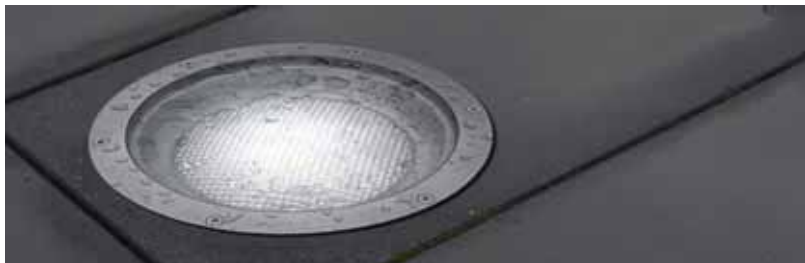


Martin[®]

Inground 200[™]

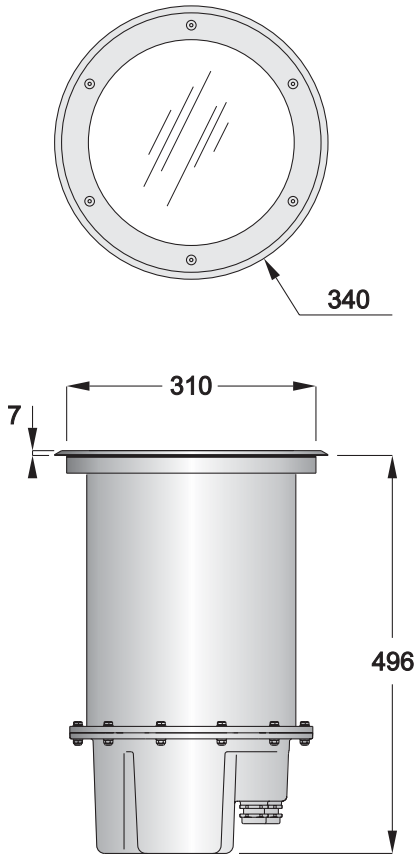


User Manual

Single Color

Dimensions

Measurements are in millimeters



© 2004-2009 Martin Professional A/S. Information subject to change without notice. Martin Professional A/S and all affiliated companies disclaim liability for any injury, damage, direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this manual. The Martin logo, the Martin name and all other trademarks in this document pertaining to services or products by Martin Professional A/S or its affiliates and subsidiaries are trademarks owned or licensed by Martin Professional A/S or its affiliates or subsidiaries.

P/N 35000152, Rev C

Martin[®]

Contents

Introduction	5
Inground 200 model range	5
Optics and accessories	5
Mains power options	6
Included items	6
Safety information	6
Operation	8
General guidelines	8
Service and troubleshooting	9
Clearing excess humidity	10
Cleaning	10
Seals	11
Component removal and reinstallation	11
Set-up and adjustment	20
Beam adjustment	20
Troubleshooting	22
Specifications: Inground 200 Single Color	23
Ordering information	26

1. Introduction

Thank you for selecting the Martin™ Inground 200™ Single Color, a 150 watt upright designed for permanent burial installation.

This User Manual contains details of how to *operate and service* this fixture. For details of *installing* the Inground 200 Single Color, please refer to the Installation Guide shipped with the product. The most recent versions of the Installation Guide and this User Manual are also available in the Product Support area of the Martin website at <http://www.martin.com>

Inground 200 model range

The Inground 200 is available in two models:

Inground 200 Single Color

The Inground 200 Single Color can be operated with or without a color filter and can be manually dimmed, but it is not programmable and cannot be controlled by DMX.

Inground 200 CMY

The Inground 200 Full Spectrum CMY offers seamless full spectrum color-mixing, giving a virtually limitless color palette, and 0-100% intensity control. It can be programmed to run synchronized stand-alone light shows with pre-defined start/stop times using a Windows PC with Martin MUM™ software, or it can be operated using a DMX controller. A separate user manual, P/N 35000153, exists for this product.

Optics and accessories

The following optional lenses are available for the Inground 200:

- Medium – 32° one-tenth peak angle
- Wide – 56° one-tenth peak angle
- Very wide – 98° one-tenth peak angle
- Wallwash

A range of accessories is available for the Inground 200. See “*Ordering information*” on page 26. See also www.martin.com for the most recent information.

Mains power options

Inground 200 Single Color and CMY models are both available in three configurations to match local AC mains power:

- 210 V, 60 Hz (US model)
- 277 V, 60 Hz (US model)
- 230 V, 50 Hz (EU model)

Included items

The Inground 200 Single Color is supplied with the following items:

- Philips CDM-SA/T 150W/942 lamp
- Silica gel sachet inside fixture for shipping (must be removed and disposed of)
- Silica gel sachet packed separately in sealed aluminum bag (must be fastened inside fixture and fixture closed within 20 minutes of opening aluminum bag)
- 3 m (9.8 ft.) hard-wired power cable tail
- Installation guide
- User manual

2. Safety information

Warning! *This product is not for household use.*

This product presents risks of lethal or severe injury due to fire, heat, electric shock and lamp explosion.

