

# Exterior 200™ Optional Lens Kit Installation Guide

This guide describes the procedure for replacing the lens in the Martin™ Exterior 200™. Installation requires a torque driver that includes the range 1.8 - 2.0 Nm (1.3 - 1.5 ft.-lbs) as well as 4 mm Allen and PZ2 Pozidriv bits.

**Warning!** *Read and follow the safety precautions in the Exterior 200 user manual before installing a lens. The user manual is supplied with the Exterior 200 and is also available for download from [www.martin.com](http://www.martin.com).*

*Use a torque driver or torque wrench when installing covers. If screws are not tight enough, water may get past seals and into the product. If you over-tighten screws, you may crack the lens or front glass.*

## Standard optical configurations

Exterior 200s are available as standard with the following beam angles and lens configurations:

Model	Half-peak angle
Exterior 200 Very Narrow Long barrel model Ø200 mm PC (planoconvex) lens, f=250, P/N 41205003, in special lensmount front cover	9.5°
Exterior 200 Narrow Long barrel model Fresnel lens, f=140, P/N 41204012, in lens module plate	16°
Exterior 200 Medium Standard barrel model Fresnel lens, f=89, P/N 41204015, in lens module plate	21°
Exterior 200 Wide 38° Standard barrel model Ø152 mm standard diffuser lens, P/N 41600026, in lens module plate	38°
Exterior 200 Wide 42° Standard barrel model Ø150 mm prismatic micro-diffuser lens, P/N 41600043, in lens module plate	42°
Exterior 200 Very Wide Standard barrel model Ø200 mm 'super wide' lens, P/N 41600044, in special lensmount front cover	54°

## Optional lens kits

Certain lenses are also available separately as kits with the following part numbers. Note that Medium and Very Wide-Angle lens kits can be installed in standard barrel models only.

Lens Kit	Kit part number
<b>Asymmetrical Beamshaper Lens Kit</b> Fibroid lens, for standard and long barrel models. Narrow axis of beam is parallel with ridges in lens. Gives 8.5° x 17° half-peak angle in Very Narrow (long barrel) models, where it installs on inside of special lensmount front cover. Gives 41° x 46° half-peak angle in Medium and Wide (standard barrel) models, where it installs on lens module plate in place of existing lens. A new standard front cover with clear front glass is required before you can obtain 41° x 46° half-peak angle in Very Wide (standard barrel) models.	P/N 91610023
<b>Exterior 200 Medium-Angle Lens Kit</b> Fresnel lens, for standard barrel models only. Installs on lens module plate, ridges facing away from lamp. Gives 21° half-peak angle.	P/N 91610022
<b>Exterior 200 Very Wide-Angle Lens Kit</b> 'Super wide' lens, for standard barrel models only. Lens is supplied installed in special lensmount front cover. Gives 54° half-peak angle.	P/N 91610079

## Lens and front glass configurations

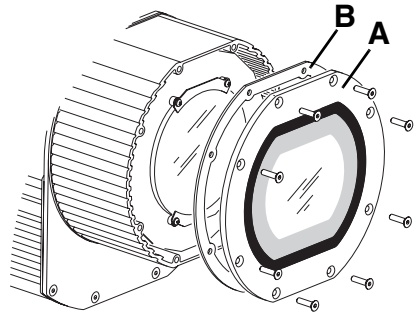
In Very Narrow and Very Wide models, the lens is installed on a special lensmount front cover and no lens is installed on the lens module plate inside the luminaire.

In all other models, a clear front glass is installed on a standard front cover and the lens is installed on the lens module plate.

## Replacing the lens

**Important!** *Do not overtighten the screws in the lens brackets, or you may crack the lens.*

See Figure 1. Before installing any lens kit, remove the front cover (A) with its seal (B). Then follow the instructions below, depending on which model Exterior 200 you have and which lens kit you are installing.

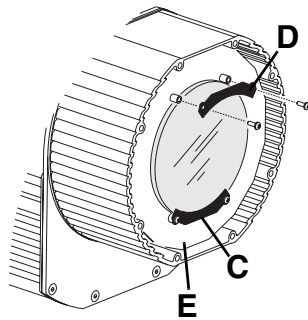


**Figure 1: Front cover removal (standard front cover shown)**

### ***Installing an Asymmetrical Beamshaper or Medium-Angle lens in a Medium or Wide (standard barrel) model***

If you have a Medium or Wide (standard barrel) Exterior 200 and wish to install an Asymmetrical Beamshaper lens to give a 41° x 46° half-peak angle or a Medium-Angle Fresnel lens to give a 21° half-peak angle:

1. See Figure 2. Loosen, but do not remove, the screws in the bottom lens bracket (C) to release the pressure in the rubber washers. Remove the top lens bracket (D) and lift the existing lens out of the luminaire.
2. Place the new lens in the bottom lens bracket (C) flat against the lens module plate (E) oriented as follows:
  - **Beamshaper lens** – ridges facing in, towards the lamp. The ridges run parallel with the narrow axis of the asymmetric beam, i.e. horizontal ridges will give a tall beam, vertical ridges will give a wide beam.
  - **Medium-angle fresnel lens** – ridges facing out, away from the lamp.
3. Replace the top lens bracket (D). Tighten all 4 lens bracket screws enough to squeeze the rubber washers out against the lens, but do not overtighten! The rubber washers must be squeezed out only enough to hold the lens with gentle pressure. In the case of the beamshaper lens, take extra care and ensure that the washers exert very light pressure only.
4. Re-install the front cover as described on page 6.

