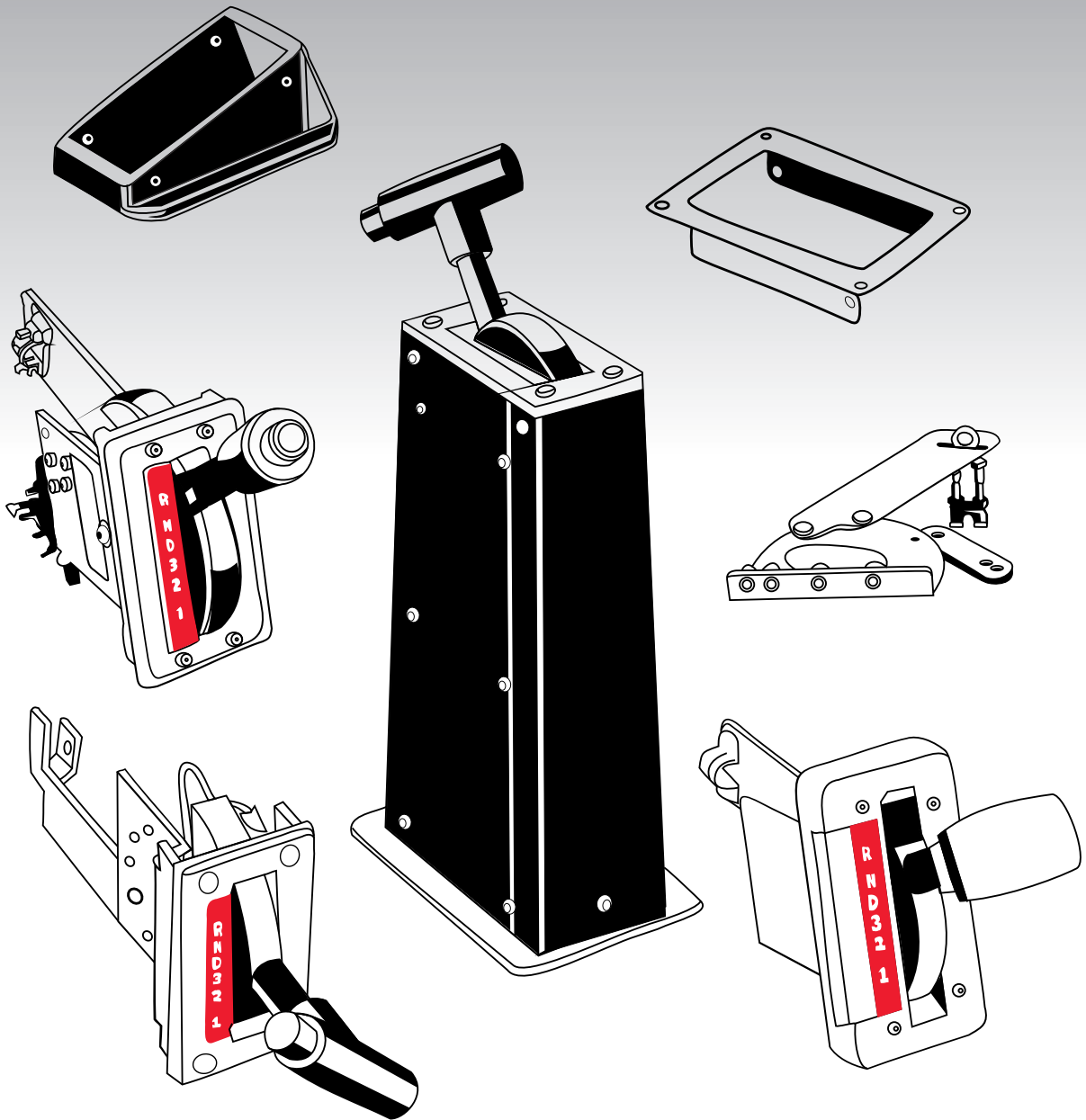




ORSCHN®



Shifters

Shift Controls for
Automatic Transmissions

INSPIRING SOLUTIONS

SHIFT CONTROL SYSTEMS

Orscheln Products designs and manufactures standard and custom application mechanical shift controls for heavy-duty commercial automatic transmissions, pumps, valves, and other specialty applications. In addition, to shift controls, we also produce high performance mechanical push-pull cables, transmission connection kits, and related hardware and accessories. Together, these parts make up a system solution for either the OEM need or aftermarket. Note that the shifters and push-pull cables can be custom made by a global network of F.A.S.T. distributors.

