

ORSCHELD®

Heavy-Duty Automatic Transmission Controls

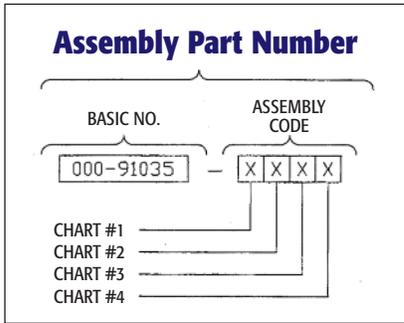


Chart #1 Control Mount Options

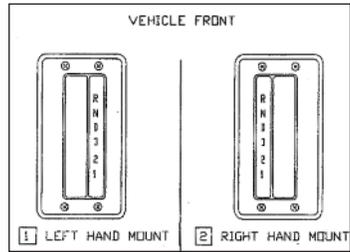
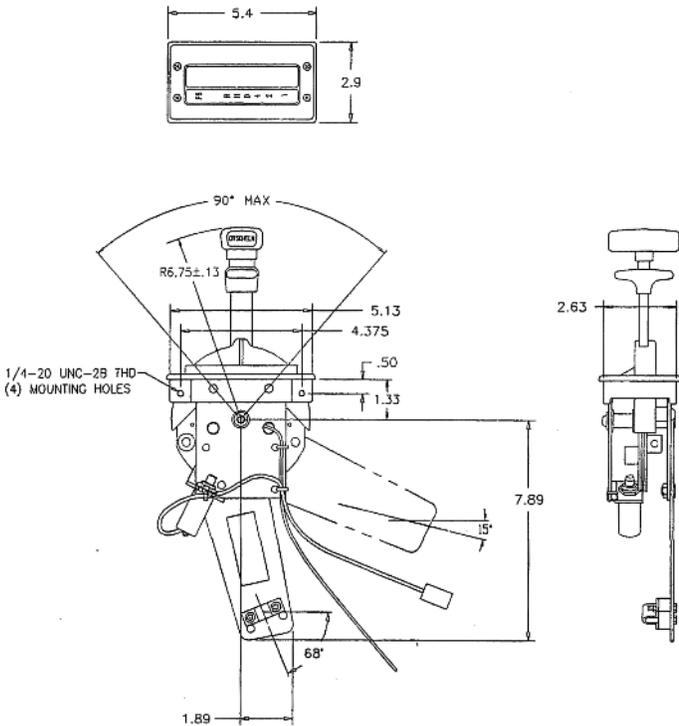
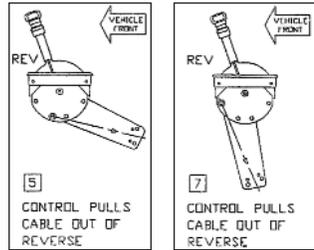


Chart #2 Cable Hanger Bracket Position Options



PICTURE SHOWN WITH INTERLOCK (PARK SOLENOID)

Chart #3 Position Strip Options

R N D 3 2 1	R N D 3 2 1	R N D 3 1 1	R N D 4 3 1	P R N D 3 1	P R N D 4 3 1	P R N D 4 3 1	PB R N D 3 1	PB R N D 3 1
1	2	3	4	5	6	7	8	9

Chart #4 Park Options

- 0 NO INTERLOCK OR SWITCH
- 1 PARK INTERLOCK ONLY (SOLENOID)
(POSITION STRIP #5-9 ONLY)
(CHANGER BRACKET POSITION #7 ONLY)
- 2 PARK SWITCH ONLY
(POSITION STRIP #8-9 ONLY)
- 3 PARK INTERLOCK AND SWITCH
(POSITION STRIP #8-9 ONLY)
(CHANGER BRACKET POSITION #7 ONLY)

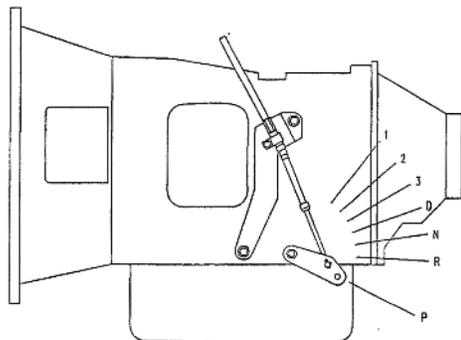
Cable and Connection Kit

CABLE 100-04333-LGTH

Standard push-pull cable.
3-inch travel. Clamp style ends.
All steel parts are plated or stainless steel.

