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EVO: Body Parts

HANDLEBARS, LEVERS & CABLES

NOTE: [Triple Tree info is here](#)

HD Documents related to Handlebars & Risers:

https://mstore.harley-davidson.com/app-content/eStore/Handlebar_Riser_Dimensions.pdf

<https://www.harley-davidson.com/app-content/eStore/Harley-Davidson%20Handlebar%20Installation%20Requirements.pdf>

Handlebars

Here is a table of OEM handlebars:

Model	Year(s)	Handlebar Serial Number / Type
XL 883	1986-2003	(56082-83) Flat Bar ^{1) 2) 3) 4)5)6) 7) 8) 9) 10) 11)}
	2004-2009	(55845-04) ^{12) 13) 14) 15) 16) 17)}
XL883C	1999	(56185-98) Drag Style ¹⁸⁾
	2000-2003	(56185-98A) Drag Style ^{19) 20) 21) 22)}
	2004-2009	(55840-04) ^{23) 24) 25) 26) 27) 28)}
	2010	(55840-04A) ²⁹⁾
XLH 883 Deluxe	1986-1991	(56082-83) Flat Bar ³⁰⁾
	1992-1995	(56081-82) Buckhorn (pullback) ^{31) 32) 33)}
XL 883 Hug	1988-1996	(56081-82) Buckhorn (pullback) ^{34)35)36) 37)}
	1997-2003	(56081-82A) Buckhorn or Buckram ^{38)39) 40) 41) 42) 43) 44)}
XL 883L	2005-2006	(56038-05) ^{45) 46)}
	2007-2010	(56051-06) ^{47) 48) 49) 50)}
	2011-2014	(57209-11) ^{51) 52) 53) 54)}
XL 883N	2009	(56014-09) ⁵⁵⁾
	2010-2015	(56014-09A) ^{56) 57) 58) 59) 60) 61)}

XL 883R	2002-2003,2005-2014	(56085-83A) (black) ^{62) 63) 64) 65) 66) 67) 68) 69) 70) 71) 72) 73)}
XLH 1100	1986-1987	(56081-82) Buckhorn (pullback) ⁷⁴⁾
XL 1200	1988-1996	(56081-82) Buckhorn (pullback) ^{75)76) 77) 78)}
	1997-2003	(56081-82A) Buckhorn or Buckram ^{79)80) 81) 82) 83) 84) 85)}
XL 1200C	1996-1998	(56164-96) ⁸⁶⁾⁸⁷⁾⁸⁸⁾
	1999	(56185-98) Drag Style ⁸⁹⁾
	2000-2003	(56185-98A) Drag Style ^{90) 91) 92) 93)}
	2004-2009	(55840-04) ^{94) 95) 96) 97) 98) 99)}
	2010, 2012-2014	(55840-04A) Pull Back ^{100) 101) 102) 103)}
XL1200C Anniversary	2013	(55840-04A) Pullback ¹⁰⁴⁾
XL 1200CA	2013-2014	(57472-11) Drag ^{105) 106)}
XL1200CB	2013-2014	(56079-93) Mini Ape ^{107) 108)}
XL1200CP	2012-2014	(55840-04A) Pull Back ^{109) 110) 111)}
	2012-2014	(56079-93) Mini Ape ^{112) 113) 114)}
	2012-2014	(57472-11) Drag Style ^{115) 116) 117)}
XL 1200L	2007-2011	(56051-06) ^{118) 119) 120) 121) 122)}
XL 1200N	2007-2012	(56085-83A) ^{123) 124) 125) 126) 127) 128)}
XL 1200R	2004-2009	(56004-00) ^{129) 130) 131) 132) 133) 134)} 31/32" width, 4" rise, and 8" pullback ¹³⁵⁾
XL 1200S	1996-1997	(56082-83) Flat Bar ¹³⁶⁾¹³⁷⁾
	1998-2003	(56110-98) Flat bar (black) ^{138) 139) 140) 141) 142) 143)}
XL 1200V	2013-2014	(56079-93) Mini Ape ^{144) 145)}
XL 1200X	2010-2015	(56014-09A) ^{146) 147) 148) 149) 150) 151)}
XL-50	2007	(56004-00) ¹⁵²⁾
XR 1200	2009-2010	(56085-83A) ^{153) 154)}
XR 1200X	2010-2013	(56085-83A) ^{155) 156) 157) 158)}

The MoCo has a catalog of handlebars, brake lines & control cables: ¹⁵⁹⁾

<https://www.harley-davidson.com/app-content/eStore/Harley-Davidson%20Handlebar%20Installation%20Requirements.pdf>

Handlebar Pics and Specs

- Handlebars are sized:
 - Overall length: Lay the bar on a flat surface and measure from left handgrip edge to right handgrip edge for total outside distance.
 - Rise: Total outside distance as measured vertically from top to bottom.
 - Center width: Total straight distance between the upsweep bends from left to right on area that clamps onto the risers from left to right beginning of the upsweep.