Read this guide before operating the fixture, follow the safety precautions listed below and observe all warnings in this guide and on the fixture.

If you have questions about how to operate or service the fixture safely, please contact your Martin supplier or call the Martin 24-hour service hotline on +45 8740 0000, or in the USA on 1-888-tech-180.

Guarding against electric shock

- Isolate the fixture from AC power before removing or installing the lamp, fuses, or any part.
- Always ground (earth) the fixture electrically.

- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.
- Refer any service not described in this user manual to a Martin service technician.

Lamp safety and eye protection

- Never operate the fixture with missing or damaged lenses and/or covers.
- Do not stare directly into the light. Never look at an exposed lamp while it is lit.
- Wear safety glasses during beam adjustment.
- Use only approved lamp types (see “*Source*” on page 23).
- Replace the lamp if it becomes defective or worn out. The average life of the Philips CDM-SA/T 150W/942 lamp supplied with the Inground 200 is 9000 hours. If one of the approved alternative lamp types listed under “*Source*” on page 23 is fitted, see the lamp supplier’s documentation.

Guarding against burns and fire

- Allow the fixture to cool for at least 15 minutes after use before opening it for service or adjustment.
- Wear heat-resistant safety gloves during beam adjustment.
- Never attempt to bypass the thermostatic switch or fuses. Always replace defective fuses with ones of the specified type and rating.
- Keep all combustible materials (for example fabric, wood, paper) at least 1 meter (39 inches) away from the fixture. Keep flammable materials well away from the fixture.
- Ensure that litter, dry leaves or other combustible materials cannot accumulate on or near the fixture.
- Prevent vehicles from being parked over or near fixtures – including unlit fixtures that may later be switched on.
- Do not illuminate surfaces within 0.5 meters (20 inches) of the fixture.
- Install the fixture outdoors or in a well ventilated area.
- The exterior of the fixture can become very hot, up to 80° C (176° F) during normal operation. Ensure all local safety regulations and legal requirements are observed, and take appropriate measures to warn or restrict access.
- Do not modify the fixture or install other than genuine Martin parts.
- Never place filters or other materials over the front glass.

Guarding against injury

- The front glass can be slippery, especially when wet. Ensure that pedestrians are warned and/or kept away from the fixture.
- Block public access during service.

3. Operation

General guidelines

The Inground 200 Single Color does not have a power on/off switch. The lamp strikes as soon as power is applied to the fixture via the power input cable.

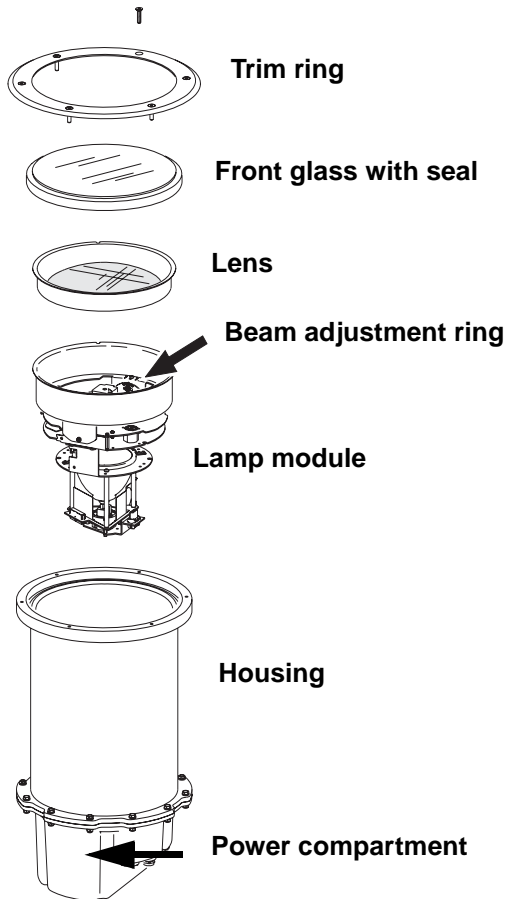
To avoid voltage drops which may result if many lamps strike at the same time, apply power to circuits one after the other at intervals of a second or two if you have groups of fixtures on separate circuits in the installation.

For optimum lamp life and performance, allow the lamp to warm up fully for five minutes before cutting power to the fixture.

4. Service and troubleshooting

This section describes service procedures that can be performed by the user. Refer all service not described here to a qualified Martin Architectural technician.

Warning! *Isolate the fixture from power and allow to cool for at least 15 minutes before removing any cover.*



Clearing excess humidity

Each time the Inground 200 is opened, the silica gel anti-humidity sachet fastened to the lamp module must be removed and a new item fastened in its place (see “*Anti-humidity sachet replacement*” on page 13).

Excess humidity inside the fixture can be experienced in the following situations:

- The installation well is waterlogged
- The trim ring and front glass are not sealed correctly on the top of the housing.
- The anti-humidity sachet fastened to the lamp module is saturated or missing.

