DPM	Switch, Limit-With Clear Cover	Left	287CH15
AAA6098NM11	DPM	Switch, Limit-With Clear Cover	Right	287CH16
AAA6098NM12	DPM	Switch, Limit-With Clear Cover	Left	6098FH7
AAA6098NM13	DPM	Switch, Limit-With Clear Cover	Right	6098FH8

**NOTE:** See page 24 for arm illustrations, noting which hand and punching orientation you need (vertical or angled).



Part Number	Contact Logic	Description	Hand
6098C1	SPB	Cam Switch	Opposite
6098C3	SPB	Cam Switch	As Shown
6098C5	DPB	Cam Switch	Opposite
6098C7	DPB	Cam Switch	As Shown

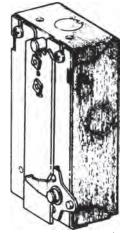


6098C (shown is C3, C7)

Part Number	Contact Logic	Description	Hand	Arm
AAA6098NR1	SPB	Switch, Tripper Type—With Clear Cover	Right	287H5
AAA6098NR2	SPB	Switch, Tripper Type—With Clear Cover	Left	287H6
AAA6098NR3	DPB	Switch, Tripper Type—With Clear Cover	Right	287H5
AAA6098NR4	DPB	Switch, Tripper Type—With Clear Cover	Left	287H6

Most type 6098D switches were replaced by type AAA6098NR switches.

**NOTE:** All four of these switches have normally open contact arrangement (i.e. when switch is tripped).

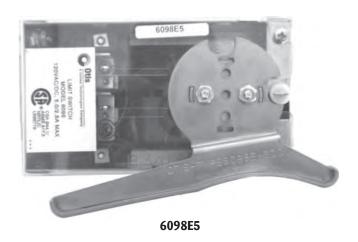


Type AAA6098NR1 & 3 (shown)



287H6

Part Number	Contact Logic	Description	Hand
6098E5	DPM	Gate Switch—With Standard Arm	Left
6098E6	DPM	Gate Switch—With Standard Arm	Right
6098MV2	SPM	Gate Switch (GAL type) (not shown)	Right or Left



Part Number	Contact Logic	Description	Hand
AAA6098NP3	DPM	Gate Switch—With Weighted Arm	Left
AAA6098NP4	DPM	Gate Switch—With Weighted Arm	Right



#### **Complete Switch Assemblies (continued)**

Part Number	Contact Logic	Description	Hand	Arm
AAA6098NN1	SPB	Switch, Limit-With Clear Cover (no roller)	Right	AAA287CS2
AAA6098NN2	SPB	Switch, Limit-With Clear Cover (no roller)	Left	AAA287CS2
AAA6098NN3	DPB	Switch, Limit-With Clear Cover (no roller)	Right	AAA287CS2
AAA6098NN4	DPB	Switch, Limit-With Clear Cover (no roller)	Left	AAA287CS2
AAA6098NN5	DPB	Switch, Limit-With Clear Cover (w/roller)	Right	AAA287CS3
AAA6098NN6	DPB	Switch, Limit-With Clear Cover (w/roller)	Left	AAA287CS3

**NOTE 1:** All type 6098BC replaced by type AAA6098NN.

**NOTE 2:** Older version switches of this type used the slotted arc type of roller arm fastening. See roller arm section for type 287BA arm.

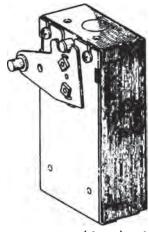


AAA6098NN1 (AAA287CS2 arm shown)



AAA6098NN6 (AAA287CS3 arm shown)