With more than 50 years of experience, you can count on Orscheln for catalog standard product shown below, plus solutions for custom OEM needs.

Orscheln produces shift controls for the current production Allison Transmission 1000 and 2000 series and the legacy products like the AT, MT, and HT series. These Allison models are out of production, but there are many units still in operation and an active re-building aftermarket exists. Orscheln F.A.S.T. distributors can custom assemble the shifter and push-pull cable to meet local market needs.

CUSTOM SOLUTIONS

Orscheln can offer many other shifter solutions for applications like:

- Transfer Case
- F-N-R (Forward-Neutral-Reverse)
- H-L (High/Low)
- Up-Down
- 5th Wheel
- Fast/Slow
- Friction Throttle Control

Orscheln can also design and produce custom OEM mechanical, electro-mechanical, and electronic shift controls for automatic transmissions (AT) and automated manual transmissions (AMT). These custom solutions may be a variant of standard catalog type shifters, or a clean sheet new design.

SHIFT X WIRE™



Shifters Are Available Through A Network Of Local Orscheln® F.A.S.T.® Cable Assemblers
www.orschelnproducts.com

A shift system will consist of the shift lever, a push-pull control cable, and a transmission connection kit. An accessory like a mounting tower or wedge could also be included. To configure a shifter part number, first determine the automatic transmission model.

lever with two-finger release knobs, and the "NG" shifter, available with a side push-button or Cobra type lever handle.

Next, start with the BASIC PART NUMBER and then follow the chart options to select the correct assembly part number. Note: if PARK is applicable, the cable hanger bracket position to PULL from park must be chosen.

BASIC NO.

ASSEMBLY CODE

000-91035



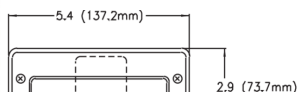
Option #	Option #	Option #	Option #
chart 1	chart 2	chart 3	chart 4

Push button top knob handle option available. Consult Orscheln.

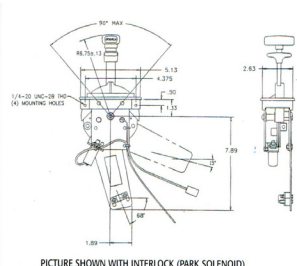
VEHICLE FRONT

1 LEFT HAND MOUNT

2 RIGHT HAND MOUNT



5
CONTROL PULLS
CABLE OUT OF
REVERSE



R N 8 3 2 1	R N ① 8 2 1	R N ② 8 3 1	R N ③ 4 3 1	P R N 0 3 2 1	P R N ④ 8 2 1	P R N ⑤ 4 3 1	P8 R N 8 2 1	P8 R N ⑥ 8 2 1
1	2	3	4	5	6	7	8	9

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

**Use with Allison Transmission
1000/2000 Series.**

Cable 100-04333-LGTH

Standard push-pull cable.

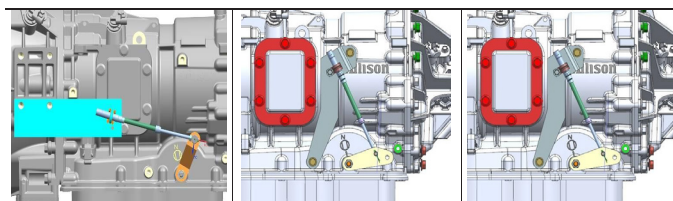
3-inch travel. Clamp-style ends.

All steel parts are plated, stainless steel or aluminum.

Shift arm radius

For park: 2.29"

For reverse: 3.12"

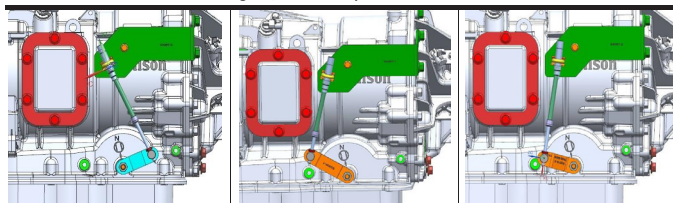


59425-2
Application: With "Park Only"
Configuration: "Pull into Park"
Cable Req.: 4 Ser. 3" Travel, C-Hub
Notes: Used for "Park Brake"; not
 for "Park Paw" applications.