Warning! *If you clear excess humidity as described below:*

- ***The exposed lamp and internals present a risk of electric shock, burns and ultra-violet radiation. A hot discharge lamp is under pressure and there is a risk of lamp explosion. Block public access, wear safety glasses and heat-resistant gloves, handle the lamp module with care, and do not look into the light beam.***
- ***Choose dry weather.***
- ***Ensure that no dust or objects enter the fixture while it is open.***

If there is excess humidity in the Inground 200, condensation will appear under the front glass. To eliminate excess humidity:

1. Check that the installation has adequate drainage and that the top glass and trim ring are sealed correctly. Rectify any problems.
2. Install a new anti-humidity sachet and reinstall the front glass immediately (new anti-humidity sachets are available from Martin suppliers – see “*Spare parts*” on page 26).

Cleaning

Wash the front glass with a soft brush or sponge and a mild, non-abrasive car washing detergent. Wipe off traces of detergent with a sponge or brush soaked in clean water.

Do not use a hose or high-pressure spray equipment on the fixture. The Inground 200 is water-resistant, but is not designed for submerged operation. Excessive use of water may flood the installation sleeve.

Seals

To maintain the fixture's resistance to dust and moisture, it is important that you replace seals and covers carefully after removal.

The power compartment cover Allen screws must first be screwed in until they are finger-tight, and then given an extra 3/4 to one full turn. This will ensure that seals are compressed by about one-third. When fitting the front glass trim ring, use a torque driver and cross-tighten the screws gradually to a torque of 6 Nm (4.4 ft.-lbs.).

Warning! *Do not use silicone or any other kind of sealant on the front glass seal, front glass, housing or trim ring. Doing so will invalidate the product warranty.*

The silicone seals should maintain their sealing ability for the life of the fixture. However, when servicing the fixture, note the condition of the seals and replace any seal that is cracked, torn, brittle, or inflexible. Replacement seals may be ordered as follows:

Front glass seal	P/N 20600441
Power compartment seal	P/N 20600450

Component removal and reinstallation

Tasks such as beam adjustment and lamp replacement require the removal and refitting of certain components. This section contains instructions for these procedures.

Besides safety gloves and safety glasses, you will need a torque driver with a range that includes 6 Nm (4.4 ft.-lbs.) as well as 4mm and 2.5mm Allen bits for these procedures.

Warning! *Danger of burns, electric shock and lamp explosion!*

- *These procedures must be carried out by authorized electrical personnel and in clean, dry conditions only.*
- *Wear heat-resistant safety gloves and safety glasses throughout these procedures.*
- *Do not look directly into the lamp.*
- *Make sure that nothing falls into the fixture while the front glass and lens are removed.*

Important! Any damaged seals or screws must be replaced with new items. Two spare 4mm countersunk Allen screws for the trim ring are supplied with the fixture.

The front glass seal, its seating surface in the housing, the front glass and the trim ring must all be perfectly clean and dry during re-installation to maintain a waterproof seal.

Do not use silicone or any other kind of sealant on the front glass seal, front glass, housing or trim ring. Doing so will invalidate the product warranty.

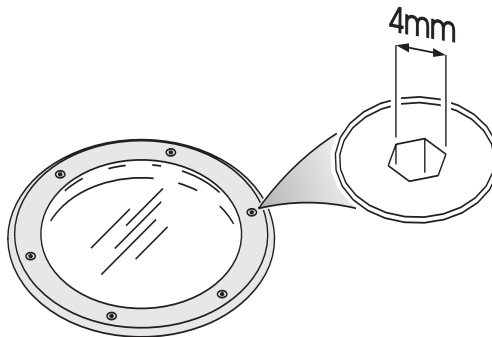
The anti-humidity sachet inside the fixture must be renewed each time the fixture is opened for service.

Removing the front glass and lens

The front glass and lens must be removed for beam adjustment and all other service interventions.

To remove the front glass and lens:

1. Isolate the fixture from AC power and ensure that power cannot be reapplied, even accidentally. Allow the fixture to cool for at least 15 minutes.
2. Brush or if possible vacuum sand, dirt, etc. away and clean the top of the fixture and the surrounding area to ensure that dirt does not fall into the fixture.
3. Remove the six countersunk 4mm Allen screws and lift the trim ring off the fixture



4. Taking care to avoid damaging the seal, lift off the front glass and its seal.
5. The lens is under the front glass, resting on the beam adjustment ring on top of the lamp module. Lift the lens out of the fixture.
6. If a light spill limiter ring (shading plate) and/or a louvered anti-glare plate are installed under the lens, lift them out of the fixture.

Removing the lamp module

The lamp module must be removed for replacement of the anti-humidity sachet, lamp replacement, and all other service interventions apart from beam adjustment.

To remove the lamp module:

1. Remove the front glass and lens, then any shading plate and/or louvered anti-glare plate fitted, noting the orientation of the louvered anti-glare plate (see *“Removing the front glass and lens”* on page 12).
2. Do not loosen the beam adjustment screws and do not disturb the beam adjustment settings, or the beam will have to be readjusted. Holding the lamp module by the beam adjustment ring, gently lift the whole module upwards until it is clear of the housing.
3. Note the positions of the lamp module wiring connectors, then disconnect them and lift the lamp module away from the fixture.