TRANSMISSION KIT 000-59534-0000

One kit for park and non-park option.
All parts are plated steel.
Includes all attachment hardware.
Lever holes identified for park option.

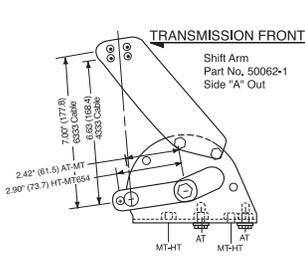


OTHER CONFIGURATIONS MAY BE AVAILABLE. CONTACT ORSCHELN.

™ Allison is a registered trademark of General Motors.

Transmission Connection Kits

Transmission kits come complete with shift arm, transmission mounting bracket, cable hanger and required hardware. Connection kits are designed to fit any of the five most popular entry positions to the transmission shift arm. Refer to the following drawings to find the cable entry that best fits your vehicle requirements and shifter control positions (push to reverse, pull to reverse), then assemble the kit to match the installation required. Shown below are configurations that can be made from the Universal Kit. (Universal Kit #59005 includes all parts to assemble any 59004 and 59006 kit configuration.)

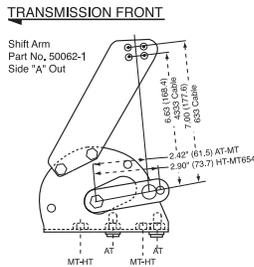


CONFIGURATION #1

Cable **PUSHES** Transmission Arm into REVERSE.

Use with Shifter Control Positions numbers 2, 4, 5, 7.

Cable 100-4333-L / 100-6333-L

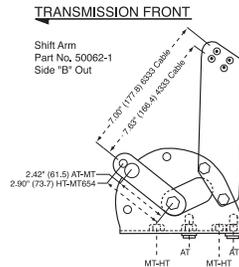


CONFIGURATION #2

Cable **PULLS** Transmission Arm into REVERSE.

Use with Shifter Control Positions numbers 1, 3, 6, 8.

Cable 100-4333-L / 100-6333-L

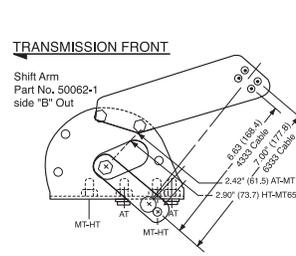


CONFIGURATION #3

Cable **PUSHES** Transmission Arm into REVERSE.

Use with Shifter Control Positions numbers 2, 4, 5, 7.

Cable 100-4333-L / 100-6333-L

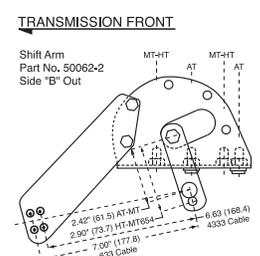


CONFIGURATION #4

Cable **PULLS** Transmission Arm into REVERSE.

Use with Shifter Control Positions numbers 1, 3, 6, 8.

Cable 100-4333-L / 100-6333-L



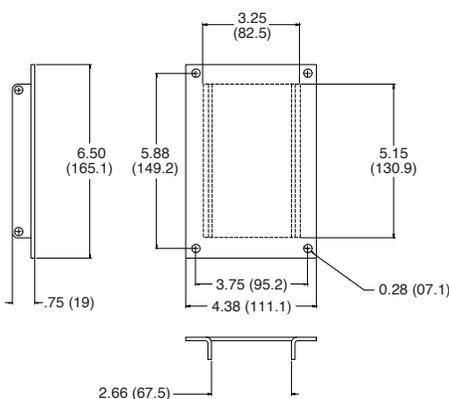
CONFIGURATION #5

Cable **PUSHES** Transmission Arm into REVERSE.

Use with Shifter Control Positions numbers 2, 4, 5, 7.

