

Non-Contact option for SBS Balancer Control

L-4400-2



OPERATION AND SPECIFICATION MANUAL ADDENDUM

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Operation and Specification Addendum for the **SBS** **Non-Contact Balancer Option** Including: **-G and -N type Balancers**

Manual addendum for use with the
SBS Balance System Operation Manual (Document L-4100-x)

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Product Overview

This manual addendum describes the installation and use of SBS External and Internal mechanical balancers equipped with the Non-Contact control option. Only issues particular to the Non-Contact system are discussed, including System configuration and installation. Operation and use of SBS Non-Contact balancers are identical to balancers with the standard contact slip ring control system, and the user is directed to refer to the SBS Balance System Operation and Specification Manual (L-4100-1) for complete details on system operation.

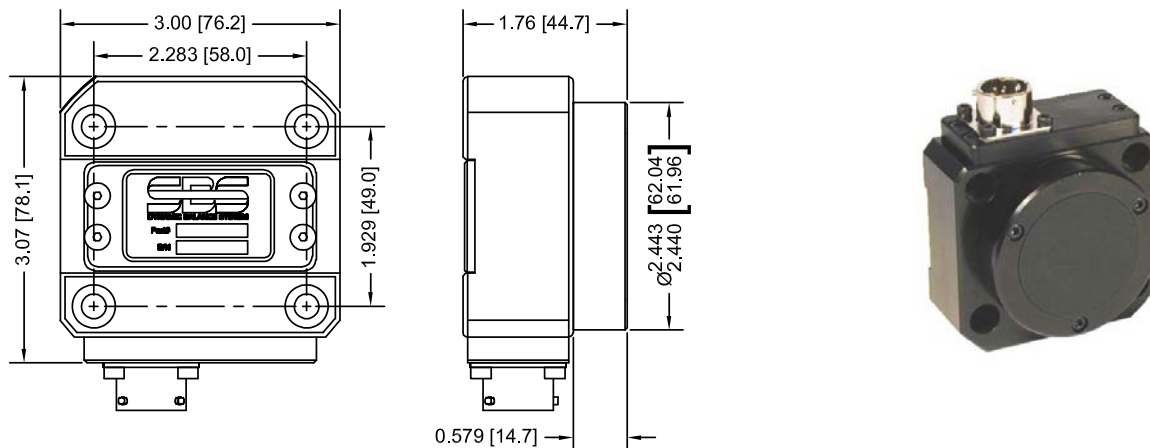
System Configuration

The SBS Non-Contact system consists of three parts, the Receiver, the Sender, and the SBS Non-Contact control card. The Receiver is mounted to a balancer and is normally ordered as part of the balancer as an option. Non-Contact Balancers are available in two types, with or without a built-in AEMS (Acoustical Emission Monitoring System) sensor. Non-Contact Balancers are designated by a -N suffix on the part number, while the same balancer with a built-in AEMS sensor is designated with a -G. The AEMS sensor is a high frequency acoustical sensor, designed for use with the SBS AEMS product. This product can be ordered separately and enables the user to monitor the grinding process on the machine, providing Gap Elimination, Crash protection, and dressing and grinding monitoring. Both these types of Balancers are paired with a matching type of Sender for proper operation. The Sender is also available with either side exit or back exit cable connections on the Sender unit, which results in the four model versions of the Sender listed below.

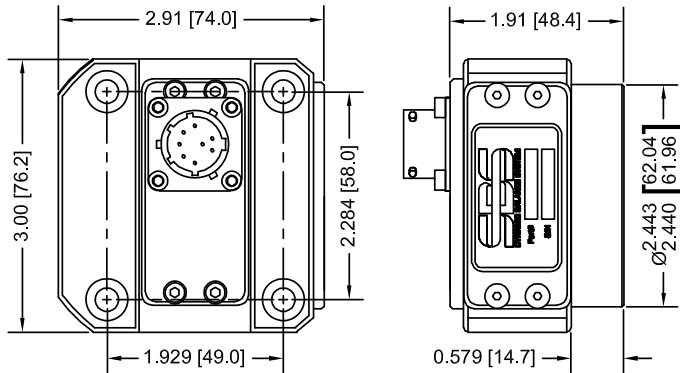
Balancer Sender Models

The Non-Contact Sender is used with both External and Internal type Non-Contact Balancers. Connection to the Balance Control is made via SB-87xx-H cable.