Anti-humidity sachet replacement

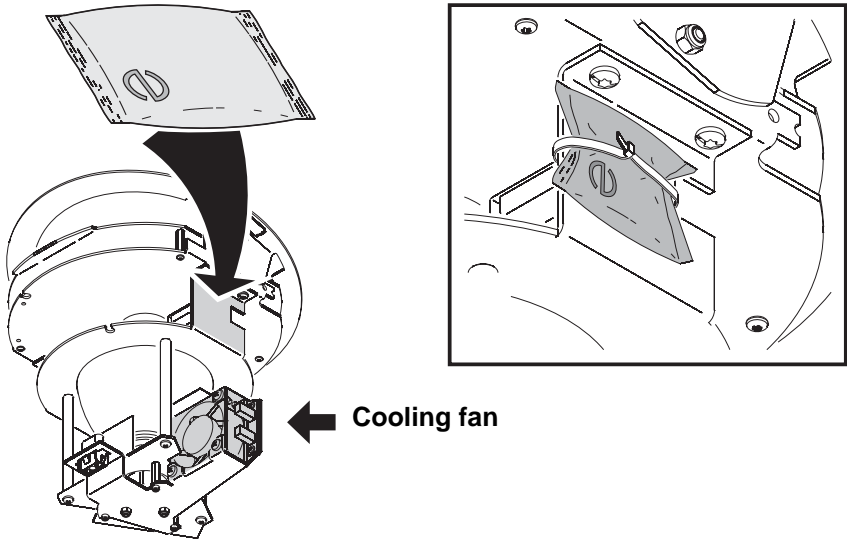
Each time the Inground 200 is opened for service, or to clear excess humidity at any time, the silica gel anti-humidity sachet fastened to the lamp module inside the fixture must be removed and a new item fastened in its place. The fixture must be closed within 20 minutes of opening the aluminum bag holding the new anti-humidity sachet.

New anti-humidity sachets are available from Martin suppliers (see *“Spare parts”* on page 26 for details).

To renew the anti-humidity sachet:

1. Remove the front glass, lens and lamp module (see *“Removing the front glass and lens”* on page 12 and *“Removing the lamp module”* on page 13).

2. See illustration below. Cut the cable tie holding the silica gel anti-humidity sachet to the side of the lamp module above the cooling fan and remove the sachet.



3. Remove a new anti-humidity sachet from its sealed aluminum packet and fasten it with a cable tie in the place of the sachet you have removed. You must now reinstall components and close the fixture within 20 minutes.

Lamp replacement

The Inground 200 is supplied with a Philips CDM-SA/T 150W/942 discharge lamp. The Inground 200 may be used with the following lamp types:

Lamp	Efficiency	Color Temp.	Average Life
Philips CDM-SA/T 150W/942	88 Lm/W	4200 K	9 000 hours
Philips CDM-T 150W/830	93 Lm/W	3000 K	12 000 hours
Osram HCI-T 150W/WDL*	97 Lm/W	3000 K	12 000 hours
Osram HCI-T 150W/NDL*	91 Lm/W	4200 K	12 000 hours

Table 1: Lamp specifications

*WDL = warm daylight, NDL = neutral daylight

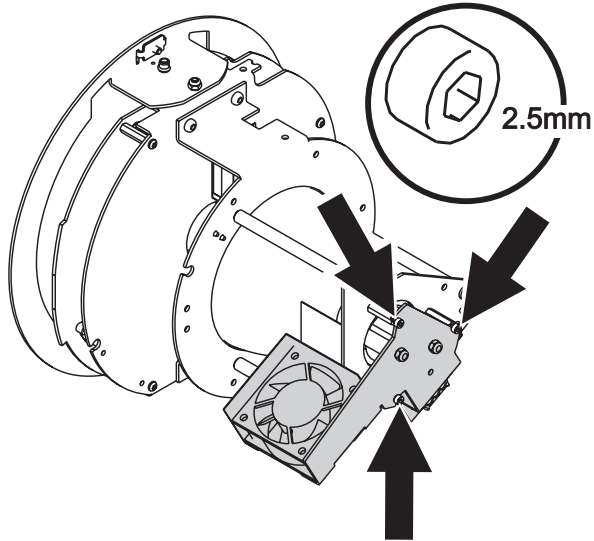
If in any doubt about suitable lamp types, consult your Martin Architectural dealer.