Cable 100-4333-L / 100-6333-L

Accessories



TRANSMISSION CONNECTION KITS

UNASSEMBLED UNIVERSAL KIT OIL PAN MOUNT

- 59004 4 Series
- 59006 6 Series
- 59005 4 and 6 Series Hardware

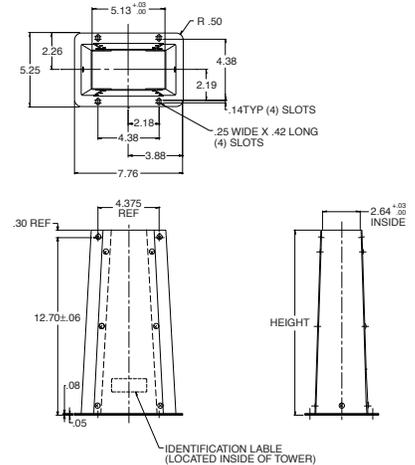
Kits to be assembled in field to fit installation required.

MACHINE PAD MOUNT

- 59369-1 4 Series
- 59369-2 6 Series

Mount to machine pad above the transmission shift arm. They do not mount to oil pan bolts as shown in diagrams above.

* HT Series, MT 654 with 4.5" oil pan.
For refuse and HD applications.



MOUNTING TOWER

- 59000 (13")
- 59035 (9")

A prefabricated tower with a matte black epoxy finish. Features access panels on both sides for easy installation and adjustment. A rubber floor gasket is included with tower. Kit is complete with control mounting hardware. For use with cable hanger positions #3, 4, 7, and 8 ONLY!

PUSH-PULL SHIFT CABLES

(Used with Controls and Kits)
4 Series: 1/4 - 28 thread, base part number: 100-4333 length (recommended)
6 Series: 5/16 - 24 thread, base part number: 100-6333 length

SWITCH AND PIN SET KIT

50036-1

SWITCH SET

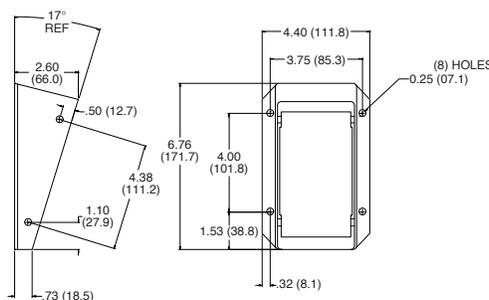
50036-2

PIN SET

50036-3

FINGER RELEASE/T-HANDLE KIT

59543



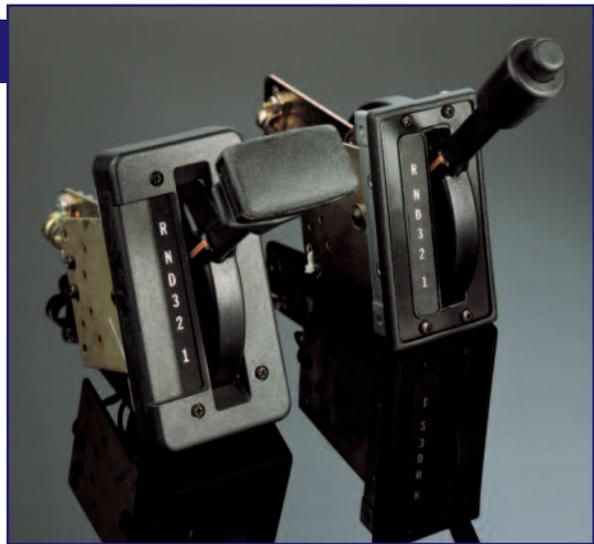
MOUNTING WEDGE

59009

An injection molded wedge with a textured black finish. Raises the shifter to a 17° angle from desired mounting surface. Kit is complete with control mounting hardware. Use with cable hanger bracket in any position except #1 or #2.