- Pullback: Total outside distance from the front clamping area to edge of the handgrip toward rider (front to back distance).
- Center spacing for risers: Outside distance (left to right) between both knurled areas where the risers attach.

Stock Bars



1998-2003 S Model Handlebars (56110-98) Flat Bar ¹⁶⁰⁾

Aftermarket Bars

See [Aftermarket Handlebars, Risers and Mods](#) in the REF section of the Sportsterpedia

Clutch Levers

98 clutch lever.



¹⁶¹⁾

Starting in 2007, the Clutch Lever had a switch implemented to allow it to be monitored. See the [clutch](#)

[switch function here.](#)

Notes:

- 2004-2017 Clutch lever retaining bolt (42807-04) has a circlip (11379) on the end of it to keep it in place. The circlip is not listed in the hardware section of the parts catalog but an 8mm external circlip will fit it. ¹⁶²⁾

Clutch Cables

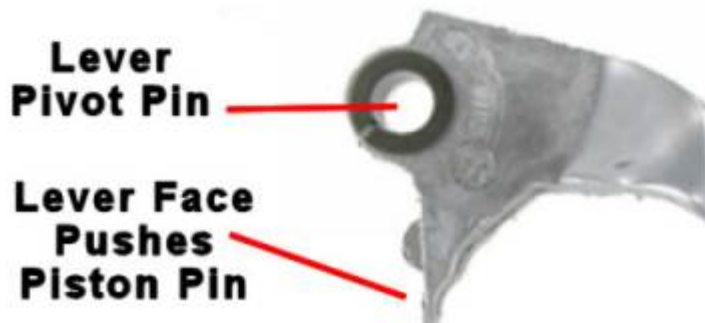
See also [Clutch Release Adjustment - Why & How](#) including pics of adjusting the cable.

Brake Levers

1982-1995 Sportster Brake Lever



1996-later Sportster Brake Lever



¹⁶³⁾

See here for Brake Lever Switches: [brake_switch_-_front_rear](#)

Brake Cables

Grips

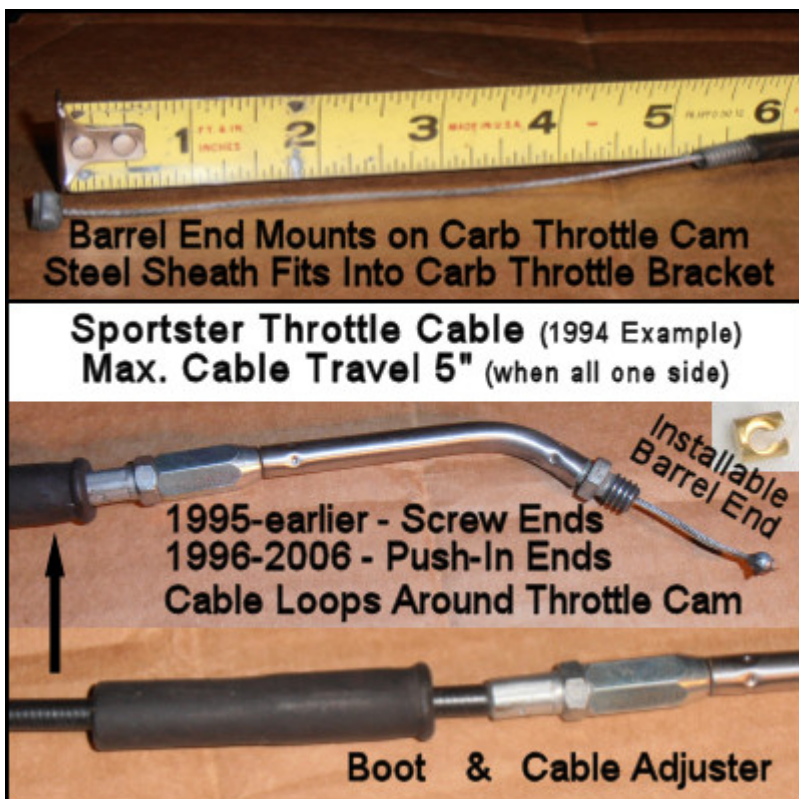
Installing Grips

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-accessories/59026-installing-nostalgic-grips-this-weekend-tips?t=321130>