Important! *Installing any other lamp type may damage the fixture.*

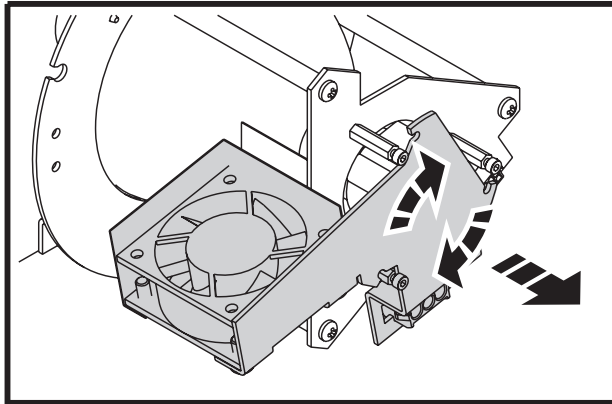
Warning! *Allow the fixture to cool for at least 15 minutes before removing the front glass.*

To replace the lamp:

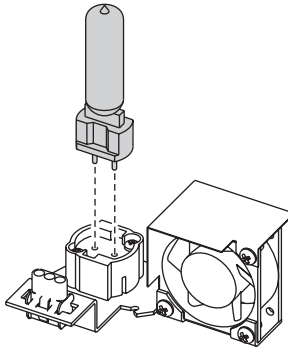
1. Remove the front glass, lens and lamp module (see “Removing the front glass and lens” on page 12 and “Removing the lamp module” on page 13).
2. Turn the lamp module upside down and loosen – but do not remove – the three 2.5mm Allen screws on the lamp baseplate pillar bolts.



3. Turn the lamp baseplate anti-clockwise a few degrees to release it from the three Allen screws, then gently lift the baseplate assembly off the lamp module.



4. Remove the old lamp from the socket. Holding the new lamp by its ceramic base - *do not touch the glass bulb* - insert it firmly and squarely into the lamp socket. Clean the glass bulb with an alcohol wipe or a clean, lint-free cloth wetted with 99.9% isopropyl alcohol.



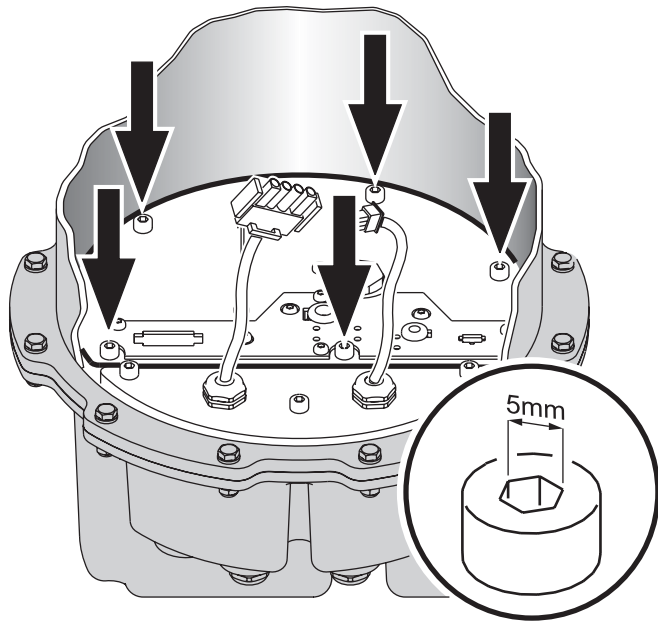
5. Refit the lamp baseplate on the three pillar bolts, twisting clockwise to locate it, and retighten the three Allen screws to secure it.
6. If no further service is required, fasten a new anti-humidity sachet to the lamp module, then reinstall the lamp module, any shading or anti-glare plates originally fitted, the lens and the front glass (see “*Anti-humidity sachet replacement*” on page 13, “*Reinstalling the lamp module*” on page 18 and “*Reinstalling the lens and front glass*” on page 19).

Accessing the power module

The PSU (power supply unit) and ballast are located in the power compartment in the base of the housing.

Removing the power module

1. Remove the front glass, lens and lamp module (see *“Removing the front glass and lens”* on page 12 and *“Removing the lamp module”* on page 13).
2. The power compartment is the larger of the two compartments in the bottom of the fixture. Note the positions of the connectors and disconnect the connections to this compartment.
3. See illustration below. Remove the five 5mm Allen screws from the power compartment cover plate.



4. Holding the cover plate by its wire service handle, lift it carefully upwards, avoiding damage to the seal. The power components are mounted on the cover plate itself, forming the power module. Lift this entire module carefully out of the fixture.
5. The power compartment and cable inlet compartment share one seal. Check this seal for damage. If it is damaged or brittle, it must be replaced with a new seal (available from your Martin Architectural dealer: P/N: 20600450). Cable entry is sealed for life, so replacement of this seal is the only reason ever to open the cable inlet compartment.

6. After service in the power compartment is completed, ensure that the seal and mating surfaces in the power compartment cover plate and housing are perfectly clean and dry.

Note: Do not apply silicone or any other type of sealant to the seal or mating surfaces. Doing so will invalidate the product warranty.

7. Lower the power module carefully into place, being careful not to damage the seal or trap wires.
8. Tighten the five power compartment cover plate Allen screws by hand until they are finger tight. Then use an Allen key to further tighten each screw by between three quarters of a turn and one full turn. Screws will now be tight enough to achieve a waterproof seal.