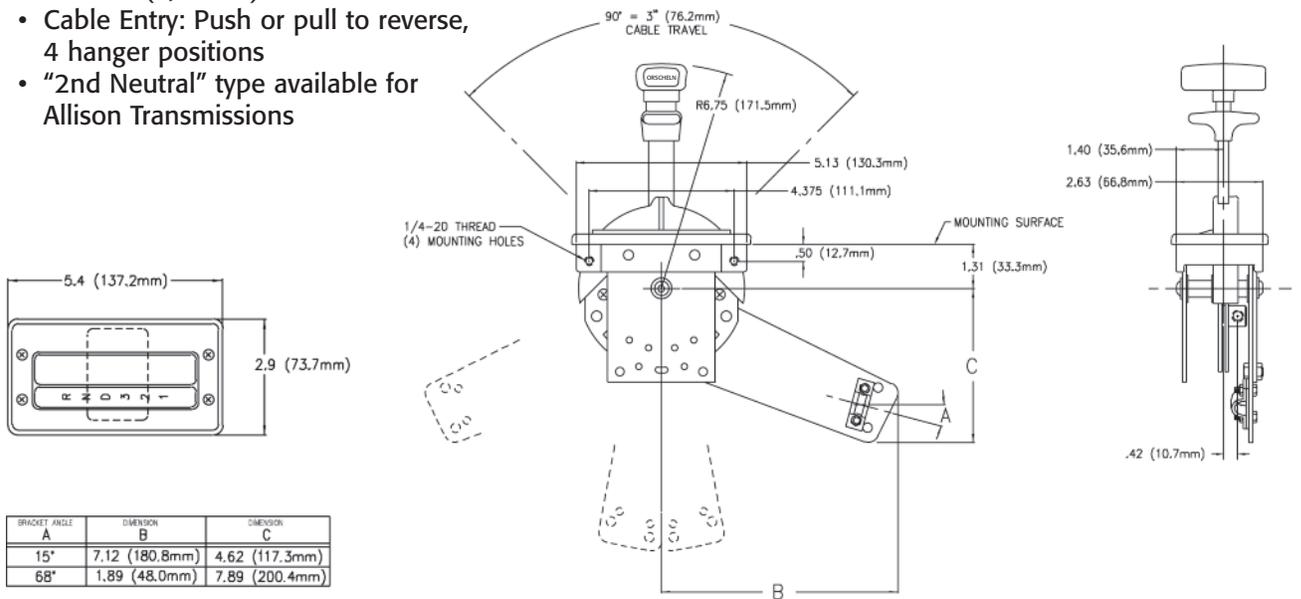
T-Handle and Push Button Shifters

The T-Handle and Push Button shifters are time proven designs for rugged operation in trucks and buses. They have flexible options available and the T-Handle can be custom assembled by many of our F.A.S.T. distributors.



SPECIFICATIONS

- Lamp Illumination: 14 volts, orange lens
- Switches: ball type, see options for Neutral and/or Reverse
- Travel: 3 inches
- Cable Connection: 4 series (1/4-28) or 6 series (5/16-24)
- Cable Entry: Push or pull to reverse, 4 hanger positions
- "2nd Neutral" type available for Allison Transmissions



BRACKET ANGLE	DIMENSION A	DIMENSION B	DIMENSION C
15°	7.12 (180.8mm)	4.62 (117.3mm)	
68°	1.89 (48.0mm)	7.89 (200.4mm)	

Transmission Models	BASIC NUMBER				2nd Neutral P-B Shifter	Position Strip
	T-Handle	Push Button	Shift Inhibitor			
ALLISON AT 540, AT 545, AT 543 MT 643, MT 647, MT 644 (MT 640)	55051	55751	56051	—	—	R,N,D,3,2,1
MT 653 DR CLT 650 (MT 650)	55052	55752	56052	—	—	R,N,2-5,2-4,2,1
MT 654 CR, MT 750 CRD CLT 654	55053	55753	56053	—	—	R,N,1-5,1-4,1-3,1-2,1
HT 754 CR	—	—	56054	—	—	R,N,D,4,3,2,1
V 730	55054	55754	—	—	—	R,N,D,2,1
HT 750 DRD CL (B) T 750	55055	55755	56055	—	—	R,N,2-5,2-4,2-3,2,1
HT 740, HT 740FS, HT 740RS	55056	55756	56056	—	—	R,N,D,3,2,1
AT542N, AT545N AT1542N, AT1545N	—	—	—	55934 MECHANICAL USES CABLE	—	P-B,R,N,D,D3,D1
AT542N, AT545N AT1542N, AT1545N	—	—	—	55946 ELECTRICAL	—	P-B,R,N,D,D3,D1

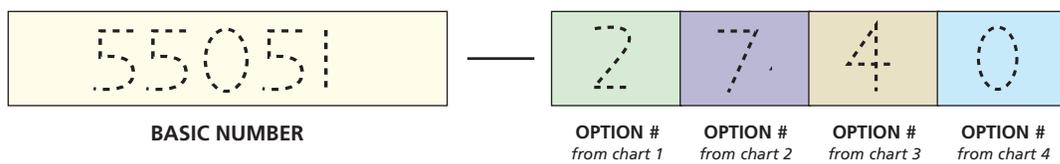
Items listed within yellow field are Basic Part Numbers. Refer to these when ordering a shifter.

