Mounting and Installation Instructions

1. Notes
- The installation of the binding should only be performed by an authorized G3 dealer.
- The G3 ONYX and RUBY bindings are compatible only with alpine touring ski-boots (ISO 9523) with TECH compatible inserts.
- Bellowed touring boots, such as the Scarpa® F1, F3 and Terminator X series boots, can only be used with the ONYX bellowed boot shim installed. The shim is available as an accessory item from G3.

Warning: Using a bellowed boot with the G3 ONYX or RUBY binding will affect the safety release of the boot from the binding. G3 cannot guarantee the release settings of the binding when used with these boots. Refer to the instructions included with the ONYX bellowed boot shim for further details.

2. Mounting and Installation
- Inspect the ski and binding for any visual signs of damage or wear. Replace any worn or damaged parts.

2.1. Mounting
- Always follow the ski manufacturer’s recommendation for binding mounting location to ensure that the binding is mounted in the correct binding mounting area on the ski.
- The G3 ONYX/RUBY binding mounting pattern is compatible with Dynafit® binding patterns. Use a G3 ONYX mounting jig, or Dynafit® compatible jig to locate and drill holes in the ski.
- The G3 ONYX/RUBY is designed to mount to skis with drilled hole sizes from ø3.5mm to ø4.1mm x 9mm. For skis with a metal topsheets, use a tap and follow the ski manufacturer’s recommendation for ideal drill size.
- Set the jig to the boot sole size either by fitting the boot to the jig, or by setting the jig length to match the desired sole length. Table 3, “ONYX/RUBY Mounting Guide,” at the end of this document can be used to determine the sole length range available for adjustment given a chosen mount size set by the jig.
- Place the jig on the ski and align the center mark of the jig to the center mark of the ski. If the ski does not have a center mark, either:
  a) use the ski manufacturer’s recommended measurement to locate the center mark.
  b) locate the cord center of the ski and mark it. Align the jig such that boot toe is aligned to this mark.
- Fix the jig in place and drill the holes using the recommended drill size; either ø3.5 mm x 9 mm or ø4.1 mm x 9 mm. (4.1 mm for skis with metal topsheet)
- Remove chips or dust from the holes. Holes should be glued with waterproof glue and/or tapped if recommended by the ski manufacturer.

2.2. Installation of Mounting Plates
- NOTE: Always use G3 ONYX or RUBY mounting screws supplied with the binding. If the screws have become stripped or damaged, replace only with G3 ONYX mounting screws. Using incompatible screws will likely result in damage to the binding or
2.3. Installation of the Leash Attachment Clip

- NOTE The ski leash clip should be installed on any binding that does not have a ski brake installed.
- The toe piece must be off the ski to be able to install the clip.
- The leash clip can be installed on either the left or right side of the toe piece.

2.4. Toe Installation

- Place the toe mounting plate (5) on the ski as shown. Ensure the mounting plate is aligned properly to the mid line of the ski and is flush to the ski top sheet. Install the five toe mounting screws (1) and torque to 4 Nm using a #3 Pozidrive driver.
- Ensure the length adjustment plate (9) is installed in the heel mounting plate before the plate is mounted to the ski.
- Mount the heel mounting plate (8) on the ski as shown. Install the four heel mounting screws (2). Ensure the heel plate sits flush on the ski top sheet. Check that the metal length adjustment plate is installed against the ski. Torque the mounting screws to 4 Nm using a #3 Pozidrive driver.

2.5. Heel Installation

- Slide the heel assembly (10) forwards onto the heel mounting plate (8) from the rear/tail end of the heel mounting plate until it makes contact with the length adjustment plate (9) and is approximately in the position shown.
- Install the two toe positioning screws (3) using a #3 Pozidrive screwdriver and torque to 5.6 Nm. Note: the toe position can be moved in two 7.5mm increments to adjust the boot position on the ski and accommodate larger or smaller boot sizes.

2.6. Heel Location Setting

- If you are not installing the ONYX or RUBY Ski Brake, install the front cowling (11) by sliding it on from the front/tip of the heel mounting plate (8) and installing the heel cowling screws (4) into the heel with either a #1 Phillips or a #1 Pozidrive screwdriver and torque them to 1.1 Nm.
- Install a ski boot into the binding with the heel brake.
- If you are installing the ONYX or RUBY Ski Brake, refer to the installations instructions included with the brake.

2.7. Use of toe tour mode lock

- Use the supplied 6mm G3 spacer tool (13) to set the gap between the binding and boot. The shim should fit snugly between the binding and the boot. Use a #3 Pozidrive screwdriver to adjust the boot length adjustment screw. Note: Do not over tighten the boot length adjustment screw.
3. Release Value Adjustment

The G3 ONYX/RUBY binding has two release modes: lateral twisting (Mz) and forward falling (My).

### 3.1. Setting of Lateral (Mz) Release

- **NOTE**: The heel tour mode lever must be in ski mode in order to set Mz release.

- M (twisting) DIN adjustment is located on the main heel body, above the boot length adjustment screw. Using a Pozidrive #3 screwdriver, turn adjuster clock-wise to increase release setting, and counter clock-wise to decrease setting.