Note: Do not overtighten, or you may damage the seal and invalidate the product warranty.

9. If no further service is required, fasten a new anti-humidity sachet to the lamp module, then reinstall all components as described in this chapter before reapplying power.

Connecting lamp leads to the starter

If it ever becomes necessary to disconnect the lamp wiring harness from the starter, make sure that the wires in the harness are reconnected to the starter as follows:

- White wire with blue sleeve to screw terminal marked **N**
- White wire without sleeve to screw terminal marked **LP**
- Wire without insulation (bare copper) and ring terminal to chassis where the ground (earth) wire was originally fastened.

Reinstalling the lamp module

1. Remove a new anti-humidity sachet from its sealed aluminum packet and fasten it with a cable tie in the place of the existing sachet (see “*Anti-humidity sachet replacement*” on page 13). You must now close the fixture within 20 minutes.
2. Reconnect the lamp module wiring connectors.
3. Note the position of the screw in the lamp module seating in the housing. Lower the lamp module into the housing, rotating it if necessary so that the notch in the top of the lamp module engages with the screw. The lamp module is now correctly oriented.
4. If beam settings have been disturbed, readjust the beam (see “*Beam adjustment*” on page 20).

Reinstalling the lens and front glass

Important! *Before reinstalling the lens and front glass, ensure that the anti-humidity sachet fastened to the lamp module has been replaced with a new item.*

Replace any damaged seals or screws with new items.

The front glass seal, its seating surface in the housing, the front glass and the trim ring must all be perfectly clean and dry to maintain a waterproof seal.

Inspect the front glass seal for signs of damage or deterioration before refitting. Replacement front glasses and seals are available from Martin Architectural dealers (standard front glass: P/N 41700007, front glass seal: P/N 20600441).

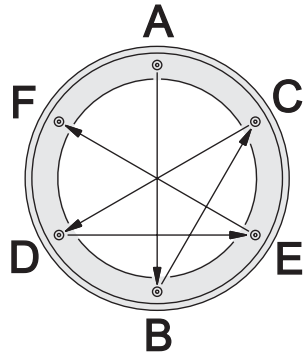
Inspect the six countersunk Allen screws from the trim ring before reuse. Threads must be clean and undamaged. Two spare screws are supplied with the fixture. Replacement screws are available from Martin Architectural dealers (P/N: 08111314)

Do not use silicone or any other kind of sealant on the front glass seal, front glass, housing or trim ring. Doing so will invalidate the product warranty.

1. Inspect the front glass seal for damage before refitting. Replacement front glasses and seals are available from Martin dealers (standard front glass: p/n 41700007, front glass seal: p/n 20600441).
2. Reinstall any shading plates and louvered anti-glare plates that were originally installed.
3. Refit the lens by lowering it into the housing, rotating the lens if necessary so that the screw in the seating engages in the notch in the lens flange.
4. Any dirt between the front glass seal and housing or front glass seal and trim ring will prevent a proper seal and encourage moisture build-up inside the fixture, so clean the mating surfaces carefully. The trim ring overlaps the top of the fixture and any hard obstruction immediately beside the fixture will prevent the trim ring from sealing properly, so ensure that a space the diameter of the trim ring around the top of the fixture is clear at the level of the top of the housing.
5. Place the front glass complete with its seal in the top of the housing and place the trim ring over the front glass.
6. Inspect the six countersunk Allen screws from the trim ring. Threads must be clean and undamaged. Replace any damaged screws. Two spare screws are supplied with the fixture. Replacement screws are available from Martin dealers (p/n: 08111314). To make future service easier, apply a small amount of copper-based or silicone grease to the threads of the trim ring screws.

7. See illustration on right. Gradually cross-tighten the trim ring screws in the sequence illustrated to 6 Nm (4.4 ft.-lbs.).

Important! *Cross-tighten gradually. Do not exceed the maximum torque of 6 Nm (4.4 ft.-lbs.), or you may distort the trim ring and damage the seal. This will impair the Inground 200's waterproof properties and invalidate the product warranty.*



5. Set-up and adjustment

This section assumes that the Inground 200 has already been commissioned. For installation details, see the Inground Installation Guide supplied with the product and available for download under Product Support on the Martin website at www.martin.com.

Beam adjustment

Correct adjustment of the beam of the Inground 200 is critical for correct illumination of the target. Adjustment must be carried out with the lamp powered on and is best carried out after dark.