Throttle Cables

1986-2006 Throttle Cables For Carbs

(See the pictures below with regards to the cable system description that follows.) ¹⁶⁴



These Sportsters use a dual throttle cable system. The throttle cables connect the throttle grip to the

carburetor. The first cable, the Throttle Cable, pulls on the carb throttle cam which is connected to the end of the throttle plate shaft. As the cable pulls on the cam, the shaft is rotated and the throttle plate opens.

The second cable is named the Idle Cable and is connected to the carb throttle cam in the opposite direction from the throttle cable. The idle cable only serves as a backup function; it is not used to close the throttle unless the throttle cam return spring should break. However, the idle cable does provide some balance of tension against the throttle cable to prevent the throttle tube from rotating past the idle point.

The throttle cam spring is quite strong & actually provides the tension on the throttle cable as you turn the throttle grip toward Wide Open Throttle (WOT). The idle cable is a safeguard in case this spring (on the carb) should break and the throttle plate remains open.

When installing the throttle/idle cable, the adjuster screws are turned all the way in to minimize the length of the sheath, in order to expose as much cable as possible, to make it easier to assemble the cable to the throttle tube & to the carb throttle cam. Each cable has a ball end (used at the throttle tube) and a barrel end (that is used at the throttle cam).

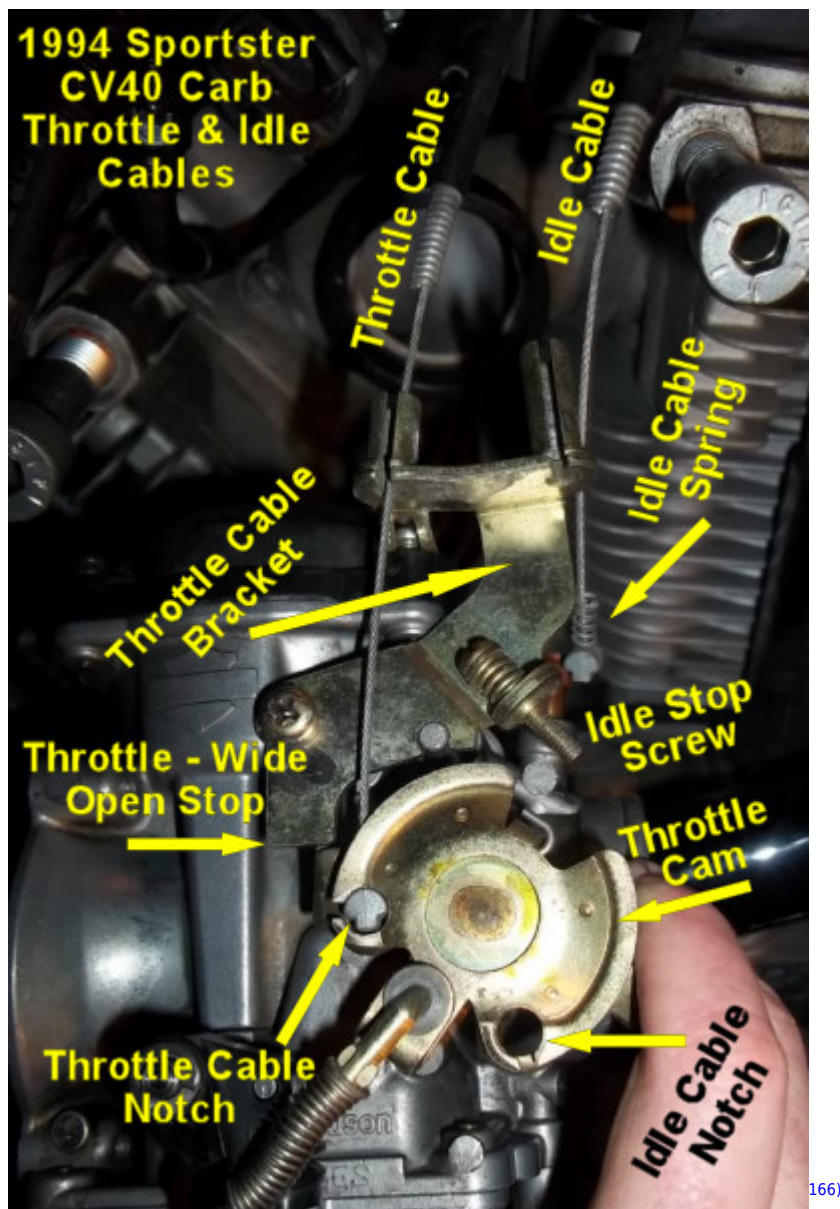
The ball end of the cable is passed up through the lower switch housing. If you have the screw-in type cable, it would now be screwed into the lower switch housing. Then, the installable barrel is placed over the ball end. This creates a barrel end out of the ball end. The barrel is now slid into the appropriate notch on the throttle tube with the side slot of the installable barrel to be inserted into the notch first. This will keep the cable from sliding out of the installable barrel.