59531
Application: With or W/Out "Park"
Configuration: "Push into Park"
Cable Req.: 4 Ser. 3" Travel, C-Hub
Notes: Similar to 59534 kit supplied
w/o pivot; order pivot 82350300 to
provide with double end pivot.

59534
Application: With or W/Out "Park"
Configuration: "Push into Park"
Cable Req.: 4 Ser. 3" Travel, C-Hub
Notes: Used as "Universal 1K/2K Kit"; mid mount, vertical/forward cable entry. Standard pivot supplied

<Pre 2007 models using Rev/Net switch option: DO NOT use kits 59531 or 59534>



59546
Application: With "Park Only"
Configuration: "Push into Park"
Cable Req.: 4 Ser. 3" Travel, C-Hub
Notes: Good for "Park Paw"
 applications. Similar to 59566.

59547
Application: With "Reverse Only"
Configuration: "Pull into Reverse"
Cable Req.: 4 Ser. 3" Travel, C-Hub
Notes:

59548
Application: With "Park Only"
Configuration: "Pull into Park"
Cable Req.: 4 Ser. 3" Travel, C-Hub
Notes: Used for "Park Brake"; not
 for "Park Paw" applications.

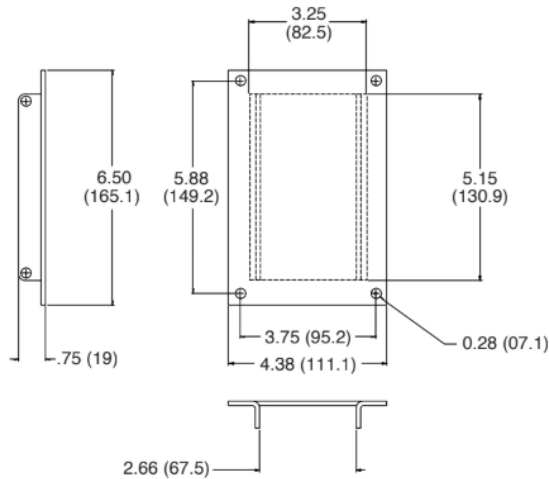
3

ACCESSORIES

MOUNTING FLANGE

59002

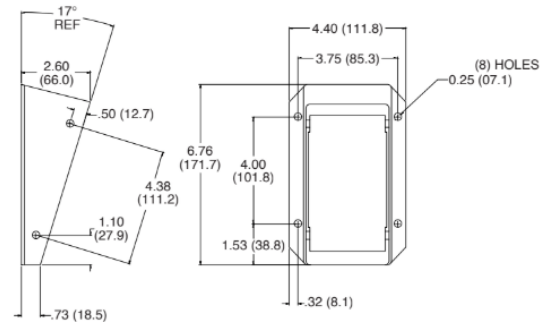
Made of prefabricated steel with a matte black epoxy finish. Simplifies a top mount installation and is perfect for vehicle conversions. The kit is complete with control mounting hardware. Use with cable hanger bracket in any position.



MOUNTING WEDGE

59009

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

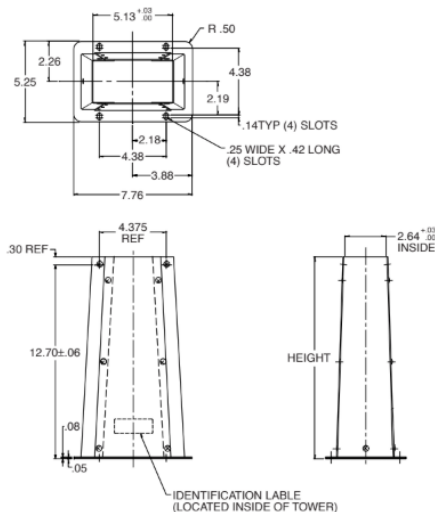


MOUNTING TOWER

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 the tower. The 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, the base part number: 100-6333 length