Warning! *Danger of burns, electric shock and lamp explosion!*

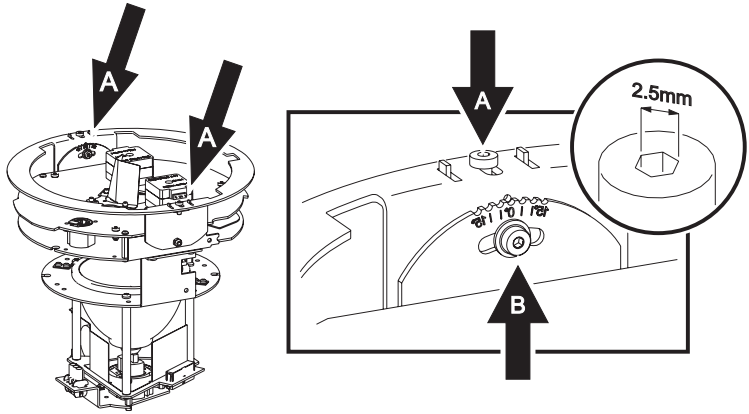
- **Beam adjustment must be carried out by authorized electrical personnel and in clean, dry conditions only.**
- **Wear heat-resistant safety gloves and safety glasses throughout this procedure.**
- **Do not look directly into the lamp.**
- **Make sure that nothing falls into the fixture while the front glass and lens are removed.**

To adjust the beam:

1. Depending on whether the Inground 200 has been in operation or not, ensure that the fixture is at optimum temperature for adjustment by following one of these two alternatives:
 - a) *If the fixture has been in operation* before you want to adjust the beam, do not switch it off. Instead, remove the front glass and lens (see

“Removing the front glass and lens” on page 12) and wait 15 minutes for the lamp module to cool slightly.

- b) *If the fixture has not been in operation* before you want to adjust the beam, remove the front glass and lens (see *“Removing the front glass and lens”* on page 12), apply power and wait 15 minutes for the lamp to warm up to operating temperature.
2. Loosen the two 2.5mm beam adjustment ring Allen screws (A) and rotate the lamp module until it can be tilted towards the target.



3. Make sure the beam adjustment ring screws (A) are pushed out towards the edges of the lamp module to engage the retaining clips, and retighten the screws to clamp the beam adjustment ring in place.
4. Loosen the tilt adjustment Allen screw (B) on the side of the beam adjustment ring. Adjust the tilt angle from 0 - 15° by pushing down gently on the side of the lamp module top plate closest to the target. Retighten the tilt adjustment screw (B) to lock tilt adjustment. Replace the lens.
5. Check that the target is illuminated as intended. If not, repeat step 4. When the desired illumination is obtained, the tilt angle can be read from the guide next to the tilt adjustment screw and noted for future reference.
6. Disconnect the fixture from power, lift the lens and lamp module out of the fixture temporarily to renew the anti-humidity sachet, then reinstall all components (see *“Anti-humidity sachet replacement”* on page 13, *“Reinstalling the lamp module”* on page 18 and *“Reinstalling the lens and front glass”* on page 19) before reapplying power.

6. Troubleshooting

Problem	Probable cause(s)	Remedy
Excess moisture build-up in fixture (condensation under front glass).	Inadequate front glass sealing.	Ensure that front glass and trim ring make a correct seal in top of fixture housing. Check that there are no obstructions under the trim ring that may have prevented it from fastening down correctly onto the top of the housing. Ensure that trim ring screw torque is 6 Nm (4.4 ft.-lbs.). Replace front glass seal if damaged.
	Silica gel anti-humidity sachet fastened to lamp module is saturated or missing.	Install a new sachet and close fixture within 20 minutes of opening new sachet's aluminum bag
	Flooded installation well.	Improve drainage.
Fixtures cut out after 1 - 3 hours. Problem is relieved if water is poured into fill material around fixture.	Temperature too high: thermal cutout shutting down power to avoid overheating.	Modify fill material in sleeve to improve heat conduction away from fixture.
No response from fixture when power is applied.	No power to fixture.	Check power cables.
	Mains fuse blown.	Replace fuse.
No light, lamp cuts out intermittently, or burns out too quickly.	Lamp blown.	Disconnect fixture and replace lamp.
	Fixture or lamp is too hot.	Allow fixture to cool. If problem persists, contact service technician.

7. Specifications: Inground 200 Single Color

Specifications subject to change without notice

Physical

Height	496 mm (19.53 in.)
Trim ring outer Ø	340 mm (13.39 in.)
Trim ring thickness	7 mm (0.28 in.)
Housing top flange outer Ø	310 mm (12.2 in.)
Weight	approx. 20 kg (44 lb.)

Included items

User manual, Inground 200 Single Color	P/N 35000152
Installation guide	P/N 35000151
Philips CDM-SA/T 150W 942 lamp	P/N 97010111
Silica gel anti-humidity sachet (inside product, must be removed during installation)	
Silica gel anti-humidity sachet (separate, must be fastened in fixture during installation)	
Two spare trim ring screws (4mm Allen cap, countersunk)	

Construction

Housing	Combination of extruded and high pressure die-cast aluminium
Finish	Black anodized
Trim ring	Various options available
Fasteners	M6 stainless steel Allen cap screws (6 off)
Front glass	Ø 254 mm (10 in.), 19 mm (3/4 in.) tempered optiwhite
Ingress protection factor	IP 65/67
AC power input	3 m (9.8 ft.) cable tail, hard-wired
Front glass weight resistance (load from pneumatic tire)	5 000 kg (11 000 lb.)
Fixture overall weight resistance (in installation sleeve with suitable groundwork)	5 000 kg (11 000 lb.)

