

Instruction 51-1141
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Because every industry has a leader

Installation Instructions: S&S® VFI Cruise Control Adapter Kits

Kit 55-5024 fits 1995-'97 Harley-Davidson® models equipped with cruise control and an S&S 17-5061 VFI throttle body

**Kit 55-5025 fits 1998-'01 H-D® models equipped with cruise control and an S&S 17-5061 VFI throttle body or
2001-'05 H-D models equipped with cruise control and an S&S 17-5062 VFI throttle body**

DISCLAIMER:

S&S parts are designed for high performance, off road, racing applications and are intended for the very experienced rider only. The installation of S&S parts may void or adversely effect your factory warranty. In addition such installation and use may violate certain federal, state, and local laws, rules and ordinances as well as other laws when used on motor vehicles used on public highways, especially in states where pollution laws may apply. Always check federal, state, and local laws before modifying your motorcycle. It is the sole and exclusive responsibility of the user to determine the suitability of the product for his or her use, and the user shall assume all legal, personal injury risk and liability and all other obligations, duties, and risks associated therewith.

The words Harley®, Harley-Davidson®, H-D®, Sportster®, Evolution®, and all H-D part numbers and model designations are used in reference only. S&S Cycle is not associated with Harley-Davidson, Inc.

SAFE INSTALLATION AND OPERATION RULES:

Before installing your new S&S part it is your responsibility to read and follow the installation and maintenance procedures in these instructions and follow the basic rules below for your personal safety.

- Gasoline is extremely flammable and explosive under certain conditions and toxic when inhaled. Do not smoke. Perform installation in a well ventilated area away from open flames or sparks.
- If motorcycle has been running, wait until engine and exhaust pipes have cooled down to avoid getting burned before performing any installation steps.
- Before performing any installation steps disconnect battery to eliminate potential sparks and inadvertent engagement of starter while working on electrical components.
- Read instructions thoroughly and carefully so all procedures are completely understood before performing any installation steps. Contact S&S with any questions you may have if any steps are unclear or any abnormalities occur during installation or operation of motorcycle with a S&S part on it.
- Consult an appropriate service manual for your motorcycle for correct disassembly and reassembly procedures for any parts that need to be removed to facilitate installation.
- Use good judgement when performing installation and operating motorcycle. Good judgement begins with a clear head. Don't let alcohol, drugs or fatigue impair your judgement. Start installation when you are fresh.
- Be sure all federal, state and local laws are obeyed with the installation.
- For optimum performance and safety and to minimize potential damage to carb or other components, use all mounting hardware that is provided and follow all installation instructions.
- Motorcycle exhaust fumes are toxic and poisonous and must not be inhaled. Run motorcycle in a well ventilated area where fumes can dissipate.

IMPORTANT NOTICE:

Statements in this instruction sheet preceded by the following words are of special significance.

⚠ WARNING

Means there is the possibility of injury to yourself or others.

⚠ CAUTION

Means there is the possibility of damage to the part or motorcycle.

NOTE

Other information of particular importance has been placed in italic type.

S&S recommends you take special notice of these items.

WARRANTY:

All S&S parts are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of twelve (12) months from the date of purchase. Merchandise that fails to conform to these conditions will be repaired or replaced at S&S's option if the parts are returned to us by the purchaser within the 12 month warranty period or within 10 days thereafter.

In the event warranty service is required, the original purchaser must call or write S&S immediately with the problem. Some problems can be rectified by a telephone call and need no further course of action.

A part that is suspect of being defective must not be replaced by a Dealer without prior authorization from S&S. If it is deemed necessary for S&S to make an evaluation to determine whether the part was defective, a return authorization number must be obtained from S&S. The parts must be packaged properly so as to not cause further damage and be returned prepaid to S&S with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem, how the part was used and the circumstances at the time of failure. If after an evaluation has been made by S&S and the part was found to be defective, repair, replacement or refund will be granted.

ADDITIONAL WARRANTY PROVISIONS:

- (1) S&S shall have no obligation in the event an S&S part is modified by any other person or organization.
- (2) S&S shall have no obligation if an S&S part becomes defective in whole or in part as a result of improper installation, improper maintenance, improper use, abnormal operation, or any other misuse or mistreatment of the S&S part.
- (3) S&S shall not be liable for any consequential or incidental damages resulting from the failure of an S&S part, the breach of any warranties, the failure to deliver, delay in delivery, delivery in non-conforming condition, or for any other breach of contract or duty between S&S and a customer.
- (4) S&S parts are designed exclusively for use in Harley-Davidson® and other American v-twin motorcycles. S&S shall have no warranty or liability obligation if an S&S part is used in any other application.