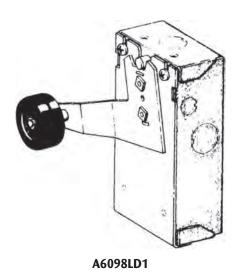
Part Number	<b>Contact Logic</b>	Description	Hand	Arm
6098BJ3	SPM & SPB	Switch, Lever Actuating Type—With Clear Cover (double pin lever)	Opposite	287AM1
6098BJ4	SPM & SPB	Switch, Lever Actuating Type—With Clear Cover (double pin lever)	As Shown	287AM2
6098BJ9	SPM & SPB	Switch, Lever Actuating Type—With Clear Cover and Double Pinned Arm with Extra 'L' Tab	Opposite	287AM5
6098BJ10	SPM & SPB	Switch, Lever Actuating Type—With Clear Cover and Double Pinned Arm with Extra 'L' Tab	As Shown	287AM6
AAA6098NX1	SPB	Switch, Lever Actuating Type—With Clear Cover	Opposite	Single Pin
AAA6098NX2	SPB	Switch, Lever Actuating Type—With Clear Cover	As Shown	Single Pin
AAA6098NX3	DPM	Switch, Lever Actuating Type—With Clear Cover	Opposite	Single Pin
AAA6098NX4	DPM	Switch, Lever Actuating Type—With Clear Cover	As Shown	Single Pin
AAA6098NX5	SPB	Switch, Lever Actuating Type—With Clear Cover	Opposite	with 'L' Tab Tripper Outer Hole
AAA6098NX6	SPB	Switch, Lever Actuating Type—With Clear Cover	As Shown	with 'L' Tab Tripper Outer Hole

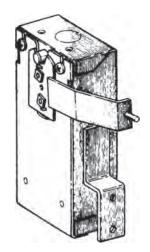


AAA6098NX2 (shown) and Type 6098BJ (similar)

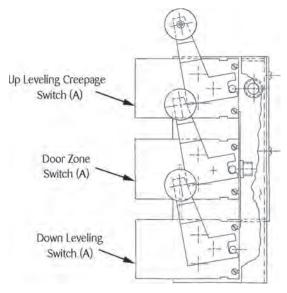
#### **Complete Switch Assemblies (continued)**

Part Number	Contact Logic	Description	Arm
A6098LD1	SPDT	Switch, Main Contact Breaking, Auxiliary Contact Making—Now with Clear Cover	B287EE4
A6098LD2	DPM & DPB	Switch, Limit-With Clear Cover	B287EE2
AAA6098NT1	SPM	Switch, Side Exit	As Shown
AAA6098NT2	SPM	Switch, Side Exit	Opposite Shown





Type AAA6098NT (old 6098CM application)

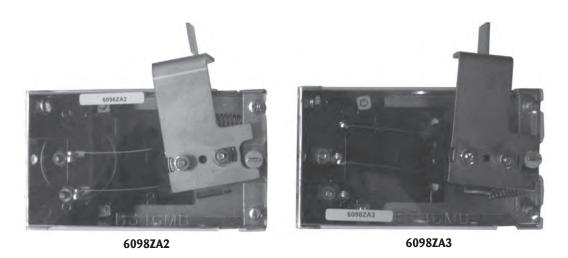


#### **Type A6098KE Arrangement**

Uses A6151A2 box & contacts. See page 4 for basic internal view w/auxiliary contact at back of box.

Part Number	<b>Contact Logic</b>	Description	Hand	Arm
6098ZA2	SPB	Switch, Lever Actuating Type—With Clear Cover	As Shown	287W2
6098ZA3	SPM	Switch, Lever Actuating Type—With Clear Cover	As Shown	287W2
6098ZA1	SPB	Switch, Lever Actuating Type—With Clear Cover	Opposite	287W1

**NOTE:** Safety shoe application.





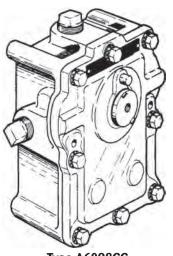
287W1

#### Limit & Carframe Switches: Complete Switch Assemblies - Explosion and Moisture Proof

Туре	<b>Contact Logic</b>	Description	Arm
A6098AY		Switch, Cam Operated—Explosion or Moisture Proof	
		(Contact OSC for part numbers and special order. Available in SPM and SPB.)	
A6098CC	SPDT	Switch, Floor Stop with Straight Arm—Explosion or Moisture Proof	A287E2
		(Contact OSC for part numbers and special order.)	