How to Order the Shifter

Ordering the exact shifter that meets your requirements is not difficult. Simply follow the instructions below to create your own part number. (Example: you are ordering basic part #55051 to fit your Allison transmission #MT 643. You desire the following configuration: Right-hand mount/reverse to front (Chart 1, Option #2); push to reverse/vertical cable hanger (Chart 2, Option #7); 4 Series Cable (Chart 3, Option #4); No Switches (Chart 4, Option #0). Your part number would be 55051-2740.)

1. Match your automatic transmission model to the basic part number. This is your BASIC NUMBER.
2. Refer to Charts 1 through 4 on this page for assembly configuration in order to meet vehicle and system requirements. (Not applicable to Shift Inhibitor and 2nd Neutral P-B Shifter.)
3. Follow the form below and enter the option number desired from each chart in the appropriate order.

EXAMPLE



CONTROL MOUNT/REVERSE POSITION OPTIONS		CHART 1	
Vehicle Front Reverse to Front		Vehicle Front Reverse to Rear	
OPTION #1 Left-Hand Mount	OPTION #2 Right-Hand Mount	OPTION #3 Left-Hand Mount	OPTION #4 Right-Hand Mount

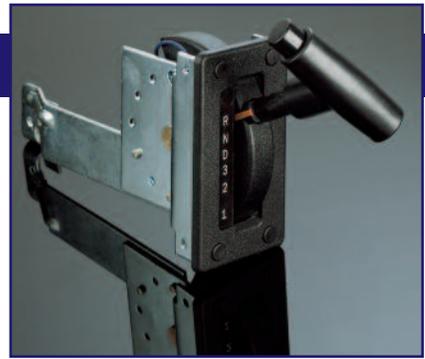
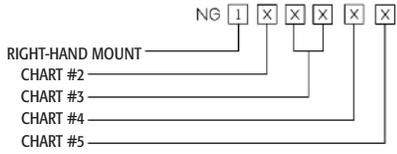
CABLE SERIES OPTIONS		CHART 3	
OPTION #4 4 Series 1/4 - 28 Thread (.25 - 28)	OPTION #6 6 Series 5/16 - 24 Thread (.31 - 24)		

ELECTRIC SWITCH OPTIONS		CHART 4	
OPTION #0 No Switches	OPTION #1 Reverse Switch		
OPTION #2 Neutral Switch	OPTION #3 Reverse and Neutral Switch		

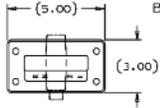
CABLE HANGER BRACKET POSITION OPTIONS		CHART 2	
REVERSE TO FRONT - USE WITH CONTROL MOUNT OPTIONS 1 & 2		REVERSE TO REAR - USE WITH CONTROL MOUNT OPTIONS 3 & 4	
OPTION #1 Cable PULLS Transmission Arm into REVERSE	OPTION #5 Cable PUSHES Transmission Arm into REVERSE	OPTION #2 Cable PUSHES Transmission Arm into REVERSE	OPTION #6 Cable PULLS Transmission Arm into REVERSE
OPTION #3 Cable PULLS Transmission Arm into REVERSE	OPTION #7 Cable PUSHES Transmission Arm into REVERSE	OPTION #4 Cable PUSHES Transmission Arm into REVERSE	OPTION #8 Cable PULLS Transmission Arm into REVERSE

Allison™ 1000/2000 NG Shift Systems

Assembly Part Number



PICTURE SHOWN WITH SIDE PUSH BUTTON KNOB



PICTURE SHOWN COBRA KNOB

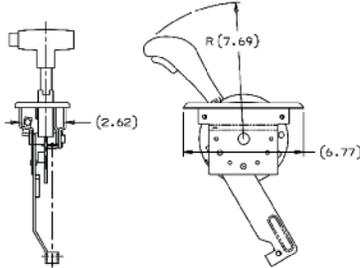
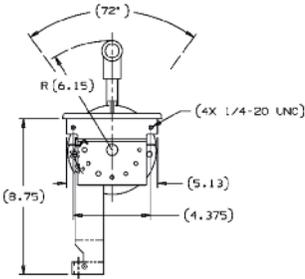
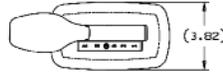
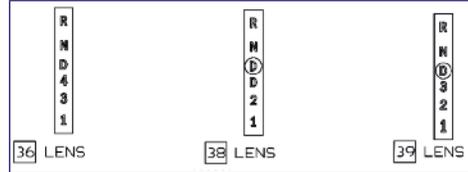