The throttle cable is located on the outward side (away from rider) of the switch housing and the idle cable is located on the inward side (nearest rider). Install both cables in like fashion.



165)

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Now route your cables past the forks and thru the fuel tank mounts down to the carburetor.

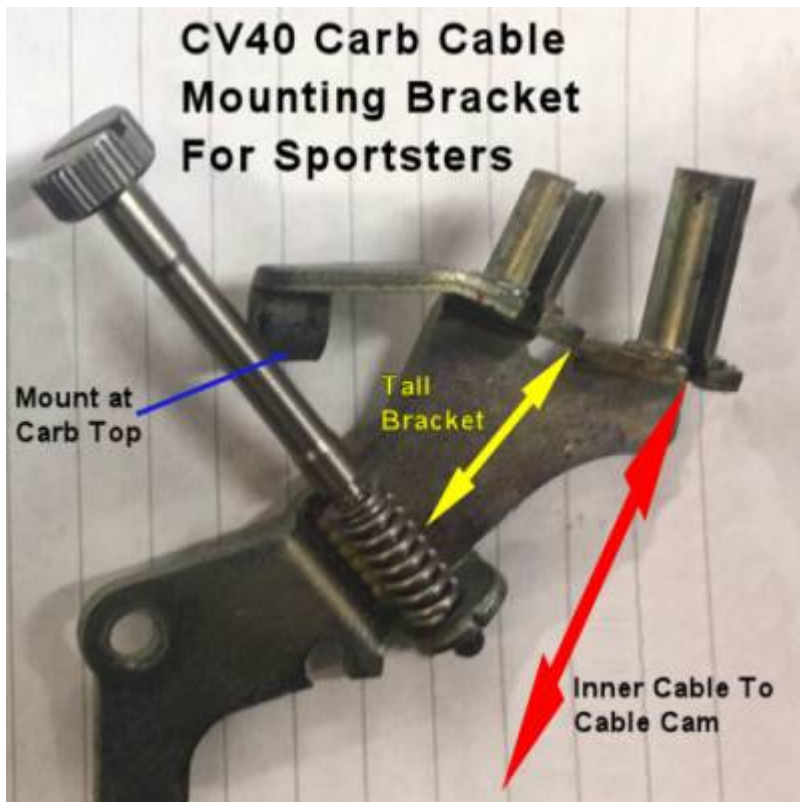
The throttle cable is attached to the outward side (closest to the air cleaner) of the throttle cam and the idle cable is attached to the inward side (closest to the engine) of the throttle cam. There are similar notches in the throttle cam as those located in the throttle tube and the crimped barrels on the cable ends fit into those notches.

Once the ends are in the cam, route the idle cable up and into the side slot of the carb throttle bracket. Be sure to insert the spring (at the end of the idle cable) into the bracket cup so the idle cable sheath is buffered from the bottom of the cup.