- The leash clip can be installed on either the left or right side of the toe piece.

- The toe piece must be off the ski to be able to install the ski leash clip. The ski leash clip should be installed on any ski, and possible separation of the binding from the brake.

- Ensure the length adjustment plate (9) is installed in the toe assembly with the 0 mm mark on the mounting plate.

- Fold the clip flush with the underside of the binding.

- Insert ends of the clip (12) into the holes on the toe piece.

- Ensure the toe mounting plate inserts (6) are installed until it makes contact with the length adjustment plate until it makes contact with the length adjustment plate.

- Slide the heel assembly (10) forwards onto the heel and adjuster screwdriver, adjust the adjustment screw clockwise.

- If a skier selects a different skier type for forward lean, record the choice with a (+) separating the two types, in the order lateral twist/forward lean (L7/FL7).

- If a skier selects discretionary settings lower than those derived from Table 1, record this selection with a (-) symbol. For example, Type 1-

- If a skier selects discretionary settings higher than those derived from Type 3, record this selection with a (+) symbol. For example, Type 3+

### 3.2. Setting of Forward Falling (My) Release

- My (forward falling) DIN adjustment is located on the upper part of the heel. Using a Pozidrive #3, turn adjuster clock-wise to increase release setting, and counter clock-wise to decrease setting.

- Skiers 10 years of age or older of any type who desire a higher or lower setting than the setting of their skier type according to Table 1, may do so in the following cases:

- Skiers who have satisfactory experience with lower settings regarding these recommenda-tions may request setting based on their experience.

- Skiers who have satisfactory experience without inadvertent releases may request a setting up to 15% lower than that recommended in Table 2.

- Skiers having certain characteristics, such as neutral skiing technique, defensive attitude, high degree of control, etc. may request a setting of 15% lower than that recommended in Table 2.

- Skiers who have experienced inadvertent releases may request a setting up to 15% higher than that recommended in Table 2.

- Skiers may request settings that are different for lateral twist and forward lean.

- If a skier selects a different skier type for forward fall, record the choice with a (+) separating the two types, in the order lateral twist/forward lean (L7/FL7).

- If a skier selects discretionary settings lower than those derived from Table 1, record this selection with a (-) symbol. For example, Type 1-

- If a skier selects discretionary settings higher than those derived from Type 3, record this selection with a (+) symbol. For example, Type 3+

### 4. Selection of Release Setting Values (ISO 11088/ ASTM F939)

#### 4.1. Determination of Skier Type

- It is the responsibility of the skier to determine his/her skier-type classification as defined in Table 1.

<table>
<thead>
<tr>
<th>Type 1</th>
<th>Type 2</th>
<th>Type 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cautious skiing on smooth slopes or gentle to moderate pitch</td>
<td>Fast skiing on slopes of moderate to steep pitch</td>
<td></td>
</tr>
</tbody>
</table>

- Skiers who designate themselves as Type 1 receive lower than average release settings. This corresponds to an increased risk of inadvertent binding release in a fall. This type also applies to entry level skiers uncertain of their skill level.

- Skiers who designate themselves as Type 2 receive average release settings appropriate for most recreational skiing.

- Skiers who designate themselves as Type 3 receive higher than average release settings. This corresponds to decreased capacity for release in a fall, in order to gain a decreased risk of inadvertent binding release.

#### 4.2. Selection of Release Settings

- Locate the skier’s weight (mass) and height in the appropriate column in Table 2. If weight and height are not on the same line, select the line closest to the top of the table.

- Adjustment for skier type (see 4.1):
  - For a Type 1 skier, stay on the line and use the skier code.
  - For a Type 2 skier, move down the table one skier code.
  - For a Type 3 skier, move down the table two skier codes.
  - If the skier is age 9 and younger, or 50 and older, move up the table one skier code.

- If separate lateral twist (Mz) and forward lean (My) skier types were selected, repeat the selection of release settings above for the second skier type, recored the resulting codes in the order LT/FL.

#### 4.3. Release Value Determination

- Locate the release value at the intersection of the skier code row and the appropriate boot sole length. If there is a blank box, move left or right to the in same row to the next value.

- **Note**: release values selected using this practice may not be appropriate for circumstances in which:
  - the skier carries an object that significantly increases the skier’s effective body weight,
  - the skier grasps or in some manner controls an object such as a sled, or the skier encounters exceptional snow or terrain
  - conditions not commonly found on developed ski slopes.

- Release torque values outside the recommendations of this practice may increase the risk of injury to the skier. However, skiers who are informed of this potential risk may request such settings and have them provided, subject to the guidelines and limitations specified in this document.

- These values refer to recommended release torque for initial adjustment of a ski binding and subsequent readjustment of the binding during routine maintenance or following a suspected malfunction. However, these values are not intended to apply to the condition of the equipment at any time after it is put into use.

