# SCC Inc.

### **Installation Instructions**

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## **BR-E-SQM4**

#### **Product Description**

The BR-E-SQM4 bracket kit reliably mounts a Siemens SQM4... or SQM5... actuator with a 10mm D shaft to an Eclipse<sup>™</sup> RatioAir or RatioMatic packaged burner with a capacity of 5 MMBTU/hr or less.

### **Components Supplied**

Figure 1 shows the components supplied with the BR-E-SQM4 bracket kit:

Figure 1: Pieces Supplied with the BR-E-SQM4 Bracket Kit

- 1. Actuator Base Plate
- 2. (2) Standoffs
- 3. Mounting Bracket
- 4. (4) M5 x 12mm Thread-Forming Screws
- 5. M4 Lock Washer
- 6. M4 x 30mm Socket Cap Screw

- 7. (2) ¼"-20 x 1-1/4" Socket Set Screws
- 8. (2) M8 Lock Washers
- 9. (2) M8 x 12mm Socket Cap Screws
- 10. Coupling
- 11. (2) ¼"-20 x ¾" Flat Socket Head Screws

#### **Recommended Installation Tools**

The following tools are recommended for installing the BR-E-SQM4 bracket kit:

- 5/32", 1/8", 3mm, and 6mm hex keys
- Red Loctite
- 8mm open-end wrench (SQM5... only)

#### Installation Procedure

 Fasten the mounting bracket to the burner using a 6mm hex key, the (2) M8 lock washers, and the (2) M8 x 12mm socket cap screws according to options 1 or 2 shown in Figure 2. Use Table 1 to determine which mounting option to use.



Figure 2: Mounting Bracket to Burner (option 1 left, option 2 right)

RatioAir		RatioMatic	
Model	Option	Model	Option
RA0025	1	RM0050	1
RA0040	1	RM0075	1
RA0075	1	RM0100	1
RA0100	1	RM0200	1
RA0200	1	RM0300	1
RA0300	1	RM0400	1
RA0500	2	RM0500	2

#### Table 1. Different Mounting Options Based on Burner Model

- 8mm socket with ratchet and extension
- Crescent wrench

2. Slide the coupling over the exposed damper shaft. Ensure that the 10mm "D" bore is in the correct orientation to connect to the actuator shaft. Using the 3mm hex key, the M4 lock washer, and the M4 x 30mm socket cap screw, fasten the coupling to the damper shaft.



**Figure 3: Coupling Installation** 

3. Place red Loctite onto the tip of each ¼"-20 x 1-1/4" socket set screw. Using the 1/8" hex key, insert the (2) ¼"-20 x 1-1/4" socket set screws into the (2) standoffs until they bottom out.



Figure 4: Standoff Assembly

4. Screw the set screw ends of the (2) standoffs into the mounting bracket which should already be fastened to the burner. Tighten each standoff with a crescent wrench.



Figure 5: Insert Standoffs

5. Fasten the actuator base plate to the standoffs using the 5/32" hex key and the (2)  $\frac{1}{4}$ "-20 x  $\frac{3}{4}$ " flat socket head screws.



Figure 6: Attach Actuator Base Plate

6. **SQM4... Actuators:** Fasten the actuator to the actuator base plate using the 8mm socket with ratchet and extension and the (4) M5 x 12mm thread-forming screws.

**SQM5...** Actuators: Fasten the actuator to the actuator base plate using the 8mm openend wrench and (3) of the M5 x 12mm thread-forming screws.



Figure 7: Mount SQM... Actuator

7. Using the 5/32" hex key, tighten the clamp screw of the coupling.



Figure 8: Tighten Clamp Screw

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