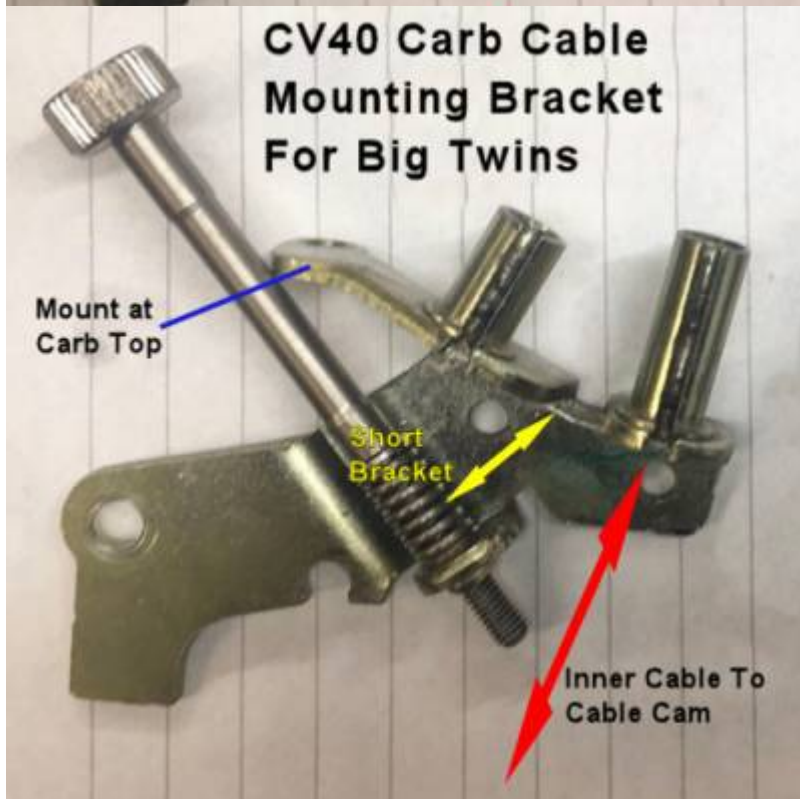
Route the throttle cable in a similar manner into the side slot of the bracket and make sure the cable sheath fits down into the bracket cup (there is no spring on the throttle cable end).

Throttle Cables Bracket

The Sportster CV40 carbs (from 1989-2006) used a Tall Cable Bracket.



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Stock Sportster Cable Bracket:

1989-2003 - 27316-88

2004-2006 - 27320-04

Sometimes carbs from other bikes would be swapped onto a Sportster and the new carb would have difficulty using the original cables. The swapped carb may have been from a Big Twin model that uses a shorter throttle cable carb bracket. Since the bracket is shorter, that requires that the outer sheath be longer (relative to the inner cable). Therefore, the length of the inner cable that is beyond the outer sheath of the throttle cables, often referred to as the free length, would need to be shorter when using the Big Twin throttle cable bracket. Making the outer sheath longer also makes the free length of the inner cable shorter.

(Note the bent arm on the Sportster bracket to reach the Carb Top, at the slide diaphragm cover. It also looks like the shorter BT bracket always has two holes drilled above the stop screw.)

Adjusting The Throttle & Idle Cables

The concept of adjustment here is to prevent the throttle cable from extra tension when the grip is fully in the WOT position. This is prevented by making sure the grip is at maximum rotation (WOT) before winding the adjuster to make the throttle plate reach the WOT Stop on the carburetor cam. It is important to adjust the cables in the following manner and sequence or your throttle cable may be overstressed every time you go to the WOT position, eventually breaking due to excessive tension.

Be sure both cable adjusters are fully minimized. Set the front wheel straight ahead. Turn the throttle grip to fully open (WOT) and hold it there (using the throttle lock star wheel - or a helper). Turn the adjuster on the throttle cable, extending the outer sheath so that the throttle cam (pulled by the inner cable) is just touching the carb WOT Stop. Lock the adjuster in place and release the throttle lock at the grip.

Turn the front wheel fully to the right. Now, turn the Idle Cable Adjuster so that the idle cable sheath just touches the spring in the carb throttle bracket cup. There should be some, but very little play at the throttle grip in the idle position.

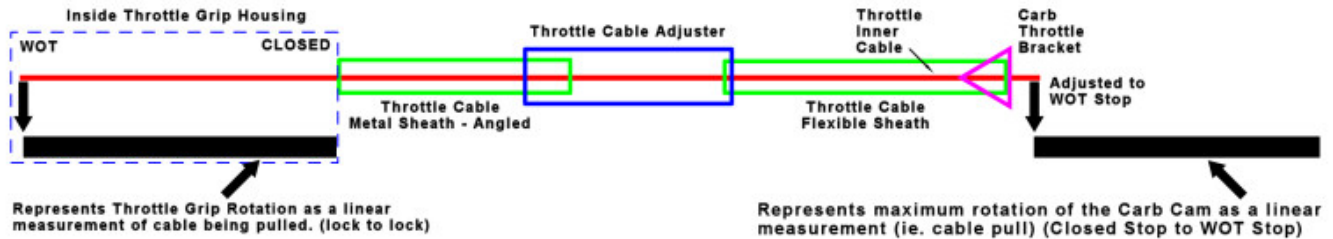
Check that the throttle snaps back to the idle position when you twist the throttle open and quickly release the grip.