Chart #3 Lens/Position Strip Options



Cable Assembly 100-04333-LGTH

Standard Push-Pull Cable, 3" Travel, Clamp Style Ends

Chart #1 Control Mount Options

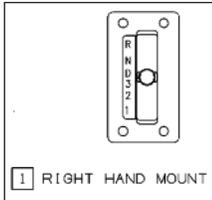


Chart #4 Hanger Bracket Position Options

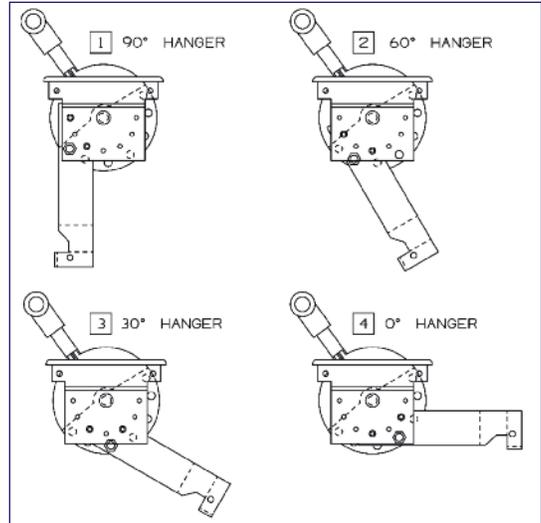


Chart #2 Knob & Trim Options

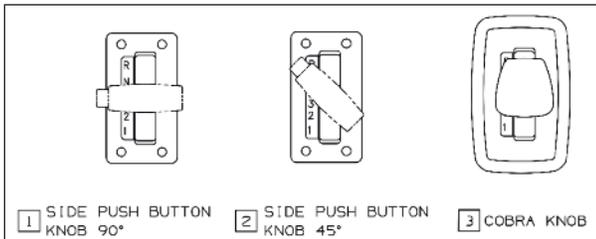
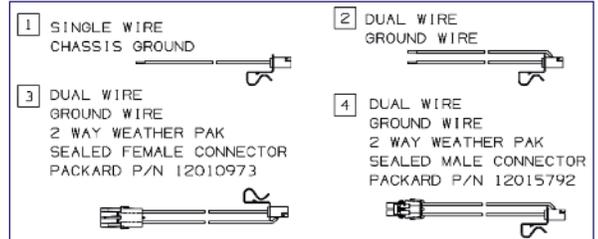
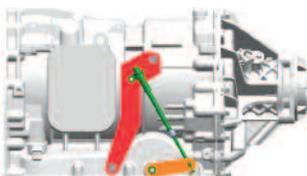


Chart #5 Lighting Options

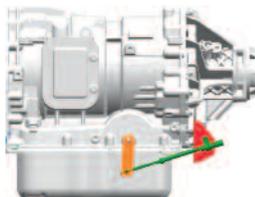


Transmission Kit Options Push Into Reverse Configuration Only

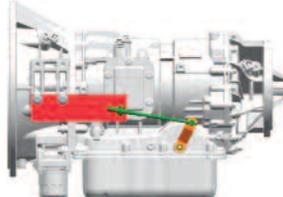
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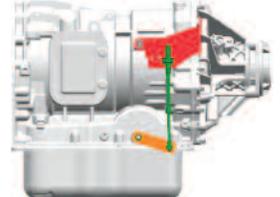
59571



59572



59581



*Do not use on pre-2007 models using rev/net switch options.

OTHER CONFIGURATIONS MAY BE AVAILABLE. CONTACT ORSCHELN PRODUCTS LLC FOR MORE DETAILS.

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Modulators

The modulator cable control is designed to send the engine throttle rate (on a mechanically governed engine) to the hydraulic control valve in the transmission. It will fit Allison™ Transmission models AT500, MT600, HT700, V730, CLT650, and CLBT750 series.

