

**Instruction 510-0258**  
**9-9-14**

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# Installation Instructions: Closed Loop Option Kit for S&S® Universal EFI Wiring Harness Using S&S® Delphi® Style Modules

SUPPLEMENT TO INSTRUCTION 510-0100

## DISCLAIMER:

S&S parts are designed for high performance, closed course, racing applications and are intended for the very experienced rider only. The installation of S&S parts may void or adversely affect 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 breathed. 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 judgment when performing installation and operating motorcycle. Good judgment begins with a clear head. Don't let alcohol, drugs or fatigue impair your judgment. 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 breathed. 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.

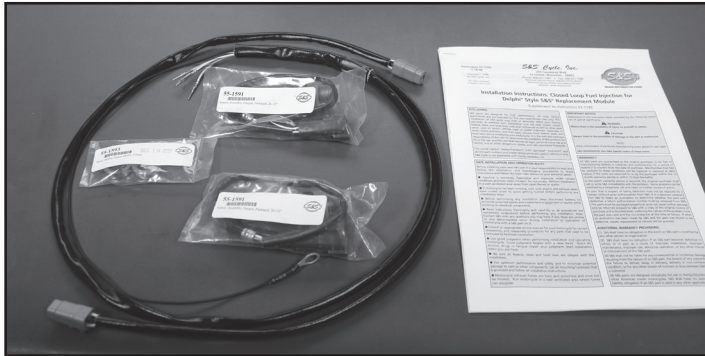
## ADDITIONAL WARRANTY PROVISIONS:

- (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.

This kit is for adding closed loop fuel control to the S&S Universal EFI harness (P/N 550-0264). It must also be used in conjunction with the S&S Delphi® Style ECM. If you have questions about this installation or if you need to make modifications to the harness for your application, please contact S&S Cycle technical support prior to installation. Modification without S&S Cycle approval may void your warranty.

**Kit Contents (Picture 1) :**

- (2) Oxygen Sensor (106-2061)
- (2) Boss, Oxygen Sensor (55-1593)
- (1) Closed Loop Wiring Harness (550-0384)
- (1) Instruction Sheet (510-0258)



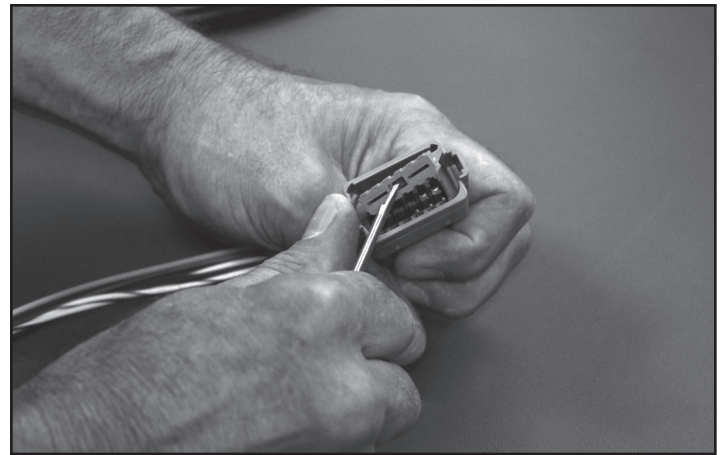
**Picture 1**

**Installation**

1. Install the oxygen sensor mounting bungs in the exhaust system if the exhaust system does not already have the provision for 18mm sensors. S&S recommends installing the mounting bungs 4"-12" from the exhaust flange.
2. Remove the white sealing plugs (**Picture 2**) from the EFI 12 pin Interconnect harness (P/N 550-0271) in locations 5, 6, 7 and 8. Remove the secondary lock (**Picture 3**) and insert the closed loop harness male pins in the following locations:



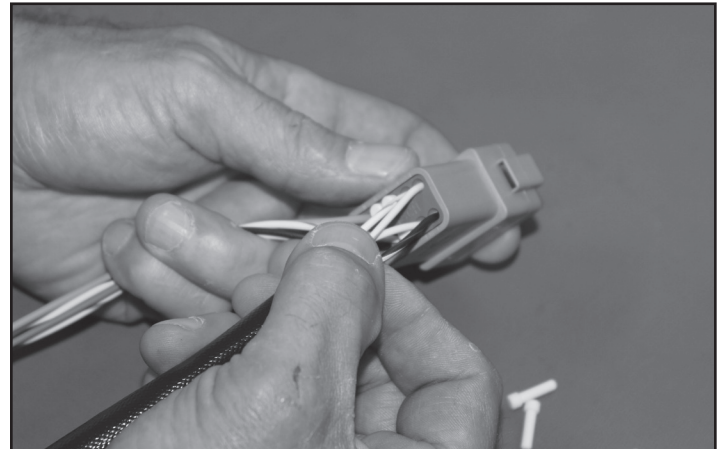
**Picture 2**



**Picture 3**

- Position 5 - W/O wire
- Position 6 - BK/W wire
- Position 7 -Y/GN wire
- Position 8 - W/BE wire

Verify (**Picture 4**) the wire color codes match up with the main EFI harness (550-0263) 12 pin connector and reinstall the secondary lock.



**Picture 4**

3. Attach the black wire with the ring terminal to a good chassis ground location or directly to the batteries negative post.
4. Route the closed loop harness O2 sensor connectors to the appropriate front and rear sensors. The longer lead with the W/O color wire is for the front sensor. Wire tie the harness to the frame in multiple locations keeping the harness away from sharp edges or exhaust system components.
5. Power up the ECM and verify that the calibration is configured for closed-loop operation and that the sensors are reading correctly.