T-HANDLE SWITCH AND PIN SET KIT

50036-1

T-HANDLE SWITCH SET

50036-2

T-HANDLE PIN SET

50036-3

FINGER RELEASE/T-HANDLE KIT

59543

NG SHIFTER FOR ALLISON 1000 & 2000 TRANSMISSION

Assembly Part Number

NG-

X

X

X

X

X

X

Option #
chart 1

Option #
chart 2

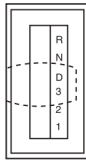
Option #
chart 3

Option #
chart 4

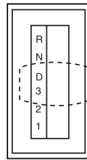
Option #
chart 5

Chart #1: Control Mount Options

Vehicle Front
Reverse to Front

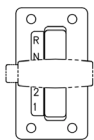


OPTION #1
Left-Hand Mount

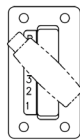


OPTION #2
Right-Hand Mount

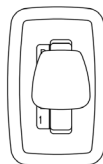
Chart #2: Knob & Trim Options



1 SIDE PUSH BUTTON
KNOB 90°



2 SIDE PUSH BUTTON
KNOB 45°



3 COBRA KNOB

Chart #3: Lens/Position Strip Options



36 LENS

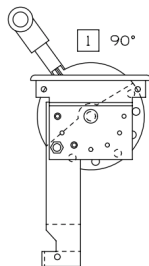


38 LENS

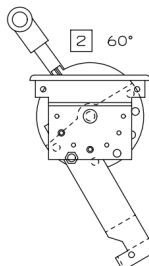


39 LENS

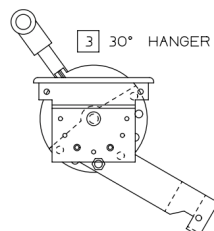
Chart #4: Hanger Bracket Position Options



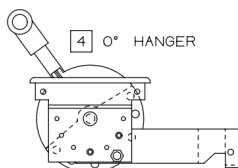
1 90° HANGER



2 60° HANGER



3 30° HANGER

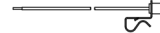


4 0° HANGER



Chart #5: Lighting Options

1 SINGLE WIRE
CHASSIS GROUND



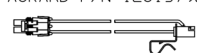
2 DUAL WIRE
GROUND WIRE



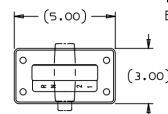
3 DUAL WIRE
GROUND WIRE
2 WAY WEATHER PAK
SEALED FEMALE CONNECTOR
PACKARD P/N 12010973



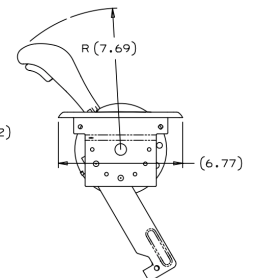
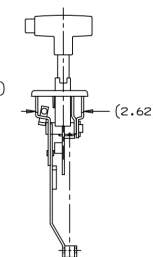
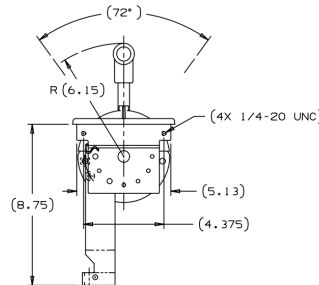
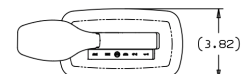
4 DUAL WIRE
GROUND WIRE
2 WAY WEATHER PAK
SEALED MALE CONNECTOR
PACKARD P/N 12015792



PICTURE SHOWN
WITH SIDE PUSH
BUTTON KNOB



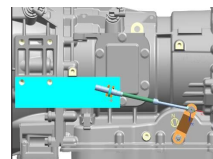
PICTURE SHOWN
COBRA KNOB



NG Shifters Transmission Connection Kits:

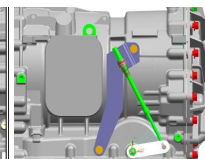
Use with Allison Transmission 1000 & 2000 Series.

Shift Arm radius for NG Shifter is 2.74"



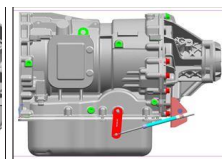
59424-2

Application: With "Reverse Only"
Configuration: "Push into Reverse"
Cable Req.: 4 Ser. 3" Travel, C-Hub



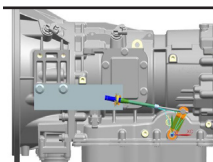
59561

Application: With "Reverse Only"
Configuration: "Push into Reverse"
Cable Req.: 4 Ser. 3" Travel, C-Hub
Notes: Do not use on pre 2007
models using Rev/Net switch
option



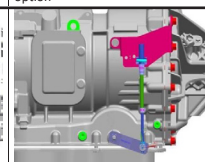
59571

Application: With "Reverse Only"
Configuration: "Push into Reverse"
Cable Req.: 4 Series 3" Travel, C Hub
Notes: Rear Entry, Ref 59560 Style