Instruction Contents

- A. Introduction and Specifications.
- B. Component Identification.
- C. Installation.
- D. Cruise Control Adjustment.
- E. Troubleshooting.

A. Introduction and Specifications

1. Cruise control adapter kits for S&S® VFI Induction systems connect directly to the stock cruise control cable. Two styles are available to fit 1993-'97 (#55-5024) and 1998-up (#55-5025).
2. S&S cruise control adapters #55-5024 and #55-5025 are for use on fuel injected models equipped with the S&S VFI throttle body. They are not for use on OEM fuel injection, or any carbureted application. They are not for use on S&S single-bore throttle bodies. They are not use with S&S dual-bore throttle bodies and manifolds used with S&S B2 heads.
3. For S&S Super "E" and "G" carbureted applications, use the following cruise control adapter kits: #11-2926 for 1993-'97 or #11-2927 for 1998-up.

B. Component Identification

1. The 1993-'97 (S&S #55-5024) cruise control arm has a straight pin that fits into a metal eyelet on the end of the cruise control cable. It is retained by a metal clip. **See Picture 1.**
2. The 1998-up cruise control arm has a "T" head pin that snaps into a plastic retainer on the end of the cruise control cable. No additional clip is required. **See Picture 2.**

C. Installation

These instructions are applicable to all S&S VFI cruise control adapters.

1. Disconnect negative terminal of battery to prevent accidental starter engagement, and sparks caused by accidental grounding.

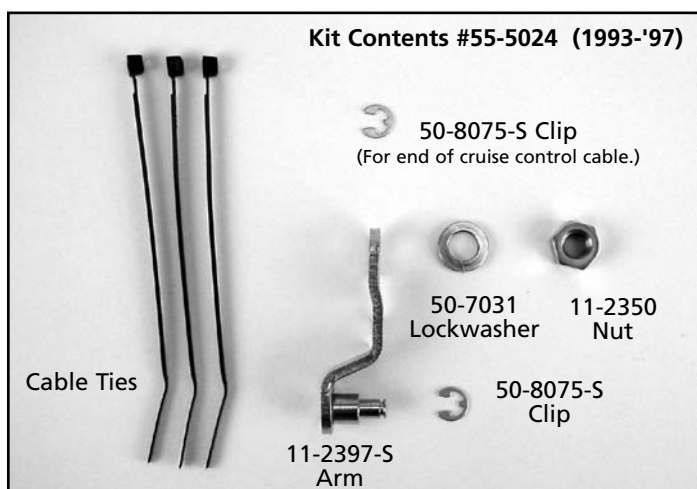
2. Remove gas tank(s). It is difficult to position and seat the cable fully into the bracket with the tank(s) in place. **See Picture 3.**

NOTE - Remove gas tank(s) per appropriate service manual.

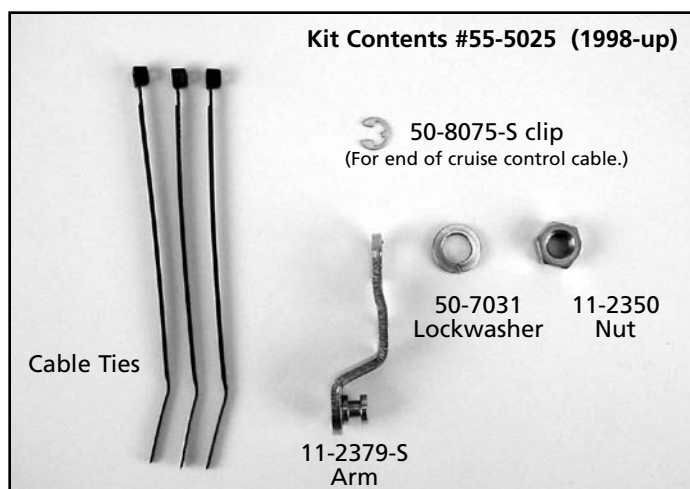
⚠ WARNING

Gasoline is extremely flammable, and explosive under certain conditions. Avoid contact with gasoline and do not breathe fumes. Perform installation in a well ventilated area away from sparks or open flame. Do not smoke while performing installation.