SPECIFICATIONS:

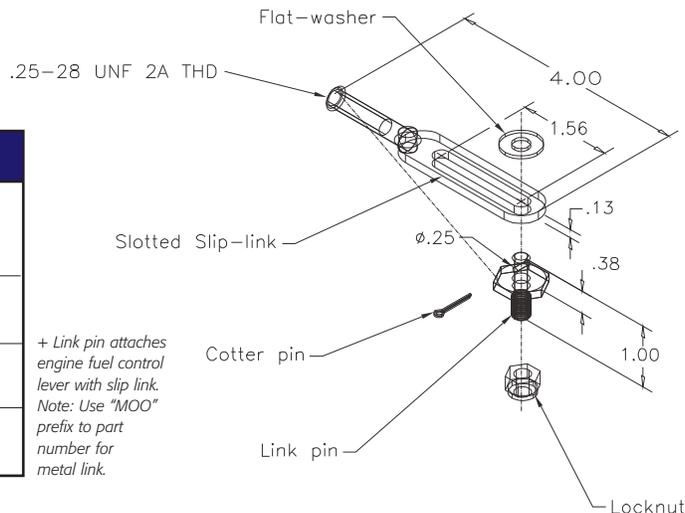
- Control Cable is polymer lined rated at 300° F (149° C)
- 4 inch bend radii minimum
- Built-in spring returns to idle
- Pull function recommended, but push also available
- Can be locally assembled via F.A.S.T. cable assembly distributors.



Modulator Slip Link Kit (shown at right)

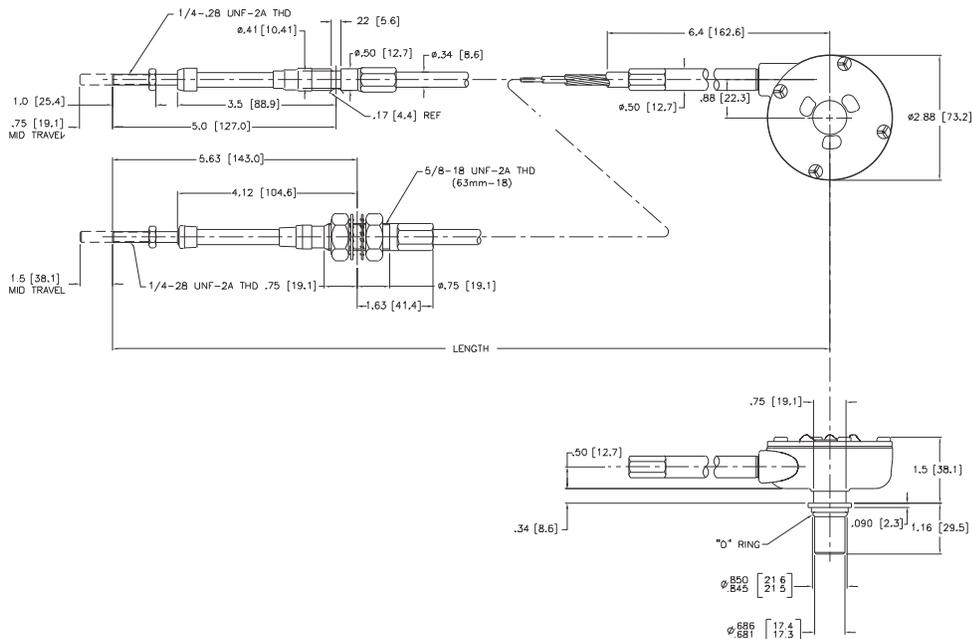
The Slip-Link kit includes the necessary hardware for complete installation of the kit to the engine fuel control lever. Kit includes a slotted slip-link, link pin, flatwasher, cotter pin and locknut. To order, see chart below.

Polymer Link Part No.	Thread Size	For Use with Modulator Part No.
59049-1	(3 Series) 10-32UNF-2A THD	2124, 2179, 2180
59049-2	(4 Series) 2528UNF-2ATHD	2220, 2225, 2230, 2235



Pull Type	Description	Transmission
2124	Clamp	FMX
2130	Bulkhead	Allison
2179	Clamp	C-6
2180	Bulkhead	C-6
2182	Bulkhead	Hydramatic (350/400)
2183	Clamp	Hydramatic (350/400)
2220	Bulkhead	Allison
2230	Clamp	Allison

Push Type	Description	Transmission
2225	Bulkhead	Allison
2235	Clamp	Allison



Markets

TRUCK



BUS



CONSTRUCTION



AGRICULTURE



MILITARY



Products

ELECTRONIC SHIFT CONTROL SYSTEMS



ELECTRONIC THROTTLE CONTROL SYSTEMS



SHIFT CONTROL SYSTEMS



FLUID LEVEL INDICATORS



PARK BRAKE SYSTEMS



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