Start the engine and make sure it idles properly with the throttle grip fully clockwise (closed). Now open the throttle and quickly release it. It should spring back with a snap and resume a proper idle. Turn the front wheel fully left to fully right. The idle should not change.

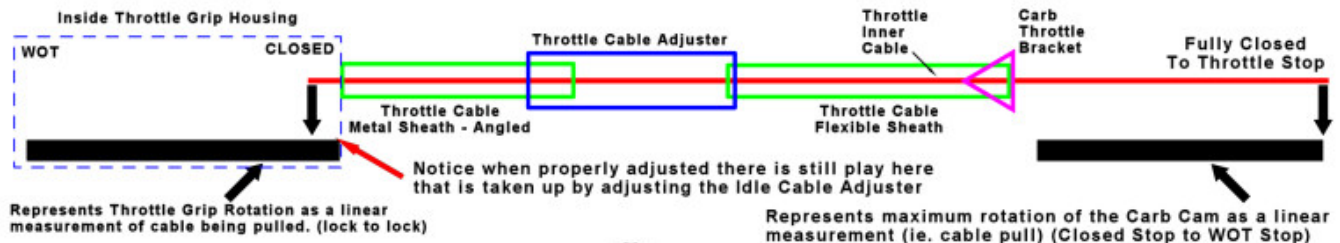
If, when moving the front wheel from left to right to left, the idle changes or the grip does not spring back into the idle position immediately upon release, readjust the idle cable adjuster to assure proper functioning and check that there is no tight bend or kink in the cable creating friction and preventing smooth operation.

Setting the Throttle Cable Adjuster

The diagram below shows how to set the Throttle Cable Adjuster for Wide Open Throttle (WOT). The Idle Cable Adjuster (not shown) must be fully relaxed. The Throttle Grip is set at WOT. Then the throttle cable adjuster is extended as necessary to make the Carb Cam reach the WOT Stop. When the sheath is properly extended (by adjuster) it removes the slack of the inner cable that was extended outside the sheath.



Having set the Throttle Cable as above, when the Throttle Grip is released, the Carb Cam will pull the Inner Cable around the cam. The Inner Cable will pull out of the grip and move toward the carb cam. There should still be a small amount of slack at the Idle position of the Throttle Grip. When the Idle Cable is then properly adjusted, to touch the spring at the bracket, the grip will remain in this position with only a very slight free movement.



The FSM has instructions for setting the CV40 throttle cables. But here's another explanation of how & why to adjust these cables:
[Chris Hajer of the XLForum - See Post#2 & Post#9.](#)

2007-2013 Throttle Cables For EFI

2014-later Throttle Cables for CANbus

Some Throttle Cable Related XLForum Threads:

Broken Idle Cable

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-suspension-frame-forks-handlebars-fuel-tank-oil-tank-fenders/68899-02-sportster-throttle-return-cable-broken?t=459983>

Cable 'Travel Distance' Too Long

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/frame-mount-evo-sportster-talk-1986-2003-models/197132-throttle-cable-adjustment-question?t=2073727>

Barnett - Custom Cables - Illustrations & Guide

<http://www.barnettclutches.com/custom-cable-measuring-guide.html>

Motion Pro - Custom Cables - Illustrations & Guide

<https://www.motionpro.com/c/custom-cables>

Quick Throttle

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-suspension-frame-forks-handlebars-fuel-tank-oil-tank-fenders/84957-quick-throttle?t=645755>



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Screw Loose Dan

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-general-discussion-and-problems/168013-screw-loose-s-repairs/page17?t=1803692&page=17>

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Thanks to jzink0883 of the XLForum for the heads up - threadid=2068909

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photo by Domino of the XLFORUM

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/frame-mount-evo-sportster-talk-1986-2003-models/189487-xl1200s-handlebars/page2?postid=5541539#post4080244>

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photo by Hippysmack

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Nibelungen

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/efi-sportster-motorcycle-talk-2007-and-up/190706-size-of-retaining-rings?threadid=2032572>

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Image Annotated by IXL2Relax of the XLForum

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pics at right by IXL2Relax of the XLForum

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Pics from

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-accessories/59026-installing-nostalgic-grips-this-weekend-tips?t=321130> by SportyTrace of the XLForum - Annotated by

IXL2Relax

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[pecific/frame-mount-evo-sportster-talk-1986-2003-models/130160-cold-start-problems?t=1367932](#) by

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