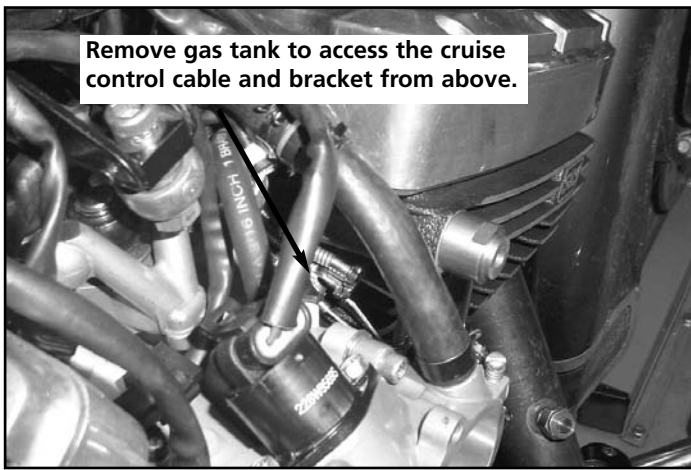
NOTE - The cruise control adapter can be installed without disturbing the adjustment of the throttle cables. Verify correct adjustment of cables after installation per the appropriate service manual.



Picture 1



Picture 2

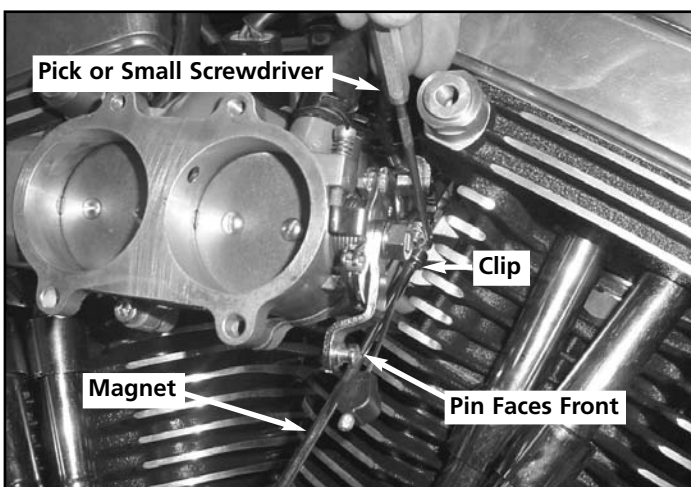


Picture 3

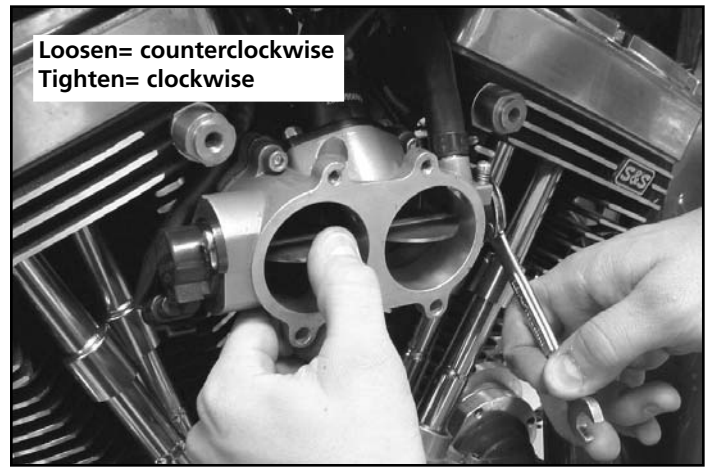
3. Remove nut and lock washer from throttle cable spool. Turning the wrench to remove the nut will open throttle plates. When plates are open, hold them in the open position to prevent them from snapping back when the nut is loosened. **See Picture 4.**
4. After removing nut and lock washer, ease throttle plates back to the closed position.
5. Place cruise control arm on the end of the shaft, against the throttle cable spool, with the arm facing down, and the mounting stud facing to the front of the motorcycle. **See Picture 5.**
6. Install new lock washer and nut from kit onto end of throttle shaft and tighten to snug only at this time.
7. Move throttle through the full range of operation and check for at least $\frac{1}{8}$ " clearance at all points around cruise control arm.