Type A6098AY



Type A6098CC (shown w/o arm) See p. 21 for Arm Types

#### Limit & Carframe Switches: Complete Switch Assemblies - Explosion and Moisture Proof

Part Number	Contact Logic	Description	Hand	Arm*
A6098FC17	SPM	Switch, Limit-Moisture Proof	Left	287F4
A6098FC18	SPB	Switch, Limit-Moisture Proof	Left	287F2
A6098FC19	DPM	Switch, Limit-Moisture Proof	Left	287F4
A6098FC20	DPB	Switch, Limit-Moisture Proof	Left	287F2
A6098FC21	SPM	Switch, Limit-Explosion Proof	Left	287F4
A6098FC22	SPB	Switch, Limit-Explosion Proof	Left	287F2
A6098FC23	DPM	Switch, Limit-Explosion Proof	Left	287F4
A6098FC24	DPB	Switch, Limit-Explosion Proof	Left	287F2
A6098FC25	SPM	Switch, Limit-Moisture Proof	Right	287F8
A6098FC26	SPB	Switch, Limit-Moisture Proof	Right	287F6
A6098FC27	DPM	Switch, Limit-Moisture Proof	Right	287F8
A6098FC28	DPB	Switch, Limit-Moisture Proof	Right	287F6
A6098FC29	SPM	Switch, Limit-Explosion Proof	Right	287F8
A6098FC30	SPB	Switch, Limit-Explosion Proof	Right	287F6
A6098FC31	DPM	Switch, Limit-Explosion Proof	Right	287F8
A6098FC32	DPB	Switch, Limit-Explosion Proof	Right	287F6

\*NOTE: All switch assemblies shown in this table use retaining ring fastened rollers. It is likely that your older switch has an arm where roller is peened on and not individually replaceable. It is Ok to use arms shown as replacement here, both for older version arms and when individual old roller replacement is desired.



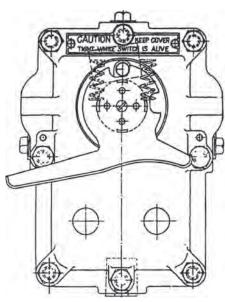
#### Limit & Carframe Switches: Complete Switch Assemblies - Explosion and Moisture Proof

Part Number	Contact Logic	Description	Hand
A6098GC1	SPB	Switch, Tripper Type-Moisture Proof	Right
A6098GC2	SPB	Switch, Tripper Type-Moisture Proof	Left

**NOTE:** Type A6098HC gate switch is available in SP or DP making or breaking. Contact OSC to order.



A6098GC1



Туре А6098НС

**NOTE:** Generally speaking, switch arms with A456R1 rollers have rollers peened on and are not individually replaceable. A456R1 and A456EE1 rollers are not interchangeable.

Part Number	Application	Description	Roller
A287E2	A6098A A6098CC	Arm, Roller—Straight-Slotted Arc Fastening (roller peened on)	A456R1



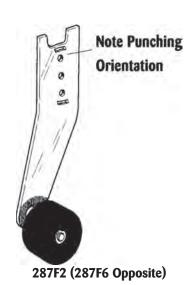
For Switch Types A6098A, A6098CC

Part Number	Remarks	Description	Hand
287F2	Now replaced by 287CH3	Arm, Roller—Slotted Arc Fastening (vertical punch)—with A456R1 (roller peened on)	Left
287F4	Now replaced by 287CH1	Arm, Roller—Slotted Arc Fastening (angled punch)—with A456R1 (roller peened on)	Left
287F6	Now replaced by 287CH4	Arm, Roller—Slotted Arc Fastening (vertical punch)—with A456R1 (roller peened on)	Right
287F8	Now replaced by 287CH2	Arm, Roller—Slotted Arc Fastening (angled punch)—with A456R1 (roller peened on)	Right

**NOTE:** For A6098B and A6098FC applications.

Roller is not individually replaceable on 287F. Order Type 287CH.





