POWER SCOPE™ 2
CLASS II CORRECTOR
CLASS II CORRECTION SIMPLIFIED

PowerScope 2 delivers simple, efficient Class II correction like you’ve never seen before. The latest generation of PowerScope features a stronger wire attachment nut and visual activation indicators.

- Fixed one-piece, one-size-fits-all design
- Easy chairside wire-to-wire installation
- No assembly or lab setup required
- No headgear or special band assemblies
- Use with banded or bondable molar tubes
- World-class clinical results
PowerScope 2 delivers Class II correction with a combination of patient comfort and ease of use that is unmatched among other appliances. This ready-to-use chairside solution requires no lab setup, making for a quicker and easier installation process and appointment. PowerScope 2's high quality, fixed one-piece design requires no patient compliance.

**INNOVATIVE DESIGN**
- **Wire Attachment Nuts**: Simple wire-to-wire installation reduces the need for special band attachments or headgear tubes.
- **Magnets**: Magnetic sleeve slides onto driver for secure hold of appliance during installation.
- **Ready to Use**: One-piece, no assembly required, and no need for lab setup.
- **New Magnetic Feature**: Magnetic sleeve slides onto driver for secure hold of appliance during installation.
- **Wear-Optimized**: Wear-optimized attachment nut increases durability and ease of installation.
- **18 mm Telescoping Mechanism**: Durable, proven telescoping design will not disengage during treatment, helping avoid unnecessary emergency visits.
- **Activation Lines**: Three distinct lines provide a clear visual reference to aid in activation of the appliance.
- **Hex Head Screws**: Reverse screw thread assembly minimizes screw loosening during treatment, while hex head design allows safe and easy appliance delivery.
- **Ball and Socket Joint**: Unique design maximizes lateral movement for improved patient comfort and acceptance.
- **Improved Attachment**: Redesigned attachment nut increases durability and ease of installation.
- **Nickel Titanium Internal Spring Mechanism**: 260 gm. spring-activated mechanism means reduced treatment time compared to traditional Class II Herbst appliances.
- **Patient-Friendly Design**: PowerScope 2’s low profile means a more aesthetic appearance, and its smooth, rounded design provides better patient comfort. There’s no piston extending distally from the upper molars, which helps reduce ulceration.
- **Ball and Socket Joint**: Unique design maximizes lateral movement for improved patient comfort and acceptance.
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American Orthodontics ensures the highest quality standards through extensive in-house testing and field evaluation. Our in-house process incorporates cycle testing for spring durability and degradation, and extensive field evaluation included hundreds of cases treated around the world.

**IN-HOUSE CYCLE TESTING**

American Orthodontics tested PowerScope 2 to more than nine million cycles. That’s equal to opening and closing your mouth once every six seconds, every minute you’re awake, for over two years.
Dr. Andy Hayes worked in conjunction with American Orthodontics to develop PowerScope and played a key role in the improvements found in the PowerScope 2 appliance. Dr. Hayes received his B.S., D.D.S. and M.S.D. degrees from Indiana University. A second generation orthodontist, he treats all types of orthodontic cases with specific interests in growth modification for adolescents, skeletal anchorage in complex cases, and non-visible treatment options. Dr. Hayes is a Clinical Instructor in the St. Louis University Department of Orthodontics and has presented lectures internationally on Class II correction. He serves on the Editorial Advisory Board of Orthotown Magazine and maintains an active private practice limited to orthodontics in the St. Louis, Missouri area.
The PowerScope 2 Class II corrector is indicated for dentoalveolar correction only.

PowerScope 2 has the ability to treat the following types of cases:

- Class II correction with dentoalveolar compensation of occlusion (Class II elastics effect)
- Class II division 1 malocclusions
- Class II division 2 malocclusions
- Unilateral correction of Class II
- Asymmetric cases - midline correction
- Distalizing upper posterior teeth (headgear substitute)
- Mini-screw alternative - anchorage for mandibular arch space closure (aplasia)
- Aid with opening space for future implants
  - Anterior maxilla
  - Posterior mandible

**CASE 1 RESULTS**
Class II to Class I with 4 months of PowerScope treatment.

**CASE 2 RESULTS**
Class II to Class I with 5 months of PowerScope treatment.
PowerScope 2 is delivered as a one-size-fits-all appliance pre-assembled with attachment nuts for quick and easy chairside application. (Fig. 1)

The appliance is a wire-to-wire installation with attachments placed mesial to the first molar in the maxillary arch and distal to the canine of the mandibular arch. (Fig. 2)

**MAGNETIC SLEEVE INSTRUCTIONS**

*Keep magnetic sleeve away from metal objects as they have a tendency to attract.