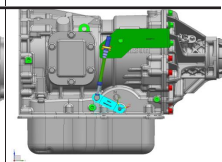
59572

Application: With "Reverse Only"
Configuration: "Push into Reverse"
Cable Req.: 4 Ser. 3" Travel, C-Hub



59581

Application: With "Reverse Only"
Configuration: "Push into Reverse"
Cable Req.: 4 Ser. 3" Travel, C-Hub



59594

Application: With "Reverse Only"
Configuration: "Pull into Reverse"
Cable Req.: 4 Series 3" Travel, C Hub
Notes: Use with N112-16 Gate

Shifters Are Available Through A Network Of Local Orscheln® F.A.S.T.® Cable Assemblers
www.orschelnproducts.com

SHIFTERS FOR ALLISON TRANSMISSION LEGACY AT/MT/HT

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

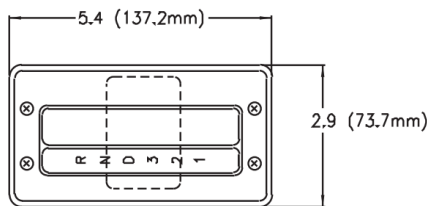
Switches: ball type, see options for Neutral and/or Reverse

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

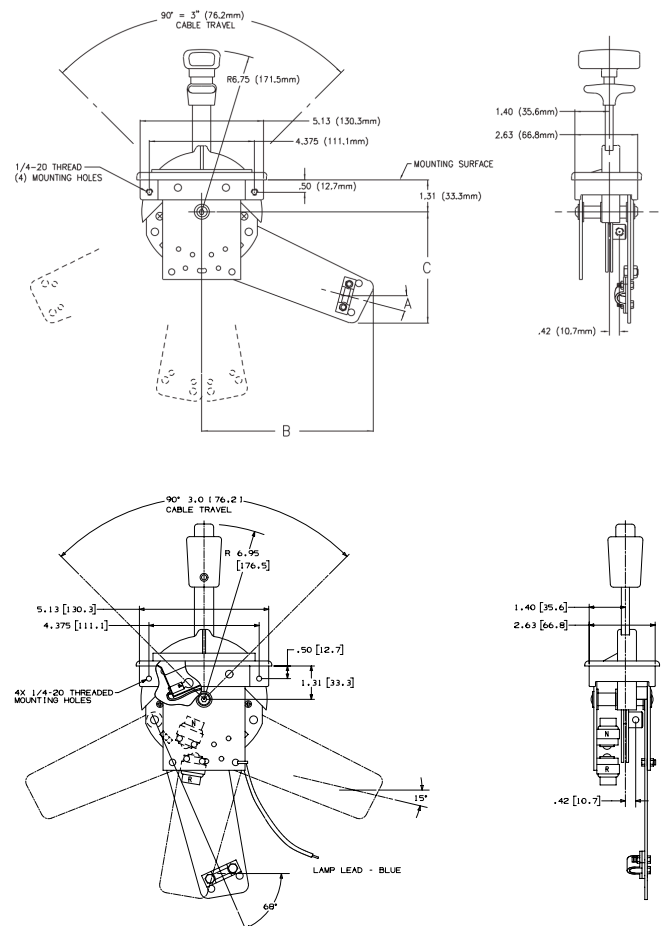
BASIC NUMBER OPTIONS

| Transmission Models | | Basic Number | | | | |
|---------------------|------------------------------------|--------------|-------------|-----------------|-----------------------------------|-----------------------|
| | | T-Handle | Push Button | Shift Inhibitor | 2nd Neutral P-B Shifter | Position Strip |
| 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 | 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 | 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 |



SHIFTERS FOR LEGACY ALLISON TRANSMISSION MODELS AT, MT, HT, AND OTHERS.

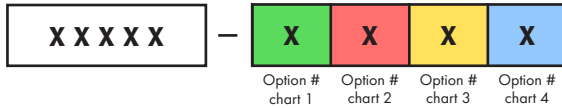
These Allison models are out of production, but there are many units still in operation and an active re-building aftermarket exists. Orscheln F.A.S.T. distributors can custom assemble the shifter and push-pull cable to meet local market needs.



Assembly Part Number

BASIC NO.

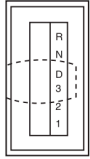
ASSEMBLY CODE



Push button option available. Consult Orscheln.

