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## IH: Electrical System - Sub-03F

### Pics and Info of Speedometers and Tachometers Per Year Model

See also in the Sportsterpedia;

- \*..... [Ironhead - Stock Wiring Schematic Drawings \(created with reference to the OEM manual\)](#)
- \*..... [Ironhead - Simplified \(Customized\) Wiring Schematics](#)

<p>Sportster gauges from 1957-1969 <sup>1)</sup></p>	<p>Here is the speedometer (67007-54A) used on 1955-1956 KH and 1957 and 1958 Sportsters (except C and H models). The "flippers" hide key switches for the ignition and lights. <sup>2)</sup></p>	<p>This A-C speedometer (67007-59), manufactured by United Motors <sup>3)</sup>, was used from 1959 to 1964 on both the XLH and XLCH models. The bracket shown here is for the XLH; it fits under the locomotive nacelle and the trip odometer cable and knob comes through the nacelle back panel. The XLCH models had a different bracket with the odometer reset cable knob mounting next to the speedo face. <sup>4)</sup></p>
		

The so-called Smiths gauges were introduced with the 1965 models. Although the tach was, in fact, built by Smiths, the speedo was still made by AC and is identical to the earlier Speedometer except for the fact. The 120 MPH version (lower right) was used from 1965 to 1967. The 150 MPH version was introduced in 1968 in celebration of a factory tuned Sportster going 150 mph on the Bonneville salt flats.<sup>5)</sup>

Here are all of them until at least 1978.<sup>6)</sup>

Sportster 1957-1958 (67007-54A) used on 1955-1956 KH and 1957 and 1958 Sportsters (except C and H models)<sup>7) 8)</sup>



1959-1964 (67007-59) XLH & XLCH

1959-1964 Speedo w/ XLCH bracket<sup>9)</sup>

1965-1967 (67007-59A) XLH & XLCH Replacement speedometer for 1959-1964<sup>10) 11)</sup>



1971 XLCH<sup>12)</sup>



# 1970-1973 XL/XLCH



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## 1970-1985 Speedometers and Tachs

### Speedometer (74-85)

#### A short piece on national speed limits:

January 1974 marked the beginning of a 55 mph National Maximum Speed Limit (NMSL) across the country on a state by state basis.<sup>14)</sup> However, 10 states adopted a 55 MPH speed limit in November of 1973. Over the next four months, every state in the country had done the same. From 1976 to 1979, studies shown between 6000 and over 7000 lives per year was saved due to the 55 MPH speed limit. In September of 1979, the 55 MPH speed limit was made into national law and the NHTSA added a provision into a regulation focusing on speedometer accuracy to place an emphasis on the 55-mph mark, and for a maximum speed reading of 85 mph. This was to help drivers “adjust” to the 55 MPH mandate. This is why speedometers changed to reading only up to 85 MPH in 1980. Though the 85-mph mandate only lasted until the first months of President Ronald Reagan’s first term in the White House in 1981, most manufacturers kept the reading at the bottom right of their speedometers until the vehicles were redesigned years later.

In 1974, the MoCo started using Nippon Seiki (Japan) gauges.

There were three different part numbers used on Sportsters from 74-79 all having a range to 150 MPH. 1974 (67020-74) was replaced in 1975 by (67020-74A) which was replaced with the 1979 gauge (67020-74B). All three retro back to 1974.

The 1974 (only) version had a red and a black wire whereas the other two only had a red wire. The red wire is for the night light and the black wire (ground), if available, goes to the bracket.

The 1974 speedometer skips all of the odd numbers including 150.<sup>15)</sup>





From the early days, different states had different speed limits imposed on drivers across their states. President Richard Nixon agreed to a national speed limit of 55 mph for all states in 1974 to drop the traffic fatality rate. <sup>18)</sup>

In 1995, the U.S. Congress handed speed limit laws back over to the individual states and allowed each state to decide its maximum speed to drive. <sup>19)</sup>

1980-1983 XL, 1981-1982 XLS mechanical speedometer (67020-75D). Has 1 red wire for illumination. This unit was also a replacement for 1974-1978 XLH, XLCH.