Place magnetic sleeve on a non-metallic countertop with conical chamfer slot opening facing up. (Fig. 3)

Holding the Hex Head Driver over the magnet, approach slot opening while pointing driver tip to the center of the hole. (Fig. 4)

Magnetic sleeve will seat itself on driver tip. (Fig. 5)

**INSTALLATION INSTRUCTIONS**

*Recommended use of upper 1st molar non-convertible tube. Please ensure screw tip does not extend past attachment nut before engaging wire. (Fig. 6 & 7)

Engage maxillary attachment screw using the driver provided (Fig. 8) and place mesial to the first molar on the maxillary rectangular stainless steel arch wire (Fig. 9), preferably a 17x25 (.018 slot) or a 19x25 (.022 slot) cross section for maximum fit and stability of appliance.

Placing a finger on top of the nut attachment will help stabilize the nut mechanism when tightening the screw.

Reverse Thread Assembly (turning distally) on right side screw attachments avoids screw back-out during treatment. Right side appliance has markings indicating loosening direction.

Note: Attachment nuts do not pinch wire when installed. Attachment nut hangs on wire and screw acts as a fourth wall to capture wire when tightened. (Fig. 10)

Engage mandibular attachment screw using driver and place distal to the canine onto mandibular rectangular stainless steel arch wire then tighten screw. (Fig. 11)

Crimpable shims can be used for further activation and advancement during treatment. (Fig. 12) Depending on the severity of the Class II or the size of the dentition, it may be necessary to activate PowerScope 2 upon initial installation. Appliance should be checked at each appointment for further activation of internal NiTi spring.

**SUGGESTIONS**

- PowerScope 2 is indicated for dentoalveolar correction and not skeletal correction. Caution should be used when the mandibular incisors are already proclined since this appliance could promote further proclination
- The lower dentition should be stabilized by one of the following methods to prevent increases of the axial inclination of lower anterior teeth or the opening of spaces distal to the canines:
  - Cinching of the lower arch wire
  - Full lower arch elastic chain
  - Arch locks/stops posteriorly
- Significant negative torque brackets (-6 to -10 degrees) are suggested for lower anterior teeth
- Steel ligatures are advised for lower canines to prevent rotation during treatment
- Use of upper 1st non-convertible molar tubes
- Use of Ceka Bond material (861-013) on screw threads to address any concerns of screw loosening or backout

**REMOVAL (TURN MESIALLY)**

- Unscrew lower mandibular screw until attachment nut disengages from wire
- Unscrew upper maxillary screw until attachment nut disengages from wire
- Remove appliance from patient’s mouth and discard

**CORRECT APPLIANCE PLACEMENT**

*R* ID mark for right appliance. *OPEN* with directional arrow for loosening direction (reverse thread).

*L* ID mark for left appliance.

Three activation lines spaced 2mm apart reference the level of activation ranging from no activation to partial activation to full activation.
START FLUSH
Screw tip needs to be flush with attachment before placing on wire.

ANGLED APPROACH
Approach wire at 45° angle. Apply downward force on attachment then rotate onto wire until you feel it snap into place.

GENTLE PRESSURE
When tightening, apply gentle pressure.

SMALL TURNS
When attaching appliance, use small turns while continually reseating with index finger.

POWERSCOPE 2 KITS
852-016537  1 Patient Kit
(Includes: 1 Right/1 Left with nuts – does not include Shims, Driver, or Magnets)
852-016538  5 Patient Kit
(Includes: 5 Right/5 Left with nuts, 10 each 1 mm, 2 mm & 3 mm Crimpable Shims, 1 Hex Head Driver, and 5 Driver Magnets)

POWERSCOPE 2 ACCESSORIES
852-016539  PowerScope 2 — Right Arm (18 mm with nuts)
852-016540  PowerScope 2 — Left Arm (18 mm with nuts)
852-016541  Replacement Attachment Nuts — 10 pack (5 right and 5 left)
855-733     Crimpable Shims 1 mm — 10 pack
855-728     Crimpable Shims 2 mm — 10 pack
855-738     Crimpable Shims 3 mm — 10 pack
855-515     Hex Head Driver
852-026533  Driver Magnets — 5 pack