SB-8650-H – Side Connection



SB-8660-H – Back Connection

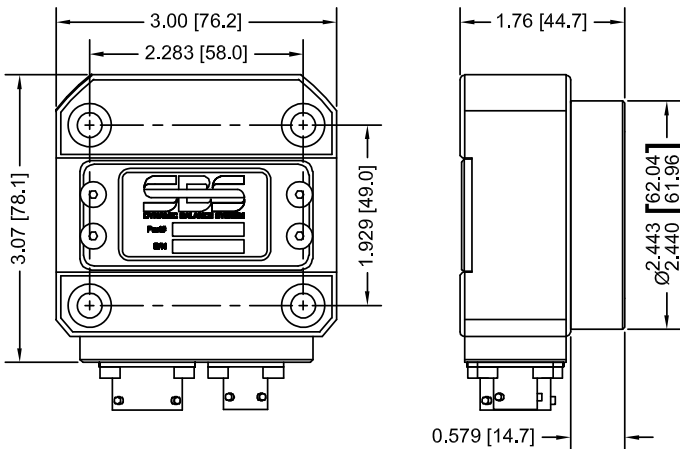


Balancer + AEMS Sender Models

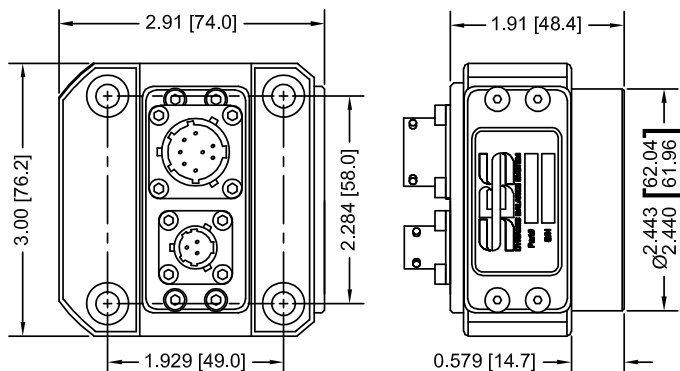
The Non-Contact Sender is used with External and Internal Non-Contact Balancers with integrated AEMS (AE Monitoring) Sensor. Connection to the Balance Control unit is via. SB-87xx-H cable. Connection to the AEMS control card mounted in the Control Unit is via. SB-41xx-I cable.

The Sender is mounted on a stationary part of the grinder, so that the round coil face is opposite the matching receiving coil face on the Balancer.

SB-8650-I – Side Connection



SB-8660-I – Back Connection



Sender Installation and Alignment

In Non-contact applications, the Sender unit must be mounted to a stationary portion of the grinder, often the machine guard. It must be mounted such that the round coil face is opposite the matching receiving coil face on the Balancer when the balancer is mounted on the grinder. The standard mounting kit pictured below provides a flexible mounting option for most installations.

The customer may create their own mounting method for the application. See SBS provided drawings for complete mounting details. The SBS Non-Contact System's design makes alignment less critical, but for proper operation, the sender must be located within a maximum distance from the Receiver of 3 mm (face to face), and lined up within a maximum radial offset of 2 mm (center to center).

- Distance between faces = 0.120 / 0.020 [3.0 / 0.5mm]
- Radial offset = 0.080 [2.0mm] max.