## Tachometer (70-73)



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## Tachometer (74-80)

1980 was the last year of the mechanical tachometer. In 1974, the MoCo started using Nippon Seiki (Japan) gauges.

1974-1980 Sportster mechanical tachometers have 2 wire sheaths:

Red (illumination), White (high beam indicator with blue lens), both in the same sheath, and a separate Black (ground to bracket or backplate).

There were 6 different part numbers for 74-80 Sportster tach heads.

All of them are 2:1 ratio tachs using the same cable assembly and drive unit on the cam cover.

So all 1974-1980 XL 2:1 Nippon Seiki tachs will interchange with the consideration that you may have to change the end connectors.

All have the high beam indicator on the face as well.

The main difference in the versions seems to be the lettering, position of the lettering and the connectors on the wiring leads.

The 74 tach attached to a fork terminal plate with ring connectors where the 75-80 tach version attached to a splice block terminal inside the headlight bucket.

74-79 XLH/XLCH versions had no redline markings whereas the 79 XLS and all 80 versions did have a redline range on the face.



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## Tachometer (81-85)

1981-1983 XL, 1981-1982 XLS tach (92051-81A) is the original electronic version starting in 1981. It has a 4 wire sheath: Pink (signal), Red (illumination), Orange (+12v power from ACC breaker), White (high beam indicator) and separate Black (ground to bracket).

The 81 wiring diagram in the FSM DOES NOT SHOW the tach wire leaving the block connector in the headlight to the coil.

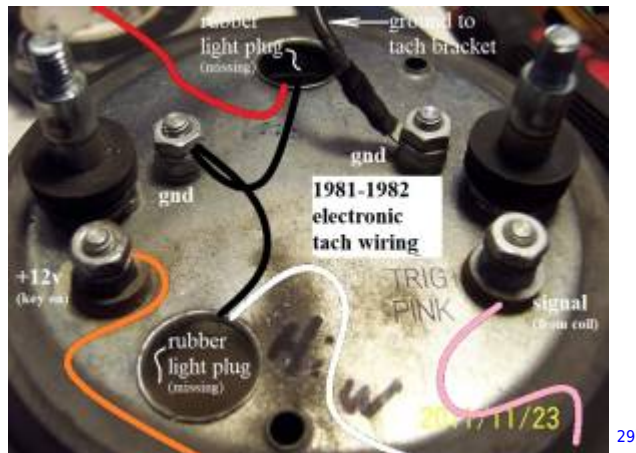
But it has to get signal from the coil to the pink wire in order to operate. The 82 drawing does show the



correct routing for the pink wire.

The 83 parts catalog shows a 4 wire tach but the FSM drawings show 83 models as having a 2 wire tach with a ground.

So wire accordingly to the drawing that matches the tach for these years.



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Photo by Moon Wolf of the XLFORUM

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/162473-71-speedo-q/page2?t=1745575&page=2>

HD Service Bulletin #419 dated April 22, 1960 pg OA-7

1952-1959 Sportster and K model Parts Catalog pg 67

photo by scoobydo of the XLFORUM

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/109721-1959-xlch-replica?t=1023743&highlight=fuel+strainer+xlch>

1957-1967 HD Sportster Parts Catalog pg 82

Photo by Len PA of the XLFORUM

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/162473-71-speedo-q/page4?t=1745575&page=4>

NHTSA TECHNICAL REPORT, DOT HS-805 694

drumbrake of the XLFORUM

photo by drumbrake of the XLFORUM

<https://blog.americansafetycouncil.com/the-history-of-speed-limits-in-america/>

20) , 21) , 22) , 23) , 28) , 30)

photo courtesy of Boneyard Cycles in Melbourne, FL. [Link to Ebay Store](#)

24)

photo courtesy of Ebay seller, animalhouse2010. [Link to Ebay Store](#)

25) , 26)

photo courtesy of Hyatt's Recycled Cycles. [Link to Ebay Store](#)

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photo courtesy of Ebay seller, Robison Motorcycles. [Link to Ebay Store](#):

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photo by BrentmanII of the XLFORUM, labeled by Hippysmack

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-era-specific-and-model-specific/ironhead-sportster-motorcycle-talk-1957-1985/127266-1982-back-of-tach-wiring-not-in-electrical-drawing?t=1303014>

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