Part Number	Description	Hand	Application	Roller
6098FH1	Arm, Roller—Slotted Arc Fastening (vertical punch)—with Threaded Shaft and 456BY1 Roller Held On By Nut	Left	A6098B	456BY1
6098FH2	Arm, Roller–Slotted Arc Fastening (vertical punch)—with Threaded Shaft and 456BY1 Roller Held on By Nut	Right	A6098B	456BY1
6098FH3	Arm, Roller–Slotted Arc Fastening (angled punch)—with Threaded Shaft and 456BY1 Roller Held on by Nut	Left	A6098B	456BY1
6098FH5	Arm, Roller—Round Hole Fastening (vertical punch)—with Threaded Shaft and 456BY1 Roller Held on by Nut	Left	AAA6098NM	456BY1
6098FH6	Arm, Roller—Round Hole Fastening (vertical punch)—with Threaded Shaft and 456BY1 Roller Held on by Nut	Right	AAA6098NM	456BY1



Otis Elevator Company

Part Number	Description	Hand	Application	Roller
287CH1	Arm, Roller—Slotted Arc Fastening (angled punch)—with 456EE1 Mounted with Retaining Ring	Left	A6098B A6098FC	456EE1
287CH2	Arm, Roller—Slotted Arc Fastening (angled punch)—with 456EE1 Mounted with Retaining Ring	Right	A6098B A6098FC	456EE1
287CH3	Arm, Roller—Slotted Arc Fastening (vertical punch)—with 456EE1 Mounted with Retaining Ring	Left	A6098B A6098FC	456EE1
287CH4	Arm, Roller—Slotted Arc Fastening (vertical punch)—with 456EE1 Mounted with Retaining Ring	Right	A6098B A6098FC	456EE1
287CH13	Arm, Roller—Round Hole Fastening (vertical punch) and 456EE1 Roller Mounted with Retaining Ring	Left	AAA6098NM	456EE1
287CH14	Arm, Roller—Round Hole Fastening (vertical punch) and 456EE1 Roller Mounted with Retaining Ring	Right	AAA6098NM	456EE1
287CH15	Arm, Roller—Round Hole Fastening (angled punch) and 456EE1 Roller Mounted with Retaining Ring	Left	AAA6098NM	456EE1
287CH16	Arm, Roller—Round Hole Fastening (angled punch) and 456EE1 Roller Mounted with Retaining Ring	Right	AAA6098NM	456EE1



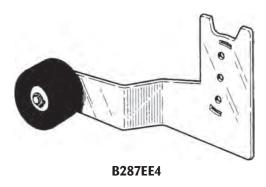






287CH13 and 287CH15

Part Number	Description	Roller	<b>Application</b>
B287EE2	Arm, Roller—L-Shape with Round Hole Fastening (Vertical Punch) and 456EE1 Roller	456EE1	A6098LD
B287EE4	Arm, Roller—L-Shape with Round Hole Fastening (Angled Punch) and 456EE1 Roller	456EE1	A6098LD



Part Number	Description	Roller	<b>Application</b>
AAA287CS3	Arm, Short–Roller Type with Round Hole Fastening– Similar to 287BA4	Not individually replaceable	AAA6098NN
287BA4	Arm, Short—Roller Type with Slotted Arc Fastening	Not individually replaceable	6098BC



p/n AAA287CS3 (287BA similar with slotted arc fastening)

Part Number	Description	Hand	Arm	Application
287H6	Arm, Tripper-With Brass Stud	As Shown		AAA6098NR
287H5	Arm, Tripper-With Brass Stud	Opposite		AAA6098NR
287W1	Arm, Switch	As Shown	As Shown	6098ZA
287W2	Arm, Switch	Opposite	Opposite	6098ZA

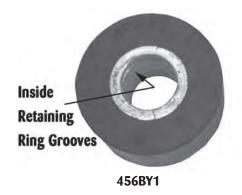




#### Rollers

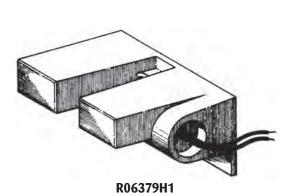
**NOTE:** Switch arms with A456R1 rollers have rollers peened on and are not individually replaceable. A456R1 and A456EE1 rollers are not interchangeable. Choose by application.