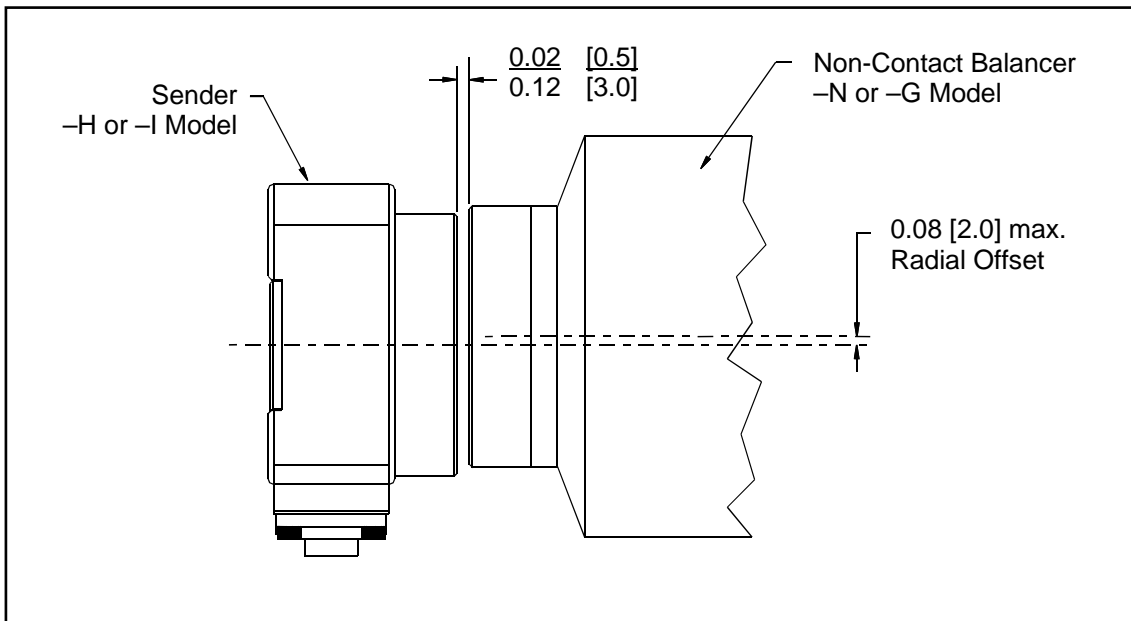
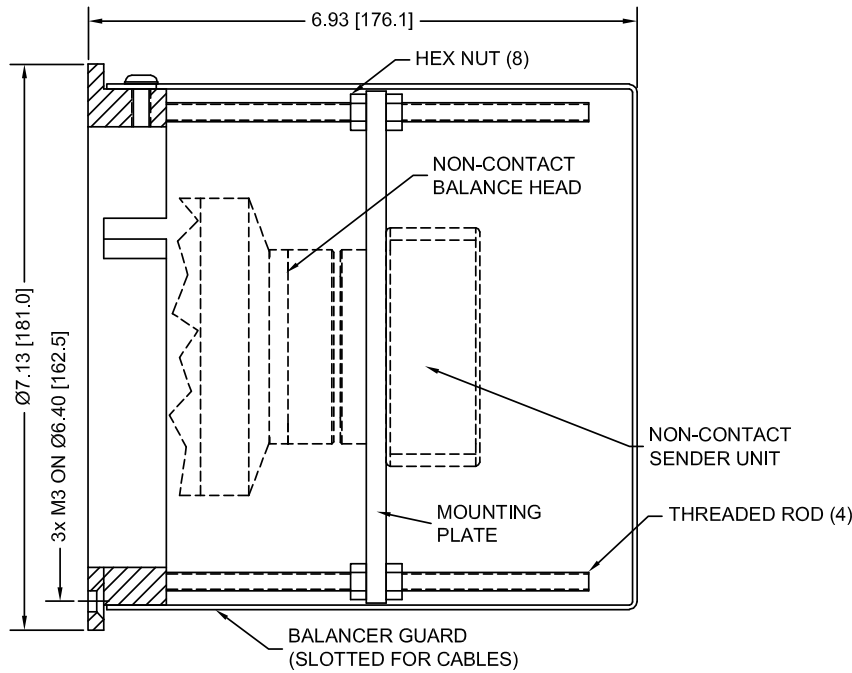


Figure 1

The Sender can be attached to the machine housing, wheel guard, or other rigid part of the machine by use of the four mounting hole locations provided. These locations accept either M6 or 0.250-20 Socket Head Cap Screws. Additionally, the outside diameter of the cylindrical portion of the Sender unit can be used as a holding surface for helping to center the Sender relative to the balancer. Attachment to the machine is best accomplished by a simple bracket of proper dimension to hold the Sender in the required position during machine operation. Where necessary, the ability to make finish adjustments in distance and alignment of the Sender should be provided for in the bracket design. Because the requirements for mounting are dependent on individual machine design, machine use, and customer preference, the customer should provide the required bracket for attachment of the Sender. SBS will provide design and fabrication services for customers who so desire.

MC-8606 – Non-Contact Sender Mount Kit



System Installation

To operate the SBS Non-contact balancer, it is necessary to have a Non-Contact version Balance Control Card installed in your SBS Control Unit. If your control unit model is designated with a -N suffix, then this type of control card was shipped with your unit. The required card (P/N SB-4532) can also be ordered separately and installed into any SBS 4000 series control. To add cards to the SBS control unit, follow the Balancer Card installation instructions in the SBS System Operation Manual.

In one of the numbered slots on the rear of the control unit, locate the Non-Contact Balancer Card you wish to connect to. This card will look like the picture at right, with the top connector having eight pins. Use the supplied SB-87xx-H series cable to connect the Non-Contact Sender to the Control unit. Vibration Sensor installation and location is covered in depth in the system Operation Manual. Care must be taken to locate the Sensor properly on the machine. With -I versions of the product, the supplied SB-41xx-I series cable is used to connect the AEMS sensor port on the Sender to the AEMS control card installed separately in the control unit. See the AEMS system manual addendum for complete operation details.