#### 5. Checks and Functional Tests

- Upon completing installation and setting of the binding, the following inspection and functional checks should be performed:
  - Boot center mark is aligned with the ski center mark
  - Toe piece with the heel piece alignment by installing a boot in the binding, and checking that the binding heel pins are aligned with the boot insert.
  - Heel location by checking gap between boot and binding.
  - Both lateral twisting (Mz) and forward falling (My) adjustments on both bindings are set to the correct value.
  - Lateral release travel by hitting the heel of the boot to displace it several mm and ensure that the binding returns to center quickly and smoothly.
  - Heel pins do not interfere with the boot when the binding is in tour mode, and that the heel can easily be engaged and disengaged from tour mode.
  - Toe positioning screws are tightened to the correct torque
  - Verify release values with a binding test device. Follow the manufacturer’s instructions for Dynafit® compatible bindings.

#### 6. Troubleshooting

- If the lateral release (Mz) is not symmetrical, check the following:
  - Worn boot inserts
  - Toe piece alignment with the heel. Check by installing boot in toe and checking that binding heel pins are aligned with boot heel insert. Test with multiple boots to ensure that boot heel and toe inserts are correctly aligned in boot.
  - Dirt contamination or excessive wear of binding components, in particular the toe pins or heel pins.
  - Heel location by checking gap between boot and binding. Refer to section 2.6.

#### 7. Instructions to Customer

- Explain the operation and features of the binding. In particular:
  - Switch from ski to tour mode
  - Correct operation of heel lift
  - Use of toe tour mode lock
  - Explain the importance of regular maintenance and performance checks. The binding should be kept free of dirt and other contamination and that at the beginning of each season, and/or after 60 days of skiing, G3 ONYX or RUBY bindings be checked by an authorized G3 dealer and have the release setting recalibrated.

- Explain that the binding release values are set to the customers personalized settings. Tell the customer the setting values selected, and where the setting adjustments are located.

- Explain the importance of having the binding adjusted correctly for boot sole length.

- Provide the customer with the retail box and include all instruction manuals in the bag provided.

- If the customer experiences any problems or issues with the boot, binding or ski, they should contact an authorized G3 dealer.

#### 8. Warranty

- For complete warranty information, please visit: [http://www.genuineguidegear.com/service/g3-product-warranty](http://www.genuineguidegear.com/service/g3-product-warranty)

#### 9. Additional Information

- The G3 website [www.genuineguidegear.com](http://www.genuineguidegear.com) has the most current information regarding all G3 products. Please go to the website to find any recent updates and additional information on how to use the product.
### Table 2 – Release Value Selection Using Skier’s Weight

<table>
<thead>
<tr>
<th>Skier’s Parameters</th>
<th>Initial Indicator value, Z (presetting), depending on boot sole length</th>
<th>Inspection Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass kg</td>
<td>Height m</td>
<td>Mass lbs</td>
</tr>
<tr>
<td>10 to 13</td>
<td>22 to 29</td>
<td>A</td>
</tr>
<tr>
<td>14 to 21</td>
<td>40 to 46</td>
<td>C</td>
</tr>
<tr>
<td>26 to 30</td>
<td>57 to 66</td>
<td>E</td>
</tr>
<tr>
<td>36 to 41</td>
<td>79 to 90</td>
<td>G</td>
</tr>
<tr>
<td>49 to 57</td>
<td>1.5 to 2.5</td>
<td>I</td>
</tr>
<tr>
<td>58 to 78</td>
<td>1.7 to 1.8</td>
<td>K</td>
</tr>
<tr>
<td>79 to 94</td>
<td>1.8 to 1.9</td>
<td>M</td>
</tr>
<tr>
<td>290 to 310</td>
<td>214 to 230</td>
<td>O</td>
</tr>
</tbody>
</table>

### Table 3 – ONYX/RUBY Mounting Guide

<table>
<thead>
<tr>
<th>Mounting Jig Boot Size* (mm)</th>
<th>Boot Sole Length1,2</th>
</tr>
</thead>
<tbody>
<tr>
<td>270</td>
<td>254mm-287mm</td>
</tr>
<tr>
<td>273</td>
<td>256mm-289mm</td>
</tr>
<tr>
<td>275</td>
<td>258mm-292mm</td>
</tr>
<tr>
<td>278</td>
<td>261mm-294mm</td>
</tr>
<tr>
<td>280</td>
<td>264mm-297mm</td>
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<tr>
<td>283</td>
<td>266mm-299mm</td>
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<tr>
<td>285</td>
<td>269mm-302mm</td>
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<tr>
<td>288</td>
<td>271mm-304mm</td>
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<td>290</td>
<td>274mm-307mm</td>
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<td>293</td>
<td>276mm-309mm</td>
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<td>294mm-327mm</td>
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<td>315</td>
<td>299mm-332mm</td>
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<tr>
<td>343</td>
<td>326mm-359mm</td>
</tr>
<tr>
<td>345</td>
<td>329mm-362mm</td>
</tr>
<tr>
<td>348</td>
<td>331mm-364mm</td>
</tr>
</tbody>
</table>

1:1

1 Variations in boot sole length, sole length measurement, and drilling of holes will result in variations in binding location. This may lead to a slightly different range than indicated.

2 This table ONLY applies to the boot length setting on G3 ONYX mounting jig.