Source

Lamp	150 W discharge
Base	G12
Approved models	Philips CDM SA/T 150W/942 (lifetime: 9 000 hrs.) Philips CDM-T 150W/830 (lifetime: 12 000 hrs.) Osram HCI-T 150W/WDL (lifetime: 12 000 hrs.) Osram HCI-T 150W/NDL (lifetime: 12 000 hrs.)

Optics

Model	One-tenth peak angle
Medium.....	32°
Wide.....	56°
Very wide.....	98°
Wallwash.....	104°

Photometrics

Inground 200 Medium

Efficiency	41%
Total output	5777 lumens
Half peak angle	20°
One-tenth peak angle	32°
Illuminance	50556/distance ² [lux]
Half-peak diameter	0.35 x distance [m]
One-tenth-peak diameter	0.56 x distance [m]
Measurement conditions	230 V, 50 Hz, no color applied
Measurement source	Philips CDM-SA/T 150/940

Inground 200 Wide

Efficiency	41%
Total Output	5794 lumens
Half peak angle	32°
One-tenth peak angle	56°
Illuminance	17063/distance ² [lux]
Half-peak diameter	0.57 x distance [m]
One-tenth-peak diameter	1.06 x distance [m]
Measurement conditions	230 V, 50 Hz, no color applied
Measurement source	Philips CDM-SA/T 150/940

Inground 200 Very Wide

Efficiency	43%
Total Output	5993 lumens
Half peak angle	54°
One-tenth peak angle	98°
Illuminance	6291/distance ² [lux]
Half-peak diameter	1.02 x distance [m]
One-tenth-peak diameter	2.30 x distance [m]
Measurement conditions	230 V, 50 Hz, no color applied
Measurement source	Philips CDM-SA/T 150/940

Inground 200 Wallwash

Efficiency	39%
Total Output	5526 lumens
Half peak angle	54°

One-tenth peak angle	104°
Illuminance	5059/distance ² [lux]
Half-peak diameter	1.02 x distance [m]
One-tenth-peak diameter	2.56 x distance [m]
Measurement conditions	230 V, 50 Hz, no color applied
Measurement source	Philips CDM-SA/T 150/940

Installation

Minimum distance to combustible materials	1 m (39 in.)
Minimum distance to illuminated surfaces	0.5 m (20 in.)

Thermal

Cooling	Convection (with internal fan)
---------------	--------------------------------

Maximum heat output (calculated)

208 V, 50/60Hz	625 BTU/hour*
230 V, 60Hz	635 BTU/hour*
230 V, 50/60Hz	648 BTU/hour*
250 V, 50/60Hz	652 BTU/hour*

* These measurements have a margin of error of +/- 10%

Maximum power consumption

208V, 60Hz	1 A, 183 W
230V, 60Hz	0,9 A, 186 W
230V, 50Hz	1 A, 190 W
250V, 50Hz	0.9 A, 191 W

AC mains power

AC mains power options	210 V, 60 Hz; 230 V, 50 Hz; 277 V, 60 Hz
------------------------------	--

Compliance

Ingress protection	IP 65/67
--------------------------	----------

8. Ordering information

Spare parts

Anti-humidity sachet in sealed aluminum bag	P/N 37220000
Ten anti-humidity sachets in sealed aluminum bag (Service Kit).....	P/N 37220001
Front glass	P/N 41700007
Front glass seal	P/N 20600441
Power compartment seal	P/N 20600450

Accessories

Installation sleeve, bevelled mount	P/N 91611194
Installation sleeve, flush mount	P/N 91611215
Trim ring kit, bevelled, aluminum	P/N 91611210
Trim ring kit, bevelled, brass	P/N 91611211
Trim ring kit, flush mount, aluminum	P/N 91611213
Trim ring kit, flush mount, brass	P/N 91611214
Trim ring screw (4mm Allen cap, countersunk).....	P/N 08111314
Tamperproof hex screws (6 pcs.) and key	P/N 91611200
Anti-skid front glass, design etched.....	P/N 91611198
Anti-skid front glass, circular etched.....	P/N 91611238
Eyelid	P/N 91611201
Ring louver	P/N 91611202
Rock guard kit, steel	P/N 91611199
Rock guard kit, brass	P/N 91611208
Rock guard kit, aluminum	P/N 91611209

See www.martin.com for the latest ordering information for Inground 200 fixtures and accessories



Disposing of this product

Martin products are supplied in compliance with Directive 2002/96/EC of the European Parliament and of the Council of the European Union on WEEE (Waste Electrical and Electronic Equipment), as amended by Directive 2003/108/EC, where applicable.

Help preserve the environment! Ensure that this product is recycled at the end of its life. Your supplier can give details of local arrangements for the disposal of Martin products.

Martin[®]

www.martin.com • Olof Palmes Allé 18 • 8200 Aarhus N • Denmark
Tel: +45 8740 0000 • Fax +45 8740 0010