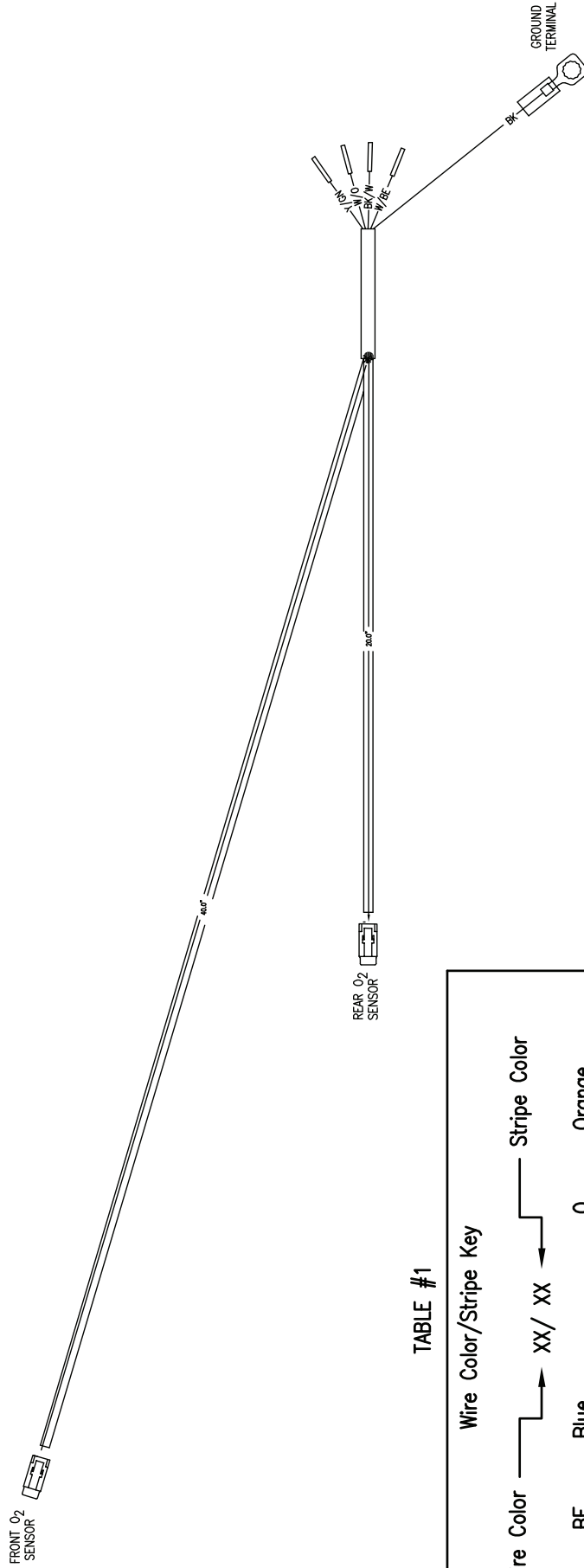
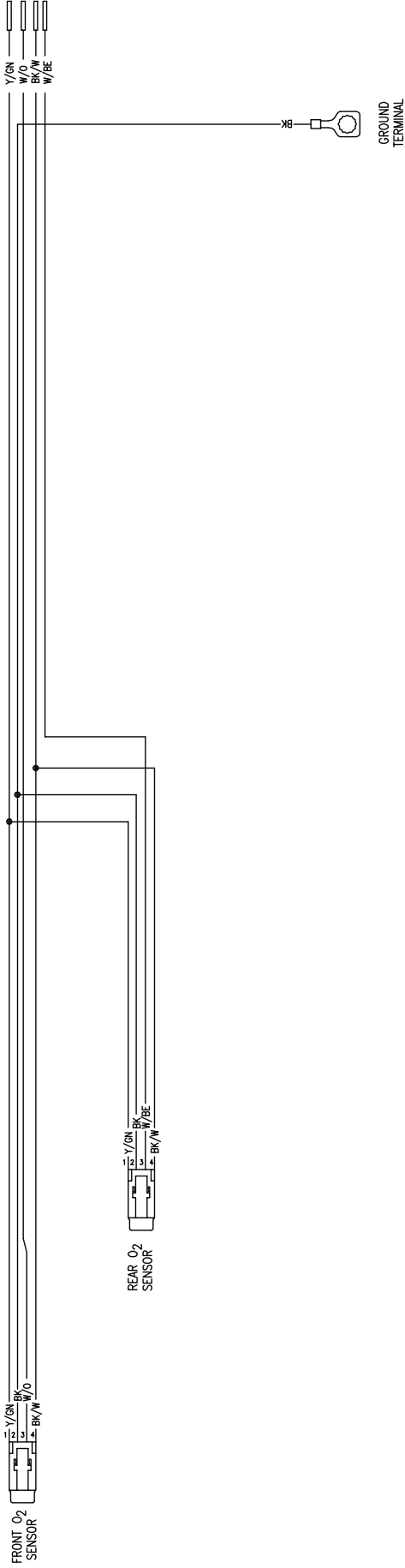


TABLE #1

Wire Color	XX/ XX	Stripe Color
BE	Blue	O
BK	Black	PK
BN	Brown	R
DK	Dark	TN
GN	Green	V
GY	Gray	W
LT	Light	Y
		Orange
		Pink
		Red
		Tan
		Violet
		White
		Yellow

DESCRIPTION:  
HARNESS, WIRING, CLOSED LOOP, EFI, DELPHI STYLE,  
UNIVERSAL

PART NUMBER  
550-0384