⚠ WARNING

The cooling fins on early S&S® Big Fin design heads interfere with the cruise control arm. Grind fins for a minimum $\frac{1}{8}$ " clearance throughout the full range of cruise control arm travel.



Picture 5



Picture 4

⚠ CAUTION

If clearancing is required, cover throttle body and mask off all other parts of the engine from grinding debris. Do not allow grinding debris to remain on the engine after clearancing.

8. Install lock washer and nut. tighten to **40 in-lbs.** use Loctite® 242 (blue) on the first three threads.

⚠ CAUTION

When tightening retaining nut, keep throttle plates in the closed position to ensure that the throttle plates do not become mis-aligned during the tightening procedure.

⚠ CAUTION

Over tightening throttle shaft nut can cause irreversible damage to throttle shaft and plates.

9. Re-check throttle for smooth operation through the entire range of travel, and that the throttle plates seat evenly in their bores when the throttle is in the closed position.
10. Route the cruise control cable to obtain the smoothest line from the cruise control actuator to the manifold bracket. It may be necessary in some installations to remove previously installed cable ties and re-route the cable from its stock position.

⚠ CAUTION

Do not kink or place sharp bends in cruise control cable.

11. Insert the end of the cruise control cable through the manifold bracket. The cable ferrule must protrude through the end of the bracket so that the included clip can be installed to retain the cable ferrule.

12. Install the clip on the end of the cable ferrule. Use a small telescoping magnet to position the retaining ring from below, then use a pick or small screwdriver to push it into the groove from above. **See Picture 5.**

⚠ CAUTION

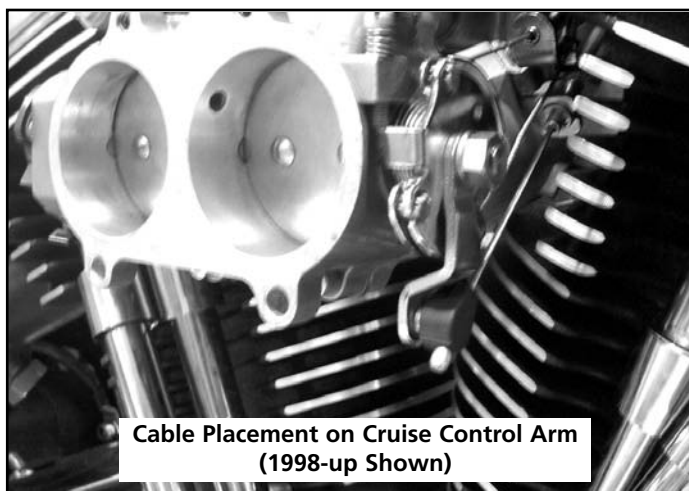
Ensure that clip is fully seated in groove.

13. Install cruise control cable end onto cruise control arm according to either "a" or "b" below.
 - a. For 1993-'97 models with a metal ring on the cable end: Place the ring over the pin on the end of the cruise control arm and secure with the included clip.

⚠ CAUTION

Ensure that clip is fully seated in groove.

- b. For 1998-up models with a plastic retaining cap on the cable end: Snap plastic cap over the T-head pin on the end of the cruise control arm. **See Picture 6.**



Picture 6

14. Use included cable ties to secure cable as required.
15. Cycle completed cruise control arm and cable assembly through its entire range of travel. Ensure there is no binding, and a minimum of $\frac{1}{8}$ " clearance on all moving parts.
16. Replace gas tank per appropriate service manual.

D. Cruise Control Adjustment

1. Adjust cruise control and throttle cables per the appropriate service manual. Installation of the S&S® cruise control adapter does not alter the factory cruise control adjustment procedure.

E. Troubleshooting

The most common cruise control problems are cable adjustment related.

1. If cruise control cable is adjusted too tight, it may cause the following:
 - a. Motorcycle will gain 1-2 mph when RES/SET switch is pressed down to "set" speed.
 - b. Cruise cable will pull throttle spool off of idle and prevent setting idle speed.
2. If cruise control cable is set too loose, it may cause the following:
 - a. Motorcycle will lose 1-2 mph when RES/SET switch is pressed down to "set" speed.

NOTE - For more detailed troubleshooting, refer to the appropriate service manual.



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