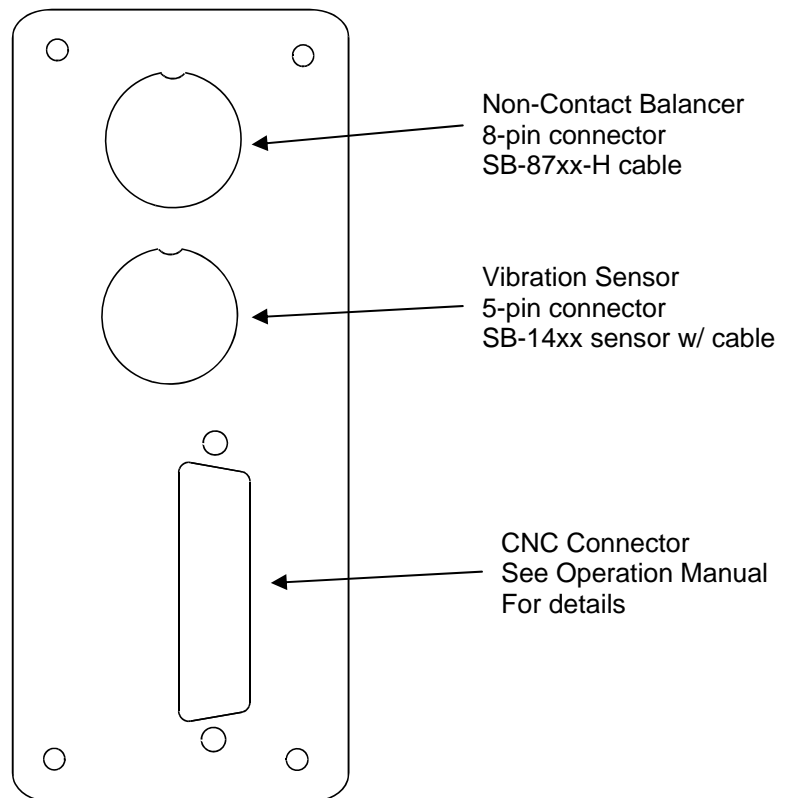


Figure 2

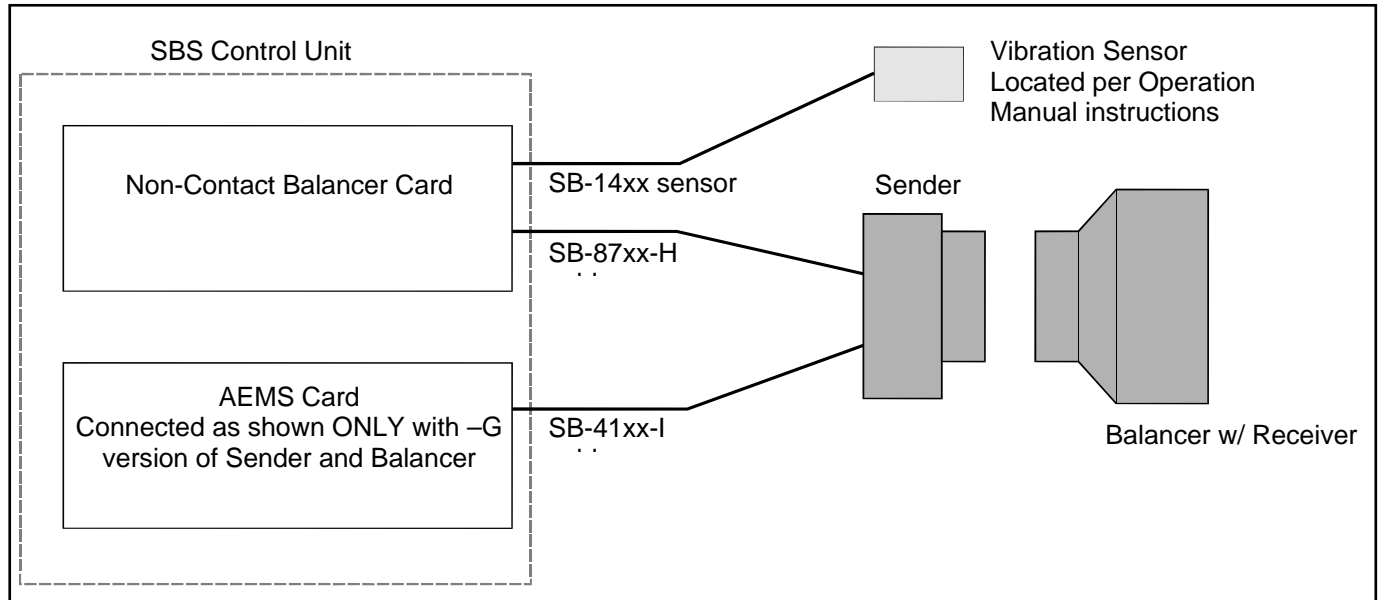


Figure 3

Operating Instructions

Non-Contact equipped balancer operation is identical to standard contact systems. See SBS Operation and Specification Manual (L-4100-1) for details.