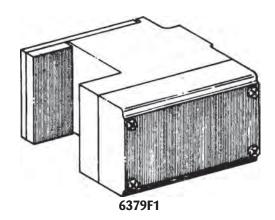
Part Number	Description
A456R1	Roller, 1–5/8 in. Diameter–1/4 in. minus Bore (Easily Confused with 456EE1)
456BY1	Roller, 1–5/8 in. Diameter–5/8 in. Bore with Retaining Ring Grooves to Accept 2 Bearings (6098FH Application)
456EE1	Roller, 1–5/8 in. Diameter–1/4 in. plus Bore (Easily Confused with A456R1) Larger Counterbore Diameter than p/n A456R1

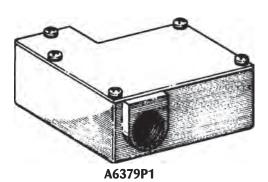




Part Number	Description
RO6379H1	Switch, Vane Engaging—For Leveling and Door Zone
6379F1	Switch, Leveling and Door Zone-Magnet Type
A6379P1	Switch, Leveling-Inductor Assembly



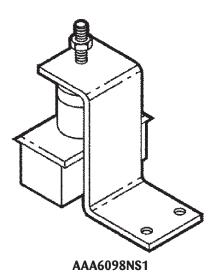




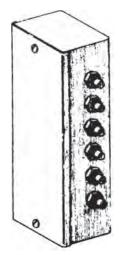
Part Number	Description
622D3	Load Cell, Loadweighing (0–1000 lb. range)–7/8 in. Thick Cell
622D4	Load Cell, Loadweighing (0–2000 lb. range)–7/8 in. Thick Cell
622D6	Load Cell, Loadweighing (0–2000 lb. range)–5/8 in. Thick Cell
AAA6098NS1	Top-of-Car Exit Contact Kit—Plug Type





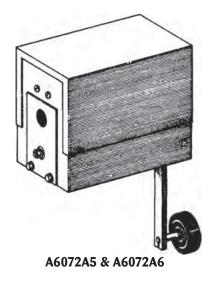


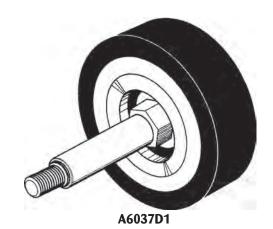
Part Number	Description
6934F3	Load Weighing Device for Under Platform—(3) AAA635L1 Switches
6934F4	Load Weighing Device for Under Platform—(4) AAA635L1 Switches
AAA635L1	Switch, Micro—(6 per) 6934F Loadweighing Switch Assembly Shown

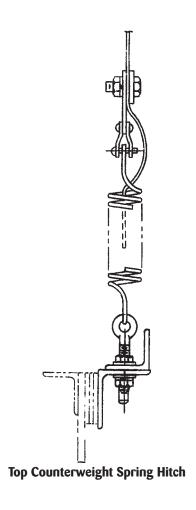


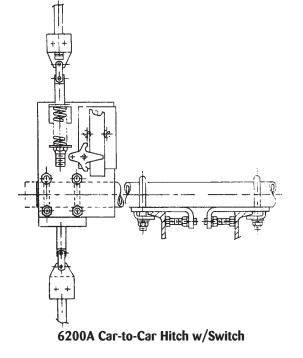
Туре 6934F

Part Number	Description	
A6072A5	Switch, Terminal Motion Stopping—Complete Assembly with 10 Contacts	
A6072A6	Switch, Terminal Motion Stopping—Complete Assembly with 16 Contacts	
A6037D1	Roller, Stopping Switch-for A6072A5 or A6	
177DK3	Switch, Safety Operated (SOS) 9CB and 11CB Safeties	