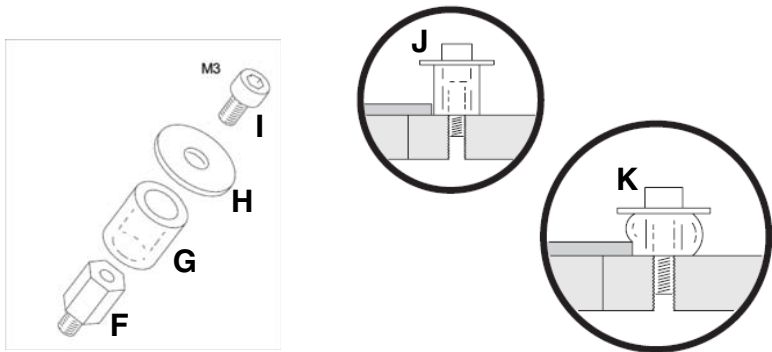


**Figure 2: Lens removal**

### ***Installing an Asymmetrical Beamshaper in a Very Narrow (long barrel) model***

If you have a Very Narrow (long barrel) model and wish to install an Asymmetrical Beamshaper to obtain an 8.5° x 17° half-peak angle:

1. See Figure 3. Fasten the four mounting posts **F** supplied in the lens kit into the four threaded holes around the lens aperture on the inside surface of the front cover and place a rubber washer **G** over each post.
2. Place the beamshaper lens between the rubber washers on the inside of the front cover with the ridges in the lens facing in, towards the lamp, and parallel with the narrow axis of the beam.

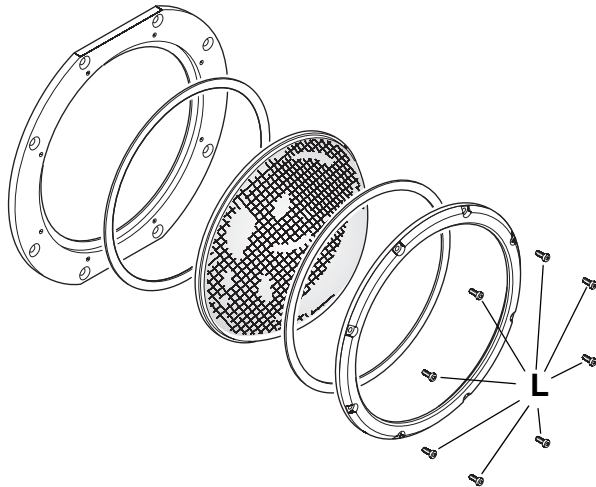


**Figure 3: Asymmetrical Beamshaper mounting posts in Very Narrow (long barrel) models**

3. Install a washer **H** and screw **I** on each post as shown at **J** and tighten screws in small steps, working round in a circle, until the lens is held in place lightly but securely as shown at **K**. Tighten the 4 screws enough to squeeze the rubber washers out against the lens, but do not overtighten! The rubber washers must be squeezed out only enough to hold the lens with gentle pressure. In the case of the beamshaper lens, take extra care and ensure that the washers exert very light pressure only.
4. Re-install the front cover as described on page 6.

***Installing a Very Wide-Angle Lens in a Medium or Wide (standard barrel) model***

If you have a Medium or Wide (standard barrel) Exterior 200 and wish to install a Very Wide lens to obtain a 54° half-peak angle:



**Figure 4: PC and Very Wide-Angle lens (special lensmount front cover shown)**

1. Remove as shown in Figure 2 any lens installed on the lens module plate.
2. A special lensmount front cover with 'super wide' lens (see Figure 4) is supplied as an assembly in the Very Wide-Angle Lens lens kit. Discard the standard front cover and front glass originally fitted and install the new lensmount front cover assembly as described on page 6.

*Besides the Very Wide-Angle lens, the special lensmount front cover accepts the Very Narrow-Angle PC lens. If you ever need to replace the lens in this cover, tighten the lens ring retaining screws (L in Figure 4) gradually, working around in a circle and increasing the torque in small steps to 2 Nm (1.5 ft.-lbs).*

## Re-installing the front cover

The front cover must be installed with the countersunk sides of the mounting screw holes facing outwards. If installing a standard front cover with a flat front glass, note that the front glass sits on the inner side of the front cover. If installing a special lensmount front cover with a Very Narrow (PC) or Very Wide-Angle lens, note that the lens sits on the outer side of the front cover, with the convex side of the lens protruding forwards away from the lamp.

To install the front cover in the fixture:

1. See Figure 1. Check the condition of the front cover seal **B**. If it is not in perfect condition, order a replacement from Martin, requesting P/N 20600070. Check that all mating surfaces are dry and perfectly clean. Do not add any form of gasket compound or sealant.
2. Put the seal **B** and front cover **A** into position and tighten all screws by hand until they are finger-tight only.
3. Continue tightening in small steps, working around in a circle, to a maximum torque of 1.8 - 2.0 Nm (1.3 - 1.5 ft.-lbs). The front glass seal should stick out 0.5 - 1 mm (1/64 - 1/32 in.) from the outside of the housing. You should just be able to feel the gasket when you run a finger across the joint.



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