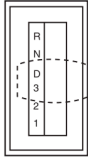
Chart #1: Control Mount/Reverse Position Options

Vehicle Front
Reverse to Front



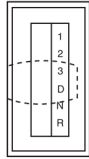
OPTION #1
Left-Hand Mount

Vehicle Front
Reverse to Front



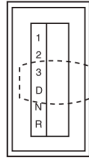
OPTION #2
Right-Hand Mount

Vehicle Front
Reverse to Front



OPTION #3
Left-Hand Mount

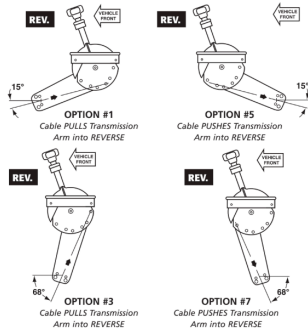
Vehicle Front
Reverse to Front



OPTION #4
Right-Hand Mount

Chart #2: Cable Hanger Bracket Position Options

REVERSE TO FRONT - USE WITH CONTROL MOUNT OPTIONS 1 & 2



REVERSE TO REAR - USE WITH CONTROL MOUNT OPTIONS 3 & 4

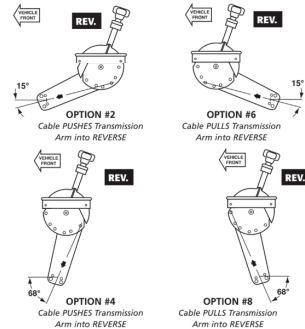


Chart #3: Cable Series Options

- | | |
|--|---|
| OPTION #4
4 Series
1/4 - 28 Thread (.25 - 28) | OPTION #6
6 Series
5/16 - 24 Thread (.31 - 24) |
|--|---|

Chart #4: Electric Switch Options

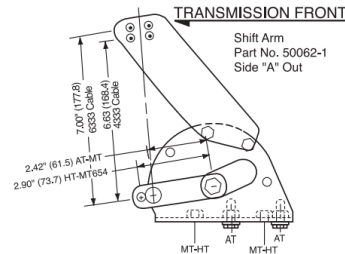
- | | |
|------------------------------------|--|
| OPTION #0
No Switches | OPTION #1
Reverse Switch |
| OPTION #2
Neutral Switch | OPTION #3
Reverse and Neutral Switch |

Push-Pull Shift Cable

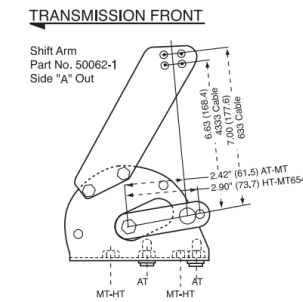
Cable 100-04333-LGTH
Standard push-pull cable.
3-inch travel. Clamp-style ends.
All steel parts are plated, stainless steel or aluminum.
6 Series option: 100-06333-LGTH

TRANSMISSION CONNECTION KITS & CABLE ASSEMBLY FOR ALLISON LEGACY TRANSMISSIONS

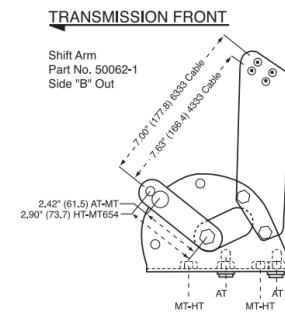
Transmission kits come complete with shift arm, transmission mounting bracket, cable hanger and required hardware. Connection kits are designed to fit any of the five most popular entry positions to the transmission shift arm. Refer to the following drawings to find the cable entry that best fits your 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.)



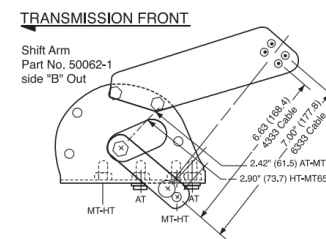
CONFIGURATION #1 Cable PUSHES Transmission Arm into REVERSE.
Use with Shifter Control Positions numbers 2, 4, 5, 7 Cable 100-4333-L / 100-6333-L



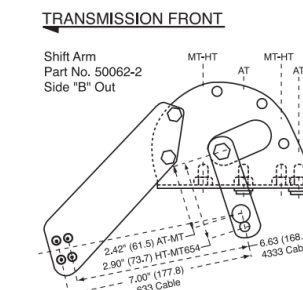
CONFIGURATION #2 Cable PULLS Transmission Arm into REVERSE.
Use with Shifter Control Positions numbers 1, 3, 6, 8. Cable 100-4333-L / 100-6333-L.



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



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