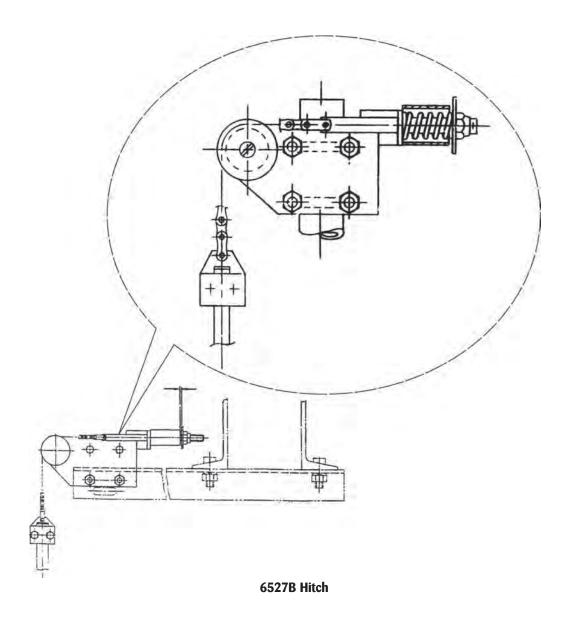


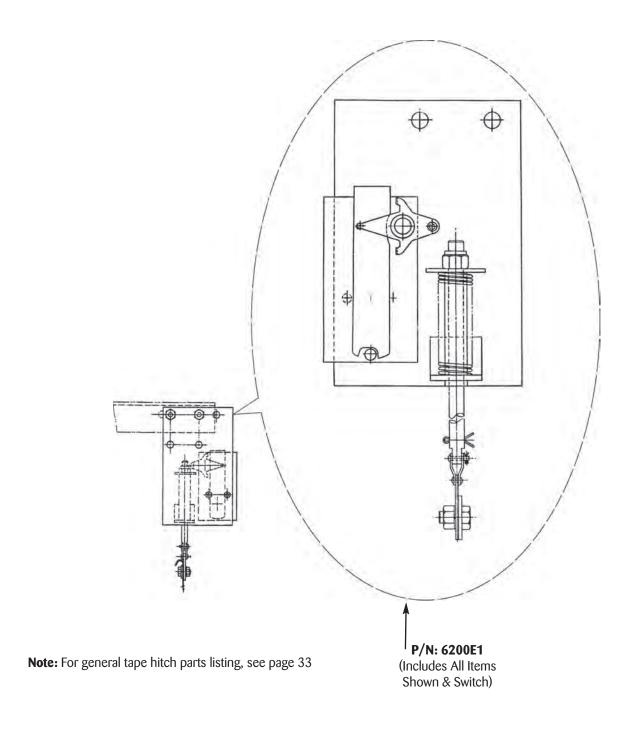




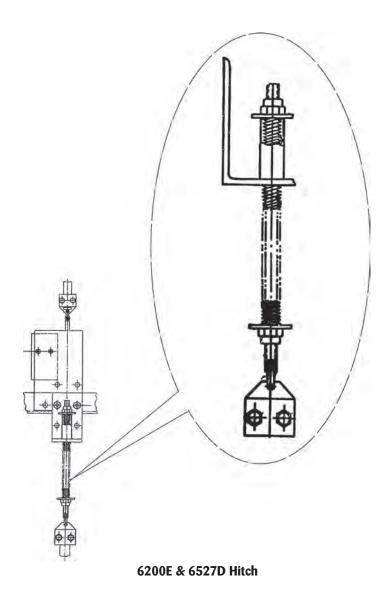


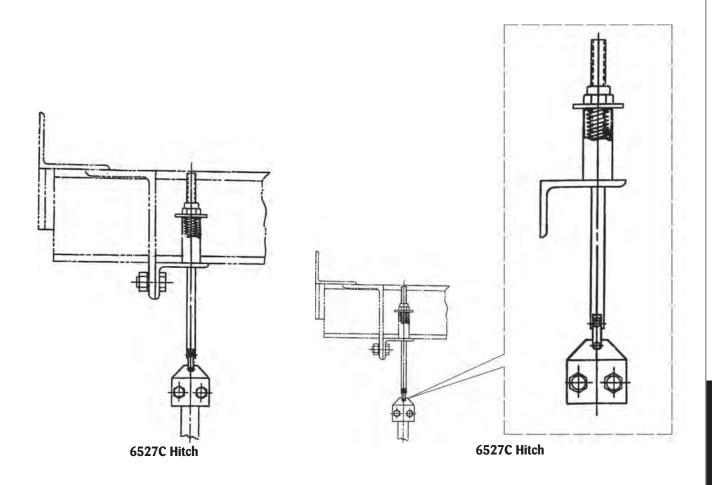
**Note:** For general tape hitch parts listing, see page 33

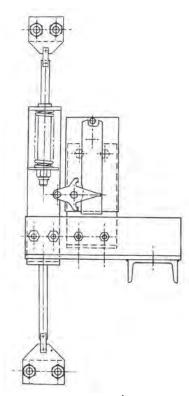




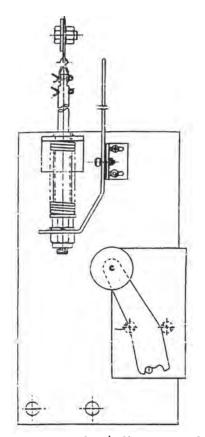
#### **Broken Tape Switch Devices: Illustrations (continued)**







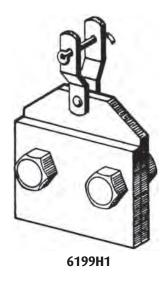
6199AL Hitch w/Switch



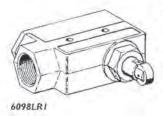
AAA6200G Hitch w/self Reset Switch

#### Limit & Carframe Switches: Tape Hitch Parts

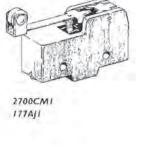
Part Number	Description
6199H1	Hitch, Tape—with Offset Links
6199H2	Hitch, Tape—Plates Only, without Offset Links
90XB3	Spring, Compression $-L = 4-5/8$ in. X 3/4 in. Outside Diameter
90ZB6	Spring, Compression $-L = 4.3$ in. $X \sim 7/8$ in. Outside Diameter
90KB10	Spring, Compression— $L = 8.12$ in. X 1-1/8 in. Outside Diameter
91AG1	Spring, Extension— $L = 17.5$ in. X 1-1/2 in. Outside Diameter
91AA1	Spring, Extension— $L = 11.75$ in. X 2-3/8 in. Outside Diameter
AAA6098NR2	Switch, Tripper

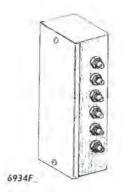


#### Micro-Switches



Part No.	Descriptions
6098LR1	VF cab top exit micro-switch
2700CM1	"Door Open" micro-switch unit with 177AJ1 micro-switch a special emergency service door operator
177AJ1	Single pole, double throw micro-switch
6934F3	Load weighing micro-switch assembly mounted under platform, total of (3) 177Y1 micro-switches
6934F4	Load weighing micro-switch assembly mounted under platform, total of (4)177Y1 micro-switches
6934F6	Load weighing micro-switch assembly mounted under platform, total of (6) 177Y1 micro-switches
VP-883145	Micro-switch
BZE6-2RQ81	6098LR Emergency exit switch





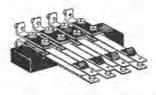
VP-883145 BZE6- 2RQ81

#### **Stopping Switches**



A6706A1

ı	Part No.	Descriptions
Ī	A6706A1	F Operator. Stopping switch assembly for vertical hoistway doors
	6251E1	A6706A1 Switch. Stopping switch assembly with (4) contacts
	JAA26901AAE011	10200A Operator. Contact assembly for door speed control
	A6072A5	Stopping switch assembly with (10) contacts, mounted on car top
	A6072A6	Stopping switch assembly with (16) contacts, mounted on car top
	143317	Y-3 car safety switch



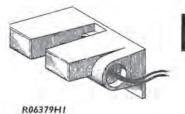
6251E1 JAA26901AAE011



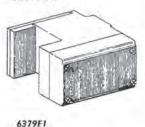


Contact OSC for special order of component spare parts only.

#### **Magnet Switches**



Part No.	Descriptions	
R06379H1	Magnet vane switch for leveling, door zone, and position	
6379F1	Magnet switch assembly used for leveling in door zone	



## SWITCHES

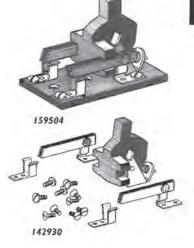
#### **Proximity Switch**

AAA21305AV1

Part No. Descriptions

AAA21305AV1 Replaces 613BB1

#### **Light Switches**



Part No.	Descriptions	
159504	Light switch and base for car and pit light	
142930	"O" car switch. Complete car light switch. For assembled part, order P/N 159504	

#### **Knife Switches**



#### **Inductor Switches**

Part No.	Descriptions	
A6379P1	6379 Leveling switches. Hoistway in	ductor switch assembly

